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SCCA
CLUB RACING

2005 EDITION

GENERAL COMPETITION RULES

Sports Car Club of America, Inc.
Club Racing Department
Building 300 B Street
Topeka, Kansas 66619

SPORTS CAR CLUB OF AMERICA, INC.

The General Competition Rules of the Sports Car Club of America are intended to assist in the orderly conduct of race events. They are in no way a guarantee against injury or death to participants, spectators, or others. No express or implied warranties of safety or fitness for a particular purpose are intended or shall result from publication of or compliance with these rules.

FOREWORD

It is hoped that the layout of the GCR will be of benefit to users. It must be remembered however, that the GCR is a reference book, and not a novel. To find the answer, the reader must first know the question. The index will help, but the Table of Contents will give a good idea of the general layout.

Effective January 1st, of each year, all editions of the SCCA General Competition Rules and all Court of Appeals rulings are superseded by the following SCCA General Competition Rules.

All dimensions are in inches unless otherwise noted.

The masculine pronouns he, him, his will be used generically, without actual reference to gender.

This book is the property of:

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

Region: _____

Contents

1. CONTROL OF COMPETITION

1.1. NATIONAL CONTROL OF COMPETITION

The Automobile Competition Committee for the United States (ACCUS) is recognized by the FIA as the National Club (ASN) of the U.S.A. Under the terms of the International Sporting Code of the FIA, ACCUS is the sole authority for the control of international automobile competition in the U.S.A., its territories, and protectorates.

1.2. SCCA GENERAL COMPETITION RULES

The Sports Car Club of America, Inc., (SCCA) has established these General Competition Rules (GCR). The term GCR includes the Specification Books.

1.2.1. Application of the GCR

The GCR shall govern all Club Racing events sanctioned by SCCA. FIA-listed events sanctioned by the SCCA shall also be governed by the Code.

1.2.2. Revision of the GCR

A. The SCCA may revise, in its sole discretion, the GCR or issue Supplements to it, at any time through "FasTrack," "Racing Bulletins," or "Tech Bulletins" in SportsCar, or the official SCCA website. All supplements will have a published stated date.

B. Rules changes for National classes shall become effective the Monday after the Runoffs rather than January 1 of the following year so that competitors will have the opportunity to test rules changes in competition before January 1st

C. If circumstances create a situation where a rule clarification or change is found necessary to be implemented **immediately**, the Board of Directors may issue a memorandum stating the change and its effective date. Those memorandums will be posted on the SCCA website and shall be sent to all Chief Stewards, Chairmen of SOM, Race Chairmen, and Chiefs of Tech of any events that will be affected prior to publication in FasTrack.

1.2.3. Replacement of the GCR

Effective on January 1st of each year, all previous editions of the GCR will be superseded by the current edition. No revisions previously published in SportsCar will remain in effect unless included in the new edition of the GCR.

1.2.4. Interpretation and Application of the GCR

The GCR shall not be given a strained or tortured interpretation and shall be applied in a logical manner, keeping in mind that it cannot specifically cover all possible situations. The word "shall" (either positive "shall" or

negative "shall not") is mandatory. The word "may" is permissive. If there is a conflict between the GCR and a Specification Book (PCS, GTCS, TCS, SSS, ITCS, SRCS, FCS) the Specification Book has precedence over the GCR. If an item is not addressed in the Specification Book then the item is controlled by the GCR.

The interpretation and application of the SCCA General Competition Rules by SCCA officials shall be final and binding. In order to promote the sport of automobile competition, to achieve prompt finality in competition results, and in consideration of the numerous benefits to them, all members, including competitors and officials, expressly agree that:

A. Determinations by SCCA officials are non-litigable;

B. They will not initiate or maintain litigation of any kind against SCCA or anyone acting on behalf of SCCA to reverse or modify such determinations, or seek to recover damages or other relief allegedly incurred or required as a result of such determination; and

C. If a member, competitor, or official initiates or maintains litigation in violation of this provision, that member, competitor, or official agrees to reimburse SCCA for all costs of such litigation, including travel expenses and attorneys' fees.

1.3. RESERVATION OF RIGHTS

SCCA is a private, not-for-profit organization. It reserves the right to deny the issuance of any license, or to revoke any license previously issued, for any reason or no reason, except that it will not deny or revoke a license solely on the basis of race, creed, color, sex, or national origin.

2. ADMINISTRATIVE TERMINOLOGY

The following nomenclature, definitions, and abbreviations shall be used in the GCR, all Supplemental Regulations and Entry Forms, and for general use.

2.1. FIA (Federation Internationale de l'Automobile)

The International Federation of National Automobile Clubs.

2.2. FISA (Federation Internationale du Sport Automobile)

The International Sporting Commission which is appointed by the FIA to deal with competition matters.

2.3. THE CODE (Code Sportif Internationale of the FIA)

The International Sporting Code.

2.4. ASN (National Sporting Authority)

A national governing body of automobile competitions

recognized by the FIA.

2.5. ACCUS-FIA (Automobile Competition Committee for the United States-FIA, Inc.)
The ASN of the United States of America.

2.6. SCCA (Sports Car Club of America, Inc.)
A non-profit organization, incorporated within the state of Connecticut, dedicated to the ownership, operation, and preservation of sports cars, and the arrangement and regulation of sports car events and exhibitions, the encouragement of safe and sportsmanlike conduct on public highways, and the development of technical information relevant to any of these purposes. The SCCA is delegated the authority to sanction FIA-listed events by ACCUS-FIA. The address of SCCA is:

SCCA, Inc.
Club Racing
Building 300, B Street
Topeka, Kansas 66619

SCCA is sometimes referred to in the GCR as "National Office" or as the "Club Office."

2.7 CLUB RACING BOARD
The SCCA Club Racing Club Racing Board establishes rules and standards for the scheduling, organization, and conduct of SCCA-sanctioned Club Racing events, and the licensing of drivers and officials. The Board supervises the execution of these rules and standards.

The Club Racing Board may appoint specialized Advisory Committees to assist in the review of member requests for rules development, and changes to individual vehicle specifications. These committees are empowered to solicit and make recommendations to the Club Racing Board based on their research and knowledge of the items. The committee members serve at the discretion of the Club Racing Board and the Board of Directors.

2.8. SCCA DIVISIONS
Geographic separations of the SCCA, established for the administration of SCCA policies, competitions, events, and the GCR under the direction of the SCCA Club Racing Board and its subcommittees.

2.9. EXECUTIVE STEWARD
The individual appointed by the Board of Directors in each SCCA Division to supervise and administer SCCA policies and standards for designated classes of events and to train SCCA Stewards. The Executive Steward shall assign Stewards for all Club Racing events.

2.10. CAR (Automobile)
A self-propelled land vehicle running on four wheels, not in a line, which shall be in contact with the ground. At least two (2) wheels shall affect the steering and at least two (2) the propulsion.

2.11. CLASS
A group of cars, classified according to the provisions of the GCR.

2.12. CATEGORY
A combination of similar classes of cars.

2.13. COMPETITION
A contest in which a car takes part and which is of a competitive nature or is given a competitive nature by publication of results. Practice and qualifying for starting positions are included in the term "competition". A competition may also be referred to as a "race".

2.14. EVENT
An entire program of competitions.

2.15. SPEED EVENT
Competition in which more than one car is on the course at a time, vehicles are driven at maximum speeds, and a high level of driver and vehicle safety equipment is essential.

2.16. NON-SPEED EVENT
An event in which the hazards do not exceed those encountered in legal travel on public roads, and which therefore do not require drivers to hold Competition Licenses.

2.17. SANCTION
The documentary authority, granted by the SCCA, to organize and hold a competition.

2.18. SUPPLEMENTARY REGULATIONS
Regulations which are consistent with the GCR and which define the additional ground rules of competition for a specific event. (See Section 3.6.)

2.19. DRIVER
A person named as the driver of a car in any competition. Also, any person who drives a race car in any competition whether or not properly registered, entered, or named as the driver.

2.20. ENTRANT
A person whose entry is accepted for any competition. The signature on an entry form and the membership number shall be that of an individual SCCA member.

2.21. PARTICIPANT
Any person admitted to an event after having signed a SCCA authorized Release and Wavier of Liability Agreement.

3. EVENTS

3.1. CLASSIFICATION OF EVENTS
Events sanctioned by the SCCA shall be classified according to the persons eligible to take part, the categories of cars eligible to participate, and the awards offered.

3.1.1. FIA-Listed Events
The SCCA has been delegated the authority to grant sanctions for events listed on the FIA International Calendar. These events shall be organized and conducted according to the GCR and the International Sporting Code.

A. Full International FIA Event

Each year the FIA shall approve a calendar of Full International competitions open to holders of FIA Entrant's and Driver's Licenses issued by an ASN, shall designate various series of these Full International competitions counting toward international championships for drivers, manufacturers, hill climbs, etc., and shall designate the classes and categories of cars eligible to compete in these championships. In those Full International competitions which do not count toward championships, the organizers may designate which classes and categories of cars are eligible to compete.

B. International FIA Events

ACCUS shall annually approve a calendar of International FIA competitions. These events shall be open to any holders of FIA Entrant's and Driver's Licenses issued by any ASN except that those whose names are on the FIA list of Classified Drivers are excluded unless they hold appropriate licenses issued by an ACCUS member club. Organizers may designate which classes and categories of cars are eligible to compete.

3.1.2. SCCA Events
SCCA may grant sanctions to organize various classes of events to be conducted in accordance with the GCR.

A. Interdivisional Championship Event

SCCA shall schedule an event each year called the SCCA Runoffs, open by invitation to the highest placing drivers in the National Point Championship Series held in each division. The SCCA Runoffs event shall determine the SCCA National Champion in each eligible class. (See

16.4., Interdivisional Championship Event.)

B. National Championship Events

Each year the SCCA shall designate a series of National Championship events in each division open only to drivers holding SCCA National Competition Licenses (Novice Permit and Regional License holders may not be on course during a National race or qualifying session). Each such event shall provide a competition for each class of car recognized in Section 17., Automobiles. (See Section 16., National Championship Racing.) There shall be at least five (5) race groups.

C. Regional Events

Regional events shall ordinarily be open to any drivers holding SCCA Vintage, Regional, and National Competition Licenses and to certain other drivers holding SCCA Novice Permits as provided in Section 5., Licenses. Regional events shall also be open to Canadian residents holding current ASN National Licenses who are twenty-one (21) years of age or older and who are members of SCCA. The Supplementary Regulations for a Regional event may also provide for the participation of drivers who are members of SCCA holding Competition Licenses issued by other SCCA-approved organizations. (See 17.1., Classification of Automobiles for classes of cars eligible to compete in Regional events.)

Note: the current organizations that have their licenses approved by SCCA for competition in Regional events are;

BMW CCA Club Racing (Full Competiton), FIA (issued by any sanctioning body), ICSCC (Area Conference), IMSA, Midwestern Council of Sports Car Clubs MCSCC (Full), Porsche Club of America (Full Competition), SCCA Pro Racing, Waterford Hills Road Racing Club (Full), West Canada Motorsport Assoc (Amateur)., Ontario Region CASC (Regional), Confederation of Autosport Car Clubs CACC(Competition).

Note: the current organizations that have their licenses approved by SCCA for competition in Vintage events are:

SVRA, SOVREN, Historic Sportscar Racing (HSR), Vintage Motorsports Council(VMC), Vintage Auto Racing Association (VARA).

Any questions should be directed to the National Office.

D. Restricted Competitions

Restricted competitions are conducted under special Supplementary Regulations that limit participation to classes of cars not recognized in the GCR, or to invited drivers only. Vintage cars shall **NOT** be grouped with any other type of cars. Restricted competitions may be run concurrently with other classes of events. Restricted events shall be open to Canadian residents holding current ASN National Licenses who are twenty-one (21) years of age or older and who are SCCA members, unless otherwise stated in the Supplementary Regulations.

E. Driver Schools

SCCA Driver Schools shall be organized and conducted by regions of the SCCA, in full compliance with the GCR. As a minimum, cars shall be separated into open wheel and closed wheel groups in accordance with GCR 7.1.3. and will run separately. Driver School events shall be organized and conducted as separate speed events, and shall not be combined on the same day with other competitions or speed events, except when approved and sanctioned by SCCA. They shall not be open to any driver except students undergoing instruction, and their instructors.

3.1.3. Private Event Definition

A private event is one where no admission charge of any kind is made. Participants' entry fees or other charges to participants are not admission charges. Attendance at private events shall be limited to the following:

A. Drivers and entrants, plus a nominal crew, whose size may be limited by the Supplementary Regulations, not to exceed a total of six (6), including the driver and entrant.

B. SCCA members and their guests whose names have been furnished to the Registrar before the event; such guests shall identify themselves at Registration.

C. Any other individual having a specific assigned duty at the event, who holds and has available credentials for the assigned job, plus one guest each.

D Minors under twelve (12) years of age are not counted under these limitations.

E. Advertised non-spectator Club Races are considered private events

In addition, the classification of "private event" shall be removed and the appropriate insurance premium

for a public event shall be considered due and payable if there is any local newspaper, radio, television, or similar publicity placed by or traceable to the course owner, the organizing region, or a representative of either of them.

3.2. COURSES

Notwithstanding definitions to the contrary, the word 'course' and the word 'circuit' may be used interchangeably in these rules.

3.2.1. The selection of any course for an event shall be subject to the approval of the SCCA. Specifically, the SCCA may:

A. Limit a course as to the classification of event to be sanctioned there.

B. Restrict the number of cars which may be started simultaneously or in total.

C. Restrict the number of entries which may be accepted for an event or a competition.

D. Restrict the course to certain classes and categories of cars.

E. Restrict the course to certain grades of drivers.

F. Disapprove the course for all SCCA speed events.

3.2.2. Measurement Of Courses

The official length of a course shall be measured along the centerline of the road.

3.3. INSURANCE

3.3.1. Insurance Requirements

All events sanctioned by the SCCA shall be insured for Event Liability and Participant Accident coverage. Event Liability coverage may be provided by the SCCA Event Insurance Plan or an equivalent policy if obtained in compliance with the procedures described in paragraph 3.3.5., "Alternative Liability Insurance Procedures for Events." Participant Accident coverage shall be provided by the SCCA Event Insurance Plan.

3.3.2. Insurance Availability

The Chief Steward shall delay the beginning of the event until he/she is satisfied that the insurance required under this section is provided.

3.3.3. Coverage And Limits

The minimum coverage and limits for competitive events are:

A. Event Liability Coverage

Bodily Injury and Property Damage Liability; Contractual Liability (written and oral); Personal Injury/Advertising Liability; Host Liquor Liability; Participant Legal Liability (including participant to participant liability); Official Vehicle and Personal Property Damage; Pollution-sudden and accidental; Medical Malpractice liability.

The policy shall designate as additional insureds, among others: The Sports Car Club of America, Inc., SCCA Pro Racing, Ltd., regions chartered by the Sports Car Club of America, Inc., and their respective officers, members, officials, car owners, drivers, pit crews, entrants, their successors and assigns, sponsors, advertisers, and land owners while involved in and acting in their capacity during the presentation or conduct of an event. Additional names may be required. An updated list will be available from the SCCA Risk Management Department.

Minimum Limits

General Liability (including participant legal liability) - $5,000,000 per occurrence CSL (no aggregate)
Directors, Officers, and Stewards Errors and Omissions Liability - $100,000
Medical Malpractice Liability (excess coverage) - $5,000,000
Official Vehicle and Personal Property Damage – $50,000 minimum, %500 maximum deductible

B. Participant Accident Coverage - SCCA Master Insurance Plan is required.

Accidental Death - $25,000
Blanket Medical Reimbursement - $50,000
Disability Income - $100 per week for the first 104 weeks after a seven (7) day waiting period
Accidental Dismemberment - Up to $10,000 according to schedule

All Participants are covered by Participant Accident Insurance.

3.3.4. Increased Limits For Licensed SCCA Members
$1,000,000 medical expense reimbursement benefits are provided to SCCA members properly credentialed for an event.

3.3.5. Alternative Liability Insurance Procedures For Events
The organizers and/or promoters of any SCCA-sanctioned event which is to be insured with liability coverage other than that provided by the current SCCA Master Insurance

Plan shall adhere to the following:

A. A fully worded and certified Liability Policy (or policies) of insurance equivalent to the requirements set forth in Section 3.3.3 above shall be forwarded to the SCCA Risk Management Department so that receipt of the Liability Policy (or policies) will occur not less than twenty (20) days prior to the scheduled commencement of the event to be insured by such Liability Policy (or policies). The Risk Management Department in its sole discretion, shall determine whether the Policy is equivalent and acceptable.

B. If such fully worded and certified Liability Policy (or policies) is not received by a date twenty (20) days prior to the scheduled commencement of the event to be insured, the Risk Management Department shall have the right, but not the obligation, to cause the event to be insured for liability under the current SCCA Event Insurance Plan. Certificates evidencing such coverage and a billing for the appropriate premium charge therefore shall be sent to the event organizers and promoters. In case the premium charge is unpaid by a date fourteen (14) days prior to the scheduled commencement of the event, the Risk Management Department shall cause the event to be canceled.

3.3.6. Photo ID

Club Racing Photo ID cards are required for all licensed SCCA members registering as a participant at all SCCA events except for those possessing trial or temporary memberships. (See 6.2.1.C & D.) It must include a current photo of the member named on the photo ID card. The use of state issued driver's licenses, university ID cards, or any other cards of this type **ARE NOT ALLOWED.** The only acceptable forms are those issued by the SCCA National Office as a license, the Club Racing Department, the SCCA Pro Racing Department as a participant ID, or one issued by an SCCA region as a substitute for a license. Photo ID's will not be issued to temporary members (10 day or 6 month). Instead, cardboard or wristband credentials shall be issued. The name, photograph, member number, and entry credential for the current event shall be clearly visible.

At all SCCA Sanctioned events requiring drivers to hold a National or Regional Competition License or Novice Permit, participants sixteen (16) years old and older may be issued pit credentials only if they hold the proper minor Crew License. All other minors under the age of eighteen (18) shall not be allowed to enter the pit area, or any other areas, which provide less protection than that provided for the general public. Participants who are members, and over the age of eighteen (18), may be issued crew (pit) credentials."

3.3.7. Scaffolding At SCCA Events

Scaffolding is prohibited unless its use is specifically authorized by the Event Chief Steward after consultation with the SCCA Risk Management Department. Separate insurance coverage for this exposure may be required as a condition of use.

3.4. SANCTIONS

An SCCA-sanctioned event may be organized by:

A. The SCCA.

B. An SCCA Region(s).

3.4.1. Required Approval

The names or emblem of the SCCA shall be associated only with events sanctioned by SCCA. Organizers shall not distribute Entry Forms or Supplementary Regulations for an SCCA event prior to obtaining an SCCA Sanction.

3.4.2. Application For SCCA Sanction

Every application for SCCA Sanction shall be submitted on the Official Form (revised 12/03), and shall be accompanied by the appropriate sanction fee, a draft of the Entry Form, Supplementary Regulations, and the Schedule of Events. Applications shall be submitted for approval forty-five (45) days prior to the scheduled date of the event and shall state:

A. The name and address of the applicant.

B. The organization or person on whose behalf the application is made, and the official position held by the applicant.

C. The nature and classification of the event for which a sanction is requested.

D. The date and place of the proposed event.

3.4.3. Sanction Procedures

The sanction is the documentary authority, granted by SCCA, to organize and hold a competition. Where there are two (2) classifications of races during one event, it shall not normally be permissible for races of both classifications to be run simultaneously. A Sanction Number and document will be issued, within five (5) working days, when all requirements listed below have been met and the application approved. Sanction Numbers will be issued only in writing, not via telephone, and application submission should be planned accordingly.

A. The event must be listed on the official SCCA calendar. To be considered a firm date request, the region's

request must be confirmed in writing by the circuit owner/manager.

B. The course must be approved by the SCCA.

C. Sanction fees payable to the SCCA must accompany the Sanction Application.

D. Upon approval of the Application, the National Office will promptly assign a Sanction Number and issue a formal Sanction document to the organizers of the event. (See Section 3.1.2.)

E. There shall be no refunds of Sanction fees unless notice of cancellation is received by the National Office at least **fifteen (15)** days prior to the event.

F. Upon conclusion of all Regional, Double Regional, National and Double National events, the organizing region shall submit to the SCCA the Excess Sanction fee for every car exceeding 150, per sanction number, within **fourteen (14)** days following the event. No further sanctions will be issued to a region until this has been paid.

G. Upon conclusion of a National race, the organizing region will remit immediately to the SCCA the funds specified by the Board of Directors per paid entrant in National Championship classes only for a fund authorized by the Board of Directors to be distributed to entrants in the Interdivisional Championship events. No further sanctions will be issued to a region until this has been paid.

H. The organizing region will send Official Regional and National Race Results to the National Office within five (5) days of the event. Additionally, the organizing region will send one (1) copy of the National Race Results to the publisher of SportsCar and one (1) copy (including qualifying) to the appropriate Pointskeeper (National or Regional) within five (5) days of the event.

I. A Double National is defined as two National races at the same facility within a contiguous 3-day period. A Double National may be sanctioned by more than one region. Double National races will be run under the following conditions:

   1. One (1) per division.

   2. No more than one-fourth of the regions within in the division object.

   3. Should be held on a three (3) day National holiday

weekend and should be a three (3) day event.

4. There must be a separate qualifying session for each event.

5. Standard points will be given for each event.

J. Vintage/Historic cars may be included on SCCA programs under the following conditions:

1. Inclusion of the Vintage/Historic race event is specifically indicated in the SCCA sanction.

2. The driver is an SCCA member.

3. The driver holds an approved SCCA license.

4. The Chief Steward of the race event will set the standards for car preparation, classes (if any), and driver conduct, and shall state these requirements in the Entry Form for the sanctioned event.

5. Vintage/Historic cars shall not be allowed to be grouped with any other SCCA racing classes (except in a Drivers' School).

K. Private Driving Schools can be accepted for credit towards a Novice Permit under the following conditions:

1. Give acceptance for license purposes of one (1) private Driving School in lieu of an SCCA School, at the discretion of the Chief Steward of the SCCA School or of the Divisional Licensing Representative.

2. The Club Racing Department will list those private schools whose graduates may receive the above-mentioned SCCA acceptance.

3. The private schools on the above list will pay SCCA a service fee.

L. Restricted Nationals are experimental events developed by the National Office under the auspices of the Director, Club Racing. These events may include semi-Pro events during a National, and or fewer National classes than those listed in the GCR.

3.4.4. Application For Event On Unapproved Course

In the case of an Application for Sanction to conduct an event at a course which is not already approved by the SCCA (see 3.2.), application shall be submitted at least two (2) months before the proposed event and shall

be accompanied by a full description of the course and facilities, including a scale map.

3.4.5. Late Fee

A late fee of fifty (50) percent of the sanction fee shall be charged on all sanctions postmarked after the applicable deadline, unless prior arrangements have been made and approved by the National Office Sanction Administrator.

3.5. OFFICIAL PROGRAM

3.5.1. Any program offered to the public by the organizers shall contain the following information:

A. The words "Official Program" in prominent lettering and the SCCA emblem on the front cover.

B. The Sanction Number assigned to the event on the front cover.

C. A conspicuous announcement: "Held under the SCCA General Competition Rules."

D. The name of the organizer.

E. Name, location, and date of the event.

F. Schedule of planned competitions.

G. Names of entrants and drivers entered for each competition, with identifying numbers and marques for their cars.

H. A detailed list of awards for each competition, if other than those provided in the GCR.

I. The names of the principal Officials.

3.6. SUPPLEMENTARY REGULATIONS

3.6.1. The Supplementary Regulations shall establish for competitors and officials the specific conditions for an event. The Club Racing Board must approve all regulations different than those of the GCR prior to a Sanction being issued. They shall contain the following information:

A. The name, location, dates, nature, and classification of the event.

B. The sanction number and type of sanction for the event.

C. An announcement conspicuously placed: "Held under the SCCA General Competition Rules."

D. The name and address of the organizers.

E. A complete description of the proposed event, including the length of individual competitions, and the classes of cars eligible Vintage/Historic events may allow the participation of vehicles using components derived from former Sports Renault, Spec Racer Renault or any variant of this chassis/drivetrain/bodywork combination, but may not be run concurrent with Spec Racers.

F. Schedules and locations of activities, inspections, meetings, and competitions.

G. The name and address of the Registrar or other person to whom the entry is to be sent, closing date for receipt of entries, and amount of entry fee.

H. The names of the Chief Steward and the SOM.

I. The manner of determining results and awarding trophies and prizes.

J. Hours during the event when official scales shall be available for competitors to check the weight of their cars.

K. All other information necessary for the proper conduct of the event, not already included in the GCR.

3.6.2. Changes To The Supplementary Regulations

No changes shall be made to the Supplementary Regulations, except for the schedule and/or class groupings, after the beginning of the period for receiving entries unless unanimous agreement is given by all affected competitors already entered, or the Stewards of the Meeting so decide for reasons of safety or forces beyond their control. All schedule changes shall be approved by the SOM. (See 6.9.1., Powers of the SOM.)

3.7. ENTRY FORMS

3.7.1. Entry Forms shall contain the following:

A. Spaces for full names, addresses, membership numbers, and license numbers of entrants and drivers, and for driver's Region of Record

B. Space for full description of cars to be entered.

C. An announcement: "Held under the SCCA General Competition Rules."

D. Spaces for signatures of entrants and drivers for waiver of liability and/or indemnity declarations,

acknowledgment of the authority of the GCR, declaration that cars entered comply with the provisions of the GCR, persons to be notified in case of accident.

E. The Sanction Number assigned to the event.

F. A separate medical information card, containing at least the following information: name, current medications, blood type, date of last tetanus shot, and allergies shall be provided with all Entry Forms and submitted with all entries to SCCA events.

G. Any other information required for the clarification of all other details of the event.

3.8. ENTRIES

An entry made and accepted in accordance with the GCR and the Supplementary Regulations shall constitute a contract binding an entrant to take part in the competition entered unless prevented by forces beyond his or her control. The organizers shall comply with the conditions of entry, provided that the entrant has made every effort to take part in the competition. A breach of such contract may be treated as a breach of the GCR.

An entry is considered official and a competitor is considered entered in an event when:

A. A signed, completed, and official entry blank has been submitted and received by the organizers (subject to subsequent refusal per section 3.8.1).

B. The entry fee has been paid and received by the organizers.

C. All fines due and payable to SCCA must havebeen paid.

D. Dual entry is permitted under a single sanction number. Separate entry forms and fees are required for each class entered. Only one (1) Vehicle Logbook is required, but shall contain pictures of each configuration.

3.8.1. Refusal Of Entry

The organizers have the right to refuse an entry at their discretion without giving a reason for refusal. If an entry for any competition is refused, notification of such refusal shall be sent to the entrant at the address given on the Entry Form as soon as possible and normally at least five (5) days before the event."

3.8.2. Falsification Of Entry

An entry which contains a false or incorrect statement may be determined to be null and void by the SOM or other First Court. The entrant may be deemed guilty of a breach

of the GCR, the entry fee may be forfeited, and further penalties may be imposed. (See 14., Penalties.)

3.8.3. Withdrawal (Scratch) Of Entry
An entry may be withdrawn without penalty if the withdrawal is made in writing or by wire prior to the entry deadline date. In such cases, the organizers shall return the entry fee. For withdrawals after the entry deadline, return of all or part of the entry fee is at the organizers' discretion. However, an entrant or driver accepted to take part in a competition who does not take part in that competition but takes part in another on the same day may be held in violation of the GCR.

3.9. SUBMISSION TO RULES

3.9.1. Every person, body, group of persons, region of the SCCA, or organizer who applies for and is granted an SCCA sanction to conduct an event, or any person who applies for an SCCA license shall be deemed to have agreed to the following and so acknowledge in writing upon request:

A. He or she is familiar with the GCR.

B. He or she agrees without reservation to the consequences resulting from the GCR.

C. He or she renounces the right to have recourse, except with the written consent of the SCCA, to any arbitrator or tribunal not provided for in the GCR.

3.10. WAIVERS
All persons desiring to participate in an event shall sign the SCCA authorized Release and Wavier of Liability Agreement prior to being issued event credentials (passes).

3.11. ENTRY LIST
The organizers shall make the official list of competitors available to all entrants at no charge as early as possible prior to the commencement of the event.

3.12. RESULTS
The organizing region will send Official Race Results to the National Office within five (5) days of the event. Additionally, the organizing region will send one (1) copy of the National Race Results to the publisher of SportsCar and one (1) copy to the appropriate Divisional Pointskeeper (including qualifying) within five (5) days of the event. Additionally, the organizers shall provide Official Race Results for each entrant either during the event, or within seven (7) days after the conclusion of the event.

3.13. AWARDS
In SCCA Events, participants shall compete primarily for points and trophies. Financial awards may be offered.

3.13.1. Distribution Of Awards
The organizers shall distribute all awards immediately after determination of the Official Results of a competition, or after such additional time as the SCCA may allow.

3.13.2. Expense, Starting, And Appearance Money
Participants are free to accept, and organizers, car owners, or sponsors shall be free to offer such expense, starting, and appearance money as they may wish.

3.13.3. Prize Money
The SCCA may require as one of the conditions of sanction for an event that any prize money to be offered be placed in escrow a satisfactory period of time prior to the start of the event, and that the SCCA may control the distribution of these awards.

3.13.4. Trophies
In SCCA National Championship and Regional events, trophies shall be awarded on the following minimum basis for each class and category of car.

Number of Starters	Trophies Awarded For Finishing Position
2	1st position only
3	1st and 2nd
4	1st, 2nd, and 3rd

Race Officials shall ensure event awards are available for distribution at the end of each competition so placing drivers can take their awards (trophies) home with them before the end of the day.

3.13.5. Points For Co-Driver
In events that allow for nomination of co-drivers, such as endurance races, series points (if any) shall be awarded in full to any co-driver who completes the minimum distance stated in the Supplementary Regulations, or one-third (1/3) the distance if none is specified.

3.14. POSTPONEMENT, ABANDONMENT, OR CANCELLATION

3.14.1. All or part of an event may be postponed or canceled if:

A. Provision for doing so is made in the Supplementary Regulations for the event, or

B. The SOM order that all or part of the event be postponed or cancelled for reasons of safety or forces beyond their control.

1. Postponement. In consultation with the organizing region, the SOM may order a postponement for classes who were not afforded the opportunity to

race (as opposed to practice or qualify), provided a scheduled date is available at the same facility within the same competition year. The postponed races shall be run under the original sanction number.

2. Cancellation. If an entire event (all classes, all sessions) is postponed for more than 24 hours, it is considered to be cancelled, and entry fees shall be returned. If an event is cancelled during the competition, then the entry fees shall be prorated by class and a reasonable portion of the entry fee shall be returned.

3. Credit for Start. If an entire event is cancelled, there shall be no credit for a start. If a race is postponed, the competitor has the option of either competing in the postponed race, or receiving a prorated refund and being classified as DNF for that race, provided they have participated in a practice session or are shown on the qualifying results for that race.

3.15. FLAGGING AND COMMUNICATIONS

3.15.1. General Organization

The Flagging and Communications Chief shall be responsible for the establishment and operation of the Flagging and Communications organization at each SCCA speed event. The purpose of this organization shall be to provide safe course control by:

A. Informing the drivers, through flags, lights, or other signals, of the conditions of the course, the condition of their cars, or of any unusual conditions affecting the running of the event;

B. Informing the Chief Steward and other Officials, through the communication network, of the condition of the course and the competing cars, and of any situation requiring decisions and/or action by the Race Officials;

C. Relaying information and instructions from the Chief Steward to the persons operating the various emergency vehicles and equipment around the course as well as to the race drivers and turn personnel;

D. Undertaking emergency action needed to protect the lives and property of drivers, workers, or spectators in the event of an accident;

E. Maintaining a clear course.

3.15.2. Central Control Station

The Communications Chief shall have charge of the Central

Control Station where all communications affecting the control of the event are carried out. The Central Control Station shall maintain immediate liaison with the Chief Steward and all corner stations.

3.15.3. Corner Stations

A. Number - There shall be a sufficient number of corner stations established and manned to keep the entire course under observation at all times and to protect all areas of the course not immediately visible to oncoming drivers.

B. Location - Each corner station shall be located in accordance with the following considerations: The flagmen to have a clear view of the area to be covered; maximum visibility of the flagmen to the oncoming drivers; maximum protection for the corner station crew from out of control automobiles.

C. Personnel - Each corner station shall be staffed with a minimum of two (2) people and should be staffed by at least four (4) people: a flagger, a communicator, a safety worker, and a corner captain who shall be designated to be in charge of the station. The yellow flag shall be displayed when a corner worker or other personnel move to a less protected or unprotected area.

D. Equipment - Each corner station should be equipped with at least the following:

1. Device for communicating immediately, privately, and without interference with the Central Control Station, other corner stations, and other stations as appropriate.

2. The following flags or signaling paddles: Yellow, yellow and red striped, white, blue with a yellow stripe, black, and red.

3. One dry chemical type fire extinguisher of at least 20-pound size although two (2) 10-pound extinguishers are recommended.

4. Pry bar of sufficient length (4-5 feet).

5. Broom (push type).

6. Oil/gasoline absorbent material.

7. Blanket or fire sheet.

8. Vest or arm band to distinguish the Corner Captains.

9. Pair of Day-Glo orange re-entry gloves.

10. 20-foot length of half-inch rope.

11. Flame/Heat resistant gloves.

12. Each black flag station shall additionally be equipped with black and mechanical black flags, plus a blackboard or other means of displaying simultaneously the affected car's number or the word "**ALL**."

3.16. EMERGENCY SERVICES - MEDICAL & FIRE SAFETY

3.16.1. Purpose

A. To establish equipment and personnel needed to effect a workable medical, fire, and safety plan. Detailed plans need to be based on the specific conditions at the event facility and local, state or federal protocols and regulations.

B. The Chief Medical Officer needs to be familiar with local, state, and federal regulations for accident and medical emergencies.

C. A copy of the medical, fire and safety plan for each track must be submitted by the Divisional Executive Steward to the Club Office and the following officials prior to the beginning of the racing season: Divisional Administrator Medical Safety, Club Racing Department, Risk Management Department, National Administrator of Stewards, National Administrator Medical Safety, National Administrator Race Control.

3.16.2. Personnel

3.16.2.1. Medical Personnel
The following minimums apply:

A. There will be a Chief Medical Officer who is either: 1) Physician, MD or DO, preferably with and EMS background and licensed to practice in at least one (1) state or, 2) Paramedic or equivalent (advanced life support technician) with an active license or, 3) PA (Physicians Assistant) or APN (Advanced Practice Nurse) trained and experienced in EMS and emergency medicine with an active license.

B. There should be a second licensed medical person (EMT, paramedic, physician's assistant, registered nurse, etc.) to assist the Chief Medical Officer(s) and may serve as the Medical Records Secretary.

C. Medical personnel shall report to the ChiefMedical Officer for the event.

D. It is recommended the initial medical response, which may be an ambulance, occur within two (2) minutes.

3.16.2.2. Fire Fighters

A. There shall be at least one (1) person assigned to each fire truck who is trained to use the equipment on the truck. It is recommended two (2) persons be assigned to each fire truck.

B. At least twenty (20) percent of the Flagging and Communication specialist should have experience in fighting actual or simulated vehicle fires.

C. Fire fighters shall report to the Assistant Chief Steward-Safety unless there is a Chief of Emergency Services assigned.

3.16.2.3. Wrecker

A. There shall be at least one (1) person assigned to a wrecker who is trained to use the equipment.

B. Wrecker personnel shall report to the Assistant Chief Steward-Safety unless there is a Chief of Emergency Services assigned.

3.16.3. Equipment

3.16.3.1. Ambulance

A. There shall be at least one (1) ambulance which shall meet all requirements for the jurisdiction in which the event occurs for Advance Life Support at the track during any competition event. Basic Life Support is acceptable only if the track medical facility is equipped and staffed for Advance Life Support.

B. Arrangements for transportation from track by EMS service should be in the medical operations protocol.

3.16.3.2. Fire Truck

There shall be one (1) fire truck which shall be equipped to fight automobile fires. It is recommended the vehicle be stationed so it can reach any point on the racing surface within two (2) minutes at a speed not to exceed fifty (50) mph.

3.16.3.3. Wrecker

There shall be one (1) wrecker which shall be capable of lifting any race car in the event. The wrecker may also serve as a fire truck if so equipped.

3.16.3.4. Telephone

There shall be an operating telephone or radio in the tower or medical duty station which can contact community emergency services and hospitals.

3.16.3.5. Other Recommended Equipment

A. It is recommended the Emergency Services Team be equipped with the following:

1. Sharp knife
2. Bolt cutters, 3-foot
3. Fire axe
4. Pry bars, 2-foot and 6-foot
5. Rope, (3/4-inch nylon/or strap, 6000-lb test), 30 feet
6. Bow saw (30-inch blades) or equivalent tool
7. Tool box, containing: vice grip pliers, hammer (5-lb), cold chisel (9-inch by 1-inch), small pry bar, screwdrivers (flat head and Phillips), "Y"-shaped chisel, tin shears, hack saw and blades, adjustable crescent wrenches (large and small).
8. Oil dry compound

B. The equipment should be carried on the fire truck, wrecker or MERV (Multiple Emergency Response Vehicle).

C. If a power compound rescue tool and trained operator is on call and available within ten (10) minutes, it does not have to be located at the event site.

D. Comparable equipment may be substituted with the advance approval of the Divisional Executive Steward and Divisional Medical Administrator.

3.16.4. Operating Rules

3.16.4.1. Emergency Plan

The Chief Medical Officer and the Assistant Chief Steward-Safety shall, before allowing the commencement of racing (including practice and qualifying), verify that a written emergency plan has been prepared and distributed to all emergency and supervisory personnel.

3.16.4.2. Briefing

All emergency service personnel should have a briefing to review duties, duty stations, equipment, race circuit

characteristics, vehicle, and other protocol.

3.16.4.3. Dispatching

The dispatching of emergency vehicles on the track shall be authorized by the Chief Steward. Dispatching procedures shall be agreed on in advance by the Chief Steward, Chief(s) of Flagging and Communications, Chief Medical Officer, Chief of Emergency Services (if assigned), and Assistant Chief Steward-Safety.

3.16.4.4. Hospital Arrangements

A. The Race Chairman and Chief Medical Official shall establish a primary route to the primary and secondary hospital prior to an event, and advise the vehicle drivers.

B. The Chief Medical Official shall confirm, well in advance of the event, the availability of adequate hospital staff and facilities and the protocols to be followed.

3.16.4.5. Identification of Personnel

Emergency services personnel should be readily identifiable by some means other than the usual passes (e.g., vest, arm bands, jackets).

3.16.4.6. Start of Race

All emergency vehicles shall be equipped, staffed and engines running for the first lap of each race group.

3.16.4.7. Suspension of Racing

Racing shall be suspended if the personnel specified in 3.16.2.1. and 3.16.2.2., or the equipment specified in 3.16.3., are no longer on the premises or are unable to perform their assigned duties.

3.17. SCHEDULING

3.17.1. Divisional Scheduling Representative

A Divisional Scheduling Representative is appointed for each division by the Divisional Executive Steward. The term of appointment shall be from July 1st until June 30th of the following year.

3.17.2. Scheduling Policies and Procedures

Immediately upon appointment, the Divisional Scheduling Representative shall prepare a list of available National Championship race dates for the following calendar year for his or her Division. The schedule of available dates may note and assign traditional dates on a tentative basis, may recognize holiday weekends established by tradition or law, and may otherwise be formulated in compliance with the following scheduling policies:

A. There shall be at least six (6) National Championship races in a division, unless a waiver is granted by the Board of Directors.

B. In conflicts involving a non-spectator and a spectator race, preference will be given to the spectator races.

C. Wherever possible, avoid scheduling National Championship races on consecutive weekends.

D. A region shall not conduct more than two (2) National Championship events.

E. There shall not be more than two (2) National Championship events on any one course.

F. No National races shall be scheduled after Labor Day weekend.

G. Scheduling of National Championship races on three (3) consecutive weekends in the same division is prohibited. Waiver of this policy can only be made by the Board of Directors.

H. The Club Racing Department, working with each Divisional Executive Steward, and the Area Director, is to establish the ratio of drivers schools to Nationals for each racing division.

I. Principal SCCA Club events will not be scheduled on National Convention dates.

3.17.3. Exceptions to Scheduling Policies
Requests for exceptions to the above scheduling policies shall be made in writing to the Manager of Club Racing and to the Divisional Scheduling Representative. Their recommendation requires the approval of the Chairman of the Club Racing Board.

3.17.4. Date Requests
The list of available National Championship race dates shall be mailed by the Divisional Scheduling Representative to the Regional Executive of each region in the division no later than August 15th. Written requests for National Championship race dates shall be returned to the Scheduling Representative no later than October 15th. To be considered a firm date request, the region's request shall be confirmed in writing by the circuit owner or manager.

3.17.5. Final Schedule
The Scheduling Representatives shall mail copies of the final racing schedule for their division to the Manager of Club Racing (WITH THE APPROPRIATE NON-REFUNDABLE FEES), Chairman of the Club Racing Board, and the

Regional Executives of all regions in their division, and to the Scheduling Representatives of the other seven divisions no later than December 1st.

3.17.6. Schedule Changes

The Scheduling Representative shall notify the parties in 3.17.5., as changes are made in the final schedule.

3.17.7. Calendar Listing Fees

A calendar listing fee was established in 1968 for subsequent National, Regional, Restricted, and Driver School events as a condition for SCCA calendar approval. Change-of-date requests are considered as new applications, and a separate fee is required. Only one (1) fee is required for each weekend of racing.

Calendar listing fees, payable to SCCA, are forwarded to the Scheduling Representative with date applications. On approval of the date, the fees are forwarded to the National Office. If a date request is denied, the Scheduling Representative returns the fee to the applicant. The purpose of the calendar listing fee is to bring about a more stable calendar as promptly as possible. The calendar listing fees are separate and distinct from the Sanction fees.

4. ENTRANTS, DRIVERS AND CREW

4.1. POSSESSION OF LICENSE

Every driver who registers for an event shall be in possession of a current license of the grade required for that classification of event (See 3.1., Classification of Events), and a current SCCA Membership Card. SCCA National licenses shall be accepted at any SCCA event unless otherwise specified by the Supplementary Regulations. All entrants shall be members of SCCA and are subject to all provisions of the GCR.

4.1.1. Presentation of License

A driver or entrant, where Entrant Licenses are required, shall show his or her license to an official on demand.

4.2. AUTHORIZED EVENTS

SCCA-licensed drivers and officials may participate in any events except those which have been specifically disapproved by the SCCA Club Racing Board or the Executive Steward of the Division concerned.

4.3. ASSUMED NAMES

In events requiring SCCA National or Regional Competition Licenses, or Novice Permits, drivers shall not race under assumed names, unless authorized by the Manager of Club Racing. All official documents (entry, waivers, etc.) shall be signed with the driver's legal name.

4.4. CREW MEMBERS

Any individual may be a Crew member.

4.4.1. Responsibilities

1. Drivers and entrants shall at all times during an event be responsible for the conduct of their crew. An offense during an event against the GCR or the Supplementary Regulations committed by a crew member is directly chargeable to the driver and the entrant. For purposes of this section, an event begins with the opening of registration and ends when the driver, entrant and all crew members have left the track property.

2. Pet owners shall be fully responsible for actions of their pets, and for any liability arising there from.

4.5. CONDUCT

Entrants, drivers, and participants at an event shall conduct themselves according to the highest standards of behavior and sportsmanship, particularly in relationship with other competitors and officials, and in a manner that shall not be prejudicial to the reputation of the SCCA or to the sport of automobile racing. Failure to do so may result in a penalty as provided in Section 14., Penalties. Any person signing an event waiver for a minor shall be held responsible for that minor.

4.6. ALCOHOLIC BEVERAGES, NARCOTICS, AND DANGEROUS DRUGS

1. Consumption of alcoholic beverages by any driver is expressly prohibited until all practice, qualifying, and racing activity for his or her class is concluded for the day. Any crew member who is impaired by the consumption of alcohol may be excluded from the event, and the driver and entrant penalized. (See 4.5.) Any driver who has consumed any alcoholic beverage on the day of an event, other than as provided above, shall not participate, and may be excluded. Consumption of alcoholic beverages in the pits is prohibited. (See 6.6.4., Alcohol, Narcotics, and Dangerous Drugs, with respect to officials' use of alcohol and drugs.)

2. The use of any narcotic or dangerous drug, as defined by Federal law or by the law of the state where the event is being held, by any participant is specifically prohibited. Any participant who uses narcotics or dangerous drugs during an event or on the grounds where an event is being held shall not participate, may be excluded from the event by the Chief Steward or the Chief of the official's

specialty, may be removed from the grounds at the order of the Chief Steward, and may be penalized as provided in Section 14., Penalties.

4.7. MEDICAL RESPONSIBILITY OF DRIVERS

No driver shall compete in any event unless he has been examined by a physician within the period specified in Section 5., Licenses, of the GCR, and certified by him or her to be medically fit to drive in speed events.

4.7.1. Medical Condition Affecting Fitness of Driver

Any known medical condition (including pregnancy) which could affect medical fitness to compete shall be reported immediately to the Medical Review Board. The driver cannot compete until recertified by the Medical Review Board.

4.7.2. Involvement in Accident at an Event

A driver who is involved in an accident in which his or her car rolls over, collides with a stationary object hard enough to cause structural damage to his or her car, who is aware of possible injury from an accident, or who is directed to do so by an official shall report to the Chief Medical Officer of the event as soon as possible. Any driver at an event transported off-site to a medical facility shall not subsequently compete in that event without a medical release signed by the attending physician at the treating facility or the event Chief Medical Officer.

4.8. DRIVER OR OFFICIAL REVIEW

The Divisional Executive Steward is authorized to convene a court to review a driver's or official's conduct, car legality, competition record, and/or other matters. Such a court shall have the power to invoke penalties as specified in Section 14., and may also revoke licenses, or may return the driver to school. The driver or official shall have the right to appeal this decision as specified in Section 15.

5. LICENSES

5.1. LICENSE GRADES

5.1.1. Competition

A. Novice Permit
B. Regional
C. National
D. Vintage
E. Minor (See 5.8.)

5.1.2. Official

A. Regional
B. Divisional
C. National
D. Senior

5.2. EXPIRATION OF LICENSE

All licenses shall indicate the month and year of expiration. This shall coincide with the SCCA membership anniversary date. Competitors, once registered, may participate for the duration of the weekend, even though his/her membership may lapse during that period.

5.3. PARTICIPATION REQUIREMENTS

A competition license holder shall participate in the minimum number of SCCA races specified for his or her grade of license. No credit shall be given for the following:

1. Solo 1 Events
2. Drivers Schools
3. Races held as part of a Drivers School
4. Events not sanctioned by the SCCA
5. Events resulting in a DNS or DNF

5.3.1. Credit for One Race Per Event

A driver shall receive credit for only one race per sanctioned event, regardless of the number of races entered.

5.4. MEDICAL REQUIREMENTS

1. Every applicant for a Competition License or Permit shall submit a completed physical examination on the SCCA form to the National Office. The examination date shall be no more than three (3) months prior to the date of application. A current physical examination form must be submitted every five (5) years for applicants ages 16-35; every two (2) years for applicants ages 36-59; and every year for applicants age sixty plus (60+). A member shall maintain continuous membership and license for physical examination form to be valid.

2. Medical forms are available from regions and from the National Office.

3. A Competition License shall not be issued to any applicant who has an organic abnormality of the heart as shown in an EKG and a Vector-Cardiogram. Those with a possible history of cardiac abnormality may obtain a license only with the consent of the Medical Review Board, through the National Office.

4. A Novice Permit may be issued to an applicant who has diabetes that requires insulin, provided the Divisional Medical Director approves. Existing licenses may be renewed subject to normal renewal requirements and approval by the Medical Review Board, through the National Office.

5.5. NOVICE PERMITS

As provided in Section 5.5.1 below, Novice Permits will be issued to enable student drivers to obtain the training and experience needed for Regional Licenses.

With an active membership, a Novice Permit is valid for 24 months, with the following exceptions:

1. *Minors must have current waiver on file at National Office*
2. *Drivers over age 60 must have a physical every year. (GCR 5.4)*
3. *Drivers requiring a medical waiver must have a physical every year. (GCR 5.4)*

If the requirements have not been completed by the expiration date of the permit, the applicant shall start over with no credit given for previous schooling or racing.

5.5.1. Novice Permit Issuance

An SCCA Regular, or Spouse member who is over sixteen (16) years of age, who holds a valid Operators Permit in his or her state of residence which allows the solo operation of a motor vehicle, may apply for a Novice Permit. For applicants under the age of majority (typically eighteen (18) years of age but see Section 5.8.1), only the National Office may issue permits. All others may be issued by the National Office, a Divisional Licensing Chairman, or a Region by submitting the following:

A. Completed current medical form. (See 5.4.)
B. Fee of $*110. Good for 2 years, includes GCR.* (Region retains $*50*)
C. Two (2) passport photographs.
D. Proof of age.
E. A completed Novice Permit Application.
   For applicants under the age of majority, the following must also be submitted:
F. A completed Parental Consent, Release and waiver of Liability, Assumption of Risk and Indemnity Agreement.
G. A completed Minor's Assumption of Risk Acknowledgment.
H. A copy of both sides of their State Operator's Permit.

The applicant will receive the Novice Permit, with one (1) photo attached. At the time of issue, the applicant shall either purchase a current GCR or have one in his or her possession. The GCR and Spec books may be purchased either from the region or SCCA (800) 770-2055. This Permit shall be presented at Driver School.

5.5.2. Driver School Requirements

Holders of Novice Permits shall meet the following

minimum Driver School requirements before they may participate in a Regional race:

A. Obtain the signature of the Chief Steward attesting to participation at each SCCA Drivers School attended.

B. Complete a total of at least six (6) hours of in-car, on course time at Drivers School events.

C. Complete at least two (2) Driver School events with a "Satisfactory" rating.

5.5.3. Applicants with Prior Racing Experience

The Chief Steward of an SCCA Driver School, or the Divisional License Chairman, may waive all or part of the Drivers School requirements for drivers with prior racing experience. Only the Divisional License Chairman, the National Administrator for Driver Licensing, or the Manager of Club Racing may waive anything other than Driver School requirements. Applicants under the age of eighteen (18) may only be waived by the Director of Club Racing. If at any time the Club has no Director of Club Racing, the Club Racing Manager or designated department head shall process applicants.

5.5.4. Private Driving Schools

Completion of a course at an SCCA accredited private driving school may be submitted in lieu of one SCCA Driver's School, and credit for it granted at the discretion of the Chief Steward of an SCCA school or the Divisional Licensing Chairman upon completion of three (3) hours in-car on course time at SCCA schools. A list of accredited driving schools will be published in SportsCar or may be requested from the Club Office. Schools are subject to being disapproved at any time. Certificates issued to students before disapproval shall be honored. Applicants under the age of eighteen (18) may apply only to the Club Racing department for waiver of one (1) SCCA Driver's School.

5.5.5. Racing on a Novice Permit

Upon completion of Driver School requirements, the holder of a Novice Permit shall:

A. Participate in two Regional events and obtain the signature of the Chief Steward attesting to satisfactory performance.

B. Complete the requirements for a Regional license within a maximum of two (2) years from date of issue.

C. A driver who logs six (6) Regional races on the Novice Permit, and then applies directly for a National License may be licensed for a fee of $100. Applicant shall

supply official results for any races beyond the two (2) required.

5.5.6. Revocation
A Novice Permit may be revoked by the Divisional License Chairman appointed by the SCCA for his division of record, upon recommendation of the Chief Steward of an event.

5.6. REGIONAL COMPETITION LICENSE REQUIREMENTS
Holders of Novice Permits who are current SCCA Regular, or Spouse members in good standing and who have satisfactorily completed the Driver School requirements and two (2) Regional events must apply to the National Office for a Regional Competition License.

Submit the following to:

SCCA
Competition License
Building 300, B Street
Topeka, Kansas 66619
800-770-2055

Novice Permit with approving signature of the Chief Steward or the Chairman SOM of the second "satisfactory" event with a current medical form (See 5.4.) and the appropriate license fee payable to SCCA.

5.6.1. Refusal to Approve License; Appeal
Refusal by the Chief Steward or Chairman SOM to approve the Regional Competition License application may be appealed by the applicant to the Divisional License Chairman for final decision.

5.6.2. Novice Permit as Temporary License
Once a Novice Permit holder has completed the requirements for a Regional Competition License and has had the permit signed on the back page, he or she may photocopy the entire permit. The photocopy is valid for the three weekends immediately following the submission of the Novice Permit to the National Office. The original shall be submitted as above. If the Permit holder elects to run six (6) races on the logbook as provided in 5.5.5., he or she shall use the original Novice Permit and not a photocopy.

5.6.3. Renewal of Regional Competition License
Renewal forms will be mailed automatically. Regional License holders may apply for renewal by submitting to the National Office:

A. Completed renewal application with a record of completing at least two (2) events during the preceding twelve (12) months.

B. A completed Medical form. (See 5.4.)

C. The appropriate license fee payable to SCCA.

D. A "Special Handling Fee" may apply. (see 5.14.)

5.6.4. Applicants with Prior Racing Experience
Participation requirements for issuance or renewal of a Regional License may be waived in total or in part only by the Divisional License Chairman of the applicant's Division of Record, the National Administrator of Driver Licensing, or the Manager of Club Racing. Applicants under the age of eighteen (18) may only be waived by the Director of Club Racing. If at any time the Club has no Director of Club Racing, the Club Racing Manager or designated department head shall process applicants.

5.7. NATIONAL COMPETITION LICENSE REQUIREMENTS

5.7.1. Drivers who are current SCCA Regular, or Spouse members in good standing and who have completed at least four (4) Regional events as a Regional Competition License holder within the license year must apply to the National Office for a National Competition License.

Submit the following to:

SCCA
Competition License
Building 300, B Street
Topeka, Kansas 66619
800-770-2055

Regional Competition License with record of completion of at least four (4) events in the past twelve (12) months, signed by applicant. The two (2) events run as a Novice do not count. Send in a current medical form (See 5.4.) and the appropriate National License fee.

5.7.2. Completion During Regional/National Event
A driver satisfactorily completing his/her license upgrade requirements or receiving a waiver from the Divisional Licensing Administrator during a Regional/National event needs only Chief Steward approval to enter that National event.

5.7.3. Renewal of National Competition License
Renewal applications will be mailed automatically. National Competition License holders may apply for a renewal by submitting:

A. Completed renewal application with a record of completing in the preceding twelve (12) months either three (3) SCCA Sanctioned National, Professional, or FIA events, or two (2) SCCA Sanctioned National, Professional, or FIA events, and one (1) Regional event, or four (4) SCCA Sanctioned Regional events. A driver

who has not met these participation requirements shall contact his or her Divisional License Chairman for a waiver of the requirements.

B. A completed medical form. (See 5.4.)

C. The appropriate license fee payable to SCCA.

D. A "Special Handling Fee" may apply (see 5.14.).

5.7.4. Applicants with Prior Racing Experience
Participation requirements for issuing or renewing a National Competition License may be waived in total or in part only by the Divisional License Chairman of the applicant's Division of Record, the National Administrator of Driver Licensing, or the Manager of Club Racing. Applicants under the age of majority may only be waived by the Director of Club Racing. If at any time the Club has no Director of Club Racing, the Club Racing Manager or designated department head shall process applicants.

5.8. LICENSING OF MINORS
No one under sixteen (16) years of age may be issued a Novice Permit or Competition License.

5.8.1. Age of Majority
The age of majority for licensing purposes is determined by state law but is typically 18 years of age. Certain states may impose higher age limits and all license applicants must be of the age of majority for the state they are residing in.

5.9. CANADIAN "ASN CANADA FIA" LICENSING

5.9.1. Canadian residents holding a current ASN Professional Grade "A" or better license may apply to the National Office with the appropriate fee for issuance of an SCCA National Competition License.

A. Applicant shall be a current member of SCCA.

B. Application shall include a copy of the current ASN License and ASN Medical form.

C. The normal requirements of this Section may be followed thereafter.

5.10. VINTAGE COMPETITION LICENSING
Holders of Novice Permits who are current SCCA Regular, or Spouse members in good standing and who have satisfactorily completed the Driver School requirements and two (2) Regional events, within the preceding 24 months, may apply to the National Office for a Vintage Competition License.

Submit the following to:

SCCA
Competition License
Building 300, B Street
Topeka, Kansas 66619
800-770-2055

Novice Permit with approving signature of the Chief Steward or the Chairman SOM of the second "satisfactory" event with a current medical form (See 5.4.) and the appropriate license fee payable to SCCA.

5.10.1 Renewal of Vintage Competition License

Renewal forms will be mailed automatically. Vintage License holders may apply for renewal by submitting:

A. Completed renewal application with a record of completing at lease two (2) Vintage or SCCA sanctioned Regional events in the preceding twelve (12) months.

B. A completed medical form. (See 5.4.)

C. The appropriate license fee payable to SCCA.

D. A "Special Handling Fee" may apply (see 5.14.).

5.10.2. Applicants with Prior Racing Experience

Participation requirements for issuance or renewal of a Vintage License may be waived in total or in part only by the Divisional License Chairman of the applicant's Division of Record or the Manager of Club Racing. Applicants under the age of eighteen (18) may only be waived by the Director of Club Racing. If at any time the Club has no Director of Club Racing, the Club Racing Manager or designated department head shall process applicants.

5.11. DUAL (PROFESSIONAL & NATIONAL) COMPETITION LICENSE

Drivers who are current SCCA Regular, or Spouse members in good standing and who have completed at least three (3) SCCA sanctioned National events within the preceding twelve (12) months may apply to the National Office for a Dual Competition License.

Submit the following to:

SCCA
Competition License
Building 300, B Street
Topeka, Kansas 66619
800-770-2055

5.11.1. Renewal of Dual Competition License

Renewal applications will be mailed automatically. Dual Competition License holders may apply for a renewal by submitting:

A. Completed renewal application with a record of completing in the preceding twelve- (12) months three (3) National, Professional, or FIA events. A driver who has not met these participation requirements shall contact his or her Divisional License Chairman for a waiver of the requirements for the National License and Pro Racing Department for the Professional License.

B. Dual License applicants shall submit a current physical exam EACH year, and if over 40 years of age, an EKG as well.

C. The appropriate license fee payable to SCCA.

D. A "Special Handling Fee" may apply (see 5.14.).

5.12. FIA LICENSE INFORMATION

Applicants for FIA Licenses shall hold a current SCCA National Competition License, SCCA Pro License or SCCA Dual License and shall have successfully completed five (5) National events in the previous twelve (12) months prior to application.

Applications for an FIA Driver's License shall be accompanied by the appropriate fee and two (2) passport photos.

FIA Entrant's Licenses are also available from SCCA, on request and on payment of the appropriate fee.

5.13. LICENSE FEES – INCLUDES GCR

Novice Permit	*$110.00*
Regional License	*$ 75.00*
National License	*$ 75.00*
Vintage License	$ 55.00
FIA Driver	*$200.00*
Letter of Authorization	*$ 75.00 (per driver)*
FIA Entrant	*$200.00 (per car)*

5.14. SPECIAL HANDLING FEE

A special handling and/or FAX transmission fee shall be charged for any special attention over and above the normal processing time for a competition license.

Special handling is a twenty-four (24) hour turn around process. The license is returned via Federal Express.

The Special Handling Fee of $125.00 is in addition to the normal appropriate license fee.

5.15. PROBATION LETTER AS A LICENSE

1. When probation is given as a penalty the Chairman of the Stewards of the Meeting (SOM) shall issue a

Probation Letter to the competitor. The Chairman SOM shall confiscate the competitor's license and enclose the license and a copy of the Probation Letter with the Observer's Report. While the probation is effective immediately, the designated probation period does not begin until the competition license, as well as any imposed fine, is received by the Chairman SOM or the National Office.

2. The competitor shall use the Probation Letter as his/her license until the terms of the probation have been met completely.

3. Upon completion of the terms of probation, the competitor shall send the completed Probation Letter to the Club office via registered mail for the return of his/her license.

5.16. OFFICIALS' LICENSING SPECIALTIES

1. Flagging and Communications
2. Race Control
3. Radio Tech
4. Registration
5. Scrutineering
6. Sound Control
7. Starters
8. Stewards
9. Timing and Scoring

6. OFFICIALS AND THEIR DUTIES

6.1. OFFICIALS

The staff of principal officials, whose duty it shall be to direct the control of the event, may include:

Stewards of the Meeting (SOM)
Chief Steward/Series Chief Steward
Assistant Chief Steward-Safety
Race Chairman
Chief Starter
Chief Course
Chief Flag
Chief of Communications
Chief Timer and Scorer
Chief/Series Chief Technical and Safety Inspector (Scrutineer)
Chief Medical Official
Chief Observer
Chief Pit
Chief Grid
Chief Paddock
Press Officer
Chief Registrar
Judges
Chief Sound Control

They shall be termed "Officials" and may, with the exception of the SOM, have assistants also termed "Officials," to whom any of their duties may be delegated. Any worker is considered an official.

6.2. RACE OFFICIAL LICENSES

It is required that all Officials under SCCA control at all SCCA sanctioned events shall either be licensed in the specialty or hold a logbook in the specialty, except physicians and nurses. These licenses are to be checked at Registration (preferred) or by the Chief of the Specialty at each event.

6.2.1. Official Membership Requirements

A. SCCA Runoffs®: All officials shall be licensed members of SCCA.

B. Other Events: Only licensed members may be placed and/or work in hazardous areas. Non-members may work only in areas where the hazards do not exceed those to the general public. Exception: Employees of Services hired by the region or track who will be entering a restricted area such as ambulance, wrecker and fire crews are recommended to be, but do not have to be SCCA members. For the purpose of determining a hazardous area, the definition "outside the protection of a positive barrier" will be used.

C. Participant photo ID cards are required for all persons registering as Driver, Crew, or Officials at all SCCA events, except for temporary or trial members. These are to be accepted by all regions at all events regardless of issuing region. It must include a current photo of the member named on the photo ID card (see 3.3.6). Members with temporary / trial memberships will not have photo ID's and therefore shall be issued cardboard or wristband credentials for Hot Pit Access.

D. Temporary / Trial Memberships and Licenses are available.

E. This membership / license is good for 90 days from the date of issue, is renewable, and allows for individuals to receive certain regular membership privileges. The issuing region may charge fees.

6.2.2. Minimum Grades of Licenses

At the following event grades, the listed minimum license grades are mandatory:

A. National Championship Events - National License minimum for Chief Starter, Chief Timer and Scorer, Chief of Flagging and Communications, Chief Scrutineer, Chief Registrar, and Race Control Chiefs.

B. Regional Events - Divisional License minimum for all specialties.

C. Driver Schools - National License minimum for all above Chiefs of Specialty, except Timing and Scoring.

D. The Chief Steward at Driver's Schools shall be a National Chief Steward. The Chief Steward at National Championship Event shall be a National Series Chief Steward.

E. The Assistant Chief Steward-Safety shall be at least a Divisional Steward.

F. The Stewards of the Meeting must include, at a minimum, a Chairman and one other licensed steward in addition to any Stewards-in-Training.

6.3. REQUIRED OFFICIALS

At every event there shall be a Chief Steward, at least two (2) SOM, an Assistant Chief Steward-Safety, and a Chief Medical Official, in addition to other officials as necessary.

6.4. RIGHT TO SUPERVISION

The SCCA reserves the right to designate a qualified person to evaluate any competition.

6.5. APPOINTMENT

6.5.1. Interdivisional Event

All officials shall be appointed by SCCA.

6.5.2. SCCA National, Regional, and Restricted Events

All Stewards shall be appointed by the Executive Steward of the Division. All other Officials shall be appointed by the Region conducting the event, subject to approval by the Executive Steward.

6.6. CONDUCT

6.6.1. Conflicts of Interest

A. The Chief Steward, Series Chief Steward, Assistant Chief Stewards, and the Stewards of the Meet shall have no financial, employment, business interest or significant personal relationship with the organizer or sponsor of an event. Membership or holding an office in an SCCA region shall not be deemed to be a conflict of interest in the absence of other evidence.

B. It is recommended that a Steward not operate a session in which a family member, co-worker, or with whom there is significant business, financial, or personal relationship is an entrant or driver.

C. A Steward of the Meet shall not be involved in a hearing involving a family member, co-worker, or any person with whom there is significant business, financial, or personal relationship.

6.6.2. Standards of Behavior

Every Official shall conduct himself or herself according to the highest standards of behavior. Failure to do so may result in loss of official appointment for the event, or other penalty as determined by the SOM.

6.6.3. Loss of License

A. Any license holder (whose actions are deemed by the SCCA Club Racing Board to be contrary to the best interest of SCCA) may have his or her license revoked, either for a period specified by the Club Racing Board, or permanently. This action is appealable to the Board of Directors.

B. Any license holder may be denied renewal of license for lack of participation, conduct in violation of the GCR, or acting contrary to the best interests of SCCA.

C. Any license holder may have his or her license down graded at any time for lack of participation, conduct in violation of the GCR, acting contrary to the best interests of SCCA, or inability to perform satisfactorily at the current license grade.

6.6.4. Alcohol, Narcotics, and Dangerous Drugs

Consumption of alcoholic beverages by an official is expressly prohibited until all practice, qualifying, and racing activity is over for the day, and thereafter until the individual official's duties have been completed for the day. Any official who has consumed any alcoholic beverages on the day of the event contrary to the above shall not participate, and may be excluded by the Chief Steward or Chief of the offender's specialty, and may be penalized as provided in Section 14., Penalties. Consumption of unauthorized controlled/dangerous substances is prohibited at any time.

6.6.5. Medical Condition Affecting Fitness of Official/Worker

Any known medical condition (including pregnancy) which could affect the ability to perform some or all of the assigned duties of the specialty shall require a request for reassignment based on the recommendations of the person's physician. Some medical conditions (including pregnancy) may require reassignment to non-hazardous areas only.

6.7. PLURALITY OF DUTIES

The same person may hold more than one official position.

The Chief Steward, Series Chief Steward, and Chairman SOM shall have no plurality of duties.

6.8. SEPARATION OF DUTIES

An Official shall not perform duties other than those clearly attached to his or her appointment or appointments.

6.9. STEWARDS OF THE MEETING (SOM)

The SOM shall be responsible only to SCCA, and they shall have the duty of enforcing compliance with the GCR and Supplementary Regulations. They shall act primarily in a judicial capacity, and therefore shall not incur any responsibility for the organization or execution of an event.

6.9.1. Powers of the SOM

A. Settle any dispute within the administrative functions, or protest arising from an event, subject to the rights of appeal provided by the GCR.

B. Hear and act on Requests for Action from the Chief Steward. (See 6.11.4.)

C. Impose any penalty permitted by the GCR and Supplementary Regulations. (See Section 14., Penalties)

D. Appoint substitutes to replace any Stewards or Officials not able to perform their duties. This power shall be used by the remaining Steward or Stewards to ensure that there are always at least two (2) SOM.

E. Modify the Supplementary Regulations. (refer to 3.6.2, Changes to the Supplementary Regulations)

F. Alter the schedule.

G. Modify the position of the starting or finishing lines where necessary to ensure the safety of drivers and spectators.

H. Amend the results of a competition:

1. Based on a correction or error by the Chief Timer and Scorer.

2. To take into account a time, distance, or lap penalty against a competitor.

3. To change the sequence of finishing positions in case a competitor is disqualified.

I. Postpone a competition for reasons of safety or forces beyond their control.

6.10. CHAIRMAN OF THE SOM

One of the SOM shall be appointed Chairman of the SOM for the event. He or she shall not be a member of the organizing Region at National events, and should not be for Driver's Schools/Regional events.

6.10.1. Observer's Reports

As soon as practical after the conclusion of an event, (not later than ten days), the Chairman of the SOM shall forward to the SCCA Manager of Club Racing a report to include:

A. Details of all protests.

B. Actions taken.

C. Penalties imposed (including reprimands and suspensions to be noted in driver's file).

D. Notice(s) of intention to appeal and appeals, including appeal fee(s).

E. Fine(s) collected.

F. Full details of any accidents.

G. Official Results of all competitions.

H. General comments and recommendations of the SOM on the organization and conduct of the event.

6.11. CHIEF STEWARD/SERIES CHIEF STEWARD

The Chief Steward is the executive responsible for the general conduct of the event in accordance with the GCR and the Supplementary Regulations. He or she shall have the powers and the duties set out in Sections 6.11.1., to 6.11.4., "Series Chief Steward" shall be substituted for "Chief Steward" in these rules when a Series Chief Steward is carrying out a Chief Steward's duties.

6.11.1. Execution of the Event

The Chief Steward shall:

A. Execute the program of competitions and other activities safely by controlling drivers, their cars, the Officials, and workers from the commencement of activities until the time for protests from the last competition has expired.

B. Ascertain whether Officials are at their posts and report the absence of any of them to the SOM.

C. Ensure that all Officials and workers are provided with necessary information.

D. Collect all reports and other official information for the determination of results.

E. Prepare any information required to enable the Chairman of the SOM to prepare the report.

F. Authorize a change of driver or car.

G. Convey to the SOM any proposal to modify the schedule of competitions.

H. Prevent an ineligible driver from competing.

6.11.2. Maintenance of Order
The Chief Steward shall:

A. Keep order in conjunction with the authorities who are policing the event and who are responsible for public safety.

B. Exclude from the event any entrant, driver, crew, Official, worker, or SCCA member who is guilty of misbehavior.

C. Exclude from participation a worker or Official who is ineligible for the position to which he or she is assigned or who the Chief Steward determines is incapable of carrying out his or her duties.

D. Order removal from the premises any person who refuses to obey the order of any responsible Official or of a public safety officer.

E. Prohibit from competing any driver or car considered dangerous.

F. Convey to the SOM a report dealing with the misbehavior of any entrant or driver. This may be accompanied by a Request for Action. (See 6.11.4.)

G. Receive protests from entrants, drivers or officials and immediately transmit them to the SOM.

6.11.3. Powers of the Chief Steward
The Chief Steward may:

A. Disqualify a driver or an ineligible car.

B. Remove technical inspection stickers.

C. Disallow qualifying times.

D. Direct cars to be impounded at any time during the event.

E. At his or her discretion and without necessarily receiving a request to do so, order disassembly and inspection of any entered car to ascertain its conformance with the GCR. If the car is found to be eligible for the competition in which it is entered, the race organizers shall stand the expense of the disassembly, inspection, and reassembly. If it is not eligible, the entrant shall bear the expense, in addition to whatever penalties the SOM may direct after receiving the Chief Steward's report.

F. Convey to the SOM a report of any breach of the GCR or Supplementary Regulations. This report may be accompanied by a Request for Action. (See 6.11.4.)

G. Impose a fine of up to $100.00.

H. Prevent an ineligible car from competing.

I. Reprimand (14.5.).

J. Impose time, lap, event points, or position penalty (14.7.).

Note: Penalties imposed by the Chief Steward shall not incur automatic penalty points. In the event that the Chief Steward's action is protested and the protest is disallowed, thus upholding the Chief Steward's action, the Stewards of the Meet may assign penalty points as listed in 14.14. Automatic Penalties.

6.11.4. Requests for Action

The Chief Steward may submit to the SOM a Request for Action describing a suspected breach of the GCR or the Supplementary Regulations. The SOM shall act on this Request in the same manner as they would act on a protest, and shall have the same authority to levy penalties as in a protest. The Chief Steward shall not submit a Request for Action for any single breach of the rules for which he has already imposed a penalty as outlined in Section 6.11.3.

6.12. RACE CHAIRMAN

6.12.1. The Race Chairman shall be responsible for the organization of an event. Specifically, he or she shall:

A. Determine with the promoters, organizers, and the Chief Steward the schedule and all other activities to occur during the event, draft the Supplementary Regulations, and see that all Entry Forms are printed and mailed.

B. Arrange that insurance conforming to SCCA requirements is procured, and that a copy of the Insurance Certificate is presented to the Chairman of the SOM

and the Chief Steward prior to the commencement of the event.

C. See that qualified Officials and workers are appointed and that they are on station.

D. Arrange for the use of the course and all necessary facilities.

E. Arrange for emergency vehicles and equipment.

F. Arrange for trophies and their proper distribution.

G. Arrange for receipt and acknowledgment of entries.

H. Arrange for proper registration of all entries.

I. Arrange for the distribution of Official Results to the SOM, entrants, the organizers, and the SCCA.

J. Obtain the necessary equipment to conduct all post-race and pre-race inspections as required at all SCCA race events.

K. Arrange, in conjunction with the Chief Medical Official, the required equipment and facilities in accordance with Section 3.16., Emergency Service, Medical, Fire, and Safety.

6.13. CHIEF STARTER

The Chief Starter shall operate directly under the supervision of the Chief Steward. The Chief Starter gives directions to competing drivers by flag, hand, and body signals prescribed by the GCR with respect to starting, suspending, and ending a race.

6.14. COURSE CHIEF

The Course Chief shall be responsible for final preparation and maintenance of the course and other related duties assigned to him or her by the Chief Steward.

6.15. FLAG CHIEF

The Flag Chief shall be responsible for recruiting, training, and assigning qualified persons to corner stations. At least twenty (20) percent of the Flagging and Communications specialists should have had experience in fighting actual or simulated vehicle fires.

6.16. COMMUNICATIONS CHIEF

The Communications Chief shall be responsible for the establishment and operation of the communications system, which shall include all corner stations and a central control. He or she shall, in conjunction with the Chief Flag Marshal recruit, train, and assign qualified persons to operate and

maintain the system at an event. A race log shall be kept of all communications on the race network by person(s) in the immediate vicinity of the Operating Steward.

6.17. CHIEF TIMER AND SCORER

6.17.1 The Chief Timer and Scorer shall be responsible for the accurate timing and scoring of the event in accordance with the GCR. Specifically, he or she shall:

A. Recruit, train, assign, and supervise qualified personnel to time and score the event.

B. Furnish the Chief Steward and the SOM any times and results that they may request.

C. Maintain records of official times and lap charts for all competing cars.

D. Compile and publish the Official Results of all competitions, submit copies of completed Official Results to the Race Chairman for distribution to the SOM, the organizers, and the SCCA, and submit complete Official Results within seven (7) days to the Divisional Pointskeeper.

E. At spectator events, work closely with the Press Officers, press, and other media, as well as with circuit, radio, and/or television announcers, providing qualifying information, results, and any other data requested, as quickly as possible.

6.18. CHIEF / SERIES CHIEF TECHNICAL AND SAFETY INSPECTOR
(Scrutineer)

6.18.1. The Chief Technical and Safety Inspector or Series Technical and Safety Inspector shall ascertain that the cars comply with the GCR, Specification Books, and Supplementary Regulations. Specifically, he or she shall:

A. Approve cars that comply with all safety regulations.

B. Conduct inspections of cars at the request of the Chief Steward.

C. Report to the Chief Steward any cars that he or she finds do not conform with requirements of the GCR or the appropriate Specification Books.

6.19. CHIEF MEDICAL OFFICIAL
The Chief Medical Official shall be responsible, in conjunction with the Race Chairman and Assistant Chief Steward-Safety or Emergency Services Chief, for staffing

and equipping the medical organization in accordance with Section 3.16., Emergency Services.

6.20. DRIVER OBSERVERS

The Observers shall occupy posts along the course assigned to them by the Chief Steward, or by the Chief Observer if one is nominated. As soon as a competition is started, each Observer shall be under the orders of the Chief Steward, to whom he or she shall report all incidents which occur on the section of the course for which he or she is responsible. At the conclusion of each competition, Observers shall give the Chief Steward a written report of all incidents or accidents witnessed by them.

6.21. PRESS OFFICER

The Press Officer advises the Officials on press information and acts as liaison with the promoter's press director, if any. Chief Officials and SOM shall cooperate with the Press Officer in carrying out his or her responsibility to apprise the press on matters of public interest.

6.22. CHIEF REGISTRAR

The Chief Registrar shall be responsible for accepting, certifying, and processing all entries and credentials for drivers, crew, and Officials and the posting of all required signs/placards in the registration area.

6.23. ASSISTANT CHIEF STEWARD-SAFETY

6.23.1 The Assistant Chief Steward-Safety is responsible to the Chief Steward, and shall be responsible:

A. To investigate accidents and forward the originals of all reports including original releases to the Risk Management Department of SCCA.

B. To notify Risk Management Department, the same day via telephone, of any accident which involves serious injury to a participant or any injury to a spectator.

C. To mail copies of the material sent to the Risk Management Department to the Divisional Safety Administrator.

D. During the event, to report to the Chief Steward any hazards which require further investigation or action.

E. To perform such duties as are delegated by the Chief Steward.

F. If no Emergency Services Chief is assigned, to supervise Emergency Services personnel and equipment in conjunction with the Race Chairman (pre-event) and the Chief Medical Officer (during the event).

6.24. JUDGES

6.24.1. Judges are optional and may perform one or more of following duties:

A. Starting Judges shall point out to the Chief Steward any false starts immediately after they occur. Finishing Judges declare the order in which cars cross the finish line. Judges of the Fact shall decide whether a car has touched or passed a given line or shall rule on other facts of the same type provided in the Supplementary Regulations.

B. A protest shall not be made against the decision of a Judge.

C. An error by a Judge may be corrected by him or her with the approval of the SOM.

6.25. SOUND CONTROL CHIEF

6.25.1. The Sound Control Chief shall be responsible for monitoring racing vehicles at sound-controlled events in accordance with the GCR and the SCCA Sound Control Manual. Specifically, he or she shall:

A. Review or establish sound meter monitoring location.

B. Establish how reading(s) shall be made.

C. Advise the Chief Steward of the readings.

D. Submit post-race reports to the Chairman of the SOM.

E. Monitor weather and ambient conditions throughout the day.

F. Perform field calibration in accordance with the Sound Control Manual for sound meter, microphone, or other instruments.

G. Obtain yearly calibration of equipment from manufacturer or qualified laboratory.

6.26. COMPLIANCE CHECKING CREW

When assigned to an event by the Club Racing Department, all members of this crew will have the official status of an Assistant Chief Steward. Their sole responsibility is to advise the Chief Steward of cars not in compliance with the GCR and/or the Supplemental Regulations for the event. The Chief Steward may delegate all or any part of his powers under 6.11.3., and 6.11.4., to them.

7. QUALIFYING AND STARTING

7.1. FORMING THE GRID

7.1.1. Number of Cars Allowed on the Course

A. The maximum number of cars that may be started simultaneously on any course shall be twenty-five (25) per mile.

B. The maximum number of cars that may occupy a course in practice, qualifying, or a race shall not exceed twenty-five (25) per mile, and then only if an extreme speed differential does not exist between the fastest and the slowest cars.

C. Only the Executive Steward of the Division may authorize an increase in this number or may require a decrease for any or all car classes.

7.1.2. Grouping Cars by Class

A. All cars shall race in their respective classes. One (1) car in a class shall constitute a class. A car shall not compete in more than one race class in the same race group.

B. The running of cars in classes and/or categories for which they were not designed or intended is strongly discouraged. The Chief Steward shall approve the proposed classification. He or she shall not approve if the car is so dissimilar or the car/driver combination otherwise unsuitable so as to pose a hazard to safety or an impediment to the fair competition among the other cars in the class and race group.

7.1.3. Combining Classes

A. Any Formula class may be combined with Sports Racing cars.

B. Whenever possible it is preferable to combine Sports Racing cars with appropriate Formula classes than with Production or GT cars.

C. Whenever possible it is preferable to not combine FA, FM, FC with FV and/or F500. FV may be combined with F500.

D. SCCA Spec Racer may be combined with G and H Production and GT-Lite.

E. Formula cars shall not be combined with cars from any other category except Sports Racing. This does

not apply to race groups consisting of solely Vintage/ Historic cars.

F. Whenever possible it is preferable to not combine GT1, AS, T1, T2 classes with DSR, CSR, SRF, S2000, FP, GP, HP, GT-Lite.

7.1.4 Additional Classes

Competitions for classes, other than those specified in Section 12., Automobiles, shall not jeopardize a full schedule of competitions for the recognized classes. Organizers may also schedule extra competitions for other classes, provided specifications are clearly set forth in Supplementary Regulations.

7.1.5. Starting Positions

A. Cars shall be positioned at the start in order of their official qualifying times without regard to engine displacement or class, with the fastest cars nearest the starting line, unless the Supplementary Regulations specify a different method.

B. In case of a tie in qualifying times, the second fastest lap, then the third fastest, etc., shall be used to break the tie.

C. It shall be the car/driver combination which qualifies a starting position.

D. The fastest qualifier shall have the choice of the inside pole position (nearest the direction of the first turn) or the outside. Absent a choice, the pole position is assumed to be the inside. When outside position is chosen, the second qualifier will be inside, the third outside, the fourth inside, etc. Continue to alternate the entire grid.

E. Non-Qualifiers may be gridded behind qualifiers by the Chief Steward per GCR 16.1.2.

F. Cars not in position on the grid prior to the one (1) minute signal (7.5.1 and 7.5.2) shall relinquish their starting positions and shall start from the back of the field.

7.1.6. Oversubscribed Classes

Qualifying for an oversubscribed single class race shall be split into two (2) groups. The race grid shall be split into two (2) groups. The grid shall be determined in accordance with 7.1.5., Starting Positions. If the Chief Steward determines that there is a significant difference in track conditions between the two (2) qualifying sessions, he or she may recommend the parallel column procedure

to the Stewards of the Meeting. If they approve, one-half of the grid shall be taken from each session and gridded in columns (e.g., one column of a 2-2 grid from each session). The fastest car overall, regardless of track conditions, shall have the pole position and be followed by the cars from its session in order of qualifying time.

7.1.7. Tire Warmers
Pre-heating of tires prior to competition by electrically heated covers or similar means is prohibited on the grid.

7.2. STARTING THE ENGINE
In all SCCA competitions, engines shall be started with a starter operated by the driver in normal driving position, except F500, and an on-board or supplementary power supply. Carburetor or fuel injection systems may be manipulated and/or primed in the process of starting cars. Push starts are permitted only as specifically authorized herein.

7.2.1. Push Starts on the Grid
A driver unable to start the car on the false grid may push start provided the car is back in position prior to the-one minute signal. Push starts on the false grid shall be under the supervision of the Grid Marshal to guarantee they are done in a suitable manner. After the one-minute signal, the right to start the car by push starting is relinquished.

7.2.2. Late Starters
After the field has left the grid, the Chief Steward may add an alternate entry that has started or permit a gridded entry to push start and join the field at the back of the pack. The Chief Steward shall direct whether the car may enter the track during the pace lap or start from the pit exit after the green flag has been displayed.

7.3. THE START

7.3.1. Starter's Orders
Drivers and automobiles shall come under the orders of the Starter from the time the Chief Steward delegates this control to the Starter until the competition is completed.

7.3.2. Classification of Car as a Starter
To be considered a starter, a car shall receive the green flag at the start or, in the case of an aborted start, cross the control line. Cars entering the race after the start shall also be considered starters. A car shall enter the race before the checkered flag is displayed in order to be classified as a starter.

7.3.3. False Start
A false start shall occur when a driver under the Starter's

orders moves forward from his or her prescribed position before the start. In the case of a rolling start, this movement shall refer to improving the driver's position in relation to the moving field by moving out of line or passing prior to the waving of the green flag. If the Chief Steward determines that a false start has occurred, and the race has been started, that driver or drivers may be black-flagged and held in the pits or at the start line for a period of up to one minute. Other penalties may also be imposed. (See 14., Penalties)

7.3.4. Aborted Start
Should an aborted start occur and additional pace laps be run, those additional laps will be scored as race laps and timing will start when the pole car crosses the timing control line unless otherwise specified by the Supplementary Regulations for the event.

7.3.5. Starting Line for Timing and Scoring
For a rolling start, the starting line shall be the control line on the crossing of which the timing commences unless otherwise provided in the Supplementary Regulations.

7.4. STARTER

7.4.1. Responsibility
The Starter shall operate directly under, and shall carry out the orders of, and shall be responsible solely to the Chief Steward.

7.4.2. Function
The Starter shall control the competing drivers by conveying to them the orders of the Chief Steward during the practice and during competitions until the competitions are concluded. During this period cars are "under the Starter's orders."

7.4.3. Location
The Starter shall be stationed so as to be at all times in a location of maximum visibility to the competing drivers. The Starter shall have immediate communication with the Chief Steward.

7.4.4. Equipment
The Starter shall be equipped with a complete set of signal flags required by the SCCA General Competition Rules.

7.5. SCCA STANDARD START (ROLLING START)
The following rolling start technique shall be known as the SCCA Standard Start and shall be utilized at all SCCA races, unless an alternate procedure has been approved by the Divisional Executive Steward and is set out in the Supplementary Regulations for the event.

1. On instruction of the Chief Steward, a signal, plainly audible or visible to the full grid, shall be given at five (5) minutes and at one (1) minute prior to the scheduled starting time of each race. This will alert drivers to man their cars, and crews to complete last-minute preparations.

2. At the one-minute signal the Starter or Grid Marshal shall take a position in front of the grid, visible to all competing drivers, and shall give the signal to start motors by rotating the furled yellow flag in small circles directly overhead for a sufficient length of time for all drivers to observe.

3. The Starter or Grid Marshal, after observing that all unnecessary personnel have left the grid and that all drivers are in their cars and apparently ready, shall next raise his or her free arm as a signal for drivers to raise one of their arms indicating that their cars are running, and that they are prepared to start the pace lap. The Starter or Grid Marshal shall, by looking directly at each car individually and altering his or her position as necessary to do so, satisfy himself or herself that each driver on the grid is indicating this ready signal.

4. The Starter or Grid Marshal shall next signalall drivers to lower their arms by lowering his or her free arm in a definite movement.

5. If a pace car is employed, the Starter or Grid Marshal shall first signal it to begin moving prior to releasing the field. The Starter or Grid Marshal shall, as soon as possible, signal the drivers to begin the pace lap by moving the furled yellow flag in parallel arcs from front to back. The pace lap is to be run at considerably less than racing speed.

6. The pace car, with emergency lights flashing, shall position itself at the head of the pack. It shall proceed at a constant slow speed, the front row drivers having been instructed not to pass the pace car until the green flag has been displayed. If a pace car is not utilized, the "pole" car shall serve the same function as a pace car from its position in the front row. In the event the race is not started, necessitating another pace lap, depending on conditions, the pace car may overtake the field and resume its function, provided the front row drivers have been previously advised of this plan. Otherwise, the "pole" car shall assume the duty of the pace car, remaining in this front row position.

7. During the pace lap, the Starter shall be positioned

at a safe location where the approaching field can be clearly viewed, and where he or she can be seen by all the drivers in the grid. The Starter shall remain motionless, with the green flag hidden, and no other flags visible.

8. Upon determining that the approaching field is at a constant slow speed, well bunched and in line, and close enough that all drivers can see the flag, the Starter shall suddenly and continuously wave the green flag, until all cars have passed the start line. The race shall be under way throughout the field at the instant the green flag is waved and passing may occur at any point, within reasonable safety standards.

9. If the Starter determines that the field is not in good order, or that some drivers have improved their positions by moving out of line or by passing prior to the waving of the green flag, the Starter shall abort the start by making no flag movements whatsoever, and at the same time shake his or her head in a negative manner, to indicate that a start shall not take place. This will inform the drivers to proceed on another pace lap. All flag stations shall display double yellow flags during all pace laps. Drivers will raise one hand to indicate that the start is aborted. (Except as provided in 7.6.2)

10. There shall be one (1) pace lap; all laps after the first pace lap count as race laps.

11. A car may not improve its position in the field once it comes under the Starter's orders, regardless of circumstances. A car that fails to start with the pack or falls out of position during a pace lap relinquishes its grid position. It may rejoin the field only at the rear of the pack. A car that improves its position is guilty of a false start and may be penalized as provided in 7.3.3., False Start.

12. It is to be emphasized that the SCCA Standard Start is a rolling start, not a "flying" start. While the pace lap may proceed at a brisk pace, the field shall be slowed at a sufficient distance before the start line to allow orderly grouping of the field. The actual speed immediately prior to the start is somewhat dictated by the types of cars, size of the field, and course layout. Only one (1) Official shall be designated to brief the front row drivers before each race, preferably the Starter, acting under the orders of the Chief Steward.

13. At the discretion of the Chief Steward an additional

un-scored pace lap may be authorized.

7.6. SPLIT STARTS

1. Split starts are recommended where there is a large differential in speed or cornering ability between the classes or categories in a single race group. The procedures for a split start shall be set out in the Supplementary Regulations or explained at a Drivers' Meeting. The group containing the car with the fastest qualifying time shall start first.

2. The second group also should be led by a pace car which should keep the first group in sight (on the longest straight). If the first group gets a green flag, then the second group's race will be considered to start no matter what flag the starter displays. This will allow the starter to display a yellow flag if warranted by an incident in the first group. Anyone jumping the start in the second group may be penalized.

3. A starting judge should be appointed for a split start.

7.7. RESTARTS

When a race is restarted, each pace lap shall count as a race lap. In a timed race, the clock shall be restarted when the field is dispatched. No replenishment of or assistance to cars shall be allowed after a race is stopped and before it is restarted. However, any method of restarting the engine is permitted.

If a race is stopped, the Chief Steward may:

1. Order a complete restart according to the original starting positions; **Note: A car which completes the pace lap for the first start is considered a starter.**

2. Restart the cars in a single file in the overall order in which they completed their last completely scored lap;

3. Restart from a scoring tape or a lap chart whichever best fits the conditions at hand.

8. TIMING, SCORING, FINISHES, AND WINNERS

8.1. TIMING AND SCORING

1. The Timing and Scoring systems described in this section shall be required for SCCA National races. It is recommended that these systems be used at Regional races and Drivers Schools.

2. The Chief of Timing and Scoring should employ the Timing and Scoring systems described below in recording the performance of cars in competition. These systems should enable the Timing and Scoring staff to produce the following information: a set of grids for each race group, a set of time cards for each car from qualifying and the race, continuity tapes, independently prepared lap charts, provisional results, and final results. Titles as used in this section are used in a functional sense. The Chief of Timing and Scoring may delegate any task to any member of the Timing and Scoring staff as appropriate.

3. Should there be insufficient staff to run two separate systems as described, the Chief of Timing and Scoring should notify the Chief Steward. The Chief Steward may then decide to waive the two-system requirement, allowing the Chief of Timing and Scoring to use the Timing and Scoring staff in the most productive manner possible. In this case, the Timing system should be used to establish grid positions and the Scoring system should be the primary source of information for tabulating race results. Overall timing of class leaders during races is recommended to provide the information described in section 8.9.2. Any protests concerning the Timing and Scoring requirements will not be accepted.

4. The Timing system:

   A. It is recommended that an electronic timer (such as a Chronomix, a Meca, a Heuer, Alge, or similar device) be used. The timer shall be actuated by a photoelectric cell or other means on the timing control line. Times should be recorded to the 1/1000th of a second. The minimum acceptable resolution for an electronic timer is 1/100th of a second. The electronic timer may provide data to an appropriate computer program capable of processing the data and printing results.

      Transponder/transmitter systems used in SCCA Club Racing shall be manufactured by AMB or be compatible with AMB systems. Those other transponder/transmitter systems which are currently in use may continue to be used, but shall not be the primary system for any National race.

      1. There shall be a minimum of three independently prepared tapes. The tapers

shall record the car numbers in the order they cross the timing control line. The tapers should indicate "yellow flag," "black flag," or "red flag," as personally observed and/or officially observed or reported. "Checkered flag" should be written on the final tape when the checkered flag has been displayed. These tapes should be compared and audited, corrected if necessary, and then the car numbers will be matched with the times recorded by the electronic timer. These tapes may be shared with the Scoring System.

B. An acceptable alternative to an electronic timer is a group of Timers with stopwatches. The stopwatches should time to the nearest 1/100th of a second. The minimum acceptable resolution for a stopwatch is 1/10th of a second. Timers will record the cumulative time of passage for their assigned car(s), then compute and record the individual lap time. Timers should note on the time card for each assigned car such occurrences as "pit stop," "black flag," "checkered flag," "off course," etc., as personally observed and/or officially observed or reported. At the end of each session, the Timer will indicate on the time card the fastest lap time for each assigned car.

C. For the start of a qualifying session, the electronic timer (and/or stopwatches) shall be started simultaneously on a signal given by the Chief Timer.

D. At the end of each qualifying session, the Chief Timer shall audit the time cards produced from the timing system. These time cards should show the cumulative times as well as the lap times. Once the Chief Timer is satisfied that the times are correct, a Provisional Grid should be prepared, as described in GCR 7.1.5, Starting Positions, and posted. At the expiration of the protest period, these Provisional Grids may be considered final.

E. For the start of a race, the electronic timer (and/or stopwatches) shall be started simultaneously when the first car crosses the timing control line at the completion of the pace lap.

F. At the end of each race, the Chief Timer shall audit the time cards produced by the timing system. Once the Chief Timer is satisfied that

the times are correct, and the order of finish agrees with the Scoring system, Final results should be prepared as described in GCR 8.9.2, Final Results.

5. The Scoring system:

   A. There shall be a minimum of three independently prepared tapes. The tapers shall record the car numbers in the order they cross the timing control line on consecutively numbered sheets. The sheet number should coincide with the overall leader's completed laps. The tapers should indicate "yellow flag," "black flag," or "red flag," as personally observed and/or officially observed or reported. "Checkered flag" should be written on the final tape when the checkered flag has been displayed. These tapes should be compared and audited, corrected if necessary, and then distributed to the Charters. These tapes may be shared with the Timing System.

   B. A minimum of three independent lap charts should be prepared. These charts can be done either on paper or on a computer and can include charts generated by the Timing system. They shall be prepared so that position and lap count are indicated on different axis. Each car's number shall be entered on the chart in the order recorded on the tape, appearing on the chart only once for each lap. Some method shall be used to indicate on the lap chart all cars taking the checkered flag as shown on the final tape. The Charters should indicate the overall and class position and laps completed for each car.

   C. At the end of each race, the Chief Scorer shall compare the three charts. Once the Chief Scorer is satisfied that two of the three charts are correct, Provisional Results may be posted as described in GCR 8.9.1. It is strongly advised that the Chief Scorer determines what errors prevented the third chart from agreeing with the other two.

8.2. CONTROL LINE

A car crosses a control line when any portion of the car first intercepts the vertical plane of the control line, as observed by the officials assigned to record the passage, who may be aided by suitable automatic or semi-automatic equipment.

8.3. DEAD HEATS

In case of a dead heat, the competitors concerned shall share the prizes allotted to their places in the Results. (See 16.2.4., Dead Heats, with respect to allocation of National Race points.)

8.4. FINISHERS

1. In order to be considered a finisher, a car shall complete half the distance covered by the overall winner of the race. If the race length is an uneven number of laps, divide the overall winner's laps by two and round down to the nearest whole integer. A car has five (5) minutes after the checkered flag is displayed to complete his or her lap.

2. A car may be considered a finisher if it is pushed across the control line or driven using on-board power (e.g. starter motor). This may only occur in the pit lane. Pushing a car on the racing surface is strictly forbidden.

8.5. SHORTENED RACES

1. If a race is stopped at less than fifty (50) percent of it's scheduled time or distance and is not restarted, it shall be considered incomplete. Championship points shall not be awarded, and organizers shall not be required to distribute trophies or other awards.

2. A race that is stopped at fifty (50) percent or more of its scheduled time or distance, and not restarted, shall be scored as a complete race as of the end of the last completely scored lap (even if that lap is less than fifty (50) percent of the scheduled distance).

8.6. WINNER

The winner shall be the competitor who covers the prescribed distance of the competition in the least time, or the greatest distance within the prescribed time of the competition. If the race is shortened, the leader of the last completely scored lap is the winner, provided the race is completed. (See 8.5.1.)

8.7. CHECKERED FLAG

The checkered flag shall be displayed first to the winner as he or she completes the prescribed distance of the course or crosses the finish line after completing the prescribed time, and then to the other finishers as they cross the finish line. If the checkered flag is displayed first to the wrong car, the race shall still finish when the actual winner crosses the finish line.

8.7.1. Late Checkered Flag

If the checkered flag is not displayed at the scheduled end of the race (in other words, if a race is one or more laps longer than scheduled), the race shall be scored as if it had ended at the scheduled length.

8.7.2. Winning Car Not Running

In timed duration races if the winning car is not running at the expiration of the prescribed time, the checkered flag shall be displayed to the highest placing car still running. The winner is not required to take the checkered flag.

8.8. LAP RECORD

The official lap record for each class, at each circuit, shall be set during a race and not in practice or qualifying. When a driver is disqualified for an illegal car, the lap times (lap record) are disqualified also.

8.9. RESULTS

8.9.1. Provisional Results

A. One of the two lap charts or a printout showing order of finish and number of laps completed for each car shall be posted and titled as Provisional Results. The time of posting shall be noted on the Provisional Results and an announcement made.

8.9.2 Final Results

1. At the expiration of the protest period, Provisional Results may be considered final. The Final Results should be titled as Final or Official Results and shall include the following types of information: description of event, timing and scoring information, and driver information.

2. The description of the event shall include: location of event, date, sanction number, name of conducting region, length of course, and duration of race (laps or miles).

3. The timing and scoring information shall include: total number of entries, including DNF's and DNS's, the overall and class finishing positions for all starters, the number of laps completed for all starters, the overall time of the race, the winner's margin of victory, the winner's average speed, the fastest lap time for all starters and any new course records.

4. The driver information shall include: driver's full name, hometown, state, region of record, car number, car make and model, and car year

as required per GCR. It is required that the competition license number be included in the driver information.

5. Optional information to show on the Final Results includes: the overall time and average speed for each class winner, pit stop information, accident reports, and sponsorship. This may be provided on documents (i.e. Entry List) other than "Final Results" and submitted to the national office, divisional pointskeeper and other officials.

6. When a car is disqualified, excluded, or withdrawn, the results should list the cars in the original finishing order, noting the cars that have been affected. The results should show the final overall and class positions, as adjusted, for all finishers. The disqualified car (or cars) should be footnoted thusly: "Car number (X) is disqualified (or excluded or withdrawn); all subsequent cars moved up."

8.10. MEDIA

It is strongly recommended that at spectator events the Chief Timer and Scorer meet with the Course and Regional Press Officers in order to establish close cooperation with the announcer and all media, and to arrange for fast transmission of unofficial and official Timing and Scoring information to these people.

The track announcer and all media at spectator events should be furnished as quickly as possible with Unofficial Qualifying times as they occur, thus providing constantly updated unofficial grid positions, but making certain that this information is clearly titled "Unofficial." When the qualifying times become Official, together with the Official Grid, these should be transmitted at once to the announcer and media. During the race, up-to-date standings should be provided, as well as average speed records established, etc. These can be Unofficial until verified or corrected. Within a very few minutes after the completion of each spectator race, and prior to the preparation of Official Results which require time consuming auditing and verification, Unofficial Results showing at least the top ten (10) finishers, the winner's average speed, fastest lap turned in miles per hour, time and/or distance separating the first three finishers, and overall time for the race should be transmitted to the track announcer and media. Again caution is recommended to ensure that this information is clearly labeled "Unofficial."

It is always preferable that the Circuit announcer and any radio and television announcers receive information relating to Timing and Scoring from members of the Official Timing and Scoring personnel, via the Circuit or Regional Press Officer.

9. RULES OF THE ROAD

9.1. ON-COURSE

9.1.1. DRIVER CONDUCT

A. It is the responsibility of all drivers to avoid physical contact between cars on the race track.

B. All competitors have a right to "racing room" on the marked racing surface. "Racing room" shall be generally defined as sufficient space on the marked racing surface so as to allow a competitor to maintain control of his car in close quarters, under racing conditions.

C. It shall be incumbent on all drivers to preserve the right of his fellow competitors to "racing room" on the race track. Abrupt changes in direction so as to impede or affect the path of a car attempting to overtake or pass may be interpreted by Officials as an attempt to deprive a fellow competitor of his right to "racing room".

9.1.2. Passing

The responsibility for the decision to pass another car and to accomplish it safely rests with the overtaking driver. The overtaken driver has the responsibility to be aware that he or she is being overtaken and not to impede the overtaking car. The overtaken driver shall not block. Any driver who fails to make use of the rear view mirror, or who appears to be blocking another car seeking a pass, may be black flagged and/or penalized. (See 14., Penalties)

9.1.3. Hand Signals

A. Before entering the pits from the course, the driver should signal by raising an arm.

B. An overtaken driver shall point to the side on which an overtaking driver should pass.

C. The driver of a stalled car shall raise both arms to indicate that he or she shall not move until the course is clear.

9.1.4. Off-Course Excursions

The driver is required to follow the pavement or marked course during a competition, and shall not gain an advantage from an off-course excursion. Unless otherwise provided by Supplementary Regulations, whenever a driver leaves an artificially marked course or an airport circuit with all four (4) wheels, he shall re-enter the course at the same spot where he went off, and cannot simply re-enter further down the course, subject to the directions of the Corner Worker controlling re-entry.

9.1.5. Counter-Race Direction Driving or Towing

During an event it is expressly forbidden to drive or tow a car, at any time under any conditions, in a direction opposite to that in which the event is being run without the specific approval of the Chief Steward. Infraction of this rule may result in a penalty. (See 14., Penalties)

9.1.6. Stopping on a Course; Accepting Assistance

A. If a driver is forced to stop his or her car on the course, he or she shall make every effort to place the car in such position that it will not be a danger or obstruction to other competitors.

B. Drivers shall obtain no assistance during the race other than from their pit crews and in the pits. This does not preclude assistance by Race Officials for safety reasons.

C. For assistance during restarts, see 7.7.

9.1.7. Use of the Engine Self-Starter on Course

Cars shall not be moved under power of the starting device while on course, except to move them from a hazardous position to one of greater safety or under provisions of GCR 8.4. paragraph 2.

9.1.8 Passengers

No one shall ride outside the cockpit area or on the coach work of any automobile at any time, including victory laps.

9.2 SAFETY CAR (Pace Car)

9.2.1 Operation and Control

The Chief Steward is responsible for the operation and control of the pace car(s). At the discretion of the Chief Steward, a safety car may be used to control the field in emergency situations and provide for expeditious restarts. The safety car driver and communicator /observer shall be approved by the Chief Steward. The driver shall be a current or previous National license holder or have other qualifying experience. No car shall pass the safety car unless directed to do so by an official in the safety car. In the event the safety car is not dispatched in front of the lead car, the official shall wave cars by until the leader is behind the safety car. Any car passing the safety car without being directed to do so may be black flagged, penalized per Section 14, or both. The safety car, emergency lights flashing, shall proceed at steady, reduced speeds appropriate to track conditions and gathering the field. The field shall follow the safety car in a safe and sportsmanlike manner, evenly spaced in single file, allowing sufficient racing room for fellow competitors. The lead car shall keep pace with the

safety car and shall not balk the field. The safety car shall maintain the established pace and exit the course, lights out, prior to the restart. Drivers shall maintain the pace established by the safety car and shall not improve their positions or begin racing until the green flag has been displayed and the race restarted.

9.2.2 Procedure

When the double yellow is displayed, drivers shall make every effort to safely catch the field and form up behind the Pace (Safety) Car or race leader. Drivers of cars that are disabled or cannot keep the pace should not hold up the field. These drivers shall signal that their vehicle is disabled by raising an arm, pulling to the side of the course, and staying well off the racing line. Other drivers may safely pass the signaling vehicle. Drivers of disabled cars should seek assistance at the nearest corner station or pit at the first opportunity. All cars shall pass the incident area well under control and in single file.

9.3. RAIN RACING PROCEDURE

If a race is started in the dry, and it starts to rain on all or part of the course, the Chief Steward may use the following procedure: If the race has covered half distance or more, it may be stopped with the checkered flag at any time. If the race has not reached half distance, the black flag "ALL" procedure shall be used to bring all cars into the pits, and fifteen (15) minutes will be allowed for installing rain tires if the driver elects to do so. At that time cars shall be restarted in single file in the positions that they had the lap before the black flag was displayed.

9.4. FLAGS

9.4.1. The names and described flags below are used in racing to convey the commands or information indicated. They shall be obeyed immediately and without question. The directives of Section 9.4 shall not be amended by any event Supplemental Regulations.

9.4.2. Meaning of Each Flag

A. GREEN FLAG (Solid Green)

A race is under way the instant the green flag is displayed. This flag shall normally be in possession of the Starter only, and shall not ordinarily be displayed at the flag stations around the course. When displayed, the green flag indicates that the course is clear.

B. YELLOW FLAG (Solid Yellow)

STANDING YELLOW -- Take care, Danger, Slow Down, NO PASSING FROM THE FLAG until past emergency area.

WAVED -- Great Danger, Slow Down, be prepared to stop -- NO PASSING FROM THE FLAG until past emergency area.

DOUBLE YELLOW, DISPLAYED AT ALL STATIONS — Indicates the entire course is under a yellow condition. SLOW DOWN, NO PASSING. This flag condition may be used with or without a Pace (Safety) Car, including pace lap(s). Cars may carefully pass emergency vehicles. Cars may also pass other cars that are disabled and cannot keep the pace as signified by a raised arm on the part of the driver of the disabled car (see GCR 9.2.2.).

NOTE: A driver may encounter several flags before reaching the emergency area. The requirements are still the same "SLOW DOWN, NO PASSING."

C. BLUE FLAG (Blue with Diagonal Yellow Stripe)
Another competitor is following you very closely or is trying to overtake you. This flag may be displayed standing or waving, depending upon the speed with which you are being overtaken.

D. SURFACE CONDITION FLAG (Yellow with Vertical Red Stripes)
Take care. Oil has been spilled, or a slippery condition exists, or debris is present on the racing surface. This flag is displayed standing.

E. WHITE FLAG (Solid White)
Caution – you are approaching a slow moving race car (e.g., with mechanical trouble), ambulance, or other emergency vehicle on the racing surface. Take care. This flag shall be shown standing for two (2) flag stations prior to the vehicle. A standing white flag shall also be displayed during the first lap of a practice or qualifying session to indicate the location of the flagging stations.

F. BLACK FLAG (Solid Black)
CLOSED BLACK FLAG (Furled) Pointed or shaken at an individual car from the Starter's stand (optionally, accompanied by a number board indicating the car number): WARNING! You have been observed driving in an unsafe and/or improper manner. If the action continues, you shall be given an OPEN BLACK FLAG.

BLACK, OPEN - Displayed from the Starter's stand, and accompanied by a number board indicating the car number: Proceed directly to the pits and the location designated by the Chief Steward or event Supplementary Regulations for consultation with Officials. **DO NOT TAKE ANOTHER LAP. NOTE:** This flag and accompanying number board may be additionally

displayed at another station location elsewhere on the course.

BLACK, OPEN, DISPLAYED AT ALL STATIONS - The session has been halted. Practice/qualifying/racing has stopped and all cars shall proceed directly to the pits. This flag condition shall be accompanied by an 'ALL' sign displayed at the Starter's stand and the sign may be repeated at stations located elsewhere on the course. If the session/race is restarted, it is done under the provisions of GCR Section 7.7 "Restarts."

NOTE: THE BLACK FLAG CAN ONLY BE DISPLAYED BY ORDER OF THE CHIEF STEWARD AS RELAYED THROUGH RACE CONTROL.

G. MECHANICAL BLACK FLAG (Black with Orange Ball)
There is something mechanically wrong with your car. Proceed to your pit at reduced speed.

H. CHECKERED FLAG (Black and White Checks)
You have finished the race (or practice/qualifying session). Continue cautiously to the pits.

I. RED (Solid Red)
Displayed at each station and on the Starter's stand **- EXTREME DANGER - THE SESSION HAS BEEN STOPPED.** Come to an immediate, controlled stop at the side of the race track (indicated by an official at that location or as specified in the event Supplementary Regulations). When released by an Official, proceed cautiously to the pits.

NOTE: THE RED FLAG CAN ONLY BE DISPLAYED BY ORDER OF THE CHIEF STEWARD AS RELAYED THROUGH RACE CONTROL.

9.4.3. Lights Instead of Flags
The Supplementary Regulations shall state where on the course and for what purpose lights shall be used.

9.4.4. Stopping a Competition
When it is necessary to stop a competition, the Chief Steward may:

A. Order a Black Flag and an "ALL" sign to be displayed on the Starter's stand (this sign may be repeated at stations located elsewhere on the course) and a Black Flag to be displayed at all flag stations around the course. These flags shall inform all drivers that they shall stop racing immediately and proceed to the pits, exercising extreme caution.

B. Order a red flag to be displayed simultaneously at all

flag stations. Further instructions shall be conveyed by the Corner Officials. Once a red flag has been displayed, it shall not be withdrawn until all cars have come to a stop.

C. Order the Checkered Flag to be displayed to the lead car if fifty (50) percent or more of its scheduled time or distance has been completed.

10. PIT AND PADDOCK

10.1 RULES OF THE PITS

10.1.1 Pit Area Defined

The Supplementary Regulations for an event shall designate a hot pit area in which competing cars and their equipment and crews shall be placed during their assigned time to use the track for practice, qualifying, or racing ("track time"). This area shall be divided by a protective barrier into storage space for tools and equipment and "hot pits." The "hot pit" shall be the pit area in which the car itself is placed and which is part of or connects with the access road leading directly to the track.

There may be a definite place in the pits assigned by the Chief Pit Marshall, or selected with his or her assent, for the accommodation of each competing car's equipment and crew, and in which repairs shall be accomplished during track time. Fueling is not permitted in the hot pits or on the false grid unless authorized by the Supplementary Regulations or the Chief Steward.

10.1.2 Required Equipment

In the "hot pit" lane, fire extinguishers, with a nominal ten (10) pound dry chemical agent capacity having a minimum UL 60 BC or ABC rating, shall be placed at fifty (50) foot intervals along the pit wall. If the event calls for refueling stops during the race, each pit crew shall provide one (1), minimum ten (10) pound /60 BC or ABC rated fire extinguisher for their own use.

10.1.3 Number of Authorized Crew Members in the Pits

A car shall have a crew of no more than four (4) attendants in the pits in addition to the driver or drivers. This number may be modified by the Supplementary Regulations or at the discretion of the Chief Steward.

10.1.4 Authorized Personnel in the Pits

Any crew member in the pits shall be a member of the SCCA and hold an SCCA license. Minors sixteen (16) years of age and older may be issued pit credentials only if they hold the proper minor Crew License. All other persons under eighteen (18) years old, are prohibited from entering the pit area or any other hazardous area. Any known medical

condition (including pregnancy) which could affect medical fitness to perform the duties of a crew member may prohibit admittance to the pit area or any other hazardous area.

10.1.5 Control
Pit crews are at all times under the control of the Pit Marshall

10.1.6 Pit Barrier
Unless the car is actually in the hot pit, no one shall be allowed across the pit barrier, except that not more than two (2) crew members may do so for the purpose of signaling to the driver.

10.1.7 Overshooting the Pit
If a pit-bound driver overshoots his or her pit, the car shall either be pushed back into the pit by hand, or else continue for another lap. No car may be pushed back to the pit under conditions which would constitute a hazard.

10.1.8 Retiring to the Paddock
A car once moved to the pits shall remain there or on course during its track time. A car that enters the paddock during qualifying and subsequently re-enters the track shall forfeit any qualifying times recorded prior to re-entry. A car that is removed from the pits or course during a race is ineligible to return during that period of track time, except when provided for in the Supplementary Regulations or when approved by the Chief Steward.

10.1.9 Pets
Pets are prohibited in the pits.

10.1.10 Air Bottles/Gas Cylinders
All compressed air bottles/gas cylinders, with a pressure in excess of 200 psi, shall have a protective structure around their gauges and valves when in the pit/grid/pre-grid areas.

10.1.11 Riding on Vehicles
No one shall ride outside the cockpit area or on the bodywork of any automobile at any time, including victory laps.

10.1.12 Fueling of Vehicles
Fueling is not permitted in the pits or on the false grid unless authorized by the Supplementary Regulations or the Chief Steward.

10.2 RULES OF THE PADDOCK

10.2.1 Paddock Area Defined
Any area on the race track grounds where a car is located, other than during its track time is called the Paddock. If

possible, it will be delineated in the Supplementary Regulations and equitable amounts of space in it assigned to each competitor.

10.2.2 Pets

A pet may be in the paddock, provided it is enclosed in a vehicle or on a leash. When a pet is on a leash, it shall be controlled by an adult, and the leash may not exceed ten (10) feet in length.

11. TECHNICAL AND SAFETY INSPECTION

In order to enter the race course at any time during an event, a vehicle shall display a Tech Sticker signifying successful completion of technical and safety inspection as prescribed in the following sections. Passing safety inspection and receiving a Tech Sticker is an indication that the car is safe to go on course. It is not a certification of legality.

11.1. ANNUAL INSPECTION

A full and complete Technical and Safety Inspection shall be performed by a Licensed Scrutineer (Divisional/National) on each car once a year. The year shall be defined as the calendar year. If the car passes Tech, the logbook shall be stamped with the "official" inspection stamp, dated, and signed. Annual Tech may be performed in December of the preceding year.

11.1.1. Minimum Safety Inspection

Minimum Safety Inspection—Minimum inspection for each event thereafter shall consist of reviewing the Vehicle Logbook. If it is in order, a Tech sticker shall be issued.

11.1.2. Reinspection

A car shall be reinspected if damage or deficiencies from the car's previous event(s) are noted in the logbook or the car changes category. Inspection above the minimum level (see 11.1.1) may be performed on a vehicle whose logbook indicates no competition for three (3) months or more during the current year; or on vehicles as specified in Supplemental Regulations; or at the request of the Chief Steward. Throughout the racing season, the Tech crew is encouraged to perform regular reinspections through walk around observation in the pits and paddock, or through special impounds by group or class with the concurrence of the Chief Steward.

11.2. FULL INSPECTION

11.2.1. The points covered at Technical and Safety Inspection shall be:

A. Eligibility for class entered - compliance with the GCR and Specification Books. Each car shall have a

complete and up-to-date logbook. (See 17.3., Vehicle Logbook)

B. Appearance suitable for competition.

C. Appearance neat and clean. Specifically, cars that are dirty either externally or in the engine or passenger compartments, or that show bodywork damage, structural or surface rust, or that are partially or totally in primer, or that do not bear the prescribed identification marks shall not be approved for competition.

D. Tires - 120 mph-rated or better unless otherwise specified or controlled.

E. Brakes - Shall be pedal-operated, working directly on each wheel, and in good working order. Rolling brake tests are prohibited. ABS or Anti-lock braking systems are not allowed except in Showroom Stock and Touring. To satisfy this rule, the ABS shall be disabled by removing or disconnecting all of the wheel sensors.

F. Body Panels - Shall be securely mounted. Fender skirts and hub caps shall be removed.

G. Exhaust System - Shall be directed away from the body and shall terminate at or behind a point which is equidistant from the front and rear hubs.

H. Hood and Engine Compartment - Shall be securely fastened.

I. Suspension and Steering - Shall be of suitable design and in good working order. Four wheel steering is prohibited.

J. Leakage and Caps - There shall be no visible fluid leaks. Monza (flip-top) gas caps are prohibited.

K. Lights - Brake lights on cars so equipped and taillights on Formula cars shall operate properly.

L. Seats - Shall be securely mounted. (See Section 18., Roll Cage)

M. Seat Belts and Shoulder Harness - Shall conform to Section 20.

N. Passenger Seat Back - If a folding seat, it shall be securely bolted or strapped in place.

O. Roll Cage/Roll Bar - Shall comply with Section 18.

P. Tonneau Covers and Boot Covers - Shall be removed.

Q. Firewall and Floor - Shall comply with Section 17.21.

R. Mirrors - Shall provide driver visibility to the rear of both sides of the car.

S. Driver Safety Equipment shall comply with Section 17.23., Driver Safety Equipment. The scrutineer performing the inspection shall affix a dated, non-removable sticker or decal to helmets that comply with Section 17.23.2. This sticker or decal and the other drivers' safety equipment which must be worn may be checked by Grid or Scrutineering personnel on the starting grid.

T. Holding Tanks - Oil holding tanks and engine transmission breathers shall comply with Section 17.26., Oil Holding Tank and Breathers.

U. Wood rim steering wheels are prohibited.

V. The driver shall not be exposed to header tanks or unshielded fuel and water lines. "Aeroquip" lines are considered to be shielded lines.

W. Windows shall be clear or uncolored. Officials may require the replacement of windshields that are considered a safety hazard.

X. On all carburetors, (except SU, C and D Sports Racers with motorcycle-type carburetors and Formula 500 Mikuni VM38) with a non-threaded fuel inlet fitting, the fitting shall be replaced by drilling and tapping the carburetor body for a threaded fitting.

Y. Four wheel (All-Wheel) drive is prohibited except in Showroom Stock and Touring..

Z. Non-metallic wheel construction is prohibited. Non-metallic chassis construction is prohibited, except in ASR, CSR, DSR, S2000, and FA, where it is allowed.

AA. The mounts for video / photographic cameras shall be of a safe and secure design. The body of the camera (recording unit) shall be secured at a minimum of two (2) points on different sides of the camera body, neither of the attachments may be elastic or plastic. If a tether is used to restrain the camera, the tether length shall be limited so that the camera can not come in contact with driver. These rules of attachment do not apply to the remote lens of "lipstick" cameras, which weighs approximately 2 oz. The remote lens of these

cameras may be secured with items such as cable ties and racer's tape.

Helmet mounted cameras are prohibited regardless of size, weight, or location of camera on the helmet.

BB. Cool suits are allowed in all classes. Water tank mounts shall be of a safe and secure design. Showroom Stock and Touring cars shall meet minimum weight with the system totally removed.

CC. Data collection devices are considered to be instrumentation and are therefore allowed in all classes that permit the installation, replacement or addition of gauges, indicators or instruments.

DD. Traction control systems, as installed by the automobile manufacturer and unmodified, are allowed only in Touring, Showroom Stock and Improved Touring.

11.3. IMPOUND

A. Post-race impound is mandatory at all National Championship events and recommended at all other events.

B. It is recommended that there be at least one (1) nominal ten (10) pound dry chemical agent capacity, minimum UL 60 BC or ABC rated, CO2 or equivalent Halon fire extinguisher present in the impound area.

11.3.1. Minimum Impound Inspection

The first three (3) finishers in each class shall be immediately impounded for a minimum of thirty (30) minutes after the completion of each race, unless otherwise provided in the Supplementary Regulations. The Chief Steward may direct that additional finishers in any class be impounded immediately following a competition. It is the driver's responsibility to ascertain his or her finishing position and present his or her car to impound immediately, without going to the paddock, if among the top three (3) in class. Failure to do so promptly may result in a penalty. Each impounded car shall be given an inspection that shall, at minimum, include verification of conformity to the minimum weight and track dimensions where applicable for the class. During the weighing, if there is any doubt about the weight, the car shall be weighed in both directions. If there is any other doubt about the car's conformity to the rules, any appropriate methods may be used by the Technical Inspector to determine the car's legality.

11.3.2. Impound Waiver

A waiver of appearing at post-race impound may be implemented at non-National Championship events in

the presence of the Chief of Tech prior to the race with the approval of the Chief Steward.

11.3.3. Official Scales

A. The scales at the event are the official scales for the event. The times when they are available shall be published in the supplemental regulations so drivers may compare their car's weight to the official measurement.

B. Individual scale pads that weigh a single wheel are preferable. Platform scales, or individual scales that weigh one axle (two wheels) at a time, are acceptable. Scales or test weights shall be certified.

11.3.4. Certification

The scales shall be certified by:

A. On-site certification by a commercial scale service within ninety (90) days prior to the event, **OR**

B. Use at the track of certification weights, minimum 250 pounds total for individual wheel scales and minimum 750 pounds total for platform scales.

11.4. MEASUREMENT STANDARDS

The following specifications shall meet the standards set below unless otherwise specified or unrestricted in the individual category or class preparation rules. Any specification not listed herein shall meet stock factory specifications unless otherwise specified or unrestricted in the individual category or class preparation rules. Absolute maximum means tolerances of +0.000 inches or +0.00 millimeters. Absolute minimum means a tolerance of -0.000 inches or -0.00 millimeters. Measuring devices available to scrutineers differ from location to location so it is the responsibility of the driver to insure that measurements comply with these rules.

1. Weight is absolute minimum.
2. Track is absolute maximum.
3. Rim width is absolute maximum.
4. Wheelbase has a tolerance of +/- 1"
5. Valve size is absolute maximum.
6. Throttle bore and/or venturi size is absolute maximum.
7. Drum brake size is nominal i.d. plus manufacturer's "turning" tolerance.
8. Disk brake rotor diameter has a tolerance of +0.1".
9. Engine cylinder bore is absolute maximum before allowable overbore.
10. Engine stroke length is absolute maximum.
11. Valve lift is absolute maximum.
12. Compression ratio is absolute maximum

12. SOUND CONTROL

12.1. GENERAL

This Section shall establish SCCA test procedures, instrumentation, and environmental requirements for determination of race vehicle sound emissions.

Competitors carry sole responsibility to determine that their vehicles comply with Sound Control Regulations at each event. Mufflers may be required.

Sound Control will be in effect for all events. All cars will be monitored and readings will be posted for competitors' information. A driver registering a single sound level reading over 103dB shall not be black flagged. If a driver is black flagged due to sound, the car shall not re-enter the course until corrective steps are taken.

1. The Chief Steward need not seek out and advise each individual competitor of his violations of the sound levels. However, the Chief Steward shall ensure that a competitor can determine his sound readings after each session at the place established via the Supplementary Regulations or other official notification. Competitors will use these readings to monitor their legality.

2. The Sound Control Chief, and/or Team, may offer advice to the competitors. This advice, however, shall be in no manner construed to imply that said suggested corrective action(s) absolves competitor from complying.

3. Vehicle sound emission is not a constant factor which can be trimmed to barely legal (in the manner of engine displacement or vehicle weight); sound emissions may vary significantly from morning to afternoon, and day-to-day; therefore, the competitor is advised to target his sound level at least 2 or 3 decibels under the limit to allow for meteorological variations.

12.2. STANDARDS

The primary standard for SCCA Sound Control shall be a sound pressure level of 103db "A" frequency weighted (dba) measured on the fast response setting at 50 feet (+/- 2 feet) from the edge of the track pavement, and/or artificial markers indicating track edge.

12.3. EQUIPMENT

1. A sound level instrument (meter) which meets American National Standards Institute (ANSI) Specification S1.4-1971, Class 2, Type S2A or better, and provides the following features:

A. Demountable microphone

B. Fast response (not peak)

C. "A" frequency (scale) weighing

D. Max. (maximum) hold

E. General accessories shall include:

1. Tripod

2. Microphone cable for remote operation, fifty (50) foot minimum

3. Operating Manual

4. Infield calibrator

2. Weather (meteorological instruments to support sound readings):

A. Barometer, capable of reading 0.1 inches of mercury (recommended).

B. Thermometer, accurate to +/- 1 degree Fahrenheit (wet bulb thermometer recommended).

3. General equipment

A. Tape Measure, fifty (50) foot minimum

12.4. MEASUREMENTS

The SCCA Sound Control criteria is a composite of Federal Standards and the Society of Automotive Engineers' specifications.

1. GENERAL: Proper location and use of all test instrumentation is essential to obtain valid measurements. Operating Manuals or other Manufacturer's literature should be referenced for both recommended operation and precautions to be observed.

2. TECHNIQUE:

A. Acoustic calibration procedures should include extension cable influence.

B. Field calibration shall be done at least every four (4) hours while in the operating mode.

C. Weather conditions should be recorded every hour when conditions are unstable, or otherwise every two (2) hours.

12.5. MICROPHONE

1. The microphone shall be:

   A. 3.5 feet (minimum) above the ground surface.

   B. 2.0 feet (minimum) above the level of the roadway.

   C. No more than 6 feet above the level of the roadway.

   D. Two hundred (200) feet or more away from any tunnel or overpass through which the target vehicle passes.

2. The microphone shall be mounted on a tripod, remote from the sound meter, using at least fifty (50) feet of cable.

3. Whenever possible it is recommended (but not mandatory) that the microphone shall be located on the outside of the track between race car and outside perimeter of the racing facility, aimed into infield areas.

13. PROTESTS

13.1. WHO MAY PROTEST

The right to protest shall rest with any entrant, driver, organization, or official taking part in the competition in question. Each, alone, may protest any decision, act, or omission of the organizers, an official, entrant, driver, or other person connected with the competition, which the protestor believes is in violation of the GCR, the Supplementary Regulations, or any conditions attached to the sanctioning of the event by SCCA (hereafter in this section collectively referred to as "the rules"). A protest against a car is also a protest against its driver and entrant.

13.2. LODGING A PROTEST

A protest shall be made in writing, specifying which sections of the GCR or other applicable rules are alleged to have been violated, and signed by the protestor. It shall be addressed to the Chief Steward and delivered to him in person or to an Assistant Chief Steward at the control point for the race. It shall be promptly forwarded to the Chairman of the SOM.

13.2.1. Protest Fee

The protest shall be accompanied by a protest fee of $50 ($25 for Regional Races and Driver's Schools).

13.3. Time Limits

A. The SOM may extend these time limits in exceptional cases where the protestor can demonstrate that evidence pertinent to the protest was not available within the time limit, or where the protestor can demonstrate he or she was unable to meet the deadline due to circumstances beyond his or her control. A protest against the validity of an entry or qualification and conformity to the rules of an entrant, driver, or car shall be lodged no later than one hour before the start of the race segment of a competition.

B. A protest against any driver's action or other mistake or irregularity occurring during a competition shall be made within thirty (30) minutes of the conclusion of the competition.

C. A protest against a starting position or handicap shall be made within thirty (30) minutes of announcement of starting position or handicaps.

D. A protest against the results of a competition shall be made within thirty (30) minutes of their posting.

E. A protest against a Race Official shall be made within thirty (30) minutes after completion of the competition or notification of Official's Action.

F. Any action initiated by the Chief Steward shall be received by the SOM prior to thirty (30) minutes after the posting of the Results of the last race, except a Request for Action resulting from a post-race inspection. Such Requests shall be made within a reasonable time after discovery of the suspected violation of the rules.

13.4. PROTESTS AGAINST CARS

Entrants or drivers taking part in a competition (See 2.13., Competition, for definition) may protest a car in the same competition for not conforming to the rules. The protestor may request that the car be disassembled, inspected, or any other test made, provided he or she posts a bond with the SOM sufficient to cover the total expenses of disassembly, inspection, and reassembly. A protest may be reduced in scope but not added to at the time the bond is set. Once a bond is posted, the stipulated inspections shall be completed, unless the protest is wholly or partially withdrawn by the protestor. The SOM shall apportion the costs incurred, including reassembly, up to the point of withdrawal, provided no illegality has been discovered.

In the event a car is found in non-compliance, a claim that the non-compliant item(s) offer no performance advantage shall have no influence on any ruling.

13.4.1. Establishment of Bond

A. The bond shall be established by the SOM after consulting separately with the protestor and the protestee, and with the Chief Technical Inspector, and any other experts whose advice the Stewards believe shall be useful.

B. Items covered by the bond may be priced individually, with consideration given to possible logical linking of some items. This cost schedule shall be set up prior to initiation of the inspection. The bond may be awarded after tear down on a predetermined apportionment basis. Apportionment of the bond after the fact is not permitted, except where the protestor has withdrawn all or part of the protest.

C. The bond shall be by cash or check.

D. Where the circumstances warrant, the SOM shall require the protested party to post bond and/or sign a repair order with a service establishment to cover the costs of disassembly and inspection. The bond shall be established in the same manner as a protestor's bond.

E. In the event of a protest involving verification of camshaft specifications, the SCCA Club Racing Department offers verification services for protest and/or compliance resolution according to the following requirements:

1. A complete description of the vehicle/engine combination should be included (i.e. make, model, year, VIN #, engine code, displacement, etc.).

2. A known stock example of the camshaft in question must be included with the protested camshaft. The sample cam must be of the same make, model and year of the protested camshaft.

3. An accurate description of the intake and exhaust valve arrangement relative to the #1 cylinder is required (i.e., EX / IN, EX / IN, EX / IN, EX / IN).

4. The engine firing order and crankshaft rotation direction is required. **NOTE:** For camshaft testing purposes, crankshaft rotation is determined by looking at the front of the engine, NOT from the driver's seat.

5. The cost for each camshaft test is $100. Provisions for shipping to and from the national office should be included in the bond.

6. Upon receipt of the above information and samples,

a complete camshaft comparison will be produced within 5 working days. This information will be conveyed to the Chairman SOM directly via fax or mail.

13.4.2. Conduct of Inspection
The inspection and/or disassembly shall be conducted under the supervision of the SOM. They shall determine which portions of the inspection and/or disassembly, if any, may be observed, and by whom. Any additional item(s) found during the inspection shall be forwarded to the Chief Steward.

13.4.3. Refusal to Allow Inspection
Refusal of an entrant or driver of a protested car to allow inspection under the terms established by the SOM shall result in immediate disqualification, six (6) month suspension, and a two hundred fifty dollar ($250) fine. (See 14.14.4.)

13.4.4. Disposition of Bond
If the car conforms to the rules, the protestor shall forfeit the bond. If the car does not conform to the rules, the protestor's bond shall be returned, and the protested party shall stand the expenses. Awarding of the bond on a predetermined apportionment basis is permitted.

13.4.5. Time of Disbursement of Bond; Appeal Escrow
The tear down bond shall be sent to the Manager of Club Racing to be held in escrow until the time limit for appeal has passed, an appeal has been rejected (See 15.5., Decision to Hear Appeal), or an appeal has been finally decided by SCCA.

13.4.6. Preservation of Evidence
Any recorded evidence such as technical data or inspectors' reports or measurements shall be forwarded to the Club Office with the tear down bond (See 13.3.4.). The Chairman SOM shall accept any parts tendered by the owner for safekeeping pending appeal. The SOM shall have the authority to impound parts.

13.5. HEARING A PROTEST
The SOM shall hear the protest as soon as practical after the protest is lodged. All parties concerned shall be given adequate notice of the time and location of the hearing. They shall be entitled to call witnesses, but shall state their cases in person. In the absence of a party, judgment may go by default. Each party or witness shall be heard separately and in private. If judgment cannot be given immediately after the hearing, all parties shall be informed of the time and method by which the decision shall be conveyed. Anyone who has filed a protest, been protested or is the subject of a Chief Stewards action shall remain

until a ruling has been issued, or until expressly released by the Chairman SOM.

13.6. DISTRIBUTION OF AWARDS

1. Distribution of awards shall commence after the period for receiving protests has elapsed. When a protest which would affect distribution of awards has been lodged, distribution shall be withheld until the protest has been settled. The SOM, if notified of an intention to appeal their decision, shall order awards, which may be affected by the outcome of the appeal, to be withheld pending the decision of the Court of Appeals.

2. Pending the decision of the Court of Appeals, the results of the competition shall be considered Provisional.

13.7. JUDGMENT

All parties concerned shall be bound by the decision given, subject only to appeal as provided in Section 15., Appeals.

13.8. REASONABLENESS

It is expected that protests shall be reasonable, logical, and based on sound evidence, thus well-founded. A well-founded protest shall further be defined as one upon which reasonable men or women may differ. A protest may be well-founded even if not upheld.

13.8.1. Forfeiture of Protest Fee

If a protest is judged to be not well-founded, the protest fee shall be forfeited.

13.8.2. Vexatious or Bad Faith Protests

A protestor who has acted in bad faith or in a vexatious manner may be penalized by the SOM.

13.9. RULES INTERPRETATION

To obtain a determination on the legality of a vehicle or component, without filing a formal protest, a competitor may request such a ruling from the Club Racing Office. The Chairman of the Stewards Program will then convene a first court. Their decision would then be reviewed by the Court of Appeals. The fee for this service is $250. A portion of this fee may be refundable at the discretion of either or both courts. Penalties or penalty points will not be assessed in the event of a negative ruling.

14. PENALTIES

All participants shall be subject to control by SCCA, the organizing SCCA Region, other organizers, and all appointed officials of the event. (See 2.21., Participants)

This Section provides the penalties for violation of the GCR and the Supplementary Regulations.

14.1. BREACH OF THE RULES

In addition to any other offenses or violations of specific rules, each of the following shall be deemed a breach of the GCR.

1. Bribery or attempt to bribe anyone connected with the event; and the solicitation of, acceptance of, or offer to accept a bribe.

2. Any action having as its objective participation in a competition of a person or car known to be ineligible or not properly entered or credentialed.

3. Any fraudulent proceeding or act prejudicial to the interests of the SCCA or of car racing generally.

4. Reckless or dangerous driving, either on course or in the pits and paddock.

5. Failure to obey a direction or order of an Official.

6. Refusing to cooperate with, interfering with, or obstructing the actions of the Chief Steward, the SOM, other Courts, or Court of Appeals in the performance of their duties.

7. Unsportsmanlike conduct.

8. Physical violence towards any other participant or spectator at the event.

14.2. WHO MAY BE PENALIZED

Any organizer, entrant, driver, crew member, official, worker, guest of the above, or SCCA member may be penalized.

14.3. HEARING

No penalty shall be imposed by the SOM except after a hearing that follows the procedures set out in 13.4., Hearing Protest, whether the matter is brought to the attention of the SOM by Protest or by a Chief Steward's Request for Action (See 6.11.4., Request for Action).

14.4. IMPOSITION OF PENALTIES

14.4.1. Penalties

The penalties in increasing order of severity are:

A. Fine ($1-$99) (15.6., 6.11.3.)

B. Reprimand (14.5.)

C. Loss of event points (14.7)

D. Fine ($100-$249) (14.6)

E. Fine ($250) (14.6.)

F. Probation of competition privileges (14.9.)

G. Time, Lap, or Position (14.7.)

H. Disqualification from competition (6.11.3., and 14.8.)

I. Suspension of competition privileges (14.10.)

J. Loss of accrued points (14.11.)

K. Expulsion from SCCA (14.12.)

14.4.2. Multiple Penalties
Multiple penalties may be imposed. Consecutive penalties may be imposed (i.e., two thirty (30) day suspensions, total sixty (60) days; two (2) months' suspension and six (6) months' probation). Both suspension and probation, each for the maximum allowable term, may be imposed for a single violation.

14.5. REPRIMAND
A reprimand against an SCCA driver shall be noted in his or her license file.

14.6. FINE
A fine of up to $250 may be imposed. Fines shall be in whole dollar amounts only. Outstanding fines (in excess of $250) are appealable to the Board of Directors.

14.7. TIME, LAP, Event Points, OR POSITION
Penalties expressed as loss of time, loss of completed laps, loss of event points, or loss of finishing position may be imposed.

14.8. DISQUALIFICATION
Disqualification from competition (GCR Section 2.13.) may be imposed on an entrant, driver, or car.

14.9. PROBATION
Probation is effective immediately. However, the designated probation period does not begin until the competition license, as well as any imposed fine, is received by the Chairman SOM or the National Office. Probation may restrict the driver to competing in his or her division, restrict the driver to certain types or level of events, require the driver to perform specified event related activities, or

require the driver to attend an SCCA Driver's School. The driver shall be required to notify the Chief Steward at any event he or she participates in, prior to his or her first on track session, that he or she is on probation. Failure to do so is a violation of probation. (See 14.9.3., and 5.15.)

14.9.1. Term of Probation

Probation may be for up to six (6) months, except that up to ten (10) months may be imposed between September 1st and September 30th, and nine (9) months may be imposed on or after October 1st, or a specified number of events.

14.9.2. Notice of Probation

Verbal notice shall be given by calling the Club Racing Department on Monday following the event to notify them of any drivers who have been placed on probation at the event. Written notice shall be provided by including the confiscated license and tear-off coupon from the probation letter with the Observer's Report from the event which will be mailed to the SCCA within ten (10) days of the event. (6.10.1)

14.9.3. Violation of Probation

Failure to comply with the terms of probation may be the basis for further penalties by a First Court appointed for the purpose of hearing the violation, by a Court of Driver Review (See 4.8., Driver Review), or by the SOM at the event where the violation occurs.

14.10. SUSPENSION

Suspension of SCCA licensed privileges may be imposed for up to twelve (12) months. When a penalty of suspension is imposed, the license holder shall immediately surrender his or her license to the Chairman of the Court. While the suspension is effective immediately, the designated suspension period shall not begin until the receipt of the surrendered license by the Chairman of the Court or the National Office and the payment of any fines imposed.

A member whose license has been suspended by Club Racing shall not participate in a Club Racing event using any other grade or form of license.

In addition to suspension of competition privileges, a competitor, in cases where the vehicle is found to be mechanically illegal, will have the infraction noted in the vehicle logbook.

14.10.1 Notice Of Suspension

Verbal notice shall be given by calling the Club Racing Department on Monday following the event to notify them of any drivers who have had their competition privileges suspended at the event. Please supply the name of the member, membership number, event date/location where

suspension occurred and Chairman, SOM's name. Written notice shall be provided by including the appropriate paperwork and the suspended competition license with the Observer's Report from the event which will be mailed within ten (10) days of the event. (6.10.1)

14.11. LOSS OF ACCRUED POINTS
Loss of accrued points may be imposed.

14.12. EXPULSION
Expulsion from the SCCA may be imposed as provided by the SCCA bylaws.

14.13. LOSS OF AWARD
Any entrant or driver who is disqualified in any competition shall automatically forfeit all rights to awards in that competition.

14.14. AUTOMATIC PENALTIES

1. Penalties assessed by the Stewards of the Meeting or the National Court of Appeals will accumulate points resulting in automatic probation or suspension.

   A. Reprimand (Ref. 14.5.) -1 point
   B. Fine (Ref. 14.6.) - $1 - $99 no points
      $100 - $249 1 point
      $250 or more 2 points
   C. Time, loss of lap or finishing position (Ref. 14.7.) - 3 points
   D. Probation of SCCA competition privileges (Ref. 14.9.) - 3 points
   E. Disqualification from competition (Ref. 14.8.) - 4 points
   F. Suspension of SCCA competition privileges (Ref. 14.10.) - 6 points
   G. Loss of accrued points (Ref. 14.11.) - 7 points

2. When multiple penalties result, from a single action, only the most severe penalty will accumulate points. Accumulation of eleven (11) points in a consecutive three (3) year period will result in "Probation of SCCA Competition Privileges" for six (6) months or six (6) events (to be determined by the Executive Steward). Accumulation of fifteen (15) points in a consecutive three (3) year period will result in "Suspension of SCCA Competition Privileges" for six (6) months. The imposition of either of the two (2) penalties, probation or suspension, will not result in additional points.

3. A Statement of Facts Affidavit shall be used ONLY if a competitor has received a current competition license from the Central Licensing Department and does not have it in his/her possession at the event. If

the Statement of Facts Affidavit cannot be verified by Central Licensing, the competitor shall receive an automatic penalty consisting of disqualification from the event and a sixty- (60) day license suspension. The imposition of this penalty may be appealed.

4. Refusal to permit disassembly (tear down) in a Protest/Request for Action is an automatic penalty of disqualification, six (6) month suspension, and two-hundred-fifty dollars ($250.00) fine.

14.15. AMENDMENT OF RESULTS

When an entrant or driver is disqualified, the Stewards of the Meeting shall advance the subsequent competitors in the finishing order and advise the Chief of Timing and Scoring of any consequent amendment to the results.

14.16. PUBLICATIONS

The SCCA shall have the right to publicize a notice that any person, organization, or car has been penalized and the reasons for the action. Any person or organization referred to in the notice shall have no right of action against SCCA or against any person for publishing such notice or for its contents.

15. APPEALS

15.1 RIGHT TO APPEAL

Any person, entrant, or organization named as a party to a protest or Chief Steward's Request for Action, shall have the right to appeal any decision or penalty imposed by the Stewards of the Meet (SOM). In addition, the Chief Steward of the event shall have the right to appeal any decision or penalty imposed.

15.2 JURISDICTION

The Chairman of the Board of Directors, SCCA, Inc., will appoint a three (3) member Court of Appeals each year to review and render a final decision on any appeal filed under this section. It is the intent of these provisions to provide for resolution of differences before a Court composed of individuals with individual and collective expertise in racing matters.

15.3 JURISDICTION OF THE FIA

A right to appeal to the FIA shall be recognized only if the dispute in question arises from competition listed on the FIA calendar, and if the appeal is brought before the ACCUS.

15.3.1. International Events

ACCUS has delegated to SCCA the authority to establish Courts of Appeal to settle disputes arising from International events sanctioned by SCCA.

15.3.2. Full International Events

ACCUS will establish Courts of Appeal to settle disputes arising from Full International Events.

15.4. APPEALING AN ADVERSE RULING

An appeal permitted under the GCR shall be started by filing a written notice of appeal with the SCCA, Inc., at its headquarters, or as provided in section 15.4.3. The notice of appeal shall specify the party making the appeal, shall state the decision or portion thereof appealed, shall explain the reason or reasons why the appeal should be decided in their favor, shall include all information the appellant wishes the Court to consider, and as applicable, which part(s) of the GCR, Category Specifications and/or Supplemental Regulations of an event, are considered to have been enforced in a manner that was not fair or equitable to the appellant. The Notice of Appeal shall be U.S. Government postmarked or registered with a carrier service (i.e., UPS, Federal Express, etc.) within ten (10) days after the announcement of the decision being appealed has been given to the appellant and shall include the appropriate appeal fee of $125.00, payable to SCCA, Inc. A minimum of $50.00 of the appeal fee will be retained by the SCCA on all appeals that are filed, unless otherwise determined by the Court of Appeals. An appeal properly started may be withdrawn, without penalty, by written notice to the SCCA, Inc., prior to start of the review of the appeal by the National Court of Appeals. Review of the appeal shall have started when members of the Court have physically received copies of the appeal and begin review at a regular session of the Court.

15.4.1. Fines, Licenses, Financial Obligations

Fines imposed by the SOM, Chief Steward and/or suspended licenses shall be received by SCCA, Inc., before an appeal will be heard. When a Letter of Probation is issued, the competition license also must be surrendered to the SOM or Chief Steward, and then forwarded to SCCA, Inc. Any appeal received by SCCA, Inc., will not be heard until said license is received by SCCA, Inc. Any other financial obligation owed SCCA, Inc., or any of its chartered Regions, and duly reported to be in arrears to SCCA, Inc., shall be received by SCCA, Inc., before an appeal will be heard.

15.4.2. Stay of Decision

An appeal filed on a penalty rendered by the SOM or other Court involving either a suspension of competition privileges or expulsion from the SCCA, will permit the appellant to enter and compete in subsequent races until the appellant's appeal has been decided and a decision announced by the Court of Appeals. The results and awards from these races shall be considered Provisional until the Court's ruling upholds or overturns the suspension or expulsion, at which time the Provisional Results and

awards will be considered Final and Official. If the Court of Appeals ruling upholds the suspension or expulsion, the awards won by an appellant in races while awaiting the Court of Appeals ruling will be considered null and void. Race results for those events will be revised to entirely remove the appellant's name, and other information, from the Final and Official Results.

15.4.3. Dual Sanction Weekends

On a dual event weekend, (i.e., where more than one sanction number has been issued by Club Racing; Double Regional, National, Regional/National, or any other combination permitted), a party who has had their competition privileges suspended (per GCR 14.10.) may, by filing a Notice of Intent to Appeal together with the appeal fee with the Chairman of the Stewards of the Meet (SOM), be allowed to compete in the other event that weekend that is being conducted under a different sanction number than the one where the party was suspended. The notice of appeal shall be filed within ten days of the date the decision of the SOM was given to the appellant. THIS APPEAL CANNOT BE WITHDRAWN. The party may compete in subsequent events until the Court of Appeals renders its ruling. On a single event weekend, if a competitor's competition privileges are suspended by the SOM, that competitor is prohibited from further competition activities during that event from the time the decision is rendered. A notice of an Intent to Appeal at a single sanctioned event may not be accepted by the SOM for any reason at any time.

15.4.4. Well Founded Appeals

For an appeal to be considered well founded, it shall be based on sound evidence. Reasonable people may differ on the interpretation of the evidence. An appeal may be determined to be well founded even if the decision of the first Court remains unchanged by the Court of Appeals.

15.5. HEARING APPEALS

All properly filed appeals (per GCR 15.4.) shall be heard by the Court. The Court will review the SCCA Official Observer's Report, the Notice of Appeal, containing <u>all the evidence</u> the appellant wishes the Court to consider; and will make any other inquiries it feels warranted, before making its decision. It may, at its discretion, require the appellant to submit any additional evidence it deems necessary for an equitable decision; hear directly evidence from any person deemed to have pertinent information or necessary data prior to making a decision; permit other parties to the decision under appeal to make written comments on the appellant's Notice of Appeal; and/or seek information from any source it desires. The Court of Appeals shall make every effort to make its final decision and render a decision on the appeal, within (30) days of its receipt of the Notice of Appeal.

No member of the Court shall have taken part as a competitor or Official in the event in which the Court will render a decision, or shall have been directly or indirectly interested or involved in the matters under consideration. The Court shall determine the procedure for hearing an appeal which procedure shall not be subject to appeal.

15.6. JUDGMENT OF THE COURT OF APPEALS

After considering all material it deems relevant, the Court of Appeals shall meet privately, reach its decision, and prepare a written opinion. It may decide that the penalty or other action of the SOMs or other body appealed from should be nullified, mitigated, affirmed, increased, or a different penalty imposed, but it shall not order a competition to be re-run. The Court of Appeals may order a rehearing by the original SOM committee at the Court's discretion. Penalties imposed by the Court of Appeals shall incur automatic penalty points outlined in 14.14.1. The Court may order the return or forfeiture of appeal fees or of stay bonds. The Court shall direct the disposition of protest fees and teardown bonds, if any, in those cases where the original Court's decision is nullified or otherwise changed. The Court's decision shall be final, binding and not subject to further appeals by any other party, either within the SCCA organization or outside the Club.

15.7. PUBLICATION AND EFFECT OF DECISION

SCCA, Inc. will distribute a copy of the final decision of the Court to all parties of the appeal as soon as possible after the decision becomes final and will use its best efforts to publish said final decisions as soon as possible after finalization. Persons, entrants, or organizations referred to in each said decision shall have no right of action against SCCA, Inc., or any person publishing such notice, and said decision shall be final and binding. Any penalty of the Court shall be effective immediately or as stated in its decision. Penalties involving time, disqualification, suspension, or loss of points shall be made effective from the date of the conclusion of the event involved.

15.8. BAD FAITH APPEALS

If the Court determines that the appellant has acted in bad faith or in a vexatious manner, it may deem such conduct a breach of the GCR and impose any penalty listed in section 14., for said breach.

15.9. APPEALS AFFECTING FINAL POINTS STANDINGS

For all National Races held less than 31 days prior to the commencement of the Runoffs, any appeal affecting the National Championship points standings within a division, including all evidence, must be received in the National Office within 48 hours after either the receipt of a judgment issued by the Stewards of the Meet or the completion of the event, whichever comes last. Runoffs invitations to all

parties named in or affected by the appeal will be held until the appeal has been finalized. An " Intent to Appeal" will not be accepted. This rule shall supercede any other time allowances for filing an appeal.

16. NATIONAL CHAMPIONSHIP RACING

16.1. REQUIRED PROCEDURES

16.1.1. Duration of Races
To be counted for National points, a race shall be scheduled for a number of laps equaling at least forty-five (45) miles. The SOM may reschedule all or any of the races to thirty (30) minutes if conditions so require.

