

## BOARD OF DIRECTORS

### SCCA BOARD OF DIRECTORS MINUTES | Oct. 15-16, 2010

The SCCA Board of Directors met at the Topeka National Headquarters Oct. 15-16, 2010. Attending from the Board were Todd Butler, Phil Creighton, RJ Gordy, R. David Jones, Bill Kephart, Robin Langlotz, Michael Lewis, Bob Lybarger, Marcus Merideth, Lisa Noble, Dick Patullo, John Sheridan and Chairman Jerry Wannarka. Participating staff included: Jeff Dahnert (President & CEO, Inc.), Erik Skirmants (President & CEO, Enterprises), Eric Prill (VP Marketing & Communications), Terry Ozment (VP Club Racing), Rick Ehret (VP Finance), Howard Duncan (VP Rally/Solo and Special Programs), Colan Arnold (VP Membership), Doug Gill (GM Technical Services), Pete Lyon (Risk Management) as well as Tina Reeves (SEB Chair) and Bob Dowie (CRB Chair).

**Motion:** Langlotz/Jones Approve August BoD minutes. APPROVED Unanimous

#### Presidents Report: Dahnert

2 very well run, attended and reviewed events, Solo Nationals and Runoffs. RallyCross well attended (up from last year as well). Good reviews. Some minor glitches, but overall very successful set of events and year so far. Staff and volunteers to be commended. Met with Mobil 1 and Gumout and both sponsors pleased with sponsorship and support. Conversations with possible new sponsors underway as well. Financially Club is doing well, operating in the black, potentially slightly behind budget but well into black. Reserves are strong and Club can make capital investments. No margin loan needed last winter to cover slow season due to financial position. Club has some challenges, improvement areas to continue working, but much improved and positive position over past years.

**STRAP Update:** Still working from May meeting, reviewing in Planning Committee. Work in progress.

Club Racing will be giving more customer service training sessions at Convention. Convention session planning underway. January final schedule for Convention. Wannarka noted that "Give Them the Pickle" talked about positively in all 5 of the Divisions he visited this year.

**Kephart:** Ready Fire Aim. Regarding time required to consider and vote on issues with unintended consequences. Would like items to be voted on in briefing book to give time to research and think about.

Wannarka: we can get better organized about motions that will be coming up. Possibly re-organizing briefing book. Need a happy middle ground between instant motions and hard-coded deadlines.

#### Finance Report: Ehret

Financial situation is stable and strong. Current forecast for year end says we will be slightly short of budget but well into black with net income projected to be >\$120K. Uneven trends, sponsorship ahead of budget, shortfalls in insurance recovery and sanction fees but coverage elsewhere so end result overall is good.

Finance has started building 2011 budget assumptions. Discussion around some assumption on fees and costs. Preliminary strawman budget proposed that is essentially even with 2010.

#### Liaison Reports:

Patullo: SEB - Still considering new chair for 2011. SEB is being very deliberate about choice for next chair. Rules package late due to activities. More later on SEB rules discussion. One of items on agenda for SEB is to work administrative issues (similar to Road Racing CoA) and relationship with Pro Solo organization.

Sheridan: CRB - CRB partnership with stewards in publishing SportsCar articles. CRB and BoD in sync with respect to advisory committees. CRB letter writing process has proven excellent to provide tracking and continuity and timely response to requests. CRB looking at what prior experience can count towards comp license, and other alternatives.

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Merideth: TTAC Regional differences in programs discussed. Some regions doing well in PDX programs, other regions not as well.

Butler/Lewis: Rally- No liaison report. Defer to Howard Duncan more extensive report.

Creighton: RallyCross - Program, still developing. No proposed rule change for 2011.

Gordy: Stewards - Noted that reappointment of Nokes positive. Putting together committee on role of Stewards. Considering Driver Advisor/Driver Advocate to assist Drivers as part of support for drivers thru CoA appeals. Exec Stewards for 2011 calling for advance notice if there is/will be change. Discussion on Safety Steward position/function. Does not necessarily have to be a steward, but safety paperwork is required. Exec Stewards are understanding and pushing BoD direction to help facilitate events. Gordy feels definite progress is being made.

### **Lyon: Legal/Risk Management**

Legal- Brief review of open and potential litigation. Discussion of outside legal counsel's review of general corporate organization and bylaws of Inc. and subsidiaries. No action needed by BOD at this time. Discussion on corporate counsel role (primary responsibility to Inc.) and coordination with subsidiaries' own legal counsel as may be required on certain issues.

Lyon to review and prepare BOD action list regarding required appointments for December meeting and will coordinate with subsidiary corporations as needed.

Risk Management- Insurance program renewal update presented. Rates and program issues to be presented at December meeting.

### **Solo/Rally Report: Duncan**

RoadRally Board not anticipating any rule changes in 2011.

RallyCross National Championship conducted in Colorado again. Event was a success, higher attendance than 09. Championship relocating to Nebraska for 2011, near Lincoln, has potential in new site to accommodate expansion.

Rally program is working on a sponsorship program.

Solo -

Delegation from FSAE visited Lincoln during Solo Nats. Rule changes proposed from SEB to be considered later. Report on Pro Solo based on decisions made at May BoD. New timing tree purchased resulting in much better execution of events since July. Purchase goal achieved in this area.

### **Rules Changes**

#### **RallyCross**

5.2.K It is required for emergency purposes that a public telephone, cellular telephone, or ham radio be available at the event site or at a known nearby location. It is recommended that the event chairman (or designee) contact local authorities if the location is in a rural area to inform them of the event.

6.2.C.2 Tires must be DOT approved. Tires marked 'For competition only', 'Not for street use' or similar, are not allowed. No part of the tire may be modified or altered from its original form, either through addition or subtraction, other than normal wear. No studded tires are permitted unless ice or snow is present. Studded tires may not be homemade using bolts or screws. Only street legal studs are allowed. Tires may not interfere with any parts of the car (fenders, fender liners, suspension, etc).

6.2.C.4.b Mud flaps must be flexible.

6.2.C.12 Any type wheel may be used provided it complies with the following: Wheels must be of the same diameter and width as the OEM wheel. Wheel offset (backspace) must be within 0.394" (**10mm**) of original equipment wheel offset.

6.2.D.18 Any clutch disc, flywheel or pressure plate may be used

**Motion** Creighton/Kephart - to accept RallyCross Rules Changes APPROVED Unanimous (Jones absent)

## Solo

**Motion** Patullo/Lyberger To accept Solo Rules recommended *Rules Change to BoD* handout by section as follows:

- General: Items 1-6 (note # 7 withdrawn) and 9-16 in . APPROVED Unanimous (Jones absent).  
Item 8 APPROVED 11-1 ( Jones absent, Merideth opposed)
- Safety: Item 17 APPROVED Unanimous (Jones absent)
- Stock Category: Items 18-19 APPROVED Unanimous (Jones absent)
- Street Touring Category: Item 21, 23-25 APPROVED Unanimous  
Item 22 withdrawn.

All recommended changes listed under the below categories (Items 26-55) APPROVED Unanimous.

- Street Prepared
- Street Modified
- Prepared
- Modified
- Kart Category

## Membership and Region Development: Arnold

Key reporting sections:

Membership and Region development, membership is ahead of this time last year

National registration system (MOTORSPORTREG) selected for 2011 for SCCA Inc. events, and will be rolled out with incentives for Regions to use. Regional usage optional and additional discount (0.25%) negotiated for Regions already using.

Data collection goals established . Who, What, Where, When. Allows directed marketing, allows better targeting for directed input, allows better allocation based on interests and participation. Data collection will be based on results from events. Staggered dates from Road Racing, Solo/Rally for when this is required. Road Racing is further along with AMB system and therefore will go first. Data submission from Regions optional in 2011 to work out the bugs, proposal is to require submission in 2012. Solo/Rally proposed mid-2012 mandatory. Capturing officials and others (crew) is the challenge.

Survey proposed again to go to REs pre-Convention, mid-November for presentation out at Convention.

Report out on competitors with SCCA for Solo. Many competitors use or reference variants of SCCA rules. Costs for SCCA are not out of line with competitors based on survey results.

Region Charter requirements, request for input sent to regions at Request of BoD from August. Poor response received from Regions. Main issues/questions were around current financials and setting minimum Region membership/participation numbers. Decision to request more current financials but rest of Region Charter requirements on back burner for now.

**SCCA Enterprises:** Erik Skirmants, President, Enterprises Inc. - presented mid-year report from Enterprises. An update was given on the overall health of Enterprises along with some specifics on the new programs involving joint weekends with SCCA Pro Racing. While the economy has had an impact, the Enterprise program seems to be going well.

## Planning Committee: Kephart

Proposal in back of briefing book for later voting. Positive responses to tightening the qualifying rules to 115% . Majority of people support the changes for Runoffs qualification, but not overwhelming. Discussions in committee on need for SCCA Inc-wide database. Data say 85% of members lost at 3-year mark. Small percentage change to retain those people would be a huge boost to membership. Does marketing effort need to focus more on early year retention, vs new member? Discussion on "Rationals" (combined National/Regional events). Discussion around investments in Club, drivers, contractors, builders, need stability in rules and classes to support those investments. Need to have classes available when need is there, when market is there, and minimize conflict between classes. Jones pointed out that in 1987, similar problems faced club, and even 20 years before that. . Problem is not new or unique.

Proposal to map out cars/classes against matrix. Cost, complexity, speed. example SRF - S2 - D/DSR, map current classes. Map what we think would be theoretical if starting from scratch, and overlay to identify potential areas to improve.

**Motion** Patullo/Butler: To accept Planning Committee recommendation to change the Runoffs qualification requirements (Extracted from P76 of Briefing Book (Club Racing to wordsmith)  
APPROVED Unanimous.

Move to strike GCR 3.9.2.A. 1 & 2 and replace it with:

1. Minimum participation requirements to be extended a Runoffs invitation:
  - A. Must start at least 4 National races, with 2 in driver's Division of record.
  - B. Must finish 4 races regardless of Division.
2. Provided participation requirements have been met, a driver has three ways to earn a Runoffs invitation and must meet at least one of the criteria. The three criteria are:
  - A. Drivers finishing in the top three of their Division in their class in the current season.
  - B. Drivers finishing in the top 50% of the Nationwide point standings, including ties at the 50% level, in the current season.  
Example: 99 drivers score points in a class in the current season, the top 50 will receive an invitation
  - C. Drivers scoring enough Nationwide points that would have placed them in the top 50% of the previous year's standings for that class.  
Example: 99 drivers score points the previous year, with the 50th place driver scoring 35 points. Any driver scoring 35 points or more in the current season will receive an invitation.

**Motion** Patullo/Langlotz: To accept Planning Committee recommendation to tighten Runoffs qualification time requirements:  
APPROVED Unanimous

Planning Committee Motion 2:  
Move to revise 120% runoff qualification rule with 115%.

#### **Marketing and Communication:** Prill

Sponsorships and Partnerships: Sponsors attended events and liked what they saw, Mobil 1 and Gumout excited to move forward. Several discussions with new sponsors. More sponsors coming to us now, SCCA more visible on sponsor radar screens.

Social media work continues with Twitter and Facebook.

Haymarket: Survey going out in next issue of SportsCar for SportsCar delivery methods. Some new staff there. Yearbook development is underway, idea is to cover championships, high quality (softbound) book. Expecting web project to get underway soon.

Heading into Trade Show season, SEMA, PRI.

Speedcast did a great job of coverage, overall camera work and excellent announcer coverage. Some minor problems, noted and looking to correct going forward. DVDs coming out. Viewer numbers for webcast up 70% over previous year.

#### **Tech Department Update:** Gill

Consolidation of Tech, Racing, Solo, Rally. Consolidation is working well. 4 people in Tech. Update on activities in Tech, typical workloads and work areas. Discussion over issues, particularly around homologation of cars/chassis.

#### **Club Racing:** Ozment

Detailed recap of Runoffs event. Pros/Cons, what worked and what needs improvement for 2011. Detailed handout provided covering overall, personnel, services, technical issues. Need to continue to work on customer service aspects. 77 actions (CSAs) on the week. Much less contentious event on track with respect to accidents and on track behavior. Very good detailed analysis of drivers and workers by Division for review.

Discussion on Changing GCR to eliminate NA positions. Pushback from some specialties. How do we meet requirements to have some specialties (example Registration, Driver Licensing, T&S) provide central point of support and separate from the Runoffs chief position. Recommendation is to go forward with eliminating NA positions and for Staff to provide for alternate means of information dissemination and support. Ozment to communicate to NAs.

**Motion** Sheridan/Lewis - Move to approve the following GCR and Operations Manual Changes to support the removal of the National Administrator positions effective 1/1/2011.  
APPROVED 12-1. Langlotz Opposed.

## GCR Changes:

### *Licensing*

2.4.D. An applicant's Divisional Driver Licensing Administrator. ~~or the National Administrator of Driver Licensing;~~

## Operations Manual Changes:

I. Structure of SCCA

B. Organization

5.2.1 National Administrators (~~delete entire section~~)

5.2.~~21~~. Advisory Committees (~~numbering moves up one with the deletion of 5.2.1~~)

5.4.5 Divisional Administrators

Appointment: Selected annually by the Executive Steward in each Division, subject to the approval of the Area Director(s) within the Division. A Divisional Administrator shall be appointed for each of the Specialties listed ~~under the National Administrators in the GCR.~~

III Awards

B.6. George G. Snively, MD Memorial Award

Nominations: Submitted by the Club Racing Board, Executive Stewards, ~~and National Administrators of Medical and Scrutineering.....~~

**Motion** Merideth/Sheridan - Move to approve the following Operations Manual Changes to support the clarification of CRB authority. Changes also to be incorporated into the CRB Manual.

I. Structure of SCCA

B. Organization

5.2 The Club Racing board is authorized to:

- i. Clarify a rule – characterized as adding/subtracting/changing language to reinforce the intent of the rule without changing the core definition
- ii. Make specification changes (competition adjustments) – this includes weight and air/fuel management.
- iii. Classify cars.
- iv. Correct errors and omissions.
- v. Implement rule changes for all classes in cases where parts are no longer available and such a shortage would negatively affect the ability to compete.
- vi. Recommend rule changes and car reclassifications to the Board of Directors for approval.

### Rule Change

- can sometimes affect an entire class
- can also apply to significant changes to one car in a class
- should have member input
- Traditionally presented for BoD approval at or before its October meeting effective January 1st of the following year.
- safety related items may be dealt with at any time

### Competition Adjustments

- Purpose is to modify by increasing or decreasing the performance of a specific make/model of a car in order to better balance the class.
- Every effort should be made to limiting competition adjustments during the competition year to small changes as early as possible.
- First year cars have the following exception. The one year starts at the effective date of the classification. More adjustments to the newly classed car may be needed during this time for the good of the car or class. These adjustments include rim size, springs, shocks, and bars.
- Changes can be made at the end of the competition year effective January 1st of the following year, or any time up to the July FastTrack of the current year with an effective date of no later than July 1st.
- Changes limited to weight, tire size (not rim), and/or the diameter of air intake restrictors of any type.
- These may be found on the appropriate vehicle specification line. Other than competition adjustments, spec line items are subject to the rules change process.
- Weight and induction changes may be considered a rules change if applied to a mature established class or one with restricted specifications (SM, FC are examples of this)

### Errors and Omissions

- No change to CRB Opns manual

### **Rationals Waiver requests:**

**Motion** Lewis/Kephart - to request waiver to run concurrent regional regional/national national "Rational" for Willow Springs similar to the recently approved RM Division experiment. APPROVED Unanimous

**Motion** Gordy/Butler - To request waiver for Norpac to run Rationals at the following events:  
SFR Double National March, OR Regional/National May, NWR Double National Memorial Day, similar to the recent RM Division experiment. APPROVED 9-4 (opposed Wannarka, Noble, Creighton, Lybarger)

**Motion** Patullo/Sheridan - To request waiver for Rational at following event NE Region New Hampshire Speedway end of April/ Early May similar to the recent RM Division experiment. APPROVED 12-1 (Opposed Noble)

**Motion** Kephart/Gordy - To appoint Gloria Dickerson as RM Exec Steward effective immediately.  
APPROVED Unanimous

**CRB Rule Changes** Presented by Section . Rules Change Package is included as Appendix to these minutes.

**Motion** Sheridan/Merideth to approve rules package on section by section basis as noted in votes below.

### **GCR Section:**

Items 2-4, 6-8 (1 withdrawn by CRB) -APPROVED Unanimous  
Item 5 - NOT APPROVED 10-1 Opposed. Creighton for, Butler, Jones abstain.

### **Formula Section:**

Item 1 FV - APPROVED 11-2, Noble, Jones abstain.  
Item 2 F500 - APPROVED Unanimous  
Item 3 F500 - withdrawn by CRB.  
Item 4 FA - APPROVED Unanimous  
Item 5 FF/FC - Withdrawn for more considerations  
Item 6 FF/FC - withdrawn by CRB

### **Grand Touring**

Item 1 GT2 - APPROVED Unanimous

### **Improved Touring**

Item 1 IT - APPROVED 12-0 Patullo abstain

### **Super Touring**

Item 1 STL - APPROVED 12-1 Lewis opposed

### **STO Specific technical Regulations**

Item 2 Mustang Suspension - APPROVED Unanimous  
Item 3 Viper Fuel tank - APPROVED Unanimous

### **Production**

Item 1 - APPROVED Unanimous

### **American Sedan**

Item 1 - APPROVED 12-0 Sheridan abstain  
Item 2 - APPROVED 12-0 Sheridan abstain

### **Spec Miata**

Item 1 fuel regulator - APPROVED Unanimous  
Item 2 compliance program - Withdrawn until CRB and Club Racing can determine how program could be implemented then return.  
Item 3 99 suspension in 90-97 NOT APPROVED 9-3 Wannarka, Noble, Merideth for, Sheridan Abstain  
Item 4 locating ring rear anti-roll bar - APPROVED Unanimous  
Item 5 rear track - APPROVED Unanimous

### **Sports Racing**

Item 1 S2 Mazda MZR Engine - Withdrawn for further considerations  
Item 2 MZR - Withdrawn by further considerations.

## Touring

Item 1 Withdrawn by CRB

Item 2 Brake ducts APPROVED Unanimous (12-0, Lewis absent)

CRB Strategic Plan Overview - Dowie presented overview of past CRB Strategic Plan and degrees of completion to date. Requested to update and present at Convention.

## Liaison Reports :

Foundation – Lybarger. Considering something like a car raffle to raise money. Need to understand all legal and tax issues.  
Operations – Langlotz. No meeting since last BoD, more meetings upcoming. Nothing to report.

**Motion** Lybarger/Creighton - to Adjourn. Unanimous

## CLUB RACING BOARD RECOMMENDED RULES ITEMS FOR THE BOD ABOVE MOTIONS

The Fastrack month of publication is shown after each item.

Unless otherwise indicated, the effective date of each item is 1/1/11.

## GCR

### ITEM 1. (MAY)

In Appendix B.1.2.H, replace “4. No more than 1/4 of the regions within in the division object.” with “*1. A simple majority of regions within the division approve.*”

[In response to member comments, the CRB withdraws the proposed change.]

### Item 2. (August)

Note: this item has been revised based on member input. Modify 9.3.41, first paragraph as follows:

**9.3.41. SEATS** The driver’s seat shall be a one-piece bucket-type seat and shall be securely mounted. The back of the seat shall be firmly attached to the main roll hoop, or its cross bracing, so as to provide aft and lateral support. Seats homologated to and mounted in accordance with FIA standard 8855-1999 *or FIA Standard 8862-2009* or higher need not have the seat back attached to the roll structure. *Seats with a back not attached to the main roll hoop or its cross bracing may not be mounted to the stock runners unless they are the FIA homologated seats specified in an FIA homologated race car.* The homologation labels must be visible. Seat supports shall be of the type listed on FIA technical list No.12 *or No. 40* (lateral, bottom, etc). Passenger seat back – if a folding seat, it shall be securely bolted or strapped in place.

### Item 3. (August)

Modify 9.3.26.A “Chemical Compounds Prohibited or Restricted in SCCA Race Fuels” as follows:

Change “Total Cyclic ethers” to “Total Cyclic ethers *except MTBE*”.

Add a new entry: “*MTBE*” (no examples) with Maximum Weight or Percentage By Weight Allowed at “*3.0%*”.

### Item 4. (September)

In response to member input on the previous rule change proposal for section 5.9.3.D (letter #494, May Fastrack), the CRB withdraws that proposal in favor of the following:

Delete section 5.9.3.D completely.

Add a new section 3.8.6 as follows:

*“A driver may refuse all event/series awards by notifying the Chief Steward before his race. He must meet all other GCR requirements, including impound. He may earn a lap record and, provided he finishes, he may receive license credit for the race.”*

Add a new section 5.10.4.8, as follows:

*“A driver not competing for event/series awards will be listed on the final results in the correct finishing position with a notation citing 3.8.6. No points will be assigned, if any would have been earned. An earned lap record remains intact.”*

### Item 5. (September)

In response to member input on proposed changes to 3.3.B (letter #423, February Fastrack), the CRB withdraws that proposal in favor of the following:

Change section 3.3.B to read as follows:

*"B. Organizers of SCCA sanctioned races may be any of the following:*

- 1. One or more SCCA Regions,*
- 2. An SCCA Division,*
- 3. SCCA Club Racing."*

### Item 6. (September)

In 5.10.4.B.4, change as follows: "~~and~~, car make and model, *and sponsor information.*"

In 5.10.4.B.5, change as follows: "*and* accident reports,~~and sponsorship.~~"

[These changes are for the benefit of members who report expenses for tax purposes.]

### Item 7. (October)

Based on member input, the CRB amends its prior proposed rule as follows:

Add a new item to Appendix F, *"Active Aerodynamic Devices: No active aerodynamic devices are permitted. These include, but are not limited to, those that allow any degree of freedom in relation to the entirely sprung part of the car (chassis/monocoque), movable or hinged skirts, or that can be adjusted from within the cockpit. Adjustment of aerodynamic devices may only be made by mechanical changes performed from outside the car."*

### Item 8. (October)

Modify 9.3.44 as follows:

**"SUSPENSION AND STEERING** Suspension and steering shall be of suitable design and in good working order. Four wheel steering is prohibited. *Unless specifically permitted, non-metallic suspension control arms, locating links, toe/steering links and pushrods are prohibited.*"

### Formula

#### Item 1. (July)

##### FV

In 9.1.1.C.20, make the changes shown below (20.c, d, and e are unchanged). [If this recommended rule change is approved, the CRB expects there will be no future changes to the intake manifold rules.]

"20. US imported VW Type 1, 1200 sedan manifold must be used. The manifold 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.

*See Figures 1 and 2 at the end of this subsection for application of certain measurements specified herein.*

- a. Down Tube: The *O.D. of the* down tube shall be measured at two different locations within an area between 0.500" and 2.00" above the horizontal manifold tube. Each measurement shall be taken four times rotating around the circumference of the tube, and averaged.

*The Averaged O.D. of the* down tube dimensions shall not exceed 1.140 inches ~~in O.D.~~ Removing material from the outside of the manifold to achieve the legal dimension is not permitted. Removal of the manifold down tube from the horizontal tube is prohibited. The original factory furnace bronze attaching process and original factory bronze repair material may be visible, inside and outside the manifold.

- b. Horizontal tube: The *O.D. of 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 *inches* 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. *The Averaged O.D. of the* horizontal tube dimensions shall not exceed 0.994 inches ~~O.D.~~ In addition, the maximum ~~O.D.~~ of the manifold measured where the tube inserts into the two head flanges, and just above any repair material that has been added, is 1.050 inches. Removing material from the outside of the manifold to achieve the legal dimension is not permitted.

*The tubes making up the manifold must also meet the following requirements:*

1. *The minimum bend-to-bend distance is 17.75 inches. The bend-to-bend distance is the distance between points along the horizontal tube where the .994 inch OD, as described above, is first exceeded.*

2. At no point in the bends of the horizontal tube may the average O.D. exceed 1.070 inches. Measurements will be taken four (4) times rotating around the circumference of the tube and averaged.
3. *The maximum carburetor flange height is 9.25 inches measured from the intake cylinder head sealing surface to the centerline of the top of the carburetor flange.*

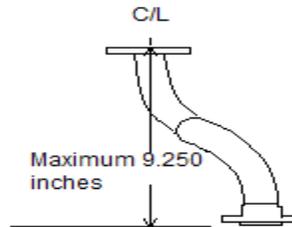


Figure 2

4. *The maximum deviation from straight along the 17.75 inch bend-to-bend section of the horizontal tube is 0.25 inches.*

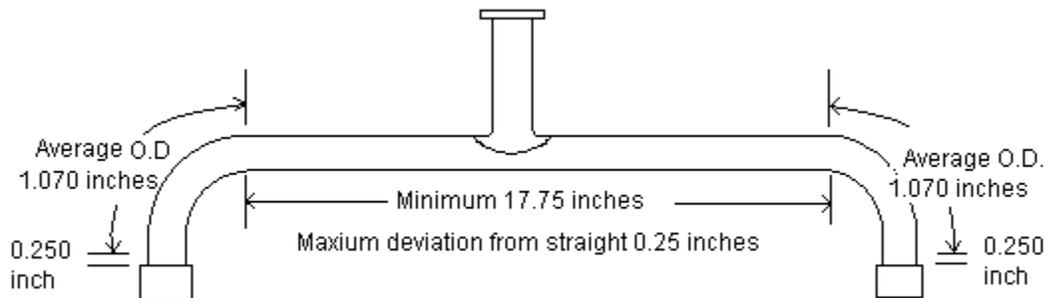


Figure 1

#### Item 2. (July)

##### F500

Modify 9.1.1.E.14, fifth paragraph by striking the word "thermostat".

Modify 9.1.1.E.14.D as follows: "Any thermostat may be used. *The thermostat may be modified in any manner, replaced with a "restrictor" of any similar shape/design to regulate coolant flow, or removed entirely.*"

Modify 9.1.1.E.14.G as follows: "Rotax 494 and 493 engines: Any Rotax 494 or 493 respectively, model thermostat housing or water outlet elbow may be used. The water bypass may be blocked. *Either upper or lower cylinder head water outlet may be blocked in any safe manner to facilitate use of a single water outlet.*"

#### Item 3. (July)

##### F500

The CRB has received a proposal to allow 600cc motorcycle engines as alternates to the currently approved engines in F500. The rules changes below would be used to implement this proposal. [Rules omitted.]

The CRB withdraws this proposal. When sufficient on-track performance information has been received (with appropriate individual inlet restrictors in place), the CRB will place the proposal before the membership again.

