

**SCCA – Southeast Division (SEDiv)**  
**Club Racing regional level**  
**Class Review Board (CRB)**  
**Revised February 7, 2001**  
**Revised August 8, 2001**  
**Revised January 23, 2001**  
**Revised July 31, 2005**  
**All rules reviewed or revised and approved July 2006**  
**All rules reviewed or revised and approved July 2007**  
**All rules reviewed or revised and approved July 2008**  
**All rules reviewed or revised and approved July 2009**  
**All rules reviewed or revised and approved July 2010**  
**All rules reviewed or revised and approved July 2011**  
**Updated for 2014 SM/GTA**  
**Updated for 2016 for addition of SMSE**  
**MXP added 2016**  
**Date for Spec tire for FF is July 1<sup>st</sup>, 2016-Approved Feb 2016**  
**Updated 2018 SMX 5**  
**Updated 2020 for SMT/SMSE-T**

## History

The CRB was established in January of 1997 at the annual meeting of the Southeast Division by the governing body (REs) of the Division. The purpose of the CRB is to act as a sounding board and review the vehicle and class issues as pertain to SARRC and ECR competition within the Southeast Division. Their recommendations are submitted to the REs for consideration and implementation for the next race season. On occasion an issue can be considered and implemented after the January Annual Meeting. Classes may be dropped if they do not average two (2) entries per event throughout the Division. At the 2007 Mid-Year meeting the task of coordinating the Class Review Board was transferred from the DA of Scrutineering and the racing region Chiefs of Tech to the Planning Committee.

The SEDIV Class Review Board will consist of the Planning Committee and the Class Advisory Committees. Before submitting any rule proposals to the Regional Executives, the Planning Committee will coordinate their review by the following parties:

- the Executive Steward and her/his Deputies
- the DA of Scrutineering
- the racing region Chiefs of Tech
- the racing region Competition Directors / Race Directors

These coordination efforts include but are not limited to:

- receiving requests for rules changes and/or new classes
- assembling said changes into a consistent format
- soliciting input from the various members of the CRB
- creating and administering surveys of the racing community where appropriate

- developing recommendations to be considered by the REs
- presenting said recommendations annually prior to the Mid-Year meeting

**CLASS PURPOSE AND INTENT:**

These ITO class rules will allow cars that are not currently listed, allowed, or otherwise exceed the SCCA IT class preparation rules to compete without having to run in SPO or SPU. No turbo- or super-charged cars are permitted in ITO (*cf.* GCR 9.1.3.A). All ITO cars must be prepared to one of the series listed in Section 6 of these rules. Entrants will not be guaranteed the competitiveness of any car.

**AUTOMOBILES:**

1. All cars shall meet or exceed current safety standards in the ITCS. The roll cage MUST exceed the minimum six-point IT standard by utilizing at least eight (8) attachment points with two bars running forward to protect the driver's legs. These front bars may attach to the floor, front shock/strut tower, or frame.
2. Fuel cells, welded-in roll cages, fire systems, and NASCAR-style door bars are recommended. Fuel cell/tank protection must comply with the Super Touring (STx) category specifications.
3. All cars shall run on D.O.T. approved tires without regard to spec tires for their series (that is, tires are open but must be D.O.T approved).
4. Tubular-frame race cars are not eligible for ITO unless listed below.
5. ITO cars must meet GCR fuel specifications for either GT or IT cars.
6. Competition vehicles from the following Touring-type series are allowed to compete in ITO:
  - a. Corvette Challenge prepared to 1999 or earlier rules
  - b. Grand Am GS, Koni, or Continental Tire Challenge
  - c. IMSA Firehawk GrandSport and Touring
  - d. Mustang Challenge
  - e. NASA American Iron (minimum weight to rwhp = 9.5:1)
  - f. NASA CMC and CMC2
  - g. NASA Factory Five Challenge
  - h. SCCA ITGT (Improved Touring GT)
  - i. World Challenge GT prepared to 1999 or earlier rules
7. Additional cars from Touring-type series will be considered for future inclusion by application to the ITO Advisory Committee. Such discussions will occur at the Mid-Year meeting and the SE Div Annual Convention.
8. Classification in ITO shall be done either at the issuance of a logbook or at an annual tech inspection. Competitors shall present a copy of the series rules to which the car is prepared to permit an assessment of compliance. Competition weight shall be declared in the logbook.
9. All cars shall display ITO as their class designation.

**THE GCR AND IT SPECIFICATIONS SHALL APPLY WHERE NOT SPECIFICALLY STATED ABOVE.**

ITO Advisory Committee:

Bill Norton, Paul Troup, Rob Bodle

## **Club Formula Ford (CF)**

January 1, 1989

Revised July 20, 2001

Reviewed July 2006

Reviewed July 2007

Reviewed July 2008

1. All Formula Ford cars shall comply with all SCCA General Competition Rules applicable to Formula Ford.
2. Age of car is no criteria for eligibility in Club Ford. All Formula Fords with outboard suspension on at least one end of the car shall be considered eligible. Cars originally manufactured with four wheel inboard suspension shall not be allowed to convert to outboard suspension to enter Club Ford. It shall be the responsibility of the participant entered in Club Ford to document the eligibility of the car. It is not the responsibility of SCCA SEDiv to determine the car's eligibility.
3. Permitted modifications: (Nothing in these permitted modifications shall supersede restrictions as set forth in the GCR)
  - Club Ford cars may be up-dated provided the basic configuration is unchanged. Heat exchangers shall not be relocated to an inboard position amidships and suspension(s) and front brakes shall not be converted to inboard configuration.
  - The manufacturer's basic body design shall be used. Aluminum substitute or one-off bodies are permissible only if original body work is unrepairable or unobtainable; however variant should conform in appearance and dimension to original.
  - Use of carbon fiber type material is prohibited. Aluminum underbodies/skidpads are permitted.
  - Coil springs, shock absorbers, anti-roll bars, steering rack and wishbones are free provided they fit the original locations.
  - Make and update of drive shafts is free.
  - Any modification of which the sole purpose is to increase driver safety is allowed.
  - Club Formula ford cars shall carry the class identification of CF governing identifying marks.
  - Spec Tire Hoosier R 60

### CF Advisory Committee:

John Gaither

Garey Guzman

Steve Robertson

**NOTE for FF spec tire rule in 2016-** All cars may use the old non spec tire until July 1<sup>st</sup>, 2016. As of that date, the new Spec tire will be required at all SARRC events.

## **Improved Touring 7 (IT7)**

Established July 1998

Revised July 2005

IT7 rules updated May 2006 as revised January 2006

Reviewed July 2006

Revised July 2007

Reviewed July 2008

July 1998 this class was initiated for Mazda RX7s model year 1979 through 1985 with a 12 A motor. This class must comply with and be prepared to the IT A rules as published by SCCA GCR and Category Specifications. Effective October 1, 2005 the spec tire for IT7 is Toyo RA1 DOT – shaved or unshaved. Effective October 1, 2007 the spec tire for IT7 is Toyo RA 1 DOT or the Toyo R888. Optional rain tire, Toyo Proxes RA1 DOT shaved or unshaved, or Hoosier Dirt Stocker DOT.