16.1.2. Practice/Qualifying
There shall be at least forty-five (45) minutes in total of practice and/or qualifying time available to each class. All cars entered in the event shall practice and qualify by race group. Each competing driver/car combination shall qualify within a maximum of 120% of the qualifying time of the fastest qualifier in his or her class in order to be permitted to start the race unless waived by the Chief Steward. Each group shall have at least two (2) sessions. Qualifying shall be in race groups. National practice may be combined with Regional practice and qualifying. National qualifying shall not be combined with Regional practice or qualifying.

16.1.3. Official Times

A. At all National Championship events, grid positions shall be determined by official qualifying times certified by the Chief Timer. See 7.1.5., Starting Positions, and 7.1.6., Over Subscribed Classes.

B. Any other method of determining starting position shall be described in the Supplementary Regulations and approved by SCCA.

16.1.4. Combining Professional and National Races
Whenever Professional races are combined with National races at the same event, absolute conformity to the National Championship race requirements shall be maintained.

16.2. DIVISIONAL CHAMPIONS

The SCCA shall designate a champion in each division for each class of car eligible to compete in National Championship events. Winners of these championships shall be designated Northeast, Southeast, Central, Midwest, Southwest, Northern Pacific, Southern Pacific, and Rocky Mountain Division Champions in each class.

16.2.1. Divisional Championship Points
Championships shall be determined annually on the

basis of a driver's accumulation of points earned in his or her best performances in a maximum of six (6) National Championship races. No more than two (2) races shall be outside the division in which the driver's Region of Record is located.

16.2.2. Ties

Ties in the final point totals shall be resolved on the basis of each driver's record of first place finishes; then if necessary, second place finishes; then if necessary, third place finishes, including those finishes in excess of a driver's best six, if any. If two or more drivers have accumulated the same number of first, second and third place finishes in the races counted, they shall be considered tied for the position in the standings.

16.2.3. Point Awards

Points in SCCA National Championship events shall be awarded to all finishers through 9th place as follows:

POSITION	POINTS
1st	12
2nd	9
3rd	7
4th	6
5th	5
6th	4
7th	3
8th	2
9th	1

16.2.4. Dead Heats

In the case of a dead heat for any position, the total points involved based on the number tied shall be divided evenly among those tied. Example: If the dead heat is for second place involving two cars, the points from second and third place shall be added together and divided by two to obtain the points awarded for a dead heat for second place. Eight (8) would be the number of points awarded each driver; there would be no third place points awarded in that event. Points shall continue starting with fourth place, etc.

16.2.5. Points Awarded Only to One Driver

Points shall be awarded to one driver per car placing in one predesignated competition per championship event. When more than one driver competes in a given car, neither shall be awarded points.

16.3. DRIVER'S DIVISION

16.3.1. Region of Record

If an SCCA driver is a member of only one SCCA region, that region shall be the driver's Region of Record. If an

SCCA driver belongs to more than one SCCA region, the driver shall designate one region as the Region of Record.

16.3.2. Division of Record
A driver's division shall be determined by his official Region of Record as recorded in the membership files at the SCCA National Office.

16.3.3. Change of Division
Change of Division of Record shall be **PRIOR** to the conduct of the third National in **EITHER** incoming or outgoing division, whichever is earlier. A driver desiring to change their division for the purpose of accumulating National Championship points is responsible for notifying the Manager of the Membership Department, in writing, and shall also provide written confirmation of membership in a region in the division to which they are transferring.

Such notification and confirmation shall be received, in writing, by the Manager of the Membership Department at the National Office, prior to the conduct of the third National Championship event in **EITHER** incoming or outgoing division. It is the responsibility of the driver to initiate action to ensure such notification and confirmation reaches the Club Racing Division of the National Office.

16.3.4. Points in One Division
A driver entering more than one car shall accumulate all National Points in the same division and shall not accumulate points with one car in one division and another car in another division.

16.4. INTERDIVISIONAL CHAMPIONSHIP EVENT
SCCA shall schedule an event each year titled the **SCCA RUNOFFS®**. The winner of each class in the **SCCA RUNOFFS®** shall be designated the National Champion in that class.

Supplementary Regulations defining driver and car eligibility and other details of this event shall be published by the SCCA.

The 2005 Event date is September 19-25, 2005

16.4.1. Invitations to the SCCA Runoffs®
Invitations may be issued to the highest placing drivers in each class of the National Championship point series held in each division.

As a minimum, a driver shall have been classified as a starter in at least four (4) National Championship events, of which two (2) shall have been in his or her Division of Record, and a finisher in at least three (3) National Championship events, and qualifying in the same class (or classes) for

which their entry is accepted, but they may drive any car eligible for that class.

16.4.2. Defending National Champions
When determining the number of invitations to be issued for the **SCCA RUNOFFS®**, a defending National Champion will not be included in that count. Defending National Champions who do not qualify as an entrant to the **SCCA RUNOFFS®** the following year may be accepted as an entry in the same class under the following conditions:

A. Shall hold a current SCCA National Competition License.

B. Shall have been classified a starter in the same class during at least four (4) National Championship events during the year.

C. Cannot bump anyone from the field of starters who is an accepted entry.

D. May not participate in the **SCCA RUNOFFS®** Travel Fund distribution, unless otherwise qualified.

16.4.3. Late Entries

A. Entries shall be postmarked with a US Government Postmark by a date announced annually by the SCCA.

B. An entrant who fails to file an entry application to the SCCA by the required date may apply for a late entry to the Club Racing Department. The application shall be accompanied by a late fee, **NON-REFUNDABLE**, in the amount of five hundred dollars ($500.00), payable to SCCA, in addition to the normal entry fee.

C. The late entry applicant forfeits any claim he or she may have to participate in **SCCA RUNOFFS®** Travel Fund distribution or any contingency money that may be posted by the SCCA.

D. A late entry applicant cannot bump or otherwise change the status of an entrant who has entered on time and has been accepted. The decision on acceptance of a late entrant may be made on a date announced annually by the SCCA.

16.5. MINIMUM GRADES OF LICENSES

16.5.1. Drivers
National Championship races are open to holders of SCCA National Competition Licenses only.

16.5.2. Officials
See 6.2.2.A., Minimum Grades of Licenses.

16.6. MINIMUM PARTICIPATION LEVEL FOR NATIONAL CLASSES
See 17.1.10., National and Regional Classes

17. AUTOMOBILES

17.1. CLASSIFICATIONS
Descriptions of the automobiles eligible to compete in the various SCCA Club Racing competition events are carried in the GCR and category specification books. Their amendments and clarifications are published in SportsCar.

Organizers of SCCA Regional, National Championship, and Interdivisional Championship events shall provide competitions for the following classes and categories. Note: ( ) Indicates identification markings per 17.5.

Note: Classes such as Improved Touring, Super Production, Formula S, Legends, etc.; have been, created for competitors to race at a Regional Competition level. These classes will not be eligible for National Competition as they were created with the express understanding that they remain Regional Competition Classes only. There may be other classes added to this philosophy, as we require places for our members to race cars that do not fit within our National Competition program.

17.1.1. Production Category Classes:

E Production	(EP)
F Production	(FP)
G Production	(GP)
H Production	(HP)
Super Production	(SP) Regional Only

NOTE: Section 17.1.1., continues in the Production Car Specifications Book.

17.1.2. GT Category Classes:

GT-1	(GT1)
GT-2	(GT2)
GT-3	(GT3)
GT-*Lite*	(GTL)

NOTE: Section 17.1.2., continues in the GT Category Specifications Book.

17.1.3. Showroom Stock Category:

A	(SSA) - Regional Class Only
B	(SSB)
C	(SSC)

NOTE: Section 17.1.3., continues in the Showroom Stock and Touring Category Specifications Book.

17.1.4. Improved Touring Category Classes: (Regional Classes Only)

S (ITS)
A (ITA)
B (ITB)
C (ITC)

NOTE: Section 17.1.4., continues in the Improved Touring Category Specifications Book.

17.1.5. Sports Racing Category Classes:

A Sports Racing	(ASR) - Regional Class Only
C Sports Racing	(CSR)
D Sports Racing	(DSR)
Sports 2000	(S2)
Spec Racer Ford	(SRF)

NOTE: Section 17.1.5., continues in the Sports Racer Category Specifications Book.

17.1.6. Formula Category Classes:

Formula Atlantic	(FA)	
Formula Continental	(FC)	
Formula Vee	(FV)	
Formula Ford	(FF)	
Formula 500	(F5)	
Formula Mazda	(FM)	
Formula S	(FS)	Regional Only

NOTE: Section 17.1.6., continues in the Formula Category Specifications Book.

17.1.7. Sedan Category Class:

American Sedan (AS)

NOTE: Section 17.1.7., continues in the Improved Touring and American Sedan Category Specifications Book.

17.1.8 Touring Category Class:

Touring 1	(T1)
Touring 2	(T2)

NOTE: Section 17.1.8., continues in the Showroom Stock and Touring Category Specifications Book.

17.1.9 Spec Miata Class: (Regional Class Only)

Spec Miata (SM)

NOTE: Section 17.1.9., continues in the Spec Miata Category Specifications Book.

17.1.10 Optional Regional-Only Classes

Super Production Class (SP) (Regional Class Only): Cars which exceed the preparation limitations of the applicable Production or GT Specifications but which meet the general regulations of Section 17 of the GCR for GT category cars. This includes cars not listed in the GT or Production spec pages.

Legend Cars (LC) (Regional Class Only): Cars that are manufactured by 600 Racing and comply with current Legend Car Rules, as published by 600 Racing. Homologation is required on all Legend Cars, and therefore they shall also comply with the SCCA Legend Car Homologation Request sheet. Competitor must be in possession of the current Legends Car Rules at all competitions. It is recommended that they be grouped with cars of similar weight, configuration and speed potential.

Note: Legend Cars are not eligible for any other Club Racing category. Modifications outside of those permitted in the current Legend Car rules shall render the car ineligible for SCCA Club Racing competition.

17.1.11. Participation Level

A. A National Championship class shall retain its National Championship status as long as the average number of qualifiers remains at 3.5 or more per event, in the top five (5) divisions per class.

B. When the average number of qualifiers in a class at Nationals falls below 3.5, the class shall be allowed one additional year to bring the participation level above the current requirement. Alternatively, it may be immediately consolidated into an existing class. If, in the grace year, the class does not exceed current requirement per National race, it shall either be consolidated into an existing class or revert to a Regional only class.

C. A Regional Class with participation levels 0.5 above the participation requirements outlined in paragraph 17.1.11.A. for two (2) successive years may be considered for inclusion in the National Championship racing program, except Improved Touring.

17.1.12. Change of Specifications

Specifications on cars classified for the first time, or reclassified, may be changed on thirty (30) day's notice during the first year of competition if the advance estimates of performance are grossly inaccurate.

17.1.13. Homologation Requirements

Homologation is required for all Formula and Sports Racer cars registered after January 1, 1983. *All Formula and Sports Racer cars shall be homologated for their class. All Formula and Sports Racer cars applying for a re-homologation, conversion, dual homologation or a new homologation in a different class shall comply with the current rules.* Homologation forms must be on file with SCCA Inc., Topeka, Kansas for any car to be allowed to compete in any SCCA event.

The SCCA Club Racing Technical Manager, with the approval of the Club Racing Board Chairman, may deny Homologation of any car that is determined to be of a configuration that is unsafe, of a configuration that is incompatible within the relevant class structure, or incorporates design characteristics or conditions that are fundamentally divergent from standard safety considerations.

Modifications may be made to a vehicle after it has been homologated as long as said modifications stay within the scope of the rules.

17.2. GENERAL PROVISIONS

To compete in an SCCA sanctioned event, all cars shall comply with the requirements of the GCR and of the specifications for their category and class. If these General Provisions and Specific Provisions for a category/class shall conflict, the specific category/class provisions shall take precedence.

17.3. VEHICLE LOGBOOKS

1. A standard SCCA Vehicle Logbook shall be used by all competitors at all SCCA competitions, unless excepted by the Supplementary Regulations.

2. Only one Logbook shall be issued for each vehicle (other than as an extension or replacement). The possession of two Logbooks for one vehicle shall be deemed a breach of the rules under 14.1.3., Breach of Rules (Fraud).

3. A complete description of the vehicle, its safety roll bar/roll cage, and the required photographs shall be entered in the places provided. All changes of ownership of the vehicle shall be recorded as provided.

4. ASN Canada FIA Vehicle History Logbooks shall be accepted at all SCCA events.

5. The Vehicle Logbook shall be issued only by a Nationally licensed Technical Inspector, who shall also complete

the required vehicle information in the front and back of the Logbook. He or she shall conduct a thorough inspection of the vehicle, as provided in Section 11., Technical and Safety Inspection. *The logbook issue date is the date of registration.*

6. Identity Numbers:

   A. Each vehicle shall have an identity number corresponding to that of its logbook permanently stamped on its roll bar.

   B. The first digit(s) corresponding to the region's identity number shall be separated from the balance of the numbers by a dash (-).

   C. The car numbering system, beginning with (001), shall be issued consecutively as the vehicles are registered during a thorough inspection.

7. All Formula and Sports Racing Cars registered after January 1, 1983 are required to be Homologated by SCCA and issued a Certificate of Approval. Exceptions: Spec Racer Ford, FSCCA, SRSCCA, and Shelby Can-Am. The original certificate shall be presented along with the car for issuance of a new Vehicle Logbook. Additionally, former Spec Racer Renaults may compete in Vintage/Historic events using their originally issued logbook.

8. At each event, this Logbook and the Certificate of Approval (for cars required by these rules to have one) shall be presented at Technical Inspection with the signature of the driver/entrant for that event in the space provided. During Technical Inspection all deviations regarding both safety and legality shall be noted by the Technical Inspector. If a waiver for the event is permitted, by the Chief Steward or his/her designated representative, the duration of the waiver shall be noted and complied with by the competitor.

9. If a car is protested during an event and found to be illegal, the results of this protest shall be noted by the Chairman SOM, or delegated to another official, such as the Chief Scrutineer.

10. In the event the vehicle is involved in an accident or is damaged due to a mechanical failure, the damage shall be noted in the Vehicle Logbook by the accident investigator or Chief Technical Inspector.

11. In the event the Vehicle Logbook is not available at Technical Inspection, the vehicle may be accepted for competition only after a thorough inspection during

which all details required for the issuance of a logbook shall be recorded.

17.4. FUEL

All cars shall use fuel, as defined below, unless a specific exemption is made in the provisions for a specific category/class.

17.4.1. Permitted Fuel

Permitted fuel is herein defined as gasoline. Gasoline is a mixture of refined hydrocarbons. Gasoline is an electrical insulator and its relative effectiveness as an insulator is represented by its dielectric constant (D.C.). The average D.C. of gasoline, as measured by an SCCA Fuel Check Meter (High Desert Engineering HDE-1), is defined as "0.0". Gasoline may be tested and certified at SCCA events by the determination of the dielectric constant using the SCCA Fuel Check meter and through the application of various chemical analyses (e.g., Reagent "A" and Reagent "D" tests).

SCCA Approved Fuel Meter: High Desert Engineering Model G-01
SCCA Approved Reagent Test(s): Germane Engineering Reagent "A" Germane Engineering Reagent "D"

Fuel Standards:

Classes	Type	DC max	Reagent A	Reagent D
All SS, all T, all IT, SRF, Olds SR running as CSR (exc. rotary)	Gasoline w/no oil added	15	No black pos.	No pos.
All other classes (incl. 2-cycle w/ oil injection)	Gasoline w/no added oil	0	No pos.	No pos.
All 2-cycle w/o oil injection	Gasoline w/ oil mixture	2	No pos.	No pos.
All rotary engines	Gasoline w/ or w/o oil mixture	15	No black pos.	No pos.

Use of propylene oxide, ethylene oxide, paradioxane, and basic nitrogen or sulfur-bearing compounds (i.e. pyridine, aniline, pyrrole, dimethylsulfoxide, etc.) is prohibited.

17.4.2. Fuel Sample Acquisition

All cars shall be equipped with an easily accessible sampling valve/port located between the fuel tank and the carburetor(s) or fuel injectors to facilitate acquisition of fuel samples. To avoid fuel spillage, the fuel sampling valve/port shall not consist of removing a fuel line from any fuel system component unless a dry break fitting has been installed. A capped and/or sealed "T" may be fitted inline, or a capped and/or sealed auxiliary sample port may be fitted to a fuel system component (carburetor, fuel rail, etc.)

without using a dry break fitting. Under no circumstances is siphoning of fuel from the fuel tank/ cell acceptable.

If possible, the sampling valve/port should not be located in the engine compartment. Cars equipped with a factory fuel pressure test port (e.g. fuel injected SS, T, IT, SRF, etc.) or competitors having factory fuel pressure test equipment available, are not required to have an additional fuel sampling port. On all other cars, to avoid fuel spillage it is recommended that a valve or dry-break fitting be installed in the fuel line. In all cases competitors shall provide the appropriate tooling necessary to safely obtain the fuel sample. A manned fire extinguisher shall be present whenever fuel samples are being acquired.

17.5. IDENTIFICATION MARKINGS

Each car shall carry identification numbers and class letters per 17.5.1., and 17.5.2., SCCA logos, and any markings required by the Supplementary Regulations. Driver's suits shall display the SCCA patch. (See Figures 1, 2, and 3)

17.5.1. Numbers and Class Letters

Numbers shall be placed on the front and both sides of the car so that they are legible. All Formula cars with a rear wing shall have legible numbers on each rear wing side plate. Numbers shall be no more than two (2) digits, and shall meet the approval of the Chief of Timing and Scoring. Three (3) digit numbers may be used when individually approved in advance by the Chief of Timing and Scoring. Class letters shall be placed on both sides of the car so that they are legible. Rear numbers and class letters are recommended.

17.5.2. Size of Numbers and Class Letters

Numbers shall be at least eight (8) inches high, with a 1.5 inch stroke on a contrasting background (rear winged Formula cars shall have as large a number as possible on their rear wing side plates). Metallic (reflective) numbers and class letters are prohibited. The distance between two (2) numbers shall be at least as wide as the stroke of the numbers. Class letters shall be at least four (4) inches high, with a half (1/2) inch stroke on a contrasting background.

17.5.3. SCCA Logo

Each car competing in an event shall display the official SCCA field logo (see Figure 1) unobstructed and prominently on both sides of the car and adjacent to the side numbers. A third logo shall be displayed on the front of the car unobstructed and prominently near the front number. The logo shall be on the spoiler of cars so equipped. Each driver's suit shall display the official SCCA uniform patch logo (see Figures 1 and 2).

Logos and decals of sanctioning bodies other than SCCA shall be removed or covered (car and driver's suit).

Vintage cars when participating in vintage events may use the four (4) inch diameter "SCCA Wire Wheel" in place of the current field logo.

17.6. ADVERTISEMENTS AND GRAPHICS

Advertising and graphics (names, symbols and logos) may be displayed on cars provided they are in good taste and do not interfere with identification marks and SCCA logos.

17.7. MECHANICAL CONDITION

The Chief Technical and Safety Inspector shall have the responsibility for approving every car before it is allowed to take part in a competition. The inspection procedures used to carry out this responsibility are set out in Section 11., Technical and Safety Inspection. A driver or entrant whose car is disapproved and who drives it in competition or who presents it for recheck after disapproval without the corrections specified may be penalized as provided in Section 14., Penalties.

17.7.1. Alterations or Damage After Inspection

Cars which have been altered or damaged after they have been approved at technical and safety inspection shall be subject to reinspection and reapproval.

17.8. LOSS OF BODYWORK

All major body components such as front and rear hoods, fenders, doors, and windscreens shall be maintained in normal position throughout the competition. If loss of bodywork is a safety hazard, the car may be black-flagged. A car completing a competition with bodywork missing may be penalized.

17.9. WEIGHT

All cars shall meet or exceed the minimum weight specified with driver, exactly as they come off the race circuit, at the conclusion of a race or qualifying session. Cars found to be underweight at impound are subject to penalty and shall have it noted on the next page of the Vehicle Logbook. The car shall be weighed at the next event and meet the proper minimum weight before being allowed to qualify.

17.9.1. Ballast

Ballast may be added to all cars as required, to meet minimum weight, provided it is securely mounted within the bodywork and serves no other purpose.

17.10. NOISE

The maximum sound pressure level from a car on track shall be measured as provided in Section 12., Sound Control.

17.11. BATTERIES

Battery location is unrestricted within the bodywork

(except Showroom Stock, Touring, and Improved Touring). If located in the driver/passenger compartment, wet cell batteries shall be in a nonconductive marine type container or equivalent. The hot terminal shall be insulated on all cars. All batteries (on-board power supplies) shall be attached securely to the frame or chassis structure independent of the marine type container.

17.12. FUEL CELLS

All cars shall be equipped with a fuel cell complying with specifications according to GCR Section 19., except Showroom Stock, Touring and Improved Touring cars.

17.12.1. Capacity

There shall be no restriction of fuel capacity or dimensions of the fuel cell, except where otherwise specified. The installation of more than one cell is permitted.

17.12.2. Installation

A. Internal body panels may be modified to accommodate the installation of fuel cells as long as modifications serve no other purpose. In the event installation includes encroachment into the driver's compartment, a metal bulkhead shall prevent exposure of the driver to the fuel cell. The fuel cell shall not be installed any closer to the ground than six (6) inches, unless enclosed within the bodywork or OEM floorpan.

B. Filler caps, fuel pickup openings and lines, breather vents, and fuel lines shall be so designed and installed that if the car is partially or totally inverted, fuel shall not escape. If the fuel filler cap is located directly on the fuel cell, a check valve shall not be required provided the filler cap is of positive locking type and does not incorporate an unchecked breather opening. If the filler cap is not located on the fuel cell, a check valve shall be incorporated in the fuel cell to prevent fuel from escaping if the cap and filler neck are torn from the tank.

C. Fuel cell breathers shall vent outside the car.

D. It is recommended that all lines and filler openings be incorporated in a single fitting at the top of the fuel cell(s).

17.12.3. Fuel Cell Vent(s)

Factory installed gasoline tank evaporative emission control devices shall be removed from all Production and GT Category cars. Fuel cell vents shall not discharge to the driver/passenger compartments, even if installed that way by the manufacturer. It is not permitted to vent the fuel system through the roll bar/roll cage structure.

17.12.4. Bulkhead
There shall be a metal bulkhead between the driver/passenger compartment and the compartment containing the fuel cell. This includes fuel cells that are flush-mounted with driver/passenger compartment panels or otherwise exposed to the driver/passenger compartment.

17.12.5. Location
Fuel cells shall be located within twelve (12) inches of the standard tank or alternate tank as shown in PCS/GTCS. The twelve (12) inch measurement is taken from the perimeter of the stock AND alternative fuel cell. Free fuel filler location is allowed with installation of a safety fuel cell.

17.14. AERODYNAMIC SKIRTS
Aerodynamic skirts are prohibited in Club Racing.

17.15. ACCUMULATORS (e.g., Accusumps)
An accumulator (e.g., Accusump) may be installed (except for Touring and Showroom Stock). Location is free, but it shall be securely mounted within the bodywork. All oil lines that pass into or through the driver/passenger compartment shall be of metal braided hose (e.g., Aeroquip).

17.17. TRACK
Track is the distance between the centerlines of the wheels as raced, without driver, measured at a horizontal plane through the wheel hub centerline. Alternatively, it may be measured from the inside of one wheel at the hub centerline height to the outside of the other wheel, then conversely from the outside of the first wheel at hub centerline to the inside of the second wheel. The two (2) dimensions obtained are to be added together and divided by two to obtain the average. Measurements are to be taken at both front and rear of the wheels and averaged to compensate for toe-in/out. Under certain circumstances it may be preferable to measure from the outside of one wheel to the outside of another and from this dimension deduct the thickness of one wheel. This should be repeated 180° opposite to the first measurement and the two dimensions averaged.

17.18. WHEEL RIM WIDTH
Wheel rim width shall be measured at the base of the bead seat.

17.19. LIGHTS - BRAKE AND TAIL
All non-Formula cars shall have two operating red brake lights. All Formula (open wheel) and Sports Racer cars shall be equipped with a red taillight of at least the equivalent illumination power of a fifteen (15) watt bulb. This light shall be mounted as high as possible on the centerline of the car and be clearly visible from the rear. The taillight shall be illuminated when ordered by the Chief Steward.

17.20. VENTILATION

All closed cars shall run with both front door windows fully open. Holes for ventilation in quarter or rear windows on Production or GT cars are not allowed, unless specified in PCS, GTCS.

17.21. FIREWALL AND FLOOR

Firewall and floor shall prevent the passage of flame and debris into the driver's compartment. Belly pans shall be vented to prevent the accumulation of liquids, except composite/honeycomb structures. All rear-engined Formula cars are required to have an undertray, from driver's foot area to the firewall, for protection of legs and torso.

17.22. FIRE SYSTEM

All cars shall be equipped with an On-Board Fire System except Showroom Stock, Touring and Improved Touring.

17.22.1. On-Board Fire System Requirements

A. On-board fire systems shall use Halon 1301 or 1211, with a five (5) pound minimum capacity (by weight). There shall be a minimum of (2) nozzle locations, one in the driver's compartment and one in either the engine area or the fuel cell area. Manual or Automatic release is allowed. (GT cars see Section 17.1.2.D.10.f., or 12.1.2.F.3.e.). On-Board fire systems may use AFFF or equivalent surfactant foam material (i.e. SPA Lite, ZERO 2000, Coldfire 302), 2.25 liter minimum capacity (by volume). If such a system is used, the appropriate atomizing nozzles shall be used. All AFFF fire system bottles shall incorporate a functional pressure gauge and shall be marked with the manufacturer's recommended "filled weight." All AFFF fire systems shall be serviced according to manufacturer's specifications.

   CO2 cartridge propellant fire extinguishing systems are permitted, provided that the seal of the manufacturer specified CO2 cartridge is unpunctured and the fire bottle is equal to the weight specified by the system manufacturer.

B. The fire system cylinder shall be securely mounted, in such a manner that it can be checked during a Technical Inspection and may be removed for weighing periodically for compliance to full weight shown on the cylinder. (Weight is without valve assembly.) *The release mechanism shall be within reach of the driver when belted in the car.*

C. All on-board fire systems shall be identified with circle "E" decal. In GT and Production cars, two (2) circle "E" decals may be required, one at the release location and the second on the outside bodywork in line with or as

near to the release location as possible.

D. On Formula and Sports Racing cars, a circle "E" decal shall be located on the outside bodywork as near to the release location as possible. On-board fire systems may also use CEA614 provided that the lines and nozzles are replaced in accordance with the manufacturers (3M) instructions. All FM100 fire suppression systems will be considered illegal in any SCCA competition vehicle effective 1/1/97.

E. The firing safety pin shall be removed from all on-board fire systems prior to going on-track.

17.22.2. Hand-Held Fire Extinguisher Requirements

The following are acceptable for Showroom Stock, Touring and Improved Touring cars:

A. Halon 1301 or 1211, two (2) pound minimum capacity by weight.

B. Dry chemical, two (2) pound minimum with a positive indicator showing charge. Chemical: 10 BC Underwriters Laboratory rating, potassium bicarbonate (Purple K) recommended, 1A10BC Underwriters Laboratory rating multipurpose, ammonium phosphate and barium sulfate or Monnex.

C. The fire extinguisher shall be securely mounted in the cockpit. All mounting brackets shall be metal and of the quick-release type.

17.23. REQUIRED DRIVER SAFETY EQUIPMENT

The following equipment shall be in good condition and free of defects, holes, cracks, frays, etc.

1. Driving suits that effectively cover the body from the neck to the ankles and wrists, manufactured of fire resistant material, worn with underwear of a fire resistant material. One piece suits are highly recommended. All suits and underwear shall be made of the following accepted fire resistant materials: Nomex, Kynol, FPT, IWS (wool), Fiberglass, Firewear™, Durette, Fypro, PBI, Kevlar, NASAFIL, or any suit carrying an SFI 3-2A/1 or higher certification patch. Underwear of PROBAN is approved. The following specific manufacturer(s) material combinations are also recognized: Simpson Heat Shield, Leston Super Protex, FPT Linea Sport, and Durette X-400. Underwear is not required with three-layer suits or with suits carrying *FIA standards of 8856-1986 or 8856-2000* or SFI 3-2A/5 or higher (e.g., /10, /15, /20) Certification Patch. FIA homologated driving suits and underwear are recommended.

2. Crash helmets approved by the Snell Foundation with Snell sticker 1995 or later Special Application (SA95)*, or by the SFI with a SFI Sticker 31.1a for open faced helmets and a SFI sticker 31.2a for closed faced*. **Effective 1/1/07, Snell SA95 helmets will no longer be permitted** *(e.g. SA2000 minimum).* (NOTE: Snell M rating is not allowed.) The back of each driver's helmet shall be labeled with a minimum of the driver's name. The use of a head and neck support system is highly recommended. Accident damaged helmets should be sent by the driver or his or her representative to the Snell Memorial Foundation, 3628 Madison Ave., North Highland, CA. 95660 (ph) 916-331-5073 (attn. Edward B. Becker). Details of the accident should be included. Freon based total loss helmet cooling systems are not allowed.

3. Gloves made of leather and/or accepted fire resistant material containing no holes.

4. Socks made of accepted fire resistant material.

5. Face coverings (balaclavas) of accepted fire resistant material for drivers with beards or mustaches. Hair protruding from beneath a driver's helmet shall be completely covered by fire resistant material. As an alternative to balaclavas, a full helmet skirt of accepted fire resistant material may be used. Double-layer balaclavas are recommended. If balaclavas are used voluntarily, they shall be of accepted fire resistant material.

6. Goggles or face shields, preferably made of new impact resistant materials, for drivers of open cars.

7. A driver's restraint system meeting SCCA standards (See Section 20.) shall be used at all times while on the track.

8. Shoes, with uppers of leather and/or nonflammable material that at a minimum cover the instep. Ventilation pinholes by the manufacturer are allowed.

17.24. SCATTERSHIELDS/CHAIN GUARDS

The installation of scattershields or explosion-proof bell housings shall be required on all cars (except Showroom Stock, Touring and Improved Touring) where the failure of the clutch or flywheel could create a hazard to the driver. Chain drive cars shall be fitted with a protective case/shield to retain the chain in case of failure.

Minimum material specifications are:
.125 inch SAE 4130 alloy steel
.250 inch mild steel plate
.250 inch aluminum alloy
NHRA or SFI approved flexible shields.

17.25. DETACHABLE PANELS/SUNROOFS

Detachable hardtops, detachable panels, and detachable doors (e.g., Lotus 7) shall be removed, unless authorized in the Category Rules or Specification Book for that car to remain in place. Movable panels such as sliding sunroofs shall be closed. Glass sunroofs must be removed. Metal sunroofs may be retained if bolted in. All sunroofs may be replaced with panel or replacement skin of the same material as the original surrounding roof material. Note: Specification Books take precedence over GCR rules.

17.26. OIL CATCH TANKS, FILTERS, AND BREATHERS

Oil holding tanks and engine breathers, whether directly or indirectly ventilating the crankcase, and all transmission/transaxle breathers shall be equipped with oil catch tanks. Minimum catch tank capacity shall be one U.S. quart for the engine and transmission/transaxle. Oil holding tanks and oil filters may be mounted in the driver/passenger compartment. A metal bulkhead shall prevent exposure of the driver to oil spillage. Oil catch tanks shall vent into the engine compartment or outside the driver's compartment. A crankcase vacuum breather that passes through the oil catch tank(s) to exhaust systems or vacuum devices that connect directly to exhaust systems is prohibited.

17.27. MASTER SWITCH

All cars, except Showroom Stock and Touring shall be equipped with a master switch easily accessible from outside the car. Spec Racer Fords shall be wired per RFSRII. The master switch shall be installed directly in either battery cable and shall cut all electrical circuits but not an on-board fire system. It shall be clearly marked by the international marking of a spark in a blue triangle and mounted in a standard location. Off position shall be clearly indicated at the master switch location. The standard locations shall be as follows:

1. FORMULA AND SPORTS RACING CARS -- In proximity to the right-hand member of the roll bar, but in a location so that it cannot be operated accidentally. It can be mounted on a bracket welded to the inside of the upright member or mounted so that the operating lever or knob is outside of the body panel immediately in-board of the upright member. This is the standard location on Formula cars built to the Constructor's Association requirements for Formula 1.

2. CLOSED SPORTS RACING CARS, PRODUCTION CARS, IMPROVED TOURING AND GT CARS -- In front of the windshield on either the cowl or on top of the fender, but close enough to the windshield to be accessible if the car is overturned. Alternatively, it may be mounted below the center of the rear window or on a bracket welded, clamped or bolted to the roll cage or dash, easily accessible through the open window. (Drilling of holes in roll cage to attach the bracket is prohibited.)

3. OPEN PRODUCTION, GT AND IMPROVED TOURING CARS - May exercise a choice among the above locations.

17.28. STEERING WHEEL LOCKS

Steering wheel lock devices shall be removed (except Showroom Stock and Touring).

17.29. FORMULA CAR VISIBILITY

The driver of all Formula cars shall have a field of vision of not less than ninety (90) degrees to either side (total of 180 degrees) with both eyes by turning his or her head, but without lifting his or her head forward or otherwise moving from the normal driving position. Plexiglas or similar uncolored transparent material may be substituted for existing bodywork. "Token" portholes do not satisfy this requirement. Only a structural member such as a roll bar brace or frame tube may interrupt the required field of vision.

17.30. WINDOW SAFETY NETS

Window safety nets shall be used on the driver's side window of all closed cars. As of January 1, 1995 and thereafter, all window nets shall meet SFI Specification 27.1., and shall bear an "SFI Spec 27.1., Label" to that effect. The window net shall be equipped with a quick-release device. Nets shall be attached to the roll cage; plastic buckles and elastic cords are not permitted. Holes in the rollcage to accommodate either support rod is unacceptable unless bushed and welded completely. Refer to Figure 4, "Proper Window Net Installation," for additional information on mounting methods. Closed cockpit sports racers may use arm restraints in lieu of a window net.

17.31. TOWING EYES

All cars without an exposed roll bar shall have a towing eye or strap, front and rear that does not dangerously protrude from the bodywork when the car is racing, to be used for flat-towing or hauling the vehicle. A removable towing eye carried inside the car is not acceptable, *except in formula cars and sports racers*. These towing eyes or straps shall be easily accessible without removal or manipulation of bodywork or other panels. Towing eye minimum ID two (2)

inches. Showroom Stock, Touring and Improved Touring cars are not required to install towing eyes but it is highly recommended.

The required tow eyes must be strong enough to tow the car from a hazard such as a gravel trap. Front tow eye may be mounted in the driver / passenger side window openings, or any location forward of the windshield. If mounted in the driver/passenger side window openings, it must be attached to the forward roll cage down tube as close to the base of the windshield as possible. If the front tow eye is located in the side window openings there shall be one on each side of the car. Rear tow eyes must be accessible rearward of the rear axle centerline.

17.32. WHEEL FANS
Wheel fans are permitted, unless otherwise restricted.

17.33. WINDSHIELD CLIPS/REAR WINDOW STRAPS
Windshield safety clips and rear window safety straps shall be installed on all closed cars (except Showroom Stock, Touring and Improved Touring).

Three (3) clips (3 inch x 1 inch x 1/8 inch) shall be bolted or riveted to the body at the top of the windshield.

Two (2) clips (3 inch x 1 inch x 1/8 inch) shall be bolted or riveted to the cowl and extend over the bottom edge of the windshield. Clips shall be spaced a minimum of twelve (12) inches apart.

It is recommended that three (3) one (1) inch wide strips of steel or aluminum be installed behind the windshield to support it from collapsing inwards if it becomes damaged. The rear window shall be secured with two (2) metal straps (1 inch wide x 1/8 inch thick) bolted or riveted to the body at the top and bottom of the rear window.

17.34. FUEL AND OIL LINES
All fuel and oil lines, including gauge and vent lines, that pass into or through the driver/passenger compartment, shall be of steel tube or metal braided hoses or bulkheaded.

17.35. DATA COLLECTION DEVICES
Data collection devices are considered to be instrumentation and therefore allowed in all classes that permit the installation, replacement or addition of gauges, indicators or instrumentation.

17.36. OIL AND OIL ADDITIVES
Any oil or oil additive may be used. Oil additives are defined as: Any liquid or particulate compound(s) delivered into the engine via the engine oil for the purpose of friction/ temperature reduction, and/or metal surface conditioning

(i.e. PTFE resins (Teflon, "Slick-50"), Molybdenum Disulfide, etc.).

17.37. CRYOGENIC TREATMENT

Cryogenic treatment of components is allowed unless specifically prohibited in the category or class preparation rules.

17.38. AUTOMATIC TRANSMISSIONS AND HAND CONTROLS

Automatic transmissions are prohibited in all classes. However, the use of alternative transmissions, including automatic transmissions, and/or hand controls may be approved on a case-by-case basis. Such approval shall be in writing from the Club Racing Technical Manager and shall be in the driver's possession at all competitions.

CAR DECALS 3 REQUIRED
(8-1/2 x 3-1/2 inches)

KILL SWITCH

ON BOARD FIRE SYSTEM

SCCA OR SCCA CLUB RACING
UNIFORM PATCH

OFFICIAL SCCA UNIFORM PATCH PLACEMENT

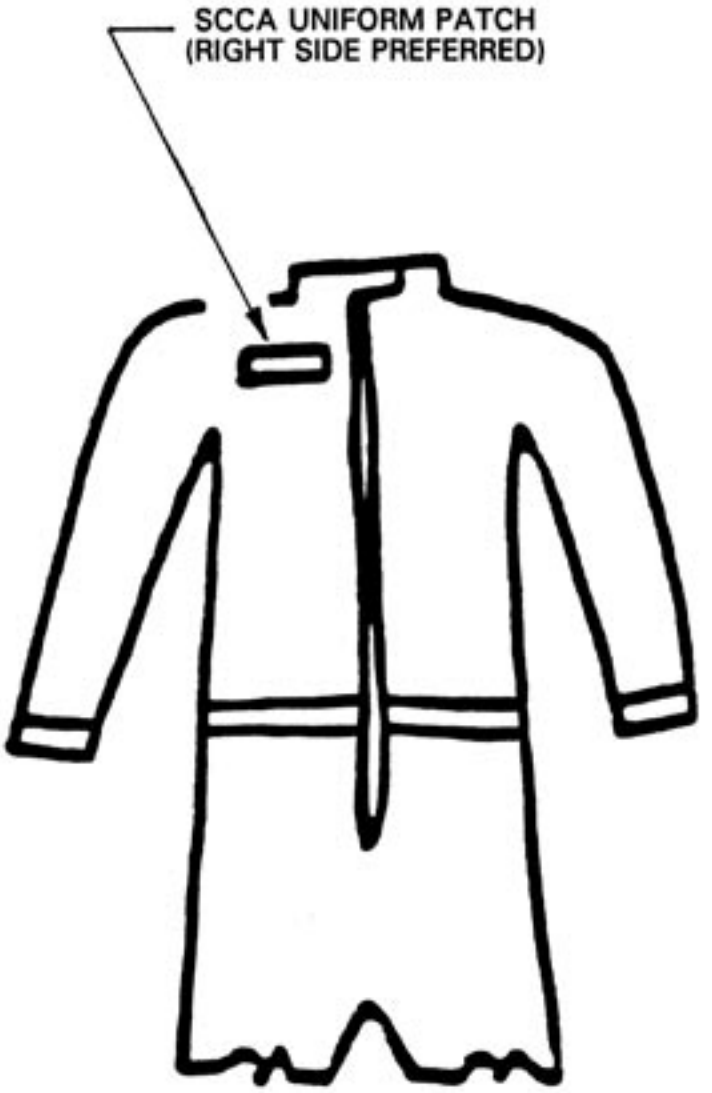


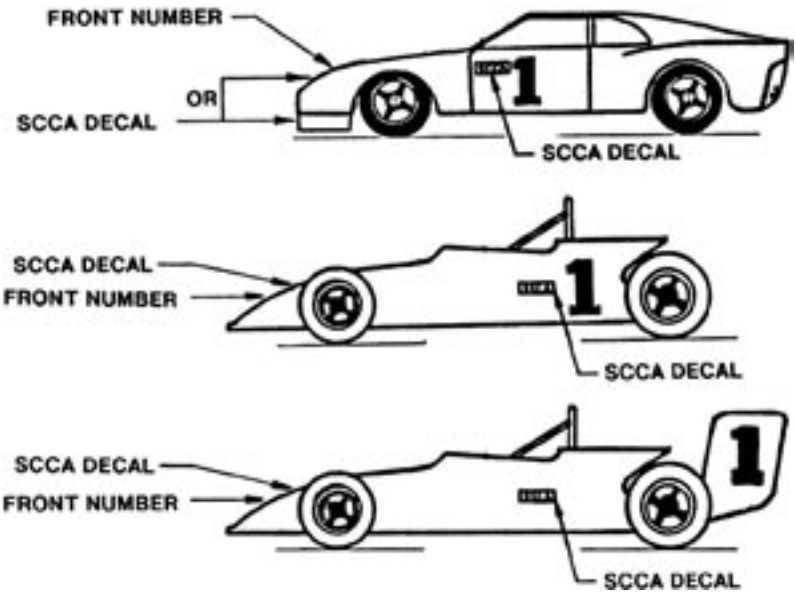
Figure 2

IDENTIFICATION MARKS

Each automobile competing in an SCCA-sanctioned speed event shall display the official SCCA logo, unobstructed and prominently on both sides of the automobile adjacent to the side numbers.

Sports Racer and Formula Automobiles: The SCCA logo shall be displayed on the front unobstructed and prominently near the number.

GT, Production, and Showroom Stock Automobiles: The SCCA logo shall be displayed on the front of the vehicle and shall be affixed to a vertical surface so that it shall be easily seen when viewed from the front.



PROPER WINDOW NET INSTALLATION

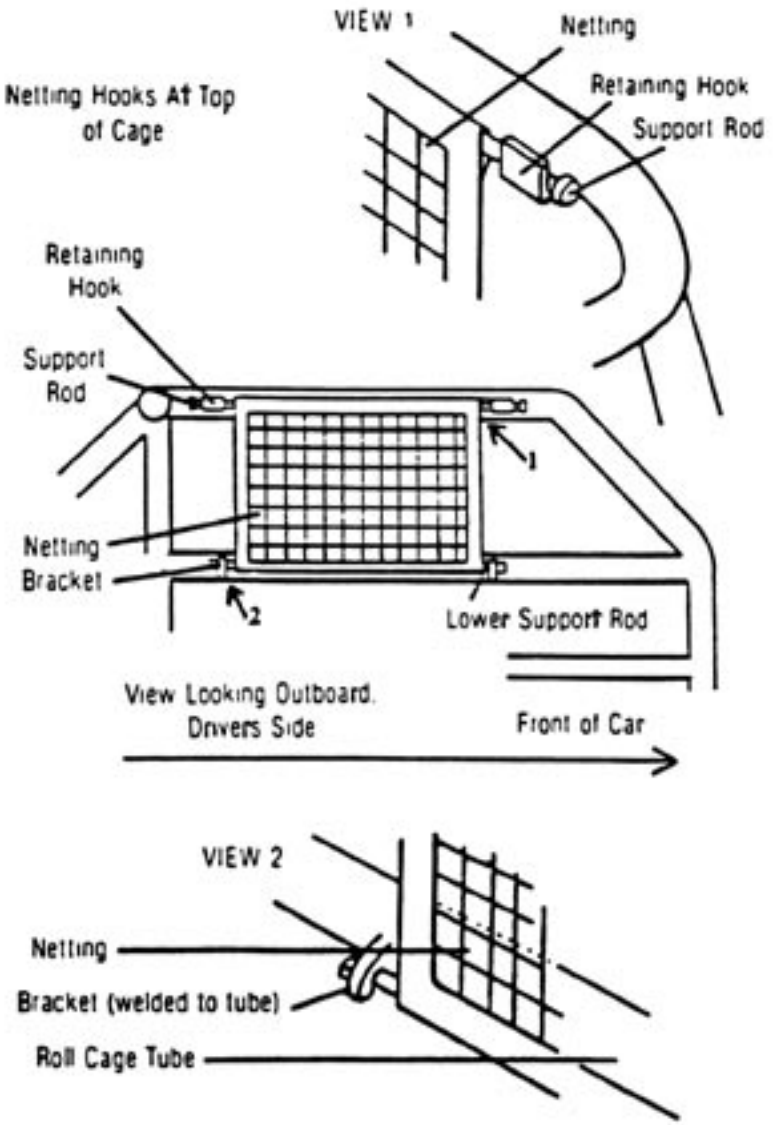


Figure 4

18. ROLL CAGES

These general specifications are for all automobiles. Roll cages are required in all automobiles.

Roll cages may be of two (2) designs, low front hoop (top of steering wheel) or high front hoop (top of windshield). Specific installations are subject to approval by the Technical and Safety Inspectors at each event.

The Technical Staff of Club Racing shall have the responsibility to ensure specification compliance with SCCA safety standards. To that end, the Technical Staff of Club Racing may or may not accept alternate construction standards from any source that significantly vary from SCCA standards of protection.

18.1. BASIC DESIGN CONSIDERATIONS

1. The basic purpose of the roll cage is to protect the driver if the car turns over, runs into an obstacle such as a guardrail or catch fence, or is struck by another car. It shall be designed to withstand compression forces from the weight of the car coming down on the rollover structure and to take fore/aft and lateral loads resulting from the car skidding along on its rollover structure.

2. A system of head restraint to prevent whiplash and rebound, and also to prevent the driver's head from striking the underside of the main hoop shall be installed on all vehicles. Racing seats with integral headrests shall also meet this requirement and have a support to the main hoop. Seats homologated to, and mounted in accordance with FIA standard 8855-1999 or higher need not have the seat back attached to the roll structure. The head restraint on non-integral seats shall have a minimum area of thirty-six (36) square inches and be padded with a non-resilient material such as Ethafoam® Ensolite®, or other similar material with a minimum thickness of one (1) inch. Padding meeting SFI spec 45.1 is recommended. The head restraint shall be capable of withstanding a force of two-hundred (200) lbs., in a rearward direction. The head restraint support shall be such that it continues rearward or upward from the top edge in a way that the driver's helmet can not hook over the pad. The padded surface shall touch the helmet; it shall not be under fiberglass or other hard material.

3. Forward braces and portions of the main hoop subject to contact by the driver's helmet (as seated normally and restrained by seatbelt/shoulder harness) shall be padded with non-resilient material such as Ethafoam® or Ensolite®, or other similar material with a minimum thickness of one-half (1/2) inch. Padding meeting SFI spec 45.1 is recommended.

4. No portion of the safety roll cage shall have an aerodynamic effect by creating a vertical thrust.

5. Roll cage or chassis design shall prevent engine intrusion into the driver compartment.

6. Material:

   A. Seamless, or DOM (Drawn Over Mandrel) mild steel tubing (SAE 1010, 1020, 1025) or equivalent, or alloy steel tubing (SAE, 4130) shall be used for all roll cage structures. Proof of use of alloy steel is the responsibility of the entrant.

   B. Minimum tubing sizes (all Formula, Sports Racing, GT, and Production Category automobiles, and all automobiles registered prior to June 1, 1994) for all required roll cage elements (All dimensions in inches):

Vehicle Weight Without Driver	**Material**	
	Mild Steel	**Alloy Steel**
Up to 1500 lbs.	1.375 x .095	1.375 x .080
1500-2500 lbs.	1.50 x .095	1.375 x .095
Over 2500 lbs.	1.50 x .120 1.625 x .120 1.75 x .095	1.50 x .095

   C. Minimum tubing sizes for (all Showroom Stock, Touring and Improved Touring Category automobiles registered after June 1, 1994) for all required roll cage elements (All dimensions in inches):

Up to 1500 lbs.	1.375 x .095 DOM / Seamless / Alloy
1501-2200 lbs.	1.500 x .095 DOM / Seamless / Alloy
2201-3000 lbs.	1.500 x .120 DOM / Seamless / Alloy
	1.625 x .120 DOM / Seamless / Alloy
	1.750 x .095 DOM / Seamless / Alloy

   (American Sedans may construct to these specifications regardless of weight.)

3001-4000 lbs.	1.750 x .120 DOM / Seamless / Alloy
Over 4000 lbs.	2.000 x .120 DOM / Seamless / Alloy

   Note: ERW tubing is not permitted in any car registered with SCCA after of 01/01/2003.

Main hoop: 4 bends maximum, totaling 180 degrees ± 10 degrees.
Front hoop: 4 bends maximum or Front downtubes: 2 bends maximum.
Rear hoop supports: No bends.

If any of the above bend requirements cannot be met, all components of the roll cage shall be fabricated from the tubing size(s) listed for the next heavier category of automobiles.

D. For purposes of determining tubing sizes, the vehicle weight is as raced without fuel and driver. The minus tolerance for wall thickness should not be less than .010" below the nominal thickness. Improved Touring roll cage tubing sizes are to be calculated based on the published vehicle weight minus 180 lbs.

E. An inspection hole at least 3/16 inch diameter, but no greater than 1/4 inch diameter shall be drilled in a non-critical area of all tubes with a specified size to facilitate verification of wall thickness.

7. General Construction

A. One (1) continuous length of tubing shall be used for the main hoop member with smooth continuous bends and no evidence of crimping or wall failure. The radius of bends in the roll cage hoop (measured at centerline of tubing) shall not be less than three (3) times the diameter of the tubing. Whenever possible, the roll cage hoop should start from the floor of the car, and, in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs with support tubes beneath the joints to distribute the loads. It is recommended that gussets be used

B. Welding shall conform to American Welding Society D1.1:2002, Structural Welding Code, Steel Chapter 10, Tubular Structures. Whenever D1.1 refers to "the Engineer" this shall be interpreted to be the owner of the vehicle. Welds shall be continuous around the entire tubular structure.

All welds shall be visually inspected and shall be acceptable if the following conditions are satisfied:

1. The weld shall have no cracks.

2. Thorough fusion shall exist between weld metal and base metal.

3. All craters shall be filled to the cross section of the weld.

4. Undercut shall be no more than 0.01 inch deep.

C. Aluminum bronze or silicon bronze welding technique is permitted, but extreme care shall be used in preparation of parts before bronze welding and in the design of the attaching joints.

18.2. SHOWROOM STOCK ROLL CAGE

1. Full width roll cages are required in all Showroom Stock automobiles. Roll cages installed in Showroom Stock automobiles are for driver safety and shall be contained entirely within the driver/passenger compartment without removing any panel or accessory not specifically authorized in these rules. The carpet/padding may be cut around the mounting base plates.

   A. The cage need not be removable. It shall be bolted and/or welded to the car.

   B. It shall attach to the car at no more than eight (8) points, consisting of the basic cage with six (6) points and two optional braces.

   C. The forward part of the cage shall be mounted to the floor of the vehicle. In addition, if the two optional braces referred to in 18.2.1.B are utilized they shall be mounted, one on either side, from the forward section of the cage to the firewall or front fender wells (see GCR Section 18.2., Figure 1). No braces shall pass through the front firewall.

2. Removable roll cages and braces shall be very carefully designed and constructed to be at least as strong as a permanent installation. If one tube fits inside another tube to facilitate removal, the removable portion shall fit tightly and shall bottom by design and at least two (2) bolts shall be used to secure each such joint. The telescope section shall be at least eight (8) inches in length. Minimum bolt diameter is 3/8 inches.

3. For tubing sizes for front and main hoop and all required bracing, see 18.1.6.C.

4. Main Roll Hoop:

   A. Main roll hoop (behind the driver) shall extend the full width of the driver/passenger compartment and shall be as near the roof as possible. It shall

incorporate a diagonal lateral brace to prevent lateral distortion of the hoop (See Figure 1). Any number of additional reinforcing bars are permitted within the structure of the cage. It is required that the horizontal brace behind the driver's seat (described in Section 18.2.10) continue from the diagonal to the passenger side main hoop upright or that a second diagonal be installed in the main hoop.

5. Front Roll Hoops:

   A. The front or side hoops shall follow the line of the front pillars to the top of the windshield (as close to the roof as possible) then horizontally to the rear attaching to the main hoop. These two side hoops are to be connected together by a tube over the top of the windshield, or

   B. A front hoop following the line of the front pillars and connected by horizontal bars to the main hoop on each side at the top may be used, or

   C. A top "halo" hoop following the roof line from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.

   D. The front or side hoops may extend through the dash pad. This includes the forward part of the door panel if it is an extension of the dash panel.

   E. One (1) bar is recommended in a horizontal plane between forward cage braces in the dash area.

6. Bracing:

   The main roll hoop shall have two braces extending to the rear attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop not more than six (6) inches below the top and at an included angle of at least thirty (30) degrees. On cars where the rear window/bulkhead prohibits the installation of rear braces (e.g., Honda del Sol), the main hoop shall be attached to the body by plates welded to the cage and bolted to the stock shoulder harness mounting points. This installation design must also incorporate a diagonal bar connecting the top of the main hoop to the lower front passenger side mounting point ("Petty Bar").

   A. Rear hoop braces may pass through the factory bulkhead or panel separating the driver/passenger compartment from the trunk/cargo area/, fuel tank/

fuel cell area, provided the bulkhead is sealed around said cage braces. Metal tape may be used to seal the openings between the bulkhead and the tubes.

7. Side Protection:

   A side tube connecting the front and rear hoops across the driver's door opening is mandatory and across the passenger's door opening is allowed (recommended). The telescope section should be at least four (4) inches in length. Minimum bolt diameter 3/8 inches. The driver's window safety net may be mounted to this side tube and the top cage tube. Driver's door side tubes may extend into the door. NASCAR-style side protection is permitted. The driver's door window glass, window operating mechanism, inner door trim panel, armrest, map pockets, and inside door latch/lock operating mechanism may be removed and the inner door structural panel may be modified, but not removed to facilitate this type of side protection. The stock side impact beam and the outside door latch/lock operating mechanism shall not be removed or modified.

8. Mounting Plates:

   A. Each mounting plate shall be at least .080 thick if welded and 3/16" thick (with appropriate backing plates) if bolted. There shall be a minimum of three (3) bolts per mounting plate if bolted.

   B. Each mounting plate shall not be greater than 100 square inches and shall be no greater than twelve (12) inches or less than two (2) inches on a side.

   C. Whenever possible, mounting plates shall extend onto a vertical section of the structure (such as a rocker box).

   D. The mounting plate may be multi-angled but must not exceed these dimensions in a flat plane.

   E. Any number of tubes may attach to the plate or each other.

9. Hardware: (Bolts)

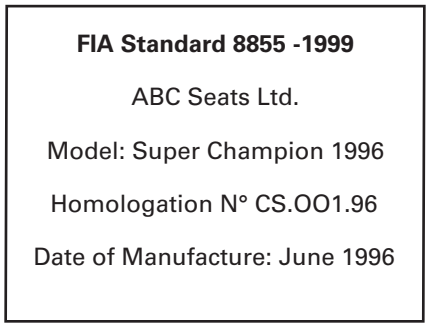
   All hardware shall be Grade 5 or better. 5/16" minimum diameter.

10. In order to provide a secure seat back support a section of tubing equal to the roll bar shall be installed horizontally from the main hoop upright to the diagonal brace. This tube shall be no higher than shoulder

height. The driver's seat shall be firmly mounted to the structure of the car. In cars where the seat is upright, the back of the seat shall be firmly attached to the main roll hoop, or it's cross bracing.

Seats homologated to and mounted in accordance with FIA standard 8855-1999 or higher need not have the seat back attached to the roll structure. The homologation labels must be visible. Seat supports shall be of the type listed on FIA technical list No.12 (lateral, bottom, etc).

Fig. 18.2.10.A



Letters must be at least 8mm high
Sample FIA seat homologation label

SHOWROOM STOCK REMOVABLE ROLL CAGE
Tubing Joints - See Figures 2, 3, and 4

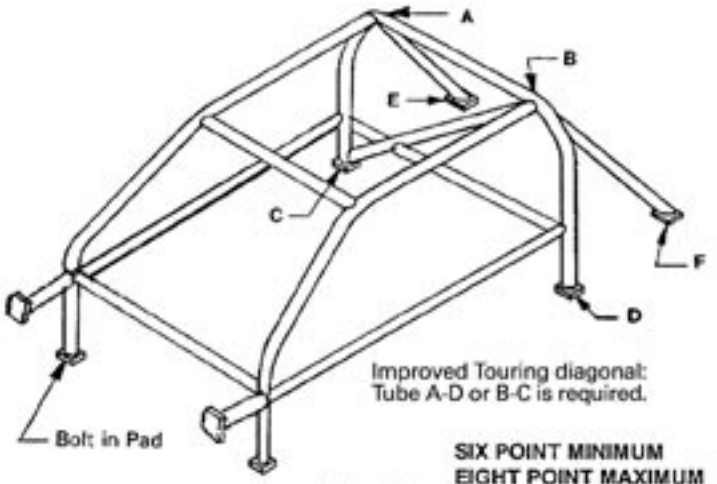


Figure 1

Figure 2

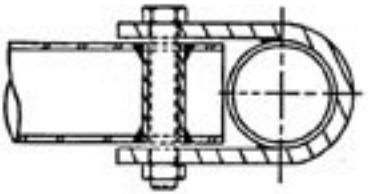


Figure 3

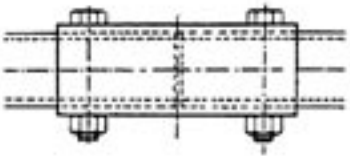


Figure 4

18.3 TOURING ROLL CAGES

1. All cars registered after 1/1/03 shall conform to these roll cage rules. Effective 1/1/08 all Touring cars shall conform to these roll cage rules. Full width roll cages are required in all Touring automobiles. Roll cages installed in Touring automobiles are for driver safety and shall be contained entirely within the driver/passenger compartment without removing any panel or accessory not specifically authorized in these rules. The carpet/padding may be cut around the mounting base plates.

   A. The cage shall be welded to the car.

   B. It shall attach to the car at no more than eight (8) points, with the forward section of the cage attaching to the front bulkhead or front fender wells (see GCR Section 18.2., Figure 1).

   C. The front down tubes of the cage shall be mounted to the floor of the vehicle.

2. For tubing sizes for front hoop, main hoop, and all required bracing, see GCR Section 18.1.6.C. It is recommended that gussets (flat steel, tubing, etc.) be utilized to strengthen the joints of all required cage elements.

3. Main Roll Hoop:

   A. Main roll hoop (behind the driver) shall extend the full width of the driver/passenger compartment and shall be as near the roof as possible. It shall incorporate a diagonal lateral brace to prevent lateral distortion of the hoop (See Figure 1). Any number of additional tubes/braces are permitted within the structure of the cage. It is required that the horizontal brace behind the driver's seat (described in Section 18.2.10) continue from the diagonal to the passenger side main hoop upright or that a second diagonal be installed in the main hoop.

4. Front Roll Hoops:

   A. The front or side hoops shall follow the line of the front pillars to the top of the windshield (as close to the roof as possible) then horizontally to the rear attaching to the main hoop. These two side hoops are to be connected together by a tube over the top of the windshield, or

   B. A front hoop following the line of the front pillars

and connected by horizontal bars to the main hoop on each side at the top may be used, or

C. A top "halo" hoop following the roofline from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.

D. The front or side hoops may extend through the dash pad. This includes the forward part of the door panel if it is an extension of the dash panel.

E. One (1) bar is required in a horizontal plane between forward cage braces in the dash area.

5. Bracing:

The main roll hoop shall have two braces extending to the rear attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop but, not more than six (6) inches below the top and at an included angle of at least thirty (30) degrees. On cars where the rear window/bulkhead prohibits the installation of rear braces (e.g., Honda del Sol), the main hoop shall be attached to the body by plates welded to the cage and bolted to the stock shoulder harness mounting points. This installation design must also incorporate a diagonal bar connecting the top of the main hoop to the lower front passenger side mounting point ("Petty Bar").

A. Rear hoop braces may pass through the factory bulkhead or panel separating the driver/passenger compartment from the trunk/cargo area/, fuel tank/ fuel cell area, provided the bulkhead is sealed around said cage braces. Metal tape may be used to seal the openings between the bulkhead and the tubes.

6. Side Protection:

Two side protection tubes (door bars) are mandatory on each side of the car. NASCAR-style side protection is required on the driver's side and is optional on the passenger side. The driver's window safety net may be mounted to this side protection and the top cage tube. NASCAR-style side protection tubes shall extend into the door. The door window glass, window operating mechanism, inner door trim panel, armrest, map pockets, and inside door latch/lock operating mechanism may be removed only if it interfered with the installation of NASCAR-style side protection tubes. The inner door structural panel may be modified, but

not removed to facilitate this type of side protection. The stock side impact beam and the outside door latch/ lock operating mechanism shall not be removed or modified.

7. Mounting Plates:

   A. Each mounting plate shall be at least .080 thick.

   B. Each mounting plate shall not be greater than 100 square inches and shall be no greater than twelve (12) inches or less than two (2) inches on a side.

   C. Whenever possible, mounting plates shall extend onto a vertical section of the structure (such as a rocker box).

   D. The mounting plate may be multi-angled but must not exceed these dimensions in a flat plane.

   E. Any number of tubes may attach to the plate or each other.

8. The driver's seat shall be firmly mounted to the structure of the car. In cars where the seat is upright the back of the seat shall be firmly attached to the main roll hoop, or it's cross bracing, so as to provide aft and lateral support. Seats homologated to and mounted in accordance with FIA standard 8855-1999 or higher need not have the seat back attached to the roll structure. The homologation labels must be visible. Seat supports shall be of the type listed on FIA technical list No.12 (lateral, bottom, etc).

18.4. GT AUTOMOBILES ROLL CAGES

All GT automobiles shall have full width roll cages. Open automobiles without full windshields may have a low front hoop. All closed automobiles shall have full height (top of windshield) front hoops.

18.4.1. Main and Front Hoops

A. Main Hoop:

The main hoop (behind the driver) shall be full width of the cockpit. The main hoop shall be as near to the roof as possible on closed automobiles and not less than two (2) inches above the driver's helmet on open automobiles, with the driver seated normally and restrained by seat belt/shoulder harness. Low front hoops shall be cowl height, or at a minimum, a straight line drawn from the top of the main hoop to the top of the front hoop shall pass over the driver's helmet.

B. Front Hoop:

1. The front hoop shall follow the line of the front pillars to the top of the windshield and be connected, by horizontal bars, to the top of the main hoop on each side (as close to the roof as possible).

2. Two (2) side hoops following the line of the front pillars to the top of the main hoop may be used. These two (2) side hoops are to be connected by a horizontal bar over the top of the windshield. (See Figure 6), or

3. A top "halo" hoop following the roof line from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.

4. Double "ear-type" joints are allowed, provided that they are fully welded at all mating surfaces.

C. Fabrication:

The main hoop shall be one continuous length of tubing with smooth continuous bends with no evidence of crimping or wall failure. The minimum radius for all bends shall be three (3) times the tube diameter measured from the tube centerline. Whenever possible, the roll hoops should start from the floor of the automobile, and, in the case of tube frame construction, be attached to the tubes by means of gussets or metal webs in order to distribute the loads. On automobiles of frameless construction, consideration should be given to using a vertical roll hoop of 360 degrees completely around the inside of the automobile and attached with suitable mounting plates.

18.4.2. Bracing

All required bracing shall be the same diameter and wall thickness as listed in 18.1.6., Material. (Main and Front Hoops)

All main hoops shall incorporate a diagonal brace (same diameter and wall thickness as main hoop) to prevent lateral distortion of the main hoop.

A. Main Hoop Bracing:

Main hoops shall have two (2) braces extending to the rear, attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop (not more than six (6) inches below the top) and at an included angle of at least thirty (30) degrees. Open cars

with a low front hoop shall have **(Effective 1/1/99)** two braces extending from the main hoop to the low front hoop. These braces shall be mounted no lower than six inches below the top of the main hoop as illustrated in Figure 7A.

B. Removable Bracing:

Removable bracing shall incorporate connectors of the double lug, tapered, or muff-type as shown in Figures 9, 10, and 11. The double-lug type shall include a doubler, gusset, or capping arrangement so as to avoid distortion or excessive strain caused by welding.

C. Front Hoop Bracing:

There shall be two (2) braces extending forward from the front hoop to protect the driver's legs. It is recommended that this bracing extend to the bulkhead in front of the driver's feet; but, in any case, it shall be integrated into the frame or chassis to provide substantial support for the front hoop.

18.4.3. Side Protection - Open and Closed Automobiles

A. The minimum side protection shall consist of a side tube connecting the front and rear hoops across both the door openings. Additionally, there shall also be either a diagonal tube from the front hoop to the rear hoop bisecting the door opening below the horizontal side tube, or not less than two (2) horizontal side tubes. Additional tubing may be added. NASCAR-style door bars are recommended.

B. In automobiles with full roll cage installations including side bars, interior door panels may be altered, replaced, or removed. When door panels are removed, all sharp edges or projections shall be protected.

18.4.4. Mounting Plates:
The thickness of mounting plates bolted to the structure of the car shall not be less than the thickness of the roll hoop or brace that they attach and shall be backed-up with a plate of equal dimensions on the opposite side of the panel, with the plates through-bolted together. A minimum of three (3) bolts per mounting plate is required for bolted mounting plates. All hardware (bolts) shall be Grade 5 or better with 5/16" diameter minimum. Mounting plates welded to the structure of the car shall not be less than .080" thick. Whenever possible the mounting plates should extend onto a vertical section of the structure (such as door pillar).

18.4.5. Driver's Seat

The driver's seat shall be firmly mounted to the structure of the car. In cars where the seat is upright, the back of the seat shall be firmly attached to the main roll hoop, or it's cross bracing. Bulkheads, firewalls, rear decks, or similar structures of suitable strength may be used as a substitute for the main roll hoop or cross bracing to provide the required seat back support.

Seats homologated to and mounted in accordance with FIA standard 8855-1999 or higher need not have the seat back attached to the roll structure. The homologation labels must be visible, see Fig. 18.2.10.A. Seat supports shall be of the type listed on FIA technical list No.12 (lateral, bottom, etc).

18.5. ROLL CAGES, FORMULA AND SPORTS RACING AUTOMOBILES

All Formula and Sports Racing automobiles are required to have full roll cages. Cage may be of two designs, low front hoop (top of steering wheel) or high front hoop (equal to rear hoop) but with no diagonal brace. Two (2) seat Sports Racers shall have full cockpit width cages per Figure 7A. All tube frame automobiles shall have both front and rear hoops formed of tubing per 18.1.6. On automobiles of full monocoque construction, a fabricated sheet metal front hoop structure may be approved upon specific application to the SCCA. All Formula Car and Sports Racing roll cage tubing specifications must meet the current GCR specifications, effective 1/1/98.

18.5.1. Main Hoop

The main hoop shall be constructed of tubing per 18.1.6. The minimum bend radius shall not be less than three (3) times the tube diameter measured from the tube centerline. The main hoop shall not be less than two (2) inches above the driver's helmet, seated normally and restrained by seat belt/shoulder harness. A straight line drawn from the top of the main hoop to the top of the front hoop shall pass over the driver's helmet. On Formula cars and single seat Sports Racers the vertical members of the main hoop shall not be less than fifteen (15) inches apart (inside dimension) at their attachment to the chassis. If the hoop does not go to the belly pan, proper gussets and tube triangulation shall be used under its attachment. On monocoque chassis the main hoop shall be welded to mounting plates not less than .080" thick. It is important that these plates be attached to the chassis in such a way as to spread the loads over a wide area. There shall be a plate of equal thickness on the inside of the monocoque with solid rivets or bolts (5/16" minimum bolt diameter) through the non-ferrous material.

18.5.2. Front Hoop

Low front hoops must be no lower than the top of the steering wheel. It is recommended the hoop extend to the belly pan. If not, it shall be attached to the chassis with gussets and triangulation in order to spread the loads. In automobiles of full height (top of the steering wheel) monocoque or composite construction, a steel cap plate, not less than .080" thick must be attached as a rub block.

18.5.3. Roll Cage Bracing

A. The main hoop must have two forward braces extending from the hoop and attached to the frame, monocoque, or front hoop. Braces must be attached as near as possible to the top of the hoop but must not be more than six (6) inches below the top and at an included angle of at least thirty (30) degrees. If these braces do not extend to the front hoop, an additional brace or gusset (14 gauge - .078" minimum thickness) must be installed between the lower frame rail and the upper frame rail at the point of attachment of the forward hoop brace. If these braces do not extend to the front hoop, an additional brace or gusset must be installed at the point of attachment to the main rear hoop or lower frame rail or other major frame member in such a manner as to reinforce the attachment point to help prevent collapse of the frame rail at the point of attachment. These tubes shall be 1" x .080" minimum and gussets shall be 14 gauge - .078" minimum thickness.

   Two seat Sports Racers with full width main hoops must incorporate a lateral brace to prevent lateral distortion of the hoop (See Figure 7A). All bracing on full width cages must be the same diameter and wall thickness as the main hoop. Formula and single seat Sports Racers under 1500 lbs., may use bracing with a minimum dimension of 1.0" diameter by .080" wall thickness. Braces attached to monocoque chassis must be welded to plates not less than .080" thick and backed up on the inner side by plates of equal thickness using bolts of Grade 5 or better with 5/16" minimum diameter.

B. The front hoop must have two (2) braces near its top extending forward to protect the driver's legs. It is recommended that this bracing extend to the bulkhead in front of the driver's feet; but in any case it must be integrated into the chassis to provide substantial support for the front hoop. Full width front hoop bracing shall be a minimum dimension of 1.0" diameter by .080" wall thickness tubing.

   Formula and single seat Sports Racers under 1500 lbs., may use tubing with a minimum dimension of 1.0" diameter by .080" wall thickness. When monocoque

construction is used as bracing for the front hoop, it must be approved on an individual basis. If a high front hoop is used, it must be similar in shape to the rear hoop and have two horizontal tubes connecting the top of the front hoop to the top of the main hoop. The bracing for the main hoop remains the same.

C. Removable bracing must incorporate connectors of the double-lug, tapered, or muff-type as shown in Figures 9, 10, and 11. The double-lug type must include a doubler, gusset, or capping arrangement so as to avoid distortion or excessive strain caused by welding.

18.5.4. Composite Chassis Safety Structures

A. The basic purpose of safety structures is to protect the driver. This purpose is the primary design consideration.

B. All cars must have at least two (2) roll over structures, but the use of titanium is prohibited.

The first roll over structure must be in front of the steering wheel, not more than 25cm forward of the steering wheel rim, and at least as high as the top of the steering wheel rim.

The second roll over structure must not be less than 50cm behind the first. It must be high enough for a line extending from the top of the front structure to the top of the rear structure to pass over the driver's helmet when he is seated normally in the car with his helmet on and the seat belt fastened. This second structure behind the seat must be symmetrical about the lengthwise centerline of the car and comply with the following dimensions: The top of the roll bar must be at least two (2) inches (5cm) above the driver's helmet when the driver is seated in a normal driving position. No second roll structure on a composite chassis will be considered unless it contains a main hoop having a minimum tubing size of 1.375" x .080" wall thickness. Supplemental braces must have a minimum tubing size of 1.00" x .080" wall thickness.

The roll bar must be capable of withstanding the following stress loading applied simultaneously to the top of the roll bar:

1.5 (X) laterally
5.5 (X) longitudinally in either direction.
7.5 (X) vertically
where (X) = the minimum weight of the car.

The induced loads must be carried over into the primary structure of the chassis.

The ability of the roll bar to bear and distribute the load through the chassis must be demonstrated satisfactorily in test conditions to the SCCA. In conjunction with SCCA, manufacturers of cars utilizing carbon fiber composite survival cell construction will be required to designate repair locations capable of proper evaluation and damage repair. In the event of damage to the chassis, repairs can only be made at these locations.

Proper documentation must be made in the vehicle logbook. No car will be allowed to compete after damage without following this procedure.

18.5.5. Exceptions for Formula Cars and Sports Racers
Any roll hoop design which does not comply with the specifications in 18.5., will only be considered if it is accompanied by engineering specifications signed by a registered engineer. No alternate roll hoop will be considered unless it contains a main hoop having a minimum tubing size of 1.375" x .080" wall thickness. The roll bar must be capable of withstanding the following stress loading applied simultaneously to the top of the roll bar: 1.5 (X) laterally, 5.5 (X) longitudinally in both the fore and aft directions, and 7.5 (X) vertically, where (X) = the minimum weight of the car.

18.6 PRODUCTION ROLL CAGE

All automobiles shall have full width roll cages. Roll cages may be of two (2) designs, low front hoop or high front hoop. Specific installations are subject to approval by the Technical and Safety Inspectors at each event. The Technical Staff of Club Racing, with the concurrence of the Club Racing Board, shall have the responsibility to ensure specification compliance with SCCA safety standards. Alternate structures which do not meet the following criteria will not be considered *unless they are eligible under GCR Section 18.6.2. Cars that are not in compliance with these roll cage requirements but were issued logbooks and/or "gold cards" prior to 1/1/05 may continue to use their existing roll cages until 1/1/07.*

a. Main Hoop:

For all cars, the main hoop (behind the driver) shall be full width of the cockpit.

1. Closed Automobiles:
a. The main hoop shall be as near to the roof as possible on closed automobiles

2. Open top Automobiles:
a. The main hoop shall be not less than two (2) inches above the driver's helmet on open

automobiles, with the driver seated normally and restrained by seat belt/shoulder harness as illustrated in Figure 7A.

b. Open top automobiles without a windshield may use an asymmetric main hoop provided:

1. The main hoop shall be full height (over the driver) for at least 50% of the width of the hoop as illustrated in Figure 7A.

2. On the passenger side of the car, the hoop shall be at least as high as the top of the rear corner of the door as illustrated in Figure 7A.

3. All cars must have correct shape main hoop by 1/1/2007.

b. Front Hoop:

For all cars, the front hoop shall be full width of the cockpit.

1. Closed Automobiles and open top automobiles with a windshield:

a. The front hoop shall follow the line of the front pillars to the top of the windshield and be connected, by horizontal bars, to the top of the main hoop.

b. Instead of a single front hoop, two (2) side hoops following the line of the front pillars to the top of the main hoop may be used. These two (2) side hoops are to be connected by a horizontal bar over the top of the windshield. (See Figure 6)

c. Another option is a top "halo" hoop following the roof line from the main hoop to the windshield with forward down tubes following the line of the front pillars to the floor.

d. Double "ear-type" joints are allowed, provided that they are fully welded at all mating surfaces.

e. It is recommended the hoop extend to the belly pan. If not, it shall be attached to the chassis with gussets and triangulation in order to spread the loads.

f. It is recommended that the vertical bars of the front hoop be connected by a horizontal bar at a point above the driver's legs

g. All front hoop options (a, b, c) shall be connected to the main hoop in the following manner.

1. *On open top cars, attachments shall be no more than six inches below the top of the main hoop.*
2. *On closed top cars, attachments shall be as close to the roof as possible.*

2. *Open top Automobiles without a windshield and with a high front hoop design.*
   a. *Front hoop requirements for open top automobiles with a windshield are to be followed with the following exceptions.*
      1. *Since the windshield frame is to be removed with the windshield, there is no requirement to follow the line of the A-pillar.*
      2. *Since there is no windshield for the hoop to be above, the front hoop shall be above the driver's line of sight.*

3. *Open top Automobiles without a windshield and with a low front hoop design*
   a. *Low front hoops shall be cowl height, or at a minimum, a straight line drawn from the top of the main hoop to the top of the front hoop shall pass over the driver's helmet (See figure 7A).*
   b. *Open cars with a low front hoop shall have two braces extending from the main hoop to the low front hoop. These braces shall be mounted no lower than six inches below the top of the main and front hoops as illustrated in Figure 7A.*

   c. Fabrication - Open and Closed Automobiles

      The main hoop shall be one continuous length of tubing with smooth continuous bends and no evidence of crimping or wall failure. The minimum radius for all bends shall be three (3) times the tube diameter measured from the tube centerline. Whenever possible, the roll hoops should start from the floor of the automobile, and, in the case of tube frame construction, be attached to the tubes by means of gussets or metal webs in order to distribute the loads. On automobiles of frameless or uni-body construction, consideration should be given to using a vertical roll hoop of 360 degrees completely around the inside of the automobile and attached with suitable mounting plates.

18.6.1. Bracing - Open and Closed Automobiles

All required bracing shall be the same diameter and wall thickness as listed in 18.1.6., Material. (Main and Front Hoops)

All main hoops shall incorporate a diagonal brace (same diameter and wall thickness as main hoop) to prevent lateral distortion of the main hoop.

a. Main Hoop Bracing:

Main hoops shall have two (2) braces extending to the rear, attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop (not more than six (6) inches below the top) and at an included angle of at least thirty (30) degrees. Rear braces may penetrate required bodywork provided the resulting hole serves no other function, and the holes are sealed around the braces.

b. Removable Bracing:

Removable bracing shall incorporate connectors of the double lug, tapered, or muff-type as shown in Figures 9, 10, and 11. The double-lug type shall include a doubler, gusset, or capping arrangement so as to avoid distortion or excessive strain caused by welding.

c. Front Hoop Bracing:

There shall be two (2) braces extending forward from the front hoop to brace the front hoop and protect the driver's legs. It is recommended that this bracing extend to the bulkhead in front of the driver's feet; but, in any case, it shall be integrated into the frame or chassis to provide substantial support for the front hoop. Front braces may penetrate required bodywork provided the resulting hole serves no other function, and the holes are sealed around the braces.

18.6.2 Exceptions

When it is manifestly impractical or unsafe to construct and install a roll structure meeting the minimum requirements as set forth above, an alternate design roll structure may be submitted to the SCCA Technical Staff who may, in a proper case, accept such alternate roll structure design on a specific case by case basis.

18.6.3 Side Protection - Open and Closed Automobiles

a. The minimum side protection shall consist of a horizontal side tube connecting the front and rear hoops across both the door openings. Additionally, there shall also

be either a diagonal tube from the front hoop to the rear hoop bisecting the door opening below the horizontal side tube, or not less than two (2) horizontal side tubes. Additional tubing may be added. NASCAR-style door bars are recommended.

b. In automobiles with full roll cage installations including side bars, interior door panels may be altered, replaced, or removed. When door panels are removed, all sharp edges or projections shall be protected.

18.6.4. Mounting Plates:

Bolt In cages
The thickness of mounting plates bolted to the structure of the car shall not be less than the thickness of the roll hoop or brace that they attach and shall be backed-up with a plate of equal dimensions on the opposite side of the panel, with the plates through-bolted together. A minimum of three (3) bolts per mounting plate is required for bolted mounting plates. All hardware (bolts) shall be Grade 5 or better with 5/16" diameter minimum.

Welded in cages
Mounting plates welded to the structure of the car shall not be less than .080" thick. Whenever possible the mounting plates should extend onto a vertical section of the structure (such as door pillar).

18.7. APPENDAGES

The following procedures are approved for modification to roll bars/cages that do not meet the two (2) inch required minimum: The old main hoop may be cut off near the chassis mounting and a new main hoop of equal tube size or a section of equal tubing size may be added, and inner tube(s) must be used to mate all sections together. All braces must be minimum distance from top of hoop per GCR Section 18. All welding for this modification must be arc welded (min.). The inner tube(s) must be rosette welded three (3) places near top and bottom.

Figure 5

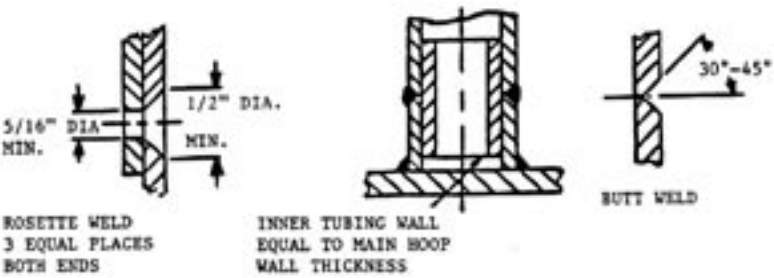


Figure 6: RECOMMENDED ROLL CAGE
HIGH FRONT HOOP OPEN AND CLOSED, GT

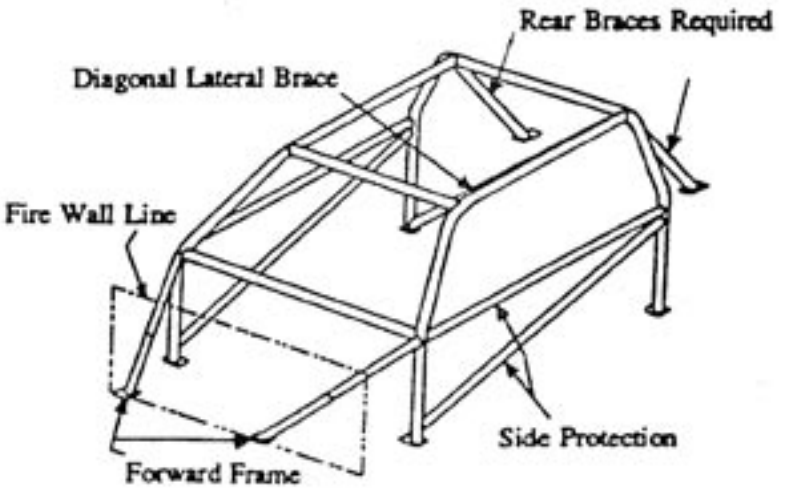
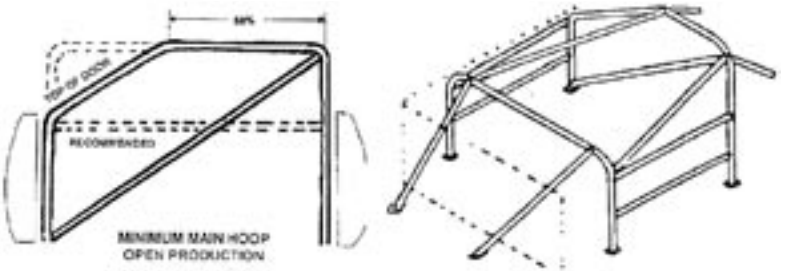


Figure 7A: MINIMUM REQUIREMENTS FOR ROLL CAGES
IN OPEN TOP CARS WITH LOW FRONT HOOP



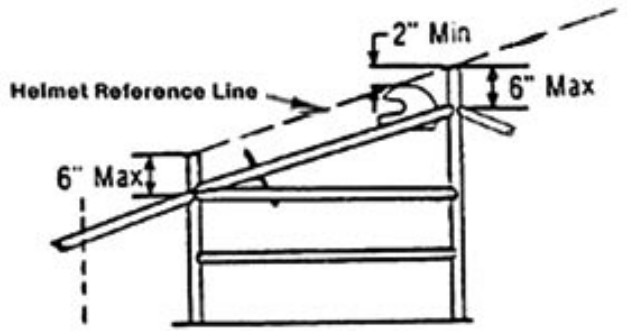


Figure 7B: RECOMMENDED ROLL CAGE
OPEN-TOP CARS WITH LOW FRONT HOOP

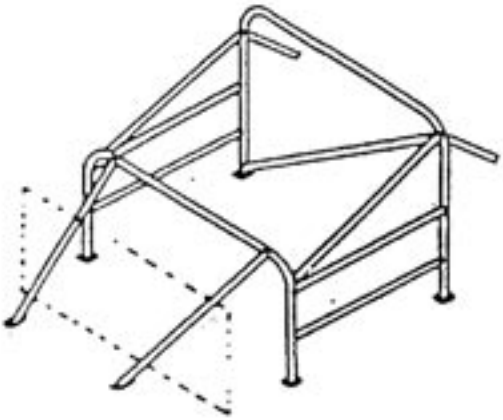
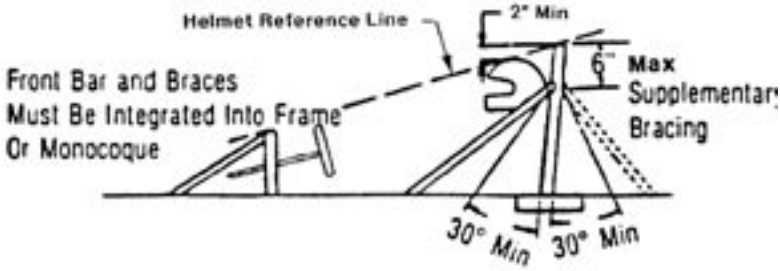


Figure 8



REMOVABLE ROLL BAR BRACES
ATTACHMENT DETAILS

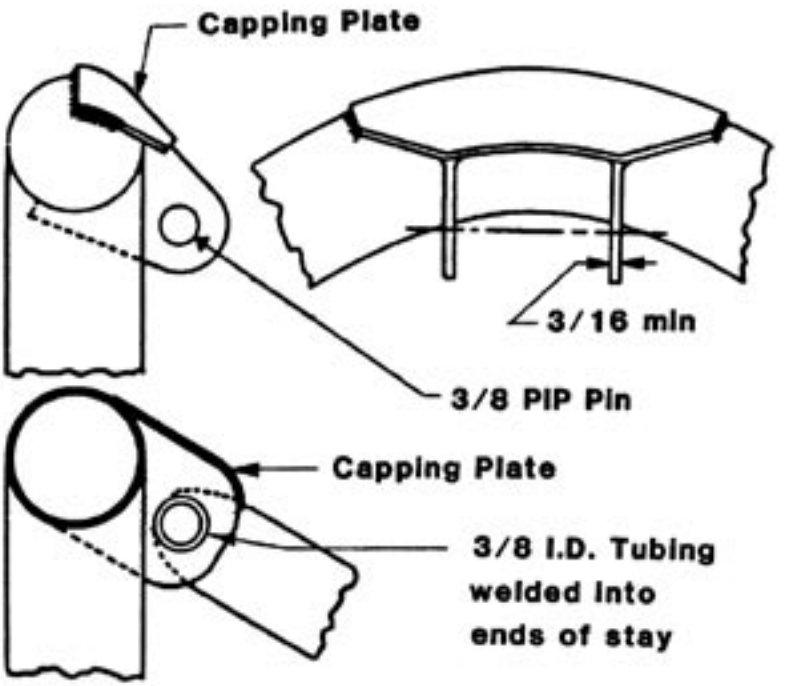


FIGURE 9

Removable Roll bar Braces Attachment Details

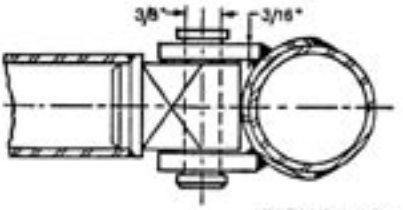


FIGURE 10

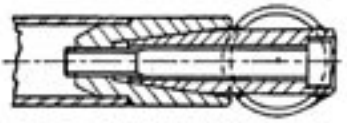


FIGURE 11

19. SAFETY FUEL CELL SPECIFICATIONS

All safety fuel cells shall be constructed and certified in accordance with the FIA FT-3 specifications. Where safety fuel cells are required in SCCA Competition, all safety fuel cells shall consist of a foam-filled fuel bladder enclosed in a metal container at minimum.

19.1. FUEL BLADDER

1. At minimum, all fuel bladders shall be constructed in accordance with the FIA FT-3 or higher (FT-3.5, FT-5, etc.) specifications.

19.2. CONTAINER

1. GT and Production Category
   The bladder shall be installed in a container of .036 inch steel, .059 inch aluminum, or .125 inch Marlex, fully surrounding the bladder.

2. Sports Racing Category and Formula Cars
   The fuel bladder shall be completely surrounded by a container (which may also be a part of the structure or bodywork of the car) to ensure rigid and secure mounting of the bladder and provide additional protection. A minimum of .036 inch steel, .059 inch aluminum, or an approved equivalent is required for all vehicles.

19.3. OTHER DESIGNS

SCCA may, at its discretion, approve safety fuel cells of other types and with basic specifications that differ from the bladder and container specifications above. In such cases, the manufacturer shall be required to demonstrate to the satisfaction of SCCA that such cells meet or exceed the crash resistant properties of cells meeting the standard specifications. SCCA may require independent laboratory analysis, comparative destructive testing, and such other tests it deems sufficient.

19.4. FILLER CAP

A positive locking fuel filler cap (no Monza/flip-type) shall be used, and fuel pickup openings and lines, breather vents, and fuel filler lines shall be designed and installed so that if the car is partially or totally inverted, fuel shall not escape. If the fuel filler neck is not connected directly to the bodywork of the car, a check valve shall not be required provided the filler cap is of a positive locking type and does not incorporate an unchecked breather opening. If the fuel filler neck is connected directly to the bodywork of the car, a check valve shall be incorporated in the fuel bladder to prevent fuel escaping if the cap and filler neck are torn from the bladder.

Fuel cell breathers shall vent outside the car. The cell

need not incorporate a drain fitting. Fuel filler location is unrestricted when safety fuel cells are installed in Production and GT Category cars.
It is recommended that all lines, filler openings, and vents be incorporated in a single fitting located at the top of the fuel cell.

In Formula and Sports Racer cars registered prior to January 1, 1994, the filler cap and neck are exempt from the bulkhead requirements of GCR 17.12.4.

19.5. ROTARY MOLDED CELL

The use of rotary molded fuel cells not having a bladder, or not contained in a metal can, is allowable in those cars that do not require the use of a fuel cell, but where they are an allowed option.

20. DRIVER'S RESTRAINT SYSTEM

All drivers in SCCA-sanctioned speed events shall utilize either a five or six-point restraint harness meeting the following specifications. Arm restraints are required on all open cars including open Targa tops, sunroofs and T-tops. The restraint system installation is subject to approval of the Chief Technical and Safety Inspector. (Note: SFI requirements for Driver's Restraint System does not include arm restraints at this time. Window nets need not be dated.)

1. A five-point system, recommended for use in automobiles where the driver is seated in an upright position, consists of a three (3) inch seat belt, an approximately three (3) inch strap over-the-shoulder type of shoulder harness, and an approximately two (2) inch anti-submarine strap.

2. A six-point system, recommended for use in automobiles where the driver is seated in a semi-reclining position, consists of a three (3) inch seat belt, approximately a three (3) inch strap over-the-shoulder type of shoulder harness, and two approximately two (2) inch leg or anti-submarine straps.

3. The material of all straps shall be Nylon or Dacron polyester and in new or perfect condition. The buckles shall be of metal-to-metal quick-release type except in the case of leg straps of the six-point system where they attach to the seat belt or shoulder harness straps.

4. The shoulder harness shall be the over-the-shoulder type. There shall be a single release common to the seat belt and shoulder harness. When mounting belts and harnesses it is recommended that they be kept as short as reasonably possible to minimize stretch when loaded in an accident.

The shoulder harness shall be mounted behind the driver and supported above a line drawn downward from the shoulder point at an angle of twenty (20) degrees with the horizontal. The seat itself, or anything added only to the seat shall not be considered a suitable guide. Guides must be a part of the roll cage or a part of the car structure.

Only separate shoulder straps are permitted. ("Y"-type shoulder straps are not allowed.) "H"-type configuration is allowed.

5. The single anti-submarine strap of the five-point system shall be attached to the floor structure and have a metal-to-metal connection with the single release common to the seat belt and shoulder harness.

6. The double leg straps of the six-point system may be attached to the floor as above for the five-point system or be attached to the seat belt so that the driver sits on them, passing them up between his or her legs and attaching either to the single release common to the seat belt and shoulder harness or attaching to the shoulder harness straps. It is also permissible for the leg straps to be secured at a point common to the seat belt attachment to the structure, passing under the driver and up between his or her legs to the seat belt release or shoulder harness straps.

   All straps shall be free to run through intermediate loops or clamps/buckles.

7. Each seat (lap) and shoulder belt of the harness (5 or 6 points), shall have an individual mounting point (i.e. 2 for seat belt and 2 for shoulder belt minimum). Anti-submarine strap may share a mounting point with one or both seat (lap) belt(s). The minimum acceptable bolts used in the mounting of all belts and harnesses is SAE Grade 5. Where possible, seat belt, shoulder harness, and anti-submarine strap(s) should be mounted to the roll structure or frame of the car. Where this is not possible, large diameter mounting washers or equivalent should be used to spread the load. Bolting through aluminum floor panels, etc., is not acceptable.

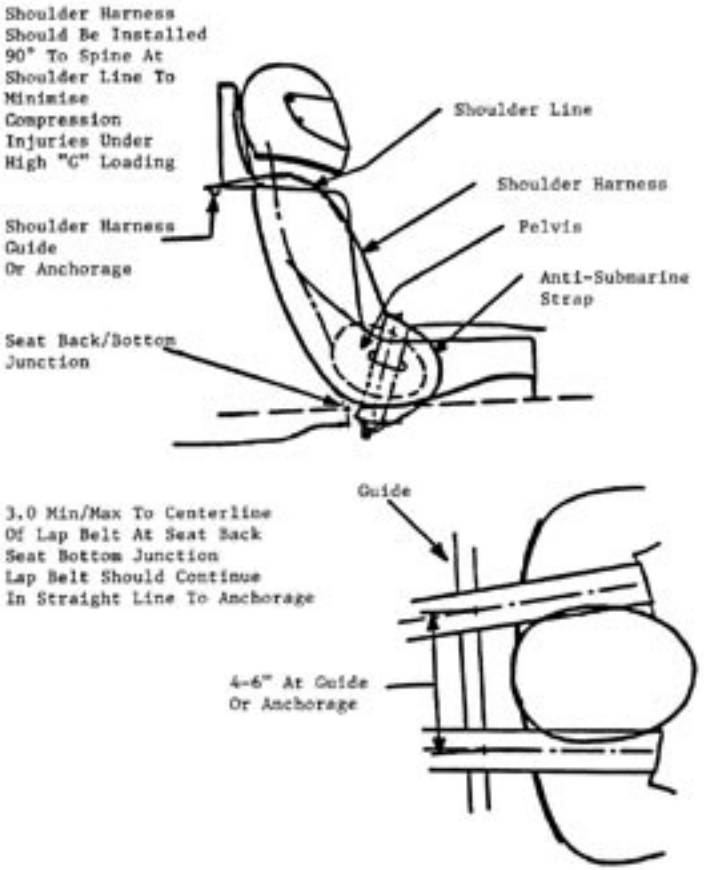
8. All driver restraint systems shall meet SFI Specifications 16.1., and shall bear a dated "SFI Spec 16.1.", label. The certification indicated by this label shall expire on December 31st of the 2nd year after the date of manufacture as indicated by this label. Driver restraint systems complying with FIA specification #8853/1985, including amendment 1/92, may be used. FIA driver restraint systems shall be no more than five (5) years old. (Not all manufacturers are dating every belt in a

set. They may be dating one of a pair of shoulder or lap belts or may only be dating one belt in an entire set. Scrutineers are reminded the restraint system needs only one date label.) Restraint systems homologated to FIA specification 8853/98 will not have a date of manufacture label. Instead, they will have a label containing the Manufacturers Name, Type of Harness Designation, and Date of Expiration, which is the last day of the year marked. All straps in an FIA restraint system will have these labels. FIA restraint systems with the certification "D-###.T/98" are equal to FIA specifications 8853/98, and are therefore acceptable restraint systems.

9. Harness Threading: Assemble in accordance with manufacturers instructions.

DRIVER RESTRAINT

FIGURE 1



21. OVAL TRACK RACING RULES

This section is intended as a guideline and recommendation for SCCA Club Racing events conducted entirely on paved oval tracks.

21.1. Events

Club Racing Oval Events are to be sanctioned as Regional or Restricted Regional racing events. National Races may not be conducted as Oval Events. Driver's Schools may be conducted as Oval Events, but not as a substitute for a road course driver's school. Regions conducting Oval Drivers Schools are encouraged to seek out local drivers who have experience at that track to advise students at the Oval Drivers School.

All items of GCR Section 3 which apply to Regional or Restricted Regional events shall apply to Oval Events.

Depending on the length and banking of the oval course being used, it is recommended that regions consider restricting the faster classes (GT1, FA, and CSR) from competition at Oval Events.

Oval Events may consist of any combination of practice sessions, qualifying sessions, heat races, and feature races. On tracks of less than 1 mile in length, it is recommended that qualifying be conducted one car at a time.

21.2. Courses

Courses for Oval Events must be approved by the Divisional Executive Steward prior to applying for a race sanction. These approvals shall expire at the end of the calendar year or upon written notification to the region by the Executive Steward which ever comes first.

21.3. Timing And Scoring

Timing and Scoring standards may be modified in favor of short-track scoring techniques. It is not necessary to time every lap of every car during a race, though an overall time for the winner should be recorded.

21.4. Flagging And Communications

Generally, all communications with the drivers while they are on course shall be done via flags at the Starters Stand and/or signal lights around the course. It is recommended that Flagging and Communications personnel be stationed around the course so as to communicate to Race Control the observations they make regarding the condition of the course or the nature of any incidents within their field.

21.5 Rules of the Road

21.5.1. Racing Surface

For the conduct of all competitions (qualifying or race), the

racing surface shall be defined as only the marked, paved race track and it's curbing. Pit lanes, their entries and exits; grass verges; etc.; are expressly excluded from the racing surface.

21.5.2. Flags

For Oval Events, flags will normally be only displayed at the Starter's Stand. Flags may be supplemented by signal lights displayed around the course. The flags used in an Oval Event shall be as defined in GCR 9.4 with the following exceptions:

A. RED FLAG – Come to a stop as soon as possible on driver's left (for counterclockwise tracks) or driver's right (for clockwise tracks). Then proceed very slowly and with great caution to the hot pit area and await further instructions.

B. Yellow Flag and/or Yellow Light
STANDING YELLOW — Take care, Danger, Slow Down, NO PASSING. The entire course is in a yellow flag condition.
WAVED — Great Danger, Slow Down, be prepared to stop, NO PASSING. The entire course is in a yellow flag condition.
DOUBLE YELLOW – Not used.

C. SURFACE CONDITION FLAG (Yellow with Vertical Red Stripes) – Not used. Any course condition warranting a surface condition flag is cause for displaying a Yellow Flag until the course condition can be corrected.

D. WHITE FLAG (Solid White) – The leader is starting his last lap. The White Flag shall be waved to the leader and then to each successive car during that lap.

21.5.3. Practice / Multi-Car Qualifying

A. During practice and multi-car qualifying sessions, all cars must enter the pit area and stop at their pit at the first opportunity after observing a yellow flag or yellow light at any flag or light station on the track. No car shall re-enter the track from the pit lane until the course becomes green again.

B. The scheduled practice time is total running clock time, not on-track green flag time, subject to event scheduling requirements.

21.5.4. Single-Car Qualifying

A. The number of warm-up laps, timed laps, and cool-down laps allowed in a qualifying session will be defined in the supplementary regulations and/or announced at

the drivers meeting.

B. Cars will qualify in an order determined by the Chief Steward. If a random drawing is used to determine qualifying order, details of the drawing will be announced prior to the drawing. Positions in the qualifying order are reserved as long as the car is in the qualifying line prior to the order to begin its qualifying attempt.

C. If a car does not proceed with the qualification attempt when ordered to do so, the qualifying order position will be forfeited. The car may be penalized further by the loss of one qualifying lap.

D. A qualifying attempt shall be considered started when the front wheels of the car cross the starting line after the qualifying start signal is given by the Starter.

E. If the car stops anywhere on the course after the qualifying start signal is given by the Starter, the driver will be charged with an attempt. Time permitting, those cars having started a qualifying attempt, but unable to complete the attempt, will be permitted to begin a second qualifying attempt. First priority for a second qualifying attempt will go to cars that failed to receive any qualifying time during their first attempt.

F. In the event qualification cannot be held or completed within the allotted qualification time, the field, or remaining field, will be filled by means of a seeded lottery by those drivers who have entered, but who have not qualified.

21.5.5. Races

A. Initial Race Start

1. A pace car may or may not be used. If no pace car is used, the responsibility of pacing the field will fall to the pole car.

2. The number of pace laps prior to the start of the race will be announced by the Chief Steward.

3. On the final pace lap prior to start, the pace car, if used, will turn its lights out and accelerate to leave track.

4. The pole car will bring the field gradually up to speed for possible start.

5. Cars shall not improve position prior to crossing start/finish line. (Pulling out of line alongside the car in front of you is improving your position.)

6. In case of an aborted start, the starter will display a standing green flag to the field. After the cars have entered turn one, the course will go yellow and the field will reform on the back straight for a restart.

B. Yellow Light/Flag Condition

1. In the event of a yellow flag, the lead car is responsible for controlling the field and getting the field to slow down in a smooth, orderly fashion.

2. A pace or safety car may be employed to bring the field under control. Whenever a pace car is used, it will remain out for a minimum of two laps subject to race conditions and at the discretion of the Chief Steward. The Chief Steward may designate to the lead car the duties of pace car to safely pace the field to a restart or to slow the field down gradually prior to a safety car entering the track.

3. In case of a pass in progress when the yellow light goes on, the over-taking car is expected to fall back and take station behind the car he was attempting to pass. The field does not race to the start/finish line.

4. The running order as of the last completed green flag lap immediately prior to the yellow flag shall determine the running order for the re-start.

5. Any yellow light or flag at an oval track is a full course yellow, whether or not there is a safety car. The lead car will slow the field down to permit the entire field to "bunch up" single file behind the leader. The track will stay yellow until the field is consolidated behind the leader. Drivers strung out around the track are expected to quickly move up to catch "the pack" while observing the yellow flag situation.

6. Cars entering the pits during a yellow flag condition, or cars responsible for causing the yellow flag condition, shall, assume a position at the rear of the formed pack on rejoining the field.

C. Restarts

1. On the lap prior to a possible yellow-to-green restart, the field will be notified of a possible restart on the next lap by:

   a. Safety car turning lights off and exiting the track.

b. If no safety car is used, Starter indicating one more lap.

2. In either case, the lead car gradually brings the field up to speed for a possible restart.

3. At the instant the starter waves the green flag, all yellow lights will go green. Racing resumes immediately over the entire track.

21.5.6. Driving Conduct

A. It is the responsibility of all drivers to avoid physical contact between cars on the race track.

B. All competitors have a right to "racing room" on the marked racing surface. "Racing room" shall be generally defined as sufficient space on the marked racing surface so as to allow a competitor to maintain control of his car in close quarters, under racing conditions.

C. It shall be incumbent on all drivers to preserve the right of his fellow competitors to "racing room" on the race track. Abrupt changes in direction so as to impede or affect the path of a car attempting to overtake or pass may be interpreted by Officials as an attempt to deprive a fellow competitor of his right to "racing room".

22. DEFINITIONS

22.1. GLOSSARY

NOTE: Should any of the definitions contained in this Glossary appear to be in conflict with a specific rule, then the GCR or Specification Book will take precedence.

2 Cycle - A reciprocating engine in which the intake, compression, combustion and exhaust phases are completed each revolution of the crankshaft.

4 Cycle - A reciprocating engine in which the intake, compression, combustion and exhaust phases are completed each two revolutions of the crankshaft.

A-Pillar - The forward most roof support in a passenger car, which also serves as the side support for the windshield.

Accelerator Pedal - A foot-operated device which allows the driver to vary the degree of opening of the induction system throttle(s).

Accessible - Capable of being reached without removal of other components.

Accumulator - A pressurized free-piston device, in which the compression of a fixed volume of air by the piston, upon the application of a force caused by fluid under pressure, provides a pressurized reservoir of the fluid.

Adhesive - A bonding agent designed to cause two or more components to adhere to each other without fusing them into a single component.

Adjustable Timing Gear - A camshaft drive gear or sprocket which permits a range of angular adjustment of the outer portion relative to the attachment point of the driven camshaft.

Advance Curve - The degrees of distributor advance from the static setting as a function of rotational speed, usually achieved by a system of rotating weights, springs, and limit stops within the distributor body.

Advance Plate - The plate inside a distributor on which the ignition points are mounted, which is free to rotate over a prescribed angle in response to the actions of the advance mechanism(s), thus altering the phase relationship of the points and distributor cam.

Advance Springs - Springs which provide the restoring force against the actions of the advance mechanism(s) in a distributor.

Aerodynamic Device - An attachment to, or an integral part of, a car intended to generate atmospheric downforce by the action of air flowing through or around the attachment.

Aerodynamic Skirts - Body panels, movable or fixed, at the bottom of the sides of a car's body, which aid in the creation of "ground effects" downforce by ensuring that little air passing under the car can escape at the sides.

Aeroquip Line - A brand name, used generically, for a braided metal-covered hose.

Air Cleaner - An induction system component intended to filter particulate matter from the incoming air.

Air Dam - An air control device at the lower front of a car, intended to divert some of the air which would normally pass under the car when the car is in motion.

Air Horn - See Velocity Stack.

Air Pump - An engine-driven pump intended to provide a supply of air (without fuel) to the engine to assist in the reduction of pollution components.

Air Throttle - The valve which allows the driver to modulate the volume of air passing into a fuel injection induction system.

Airfoil - An aerodynamic device or part of a car which the flow of air over its surface will generate a vertical force by creating a pressure differential between top and bottom surfaces.

Alter (verb) - To change a component by modifying.

Alternator - A component intended to generate current with which to maintain a proper level of charge in the on-board storage battery.

AN Coupler - A threaded high pressure hydraulic coupling of the type normally used with metal braided hose.

Annular Discharge - A carburetor type in which the fuel is introduced into the flowing air from an annulus on the periphery of the main duct.

Anti-Roll Bar (Sway bar) - A torsion control device connected to a car's structure, and to moving portions of the suspension, which is intended to control body roll. (Some types of ARB may also serve as a suspension component.)

Anti-Submarine Strap - A safety strap intended to provide additional support against motions of the driver's lower torso in the forward direction.

Aspect Ratio - The ratio of tire section height to section width, expressed as a percentage.

Attachment Points (Suspension) - The locations at which the fixed and moving ends of a shock absorber are mounted and/or the location

of the suspension component on the frame or structure of a car.

Automatic Transmission – A transmission which is capable of allowing a car to start from a stop without use of a clutch, which may be shifted from gear to gear without use of a clutch, and in which such shifting of gears is accomplished by hydraulic, pneumatic, or electric actuation.

Automobile - See Car GCR 2.10.

Axle Housing - The housing which contains axle shafts and may provide support for wheel hubs.

Axle Shaft - A shaft whose purpose is to carry rotational drive from a differential or transaxle to the driven wheels, or simply to support one (1) or two (2) undriven wheel hub(s).

Axle Tube - See Axle Housing. Also, the beam connecting the rear wheels on a front wheel drive car.

Backing Plate - A braking component used in drum type brake systems, generally to support the brake shoes and wheel cylinder(s) at a wheel.

Baffle - A plate or panel in a fluid container, which is designed to inhibit the rapid transfer of the fluid within the container when it is subject to changing dynamic forces.

Balance (Verb) - To minimize the dynamic off-axis forces of rotating components, or to equalize the weights of like reciprocating components.

Balance Pipe - A tubular induction system component which connects two (2) or more independent branches of the system.

Ball Joint - A bearing coupling, generally in suspension or steering systems, consisting of two (2) mating surfaces, one (1) convex and one (1) concave, which permits a range of angular displacements of the two (2) attached shafts over a prescribed range.

Ballast - Non-functional mass fastened inside a car to increase the weight of the car.

Base Circle - The constant radius portion of a camshaft lobe which is closest to the centerline of the camshaft.

Battery (Storage) - An on-board electrical storage component which may be used to activate electrical devices or systems, such as starter, ignition, etc.

Battery Box - A covered container for an on-board storage battery.

Beam Axle - A solid, non-rotating axle connecting the undriven wheels of a car.

Bearing - A mechanical component provided to allow connected parts to move with respect to one another in a manner consistent with durability and minimal friction.

Bearing Carrier - A housing in which the bearings carrying a shaft are mounted.

Bell Housing - A nominally bell-shaped extension or attachment to the engine or transmission which serves as a coupler between these assemblies, and usually encloses the clutch/flywheel assembly.

Belt Drive (Car) - A drive system in which the engine power is coupled to the driven wheels through a flexible belt and pulleys.

Bezel/Rim – Outer trim components which determine the assembled appearance.

Bias Ply Construction - A tire construction in which the structural plies of the main carcass form an angle considerably greater than zero relative to a cross section of the tire.

Big End - The crankshaft end of a connecting rod.

Blanking Sleeve - A replacement for a thermostat designed to divert the flow of cooling water away from the cooling system bypass circuit.

Block - The elemental component of a reciprocating engine which contains at least the cylinder location(s) and the crankshaft mounting points.

Blueprinting - The practice of engine improvement achieved by the use of selected standard parts and/or by optimizing the factory machined surfaces of stock engine components to achieve the most advantageous specifications within the normal range as defined by the manufacturer for that engine.

Within the above definition of blueprinting, any procedures that involve the following are <u>not</u> permitted unless specifically authorized:

a) The addition of material of any kind to any component (this includes, but is not limited to, the addition of sleeves/ bushings and the application of anti-friction, oil shedding and thermal barrier/retention coatings).

b) The machining, tooling or any other physical or chemical modification (including shot blasting) of any surface that was not originally a factory machined surface. Glass or other media blasting for cleaning purposes only is allowed as long as it does not remove or modify the base material of the original part.

c) Mixing/matching of parts from any other year, make, model

or type of vehicle or engine.

d) Balancing procedures that involve spot machining of all rotating and/or reciprocating parts (i.e. one rod/piston assembly must remain untouched).

Note: Under no circumstances may any factory specification be exceeded as a result of any permitted blueprinting operation(s) (i.e. compression ratio, valve lift, bore, stroke, etc.).

Body - All parts of the car licked by the airstream and situated above the belly-pan/floor with exception of the roll bar or cage. For Formula and Sports Racing cars, further exceptions are those units definitely associated with the function of the engine or transmission.

Body Panel - A replaceable section of the body.

Bodywork - See Body.

Bolt Pattern - The arrangement of bolts or other fasteners used to join two (2) components.

Boost - The degree of induction pressurizing in a turbo/supercharged engine.

Boot Cover - A cover for the area behind the driver/passenger seating area in an open car.

Bore - The diameter of a cylinder.

Boss - A protrusion from a casting or forging which provides the surface(s) and/or structure necessary to accomplish particular function of the component.

Brake Light - A signaling light mounted on the rear of the car, which may be actuated only by driver braking actions.

Brake Lining/Pad - Replaceable friction material which accomplishes braking action by making rubbing contact with the brake drum or rotor.

Brake Rotor - The disc component of a braking system, which is attached to a wheel hub and provides a friction surface for braking actions.

Braking System - A system, including hydraulic and mechanical components, which allows the driver to reduce the velocity of a car.

Breather Vent - An aperture which allows the flow of air into or out of an enclosure.

Bulb - A lighting system component which contains the actual light emitting element(s).

Bulkhead - A partition separating compartments.

Bump Steer - The change in toe-in or toe-out which results from changes in suspension geometry as the wheel(s) rises or falls from its neutral position.

Bump Stop - A cushioning pad which acts as the limit to suspension travel in one vertical direction.

Bumper - A semi-rigid attachment to the structure of a car at the front or rear, which is intended to absorb a portion of low speed front or rear collision forces.

Bumper Block - See Bump Stop.

Bushing/Bush - A sleeve or tubular insert, whose purpose is to reduce the dimension(s) of an existing hole.

C-Pillar - The body roof support bordering on the rear window or hatch.

Caliper - A braking system component which is the disc brake equivalent of a wheel cylinder, and converts hydraulic pressure into mechanical braking force at a wheel.

Cam Carrier - That portion of a reciprocating engine that contains the supporting bearings for an overhead camshaft.

Cam Cover - Equivalent to a valve cover in an engine with an overhead cam.

Camber - The angle of a wheel relative to true vertical. Negative camber implies that the top of the wheel is closer than the bottom to the car's centerline.

Camber Compensator - A wheel location device designed to control the wheel camber under varying conditions of bump/rebound.

Camshaft - An engine component, driven by the crankshaft, whose function is to actuate the valves, and often, to drive other engine components.

Camshaft Timing - The phase relationship of the camshaft to the crankshaft, which determines when in the crankshaft cycle the valves will open.

Canard - A near-horizontal aerodynamic device normally mounted at the extreme front of a (race) car.

Carburetor - The component of a non-fuel injection induction system which achieves the mixing of fuel and air to create a combustible mixture.

Car - See GCR 2.10.

Caster - The angle which the swivel axis of a steered wheel makes with the vertical in the fore/aft direction.

Catalytic Converter - An emissions control device in the exhaust system which reduces emissions by catalysis.

Catch Tank - A container with the purpose of collecting liquid, generally lubricant, vented from an engine, transmission, transaxle, or differential and preventing the loss, from the car, of the liquid.

cc - Cubic centimeter (a unit of volume).

Center-Lock - A type of road wheel/hub which is retained by a single central fastener.

Centerline - A line coincident with the axis of rotational symmetry of a component.

Centrifugal Clutch - A clutch which automatically engages in response to an increase from low engine speed, and disengages upon return to low speed operation.

Chain Drive - A drive system in which the engine power is transmitted through a chain and sprockets.

Chapman Strut - An adaptation of the McPherson strut for a rear suspension (without steering swivel).

Check Valve - A valve designed to prevent the flow of a fluid in one direction, while allowing relatively unimpeded flow in the opposite direction.

Choke - A carbureted induction system mechanism which, when actuated, causes an enrichment of the fuel/air mixture to assist cold starting.

Clinch Nut - A threaded female fastener which has been distorted on one end to supply a gripping force when assembled to a stud or bolt thread.

Clutch - A device whose function is to permit the driver to engage/disengage a power coupling between the engine and the transmission or transaxle.

CO - Carbon monoxide.

Cockpit - The driver/passenger volume within a car in which driver control devices, gauges, and seating are provided.

Coil - The transformer component of an ignition system which converts each low voltage pulse into a pulse of sufficiently high voltage to bridge the gap in a spark plug and initiate combustion in the engine.

Coil-Over Shock - A tubular shock absorber which contains top and bottom mounting locations for a coaxial coil spring, and is used with such a spring supporting the weight of the car.

Cold Air Box - An engine carburetor attachment of unspecified size and composition, whose purpose is to provide a source of ambient air alternate to that existing in the engine compartment.

Component - A constituent part of an assembly.

Compression Ratio - Reciprocating engines: the ratio of the sum of swept plus unswept volumes to the unswept volume. Rotary engines: the ratio of the largest to the smallest volume of the working chamber.

Compression Ring - A reciprocating engine component which is intended to seal the gap between the piston and cylinder wall against the pressure differential arising from compression, induction or combustion.

Compressor (AC) - The engine-driven pressurizing pump in an automotive air conditioning system.

Concentric - Two components or objects are concentric if they share a common centerline.

Condenser (AC) - The portion of an automotive air conditioning system in which the refrigerant in vapor phase is converted to liquid phase.

Connecting Rod - A component physically connecting a piston to a crankshaft in such a way as to convert the rotary motion of the crankshaft to a reciprocating motion of the piston.

Constant-Velocity Joint - A type of universal joint in which the angular velocities of input and output shafts are held approximately equal.

Cool Suit - A driver's safety suit which has provision to be cooled by a circulating liquid.

Cooling System - Those components directly associated with the cooling of an engine, including any hoses, fans, radiators, etc.

Cowl Induction - An arrangement in which the incoming air for an induction system is ducted from the cowl area below the windshield.

Crank-Triggered Ignition - An ignition system in which the triggering pulses are obtained from a pickup and wheel connected directly to the crankshaft, or to an intermediate pulley.

Crankshaft - The rotating engine component which, driven by piston/connecting rod assemblies, transmits, for external coupling, the torque resulting from the combustion process.

Crossflow Head - A cylinder head in which the intake and exhaust ports for each cylinder are on opposite sides of the head.

Crown - The top face of a piston at which combustion takes place.

Curvature - The dimension defined by the maximum distance between a curving surface and the straight line between its ends.

Cylinder Liner (Sleeve) - An insert in an engine block which defines the path followed by a piston in its reciprocating motion.

Decamber (Verb) - To make the wheel camber more negative.

Deck - Generally the rearmost upper body panel of a car, but not present in all cars.

Deck Height - The distance between the top of the piston at its outer edge and the machined surface which forms the head/block interface of the block.

Deck Lid - The access door into the volume (often "trunk") beneath a deck.

Differential - A gear assembly, physically separate from the transmission, whose purpose is to reduce the rotational velocity transmitted from the engine/gearbox, while providing a division of driving force to two (2) wheels.

Differential Housing - The housing in which the differential (final drive) gears are mounted.

Disc Brake - A braking system which relies on the friction between a suitable material in the form of a "pad" and a rotating disc to supply the braking force at a wheel.

Discriminator Valve - A check valve designed to install on the vent line of a fuel cell, allowing vapors to vent while retaining liquid.

Dish - A concave piston crown.

Displacement (Engine) - Reciprocating engine: the swept volume of one (1) cylinder times the number of cylinders. Rotary engine: the difference between the largest and smallest volumes of the working chamber, times the number of lobes, times the number of rotors.

Distributor Cap - An ignition system distributor component which contains the high voltage distribution contacts and means for securing the high voltage wires.

Dome - A convex piston crown.

Door Panel - The inner shell of a door which normally supports the trim.

Dowel - A tubular or cylindrical pin, the sole purpose of which is to make positive location of two assembled components possible.

Drive Belt - A continuous flexible reinforced elastomer band which provides the driving force for engine accessories, when attached by pulley to a rotating part of the engine, such as the crankshaft.

Drive Shaft - The mechanical drive train coupling between transmission and differential, which may allow an angular displacement of the driving and driven axes by the use of universal, constant velocity, or flex joints.

Drive Train - Those components in a car which produce and convey the driving power to the ground, and the housings containing these parts.

Dry Break Coupling - An attachment to an on-board fuel cell/tank filler neck/hose which is designed to prevent the spillage of fuel during refueling operations.

Dry Sump - An engine lubrication system in which the residual lubricant is pumped to an external storage tank by a "scavenge pump," and an additional pump or pumps return a supply of pressurized lubricant to the engine from the storage tank.

Dry Tire - A race tire, often with groove-less tread, intended strictly for use in competition under dry conditions.

Dryer (AC) - A component of an automotive air conditioning system which is intended to remove water from the refrigerant.

Duct/Ducting - A tube or passage for conveying a material, usually air.

Dust Shield - A cover intended to protect disc brake components from mud, dirt, etc.

Eccentric Shaft - The analog of a crankshaft in a rotary engine, the shaft driven by the actions of the rotor.

EGR Valve - An engine pollution control device which channels a portion of the exhaust gases back into the combustion regions of the engine.

End Plate - An air control panel mounted at each end and perpendicular to a wing, intended to maximize the efficiency of the wing by preventing spillage of flowing air at the ends.

Engine - The primary power plant of a car, including all physically attached ancillary components necessary for power production.

Engine Air Box - An induction system attachment, generally part of the bodywork, which ducts air from an opening protruding into the airstream to the induction system intake(s).

Engine Case - See rotor housing and/or block.

Engine Compartment - The loosely defined volume, nominally enclosed by panels on top and sides, which is the normal location of the engine in a car.

Engine Mount - A passive mechanical coupling used to support the weight of an engine at its attachment points to the structure of a car.

Engine Steady Bar (Torque suppressor) - A constraining beam or rod intended to resist the tendency of an engine to rotate on its mounts in reaction to torque forces.

Epitrocoidal Curve - The contour of the interior surface of a rotary engine rotor housing, which, with the rotor, determines the volume of the working chambers at any point in the rotation of the rotor.

Evaporator (AC) - That portion of an automotive air conditioning system in which the transition from liquid phase to vapor phase occurs.

Exhaust Pipe - A duct of unspecified dimensions, whose function is to convey exhaust products toward the rear of a car and away from the driver.

Exhaust Port - The duct within a cylinder head or rotor housing through which the exhaust gases pass from the exhaust valve(s) to the outer flange of the head.

Exhaust System - A passive system, whose components serve to convey the exhaust of an engine past the driver and away from the car.

Expansion Tank - A container, often operating at system pressures, which is designed to contain engine coolant on expansion at operating temperatures.

Extension - An external modification resulting in more material on the outside of the component than originally existed.

Fairing - A covering intended to divert airflow in a specific region of a car, to reduce air drag.

Fan - A rotating bladed device intended to provide a cooling flow of air to a heat exchanger.

Fan Belt - A flexible drive belt which is used to drive a water radiator cooling fan, and, often simultaneously, furnish drive to one (1) or more other rotating attachments to the engine.

Fasteners – Any mechanism which serves no other purposes than to cause a component to maintain a fixed position (i.e. bolt, nut, screw, etc.).

Fender - The body panel covering a road wheel assembly.

Fender Flare - An attachment to an existing fender which extends the fender outward so as to more completely cover the tire within.

Fender Skirt - A removable fender extension which partially closes the wheel opening, smoothing the air flow in this region.

Filler Cap - A closure which prevents the loss of fuel from the filler neck/hose when the car is in use, but which may be removed for refueling.

Filler Neck/Hose - The attachment to a fuel cell/tank through which fuel is supplied from a source external to the car.

Final Drive Housing - See Rear Axle Housing.

Final Drive Ratio - The ratio of input to output shaft motions in a final drive or differential.

Fire Extinguisher - An on-board container of specified capacity charged with approved fire extinguishing material which provides the driver or others with the capability to control small fires. See GCR Section 17.

Fire System - An on-board fire extinguishing system designed to be activated in the event of fire, whose purpose is to extinguish or retard the fire, thus providing a measure of protection for driver and car. See GCR Section 17.

Firewall - A vertical (plus or minus ten (10) degrees) metal panel separating and protecting the driver/passenger compartment from the engine compartment, preventing the passage of flame and debris. Metal ducts may penetrate the firewall, but must begin and end outside of the driver/passenger compartment. No intakes are allowed in the firewall.

Firing Order - The order in which the cylinders in a reciprocating engine produce power under normal conditions.

Flare (Verb) - 1. To extend by extrusion or attachment a fender so as to more completely cover the tire mounted within (Noun) - 2. Extruded end of a pipe or tube.

Flat Bottom - A race car construction in which the underside of the car is nominally flat and contains no “ground effects” shaping or ducting.

Flex Joint - A coupling designed to fulfill the function of a universal joint, but employing flexible materials to achieve changes in the drive axis.

Float - A carburetor component which, with an associated valve, controls the fuel level in the reservoir supplying the carburetor jet(s).

Float Chamber - The carburetor component which contains the reservoir of fuel supplying the jet(s).

Float Valve - The shut off valve actuated by a carburetor float, which controls the maximum level of the fuel in the float chamber.

Floor Pan - The section(s) of a car normally used as a supporting platform for seats and to physically separate the interior (cockpit) area from the underside of the car.

Fluid - Any material which readily flows at the specified temperature, e.g., liquids and gases at room temperature.

Flywheel - An engine attachment whose normal functions are to provide a gear appropriate for starter engagement, to provide a friction drive surface and attachment points for a clutch pressure plate, and to smooth the flow of power.

Frame - The minimal configuration of a car necessary to contain all running gear and to provide support for the body. Not present on "frameless" or "unibody" cars.

Fuel - The chemical mixture which, when mixed with air, is burned in an engine to produce power.

Fuel Cell - A crash-resistant container for the on-board fuel supply of a car.

Fuel Distribution Unit - A fuel injection induction system component which accomplishes the distribution of fuel to the injection nozzles.

Fuel Injection - A system, including mechanical and/or electrical components, whose function is to provide fuel, via pressurized nozzles, to the engine in lieu of carburetion.

Fuel Line - A hose or tube which conveys fuel from one point to another.

Fuel Metering Unit - A component of a fuel injection system which, under external control, determines the quantity of fuel supplied to the engine at any given time.

Fuel Pickup - The attachment to a fuel tank or fuel cell at which point the supply line(s) leading to the fuel pump(s) are attached.

Fuel Pump - A pump, mechanical or electromechanical, whose function is to cause the transport of fuel from the fuel cell or tank to the induction system.

Fuel Tank - A conventional OEM container, not of the safety fuel cell type,

for the on-board fuel supply of a car.

Gas Cap - See Filler Cap.

Gasket - A sealing component of unspecified composition which is intended to prevent the leakage of a fluid (air, water, oil, etc.) at the interface between two demountable assemblies.

Gauges - Mechanical or electronic readouts of automotive parameters.

Gear - A toothed drive train component used, in mesh with another gear, for the transmission of rotational force.

Generator - An engine-driven attachment which produces direct current to replenish an on-board storage battery.

Girdle - An engine component whose purpose is the structural reinforcement of the bottom end of an engine block by the replacement of the main bearing caps with a continuous block of material containing equivalent bearing mountings.

Grille - The decorative covering for the grille opening.

Grille Opening - The opening in the front of a car, through which cooling air is ducted to the radiator(s), and in some cases, to other accessories, or to the engine.

Ground Effects - A term for a car design in which airflow produces a significant pressure differential between the upper and lower portions of the body/chassis, creating downforce on the assembly.

Gudgeon Pin - English term for piston wrist pin.

Gusset - A brace generally formed by attaching, by welding, a plate at or near the junction of two structural beams or tubes, providing reinforcement particularly in the plane including the tubes and the plate.

H.D. - Heavy duty.

H.T. - High tension. English term for spark plug voltage in regard to ignition components.

Hand Brake - A braking system component causing a braking action on one (1) or more wheels, or on another part of the drive train, which may be actuated and locked in the engaged position by the driver.

Hardtop - A removable rigid substitute for a convertible or roadster top.

Hatchback - A hinged body component containing the rear window which, in the open position, gives access to the interior of a car

from the rear.

Head Rest - See Head Restraint.

Head Restraint - A cushioned, fixed restraining object intended to protect the driver under conditions which cause the driver's head to be thrust rearward.

Header - A multibranch exhaust system assembly, whose function is to convey the exhaust products from more than one cylinder to one or more exhaust pipes.

Header Tank - A component of an engine cooling system, generally at the top or above the radiator, which is often used as the filling point for the system.

Headlight Cover - A protective cover for headlight(s) which is part of the original configuration of the body design.

Heat Riser Tube - An attachment to an induction system which provides a source of warmed air, generally from the exhaust system, as an aid to cold running.

Heat Sink - A part of a system used to convey and dissipate heat from another part of the system.

Helicoil - A commercial repair for internal threads.

Homologation - A system whereby the manufacturer/competitor certifies that a Formula or Sports Racing car, as produced, complies with all of the applicable specifications.

Hood - The panel or assembly of panels which cover the engine compartment.

Horn - The audible signaling device with which highway cars are equipped.

Hot Terminal - The terminal of a storage battery which is not connected to the frame or chassis of the car.

Hub - A component to which a road wheel is attached, which provides support for the wheel, and has the capability, via attached internal bearings to rotate on a fixed shaft.

Hub Caps - Decorative removable attachments to the central area of road wheels.

Hub Carrier - A suspension component which provides the means for mounting a rotating wheel hub, and for attachment of suspension components and stabilizers.

Idler Shaft - A shaft which rotates, or supports another component which rotates, without itself transmitting the rotational force.

Ignition System - A system which converts on-board storage battery supply voltage into a timed sequence of high voltage pulses suitable for igniting engine combustion mixtures in a controlled manner.

Independent Suspension - A suspension system in which either wheel on the referenced end of the car can undergo its normal vertical motions without directly influencing the motions of the other wheel.

Induction System - Those engine components directly associated with the creation and conveyance of the combustible mixture, and any functional associated attachments thereto.

Injection Nozzle - The fuel induction system component through which fuel is forced under pressure to form a combustible mixture with air.

Inlet Port - The cylinder head duct leading to intake valve(s).

Insert (Strut) - The replaceable portion of a suspension strut, basically a tubular shock absorber with the necessary fastening element(s) for the upper strut mounting point.

Instrument - An indicator or readout which, when active, contains information about some aspect of car operation for driver reference.

Instrument Panel - A panel, located within the cockpit of a car, and in a position convenient for driver visibility, which may provide a mounting area for various gauges and controls.

Intake - An opening through which fluid/air enters an enclosure.

Intercooler - A heat exchanger associated with a turbocharging or super-charging system, which is intended to reduce the temperature of the incoming air or air/fuel mixture, and is located in ducting between the turbo/super-charger and the engine.

IR - Individual runners. (No balance pipe, no plenum)

Jack Points - Locations on the underside of a car suitable for the application of a lifting jack.

Jack Shaft - A shaft which transfers a driving force from one element of an engine to another, such as the drive for an oil pump and/or distributor, taken from an overhead camshaft.

Jet - A carburetor aperture component which is used to meter air and/or fuel flowing into the mixing region of the carburetor by presenting restriction to the flow.

Kill Switch - See Master Switch.

L.T. - Low tension. English term for battery voltage in regard to ignition components.

Limited Slip Differential - A differential which is designed in such a way as to overcome the normal action of a differential to apply most of the available torque to the least loaded wheel, and instead to apply a significant portion of the torque to the most loaded wheel.

Linkage - A link or system of links (cables, rods, etc.) which convey a mechanical force from one location to another.

Lip-Type Rear Spoiler - A directly attached aerodynamic device which generates downforce from the action of air flowing over a single surface, creating a turbulent depression away from the direction of motion.

Lobe Center - The angular position of a camshaft, defined as that position in the rotation at which the lift of an associated tappet will be greatest.

Locked Differential - A variation of the limited slip differential in which no relative slippage of the two driven wheels is permitted under any conditions.

Lubricant - A substance which, when interposed between components moving with respect to each other, reduces friction and promotes durability. (see 17.36)

Luggage Compartment - The region within the bodywork of a car which is designated as being intended for the carrying of luggage.

Magneto - An ignition system component which generates the electrical power for ignition of combustion with a system of magnets and coils in relative motion.

Main Bearing Cap - A reciprocating engine component which has provision for nominally half of one main crankshaft bearing, and which, when attached to the engine block, may also provide lateral location for the crankshaft.

Manifold - A passive device for conveying gases into or out of an engine, generally to achieve the connection of differing numbers of ducts.

Master Cylinder - A hydraulic component of the braking system which produce positive pressure in the hydraulic lines on the application of mechanical force.

Master Switch - A safety switch which can be actuated by the driver or other to disable all operating electrical functions, without disconnecting the electrical supply to any fire system present.

McPherson Strut - (See strut type suspension) A front suspension type utilizing a strut with integral tubular shock absorber and coil

spring, with the steering swivel axis that of the strut/shock. Upper location is by strut only.

Metallic - A material having iridescent or specular (mirror-like) reflective qualities (e.g. aluminum foil).

Metering Rod - A carburetor component which aids in the metering of fuel flow.

Mirror (Rear View) - A reflective device whose sole purpose is to enable the driver's field of vision to extend in a rearward direction.

Modify - To change a component by reworking, but not by replacing.

Monocoque - A frameless construction in which the main structure of a car is composed of a permanent assembly of panels to which the running gear, suspension and body are attached.

Motor Mount - See Engine Mount.

Mudguard - A partial fender, generally not contiguous with the car body.

Muffler - A component, whose function is to reduce the sound level from an exhaust system.

NASCAR-Style Door Bars - If installed, shall consist of one or more sidebars that intrude into the door cavity and connect the main hoop to the front hoop

Needles (Carb) - Tapered carburetor fuel flow metering shafts, or tapered shafts used in float shutoff valves.

Nitride (Verb) - To heat process ferrous metal components so as to increase the surface hardness.

O-Ring - A seal or gasket, generally made from an elastomer or metal, in the shape of a torus with a circular cross section.

O E M - Original Equipment Manufacturer.

Offset Key - A metal drive key for coupling a shaft and a pulley, wheel, or sprocket, in which opposite radial ends of the key are offset to achieve adjustment of the phase relationship of the driving and driven parts.

OHC (Overhead Cam) - A type of reciprocating engine in which the camshaft(s) are located in the cylinder head(s), and act on the valves, either directly or through a linkage.

OHV (Overhead Valve) - A type of reciprocating engine in which the camshaft(s) are located in the engine block, and act on the valves through linkage, generally including pushrods and rocker arms.

Oil Filter - An engine accessory intended to intercept all or a portion of the lubricant circulating from the oil pump, and to remove, by trapping, solid particles from the lubricant.

Oil Galley - A passage within an engine block which carries the flowing lubricant to various internal distribution points.

Oil Line - A hose or pipe, external to the engine, which conveys lubricating oil from one point to another.

Oil Pan - An oil sump fixed to the bottom of an engine.

Oil Passage - A duct within an engine component intended to convey lubricating oil.

Oil Pump - A mechanically-driven pump designed to draw lubricant from a reservoir, or sump, and supply it under pressure to the balance of the lubrication system.

Oil Strainer - A screen surrounding the oil pickup in an engine which is intended to keep relatively large solid particles from being drawn into the pump.

Oil Sump - The container in which the return lubricant from the engine is collected to form the supply from which the pump may draw.

Outline - A line that marks the outer limits of an object or figure.

Overhang - The distance which the end of the bodywork extends away from the wheels at the referenced end of the car.

Panhard Rod - A rear axle lateral locating device, which has one end connected via a link to the axle housing, and the other end connected to the car structure or bodywork.

Parkerizing - A commercial process in which a metal part, usually a camshaft, is treated to increase resistance to break-in scuffing.

Parking Brake - See Hand Brake.

Parking Light - A non-racing lighting component, frequently combined with lighting components of other functions, intended to illuminate the extremities of a car while parked.

Phase - The angular relationship between two rotating components, or between one (1) rotating component and a periodic event.

Pickup (Suspension) - The location of attachment of a suspension component on the frame or structure of a car.

Pilot Bearing - A bearing, generally within one end of a shaft, which is intended to support another shaft under conditions of relative rotary motion.

Piston - A reciprocating engine component whose functions are to provide a partial vacuum with which to induce the flow of fuel/air into the combustion region, to convert the combustion pressures to reciprocating motion, and to expel exhaust gases.

Piston Ring - A reciprocating engine component which, when mounted on a piston, provides either sealing or oil control functions when the engine is in operation.

Pitman Arm - A steering system component which translates the rotation of the steering gears to a linear motion of steering links.

Plenum - An induction system chamber generally interposed between carburetor(s) or air intake(s) and ducts feeding ports.

Points (Ignition) - The switch portion of a distributor actuated by cam lobes, which interrupts the current flowing through the primary windings of an ignition coil, thus generating high voltage pulses which are conveyed to the spark plug.

Polish (Verb) - To reduce the roughness of a surface by mechanical, chemical, or electrochemical means.

Port - See Intake, Exhaust Ports.

Power Brakes - A braking system in which the driver-initiated mechanical force acting on a master cylinder is assisted by a servo mechanism, generally derived from manifold vacuum.

Power Steering - A steering system in which the driver-initiated force acting on the steering gears is assisted by a servo mechanism, usually involving an engine-driven hydraulic pump.

Pressure Equalizing Device - A braking system component intended to equalize or allow adjustment of the relative pressures in separate branches of the hydraulic system (e.g. front/rear).

Pressure Plate - The clutch assembly component which provides the force necessary to couple the engine to the next component in the drive train through friction surfaces.

Pressure Regulator Spring - A spring whose installed force determines the pressure at which a valve or valve system will open to allow the flow of fluid.

Profile (Verb) - To measure or to reshape the contour of a camshaft lobe, rocker arm or similar component.

Propeller Shaft - See Drive Shaft.

Proportioning Valve - A braking system component intended to allow adjustment of the hydraulic pressures available in separate branches of the system (e.g., front/rear).

Pulley - A rotational attachment for a drive belt.

Pushrod - A cylindrical or tubular reciprocating engine component which transmits a reciprocating motion arising from camshaft rotation to or toward the valves.

Pushrod Tube - An engine component which encloses a pushrod in the region between the engine block and the cylinder head.

Qualifier - (a) One who receives a time, or (b) One who is waived into a race by the Chief Steward and starts the race.

Racers Tape - Generally duct tape, an adhesive, fabric-backed tape.

Rack and Pinion - A type of steering system, or the gear components thereof, in which the rotary motions of a pinion gear attached to the steering shaft act on a rack, or linear gear.

Radiator (Cooler) - A heat exchanger intended to remove heat from engine or gear fluids.

Radius (Verb) - To contour an abrupt edge on a component by increasing the radius of the transition.

Rain Tire - A racing tire intended solely for competition in wet conditions.

Ram Air - A type of induction system in which the incoming air is obtained from an extension into the airstream outside the bodywork.

Ratio (Gear) - The number of rotations of the drive shaft which produces one (1) rotation of the driven shaft(s).

Rebound - A suspension term referring to motion in the upward direction.

Reciprocating Engine - An internal combustion engine in which the driven actions of one or more pistons are converted to the rotary motion of a crankshaft.

Relief Valve - A check valve intended to vent at a predetermined pressure differential.

Remote Reservoir Shock Absorber - Any shock absorber or dampening device which uses an externally mounted (connected either by hose or "piggy back" design) fluid and/or gas reservoir.

Repair (Verb) - To remove the effect(s) of accidental damage to a component, returning it to original or legally modified dimensions and function.

Replica - A component identical to or very similar in appearance and function to the original which it replaces.

Resistor Spark Plug - An ignition system spark plug containing electrical resistance which is intended to reduce radio interference.

Ride Height - The distance from level ground to the specified portion of the car, with the tires, wheels, air pressure, etc., as normally raced.

Rim Width - The distance between the opposing lateral sides of a road wheel in the region where the bead of a tire seats. Measuring method per tire and rim association standard.

Ring Gear - The main driven gear in a final drive assembly, driven by a pinion gear. Also the starter engagement gear on a flywheel.

Rocker Arm - A valve train component which transfers the motions of the camshaft, often with a multiplication of travel, to a valve.

Rocker Cover - See Valve Cover.

Rocker Panel - The body panel closest to the ground extending along either outer side of a car between the wheels.

Rod End - A load-bearing threaded mechanical coupling with angular freedom of the relative axes and which allows rotation of the inner portion with respect to the outer*, i.e. heim joint*.

Roll Bar - A safety device designed to protect the driver from injury in the event of a roll over accident. See GCR Section 18.

Roll Cage - An extension of a minimal roll bar, designed to protect the driver from injury from accidental forces in several directions. See GCR Section 18.

Roller Cam Follower - An engine component (tappet) which utilizes a rolling member to contact the camshaft.

Rotary Engine - A non-reciprocating engine of the NSU-Wankel type.

Rotary Engine Rotor - The main rotating component of a rotary engine, which essentially accomplishes the compression, power delivery and exhaust functions of a reciprocating engine in constrained rotation in a specially shaped housing.

Rotary Piston - See Rotary Engine Rotor.

Rotor Housing - The housing of a rotary engine in which the rotor rotates. Analogous to the engine block of a reciprocating engine.

Rub Strip - Expendable material added to bottom of a car to prevent contact with the road surface from damaging non-expendable portions of the car.

Runner - A duct of an induction system leading to the cylinder head.

Running Light - A signaling light of specified size and location, which can be activated by driver control, and is intended to improve the ability of other drivers to detect the signaling car.

Scattershield - A stationary safety device intended to protect the driver in the event of catastrophic clutch/flywheel failure.

Scraper - A passive internal attachment to an oil pan whose purpose is to control the return flow of lubricant by removing it from the rotating crankshaft.

Seal - A conformable sealing component generally used to inhibit the passage of fluids along the shafts of moving parts, such as valves, master cylinders, etc.

Seat Belt - A safety strap, generally containing the attachment/release mechanism for all other safety straps, intended to restrain the driver against forces tending to move the driver. See GCR Section 20.

Section Width - The lateral cross section of a tire, sidewall to sidewall.

Servo Assist - The application of mechanical assistance, through vacuum or hydraulic or other external action, to reduce the forces required from the driver.

Shaved Tread - A tire tread which has been abraded or cut to reduce the tread depth.

Shift Fork - A transmission or transaxle component which directly moves gears into engagement or disengagement in response to driver actions.

Shock Absorber - A device intended to dampen the actions of road springs.

Shot Blasting - See Shot Peening.

Shot/Glass Peening - A treatment, consisting of impelling small glass or metal balls into metal parts, intended to reduce stresses in components.

Shoulder Harness - A safety strap assembly intended to restrain the driver's upper body under conditions of rapid reduction of forward velocity. See GCR Section 20.

Side Marker Light - A small light fixture normally mounted on the side of a fender, which is intended to make the car more readily visible from the side under appropriate conditions.

Signal Light - A light fixture used to signal turns or, in some cases, stops.

Slave Cylinder - A hydraulic system component which achieves the

conversion of hydraulic pressure to mechanical force, usually to accomplish a disengagement of the clutch.

Space Frame - An automotive frame constructed of multiple small tubes. See also Tube Frame.

Spark Plug - An engine component which, by means of high voltage supplied by an ignition system, initiates the combustion of the air/fuel mixture.

Specification - A detailed presentation of parameters which determine the performance or suitability of a system or assembly of systems to accomplish design goals.

Spherical Bearing - A load-bearing connector in which the central portion is convex and the outer portion is concave, allowing both angular displacements of the axes and relative rotation.

Spider Gears - Components of the torque division section of a conventional differential gear assembly.

Spindle (Stub Axle) - The shaft, and integral assembly supporting a wheel hub, and often, braking and/or steering components.

Spoiler - A panel attached to the body of a car at the front or rear, intended to alter the airflow around or under that end of the car when in motion.

Spring Cap - See Valve Spring Retainer.

Spring Shock - A suspension assembly containing a coil spring surrounding a tubular shock absorber.

Spring Washer - A spacer designed to exert force against securing pressure, thus reducing the tendency of an attached threaded fastener to separate.

Sprocket - A gear made specifically for use with a drive chain.

Stabilizer - An attachment to the suspension system, not usually part of the suspension, which aids in maintaining the relative alignment of a wheel or wheels to the car.

Starter (Self Starter) - An electrical device which is used to initiate normal engine operation by converting electrical energy into mechanical rotation of the engine.

Starter Ring - The gear on the outer periphery of a flywheel for application of drive from a starter.

Stayrod - A rigid reinforcement bar or rod interconnecting opposite sides of a car at structurally significant locations.

Steering Arm - The rigid link in a steering system which conveys the steering action from the steering gears and leakage to a wheel assembly.

Steering Column - The shaft forming the connection between the steering wheel and the steering gear, through which driver-initiated steering motions are transmitted.

Steering Linkage - The various components, exclusive of gears, steering column and steering wheel, which transmit the driver's steering motions to the steered wheels.

Steering Lock - The degree of turning motion given to the steering wheel, and hence to the steered wheels. "Full lock" denotes the maximum available turning angle.

Steering Lock Mechanism - An antitheft device used to lock the steering shaft or wheel when the ignition key is withdrawn.

Streamlining - Smoothing the airflow over a portion of the car.

Stroke - The length of travel of an engine piston from uppermost to lowermost positions.

Strut (Stabilizer) - A rigid beam used to assist in the location of suspension components.

Strut Type Suspension - Strut suspension consists of three pivoting attachment points including a single upper attachment point, the spindle being mounted on a telescoping post with no vertical movement at the top attachment point.

Stub Axle - See Spindle.

SU-type Carburetor - Any single barrel automotive-type side draft, overhead sliding piston type carburetor regardless of manufacturer.

Surround - To enclose on all sides.

Sunroof - A movable panel in the roof of a car, which may normally be partially opened from within the car.

Supercharger - An induction system compressor component, mechanically driven from the engine, which provides forced flow of the fuel/air mixture into the engine by the generation of positive pressure.

Suspension Bushing - A hollow cylindrical mounting component which acts as a bearing, allowing constrained motion, between a suspension component and attachment point.

Suspension Control Arm - A beam or frame intended to limit the normal

motion of the affected suspension part to predetermined paths.

Swaged Fitting - A tubing fitting which utilizes some form of extrusion of the tubing to form a seal against the leakage of pressurized fluid from within the tubing.

Sway Bar - See Anti Roll Bar.

Synchronizer - A transmission component which aids in matching speeds of two gears as they are engaged.

System - An assembly of components with an identifiable primary function.

T-type Top - A body design in which the roof contains, above the front seats, two (2) removable panels separated by a fixed section which joins to the balance of the roof.

Taillight - The running (parking) light assembly at the rear of a car, which may include lights with stop and/or turn signaling functions.

Tap (Verb) - To cut threads in a hole to retain a stud or bolt with threads of matching pitch and diameter.

Tappet - (Cam follower, valve lifter) An engine component which, in contact with the camshaft, follows its rotating profile, resulting in a programmed reciprocating motion suitable for actuating valves.

Targa-Type Top - An automotive roof design in which the area over the front seats is removable.

T D C - Top dead center, referring to the rotational position of the crankshaft when the number one piston is farthest from the crankshaft.

Thermostat - An engine cooling system regulator device which is intended to control the temperature of the coolant by modulating the flow through an aperture.

Throttle Butterfly - An induction system component which may effectively vary the area of the induction port when turned (in response to driver input) from parallel to the flow in the port ("full throttle"), to almost perpendicular to the flow ("closed throttle").

Throwout Bearing - A bearing which, in response to driver actuation, accomplishes the application of the force needed to release the friction clutch through the actuation of the pressure plate.

Tie Rod - The link connecting a portion of the steering system which is fixed to the chassis to a sprung wheel.

Time (Verb) - To adjust the phase relationship of ignition and crankshaft, or of camshaft(s) and crankshaft.

Timing Belt - A toothed belt used, with appropriate pulleys, to convey drive force in a synchronous manner from the crankshaft to one or more camshafts.

Timing Gear - The engine gear or sprocket attached to a camshaft and driven by the crankshaft via gear(s) or chain.

Tire Tread - The portion of a tire containing the material intended to be in road contact while a car is in straight-ahead motion.

Toe (-In, -Out) - The measure of the position of the wheels on either axle of a car with respect to each other, with reference to the fore/aft direction.

Tonneau Cover - A cover for the passenger portion of an open car.

Top (Removable) - A removable covering for an open car, normally supplied for protection against the elements.

Torque Biasing Differential - A form of limited slip differential.

Torque Converter - An engine-driven power transmission device which couples driving and driven shafts with a variable speed reduction.

Torque Suppressor - See Engine Steady Bar.

Torsion Bar - A bar or beam intended to act as a springing medium, in which the "springing" is derived from resistance to twisting along the main axis of the bar.

Track - The distance between the center of the rims of two wheels at one end of a car, with any angular adjustments at normal settings and steered wheels in the straight ahead position.

Traction Bar - A link to an axle housing or hub carrier which resists torque reaction from the wheel by acting in compression or tension.

Trailing Arm - A wheel control linkage locating the wheel in the fore/aft direction, which is attached to the car structure at the forward end of the arm, and to the wheel carrier at the rear of the arm.

Transaxle - A component containing the mechanisms necessary to achieve the combined functions of a transmission and a differential.

Transistor Ignition - A system of ignition in which electronic components are utilized.

Translucent - Permitting the passage of a reasonable amount of visible light. In the case of fluid containers, permitting the visual assessment of fluid levels by observing these through the container.

Transmission (Gearbox) - An assembly of driver-selectable gears in an independent housing, located between the engine and driven wheels, whose function is to alter the rotational velocity reaching the wheels.

Transparent - Offering very little resistance to the passage of visible light, suitable for use in the line of sight.

Transverse Engine - An engine located in a car such that the crankshaft centerline is nominally perpendicular to the normal direction of car motion.

Trim - Coverings or attachments whose function is solely cosmetic.

