

Tech bulletins 2011

**Tech bulletin #001** rule book changes.

The 2011 rule book article 2 was reorganized to put diver/ team interest information in the front and race procedures towards the end. So the book has been completely renumbered. The following paragraphs reflect the changes to the content.

#### ARTICLE 2.3 AUTHORIZED MODIFICATIONS

**NEW 2.3.3.9:** Within the series run of a model of car, the bodywork may be updated to the most current design without re-classifying the car, provided that the bodywork bolts onto the chassis without modification. Any upgraded bodywork must be run in its entirety. Parts may not be mixed between year models unless specifically permitted on the VTS sheet

**NEW 2.3.4.5.2: Sonic Intake Restrictors (SIR)**

SIR may be required to regulate HP. If a SIR is required it must be placed upstream of the intake manifold, throttle body and/or turbo if so equipped. SIR can be no larger than 6.5" in length and 3" outside diameter. The middle I.D. of the hole must be 1/8" long.

**OLD 2.9.4.5.2: Forced Induction**

Required restrictors must be placed in the air inlet tract, ahead of the compressor, within 50.0 mm (1.97 in) of the face of the compressor wheel, and must be capable of being sealed by the TECHNICAL MANAGER.

Restrictors must be a flat steel plate, 3.0 mm thick, with a round hole of the required diameter. The middle 1.0mm of the hole must be perpendicular to the inlet face of the compressor, the leading and trailing edges may be radiused.

**NEW 2.3.5.2.3: Pit lane speed limiting devices are permitted**

**NEW 2.3.7.5:** Suspension bushings may be replaced with bushings of alternate materials, (however, spherical ball joints are not allowed in Touring), provided the stock dimensions are retained. Replacement bushings must not alter the location of any component.

**OLD 2.9.7.5:** Suspension bushings may be replaced with bushings of alternate materials, provided the stock dimensions are retained. Replacement bushings must not alter the location of any component.

**NEW 2.3.10.2:** Lug nuts and wheel studs are unrestricted. Wheel studs must have some threads extending beyond the lug nut. Wheel studs cannot extend beyond the inside edge of the wheel rim.

**OLD 2.7.9.1:** Wheel studs must have two complete threads extending beyond the lug nut. Wheel studs cannot extend beyond the inside edge of the wheel rim.

## ARTICLE 2.4 TC REGULATIONS

**NEW 2.4.1.2:** Flywheel ring gear diameter must remain stock. Flywheels shall be ferrous metal, or aluminum, but are otherwise unrestricted. Titanium flywheels are not permitted. Clutch and pressure plate must be stock diameter. Friction material is unrestricted

### **NEW 2.4.3: Brakes**

All Touring cars may upgrade to the WC approved StopTech 4 piston front brake package. Cars choosing to upgrade to StopTech brakes will be required to carry an additional 50 lbs added to their base weight. StopTech will design a complete brake package for each type of car in the class, and will have a representative at every venue to offer technical support.

## ARTICLE 2.5 GTS REGULATIONS

**NEW 2.5.1.2:** Flywheel ring gear diameter must remain stock. Flywheels shall be ferrous metal, or aluminum, but are otherwise unrestricted. Titanium flywheels are not permitted. Clutch and pressure plate must be stock diameter. Friction material is unrestricted.

## ARTICLE 2.8 SAFETY

**NEW 2.8.3.1:** Three (3) metal safety clips (75mm x 25mm x 3mm) shall be bolted, or riveted, to the body at the top of the windshield. Two (2) clips (same dimensions as above) shall be bolted or riveted to the cowl and extend over the bottom edge of the windshield. Clips must be spaced at least three hundred millimeters 300mm (11.8") apart. If a Lexan windshield is mounted with multiple, evenly spaced, screws around each side of its perimeter, metal safety clips are not required. *If a DOT spec glass front window is used in conjunction with the OE method of mounting, safety clips are recommended, but not required*