### IT7 Advisory Committee:

Stan Hinds

Tom Sprecher

Blair Stitt

### **Spec Miata (SM)**

Revised July 2005

Reviewed July 2006

Reviewed July 2007

Reviewed July 2008

Revised July 2009

SM class must comply with SCCA GCR and category specifications for SM. The Spec Miata tire rule for all SEDIV series races is the same tire as listed in the GCR for the Spec Miata National (Majors) race class with any amendments in Fastrack.

This rule will be continually reviewed as experience is gained with the tire specified for National SM competition, but it can only be modified at the Annual Meeting in January or the Mid-Year Meeting.

#### SM/SMT Advisory Committee:

To Be Determined (if necessary) at 2013 SEDiv Convention

SMT- /SMSE-T approved 2-1-20

**SPEC MIATA T (SMT) and Spec Miata Southeast T (SMSE-T):** Spec Miata T will run under the SCCA [GCR](#) Spec Miata Category Specifications [\(SMCS\) Section 9.1.7](#), and **Spec Miata Southeast T (SMSE-T)** will run under the SEDIV approved rules, with the following tire rule exception:

Vehicles in these classes must use Toyo Proxes RR tires, size 205x50x15. All four tires on the car shall be the same manufacturer and model. The Toyo RA1 is also allowed but recommended only for wet conditions. The only modifications allowed to tires are having treads “shaved” or “trued.”

### **Spec Miata Southeast (SMSE) See above for SMSE-T Approved 2-1-2020**

Class added October 9, 2016 for 2016 SEDiv Regional Races

**SMSE** class must comply with the current SCCA GCR and category Specification for all 1.6 cars listed for SM. The SMSE tire rule for all SEDiv series is the same tire as listed in the GCR for the Spec Miata Majors race class with any amendments in Fastrack.

The purpose of this class is to give the owners of the 1.6 Mazda Miata a low cost class in which to compete in SEDiv series such as SARRC, ECR & Time Trials.

The rules for this class will be reviewed at the February 6<sup>th</sup>, 2016 SEDiv annual meeting and maybe modified as deemed necessary to meet the stated purpose of the class. The class was reviewed and it was determined that for 2016, the class would remain as per the 2016 GCR rules governing Spec Miata.

SMSE Advisory Committee

TBA ( applications accepted)

**MXP**

The [2016 Mazda MX-5 Cup](#) is a race-ready version of the Miata that comes with safety upgrades like a roll cage, racing seat, upgraded brakes and suspension, and other tweaks to ready the car for club racing. A 2.0-liter Skyactiv inline-four engine and a six-speed manual transmission provide motivation. The car will be built for Mazda Motorsports by North Carolina's Long Road Racing, and will be legal for a variety of SCCA and NASA club-racing series.

**Adopted at Feb 2016 meeting.**

**SPEC MX-5 (SMX 5) CLASS (REGIONAL ONLY):**

**A. Purpose and Intent**

The purpose of Spec MX-5 is to provide an opportunity to compete in similarly prepared low cost cars with limited modifications. The cars are a Club Racing version of the NC SCCA Pro MX-5 Cup Car, or a purpose built car for the class. Only the US version of the 2006-2015 (NC) Mazda MX-5 is eligible to compete in SMX. Unless a particular modification or part is approved in these specifications, the vehicle and all of its parts and assemblies shall be stock including the sport package and suspension kit. It is intended that the cars competing in SMX be very similar in appearance and performance. Therefore, if an alternate part or modification is specified, it shall be used by all cars unless the OEM part is specifically allowed. No modifications or alterations from the original "as delivered" vehicle configuration are permitted except those required in these specifications. No permitted component or modification shall additionally perform a non-permitted function. Replacement parts required to meet stock OEM specifications may be purchased from alternate standard outlets such as parts stores provided they are the exact equivalent of the stock OEM part.

**B. Safety** – cars must conform to all SCCA safety standards as defined in the SCCA GCR.

**C. Authorized Modifications**

**1. Rollcage**

a. Miatacage "2006-2015 MX-5 Cup roll cage kit" must be installed in its entirety.

**2. Chassis**

- a. The outer edges of the dashboard, outside of the dash vents, may be trimmed the minimum amount required to install the roll cage A-pillar down tubes.
- b. The only allowable tow device for the front and rear of the car is a flexible tow strap. The preferred method of attaching each strap is looping it through the tow eye hole and the bumper brace in a choker hitch.
- c. There shall be an arrow that contrasts strongly with the vehicle paint scheme pointing to each tow eye/strap.
- d. The 3-piece front strut tower brace (p/ns: NE57-56-48X, NE57-56-48ZA, and NE57-56-49X) that comes with the sport package shall be used. The strut brace mounts may have a hole drilled in them to allow easier access to adjusters for the front shocks.
- e. The driver's side inner door structural panel may be removed to fit the cage, but the stock side impact beam and the outside door latch/lock operating mechanism shall not be removed or modified.

- f. Any steering wheel except wood rimmed types may be used.
- g. Any shift knob may be used.
- h. A dead pedal/foot rest and heel stop may be added. Foot pedals may be modified to improve driver comfort.
- i. The heater system and air conditioning equipment located in the engine compartment may be removed, but the equipment located in the cockpit shall remain intact.

### **3. Cockpit**

- a. A bulkhead panel shall be installed in the trunk to cover the flexible portions of the fuel lines, particularly at the point where they may be rubbed by the cockpit/trunk close-out panel. The material may be metal or composite, but must be rigid.
- b. All interior trim components shall be removed, including the front passenger seat, carpet, sun visors, seat belts, etc., but not the dashboard and its attaching hardware and brackets. The lower portion of the door panels shall be removed. The top portion of the door panels containing the door latch release handle shall remain intact. The door window glass and window operating mechanisms shall be removed.
- c. Electronic items, such as the radio equipment and air bags, shall be removed. The radio face may be left in place or a replacement trim piece may be used if the radio face is removed. If the radio face plate is left installed, it must be unplugged from the vehicle wiring harness.
- d. Any removable equipment, such as spare tires, tools and bins, shall be removed along with any attaching hardware, brackets and covers.
- e. Mazda interior trim kit (p/n: 0000-07-5500-KT) shall be used in its entirety. The trunk close-out panel must be mounted up under the edge of the body to avoid having the trunk closeout panel rub on fuel hoses in the trunk.

### **4. Body**

- a. Interior and exterior door handles are required to remain operable.
- b. Door locks must be disabled.
- c. All three of the brake lights shall be in working order.
- d. The headlights and tail lights shall remain in working order.
- e. The 2 OE external mirrors for the correct vehicle make and model (left and right) are required. They must be mounted in stock location and must be positioned so that the driver can see objects along both sides of the vehicle. The OE interior rearview mirror or an aftermarket rearview mirror shall be used.
- f. 2006-2008 SMX cars may be fitted with 2009-2015 bodywork.
- g. MAZDASPEED trunk lip spoiler (p/n: NF51-V4-920G-xx) shall be used.
- h. The inner hood insulation liner may be removed.
- i. Hood pins are permitted. If hood pins are fitted, the OE latch may be removed.
- j. Auxiliary screen material may be used behind the OE grille piece.
- k. Left and right inner fender liners must remain intact. Inner fender liners may be riveted in place and a small portion of the liners may be trimmed away where the tire makes contact with the inner fender liners. Left and right front fender liners may be removed only if the large excess holes are closed off using .040" - .060" aluminum and securely fastened into place using rivets.
- l. Front and rear fender lips may be rolled to prevent tire damage.
- m. The OE driving lights may be removed. The resultant openings may be used to direct air to the front brakes.
- n. Side marker lenses may be substituted with a more durable material as long as they retain their original shape and color.