#### Item 4. (September)

##### FA

In 9.1.1.A. Table 2, Swift 016, to allow the removal of the camera mount, add the following to the Notes after "**Dimensions:** Reference Appendix A illustrations provided by Swift Engineering. All dimensions of the car within this table and Appendix A shall have a tolerance of + or - 0.2 inches. The bodywork may not be modified in shape or size; however, replacement bodywork may be supplied by sources other than Swift.":

*“Exception: In Appendix A illustrations 1 and 3 the un-dimensioned camera mount on the roll bar above the 37.83 height dimension may be removed. If the camera mount is removed the faring must be re-shaped to continue the contour lines of the roll bar below the 37.83 height dimension.”*

#### **Item 5. (September)**

##### **FF/FC**

Based on member comments, the recommended rule in the July Fastrack for FF/FC brake calipers is amended to remove the restriction that all pistons in a given caliper must be of the same size. The resulting proposed rules will then be:

Replace 9.1.1.B.6 with:

*“Unrestricted, except:*

- a. Maximum of 4 pistons allowed per caliper. Calipers must be ferrous or aluminum alloy.*
- b. Brake rotors are restricted to ferrous material.”*

Replace the first paragraph of 9.1.1.D.10 with:

*“Unrestricted, except:*

- a. Maximum of 4 pistons allowed per caliper. Calipers must be ferrous or aluminum alloy.*
- b. Brake rotors are restricted to ferrous material.”*

#### **Item 6 (September)**

##### **FF/FC**

The CRB received a proposed revision of the FF/FC construction rules. The Formula and Sports Racing Advisory Committee reviewed and revised the submission and recommended presenting it to the membership. [Rules omitted.]

Based on member input, the CRB withdraws this proposal. It will be revisited and may be presented for member input in the future.

#### **Grand Touring**

##### **Item 1. (April)**

##### **GT2**

In 9.1.2, GT-2, add to Mazda RX7/RX8 Notes: *“May run transaxle with 100 lb. weight penalty.”*

#### **Improved Touring**

##### **Item 1. (September)**

The IT Advisory Committee has recommended to the CRB certain changes and additions to 9.1.3.C. These are intended to accomplish the following goals:

1. Reinforce the idea that there is a “process weight” based on physical attributes of the vehicle, as well as possible performance-based adjustments. It is only the performance-based part of the weight that can be manipulated as time goes on.
2. Specifically allow changes to listings made before the last large scale (“Great”) realignment. However, since these listings have been around for some time and there may be some racing history (something not possible with new listings) consideration of that history is permissible and an adjustment could be assessed with a restart of the adjustment period.
3. Make it clear that errors may be corrected even when the normal adjustment period has expired. Examples of errors are if a car is known to make much more than expected horsepower or perhaps a math error was made during the initial classification.
4. Maintain the “no guarantee of competitiveness” clause. During the first four years of a listing, there is a reasonable attempt to make sure it is reasonably competitive. But after that, other than in the case of an error, the escape clause which follows this text in the rules would be the only way to change that weight, and that clause is only likely to be exercised in the case of an over-dog. It is not the intent to use such adjustments at this time, however, it is understood that it might be necessary in some rare cases.
5. The effect of all of these changes would be that some old listings (cars not changed during the last realignment and that haven’t been changed since) can now have the same new-car process applied to them. This would not require the adjustment of all cars at once. The determination of the most recent weight-assignment date can be easily determined by searching Fastrack. Any such adjustments restart the adjustment period so there would be 4+ years to make additional adjustments if it turned out that the process doesn’t properly estimate their potential.

In 9.1.3.C, replace the third paragraph with the following:

*“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 *only* on such *clearly measurable physical* factors, a minimum allowable weight shall be established. At the end of the second, third, and fourth *full* years of classification, the vehicle’s racing performance relative to other vehicles in its class shall *may* 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 *may* 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 *may* 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 *full* year of Improved Touring classification, ~~an assessment of class equity shall be made and the vehicle’s minimum weight shall be established.~~

*Cars with weights assigned prior to 1/1/2005 may have their weights reassigned using the same process that is used for new listings. Should this occur, the assessment clock will start anew. Racing history of this particular model may be considered at this time and an adjustment may be included in the new minimum weight, and the adjustment may be reconsidered at the end of any of the first four full years of competition.*

*If at any time an error is discovered in the physical factors used to assess a vehicle’s weight or an error was made during the application of the weight-assignment process, the error may be corrected. Should such an error correction occur, the assessment clock will start anew. Racing history of this particular model may be considered at this time and a performance compensation adjustment may be included in the new minimum weight, and the racing history of this model may be evaluated for an adjustment at the end of any of the first four full years of competition after the correction is made.”*

## Super Touring

### Item 1. (August)

The following is a comprehensive revision of the Super Touring rules. They include the addition of a new regional-only Super Touring Light (STL) class. [Note: some details of these rules are still being researched based on member comments received recently. If necessary, changes to these rules will be brought forward for the December BoD meeting.]

#### 9.1.4. Super Touring Category

These specifications are a part of the SCCA GCR and all automobiles shall ~~confirm with~~ *conform to* GCR section 9.

##### A. Purpose

Vehicles used in ~~the series~~ *this category* must be identifiable with the vehicles offered for sale to the public and available through the manufacturer’s ~~normal~~ distribution channels in the US. ~~The intent of these rules is to allow older World Challenge cars to compete in Club Racing with minimal modifications and allow new cars to be built to the same spec as well.~~ *The intent of this category is to allow a level of preparation for cars similar to that of World Challenge cars.* No model years older than 1985 will be ~~permitted~~ *eligible*, except that cars from model runs began before 1985 are ~~permitted~~ *eligible* (e.g., if a model was produced in 1983-1988, the 1983 and 1984 cars are ~~permitted~~ *eligible*). ~~The STO (World Challenge GT-based) target performance is 450hp. The STU (World Challenge Touring-based) target performance is 250hp. The SCCA does not guarantee the competitiveness of any car.~~

~~Vehicle modifications will be~~ *are* limited to those ~~required to meet SAFETY SPECIFICATIONS and AUTHORIZED MODIFICATIONS~~ listed herein. Unless a particular modification, or part, is approved in these rules, the vehicle and all of its relevant parts and assemblies shall be stock for the correct make and model of car.

##### B. Eligibility

Vehicles meeting one of the following ~~eriterion~~ criteria may compete in the Super Touring category::

- *1985 and newer cars* built specifically under these ST rules
- ~~1990 and newer World Challenge cars, using the vehicle’s most recent VTS sheet, (GT cars in STO and Touring cars in STU.)~~

~~Note: Competitors are responsible for providing the up-to-date VTS. Only those current and ex-World Challenge cars that can produce a Pro Racing VTS sheet are eligible under these preparation rules. Items not listed on the World Challenge VTS sheets must comply with all the remaining Super Touring rules. All cars racing with a World Challenge VTS sheet must compete on the specified World Challenge spec tire. Maximum tire size is 305/35 for STO and 235/40 for STU.~~

- GCR listed IT cars, ~~1985 and newer~~, under the *ir* current IT specifications. Cars shall compete as follows: 3001cc and above are eligible for STO. *2001cc through* 3000cc and below are eligible for STU. *Cars 2000cc and below are eligible for STL.*

Note: While IT cars may not be competitive in the ST category, competition within *their inclusion in* the category will allow regional competitors to ~~experience a~~ *participate in* national events.

- *Spec Miata cars completely conforming to Spec Miata class specifications are eligible for STL.*
- Cars eligible for the SCCA Pro Racing MX-5 Cup series; using the current set of Pro Racing Rules *may run in STU*, except that any DOT tire is permitted ~~provided it does not exceed 225/45/17~~; the claim rule will not be in effect, fuel per IT-specs; and a head and neck restraint is optional *until 2012*.

Competitors must have a copy of the current rules in their possession.

- *Cars eligible for the SCCA Pro Racing VW TDI Cup series using the current Pro Racing Rules may run in STU, except that any DOT tire is permitted and a head and neck restraint is optional until 2012.*

*Competitors must have a copy of the current rules in their possession.*

### C. Bodywork

1. Standard body appearance must be strictly maintained. Standard body appearance ~~is considered to include~~s the OEM grille and badge. A photographic replica is not sufficient. ~~Teams choosing not to utilize the OEM grille opening for airflow may mount a~~ *A close-out panel may be mounted* behind the grille. OEM *or aftermarket* spoilers and wings; ~~and aftermarket wings and spoilers~~ are permitted. OEM side skirts may be used if they were available on the car from the dealer provided they meet the minimum ride height rule. Aftermarket side skirts may be used provided ~~that~~ they meet the minimum ride height *rule*, have no openings/ducts in them other than for jacking insert(s), are no wider than the approved fascias, do not extend any higher than the bottom of the door and do not reinforce the chassis.
2. Body and frame seams; and joints; may be welded, but additional reinforcing material/brackets are not permitted. The OEM radiator supports may be replaced; or reinforced; ~~in order to make repairs easier~~. The radiator supports shall not reinforce the rest of the chassis; or diminish the OEM crush zones.
3. Bumper brackets may be modified, but bumpers must remain in OEM locations.
4. Non-essential body items and trim may be removed including attaching brackets and supporting structure. Any holes in bodywork exposed by the removal of these items shall be covered ~~up~~; or filled ~~in~~.
5. All of *the* vehicle's doors must be able to be opened from both inside and outside of the vehicle. Latches and hinges for the doors may be modified, but must remain in working order. Aftermarket latches and hinges may be used but shall not protrude beyond outer surface of bodywork. ~~Latches and hinges for the hood and trunk/deck lid are not required to be used. If latches and hinges are not used on the hood, or trunk/deck lid, a minimum of four (4) pins shall be used to secure the body panel(s).~~
6. ~~Two (2) hood pins, equally spaced across front of hood, are required within 24 inches of the leading edge of the hood.~~ *Hood and trunk pins, clips, or positive action external latches are permitted. Stock hood and trunk latches may be disabled or removed; if so, a positive action external fastening method shall be used. Engine compartment insulation may be removed.*
7. Openings in the bodywork may be temporarily covered, wholly or partially, with tape for *the* purpose of regulating airflow. Bodywork openings may be ~~more permanently~~ closed off using close-out panels mounted behind body openings. Bodywork seams may not be taped ~~at all~~. Bodywork may only be taped *except* to temporarily secure it after contact.
8. All bodywork and windows shall be sufficiently rigid, adequately supported; and properly secured such that it does not noticeably flutter, move, or deform while vehicle is in motion.

*9. Aftermarket OEM style hardtops are allowed. Aftermarket carbon fiber hardtops are not allowed.*

### D. Aerodynamics Devices

1. *Front Splitter*
  - a. *A front splitter that is a flat, single-plane may be added. The splitter shall have no vertical deviations. The permitted splitter may close out the underbody from the leading edge of the approved bodywork, back to the centerline of the front axle. The splitter may be mounted to the front fascia via a vertical intermediate mounting surface. If the vertical mounting surface overlaps the front fascia, it may not overlap more than 2.0 inches. Additionally, a maximum of 4 rods, or cables, may be used to support the front, and/or sides, of the splitter.*

*No other material(s) may be used external to the body to support the splitter. A single-plane vertical close-out panel(s) may be used to bridge the gap between the front fascia and the splitter. Splitter designs may incorporate openings for brake ducts provided it does not affect the standard body appearance.*

**STO and STU:**

*The front splitter must not extend more than 2.0 inches past the original; or approved; bodywork as viewed from above for the entire profile of the splitter. The splitters shall not extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead, and the "dry" set-up on the car. Additionally, the splitters may not extend more than 50.8mm (2.0 inches) beyond the bodywork, regardless of where the outside edges of the front tires are. The splitter shall consist of a single flat plane. The splitter shall have no *may have* vertical deviations, fences, etc., unless *only if* they are part of the production bodywork for street use.*

**STU:-**

*The front splitter may be added that is a flat, single-plane, with an exposed top surface of not more than 3.0 inches that does not extend more than 1.5 inches past the approved bodywork as viewed from above for the entire profile of the front fascia. The 3.0 inches exposed top surface of splitter will be measured from the point on the approved bodywork that sticks out the furthest in the area directly above any point on the splitter and defined by the top surface of the splitter and a point 1 inch vertically from the splitter top surface. Splitters in TC shall not extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead, and the "dry" set-up on the car. Additionally, the splitters may not extend more than 1.5 inches beyond the bodywork, regardless of where the outside edges of the front tires are.*

**STL:**

*The front splitter must not extend past the approved bodywork as viewed from above for the entire profile of the front fascia.*

- b. *The splitter protrusion will generally be measured at five (5) key points. Those five (5) key points will consist of are the centerline of the car, the approximate center of each front corner, and each end of the splitter in front of the front tire. This does not allow for the areas of the splitter between the key points to stick-out more than specified in section 9.1.4.1, or 9.1.4.2, or 9.1.4.3.*

*When the wing and splitter are *is* measured, there will be a 6mm (1/4") 0.25 inch variance tolerance permitted to account for flexure of the fascias, off-course excursions and any light body contact. There will be no variance greater than 6mm (1/4") 0.25 inch permitted unless the car has severe body damage that would affect the measuring of the wing and/or splitter.*

- c. *The minimum ride height of front splitters and air dams is 3.0 inches*

**2. Rear Wing**

*The wing shall be mounted to the trunk/deck lid with 2 mounting brackets. Each mounting bracket shall attach to the wing at a point that is at least 2.0 inches inboard of endplates. The wing, and the portion of the mounting brackets located externally to the trunk/deck lid, may only be reinforced by a diagonal strut having no aerodynamic effect, and/or by affixing the external parts of the brackets to internal parts of the brackets within the trunk/cargo area. The internal parts of the brackets may protrude through the trunk/deck lid to allow the two parts of each bracket to be fastened together.*

*OEM wings and spoilers are permitted as delivered, but must be removed if an approved wing is installed.*

**STO:**

*The entire rear wing assembly, including the end plates and any wicker bill, shall be mounted level with, or below, the peak of the roof. The trailing edge of the rear wing may be mounted no further rearward than the rear, center-point center of the rearmost part of the approved bodywork. The wing and endplates shall not be any wider than the widest part of the bodywork, not including mirrors and fender flares/lips. The rear wing is limited to a single element with a chord length of 12.0 inches, including any wicker. The entire wing assembly and a width may be no wider than the widest part of the car, not including fender flares/lips and mirrors, or a maximum width of 72.0 inches, whichever is the lesser. A wicker may be added provided it does not cause the wing/wicker assembly to exceed the stated maximum dimensions. Wing end plates must not exceed 144.0 square inches.*

**STU and STL:**

*The entire rear wing assembly, including the end plates and any wicker, shall be mounted a minimum of 6.0 inches below the peak of the roof. Cars with a wagon-style or hatchback body (e.g., Mazda Protege 5, Civic hatchback) may have the rear wing mounted a maximum of 4.0 inches above the roofline. The mounting position will be measured*

*between the highest points of the roof and the wing assembly. The trailing edge of the rear wing may be mounted no further rearward than the center of the rearmost part approved bodywork. ~~Removable OEM spoilers and wings are not permitted.~~ Wings shall be a single element with a maximum chord length of 8.50 inches, including any wicker, and a maximum wing assembly width of 48.25 inches. Wing end plates must not exceed 64.0 square inches.*

3. *Canards or dive planes are not permitted unless part of the OEM bodywork.*

#### **9E. Cockpit Interior**

1. The following items must be removed ~~from the cockpit~~: tool kit, spare tire, supplemental restraint systems (SRS) and passive restraint systems.
2. The following items may also be removed:  
Headliner, sun visor, carpeting, carpet pad and/or insulation, soundproofing, OEM seats, all trim except the dashboard, heating and air conditioning systems, window winding mechanisms, central locking systems, audio system, and any other systems fitted to the original car solely for the comfort of the driver and/or passengers.
3. The following items may be installed ~~in the cockpit~~:  
Safety equipment/structures, seat, controls necessary for driving, instrumentation, electronic equipment, radio, camera, battery, driver cooling system, driver ventilation system, replacement door panels/interior trim, anti-sway bar controls (not within reach of driver). None of the above items may hinder cockpit *driver* exit *from the car*.
4. The above components shall be attached ~~to/contained to~~ *in* the chassis in such a way as to be able to withstand 25g deceleration. Any sharp edges shall be covered, padded, protected, etc. to prevent injury to driver, crew, course workers, and officials.
5. ~~Seat Location~~—The chassis shall not be modified to make additional clearance for the driver's seat. The driver's seat shall be located in the same lateral location as the OEM seat, *unless otherwise allowed on a car's spec line*. The driver's seat shall be located longitudinally so that the seat back, at the driver's shoulders, does not break an imaginary vertical plane located at the front of the rear seat platform. On 2-seat vehicles the seat back may go back to the OEM rear bulkhead, package tray, etc. It is recommended that the floor be reinforced in the areas where the seat is mounted to the chassis. Vehicles with a non-metallic floor shall add tubing elements, with a minimum wall thickness of .090 inch, connecting metallic parts of the chassis, or within the cage structure, to *which* ~~mount~~ the seat ~~to~~: *must be mounted*.
6. Stock dash/instrument panel cover (dash pad) must be used. Original instruments/gauges may be replaced, or supplemented, with additional engine monitoring gauges. Accessories, lights and switches may be added or removed. Box-type extensions from the dash pad may be used to mount switches and controls, in the areas where the OEM insert panels were mounted, so that they more easily accessible to the driver. Audio and video systems may be removed.
7. Vertical bulkheads, and enclosures, within the cockpit shall not be any higher than the bottom of the side windows, and shall not extend more than ~~457mm (18.0 inches)~~ above the floor pan. No bulkhead(s) shall cover the rear foot wells.
  - a. Sedan Body (4-door) and Hatchback Body (3-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back shall not extend laterally from one side of the chassis to the other, but rather shall only be large enough to cover the individual components necessary.
  - b. Coupe Body (2-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back, if applicable, may extend laterally from one side of the chassis to the other.
8. Dash pad modification – It is permitted to modify the dash pad in order to run the roll cage tubes through the dash area as long as the dash pad is modified only enough for roll cage fitment. If necessary, the dash pad may be parted to ease installation around roll cage. Any such parting shall be done in such a way as to minimize the appearance that they have been separated once pieces of dash pad are installed.
9. ~~If the pedal box is not mounted rearward of any angle of the floor pan/firewall, there shall be one (1) brace extending from each of the front down tubes to protect the driver's legs. They must be integrated into the frame, or chassis, to provide substantial support for the front hoop.~~

#### **9F. Chassis**

1. All cars shall have the OEM rear package shelf and/or rear seat back support structure installed if applicable. As an alternative, a metallic close out panel may be installed that ~~would~~ simulates the *rear* package shelf and/or the rear

seat back support structure if applicable. If a close out panel is used to clean up the appearance of the rear package shelf and/or rear seat bulkhead in conjunction with the OEM structure, the close out panel material is free.

2. Cables, wiring and *fluid lines in the engine compartment and cabin interior* may be replaced, rerouted, and/or protected.
3. ~~When applicable;~~ *Cars that have drive shafts shall have* two (2) steel, 360-degree loops of sufficient strength ~~must be~~ located as close as possible to the front and rear universal joints to prevent the driveshaft from dropping in case of failure of either universal joint. Floor materials, torque tubes and cross members may also be utilized to provide this protection.
4. It is permitted to attach a *one or more* plates, or pads, under the car to provide for jacking of the car, provided it *they* serves no other purpose. It is prohibited to install any kind of device, which protrudes from the rocker panel or side of the car. However, tubes may be attached to the roll cage; or chassis; and extend to the inner surface of the rocker panel; or bodywork; ~~and to~~ act as a receptacle for a jacking fixture. Air jacks are permitted, but no air source may be carried on board.
5. Minimum ride height is ~~three~~ *3.0 inches for STO, 4.0 inches for STU and 5.0 inches for STL*. ~~Ride height will be measured from the lowest part, or component, of the car, excluding suspension, pinch weld and complete wheels.~~ *STL Ride height will be measured at the lowest point of the rocker panel, not including the pinch weld.*
6. The OEM firewall between the cockpit and engine compartment shall be intact to prevent the passage of flames from the engine compartment to the cockpit. Any holes in the firewall must be of the minimum size for the passage of controls and wires, and must be completely sealed.
7. Both front windows, driver's and passenger's, shall be down (preferably removed) whenever the vehicle is on track. The OEM window opening on the front doors shall not be filled in with any material, other than the material required to mount a NACA-duct for driver cooling. If used, the NACA-duct shall be mounted in the front, lower, corner of the window opening. The area closed off to mount the NACA-duct shall not exceed 50 square-inches. In rain conditions, a quarter window larger than 50 square-inches may be used in the area normally used to mount the permitted NACA-duct, in an attempt to minimize the amount of water entering the cockpit. Enough open area for the driver to exit ~~through~~ in an emergency shall remain open at all times.
8. All vehicles must use a stock, ~~uncracked~~, OEM equivalent, safety glass windshield, or ~~6mm (1/4")~~ *0.25 inch* minimum thickness Lexan replacement, mounted in the stock location, at the stock angle and maintaining the stock profile.
9. Windshield clips, per GCR section 9.3 Windshield Clips/Rear Window Straps, are permitted and recommended.
10. Side windows, not including the front door windows, and rear windows may be replaced by clear Lexan-type plastic material having a minimum thickness of ~~3mm (1/8")~~ *0.125 inch*, but must retain the same shape, size, and location as the original glass. NACA-ducts may be mounted in the side windows. The rear window must be secured by ~~two~~ (2) additional straps, (~~25mm wide x 3mm thick~~) *1.0 inch wide by 0.0625 inch thick minimum*, bolted or riveted to the body at both the top and bottom of the rear window. If a Lexan rear window is mounted with multiple, evenly spaced; screws around each side of its perimeter, safety straps are not required. If a DOT spec glass rear window is used in conjunction with the OEM method of mounting, safety straps are recommended, but not required.
11. Windows may be mounted and sealed with silicone. Any silicone used to bridge the gap between the perimeter of the window and the chassis shall be neat in appearance and uniform in thickness. Tape may only be used to seal the windows during wet track sessions for the purpose of reducing the amount of water entering the cockpit.
12. OEM side window framework shall be intact.
13. Acrylic; or glass; removable/moveable roof panels may be replaced with the same material as the surrounding roof. All brackets, mounts, and moldings must be removed. Fabric tops are not permitted; and shall be removed along with all associated hardware. It may be replaced with an OEM hardtop if one is available.
14. Unused mounting tabs and brackets that are non-structural, excluding the rear seat back support and package tray, may be removed.
15. The OEM "rain gutter/tray" at *the* base of the windshield shall be intact and in the OEM location.
16. The floor pan may be modified to provide clearance for the exhaust system ~~routing~~.

17. ~~Inner fender panels may be modified, but not replaced, for tire clearance and/or permitted suspension modifications. OEM-production-type appearance shall be maintained or replaced.~~
18. ~~Convertibles model cars may compete with a hardtop or as an open car.~~

## **EG. Engine**

1. Alternate engines may be used, ~~given that~~ *if* the manufacturer of the vehicle and engine are the same (e.g., an Acura engine installed into a Honda car) ~~and was available in a car delivered in North America. The chosen engine must retain its original cylinder head and intake manifold. If an engine from a front wheel drive vehicle is installed in a rear wheel drive vehicle, alternate OEM intake manifolds may be considered.~~
2. The crankshaft shall be a stock OEM part or *an* aftermarket part as long as it is of identical dimensions and material as the OEM part for the specific engine; ~~but~~ The crankshaft may be ~~tooled enough to achieve balance~~ *balanced*. The ~~standard~~ *maximum* weight reduction allowance for balancing of the crankshaft is 0.5 lbs. The ~~standard~~ *maximum* weight reduction allowance for the balancing of the reciprocating assembly is 15 grams. Alternate connecting rods are permitted, *but must be ferrous unless OEM supplied*.
3. Blocks may be sleeved to repair cylinder walls. Engines may be bored to a maximum of .040 inch over standard bore size.
4. Rocker arms, lifters, followers, pushrods, valve springs, keepers, retainers, guides, seats, and valves *materials* are free; Titanium is not permitted, except for retainers *or OEM parts*. The head may be machined to fit valve train components.
5. Valve lift is limited to .600<sup>2</sup> *inch for STO and STU. STL Valve lift is limited to .425 inch for 4 valve/cylinder engines, .425 inch intake and .450 inch exhaust for 3 valve/cylinder engines, and .450 inch for 2 valve/cylinder engines.* Camshafts and *camshaft* timing ~~is~~ *are* free.
6. Cars produced with an electronic throttle body may use the OEM electronic throttle body. The OEM electronic throttle body may be converted to manual actuation and the actuation cam on a manual throttle body may be changed to alter the opening/closing rate of the butterfly
7. The ignition system components may be replaced freely provided that the type of ignition remains the same as stock.
8. Engine calibration (spark and fuel) is free. A programmable ECU is permitted. ~~The RPM limit set within the engine management system shall be the same for all gears (i.e. e.g., 1st gear shall not have a lower RPM limit than 2nd-6th gears):~~
9. Fuel injector(s) and fuel rail(s) must maintain the original number and mounting location(s), but are otherwise free. Fuel pumps and fuel filters are free in type, size and number.
10. The location and type of the fuel pressure regulator(s) are free provided they are mounted within the engine compartment or the OEM location.
11. The ring gear diameter must be the same as the production flywheel. Flywheels shall be ferrous ~~metal~~, or aluminum, but are otherwise free. ~~Titanium flywheels are not permitted.~~ *For STO and STU, Clutch and pressure plate design is free, but see individual class specifications for material restrictions. For STL, stock diameter flywheel, clutch and pressure plate must be used.*
12. ~~The~~ *Oil* pan and oil pickup may be baffled, modified, or replaced ~~to prevent surge.~~ *The* OEM oil pump may be modified, or replaced with an OEM-style oil pump. Cars using a wet-sump oil system shall safety wire *or in some other way secure* the oil drain plug, ~~or in some other way secure the oil drain plug, to prevent the plug from accidentally coming out.~~
13. Vents, breathers, and oil filters may be added, or substituted. All emission control devices may be removed and the resulting holes plugged.
14. Replacement gaskets and seals are free, including head gaskets. Replacement gaskets and seals must be made out of material(s) designed to seal the parts of an engine. Replacement gaskets and seals may not perform any other functions. Head gaskets may be used to adjust compression ratio.
15. The intake and exhaust ports may be ported *in STO and STU* unless otherwise noted *at a 1 percent weight penalty*. The valve guide may be machined as part of this porting. The intake manifold may be port matched to the head(s),

provided no material is removed further than one inch in from the manifold to head mounting surface(s). *STL must conform to the STL specific cylinder head rules.*

16. Variable cam timing (VTEC, VANOS, etc.) and variable length intake manifolds may be partially, or wholly, disabled. Variable cam timing systems that use multiple cam lobes for each valve(s) may remove lobes from the camshaft(s) that are not being used.
17. ~~In order to~~ To increase the compression ratio, the bottom of the head may be machined. Alternate pistons are permitted and/or the pistons may be machined. Compression is limited to 12.0:1 *for STO and STU and 11.0:1 for STL. If an STL eligible car has an OEM compression ratio higher than 11.0:1 the vehicle may retain the OEM compression ratio.*
18. Cars utilizing forced induction may not have a boost controller within reach of the driver. A car must enter pit lane to have the boost level changed by the crew if necessary. ~~Teams~~ *Competitors* must be prepared to demonstrate the boost adjustment process to officials. Unless otherwise noted, the follow restrictions apply to turbochargers. Turbocharging is permitted only with a factory turbo/engine combination. The inlet restrictor (if required) shall be positioned in the compressor inlet housing. Turbochargers may not be added to engines that did not originally come equipped with one. Swapping of turbochargers between engine makes and models is prohibited. Supercharged cars may be approved on a case-by-case basis. Contact the Club Racing Technical Office for details.
19. *Engine parts, including, but not limited to, heads, intake manifolds and carburetors, may be cleaned using usual methods (e.g., bead blasting, soda blasting, Scotch Brite pads) as long as part dimensions are not altered.*

#### **FH. Cooling Systems**

1. Water Cooling  
Provided that the stock method of cooling is retained, the cooling system is free, including cooling fans, but the water radiator must remain in the approximate OEM location. The mounting angle may be changed.
2. Engine Oil Cooling  
Coolers for the engine oil are free in number, type and location.
3. Intake Air Cooling  
Cars utilizing forced induction may install intercoolers. The number, type, and location of intercoolers are free.
4. Water Spray Systems  
Water may not be sprayed on any intercoolers, radiators, etc. Water spray systems may only be used to inject water into the brake ducts.