Trued Tread - The tread of a tire which has been cut after mounting on a wheel so as to ensure that the surface of the tread is equidistant from the center of the wheel at all angles of rotation.

Trumpet - See Velocity Stack.

Trunk Area - The spare tire and/or luggage region inside the body of a car.

Tub - The central contiguous assembly of stressed panels which form the basic structure of a frameless car.

Tub-based (non tube-frame) Car - A non-tube frame car has a stock floor pan, firewall, door pillars, sills, windshields conforming to stock profile, and window frames, etc.

Tube Frame Car - A car intended solely for racing, whose main structure or frame is fabricated from an assembly of tubes welded into the desired configuration.

Tuftriding - A commercial surface hardening process for ferrous metals.

Turbo Boost Control - An adjustment which causes a change in the degree of turbo boost available.

Turbocharger - An induction system compressor component, driven by exhaust gases from the engine, which provides forced flow of the fuel/air mixture into the engine by means of positive pressure.

Undertray (Belly Pan) - An attachment to the underside of a car intended to smooth airflow and/or to offer driver protection in this region of the car.

Unibody - A type of construction in which the main car structure is fabricated from an assembly of panels and reinforcements, permanently fastened together, generally by welding, into a single unit.

Universal Joint - A mechanical drive train component which permits a change in direction of the axis of rotation conveying the force.

Unswept Volume - The enclosed volume existing in a cylinder/cylinder head with the piston at its closest approach to the cylinder head.

Vacuum Advance Mechanism - An ignition distributor mechanism which, under the influence of manifold vacuum, changes the ignition timing in a prescribed fashion.

Valve - A reciprocating engine component which may be opened or sealed in phase with crankshaft rotation, so as to control the induction of fuel/air mixtures or the exhaust of products of the combustion process.

Valve Cover - A cylinder head attachment whose function is to contain lubricants and to protect the valve actuation mechanism from outside contaminants.

Valve Guide - A sleeve bearing whose function is to provide axial location of a valve, while allowing normal reciprocating motions.

Valve Keeper - The component, generally two-piece, which secures the valve spring retainer to the valve stem in a cylinder head.

Valve Relief - A cutout in a piston crown to allow close approach of a valve.

Valve Seat - The area in a cylinder head in which the head of a valve under spring pressure forms a gas seal.

Valve Size - The diameter of the head of a valve.

Valve Spring Retainer (Collar) - A valve train component which serves the dual purpose of containing the outer end of the valve spring(s), and, by means of valve keepers, connecting the valve stem to the spring.

Valve Spring Shim - A valve train component whose purpose is to allow the adjustment of the seated valve spring pressure by effectively changing its seated length.

Valve Stem (Engine) - The shaft portion of a reciprocating engine poppet valve.

Valve Stem (Wheel) - The attachment to a road wheel through which pressurizing air is admitted/released.

Vapor Lock - A condition in the fuel delivery system caused by the existence of vapors, rather than liquid fuel, in the fuel pump, resulting in abnormal fuel delivery.

Variable Ratio Drive - A power transmission device in which at fixed input shaft rotational velocity the rotational velocity of the driven shaft is continuously variable over a prescribed range of ratios.

Velocity Stack (Air Horn/Trumpet) - An induction system attachment, generally in the form of a cylindrical flare, used to alter the dynamic coupling between carburetor and the mass of incoming air.

Vent - An aperture which allows pressure equalization between a semi-sealed volume and the outside of this volume by providing a flow path for gases.

Ventilation - Cooling a component by an intentional flow of air, or modifying a component so as to facilitate this process.

Venturi - A region of constriction in an air duct of a carburetor in which, through the actions of incoming air flow, a reduced pressure is created to induce the inflow of fuel through one or more jets.

Vibration Dampener - Generally a rubber-mounted rotating circular disc or pulley whose function is to reduce the amplitude of vibrations in the mechanism or part to which it is attached.

Visible - Capable of being seen, perceptible to the eye, apparent, evident.

Voltage Regulator - An electronic or electromechanical device intended to regulate the charging actions of an alternator or generator.

Watts Linkage - A rear axle lateral location system which employs a frame/body-mounted central pivoting attachment (bell crank) for two (2) lateral links, whose opposite ends are attached to either end of the axle housing or vice versa.

Wave Washer - A thin, continuous spring washer.

Welding – The process of fusing one or more components into a single unit by means other than adhesives or fasteners (i.e. TIG, MIG, soldering, brazing, etc.).

Wheel (Road) - Flange and Rim.

Wheel (Complete) - Flange, rim and tire.

Wheel (Steering) - The cockpit-mounted control device, normally circular, which allows the driver to exert manual force with which to control the car's direction of motion.

Wheel Cover - A removable decorative covering for a road wheel.

Wheel Cylinder - A hydraulic component of the braking system, which produces mechanical force at the wheel brakes in response to positive hydraulic pressure.

Wheel Fan - An integral part of or attachment to a wheel assembly with blade-like elements, intended to improve brake cooling.

Wheel Spacer - A plate of unspecified thickness or material which is mounted between a road wheel and hub to increase the distance from the inside of the wheel to the hub, thereby increasing track.

Wheel Trim Rings - Decorative removable attachments to road wheels effectively covering the rim area of the wheels.

Wheel Well - The volume under a fender.

Wheelbase - The distance between the front and rear axle centerlines of a car, with the front wheels in the straight ahead position.

Windage Tray - An internal baffle attachment to an engine oil pan which is intended to help maintain a sufficient supply of lubricant at the location of the oil pickup under cornering, braking or acceleration.

Windows:

A. **Door or Side** - The opening where the window normally is raised or lowered in a door. Does not include a "vent" window whether fixed or movable.

B. **Quarter (1/4)** - On a 2-door or 4-door vehicle, the window to the rear of the rearmost door. Such windows are not generally raised or lowered, but they may be hinged and open to the rear. Quarter windows are not "rear" windows.

C. **Rear** - Rear windows are positioned at right angles to the longitudinal axis of the car.

Windshield (Windscreen) - An attachment to the bodywork of a car intended to divert the flow of air from forward motion without obstructing forward vision.

Windshield Pillar - A body component which extends nominally upward from the cowl area, forming one supporting attachment for the windshield.

Wing - An aerodynamic attachment to the structure of a car specifically intended to generate downforce from the action of air flowing over the upper and lower surfaces, creating a pressure differential.

Wiring Harness - Bundles of electrical wires which provide the electrical links in a car.

Wishbone Type Susp. - A form of suspension in which the lower (and often upper) locating links are in the form of a wishbone or "A-frame", and provide the lateral and at least a portion of the fore/aft wheel location.

Working Chamber - The volume in a rotary engine which is defined by the case and the two adjacent rotor tip seals, and which will vary in capacity with position in rotation.

Worm and Sector - A steering gear type in which the steering forces from the driver are transmitted to the steering linkage via a worm gear and a sector gear in mesh.

Wrist Pin - The one-piece physical link between a connecting rod and a piston.

Zerk Fitting (Grease gun fitting) - A small check valve attachment to a bearing housing through which pressurized lubricant may be applied to the bearing.

22.2. FACTS AND FORMULAS

Facts and Formulas to be used at all SCCA events.

1 inch = 2.54 cm = 25.4 mm

1 cubic inch = 16.387 cubic cm

1 millimeter = .03937 inch

1 meter = 1.0936 yards

1 kilometer = 1000 meters =.62137 mile = 1093.6 yards

1 mile = 1,760 yards = 1.60934 kilometers

Miles per hour = kilometers per hour x .62137

Kilometers per hour = miles per hour x 1.60934

1 cubic centimeter = .061 cubic inch

1 liter = 61.03 cubic inches = 1000 cubic centimeters (cc)

1 kilogram = 2.21 pounds

1 pound = 453.6 grams

1 hundred-weight (cwt.) = 112 pounds (British), 100 lbs (U.S.)

1 U.S. gallon = 231.18 cu. in. = 3.785 liters

6 U.S. gallons = 5 Imperial (British) gallons

1 mile per hour = 1.467 feet per second

Cylinder volume (displacement) =

$$\frac{3.1416 \times \text{bore} \times \text{bore} \times \text{stroke}}{4}$$

Engine displacement = Cylinder volume times number of cylinders

$$\text{Compression ratio} = \frac{V1 + V2}{V2}$$

Where V1 is total volume of one cylinder
V2 is volume of space above piston at top of stroke

Piston speed (ft. per min.) = 2 x RPM x stroke in feet

$$\text{Brake Horsepower (BHP)} = \frac{\text{RPM} \times \text{torque (in lbs ft.)}}{5252}$$

Note: Formula is actually: $\frac{6.28 \times RPM \times torque}{33{,}000}$

6.28 into 33,000 we get 5250

$$\text{Torque} = \frac{BMEP \times \text{Swept volume (in cc)}}{2473}$$

$$\text{Frontal Area (for figuring air resistance)} = \frac{T \times H}{144} \text{ (square feet)}$$

Where T is front tread in inches, H is overall height in inches.

$$MPH = \frac{RPM \times \text{wheel diameter (in inches)}}{\text{gear ratio} \times 336}$$

Note: Wheel diameter is overall diameter of the inflated tire, not the nominal diameter of the wheel.

Index

THE FOLLOWING MANUALS ARE AVAILABLE AS GUIDELINES FOR PROPER PROCEDURES AT EVENTS

Item #	Description	SCCA Member	Non-Member
5674	Scrutineering Manual	$ 3.00	N/A
5676	Operations Manual	$ 5.00	N/A
5677	Flagging & Communications Manual	$ 5.00	N/A
5679	Race Control Manual	$ 3.00	N/A
5680	Guidelines for Registration	$ 3.00	N/A
5681	Guidelines for Starters	$ 3.00	N/A
5682	Timing & Scoring Manual	$ 3.00	N/A
5683	Sound Control Manual	$ 3.00	N/A
5684	Vintage/Historic GCR and Specifications (54, 59, 62, 65, 67, 72)	$30.00	$35.00
5685	Vintage/Historic Competition Rules	$10.00	$15.00
5689	SCCA Directory	$3.00	$5.00
5675	General Competition Rules and Specifications	$25.00	$30.00

To place your order, send check or money order to:
SCCA
Building 300, B Street
Topeka, KS. 66619-0400
800-770-2055
Please call for shipping and handling.
Kansas residents, add 6.2% sales tax.

DO NOT SEND CASH
A complete list of SCCA rulebooks and Club Merchandise is available from SCCA Properties, Inc., upon request.

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AMERICAN SEDAN
CANADIAN AMERICAN CHALLENGE CUP
CAN-AM
FAST FIVE
FAST FIVE PACESETTER CHALLENGE
FASTRACK
FORMULA CONTINENTAL
FORMULA SUPER VEE
FORMULA VEE
MATTERS OF THE MOMENT
NATIONAL RACING SCHOOL
OLYMPUS RALLY
PACESETTER CHALLENGE
POR
PRESS ON REGARDLESS
PRO RALLY
PRO SOLO
PRO SPORTS 2000
RACETRUCK
RUNOFFS
SCCA
SCCA PRO RACING
SOLO I
SOLO II
SPEC RACER
SPORTSCAR
TRANS AM
WIRE WHEEL
WORLD CHALLENGE

HAWK PERFORMANCE

DOMINATES THE SCCA NATIONAL RUNOFFS (AGAIN).

SPECIFIED BRAKE PAD

Hawk Performance was the dominant pad of choice of the 727 participating race teams.

PODIUM FINISHES

Hawk Performance won more podium finishes than any other brake pad.

TRACK RECORD

Hawk Performance shattered over 20 track records at this year's national runoffs.

CONGRATULATIONS

We congratulate all of this year's participants and champions.

17.1.1. PRODUCTION CATEGORY

These specifications are part of the SCCA General Competition Rules (GCR) and all automobiles shall conform with GCR Section 17., Automobiles.

A. Purpose

The Production Category is intended to provide the membership with the opportunity to compete in modified, series produced automobiles. To that end, cars will be classified in Production classes based on their competitive potential in modified form. The Club may alter or adjust specifications and permit or restrict certain components to equate competitive potential.

B. Intent

It is the intent of these rules to allow modifications useful and necessary in the preparation of a high performance road racing vehicle. The Club will use the following guidelines in the determination of suitability for classification in the Production Category:

1. Cars classified shall retain their original design, structure, and drive layout unless otherwise specified in these rules.

2. Classification will be based on the specifications of the base model of the automobile as it was delivered for sale in the United States. Unless specifically authorized, no options of any type or nature are permitted.

3. Automobiles submitted for new classificationin the Production Category shall be series produced in quantities of no less than 3000 within a twelve (12) month period. Such cars shall be equipped with normal road car equipment and be approved by the E.P.A. and D.O.T. for sale in the United States. The Club may not classify vehicles meeting all these requirements if it deems them unsuitable for inclusion in the Production Category.

4. Many cars are classified under more restrictive preparation standards (collectively referred to as "Limited Preparation") than allowed in the body of the Production Category Specifications. The classifications of cars with greater performance potential than other cars in a class have been restricted in one or more ways; such restrictions are listed on each vehicle's specification line. Classifications are limited to those vehicles that meet all of the requirements of B.1, B.2, and B.3 above.

C. Specifications

The SCCA shall publish Production Car Specifications

(PCS) each year. The PCS will contain the specifications for each car eligible to compete in the Category for that calendar year. Cars will be listed according to the manufacturer's complete designation, including the name, model, model number, and original engine displacement. Each line of the PCS will list the make, model(s), and all authorized engine displacements of the automobile.

1. Cars may be updated or backdated within the specifications of recognized makes and models listed on the same line of the PCS. This specification line will state the weight for each configuration of the model. Cars shall meet or exceed this official weight as qualified or raced including driver.

2. The Club may recognize certain optional components. Some non-original components may be made mandatory to obtain an adjustment of competition potential. In all cases, these components shall be listed on the specification line of the vehicle. No permitted or alternate component or modification shall additionally perform a prohibited function.

3. Requests for alteration, modification, and/or substitution of any specification or component shall be submitted to the Club for approval. The approval process will include, but not be limited to, an analysis of cost, availability, performance impact, rule enforceability, and competitor input.

D. Authorized Modifications

The following modifications are authorized on all Production Category cars. Modifications shall not be made unless specifically authorized herein.

1. Engine

a. Component Modification

1. Original and alternate components of the engine may be lightened, balanced, and modified by any mechanical or chemical means, provided that it is always possible to identify required components as original. Such means include, but are not limited to, shot peening, glass beading, heat treatment or hardening, plating, and milling or otherwise tooling.

2. No material or mechanical extension may be added to any required original component unless specifically authorized by these rules. Any repair performed to a required original component shall clearly serve no other prohibited function.

b. Induction System

1. The standard or approved optional carburetor(s) may be modified. The number, model, type, throttle plate and shaft location, and bore diameter (as measured at the throttle plate) shall remain as specified. All inducted air shall pass through the venturi(s) of said carburetor(s). All carburetors with restricted venturi(s) must retain such venturi(s) in the original location within the carburetor. As an option, all cars that require the use of one (1) 40 DCN, DCNF, IDF carburetor may fit one (1) of the following approved optional carburetors: Weber 32 DGV / DGAV / DGEV, Weber 32/36 DGV/DGAV/DGEV, Weber 32/36 DFV/DFAV/DFEV, Weber 34 DAT/DATR/DATRA/DMTR, Holley-Weber 5200.Where Weber carburetors are specified, Weber-type carburetors may be substituted. The following are approved Weber-type carburetors: Solex, SK, Mikuni, Delorto, Berg, and PMO.

   A. Mounting of alternate carburetors: Where an alternate carburetor is specified on a vehicle specification line or is otherwise allowed by the Production Category Specifications, an adaptor plate may be fitted. Material for the adaptor plate is unrestricted. No adaptor plate may serve any purpose other than to mate the approved alternate carburetor to the approved intake manifold (no plenum, no change of orientation, etc.) No such adaptor plate may be thicker than 1.25" or have a bore larger than the throttle bore of the approved alternate carburetor unless specifically allowed on the vehicle specification line. *Downdraft approved alternate carburetor adaptors may have a bore larger than the throttle bore of the approved alternate carburetor.* No modifications to the bodywork are allowed for the fitment of an approved alternate carburetor.

2. Extensions to, or the addition of material to the exterior of the carburetor body is prohibited. Floats shall not be removed or altered to produce a floatless type carburetor.

3. All carburetors shall retain their standard method of fuel distribution. Utilization or modification of components that effect an annular discharge configuration is prohibited.

4. Air cleaners, velocity stacks, and air supply ducts and boxes are unrestricted provided no modification of the body or chassis of the car is required to accommodate their use.

5. Original or approved alternate intake manifold(s) may be ported and polished. It/they may be cut apart to facilitate this work. When such disassembly is rewelded, the external dimensions of the manifold shall remain unchanged.

6. Where a single downdraft carburetor is listed as an alternate on a vehicle's specification line, an adaptor may be used to fit the alternate carburetor to the original intake manifold. The adaptor may be restricted to dimensions given on the vehicle's specification line.

7. No portion of any intake manifold may extend into the intake ports of the cylinder head or rotary engine end plate. All alternate intake manifolds shall be capable of attachment without modification of the cylinder head or end plate. Port-to-port balance pipes or tubes in all intake manifolds may be plugged or restricted.

8. Any linkage may be used between the throttle and the accelerator pedal. Two spring loaded systems of positive throttle closure are strongly recommended.

9. Original-type fuel injection: Fuel injection is prohibited on Production Category cars unless specifically authorized on vehicle specification line. Approved cars utilizing fuel injection shall use the factory manifold and throttle body. Throttle body bore size shall remain stock. Manifold and throttle body may be ported and polished. The manifold may be cut apart to facilitate this work. When such disassembly is rewelded, the external dimensions of the manifold shall remain unchanged. The number of injectors shall remain the same as stock and their relative mounting position

and injection point shall be unchanged. The fuel injection system is unrestricted except that the origianl type (electronic, mechanical, Bosch CIS, etc.) shall be maintained. External throttle linkage to the standard fuel injection may be modified or changed.

c. Fuel System: any fuel pumps, lines, filters, and pressure regulators may be used, provided no component serves any fuel cooling purpose. Fuel lines that pass through the driver/passenger compartment shall be metal braided or entirely covered and protected with a metal cover. If a mechanical pump is replaced, a blanking plate may be used to cover the original mounting point.

d. Emission Equipment: exhaust emission control air pumps, associated lines, nozzles and other mechanical/electrical emission devices shall be removed. When EGR air nozzles are removed from a cylinder head, the resultant holes shall be completely plugged.

e. Cylinder Head

1. The original or a specified alternate cylinder head shall be used. Porting, polishing, and machining within the limits of Production Car Rule D.1.a.1., are unrestricted. Any valve guides and valve seats may be used. (See vehicle sheets for specific restrictions) On engines which are restricted to Improved Touring cylinder head preparation, the cylinder head and/or valve train may be machined for clearance to install an alternate camshaft, and adjustable cam gears are allowed.

2. Compression ratio may be increased by means of milling the head, and it may be machined to utilize O-rings to replace or supplement a cylinder head gasket.

f. Camshaft and Valve Gear

1. Any camshaft(s) and lifters/cam followers may be used. Lifters/cam followers shall be of the same type and diameter as original.

2. Cam timing chains, gears, belts, and sprockets are unrestricted provided that they are of the same type, quantity, and

dimensions as originally fitted. Double row chains may be substituted for single row.

3. A timing chain/belt tensioner may be added to those engines not originally so equipped, provided that it acts upon that portion of the chain/belt that travels from the crank drive to the first cam sprocket/ gear. The timing chain cover may be modified to facilitate its use. Adjustable cam timing sprockets are permitted.

4. Any metal valves meeting the specified head diameter may be used. Any valve springs of the same type as originally fitted may be used. Valve retainers, keepers, seals and adjustment shims are unrestricted.

5. Pushrods, valve rocker arms, shafts and attendant assemblies are unrestricted.

g. Block

1. The block may be rebored no more than 1.2mm (.0472 in) larger than the maximum dimension given on the specification line for that make, model, and displacement. A cylinder block from any model from the same manufacturer which is of the same material and dimensionally identical throughout, except for non-critical bosses, is permitted.

2. Cylinder sleeves may be fitted to the block for repair purposes if they serve no other prohibited function. Oil passages may be enlarged, restricted, or plugged.

3. Any crankshaft main bearing caps and any additional main bearing cap bolts may be used, provided that no material is added to the block for their use.

4. The compression ratio may be increased by means of milling the block, and it may be machined to utilize O-rings to replace or supplement a cylinder head gasket.

5. The block may be machined for the purpose of adding or substituting crankshaft oil seal(s) and related attachment devices.

h. Pistons and Rods

1. Pistons, pins, clips and/or pin retainers and piston rings are unrestricted. Pistons shall be constructed of metal.

2. Alternate ferrous connecting rods of the same center-to-center dimensions as original are permitted.

i. Crank and Flywheel

1. Alternate crankshafts are permitted. It shall be constructed of ferrous material, and shall have the same stroke and bearing journal diameters as the original crankshaft. It shall retain the original angles of the crank throws and the original firing order.

2. In all cars, the original direction of crankshaft rotation shall be maintained.

3. The use of any external crankshaft vibration dampener is permitted.

4. Any flywheel of the same diameter as the original may be used, provided it attaches to the standard or alternate crankshaft at the original location. Additional fasteners and dowel pins may be added. The diameter of the flywheel includes the diameter of the ring gear. Cars which are allowed a specific alternate transmission may use the stock size flywheel for that alternate transmission.

5. Any modification or substitution of the clutch assembly and its dimensions is permitted. Carbon clutches are prohibited.

j. Oiling System

1. Any mechanically driven oil pump may be used, including a dry sump system. The dry tank shall be mounted within the body work. If said tank is mounted in the driver/passenger compartment, it shall be isolated from the driver by means of a metal bulkhead or additional container that retains any spillage or leakage. Chassis components may be modified to allow installation of the oil pump.

2. The use of any oil pan/sump, scrapers, baffles, windage trays, oil pickup(s),

pressure accumulator/"Accusump"and oil filter(s) is permitted. Filter and accumulator location is unrestricted, but they shall be securely mounted within the bodywork. Oil filters mounted in the driver/passenger compartment shall comply with the isolation specifications of Production Car Rule D.1.j.1., above. Any oil lines may be used. If such lines run through the driver/passenger compartment, they shall meet the safety specifications for fuel lines in Production Car Rule D.1.c., above.

3. The installation of any type of vent or breather on the engine is permitted. Crankcase, oiling system, breather, or catch tank evacuation systems that are in any way connected to the exhaust system are prohibited.

k. Starter/Ignition/Electrical System

1. The use of any driver operated electric starter is permitted, provided it is installed in the same general location as the original starter and is oriented in the original direction (front or rear) relative to the bellhousing and engages the flywheel/ring gear in the original location.

2. Any ignition system and ignition components may be used, provided no functional modification of the engine is required for their use. Magneto systems are prohibited. If a distributor is removed, a blanking plate or breather may be fitted in its place. Adjustments from the passenger compartment during competition are prohibited. (The intent of this change is not to eliminate dual ignition systems, nor to restrict driver selection between multiple ignition systems, i.e. crank-triggered and points, of cars so equipped. Rather, the intent is to eliminate the incremental ignition timing adjustments made possible by the use of slide, dial, knob or cable mechanisms.)

3. The original generator or alternator may be completely removed or replaced by any unit fitted to the same location and utilizing the same drive system as the original.

4. Any make, size, or voltage of battery is permitted. Battery location and protection

shall comply with the specifications of GCR Section 17.11.

5. The wiring harness may be altered or replaced. Electrical accessories (horn, signal lights, etc.) may be altered, replaced, or removed.

l. Exhaust System

1. Any exhaust manifold and exhaust system may be used. All exhaust systems shall meet the specifications of GCR Section 11.2.1.G., "Exhaust Systems." Refer to Section D.8.a.15., of these rules for permitted body modifications for exhaust systems.

m. Other Engine Components

1. The use of alternate engine components which are normally expendable and considered replacement parts, such as seals, bearings, water pumps, etc., is permitted. Electrically driven water pumps are prohibited. Fasteners may be substituted.

2. Bushings may be installed where none are fitted as standard, provided they are concentric, and that the centerline of the bushed part is not changed. The addition of alignment dowels is permitted.

3. Gaskets may be replaced with others of unrestricted origin.

4. Engine drive pulleys may be altered or replaced by others of unrestricted origin.

5. One or more engine torque suppressors (steady rods) may be fitted. Original torque suppressors may be altered or replaced.

6. Motor mounts of alternate design and/or material may be used, but there shall be no change to the engine's fore and aft or vertical location. Transverse engine vehicles may rotate the engine about the crankshaft centerline to align axles/ CV joints. On rear engine/rear drive cars the engine/drivetrain may be relocated vertically upward, to a maximum of one (1) inch, to allow alignment of suspension and driveline components. No other engine

rotation or relocation is permitted on any car.

2. Engine, Rotary Piston (only)

a. Modifications

1. Engines shall not change the capacity of the working chambers.

2. The eccentric shaft may be replaced with another of the same basic material, but no changes in the eccentricity of journal dimensions are permitted.

3. Rotors are unrestricted, providing the number of lobes remains unchanged.

4. Alternate rotor housings are allowed only when submitted by the manufacturer and approved by the Club.

3. Cooling System

a. Radiator: any water radiator may be used, provided that its installation is in the same approximate location as the original, and that there are no modifications to the body, chassis, or internal structure of the car to accommodate its use other than those specified by these rules or permitted by the vehicle's specification line in the PCS. A separate cooling system expansion tank mounted within the engine compartment may be fitted. Rear-engine cars with a front mounted radiator may run coolant lines through the driver/passenger compartment provided that they meet the safety specifications of Production Car rule D.1.c., above.

b. Radiator Fan: the radiator fan may be modified, substituted, or removed. Electrically operated fan(s) may be installed; its/their location shall be within four (4) inches of the radiator.

c. Radiator Shroud

1. The original radiator shroud may be altered or replaced. A shroud may be added if not originally provided by the manufacturer.

2. Sealing the air flow area between the radiator, its shroud, any fan(s), and the normal grill opening is permitted. No alternate radiator shroud shall be extended behind the radiator further than the rear edge of the rearmost mounted fan. If no

cooling fan is fitted, the alternate shroud shall end at the radiator.

Note: exceptions to this rule may be permitted in those cases (e.g., rear engine/front radiator, rear engine/rear radiator) where specific need can be demonstrated for alternate specifications. Such exceptions shall be listed on the specification line of the vehicle.

3. No new openings in the bodywork or structure of the car shall be created to allow the radiator shroud access to ducted airflow. Any exception to this rule must appear on a vehicle's specification line.

d. Air Cooled Engine Shrouding: An alternate fan and/or fan shroud is/are permitted on air cooled engines.

e. Thermostat: thermostats may be modified, removed, or replaced with blanking sleeves or restrictors.

f. Oil/Lubricant Coolers

1. Any engine, transmission, and/or differential oil cooler(s) may be used, provided the location of such cooler(s) is completely within or under the bodywork, but not within the driver/passenger compartment.

2. Oil pump(s) may be added for the transmission and/or differential oil coolers.

3. Air ducts may be fitted to the oil/lubricant cooler(s). Front mounted ducting shall not extend forward of the most forward part of the front body panel. Rear mounted/terminated ducting shall comply with the restrictions on shrouds found in Production Car Rule D.3.c.3., above.

4. Transmission and Final Drive

a. Transmission

1. Any available transmission may be used, providing the location and number of forward speeds are the same as the original. The original number of forward speeds does not include any external or internal overdrive mechanism (a 4-speed

plus O.D. is only 4 speeds). Specific exemptions to this rule shall be listed on the vehicle's specification line *(stock gear ratios can be found in the ITCS)*. Sequential shifting transmissions are prohibited. Air, hydraulic or electric actuation of the gearshift mechanism is not allowed.

2. All transmissions shall have a functional reverse speed/gear. Functional is defined as "operable by the driver from his normal seated position and capable of sustained movement of the vehicle, under it's own power, in the reverse direction." A driver-operated device for locking out reverse gear may be added provided it does not prevent prompt engagement of reverse in an emergency situation. Shift linkage may be modified or substituted.

3. The shift lever opening in the body of the car may be altered to allow the installation of alternate shift linkage.

4. The transmission tunnel/cover may be altered to allow the installation of an alternate transmission and/or driveshaft. Cars originally equipped with a removable transmission tunnel/cover may substitute a tunnel/cover of an alternate material.

   A. Limited prep transmissions: There is no penalty for use of a stock transmission. A stock transmission is defined as any transmission the car was ever manufactured with (i.e. stock case, gear ratios and synchromesh style). The installation of other than a stock transmission that uses stock type, circular, beveled synchros would impose a 2.5% weight penalty. The installation of other than a stock transmission that uses a gear engagement mechanism different than stock type, circular, beveled synchros would impose a 5% weight penalty. Note: the minimum vehicle weight is to be rounded to the nearest pound.

b. Final Drive

1. Alternate driveshaft(s) may be used. Any driveshaft assembly may be modified to permit the use of an alternate transmission.

2. The use of any final drive ratio and/or limited slip or locked differential is permitted.

3. No substitution of the differential housing is permitted on front engine, rear drive vehicles. Such substitution is permitted on front engine, front drive and rear engine, rear drive vehicles only through the use of an alternate transmission, which contains an integrated differential assembly/housing.

4. Drive axle shafts, bearings, bearing carriers, hubs, and universal/CV joints may be modified or substituted, provided the number of these parts remains the same as the original.

5. Solid Rear Axle Cars: multiple rear axle bearings may be fitted on a solid rear axle car. These changes shall not result in any change to the rear track specification of the car.

5. Unrestricted Suspensions

a. Ride Height: Any ride height consistent with safe operation of the vehicle is permitted.

b. Suspension Components

1. Spindles, hubs, bearings, bearing carriers, stub axles, etc., may be modified or substituted, provided that the number of these parts remains the same as the original design.

c. Springs and Shock Absorbers

1. Any springs or torsion bars may be used in the vehicle's original suspension configuration, provided the quantity of these items does not exceed the number originally provided by the manufacturer. Spring seats and points of attachment may be altered to accept alternate springs.

2. Alternately, all cars may fit "coil-over" type springs with tubular, load bearing shock absorbers or struts. The shock absorber or MacPherson/Chapman strut shall be installed inside the spring. Such items shall not exceed one spring and shock/strut per wheel. When load bearing shocks are used, the original springs may be removed.

A. Any shock absorbers may be used, not to exceed one unit per wheel.

B. Attachment points for the shock absorbers may be changed. Rear attachment points may enter the driver/passenger compartment/trunk, but shall be covered with metal panels.

C. Lever shock absorbers may be modified or entirely eliminated. When lever shocks are replaced with tubular shocks, the entire shock assembly may be removed and replaced with a control link and bracket that approximates the control function of the original lever shock.

D. Bump stop rubbers and bracketry may be removed or replaced with others of unrestricted origin.

3. Rockers, rocker arms, push and/or pull rods are prohibited.

d. Suspension Control

1. Original suspension control arms may be reinforced, modified, or replaced with components of unrestricted origin.

2. Suspension pickup points on the chassis or structure may be relocated and/or reinforced. If such points are relocated to the driver/passenger/trunk compartments, such points and attendant suspension components shall be covered with metal panels.

3. The manufacturer's original system of suspension, e.g., live axle, swing axle, MacPherson strut, A-arm, etc., shall be retained. The wheelbase of the vehicle shall not be changed or relocated in a fore/aft direction.

4. Suspension bushings are unrestricted. Adjustable spherical bearings or rod ends are permitted on all suspension components.

5. Any anti-roll bar, camber compensating device, panhard rod, watts linkage, and/or other suspension stabilizer is permitted

(see GCR Section 22., "Definitions"). Attachment points of such components are unrestricted.

A. Said components may extend into the driver/passenger/trunk compartments, but shall be covered with metal panels.

B. These components may pass through body panels, chassis panels, and frame members.

6. Spacers/lowering blocks may be used between leaf springs and the points of attachment to the axle housing.

e. Steering

1. Steering arms, pitman arms, and steering linkage components may be modified, reinforced, or substituted. The steering system may be relocated, but shall not be changed.

2. The steering column shall not be modified in any way other than to improve its impact energy absorbing characteristics. A production or racing-type collapsible type steering column is permitted as long it remains in the stock location and does not relocate the driver's normal seating position

3. Any steering wheel and wheel quick release mechanism complying with GCR Section 11.2.1.U., may be used.

4. Cars equipped with power steering as standard equipment may disable and/or remove the power pump, related hoses and mounting brackets.

6. Restricted Suspensions

a. Ride Height: Any ride height consistent with safe operation of the vehicle is permitted.

b. Springs and Shock Absorbers

1. Any shock absorbers may be used, provided they attach to the original mounting points. The number and type (e.g., tube, lever, etc.) of shock absorbers shall be the same as stock. The interchange of gas and hydraulic shock absorbers

is permitted. Remote reservoir shock absorbers are permitted. The location of the reservoir is unrestricted. No shock absorber may be capable of adjustment while the car is in motion, unless fitted as original equipment.

2. MacPherson strut equipped cars may substitute struts, and/or may use any insert. Spring seat ride height location may be altered from stock.

3. Springs of any origin may be used, provided they are of the same number and type as originally fitted, i.e., coil, leaf, torsion bar, and that they shall be installed in the original location using the original system of attachment. Shackles or spacers may be used to adjust leaf spring ride height.

4. Spacers or lowering blocks may be used between leaf springs and the point(s) of attachment to the axle housing.

5. *Spacers, including threaded units with adjustable spring seats, may be used with coil springs, coil over threaded body shock/struts are permitted.*

c. Suspension Control

1. Control arms may be reinforced or alternate control arms may be used.

2. Any anti-roll bar(s), traction bar(s), panhard rod or watts linkage may be added or substituted, provided its/their installation serves no other purpose. The mounts for these devices may be welded or bolted to the structure of the vehicle. No suspension control mount or component shall be located in the trunk or driver/passenger compartment unless installed by the manufacturer as original equipment. Traction bars used to control axle rotation shall be one piece solid bar or tube. Heim rod ends may be fitted.

3. On those cars where an anti-roll bar also acts as a suspension locating device, the diameter of the bar may be changed. Bar attachment and pivot points on the chassis and control arms shall remain as stock, except as provided for in these Rules.

d. Suspension Mounting Points

1. Cars equipped with MacPherson strut suspension may decamber wheels by the use of eccentric bushings at control arm pivot points, by the use of eccentric bushings at the strut-to-bearing-carrier joint, and/or by use of slotted adjusting plates at the top mounting point. If slotted plates are used, they shall be located on existing chassis structure and may not serve as a reinforcement for that structure. Material may be removed or added to the top of the strut tower to facilitate installation of adjuster plate, provided it serves no other purpose.

2. On other forms of suspension, camber adjustment may be achieved by the use of shims and/or eccentric bushings.

3. All forms of suspension may adjust caster by means of shims or eccentric bushings. Additionally, MacPherson strut-equipped cars may adjust caster at the upper strut mounting point/plate.

4. Independent rear suspension mounting holes may be slotted and reinforced for purposes of camber and/or toe adjustment providing stock control arms are utilized. Material may be removed or added to the top of the strut tower to facilitate installation of adjuster plate provided it serves no other purpose.

5. Bushing material, including that used to mount a suspension subframe to the chassis, is unrestricted.

6. Rubber bump stops may be removed, but their chassis mounts, brackets, etc., may not be altered in any way.

7. Pick-up points may be reinforced but not relocated.

8. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

e. Steering

1. Steering arms, pitman arms, and steering linkage components may be reinforced.

The steering system shall not be changed.

2. The steering column shall not be modified in any way other than to improve its impact energy absorbing characteristics. A collapsible type steering column is strongly recommended.

3. Any steering wheel and wheel quick release mechanism complying with GCR Section 11.2.1.U., may be used.

4. *Cars equipped with power steering as standard equipment may disable and/or remove the power pump, related hoses and mounting brackets.*

7. Brakes

a. Components: Original calipers shall be retained. Alternate discs or drums may be fitted as long as they are the original diameter, width and design. Alternate discs must be of the original material, but alternate drums may be made of the original material or aluminum. Only those alternate components authorized on a vehicle's specification page may be fitted as replacements. Cars with rear drum brakes may convert to disc brakes. Rear rotors shall be no larger in diameter than the front rotors, solid and of ferrous material. Rotor hubs may be of ferrous material or aluminum and may be part of the rotor. Rear calipers and mounting brackets are restricted to ferrous or aluminum.

1. Dual braking systems are required. Any dual brake master cylinder(s) may be fitted. Any pressure equalizing or proportioning devices are permitted.

2. A servo assist may be added, or a standard servo assist may be modified, removed, or replaced.

3. Drum brake wheel cylinder size may be changed.

4. Any brake pads and/or linings that fit the original or approved alternate brake components may be used. Any brake lines may be fitted.

5. The hand brake and its operating mechanism may be removed.

b. Brake Ducting

1. Brakes may be cooled by the ventilation of backing plates or the fitting of air ducts, provided no changes are made in the bodywork for this purpose.

2. Front mounted ducting *inlet* shall not extend to the side beyond the centerlines of the front wheels, nor forward of the most forward part of the front body panel or spoiler/air dam.

3. Rear brake ducting inlet shall face forward and be located no more than 24" forward of the rear axle centerline.

4. Disc brake dust/splash shields may be altered or removed.

8. Wheels and Tires

a. Wheels: Any wheel *not exceeding* the specified diameter(s) and the rim width on the vehicle's specification line may be used. Wheel spacers and wheel fans may be used. The use of center lock wheels and hubs is permitted.

b. Tires: Cars shall utilize tires meeting or exceeding the requirements of GCR Section 11.2.1.D.

1. Make and size of tires are unrestricted, provided that the tires do not interfere with the bodywork, frame, or suspension under any conditions of steering lock or rebound.

2. Tire tread (that portion of the tire that contacts the ground) shall not protrude beyond the fender opening when viewed from the top perpendicular to the ground.

3. Spare tires and wheels shall be removed.

9. Body/Structure

a. Configuration/Modifications

1. Lightening: Component parts of the car's body/structure, e.g., hood, doors, hatchback, and deck lid, may be lightened, provided that structural rigidity is appropriate and that the original appearance is maintained save for those alterations permitted by these rules. No non-original openings shall be created. Chemical removal of metal ("acid dipping") is prohibited.

2. Alternate Materials: The hood, hatchback, and deck lid may be replaced by components of an alternate material, provided their appearance remains as original.

   A. Fenders may be replaced by components of alternate material. Factory, bolt-on fenders may be replaced in their entirety. Cars with integral fenders may replace the fender panel from the door opening (going forward from the foremost door opening on front fenders and rearward from the rearmost door opening on rear fenders). Closed cars originally equipped with non-removable hardtop bodywork (coupe, sedan, targa top, etc.) shall not remove original material above a horizontal line placed at the lowest point of the driver's door window opening (excluding the hatchback).

      The exterior contour of all fenders may be flared. No replacement fender or flare may alter the basic body configuration or change the wheel opening profile (size, location and shape when viewed from the side).

   B. One piece front body sections are permitted only on vehicles originally manufactured in that configuration, i.e., Mk 1 Sprite, Spitfire. Additionally, all such sections shall retain any inner fender panels originally present. These panels may also be constructed of an alternate material.

3. Wheel Wells: Interior fender panels may be altered, using the original type of material, in order to provide clearance for tires and wheels. Such alteration shall not result in the creation of any additional openings between the wheel well and the engine, passenger and luggage/trunk compartments.

   A. Existing openings between the wheel well and these compartments may be covered but shall not be enlarged.

   B. Non-metallic inner fender liners, originally fitted solely as splash shields, may be removed.

4. Component Alignment: The hood and deck lid hinges may be removed and the respective components secured by means of additional pins or straps. Misalignment or modifications to create ventilation where none previously existed are prohibited. Door hinges shall be retained, but doors may be pinned (not bolted) for retention. Door handles may be removed and any resultant holes shall be covered.

   A. All rear windows, hatchbacks, and deck/trunk lids shall be completely closed and securely fastened.

5. Bumpers: When, by design and function, bumpers are integrated into the body configuration of a vehicle, they may be replaced by replicas of an alternate material, but shall not be removed. Bumpers which are remote from and not an integral part of the body may be removed or replaced by replicas of an alternate material. If a bumper is removed, all hardware originally fitted for its mounting which projects outside the body shell shall also be removed.

6. Grille: The grille (or its equivalent front design element) shall not be removed and shall be installed in its original location and configuration.

7. Windshield - Open Cars: The windshield and all side and rear glass on open cars shall be completely removed, including all mounting brackets and fixtures, and a suitable windscreen installed. Portions of the windscreen, which are not in the driver's line of sight, may be constructed of a polycarbonate or composite material. Any portion of the windscreen that is in the driver's line of sight shall be constructed of a clear transparent material. The windscreen shall not exceed the height or width of the original windshield/screen and frame. The replacement windscreen shall be fitted within the vertical planes of the frontmost and rearmost elements of the original windshield/screen and frame.

8. Windshield/Rear Windows - Closed Cars: Closed cars may retain their original windshields, and shall fit windshield retention clips per GCR Section 17.

Windshields of alternate material (i.e. Lexan MR-5/MR-7/MR-10 or FMR102) are permitted. Alternate windshields must be of 6mm minimum thickness. Alternate material windshields must be identical in size and curvature to the original glass component. Alternate material windshields must have in addition, three (3) inner supports to prevent the windshield from collapsing inward. These supports must be 0.75" by .125" minimum straps of aluminum. Spacing between these inner supports must be eight (8) inches minimum. Closed cars may replace the rear window and side windows with clear, untinted polycarbonate material having a minimum thickness of 0.125" The rear window shall be retained by means of straps per the GCR Section noted immediately above. *Ducts may be installed in the side windows or window openings for the purpose of supplying cooling air to the driver only.*

9. Door Glass (All Cars): All door window glass, channels, vent windows, and window winding mechanisms shall be removed. Resultant window slots may be covered. Four (4) door cars may install untinted polycarbonate material having a minimum thickness of 0.125" in place of the removed glass in the rear doors. Rear side windows and rear door windows may be run in their original open or closed position.

10. Targa-type vehicles may be prepared to either closed car or open car windshield/ window specifications.

11. Spoilers: A spoiler may be fitted to the front of the car. It shall not protrude beyond the overall outline of the car as viewed from above, or aft of the forward most part of the front fender opening (cutout), and shall not be mounted more than four (4) inches above the horizontal centerline of the front wheel hubs. The spoiler shall not cover normal grill opening at the front of the car. (An intermediate mounting device may be used on cars whose front bodywork is above the four (4) inch maximum.) Openings are permitted for the purpose of ducting air to the brakes, radiator, and/or oil coolers. When bumpers are used or when

they are part of the bodywork, the spoiler and bumper/replica bumper shall appear to be two (2) separate parts. The spoiler shall have no support or reinforcement extending aft of the forward most part of the front fender wheel opening.

12. Lights and Lenses: Glass and/or plastic headlight, front parking and signal light lenses and bulbs shall be removed. Other lighting components and operating ancillaries may be removed, but the headlight rims/bezels shall remain in their original locations. The resultant openings behind the rims/bezels shall be covered with wire mesh screens or solid panels of an alternate material. These covers shall be of the same or flatter contour as the original lenses.

    A. Retractable or "pop-up" headlight assemblies may be removed in their entirety. The openings thus created shall be covered with screens or plates as described immediately above, but need not retain any rims/bezels.

    B. The openings created by the removal of front lighting equipment, as well as any other similar openings in the front of the car, may be used to duct air to the engine, radiator, oil cooler(s), and front brakes. Such ducting may pass through interior panels for these purposes. The cross sectional area of a single duct shall not exceed the cross sectional area of the original single headlight lens.

    C. Side marker light assemblies shall be removed and the resultant openings covered with plates which do not exceed the dimensions of the parts they replace.

    D. On those vehicles where plastic or glass headlight covers are standard, they shall be removed and may be replaced with duplicates of an alternate material mounted in the original location.

    E. Taillights shall be in the original location and shall be the original style/ type for the make, model, and year

of the vehicle. Additionally, all cars shall comply with GCR Section 17.19., "Brake Lights."

13. Convertible and removable tops and all attaching hardware shall be removed from open cars.

14. Windshield wiper motors, arms, and mechanisms may be substituted or completely removed. Holes created in the body by the removal of these components may be covered.

15. Heater plenums that do not serve as a major part of the structure of the firewall may be removed or modified. Any other firewall modifications are prohibited unless specifically approved and listed on the specification line for the vehicle.

16. Floor pans shall be altered only to recess mufflers. All other parts of the exhaust system (i.e., headers, tailpipes, etc.) shall not be recessed, nor shall any modifications be made to the bodywork for that purpose.

17. Non-metallic floor boards may be replaced with metal floor boards of a minimum .060" thickness, having the same overall dimensions and in the same location as the original component.

b. Integrity of Structure: All permitted alterations, modifications, components, or safety structure installations are understood to be additions to the basic vehicle. No part of the body/frame or unibody shall be altered or substituted unless specifically authorized by these rules or by the vehicle's specification line.

10. Driver/Passenger Compartment - Trunk

a. Seating: The driver's seat shall be replaced with a one-piece bucket-type race seat. Such seat shall be installed so that a second seat of the same dimensions could be simultaneously fitted to the passenger's side of the car (no center seating). All seat mountings shall be reinforced per GCR Section 18.4.5 and Section 18.1.2. All other seats may be removed.

1. All cars registered after July 1, 1985 shall have the driver seated on the left when the car is viewed from the rear.

b. Gauges and Accessories: The instrument panel may be altered or replaced to permit the installation of gauges, switches, indicators, safety equipment, and/or roll cage structure. Any mirrors may be used and shall comply with GCR Section 11.2.1.R.

c. Interior Modifications: Modifications may be made to the driver/passenger compartment to improve the comfort of and control accessibility to the driver, and to permit the installation of required safety equipment. Covers for all equipment located in the driver/passenger compartment forward of the rear most portion of the door opening shall not extend higher than six (6) inches below the highest point of the door. Exceptions to this rule shall be noted on the vehicle specification line. Alternatively, the dry sump tank cover may be located within 18" of the front or rear cowl and no higher than the cowl.

1. All interior trim, floor covering, and upholstery panels may be removed.

2. A metal bulkhead shall be installed between the driver/passenger compartment and the compartment or area where the fuel cell or fuel tank is located. All bulkheads shall meet the requirements of GCR Section 19., "Fuel Cells."

11. Safety

11.1 Roll Cages: *A rollcage complying with GCR section 18 shall be installed.*

11.2 Fuel Cells: Fuel cells are required on all Production Category vehicles. Cells, their mounting, location, fill equipment, and venting, shall meet the specifications of the GCR.

11.3 Safety Harness: Systems shall meet the specifications of GCR Section 17. Window nets meeting the requirements of the GCR.

11.4 On-board fire systems shall be required on all Production Category cars.

EP$_A$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Acura Integra (86-89)	4 Cyl DOHC	75.0 x 90.0 (2.95x3.54)	1590 (97.0)	Alum	Alum	(I) 30.0 / (1.18) (E) 27.0 / (1.06)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2451 (96.5)	1489 / 1504 (58.6/59.2)	15 x 7	5
Acura Integra (90-93)	4 Cyl DOHC	81.0 x 89.0 (3.19x3.50)	1835 (112.0)	Alum	Alum	(I) 31.0 / (1.22) (E) 28.0 / (1.10)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2550 (100.4)	1567 / 1567 (61.7/61.7)	15 x 7	5
Acura Integra GSR (94-00)	4 Cyl DOHC	81.1 x 87.2 (3.19x3.43)	1800 (109.8)	Alum	Alum	(I) 33.0 /(1.30) (E) 28.0 /(1.10)	Original type fuel injection w/stock unmodified F.I. throttle body.	2570 (101.2)	62.3 / 62.1	15 x 7	5
Acura Integra Type-R (97-00)	4 Cyl DOHC	81.0 x 87.2	1797	Alum	Alum	(I) 33.0 (E) 28.0	Original type fuel injection w/ stock unmodified F.I. throttle body.	101.2	62.3 / 62.1	15 x 7	5
Alfa Romeo Alfetta GT (75-79)	4 Cyl DOHC	84.0x88.5 (3.31x3.48)	1961 (119.6)	Alum	Alum	(I) 44.15 / (1.74) (E) 40.15/ (1.58)	(2) Auto-type sidedraft w/ 44mm choke(s) on I.R. manifold, or original-type fuel injection (mechanical) w/ stock unmodified F.I. throttle body	2413 (95.0)	1445 / 1440 (56.9/56.7)	15 x 7	5
Alfa Romeo GTV 2000	4 Cyl DOHC	84.0 x 88.5 (3.31x3.48)	1961 (119.6)	Alum	Alum	(I) 44.15 / (1.74) (E) 40.15/ (1.58)	(2) 40, 45, 48 DCOE, 40 DHLA, 48 DHLA. 44mm choke(s) req'd, or original-type fuel injection (mechanical) w/ stock unmodified F.I. throttle body.	2350 (92.5)	1415 / 1377 (55.7/54.2)	15 x 7	5

EP_B	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Acura Integra (86-89)	(F) 242 / (9.53) Disc (R) 239 / (9.41) Disc		1950	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.
Acura Integra (90-93)	(F) 242 / (9.53) Disc (R) 239 / (9.41) Disc		2050	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.
Acura Integra GSR (94-00)	Factory spec @ all 4 wheels.	None	2090	Comp ratio limited to 10.5, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Acura Integra Type-R (97-00)	(F) 286 Vented Disc (R) 260 Solid Disc	None	2165	Comp ratio limited to 10.5, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Alfa Romeo Alfetta GT (75-79)	(F) 272 (10.7) Disc (R) 267 (10.5) Disc	(F) Alfa Romeo GTV-6 front calipers, Brembo aluminum (R) Alfa Romeo Spider rear calipers, ATE cast iron	1950	
Alfa Romeo GTV 2000	(F) 272 (10.7) Disc (R) 267 (10.5) Disc		1950	

EPc	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Alfa Romeo GTV-6 (81-86)	V-6 SOHC	88.0 x 68.3 (3.46x2.69)	2492 (152.0)	Alum	Alum	(I) 41.0 / (1.61) (E) 36.5 / (1.44)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2401 (94.5)	1466 / 1443 (57.7/56.8)	15 x 7	5
Alfa Romeo all Spider models (-1994)	4 Cyl DOHC	84.0 x 88.5 (3.31x3.48)	1961 (119.6)	Alum	Alum	(I) 44.15 / (1.74) (E) 40.15/ (1.58)	(2) 40, 45, 48 DCOE, 40 DHLA, 48 DHLA. 44mm choke(s) req'd, or original-type fuel injection (mechanical or electronic) w/ stock unmodified F.I. throttle body.	2250 (88.6)	1430 / 1377 (56.3/54.2)	15 x 7	5
Alfa Romeo Spider Duetto & 1750 Spider (thru 1971)	4 Cyl DOHC	78.0 x 82.0 (3.07x3.23) 80.0 x 88.4 (3.15x3.48)	1570 (96.0) 1779 (108.5)	Alum	Alum	(I) 41.1 / (1.62) (E) 37.1 / (1.46)	(2) Weber 40 DCOE 27, (2) Weber 40 DCOE 32, (2) Weber 45 DCOE w/ 42mm choke(s), (2) Zenith 75 CDSE	2250 (88.6)	1415 / 1359 (55.7/53.5)	15 x 7	5
Austin-Healey 3000 Mk. I, II, III	6 Cyl OHV	83.3 x 88.9 (3.28x3.50)	2912 (177.6)	Iron	Iron	(I) 44.5 / (1.75) (E) 39.6 / (1.56)	(2) 1.75in SU or Stromberg or (3) 1.75in SU or Stromberg on stock 3-carb intake manifold	2329 (91.7)	1359 / 1384 (53.5/54.5)	15 x 7	4
BMW 2002 / 2002tii	4 Cyl SOHC	89.0 x 80.0 (3.50x3.15)	1990 (121.5)	Iron	Alum	(I) 46.0 / (1.81) (E) 38.0 / (1.50)	(1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 34mm choke(s) on I.R. manifold, 32/36 DGV/DGAV, or original-type fuel injection.	2499 (98.4)	1430 / 1430 (56.3/56.3)	15 x 7	4

EP$_D$	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Alfa Romeo GTV-6 (81-86)	Factory spec @ all 4 wheels.	None	2390	Comp.Ratio limited to 10.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Alfa Romeo all Spider models (-1994)	(F) 272 (10.7) Disc (R) 267 (10.5) Disc	(F) 272 (10.7) Disc (R) 267 (10.5) Disc Front Discs: #105802205232 Rear Discs: #105802205333	2050	Niki Lauda Edition rear spoiler
Alfa Romeo Spider Duetto & 1750 Spider (thru 1971)	(F) 264 (10.4) Disc (R) 246 (9.7) Disc	(F & R) 264 (10.4) Disc (F) 272 (10.7) Disc (R) 267 (10.5) Disc	1870	Niki Lauda Edition rear spoiler
Austin-Healey 3000 Mk. I, II, III	(F) 286 (11.3) Disc (R) 279 (11.0) Drum	Rear Disc: #H82462	2340	Laycock overdrive: .88, .82, .79, May use 5 speed gearbox w/o overdrive.
BMW 2002/ 2002tii	(F) 256 (10.1) Disc (R) 230 x 40 (9.1 x 1.6) Drum		2050	

EP$_E$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
BMW 318i & 320i	4 Cyl SOHC	89.0 x 80.0 (3.50x3.15)	1990 (121.5)	Iron	Alum	(I) 46.0 / (1.81) (E) 38.0 / (1.50)	(1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 34mm choke(s) on I.R. manifold, 32/36 DGV/DGAV, or original-type fuel injection.	2563 (100.9)	1481 / 1494 (58.3/58.8)	15 x 7	4 or 5
BMW Z3 1.9L	4 Cyl DOHC	85.1 x 83.6 (3.35x3.29)	1895 (115.6)	Iron	Alum	(I) 33.0 / (1.30) (E) 30.5 / (1.20)	(2) Auto-type sidedrafts w/ 30mm choke(s), or original-type fuel injection w/ stock unmodified F.I. throttle body.	2446 (96.3)	1481 / 1565 (58.3/61.6)	15 x 7	5
BMW 325i/is (E30) (84-91) (excl. conv.)	6 Cyl SOHC	84.1 x 75.0 (3.31x2.95)	2494 (152.1)	Iron	Alum	(I) 41.9 / (1.65) (E) 36.1 / (1.42)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2565 (101.0)	1499 / 1506 (59.0/59.3)	15 x 7	5
BMW 318is (1991)	4 Cyl DOHC	84.1 x 81.0	1799	Iron	Alum	(I) 33.0 / (1.30) (E) 30.5 / (1.20)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2570	1499 / 1506	15 x 7	5
Chevrolet Cavalier 2.0 (82-87)	4 Cyl OHV	89.0 x 80.0 (3.50x3.15)	1990 (121.5)	Iron	Alum.	(I) 43.0 / (1.69) (E) 37.0 / (1.46)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection.	2570 (101.2)	1407 / 1402 (55.4/55.2)	13 x 7	5

EP_F	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
BMW 318i & 320i	(F) 254 (10.0) Disc (R) 249 x 41 (9.8 x 1.6) Drum		2050	Trunk mounted fuel cell allowed, 1800cc engine from 318i allowed
BMW Z3 1.9L	(F) 286 (11.3) Disc (R) 280 (11.0) Disc		2050	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.
BMW 325i/is (E30) (84-91) (excl. conv.)	Factory spec @ all 4 wheels.	None	2300	Comp.Ratio limited to 10.0:1, Valve lift limited to .400", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
BMW 318is (1991)	Factory spec @ all 4 wheels.	None	2100	Comp.Ratio limited to 10.0:1, Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Chevrolet Cavalier 2.0 (82-87)	(F) 247 (9.7) Disc (R) 200 x 45 (7.9 x 1.8) Drum		2130	

EP$_G$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Chevrolet Corvair Coupe (65-69)	6 Cyl OHV	87.4 x 74.7 (3.44x2.94)	2689 (164.0)	Alum	Alum.	(I) 43.7 / (1.72) (E) 34.5 / (1.36)	(4) 1 bbl 1.5" Rochester 7025023 or 7026026 on stock manifold, (2) 3 bbl carbs on I.R. manifold. 34mm choke(s) req'd.	2743 (108.0)	1516 / 1572 (59.7/61.9)	15 x 7	4
Dodge Neon (95-99)	4 Cyl DOHC	87.5 x 83.0	1995	Iron	Alum	(I) 34.8 (E) 30.5	Original-type fuel injection w/ stock unmodified F.I. throttle body.	104	61.5 / 61.5	15 x 7	5
Dodge Neon (95-99)	4 Cyl SOHC	87.5 x 83.0	1995	Iron	Alum	(I) 33.0 (E) 28.0	Original-type fuel injection w/ stock unmodified F.I. throttle body.	104	61.5 / 61.5	15 x 7	5
Dodge Omni GLH 2.2	4 Cyl SOHC	87.5 x 92.0 (3.44x3.62)	2213 (135.0)	Iron	Alum.	(I) 40.6 / (1.60) (E) 35.4 / (1.39)	(1) 40 DCN, DCNF, IDF w/ 34mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, 32/36 DGV/DGAV, or original-type fuel injection.	2517 (99.1)	1560 / 1549 (61.4/61.0)	15 x 7	5

EP_H	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Chevrolet Corvair Coupe (65-69)	(F&R)241 (9.5) Drum	(F&R) 270 x 26 (10.6 x 1.0) Vented Disc Calipers shall be ferrous or aluminum and shall be limited to (1) piston per side.	2290	Yenko Stinger rear quarter windows, rear decklid, and trunk flaps are permitted.
Dodge Neon (95-99)	(F) 257 vented disc (R) 257 solid disc	None	2000	Comp.Ratio limited to 12.0:1, Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Dodge Neon (95-99)	(F) 257 vented disc (R) 257 solid disc	None	2000	Comp.Ratio limited to 12.0:1, Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Dodge Omni GLH 2.2	(F) 256 (10.1) Disc (R) 200 x 33 (7.9 x 1.3) Drum		2130	

EP$_I$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Dodge Shelby Charger / Omni 024 (83-84)	4 Cyl SOHC	87.5 x 92.0 (3.44x3.62)	2213 (135.0)	Iron	Alum.	(I) 40.6 / (1.60) (E) 35.4 / (1.39)	(2) Auto-type sidedraft w/ 30mm choke(s) on I.R. manifold, or original-type fuel injection.	2451 (96.5)	1486 / 1473 (58.5/58.0)	15 x 7	5
Elva Courier Mk. I, II & III 1622 & 1798	4 Cyl OHV	76.2 x 88.9 (3.00x3.50) 80.3 x 88.9 (3.16x3.50)	1622 (99.0) 1798 (109.7)	Iron	Iron	(I) 39.9 / (1.57) (E) 34.3 / (1.35)	(2) 1.75in SU or Stromberg	2286 (90.0)	1359 / 1387 (53.5/54.6)	14 x 6 (1622cc) 15 x 7 (Mk. III 1798cc)	4
Elva Courier Mk. III, IV 1800 & Mk, IV R & C	4 Cyl OHV	80.3 x 88.9 (3.16x3.50)	1798 (109.7)	Iron	Iron	(I) 39.9 / (1.57) (E) 34.3 / (1.35)	(2) 1.75in SU or Stromberg	2286 (90.0)	1359 / 1387 (53.5/54.6)	15 x 7	4
Fiat 124 Sport Spider 1600 & 124 Spider 2000	4 Cyl DOHC	80.0 x 80.0 (3.15x3.15) 84.1 x 89.9 (3.31x3.54)	1608 (98.1) 1995 (121.7)	Iron	Alum	(I) 41.7 / (1.64) (E) 36.6 / (1.44)	(2) Weber 40 IDF-40IFI, (2) Solex C40P116, 32/36 DGV / DGAV, or original-type fuel injection (2.0L only). 34mm choke(s) req'd.	2281 (89.8)	1440 / 1407 (56.7/55.4)	15 x 7	5
Ford Escort 1.9 (85-87)	4 Cyl SOHC	82.0 x 88.0 (3.23x3.46)	1859 (113.4)	Iron	Alum	(I) 42.0 / (1.65) (E) 37.0 / (1.46)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection.	2393 (94.2)	1455 / 1488 (57.3/58.6)	15 x 7	4 or 5

EP_J	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Dodge Shelby Charger / Omni 024 (83-84)	(F) 256 (10.1) Disc (R) 200 x 33 (7.9 x 1.3) Drum		2030	
Elva Courier Mk. I, II & III 1622 & 1798	(F) 229 (9.0) Drum (R) 203 (8.0) Drum	(F) 229 (9.0) Disc (R) 254 (10.0) Drum (w / MGA axle) (F) 279 (11.0) Disc (R) Mk.4T 229 (9.0)	1622cc: 1530 1798cc: 1630	ATB 7224 MGA axle housing assy., Only the Mk.III 1622cc is allowed to update to the 1798cc engine including the 15" wheel. A Mk.III making this update may use the 13" wheels.
Elva Courier Mk. III, IV 1800 & Mk, IV R & C	(F) 229 (9.0) Drum (R) 203 (8.0) Drum	(F) 229 (9.0) Disc (R) 254 (10.0) Drum (w/ MGA axle) (F) 279 (11.0) Disc (R) Mk.4T 229 (9.0)	1622cc: 1530 1798cc: 1630	Mk.IV T R & C have IRS, Mk.III & IV 1800 have live axle. ATB 7224 MGA axle housing assy., Only the Mk.III 1622cc is allowed to update to the 1798cc engine including the 15" wheel. A Mk.III making this update may use the 13" wheels.
Fiat 124 Sport Spider 1600 & 124 Spider 2000	(F) 226 (8.9) Disk (R) 226 (8.9) Disk	(F & R) 254 (10.0) Disc Alternate rotor: # 82346805	2070	Intake manifold: #124A20079-3, Allow alternate PBS intake manifold.
Ford Escort 1.9 (85-87)	(F) 235 (9.3) Disc (R) 180 (7.1) Drum		1870	

EP$_K$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Ford Pinto	4 Cyl SOHC	96.0 x 79.4 (3.78x3.13)	2301 (140.4)	Iron	Iron	(I) 44.1 / (1.74) (E) 38.1 / (1.50)	(1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 32 mm choke(s) on I.R. manifold, 32/36 DGV/DGAV	2388 (94.0)	1488 / 1509 (58.6/59.4)	15 x 7	4 or 5
Honda Civic EX VTEC SOHC (94-95)	4 Cyl SOHC	75.0 x 90.0 (2.95x3.54)	1590 (97.0)	Alum	Alum	(I) 30.0 / (1.18) (E) 26.0 / (1.02)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2621 (103.2)	1567 / 1557 (61.7/61.3)	15 x 7	5
Honda Civic Del Sol Si (93-94)	4 Cyl SOHC	75.0 x 90.0 (2.95x3.54)	1590 (97.0)	Alum	Alum	(I) 30.0 / (1.18) (E) 26.0 / (1.02)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2370 (93.3)	1567 / 1557 (61.7/61.3)	15 x 7	5
Honda Civic Del Sol	4 Cyl DOHC	81.0 x 77.4 (3.19x3.05)	1595 (97.3)	Alum	Alum	(I) 33.0 / (1.30) (E) 28.0 / (1.10)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2370 (93.3)	1567 / 1557 (61.7/61.3)	15 x 7	5
Honda CRX Si (88-91)	4 Cyl SOHC	75.0 x 90.0 (2.95x3.54)	1590 (97.0)	Alum	Alum	(I) 29.0 / (1.14) (E) 25.0 / (0.98)	(1) 40 DCOE w/ 34mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection.	2304 (90.7)	1560 / 1567 (61.4/61.7)	15 x 7	5

EP_L	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Ford Pinto	(F) 236 (9.3) Disc (R) 229 x 36 (9.0 x 1.4) Drum		2190	
Honda Civic EX VTEC SOHC (94-95)	Factory spec @ all 4 wheels.	None	2090	Comp.Ratio limited to 12.5:1, Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Honda Civic Del Sol Si (93-94)	Factory spec @ all 4 wheels.	None	2090	Comp.Ratio limited to 12.5:1, Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Honda Civic Del Sol	(F) 262 (10.3) Disc (R) 239 (9.4) Disc		2090	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) May be prepared as a coupe or "targa top", Petty-bar roll cage allowed in lieu of rearward roll cage braces. Limited Prep Transmission.
Honda CRX Si (88-91)	(F) 241 (9.5) Disc (R) 180 x 38 (7.1 x 1.5) Drum	(R) 239 (9.4) Disc	1950	Single 40 DCOE requires "dual Y" manifold w / no balance tubes or plenum.

EP$_M$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Honda Civic Si (88-91)	4 Cyl SOHC	75.0 x 90.0 (2.95x3.54)	1590 (97.0)	Alum	Alum	(I) 29.0 / (1.14) (E) 25.0 / (0.98)	(1) 40 DCOE w/ 34mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection.	2500 (98.4)	1560 / 1567 (61.4/61.7)	15 x 7	5
Honda Civic Si (99-00)	4 Cyl DOHC	81.0 x 77.4 (3.19x3.05)	1595	Alum	Alum	(I) 33.0 / (1.30) (E) 28.0 /(1.10)	Original type fuel injection w/stock unmodified F.I. throttle body.	2370 (93.3)	1567 / 1557 (61.7/61.3)	15 x 7	5
Honda Prelude Si	4 Cyl DOHC	87.0 x 95.0 (3.43x3.74)	2259 (137.8)	Alum	Alum	(I) 34.0 / (1.34) (E) 29.0 / (1.14)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2550 (100.4)	1615 / 1605 (63.6/63.2)	15 x 7	5
Honda Prelude Si VTEC (1993)	4 Cyl DOHC		2157	Alum	Alum	(I) 35.0 / (1.38) (E) 30.0 / (1.18)	Original-type fuel injection w/ stock unmodified F.I. throttle body.				5

EP$_N$	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Honda Civic Si (88-91)	(F) 241 (9.5) Disc (R) 180 x 38 (7.1 x 1.5) Drum	(R) 239 (9.4) Disc	1950	Single 40 DCOE requires "dual Y" manifold w / no balance tubes or plenum.
Honda Civic Si (99-00)	(F) 240 (9.4) Disc (R) 239 (9.4) Disc	None	2090	Comp Ratio limited to 12.0:1., Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Honda Prelude Si	(F&R) 259 (10.2) Disc		2320	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restrictions: Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.
Honda Prelude Si VTEC (1993)	Factory spec @ all 4 wheels.	None	2730	Comp.Ratio limited to 10.0:1, Valve lift limited to .300", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

EP$_0$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Hyundai Tiburon FX 2.0L (97-98)	4 Cyl DOHC	82.0 x 93.5 (3.23x3.68)	1975	Alum	Alum		Original type fuel injection w/stock unmodified F.I. throttle body.	2474 (97.4)	1466 / 1450 (57.7/57.1)	15 x 6	5
Jaguar XK-120, 140 & 150 (3.4 & 3.8L) (Reg. Only)	6 Cyl DOHC	82.8x105.9 (3.26x4.17) 87.1x105.9 (3.43x4.17)	3442 (210.0) 3781 (230.6)	Iron	Alum	(I) 44.5 / (1.75) (E) 41.1 / (1.62) (E) 36.6 / (1.44)	(2) 1.75" SU or Stromberg, (3) 2" SU or Stromberg	2591 (102.0)	1455 / 1430 (57.3/56.3)	16 x 7	4
Jensen-Healey and GT	4 Cyl DOHC	85.3 x 69.3 (3.75x2.73)	1973 (120.4)	Alum	Alum	(I) 35.6 / (1.40) (E) 30.5 / (1.22)	(2) Weber 45 DCOE on I.R. Manifold w/ 34mm choke(s)	2337 (92.0)	1448 / 1422 (57.0/56.0)	15 x 7	4 or 5
Lotus / Caterham 7 America	4 Cyl DOHC (Ford ZETEC)	84.8 x 88.0 (3.34x3.46)	1989 (121.3)	Iron	Alum		IT fuel injection prep	2235 (88.0)	1336 / 1349 (52.6/53.1)	13 x 6	5

EP_P	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Hyundai Tiburon FX 2.0L (97-98)	(F) 257 (10.1) Disc (R) 203 (8.0) Drum	None	2090	Comp Ratio limited to 10.5:1., Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Jaguar XK-120, 140 & 150 (3.4 & 3.8L) (Reg. Only)	(F & R) 305 (12.0) Disc		2740	Laycock overdrive. May use 5 speed gearbox w/o overdrive. XK-E intake manifolds.
Jensen-Healey and GT	(F) 254 (10.0) Disc (R) 229 (9.0) Drum	(F) 257 (10.1) Disc (R) 229 (9.0) Drum (F) 267 (10.5) Vented Disc (R) 267 x 20 (10.5 x .78) Disc from TR-8	2090	Toyota rear differential w / 8" ring gear (4WD rear)
Lotus / Caterham 7 America	(F&R) 229 (9.0) Disc		1460	Comp. Ratio ltd. to 9.8:1. Restricted Susp. prep., Cyl head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valve lift measured at valve with zero lash or clearance. Stock, unmodified 2.0L Zetec camshafts from 98-99 Ford Contour / Mercury Mystique (Intake P/N: F8CZ-6250-AA, Exhaust P/N: F8CZ-6250-DA) shall be used. All engine parts not specified shall be prepared per IT engine preparation rules. Stock transmission with helical gears req'd. Gear ratios: 3.36, 1.81, 1.26, 1.00, 0.82, Permitted Fuel: cars may use fuel meeting the requirements for IT cars per GCR Section 17.4.1. The rollcage may be modified or replaced. The rollcage must have a full-width, high front & rear hoop, using the OEM cage mounting points. The side intrusion bars shall remain outside the passenger compartment. The Caterham "clamshell" front fender is required. Front fenders shall be mounted in the normal position as provided from the factory. Front fenders may be modified as described here. The fender mounting flange shall be a minimum of 36" in length. At the rear of the fender, the lower edge of the mounting flange shall extend no higher than 8-1/2" above the undertray of the vehicle. At its maximum width, the fender shall be no narrower that 20-1/2" as measured along the upper curvature. At a point 18" rearward from the front of the flange, the fender shall be no narrower than 7" along the upper curvature and at 34" the fender shall be no less than 3" along the upper curvature. From 34" rearward, a radius may provide a transition between the outer and the rearmost fender edges. The contours resulting from this modification shall be gradual and describe a smooth curve in plan view. No further modifications are allowed.

EP$_Q$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Lotus Mk 46,54,65 Europa	4 Cyl OHV	75.9 x 81.0 (2.99x3.19) 77.0 x 84.1 (3.03x3.31)	1470 (89.7) 1565 (95.5)	Alum	Alum	(I) 37.6 / (1.48) (E) 31.2 / (1.23)	(1) Solex 1 3/8" DIDSA2, (1) Weber 45 DCOE w / "Dual-Y" manifold	2311 (91.0)	1440 / 1440 (56.7/56.7)	13 x 6	4 or 5
Lotus Super Seven Series Four	4 Cyl OHV	81.0 x 77.7 (3.19x3.06)	1599 (97.5)	Iron	Iron	(I) 38.4 / (1.51) (E) 31.8 / (1.25)	(1) Weber 32 DFM, DFD w/ 28mm primary & 28mm secondary, (1) Weber DCNF w/ 28mm choke(s).	2286 (90.0)	1331 / 1400 (52.4/55.1)	13 x 6	4
Mazda RX-2	Rotary	12A	2292 (139.8)				(1) Nikki 4 bbl carburetor w/ primary choke(s) bored to match secondary choke(s) on a stock manifold or (1) Auto-type 2 bbl w/38mm choke(s) on a "dual-y" manifold"	2469 (97.2)	1372 / 1369 (54.0/53.9)	15 x 7	5
Mazda MX-5 / Miata 1.6L (-1993)	4 Cyl DOHC	78.0 x 83.6 (3.07x3.29)	1597 (97.4)	Iron	Alum	(I) 31.1 / (1.22) (E) 26.3 / (1.04)	(1) 40mm Auto-type sidedraft w/ 30mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2266 (89.2)	1478 / 1491 (58.2/58.7)	15 x 7	5
Mazda MX-5 / Miata 1.8L (90-97)	4 Cyl DOHC	83.0 x 85.0 (3.27x3.35)	1840 (112.2)	Iron	Alum	(I) 33.1 / (1.30) (E) 28.2 / (1.11)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, F.I. not permitted.	2266 (89.2)	1483 / 1509 (58.4/59.4)	15 x 7	5
Mazda MX-5 / Miata M-2 (1999)	4 Cyl DOHC	83.0 x 85.0 (3.27x3.35)	1840 (112.2)	Iron	Alum	(I) 33.1 / (1.30) (E) 28.2 / (1.11)	(1) 40mm Auto-type sidedraft w/ 30mm choke(s), (2) Auto-type sidedraft w/ 28mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2266 (89.2)	1483 / 1509 (58.4/59.4)	15 x 7	5

EP$_R$	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Lotus Mk 46,54,65 Europa	(F) 229 (9.0) Disc (R) 203 (8.0) Drum	(F) 244 (9.6) Disc (R) 231 (9.1) Disc from twin cam	1330	Renault R-16 (non-crossflow) cylinder head casting. Trunk mounted fuel cell is permitted. Any available transaxle with the same number of forward gears mounted in standard position.
Lotus Super Seven Series Four	(F) 229 (9.0) Disc (R) 229 (9.0) Drum	(F) 244 (9.6) Disc	1610	Headlights & associated hardware may be removed. NOTE: Rear edge of front fenders shall be 4.5" above body undertray. Floor pans: One (1) right, One (1) left, attached to bottom of frame tubes. Area beneath transmission / driveshaft shall remain open.
Mazda RX-2	(F) 231 (9.1) Disc (R) 201 (7.9) Drum	(F) 227 (8.9) Disc (F) 250 Disc (R) 229 (9.0) Drum (R) 236 Disc (R) 256 Disc	2050	Engine:Street Port engine only, no bridge, no peripheral, no modification of water jackets(no eyelash port) contact the SCCA National Office for details. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspension for allowable suspension modifications.) Limited Prep Transmission.
Mazda MX-5 / Miata 1.6L (-1993)	(F) 235 (9.3) Vented Disc (R) 231 (9.1) Solid Disc	(F) 254 (10.0) Vented Disc (R) 251 (9.9) Solid Disc	2140	"Dual Y" manifold required w / single DCOE carb., no plenum or balance tubes. 1994 Mazda Miata (1840cc) differential housing is permitted. OEM hardtop allowed. Mazda Comp lifter #B6N7-12-183 allowed until 12/31/05.
Mazda MX-5 / Miata 1.8L (90-97)	(F) 235 (9.3) Vented Disc (R) 231 (9.1) Solid Disc	(F) 254 (10.0) Vented Disc (R) 251 (9.9) Solid Disc	2220	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Full suspension prep permitted. OEM hardtop allowed. Mazda Comp lifter #B6N7-12-183 allowed until 12/31/05. Limited Prep Transmission.
Mazda MX-5 / Miata M-2 (1999)	(F) 235 (9.3) Vented Disc (R) 231 (9.1) Solid Disc	(F) 254 (10.0) Vented Disc (R) 251 (9.9) Solid Disc	2100	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) OEM hardtop allowed. Limited Prep Transmission.

EPS	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Mazda Protégé ES (01-03)	4 Cyl DOHC	83.0 x 92.0	1991	Iron	Alum	(I) 31.5 (E) 27.6	Original-type fuel injection w/ stock unmodified F.I. throttle body.	102.8	60.8 / 61.0	15 x 7	5
Mazda RX-3 & 3SP (72-78)	Rotary	12A	2292 (139.8)				(1) Nikki 4 bbl carburetor w/ primary choke(s) bored to match secondary choke(s) on a stock manifold or (1) Auto-type 2 bbl w/ 38mm choke(s) on a "dual-y" manifold"	2311 (91.0)	1410 / 1410 (55.5/55.5)	15 x 7	5
Mazda RX-7 (12A / 13B) (79-85)	Rotary	12A 13B (84-85 6-port only)	2292 (139.8) 2616 (159.6)				12A: (1) Nikki 4 bbl carburetor w/ primary choke(s) bored to match secondary choke(s) on a stock manifold or (1) Auto-type 2 bbl w/38mm choke(s) on a "dual-y" manifold". 13B: (1) Auto-type 2 bbl w/38mm choke(s) on a "dual-y" manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2421 (95.3)	1524 / 1499 (60.0/59.0)	15 x 7	5
Mazda RX-7 (13B) (86-91)	Rotary	13B	2616 (159.6)				(1) Auto-type 2 bbl w/ 38mm choke(s) on a "dual-y" manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2431 (95.7)	1542 / 1532 (60.7/60.3)	15 x 7	5

EP_T	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Mazda Protégé ES (01-03)	Factory spec @ all 4 wheels.	None	2000	Comp.Ratio limited to 12.0:1, Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Mazda RX-3 & 3SP (72-78)	(F) 231 (9.1) Disc (R) 201 (7.9) Drum	(F) 227 (8.9) Disc, Discs and calipers from 79-85 12A RX-7 (R) 229 (9.0) Drum (F) 250 (9.8) Disc, Discs and calipers from '84-'85 RX-7 GSL-SE	2050	Engine: Street Port engine only, no bridge, no peripheral, no modification of water jackets (no eyelash port) contact the SCCA National Office for details. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Modifications (enlarging or grooving) of the water jacket in the area of the spark plugs for cooling purposes is allowed. Alternate two-piece hub and rotor allowed provided they are of the same dimensions as original and weigh a minimum of 10.2 lbs. Limited Prep Transmission.
Mazda RX-7 (12A / 13B) (79-85)	(F) 227 (8.9) Disc (R) 200 (7.9) Drum	(F) 250 (9.8) Disc (R) 236 (9.3) Disc (R) 256 (10.1) Disc	12A: 2050 13B: 2190	Engine: Street Port engine only, no bridge, no peripheral, no modification of water jackets (no eyelash port) contact the SCCA National Office for details. Modifications (enlarging or grooving) of the water jacket in the area of the spark plugs for cooling purposes is allowed. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Alternate two-piece hub and rotor allowed provided they are of the same dimensions as original and weigh a minimum of 10.2 lbs. Limited Prep Transmission.
Mazda RX-7 (13B) (86-91)	(F) 250 (9.8) Disc (R) 256 (10.1) Disc	(F) 277 (10.9) Disc (R) 272 (10.7) Disc	2250 (1065.8)	Engine: Street Port engine only, no bridge, no peripheral, no modification of water jackets (no eyelash port) contact the SCCA National Office for details. Engine components from turbo model are not permitted. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) OEM or aftermarket rear spoiler not permitted. Limited Prep Transmission.

EP$_U$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
MGB & MGB-GT	4 Cyl OHV	80.3 x 88.9 (3.16x3.50)	1798 (109.7)	Iron	Iron	(I) 39.9 / (1.57) (I) 41.4 / (1.63) (E) 34.3 / (1.35)	(2) 1.5" SU HS-4, (2) 2" SU or Stromberg, (2) 1.75" SU	2311 (91.0)	1346 / 1351 (53.0/53.2)	15 x 7	4
Mercedes-Benz 190E 2.3L (8-valve) (84-93)	4 Cyl SOHC	96.5 x 80.3 (3.80x3.16)	2299 (140.2)	Iron	Alum	(I) 46.1 / (1.81) (E) 39.1 / (1.54)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2665 (104.9)	1529 / 1510 (60.2/59.4)	15 x 7	5
Morgan Super Sport	4 Cyl OHV	86.1 x 91.9 (3.39x3.62)	2138 (130.4)	Iron	Iron	(I) 39.6 / (1.56) (E) 33.0 / (1.30)	(2) Weber 42 DCOE. 34mm choke(s) req'd.			13 x 7	4
Nissan/ Datsun 240-Z	6 Cyl SOHC	83.0 x 73.3 (3.27x2.89)	2380 (145.2)	Iron	Alum	(I) 42.0 / (1.65) (E) 33.0 / (1.30)	(2) Hitachi-SU (1bbl) 46mm throttle bores	2304 (90.7)	1445 / 1438 (56.9/56.6)	15 x 7	4
Nissan/ Datsun 260-Z	6 Cyl SOHC	83.0 x 79.0 (3.27x3.11)	2565 (156.5)	Iron	Alum	(I) 42.0 / (1.65) (E) 35.0 / (1.38)	(2) Hitachi-SU (1bbl) 46mm throttle bores	2304 (90.7)	1445 / 1438 (56.9/56.6)	15 x 7	4

EP_V	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
MGB & MGB-GT	(F) 273 (10.8) Disc (R) 254 (10.0) Drum		1760	17th 8152 (0.75") wheel cylinders, Alternate intake manifold for 2" SU: #12 H2838, Laycock overdrive, May use 5 speed gearbox w/o overdrive. Alt. Manifold: Any individual runner manifold with runner length of 3.0-4.0" measured flange to flange.
Mercedes-Benz 190E 2.3L (8-valve) (84-93)	Factory spec @ all 4 wheels.	None	2190	Comp.Ratio limited to 10.5:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Morgan Super Sport	(F) Disc (R)Drum		1820	
Nissan/ Datsun 240-Z	(F) 272 (10.7) Disc (R) 229 (9.0) Drum	(F) 252 (9.92) Vented Disc (R) 258 (10.16) (R) 269 (10.59) Solid Disc Discs and calipers from 280-ZX.	2270	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve Lift: .500" max. Carburetor preparation per Current I.T. rules. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.
Nissan/ Datsun 260-Z	(F) 272 (10.7) Disc (R) 229 (9.0) Drum	(F) 252 (9.92) Vented Disc (R) 258 (10.16) (R) 269 (10.59) Solid Disc Discs and calipers from 280-ZX.	2390	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve Lift: .500" max. Carburetor preparation per Current I.T. rules. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.

EP$_W$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Nissan/ Datsun SRL 311U Roadster	4 Cyl SOHC	87.1 x 83.1 (3.43x3.27)	1982 (120.9)	Iron	Alum.	(I) 46.0 / (1.81) (E) 36.1 / (1.42)	(2) Mikuni PHH 44mm. 34mm choke(s) req'd.	2281 (89.8)	1364 / 1288 (53.7/50.7) (w / 6") 1389 / 1313 (54.7/51.7) (w / 7")	15 x 7	5
Nissan 200-SX / S10 (77-79)	4 Cyl SOHC	85.1 x 86.1 (3.35x3.39)	1952 (119.1)	Iron	Alum	(I) 42.1 / (1.66) (E) 35.2 / (1.39)	(1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 30mm choke(s) on I.R. manifold, 32/36 DGV/DGAV	2337 (92.0)	1453 / 1405 (57.2/55.3)	15 x 7	5
Nissan 200-SX SE-R	4 Cyl DOHC	86.0 x 86.0 (3.39x3.39)	1998 (121.9)	Iron	Alum	(I) 34.2 / (1.35) (E) 30.2 / (1.19)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2431 (95.7)	1537 / 1516 (60.5/59.7)	15 x 7	5
Nissan 240-SX / S13	4 Cyl SOHC (3 valve)	89.0 x 96.0 (3.50x3.78)	2389 (145.7)	Iron	Alum	(I) 34.0 / (1.34) (E) 40.0 / (1.57)	(2) automotive type w/ 30mm choke(s), or original-type fuel injection w/ stock unmodified F.I. throttle body.	2474 (97.4)	1524 / 1524 (60.0/60.0)	15 x 7	5
Nissan NX-2000	4 Cyl DOHC	86.0 x 86.0 (3.39x3.39)	1998 (121.9)	Iron	Alum	(I) 34.2 / (1.35) (E) 30.2 / (1.19)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2431 (95.7)	1524 / 1501 (60.0/59.1)	15 x 7	5
Nissan Sentra SE-R (90-94)	4 Cyl DOHC	86.0 x 86.0 (3.39x3.39)	1998 (121.9)	Iron	Alum	(I) 34.2 / (1.35) (E) 30.2 / (1.19)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	2431 (95.7)	1524 / 1501 (60.0/59.1)	15 x 7	5

EP$_X$	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Nissan/ Datsun SRL 311U Roadster	(F) 285 (11.2) Disc (R) 229 (9.0) Drum	(F) 279 x 26 (11.0 x 1.04) Vented Disc Front calipers from: 240, 260, or 280Z (1970-78) w/spacers Rotor origin is unrestricted	2050	
Nissan 200-SX / S10 (77-79)	(F) 244 (9.6) Disc (R) 229 x 40 (9.0 x 1.6) Drum		1950	
Nissan 200-SX SE-R	(F) 249 (9.8) Disc (R) 234 (9.2) Disc		2170	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.
Nissan 240-SX / S13	(F) 252 (9.9) Disc (R) 258 (10.2) Disc	(F) Stock 257 x 22 (10.1 x .87) ABS discs w/ 4-lug hub & ABS front calipers.	2420	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.
Nissan NX-2000	(F) 249 (9.8) Disc (R) 234 (9.2) Disc		2170	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.
Nissan Sentra SE-R (90-94)	(F) 249 (9.8) Disc (R) 234 (9.2) Disc		2170	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted Suspensions for allowable suspension modifications.) Limited Prep Transmission.

EP$_Y$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Nissan/ Datsun HL510 (78-81)	4 Cyl SOHC	85.1 x 86.1 (3.35x3.39)	1952 (119.1)	Iron	Alum	(I) 42.1 / (1.66) (E) 35.2 / (1.39)	(1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 30mm choke(s) on I.R. manifold, 32/36 DGV/DGAV	2388 (94.0)	1478 / 1448 (58.2/57.0)	15 x 7	5
Plymouth Arrow (79-80)	4 Cyl SOHC	91.0 x 98.0	2555	Iron	Alum	(I) 43.0 (E) 35.0	(1) 40 DCN, DCNF, IDF w/ 36mm choke(s), 32/36 DGV / DGAV	2339 (92.1)	1300 / 1340 (51.18/52.76)	15 x 7	5
Porsche 911 2.0L	Oppos'd 6 Cyl SOHC	80.0 x 66.0 (3.15x2.60)	1991 (121.5)	Alloy	Alloy	(I) 42.1 / (1.66) (E) 38.1 / (1.50)	(2) IDA-3C carburetors. 34mm choke(s) max.	2271 (89.4)	1374 / 1354 (54.1/53.3)	15 x 7	4 or 5
Porsche 911 2.2L	Oppos'd 6 Cyl SOHC	84.0 x 66.0 (3.31x2.60)	2195 (133.9)	Alloy	Alloy	(I) 46.1 / (1.81) (E) 40.1 / (1.58)	(2) IDA-3C carburetors. 34mm choke(s) max.	2271 (89.4)	1374 / 1354 (54.1/53.3)	15 x 7	4 or 5
Porsche 912 E	4 Cyl OHV	94.0 x 70.9 (3.70x2.79)	1968 (120.1)	Alum	Alum	(I) 41.9 / (1.65) (E) 36.1 / (1.42)	(2) Solex PII-4	2266 (89.2)	1461 / 1427 (57.5/56.2)	15 x 7	4 or 5
Porsche 914-4	4 Cyl OHV	94.0 x 70.9 (3.70x2.79)	1968 (120.1)	Alum	Alum	(I) 41.9 / (1.65) (E) 36.1 / (1.42)	(2) Solex 40 PII-4, (2) weber 40 IDF, (2) Del'Orto 40mm, or original-type fuel injection. 38mm choke(s) max.	2451 (96.5)	1435 / 1478 (56.5/58.2)	15 x 7	5

EP$_Z$	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Nissan/ Datsun HL510 (78-81)	(F) 244 (9.6) Disc (R) 229 x 40 (9.0 x 1.6) Drum	(F) 251 (9.9) Vented Discs Discs and calipers from 280-ZX.	1950	
Plymouth Arrow (79-80)	Factory spec @ all 4 wheels.	none	2390	Comp.Ratio limited to 10.5:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Porsche 911 2.0L	(F) 282 (11.1) Disc (R) 290 (11.4) Disc	(F&R) 300 (11.8) Disc	1950	
Porsche 911 2.2L	(F) 282 (11.1) Disc (R) 290 (11.4) Disc	(F&R) 300 (11.8) Disc	2050	
Porsche 912 E	(F) 282 (11.1) Disc (R) 285 (11.2) Disc	# 901351/ 35240115 Ventilated Discs	1870	Standard intake manifold: Porsche part #021 129 705N. Alternate manifolds with the same length and configuration (5 1/4" center line axis ± 1/4") are allowed. (i.e. Pierce manifold part # 99004.822.
Porsche 914-4	(F) 282 (11.1) Disc (R) 285 (11.2) Disc	Front "M" calipers permitted, 914-6 calipers & discs allowed	1870	Standard intake manifold: Porsche part #021 129 705N. Alternate manifolds with the same length and configuration (5 1/4" center line axis ± 1/4") are allowed. (i.e. Pierce manifold part # 99004.822. Top panel may remain in place if securley bolted or pinned.

EP$_{AA}$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Porsche 914-6 2.0L	Oppos'd 6 Cyl SOHC	80.0 x 66.0 (3.15x2.60)	1991 (121.5)	Alloy	Alloy	(I) 41.9 / (1.65) (E) 38.1 / (1.50)	(2) IDA-3C carburetors. 34mm choke(s) max.	2451 (96.5)	1452 / 1499 (57.2/59.0)	15 x 7	5
Porsche 924	4 Cyl OHC	86.5 x 84.4 (3.41x3.32)	1984 (121.0)	Iron	Alum	(I) 40.0 / (1.57) (E) 33.0 / (1.30)	(2) Auto-type w/ 30mm choke(s)	2400 (94.5)	1420 / 1392 (55.9/54.8)	15 x 7	5
Porsche 944/924S 2.5L (2V) (83-88)	4 Cyl SOHC	100.0x78.9 (3.94x3.11)	2479 (151.2)	Iron	Alum	(I) 45.0 / (1.77) (E) 40.0 / (1.57)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2400 (94.5)	1568 / 1542 (61.7/60.7)	15 x 7	5
Toyota Celica I 2.2L (74-77)	4 Cyl SOHC	88.5 x 89.0 (3.48x3.50)	2189 (133.5)	Iron	Alum	(I) 43.0 / (1.69) (E) 36.6 / (1.44)	IT carburetion	2495 (98.2)	1441 / 1403 (56.7/55.2)	13 x 7	5

EP_{BB}	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Porsche 914-6 2.0L	(F) 282 (11.1) Disc (R) 287 (11.3) Disc	(F&R) 300 (11.8) Disc	1950	
Porsche 924	(F) 257 (10.1) Disc (R) 231 (9.1) Drum	(F) 282 (11.1) Disc (R) 290 (11.4) Disc	2140	
Porsche 944/924S 2.5L (2V) (83-88)	Factory spec @ all 4 wheels.	None	2390	Comp.Ratio limited to 10.7:1, Valve lift limited to .475", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is allowed. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Toyota Celica I 2.2L (74-77)	Factory spec @ all 4 wheels.	Rear discs allowed per PCS section 17.1.1.D.7.a.	2140	Comp.Ratio limited to 10.5:1, Valve lift limited to .475", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

EP$_{CC}$	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Toyota Celica II 2.2L (78-80)	4 Cyl SOHC	88.5 x 89.0 (3.48x3.50)	2189 (133.5)	Iron	Alum	(I) 43.0 / (1.69) (E) 36.6 / (1.44)	IT carburetion	2495 (98.2)	1441 / 1403 (56.7/55.2)	13 x 7	5
Toyota Celica II 2.4L (81-82) (excl. conv.)	4 Cyl SOHC	92.0 x 89.0 (3.62x3.50)	2366 (144.3)	Iron	Alum	(I) 45.0 / (1.77) (E) 37.0 / (1.46)	IT carburetion	2500 (98.4)	1486 / 1456 (58.5/57.3)	14 x 7	5
Toyota Celica 2.4L (83-85) (excl. conv.)	4 Cyl SOHC	92.0 x 89.0 (3.62x3.50)	2366 (144.3)	Iron	Alum	(I) 45.0 / (1.77) (E) 37.0 / (1.46)	(2) Auto-type sidedraft w/ 36mm choke(s), or original-type fuel injection w/ stock unmodified F.I. throttle body.	2500 (98.4)	1486 / 1456 (58.5/57.3)	15 x 7	5
Toyota Corolla GTS (4AG) (84-89)	4 Cyl DOHC	81.0 x 77.0 (3.19x3.03)	1587 (96.8)	Iron	Alum	(I) 30.7 / (1.21) (E) 26.0 / (1.02)	(1) DCOE w/ 34mm choke(s), (2) Auto-type sidedraft w/ 34mm choke(s) on I.R. manifold, or original-type fuel injection.	2413 (95.0)	1524 / 1524 (60.0/60.0)	15 x 7	5

EP$_{DD}$	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Toyota Celica II 2.2L (78-80)	Factory spec @ all 4 wheels.	Rear discs allowed per PCS section 17.1.1.D.7.a.	2140	Comp.Ratio limited to 10.5:1, Valve lift limited to .475", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Toyota Celica II 2.4L (81-82) (excl. conv.)	Factory spec @ all 4 wheels.	Rear discs allowed per PCS section 17.1.1.D.7.a.	2140	Comp.Ratio limited to 10.5:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Toyota Celica 2.4L (83-85) (excl. conv.)	Factory spec @ all 4 wheels.	Rear discs allowed per PCS section 17.1.1.D.7.a.	2140	Comp.Ratio limited to 10.5:1, Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Toyota Corolla GTS (4AG) (84-89)	(F & R) 231 (9.1) Disc		2060	Dual Y manifold required w / single DCOE carb., no plenum or balance tubes

EP EE	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Toyota MR-2	4 Cyl DOHC	81.0 x 77.0 (3.19x3.03)	1587 (96.8)	Iron	Alum	(I) 30.7 / (1.21) (E) 26.0 / (1.02)	(1) DCOE w/ 34mm choke(s), (2) Auto-type sidedraft w/ 34mm choke(s) on I.R. manifold, or original-type fuel injection.	2319 (91.3)	1532 / 1532 (60.3/60.3)	15 x 7	5
Triumph GT6	6 Cyl OHV	74.7 x 76.0 (2.94x2.99)	1998 (121.9)	Iron	Iron	(I) 36.6 / (1.44) (E) 32.0 / (1.26)	(2) 1.5" SU or Stromberg	2108 (83.0)	1387 / 1387 (54.6/54.6)	13 x 7	4
Triumph TR2, 3, 3A, 3B, 4, 4A	4 Cyl OHV	83.1 x 92.0 (3.27x3.62) 86.1 x 92.0 (3.39x3.62)	1991 (121.5) 2138 (130.4)	Iron	Iron	(I) 39.6 / (1.56) (E) 33.0 / (1.30)	(2) 1.75" SU or Stromberg, (2) 2" SU	2235 (88.0)	1346 / 1334 (53.0/52.5) 1387 / 1361 (54.6/53.6)	15 x 7	4
Triumph TR4A, IRS	4 Cyl OHV	86.1 x 92.0 (3.39x3.62)	2138 (130.4)	Iron	Iron	(I) 39.6 / (1.56) (E) 33.0 / (1.30)	(2) 1.75" SU or Stromberg, (2) 2" SU	2235 (88.0)	1346 / 1334 (53.0/52.5) 1387 / 1361 (54.6/53.6)	15 x 7	4
Triumph TR250, TR6	6 Cyl OHV	74.7 x 95.0 (2.94x3.74)	2498 (152.4)	Iron	Iron	(I) 36.6 / (1.44) (I) 36.8 / (1.45) (E) 32.0 / (1.26)	(3) Weber 40 DCOE on I.R. manifold. 28mm choke(s) req'd.	2235 (88.0)	1367 / 1354 (53.8/53.3)	15 x 7	4

EP_{FF}	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Toyota MR-2	(F) 244 (9.6) Disc (R) 239 (9.4) Disc	(F) 257 (10.1) Disc (R) 262 (10.3) Disc	2060	Trunk mounted fuel cell allowed. "Dual Y" manifold required w / single DCOE carb., no plenum or balance tubes. Panel between trunk and engine compartment may be modified for the purposed of ducting air to the carbs.
Triumph GT6	(F) 246 (9.7) Disc (R) 203 (8.0) Drum		1830	(2) 1.75" carburetors @ 1970 lbs. Laycock overdrive, May use 5 speed gearbox w/o overdrive. Three (3) Weber 40mm DCOE w/28mm venturi on individual runner manifold @ 1970 lb.
Triumph TR2, 3, 3A, 3B, 4, 4A	(F) 279 (11.0) Disc (R) 229 (9.0) Drum	(F) Calipers & discs from TR-6 (std. or alt.) (R) 254 (10.0) Drum, Drum may be 9" or 10" and of alfin or steel.	1820	Front apron assembly may be made of alternate material. Laycock overdrive, May use 5 speed gearbox w/o overdrive
Triumph TR4A, IRS	(F) 279 (11.0) Disc (R) 229 (9.0) Drum	(F) Calipers & discs from TR-6 (std. or alt.) (R) 254 (10.0) Drum, Drum may be 9" or 10" and of alfin or steel.	1870	Laycock overdrive, May use 5 speed gearbox w/o overdrive
Triumph TR250, TR6	(F) 273 (10.8) Disc (R) 229 (9.0) Drum	(F) 284 (11.2) Vented Disc (R) 224 (8.8) Drum (R) 229 (9.0) Alfin Drum (R) 273 (10.8) Disc Disc: # C32764 Caliper: # 60-12796 LH # 60-12797 RH	2190	Laycock overdrive, May use 5 speed gearbox w/o overdrive

EP GG	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Triumph TR7	4 Cyl SOHC	90.3 x 78.0 (3.56x3.07)	1998 (121.9)	Iron	Alum	(I) 39.6 / (1.56) (E) 32.5 / (1.28)	(2) Weber 45 DCOE. 32mm choke(s) req'd.	2159 (85.0)	1532 / 1499 (60.3/59.0)	15 x 7	4 or 5
Volkswagen Golf GTI (87-89)	4 Cyl. DOHC	81.0 x 86.4 (3.19x3.40)	1780 (108.6)	Iron	Alum	(I) 32.0 / (1.26) (E) 28.0 / (1.10)	Original CIS-type fuel injection w/ stock unmodified F.I. throttle body.	2472 (97.3)	1522 / 1519 (59.9/59.8)	15 x 7	5
Volkswagen Golf 1.8 (85-87)	4 Cyl SOHC	81.0 x 86.4 (3.19x3.40)	1780 (108.6)	Iron	Alum	(I) 40.0 / (1.57) (E) 33.0 / (1.30)	(1) 40 DCN, DCNF, IDF w/ 36mm choke(s), (2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, 32/36 DGV/DGAV, or original-type fuel injection.	2472 (97.3)	1494 / 1486 (58.8/58.5)	15 x 7	5
Volkswagen Jetta (includes GLI) (82-84)	4 Cyl SOHC	79.5 x 86.4 (3.13x3.40) 81.0 x 86.4 (3.19x3.40)	1715 (104.6) 1780 (108.6)	Iron	Alum	1715: (I) 34.0 / (1.34) (E) 31.0 / (1.22) 1780: (I) 40.0 / (1.57) (E) 33.0 / (1.30)	(1) 40 DCN, DCNF, IDF w/ 38mm choke(s). (2) Auto-type sidedraft w/34mm choke(s) on I.R. manifold, 32/36 DGV/DGAV, or original-type fuel injection.	2400 (94.5)	1453 / 1412 (57.2/55.6)	15 x 7	5
Volkswagen Scirocco 1715 / 1780	4 Cyl SOHC	79.5 x 86.4 (3.13x3.40) 81.0 x 86.4 (3.19x3.40)	1715 (104.6) 1780 (108.6)	Iron	Alum	1715: (I) 34.0 / (1.34) (E) 31.0 / (1.22) 1780: (I) 40.0 / (1.57) (E) 33.0 / (1.30)	(1) 40 DCN, DCNF, IDF w/ 38mm choke(s). (2) Auto-type sidedraft w/34mm choke(s) on I.R. manifold, 32/36 DGV/DGAV, or original-type fuel injection.	2400 (94.5)	57.2 / 56.0	15 x 7	5

EP$_{HH}$	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Triumph TR7	(F) 248 (9.8) Disc (R) 203 (8.0) Drum	(F) 267 (10.5) Vented Disc (R) 229 (9.0) Drum (R) 267 x 20 (10.5 x .78) Disc Discs from TR-8 and alt. JRT brake kit is # STN 0068.	2050	Rear Spoiler: # V-775, Alt. Manifold: # V-740
Volkswagen Golf GTI (87-89)	Factory spec @ all 4 wheels.	Rear discs allowed per PCS section 17.1.1.D.7.a.	2050	Comp.Ratio limited to 10.0:1, Valve lift limited to .330", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Volkswagen Golf 1.8 (85-87)	(F) 239 (9.4) Disc (R) 180 x 30 (7.1 x 1.2) Drum	(F) 239 (9.4) Vented Disc (R) 239 (9.4) Disc	1950	Original carbureted manifold or alternate manifold is permitted.
Volkswagen Jetta (includes GLI) (82-84)	(F) 239 (9.4) Disc (R) 180 x 30 (7.1 x 1.2) Drum	(F) 239 (9.4) Vented Disc	1920	Intake manifold unrestricted w/ single downdraft carburetor.
Volkswagen Scirocco 1715 / 1780	(F) 239 (9.4) Disc (R) 180 x 30 (7.1 x 1.2) Drum	(F) 239 (9.4) Vented Disc	1950	Intake manifold unrestricted w/ single downdraft carburetor.

EP II	Engine Type	Bore x Stroke mm / (in.)	Displ. cc / (ci)	Block Mat'l	Head / PN & Mat'l	Valves IN & EX mm / (in.)	Carb. No. & Type	Wheelbase mm / (in.)	Track (F/ R) mm / (in.)	Wheels (max)	Trans. Speeds
Volvo 142 / 142E	4 Cyl. OHV	88.9 x 80.0 (3.50x3.15)	1986 (121.1)	Iron	Iron	(I) 44.0 / (1.73) (E) 35.0 / (1.38)	(2) Auto-type sidedraft w/ 32mm choke(s) on I.R. manifold, or original-type fuel injection.	2616 (103.0)	1415 / 1415 (55.7/55.7)	15 x 7	5
Volvo P-1800, 1800S, 1800E, 1800ES Sports Coupe	4 Cyl OHV	84.2 x 80.0 (3.31x3.15) 88.9 x 80.0 (3.50x3.15)	1780 (108.6) 1982 (120.9)	Iron	Iron	1780: (I) 41.9 / (1.65) (E) 35.0 / (1.38) 1982: (I) 43.9 / (1.73) (E) 39.9 / (1.57)	(2) 1.75" SU, (2) 1.75" Stromberg CDSE, (2) 1.75" SU HS6, (2) 2.0" SU, or original-type fuel injection.	2451 (96.5)	1407 / 1407 (55.4/55.4)	15 x 7	4

EP_{JJ}	Brakes Std. (mm / (in.)	Brakes Alt.: mm/(in.)	Weight lbs.	Notes:
Volvo 142 / 142E	(F) 272 (10.7) Disc (R) 295 (11.6) Disc		2050	Bosch Fuel Injection
Volvo P-1800, 1800S, 1800E, 1800ES Sports Coupe	(F) 279 (11.0) Disc (R) 229 (9.0) Drum	(F) 272 (10.7) Disc (R) 295 (11.6) Disc	2050	Bosch Fuel Injection

FP$_A$	**Engine Type**	**Bore & Stroke mm/(in)**	**Displ. cc/(ci)**	**Block**	**Head / PN & Mat'l**	**Valves IN & EX mm/(in)**	**Carb. No. & Type**	**Wheelbase mm/(in)**	**Track (F&R) mm/(in)**	**Wheels (max)**	**Trans. Speeds**
Alfa Romeo Alfetta GT & Alfetta Sedan (75-79)	4 Cyl DOHC	84.0 x 88.5	1961	Alum.	Alum.	44.15(I) 40.15(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body, 34mm restrictor required between air filter and butterfly.	GT: 95.0 Sedan: 98.8	56.9 / 56.7	15 x 7	5
Alfa Romeo Giulia Spider Veloce	4 Cyl. DOHC	75.22 x 79.14 (3.07 x 3.23)	1570cc (25.12)	Alum	Alum	39.69 (I) 35.77 (E) (1.620(I)) (1.460(E)	(2) 40 DCOE	2170.7 or 2121.7 (88.6" or 86.6")	1335.3 (F) 1310.8 (R) (54.5 (F)) (53.5 (R))	15 x 6	5
Alfa Romeo Giulia Sprint/ Spider	4 Cyl DOHC	75.22 x 79.14 (3.07 x 3.23)	1570cc (25.12)	Alum.	Alum.	39.69(I) 35.77(E) (1.62(I)) (1.46(E))	(1) Solex 32 PAIA, (1) 36 DCD Weber	Spider: 2170.7/ 2121.7 (88.6" / 86.6") Sprint: 2295.7 (93.7")	1352.4/ 1310.8 (55.2 / 53.5)	15 x 6	5
Alfa Romeo GTV 1750 Spider 1750 / Berlina 1750 (67-72)	4 Cyl DOHC	80.0 x 88.4	1779	Alum.	Alum.	41.1(I) 37.1(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body, 34mm restrictor required between air filter and butterfly.	GTV: 92.5 Spider: 88.6 Berlina: 101.8	GTV: 55.7 / 54.2 Spider: 56.3 / 54.2 Berlina: 52.1 / 50.2	15 x 7	5
Alfa Romeo GTV & Berlina (72-74)	4 Cyl DOHC	84.0 x 88.5	1961	Alum.	Alum.	44.15(I) 40.15(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body, 34mm restrictor required between air filter and butterfly.	GTV: 92.5 Berlina: 101.8	GTV: 55.7 / 54.2 Berlina: 52.1 / 50.2	15 x 7	5

FP_B	**Brakes Std. mm/(in)**	**Brakes Alt. mm/(in)**	**Weight lbs./(kg)**	**Notes:**
Alfa Romeo Alfetta GT & Alfetta Sedan (75-79)	Factory spec @ all 4 wheels	None	GT: 2365 Sedan: 2465	Compression ratio limited to 10.5:1 Valve lift limited to .450". Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold only - may be port matched on port mating surface to a depth of no more than 1.00". Balance tube(s) may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous - no titanium allowed. Valve lift measured at the valve with zero lash or clearance. Stock rocker arms, cam followers, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods required but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a maximum undersize of .045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Alfa Romeo Giulia Spider Veloce	(F) 259.7 Disc (R) 257.25 Drum ((F) 10.6" Disc) ((R) 10.5"Drum)		1850 (839)	
Alfa Romeo Giulia Sprint / Spider	(F) 259.7 Disc (R) 257.3 Drum ((F) 10.6" Disc) ((R) 10.5" Drum)	(F) 257.3 (10.5") Drum (3 shoe)	1918 (870)	
Alfa Romeo GTV 1750 / Spider 1750 / Berlina 1750 (67-72)	Factory spec @ all 4 wheels	None	GTV / Berlina: 1865 Spider: 1950	Compression ratio limited to 10.5:1 Valve lift limited to .450". Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold only - may be port matched on port mating surface to a depth of no more than 1.00". Balance tube(s) may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous - no titanium allowed. Valve lift measured at the valve with zero lash or clearance. Stock rocker arms, cam followers, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods required but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced with a maximum undersize of .045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Alfa Romeo GTV & Berlina (72-74)	Factory spec @ all 4 wheels	None	2165	Compression ratio limited to 10.5:1 Valve lift limited to .450". Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold only - may be port matched on port mating surface to a depth of no more than 1.00". Balance tube(s) may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous - no titanium allowed. Valve lift measured at the valve with zero lash or clearance. Stock rocker arms, cam followers, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods required but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a maximum undersize of .045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

FP$_C$	**Engine Type**	**Bore & Stroke mm/(in)**	**Displ. cc/(ci)**	**Block**	**Head / PN & Mat'l**	**Valves IN & EX mm/(in)**	**Carb. No. & Type**	**Wheelbase mm/(in)**	**Track (F&R) mm/(in)**	**Wheels (max)**	**Trans. Speeds**
Alfa Romeo Spider (72-86)	4 Cyl DOHC	84.0 x 88.5	1961	Alum.	Alum.	44.15(I) 40.15(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body, 34mm restrictor required between air filter and butterfly. (72-80) w/ Spica, (81-86) w/ Bosch	88.6	56.3 / 54.2	15 x 7	5
Acura Integra 1600 (86-89)	4 Cyl DOHC	75.0 x 90.0 (2.95x3. 54)	1590	Alum	Alum	(I) 30.0/ (1.18) (E) 27.0 / (1.06)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2251 (88.6)	1489 / 1504 (58.6/59.2)	15 x 7	5
Austin-Healey Sprite Mk. II, III, IV / MG Midget Mk I, II, III, IV & 1500	4 Cyl OHV	68.11 x 78.4 (2.78 x 3.20) 71.05 x 84.28 (2.90 x 3.44)	1275cc (77.78) 1491cc (90.95)	Iron	Iron	1275cc: 32.1 (I) 28.42 (E) (1.31(I)) (1.16(E)) 1500cc: 35.28 (I) 28.67 (E) (1.44(I)) (1.17(E))	(2) 1.25" SU, (2) 1.5" SU CD4 (1275 only), (1) 1.5" Zenith, (1) 1.5" Stromberg SD, (1) 1.5" SU, maximum spacer block (isolator) length 1.25".	1960 (80.0")	1229.9 1193.2 (50.2 / 48.7)	13 x 6	4

FP_D	**Brakes Std. mm/(in)**	**Brakes Alt. mm/(in)**	**Weight lbs./(kg)**	**Notes:**
Alfa Romeo Spider (72-86)	Factory spec @ all 4 wheels	None	2265	Compression ratio limited to 10.5:1 Valve lift limited to .450". Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold only - may be port matched on port mating surface to a depth of no more than 1.00". Balance tube(s) may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous - no titanium allowed. Valve lift measured at the valve with zero lash or clearance. Stock rocker arms, cam followers, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods required but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a maximum undersize of .045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Acura Integra 1600 (86-89)	Factory spec @ all 4 wheels	None	2050	Compression ratio limited to 10.0:1 Valve lift limited to .390". Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold only - may be port matched on port mating surface to a depth of no more than 1.00". Balance tube(s) may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous - no titanium allowed. Valve lift measured at the valve with zero lash or clearance. Stock rocker arms, cam followers, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods required but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a maximum undersize of .045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Austin-Healey Sprite Mk. II, III, IV / MG Midget Mk I, II, III, IV & 1500	(F) 203.4 Disc (R) 171.5 Drum ((F) 8.3" Disc) ((R) 7.0" Drum)	(F) 223.4 (9.12") Disc	1275 @ 1680 (762) 1500 @ 1660 (753)	Alternate intake manifold for 1275 (#NPN 500), 9.125 Disc (#208715), Calipers (#27H-4651), Battery tray may be removed, Parts may not be interchanged between engine units.

FP$_E$	**Engine Type**	**Bore & Stroke mm/(in)**	**Displ. cc/(ci)**	**Block**	**Head / PN & Mat'l**	**Valves IN & EX mm/(in)**	**Carb. No. & Type**	**Wheelbase mm/(in)**	**Track (F&R) mm/(in)**	**Wheels (max)**	**Trans. Speeds**
BMW 320i (E21) (77-80)	4 Cyl SOHC	89.0 x 80.0	1990cc (121.39)	Iron	Alum	46.0(I) 38.0(E) (1.88 (I)) (1.55(E))	(1) 40 DCNF w/ 32mm chokes, IT carburetion or original-type fuel injection w/ stock unmodified F.I. throttle body	100.9	1481 / 1494 (60.45 / 62.25)	15 x 7	4
BMW 320i (E21) (81-83)	4 Cyl SOHC	89.0 x 71.0	1767	Iron	Alum	44.0(I) 38.0(E)	(1) 40 DCNF w/ 32mm chokes, IT carburetion or original-type fuel injection w/ stock unmodified F.I. throttle body	100.9	1481 / 1494 (60.45 / 62.25)	15 x 7	5
BMW 318i (E30) (84-85)	4 Cyl SOHC	89.0 x 71.0	1767	Iron	Alum	44.0(I) 38.0(E)	(1) 40 DCNF w/ 32mm chokes, IT carburetion or original-type fuel injection w/ stock unmodified F.I. throttle body	101.2	59.0 / 59.3	15 x 7	5

FP_F	Brakes Std. mm/(in)	Brakes Alt. mm/(in)	Weight lbs./(kg)	Notes:
BMW 320i (E21) (77-80)	(F) 254 Disc (R) 250 Drum	None	2200 (995.5)	Comp.Ratio limited to 10.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Clips to locate rockers arms may be used. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
BMW 320i (E21) (81-83)	(F) 254 Disc (R) 250 Drum	None	2200 (995.5)	Comp.Ratio limited to 10.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Clips to locate rockers arms may be used. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
BMW 318i (E30) (84-85)	(F) 261 Disc (R) 229 Drum	None	2200 (995.5)	Comp.Ratio limited to 10.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Clips to locate rockers arms may be used. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

FP_G	Engine Type	Bore & Stroke mm/(in)	Displ. cc/(ci)	Block	Head / PN & Mat'l	Valves IN & EX mm/(in)	Carb. No. & Type	Wheelbase mm/(in)	Track (F&R) mm/(in)	Wheels (max)	Trans. Speeds
BMW 2002/tii	4 Cyl SOHC	2180.5 x 1960 (89.0 x 80.0)	1990cc (121.39)	Iron	Alum	46.0(I) 38.0(E) (1.88 (I)) (1.55(E))	IT carburetion or original-type fuel injection w/ stock unmodified F.I. throttle body, or (1) 40 DCNF w/ 32mm choke(s).	2410.8 (98.4")	1379.4 x 1379.4 (56.3" / 56.3")	15 x 7	4
Dodge Omni GLH 2.2L (84-86)	4 Cyl SOHC	87.5 x 92.0	2213cc	Iron	Alum	40.6(I) 35.4(E)	IT carburetion or original-type fuel injection w/ stock unmodified F.I. throttle body	99.1"	61.4" / 61.0	15 x 7	5
Fiat 124 Sport Coupe	4 Cyl DOHC	3.15 x 3.15 3.15 x 3.12 3.31 x 3.12	1608cc 1592cc 1756cc	Iron	Alum	1.64(I) 1.43(E)	(1) 34 DFH 1, 26/34 DHSA 1, 28/36 DHSA 2, 34 DMSA 1/100, (1) 32 ADFA 2/100 ATL, (1) 34 DMS201, 36 DCNF w/ 32mm choke(s)), (1) 32/36 DFAV, or (1) 40 DCNF w/ 32mm choke(s)	95.3" / 89.8"	56.7 / 55.4	13 x 7	5
Fiat 124 Sport Spider (-1977)	4 Cyl DOHC	3.15 x 3.15 3.15 x 3.12 3.31 x 3.12	1608cc 1592cc 1756cc	Iron	Alum	1.64(I) 1.43(E)	(1) 34 DFH 1, 26/34 DHSA 1, 28/36 DHSA 2, 34 DMSA 1/100, (1) 32 ADFA 2/100 ATL, (1) 34 DMS201, 36 DCNF w/ 30mm choke(s)), (1) 32/36 DFAV, or (1) 40 DCNF w/ 30mm choke(s)	95.3" / 89.8"	56.7 / 55.4	13 x 7	5
Fiat X-1/9 & Bertone	4 Cyl SOHC	3.40 x 2.52	1498cc	Iron	Alum	1.43(I) 1.31(E)	(1) 34 DMTR w/ 34mm primary & secondary throttle bores, (1) 36 DCNF w/34mm choke(s) and manifold adapter, (1) 40 DCNF w/ 34mm choke(s), or original-type fuel injection.	86.7"	56.3 / 56.6	13 x 7	5

FP_H	Brakes Std. mm/(in)	Brakes Alt. mm/(in)	Weight lbs./(kg)	Notes:
BMW 2002/tii	Factory spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2165 (982)	Comp.Ratio limited to 10.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Clips to locate rocker arms may be used. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Orientation of the alternate carburetor is unrestricted. The alternate carb adaptor may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor. Limited Prep Transmission.
Dodge Omni GLH 2.2L (84-86)	Factory spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2250	Comp.Ratio limited to 10.5:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Fiat 124 Sport Coupe	(F) 8.97" Disc, (R) 8.94" Disc	(F&R) 10" Disc	1825	Alternate rotor (#82346805). Allow (2) 40 IDF w/ 28mm choke(s) @ 1965 lbs. Orientation of the alternate carburetor is unrestricted. The alternate carb adaptor may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor.
Fiat 124 Sport Spider (-1977)	(F) 8.97" Disc, (R) 8.94" Disc	(F&R) 10" Disc	1875	Alternate rotor (#82346805). Allow (2) 40 IDF w/ 28mm choke(s) @ 1965 lbs. Orientation of the alternate carburetor is unrestricted. The alternate carb adaptor may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor.
Fiat X-1/9 & Bertone	(F&R) 8.94" Disc	(F&R) 9.875" Disc, (F&R) Lancia 9.875" x .40" Discs	1815	Fuel cell may be located in front trunk, Crankshaft (#4211630), Alternate grille for '79: '78 X19 grill & valence, Top panels may remain in place if securely bolted or pinned, Engine hatch rain tray may be removed, 4 speed trans from GP X19. Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor.

FP$_I$	Engine Type	Bore & Stroke mm/(in)	Displ. cc/(ci)	Block	Head / PN & Mat'l	Valves IN & EX mm/(in)	Carb. No. & Type	Wheelbase mm/(in)	Track (F&R) mm/(in)	Wheels (max)	Trans. Speeds
Ford Capri 2000 (71-74)	4 Cyl SOHC	91.0 x 77.0	1993cc	Iron	Iron	42.2(I) 36.2(E)	(1) 40 DCN, DCNF, IDF w/ 34mm choke(s), (2) Automotive-type sidedraft w/30mm choke(s) on I.R. manifold, 32/36 DGV/DGAV	100.8"	55.5 / 54.5	15 x 7	4
Ford Escort / GT 1.9 (86-90)	4 Cyl SOHC	82.0 x 88.0 (3.23x3.46)	1859	Iron	Alum	(I) 42.0 (I) 39.0 (E) 37.0 (E) 34.0	Original-type fuel injection w/ stock unmodified F.I. throttle body.	94.2	54.7 / 56.0	13 x 7	5
Ford Fiesta (78-80)	4 Cyl OHV	81.0 x 78.0	1598cc	Iron	Iron	1.41(I) 1.24(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, 32/36 DGV, 32/36 DGAV, (2) auto type side draft on I.R. manifold. 30mm choke(s) required.	90	55.0 / 54.5	13 x 6	4
Ford Pinto	4 Cyl SOHC	91.0 x 77.0	1993cc	Iron	Iron	42.2(I) 36.2(E)	(1) 40 DCN, DCNF, IDF w/ 34mm choke(s), (2) Automotive-type sidedraft w/30mm choke(s) on I.R. manifold, 32/36 DGV/DGAV	94.0"	58.6 / 59.4	15 x 7	4 or 5
Honda Civic 1.5 (88-91)	4 Cyl SOHC	75.0 x 84.5	1493cc	Alum	Alum	29.0(I) 25.0(E)	(2) auto type side draft w/30mm venturi on I.R. manifold, or original-type fuel injection.	98.4"	59.8 / 60.0	13 x 6	5
Honda Civic / Civic Si (84-87)	4 Cyl SOHC	74.0 x 86.5	1488cc	Alum	Alum	27.1(I) 32.1(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF w/32mm choke(s), 32/36 DGV, 32/36 DGAV, (2) auto type side draft w/32mm venturi on I.R. manifold, or original-type fuel injection.	93.7"	58.8 / 59.1	13 x 6	5
Honda CRX 1.5 (88-91)	4 Cyl SOHC	75.0 x 84.5	1493cc	Alum	Alum	29.0(I) 25.0(E)	(2) auto type side draft w/30mm venturi on I.R. manifold, or original-type fuel injection.	90.6"	59.8 / 60.0	13 x 6	5
Honda Prelude (84-87)	4 Cyl 12V SOHC	80.0 x 91.0	1829cc	Iron	Alum	30.0(I) 35.0(E)	(2) auto type side draft w/30mm venturi on I.R. manifold	96.5"	57.9 / 57.9	13 x 5	5

FP_J	Brakes Std. mm/(in)	Brakes Alt. mm/(in)	Weight lbs./(kg)	Notes:
Ford Capri 2000 (71-74)	(F)9.6" Disc (R)9.0" x 2.25" Drum		2050	
Ford Escort / GT 1.9 (86-90)	(F) 235 (9.25) Vented Disc (R) 203 (7.99) Drum		2050	Comp Ratio limited to 11:1. Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Rear spoiler shall be removed. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Ford Fiesta (78-80)	(F) 8.7" Disc, (R) 7.0" x 1.16" Drum		1790	Formula Ford spec cylinder head and intake manifold may be used.
Ford Pinto	(F)9.30" Disc (R)9.0" x 1.38" Drum		2030	
Honda Civic 1.5 (88-91)	(F) 240mm Disc, (R) 180mm x 30mm Drum		1950	
Honda Civic / Civic Si (84-87)	(F) 231mm Disc, (R) 180mm x 30mm Drum		1900	Intake manifold from carbureted version of car is required
Honda CRX 1.5 (88-91)	(F) 240mm Disc, (R) 180mm x 30mm Drum		1950	
Honda Prelude (84-87)	(F) 229mm Vented Disc, (R) 237mm Solid Disc		2080	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted suspensions for allowable suspension modifications.) Limited Prep Transmission.

FP_K	Engine Type	Bore & Stroke mm/(in)	Displ. cc/(ci)	Block	Head / PN & Mat'l	Valves IN & EX mm/(in)	Carb. No. & Type	Wheelbase mm/(in)	Track (F&R) mm/(in)	Wheels (max)	Trans. Speeds
Honda CRX / CRX Si (84-87)	4 Cyl SOHC	74.0 x 86.5	1488cc	Iron	Alum	27.1(I) 32.1(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF w/32mm choke(s), 32/36 DGV, 32/36 DGAV, (2) auto type side draft w/30mm venturi on I.R. manifold, or original-type fuel injection.	86.6"	58.5 / 59.1	13 x 6	5
Honda CRX Si (88-91)	4 Cyl SOHC	75.0 x 90.0	1590cc	Alum	Alum	29.0(I) 25.0(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2235mm	1560 / 1567	15 x 7	5
Honda Civic Si (88-91)	4 Cyl SOHC	75.0 x 90.0	1590cc	Alum	Alum	29.0(I) 25.0(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2500mm	1560 / 1567	15 x 7	5
Lancia Scorpion (1976)	4 Cyl DOHC	3.31 x 3.12	1756cc	Iron	Alum	1.67(I) 1.44(E)	(2) Weber 40 IDF - 40IDI, (2) Solex C40P116, (2) DCOE w / 36mm choke(s)	90.5"	59.8 / 61.5	15 x 7	5
Lotus 7 & 7 America	4 Cyl OHV	3.19 x 1.91 2.48 x 3.00	997cc 948cc	Iron	Iron	1.30(I) 1.16(I) 1.20(E) 1.00(E)	997cc: Two (2) 1.25" SU, 948cc: Two (2) 1.25" or 1.125" SU or Stromberg	88.0"	50.9 / 52.0	13 x 6	4
Lotus Super Seven	4 Cyl OHV	81.0 x 72.9 (3.19x2. 87)	1503 (91.7)	Iron	Iron	(I) 36.6 / (1.44) (E) 30.2 / (1.19)	(2) weber DCOE on I.R. manifold w/ 30mm choke(s)	2235 (88.0)	1293 / 1321 (50.9/52.0) or 1293 / 1397 (50.9/55.0) (w / series 4 rearend)	13 x 6	4

FP_L	Brakes Std. mm/(in)	Brakes Alt. mm/(in)	Weight lbs./(kg)	Notes:
Honda CRX / CRX Si (84-87)	(F) 231mm Disc (R) 180mm x 30mm Drum		1900	
Honda CRX Si (88-91)	Factory spec @ all 4 wheels	None	2050	Comp.Ratio limited to 10.0:1, Valve lift limited to .390", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Honda Civic Si (88-91)	Factory spec @ all 4 wheels	None	2050	Comp.Ratio limited to 10.0:1, Valve lift limited to .390", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Lancia Scorpion (1976)	(F & R)8.9" Disc		2030	Trunk mounted fuel cell is permitted. Fabric roof panel may be replaced with alternate material.
Lotus 7 & 7 America	(F) 8" Drum, (R) 7" Drum	COA-B405/6 front 9" disc brake kit	1045	Front track w/alternate front brakes : 51.8", Authorized frame modification: Info. Available from SCCA. BMC Mk. III transmission case w/948cc. Headlights and associated hardware may be removed. Manifold unrestricted for 2 SU carbs. Wood floorboards may be replaced with metal. Rear edge of the front fenders is to be 4.5" above the body undertray.
Lotus Super Seven	(F) 203 (8.0) Drum (R) 178 (7.0) Drum	(F) 229 (9.0) Disc #OAOB 405/6 (results in 7/8" track increase) (F) 244 (9.6) Disc	1430	Authorized frame modification: Info. available from SCCA. Headlights & associated hardware may be removed. Series 4 axle housing is permitted. NOTE: Rear edge of front fenders shall be 4.5" above the body undertray.

FP$_M$	Engine Type	Bore & Stroke mm/(in)	Displ. cc/(ci)	Block	Head / PN & Mat'l	Valves IN & EX mm/(in)	Carb. No. & Type	Wheelbase mm/(in)	Track (F&R) mm/(in)	Wheels (max)	Trans. Speeds
Mazda GLC / 323 (86-88)	4 Cyl SOHC	78.0 x 83.6	1597cc	Iron	Alum	38.1(I) 32.1(E)	Two (2) auto type side draft w/32mm choke(s) on I.R. manifold, or original-type fuel injection w/ stock unmodified F.I. throttle body.	94.5"	57.4 / 58.4	14 x 7	4 or 5
Mazda Miata 1.6L (90-93)	4 Cyl DOHC	78.0 x 83.6	1597cc	Iron	Alum	31.1(I) 26.3(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2266	1479 / 1491	15 x 7	5
Mercury Capri 1.6L (91-94)	4 Cyl DOHC	78.0 x 83.6	1597cc	Iron	Alum	31.1(I) 26.3(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2406	1479 / 1524	15 x 7	5
MGB & MGB-GT	4 Cyl OHV	80.3 x 88.9 (3.16x3. 50)	1798 (109.7)	Iron	Iron	(I) 39.9 / (1.57) (I) 41.4 / (1.63) (E) 34.3 / (1.35)	(2) 1.75" SU or Stromberg	2311 (91.0)	1346 / 1351 (53.0/53.2)	15 x 7	4
Opel GT	4 Cyl OHV	93.0 x 69.9	1897cc	Iron	Iron	40.0(I) 42.0(I) 34.0(E)	(1) 40 DCN, (1) 40 DCNF or (1) 40 IDF w/32mm choke(s), 32/36 DGV, 32/36 DGAV, (2) auto type side draft w/32mm venturi on I.R. manifold, or original-type fuel injection.	95.7"	52.9 / 54.1	13 x 7	4

FP_N	Brakes Std. mm/(in)	Brakes Alt. mm/(in)	Weight lbs./(kg)	Notes:
Mazda GLC / 323 (86-88)	(F) 238mm Disc, (R) 200mm Drum		1800	Comp Ratio limited to 12.0:1. Cylinder head prep per I.T. specifications except that head may be milled to achieve max compression ratio (I.e. no porting, stock valve job, no chamber mods). Valve lift: .500" max. Restricted suspension preparation only (refer to PCS Section 17.1.1.D.6., Restricted suspensions for allowable suspension modifications.) Limited Prep Transmission.
Mazda Miata 1.6L (90-93)	Factory spec @ all 4 wheels	None	2075	Comp.Ratio limited to 10.0:1, Valve lift limited to .390", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. OEM hardtop allowed. Limited Prep Transmission.
Mercury Capri 1.6L (91-94)	Factory spec @ all 4 wheels	None	2075	Comp.Ratio limited to 10.0:1, Valve lift limited to .390", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
MGB & MGB-GT	(F) 273 (10.8) Disc (R) 254 (10.0) Drum		2000	17th 8152 (0.75") wheel cylinders, Alt. Manifold: Any individual runner manifold with runner length of 3.0-4.0" measured flange to flange. 4 speed gearbox w/o overdrive.
Opel GT	(F) 247mm Disc, (R) 229mm Drum	(F) 247mm vented discs and calipers from Opel Omega / 75 Opel 1900 Ascona / Manta, kit # 91305079.	1950	

FP$_O$	Engine Type	Bore & Stroke mm/(in)	Displ. cc/(ci)	Block	Head / PN & Mat'l	Valves IN & EX mm/(in)	Carb. No. & Type	Wheelbase mm/(in)	Track (F&R) mm/(in)	Wheels (max)	Trans. Speeds
Opel Manta (71-75)	4 Cyl OHV	93.0 x 69.9	1897cc	Iron	Iron	40.0(I) 42.0(I) 34.0(E)	(1) 40 DCN, (1) 40 DCNF or (1) 40 IDF w/32mm choke(s), 32/36 DGV, 32/36 DGAV, (2) auto type side draft w/32mm venturi on I.R. manifold, or original-type fuel injection.	95.7"	55.5 / 55.1	13 x 7	4
Porsche 356, A, C (1500, 1600)C (1600) SC,B, Super 90 Cabriolet	4 Cyl OHV	3.25 x 2.91 3.15 x 2.91	1582cc 1488cc	Alum	Alum	1.58(I) 1.34(E)	(2) Zenith 32 NDIX, (2) Solex 32 PBIC, (2) Solex 40 PBIC, (2) Solex P II 4 or PJ54. 38mm choke(s) req'd.	82.7"	55.0 / 53.7	15 x 7	4
Porsche 912 Coupe / Targa (-1969)	4 Cyl OHV	3.25 x 2.91	1582cc	Alum	Alum	1.58(I) 1.34(E)	(2) Solex PII-4. 38mm chok(s) req'd.	87.0 or 89.2	57.5 / 56.2	15 x 7	4 or 5
Porsche 914-4	4 Cyl OHV	90.0 x 66.0 93.0 x 66.0	1679cc 1795cc	Alum	Alum	1.55(I) 1.65(I) 1.30(E) 1.34(E)	(2) Solex 40 PII-4, (2) weber 40 IDF, (2) Del'Orto 40mm. 38mm choke(s) req'd.	96.5"	56.5 / 58.2	15 x 7	4 or 5
Porsche 924 (76-84)	4 Cyl SOHC	86.5 x 84.4	1984cc	Iron	Alum	40.0 (I) 33.0 (E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2400	1420 / 1392	15 x 7	5
Sunbeam Alpine I, II, III, IV, V, & Harrington LeMans	4 Cyl OHV	3.21 x 3.25 3.21 x 3.00 3.11 x 3.00	1725cc 1592cc 1494cc	Iron	Alum	1.50(I) 1.48(I) 1.43(I) 1.44(I) 1.21(E) 1.18(E) 1.17(E) 1.18(E)	(2) Zenith-Stromberg 150CD, (1) Solex 32 PAIA, (1) Zenith 36 WIP2	86.0"	55.1 / 54.0	13 x 6	4

FP$_P$	Brakes Std. mm/(in)	Brakes Alt. mm/(in)	Weight lbs./(kg)	Notes:
Opel Manta (71-75)	(F)9.7" Disc (R)9.0" Drum		1950	
Porsche 356, A, C (1500, 1600), C (1600) SC, B,Super 90 Cabriolet	(F)10.8" Disc (R)11.2" Disc	(F & R)11" Drum, 64442095-60mm front brakes & vent backing plates	1920	64451101018 - Alum front hood, 64451201018 - Alum rear hood, 64453100410 - Alum door, 64453100310 - Alum door.
Porsche 912 Coupe / Targa (-1969)	(F)11.1" Disc (R)11.2" Disc	901351 / 35240115 Ventilated Rotors	1950	
Porsche 914-4	(F)11.1" Disc (R)11.2" Disc	914-6 calipers & rotors allowed. Front "M" calipers may be used on rear rotors.	2020	Standard intake manifold: Porsche part #021 129 705N. Alternate manifolds with the same length and configuration (5 1/4" center line axis ± 1/4") are allowed. (i.e. Pierce manifold part # 99004.822. Top panel may remain in place is securley bolted or pinned.
Porsche 924 (76-84)	Factory spec @ all 4 wheels	None	2200	Comp.Ratio limited to 10.5:1, Valve lift limited to .500", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Sunbeam Alpine I, II, III, IV, V, & Harrington LeMans	(F) 10" Disc, (R) 9" Drum		1976	Laycock overdrive (0.803)

FP$_Q$	Engine Type	Bore & Stroke mm/(in)	Displ. cc/(ci)	Block	Head / PN & Mat'l	Valves IN & EX mm/(in)	Carb. No. & Type	Wheelbase mm/(in)	Track (F&R) mm/(in)	Wheels (max)	Trans. Speeds
Toyota Corolla (2TC) (71-74)	4 Cyl OHV	85.0 x 70.0	1588cc	Iron	Alum	41.0(I) 36.0(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, 32/36 DGV, 32/36 DGAV, (2) auto type side draft w/32mm venturi on I.R. manifold.	91.9"	54.5 / 55.5	13 x 7	4 or 5
Toyota Corolla (2TC) (75-79)	4 Cyl OHV	85.0 x 70.0	1588cc	Iron	Alum	40.0(I) 34.0(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, 32/36 DGV, 32/36 DGAV, (2) auto type side draft w/32mm venturi on I.R. manifold.	91.9"	54.5 / 55.5	13 x 7	5
Toyota MR-2 1.6L (85-89)	4 Cyl DOHC	81.0 x 77.0	1587cc	Iron	Alum	30.7(I) 26.0(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	2320mm	1532 / 1532	15 x 7	5
Triumph Spitfire Mk.III	4 Cyl OHV	2.90 x 2.992	1296cc	Iron	Iron	1.30(I) 1.17(E)	(2) 1.25" or 1.50" Stromberg or SU, (1) CDSE Stromberg, (1) 1.50" SU, maximum spacer block (isolator) length 1.25".	83.0"	53.6 / 52.6	13 x 6	4
Triumph Spitfire Mk. IV & 1500	4 Cyl OHV	2.90 x 2.992 2.90 x 3.44	1296cc 1493cc	Iron	Iron	1296cc: 1.30(I) 1.17(E) 1493cc: 1.44(I) 1.17(E)	1296cc = (2) 1.25" or 1.50" SU or Stromberg, 1493cc = (1) 1.5" Stromberg type SU, (1) 1.5" SU	83.0"	53.6 / 54.6	13 X 6	4
Turner 1500	4 Cyl OHV	3.19 x 2.86	1498cc	Iron	Iron	1.45(I) 1.20(E)	(1) 28/36 DCD 22, (1) 32/36 DGN, (1) 36 DCNF w/30mm choke(s), (1) 40 DCNF w/ 30mm choke(s).	82.0"	48.9 / 48.2	13 x 6	4

FP$_R$	Brakes Std. mm/(in)	Brakes Alt. mm/(in)	Weight lbs./(kg)	Notes:
Toyota Corolla (2TC) (71-74)	(F) 229 Disc (R) 231 Drum	None	1950	
Toyota Corolla (2TC) (75-79)	(F) 229 Disc (R) 231 Drum	None	1950	
Toyota MR-2 1.6L (85-89)	Factory spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2120	Comp.Ratio limited to 10.0:1, Valve lift limited to .400", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Trunk mounted fuel cell with no larger capacity than stock is permitted. Limited Prep Transmission.
Triumph Spitfire Mk.III	(F) 9.0" Disc, (R) 7" Drum	(F) 9.7" Disc, (R) 8.0" Drum. May use Triumph GT6 caliper as alternate front caliper.	1730	Laycock "D" (0.802).
Triumph Spitfire Mk. IV & 1500	(F) 9.0" Disc, (R) 7" Drum	(F) 9.7" Disc, (R) 8.0" Drum. May use Triumph GT6 caliper as alternate front caliper.	1296 = 1730, 1493 = 1660	Parts may not be interchanged between two engine units, Laycock "D" (0.802)
Turner 1500	(F) 9.0" Disc, (R) 8.5" Drum	(F) 9.7" Disc (Spitfire)	1700	Hobbs mech-a-matic gearbox ratios: 1=3.78, 2=2.32, 3=1.46, 4=4.00. 125E crankshaft

FPS	Engine Type	Bore & Stroke mm/(in)	Displ. cc/(ci)	Block	Head / PN & Mat'l	Valves IN & EX mm/(in)	Carb. No. & Type	Wheelbase mm/(in)	Track (F&R) mm/(in)	Wheels (max)	Trans. Speeds
Volkswagen Rabbit (includes Convertible) 1715 / 1780	4 Cyl SOHC	79.5 x 86.4 (3.13x3.40) 81.0 x 86.4 (3.19x3.40)	1715 (104.6) 1780 (108.6)	Iron	Alum	1715: (I) 34.0 / (1.34) (E) 31.0 / (1.22) 1780: (I) 40.0 / (1.57) (E) 33.0 / (1.30)	(1) 40 DCN, DCNF, IDF w/ 38mm choke(s). (2) Auto-type sidedraft w/34mm choke(s) on I.R. manifold, 32/36 DGV/DGAV, or original-type fuel injection.	2400 (94.5)	1453 / 1412 (57.2/55.6)	15 x 7	5
Volvo P-1800/ 1800S/180 0E/ 1800ES Sports Coupe	4 Cyl OHV	3.31 x 3.15 3.50 x 3.15	1780cc 1982cc	Iron	Iron	1.57(I) 1.65(I) 1.73(I) 1.38(E)	(2) 1.75" SU, (2) 1.75" CDSE Stromberg, (2) 1.75" SU HS6	96.5"	55.4 / 55.4	15 x 7	4
Volvo 142 / 144 2.0 (69-74)	4 Cyl OHV	88.9 x 80.0	1986	Iron	Iron	44.0(I) 35.0(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	103	55.7 / 55.7	15 x 7	5

FP$_T$	**Brakes Std. mm/(in)**	**Brakes Alt. mm/(in)**	**Weight lbs./(kg)**	**Notes:**
Volkswagen Rabbit (includes Convertible) 1715 / 1780	(F) 239 (9.4) Disc (R) 180 x 30 (7.1 x 1.2) Drum	(F) 239 (9.4) Vented Disc	Sedan / Coupe: 2000 Cabrio: 2080	Intake manifold unrestricted w/ single downdraft carburetor.
Volvo P-1800/ 1800S/180 0E/1800ES Sports Coupe	(F) 11" Disc, (R) 9" Drum	(F) 10.7" Disc, (R) 11.6" Disc	1995	Allow D20-E engine assembly
Volvo 142 / 144 2.0 (69-74)	Factory spec @ all 4 wheels	None	2300	Compression ratio limited to 11.0:1 Valve lift limited to .450". Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Stock intake manifold only - may be port matched on port mating surface to a depth of no more than 1.00". Balance tube(s) may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous - no titanium allowed. Valve lift measured at the valve with zero lash or clearance. Stock rocker arms, cam followers, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods required but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a maximum undersize of .045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

GP$_A$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Alfa Romeo Giulietta Sprint & Spider, 750 & 101, Normale (Spider) & Veloce (Super Spider)	4 Cyl DOHC	2.91 x 2.95	1290cc	Alum	Alum	1.46(I) 1.34(E)	(1) Solex 35 APAIG, (1) 36 DCD Weber, (2) Weber DCOE w/28mm choke(s)	Sprint: 93.7, 750 Spider: 86.6, 101Spider: 88.6	54.5 / 53.5	15 x 6	4 or 5
Alfa Romeo Junior Z	4 Cyl DOHC	2.91 x 2.95	1290cc	Alum	Alum	1.46(I) 1.34(E)	(2) type H Weber 40 DCOE w/28mm choke(s) or 40mm Del'Orto DHLA 40 w/28mm choke(s)	88.6	55.7 / 53.6	15 x 6	5
Alfa Romeo Spider 1300 Junior	4 Cyl DOHC	2.91 x 2.95	1290cc	Alum	Alum	1.46(I) 1.34(E)	(2) Weber 40 DCOE w/28mm choke(s)	88.6	55.7 / 53.6	15 x 6	4 or 5
Austin-Healey Sprite Mk.I, II, III, IV / MG Midget Mk.I, II, III, IV, Midget 1500	4 Cyl OHV	2.54 x 3.30	1098cc	Iron	Iron	1.31(I) 1.16(E)	(2) 1.25" SU or Stromberg, (2) 1.50" SU or Stromberg, (2) 1.25" SU or Stromberg w/ 34mm throttle plates on original intake manifold, maximum spacer block (isolator) length of 1.25".	80	50.2 / 48.7	13 x 5.5	4
BMW 1600	4 Cyl SOHC	84.0 x 71.0	1573cc	Iron	Alum	42.0(I) 35.0(E)	(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV, (2) 40 DCOE sidedraft carbs w/ 32mm chokes.	98.4	56.3 / 56.3	13 x 6	4
Chevrolet Chevette 1.6	4 Cyl SOHC	82.0 x 75.7	1598cc	Iron	Iron	39.1(I) 32.1(E)	(2) auto type sidedraft w/ 30mm choke(s) on I.R. manifold	94.3	54.75/54.75	13 x 6	4 or 5
Dodge Colt 1.6 (FWD) (79-83)	4 Cyl SOHC	76.9 x 86.0	1597cc	Iron	Alum	38.0(I) 31.0(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, 32/36 DGV, 32/36 DGAV w/ 32mm choke(s). (2) auto type sidedraft w/28mm choke(s) on I.R. manifold	90.6	56.4 / 55.3	13 x 6	4
Fiat Abarth OT1000	4 Cyl OHV	2.56 x 2.91	982cc	Iron	Alum	1.146(I) 1.028(E)	(1) Weber 36 DCD7	79.8	48.0/50.0	13 x 6	4 or 5
Fiat 124 Spider 1438	4 Cyl DOHC	3.15 x 2.81	1438cc	Iron	Alum	1.64(I) 1.43(E)	(1) Weber 34 DFH-1, (1) Weber 34 DMSA-1, (1) 34 DMS 201	89.8	56.7 / 55.4	13 x 6.5	5

GP_B	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Alfa Romeo Giulietta Sprint & Spider, 750 & 101, Normale (Spider) & Veloce (Super Spider)	(F)10.3" Drum (R)10.0" Drum	(F)10.6" Disc (girling) (R)10.5" Drum, (F)10.7" Disc	1879 (1980 w/ dual carbs)	Sebring headrest
Alfa Romeo Junior Z	(F)10.5" Disc (R)10.5" Disc	(F)9.85" Disc	1980	
Alfa Romeo Spider 1300 Junior	(F)10.5" Disc (R)10.5" Disc		1980	
Austin-Healey Sprite Mk.I, II, III, IV / MG Midget Mk.I, II, III, IV, Midget 1500	(F)8.2" Disc (R)7.0" Drum	(F)9.12" Disc #208715, Calipers: #27H, 27H-4651	1520	Battery tray may be removed. Alt. crankshaft: Ferrous material, stock configuration & journal dimensions (no hollow core), max. undersize is 0.040". NOTE: Roll cage for cars under 1500 lbs are acceptable for cars registered with SCCA before 04/01/82
BMW 1600	(F)10.1" Disc (R)9.1 x 1.6" Drum		2100	Factory 2bbl intake manifold from EP BMW 2002 is permitted.
Chevrolet Chevette 1.6	(F)9.68" Disc (R)7.88" Drum		2080	
Dodge Colt 1.6 (FWD) (79-83)	(F) 8.93" Disc, (R) 6.1" x 1.4" Drum		1960	
Fiat Abarth OT1000	(F) 8.9" Disc (R) 7.3" Drum	(R) 8.9" Disc	1540	Trunk mounted fuel cell allowed.
Fiat 124 Spider 1438	(F & R)8.94" Disc	(F & R) 10.0x.40" Disc (Lancia), Alt rotor: #82346805	2025	

GP$_C$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Fiat 124 Sport Coupe	4 Cyl DOHC	3.15 x 2.81	1438cc	Iron	Alum	1.64(I) 1.43(E)	(1) Weber 34 DFH-1, (1) Weber 34 DMSA-1, (1) 34 DMS 201	89.8	56.7 / 55.4	13 x 6.5	5
Fiat X-1/9 & Bertone	4 Cyl SOHC	86.0 x 55.5	1290cc	Iron	Alum	1.43(I) 1.21(E) 1.23(E)	(1) Weber 32 DMTR w/32mm primary & secondary throttle bores, (1) Weber 32 DATRA/100 w / 32mm primary & secondary throttle bores, (1) 40 DCNF w/ 32mm choke(s).	86.7	56.3 / 56.6	13 x 6	4
Ford Escort / Mercury Lynx (81-84)	4 Cyl SOHC	3.15 x 3.13	1589cc	Iron	Alum	42.0(I) 37.0(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, 32/36 DGV, 32/36 DGAV w/ 32mm choke(s). (2) auto type sidedraft w/28mm choke(s) on I.R. manifold	94.3	57.2 / 58.5	13 x 6	4
Ford EXP (81-84)	4 Cyl SOHC	3.15 x 3.13	1589cc	Iron	Alum	42.0(I) 37.0(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, 32/36 DGV, 32/36 DGAV w/ 32mm choke(s). (2) auto type sidedraft w/28mm choke(s) on I.R. manifold	94.3	57.2 / 58.5	13 x 6	4
Honda CRX/Si (84-87)	4 Cyl SOHC	74.0 x 86.5	1488cc	Alum	Alum	27.1(I) 33.1(E)	IT carburetion or original-type fuel injection w/ stock unmodified F.I. throttle body	86.6	58.5 / 59.1	13 x 6	5
Honda Civic/Si (84-87)	4 Cyl SOHC	74.0 x 86.5	1488cc	Alum	Alum	27.1(I) 33.1(E)	IT carburetion or original-type fuel injection w/ stock unmodified F.I. throttle body	93.7	58.8 / 59.1	13 x 6	5

GP$_D$	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Fiat 124 Sport Coupe	(F & R)8.94" Disc	(F & R) 10.0x.40" Disc (Lancia), Alt rotor: #82346805	1975	
Fiat X-1/9 & Bertone	(F & R)8.94" Disc	(F & R) 10.0x.40" Disc (Lancia)	1960	5 speed transmission from new "FP" model. Top panels may remain in place if securely bolted or pinned. Alt. Crankshaft: #4292177. Engine hatch rain tray may be removed. Trunk mounted fuel cell allowed. Orientation of the alternate carburetor is unrestricted. The alternate carb adapter may not be thicker than 1.25 inches. The adapter may have a bore larger than the throttle bore of the approved alternate carburetor.
Ford Escort / Mercury Lynx (81-84)	(F) 9.3" Disc, (R) 8.0" x 1.3" Drum		2020	
Ford EXP (81-84)	(F) 9.3" Disc, (R) 8.0" x 1.3" Drum		2020	
Honda CRX/Si (84-87)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1900	Comp.Ratio limited to 10.0:1, Valve lift limited to .373", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, and springs to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Honda Civic/Si (84-87)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1900	Comp.Ratio limited to 10.0:1, Valve lift limited to .373", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, and springs to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

GP$_E$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Honda CRX 1.5 (88-91)	4 Cyl SOHC	75.0 x 84.5	1493cc	Alum	Alum	29.0(I) 25.0(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	90.6	59.8 / 60.0	13 x 6	5
Honda Civic 1.5 (88-91)	4 Cyl SOHC	75.0 x 84.5	1493cc	Alum	Alum	29.0(I) 25.0(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	98.4	59.8 / 60.0	13 x 6	5
Honda Civic	4 Cyl. OHV	72.0 x 76.0	1237cc	Iron	Alum.	EB1&2: 34.0(I) 30.0(E) EB3: 36.0(I) 32.0(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, (1) 32/36 DGV, (1) 32/36 DGAV. 25mm choke(s) req'd.	86.8"	53.7 / 52.9	13 x 6	4 or 5
Mazda GLC (FWD)	4 Cyl SOHC	77.0 x 80.0	1490cc	Iron	Alum	36.0(I) 31.0(E)	(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV	93.1	57.2 / 57.4	13 x 6	5
MGA 1500 / 1600 / 1622 Coupe	4 Cyl OHV	2.88 x 3.50 2.97 x 3.50 3.00 x 3.50	1469cc 1588cc 1622cc	Iron	Iron	1.57(I) 1.50(I) 1.63(I) 1.35(E) 1.28(E) 1.44(E)	(2) 1.5" or 1.75" SU or Stromberg	94	51.0 / 52.3	15 x 6	4
MGA 1500 / 1600 / 1622 Roadster	4 Cyl OHV	2.88 x 3.50 2.97 x 3.50 3.00 x 3.50	1469cc 1588cc 1622cc	Iron	Iron	1.57(I) 1.50(I) 1.35(E) 1.28(E)	(2) 1.5" SU or Stromberg	94	51.0 / 52.3	15 x 6	4

GP_F	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Honda CRX 1.5 (88-91)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2050	Comp.Ratio limited to 10.0:1, Valve lift limited to .360", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, and springs to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Honda Civic 1.5 (88-91)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2050	Comp.Ratio limited to 10.0:1, Valve lift limited to .360", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, and springs to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Honda Civic	(F) 9" Disc (R) 7" x 1.4" Drum	Brake Calipers: Right Front: P/N 45210-663-674 Left Front: P/N 45230-663-674	1830	Orientation of the alternate carburetor is unrestricted. The alternate carburetor adaptor may not be thicker than 1.25". The adaptor may have a bore larger than the throttle bore of the approved alternate carburetor.
Mazda GLC (FWD)	(F)8.9" Disc (R)7.1" x 1.2" Drum		1920	Orientation of the alternate carburetor is unrestricted.
MGA 1500 / 1600 / 1622 Coupe	(F)11.0" Disc (R)10.0" Drum	(F)10.0" Drum, (F & R) 11.0" disc	2060	It is permitted to replace wood floor boards with metal. MGB intake manifold permitted. Cylinder block (3 main bearing) from MGB. MGB 18G/18GA series 3main bearing cranshaft allowed. Factory, integral, non-removeable hardtop required.
MGA 1500 / 1600 / 1622 Roadster	(F)11.0" Disc (R)10.0" Drum	(F)10.0" Drum, 4 wheel disc brakes	2056	It is permitted to replace wood floor boards with metal. MGB intake manifold permitted. Cylinder block (3 main bearing) from MGB. MGB 18G/18GA series 3main bearing crankshaft allowed.