### **5. Tires**

- a. Dry tires must be 225/45ZR17, spec tire mandated by series.
- b. Wet tires must be 225/45ZR17, spec tire mandated by series.

### **6. Weight**

- a. Minimum weight with driver is 2400 lbs.
- b. Ballast is permitted to be used to achieve the minimum weight for a vehicle. Ballast may be mounted anywhere in/on the car provided that it does not

perform a non-approved function. All ballast shall be mounted in such a way that tools are required to remove it. Holes may be drilled in the chassis and the chassis may be reinforced in order to safely secure ballast provided that the reinforcement does not perform a non-approved function. Grade 5/Metric 8.8 bolts, or better, and load-spreading washers shall be used to mount ballast when necessary.

#### **7. Engine**

- a. Engines must be ordered through Mazda and must be 100% as delivered, no modifications allowed. Competitor rebuilt engines are prohibited.
- b. Sealed engines may not be rebuilt (sealed engines to be implemented in 2019).
- c. The crankshaft position sensor and crankshaft pulley relationship must be as specified in the 2006-2011 MX-5 Factory service manual, CRANKSHAFT POSITION (CKP) SENSOR INSPECTION [LF] Pg. 01-40-34.
- d. Mazda cold air intake system (p/n: 0000-06-5203-KT) is required.
- e. Mazda exhaust system (p/n: 0000-06-5450-KT) is required.
- f. A fuel test port must be installed between the rigid fuel supply line and the fuel rail per 9.3.
- g. A turn at the end of the exhaust pipe may be used to help disperse/direct noise in order to meet specified decibel limit in all conditions, and/or a Supertrapp may be utilized.
- h. OEM exhaust system heat shields may be removed. Exhaust headers and exhaust systems may be wrapped, coated or both.
- i. The oxygen sensor may be reinstalled in the competition exhaust system. The sensor shall be placed in the exhaust system within reach of the OE electrical connection for the oxygen sensor.
- j. An engine to fender brace may be used if mounted in such a way that it does not foul brake lines, fuel lines, or other systems that would interfere with the safe operation of the vehicle under race conditions.
- k. Spark plugs are unrestricted.

#### **8. Engine Control Unit (ECU)**

- a. The stock ECU with the stock flash shall be used, with a sealed ECU to be implemented in 2019.
- b. Instrument clusters shall be unmodified OE parts.

#### **9. Drivetrain**

- a. The stock 2006-2011 6-speed gearbox, internal parts and ratios shall be used by all cars. A sealed transmission will be utilized in 2019.
- b. Mazda 3-4 shift fork (P/N 0000-02-5701) is permitted.
- c. Gear Ratios: 1st - 3.82; 2nd - 2.26; 3rd - 1.64; 4th - 1.18; 5th - 1.00; 6th - 0.83
- d. The OE limited slip differential shall be used. Final Drive Ratio: 4.10:1. A sealed differential will be utilized in 2019.
- e. No treating, polishing or coating of transmission, differential or axle components is permitted.
- f. The clutch disc and pressure plate must be bolted directly to an unmodified stock flywheel.
- g. Permitted clutch components are as follows:
  - i. Clutch Disc Mazda
    1. LF04-16-460B
    2. Mazda 0000-02-5415-AC
    3. Mazda 0000-02-5416-AC
  - ii. Pressure Plate Mazda
    1. LF04-16-410A
    2. Mazda 0000-02-5405-AC
  - iii. Part Diameter (in.) Minimum Weight (lbs.)
    1. Clutch disc 8.5in, 1.7lbs
    2. Pressure Plate 9.875in, 9.4lbs
    3. Flywheel 11.0in (9.375in machined surface), 16.0lbs

#### **10. Suspension and Steering**

- a. Steering lock mechanisms shall be removed.

- b. All cars must use the SMX coil over kit, including Penske shocks and kit springs. A new spec suspension kit will be utilized for 2019.
- c. Bump stops may not be modified as supplied in the kit
- d. The anti-roll bar end links shall be used as provided. However, the anti-roll bar end links may be connected or disconnected as the driver sees fit.
- e. Suspension alignments (camber, caster, toe) are unrestricted within the limits of the unmodified factory adjustments.
- f. There is no minimum ride height.
- g. The rear shock towers supplied with the suspension kit may be reinforced through the addition of material to it, and welding of, the shock towers. Any reinforcement shall not connect the shock tower to more area of the chassis than the unreinforced shock tower contacts.
- h. Hardware items (e.g. nuts, bolts) may be replaced by similar items performing the same fastening function(s).
- i. RX8 front hubs may be substituted in place of the O.E. hubs. To complete the conversion, the following parts may be purchased from Mazda: Front Hub #F151-33-04X or #F189-33-04X, ABS Adaptor #0000-03-5901, special installation tool# 0000-03-5902. An "L" shaped retainer is allowed for the ABS adaptor housing provided it serves no other purpose.

#### **11. Brakes**

- a. Stock Brake Rotor Specification (Diameter/Thickness)
  - i. Front 290mm (11.4 in.) / 23mm (0.9 in.) Vented
  - ii. Rear 280mm (11.0 in.) / 11mm (0.4 in.) Solid
- b. Backing plates and dirt shields may be ventilated or removed.
- c. Brake lines may be replaced with steel lines or Teflon lined metal braided hose.
- d. Series specific brake pads must be used.
- e. MAZDASPEED brake duct kit (p/n: 0000-03-5301) is permitted. The inner fender panels may be modified to fit the brake kit to the driving light openings.

#### **12. Wheels**

- a. All wheels shall be one of the three OE Mazda MX-5 17"x7" wheels.
  - i. Style 1: (p/n: 9965-38-7070)
  - ii. Style 2: (p/n: 9965-36-7070)
  - iii. Style 3: (p/n: 9965-45-7070)
- b. Aftermarket wheel studs and lug nuts are permitted.
- c. Wheel spacers are not permitted.

#### **13. Cooling System**

- a. The alternate radiator (p/n: 0000-01-5550) from Mazda is permitted.
- b. Thermostats may be modified, removed or replaced.
- c. A bleeder screw may be added to heater hose tube.
- d. Mazda oil cooler (p/n: 0000-01-5100-KT) may be installed.
- e. The gap between the top and sides of the radiator and the core support may be sealed with tape, silicon, foam, etc.

#### **14. Data Acquisition**

- a. Vehicles must be equipped with series mandated data acquisition systems consisting of a data logger, sensors, camera(s) and required wiring.
- b. The data acquisition system may perform no other function, and shall not transmit data while the vehicle is in motion.