#### **I. Fluid Piping & Fuel Tank**

1. Fuel Cells/Tanks  
The use of a fuel cell is required unless the stock fuel tank is located between the axle centerlines and within the main chassis structure (i.e., frame rails, etc.). ~~Additional straps and/or protection may be required.~~ All fuel cells **MUST** *must* comply with GCR 9.3. Proper bracing to protect the fuel cell in the event of a rear-end crash is required. If a fuel cell is installed in the rear hatch/rear trunk area, the OEM floor pan in that area may be replaced with metal in order to make it easier to mount the fuel cell and close out the area around the fuel cell.
2. There must be a metal bulkhead completely separating the cockpit from the compartment containing the fuel cell. This does not negate the requirement that the fuel cell bladder be contained in a metal container.
3. No line containing engine coolant may pass through the cockpit. No hydraulic fluid lines may have removable connectors inside the cockpit.
4. ~~Coolant catch tanks are required.~~
45. All fluid hoses, lines, reservoirs, and tanks that are in the cockpit, or cargo area that is open to the driver, shall be separated from the driver by rigid metallic and/or non-metallic enclosures and/or deflection shields to prevent fluid from spraying on the driver in case of a leak. Magnesium is prohibited. Waterproof flexible wraps may also be used to prevent fluid from spraying on the driver. The floor of these enclosures, or the area under the deflection shields, shall be designed to prevent the accumulation of fluids.
56. ~~Cooling of fuel is prohibited. This applies equally, whether the fuel is in the car, or not.~~ *No fuel cooling devices are permitted in the car.*

#### **J. Oil System**

1. If oil storage tanks are not located in the original position they must be surrounded by a 10 mm thick crushable structure. Provided that the oil tank is not located in close proximity to the outer surface of the bodywork, and there is some of the structure of the vehicle between the oil tank and the bodywork, the car's structure will meet the 10mm crushable structure rule.
2. If the oil tank is located in the cockpit area, or a trunk area that is open to the driver, it must be separated from the driver by a metal enclosure made up of .036" *inch* steel, or .059" *inch* aluminum. This is in addition to the 10mm thick crushable structure that is required in section 9.1.4.1.2. The floor of the enclosure must be designed to prevent accumulation of fluids.
- ~~3. An Oil catch tank is required per GCR section 9.3.~~
34. Accusump-type systems may be used.
45. Dry-sump systems are permitted provided:
 

STO:  
The dry-sump system is limited to ~~five (5)~~ stages. It shall consist of ~~one (1)~~ pressure stage and a maximum of ~~four (4)~~ scavenge stages. If the OEM-style pressure pump is used it shall count as the one permitted pressure stage. There may be a maximum of ~~two (2)~~ two-port scavenge stages, or a maximum of ~~four (4)~~ single-port scavenge stages, or any combination such that oil is not being scavenged from more than a maximum of ~~four (4)~~ 4 locations.

STU:  
The dry-sump system is limited to ~~three (3)~~ stages. It shall consist of ~~one (1)~~ pressure stage and a maximum of ~~two (2)~~ 2 scavenge stages. If the OEM-style pressure pump is used it shall count as the one permitted pressure stage. There may be a maximum of ~~one (1)~~ two-port scavenge stage, or a maximum of ~~two (2)~~ single-port scavenge stages, such that oil is not being scavenged from more than a maximum of ~~two (2)~~ 2 locations.

**STL:**

*Dry sump systems are not permitted.*

**GK. Exhaust System**

The exhaust system may be modified, or replaced. Outlets must be located rearward of the midpoint of the wheelbase. The exhaust pipe may not protrude more than ~~76.2mm (3")~~ 3.0 inches at the point where it exits the bodywork. If the exhaust pipe(s) exit the bodywork at the widest part of the body such that any extension of the exhaust pipe(s) beyond the body would make pipe(s) the widest point, the exhaust pipe(s) must be trimmed flush (+/- 0.5" *inch*) with the bodywork at the point that they exit the body. Minor body modifications are permitted to ~~allow for~~ accommodate exhaust systems. Modifications shall serve no other purpose. The underbody rocker panels may be modified for the installation of the exhaust system, but these modifications may only serve to provide clearance for the exhaust system. The exhaust system must be adequately isolated from the driver's compartment. If the exhaust system is routed in such a way that damage to it could cause hot exhaust to contact any part of the fuel system, there shall be a metallic heat shield protecting the fuel system components. This heat shield shall be located at least ~~76.2mm (3")~~ 3.0 inches away from the exhaust system, and there shall be at least ~~76.2mm (3")~~ 3.0 inches between the heat shield and the fuel system components.

**KL. Electrical System**

The electrical system is free provided that:

1. The battery may be replaced with any equivalent battery of the same type. Battery may be relocated, but must be secured by a tie-down bracket and positive terminal must be covered to prevent accidental sparking.
2. If located in the cockpit, the battery must be placed behind the front seats, or in the passenger seat area, and the protection box must include an air vent that exits outside the cockpit.
3. All cars, except cars with pop-up headlights, shall have clear OEM headlight assemblies in place in the stock headlight positions. If headlight assemblies are used, they may be the clear OEM assemblies for any country *in which* the car is sold in. Additionally, the headlight assembly may consist of a replica bucket and the OEM lens. There shall be an operational light bulb within both the low and high beam placements. The operational light bulbs need not be of OEM origin, but must produce approximately the same light output as an OEM Halogen low beam.
4. Fog/driving lights, parking lights and associated attaching hardware may be removed. The resulting openings may be used to duct air, or *may* be filled/covered. **Any No** ducting may ~~not~~ extend beyond the outer surface of the bodywork.
- ~~5. Whenever the track surface is wet, thereby causing spray, all cars on the track shall turn on their headlights and tail/rain lights." The brake lights must continue to be functional whenever the tail/rain lights are used. The tail/rain lights must be dimmer than the brake lights are when they come on.~~

56. Each car must be fitted with at least one effective windshield wiper motor *assembly*, which must be in working order throughout the event. Wiper blades, arms and associated hardware may be substituted freely; ~~or~~ *Other windshield wiper assemblies may be removed.*
67. Each car must have an effective defogging/demisting system that is capable of keeping the windshield clear during wet sessions. Anti-fog films meet this requirement.

#### **HM. Drivetrain**

1. Alternate differential housings are permitted from the same model of vehicle. Differential may be open, locked, or of a limited-slip type. The internals of limited-slip type differentials may be modified to change the amount of slip limiting. Differentials with external, or electric, adjustability are prohibited. Driveshaft and half-shafts may be aftermarket, but shall be the OEM-type and use the same types of materials as stock. Drive shafts may be replaced by one piece drive shafts, and conversely.
2. Vent and/or breather lines may be added to *the* transmission and/or differential. ~~One (1) transmission cooler and one (1) differential cooler is~~ *are* permitted.
3. Cars with sequential shift transmissions shall increase the required minimum weight by 100 lbs.

#### **LN. Suspension and Steering**

1. ~~The use of active suspension is forbidden.~~ All suspension members must be made from a metallic *ferrous and/or aluminum* material(s). Chromium plating of suspension members is ~~forbidden~~ *prohibited*.
2. *STO and STU* ~~Original~~ suspension pick-up points below the upper line of the wheel rim must be used within a tolerance of ~~25 mm~~ *1.0 inch*; however, if the lower suspension pickup point is changed from the OEM location, 50 lbs. must be added to the car. *STL cars must retain the OEM lower suspension pickup points.* The body/frame around the pick-up points may be reinforced. This reinforcement shall be limited to a radius of *6.0 inches* ~~six inches (6")~~. The ~~24 mm~~ *1.0 inch* tolerance applies to pick-up points on the chassis only.
3. *STO and STU* ~~S~~suspension mounting points above the upper line of the wheel rim must be retained within a tolerance of ~~75 mm~~ *3.0 inches*, however, the body/frame around the pick-up points may be reinforced. This reinforcement shall be limited to a radius of *6.0 inches* ~~six inches (6")~~. The ~~75 mm~~ *3.0 inch* tolerance applies to pick-up points on chassis only. *STL cars must retain the OEM upper suspension mounting points.*
4. Suspension springs are free. Coil-over units may be added to supplement; or replace; OEM springs. Attaching points may be reinforced. It is permitted to use threaded spring seats for adjustability.
5. Shock absorbers and struts are free. Driver adjustable systems; ~~or~~ *and* electronically controlled shocks; are not permitted. If a reservoir/adjustment canister is used, only one may be used per shock. The shocks at each individual wheel may not be connected in any way.
6. Stabilizer bars are free, and may be added, removed, or substituted. Driver adjustable stabilizer bars are not permitted. Adjustment controls for stabilizer bars may be located within the cockpit, but must be out of the reach ~~of the driver~~ *from the driver's seat*. Adjustments to ~~sway~~ *stabilizer* bars during practice, qualifying and race must be done ~~by a crewmember~~ in pit lane.
7. Suspension components shall be the stock OEM ~~pieces~~ *parts*, but they may be reinforced. Heim joints are permitted on suspension components. Standard suspension bushings may be replaced with solid; or spherical; bushings.
8. Alternate control arms permitted *in STO and STU. Alternate control arms are not permitted in STL.*
9. *STO and STU* ~~C~~cars that come with a solid rear axle or trailing arm suspension are permitted an aftermarket or fabricated rear suspension. Cars with an altered rear suspension must add 50 lbs. Cars with live axle *RWD rear wheel drive* may reduce the minimum weight by 50 lbs *in STO and STU. Rear wheel drive cars in STL must add 2.5 percent of their standard STL weight.*
10. Any anti-roll bar(s) and rear axle traction bar(s), rear axle panhard rod and watts linkage can be added or substituted, provided ~~its~~ their installation serves no other purpose. The mounts for these devices can be welded or bolted to the car. These devices and their mounts cannot be located in the trunk or driver/passenger compartment unless fitted as stock. Rear axle traction bar(s) used to control axle housing rotation must be solid bar or tube.
11. When a car's anti-roll bar also acts as a suspension locating device, the bar's attachment points and pivot points on

the chassis and suspension control arms must remain in *their* stock locations.

12. Slotted plates may be added over original shock mounts on front and rear shock towers for camber/caster adjustment. One bolt-in brace may connect the front strut towers, and one bolt-in brace may connect the rear strut towers.
13. *For STO and STU, the spindle and/or outer joint on the a-arm and/or strut may be moved in order to correct bump steer caused by changing the vehicle ride height. These components are not limited to the ~~25mm~~ 1.0 inch of movement that applies to the suspension pick-up points located on the chassis. STL cars may not relocate the spindle and/or outer joint on the a-arm.*
14. All steering components, with the exception of the steering wheel, column and tie-rods/toe-links, must be original equipment supplied by the manufacturer. These parts may be strengthened provided the original part can still be identified.
15. The steering wheel may be replaced with an aftermarket, or racing steering wheel. Wood-rimmed steering wheels are not permitted. An all-metal quick release coupling on the steering wheel may be added.
16. A collapsible steering column shall be used. Most ~~current~~ *recent* OEM steering columns have at least ~~two~~ (2) universal joints in them that ~~would~~ allow the steering column to ~~fold~~ *collapse* on impact. This type of design (*with* at least ~~one~~ (1) universal joint) must also be used in any steering column extension(s) that may be used to reach the driver's competition seating position.
17. Power steering may be *modified in any of the following ways:*
  - a. disconnected
  - b. an OEM manual steering rack for that model may be fitted
  - c. an electric power steering pump may be fitted
  - d. or an OEM electric-assisted steering rack may be used.
18. Front wheel drive cars may reduce their minimum weight by 50 Lbs *in STO and STU*. Front wheel drive cars with a strut type front suspension may reduce their minimum weight by an additional 50 lbs *in STO and STU*. *In STL front wheel drive cars with a strut type front suspension may reduce their minimum weight by 2.5 percent.*

#### **MO. Brakes**

1. Brake lines may be relocated, and rubber lines may be replaced with ~~armored~~ *stainless steel braided* brake lines. Original equipment master cylinders and pedals may be replaced. Hand brakes *assemblies* may be removed. Aftermarket brake proportioning valves are permitted. Non-pressurized brake fluid lines and master cylinders need not be metal, metal shielded, or bulkheaded. Pressurized brake fluid lines must be metal, metal shielded, or bulkheaded.
2. Brake pad friction material is free.
3. Backing plates and dust shields may be modified, ventilated, or removed.
4. Brake duct inlets incorporated in the front spoiler as standard, or *in* light openings, other than headlights, may be used to duct air to the front brakes. Additionally, brake ducts may be fitted into *the* intermediate mounting surface of *a* permitted splitter.
5. Water spray cooling systems are permitted. The amount of water carried for injection into the brake duct is free. Water-cooled calipers are forbidden.
6. Wheel fans are not permitted.
7. Power assisted braking systems are permitted.
8. The balance of braking forces between the two wheels on an axle shall be equal and non-adjustable.
9. The balance of braking forces between the front and rear axles may only be adjusted by the driver through:
  - a. Direct intervention on the position of the center of the joint, on the linkage lever of the hydraulic pumps of the front and rear circuits.
  - b. Direct intervention on a ~~proportional~~ *proportioning* valve; in which the intake pressure is adjusted through a pre-loaded spring.

10. Brake calipers, whether OEM or aftermarket, shall be mounted in *the* stock locations.
11. Titanium piston inserts are permitted.

*12. Anti-Lock Braking Systems (ABS) are permitted on cars that use the OEM brake components as supplied.*

#### **NP. Tires & Wheels**

1. Tires must conform to 9.3.45. Filing, buffing, or any other disguising of tire sidewall is prohibited. Chemical treatments, or any means to artificially enhance tire performance is prohibited.
2. Wheels / Hubs  
The standard wheels may be replaced with direct, bolt-on racing/aftermarket wheels under the following provisions:
  - a. Loose wheel spacers of any type are not recommended.
  - b. All cars must run the same size wheel on the same axle.
  - c. Lug nuts and/or wheel studs are free as long as at least two (2) threads of the wheel studs are visible and the outside edge of the nuts and studs are inside the wheel rim when properly mounted.
  - d. As viewed from above at the centerline of the wheel; the fender shall completely cover the "tread" portion of the tire. Only the tire sidewalls may be visible.
  - e. The wheel material is free, but they must be constructed of metallic material(s). No modifications (including grinding) are permitted on a vendor-supplied wheel.
  - f. Valve stems and caps are free.
3. Wheel Attachment
  - a. Center-locking type hubs and wheels may be used if vehicle is supplied with them from the manufacturer. If vehicle is not supplied with center-locking type wheels they may be used in conjunction with an adapter that bolts onto the OEM, or approved, hub.
  - b. If a single wheel nut is used, a safety spring must be in place on the nut whenever the car is running and must be replaced after each wheel change. These springs must be painted Day-Glo red or orange. Alternatively, another method of retaining the wheels may be used provided it has been approved by FIA.

#### **9.1.4.1. STO-SPECIFIC TECHNICAL REGULATIONS**

##### **A. STO-Body/Chassis *Bodywork***

##### ~~1. Aerodynamics~~

- ~~a. A front splitter may be added that does not extend more than 2.0 inches past the original, or approved, bodywork as viewed from above for the entire profile of the splitter. Splitters shall not extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead, and the "dry" set-up on the car. Additionally, the splitters may not extend more than 50.8mm (2.0 inches) beyond the bodywork, regardless of where the outside edges of the front tires are. The splitter shall consist of a single flat plane. The splitter shall have no vertical deviations, fences, etc., unless they are part of the production bodywork for street use. Splitter designs may incorporate openings for brake ducts provided it does not affect the standard body appearance. The allowed splitter may close out the underbody from the leading edge of the approved bodywork, back to the centerline of the front axle. The splitter may be mounted to the front fascia via a vertical intermediate mounting surface. Additionally, a maximum of four (4) rods, or cables, may be used to support the front, and/or sides, of the splitter. No other material(s) may be used external to the body to support the splitter. Single-plane vertical close-out panel(s) may be used to bridge gap between front fascia and splitter.~~
- ~~b. A rear wing may be added. Each wing shall be mounted to trunk/deck lid with two (2) mounting brackets. The wing, and the portion of the mounting brackets located externally to the trunk/deck lid, may only be reinforced by a diagonal strut having no aerodynamic effect, and/or by affixing the external parts of the brackets to internal parts of the brackets within the trunk/ cargo area. The internal parts of the brackets may protrude through the trunk/deck lid to allow for the two parts of each bracket to be fastened together. The rear wing, including any wicker bill, shall be mounted level with, or below, the peak of the roof. The trailing edge of the rear wing may be mounted no further rearward than the rear, center-point of the approved bodywork. The wing and endplates shall not be any wider than the widest part of the bodywork, not including mirrors and fender flares/lips. The rear wing is limited to a single element with a chord length of 12 inches and a width no wider than the widest part of the car, not including fender flares/lips and mirrors, or a maximum width of 72 inches, whichever is the lesser. A wicker may be added provided it does not cause the wing/wicker assembly to exceed the stated maximum dimensions.~~
- ~~e. Canards or dive planes are not allowed unless part of the OEM bodywork.~~

##### ~~2. Exterior Bodywork~~

~~OEM non-metallic composite body panels (i.e., plastic fascias, fiberglass hoods, etc.) may be replaced with panels of any type composite, provided that the panel maintains the OEM profiles. All cars may replace the hood, trunk/deck lid and~~

doors with non-metallic composite parts. Hoods may have heat exhaust vents installed in it. Hood inlets (scoops) are not allowed. The vents shall not expose the mechanical components of the car when looking down from above. The permitted transmission and differential coolers may vent through rear license plate frame. There shall be a screen, painted the same color as the surrounding bodywork, covering the vent opening. Any OEM non-functional, decorative vents/ducts may be made to be functional provided the exterior body appearance is not modified.

### **DB. Cockpit Interior**

1. ~~The required dash pad and center console may be made of any material. The dash pad shall maintain the stock profile.~~
2. Bulkheads
  - a. ~~2-Seat Vehicles:~~

There shall be a vertical bulkhead in the OEM position if applicable. It may extend upward to the bottom of the side windows, and then extend horizontally rearward to close off the area behind the cockpit. The bulkhead may be a non-metallic material if all fluid lines, hoses, reservoirs and tanks that would otherwise be open to the driver are contained in proper metallic enclosures.
  - b. ~~2-Door, 4-Seat Vehicles:~~

No bulkheads shall cover the rear floorboard area. The bulkhead used in front of the rear seat back support may extend laterally from one side of the chassis to the other, but must be below the bottom of the side windows.

### **3C. Chassis**

- 1 Fasteners are free. Fasteners may be replaced with adhesives.
  2. Rounded coverings may be used at the rear of the front window openings to bridge gap between the leading edge of b-pillar and inner edge of main roll hoop. The material and design of these coverings is free, but shall be neat in appearance and securely fastened.
  3. A third (3rd) tube on each side may extend through the firewall to the chassis in the engine compartment. These tubes shall not extend forward of the shock towers.
  - ~~d Inner fender panels may be modified or replaced for tire clearance and/or permitted suspension modifications. OEM production type appearance shall be maintained.~~
  4. An underbody close-out panel(s) may be used in the area behind the rear axle. These panels shall not alter the external appearance of the car when looking from the rear and sides of the car (i.e. we want to have to lay on the ground to see them). If the production car uses underbody trim pieces, the OEM trim pieces may be removed or replaced, but any close-out panel(s) used may not visually hide any more of the mechanical components, when looking from the rear and sides of the car, than the OEM trim pieces do. The close-out panels shall not completely bridge the gap between the rear floor pan area and the rear axle centerline. On rear engine cars, any close-out panels shall not extend any further forward than the rear axle centerline. Cars with a fuel cell, engine, etc. that extend down into external visual range shall fit the close-out panel(s) around the component in such a way that it does not alter the external appearance of the car.
4. ~~Convertible Tops~~  
Convertibles model cars may compete with a hardtop or as an open car.

### **BD. Engine/Drivetrain**

- 1 Intake Requirements: All cars shall use the stock or approved air metering device (e.g., carburetor, throttle body, etc.) and intake manifold for the installed engine, unless noted otherwise.
82. All cars may 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. Removal or obliteration of the manifold part number is prohibited.
  - a. The approved carburetor shall be a maximum of 650 cfm and 4 barrels. The approved optional insulator (Holley #108-12), and manifold (Edlebrock Performer RPM #7101-General Motors / #7121-Ford/Mercury) shall be fitted to cars.
  - b. ~~Other than~~ *Except* as provided for *permitted* in these rules, the carburetor shall not be modified in any way. Any carburetor jets, accelerator pump, pump cam, and accelerator pump nozzles may be used. Power valves, metering blocks, and floats may be altered or replaced. 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.

- c. ~~The E~~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.
- d. All air entering the intake tract shall pass through the carburetor air inlet.
3. ~~The crankshaft may be equivalent aftermarket part (same material, weight, and dimensions as OEM part), but may be tooled enough to achieve balance.~~
4. ~~Engine may be lowered 38mm vertically from OEM location.~~
- 6.3. Cars may modify, or replace, motor and gearbox mounts provided that the engine is located in the specified location. This includes the use of "torque plates". All engines will be mounted in the stock position unless otherwise specified. Where an engine setback is allowed, the OEM firewall may be modified only enough to accommodate the engine set back.

Engine Setback *and Lowering* Allowances:

*The following cars may set the engine rearward a maximum of 4.0 inches and may lower the engine a maximum of 1.5 inches:*

*Cadillac CTS-V (04-07)*

*Pontiac GTO (04-08)*

*Ford Mustang (85-06)*

*GM F-Body (93-02)*

1. ~~Cadillac CTS-V and Pontiac GTO – 214mm from stock location (78mm from firewall)~~
2. ~~Ford Mustang (85-04) 4" from stock location~~
3. ~~Ford Mustang (05-06) 8" from stock location~~
4. ~~GM F-Body (93-02) 4" from stock location~~

#### **E, Drivetrain**

- 2.1. Carbon clutches are permitted.
- 5.2. Transmissions and Rratios are free. Forward gears are limited to six speeds. ~~Cadillac CTS-V (Mid Valley spacer) and Pontiac GTO (Tilton spacer) are allowed to space the transmission 8 inches back with the designated spacer.~~
- 7.3. Traction Control/Launch Control is permitted, but must operate solely through the engine managements system (i.e., spark and fuel control); and may not interface with, or affect, the braking system or throttle control.

#### **GF. Brakes**

1. Rotors  
One (1) or two (2) piece ferrous rotors may *that do* not exceed 355mm in diameter by *or* 33mm in thick*ness are permitted.* (355x33mm). Maximum brake rotor size *diameter* of 380mm *allowed is permitted* at a 100 pound penalty.
2. Permitted Calipers  
The standard production calipers or any caliper with six 6 or less pistons may be used. 4-piston calipers may use a maximum of four (4) pads per caliper. 6-piston calipers are limited to two (2) pads per caliper.
3. Anti-Lock Braking Systems (ABS) are permitted on cars ~~utilizing~~ *that use* the OEM brake components as supplied.
4. Brake duct water spray cooling systems are ~~approved~~ *permitted*.

#### **EG. Wheels**

*Rear W*wheels may not exceed 18.0 inches in diameter x and 13.0 inches in width. ~~rear and 18x11 front.~~ *Front wheels may not exceed 18.0 inches in diameter and 11.0 inches in width.*

#### **FH. Approved Cars and Engines**

The following car and engine combinations are approved in STO. Contact the Club Racing Technical Office to add additional cars.

[INSERT TABLE]

#### **9.1.4.2. STU-SPECIFIC TECHNICAL REGULATIONS**

##### **A Body/Chassis Bodywork**

#### 1—Aerodynamics

- a.—Front Splitter: A front splitter may be added that is a flat, single-plane, with an exposed top surface of not more than 3.0 inches, that does not extend more than 1.5 inches past the approved bodywork as viewed from above for the entire profile of the front fascia. The 3.0 inches exposed top surface of splitter will be measured from the point on the approved bodywork that sticks out the furthest in the area directly above any point on the splitter and defined by the top surface of the splitter and a point 1 inch vertically from the splitter top surface. Splitters in TC shall not extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead, and the “dry” set-up on the car. Additionally, the splitters may not extend more than 1.5 inches beyond the bodywork, regardless of where the outside edges of the front tires are. The splitter shall have no vertical deviations. The allowed splitter may close out the underbody from the leading edge of the approved bodywork, back to the centerline of the front axle. The splitter may be mounted to the front fascia via a vertical intermediate mounting surface. If the vertical mounting surface overlaps the front fascia, it may not overlap more than 2.0 inches. Additionally, a maximum of four (4) rods, or cables, may be used to support the front, and/or sides, of the splitter. No other material(s) may be used external to the body to support the splitter. A single-plane vertical close-out panel(s) may be used to bridge gap between front fascia and splitter. Splitter designs may incorporate openings for brake ducts provided it does not affect the standard body appearance.
- b.—Rear Wing: Each wing shall be mounted to trunk/deck lid with two (2) mounting brackets. Each mounting bracket shall attach to wing at a point that is at least 2 inches inboard of endplates. The wing, and the portion of the mounting brackets located externally to the trunk/deck lid, may only be reinforced by a diagonal strut having no aerodynamic effect, and/or by affixing the external parts of the brackets to internal parts of the brackets within the trunk/cargo area. The internal parts of the brackets may protrude through the trunk/deck lid to allow for the two parts of each bracket to be fastened together. The rear wing shall be mounted a min. of 6.0 inches below the peak of the roof. Cars with a wagon-style body (i.e. Protege 5, Civic Type R, etc.) competing in STU may have the rear wing mounted a maximum of 4.0 inches above the roofline. The mounting position will be measured between the highest points of the roof and wing. The trailing edge of the rear wing may be mounted no further rearward than the rear, center-point of the approved bodywork. Wings shall be a single element with a max chord length of 10.75 inches and max element width of 48 inches. A wicker may be added provided it does not cause the wing/wicker assembly to exceed the stated maximum dimensions.

#### 2.—Exterior Body Panels

- a1. All cars may replace the hood and trunk/deck lid with non-metallic composite parts. The OEM profiles shall be maintained on the part. All other body panels shall be OEM parts.
- b2. The OEM front and rear fascias shall maintain the OEM crushable structure/support. The OEM crushable structure/support may be lightened as long as it is still recognizable as being the OEM crushable structure/support. The bumper shock absorbers may be removed. The OEM front and rear fascias shall be attached at the stock locations, but fasteners are free.
- e3. Fasteners are free provided they are of the same material family, and diameter as the fastener it is replacing.