**OLD 2.7.3.1:** Three (3) metal safety clips (75mm x 25mm x 3mm) shall be bolted, or riveted, to the body at the top of the windshield. Two (2) clips (same dimensions as above) shall be bolted or riveted to the cowl and extend over the bottom edge of the windshield. Clips must be spaced at least three hundred millimeters 300mm (11.8") apart. If a Lexan windshield is mounted with multiple, evenly spaced, screws around each side of its perimeter, metal safety clips are not required

**NEW 2.8.5.1** It is required on cars that the flywheel plane crosses the drivers body, to use an SCCA Pro Racing approved form of clutch / flywheel scatter protection listed in Appendix E

**OLD 2.7.5.1:** All cars shall use an SCCA Pro Racing approved form of clutch/flywheel scatter protection listed in Appendix E, without exception.

**NEW 2.8.9.1:** Wheel studs must have some threads extending beyond the lug nut. Wheel studs cannot extend beyond the inside edge of the wheel rim.

**OLD 2.7.9.1:** Wheel studs must have two complete threads extending beyond the lug nut. Wheel studs cannot extend beyond the inside edge of the wheel rim.

## ARTICLE 2.9 COMPETITION CONFIGURATION

**NEW** The requirements in the following section are designed to help WC officials monitor the performance of each car to insure compliance and maintain parity. To assist the teams, WC has agreements with the suppliers of these monitoring systems to insure fair pricing, and which also require them to be available at each venue to assist the teams be in compliance with these requirements

**NEW 2.9.5.1.1:** All Vehicles are Required to use a Race-Keeper World Challenge Video Data System. *The system is available from Race-Keeper's online store at <http://www.race-keeper.com/store>. Contact Steve Hoelscher with questions.*

*Steve Hoelscher*

*Trivinci Systems*

*Phone: 904.315.7121*

*E-Mail: [shoelscher@trivinci.com](mailto:shoelscher@trivinci.com)*

**OLD 2.8.5.1.1:** Vehicles which did not race in the previous season must use a Race-Keeper World Challenge Video Data System. The system is available from Race-Keeper's online store at <http://www.race-keeper.com/store>. Contact Steve Hoelscher with questions

**NEW 2.9.5.2:** WC will provide the teams with four flash memory cards for use with the camera system. WC will own the memory cards, but the teams may download the data off the card before turning it in to WC Technical.

**OLD 2.8.5.2:** Teams shall provide the series officials with four flash memory cards for use with the camera system. The cards must have the capacity to store 1 hour of video at the highest video quality setting. Teams will own the memory cards, but the series will maintain possession of the memory cards during the season.

## ARTICLE 2.10 WEIGHT

**NEW 2.10.1.3:** Ballast may be mounted anywhere within the confines of the bodywork, or on the underside of the car. Ballast shall be attached in such a way that tools are required for its removal. The location/configuration of any ballast shall not perform a function that is not otherwise approved in the PRR.

**OLD 2.13.1.3:** Ballast not associated with the REWARDS system may be mounted anywhere within the confines of the bodywork, or on the underside of the car. Ballast shall be attached in such a way that tools are required for its removal. The location/configuration of any ballast shall not perform a function that is not otherwise approved in the PRR.

**NEW 2.10.1.5:** Cars shall meet the Minimum Race Weight with the driver. The driver should be present, but a team member of similar weight may be used as a substitute if the driver is occupied with interviews, podium ceremonies, etc.

**OLD 2.13.1.5:** Cars may have a weight distribution limit specified in Appendix A and shall meet the weight distribution limit and the Minimum Race Weight with the driver. The driver should be present, but a team member of similar weight may be used as a substitute if the driver is occupied with interviews, podium ceremonies, etc. While a vehicle is being weighed for the purpose of determining the vehicle weight distribution, the driver shall sit normally in the seat as he does while on track. Leaning forward in the seat, etc. is not permitted.