GP$_G$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
MGA Twin Cam	4 Cyl DOHC	2.97 x 3.50	1588cc	Iron	Alum	1.59(I) 1.44(E)	(2) 1.75" SU or Stromberg	94	51.0 / 52.3	15 x 6	4
MGB & MGB-GT	4 Cyl OHV	3.16 x 3.50	1798cc	Iron	Iron	1.63(I) 1.35(E)	(2) 1.50" SU	91	53.0 / 53.2	15 x 7	4
Mini Cooper (02-04)	4 Cyl DOHC	77.0 x 85.8	1598	Iron	Alum	30.3(I) 23.3(E)	Original-type fuel injection w/ stock unmodified F.I. throttle body.	97.1	57.4 / 57.7	15 x 7	5
Nissan/Datsun 210 1.4	4 Cyl OHV	76.0 x 77.0	1397cc	Iron	Alum	37.0(I) 30.0(E)	(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV, (2) auto type side draft w/32mm choke(s) on I.R. manifold	92.1	56.0 / 54.7	13 x 6	4 or 5
Nissan/Datsun B-210 1.4	4 Cyl OHV	76.0 x 77.0	1397cc	Iron	Alum	37.0(I) 30.0(E)	(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV, (2) auto type side draft w/32mm choke(s) on I.R. manifold	92.1	52.7 / 51.5	13 x 6	4 or 5
Nissan/Datsun PL510	4 Cyl SOHC	83.0 x 73.7	1595cc	Iron	Alum	41.9(I) 33.0(E)	(1) 40 DCN, DCNF, IDF w/ 34mm choke(s), (1) 32/36 DGV, DGAV, (2) auto type side draft w/ 32mm choke(s) on I.R. manifold	95.3	54.5 / 54.5	13 x 7	4

GP$_H$	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
MGA Twin Cam	(F & R)11.0" Disc		2199	It is permitted to replace wood floor boards with metal.
MGB & MGB-GT	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1950	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Mini Cooper (02-04)	Factory Spec @ all 4 wheels	None	2200	Comp.Ratio limited to 10.6:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Nissan/Datsun 210 1.4	(F)9.65" Disc (R)8.00x 1.38" Drum	(F) 244 Disc (R) 229 Drum Discs and calipers from 200SX	1900	Alternate differential assembly: H165
Nissan/Datsun B-210 1.4	(F)9.65" Disc (R)8.00 x1.38" Drum		1900	Alternate differential assembly: H165
Nissan/Datsun PL510	(F) 9.1" Disc, (R) 9.0" Drum	1970-78 Datsun 240/260/280Z front rotors and calipers and rear aluminum drums are permitted.	2090	Allow any originally-delivered or superceding cylinder head. Alternate cylinder head: P/N 11041-V9182 casting # V912

GP$_I$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Nissan/Datsun SPL 310-U	4 Cyl OHV	3.15 x 2.91	1488cc	Iron	Iron	1.65(I) 1.26(E)	(2) Hitachi HJB-38W	89.8	51.5 / 50.7	15 x 6	4
Nissan/Datsun SPL 311 / 311-U	4 Cyl OHV	3.43 x 2.63	1595cc	Iron	Iron or Alum.	1.66(I) 1.69(I) 1.26(E) 1.38(E)	(2) Hitachi HJB-38W-3 1.5" or (2) SU HS-4 1.5"	89.8	53.7 / 50.7	15 x 6	4 or 5
Porsche 356, A-1300, 1300 S Coupe & Cabriolet	4 Cyl OHV	2.94 x 2.92 3.15 x 2.52	1290cc 1286cc	Alum	Alum	1.50(I) 1.22(E) 1.23(E)	(2) Solex 40 PBIC, (2) Solex 32 PBIC, (2) 32 PBI, (2) 32mm Zenith DD	82.7	55.0 / 53.7	16 x 6	4
Porsche 914-4 (1.8L)	4 Cyl OHV	93.0 x 66.0	1795cc	Alum	Alum	40.9(I) 34.0(E)	Original-type fuel injection only.	96.5	53.0 / 53.2	15 x 7	5
Suzuki Swift GT & GTi	4 CYL DOHC	2.91 x 2.97	1299cc	Alum	Alum	29.0(I) 23.9(E)	(1) 40 DCOE, (2) auto type side draft on I.R. manifold, or original-type fuel injection. 28mm choke(s) req'd.	89.3	57.4 / 56.4	15 x 6	5
Triumph Spitfire Mk.II	4 Cyl OHV	2.73 x 3.00	1147cc	Iron	Iron	1.30(I) 1.15(E)	(2) 1.25" SU or Stromberg	83	52.6 / 51.5	13 x 6	4
Turner 950-S	4 Cyl OHV	2.48 x 3.00	948cc	Iron	Iron	1.10(I) 1.16(I) 1.00(E)	(2) 1.125" SU, (2) 1.25" SU or Stromberg	80.5	48.9 / 48.2	15 x 6	4

GP$_J$	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Nissan/Datsun SPL 310-U	(F & R) 9.0" Drum		1995	
Nissan/Datsun SPL 311 / 311-U	(F)11.2" Disc (R)9.0" Drum		2020	
Porsche 356, A-1300, 1300 S Coupe & Cabriolet	(F & R)11.0" Drum	60mm front brakes w/ vented backing plate. EP 1200 alt. brakes	1795	
Porsche 914-4 (1.8L)	Factory Spec @ all 4 wheels	None	2000	Comp.Ratio limited to 10.5:1, Valve lift limited to .420", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Stock (unmodified) fuel injection throttle bodies req'd. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Suzuki Swift GT & GTi	(F)248mm Disc (R)237mm Disc		1870	"Dual Y" manifold required, no plenum or balance tubes.
Triumph Spitfire Mk.II	(F)9.2" Disc (R)7.0" drum	(F)9.7" Disc # 213227 (R)8.0" Drum, Front Discs: Girling 14P, Calipers and mounting kit: #V734	1680	NOTE: Roll cage for cars under 1500 lbs are acceptable for cars registered with SCCA before 04/01/82. Use of cylinder head casting #303014 is permitted @ 1730 lbs. Cylinder head casting numbers must be maintained.
Turner 950-S	(F)9.0" Disc (R)8.0" Drum	(F)9.2" Disc	1317	BMC MkIII Transmission Case. Alt. crankshaft: Ferrous material, stock configuration & journal dimensions (no hollow core), max. undersize is .040".

GP$_K$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Volkswagen Rabbit 1457 / 1471 (includes Cabriolet / Convertible)	4 Cyl SOHC	76.5 x 80.0 79.5 x 73.4	1471cc 1457cc	Iron	Alum	34.0(I) 31.0(E)	(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV, or original CIS-type fuel injection.	94.5	57.2 / 55.6	13 x 6	4 or 5
Volkswagen Rabbit 1588 (includes Cabriolet / Convertible)	4 Cyl SOHC	79.5 x 80.0	1588cc	Iron	Alum	34.0(I) 31.0(E)	(1) 40 DCN, DCNF, IDF, 32/36 DGV, 32/36 DGAV, (2) auto type side draft w/30mm choke(s) on I.R. manifold, or original CIS-type fuel injection. 32mm choke required for single carb.	94.5	58.3 / 57.1	13 x 7	4 or 5
Volkswagen Rabbit 1715 (81-84) (excl. conv.)	4 Cyl SOHC	79.5 x 86.4	1715cc	Iron	Alum	34.0(I) 31.0(E)	Original CIS-type fuel injection only w/ stock unmodified throttle body.	2401	1453 / 1413	14 x 7	5
Volkswagen Rabbit GTI 1780 (8-valve) (83-84)	4 Cyl SOHC	81.0 x 86.4	1780	Iron	Alum	40.0(I) 33.0(E)	Original CIS-type fuel injection only w/ stock unmodified throttle body.	2401	1453 / 1413	15 x 7	5
Volkswagen Scirocco 1457/1471	4 Cyl SOHC	76.5 x 80.0 79.5 x 73.4	1471cc 1457cc	Iron	Alum	34.0(I) 31.0(E)	(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV, or original CIS-type fuel injection.	94.5	57.2 / 56.0	13 x 6	4 or 5
Volkswagen Scirocco 1588	4 Cyl SOHC	79.5 x 80.0	1588cc	Iron	Alum	34.0(I) 31.0(E)	(1) 40 DCN, DCNF, IDF, 32/36 DGV, 32/36 DGAV, (2) auto type side draft w/30mm choke(s) on I.R. manifold, or original CIS-type fuel injection. 32mm choke required for single carb.	94.5	58.3 / 57.1	13 x 7	4 or 5

GP$_L$	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Volkswagen Rabbit 1457 / 1471 (includes Cabriolet / Convertible)	(F)9.41" Disc (R)7.86 x 1.57" Drum		Sedan / Coupe: 1705 Cabrio: 1805	Factory roll bar must be removed on Cabriolet. Intake manifold unrestricted with single downdraft carburetor. Only 1457cc engine may use F.I.
Volkswagen Rabbit 1588 (includes Cabriolet / Convertible)	(F) 9.41" Disc, (R) 7.1" x 1.57" Drum		Sedan / Coupe: 1915 Cabrio: 2015	Intake manifold unrestricted with single downdraft carburetor.
Volkswagen Rabbit 1715 (81-84) (excl. conv.)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2000	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Volkswagen Rabbit GTI 1780 (8-valve) (83-84)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1965	Comp.Ratio limited to 11.0:1, Valve lift limited to .420", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Volkswagen Scirocco 1457/1471	(F)9.41" Disc (R)7.1 x 1.19" Drum	Front calipers from 80 Scirocco / Rabbit	1705	Intake manifold unrestricted with single downdraft carburetor. Only 1457cc engine may use F.I. VW 02A transmission and flywheel allowed.
Volkswagen Scirocco 1588	(F) 9.41" Disc, (R) 7.1 x1.19" Drum		1915	Intake manifold unrestricted with single downdraft carburetor. VW 02A transmission and flywheel allowed.

GP$_M$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Volkswagen Scirocco 1715 (82-84)	4 Cyl SOHC	79.5 x 86.4	1715cc	Iron	Alum	34.0(I) 31.0(E)	Original CIS-type fuel injection only w/ stock unmodified throttle body.	2401	1453 / 1423	14 x 7	5
Volkswagen Scirocco 1780 (8-valve) (83-88)	4 Cyl SOHC	81.0 x 86.4	1780	Iron	Alum	40.0(I) 33.0(E)	Original CIS-type fuel injection only w/ stock unmodified throttle body.	2401	1453 / 1423	14 x 7	5
Volkswagen Jetta 1780 (85-91)	4 Cyl SOHC	81.0 x 86.4	1780cc	Iron	Alum	40.0(I) 33.0(E)	Original CIS- or Digifant-type fuel injection only w/ stock unmodified throttle body.	97.3	58.8 / 58.2	15 x 7	5
Volkswagen Golf (GTI, GT, GL)	4 Cyl SOHC	81.0 x 86.4	1780cc	Iron	Alum	40.0(I) 33.0(E)	Original CIS- or Digifant-type fuel injection only w/ stock unmodified throttle body.	97.3	58.8 / 58.2	15 x 7	5

GP$_N$	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Volkswagen Scirocco 1715 (82-84)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2000	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Volkswagen Scirocco 1780 (8-valve) (83-88)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1965	Comp.Ratio limited to 11.0:1, Valve lift limited to .420", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but my be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Volkswagen Jetta 1780 (85-91)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1965	Comp.Ratio limited to 10.5:1, Valve lift limited to .420", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Volkswagen Golf (GTI, GT, GL)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1965	Comp.Ratio limited to 10.5:1, Valve lift limited to .420", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

HP$_A$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Austin-Healey SpriteMk I, II, III, IV	4 Cyl. OHV	2.48 x 3.00	948cc	Iron	Iron 2A629 12A185 12G202	1.00(I) 1.00(E) 1.16 (I)	(2) 1.25" SU or Stromberg	80.0"	50.2 / 48.2	13 x 5	4
Austin-Healey Sprite Mk. II, III, IV / MG Midget (ALL) (1275)	4 Cyl OHV	2.78 x 3.20	1275cc	Iron	Iron	1.31(I) 1.16(E)	(2) 1.25" SU w/ no modifications	80.0"	50.2 / 48.2	13 x 5.5	4
Austin-Healey Sprite Mk.II, III, IV / MG Midget (ALL) (1098)	4 Cyl OHV	2.54 x 3.30	1098cc	Iron	Iron	1.22(I) 1.00(E)	(2) 1.25" SU w/ no modifications	80.0"	50.2 / 48.2	13 x 5.5	4

HP_B	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Austin-Healey Sprite Mk I, II, III, IV	(F & R) 7" Drum	(F) 8.2" Disc (50.2" front track) (F) 8" Q2353 (ATA 7154) Q2491 Alfin Drums (R) RH BTA 566, LH BTA567 backing plates (R)GWC1102 wheel cyls	1577	Mk.III transmission case permitted. Battery tray may be removed. Mk.I Body modification: Behind drivers seat rear deck only, width of shoulder or seat, depth 6" max.
Austin-Healey Sprite Mk. II, III, IV / MG Midget (ALL) (1275)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1460	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked.Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Austin-Healey Sprite Mk.II, III, IV / MG Midget (ALL) (1098)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1425	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked.Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

HP$_C$	**Engine Type**	**Bore & Stroke**	**Displ.**	**Block**	**Head / PN**	**Valves IN & EX**	**Carb. No. & Type**	**Wheelbase**	**Track (F&R)**	**Wheels (max)**	**Trans. Speeds**
BLMI Austin/Morris Mini-Cooper 1275	4 Cyl OHV	2.78 x 3.20	1275cc	Iron	Iron	1.406 (I) 1.219 (E)	(1) 1.75" SU side draft (2) 1.25" SU side drafts	80.2	52.0 / 52.0	13 x 6	4
BMW 1600 (68-71)	4 Cyl SOHC	84.0 x 71.0	1574cc	Iron	Alum	42.0(I) 35.0(E)	IT carburetion	2500	56.3 / 56.3	13 x 6	4
Fiat Spider & Racer (-1973)	4 Cyl. OHV	2.56 x 2.50 2.56 x 2.68	843cc 903cc	Iron	Alum.	1.146(I) 1.028(E)	(1) 30 DICA, (1)Weber 4226434 (30/30), (1) 34 DMSA, (1) 32/36 DG Series	79.8"	49.5 / 51.6	13 x 6.5	4
Fiat X-1/9 & Bertone 1500	4 Cyl SOHC	3.40 x 2.52	1498cc	Iron	Alum.	1.43(I) 1.31(E)	IT carburetion or (1) 32 DTMR or 32 DATRA, or original-type fuel injection. 32mm choke(s) req'd.	86.7"	56.3 / 56.6	13 x 6	5

HP_D	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
BLMI Austin/Morris Mini-Cooper 1275	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1460	Comp. Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp. ratio. Intake manifold may be port matched on port mating surface to a depth of no more than 1". Balance tube may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Alternate intake manifold (#CAM-6618). Limited Prep Transmission.
BMW 1600 (68-71)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2100	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Stock (unmodified) fuel injection throttle bodies req'd. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Fiat Spider & Racer (-1973)	(F) 8.9" Disc (R) 7.3" Drum	9.25" Disc Girling Calipers 82346805	1477	Aux. radiator mounted behind front spoiler w/ no mods to original bodywork. PBS 8-Port head (part # 850-8-P), Valves: (I) 31.0mm, (E) 26.1mm, Intake manifold (Part #850-8-PM) is required with alternate head. Carburetion (2) 40 DCOE w/ 28mm choke(s), weight: 1527 lb. Alternate steering box or rack & pinion steering permitted. Fuel cell may be located in front trunk.
Fiat X-1/9 & Bertone 1500	Factory Spec @ all 4 wheels	None	2000	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Stock (unmodified) fuel injection throttle bodies req'd. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Fuel cell may be located in front trunk. Limited Prep Transmission.

HP_E	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Fiat X-1/9 1300	4 Cyl SOHC	86.0 x 55.5	1290cc	Iron	Alum.	1.43(I) 1.23(E)	IT carburetion or (1) 32 DTMR or 32 DATRA. 32mm choke(s) req'd.	86.7"	56.3 / 56.6	13 x 6	4
Fiat 124 Sport Coupe	4 Cyl DOHC	80.0 x 79.3 80.0 x 80.0	1592cc 1608cc	Alum	Alum	41.7(I) 36.3(E)	IT carburetion	2281mm or 2421mm	1441 / 1408	13 x 6.5	5
Ford Cortina GT (64-68)	4 Cyl OHV	3.19 x 3.06	1598cc	Iron	Iron	1.50(I) 1.16(E)	IT carburetion	98.0"	57.1 / 55.6	13 x 6	4
Ford Festiva (89-90)	4 Cyl SOHC	2.79 x 3.29	1324cc	Iron	Alum	32.0 (I) 28.0 (E)	Original-type fuel injection w/ stock unmodified F.I. throttle bodies.	90.2	55.1 / 54.5	13 x 6	5

HP_F	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Fiat X-1/9 1300	Factory Spec @ all 4 wheels	None	1900	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Fuel cell may be located in front trunk. Limited Prep Transmission.
Fiat 124 Sport Coupe	Factory Spec @ all 4 wheels	None	2150	Comp.Ratio limited to 11.0:1, Valve lift limited to .425", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Ford Cortina GT (64-68)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1900	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Ford Festiva (89-90)	(F) 8.62 Solid Disc (R) 6.69 Drum	None	1850	Comp Ratio limited to 10.5:1. Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, valve springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers/followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

HP$_G$	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Mazda GLC (RWD)	4 Cyl SOHC	73.0 x 76.0	1272cc	Iron	Alum.	36.1(I) 31.1(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, (1) 32/36 DGV, (1) 32/36 DGAV. 26mm choke(s) req'd.	91.1"	53.5 / 54.5	13 x 6	4 or 5
MG Midget Mk I, II, III, IV	4 Cyl. OHV	2.48 x 3.00	948cc	Iron	Iron 2A629 12A185 12G202	1.00(I) 1.00(E) 1.16 (I)	(2) 1.25" SU or Stromberg	80.0"	50.2 / 48.2	13 x 5	4
Nissan/Datsun 1200	4 Cyl. OHV	73.0 x 76.0	1171cc	Iron	Alum.	35.0(I) 29.0(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, (1) 32/36 DGV, (1) 32/36 DGAV. 26mm choke(s) req'd.	90.6"	53.5 / 51.5	13 x 6	4
Nissan/Datsun 210 (79-82)	4 Cyl OHV SOHC	76.0 x 77.0 76.0 x 82.0	1397cc 1488cc	Iron	Alum	37.2(I) 30.0(E) 35.0(I) 30.0(E)	(1) 40 DCNF, DCN, IDF w/ 28mm choke(s)	92.1	56.0 / 54.7	13 x 6	4 or 5
Nissan/Datsun PL510	4 Cyl SOHC	83.0 x 73.7	1595cc	Iron	Alum	41.9(I) 33.0(E)	IT Carburetion or (1) 40 DCN or DCNF. 32mm choke(s) req'd.	95.3"	54.5 / 54.5	13 x 7	4

HP_H	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Mazda GLC (RWD)	(F) 8.15" Disc (R) 7.97x 1.3" Drum		1960	Rear end housing from (79-85) RX-7 allowed.
MG Midget Mk I, II, III, IV	(F & R) 7" Drum	(F) 8.2" Disc (50.2" front track) (F) 8" Q2353 (ATA 7154) Q2491 Alfin Drums (R) RH BTA 566 LH BTA567 backing plates (R) GWC1102 wheel cyls.	1577	Mk.III transmission case permitted. Battery tray may be removed. Mk.I Body modification: Behind drivers seat rear deck only, width of shoulder or seat, depth 6" max.
Nissan/Datsun 1200	(F) 8.37" Disc (R) 8" x 1.38" Drum		1660	Alternate differential assy: H165 The alternate carburetor adaptor may not be thicker than 1.25 inches. The adaptor may have a bore larger than the throttle bore of the approved alternate carburetr.
Nissan/Datsun 210 (79-82)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1950	Comp.Ratio limited to 10.5:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Alternate differential assembly: H165. Limited Prep Transmission.
Nissan/Datsun PL510	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1960	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only (.250" adapter plate allowed)-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

HP	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Opel GT	4 Cyl. OHV	2.95 x 2.40	1078cc	Iron	Iron	1.26(I) 1.06(E)	(2) Solex 35 PDSI-2	95.7"	53.0 / 54.0	13 x 6.5	4
Renault Alliance 1.4	4 Cyl OHV	76.0 x 77.0	1397cc	Iron	Alum	34.2(I) 30.3(E)	(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV, or original-type fuel injection	97.8	57.7 / 55.3	13 x 6	5
Renault Alliance / Encore 1.7 (84-87)	4 Cyl SOHC	81.0 x 83.5	1721cc	Iron	Alum	38.1(I) 32.5(E)	Original-type fuel injection w/ stock unmodified F.I. throttle bodies.	97.8	57.7 / 55.3	15 x 6	5
Renault R5/LeCar 1.4	4 Cyl OHV	76.0 x 77.0	1397cc	Iron	Alum	34.2(I) 30.3(E)	(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV	95.8(L) 94.6(R)	52.7 / 51.8	13 x 6	4
Subaru GL Coupe 1.4	4 Cyl OHV	85.0 x 60.0	1361cc	Alum	Alum		(1) 40 DCN, DCNF, IDF w / 32mm choke(s), (1) 32/36 DGV / DGAV	96.6	52.1 / 49.9	13 x 6	4
Suzuki Swift GA 1.3L (89-94)	4 Cyl SOHC	74.0 x 75.5	1298cc	Alum	Alum	36.0(I) 30.0(E)	Original-type fuel injection w/ stock unmodified F.I. throttle bodies.	2265	57.4 / 56.4	13 x 6	5
Toyota Corolla 1200	4 Cyl. OHV	75.0 x 66.0	1166cc	Iron	Iron	39.1(I) 34.0(E)	(1) 40 DCN, (1) 40 DCNF, (1) 40 IDF, (1) 32/36 DGV, (1) 32/36 DGAV. 26mm chokes req'd.	91.9"	52.5 / 53.6	13 x 6	4 or 5

HP_J	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Opel GT	(F) 9.37" Disc (R) 7.87" Drum	(F) 9.6" Disc #90000182 (R) 9.6" Disc 9280751 Calipers (L) 90000183 (R) 90000184	1595	
Renault Alliance 1.4	(F)Disc (R)Drum		1990	
Renault Alliance / Encore 1.7 (84-87)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	2090	Comp.Ratio limited to 10.5:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft required, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Renault R5/LeCar 1.4	(F)9.0" Disc (R)7.1 x 1.19" Drum		1990	
Subaru GL Coupe 1.4	(F) Disc (R) Drum		1990	
Suzuki Swift GA 1.3L (89-94)	Factory Spec @ all 4 wheels	None	1700	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Toyota Corolla 1200	(F) 8.9" Disc (R) 7.87" x 1.18" Drum		1660	

HP_K	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Toyota Starlet	4 Cyl. OHV	75.0 x 73.0	1290cc	Iron		36.0(I) 29.0(E)	IT carburetion	90.6"	53.3 / 52.7	13 x 6	5
Triumph Spitfire	4 Cyl OHV	2.90 x 2.99	1296cc	Iron	Iron	1.30(I) 1.17(E)	IT carburetion	83.0"	53.6 / 52.6	13 x 6	4
Triumph Spitfire 1500	4 Cyl OHV	2.90 x 3.44	1493cc	Iron	Iron	1.44(I) 1.17(E)	IT carburetion	83.0"	53.6 / 54.6	13 x 6	4

HP$_L$	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Toyota Starlet	(F) 8.9" Disc (R) 7.87" x 1.18" Drum		1770	
Triumph Spitfire	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1550	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Balance tune may be partially or fully blocked. Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Balance tube may be partially of fully blocked. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Triumph Spitfire 1500	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1750	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and pushrods to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock rocker arms, cam followers, rocker ratios, and rocker/follower ratios must be retained. Roller rockers and roller followers are prohibited. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.

HP_M	Engine Type	Bore & Stroke	Displ.	Block	Head / PN	Valves IN & EX	Carb. No. & Type	Wheelbase	Track (F&R)	Wheels (max)	Trans. Speeds
Volkswagen Rabbit 1588 (includes Cabriolet / convertible)	4 Cyl SOHC	79.5 x 80.0	1588cc	Iron	Alum	34.0(I) 31.0(E)	IT Carburetion or (1) 40 DCN or DCNF, or original-type fuel injection w/ stock unmodified F.I. throttle body. 32mm choke(s) req'd.	94.5"	57.2 / 55.6	13 x 6	5
Volkswagen Scirocco 1588	4 Cyl SOHC	79.5 x 80.0	1588cc	Iron	Alum	34.0(I) 31.0(E)	IT Carburetion or (1) 40 DCN or DCNF, or original-type fuel injection w/ stock unmodified F.I. throttle body. 32mm choke(s) req'd.	94.5"	57.2 / 55.6	13 x 6	4 or 5

HP_N	Brakes Std.	Brakes Alt.	Weight (lbs.)	Notes:
Volkswagen Rabbit 1588 (includes Cabriolet / convertible)	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	sedan / coupe: 1715 Cabrio: 1810	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.
Volkswagen Scirocco 1588	Factory Spec @ all 4 wheels	Rear discs allowed per PCS section 17.1.1.D.7.a.	1715	Comp.Ratio limited to 11.0:1, Valve lift limited to .450", Restricted Suspension. Cylinder head prep per IT specs except that head may be milled to achieve max. comp.ratio. Stock intake manifold only-may be port matched on port mating surface to a depth of no more than 1". Manifold may not be otherwise altered. Valves, keepers, springs, and tappets/shims to be ferrous-no titanium alloys. Valve lift measured at valve with zero lash or clearance. Stock connecting rods req'd, but may be lightened and balanced. Rod bolts may be replaced. Stock crankshaft req'd, but may be lightened and balanced, with a max. undersize of 0.045". Billet cranks prohibited. Dry sump is prohibited. Competitor must be in possession of factory workshop manual at all competitions. Limited Prep Transmission.


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17.1.2. GT CATEGORY SPECIFICATIONS

These specifications are part of the SCCA General Competition Rules (GCR), and all automobiles shall conform with GCR Section 17., "Automobiles."

A. PURPOSE

The GT Category is intended to provide the membership and interested manufacturers with the opportunity to compete in purpose built, highly modified replicas of series produced automobiles. To that end, cars shall be classified in GT Classes based on their competitive potential. The Club may alter or adjust specifications and require, permit, or restrict certain specific components to equate competitive potential.

B. INTENT

It is the intent of these rules to allow modifications useful and necessary in the construction and preparation of an extremely high performance road racing vehicle. It is understood that such a vehicle can be updated and/or changed from marque-to-marque, based on member interest and manufacturer incentive. With this in mind, the Club will use the following **guidelines** in the determination of the suitability for classification in the GT Category:

1. Basic vehicle size, shape, engine displacement, and cylinder head design of the standard and/or alternate engine(s).

2. Member interest.

3. Manufacturer interest and potential support to competitors.

4. Vehicle production quantities of no less than 3000 units of the specified make/model within a twelve (12) month period, all such units being approved by the EPA and DOT for sale in the United States (Production Cars that have been reclassified into the GT Category need not meet minimum production quantities).

C. SPECIFICATIONS

The SCCA shall publish the GT Category Specifications (GTCS) containing recognized specifications for each car eligible to compete in the GT Category during the calendar year. Cars shall be listed according to the manufacturer's make and model designation. In the case of doubt involving specifications not adequately described in the GTCS, Scrutineers/Stewards may refer to maintenance manuals, spare parts books, general catalogs and performance catalogs published by the vehicle manufacturer, MVMA specifications, and FIA

Homologation Certificates for the make and model, or may inspect other cars of the same make and model.

1. GT Category automobiles shall be divided into Classes based on relative performance as follows: GT-1, GT-2, GT-3, and *GT-Lite*.

2. Cars may be updated or backdated within the specifications of the recognized make and model as listed on the **Approved Automobile List** of the GTCS (GT-1), or as listed on a single **GT Specification Form** line of the GTCS (GT-2/3/*L*).

3. Cars shall meet or exceed their minimum specified weight, as listed in the GTCS, as qualified or raced, with driver.

4. No permitted component/modification shall additionally perform a prohibited function.

5. Turbocharging/supercharging is not permitted.

6. Construction of tube frame cars is permitted. Standard maximum track dimensions for all cars, unless otherwise noted, are as follows:

GT-1	70.0" F & R
GT-2	64.0" F & R
GT-3 / *GT-Lite*	60.0" F & R

GT-1 cars shall refer to Section D.5.b.3., of the GT-1 Rules for wheelbase restrictions.

D. AUTHORIZED MODIFICATIONS (GT-1)

1. Engine (GT-1)

a. Component Modification

1. It is permitted to lighten, balance, or modify in shape, by any mechanical or chemical means, the standard, optional, or alternate components of the engine, provided it is always possible to positively identify them as such.

2. Material shall not be added to these components unless specifically authorized by these rules.

3. The original direction of engine rotation shall be retained.

b. Induction System

1. All inducted air shall pass through the throttle venturis.

2. The specified carburetor(s) or specified fuel injection may be modified. The number, model, type, throttle bore and/or venturi restriction shall remain as specified. Refer to Section E.1.a. of these rules for additional induction specifications.

3. Any air filter(s), velocity stack(s), and or air box(es) may be fitted. Air may be ducted to the carburetor or fuel injection provided that the ducting is completely contained within the engine compartment and that the air to be ducted is supplied through normal (or as specifically authorized herein) openings in the bodywork. Cars may duct air to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20 inches, maximum length of 3.5 inches.

4. Intake manifolds are unrestricted.

5. Any throttle linkage may be used. All throttle linkages shall be equipped with more than one system of positive throttle closure

c. Fuel System

1. Any fuel line(s) may be used. All fuel line(s) passing through the driver/passenger compartment shall be made of metal braided hose with AN-Series threaded couplings.

2. Any fuel pump(s), filter(s), and pressure regulator(s) may be used. Such components may not be located in the driver/passenger compartment, but their location within the bodywork of the car is otherwise unrestricted.

d. Emission Equipment

1. Exhaust emission control equipment shall be removed in their entirety. When air injection nozzles are removed from a cylinder head, the resultant holes shall be completely plugged.

e. Cylinder Heads: (GT-1)

1. The standard production, optional, or specified alternate(s) cylinder head(s) shall be used. Any valve guides and valve seats may be used.

2. Material(s) may be added to the combustion chamber(s) and interior ports/passages of the cylinder head(s). The addition of such material(s) shall not enable the combustion chamber and/or interior ports/passages to be moved external to the original physical limitations of the cylinder head(s).

3. V-6 and V-8 General Motors engines are permitted: Buick, Chevrolet, Oldsmobile, Pontiac, Brodix, Brownfield, Dart, Edlebrock, Pro Action 14-degree, or Airflow Research 210, 215, 220, and 227 cylinder heads of cast iron or aluminum. All Pro cylinder head, part # 270-LM-13 is permitted Any cylinder head(s) utilized shall be of a conventional design (siamesed intake ports, two (2) valves per cylinder, all valves inline), direct replacement type. General Motors SB-2 cylinder heads are permitted.

4. V-6 and V-8 Ford engines are permitted: Ford Motorsports SVO inline-valve or canted-valve cylinder heads of cast iron or aluminum.

5. V-6 and V-8 Chrysler engines are permitted: MOPAR Performance conventional design (siamesed intake ports, two (2) valves per cylinder, all valves inline), direct replacement cylinder heads.

f. Camshaft and Valve Gear

1. Any camshaft(s) mounted in the standard location(s) may be used. Any cam followers may be used. Springs and mounting hardware which act directly on the cam followers may be added.

2. Camshaft drive mechanism is unrestricted.

3. Push rods, rocker arms, and rocker arm supports are unrestricted.

4. Valves are unrestricted.

5. Valve springs, retainers, keepers, and seals are unrestricted.

g. Block

1. The standard production, manufacturer's heavy duty (of the same basic materials as

the original block), or specified alternate engine block shall be used.

2. The block may be bored and/or sleeved to achieve the correct displacement.

3. The block may be machined, and O-rings may be added to replace or supplement the head gasket(s).

4. The crankshaft main bearing caps may be substituted. Additional main bearing caps and/or bolts may be used provided that no material is added to the block for their attachment.

h. Pistons and Rods

1. Pistons and piston pins are unrestricted. The compression ratio is unrestricted.

2. Connecting rods are unrestricted, provided that they are made of a ferrous material, e.g., steel. Aluminum, titanium, graphite, etc., rods are prohibited.

i. Crankshaft and Flywheel

1. The crankshaft is unrestricted, provided it is made of the same basic material as the standard production crankshaft. Those vehicles originally equipped with an iron crankshaft may use a steel crankshaft. All alternate crankshafts shall retain the same angle(s) of crank throws as the original crankshaft.

2. The use of any crankshaft vibration damper is permitted.

3. The use of any flywheel and clutch is permitted.

j. Oiling System

1. The use of any oil pan (sump), oil pump(s), and/or oil pickup(s) is permitted. Oil pump(s) shall be mechanically driven by the engine. Dry sump systems are permitted. Any oil tank(s) used by such a system shall be located within the bodywork, and any oil lines utilized within the system shall be metal or metal braided, equipped with AN-Series threaded couplers.

2. The use of any oil filter(s) is permitted.

3. The oil tank(s), cap(s), oil filter(s), and any fittings attached thereto shall be isolated by a metal bulkhead(s), so that in the event of any spillage, leakage, or failure, oil will not reach the driver. Refer to Section D.10. j.1. of these rules for additional safety requirements for the oiling system.

k. Electrical System

1. The use of any driver operated electrical starter is permitted.

2. The use of any ignition system (except magneto ignition) is permitted, provided the number of spark plugs remains the same as that of the standard production, optional, or alternate cylinder head(s). Driver controlled adjustable spark timing is prohibited.

3. The remaining components of the engine electrical system are unrestricted. Refer to Section D.10.d.1., and 2., for additional safety requirement for the electrical system.

l. Exhaust System

1. The components of the exhaust system are unrestricted. Refer to Sections D.8.a.3.B., and D.8.a.9.B., of these rules for additional exhaust system and bodywork specifications.

2. The exhaust system shall meet the specifications of GCR Section 12., "Sound Control."

m. Other Engine Components

1. Alternate engine components considered replacement parts, such as seals, bearings, water pumps, nuts, bolts, studs, washers, and gaskets are permitted. Bushings or offset keys of unrestricted origin may be installed.

2. Generator/alternator, crankshaft, and water pump pulleys are unrestricted.

3. Engine mountings are unrestricted.

   A. Cars with the engine mounted longitudinal to the chassis may relocate the engine in a longitudinal

direction, centered along the longitudinal centerline of the vehicle as defined by the track. A one (1) inch transverse deviation tolerance from the absolute centerline is permitted. Unless otherwise so fitted in its standard production location or specifically authorized in the vehicle's GTCS specifications, said relocation shall align the center of the foremost spark plug hole with the front axle centerline.

1. Transverse mounted engines may be relocated for axle/CV joint alignment. Alternately, they may be relocated to a longitudinal position if authorized specifically by the GTCS.

2. General Motors, Ford, and Chrysler front mounted V-6 engines may be positioned so that the center of the foremost spark plug hole is no more than 4.5 inches behind the front axle center line (bellhousing and transmission locations are the same as a V-8 motor).

2. Engine, Rotary Piston (GT-1)

a. Component Modification

1. Rotary piston engines in GT-1 may be prepared using GTCS specifications 17.1.2.D.1.a., b., c., d., j., k., l., and m..

2. The standard production or specified alternate rotor housings shall be used. No changes in the epitrochoidal curve of the motor are permitted.

3. The capacity of the working chamber(s) shall not be changed.

4. The eccentric shaft may be replaced with another of the same basic material, but no changes in its eccentricity or bearing journal dimensions are permitted.

5. The rotor(s) is/are unrestricted, provided the material and number of lobes remains unchanged.

3. Cooling System (GT-1)

a. Radiator

1. Any water radiator is allowed, provided that there are no changes to the exterior bodywork to accommodate its use. It shall not be located in the driver/ passenger compartment. Radiator overflow line(s) shall terminate in a catch tank.

2. Separate expansion or header tank(s) are permitted. Any such tanks shall not be located in the driver/ passenger compartment.

3. The heater core and all attendant heater controls, lines, and accessories may be removed in their entirety, but shall not be modified or replaced.

b. Radiator Fan

1. The cooling fan(s) may be modified, substituted, or removed.

2. Electrically operated cooling fan(s) may be installed, provided it/they serve no other purpose.

c. Radiator Shroud/Ducting

1. The original radiator shroud may be altered, removed, or replaced.

2. Sealing or shrouding the airflow area between the normal grill opening and the water radiator is permitted.

d. Water Pump

1. The water pump(s) may be replaced with any other water pump(s) mechanically driven by the engine.

e. Thermostat

1. The thermostat(s) may be modified or replaced with blanking sleeves or restrictors.

f. Oil/Lubricant Coolers

1. The use of any engine, transmission, and differential cooler(s) is permitted, provided that it/they are mounted completely within or under the bodywork, but not in the driver/passenger compartment.

2. Associated cooler pumps and lines

are permitted for the transmission and differential coolers.

3. Air may be ducted to said coolers only through normal openings in the bodywork. Air ducts or other openings shall be added to body parts only where specifically authorized by these rules. Refer to Section D.8.a.12. of these rules for additional ducting specifications.

4. Air may be ducted to the rear brakes and rear mounted coolers from an interior bulkhead behind the driver. Air may also be ducted to these components from free air under the car, provided that such under car ducting does not create "ground effects." Refer to Section D.6.a.3. of these rules for additional brake ducting specifications.

4. Transmission/Final Drive (GT-1)

a. Component Modification

1. It is permitted to lighten, balance, or modify in shape, by any mechanical or chemical means, the standard, optional, or alternate components of the transmission and final drive, provided that it is always possible to identify them as such.

b. Transmission

1. Automatic transmissions are not permitted unless specifically authorized on a vehicle's GTCS line.

2. Any readily available manual transmission having no more than five (5) forward speeds and an functional reverse speed may be used, provided that it is fitted in the same basic location used in the standard production automobile. Any relocation or repositioning of the transmission-to-engine dimensional relationship shall be specifically authorized by the GTCS. Sequential shifting transmissions are permitted with a **75 lb. weight penalty**. Air, hydraulic or electric actuation of the gearshift mechanism is not allowed.

   A functional reverse is defined as "operable by the driver from his normal seated position and capable of sustained movement of the vehicle, under its own power, in a reverse direction." A driver-

operated device for locking out reverse gear may be added provided it does not prevent prompt engagement of reverse in an emergency situation.

3. Front engine/transmission vehicles shall locate the front mounting surface of the transmission within sixteen (16) inches of the back of the engine block.

4. Any shift linkage may be used.

5. The linkage between the clutch pedal and the clutch housing/clutch actuating mechanism is unrestricted. A mechanical linkage may be replaced with a hydraulic system.

6. Transmission mountings are unrestricted.

c. Final Drive

1. Any axle tube, final drive housing, gear ratio, limited slip or locked differential may be used. Final drive units which permit ratio changes while the car is in motion are prohibited.

2. Heavy duty propeller shaft(s) and/or drive shaft(s) may be used. A minimum of two (2) steel 360 degree "loops" shall be installed of sufficient strength to prevent the driveshaft(s) from contacting the ground in the event of shaft and/or U-joint failure. Said loops shall be located within twelve (12) inches of the front of the shaft, and as close as practical to the rear universal joint.

5. Suspension (GT-1)

a. Ride Height

1. No part of the car to the rear of the front tire opening, including the exhaust, may touch the ground when two (2) tires on the same side of the vehicle are deflated.

b. Suspension Components

1. Suspension components may be reinforced, modified, or replaced with units of alternate design, and their mounting points may be relocated. The addition or substitution of anti roll bars, camber compensating devices, and/or suspension stabilizers is permitted. If these devices or

any other suspension components extend into the driver/passenger compartment, they shall be completely sealed off from said compartment by metal panels.

2. Hubs, bearings, spindles, axles, U-joints, CV joints, bushings, ball joints, and rod ends may be freely modified or substituted.

3. The wheelbase of the automobile shall not be changed or relocated in the fore/aft direction. A tolerance of +/- 2.00 inches from published specification shall be permitted unless otherwise noted in the GTCS.

c. Springs/Shock Absorbers

1. Suspension springs may be replaced with others of unrestricted origin and type.

2. Shock absorbers are unrestricted, except that the number of shock absorbers fitted shall not be changed from that of the standard production automobile.

3. Shock absorber mountings are unrestricted.

d. Suspension Control

1. The manufacturer's basic system of front suspension shall be retained, i.e., independent. Strut type front suspension may be replaced with a double A-arm type suspension.

2. The manufacturer's basic system of rear suspension may be retained, i.e., independent, live axle, etc.. All forms of independent rear suspension may be replaced with a closed tube beam, live axle suspension. Cars originally equipped with live axle rear suspension shall not replace said suspension with any type of independent suspension.

3. Automobiles originally manufactured as FWD vehicles may convert to RWD, but shall only use a closed tube beam, live axle rear suspension.

e. Steering

1. The front wheels only shall be steered by the driver.

2. The type of steering is unrestricted, provided that a collapsible type of steering column is used. Refer to Sections D.9.b.1., and D.10.b.1. of these rules for additional steering specifications.

6. Brakes (GT-1)

a. Brake Components

1. The use of any dual master cylinder and/or pressure equalizing device is permitted. All cars shall be equipped with a dual braking system operated by a single control. In the case of leakage or failure to any point in the system, effective braking power shall be maintained to at least two (2) wheels.

2. Servo assist braking systems are unrestricted.

3. Backing plates or shields may be removed. Brake air ducts may be fitted, provided they extend only in a forward direction, and that no changes are made in the bodywork for their installation. Refer to Section D.3.f.4. of these rules for additional brake duct specifications.

4. Parking brakes may be removed.

5. The brake lines shall be steel tubing, metal braided hose, or flexible brake hose. Lines may be relocated and given additional protection.

6. Brake discs, calipers, and/or drums are unrestricted, provided that the discs or drums are mounted in the same location (e.g., outboard vs. in-board) as the standard production automobile.

7. Water spray brake cooling systems are permitted. No water cooled calipers are permitted.

8. Carbon brake rotors are prohibited.

7. Wheels and Tires (GT-1)

a. Wheels

1. Wheels shall be made of steel, aluminum, magnesium, or a combination thereof. Multi-piece wheels shall utilize mechanical fasteners (bolts, rivets, etc.) for assembly.

2. Wheels may be thirteen (13), fourteen (14), fifteen (15), or sixteen (16) inches in diameter, but all four (4) wheels shall be of the same diameter.

3. Wheels shall have a maximum width of twelve (12) inches. (13) inch maximum width rear wheels may also be used at a 50lb weight penalty.

4. Centerlock or quickchange wheels are permitted.

b. Tires

1. Tires are unrestricted, except that they must meet the requirements of GCR Section 11.2.1.D.

8. Body/Structure (GT-1)

a. Configuration/Modifications

1. The intent of these bodywork/configuration rules is to maintain the recognizable external features of the standard production automobile while providing for necessary safety and performance modifications.

A. Lightening of the bodywork is permitted, but the exterior shape of the body shall not be changed except where specifically authorized herein.

B. The method of bodywork attachment is unrestricted, and shall meet the requirements of GCR Section 17.8., "Loss of Bodywork."

C. Maximum overall car width shall not exceed 84.75".

D. Trans Am approved bodywork and wheelbase specifications are allowed unless otherwise specifically prohibited by these rules. *Trans Am bodywork shall be in a configuration that is approved for past or present Trans Am competition.*

E. Convertible tops, sunroofs, and removable panels shall meet GCR Section 17.25. As of 1/1/2002, all newly classified convertible models will be required to compete with a windshield

and hardtop. Convertible models classified before 1/1/2002 will be allowed to compete without a windshield and/ or top, regardless of log book issue date, unless specified differently on the vehicle specification line.

2. Any bodywork components may be fabricated of alternate material(s), provided that their shape remains as specified herein, unless specifically prohibited elsewhere in these rules.

3. Fenders may be flared for tire clearance, provided that their shape and opening contour in horizontal projection is similar to the original opening.

   A. Modified wheel opening(s) shall not confuse the identity of the car. The fender flares shall completely cover the wheels and tires, and may extend into the doors and bumpers.

   B. Rear fenders may have holes or slots to accommodate exhaust outlets. These holes or slots shall be below a line seven (7) inches above the bottom of the rocker panel, and shall be no wider than seven (7) inches.

   C. The inner fender panels separating the wheel wells from the engine compartment may be altered, replaced, or removed, provided that there are panels which provide total separation between the wheel wells and the driver/ passenger compartment.

4. The hood and deck lid/trunk hinges and latches may be removed. The hood and deck lid/trunk may be "molded in" with other bodywork components to create "one-piece" front and rear ends. Misalignments or modifications to create ventilation openings where none previously existed are prohibited.

   A. The hood may be modified for clearance of an airbox, provided that such alteration does not confuse the identity of the car.

5. Bumpers that are not an integral part of the

bodywork may be removed, providing that all projecting hardware is also removed. Alternately, they may be replaced with replicas of alternate material(s). In those cases where bumpers are an integral part of the bodywork, they may be replaced with replicas of alternate material(s). Bumper bracket holes in the bodywork may be covered, provided such covering serves no other purpose.

6. The standard grille(s) or approved facsimile(s) shall be retained, except where covered by the front spoiler or intermediate spoiler mounting device.

7. The original angle of the windshield shall be maintained unless alternate components and/or specifications are specifically authorized in the GTCS.

8. All cars may use a standard safety glass windshield, mounted in the stock location and at the stock angle. In addition to any other method of retention, the windshield shall be secured within the specifications of GCR Section 17.33., "Windshield Clips." Windshields of alternate material (i.e. Lexan MR-5/MR-7/MR-10 or FMR102) are permitted. Alternate windshields must be of 6mm minimum thickness. Alternate material windshields must be identical in size and curvature to the original glass component. Polycarbonate windshields may be retained using straps and/or fasteners per SCCA Pro Racing rules. Alternate material windshields must have in addition, three (3) inner supports to prevent the windshield from collapsing inward. These supports must be 0.75" by .125" minimum straps of aluminum. Spacing between these inner supports must be eight (8) inches minimum

9. The rear quarter (side) and rear windows may be made of clear, transparent, and uncolored polycarbonate material having a minimum thickness of 0.125".

   A. In addition to any other method of retention, all rear windows shall be secured within the specifications of GCR Section 17, "Rear Window Straps."

B. Ducts may be installed in the side windows or window openings for the purpose of supplying cooling air to the driver and/or differential/transmission coolers. Air passing through the differential/transmission coolers may be exhausted through an opening identical in size and location to the rear license plate frame.

10. Doors

A. Driver and passenger door window glass or plastic shall be removed. Inside door handles, door panels, window cranks and mechanisms, and other interior trim pieces may be removed.

B. The doors shall be pinned or otherwise positively fastened to prevent their opening in the event of an accident. Standard door hinges and latches may be removed, but the doors shall remain capable of being opened or removed.

C. Doors may contain holes or slots to accommodate exhaust outlets. Any such openings in the door(s) shall be below a line ten (10) inches above the bottom of the rocker, and no wider than seven (7) inches. A maximum of two (2) such exhaust openings are permitted on the door.

11. Spoilers

A. A front spoiler may be fitted. It shall not protrude beyond the overall outline of the car as viewed from above, or aft of the forward most part of the front fender opening (cutout), and shall not be mounted more than four (4) inches above the horizontal centerline of the front wheel hubs. Full-width bottom shrouding of the front spoiler/nosebox area (front undertray) is permitted but must be flat and can extend no farther rearward than the center of the engine harmonic balancer. Undertray may not be stepped or curved. Undertray may be angled in side view to produce a maximum height at the trailing edge of 3.25 inches above the ground.

Openings are permitted for the purpose of ducting air to the brakes, radiator, airbox and/or oil cooler(s); equal openings may be placed in the standard lower front panel directly behind openings placed in the spoiler. Joint separations need not be shown. The spoiler "pan" area forward of the leading edge of the front wheel openings shall be flat and follow, but not exceed, the line of the front fender/ spoiler bottom. No components may protrude or extend below this plane.

B. *The Club Racing* specified rear wing or a flat plane rear spoiler may be used. If a flat plane rear spoiler is used, it shall be contiguous with the rear bodywork rearward of the rear window, and shall comply with the following:

1. Height: No higher than eight (8) inches, measured from the bodywork along the face of the spoiler, from the point of attachment to the top of the spoiler. In the case of a spoiler with a curved top edge conforming to the shape of the bodywork (rearview), the measurement is to be made perpendicular to the tangent of the body at the point of attachment. In the case of a spoiler mounted with a vertical mounting flange on the rear face of the bodywork, the measurement shall be made ignoring any slight amount of mounting flange exposed due to the curvature of the rear bodywork at the point of attachment.

2. Width and Overhang: No wider than the body, excluding fender flares, from the forward most point of the spoiler (or mounting flanges) rearward. It shall not extend rearwards of the rearmost extremity of the bodywork for the entire width of the car (when viewed vertically from above the car at any point, the spoiler shall not protrude beyond the bodywork).

3. Mounting: Spoilers shall be strong enough to be self supporting, and shall be mounted directly to the rear hatch, deck, or trunk lid. A mounting flange no greater than one and one-half (1-1/2) inches wide, contiguous with the bodywork (either forward facing on the top surface of the bodywork or downward facing on the rear surface of the bodywork) shall be employed. No other forward facing sheet metal supports are permitted. Supplemental bracing may be added in the form of two (2) rods (maximum diameter one-quarter inch), mounted at least ten (10) inches inboard from the ends of the spoiler. Small rear supports may be added.

4. Configuration: the spoiler shall be a single plane spoiler (a straight line in any vertical cross-section), uniform in height from the rear bodywork. There shall be no gaps or openings below the spoiler for its entire width. Only enough curvature (in a fore-and-aft direction as viewed from above) shall be permitted to facilitate mounting. The use of fences, end rails, Gurney lips, wickerbills, or other forward facing lips or aerodynamic devices is prohibited.

NOTE: O.E.M. rear spoilers are not permitted unless specifically listed on the vehicle's specification form.

5. *Club Racing wing assembly specs: Unmodified single element Liebeck airfoil #1LD104E scaled to a chord length of 10.75 inches. The maximum cross-sectional tolerance of the wing profile is 0.060 inch. A maximum 0.50 inch Gurney tab is allowed at the trailing edge of the wing element. The tab must be mounted 90 degrees to the upper wing surface. No air may pass between the tab and the wing. The wing end plates must*

fit within a rectangle measuring 11.00 inches long by 4.00 inches tall. No portion of the wing element or tab may extend beyond the perimeter of the endplate. The endplates must be mounted parallel to the vehicle centerline, and must be perpendicular to the ground. Endplates must be flat, with no curvature or Gurney tabs. The maximum width of the entire wing assembly (wing element, endplates, Gurney tab, and mounting hardware) is 72.00 inches.

6. Wing mounting specs: The entire wing assembly must be mounted at least 2.00 inches below the peak of the roof (measured at vehicle centerline). Trailing edge of wing assy. must be located within an area defined by a point; 6" forward of rearmost bodywork and the rearmost bodywork (measured at vehicle centerline). Two wing mounting posts must be used, with each one located between 16"-20" inboard from end of wing. Max. wing angle from horizontal is 30-degrees.

12. Glass/plastic headlights, front parking and signal lights, lenses, and bulbs shall be removed. Other front lighting parts and ancillaries may be removed. Headlight, front parking and signal light, and similar standard openings in the front of the car may be used for ducting air to the engine, front brakes, and/or coolers. Such ducting may pass through interior panels for these purposes.

    A. The cross sectional area of a single duct shall not exceed the cross sectional area for the original (single) headlight lens.

    B. It is not permitted to relocate the standard openings for headlights, parking lights, signal lights, etc.. The headlight openings shall be covered with a wire screen or a panel of an alternate material,

provided that such covering does not confuse the identity of the car.

C. The side marker light assemblies shall be removed, and the resultant openings shall be completely closed.

13. The windshield wiper system is unrestricted.

14. Floors

A. Driver/Passenger Compartment: The floor of the driver/passenger compartment shall maintain the basic shape and position of the original floor, i.e., flat and horizontal, relative to the car and rocker panels. It may not be curved, angled, recessed, or channeled other than as specifically authorized by these rules, and shall be made of steel and/or aluminum only.

1. On the passenger side of the driver/passenger compartment (only), the floor may be raised up to ten (10) inches, or a secondary floor installed at that level, to accommodate the installation of the exhaust system and mufflers. Such raising of the floor shall serve no other purpose.

2. The driver/passenger compartment floor shall cover the area from the forward firewall the full width between the rocker panels, and shall extend no further aft than the forward most point of the rear wheel openings. The floor panels between the rocker panels and the outboard frame rails may be cut out or removed.

B. Floor panels between the engine bay firewall and the forward most point of the front wheel openings are prohibited.

C. The fuel cell bottom and/or floor behind the rear wheel opening shall be flat, angled upwards, and shall

follow, but not exceed, the line of the rear fender bottom.

9. Driver/Passenger Compartment - Trunk (GT-1)

a. Seating

1. All standard production seats and seat backs shall be removed. The driver's seat shall be replaced with a one-piece bucket-type race seat. Such seat shall be installed so that a second seat of the same dimensions could be simultaneously fitted to the passenger's side of the car (no center seating). All seat mountings shall be reinforced per GCR Section 18.4.5 and Section 18.1.2. All other seats shall be removed.

b. Steering Wheel

1. Any steering wheel and wheel quick release mechanism complying with GCR Section 11.2.1.U., may be used. Refer to Section D.5.e.2., of these rules for additional steering specifications.

c. Gauges/Accessories/Driver Convenience

1. The replacement, addition, or removal of accessories (gauges, switches, indicators, etc.) is permitted. Such installations and/or modifications shall have no influence on the mechanical performance of the car. Similarly, they shall not include the substitution or replacement of any element of the bodywork or chassis except where specifically authorized by these rules.

2. Fresh-air ducts to the driver may be added to the A-pillar area. They shall be distinctly separate parts from the bodywork.

3. The use of any mirror(s) meeting the requirements of GCR Section 11.2.1.R., is permitted.

d. Interior Modifications - Firewall/Bulkheads

1. Modifications may be made to the driver/passenger compartment for the convenience of the driver and to permit the installation of required safety equipment. Such modifications shall have no influence on the mechanical performance of the car. Similarly, they shall not include the substitution or replacement of any element of the bodywork or chassis except where specifically authorized by these rules.

2. Floor mats, upholstery, and all interior trim shall be removed.

3. There shall be a firewall between the driver/ passenger compartment and the engine compartment/ bay. It shall be made of steel and/or aluminum and shall be transversely positioned in the approximate location of the original.

   A. It shall extend, at minimum, from the left outboard frame rail to the right outboard frame rail, and at maximum from the left outer door skin to the right outer door skin.

   B. It shall be designed, in conjunction with the floor and driver/passenger compartment interior panels and bulkheads, to prevent the passage of and isolate the driver from flame, fluids, and debris.

4. There shall be a steel and/or aluminum bulkhead completely separating the driver/passenger compartment from the compartment containing the fuel cell.

   A. The forward most element of this separation shall consist of a vertical transverse bulkhead behind the driver, extending the full width of the compartment from the floor to the top of the door.

   B. Behind this rear bulkhead there shall be a steel and/or aluminum horizontal bulkhead the full width of the interior of the car or between the inner fenders extending from the vertical bulkhead to the rear of the fuel cell.

   C. These two bulkheads shall, together, completely cover and isolate the rear suspension, coolers, ducting, etc. so that none of these items are visible when viewed from above. The fuel cell shall also be covered and isolated unless the car is equipped with the optional bulkhead listed below in Paragraph 5.

   D. All fuel filler, overflow, vent, discriminator, or return lines or

components that extend beyond the limits of the vertical or horizontal bulkheads into the driver/passenger compartment shall be metal, metal braided line, or independently shielded with an additional steel and/or aluminum bulkhead.

5. An additional vertical, transverse bulkhead is permitted behind the driver. It shall be located above the mandatory vertical bulkhead and shall allow the driver adequate vision to the rear. It is recommended that this additional bulkhead be made of a clear, transparent polycarbonate material.

e. Trunk (does not apply)

10. Safety (GT-1)

a. Roll Cage

1. The chassis shall be completely constructed of steel tubing. Monocoque or semi-monocoque methods of construction are prohibited except in the case of a vehicle constructed using the original unibody. In all cases, the chassis shall incorporate a full roll cage meeting the requirements of GCR Section 18, "Roll Cages."

2. NASCAR-type side door bars are strongly recommended.

3. Removable roll cages and/or bracing are prohibited. The roll cage shall be a fully welded, integral part of the chassis.

4. All cars constructed after January 1, 1988 shall meet the roll cage tubing size requirements of GCR Section 18., specified for cars weighing more than twenty-five hundred (2500) pounds.

b. Steering Column/Locks

1. The steering column shall be a collapsible type, either by layout design or by column construction, and shall comply with GCR Section 17, "Steering Wheel Locks."

c. Fuel Cell

1. A fuel cell complying with GCR Section 19, "Safety Fuel Cell Specifications," shall be fitted.

2. The maximum fuel cell capacity shall be 120 liters (31.68 gallons U.S.).

3. No part of the fuel cell shall be closer to the ground than six (6) inches, unless contained within the basic structural frame rails of the vehicle and located forward of the rear axle.

4. The fuel cell shall be located in approximately the same location as in the original vehicle, or may be relocated behind the rear axle. It shall not be located within the protected area of the driver/passenger compartment unless specifically authorized in the GTCS.

d. Kill Switch/Battery

1. A master electrical system cutoff switch meeting the specifications of GCR Section 17, "Master Switch," is required.

2. The battery is unrestricted, provided that it meets the specifications of GCR Section 17, "Batteries."

e. Driver Restraint System

1. A safety harness meeting the specifications of GCR Section 17., "Driver's Restraint System," is required.

2. Three (3) inch wide shoulder harness straps or three (3) inch wide padding on the shoulder harness straps is required.

3. A driver's side window net meeting the specifications of GCR Section 17, "Window Safety Nets," is required.

f. Fire Systems

1. A fire system meeting the specifications of GCR Section 17, "Fire System," is required.

2. The minimum capacity of the fire system shall be ten (10) pounds.

3. The system outlets/nozzles shall be directed to the driver in the driver/passenger compartment, and to the fuel cell, pump(s), etc., in the fuel cell compartment. An additional outlet/nozzle directed to the engine compartment/bay is recommended.

g. Scattershields

1. A scattershield meeting the specifications of GCR Section 17, Scattershields/Chain Guards," is required.

h. Vents/Breathers/Catch Tanks

1. The installation of any vent or breather on the engine, transmission, or final drive is permitted, provided that it/they meet the specifications of GCR Section 17, "Oil Catch Tanks, Filters, and Breathers."

i. Brake Lights

1. Two (2) operating brake lights and two (2) operating tail lights are required at the rear of the car.

2. The original tail light and brake light lenses shall be retained, and shall be located in their original positions.

j. Hoses/Lines

1. All fuel, oil, and coolant lines (including those lines that perform fill, overflow, vent, return, etc., functions) which pass through the driver/passenger compartment shall be made of metal or metal braided hose, and shall be equipped with AN-Series threaded couplers.

2. No oil or fuel line located to the rear of the transverse engine compartment firewall shall be located in a compartment or otherwise restricted area which also contains any component of the exhaust system.

k. Towing Eyes

1. All cars shall be equipped with towing eyes or straps meeting the requirements of GCR Section 17.31.

E. APPROVED AUTOMOBILES/NOTES

1. Notes (GT-1)

a. Carburetors/Fuel Injection

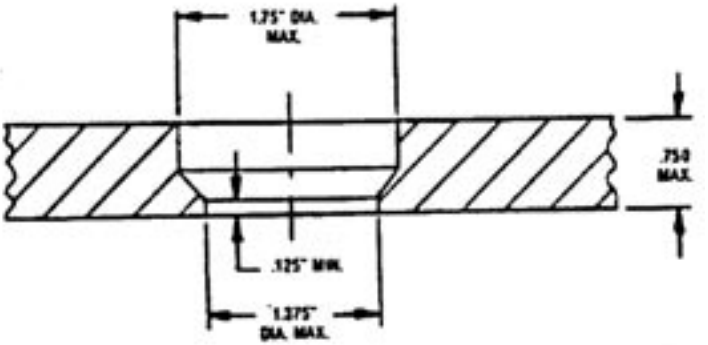
1. All cars shall use a single Holley Model 4150 carburetor, restricted to one and eleven-sixteenths (1-11/16) inch throttle bore, unless alternate carburetion and/or dimensions are specified in the GTCS.

2. Unless otherwise specified or permitted by the GTCS, fuel injection is prohibited on GT-1 automobiles as of January 1, 1994.

3. Pushrod V-6 engines may run a single Holley Model 4500 carburetor, but the minimum weight shall be increased to that of the same displacement fuel injected car.

4. V-8 engine cars with engine displacements of greater than 366 cubic inches (6.0 liters) shall use a one and three-eighths (1-3/8) inch throttle bore restrictor plate, mounted beneath the carburetor, as specified in the diagram, below.

Required Restrictor Plate for GT Engines over 6.0 Liters (366CID).
Throttle Restrictor Plate Material: Aluminum, Thickness 0.75" Maximum.
1.375" Restrictor – Hole must be maintained for a depth of 0.125" Minimum
Relief angles to clear Butterflies, Unrestricted.



5. Refer to Sections D.1.b. and c. of these rules for additional induction system specifications.

b. Weight

1. The weight chart, below, is applicable to all cars unless alternate weight(s) is/are specified in the GTCS.

WEIGHT CHART FOR GT-1

Type - cubic inches (liters)	= Carb
V-6 - up to 275 (4.5)	= 2430
V-8 - up to 311 (5.1)	= 2680
V-8 - 312 (5.1) to 335 (5.5)	= 2780
V-8 - 336 (5.5) to 366 (6.0)	= 2880
V-8 - over 366 (6.0) *	= 3180

*With restrictor to 1-3/8" throttle bores per restrictor plate diagram.

Weight in pounds with driver

Note: Ford engines *without inline valves (meaning the valves are splayed or canted)* shall add 130 lbs.

Note: GM engines using the SB-2 head shall add 130 lbs.

2. All cars using a production based manual transmission having no more than four (4) forward speeds and a working reverse speed may reduce the listed weight by fifty (50) pounds.

   A. Note: a production based manual transmission is defined as a unit that retains original type gears (i.e., no straight cut, dog ring type gears). It shall be located in the same basic position as used in the production automobile, retaining the standard bellhousing dimensions, and may use any shift linkage.

3. All cars competing on ten (10) inch wide rims may reduce the listed weight by fifty (50) pounds.

c. Approved Automobile List (GT-1)

Make/Model	Wheelbase
American Motors Corporation	
Concord	108.0"
Javelin	109.0"
Spirit	96.0"
Chrysler Corporation	
Chrysler Laser X/T	97.0"
Dodge Daytona	97.0"
Dodge Avenger	106.0"
Dodge Viper GTS	96.2"

Note: Viper shall use a class legal Dodge engine.

Ford Motor Company - Ford

Mustang (1965-68)	108.6″
Mustang (1969-70)	108.0″
Mustang (1979-93)	100.5″
Mustang (1994-1998)	100.5″
Mustang (1999-)	100.5″

Roof height 46.5″ min. (measured from the ground). Air may be ducted to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20″, maximum length 3.5″. Opening may extend 1″ into the windshield. Approved SCCA Pro Racing bodywork allowed.

Probe V-6 or V-8	99.0″
Thunderbird (1983-89)	104.0″
Thunderbird (1990-)	105.0″
Taurus (2 door) (98-)	*100.0″*

Ford Motor Company - Lincoln/Mercury

Capri (1979-86)	100.5″

General Motors Corporation - Buick

Regal	108.1″
Somerset	108.1″

General Motors Corporation - Chevrolet

Beretta	103.4″

Only a beam-type, live-axle rear suspension is permitted.

Camaro (1967-69) *	108.0″
Camaro (1970-81) *	108.0″
Camaro (1982-92) V-6 or V-8*	101.0″
Camaro (1993-) V-6 or V-8*	102.0″
Corvette (1963-67) *	98.0″
Corvette (1968-77) *	98.0″
Corvette (1978-82) *	98.0″
Corvette (1984 -96) V-6 or V-8*	96.2″
Corvette (1997) V-8	104.5″

*Alternate transmissions: THM350 based or THM400 based 3 speed.

Lumina (1990-)	106.0″
Monte Carlo (95-00)	106.0″
Monte Carlo (01-02)	110.0″
Monza	97.0″

Air may be ducted to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20″, maximum length 3.5″. Opening may extend 1″ into the windshield. Approved SCCA Pro Racing bodywork allowed.

General Motors Corporation - Oldsmobile

Cutlass Ciera (1987-)	105.0″
Cutlass (1988-)	104.0″
Toronado (1987-)	105.0″
Aurora (2dr.)	106.0″

Air may be ducted to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20″, maximum length 3.5″. Opening may extend 1″ into the windshield. Approved SCCA Pro Racing bodywork allowed.

General Motors Corporation - Pontiac

Fiero 94.0″

3300cc (4-cyl.), multi-carb and fuel injected weight = 1830 lbs.
3100cc (GM V-6) weight = 1830 lbs.
4500cc Chevrolet 90 deg V-6 weight = 2430 lbs.
V-6 engine may be repositioned longitudinally in the engine bay along vehicle centerline.
Transverse V-6 may deduct fifty (50) lbs.

Firebird/Trans-Am (1969)* 108.0″
Firebird/Trans-Am (1970-81)* 108.0″
Firebird/Trans-Am (1982-1992)* 101.0″
Firebird/Trans-Am (1993-)* 102.0″
Grand Prix 106.0″

*Alternate transmissions: THM350 based or THM400 based 3 speed. Air may be ducted to the carburetor airbox through an opening in the back of the hood, rectangular in shape, maximum width of 20″, maximum length 3.5″. Opening may extend 1″ into the windshield. Approved SCCA Pro Racing bodywork allowed.

Jaguar

XK8 / XKR 100.5″

Note: shall use a class legal Ford engine.

Mazda

RX-7 95.2″/95.7″

12A engine, multi-carb or fuel inj. weight = 1780 lbs.
13B engine, multi carb or fuel inj. weight = 1830 lbs.
20B engine, multi carb or fuel inj. weight = 2100lbs.

Nissan

300ZX/Z31 101.2″

3000cc V-6 engine, multi-carbs weight = 1880 lbs.

300ZX/Z32 (1990-) 101.2″

VG30D V-6 engine, (3) 48mm IDF with 40mm venturis weight = 1930 lbs. Permitted alternate hood: P/N 99996-Z32HP

Porsche

911 89.4″

3800cc 6, multi-carb or fuel injection weight, twin-plug head, dual ignition distributor weight = 1880 lbs. Factory spoiler P/N 930-512-023-00 & 930-512-021-00 (or kit# 930-512-901-01). Entire assembly only (with rubber lip). No alternate materials, no reproductions.

911 Cup 3.8 RSR

with the following additional specifications: Wheels: (F) 18 x 12, (R) 18 x 13, Allow FIA GT-2 front bumper cover, Allow FIA GT-2 “banana” rear spoiler, Transmission: 6 speed, Type G50/30, Weight: 2310 lbs (w / driver). Original, factory-installed Matter roll cage structures permitted.

Boxster 89.4″

alternate engine: 3.8 liter air-cooled, multi-carb or fuel injection, twin-plug head, dual ignition distributor. weight =1880lbs. Shall have windshield and hardtop installed by 1/1/2003.

GT3 R/RS (00-02)
3600cc, Wheels: (F) 18 x 10", (R) 18 x 11", Allow FIA GT-2 front bumper cover, Allow FIA GT-2 "banana" rear spoiler, Transmission: 6 speed Type G50/30, Original, factory-installed Matter roll cage structures permitted, weight 2425lbs.

Panoz
Esperanté 106.0"
Note: All Panoz cars competing in GT-1 shall use a class legal Ford engine.

Shelby
Cobra 90.0"

F. GT-2, 3, *Lite* PREPARATION RULES

F.1. GT Cars registered as GT cars prior to January 1, 1990.
All GT cars registered as GT cars prior to January 1, 1990 shall use the manufacturer's original engine location, i.e., front, mid, rear; drive location, i.e., front or rear, and type of front and rear suspension, i.e., MacPherson strut, double A-arm, live axle, semi trailing arm, etc., unless authorized by the GTCS for a specific make and model.

Front-engined GT cars registered as GT cars prior to January 1, 1990 may be converted to Section F.2., specifications, but shall meet **ALL** specifications of Section F.2..

F.2. GT cars registered as GT cars after January 1, 1990.
All front engined GT cars registered as GT cars after January 1, 1990 shall utilize McPherson strut or double A-arm front suspension. A-arm front suspensions shall have the shocks attached to the outboard end of an upper or lower control arm. Rocker arms, push-pull rods, etc., are prohibited. Front wheel drive cars may convert to rear wheel drive. Cars running in GT3, and *Lite* that retain the original front wheel drive configuration may retain the original type of rear suspension.

Rear wheel drive configurations shall use a live "closed tube" rear axle. Front wheel drive cars shall use a beam rear axle, unless otherwise so specified on the specification line. Cars classified in GT2-*Lite* whose original configuration was front engine, rear drive with independent rear suspension, may utilize any form of independent rear suspension at a weight increase of 100 lb.

All 1990 model year and later rear and mid-engined GT cars may use the manufacturer's original type of suspension or double A-arm front and rear independent suspension as defined above. All rear and mid-engined GT cars manufactured prior to the 1990 model year shall retain the manufacturer's original type of front and rear suspension.

All GT cars registered as GT cars after January 1, 1990 or updated to Section F.2.. specifications shall utilize left side driver placement.

F.3. Safety Equipment required on all cars.

a. Bulkheads

1. A metal bulkhead shall separate the driver/front passenger compartment from the compartment containing the fuel cell. The fuel cell, cap, filler neck, and all fittings shall be isolated so that in case of spillage, leakage, or failure, fuel will not reach the driver. The bulkhead separating the driver/ passenger compartment from the fuel cell shall not be above the bottom of the rear window and the bottom of the side/quarter windows. An additional vertical, transverse bulkhead is permitted behind the driver. It shall be located above the mandatory vertical bulkhead and shall allow the driver adequate vision to the rear. It is recommended that this additional bulkhead be made of a clear, transparent polycarbonate material.

2. A firewall shall separate the engine compartment from the driver/passenger compartment. (Refer to GCR Section 17., "Firewalls" and Section 22., "Firewall.")

b. Fuel Cells

A safety fuel cell complying with GCR Section 19., shall be installed. All fuel cell vents shall incorporate check valves to prevent fuel spillage. Dry-break refueling couplings and discriminator valves may be installed, provided they do not extend beyond the bodywork.

c. Roll Cage

A roll cage complying with the GCR Section 18., shall be installed, and shall include side bars across driver's door opening.

d. Windows

1. A window safety net complying with the GCR Section 17., shall be installed to prevent the driver's arms and/ or head from protruding through the window opening.

2. Windshield safety clips and rear window safety straps shall be installed on all closed cars. Three (3) clips (3 inch x 1 inch x 1/8 inch) shall be bolted or riveted to the body at the top of the windshield. Two (2) clips (3 inch x 1 inch x 1/8 inch) shall be bolted or riveted to the cowl and extend over the bottom edge of the windshield. Clips shall be spaced a minimum of twelve (12) inches apart.

The rear window shall be secured with two (2) metal straps (1 inch wide x 1/8 inch thick) bolted or riveted to the body at the top and bottom of the rear window. Polycarbonate windshields may be retained using straps and/or fasteners per SCCA Pro Racing rules. Windshields of alternate material (i.e. Lexan MR-5/MR-7/MR-10 or FMR102) are permitted. Alternate windshields must be of 6mm minimum thickness. Alternate material windshields must be identical in size and curvature to the original glass component. Alternate material windshields must have in addition, three (3) inner supports to prevent the windshield from collapsing inward. These supports must be 0.75" by .125" minimum straps of aluminum. Spacing between these inner supports must be six (6) inches minimum.

3. Windshield - Open Cars: The windshield and all side and rear glass on open cars shall be completely removed, including all mounting brackets and fixtures, and a suitable windscreen installed.

   Said windscreen shall be made of a transparent material and shall not exceed the height or width of the original windshield/screen. The replacement windscreen shall be fitted within the vertical planes of the frontmost and rearmost elements of the original windshield/screen.

4. Ducts may be installed in the side windows or window openings for the purpose of supplying cooling air to the driver and/or differential/ transmission coolers. Air passing through the differential/transmission coolers may be exhausted through an opening identical in size and location to the rear license plate frame.

e. Fire Systems
An on-board fire extinguishing system complying with the GCR Section 17., is required with a minimum capacity of five (5) pounds. Outlets shall be directed to driver and fuel cell compartments (engine compartment optional).

f. Master Switch
A master switch complying with the GCR Section 17., is required.

g. Scattershields
A scattershield or explosion-proof bell housing complying with the GCR Section 17., is required.

h. Mirrors
Mirrors shall provide visibility to the rear and both sides of the car.

i. Oil Catch Tanks
Oil catch tank(s) complying with the GCR Section 17., is required.

F.4. Authorized Modifications
The following modifications are authorized on all GT-2, 3, and *Lite* cars. Modifications shall not be made unless specifically authorized herein. No permitted component/ modification shall additionally perform a prohibited function.

a. General

1. It is not permitted to make any changes, alterations, or modifications to any component produced by the manufacturer, unless specifically authorized by these rules, or required by the GCR.

2. Any springs (including torsion bars) may be replaced by others of unrestricted origin, unless specifically prohibited by these rules.

3. Where alternate suspension and/or drive train equipment is authorized, modifications to the car/chassis are permitted to install authorized equipment, provided the modifications serve no other purpose.

4. All component parts of the bodywork, such as hood, doors, fenders (see item B.8.), deck lid, rocker panels, windshield surround, roof, etc., may be lightened or replaced by ones of alternate materials, provided the shape, size, and relative position is identical to the original or approved alternate. The original size, angle, and relative position of the windshield shall be maintained. Convertible tops, sunroofs, and removable panels shall meet GCR Section 17.25. As of 1/1/2002, all new model convertibles will be required to compete with a windshield and hardtop. Convertible models classified before 1/1/2002 will be allowed to compete without a windshield and/ or top, regardless of log book issue date, unless specified differently on the vehicle specification line.

5. Spare wheel and tire shall be removed.

6. Glass and/or plastic headlights, front parking lights, front signal lights, lenses, and bulbs shall be removed. Headlight openings shall be covered with a wire mesh screen or panel having the same contour as the original lens, mounted so that the headlight bezel/rim remains in place, maintaining the standard appearance of the Production automobile. Side marker light assemblies shall be

removed and the resulting openings covered with a plate whose dimensions do not exceed those of the original parts; side marker lights that are an integral part of the taillight assembly cannot be removed. Other lighting parts and operating mechanisms may be removed. In the case of pop-up headlights, the entire assembly may be removed and the opening covered with a screen or plate (as above, without the headlight bezel/rim requirement) which provides a stock appearance. It is not permitted to relocate the standard headlight, parking light, signal light, etc., openings. Taillights shall be in the original location and shall be the original style/type of taillight for the make, model, and year of car.

Ducts from headlights, front parking lights, and front signal lights in the front of the car may be used for ducting air to the engine, front brakes, and/or oil cooler(s). These ducts may pass through interior panels for this purpose. The cross section area of a single duct shall not exceed the cross sectional area of the original (single) headlight.

b. Chassis and Bodywork

The purpose of the following rules is to maintain recognizable external features of the manufacturer's make and model, while providing necessary safety and performance modifications.

Restrictions regarding external body shape and use of belly pans are aimed at preventing attempts to obtain ground effect or streamlining. Provisions in the rules permit one-off chassis and frames, to reduce the cost of building and repairing GT cars, not to permit high technology (streamlining and/or ground effects). The original roof, windshield pillars, and angle of the windshield shall be maintained unless alternate components and/or specifications are specifically authorized in the GTCS. Semi-monocoque or monocoque construction is prohibited.

1. The external shape of the body cannot be changed, except when specifically authorized. Standard grills, window openings, or approved facsimiles shall be retained. All external trim and model identification may be removed. Misalignment or modifications to create ventilation where none previously existed are prohibited. One piece front and one piece rear bodywork is allowed. Rocker panels and doors may be parted and/or integrated with associated body panels. Rocker panels of an alternate material may be a flat vertical panel having the same dimensions

as the original component when viewed from the side. Overall width of the vehicle/rocker panel measured at the door sill must remain stock. Roof/A-pillars shall be separate pieces. The cowl trim panel may be modified or removed.

2. Chassis, frame, or subframe may be lightened, reinforced, or replaced, provided components and attachments are not relocated, except where specifically permitted. Reinforcing does not authorize the use of belly pans forward of the firewall, or aft of the front edge of the rear wheel opening. The floor behind the rear wheel opening shall be flat and follow, but not exceed, the line of the rear fender bottom. Only the fuel cell container may protrude or extend below this plane.

3. No part of the bodywork or chassis, to the rear of the front wheel opening, shall touch the ground when both tires on the same side of the car are deflated.

4. The firewall and floor may be replaced with aluminum alloy or steel. Firewalls may be modified or notched.

5. Bumpers may be removed providing all projecting hardware is removed except when it (they) are an integral part of the bodywork, in which case it (they) may be replaced with replica(s) of different material. Non-integral bumpers may be replaced with a replica of alternate material or removed. Bumper bracket holes in the bodywork may be covered provided such covering serves no other purpose.

6. All standard production seats and seat backs shall be removed. The driver's seat shall be replaced with a one-piece bucket-type race seat. Such seat shall be installed so that a second seat of the same dimensions could be simultaneously fitted to the passenger's side of the car (no center seating). All seat mountings shall be reinforced per GCR Section 18.4.5 and Section 18.1.2. All other seats shall be removed.

7. Doors may be pinned, but not bolted, to prevent their opening in case of an accident. Standard door hinges and latch mechanisms may be removed, but the doors shall be capable of being opened or removed. Interior door panels may be removed and the door window slots may be covered. Pins or straps may be added to hood and deck lid to supplement or replace the latches. Hood and deck lid hinges may be removed.

8. All driver and front passenger door window glass shall be removed. Window cranks and mechanisms may be removed. Rear quarter, rear side, and rear windows may be of transparent (clear) polycarbonate material, minimum thickness 1/8 inch, but shall remain in the same position in the frame or opening as the original glass it replaces; rubber molding optional. Rear windows/ hatchbacks and deck lids shall be completely closed. No bumper blocks or other means of poor alignment of bodywork will be permitted. Rear quarter (side) windows may be run in their original open or closed position.

9. Fenders may be flared for tire clearance, provided their shape and opening contour, in the horizontal projection, is similar and proportional to the original opening and does not obscure the view of tire. Rear doors on 4-door automobiles may be considered part of the fender for purposes of fender flaring. The tire shall not extend beyond the fender openings at the highest point of the tire. Tires and wheels shall remain completely inside the body. The rear fender flares on GT-2 cars may extend forward into the door, no more than 26 inches from the rear axle centerline **(GT-2 only).** Wheel opening location may be altered in accordance with the allowable wheelbase tolerance in order to maintain vehicle's stock appearance. Ventilation openings, other than those which are standard production on the recognized model, are prohibited.

10. *Front and* rear inner fender panels may be altered, replaced, or removed provided there are panels providing total separation between driver compartment and wheel wells.

11. Replacement, addition, or removal of accessories (gauges, switches, indicators, etc.), or other interior modifications for driver convenience, or to permit installation of required safety equipment, is authorized provided such modifications have no influence whatever on the mechanical performance of the car. Such modifications do not include the substitution or replacement of any bodywork or chassis component except those specifically authorized by these rules. Floor mats and all interior trim shall be removed.

12. A spoiler may be fitted to the front of the car. It shall not protrude beyond the overall outline of the car as viewed from above, or aft of the forward most part of the front fender opening (cutout), and shall not be mounted more than four (4) inches above

the horizontal centerline of the front wheel hubs. The spoiler shall not cover the normal grill opening at the front of the car. An intermediate mounting device may be used on cars whose front bodywork is above the four (4) inch minimum. Openings are permitted for the purpose of ducting air to the brakes, radiator, airbox and/or oil cooler(s); equal openings may be placed in the standard lower front panel directly behind openings placed in the spoiler. When bumpers are retained, the spoiler and bumper shall appear to be two separate parts. The spoiler "pan" area forward of the leading edge of the front wheel openings shall be flat and follow, but not exceed, the line of the front fender/spoiler bottom. No components may protrude or extend below this plane.

13. Only a flat plane rear spoiler, contiguous with the rear bodywork rearward of the rear window, is allowed which complies with the following:

    A. Height *(max)*: six (6) inches (GT-2 & 3) or five (5) inches (GT-*Lite*) measured from the bodywork along the face of the spoiler from the point of attachment to the top of the spoiler. In the case of a spoiler with a curved top edge conforming to the shape of the bodywork (rearview), the measurement is to be made perpendicular to the tangent of the body at the point of attachment. In the case of a spoiler mounted with a vertical mounting flange on the rear face of the bodywork, the measurement shall be made ignoring any slight amount of mounting flanges (see below) exposed due to the curvature of the rear bodywork at the point of attachment.

    B. Width and Overhang: No wider than the body, excluding fender flares, from the forward most part of the spoiler (or mounting flange) rearward. Shall not extend rearwards of the rearmost extremity of the bodywork for the entire width of the car (when viewed vertically from above the car at any point, the spoiler shall not protrude beyond the bodywork).

    C. Mounting: Spoilers shall be strong enough to be self-supporting and mounted directly to the rear hatch, deck, or trunk lid. A mounting flange no greater than one and one-half (1-1/2) inches wide, contiguous with the bodywork, (either forward facing on the top surface of the bodywork or downward facing on the rear surface of the bodywork) shall be employed.

No other forward facing sheet metal supports are allowed. Supplemental bracing may be added in the form of two (2) rods (maximum diameter one-quarter inch), mounted at least ten (10) inches inboard from the ends of the spoiler. Small rear supports may be added.

D. Configuration: The spoiler shall be a single plane spoiler (a straight line in any vertical cross section) uniform in height from the rear bodywork with no more than 1/8" gaps/ openings below the spoiler to facilitate imperfect mounting. The gaps/ openings are to be included in the overall height of the spoiler. Only enough curvature (in a fore and aft direction as viewed from above) shall be permitted to facilitate mounting. The use of fences, end rails, Gurney flaps, wickerbills, or other forward facing lips or aerodynamic devices is prohibited.

NOTE: O.E.M. rear spoilers are not permitted unless specifically listed on the vehicle's specification form.

c. Suspension and Wheels

1. Wheelbase will be homologated on a case by case basis as requested by the manufacturer. Wheelbase may be changed from -3" to +1" from printed stock dimensions in a fore/aft direction.

2. Suspension components may be reinforced, modified, or replaced as long as the type of suspension is not changed from that authorized in this GTCS.

3. Suspension mounting points, including suspension springs, may be relocated.

4. Suspension springs may be replaced with others of unrestricted origin.

5. Modifications or substitution of hubs, bearing, spindles, axle shafts, universal B joints, flex joints, and CV joints is permitted.

6. Addition or substitution of antiroll bars, camber compensating devices, and/or suspension stabilizers is permitted. If these devices extend into the driver/passenger compartment, they shall be completely sealed off by metal panels. (Ref: GCR Section 22., Stabilizer.)

7. Suspension bushings and joints may be replaced by others of different material and/or design. Offset bushings and spherical bearings are permitted, including adjustable type.

8. Steering arms, pitman arms, and steering linkage component parts may be modified, reinforced, or substituted. The steering system may be changed and/or relocated.

9. The steering wheel may be replaced and rake of the steering column may be altered. A collapsible type of steering column equivalent to Federal Motor Vehicle Safety Standard No. 204 is required in all cars registered after January 1, 1983 and highly recommended for prior registered cars. GT cars registered after January 1, 1990 or GT cars converted to Section F.2., specifications shall have left side driver placement.

10. Substitute wheels of any type may be used provided their dimensions and the track they determine are within the limits specified in the GTCS for that model. All four (4) wheels shall be of the same diameter. GT-2 cars may run a maximum of a 12 inch wide rear wheel, front wheels shall be a maximum of 10 inch wide.

11. Shock absorbers: It is not permitted to alter the number of shock absorbers. The make of shock absorber and its points of attachment may be moved. Shock absorbers may have load bearing capacity; e.g., gas filled or coil over. When using load bearing shocks, the original springs may be removed. GT cars registered after January 1, 1990 or GT cars converted to Section F.2., specifications shall have the shock absorber attached to the outboard end of an upper or lower control arm. Rocker arms, push-pull rods, etc., are prohibited.

12. Wheels: Material is unrestricted, provided it is metal. All four (4) wheels shall be the same diameter, and the same rim size shall be used on the same axle, refer to specification lines for wheel sizes. The only authorized wheel size will be *up to a* 13 x *7* for all GT-*Lite* vehicles, unless alternates are listed on vehicle specification line. All GT-*Lite* cars listed with 15" diameter wheels, if prepared as tube-frame car, shall use 13" diameter wheels.

    All tube-frame cars, whether of factory tube-frame construction or purpose built, shall comply with the tube-frame wheel size requirements by 1/1/03.

d. Electrical Systems

1. Standard battery may be replaced by one of different make and capacity. The battery may be relocated and shall be securely mounted and enclosed in a non-conductive protective box. (See GCR Section 17.)

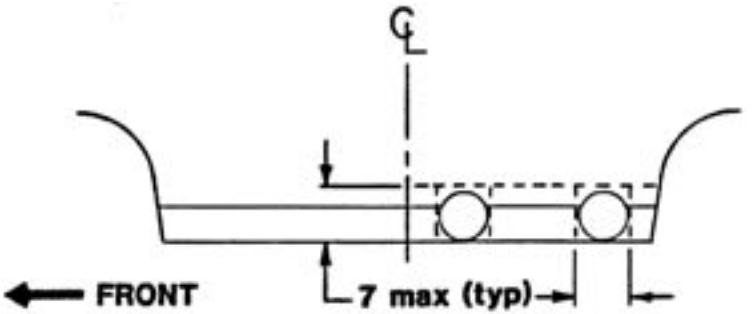
2. The electrical/electronic system may be modified or replaced provided an operating starter motor and two (2) brake lights are retained.

3. Any distributor or transistorized ignition system (including crank triggered), firing the same number of spark plugs as the original distributor, may be used.

4. Magneto ignition is prohibited unless listed in the GTCS. Ignition wiring and spark plugs are unrestricted.

e. Engine and Drive Train/General

1. Exhaust manifold(s), header(s), tailpipe(s), and muffler(s) may be of unrestricted origin. The exhaust pipe(s) and/or muffler(s) may be recessed into the floor panel and rocker panel. The exhaust may be recessed into the bottom of the door or rear fender below a line seven (7) inches above the bottom of the rocker. There maybe a maximum of two (2) such areas in the door or fender, with the maximum length for each no more than seven (7) inches. Note that the exhaust outlet shall still be mounted as low as possible; this does not authorize exhaust outlets through the door. Exhaust opening(s) shall exit to the rear of the wheelbase centerline and away from the body.



180 degree headers: The passenger's side floor pan may be raised not more than ten (10) inches to accommodate the installation of the exhaust system and muffler(s) provided such raising of the floor serves no other purpose. Exhaust may pass through the rear bodywork no higher than the rear axle centerline.

2. All GT Category cars shall comply with GCR Section 12., "Sound Control."

3. Exhaust emission control air pumps, associated lines and nozzles, and EGR devices cannot be modified in any way except that they may be completely removed. When air nozzles are removed from the cylinder head, the holes shall be completely plugged.

4. Substitution or modification of the clutch and/or flywheel is permitted.

5. It is permitted to lighten, balance, or modify in shape, by tooling, the standard or optional components of the engine and drive train, provided it is always possible to identify them as such. Material shall not be added to these components unless specifically authorized by these rules.

6. Alternate engine and drive train components considered replacement parts, such as seals, bearings, valve guides, pushrods, water pump, timing chains/belts and sprockets, nuts, bolts, studs, washers, and gaskets are permitted. Bushings or offset keys of unrestricted origin may be installed. The water pump(s) may be replaced with any water pump(s) mechanically driven by the engine.

7. The substitution of valve spring retainers and keepers is permitted. Valve springs are unrestricted (including number) provided the type and location remain unchanged.

8. Generator (alternator), crankshaft, and water pump pulleys may be altered or replaced with others of unrestricted origin. Any crankshaft vibration dampener is allowed.

9. Any oil pan (sump), oil pump(s), and/or pickups are allowed. Oil pump(s) shall be driven mechanically by the engine. Dry sump systems are permitted. The oil tank shall be located within the bodywork. The oil tank, cap, and all fittings shall be isolated so that in case of spillage, leakage, or failure, oil will not reach the driver. Any oil filter(s) may be used.

10. Installation of any vent or breather on the engine, transmission, or differential is permitted (See "Oil Catch Tanks"). Crankcase vacuum devices are prohibited. (See GCR Section 17.)

11. Any readily available transmission having a functional reverse and no more than five (5)

forward speeds may be used, providing the location is the same as the production automobile. Any shift linkage may be used. Sequential shifting transmissions are permitted with a 50 lb. weight penalty. Air, hydraulic or electric actuation of the gearshift mechanism is not allowed. For front engine, rear drive cars requiring the transmission to be attached to the engine, the transmission front seal shall be within twelve (12) inches of the back of the engine block. On front engine/rear drive cars, the transmission front seal is that seal which is within 5" of the gear on the input shaft which meshes with the foremost gear on the counter/ layshaft."

A functional reverse is defined as "operable by the driver from his normal seated position and capable of sustained movement of the vehicle, under its own power, in a reverse direction." A driver-operated device for locking out reverse gear may be added provided it does not prevent prompt engagement of reverse in an emergency situation.

12. Heavy duty propeller shaft(s) and/or drive shaft(s) may be used. Steel retaining strap(s) shall be used to prevent drive shaft failure from dropping or entering driver compartment.

13. Any axle tube, final drive housing, gear ratio, limited slip, or locked differential may be used. Final drive units which permit ratio changes while the car is in motion are prohibited. GT cars registered after January 1, 1990 or GT cars converted to Section F.2., specifications, using the front engine/rear drive configuration, shall use a "closed tube" rear axle housing.

14. Engine and transmission mounts may be of alternate shape and/or material. Cars with engines mounted longitudinal to the chassis MAY relocate the engine in a longitudinal, not lateral, direction within the following restrictions:

    A. V8, V6, and V4 engines shall align the center of the foremost spark plug hole in line with the front axle spindles.

    B. In-line six (6) cylinder engines shall align the center of the first spark plug hole (from the front) in line with the front axle spindles.

    C. In-line four (4) cylinder engines shall align the center of the first spark plug hole (from the front) in line with the front axle spindles.

D. Rotary engines shall align the forward most spark plug hole in line with front axle spindles.

E. The engine may be rotated about the crankshaft centerline (lean over) a maximum of fifteen (15) degrees unless otherwise noted and shall not cause hood bulges.

15. Any transverse mounted engine may be rotated for axle/CV joint alignment. Any readily available transmission having a functional reverse and no more than five (5) forward speeds may be used, provided it is mounted to the rear of the engine. Any shift linkage may be used. Sequential shifting transmissions are permitted with a 50 lb. weight penalty. FWD transverse engines may be rotated 180 degrees. Any front mounted engine may be rotated to a longitudinal position that places the crankshaft centerline on the longitudinal centerline of the car (shall conform to all restrictions in Section 17.1.2.F.4.e). The engine may be rotated about the crankshaft (lean over) a maximum of fifteen (15) degrees unless otherwise noted and shall not cause hood bulges. Rear axle / suspension per GTCS 17.1.2.F.2.

f. Engine, Reciprocating

1. Engines may be rebored a maximum of 1.2mm (0.047 inch) over the standard bore size listed in the GTCS. A cylinder block from any model from the same manufacturer which is of the same material and dimensionally identical throughout, except for non-critical bosses, is permitted.

2. Crankshaft main bearing caps may be modified or substituted. Main bearing cap straps or girdles and/or additional main bearing cap bolts may be used, provided that no material is added to the block for their attachment.

3. The crankshaft may be replaced with another of the same basic material, but with no change in stroke and provided the angles of the crank throws remain the same. The engine firing order shall remain unchanged.

4. Connecting rods may be replaced with any connecting rod of steel (ferrous) material. Aluminum, titanium, and non-metal connecting rods are prohibited, except where fitted as standard.

5. Any pistons and piston pins may be used.

6. Any camshaft(s) may be used, provided locations are (is) the same as standard.

7. Any cam followers may be used, except that roller cam followers shall not be used unless fitted as standard equipment.

8. Any rocker arms and rocker assembly supports may be used.

9. Valve sizes are unrestricted except when limited by the GTCS for specific automobiles. Centerlines shall not be altered. Valves may be of alternate material; non-metal is prohibited.

10. Compression ratio may be altered by machining, using any head gasket(s) or elimination of head gasket(s).

g. Engine, Rotary Piston

1. The capacity of the working chamber(s) shall not be changed.

2. The eccentric shaft may be replaced with another of the same basic material, but no changes in eccentricity or journal dimensions are permitted.

3. Rotor is unrestricted, providing the material and number of lobes remain unchanged.

4. Alternate rotor housings are allowed only as listed in the GTCS for specific automobiles. No changes are allowed in the epitrochoidal curve in alternate housing.

h. Cooling Systems

1. Cooling fan(s) may be modified, substituted, or removed. Electrically operated cooling fan(s) may be installed, provided it (they) serve no other purpose. The use of any engine, transmission, and/or differential oil coolers(s) is (are) permitted provided it (they) are mounted completely within or under the bodywork, but not in the driver/passenger compartment. Associated oil cooler pumps and lines are permitted for the transmission and differential. Air ducts may be fitted to the oil cooler(s) as specifically authorized herein.

2. Any water radiator is allowed, provided there are no changes in the exterior bodywork to accommodate its use. It shall not be located in the driver/passenger compartment. Separate expansion or header tank(s) are permitted, provided they are mounted in the engine compartment. The heater

core may be removed entirely but not modified or replaced.

3. Sealing or shrouding the airflow area between the normal grill opening and the water radiator is permitted.

4. On water cooled cars, thermostats may be modified or replaced with blanking sleeves or restrictors.

5. Alternate fan and fan shroud are permitted on air cooled engines.

i. Fuel Induction System

All inducted air shall pass through venturi(s), maximum one (1) per cylinder or rotor.

1. Any air filter(s) may be used, or the filter(s) may be removed. Velocity stack(s) and/or air box(es) may be fitted. Air may be ducted to the carburetor(s) provided the ducting is contained within the engine compartment and air is supplied through normal openings in the bodywork (or as specifically authorized herein).

2. Any fuel pump(s) may be used and the location(s) may be changed. Fuel pump(s) shall not be located in the driver/passenger compartment.

3. All fuel/oil lines passing through the driver/passenger compartment shall be steel or metal braided hose. Number of fuel lines is unrestricted.

4. Carburetors:

   A. Reciprocating engines: Carburetor(s) and intake manifold(s) are unrestricted except as limited in the GTCS for a specific make/model. All cars with restricted carburetion are required to use I.R. manifolds with no plenums or balance pipes unless otherwise restricted for specific automobiles. Intake manifold(s) shall be attached to the head(s) without modification to the head(s).

   B. Rotary engines: Carburetor and intake manifold are unrestricted except as limited in the GTCS for a specific make/model. All cars with restricted carburetion are required to use I.R. manifolds with no plenums or balance pipes. Intake manifold(s) shall be attached to the end cover(s) or rotor housing(s) without modification to the end cover(s) or rotor housing(s).

C. No portion of the intake manifold(s) may extend into the intake ports (reciprocating and rotary engines.)

D. Carburetors shall incorporate a butterfly-type throttle plate for engine speed control.

E. Where Weber or Weber-type carburetors are specified and used, they shall retain their standard configurations of fuel distribution. This is to prohibit annular discharge carburetors.

F. Where Weber carburetors are specified, Weber-type carburetors may be substituted. The following are approved Weber-type carburetors: Weber, Solex, SK, Mikuni, Delorto, Berg, and PMO.

5. Any car may utilize fuel injection, whether originally equipped with fuel injection or not. The following restrictions apply.

A. Both method and manufacturer are open.

B. Intake manifold shall be of the individual runner type (unless otherwise noted on the vehicle specification line). No balance pipes or plenum chambers.

C. Only butterfly-type throttle control, one per cylinder or rotor, is permitted. If intake restrictors are specified on the vehicle specification line, the restrictors shall be round orifices (unless otherwise specified) and located within four (4) inches of the throttle butterfly. Restrictors shall be a minimum .060" thickness and of the specified diameter.

D. All inducted air for each cylinder must pass through the specified restrictor. Fuel injected cars, unless otherwise specified, shall use the same individual venturi restriction size specified for a car using carbureted induction.

E. The number of injectors shall be one (1) per cylinder (unless otherwise noted on the vehicle specification line).

F. Rotary engines may use two (2) injectors per rotor.

6. Supercharging/turbocharging is prohibited.

7. Float(s) shall not be removed or altered to produce (a) floatless carburetor(s).

8. Any throttle linkage may be used.

9. Induction systems shall be equipped with a positive method of throttle closing by means of (an) external spring(s).

j. Brakes

1. Any dual master cylinders and/or pressure equalizing/regulating device(s) are permitted.

2. Servo-assist systems are unrestricted.

3. Backing plates/dirt shields may be ventilated or removed. Brake air ducts may be fitted within the provisions of these rules.

4. The hand brake may be removed.

5. Brake lines shall be steel or metal braided hose. They may be relocated and may be given additional protection.

6. Brake rotors, calipers, and/or drums are unrestricted except as limited by the GTCS for a specific make/model. Brake rotors/drums shall be located in the original position (e.g., inboard vs. outboard). Carbon brake rotors are prohibited.

7. Water cooled brakes are permitted, maximum reservoir capacity two (2) gallons, maximum line size 3/16 inch I.D. The water shall be atomized by an atomizing nozzle, and the water shall enter the air duct a minimum of twelve (12) inches from the centerline of the spindle/axle.

GT2A	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Acura NSX	6 Cyl DOHC	93.0 x 78.0	3200	Alum, Crossflow	4	Automotive type w/36mm choke(s)	99.6	64	13 / 14 / 15 / 16	2380	
Acura RSX 3.0/3.2	V-6 DOHC	89.9 x 78.0 93.0 x 78.0	3000 3200	Alum, Crossflow	4	Automotive type w/36mm choke(s)	2570	64	13 / 14 / 15 / 16	2380	no mid-engine mounting
Acura RSX	4 Cyl DOHC	87.0 x 84.0	1997	Alum, Crossflow	4	automotive type sidedraft	101.2	64	13 / 14 / 15 / 16	1980	
Alfa Romeo GTV 2.5 & 3.0	V-6, SOHC	88.0 x 68.3 93.0 x 72.6	2492 2959	Alum, Crossflow	2	46 IDA or (3) 48mm automotive type w/ 42mm choke(s)	94.5	64	13 / 14 / 15 / 16	2492cc @ 2030 2959cc @2180	Hood modification for carburetors. May use side, or down draft carbs. 4 valve head permitted on 2959cc engine w/ 42mm choke(s) @ 2280 lbs.
Audi TT Coupe	4 Cyl DOHC	82.5 x 92.8	1984	Alum, Non-crossflow	4	(2) automotive-type w/ 48mm choke(s)	97.3	64	13 / 14 / 15 / 16	1980	
BMW 325 (2 door) (84-91)	6 Cyl	84.1 x 75.0	2494	Alum, Crossflow	2	(3) 48mm w/ 40mm choke(s)	84.1	64	13 / 14 / 15 / 16	2080	Engine: M50 engine, 2500cc, 4-valve, carburetion unrestricted, weight 2280 lbs.
BMW M3 (E30)	4 Cyl, DOHC		2300	Alum, Crossflow	4	Unrestricted		64	13 / 14 / 15 / 16	2080	
BMW M3 (E36)	6 Cyl, DOHC	86.1 x 85.9	3001	Alum, Crossflow	4	(3) 45mm Weber w/38mm choke(s)	106.3	64	13 / 14 / 15 / 16	2280	
BMW M3 (E46) (2000-)	6 Cyl DOHC	86.1 x 85.9	3001	Alum, Crossflow	4	(3) 45mm Weber w/ 38mm choke(s)	106.3	64	13 / 14 / 15 / 16	2280	
BMW 330ci (E46)	6 Cyl, DOHC	86.1 x 85.9	3001	Alum, Crossflow	4	(3) 45mm Weber w/38mm choke(s)	2726mm	64	13 / 14 / 15 / 16	2280	
Chevrolet Monza 2.7L (75-80)				Alum, Crossflow	2	(2) Automotive type w/ 48mm choke(s)		64	13 / 14 / 15 / 16	2080	

GT2B	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Dodge Stratus/ Plymouth Breeze	4 Cyl, SOHC	87.5 x 83.0	1995	Alum, Crossflow	4	Unrestricted automotive-type	108.0	64	13 / 14 / 15 / 16	1950	
Dodge / Chrysler Neon Coupe (95-97)	4 Cyl DOHC	87.5 x 83.0	1995	Alum, Crossflow	4	Unrestricted automotive-type	104.0	64	13 / 14 / 15 / 16	1950	
Dodge Daytona	4 Cyl SOHC	87.5 x 92.0	2213	Alum, Non-crossflow	2	(2) automotive type w/50mm choke(s)	97.0	64	13 / 14 / 15 / 16	2080	Turbo Z Body Panels
Ferrari 308 GTB (1976-)	V-8 DOHC	81.0 x 71.0	2926	Alum, Crossflow	2	(4) Weber 40 DCNF	92.1	64	13 / 14 / 15 / 16	2280	Fuel cell(s) to comply with GCR Sections 17.12 & 19. may be relocated to front trunk or remain in OEM saddle tank locations.
Ferrari 288, 328, 348, 355 w/ 308 GTB engine	V-8 DOHC	81.0 x 71.0	2926	Alum, Crossflow	2	(4) Weber 40 DCNF	96.5	64	13 / 14 / 15 / 16	2280	Fuel cell(s) to comply with GCR Sections 17.12 & 19. may be relocated to front trunk or remain in OEM saddle tank locations. 308 GTB engine may be rotated longitudinally.
Ford Capri II 2.8 / 2.9	V-6 OHV	93.0 x 68.6 93.0 x 72.0	2796 2934	Iron, Crossflow	2	Unrestricted, automotive type	100.8	64	13 / 14 / 15 / 16	2180	World Products 2.9 OHV cylinder head is permitted on the 2.9L engine
Ford Capri I 2.6 / 2.8 / 2.9 (72-75)	V-6 OHV	90.0 x 66.8 93.0 x 68.6 93.0 x 72.0	2550 2796 2934	Iron, crossflow	2	Unrestricted, automotive type	100.8	64	13 / 14 / 15 / 16	2180	World Products 2.9 OHV cylinder head is permitted on the 2.9L engine

GT2c	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Ford Mustang 2.8 / 2.9 (79-93)	V-6, OHV	93.0 x 68.6 93.0 x 72.0	2796 2934	Iron, Crossflow	2	Unrestricted	100.5	64	13 / 14 / 15 / 16	2180	World Products 2.9 OHV cylinder head is permitted on the 2.9L engine
Ford Mustang 2.8 / 2.9 (74-78)	V-6, OHV	93.0 x 68.6 93.0 x 72.0	2796 2934	Iron, Crossflow	2	Unrestricted	100.8	64	13 / 14 / 15 / 16	2180	World Products 2.9 OHV cylinder head is permitted on the 2.9L engine
Ford Probe	4 Cyl DOHC	91.0 x 77.0	1993	Alum, Crossflow	4	Two (2) automotive type	99.0 / 102.9	64	13 / 14 / 15 / 16	1950	2.0L NE engine w/ Cosworth YAC Cylinder head, RWD only. Alternate engine: Mazda 2.5 liter, V-6, unrestricted carburetion, 2250lbs.
Infiniti G20 (2000)	4 Cyl DOHC				4	Fuel Injection	102.4	64	13 / 14 / 15 / 16	1950	2003 Nissan 350Z bodywork allowed w/ wheelbase listed on spec line or 104.3".
Honda Prelude (1993-)	4 Cyl DOHC	87.0 x 90.7	2157	Alum, Crossflow	4	Automotive type	100.4	64	13 / 14 / 15 / 16	2180	VTEC not allowed. Alternate engine: 2250cc @ 2230 lbs.
Jaguar XKE Coupe & Roadster 3.8/4.2L	6 Cyl DOHC	87.1 x 105.9 92.2 x 105.9	3781 4235	Alum, Crossflow	2	(3) 2" SU or (2) 1.75" Stromberg or (3) automotive type w/ 48mm choke(s) on I.R. manifold.	96.0	64	13 / 14 / 15 / 16	2250	10" or 12" rim width permitted. Roadster windshield may be removed and a low front hoop roll cage fitted.
Lotus Elan S2, S4 (Rdstr, Cpe &Drophead)	4 Cyl DOHC	82.6 x 72.7	1558	Alum, Crossflow	2	(2) Weber 45 DCOE	84.0	64	13 / 14 / 15 / 16	1500	Windshield may be removed and a low front hoop roll cage may be fitted. Alt. Cylinder head:P/N26RD0703.
Lotus Esprit 2.2 (1975-)	4 Cyl DOHC	95.3 x 76.2	2174	Alum, Crossflow	4	(2) automotive-type w/ 48mm choke(s)	96.0	64	13 / 14 / 15 / 16	2180	

GT2D	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Mazda Miata M-2 (1990-)	Rotary		2292 2616			12A: unrestricted, automotive-type 13B: (1) auto type 2 bbl w/ 44mm choke(s)	89.2	64	13 / 14 / 15 / 16	See Notes	Fuel injection not allowed. 12A w/o peripheral port @ 1980 lbs, 12A w/ peripheral port @ 2080 lbs. Engine setback from the front spindle centerline to the front spark plug is 4.5". Windshield and hardtop required. 12A street port w/ 40mm choke(s) @ 1880 lbs. 13B @ 1980 lbs. 13B peripheral port w/unrestricted choke(s) @ 2130 lbs. Street port Renesis w/44mm choke(s) @ 2080 lbs.
Mazda RX-7 (12A Peripheral port)	Rotary		2292			Unrestricted, automotive type	95.2 / 95.5 / 95.7	64	13 / 14 / 15 / 16	2080	
Mazda RX-7 (12A)	Rotary		2292			Unrestricted, automotive type	95.2 / 95.5 / 95.7	64	13 / 14 / 15 / 16	1980	No peripheral port. 12A street port w/40mm choke(s) @1880.
Mazda RX-7 (13B)	Rotary		2616			(1) automotive type 2 bbl w/44 mm choke(s).	95.2 / 95.5 / 95.7	64	13 / 14 / 15 / 16	1980	Peripheral port w/ unrestricted choke(s) @ 2130 lbs. Street port Renesis w/ 44mm choke(s) @ 2080 lbs.
Mazda RX-7	6 Cyl DOHC	89.0 x 79.5	2967	Alum, Crossflow	4	6 individual throttle bodies w/ 40mm choke(s)	95.2 / 95.5 / 95.7	64	13 / 14 / 15 / 16	2280	Hood bulge allowed.
Mazda RX-8	Rotary		2292 2616			12A: unrestricted, automotive type 13B: (1) auto type 2 bbl w/ 44mm choke(s)	98.0	64	13 / 14 / 15 / 16	See Notes	Fuel injection not allowed. 12A w/o peripheral port @ 1980 lbs, 12A w/ peripheral port @ 2080 lbs. Engine setback from the front spindle centerline to the front spark plug is 4.5". Windshield and hardtop required. 12A street port w/ 40mm choke(s) @ 1880 lbs. 13B @ 1980 lbs. 13B peripheral port w/ unrestricted choke(s) @ 2130 lbs. Street port Renesis w/ 44mm choke(s) @ 2080 lbs.

GT2E	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Mercedes-Benz 190E (2.6L) (12-valve) (85-92)	6 Cyl SOHC	82.9 x 80.3	2599	Alum, Crossflow	2	Unrestricted, automotive type	104.9	64	13 / 14 / 15 / 16	2200	
Mercury Capri V-6 (79-86)	V-6, OHV	93.0 x 68.6 93.0 x 72.0	2796 2934	Iron, crossflow	2	Unrestricted, automotive type	100.8	64	13 / 14 / 15 / 16	2180	World Products 2.9 OHV cylinder head is permitted on the 2.9L engine
Nissan/Datsun 240-Z / 260-Z / 280-Z (-1978)	6 Cyl SOHC	83.0 x 73.3 83.0 x 79.0 86.1 x 79.0 86.1 x 83.0	2380 2565 2760 2899	Alum, Non-crossflow	2	(3) 50mm w/46mm choke(s)	90.7	64	13 / 14 / 15 / 16	2080 2899cc @ 2180	Headlight covers. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs. VQ30 engine (93.0 x 73.3, 2988cc) w/ 40mm choke(s) @ 2280 lbs.
Nissan/Datsun 280-Z 2+2	6 Cyl SOHC	86.1 x 79.0 86.1 x 83.0	2760 2899	Alum, Non-crossflow	2	(3) 50mm w/46mm choke(s)	102.6	64	13 / 14 / 15 / 16	2080 2899cc @ 2180	An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs. VQ30 engine (93.0 x 73.3, 2988cc) w/ 40mm choke(s) @ 2280 lbs.
Nissan/Datsun 280-ZX (1979-)	6 Cyl SOHC	86.1 x 79.0 86.1 x 83.0	2760 2899	Alum, Non-crossflow	2	(3) 50mm w/46mm choke(s)	91.3	64	13 / 14 / 15 / 16	2080 2899cc @ 2180	An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Nissan 240-SX	6 Cyl SOHC	83.0 x 73.3 83.0 x 79.0 86.1 x 79.0 86.1 x 83.0	2380 2565 2760 2899	Alum, Non-crossflow	2	(3) 50mm w/46mm choke(s)	97.5	64	13 / 14 / 15 / 16	2080 2899cc @ 2180	An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.

GT2F	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Nissan 240-SX / S13	4 Cyl SOHC	89.0 x 96.0	2389	Alum, Crossflow	3	Two (2) automotive-type w/ 48mm choke(s)	97.5	64	13 / 14 / 15 / 16	2080	
Nissan 240-SX / S14	4 Cyl SOHC	89.0 x 96.0	2389	Alum, Crossflow	3	Two (2) automotive-type w/ 48mm choke(s)	99.4	64	13 / 14 / 15 / 16	2080	Alternate material windshield surround.
Nissan 300-ZX / Z31 (-1989)	V-6 6 Cyl SOHC	87.0 x 83.0 86.1 x 83.0	2960 2899	Alum, Crossflow	2	2960:Any automotive type sidedraft w/40mm choke(s) 2899:(3) 50mm w/ 46mm choke(s)	91.3	64	13 / 14 / 15 / 16	2180	Engines: 2.8L V-6 @ 2180 lbs. or L28 w/(3) 50mm carburetors w/46mm choke(s) @ 2080 lbs. Hood bulge only, no opening. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Nissan 300-ZX / Z32 (1990-)	V-6 6 Cyl DOHC	87.0 x 83.0 86.1 x 83.0	2960 2899	Alum, Crossflow	4	2960:Any automotive type sidedraft w/40mm choke(s) 2899:(3) 50mm w/ 46mm choke(s)	96.5 / 101.2	64	13 / 14 / 15 / 16	2960cc @ 2280 2899cc @ 2180	Engines:VQ30 engine allowed @ 2280 lbs. VG30 SOHC @ 2180 lbs. or L28 w/(3) 50mm carburetors w/46mm choke(s) @ 2080 lbs. Hood bulge only, no opening. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs. Nismo cyl. heads allowed on VQ30, part #11040RRZ30 and #11090RRZ30.

GT2G	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Nissan 350Z	4 Cyl SOHC	89.0 x 96.0	2389	Alum, Crossflow	3	Two (2) automotive-type w/ 48mm choke(s)	97.5 / 99.4 / 104.3	64	13 / 14 / 15 / 16	2080 2899cc @ 2180	Doors may be hinged from the bottom at door bar height. Hood bulge, no opening permitted. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs. VG30 SOHC @ 2180 lbs. Nismo cyl. heads allowed on VQ30, part #11040RRZ30 and #11090RRZ30.
	6 Cyl SOHC	83.0 x 73.3 83.0 x 79.0 86.1 x 79.0 86.1 x 83.0	2380 2565 2760 2899	Alum, Non-crossflow	2	(3) 50mm w/46mm choke(s)	90.7 / 91.3 / 97.5 / 102.6 / 104.3	64	13 / 14 / 15 / 16	2080lbs	
	V-6 DOHC	87.0 x 83.0 87.0 x 77.2 93.0 x 73.3	2960 2754 2988	Alum, Crossflow	2 4	Any automotive type sidedraft w/40mm choke(s)	91.3 / 96.5 / 101.2 / 104.3	64	13 / 14 / 15 / 16	2valve: 2180lb 4valve: 2280lb	
Panoz Esperante GTS	V-8 OHV	101.6 x 88.9	5754	Alum, Crossflow	2	Holly 4bbl. 750 cfm #0-4779C	107.6	63.0 (F) 65.8 (R)	17 x 9 (F & R)	2880	Cars must be prepared to Panoz Esperante GTS Specifications, Competitors shall have a current copy of the GTS rules in their possession.
Pontiac Fiero 2.5L	4 Cyl OHV	101.6 x 76.2	2471	Alum, Crossflow	2	Unrestricted automotive-type sidedraft carburetors	93.4	64	13 / 14 / 15 / 16	2000	May convert to front engine/rear wheel drive. If OEM engine location is used (i.e. rear-engine) IRS weight penalty is waived. Engines: Quad 4 @ 2080 lbs. Air cleaner may protrude through engine hatch.

GT2H	**Engine Type**	**Bore x Stroke (mm)**	**Displ. (cc)**	**Head Type**	**Valves per Cyl.**	**Carburetion**	**Wheelbase (inch)**	**Track (Max.) (inch)**	**Wheels (F)10" (R)12" wide**	**Weight**	**Notes:**
Pontiac Fiero 2.7L	4 Cyl OHV	101.60 x 82.55	2677	Alum, Crossflow	2	(2) automotive type sidedraft w/48mm choke(s)	93.4	64	13 / 14 / 15 / 16	1980	May convert to front engine/rear wheel drive. If OEM engine location is used (i.e. rear-engine) IRS weight penalty is waived. Engines: Quad 4 @ 2080 lbs. Air cleaner may protrude through engine hatch.
Pontiac Fiero 2.8L V-6	6 Cyl OHV	89.0 x 76.0 89.0 x 84.0 92.0 x 84.0 94.0 x 84.0	2837 3135 3350 3498	Iron, Crossflow	2	Unrestricted	93.4	64	13 / 14 / 15 / 16	2837cc @2080 3135cc @2150 3350cc @2230 3498cc @2280	May convert to front engine/rear wheel drive. If OEM engine location is used (i.e. rear-engine) IRS weight penalty is waived. Engines: Quad 4 @ 2080 lbs. Air cleaner may protrude through engine hatch. Factory aluminum cylinder heads permitted.
Pontiac Grand Am	4 Cyl OHV	101.6 x 76.2 101.6 x 82.6	2471 2679	Alum, Crossflow	2	(2) automotive-type w/ 48mm choke(s)		64	13 / 14 / 15 / 16	2471cc @1930 2679cc @2030	
Pontiac Grand-Am (Quad-4)	4 Cyl DOHC	92.20 x 85.09	2272	Alum, Crossflow	4	(2) 48mm w/38mm choke(s)	103.4	64	13 / 14 / 15 / 16	2080	
Pontiac Sunfire GT Calvalier Z-24	4 Cyl OHV	101.6 x 82.6	2679	Alum, Crossflow	2	(2) automotive type sidedraft w/ 48mm choke(s)	104.0	64	13 / 14 / 15 / 16	2030	

GT2	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Porsche 911 Coupe & Targa (1968-)	6 Cyl OHV	80.0 x 66.0 84.0 x 66.0 84.0 x 70.4 90.0 x 70.4 92.0 x 70.4 95.0 x 70.4	1991 2195 2341 2687 2808 2992	Alum, Crossflow	2	Two (2) automotive-type w/46mm choke(s)	89.4	64	13 / 14 / 15 / 16	2030 2992cc @ 2080	OEM 2-valve air-cooled heads may be modified to utilize two (2) spark plugs per cyl. Factory Spoiler: 930-512-023-00 & 930-512-021-00 (or Kit # 930-512-901-01), No reproductions. Windshield may be removed on Targa and a low front hoop roll cage may be fitted. Add alternate engines 3.2 liter at 2160 lbs, 3.4 liter at 2220 lbs, 3.6 liter at 2280.
Porsche 914-6	6 Cyl OHV	84.0 x 66.0 84.0 x 70.4 90.0 x 70.4 92.0 x 70.4 95.0 x 70.4	2195 2341 2687 2808 2992	Alum, Crossflow	2	Two (2) automotive-type w/46mm choke(s)	96.5	64	13 / 14 / 15 / 16	2030 2992cc @ 2080	OEM 2-valve air-cooled heads may be modified to utilize two (2) spark plugs per cylinder. Top panels may remain if bolted or pinned. Roof of alt. material permitted. Windshield may be removed and low front hoop roll cage may be fitted. Alt Head: 911-104-302-OR (w/sealed injector port). 75-76 bumpers permitted. Alternate engines: 3.2 liter @ 2280 lbs, 3.4 liter @ 2380.
Porsche 944	4 Cyl SOHC	100.0 x 78.9	2478	Alum, Crossflow	2	(2) Weber-type w/48mm choke(s)	94.5	64	13 / 14 / 15 / 16	2080	Alt. Head: #944 104 013 03. Alternate engine: 4 Cyl, DOHC 2981cc (104.0 x 88.0) 4-valve 968 engine w/ unrestricted choke(s) @ 2230 lbs.
Porsche 968	4 Cyl SOHC	100.0 x 78.9	2478	Alum, Crossflow	2	(2) Weber-type w/48mm choke(s)	94.5	64	13 / 14 / 15 / 16	2080	Alt. Head: #944 104 013 03. Alternate engine: 4 Cyl, DOHC 2981cc (104.0 x 88.0) 4-valve 968 engine w/ unrestricted choke(s) @ 2230 lb.

GT2J	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Porsche 996 GT3 Cup (98-04)	Opposed 6 Cyl	100.0 x 76.4	3598	Alum, non-crossflow	4	OEM fuel injection w/ stock, unmodified FI throttle body.	92.5	64	18 x 9 (F) 18 x 11 (R)	2730	Cars must be prepared to Porsche Cup Specifications, but shall meet all SCCA safety specifications including fuel cells. Competitors shall have a current copy of the Porsche Cup rules in their possession. Original, factory-installed Matter roll cage structures permitted.
Porsche Boxster	6 Cyl OHV	84.0 x 66.0 84.0 x 70.4 90.0 x 70.4 92.0 x 70.4 95.0 x 70.4	2195 2341 2687 2808 2992	Alum, Crossflow	2	(2) automotive-type w/ 46mm choke(s)		64	13 / 14 / 15 / 16	2030 2992cc @ 2080	OEM 2-valve air-cooled heads may be modified to utilize two (2) spark plugs per cylinder. Top panels may remain if bolted or pinned. Roof of alt. material permitted. Windshield may be removed and low front hoop roll cage may be fitted. Alt Head: 911-104-302-OR (w/sealed injector port).
Porsche Boxster	6 Cyl DOHC	85.5 x 72.0 85.5 x 78.0 93.0 x 78.0	2480 2687 3179	Alum, Crossflow	4	(2) Weber-type w/ 2.5L: 34mm 2.7L: 36mm 3.2L: 40mm choke(s)	95.1	64	13 / 14 / 15 / 16	2.5 @ 2080 2.7 @ 2180 3.2 @ 2380	Windshield and hardtop required.

GT2K	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Sunbeam Tiger 260, 289	V-8 OHV	96.5 x 72.9 101.6 x 72.9	4265 4728	Iron, Crossflow	2	Ford C30 FAB, C30F-9510E, C40F-9519-1E* *Manifold: Stock Sunbeam Tiger manifold ONLY.	86.0	64	13 / 14 / 15 / 16	2280	Carburetor: Holley (P/N 0-80507-1) 390cfm on unrestricted manifold. A throttle restrictor plate between the carburetor and plenum is mandatory for cars running the 390cfm carburetor (P/N 0-80507-1) with unrestricted manifold: 0.060" flat steel or aluminum plate with four (4) 1 1/16" holes. Spacer is unrestricted. The restrictor plate shall be positioned within 4" of the throttle butterflies. All inducted air shall pass through the specified restrictor plate. Windshield may be removed and low front hoop roll cage may be fitted. Cylinder Heads: Any Ford 260, 289, or 302 cid Windsor V-8 cast-iron production cylinder head, delivered on U.S. model cars or trucks, and bearing unmodified factory casting numbers beginning in C, D, E, or F are permitted. Competitor shall be able to provide documentation from the manufacturer identifying application(s), displacement, engine family, and casting identification. Ford Motorsport engine blocks (P/N M-6010-A50 & M-6010-B50) are permitted.
Toyota Celica (RWD only) (2000-)	4 Cyl DOHC V-6 DOHC	87.0 x 91.0 86.0 x 86.0 87.5 x 83.0	2164 1998 2995	Alum, Crossflow	4	Automotive-type sidedraft V-6: 6 individual throttle bodies w/ 40mm choke(s)	102.4 / 97.0	64	13 / 14 / 15 / 16	1950 V-6: 2280	

GT2L	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels (F)10" (R)12" wide	Weight	Notes:
Toyota Celica (RWD only) (94-99)	4 Cyl DOHC	87.0 x 91.0 86.0 x 86.0	2164 1998	Alum, Crossflow	4	Automotive-type sidedraft	99.4	64	13 / 14 / 15 / 16	1950	
Toyota Celica GT-S (RWD only) (90-93)	4 Cyl DOHC	86.0 x 86.0	1998	Alum, Crossflow	4	Automotive-type sidedraft	99.4	64	13 / 14 / 15 / 16	1950	
Toyota Celica GT-S (86-89)	4 Cyl DOHC	86.0 x 86.0	1998	Alum, Crossflow	4	Automotive-type sidedraft	99.4	64	13 / 14 / 15 / 16	1950	
Toyota Celica GT-S (82-85)	4 Cyl DOHC	86.0 x 86.0	1998	Alum, Crossflow	4	Automotive-type sidedraft	99.4	64	13 / 14 / 15 / 16	1950	
Toyota MR-2 (1991-)	4 Cyl DOHC	86.0 x 86.0	1998	Alum, Crossflow	4	Weber-type	94.5	64	13 / 14 / 15 / 16	2230	No factory rear spoiler / wing. Fuel cell may be relocated to front trunk area. Front engine rear drive conversion @ 1950 Lbs.
Toyota Supra 2.8L	6 Cyl DOHC	83.0 x 85.0	2759	Alum, Crossflow	2	(3) 45mm Weber w/38mm choke(s)	103.0	64	13 / 14 / 15 / 16	2180	
Volkswagen Corrado	4 Cyl DOHC	82.5 x 92.8	1984	Alum, Crossflow	4	(2) automotive-type w/ 48mm choke(s)	97.3	64	13 / 14 / 15 / 16	1980	
Volkswagen Corrado VR-6	V-6 DOHC	81.0 x 90.3	2782	Alum, Crossflow	4	(2) automotive-type w/ 48mm choke(s)	97.3	64	13 / 14 / 15 / 16	2280	
Volkswagen Golf GTi VR-6	V-6 DOHC	81.0 x 90.3	2782	Alum, Crossflow	4	(2) automotive-type w/ 48mm choke(s)	97.3	64	13 / 14 / 15 / 16	2280	

GT3A	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Acura Integra (-1989)	4 Cyl DOHC	74.9 x 89.9	1590	Alum, Crossflow	4	(2) 45mm Automotive-type sidedraft w/42mm choke(s)	96.5	60	13/14/15	1980	
Acura Integra (90-93)	4 Cyl DOHC	81.0 x 89.0	1835	Alum, Crossflow	4	(2) 45mm w/38mm choke(s)	96.5	60	13/14/15	2180	Engine: 1590cc, (2) 45mm Automotive-type sidedraft w/42mm choke(s) @ 1980 Lbs.
Acura Integra (1994-)	4 Cyl DOHC	81.0 x 87.2 81.0 x 89.0	1797 1835	Alum, Crossflow	4	1797cc: (2) 45mm w/42mm choke(s), 1834cc: (2) 45mm w/38mm choke(s)	101.2	60	13/14/15	1797cc @ 2080, 1834cc @ 2180	Engine: Honda B16A3
Acura RSX (02-05)	4 Cyl DOHC	74.9 x 89.9 81.0 x 87.2 81.0 x 89.0 86.0 x 86.0	1590 1797 1835 1998	Alum, Crossflow	4	1590cc: (2) 45mm w/ 42mm choke(s), 1797cc: (2) 45mm w/42mm choke(s), 1834cc: (2) 45mm w/38mm choke(s) 1998cc: 38mm single inlet restrictor	96.5 or 101.2	60	13/14/15	1590@ 1980, 1797@ 2080, 1835/ 1998@ 2180	Engine: Honda B16A3
Alfa Romeo GTV 1750 / 2000	4 Cyl DOHC	80.0 x 88.5 84.0 x 88.5	1779 1962	Alum, Crossflow	2	Unrestricted	92.5	60	13/14/15	1779cc @1880 1962cc @2080	Alt Head: #19510-01053-04 (twin plug), add 100 Lbs.
Alfa Romeo Sport Sedan	4 Cyl DOHC	84.0 x 88.5	1962	Alum, Crossflow	2	Unrestricted	98.8	60	13/14/15	2080	Alt Head: #19510-01053-04 (twin plug), add 100 Lbs.

GT3B	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
American Motors Gremlin (-78) Spirit (79-)	6 Cyl OHV	95.3 x 88.9	3805	Iron, Crossflow	2	Carter YF-1V, Holley 500cfm 2bbl.	96.0	60	13/14/15	2600	
American Motors Gremlin (-78) Spirit (79-)	4 Cyl OHV	95.3 x 88.9	2537	Iron, Crossflow	2	Holley 5210/2V	96.0	60	13/14/15	2380	
Audi TT Coupe	4 Cyl SOHC	82.5 x 92.8	1984	Alum, Crossflow	2	(2) 50mm w/ 50mm choke(s)	95.6	60	13/14/15	1880	Alternate Eurospec Sports cylinder head may be used.
BMW 2000ti	4 Cyl SOHC	89.0 x 80.0	1990	Alum, Crossflow	2	Unrestricted	100.5	60	13/14/15	1890	
BMW 2002 / 2002ti / 2002tii	4 Cyl SOHC	89.0 x 80.0	1990	Alum, Crossflow	2	Unrestricted	98.5	60	13/14/15	1890	Engine: 1800cc @ 1880 Lbs.
BMW 318 Coupe (1992-)	4 Cyl DOHC	84.0 x 81.0 85.0 x 83.5	1796 1895	Alum, Crossflow	4	(2) 45mm w/45mm choke(s)	106.0	60	13/14/15	2090	
BMW 318i (83-91)	4 Cyl SOHC	89.0 x 71.0 89.0 x 80.0	1767 1991	Alum, Crossflow	2	(2) 45mm w/45mm choke(s)	101.2	60	13/14/15	1767cc @1880 1991cc @1980	Engine: 84.0 x 81.0 (1796cc 16V), 45mm choke(s) @ 2090 Lbs.
BMW 320i / 318i (72-82)	4 Cyl SOHC	89.0 x 71.0	1767	Alum, Crossflow	2	Unrestricted	100.9	60	13/14/15	1880	Engine: 89.0 x 80.0 (1990cc) @ 1980 Lbs.

GT3c	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
BMW (E46) (2000-)	4 Cyl DOHC	84.0 x 81.0 85.0 x 83.5	1796 1895	Alum, Crossflow	4	(2) 45mm w/ 45mm choke(s)	106.0	60	13/14/15	2090	
BMW Z-3 1.9L	4 Cyl DOHC	85.0 x 83.5	1895	Alum, Crossflow	4	(2) 45mm w/45mm choke(s)	96.3	60	13/14/15	2090	Windshield and hardtop required. Engine: 84.0 x 81.0 (1796cc 16V), 45mm choke(s) @ 2090 Lbs.
Chevrolet Cavalier Z-24	4 Cyl SOHC	86.0 x 86.0	1998	Alum, Crossflow	2	Unrestricted	101.2	60	13/14/15	2080	
Chevrolet Cosworth Vega Twin Cam	4 Cyl DOHC	88.9 x 80.3	1998	Alum, Crossflow	4	Unrestricted	97.0	60	13/14/15	2380	
Chevrolet Vega 2.3L	4 Cyl SOHC	88.9 x 92.1	2287	Cast iron, Non-crossflow	2	Unrestricted	97.0	60	13/14/15	2180	
Dodge / Chrysler Neon	4 Cyl SOHC	87.5 x 92.0	2213	Alum, Non-crossflow	2	(2) 45mm w/45mm choke(s)	104.0	60	13/14/15	2030	
Dodge Daytona / Chrysler Laser 2.2 (1984-)	4 Cyl SOHC	87.5 x 92.0	2213	Alum, Non-crossflow	2	(2) 45mm w/45mm choke(s)	97.0	60	13/14/15	2030	
Dodge Omni 024 / Shelby Charger (79-82)	4 Cyl SOHC	87.5 x 92.0	2213	Alum, Non-crossflow	2	(2) 45mm w/45mm choke(s)	96.6	60	13/14/15	2030	
Dodge Shadow 2.2	4 Cyl SOHC	87.5 x 92.0	2213	Alum, Non-crossflow	2	(2) 45mm w/45mm choke(s)	97.0	60	13/14/15	2030	

GT3D	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Dodge Shelby Charger 2.2 (1983-)	4 Cyl SOHC	87.5 x 92.0	2213	Alum, Non-crossflow	2	(2) 45mm w/45mm choke(s)	96.6	60	13/14/15	2030	
Fiat 131 Coupe & Sedan, Brava	4 Cyl DOHC	84.1 x 89.9	1995	Alum, Crossflow	2	Unrestricted	98.0	60	13/14/15	2080	
Ford Capri 2.0 / 2.3	4 Cyl SOHC	91.0 x 77.0 96.0 x 79.4	1993 2301	Iron, Crossflow	2	Unrestricted	100.8	60	13/14/15	1993cc @1980 2301cc @2080	Alt. Head (2301cc Only): SVO #M-6049-A230 w/45mm choke(s). Alternate carburetion (2301cc engine): Holley 2300
Ford Mustang (79-93)	4 Cyl SOHC	96.0 x 79.4	2301	Iron, Crossflow	2	Unrestricted	100.4	60	13/14/15	2080	Alt. Head (2301cc Only): SVO #M-6049-A230 w/45mm choke(s). Alternate carburetion (2301cc engine): Holley 2300
Ford Mustang (94-98)	4 Cyl SOHC	91.0 x 77.0 96.0 x 79.4	1993 2301	Iron, Crossflow	2	Unrestricted	101.2	60	13/14/15	1993cc @198023 01cc @2080	Alt. Head (2301cc Only): SVO #M-6049-A230 w/45mm choke(s). Alternate carburetion (2301cc engine): Holley 2300
Ford Mustang II (74-78)	4 Cyl SOHC	96.0 x 79.4	2301	Iron, Crossflow	2	Unrestricted	96.2	60	13/14/15	2080	Alt. Head (2301cc Only): SVO #M-6049-A230 w/45mm choke(s). Alternate carburetion (2301cc engine): Holley 2300
Ford Pinto	4 Cyl SOHC	91.0 x 77.0 96.0 x 79.4	1993 2301	Iron, Crossflow	2	Unrestricted	94.0	60	13/14/15	1993cc @ 1980, 2301cc @ 2080	Alt. Head (2301cc Only): SVO #M-6049-A230 w/45mm choke(s). Non-tube frame track: 60.52 (F&R). Spoiler: #D9FZ-6440555-A, End Piece: #D9FZ-6428010-A, End Piece: #D9FZ-6428011-A. Alternate carburetion (2301cc engine): Holley 2300

GT3E	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Ford Probe	4 Cyl SOHC	91.0 x 77.0 96.0 x 79.4	1993 2301: (RWD Only)	Iron, Crossflow	2	Unrestricted	99.0 / 102.9	60	13/14/15	1993cc @ 1980, 2301cc @ 2080	Alt. Head (2301cc Only): SVO #M-6049-A230 w/45mm choke(s). Alternate carburetion (1993 & 2301cc engine w/o alternate head): Holley 2300. Alternate engines: Mazda 2.0 (1980lbs) or 2.2 (2080lbs) liter, 4 cylinder FWD or RWD.
Honda Civic HB & CRX (1988-)	4 Cyl SOHC	75.0 x 84.5	1493	Alum, Crossflow	4	(2) 45mm w/45mm choke(s)	90.6	60	13/14/15	1980	
Honda CRX Si (88-91)	4 Cyl SOHC DOHC	75.0 x 90.0 81.0 x 87.2 81.0 x 89.0	1590 1797 1835	Alum, Crossflow	4	1590: (2) 45mm w/42mm choke(s), 1797: (2) 45mm auto-type w/ 42mm choke(s), 1835: (2) 45mm auto-type w/ 38mm choke(s)	90.6	60	13/14/15	1590 @ 1980 1797 @ 2080 1835 @ 2180	Engine: 1493cc w/(2) 45mm Automotive-type sidedraft, Honda B16A3 w/ (2) 45mm carbs w/42mm choke(s) @ 2080 Lbs. Hood bulge permitted, no openings.
Honda Civic Si (88-91)	4 Cyl SOHC	75.0 x 90.0	1590	Alum, Crossflow	4	(2) 45mm w/42mm choke(s)	90.6	60	13/14/15	1980	Engine: 1493cc w/(2) 45mm Automotive-type sidedraft, Honda B16A3 w/ (2) 45mm carbs w/42mm choke(s) @ 2080 Lbs. Hood bulge permitted, no openings.
Honda Civic Coupe (92-95)	4 Cyl SOHC	75.0 x 90.0	1590	Alum, Crossflow	4	(2) 45mm w/42mm choke(s)	98.4	60	13/14/15	1980	
Mazda 626 (83-87)	4 Cyl OHC	86.0 x 86.0	1998	Alum, Crossflow	2	(2) 45mm w/42mm choke(s)	98.8	60	13/14/15	1980	

GT3F	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Mazda MX-3	4 Cyl OHC	78.0 x 83.6 83.0 x 85.0	1597 1840	Alum, Crossflow	2	(2) 45mm w/38mm choke(s)	96.3	60	13/14/15	1980	Engine: 12A rotary w/ 40mm venturis. Bridgeport allowed w/ a 48 IDA w/ 38mm venturis @ 2080 lbs. No peripheral port. 2189cc, 3-valve w/ 38mm venturis @ 1980lbs.
Mazda MX-5 / Miata	4 Cyl DOHC 12A Rotary	78.0 x 83.6 83.0 x 85.0	1597 1839 2292	Alum, Crossflow	4	1.6L: (2) auto-type w/ 42mm choke(s), 1.8L: (2) auto-type w/ 38mm choke(s) 2292: (1) auto-type 2bbl w/ 40mm choke(s)	89.2 91.0	60	13/14/15	1.6L @ 1980 1.8L @ 2100 12A Rotary @ 2080	Windshield and hardtop required. 12A: Engine setback from the front spindle centerline to the front spark plug is 4.5". No peripheral port. Bridgeport allowed w/ 36mm choke(s).
Mazda MX-6 (1988-)	4 Cyl SOHC	86.0 x 94.0	2189	Alum, Crossflow	3	(2) 45mm w/38mm choke(s)	99.0 / 102.8	60	13/14/15	2180	Engine: 12A rotary w/ 40mm venturis. Bridgeport allowed w/ a 48 IDA w/ 38mm venturis @ 2080 lbs. No peripheral port. 1998cc, 2-valve engine allowed w/ 40mm venturis @ 1980 lbs.
Mazda RX-2	12A Rotary		2292			One (1) auto-type 2 bbl w/ 40mm venturis.	97.3	60	13/14/15	2080	No peripheral port. Bridgeport allowed w/ 38mm venturis.
Mazda RX-3	12A Rotary		2292			One (1) auto-type 2 bbl w/ 40mm venturis.	91.0	60	13/14/15	2080	No peripheral port. Bridgeport allowed w/ 38mm venturis.
Mazda RX-7	12A Rotary		2292			One (1) automotive-type 2 bbl w/ 40mm venturis.	95.3 / 95.5 / 95.7	60	13/14/15	2080	No peripheral port. Bridgeport allowed w/ 38mm venturis. Non-tube frame track: (F)63.2, (R)62.8. Alternate Engine: Street Port, no bridge, no peripheral, no modification of water jackets (no eyelash port), 38mm choke(s) 1980lbs.

GT3G	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Mazda RX-8	12A Rotary		2292			One (1) auto-type 2 bbl w/ 40mm venturis.	98	60	13/14/15	2080	No peripheral port. Bridgeport allowed w/ 38mm venturis.
Mazda Protege' 12A/1.6/1.8 (2001)	Rotary 4 Cyl DOHC	Bridgeport 78.0 x 83.6 83.0 x 85.0	2292 1597 1839	Alum, Crossflow	4	12A: (1) auto type 2bbl w/ 40mm venturis, 1.6: (2) auto type w/ 42mm venturis, 1.8: (2)auto type w/ 38mm venturis	98.4	60	13/14/15	12A @ 2180, 1.6L @ 1980 1.8L @ 2100	No peripheral port. Bridgeport allowed w/ 38mm venturis.
Mercury Capri (79-86)	4 Cyl SOHC	96.0 x 79.4	2301	Iron, Crossflow	2	Unrestricted	100.4	60	13/14/15	2180	Alt. Head (2301cc Only): SVO #M-6049-A230 w/42mm choke(s). Alternate carburetion (2301cc engine): Holley 2300
Mercury Cougar (99-02)	4 Cyl SOHC	91.0 x 77.0 96.0 x 79.4	1993 2301	Iron, Crossflow	2	Unrestricted	103.0 / 106.4	60	13/14/15	1993cc @1980 2301cc @2080	Alt. Head (2301cc Only): SVO #M-6049-A230 w/45mm choke(s). Alternate carburetion (2301cc engine): Holley 2300
Mitsubishi Eclipse / Eagle Talon / Plymouth Laser	4 Cyl DOHC	85.0 x 88.0	1997	Alum, Crossflow	4	(2) 45mm w/34mm choke(s)	97.3	60	13/14/15	2230	Engine: 85.0 x 88.0 (1997cc SOHC) w/ (2) 45mm choke(s) @ 1980 Lbs or Chrysler 2213 SOHC, 87.5 x 92.0 w/ (2) 45mm choke(s) @ 2080 Lbs.
Nissan/Datsun 200-SX / S10 (77-79)	4 Cyl SOHC	85.0 x 86.0	1952	Alum, Non-crossflow	2	50mm w/50mm choke(s)	92.1	60	13/14/15	1850	Alt. Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120
Nissan 200-SX / S11 (80-83)	4 Cyl SOHC	85.0 x 86.0 87.0 x 92.0	1952 2188	Alum, Non-crossflow	2	50mm w/50mm choke(s)	94.5	60	13/14/15	1952cc (L20B) @1850 2188cc (NAPZ) @2180	Alt. Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120.

GT3H	**Engine Type**	**Bore x Stroke (mm)**	**Displ. (cc)**	**Head Type**	**Valves per Cyl.**	**Carburetion**	**Wheelbase (inch)**	**Track (Max.) (inch)**	**Wheels 7" wide**	**Weight**	**Notes:**
Nissan 200-SX / S12 (84-88)	4 Cyl SOHC	84.5 x 88.0	1974	Alum, Crossflow	2	50mm w/50mm choke(s)	95.5	60	13/14/15	1980	Alt. Head: #11041-N7120. Engine: L20B @ 1850 Lbs, and NAPZ @ 2180 Lbs.
Nissan 200-SX SE-R (95-97)	4 Cyl SOHC	85.0 x 86.0 84.5 x 88.0 87.0 x 92.0	1952 1974 2188	Alum, Non-crossflow, crossflow	2	50mm w/50mm choke(s)	95.7 99.8	60	13/14/15	1952cc (L20B) @1850 1974cc @1980 2188cc (NAPZ) @2180	Alt, Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120
Nissan 240-SX / S13	4 Cyl SOHC	89.0 x 96.0	2389	Alum, Crossflow	3	(2) 45mm w/34mm choke(s)	97.5	60	13/14/15	2180	Engine: L20B with head #11041-N7120 / 22010 or 11041-V9182 / U0600A, 50mm venturis @ 1850 lbs. Hood bulge is permitted, no openings. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Nissan 240-SX / S14	4 Cyl SOHC	89.0 x 96.0	2389	Alum, Crossflow	3	(2) 45mm w/34mm choke(s)	99.4	60	13/14/15	2180	Engine: L20B with head #11041-N7120 / 22010 or 11041-V9182 / U0600A, 50mm venturis @ 1850 lbs. Hood bulge is permitted, no openings. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.

GT3	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Nissan 350Z	4 Cyl SOHC	85.0 x 78.0	1770	Alum, Non-Crossflow	2	unrestricted	95.3 98.4 104.3	60	13/14/15	1880	Alt. Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120 An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
	4 Cyl SOHC	85.1 x 86.1	1952	Alum, Non-Crossflow	2	50mm w/ 50mm choke(s)	92.1 94.5 95.3 98.4 104.3	60	13/14/15	1850	
	4 Cyl SOHC	87.0 x 92.0	2188	Alum, Non-Crossflow	2	50mm w/ 50mm choke(s)	94.5 104.3	60	13/14/15	2180	
	4 Cyl SOHC	89.0 x 96.0	2389	Alum, Crossflow	3	(2) 45mm w/34mm choke(s)	97.5 99.4 104.3	60	13/14/15	2180	
Nissan/Datsun 710	4 Cyl SOHC	85.0 x 78.0 85.1 x 86.1	1770 1952	Alum, Non-crossflow	2	1952cc = 50mm w/50mm choke(s), 1770cc = Unrestricted	98.4	60	13/14/15	1770cc @1880 1952cc @1850	Alt, Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120
Nissan/Datsun PL510	4 Cyl SOHC	85.0 x 78.0 85.1 x 86.1	1770 1952	Alum, Non-crossflow	2	1952cc = 50mm w/50mm choke(s), 1770cc = Unrestricted	95.3	60	13/14/15	1770cc @1880 1952cc @1850	Alt, Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-21901, 11041-N7120
Plymouth Horizon	4 Cyl SOHC	87.4 x 91.9	2213	Alum, Non-crossflow	2	Unrestricted	96.7	60	13/14/15	2180	
Porsche 911 Coupe & Targa (1968-)	6 Cyl OHV	80.0 x 66.0 84.0 x 66.0	1991 2195	Alum, Crossflow	2	(2) Weber 40 IDA/IDS 3C, (6) Solex 40 PI, (2) Weber 46 IDA/IDS 3C/3CI w/40mm choke(s), (2) Weber 40 IDA/IDS 3C/3CI, (2) Weber 40 IDT 3C/3CI	87.0 / 89.4	60	13/14/15	2080	* Carb version only. Windshield may be removed on Targa and a low front hoop may be fitted. Rear rim width: 8". Factory Spoiler: #930-512-023-00 & 930-512-021-00 (or kit #930-512-901-01) No alternate materials, no reproductions.