#### 3.—Chassis

- a.—Inner fender panels may be modified, but not replaced, for tire clearance and/or permitted suspension modifications. OEM production-type appearance shall be maintained.
- b.—Convertibles model cars may compete with a hardtop or as an open car.

#### **B. Engines /Intake and Weight Requirements**

1. Engines up to six 6 cylinders and 3000 cubic centimeters factory displacement are permitted, *plus any others listed on spec lines.*
2. Intake requirements: All cars shall use the installed engine's stock air metering device (e.g., throttle body) and intake manifold, unless noted otherwise.

#### **C. Drivetrain**

1. Carbon clutches are not permitted.
2. Engine and gearbox mounts may be solid.
3. Transmission and ratios are free. Forward gears are limited to six 6 speeds.

#### **ED. Suspension**

Alternate suspensions are permitted. Alternate suspensions are limited to the original type. Items such as brake calipers,

springs, and shock/struts shall remain located on the alternate suspension in the OEM location.

### **DE. Brakes**

1. Rotors  
~~One (1);~~ or ~~two (2);~~ piece ferrous rotors **that do** not to exceed 328mm **in** diameter by **or** 32mm **in** thickness (328x32mm) **are permitted**.
2. ~~Permitted~~-Calipers  
 The standard production calipers or any 4-piston calipers may be used.
3. Anti-Lock Braking Systems: Any car equipped with an OEM ABS system shall completely remove all ABS components.

### **F. Wheels**

~~Wheels may not exceed 17x8;~~ **Wheels may not exceed 17.0 inches in diameter and 8.0 inches in width.**

### **3G Weights and Engine Allowances**

Minimum weights for cars with normally aspirated piston engines will be determined by 1.1 lbs/cc displacement for the installed engine (see following table). Displacement is ~~determined by~~ the factory displacement for the installed engine. For **the purpose of** weight assignment, ~~purpose~~ engine displacement will be rounded to the nearest 100cc (e.g., 2150cc = 2200cc **or** **and** 2149cc = 2100cc).

Factory Displacement (cc)	Engine (lbs)	Minimum Weight
1600	1600	
1700	1870	
1800	1980	
1900	2090	
2000	2200	
2100	2310	
2200	2420	
2300	2530	
2400	2640	
2500	2750	
2600	2860	
2700	2970	
2800	3080	
2900	3190	
3000	3300	

Alternate Engine Specifications		
Engine	Bore & Stroke (mm)	Notes
Nissan VQ30	93.0 x 73.3	Steering permitted

4. The Mazda 13B and Renesis rotary engines are permitted at 2400 lbs. The 13B may be street ported. The Renesis shall remain unported. The Mazda 12A Street Port is permitted at 2350 lbs. 12A induction: {1} Nikki 4 barrel carburetor with primary choke(s) bored to match secondary choke(s) on a stock manifold, or {1} Auto-type 2 barrel **carburetor** with 38mm choke(s) on a "dual-y" manifold.
5. All turbocharged engines shall use a compressor inlet restrictor/weight combination from the following table. Twin turbo engines are allowed on a case-by-case basis only.

Inlet Restrictor (mm)	Minimum Weight (lbs)
33	2200
35	2475
37	2770
39	3100

6. The Volkswagen Jetta TDI is permitted using the SCCA Pro Racing TDI Cup rules and weight. ~~Must use~~ **Diesel** fuel **must be used** in accordance with 9.3.26.A.
7. The Mazdaspeed Miata may use alternate turbo, Mazdaspeed part # 000-88-c-89.

### **H. Car and Engine Specific Allowances**

*[To be supplied]*

#### **9.1.4.3. STL-SPECIFIC TECHNICAL REGULATIONS**

**Note: STL is a Regional-only class in accordance with 9.1.12.C.**

#### **A. Bodywork**

1. All cars may replace the hood and trunk/deck lid with nonmetallic composite parts. The OEM profiles shall be maintained on the part. All other body panels shall be OEM parts.
2. The OEM front and rear fascias shall maintain the OEM crushable structure/support. The OEM crushable structure/support may be lightened as long as it is still recognizable as being the OEM crushable structure/support. The bumper shock absorbers may be removed. The OEM front and rear fascias shall be attached at the stock locations.

3. *Fasteners are free provided they are of the same material family and diameter as the fastener it is replacing.*

## **B. Engines**

1. *Engines up to 4 cylinders and 2000 cubic centimeters factory displacement are permitted, except those from cars in the following list:  
Honda S2000 2.0 liter  
Acura Type R*
2. *All cars shall use the installed engine's stock air metering device (e.g., throttle body) and intake manifold, unless noted otherwise.*
3. *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 faces. Carburetor mounting surfaces shall not be modified. External dimensions of the cylinder head or intake manifold may not be reduced to facilitate internal porting. Two piece manifolds must not be port matched at their intermediate point. Valve guide material is unrestricted.*
4. *Valve seat and valve head angles are free.*

## **C. Drivetrain**

1. *Carbon clutches are not permitted.*
2. *Engine and gearbox mounts may be solid, but must not relocate the engine or transmission in any direction.*
3. *Either the OEM transmission or an alternate transmission must be used; the alternate transmission must be from the same manufacturer as the vehicle (e.g., an Acura transmission may be installed in a Honda car). Alternate transmissions must be used in their entirety. Retrofitting OEM complete gear sets in an alternate transmission case is permitted.*

## **D. Suspension**

1. *Cars equipped with MacPherson strut suspension may de-camber 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 reinforce that structure. Material may be added or removed from the top of the strut tower to facilitate installation of adjuster plates.*
2. *On other forms of suspension, camber adjustment may be achieved by the use of shims and/or eccentric bushings.*
3. *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.*
4. *Bushing material, including that used to mount a suspension subframe to the chassis, is unrestricted. This includes the use of spherical bearings, so long as no suspension component is modified to facilitate their installation. Retention of spherical bearings by use of tack welds is permitted, as long as the welds serve no other purpose.*
5. *Rubber bump stops may be removed, modified, or replaced, but their chassis mounts, brackets, etc., may not be altered in any way.*
6. *No other relocation or reinforcement of any suspension component or mounting point is permitted.*
7. *Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).*

## **E. Brakes**

1. *OEM brake systems must be used. Alternate OEM brakes rotors or calipers from the same manufacturer will be considered.*
2. *Anti-Lock Braking Systems: Any car equipped with an OEM ABS system may use the OEM system only as installed.*

## **F. Wheels**

*Wheels may not exceed 17.0 inches in diameter nor 7.0 inches in width.*

## **G. Weight Requirements**

1. *Minimum weights for cars with piston engines will be determined by 1.3 lbs/cc displacement for the installed engine*

(see following table). Displacement is determined by the factory displacement for the installed engine. Cars with 3 valves/cylinder engines may reduce their weight by 1 percent. Cars with 2 valves/cylinder engines may reduce their weight by 2 percent. For weight assignment purposes engine displacement will be rounded to the nearest 100cc (e.g., 2150cc = 2200cc and 2149cc = 2100cc).

<b>Factory engine displacement (cc)</b>	<b>Minimum weight (lbs.)</b>
Up to	
1300	1690
1400	1820
1500	1950
1600	2080
1700	2210
1800	2340
1900	2470
2000	2600

2. The Mazda 12A is permitted at 2600 lbs; porting is not permitted.

#### **H. Car and Engine Specific Allowances**

[To be supplied]

##### **Item 2. (October)**

In 9.1.4.1.F, add the following to the Notes for all Mustangs: *“OEM independent rear suspension is permitted.”*

##### **Item 3. (October)**

In 9.1.4.1.F, add to the Notes for all Vipers: *“OEM fuel tank may be used.”*

#### **Production**

##### **Item 1. (May)**

In 9.1.5.E.9.a.2, change the last sentence from *“Closed cars must not remove stock material above a horizontal line placed at the lowest point of the driver’s door window opening.”* to *“Replacement components of an alternate material may not extend into the roof structure of a closed car above a horizontal line placed at the lowest point of the driver’s door window opening.”*

#### **American Sedan**

##### **Item 1. (July)**

Replace 9.1.6.D.3. k, l and m (and renumber succeeding subsections) with: *“Any H-Pattern 4 or 5 Speed transmission is permitted with the gear ratios listed on the vehicle spec line, helical cut forward gears with a minimum angle of 15 degrees, and no dog rings.”*

##### **Item 2. (July)**

In 9.4.D, delete *“American Sedan”*.

In 9.4.E.1, delete *“AMERICAN SEDAN”*.

In 9.4.E.3.a, delete *“American Sedan”*.

Add a new subsection to 9.1.6.D.8:

*“n. The 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 or removed.”*

#### **Spec Miata**

##### **Item 1. (August)**

[Note: 9.1.8.C.1.I.1 has been modified as a result of member comment.]

In 9.1.8.C.1.I.1. add after the first sentence: *“Any adjustable mechanical fuel regulator may be used, but it may not be adjusted from the cockpit.”*

In 9.1.8.C.1.p.3, add to the end of the second sentence: *“except as allowed in subsection 6 below.”*

In 9.1.8.C.1.p, add a new subsection 6: *“For 1999-2005 model years only, it is permitted to alter the ignition timing by elongating the mounting holes of the crankshaft position sensor trigger wheel.”*

## Item 2. (August)

Reinstatement of the SM compliance program is recommended to the Board of Directors. If approved, the Club Racing Staff will be expected to provide implementation details similar to the previous program.

## Item 3. (August)

In 9.1.8.C.4.c, add: *“90-97 cars are permitted to use the 99-05 suspension components including steering rack, front and rear control arms, front and rear uprights, and front and rear sub-frames.”*

## Item 4. (August)

In 9.1.8.C.4.d, add at the end: *“A locating ring for the rear anti-roll bar may be added; it must serve no other purpose.”*

[Since the latest design rear anti-roll bar has incorporated a locating ring, the CRB proposes that a locating collar may be added to existing anti-roll bars.]

## Item 5. (August)

In 9.1.8.C.6.d, change the second sentence as follows: *“The rear track shall not exceed 1465 mm for the 90-97 model years and 1475 mm for the 99-05.”*

## Sports Racing

### ITEM 1. (JULY)

#### S2

The CRB has received a proposal to allow the Mazda MZR 2 liter engine as an alternate to the currently approved Ford Pinto in Sports 2000. The rules changes below would be used to implement this proposal. [Note: Item 2 below completes this proposal.] Effective 11/1/10.

In 9.1.9.B.1, add the following at the end of the first sentence: *“ as defined in 9.1.9.B.5 , or the Mazda MZR 2.0 liter as defined in 9.1.9.B.6.”*

In 9.1.9.B.5, change the beginning to:

#### **B.5. Engine (Ford Pinto)**

~~The only A~~ permitted engine...”

Add a new section to 9.1.9.B.6 as follows, and renumber succeeding sections.

#### **B.6. Engine (Mazda MZR)**

*An alternate permitted engine is the Mazda MZR 2.0L dual overhead camshaft engine, which must conform to the following specifications and may be modified only as explicitly allowed. If these specifications do not explicitly allow a modification, then it may not be done. The philosophy of the MZR engine in Sports 2000 is to allow limited engine rebuilds but no performance modifications to the engine. Overhaul procedures that in the slightest way would increase performance are not permitted (e.g., porting, polishing, coating). Blueprinting, lightening, and balancing are inconsistent with the philosophy of this formula and are not allowed. Where Mazda part numbers are specified, normal industry part number supersession is expected and the superseding part numbers are automatically included.*

- a. *All surfaces on the head, block, connecting rods, pistons, and crankshaft must remain as manufactured by Mazda and may not be altered in any way. The original casting marks and cast surfaces must remain as-cast and also meet all of the Mazda design values and tolerances stated in the Mazda factory manual or delineated in these specifications. The block may not be decked. The minimum block deck height is [TBD]. Only Mazda MZR engine blocks with serial numbers LFE2-10-300E ('05-'08) or LF9G-10-300 ('09) are permitted. The maximum compression ratio is 10.8:1, the required standard bore is from 3.445 inches to 3.447 inches, and the required stroke is 3.272 inches. The maximum bore dimension of 3.447 inches is intended to allow for cylinder wear only. It is not permitted to machine to this dimension. The bore measurement will be taken 0.250 inches below the block deck where the bore is untouched by the piston ring.*
- b. *Pistons, crankshaft, and connecting rods may be replaced only with standard, original Mazda production parts. The crankshaft may be ground or polished for the purpose of installing oversized main or connecting rod bearings in accordance with the Mazda factory manual [factory dimensions to be added]. The connecting rods may not be bored or re-manufactured in any way. Replacement main bearings must be standard Mazda or Cosworth KK3481. Replacement connecting rod bearings must be standard Mazda or Cosworth KK3483.*
- c. *Only original Mazda replacement piston rings may be used. The ring end gaps may not be altered and must remain as manufactured by Mazda. All of the rings must be installed, including the complete oil scraper assembly. The piston bore may be honed solely to allow piston ring seating. The first and second compression rings must be installed in*

*the positions designated by Mazda.*

- d. The cylinder head may not be ported, polished, or machined. The minimum head height is [TBD]. A standard three-angle "production" valve job is required, and the only allowed angles are those defined in the Mazda factory manual. The intake valve seat angles must be 35°, 45°, and 70°; the 45° seat must be a minimum 0.048 inches wide. The exhaust valve seat angles must be 30°, 45°, and 65°; the 45° seat must be a minimum of 0.048 inches wide. The camshafts, valves, springs, retainers, and shim/bucket combinations must be original Mazda parts and not modified in any way. The camshafts must remain as ground by Mazda; no polishing is permitted. Valve seats may not be replaced. Only the Mazda L3G2-10-271A ('05-'08) or LF9G-10-090a ('09) cylinder heads are allowed. Only the Mazda L3E3-12-420 intake and L309-12-441A exhaust camshafts are allowed. The original, unmodified Mazda camshaft sprockets and crankshaft timing pulley must be used. Camshaft timing must remain stock and must be set per the procedure outlined in the Mazda factory manual. Intake camshaft is [TBD] ATDC and [TBD] BTDC. Exhaust camshaft is [TBD] ATDC and [TBD] BTDC. Modifications to the variable valve timing mechanisms are prohibited.*
- e. Flywheel: The minimum weight is 8 pounds. Any weight removed from the flywheel must come from the clutch plate surface. Only the Mazda LFG2-11-500 ('05-'08), Mazda LF9G-11-500 ('09), Quartermaster 505307, or Cosworth 20001019 flywheels may be used.*
- f. Any dual plate 5.5 inch or single plate 7.25 inch diameter, non-carbon fiber clutch is permitted, provided no modification is made to the flywheel other than changing the clutch's points of attachment to the flywheel. The original, unmodified Mazda clutch assembly may be used.*
- g. The Life Racing F42 ECU and engine wiring harness must be used; the current specification map is required. Failure to use the current map will result in an automatic penalty of 1 year suspension from SCCA Club Racing. The map is available on the SCCA web site. Ignition coils must be standard Mazda. Spark plugs are unrestricted.*
- h. The Jenvey SCCA-S2 intake kit including intake manifold, o-rings, throttle bodies, throttle position sensor, air horns, and fuel rail must be used with no modifications of any kind. Fuel injectors must be Bosch 0 280 155 868. The provided, continuous o-rings must be fitted to each intake runner groove between the intake manifold and cylinder head to ensure that no air bypasses the o-ring seal. Intake air filters are unrestricted.*
- i. Intake restrictor: [TBD] diameter restrictor plate per intake port. The restrictor plates may be obtained from Quicksilver RacEngines or Elite Engines.*
- j. The exhaust system manifold tubing inside dimension must be 1.625 inches, and the manifold tubes must be a minimum of 24 inches in length, terminating into a single exhaust pipe through a 4-into-1 collector. The collector angles must be 15 degrees (30 degree included angle), with an exit diameter of 2.250 inches. The tail pipe must be a minimum of 24 inches in length. The tail pipe includes a muffler, if present, as long as the inlet and outlet pipes of the muffler are the same diameter as the tail pipe. 4-into-2-into-1 exhaust collectors and reduced diameter venturi sections are prohibited.*
- k. Engines will be mounted and aligned fore and aft in the chassis.*
- l. The addition of material by any means to any component is prohibited.*
- m. Non-standard cam / valve covers are permitted provided they in no way improve the performance of the engine.*
- n. Three-stage dry sumps having no more than two scavenge stages are permitted. Localized machining of the engine block is permitted to allow fitment of the oil pump. An engine block breather cover may be fitted. The lubrication system is otherwise unrestricted.*
- o. Oil coolers are unrestricted.*
- p. A liquid cooling system is required; radiators and water pumps are unrestricted. The cylinder head water outlet housing may be modified or replaced to facilitate the routing of coolant lines.*
- q. Fuel pumps are unrestricted.*
- r. Gaskets and seals are unrestricted, except cylinder head gasket, Mazda part L3G2-10-271A must be used.*
- s. Pump, fan, and generator drive pulleys are unrestricted.*
- t. Generators are unrestricted.*

- u. The use of non-standard replacement fasteners (nuts, bolts, screws, studs, and washers) which are not connected with or do not support the intake manifold or any moving parts of the engine are permitted.*

**Item 2. (October)**

The CRB recommends adoption of the Mazda MZR alternate engine subject to the specifications published in the July Fastrack and the addition of a 1.205 inch per port plate restrictor and an approved ECU map (to be published on the SCCA web site upon approval of the BoD), effective 11/1/10. [Adjustments to the restrictor size will be made as necessary. On track performance will be carefully monitored.]

**Touring**

**Item 1. (August)**

Note: Based on member input, the CRB withdraws the following proposed changes.

In 9.1.10.D.3.b.1, modify the first sentence as follows: "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 *and* condenser, ~~H.D. springs/ sway bars, H.D. shocks, larger tires, engine and transmission coolers and cooling fans.~~"

Replace 9.1.10.D.5.b.1 with: "*Any springs and anti-roll bars are permitted, but they must mount in the stock locations.*"

**Item 2. (August)**

Replace 9.1.10.D.6.a.5 with: "*Any brake ducts are permitted, but they must serve no other purpose and must mount without modification to other components except for duct intake openings in the bodywork. The ducting must not be visible from outside the car.*"

# CLUB RACING BOARD

## CLUB RACING BOARD MINUTES | November 2, 2010

The Club Racing Board met by teleconference on November 2, 2010. Participating were Bob Dowie, Chairman; Chris Albin, Fred Clark, Jim Drago, Dave Gomberg, Tom Start, and Jim Wheeler. Also participating were Marcus Meredith and John Sheridan, BoD liaisons; Terry Ozment, Vice President of Club Racing; Doug Gill, General Manager, Technical Services Department; John Bauer, Technical Services Manager Club Racing; Ryan Miles, Technical Coordinator Club Racing. In addition to those items covered in Technical Bulletin 10-12, the following decisions were made:

### SUGGESTED RULES FOR NEXT YEAR

The following subjects will be referred to the Board of Directors for approval. Address all comments, both for and against, to the Club Racing Board. It is the BoD's policy to withhold voting on a rules change until there has been input from the membership on the presented rules. Member input is suggested and encouraged.

Please send your comments via the form at <http://www.crbscca.com/>

### **GCR**

1. #2456 (Michael Collins) New Regional SM5 Class Rules  
The CRB recommends the creation of Spec MX-5 as a regional class. [See Language attachment.]
2. #2943 (CRB) Define Flat Plate Intake Restrictors  
Insert new item in Appendix F – Technical Glossary as follows:

**Flat Plate Intake Restrictor** – a metal plate through which all engine combustion chamber air (and possibly fuel) must pass. Unless otherwise specified in a category, class or individual engine specification, all flat plate restrictors must meet the following requirements (more than one plate may be required in some applications; each shall meet the requirements):

- The restrictor shall be made from flat steel or aluminum sheet at least 0.060 inches thick.
- The hole through which all air to the engine must pass shall be round, centered with respect to the throttle body bore or carburetor bore or intake manifold bore to which it is attached; no radiusing, chamfering or beveling of the hole is permitted.
- The restrictor plate must be located between the throttle body or carburetor and the engine within 4 inches of the centerline of the carburetor or fuel injection butterfly.
- A steel or aluminum spacer no more than 0.25 inch thick may be placed between the throttle body or carburetor and the restrictor to allow for clearance of the butterfly. The hole must be the same shape and size as the throttle body or carburetor flange; no radiusing, chamfering or beveling of the hole is permitted.
- The restrictor plate shall be mounted on the bolts or studs used to locate the throttle body or carburetor. There shall be no movement of the restrictor plate possible when mounted.

### **FORMULA**

#### **FC**

1. #1882 (John Shumate) #1121 in June Fast Track Aluminum Calipers  
Based on BoD concerns, this recommendation is amended as follows and is resubmitted for approval:

Replace 9.1.1.B.6 with:

*“Unrestricted, except:*

- a. Maximum of 2 pistons allowed per caliper. Calipers must be ferrous or aluminum alloy.*
- b. Brake rotors are restricted to ferrous material.”*

#### **FF**

1. #1882 (John Shumate) #1121 in June Fast Track Aluminum Calipers  
Based on BoD concerns, this recommendation is amended as follows and is resubmitted for approval:

Replace the first paragraph of 9.1.1.D.10 with:

*“Unrestricted, except:*

- a. Maximum of 2 pistons allowed per caliper. Calipers must be ferrous or aluminum alloy.*
- b. Brake rotors are restricted to ferrous material.”*

2. #3187 (CRB) FIT request

The fuel rail and fuel pressure valve are among the parts supplied by HPD in the FIT engine kit (they are not stock FIT parts). HPD has advised that in some cases the valve does not work in the fuel cell where it was engineered to go. They suggest allowing alternate (unspecified) fuel pressure valves that will work outside the cell, but with the supplied rail still required.

Modify 9.1.1.D.3.k.4 as follows:

4. The fuel rail and fuel pressure relief valve must be as supplied by HPD. Injectors must be stock Honda Fit OEM parts (PN 16450-RNA-A01). *The fuel pressure regulator may be the unit supplied by HPD or any alternate as long as the fuel pressure regulator serves no additional purpose.* Injectors must be stock Honda Fit OEM parts (PN 16450-RNA-A01).

## IMPROVED TOURING

### ITS

1. #2820 (Wesley Czech) Allow alternate clutch hydraulic hose

In 9.1.3.D.1.m, add at the end: *"Cars originally equipped with hydraulically-actuated clutches may replace the clutch hydraulic lines with steel lines or Teflon-lined metal braided hose."*

## SUPER TOURING

1. #2424 (Philip Royle) Input on proposed STL class

1. Engines - The class was not designed to ensure that each car will be competitive. The intention is to allow a higher level of preparation.

2. See letter #3233.

3. In 9.1.4.D.1.a-STL. change "splitter" to "splitter/spoiler"

2. #2690 (Doug Weisz) Clarification

In 9.1.4.3.B.1, add *"Turbocharged cars are not permitted in STL."*

3. #3233 (Christopher Childs) Rules clarification - Add language to proposed STL

In 9.1.4.C.3, add new sections:

*"4. Any final drive ratio is permitted provided it fits the differential/transaxle housing without modification to the housing."*

*"5. Any limited-slip or locking differential is permitted."*

## STL

1. #2305 (Greg Amy) STL Rules Feedback

In 9.1.4.3.D, insert a new subsection 2 and renumber subsequent subsections:

*"2. For double wishbone suspension, camber adjustment devices (plates/shims/eccentric, etc.) are unrestricted, but are limited to one per wheel. Front and rear upper control arms may be modified or replaced with items that allow camber and/or caster adjustment only. The OEM rear toe adjustment arm may be replaced with any substitute."*

2. #3306 (CRB) STL car ineligibility

Replace 9.1.4.3.B.1 as follows:

*Engines up to 4 cylinders and 2000 cubic centimeters factory displacement are permitted, except those from cars and engines as follows:*

*The following vehicles in their entirety are ineligible for STL:  
Honda S2000, Acura Type R, Lotus Elise/Exige*

*The drive trains from the following cars are ineligible for STL:  
Honda S2000, Acura Type R.*

## PRODUCTION

1. #3205 (Jesse Prather) Wheel sizes

In the November Fastrack, Suggested Rules Changes, delete EP/FP item 1 (superseded below).

In 9.1.5, change the maximum wheel size for the following cars because 14 inch racing tires are not available:

EP/FP: Elva Courier Mk I, II, & III 1622 & 1798 - ~~14 x 6 (1622)~~ 15 x 7 MkIII 1798 - **15 x 7**

EP: Pontiac Fiero GT & Formula (85-88) - ~~14 x 7~~ - 15 x 7  
EP: Toyota Celica II 2.4L (81-82) (excl. conv.) - ~~14 x 7~~ - 15 x 7  
FP: Mazda GLC /323 (86-88) - ~~14 x 7~~ - 15 x 7  
HP: Volkswagen Rabbit 1715 (81-84) (excl. conv.) - ~~14 x 7~~ - 15 x 7  
HP: Volkswagen Scirocco 1715 (81-84) - ~~14 x 7~~ - 15 x 7  
HP: Volkswagen Scirocco 1780 (8-valve) (83-88) - ~~14 x 7~~ - 15 x 7

#### AMERICAN SEDAN

1. #2894 (Jim Wheeler) Permit aftermarket power steering pumps  
In 9.1.6.D.1, add a new section: "*r. Any belt driven, mechanical power steering pump may be used. It must mount to the front of the engine. Remote reservoirs may be added.*"
2. #2319 (Jeff Kopp) Please allow removal of center section of bumper (82-92 AS Camaro)  
In 9.1.6, Camaro & Firebird (82-92), add to the Notes: "*Camaro only: To aid cooling, the center of the grill opening (license plate area) and bumper backing may be removed.*"

#### SHOWROOM STOCK

1. #2740 (CRB) SS VINs  
In 9.1.7.B, change as follows: "*At least one* VIN plates or stampings shall remain in place. ~~There must be a minimum of two (2) VIN plates or stampings~~ *on the dashboard or chassis* that corresponds with the model automobile classified.
2. #3018 (Stan & Tom Czacki/Joe Aquilante) Front Camber  
Add a new section 9.1.7.E.34 as follows: "*Adjustment of front camber is permitted to a maximum of negative 2 degrees.*"

#### SPEC MIATA

1. #830 (Dave Wheeler) cruise control and horns  
  
In 9.1.8.C.1.p, add a new item 6: "*It is permitted to remove all components of the cruise control system.*"  
  
In 9.1.8.C.1.p, add a new item 7: "*It is permitted to remove the horn.*"
2. #831 (Dave Wheeler) Hardtop mounts  
In 9.1.8.C.7.e, add a new third sentence: "*It is permitted to attach the hard top to the upper windshield bar of the roll cage.*"

#### SPORTS RACING

1. #1790 (CRB) Alternate engine proposal for S2  
In response to BoD concerns, this recommendation is amended as follows:  
In 9.1.9.B.11, modify selected subsections as follows:  
**B. ~~44~~12. 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~~ *five* forward gears. *Five forward gears are permitted with a 25 lb. weight penalty.* The ratios are unrestricted.
  - d. The differential cannot be modified in any way to limit its normal function. Torque biasing, limited slip, and ~~lock~~ *locking / locked* differentials are prohibited. Excessive shimming of the differential is prohibited.
  - e. The use of automatic ~~and/or sequentially shifted~~ *shifting* gearboxes is prohibited. *Sequentially shifted gearboxes are permitted with a 25-lb-weight penalty.*
  - f. ~~Electronic assisted gear change mechanisms and electronically controlled differentials are prohibited.~~ *Electro-mechanical, electronic, hydraulic, pneumatic, and/or similarly operated gear change mechanisms and differentials are not permitted. Gear changes must be made through direct mechanical linkage, e.g. by rod or cable. Devices that in any way automate engine speed matching, interrupt ignition, and/or interrupt fuel for the purpose of assisting a gear change are not permitted.*
2. #1870 (Tony Sleath) New Mazda Engine for S2  
Effective upon approval by the Board of Directors, the CRB recommends adoption of the Mazda MZR engine subject to the specifications published in the July Fastrack as amended, with a 1.205 inch per port plate restrictor and an approved ECU map (to be published on the SCCA web site upon approval of the BoD). We note that the "TBD" items that remained when the proposal was submitted in October have been completed. The complete text will be provided to the BoD at their December meeting. [Adjustments to the restrictor size will be made as necessary. On track performance will be carefully monitored.] The CRB thanks all the members who submitted letters on this proposed rule change.