#### **15. Electrical**

- a. Batteries may be replaced with those of an alternate manufacturer provided they are of similar amp-hour capacity, size and weight and are fitted in the standard location. Additional battery holddown devices may be used and are recommended. The positive battery terminal shall be insulated to prevent sparking.

With the exception of the wiring needed to install the safety equipment, to operate any data system, to preserve power to the PCM or to repair accident damage, there shall be no additional non-OE wiring, connections, etc. to any wiring harness or component of

**Adopted 2018**

## **Super Production O & U (SPO & SPU)**

Established January 1997

Revised January 2003

Reviewed July 2006

Reviewed July 2007

Revised July 2008

January 1997 this class was accepted Division wide as a catch all for vehicles not considered formula cars from other road racing series (exception to fender rule for NASCAR style modifieds) and as a place for unique creations to have a venue in which to get track time. Vehicles must not be other wise classed in the GCR and Category Specifications. The displacement separation for Over (O) (2500cc and above) and Under (U) (2499cc and below) [Effective January 2003 and reconfirmed July 2007] and all Turbo or Supercharged vehicles will run in SPO. Effective 9/22/2008 – domestic, air-cooled, pushrod engines up to 2999cc are eligible for SPU.

Series vehicles must conform to configuration safety rules of the series (owners responsibility to show proof). All non-series vehicles must at a minimum comply with safety specifications as published in the SCCA GCR and GT/Production Category specifications.

### GCR Optional Regional-Only Classes

Super Production Class (SP) (Regional Class Only): Cars which exceed the preparation limitations of the applicable Production or GT Specifications but which meet the general regulations for GT category cars. This includes cars not listed in the GT or Production spec pages, such as FIA homologated Production cars.

### SPO/SPU Advisory Committee:

Wayne Cabaniss

Jim Coman

Jim Kellogg

Robert Logsdon

# ***GTA-Southeast CLASS***

**2013 Rules** (effective 10/20/2012)

## **NOW AS PER 2014GCR**

The following rules are intended to allow competitors to utilize proven stock car technology to compete in SCCA road racing events at a reasonable cost. The philosophy of GTA-Southeast is to provide opportunities for drivers rather than engineers to showcase their skills. As such it is NOT a class to see who can spend the most money finding and exploiting loopholes in the rules, but instead is intended to use unmodified racing components that are readily available to the general public. As we continue to expand the GTA-Southeast rules to include new chassis, bodywork, and engine specifications, a certain amount of adjustment of the rules must be expected as we gain track experience with the various packages. Unless there is an obvious inequity between packages, however, these changes should never occur during a given competition season.

These rules shall govern all of the events and, by participating in an event, the competitor is deemed to have complied with these rules. No implied or express warranty of safety shall result from publications of, or compliance with, these rules and/or regulations. The rules are intended as a guide for the conduct of the competition and are in no way a guarantee against injury or death to a participant, spectator or an official.

**ALL CARS ARE SUBJECT TO PERIODIC INSPECTIONS TO ENSURE COMPLIANCE WITH THESE RULES.**

### **I. General Specifications**

- A. All cars competing in this class must meet all SCCA safety requirements for GT category automobiles found in Section 9 of the GCR unless otherwise specified herein. This includes but is not limited to GCR requirements for:
  - 1. Vehicle documentation
  - 2. Driver restraint systems
  - 3. Driver's safety equipment
  - 4. On-board fire systems
  - 5. Fuel & fuel cells (may use either the Touring or GT fuel specs)
  - 6. Master switch requirements
  - 7. Brake and tail light requirements
  - 8. Rollover structures
  - 9. Seats
  - 10. Towing eyes
  - 11. Window safety nets
  - 12. Gauges and data acquisition
- B. Car number and class designations must meet SCCA GCR specifications. The class designation for GTA-Southeast is "GTA".
- C. All weights and ride height measurements shall be taken with the car set up for competition and will include the driver.
- D. The maximum rear weight bias at any point during the competition is 52.0 %.
- E. Any ballast used to meet minimum weight must meet the specifications of the current GCR.
- F. Weight shifting devices of any type are prohibited.

- G. No titanium components are allowed for any purpose. Not axles, not fasteners, not engine parts, not anything.
- H. All cars presented for competition must undergo a technical inspection prior to their first event of each SARRC season. This inspection will determine the minimum weight for that car and that weight will be noted on SEDIV-supplied stickers that should be displayed near the 'B' pillar on each side of the car. If you have questions about the minimum weight of your car, consult with an Advisory Committee member.
- I. **“Open-Hood” Policy:** All GTA competitors agree to allow a non-invasive visual inspection of any component of their car up to one hour before a scheduled track session by any host organization tech inspector or registered GTA entrant/driver. This also extends to any Impound sessions required by the hosting organization.

## **II. Chassis Specifications**

- A. Any commercially available, mild steel stock car chassis with a minimum wheelbase of 102” and a maximum wheelbase of 110” may be used.
- B. Chrome alloy chassis are not allowed.
- C. There are two basic styles of chassis used in GTA-Southeast - the “narrow track” chassis and the “wide track” chassis as defined by track width:
  - 1. The “narrow track” chassis has a track no greater than 62.0 inches.
  - 2. Any chassis with a track wider than 62.0 inches is considered a “wide track” chassis. The maximum track for any chassis is 65.0 inches.
- D. The minimum overall body height of any chassis (measured 10 inches behind the top of the windshield) is 46.5 inches.
- E. The base minimum weight for a car based on a narrow track chassis is 2800 pounds.
- F. The base minimum weight for a car based on a wide track chassis is 2850 pounds.
- G. The minimum ground clearance for any part of the chassis or bodywork rearward of the front tires is 3.5 inches.
- H. The minimum ground clearance for the front air dam or splitter is 2.5 inches.
- I. The maximum overall width is 75.0 inches for a narrow track car.
- J. The maximum overall width is 80.0 inches for a wide track car.
- K. A minimum of 9.5 inches, measured from the center of the crankshaft bolt to the ground, must be maintained at all times.