GT3J	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Porsche 914-S	4 Cyl OHV	94.0 x 70.9	1968	Alum, Crossflow	2	(2) auto-type carburetors, (1) throat per Cyl, unrestricted venturi size	96.5	60	13/14/15	1880	Intake manifolds: #021-129-705R, Sleeves: Cast Iron. Top panels may remain if securely bolted or pinned. Windshield may be removed and a low front hoop roll cage fitted. Alt. Head: Type 1/Type 3.
Porsche 914-6	6 Cyl OHV	80.0 x 66.0	1991	Alum, Crossflow	2	(2) 40 IDA/IDS 3C, (6) Solex 40 PI	96.5	60	13/14/15	2080	Dual plug heads prohibited. Top panels may remain if bolted or pinned. Roof of alt. material permitted. Windshield may be removed and low front hoop roll cage fitted. Alt Head: 911-104-302-OR (w/sealed injector port). 75-76 bumpers permitted.
Porsche 924	4 Cyl SOHC	86.5 x 84.4	1984	Alum, Crossflow	2	(2) Weber 45 DCOE w/42mm choke(s)	94.5	60	13/14/15	2080	Alt. Head: #933-104-302-50
Porsche Boxster	4 Cyl OHV, 6 Cyl OHV	94.0 x 70.9 80.0 x 66.0	1968 1991	Alum, Crossflow	2	4 cyl: Solex 40PII, Weber 40 IDF, Dellorto 40 DLRA, 6 Cyl: (2) 40 IDA/IDS 3C, (6) Solex 40 P1	96.5	60	13/14/15	4 Cyl = 1980, 6 Cyl = 2080	Intake manifolds: #021-129-705R, Sleeves: Cast Iron. 6 Cyl: Dual plug heads prohibited. Alt. Head: 911-104-302-OR (w/sealed injector port). Shall have windshield and hardtop installed by 01/01/03.
Saab 900 (1979-)	4 Cyl SOHC	90.0 x 78.0	1985	Alum, Crossflow	2	Unrestricted	99.4	60	13/14/15	2080	
Saab 99E, CM, EMS, GL, LE	4 Cyl SOHC	87.0 x 78.0 90.0 x 78.0	1854 1985	Alum, Crossflow	2	Unrestricted	97.4	60	13/14/15	1854cc @1980 1985cc @2080	

GT3K	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Toyota Celica (00-02)	4 Cyl DOHC	81.0 x 77.0	1587	Alum, Crossflow	4	45mm w/42mm choke(s)	102.4 / 93.7	60	13/14/15	1980	
Toyota Celica (94-99)	4 Cyl SOHC (20R) DOHC	81.0 x 77.0	1998 1587	Alum, Crossflow	4	Automotive-type sidedraft w/36mm choke(s) 1587cc: 45mm w/42mm choke(s)	99.4	60	13/14/15	1900 1587 @ 1980	
Toyota Celica Sport Coupe GT, ST, Liftback GT	4 Cyl SOHC	88.5 x 89.0	2189	Alum, Crossflow	2	Unrestricted	98.3	60	13/14/15	2180	
Toyota Corolla (80-83)	4 Cyl OHV	85.0 x 78.0	1770	Alum, Crossflow	2	Unrestricted	94.5	60	13/14/15	1880	2TG Cylinder head allowed
Toyota Corolla Sport Twin Cam (1985-)	4 Cyl DOHC	81.0 x 77.0	1587	Alum, Crossflow	4	45mm w/42mm choke(s)	94.5	60	13/14/15	1980	
Toyota MR-2 (-1989)	4 Cyl DOHC	81.0 x 77.0	1587	Alum, Crossflow	4	45mm w/42mm choke(s)	91.3	60	13/14/15	1980	
Toyota MR-2 (99-02)	4 Cyl DOHC	81.0 x 77.0	1587	Alum, Crossflow	4	45mm w/42mm choke(s)	91.3	60	13/14/15	1980	Hardtop shall be installed
Toyota Paseo (92-99)	4 Cyl DOHC	81.0 x 77.0	1587	Alum, Crossflow	4	45mm w/42mm choke(s)	93.7	60	13/14/15	1980	
Triumph GT6, GT6+ & Mk III (-1974)	6 Cyl OHV	74.7 x 75.9	1998	Iron, Non-crossflow	2	(3) Weber 40 DCOE w/34mm choke(s)	83.0	60	13/14/15	2030	

GT3L	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Triumph TR-250 / TR-6	6 Cyl OHV	74.7 x 95.0	2498	Iron, Non-crossflow	2	(3) 45mm w/40mm choke(s)	88.0	60	13/14/15	2080	Windshield may be removed and low front hoop roll cage fitted.
Volkswagen Beetle (98-01)	4 Cyl SOHC	82.5 x 92.8	1984	Alum, Crossflow	2	50mm w/50mm venturi		60	13/14/15	1880	
Volkswagen Corrado 16V	4 Cyl DOHC	81.0 x 86.4	1780	Alum, Crossflow	4	(2) 45mm w/34mm choke(s)	97.3	60	13/14/15	2280	
Volkswagen Corrado 8V	4 Cyl SOHC	81.0 x 86.4	1780	Alum, Crossflow	2	(2) 45mm w/45mm choke(s)	97.3	60	13/14/15	1930	Engine: 82.5 x 92.8 (1984cc) w/ (2) 50mm carbs w/50mm choke(s). Weight: 1880 lbs. Alternate Eurospec Sports cylinder head may be used.
Volkswagen Golf & GTI	4 Cyl SOHC	81.0 x 86.4 82.5 x 92.8	1780 1984	1780cc: Alum, Non-crossflow, 1984cc: Alum, Crossflow	2	(2) 45mm w/ 45mm choke(s) (1984cc, 50mm w/50mm venturi)	97.3	60	13/14/15	1780cc @ 1930, 1984cc @ 1880	Carburetion: (1) 40 DCN, DCNF , IDF w/34mm choke(s). Alternate Eurospec Sports cylinder head may be used.
Volkswagen Golf Mk IV	4 Cyl SOHC	81.0 x 86.4 82.5 x 92.8	1780 1984	1780cc: Alum, Non-crossflow, 1984cc: Alum, Crossflow	2	(2) 45mm w/ 45mm choke(s) (1984cc, 50mm w/50mm venturi)	98.9	60	13/14/15	1780cc @ 1930, 1984cc @ 1880	Carburetion: (1) 40 DCN, DCNF , IDF w/34mm choke(s). Alternate Eurospec Sports cylinder head may be used.
Volkswagen GTI 16V (1987-)	4 Cyl DOHC	81.0 x 86.4	1780	Alum, Non-crossflow	4	(2) Weber 45 DCOE w/38mm choke(s)	97.3	60	13/14/15	2280	Engine: 82.5 x 92.8 (1984cc 8V non-crossflow) @ 1980 lbs.
Volkswagen Jetta	4 Cyl SOHC	81.0 x 86.4 82.5 x 92.8	1780 1984	1780cc: Alum, Non-crossflow, 1984cc: Alum, Crossflow	2	(2) 45mm w/ 45mm choke(s) (1984cc, 50mm w/50mm venturi)	97.3	60	13/14/15	1780cc @ 1930, 1984cc @ 1880	Carburetion: (1) 40 DCN, DCNF , IDF w/34mm choke(s). Alternate Eurospec Sports cylinder head may be used.

GT3M	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Volkswagen Jetta Mk IV	4 Cyl SOHC	81.0 x 86.4 82.5 x 92.8	1780 1984	1780cc: Alum, Non-crossflow, 1984cc: Alum, Crossflow	2	(2) 45mm w/ 45mm choke(s) (1984cc, 50mm w/50mm venturi)	98.9	60	13/14/15	1780cc @ 1930, 1984cc @ 1880	Carburetion: (1) 40 DCN, DCNF , IDF w/34mm choke(s). Alternate Eurospec Sports cylinder head may be used.
Volkswagen Rabbit (75-84)	4 Cyl SOHC	79.5 x 86.4 81.0 x 86.4	1715 1780	Alum, Non-crossflow	2	(2) Weber 45 DCOE	94.5	60	13/14/15	1715cc @1880 1780cc @1930	Engine: 82.5 x 92.8 (1984cc 8V non-crossflow), 50mm w/50mm venturi @ 1880 lbs. Alternate Eurospec Sports cylinder head may be used.
Volkswagen Scirocco	4 Cyl SOHC	79.5 x 86.4 81.0 x 86.4 82.5 x 92.8	1715 1780 1984	1715/1780cc: Alum, Non-crossflow, 1984cc: Alum, Crossflow	2	(2) 45mm w/ 45mm choke(s) (1984cc, 50mm w/50mm venturi)	94.5	60	13/14/15	1715cc @1880 1780cc @1930 1984cc @1880	Alternate Eurospec Sports cylinder head may be used.
Volkswagen Scirocco 16V	4 Cyl DOHC	81.0 x 86.4	1780	Alum, Non-crossflow	4	(2) Weber 45 DCOE w/34mm choke(s)	94.5	60	13/14/15	2300	Engine: 82.5 x 92.8 (1984cc 8V non-crossflow) @ 1880 lbs.
Volvo 122S	4 Cyl OHV	88.9 x 80.0	1986	Iron, Non-crossflow	2	Unrestricted	102.5	60	13/14/15	1980	Front axle cross member, Front Lower wishbone, Overdrive, Engine Kit: 2127cc & 2174cc@2180Lb.
Volvo 142 / 142E	4 Cyl OHV	88.9 x 80.0	1986	Iron, Non-crossflow	2	Unrestricted	102.5	60	13/14/15	1980	Front axle cross member, Front Lower wishbone, Overdrive, Engine Kit: 2127cc & 2174cc@2180 lb.

GT3N	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Volvo 242 / 244 DL	4 Cyl OHV	88.9 x 80.0	1986	Iron, Non-crossflow	2	Unrestricted	104.0	60	13/14/15	1980	Front axle cross member, Front Lower wishbone, Overdrive. B20 Engine Kit: 2127cc & 2174cc @ 2180 Lbs. B21 Engine: 92.0 x 80.0 (2127cc, SOHC Aluminum Crossflow. B21 Engine Kit: 2320cc @ 2180 lbs.
Volvo S40	4 Cyl OHV	88.9 x 80.0	1986	Iron, Non-crossflow	2	Unrestricted	100.4	60	13/14/15	1980	Front axle cross member, Front Lower wishbone, Overdrive. B20 Engine Kit: 2127cc & 2174cc @ 2180 Lbs. B21 Engine: 92.0 x 80.0 (2127cc, SOHC Aluminum Crossflow. B21 Engine Kit: 2320cc @ 2180 lbs.
Yenko Stinger Coupe/ Corvair Coupe*	6 Cyl OHV	87.4 x 74.7	2689	Alum, Crossflow	2	(2) Weber 40 IDT or IDA 3C, 3CI (36mm choke(s))	108.0	60	13/14/15	2225	*Corvair coupes may be modified to Yenko configuration. Carburetion: (4) Rochester 7025023 & 7026026 1.5" 1 bbl carburetors. Non-tube frame track (F)59.7, (R) 62.9. Rear Wheel Width: 8". Engine may be centered (side to side) to allow the installation of alternate transaxle.

GTL$_A$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Alfa Romeo GT-1300 (1365) Junior, GTA Junior, Alfetta GT	4 Cyl DOHC	74.0 x 75.0 GTA: 78.0 x 67.5 80.0 x 67.5	1290 1130 1357	Alum., Crossflow	2	Unrestricted	92.5 / Alfetta GT: 94.5	60	13	1655, 1357cc @1740	
Alfa Romeo Guilia 1300 (1365)/1300 (1365)TI	4 Cyl DOHC	74.0 x 75.0 80.0 x 67.5	1290 1357	Alum., Crossflow	2	Unrestricted	98.8	60	13	1655	
Alfa Romeo GTV 1600	4 Cyl DOHC	78.0 x 82.0	1570	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	92.5	60	13/14/ 15	1980	
AMC/Renault Alliance / Encore	4 Cyl OHV	73.0 x 77.0 76.0 x 77.0	1296 1397	Alum, non-crossflow	2	Unrestricted (automotive type w/ 45mm choke(s) w/ alt. head)	97.5	60	13	1296cc @ 1712, 1397cc @ 1807	Alternate crossflow head #7700597627.
BLMI Austin/Morris Mini-Cooper	4 Cyl OHV	2.78 x 3.20	1275 1098 1071 998 997 970 850	Iron, non-crossflow	2	Unrestricted	80.2	60	10 / 12 / 13	1275 @ 1569, 850 @ 1045, 970-998 @ 1236, 1071-1098 @ 1331, RWD @ 1616	Roll cage meeting requirements for cars under 1500lbs are acceptable for cars registered prior to 1/1/82. Reduce by 100 lbs with original suspension and 10" wheels. Front and rear body seams may be removed. Pierce/PBS aluminum cylinder head allowed.
BLMI Austin America	4 Cyl OHV	2.78 x 3.20	1275	Iron, non-crossflow	2	Unrestricted	93.5	60	13 / 12	FWD @ 1569, RWD @ 1616	Roll cage meeting requirements for cars under 1500 lbs are acceptable for cars registered prior to 1/1/82.
BMW 1600-2 / 1602	4 Cyl SOHC	84.0 x 71.0	1573	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	98.5	60	13	2020	
Dodge Colt Coupe	4 Cyl SOHC	79.0 x 86.0	1597	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.0	60	13	1980	Allow Mitsubishi bodywork.

GTL$_B$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Dodge Omni / 024 (1978)	4 Cyl SOHC	79.5 x 86.4	1715	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	Omni = 99.2, 024 = 96.7	60	13	2080	
Fiat 124 Sport Coupe	4 Cyl DOHC	80.0 x 71.5 80.0 x 79.2 80.0 x 80.0 84.0 x 79.2	1438 1592 1608 1756	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.3	60	13	1438cc @ 1930, 1592cc @ 2030, 1608cc @ 2050, 1756cc @ 2130	
Fiat 124 Special	4 Cyl OHV (1438), DOHC (1582)	80.0 x 71.5 80.0 x 79.2	1438 1592	Alum, Non-crossflow (1438cc), Crossflow (1592cc)	2	(2) Automotive type w/ 32mm choke(s)	95.3	60	13	2030	
Fiat 128 Coupe SL 1300 (1365) / 3P	4 Cyl OHC	86.0 x 55.5	1290	Alum, non-crossflow	2	Unrestricted	87.5	60	13	1645	Roll cage meeting requirements for cars under 1500lbs are acceptable for cars registered prior to 1/1/82.
Fiat 128	4 Cyl OHC	80.0 x 55.5 86.0 x 55.5	1116 1290	Alum, non-crossflow	2	Unrestricted	96.4	60	13	1116=1417 1290=1645	Roll cage meeting requirements for cars under 1500lbs are acceptable for cars registered prior to 1/1/82.
Fiat 131 Coupe / Sedan	4 Cyl DOHC	80.0 x 71.5 80.0 x 79.2 80.0 x 80.0 84.0 x 79.2	1438 1592 1608 1756	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	98.0	60	13	1438cc @ 1930, 1592cc @ 2030, 1608cc @ 2050, 1756cc @ 2130	

GTLc	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Fiat X 1/9	4 cyl SOHC	86.4 x 64.0	1498	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	86.7	60	13	1815	Removable roof panel must be in place
Ford Anglia Super	4 Cyl OHV	3.19 x 2.29 3.19 x 2.48	1198 1297	Iron, non-crossflow	2	Unrestricted	90.5	60	13	1598, 1500cc block @ 1621	Alternate 1500cc block: casting #2733E6015
Ford Cortina GT (64-68)	4 Cyl OHV	81.0 x 73.2 81.0 x 77.5	1499 1598	Iron, Non-crossflow (1499cc), Crossflow (1598cc)	2	(2) Automotive type w/ 32mm choke(s)	98.0	60	13	1930	1499cc W/6" rim = 1880 Lbs.
Ford Escort Super / 1300 (1365)GT	4 Cyl OHV	3.19 x 2.48	1297	Iron, non-crossflow	2	Unrestricted	96.0	60	13	1740	
Ford Escort / Lynx (81-90)	4 Cyl SOHC	80.0 x 79.5	1598	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.2	60	13	2030	
Ford Escort EXP, Lynx, LN7 (1982-)	4 Cyl SOHC	80.0 x 79.5	1598	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.2	60	13	2030	
Ford Escort (91-93)	4 Cyl OHV	81.0 x 77.5	1598	Iron, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.0	60	13	2030	Non-tube frame track: (F & R) 60.52"
Ford Escort Mexico	4 Cyl OHV	81.0 x 77.5	1598	Iron, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	96.0	60	13	2030	
Ford Fiesta (78-80)	4 Cyl OHV	81.0 x 77.5	1598	Iron, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	90.0	60	13	1930	Any Formula Ford cylinder head may be used, including the aluminum version.
Ford Pinto	4 Cyl OHV	81.0 x 77.5	1598	Iron, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.0	60	13	2030	Non-tube frame track: (F & R) 60.52"

GTL$_D$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Honda Civic HB 1.5 (84-87)	4 Cyl SOHC	74.0 x 86.5	1488	Alum, Crossflow	3	(2) Automotive type w/ 30mm choke(s)	93.7	60	13	1900	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Honda Civic 1.3 (80-83)	4 Cyl SOHC	72.0 x 82.0	1335	Alum, Non-crossflow	3	(2) Automotive type w/ 30mm choke(s)	88.6	60	13	1775	Alt. Heads: #12100-PB9-000 (2 valve, Crossflow), 12100-PA1-000
Honda Civic CRX 1.5 (84-87)	4 Cyl SOHC	74.0 x 86.5	1488	Alum, Crossflow	3	(2) Automotive type w/ 30mm choke(s)	86.6	60	13	1900	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084. Mugen Body Parts: Front bumper/spoiler, Front & Rear fender, Rear bumper. NOTE: Mugen rocker panel NOT APPROVED. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Honda Coupe (92-95)	4 Cyl DOHC	72.0 x 76.0	1237	Alum, crossflow	2	Unrestricted	103.1	60	13	1626	Cylinder head #12100-634-000
Honda CRX (88-91)	4 Cyl OHC	74.0 x 78.0	1342	Alum, crossflow	3	Two (2) auto type w/30mm chokes.	90.6	60	13	1807	Cylinder head #12100-PE3-000 or 12100-PE7-000.
Honda Civic (84-87)	4 Cyl OHC	74.0 x 78.0	1342	Alum, crossflow	3	Two (2) auto type w/30mm chokes.	88.6	60	13	1807	Cylinder head #12100-PE3-000 or 12100-PE7-000
Honda Civic CRX 1.3 (84-87)	4 Cyl SOHC	74.0 x 78.0	1342	Alum, Crossflow	3	(2) Automotive type w/ 30mm choke(s)	86.6	60	13	1800	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084. Mugen Body Parts: Front bumper/spoiler, Front & Rear fender, Rear bumper. NOTE: Mugen rocker panel NOT APPROVED.

GTL$_E$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Honda Civic CRX 1.5 (88-91)	4 Cyl SOHC	74.0 x 86.5	1488	Alum, Crossflow	3	(2) Automotive type w/ 30mm choke(s)	90.6	60	13	1900	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084.Hood may be modified for engine clearance but no openings are allowed. Alt. Engine: 1590cc, 4-valve crossflow, 45mm carbs w/30mm choke(s), Weight: 1950 lbs. Alt. engine: 1493cc, 4-valve crossflow, 45mm carbs w/30mm choke(s), weight 1900 lb. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Honda Civic Si (88-91)	4 Cyl SOHC	74.0 x 86.5	1488	Alum, Crossflow	3	(2) Automotive type w/ 30mm choke(s)	98.4	60	13	1900	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084.Hood may be modified for engine clearance but no openings are allowed. Alt. Engine: 1590cc, 4-valve crossflow, 45mm carbs w/30mm choke(s), Weight: 1950 lbs. Alt. engine: 1493cc, 4-valve crossflow, 45mm carbs w/30mm choke(s), weight 1900 lb. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Honda CRX (84-87)	4 Cyl OHC	74.0 x 78.0	1342	Alum, crossflow	3	Two (2) auto type w/30mm chokes.	86.6	60	13	1807	Cylinder head #12100-PE3-000 or 12100-PE7-000. Mugen Body Parts: Front bumper/spoiler, Front & Rear fender, Rear bumper. NOTE: Mugen rocker panel NOT APPROVED.
Honda Civic HB (88-91)	4 Cyl OHC	74.0 x 78.0	1342	Alum, crossflow	3	Two (2) auto type w/30mm chokes.	98.4	60	13	1807	Cylinder head #12100-PE3-000 or 12100-PE7-000.

GTL$_F$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Honda Civic 1.3 (80-83)	4 Cyl OHC	72.0 x 82.0	1335	Alum, non-crossflow	3	Two (2) auto type w/30mm chokes.	88.6	60	13	1769	Cylinder head #12100-PB9.000 (2v crossflow) or 12100-PA1-000
Honda Civic Coupe (1996-)	4 Cyl SOHC	74.0 x 86.5	1488	Alum, Non-crossflow	3	(2) Automotive type w/ 30mm choke(s)	103.2	60	13	1900	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Honda Civic CVCC	4 Cyl SOHC	74.0 x 86.5	1488	Alum, Non-crossflow	3	(2) Automotive type w/ 30mm choke(s)	88.6	60	13	1775	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Honda Civic HB (1984)	4 Cyl SOHC	74.0 x 78.0	1342	Alum, Crossflow	3	(2) Automotive type w/ 30mm choke(s)	93.7	60	13	1775	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084.
Honda Civic (73-79)	4 Cyl OHC	70.0 x 76.0 72.0 x 76.0	1170 1237	Alum, crossflow	2	Unrestricted	86.6	60	13 / 12	1170 @ 1540, 1237 @ 1626	Cylinder head #12100-634-000
Honda Civic (4-door) (84-87)	4 Cyl SOHC	74.0 x 86.5	1488	Alum, Crossflow	3	(2) Automotive type w/ 30mm choke(s)	96.5	60	13	1900	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084. Rear fender flares may extend forward into the rear doors, no more than 26 inches from the rear axle centerline. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.

GTL$_G$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Honda Civic Coupe (93-95)	4 Cyl SOHC	74.0 x 86.5	1488	Alum, Non-crossflow	3	(2) Automotive type w/ 30mm choke(s)	103.2	60	13	1900	Alt. Head: #12100-PE3-000, 12100-PE0-010, 12100-PE7-000 or 12100-XA1-0084. An SCCA approved F.I. kit of OEM origin is permitted. Contact the SCCA National Office for p/n's and specs.
Lotus Cortina TC (1967)	4 Cyl DOHC	82.6 x 73.0	1558	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	98.0	60	13	2030	
Lotus Cortina TC (64-66)	4 Cyl DOHC	82.6 x 73.0	1558	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	97.5	60	13	2030	
Mazda Protégé (1999)	4 Cyl SOHC	77.0 x 69.6	1296	Alum, crossflow	2	Unrestricted	96.5	60	13	1693	1500cc block and head w/1300 (1365)cc crankshaft (#E301-11-301 or equivalent) is permitted. Alt. head: # E515-10-100B.
Mazda Protégé 5 (2002)	4 Cyl SOHC	73.0 x 76.0 77.0 x 69.6	1272 1296	Alum, crossflow	2	Unrestricted	102.8	60	13	1272cc @ 1730, 1296cc @ 1693	1500cc block and head w/1300 (1365)cc crankshaft (#E301-11-301 or equivalent) is permitted. Alt. head: # E515-10-100B. OEM roof spoiler is permitted (P/N:B25T-51-960C-XX, "XX"=color code)
Mazda GLC (1981-)	4 Cyl SOHC	77.0 x 80.0	1490	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	93.1	60	13	1830	Alt. Head: #E515-10-100B
Mazda GLC (73-79)	4 Cyl OHV	77.0 x 69.6	1296	Alum, crossflow	2	Unrestricted	98.4	60	13	1693	1500cc block and head w/1300 (1365)cc crankshaft (#E301-11-301 or equivalent) is permitted. Alt. head: # E515-10-100B.

GTL$_H$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Mazda Protégé	4 Cyl SOHC	77.0 x 80.0	1490	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	98.4	60	13	1830	Alt. Head: #E515-10-100B. Engine: 78.0 x 80.0 (1597cc) w/32mm choke(s) @ 1980
Mazda Protege'	4 Cyl SOHC	77.0 x 80.0	1490	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	102.8	60	13	1830	Alt. Head: #E515-10-100B. Engine: 78.0 x 80.0 (1597cc) w/32mm choke(s) @ 1980 OEM roof spoiler is permitted (P/N:B25T-51-960C-XX, "XX"=color code).
Mazda Protege' 5 (2002)	4 Cyl OHC	77.0 x 69.6	1296	Alum, crossflow	2	Unrestricted	96.3	60	13	1693	1500cc block and head w/1300 (1365)cc crankshaft (#E301-11-301 or equivalent) is permitted. Alt. head: # E515-10-100B.
Mazda Protege' (1999)	4 Cyl SOHC	77.0 x 80.0	1490	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	96.5	60	13	1830	Alt. Head: #E515-10-100B. Engine: 78.0 x 80.0 (1597cc) w/32mm choke(s) @ 1980
Mazda 323	4 Cyl SOHC	78.0 x 83.6	1597	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	1980	
Mazda MX-3 (92-94)	4 Cyl SOHC	77.0 x 80.0	1490	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	96.3	60	13	1830	Alt. Head: #E515-10-100B. Engine: 4 Cyl SOHC, 78.0 x 83.6 (1597cc) w/32mm choke(s) @ 1980
Mazda*3*	4 Cyl SOHC	77.0 x 80.0	1490	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	97	60	13	1830	Alt. Head: #E515-10-100B. Engine: 4 Cyl SOHC, 78.0 x 83.6 (1597cc) w/32mm choke(s) @ 1980
Mazda*3*	4 Cyl SOHC	73.0 x 76.0 77.0 x 69.6	1272 1296	Alum, crossflow	2	Unrestricted	97.0	60	13	1272cc @ 1730, 1296cc @ 1693	1500cc block and head w/1300 (1365)cc crankshaft (#E301-11-301 or equivalent) is permitted. Alt. head: # E515-10-100B.

GTL	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Mini Cooper (2002)	4 Cyl OHV	2.78 x 3.20	1275 1098 1071 998 997 970 850	Iron, non-crossflow	2	Unrestricted	97.1	60	13	1275 @ 1569, 850 @ 1045, 970-998 @ 1236, 1071-1098 @ 1331, RWD @ 1616	Pierce/PBS aluminum cylinder head allowed.
Nissan 200-SX SE-R / B-14 (95-97)	4 Cyl SOHC	73.0 x 70.0 75.0 x 70.0 73.0 x 77.0	1171 1237 1288	Alum, non-crossflow	2	Unrestricted	95.7(B13) / 99.8(B14)	60	13	1171cc @ 1598, 1237cc @ 1693, 1288cc @ 1769	Cylinder heads #11041-H2303, 11041-H5704, 11041-H9204. 1237cc w/A14 Block @ 1716.
Nissan Sentra / B13 (91-94)	4 Cyl SOHC	76.0 x 77.0 76.0 x 82.0 76.0 x 88.0 83.0 x 73.7	1397 1488 1597 1595	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.7	60	13	1397cc @ 1780, 1488cc @ 1930, 1597cc @ 2030, 1595cc @ 2030 (RWD Only)	Alt. Heads: #11041-H5704, 11041-H9204. Allow alternate engine A15 (1488cc) at 1850 lbs.
Nissan Sentra SER (2002)	4 Cyl SOHC	76.0 x 77.0 76.0 x 82.0 76.0 x 88.0 83.0 x 73.7	1397 1488 1597 1595	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.7	60	13	1397cc @ 1780, 1488cc @ 1930, 1597cc @ 2030, 1595cc @ 2030 (RWD Only)	Alt. Heads: #11041-H5704, 11041-H9204. Allow alternate engine A15 (1488cc) at 1850 lbs.

GTL$_J$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Nissan 200-SX SE-R (95-97)	4 Cyl SOHC	76.0 x 77.0 76.0 x 88.0 83.0 x 73.7	1397 1597 1595	Alum.	2	(2) Automotive type w/ 32mm choke(s)	95.7 / 99.8	60	13	1397cc @ 1780, 1597cc @ 2030, 1595cc @ 2030 (RWD Only)	Alt. Heads: #11041-H5704, 11041-H9204 (A14), 11041-15M00, 11041-17M00 (E16), 11041-00600A, 11041-N7820, 11041-22010 (L16). Engines: E15 (1488cc) 76.0 x 82.0 @ 1980 Lbs or A15 (1488cc) 76.0 x 82.0 @ 1850 Lbs.
Nissan Sentra / B11 (82-85)	4 Cyl SOHC	76.0 x 82.0 76.0 x 88.0	1488 1597	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	1488cc @ 1930, 1597cc @ 2030	Alt. Head: #11041-15M00. Alt. Rod Length: 5.695"
Nissan Sentra SER (2002)	4 Cyl SOHC	73.0 x 70.0 75.0 x 70.0 73.0 x 77.0	1171 1237 1288	Alum, non-crossflow	2	Unrestricted	95.7 or 99.8	60		1171cc @ 1598, 1237cc @ 1693, 1288cc @ 1769	Cylinder heads #11041-H2303, 11041-H5704, 11041-H9204. 1237cc w/A14 Block @ 1716.
Nissan Sentra / B12 (86-90)	4 Cyl SOHC	76.0 x 88.0	1597	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	2030	Alt. Head: #11041-15M00. Alt. Rod Length: 5.695", Engine: L16
Nissan Pulsar / KN12 (83-86)	4 Cyl SOHC	76.0 x 82.0 76.0 x 88.0	1488 1597	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.1	60	13	1488cc @ 1930, 1597cc @ 2030	Alt. Head: #11041-15M00. Alt. Rod Length: 5.695"
Nissan Pulsar / KN13 (87-90)	4 Cyl SOHC	76.0 x 88.0	1597	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.1	60	13	2030	Alt. Head: #11041-15M00. Alt. Rod Length: 5.695", Engine: A14
Nissan Sentra/ B13 (RWD only) (91-94)	4 Cyl SOHC	73.0 x 70.0 75.0 x 70.0 73.0 x 77.0	1171 1237 1288	Alum, non-crossflow	2	Unrestricted	95.7	60	13	1171cc @ 1598, 1237cc @ 1693, 1288cc @ 1769	Cylinder heads #11041-H2303, 11041-H5704, 11041-H9204. 1237cc w/A14 Block @ 1716.

GTL$_K$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Nissan/Datsun PL510 (68-73)	4 Cyl SOHC	83.0 x 73.5	1595	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.3	60	13	1930	Alt. Heads: #11041-22010, 11041-U0600-A, 11041-U0602-SV, 11041-N7120, 11041-21901
Nissan/Datsun B210 (74-78)	4 Cyl OHV	76.0 x 77.0	1397	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	92.1	60	13	1780	Alt. Heads: #11041-H2303, 11041-H5704, 11041-H9204. Allow alternate engine: A15 (1488cc) at 1850 lbs.
Nissan/Datsun 210 (79-82)	4 Cyl OHV	76.0 x 77.0 76.0 x 82.0	1397 1488	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	92.1	60	13	1397cc @ 1780, 1488cc @ 1800	Alt. Heads: #11041-H2303, 11041-H5704, 11041-H9204
Nissan/Datsun B310 1400 (1979-)	4 Cyl OHV	76.0 x 77.0	1397	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.2	60	13	1780	Alt. Heads: #11041-H2303, 11041-H5704, 11041-H9204
Nissan/Datsun 210 (1979-)	4 Cyl SOHC	73.0 x 70.0 75.0 x 70.0 73.0 x 77.0	1171 1237 1288	Alum, non-crossflow	2	Unrestricted	92.1	60	13	1171cc @ 1598, 1237cc @ 1693, 1288cc @ 1769	Cylinder heads #11041-H2303, 11041-H5704, 11041-H9204. 1237cc w/A14 Block @ 1716.
Nissan/Datsun B110 Coupe/Sedan (70-73)	4 Cyl OHV	73.0 x 70.0 75.0 x 70.0 73.0 x 77.0	1171 1237 1288	Alum, non-crossflow	2	Unrestricted	90.6	60	13	1171cc @ 1598, 1237cc @ 1693, 1288cc @ 1769	Cylinder heads #11041-H2303, 11041-H9204. 1237cc w/A14 Block @ 1716.
Nissan/Datsun B210 (74-78)	4 Cyl OHV	73.0 x 70.0 75.0 x 70.0 73.0 x 77.0	1171 1237 1288	Alum, non-crossflow	2	Unrestricted	92.1	60	13	1171cc @ 1598, 1237cc @ 1693, 1288cc @ 1769	Cylinder heads #11041-H2303, 11041-H5704, 11041-H9204. 1237cc w/A14 Block @ 1716.

GTL$_L$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Opel 1900 (1995), Mk 51 & 53, Sport Coupe Rallye, Mk 57R	4 Cyl SOHC	93.0 x 69.9	1897	Iron, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.7	60	13	2040	
Opel / Isuzu Sport Coupe	4 Cyl SOHC			Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)		60	13	2180	
Opel GT 1900 (1995), Mk 77	4 Cyl SOHC	93.0 x 69.9	1897	Iron, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.7	60	13	2040	
Renault R5 / R-1228 (1978)	4 Cyl OHV	73.0 x 77.0	1289	Alum, non-crossflow	2	Unrestricted (automotive type w/36mm choke(s) w/alt. Head)	94.6(R) / 95.8(L)	60	13	1712	Alt. Cylinder head #7700597627. Alt Engine: Bore/Stroke: 76.0 x 77.0, Displ. 1397cc, Carburetion: 45mm, Alt. Cylinder head #7700597627, Weight: 1807 lb.
Renault LeCar (78-79)	4 Cyl OHV	76.0 x 77.0	1397	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.6(R) / 95.8(L)	60	13	1850	Alt Head: #7700597627 (Firewall modifications permitted with use of alt. head.)
Saab Sedan (-1964)	V-4 OHV	89.9 x 66.8	1696	Iron, crossflow	2	(2) Automotive type w/ 32mm choke(s)	98.4	60	13 / 15	2130	Intake manifold: #379050
Saab Sonnet / Sonnet III	V-4 OHV	89.9 x 58.9 89.9 x 66.8	1496 1696	Iron, crossflow	2	(2) Automotive type w/ 32mm choke(s)	84.6	60	13 / 15	1880	Intake manifold: #379050
Subaru GL Coupe	4 Cyl OHV	3.23 x 2.36	1267	Alum, non-crossflow	2	Unrestricted	96.6	60	13	1724	
Subaru Justy (2WD) (88-94)	3 Cyl SOHC	78.0 x 83.0	1189	Alum, crossflow	3	Unrestricted	89.9	60	13	1593	CVT transmission is prohibited.
Suzuki Swift GT/GTi (89-)	4 Cyl DOHC	74.0 x 75.5	1299	Alum, Crossflow	4	(2) Automotive type w/ 30mm choke(s)	89.2	60	13	1830	

GTL$_M$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Toyota Paseo (92-99)	4 Cyl SOHC	81.0 x 77.0 85.0 x 70.0	1587 1588	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	93.7	60	13	1587cc @ 1930, 1588cc @ 1900	
Toyota Corolla (1984-)	4 Cyl SOHC	81.0 x 77.0	1587	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.7	60	13	1930	
Toyota Corolla SR-5 / Sport Coupe (1988-)	4 Cyl SOHC	81.0 x 77.0	1587	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.7	60	13	1930	
Toyota Corolla 1200	4 Cyl OHV	75.0 x 66.0	1166	Alum, non-crossflow	2	Unrestricted	90.0 / 91.9	60	13 / 12	1660	Roll cage meeting requirements for cars under 1500lbs are acceptable for cars registered prior to 1/1/82.
Toyota Corolla SR-5 (-1975)	4 Cyl OHV	85.0 x 70.0	1588	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	91.9 (-74) / 93.3 (75)	60	13	1900	
Toyota Corolla (80-83)	4 Cyl OHV	85.0 x 70.0	1588	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	1900	
Toyota Corolla Sport Coupe & Liftback (76-79)	4 Cyl OHV	85.0 x 70.0	1588	Alum, Crossflow	2	Unrestricted	93.3	60	13	1900	
Toyota Starlet (1981-)	4 Cyl OHV	75.0 x 73.0 75.0 x 66.0	1166 1290	Alum, non-crossflow	2	Unrestricted	90.6	60	13 / 12	1166cc @ 1660 1290cc @ 1693	
Toyota Starlet (1981-)	4 Cyl OHV	83.0 x 73.0	1580	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	90.6	60	13	1750	

GTL$_N$	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Toyota Tercel (1991-)	4 Cyl OHV	75.0 x 66.0 75.0 x 73.0	1166 1290	Alum, non-crossflow	2	Unrestricted	93.7	60	13 / 12	1166cc @ 1660 1290cc @ 1693	
Toyota Tercel (1991-)	4 Cyl OHV	85.0 x 70.0 81.0 x 77.0	1588 1587	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	93.7	60	13	1588cc @ 1900, 1587cc @ 1930	Engine: 5K (1542cc) OHV, non-crossflow, 83.0 x 73.0 @ 1750Lbs.
Toyota Tercel (80-90)	4 Cyl OHV	77.5 x 77.0	1452	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	98.4	60	13	1880	
Toyota Corolla Sport / Sport Coupe (8V) (84-87)	4 Cyl SOHC	81.0 x 77.0	1587	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	1930	
Volkswagen 1300 (1365) (65-66)	4 Cyl OHV	77.0 x 69.0	1285	Alum, non-crossflow	2	Unrestricted	94.5	60	13 / 15	Siamese @ 1569 Dual @ 1664	
Volkswagen 1300 (1365) (1967)	4 Cyl OHV	77.0 x 69.0	1285	Alum, non-crossflow	2	Unrestricted	94.5	60	13 / 15	1664	
Volkswagen 1500/1600 (67-69)	4 Cyl OHV	83.0 x 69.0 85.5 x 69.0	1493 1584	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13 / 15	1880	Alt. Heads: #043-101-375H
Volkswagen 1600 (70-77)	4 Cyl OHV	85.5 x 69.0	1584	Alum, Crossflow	2	(2) Automotive type w/ 32mm choke(s)	95.3	60	13 / 15	1880	Alt. Heads: #043-101-375H
Volkswagen Beetle (98-99)	4 Cyl SOHC	77.0 x 69.0	1285	Alum, non-crossflow	2	Unrestricted		60	13	Siamese @ 1569 Dual @ 1664	

GTLo	Engine Type	Bore x Stroke (mm)	Displ. (cc)	Head Type	Valves per Cyl.	Carburetion	Wheelbase (inch)	Track (Max.) (inch)	Wheels 7" wide	Weight	Notes:
Volkswagen Beetle (98-01)	4 Cyl SOHC	76.5 x 80.0 79.5 x 80.0	1471 1588	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)		60	13	1980	Alt. Heads: #026-103-373G, 049-103-351C. Alternate Eurospec Sports cylinder head may be used.
Volkswagen Corrado	4 Cyl SOHC	76.5 x 80.0 79.5 x 80.0	1471 1588	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	1980	Alt. Heads: #026-103-373G, 049-103-351C. Alternate Eurospec Sports cylinder head may be used.
Volkswagen Golf	4 Cyl SOHC	76.5 x 80.0 79.5 x 80.0	1471 1588	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	1980	Alt. Heads: #026-103-373G, 049-103-351C. Alternate Eurospec Sports cylinder head may be used.
Volkswagen Rabbit (1975-)	4 Cyl SOHC	76.5 x 80.0 79.5 x 80.0	1471 1588	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	1980	Alt. Heads: #026-103-373G, 049-103-351C. Alternate Eurospec Sports cylinder head may be used.
Volkswagen Scirocco	4 Cyl SOHC	76.5 x 80.0 79.5 x 80.0	1471 1588	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	94.5	60	13	1980	Alt. Heads: #026-103-373G, 049-103-351C. Alternate Eurospec Sports cylinder head may be used.
Volkwagen Golf MK - IV	4 cyl SOHC	76.5 x 80.0 79.5 x 80.0	1471 1588	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	98.2	60	13	1980	Alt. Heads: #026-103-373G, 049-103-351C. Alternate Eurospec Sports cylinder head may be used.
Volkwagen Jetta MK - IV	4 cyl SOHC	76.5 x 80.0 79.5 x 80.0	1471 1588	Alum, Non-crossflow	2	(2) Automotive type w/ 32mm choke(s)	98.2	60	13	1980	Alt. Heads: #026-103-373G, 049-103-351C. Alternate Eurospec Sports cylinder head may be used.

INTRODUCTION

These specifications are presented as an adjunct to your Factory Shop Manual. They are not meant to supersede the information that is in your manual that legitimately applies to your make, model, and year of car, with the exception of the following items. TIRE SIZES, RIM WIDTHS, SPRINGS, SWAY BAR(S), AND PERFORMANCE EQUIPMENT. In the case of the foregoing exceptions, the SSS and TCS will have priority. Voids or mistakes that may occur in the SSS and TCS do not allow you to change your vehicle to conform to the SSS and TCS.

These specifications reflect the best information available at the time of publication. Any error found in this edition will be updated when reliable specifications are available from the factory/factory distributor or other sources recognized by SCCA, Inc.

No interchange or updating or backdating of parts or specifications between models or model years is permitted even though they may appear on the same line. A model is defined as a unique car configuration which can be identified by means of decoding the Vehicle Identification Number.

17.1.8. TOURING CATEGORY

These Specifications are part of the SCCA General Competition Rules (GCR), and all classified automobiles shall conform with the requirements of GCR Section 17., "Automobiles," unless this Category is specifically exempted from said requirements.

A. Purpose

Touring Category Classes are intended to provide the Membership with the opportunity to compete in commonly-available, recently-produced automobiles in as near the legal, street-driven form of those automobiles as is practically and safely possible under racing circumstances.

B. Intent

Touring Category automobiles shall, at all times, be in compliance with applicable Federal and State emission standards, specifically, ARB and EPA certifications, as well as any additional emission specifications contained within their factory Shop/Service Manual(s). *Factory Shop/Service Manuals may come in the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases. It is the responsibility of the competitor to provide the electronic device capable of accessing the data for compliance verification.*

1. The competitiveness of any car in any Class shall not be guaranteed, nor shall the continued recognition of any car in any Class. Eligibility of cars may be discontinued at any time and for any reason, other than that of competitive stature.

C. Specifications

The SCCA shall publish Touring Category Specifications (TCS), containing the basic officially recognized specifications for each car eligible to compete in the Category during the calendar year.

1. To supplement those Specifications, competitors in the Touring Category shall be required to have in their possession a factory Shop/Service manual *or its equivalent (See TCS section 17.1.8.B)* for the specific make, model and year of the automobile entered. This manual *or its equivalent* will assist in determining the originality and configuration of the automobile, and shall be presented at Technical Inspection for every event and when otherwise so officially requested. *If the factory Shop/Service manual is not available, then the competitor shall have a copy of the official SCCA Vehicle Technical Sheet (VTS) with them at every event and shall present it for reference when officially requested.*

2. The proof of legality or illegality shall rest upon the protestor and/or protestee.

3. Cars eligible for competition in a given year are those classified by the SCCA Club Racing Board by December 31 of the previous year. Cars classified shall have been approved by the ARB, EPA, and DOT for sale in the United States, and shall be models intended to be available to the general public for purchase.

   a. The Club Racing Board may classify any particular model of a car, and may permit specific factory options for that car. Such options shall be listed on the Specification Line for that vehicle. No unlisted models or factory options are eligible. If no specific model or options are listed on said line, the classified car shall be the base model with no options. Converting a car delivered with an automatic transmission to a manual transmission is allowed as long as all components which differ, including, but not limited to, radiator, springs, engine management systems, final drive ratio, etc., are converted to manual transmission specification.

   b. To be considered for Classification, a factory workshop manual and a Motor Vehicle Manufacturers Association (MVMA) "Manufacturers Motor Vehicle Specifications" form, or its equivalent, *the official SCCA Vehicle Technical Sheet (VTS),* shall be on file with the Club Racing Department. *Should the factory workshop manual not be available by December 31st of the year of classification, the official SCCA VTS shall be considered sufficient for the purposes of classification and shall be supplanted by the factory workshop manual or its equivalent (See TCS 17.1.8.B) when it becomes available. Copies of the official SCCA VTS may be acquired by the SCCA National Office Technical Department.*

      If the manufacturer certifies that there are no technical changes between model years of a previously classified car, the factory workshop manuals or equivalent and the official SCCA VTS on file at the National Office shall be considered sufficient for classification and compliance purposes. The certification shall become a permanent record of the classification in the National Office Technical Department.

   c. Only those cars listed each year are eligible to compete. Additions and/or deletions of automobiles shall be at the discretion of the SCCA.

d. "Special Performance" specifications from the manufacturer which go beyond those listed in the Touring Specifications book will not be considered valid. Any manufacturer determined to be supplying false specifications to competitors or to the SCCA may be advised that said specifications may be withdrawn or the eligibility of the car(s) involved shall be terminated. The Club Racing Board is authorized to implement these terminations on an immediate basis without the approval of the Board of Directors.

e. In the case of service circulars, recalls, etc., the burden of proof of validity shall be upon the competitor.

4. Unless otherwise so specified on a vehicle's Specification Line, no updating or backdating of cars, models, specifications, and/or components thereof shall be permitted.

   a. The Club may permit substitution/replacement of certain components or modification of some assemblies on Touring Category automobiles. To assist in equating competition potential, not all automobiles may be permitted some or all of these allowed substitutions and/or modifications. Any such permissions shall be listed on the Specification line for each vehicle.

   b. No car older than the 1995 model year is eligible for competition. Beginning with the January 2005 race season, a car shall be eligible for ten (10) calendar years of competition, beginning on January 1st of its model year. Cars that are five (5) calendar years older than the current competition year shall not be eligible for positive competition adjustments.

5. The Vehicle Identification Number (VIN) shall correspond with the automobile classified and the automobile presented for competition. VIN stampings and/or plates shall remain in place.

   a. A car may be entered in competition if there are a minimum of two (2) VIN stampings and/or plates that correspond with the model of automobile classified.

   b. The tenth (10) position letter of the VIN determines the model year of the car ("P"=1993, "R"=1994, "S"=1995, "T"=1996, "V"=1997, etc.).

6. In order to equate competition potential, the Club may specify a competition weight for the vehicle.

Additionally, and to this same end, it may direct that a specific amount of ballast be mounted in the vehicle in a specific location. Refer to Section E.2. of these Rules for additional details.

D. Modifications (Configuration)

The following items represent the only modifications and safety items permitted and/or required on Touring Category automobiles. No permitted component or authorized modification shall additionally perform a prohibited function

1. Engine

a. Component Modification

1. Overhaul procedures which in the slightest way could increase performance beyond factory specifications shall not be utilized, e.g. porting/polishing, etc.

2. Blueprinting and balancing is allowed.

3. No engine component(s) shall be modified in any manner that is not specifically permitted or authorized by the Factory Service Manual or legitimate Factory Technical Bulletins.

4. "Special Performance" specifications from the manufacturer which go beyond those listed in the TCS book shall not be considered valid.

b. Induction System

1. Air Filter(s) elements (only) may be substituted.

c. Fuel System

1. All fuel system components, settings, and specifications shall be as specified by the manufacturer. Fuel filters may be substituted with other fuel filters of equivalent OEM specifications.

2. Only the fuel type specified by the Owner's and/or Factory Service Manual may be used. Refer to GCR Section 17.4.1 for permitted fuel specifications.

3. The stock fuel tank may be replaced with a fuel cell that is designed to mount in the OEM fuel tank location or is specifically designed to mount in the spare tire well

provided that it is not necessary to modify any bodywork to accomplish the installation other than for the purposes of fastening the cell securely in place.

d. Camshaft and Valve Gear

1. All valve sizes, seat dimensions, and angles, etc., shall be in conformance with those specifications and procedures outlined in the Factory Service manual.

e. Block

1. Cylinder bore dimensions shall remain as originally specified by the Factory Service Manual. No "oversize" bores shall be permitted.

f. Oiling System

1. Engine oil may be substituted with other oil of equivalent OEM specifications. Oil additives are unrestricted.

2. Engine oil filter may be substituted with any unit meeting OEM specifications.

g. Ignition/Starter/Electrical System

1. Spark plugs may be substituted.

2. The use of resistor or non-resistor-type plugs is permitted.

3. Batteries may be replaced with those of an alternate manufacturer, provided they are of similar amp-hour capacity, size, and weight.

h. Exhaust System

1. Any part of the exhaust system beyond the catalytic converter(s) may be replaced, provided:

a. Said replacement system retains the original configuration, e.g., single or dual, etc.

b. The system exits from beneath the body in the same approximate location(s) as the original system. When a factory (OEM) single exhaust system is cosmetically split into dual

outlets, it is permitted to continue as a single system provided it exits in approximately the same location as one of the originals.

c. The system meets all appropriate event-specific sound level requirements.

i. Other Engine Components

1. Fluid hoses, their appropriate clamps, and belts (fan, alternator, etc.) may be substituted. Related clamps and hardware are unrestricted.

2. The engine management computer or ECU may be altered provided that all modifications are done within the original housing. Automobiles shall meet federal emission standards.

2. Engine, Rotary Piston

a. All permissions and restrictions in Sections D.1.a. - m. apply.

3. Cooling System

a. Radiator(s)

1. A radiator screen of one-fourth (¼) inch minimum mesh may be added in front of the radiator. If added, it shall be contained entirely within the bodywork of the vehicle.

b. Air Conditioners:

1. The factory and/or aftermarket air conditioning system may be removed, provided that at least the following items associated with the system are also removed: compressor, condenser, H.D. radiator, H.D. springs/sway bars, H.D. shocks, larger tires, engine and transmission coolers and cooling fans. All duct work, wiring, Freon lines, valves, evaporators, dryers, and dash controls may remain. If the air conditioning compressor is an integral part of the drive system, the compressor may be retained and disabled.

2. Items that serve a dual purpose, such as an alternator/air conditioning compressor bracket, etc., may not be substituted.

3. The gaps around the radiator that are created by the removal of the air conditioning

condenser and related items may be sealed with foam.

4. Transmission/Final Drive

a. Transmission

1. Transmission lubricant may be substituted. Transmission lubricant additives are unrestricted.

b. Final Drive

1. Unless otherwise so noted on the Vehicle's Specification Line, the differential ratio shall be as delivered as standard equipment by the manufacturer.

2. All legitimately classified cars in Touring Class are permitted a limited-slip differential (Quaiffe, Torsen, etc.). Locked differentials are not allowed.

3. Final Drive lubricant may be substituted. Final Drive lubricant additives are unrestricted.

5. Suspension

a. Suspension Components

1. Adjustment is permitted with a maximum negative camber of two (2) degrees.

b. Springs, Anti-Roll bar(s), and Shock Absorbers

1. Springs and anti-roll bar(s), shall remain as manufactured unless an alternate is listed on the vehicle specification line. Cars where air conditioning units have been removed shall refer additionally to Section D.3.b.1., above, for additional spring requirements.

2. The make of shock absorber may be changed. Their number, dimensions (e.g. perch location, tube length), system of attachment, and attachment points shall not be altered. Their type (tube vs. lever, etc.) shall not be altered. The interchange of gas and hydraulic shock absorbers is permitted.

a. The mounting hardware utilized shall be of the original type.

b. The use of any shock absorber bushing material is permitted. Note: the bushing attaching the end of the

strut to the body or frame on a strut-type suspension system is considered a suspension bushing, not a shock absorber bushing.

c. The dimensional characteristics of the shock and placement of the spring shall remain as stock.

d. Suspension geometry and range of travel shall not be altered.

e. Remote-reservoir shock absorbers are prohibited.

6. Brakes

a. Components

1. The make and material of brake pads and linings may be changed.

2. Brake fluid may be substituted with any brake fluid.

3. Brake rotor dust shields may be removed.

4. Flexible rubber brake lines may be replaced with Teflon lined, metal braided hoses.

7. Wheels and Tires

a. Wheels

1. Any type wheel suitable for competition may be used, provided:

a. It is the same width and diameter as stock, or it does not exceed the maximum wheel size listed on the Vehicle's Specification Line.

b. Wheels are permitted any offset provided the tire tread (that portion of the tire that contacts the ground) does not protrude beyond the fender opening when viewed from the top perpendicular to the ground, unless specified differently on the individual spec line for that car. To determine compliance the vehicle should be rolled through a powdered substance, as raced with driver, in order to indicate the tire tread contact patch under static conditions.

c. Cars equipped with lug bolts may convert to wheel studs and lug nuts.

d. Wheel studs may be replaced with longer studs as necessary to fit optional wheels. Wheel spacers may be used for purposes of adjusting track.

2. Hub caps and wheel trim rings shall be removed from all wheels.

b. Tires

Unless otherwise so noted on a vehicle's TCS line, all cars shall run the tire size as listed for the vehicle in the TCS or an authorized replacement size. When authorized replacement tires are used, the same size tire shall be used on each axle (front tires need not be the same size as rear tires).

All tires shall be DOT approved and shall be offered for sale over the counter through the manufacturer's tire dealer network. Racing, recapped and regrooved tires are prohibited. The brand of tire and tire pressures are unrestricted. The only modifications allowed to tires are having treads "shaved" or "trued."

All cars may run tires of the speed rating of their choice. For size determination, the molded section shall be used. All cars are allowed a section increase or decrease of 10mm or 20mm (e.g., 195 may use 175, 185, 195, 205 or 215). All cars are allowed an aspect ratio increase or decrease of 5 or 10 (e.g., 55 may use 45, 50, 60 or 65).

8. Body/Structure

a. Configuration/Modifications

1. Component Alignment

a. All body components shall maintain their original relationships. Gaps or openings shall not be increased, decreased, or eliminated through realignment of components. Normally occurring gaps or seams shall not be taped over.

2. Door Glass

a. All cars shall run with both front door windows fully open (down).

3. Spoilers (Wings)

a. Only original equipment front spoilers,

dams, and rear spoilers and wings shall be permitted unless specified on the vehicle specification line.

4. Lights and Lenses

   a. Exposed glass headlights shall be taped. Rear brake lights may be taped with transparent tape. Turn signals, front parking lights, backup lamps, and side marker lights may be taped.

   b. Fog/driving lights mounted on or below the bumper shall be removed, and all resulting holes shall be covered to prevent air passage through said holes.

5. Other Body Components

   a. Sunroofs, Targa tops, and T-tops are only permitted if installed by the manufacturer of the vehicle. If installed they must be retained on the vehicle, run in the closed position, and securely bolted in place unless the operating rails adequately secure the panel. Glass panels are permitted.

   b. Hatchback "privacy covers" shall be completely removed.

b. Appearance

   1. Cars may be painted any color(s). Markings and numbers may be painted.

   2. Vehicles shall be neat and clean, and shall not be dirty externally or in the engine or passenger compartments. They shall not show bodywork damage, and shall not be presented for competition totally or partially in primer. Cars that do not bear the prescribed identification marks, Club Racing logos, and numbers in conformance with GCR Section 17.5.1. shall not be approved for competition.

9. Driver (Passenger) Compartment (Trunk)

a. Seating

   1. The driver's seat (only) shall be replaced with a one-piece bucket-type race seat. All seat mountings shall be reinforced per GCR Section 18.2.10 and Section 18.1.2.

2. Rear heating/air conditioning ducts which are located under the driver's seat may be removed or modified to facilitate seat installation.

b. Steering Wheel

1. Aftermarket steering wheels, and their required mounting modifications, are permitted.

c. Gauges and Accessories

1. Water temperature, oil temperature, and oil pressure gauges are permitted and shall be securely mounted, and shall perform no other function other than their primary use.

2. Interior mirror(s) may be replaced with a multi-panel type mirror, but no such mirror shall extend beyond the confines of the interior of the vehicle.

3. Two-way radios may be used.

4. Hand controls are permitted in those instances where the driver can demonstrate the physical need for them.

d. Interior Modifications

1. Sun visors may be removed.

2. OEM Driver's seat belt assembly may be removed.

3. Carpet/padding may be cut for roll cage installation.

4. Interior trim panels may be cut solely to permit passage and attachment of roll cage front and rear hoop braces. Dashboard may be cut solely to allow passage of roll cage front downtubes. All other interior panels shall remain unmodified unless otherwise so permitted on the vehicle's TC Specification Line.

5. Spare wheels and tires may be removed. Jacks and OEM tool kits shall be removed. Tire well covers and other recess covers shall be removed from trunks and the rear areas of hatchback automobiles unless positively fastened at multiple locations via mechanical means.

6. Removal of radio and speaker components is permitted.

10. Safety

a. Roll Cage

1. All Touring Category automobiles shall have a roll cage as specified in and in accordance with GCR Section 18.3., "Touring Category Roll Cage." It shall be contained entirely within the driver/passenger compartment (this shall include the entire open area of the interior of hatchback vehicles).

b. Steering Column (Locks)

1. Steering column locks may be removed.

c. Safety Harness

1. All cars shall be equipped with a driver's restraint system meeting the specifications of GCR Section 17., "Driver's Restraint System."

2. All cars shall have a driver's side window safety net complying with GCR Section 17.30. Nets shall be mounted in such a manner as to provide protection in the event the driver's door opens.

3. In those cars where a window safety net cannot be installed, arm restraints shall be used. Arm restraints are not an acceptable substitute for window nets in any other type of car.

d. Fire Systems (Extinguishers)

1. All cars shall have, as a minimum, a fire extinguisher meeting the specifications of GCR Section 17.22.2., "Hand Held Fire Extinguisher Requirements." Touring Category automobiles may be equipped with a fire system meeting the specifications of GCR Section 17.22.1., "On-Board Fire System Requirements."

e. Passive Restraint Systems

1. Passive restraint systems shall be deactivated. Air bags shall be deactivated and may be removed. If the car is to be used on public roads, these items shall be reactivated/rearmed/replaced when not in competition.

f. Towing Eyes

1. Towing eyes per GCR Section 17.31 may be fitted.

E. Car Classification

These Classifications shall be reviewed on an annual basis, and shall be effective as of January 1. Once these Classifications have been officially published, no changes or additions shall be made after March 1 of the calendar year.

Touring Category Classes are as follows: T1 and T2,

1. Weight

a. The weight, as listed on an automobile's Specification Line, shall be with driver and required ballast. Refer to GCR Section 17.9., "Weight."

2. Ballast

a. Some vehicles may be required to carry specific amounts of ballast. If such ballast is specified for an automobile, in addition to the requirements of GCR Section 17.9.1., "Ballast," the following requirements shall also be met:

1. All specified ballast shall be securely mounted in the passenger footwell of the vehicle, aft of the firewall and any footwell angle, and forward of the passenger seat unless otherwise so permitted on the vehicle's TC Specification Line.

2. It shall be in segments no lighter than twenty-five (25) pounds and no heavier than fifty (50) pounds, and shall be capable of being removed to be weighed apart from the car.

3. Each segment shall be fastened with a minimum of two (2) one-half (1/2) inch bolts and positive lock nuts of SAE Grade 5 or better, and shall utilize large-diameter, load-distributing washers.

4. Holes may be drilled in the passenger footwell floorpan for purposes of mounting the ballast (only), and said floorpan may be reinforced as required for the same purpose.

T1A	**Bore(mm) x Stroke(mm) / Displ. (cc)**	**Valves IN &EX (mm)**	**Comp. Ratio**	**Wheelbase (mm)**	**Wheel Size (inch)**	**Tire Size**	**Gear Ratios**	**Final Drive**	**Brakes (mm)**	**Weight (lbs.)**	**Notes:**
Acura NSX (97-03)	93.0 x 78.0 / 3200	35.0(I) 30.0(E)	10.2	2530	16x7(F) 17x8.5(R)	215/45/16 245/40/17	3.07, 1.96, 1.43, 1.12, 0.91, 0.72	4.06	(F)297 Disc (R)302 Disc	3280	
BMW 540	92.2 x 82.8 / 4398		10	2830	17x8(F) 17x9(R)	235/45(F) 255/40(R)	4.23, 2.51, 1.67, 1.23, 1.00, 0.83	2.81		3780	
BMW M3 (01-03)	87.0 x 91.0 / 3246	35.0(I) 30.5(E)	11.5	2731	18 x 8(F) 18 x 9(R) or 18x10(F) 18x11(R)	Any DOT tire fitting stock body w/o modifications	4.23, 2.53, 1.67, 1.23, 1.00, 0.83	3.62	(F)325 x 28 Vented Disc (R)328 x 20 Vented Disc	3180	Final drive from auto-transmision model permitted. Factory paddle shifter is permitted. Bimmer Haus Performance Suspension Kit (BHPO3T1) permitted: shocks 11.2817-A43X881 front, 11.2810-473-881 rear; springs 08.RF150120 front, 08.R25060500 rear; anti-sway bar kit 07.190211.46M3; camber plate 20.030316.346; rear lower arm 20.121801.346; rear spring perch 20.181916.346; rear upper shock mount 20.181913.346-12; trailing arm bushing 20.200102.346.
BMW M Coupe 2002	87.0 x 91.0 / 3246	35.0(I) 30.5(E)	11.5	2459	(F)17x7.5 (R)17x9.0 Alt. (F)17x9 18x9 (R)17x10 18x10	(F)225/45 (R)245/40	4.21, 2.49, 1.66, 1.24, 1.00	3.15		3180	Front lower L arm bushings BMW part # 31-12-9-064-875 are permitted.
Chevrolet Camaro SS (98-02)	99.0 x 92.0 / 5666	50.8(I) 39.4(E)	10.1	2568	17 x 9 (F & R) 16x10(F) 16x11(R)	275/40/17	2.66, 1.78, 1.30, 1.00, 0.74, 0.50	3.42	(F)300 Vented Disc (R)302 Vented Disc	3280	35mm front swaybar & 31mm rear sway bar is permitted. Factory optional oil cooler (P/N 52452158) and associated plumbing parts are permitted. Factory optional wheel studs (P/N 22551491) are permitted. Springs: (F) 550 lb/in (P/N TBD), (R) 130 lb/in (P/N TBD)

T1B	**Bore(mm) x Stroke(mm) / Displ. (cc)**	**Valves IN &EX (mm)**	**Comp. Ratio**	**Wheelbase (mm)**	**Wheel Size (inch)**	**Tire Size**	**Gear Ratios**	**Final Drive**	**Brakes (mm)**	**Weight (lbs.)**	**Notes:**
Chevrolet Corvette C-4 (1996)	101.6 x 88.4/ 5734		10.5	2443	17x11	315/35/17	2.66, 1.78, 1.30, 1.00, 0.74, 0.49	3.45	(F)330 x 28 Vented Disc (R)305 x 20 Vented Disc	3380	Z07 and Z51 performance package permitted. LT4 engine permitted.
Chevrolet Corvette C-5 Incl. Fxd Cpe (97-04) Z06 (hardtop) (01-04)	99.0 x 92.0 / 5666	50.8(I) 39.4(E)	C5: 10.1 Z06: 10.5	2655	(C5): 17x8.5(F) 18x9.5(R) (Z06): 17x9.5(F) 18x10.5 (R) Alt: 17x10 (F&R) or 17x11(R)	245/45/17 275/40/18 or 315/35/17 (max) (F&R) Rear tires may protrude up to 1.0" with GM T1 Perf. Susp. pkg. Max. camber: (F) -3.5 (R) -2.5 with GM T1 Perf. Susp. pkg.	(C5): 2.66, 1.78, 1.30, 1.00, 0.74, 0.50 (Z06): 2.97, 2.07, 1.43, 1.00, 0.84, 0.56	3.42	(C5): (F)325mm Vented Disc (R)305mm Vented Disc (Z06): (F)320 x 32 Vented Disc (R)300 x 26 Vented Disc Alt. Rotors: (LF)12480155 (RF)12480156 (LR)10445859 (RR)10445858	3280	GM Motorsports T1 suspension pkg. (Part # 12480062) is permitted. GM Motorsports transmission cooler kit (Part # 12480080) is permitted for transmission and differential housing. GM Motorsports Oil Cooler & Reservoir Kit (Part # 12480120) is permitted. Gaps around radiator created by the removal of the air conditioning condenser may be sealed with foam. Updating and backdating within models and years listed in this classification is permitted. Parts for Z06 upgrade: LS6 Engine Assy.: P/N 88894057, Engine components if using LS1 block: LS6 cylinder head: P/N 12560801, LS6 intake manifold: P/N 88890524 or 12480075, LS6 camshaft: P/N 12560950, LS6 valve springs: P/N 12565117, LS6 valve shims: P/N 12565118, Lifter valley cover: P/N 12568002, PCM: P/N 12200411, LH Exh manifold: P/N 12561255, RH Exh manifold: P/N 12561256. Factory optional oil cooler (P/N 52452158) and associated plumbing parts are permitted. Factory optional wheel studs (P/N 22551491) are permitted. C-5 exhaust system may be modified to mate to Z06 exhaust manifolds. Doug Rippie Motorsports brake duct kit (P/N: 15-100) is permitted. Radiator from Doug Rippie Motorsports P/N 30-695 is permitted. Cage attachments points may be on the frame. Floor may be modified to facilitate installation of cage mounting plates. Wrapping of tie-rod ends to shield heat is permitted. This max. tire supercedes TCS tire rule section 17.1.8.D.7.b

T1C	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN &EX (mm)	Comp. Ratio	Wheelbase (mm)	Wheel Size (inch)	Tire Size	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Dodge Viper RT-10/ RT-10 ACR & GT-S / GT-S ACR (96-02)	101.6 x 98.5 / 7990	48.9 (I) 40.26 (E)	9.6	2444	17x10(F) 17x13(R) 18x10(F) 18x13(R)	(F) 275/40 (R) 335/35	2.66, 1.78, 1.30, 1.00, 0.74, 0.50	3.07	(F&R) 330 Disc	3560	Differential Cooler Kit (Part # P5007010), Alternate Oil Pan (Part # P5007009), Brake Duct Kit (Part # P5007074) permitted. Throttle restrictor between each each throttle body and plenum is mandatory: 0.060" flat steel plate with one 55.0mm hole. Updating and backdating within models and years listed in this classification is permitted. Bobby Archer Motorsports brake duct kit (P/N VS32001) is allowed.
Dodge Viper SRT-10 (03-04)	102.4 x 100.6 8300	50.8 (I) 40.1(E)	10	2510.2	18x10(F) 19x13(R)	(F) 275/35 (R) 345/30	2.66, 1.78, 1.30, 1.00, 0.74, 0.50	3.07	(F&R) 355 Disc	3600	Detachable Autoform hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed. Throttle restrictor between each throttle body and plenum is mandatory: .060" flat steel plate with one 55.0mm hole.
Ferrari 360 Modena (00-02)	85.0 x 79.0 / 3586		11	2600	18 Alum	(stock) 215/45 275/40 (Challenge) 235/45 295/45			(stock) (F&R)330 x 28 Vented Disc (Challenge) (F)355 x 32 Vented Disc (R)330 x 18 Vented Disc	2825	Cars may be prepared to 2002 Ferrari Challenge specs. Rollcage shall meet current T1 class specs. A welded steel cage that is bolted to the chassis/frame with appropriate backing plates is allowed. DOT tires are req'd. Weight per GCR. A throttle restrictor is req'd between each throttle body and plenum: 0.060" flat steel plate w/one 65mm hole.
Ferrari 355 Berlinetta (96-99)	85.0 x 77.0 / 3496		11	2451	18x7.5(F) 18x10(R)	225/40 265/40 245/35 305/30	3.07, 2.16, 1.61, 1.27, 1.03, 0.84	4.35	(F)300 x 28 Vented Disc (R)310 x 24 Vented Disc	3180	Cars may be prepared to 1998 Ferrari Challenge specifications. Roll cage shall meet current T1 Category specs. DOT tires are required. Weight per GCR.
Ford Mustang Steeda 351Q (96-98)	101.6 x 88.9 / 5766	49.3(I) 39.1(E)	10.6	2573	17x9(F) 17x10(R)	275/40/17 315/40/17	3.27, 1.98, 1.34, 1.00, 0.83	3.27	(F)330 Disc (R)297 Disc	3380	

T1D	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN &EX (mm)	Comp. Ratio	Wheelbase (mm)	Wheel Size (inch)	Tire Size	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Ford Mustang Cobra R (2000)	90.2 x 105.8 / 5409	37.0(I) 32.0(E)	9.6	2573	18 x 9.5 or 17 x 9.5 (F&R)	265/40 or 255/45	2.97, 2.07, 1.43, 1.00, 0.80, 0.62	3.55	(F)330 Vented Disc (R)296 Vented Disc	3630	Ford Motorsport differential cooler kit (P/N M-4000-K) is allowed.
Ford Mustang Cobra SVT (hardtop) (03-04)	90.2 x 90.0 / 4601	37.0 (I) 30.0 (E)	8.5	2573	17 x 9	275/40	2.66, 1.78, 1.30, 1.0, 0.80, 0.63	3.55	(F)330 Vented Disc (R)296 Vented Disc	3780	The following Steeda parts are allowed: Ultra-Cool Radiator PN 051-1097, Independent Rear Suspension Bushing Kit PN 555-4015 and PN 555-4016, Differential Cover Brace PN 555-7716, Performance Springs PN 555-8205, Cold Air Package PN 555-3115. The following Ford parts are allowed: Trans. cooler kit PN M-7095-SR, rear diff. cooler PN M-4000-K.
Lotus Elise (2005)	82.0 x 85.0 / 1796	34.0 (I) 29.0 (E)	11.5	2301	16x6.5(F) 17x7.5(R)	175/55(F) or 195/50(F) 225/45(R)	3.12, 2.05, 1.48, 1.17, 0.96, 0.82	4.53	(F)288 Vented Disc (R)288 Vented Disc	2095	Detachable hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed. Elise Sports Suspension allowed: front spring part #122C0008H, front damper #122C0007H, front assembly #123C0001F, rear spring #122D0006H, rear damper 122D0008H, rear assembly #123D0002H, front sway bar #111C0111F.
Maserati Coupe GT Cambiocorsa (2004)	92.0 x 79.3 / 4244	39.4(I) 33.7(E)	11.3	2660	18x8(F) 18x9.5(R)	235/40(F) 265/35(R)	3.29, 2.16, 1.61, 1.27, 1.03, 0.85	3.73	(F)333 Vented Disc (R)310 Vented Disc	Coupe: 3835 Cambi-ocorsa: 3900	Factory paddle shifter is permitted.
Mitsubishi Lancer Evolution (03-04)	85.0 x 88.0 / 1997	34.1(I) 30.6(E)	8.8	2624	17 x 8 (F&R)	235/45 (F&R)	2.93, 1.95, 1.41, 1.03, 0.72	4.53	(F)276 Vented Disc (R)284 Vented Disc	3380	

T1E	**Bore(mm) x Stroke(mm) / Displ. (cc)**	**Valves IN &EX (mm)**	**Comp. Ratio**	**Wheelbase (mm)**	**Wheel Size (inch)**	**Tire Size**	**Gear Ratios**	**Final Drive**	**Brakes (mm)**	**Weight (lbs.)**	**Notes:**
Pontiac Firebird WS-6 (98-02)	99.0 x 92.0 / 5666	50.8(I) 39.4(E)	10.1	2568	17 x 9 (F & R) 16x10(F) 16x11(R)	275/40/17	2.66, 1.78, 1.30, 1.00, 0.74, 0.50	3.42	(F)300 Vented Disc (R)302 Vented Disc	3280	35mm front swaybar & 31mm rear sway bar is permitted. Factory optional oil cooler (P/N 52452158) and associated plumbing parts are permitted. Factory optional wheel studs (P/N 22551491) are permitted. Springs: (F) 550 lb/in (P/N TBD), (R) 130 lb/in (P/N TBD)
Porsche 911 / 993 (96-98)	100.0 x 76.4 / 3600		11.3	2271	17 x 8.5 or 18x8.5(F) 17 x 11 or 18x11(R)	Any DOT tire fitting stock body w/o modifications	3.82, 2.05, 1.41, 1.12, 0.93, 0.78	3.44	(F)304 Disc (R)299 Disc	2980	Engine & transmission coolers are free. Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Spring rates are free. Sway bar size & configuration is free. Wheel spacers are allowed for tire clearance purposes. Ducting of air to rotors is allowed. Removal of rotor dust shields is allowed. Factory ltd.-slip differentials are allowed. Seats, steering wheel & shift knobs may be replaced. Spoilers & bumper/airdams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Camber adjustment slots may be elongated. Porsche Motorsport rear control arms allowed.
Porsche 911 GT3 (03-04)	100.1 x 76.5 / 3600		11.7	2355	18x8.5(F) 18x11(R)	235/40 (F) 295/30 (R)	3.82, 2.15, 1.56, 1.21, 1.00, 0.85	3.44	(F)350 vented disc (R)330 vented disc	3165	

T1F	**Bore(mm) x Stroke(mm) / Displ. (cc)**	**Valves IN &EX (mm)**	**Comp. Ratio**	**Wheelbase (mm)**	**Wheel Size (inch)**	**Tire Size**	**Gear Ratios**	**Final Drive**	**Brakes (mm)**	**Weight (lbs.)**	**Notes:**
Porsche 911 / 996 (98-03)	96.0 x 78.0 / 3400		11.3	2454	17 x 8.5 or 18x8.5(F) 17 x 11 or 18x11(R)	Any DOT tire fitting stock body w/o modifications	3.82, 2.20, 1.52, 1.22, 1.02, 0.84	3.44	(F)318 Disc (R)299 Disc	3020	Engine & transmission coolers are free. Ducting for coolers is free, provided it doesn't change size and/or shape of factory body panels. Spring rates are free. Sway bar size & configuration is free. Wheel spacers are allowed for tire clearance purposes. Ducting of air to rotors is allowed. Removal of rotor dust shields is allowed. Factory ltd.-slip differentials are allowed. Seats, steering wheel & shift knobs may be replaced. Spoilers & bumper/airdams are free provided they do not exceed the max. body width by any amount and/or the max. body length by more than 1". Rear wings may be no higher, relative to the roofline, than a factory, non-extended, 3.8 RSR wing. Camber adjustment slots may be elongated. Porsche Motorsport rear control arms allowed.
Subaru Impreza WRX STi (03-04)	99.5 x 79.0 / 2457	36.0(I) 32.0(E)	8.2	2540	17x7.5 (F&R)	225/45 (F&R)	3.64, 2.38, 1.76, 1.35, 0.97, 0.76	3.9	(F)323 vented disc (R)313 vented disc	3380	

T2A	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN &EX (mm)	Comp. Ratio	Wheelbase (mm)	Wheel Size (inch)	Tire Size	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Acura Integra Type-R (97-99)	81.0 x 87.2 / 1797		10.6	2571	15 x 6 (F&R)	195/55	3.23, 2.10, 1.46, 1.11, 0.85	4.4	(F)282 Disc (R)260 Disc	2780	Honda Motorsports performance package (#17D52-S02-C1) permitted. Performance kit includes: Springs (F): Eibach #800.225.0600, 600# rate, tender spring optional, Springs (R): Eibach #700.225.0800, 800# rate, tender spring optional, Swaybar (R): Mugen, 26.0mm, Wheels: 15 x 7, Tires: 225/45/15.
Audi S4 (2004)	84.58 x 92.71 4162		11	2649	18 x 8 (F&R)	235/40 (F&R)	3.67, 2.05, 1.46, 1.33, 0.92, 0.78	3.89	(F)340 Vented Disc (R)300 Vented Disc	3920	
Audi TT Coupe (03-04)	81.0 x 86.4 / 1781	27.0(I) 30.0(E)	9	2428	17x7.5 (F&R)	225/45 (F&R)	3.42, 2.11, 1.48, 1.15, 1.17, 0.97	4.2	(F)312 Vented Disc (R)239 Solid Disc	3390	Detachable hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
BMW M Coupe (98-99)	86.4 x 89.6 / 3152		10.5	2459	17x7.5 (F) 17x9.0 (R)	225/45 (F) 245/40 (R)	4.21, 2.49, 1.66, 1.24, 1.00	3.23	(F)315x28 Vented Disc (R)312x20 Vented Disc	3130	H&R Springs (F/R): RG-E30-F-100 / RG-E30-R-100 are permitted. Upper spring perch (P/N: 31 33 2 227 348) from '95 M3 or 540i shall be used to fit front H&R springs (P/N: RG-E30-F-100). Racing Dynamics sway bars P/N 196.81.36.015 is permitted. BMW oil cooler allowed.
BMW M3 (96-99)	86.36 x 85.85 3001 86.36 x 89.66 3200	33.0(I) 30.5(E)	10.5	2700	17x7.5 (F) 17x8.5 (R) Alt.: 17x8.5 (F&R)	235/40 (F&R) or 225/45 (F) 245/40 (R)	4.21, 2.49, 1.66, 1.24, 1.00	3.23	(F)315 x 28 Vented Disc (R)312 x 20 Vented Disc	3180	CSL Springs: (F) #31-33-4-492-719, (R) #33-55-4-492-720. Mountain Autosport Racing sway bar kit (P/N MASRE36M3) is permitted. H&R Springs (F/R): RG-E30-F-100 / RG-E36-R-100 are permitted. Upper spring perch (P/N: 31 33 2 227 348) from '95 M3 or 540i shall be used to fit front H&R springs (P/N: RG-E30-F-100). HR Spring kit (F&R) 50412-88 and the upper spring perches (3133 2 227 903) from the 96-99 M3 allowed.

T2B	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN &EX (mm)	Comp. Ratio	Wheelbase (mm)	Wheel Size (inch)	Tire Size	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
BMW 328 ci/i (1999)	84.0 x 84.0 / 2793		10.2	2725	17 x 8 (F&R)	225/45(F) 245/40(R)	4.21, 2.49, 1.66, 1.24, 1.00	2.93	(F)300 Vented Disc (R)295 Vented Disc	3030	BMW Performance Kit #328-2000-1 is permitted.
BMW 330i/Ci (01-03)	84.0 x 89.6 / 2979		10.2	2726	17 x 9 (F&R)	Any DOT tire fitting stock body w/o modifications	4.21, 2.45, 1.66, 1.24, 1.00	2.93	(F)325 x 28 Vented Disc (R)325 x 20 Vented Disc	3335	Racing Dynamics sway bar set (24mm & 21mm bars (one each)) is permitted. 350 lb. front springs w/ threaded collars and 400 lb. rear springs w/ adjusters are permitted.
BMW Z3 2.8L (97-98)	84.0 x 84.0 / 2793	33.0(I) 30.5(E)	10.2	2446	16 x 8 (F&R)	225/50	4.20, 2.49, 1.66, 1.24, 1.00	3.15	(F)286 x 22 Disc (R)272 x 10 Disc	2935	Eibach Suspension Package (springs and F&R sway bars) Part # 2063.140 permitted.
BMW Z4 3.0L (03-04)	84.1 x 89.7 / 2986		10.2	2494	17 x 8 (F&R)	225/45	4.35, 2.50, 1.66, 1.24, 1.00, 0.85	3.07	(F)300 Vented Disc (R)294 Vented Disc	3120	Detachable hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Cadillac CTS-v (2004)	99.1 x 92.0 / 5665	50.8(I) 39.4(E)	10.6	2880	18x8.5 or 18x9.5 (F&R)	245/45 or 275/35 max.	2.97, 2.07, 1.43, 1.00, 0.84, 0.56	3.73	(F)355 Vented Disc (R)365 Vented Disc	3940	GM Cooling Kit allowed, PN 25534461 Engine Oil Cooler Kit, PN 25534462 Transmission Cooler Kit, PN 25534463 Rear Differential Cooler Kit, PN 25534464 Brake Duct Extension (through fog light opening), PN 25534465 High Capacity Radiator Kit, and PN 25534466 Fuel Tank Sender Kit. A max of 275 tires on 9.5-inch wide wheels is allowed. This max. tire size supercedes TCS tire rule section 17.1.8.D.7.b.
Chevrolet Camaro Z-28 (96-97)	101.6 x 88.4 / 5733	49.3(I) 38.1(E)	10.4	2568	16 x 8 (F&R)	245/50	2.97, 2.07, 1.43, 1.00, 0.80, 0.62	3.42	(F)277 Disc (R)290 Disc	3480	1998 power steering cooler permitted. Factory optional wheel studs (P/N 22551491) are permitted

T2C	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN &EX (mm)	Comp. Ratio	Wheelbase (mm)	Wheel Size (inch)	Tire Size	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Chevrolet Camaro Z-28 (98-02)	99.0 x 92.0 / 5666	50.8(I) 39.4(E)	10.1	2568	16 x 8 (F&R)	245/50	2.66, 1.78, 1.30, 1.00, 0.74, 0.50	3.42	(F)302 x 33 Disc (R)305 x 25 Disc	3530	Throttle restrictor between throttle body and plenum is mandatory: .060" flat steel plate with one (1) 58.0mm hole for '01-'02 cars and one (1) 60.0mm hole for '98-'00 cars. Throttle restrictor may include idle air control and/or PCV orifice. Power steering cooler (option code V12) is permitted. Factory optional oil cooler (P/N 52452158) and associated plumbing parts are permitted. Factory optional wheel studs (P/N 22551491) are permitted. A .250" Thick (max.) steel or aluminum spacer is permitted between the throttle body and the throttle restrictor to provide clearance for the throttle butterfly. This spacer shall replicate the dimensions of the stock throttle body flange (i.e. throttle bore, bolt pattern, idle-air bypass port dimensions, etc.). Throttle body spacer bore(s) shall be no larger than the stock throttle body bore diameter at the gasket surface, and shall not be tapered or radiused in any way. Front spring rate shall be 280-320 lbs/in, and the minimum free length is 13.75 inches.
Dodge SRT-4 (03-04)	88.0 x 101.1 / 2458	34.8(I) 28.5(E)	8.8	2667	17 x 6 or 17x7.5 (F&R)	205/50	3.47, 2.05, 1.37, 0.97, 0.76	3.53	(F)280 Vented Disc (R)220 Solid Disc	2950	Dodge SRT-4 Brake Duct kit PN P5153297 allowed.
Ford Mustang GT SOHC (1996)	90.2 x 90.0 / 4601	44.5(I) 34.0(E)	9	2573	17 x 9 (F&R)	245/45	3.37, 1.99, 1.33, 1.00, 0.67	3.08	(F)276 Disc (R)266 Disc	3380	Sean Hyland Motorsports Brake Duct Kit Part # SHMVDK-TF approved.

T2D	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN &EX (mm)	Comp. Ratio	Wheelbase (mm)	Wheel Size (inch)	Tire Size	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Ford Mustang Cobra DOHC (96-98)	90.2 x 90.0 / 4601	37.0(I) 30.0(E)	10	2573	17 x 8 (F&R) or 17 x 9 (F&R)	245/45 or 255/45	3.37, 1.99, 1.33, 1.00, 0.67	3.27	(F)330 Disc (R)296 Disc(outer working dia.)	3480	Removal of radio and speaker components is permitted. Service port mounted aftermarket PROM is permitted. 17 x 9 wheels and 255/45 tires are from 1995 Cobra R. Sean Hyland Motorsports Brake Duct Kit Part # SHMVDK-TF approved.
Ford Mustang Cobra DOHC (99-02)	90.2 x 90.0 / 4601	37.0(I) 30.0(E)	9.9	2573	17 x 8 (F&R) or 17 x 9 (F&R)	245/45 or 255/45	3.37, 1.99, 1.33, 1.00, 0.67	3.27	(F)330 x 28 Vented Disc (R)295 x 18 Vented Disc	3680	Removal of radio and speaker components is permitted. Service port mounted aftermarket PROM is permitted. 17 x 9 wheels and 255/45 tires are from 1995 Cobra R. Sean Hyland Motorsports Brake Duct Kit Part # SHMVDK-TF approved.
Ford Bullitt Mustang 2001	90.2 x 90.0 / 4601	44.5(I) 34.0(E)	9	2573	17 x 8 (F&R) or 17 x 9 (F&R)	245/45 or 255/45	3.37, 1.99, 1.33, 1.00, 0.67	3.27	(F)330 x 28 Vented Disc (R)295 x 18 Vented Disc	3380	17 x 9 wheels and 255/45 tires are from 1995 Cobra R. Sean Hyland Motorsports Brake Duct Kit Part # SHMVDK-TF approved.
Ford Mustang GT (01-02)	90.2 x 90.0 / 4601	44.5(I) 34.0(E)	9	2573	17 x 8 (F&R) or 17 x 9 (F&R)	245/45 or 255/45	3.37, 1.99, 1.33, 1.00, 0.67	3.27	(F)330 x 28 Vented Disc (R)295 x 18 Vented Disc	3380	May update to Bulitt model specs. Sean Hyland Motorsports Brake Duct Kit Part # SHMVDK-TF approved.
Ford Mustang Mach I 2003	90.2 x 90.0 / 4601	37.11 (I) 30.12 (E)	10.1	2572	17 x 8 (F&R) or 17 x 9 (F&R)	245/45 or 255/45	3.38, 2.00, 1.32, 1.0, 0.62	3.55		3480	Sean Hyland Motorsports Brake Duct Kit Part # SHMVDK-TF approved. Bulitt Springs allowed, part # 1R3Z-5310-CA (F) 1R3Z-5560-AA (R)
Honda Prelude VTEC (1996)	87.0 x 90.7 / 2157	35.0(I) 30.0(E)	10	2550	15 x 8 or 16 x 8 (F&R)	225/50	3.31, 1.95, 1.31, 1.07, 0.87	4.23	(F)280Disc (R)258 Disc	2880	Alt. Springs: (F)#HO3192, (R)#HO3193, Alt. Rear Swaybar: #HO2868.

T2E	**Bore(mm) x Stroke(mm) / Displ. (cc)**	**Valves IN &EX (mm)**	**Comp. Ratio**	**Wheelbase (mm)**	**Wheel Size (inch)**	**Tire Size**	**Gear Ratios**	**Final Drive**	**Brakes (mm)**	**Weight (lbs.)**	**Notes:**
Honda S2000 (00-05)	87.0 x 84.0 / 1997 87.0 x 90.7 / 2157	36.0(I) 31.0(E) 36.1(I) 31.1(E)	11	2400	16x6.5 or 17x7 (F) 16x7.5 or 17x8.5 (R)	205/55 or 215/45 (F) 225/50 or 245/40 (R)	3.13, 2.05, 1.48, 1.16, 0.97, 0.81, or 3.31, 2.05, 1.48, 1.16, 0.94, 0.73	4.1	(F)300 Disc (R)282 Disc	2830 2157@ 2860	Detachable hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed. Factory bolt-in roll bar may be removed to facilitate the installation of the req'd roll cage. Passenger seat belt assembly may be removed in conjunction with factory bolt-in rollbar. Comptech differential housing part #550-040 allowed. Updating and backdating within model years listed in this classification is permitted.
Mazda RX-8 (2004)	/ 2600		10	2703	18 x 8 (F&R)	225/45 (F&R)	3.76, 2.27, 1.65, 1.19, 1.0, 0.84	4.44	(F)323 Vented Disc (R)303 Vented Disc	2980	Front sway bar part #0000-04-8302-AD (1.25"x.250"), rear sway bar part #QSEA-25-151 (.682"x.103"), Spring Set #QSEA-34-01Z, Strut Tower Bars (F) QSEB-56-48Z, (R) QSEA-56-38Y.
Nissan 300-ZX (1996)	87.0 x 83.0 / 2960	34.0(I) 29.5(E)	10.5	2451	16x8.5 (F&R)	245/45	3.21, 1.93, 1.30, 1.00, 0.75	4.08	(F)295 Disc (R)297 Disc	3180	1995 GTS option permitted. Engine breather (PCV) may be modified. Nissan performance kit permitted. Performance kit includes: Springs (F): Eibach #6320.001, Springs (R): Eibach #6320.002, Swaybar (F): Suspension Techniques Kit #304700, 28.0mm Front Adjustable, Swaybar (R): Suspension Techniques Kit #304700, 21.0mm Rear Adjustable.
Nissan 350Z Track/ Touring/ Standard (2003)	95.5 x 81.4 / 3498cc	37.3 (I) 31.5 (E)	10.3	104.3	17x8.5 or 18x8.5 (F&R)	(F) 225/50 or 225/45 (R) 235/50 or 245/45	3.79, 2.32, 1.62, 1.27, 1.00, 0.79	3.54	(F)296/324 Vented (R)292/332 Vented	3268	18" wheels/tire package ok. Track option Aero package ok. Nissan oil cooler kit (part #21300-RSZ33) is permitted, Nissan power steering cooler kit (part # 49790-RSZ30-US) is permitted. Nissan heavy duty spring kit part # 99996-65Z30US. Nismo sway bar kit # 99996-RSZ30US.

T2F	**Bore(mm) x Stroke(mm) / Displ. (cc)**	**Valves IN &EX (mm)**	**Comp. Ratio**	**Wheelbase (mm)**	**Wheel Size (inch)**	**Tire Size**	**Gear Ratios**	**Final Drive**	**Brakes (mm)**	**Weight (lbs.)**	**Notes:**
Pontiac Firebird Formula & Trans-Am (96-97)	101.6 x 88.4 / 5733	49.3(I) 38.1(E)	10.4	2568	16 x 8 (F&R)	245/50	2.97, 2.07, 1.43, 1.00, 0.80, 0.62	3.42	(F)277 Disc (R)290 Disc	Formula 3480 Trans Am 3580	1998 power steering cooler permitted. Factory optional wheel studs (P/N 22551491) are permitted
Pontiac Firebird Formula & Trans-Am (98-02)	99.0 x 92.0 / 5666	50.8(I) 39.4(E)	10.1	2568	16 x 8 (F&R)	245/50	2.66, 1.78, 1.30, 1.00, 0.74, 0.50	3.42	(F)302 x 33 Disc (R)305 x 25 Disc	Formula = 3530 Trans Am = 3630	Throttle restrictor between throttle body and plenum is mandatory: .060" flat steel plate with one (1) 58.0mm hole for '01-'02 cars and one (1) 60.0mm hole for '98-'00 cars. Throttle restrictor may include idle air control and/or PCV orifice. Power steering cooler (option code V12) is permitted. Factory optional oil cooler (P/N 52452158) and associated plumbing parts are permitted. Factory optional wheel studs (P/N 22551491) are permitted. A .250" Thick (max.) steel or aluminum spacer is permitted between the throttle body and the throttle restrictor to provide clearance for the throttle butterfly. This spacer shall replicate the dimensions of the stock throttle body flange (i.e. throttle bore, bolt pattern, idle-air bypass port dimensions, etc.). Throttle body spacer bore(s) shall be no larger than the stock throttle body bore diameter at the gasket surface, and shall not be tapered or radiused in any way. Front spring rate shall be 280-320 lbs/in, minimum free length is 13.75 inches.
Porsche Boxster S (00-03)	93.0 x 78.0 / 3179		11	2415	17 x 7 (F) 17x8.5 (R)	(F) 205/50 (R) 255/40	3.82, 2.20, 1.52, 1.22, 1.02, 0.84	3.44	(F)318 x 28 Vented & Cross-drilled Disc (R)300 x 25 Vented & Cross-drilled Disc	3080	OEM hardtop req'd (latches shall be replaced w/ positive fasteners). Convertible top shall be removed. Front spoiler, rear spoiler, and rocker panel extensions from OEM Porsche factory aero kit are permitted. Sport suspension pkg. is permitted. Factory bolt-in rollbar may be removed to facilitate the installation of the rollcage.

T2G	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN &EX (mm)	Comp. Ratio	Wheelbase (mm)	Wheel Size (inch)	Tire Size	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Saturn Ion Redline (2004)	86.0 x 86.1 / 1998	35.1(I) 29.8(E)	10.2	2629	17 x 7 0r 17 x 8 (F&R)	215/45 (F&R)	3.38, 1.76, 1.18, 0.89, 0.71	4.05	(F)296 Vented Disc (R)270 Solid Disc	2890	The GM Saturn Ion Redline T2 suspension package PN XCC578 is allowed. Kit consists of: PN XCC579 front spring (75 N/mm), PN XCC580 rear spring (65 N/mm), PN XCC581 front anti-roll bar, PN XCC582 front jounce bumper, PN XCC583 front lower control arm bushings, PN XCC584 steering gear mounting bushings, PN XCC585 rear axle mounting bushings, PN XCC586 rear jounce bumper, T2 Brake ducts (GM PN XCC587), T2 Aftercooler (GM PN XPI588) T2 Supercharger pulley (GM part number XP1589). Kit must be removed for T3.
Subaru Impreza WRX (02-04)	92.0 x 75.0 / 1994	36.0(I) 32.0(E)	8	2525	16x6.5 (F&R)	205/55 (F&R)	3.45, 1.95, 1.37, 0.97, 0.74	3.9	(F)290.4 Vented Disc (R)262 Solid Disc	3200	
Toyota Supra (96-97)	86.0 x 86.0 / 2997	33.5(I) 29.0(E)	10	2550	16 x 8 (F) 16 x 9 (R)	(F)225/ 50 (R)245/ 50	3.29, 1.89, 1.28, 1.00, 0.78	4.27	(F)294 Disc (R) 305 Disc	3280	Turbo rear sway bar permitted.
Toyota Supra (1998)	86.0 x 86.0 / 2997	33.5(I) 29.0(E)	10	2550	16 x 8 (F) 16 x 9 (R)	(F)225/ 50 (R)245/ 50	3.29, 1.89, 1.28, 1.00, 0.78	4.27	(F)294 Disc (R)305 Disc	3280	Turbo rear sway bar permitted. TRD 94-97 5-speed transmission kit is required.

V=mc²

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17.1.3. SHOWROOM STOCK CATEGORY

These specifications are part of the SCCA General Competition Rules (GCR) and all automobiles shall conform to GCR Section 17, Automobiles.

A. Definition

The Showroom Stock Category shall be considered primarily as a form for the membership to race street stock automobiles. Eligibility of cars may be discontinued at any time, for any reason other than competitive stature. The proof of legality or illegality shall rest upon the protester and/or protestee.

NOTE: Showroom Stock category cars shall be in compliance with Federal Standards, specifically ARB and EPA certifications, and as specified for each automobile listed on its Showroom Stock Specification (SSS) line and as permitted by these rules. A Shop Manual or *its equivalent* for the specific make, model, and year of automobile is required to be in the possession of each entrant. *Factory Shop/Service Manuals may come in the form of printed material, microfiche, CDs, DVDs and/or Internet access to manufacturer sponsored web-based databases. It is the responsibility of the competitor to provide the electronic device capable of accessing the data for compliance verification. If Factory Shop/ Service Manuals are not available, then the competitor shall have a copy of the official SCCA Vehicle Technical Sheet (VTS) with them at every event and shall present it for reference when officially requested. The manual* is intended to aid Scrutineers in identifying parts and the configuration of the automobile. Overhaul procedures that in the slightest way would increase performance are not to be utilized; e.g., milled heads/blocks, porting, etc. Blueprinting and balancing are inconsistent with the philosophy of this class and are not permitted.

B. Automobile Eligibility

Cars eligible for competition in a given year are those classified by the Club Racing Board by December 31st of the previous year. The Club Racing Board may reclassify cars during their first year of competition, effective the following year. Cars classified will be approved by ARB, EPA and DOT for sale in the United States. They shall be models intended to be available to the general public for purchase.

The Club Racing Board may classify any particular model of a car, as determined by the VIN, or permit specific options listed on the spec line for that car. No unlisted models or options are eligible. If no specific model or options are listed, then the classified car shall be the base model with no options. No car older than the 1995

model year is eligible for competition. Beginning with the January 2005 race season, a car shall be eligible for ten (10) calendar years of competition, beginning on January 1st of its model year. Cars that are five (5) calendar years older than the current competition year shall not be eligible for positive competition adjustments. Current model year cars will be eligible for classification consideration if they are available to the general public through the normal dealer network by March 1st of the model year.

To be considered for classification a factory workshop manual *or its equivalent* and a Motor Vehicle Manufacturers Association (MVMA) "Manufacturers Motor Vehicle Specifications" form or equivalent*, the Official SCCA Vehicle Technical Sheet (VTS),* shall be on file with the Club Racing Department. *Should the factory workshop manual not be available by December 31st of the year of classification, the official SCCA VTS shall be considered sufficient for the purposes of classification and shall be supplanted by the factory workshop manual or its equivalent (See TCS Section 17.1.8.B) when it becomes available. Copies of the official SCCA VTS sheets may be acquired from the SCCA National Office Technical Department.*

If the manufacturer certifies that there are no technical changes between model years of a previously classified car, the factory workshop manuals or equivalent and the Official SCCA VTS on file at the National Office shall be considered sufficient for classification and compliance purposes. The certification shall become a permanent record of the classification in the National Office Technical Department.

Only those cars listed each year are eligible to compete. No updating or backdating of cars, models, specifications, and/or components thereof shall be permitted. Additions and deletions of automobiles shall be at the discretion of the SCCA. Automobiles sold by the Manufacturer/Distributor that are designated not for public use or cannot be licensed are not allowed in SS classes. The vehicle identification number (VIN) shall correspond with the model automobile classified. VIN plates or stampings shall remain in place. There must be a minimum of two (2) VIN plates or stampings that correspond with the model automobile classified. The tenth (10) position letter of the VIN determines the model year of the car ("T"-1996, "V"-1997, "W"-1998, "X"-1999, "Y"-2000, "1"-2001, "2"-2002. etc.).

C. Classification

Automobiles eligible for competition shall be divided into two (2) classes at the discretion of the SCCA. These

classifications will be reviewed on an annual basis and will be effective as of January 1st.

The classes are as follows: SSB and SSC.

D. Technical and Safety Items

The following represent the only safety items and modifications permitted and required on automobiles involved in Showroom Stock competition. Cars must meet comply with the GCR and the SSS. The addition of safety items not specifically listed is not permitted. No permitted component/modification shall additionally perform a prohibited function.

1. Installation of a roll cage shall be as specified and in accordance with Section 18.2, of the GCR. Roll cages shall be bolted or welded into the automobile and shall be contained entirely within the driver/passenger compartment. Carpet/padding may be cut for roll cage installation. Front and rear braces may pass through interior trim panels.

    A. Mounting plates welded or bolted to the car:

        1. Each mounting plate shall be at least .080" thick if welded and 3/16" thick if bolted (with appropriate backing plates). There shall be a minimum of three (3) bolts per mounting plate if bolted.

        2. Each mounting plate shall not be greater than 100 square inches and shall be no greater than 12 inches or less than 2 inches on a side.

        3. Whenever possible, mounting plates shall extend onto a vertical section of the structure (such as a rocker box).

        4. The mounting plate may be multi-angled but must not exceed these dimensions in a flat plane.

        5. Any number of tubes may attach to the plate or each other.

2. Installation of a fire extinguisher or fire system as specified in GCR 17.21 or 17.22.

3. Installation of a safety harness system as specified in Section 17 of the GCR.

4. *Glass headlights shall be taped. Rear brake lights may be taped with transparent tape. Turn*

signals, front parking lights, backup lamps, and side marker lights may be taped. Fog/driving lights mounted on or below the bumper shall be removed, and all resulting holes shall be covered to prevent air passage through said holes.

5. Cars with convertible tops shall have them stowed as provided by the manufacturer. Removable hard-tops, unless required by specification line, or roof panels and hatchback privacy covers shall be completely removed from cars that are so equipped. Sunroofs, removable roof panels and "T" tops are permitted only if installed by the manufacturer of the vehicle. Sunroofs must be retained on the vehicle and securely bolted in place unless operating rails adequately secure the panel.

6. All cars shall run with both front door windows fully open (down) and shall have driver's side window safety net per GCR 17.30. Any cars where a window safety net cannot be installed, arm restraints shall be used. Arm restraints are not an acceptable substitute for window nets in other cars. Window safety nets shall be mounted in such a manner to provide protection in the event the driver's door opens.

7. Passive restraint systems shall be deactivated. *

8. Air bags shall be disarmed and may be removed.*

9. The driver's seat (only) shall be replaced with a one-piece bucket-type race seat. All seat mountings shall be reinforced per GCR Section 18.2.10 and Section 18.1.2. Factory seat tracks/brackets may be modified, reinforced, and/or removed to facilitate replacement mountings provided they perform no other function.

* If car is to be used on public roads, these items shall be reactivated/rearmed/replaced when not in competition.

E. Vehicle Preparation

The following represents the only items authorized in the preparation of a vehicle for Showroom Stock competition other than safety items as required in Section 17.1.3.D. Modifications shall not be made unless specifically authorized herein. No permitted component/ modification shall additionally perform a prohibited function.

1. Appearance shall be neat and clean. Automobiles that are dirty either externally or in the engine or

passenger compartments, or that show bodywork damage or that are partially or totally in primer, or that do not bear the prescribed identification marks shall not be approved for competition. Vehicles may be painted any color(s).

2. Towing eyes per GCR Section 17.31 may be fitted.

3. Hubcaps, wheel trim rings, jack, and tools shall be removed.

4. All mud flaps shall be removed.

5. Spare wheels and tires may be removed. Spare tire covers and trunk mats and/or trunk carpeting shall be removed if they present a hazard as a loose flying or flapping object.

6. All adjustments shall be at the manufacturer's specification and/or within the manufacturer's specified tolerances

7. Tires: All cars shall run the tire size as listed for the vehicle in the SSS or an authorized replacement size. When authorized replacement tires are used, the same size of tire shall be used on each axle (front tires need not be the same size as rear tires).

   All tires shall be DOT approved and shall be offered for sale over the counter through the manufacturer's tire dealer network. Racing, recapped, and regrooved tires are prohibited. The brand of tire and tire pressures are unrestricted. The only modifications allowed to tires are having treads "shaved" or "trued."

   All cars may run tires of the speed rating of their choice. For size determination, the molded section shall be used. All cars are allowed a section increase of 10 mm or 20 mm (e.g., 195 may use 205 or 215). All cars are allowed an aspect ratio increase or decrease of 5 or 10 (e.g., 55 may use 45, 50, 60 or 65). All cars listed with an aspect ratio of 75 or higher may use an aspect ratio of 70.

8. Wheels: Wheels shall be standard equipment for the make, model, and year of automobile, or as listed in the SSS and approved by ARB and EPA certification for that automobile. All four (4) wheels shall be the same style and material.

9. Radios and air conditioners are the only options permitted and may be non-manufacturer, standard equipment, or except as shown for each car in the

SSS. Two-way radios may be used. Hand controls are allowed in those instances where the driver can demonstrate the physical need for them.

10. Fluid hoses and clamps, oil filters, fuel filters, and belts (fan, alternator, etc.) may be substituted with others of equivalent OEM specifications.

11. Brake fluid: May be substituted with other equivalent OEM specification.

12. Lubricants: Lubricants may be substituted with any lubricant. Additives are unrestricted.

13. Spark Plugs: Authorized spark plugs listed in spark plug manufacturer's Application Charts, Owners Manual, Official Factory Shop Manual, or equivalent OEM justified by one cross reference chart. Use of resistor or non- resistor type spark plug allowed.

14. "Special performance" specifications from the manfacturer that go beyond those listed on a specification line for a car will not be considered valid.

    Any manufacturer determined to be supplying false specifications to competitors or to SCCA will be advised that the specifications shall be withdrawn or the eligibility of the car(s) involved will be terminated. The Club Racing Board is authorized to implement these terminations on an immediate basis without the Board of Directors' approval.

    In the case of service circulars, recalls, etc., the burden of proof of validity will be upon the competitor.

15. Ride height: Ride heights specified in the SSS will be used as a guideline only. If there is a discrepancy, more detailed inspection will be necessary.

16. Batteries may be replaced with those of alternate manufacture provided they are of similar amp-hour capacity and weight.

17. Weight: The minimum weight as listed on the SSS line is with driver and required ballast.

18. Fuel: Only the fuel type specified by the Owner's and/or Factory Service Manual may be used. Refer to GCR Section 17.4.1 for permitted fuel specifications.

19. Removal of Air Conditioning System: The factory

and/or after market air conditioning systems may be removed provided that at least the following items associated with the system are also removed: compressor, condenser, H.D. radiator, H.D. springs/ sway bars, H.D. shocks, larger tires, engine and transmission oil coolers, and cooling fans. All ductwork, wiring, Freon lines, valves, evaporators, and dryers may remain. Items that serve a dual purpose, such as the alternator/air conditioning compressor bracket, may not be substituted.

20. Removal of radio and speaker components is permitted.

21. A radiator screen of one-fourth (1/4) inch minimum mesh may be added in front of the radiator and contained within the bodywork.

22. Air Filter Elements may be substituted with other air filters of equivalent specifications and fit in the stock location with no modifications. Must be substantiated by a minimum of one (1) manufacturer cross-reference for specific vehicle application.

23. Brake pad/lining of any manufacture may be used.

24. The Club Racing Board may approve the use of automatic transmissions and/or hand controls on a case-by-case basis.

25. Interior mirror(s) may be replaced with a multi-panel type mirror, but shall not extend beyond the confines of the interior.

26. Exhaust system may be removed and or modified within the following parameters:

    A. Any part of the exhaust system beyond the catalytic converter(s) may be replaced provided:

        1. Said replacement system retains the same original configuration, e.g., routing, single, dual, etc.

        2. The system exits from beneath the body in the same approximate location(s) as the original. When a factory (OEM) single exhaust system is cosmetically split into dual outlets, it is permitted to continue as a single system provided it exits in approximately the same location as one of the originals.

3. The system meets all appropriate event-specific sound level requirements.

27. Aftermarket steering wheels, and their required mounting modifications, are permitted.

28. Performance Kits:

    Vehicles previously classified with performance kits may continue to compete with these kits. No new performance kits will be classified.

29. Lap Timing Devices:

    Lap timing devices that perform no function other than to relay lap times to the driver (Longacre Hot Lap, Intercomp Lap Timer, etc.) are permitted, along with the required mounting hardware and connections.

30. Sunroofs, Targa tops, and T-tops are only permitted if installed by the manufacturer of the vehicle. If installed they must be retained on the vehicle, run in the closed position, and securely bolted in place unless the operating rails adequately secure the panel. Glass panels are permitted.

31. Hatchback "privacy covers" shall be completely removed.

F. Competition Adjustments

If ballast is required as a competition adjustment or to compensate for a driver's weight, ballast may be added.

1. All specified ballast shall be securely mounted in the passenger footwell of the vehicle, aft of the firewall and any footwell angle, and forward of the passenger seat unless otherwise so permitted on the vehicle's SSS line.

2. It shall be in segments no lighter then twenty-five (25) pounds and no heavier than fifty (50) pounds, and shall be capable of being weighed apart from the vehicle.

3. Each segment shall be fastened with a minimum of two (2) one-half (1/2) inch bolts and positive lock nuts of SAE Grade 5 or better, and shall utilize large diameter, load distributing washers.

4. Holes may be drilled in the passenger footwell floorpan for the purposes of mounting the ballast (only), and said floorpan may be reinforced as required for the same purpose.

If sufficient competition adjustments cannot be achieved safety with ballast, intake restriction may be specified. This will be listed on the cars SSS line.

G. Driver Schools

Showroom Stock cars that are not eligible to race because of their model year are allowed at SCCA Driver's Schools provided all safety equipment is in satisfactory order.

SSB$_A$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Acura Integra GS-R VTEC (3 or 4 door) (96-01)	81.0 x 87.2/ 1797	33.1(I) 28.1(E)	10	2571	1476/ 1471 or 1481 / 1476 w/ aprvd. alt. Susp. comp.	15 x 6 Alum	195/55	3.23, 1.90, 1.36, 1.03, 0.79	4.4	(F)262 x 21 Vented Disc (R)239 x 10 Solid Disc	2725	Springs (F) P/N 51401-ST7-R01, (R) P/N 52441-ST7-R01, Shocks P/N (LF) 51606-ST7-R01, (RF) 51605-ST7-R01, (Rear) 52611-ST7-R01, Shock bushings (R) P/N 52622-SR3-003, rear control arms P/N (LR) 52360-ST7-R00, (RR) 52350-ST7-R00 from Type R, and Mugen 26mm rear sway bar.
Acura RSX Type-S (2002)	86.1 x 86.0/ 1988	35.2(I) 30.2(E)	11	2570	1482/ 1481	16x6.5 Alum	205/55	3.266, 2.130, 1.517, 1.147, 0.921, 0.738	4.4	(F)300 x 26 Vented Disc (R)260 x 10 Solid Disc	2895	
Audi A4 V-6 (96-01)	82.5 x 86.4/ 2771		10.3	2606	1496/ 1473	16 x 7 Alum	205/55	3.50, 1.84, 1.30, 0.94, 0.79	3.7	(F)277 x 25 Vented Disc (R)244 x 15 Solid Disc	3055	
BMW 318is (96-99)	84.0 x 81.0/ 1796		10	2700	1407/ 1420	15 x 7 Alum	205/60	4.23, 2.52, 1.66, 1.22, 1.00	3.45	(F)286 Disc (R)272 Disc	2840	
BMW 318ti Sport (96-99)	85.1 x 83.6/ 1902		10	2700	1407/ 1420	16 x 7 Alum	225/50	4.23, 2.52, 1.66, 1.22, 1.00	3.45	(F)286x12 Disc (R)272x10 Disc	2860	
BMW Z3 1.9 (96-98)	85.1 x 83.6/ 1895		10	2446	1412/ 1430	16 x 7	225/50	4.23, 2.52, 1.66, 1.22, 1.00	3.45	(F)286 x 12 Disc (R)272 x 10 Disc	2790	BMW Performance Kit: P/N BMWZ3R: Springs P/N 29512.1, Shocks F P/N 8741-1332 SP2 L/R, Shocks R P/N 8040-1217 SP2, Mount P/N 31 33 2 227 897.8, Arm P/N 31 12 2 228 461.2, Bushing P/N 31 12 9 064 875, 16"x 8" wheels (F & R, SSR P/N IN6840LS). Detachable hardtop shall be installed (latches shall be replaced w/ positive fasteners), convertible top shall be removed.

SSB$_B$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
BMW Z4 (2003)	84.0 x 75.0/ 2494	33.0 (I) 30.5 (E)	10.5	2495	1473/ 1524	16 x 7 Alum	225/50	4.23, 2.52, 1.66, 1.22, 1.00	3.46	(F)286 Vented (R)280 Solid	3225	Throttle restrictor between throttle body and plenum is mandatory: .06" flat steel plate with one (1) 53.0mm hole. A .250" thick (max) steel or aluminum spacer is permitted between the throttle body and the restrictor to provide clearance for the throttle butterfly. This spacer shall replicate the dimensions of the stock throttle body flange (i.e. throttle bore, bolt pattern, idle-air bypass port dimensions, etc.) Throttle body spacer bore(s) shall be no larger than the stock throttle body bore diameter at the gasket surface, and shall not be radiused in any way. Throttle restrictor may include idle air control and/or PCV orifice. Detachable hardtop shall be installed (latches shall be replaced w/ positive fasteners), convertible top shall be removed. Alternate wheel BMW #36-11-1-095-058 16 x 7 is permitted. Required ballast: 100 lbs. (Car / driver must meet minimum weight with the required ballast) The ballast shall be located per section 17.1.3.F.1. A rollcage complying with GCR section 18.2 allowed in T3.
Chevrolet Camaro V-6 (96-02)	96.5 x 86.36/ 3790	45.72(I) 38.6(E)	9.4	2568		16 x 8	235/45	3.75, 2.19, 1.41, 1.00, 0.72	3.42	(F)277 Disc (R)290 Disc	3360	Performance option permitted, consisting of limited slip differential, uplevel steering rack, dual exhaust.
Dodge Stealth 2WD (1996)	91.2 x 75.9/ 2972		10	2469	1560/ 1580	16 x 8	225/55	3.09, 1.83, 1.22, 0.89, 0.74	4.15	(F)277 Disc (R)267 Disc	3330	

SSBC	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Ford Contour SE (96-97)	82.4 x 79.5/ 2544		9.7	2705	1504/ 1486	15 x 6 Alum	205/60	3.42, 2.14, 1.45, 1.03, 0.77	4.06	(F)259 Disc (R)252 Disc	2970	
Ford Contour SVT (98-00)	82.4 x 79.5/ 2544	32.0(I) 26.0(E)	10	2705	1504/ 1486	16x6.5 Alum	1998: 205/55 99-00: 215/50	3.42, 2.14, 1.45, 1.03, 0.77	4.06	(F)279 Disc (R)251 Disc	3180	
Ford Mustang (96-98)	96.8 x 86.0/ 3797	45.0(I) 37.0(E)	9	2573	1539/ 1501	15 x 7	205/65	3.35, 1.93, 1.29, 1.00, 0.73	2.73	(F)274 Disc (R)267 Disc	3210	
Ford Mustang V-6 (02-04)	96.52 x 86.36/ 3803		9.3	2573	1529/ 1539	16x7.5 Alum	225/55	3.37, 1.99, 1.33, 1.00, 0.67	3.27		3240	Ford Positrac LSD, part # M-4204-C75, premium trim package 012A allowed (ABS, traction control, 16 x 7.5 forged or cast aluminum wheels).
Ford Focus SVT (2002 1/2)	84.0 x 88.0/ 2000	33.5(I) 28.0(E)	10.2	2616	1494/ 1486	17 x 7 Alum.	214/45	(overall) 12.7, 7.7, 5.7, 4.6, 3.8, 3.1	2.88 & 4.25	(F)300 Vented Disc (R)280 Solid Disc	2680	
Ford Probe GT (1996)	84.5 x 74.2/ 2495	32.2(I) 27.8(E)	9.2	2614	1509/ 1509	16 x 7	225/50	3.31, 1.83, 1.31, 1.03, 0.80	4.39	(F)258 Disc (R)261 Disc	2940	
Honda Del Sol VTEC (1996)	81.0 x 77.4/ 1595	33.0(I) 28.0(E)	10.2	2370	1476/ 1466	14x5.5 Alum.	195/60	3.31, 2.10, 1.46, 1.11, 0.85	4.4	(F)261 Disc (R)239 Disc	2520	"Petty-bar" style cage is permitted.
Honda Prelude Si (1996)	87.0 x 95.0/ 2259	34.0(I) 29.0(E)	9.8	2550	1524/ 1514	15x6.5	205/55	3.31, 1.86, 1.32, 1.03, 0.81	4.27	(F&R) 259 Disc	2820	
Honda Prelude (Non-SH) (97-01)	87.0 x 90.7/ 2157	35.0(I) 30.0(E)	10	2585	1525/ 1515	16x6.5 Alloy	205/50	3.29, 1.96, 1.34, 1.03, 0.81	4.27	(F)280 x 24 Vented Disc (R)258 x 9 Solid Disc	2950	

SSB$_D$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Honda Prelude SH (97-01)	87.0 x 90.7/ 2157	35.0(I) 30.0(E)	10	2585	1525/ 1515	16x6.5 Alloy	205/50	3.29, 1.96, 1.34, 1.03, 0.81	4.27	(F)280 x 24 Vented Disc (R)258 x 9 Solid Disc	3030	
Hyundai Tiburon V-6 2003	86.7 x 75.0/ 2657	32.0(I) 29.4(E)	10.1	2530	1490/ 1490	17x7 Alum	215/45	3.15, 1.94, 1.33, 1.06, 0.86, 0.70	4.43	(F)280x26.2 vented (R)257x10 solid	3190	
Mazda MX-6 LS (1996)	84.5 x 74.2/ 2495	32.2(I) 27.8(E)	9.2	2611	1501/ 1501	15x6.5	205/55	3.31, 1.83, 1.31, 1.03, 0.80	4.11	(F)258 Disc (R)261 Disc	2735	
Mazda MX-5 / Miata "R" (96-97)	83.0 x 85.0/ 1839	33.1(I) 28.2(E)	9	2266	1410/ 1428	14 x 6 Alum	185/60	3.14, 1.89, 1.33, 1.00, 0.81	4.1	(F)255 Disc (R)251 Disc	2380	Rear interior brace may be removed for cage installation. Detachable hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Mazda MX-5 / Miata Sport (1999)	83.0 x 85.0/ 1839	33.1(I) 28.2(E)	9.5	2266	1435/ 1461	15 x 6	195/50	3.14, 1.89, 1.33, 1.00, 0.81	4.3	(F)255 Vented Disc (R)252 Solid Disc	2380	Rear interior brace may be removed for cage installation. Detachable hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Mazda MX-5 / Miata (2000)	83.0 x 85.0/ 1839	33.1(I) 28.2(E)	9.5	2266	1435/ 1461	15 x 6	195/50	3.14, 1.89, 1.33, 1.00, 0.81	4.3	(F)255 Vented Disc (R)252 Solid Disc	2380	As delivered w/ no performance kits or parts deletions. Detachable hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.

SSB$_E$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Mazda MX-5 / Miata (01-04)	83.0 x 85.0/ 1839	33.0(I) 28.0(E)	10	2266	15" wheel: 1435/ 1461 16" wheel: 1448/ 1474	16x6.5 Alum	15": 195/50 16": 205/45	3.14, 1.89, 1.33, 1.00, 0.81	4.3	(F) 254 Vented Disc (R) 252 Solid Disc Suspension Package: (F)269.5 Vented Disc (R)267.9 Solid Disc	2405	Factory "Sports" pkg. allowed. Optional Torsen limited slip differential allowed. Power steering delete option allowed. Detachable hardtop shall be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Mazda6 s (03-04)	89.0 x 79.5 / 2967		10	2675	1530/ 1520	16 x 7 or 17 x 7	205/60 or 215/50	3.80, 2.13, 1.36, 0.94, 0.69	3.71	(F) 282 Vented Disc (R) 280 Solid Disc	3360	
Mercury Mystique V-6 (96-97)	82.4 x 79.5/ 2544		9.7	2705	1504/ 1486	15 x 6 Alum	205/60	3.42, 2.14, 1.45, 1.03, 0.77	4.06	(F)259 Disc (R)252 Disc	2970	
Mitsubishi 3000 GT (2WD) (1996)	91.2 x 75.9/ 2972		10	2469	1560/ 1580	16 x 8	225/55	3.09, 1.83, 1.22, 0.89, 0.74	4.15	(F) 277 Disc (R) 267 Disc	3330	
Mitsubishi Eclipse GT (00-03)	91.2 x 75.9/ 2972	33.0(I) 29.0(E)	9	2561	1509/ 1509	17x6.5	215/50	3.33, 2.10, 1.41, 1.03, 0.76	3.74	(F)277 x 23 Vented Disc (R)262 x 11 Solid Disc	3170	
Nissan 240-SX SE (1996)	89.0 x 96.0/ 2389		9.5	2525	1481/ 1471	16x6.5 Alum	205/55	3.32, 1.90, 1.31, 1.00, 0.76	4.08 or 4.36	(F)252 Disc (R)258 Disc	2880	ABS / VLSD Option
Nissan 240-SX (96-97)	89.0 x 96.0/ 2389		9.5	2525	1481/ 1471	16x6.5 Alum	205/55	3.32, 1.90, 1.31, 1.00, 0.76	4.08	(F)252 Disc (R)258 Disc	2880	ABS / VLSD Option

SSB$_F$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Nissan Maxima (A32B) (96-99)	87.0 x 83.0/ 2960										3280	Nissan Trunk Package p/n 99996-A32TK (includes Koni front strut inserts p/n 56110-A32TK and rear shocks p/n 56210-A32TK, Eibach springs p/n 54000-A32TK, 28.6mm rear stabilizer bar p/n 56230-A32TK, ECU w/o road speed limit p/n 23710-A32TK, Maxima SE 16x6.5 wheels p/n 40300-0L72X, viscous LSD assembly p/n 38411-80X01, Maxima SE rear spoiler p/n 96030-31U26).
Nissan Sentra SER Spec-V (2002)	2500			2535		17 Alum	215/45				2870	
Pontiac Firebird V-6 (96-97)	96.5 x 86.36/ 3790	45.72(I) 38.6(E)	9.4	2568	1542/ 1539	16 x 8	245/50	3.75, 2.19, 1.41, 1.00, 0.72	3.42	(F)277 Disc (R)290 Disc	3360	Performance option permitted, consisting of limited slip differential, uplevel steering rack, dual exhaust.
Saab 900 SE V-6 (1996)	81.6 x 79.6/ 2498	33.0(I) 29.0(E)	10.8	2601	1445/ 1443	15 x 6 Alum	195/60	3.38, 1.76, 1.12, 0.89, 0.70	4.45	(F)284 Disc (R)260 Disc	3055	
Toyota Celica GT (3 door HB) (96-98)	87.0 x 91.0/ 2164	32.0(I) 27.0(E)	9.5	2540	1514/ 1496	15x6.5	205/55	3.29, 1.96, 1.32, 1.03, 0.82	4.18	(F)274 Disc (R)267 Disc	2605	Factory rear spoiler. Vertical storage box on console may be removed for roll cage installation.
Toyota Celica GTS (00-03)	82.0 x 85.0/ 1796		11.5	2598	1488/ 1478	16x6.5 Alloy	205/50	3.17, 2.05, 1.48, 1.17, 0.92, 0.73	4.53	(F)272 Disc (R)267 Disc	2680	ABS brake option permitted.
Toyota MR-2 Spyder 16V DOHC (01-03)	2001: 79.0 x 91.5/ 1794 02-03: 81.0 x 77.0/ 1587		10	2450	1475/ 1460	01-02: (F)15x6 R)15x6.5 2003: (F)15x6 (R)16x7	01-02: F)185/55 R)205/50 2003: F)185/55 R)215/45	3.17, 1.90, 1.39, 1.03, 0.82	3.25		2370	Detachable hardtop shall be installed (latches shall be replaced w/ positive fasteners), convertible top shall be removed.

SSB$_G$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Toyota Matrix GT (2002)	82.1 x 85.1/ 1795		11.5	2601	1519/ 1497	17 Alum	215/50	3.17, 2.05, 1.48, 1.17, 0.92, 0.72	4.5	(F)331 Vented Disc (R)356 Solid Disc	2905	
Volkswagen Golf GTi VR6 (96-99)	81.0 x 90.3/ 2782		10	2471	1450/ 1433	15x6.5 Alum	205/50	3.30, 1.90, 1.31, 1.03, 0.84	3.39	(F)279 Disc (R)226 Disc	2930	Volkswagen performance package (# KIT.RACE.VR6) permitted. Performance kit includes: Shocks (F): Bilstein #VN3-4172, Shocks (R): Bilstein #B36-2246, Springs (F): Neuspeed #55.10.15, 350-400# progressive, Springs (R): Neuspeed #55.10.15, 300-340# progressive, Swaybar (F): Neuspeed #15.10.25.7, 25.0mm, Swaybar (R): Neuspeed #25.10.28.5, 28.0mm adjustable.
Volkswagen Jetta GLX VR6 (96-98)	81.0 x 90.3/ 2782		10	2471	1450/ 1433	15x6.5 Alum	205/50	3.30, 1.90, 1.31, 1.03, 0.84	3.39	(F)279 Disc (R)226 Disc	3060	Volkswagen performance package (# KIT.RACE.VR6) permitted. Performance kit includes: Shocks (F): Bilstein #VN3-4172, Shocks (R): Bilstein #B36-2246, Springs (F): Neuspeed #55.10.15, 350-400# progressive, Springs (R): Neuspeed #55.10.15, 300-340# progressive, Swaybar (F): Neuspeed #15.10.25.7, 25.0mm, Swaybar (R): Neuspeed #25.10.28.5, 28.0mm adjustable.
Volvo 850 GLT (1997)	83.0 x 90.0/ 2435		10.5	2665	1519/ 1471	15x6.5 Alum	195/60	3.38, 1.90, 1.19, 0.87, 0.70	3.77	(F)279 Disc (R)292 Disc		

SSC$_A$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Acura Integra LS (3 door) (96-01)	81.0 x 89.0 / 1835	31.0(I) 28.0(E)	9.2	2571	(-99): 1476/ 1476 (00-): 1475/ 1470	(-99): 14x5.5 Alum (00-): 15 x 6 Alum	(-99): 195/60 (00-): 195/55	3.17, 1.86, 1.26, 0.94, 0.74	4.4	(F)262 x 21 Vented Disc (R)239 x 10 Solid Disc	2620	The pre-2000 cars may not update to the 2000 and up, specs.
Acura RSX (02-03)	86.1 x 86.0 / 1988	35.2(I) 30.2(E)	9.8	2570	1482/ 1481	16x6.5 Alum	205/55	3.267, 1.880, 1.212, 0.921, 0.738	4.4	(F)262 x 21 Vented Disc (R)260 x 9 Solid Disc	2825	
Chrysler Neon ACR SOHC (4 door) (96-99)	87.5 x 83.0 / 1995	33.0(I) 28.0(E)	9.8	2642	1458/ 1471	14 x 6 Alum	175/65 or 205/55 (max.)	3.54, 2.12, 1.36, 1.03, 0.81	3.94	(F)257 Disc (R)270 Disc	2500	Factory Koni adjustable shock/strut assemblies permitted. Mopar Performance Rear Sway Bar allowed P/N P500704. Mopar Performance spring kit #P5007003 (F) and #P5007005 (R) is allowed. This max. tire size superseded SS tire rule in SSS section 17.1.3.E.7
Chrysler Neon ACR DOHC Coupe (96-99)	87.5 x 83.0 / 1995	34.8(I) 30.5(E)	9.6	2642	1458/ 1471	14 x 6 Alum	205/50 (max.)	3.54, 2.12, 1.36, 1.03, 0.81	3.94	(F)257 Disc (R)270 Disc	2600	Factory Koni adjustable shocks permitted. Mopar Performance Rear Sway Bar allowed; P5007041 rear sway bar, P4876425 front control arm bushing. Wheels: 15 x 6", 40mm offset, (P/N 82204993 (Painted) or 82204991 (polished), Tires: 205/50/15 max. This max. tire supercedes SS tire rule in SSS section 17.1.3.E.8.
Chrysler Neon ACR SOHC (4 door) (01-02)	87.5 x 83.0 / 1995	33.3(I) 28.7(E)	9.8	2667	1474/ 1476	15 x 6 Alum	185/60	3.50, 1.96, 1.36, 0.97, 0.81	3.94	(F)257 x 22 Vented Disc (R)270 x 9 Solid Disc	2780	No performance kits.

SSC$_B$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Eagle Talon (96-97)	87.5 x 83.0 / 1996	34.8(I) 30.5(E)	9.6	2510	1511/ 1516	16 x 6 Alum	205/55	3.54, 2.13, 1.36, 1.03, 0.81	3.94		2865	
Ford Focus ZX-3 (00-03)	84.0 x 88.0 / 1988		9.6	2616	1494/ 1486	15x5.5 or 16 x 6 Alum	195/60	3.67, 2.14, 1.45, 1.03, 0.77	3.82	(F)259 x 23 Vented Disc (R)203 x 31 Drum	2630	
Ford Escort ZX-2 SR (98-00)	84.0 x 88.0 / 1988			2499		15 Alloy	205/55				2630	Ford Motorsports performance package P/N M-5300-ZX2 is permitted.
Ford Escort ZX-2 (98-03)	84.0 x 88.0 / 1988		10	2499	1435/ 1435	15x5.5	185/60		4.1		2630	Ford Motorsports performance package P/N M-5300-ZX2 is permitted. Wheels: Enkei p/n ZXWM-132-146-49SM (14 x 6" w/35mm offset), Camber bolt kits: KMAC p/n 120116. ABS optional. Enkei Syle 135 and 227 are allowed alternate wheels to the ZXWM wheel.
Honda Accord EX Coupe (96-97)											3030	
Honda Civic Del Sol Si (96-97)	75.0 x 90.0 / 1590	30.0(I) 26.0(E)	9.2	2370	1476/ 1466	14x5.5 Alum	185/60	3.25, 1.90, 1.25, 0.91, 0.70	4.06	(F)240 Disc (R)239 Disc	2470	"Petty-bar" style roll cage is permitted.

SSCC	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Honda Civic Coupe (96-00)	75.0 x 90.0 / 1590	30.0(I) 26.0(E)	9.6	2621	1476/ 1476	14x4.5 Steel	185/65	3.25, 1.90, 1.25, 0.91, 0.70	4.25		2500	Honda Motorsports performance package (#17D50-S02-C1) permitted. Performance kit includes: Shocks (F): Koni #8042-1001, Shocks (R): Koni #8042-1002, Springs (F): Eibach Kit #9328.140, 350# rate, Springs (R): Eibach Kit #9328.140, 500# rate, Swaybar (R): Neuspeed #H43.22.72, 22mm, Camber: +/- 2 Degrees from service manual specs, Wheels: Enkei 14 x 6" #ENK13214649SM.
Honda Civic Coupe Si (99-00)	81.0 x 77.4 / 1595		10.2	2621	1476/ 1476	15 x 6	195/55	3.23, 2.11, 1.46, 1.11, 0.85	4.4	(F)262 x 20 Disc (R)239 x 8 Disc	2780	Wheels: Stock, Camber: +/- 2 Degrees from service manual specs. Honda Motorsports rear sway bar kit P/N 29-3910, effective 09/01/00 the referenced parts must be replaced in their entirety. If sway bar kit (P/N 29-3910) is delivered with more than one (1) hole en each end of the sway bar, the center hole shall be used.
Honda Civic SI (02-03)	86.0 x 86.0 / 1998	35.0 (I) 30.0 (E)	9.8	2570	1468/ 1469	15 x 6 Alum	195/60	3.06, 1.77, 1.21, 0.92, 0.74	4.50	(F) 262 (R)260	2700	
Honda Prelude S (1996)	85.0 x 95.0 / 2157		8.8	2550	1524/ 1514	14x5.5	185/70	3.31, 1.81, 1.23, 0.90, 0.71	4.06		2870	
Hyundai Tiburon FX 2.0L (97-98)	82.0 x 93.5 / 1975		10.3	2474	1466/ 1450	15 x 6	195/55	3.31, 1.95, 1.39, 1.06, 0.84	3.84	(F)257 x 22 Vented Disc (R)258 x 10 Vented Disc	2705	

SSC D	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Mazda*3* s (2004)	87.5 x 94.0 / 2260		9.7	2639	1529/ 1514	16x6.5 or 17x6.5	205/50 or 205/55	3.31, 1.84, 1.31, 0.97, 0.76	4.1	(F)300 Vented Disc (R)280 Solid Disc	2850	
Mazda MX-6 (96-97)	83.0 x 92.0 / 1991		9	2611	1501/ 1501	15x6.5 Alum	205/55	3.31, 1.83, 1.31, 1.03, 0.80	4.11	(F)259 Disc (R)262 Disc	2755	
Mazda Protege ES (96-98)	83.0 x 85.0 / 1839	33.0(I) 28.0(E)	9.4	2606	1461/ 1461	14x5.5 14 x 6 Miata Alloy: (P/N 9965 - 13 - 6040)	185/65	3.42, 1.84, 1.29, 1.02, 0.78	4.1	(F)257 Vented Disc (R)251 Solid Disc ABS option allowed	2580	Mazda perf. pkg.: (#K-PRO-98-SSC) permitted. Perf. kit incl.: Shocks (F): Bilstein #P30-0104 insert, modified to accept 2.5" spring, Shocks (R): Bilstein #P30-0104 insert, modified to accept 2.5" spring, Springs (F): Eibach ERS, 7" length, 325# rate, & tender spring, Springs (R): Eibach ERS, 8" length, 600# rate, Swaybar (R): #0000-04-3301-ES, .750" adjustable, Bushings: #BCYD-34-470 Frt. Control Arm (F), #BCYD-34-46X Frt. Control Arm (RR), #BCYD-34-46Y Frt, Control Arm (LR), Camber: F&R Camber Bolt Kit #B4Y5-34-112, -2.0 degrees front, Left rear trailing link #B0YA-28-600 (w/ harder bushings), Right rear trailing link #B0YD-28-200 (w/ harder bushings).
Mazda Protege' LX (01-03)	83.0 x 92.0 / 1991	31.5(I) 27.6(E)	9.1	2610		15 x 6 Alum		3.307, 1.842, 1.310, 0.97, 0.755	4.11	LX: (F)259 x 23 Vented Disc (R)201 x 36 Drum	2730	LX may update to the ES brakes. May update to MP3 specs.

SSC$_E$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Mazda Protege ES (99-00)	83.0 x 85.0 / 1839	33.0(I) 28.0(E)	9.1	2611	1471/ 1471	15	195/55	3.42, 1.84, 1.29, 1.03, 0.78	4.11	(F)260 Vented Disc (R)201 Drum	2630	Mazda Performance Package P/N K-PRO-99-SSC (Includes: Bilstein strut cartridges front and rear (p/n P30-0032), Eibach 2.5" diameter ERS springs front (325lbs, 7" free length) and rear (600lbs, 8" free length), front negative camber –2 degrees.) ABS brakes permitted.
Mazda Protege' ES (01-03)	83.0 x 92.0 / 1991	31.5(I) 27.6(E)	9.1	2610		16 x 6 Alum.		3.307, 1.842, 1.310, 0.97, 0.755	4.11	ES: (F)259 x 23 Vented Disc (R)259 x 23 Vented Disc	2730	May update to MP3 specs.
Mazda Protégé MP3 (2001)	83.0 x 92.0 / 1991	31.5(I) 27.6(E)	9.1	2610	1455/ 1460	17 x 7 Alum.	205/45	3.307, 1.842, 1.310, 0.97, 0.755	4.11	(F)10.2 x .9 Vented Disc (R)10.3 x .9 Solid Disc	2780	
Mazda Protégé 5 (02-03)	83.0 x 92.0 / 1991	31.5(I) 27.6(E)	9.1	2610	1465 / 1470	16 x 6 Alum.	195/50	3.307, 1.842, 1.310, 0.97, 0.755	4.11	(F)10.2 x .9 Vented Disc (R)10.3 x .4 Solid Disc	2745	
Mini Cooper S (02-04)	77.0 x 85.8 /1598		8.3	2466	1453/ 1461	16x6.5	195/55	4.17, 2.62, 1.97, 1.61, 1.33, 1.09	2.74	(F) 277 Vented Disc (R) 259 Solid Disc	2875	
Mini Cooper (02-03)	77.0 x 85.8 / 1598	(I)30.3 (E)23.3	10.6	2467	1458/ 1466	15x5.5 16x6.5 Alum	175/65 or 205/55 (max.)	3.417, 1.947, 1.333, 1.054, 0.846	4	(F)276x22 Vented Disc (R)239x10 Solid Disc	2555	228 "Sport" suspension package permitted. This max. tire size superseded SS tire rule in SSS section 17.1.3.E.7

SSC$_F$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Nissan 200-SX SE-R (96-98)	86.0 x 86.0 / 1998	34.2(I) 30.2(E)	9.5	2431	1471/ 1435	15 x 6	195/55	3.06, 1.83, 1.29, 0.98, 0.76	4.18	(F)247 Disc (R)234 Disc	2705	AD22VF Brake option package allowed. Nissan Motorsports performance package (#B14-TK) permitted. Performance kit includes: GAB Shocks: (FL) #2060AL, (FR) #2060AR, (Rear) #9660, Swaybar (R): Suspension Techniques #51127, .750" Adjustable, Electronics: Wolf ECU #ESER(last digit of year)NMUSC. KYB / AGX Shocks also allowed: (FL) #733008, (FR) #733009, (Rear) #741021.
Nissan Sentra SR (4-door) (1998)	86.0 x 86.0 / 1998	34.2(I) 30.2(E)	9.5	2431	1445/ 1425	15 x 6	195/55	3.06, 1.83, 1.29, 0.98, 0.76	4.18	(F)247 Disc (R)234 Disc	2705	AD22VF Brake option package allowed. Nissan Motorsports performance package (#B14-TK) permitted. Performance kit includes: GAB Shocks: (FL) #2060AL, (FR) #2060AR, (Rear) #9660, Swaybar (R): Suspension Techniques #51127, .750" Adjustable, Electronics: Wolf ECU #ESER(last digit of year)NMUSC. KYB / AGX Shocks also allowed: (FL) #733008, (FR) #733009, (Rear) #741021.
Nissan Sentra SER (02-03)	89.0 x 100.0 / 2488	35.5(I) 30.8(E)	9.5	99.8	58.1/ 57.3	16 x 6	195/55	3.153, 1.842, 1.256, 0.947, 0.772	4.133	(F)280 x 22 Vented Disc (R)258 x 9 Solid Disc	2860	
Pontiac Sunfire GT (2002)	90.2 x 94.0 / 2400		9.7	2645	1464/ 1438	16 Alum	205/55	3.267, 1.880, 1.212, 0.921, 0.738		(F)259x22 Vented Disc (R)201x53 Drum	2900	

SSC$_G$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Saturn SC2 Coupe (97-00)	82.0 x 90.0 / 1901	32.3(I) 27.4(E)	9.5	2601	1443/ 1422	15	195/60	3.25, 2.06, 1.42, 1.03, 0.73	4.06	(F)251 Disc (R)245 Disc (R)200 x 30 Drum	2705	Saturn SSC performance package (SPS # PKG-SSC-9798). Performance kit includes: Shocks (F): Carerra #54165/31552B4, Shocks (R): Carerra #54166/32642B4, Springs (F): H&R #54341F, Springs (R): H&R #54341R, Swaybar (R): Sway-Away #19516, Camber: -2.5 Degrees max. (F&R), Wheels: .250" max. wheel spacer per wheel. ABS brakes permitted.
Saturn SC2 Coupe (01-03)	82.0 x 90.0 / 1901	32.3(I) 27.4(E)	9.5	2601	1443/ 1422	15	195/60	3.25, 2.06, 1.42, 1.03, 0.73	4.06	(F)251 Disc (R)245 Disc (R)200 x 30 Drum	2555	ABS brakes permitted.
Saturn SL2 (97-00)	82.0 x 90.0 / 1901	32.3(I) 27.4(E)	9.5	2601	1443/ 1422	15	185/65	3.25, 2.06, 1.42, 1.03, 0.73	4.06	(F)251 Disc (R)245 Disc (R)200 x 30 Drum	2560	Saturn SSC performance package (SPS # PKG-SSC-9798). Performance kit includes: Shocks (F): Carerra #54165/31552B4, Shocks (R): Carerra #54166/32642B4, Springs (F): H&R #54341F, Springs (R): H&R #54341R, Swaybar (R): Sway-Away #19516, Camber: -2.5 Degrees max. (F&R), Wheels: .250" max. wheel spacer per wheel. ABS brakes permitted.
Saturn SL2 (01-03)	82.0 x 90.0 / 1901	32.3(I) 27.4(E)	9.5	2601	1443/ 1422	15	185/65	3.25, 2.06, 1.42, 1.03, 0.73	4.06	(F)251 Disc (R)245 Disc (R)200 x 30 Drum	2560	ABS brakes permitted.

SSC$_H$	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN & EX (mm)	Comp. Ratio	Wheel-base (mm)	Track F & R (mm)	Wheel Size(in) / Mat'l.	Tire Size (stock)	Gear Ratios	Final Drive	Brakes (mm)	Weight (lbs.)	Notes:
Toyota Celica GT (00-03)	79.0 x 91.5 / 1794		10		1489/ 1479	15 Alum	195/60			(F)254 Vented Disc (R)192 Drum	2655	
Toyota Corolla VE (1998)				2464	1461/ 1450	14 x 6	185/65				2560	
Toyota Matrix (2002)	79.0 x 91.5 / 1794		10	2601	1519/ 1497	16 Steel	205/55	3.17, 1.90, 1.31, 0.88, 0.72	3.9	(F)331 Vented Disc (R)229 Drum	2830	
Volkswagen Beetle (98-04)	82.5 x 92.8 / 1984	39.5(I) 32.9(E)	10	2513	1516/ 1494	16 x 6.5	205/55	3.78, 2.12, 1.36, 1.03, 0.84	4.24	(F)280 Vented Disc (R)232 Solid Disc	2975	
Volkswagen Golf III Sport (96-97)	82.5 x 92.8 / 1984		10	2471	1463/ 1445	14 x 6	195/60	3.46, 1.94, 1.21, 0.97, 0.81	3.67	(F)257 Disc (R)226 Disc	2680	
Volkswagen Golf GTi (97-98)	82.5 x 92.8 / 1984		10	2471							2680	
Volkswagen Jetta III (96-98)	82.5 x 92.8 / 1984		10	2471	1463/ 1445	14 x 6	195/60	3.46, 1.94, 1.21, 0.97, 0.81	3.67	(F)257 Disc (R)226 Disc	2810	

17.1.9. **Spec Miata Class (SM) (Regional Class Only):** These specifications are part of the SCCA General Competition Rules (GCR) and all automobiles shall conform to GCR Section 17., Automobiles.

A. PURPOSE AND INTENT

The Spec Miata (SM) class is intended to provide the membership with the opportunity to compete in low cost cars with limited modifications, suitable for racing competition. It is intended to encourage low cost, entry level, production car based competition in SCCA.

Further, the rules are intentionally designed to be more conservative than the Improved Touring class, but with equivalent safety standards. The Spec Miata class will be reviewed on a yearly basis for participation. If the class participation drops below a reasonable level, the cars will be assimilated into the appropriate Improved Touring class.

These rules are intended to SUPPLEMENT those of the Showroom Stock Category Specification (SSS). The Spec Miata class shall strictly follow the SSCS except for modifications permitted by these rules. Unless specifically mentioned or approved in these rules, no additional modifications may be made.

B. CLASSIFIED CARS AND WEIGHTS

1990 – 1993 Mazda Miata 1600cc at 2300 pounds
1994 – 1997 Mazda Miata 1800cc at 2400 pounds

Cars are to be weighed with the driver.

C. AUTHORIZED MODIFICATIONS

The following items represent the only modifications and safety items permitted and/or required on Spec Miata automobiles beyond those of the SSCS. No permitted component/modification shall additionally perform a prohibited function.

1. Engine Modifications

    a. Induction System

        1. All air entering the intake tract shall pass through the fuel injection air inlet.

        2. 1600cc cars may replace the stock air box with a cone style air filter assembly. The air filter element is unrestricted.

1800cc cars must use the stock air box, but the air filter element is unrestricted.

3. *1800cc cars shall use an air restrictor. The air restrictor shall be placed between the throttle body and plenum, and shall be flat steel, or aluminum plate with a thickness between .030" and .060". The specified orifice shall be centered in the restrictor plate and the edges of the orifice shall not be radiused. All intake air shall pass through the restrictor plate.*

   1994 – 1995 47mm restrictor
   1996 – 1997 45mm restrictor

b. Fuel System

   1. Unleaded fuel filler trap door and restrictor plate in filler neck may be removed.

c. Ignition/Electrical System

   1. Ignition wires may be substituted.

   2. Ignition timing is unrestricted.

   3. Batteries may be replaced with those of an alternate manufacturer, provided they are of similar amp-hour capacity, size, and weight and are fitted in the standard location. Additional battery hold-down devices may be used, and are strongly recommended.

d. Exhaust System

   1. The factory exhaust system beyond the OEM front down pipe may be replaced, provided:

      a. Said replacement system retains the original configuration, e.g. single tube design, and the tubing diameter is a maximum of 2.25".

      b. *The pipe may end anywhere after the rear subframe. Forward of the subframe, the pipe must follow the original path configuration of the OEM exhaust system.*

      c. No expansion chambers. A single muffler may be added.

d. The system meets all event specific sound requirements (see GCR Section 12).

e. Clutch System

1. Any clutch disc and pressure plate of stock diameter may be used, provided that they shall be bolted directly to an unmodified stock flywheel. The addition of an external scattershield per GCR 17.24., is permitted and recommended.

2. Cooling System

a. Any radiator may be used, provided it is mounted in the original location, maintains the same plane as the original core and requires no body or structure modifications to install.

b. Thermostats may be modified, removed, or replaced.

3. Transmission/Final Drive

a. Transmission and final drive ratios must remain stock for the year of car.

b. 1990 to 1993 Miatas may use the stock, unmodified viscous limited slip differential or the MAZDASPEED Motorsports Development limited slip differential, part number #QN10-64-A00 (previously TOY1-27-200 & 0000-02-5501).

c. 1994 to 1997 Miatas may only use the stock Torsen limited slip differential.

4. Chassis

Chassis modifications are limited to the addition of the MAZDASPEED Motorsports Development "Spec Miata kit" and those modifications detailed in this area.

a. MAZDASPEED Motorsports Development
Spec Miata kit
1990-93 1.6 DOHC K-SPEC-M5-SUSP
1994-97 1.8 DOHC K-SPEC-M5-SUS8

The following is a breakdown of components supplied within these kits. All parts numbers are MAZDASPEED Motorsports Development parts numbers. No substitution of parts

is allowed. The kits must be used in their entirety.

1. Shocks
   Front Bilstein 0000-04-5225-BL
   Rear Bilstein 0000-04-5226-BL

2. Springs
   Front Eibach ERS 700 lbs/6″
   0000-04-9700-06
   Rear Eibach ERS 325 lbs/7″
   0000-04-9325-07

3. Coil-Over kit
   Front/Rear 0000-04-5402AW

4. Anti-Roll Bars
   K-SPEC-M5-SUSP
   Eibach kit - front / rear bars
   0000-04-5302-EB
   Front 24mm Adjustable
   Rear 15mm Adjustable
   Rear 15mm Adjustable
   K-SPEC-M5-SUS8
   Eibach kit - front / rear bars
   0000-04-5303-EB
   Front 27mm non-Adjustable
   Rear 15mm Adjustable

b. *All cars shall use unmodified Mazdaspeed bump stop (Part # 0000-04-5993AW).*

c. Subframe braces may be updated to stock 1997 configuration utilizing the MAZDASPEED Motorsports Development Spec Miata kit.

d. Anti-roll bar links may be replaced and/or adjustable, but the attachment points must remain stock. The control arms and specified anti-roll bar may not be modified.

e. Cars may decamber wheels by the use of factory means to a maximum of two (2) degrees negative in the front, and two and one half (2.5) degrees negative in the rear.

f. No other relocation or reinforcement of any suspension component or mounting point is permitted.

g. Hardware items (nuts & bolts) may be replaced by similar items performing the same fastening function(s).

h. Manual or power steering racks may be used. Power steering racks may be converted to manual by removing all power steering components.

5. Brakes

a. Backing plates and dirt shields may be ventilated or removed.

b. Brake lines may be replaced with steel lines or Teflon lined metal braided hose. Cars with antilock braking systems must have the system disabled as specified in GCR 11.2.1.E.

c. Parking brakes, mechanisms, and actuating components may be removed.

6. Wheels/Tires

a. Any wheel/tire may be used within the following limitations:

1. Required rim diameter is fifteen (15) inches. Maximum rim width is seven (7) inches. Minimum weight of wheel shall be 13 lbs without spacers.

2. Knockoff/quick change type wheels are prohibited. Wheels must be made of metal.

3. Any DOT-approved tire is permitted. Racing, recapped, or regrooved tires are not allowed. Tire size is unrestricted. The only modifications allowed to tires are having treads "shaved" or "trued." Individual regions may require spec tires. Supplemental regulations for specific events should be checked.

4. Track may be changed to accommodate larger tires, provided that there is safe tire/fender/chassis clearance under all conditions of steer, bump, and rebound. Aftermarket wheel studs, lug nuts, and wheel spacers are permitted.

5. Tire tread (that portion of the tire that contacts the ground under static conditions) shall not protrude beyond the fender opening when viewed from the top perpendicular to the ground. To determine compliance, the vehicle should

be rolled through a powdered substance, as raced with driver, in order to indicate the tire tread contact patch under static conditions.