## **TOURING**

1. #3018 (Stan & Tom Czacki & Aquilante) Front Camber  
In 9.1.10.D.5.a.1, change “two (2)” to “3”.

### **T2**

1. #2304 (John Baldwin) Allow spring package for 05 STi  
In 9.1.10, T2, Subaru Impreza WRX STi (03-07), add to Notes: “*Baldwin Motors spring package part BMI-T2SP1, permitted (includes: Front Hypercoil springs 2.25” ID / 7”x600 psi & helper springs, Rear Hypercoil springs 2.50” ID / 8”x550 psi & helper springs, Racecomp Engineering rear top perch adaptors, Racecomp Engineering modified rear top hats).*”

### **T3**

1. #3076 (Michael Sullivan) Help for the RX-8  
In 9.1.10, T3, Mazda RX-8 (04-08) and Mazda RX-8 R3 (2009-10), add the following to the Notes: “*Mazda Motorsports Exhaust Header Part # 0000-06 and Mazda Motorsports Air Intake Part # 0000-06-8601.*”
2. #3338 (CRB) 2007-2009 Mazdaspeed3  
In 9.1.10, T3, Mazda Mazdaspeed3 (2007-09), add to the Notes: “*Mazda Motorsports Rear Swaybar Kit 32mm OD hollow Tube Part #: 0000-04-3420.*”
3. #3339 (CRB) 2010-2011 Mazdaspeed3  
In 9.1.10, T3, Mazda Mazdaspeed3 (2010-11), add to the Notes: “*Mazda Motorsports Rear Swaybar Kit 32mm OD hollow Tube Part #: 0000-04-3420.*”

## **CAR RECLASSIFICATIONS**

None

## **WHAT DO YOU THINK?**

### **FB**

Member input has been submitted to the CRB regarding the state of the art of assisted shifters in FB. Member input is being requested on the subject.

There is concern that the state of the art of assisted shifter systems is reaching a technical level where “smart” systems can make gear selection and shift timing decisions and that the potential system cost and impact on competitiveness is not in the spirit or intent of FB as a restricted class (GCR 9.1.1.H).

There is also concern that detection and control of “smart” systems is beyond the capability of SCCA scrutineers without specialized tools that may simply not be available. For example, a system capable of rejecting a shift for the purpose of preventing an over rev might also be able to control when to shift for performance enhancement and this might be undetectable.

With these concerns in mind, member response is requested on the following questionnaire:

Would you be in favor of:

1. Only mechanical and/or cable operated gear shifters are permitted. Throttle blippers and ignition and or/fuel interrupters are not permitted. Electro-mechanical shifters, electronic shifters, pneumatic shifters and similar devices are not permitted.
2. Only mechanical and/or cable operated gear shifters are permitted. Throttle blippers and ignition and or/fuel interrupters are permitted as long as the mechanism and method of actuation does not exert any control of the gear shift. Electro-mechanical shifters, electronic shifters, pneumatic shifters and similar devices are not permitted.
3. Shifting mechanisms and control are unrestricted as long as the driver initiates the shift.

[Note: these choices might not be the exact language of a rule proposal, if one is made.]

## **MEMBER ADVISORIES**

The revised Super Touring rules, as approved by the Board of Directors at their October meeting, are difficult to read because of the inclusion of much stricken/replaced/moved material. For the benefit of interested members, the entire Super Touring rules are presented below without the stricken text (except in newly proposed changes). In addition, all of the changes through Technical Bulletin 10-12 are included, as are all the proposed rule changes that will be submitted to the Board of Directors at their December meeting. [The letter number for the Technical Bulletin and proposed rule change items are listed in square brackets after the changed text. If any of the rule changes are not approved by the BoD, they will be removed before the 2011 GCR is released.] Also, the STO car list has been updated and the initial STU list of specific allowances has been added.

#### 9.1.4. Super Touring Category

These specifications are a part of the SCCA GCR and all automobiles shall *conform to* GCR section 9.

##### A. Purpose

Vehicles used in *this category* must be identifiable with the vehicles offered for sale to the public and available through the manufacturer's distribution channels in the US. *The intent of this category is to allow a level of preparation for cars similar to that of World Challenge cars.* No model years older than 1985 will be *eligible*, except that cars from model runs began before 1985 are *eligible* (e.g., if a model was produced in 1983-1988, the 1983 and 1984 cars are *eligible*). The SCCA does not guarantee the competitiveness of any car.

Vehicle modifications *are* limited to those listed herein. Unless a particular modification or part is approved in these rules, the vehicle and all of its relevant parts and assemblies shall be stock for the correct make and model of car.

##### B. Eligibility

Vehicles meeting one of the following criteria may compete in the Super Touring category:

- *1985 and newer cars* built specifically under these ST rules
- GCR listed IT cars, *1985 and newer*, under their current IT specifications. ~~Cars shall compete in STU as follows: 3001cc and above are eligible for STO. 2001cc through 3000cc are eligible for STU. Cars 2000cc and below are eligible for STL. [#2100]~~

Note: While IT cars may not be competitive in the ST category, *their inclusion* in the category will allow regional competitors to *participate in* national events.

- *Spec Miata cars completely conforming to Spec Miata class specifications are eligible for STL.*
- Cars eligible for the SCCA Pro Racing MX-5 Cup series using the current Pro Racing Rules *may run in STU*, except that any DOT tire is permitted, the claim rule will not be in effect, and a head and neck restraint is optional *until 2012*.

Competitors must have a copy of the current rules in their possession.

- *Cars eligible for the SCCA Pro Racing VW TDI Cup series using the current Pro Racing Rules may run in STU, except that any DOT tire is permitted and a head and neck restraint is optional until 2012.*

*Competitors must have a copy of the current rules in their possession.*

##### C. Bodywork

1. Standard body appearance must be strictly maintained. Standard body appearance includes the OEM grille and badge. A photographic replica is not sufficient. *A close-out panel may be mounted* behind the grille. OEM *or aftermarket* spoilers and wings are permitted. OEM side skirts may be used if they were available on the car from the dealer provided they meet the minimum ride height rule. Aftermarket side skirts may be used provided they meet the minimum ride height *rule*, have no openings/ducts in them other than for jacking insert(s), are no wider than the approved fascias, do not extend any higher than the bottom of the door and do not reinforce the chassis.
2. Body and frame seams and joints may be welded, but additional reinforcing material/brackets are not permitted. The OEM radiator supports may be replaced or reinforced to make repairs easier. The radiator supports shall not reinforce the rest of the chassis or diminish the OEM crush zones.
3. Bumper brackets may be modified, but bumpers must remain in OEM locations.
4. Non-essential body items and trim may be removed including attaching brackets and supporting structure. Any holes in bodywork exposed by the removal of these items shall be covered or filled.
5. All of *the* vehicle's doors must be able to be opened from both inside and outside the vehicle. Latches and hinges for the doors may be modified, but must remain in working order. Aftermarket latches and hinges may be used but shall not protrude beyond outer surface of bodywork.
6. *Hood and trunk pins, clips, or positive action external latches are permitted. Stock hood and trunk latches may be disabled or removed; if so, a positive action external fastening method shall be used. Engine compartment insulation may be removed.*

7. Openings in the bodywork may be temporarily covered, wholly or partially, with tape for *the* purpose of regulating airflow. Bodywork openings may be closed off using close-out panels mounted behind body openings. Bodywork seams may not be taped *except* to temporarily secure it after contact.
8. All bodywork and windows shall be sufficiently rigid, adequately supported and properly secured such that it does not noticeably flutter, move, or deform while vehicle is in motion.

9. *Aftermarket OEM style hardtops are allowed. Aftermarket carbon fiber hardtops are not allowed.*

#### **D. Aerodynamic Devices**

##### **1. Front Splitter**

- a. *A front splitter that is a flat, single-plane may be added. The splitter shall have no vertical deviations. The permitted splitter may close out the underbody from the leading edge of the approved bodywork, back to the centerline of the front axle. The splitter may be mounted to the front fascia via a vertical intermediate mounting surface. If the vertical mounting surface overlaps the front fascia, it may not overlap more than 2.0 inches. Additionally, a maximum of 4 rods, or cables, may be used to support the front, and/or sides, of the splitter. No other material(s) may be used external to the body to support the splitter. A single-plane vertical close-out panel(s) may be used to bridge the gap between the front fascia and the splitter. Splitter designs may incorporate openings for brake ducts provided it does not affect the standard body appearance.*

##### **STO and STU:**

*The front splitter must not extend more than 2.0 inches past the original or approved bodywork as viewed from above for the entire profile of the splitter. The splitter shall not extend laterally any further than the widest point of the outside sidewall of the front tires with the wheels pointed straight ahead. Additionally, the splitter may not extend more than 2.0 inches beyond the bodywork, regardless of where the outside edges of the front tires are. The splitter may have vertical deviations, fences, etc., only if they are part of the production bodywork for street use.*

##### **STL:**

*The front splitter/spoiler must not extend past the approved bodywork as viewed from above for the entire profile of the front fascia. [2424]*

- b. When the splitter *is* measured, there will be a *0.25 inch tolerance* permitted to account for flexure of the fascias, off-course excursions and any light body contact. There will be no variance greater than *0.25 inch* permitted unless the car has severe body damage that would affect the measuring of the splitter.
- c. *The minimum ride height of front splitters and air dams is 3.0 inches*

##### **2. Rear Wing**

*The wing shall be mounted to the trunk/deck lid with 2 mounting brackets. Each mounting bracket shall attach to the wing at a point that is at least 2.0 inches inboard of endplates. The wing, and the portion of the mounting brackets located externally to the trunk/deck lid, may only be reinforced by a diagonal strut having no aerodynamic effect, and/or by affixing the external parts of the brackets to internal parts of the brackets within the trunk/cargo area. The internal parts of the brackets may protrude through the trunk/deck lid to allow the two parts of each bracket to be fastened together.*

*OEM wings and spoilers are permitted as delivered, but must be removed if an approved wing is installed.*

##### **STO:**

*The entire rear wing assembly, including the end plates and any wicker, shall be mounted level with, or below, the peak of the roof. The trailing edge of the rear wing may be mounted no further rearward than the center of the rearmost part of the approved bodywork. The rear wing is limited to a single element with a chord length of 12.0 inches, including any wicker. The entire wing assembly may be no wider than the widest part of the car, not including fender flares/lips and mirrors, or a maximum width of 72.0 inches, whichever is the lesser. Wing end plates must not exceed 144.0 square inches.*

##### **STU and STL:**

*The entire rear wing assembly, including the end plates and any wicker, shall be mounted a minimum of 6.0 inches below the peak of the roof. Cars with a wagon-style or hatchback body (e.g., Mazda Protege 5, Civic hatchback) may have the rear wing mounted a maximum of 4.0 inches above the roofline. The mounting position will be measured between the highest points of the roof and the wing assembly. The trailing edge of the rear wing may be mounted no further rearward than the center of the rearmost part approved bodywork. Wings shall be a single element with a maximum chord length of 8.50 inches, including any wicker, and a maximum wing assembly width of 48.25 inches. Wing end plates must not exceed 64.0 square inches.*

3. *Canards or dive planes are not permitted unless part of the OEM bodywork.*

## **E. Interior**

1. The following items must be removed : tool kit, spare tire, supplemental restraint systems (SRS) and passive restraint systems.
2. The following items may also be removed:  
Headliner, sun visor, carpeting, carpet pad and/or insulation, soundproofing, OEM seats, all trim except the dashboard, heating and air conditioning systems, window winding mechanisms, central locking systems, audio system, and any other systems fitted to the original car solely for the comfort of the driver and/or passengers.
3. The following items may be installed:  
Safety equipment/structures, seat, controls necessary for driving, instrumentation, electronic equipment, radio, camera, battery, driver cooling system, driver ventilation system, replacement door panels/interior trim, anti-sway bar controls (not within reach of driver). None of the above items may hinder *driver exit from the car*.
4. The above components shall be attached *to/contained in* the chassis in such a way as to be able to withstand 25g deceleration. Any sharp edges shall be covered, padded, protected, etc. to prevent injury to driver, crew, course workers, and officials.
5. The chassis shall not be modified to make additional clearance for the driver's seat. The driver's seat shall be located in the same lateral location as the OEM seat, *unless otherwise allowed on a car's spec line*. The driver's seat shall be located longitudinally so that the seat back, at the driver's shoulders, does not break an imaginary vertical plane located at the front of the rear seat platform. On 2-seat vehicles the seat back may go back to the OEM rear bulkhead, package tray, etc. It is recommended that the floor be reinforced in the areas where the seat is mounted to the chassis. Vehicles with a non-metallic floor shall add tubing elements, with a minimum wall thickness of .090 inch, connecting metallic parts of the chassis, or within the cage structure, to *which* the seat *must be mounted*.
6. Stock dash/instrument panel cover (dash pad) must be used. Original instruments/gauges may be replaced, or supplemented, with additional engine monitoring gauges. Accessories, lights and switches may be added or removed. Box-type extensions from the dash pad may be used to mount switches and controls, in the areas where the OEM insert panels were mounted, so that they more easily accessible to the driver. Audio and video systems may be removed.
7. Vertical bulkheads, and enclosures, within the cockpit shall not be any higher than the bottom of the side windows, and shall not extend more than 18.0 inches above the floor pan. No bulkheads shall cover the rear foot wells.
  - a. Sedan Body (4-door) and Hatchback Body (3-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back shall not extend laterally from one side of the chassis to the other, but rather shall only be large enough to cover the individual components necessary.
  - b. Coupe Body (2-door) - Any bulkheads positioned in front of the plane determined by the OEM rear seat back, if applicable, may extend laterally from one side of the chassis to the other.
8. Dash pad modification – It is permitted to modify the dash pad in order to run the roll cage tubes through the dash area as long as the dash pad is modified only enough for roll cage fitment. If necessary, the dash pad may be parted to ease installation around roll cage. Any such parting shall be done in such a way as to minimize the appearance that they have been separated once pieces of dash pad are installed.

## **F. Chassis**

1. All cars shall have the OEM rear package shelf and/or rear seat back support structure installed if applicable. As an alternative, a metallic close out panel may be installed that simulates the *rear* package shelf and/or the rear seat back support structure if applicable. If a close out panel is used to clean up the appearance of the rear package shelf and/or rear seat bulkhead in conjunction with the OEM structure, the close out panel material is free.
2. Cables, wiring and *fluid* lines *in the engine compartment and cabin interior* may be replaced, rerouted, and/or protected.
3. *Cars that have drive shafts shall have* 2 steel, 360-degree loops of sufficient strength located as close as possible to the front and rear universal joints to prevent the driveshaft from dropping in case of failure of either universal joint. Floor materials, torque tubes and cross members may also be utilized to provide this protection.
4. It is permitted to attach *one or more* plates, or pads, under the car to provide for jacking of the car, provided *they* serve no other purpose. It is prohibited to install any kind of device, which protrudes from the rocker panel or side of the car. However, tubes may be attached to the roll cage or chassis and extend to the inner surface of the rocker panel or bodywork *to* act as a receptacle for a jacking fixture. Air jacks are permitted, but no air source may be carried on board.

5. Minimum ride height is *3.0 inches for STO, 4.0 inches for STU and 5.0 inches for STL. Ride height will be measured at the lowest point of the rocker panel, not including the pinch weld.*
6. The OEM firewall between the cockpit and engine compartment shall be intact to prevent the passage of flames from the engine compartment to the cockpit. Any holes in the firewall must be of the minimum size for the passage of controls and wires, and must be completely sealed.
7. Both front windows, driver and passenger, shall be down (preferably removed) whenever the vehicle is on track. The OEM window opening on the front doors shall not be filled in with any material, other than the material required to mount a NACA-duct for driver cooling. If used, the NACA-duct shall be mounted in the front, lower, corner of the window opening. The area closed off to mount the NACA-duct shall not exceed 50 square-inches. In rain conditions, a quarter window larger than 50 square-inches may be used in the area normally used to mount the permitted NACA-duct, in an attempt to minimize the amount of water entering the cockpit. Enough open area for the driver to exit in an emergency shall remain open at all times.
8. All vehicles must use a stock, OEM equivalent, safety glass windshield, or *0.25 inch* minimum thickness Lexan replacement, mounted in the stock location, at the stock angle and maintaining the stock profile.
9. Windshield clips, per GCR section 9.3 Windshield Clips/Rear Window Straps, are permitted and recommended.
10. Side windows, not including the front door windows, and rear windows may be replaced by clear Lexan-type plastic material having a minimum thickness of *0.125 inch*, but must retain the same shape, size, and location as the original glass. NACA-ducts may be mounted in the side windows. The rear window must be secured by 2 additional straps *1.0 inch wide by 0.0625 inch thick minimum*, bolted or riveted to the body at both the top and bottom of the rear window. If a Lexan rear window is mounted with multiple, evenly spaced screws around each side of its perimeter, safety straps are not required. If a DOT spec glass rear window is used in conjunction with the OEM method of mounting, safety straps are recommended, but not required.
11. Windows may be mounted and sealed with silicone. Any silicone used to bridge the gap between the perimeter of the window and the chassis shall be neat in appearance and uniform in thickness. Tape may only be used to seal the windows during wet track sessions for the purpose of reducing the amount of water entering the cockpit.
12. OEM side window framework shall be intact.
13. Acrylic or glass removable/moveable roof panels may be replaced with the same material as the surrounding roof. All brackets, mounts, and moldings must be removed. Fabric tops are not permitted and shall be removed along with all associated hardware. It may be replaced with an OEM hardtop if one is available.
14. Unused mounting tabs and brackets that are non-structural, excluding the rear seat back support and package tray, may be removed.
15. The OEM "rain gutter/tray" at *the* base of the windshield shall be intact and in the OEM location.
16. The floor pan may be modified to provide clearance for the exhaust system.
17. *Inner fender panels may be modified or replaced.*
18. *Convertible model cars may compete with a hardtop or as an open car.*

#### **G. Engine**

1. Alternate engines may be used, *if* the manufacturer of the vehicle and engine are the same (e.g., an Acura engine installed into a Honda car) *and was available in a car delivered in North America. The chosen engine must retain its original cylinder head and intake manifold. If an engine from a front wheel drive vehicle is installed in a rear wheel drive vehicle, alternate OEM intake manifolds may be considered.*
2. The crankshaft shall be a stock OEM part or *an* aftermarket part as long as it is of identical dimensions and material as the OEM part for the specific engine. The crankshaft may be *balanced*. The *maximum* weight reduction allowance for balancing of the crankshaft is 0.5 lbs. The *maximum* weight reduction allowance for the balancing of the reciprocating assembly is 15 grams. Alternate connecting rods are permitted, *but must be ferrous unless OEM supplied.*
3. Blocks may be sleeved to repair cylinder walls. Engines may be bored to a maximum of .040 inch over standard bore size.

4. Rocker arm, lifter, follower, pushrod, valve spring, keeper, retainer, guide, seat, and valve *materials* are free; Titanium is not permitted, except for retainers *or OEM parts*. The head may be machined to fit valve train components.
5. Valve lift is limited to .600 *inch for STO and STU. STL Valve lift is limited to .425 inch for 4 valve/cylinder engines, .425 inch intake and .450 inch exhaust for 3 valve/cylinder engines, and .450 inch for 2 valve/cylinder engines*. Camshafts and *camshaft* timing are free.
6. Cars produced with an electronic throttle body may use the OEM electronic throttle body. The OEM electronic throttle body may be converted to manual actuation and the actuation cam on a manual throttle body may be changed to alter the opening/closing rate of the butterfly
7. The ignition system components may be replaced freely provided that the type of ignition remains the same as stock.
8. Engine calibration (spark and fuel) is free. A programmable ECU is permitted.
9. Fuel injectors and fuel rails must maintain the original number and mounting locations, but are otherwise free. Fuel pumps and fuel filters are free in type, size and number.
10. The location and type of the fuel pressure regulators are free provided they are mounted within the engine compartment or the OEM location.
11. The ring gear diameter must be the same as the production flywheel. Flywheels shall be ferrous or aluminum, but are otherwise free. *For STO and STU, clutch and pressure plate design is free, but see individual class specifications for material restrictions. For STL, stock diameter flywheel, clutch and pressure plate must be used.*
12. *The* oil pan and oil pickup may be baffled, modified, or replaced. *The* OEM oil pump may be modified, or replaced with an OEM-style oil pump. Cars using a wet-sump oil system shall safety wire *or in some other way secure* the oil drain plug.
13. Vents, breathers, and oil filters may be added, or substituted. All emission control devices may be removed and the resulting holes plugged.
14. Replacement gaskets and seals are free, including head gaskets. Replacement gaskets and seals must be made out of material(s) designed to seal the parts of an engine. Replacement gaskets and seals may not perform any other functions. Head gaskets may be used to adjust compression ratio.
15. The intake and exhaust ports may be ported *in STO and STU* unless otherwise noted *at a 1 percent weight penalty*. The valve guide may be machined as part of this porting. The intake manifold may be port matched to the head(s), provided no material is removed further than one inch in from the manifold to head mounting surface(s). *STL must conform to the STL specific cylinder head rules.*
16. Variable cam timing (VTEC, VANOS, etc.) and variable length intake manifolds may be partially, or wholly, disabled. Variable cam timing systems that use multiple cam lobes for each valve(s) may remove lobes from the camshaft(s) that are not being used.
17. *To* increase the compression ratio, the bottom of the head may be machined. Alternate pistons are permitted and/or the pistons may be machined. Compression is limited to 12.0:1 *for STO and STU and 11.0:1 for STL. If an STL eligible car has an OEM compression ratio higher than 11.0:1 the vehicle may retain the OEM compression ratio.*
18. Cars utilizing forced induction may not have a boost controller within reach of the driver. A car must enter pit lane to have the boost level changed by the crew if necessary. *Competitors* must be prepared to demonstrate the boost adjustment process to officials. Unless otherwise noted, the follow restrictions apply to turbochargers. Turbocharging is permitted only with a factory turbo/engine combination. The inlet restrictor (if required) shall be positioned in the compressor inlet housing. Turbochargers may not be added to engines that did not originally come equipped with one. Swapping of turbochargers between engine makes and models is prohibited. Supercharged cars may be approved on a case-by-case basis. Contact the Club Racing Technical Office for details.
19. *Engine parts, including, but not limited to, heads, intake manifolds and carburetors, may be cleaned using usual methods (e.g., bead blasting, soda blasting, Scotch Brite pads) as long as part dimensions are not altered.*

#### **H. Cooling Systems**

1. Water Cooling  
Provided that the stock method of cooling is retained, the cooling system is free, including cooling fans, but the water radiator must remain in the approximate OEM location. The mounting angle may be changed.

2. Engine Oil Cooling  
Coolers for the engine oil are free in number, type and location.
3. Intake Air Cooling  
Cars utilizing forced induction may install intercoolers. The number, type, and location of intercoolers are free.
4. Water Spray Systems  
Water may not be sprayed on any intercoolers, radiators, etc. Water spray systems may only be used to inject water into the brake ducts.

#### I. Fluid Piping & Fuel Tank

1. Fuel Cells/Tanks  
The use of a fuel cell is required unless the stock fuel tank is located between the axle centerlines and within the main chassis structure (i.e., frame rails, etc.). All fuel cells *must* comply with GCR 9.3. Proper bracing to protect the fuel cell in the event of a rear-end crash is required. If a fuel cell is installed in the rear hatch/rear trunk area, the OEM floor pan in that area may be replaced with metal in order to make it easier to mount the fuel cell and close out the area around the fuel cell.
2. There must be a metal bulkhead completely separating the cockpit from the compartment containing the fuel cell. This does not negate the requirement that the fuel cell bladder be contained in a metal container.
3. No line containing engine coolant may pass through the cockpit. No hydraulic fluid lines may have removable connectors inside the cockpit.
4. All fluid hoses, lines, reservoirs, and tanks that are in the cockpit, or cargo area that is open to the driver, shall be separated from the driver by rigid metallic and/or non-metallic enclosures and/or deflection shields to prevent fluid from spraying on the driver in case of a leak. Magnesium is prohibited. Waterproof flexible wraps may also be used to prevent fluid from spraying on the driver. The floor of these enclosures, or the area under the deflection shields, shall be designed to prevent the accumulation of fluids.
5. *No fuel cooling devices are permitted in the car.*

#### J. Oil System

1. If oil storage tanks are not located in the original position they must be surrounded by a 10 mm thick crushable structure. Provided that the oil tank is not located in close proximity to the outer surface of the bodywork, and there is some of the structure of the vehicle between the oil tank and the bodywork, the car's structure will meet the 10mm crushable structure rule.
2. If the oil tank is located in the cockpit area, or a trunk area that is open to the driver, it must be separated from the driver by a metal enclosure made up of .036 *inch* steel, or .059 *inch* aluminum. This is in addition to the 10mm thick crushable structure that is required in section 9.1.4.1.2. The floor of the enclosure must be designed to prevent accumulation of fluids.
3. Accusump-type systems may be used.
4. Dry-sump systems:  
STO:  
The dry-sump system is limited 5 stages. It shall consist of 1 pressure stage and a maximum of 4 scavenge stages. If the OEM-style pressure pump is used it shall count as the one permitted pressure stage. There may be a maximum of 2 two-port scavenge stages, or a maximum of 4 single-port scavenge stages, or any combination such that oil is not being scavenged from more than a maximum of 4 locations.  
  
STU:  
The dry-sump system is limited to 3 stages. It shall consist of 1 pressure stage and a maximum of 2 scavenge stages. If the OEM-style pressure pump is used it shall count as the one permitted pressure stage. There may be a maximum of 1 two-port scavenge stage, or a maximum of 2 single-port scavenge stages, such that oil is not being scavenged from more than a maximum of 2 locations.