## **III. Body Specifications**

- A. All cars in this class must use 1997 through current-year commercially available stock car bodywork. The types of bodies allowed are:
  - 1. Cadillac CTS
  - 2. Chevrolet Camaro (2010+)
  - 3. Chevrolet Impala
  - 4. Chevrolet Malibu
  - 5. Chevrolet Monte Carlo
  - 6. Dodge Challenger (2010+)
  - 7. Dodge Charger
  - 8. Dodge Intrepid
  - 9. Ford Fusion
  - 10. Ford Mustang (2010+)
  - 11. Ford Taurus
  - 12. Ford Thunderbird
  - 13. Lincoln MKS
  - 14. Oldsmobile Cutlass
  - 15. Pontiac G8

16. Pontiac Grand Prix

17. Toyota Camry

- B. All body components must be utilized in an as-produced, unmodified form and must retain all manufacturer identifying markings. No “one-off” or “high downforce” body packages are allowed.
- C. All cars competing in a race event must have a complete painted or polished gel-coat body to start the weekend. Presentation of stock appearing, very professionally finished racing stock cars is the primary objective of GTA-Southeast. Overall workmanship and appearance shall be a determining factor when a car is approved for competition.
- D. Absolutely no additional holes, vents, modifications, etc., will be permitted on the body panels except as provided herein.
- E. Unless damaged by an accident during the racing weekend, all body panels must remain in their standard orientation when the car is at speed (i.e. - no flexing or cocking of body panels to vent air from underneath or inside the car is allowed).
- F. The bottom of the car must not be “belly-panned” or flush paneled. Panning may not extend rearward of the trailing edge of the radiator. Other than ductwork that serves no other purpose than to direct cooling air to the brakes, fuel/air metering device (carburetor or throttle body), and/or driver, no fixed or moveable air-directing devices are permitted underneath or inside the car.
- G. Installation of air ducts to direct air to cool the driver is permitted. Air ducts to direct air to cool the driver can be installed behind the a-pillar. Duct and mount cannot exceed 8 inches in height by 12 inches in length. A maximum of three vents may be added to each rear side window to exhaust hot air from the driver’s compartment.
- H. The hood must have a minimum of four (4) positive locating pins on the leading edge of the hood and must be securely fastened by either pins or hinges at the rear. Cars using Late Model hoods may install the Five Star hood hold down (part #570-3700 or part #660-3700) to stabilize the front of the hood.
- I. If used, a cowl opening shall be located at the rear edge of the hood at the base of the windshield and have a maximum opening of 2.5” deep by 20.0 inches wide. Fresh air boxes to the fuel/air metering device (carburetor or throttle body) are allowed as long as that ductwork serves no other purpose.
- J. The single-plane rear blade spoiler must be mounted at an angle from 50 to 75 degrees (perpendicular to the ground being 90 degrees) and may not extend beyond the rear bumper when viewed from directly above the rear bumper. Spoilers must be a minimum of .063 aluminum or Lexan and may vary in overall height to match the contours of the bodywork. The rear spoiler dimensions shall not exceed 59.0 inches wide by 5.0 inches in height, or 295.0 square inches total surface area. Braces to prevent spoiler deflection are allowed, but may not serve any other purpose.
- K. For 2010+ C-M-C bodies **ONLY**: Cars using these bodies a blade spoiler meeting the specifications in III.J must be used.
- L. For 2010+ C-M-C bodies **ONLY**: Cars using these bodies may not utilize a front splitter.
- M. A full, stock-dimension molded front windshield is mandatory and must be constructed from 3/16” (minimum) Lexan. Three (3) 1-inch by 1/8” thickness internal windshield support braces should be spaced at least on six-inch centers and roughly centered on the windshield. The windshield must be secured to the body by bolts and/or rivets to prevent the windshield from popping out under internal pressure such as a spin.
- N. A full, stock dimension molded rear “glass” constructed of minimum .093’ thickness Lexan is required. It must be held securely in place by a minimum of two (2) 1.0”

- wide external straps as well as bolts and/or rivets mounting the “glass” to the rear bodywork around the perimeter of the opening. Back “glass” must also be securely braced internally to prevent significant bowing or distortion under racing conditions.
- O. Side windows (driver and passenger side) must remain as produced in dimensions. Models with rear quarter or opera windows must have the stock opening covered with clear, securely mounted .093” thick Lexan. All window net installations must meet SCCA specifications.
  - P. Cars must be neat in appearance at all events. All cars must have complete bodies, fenders, hoods, grills, and bumpers. Cockpit floors must be complete with no tunnels and/or air ducts allowed. No streamlining will be allowed, such as windshields, underpans, radiator grills or headlights. Taping of hood and/or body seams is not allowed.
  - Q. Headlight decals and taillight decals or the model’s original taillights are required at all times. Two functioning brake lights in the approximate location of the stock taillights are required. If you are planning to run in the rain, two functioning taillights are also required.
  - R. Late model bodies may use “vent windows” to stabilize the A-post at high speeds. The maximum dimension along the top of the door will be nine (9) inches, and the trailing edge must be ninety degrees from the top of the door to the A-post. No vent windows may be added to the existing panels of the flange-fit bodies.

#### **IV. Suspension/Shock Absorber Specifications**

- A. Springs are open.
- B. The steering wheel must be mechanically coupled to the front wheels and activate only those wheels (no “steer by wire” or “four-wheel steering”). Power assist is allowed and may be driven off the differential.
- C. A collapsible steering column, either by layout design or column construction, is required.
- D. Front lower control arms must be made of steel. Upper control arms, strut arms and upper pivot shafts may be aluminum.
- E. Front spindles/uprights must be steel, designed for racing applications, and be readily available to all competitors. No one-off, “center cooled” or Riley style spindles/uprights/hubs are permitted. Zero-scrub geometry is not permitted.
- F. Independent front suspension with articulated upper and lower control arms is mandatory.
- G. Major steering components including steering arms, tie rods, idlers, etc., must be fabricated from approved ferrous or non-ferrous alloys. All heim joints must be of aircraft quality.
- H. Sway (anti-roll) bars must be made of steel. Sway bar arms must be made of steel or aluminum. Heim joints are allowed to be attached to the lower control arm(s) and/or rear end. Driver adjustable sway bars are not allowed.
- I. The longitudinal linking system for the rear of the chassis may not exceed four locations and may not include a “torque tube” of any design. Spring-loaded and/or cushioned (torque absorbing) links are permitted.
- J. Either a panhard bar or Watts link may be used to locate the rear axle laterally.
- K. Independent rear suspensions are not allowed.
- L. Shocks are open, any shock absorber may be used with no weight penalty. One shock per wheel.
- M. Driver adjustable shock absorbers are not allowed.

#### **V. Rear End Specifications**

- A. Ford 9" or Quick Change units only. No "rear drive" or modified driven Quick Change rear ends are allowed.
- B. All axle tubes must be made of steel.
- C. The maximum rear camber per wheel is +/- 1.75 degrees.
- D. Electronic and/or electronic/hydraulic traction control devices are not allowed. Competitors found with any type of traction control device on the vehicle, whether operational or not, will be disqualified from the class for twelve (12) months.

**VI. Transmission, Clutch, Flywheel, Bellhousing, and Driveshaft Specifications**

- A. Transmissions must be of readily available stockcar-style technology with four forward gears and an operating, driver-engageable reverse gear. All forward gears must be at least 1.00 inches thick. No five-speed, semi-automatic or automatic transmissions are allowed. Manual "H-style" shift linkage is required. No sequential shift mechanisms are allowed. Ceramic bearings are not allowed.
- B. The clutch is limited to no more than three steel disks and floater plates with a minimum clutch diameter of 5.25 inches. No carbon parts or carbon clutches are allowed.
- C. Bellhousings must be Quarter Master, Tilton or OEM. Transmissions must bolt directly to the rear bellhousing surface (i.e. - the 10" spacers common in GT-1 are not allowed).
- D. The driveshaft must be one piece and made of metal.
- E. A minimum of two steel 360-degree driveshaft hoops shall be installed of sufficient strength to contain the driveshaft in case of u-joint or driveshaft failure. Said hoops shall be located within twelve (12) inches of the front of the shaft and as close as practical to the rear u-joint.