7. Body/Structure

   a. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Non-metallic inner fender liners may be removed.

   b. The "R" package Miata chin spoiler is allowed provided it is mounted in the location intended by the factory.

   c. Minimum ride height is unrestricted, but no part of the car, except for the exhaust system and suspension components, shall be lower than the lowest part of the wheel rims.

   d. Windshield clips per the GCR Section 17.33. are permitted and recommended.

   e. Convertible tops and attaching hardware shall be completely removed. Cars may compete with the Mazda factory detachable hard top in place (latches shall be replaced with positive fasteners), but it is not mandatory. When no top is used, driver shall wear arm restraints, and the cage will meet the helmet clearance rule. See GCR 18.3.1 for additional information.

   f. Body side moldings, rocker panel moldings, and wheel opening trim pieces may be removed.

   g. *The plastic trim on the hood may be removed.*

   h. Hood clips are permitted. Stock hood latches may be disabled or removed.

   i. Ducting may be added to provide fresh air to the driver compartment. This ducting shall be located in the driver and/or passenger vent window area by a means of a transparent/ alternate vent window material and duct with no modifications to the bodywork.

8. Driver/Passenger Compartment - Trunk

   a. Any steering wheel except wood rimmed types may be used. Any shift knob may be used.

b. Gauges and instruments may be added, replaced, or removed. They may be installed in the original instrument(s) location using a mounting plate(s), or any other location using a secure method of attachment. Other than modifications made to mount instruments and provide for roll cage installation, the remainder of the dash "board" or panel shall remain intact.

c. Any interior or exterior mirrors may be used.

d. Front passenger seat, sun visors, seat belts and their attaching hardware and bracketry may be removed.

e. Carpets, center consoles, cargo bins, driver's seat belt, floor mat, radio system, headliners, dome lights, grab handles and their insulating and attaching materials may be removed. Other than to provide for the installation of required safety equipment or other authorized modifications, no other driver/passenger compartment alterations or gutting are permitted.

   The driver's door window glass, window operating mechanism, and inside door latch/ lock operating mechanism may be removed and the inner door structural panel may be modified, but not removed. The stock side impact beam, if equipped, and the outside door latch/lock operating mechanism shall not be removed or modified. This gutting of the door shall only be made to the driver's door and shall only be made if roll cage incorporates NASCAR-style side protection extending into the door.

f. Any removable covers used to cover spare tires, tools, bins, etc., may be removed along with attaching hardware and bracketry. Carpets, mats, and their insulating or attaching materials may be removed from the floor and recesses of the cargo/ trunk/spare tire area.

g. Dead pedal/foot rest and heel stop may be added.

h. Ballast up to 100lb maximum may be located in the front passenger footwell area, aft of the firewall and any footwell angle, and forward of the passenger seat. Installation shall be per SSCS.

i. In any automobile where allowed removal of seat belts, upholstery, etc., creates an opening between the driver/passenger compartment and an exposed gas tank, or part thereof, including the filler tube, a metal bulkhead which completely fills such opening shall be installed (See GCR 17.12.4).

9. Safety

a. Roll cages shall meet all requirements of GCR Section 18., requirements for Showroom Stock cage configuration, tubing size, and material.

1. Regardless of car weight, all Spec Miata autos may be constructed to the requirements for a 2095-pound car.

b. Steering lock mechanisms shall be removed.

c. An electrical master ("kill") switch is required. See GCR Section 17.27., for requirements.

17.1.4. IMPROVED TOURING CATEGORY

These specifications are part of the SCCA General Competition Rules (GCR) and all automobiles shall conform with GCR Section 17., Automobiles.

A. PURPOSE

Improved Touring classes are intended to provide the membership with the opportunity to compete in low cost cars with limited modifications, suitable for racing competition. To that end, cars will be models, as offered for sale in the United States. They will be prepared to manufacturer's specifications except for modifications permitted by these rules.

Cars from the previous four (4) model years and the current model year will not be eligible. No car older than a 1968 model of any listed vehicle will be accepted for Improved Touring competition. Turbocharged/ Supercharged cars are not eligible for Improved Touring competition. Cars need not be eligible for state license or registration.

B. INTENT

It is the intent of these rules to restrict modifications to those useful and necessary to construct a safe race car. This class is intended to allow a variety of popular, inexpensive cars to be eligible; however, those determined by the Club to be outside of these parameters will not be classified. Entrants shall not be guaranteed the competitiveness of any car, and competition adjustments, other than reclassification, are not allowed. Other than those specifically allowed by these rules, no component or part normally found on a stock example of a given vehicle may be disabled, altered, or removed for the purpose of obtaining any competitive advantage.

Note: This new statement of purpose and intent eliminates the dual purpose version which does not accurately reflect the current IT technology. In addition, it emphasizes the philosophy that we will give you a place to race your car and have fun, but not guarantee that you will be competitive.

C. SPECIFICATIONS

The SCCA shall publish the Improved Touring Category Specifications (ITCS) containing the officially recognized specifications for each car eligible to compete in the Improved Touring Category during the calendar year.

To maintain the stock basis of Improved Touring, updating and/or backdating of components is only

permitted within cars of the same make, model, body type (e.g., sedan, station wagon, convertible, etc.), and engine size as listed on a single Improved Touring Specification Line. Any updated/backdated components shall be substituted as a complete assembly (engine long block, transmission/transaxle, induction system, differential/axle housing). No interchange of parts between assemblies is permitted, and all parts of an assembly shall be as originally produced for that assembly (such parts may, however, be coated, painted or plated). Additionally, it is not permitted to "create" a model or type of car by updating or backdating assemblies. Parts or assemblies which the manufacturer lists in factory service manuals or parts guides for a particular model which supersede or replace original parts or assemblies are permitted. Documentation of the superseding parts or assemblies must be supplied to the Club Racing Department and the appropriate part numbers listed on that particular model's specification line.

Stock replacement parts may be obtained from sources other than the manufacturer provided they are the exact equivalent of the original parts. The intent of this rule is to allow the competitor to obtain replacement parts from standard industry outlets, e.g., auto-parts distributors, rather than from the manufacturer. It is not intended to allow parts that do not meet all dimensional and material specifications of new parts from the manufacturer.

To establish the originality and configuration of the vehicle, each driver/entrant shall have a factory shop manual for the specific make, model, and year of the automobile. This manual shall be presented when so requested at any technical inspection. If the factory shop manual is no longer available from the vehicle manufacturer, an aftermarket shop manual will be accepted with proof of non-availability from the vehicle manufacturer. The proof of legality shall rest upon the protestor and/or protestee.

The Vehicle Identification Number (VIN) shall correspond with the automobile classified, and will determine the model and type for competition purposes. A minimum of two (2) VIN plates and/or stampings is required.

The SCCA shall specify the minimum weight for each classified car as qualified or raced, with driver.

During the initial vehicle classification process, the Club shall assess vehicle performance factors such as—but not limited to—manufacturer's published specifications for engine type, displacement, horsepower, and torque;

vehicle weight; brake type and size; suspension design; and aerodynamic efficiency. Based on such factors, a minimum allowable weight shall be established. At the end of the second, third, and fourth years of classification, the vehicle's racing performance relative to other vehicles in its class shall be evaluated. If the Club deems that, in the interest of fostering greater equity within a class, a vehicle should be reclassified to another Improved Touring class, such a reclassification shall be made. Alternatively or additionally, if the Club deems that an upward or downward revision in the minimum allowable weight is warranted, such a "performance compensation adjustment" shall be made. Any performance compensation adjustments made after the second and third years of classification shall be provisional. At the end of a vehicle's fourth year of Improved Touring classification, an assessment of class equity shall be made and the vehicle's minimum weight shall be established.

On rare occasion—and only after careful review of the actual racing performance of a particular make/model/year of vehicle—the Club may reclassify a vehicle, revise a vehicle's minimum allowable weight, and/or in the most extreme situation an intake restrictor may be required. Such an action shall be taken solely for the purpose of restoring equity within the vehicle's class.

D. AUTHORIZED MODIFICATIONS

The following modifications are authorized on all Improved Touring Category cars. Modifications shall not be made unless authorized herein. No permitted component/modification shall additionally perform a prohibited function.

1. Reciprocating Engines (only)

a. Any carburetor jets, needles, and/or metering rods may be used in the stock or approved optional carburetor(s). Alternate needle valves are permitted. Removable jets may be replaced or resized. The number of carburetors may not be changed from standard. No venturi (including secondary or auxiliary) of any carburetor may be modified in any way.

1. Certain cars have optional carburetors listed. On these cars, adaptor(s) may be used to mount the optional carburetor(s), provided the adaptor serves no performance function, i.e., plenum chamber, etc.

2. External throttle linkage to the standard or optional carburetor(s) may be modified or changed. Choke mechanisms, plates,

rods, and actuating cables, wires, or hoses may be removed. Method of operating the secondary throttle may not be modified.

3. The original, standard intake manifold shall be maintained. No porting or polishing of the manifold is permitted except as allowed by rule D.1.l.

4. All air entering the intake tract shall pass through the carburetor or fuel injection air inlet. Air intake source shall be within the confines of the engine compartment or stock location.

5. All single carbureted cars may fit an approved optional carburetor. Approved optional carburetors are:

   1 Weber 32 DGV/DGAV/DGEV
   1 Weber 32/36 DGV/DGAV/DGEV
   1 Weber 32/36 DFV/DFAV/DFEV
   1Weber 34 DAT/DATR/DATRA/DMTR
   1 Holley-Weber 5200

   Weber carburetor(s) with swaged fuel inlet fitting shall be replaced by drilling and tapping the carburetor body for a threaded fitting.

   Fuel injection manifold(s) shall not be replaced with carburetor manifold(s) from a different model, type, or engine size in order to fit an optional carburetor. All cars equipped with multiple carburetors shall run the original induction system, except for modifications allowed by Sections D.1.a., and D.1.a.2., above.

6. Fuel injected cars may alter or replace the engine management computer, or ECU, provided that all modifications are done within the original OEM ECU housing. Only the stock (unmodified) OEM ECU connection to the wiring harness may be used. The allowance to modify the ECU in no way permits the addition of wiring, sensors, or piggybacked computers outside of the OEM ECU housing. The stock (unmodified) wiring harness must be used. Adjustable fuel pressure regulators are permitted.

b. Any fuel pump(s)/filter(s) may be used. Pump(s)

may be relocated, but shall not be located in the driver/passenger compartment. If a mechanical pump is replaced, a blanking plate may be used to cover the original mounting location. Fuel line(s) may be replaced, relocated, and given additional protection. If the relocated line(s) passes through the driver/ passenger compartment, it/they shall be metal or metal braided, and shall be securely fastened. An external fuel pump pressure regulator may be installed.

c. Air cleaner assemblies may be modified, removed or replaced. Velocity stacks, ram air or cowl induction are not permitted unless fitted as original equipment. Air intake source shall be within the confines of the engine compartment or stock location. Air intake hoses, tubes, pipes, resonators, intake mufflers, housings, etc., located ahead of the air metering/measuring device (i.e. air flow meter, air mass meter) may be removed or substituted. In applications that do not incorporate an air metering/measuring device ahead of the carburetor / throttle body (i.e. speed density injection system), these items may be removed or substituted.

d. Exhaust emission control air pumps, associated lines, nozzles, and electrical/mechanical EGR devices may be removed. If such items are not removed, they shall not be modified in any way. If EGR devices/nozzles are removed from a cylinder head or manifold, any holes remaining shall be completely plugged. Water to an intake manifold may be blocked or removed as part of the emission system.

    1. If fitted, catalytic converter(s) may be removed.

    2. Those vehicles which have emission control devices removed and which are not registered and licensed for street operation may use any gasoline meeting the requirements of GCR Section 17.4., Fuel.

    3. Those vehicles registered and licensed for street use shall use the fuel specified by the workshop/owner's manual.

e. Any ignition system which utilizes the original distributor for spark timing and distribution is permitted. Internal distributor components and

distributor cap may be substituted. Crankfire ignition systems are prohibited unless fitted as original equipment. Any spark plugs and ignition wires may be used. Ignition timing is unrestricted. *Batteries may be replaced with those of alternate manufacture provided they are of similar amp-hour capacity and weight and are fitted in the standard location. Additional battery hold-down devices may be used, and are strongly recommended. Cars originally equipped with two (2) 6-volt batteries may replace them with one (1) 12-volt battery installed in either of the original battery locations.*

f. Cars originally equipped with plastic/phenolic timing gears may substitute metal gears, provided that the design, dimensions, and cam timing remain as stock. Adjustable timing gears are prohibited on all cars unless fitted as stock.

g. Any exhaust header and exhaust system may be used. Exhaust shall exit behind the driver, and shall be directed away from the car body. Original exhaust system heat shields may be removed. A suitable muffler may be necessary to meet sound control requirements (see GCR Section 12).

h. Oil pans, pan baffles, scrapers, windage trays, oil pickups, lines, and filters are unrestricted. Oil and power steering hoses may be replaced with metal braided hose (i.e. Aeroquip). A pressure accumulator/"Accusump" may be fitted. The location of the filter and accumulator are unrestricted, but they shall be securely mounted within the bodywork. All oil lines that pass into or through the driver/passenger compartment shall be metal or metal braided hose. Dry sump systems are prohibited unless fitted as standard equipment. Engine oil and oil additives are unrestricted.

i. Oil catch tanks are permitted. All engine breathers or vapor recirculation lines, if disconnected, shall vent to a catch tank of one (1) quart minimum capacity. Such catch tanks shall not be mounted in the driver/passenger compartment. Original valve cover(s) may be modified to alter or to add breather/filler.

j. Engines may be bored to a maximum of .040 inch over standard bore size. Factory oversize

replacement pistons or their exact equivalent shall be used. Cast or forged equivalent pistons shall provide the same dome/dish/valve relief configuration, ring thickness and spacing, pin height relationship, weight, and compression ratio as factory replacement oversize pistons. Piston rings are unrestricted.

k. Balancing and "blueprinting" of the engine assembly are permitted. Lightening of parts beyond the minimum material removal necessary to balance is prohibited.

l. Manifold and cylinder head port matching is permitted. No material may be removed further than one (1) inch in from the manifold to cylinder head mounting face(s). Carburetor mounting surface(s) shall not be modified, and external dimensions of the cylinder head or intake manifold may not be reduced to facilitate internal porting. Two piece manifolds are not intended to be port matched at their intermediate point.

   Valve guide material is unrestricted.

   Where a factory specification for original cylinder head thickness can be proven, a tolerance of .025 inch less than the service limit will be permitted. Under no circumstances may the compression ratio be increased by more than one-half (.5) point. An offset key may be used to return cam timing to the factory specifications. On engines with dual overhead camshafts, this key shall be installed on the crankshaft only.

m. Any clutch disc and pressure plate of stock diameter may be used, provided that they shall be bolted directly to an unmodified stock flywheel. Balancing of the flywheel/clutch/pressure plate assembly is permitted. Lightening of the flywheel beyond the minimum material removal necessary to balance is prohibited. The addition of an external scattershield per GCR 17.24., is permitted and recommended.

n. Alternate water pump, alternator and power steering pulleys of any diameter or material may be used. Crankshaft pulleys with fewer grooves than stock may be substituted if air conditioning compressors and/or emission control air pumps are removed. Diameter and material of crankshaft pulleys shall remain as

stock. Type of accessory drive (e.g., V-belt, toothed belt, etc.) shall remain as stock.

o. Hardware items (nuts, bolts, etc.) may be replaced with similar items performing the same fastening function(s). Cylinder head gasket(s) may be replaced with any gasket(s) having the same compressed thickness as stock. Other engine gaskets are unrestricted. Engine drive belts may be replaced with others of equivalent OEM specifications.

p. All engine components not otherwise listed in these rules shall meet factory specifications for stock parts. Where factory specifications are absent or unclear, e.g., cylinder head thickness and/or combustion chamber depth, etc., the Club may establish an acceptable dimension and/or allowable tolerance from stock. Engine compartment cosmetic trim pieces may be removed.

q. The application and/or use of any painting, coating, plating, or impregnating substance (i.e. anti-friction, thermal barrier, oil shedding coatings, chrome, anodizing, etc.) to any internal engine surface, including intake manifold internal surface, is prohibited.

r. One (1) engine stayrod may be added.

s. The engine management computer or ECU may be altered provided that all modifications are done within the original housing.

2. Rotary engines (only)

a. Any porting or polishing is prohibited.

b. Rules D.1.a.-k., and D.1.m.-s., also apply.

c. Crankshaft pulley is unrestricted.

d. Alternate rotor seals and springs are permitted.

3. Engine Cooling System

a. Any radiator may be used, provided it is mounted in the original location, maintains the same plane as the original core and requires no body or structure modifications to install. No new openings created by fitting an alternate radiator may be used for the purpose of ducting air to the engine.

b. Oil cooler(s) may be added or substituted. Location within the bodywork is unrestricted, provided that it/they are not mounted within the driver/passenger compartment.

c. Cooling fans may be removed or replaced. Electrically operated fans with manual or automatic actuation may be fitted.

d. Thermostats may be modified, removed, or replaced with blanking sleeves or restrictors.

e. Air conditioning systems may be removed in whole or in part.

f. Screens of one-fourth (1/4) inch minimum mesh may be mounted in front of the radiator and/or oil cooler(s) and contained within the bodywork.

g. Engine coolant fluid, coolant/heater hoses and clamps may be substituted. Heater hoses may be plugged. Heater water control valve(s) may be added or substituted. Heater core and hoses shall not be removed.

4. Transmission/Final Drive

a. Any final drive ratio is permitted provided it fits the stock differential/transaxle housing without modification to the housing.

b. Any limited-slip or locked differential is permitted.

c. No alteration to the stock transmission gear ratios for the make, model, type and engine size of automobile is allowed.

d. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

e. Shift lever may be bent above tunnel or floor.

5. Chassis

a. Ride Height

1. Minimum ride height is five (5) inches, to be measured without driver at the lowest point of the rocker panel, but not to include welded seams or fasteners.

b. Springs and Shock Absorbers

1. Shock absorbers may be replaced provided they attach to the original mounting

points. The number and type (e.g., tube, lever, etc.) of shock absorbers shall be the same as stock. The interchange of gas and hydraulic shock absorbers is permitted. Remote reservoir shock absorbers are prohibited beginning 1/1/03. As of 1/1/03, external adjustments of shock control shall be limited to two (2). No shock absorber may be capable of adjustment while the car is in motion.

2. MacPherson strut equipped cars may substitute struts, and /or may use alternate inserts. Spring seat ride height location may be altered from stock. Remote reservoir struts and/or inserts are prohibited.

3. Springs of any origin may be used, provided they are of the same number and type as originally fitted, i.e., coil, leaf, torsion bar, and that they shall be installed in the original location using the original system of attachment. The joining of two or more coil springs by any means is prohibited. The use of tender springs (designed to capture the spring within the perches at full droop) are permitted provided the tender springs are completely compressed when the car is at static ride height. Shackles or spacers may be used to adjust leaf spring ride height. Spacers, including threaded units with adjustable spring seats, may be used with coil springs. *Coil over threaded body shock/struts are permitted.*

4. Spacers or lowering blocks may be used between leaf springs and the point(s) of attachment to the axle housing.

c. Suspension Control

1. Any anti-roll bar(s), traction bar(s), panhard rod or watts linkage may be added or substituted, provided its/their installation serves no other purpose. The mounts for these devices may be welded or bolted to the structure of the vehicle. No suspension control mount or component shall be located in the trunk or driver/passenger compartment unless installed by the manufacturer as original equipment. Traction bars used to control axle rotation shall be one piece solid bar or tube. Heim rod ends may be fitted.

2. On those cars where an anti-roll bar also acts as a suspension locating device, the diameter of the bar may be changed. Bar attachment and pivot points on the chassis and control arms shall remain as stock, except as provided for in these Rules, Sections D.5.d.1., and 3.

d. Suspension Mounting Points

1. Cars equipped with MacPherson strut suspension may decamber wheels by the use of eccentric bushings at control arm pivot points, by the use of eccentric bushings at the strut-to-bearing-carrier joint, and/or by use of slotted adjusting plates at the top mounting point. If slotted plates are used, they shall be located on existing chassis structure and may not serve as a reinforcement for that structure. Material may be added or removed from the top of the strut tower to facilitate installation of adjuster plate.

2. On other forms of suspension, camber adjustment may be achieved by the use of shims and/or eccentric bushings.

3. All forms of suspension may adjust caster by means of shims or eccentric bushings. Additionally, MacPherson strut-equipped cars may adjust caster at the upper strut mounting point/plate.

4. Independent rear suspension mounting holes may be slotted and reinforced for purposes of camber and/or toe adjustment. Material may be removed from the top of the strut tower to facilitate installation of adjuster plate.

5. Cars may add one (1) front stayrod, located in one of the following areas:

   A. Between lower suspensions mounting points.

   B. Between the upper strut towers on Mac-Pherson strut equipped cars.

   C. Between upper front shock absorber mounts on cars with other forms of suspension.

6. Bushing material, including that used to mount a suspension subframe to the chassis, is unrestricted.

7. Rubber bump stops may be removed, but their chassis mounts, brackets, etc., may not be altered in any way.

8. No other relocation or reinforcement of any suspension component or mounting point is permitted.

9. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

6. Brakes

a. Brake pads, brake linings, and brake fluid are unrestricted.

b. Backing plates and dirt shields may be ventilated or removed. Air ducts may be fitted to the brakes, provided that they extend in a forward direction only, and that no changes are made in the body/structure for their use. Brake rotors and drums shall not be modified other than for truing within manufacturer's specifications.

c. Brake lines may be replaced with steel lines or Teflon-lined metal braided hose. Lines/hoses may be relocated and may be given additional protection. Brake fittings, adaptors, and connectors are unrestricted. Brake system circuitry may be revised, but no modification or substitution of the original master cylinder, its location, or mounting is permitted. Cars with antilock braking systems must have the system disabled as specified in GCR 11.2.1.E. Components that perform no other function than to assist in the activation of the ABS portion of the brake system may be removed.

d. Brake proportioning valves may be used provided that they are of the in-line, pressure limiting type.

e. Parking brakes, mechanisms, and actuating components may be removed.

7. Wheels/Tires

a. Any wheel/tire may be used within the following limitations:

1. Cars originally equipped with twelve (12) inch wheels may fit thirteen (13) inch wheels. Cars originally equipped with metric 365 wheels may fit fourteen (14) inch wheels, and cars originally equipped with metric 390 wheels may fit fifteen (15) inch wheels. *The above-mentioned cars as well as those cars originally equipped with thirteen (13) inch or fourteen (14) inch wheels may fit up to a fifteen (15) inch wheel. All other cars shall retain the wheel diameter fitted as original equipment for their make, model, and type. Knockoff/ quickchange type wheels are prohibited. Wheels must be made of metal.*

2. Any DOT-approved tire is permitted. Racing, recapped, or regrooved tires are not allowed. Tire size is unrestricted. The only modifications allowed to tires are having treads "shaved" or "trued."

3. Track may be changed to accommodate larger tires, provided that there is safe tire/fender/chassis clearance under all conditions of steer, bump, and rebound. Wheel spacers are permitted.

4. Tire tread (that portion of the tire that contacts the ground under static conditions) shall not protrude beyond the fender opening when viewed from the top perpendicular to the ground. To determine compliance, the vehicle should be rolled through a powdered substance, as raced with driver, in order to indicate the tire tread contact patch under static conditions.

5. Any wheel stud, bolt, and or nut is permitted.

6. Maximum allowable rim widths: classes ITS and ITA - seven (7) inches; classes ITB and ITC - six (6) inches.

8. Body/Structure

a. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender

material thickness. Non-metallic inner fender liners may be removed.

b. A front spoiler/air dam is permitted. It shall not protrude beyond the overall outline of the body when viewed from above perpendicular to the ground, or aft of the forward most part of the front fender opening. This body outline does not include bumpers or bumper mounts. The spoiler/air dam shall be mounted to the body, and may extend no higher than four (4) inches above the horizontal centerline of the front wheel hubs. It shall not cover the normal grille opening(s) at the front of the car. Openings are permitted for the purposes of ducting air to the brakes, cooler, and radiator. Dealer installed or limited production front/rear spoilers/air dams/ wings are prohibited. The spoiler shall have no support or reinforcement extending aft of the forward most part of the front fender wheel opening.

   NOTE: Integrated bumper assemblies are defined as those designs where an external non-metallic bumper cover completely encloses the primary energy-absorbing bumper and where this cover could be installed in its normal position with the underlying bumper removed. On cars with integrated bumpers, the front spoiler or airdam may be attached to the bumper cover.

   Where an air dam/spoiler is used, two total openings may be cut in the front valance to allow the passage of up to a three (3) inch diameter duct leading to each front brake/rotor assembly.

   Where no air dam/spoiler is used, two total openings of a maximum size five (5) inches by seven (7) inches maybe cut in the front valance so that brake ducts can be added with a three (3) inch diameter hose leading to each front brake/rotor assembly.

c. No part of the car, except for the exhaust system and suspension components, shall be lower than the lowest part of the wheel rims.

d. Windshield clips and rear window straps per the GCR Section 17.33. are permitted and recommended.

e. Hood and trunk pins, clips, or positive action

external latches are permitted. Stock hood and trunk latches may be disabled or removed; if so, some positive action external fastening method shall be used. Engine compartment insulation may be removed.

f. Convertible tops and attaching hardware shall be completely removed. Note: Convertible model cars are only permitted if they were available as convertibles (e.g. MG Midget), or if the convertible model is specifically allowed on the vehicle spec line. Manual and electric sunroofs, original or aftermarket, where the panel is not normally removable shall be retained and run in the closed position. Components (motors, cables, rails) may be removed provided the panel is securely retained. Removable sunroof or T-top may be retained if bolted or welded in, or removed completely. Glass sunroofs must be removed. All sunroofs may be replaced with panel or replacement skin of the same material as the original surrounding roof material.

g. Any paint scheme and markings meeting GCR Section 17., specifications are permitted.

h. All chassis/structural/electrical repair, if performed, shall be in concurrence with factory procedures, specifications, and dimensions. Unless specifically authorized by the manufacturer for repair or allowed by these rules, no reinforcement, i.e., seam welding, material addition, etc., is permitted.

i. Body repair shall be performed using every reasonable effort to maintain stock body contours, lips, etc. Any body repair modification having as its purpose increased clearance is prohibited. In those circumstances where stock trim/molding pieces are unavailable through all normal replacement channels, proof of such unavailability shall be provided by the competitor. Cars shall meet the requirements of GCR Section 11.2.1.C., Appearance, at all times.

j. Radio antennas may be removed. Antennas for two-way radio may be added.

k. Body side moldings, rocker panel moldings and wheel opening trim pieces (not stock flares) may be removed. Resulting holes may be filled.

9. Driver/Passenger Compartment - Trunk

a. The driver's seat (only) shall be replaced with a one-piece bucket-type race seat. All seat mountings shall be reinforced per GCR Section 18.4.5 and Section 18.1.2. Factory seat tracks/ brackets may be modified, reinforced, and/or removed to facilitate replacement mountings provided they perform no other function. All other seats may be removed.

b. Any steering wheel except wood rimmed types may be used. Any shift knob may be used.

c. Gauges and instruments may be added, replaced, or removed. They may be installed in the original instrument(s) location using a mounting plate(s), or any other location using a secure method of attachment. Other than modifications made to mount instruments and provide for roll cage installation, the remainder of the dash "board" or panel shall remain intact.

d. Any interior or exterior mirrors may be used.

e. Front passenger seat, rear seat back, rear seat bottom cushion(s), sun visors, seat belts and their attaching hardware and bracketry may be removed. In any automobile where allowed removal of rear seats, upholstery, etc., creates an opening between the driver/passenger compartment and an exposed gas tank, fuel cell, or part thereof, a metal bulkhead which completely fills such opening shall be installed (See GCR 17.12.4)

f. Carpets, center consoles, floor mats, headliners, sun roof liner and frame, dome lights, grab handles, and their insulating, attaching or operating mechanisms may be removed. Door interior trim panels may be replaced with 0.060" aluminum securely attached to the door. All other interior trim panels, except the dashboard, may be removed. Other than to provide for the installation of required safety equipment or other authorized modifications, no other driver/ passenger compartment alterations or gutting are permitted. The driver's door window glass, window operating mechanism, and inside door latch/lock operating mechanism may be removed and the inner door structural panel may be modified, but not removed. The stock side impact beam, if equipped, and the outside door latch/lock operating mechanism shall not

be removed or modified. This gutting of the door shall only be made to the driver's door and shall only be made if roll cage incorporates NASCAR-style side protection extending into the door.

g. Any removable covers used to cover spare tires, tools, bins, etc., may be removed along with attaching hardware and bracketry. Carpets, mats, and their insulating or attaching materials may be removed from the floor and recesses of the cargo/ trunk/spare tire area.

h. Dead pedal/foot rest and heel stop may be added.

i. Ducting may be added to provide fresh air to the driver/passenger compartment. This ducting shall be located in the driver and/or passenger window area, with no modifications to the bodywork. Only the cooling duct is permitted in the window area. It is not permitted to otherwise fill in the window area.

j. Radio receivers may be removed or replaced. Two-way radios are permitted.

k. Modifications may be made to the foot pedals to improve the comfort of and control accessibility to the driver.

l. Ballast may be used. All ballast shall be located in the front passenger footwell area, aft of the firewall and any footwell angle, and forward of the OEM front passenger seat location.

    1. It shall be in segments no heavier than fifty (50) pounds, and shall be capable of being removed to be weighed apart from the car.

    2. Each segment shall be fastened with a minimum of two (2) one-half (1/2) inch bolts and positive lock nuts of SAE Grade 5 or better, and shall utilize large-diameter, load-distributing washers.

    3. Holes may be drilled in the front passenger footwell floorpan for purposes of mounting the ballast (only), and said floorpan may be reinforced as required for the same purpose.

10. Safety

a. All cars shall have a roll cage installed. The cage shall meet GCR Section 18., requirements for Showroom Stock cage configuration, tubing size, and material, except as provided for in these rules.

On cars where the rear window/bulkhead prohibits the installation of rear braces (e.g., Honda del Sol), the main hoop shall be attached to the body by plates welded to the cage and bolted to the stock shoulder harness mounting points. This installation design must also incorporate a diagonal bar connecting the top of the main hoop to the lower front passenger side mounting point ("Petty Bar"). Alternatively, the rear window may be removed and a clear, Plexiglas replacement installed. The rear cage braces may pass through this replacement window and through the engine cover or bodywork to allow connection to the frame or unibody. Such allowances shall be noted on the car's specification line.

1. The cage need not be removable. It shall be bolted and/or welded to the car.

   A. Mounting plates shall be welded or bolted to the car.

      1. Each mounting plate shall be at least .080" thick if welded and 3/16" thick (with appropriate backing plates) if bolted. There shall be a minimum of three (3) bolts per mounting plate.

      2. Each mounting plate shall not be greater than 100 square inches and shall be no greater than 12 inches or less than 2 inches on a side. Cars registered prior to 10/1/95 are exempt from this rule.

      3. Whenever possible, mounting plates shall extend onto a vertical section of the structure (such as a rocker box).

      4. The mounting plate may be multi-angled but must not exceed these dimensions in a flat plane.

      5. Any number of tubes may attach

to the plate or each other which shall be considered one point.

2. It shall attach to the car at no more than eight (8) points, consisting of the basic cage with six (6) points and two optional braces.

3. The forward part of the cage shall be mounted to the floor of the vehicle. In addition, if the two optional braces referred to in 10.a.2 are utilized they shall be mounted, one on either side, from the forward section of the cage to the firewall or front fender wells (see GCR Section 18.2, Figure 1). No braces shall pass through the front firewall.

4. Main hoop braces may be mounted at the rear shock mounts/towers or suspension pickup points. Such rear braces may pass through any mandatory or optional bulkhead or panel separating the driver/passenger compartment from the trunk/cargo area/fuel tank/fuel cell area, provided the bulkhead is sealed around said cage braces.

5. A lateral, diagonal main hoop brace illustrated in Figure 1, GCR Section 18., is required. Any number of additional reinforcing bars are permitted within the structure of the cage, provided they meet the minimum tubing size per GCR Sections 18.1.6.C. Such reinforcing tubes may pass through any mandatory or optional bulkhead or panel separating the driver/passenger compartment from the trunk/cargo area/fuel tank/fuel cell area, provided the bulkhead is sealed around such reinforcing tubes.

b. Steering lock mechanisms shall be removed.

c. The stock fuel tank may be replaced with a fuel cell. The fuel cell shall be located within twelve (12) inches of the original fuel tank location. Additional reinforcement may be added to support the fuel cell, but such reinforcement shall not attach to the roll cage. Floor pan may be modified for installation. See GCR Sections 17.12., and 19., for requirements.

d. An electrical master (“kill”) switch is required.

See GCR Section 17.27., for requirements.

e. Installation of a fire extinguisher or fire system as specified in GCR 17.22., is required.

f. Safety harness systems, window nets, and fire extinguishers shall meet or exceed all requirements for Showroom Stock vehicles.

g. Exposed headlights, parking lights, and side marker lights shall be taped. OEM light assemblies mounted on or below (but not in) the bumper shall be removed.

h. Towing eyes per GCR Section 17., may be fitted.

i. Spare wheels and tires may be removed.

j. Air bags shall be disarmed and may be removed.

E. CAR CLASSIFICATION

No vehicle with an automatic transmission shall compete in the Improved Touring Category. Station wagons are prohibited.

F. MEASUREMENT STANDARDS

Measurement standards shall be as specified in GCR 11.4. with the following exceptions: Wheelbase has a tolerance of + 2"/- 1".

ITS$_A$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Acura Integra GS-R (92-93)	4 Cyl DOHC VTEC	81.0 x 81.4 / 1678	33.0(I) 38.0(E)	9.3	100.4	14	3.31, 2.11, 1.46, 1.11, 0.88	(F)262 x 21 Vented Disc (R)239 x 10 Solid Disc	2680	
Acura Integra GS-R (3 door) (94-99)	4 Cyl DOHC VTEC	81.0 x 87.2 / 1797	33.0(I) 28.0(E)	10	101.2	15	3.23, 1.9, 1.36, 1.0, 0.79	(F)262 x 21 Vented Disc (R)239 x 10 Solid Disc	2690	
Alfa Romeo GTV-6 (81-86)	V-6 SOHC	88.0 x 68.3 / 2492	41.0(I) 36.5(E)	9	94.5	15	3.50, 1.96, 1.26, 0.95, 0.78	(F)267 Disc (R)249 Disc	2680	Bosch L-Jetronic Fuel Injection
Alfa Romeo Milano 2.5L (87-89)	V-6 SOHC	88.0 x 68.3 / 2492	41.0(I) 36.6(E)	9	98.8	15	2.88, 1.72, 1.23, 0.95, 0.78	(F)267 Disc (R)249 Disc	2780	Bosch L-Jetronic Fuel Injection
Alfa Romeo Milano 3.0L (87-89)	V-6 SOHC	93.0 x 72.6 / 2959	44.0(I) 36.6(E)	9.5	98.8	15	2.88, 1.72, 1.23, 0.95, 0.78	(F)267 Disc (R)249 Disc	2780	Bosch L-Jetronic Fuel Injection
BMW 318i/is Twin Cam (90-91)	4 Cyl DOHC	84.7 x 81.0 / 1799	33.0(I) 30.5(E)	10	101.2	14 / 15	3.72, 2.02, 1.32, 1.00, 0.81	(F&R) 259 Disc	2600	
BMW 323i (E46) (98-99)	6 Cyl DOHC	84.1 x 75.0 / 2494	33.0(I) 30.5(E)	10.5	107.3	15 / 16	4.23, 2.52, 1.66, 1.22, 1.00	(F)286 Vented Disc (R)276 Vented Disc	3000	
BMW 325i/is (87-91)	6 Cyl SOHC	84.1 x 75.0 / 2494	41.9(I) 36.1(E)	8.8	101.0	14	3.83, 2.20, 1.40, 1.00, 0.81	(F)262 Disc (R)259 Disc	2750	Trunk mounted fuel cell with no larger capacity than stock.

ITS$_B$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
BMW 325i/is (2 & 4door) (92-95)	6 Cyl DOHC	84.1 x 75.0 / 2494	33.0(I) 30.5(E)	(1992): 10.0 (93-95): 10.5	106.3	15 / 16	4.23, 2.52, 1.67, 1.22, 1.00	(F)287 Disc (R)280 Disc	2850	Trunk mounted fuel cell with no larger capacity than stock. Throttle restrictor between throttle body and plenum is mandatory: .06" flat steel plate with one (1) 56mm hole. A .250" (max) thick steel plate or aluminum spacer is permitted between the throttle body and the throttle restrictor to provide clearance for the throttle butterfly. This spacer shall replicate the dimensions of the stock throttle body flange (i.e. throttle bore, bolt pattern, idle-air bypass port dimensions, etc.). Throttle body spacer bore shall be no larger than the stock throttle bore diameter at the gasket surface, and shall not be radiused in any way.
Ford Mustang LX V-6 (94-98)	V-6 OHV	96.8 x 86.0 / 3797	45.0(I) 37.0(E)	9	101.3	15	3.35, 1.93, 1.29, 1.00, 0.73	(F)275 Vented Disc (R)267 Disc	3100	
Ford Probe GT (1993)	V-6 DOHC	84.5 x 74.2 / 2495	32.2(I) 27.8(E)	9.2	102.9	15 / 16	3.31, 1.83, 1.31, 1.03, .80	(F)258 Disc (R)261 Disc	2730	
Ford Contour V-6 (non-SVT) (1995)	V-6 DOHC	82.4 x 79.5 / 2544	32.0(I) 26.0(E)	9.7	106.5	15	3.42, 2.14, 1.45, 1.03, 0.77	(F)259 Disc (R)252 Disc	2870	
Honda Civic Del Sol Si (93-94)	4 Cyl SOHC	75.0 x 90.0 / 1590	30.0(I) 26.0(E)	9.2	93.3	14	3.25, 1.90, 1.25, .90, .75	(F)240 Disc (R)239 Disc	2175	Petty-bar style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.
Honda Civic Del Sol VTEC (94-96)	4 Cyl DOHC	81.0 x 77.4 / 1595	33.0(I) 28.0(E)	10.2	93.3	14	3.307, 2.105, 1.458, 1.107, 0.848	(F)262 Disc (R)239 Disc	2360	Petty-bar style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.

ITS$_C$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Honda Civic Si (1999)	4 Cyl DOHC	81.0 x 77.4 / 1595	33.0(I) 28.0(E)	10.2	103.2	15	3.23, 2.11, 1.46, 1.11, 0.88	(F)262 Vented Disc (R)239 Solid Disc	2360	
Honda Prelude Si (92-93)	4 Cyl DOHC	87.0 x 95.0 / 2259	34.0(I) 29.0(E)	9.8	100.4	15	3.31, 1.86, 1.32, 1.03, 0.81	(F & R) 259 Disc	2715	
Honda Prelude Si VTEC (93-96)	4 Cyl DOHC	87.0 x 90.0 / 2157	35.0(I) 30.0(E)	10	100.4	15	3.31, 1.95, 1.36, 1.07, 0.87	(F) 258 Vented Disc (R) 258 Solid Disc	2905	
Honda Prelude SH (97-98)	4 Cyl SOHC	87.0 x 90.0 / 2157	35.0(I) 30.0(E)	10	101.8	16	3.31, 1.95, 1.31, 1.07, 0.87 &3.29, 1.96, 1.34, 1.03, 0.81	(F)280 x 24 Vented Disc (R)258 x 9 Solid Disc	2905	
Honda Prelude non-SH (97-98)	4 Cyl SOHC	87.0 x 90.0 / 2157	35.0(I) 30.0(E)	10	101.8	16	3.31, 1.95, 1.31, 1.07, 0.87 &3.29, 1.96, 1.34, 1.03, 0.81	(F)280 x 24 Vented Disc (R)258 x 9 Solid Disc	2825	
Jensen Healey (Roadster) (73-79)	4 Cyl DOHC	95.2 x 69.3 / 1973		8.4	92.0	13	3.37, 2.16, 1.58, 1.24, 1.00	(F)254 Disc (R)229 x 45 Drum	2240	(2) Zenith-Stromberg IV Carburetors
Mazda MX-3 V-6	V-6 DOHC	75.0 x 69.6 / 1844	28.5(I) 23.1(E)	9.2	96.3	15	3.31, 1.83, 1.31, 1.03, 0.80	(F)257 Disc (R)252 Disc	2510	
Mazda MX-5 / Miata includes R (94-95)	4 cyl DOHC	83.0 x 85.0 / 1839	33.10(I) 28.15(E)	9	89.2	14	3.14, 1.89, 1.33, 1.00, 0.81	(F)255 Disc (R)251 Disc	2200	Detachable hardtop may be installed. Latches shall be replaced with positive fasteners. Convertible top assembly shall be removed.

ITS$_D$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Mazda MX-5 / Miata (1999)	4 cyl DOHC	83.0 x 85.0 / 1839	33.10(I) 28.15(E)	9.5	89.2	14/15	3.14, 1.89, 1.33, 1.00, 0.81	(F)255 Vented Disc (R)252 Solid Disc	2400	Detachable hardtop may be installed. Latches shall be replaced with positive fasteners. Convertible top assembly shall be removed.
Mazda MX-6	V-6 DOHC	84.5 x 74.2 / 2495	32.2(I) 27.8(E)	9.2	102.9	15	3.31, 1.83, 1.31, 1.03, .80	(F)258 Disc (R)261 Disc	2730	
Mazda MX-6 (1993)	V-6 DOHC	84.5 x 74.2 / 2495	32.2(I) 27.8(E)	9.2	102.9	15	3.31, 1.83, 1.31, 1.03, .80	(F)258 Disc (R)261 Disc	2730	
Mazda RX-7 (13B) (84-85)	2 Rotor	2616		9.4	95.3	14	3.62, 2.19, 1.42, 1.00, 0.76 & 3.62, 1.19, 1.42, 1.00, 0.81	(F)250 Disc (R)256 Disc	2530	
Mazda RX-7 (13B) (86-91)	2 Rotor	2616		9.4/9.7	95.7	14 / 15	3.48, 2.00, 1.37, 1.00, 0.71 & 3.48, 2.00, 1.37, 1.00, 0.70 & 3.48, 2.00, 1.37, 1.00, 0.76	(F)250 Disc (R)256 Disc alt. (F)277 Disc (R)272 Disc	2680	16" wheel not allowed. 5th and 6th intake port actuators and valves may be removed or disabled.
Mercedes-Benz 190 E 2.3L 16V	4 Cyl SOHC	96.5 x 80.3 / 2299	38.0(I) 33.0(E)		104.9	15			2800	
Mercedes-Benz 190 E 2.6L 12V (87-93)	6 Cyl SOHC	82.9 x 80.3 / 2599	40.0(I) 35.0(E)	9.2	104.9	15	3.86, 2.18, 1.38, 1.00, 0.80	(F)262 Disc (R)258 Disc	2880	
Mercury Cougar (1999)	6 Cyl DOHC	82.4 x 79.5 / 2544	32.0(I) 28.0(E)	9.7	106.4	16	3.42, 2.14, 1.48, 1.11, 0.85	(F)278 Vented Disc (R)253 Solid Disc	2650	

ITS$_E$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Nissan/Datsun 240-Z (70-73)	6 Cyl SOHC	83.0 x 73.3 / 2380	42.0(I) 33.0(E)	9	90.7	14	3.55, 2.20, 1.42, 1.00 & 3.59, 2.25, 1.42, 1.00	(F)272 Disc (R)229 x 41 Drum	2430	(2) Hitachi-SU (1V) Carburetors
Nissan/Datsun 260-Z (73-74)	6 Cyl SOHC	83.0 x 79.0 / 2565	42.0(I) 35.0(E)	8.8	90.7	14	3.59, 2.25, 1.42, 1.00	(F)272 Disc (R)229 x 41 Drum	2610	(2) Hitachi-SU (1V) Carburetors
Nissan/Datsun 280-Z (75-78)	6 Cyl SOHC	86.1 x 79.0 / 2760	44.2(I) 35.3(E)	8.3	90.7	14	3.32, 2.08, 1.31, 1.00 & 3.32, 2.08, 1.31, 1.00, 0.86	(F)272 Disc (R)229 x 41 Drum	2730	Nissan (Bosch) L-Jetronic fuel injection
Nissan/Datsun 280-ZX 2+2 (79-83)	6 Cyl SOHC	86.1 x 79.0 / 2760	44.2(I) 35.3(E)	8.3	102.6	14	3.32, 2.08, 1.31, 1.00 & 3.32, 2.08, 1.31, 1.00, 0.86	(F)252 Disc (R)258 or 269 Drum	2820	Nissan (Bosch) L-Jetronic fuel injection
Nissan/Datsun 280-ZX (79-83)	6 Cyl SOHC	86.1 x 79.0 / 2760	44.2(I) 35.3(E)	8.3	91.3	14	3.32, 2.08, 1.31, 1.00 & 3.32, 2.08, 1.31, 1.00, 0.86	(F)252 Disc (R)258 or 269 Drum	2770	Nissan (Bosch) L-Jetronic fuel injection
Nissan 200-SX V-6 (1987)	V-6 SOHC	87.0 x 83.0 / 2960	42.0(I) 35.0(E)	9	95.4	15	3.32, 1.90, 1.31, 1.00, 0.76	(F)274 Vented Disc (R) 290 Solid Disc	2885	
Nissan 240-SX / S13 (91-94)	4 Cyl DOHC	89.0 x 96.0 / 2389	38.1(I) 31.8(E)	9.5	97.4	15 / 16	3.32, 1.90, 1.31, 1.00, 0.76	(F)257 Disc (R)258 Disc	2650	

ITS$_F$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Nissan 240-SX / S14 (95-98)	4 Cyl DOHC	89.0 x 96.0 / 2389	38.1(I) 31.8(E)	9.5	99.4	15 / 16	3.32, 1.90, 1.31, 1.00, 0.76	(F)257 Vented Disc (R)258 Solid Disc	2650	
Nissan 300-ZX (84-88)	6 Cyl SOHC	87.0 x 83.0 / 2960	42.0(I) 35.0(E)	9	91.3	15	3.35, 2.06, 1.38, 1.00, 0.78 or 3.32, 1.90, 1.31, 1.00, 0.76	(F)274 Disc (R)290 Disc	2865	Bosch L-Jetronic Fuel Injection
Nissan 300-ZX 2+2 (1986)	6 Cyl SOHC	87.0 x 83.0 / 2960	42.0(I) 35.0(E)	9	95.7	15				Bosch L-Jetronic Fuel Injection
Nissan 200-SX SE-R (95-97)	4 Cyl DOHC	86.0 x 86.0 / 1998	34.2(I) 30.2(E)	9.5	95.7	15	3.06, 1.83, 1.29, 0.98, 0.76	(F)247 Vented Disc (R)234 Solid Disc	2625	
Oldsmobile Achieva SCX (92-93)	4 Cyl DOHC	92.0 x 85.1 / 2263	36.6(I) 31.5(E)	10	103.4	14 / 15	3.50, 2.05, 1.38, 1.03, 0.81	(F)259 Disc (R)200 Drum	2655	Alternate rear bearing, flange and disc brakes from (Genereal Motors) Saturn are allowed. 16" wheel not allowed.
Oldsmobile Calais (88-91)	4 Cyl DOHC	92.0 x 85.1 / 2263	36.6(I) 31.5(E)	10.1	103.4	14 / 15	3.50, 2.05, 1.38, 0.94, 0.72 & 3.50, 2.19, 1.38, 1.03, 0.81	(F)247 Disc (R)201 x 46 Drum	2655	Alternate rear bearing, flange and disc brakes from (Genereal Motors) Saturn are allowed. 16" wheel not allowed
Pontiac Grand-Am (Quad 4) (88-91)	4 Cyl DOHC	92.2 x 85.1 / 2272	36.6(I) 31.5(E)	10.1	103.4	14 / 15	3.50, 2.05, 1.38, 0.94, 0.72 &3.50, 2.19, 1.38, 1.03, 0.81	(F)247 Disc (R)201 x 46 Drum	2655	Alternate rear bearing, flange and disc brakes from (Genereal Motors) Saturn are allowed. 16" wheel not allowed
Porsche 911 T & E (68-69)	6 Cyl SOHC	80.0 x 66.0 / 1991	42.0(I) 38.0(E)	9.1	1968: 87.0 1969: 89.3	14 / 15	3.09, 1.63, 1.04, 0.79 & 3.09, 1.89, 1.32, 1.04, 0.79	(F)282 Disc (R)290 Disc	2385	

ITS$_G$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Porsche 911 T & E (70-72)	6 Cyl SOHC	84.0 x 66.0 / 2195	46.1(I) 40.1(E)	9.8	89.3	15	3.09, 1.63, 1.04, 0.79 & 3.09, 1.89, 1.32, 1.04, 0.79	(F)282 Disc (R)290 Disc	2485	
Porsche 911 T & E (1973)	6 Cyl SOHC	84.0 x 70.4 / 2341	46.1(I) 40.1(E)	8	89.3	15	3.09, 1.63, 1.04, 0.79 & 3.09, 1.89, 1.32, 1.04, 0.79	(F)282 Disc (R)290 Disc	2585	
Porsche 924-S (86-88)	4 Cyl SOHC	100.0 x 78.9 / 2479	45.0(I) 40.0(E)	10.2	94.5	15 / 16	3.60, 2.13, 1.46, 1.07, 0.83	(F)283 Disc (R)289 Disc	2715	
Porsche 944 (2V) (83-88)	4 Cyl SOHC	100.0 x 78.9 / 2479	45.0(I) 40.0(E)	10.2	94.5	15 / 16	3.60, 2.13, 1.46, 1.07, 0.73 &3.60, 2.13, 1.46, 1.07, 0.83	(F)283 Disc (R)289 Disc	2715	Maximum wheel size is 16 x 7 @ all 4 corners.
Porsche 944 2.7L (1989)	4 Cyl SOHC	104.0 x 78.9 / 2681	45.0(I) 40.0(E)	10.2	94.5	15 / 16	3.60, 2.13, 1.46, 1.07, 0.73 &3.60, 2.13, 1.46, 1.07, 0.83	(F)283 Disc (R)289 Disc	2865	Maximum wheel size is 16 x 7 @ all 4 corners.
Porsche 944S (4V) (87-88)	4 Cyl DOHC	100.0 x 78.9 / 2479	37.0(I) 33.0(E)	10.9	94.5	15 / 16	3.50, 2.059, 1.40, 1.034, 0.829	(F)283 Disc (R)289 Disc	2850	
Toyota Celica GT Coupe & Liftback (89-93)	4 Cyl DOHC	87.0 x 91.0 / 2164	32.0(I) 27.0(E)	9.5	99.4	14	3.29, 2.04, 1.32, 1.03, 0.82	(F)255 Disc (R)201 Drum	2590	

ITS$_H$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Toyota MR-2 (91-92)	4 Cyl DOHC	87.0 x 91.0 / 2164	32.0(I) 27.0(E)	9.5	94.5	14	3.29, 1.96, 1.32, 1.03, 0.82	(F)258 Disc (R)263 Disc	2545	Rear cage braces may pass through the rear window per ITCS 17.1.4.D.10.a.
Toyota Supra (82-85)	6 Cyl DOHC	83.0 x 85.0 / 2759	44.0(I) 36.0(E)	9.2	103.0	14 / 15	3.29, 1.89, 1.28, 1.00, 0.78	(F)256 Disc (R)264 Disc	2890	
Toyota Supra (86 1/2-87)	6 Cyl DOHC	83.0 x 91.0 / 2954	32.0(I) 27.5(E)	9.2	102.2	16	3.29, 1.89, 1.28, 1.00, 0.78	(F)299 Disc (R)290 Disc	3380	
Triumph TR8 (80-82)	8 Cyl OHV	88.9 x 71.1 / 3528	39.9(I) 34.3(E)	8.1	85.0	13	3.32, 2.09, 1.39, 1.00, 0.83	(F)249 Disc (R)229 x 46 Drum	2610	(2) Stromberg 1V Carburetors or Lucas/Bosch L-Jetronic Injection Convertible allowed @2560 lbs.
Volkswagen Corrado SLC	V-6 DOHC	81.0 x 90.3 / 2782		10	97.3	15	3.30, 1.94, 1.31, 1.03, 0.84	(F)280 Disc (R)226 Disc	2680	
Volkswagen Golf GTI 2.0 16V (90-92)	4 Cyl DOHC	82.5 x 92.8 / 1984	32.0(I) 28.0(E)	10	97.3	15	3.45, 2.12, 1.44, 1.13, 0.91	(F & R) 245 Disc	2220	
Volkswagen Golf GTI VR-6 (95-99.5)	V-6 DOHC	81.0 x 90.3 / 2782	39.0 (I) 34.2 (E)	10	97.3	15	3.30, 1.94, 1.31, 1.03, 0.84	(F)280 Vented Disc (R)226 Solid Disc	2680	
Volkswagen Jetta GLI (1991)	4 Cyl DOHC	82.5 x 92.8 / 1984	32.0(I) 28.0(E)	10	97.3	15	3.45, 2.12, 1.44, 1.13, 0.91	(F & R) 245 Disc	2530	
Volkswagen Jetta VR-6 (94-96)	V-6 DOHC	81.0 x 90.3 / 2782	39.0 (I) 34.2 E)	10	97.3	15	3.30, 1.94, 1.31, 1.03, 0.84	(F)280 Vented Disc (R)226 Solid Disc	2680	
Volvo 850 GLT (93-97)	Inline 5 DOHC	83.0 x 90.0 / 2435		10.5	2665.0	15	3.38, 1.90, 1.19, 1.03, 0.84	(F)279 Vented Disc (R)292 Solid Disc	2880	

ITA$_A$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Acura Integra 1.6 (86-89)	4 Cyl DOHC	75.0 x 90.0 / 1590	30.0(I) 27.0(E)	9.3	96.5	14	3.18, 1.95, 1.29, 1.03, 0.85	(F)242 Disc (R)239 Disc	2380	
Acura Integra (90-93)	4 Cyl DOHC	81.0 x 89.0 / 1835	31.0(I) 28.0(E)	9.2	100.4	14	3.17, 1.86, 1.26, 0.94, 0.74	(F)262 Disc (R)239 Disc	2480	
Acura Integra GS/LS/RS (3 door) (94-99)	4 Cyl DOHC	81.0 x 89.0 / 1835	31.0(I) 28.0(E)	9.2	101.2	14	3.23, 1.9, 1.27, 0.97, 0.71	(F)262 x 21 Vented Disc (R)239 x 10 Solid Disc	2555	
AMC Spirit (79-83)	6 Cyl OHV	95.3 x 99.1 / 4235	45.5(I) 35.9(E)	8.3	96.0	14	3.98, 2.14, 1.42, 1.00 & 3.50, 2.21, 1.43, 1.00 & 4.04, 2.39, 1.49, 1.00	(F)274 Disc (R)254 Drum	2730	
Audi GT Coupe (1987)	5 Cyl SOHC	82.5 x 86.4 / 2309	39.5(I) 31.0(E)	8	99.8	14	2.85, 1.52, 0.97, 0.70, 0.54	(F)256 Vented Disc (R)245 x 10 Solid Disc	2490	
BMW 318 (E36) (92-94)	4 Cyl DOHC	84.0 x 81.0/ 1796		10	106.3	15	4.23, 2.52, 1.67, 1.22, 1.00	(F)287 x 23 Vented Disc (R)280 x 11 Solid Disc	2840	Trunk mounted fuel cell with no larger capacity than stock.
BMW 318ti Club Sport (1995)	4 Cyl DOHC	84.0 x 81.0/ 1796	33.0(I) 30.5(E)	10	106.3	16	4.23, 2.52, 1.67, 1.22, 1.00	(F)286 Vented Disc (R)272 Solid Disc	2750	

ITA$_B$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
BMW 318ti Sport (96-99)	4 Cyl DOHC	85.1 x 83.6/ 1895	33.0(I) 30.5(E)	10	106.3	16	4.23, 2.52, 1.67, 1.22, 1.00	(F)286 Vented Disc (R)272 Solid Disc	2750	
BMW 325e/es (2 & 4 door) (84-87)	Inline 6 Cyl SOHC	84.0 x 81.0 / 2693	40.0(I) 34.0(E)	9	101.2	14	ZF: 3.84, 2.20, 1.39, 1.00, 0.81 & Gertrag: 3.83, 2.20, 1.40, 1.00, 0.81	(F)287 x 23 Vented Disc (R)280 x 11 Solid Disc	2750	Trunk mounted fuel cell with no larger capacity than stock.
BMW 2002tii (71-74)	4 Cyl SOHC	89.0 x 80.0 / 1990	46.0(I) 38.0(E)	9	98.4	13	3.76, 2.02, 1.32, 1.00	(F)256 Disc (R)230 Drum	2310	Kugelfischer Mechanical Fuel Injection
BMW Z3 1.9 (96-98)	4 Cyl DOHC	85.1 x 83.6/ 1895	33.0(I) 30.5(E)	10	96.3	16	4.23, 2.52, 1.66, 1.22, 1.00	(F)286 Vented Disc (R)272 Solid Disc	2675	
Buick Skyhawk V-6 (75-80)	6 Cyl OHV	96.6 x 86.4 / 3786	43.5(I) 38.1(E)	8	97.0	13	3.50, 2.48, 1.66, 1.00 & 3.11, 2.20, 1.47, 1.00 &3.10, 1.89, 1.27, 1.00, 0.80 & 2.95, 1.94, 1.34, 1.00, 0.80	(F)254 Disc (R)242 Drum	2810	
Chevrolet Cavalier Z-24 (86-87)	6 Cyl OHV	89.0 x 76.0 / 2800	43.6(I) 36.2(E)	8.9	101.2	14	3.92, 2.04, 1.36, 0.92, 0.75	(F)247 Disc (R)200 Drum	2480	Alternate rear bearing, flange, and disc brakes from (General Motors) Saturn are allowed. 16" wheel not allowed.
Chevrolet Citation X-11 (81-83)	6 Cyl OHV	89.0 x 76.0 / 2800	43.6(I) 36.2(E)	8.9	104.9	14	3.31, 1.95, 1.24, 0.81	(F)247 Disc (R)200 Drum	2620	

ITA$_C$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Chevrolet Corvair 140 (68-69)	6 Cyl OHV	87.3 x 74.7 / 2685	43.8(I) 34.6(E)	8.6	108.0	13	3.11, 2.20, 1.47, 1.00	(F & R) 242 Drum	2580	(4) Rochester Carburetors: (2) 7025023 & (2) 7026026, All w/1.375" venturi.
Chevrolet Cosworth Vega Twin Cam (75-76)	4 Cyl DOHC	88.9 x 80.3 / 1998		8	97.0	13	3.41, 2.08, 1.40, 1.00, 0.80	(F)251 Disc (R)242 Drum	2580	Bendix MPC Fuel injection
Chevrolet Monza V-6 (78-80)	6 Cyl OHV	96.6 x 86.4 / 3786	43.5(I) 38.1(E)	8	97.0	13	3.50, 2.48, 1.66, 1.00 & 3.11, 2.20, 1.47, 1.00 &3.10, 1.89, 1.27, 1.00, 0.80 & 2.95, 1.94, 1.34, 1.00, 0.80	(F)254 Disc (R)242 Drum	2810	
Chrysler Neon SOHC (2&4 door) (incl. ACR) (95-99)	4 Cyl SOHC	87.5 x 83.0 / 1995	33.0(I) 28.0(E)	9.8	104.0	14	3.54, 2.12, 1.36, 1.03, 0.81	(F)257 x 20 Disc (R)257 x 9 Disc	2450	
Chrysler Neon DOHC (2 & 4 door) (incl. ACR) (95-99)	4 Cyl DOHC	87.5 x 83.0 / 1995	34.8(I) 30.5(E)	9.6	104.0	14	3.54, 2.12, 1.36, 1.03, 0.81	(F)257 x 20 Disc (R)257 x 9 Disc	2650	
Dodge Daytona (1986)	4 Cyl SOHC	87.5 x 104.0 / 2501	40.6(I) 35.4(E)	9	97.0	14	3.29, 2.08, 1.45, 1.04, 0.72	(F)257 Disc	2620	
Dodge Omni GLH 2.2	4 Cyl SOHC	87.5 x 92.0 / 2213	40.6(I) 35.4(E)	9.6	99.1	15	3.29, 2.08, 1.45, 1.04, 0.72	(F)256 Disc (R)200 Drum	2350	

ITA$_D$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Dodge Shelby Charger (83-84)	4 Cyl SOHC	87.5 x 92.0 / 2213	40.6(I) 35.4(E)	9.6	96.5	15	3.29, 2.08, 1.45, 1.04, 0.72	(F)256 Disc (R)200 Drum	2430	
Dodge Stratus (95-00)	4 Cyl DOHC	87.5 x 83.0 / 1995	33.0(I) 28.0(E)	9.8	108.0	15	3.54, 2.13, 1.36, 1.03, 0.72	(F)254 Vented Disc (R)229 Solid Disc	3000	
Ford Escort GT 1.8L 16V (1991)	4 Cyl DOHC	1868	33.0(I) 28.0(E)	9	98.4	15	3.30, 1.83, 1.31, 1.03, 0.79		2430	
Ford Mustang II V-6 (74-78)	6 Cyl OHV	93.0 x 68.6 / 2796	39.9(I) 32.3(E)	8.2	96.2	13	3.50, 2.21, 1.43, 1.00	(F)237 Disc (R)229 Drum	2840	
Ford Mustang V-6 (1979)	6 Cyl OHV	93.0 x 68.6 / 2796	39.3(I) 32.3(E)	8.7	100.4	14	3.98, 2.14, 1.42, 1.00	(F)237 Disc (R)229 Drum	3000	
Honda Accord Lxi 12V Coupe & HB (86-88)	4 Cyl SOHC	82.7 x 91.0 / 1955	30.1(I) 35.1(E)	8.8	102.4	13 / 14	3.181, 1.842, 1.208, 0.878, 0.694	(F)240 or 214 Disc (R)200 x 42.5 Drum	2550	
Honda Civic Del Sol S (1993)	4 Cyl SOHC	75.0 x 84.5/ 1493cc	29.0(I) 25.0(E)	9.2	93.3	13	3.25, 1.76, 1.17, .91, .70	(F)240 Disc (R)180 Drum	2140	Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.
Honda Civic Si (86-87)	4 Cyl SOHC	74.0 x 86.5 / 1488cc	27.1(I) 33.0(E)	8.7	93.7	13	2.92, 1.76, 1.81, 0.85, 0.71	(F)231 Disc (R)180 Drum	2040	PGM Fuel Injection

ITA$_E$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Honda Civic Si (89-91)	4 Cyl SOHC	75.0 x 90.0 / 1590	29.0(I) 25.0(E)	9.1	98.4	14	3.25, 1.89, 1.26, 0.94, 0.77	(F)242 Disc (R)181 Drum	2175	PGM Fuel Injection
Honda Civic Si (92-94)	4 Cyl SOHC	75.0 x 90.0 / 1590	29.0(I) 25.0(E)	9.2	103.2	14	3.25, 1.90, 1.25, 0.91, 0.70	(F)262 Disc (R)201 Disc	2330	
Honda Civic DX (sedan & HB) (88-91)	4 Cyl SOHC	75.0 x 84.5/ 1493cc	29.0(I) 25.0(E)	9.2	98.4	13	3.25, 1.89, 1.26, 0.94, 0.77	(F)242 x 21 Vented Disc (R)181 x 39 Drum	2225	
Honda Civic DX (3 & 4 door) (92-95)	4 Cyl SOHC	75.0 x 84.5/ 1493cc	29.0(I) 25.0(E)	9.2	3 door: 2572 4 door: 2622	13	3.25, 1.76, 1.17, 0.91, 0.70	(F)240 x 21 Vented Disc (R)180 Drum	2330	
Honda Civic EX Coupe (96-98)	4 Cyl SOHC	75.0 x 90.0/ 1590cc	30.0 (I) 26.0 (E)	9.6	103.2	14	3.25, 1.90, 1.25, 0.91, 0.70	(F)262 Vented Disc (R)201 Drum	2450	
Honda Civic EX Coupe VTEC (94-95)	4 Cyl SOHC	75.0 x 90.0 / 1590	30.0(I) 26.0(E)	9.2	103.2	15	3.25, 1.90, 1.25, 0.91, 0.70	(F)262 x 20 Vented Disc (R)201 Drum or Solid Disc	2305	
Honda Civic Si VTEC (94-95)	4 Cyl SOHC	75.0 x 90.0 / 1590	30.0(I) 26.0(E)	9.2	101.3	14	3.25, 1.90, 1.25, 1.10, 0.70	(F)240 Disc (R)239 Disc	2305	
Honda CRX Si (84-87)	4 Cyl SOHC	74.0 x 86.5 / 1488	27.1(I) 33.1(E)	8.7	86.6	13 / 14	2.92, 1.76, 1.18, 0.85, 0.71	(F)231 Disc (R)180 Dum	1980	Plastic front fenders, nose, lower body segments (Aero package) permitted. PGM fuel injection.
Honda CRX Si (88-91)	4 Cyl SOHC	75.0 x 90.0 / 1590	29.0(I) 25.0(E)	9.1	90.6	14	3.25, 1.89, 1.26, 0.94, 0.77	(F)242 Disc (R)181 Drum (R)239 Disc	2140	

ITA$_F$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Honda CRX 1.5L (standard) (88-91)	4 Cyl SOHC	75.0 x 84.5/ 1493cc	29.0(I) 25.0(E)	9.2	90.6	13	(3.25, 1.65, 1.03, 0.82) or (3.25, 1.89, 1.26, 0.94, 0.77)	(F)242 x 21 Vented Disc (R)181 x 39 Drum	2105	
Honda Prelude-S (1992)	4 Cyl SOHC	85.1 x 95.0 / 2157	34.0(I) 29.0(E)	9.4	100.4	14	3.31, 1.86, 1.32, 1.03, 0.81	(F & R) 259 Disc	2680	
Honda Prelude Si (88-91)	4 Cyl	80.0 x 91.0 / 1950	30.0(I) 35.0(E)			14	3.181, 1.842, 1.250, 0.937, 0.771		2550	
Honda Prelude Si (90-91)	4 Cyl DOHC	83.0 x 95.0 / 2056	33.1(I) 28.1(E)	9.4	101.0	13/14	3.31, 1.81, 1.29, 0.96, 0.81	(F) 214 Vented Disc (R) 208 Vented Disc	2550	
Isuzu Impulse (83-87)	4 Cyl OHC	87.0 x 82.0 / 1949		9.2	96.0	14			2855	
Mazda Cosmo (76-78)	2 Rotor	2616		9.2	99.0	14	3.68, 2.26, 1.40, 1.00, 0.86	(F)204 Disc (R)242 Drum	2780	
Mazda MX-5 / Miata (90-93)	4 Cyl DOHC	78.0 x 83.6 / 1597	31.1(I) 26.3(E)	9.4	89.2	14	3.14, 1.89, 1.33, 1.00, 0.81	(F)235 Disc (R)232 Disc	2205	Detachable hardtop may be installed. Latches shall be replaced with positive fasteners. Convertible top assembly shall be removed.
Mazda Protege LX (90-93)	4 Cyl DOHC	83.0 x 85.0 / 1839	33.0(I) 28.0(E)	9	98.4	14	3.30, 1.83, 1.31, 1.03, 0.79	(F)257 Vented Disc (R)252 Solid Disc	2510	
Mazda Protege ES (95-98)	4 Cyl DOHC	83.0 x 85.0 / 1839	33.0(I) 28.0(E)	9.4	102.6	14	3.42, 1.84, 1.29, 1.02, 0.78	(F)257 Vented Disc (R)252 Solid Disc	2510	

ITA$_G$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Mazda RX-2 (71-74)	2 Rotor	2292		9.4	97.2	13	3.68, 2.26, 1.40, 1.00, 0.86	(F)232 Disc (R)201 Drum	2300	
Mazda RX-3 / 3SP (72-78)	2 Rotor	2292		9.4	91.0	13	3.74, 2.20, 1.44, 1.00, 0.79 & 3.74, 2.20, 1.44, 1.00, & 3.68, 2.26, 1.40, 1.00, 0.86 & 3.38, 2.00, 1.39, 1.00, 0.79	(F)232 Disc (R)201 Drum (R)229 Drum	2280	
Mazda RX-4 (74-78)	2 Rotor	2616		9.2	99.0	13	3.68, 2.26, 1.40, 1.00 & 3.38, 2.08, 1.32, 1.00, 0.79	(F)232 Disc (R)229 Drum	2550	
Mazda RX-7 (12A) (79-85)	2 rotor	2292		9.4	95.3	13	3.68, 2.22, 1.43, 1.00, 0.83	(F)227 Disc (R)200 Drum (R)236 Disc	2380	
Mercedes-Benz 190E 2.3L 8V	4 Cyl SOHC	95.5 x 80.3 / 2299	46.1(I) 39.1(E)	9	104.9	14 / 15	3.91, 2.17, 1.37, 1.00, 0.78	(F)262 Disc (R)258 Disc	2730	
Mercury Capri I V-6 (72-74)	6 Cyl OHV	90.0 x 66.8 / 2550 93.0 x 68.5 / 2796	**.*(I) **.*(E) 39.9(I) 32.3(E)	8.2	100.8	13	3.65, 1.97, 1.37, 1.00	(F)244 Disc (R)229 Drum	2390	
Mercury Capri II V-6 (76-77)	6 Cyl OHV	93.0 x 68.5 / 2796	39.9(I) 32.3(E)	8.2	100.8	13	3.65, 1.97, 1.37, 1.00	(F)249 Disc (R)229 Drum	2670	
Mercury Capri (91-94)	4 Cyl DOHC	78.0 x 83.6 / 1597	31.1(I) 26.3(E)	9.4	94.7	14 / 15	3.31, 1.83, 1.23, 0.97, 0.80	(F)260 Vented Disc (R)221 Solid Disc	2440	Detachable hardtop may be installed. Latches shall be replaced with positive fasteners. Convertible top assembly shall be removed.

ITA$_H$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Mitsubishi Eclipse (95-98)	4 Cyl DOHC	87.5 x 83.0 / 1997	34.93 (I) 30.63 (E)	9.6	98.8	14/16	3.54, 2.13, 1.36, 1.03, 0.81	(F)204 Vented Disc (R)222 Solid Disc or 231 x 41.3 Drum	2700	
Nissan 240-SX / S13 (89-90)	4 Cyl SOHC	89.0 x 96.0 / 2389	34.0(I) 40.0(E)	9.5	97.4	15	3.32, 1.90, 1.31, 1.00, 0.76	(F)252 Disc (R)258 Disc	2530	Front brake discs may be stock 257 x 22mm ABS discs w/ 4-lug hub & ABS front calipers.
Nissan NX-2000 (91-93)	4 Cyl DOHC	86.0 x 86.0 / 1998	34.2(I) 30.2(E)	9.5	95.7	14	3.06, 1.83, 1.29, 0.98, 0.76	(F)257 Disc (R)234 Disc	2515	
Nissan Sentra SE-R (91-94)	4 Cyl DOHC	86.0 x 86.0 / 1998	34.2(I) 30.2(E)	9.5	95.7	14	3.06, 1.83, 1.29, 0.98, 0.76	(F)249 Disc (R)234 Disc	2490	
Nissan Sentra E/XE/CXE/SL (1991)	4 Cyl DOHC	76.0 x 88.0 / 1597	34.0(I) 24.0(E)	9.5	95.7	13	3.33, 1.96, 1.29, 0.93, 0.73	(F)239 Disc (R)258 Disc	2250	
Nissan Pulsar NX (87-91)	4 Cyl DOHC	76.0 x 88.0 / 1597	37.0(I) 30.0(E)	9.4		13	3.06, 1.83, 1.21, 0.90, 0.76	(F)258 Disc (R)203 Drum	2250	KN13 engine
Plymouth Laser / Eagle Talon / Mitsubishi Eclipse 2.0L	4 Cyl DOHC	85.0 x 88.0 / 1997	34.0(I) 30.5(E)	9	97.2	13	3.36, 1.95, 1.29, 0.94, 0.76	(F & R) 264 Disc	2755	
Pontiac Fiero GT & Formula V-6 2.8 (1988)	6 Cyl OHV	89.0 x 76.0 / 2837	43.7(I) 36.3(E)	8.5	93.4	15	3.50, 2.05, 1.38, 0.94, 0.72	(F & R) 260 Disc	2780	"Petty Bar" style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.

ITA	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Pontiac Fiero V-6 2.8 (85-87)	6 Cyl OHV	89.0 x 76.0 / 2837	43.7(I) 36.3(E)	8.5	93.4	14 / 15	3.31, 1.95, 1.24, 0.81 & 3.50, 2.05, 1.38, 0.94, 0.72	(F)258 Disc (R)269 Disc	2560	"Petty Bar" style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.
Porsche 912-E (1976)	4 Cyl OHV	94.0 x 71.0 / 1971	42.0(I) 36.0(E)	7.6	89.4	15	3.18, 1.83, 1.26, 0.96, 0.72	(F)282 Disc (R)180 Drum	2480	
Saab 900 16V (B212i) (91-92)	4 Cyl DOHC	2118							2680	
Saturn SC Coupe & SC2 (91-96)	4 Cyl DOHC	82.0 x 90.0 / 1901	32.3(I) 27.4(E)	9.5	99.2	15	3.25, 2.01, 1.42, 1.03, 0.73	(F)251 x 18 Vented Disc (R)245 x 11 Solid Disc or 200 x 30 Drum	2330	
Saturn SL2 (91-95)	4 Cyl DOHC	82.0 x 90.0 / 1901	32.3(I) 27.4(E)	9.5	102.4	15	3.25, 2.01, 1.42, 1.03, 0.73	(F)251 x 18 Vented Disc (R)245 x 11 Solid Disc or 200 x 30 Drum	2360	
Saturn SC1 & SC2 Coupe (1997)	4 Cyl DOHC	82.0 x 90.0 / 1901	32.3(I) 27.4(E)	9.5	102.4	15	3.25, 2.01, 1.42, 1.03, 0.73	(F)251 x 18 Vented Disc (R)245 x 11 Solid Disc or 200 x 30 Drum	2360	
Toyota Celica Supra (79-81)	Inline 6 Cyl DOHC	83.0 x 85.0 / 2759		8.8	102.9	14	3.29, 1.89, 1.28, 1.00, 0.79		2930	

ITA$_J$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Toyota Celica GTS (86-88)	4 Cyl DOHC	86.0 x 86.0 / 1998	33.5(I) 29.0(E)	9.2	94.5	14	3.59, 2.02, 1.38, 1.00, 0.86	(F)232 Disc (R)231 Disc	2680	
Toyota Celica GTS Coupe & HB (1989)	4 Cyl DOHC	86.0 x 86.0 / 1998	33.5(I) 29.0(E)	9.2	99.4	14	3.29, 2.04, 1.32, 1.03, 0.82	(F)258 Disc (R)269 Disc	2615	
Toyota Corolla GTS (84-85)	4 Cyl DOHC	81.0 x 77.0 / 1587	30.7(I) 26.0(E)	9	95.0	14	3.59, 2.02, 1.38, 1.00, 0.86	(F & R) 231 Disc	2210	
Toyota Corolla GTS (86-89)	4 Cyl DOHC	81.0 x 77.0 / 1587	30.7(I) 26.0(E)	9.4	94.5	14	3.59, 2.02, 1.38, 1.00, 0.86	(F & R) 231 Disc	2410	
Toyota MR-2 1.6L (85-89)	4 Cyl DOHC	81.0 x 77.0 / 1587	30.7(I) 26.0(E)	9.4	91.3	14	3.17, 1.90, 1.31, 0.97, 0.82 &3.23, 1.91, 1.26, 0.92, 0.73	(F)244 Disc (R)239 Disc (F)257 Disc (R)262 Disc	2370	Factory aero package allowed (wing & skirts). Trunk mounted fuel cell with no larger capacity than stock is permitted. "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window per 17.1.4.D.10.a.
Triumph GT-6 Mk.III (70-74)	6 Cyl OHV	74.2 x 76.0 / 1998	36.5(I) 32.0(E)	9.25	83.0	13	2.65, 1.78, 1.25, 1.00, 0.80	(F)247 Disc (R)203 Drum	2005	(1) Stromberg 150CP
Volkswagen Golf GTI 16V (87-89)	4 Cyl DOHC	81.0 x 86.4 / 1780		10	97.3	14	3.45, 2.12, 1.44, 1.13, 0.91	(F & R) 245 Disc	2220	
Volkswagen Jetta III (1993)	4 Cyl SOHC	82.5 x 92.8 / 1984		10	97.3	14	3.46, 1.94, 1.21, 0.97, 0.81	(F)257 Disc (R)227 Disc	2480	
Volkswagen Jetta GLI 16V (87-89)	4 Cyl DOHC	81.0 x 86.4 / 1780		10	94.5	14	3.45, 2.12, 1.44, 1.13, 0.89	(F) 239 Disc (R) 180 x 30 Drum	2280	
Volkswagen Scirocco 16V (86-88)	4 Cyl DOHC	81.0 x 86.4 / 1780		10	94.5	14	3.45, 2.12, 1.44, 1.13, 0.91	(F)256 Disc (R)239 Disc	2320	Bosch K-Jetronic Fuel Injection

ITB$_A$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Alfa Romeo Alfetta GT, GTV, Sprint Veloce (75-79)	4 Cyl DOHC	84.0 x 88.5 / 1962	44.2(I) 40.2(E)	9	95	14	3.30, 2.00, 1.37, 1.04, 0.83	(F)261 Disc (R)249 Disc	2520	Detachable hardtop may be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Alfa Romeo Alfetta Sedan (75-79)	4 Cyl DOHC	84.0 x 88.5 / 1962	44.0(I) 41.0(E)	9	98.8	14	3.30, 2.00, 1.37, 1.04, 0.83	(F)261 Disc (R)249 Disc	2605	Detachable hardtop may be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Alfa Romeo GTV2000 (72-75)	4 Cyl DOHC	84.0 x 88.5 / 1962	44.0(I) 41.0(E)	9	92.5	14	3.30, 2.00, 1.37, 1.04, 0.83	(F)261 Disc (R)267 Disc	2410	Detachable hardtop may be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Alfa Romeo all Spider models (72-89)	4 Cyl DOHC	84.0 x 88.5 / 1962	44.0(I) 41.0(E)	9	88.6	14	3.30, 2.00, 1.37, 1.04, 0.83	(F)268 Disc (R)263 Disc	2400	77-81 SPICA Mech. fuel injection, 82-Bosch L-Jetronic injection 5. Detachable hardtop may be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Alfa Romeo Spider Quadrifoglio (85-89)	4 Cyl DOHC	84.0 x 88.5 / 1962	44.0(I) 41.0(E)	9	88.6	15	3.30, 2.00, 1.37, 1.04, 0.83	(F)268 Disc (R)263 Disc	2400	Detachable hardtop may be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Alfa Romeo all Spider models (90-94)	4 Cyl DOHC	84.0 x 88.5 / 1962	44.0(I) 41.0(E)	10	88.6	14/15	3.30, 2.00, 1.37, 1.04, 0.83	(F)268 Disc (R)263 Disc	2400	Detachable hardtop may be installed (latches shall be replaced with positive fasteners), convertible top shall be removed.
Audi 4000 & 4000S (1986)									2500	
Audi 5+5 (81-83)	5 Cyl SOHC	79.5 x 86.4 / 2144 81.0 x 86.4 / 2226	38.0(I) 31.0(E)	8	99.8	14	2.85, 1.52, 0.97, 0.70, 0.54	(F)239 Disc (R)200 Disc	2490	

ITB$_B$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Audi Coupe (81-84)	5 Cyl SOHC	79.5 x 86.4 / 2144 81.0 x 86.4 / 2226	38.0(I) 31.0(E) 2226cc = 33.0(E)	8 2226 = 8.5	99.8	14	2.85, 1.52, 0.97, 0.70, 0.54 or 3.45, 1.70, 1.10, 0.75, 0.60, or 3.46, 1.94, 1.29, 0.97, 0.80	(F)239 Disc (R)200 x 40 Drum	2490	
Audi GT Coupe (84-86)	5 Cyl SOHC	81.0 x 86.4 / 2226	38.0(I) 33.0(E)	8.5	99.8	14	3.45, 1.70, 1.10, 0.75, 0.60 or 3.45, 1.70, 1.06, 0.77, 0.60 or 2.85, 1.52, 1.07, 0.78, 0.64	(F)256 Vented Disc (R)200 x 40 Drum	2540	
BMW 318i (84-85)	4 Cyl SOHC	89.0 x 71.0 / 1767	44.0(I) 38.0(E)	9.3/9.0	101.2	14	3.72, 2.02, 1.32, 1.00, 0.81	(F)261 Disc (R)229 Drum	2395	Trunk mounted fuel cell with no larger capacity than stock is allowed.
BMW 320i 1.8 (80-83)	4 Cyl SOHC	89.0 x 71.0 / 1767	44.0(I) 38.0(E)	8.8	100.9	13	3.68, 2.00, 1.33, 1.00, 0.80	(F)254 Disc (R)250 Drum	2460	Trunk mounted fuel cell with no larger capacity than stock is allowed.
BMW 320i 2.0 (77-79)	4 Cyl SOHC	89.0 x 80.0 / 1990	44.0(I) 38.0(E)	8.1	100.9	13	3.76, 2.02, 1.32, 1.00	(F)254 Disc (R)250 Drum	2510	Trunk mounted fuel cell with no larger capacity than stock is allowed.
BMW 2002 (68-76)	4 Cyl SOHC	89.0 x 80.0 / 1990	44.0(I) 46.0(I) W/E12 head 38.0(E)	8.5	98.4	13	3.76, 2.02, 1.32, 1.00	(F)240 Disc (R)232 Drum	2280	
Dodge Charger / 024 (81-85)	4 Cyl SOHC	87.5 x 92.0 / 2213	40.6(I) 35.4(E)	9	96.6	13 / 14	3.29, 1.89, 1.21, 0.88 or 3.29, 1.89, 1.21, 0.88, 0.72 or 3.29, 2.08, 1.45, 1.04, 0.72	(F)228 Disc (R)200 Drum	2320	

ITB$_C$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Dodge Colt GT 2.0 (76-77)	4 Cyl SOHC	84.0 x 90.0 / 1995	41.9(I) 34.0(E)	8.5	95.3	13	3.37, 2.04, 1.36, 1.00, 0.86	(F)229 Disc (R)229 Drum	2280	
Dodge Daytona 2.2 (84-89)	4 Cyl SOHC	87.5 x 92.0 / 2213	40.6(I) 35.4(E)	9	96.6	14	3.29, 2.08, 1.45, 1.04, 0.72	(F)257 Disc (R) Drum	2630	
Dodge Omni 2.2 (80-90)	4 Cyl SOHC	87.5 x 92.0 / 2213	40.6(I) 35.4(E)	9	99.2	13 / 14	3.45, 1.94, 1.29, 0.97 or 3.29, 1.89, 1.21, 0.88 or 3.29, 1.89, 1.21, 0.88, 0.72 or 3.29, 2.08, 1.45, 1.04, 0.72	(F)229 Disc (R)201 Drum	2320	
Dodge Shadow (89-91)	4 Cyl SOHC	87.5 x 92.0 / 2213	40.6(I) 35.4(E)	9.5	97.2	14 / 15	3.29, 2.08, 1.45, 1.04, 0.72	(F)259 Disc (R)200 Drum	2680	Bosch/Holley TBI
Fiat 124 Spider 2.0 (79-83)	4 Cyl DOHC	84.0 x 90.0 / 1995	41.7(I) 36.3(E)	8.5	89.7	13 / 14	3.67, 2.10, 1.36, 1.00, 0.88	(F & R) 227 Disc	2330	Weber 28/32 DHA Carburetor, Bosch L-Jetronic injection, Bosch CIS injection
Fiat Brava 2.0 (79-81)	4 Cyl DOHC	84.0 x 90.0 / 1995	41.7(I) 36.3(E)	8.1	98	13	3.61, 2.04, 1.35, 1.00, 0.87	(F)227 Disc (R)229 Drum	2530	79-mid 80: Weber 28/32 ADHA carburetor, Mid 80 on: Bosch CIS injection
Fiat Spider 1.8 (74-78)	4 Cyl DOHC	84.0 x 79.2 / 1756	41.7(I) 36.3(E)	8	89.7	13	3.67, 2.10, 1.36, 1.00, 0.88 or 3.61, 2.05, 1.36, 1.00, 0.87	(F & R) 227 Disc	2230	
Ford Capri I 2.0	4 Cyl SOHC	91.0 x 77.0 / 1993	42.2(I) 36.2(E)	9.2	100.8	13	3.65, 1.97, 1.37, 1.00	(F)244 Disc (R)229 Drum	2300	

ITB$_D$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Ford Escort/GT 1.9 (86-90)	4 Cyl SOHC	82.0 x 88.0 / 1859	42.0(I) 37.0(E) or 39.0(I) 34.0(I)	9	94.2	13 / 14 / 15	3.21, 1.81, 1.15, 0.78 or 3.60, 2.12, 1.39, 1.02, 0.75 or 3.60, 2.12, 1.39, 1.02, 0.77	(F)235 Vented Disc (R)180 or 203 Drum	2280	
Ford Escort EXP (86-88)	4 Cyl SOHC	82.0 x 88.0 / 1859	42.0(I) 37.0(E)	9.5	94.3	14 / 15	3.60, 2.12, 1.39, 1.02, 0.77 or 0.75	(F)235 x 24 Vented disc (R)180 Solid Disc	2415	
Ford Mustang 2.3 (79-93)	4 Cyl SOHC	96.0 x 79.4 / 2301	44.1(I) 38.1(E)	9.5	100.4	13 / 14 / 15	3.98, 2.14, 1.42, 1.00 or 3.98, 2.14, 1.49, 1.00 or 4.07, 2.57, 1.66, 1.00 or 3.72, 2.23, 1.48, 1.00, 0.76 or 3.97, 2.34, 1.46, 1.00, 0.79 or 4.05, 2.43, 1.48, 1.00, 0.82	(F)237 or 255.5Disc (R)229 Drum	2640	
Ford Mustang II 2.3 (74-78)	4 Cyl SOHC	96.0 x 79.4 / 2301	44.1(I) 38.1(E)	9	96.2	13	3.98, 2.14, 1.42, 1.00	(F)237 Disc (R)229 Drum	2830	
Ford Pinto 2.0 (71-74)	4 Cyl SOHC	91.0 x 77.0 / 1993		8.6	94	13	3.65, 1.97, 1.37, 1.00	(F)237 Disc (R)229 Drum	2230	
Ford Pinto 2.3 (74-80)	4 Cyl SOHC	96.0 x 79.4 / 2301	44.1(I) 38.1(E)	9	94.5	13	3.98, 2.14, 1.42, 1.00 or 3.65, 1.97, 1.37, 1.00	(F)237 Disc (R)229 Drum	2490	

ITB$_E$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Geo Prism GSi (1990)	4 Cyl DOHC	81.0 x 77.0 / 1588	30.5(I) 25.4(E)	10.3	95.7	14	3.17, 1.90, 1.31, 0.97, 0.82	(F)259 Disc (R)242 Disc	2455	
Geo Storm GSi (90-91)	4 Cyl DOHC	80.0 x 79.0 / 1588	31.0(I) 28.0(E)	9.8	96.5	14 / 15	3.91, 2.15, 1.45, 1.03, 0.83	(F)248 Disc (R)200 Drum	2380	
Honda Accord 1.7L (79-83)	4 Cyl SOHC	77.0 x 94.0 / 1751	34.1(I) 28.1(E)	8.8	93.7	13	3.18, 1.84, 1.20, 0.90, 0.72 or 3.38, 2.80, 2.38, 1.56, 0.97	(F)191 Disc (R)193 Drum	2270	
Honda CRX HF 1.5L (88-91)	4 Cyl SOHC	75.0 x 84.5 / 1493	29.0(I) 25.0(E)	9.6	90.6	13	3.25, 1.65, 1.03, 0.92, 0.69	(F)231 x 17 Solid Disc (R)180 x 39 Drum	2030	
Honda Prelude 1.8 (83-87)	4 Cyl SOHC	80.0 x 91.0 / 1829	30.0(I) 35.0(E)	9.1	96.5	13 / 14	3.18, 1.94, 1.25, 0.93, 0.76	(F)229 Disc (R)237 Disc	2350	
Honda Prelude Si (1987)	4 Cyl SOHC	82.7 x 91.0 / 1955	30.1(I) 35.1(E)	8.8	96.5	13	3.181, 1.842, 1.250, 0.937, 0.771	(F)207 Vented Disc (R) 208 Solid Disc	2450	
Isuzu Stylus XS (1991)	4 Cyl OHC	80.0 x 79.0 / 1588	31.0(I) 28.0(E)	9.8	96.5	14	3.91, 2.15, 1.45, 1.00, 0.83	(F)246 Disc (R)254 Disc	2430	
Mazda 323 1.6 (1989)	4 Cyl SOHC	78.0 x 83.6 / 1597	38.1(I) 32.1(E)	9.3	94.5	14	3.42, 1.84, 1.29, 0.92, 0.73	(F)238 Disc (R)200 Drum	2190	
Mazda 323 1.6 (86-88)	4 Cyl SOHC	78.0 x 83.6 / 1597	38.1(I) 32.1(E)	9.3	94.5	13 / 14	3.42, 1.84, 1.29, 0.92, 0.73 or 3.42, 1.84, 1.29, 0.92	(F)238 Disc (R)200 Drum	2060	

ITB$_F$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Mazda MX-6 (88-91)	4 Cyl SOHC	86.1 x 94.0 / 2189	32.5(I) 34.0(E)	8.6	99	14	3.31, 1.83, 1.23, 0.91, 0.72	(F)265 Disc	2830	
Mercury Bobcat 2.3 (74-80)	4 Cyl SOHC	96.0 x 79.4 / 2301	44.1(I) 38.1(E)	9	94.5	13	3.98, 2.14, 1.42, 1.00 or 3.65, 1.97, 1.37, 1.00	(F)237 Disc (R)229 Drum	2520	
Mercury Capri 2.3 (79-86)	4 Cyl SOHC	96.0 x 79.4 / 2301	44.1(I) 38.1(E)	9.5	100.4	13 / 14	3.98, 2.14, 1.42, 1.00 or 3.98, 2.14, 1.49, 1.00 or 4.07, 2.57, 1.66, 1.00 or 3.72, 2.23, 1.48, 1.00, 0.76 or 4.05, 2.43, 1.48, 1.00, 0.82	(F)237 or 255.5Disc (R)229 Drum	2640	
MGB 1.8 (68-80)	4 Cyl OHV	80.3 x 89.0 / 1798	41.4(I) 34.3(E)	8.8	91	14	3.64, 2.21, 1.37, 1.00, 0.79 (0.82 or 0.88), or 3.44, 2.17, 1.38, 1.00	(F)273 Disc (R)254 Drum	2050	68-72: (2) SU HS4 Carburetors, 73-74: (2) SU HIF Carburetors, 75-80: (1) Zenith/Stromberg Carburetor.
MGB GT 1.8 (68-74)	4 Cyl OHV	80.3 x 89.0 / 1798	41.4(I) 34.3(E)	8.8	91	14	3.64, 2.21, 1.37, 1.00, 0.79 (0.82 or 0.88)	(F)273 Disc (R)254 Drum	2100	(2) SU HS4 Carburetors.
Nissan/Datsun 200-SX / S10 (L20) (77-79)	4 Cyl SOHC	85.1 x 86.1 / 1952	42.1(I) 35.2(E)	8.5	92	13	3.38, 2.01, 1.31, 1.00, 0.85	(F)244 Disc (R)229 Drum	2350	

ITB$_G$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Nissan/Datsun 200-SX / S10 (Z20) (80-81)	4 Cyl SOHC	85.1 x 86.1 / 1952	42.2(I) 38.2(E)	8.5	94.5	14	3.32, 2.08, 1.31, 1.00, 0.86	(F)254 Disc (R)270 Disc	2530	
Nissan/Datsun 200-SX / S11 (Z22) (82-83)	4 Cyl SOHC	87.0 x 92.0 / 2187	42.2(I) 38.2(E)	8.5	94.5	14	3.59, 2.24, 1.41, 1.00, 0.81	(F)254 Disc (R)270 Disc	2705	
Nissan/Datsun 200-SX / S12 (CA20) (84-86)	4 Cyl SOHC	84.5 x 88.0 / 1974	41.2(I) 35.2(E)	8.5	95.5	14 / 15	3.59, 2.24, 1.41, 1.00, 0.81 or 3.59, 2.08, 1.36, 1.00, 0.81	(F)254 Disc (R)270 Disc	2530	
Nissan/Datsun HL-510 2.0 (78-81)	4 Cyl SOHC	85.1 x 86.1 / 1952	42.1(I) 35.2(E)	8.5	94.5	13	3.17, 1.92, 1.31, 1.00, 0.85 or 3.38, 2.01, 1.31, 1.00, 0.85	(F)247 Disc (R)229 Drum	2280	
Nissan/Datsun 610 (1973)	4 Cyl SOHC	85.0 x 78.0 / 1770	42.2(I) 35.2(E)	8.5	98.4	13	3.38, 2.01, 1.31, 1.00	(F)232 Disc (R)229 Drum	2450	
Nissan/Datsun 610 (74-76)	4 Cyl SOHC	85.1 x 86.1 / 1952	42.2(I) 35.2(E)	8.5	98.4	13	3.38, 2.01, 1.31, 1.00	(F)232 Disc (R)229 Drum	2450	
Nissan Sentra / B12 (1989)	4 Cyl SOHC	76.0 x 88.0 / 1597	29.0(I) 32.8(E)	9.4	95.7	14	3.33, 1.96, 1.29, 0.90, 0.76	(F)239 Disc (R)204 Drum	2165	
Opel 1900 Sedan (71-75)	4 Cyl SOHC	93.0 x 69.9 / 1897	40.0(I) 42.0(I) 34.0(E)	7.6	95.7	13	3.43, 2.16, 1.37, 1.00	(F)247 Disc (R)229 Drum	2180	
Opel GT 1900 (69-73)	4 Cyl SOHC	93.0 x 69.9 / 1897	40.0(I) 42.0(I) 34.0(E)	9	95.7	13	3.43, 2.16, 1.37, 1.00	(F)247 Disc (R)229 Drum	2180	(1) Solex 32 DIDTA-4 Carburetor

ITB$_H$	**Engine Type**	**Bore(mm) x Stroke(mm) / Displ. (cc)**	**Valves IN&EX (mm)**	**Comp. Ratio**	**Wheel-base (inch)**	**Wheel Dia. (inch)**	**Gear Ratios**	**Brakes Std. (mm)**	**Weight (lbs.)**	**Notes:**
Opel Manta 1.9 (71-75)	4 Cyl SOHC	93.0 x 69.9 / 1897	40.0(I) 42.0(I) 34.0(E)	7.6	95.7	13	3.43, 2.16, 1.37, 1.00	(F)247 Disc (R)229 Drum	2230	(1) Solex 32 DIDTA-4 Carburetor or Bosch L-Jetronic injection
Plymouth Fire Arrow 2.6 (79-80)	4 Cyl SOHC	91.0 x 98.0 / 2555	43.0(I) 35.0(E)	8.2	92.1	13	3.37, 2.04, 1.36, 1.00, 0.86	(F)226 Disc (R)229 Disc	2360	
Plymouth Horizon 1.7 (78-79)	4 Cyl SOHC	79.5 x 86.4 / 1716	34.0(I) 31.2(E)	8.2	99.2	13	3.45, 1.94, 1.29, 0.97	(F)229 Disc (R)201 Drum	2280	
Plymouth Horizon 2.2 (80-90)	4 Cyl SOHC	87.5 x 92.0 / 2213	40.6(I) 35.4(E)	9	99.2	13 / 14	3.45, 1.94, 1.29, 0.97 or 3.29, 1.89, 1.21, 0.88 or 3.29, 1.89, 1.21, 0.88, 0.72 or 3.29, 2.08, 1.45, 1.04, 0.72	(F)229 Disc (R)201 Drum	2320	
Plymouth Horizon TC3 1.7 (79-80)	4 Cyl SOHC	79.5 x 86.4 / 1716	34.0(I) 31.2(E)	8.2	96.7	13	3.45, 1.94, 1.29, 0.97	(F)229 Disc (R)201 Drum	2320	
Plymouth TC3 / Turismo 2.2 (81-85)	4 Cyl SOHC	87.5 x 92.0 / 2213	40.6(I) 35.4(E)	9	96.6	13 / 14	3.29, 1.89, 1.21, 0.88 or 3.29, 1.89, 1.21, 0.88, 0.72 or 3.29, 2.08, 1.45, 1.04, 0.72	(F)229 Disc (R)201 Drum	2320	
Pontiac Fiero 2.5 (84-87)	4 Cyl OHV	101.6 x 76.2 / 2471	43.7(I) 36.3(E)	9	93.4	13 / 14	3.53, 1.95, 1.24, 0.84 or 3.73, 2.04, 1.45, 1.03, 0.74	(F)247 Disc (R)256 Disc	2550	GM Throttle body injection. "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.

ITB$_I$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Pontiac Fiero 2.5 (1988)	4 Cyl OHV	101.6 x 76.2 / 2471	43.7(I) 36.3(E)	9	93.4	13 / 14	3.53, 1.95, 1.24, 0.84 or 3.73, 2.04, 1.45, 1.03, 0.74	(F)247 Disc (R)256 Disc	2550	GM Throttle body injection. "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.
Porsche 914-4 1.8 (74-75)	4 Cyl OHV	93.0 x 66.0 / 1795	40.9(I) 34.0(E)	7.3	96.5	15	3.09, 1.89, 1.26, 0.93, 0.71	(F)280 Disc (R)282 Disc	2080	"Petty Bar" style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.
Porsche 914-4 2.0L (73-76)	4 Cyl OHV	94.0 x 71.0 / 1971	42.0(I) 36.0(E)	7.6	96.5	15	3.09, 1.89, 1.26, 0.93, 0.71	(F)280 Disc (R)282 Disc	2260	Torsion bar front suspension. "Petty Bar" style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.
Porsche 924 & Sebring (77-82)	4 Cyl SOHC	86.5 x 84.4 / 1984	38.0(I) 40.0(I) 33.0(E)	8.0, 8.5, 9.0	94.5	14 / 15	3.60, 2.13, 1.36, 0.97, 0.73	(F)257 Disc (R)232 Drum (F)282 Disc (R)290 Disc	2600	
Renault Alliance GTA (1987)	4 Cyl SOHC	3.23 x 3.66 / 1965	38.5(I) 32.5(E)	9.5		15	3.09, 1.84, 1.32, 0.97, 0.76	(F)239 Disc (R)204 Drum	2140	
Saab 900 (79-88)	4 Cyl SOHC	90.0 x 78.0 / 1985	42.0(I) 35.5(E)	9.3	99.1	15	3.54, 2.00, 1.34, 0.96, 0.78 or 3.80, 2.15, 1.44, 1.04, 0.84	(F)278 Disc (R)268 Disc (R)258 Disc	2680	Bosch K or L-Jetronic injection
Saab 900 16V B202i (86-90)	4 Cyl DOHC	90.0 x 78.0 / 1985	32.0(I) 29.0(E)	10.2	99	15	3.80, 2.15, 1.44, 1.04, 0.84	(F)276 Disc (R)276.5 Disc	2680	
Saab 99E (1972)	4 Cyl SOHC	87.0 x 78.0 / 1854		9	97.4	15	3.39, 2.15, 1.45, 0.95	(F & R) 270 Disc	2637	Bosch injection

ITB$_J$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Saab 99EMS 2.0 (73-80)	4 Cyl SOHC	90.0 x 78.0 / 1985	42.0(I) 35.5(E)	9	97.4	15	3.44, 2.07, 1.39, 1.00 or 3.57, 2.08, 1.39, 1.00 or 3.31, 2.00, 1.34, 0.98	(F)280 Disc (R)270 Disc	2540	Bosch injection
Suzuki Swift GT/GTi (89-94)	4 Cyl DOHC	73.9 x 75.4 / 1299	36.0(I) 30.0(E)	10	2265	14	3.42, 1.89, 1.28, 0.91, 0.76	(F)248 Vented Disc (R)237 Solid Disc	1895	
Suzuki Swift GA (89-94)	4 Cyl DOHC	73.9 x 75.4 / 1299	36.0(I) 30.0(E)	10	2265	14	3.42, 1.89, 1.28, 0.91, 0.76	(F)229 x 17 Vented Disc (R)180 x 25 Drum	1735	
Toyota Celica I 2.0L (71-73)	4 Cyl SOHC	88.5 x 80.1 / 1968		8.5	95.5	13	3.58, 2.08, 1.40, 1.00	(F)232 Disc (R)228 x 40.6 Drum	2350	
Toyota Celica I 2.2 (74-77)	4 Cyl SOHC	88.5 x 89.0 / 2189	43.0(I) 36.6(E)	8.4	95.5	13	3.29, 2.04, 1.39, 1.00, 0.85	(F)232 Disc (R)228 Drum	2510	
Toyota Celica II 2.2 (78-80)	4 Cyl SOHC	88.5 x 89.0 / 2189	43.0(I) 36.6(E)	8.4	98.4	14	3.29, 2.04, 1.39, 1.00, 0.85	(F)254 Disc (R)229 Drum	2430 (CP) 2490 (HB)	
Toyota Celica II 2.4 (81-82)	4 Cyl SOHC	92.0 x 89.0 / 2366	45.0(I) 37.0(E)	9	98.4	14	3.57, 2.06, 1.39, 1.00, 0.85	(F)254 Disc (R)229 Drum	2470 (CP) 2510 (HB)	
Toyota Celica III 2.4 (83-85)	4 Cyl SOHC	92.0 x 89.0 / 2366	45.0(I) 37.0(E)	9	98.4	14	3.29, 1.89, 1.28, 1.00, 0.78	(F)256 Disc (R)229 Drum	2530	(1) Aisan 2 bbl or Bosch L-Jetronic injection

ITB$_K$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Toyota Celica III GTS (83-85)	4 Cyl SOHC	92.0 x 89.0 / 2366	45.0(I) 37.0(E)	9	98.4	14	3.29, 1.89, 1.28, 1.00, 0.78	(F)256 Disc (R)229 Drum	2630	Bosch L-Jetronic injection
Toyota Celica ST (1986)	4 Cyl SOHC	84.0 x 90.0 / 1995		8.7	99.4	13	3.29, 2.04, 1.32, 1.03, 0.82	(F)241 Disc (R)200 Drum	2480	
Toyota Corolla SR-5 (1987)	4 Cyl SOHC	81.0 x 77.0 / 1587		9	94.5	13		(F)226 Disc (R)228 Drum	2330	
Toyota FX-16 (1987)	4 Cyl DOHC	81.0 x 77.0 / 1587	30.7(I) 26.0(E)	9.4	95.7	14	3.17, 1.90, 1.31, 0.97, 0.82	(F & R) 244 Disc	2445	
Triumph TR-7 2.0 (76-81)	4 Cyl SOHC	90.3 x 78.0 / 1998	39.6(I) 32.5(E)	8	85	13	3.32, 2.08, 1.39, 1.00, 0.83 or 2.65, 1.78, 1.25, 1.00	(F)248 Disc (R)229 Drum	2440 (CP) 2420 (Conv.)	
Volkswagen Golf III (93-97)	4 Cyl SOHC	82.5 x 92.8 / 1984		10	97.3	14	3.46, 1.94, 1.21, 0.97, 0.81	(F)257 Disc (R)227 Disc	2350	
Volkswagen Golf GTI / GT / GL (85-91)	4 Cyl SOHC	81.0 x 86.4 / 1780	40.0(I) 33.0(E)	10	97.3	13 / 14	3.45, 2.12, 1.44, 1.13, 0.89	(F & R) 244 Disc or (R)244 Drum	2280	Includes 1985 Golf Cup cars prepared to IT specifications.
Volkswagen Jetta/ GL / GLI (85-91)	4 Cyl SOHC	81.0 x 86.4 / 1780	40.0(I) 33.0(E)	10	97.3	13 / 14	3.45, 2.12, 1.44, 1.13, 0.89	(F)244 Disc (R)244 Disc or Drum	2280	
Volkswagen Rabbit GTI (83-84)	4 Cyl SOHC	81.0 x 86.4 / 1780	40.0(I) 33.0(E)	8.5	94.5	14	3.45, 2.12, 1.44, 1.13, 0.91	(F)239 Disc (R)180 Drum	2180	Bosch K-Jetronic injection

ITB$_L$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Volkswagen Scirocco II 8V (83-88)	4 Cyl SOHC	81.0 x 86.4 / 1780	40.0(I) 33.0(E)	8.5	94.5	13 / 14	3.45, 2.12, 1.44, 1.13, 0.91	(F)239 Disc (R)180 Drum	2270	Bosch K-Jetronic injection.
Volvo 142 / 144 2.0 (69-74)	4 Cyl OHV	88.9 x 80.0 / 1986	44.0(I) 35.0(E)	10.5	103	15	3.13, 1.99, 1.36, 1.00, 0.80	(F)272 Disc (R)295 Disc	2640	Bosch injection - 1970 Ser. #112400 up.
Volvo 240 2.3 (83-85)		96.0 x 80.0 / 2320		10.3	104.3	14 / 15	4.03, 2.16, 1.37, 1.00, 0.80 or 4.03, 2.16, 1.37, 1.00, 0.82	(F)262 x 15 Vented Disc (R)280 x 11 Solid Rotor	2780	
Volvo 242 / 244 2.0 (1975)	4 Cyl OHV	88.9 x 80.0 / 1986	44.0(I) 35.0(E)	8.7	104	14	3.41, 1.99, 1.36, 1.00, 0.80	(F)262 Disc (R)280 Disc	2780	
Volvo 242 / 244 2.1 (76-81)	4 Cyl SOHC	92.0 x 80.0 / 2127	44.0(I) 37.0(E)	9.3	104	14 / 15	3.71, 2.16, 1.37, 1.00, 0.80	(F)265 Disc (R)282 Disc	2780	Bosch CIS injection

ITC$_A$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Austin-Healey Sprite (68-69)	4 Cyl OHV	71.0 x 81.0 / 1275	33.2(I) 30.6(E)	8.8	80	13	3.20, 1.92, 1.34, 1.00	(F)211 Disc (R)178 Drum	1615	
BMW 1600 (68-71)	4 Cyl SOHC	84.0 x 71.0 / 1573	42.0(I) 35.0(E)	8.6	98.4	13	3.84, 2.05, 1.35, 1.00	(F)257 Disc (R)232 Drum	2160	One barrel manifold
Chevrolet Chevette 1.6 (76-87)	4 Cyl SOHC	82.0 x 75.7 / 1598	39.1(I) 32.1(E)	8.6	94.3	13	3.75, 2.16, 1.38, 1.00 or 4.13, 2.50, 1.48, 1.00, 0.86	(F)246 Disc (R)201 Drum	2130	
Dodge Colt (89-92)	4 Cyl SOHC	75.5 x 82.0 / 1468	35.0(I) 30.0(E)	9.4	93.9	13	3.36, 1.95, 1.29, 0.94, 0.78	(F)232 Disc (R)181 Drum	2270	
Dodge Colt 1.6 (FWD) (79-84)	4 Cyl SOHC	76.9 x 86.0 / 1597	38.3(I) 31.3(E)	8.5	90.6	13	4.23, 2.37, 1.47, 1.11 or 3.27, 1.83, 1.14, 0.86	(F)227 Disc (R)229 Drum	2040	
Dodge Colt 1.6 (RWD) (71-78)	4 Cyl SOHC	76.9 x 86.0 / 1597	38.3(I) 31.3(E)	8.5	92.1	13	3.21, 2.00, 1.31, 1.00, 0.85 or 3.53, 2.19, 1.44, 1.00	(F)227 Disc (R)229 Drum	2190	
Fiat X-1/9 1.3 (74-78)	4 Cyl SOHC	86.0 x 55.5 / 1290	36.2(I) 31.2(E)	8.5	86.7	13	3.58, 2.24, 1.45, 0.96 or 3.58, 2.24, 1.45, 0.85	(F & R) 227 Disc	2090	Trunk mounted fuel cell with no larger capacity than stock is allowed. "Petty Bar" style cage is permitted. Rear cage braces may pass through the rear window per ITCS 17.1.4.D.10.a.
Fiat Bertone & X-1/9 1.5L (79-87)	4 Cyl SOHC	86.4 x 63.9 / 1498	36.0(I) 33.0(E)	8.5	86.7	13	3.58, 2.24, 1.45, 0.85 or 3.58, 2.24, 1.45, 1.04, 0.86 or 3.58, 2.24, 1.46, 1.03, 0.86	(F & R) 227 Disc	2150	79-80 Carburetor, Mid-80 Bosch L-Jetronic injector. Trunk mounted fuel cell with no larger capacity than stock is allowed. "Petty Bar" style cage is permitted. Rear cage braces may pass through the rear window per 17.1.4.D.10.a.

ITC$_B$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Fiat 124 Coupe (70-73)	4 Cyl DOHC	80.0 x 79.2 / 1592 80.0 x 80.0 / 1608	41.7(I) 36.3(E)	8.0 / 8.5	95.3	13	3.80, 2.18, 1.41, 1.00, 0.91 or 3.67, 2.10, 1.36, 1.00, 0.88	(F & R) 227 Disc	2200	
Fiat 124 Spider (70-73)	4 Cyl DOHC	80.0 x 79.2 / 1592 80.0 x 80.0 / 1608	41.7(I) 36.3(E)	8.0 / 8.5	89.7	13	3.67, 2.10, 1.36, 1.00, 0.88 or 3.61, 2.05, 1.36, 1.00, 0.87	(F & R) 227 Disc	2170	
Fiat 128 Coupe	4 Cyl SOHC	86.0 x 55.5 / 1290	36.0 (I) 31.0(E)	8.5	87.5	13	3.583, 2.235, 1.454, 0.959	(F) 227 solid disc (R) 185.4 drum	1950	
Ford Cortina GT (68-70)	4 Cyl OHV	80.97 x 77.62 / 1598			98	13			1780	
Ford Escort EXP (82-85)	4 Cyl SOHC	80.0 x 79.5 / 1598	42.0(I) 37.0(E)	9	94.2	13	3.60, 2.12, 1.39, 1.02 or 3.58, 2.05, 1.36, 0.95	(F)236 Disc (R)203 Drum	2130	
Ford Escort / GT (81-85)	4 Cyl SOHC	80.0 x 79.5 / 1598	42.0(I) 37.0(E)	8.8	94.3	13	3.21, 1.81, 1.15, 0.78 or 3.60, 2.12, 1.39, 1.02, 0.75 or 3.60, 2.12, 1.39, 1.02, 0.77	(F)236 Disc (R)203 Drum	2100	
Ford Festiva (88-93)	4 Cyl OHV	71.0 x 83.6 / 1324		1989 = 8.6 1990 = 9.7	90.2	13 / 12	3.45, 1.94, 1.28, 0.86	(F)218 Disc (R)170 Drum	1870	Induction: 1989 = Carburetion, 1990 = Fuel Injection.

ITC$_C$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Ford Fiesta (78-80)	4 Cyl OHV	81.0 x 78.0 / 1598	35.8(I) 31.5(E)	9	90	13 / 12	3.58, 2.06, 1.29, 0.88	(F)221 Disc (R)178 Drum	1780	
Geo Spectrum (1989)	4 Cyl SOHC	77.0 x 79.0 / 1481		9.6	86.8	13		(F)239 Disc (R)180 Drum	2020	
Geo Storm 1.6L (90-93)	4 Cyl SOHC	80.0 x 79.0 / 1588	28.0(I) 32.0(E)	9.8	96.5	15	3.909, 2.150, 1.448, 1.027, 0.829	(F)247 Disc (R)200 x 25 Drum	2355	
Honda Accord 1.6 (76-78)	4 Cyl SOHC	74.0 x 93.0 / 1599	35.1(I) 28.1(E)	8	93.7	13	3.18, 1.82, 1.18, 0.84, 0.71	(F)188 Disc (R)180 Drum	2180	
Honda Civic 1.2 (73-79)	4 Cyl SOHC	72.0 x 76.0 / 1237	EB1&2: 34.0(I) 30.0(E) EB3: 36.0(I) 32.0(E)	8.3	86.8	13 / 12	3.00, 1.79, 1.18, 0.85 or 3.18, 1.82, 1.18, 0.85, 0.66	(F)229 Disc (R)180 Drum	1710	
Honda Civic CVCC 1.5 (75-79)	4 Cyl SOHC	74.0 x 86.5 / 1488	35.0(I) 29.0(E)	8.1	86.6	13 / 12	3.00, 1.74, 1.13, 0.78, 0.66 or 3.18, 1.82, 1.18, 0.85 or 3.18, 1.82, 1.18, 0.85, 0.71	(F)229 Disc (R)180 Drum	1820	
Honda Civic CVCC (80-83)	4 Cyl SOHC	74.0 x 86.5 / 1488	35.1(I) 28.1(E)	9.3	88.6	13	2.92, 1.76, 1.18, 0.85, 0.71 or 3.18, 1.82, 1.18, 0.85, 0.71	(F)229 Disc (R)180 Drum	1870	
Honda Civic standard (HB & Sedan) (88-91)	4 Cyl SOHC	75.0 x 84.5 / 1493	29.0(I) 25.0(E)	9.2	98.4	13	3.25, 1.65, 1.03, 0.82	(F)240 Disc (R)180 Drum	2140	

ITC$_D$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Honda Civic HB / Sedan (84-87)	4 Cyl SOHC	74.0 x 86.5 / 1488	27.1(I) 32.1(E)	9.6	93.7	13	2.92, 1.76, 1.18, 0.85, 0.71	(F)231 Disc (R)180 Drum	1955	CVCC Cylinder head
Honda Civic CX (3-door HB) (92-95)	4 Cyl SOHC	75.0 x 84.5 / 1493	29.0(I) 25.0(E)	9.1	101.2	13	3.25, 1.76, 1.07, 0.85, 0.70	(F)240 x 21 Vented Disc (R)180 Drum	2170	
Honda CRX 1.5 (84-87)	4 Cyl SOHC	74.0 x 86.5 / 1488	27.1(I) 32.1(E)	9.6	86.6	13	2.92, 1.76, 1.18, 0.85, 0.71	(F)231 Disc (R)180 Drum	1955	Plastic front fenders, nose, lower body segments. CVCC Cylinder head.
Hyundai Excel (86-94)	4 Cyl SOHC	75.5 x 82.0 / 1469	35.0(I) 30.0(E)	9.4	93.9	13	3.36, 1.95, 1.29, 0.94	(F)242 x 19 Vented Disc (R)182 x 45 Drum	2370	
Isuzu (Buick/Opel) I-Mark (76-82)	4 Cyl SOHC	84.0 x 82.0 / 1817	42.4(I) 34.0(E)	8.5	94.3	13	3.51, 2.17, 1.42, 1.00 or 3.79, 2.18, 1.42, 1.00, 0.86	(F)237 Disc (R)229 Drum	2280	
Isuzu I-Mark (88-89)	4 Cyl SOHC	77.0 x 79.0 / 1471		9.6	94.6	13	3.73, 2.04, 1.33, 0.92, 0.74 or 3.27, 2.04, 1.45, 1.03, 0.83	(F)225 Disc (R)180 Drum	2130	
Mazda GLC (RWD) (1980)	4 Cyl SOHC	77.0 x 76.0 / 1415	36.0(I) 31.0(E)	9	91.1	13	3.66, 2.19, 1.43, 1.00 or 3.66, 2.19, 1.43, 1.00, 0.83	(F)207 Disc (R)200 Drum	2080	
Mazda GLC (FWD) (81-85)	4 Cyl SOHC	77.0 x 80.0 / 1490	36.0(I) 31.0(E)	9	93.1	13	3.42, 1.95, 1.29, 0.92, 0.73	(F)226 Disc (R)180 Drum	2000	

ITC$_E$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Mercury LN7 (82-85)	4 Cyl SOHC	80.0 x 79.5 / 1598	42.0(I) 37.0(E)	9	94.2	13	3.60, 2.12, 1.39, 1.02 or 3.58, 2.05, 1.36, 0.95	(F)236 Disc (R)203 Drum	2130	
Mercury Lynx 1.6 (81-84)	4 Cyl SOHC	80.0 x 79.5 / 1598	42.0(I) 37.0(E)	8.8	94.3	13	3.58, 2.05, 1.23, 0.81	(F)236 Disc (R)203 Drum	2100	
MG Midget (68-74)	4 Cyl OHV	71.0 x 81.0 / 1275	33.2(I) 30.6(E)	8.8	80	13	3.20, 1.92, 1.34, 1.00	(F)211 Disc (R)180 Drum	1615	
MG Midget Mk III (75-79)	4 Cyl OHV	73.7 x 87.5 / 1491	36.6(I) 29.7(E)	8	80	13	3.41, 2.11, 1.43, 1.00	(F)211 Disc (R)180 Drum	1740	
Mitsubishi Mirage (1989)	4 Cyl SOHC	75.5 x 82.0 / 1468	35.0(I) 30.0(E)	9.4	93.9	13	3.36, 1.95, 1.29, 0.94, 0.78	(F)231 Disc (R)180 Drum	2270	
Nissan/Datsun 1200 (71-73)	4 Cyl OHV	73.0 x 70.0 / 1171		9	90.6	13 / 12	3.76, 2.17, 1.40, 1.00	(F)213 Disc (R)198 Drum	1740	
Nissan/Datsun 210 1.4 (79-82)	4 Cyl OHV	76.0 x 77.0 / 1397	37.2(I) 30.0(E)	8.9	92.1	13	3.51, 2.17, 1.39, 1.00 or 3.51, 2.17, 1.32, 1.00, 0.82	(F)245 Disc (R)203 Drum	2080	
Nissan/Datsun 210 1.5 (79-82)	4 Cyl OHV	76.0 x 82.0 / 1488	35.0(I) 30.0(E)	8.9	92.1	13	3.51, 2.17, 1.39, 1.00 or 3.51, 2.17, 1.32, 1.00, 0.82	(F)245 Disc (R)203 Drum	2080	

ITC$_F$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Nissan/Datsun B210 (74-78)	4 Cyl OHV	76.0 x 77.0 / 1397	37.2(I) 30.0(E)	8.5	92.1	13	3.51, 2.17, 1.39, 1.00 or 3.51, 2.17, 1.32, 1.00, 0.82	(F)245 Disc (R)203 Drum	2010	
Nissan/Datsun PL-510 (68-73)	4 Cyl SOHC	83.0 x 73.7 / 1595	41.9(I) 33.0(E)	8.5	95.3	13	3.38, 2.01, 1.31, 1.00	(F)231 Disc (R)229 Drum	2170	
Nissan Pulsar NX (83-86)	4 Cyl SOHC	76.0 x 88.0 / 1597	37.0(I) 30.0(E)	9.4	95.1	13	3.06, 1.83, 1.21, 0.90, 0.73	(F)240 Disc (R)203 Drum	2080	
Nissan Sentra / B11 1.5 (82-83)	4 Cyl SOHC	76.0 x 82.0 / 1488	37.0(I) 30.0(E)	9.3	94.5	13	3.33, 1.95, 1.29, 0.90, 0.73	(F)239 Disc (R)180 Drum	1980 (SD), 2100 (HB)	
Nissan Sentra / B12 1.6 (83-86)	4 Cyl SOHC	76.0 x 88.0 / 1597	37.0(I) 30.0(E)	9.4	94.5	13	3.33, 1.95, 1.29, 0.90, 0.73	(F)239 Disc (R)180 Drum	1980 (SD), 2100 (HB)	
Nissan Sentra / B12 (E16) (87-88)	4 Cyl SOHC	76.0 x 88.0 / 1597	37.0(I) 30.0(E)	9.4	95.7	13 / 14	3.33, 1.96, 1.29, 0.90, 0.76	(F)238 Disc (R)203 Drum	2180	
Plymouth Arrow 1.6 (76-80)	4 Cyl SOHC	76.9 x 86.0 / 1597	38.0(I) 31.0(E)	8.5	90.6	13	3.21, 2.00, 1.31, 1.00, 0.85 or 3.53, 2.19, 1.44, 1.00	(F)227 Disc (R)229 Drum	2190	
Plymouth Champ 1.6 (79-83)	4 Cyl SOHC	76.9 x 86.0 / 1597	38.0(I) 31.0(E)	8.5	90.6	13	4.23, 2.37, 1.47, 1.11 or 3.27, 1.83, 1.14, 0.86	(F)227 Disc (R)155 Drum	2040	

ITC$_G$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Plymouth Colt 1.5 (1989)	4 Cyl SOHC	75.5 x 82.0 / 1468	35.0(I) 30.0(E)	9.4	93.9	13	3.36, 1.95, 1.29, 0.94, 0.78	(F)232 Disc (R)181 Drum	2270	
Porsche 914-4 1.7 (70-73)	4 Cyl OHV	90.0 x 66.0 / 1679	39.4(I) 33.0(E)	8.2	96.4	15	3.09, 1.89, 1.26, 0.93, 0.71	(F)280 Disc (R)282 Disc	2080	"Petty Bar" style cage is permitted. Rear cage braces may pass through rear window per ITCS 17.1.4.D.10.a.
Renault Alliance 1.4 (83-87)	4 Cyl OHV	76.0 x 77.0 / 1397	34.2(I) 30.3(E)	8.8	97.8	13 / 14	3.72, 2.06, 1.27, 0.90, 0.73		2070	Bendix T.B. injection
Renault Alliance 1.7 (84-87)	4 Cyl SOHC	81.0 x 83.5 / 1721		9.5	97.8	13 / 14	3.72, 2.06, 1.32, 0.97, 0.79		2100	Bendix T.B. injection
Renault Encore 1.4 (83-87)	4 Cyl OHV	76.0 x 77.0 / 1397	34.2(I) 30.3(E)	8.8	97.8	13 / 14	3.72, 2.06, 1.27, 0.90, 0.73		2070	Bendix T.B. injection
Renault Encore 1.7 (84-86)	4 Cyl SOHC	81.0 x 83.5 / 1721		9.5	97.8	13 / 14	3.72, 2.06, 1.32, 0.97, 0.79		2100	Bendix T.B. injection
Renault LeCar/R-5 1.3 (76-78)	4 Cyl OHV	73.0 x 77.0 / 1289	33.5(I) 29.0(E)	9.5	95.8L, 94.6R	13	3.89, 2.38, 1.52, 1.03	(F)229 Disc (R)180 Drum	1910	
Renault LeCar/R-5 1.4 (79-84)	4 Cyl OHV	76.0 x 77.0 / 1397	34.2(I) 30.3(E)	8.8	95.8L, 94.6R	13	3.84, 2.38, 1.52, 1.03	(F)229 Disc (R)180 Drum	1910	
Toyota Corolla / SR5 (83-87)	4 Cyl OHC	81.0 x 77.0 / 1587		9	94.5	13	3.586, 2.021, 1.383, 1.000, 0.860	(F)231.5 Disc (R)229 x 40 Drum	2270	

ITC$_H$	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Toyota Corolla / SR5 (2TC) (71-74)	4 Cyl OHV	85.0 x 70.0 / 1588	41.0(I) 36.0(E)	8.5 fed., 9.0 cal	91.9	13	3.59, 2.02, 1.38, 1.00 or 3.59, 2.02, 1.38, 1.00, 0.86	(F)229 Disc (R)231 Drum	2130	Screwed-on fender flares standard equipment on SR5.
Toyota Corolla / SR5 1.6 (75-79)	4 Cyl OHV	85.0 x 70.0 / 1588	40.0(I) 34.0(E)	8.5	91.9	13	3.59, 2.02, 1.38, 1.00, 0.86	(F)229 Disc (R)231 Drum	2280, Notch-back @ 2230	Screwed-on fender flares standard equipment on SR5.
Toyota Starlet (81-83)	4 Cyl OHV	75.0 x 73.0 / 1290	36.0(I) 29.0(E)	9	90.6	13	3.79, 2.12, 1.32, 1.00, 0.86	(F)226 Disc (R)200 Drum	1850	
Triumph Spitfire (73-80)	4 Cyl OHV	73.7 x 87.5 / 1493	36.6(I) 29.7(E)	8	83	13	3.75, 2.16, 1.39, 1.00	(F)229 Disc (R)178 Drum	1840	
Triumph Spitfire Mk III (68-70)	4 Cyl OHV	73.7 x 75.9 / 1296	33.0(I) 29.7(E)	9	83	13	3.75, 2.16, 1.39, 1.00	(F)229 Disc (R)178 Drum	1750	
Volkswagen Beetle (68-77)	4 Cyl OHV	85.5 x 69.0 / 1584	35.5(I) 32.0(E)	7.3	94.5	15	3.78, 2.06, 1.26, 0.93	(F & R) 230 x 40 Drum	2002	
Volkswagen Super Beetle (71-77)	4 Cyl OHV	85.5 x 69.0 / 1584	35.5(I) 32.0(E)	7.5	94.5	15	3.78, 2.06, 1.20, 0.93 or 3.80, 2.06, 1.26, 0.89	(F)244 Drum (R)231 Drum		
Volkswagen Beetle (98-99)	4 Cyl SOHC	82.5 x 92.8 / 1984	39.5(I) 32.9(E)	10	98.9	16	3.78, 2.12, 1.36, 1.03, 0.84	(F)280 Vented Disc (R)232 Solid Drum	2760	
Volkswagen Jetta 1.7 (82-84)	4 Cyl SOHC	79.5 x 86.4 / 1715	34.0(I) 31.0(E)	8.2	94.5	13	3.45, 1.94, 1.29, 0.91, 0.71	(F)239 Disc (R)180 Drum	2080	

ITC	Engine Type	Bore(mm) x Stroke(mm) / Displ. (cc)	Valves IN&EX (mm)	Comp. Ratio	Wheel-base (inch)	Wheel Dia. (inch)	Gear Ratios	Brakes Std. (mm)	Weight (lbs.)	Notes:
Volkswagen Rabbit (75-80)	4 Cyl SOHC	79.5 x 73.4 / 1457 76.5 x 80.0 / 1471 79.5 x 80.0 / 1588	34.0(I) 31.0(E)	8.2	94.5	13	3.45, 1.94, 1.37, 0.97 or 3.45, 1.94, 1.29, 0.97 or 3.45, 1.94, 1.29, 0.97, 0.76	(F)239 Disc (R)200 Drum (R)180 Drum	2000	78-79: Bosch CIS injection, 80: carbureted, 76: carbureted, 77, 80: Bosch CIS injection
Volkswagen Rabbit 1.7 (81-84)	4 Cyl SOHC	79.5 x 86.4 / 1715	34.0(I) 31.0(E)	8.2	94.5	13	3.45, 1.94, 1.29, 0.91, 0.71	(F)239 Disc (R)180 Drum	2050	Bosch CIS injection
Volkswagen Scirocco (75-80)	4 Cyl SOHC	79.5 x 73.4 / 1457 76.5 x 80.0 / 1471 79.5 x 80.0 / 1588	34.0(I) 31.0(E)	8, 8.2 (8.0 in 79)	94.5	13	3.45, 1.94, 1.37, 0.97 or 3.45, 1.94, 1.29, 0.97 or 3.45, 1.94, 1.29, 0.97, 0.76	(F)239 Disc (R)180 Drum	2040	
Volkswagen Scirocco I 1.7 (1981)	4 Cyl SOHC	79.5 x 86.4 / 1715	34.0(I) 31.0(E)	8.2	94.5	13	3.45, 1.94, 1.29, 0.91, 0.71	(F)239 Disc (R)180 Drum	2110	Bosch CIS injection
Volkswagen Scirocco II 1.7 (82-84)	4 Cyl SOHC	79.5 x 86.4 / 1715	34.0(I) 31.0(E)	8.2	94.5	13	3.45, 1.94, 1.29, 0.91, 0.71 or 3.45, 2.12, 1.44, 1.13, 0.89	(F)239 Disc (R)180 Drum	2110	Bosch CIS injection
Yugo GV (1986)	4 Cyl SOHC	80.0 x 55.5 / 1116	36.15(I), 31.15(E)	9.2	84.6	13	3.91, 2.06, 1.35, 0.96	(F) Disc (R) Drum	1850	

17.1.7. AMERICAN SEDAN CATEGORY

These specifications are part of the SCCA General Competition Rules (GCR) and all automobiles shall conform with GCR Section 17., Automobiles.

A. PURPOSE

The American Sedan (AS) class is intended to provide the membership with the opportunity to compete in V-8 powered automobiles, suitable for racing competition. To that end, cars will be those offered for sale in the United States. They will be prepared to manufacturer's specifications except for modifications and alternate specifications permitted by these rules. The Club may alter or adjust certain specifications to equate competitive potential.

B. INTENT

It is the intent of these rules to restrict modifications to those useful and necessary to construct a safe competition automobile. Other than those items specifically allowed by these rules, no component or part normally found on a stock example of a given vehicle shall be disabled, altered, or removed for the purpose of obtaining any competitive advantage. Cars need not be eligible for state licensure or registration.

C. SPECIFICATIONS

1. To maintain the restricted basis of American Sedan, updating and/or backdating of components is only permitted within cars of the same make and model listed on a single American Sedan Specification line. Any updated/backdated components shall be substituted as a complete assembly. No interchange of parts between assemblies is permitted, and all parts of an assembly shall be as originally produced for that assembly. No permitted or alternate component or modification shall additionally perform a prohibited function.

2. To establish the originality and configuration of the vehicle, each driver/entrant shall have a factory shop manual for the specific make, model, and year of the automobile. This manual shall be presented when so requested at any technical inspection.

3. Cars are classified by make, model and engine displacement (see Section E.1., "Car Classification").

4. The SCCA shall specify the minimum weight for each classified car, as qualified or raced, with driver. Ballast is permitted.

D. AUTHORIZED MODIFICATIONS

The following modifications are authorized on all

American Sedan Category cars. Modifications shall not be made unless specifically authorized herein. No permitted or alternate component or modification shall additionally perform a prohibited function.

1. Engine (additional specifications, see Section F – Engine Build Sheets)

a. Induction System

Cars shall compete in American Sedan using the following method of induction.

A. All cars shall fit the approved carburetor and manifold. The approved manifold may be ported and polished, but its design and configuration shall not be altered in any other way. The lowering of or boring of holes in the center divider is prohibited. Note: These modifications are considered to be changes to the design of the manifold. Removal or obliteration of the manifold part number is prohibited.

B. Only the approved carburetor (Holley #4776, 600cfm 4bll), optional insulator (Holley #108-12), and manifold (Edlebrock Performer RPM #7101-General Motors / #7121-Ford/Mercury) shall be fitted to cars.

C. Other than as provided for in these rules, the carburetor shall not be modified in any way. Any carburetor jets, needles, and/or metering rods may be used. Power valves, metering blocks, and floats may be altered. No venturi (including secondary or auxiliary) shall be modified in any way, but they may be aligned. Idle holes may be drilled in the throttle plates (butterflies). Carburetors may be modified to allow "four corner" idle adjustment.

D. External throttle linkage to the carburetor may be modified or changed from original. Choke mechanisms, plates, rods, and actuating cables, wires, or hoses may be removed. No removal or alteration of the carburetor air horn is permitted.

E. All air entering the intake tract shall pass through the carburetor air inlet.

b. Any fuel pump(s)/filters may be used. Pump(s) may be relocated, but shall not be located in the

driver/passenger compartment. If a mechanical pump is replaced, a blanking plate may be used to cover the original mounting location. Fuel line(s) may be replaced, relocated, and given additional protection. If the relocated line(s) passes through the driver/passenger compartment, it/they shall be metal or metal braided, and shall be securely fastened.

c. An open-sided, closed-top air cleaner assembly with a filter element having a maximum diameter of 14 inches and a maximum height of 3 inches is required. Filter element material is unrestricted. Velocity stacks, ram air, cowl induction, shrouding or ducting of air to the air cleaner or carburetor are not permitted.

d. Exhaust emission control air pumps, associated lines, nozzles, and other electrical/mechanical emission devices may be removed. If such items are not removed, they shall not be modified in any way. If EGR devices/nozzles are removed from a cylinder head or manifold, any holes remaining shall be completely plugged.

    1. Catalytic converter(s) may be removed.

e. Replacement exhaust manifolds, or "headers," may be used. Cylinder head mounting flange(s) shall be no thicker than 0.375 inch, and tubing diameter shall be no greater than 1.625 inch O.D., measured at any tube location one (1) inch from the flange to the collector. No exhaust pipe(s) shall pass over the engine, bellhousing, or transmission.

    1. Exhaust shall exit behind the driver, and shall be directed away from the car body. A suitable exhaust muffling system may be necessary to meet sound control requirements (see GCR Section 12).

f. Any ignition system which utilizes the distributor for spark timing and distribution is permitted. Any distributor that requires no modification to the engine may be fitted. Internal distributor components and distributor cap may be substituted.

    1. Crank fire ignition systems are prohibited.

    2. Any spark plugs, single coil, and ignition wires may be used. Ignition timing is unrestricted.

3. Any battery of the same type, size, and voltage as the original may be used. The battery may be relocated as per GCR section 17.11. Additional battery hold down devices may be used, and are strongly recommended.

g. The camshaft may be replaced with a unit of any origin meeting specified maximum lift (see Section F – Engine Build Sheets), measured at the valve with zero lash. Mandatory solid lifters meeting the requirements of Section g.3., below, shall be used.

1. Cam timing chains, gears, belts, and sprockets are unrestricted provided they are of the same type, quantity, and dimensions as originally fitted. Double row chains may be substituted for single row chains.

2. Any offset key and/or dowel/bushing may be used with the original or alternate cam gear to adjust cam timing. Such timing is unrestricted.

3. Valve lifters shall be of the solid (flat tappet) type only. Roller, hydraulic, or "mushroom" lifters are prohibited. Section F – Engine Build Sheets for additional specifications.

4. Valve springs are unrestricted except that they shall be made of steel. *Heads may be machined to accommodate any valve spring. Valve spring retainers and keepers are unrestricted.*

5. Rocker arms may be replaced with any individual rocker arm. Shaft mounted rocker arms are prohibited unless fitted as standard.

6. Pushrods may be replaced with any pushrods of steel (ferrous) material. Aluminum, titanium, and non-metal pushrods are prohibited, except where fitted as standard. Pushrod guide plates may be installed.

h. Oil pans, pan baffles, scrapers, and windage trays, oil pickups, lines, and filters are unrestricted. *Main cap girdles may be fitted. Windage trays may be fitted to the main cap*

girdles or directly to the main caps. A pressure accumulator/"Accusump" may be fitted. The location of the filter and accumulator are unrestricted, but they shall be securely mounted within the bodywork. All oil lines that pass into or through the driver/passenger compartment shall be metal or metal braided hose. Dry sump systems are prohibited unless fitted as standard equipment. Engine oil and oil additives are unrestricted.

i. Oil catch tanks are permitted. All engine breathers or vapor recirculation lines, if disconnected, shall vent to a catch tank of one (1) quart minimum capacity. Such catch tanks shall not be mounted in the driver/passenger compartment. Original valve cover(s) may be modified to alter or to add breather/filler. Alternate valve covers may be fitted.

j. Engines may be bored to a maximum of .040" over standard bore size. Engine block shall be cast iron as produced by the manufacturer for the specified displacement of the cars classified but shall not be restricted to the models or years listed. See Section F – Engine Build Sheets for additional specifications

    1. Any aluminum replacement dished or flat-top (with valve relief's) piston with three piston rings and a stock diameter piston pin may be used. See Section F – Engine Build Sheets for additional specifications

    2. Piston rings are unrestricted.

    3. Stock or alternate factory OEM connecting rods are permitted. Alternate factory OEM replacement rods shall be available from the vehicle manufacturer as direct replacement OEM-type substitutes. Specifically approved aftermarket connecting rods are permitted. See Section F – Engine Build Sheets for additional specifications.

k. Balancing and "blueprinting" of the engine assembly are permitted. Lightening of parts beyond the minimum material removal necessary to balance is prohibited. An alternate, commercially available, vibration dampener may be fitted.

l. Cylinder head to intake/exhaust manifold port matching is permitted. No material shall be

removed from the cylinder head(s) further than one (1) inch in from the manifold to cylinder head mounting face(s). External dimensions of the cylinder head or intake/exhaust manifold shall not be reduced to facilitate internal porting. Any modification of the cylinder head beyond that permitted in Section D.1.l., (below) and Section F. (Engine Build Sheets) is prohibited. See Section F – Engine Build Sheets for additional specifications.

Valve guide material is unrestricted.

Milling of the cylinder head to increase compression ratio is permitted. Compression ratio shall be no greater than listed in Section F – Engine Build Sheets.

Any or all valve seats may be replaced. Valve seat material is unrestricted except that it must be ferrous.

m. Solid, one-piece steel or stainless steel (no titanium/titanium alloy) intake and/or exhaust valves are permitted. Valve and valve seat specifications shall comply with Section F – Engine Build Sheets, Drawing 1 & 2.

n. Any clutch disc and pressure plate of stock diameter may be used, provided that they may be bolted directly to an unmodified stock flywheel. Pressure plate/clutch cover assembly shall be ferrous only. Balancing of the flywheel/clutch/pressure plate assembly is permitted. Lightening of the flywheel beyond the minimum material removal necessary to balance is prohibited.. The addition of an external scattershield or explosion proof bellhousing per GCR 17.24., is required. SFI 1.1 or 1.2 spec flywheel and clutch are allowed. The approval of flywheels and clutches meeting SFI specifications in no way modifies the requirements of 17.1.7.D.1.n. in the American Sedan Category Specifications (i.e. ferrous clutch pressure plate, steel flywheel of stock weight, etc.). Aftermarket starters mounted in stock location are permitted.

o. Hardware items (nuts, bolts, etc.) may be replaced with similar items performing the same fastening function(s). Engine gaskets are unrestricted. Engine drive belts and pulleys may be replaced with any non-tooth drive belt and appropriate pulleys.

p. All engine components not otherwise listed in these rules shall meet factory specifications for stock parts. Where factory specifications are absent or unclear, the Club may establish an acceptable dimension and/or allowable tolerance from stock.

2. Engine Cooling System

a. Any radiator may be used, provided it can be mounted in the original location and requires no body or structure modifications to install. Catch and/or expansion tanks may be added or substituted. Engine coolant fluid, coolant/heater hoses and clamps may be substituted. Heater hoses may be plugged. Heater water control valve(s) may be added or substituted. The entire heater assembly may be removed. This includes all hoses, lines, ducts, coils and controls. Any resulting holes in the firewall must be plugged or covered.

b. Oil cooler(s) may be added or substituted. Location within the bodywork is free, provided that it/they are not mounted within the driver/passenger compartment.

c. Cooling fans may be removed or replaced. Electrically operated fans with manual or automatic actuation may be fitted.

d. Thermostats may be modified, removed, or replaced with blanking sleeves or restrictors.

e. Air conditioning systems may be removed in whole or in part.

f. Screens of 1/4 inch minimum mesh may be mounted in front of the radiator and/or oil cooler(s) and contained within the bodywork.

3. Transmission/Final Drive

a. Any final drive ratio is permitted provided it fits the stock differential housing without modification to the housing.

b. Any limited slip or locked differential is permitted.

c. No alteration to the stock transmission gear ratios is allowed.

d. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s). Driveshaft may be

modified to fit alternate differentials. Factory driveshafts may be replaced with any one-piece driveshaft of steel or aluminum construction. Minimum driveshaft diameter shall be no smaller than stock.

e. Driveshaft loops are recommended.

f. Any conventional H-pattern, non-sequential shifter may be used.

g. Ford 9" rear axle is permitted in all cars. Center section shall be of ferrous material.

h. C-clip eliminators are permitted.

i. Full floater axles are permitted.

j. Energy Suspension P/N 3-1108 (Camaro/Firebird) and P/N 4-1104 (Mustang) transmission mounts are permitted.

k. Richmond "Super T-10 Race Ready" transmissions (GM - R0141640, Ford R0241640) may be used, but the "CC" ratios must be installed – 2.88, 1.91, 1.33, 1.00. An alternate bellhousing may be used to facilitate installation. TEX "Super T-10 Race Ready" transmission may be used with the "CC" gear ratios (2.88, 1.91, 1.33, 1.00). The magnesium case and tail shaft are allowed.

l. Tremec *3550*TKO *with the following ratios (3.27, 1.98, 1.34, 1.00, 0.68) or Tremec 3550 with the following ratios (3.27, 1.98, 1.34, 1.00, 0.68). Ford applications are permitted to change the input bearing retainer as needed to accommodate fitment in any AS classed Ford chassis. No other modifications are allowed. Any bellhousing meeting applicable AS rules may be used. Any pilot bearing may be used.*

GM applications are allowed to change the input shaft and bearing retainer as needed to accommodate fitment in any AS classed GM chassis. Transmission cases may be machined to permit torque arm mounting and GM bolt patterns for mounting in GM applications only. No other modifications are allowed. Any bellhousing meeting the AS rules may be used.

m. When alternate transmissions are installed, transmission crossmembers must be modified

to insure that engine location is kept in its original location and to facilitate installation of the transmission.

n. Concentric hydraulic clutch release bearings may be used to facilitate the installation of alternate transmissions on GM cars only.

o. Aftermarket or modified rear differential covers are allowed.

4. Suspension

a. Ride Height

Minimum ride height is five (5) inches, to be measured at the lowest point of the rocker panel, but not to include welded seams or fasteners.

b. Springs and Shock Absorbers

1. Springs of any origin may be used, provided they are of the same number and type as originally fitted (i.e., coil, leaf, torsion bar), and that they may be installed in the original location using the original system of attachment.

2. Any shock absorbers may be used, provided they attach to the original mounting points. The number of shock absorbers shall be the same as stock. *Remote reservoir shock absorbers are permitted. The location of the reservoir is unrestricted. No shock absorber may be capable of adjustment while the car is in motion.*

3. Strut equipped cars may substitute struts and/or may use any insert. On cars where the strut assembly also serves to locate a spring, the lower spring seat ride height location may be altered from stock, but the lower spring seat shall be permanently welded to the strut. Spacers, including threaded units with adjustable spring seats, may be used and shall not be permanently attached to the shock/strut housing.

4. Spacers, including threaded units with adjustable spring seats (weight jacks), may be used with coil springs. If spacers are used, they shall be located on and shall be permanently attached to existing chassis or suspension structure, but shall not serve as a reinforcement to that structure.

Material may be removed from the upper or lower spring seat to facilitate installation of the spacers. Material may be removed from the chassis, but not the bodywork, to facilitate adjustment of the spacers.

5. Shackles or spacers (lowering blocks) may be used to adjust leaf spring ride height. Spacers may be used between leaf springs and the point(s) of attachment to the axle housing.

6. Limiting straps to preclude a spring from becoming dislodged are permitted.

c. Suspension Control

1. Any anti-roll bar(s), traction bar(s), panhard rod or watts linkage may be added or substituted, provided its/their installation serves no other purpose. The mounts for these devices may be welded or bolted to the structure of the vehicle. No suspension control mount or component shall be located in the trunk or driver/passenger compartment unless installed by the manufacturer as original equipment.

d. Suspension Mounting Points

1. Cars equipped with strut suspension may decamber wheels by the use of eccentric bushings at control arm pivot points, by the use of eccentric bushings at the strut-to-bearing-carrier joint, and/or by use of slotted adjusting plates at the top mounting point. If slotted plates are used, they shall be located on existing chassis structure and shall not serve as a reinforcement for that structure. Material may be added or removed from the top of the strut tower to facilitate installation of adjuster plate.

2. On other forms of suspension, camber adjustments may be achieved by the use of shims and/or eccentric bushings. Rear camber shall be no more than 1/2 degree negative per side.

3. All forms of suspension may adjust caster by means of shims or eccentric bushings. Additionally, MacPherson strut equipped cars may adjust caster at the upper strut mounting point/plate.

4. One (1) stayrod may be fitted between the upper front strut/shock towers. One (1) stay rod may be fitted between each front strut/shock tower and the firewall, but no stayrod shall attach to any other front chassis, body, or engine location unless fitted as standard equipment.

5. Bushing material is unrestricted except that control arm to spindle ball joints must be stock or equivalent replacement. Original unmodified control arms must be retained. (Torque arms on General Motors vehicles are defined as control arms.)

6. Rubber bump stops may be removed, but their chassis mounts, brackets, etc., shall not be altered in any way.

7. Pick-up points on the rear axle housing may be relocated. The removal and / or replacement of the rear suspension torque arm on GM F-body cars and the upper arm on Ford Mustangs is allowed.

8. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

9. The use of offset steering rack bushings is permitted. Offset tie rod ends for bump steer correction are allowed. Spindles may be machined so that tapered tie-rod end bolts can be replaced with straight bolts.

5. Brakes

a. Brake pads, brake linings, and brake fluid are unrestricted.

b. Backing plates and dirt shields may be ventilated or removed. Air ducts may be fitted to the brakes, provided that they extend in a forward direction only, and that no changes are made in the body/structure for their use. Brake drums shall not be modified other than for truing within manufacturer's specifications.

c. Any hub/rotor may be used within the following limitations:

1. One piece front or rear hub with rotor may be replaced with separate hub, rotor hat, and rotor.

A. Hubs shall be of ferrous material or aluminum.

B. Rotor hat shall be of ferrous material or aluminum and may be part of the hub or rotor.

C. Rotor shall be of ferrous material, vented. No cross drilling or slotting. Rotor shall be the same diameter and thickness as the standard or alternate listed on the specification line for the vehicle.

d. Rear caliper mounting brackets may be substituted.

e. Brake lines may be replaced with steel lines or Teflon lined metal braided hoses. Lines/hoses may be relocated and may be given additional protection. Brake fittings, adapters, and connectors are unrestricted. Brake system circuitry may be revised, but no modification or substitution of the original master cylinder, its location, or mounting is permitted.

f. Brake proportioning valves may be used provided that they are of the inline, pressure limiting type.

g. Parking brakes, mechanisms, and actuating components may be removed.

h. The Club may permit alternate brake system components. Any such component shall be specifically authorized on the specification line for that vehicle.

6. Wheels/Tires

a. Any wheel/tire may be used within the following limitations:

1. Cars may fit any wheel sixteen (16) inches in diameter or smaller. Maximum wheel width is eight (8) inches. Knockoff/quickchange type wheels are prohibited.

2. Only DOT-approved tires are permitted. Racing, recapped, or regrooved tires are not allowed. Tire size is unrestricted.

3. Track may be changed to accommodate larger tires, provided that there is safe tire/fender/chassis clearance under all

conditions of steer, bump, and rebound. Wheel spacers are permitted.

4. Tire tread (that portion of the tire that contacts the ground) shall not protrude beyond the fender opening when viewed from the top perpendicular to the ground.