**NEW 2.10.2.4:** Required REWARDS weight must be placed below the drivers name on the front and both sides of the car, in the same size lettering. (Example +62 #, or +62 lbs).

**NEW 2.10.2.5:** Driver's REWARDS weight (in lbs.) will be added or removed based on a percentage of base weight.

**NEW 2.10.2.6:** REWARDS weight may be placed anywhere in the car as long as it is properly attached according to Article 2.10.1.3

**Old 2.13.2.6:** REWARDS weight must be located in the passenger's footwell/seat area, and allow the installation of seals by the technical inspectors. The REWARDS weight must serve no other purpose or function. The full amount of REWARDS weight shall be in place, if required, even if the vehicle is above the Appendix A base weight.

Additional ballast weight may be placed in the same location as any required REWARDS weight. However, any ballast placed in same location as REWARDS weight must be capable of being weighed separately from the REWARDS weight.

**New Team compensation weight will no longer be used**

ARTICLE 2.11 TECHNICAL PROCEDURES

NEW 2.11.2: When the ride height and wing location is measured the tire pressures shall be set at 34 psi. A standard pressure gauge will be provided at tech so that all teams will be measured to the same standard. Teams that wish to use only compressed nitrogen in their tires must be prepared to adjust their tire pressures at tech. The wing and splitter will be measured without the driver in the car **as long as the car still is above the base weight. Cars will be inspected with whatever fuel is left on board. However if a car can not satisfy one of the requirements for the splitter, wing or ride height the team will be given the opportunity to pump out the fuel tank and the car will then be rechecked to see if that particular measurement will pass with an essentially empty fuel tank.**

2.11.7.2: *The Altitude Correction Factor (ALT) will be defined for each event as follows:*

Track	Altitude Correction Factor
<i>St. Petersburg</i>	1.00
<i>Long Beach</i>	1.00
<i>Miller</i>	<b>0.80new</b>
<i>Mosport</i>	1.00
<i>Barber</i>	1.00
<i>Mid Ohio</i>	1.00
<i>Infineon</i>	1.00
<i>MRLS</i>	1.00

NEW 2.12.2.1: SCCA Pro will award Championship points and maintain the point standings to determine a Drivers' Champion in each vehicle class. Points will be awarded drivers based on their final positions at each event as follows:

**1 - 140 points    2 - 110 points    3 - 95 points    4 - 85 points**

OLD

1 - 110 points    2 - 100 points    3 - 92 points    4 - 85 points

## ARTICLE 2.14: COMPETITION PROCEDURES

### NEW 2.14.3.5: Start Procedure

The start will be signaled using a series of panels of RED lights at the front of the grid and approximately mid-field. After the Five Second board has been displayed, the RED lights will be switched on. Between 2 and 6 seconds after the RED lights have been displayed, they will be turned off, signaling the beginning of the race. Penalties will be given for incorrect starting procedures that include, but are not limited to the following: changing position in a dangerous, or unnecessary manner during the initial start, or **horizontal** movement prior to lights going off. Start judges may be used.

### OLD 2.4.3.5: Start Procedure

The start will be signaled using a series of panels of RED lights at the front of the grid and approximately mid-field. After the Five Second board has been displayed, the RED lights will be switched on. Between 2 and 6 seconds after the RED lights have been displayed, they will be turned off, signaling the beginning of the race. Penalties will be given for incorrect starting procedures that include, but are not limited to the following: changing position in a dangerous, or unnecessary manner during the initial start, or movement prior to lights going off. Start judges may be used.