*STL:  
Dry sump systems are not permitted.*

### **K. Exhaust System**

The exhaust system may be modified, or replaced. Outlets must be located rearward of the midpoint of the wheelbase. The exhaust pipe may not protrude more than **3.0 inches** at the point where it exits the bodywork. If the exhaust pipe(s) exit the bodywork at the widest part of the body such that any extension of the exhaust pipe(s) beyond the body would make pipe(s) the widest point, the exhaust pipe(s) must be trimmed flush (+/- 0.5 *inch*) with the bodywork at the point that they exit the body. Minor body modifications are permitted to *accommodate* exhaust systems. Modifications shall serve no other purpose. The underbody rocker panels may be modified for the installation of the exhaust system, but these modifications may only serve to provide clearance for the exhaust system. The exhaust system must be adequately isolated from the driver's compartment. If the exhaust system is routed in such a way that damage to it could cause hot exhaust to contact any part of the fuel system, there shall be a metallic heat shield protecting the fuel system components. This heat shield shall be located at least **3.0 inches** away from the exhaust system, and there shall be at least **3.0 inches** between the heat shield and the fuel system components.

### **L. Electrical System**

The electrical system is free provided that:

1. The battery may be replaced with any equivalent battery of the same type. Battery may be relocated, but must be secured by a tie-down bracket and positive terminal must be covered to prevent accidental sparking.
2. If located in the cockpit, the battery must be placed behind the front seats, or in the passenger seat area, and the protection box must include an air vent that exits outside the cockpit.
3. All cars, except cars with pop-up headlights, shall have clear OEM headlight assemblies in place in the stock headlight positions. If headlight assemblies are used, they may be the clear OEM assemblies for any country *in which* the car is sold. Additionally, the headlight assembly may consist of a replica bucket and the OEM lens. There shall be an operational light bulb within both the low and high beam placements. The operational light bulbs need not be of OEM origin, but must produce approximately the same light output as an OEM Halogen low beam.
4. Fog/driving lights, parking lights and associated attaching hardware may be removed. The resulting openings may be used to duct air, or *may* be filled/covered. *No* ducting may extend beyond the outer surface of the bodywork.
5. Each car must be fitted with at least one effective windshield wiper *assembly*, which must be in working order throughout the event. Wiper blades, arms and associated hardware may be substituted freely. *Other windshield wiper assemblies may be* removed.
6. Each car must have an effective defogging/demisting system that is capable of keeping the windshield clear during wet sessions. Anti-fog films meet this requirement.

### **M. Drivetrain**

1. Alternate differential housings are permitted from the same model of vehicle. Differential may be open, locked, or of a limited-slip type. The internals of limited-slip type differentials may be modified to change the amount of slip limiting. Differentials with external, or electric, adjustability are prohibited. Driveshaft and half-shafts may be aftermarket, but shall be the OEM-type and use the same types of materials as stock. Drive shafts may be replaced by one piece drive shafts, and conversely.
2. Vent and/or breather lines may be added to *the* transmission and/or differential. 1 transmission cooler *and* 1 differential cooler *are* permitted.
3. Cars with sequential shift transmissions shall increase the required minimum weight by 100 lbs.

### **N. Suspension and Steering**

1. All suspension members must be made from *ferrous and/or aluminum* materials. Chromium plating of suspension members is *prohibited*.
2. *STO and STU* original suspension pick-up points below the upper line of the wheel rim must be used within a tolerance of **1.0 inch**; however, if the lower suspension pickup point is changed from the OEM location, 50 lbs. must be added to the car. *STL cars must retain the OEM lower suspension pickup points*. The body/frame around the pick-up points may be reinforced. This reinforcement shall be limited to a radius of **6.0 inches**. The **1.0 inch** tolerance applies to pick-up points on the chassis only.
3. *STO and STU* suspension mounting points above the upper line of the wheel rim must be retained within a tolerance of **3.0 inches**, however, the body/frame around the pick-up points may be reinforced. This reinforcement shall be limited to a radius of **6.0 inches**. The **3.0 inch** tolerance applies to pick-up points on chassis only. *STL cars must retain the OEM upper suspension mounting points*.

4. Suspension springs are free. Coil-over units may be added to supplement or replace OEM springs. Attaching points may be reinforced. It is permitted to use threaded spring seats for adjustability.
5. Shock absorbers and struts are free. Driver adjustable systems *and* electronically controlled shocks are not permitted. If a reservoir/adjustment canister is used, only one may be used per shock. The shocks at each individual wheel may not be connected in any way.
6. Stabilizer bars are free, and may be added, removed, or substituted. Driver adjustable stabilizer bars are not permitted. Adjustment controls for stabilizer bars may be located within the cockpit, but must be out of the reach *from the driver's seat*. Adjustments to *stabilizer* bars during practice, qualifying and race must be done in pit lane.
7. Suspension components shall be the stock OEM *parts*, but they may be reinforced. Heim joints are permitted on suspension components. Standard suspension bushings may be replaced with solid or spherical bushings.
8. Alternate control arms permitted *in STO and STU. Alternate control arms are not permitted in STL.*
9. *STO and STU* cars that come with a solid rear axle or trailing arm suspension are permitted an aftermarket or fabricated rear suspension. Cars with an altered rear suspension must add 50 lbs. Cars with live axle *rear wheel drive* may reduce the minimum weight by 50 lbs *in STO and STU. Rear wheel drive cars in STL must add 2.5 percent of their standard STL weight.*
10. Any anti-roll bar(s) and rear axle traction bar(s), rear axle panhard rod and watts linkage can be added or substituted, provided their installation serves no other purpose. The mounts for these devices can be welded or bolted to the car. These devices and their mounts cannot be located in the trunk or driver/passenger compartment unless fitted as stock. Rear axle traction bar(s) used to control axle housing rotation must be solid bar or tube.
11. When a car's anti-roll bar also acts as a suspension locating device, the bar's attachment points and pivot points on the chassis and suspension control arms must remain in their stock locations.
12. Slotted plates may be added over original shock mounts on front and rear shock towers for camber/caster adjustment. One bolt-in brace may connect the front strut towers, and one bolt-in brace may connect the rear strut towers.
13. *For STO and STU*, the spindle and/or outer joint on the a-arm and/or strut may be moved to correct bump steer caused by changing the vehicle ride height. These components are not limited to the *1.0 inch* of movement that applies to the suspension pick-up points located on the chassis. *STL cars may not relocate the spindle and/or outer joint on the a-arm.*
14. All steering components, with the exception of the steering wheel, column and tie-rods/toe-links, must be original equipment supplied by the manufacturer. These parts may be strengthened provided the original part can still be identified.
15. The steering wheel may be replaced with an aftermarket, or racing steering wheel. Wood-rimmed steering wheels are not permitted. An all-metal quick release coupling on the steering wheel may be added.
16. A collapsible steering column shall be used. Most *recent* OEM steering columns have at least 2 universal joints in them that allow the steering column to *collapse* on impact. This type of design (*with* at least 1 universal joint) must also be used in any steering column extension(s) that may be used to reach the driver's competition seating position.
17. Power steering may be *modified in any of the following ways*:
  - a. disconnected
  - b. an OEM manual steering rack for that model may be fitted
  - c. an electric power steering pump may be fitted
  - d. an OEM electric-assisted steering rack may be used.
18. Front wheel drive cars may reduce their minimum weight by 50 Lbs *in STO and STU*. Front wheel drive cars with a strut type front suspension may reduce their minimum weight by an additional 50 lbs *in STO and STU. In STL front wheel drive cars with a strut type front suspension may reduce their minimum weight by 2.5 percent.*

## **O. Brakes**

1. Brake lines may be relocated, and rubber lines may be replaced with *stainless steel braided* brake lines. Original equipment master cylinders and pedals may be replaced. Hand brake *assemblies* may be removed. Aftermarket brake proportioning valves are permitted. Non-pressurized brake fluid lines and master cylinders need not be metal, metal shielded, or bulkheaded. Pressurized brake fluid lines must be metal, metal shielded, or bulkheaded.

2. Brake pad friction material is free.
3. Backing plates and dust shields may be modified, ventilated, or removed.
4. Brake duct inlets incorporated in the front spoiler as standard, or *in* light openings, other than headlights, may be used to duct air to the front brakes. Additionally, brake ducts may be fitted into *the* intermediate mounting surface of *a* permitted splitter.
5. Water spray cooling systems are permitted. The amount of water carried for injection into the brake duct is free. Water-cooled calipers are forbidden.
6. Wheel fans are not permitted.
7. Power assisted braking systems are permitted.
8. The balance of braking forces between the two wheels on an axle shall be equal and non-adjustable.
9. The balance of braking forces between the front and rear axles may only be adjusted by the driver through:
  - a. Direct intervention on the position of the center of the joint, on the linkage lever of the hydraulic pumps of the front and rear circuits.
  - b. Direct intervention on a *proportioning* valve in which the intake pressure is adjusted through a pre-loaded spring.
10. Brake calipers, whether OEM or aftermarket, shall be mounted in *the* stock locations.
11. Titanium piston inserts are permitted.

*12. Anti-Lock Braking Systems (ABS) are permitted on cars that use the OEM brake components as supplied.*

**P. Tires & Wheels**

1. Tires must conform to 9.3.45. Filing, buffing, or any other disguising of tire sidewall is prohibited. Chemical treatments, or any means to artificially enhance tire performance is prohibited.
2. Wheels / Hubs  
The standard wheels may be replaced with direct, bolt-on racing/aftermarket wheels under the following provisions:
  - a. Loose wheel spacers of any type are not recommended.
  - b. All cars must run the same size wheel on the same axle.
  - c. Lug nuts and/or wheel studs are free as long as at least two (2) threads of the wheel studs are visible and the outside edge of the nuts and studs are inside the wheel rim when properly mounted.
  - d. As viewed from above at the centerline of the wheel; the fender shall completely cover the "tread" portion of the tire. Only the tire sidewalls may be visible.
  - e. The wheel material is free, but they must be constructed of metallic material(s). No modifications (including grinding) are permitted on a vendor-supplied wheel.
  - f. Valve stems and caps are free.
3. Wheel Attachment
  - a. Center-locking type hubs and wheels may be used if vehicle is supplied with them from the manufacturer. If vehicle is not supplied with center-locking type wheels they may be used in conjunction with an adapter that bolts onto the OEM, or approved, hub.
  - b. If a single wheel nut is used, a safety spring must be in place on the nut whenever the car is running and must be replaced after each wheel change. These springs must be painted Day-Glo red or orange. Alternatively, another method of retaining the wheels may be used provided it has been approved by FIA.

**9.1.4.1. STO-SPECIFIC TECHNICAL REGULATIONS**

**A. Bodywork**

OEM non-metallic composite body panels (i.e., plastic fascias, fiberglass hoods, etc.) may be replaced with panels of any type composite, provided that the panel maintains the OEM profiles. All cars may replace the hood, trunk/deck lid and doors with non-metallic composite parts. The hood may have heat exhaust vents installed in it. Hood inlets (scoops) are not allowed. The vents shall not expose the mechanical components of the car when looking down from above. The permitted transmission and differential coolers may vent through rear license plate frame. There shall be a screen, painted the same color as the surrounding bodywork, covering the vent opening. Any OEM non-functional, decorative vents/ducts may be made to be functional provided the exterior body appearance is not modified.

## **B. Interior**

The required dash pad may be made of any material. The dash pad shall maintain the stock profile.

## **C. Chassis**

1. Fasteners are free. Fasteners may be replaced with adhesives.
2. Rounded coverings may be used at the rear of the front window openings to bridge gap between the leading edge of b-pillar and inner edge of main roll hoop. The material and design of these coverings is free, but shall be neat in appearance and securely fastened.
3. A third (3rd) tube on each side may extend through the firewall to the chassis in the engine compartment. These tubes shall not extend forward of the shock towers.
4. An underbody close-out panel(s) may be used in the area behind the rear axle. These panels shall not alter the external appearance of the car when looking from the rear and sides of the car (i.e. we want to have to lay on the ground to see them). If the production car uses underbody trim pieces, the OEM trim pieces may be removed or replaced, but any close-out panel(s) used may not visually hide any more of the mechanical components, when looking from the rear and sides of the car, than the OEM trim pieces do. The close-out panels shall not completely bridge the gap between the rear floor pan area and the rear axle centerline. On rear engine cars, any close-out panels shall not extend any further forward than the rear axle centerline. Cars with a fuel cell, engine, etc. that extend down into external visual range shall fit the close-out panel(s) around the component in such a way that it does not alter the external appearance of the car.

## **D. Engine**

1. Intake Requirements: All cars shall use the stock or approved air metering device (e.g., carburetor, throttle body) and intake manifold for the installed engine, unless noted otherwise.
2. All cars may 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. Removal or obliteration of the manifold part number is prohibited.
  - a. The approved carburetor shall be a maximum of 650 cfm and 4 barrels. The approved optional insulator (Holley #108- 12), and manifold (Edlebrock Performer RPM #7101-General Motors / #7121-Ford/Mercury) shall be fitted to cars.
  - b. **Except as permitted** in these rules, the carburetor shall not be modified in any way. Any carburetor jets, accelerator pump, pump cam, and accelerator pump nozzles may be used. Power valves, metering blocks, and floats may be altered or replaced. 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.
  - c. **The external** throttle linkage to the carburetor may be modified or changed. Choke mechanisms, plates, rods, and actuating cables, wires, or hoses may be removed. No removal or alteration of the carburetor air horn is permitted.
  - d. All air entering the intake tract shall pass through the carburetor air inlet.
3. Cars may modify, or replace, motor and gearbox mounts provided that the engine is located in the specified location. This includes the use of "torque plates". All engines will be mounted in the stock position unless otherwise specified. Where an engine setback is allowed, the OEM firewall may be modified only enough to accommodate the engine set back.

Engine Setback **and Lowering** Allowances:

*The following cars may set the engine rearward a maximum of 4.0 inches and may lower the engine a maximum of 1.5 inches:*

*Cadillac CTS-V (04-07)  
Pontiac GTO (04-08)  
Ford Mustang (85-06)  
GM F-Body (93-02)*

## **E. Drivetrain**

1. Carbon clutches are permitted.
2. Transmissions and ratios are free. Forward gears are limited to six speeds.

- Traction Control/Launch Control is permitted, but must operate solely through the engine managements system (i.e., spark and fuel control) and may not interface with, or affect, the braking system or throttle control.

#### F. Brakes

- Rotors**  
1 or 2 piece ferrous rotors *that do* not exceed 355mm in diameter *or* 33mm in thickness *are permitted*. Maximum brake rotor *diameter* of 380mm *is permitted* at a 100 pound penalty.
- Calipers**  
The standard production calipers or any caliper with 6 or less pistons may be used. 4-piston calipers may use a maximum of 4 pads per caliper. 6-piston calipers are limited to 2 pads per caliper.
- Brake duct water spray cooling systems are *permitted*.

#### G. Wheels

*Rear wheels may not exceed 18.0 inches in diameter and 13.0 inches in width. Front wheels may not exceed 18.0 inches in diameter and 11.0 inches in width.*

#### H. Approved Cars and Engines

The following car and engine combinations are approved in STO. Contact the Club Racing Technical Office to add additional cars.

Note: Engine Displacements in this table are nominal. Each competitor shall have available definitive documentation (e.g., factory manual) of the original displacement for the engine used.				
Car	Maximum Displacement	Minimum Weight	Restrictor	Notes
Acura CL	3500	2800		
Acura NSX	3000	2650		Super-charger permitted. Zero Force Body Kit by Kawagen Route permitted.
<i>Acura NSX Turbo</i>	<i>3500</i>	<i>2750</i>		
Aston Martin DB9	6000	3300		
<i>Aston Martin Vantage</i>	<i>6000</i>	<i>3300</i>		
BMW E46 M3 & E36	3200	2600		The 3.4L (87.0 bore x 93.0 stroke) engine is permitted at 2650 lbs. The M5 5.0L is permitted at 3000 lbs. Flossman body kit is permitted.
BMW 335ci/135i	2679	3000		Must use stock turbochargers.
BMW M3 E92 (08-09)	3999	2900		
Cadillac CTS-V	6000	3300		
Chevrolet Corvette	5700	3135		
Chevrolet Corvette	6000	3300		The top 12 inches of the firewall must be covered with metal or reflective heat shielding material. The OE firewall may also be replaced with a metal piece running between the A-pillars. LS2 cars may use the LSX cast iron block with OEM LS2 bore and stroke.
Chevrolet Corvette	6200	3410		
Chevrolet Corvette	7000	3300	60mm flat plate or 45mm SIR	
Chevrolet Corvette L98, LT1, LT4	383 ci.			Max bore 4.00" Max stroke 3.75"
Chevrolet Camaro/Firebird	5700	3135		Aftermarket K members are permitted.
Chevrolet Camaro/Firebird	5000	2750		Aftermarket K members are permitted.
Dodge Viper	8000	3135	60mm flat plate	

Dodge Viper	8300	3300	60mm flat plate	
Dodge Viper	8400	3400	60mm flat plate	
Dodge Viper ACR	7990	2780	60mm flat plate	
Dodge Neon SRT-4	2400	3000		Alternate Turbo permitted
Ferrari 355	3500	2780		
Ferrari 360	3600	2780		
Ferrari 430	4310	2880		
Challenge		3050 [#3222]		Kessel 430 GT3 front fenders, hood and bumper permitted; if installed, single radiator is permitted. Must conform to 9.1.4.F.7. <i>19 inch Ferrari Challenge wheels as delivered from factory permitted [#2827]</i>
Ford Mustang	5800	3190		Aftermarket K members are permitted.
Ford Mustang	5400	2970		Aftermarket K members are permitted.
Ford Mustang	5000	2750		Aftermarket K members are permitted.
Ford Mustang	4600	2530		Aftermarket K members are permitted.
Honda S2000	2000/2200	2600		Super-charger allowed
Lotus2-Eleven GT4 Supersport	1800	2100		
Maserati Trofeo Light	4244	2900		
<i>Mazda RX-7</i>		2750		<i>OEM Twin Turbo Charged required</i>
<i>Mazda RX-7</i>		2800		<i>3 Rotor Renisis allowed</i>
Mistubishi/ DSM	2000	3000		Alternate Turbo permitted
Mitsubishi/ DSM	2400	3000		Alternate Turbo permitted
<i>Mitsubishi Evo/DSM</i>	2000	3000		<i>OEM Twin Turbo Charged required</i>
<i>Nissan 300ZX</i>	3000	3000		<i>OEM Twin Turbo Charged required</i>
Nissan 350Z	3500	2450		
Nissan 350Z/370Z	3700	2600		
Pontiac GTO	6000	3300		
Pontiac GTO	5700	3135		
Pontiac Solstice	2000	3000		Alternate Turbo permitted
Porsche 996	3600	2808		
<i>Porsche 996TT</i>	3600	3050		<i>Must meet WC VTS for engine and turbochargers. Dated 2/11/09</i>
Porsche 997	3600	2960		
Saleen SR	5800	3190		
<i>Toyota Supra</i>		3000		<i>OEM Twin Turbo Charged required</i>

#### 9.1.4.2. STU-SPECIFIC TECHNICAL REGULATIONS

##### A **Bodywork**

1. All cars may replace the hood and trunk/deck lid with non-metallic composite parts. The OEM profiles shall be maintained on the part. All other body panels shall be OEM parts.
2. The OEM front and rear fascias shall maintain the OEM crushable structure/support. The OEM crushable structure/support may be lightened as long as it is still recognizable as being the OEM crushable structure/support. The bumper shock absorbers may be removed. The OEM front and rear fascias shall be attached at the stock locations, but fasteners are free.
3. Fasteners are free provided they are of the same material family and diameter as the fastener it is replacing.

##### B. **Engines**

1. Engines up to 6 cylinders and 3000 cubic centimeters factory displacement are permitted, *plus any others listed in 9.1.4.2.H.*
2. All cars shall use the installed engine's stock air metering device (e.g., throttle body) and intake manifold, unless noted otherwise.

**C. Drivetrain**

1. Carbon clutches are not permitted.
2. Engine and gearbox mounts may be solid.
3. Transmission and ratios are free. Forward gears are limited to **6** speeds.

**D. Suspension**

Alternate suspensions are permitted. Alternate suspensions are limited to the original type. Items such as brake calipers, springs, and shock/struts shall remain located on the alternate suspension in the OEM location.

**E. Brakes**

1. Rotors  
1 or 2 piece ferrous rotors *that do not exceed 328mm in diameter or 32mm in thickness are permitted.*
2. Calipers  
The standard production calipers or any 4-piston calipers may be used.

**F. Wheels**

*Wheels may not exceed 17.0 inches in diameter and 8.0 inches in width.*

**G Weights and Engine Allowances**

Minimum weights for cars with normally aspirated piston engines will be determined by 1.1 lbs/cc displacement for the installed engine (see following table). Displacement is the factory displacement for the installed engine. For *the purpose of* weight assignment, engine displacement will be rounded to the nearest 100cc (e.g., 2150cc = 2200cc *and* 2149cc = 2100cc).

Factory Engine Displacement (cc)	Minimum Weight (lbs)
1600	1760 <del>18260</del>
1700	1870
1800	1980
1900	2090
2000	2200
2100	2310
2200	2420
2300	2530
2400	2640
2500	2750
2600	2860
2700	2970
2800	3080
2900	3190
3000	3300

Alternate Engine Specifications		
Engine	Bore & Stroke (mm)	Notes
Nissan VQ30	93.0 x 73.3	Sleeving permitted

1. The Mazda 13B and Renesis rotary engines are permitted at 2400 lbs. The 13B may be street ported. The Renesis shall remain unported. The Mazda 12A Street Port is permitted at 2350 lbs. 12A induction: 1 Nikki 4 barrel carburetor with primary chokes bored to match secondary chokes on a stock manifold, or 1 Auto-type 2 barrel *carburetor* with 38mm chokes on a "dual-y" manifold.
2. All turbocharged engines shall use a compressor inlet restrictor/weight combination from the following table. Twin turbo engines are allowed on a case-by-case basis only.

Inlet Restrictor (mm)	Minimum Weight (lbs)
33	2200
35	2475
37	2770
39	3100

3. The Volkswagen Jetta TDI is permitted using the SCCA Pro Racing TDI Cup rules and weight. *Diesel fuel must be used* in accordance with 9.3.26.A.
4. The Mazdaspeed Miata may use alternate turbo, Mazdaspeed part # 000-88-c-89.

**H. Car and Engine Specific Allowances**

<b>Car</b>	<b>Maximum Displacement</b>	<b>Minimum Weight Chart</b>	<b>Notes</b>
Audi A4 Turbo	1797	Chart	
BMW E36 M3 (95-99)	3200	3200	Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift.
Chevy Camaro	3790	3200	Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift.
Chevy Cobalt SC	1998	2900	GM stage 2 kit allowed. OEM Camshaft lift.
Chevy Cobalt Turbo	1998	Chart	
Chevy HHR Turbo	1998	Chart	
Chrysler Crossfire	3199	3000	Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift.
Dodge SRT4	2458	Chart	
Ford Mustang	3797	3200	Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift.
Ford Mustang	4000	3300	Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift.
Lotus Elise SC	1796	2400	OEM pulley and injectors. OEM camshaft lift.
Lotus Exige SC	1796	2400	OEM pulley and injectors. OEM camshaft lift.
Mazda RX7 Turbo		Chart	
Mazdaspeed Miata	1839	Chart	Alternate turbo Mazdaspeed part # 000-88-c-89 permitted.
Mazdaspeed 3	2260	Chart	
Mercedes Benz CLK	3199	3000	Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift.
Mini Copper S SC	1598	2500	OEM pulley and injectors
Mini Cooper S	1598	Chart	
Mitsubishi Evo/DSM	1997	Chart	
Nissan 350Z	3000	3300	Nissan VQ30, 93.0 bore by 73.3 stroke
Pontiac Firebird	3790	3200	Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift.
Pontiac Solstice	1998	Chart	
Porsche 944		Chart	
Saturn Sky	1998	Chart	
Scion TC SC	2362	2300	TRD supercharger kit allowed. OEM camshaft lift.
Subaru Legacy	2457	Chart	
Subaru Impreza WRX	1994	Chart	
Subaru WRX	2457	Chart	
Volkswagen GTI/GLI	1984	Chart	

### 9.1.4.3. STL-SPECIFIC TECHNICAL REGULATIONS

#### A. Bodywork

- All cars may replace the hood and trunk/deck lid with nonmetallic composite parts. The OEM profiles shall be maintained on the part. All other body panels shall be OEM parts.
- The OEM front and rear fascias shall maintain the OEM crushable structure/support. The OEM crushable structure/

support may be lightened as long as it is still recognizable as being the OEM crushable structure/support. The bumper shock absorbers may be removed. The OEM front and rear fascias shall be attached at the stock locations.

3. Fasteners are free provided they are of the same material family and diameter as the fastener it is replacing.

## **B. Engines**

1. Engines up to 4 cylinders and 2000 cubic centimeters factory displacement are permitted, except those from cars and engines as follows:

The following vehicles in their entirety are ineligible for STL:  
Honda S2000, Acura Type R, Lotus Elise/Exige

The drive trains from the following cars are ineligible for STL:  
Honda S2000, Acura Type R [#3306]

Turbocharged engines are not permitted in STL. [#2690]

2. All cars shall use the installed engine's stock air metering device (e.g., throttle body) and intake manifold, unless noted otherwise.
3. 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 faces. Carburetor mounting surfaces shall not be modified. External dimensions of the cylinder head or intake manifold may not be reduced to facilitate internal porting. Two piece manifolds must not be port matched at their intermediate point. Valve guide material is unrestricted.
4. Valve seat and valve head angles are free.

## **C. Drivetrain**

1. Carbon clutches are not permitted.
2. Engine and gearbox mounts may be solid, but must not relocate the engine or transmission in any direction.
3. Either the OEM transmission or an alternate transmission must be used; the alternate transmission must be from the same manufacturer as the vehicle (e.g., an Acura transmission may be installed in a Honda car). Alternate transmissions must be used in their entirety. Retrofitting OEM complete gear sets in an alternate transmission case is permitted.
4. Any final drive ratio is permitted provided it fits the differential/transaxle housing without modification to the housing. [2424/3233]
5. Any limited-slip or locking differential is permitted. [3233]

## **D. Suspension**

1. Cars equipped with MacPherson strut suspension may de-camber 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 reinforce that structure. Material may be added or removed from the top of the strut tower to facilitate installation of adjuster plates.
2. For double wishbone suspension, camber adjustment devices (plates/shims/eccentric, etc.) are unrestricted but are limited to one per wheel. Front and rear upper control arms may be modified or replaced with items that allow camber and/or caster adjustment only. The OEM rear toe adjustment arm may be replaced with any substitute. [2305]
3. On other forms of suspension, camber adjustment may be achieved by the use of shims and/or eccentric bushings.
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. Bushing material, including that used to mount a suspension subframe to the chassis, is unrestricted. This includes the use of spherical bearings, so long as no suspension component is modified to facilitate their installation. Retention of spherical bearings by use of tack welds is permitted, as long as the welds serve no other purpose.
6. Rubber bump stops may be removed, modified, or replaced, but their chassis mounts, brackets, etc., may not be altered in any way.