**VII. Wheel and Tire Specifications**

- A. Rims must be 15" diameter steel stock car rims of a one-piece construction specifically designed for racing. Wheel offset must be a minimum of 3.00 inches and a maximum of 7.00 inches (i.e. - zero-scrub front suspension is not allowed). Maximum wheel width is 10".
- B. Before the beginning of each season the Advisory Committee will contact the various tire vendors that service SEDIV SCCA events to ascertain what tire model(s) they plan to make available to class competitors during the coming season. Once specified, only those spec tires may be used during that season. All four tires on the car at any time must be the same model number.
- C. Soaking or chemical treating of the tires is prohibited.
- D. In the event the race is declared a rain race by the Chief Steward, any tire may be used that fits a GTA-legal rim.
- E. When a vendor changes the specified tire model because a tire is no longer being manufactured, both the previous model and current model for that manufacturer may be used the next season, but the obsolete tire cannot be used after July 1.
- F. For the 2013 season, the specified GTA-Southeast tires are the Goodyear 2560, the Hoosier 3035 and the American Racer EC-84 All tires 27.0/10.0-15 in size.
- G. For more information on the tire choices contact the vendors:  
 Goodyear - Competition Tire South (386-274-5332)  
 Hoosier - Appalachian Race Tires (865-681-6622)  
 American Racing Tire – Jimmy Smith Racing Tires (770-924-9525)

**VIII. Brake Specifications**

- A. All vehicles must use dual master cylinder, 4-wheel disc brake systems.

- B. Driver adjustable brake bias is allowed.
- C. Brake rotors must be iron.
- D. Brake recirculators are allowed.
- E. Any brake caliper utilizing pads with a maximum brake friction surface of 4.75 x 2.50 inches may be used with no weight penalty. If even one caliper utilizes pads larger than 4.75 x 2.50 inches, a fifty (50) pound weight penalty is assessed.
- F. Inline blowers may be used in the brake cooling ducts, but water cooling of the brakes is not allowed.
- G. Electronically controlled anti-lock braking systems are not allowed.
- H. Brake pad materials are open.

**IX. GTA-Southeast Compliance Team-All deleted 2015**

- A. At the beginning of each season the GTA-Southeast Advisory Committee will appoint a licensed Scrutineer to head up a team dedicated to insuring compliance of all GTA cars to these rules. This person will be regarded as an Assistant to the Divisional Administrator for Tech.
- B. The Compliance Team's participation at any event is subject to approval by the Chief Steward and Chief of Tech. When attending an event each member of this crew will be a member of the Tech Inspection team for that event. Their sole responsibility is to advise the Chief of Tech of cars not in compliance with the GTA-Southeast rules, the GCR and/or the Supplemental Regulations for the event.
- C. A \$10.00 surcharge for each GTA entry per SARRC race must be submitted to the SEDiv Treasurer with the SARRC fees for the event. (Deleted 2015).
- D. Subject to inclusion in the SEDiv budget (and approval by the REs), these monies will be spent to reimburse travel and/or procure class-specific test equipment for use by the GTA-Southeast Compliance Team.

**X. Engine Specifications**

There are multiple engine preparation packages that can be used, but any engine must comply with all the specifications of the selected package. i.e. – no “cherry picking” of items across multiple engine packages is allowed. All cars must comply with the general engine specifications found in Appendix A, then must fall into one of the following four categories:

- “Traditional” GTA carbureted engine as defined in Appendix B.
- “ASA Tour” LS-1 engine as defined in Appendix C.
- “Upgraded” LS-1 based engine as defined in Appendix D.
- “ZZ4 Fast Burn” engine as defined in Appendix E.
- “604 Circle Track” engine as defined in Appendix F.
- “Ford DS347SR/MEP 425 LM” engine as defined in Appendix G.
- “Restricted” carbureted engine as defined in Appendix Z.

As new common engine packages become available they will be evaluated by the Advisory Committee(s) and may be added as optional engines under these rules.

The 2013 GTA-Southeast Advisory Committee is made up of:

Butch Kummer, 770-314-2031, ([Butch@B-K-Racing.com](mailto:Butch@B-K-Racing.com))  
 BJ Holley, 404-379-9200, ([zip2holleyracing@gmail.com](mailto:zip2holleyracing@gmail.com))  
 Steve Magowen, 704-965-5099, ([sgmvolvo@hotmail.com](mailto:sgmvolvo@hotmail.com))

Hall Robertson, 352-427-4882, ([hall@lhrus.com](mailto:hall@lhrus.com))  
Ricky Sanders, 770-506-0090, ([Ricky@rickysandersracing.com](mailto:Ricky@rickysandersracing.com))  
Ron Fariss, 434-258-3416, ([rfariss@farissracing.com](mailto:rfariss@farissracing.com))

**Appendix A:** General Engine Specification (apply to all engine packages).

1. All engines will be normally aspirated, pushrod V-8s.
2. The centerline of the crankshaft shall be located within 1.00 inches of the centerline of the entire chassis (no more than 1.00" offset is permitted).
3. Engine setback will be measured from the center of the front most spark plug hole to the centerline of the top ball joints. For narrow track cars the maximum setback is 2.00 inches. For wide track cars the maximum setback is 4.00 inches.
4. A minimum of 9.5 inches, measured from the center of the crankshaft bolt to the ground, must be maintained at all times (with all tires inflated to a maximum of 25 psi).
5. Aftermarket engine blocks are allowed, but must be equal to or greater in weight and exterior dimensions compared to the original manufacturer of the make and model. No aftermarket aluminum blocks are allowed.
6. The crankshaft must be made of steel or iron. The stroke may be increased or decreased, but the minimum stroke length is 3.25 inches. The minimum (bare crank) allowable weight is 46 pounds. Lightweight, knife-edge, 180-degree, pendulum cut, scalloped, and/or undercut counterweight crankshafts are prohibited.
7. Connecting rods must be solid steel. No titanium, aluminum, stainless steel or composite rods are allowed. Rods may be tested by using a magnet.
8. Valve covers are open.
9. Alternators must be OEM type, belt driven, and are optional. One-wire alternators are permitted and may be driven off the engine or the differential.
10. Water pumps must be OEM type. Water pump impellers may be altered for improved cooling. No reverse cooling systems are allowed.
11. The accelerator pedal must be mechanically coupled to the fuel/air metering device (no "fly by wire" throttles).
12. Each car must utilize a verifiable device that limits maximum engine RPM. The unit cannot be in a location where it can be modified or adjusted by the driver while the car is in motion. It is incumbent on each team to demonstrate that their rev limiting device is (a) functional, (b) accurate, and (c) tamper-proof.
  - For the soft touch systems all chips of the same setting may be thrown in a box and distributed randomly. At any event a test chip (3000 RPM) may be used to verify all rev limiters are functional. After verification, distribution and installation, chips also may be tie-wrapped into place or otherwise marked by a Tech Inspector. Cars with chips that are dislodged during qualifying will start at the rear of the entire grid while chips dislodged during the race will result in disqualification.
  - To enforce rev limits on the LS-1 based engines (both standard and upgraded) ECUs may be randomly exchanged and/or swapped out with a standard ECU for the engine package being used. For the carbureted LS-1 engines, this would involve random assignment of the MSD 6010 timing modules.
13. Spark plugs are open.
14. The radiator must retain a stock appearance and must be located in front of the engine. The top of the radiator may be laid back a maximum of 3.00 inches from vertical.
15. Any commercially available stock car exhaust system that meets track-specific sound requirements may be used. Exhaust systems may be chromed, ceramic coated and/or painted.