**NEW 2.14.5.4.1: In mixed class racing, should the safety car in picking up the overall leader split a slower class or classes from their leader(s), race control is authorized to instruct the cars in that class or classes behind the safety car to be waved by in running order and rejoin at the back of the field. Such cars shall proceed around the course at reasonable speed, slowing appropriately when passing through any incident or passing emergency personnel or equipment. A "WAVE BY" sign shall be displayed at Start/Finish to indicate this procedure is in process. This procedure applies only to cars that have been split from the rest of their field. Teams must listen carefully to the race control frequency and transmit information to their drivers.**

**OLD 2.4.5.4:** Post-YELLOW FLAG/SAFETY CAR restarts shall be either single-file or double-file. The decision will be announced by the CHIEF STEWARD over the radio on the race operations frequency before the restart.

## **NEW 2.14.7: POST-RACE CEREMONIES**

2.14.7.1: At the conclusion of each race, the top three finishers, as well as any award winners announced over the official race control frequency, shall attend winner's circle ceremonies as directed by SCCA Pro Racing. Drivers participating in any celebration involving the spraying of any liquids shall remain on the victory podium/rostrum. Drivers are prohibited from spraying any participants, photographers or staff that are not on the rostrum/podium .

## **Old 2.4.7: POST-RACE CEREMONIES**

2.4.7.1: At the conclusion of each race, the top three finishers, as well as any award winners announced over the official race control frequency, shall attend winner's circle ceremonies as directed by SCCA Pro Racing. Drivers participating in any celebration involving the spraying of any liquids shall remain on the victory podium/rostrum. Drivers spraying any participants, photographers or staff that are not on the rostrum/podium may be penalized.

## **NEW 2.14.9: RADIO USE**

2.14.9.1: One working two-way voice radio with car-to-pit communication capability is required at all times.

2.14.9.2: Radio Frequencies and DPL codes MUST be registered with SCCA Pro Racing.

2.14.9.3: Radio signals cannot be encrypted or scrambled. Frequency hopping or Digital radios and trunking equipment are not permitted. Frequency range limited to 450 to 470 MHz. Power limited to 10 watts on mobile, repeater and base units and 4 watts on hand held units.

2.14.9.4: Teams are limited to a maximum of four frequencies per car entered. SCCA Pro Racing may choose to record conversations to be reviewed at a later date.

2.14.9.5: SCCA Pro Racing recognizes that the FCC by law requires radio frequency users to be licensed. Teams MUST comply with all Federal, State and Local laws regarding two-way radio communication

2.14.9.6: SCCA Pro Racing requires that all teams monitor the race control channel at all times their cars are scheduled to be on track.

2.14.9.7: Race Control must be monitored on frequency 453.0750 MHz.

## **Old 2.4.9: RADIO USE**

All cars must be equipped with two-way radios to facilitate information exchange between the driver and crew. A team's radio frequency must not interfere with race control, or other racetrack emergency networks. All World Challenge teams are required to monitor SCCA Pro Racing race operations frequency 460.8625 for information regarding track conditions, restarts, and information from the CHIEF STEWARD. It is the responsibility of each crew to relay all pertinent information to their driver in a timely manner. All teams shall have a pit board available during all track sessions to use as back-up communication with the driver in the case of radio failure.39 Version 21: 7.28.2010 Article 2: World Challenge Regulations **Article 2**

The primary frequency, 460.8625, is the repeater channel and shall be monitored by all teams under normal circumstances. The back-up frequency, 465.8625, should only be monitored if the repeater goes out of service. If the repeater does go out of service, the SCCA Pro Racing staff will notify all teams to monitor the back-up channel.

## APPENDIX J

### NEW J.9: SIDE PROTECTION

All cars shall have driver's side door bars that consist of a minimum of three bars running fore/aft between the main roll hoop and the front cage down tube, and extending out to the outer door skin. A minimum of three vertical tubes will connect the three fore/aft tubes. Additionally, there may be two tubes in the shape of an "X", or parallel to each other, running straight fore/aft between the main roll hoop and the front cage down tube. It is recommended that the lower outer tube be tied into the chassis along the rocker box to further improve anti-intrusion protection.

World Challenge GTS and TC cars may choose to only install two door bars with out the X brace, however it is recommended to install both of them.