7. No other relocation or reinforcement of any suspension component or mounting point is permitted.
8. Hardware items (nuts, bolts, etc.) may be replaced by similar items performing the same fastening function(s).

**E. Brakes**

1. OEM brake systems must be used. Alternate OEM brakes rotors or calipers from the same manufacturer will be considered.
2. Anti-Lock Braking Systems: Any car equipped with an OEM ABS system may use the OEM system only as installed.

**F. Wheels**

Wheels may not exceed 17.0 inches in diameter nor 7.0 inches in width.

**G. Weight Requirements**

1. Minimum weights for cars with piston engines will be determined by 1.3 lbs/cc displacement for the installed engine (see following table). Displacement is determined by the factory displacement for the installed engine. Cars with 3 valves/cylinder engines may reduce their weight by 1 percent. Cars with 2 valves/cylinder engines may reduce their weight by 2 percent. For weight assignment purposes engine displacement will be rounded to the nearest 100cc (e.g., 2150cc = 2200cc and 2149cc = 2100cc).

Factory engine displacement (cc)	Minimum weight (lbs.)
Up to	
1300	1690
1400	1820
1500	1950
1600	2080
1700	2210
1800	2340
1900	2470
2000	2600

2. The Mazda 12A is permitted at ~~2600~~ 2535 lbs; porting is not permitted. [3234]

**H. Car and Engine Specific Allowances**

[None at this time.]

**NOT APPROVED BY THE CRB**

**GCR**

1. #2365 (Larry Oliver) Allow use of Kevlar braided lines  
Thank you for your request. The manufacturer will not supply technical data, so there is no basis for comparison to braided steel hose in our applications.

**GT**

1. #2625 (Charles Jones) Tube frame cars vs Tub cars  
This topic has been examined in the past. The conclusion has been that there is no effective means to define the difference between tub and tube frame GT cars that does not leave too many gray areas that would be open to exploitation.

**GT2**

1. #2982 (Tom Patton) Review of Restrictor Plate  
Car is competitive as classed.

**GTL**

2. #2844 (Tony Rivera) Allow stock fuel tank  
Not consistent with GT safety requirements.
3. #2922 (Greg Hotz) Engine Location acknowledgement MR2/Pontiac Fiero  
The allowance for the Fiero is for GT1 only and does not apply to any engine in GTL.

**SUPER TOURING**

1. #2778 (Ian Stewart) Increase weight per displacement on STU  
Thank you for your input. We will monitor the class.
2. #2428 (Matt Blehm) Comments on proposed changes to STU/STL – wing chord, non-USDM engines  
The wing chord is correct at 8.50 inches.

A final decision regarding engines not delivered in the USA is still being considered.

## **PRODUCTION**

### **FP**

1. #2842 (Harold Flescher) Allow alternate front brake calipers for full prep cars  
Availability of calipers, parts and pads is not a problem at this time and alternate calipers are not within the category philosophy.
2. #2891 (Bill Blust) Reduce the Weight of the FP Spridget by 50 lbs.  
The car is competitive as classified.

### **HP**

1. #2257 (Martin Burk) Valve lift measurement adjustment  
The bulk of the Hondas in the class have already made the effort to maximize to the .390 spec and a change now would require those drivers to spend even more. In addition, this car is very competitive as classified.
2. #2889 (Bill Blust) Reduce the Weight of the Spridget 1098 by 50 lbs.  
The car is competitive as classified in H Production.
3. #2890 (Bill Blust) Reduce the Weight of the LP 1275 cc Spridget by 50 lbs.  
The car is competitive as classified in H Production.

## **SHOWROOM STOCK**

### **SSB**

1. #3028 (Joel Lipperini) Classify the 2001-2005 Lexus IS300 in SSB  
Thank you for your input. This car is classed in T3.

### **SSC**

1. #2437 (Peter Schwartzott) SAFETY IN SSC (Regarding sunroof rules)  
Thank you for your input.
2. #2550 (Jason Isley) Return Sentra to previous weight in SSC  
Thank you for your input. The car is competitive as classed.
3. #3029 (Joel Lipperini) Reduce weight of the Kia Forte Koup and Sedan SX (2010-) in SSC  
Thank you for your input. The car needs to be run before adjustments will be considered.
4. #3033 (Joel Lipperini) Reclassify the Toyota Celica GTS from SSC to SSB  
Thank you for your input. See the November Fastrack (#2997).

## **SPORT RACING**

### **SRF**

1. #2881 (Rick Henschel) Correction  
Although section GCR 9.3.32 Lights has requirements for cars and equipment, the SRF specifications in 9.1.9.C.23.I covers specific requirements for SRF and overrides the general specification in 9.3.32. Thank you for your input.

## **TOURING**

### **T1**

1. #2242 (Chris Ingle) Reduce the weight of the Corvette LS3 to 3350  
The car is competitive as classed.
2. #2310 (William Brinkop) Use of stock wheels on a T1 corvette  
Wheel is larger than maximum allowed in class.
3. #2376 (Joe Aquilante) Extend Eligibility Of C5 Corvettes for 5 Years  
Thank you for your input. C5s are eligible to run through 2013.
4. #2976 (Chris Ingle) Reduce the weight of the standard LS3 to 3350  
See letter #2242.
5. #2999 (Joe Aquilante) Use Of Tire Warmers prior to race or qualifying  
It is not possible to enforce a rule concerning competitor actions in the paddock.

6. #3000 (Joe Aquilante) move the Fearrai 430 To GT-2 where it belongs  
Thank you for your input (see letter #3073 November Fastrack).
7. #3056 (John Buttermore) Allow alternate driveshaft couplers for Corvettes  
Not within class philosophy.

## **T2**

1. #2621 (Brett Mars) It will need a lot of help if you classify the 2011 Mustang GT  
See letter #1306.
2. #2845 (Tony Rivera) Weight reduction for 370Z  
Thank you for your input. See letter #2839.

## **T3**

1. #2859 (Bill Steinhoff) Remove the restrictor from the non-HR 350z only  
Thank you for your input. The car is competitive as classified.

## **PREVIOUSLY ADDRESSED**

### **SHOWROOM STOCK**

#### **SSB**

1. #2715 (Michael Dalton) Reduce the weight of the Solstice by 210 lbs.  
Thank you for your input. See November Fastrack (#2992).

#### **SSC**

1. #3086 (Ali Naimi) Toyota Celica need additional weight  
Thank you for your input. See November Fastrack (#2997).

## **TOURING**

### **T3**

1. #2057 (Bill Steinhoff) Remove restrictor plate from 350z  
Thank you for your input. See November Fastrack (#2989).
2. #2071 (Kevin Fandozzi) Equalize the Cobalt with the Turbo cars  
Thank you for your input. See September Fastrack (#2122).
3. #2147 (Rob Piekarczyk) Increase the size of inlet restrictor to 40mm  
Thank you for your input. See November Fastrack (#2989).
4. #3016 (Bret Spaude) Reduce weight of Cobalt SS  
Thank you for your input. See November Fastrack (#2986).

## **NO ACTION REQUIRED**

### **GCR**

1. #2458 (Jim Daniels) New Regional Class, one set of rules nationally  
See letter 2456.
2. #2642 (Jeremy Grenier) Fuel cell enclosure question  
The question is "what is an approved equivalent?" in 9.3.27.2.B, last sentence which reads: A minimum of .036 inch steel, .059 inch aluminum, or an approved equivalent is required for all vehicles." As stated in the first paragraph of 9.3.27, "All safety fuel cells shall consist of a foam-filled fuel bladder enclosed in a metal container at minimum." Thus, any "approved equivalent" must be of metal other than the ones called out in 9.3.27.2.B. To gain approval of another metal, a specific proposal, demonstrating performance characteristics at least equal to the existing approved materials would be sent to the Club Racing Technical Department.
3. #2911 (Chris Howard) Door Bar clarification for IT, SS and Touring  
The existing rule is adequate as written. Cutting into the B-pillar for door bar installation is not permitted. There is no evidence that a change is necessary.
4. #3217 (Robert Enriken Jr) Rename ST  
The ST class will be disbanded for 2011 so the only use of "ST" will be for the Super Touring category.

## **FORMULA**

### **FB**

1. (Multiple) Clarification of Rules for Assisted Shifting Devices  
Thank you for your input, please see *What Do You Think* section above.

### **GT**

#### **GT3**

1. #2686 (Tim Mincey) Can a JDM Honda engine be used in any GT class?  
The engine block may be used if it meets all critical dimensions, however, the cylinder head may not be used.
2. #2712/#3009/#3009 (Mike Cyphert/Mike Henderson/Jim Hargrove) GT3-2011 Probation  
Thank you for your input. See letter #2952.

### **GTL**

3. (Multiple) GTL weight and restrictor input  
See Technical Bulletin 10-12 for revised GTL weight and restrictor assignments.
4. (Multiple) Radial tire input  
Thank you for your input. Radial tires for 13 inch wheels will be available approximately second quarter 2011.

## **IMPROVED TOURING**

1. #2813 (Charles Broring) Reevaluation of Weight of Older IT Cars  
Thank you for your input.
2. #2815 (Raymond Blethen IV) IT Process Input  
Thank you for your input.
3. #2816 (Raymond Blethen) Dual Classifications  
Thank you for your suggestion. Dual classifications are not part of the IT strategy going forward.
4. #2822 (Kevin Fryer) Increase the weight of newer ITB cars  
Thank you for your input. The Board of Directors has approved a rule change that will allow older listings to have their weights reevaluated.

## **SUPER TOURING**

1. #654 (Charlie Clark) Consider these items  
Thank you for your input. Rules changes have been made to accommodate some of these items.
2. #2435 (Chuck Davis) (Regarding STL rules proposal  
Thank you for your input. Each item will receive consideration.
3. #2471 (Charles O'Toole) Input regarding proposed rules changes to ST  
Thank you for your input. Your comments will be taken into consideration for further rules refinement
4. #2580 (Marc Hoover) ST category rule changes  
Thank you for your input.
5. #2608 (Scott Peterson) August Fastrack STU and STL feedback  
Non-USDM engines: Thank you for your input. See letter 2428.  
Pop-up headlights: See section 9.1.4.C.4.  
STL: Thank you for your input
6. #2651 (Jim Graffy) Additional class for SM cars  
This has been addressed in the new rules.

## **STU**

1. #2264 (Chris Childs) Classify RX7 Turbo for STU  
The RX-7 is STU eligible using the appropriate turbo inlet restrictor (see 9.1.4.2.G.5).
2. #2777 (Ian Stewart) Slow Down Ex World Challenge cars  
Thank you for your input

3. #2938 (Greg Amy) Request alternate OEM brakes  
This modification is not allowed for 2011. The class will be monitored.

#### **STL**

1. #2865 (Gregg Ginsberg) Do NOT approve STL  
Thank you for your input
2. #2946 (Jason Isley) Support STL Class  
Thank you for your input
3. #3155 (Philip Royle) Make STL a National class  
Thank you for your input

#### **PRODUCTION**

1. #2352 (Kevin Allen) Reinstate GP I am requesting that G Production be reinstated.  
Not consistent with current BoD direction.

#### **EP**

1. #3082 (Mark Brakke) Weight reduction rule interpretation - Mini Cooper sedan and convertible  
It is permitted to update and backdate within a specification line, so it is permitted to combine parts from two body styles.

#### **FP**

1. #2910 (Chris Howard) Ban radials in GTL, FP and HP  
Performance will be monitored as radial tires become more mainstream.
2. #3013 (Eric Prill) FP Class Parity  
The F Production class is very competitive. The class will continue to be monitored.

#### **HP**

1. #1781 (Jason Isley) Please allow alternate TB/intake To eliminate throttle by wire  
The request has been withdrawn. The requestor will continue to use the stock throttle body for now.
2. #3090 (Gus Chofre) reinstate Fiat 850 Spyder to National Racing Status  
This car was reinstated during 2010. See the current GCR.

#### **SHOWROOM STOCK**

1. #3006 (Bert Gingrich) What Classification is my car in?  
The Subaru Legacy 2.5i is classed in T3.

#### **SSC**

1. #2839 (Mark McCaughey) 00-05 Celica GTS - Leave at current weight.  
Thank you for your input.

#### **TOURING**

1. (Multiple) Allow Open Brake-Ducts in Touring  
Thank you for your input. This change was approved for 2011.
2. (Multiple) Oppose after market springs and sway bars  
Thank you for your input. This recommendation was withdrawn by the CRB.
3. #2302 (Aaron Stehly) Support for proposed (open springs and anti roll bars) rule chang  
Thank you for your input. This recommendation was withdrawn by the CRB.

#### **ST**

1. #2483 (Roger Stark) Allow 2008-2010 Viper in ST  
Thank you for your input. The Touring ST class will be deleted in 2011. The cars are classed in STO.

#### **T1**

1. #2936 (John Buttermore) Please Disregard T1 Runoffs Trap Speeds in relation to competition adjustments  
Thank you for your input.

#### **T2**

1. #1931 (Brett Mars) Severe tire wear issues  
Thank you for your input. See letter #3018.

**T3**

1. #2547 (Robert R. Hines) Extend 2.5 rule for 3 more years  
Thank you for your input. T3 continues to be a National class in 2011.
2. #3030 (Joel Lipperini) Please don't add weight to the s2000 in T3  
Thank you for your input.

**RESUMES**

None.

# CLUB RACING TECHNICAL BULLETIN

**DATE:** November 22, 2010

**NUMBER:** TB 10-12

**FROM:** Club Racing Board

**TO:** Competitors, Stewards, and Scrutineers

**SUBJECT:** Errors and Omissions, Competition Adjustments, Clarifications, and Classifications

**All changes are effective 12/1/10 unless otherwise noted.**

## GCR

1. #3207 (Carolyn Kujala) Use of 2" shoulder belts with HANS  
In 9.3.19.A, second bullet item and 9.3.19.B, second bullet item, insert after "HANS® device" "*or Safety Solutions Head Restraint systems*"
2. #3292 (CRB) Corrections to roll cage tubing sizes  
In 9.4.F.2, replace "1.625 x .120" with "*2.00 x 0.80*" and delete "if the tubing diameter used is at least .250 inch above the minimum diameter required, based on vehicle weight, the minimum wall thickness may be .080 inch."  
  
In 9.4.5.E.4.b, delete "or 1.625 x .120" and add "*or 2.00 x .080*" to end of Over 2699 lbs list.
3. #3293 (CRB) Runoffs Qualification  
Replace GCR Sections 3.9.2.A.1 and 3.9.2.A.2 with the following:
  1. *The driver must start at least 4 National races, two of which must be in the driver's Division of record, and finish at least 4 National races, regardless of Division, in the current race season.*
  2. *The driver must satisfy one of the following requirements:*
    - a. *Finish in the top three in class for their Divisional Championship (3.9.1).*
    - b. *Finish in the top 50% in the National Point Standings (3.9.3) for their class.*  
*Example: If 100 drivers score points in a class in the current race season, the top 50 will receive an invitation.*
    - c. *Score enough class points in the current year National Points Standings to have placed in the top 50% in the previous year's National Points Standings for their class.*  
*Example: If 100 drivers scored points in a class in the previous race season, with the 50th place driver having scored 35 points, then any driver who scores 35 points or more in their class in the current race season will receive an invitation.*

Add a new section to define National Point Standings

### *3.9.3 National Point Standings*

*National Point Standings will be compiled for each National Class. The National Point Standings assigns base points on the same schedule as the Divisional Championships (3.9.1.B) and adds one point, up to a maximum of 10, for each car that a driver finishes ahead of in the final results. A driver's best seven points races in the same class count in the National Point Standings regardless of the Division in which the points were earned.*

4. #3300 (CRB) Correct cage welding requirements  
In 9.4.G.4 and 9.4.5.E.6 replace "~~Alloy steel must be normalized after welding.~~" with "*Procedures for welding alloy steel shall be in accordance with accepted industry practice.*"
5. #3301 (CRB) Update 9.1.12  
In 9.1.12, Note 2, update as follows: "~~For the purposes of this section, T3 and Spec Miata shall be considered new classes from 2006, and STO, and STU, FE and Formula 1000~~ *shall be considered new classes* from 2007."

## Formula

### FB

1. #3102 (Brandon Dixon) FB cars should be permitted differentials  
Mr. Dixon is correct. The following corrects an omission in the original FB specification:

In 9.1.1.H.8, add a new section as follows: "*F. Any open, limited-slip, or locking differential is permitted. Electronic control of the differential is prohibited. A solid axle or spool is permitted.*"

## Grand Touring

### GT3

- #2013 (Robert Warkocki) Reduce the Weight of 13B streetport by 120lbs.  
In 9.1.2, GT3, Mazda engines, 13B Street Port, change weight from ~~2250~~ to **2130**.
- #2724 (Chris Howard) Allow EP spec engine in GT3  
In 9.1.2, GT3, Mazda engine BP, change "~~34mm SIR~~" to "**Unrestricted**".
- #2952 (Mike Cyphert) Request for Alternative Specification (32mm chokes at 2195 lbs)  
In 9.1.2, GT3, Nissan KA24E engine, add to Notes: "**For 2011-2012 only, may use 32mm chokes at 2280 lbs.**"

The CRB and the GT advisory committee discussed this issue at great length. We have jointly concluded that to assist the GT3 community in retaining National status (GT3 is on probation in 2011), this allowance would be made on a temporary basis. There will be no such concession made beyond 2012. To continue beyond 2012, these engines must be run with the specified SIR. In addition, the performance of cars running these engines will be monitored carefully. If the CRB deems it necessary to further restrict these engines in the interest of class parity, we will do so as necessary.

- #3042 (CRB) Remove restrictor from Acura B18B engine  
In 9.1.2, GT3, Acura engine B18B, change "~~34mm SIR~~" to "**Unrestricted**".

### GTL

- #2821 (Tony Rivera) Allow streetport 13B w/ 24mm SIR  
In 9.1.2, GTL, Mazda engines, add: **13B/Street Port///24mm SIR/1950**.
- (Multiple) Weights and SIR sizing.

In response to member input, the GTL table of restrictors and weights published in the September Fastrack has been modified by adding 50 pounds to each restricted engine. In addition, the weight of each unrestricted engine has been reduced by 50 pounds. The Mazda 12A will retain its current restrictor at an additional 50 pounds.

3-4-5 Valve Restricted				2 Valve Crossflow Restricted				2 Valve Non-crossflow Restricted			
Engine	Disp.	SIR Size	Weight	Engine	Disp.	SIR Size	Weight	Engine	Disp.	SIR Size	Weight
Suzuki	1299	23	1800	AMC	1397	24.5	1850	Nissan a14	1397	25	1850
Honda en	1335	23	1820	Nissan e15	1488	24.5	1895	BLMI	1399	25	1850
Honda ew	1342	23	1820	Mazda	1490	24.5	1895	Fiat	1438	25	1870
Honda ew	1488	23	1895	VW air cooled	1493	24.5	1895	Toyota	1452	25	1875
Honda d15	1493	23	1895	Saab	1496	24.5	1900	VW	1457	25	1880
Honda fit	1497	23	1900	Alfa	1508	24.5	1905	VW	1471	25	1885
Toyota 4ag	1587	23	1945	Lotus	1558	24.5	1930	Toyota 5k	1486	25	1895
Honda d16	1590	23	1945	Alfa	1570	24.5	1935	Nissan a15	1488	25	1895
Honda d16a	1590	23	1945	BMW	1573	24.5	1935	BLMI	1493	25	1895
Honda b16a	1595	23	1950	VW air cooled	1584	24.5	1940	Fiat	1498	25	1900
Nissan sr16ve	1596	23	1950	Toyota 2tc	1588	24.5	1945	Ford	1499	25	1900
Ford	1597	23	1950	Fiat	1592	24.5	1945	Toyota 4a-c/l/lc	1587	25	1945
Mazda	1597	23	1950	Dodge	1597	24.5	1950	VW	1588	25	1945
Nissan ga16	1597	23	1950	Mazda	1597	24.5	1950	Nissan l16	1595	25	1950
BLMI W10B16	1598	23	1950	Nissan e16	1597	24.5	1950	VW	1715	24.5	2010
Toyota 7afe	1762	22.5	2030	Ford	1598	24.5	1950	Nissan l18	1770	24.5	2035
Nissan qg18dDe	1769	22.5	2035	Ford	1598	24.5	1950	VW	1780	24.5	2040
VW	1780	22.5	2040	Fiat	1608	24.5	1955	Dodge	1781	24.5	2040
VW 058/06a/06b	1780	22.5	2040	VW air cooled	1679	24	1990	Opel	1897	24.5	2100
Toyota 1zz	1794	22.5	2045	Porsche	1679	24	1990				
Ford zetec	1796	22.5	2050	Saab	1696	24	2000	2 V Non-crossflow Unrestricted			
Toyota 2zz	1796	22.5	2050	Dodge	1715	24	2010	Engine	Disp.	Weight	
Honda b18	1797	22.5	2050	Fiat	1756	24	2030	BLMI	948	1160	
Nissan mr18de	1797	22.5	2050	Lancia	1756	24	2030	BLMI	970	1186	
Nissan ca18de	1809	22.5	2055	Toyota 3tc	1770	24	2035	BLMI	1071	1281	
Honda b18+	1834	22.5	2065	Alfa	1779	24	2040	BLMI	1098	1330	
Ford	1839	22.5	2070	Porsche	1795	24	2050	Fiat	1116	1367	
Mazda	1839	22.5	2070	VW	1795	24	2050	BLMI	1147	1530	

Missan ca18	1809	24	2055	Toyota 3k	1166	1610
Mazda 12A		27	2000	Nissan a12	1171	1548
2 Valve Crossflow Unrestricted				Ford	1198	1548
Engine	Disp.	Weight		Nissan a12a	1237	1643
Alfa	1130	1605		Nissan a12a/a14 blk	1237	1666
Honda eb	1170	1590		Nissan a12+	1244	1588
Subaru	1189	1543		Subaru	1267	1674
Honda eb	1237	1676		BLMI	1275	1519
Mazda	1272	1680		VW siamese port	1285	1519
AMC	1289	1662		VW dual port	1285	1614
Alfa	1290	1605		Nissan a13	1288	1719
Mazda	1296	1643		Fiat	1290	1595
Alfa	1357	1605		Fiat 1.3w/1.5 blk	1290	1620
				Toyota 4k	1290	1643
				BLMI	1296	1680
				Ford	1297	1548
				Nissan a12a/a14 blk+	1311	1683
				Nissan a12a+	1311	1706
				Nissan a13+	1368	1759
				BLMI	1380	1598

3. #3262 (CRB) Clarify GTL wing rule

Clarify 9.1.2.F.b.14.e by modifying as follows:

E. Cars with a *wagonback/notchback/hatchback* style body must have the entire wing positioned between 6.0 and 28.0 inches of the rearmost bodywork as measured along the vehicle longitudinal centerline, and a maximum of 4.0 inches above the highest point of the roof. *For this subsection, a wagonback/notchback/hatchback style body (or variations of these)* is a car in which the rear edge of the roofline is no more than 28.0 inches forward of the rearmost bodywork as measured along the vehicle longitudinal centerline.

**Improved Touring**

**ITA**

1. #3178/#3182 (Darren Murdock/Matt Downing) Question about recent weight reduction to similar cars

To be consistent with the other mechanically identical cars adjusted in the October Fastrack, the following adjustment is made:

In 9.1.3, ITA, Honda Civic EX Coupe/Sedan VTEC (92-95), change the weight from ~~2305~~ to **2270**.

**ITS**

1. #2802 (CRB) Revisit '06 Honda Civic Si classification

The Honda CivicSi (2006) was classed in ITR in the October Fastrack, effective 1/1/11, but member input makes it clear that it will not be able to achieve the recommended weight in ITR. Instead, classify the Honda CivicSi (2006) in *ITS* at **3000** lbs.

**Super Touring**

1. #3234 (Christopher Childs) Adjust weight 12A weight in STL

In 9.1.4.3.G.2, make the following adjustment: "The Mazda 12A is permitted at ~~2600~~ **2535** lbs; porting is not permitted."

2. #3268 (CRB) Correct error in weight table

In 9.1.4.2.G, correct first entry in table. Weight for 1600 cc should be **1760**, not ~~1600~~.

**STO**

1. #2827 (Will Haney) Follow up to letter 1210 (Ferrari Challenge)

In 9.1.4.1.H, classification table, Ferrari 430 Challenge, add to the Notes: "**19 inch Ferrari Challenge wheels as delivered from factory permitted.**"

2. #3222 (CRB) Weight change for Ferrari 430 Challenge

In 9.1.4.1.H, change Ferrari 430 Challenge minimum weight from ~~2880~~ to **3050**.

**STU**

1. #2100 (Earl Richards) Allow all IT prepared cars to run in STU

In response to the BoD decision that STL be accepted as a Regional class, modify 9.1.4, second bullet item as follows:

- GCR listed IT cars, **1985 and newer**, under their current IT specifications. Cars shall compete **in STU**. ~~as follows: 3001cc and above are eligible for STO. 2001cc through 3000cc are eligible for STU. Cars 2000cc and below are eligible for STL.~~

2. #2360 (Rob May) Allow the E36 M3 in STU  
In 9.1.4.3.H, add to table: **BMW E36 M3 (95-99) at 3200 lbs. Engines are permitted 0.040 overbore, 0.5 point increase in compression. Engines must use the OEM camshaft lift.**

## Production

### EP

1. #3205 (Jesse Prather) Wheel sizes  
In 9.1.5, EP, delete redundant wheel sizes for the following cars because a larger size is listed:  
  
BMW Z3 2.8L (97-00) - ~~46 x 7~~  
Honda S2000 (00-03) - ~~46 x 7.5~~  
Mazda MX-5 (06-09) - ~~46 x 7~~
2. #3131 (Aaron Downey) Allow 40mm Chokes on 12a Rotary  
In 9.1.5, EP, Mazda RX-2 and Mazda RX-3 & 3SP (72-78), change choke sizes from ~~38mm~~ to **40mm**.

### HP

1. #3085 (Jason Isley) Correct max track width spec  
In 9.1.5, HP, Toyota Yaris (06-09), correct track specifications from "~~57.9/57.5~~" to "**62.1/61.7**".
2. #3203 (CRB) H Production adjustments  
In 9.1.5, HP, Alfa Romeo (all), change weight from ~~2130~~ to **2080**.  
  
In 9.1.5, HP, Austin-Healey Sprite, 948cc engine only, change weight from ~~4550~~ to **1500**.  
  
In 9.1.5, HP, Triumph Spitfire MK.I & II, change weight from ~~4720~~ to **1780**.

### American Sedan

1. #3072 (CRB) Alternate brake disc manufacturing tolerance  
In all spec lines that allow the alternate brake disc size 12.2 x ~~4.25~~, change to 12.2 x **1.27** to account for manufacturing tolerances.
2. #3260 (CRB) Changes needed to implement new cage requirements  
In 9.1.6.D.9.a, make the following changes to be consistent with the newly approved 9.1.6.D.8: "Original door hinges and safety intrusion beam ~~and remainder of door structure~~ shall be retained ~~except for inner door sheet metal, which may be modified or removed~~. Doors may be pinned, not bolted, for safety. ~~All door glass and winding mechanism may be removed~~."