**Appendix B:** "Traditional" carbureted GTA engine specifications.

1. Must meet all requirements listed in Appendix A.

2. Engine displacement can be a maximum of 358 cubic inches.
3. Pistons must be any forged flat top version, however valve reliefs may be cut into the top surface. No portion of the piston may protrude from the block. Each piston must have two compression rings and one oil ring groove.
4. The minimum wall thickness of the piston wrist pin must be .125 inches and must be made of steel. Any type of wrist pin locking device may be used.
5. Chevrolet cylinder heads must be Dart II cast iron heads, part #10310010P, which replaced part #1112B and #1115B.
6. Ford cylinder heads must be Dart II cast iron heads, part #5302B or World Products' Roush head, part #053040.
7. Chrysler cylinder heads must be Mopar Performance part #P4529994.
8. Maximum intake valve diameter is 2.020 inches. Maximum exhaust valve diameter is 1.600 inches. No titanium valves are allowed.
9. The minimum combustion chamber allowed is 62.0 cc and the internal cylinder head chamber dimensions must remain identical to the cylinder head's original chamber dimensions. Grinding for cc adjustments is allowable only in the cavity area. The cylinder head's original squish area must not be modified from the original dimensions at any point in the cylinder head. Porting and polishing is not allowed. No more than a three-angle valve job with a bottom cut of 60 degrees is permitted. A maximum of 0.250 inches from the head of the valve seat to the bottom of the 60-degree bottom cut is allowed. No grinding in the valve bowl area is permitted. No interior or exterior coatings are permitted.
10. Valve stem size must be a minimum of 11/32" and must remain as delivered from the manufacturer without modification. No pro-flow or any type of valve that steps down in diameter beyond the listed dimensions are allowed.
11. Externally measured compression ratio may not exceed 10.7:1. Engine compression ratio is designed to be 10.2:1, so a variance of 0.5 has been established in the maximum allowable externally measured compression ratio of 10.7:1.
12. Chevrolet intake manifold must be an Edelbrock Victor Jr., part #2975.
13. Ford intake manifold must be an Edelbrock Victor Jr., part #2980 or #2981.
14. Chrysler intake manifold must be an Edelbrock Victor W-2, part #2920.
15. No modifications to the intake manifold are allowed. No porting, polishing or filling of ports with any kind of material is allowed. No internal or external coatings or painting of any type is allowed. The maximum intake manifold port size is 1.900 inches high by 1.100 inches wide. The height from the top of the manifold mounting flange to the bottom of the port must be no less than 1.000 inches.
16. The carburetor must be a Holley 650 DBL pump, part #0-80541-1 and must be completely unmodified except for changing of jets and changes (safety wire or epoxy) to keep the booster nozzles from falling into the intake manifold. No porting, polishing or addition of epoxy (except to retain the booster nozzles), resin or any other material is permitted. A maximum 1.000 inch thick spacer may be used between the intake manifold and the carburetor.
17. Any roller or flat tappet camshaft with a maximum lift of 0.612 inches (measured at the valve with 0 lash) may be used. Engle camshaft part #RK-38 meets these specifications. The cam drive may use either a chain or belt system.
18. Rocker arms may be any OEM, steel or roller bearing type. No split shaft, shaft mounted or trunk-lined rocker assemblies are permitted. The maximum rocker arm ratio is 1.600:1.
19. The oil pan is open, but the oiling system may not exceed a three-stage system (two scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.

20. Air cleaners are required at all times. The air filter housing must be centered on the carburetor and all air entering the engine shall pass through the filter. The air filter element may not exceed 15.00 inches in diameter and the maximum element height is 4.00 inches.
21. Ignition systems may be OEM or electronic. No magnetos are allowed. The distributor must mount in the stock location. No ignition components may be located on the driver's side of the chassis. The ignition(s) must have a soft touch rev limit chip set at 7000 rpm (no variable and/or adjustable ignition systems are allowed). The soft touch system must be enclosed and have no interruptions or breaks in the wires en route to the distributor. All ignition wires connecting to the rev limiter(s), the ignition box(es), and the coil(s) must be readily accessible for inspection. No other wires may intersect or connect to those wires operation the ignition system(s) save for the ignition switch(es). If more than one ignition box is used each will be limited by a separate 7000 RPM rev limiter.

**Appendix C: "ASA Tour" LS-1 engine.**

1. Must meet all requirements listed in Appendix A.
2. This is the LS-1 Corvette engine as used by the 2005 ASA series. This includes but is not limited to the following:
  - a. ASA-spec filter box
  - b. ASA-spec air meter ducting (bellows)
  - c. Stock Mass Air Flow (MAF) sensor
  - d. Unmodified LS-1 intake manifold, part number 12560894
  - e. Unmodified LS-1 cylinder heads, part numbers 241 or 853
  - f. Camshaft part number 12480110 ("LS" V8 ASA cam) with 1.7:1 rockers
    1. max lift measured at the intake and exhaust valves is .525"
    2. duration at .050" lift: intake = 226, exhaust = 236
    3. lobe separation is 110
  - g. Maximum compression ratio is 10.1:1
3. The 75mm throttle body must remain in place.
4. The stock stroke must be maintained. Cylinders may be honed as part of the normal freshening procedure, but the engine displacement can be a maximum of 350 cubic inches.
5. Crankshaft may be replaced with Eagle # 434636226100.
6. Rods may be replaced with Eagle # 612503D2000, Callies Compstar # 6125LS1, or Engine Pro # 10-1108-8.
7. Pistons may be replaced with Mahle # LS1314-898-F04, LS1314-905-F04, or LS1314-908-F04 (depending on the overbore needed).
5. Maximum engine RPM as controlled by the ECU is 6500 rpm.
6. All ECU's must have either the ASA Tour or Schwanke-certified logos intact.
7. Cars using this engine may reduce their minimum weight by fifty (50) pounds.
8. The oil pan is open, but the oiling system may not exceed a three-stage system (two scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.
9. All LS-1 engines, whether sealed or not, are subject to the same teardown policies as covered by the GCR.