5. Any wheel stud, bolt, and/or nut is permitted.

7. Body/Structure

a. Fenders and wheel openings shall remain unmodified. It is permitted to roll under or flatten any interior lip on the wheel opening for tire clearance. Cars with plastic/composite fenders may remove any interior wheel opening lip, but the resulting material edge shall be no thinner than the basic fender material thickness. Non-metallic inner fender liners may be removed. Engine compartment and door rubber seals are considered insulation for the purposes of removal.

b. A front spoiler/air dam is permitted. It shall not protrude beyond the overall outline of the body when viewed from above perpendicular to the ground. The spoiler/air dam shall be mounted to the body, and shall extend no higher than four (4) inches above the horizontal centerline of the front wheel hubs. It shall not cover the normal grille opening(s) at the front of the car. Openings are permitted for the purposes of ducting air to the brakes, cooler, and radiator. Front parking light assemblies may be removed for ducting of air to brakes. Rear spoilers or wings shall be as originally fitted or as specifically authorized on the classification line for that vehicle.

c. No body component, including the spoiler/air dam, shall be lower than the lowest part of the wheel rims. OEM (factory) radiator baffle is permitted and may extend below the lowest part of the wheel rims only if installed in the stock location.

d. Windshield clips and rear window straps per GCR Section 17., are required.

e. Hood and trunk pins, clips, or positive action external latches are permitted. Stock hood and trunk latches may be disabled or removed; if so, some positive action external fastening method shall be used.

f. Sunroofs (original or aftermarket) may be retained if bolted in. T-tops are prohibited.

g. Any paint scheme and markings meeting GCR Section 17., specifications are permitted.

h. All chassis/structural/electrical repair, if performed, shall be in concurrence with factory procedures, specifications, and dimensions. Unless specifically authorized by the manufacturer for repair or allowed by these rules, no reinforcement, i.e., seam welding, material addition, etc., is permitted.

i. Body repair shall be performed using every reasonable effort to maintain stock body contours, lips, etc.. Any body repair modification having as its purpose increased clearance is prohibited. In those circumstances where stock trim/molding pieces are unavailable through all normal replacement channels, proof of such unavailability shall be provided by the competitor. Cars shall meet the requirements of GCR Section 11.2.1.C., ("Appearance") at all times.

8. Driver/Passenger Compartment - Trunk

a. The driver's seat (only) shall be replaced with a one-piece bucket-type race seat. All seat mountings shall be reinforced per GCR Section 18.4.5 and Section 18.1.2. Factory seat tracks/ brackets may be modified, reinforced, and/or removed to facilitate replacement mountings provided they perform no other function. All other seats may be removed.

b. Any steering wheel except wood rimmed types may be used. Any shift knob may be used.

c. Gauges and instruments may be added, replaced, or removed. They may be installed in the original instrument(s) location using a mounting plate(s), or any other location using a secure method of attachment. Other than modifications made to mount instruments and provide for roll cage installation, the remainder of the dash "board" or panel shall remain intact.

d. Any interior or exterior mirrors may be used.

e. Rear seat back, rear seat bottom cushion(s), sun visors, seat belts and their attaching hardware and bracketry may be removed. In

those automobiles where the rear seat back provides the only solid bulkhead between the driver/passenger compartment and an exposed stock gas tank, a metal bulkhead completely filling the exposed seat back opening shall be installed.

f. In those automobiles where rear seat back removal does not expose the stock gas tank directly to the driver/ passenger compartment, a metal (only) bulkhead is optional.

g. Complete removal of interior panels is allowed. Other than to provide for the installation of required safety equipment or other authorized modifications, no other driver/passenger compartment alterations or gutting are permitted.

h. Any removable covers used to cover spare tires, tools, bins, etc., may be removed along with attaching hardware and bracketry. Carpets, mats, and their insulating or attaching materials may be removed from the floor and recesses of the cargo/trunk/spare tire area.

i. Dead pedal/foot rest and heel stop may be added.

j. Removal of wiring associated with a component which may be removed by these rules is permitted. All non-essential wiring may be removed. Existing wiring may be substituted.

k. Modifications may be made to the foot pedals to improve the comfort of and control accessibility to the driver.

l. Frame or subframe shall be stock for body used. The front and rear subframes may be tied together (front to rear, without crossing the centerline of the chassis) with subframe connectors consisting of curved or straight steel tubing (round, square, or rectangular section) with a maximum wall thickness of 0.125". These connectors may be bolted or welded to the subframes. These connectors may extend under the floor or may extend through the floor with the floor completely welded to this member.

m. Windshield defrosters are allowed as long as they serve no other purpose.

9. Safety

a. All cars shall have a roll cage installed. The cage shall meet GCR Section 18.4., requirements for GT roll cage configuration, material, and tubing size, except as provided for in these rules. See Figure 6, GCR Section 18., for general minimum configuration. **Bolt-in type cages shall no longer be allowed. Effective 1/1/03.**

1. The cage shall be welded to the car.

A. Mounting plates welded to the car.

1. Each mounting plate shall be at least .080" thick.

2. Each mounting plate shall not be greater than 100 square inches and shall be no greater than 12 inches or less than 3 inches on a side.

3. Whenever possible, mounting plates shall extend onto a vertical section of the structure (such as a rocker box).

4. The mounting plate may be multi-angled but must not exceed these dimensions in a flat plane.

5. Any number of tubes may attach to the plate or each other.

2. It shall attach to the main cabin of the car at eight (8) points consisting of the mounting plates for the main hoop, the front hoop, the main hoop rearward braces, and the front hoop firewall braces. Two stayrods may be fitted (also referenced in 17.1.7.D.4.d.4, suspension mounting points) from the shock or strut towers back to the firewall or through the firewall to the cage. If the stayrods intersect the allowed mounting plates at the firewall, they may be welded or bolted to the mounting plate. Otherwise, stayrods that pass through the firewall may not be welded or attached to the firewall, and instead any resulting holes should be sealed. Under no circumstances will there be more than eight mounting plates aft of the firewall.

3. The forward part of the cage (the front hoop or "downtubes") shall be mounted to the floor of the vehicle, not the firewall or front fender wells. Cages shall incorporate a horizontal bar running under or within the dash area connecting the forward downtubes and a horizontal bar at shoulder height connecting the two downtubes of the main hoop. Minimum tubing size for all required AS roll cage members shall be 1.50 X .120, 1.625 x .120, or 1.75 X .095 DOM mild steel or alloy.

4. Main hoop braces may be mounted at the rear shock mounts/towers or suspension pickup points. Such rear braces may pass through any mandatory or optional bulkhead or panel separating the driver/ passenger compartment from the trunk/ cargo area/ fuel tank/fuel cell area, provided the bulkhead is sealed around said cage braces.

5. Within the restriction of Section D.9.a.2., ("mounting points"), above, any number of additional tubes/braces are permitted within the cage structure.

6. A minimum of two door bars are required on each side of the cage per GCR Section 18.4.3.A. Door bars may be extended to the outer door skin. If door bars are so extended, the inner door panel (metal) may be modified to clear door bars. Original door hinges, safety intrusion beam, and remainder of door structure shall be retained. Doors may be pinned, not bolted, for safety. All door glass and winding mechanisms may be removed.

7. A diagonal main hoop brace shall be located in the plane of the main hoop. In order to provide a secure seat back support a section of tubing equal to the roll bar shall be installed horizontally from the main hoop upright to diagonal brace. This tube should be no higher than shoulder height. Seat backs shall be secured to this tube. Additionally, it is required that the horizontal brace behind the driver's seat continue from the diagonal to the passenger side main hoop upright, or that a second diagonal be installed within the plane of the main roll hoop.

b. Steering lock mechanisms and airbags/ passive restraint systems shall be removed.

c. Fuel cells are mandatory. Cell size is not restricted. It shall be located within twelve (12) inches of the original fuel tank location. Additional reinforcement may be added to support the fuel cell, but such reinforcement shall not attach to the roll cage. Floor pan may be modified for installation. See GCR Section 17.12., and Section 19., for requirements.

d. An electrical master ("kill") switch is required. See GCR Section 17.27., for specifications.

e. Safety harness systems and window net installation shall meet or exceed all GCR requirements.

f. An on-board fire system meeting the specifications of GCR Section 17.22.1., shall be installed.

g. OEM light assemblies (i.e. fog lamps, driving lights, etc.) mounted on or below (but not in) the bumper shall be removed. Resulting holes may be used for the purpose of ducting air to the brakes, cooler and or radiator as permitted in D.7.b.

h. Steering knuckle flexible coupling may be replaced with steel universal joint.

E. CAR CLASSIFICATION

1. No automatic transmissions, turbochargers/ superchargers, or convertibles are permitted in American Sedan. Cars are classified by body style and engine displacement. All components and/or assemblies utilized, except for engine block, shall originate on a vehicle of the body style and displacement classified or be authorized on the car's specification line. NOTE: For competition in American Sedan 1993+ Chevrolet Camaros and Pontiac Firebirds shall be prepared to 1982-1992 Chevrolet Camaro and Pontiac Firebird engine and transmission specifications per current American Sedan Category Specifications.

F. ENGINE BUILD SHEETS

Chevrolet / Pontiac

GENERAL

Manufacturer: General Motors Corp.
Model/Year: Camaro/Firebird 1982-92 (Includes 1993- Camaro/Firebird prepared to SCCA American Sedan specifications)
L / (CID): 5.0L / (305 CID)
No. of Cylinders: V-8
Bore (Range): 3.7400-3.7800"
Stroke: 3.4750-3.4800"
Firing Order: 1-8-4-3-6-5-7-2
Compression Ratio: 10.30 Max.
Piston to Deck Clr: Not to exceed 0.000" above block deck surface (zero deck)
Valve Lift: 0.4800" Max. @ 0.0000" lash
Block Casting #'s: 14010201, 14010202, 14010203, 14010231, 14016381, 10164548, 11068561, 14088551, 14093627, 14094766, 14093627, 14094766, 10049047, 14102058, 14016383, 355909, 361979, 460776, 460777, 460778, 10243878
Head Casting #'s: 14101081, 14014416
Crankshaft Casting #'s: 3932442, 14088526, 14088835, 566607
Notes:

1. Any commercially available steel crankshaft which meets approved stroke, journal diameters and other specified dimensions and requirements is permitted. The minimum weight for any steel crankshaft shall be 48#. Knife edged cranks are prohibited.
2. Crankshaft casting seam flash may be deburred.
3. Steel main bearing caps may be fitted provided no other modifications are made to any approved part or specified dimension.

BLOCK

Crankshaft Housing Bore: 2.6406-2.6416"
Block Deck Height: 9.0070-9.0430"
Bore Spacing: 4.4000"
Lifter Bore: 0.8430-0.8450" (Lifter bore sleeving is permitted – 2 lifter bores maximum.)
Options:

1. One-piece rear main seal adapter (with seal) may be used.
2. Cylinder block oil restrictors may be installed.
3. Block may be machined for the purpose of installing cylinder O-rings.
4. Block may be machined to true warped surfaces
5. Block casting seam flash may be deburred.

CONNECTING RODS

Big End Bore: 2.2247-2.2252"
Pin Fit: Floating or Interference Fit
Center to Center: 5.6985-5.7015"
Material: Forged Steel / Cast Iron (No Billet)
Alternate Manufacture: Crower Sportsman (Part #SP91205B or SP91205PF), Childs & Albert Super Sport (Part #350-12-LW or 350-12B-LW), Manley Sports Master (Part #14101), Eagle P/N SIR5700BP (pressed pin), SIR5700BB (bushed pin).
Options:

1. Wrist pin oiling holes may be added.

CAMSHAFT

Drive Type: Single or Dual-row chain
Lifter Type: Solid, flat-tappet
Lifter Dia: .8420" nominal
Options:

1. Camshaft thrust button may be installed

CRANKSHAFT

Main Journal Dia (Range):2.4183-2.4493"(1-4), 2.4178-2.4488" (5)
Rod Journal Dia (Range): 2.0690-2.1000"
Options:

1. Crankshaft casting seam flash may be deburred.

PISTON

Material: Aluminum (Cast or Forged)
Ring Configuration: 3 rings, above pin
Dome Configuration: Flat-top max. (dished piston dome permitted)
Pin Diameter: .927" nominal
Options:

1. Pins may be centered or offset. Offset shall not exceed factory specifications.

CYLINDER HEADS

Valve Job (Head): (Refer to Drawing 1)
Valve Job (Valve): (Refer to Drawing 2)
Intake Valve Size: 1.8350-1.8400"
Exhaust Valve Size: 1.4950-1.5000"
Valve Stem Diameter: (Refer to Drawing 2)
Port Volume (Max.): 081 casting: 170.00cc IN / 65.00cc EX
416 casting: 168.00cc IN / 60.00cc EX
Options:

1. Angle milling permitted on head gasket or intake manifold gasket surface(s) only. Modification or machining of exhaust manifold surfaces of cylinder head is prohibited.
2. Intake manifold surface may be milled to match angle milled head.

3. Heads may be machined to accept pushrod guide plates.
4. Heads may be machined to accept screw-in rocker studs.
5. Heads may be machined to for the purpose of installing integral o-ring head gaskets.
6. Heat riser passage may be blocked from intake manifold side of cylinder head only.
7. Valve spring pockets may be machined.

Notes:

1. Absolutely no modification, machining, tooling, etc. of the combustion chambers is permitted.

MISCELLANEOUS

1. Direct replacement high volume/pressure oil pumps may be fitted provided that no modification to the engine is required for their installation. Alternate oil pump drive shafts may be fitted.

Ford / Mercury

GENERAL

Manufacturer: Ford Motor Company

Model/Year: Mustang 1979-95 (Includes 1996- Mustang prepared to SCCA American Sedan specifications), Mercury Capri 1979-86

L / (CID): 5.0L / (302 CID)

No. of Cylinders: V-8

Bore (Range): 4.0000-4.0400"

Stroke: 2.9950-3.0000"

Firing Order: 1-3-7-2-6-5-4-8 or 1-5-4-2-6-3-7-8

Compression Ratio: 10.30 Max.

Piston to Deck Clr: Not to exceed 0.013" above block deck surface

Valve Lift: 0.5000" Max. @ 0.0000" lash

Block Casting #'s: Any D, E, or F Ford Windsor 302 block casting with 2-bolt main bearing caps.

Head Casting #'s: F3ZE-AA (GT40), F1ZE-AA (GT40), F77E-AA (GT40-P)

NOTE: All other legal Ford (Non-GT-40) head castings (w/ 1.780" IN & 1.450" EX valve sizes) may be used. No additional preparation is permitted and no consideration will be given to lack of competitiveness in comparison to the GT-40/GT-40P cylinder heads.

Crankshaft Casting #'s: 2M, 2MA, 2MAB, 2MAC, 2MAD, 2MAE, E1AE-AA, E7AE-AA

Notes:

1. Ford Motorsport block number M-6010-B50 is permitted.
2. Any commercially available steel crankshaft which meets approved stroke, journal diameters and other specified dimensions and requirements is permitted. The minimum weight for any steel crankshaft shall be 42#. Knife edged cranks are prohibited.
3. Crankshaft casting seam flash may be deburred.

BLOCK

Crankshaft Housing Bore: 2.4412-2.4420"

Block Deck Height: 8.1880-8.2240"

Bore Spacing: 4.3800"

Lifter Bore: 0.8730-0.8750" (Lifter bore sleeving is permitted – 2 lifter bores maximum.)

Options:

1. Cylinder block oil restrictors may be installed.
2. Block may be machined for the purpose of installing cylinder O rings.
3. Block may be machined to true warped surfaces
4. Block casting seam flash may be deburred.

CONNECTING RODS

Big End Bore: 2.2390-2.2398"

Pin Fit: Floating or Interference Fit

Center to Center: 5.0885-5.0915"
Material: Forged Steel / Cast Iron (No Billet)
Alternate Manufacture: Crower Sportsman (Part #SP91224B or SP91224PF), Eagle P/N SIR5090FP (pressed pin), SIR5090FB (bushed pin)
Options:
1. Wrist pin oiling holes may be added.

CAMSHAFT
Drive Type: Single or Dual-row chain
Lifter Type: Solid, flat-tappet
Lifter Dia: .8740" nominal

CRANKSHAFT
Main Journal Dia (Range): 2.2182-2.2490"
Rod Journal Dia (Range): 2.0928-2.1236"
Options:
1. Crankshaft casting seam flash may be deburred.

PISTON
Material: Aluminum (Cast or Forged)
Ring Configuration: 3 rings, above pin
Dome Configuration: Flat-top max. (dished piston dome permitted)
Pin Diameter: .912" nominal
Options:
1. Pins may be centered or offset. Offset shall not exceed factory specifications.

CYLINDER HEADS
Valve Job (Head): (Refer to Drawing 1)
Valve Job (Valve): (Refer to Drawing 2)
Intake Valve Size: 1.8350-1.8400" (GT40 & GT40-P), 1.775-1.780" (non-GT-40)
Exhaust Valve Size: 1.5350-1.5400" (GT40), 1.4450-1.4500" (GT40-P & non-GT40)
Valve Stem Diameter: (Refer to Drawing 2)
Port Volume (Max.): 143.0cc IN / 54.0cc EX (GT-40 & GT-40P)
Options:
1. Angle milling permitted on head gasket and/or intake manifold gasket surface(s) only. Modification or machining of exhaust manifold surfaces of cylinder head is prohibited.
2. Intake manifold surface may be milled to match angle milled head.
3. Heads may be machined to accept pushrod guide plates.
4. Heads may be machined to accept screw-in rocker studs.
5. Heads may be machined to for the purpose of installing integral o-ring head gaskets.
6. Heat riser passage may be blocked from intake manifold side of cylinder head only.

Notes:

1. Absolutely no modification, machining, tooling, etc. of the combustion chambers is permitted.

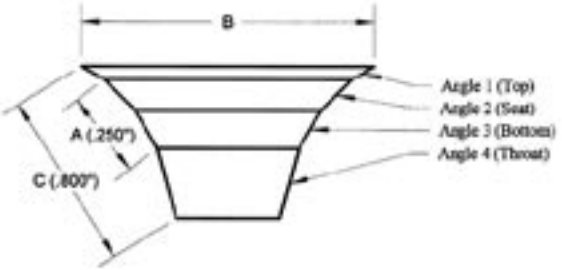
MISCELLANEOUS

1. Direct replacement high volume/pressure oil pumps may be fitted provided that no modification to the engine is required for their installation. Alternate oil pump drive shafts may be fitted.

G. MEASUREMENT STANDARDS

Measurement standards shall be as specified in GCR 11.4. with the following exceptions: Wheelbase has a tolerance of + 2"/- 1".

DRAWING 1 - ACCEPTED AMERICAN SEDAN VALVE JOB



A - Distance from top of Angle 2 (Seat) to bottom of Angle 3 (Bottom) not to exceed .250"

B - Angle 1 (Top) shall be no larger than .250" more than head diameter of valve (.125" per side).

C - Distance from top of Angle 1 (Top) to bottom of Angle 4 (Throat) not to exceed .800".

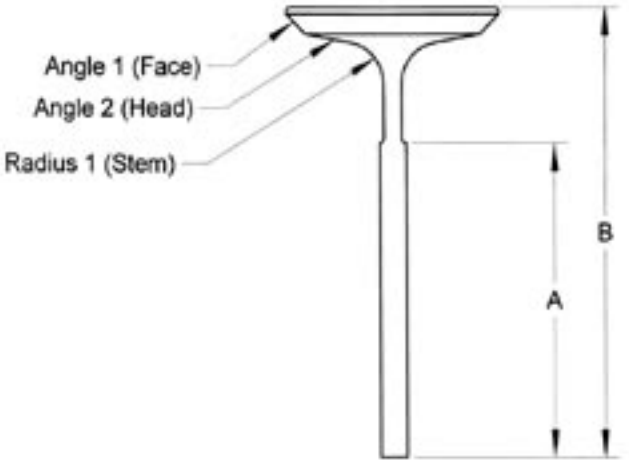
Angle 1 (Top) - Any single angle less than Angle 2 (Seat).

Angle 2 (Seat) - Single angle, 44 to 46 degrees, any width.

Angle 3 (Bottom) - Single angle - 60 degrees.

Angle 4 (Throat) - Single angle - 80 degrees.

DRAWING 2 - ACCEPTED AMERICAN SEDAN VALVE CONFIGURATION



A - Minimum stock stem diameter shall be maintained for at least 70% of the overall valve length (measured from stem tip).

B - Overall valve length shall not exceed stock specifications (+/- 0.050").

Angle 1 (Face) - Single angle, 44 to 46 degrees, any width.

Angle 2 (Head) - Any single angle less than Angle 1.

Radius 1 (Stem) - Any single radius is permitted.

AS$_A$	**Bore x Stroke mm/(in) Displ cc/(ci)**	**Wheelbase mm/(in)**	**Gear Ratios (std.)**	**Gear Ratios (alt.)**	**Gear Ratios (alt.)**	**Brakes (Max.) mm/(in)**	**Weight lbs. (kg)**	**Notes**
Chevrolet Camaro (82-92)	91.63 x 85.26 4998cc (3.74x3.48) (305)	2474.5 (101)	3.42 2.28 1.45 1.00	2.95 1.94 1.34 1.00 0.73	3.35 1.93 1.29 1.00 0.61	294 x 27.56 (12.0 x 1.13) Disc	3280 (1487.5)	Dana 44 axle permitted, Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston. Harwood fiberglass hood (P/N 12100) is permitted.
Chevrolet Camaro (93-02)	91.63 x 85.26 4998 (3.74x3.48) (305)	2476.95 (101.1)	2.95 1.94 1.34 1.00 0.73	3.35 1.93 1.29 1.00 0.61		294 x 27.56 (12.0 x 1.125) Disc	3280 (1487.5)	Dana 44 axle permitted, Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston , Alt Hood: American Sports Car Design, Inc. (Part # S-400) w/rear opening closed. Right side wiper mechanism may be removed and underside of cowl may be modified to facilitate carb installation. P/S bracket may be modified or replaced to accomodate the P/S pump. The cowl and shock tower sheet metal may be modified to allow the installation of an 82-92 F-body brake booster and master cylinder. Camaro SS hood from SLP or SVD is permitted with ram air opening sealed to prevent the passage of air. Engine/transmission installation procedure as provided by SCCA Club Racing shall be utilized. WS6 hood is permitted with ram air opening sealed to prevent the passage of air. Underhood bracing may be removed to facilitate air cleaner installation provided the material forming the outer hood surface is not modified. Bracing may be removed from an area no further that 2" from the outer upper edge of the aircleaner in use.
Ford Mustang (79-93) Includes Cobra & Cobra R	98 x 73.5 4949 (4.00x3.00) (302)	2459.8 (100.4)	3.07 1.72 1.00 0.70	2.95 1.94 1.34 1.00 0.63	3.35 1.99 1.33 1.00 0.68	294 x 27.56 (12.0 x 1.125) Disc	3080 (1396.8)	Permitted: Rear disc brake kit (M-2300-C) and/or 5-lug kit (M-2300-F). Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston.
Ford Mustang (94-98) Includes Cobra thru 1995	98 x 73.5 4949 (4.00x3.00) (302)	2481.85 (101.3)	2.95 1.94 1.34 1.00 0.63	3.35 1.99 1.33 1.00 0.68		294 x 27.56 (12.0 x 1.125) Disc	3280 (1487.5)	Permitted: Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston, Cobra R hood (F5ZV-16612-AA) is permitted with rear opening closed off. Hydro boost braking system is not permitted. Any 1994, and up, Mustang vacuum assisted braking system shall be used.
Ford Mustang (99-02) Includes Cobra	98 x 73.5 4949 (4.00x3.00) (302)	2481.85 (101.3)	2.95 1.94 1.34 1.00 0.63	3.35 1.99 1.33 1.00 0.68		294 x 27.56 (12.0 x 1.125) Disc	3280 (1487.5)	Cobra R bodywork and independent rear suspension not permitted.Permitted: Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston. '94-'95 Mustang K-mamber may be used to facilitate installation of 302 engine. Under no circumstances is the '99-'00 K-member to be modified. Hydro boost braking system is not permitted. Any 1994, and up, Mustang vacuum assisted braking system shall be used.

AS$_B$	**Bore x Stroke mm/(in) Displ cc/(ci)**	**Wheelbase mm/(in)**	**Gear Ratios (std.)**	**Gear Ratios (alt.)**	**Gear Ratios (alt.)**	**Brakes (Max.) mm/(in)**	**Weight lbs. (kg)**	**Notes**
Ford Mustang GT (2005)	98 x 73.5 4949 (4.00x3.00) (302)	(107.1)	3.38 2.00 1.32 1.00 .675	2.95 1.94 1.34 1.00 0.63		294 x 27.56 (12.0 x 1.125) Disc	3280 (1487.5)	Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston. Engine/transmission installation procedure as provided by SCCA Club Racing shall be utilized.
Mercury Capri (79-86)	98 x 73.5 4949 (4.00x3.00) (302)	2459.8 (100.4)	3.07 1.72 1.00 0.70	2.95 1.94 1.34 1.00 0.63	3.35 1.99 1.33 1.00 0.68	294 x 27.56 (12.0 x 1.125) Disc	3080 (1396.8)	Permitted: Rear disc brake kit (M-2300-C) and/or 5-lug kit (M-2300-F). Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston.
Pontiac Firebird (82-92)	91.63 x 85.26 4949 (3.74x3.48) (305)	2474.5 (101)	3.42 2.28 1.45 1.00	2.95 1.94 1.34 1.00 0.73	3.35 1.93 1.29 1.00 0.61	294 x 27.56 (12.0 x 1.125) Disc	3280 (1487.5)	Dana 44 axle permitted, Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston. Harwood fiberglass hood (P/N 20100) is permitted.
Pontiac Firebird (93-02)	91.63 x 85.26 4998 (3.74x3.48) (305)	2476.95 (101.1)	2.95 1.94 1.34 1.00 0.73	3.35 1.93 1.29 1.00 0.61		294 x 27.56 (12.0 x 1.125) Disc	3280 (1487.5)	Dana 44 axle permitted, Calipers: (F) PBR 38mm 2 piston, (R) PBR 40mm or 50mm 1 piston , Alt. Hood: American Sports Car Design, Inc. (Part # TA-300) w/rear opening closed. Right side wiper mechanism may be removed and underside of cowl may be modified to facilitate carb installation. P/S bracket may be modified or replaced to accomodate the P/S pump. The cowl and shock tower sheet metal may be modified to allow the installation of an 82-92 F-body brake booster and master cylinder. WS6 hood is permitted with ram air opening sealed to prevent the passage of air. Engine/transmission installation procedure as provided by SCCA Club Racing shall be utilized. WS6 hood is permitted with ram air opening sealed to prevent the passage of air. Underhood bracing may be removed to facilitate air cleaner installation provided the material forming the outer hood surface is not modified. Bracing may be removed from an area no further that 2" from the outer upper edge of the aircleaner in use.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17.1.5. SPORTS RACING CATEGORY

These specifications are part of the SCCA General Competition Rules (GCR) and all automobiles shall conform with GCR Section 17., Automobiles.

A. SCCA SPORTS RACING CATEGORY PREPARATION RULES

The SCCA Sports Racing Category shall be for automobiles which are designed and constructed for road racing competition, offering provisions for driver and a passenger, or driver alone (single-seater). They shall conform to the following requirements.

Homologation is required of all Sports Racing cars registered after January 1, 1983. Homologation forms must be on file with SCCA Inc., Topeka, Kansas for any car to be allowed to compete in any SCCA event. Homologation forms must be submitted to:

Sports Car Club Of America, Inc.
Technical Services Department
Building 300, B Street
Topeka, Kansas 66619
ATTN: Club Racing Technical Manager

Homologation Fees

Formula Cars	**$75.00 (Per Chassis)**
Replacement Certificates	**$200.00 Each**
Special Handling Fee	**$45.00**

A special handling fee shall be charged for any special attention over and above the normal processing time. Special handling is a twenty-four (24) hour turn around process, provided all documentation is in order. The certificate is returned via U.S. Postal Service first class mail. If overnight service is necessary, the express charges are not included in the special handling fee and shall be added to the fee.

Modifications may be made to a vehicle after it has been homologated as long as said modifications stay within the scope of the rules.

New chassis of non-metallic composite construction shall be proven to meet FIA specifications for non-metallic composite chassis prior to being submitted to the SCCA for homologation. Contact the SCCA national office for a list of the relevant FIA specifications/SCCA requirements.

Effective 1/1/97, those cars formerly known as Sports Renault and/or Spec Racers or any variants of this chassis/drive train/bodywork combination will not be allowed to compete in ASR in any SCCA sanctioned event.

Single-seat Formula car chassis (Ex.: FA, FC, FF, FV) fitted with enclosed bodies (as specified in these rules) may run in the Sports Racing Class (ASR, CSR, DSR) appropriate for their engine displacement and GCR Section 17.. This means that all Formula Atlantic, Formula Continental, Formula Ford, and Formula Vees running in Sports Racing categories shall have bodywork which complies with Section A.1 or A.2, of the Sports Racing Specifications. The ex-Formula car chassis need not have any former engine(s) fitted. Converted cars will maintain their former SCCA registration vehicle numbers. Each converted car shall be Homologated and have a new Vehicle Logbook (with new pictures); however, the former Logbook will be securely attached to the new Logbook. This procedure will enable Race Officials and Scrutineers to identify a single-seat Sports Racer as formerly having been a bona fide Formula car. New Single seat Sports Racers may be of new construction. (Design plans/pictures shall be submitted to the Technical Services Department for homologation before competing.)

Where Weber or other approved carburetors are specified and used, they shall retain their standard configurations of fuel distribution. This is to prohibit annular discharge carburetors.

It is the intention of the Club Racing Board to never classify or replica or derivative of a mass produced road car body in the sports racing classes. These classes are intended for open and/or closed sports racer/sports prototype bodywork

Sports racing cars shall be classified according to engine displacement and divided into classes as follows:

A Sports Racing (ASR) - Regional Status Only (Former Can-Am and F-5000 allowed if registered prior to 01/01/2003)

C Sports Racing (CSR)

D Sports Racing (DSR)

Sports 2000 (S2)

Spec Racer Ford (SRF)

A.1. ASR Classification (ASR) - (Regional Class Only)

a. Definition

A class for purpose built (i.e., road racing prototype, Can-Am, SR2, etc.), highly modified single or two-seat, closed-wheel, open or closed cockpit racing cars which meet the general regulations of Section 17 of the GCR for Sports Racing Category cars, yet are unique in concept and liberal in specifications so as to provide innovative design latitude. Homologation is required on all ASR cars, except

1. Former Formula A (F-5000) cars registered as ASR cars before January 1, 2003.

2. Cars conforming to the 1978-1984 Can-Am specifications, with aerodynamic skirts removed, registered as ASR cars before January 1, 2003.

3. ASR cars registered prior to January 1, 2003 which meet the provisions of 17.1.5.A.1.n. These cars may be updated to Section A.1.b-m specifications but they then shall meet all requirements of Section A.1.b without exception, including homologation.

Special exception:
Cars classified to compete in other SCCA Sports Racing classes that have been modified and do not qualify for that class may be allowed to compete in the ASR class with the approval of the Chief Steward. These cars may exceed forty-five (45) inches in height provided that the part of the vehicle which is higher than forty-five (45) inches above the ground shall have no special or significant aerodynamic function.

b. Chassis/Frame

Chassis/frame construction is unrestricted within the following limitations:

1. Chassis of non-metallic composite construction shall be proven to meet FIA specifications for non-metallic composite chassis prior to being submitted to the SCCA for homologation. Single seat sports racers, up to 1300 lbs., shall meet the requirements listed in FIA article 258A or 275. All sports racers over 1300 lbs. shall meet the requirements of FIA article 258A only. There are no exceptions. Contact SCCA National Office for a list of the relevant FIA specifications/SCCA requirements.

2. Chassis of metallic tube and/or metallic monocoque construction shall be manufactured to be consistent with the safety requirements outlined within these rules and the GCR.

c. Engines
Any engine(s) may be used within the following limitations:

1. Piston or rotary internal combustion, gasoline-fueled engines only. No turbines. Turbo and/or supercharging is permitted.

d. Fuel System
Fuel system is unrestricted within the following limitations:

1. Fuel per GCR Section 17.4

2. Fuel Cell Vents: Fuel tank air vents shall be located at least 25cm (9.843 inches) to the rear of the cockpit.

3. Fuel Filler Neck: Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the car.

e. Electrical System
Electrical system is unrestricted within the following limitations:

1. Self Starter: Cars shall be equipped with on-board self-starter and on-board power supply controlled by the driver while in a normal driving position.

2. Lights – Brake and Tail per GCR Section 17.19

f. Transmission / Final Drive
Transmission / final drive system is unrestricted within the following limitations:

1. Power shall not be applied to more than two (2) wheels.

g. Bodywork and Airfoils
Bodywork and airfoils are unrestricted within the following limitations:

1. Firewall and floor per GCR Section 17.21

2. Bodywork shall provide comfort and safety for driver and a passenger or for a driver only. All elements of the bodywork shall be completely and neatly designed and finished, with no temporary or makeshift elements.

    a. The bodywork as viewed from the side and above shall cover all mechanical components except that the intake, exhaust, and radiators may be exposed. The bodywork shall extend over the full width of the tires for at least one third (1/3)

of their circumference as viewed from the side. Ventilation slots are permitted. The tires shall not be seen as viewed from above, although the rear tires may be exposed as viewed from the rear. Cycle-type fenders (which only cover the tire and are not continuous with the rest of the body) are prohibited. Fenders shall be firmly attached to the bodywork with no gap between body and fender.

b. Width – The maximum width shall not exceed 221cm (87 inches) including all aerodynamic devices. However, no portion shall extend more than 10cm (3.9 inches) beyond a plane tangent to the outer face of the front and rear wheels with tires. The minimum body width between the front and rear wheels shall not extend inwards beyond a vertical plane connecting the centerlines of the front and rear tires.

c. Visibility – Bodywork shall provide visibility for the driver forward and to both sides adequate for racing conditions.

d. Windscreens are optional.

3. Cockpit Opening

a. Closed-cockpit cars – Two functional doors, one on each side, are required and shall be capable of being opened from inside and outside of the car. Doors shall be hinged on the leading or top edges only. The driver's seat shall be capable of being entered from either side without the removal or manipulation of any part or panel (except for doors, removable steering wheel and removable cockpit padding).

b. Open-cockpit cars – The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel (except for a removable steering wheel and removable cockpit padding).

The cockpit opening of metallic chassis shall have the following minimal dimensions:

Length: 60cm (23.622 inches)
Width: 45cm (17.717 inches)

This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the bracing, and required padding will not be considered in these dimensions.

The cockpit opening of non-metallic chassis shall be designed to meet the FIA homologation requirements (article 258A or 275 for cars up to 1300 lbs; Article 258A, only, for cars above 1300 lbs.).

4. Aerodynamic Devices

    a. The mounting apparatus of any part having an aerodynamic influence (i.e. bodywork, floor, sidepods, wings, spoilers, etc.), shall be rigidly secured to the entirely sprung part of the car (chassis/monocoque), shall have no degree of freedom in relation to the entirely sprung part of the car (chassis/monocoque), and shall remain immobile in relation to the chassis/monocoque at all times. This allows for actively adjusted aerodynamic elements (e.g., wings, diffusers, etc.).

    b. No Aerodynamic skirts per GCR Section 17.14. Within the preceding restrictions, only wearable material (fiberglass, Kevlar, carbon fiber, high density polyethylene, polypropylene, Teflon, Lexan, or wood) may be attached to the side panels as a rubbing strip. Ceramics, brittle plastics (e.g., Plexiglas), and other materials which shatter or break-up causing hazardous track conditions are prohibited.

    c. Ground effects are permitted, but may not be attained by "sealing" or bridging the gap between the bodywork and the road surface. Any means adopted to circumvent this intention shall automatically be regarded as a breach of these regulations.

    d. Leading Edges of Airfoils: The leading edge of any airfoil fixed to the front of the car shall not be sharp. Minimum radius: 1.5cm (0.06 inches).

5. Exposed glass headlight lenses and bulbs on the front of the car are prohibited.

h. Suspension

Suspension is unrestricted within the following limitations:

1. All cars shall be equipped with a full suspension system (e.g., springs, torsion bars, etc.) front and rear. Rigid mounted suspensions are prohibited. Monoshock/monospring systems are permitted.

i. Steering
Unrestricted provided that it is of a safe/secure design and acts upon at least two wheels at one end of the vehicle.

j. Wheels and Tires
Wheels and tires are unrestricted within the following limitations:

1. Tires shall have a minimum speed rating of 120 mph or better. Tires shall be the same size and design (e.g., radial, bias-ply, etc.) for the right and left sides of the front axle(s), and same size and design (e.g., radial, bias-ply, etc.) for the right and left sides of the rear axle(s).

2. Wheels – Minimum diameter 10", minimum width 6". Wheels shall be identical for the right and left sides of the front axle(s), and identical for the right and left sides of the rear axle(s). Wheel material shall be metal. Cars shall be equipped with a minimum of four (4) wheels. Wire wheels are prohibited.

k. Brakes
Brakes are unrestricted within the following limitations:

1. Cars shall have a braking system that acts upon all wheels of the vehicle. Chain/belt driven cars may have a single brake caliper that acts upon the differential, thereby applying braking force to the two (2) drive wheels.

2. Cars shall be equipped with a dual braking system operated by a single control. In case of failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.

l. Weight (without driver)

1. The minimum weight of the vehicle as raced, without driver, shall be 750 lbs. Cars of composite (e.g., fiberglass, carbon fiber, Kevlar, etc.) chassis construction shall not exceed a maximum weight, as raced without driver, of 1500 lbs. Cars of conventional tubular space-frame or metallic monocoque chassis construction that are in excess of 1800 lbs, as raced without driver, require specific approval by the Club Racing Board and the Club Racing Technical Manager for homologation and competition eligibility.

m. Safety Equipment

Note: All ASR cars must meet all applicable portions of GCR Sections 17, 18, 19 & 20.

1. Fuel Cells per GCR Section 17.12 & 19.

2. Fire System per GCR Section 17.22.

3. Scattershields and Chain/Belt Guards per GCR Section 17.24.

4. Oil Catch Tanks, Filters And Breathers per GCR Section 17.26.

5. Master Switch per GCR Section 17.27.

6. Mirrors per GCR Section 11.2.1.R. Additionally, there shall be at least two (2) mirrors, each with a minimum 100cm^2 (15.5 in^2) of reflective surface.

7. Towing Eyes per GCR Section 17.31. Additionally, if the rollbar is faired-in, the fairing shall have rollbar access hole(s) to allow for quick retrieval.

8. Fuel and Oil Lines per GCR Section 17.34.

9. Roll Cage per GCR Section 18.1. & 18.5.

10. Side Intrusion Protection

    For metallic chassis, the area between the upper and lower main frame tubes from the front roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by one of the following methods to prevent the intrusion of objects into the cockpit.

    a. Panel(s), minimum of either .060" heat-treated aluminum (6061-T6 or equivalent) or eighteen (18) gauge steel, attached outside of the main frame tubes.

    b. Reinforced body – at minimum, consisting of a double layer, five (5) oz., bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame.

    c. For either method, the material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

    Non-metallic chassis are covered under the FIA chassis homologation.

11. Crushable Structure

For metallic chassis, there shall be a crushable structure, securely attached to the front bulkhead, with a minimum cross section of 200 cm^2 (31 in^2), 40cm (15.75") forward of the clutch and brake pedals (not depressed) constructed of a minimum of eighteen (18) gauge 6061-T4 or equivalent aluminum.

a. Radiators may be incorporated in this structure.

Non-metallic chassis are covered under the FIA chassis homologation.

12. Driver's Feet Position

For metallic chassis, the frame shall incorporate forward-facing braces to protect the driver's legs and feet. The braces shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the furthest forward transverse section of the main frame.) The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedals not depressed) and shall remain behind the front bulkhead. The lower main frame rails shall be a minimum of twenty-five (25) centimeters (9.84") apart (inside dimension) from the front bulkhead to the rear roll hoop.

Non-metallic chassis are covered under the FIA chassis homologation.

n. ASR Cars Registered Prior to January 1, 2003

Turbocharging/supercharging is prohibited. Cars shall be classified according to engine displacement as follows:

Engine Type	**Displacement**	**Induction**	**Weight With Driver**
Rotary Piston	2292cc Max.	Unrestricted	1326 lbs.
Racing	1300-2000cc	Unrestricted	1200 lbs.
Racing	2001-3000cc	Unrestricted	1250 lbs.
Stock block & Cyl. Heads	3001-4000cc	Fuel Injection or Carburetor, one 4150 Holley 1-11/16	1602 lbs.
Stock block & Cyl. Heads	4001-5000cc	Fuel Injection or Carburetor, one 4150 Holley 1-11/16	1811 lbs.

1. Engine, Rotary Piston
   a. Changing the capacity of the working chamber(s) is prohibited.

   b. The eccentric shaft may be replaced with another of the same basic material, but no changes in eccentricity of journal dimensions are permitted.

   c. The rotor is unrestricted providing the number of lobes remains unchanged.

   d. Alternate rotor housing is allowed only when submitted by the manufacturer and recognized by the Club Racing Board. No changes are allowed in the epitrocoidal curve in alternate housing.

   e. Rotary engine cars shall be equipped with a suitable muffler.

A.2. CSR and DSR Classifications

CSR engine and weight restrictions are given in A.2.a. DSR engine and weight restrictions are given in A.2.b. The remainder of A.2 applies to both CSR and DSR unless otherwise stated.

a. CSR Engine and Weight Restrictions

Ford-Cosworth YAC engine in CSR see 17.1.5.D
Shelby CAN AM Racer in CSR see 17.1.5.E
SCCA Oldsmobile Sports Racer in CSR see 17.1.5.F
SCCA Sports Racer in CSR see 17.1.5.G

For the above engines and cars, specifications that are more restrictive in those sections take precedence over the general specifications in section A.2.a.

Generally applicable information for CSR engines and automobile weights are given in the following paragraphs. The table that follows provides general specification of engine types, displacement limits, head designs, intake restrictions and automobile weights allowed in CSR. Specific engines approved for use in CSR (along with any applicable restrictions) are also given in the table. All specified minimum weights are with driver (GCR 17.9).

1. Unless otherwise specified, minimum weight is 1200 lbs.

2. Minimum weight for cars using four valve engines over 1300cc is 1300 lbs.

3. Minimum weight for cars using Rotary engines is 1300 lbs.

4. Cars using engines with fuel injection shall weigh 25 lbs more than the same engine using carburetion.

5. Cars are permitted to use the Pro FF2000 Spec Zetec motor at a minimum weight of 1300 lbs.

6. Cars prepared to DSR specifications may compete in CSR at their current DSR weight.

7. Fuel injection is allowed on all engines up to 1615cc, up to 4-valves per cylinder unless otherwise specified. Fuel injected engines shall use the same size venturis or restrictors as the specified carburetors.

8. Where a carburetor or fuel injection restriction is specified, either a venturi or other restrictor is required through which all intake air for each cylinder or the entire fuel-air mixture, if prepared before this point, shall pass.

   Where intake restrictors are specified, the restrictors shall be round orifices (unless otherwise specified) and located within four (4) inches of the throttle butterfly. Restrictors shall be a minimum of 0.060" thickness and of the specified diameter.

9. Intake manifolds: individual runner, no plenum or balance pipes permitted.

10. Where carburetors only are specified, the following carburetors are approved: Weber, Solex, SK, Mikuni and Del Orto

11. All non-motorcycle engines over 1300cc shall be derived from cars listed as eligible for the SCCA Production or GT Category, unless specifically allowed.

12. Engines over 1300cc may be modified as provided for in the current GT 2, 3, and 4 rules, except that the bore, crankshaft stroke, and flywheel are unrestricted, providing the appropriate specified displacement limit is not exceeded. Any alternate pulleys (all) allowed. A crankshaft dampener is allowed.

13. SCCA Enterprises Sport Racer cars are eligible to compete in the C Sports Racer class and must be prepared to all of the SCCA Enterprises specifications. Other variations of this chassis and/or engine must receive separate homologation and/or approval in these rules in order to be approved for competition.

Engine Type or Specific Engine	Max Displ. (cc)	Head Type	Max Valves per Cyl.	Carburetion or Fuel Injection	Weight (w/driver) carbed/fuel injected	Notes
Turbocharged or Supercharged	765	Unrestricted	-	36mm venturis	1200 lbs/ 1225 lbs	
2 cycle	1300	-	-	Unrestricted	1200 lbs/ 1225 lbs	
4 cycle	1300	Unrestricted	4	Unrestricted	1200 lbs/ 1225 lbs	
4 cycle Motorcycle-based	1310	Unrestricted	4	Unrestricted	1150 lbs/ 1175 lbs	
4 cycle	1450	OHC Crossflow	2	Carburetors Only	1200 lbs/ NA	
4 cycle	1615	Unrestricted	2	37 mm venturis	1200 lbs/ 1225 lbs	
4 cycle Motorcycle-based	1615	Unrestricted	4	42 mm venturis or restrictors	1250 lbs/ 1275 lbs	
Toyota 1588cc DOHC	1615	Crossflow	2	Unrestricted	1200 lbs/ 1225 lbs	
Honda 1595cc VTEC	1615	Crossflow	4	42mm venturis	1300 lbs/ 1325 lbs	
Lotus Ford DOHC 1600cc	1615	Crossflow	2	Unrestricted	1200 lbs/1225 lbs	Alternate aluminum block allowed

Engine Type or Specific Engine	Max Displ. (cc)	Head Type	Max Valves per Cyl.	Carburetion or Fuel Injection	Weight (w/driver) carbed/fuel injected	Notes
Volkswagen 1.6L	1615	Unrestricted	4	34 mm venturis 2 Carburetors or Fuel Injection	1200 lbs/1225 lbs	a) VW 1.6L block with 1.8L 16-valve head or Eurospec Sports head; b) 1.8L block is allowed, but maximum displacement is 1615cc; c) cam drive is unrestricted
Cosworth BD-series DOHC	1615	Crossflow	4	Unrestricted	1300 lbs/1325 lbs	Cast iron or alloy block allowed
Toyota 4AGE-series DOHC	1615	Crossflow	4	Carburetors only with 42mm venturis	1300 lbs/ NA	a) any alternate pulleys (all) allowed; b) crankshaft dampener allowed
Toyota Sports Racer with OEM 4AGE-series	1615	Crossflow	4	See notes	NA/1325 lbs	Sports Toyota homologated with OEM transverse engine and OEM transaxle may use Pectel FI system as approved for Pro series; competitor must have Pro series rules
Volkswagen 1.8L	1835	Unrestricted	2	2 Unrestricted Carburetors or Fuel Injection with 37mm venturis	1260 lbs/1285 lbs	a) VW 8-valve head on 1.8L block bored to maximum 1835cc; b) cam drive is unrestricted
Mazda 12A Rotary	N/A	Bridge Port	-	One (1) IDA 48mm with 34mm venturi	1300 lbs/ NA	
Mazda 12A Rotary	N/A	Non-peripheral port, non-bridge port	-	Unrestricted	1300 lbs/1325 lbs	
Mazda 13B Rotary	N/A	Non-peripheral port, non-bridge port	-	One (1) side draft w/ 44mm choke(s), no fuel injection	1300 lbs/ NA	Intake manifold runner length minimum 7 inches. Intake manifold for carburetion shall have individual runners connecting one throttle plate to one rotor, only.
Pro FF2000 Spec Zetec DOHC	2000	Crossflow	4	Per Pro Specs	1300 lbs	Must retain Pro FF2000 specifications. Competitor must have Pro rules available at any race.

b. DSR Engine and Weight Restrictions

Type	Size
2 cycle	Up to *900cc*
4 cycle	Up to 1005cc
Rotary piston	Of equivalent displacement cc X 2 up to 900cc
4 cycle, 2 valves per cylinder max.	Up to 1025cc
Automotive-based 4 cycle 2 valves per cylinder max.	Up to 1305cc

Minimum weight of all chain and belt-drive cars is 900 lbs., with driver. All other cars are 1000 lbs., with driver.

No engines used in D Sports Racing shall have more than four cylinders.

DSR Induction:
Carburetion and fuel injection are unrestricted. Turbocharging and supercharging are restricted to engines less than 620cc with four valves or fewer per cylinder.

Rotary Piston Engines:
Cars with rotary piston engines by the NSU-Wankel patents shall be classified on the basis of a piston displacement equivalent of twice the volume determined by the difference between the maximum and minimum capacity of the working chamber.

Other Designs:
Turbine and steam-powered engines are prohibited.

c. Safety Equipment --
Shall comply with GCR Section 17. In addition:

1. Glass headlight lenses and bulbs on the front of the car are prohibited.

2. All cars shall provide protection for lower torso and legs of the driver by means of tubing and/or monocoque structure.

3. Roll cages/roll bars shall comply with Section 18.5.

d. Bodywork (See GCR Section 17.)

Bodywork shall provide comfort and safety for driver and a passenger or for a driver only. All elements of the bodywork shall be completely and neatly designed and finished, with no temporary or makeshift elements.

1. The bodywork as viewed from the side and above shall cover all mechanical components except that the intake, exhaust, and radiators may be exposed. The bodywork shall extend over the full width of the tires for at least one-third (1/3) of their circumference as viewed from the side. Ventilation slots are permitted. The tires shall not be seen as viewed from above, although the rear tires may be exposed as viewed from the rear. Cycle-type fenders (which only cover the tire and are not continuous with the rest of the body) are prohibited. Fenders shall be firmly attached to the bodywork with no gap between body and fender. Aerodynamic skirts are prohibited. See next Section for definition.

2. It is the intent of these rules to minimize the use of "ground effects" to achieve aerodynamic downforce on the vehicle. Thus, for the full width of the body the floor pan will be a minimum of 45% of the wheelbase; the lower surface (surface licked by the air stream) shall not exceed 2.54 cm (1 inch) deviation in any longitudinal section through the plane forming the bottom of the tub or chassis floor. The 45% minimum (of the wheelbase) dimension is measured from the point that the surface meets the full width of the body (behind the front wheel or in front of the rear wheel). (This is not to be interpreted as requiring a floor pan beneath the motor, transaxle, transmission, or final drive housing.) No aerodynamic devices (e.g. "skirts," body sides, etc.) may extend more than 1cm (0.394 inches) below this lower surface anywhere on the car to the rear of the front axle. Seat bucket or other protrusions shall not circumvent this rule. Aerodynamic devices shall be securely mounted on the entirely sprung part of the car and not be movable when the car is in motion. It is not permitted to duct air through any part of the bodywork for the purpose of providing aerodynamic downforce on the car. All ducted air for heat exchangers (water/oil) shall pass through these heat exchangers.

Figure 1 – Location of the Controlled Area

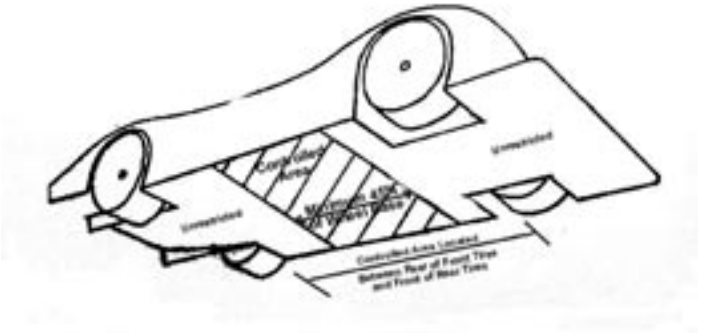


Figure 2 – Example Longitudinal Sections

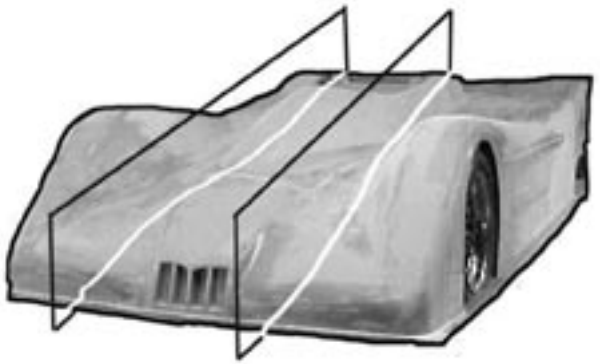
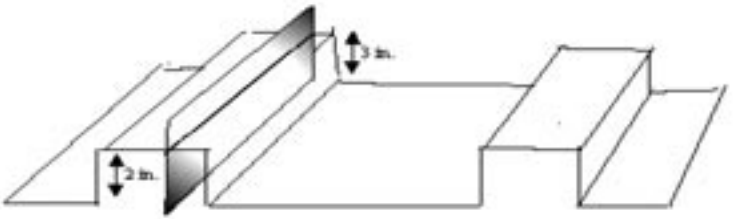


Figure 3 – Example Longitudinal Section Through Floor Pan in Controlled Area (Maximum Deviation 1 inch)



3. Dimensions

   a. Height: No part of the vehicle having special or significant aerodynamic function shall exceed a height of 115cm (45.25 in) above the ground with car in normal racing trim, driver aboard. Neither the safety roll bar nor the engine induction intake shall provide an aerodynamic downforce.

   b. Width: The maximum width shall not exceed 221cm (87 inches) including all aerodynamic devices. However, no portion shall extend more than 10cm (3.9 inches) beyond a plane tangent to the outer face of the front and rear wheels with tires. The minimum body width between the front and rear wheels shall not extend inwards beyond a vertical plane connecting the centerlines of the front and rear tires.

   c. Length: The maximum overall length shall be 485.3cm (191 inches).

   d. Cockpit: The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel (except for those closed cockpit cars which are specifically allowed by the SCCA). The cockpit opening shall comply with the following minimum dimensions for both single and two seater sports racers: Cockpit length: 60cm (23.662 inches) Cockpit width: 45cm (17.717 inches) maintained over 30cm (11.811 inches) from the most rearward point of the seat backrest toward the front.

4. Visibility: Bodywork shall provide visibility for the driver forward and to both sides adequate for racing conditions. Rear view mirror(s) shall provide the driver with visibility to the rear of both sides of the car.

5. Windscreens are optional.

6. Bodywork shall provide comfort and safety for both driver and a passenger. There shall be seats of equal dimension and comfort for the driver and a passenger equally disposed on each side of the longitudinal axis of the car.

   Seats shall be firmly attached in the car, but may provide adjustment for the size of the occupant. The body surrounding the driver and passenger compartment shall be symmetrical about the

longitudinal axis of the car. The passenger's space and seat shall remain usable throughout the competition and shall not be encroached upon by an element of the car or equipment except as provided in these Rules.

Note: Paragraph 6 does not apply to single seat sports racers.

e. Wheels and Tires
There shall be no restriction on the size of wheels except for a minimum diameter of ten (10) inches, provided they are identical for the right and left front axles, and identical for the right and left rear axles. Left and right front tires will be the same size; left and right rear tires will be the same size.

f. Self Starter
Cars shall be equipped with an automatic self starter and on-board power supply operated by the driver.

g. Brakes
These cars shall be equipped with a dual braking system operated by a single control. In case of leak or failure at any point in the system, effective braking power shall be maintained on at least two (2) wheels. A separate hand brake (emergency brake) is not required.

h. Bulkheads and Tanks
Fuel tanks shall be isolated by means of bulkheads and vented so that in case of spillage, leakage, or failure of a tank, fuel and fumes will not pass into the driver or engine compartment or around any part of the exhaust system. No part of any oil or water tanks shall be exposed to any part of the driver or passenger compartment. Safety fuel cells (per GCR Sections 17., and 19.) are required for all cars.

i. Transmissions
Electronic assisted gear change mechanisms and electronically controlled differentials are prohibited. Shift mechanisms operated through direct acting electric solenoids or air shifters operated by electric solenoid are permitted.

B. Sports 2000 Preparation Rules

B.1. Definition
Open cockpit two (2) seater rear engine sports racing car using a standard Ford 2000cc single overhead camshaft "NE" series engine with a two-venturi carburetor.

Sports 2000 is a Restricted class. Therefore any allowable modifications, changes, or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T**. Homologation is required for all cars registered after January 1, 1983.

B.2. Safety Requirements

All safety equipment shall comply with Section 17., of the General Competition Rules.

B.3. Chassis

a. Unrestricted except that the use of carbon fiber composite structural materials is prohibited. No engine oil or water tubes are permitted within the cockpit. The engine will be mounted upright and aligned fore and aft in the chassis.

   New chassis of non-metallic composite construction shall be proven to meet FIA specifications for non-metallic composite chassis prior to being submitted to the SCCA for homologation. Contact the SCCA national office for a list of the relevant FIA specifications/ SCCA requirements.

b. Swift DB-2 and DB-5 vehicles shall have a properly installed crush box fixed to the foremost bulkhead to protect the driver's feet. The box shall meet the following requirements:

   1. It shall enclose a volume of at least 864 cubic inches (.5 cubic feet).

   2. It shall extend at least 10 inches forward of the front bulkhead.

   3. It shall be constructed of aluminum at least .040 inches thick, carbon fiber or kevlar.

   4. The box may have access holes not exceeding 90 square inches in total.

c. All cars must have a longitudinal barrier in the left leg area forward of the dash substantially strong enough to prevent the left foot from moving more than 3 inches to the left of the vehicle centerline in the event of a side impact.

d. It is the intent of these rules to minimize the use of "ground effects" to achieve aerodynamic downforce on the vehicle. Thus, the chassis and body surfaces which comprise the underside

of the car shall not deviate from a flat plane by more than 2.5cm (one (l) inch). This deviation may not be used to create an aerodynamic device. For this purpose the underside is defined as being within the rectangular area along the length between the front edge of the front wheels and the rear edge of the rear wheels and across the outside of the front and rear rims. No aerodynamic devices (e.g. "skirts," body sides, etc.) shall extend below this surface anywhere on the car to the rear of the front wheels.

B.4. Bodywork Including Airfoils

a. The body shall provide a cockpit for two (2) seats and cover all mechanical components including wheels and suspension members except for the exhaust pipe, induction system, and camshaft cover which may protrude through the engine cover.

b. Between the front and rear axle lines the body shall:

1. Maintain over a minimum of 70% of the length of the wheelbase and over a depth of 20cm (7.9 inches) a minimum body width exceeding the greatest overall width across the tires less 15cm (5.9 inches).

2. Exceed in height the top of the tires over a width of 50cm (19.7 inches) excepting only cockpit and engine openings. There shall be no gap between the main body and the mudguards. The mudguards shall cover the full width of the tires around an arc of 120 degrees, which shall extend forward ahead of the axle centerline on the front and rear wheels and behind the rear wheels to at least 7.5cm (2.95 inches) above the axle centerline.

c. Maximum vehicle length forward of the front axle centerline: thirty-three (33) inches. Maximum vehicle length rear of the axle centerline: thirty-seven (37) inches.

d. The body above chassis level in the region of the cockpit shall not be reinforced in any way which would complicate or hinder the rescue of the driver. The cockpit opening seen in plan view shall be symmetrical about the longitudinal axis of the car and shall be large enough for a horizontal rectangle of 80cm (31.5

inches) by 40cm (15.75 inches) to be passed through with its minor axis aligned with the vehicle's longitudinal axis.

e. Space for two (2) seats shall be provided, each of at least 40cm (15.75 inches) width, and shall be positioned symmetrically about the vehicle's longitudinal axis. There shall be at least 25cm (9.9 inches) wide foot space for both driver and passenger measured at the pedals. The passenger space should provide as much seat space, elbow room, foot, and leg room in terms of length, width, and height as that of the driver. Battery boxes and fire systems are permitted in the passenger seat area.

f. Maximum height with driver on board, excluding safety roll-over bar and mirrors, shall not exceed at any time 90cm (35.4 inches) measured from the ground.

g. Airfoils and/or spoilers mounted at the front of the vehicle are permitted. These airfoils and/or spoilers may only be adjusted in a horizontal plane.

h. Adjustable airfoils and/or spoilers mounted at the rear of the vehicle shall be in the form of a flat plane and may only be adjusted within +/- 20 degrees of vertical.

i. There shall be no gap between these surfaces, or other airfoil, and the main bodywork.

j. All ducted air for heat exchangers (water/oil) shall pass through those heat exchangers.

B.5. Engine

The only permitted engine is the Ford 2 liter single overhead camshaft "NE" series engine or the 1971-74 Pinto/Capri 2 liter single overhead camshaft engine with nominal bore 90.84mm and stroke 76.95mm (Note: All blocks shall contain casting number HM6015BA, HM6015AA or HM6015BB. Dashes in the casting number are not relevant.). Production tolerances are permitted providing the total swept volume does not exceed 2000cc.

a. The camshaft and rockers shall remain entirely unmodified; they shall be fully manufactured and ground by the Ford Motor Co. Offset keys are permitted. It is prohibited to grind from blanks, regrind, or reprofile. Tuftriding or Parkerizing is permitted. Maximum valve lift at

determined points by camshaft rotation will be established. The use of a low rate substitute valve spring is permitted. Load characteristics of special checking spring: twelve (12) pounds at 1.417 inches, thirty (30) pounds at 1.000 inches. Maximum valve lift against cam angle with zero tappet clearance: 0.400 +/- 0.005

b. A standard crankshaft shall be used. Spot machining to achieve balance is permitted. Tuftriding, Parkerizing, shot peening, shot blasting, and polishing are permitted. Minimum weight: twenty-seven point five (27.5) pounds.

c. The flywheel shall be a standard component. The minimum weight is 14.4 pounds with ring gear. The flywheel may be machined to achieve minimum weight. Spot machining to achieve balance is permitted. Flywheel bolts are free and locating dowels are permitted. A 1600 GT starter ring may be fitted. The use of any single plate clutch is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel. Carbon fiber clutches are not permitted.

d. Maximum compression ratio will be controlled as follows:

    1. Minimum Cylinder Head combustion chamber volume 49cc (not including head gasket). Polishing and/or tooling of the cylinder head to achieve only the required combustion chamber volume is permitted.

    2. Standard Ford gasket; minimum thickness .9mm, minimum diameter of cylinder aperture 92mm.

    3. Pistons shall not protrude above cylinder block surface at TDC.

e. It is permissible to reshape inlet and exhaust port by removal of metal within limits. Addition of material in any form is prohibited. Maximum diameter of inlet port at manifold head face 39.5mm. Maximum dimensions of exhaust port at manifold face 35.5mm x 27mm. The distance between the valve centers and the angles of the valves shall not be altered.

f. Pistons shall be standard Ford production pistons, unmodified in any way except for balancing and as detailed herein.

The following combinations are permitted:

1. Piston P/N 80HM6102LA with rings and pin. Standard Ford connecting rod with bolts, without bearings.

   Minimum permitted weight = 1332.5 grams

2. Piston P/N 85HM6102DA with rings and pin.

   Standard Ford connecting rod without bearing; any rod bolt and nut may be used provided no modification is made to the connecting rod.

   Minimum permitted weight = 1255 grams.

3. Piston P/N 21426, casting P/N 21426 (AE Hepolite) with rings and pin. Standard Ford connecting rod with bolts, without bearings.

   Minimum permitted weight = 1255 grams.

   All three piston rings shall be fitted, compression rings and scraper (second) shall be one piece, single homogeneous material-type with conventional plain gaps. Chromium plating of the top ring is optional; oil control rings shall be either single piece twin-land type or apex three piece (two rails and an expander).

   Localized machining of the gudgeon pin bosses to achieve balance and weight by simple machining; all external surfaces, dimensions, and profiles shall remain standard with the exception of the top surface of the piston crown which may have simple machining to achieve balance, and as required in Section 17.1.5.B.5. d.3..

4. Piston P/N M-6102-B200 with pin. Minimum permitted weight = 1255 grams w/ rings, standard Ford or alternate connecting rods with bolts, without bearings.

NOTE: M-6102-B200 piston assembly is now made by JE and is visually different. I.D. Marks: M-6102-B200, Ford racing logo. All marks pin stamped on wrist pin bosses.

g. Valves shall remain standard; no reprofiling or polishing is permitted.

The original forty-five (45) degree seat angle shall be maintained.
Maximum face diameter inlet 42.2mm.
Maximum face diameter exhaust 36.2mm.
Maximum valve stem diameter 8.4mm.

h. Connecting rods shall be standard Ford parts.

Machining is permitted to remove metal from the balancing bosses to achieve balance only. Tuftriding, Parkerizing, shot peening, shot blasting, polishing, etc., are permitted. It is permitted to radius the area around the big-end cap retaining bolts. Alternate connecting rods and big end bolt assembly (P/N M-6200-C200) are permitted. Big-end bolts, P/N 905500, are permitted.

i. Maximum valve lift against cam angle with zero tappet clearance: (Lift measured in mm)

	Inlet		Exhaust	
Angle	**Opening**	**Closing**	**Opening**	**Closing**
0	10.442	10.442	10.442	10.442
5	10.36	10.36	10.36	10.36
10	10.11	10.11	10.11	10.11
15	9.69	9.69	9.69	9.69
20	9.11	9.11	9.11	9.11
25	8.37	8.37	8.37	8.37
30	7.45	7.45	7.45	7.45
35	6.38	6.38	6.38	6.38
40	5.17	5.17	5.17	5.17
45	3.86	3.86	3.86	3.86
50	2.59	2.58	2.58	2.59
55	1.5	1.47	1.47	1.5
60	0.86	0.81	0.81	0.86
65	0.65	0.56	0.56	0.65
70	0.54	0.43	0.43	0.54
75	0.46	0.33	0.33	0.8
80	0.37	0.19	0.19	0.37
85	0.26	0.08	0.08	0.26
90	0.2	0.01	0.01	0.2

j. Engines will be mounted upright, and aligned fore and aft in the chassis.

k. A single carburetor only will be used on a standard inlet manifold. The carburetor will be a Weber 32/36 DGV 26/27mm venturi, its origin being from a 1600 GT "Kent" or 2000 SOHC NE engine. The Holly 5200 32/36 carburetor also may be used; carburetor with the swaged fuel inlet fitting shall be replaced by drilling and tapping the carburetor body for a threaded fitting. The air cleaner may be removed and a trumpet fitted, and jets may be changed, both throttles may open together, cold start devices and diffused bar may be removed, internal and external antisurge pipes may be fitted, and seals on emission control carburetors may be removed. The bottom of the lower column portion of the auxiliary venturi may be machined for purposes of high speed enrichment. No other modifications are permitted. Chokes (venturi) shall remain standard and no polishing or profiling is permitted.

l. The addition of material by any means to any component is prohibited.

m. It is permitted, as a means of repair, to replace damaged valve seats and cylinder bores by replacement cast iron valve seat inserts and cast iron cylinder liners; valve guides may be replaced with cast iron or bronze, all to standard dimensions.

n. Balancing of reciprocating and rotating parts is permitted only by removal of metal from locations so provided by the manufacturer.

o. Non-standard rocker covers are permitted providing they in no way improve the performance of the engine.

p. Standard valve spring retainers shall be used, and single valve springs only are permitted. Shims are permitted, and valve springs are otherwise free.

q. Exhaust system and manifold are unrestricted, within SCCA safety regulations.

r. Lubrication system is unrestricted; dry sump is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump.

s. Oil coolers are unrestricted.

t. A liquid cooling system is mandatory, but radiator and water pump are unrestricted. The radiator, if housed in or incorporating a cowl air-scoop deflector, shall comply with body regulations.

u. Fuel Pump: Unrestricted.

v. Distributors are unrestricted providing they retain the original drive and location. The distributor is defined as the component which triggers the L.T. current and distributes the H.T. current.

The Ignition Timing may only be varied by vacuum and/or mechanical means.

It is prohibited to use any other method or component to trigger, distribute, or time the ignition.

w. Only the standard inlet manifold shall be used. The ports may be reshaped by the removal of metal as long as the following dimensions are maintained: maximum size at head face = 1.437" (36.5mm), maximum size at carburetor flange = 3.405" (86.5mm) x 1.595" (40.5mm). The carburetor seat face may be machined to horizontal in the fore to aft plane. The diameter of the ports may exceed the above listed dimensions if the casting bore is untouched and in its original state. The water passages in the inlet manifold may be plugged. Holes in the inlet manifold resulting from the removal of emission/vacuum lines shall be plugged.

x. Gaskets and seals are unrestricted except for cylinder head gasket, carburetor-to-inlet manifold gasket, and inlet manifold-to-head gasket which shall be standard Ford manufacture for the engine. Carburetor to inlet manifold gasket as used with Holley 5200 is allowed.

y. Pump, fan, and generator drive pulleys are unrestricted.

z. The crankcase breather may be altered or removed, but all breathers shall discharge into a catch tank.

aa. Mechanical tachometer drives may be fitted.

bb. Generators are optional.

cc. Standard oversize and undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.

dd. The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or which do not support the intake manifold or any moving parts of the engine is permitted.

ee. Only modifications or additions specifically covered by these regulations are permitted. All engine components not covered by these regulations shall remain completely standard and unmodified.

B.6 Suspension

All parts shall be of steel or ferrous material, with the exception of hubs, hub adapters, bell cranks, pivot blocks, and bushes. Front and rear hub carrier material shall be steel or aluminum alloy. Titanium prohibited. Springs: steel only. (Rear hub carrier material on car manufactured before January 1, 1983 is unrestricted, but replacement parts shall be steel or aluminum alloy.)

B.7. Brakes

Aluminum alloy brake calipers are prohibited, otherwise unrestricted.

B.8. Shock Absorbers

Design: Unrestricted. Case material: steel or aluminum alloy.

B.9. Steering

Unrestricted.

B.10. Wheels and Tires

Thirteen (13) inch diameter wheels with maximum front rim width of six (6) inches and rear eight (8) inches are the only wheel sizes permitted. Material is unrestricted providing it is metal.

B.11. Transmission

a. The gearbox shall include an operable reverse gear, capable of being engaged by the driver while normally seated, and contain not more than four forward gears. The ratios are unrestricted.

b. Rear wheel drive only is permitted.

c. Final drive ratio is unrestricted.

d. The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and lock differentials are prohibited. Excessive shimming of the differential is prohibited.

e. The use of automatic and/or sequentially shifted gearbox is prohibited.

f. Electronic assisted gear change mechanisms and electronically controlled differentials are prohibited.

g. Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are not allowed. The sole exception is the gearbox final drive (crownwheel) shaft axis and final drive shafts (half shafts). All change gears must be located in the case aft of the final drive.

B.12. Fuel Cells (Per Section 17., and 19.)

B.13. Fuel Capacity
41 lit. (10.8 gal) maximum.

B.14. Electrical
A self starter is mandatory, operated by the driver. Two stoplights and two taillights, each of at least fifteen (15) watts rating shall be operable.

B.15. Weight
1310 lbs., minimum with driver.

B.16. Windscreens are optional

B.17. Bulkheads and Cells
Fuel cells shall be isolated by means of bulkheads and so vented in case of spillage, leakage, or a failure of the cell that fuel and fumes will not pass into the driver or engine compartment or around any part of the exhaust system. No part of any oil or water tank shall be exposed to any part of the driver and passenger compartment. Safety fuel cells, as listed in Section 19., are required for cars registered after January 1, 1983. There shall be a liquid tight and fireproof bulkhead separating the fuel tank(s) from the cockpit.

C. SCCA SPEC RACER FORD

C.1. Definition

One design, fixed specifications, open cockpit, single seat sports racer with Roush/Ford 1.9 L engine. Cars are packaged and sold by SCCA Enterprises, Inc. All replacement parts are supplied through SCCA Enterprises, Inc., and shall be official SCCA Spec Racer Ford parts except where noted in C.3., also Motorcraft or Roush parts as noted. Cars must be assembled per SCCA Enterprises' Assembly Manual and Roush Ford Spec Racer Installation Instructions.

C.2. Safety Requirements

Car will be delivered from the manufacturer with approved safety equipment. Replaced items shall be supplied through SCCA Enterprises, except safety harnesses *and on-board fire systems* may be replaced by any other that conforms to GCR Section 17.

C.3. Maintenance and Repairs

It is permitted to perform routine maintenance and repairs as long as existing parts are in no way modified and replacement parts are official SCCA Spec Racer Ford parts. If any official SCCA Enterprises' or Roush seal is broken, by accident or intent, the procedures outlined under C.19., shall be followed. Parts with an Enterprises part number having the prefix "R10" are considered to be unrestricted, providing their dimensions are comparable. No other parts are to be considered "unrestricted" except where specified.

C.4. Chassis

NO MODIFICATIONS ALLOWED except as noted in these rules.

a. Chassis rub block. It is authorized to install up to eight (8) pads of any material to the underside of the frame to eliminate damage due to bottoming out. The pads shall be no larger than 1-1/2" wide x 2" long x 1" thick. If steel plates are used, they can be no larger than 1-1/2" wide x 8" long x 1/8" thick and fastened in at least two (2) places. They shall serve no other purpose. Carriage bolts may be used to fasten rub rails to the chassis.

   A steel plate of 1-1/2" wide x 1/8" thick x 14" long may be welded to the bottom of the frame below the rear shock mounting bracket.

b. Seat Mounts. It is required that a metal strap be installed on the right side of the seat between the bolt heads and the fiberglass side panel; this strap shall be 1" wide x 14" long and 1/8" minimum thickness. A flat washer of at least one (1) inch diameter shall be used under any other seat attachment point. The aluminum side bracket, P/N 1380927, is required. Alternate seat belt mounting points may be installed in accordance with Enterprises' drawing 1390022.

c. Steering Shaft Bracket. It is authorized to cleanly and smoothly cut off the unused portions of the steering shaft bracket and/or pad the remaining portion to prevent injury as long as this serves no other purpose.

d. Painting/Plating. The chassis may be painted any color(s). Aluminum parts may be polished, anodized, coated or painted.

Surface finishes such as plating or coating may be applied for corrosion protection. Any piece that is a closed assembly (i.e., upper control arm) shall have a 1/8" DIA hole drilled in a noncritical location to allow flushing of any entrapped plating fluids.

Post plating bakeout of four (4) hours at a temperature of 375 degrees F is recommended to prevent hydrogen embrittlement. Any chassis part may be plated except for: Suspension springs, front and rear sway bars.

C.5. Bodywork

NO MODIFICATIONS ALLOWED (except as specified)

a. Bodywork crash-damage may be repaired, but exterior dimensions, shapes, thicknesses, and profiles shall remain unaltered. The addition of material to increase rigidity and/or the weight is prohibited. Sections shall meet the following weight requirements:

	Minimum	Maximum
Front	35 lbs.	65 lbs.
Center	25 lbs.	N/A
Rear	30 lbs.	N/A

b. At-track repair of crash-damage may be completed, but the minimum and/or maximum weight requirements may not be exceeded.

c. A spring-type fastener may be used to replace the 1/4 turn fastener located to the rear of the front wheel.

d. The car may be painted any color(s), except primer.

e. It will be required that all cars display the following:

   1. The SCCA field logo on the front and both sides of the car.

   2. Four (4) inch high "SRF" class designation on both sides.

   3. Official tire manufacturer's decals per C.23. f.

   4. Official brake pad manufacturer's decal on both sides of the car if required by SCCA Enterprises.

f. The forward braces shall be padded per GCR Section 18., using any padding that conforms to the GCR, or SCCA Enterprises P/N 1380786.

g. Ballast plates may be manufactured or purchased providing:

   1. Ballast plates may be no more than 20 inches long, 10 inches wide or ½ inch thick.

   2. They shall be mounted in the same manner as the Enterprises' part.

   3. They shall be mounted only in approved locations.

   4. They shall be fastened securely with nuts on both ends.

h. Rub Rails - P/N 1380557 LH; P/N 1380558 RH, may be fabricated from .060" thick aluminum. Dimensions shall be 2-1/2" high x 3" wide x 72" long. Additional fasteners may be used.

i. Nose Pans - P/N 1380448 may be fabricated from .040" - .060" thick aluminum. Such nose pans must be dimensionally and functionally the same as to the original nose pan furnished by SCCA Enterprises and shall perform no other function.

j. Floor Pans - P/N 1380434, may be fabricated from .060" thick aluminum. Such floor pans shall be dimensionally and functionally the same as to the original floor pans furnished by SCCA Enterprises and shall perform no other function.

k. Optional Bodywork Modification:

Viewing the tail section of the car from behind, draw a vertical line at the left and right ends of the outer vents from the bottom edge of the bodywork up to a point two (2) inches below the crease at the lower edge of the vented panel. Make a vertical cut at each line. The horizontal cut is to be one (1) inch below the crease at the base of the vented panel. Leave a one (1) inch radius at each corner. Air Scoop (P/N F0190000) must be installed in conjunction with rear cutout per SCCA Enterprises installation instructions.

An alternate dash panel has been approved for use in Spec Racer Fords. The dash will be furnished by SCCA Enterprises only. P/N 180100 or 180101

C.6. Engine and Drivetrain

a. Engine

NO MODIFICATIONS ARE ALLOWED EXCEPT WHERE SPECIFICALLY AUTHORIZED WITHIN THESE RULES. This includes all fuel injection and engine management components, including exhaust, cooling, electrical and lubrication systems. All systems are subject to test procedures and must conform to OEM/ Roush specifications. All fluids, except fuel, are unrestricted.

Ford recommends SAE 5W-30 or 10W-30 engine oils and Dexron II transmission fluid.

Roush and SCCA Enterprises, Inc., seals on the engine, gearbox, and other components shall remain in place at all times.

Engine maintenance which is permitted includes the replacement, but not modification of external engine and engine systems parts.

All hose and harness routing and attachment is per ROUSH/FORD SPEC RACER INSTALLATION INSTRUCTIONS (RFSRII).

All rubber oil lines may be replaced with braided metal-covered (Aeroquip type/size eight) lines that utilize Aeroquip type/size 8 AN fittings. Hose clamps may be installed on the rubber oil lines.

A one-fourth (1/4) inch pipe thread hole may be placed in the top of the thermostat housing for installation of an air relief valve to facilitate filling of the cooling system.

b. Transmission
THE TRANSMISSION IS A SEALED UNIT. NO MODIFICATIONS ARE ALLOWED.

Transaxle/drivetrain work which is permitted includes replacement, but not modification, of axles, CV joints, clutch disc, pressure plate, flywheel, throw-out or pilot bearing, or transaxle assembly.

Any tampering or counterfeiting of the seals will render the transmission illegal for competition. Neither SCCA Enterprises, Inc., nor Roush Industries will be under any obligation to return the transmission to legal condition. No machining allowed.

C.7. Suspension
NO MODIFICATIONS ALLOWED. Adjustments are permitted within the limits of the suspension components. (See specifications - Section J.) No modification to the components is allowed, with the exception that a Zirk fitting may be installed on the upper rocker arms to lubricate the pivots.

Left rear lower control arm must be per RFSRII, and may be used on right side.

C.8. Brakes
NO MODIFICATIONS ALLOWED. Required front air ducts shall be installed. An extension may be welded to the side of the throttle pedal to improve heel-and-toe braking. Original rubber brake lines may be replaced with braided metal-covered (Aeroquip-type/size 3) brake lines. Replacement lines shall attach to all braking components with no modifications. Brake pad "anti-rattle" clips may be removed.

C.9. Shock Absorbers and Springs
NO MODIFICATIONS ALLOWED. Bump stop shall remain on shock but may be slit vertically to ease removal for shock adjustment. The same brand of

shock absorbers must be used in all shock absorber positions on the car.

All shock absorbers must be sealed by SCCA Enterprises. Prior to sealing, the shock absorbers will be rebuilt by SCCA Enterprises or its authorized rebuilder. Effective1/1/2001.

C.10. Steering
NO MODIFICATIONS ALLOWED. The steering rack may be shimmed with any combination of standard shims P/N 1380286 or P/N 1380287 to eliminate bump steer.

a. Steering wheel is unrestricted. A removable steering wheel is allowed. The steering wheel center web, flange, and rim shall be of a one piece construction. "Butterfly" steering wheels are not allowed.

b. Upper steering shaft may be modified to accept an alternate steering wheel and/or hub (if applicable).

C.11. Wheels (Only wheels supplied by SCCA Enterprises)
NO MODIFICATIONS or MACHINING ALLOWED except to mount valve stems. Wheels may be painted any color(s). Plating is allowed. All wheel bearings shall be run with grease (not oil), no special coating of the bearings is allowed, and the bearing grease seal shall be intact (unmodified). Wheel spacers are not allowed.

C.12. Fuel System
All changes from the Renault SR system are listed in the RFSRII and must be installed as directed therein, with no modifications.

a. All rubber fuel lines may be replaced with braided metal-covered (Aeroquip type/size six) lines that utilize Aeroquip type/size 6 AN fittings.

b. The fuel filter located in the fuel cell may be removed and replaced with an in-line filter, P/N FLIPR-ANG.

c. A "tee" fitting may be installed in the Aeroquip line between the fuel cell and the fuel pump to facilitate draining of the fuel cell.

C.13. Electrical System
NO MODIFICATIONS ALLOWED.

Wiring harnesses routing and attachments as per RFSRII.

The electrical system and ignition system is subject to testing procedures and must conform to OEM Roush specifications.

The EEC module is a sealed part and any tampering with the part or tampering and/or counterfeiting of the seals will render the part illegal for competition. Tampering and/or counterfeiting will also subject the driver to penalties under headings C.20.1., C.20.2., C.20.3., and C.20.4..

At any time during an SCCA sanctioned event it is possible that technical or scrutineering personnel will randomly remove and replace EEC modules or other components with other competitor's components or components which the technical or scrutineering personnel will provide.

C.14. Weight
The car shall weigh 1670 lbs. minimum, including the driver.

C.15. Battery
May be replaced with any battery of group No. U1. It shall remain in the same location.

C.16. Vehicle Configuration
All SCCA Spec Racer Ford cars shall comply to GCR Section 17., "Automobiles," with the following exceptions: Section 17.15., "Accumulators."

C.17. Updates
Provisions will be made for updates on all safety and mechanical improvements. Such updates will be effective when authorized by SCCA Enterprises, announced by the National Office, and published in SportsCar.

C.18. Vehicle Logbook
The Vehicle Logbook for each SCCA Spec Racer Ford remains the property of SCCA and will contain not only the record of technical inspections, but also the major maintenance performed and all transfers of ownership. The Vehicle Logbook number will be the same as the factory chassis number that is stamped on the right rear body mount plate. When the vehicle is sold, traded, or scrapped, the logbook shall be sent to SCCA Enterprises, Inc., 14550 E Easter Ave. Suite 400, Centennial, Colorado 80112. The logbook will be reissued to the new owner. When the logbook has been filled, a new one

shall be requested from SCCA Enterprises, Inc., in Centennial.

A FEE OF $200 WILL BE CHARGED FOR LOST LOGBOOKS.

The logbook shall be presented at scrutineering for each event entered. All SCCA Spec Racer Fords are subject to normal safety inspection. Each entrant is required to have in his possession at every race, a RFSRII book to aid scrutineers in identifying parts and correct configurations for each car. Additionally, scrutineers will check each official seal. A competitor may not be barred from competing at a specific event if a seal is broken, or damaged, but the part may be considered suspect and will be treated as such and will be noted in the logbook by the Scrutineer. If engine cam cover or oil pan seals are broken, damaged, or missing, the engine shall be removed and sent to SCCA Enterprises for testing and resealing at the competitor's cost prior to the next event.

C.19. Seals

SCCA Enterprises' seals and Roush seals on engine are required for all races. Any competitor who runs an event without all proper engine seals in the required locations shall have his engine removed and shipped to SCCA Enterprises for testing and sealing after that event. The competitor will be responsible for all cost incurred by this procedure regardless of the findings, and subject to penalty by the SOM if engine is found to be not as specified.

SCCA Enterprises, Inc., and Roush seals are required on all SPEC RACER FORD engines.

Any counterfeit engine seal found by an authorized representative of SCCA, Inc., or SCCA Enterprises, Inc., shall immediately render that engine illegal for further use, without need of dyno testing or inspection. SCCA Enterprises, Inc., and Roush Industries will not be under any obligation to bring an illegally sealed engine back to legal condition. Penalties shall include all of the following: C.20.1., C.20.2., C.20.3., and C.20.4.

C.20. Penalties (Specific to SCCA Spec Racer Fords)

If a competitor refuses to give his engine and/or transaxle units for testing per a request of the Chief Steward (GCR 6.11.), the following penalties will automatically be imposed:

a. Vehicle logbook will be impounded.

b. Disqualification from the event.

c. Suspension of SCCA competition privileges for thirty (30) days.

d. The car and drivetrain are suspended from competition until the unit(s) specified by the Chief Steward are replaced.

In a case where a competitor does comply with the Chief Steward's request to have an engine and/or transaxle tested and the impounded unit(s) are found legal, the SCCA will stand all the costs incurred for the testing, including shipping. Should the impounded unit(s) be found illegal, the following penalties will be imposed:

1. Disqualification from the event.

2. A fine of $250.00

3. Competition privileges will be suspended immediately, and the suspension will continue for a minimum of thirty (30) days after the date when all fines and costs are paid in full and the license is received by the Chairman SOM or the SCCA Topeka Office.

4. For a second illegal drivetrain offense, the competitor will be permanently disqualified from further SCCA Spec Racer Ford competition.

C.21. SCCA Spec Racer Ford Drivetrain Protest

a. Protests shall be filed per the GCR.

b. Protestor will specify the drivetrain item suspected (i.e., transmission or engine). The teardown bond to remove the motor and transmission is in three (3) parts:

1. Remove and replace motor and transmission - $400.00

2. Ship motor to Enterprises and test - $500.00

3. Protest Fee: Regional - $25.00, National - $50.00 Item 1 will be done by the CSR or other shop that is equipped for this type of work and will be paid directly.

c. SCCA Enterprises will inspect the motor, (item 2), and will notify the Chairman SOM as soon as possible as to the results.

d. Enterprises shall retain the evidence, and the SCCA shall retain the fee, (item 3), until the period for appeal has passed.

e. The Chairman SOM is required to inform SCCA Enterprises of the protest using the SR/SRF Protest Information Form.

If the protest proves to be valid and any appeal fails, the protest fee, (item 3), will be returned to the protestor. Also, the protestee will be required to reimburse the protestor the remaining fees ($900). The protestee will not be allowed to compete again until all costs are paid. If found legal, protestor forfeits fee (items 1 and 2) above.

f. If found illegal, competition privileges will be suspended immediately, and the suspension will continue for thirty (30) days after all costs are paid in full.

g. For a second illegal drivetrain offense, the competitor will be permanently disqualified from competing in SCCA Spec Racer Ford competition.

C.22. Accessory Items

a. Mirrors. The cars may be upgraded to the new mirrors, P/N 1390007, and may use mirror extension, P/N 1390023. The original mirrors furnished with the kits may be used.

b. Seat modifications are permitted to allow padding for the comfort and safety of the driver. Foaming of the seat is permitted. Taller drivers are encouraged to use this option to gain greater roll bar clearance. Additionally, the seat may be cut or slit to allow the seal belt to cross the driver's body and remain in proper alignment per the GCR, Section 17.. Any cuts in the seat should be reinforced to prevent splintering. The seat may be widened, but installation and location shall remain the same (See j. below).

c. Use of cool suits by drivers is authorized providing the water tank is securely mounted and approved through Tech. The car shall weigh 1670 lbs., with driver, but without the water tank.

d. Headrest pad may be reduced in thickness for driver's comfort to a minimum of one (1) inch.

e. Two-way radios may be installed in the car. All components shall be securely attached and approved by Tech inspection.

f. Racers tape may be used to repair crash damage, or as a precautionary means of securing the body retaining latches. Crash-damage is defined as having occurred during the current event, and the tape should be of an appropriate color if possible. Tape cannot close body seams.

g. Electronic memory tachometers from Auto Meter or Stack are allowed. NO MODIFICATION of the vehicle wiring harness is allowed. The power lead (+12V DC) shall be connected to the battery side of the ignition switch (not master switch).

h. A throttle return spring may be added at the foot pedal.

i. The addition of a metal floor pan in the area of the foot pedals/driver's feet, size shall be 27.87" x 21.56" x 1.25" made from sixteen (16) gauge metal.

j. Aluminum Racing Products (ARP) seat may be installed. If installed the bracket kit furnished with the seat shall be utilized and unmodified. Butler seat P/N 180268 may be installed.

k. Radiator - P/N 1380466, may be replaced with Modine P/N 1R698 or equivalent OEM manufacturer justified by one cross reference chart. The capacity, core thickness, etc., cannot be changed event if allowed under the above. The competitor is responsible for providing this documentation.

l. The center pedal divider may be removed in its entirety.

m. All gauges may be replaced with those of alternate manufacture. Replacement gauges shall fit in the existing dash and attach to the spec harness. Additional gauges may be added and shall fit in the existing dash, with all wiring inside the body, easily traceable, and separate from the existing harness. Gage fittings may be added.

n. Rod ends may be replaced with rod ends having specifications equal to or greater than the OEM supplied rod ends. Replacement rod ends shall be capable of being installed with no modifications to any original components.

o. Original rubber clutch lines may be replaced with braided metal-covered (Aeroquip-type) size three (3) lines. Replacement lines shall be the same length as the originals as supplied by SCCA Enterprises.

p. Master cylinder caps are free.

q. The exhaust system may be thermal-coated and/or wrapped.

r. Spark plug wires may be fire sleeved.

s. Chassis/Engine data gathering systems may be installed. The data gathering system must have a separate wiring harness with visible wire tracing ability.

t. It is forbidden to regroove tires.

u. Anti-roll bars (swaybars) may be disconnected, but not removed.

v. At the option of the owner a brake bias adjuster is permitted to be permanently installed and may be connected for all on-track activity. The control knob shall be installed in the cockpit in a position that is easily accessible to the driver. The Spec Racer Brake Bias Adjuster Kit, PN R0880914, will be available through SCCA Enterprises and shall be the only approved adjuster. The kit must be installed per the instructions that accompany the kit.

w. At the option of the owner, PN F0390522 SCCA Enterprises Muffler Kit may be installed per instructions that accompany the kit.

x. It is permitted to insulate engine compartment fluid hoses using heat sleeve or wrap.

y. Spark Plug wire looms are allowed.

z. Exhaust gasket, Ford part number FOFZ 9448 A is allowed.

aa. It is permitted to remove the gear from the end of the transmission speed sensor/dipstick

or replace that part with an appropriate metal plug.

bb. It is permitted to remove wiring harness plugs which are not used in the Ford conversion.

cc. Alternate thermostat allowed is Standt P/N 3582/BT382180. Installation of this thermostat requires replacing the rubber sealing gasket and housing to head gasket, both available at Ford dealers or aftermarket suppliers.

dd. It is recommended to use a 5.5 to 6 foot length of hose to run between the cam cover and air box, routing the hose forward and up along the roll bar support from the cam cover, before looping the vent hose back down to the air box. This is to keep oil from running directly from the engine's cam cover vent to the air filter.

ee. Alternate (recommended) location of the water temp gauge sender is as follows: In the "piccolo tube" where PN 1817 is previously installed, use a "tee" fitting with 3/8" NPT male threads on one end and 3/8" female threads on the other two ends. Install PN 1817 in one end of the tee and route the hoses to the expansion bottle as before. In the other port of the tee, install a 1/8" female to 3/8" NPT male adapter. Install the temp sender into the adapter.

ff. Aluminum coolant recovery bottle, as supplied by SCCA Enterprises. P/N 462800

gg. It is allowed to louver the right rear sidepod cover, or use oil cooler exhaust panel P/N 480505.

hh. Butler Head Restraint, Enterprises Part # 180267, may be used.

C.23. Mandatory Items

a. Radiator screen mesh with a one-fourth (1/4) inch minimum opening shall be fitted to serve the single function of protecting the radiator from rock and stone damage and shall be a minimum of one (1) inch from the radiator core.

b. Radiator baffle of aluminum, P/N 1380891, to close the gap between the body and the radiator shall be installed.

c. Front brake ducts are required. Four (4) inch

diameter clothes dryer or similar ducting, extending from the openings in the side baffles to the brake area shall be used. The material shall be securely fastened to the upper or lower pan area with adequate ties or safety wire sufficient to secure it.

d. Battery post covers are per GCR Section 17.

e. Body opening modifications are absolutely forbidden.

f. All cars shall display three (3) official Yokohama tire decals in the following locations: One (1) decal on the nose forward of the radiator outlets. One (1) large decal on each side of the vehicle on the vertical portion of the bodywork. All other tire decals shall be removed. All cars shall display three (3) official Ford decals in the following locations: One (1) large decal on each side of engine cover. One (1) small decal on nose section visible from directly in front of vehicle.

g. Tallman Kit, #1380905, is required on all cars.

h. All engine mounts, brackets, hoses, harnesses, and systems (see RFSRII) must be installed as per the RFSRII.

i. The NACA duct must be installed in the location specified and perform no other function than it's designed purpose.

j. The heat shield (P/N 1610) must be the original, unmodified Roush part and be installed per the RFSRII.

k. The shifter assembly and all linkages must be installed as per the RFSRII. It is permissible to alter the length of the shift lever handle above it's upper pivot to tailor to driver preference. It is permissible to use the appropriate Torrington or Apex joint in place of the original Borgeson joint at the specified installation location in the shift linkage.

l. Upper control arm reinforcement straps, PN R0208087, or updated replacement arms are required on all Spec Racers by 1/1/95.

m. The secondary filament of the brake light assembly shall be connected to a switch enabling use as rain light by 1/1/95.

n. Plastic surge tank shall be replaced with aluminum tank (Enterprises p/n 462800). Radiator cap (16 lbs., lever-operated relief) shall be added to aluminum surge tank. Aluminum catch can (Enterprises p/n 462801) required. A bleed tube from the thermostat housing to the surge tank shall be added. The water temperature sensor may be relocated to the surge tank." NOTE: These modifications are allowed, but not required, upon publication, but will be required 1/1/2002.

o. Alternator pulley (Enterprises p/n 902130) required 1/1/2001.

NO MODIFICATIONS to any component are allowed except as authorized above.

SPEC RACER FORD SPECIFICATIONS

CHASSIS

A. Vehicle Weight: 1670 lbs., minimum with driver.

B. Front Springs: Eibach P/N RO280387, 265-275 lbs./inch, wire diameter .438" 265-275 lbs./inches, wire diameter .425 inches (previously rear springs)

C. Rear Springs: Eibach P/N RO280388, 415-425 lbs./inch, wire diameter .486" Hyperco P/N RO 280389, 415-425 lbs./inch, wire diameter .486" (blue)

D. Anti-roll bar diameter: .56 inches.

E. Wheels: Front: 5.5 x 13 inches; Rear: 7.0 x 13 inches.

F. Tires: Dry: Yokohama A008 Spec Racer*, or Yokohama A048 Spec Racer*, Wet: Yokohama A008 Spec Racer, or Yokohama A021; Size: Front: 185/60R13, Rear: 205/60R13.

G. Brakes: Hawk Blue 9012 pads, Minimum Rotor Thickness 10.50 mm (0.4130 in.). Rubber caliper bushings may be replaced with bronze bushings P/N 1196185. Original caliper pistons may be replaced with vented caliper piston P/N 1196186

H. Shock Absorbers: Standard Koni shock, P/N 82X-2255-SPA1 with standard oil or Penske P/N 280396. The bump rubber provided with the shock shall be used in unmodified, stock condition. No Koni or alternate bump stop is permitted to be used with the Penske shock. Shortening the Penske shock bump rubber is allowed. All shock absorbers must be sealed by SCCA Enterprises. Prior to sealing, the

shock absorbers will be rebuilt by SCCA Enterprises or its authorized rebuilder. Effective1/1/2001.

I. Ground Clearance: Minimum is 2.75 inches measured at the frame on the front and rear axle lines without driver.

J. Suspension linkage adjustments: No more than 9/16 inches of the threads showing on any spherical rod ends. This is a mandatory requirement to ensure sufficient engagement of the threads in the adjustable linkages. It is not permissible to remove any jam nut on suspension links.

K. Negative camber shall not exceed 5 degrees front and rear.

ENGINES

A. SCCA Enterprises, Inc., and Roush Industries seals shall be intact in all locations. Two (2) each on cam cover, two (2) on the oil pan.

B. Cam timing: Marks shall line up.

C. Ports: No porting, polishing, etc..

D. EEC module is a Roush Spec Racer Ford specific part, sealed, P/N F0992012

E. Flywheel: Ford part #FOCZ-6375-A min. weight: 16lbs, 2oz
Clutch disc: Ford part #FICZ-7550-A
Pressure plate: Ford part #FOCZ-7563-A min. weight: 8 lbs.
Pulley: Ford part #FOCZ-6316-A

F. Spark plugs: ONLY Motorcraft AGSF 24 C or AGSF 34 C

G. Oil filter: ONLY Motorcraft FL-400 Series

H. Air Filter: ONLY Motorcraft #FA-1031

I. PCV Valve: ONLY Motorcraft #EV-147

TRANSMISSION

A. Seals: Seals intact, SCCA Enterprises and Roush.

B. Gear Ratios: STD

1st 3.42 :	1
2nd 1.84 :	1
3rd 1.29 :	1
4th .97 :	1
5th .73 :	1

Final Drive Ratio: 3.62 : 1 No limited Slip

BODYWORK
NOSE-ON CAR
Length at center: 62″ +/- 1/2″
Width at front axle centerline: 64-1/2″ +/- 1/2″

NOSE-OFF CAR
Height at axle centerline: Minimum 21-1/4″ (measured with rigid straightedge across tops of fenders)

CENTER-ON CAR
Height from side pod floor to top of leading edge behind center of front tire: 19″ +/- 1/4″

Cockpit opening length from firewall center behind seat to center top of opening lip: 37-3/4″ +/- 1/4″

TAIL-ON CAR
Width at rear axle center: 66″ +/- 1/2″
Length at center: 43-1/4″ +/- 1/4″

TAIL-OFF CAR
Height to top of rear lip: 16 1/8″ +/- 1/2″
Openings on rear panel:
Outer: 9-7/8″ Maximum x 1″ Maximum
Inner: 18-1/2″ x 1″ Maximum

D. Ford-Cosworth YAC Series 2 Liter Engine Specifications for CSR

The Ford-Cosworth YAC series 2-liter, dual overhead camshaft, 16-valve engine—block casting number 200—with nominal bore 90.82mm and stroke of 77.05mm shall be allowed in CSR cars, subject to the restrictions in this section.

Production tolerances are permitted providing the total swept volume does not exceed 2000cc.

1. a. Cylinder Head Part No. YB 8069. No modification to the cylinder head is allowed. No polishing or reprofiling is permitted. The standard Cosworth Manufacturing finish must remain intact.

   b. The cylinder head face may be machined in order to effect a repair or to achieve the

required cylinder head volume.

2. a. Inlet Manifold: Use only Cosworth Part No. PP6137.

   b. The removal of material from the inner surfaces of the manifold is allowable up to a dimension of 1″ ± .010.

3. a. Cylinder block: Use only Part No. YB 0559.

   b. Cylinder bore 3.5756″ - 3.5752″ (90.820mm - 90.81mm).

   c. The block may be machined to maintain deck height.

   d. Re-sleeving of block to original size is allowed.

4. Head Gasket: Use only Cosworth Part No. YB 1261.

5. a. Camshafts: Use only Cosworth Parts No. YB 1231 (inlet) and YB 1232 (exhaust) with no modifications. Woodruff keys may not be removed. Offset keys may be utilized to achieve the correct timing. It is expressly prohibited to modify or regrind these camshafts.

   b. Cam Pulleys: Use only Cosworth Part No. YB 0197.

   c. Valve lifts and timings:
   A = 38.0 +/- .1mm (1.496″ +/- .004″)
   B = 47.5 +/- .2mm (1.870″ +/- .008″)
   (Both inlet and exhaust.)

   Cam Lift Tables: Inlet and Exhaust

Angle from nose	Lift (inches)	Angle from nose	Lift (inches)
0	0.374	360	0.374
5	0.371	355	0.371
10	0.361	350	0.361
15	0.344	345	0.344
20	0.321	340	0.321
25	0.291	335	0.291
30	0.256	330	0.256
35	0.216	325	0.216
40	0.172	320	0.172
45	0.124	315	0.123
50	0.075	310	0.075
55	0.031	305	0.032
60	0.005	300	0.009
65	0	295	0.003

Tolerance +/- 0.004″, +/- 1

6. Valve Gear

   a. Inlet valve: Use only Cosworth Part No. YB 0016. Maximum head diameter 1.386" (35.2mm).

      Valve stem diameter, maximum 7 mm.
      Overall length 4.161" +/- .008" (105.68mm +/- .2mm).

   b. Exhaust valve: Use only Cosworth Part No YB 0600. Maximum head diameter 1.228" (31.2mm).

      Valve stem diameter, maximum 7mm.

      Overall length 4.167" +/- .008" (105.85mm +/- .2mm).

   c. Valve spring (inlet & exhaust): Use only Cosworth Part No. FB1008.

      Spring load at 1.260" maximum (32.0mm) -- 67.4 +/-3.4 lbs 300N (+/-15N).

      Spring load at .886" maximum (22.5mm) -- 139.3 +/-5.6 lbs 620N (+/-25N).

      Free length 1.654".

      OPTIONAL SPRING (inlet and exhaust) Cosworth Part No. YB 1396.

      Spring load at 1.169" (29.7mm) -59.7 +/-4.5 lb 266N +/- 20N.

      Spring load at .795" (20.2mm) -168.9 +/-6.7 lb 768N +/- 30N.

      Free length 1.43"

   d. Valve clearance: Inlet 0.00", Exhaust 0.00"

   e. Hydraulic tappets: Use only Cosworth Part No. FB0450. This part may not be modified in any way.

7. a. Pistons: Use only Cosworth Part No. PA1393, unmodified in any way. Flat-top pistons only.

   b. Piston ring-top: Use only Cosworth Part No. PP3976.

      Piston ring-second: Use only Cosworth Part No. PP3481.

Piston ring-oil control: Use only Cosworth Part No. PP3710.

No changes or modifications are allowed to Cosworth specified rings.

c. Gudgeon pin: Use only Cosworth Part No. PA0248. Weight 126.7g +/-0.5g. Distance from gudgeon pin center line to top of piston crown 1.606" +/- .01" (40.8mm +/-.254mm).

d. It is permissible to remove material from the piston in order to permit balancing and obtain the desired deck height. Material may only be removed from the internal surfaces. All external surfaces, dimensions and profiles must remain standard apart from the piston crown, which is subject to skimming in order to achieve the desired deck height.

e. Bare minimum weight (no rings, circlips or gudgeon pin): 395g (.870 lb).

f. Maximum compression ratio 10.75:1 to be controlled as follows:

1. Combustion chamber volume -- 46.00cc +/- 1cc (2.807 CI +/- .061 CI).

2. Minimum compressed thickness of head gasket 0.0484" (.123mm).

3. Maximum distance between top of piston at TDC and gasket face of block 0.016" +/- .005" (.4064mm +/- .127mm).

8. Crankshaft: Use only Cosworth Part No. YB 0905.

a. It is permissible to remove material from the crankshaft for the purposes of balancing only.

b. Crankshaft minimum weight 31.958 lbs (14.5kg).

c. Maximum stroke 3.0315" +/- .002" (77.00mm +/- .05mm).

d. Main journal size 2.2431"-2.2425" (56.975mm-56.952mm). Allowable undersizes:
.25mm (0.0098").
.50mm (0.0197").

e. Big end journal size 2.0470″-2.0463″ (51.003mm-51.997mm). Allowable undersizes:
.25mm (0.0098″).
.50mm (0.0197″).

9. Connecting rods: Use only Cosworth Part No. YB1219. It is permissible to remove material for the purpose of balancing only.

   a. Rod center distance 5.059″ =/- .005″ (128.5mm +/- .127mm).

   b. Minimum weight 1.472 lbs (668g).

10. Carburetors: Use only Weber 45DCOE carburetors.

    a. Carburetor bodies and throttle plates shall be unmodified.

    b. Jets are free.

    c. Distance from inlet manifold face to carburetor mating face 0.300″ +/- .1″.

    d. Anti-surge pipes may be fitted.

11. Ignition system: Distributors are unrestricted providing they retain the original drive and location. The distributor is defined as the component that triggers, times and distributes the L.T. and H.T. ignition currents. It is not permitted to fit/use components on the engine to trigger, time or distribute the ignition current.

12. The addition of material, by any means, to a component is prohibited.

13. Engines will be mounted upright and aligned fore and aft in the chassis.

14. Balancing of reciprocating and rotating parts is permitted only by removal of metal from locations so provided by the manufacturer.

15. Exhaust systems and manifold are free; within section 12 of the GCR.

16. Lubrication system is unrestricted; dry sump is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump.

17. Oil coolers are unrestricted.

18. Cam Cover: Only the Cosworth supplied cam cover may be used. No modifications to the livery are allowed.

19. A liquid cooling system is mandatory, but radiator and water pump are unrestricted. The radiator, if housed in or incorporating a cowl airscoop deflector, must comply with body regulations.

20. Fuel pump: Mechanical or electrical fuel pumps are allowed.

21. The crankcase breather may be altered or removed, but all breathers must discharge into a catch tank of at least one quart capacity.

22. Mechanical tachometer drives may be fitted.

23. The use of non-standard replacement fasteners, nuts, bolts, screws, studs, and washers that are not connected with or that do not support any moving parts of the engine is permitted.

24. Flywheels and clutches: Clutches are free with the exception of carbon-fiber materials; minimum clutch diameter 7". Flywheels are free with a minimum weight of 8 lbs with ring gear and dowels. The flywheel may be machined to achieve minimum weight.

25. The only modifications or additions specifically covered by these regulations are permitted. All engine components not covered by these regulations must remain completely standard and unmodified.

E. Shelby CAN AM Racer, Classed in CSR
Rules Governing The Shelby CAN AM Racer

E.1. Definition
One design, fixed specifications, open cockpit, single seat sports racer.

E.2. Safety Requirements
Per GCR and SRCS minimums

E.3. Maintenance and Repairs
It is permitted to perform routine maintenance and repairs.

E.4. Chassis
NO MODIFICATIONS ALLOWED except as noted herein.

Painting/Plating. The chassis may be painted any color(s). Aluminum parts may be polished or anodized. Surface finishes such as plating may be applied for corrosion protection. Any chassis piece that is a closed assembly shall have a l/8" DIA hole drilled in a noncritical location to allow flushing of any entrapped plating fluids. Post plating bakeout of four (4) hours at a temperature of 375 degrees F., is recommended to prevent hydrogen embrittlement. A flat sheet metal panel may be stitch-welded to the frame beneath the seat and feet area. The maximum thickness allowed is eighteen (18) gauge (.049"). The width of the panel may not exceed the width of the frame. Each panel must have three (3) 1/4" inspection holes.

E.5. Bodywork
NO MODIFICATIONS ALLOWED

a. Bodywork crash-damage may be repaired, but exterior dimensions, shapes, thicknesses, and profiles shall remain unaltered. The addition of material to increase rigidity and/or the weight is prohibited. Body sections (complete) shall meet the following weight requirements.

Section	Minimum	Maximum
Front	33 lbs.	50 lbs.
Center	55 lbs.	96 lbs.
Rear	45 lbs.	64 lbs.

b. At-track repair of crash-damage that does not conform to the above specifications will be allowed if replacement parts are not immediately available. This waiver will be noted in the vehicle logbook and will be good for that ONE EVENT ONLY.

c. The car may be painted any color(s).

d. It will be required that all cars display the following:

1. The SCCA field logo on the front and each side of the car.

2. Class designation, CSR, per GCR Section 17.5.2.

3. Additional seven (7) inch high numbers are required on the outside of the wing end plates.

e. The forward roll bar braces shall be padded per GCR Section 18.

f. The rear lower corners of the fiberglass tail section may be cut off on an angle. The maximum that may be removed is four (4) inches high by sixteen (16) inches forward, measured from the rear corner. A reinforcing lip shall be installed on the inside of the panel.

E.6. Engine and Drivetrain

a. Engine

NO MODIFICATIONS ALLOWED except as noted herein.

This includes the fuel injection, induction, exhaust, cooling, electrical, and lubrication systems. All fluids are unrestricted. Engine maintenance which is permitted includes the replacement, but not modification, of external engine parts such as: spark plugs, oil filter, ignition parts, fuel pump, water pump, dry sump system, alternator/ water pump belt, hoses, valve cover, and oil pan gaskets. Exhaust system may be painted or plated. Oil filters may be replaced with an OEM equivalent. An alternate push-pull throttle cable, and necessary brackets are allowed.

b. Cooling

All coolers may be blocked off a maximum of fifty (50) percent to reach operating temperature.

c. Transmission

NO MODIFICATIONS ARE ALLOWED

Maintenance involving machine work of any type is not allowed, with the exception that welding repairs to broken cases are approved as long as the welding serves no other purpose. Internal transaxle work is strictly prohibited. This includes, but is not limited to, the replacement, modification, assembly, or disassembly, of internal transmission parts such as bearings, synchronizers, shifter mechanisms, etc.

Transaxle/drivetrain work which is permitted includes replacement, but not modification, of axles, CV joints, clutch disc, pressure plate, flywheel, throwout or pilot bearing, gear sets, or transaxle assembly.

E.7. Suspension

NO MODIFICATIONS ALLOWED except as noted herein.

a. Adjustments are permitted within the limits of the suspension components. (See Specifications)

b. Painting/Plating. Suspension parts may be painted any color(s). Aluminum parts may be polished or anodized. Surface finishes such as plating may be applied for corrosion protection. Any suspension piece that is a closed assembly shall have a l/8" DIA hole drilled in a noncritical location to allow flushing of any entrapped plating fluids. Post plating bakeout of four (4) hours at a temperature of 375 degrees F is recommended to prevent hydrogen embrittlement.

c. The uprights may be sleeved with a bushing in the ball post area for repair.

d. Anti-roll bar (swaybar) may be disconnected, but not removed.

e. Rod ends on lower rear control arms may be upgraded to a half (1/2) inch shanked rod end (P/N CS 1691). The rod end attaching bolt hole diameter must remain 7/16".

E.8. Brakes
NO MODIFICATIONS ALLOWED except as noted herein.

E.9. Springs
NO MODIFICATIONS ALLOWED

Factory authorized parts only. (See specifications) Helper springs beneath the normal springs are allowed, but must compress completely when the car sits on its wheels without driver.

E.10. Steering
NO MODIFICATIONS ALLOWED

Steering arms may be reinforced and made out of steel or aluminum, providing the geometry remains the same as original.

E.11. Wheels
NO MODIFICATIONS ALLOWED

E.12. Fuel System
NO MODIFICATIONS ALLOWED except as noted herein.

A returnless fuel system may be used as an alternate. The following modifications must be

made when using returnless system:

a. Fuel return line must be removed.

b. Fuel rail regulator must be removed and plugged.

c. Vacuum line to fuel rail regulator must be removed, and plugged at source.

d. Electrical connectors may be changed.

E.13. Electrical System
NO MODIFICATIONS ALLOWED

Battery shall remain in the same location. A battery of any size may be used.

E.14. Weight
The car shall weigh 1980 lbs., minimum, including the driver.

E.15. Vehicle Configuration
All Shelby CAN AM cars shall comply to GCR Section 17., "Automobiles," with the following exceptions: 17.15., "Accumulators."

E.16. Updates
Provisions will be made for updates on all safety and mechanical improvements. Such updates will be effective when announced by the SCCA National Office and published in SportsCar.

E.17. Vehicle Logbook
Per Section 17.3 of the GCR (Can-Am Logbooks are no longer valid and shall be replaced with SCCA Club Racing Logbooks)

E.18. Accessory Items

a. Use of cool suits by drivers is authorized providing the water tank is securely mounted and approved by Tech. The car shall meet minimum weight with driver, but without the water tank.

b. Two-way radios and video cameras may be installed in the car. All components shall be securely attached and approved by Tech inspection.

c. The seam between the splitter and the nose bodywork may be taped completely using duct tape. Duct tape may be used to repair crash damage, or as a precautionary means

of securing the body retaining latches. Crash-damage is defined as having occurred during the current event, and the tape should be of an appropriate color if possible.

d. Recording tachometers are allowed.

e. Anti-skid material may be added to pedal surfaces and floor of car.

f. Alternate diameter steering wheel and/or quick disconnect steering wheel system is allowed as long as no other changes are made to facilitate installation.

g. Chassis run blocks: Size = 5" x 1-1/2" x 1/4", material unrestricted, quantity eight (8) maximum.

h. Mirrors and their attachment/mounting position are unrestricted.

i. Seat modifications (for comfort and/or size) are allowed.

j. Fasteners (including body) are unrestricted except for size.

k. An oil pressure warning light may be installed.

l. Additional oil filter(s) are allowed, any brand, any location, except that only a screen type filter may be installed in the suction lines.

m. Additional body supports, such as a pad underneath the front corner on top of the crush box or a bracket on the side of the crush box is allowed.

n. A stone shield behind the front wheels may be added, and must be mounted vertically against the bodywork, behind the wheel. A stone shield may be added behind the radiator tank and on the bottom of the radiator at the fiberglass duct. (May not serve any other purposes.)

o. An extension on the floor pan of 6" x 40" as a stone guard/ belt protector may be added.

p. The dead pedal and throttle pedal brackets may be modified for driver comfort.

q. Additional gauges may be added.

r. The use of data acquisition systems is permitted.

s. A bleed fitting may be added to the thermostat housing.

t. Additional belt guards may be added. Additional fences on the pulleys are allowed. The only machining allowed to the pulley is for mounting the fences. Alternate pulley diameters, bearings, or other modifications are not allowed.

u. The plexiglass windscreen may be removed, but not modified.

v. A transmission filter may be added.

w. Liquid lines (oil, fuel, water) may be changed to metal braided lines.

x. Bosch fuel pump P/N GFP216 may be used in addition to or in place of the original fuel pump.

Shelby CAN AM Specifications

CHASSIS

A. Vehicle Weight: 1980 lbs., minimum with driver.

B. Springs: I.D.: 2.55, Free Length: 8.00

EIBACH P/N	WIRE DIA.
800-250-0400	11.50mm
800-250-0450	12.00mm
800-250-0500	12.25mm
800-250-0550	12.75mm
800-250-0600	13.00mm
800-250-0650	13.25mm
800-250-0700	13.50mm
800-250-0800	14.00mm
800-250-0900	14.50mm
800-250-1000	15.00mm

C. Anti-roll bar diameter: 1-1/4 x 0.065, 1-1/4 x 0.083, 1-1/4 x 0.095, 1-1/4 x 0.120

D. Wheels: Front: 11 x 16, Rear: 12 x 16

E. Tires: Shelby Can-Am cars may run any suitable tire that fits the specified wheels.

F. Brakes:

1. Brake Pads: Unrestricted

2. Rotors: 12.18 x 1.25 vented

3. Calipers: 1.75 x 4 piston (JFZ or Wilwood)

G. Shock Absorbers: Unrestricted

H. Suspension Linkage Adjustments: No more than 9/16 inches of the threads showing on any spherical rod ends and all suspension fasteners. This is a mandatory requirement to ensure sufficient engagement of the threads in the adjustable linkages.

I. Master Cylinders: Brakes: 7/8″ or 1″
Clutch: 5/8″

ENGINES

A. Cam Specs:
Checking Lift - .006″
Maximum Valve Lift - .500″
Lobe centerline - 104°
Duration - 284°
Int open - 38° BTDC
Int close - 66° ABDC
Exhaust open - 66° BBDC
Exhaust closed - 38° ATDC

B. Cam Sprocket: Sprocket keyway and key in original configurations.

C. Ports: Intake manifold and/or cylinder head - shall meet templates and volume.

D. Flywheel: Minimum weight is 18 lbs., including ring gear, no machining.

E. Pressure Plate: Minimum weight is 10 lbs., no machining. Manufactured by LUK.

F. Clutch Disc: Minimum weight is 2.50 lbs. Manufactured by LUK.

G. Spark Plugs: Unrestricted

H. Muffler: Per Section 12 of the GCR

I. Fuel Pressure: (Idle)
Return System: Minimum 42 PSI, Maximum 51 PSI
(with vacuum disconnected)
Returnless System: Minimum 45 PSI, Maximum 50 PSI

TRANSMISSION

A. Gear Ratios: 2.38:1, 2.08:1, 1.57:1, 1.29:1, 1.22:1, 1.15:1, 1.00:1

Final Drive Ratio: 3.22:1, 3.05:1

Bevel Gear Ratio : 1.16:1

F. SCCA Oldsmobile Sports Racer, Classed in CSR

F.1. Definition

Open cockpit, two seater, rear engine sports racing car using Oldsmobile Quad 4 LD2 1990 or later engine.

F.2. Safety Requirements

Unless superseded by these regulations, all safety equipment shall comply with the appropriate Section of the GCR.

A quick release coupling on the steering wheel is mandatory.

F.3. Chassis

a. Unrestricted except the use of carbon fiber composite structural materials is prohibited.

No engine oil or water tubes are permitted within the cockpit.

b. It is the intent of these rules to minimize the use of "ground effects" to achieve aerodynamic downforce on the vehicle. Thus, the chassis and body surfaces which comprise the underside of the car shall not deviate from a flat plane by more than 2.5cm (1"). For this purpose the underside is defined as being within the rectangular area along the length between the front edge of the front wheels and the rear edge of the rear wheels and across the outside of the front and rear rims. No aerodynamic devices (e.g., "skirts," body sides, etc.) shall extend below this surface anywhere on the car to the rear of the front wheels. Any attachments to the bottom of the sidepod may not extend more than 1cm in a horizontal direction and may not have an end plate or fence attached.

c. Modification and/or deletion of the chassis protective or deformable structures is not allowed.

d. Rub blocks are permitted on the bottom of the chassis.

F.4. Bodywork Including Airfoils

a. The body shall provide an opening for a cockpit and cover all mechanical components, including wheels and suspension members except for the exhaust pipe, induction system, and camshaft cover which may protrude through the engine cover.

b. Aerodynamic devices conforming to SRCS 17.1.5.A.5.b are permitted. Between the front and rear axle lines the body shall:

1. Maintain over a minimum of seventy (70) percent of the length of the wheelbase and over a depth of 20cm a minimum body width exceeding the greatest overall width across the tires less 15cm.

2. Exceed in height the top of the tires over a width of 50cm (19.7") excepting only cockpit and engine openings. The bodywork shall cover the full width of the tires around the minimum arc of 120 degrees which shall extend forward of the axle centerline on the front and rear wheels and behind the rear wheels to at least 7.5cm (2.95") above the axle centerline.

c. The body above chassis level in the region of the cockpit shall not be reinforced in any way which would complicate or hinder the rescue of the driver.

d. The cockpit opening as seen in plan view shall be symmetrical about the longitudinal axis of the car and shall be large enough for a horizontal rectangle of 80cm (31.5") by 40cm (15.75") to be passed through it with its minor axis aligned with the vehicle's longitudinal axis.

e. The space for the seats shall be at least 40cm (15.75") wide each and be positioned symmetrically about the vehicle's longitudinal axis.

There shall be at least a 25cm (9.9") wide foot space for both driver and passenger measured at the pedals. The passenger space shall provide as much seat space, elbow room, and foot and leg room in terms of length, width,

and height as that of the driver. Battery boxes and fire systems are permitted in the passenger seat area.

f. Maximum height with driver aboard, excluding safety rollover bar and mirrors, shall not exceed 90cm (35.4") at any time, measured from the ground.

g. Maximum vehicle length forward of the front axle centerline = 84cm. Maximum vehicle length rear of rear axle centerline = 94cm.

h. Airfoils and/or spoilers are permitted.

1. Any airfoil or spoiler at the front of the car fitted at or below the bottom of the chassis shall be mounted in a horizontal plane.

   This airfoil or spoiler may only be adjusted in a horizontal plane (within the limits of the maximum vehicle forward length).

2. Vertical airfoils ("fences" or splitters) are allowed. The maximum height of any vertical airfoil shall not be more than 10cm above the bodywork. Vertical airfoils shall not be allowed in the area to the rear of the vertical line drawn through the centerline of the front wheels nor forward of the main roll bar hoop. The vertical airfoils shall have a minimum 1cm radius on any exposed corner.

3. An airfoil or spoiler may be fitted at the rear of the car provided it is a flat surface, vertically mounted, continuous with the rear body section. The rear airfoil or spoiler may be adjustable with twenty degrees (+/- 20°) maximum from vertical, but may not change adjustment, move, flex, or deform at speed.

4. There shall be no gaps between any front or rear air foil or spoiler and the bodywork. There shall be no unducted forward facing gaps or openings in the bodywork. All ducted air for heat exchangers shall pass through those heat exchangers.

F.5. ENGINE
THE ONLY PERMITTED ENGINE IS THE 1990 OR LATER OLDSMOBILE QUAD 4 LD2.

Only modifications or additions specifically covered by these regulations are permitted. All engine components not covered or addressed in these regulations shall remain completely standard, unmodified, and functional. The official Oldsmobile Shop Manual will be used to provide clarification of engine specifications and preparation items not directly addressed by existing rules. In the event of a discrepancy between the specifications and the Oldsmobile Shop Manual, these specifications will take precedence.

a. Camshafts and direct acting lifter assemblies shall not be modified. They shall be as manufactured and ground by Oldsmobile. Redrilling of the dowel hole in the camshaft sprockets to attain the required camshaft timing is allowed. It is also allowed to add an offset bushing to this drilling in order to attain the required camshaft timing specifications.

Intake Valve Opens:	20° to 22° BTDC
Intake Valve Closed:	44° to 47° ABDC
Exhaust Valve Opens:	55° to 58° BBDC
Exhaust Valve Closed:	9° to 11° ATDC
Intake Center Line:	101° to 104° ATDC
Exhaust Center Line:	112° to 115° BTDC
Intake Cam Lift:	.75″
Exhaust Cam Lift:	.375″
Intake and Exhaust Base Circle:	1.420″

b. A standard unmodified crankshaft shall be used. Only machining necessary for balancing is permitted. Tuftriding, Parkerizing, shot peening, shot blasting, and polishing are permitted. Minimum weight is 41.0 lbs. (18.57kg). An unmodified LGO crankshaft damper, Oldsmobile P/N 22545438, shall be used. Damper retaining bolt may be modified or replaced for oil pump drive.

c. A single piece, steel flywheel with integral ring gear shall be used. Minimum weight is 6.5 lbs. No carbon clutches are allowed. Clutches are otherwise unrestricted.

d. Maximum compression ratio will be controlled to: 9.5:1 +/- 0.3 as follows:

   1. Minimum cylinder head combustion chamber volume is 46.0cc (not including head gasket). Polishing and/or tooling of the cylinder head for the sole purpose

of attaining the required combustion chamber volume is permitted.

2. Standard unmodified Oldsmobile head gasket, P/N 22535484 or 24572941, shall be used. Cylinder head refinishing per Oldsmobile Dealer Technical Bulletin 91-T-209 is allowed.

3. While the production specification is +/- 0.1mm, pistons shall not protrude above the cylinder deck at TDC.

4. Minimum piston dish volume is 9.0cc.

e. Light machining of the head for purposes of clean up and casting flash removal is permitted. Reshaping of inlet or exhaust ports is prohibited. Addition of material in any form is prohibited. Maximum intake port volume is 128.0cc. Maximum exhaust port volume is 83.5cc. The distance between the valve centers and the angles of the valves shall not be altered.

f. Pistons shall be standard Oldsmobile production pistons, unmodified in any way except by the machining necessary for balancing. To achieve balancing, material may be removed from the internal surfaces at any location. One piston shall remain as produced.

The following combinations are permitted:

1. Piston, pin, and retainers, P/N 22548435, minimum permitted weight = 500 grams.

2. Piston, pin, and retainers, P/N 22551560, minimum permitted weight = 500 grams.

   All three piston rings shall be fitted. Any replacement rings may be used, but all production dimensions shall be maintained.

g. Valves shall remain standard Oldsmobile parts, no reworking, lightening, or polishing is permitted. The following are repair/regrind specifications.

Intake Face Angle:	44.0°
Intake Seat Angle:	46.0°
Exhaust Face Angle:	44.5°
Exhaust Seat Angle:	44.5°
Face Diameter Intake:	36.37 - 36.63mm
Face Diameter Exhaust:	31.37 - 31.63mm
Intake Valve Stem Diameter:	6.972 - 6.990mm
Exhaust Valve Stem Diameter:	6.959 - 6.977mm
Intake Valve Min. Weight:	68 gm
Exhaust Valve Min. Weight:	56 gm

h. Connecting rods shall be standard Oldsmobile parts. Machining is permitted to remove metal from the balancing bosses to achieve balance only. One rod will remain untouched. Minimum weight = 680 grams (includes nuts and bolts). Note that 1992 LD2 rods are not bushed for the piston pin. It is permitted to fit the earlier production pin bushing to these rods or to use earlier rods in a 1992 engine.

i. Engines will be mounted upright and aligned fore and aft in the chassis.

j. The only allowable intake manifold is the Oldsmobile Rocket Parts, P/N 22551677. No modifications are permitted internally or externally. All unused vacuum ports shall be plugged with pipe plugs and sealer.

1. Engine sensors, injectors, and fuel pressure regulator are as listed below and shall not be modified or tampered with in any way:

Manifold Air Temperature (MAT)	P/N 25036979
Coolant Temperature	P/N 25036628 or P/N 25036979
Manifold Absolute Pressure (MAP)	P/N 16137039
Throttle Position Sensor (TPS)	P/N 17087655
Oxygen Sensor (O_2)	P/N 25105107 or P/N 25105901
Fuel Pressure Regulator 1988-90	P/N 1711247
or Bosch	P/N0-0280-160-001
Fuel Pressure Regulator1991-	P/N 17084514
Or Bosch	P/N0-0280-160-001
Injector (3.3 GPS - 4%)	P/N 17084614
Crankshaft Position Sensor	P/N 1103703

2. *Throttle body may be bored to 60mm.* Throttle body shall have vacuum ports plugged by removing pipes and installing pressed fit plugs with Loctite® or other suitable sealer. Throttle linkage is unrestricted. Idle air control motor shall

be functional at all times. Any air cleaner may be attached to the throttle body. The outer diameter of the throttle body shall be maintained inside the air cleaner duct work for a minimum of five (5) centimeters.

k. The addition of material or coatings by any means to any component is prohibited.

l. It is permitted, as a means of repair, to replace damaged valve seats by replacement cast iron valve seats and damaged cylinder bores by replacement cast iron cylinder liners.

Valve guides may be replaced with cast iron or bronze, all to standard dimensions.

m. Balancing of reciprocating and rotating parts is permitted only by removal of metal from locations so provided by manufacturer.

n. Standard valve spring retainers shall be used, and only single valve springs are permitted. Shims are permitted. Valve springs are unrestricted, but shall not exceed the following loads:

Valve Closed: 80 lbs. Valve Open: 190 lbs.

o. Exhaust System: Primary header pipes not to exceed 28" maximum length. Must meet 103db per Section 12.2 of GCR.

p. Lubrication system internal to the block and head shall remain as produced. A dry sump system is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump and attachment of the system plumbing.

q. Oil coolers and filters are unrestricted.

r. A liquid cooling system is mandatory; radiator is unrestricted. Oldsmobile Water Pump, P/N 24570464, shall not be modified. The radiator, if housed in or incorporating a cowl air-scoop deflector shall comply with body regulations. A minimum 190° F thermostat is mandatory. Two (2) 5/32" bypass holes shall be drilled in the thermostat. Thermostat housing is unrestricted.

s. Only a single fuel pump may be used, maximum pressure of 48 psi measured at the

fuel rail. A hole may be drilled in the fuel rail to allow a fuel pressure gauge to be fitted. An unrestricted return line is required. Minimum size shall be AN (-6). Flow rate for fuel pump shall be between thirteen (13) gmps and thirty (30) gmps at 350 kpa. Any injector may be fitted provided no modification (either electrical or mechanical) is required.

t. Ignition system is production. It is not permitted to alter any component of the system. AC FR1LS or equivalent spark plugs are suggested.

u. Cylinder head to block, intake manifold to cylinder head, and throttle body to intake manifold gaskets shall be standard Oldsmobile parts for this engine. Other gaskets and seals are unrestricted. No unmetered air to engine is allowed.

v. Oil pump, fan, and alternator drive pulleys are unrestricted.

w. The crankcase breather shall discharge into a catch tank of a minimum one (1) quart capacity.

x. Mechanical tachometer drives may be fitted.

y. Alternators are mandatory. Minimum alternator output shall be thirty (30) amps.

z. Standard oversize and undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.

aa. The use of nonstandard fasteners, nuts, bolts, screws, studs, and washers which are not connected with or which do not support any moving parts of the engine is permitted.

bb. The Wiring Harness, P/N 22551578, shall remain unaltered except to repair damaged wires or connectors. Inline resistors, diodes, or addition of other electrical components are specifically prohibited.

cc. Only the specified Electronic Control Module (ECM) shall be used, without modification except that any prom may be used. It is permissible to have the power to the ECM bypass the Master Switch. The ECM shall

be mounted to provide easy access by the Technical Inspectors.

dd. Any fuel meeting GCR 17.4.1 may be used.

ee. Any electrically operated on-board starter may be used. Block machining necessary for starter installation and block attachment to bell housing is allowed as long as it serves no other purpose.

F.6. SUSPENSION

All parts shall be of steel or ferrous material, with the exception of hubs, hub adapters, and bushes. Front and rear hub carrier material shall be steel or aluminum alloy. Titanium is prohibited. Springs: Steel only. (Rear hub carrier material on car manufactured before January 1, 1983 is unrestricted, but replacement parts shall be steel or aluminum alloy.)

F.7. BRAKES

These cars shall be equipped with a dual braking system operated by a single control. In case of leak or failure at any point in the system, effective braking power shall be maintained on at least two (2) wheels. A separate hand brake (emergency brake) is not required.

F.8. SHOCK ABSORBERS

Design: Unrestricted
Case Material: Steel or Aluminum Alloy

F.9. STEERING

Unrestricted

F.10. WHEELS

Wheel size is unrestricted per Section 17.1.5.A.6. Material: Steel, Aluminum, Magnesium or combination thereof. No disc, hubcaps, covers, or wheel fans are allowed.

F.11. TRANSMISSION

a. The gearbox shall include an operable reverse gear, capable of being engaged by the driver while normally seated and contain not more than five (5) forward gears. The ratios are unrestricted.

b. Rear wheel drive only is permitted.

c. Final drive ratio is unrestricted. Limited slip differential is permitted.

F.12. FUEL SYSTEM
Cars registered after January 1, 1983 shall be equipped with a flexible bladder type of safety fuel cell conforming to GCR Sections 17., and 19. The safety fuel cell shall be isolated by the means of bulkheads so that fuel and fumes will not pass into the driver or engine compartments.

F.13. FUEL CAPACITY
Forty-one (41) liters (10.8 U.S. gallons) maximum.

F.14. ELECTRICAL
An electrical starter operated by the driver is required. Two (2) stop lights and two taillights, each of at least fifteen (15) watts intensity, shall be operable.

F.15. TANKS
Oil and water tanks shall not be exposed to any part of the driver/ passenger compartment.

F.16. MIRRORS
Vehicles shall be equipped with mirrors capable of providing vision to the rear and both sides of the vehicle. The total mirror area shall not be less than twenty-five (25) square inches.

F.17. MINIMUM WEIGHT
1300 lbs., with driver.

F.18. SOUND
All cars shall comply with GCR Section 12., Sound Control.

F.19. TIRES
Unrestricted.

G. SRSCCA Preparation Rules (Classed in CSR)

1. Definition
One design, fixed specifications, open cockpit, single seat Sports Racer with Mazda 2.3 engine. Cars are packaged and sold by SCCA Enterprises, Inc. All replacement parts are supplied through SCCA Enterprises, Inc., and shall be official SCCA Spec Sports Racer parts except where noted in G.4.

2. Safety Requirements
Car will be delivered from the manufacturer with approved safety equipment. Replaced items shall be supplied through SCCA Enterprises, except safety harnesses may be replaced by any other that conforms to GCR Section 17.

3. Vehicle Configuration

All SCCA Sports Racers shall comply to GCR section 17 "Automobiles" with the following exceptions: Section 17.15., Accumulators.

4. Maintenance and Repairs

It is permitted to perform routine maintenance and repairs as long as existing parts are in no way modified and replacement parts are official SCCA Enterprises Sports Racer parts. If any official SCCA Enterprises' seal is broken, lost by accident or intent, the procedures outlined under G.18., shall be followed. Parts and materials with an Enterprises part number having the prefix "WM10" are considered to be unrestricted, providing their dimensions and materials are comparable. No other parts are to be considered "unrestricted" except where specified.

5. Chassis

NO MODIFICATIONS ALLOWED except as noted in these rules.

a. All cars shall use the stock, as delivered by Enterprises,wood floor of 6mm, with an allowable deviation of 3 mm across the surface for wear.

b. Seats are free. Panels inside the cockpit may be attached to the frame as long as the points of attachment are no closer than 6 inches apart. No welding or gluing of the seat to the structure of the car is allowed.

Definition of cockpit is: area between the front roll hoop and rear roll hoop.

c. Painting or powder coating of the chassis is allowed.

6. Bodywork

NO MODIFICATIONS ALLOWED (except as specified)

If any seal, label, stamp is missing the parts must be returned to Enterprises for resealing.

a. Bodywork shall remain unmodified with the exception of holes for a slave or jumper battery plug and trackside beacon receiver. All repair work must match original body dimensions and contours.

b. Bodywork fasteners are free.

c. *The car may be painted any color(s), except primer.*

d. *It is required that all cars display the official sponsors of SCCA Enterprises decals and locations as specified by Enterprises.*

e. *Ballast must be placed between the front dash bulkhead and the front engine bulkhead. They shall be fastened securely to the floor with flat head 5/16 bolts, washers and nuts on both ends of the weight.*

f. *Radiator screens are allowed and recommended.*

g. *All aerodynamic devices shall be used as delivered: i.e. wings, body winglets. No modification to mounting location or holes.*

h. *The rear wing and its related mounting components are to be used and mounted as delivered. Any modifications are strictly prohibited. The wing element may only be adjusted within the parameter of the wing adjusters as provided from Enterprises. No additional holes may be added.*

7. Engine and Drive train

a. *Engine*

1. *NO MODIFICATIONS ARE ALLOWED EXCEPT WHERE SPECIFICALLY AUTHORIZED WITHIN THESE RULES. This includes all fuel injection and engine management components, including exhaust, cooling, electrical and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated and supplied by Enterprises. All fluids, except fuel, are unrestricted.*

2. *SCCA Enterprises, Inc., seals on the engine, gearbox, and other components shall remain in place at all times. All engines shall be rebuilt, checked on an engine dynamometer, and sealed through SCCA Enterprises*

3. *Engine maintenance, which is permitted, includes the replacement, but not modification of external engine and engine systems parts.*

4. *There are seven (7) seals on the engine. Two (2) on the timing cover, two (2) on the top of the valve cover, two (2) on the oil sump, and one (1) on the crank trigger sensor. They may not be removed or tampered with.*

5. *All rubber oil lines may be replaced with braided metal-covered (Aeroquip type) lines. Hose clamps may be installed on the rubber oil lines.*

6. *Intake manifold: No modifications are allowed. Absolutely no porting or the addition of material is allowed. Manifolds will be available with engines only. No coating is allowed on the exterior or interior of the manifold.*

7. *Engine Control Unit: Manufactured by MBE and sealed by SCCA Enterprises. Tampering of the ECU, seal, wiring or sensors is prohibited.*

8. *The flywheel weight is a minimum of 18 pounds for the standard flywheel, or 2.6 lbs for the Enterprises alternate flywheel. No modifications to the flywheel with the exception of normal resurfacing for clutch wear are allowed.*

9. *No modification to the crankshaft dampener is allowed.*

The following parts must be used:

10. *Clutch: Quartermaster 8.5 Racing Clutch, Part # WM701005, or Enterprises Clutch refit kit #WM117001J that consists of clutch and flywheel #WM701000AJ, Piston #WM701004AJ, Throw out bearing #WM701006AJ, Small O-ring #WM1010405J,Largeo-ring#WM1010406J, Ring gear #WM301027AJ, Flexplate center #WM301053J.*

11. *Spark Plugs, Part # NGK PTR5F-11 or NGKPTFR5F-11*

12. *Fuel Injectors: Part # WM591929J or #WM591929J*

13. *Throttle Body: Part # WM591930J*

14. *Fuel Filter: Part # WM591924J*

15. *Air Filter: Part # WM301020*

16. *Exhaust systems may be thermal coated or wrapped.*

17. *A heat shield between the engine block and the exhaust system is recommended for the purpose of protecting hoses, shifter cable, and wiring from the heat of the exhaust.*

18. *An SCCA Enterprises muffler kit part # WM301046J is required to meet sound requirements. The muffler may not extend beyond the back of the transmission.*

19. *An optional air to oil cooler is allowed on the scavenge return to the oil tank. The maximum core size is 13 inches wide by 6.5 inches high. No water to oil heat exchanger is allowed.*

20. *An optional SCCA Enterprise alternator kit is allowed, Part # WM1100101J*

21. *Fuel shall meet the requirements for IT cars per GCR section 17.4.1.*

22. *Fuel pump and injector upgrade #WM1159101J consisting of pump # WM591901J and injectors # MN591929J allowed.*

b. *Transmission*

1. *The Elite design and developed EVD 5 speed sequential transaxle is the only permitted gearbox. The casting has to remain original. No internal or external modification (including lightening) other than normal racing repair.*

2. *The servicing, replacement and modification of internal components is permitted by the competitor. With the following exceptions:*

    a. *All components must be ferrous metal, except for bearing retainers and bearing cages.*

    b. *Components manufactured by*

alternate manufacturers are permitted. Replacement components must be dimensionally identical to the original components. Absolute minimum weights are listed below.

3. *The rear cover plate may manufactured or remanufactured using aluminum.*

4. *Only the following gear ratios are permitted:*

1st gear combination	*12:29*	*Ratio number*	*2.41*
2nd gear combination	*15:28*		*1.86*
3rd gear combination	*16:24*		*1.50*
4th gear combination	*18:22*		*1.22*
5th gear combination	*24:26*		*1.08*

5. *Differential –Only final drive ratio allowed is 2.75. The differential must remain an open differential. No limited slip mechanism is allowed. Differential must work as supplied from Elite (no tightening of the differential to limit slip) Must be able to use existing components from Elite.*

6. *Polishing, shot peening, REM© Isotropic treatment, heat and cold treatments are allowed. No coatings or plating is allowed.*

7. *Shift cable is free, but shifting must remain cable operated.*

8. *The shift actuator assembly must operate as supplied by enterprises. It can be polished, shot peened, or have REM treatment, heat and cold treatments.*

MINIMUM WEIGHTS OF THE FOLLOWING PARTS

Differential Housing (both parts including bearings)	*7.4 lbs*
Ring Gear	*3.6 lbs*
Pinion Shaft	*4.0 lbs*
1st gear	*2.7 lbs*
2nd gear	*1.2 lbs*
3rd gear	*1.1 lbs*
4th gear	*1.1 lbs*
5th gear	*1.0 lbs*

8. Suspension

a. *NO MODIFICATIONS ALLOWED. Adjustments are permitted within the limits of the suspension and steering components. All rod ends shall be engaged at least 1.5 times the diameter of the end.*

b. *Front Springs: 600 lbs. ±25 lbs. Part # WM203008. Wire size shall measure .360" ±.005".*

Rear Springs: 1000 lbs. ±25 lbs. Part # WM203009. Wire size shall measure .410" ± .005".

c. *Competitors may use the entire travel of all suspension adjusted components as delivered. Alternate parts are not allowed.*

d. *All suspension parts shall have the SCCA code embedded (a label/or an Enterprises stamp) in the part. If they do not it is required to return part to Enterprises for proper labeling.*

e. *Rod ends may be replaced with rod ends having specifications equal to or greater than the OEM supplied rod ends. This includes dimensional material and strength specifications. Replacement rod ends shall be capable of being installed with no modifications to any original components.*

f. *Anti-roll bars (sway bars) may be disconnected, but not removed.*

1. Anti roll bar sizes:
Front .875" OD ±.005"
Top Tee .750" x .135" wall, ±.005"
Top Tee Length: 7.5" maximum end to end
Rear lower stalk .615" Dia. ±.005"
Upper stalk .765" ±.005"
Arm length 5.470" shoulder to shoulder

9. ***Shocks***

a. *NO MODIFICATIONS ALLOWED. 4 Bilstein Shocks are the only permitted shocks allowed, Part # WM203001*

b. *No bump rubbers, packers or shims are allowed*

c. *The only adjustment will be at the spring perch.*

d. *All shock absorbers must be sealed by SCCA Enterprises.*

10. ***Steering:***

NO MODIFICATIONS ALLOWED, except as described within these rules

a. *An alternate steering wheel may be used. "Butterfly" style steering wheels are not allowed.*

b. *Upper steering shaft may be modified to accept an alternate steering wheel and/or hub (if applicable). It may also be modified to accommodate a larger driver.*

11. *Brakes:*

NO MODIFICATIONS ALLOWED, except as described within these rules. Only the AP 4 PISTON CALIPER BRAKE SYSTEM AS SUPPLIED WITH VENTED AP ROTORS shall be used

a. *Brake pads as supplied from SCCA Enterprises, SBS,*
Part # WM801001

b. *Brake rotors are used as delivered, no drilling or lightening is allowed. Minimum Diameter is 10.450". Part # WM801002 Left, Part # WM801003 Right. Min width is .600", Min Weight: 5lbs 4 oz*

c. *Master cylinders must be the Girling integral reservoir type.*

Front master cylinder is.700" piston diameter, Part # WM802005

Rear master cylinder is .750" piston diameter, Part # WM802006

d. *Calipers must be AP 4 piston. Part numbers are:*

LF # WM802004
RF #WM802003
LR # WM802002
RR # WM802001

e. *Brake lines are free (no plastic allowed) .*

12. *Wheels (Only wheels supplied by SCCA Enterprises)*

NO MODIFICATIONS or MACHINING ALLOWED Aluminum racing wheel supplied from SCCA Enterprises with SCCA logo. If logo is worn off, wheels must be returned to Enterprises.

Front: 8 in X 13 in	*Part # WM 205001*
Rear: 10 in X 13 in	*Part # WM205002*

a. *All wheel bearings shall be run with grease (not oil), no special coatings are allowed, and the bearing grease seal shall be intact. No ceramic wheel bearings are permitted*

b. *Wheel spacers are not allowed.*

13. Tires

Tires must run in sets of 4 as stated below:

Hoosier R 45 Compound
Front: 21.5 in X 8.0 in X13.0in
Rear: 22.0 in X10.0 in X 13.0 in

Front: 21.5 in 7.5 in X 13.0 in
Rear: 22.0 in 9.0 in X13.0 in

a. *A competitor shall start the race on the same set of tires (meaning the original four) as used in a qualifying session for the race. The only exception is rain tires. It is the responsibility of the competitor to ensure their tires are marked appropriately for qualifying and race sessions. It is recommended that regions offer these services at a central location such as pre-grid or TECH.*

b. *A change of tires during or between a qualifying and race session shall automatically result in all previous times being disallowed.*

c. *If a tire is damaged during a qualifying session the competitor may replace that tire with a used tire upon approval of the Chief Steward. Should a tire be replaced for any reason, the competitor shall forfeit his grid position and start at the back of the grid.*

14. Electrical System:

NO MODIFICATIONS ALLOWED, except as described within these rules.

a. *Wiring harnesses must remain as delivered.*

b. *Battery may be replaced with a larger one as long it remains in the same location.*

c. *Battery wiring is free. Car must shut off when master switch is turned off.*

d. *Any instrumentation is allowed.*

e. *Data acquisition is allowed, no telemetry is allowed.*

f. At any time during an SCCA sanctioned event it is possible that technical scrutineering personnel can randomly remove and replace ECU modules or other components with other competitor's components or components, which the technical or scrutineering personnel will provide.

15. Weight

The car shall weigh 1365 lbs. minimum, including the driver.

16. Updates

Provisions will be made for updates on all safety and mechanical improvements. Such updates will be effective when authorized by SCCA Enterprises, announced by the National Office, and published in SportsCar.

17. Vehicle Logbook

The Vehicle Logbook for each SCCA Sports Racer remains the property of SCCA Enterprises and will contain not only the record of technical inspections, but also the major maintenance performed and all transfers of ownership. The Vehicle Logbook number will be the same as the factory chassis number that is stamped on the name plate mounted on the fuel cell behind the driver's shoulders. When the vehicle is sold, traded, or scrapped, the logbook shall be sent to SCCA Enterprises, Inc.,. 14550 E. Easter Ave Suite 400 Centennial, Co. 80112. The logbook will them be reissued to the new owner. When the logbook has been filled, a new one shall be requested from SCCA Enterprises, Inc.

A FEE OF $200 WILL BE CHARGED FOR LOST LOGBOOKS.

The logbook shall be presented at scrutineering for each event entered. All SCCA Sports Racers are subject to normal safety inspection. Additionally, scrutineers will check each official seal. A competitor may not be barred from competing at a specific event if a seal is broken, damaged, lost or part not properly labeled but the part may be considered suspect and will be treated as such and will be required to be sent back to Enterprises for inspection. If engine cam cover or oil pan seals are broken, damaged, or missing, the engine shall be removed and sent to SCCA Enterprises for testing and resealing. The competitor will bear all expenses at the competitor's cost prior to the next event.

18. Seals

SCCA Enterprises engine seals are required for all races. Any competitor who runs an event without all proper engine seals in the required locations shall have his engine removed and shipped to SCCA Enterprises for testing and sealing after that event. The competitor will be responsible for all cost incurred by this procedure regardless of the findings, and subject to penalty by the SOM if engine is found to be not as specified.

SCCA Enterprises, Inc., seals are required on all Sports Racer Engines.

Any counterfeit engine seal found by an authorized representative of SCCA, Inc., or SCCA Enterprises, Inc., shall immediately render that engine illegal for further use, without need of dyno testing or inspection. SCCA Enterprises, Inc., will not be under any obligation to bring an illegally sealed engine back to legal condition. Penalties shall include all of the following: 19.a., 19.b., 19.c., and 19.d.

19. Penalties (Specific to SCCA Sports Racer)

If a competitor refuses to give his engine and/or unlabeled parts for testing per a request of the Chief Steward (GCR 6.11.), the following penalties will automatically be imposed:

a. Vehicle logbook will be impounded.

b. Disqualification from the event.

c. Suspension of SCCA competition privileges for thirty (30) days.

d. The car and drive train are suspended from competition until the unit(s) specified by the Chief Steward are replaced.

In a case where a competitor does comply with the Chief Steward's request to have an engine and/or parts inspected and the impounded unit(s) are found legal, the SCCA, will stand all the costs incurred for the testing, including shipping. Should the impounded unit(s) be found illegal, the following penalties will be imposed:

1. Disqualification from the event.

2. A fine of $250.00

3. *$500.00 testing fee plus freight charges paid to Enterprises*

4. *Competition privileges will be suspended immediately, and the suspension will continue for a minimum of thirty (30) days after the date when all fines and costs are paid in full and the license is received by the Chairman SOM or the SCCA Topeka Office.*

5. *For a second illegal drive train offense, the competitor will be permanently disqualified from further SCCA Sports Racer competition.*

20. SCCA Sports Racer Drive Train Protest

a. *Protests shall be filed per the GCR.*

b. *Protestor will specify the drive train item suspected (i.e., transmission or engine). The teardown bond to remove the motor and transmission is in three (3) parts:*

   1. *Remove and replace motor and transmission - $400.00*

   2. *Ship motor to Enterprises and test - $500.00 plus freight and crating charges*

   3. *Protest Fee: Regional - $25.00, National - $50.00 Item 1 will be done by an SCCA representative or other shop that is equipped for this type of work and will be paid directly.*

c. *SCCA Enterprises will inspect the motor, (item 2), and will notify the Chairman SOM as soon as possible as to the results.*

d. *Enterprises shall retain the evidence, and the SCCA shall retain the fee, (item 3), until the period for appeal has passed.*

e. *The Chairman SOM is required to inform SCCA Enterprises of the protest using the SRSCCA Protest Information Form. A copy of the protest shall be sent to Enterprises.*

   If the protest proves to be valid and any appeal fails, the protest fee, (item 3), will be returned to the protestor. Also, the protestee will be required to reimburse the protestor the remaining fees ($900). The protestee will not

be allowed to compete again until all costs are paid. If found legal, the protester forfeits fee (items 1 and 2) above.

f. If found illegal, competition privileges will be suspended immediately, and the suspension will continue for thirty (30) days after all costs are paid in full.

g. For a second illegal drive train offense, the competitor will be permanently disqualified from competing in SRSCCA competition.