### Showroom Stock

1. #3074 (CRB) Remove timed-out cars  
In 9.1.7, SSC, delete ~~Chrysler Neon AGR SOHC (4 door) (95-99) and Chrysler Neon AGR DOHC Coupe (95-99)~~ effective 1/1/2011. [The current limitation on SS cars is 12 years; the last model year eligible in 2011 is 2000.]
2. #3283 (CRB) Years of eligibility for SS cars  
In 9.1.7.B, after the first sentence, restore the following language unintentionally omitted beginning in 2009: "**Cars will be eligible for competition from the time they are classified until the end of the twelfth calendar year of competition of the latest model year listed on the specification line.**"

### SSC

1. #2330 (Mark McCaughey) Correct Spec Notes 00-05 Celica GTS  
In 9.1.7, SSC, Toyota Celica GTS (00-05), correct Notes by deleting: "~~Ride height specifications as follows: Front spring perch: top most position. Rear spring perch: 1 inch from the bottom most thread on the strut.~~"
2. #3034 (Joel Lipperini) Add model years 2005-2008 Hyundai Tiburon in SSC and reduce weight  
In 9.1.7, SSC, Hyundai Tiburon V-6 (03-~~04~~), change the model years to (03-**08**).

A weight reduction is not recommended at this time.

### **Spec Miata**

None.

### **Sports Racing**

None.

### **Touring**

#### **T2**

1. #1306 (Brett Mars) Put the 2011 Mustang GT on the same line as the 2005 and up.  
In 9.1.10, Ford Mustang Coupe GT & Shelby GT (05-09), change model years to (05-~~11~~).
2. #2444 (John Baldwin) Add tire size 275/40 for 05-07 Subaru STi  
In 9.1.10, T2, Subaru Impreza WRX STi (03-07), change tire size from ~~235/45~~ to **275/40**.
3. #2837 (Richard Kulach) adjustments for T2 370Z  
TB: In 9.1.10, T2, Nissan 370Z (09-10), change the front tire size from ~~245/40~~ to **275/30**.

A weight reduction is not recommended at this time.

Brake ducts – a recently approved rule change allows all Touring cars to install brake cooling ducts.

#### **T3**

1. #2378 (Michael Jones) wheel size  
In 9.1.10, T3, Subaru Impreza WRX (02-07), correct the wheel size from ~~16 x 6.5 (F&R)~~ to **16 x 8 (F&R)**.
2. #2850 (Jim Leithauser) Request for help  
In 9.1.10, T3, BMW Z4 3.0si Coupe (07-08), change weight from ~~3500~~ to **3400**.

# SOLO EVENTS BOARD

## SEB MINUTES | Oct. 27, 2010

The Solo Events Board met by conference call October 27th. Attending were SEB members Tina Reeves, Dave Feighner, Mike Simanyi, Steve Hudson, Erik Strelnieks, Richard Holden, and Bryan Nemy; BOD members Dick Patullo and John Sheridan; Doug Gill, Nancy Downing, Brian Harmer and Ryan Miles of the National Staff. These minutes are presented in topical order rather than the order discussed.

**Unless noted otherwise the effective date for all rule, class, and listing change proposals herein is 1/1/2012**

Comments regarding items published herein should be directed via the website [www.sebscca.com](http://www.sebscca.com).

### GENERAL

- In addition to those items reflected elsewhere in these and last month's minutes, the following member items regarding General and Event Operations matters have been reviewed by the EOC and SEB: #'s 2011, 2016, 2017, 2051, 2273, 2293, 2295, 2454, 2462, 2468, 2562, 2563, 2572, 2666. The SEB and EOC thank these members for their input.

### DIVISIONAL POSITIONS

- The Midwest and Great Lakes Divisions are going to have vacancies in the Divisional Solo Events Steward position. This position is discussed in Solo Rules Introductory Section I.3. Interested members should submit their qualifications in writing to the SEB via [www.sebscca.com](http://www.sebscca.com).
- The Northern Pacific Division is going to have a vacancy in the Divisional Solo Safety Steward position. This position is discussed in Solo Rules Introductory Section I.6. Interested members should submit their qualifications in writing to the SEB via [www.sebscca.com](http://www.sebscca.com).

### STOCK

- A vacancy is anticipated on the SAC. Members interested in serving on this committee should submit their qualifications in writing to the SEB via [www.sebscca.com](http://www.sebscca.com).
- In addition to those items reflected elsewhere and in last month's minutes, the following member items regarding Stock category matters have been reviewed by the SAC and SEB: #2316. The SEB and SAC thank this member for his input.

### STREET TOURING

- The BOD has directed the SEB to further discuss the proposal to delete 14.2.F. The proposal has been referred back to the STAC.
- In addition to those items reflected elsewhere in these and last month's minutes, the following member items regarding Street Touring category matters have been reviewed by the STAC and SEB: #'s 2188, 2201, 2481, 2496. The SEB and STAC thank these members for their input.

### STREET PREPARED

- Vacancies are anticipated on the SPAC. Members interested in serving on this committee should submit their qualifications in writing to the SEB via [www.sebscca.com](http://www.sebscca.com).
- Per the SPAC, the following class listing change proposal is being presented for member review and comment:
  - Move from CSP to DSP:  
Datsun Roadster (1500, 1600, & 2000)

### PREPARED

- Per the PAC, the following rule change proposals are being presented for member review and comment:
  - Add the following to Appendix A for Prepared Class C:  
*"Stock front subframes attached by removable fasteners may be modified and/or replaced without penalty, as long as the modified/replaced subframe meets all requirements specified in Section 17, with the exception of 17.2.D."*  
(ref. #2687) Comment: The intent of this proposal is to allow the use of commonly available bolt-on front subframes (commonly referred to as K-members) without penalty.
  - Change the weight formulas in Appendix A, Prepared Class D to read as follows:  
*"Weight formulas (lbs):  
Engines with displacement less than or equal to 1667cc:  
1.06 x displacement (cc)  
Engines with displacement greater than 1667cc:  
0.91 x displacement (cc) plus 250 lbs"*  
(ref. #2733) Comment: The purpose of this proposal is to help increase participation in DP. The proposed 4% minimum

weight reduction better aligns the weight of DP cars with their CSP equivalents. It also brings DP weights in closer alignment with E Production listings in the GCR, which would facilitate the future addition of E Production Limited Prep vehicles to DP.

- Change 17.4, subsections H and J, to read as follows:

*H. For class EP, wheels up to 7" in width are allowed with no penalty.*

- 1. Wheels greater than 7", and up to 10" in width will receive a 75 lb. penalty.*
- 2. Wheels greater than 10" wide will receive a 150 lb. penalty.*

*J. For classes DP and FP, wheels up to 10" wide are allowed with no penalty. Wheels greater than 10" wide will receive a 100 lb. penalty.*

(ref. #2734) Comment: This proposal eliminates the penalty in DP for wheels up to 10" wide, and reduced the penalty for wheels wider than 10". The intended purpose of this proposal is to provide a smoother migration path from CSP to DP and address the issue that new tire development is increasingly focused on wider wheels.

#### **MODIFIED**

- The MAC and SEB are aware of the ongoing CRB and BOD discussions regarding legalizing 600cc motorcycle engines in Club Racing's F500 class, and of member concern about the potential effects of this action on the Solo F Modified class. The committee and SEB will be prepared to address such concerns if and when GCR changes to F500 are finalized. (ref. #2065, 2804, 2834)
- Per the MAC, the following rule change proposal is presented for member review and comment:
  - In Appendix A under MODIFIED CLASS B (BM) change subsection F to read as follows:

*F. Aerodynamic restrictions for Formula Atlantic (all open-wheel in BM) shall follow the current GCR with the following Solo allowances:*

- 1) Wings front and rear shall not exceed sports racer maximum aero height.*
- 2) Front wings shall not exceed overall front width as measured at the tires, and width of rear wings shall not exceed 43.33". Vertical Gurney flaps on endplates are not included in these widths.*
- 3) Sidepod or other parts not considered chassis are not required to attach or stay above a line situated 1 cm above the chassis bottom (this is an exception to GCR 9.1.1.A.1.g.10).*
- 4) Ground sealing is permitted on cars 66" or wider at the rear tires and which also meet a weight of 1180#.*

Also change the last sentence of subsection H to read: "All cars must prepare to Formula Atlantic aerodynamic rules as specified in F." (ref #2660, 2706, 2719)

- In addition to those items reflected elsewhere in these and last month's minutes, the following member item regarding Modified category matters has been reviewed by the MAC and SEB: #'s 2231. The SEB and MAC thank this member for his input.

#### **FORMULA JUNIOR / F125**

- A vacancy is anticipated on the KAC. Members interested in serving on this committee should submit their qualifications in writing to the SEB via [www.sebscca.com](http://www.sebscca.com).

#### **NOT RECOMMENDED**

- OE Roll bar removal in Stock (ref. #2402) The SAC feels it is not appropriate to allow such a modification in the Stock category.
- Colt Turbo listing in ST (ref. #2639) The STAC feels this car is appropriately classed.
- Corvette classing in ST (ref. #2731) The STAC does not feel this addition would be consistent with class philosophy.
- Fender liner removal in ST (ref. #2858) The STAC believes this change would not be consistent with category philosophy.
- 2<sup>nd</sup>-generation MR2 Turbo classing in STR (ref. #2960, 3032) The STAC feels the addition of this car would not be consistent with class philosophy.
- Methanol injection in SP (ref. #2254) This is not felt to be consistent with category philosophy.
- Honda Civic Si move to FSP (ref. #2379) Per the SPAC, the car is appropriately classed in DSP.
- CRX/Civic listings in GP (ref #2498) Per the PAC, the Limited Prep classing for GP is based on specifications developed over an extended period of time by the Club Racing Board, who saw fit to keep the CRX and Civic listing separated. The PAC is concerned about the possible unintended consequences of combining these listings, as sees no compelling reason

to do so at this time.

- GP Limited-prep competitive adjustments (ref. #2694) Per the PAC, after thorough review of GP results from the 2010 Solo Nationals, the committee doesn't see any compelling evidence of dominance by the Limited Prep cars. Other than a 2 second margin of victory by the winning driver, times and placings appear to be well distributed between "new" and "old" GP cars. It's also worth noting that other Solo champions had similar winning margins (e.g. Mike Maier in CP), which indicates the GP winner may have simply driven very well.

The PAC recommends monitoring the situation in GP, to watch for the development of a statistically significant trend of dominance by Limited Prep cars.

- EP/DP classing changes (ref. #2717) After considerable discussion, the PAC feels the RWD cars currently classed in EP are a better fit in their current class than they would be in DP. The PAC continues to monitor the relative competitiveness of various vehicles in EP.
- Yaris reclassification to GP (ref. #2808) After considerable discussion, the PAC is not in favor of classing the Toyota Yaris or other current vehicles in GP, due to the wide disparity in technology between the Yaris and every other car currently classed in GP. Thus far, the CRB has chosen to class three current vehicles in H Production Limited Prep - the Toyota Yaris, Honda Fit, and Mini Cooper. Only a single Yaris was present at the 2010 Club Racing Runoffs, so there isn't much data available to verify the validity of the GCR listings for these vehicles in a road racing setting, let alone determine they are a good fit for competition with current GP Solo cars. It's important to note that classing the Yaris in GP wouldn't be a re-classification, it would be a new listing, as the Yaris would be a Limited Prep vehicle in GP, subject to a different set of allowances than those available in EP. Therefore, the Yaris, Fit, and/or Mini Cooper could be added to GP under Limited Prep rules at any time in the future, as sufficient data is available to better evaluate competitiveness as compared to current GP cars.
- V8 S10 in CP (ref. #2998) Per the Pac, since the S10 was never manufactured with a V8 engine, allowing a V8 swap for the vehicle would require modifying the CP rule that requires engine swaps to have the same number of cylinders as the OE engine. The PAC feels that such a loosening of the engine swap rules would have significant unintended consequences.
- FJ Minimum weights (ref. #1628). The KAC feels that in FJB the only fair thing to do is set a weight based on average weight for kids in this age group. Unfortunately the lighter drivers may need as much as 50 lbs. or more to make weight, like it or not. As far as strength goes, there is no way of determining how much strength a driver has. Therefore, we can't realistically adjust weight for these situations. Many underweight Junior drivers have already dealt with this same problem in the past, so it is not insurmountable.

## TECH BULLETINS

1. Event Operations: The following clarification is being made to the recently-approved Section 7.9.2: Change the second sentence to read as follows: "If the competitor stops, he or she must proceed *per Section 7.4*, and will then be granted a rerun." (ref. #2267)
2. Event Operations: The former second paragraph of 7.9.2 was inadvertently omitted from the published proposal and is intended to remain in that section. It should read as follows: "Reruns for displaced or downed cones after the timing finish line will only be given at the discretion of the Chief Steward."
3. Event Operations: The first sentence of the new 7.4 is clarified to read "Reruns will be granted only for timing failure, object on the course, *red flag*, or for other situations at the discretion of the Chief Steward and will not be given because of mechanical or other failure of the competitor's car." (ref. #2405, #2638)
4. Per the SAC, the Neon listings in GS are clarified to read as follows (ref #2436):
  - Chrysler Neon ('95-'99) N/A
  - Dodge Neon ('95-'99) N/A
  - Plymouth Neon ('95-'99) N/A
5. Per the SAC, the following new listings, effective immediately upon publication, are added to Appendix A:
  - Cadillac XLR AS (ref. #2866)
  - Chevrolet Cruze HS (ref. #2867)
  - Volkswagen Golf TDI HS (ref. #3025)
  - Honda CR-Z (2011) HS (ref. #3026, 3192, 3201, 3204, 3206, 3232)
6. Per the SAC, the VW Jetta listing in HS is change for clarification from "Jetta (1.9L TDI) (2005-06)" to the following:
  - Volkswagen Jetta TDI (2005-06, 2009-11) (ref. #2915)
7. Per the STAC, the following clarification is provided: Add a new third sentence to 14.7 which reads: "*This does not authorize the cutting of holes to route the bar or links.*" (ref #2714)
8. Per the SPAC, the following new listings, effective immediately upon publication, are added to Appendix A:
  - Infiniti G20 FSP (ref. #2280)

Ford Mustang S-197 ('05-'11)	ESP (ref. #1732)
Chevrolet Camaro ('10-'11)	ESP
Dodge Charger ('06-'10)	ESP
Dodge Challenger ('08-'10)	ESP

9. Per the SPAC, 15.2.C permits more than one transverse lower suspension brace, but those braces may not be connected to each other (ref. #2505)
10. Per the SPAC, in the previously-published clarification to 15.2.I.1 regarding splitters, the reference to the front of the car means the leading edge of the front bumper. (ref. #2551)
11. Per the SPAC, 15.7 specifically disallows cutting of holes to route a sway bar or links. The SPAC also feels that the language of the rulebook does not preclude the sway bar from being routed through the passenger compartment. Method of attachment is unrestricted and does not put limits on the bar's location or method of attachment. (ref. #2939, 10-273)
12. Per the SPAC, as to the replacement of a concentric shock/spring combination where the spring is actually seated on a control arm, the committee feels that this is not legal per 15.8.A, as it would be changing the spring attachment point. (ref. #2939, 10-273)
13. Errors and Omissions, SP: The listing for the Kia Forte Koup is mistakenly in ESP, due to a typo in the original Fastrack publication of its initial classification. The car should be listed in DSP. (ref. #2942)
14. Errors and Omissions, SP: The following previously-withdrawn item was inadvertently left in the list of changes which were sent to the BOD: move the Honda Civic/CRX ('84-'87) from CSP to DSP.
15. Formula 125: The following correction, per the KAC, is being made to the 19.1.D.2 changes recently approved for 2011 by the BOD: 19.1.D.2.b should read as follows: "Cylinder Head: Machining of the cylinder head is allowed. Combustion chamber volume must be at least 13.4 cc as measured with a LAD tool. *Marvel Mystery Oil is the required fluid.*"
16. Errors and Omissions: The following item was approved for 2010 but inadvertently omitted from the rule book: Under "Formula Junior Class B" add as follows:

*"19.2.A.2.b.4.B Restrictor: A specific restrictor must be installed in the intake manifold at the carburetor attachment location. The restrictor has a center hole of 0.475 inch. Contact the SCCA Solo Competition Manager's office to obtain a restrictor."*

*Restrictors for the Briggs World Formula, and device dimensions, are available through the SCCA Solo Competition Manager's office at SCCA's Headquarters. Note that mention of the required use of a specific restrictor for that engine in the FJB class was an omission from the 2009 rule book, page 270. Use of the World Formula engine in FJB is not legal without the restrictor. The guide for use of the restrictor will be available online in the 'Solo Cars and Rules' section with the Formula Junior (Karting) Guidelines."*

# RALLYCROSS BOARD

**RXB MINUTES** | November 8, 2010

The RallyCross Board (RXB) met via conference call November 8. Attending were Bob Ricker, Chairman, Brent Blakely, Karl Sealander, Ken Cashion, Warren Elliott, and Stephen Hyatt. Also in attendance was Pego Mack from the National Office.

The Secretary acknowledges that these minutes may not be in chronological order.

Chairman Ricker called the meeting to order at 8:03pm CST.

## Committee Reports

1. RallyCross Safety Committee (Tom Nelson): None
2. RallyCross Rules Committee (Warren Elliott): Warren Elliott reported that he has been monitoring the RallyCross forums where the issue of a Modified Rear Wheel Drive class is being discussed. He thought this would be one of the rules issues, along with radiator changes in the Prepared classes, which the Rules Committee would address in 2011.

## Old Business

1. Annual RallyCross Award (Brent Blakely): Brent Blakely reported that no suggestions have been given at the forum discussion that he started to solicit a possible name for the new award. The RXB discussed at length the naming and possible recipients for 2010, but decided to table a final decision until next month's meeting.
2. E-Blast (Stephen Hyatt): Stephen Hyatt has contacted Rick Myers at the SCCA and coordinated the RallyCross E-Blast. Information on an event in New Jersey is in the upcoming E-Blast. Future E-Blasts will be issued without the need for direct National office coordination.
3. Standardized Supplemental Regulations for National events: The RXB decided that the newly formed National Championship Committee will formulate a standardized set of Supplemental Regulations for all National events. This standardization should be completed for the 2011 events.
4. Rocky Mountain Divisional Steward: The RXB discussed possible candidates and tabled a final decision until the next RXB meeting.
5. SCCA RallyCross/Rally America Rally Cross name similarity: The SCCA National office will contact and meet with Rally America officials to discuss the name similarities and possible solutions.

## New Business

Miata with roll cage: The RXB received a rules exception request for a Miata with a roll cage but no hardtop. After some discussion of the current rules and the potential hazards in allowing a car to run without its hardtop, even with a roll cage, the RXB decided that a rules exception should not be granted in this case. No further action will be taken in this case since the request was previously addressed through email correspondence.

The meeting was adjourned at 9:05pm CST.

Next meeting: December 13, 2010

Submitted by Karl Sealander, RXB Secretary

# ROADRALLY BOARD

RRB MINUTES | Nov. 11, 2010

The *RoadRally* Board (RRB) met via conference call on Thursday, November 11, 2010. (November 1<sup>st</sup> RRB Meeting was postponed due to phone problems at SCCA Headquarters.)

Attending were: Jim Wakemen, Chairman; Members: Jeanne English, Mark Johnson, Sasha Lanz, Eva Ames and Lois Van Vleet. Pego Mack, National Office, was in attendance and Todd Butler and Michael Lewis, Board of Directors Liaisons were not in attendance.

Chairman Wakemen called the meeting to order at 7:45 pm CST. The Final October 4, 2010 RRB Minutes were approved.

## Proceedings

### 1. Rally Liaison updates

Rally changes and Liaison updates are in **red** below.

#### 2011 Rallies / Liaisons:

Covered Bridge, NT (Nov 6) - Rick Beattie

**Arizona - Desert Sands NC (Feb 26 – tentative**

**Arizona - Gullible's Travails NC (Feb 27) – tentative**

**Oktoberally, NC (Sept 17) - tentative**

**Badger Trails, NT (Sept 18) - tentative**

### 2. 2011

Wakemen wants the RRB to focus on the Regional Program stating: without the Regional program there will be no National program.

Ames suggested the need for articles in 'Lead Car' on Rally Schools etc.

Pego reminded that the RRB needs to support the Regional program as well as the National program. Pego also asked for 2011 Rally events from the Regions/Nationals for the Sports Car Calendar.

### 3. USRRC Comments

Wakemen reported that it was well attended and well received. Johnson commented on the difficult checkpoint locations near the end of the Tour/Monte Carlo rally. English asked for comments on the level of difficulty on the Course Event... to help plan the Course event at the 2011 USRRC in California. Ames commented on not having problems following the course. Van Vleet recommended not having multiple traps per leg or just having one trap per leg.

### 4. Sponsors

Discussion: Pego reported Sponsors are more likely to be interested in Sponsoring Regional GTA events than a National event. They would also like a runoff/year-end event, which neither Regionals nor Nationals have currently. And also would like a high number of cars at a sponsored event. Opposing statement was that an un-timed GTA Rally is not really a specific rally.

Lanz expected the Publicity Committee to come up with ideas on Regional interests. It was pointed out that any committee can be formed at anytime for anything.

### 5. Championship Category move request

Discussion: A request was made by a competitor to be moved up one category in the points standing so he could be with his team partner. Currently they are a team running together, but are listed in two different categories for year end Championship points due to Lifetime Points categories. The majority of the RRB did not agree with the request, mainly due to the fact points have to be earned and the Lifetime points are awarded to each individual and not as a team. The request was denied.

### 6. New Lifetime Points Category

Discussion: A new Lifetime Points (LTP) proposal was made by the LTP keeper to add a new class called Great Great Grand Master for competitors who achieve 800+ lifetime points.

Johnson commented; do we want need another category, adding more awards at the end of the year? Can we do this without adding another Championship category?

LTP are separate from the Championship. Other comments were that the Lifetime Points and the keeping of LTP's were not a

RRB rule/function and is totally outside of the RRB. But the LTP's are used as a base to categorize the Championship Year End categories and awards.

After much discussion, the RRB supports the Lifetime Points keeper proposal to add the Great Great Grand Master category for LTP's ONLY. English will follow up with an email to the Lifetime Points Keeper, Dave Teter to confirm the approval from the RRB.

### **7. Car Rentals**

Discussion: Article 10.E Entry Requirements/Car Registration states: "Each entrant must certify that the car entered is on the road legally and is either owned by the entrant or is being used by the entrant with the owner's permission." Johnson feels that competitors who rally in rental cars are in violation of this rule. Johnson made a motion to change Article 10.E to read: "Each entrant must certify that the car entered is on the road legally." (eliminating the rest of the sentence) English second the motion and the motion passed.

### **8. Car Insurance**

Discussion: Article 10.A.2 Entry Requirements/Entry Form states: "The following statement must appear on the entry from and be signed by the driver "The entrant warrants that an auto insurance policy with liability limits of not less than \$20,000/\$40,000/\$10,000 is in force for each vehicle entered."" Johnson reported that not all states have Insurance requirements, New Hampshire being one of them.

Another suggestion was to change the "\$20/\$40/\$10" to "State minimum or the minimum required by law in the state in which the car is registered" instead.

Each owner/entrant must have a valid registration in their state.

Article 14.C Insurance/Competitor Insurance Requirement would also be affected. As well as Appendix A Safety Inspection of the RFO's which references \$20/\$40/\$10.

Johnson opposed changing the "\$20/\$40/\$10" to "State minimum".

After much more discussion, Lanz made a motion to table this discussion on Car Insurance until the December Meeting. English second the motion and the motion passed. Pego will check again with Pete/SCCA Legal Department before the December Meeting.

### **9. Convention**

Discussion: Wakemen will do The Strategic Plan (STRAP) and must be submitted to the BOD in December.

Regional Awards and Divisional Awards were tabled until the December Meeting. Pego will send the RRB spreadsheets detailing Regional/Divisional events.

Ames nominated someone for the Robert Ridges Award and will be added to the list. The RRB would like to ask for nominations for the Robert Ridges Award from the rally community.

### **Old Business**

NE Divisional Steward position had one volunteer. Wakemen made a motion to nominate Steve McKelvie to replace Ted Goddard. English second the motion and the motion passed. The BOD needs to approve this in their December meeting.

### **New Business**

Bruce Gezon's 2-Tier proposal was tabled until December meeting.

### **Next meeting**

**Monday, December 6, 2010 at 7:30 pm CST, via conference call.**

The meeting was adjourned at 9:41 pm CST. (Lanz/English)

Submitted by Lois Van Vleet, RRB Secretary.

### **Notes taken at the USRRC Town Hall Meeting on 23-Oct-2010**

All board members were in attendance at the USRRC for the town hall meeting Saturday night after the Tour Rally. Listed below are the concerns/comments/suggestions heard and will be discuss further:

- NE Divisional Safety Steward position opening.

- The next Town Hall Meeting will be at the SCCA Convention in Las Vegas.
- Lifetime Points on National GTA's – To be kept separate and on a temporary/trial basis.
- GTA's – wide variety of style and type with no official rules to follow.
- RRR's will be printed (books) again for 2011. A suggestion to sell ad's to help pay for the printing of the RRR Books.
- 4 Regional Rallies were listed on the calendar the same weekend as the USRRC. If Regionals want National points, shouldn't they follow the National RRR's?
- Suggestion to have the USRRC be a stand-alone event, separate from the Championship Series. Having a Series Champion and a USRRC Champion.
- Other suggestion was to have the USRRC be the Premier Championship Event and eliminating the year-end series championship.
- Suggestion to put Curta's back into Class S.
- Suggestion to include High Calc/Tech Calculators in Class S.
- Another suggestion to make Class S pencil and paper again.
- Question: How do we grow the program? How to get Regional competitors to run National events? What can the RRB do for the Regionals?
- Suggestion to have more Rally Schools - give a free entry to a Regional event.
- Suggestion to come up with a Mailing List to reach the demographic community.
- Suggestion of Worker Awards – National level and/or Regional level only.
- Car Rental / lease agreement?

## QUICK LINKS

The following items have been removed from regular inclusion in FasTrack News and can be found on SCCA's Web site at the following links:

### **CLUB RACING**

Accredited Driver Licensing Schools: <http://www.scca.com/contentpage.aspx?content=39>

Forms: <http://www.scca.com/contentpage.aspx?content=45>

Technical Forms: <http://www.scca.com/contentpage.aspx?content=74>

Scrutineer's Forms: <http://www.scca.com/contentpage.aspx?content=77>

Vehicle Homologation Forms: <http://www.scca.com/contentpage.aspx?content=79>

General Competition Rules (GCR): <http://www.scca.com/contentpage.aspx?content=44>

### **SOLO**

Forms: <http://www.scca.com/contentpage.aspx?content=60>

Rulebook: <http://www.scca.com/contentpage.aspx?content=61>

### **RALLY**

Forms: <http://www.scca.com/contentpage.aspx?content=49>

Rulebook: <http://www.scca.com/contentpage.aspx?content=50>

### **SCCA NATIONAL CONVENTION**

Event page: <http://www.scca.com/event.aspx?hub=6&event=14461>

**EVENT CALENDAR:** <http://www.scca.com/events.aspx?hub=10>