21. Accessory Items

a. Mirrors are free.

b. Two-way radios may be installed in the car. All components shall be securely attached and approved by Tech inspection.

c. Racers tape may be used to repair crash damage, or as a precautionary means of securing the body retaining latches. Crash-damage is defined as having occurred during the current event, and the tape should be of an appropriate color if possible. Taping of body joints is not allowed

d. The spark plug wires may be fire sleeved and may be loomed, but must be original Mazda wire as supplied by Enterprises.

e. Engine compartment fluid hoses may be insulated using heat shield or wrap.

f. Front and rear tow hooks, Enterprises part # WM134019J (F) and WM134020J (R) are required.

AVS ES100

Always wear a safety belt and observe speed limits when driving. Be aware that weather, road conditions and the mechanical condition of your vehicle will greatly affect your ability to drive safely.

Performance Equation

- Continuous Shoulder Block = Crisp, sharp cornering
- High-Traction Groove Design = Outstanding wet traction
- Patented Silica Compound = Excellent wet and dry grip
- Rim Protector Bar = Built-in wheel protection
- Expanded Size Offering = Fitments for classic to current sports cars and sports sedans

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Yokohama's AVS ES100 balances exceptional handling capabilities with everyday performance. Its patented compound delivers confident grip, intuitive response and impressive wet traction. Yokohama know-how adds ride comfort, lowers noise and extends wear. It's everything you want and more affordable than you'd expect.
AVS ES100 - Driving balanced performance.

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Call 1-800-366-TIRE for the dealer nearest you.

Homologation is required of all FORMULA cars registered after January 1, 1983.

Homologation forms must be on file with SCCA Inc., Topeka, Kansas for any car to be allowed to compete in any SCCA event.

Sports Car Club Of America, Inc.
Technical Services Department
Building 300, B Street
Topeka, Kansas 66619
ATTN: Club Racing Technical Manager

Modifications may be made to a vehicle after it has been homologated as long as said modifications stay within the scope of the rules.

Homologation Fees

Formula Cars	**$75.00 (Per Chassis)**
Replacement Certificates	**$200.00 Each**
Special Handling Fee	**$45.00**

A special handling fee shall be charged for any special attention over and above the normal processing time. Special handling is a twenty-four (24) hour turn around process, provided all documentation is in order. The certificate is returned via U.S. Postal Service first class mail. If overnight service is necessary, the express charges are not included in the special handling fee and shall be added to the fee.

17.1.6. FORMULA CATEGORY

These specifications are part of the SCCA General Competition Rules (GCR) and all automobiles shall conform with GCR Section 17., Automobiles.

The Formula Category is intended to provide the membership and interested manufacturers with the opportunity to compete in purpose built, highly modified open wheel single seat cars. The Club may alter or adjust specifications and require, permit, or restrict certain specific components to equate competitive potential.

A. FORMULA ATLANTIC PREPARATION RULES

Formula Atlantic is a restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. Homologation is required for all cars registered after January 1, 1983.

New chassis of non-metallic composite construction shall be proven to meet FIA specifications for non-metallic composite chassis prior to being submitted to the SCCA for homologation. Contact the SCCA national office for a list of the relevant FIA specifications/SCCA requirements.

The SCCA shall publish Formula Atlantic Category Specifications containing the basic officially recognized specifications for each car eligible to compete in the Category during the calendar year. These classifications are listed in A.1.a.2

A.1. General

a. A single seat, four open-wheeled racing car with firewall, floor, and safety equipment conforming to GCR Section 17., "Automobiles/General Regulations." Homologation is required for all cars registered after January 1, 1983. Alternate rollbar designs will be considered.

b. Cars shall be equipped with on-board self starter controlled by the driver in a normal driving position.

c. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel (except for a removable steering wheel).

d. Cars shall be equipped with a dual braking system operated by a single control. In case of failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.

e. Superchargers or turbochargers are not permitted.

f. Power shall not be applied to more than two (2) wheels.

g Bodywork:

1. No part of the bodywork and aerodynamic devices shall exceed in height a horizontal plane 90cm (35.4") above the ground. The safety roll bar/roll cage and the engine air box are not included in this height restriction. Measurements are to be made as raced with driver on-board.

2. Behind the front wheels, the bodywork shall not exceed a maximum width of 130cm (51.18 inches) with the exception of lateral fuel tanks. The overall maximum width behind the front wheels to the leading edge of the rear wheels shall not exceed 130cm (51.18 inches). The maximum width of any aerodynamic device situated behind the front wheels, including the rear wing, shall not exceed 110cm (43.307 inches).

3. The bodywork ahead of the front wheels may be extended to an overall maximum width of 150cm (59.055 inches) provided it does not extend beyond the outside of the front tires. Flexible or movable aerodynamic skirts are prohibited. No part of the body or suspended part of the car shall extend more than 1cm (0.394 inches) below the horizontal plane forming the bottom of the tub or chassis floor (both static or in motion).

4. Any part of the bodywork ahead of the front wheels exceeding an overall width of 110cm (43.307 inches) shall not extend above the height of the front wheel rims.

5. Any specific part of the car which has an aerodynamic influence on the stability of the vehicle shall be mounted on the entirely sprung part of the car and shall be firmly fixed while the car is in motion. Aerodynamic devices, including wings and end plates, shall not extend to the rear more than one meter (39.4 inches) from the centerline of the rear wheel hubs.

6. Neither the safety roll bar nor any of the units associated with the functioning of the engine or transmission shall have an aerodynamic effect by creating a vertical thrust.

7. The leading edge of an airfoil fixed to the front of the car shall not be sharp. Minimum radius -- 1.5cm (0.06 inches).

8. The fuel filler cap shall be recessed within the coach-work line.

9. Cars registered with SCCA January 1, 1976, and after, shall be fitted with deformable structures per FIA regulations for Formula II as follows: Deformable Structure: The entire fuel tank area of the car licked by the airstream shall incorporate a crushable structure conforming to the following specifications. The term "licked by the airstream" is considered to define the complete external area of the body/ monocoque construction irrespective of such added items as water radiators, inlet ducts, windscreens, etc..

    A. The crushable structure shall be a sandwich construction based on a fire-resistant core of minimum crushing strength of twenty-five (25) lbs./ square inch. Water pipes are permitted to pass through this core. The sandwich construction shall include two (2) sheets of 1.5mm (.060") thickness, one of which shall be aluminum sheet having a tensile strength of fourteen (14) tons/ square inch and a minimum elongation of five (5) percent.

    B. The use of a magnesium sheet will be authorized only if its thickness exceeds 3mm (.120").

    C. The minimum thickness of the sandwich construction shall be 10mm (.3937"). The fore and aft fuel tank area, however, shall provide for a crushable structure of at least 100mm (3.937") thickness at such crushable structure's thickest point. The position of this widest point to be at the manufacturer's discretion over a length of at least 35cm (13.78") after which it may be gradually reduced to 10mm (.3937").

10. The minimum wheel diameter is thirteen (13) inches. Ex-FSV cars are permitted front wheel width: minimum six (6) inches, maximum eight (8) inches; rear wheel width: minimum eight (8) inches, maximum ten (10) inches. All other cars front wheel width: ten (10) inches; rear wheel width: minimum fourteen (14) inches,

maximum fifteen (15) inches.

11. All cars with venturi section side pods (e.g. Ralt RT-4) shall comply to the following rule. Aerodynamic devices shall comply with the rules relating to bodywork. Any part having an aerodynamic influence and/or any part of the bodywork and attachments to the bodywork shall be rigidly secured to the entirely sprung part of the car (chassis/monocoque), shall have no degree of freedom in relation to the entirely sprung part of the car (chassis/monocoque), and shall remain immobile in relation to the chassis/monocoque at all times. At any transverse section through the car from the rear edge of the front wheels to the forward edge of the rear wheels, no part of the car except the basic chassis/ monocoque structure shall be below a horizontal line situated 1cm (0.4") above the bottom of the chassis/ monocoque. This measurement will be taken without regard to bolt heads, rivets, etc..

    Movable or hinged skirts are prohibited. Flexible sidepod skirts are allowed on cars which have their primary load bearing structure (tub) constructed of ferrous or non-ferrous alloys. No part of the bodywork or suspended part of the car between the front and rear wheels shall extend more than one (l) cm (.3937") below the horizontal panel forming the bottom of the chassis. Within the above restrictions, only wearable material (fiberglass, Kevlar, carbon fiber, high density polypropylene, Telflon, Lexan, or wood) may be attached to the side panels as a rubbing strip. Ceramics, plexiglass, plastic, and other materials which shatter or break-up causing hazardous track condition are prohibited.

    The intention of this Section (17.1.6.A.1.g.11.) is to control ground effects on all cars by prohibiting "sealing" or bridging the gap between the bodywork and the road surface, and to do so in a uniform and consistent manner. Any means adopted to circumvent this intention shall automatically be regarded as a breach of these regulations.

h. Exhaust outlets shall be positioned not more than twenty-four (24) inches above the ground and shall not extend more than six (6) inches beyond the overall length of the car. In no case can the exhaust

terminate more than 45.4" behind the centerline of the rear axle.

A.2. Engines

a. Displacement -- over 1100cc and below or equal to 1600 cc, unless otherwise noted. Cars with rotary piston engines covered by the NSU-Wankel patents will be admitted on the basis of a piston displacement equivalence. The equivalence is twice the volume determined by the difference between the maximum and minimum capacity of the working chamber.

b. Engines shall be derived from automobiles recognized by FIA Appendix J., Group 1 (Series Production Touring), Group 2 (Touring), or Group 3 (Grand Touring) approved by the SCCA, and shall conform to definitions and specifications shown on the FIA Recognition Form of the homologated car, except as permitted below.

The following engines are approved:

Manufacturer	Engine Series	Notes	Req'd Restrictor	Weight
Alfa Romeo	1600 Twin-Cam	includes GTA model	n/a	1160
Audi	80		n/a	1160
BMW	1600 SOHC		n/a	1160
Datsun	1600 SOHC		n/a	1160
Fiat	1438cc DOHC	from 124	n/a	1160
Fiat	1592cc DOHC		n/a	1160
Ford	1500 pushrod		n/a	1160
Ford	1600 pushrod		n/a	1160
Ford	BD Series (4-valve) 1600cc	any BD series iron or alloy cylinder block permitted	n/a	Metallic Chassis 1230 Non-metallic chassis 1255
Ford	1600 SOHC	from Cortina model	n/a	1160
Ford	1600 SOHC	from Escort model	n/a	1160
Honda	B-16A (4-valve)		n/a	1160
Honda	1595cc VTEC		n/a	1160
Lotus Ford	1600 Twin-Cam	alternate aluminum block permitted	n/a	1160

Manufacturer	Engine Series	Notes	Req'd Restrictor	Weight
Mazda	12A streetport	no peripheral port or bridgeport	n/a	Metallic Chassis 1230 Non-metallic chassis 1255
Mazda	12A bridgeport	One (1) auto-type 2 bbl carb or one (1) 2 bbl throttle body. Restrictors/venturis shall be no more than 4 inches from the center line of the throttle butterfly shaft. All intake air shall pass through the required restrictors and the throttle body or carburetor body. Intake manifold for either carburetion or injection shall have individual runners connecting one throttle plate to one rotor, only. No balance tubes or other device shall connect runners between rotors.	36mm	Metallic Chassis 1230 Non-metallic chassis 1255
Porsche	1582cc pushrod		n/a	1160
Renault	1600	from Gordini model	n/a	1160
Toyota	1600 pushrod		n/a	1160
Toyota	1588cc DOHC		n/a	1160
Toyota	DOHC (4-valve) 1600cc		42mm	Metallic Chassis 1230 Non-metallic chassis 1255
Toyota	1ZZ 1600		n/a	1160
Toyota	2ZZ 1600		n/a	1160
Volkswagen	1835cc SOHC		unrestricted carbs or F.I. w/ 37mm restrictor between cylinder head and butterflies	1190
Volkswagen	1600cc DOHC (16 valve)		42mm	1160
Volkswagen	1835cc SOHC (8 valve) w/ crossflow head		37mm between cylinder head and butterflies	1190

NOTE: Add 25 lbs for fuel injection (except Volkswagen)

NOTE: Add 25 lbs for sequential transmission

Note: If intake restrictors are specified, the restrictors shall be round orifices (unless otherwise specified) and located within four (4) inches of the throttle butterfly. Restrictors shall be a minimum 0.060" thick and of the specified diameter.

c. The following modifications are permitted.

1. Any carburetor(s), fuel injection, or intake manifold(s), are permitted. Fuel injected engines shall use the specified intake restriction. Where Weber or Weber-type carburetors are specified and used, they shall retain their standard configuration of fuel distribution. This is to prohibit annular discharge carburetors.

2. The use of any exhaust manifold(s).

3. The use of any oil sump.

4. The use of any oil pump(s).

5. The use of a dry sump lubrication system.

6. The use of any crankshaft of the stroke specified in the homologation forms for the engine.

7. Main bearing caps may be reinforced or substituted.

8. The make and location of the ignition coil and condenser may be changed.

9. Any distributor and/or transistor ignition may be used provided it's installation does not require any modification of the engine.

10. Any make or type of spark plug may be used.

11. The use of any starter is permitted provided it can be fitted without any modification to the engine.

12. Substitution of the clutch and flywheel is allowed provided there is no increase in clutch diameter. The use of dowel pins is permitted.

13. Any pistons and piston pins may be used.

14. Any camshaft(s) may be used.

15. Cam followers may be altered or substituted.

16. It is permitted to lighten, balance, or modify

in shape by tooling the standard or optional components of the engine, provided it is always possible to identify them positively as such. It is not permitted to add any material to the components unless specifically authorized.

17. Engines may be rebored a maximum of 1.2mm (0.047 inches) over the standard size provided the resulting increase in total displacement does not exceed 1615cc.

18. The use of any alternate engine components considered replacement parts such as seals, bearings, valve guides, nuts, bolts, studs, washers, and gaskets is allowed, provided they are of the same type and dimension. Bushings may be added where none are fitted as standard, provided they are concentric and that the centerline of the bushed part is not changed. Water and oil passages may be restricted or plugged. The substitution of valve springs, valve spring retainers, and keepers is permitted. Any pushrods may be used.

19. Pulleys, including camshaft drive pulleys, may be altered or replaced with others of unrestricted origin. The use of any crankshaft vibration dampener is permitted.

20. The compression ratio may be increased by machining, using any head gasket(s), or eliminating of head gasket(s).

21. The installation of any engine vent or breather is permitted.

22. Generator or alternator is unrestricted.

23. The use of any rocker arms or rocker arm supports.

24. Use of any connecting rod of the same basic material.

25. Valves are unrestricted in both size and material, provided the valve centerline is not altered.

26. Exhaust emission control air pumps, and associated lines and nozzles cannot be modified in any way except they may be completely removed. When these nozzles are removed from a cylinder head, the holes shall be completely plugged.

27. The use of any fuel pump(s) is permitted.

28. Valve or cam covers may be substituted.

29. Any external surface of the engine may be plated, painted, or anodized.

30. Engines produced with a cam carrier as a separate and distinct piece from the cylinder head or engine block may replace that cam carrier with a cam carrier of other manufacture, provided the replacement cam carrier affords no additional function other than the original cam carrier and provided the type and number of camshaft bearings remains the same.

31. The replacement of any jack shaft or idler shaft with another of the same basic material as the standard shaft is permitted, provided it performs no additional function over the original shaft.

A.3. Transmission

a. For all types of transmissions, no more than five forward speeds and an operational reverse gear shall be used.

b. The use of an automatic gearbox is prohibited.

c. Electronic assisted gear change mechanisms and electronically controlled differentials are prohibited.

d. Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are not allowed. The sole exception are the gearbox final drive (crownwheel) shaft axis and final drive shafts (half shafts). All change gears must be located in the case aft of the final drive.

PRO STAR MAZDA DIMENSIONS TABLE 1.A.2	
DIMENSIONS (Refer to FF2000 drawing)	Measurements
A. Maximum rear overhang from rear wheel axis	60
B. Maximum front overhang from front wheel axis	100
C. Maximum height measured from the ground	94 @ rear wing
D. Exhaust height measured from the ground	34-44
E. Maximum height of any aerodynamic Device	30
F. Minimum safety rollover bar height inline with driver's spine	92
G. Minimum allowed helmet clearance	5
H. Maximum width	180
I. Maximum rear aerofoil width (includes endplates)	96
J. Maximum body width behind front wheels	132
K. Maximum nose width	129
L. Minimum cockpit opening	37
M. Minimum cockpit parallel opening length	42
N. Minimum cockpit overall opening length	82
S. Maximum exhaust length from rear wheel axis	52
7. Minimum wheelbase	254
5. Minimum track	150
All above dimensions in cm.	

17.1.6.A.1.a.2

Car	Engine	Wheel Width +/- 0.060"	Aerodynamics	Transmission	Weight / lbs	Notes
Purpose Built and Ex-Pro Atlantic Cars	See Table A.2.b	Front = 10" Rear = 14" Minimum 15" Maximum	See Current FA Rules	Up to 5 Forward Gears, Limited Slip and Locked Differentials allowed (sequential transmission carries a 25 lb Weight Penalty)	See Table A.2.b	All current Formula Atlantic rules apply
Spec Pro Star Mazda	Mazda rotary - Sealed Renesis with Pro Star Mazda Fuel injection and a 70 mm throttle body	Pro Star Mazda specified series wheels Front = 9" Rear = 11"	See Table 1.2.A	6 spd sequential transmission with open differential. Traction control is allowed. Spec Gear Ratio Stacks (no mixing) apply. Pro Star Mazda Gear Stacks:Stack A: 1st-12/29, 2nd-15/30, 3rd-15/25, 4th-19/27, 5th-20/25, 6th-19/21. Stack B:1st-12/29, 2nd-17/30, 3rd-19/27, 4th-18/22, 5th-24/26, 6th-24/24.	1325	**Front Wing** - Angle of attack for the front wing (main plane) is fixed. Front wing flaps may be adjusted within the range provided from an original STAR Mazda endplate. Secondary wing flaps may not be altered from STAR Mazda original part. **Rear Wings** - May be adjusted to include the following: Angle of attack of the lower element. Note: Rear wing endplates must be adjusted to within +/- 5 deg of vertical as measured at the trailing edge of the endplate. All Cars must use all three upper elements. Angle of attack of the upper elements must have a minimum angle of 13 degs measured front the leading edge of the forward element to the rear edge of the trailing element. The zeroing point for checking the angle of the top three elements is the rollover block on the forward edge of the cockpit opening. No gurney tabs. ECU and Shocks shall be sealed as provided by Star Mazda. Engine shall be sealed by the Star Mazda approved engine builder.
Formula SCCA	2.3 Litre Duratec Sealed From Enterprises	Enterprises specified wheels Front = 8" Rear = 10"	See Formula SCCA section of the FA rules.	Elite 5 Speed Sequential Transmission with open Differential.	1265	See section 17.1.6.A.5

Car	*Engine*	*Wheel Width +/- 0.060"*	*Aerodynamics*	*Transmission*	*Weight / lbs*	*Notes*
Formula 3 car	1600 VW (non Crossflow head) or 1835cc Volkswagen with carbs (no restrictor), FI with 37mm restrictor located between cylinder head and butterfly	Front = 9" Minimum Rear = 10" Minimum	See Current FA Rules	Up to 5 Forward Gears, Limited Slip Differential (sequential Carries a 25 lb Weight Penalty)	See Table A.2.b	NOTE: Any other classified engine must be approved by the SCCA club Racing Technical Manger on a case by case basis
Ex Pro Formula Super Vee	1600 VW (non Crossflow head) or 1835cc Volkswagen with carbs (no restrictor), FI with 37mm restrictor located between cylinder head and butterfly	Front = 6" Minimum w/ Rear = 8" Minimum or Front = 8" Minimum w/ Rear = 10" Minimum	See Current FA Rules	Up to 5 Forward Gears, Limited Slip and Locked Differentials allowed (sequential transmission carries a 25 lb Weight Penalty)	See Table A.2.b	
Pro Formula Ford 2000	2.0 Litre Zetec	Front = 8" Rear = 10"	See Current FF2000 Zetec Championship Rules	4 Forward Gears, H-Pattern, with any combination of the following gears: 16/34, 15/30, 16/30, 17/30, 17/28, 18/28, 16/24, 19/27, 20/27, 19/24, 19/23, 24/28, 24/27, 24/26	1230	Must be prepared to current FF2000 Zetec Championship Rules, competitor must have current copy of the rules at all competitions.

A.5. FSCCA Preparation Rules

1. Definition
One design, fixed specifications, open cockpit, single seat Formula car with Mazda 2.3 engine. Cars are packaged and sold by SCCA Enterprises, Inc. All replacement parts are supplied through SCCA Enterprises, Inc., and shall be official SCCA Spec Formula Car parts except where noted in A.5.3.

2. Safety Requirements
Car will be delivered from the manufacturer with approved safety equipment. Replaced items shall be supplied through SCCA Enterprises, except safety harnesses may be replaced by any other that conforms to GCR Section 17.

3. Vehicle Configuration
All SCCA Formula cars to GCR section 17 "Automobiles" with the following exceptions: Section 17.15., Accumulators.

4. Maintenance and Repairs
It is permitted to perform routine maintenance and repairs as long as existing parts are in no way modified and replacement parts are official SCCA Enterprises Formula Car parts. If any official SCCA Enterprises' seal is broken, lost by accident or intent, the procedures outlined under A.5.18., shall be followed. Parts and materials with an Enterprises part number having the prefix "WM10" are considered to be unrestricted, providing their dimensions and materials are comparable. No other parts are to be considered "unrestricted" except where specified.

5. Chassis
NO MODIFICATIONS ALLOWED except as noted in these rules.

a. All cars shall use the stock, as delivered by Enterprises, wood floor of 6mm, with an allowable deviation of 3 mm across the surface for wear.

b. Seats are free. Panels inside the cockpit may be attached to the frame as long as the points of attachment are no closer than 6 inches apart. No welding or gluing of the seat to the structure of the car is allowed.

Definition of cockpit is: area between the front roll hoop and rear roll hoop.

d. Painting or powder coating of the chassis is allowed.

6. Bodywork

NO MODIFICATIONS ALLOWED (except as specified)

If any seal, label, stamp is missing the parts must be returned to Enterprises for resealing.

a. Bodywork shall remain unmodified with the exception of holes for a slave or jumper battery plug and trackside beacon receiver. All repair work must match original body dimensions and contours.

b. Bodywork fasteners are free.

c. The car may be painted any color(s), except primer.

d. It is required that all cars display the official sponsors of SCCA Enterprises decals and locations as specified by Enterprises.

e. Ballast must be placed between the front dash bulkhead and the front engine bulkhead. They shall be fastened securely to the floor with flat head 5/16 bolts, washers and nuts on both ends of the weight.

f. Radiator screens are allowed and recommended.

g. All aerodynamic devices shall be used as delivered: i.e. wings, body winglets. No modification to mounting location or holes.

h. The front wing main plane, front wing secondary elements, front wing support mounts, and front wing endplates must be used and mounted as delivered from Enterprises. Any modification to these parts is strictly forbidden. The main wing plane angle is zeroed on the rear upper aft transmission surface measured with a suitable angle gauge, i.e.: digital level on the top main plane 2 inches outward from the nose box mounts. It must meet a minimum measurement of negative .5 degrees (angled down in the back) and a maximum measurement of positive 2.5 degrees (angled up in the back). It is acceptable to shim the main plane to obtain this measurement.

i. The rear wing and its related mounting

components are to be used and mounted as delivered. Any modifications are strictly prohibited. The lower plane angle, zeroed on the rear upper aft transmission surface, measured with a suitable angle gauge. i.e.; digital level on the top surface of the lower rear wing must meet a minimum of –3.0 degrees (angled down in the back) and a maximum of +2.0 degrees (angled up in the back). It is acceptable to adjust the lower rear element to meet these requirements. The upper rear wing element may only be adjusted within the parameter of the endplates and wing adjusters as provided from Enterprises. No additional holes may be added.

7. Engine and Drive train

a. Engine

1. NO MODIFICATIONS ARE ALLOWED EXCEPT WHERE SPECIFICALLY AUTHORIZED WITHIN THESE RULES. This includes all fuel injection and engine management components, including exhaust, cooling, electrical and lubrication systems. All systems are subject to test procedures and must conform to OEM specifications as stated and supplied by Enterprises. All fluids, except fuel, are unrestricted.

2. SCCA Enterprises, Inc., seals on the engine, gearbox, and other components shall remain in place at all times. All engines shall be rebuilt, checked on an engine dynamometer, and sealed through SCCA Enterprises

3. Engine maintenance, which is permitted, includes the replacement, but not modification of external engine and engine systems parts.

4. There are seven (7) seals on the engine. Two (2) on the timing cover, two (2) on the top of the valve cover, two (2) on the oil sump, and one (1) on the crank trigger sensor. They may not be removed or tampered with.

5. All rubber oil lines may be replaced with braided metal-covered (Aeroquip type) lines. Hose clamps may be installed on the rubber oil lines.

6. Intake manifold: No modifications are allowed. Absolutely no porting or the addition of material is allowed. Manifolds will be available with engines only. No coating is allowed on the exterior or interior of the manifold.

7. Engine Control Unit: Manufactured by MBE and sealed by SCCA Enterprises. Tampering of the ECU, seal, wiring or sensors is prohibited.

8. The flywheel weight is a minimum of 18 pounds *for the standard flywheel, or 2.6 pounds for the Enterprises alternate flywheel. No modifications to the flywheel with the exception of normal resurfacing for clutch wear are allowed.*

9. No modification to the crankshaft dampener is allowed.

   The following parts must be used:

10. *Clutch: Quartermaster 8.5 Racing Clutch, Part # WM701005, or Enterprises Clutch refit kit #WM117001J that consists of clutch and flywheel #WM701000AJ, Piston #WM701004AJ, Throw out bearing #WM701006AJ, Small O-ring #WM1010405J,Largeo-ring#WM1010406J, Ring gear #WM301027AJ, Flexplate center #WM301053J.*

11. Spark Plugs, Part # NGK PTR5F-11 or NGKPTFR5F-11

12. *Fuel Injectors: Part # WM591929J or #WM591929J*

13. Throttle Body: Part # WM591930J

14. Fuel Filter: Part # WM591924J

15. Air Filter: Part # WM301020

16. Exhaust systems may be thermal coated or wrapped.

17. A heat shield between the engine block and the exhaust system is recommended for the purpose of protecting hoses, shifter cable, and wiring from the heat of the exhaust.

18. An SCCA Enterprises muffler kit part # WM301046J is required to meet sound requirements. The muffler may not extend beyond the back of the transmission.

19. An optional air to oil cooler is allowed on the scavenge return to the oil tank. The maximum core size is 13 inches wide by 6.5 inches high. No water to oil heat exchanger is allowed.

20. An optional SCCA Enterprise alternator kit is allowed, Part # WM1100101J

21. Fuel shall meet the requirements for IT cars per GCR section 17.4.1.

22. Fuel pump and injector upgrade #WM1159101J consisting of pump # WM591901J and injectors # MN591929J allowed.

b. Transmission

1. The Elite design and developed EVD 5 speed sequential transaxle is the only permitted gearbox. The casting has to remain original. No internal or external modification (including lightening) other than normal racing repair.

2. The servicing, replacement and modification of internal components is permitted by the competitor. With the following exceptions:

    a. All components must be ferrous metal, except for bearing retainers and bearing cages.

    b. Components manufactured by alternate manufacturers are permitted. Replacement components must be dimensionally identical to the original components. Absolute minimum weights are listed below.

3. The rear cover plate may manufactured or remanufactured using aluminum.

4. Only the following gear ratios are permitted:

1st gear combination	*12:29*	*Ratio number*	*2.41*
2nd gear combination	*15:28*		*1.86*
3rd gear combination	*16:24*		*1.50*
4th gear combination	*18:22*		*1.22*
5th gear combination	*24:26*		*1.08*

5. Differential – Only final drive ratio allowed is 2.75. The differential must remain an open differential. No limited slip mechanism is allowed. Differential must work as supplied from Elite (no tightening of the differential to limit slip) Must be able to use existing components from Elite.

6. Polishing, shot peening, REM© Isotropic treatment, heat and cold treatments are allowed. No coatings or plating is allowed.

7. Shift cable is free, but shifting must remain cable operated.

9. The shift actuator assembly must operate as supplied by enterprises. It can be polished, shot peened, or have REM treatment, heat and cold treatments.

MINIMUM WEIGHTS OF THE FOLLOWING PARTS

Differential Housing (both parts including bearings)	7.4 lbs
Ring Gear	*3.6 lbs*
Pinion Shaft	*4.0 lbs*
1st gear	*2.7 lbs*
2nd gear	*1.2 lbs*
3rd gear	*1.1 lbs*
4th gear	*1.1 lbs*
5th gear	*1.0 lbs*

8. Suspension

a. NO MODIFICATIONS ALLOWED. Adjustments are permitted within the limits of the suspension and steering components. All rod ends shall be engaged at least 1.5 times the diameter of the end.

b. Front Springs: 600 lbs. ±25 lbs. Part # WM203008. Wire size shall measure .360" ±.005".

Rear Springs: 1000 lbs. ±25 lbs. Part # WM203009. Wire size shall measure .410" ± .005".

c. Competitors may use the entire travel of all suspension adjusted components as delivered. Alternate parts are not allowed.

d. All suspension parts shall have the SCCA code embedded (a label/or an Enterprises stamp) in the part. If they do not it is required to return part to Enterprises for proper labeling.

e. Rod ends may be replaced with rod ends having specifications equal to or greater than the OEM supplied rod ends. This includes dimensional material and strength specifications. Replacement rod ends shall be capable of being installed with no modifications to any original components.

f. Anti-roll bars (sway bars) may be disconnected, but not removed.

1. Anti roll bar sizes:
Front .875" OD ±.005"
Top Tee .750" x .135" wall, ±.005"
Top Tee Length: 7.5" maximum end to end
Rear lower stalk .615" Dia. ±.005"
Upper stalk .765" ±.005"
Arm length 5.470" shoulder to shoulder

9. Shocks

a. NO MODIFICATIONS ALLOWED. 4 Bilstein Shocks are the only permitted shocks allowed, Part # WM203001

b. No bump rubbers, packers or shims are allowed

c. The only adjustment will be at the spring perch.

d. All shock absorbers must be sealed by SCCA Enterprises.

10. Steering:

NO MODIFICATIONS ALLOWED, except as described within these rules

a. An alternate steering wheel may be used. "Butterfly" style steering wheels are not allowed.

b. Upper steering shaft may be modified to accept an alternate steering wheel and/or

hub (if applicable). It may also be modified to accommodate a larger driver.

11. Brakes:
NO MODIFICATIONS ALLOWED, except as described within these rules. Only the AP 4 PISTON CALIPER BRAKE SYSTEM AS SUPPLIED WITH VENTED AP ROTORS shall be used

a. Brake pads as supplied from SCCA Enterprises, SBS,
Part # WM801001

b. Brake rotors are used as delivered, no drilling or lightening is allowed. Minimum Diameter is 10.450". Part # WM801002 Left, Part # WM801003 Right. Min width is .600", Min Weight: 5lbs 4 oz

c. Master cylinders must be the Girling integral reservoir type.

Front master cylinder is.700" piston diameter, Part # WM802005

Rear master cylinder is .750" piston diameter, Part # WM802006

d. Calipers must be AP 4 piston. Part numbers are:

LF # WM802004
RF #WM802003
LR # WM802002
RR # WM802001

e. Brake lines are free (no plastic allowed) .

12. Wheels (Only wheels supplied by SCCA Enterprises)
NO MODIFICATIONS or MACHINING ALLOWED Aluminum racing wheel supplied from SCCA Enterprises with SCCA logo. If logo is worn off, wheels must be returned to Enterprises.

Front:	8 in X 13 in	Part # WM 205001
Rear:	10 in X 13 in	Part # WM205002

a. All wheel bearings shall be run with grease (not oil), no special coatings are allowed, and the bearing grease seal shall be intact. No ceramic wheel bearings are permitted

b. Wheel spacers are not allowed.

13. Tires

Tires must run in sets of 4 as stated below:

Hoosier R 45 Compound
Front: 21.5 in X 8.0 in X13.0in
Rear: 22.0 in X10.0 in X 13.0 in

Hoosier Wets
Front: 21.5 in 7.5 in X 13.0 in
Rear: 22.0 in 9.0 in X13.0 in

a. A competitor shall start the race on the same set of tires (meaning the original four) as used in a qualifying session for the race. The only exception is rain tires. It is the responsibility of the competitor to ensure their tires are marked appropriately for qualifying and race sessions. It is recommended that regions offer these services at a central location such as pre-grid or TECH.

b. A change of tires during or between a qualifying and race session shall automatically result in all previous times being disallowed.

c. If a tire is damaged during a qualifying session the competitor may replace that tire with a used tire upon approval of the Chief Steward. Should a tire be replaced for any reason, the competitor shall forfeit his grid position and start at the back of the grid.

14. Electrical System:

NO MODIFICATIONS ALLOWED, except as described within these rules.

a. Wiring harnesses must remain as delivered.

b. Battery may be replaced with a larger one as long it remains in the same location.

c. Battery wiring is free. Car must shut off when master switch is turned off.

d. Any instrumentation is allowed.

e. Data acquisition is allowed, no telemetry is allowed.

f. At any time during an SCCA sanctioned event it is possible that technical scrutineering personnel can randomly remove and replace ECU modules or other components with other competitor's components or components, which the technical

or scrutineering personnel will provide.

15. Weight

The car shall weigh *1265* lbs. minimum, including the driver.

16. Updates

Provisions will be made for updates on all safety and mechanical improvements. Such updates will be effective when authorized by SCCA Enterprises, announced by the National Office, and published in SportsCar.

17. Vehicle Logbook

The Vehicle Logbook for each SCCA Formula Car remains the property of SCCA Enterprises and will contain not only the record of technical inspections, but also the major maintenance performed and all transfers of ownership. The Vehicle Logbook number will be the same as the factory chassis number that is stamped on the name plate mounted on the fuel cell behind the driver's shoulders. When the vehicle is sold, traded, or scrapped, the logbook shall be sent to SCCA Enterprises, Inc.,. 14550 E. Easter Ave Suite 400 Centennial, Co. 80112. The logbook will them be reissued to the new owner. When the logbook has been filled, a new one shall be requested from SCCA Enterprises, Inc.

A FEE OF $200 WILL BE CHARGED FOR LOST LOGBOOKS.

The logbook shall be presented at scrutineering for each event entered. All SCCA Formula Cars are subject to normal safety inspection. Additionally, scrutineers will check each official seal. A competitor may not be barred from competing at a specific event if a seal is broken, damaged, lost or part not properly labeled but the part may be considered suspect and will be treated as such and will be required to be sent back to Enterprises for inspection. If engine cam cover or oil pan seals are broken, damaged, or missing, the engine shall be removed and sent to SCCA Enterprises for testing and resealing. The competitor will bear all expenses at the competitor's cost prior to the next event.

18. Seals

SCCA Enterprises engine seals are required for all races. Any competitor who runs an event without all proper engine seals in the required locations shall have his engine removed and shipped to SCCA Enterprises for testing and sealing after that

event. The competitor will be responsible for all cost incurred by this procedure regardless of the findings, and subject to penalty by the SOM if engine is found to be not as specified.

SCCA Enterprises, Inc., seals are required on all Formula Car Engines.

Any counterfeit engine seal found by an authorized representative of SCCA, Inc., or SCCA Enterprises, Inc., shall immediately render that engine illegal for further use, without need of dyno testing or inspection. SCCA Enterprises, Inc., will not be under any obligation to bring an illegally sealed engine back to legal condition. Penalties shall include all of the following: D.19.a., D.19.b., D.19. c., and D.19.d.

19. Penalties (Specific to SCCA Formula Car)
If a competitor refuses to give his engine and/or unlabeled parts for testing per a request of the Chief Steward (GCR 6.11.), the following penalties will automatically be imposed:

a. Vehicle logbook will be impounded.

b. Disqualification from the event.

c. Suspension of SCCA competition privileges for thirty (30) days.

d. The car and drive train are suspended from competition until the unit(s) specified by the Chief Steward are replaced.

In a case where a competitor does comply with the Chief Steward's request to have an engine and/or parts inspected and the impounded unit(s) are found legal, the SCCA, will stand all the costs incurred for the testing, including shipping. Should the impounded unit(s) be found illegal, the following penalties will be imposed:

1. Disqualification from the event.

2. A fine of $250.00

3. $500.00 testing fee plus freight charges paid to Enterprises

4. Competition privileges will be suspended immediately, and the suspension will continue for a minimum of thirty (30) days

after the date when all fines and costs are paid in full and the license is received by the Chairman SOM or the SCCA Topeka Office.

5. For a second illegal drive train offense, the competitor will be permanently disqualified from further SCCA Formula Car competition.

20. SCCA Formula Car Drive Train Protest

a. Protests shall be filed per the GCR.

b. Protestor will specify the drive train item suspected (i.e., transmission or engine). The teardown bond to remove the motor and transmission is in three (3) parts:

1. Remove and replace motor and transmission - $400.00

2. Ship motor to Enterprises and test - $500.00 plus freight and crating charges

3. Protest Fee: Regional - $25.00, National - $50.00 Item 1 will be done by an SCCA representative or other shop that is equipped for this type of work and will be paid directly.

c. SCCA Enterprises will inspect the motor, (item 2), and will notify the Chairman SOM as soon as possible as to the results.

d. Enterprises shall retain the evidence, and the SCCA shall retain the fee, (item 3), until the period for appeal has passed.

e. The Chairman SOM is required to inform SCCA Enterprises of the protest using the FSCCA Protest Information Form. A copy of the protest shall be sent to Enterprises.

If the protest proves to be valid and any appeal fails, the protest fee, (item 3), will be returned to the protestor. Also, the protestee will be required to reimburse the protestor the remaining fees ($900). The protestee will not be allowed to compete again until all costs are paid. If found legal, the protester forfeits fee (items 1 and 2) above.

f. If found illegal, competition privileges will be suspended immediately, and the suspension

will continue for thirty (30) days after all costs are paid in full.

g. For a second illegal drive train offense, the competitor will be permanently disqualified from competing in FSCCA competition.

21. Accessory Items

a. Mirrors are free.

b. Two-way radios may be installed in the car. All components shall be securely attached and approved by Tech inspection.

c. Racers tape may be used to repair crash damage, or as a precautionary means of securing the body retaining latches. Crash-damage is defined as having occurred during the current event, and the tape should be of an appropriate color if possible. Taping of body joints is not allowed

d. The spark plug wires may be fire sleeved and may be loomed, but must be original Mazda wire as supplied by Enterprises.

e. Engine compartment fluid hoses may be insulated using heat shield or wrap.

f. *Front and rear tow hooks, Enterprises part # WM134019J (F) and WM134020J (R) are required.*

B. FORMULA CONTINENTAL PREPARATION RULE

Formula Continental (Formula 2000 and Super Vee, both) is a Restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T**. Homologation is required for all cars registered after January 1, 1983 and only Formula 2000 cars will be homologated after January 1, 1993.

B.1. Definition

Combination of ex-Formula C, Formula Super Vee (air cooled), Formula 2000.

Flexible or movable aerodynamic skirts are prohibited. No part of the body or suspended part of the car shall extend more than 1cm (0.394 inches) below the horizontal plane forming the bottom of the tub or chassis floor (both static or in motion).

B.2. Specifications for the ex-Formula C cars can be found in Formula Atlantic, Section 17.1.6.A.. Additional

specifications follow:

a. Engines

Engine displacement below or equal to 1100cc. Cars with rotary piston engines covered by the NSU-Wankel patents will be admitted on the basis of a piston displacement equivalence. This equivalence is twice the volume determined by the difference between the maximum and the minimum capacity of the working chamber.

b. Motorcycle powered cars may use sequentially shifted motorcycle transmissions, without a reverse gear.

c. Minimum Weight

Minimum weight as qualified or raced:

2-cycle engine: 1180 lbs. with driver
4-cycle engine: 930 lbs. with driver.

d. Fuel Tank Capacity

Maximum fuel tank capacity: sixteen (16) U.S. gallons.

e. FA Section 17.1.6.A.1.g.10., does not apply, except the minimum wheel diameter is thirteen (13) inches.

B.3. Specifications for ex-Formula SV (air-cooled) cars are as follows:
Single-seat, open-wheel racing cars based on standard Volkswagen 1600 components.

No part of the required engine, drive line, brakes, or suspension shall be altered, modified, changed, or be of other than VW manufacture unless specifically authorized herein.

It is permitted to lighten, balance, or modify in shape, by tooling, standard VW parts provided it is always possible to identify them positively as such. It is not permitted to add any material or mechanical extensions unless authorized by these Rules.

a. Weight and Dimensions

1. Minimum weight -- 1062 lbs., as qualified or raced, with driver.

2. Wheel base -- Unrestricted.

3. Front track -- Unrestricted.

4. Rear track -- Unrestricted.

b. Suspension

1. Front suspension is unrestricted with the exception of the following standard VW-type 1, 2, or 3 parts.

   A. Steering knuckles (upright)

   B. Wheel hubs.

   C. Brake drums, wheel cylinders and backing plates, or brake discs and calipers. Splash shields may be removed from disc brakes. ATE caliper-type FV/ 002 is permitted.

2. Rear suspension is unrestricted with the exception of the following standard VW Type 1, 2, or 3 parts:

   A. Axle shafts

   B. "U" joints

   C. Wheel hubs

   D. Brake drums, discs, calipers, wheel cylinders, and backing plates. Backing plates may be altered for brake cooling. ATE caliper-type FV/002 also permitted.

c. Wheels

1. Wheels are unrestricted except that:

   A. Diameter shall be thirteen (13), fourteen (14), or fifteen (15) inches.

   B. Rim width shall not exceed six (6) inches front and eight (8) inches rear.

   C. The bolt pattern shall enable the wheel to be attached directly to the VW hub without the use of an intermediate adapter.

   D. Wheels shall be identical for the right and left front axles, and identical for the right and left rear axles.

2. Wheel spacers may be installed between the front wheels and hubs, but shall not exceed 1/2 inch per wheel. Spacers are not permitted between the rear wheels and hubs.

3. Wheel attachment bolts may be replaced with studs.

d. Brakes

1. Brake lining and/or brake pad material is unrestricted.

2. Cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two (2) wheels. Brake master cylinders are unrestricted.

e. Engine

The engine shall be standard VW 1600 from Volkswagen Type 1, 2, or 3 vehicles or a 1600cc 127V (Type 4) industrial engine and shall be installed forward of the transmission. The following modifications are permitted:

1. Induction system:

   A. Maximum number of throats: Four (4)

   B. Maximum throat diameter at the throttle butterfly: 40mm (1.575 inches). 35mm maximum intake venturi size.

   C. Fuel injection is prohibited.

   D. Turbocharging and/or supercharging is prohibited.

2. Exhaust system unrestricted, but pipes shall terminate behind the driver and extend no more than twenty-eight (28) inches rearward of the rear axle centerline. The last four (4) inches shall be approximately horizontal and not more than twenty-four (24) inches above the ground.

3. The fan may be altered or removed. The fan housing may be altered or replaced. Cooling ducts may be altered, removed, or replaced. The cooling fan shall not direct air to the carburetor inlet.

4. Any standard VW distributor may be used.

5. Generator/alternator - unrestricted.

6. Any oil baffles housed within the original sump may be used. Oil capacity may be increased

by sump extension or oil filter(s). Dry sump systems are permitted.

7. The substitution of any valve springs and valve spring retainers are authorized.

8. The following standard dimensions of the engine components are included as information and shall be observed.
   Bore: (Max.) 3.375" (Type 1, 2, 3)
   3.4528" (Type 127V)
   Stroke: 2.720" +/- .005" (Type 1, 2, 3)
   2.598" +/- .005" (Type 127V)
   Intake Valve: 1.614" maximum diameter
   Exhaust Valve: 1.339" maximum diameter

9. Camshaft including timing gear - unrestricted.

10. The use of any standard VW rocker arms.

11. Any standard VW clutch. Any clutch lining may be used.

12. Any oil cooler is permitted.

13. Any push rods.

14. The use of alternate pulleys on the crankshaft, fan, and/or generator.

15. The use of alternate valve covers.

16. The addition of dowel pins between the flywheel and crankshaft.

17. Bushings may be installed where none are fitted as standard, provided they are concentric and that the centerline of the bushed part is not changed.

18. Pistons and cylinders may be replaced with that of other manufacture, provided said replacement is of the same material, is dimensionally identical, and meets all other tolerances and specifications.

19. Alternate piston and cylinders with a maximum bore size of 90mm using 66mm stroke = 1679.5cc are permitted.

20. Alternate connecting rods are allowed providing they are of the same material as original rods and original geometry crank pin to wrist dimension is maintained.

f. Transmission / Final Drive

Any transmission/final drive assembly utilizing a VW Type 1, 2, or 3 case with four (4) forward speeds and an operational reverse gear may be used. The case may not be installed in an inverted position. Reverse gear shall be operable from the driver's seat. The use of automatic and/or sequentially shifted gearbox is prohibited.

The final drive/differential unit is unrestricted except that limited slip and locked differentials are prohibited. The rear carrier and gearshift housing may be modified or replaced to permit the installation of a "quickchange" final drive assembly.

The final drive covers (side plates) may be modified or replaced.

g. Body

1. No part of the bodywork and aerodynamic devices shall exceed in height a horizontal plane 90cm (35.4 inches) above the ground. The safety roll bar/roll cage and the engine air box are not included in this height restriction. Measurements are to be made in any condition, driver on board.

2. The cockpit opening shall have the following minimum dimensions:

   A. Length: 60cm (23.6 inches)

   B. Width: 45cm (17.7 inches)

      This width shall extend over a length of 30cm (11.8 inches) measured forward from the rear-most point of the seat back. The driver shall be able to enter or leave the car at anytime without any parts having to be removed or manipulated. Roll cage structure may intrude into cockpit opening.

      Cars manufactured and registered with SCCA prior to January 1, 1987 will be exempt.

   C. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel.

3. Bodywork in front of the front wheels and lower than the top of the front wheel rim shall

not exceed a maximum width of 135cm (53.15 inches).

4. Bodywork in front of the front wheels and higher than the top of the front wheel rim shall not exceed a maximum width of 110cm (43.307 inches).

5. Bodywork behind the front wheels shall not extend beyond a plane connecting the vertical centerlines of the front and rear tires.

6. The material and shape of the bodywork are unrestricted, provided the body is symmetrical to the longitudinal axis of the vehicle and covers the entire length of the engine. The body shall not protrude beyond the rearmost point of the gearshift linkage. The carburetor may project outside of the bodywork.

7. Canards, dive planes, and "sports car noses" are permitted within the dimensional restrictions of items 3., and 4..

8. Rear-mounted wings are permitted.

   A. Height - No part of the wing, including the side plates, shall exceed in height a horizontal plane 90cm (35.4 inches) above the ground with driver on board.

   B. Width - The maximum width (as viewed from the front to the car and including the side plates) shall not exceed 95cm (37.402 inches).

   C. Setback - Shall not extend rearward more than 80cm (31.5 inches) from the rear wheel hub centerline.

   D. Area - Plan area shall not exceed one-half square meter (as viewed from above).

   E. Must be firmly fixed and symmetrically mounted on the fully sprung structure of the car.

h. Fuel Cells

Fuel cells shall be SCCA approved safety fuel cell(s). The total capacity shall not exceed ten (10) U.S. gallons. Fuel cells shall be separated from the engine compartment by the firewall and located to the rear of the front wheel centerline.

i. The use of the following non-standard VW parts is permitted.

1. Fasteners (nuts, bolts, screws, etc.)
2. Wiring
3. Gaskets and seals
4. Brake and fuel lines
5. Spark plugs
6. Piston rings
7. Wheel bearings
8. Rod and main bearings of the same type
9. Fan belt
10. Brake shoes, pads, and linings
11. Valve (std. valve head diameter shall be maintained)
12. Valve guides
13. Valve seats
14. Springs
15. Battery
16. Coil
17. Fuel pump
18. Oil pump(s)
19. Ignition point set
20. Oil and lubricants

B.4. FORMULA 2000, CLASSED IN FORMULA CONTINENTAL

Description: Single seater racing cars as defined by these regulations.

Formula 2000 is a Restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T.** Homologation is required for all cars registered after January 1, 1983. All newly constructed cars shall meet the 1986 construction rules for Formula F cars. Formula 2000 fitted with standard Ford NE Series 2 liter SOHC engine.

a. Safety:

Must comply to GCR Sections 17., 18., 19., and 20..

b. Chassis:

The chassis shall be of tubular steel construction with no stress-bearing panels except bulkhead and undertray; curvature of the undertray shall not exceed 2.54cm (1 inch). Monocoque chassis construction is prohibited. Stress bearing panels are defined as: sheet metal affixed to the frame by welding, bonding, rivets, bolts, or screws which have centers closer than 15.24cm (6 inches). Body panels cannot be utilized as stress bearing panels, except as required for 1986 construction rules. The use of composite materials using carbon and/or Kevlar reinforcement is prohibited.

No engine oil or water tubes are permitted within the cockpit.

It is not permitted to construct any suspension member in the form of an airfoil or to incorporate a spoiler in the construction of any suspension member.

c. Bodywork and Airfoils:
See table of dimensions. (Airfoils are a requirement for this class.)

The use of composite materials using carbon reinforcement is prohibited, except as permitted herein.

Ground effects are prohibited. Deviation of the undertray may not exceed 2.54cm (1") in the area between the rearmost point of the front tire to the frontmost point of the rear tire. Diffuser undertrays are permitted.

Cockpit: Forward-facing roll bar/roll cage bracing and required padding will not be considered in the dimensions shown in the table.

d. Engines
The only permitted engine is the Ford 2 liter single overhead camshaft "NE" series engine or the 1971-74 Pinto/Capri 2 liter single overhead camshaft engine with nominal bore 90.84mm and stroke 76.95mm (Note: All blocks shall contain casting number HM6015BA, HM6015AA or HM6015BB. Dashes in the casting number are not relevant.). Production tolerances are permitted providing the total swept volume does not exceed 2000cc.

1. The camshaft and rockers shall remain entirely unmodified; they shall be fully manufactured and ground by the Ford Motor Company. Offset keys are permitted. It is prohibited to grind from blanks, regrind, or reprofile. Tuftriding or Parkerizing is permitted. Maximum valve lift at determined points by camshaft rotation will be established. The use of a low rate substitute valve spring is permitted. Load characteristics of special checking spring: twelve (12) lbs., at 1.417 inches, thirty (30) lbs., at 1.000 inches. Maximum valve lift against cam angle with zero tappet clearance: 0.400 +/- 0.005

2. A standard crankshaft shall be used. Spot machining to achieve balance is permitted. Tuftriding, Parkerizing, shot peening, shot

blasting, and polishing are permitted. Minimum weight: twenty-seven point five (27.5) lbs.

3. The flywheel shall be a standard component. The minimum weight is 14.4 lbs. with ring gear. The flywheel may be machined to achieve minimum weight. Spot machining to achieve balance is permitted. Flywheel bolts are free and locating dowels are permitted. A 1600 GT starter ring may be fitted. The use of any single plate clutch is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel. Carbon fiber clutches are not permitted.

4. Maximum compression ratio will be controlled as follows:

   A. Minimum Cylinder Head combustion chamber volume 49cc (not including head gasket). Polishing and/or tooling of the cylinder head to achieve only the required combustion chamber volume is permitted.

   B. Standard Ford gasket; minimum thickness .9mm, minimum diameter of cylinder aperture 92mm.

   C. Pistons shall not protrude above cylinder block surface at TDC.

5. It is permissible to reshape inlet and exhaust port by removal of metal within limits. Addition of material in any form is prohibited. Maximum diameter of inlet port at manifold head face 39.5mm. Maximum dimensions of exhaust port at manifold face 35.5mm x 27mm. The distance between the valve centers and the angles of the valves shall not be altered.

6. Pistons shall be standard Ford production pistons, unmodified in any way except for balancing and as detailed herein.

   The following combinations are permitted:

   A. Piston P/N 80HM6102LA with rings and pin.
   Minimum permitted weight = 1332.5 grams

B. Piston P/N 85HM6102DA with rings and pin.
Minimum permitted weight = 1255 grams.

NOTE: This piston may have either casting #90V108 or #90V118.

C. Piston P/N 21426, casting P/N 21426 (AE Hepolite) with rings and pin. Standard Ford connecting rod with bolts, without bearings.
Minimum permitted weight = 1255 grams.

D. Piston P/N M-6102-B200 with pin. Minimum permitted weight = 1255 grams w/ rings, standard Ford or alternate connecting rods with bolts, without bearings.

NOTE: M-6102-B200 piston assembly is now made by JE and is visually different. I.D. Marks: M-6102-B200, Ford racing logo. All marks pin stamped on wrist pin bosses.

All three (3) piston rings shall be fitted, compression rings and scraper (second) shall be one piece, single homogeneous material-type with conventional plain gaps. Chromium plating of the top ring is optional; oil control rings shall be either single piece twin-land type or apex three piece (two rails and an expander).

Standard Ford connecting rod without bearing; any rod bolt and nut may be used provided no modification is made to the connecting rod. Alternate connecting rods and big end bolt assembly (P/N M-6200-C200) is permitted.

Localized machining of the gudgeon pin bosses to achieve balance and weight by simple machining; all external surfaces, dimensions, and profiles shall remain standard with the exception of the top surface of the piston crown which may have simple machining to achieve balance, and as required in Section 17.1.5.B.5.d.3..

7. Valves shall remain standard; no reprofiling or polishing is permitted.

The original forty-five (45) degree seat angle shall be maintained.

Maximum face diameter inlet 42.2mm.

Maximum face diameter exhaust 36.2mm.

Maximum valve stem diameter 8.4mm.

8. Connecting rods shall be standard Ford parts. Machining is permitted to remove metal from the balancing bosses to achieve balance only. Tuftriding, Parkerizing, shot peening, shot blasting, polishing, etc., are permitted. It is permitted to radius the area around the big-end cap retaining bolts. Big-end bolts, P/N 905500, are permitted.

9. Maximum valve lift against cam angle with zero tappet clearance: (Lift measured in mm)

	Inlet		Exhaust	
Angle	**Opening**	**Closing**	**Opening**	**Closing**
0	10.442	10.442	10.442	10.442
5	10.36	10.36	10.36	10.36
10	10.11	10.11	10.11	10.11
15	9.69	9.69	9.69	9.69
20	9.11	9.11	9.11	9.11
25	8.37	8.37	8.37	8.37
30	7.45	7.45	7.45	7.45
35	6.38	6.38	6.38	6.38
40	5.17	5.17	5.17	5.17
45	3.86	3.86	3.86	3.86
50	2.59	2.58	2.58	2.59
55	1.5	1.47	1.47	1.5
60	0.86	0.81	0.81	0.86
65	0.65	0.56	0.56	0.65
70	0.54	0.43	0.43	0.54
75	0.46	0.33	0.33	0.8
80	0.37	0.19	0.19	0.37
85	0.26	0.08	0.08	0.26
90	0.2	0.01	0.01	0.2

10. Engines will be mounted upright, and aligned fore and aft in the chassis.

11. A single carburetor only will be used on a standard inlet manifold. The carburetor will be a Weber 32/36 DGV 26/27mm venturi, its origin being from a 1600 GT "Kent" or 2000 SOHC NE engine. The Holly 5200 32/36 carburetor also may be used; carburetor with the swaged fuel inlet fitting shall be replaced by drilling and tapping the carburetor body for a threaded fitting. The air cleaner may be removed and a trumpet fitted, and jets may be changed, both throttles may open together, cold start devices and diffused bar may be removed, internal and external antisurge pipes may be fitted, and seals on emission control carburetors may be removed. The bottom of the lower column portion of the auxiliary venturi may be machined for purposes of high speed enrichment. No other modifications are permitted. Chokes (venturi) shall remain standard and no polishing or profiling is permitted.

12. The addition of material by any means to any component is prohibited.

13. It is permitted, as a means of repair, to replace damaged valve seats and cylinder bores by replacement cast iron valve seat inserts and cast iron cylinder liners; valve guides may be replaced with cast iron or bronze, all to standard dimensions.

14. Balancing of reciprocating and rotating parts is permitted only by removal of metal from locations so provided by the manufacturer.

15. Non-standard rocker covers are permitted providing they in no way improve the performance of the engine.

16. Standard valve spring retainers shall be used, and single valve springs only are permitted. Shims are permitted, and valve springs are otherwise free.

17. Exhaust system and manifold are unrestricted, within SCCA safety regulations.

18. Lubrication system is unrestricted; dry sump is permitted. Localized machining of the cylinder block is permitted to allow fitting of the oil pump.

19. Oil coolers are unrestricted.

20. A liquid cooling system is mandatory, but radiator and water pump are unrestricted. The radiator, if housed in or incorporating a cowl air-scoop deflector, shall comply with body regulations.

21. Fuel Pump: Unrestricted.

22. Distributors are unrestricted providing they retain the original drive and location. The distributor is defined as the component which triggers the L.T. current and distributes the H.T. current. The Ignition Timing may only be varied by vacuum and/or mechanical means. It is prohibited to use any other method or component to trigger, distribute, or time the ignition.

23. Only the standard inlet manifold shall be used.

    The ports may be reshaped by the removal of metal as long as the following dimensions are maintained: maximum size at head face = 1.437" (36.5mm), maximum size at carburetor flange = 3.405" (86.5mm) x 1.595" (40.5mm). The carburetor seat face may be machined to horizontal in the fore to aft plane. The diameter of the ports may exceed the above listed dimensions if the casting bore is untouched and in its original state. The water passages in the inlet manifold may be plugged. Holes in the inlet manifold resulting from the removal of emission/vacuum lines shall be plugged.

24. Gaskets and seals are unrestricted except for cylinder head gasket, carburetor-to-inlet manifold gasket, and inlet manifold-to-head gasket which shall be standard Ford manufacture for the engine. Carburetor to inlet manifold gasket as used with Holley 5200 is allowed.

25. Pump, fan, and generator drive pulleys are unrestricted.

26. The crankcase breather may be altered or removed, but all breathers shall discharge into a catch tank.

27. Mechanical tachometer drives may be fitted.

28. Generators are optional.

29. Standard oversize and undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.

30. The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or which do not support the intake manifold or any moving parts of the engine is permitted.

31. Only modifications or additions specifically covered by these regulations are permitted. All engine components not covered by these regulations shall remain completely standard and unmodified.

e. Suspension:
All parts shall be of steel or ferrous material, with the exception of hubs, hub adapters, hub carriers, bell cranks, pivot blocks, bearings and bushes, spring caps, abutment nuts, anti-roll bar links, shock absorber caps, and nuts. Titanium is prohibited.

Springs: Steel only.

Shock Absorbers: Steel or aluminum alloy body.

f. Brakes: Unrestricted (with the below restrictions)

Light alloy brake calipers are prohibited.

Brake rotors are restricted to ferrous material.

g. Steering: Unrestricted.

h. Wheels and Tires:
Thirteen (13) inch diameter wheels with a maximum front rim width of six (6) inch and rear of eight (8) inch are the only wheel sizes permitted. Material is unrestricted providing it is metal.

i. Transmission:
1. The gearbox shall contain not more than four (4) forward gears and include an operable reverse gear, capable of being engaged by the driver while normally seated. The ratios are unrestricted.

    a. The use of automatic and/or sequentially shifted gearbox is prohibited.

b. Electronic assisted gear change mechanisms and electronically controlled differentials are prohibited.

c. Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are not allowed. The sole exception are the gearbox final drive (crownwheel) shaft axis and final drive shafts (half shafts). All change gears must be located in the case aft of the final drive.

2. Rear wheel drive only is permitted.

3. Final drive ratio is unrestricted.

4. The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and locked differentials are prohibited.

j. Fuel System: Fuel cell shall comply with Section 19..

k. Fuel Capacity: Maximum capacity 41 liters (10.83 gallons).

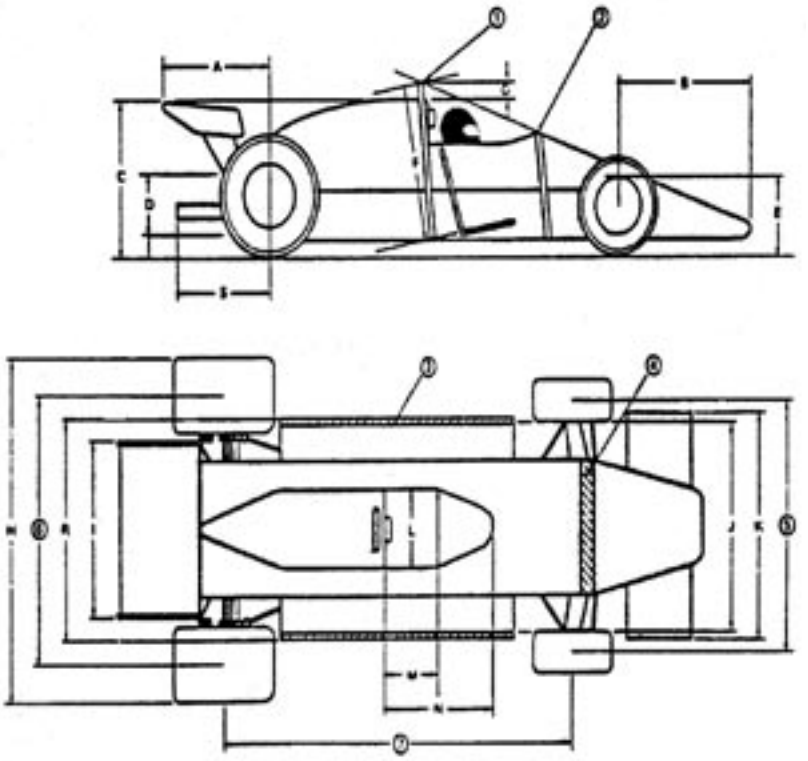
l. Weight: 1190 lbs., minimum with driver.

m. Converted Formula Ford: cars shall reapply for homologation as Formula 2000 cars and meet the 1986 construction rules for Formula Ford - specifically D.6.b., Crushable Structure and D.6.c.1., or 2., Intrusion Protection

F-2000 SPECIFICATION

1. Safety roll-over bar.
2. Substantial support structure.
3. Crushable structure.
4. Substantial structure.
5. Front track.
6. Rear track.
7. Wheelbase

Maximum height is measured with the driver aboard.
Maximum height excludes safety rollover bar on which there is no maximum height.
FIA substantial support structure 2 and 4 apply only to certain International Formulas.



DIMENSIONS (Refer to drawing)	Measurements
A. Maximum rear overhang from rear wheel axis	80
B. Maximum front overhang from front wheel axis	100
C. Maximum height measured from the ground	90
D. Exhaust height measured from the ground	30-60
E. Maximum height of any aerodynamic device	Rim Height
F. Minimum safety rollover bar height inline with driver's spine	92
G. Minimum allowed helmet clearance	5
H. Maximum width	185
I. Maximum rear aerofoil width (includes endplates)	95
J. Maximum body width behind front wheels	95
K. Maximum nose width	135
L. Minimum cockpit opening	45
M. Minimum cockpit parallel opening length	30
N. Minimum cockpit overall opening length	60
S. Maximum exhaust length from rear wheel axis	80
7. Minimum wheelbase	200
5. Minimum track	120
All above dimensions in cm.	

C. FORMULA VEE PREPARATION RULES

C.1. Definition

A formula for single-seat, open-wheel racing cars based on standard Volkswagen 1200 series Type 1, U.S. model sedan (imported by VW) components, and restrictive in specifications so as to emphasize driver ability rather than design and preparation of the car.

Formula Vee is a Restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T**. Homologation is required for all cars registered after January 1, 1983.

No component of the engine, power train, front suspension, brakes shall be altered, modified, or changed, nor be of other than VW manufacture, unless specifically authorized.

Any external surface of the suspension, brakes, and transmission/ rear axle may be painted, plated, or anodized.

Engine components shall be assembled in standard configuration. Exceeding the wear limits specified in the VW manual or other official VW guides is not prohibited provided that tolerances, dimensions, and specifications stated in the GCR are met.

C.2. Weight and Dimensions

Minimum weight as qualified or raced, with driver: 1025 lbs..

Wheel base, Minimum: 81.5"
Wheel base, Maximum: 83.5"
Track, Front: Standard VW – Maximum 51.7" (No Spacers)
Track, Rear: 49 13/16" + 1/8" - 5/8"
Overall length, Minimum: 123" (includes exhaust)
Overall length, Maximum: 127" (includes exhaust)
Body depth at firewall, Minimum: 25"

C.3. Suspension

a. The front suspension and steering shall be standard VW Sedan as defined herein, or an exact replica of the same material and dimensionally identical. The following modifications are allowed:

1. Removal of one torsion bar.

2. The use of any anti-sway bar(s), mounting hardware, and trailing arm locating spacers.

3. The use of any shock absorber(s) which can be mounted on the standard mounts. Spring shocks are prohibited.

4. Relocation of the steering gearbox to any position utilizing an appropriate mounting structure and replacements of the tie rods. Steering damper mount and/or the steering box locating bumps may be removed.

5. Steering column may be altered or replaced and any steering wheel may be used.

6. Use of any desired Pitman arm. Standard steering arms may be altered and speedometer cable hole may be plugged; however, no other modification of the spindle is permitted.

7. Modification of the standard front torsion bar(s).

8. The rubber portion only of the bump stop may be altered or removed.

9. Caster, camber and toe in/out settings are unrestricted. Clearancing of carrier or trailing arm to eliminate binding is permitted. Offset suspension bushings are permitted.

10. Front end ride height adjuster(s) may be used provided they are not adjustable from the cockpit.

11. No structure, item, or component (including the battery) other than bodywork, can protrude further than ten (10) inches from the lower axle beam tube. Any item protruding further than eight (8) inches must include a vertical safety plate. This plate must be constructed of no less than .060" 6061-T-6 aluminum or no less than 16 gauge steel. The plate shall have a minimum frontal surface area of 42 square inches, and shall have a height of not less than four (4) inches and a width of not less than six (6) inches. The plate may have no more than ½ inch curvature or deflection from the horizontal or vertical plane, and shall be attached to the chassis (frame) at all four corners. The lower braces shall not exceed a 15-degree upward angle when measured from the horizontal plane of the lower frame tubes.

    If a vented lead acid battery is mounted in front of the axle beam, it shall be encased in a marine-type container.

    It is recommended that the front area of the nose be filled with foam to aid in impact absorption.

b. The rear axle assembly shall be standard VW sedan as defined herein with axle location provided by a single locating arm on each axle. The rear axle tube may be rotated about its axis. Coil spring(s) shall provide the primary springing medium, with telescopic shock absorber(s) mounted inside the spring(s). Cables, straps, or other positive stops may be used to limit positive camber. An anti-roll bar or camber control device may also be used. When said anti-roll bar or camber control device is removed, the required coil springs shall continue to perform functionally.

c. Wheels shall be standard fifteen (15) inch X 4J as used on the 1200cc and 1300cc VW sedan as defined herein, or the (15) inch X 4.5J. If (15) inch X 4.5J wheels are used, they shall be used as an axle set of two (2) wheels. The (15) inch X 4.5J wheel

axle set may be front, rear, or both, but not side to side. Wheels may be balanced only by the use of standard automotive balance weights (adhesive or clip-on). Hub cap clips shall be removed.

d. Any tire size may be fitted, except that radial race tires (slicks) are not allowed.

C.4. Brakes

a. Brake drums, backing plates, and wheel cylinders shall be standard VW Sedan as defined herein, or an exact replica of the same material and dimensionally identical. Ribbed-type rear drums (VW Part # N113-501 615 D or ICP Part # 113 501 615 D) may be used in place of the 1200 series rear brake drums.

b. These cars shall be equipped with a dual braking system operated by a single control. In case of a leak or failure at any point in the system, effective braking power shall be maintained on at least two wheels. Any master cylinder(s) may be used.

c. A separate hand brake (emergency brake) is not required. Removal of the hand brake and operating mechanism is permitted.

C.5. Engine

The engine shall be a standard VW power plant, as normally fitted to VW sedans as defined herein. Any engine part(s), listed by the manufacturer (VW) as a current, superseding, replacement part for the standard VW 1200 series, Type 1, U.S. model sedan and interchangeable with the original part(s), may be used. Turbocharging is not permitted.

The engine/transmission shall be mounted in the chassis with the transmission to the rear.

The following component parts may be replaced with that of other manufacture, provided said part is of the same material, is dimensionally identical, and meets all other tolerances and specifications stated in the GCR.

a. Engine Case
b. Cylinder Heads
c. Cylinders (an O-ring for centering is permitted).
d. Pistons and wrist pins - minimum combined weight without clips or piston rings = 330.0 grams
e. Cam followers - Minimum weight = 60.0 grams
f. Connecting rods with bolts and small end bushing - minimum weight = 440.0 grams

g. Oil pump -- exact replica of any standard VW oil pump
h. Distributor
i. Ignition points
j. Distributor cap
k. Fuel pump - any standard type VW fuel pump which can be fitted without modification of any other part
l. Crankshaft - minimum weight sixteen (16) lbs..
m. Crankshaft gear
n. Flywheel
o. Pressure plate, or alternate SACHS 211 141 025 DAM pressure plate.
p. Clutch disc
q. Throw out bearing
r. Push rods
s. Push rod tubes

Allowed:

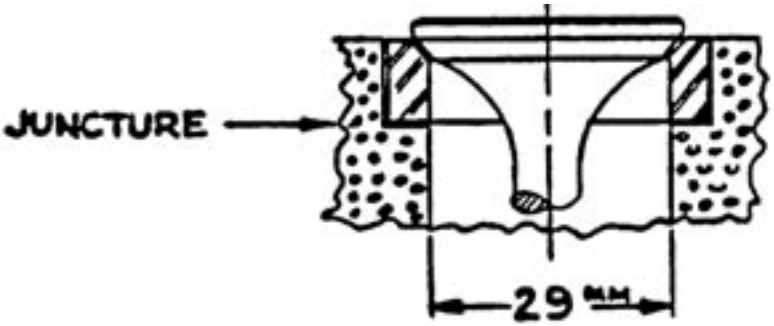
1. Removal of the carburetor air cleaner and choke mechanism.

2. Replacement of standard exhaust system with any exhaust system terminating one (1) to three (3) inches behind the rearmost part of the body.

3. Lightening of the flywheel to a minimum of twelve (12) lbs..

4. Balancing of all moving parts of the engine, provided such balancing does not remove more material than is necessary to achieve the balance except on those component parts where weights are specified. The crankshaft may be ground and the case may be machined to accommodate the use of standard factory oversize/undersize crankshaft bearings, provided the crankshaft location is not changed.

5. Polishing of the intake and exhaust ports, provided such polishing does not enlarge the intake port beyond 29mm inside diameter and the exhaust port beyond 33mm inside diameter. The measurements are to be taken at the juncture of the seat insert and the aluminum port material, and at the manifold face. Valve seat angles shall be machined as specified in the official VW Workshop Manual.



Replacement of intake and exhaust valve seats is allowed for the purpose of repair only. Valve Seats may not be moved from their original position. Welding is not allowed. Installed seats may neither be proud or recessed of the combustion chamber surface.

SEAT DIMENSIONS

VW O.D.		Max O.D.	Max I.D.	Max. Depth
Intake	1.385″	1.445″	1.142″	0.375″
Exhaust	1.265″	1.315″	1.299″	0.375″
Exhaust	1.265″	1.315″	1.299″	0.375″

Inside diameter of intake seat shall be 1.142″ at the juncture of the seat to the aluminum on original seats, or a depth of 0.340″ from the combustion chamber on replacement seats. This is to allow blending of the seat to the port. Valve seat angles may not be larger than the outer diameter of the original VW seat.

6. Matching of manifold flanges is permitted.

7. Complete or partial removal of any cooling duct component. Removal of the fan and the fan housing. Fan belt origin is unrestricted. The use of a fan belt is optional.

8. Fitting of any standard Solex 28 PCI or 28 PICT carburetor. The use of any jets. Any venturi of standard VW/Solex dimensions, which may be fitted without alteration to the carburetor body. The venturi shall be fitted in the standard position, but its internal diameter may be machined. The carburetor may be rotated 180 degrees about its vertical axis. Modification of the float is allowed as long as no change is made to the float chamber and/or float valve.

   Carburetor shall remain untouched with the following exceptions:

1. No material shall be added.

2. Bead-blasting is permitted for cleaning only.

3. Throttle shaft - Shall be a minimum of 0.185" with throttle plate installed. Machined sides shall remain flat and parallel with no chamfering or radiusing.

4. Throttle Plate - Shall be a minimum of 0.053", flat and parallel with no chamfering or radiusing. Diameter shall be a minimum of 1.095".

5. Carburetor Top - The junction of the bowl and bore may be radiused. The bore beneath the radius shall be a maximum of 1.120". Accelerator pump boss shall remain original. The orifice in the base of the accelerator pump boss shall not allow a #56 (0.046") drill bit to pass through (maximum hole diameter shall be less than 0.046").

6. Carburetor Body - The removal of flashing from internal surfaces is permitted, but no additional material is to be removed from the casting in the area of the bore, emulsion tube carrier, or any carrier supports. Bore diameter from throttle shaft down shall not exceed 1.110".

7. Fitting of any standard VW distributor (not restricted to 1200, series). Use of any standard six (6) or twelve (12) volt non-transistorized ignition coil. Mounting location is unrestricted.

8. The heat riser tube and heat sink shall be removed. Removal of metal from the interior of the intake manifold and the interior rust-proofed is permitted provided that the following dimensions are not exceeded.

   Down Tube: The down tube shall be measured at two different locations within an area between .500" and 2.00" above the horizontal manifold tube. Each measurement shall be taken four (4) times, rotating around the circumference of the tube, and averaged. Averaged down tube dimension shall not exceed 1.140 inches O.D.

Horizontal Tube: The horizontal tube shall be measured at four different locations on each side of the down tube. The area to be measured on each side of the down tube is defined as being between the bend and a point that is 1.500" from the center of the down tube connection. Each measurement will be taken four (4) times, rotating around the circumference of the tube, and averaged. Averaged horizontal tube dimension shall not exceed 0.994 inches O.D.

The manifold shall not weigh less than twenty-four (24) ounces.

All exterior surfaces shall be in original condition and unpainted but may have a thin transparent coat of rust proofing material.

9. Voltage regulator, generator and/or generator stand may be removed.

10. The installation of baffles housed completely within the original oil sump and crankcase.

11. The use of oil temperature indicating device in the crankcase.

12. The use of any standard VW oil pump. The oil pump cover may be modified.

13. The use of valve spring shims.

14. The following standard dimensions and tolerances of engine components are included as information and shall be observed:

    Maximum bore: 3.040 inches
    Stroke: 2.520 inches +/- 0.005 inch.
    Minimum capacity of combustion chamber in head: 43.0cc (Polishing and/or tooling is prohibited.) Minimum depth, top of cylinder barrel to top of piston: 0.039 inch.

    The above dimensions may be achieved by machining any previously machined surface, provided that the total surface is machined on the same plane as the previously machined surface. The above

dimensions shall be the average of all four (4) cylinders.

15. The use of any VW clutch of the same diameter as fitted to standard VW sedan as defined herein. The standard clutch operating arm may be modified to allow its attachment in any appropriate position. Dowel pinning of the clutch pressure plate to the flywheel is permitted.

16. An oil sump extension may be fitted utilizing the oil strainer cover plate, provided the extension does not extend horizontally beyond the edge of the oil strainer cover plate and the capacity does not exceed 250cc. The oil pump pickup pipe may be extended into the sump extension. Accumulators (Accusump) may be fitted.

17. Replacement of oil galley plugs with threaded plugs.

18. The following standard dimensions are included for information only and shall be observed:

Exhaust valve diameter: 1.102 or 1.18 inches
Intake valve diameter: 1.18 or 1.24 inches
Reprofiling of valves is not permitted.

19. The crankcase may be machined to permit the use of standard VW camshaft bearing inserts, provided that camshaft location is not changed. The use of the two-relief valve crankcase, P/N 111-110-025E, is permitted.

20. Where minimum weights are specified, any lightening is permissible provided the original part complied with the dimensional restrictions set forth.

21. A VW "D" camshaft, Part Numbers 113-109-015D,113-109-017D,113-109-019D,113-109-021D,113-109-023D, 113-109-025D, 13-109-027D, or an exact replica of the same material and dimensionally identical shall be used. The maximum lift at the valve spring collar with zero valve clearance is:

with 1200 rocker arms -- Intake -- .334" + 0.000"
with 1200 rocker arms -- Exhaust -- .3165" + 0.000"
with 1300/1500 rocker arms -- Intake -- .354" + 0.000"
with 1300/1500 rocker arms -- Exhaust -- .3365" + 0.000"

The camshaft profile shall match exactly those which are specified by the official SCCA camshaft plots, plus or minus .002 inch. It is permitted to regrind the camshaft to duplicate (but not exceed) the official SCCA profile. In so doing, the relationship between the centerlines of peak lift at the exhaust/intake lobes shall remain at 214 degrees fifteen (15) minutes, plus or minus one (1) degree. (Reference the Official SCCA Camshaft Checking Procedure). The camshaft timing may be changed in relationship to the crankshaft by utilizing an offset key at the crankshaft timing gear. Camshaft timing is unrestricted within the restrictions provided under 5.1 or as authorized above. The camshaft profile shall be checked using the official procedure published by the SCCA.

22. Installation of a spark plug hole repair utilizing standard thread repair methods, such as Helicoil, and providing that the spark plug centerline is not changed.

23. A single standard automotive oil filter of not more than one quart total capacity, and a suitable mounting bracket and by-pass valve may be installed. Cooling fins are not permitted on any component. Only flexible unfinned maximum one inch outside diameter oil line (maximum length: twelve (12) feet) and suitable fittings may be used. Modification to the lubrication system to facilitate installation of the oil filter is permitted except that the standard oil cooler shall not be modified. All components shall be contained within the body to the rear of the firewall.

24. Alternate exhaust valves are allowed provided the dimensions and materials are the same as standard (VW) exhaust valves.

25. Any oil cooler is allowed. A total of twelve (12) feet of maximum one (1) inch O.D. oil line, unfinned, may be used to hook up the oil cooler and the oil filter (paragraph y). A small section of the fan shroud may be cut away to allow the oil cooler adapter to be mounted on the base pad of the standard oil cooler. Oil coolers shall be mounted completely inside a plumb line extending

downward from the outermost edge of the bodywork.

26. An alternate oil pressure regulator spring may be used when original oil cooler is replaced with an alternate oil cooler.

27. Rocker arm wave type spacer washers may be replaced by solid steel type flat washers of suitable thickness.

28. Rocker arms may be lightened to a minimum weight of 80.0 grams. Must use only VW parts.

29. Valve springs are unrestricted providing:

    1. No more than one spring shall be used per valve.
    2. The standard spring cap and retainers shall be used.
    3. Spring shall be made of steel.

30. Valve covers are unrestricted and may be bolted on.

31. Crankshaft pulley is unrestricted.

32. Rocker arm shafts may be modified or replaced by those of other manufacture, including shafts that replace the stock clips with a solid center spacer and bolt on end caps/washers.

33. The rocker arm shaft assembly may be shimmed out on the cylinder head mounting studs by placing appropriate shims between the cylinder head mounting boss and the blocks on the rocker arm shaft assembly.

34. The use of any starter is permitted provided it can be fitted without any modification to the engine/transmission.

C.6. Transmission/Rear Axle

The transmission/rear axle assembly shall be standard VW sedan, as defined herein. The synchromesh components shall be in place and operating on at least three (3) gears. Reverse gear shall be operable from the driver's seat.

Allowed:

a. Installation of any standard VW gear set which can

be fitted without modification of any component of the transmission or of the gear set itself and the transposing of the ring gear to provide proper axle rotation. Permanent attachment of the synchro sleeve to 3rd & 4th gear is permitted.

Fully synchromeshed transmission:

Gear	Part Number	No. of Teeth	Ratio
1st	113 311 251A	10:38	3.80
2nd	113 311 261	17:35	2.06
3rd	113 311 275	22:29	1.32
	113 331 275B	23:29	1.26
	113 331 275A	23:28	1.22
4th	211 311 341	28:23	0.82
	113 311 341	27:24	0.89
Ring &	211 517 143A	8:35	4.375
Pinion	311 517 143B	8:33	4.125

Partly synchromeshed transmission:

Gear	Part Number	No. of Teeth	Ratio
1st	113 309 251	10:36	3.60
2nd	113 309 261A	17:33	1.94
	113 309 261	17:32	1.88
3rd	113 309 275	23:28	1.22
	113 309 275A	22:27	1.23
4th	113 309 341A	28:23	0.82
R&P	113 517 141B	7:31	4.43

There are different part numbers for various gears in addition to the ones listed here. This in general indicates changes on the parts such as:

Gear	Part Number	No. of Teeth	Ratio
4th	113 311 341	0.82	with Key Way
	113 311 341A	0.82	with Splines
Ring &	113 517 143	4.125	6 mgt. bolts
Pinion	311 517 143	4.124	8 mgt. bolts

However, there are no other standard ratios than the ones listed here. A gear removed from a transmission can be identified by the number of teeth.

b. Alteration of the shock absorber mounts.

c. Transmission shall not be installed in an inverted position.

d. The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and locked differentials are prohibited.

C.7. Ballasting

Ballasting is permitted, per Section 17.9.

C.8. Frame

The frame/chassis shall be constructed of steel tubing of a maximum diameter or width of four (4) inches and be of a safe and suitable design. The driver's feet shall not extend beyond the rear of the front axle beam tubes.

There shall not be frame/chassis rigidity or strength derived by means other than the frame tubes. Stressed skin, monocoque, or semi-monocoque construction is not permitted, except that:

a. The firewall panel may be rigidly attached to the frame tubes; and,

b. The undertray (belly pan) from the nose to the rear roll hoop shall not be wider than the bodywork at the bottom of the frame rail or no more than 1/4 inch wider (on each side) than the frame rail when the undertray has an upward turned edge that facilitates mounting the undertray to the chassis or that facilitates mounting the body to the chassis. Engine bay undertrays shall be no wider than the frame rails in this area or no more than 1/4 inch wider (on each side) than the frame rail when the undertray has an upward turned edge that facilitates mounting the undertray to the chassis or that facilitates mounting the body to the chassis. The undertray(s) between the axle center lines shall be rigidly attached to the frame provided the curvature of said tray(s), measured vertically from its lowest point to its highest point at its attachment to the frame rail members at its sides, shall not exceed one (1) inch and have no downward turned edges.

Transmission undertrays for cars with a rear subframe shall be no wider than the subframe or no more than 1/4 inch wider (on each side) than the subframe when the undertray has an upward turned edge that facilitates mounting the undertray to the subframe or that facilitates mounting the body to the subframe or 16" whichever is wider. For cars without a subframe, the tray shall be no wider than 16" and shall not deviate more than 1" from the horizontal plane. Undertray must be firmly attached and have no downward turned edges.

The area between the upper and lower main frame tubes, or at least fourteen (14) inches above the floor pan whichever is greater, from the front roll hoop bulkhead to the rear roll hoop bulkhead shall

be protected by one of the following methods to prevent the intrusion of objects into the cockpit.

1. Panel(s), minimum of either .060" heat-treated aluminum (6061-T6 or equivalent) or eighteen (18) gauge steel, attached outside of the main frame tubes.

2. Reinforced body - at minimum, consisting of a double layer, five (5) ounce bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame.

   For either method, fasteners shall be no closer than an average of six (6) inch centers (no stress bearing panels). The material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

C.9. Body

The chart (figure - Section C.12) illustrates both the intended minimum frontal area and car configuration.

The rear bodywork shall enclose the engine by surrounding it from a point no higher than the lower edge of the intake manifold and extending from the front of the engine to its rear on each side. The rear bodywork must have the ability to enclose the original Volkswagen fan shroud mounted in its stock location (see illustration in Section C.12). The top of the rear bodywork shall extend from the back of the firewall to a point at least sixteen (16) inches to the rear of the centerline of the rear axle. Any bodywork forward of the center of the torsion bar tubes shall have a maximum width of 31.75 inches (80.645cm).

No part of the frame or bodywork shall project beyond a plane connecting the vertical centerline of the front and rear tires. Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the car. The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel. Wings (airfoils) are prohibited. Floor and safety equipment shall conform to Section 17., of the GCR. A firewall to prevent passage of flame and debris between the engine area and driver's compartment shall extend the full width of the cockpit and be at least equal to the top of the carburetor in vertical height. Forward facing air ducts may be installed for the purpose of delivering cooling air directly to the engine, cylinder heads, oil cooler, and/or carburetor, provided the ducted air makes a ninety (90) degree bend within the bodywork. Air duct openings may be located within the cockpit

area, and/or penetrate the firewall, provided the duct is baffled or the firewall is extended to prevent flame and debris from reaching the driver. Any shape may be used to form firewall extension. Any other firewall inlet shall also prohibit passage of flame and debris. (Recommend: that ALL of this extension be the same width as the firewall, allowing for bodywork contour limitations, and extend in a horizontal plane back two (2) inches, minimum, past the carburetor body.)

The bottom of any bodywork that extends below the frame members shall be on the same flat plane as the undertray (ref. 5.8) and shall not deviate from that flat plane by more than one (1) inch. Effective for any newly registered cars after January 1, 1983.

Air ducting may be attached to the carburetor and/or the engine.

The rear locating arm(s), coil spring(s), and shock absorber(s) shall not be faired in and shall be visible from the side without removal or manipulation of any part or panel. Specifically, the front mounting point of the radius rod may be inside the trailing edge of the side body panel so long as the panel does not extend over the locating arm itself.

The front suspension upright(s) (shock absorber mounts), shock absorbers, and/or trailing arms shall not be faired in by covering or shrouding away from the air-stream. Wings (airfoils) are prohibited.

Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the car.

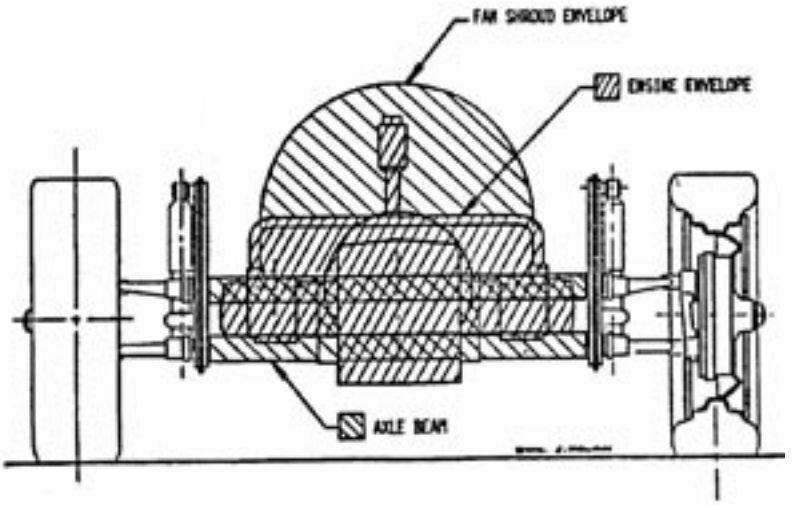
C.10. The use of the following non-standard replacement parts is permitted provided that no unauthorized modification of any other component results.

Allowed:

a. Fasteners (nuts, bolts, screws, etc.)
b. Wiring
c. Gaskets and seals
d. Brake lines and fuel line
e. Spark plugs (maximum 1/2" reach)
f. Piston rings
g. Wheel bearings
h. Connecting rod bearings and crankshaft main bearings of same type and size as standard VW
i. Brake shoes and brake lining
j. Valve guides

C.11. Battery
The use of any single six (6) or twelve (12) volt battery is permitted.

C.12. Front View Note: Illustrates a fan shroud in its stock location



D. FORMULA FORD PREPARATION RULES

NOTE: Contained herein are the 1986 Formula Ford chassis construction requirements.

D.1. Definition
A formula for single-seat, open-wheel racing cars using standard Ford 1600 "crossflow" pushrod engines and with firewall, floor, and safety equipment conforming to the GCR.

Formula Ford is a Restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T**. Homologation is required for all cars registered after January 1, 1983.

D..2. Engine

a. General
The engine shall be standard Ford 1600 GT "Kent" pushrod "crossflow" as installed in the following vehicles:

Original Version: Cortina 1600 GT (through 1970 model)

Uprated version: Cortina 1600 GT (1971)

Components shall not be interchanged between the original and uprated versions of the engine unless specifically authorized. Regulations contained herein apply to both versions of the engine unless specifically stated otherwise.

The engine shall not be altered, modified, or changed in any respect unless specifically authorized herein.

1. The gasket face of the cylinder head may be resurfaced provided the maximum compression ratio is not exceeded and the minimum depth of the combustion chamber is maintained.

2. Valve guides are unrestricted provided the position of the valve is not changed. Standard Ford replacement valves, with oversize stems, may be used as normal repair/maintenance procedures. Specifications, under D.2.f., "Valves," shall be observed. It is permitted to recut or replace valve seats. Valve seat angles are unrestricted.

   Exhaust emission control, air pumps, and associated lines and nozzles shall be completely removed. When these air nozzles are removed from a cylinder head, the holes shall be completely plugged. Balancing of all moving parts of the engine is permitted provided that such balancing does not remove more material than is necessary to achieve such balance. It is permitted to polish parts of the engine providing the contour of the part is not altered and can be recognized as the original part.

Maximum compression ratio: 10.0 to 1 -- Original engine
9.3 to 1 -- Uprated engine

The following specifications are used in determining compression ratio:

Uprated 1.33cc - top ring to top of piston, -0.3cc - volume of valve protrusion
Original: 1.64cc - top ring to top of piston
Both engines: 4.75cc - head gasket.

Compression ratio shall be checked using the official procedure published by SCCA.

Minimum unswept volume per cylinder:

44.4cc (original engine with standard pistons)
45.1cc (original engine with .030"0/s pistons)
48.2cc (uprated engine with standard pistons)

b. Block

Bore: May be enlarged for clearance between cylinder and piston.

Cylinder liners may be fitted. The top surface of the block may be milled or surface ground to obtain the maximum compression ratio specified above. Any steel center main bearing cap may be used. The oil pump mounting face on the block may be machined for the purpose of fitting an oil pump.

The 1600 Pinto block, P/N DIFZ-6010-C, may be used as a replacement for the Cortina GT block; Standard Pinto tappets, P/N DORY 6500A and DIFZ 6500A may also be used when this block is used as a Cortina GT replacement. 1600 Fiesta block permitted.

c. Cylinder Head

Ports may be reshaped by the removal of metal as long as the port diameter at the manifold face of the head does not exceed the following dimensions:

Inlet: 1.50" Exhaust: 1.16"

Combustion chamber (original engine only):

Minimum depth 0.115"
Maximum length: 3.15"
Minimum volume per cylinder: 7.8cc

Reshaping is prohibited.

The use of the Pierce aluminum cylinder head is permitted.

The standard head gasket shall be used. Head gaskets may be interchanged between the original and uprated versions of the engine.
Ford Pinto cylinder head P/N DORY 6049B is permitted on the Cortina GT engine.

The following head gaskets are allowed:
1. Ford Part # 931M6051AA
2. Payen Part # AH-750
3. Felpro Part # 8360PT-1

d. Inlet Manifold

The ports may be reshaped by the removal of metal as long as the following dimensions are maintained:

Maximum Size at head face:

	Original Engine	Uprated Engine
Cyl. 1 & 4:	1.48″ x 1.28″	1.24″
Cyl. 2 & 3:	1.25″	1.25″

Maximum size at carburetor flange:
3.060″ x 1.389″ Max. length: 3.80″
Primary choke end radius:.709″
Secondary choke end radius: .787″

The carburetor face of the inlet manifold may be machined to the horizontal to compensate for fore/aft tilt of the carburetor.

The diameter of the ports on the uprated engine may exceed the above listed dimensions if the casting bore is untouched and in its original state.

The water passages in the inlet manifold may be plugged. Holes in the inlet manifold resulting from the removal of emission/vacuum lines shall be plugged.

e. Pistons

Standard 0.015 inch oversize or 0.030 inch over size pistons may be used in the original engine. Only standard size pistons shall be used in the uprated engine.

Standard size AE pistons P/N 18649, casting P/N 18634, may be used in the uprated engine.

Alternate piston identified as follows is allowed: P/N AE-M717D, casting number 711 M 6110. AE Hepolite P/N 20552, Casting # 20548A.

Note: Mahle pistons are not allowed.

	Original Engine	Uprated Engine
Maximum diameter:		
Standard:	3.189″	3.189″
0.015″ o/s:	3.204	Not permitted
0.030″ o/s:	3.219″	Not permitted
Depth of bowl:		
(+/- .005″)	0.500″	0.500″
Minimum volume of bowl:	31.5cc	
Maximum diameter of bowl:	2.28″	2.44″
Centerline of wrist pin to crown:	1.737″ +/- .002″	1.737 +/- .002″
Overall height:	3.30″	3.30″
Minimum weight w/rings & pin:	525 grams	525 grams
Weight of pin:	115 +/- 2 grams	

Piston rings are unrestricted provided that:

1. One oil control and two compression rings are used.

2. No modification is made to the piston for the installation of rings.

3. Pocketing of the piston valve reliefs is allowed up to a maximum of .050″ to obtain the maximum combustion chamber volume.

f. Valves

	Original Engine	Uprated Engine
Distance apart at centers:	1.540″ +/- .020″	1.540″ +/- .020″
Max. diameter:		
Inlet:	1.502″	1.560″
Exhaust:	1.252″	1.340″
Overall length:		
Inlet:	4.280″ +/- .006″	4.367″ +/- .020″
Exhaust:	4.260″ +/- .006″	4.355″ +/- .020″

Reshaping of the valves is specifically prohibited.

Alternate valve AE p/n V34524 (intake), V34525 (exhaust) are permitted.

g. Camshaft

The camshaft lobe profile shall not be altered. The following specifications are provided for checking purposes:

Lobes, heel to toe:
Inlet: 1.311″ Maximum
Exhaust: 1.312″ Maximum

Lobes, base circle radius:
Inlet: 0.540″
Exhaust: 0.545″

Lift at top of pushrod:
Inlet: 0.231″ +/- .002″ Maximum
Exhaust: 0.232″ +/-.002″ Maximum
Lift at spring cap:
Inlet: 0.356″ Maximum
(Zero tappet setting)
Exhaust: 0.358″ Maximum

Note: Recontouring of the valve stem contact pad of the rocker arm is permitted, provided the maximum lift at the spring cap is not exceeded.

Offset camshaft/sprocket dowels are permitted.

Camshaft profile and lobe centers shall be checked using the official procedure published by SCCA.

A camshaft that is a replica of the original camshaft and of the same material and dimensionally identical may be used.

h. Valve Springs
Valve springs and valve spring shims are unrestricted:

1. No more than one spring shall be used per valve.

2. The standard spring cap and retainers shall be used.

3. Spring shall be made of steel.

i. Pushrod

Original Engine
Minimum stem diameter: 0.25″
Overall length: 7.64″ Minimum
Minimum weight: 50 grams

j. Connecting Rods
Minimum weight: Both engines: 630 grams

(Note: Weights include cap, bolts, and small end bush, but not big end bearing shells).

k. Crankshaft (Fiesta crankshaft permitted)
Alternate cast steel crankshaft is permitted with same weight as stock crankshaft.

Weight:
Original engine: 23 lbs. 8 oz. Minimum
Uprated and Fiesta Crankshaft: 24 lbs. 8 oz. Minimum
Stroke (at piston): 3.056" +/- .004"
Crankshaft pulley: unrestricted.
Either crankshaft may be used in either engine.
The crankshaft may be shot peened.

l. Flywheel
Weight with ring gear:

15.5 lbs minimum for the original and uprated engine.

The flywheel may be machined provided the machining to reduce weight to the above minimum weight retains the standard profile. Flywheel locating dowels are permitted.

An alternate flywheel from JAE, part # JAE1600 is also allowed to the above weight of 15.5 lbs.

m. Carburetor

Original Engine: Weber 32 DFM or DFD or Holley 5200

Venturi Diameter:	Primary:	26mm
	Secondary:	27mm

Uprated (Kent) Engine: Weber 32/36 DGV or Holley 5200

Venturi diameter:	Primary:	26mm
	Secondary:	27mm

1. The fitting of any jets (including accelerator pump discharge nozzle) which may be fitted without modification to the carburetor body.

2. Modification or substitution of external throttle linkage.

3. The fitting of internal and/or external anti-surge pipes.

4. The removal of the air cleaner.

5. The fitting of a velocity stack (intake air horn).

6. The removal of the choke butterflies and linkage.

7. An alternate carburetor gasket is permitted provided it is the same thickness as the original gasket.

n. Fuel Pump: Unrestricted

o. Exhaust Manifold: Unrestricted

p. Lubrication System
Oil pump and sump: Unrestricted
Dry sump system is permitted.

q. Cooling System
Radiator, fan, and water pump: Unrestricted
Pump/fan/generator drive belt: Unrestricted

r. Electrical Equipment
Distributor: Distributors are unrestricted provided the original drive, location, and housing (standard Motorcraft, Bosch, or Lucas) are retained. The distributor is defined as the component that triggers the LT current and distributes the HT current. The ignition timing may only be varied by vacuum and/or mechanical means. It is prohibited to use any other method or component to trigger, distribute, or time the ignition. Standard Motorcraft (Autolite), Bosch, or Lucas. The vacuum advance mechanism may be removed, and the distributor advance plate may be secured by soldering or welding or by suitable fasteners. The advance curve and advance springs are unrestricted. Generator/ Alternators: not required. All other electrical components are unrestricted.

s. Miscellaneous

1. The timing chain/sprocket cover may be altered or replaced.

2. The use of the following non-standard replacement parts is permitted provided their use does not result in any unauthorized modification of any other component:

   A. Fasteners (nuts, bolts, screws, studs, etc.) except intake manifold fasteners. Intake manifold fasteners may be of either a socket head or hex head configuration.

   B. Gaskets, except head gasket, carburetor to inlet manifold gasket, and inlet manifold to head gasket. Carburetor to inlet manifold gasket as used with Holley 5200 is allowed.

C. Washers.

D. Seals.

E. Connecting rod, crankshaft, and camshaft bearings of the same size and type as original. Normal oversize/undersize bearings are permitted. This does not allow reducing the bearing surface area by reducing the width of standard bearings.

F. Spark plugs.

G. Rocker pedestals that are of the same material and dimensionally identical (i.e. shaft location, offset, etc.) to the original components may be used.

3. Mechanical tachometer drive is permitted.

4. The crankcase breather may be altered or removed.

5. The rocker cover may be altered to provide for crankcase ventilation, and the filler cap may be altered or replaced.

6. The crankshaft and main bearing caps may be treated with salt-bath nitriding cover under SAE specification AMS 2755A (tuftriding, etc.)

7. The use of any oil or lubricants.

8. Valve or rocker covers may be substituted, provided that the replacement cover affords no additional function than that of the original stock cover.
9. Water pump, fan, and generator/alternator pulley(s) are unrestricted.

10 Exhaust Outlets

Exhaust outlets on cars registered after January 1, 1996 shall not extend more than 60cm (23.60") behind the centerline of the rear axle and shall be positioned between 30cm (11.8") and 60cm (23.6") from the ground, measured to the bottom of the exhaust pipe.

11. Exhaust Outlets: Cars registered prior to January 1, 1986.

A. It is recommended that all exhaust outlets be no longer than 60cm (23.60") behind the

centerline of the rear axle and positioned between 30cm (11.8") and 60cm (23.6") from the ground.

B. For cars unable to comply with the above rule (A.), they shall have a support bracket that attaches within six (6) inches of the outlet end, and the support bracket shall extend no more than thirty (30) degrees from vertical to the rear. Beginning January 1, 1986, it is mandatory for all Formula Ford cars.

D.3. Transmission

Any transmission may be used with not more than four (4) forward gears and an operational reverse gear.

a. The use of automatic and/or sequentially shifted gearbox is prohibited.

b. Electronic assisted gear change mechanisms and electronically controlled differentials are prohibited.

c. Gearboxes with shafts that are transverse to the longitudinal axis of the chassis are not allowed. The sole exception are the gearbox final drive (crownwheel) shaft axis and final drive shafts (half shafts). All change gears must be located in the case aft of the final drive.

D.4. Final Drive

Any final drive unit may be used except:

a. Drive shall be to rear wheels only.

b. The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and locked differentials are prohibited.

D.5. Clutch

The use of any single plate clutch is permitted provided no modification is made to the flywheel other than changing the points of attachment of the clutch to the flywheel, and provided that it shall have an operable clutch system. Carbon Fiber clutches are not permitted.

D.6. Chassis/Frame

Formula Ford 1986 construction requirements as of January 1, 1986. All new Formula Ford cars are to be built to these specifications covered in D.6., through D.7.h.. (Required for Formula 2000 also.)

a. The chassis shall be of steel space frame construction. Monocoque-type structures are prohibited. Stabilized (honeycomb) or composite (carbon fiber or Kevlar) materials are not permitted, except as specifically authorized within these rules. The frame shall incorporate a roll cage per Section 18., (revised January 1, 1984). Forward-facing braces protecting the driver's legs and feet shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the furthest forward transverse section of the main frame.) The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedals not depressed) and shall remain behind the front bulkhead. The lower main frame rails shall be a minimum of twenty-five (25) centimeters (9.84") apart (inside dimension) from the front bulkhead to the rear roll hoop.

b. There shall be a crushable structure, securely attached to the front bulkhead, with a minimum cross section of 200 sq. cm (31 sq. in.), 40cm (15.75") forward of the clutch and brake pedals (not depressed)constructed of a minimum of eighteen (18) gauge 6061-T4 or equivalent aluminum.

   Radiators may be incorporated in this structure.

c. The area between the upper and lower main frame tubes from the front roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by one of the following methods to prevent the intrusion of objects into the cockpit.

   1. Panel(s), minimum of either .060" heat treated aluminum (6061-T6 or equivalent) or eighteen (18) gauge steel, attached outside of the main frame tubes.

   2. Reinforced body - at minimum, consisting of a double layer, five (5) oz., bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame.

      For either method, fasteners shall be no closer than six (6) inch centers (no stress-bearing panels). The material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

d. A stress-bearing floor pan/undertray, minimum of .060" heat treated aluminum or eighteen (18) gauge steel, is required from the front bulkhead to

the rear roll hoop bulkhead. Its curvature shall not exceed one inch.

Sheet materials attached to the frame by welding, bonding, or by rivets or threaded fasteners which are located closer than six (6) inch centers, are defined as stress-bearing panels. Composite or stabilized materials shall not be used for stress-bearing panels. The mountings for brake and clutch pedals and cylinders (front bulkhead), instruments, (front roll hoop bulkhead), and rear roll hoop bulkhead (behind the driver) may also be stress-bearing panels. No other stress-bearing panels are permitted.

The firewall portion of the rear roll hoop bulkhead (panel) shall extend the full width of the cockpit and be at least equal to the top of the carburetor in vertical height. Forward facing air ducts may be installed for the purpose of delivering air directly to the engine area. Air duct openings may be located within the cockpit provided the firewall is extended to prevent flame and debris from reaching the driver. (Any shape may be used to form firewall extension.) All firewall inlets shall prohibit passage of flame and debris.

Brackets for mounting components, such as the engine, transmission, suspension pickups, instruments, clutch and brake components, and body panels may be nonferrous, of any shape, and fastened to the frame in any manner.

D.7. Bodywork

a. The bodywork opening giving access to the cockpit shall have the following minimal dimensions:

   Length: 60cm (23.622 inches)
   Width: 45cm (17.717 inches) This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the bracing, and required padding will not be considered in these dimensions.

b. The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel.

c. Bodywork (including fuel tanks) shall not exceed a maximum width of 95cm (37.44 inches). No part of the bodywork, rear spoiler, or exhaust system shall extend more than 100cm (39 inches) behind the centerline of the rear axle. Bodywork shall not increase in width behind the centerline of the rear

axle in any horizontal section. There shall be no forward facing gaps or openings in the bodywork with the exception of those necessary for engine cooling, engine air inlet, shock, or brake cooling. All bodywork shall be firmly attached to the chassis. Wings and other airfoil devices which create aerodynamic downforce are prohibited. No extension of the undertray or attached components for the purpose of downforce or ground effects are permitted. Any part of the car which has an influence on the aerodynamic stability of the vehicle shall be firmly attached with no provisions for adjustment to vary downforce, except that a single rear spoiler, which may be capable of adjustment, is permitted. Cockpit adjustment is not permitted. This spoiler shall be no wider than the surface to which it is attached, and there shall be no gap between the spoiler and the body surface to which it is attached.

d. No part of the bodywork or rear spoiler shall exceed the height of a horizontal plane 90cm (35.4 inches) above the ground, with the car as qualified or raced, with driver aboard. The safety roll bar/ roll cage and engine air box are not included in this height restriction.

e. It is the intent of these rules to minimize the use of "ground effects" to achieve aerodynamic downforce on the vehicle. Thus, for the full width of the body between the front and rear axles, the lower surface (surface licked by the airstream) shall not exceed 2.54cm (1 inch) deviation from the horizontal in any longitudinal section through that surface. (This is not to be interpreted as requiring a floor pan beneath the motor, transaxle, transmission, or final drive housing.) Diffuser undertrays or venturi tunnels are prohibited. No aerodynamic devices (e.g., skirts, body sides, etc.) may extend more than 1cm (0.394 inches) below the lower surface of the floor pan to the rear of the front axle. Seat buckets or other protrusions shall not circumvent this rule. It is not permitted to duct air through any part of the bodywork for the purpose of providing aerodynamic downforce on the car. All ducted air for heat exchangers (water/oil) shall pass through those heat exchangers.

f. Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the car.

g. Fuel cell air vents shall be located at least 25cm (9.84 inches) to the rear of the cockpit. Safety fuel cell requirements per GCR Section 19..

h. Carbon fiber is not permitted.

D.8. Suspension

Suspension is defined as the system of springs, shock absorbers, control arms, links, etc., supporting the vehicle on its axles. Sway bars, sway bar links, steering components, etc., are not classified as suspension for this discussion.

All suspension components shall be of steel or ferrous material, with the exception of hubs, hub adapters, hub carriers, bell cranks, pivot blocks, bearings, and bushings. Front and rear hub carriers shall be only steel or aluminum alloy for cars manufactured after January 1, 1983. Springs shall be steel only.

Control arms and all associated items which attach directly to the chassis members shall be boxed in or captured to prevent intrusion into the cockpit.
Shock absorbers: Design - unrestricted; Casing Material steel or aluminum alloy.

All components which are not defined as chassis/ frame or suspension are unrestricted, unless otherwise restricted by these rules or the GCR. Titanium is prohibited.

It is not permitted to attach spoilers, fairings, or other devices which may exert downforce to the movable suspension members. If the suspension member is of streamline or airfoil cross section, it shall be symmetrical about its horizontal axis. Brake lines may be attached to the suspension.

D.9. Brakes

Unrestricted, except that calipers shall be cast iron, and rotors are restricted to ferrous material.

Forward facing brake cooling ducts may be installed, but shall serve no other function or purpose.

D.10. Wheels

Wheels are unrestricted except that:

a. Material is unrestricted providing it is metal.

b. Diameter shall be thirteen (13) inches.

c. Rim width shall not exceed 5.5 inches.

d. Wheel covers, wheel fans, or any device to fair in the wheel is prohibited.

D.11. Weight

Minimum weight as qualified or raced, with driver:
1050 lbs. - Original Engine
1100 lbs. - Uprated Engine

D.12. Tires

Per Section 11.2.1.D of the GCR

D.13. Cars Registered Prior To 1/1/86

The following specifications are for cars registered prior to January 1, 1986 and for Technical Inspection only. No cars are to be built to these specifications (0.6.6. through 0.6.8.E.) as of January 1, 1986.

A. Chassis/Frame

The chassis is defined as the frame. It shall be a steel space frame. Monocoque-type structures are prohibited. Sheet material affixed to the frame by welding, bonding, or riveting, or by bolts or screws which are six (6) inch centers are defined as stress-bearing panels.

The undertray, for safety reasons, shall be a stress-bearing panel. Its curvature shall not exceed one (1) inch. The mountings for brake and clutch pedals and cylinders, and for the instrument panel and the bulkhead (panel) behind the driver may be stress-bearing. No other stress-bearing panels are permitted.

Brackets for mounting components, such as the engine, transmission, suspension pick-ups, instruments, clutch, and brake components, and body panels may be non-ferrous, of any shape, and fastened to the frame in any manner.

Gussets are defined as of steel, fastened to a maximum of two (2) members, and are specifically permitted.

The firewall portion of the bulkhead (panel) shall extend the full width of the cockpit and be as high as the top of the carburetor. Forward facing air ducts may be installed for the purpose of delivering air directly to the engine area. Air duct openings may be located within the cockpit provided the firewall is extended to prevent flame and debris from reaching the driver. (Any shape may be used to form firewall extension.) All firewall inlets shall prohibit passage of flame and debris.

B. Suspension and Running Gear

Suspension is defined as the system of springs, shock absorbers, A-arms, links, etc., supporting

the vehicle on its axles. Sway bars, sway bar links, steering rack housings, steering links, etc., are not classified as suspension or running gear for this application.

All components shall be of steel, with the exception of hubs, hub adapters, rear hub carriers, and bearings and bushings. Front hub carrier material shall be of steel or aluminum alloy. The materials for front and rear hub carriers on cars manufactured after January 1, 1983 will be only steel or aluminum alloy. Springs: steel only, titanium is prohibited.

Shock absorbers: Design: Unrestricted.
Casing Material: Steel or aluminum alloy.

All components which are not defined as chassis/frame or suspension or running gear are unrestricted, unless otherwise restricted by the GCR. Titanium is prohibited.

C. Body

1. Definition of Bodywork

   Internally: All visible parts of the passenger compartment.

   a. The bodywork opening giving access to the cockpit shall have the following minimal dimensions:

      Length: 60cm (23.622 inches)
      Width: 45cm (17.72 inches)

      This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the firewall. Forward facing roll bar/cage bracing and required padding will not be considered in these dimensions.

   b. The driver's seat shall be capable of being entered without the manipulation or removal of any part or panel.

   c. Bodywork, including fuel tanks, shall not exceed a maximum width of 95cm (37.4 inches).

   d. No part of the bodywork and aerodynamic devices shall exceed the height of a horizontal plane 90cm (35.4 inches) above the ground. The safety roll bar/roll cage and engine air box are not included in this

height restriction. Measurements are to be made in any condition, driver on board.

e. No part of the bodywork shall extend more than 100cm (39 inches) behind the centerline of the rear axles.

f. Any specific part of the car which has an aerodynamic influence on the stability of the vehicle shall be firmly fixed with no provisions for adjustment to vary downforce.

g. Side-mounted radiators (behind the front wheels) may extend beyond the 95cm (37.4 inches) limitation, but not beyond a vertical plane passing through the centerlines of the front and rear tires. Any portion of a radiator that extends beyond the 95cm (37.4 inches) limitation cannot be covered with any type of shrouding. Radiators mounted in front of the front wheels are considered front mounted and cannot exceed the 95cm (37.4 inches) limitation.

2. Wings and other airfoil devices which have the principal effect of creating aerodynamic down-thrust are prohibited. Airfoil: Any device or part of a car (excepting normal and conventionally styled bodywork) which has a principal effect of creating aerodynamic downthrust. Within this definition may be included forward facing gaps or openings in the bodywork, but shall not include spoilers in the form of raised surfaces, continuous with the body surface, and not wider than the body surface.

3. It is the intent of these rules to minimize the use of "ground effects" to achieve aerodynamic down-force on the vehicle. Thus, for the full width of the body between the front and rear axles, the lower surface (surface licked by the air-stream) shall not exceed 2.54cm (1 inch) deviation from the horizontal in any longitudinal section through that surface. (This is not to be interpreted as requiring a floor pan beneath the motor, transaxle, transmission, or final drive housing.) No aerodynamic devices (e.g., skirts, body sides, etc.) may extend more than 1cm (0.394 inches) below the lower surface of the tub or chassis floor to the rear of the front axle. Seat buckets or other protrusions shall not circumvent this rule. It is not permitted to duct air through any part of the bodywork

for the purpose of providing aerodynamic downforce on the car. All ducted air for heat exchangers (water/oil) shall pass through those heat exchangers.

4. Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the car.

5. Fuel tank air vents shall be located at least 25cm (9.843 inches) to the rear of the cockpit.

E. FORMULA 500 PREPARATION RULES

E.1. Definition

A class for single-seat, open-wheel, rigid-suspension race cars using snowmobile-derived engines and drive components. Specifications are restrictive in nature in order to emphasize driver ability rather than design.

Formula 500 is a Restricted class. Therefore, any allowable modifications, changes, or additions are as stated herein. There are no exceptions. **IF IN DOUBT, DON'T**. Homologation is required for all cars registered after January 1, 1983.

E.2. Weight and Dimensions

Minimum weight as qualified and raced, with driver, shall be 750 pounds (800 lbs. for AMW and Rotax 494 engines, *850 lbs. for Rotax 493 engines).*

Wheelbase:	Maximum	80"
Overall Length:	Minimum	110"
	Maximum	150"
Overall Width:	Minimum	50"
	Maximum	55"

E.3. Suspension shall be restricted and of a safe, suitable design. "Restricted" is defined as follows:

a. There shall be no springs or shock absorbers acting either directly or indirectly between the frame/chassis and axle.

b. Rear driving axle shall be of solid or tubular steel. Axle shall be one piece live axle, driving both rear wheels. Trailing arms are allowed. Differentials and/or slip joints are not permitted. The object of E.3.b., is to eliminate independent rear suspension of any type, or provision for lateral movement of the axle shaft to facilitate independent-type suspension.

c. Blocks, bushings, and/or mounts of rubber or similar material shall be used to isolate engine and drive

assemblies, and/or axles from vibration, shock, or track irregularities. The number of mounts shall not exceed one (1) per wheel and shall not exceed one (1) inch in thickness in uncompressed state nor shall they be stacked. The diameter of the mounts shall not exceed two (2) times their thickness. The mounts shall carry the weight of the car. Installation will be evaluated on compliance with both the letter and the intent of this provision.

d. Front axle(s) design and/or mounting configuration shall be such that the axle(s) does not function as a torsion bar. Split-axle/independent front suspension is permitted so long as suspension control is effected solely by the mounting defined herein.

e. Anti-sway bars are not permitted.

E.4. Brakes

Brakes shall be foot-pedal operated, hydraulic disc or drum-type, acting on all four wheels. The brakes shall be a dual system, arranged in a manner to provide braking for at least two (2) wheels in the event of failure in part of the system.

E.5. Steering

Steering is unrestricted provided it is of a safe and suitable design.

E.6. Transmission and Final Drive

Transmission of power from the engine to the rear wheels shall be through an automatic torque converter-type, centrifugal variable ratio drive, using a belt and/or drive chain and centrifugal clutch. Sprocket and/or pulley diameters may be changed to alter the drive ratio. No electronically or driver-controlled variable drive is permitted.

E.7. Frame/Chassis

The frame/chassis assembly shall be constructed of steel tubing, and shall be of a safe and suitable design. The monocoque-type chassis is permitted but shall have reinforcement plates at all points of attachment for axles, engine, drive components, roll cage, and driver restraint system. There shall be a bulkhead incorporated in the chassis forward of the soles of the driver's feet with the pedals depressed. Forward-facing braces protecting the driver's legs and feet shall extend from the front roll hoop to the front bulkhead.

The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedal not depressed).

All cars registered prior to January 1, 1990 shall comply with the above or provide foot protection in the following manner:

There shall be a crushable structure, securely attached to the front bulkhead, with a minimum cross section of 200 square cm. (31 square inch), a minimum of 40cm (15.75 inches) forward of the brake pedal (not depressed) constructed of a minimum of eighteen (18) gauge 6061-T4 or equivalent aluminum. Radiators may be incorporated in this structure.

E.8. Roll Cage

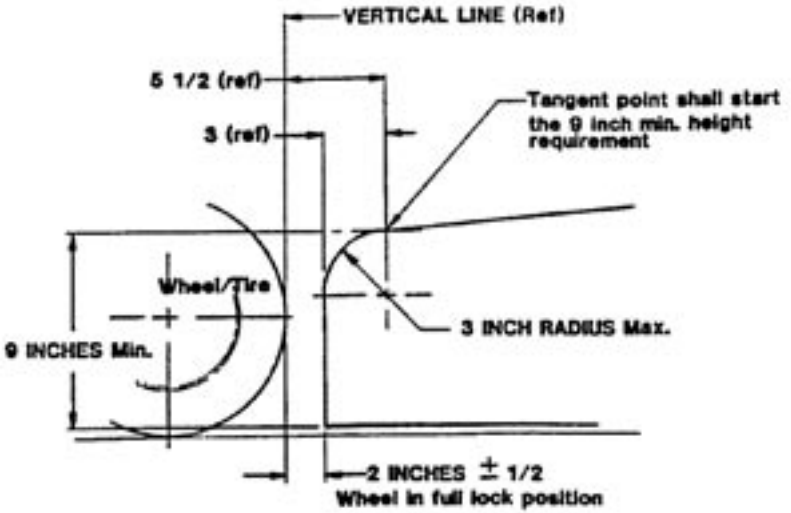
Cars shall have a full roll cage of steel, designed so that when viewed from overhead, an opening, having a minimum width of fourteen (14) inches and a minimum length of seventeen (17) inches is available for driver extraction under emergency conditions. Cars shall have roll cages which comply with Section 18.

E.9. Bodywork

All mechanical components of the car, forward of the roll cage, shall be covered by suitable bodywork. Exceptions are the wheels, brakes, front suspension components, and the cockpit. Driver's seat shall be capable of being entered without the removal or manipulation of any part or panel. Sports car noses are recommended provided they do not extend beyond the outside edge of the front tires, do not stand taller than the top of the front tires, and their rearward most portion does not extend beyond an imaginary line drawn from the center of the front wheel, forty (40) degrees forward from vertical.

Bodywork behind the front wheels and forward of the rear wheels shall extend to within one (1) inch of a line connecting the outer edges of the front and rear wheels. In a horizontal plane it shall begin within two (2) inches (+ 1/2 inch) of the turned position of the front tire and extend to within four (4) inches (+ 1/2 inch) of the rear tire. The sidepod(s) shall be continuous from the outside edge of the main bodywork, at a minimum height of nine (9) inches, maximum twelve (12) inches measured from the bottom plane of the car. The sidepod(s) shall be closed across the front except for air duct openings to heat exchanger(s), but ALL ducted air shall pass through those exchanger(s). The sidepod(s) may be open to the rear. Sidepod(s) is (are) intended to restrict wheel entanglement between cars. The purpose of these rules is to eliminate the use of "ground effects" to achieve aerodynamic downforce on the vehicle. Thus, for full width of the body between the front and rear axles, the lower surface (surface licked by the airstream) shall not exceed 2.54cm (1 inch) deviation from the horizontal in any longitudinal section through that surface. (This is

not to be interpreted as requiring a floor pan beneath the motor or rear axle.) The bodywork shall not extend below the surface of the tub or chassis floor to the rear of the front axle. Seat bucket or other protrusions shall not circumvent this rule. It is not permitted to duct air through any part of the bodywork for the purpose of providing aerodynamic downforce on the car. Wings are prohibited.



E.10. Tires

Any recognized ten (10) inch racing tire with any tread width up to a designed 7.5 inch width may be used. Any HR rated radial tire may be used as a rain tire.

E.11. Wheels

Wheels shall not exceed a ten (10) inch diameter and 8.5 inch width.

E.12. Ballast

Ballast may be added to meet the minimum weight requirement provided it is securely mounted within the bodywork and serves no other purpose. It is recommended that underweight cars be brought to the minimum limit by adding strengthening material to areas providing driver protection; i.e., roll cages, frame rails, etc., rather than simply bolting in additional weight.

E.13. Fuel Tank

The fuel container shall comply with GCR Section 19., located within the bodywork, ahead of the rear wheels and behind the centerline of the front wheels. Monza/

flip-top caps are prohibited.

E.14. Fire Extinguisher

System types, capacities, and mounting requirements shall be in compliance with GCR Section 17..

E.15. Engines

En gines shall be two-cylinder, two-cycle, water-cooled in stock configuration as listed below: Fuji "Chaparral" Model G44bw. "Kawasaki TC440A"/C-200, B-201, C-201, C-202, F-202, and G-203. The F-202 and the G-203 are electric start engines. Cylinder head P/N 440/2A is permitted for the engines listed. Only the "A" series engine is legal; the use of any parts from other Kawasaki series engines is prohibited. Rotax Model 494, single expansion chamber, electric starter optional. Rotax 494 RAVE engine not allowed. Rotax 493 engine allowed.

AMW engine as specified:

The AMW engine approved for F500 shall be the AMW model no. 250-2 RC2, two-cylinder, two cycle, liquid cooled, reed valve engine with a nominal bore and stroke of 72mm x 61mm and a displacement of 497cc. All components of the engine shall be in "as cast" condition or as delivered from AMW. No component of the engine may be altered, modified, or changed nor be of any other origin than the original equipment manufacturer (OEM) unless specifically authorized in these rules. Any Y-pipe exhaust manifold and single expansion chamber meeting 12.1.6.E.15.b is permitted. All factory technical bulletins shall be approved by the Club Racing Board prior to implementation and publication. AMW Technical Bulletins #10/96.01, Published October 1996, #03/97.01, Published January 1997 and Technical Bulletin #04/99.01, Published February 1999, have been approved by the Club Racing Board.

Hardware items (nuts, bolts, etc.) may be replaced with similar items performing the same fastening function(s).

No component of approved engines may be altered, modified, or changed, nor be of any other than original equipment manufacture unless specifically authorized. Engine components shall be assembled in stock configuration. Stock configuration is defined as including: thermostat, water outlet elbow, ignition harness, etc.

Authorized Changes:

a. Carburetors: The induction system is restricted to

two (2) 38mm Mikuni VM 38 round slide carburetors (except AMW). No modifications are permitted to the carburetor bodies. The use of any jets or jet needles is permitted.

Carburetor mounting shall be of individual runners, no balance pipes, no plenums. Restrictor plates are no longer required. Supercharging, turbocharging, and direct fuel injection are prohibited.

b. Any exhaust pipe(s) may be used (unless otherwise specified), provided they meet a sound limit of 92db on the "A" scale measured fifty (50) feet behind the vehicle, with engine running at a steady 4,000 RPM, without load. Maximum exhaust length behind the rear axle centerline is twenty-four (24) inches. It is the intent of this rule that the exhaust pipe includes the exhaust manifold.

c. Alternate piston replacement for Chaparral engine only, "Wiseco" one-ring piston.

d. Any thermostat may be used.

e. Alternate AMW/Wiseco piston (#2687) is permitted.

f. Engine specifications will not be changed during the current year.

g. Rotax 494 engines: Any Rotax 494 model thermostat housing or water outlet elbow may be used. The water bypass may be blocked.

h. Rotax 494 engine only: Rotax OEM 0.010" overbore piston P/N 887-554 is permitted. Engines may be overbored as specified by Rotax so that this piston may be fitted.

I. Alternate WISECO piston (#2084PS) is permitted (for Kawasaki engine only).

E.16. Chain/Belt Guards

Protective guards made from 1/8" aluminum or 3/32" steel are required where belt or chain breakage could result in injury to the driver or damage to items necessary for the safe operation of the vehicle. This includes, but is not limited to, fuel lines, fuel tanks, brake lines, radiator, and water hoses.

E.17. Radiator

Capacity, size, shape, location, and number are unrestricted. Overhead radiators shall be at least six (6) inches rearward of driver's head.

E.18. Safety Items

In addition to previously mentioned items, the following equipment is required. Vehicle will be fitted with:

a. A firewall which effectively protects the driver. (Refer to GCR Section 17.12.4)

b. A complete driver restraint system including shoulder straps, lap belt, and submarine strap(s). (Refer to GCR Section 20.)

c. Mirrors affording the driver clear fields of vision behind him/her, and on both sides of the car.

d. Cars shall not be started with rear wheels on the ground unless a driver is on board.

F.1. FORMULA MAZDA

a. Eligibility

Only cars homologated as Formula Mazda are eligible for competition in this class.

b. Formula Mazda Description

Formula Mazda cars are one design, single seat, open wheel automobiles conforming to safety standards as per regulations. Engine - Mazda 13B rotary as approved by SCCA Club Racing.

c. The Intent of the Rules

All components of the car shall be purchased from Star Race Cars, sourced from the supplying manufacturer to Star Race Cars or fabricated as exact replicas of components supplied by Star Race Cars. It is the explicit intention of these rules and regulations to prohibit innovation and alteration of the cars except as provided by these regulations or supplements.

d. Additional Safety Requirements, Decals, and Patches

A firewall , full width between the roll bar upright, securely attached at the level of the shoulder harness attachment bolts, up to and bolted to the upper headrest cross member, is mandatory. The manufacturer's new rollover bar design (February 2000) for the Star Race Car FM chassis is accepted. All Star Race Cars Formula Mazda chassis shall be converted to the manufacturer's new rollover bar design by 1/1/2001.

e. Vehicle Preparation

1. Electrical

A. Alternators (P/N 3A2T4167 Mitsubishi 65

Amp or P/NA5T41474 Mitsubishi 60 Amp) shall be in working order and not modified in any manner. Belt tension shall be within the factory tolerance.

B. Battery shall be securely mounted in front of the master cylinders, in the center nose support frame. Battery type is unrestricted.

C. The wiring harness may be modified so long as it does not change the actual electrical function of the car and does not override the alternator or rev limiter.

D. The use of the MSD (P/N 6446 only) 6T spark box, MSD Soft Touch limiter, or MSD (P/N 6420 - 6AL) is mandatory. Location of the spark box and limiter is unrestricted, provided that access to visually inspect and remove the limiter chip is not impeded. A 6600 rpm limiter chip is standard. A maximum rpm of 6850rpm is allowed. Competitors may use adjustable rev chip (MSD part # 080-135). Competitors are advised that MSD chip function may vary with temperature, and should take measures to ensure compliance at all times.

E. Instrumentation is unrestricted

F. Bosch Blue coil is mandatory.

G. MSD Spark Plug wires (Part #31919) are mandatory.

2. Radiators and Plumbing

A. Fluidyne oil cooler # DB30130 or any brand oil cooler measuring (+/- 1/2") 2" thick x 12" wide x 12 1/4" high shall be fitted behind the engine in front of the wing, above the gearbox.

B. Water radiators shall be fitted in both sidepods. They shall be installed in series with each other. The swirl pot shall be connected to the inboard inlet of the left radiator. The outboard outlet of the left radiator shall be connected to the right side radiator's outboard inlet. Approved radiators: Volkswagen P/N 171121253D. STAR RACE CARS P/N 100-101 and STAR RACE CARS P/N 100-142.

C. All cars shall be equipped with oil and coolant catch tanks per GCR Section 17.

D. Flat sheet metal blanking material may be fitted surrounding the radiators and oil cooler to prevent cooling air from leaking around the radiators or oil cooler rather than passing through. Synthetic foam sealing material may also be used for this purpose, provided that any combination of materials do not extend more than 3" beyond the plane of the radiator or cooler, and may not extend outside the standard bodywork.

3. Engine

A. The spec engine shall be the six (6) port Mazda 13B Rotary as approved by SCCA Inc. Said engine is to be sealed by an approved engine builder and shall remain so with no modifications to the engine or any of its accessories or components.

All engines shall be returned to an SCCA approved engine builder to be dynoed and resealed with the new generation engine seals by the following dates:
National Competitors: September 1, 2003
Regional Competitors: January 1, 2005

B. No engine may be rebuilt except by a rebuilder approved by SCCA Club Racing.

Approved Engine Builders:
1. Daryl Drummond Enterprises, Inc.
2333 2nd St., Unit A, Eureka, CA 95501
(707) 441-0708

C. The use of any impregnating material in the engine is expressly prohibited.

D. Engine drain plugs shall be safety wired.

E. Alternate Header STAR RACE CARS P/N 050-133 is permitted.

F. Minimum flywheel weight - 8.5 lbs.

G. Alternate one-piece intake manifold (part # 050-142) is permitted.

H. Spark plugs are unrestricted

I. Ceramic apex seals, Mazda part number 0000-01-9115, may be used.

4. Fuel System

A. All carburetor jets are unrestricted, but no other modifications shall be made to the carburetor (50mm DCO/sp or 48mm DCO modified to 50mm, as supplied). Chokes 44mm. F.15 emulsion tubes are required.

B. Only the standard Weber 48 DCOE intake horns are permitted/

C. Fuel pump, fuel filter(s), fuel pressure regulator are unrestricted. Fuel lines shall be –6 metal braided hose, otherwise unrestricted.

5. Drivetrain

A. Limited slip differentials, torque biasing devices, locking differentials or full locked differentials are prohibited. Aluminum or modification of the unit provided is prohibited.

B. 10:31, ring and pinion.

C. The use of any impregnating material in the drivetrain is expressly prohibited. *REM Isotropic© or REM type treatments are not allowed.*

6. Weight and Dimensions

A. Maximum wheelbase - 94-5/8"

B. Maximum track front - 59-1/4"

C. Maximum track rear - 57-3/4"

D. Minimum weight with driver = 1350 lbs.

E. Ballasting is permitted. Ballast shall be mounted forward of the fuel cell but aft of the instrument panel bulkhead and/ or aft of the nose pole but ahead of the master cylinder bulkhead. Ballast shall be mounted securely.

7. Suspension

A. Ride height is unrestricted within the standard adjustment range. Droop limiters are not allowed.

B. Anti-roll bar stiffness may be adjusted

within the range allowed by sliding clamps on the anti-roll bar or front bars may be drilled for adjustment. Anti-roll bars may be disconnected.

C. 5/8 or 11/16 inch front and 11/16 or 3/4 inch rear anti-roll bars (solid) are required.

D. Shock absorber settings are unrestricted, but no alteration to the internal mechanism or fluid medium is allowed. Extended top shock spring retainers may be used to ensure clearance from suspension members, or to prevent spring disengagement at full droop.

E. Shock absorber - front: Koni P/N 82x-2236, rear: 82x-2269. Alternates: front: 8216-2420, rear: 8216-2421, or front: 3012-1604FMF, rear: 3012-1616FMR. Spring rates are unchanged. Shock absorber sealastic – 55mm P/N 000-141 (Koni P/N 70-34-53-000-0) or 40mm P/N 000-146 (Koni P/N 70-34-54-000-0). Shock absorber packer(s) P/N 000-147 (Koni P/N 15-34-62-000-0). The number of packers is unrestricted. Sealastics and packers shall be unmodified except that the standard slit may be widened or made into a wedge shape to facilitate installation and removal. When Koni shock absorbers 3012-1604FMF and/or 3012-1616FMR are used, the Koni shock bumpers P/N 000-152, Koni P/N 71-34-48-000-0 may also be used.

F. Springs: Front: six (6) or seven (7) inch unrestricted length, 450, or 750 lbs./inch rate. Rear: eight (8) inch unrestricted length, 400 or 500 lbs/inch rate.

G. Camber, caster, toe-in/out, bump steer, are unrestricted within the adjustment range provided on the car.

H. Manufacturer and construction of spherical bearings and rod ends are unrestricted; however, geometry and length cannot be changed.

8. Wings

A. Wing "angle of attack" (front and rear) is unrestricted within the adjustment range. Rear wing adjuster link (P/N 110-126) length is 2.25" overall. It is permitted to

shorten existing rear wing adjuster links to 2.25" overall length to match revised part (P/N 110-126).

B. Wings may be of aluminum construction, but shall conform to stock dimensions as described by the manufacturer.

C. Gurney flaps for wings (3/4" Front max. & 3/8" Rear max.) are permitted, provided they are mounted on the upper surface of the wing). Note: Gurney flaps are measured from the upper wing surface, normal to the surface and must not serve to increase the plane of the wing. (Quick change attachment is prohibited, bolted or riveted only)

9. Brakes

A. Tilton brakes bias adjustment may be fitted.

B. Brake master cylinder - Use of (any) 3/4" or 5/8" master cylinders (with individual reservoir) is approved.

C. Any mass produced brake pad that fits the standard caliper without modification is permitted.

D. Modification of brake rotor is prohibited. Option: Two piece brake rotor, STAR RACE CARS P/N 040-126 and STAR RACE CARS P/N 040-127 may be used. Minimum brake rotor thickness = 0.300".

E. Optional brake caliper STAR RACE CARS P/N 040-130 may be substituted.

F. The use of any ferrous brake caliper piston is permitted.

10. Tires and Wheels

A. A competitor shall start the race on the same set of tires (meaning the original four) used in the qualifying session. It is the responsibility of the competitor to ensure their tires are marked appropriately for the qualifying and race sessions. It is recommended that regions offer these services at a central location and at a standardized time, preferably at Tech.

B. Any change of tires during or between a

qualifying session shall automatically result in all previous times being disallowed.

C. If a tire is damaged during a qualifying session, the competitor may replace that tire with a used tire upon approval by the Chief Steward. Should a tire be replaced for any reason, the competitor shall forfeit his grid position and start at the back of the grid.

D. Rain tires may be used at any time.

E. Any competitors deemed to have taken steps to circumvent these rules, or deemed to have used a foreign substance on the tire in order to gain an advantage shall be immediately disqualified from that event.

F. All cars shall run BBS (8" x 13") front and (10" x 13") rear wheels as specified by the manufacturer. Alternate BBS wheel center (part # 000-143 & 000-154) is permitted.

G. Use of tire warmers or cooling methods other than natural air convection or conduction is prohibited.

11. Gearbox

A. All cars shall be equipped with some combination of the following gears:

Mark5, or Mark8 Series Gears 15:36 – 15:30 – 15:25 – 17:34 – 19:32 – 18:25 – 21:29 – 17:23 – 22:30 – 24:27 – 19:23 – 23:28 – 25:26 – 26:25 – or 26:26 Webster; 24:24 Hewland

B. Additional approved gear ratios may be added by the manufacturer with SCCA Club Racing authorization.

C. Reverse shall be installed and in workable condition.

D. Gearbox rear covers may be modified to permit installation of longer shift finger shafts.

E. Transmission drain plugs shall be safety wired.

F. Shift rail stops may be added to transmission shift mechanism.

12. Clutch

A. Only 1700 pound KEP or 2300 pound KEP pressure plate permitted.

B. Clutch disc may be a "Dalkin" or "Marchal" or L&T disc remanufactured on VW core with organic friction material. STAR RACE CARS P/N 060-103

C. Minimum flywheel weight - 8.5 pounds. STAR RACE CARS P/N 060-102

13. Mufflers

A. All cars shall be equipped with a SuperTrapp muffler P/N 5AS-2556 with twelve (12) plates installed. Twelve (12) plate stack not to exceed 35mm or 1-3/8" from mount to lid, inclusive. Plates shall not be loose regardless of dimension.

B. No matching of the plates, washer, or spacer insertion, or other modification will be allowed.

C. The main muffler, Power Pulse Muffler (Racing Beat) P/N 16400, shall be in good working order with no removal of steel wool or other alternations allowed.

D. The following options are allowed:

1. Use of the approved "Lo-back" muffler as a substitute for the Racing Beat muffler. Alternate Muffler STAR RACE CARS P/N 050-134 and header STAR RACE CARS P/N 050-133, are permitted. All other specifications to remain the same.

2. Use of deflectors such as the SuperTrapp mud ring as long as the twelve (12) plates do not exceed the specified height and exhaust gases are only affected after passing through the SuperTrapp plates.

3. Use of fewer than twelve (12) with a proportionate reduction of the specified height of the plate stack.

14. Headers

Headers must be unmodified except that high-temperature coatings are permitted.

15. Hardware and Fluids

A. Fasteners, links, and rod ends may be either metric or standard threads, but shall be at least grade five (5). Hardware and fasteners may not be modified to change adjustment parameters.

B. Brake fluid, fasteners, clamps, and radiator hoses are unrestricted.

C. Lubricants and fluids, except fuel, are unrestricted.

16. Cockpit

A. Cockpit controls and mechanisms may be adjusted within their stock operating range.

B. It is permissible to modify the driver's seat. The driver's seat attachment bracket on the chassis may be modified to facilitate adjustment, but shall ensure positive retention of seat attachment bolts. Seat shell may be removed and the assembly replaced by a poured foam seat.

C. The head rest may be extended forward to improve head support, provided the spacer(s) and attachments serve no other purpose.

D. A quick disconnect steering wheel may be used. Make and diameter are unrestricted.

E. A fabricated sheet aluminum cockpit liner is permitted.

17. Bodywork

A. Engine covers are required. Air inlet ducts may be trimmed but must not change profile of outside bodywork.

B. Mirrors are California by Vitaloni - Model #01CBT. Alternate rear view mirror (P/N 110-136) is permitted.

C. No modification to body external contour or dimensions is permitted. No openings may be added or reshaped. A blister may be added to the engine cover if needed for clearance between carburetor linkage and bodywork. Optional: rearmost, rear face of sidepods may be open, closed, or

vented by drilling.

D. The aluminum undertray may be replaced with a stress-bearing undertray, minimum of eighteen (18) gauge steel. This undertray shall be attached to the frame by welding, bonding, or by rivets or threaded fasteners.

E. Star Formula Mazda bodywork or exact equivalent is required.

F. A windscreen may be added to the bodywork, it shall: 1) Not exceed 144 square inches of surface, nor stand more than six inches normal (measured 90 degrees to the surface) to the bodywork. 2) Be constructed from flat stock with no compound curves. 3) Be symmetrical left to right. 4) Not extend more than 12 inches to each side from the car's longitudinal centerline, measured along the cockpit opening. 5) Not constitute a potential hazard to driver, emergency crews or other competitors.

G. Engine compartment belly pan, STAR RACE CARS P/N 030-132, or any sheet metal pan covering the underside of the engine compartment, provided it is flat when viewed from the bottom (may have a bend up at the leading edge for stiffness), and does not extend past the trailing edge of the frame, nor more than 1.5" past the outer edges of the frame on each side.

G.1 Formula S Class (FS) (Regional Class Only):

A. Definition

A formula for purpose built, highly modified single-seat, open-wheel, open cockpit racing cars, which meet the general regulations of Section 17 of the GCR for Formula Category cars, yet are different in concept and specifications from the current SCCA Formula classes. Homologation is required on ALL Formula S cars.

All Formula S cars registered after January 1, 2003 shall meet all preparation rules of Section G.1. Formula S cars registered prior to January 1, 2003 may be updated to Section G.1. specifications but they shall meet all requirements of Section G.1. without exception.

B. Chassis/Frame

Chassis/frame construction is unrestricted within the following limitations:

1. Chassis of non-metallic composite construction shall be proven to meet FIA specifications for non-metallic composite chassis prior to being submitted to the SCCA for homologation. There are no exceptions. Contact SCCA National Office for a list of the relevant FIA specifications/SCCA requirements.

2. Chassis of metallic tube and/or metallic monocoque construction shall be manufactured to be consistent with the safety requirements outlined within these rules and the GCR.

C. Engines

Any engine(s) may be used within the following limitations:

1. Piston or rotary internal combustion, gasoline-fueled engines only. No turbines. Turbo and/or supercharging is permitted.

D. Fuel System

Fuel system is unrestricted within the following limitations:

1. Fuel per GCR Section 17.4

2. Fuel Cell Vents: Fuel tank air vents shall be located at least 25cm (9.843 inches) to the rear of the cockpit.

3. Fuel Filler Neck: Fuel filler necks, caps, or lids shall not protrude beyond the bodywork of the car.

E Electrical System

Electrical system is unrestricted within the following limitations:

1. Self Starter: Cars shall be equipped with on-board self-starter and on-board power supply controlled by the driver while in a normal driving position.

2. Lights - Brake and Tail per GCR Section 17.19

F. Transmission / Final Drive

Transmission / final drive system is unrestricted within the following limitations:

1. Power shall not be applied to more than two (2) wheels.

G. Bodywork and Airfoils

Bodywork and airfoils are unrestricted within the following limitations:

1. Firewall and floor per GCR Section 17.21

2. Driver Visibility per GCR Section 17.29

3. Cockpit Opening:

   The driver's seat shall be capable of being entered without the removal or manipulation of any part or panel (except for a removable steering wheel and removable cockpit padding).

   The cockpit opening of metallic chassis shall have the following minimal dimensions:

   Length: 60cm (23.622 inches)
   Width: 45cm (17.717 inches)

   This width extends over a length of 30cm (11.811 inches) minimum. This minimal rectangular opening may exist anywhere forward of the bracing, and required padding will not be considered in these dimensions.

   The cockpit opening of non-metallic chassis shall be designed to meet the FIA F3 homologation requirements (article 275).

4. Aerodynamic Devices:

   a. The mounting apparatus of any part having an aerodynamic influence (i.e. bodywork, floor, sidepods, wings, spoilers, etc.), shall be rigidly secured to the entirely sprung part of the car (chassis/monocoque), shall have no degree of freedom in relation to the entirely sprung part of the car (chassis/monocoque), and shall remain immobile in relation to the chassis/monocoque at all times. This allows for actively adjusted aerodynamic elements (i.e. wings, diffusers, etc.).

   b. No Aerodynamic skirts per GCR Section 17.14. Within the preceding restrictions, only wearable material (fiberglass, Kevlar, carbon fiber, high density polyethylene,

polypropylene, Teflon, Lexan, or wood) may be attached to the side panels as a rubbing strip. Ceramics, brittle plastics (i.e. Plexiglas), and other materials which shatter or break-up causing hazardous track conditions are prohibited.

c. Ground effects are permitted, but may not be attained by "sealing" or bridging the gap between the bodywork and the road surface. Any means adopted to circumvent this intention shall automatically be regarded as a breach of these regulations.

d. Leading Edges of Airfoils: The leading edge of any airfoil fixed to the front of the car shall not be sharp. Minimum radius: 1.5cm (0.06 inches).

H. Suspension

Suspension is unrestricted within the following limitations:

1. All cars shall be equipped with a full suspension system (i.e. springs, torsion bars, etc.) front and rear. Rigid mounted suspensions are prohibited. Monoshock/monospring systems are permitted.

I. Steering

1. Unrestricted provided that it is of a safe/secure design and acts upon at least two wheels at one end of the vehicle.

J. Wheels and Tires

Wheels and tires are unrestricted within the following limitations:

1. Tires shall have a minimum speed rating of 120 mph or better. Tires shall be the same size and design (i.e. radial, bias-ply, etc.) for the right and left sides of the front axle(s), and same size and design (i.e. radial, bias-ply, etc.) for the right and left sides of the rear axle(s).

2. Wheels: Minimum diameter 10", minimum width 5.5". Wheels shall be identical for the right and left sides of the front axle(s), and identical for the right and left sides of the rear axle(s). Wheel material shall be metal. Cars shall be equipped with a minimum of four (4) wheels. Wire wheels are prohibited.

K. Brakes

Brakes are unrestricted within the following limitations:

1. Cars shall have a braking system that acts upon all wheels of the vehicle. Chain/belt driven cars may have a single brake caliper that acts upon the differential, thereby applying braking force to the two (2) drive wheels.

2. Cars shall be equipped with a dual braking system operated by a single control. In case of failure or leak at any point in the system, effective braking power shall be maintained on at least two wheels.

L. Weight (without driver)

1. The minimum weight of the vehicle as raced, without driver, shall be 750 lbs. Cars of composite (i.e. fiberglass, carbon fiber, Kevlar, etc.) chassis construction shall not exceed a maximum weight, as raced without driver, of 1300 lbs. Cars of conventional tubular space-frame or metallic monocoque chassis construction that are in excess of 1500 lbs, as raced without driver, require specific approval by the Club Racing Board and the Club Racing Technical Manager for homologation and competition eligibility.

M. Safety Equipment

Note: All FS cars must meet all applicable portions of GCR Sections 17, 18, 19 & 20.

1. Fuel Cells per GCR Section 17.12 & 19.

2. Fire System per GCR Section 17.22.

3. Scattershields & Chain/Belt Guards per GCR Section 17.24.

4. Oil Catch Tanks, Filters And Breathers per GCR Section 17.26.

5. Master Switch per GCR Section 17.27.

6. Mirrors per GCR Section 11.2.1.R. Additionally, there shall be at least two (2) mirrors, each with a minimum 55cm^2 (8.53 in^2) of reflective surface.

7. Towing Eyes per GCR Section 17.31. Additionally, if the rollbar is faired-in, the fairing

shall have rollbar access hole(s) to allow for quick retrieval.

8. Fuel and Oil Lines per GCR Section 17.34.

9. Roll Cage per GCR Section 18.1. & 18.5.

10. Side Intrusion Protection

    For metallic chassis, the area between the upper and lower main frame tubes from the front roll hoop bulkhead to the rear roll hoop bulkhead shall be protected by one of the following methods to prevent the intrusion of objects into the cockpit.

    a. Panel(s), minimum of either .060" heat-treated aluminum (6061-T6 or equivalent) or eighteen (18) gauge steel, attached outside of the main frame tubes.

    b. Reinforced body - at minimum, consisting of a double layer, five (5) oz., bi-directional, laminated Kevlar material incorporated into the body which shall be securely fastened to the frame.

    c. For either method, the material used for the chassis braces in this area shall be at least equivalent to the roll hoop brace material.

    d. Non-metallic chassis are covered under the FIA chassis homologation.

11. Crushable Structure

    For metallic chassis there shall be a crushable structure, securely attached to the front bulkhead, with a minimum cross section of 200 cm^2 (31 in^2), 40cm (15.75") forward of the clutch and brake pedals (not depressed) constructed of a minimum of eighteen (18) gauge 6061-T4 or equivalent aluminum.

    a. Radiators may be incorporated in this structure.

    b. Non-metallic chassis are covered under the FIA chassis homologation.

12. Driver's Feet Position

    For metallic chassis, the frame shall incorporate

forward-facing braces to protect the driver's legs and feet. The braces shall extend from the front roll hoop to the front bulkhead. (The front bulkhead is defined as the furthest forward transverse section of the main frame.) The soles of the driver's feet shall not extend beyond the front edge of the wheel rims (in normal position; i.e., pedals not depressed) and shall remain behind the front bulkhead. The lower main frame rails shall be a minimum of twenty-five (25) centimeters (9.84") apart (inside dimension) from the front bulkhead to the rear roll hoop.

a. Non-metallic chassis are covered under the FIA chassis homologation.

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