**Appendix D: "Upgraded" LS-1 engine.**

ASA Tour LS-1 based engines (Appendix C) may be modified only as follows:

1. Must meet all requirements listed in Appendix A.

2. The base LS-1 heads may be replaced with unmodified cylinder heads, part numbers 243 or 799.
3. An ECU re-flash to raise the maximum RPM limit to 6800 is allowed.
3. Optional upgraded intake systems:
  - Option 1: Any 90mm throttle body may be installed. One example is GM part #12589181. A stock, unmodified LS-2 intake manifold to fit the larger throttle body must be installed.
  - Option 2: An LS-6 intake manifold (part # 12573572 or 88894339) may be installed, but the stock 75mm throttle body must remain in place.
  - Option 3: The fuel injection system may be completely replaced with a Holley 650 carburetor as specified in Appendix B, item 16. This conversion also requires GM intake manifold part #88958675 and an MSD 6010 timing module.
4. The ASA-spec filter box and air meter ducting (bellows) may be replaced by aftermarket parts, but the stock Mass Air Flow (MAF) sensor must remain in place.
5. New valve springs, Isky #165A or GM part #12586484, should be installed to handle the higher RPM limit.
6. New ARP rod bolts, part #134-6006, should be installed to handle to higher RPM limit.
7. Competitors may upgrade their own ASA LS-1 engines, but ONLY the items listed in Appendix D, numbers 2 through 6 may be modified. NO other modifications are allowed.
8. For technical assistance on upgrading the LS-1 engine, contact:
  - FlowTech
  - 191 Airport Road
  - Arden NC
  - 828-775-8886 – talk to Lee Schwartz
9. ASA engine modification/re-certification work can also be performed by:
  - Schwanke Engines, LLC
  - 321 West Rock Street
  - Springfield MN 56087
  - 800-423-6571 – ask to speak to Tim
  - www.schwankeshortblocks.com
10. All LS-1 engines, whether sealed or not, are subject to the same teardown policies as covered by the GCR.

**Appendix E: “ZZ-4 Fast Burn 385” based engine.**

This is a 23-degree aluminum head GM crate engine P/N 12499712 that must remain untouched except for the following specifications:

1. Must meet all requirements listed in Appendix A.
2. Must retain the stock 3.48” stroke.
3. Engine displacement can be a maximum of 355 cubic inches.
4. Maximum engine RPM is 6200 rpm.
5. Maximum compression ratio is 10.0:1.
6. Maximum intake valve diameter is 2.00”, maximum exhaust valve diameter is 1.55”.
7. The camshaft may be replaced with an aftermarket model meeting the following specs:
  - a. maximum valve lift: .525”, intake and exhaust
  - b. duration at .050” lift: intake - 218, exhaust - 228
  - c. any hydraulic lifter allowed
  - d. 1.6:1 roller rockers are allowed

8. The oil pan is open, but the oiling system may not exceed a four-stage system (three scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.
9. Any carburetor may be used, but cars meeting all the specifications of Appendix B.16 may reduce their minimum weight by fifty (50) pounds.

**Appendix F:** “604 Circle Track” based engine. (For Ford version see Appendix G.)

This is a readily available circle track crate engine that is based off the ZZ-4 Fast Burn 385 P/N 24502609, P/N88959604. It is HIGHLY recommended that the oiling system be modified to enable the package to survive in a road racing environment. The engine must remain untouched except for the following specifications:

1. Must meet all requirements listed in Appendix A.
2. Must retain the stock 3.48” stroke.
3. Engine displacement can be a maximum of 355 cubic inches.
4. Maximum engine RPM is 6500 rpm.
5. Maximum compression ratio is 9.6:1.
6. Maximum intake valve diameter is 2.00”, maximum exhaust valve diameter is 1.55”.
7. The camshaft may be replaced with an aftermarket model meeting the following specs:
  - a. maximum valve lift: .474” intake, .510” exhaust
  - b. duration at .050” lift: intake - 208, exhaust - 221
  - c. any hydraulic lifter allowed
  - d. 1.6:1 roller rockers are allowed
8. The oil pan is open, but the oiling system may not exceed a four-stage system (three scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.
9. Any carburetor may be used, but cars meeting all the specifications of Appendix B.16 may reduce their minimum weight by fifty (50) pounds.
10. See the GM Performance Parts Circle Track Crate Engine Technical Manual for complete specification.

**Appendix G:** “Ford DS347SR/MEP425LM Circle Track” based engine. (For GM version see Appendix F.)

This is a readily available circle track crate engine that is based off the BOSS 302 P/N M-6007-DS347SR. It is highly recommended that the oiling system be modified to enable the package to survive in a road racing environment. The engine must remain untouched except for the following specifications:

1. Must meet all requirements listed in Appendix A,
2. 3.4” stroke.
3. Engine displacement can be a maximum of 351 cubic inches.
4. Maximum engine RPM in 6500 rpm.
5. Maximum compression ratio is 10.1:1.
6. Maximum intake valve diameter is 2.02”, maximum exhaust valve diameter is 1.60”
7. The camshaft may be replaced with an aftermarket model meeting the following specs:
  - a. maximum valve lift: .528” intake, .528” exhaust (with 1.65 rocker)
  - b. duration at .050” lift: intake- 226, exhaust- 226
  - c. any hydraulic lifter allowed
  - d. 1.65:1 roller rockers are allowed

8. The oil pan is open, but the oiling system may not exceed a four-stage system (three scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi and Heineker pumps are not allowed.
9. Any carburetor may be used, but cars meeting all the specifications of Appendix B.16 may reduce their minimum weight by fifty (50) pounds.
10. See Ford 347 Series Sealed Racing Engine handbook for complete specifications.

**Appendix Z: “Restricted” carbureted engine.**

If your engine does not fall into one of the categories listed above it may still be used as long as it meets the following specifications:

1. Must meet all requirements listed in Appendix A.
2. Engine displacement can be a maximum of 366 cubic inches.
3. Maximum intake valve diameter is 2.050 inches. Maximum exhaust valve diameter is 1.600 inches. No titanium valves are allowed.
4. The maximum engine compression ratio is 9.5:1.
5. Any carburetor may be used, subject to the following restrictions:
  - a. Restricted engines using a Holley 650 DBL pump, part #0-80541-1, as defined in Appendix B.16 will be limited to 7000 RPM.
  - b. Restricted engines using any other carburetor will be limited to 6500 RPM.
6. Any roller or flat tappet camshaft with a maximum lift of 0.550 inches (measured at the valve with 0 lash) may be used.
7. The oil pan is open, but the oiling system may not exceed a four-stage system (three scavenge stages and one pressure stage). Cosworth, Cosworth-style, Autoverdi, and Heineker pumps are not allowed.
8. Ignition systems may be OEM or electronic. No magnetos are allowed. The distributor must mount in the stock location. No ignition components may be located on the driver’s side of the chassis. The ignition(s) must have a soft touch rev limit chip set at a maximum of 6500 or 7000 rpm depending the carburetor being used (no variable and/or adjustable ignition systems are allowed). The soft touch system must be enclosed and have no interruptions or breaks in the wires en route to the distributor. All ignition wires connecting to the rev limiter(s), the ignition box(es), and the coil(s) must be readily accessible for inspection. No other wires may intersect or connect to those wires operation the ignition system(s) save for the ignition switch(es). If more than one ignition box is used each will be limited by a separate RPM rev limiter.

# **IT-7R Rules** (combined / agreed between Blair Stitt and Estus White, October 2012, modified per J. Bauer (National) request for numeric agreement with 2013 GCR 9.1.3.D)

## **1. Definition, Purpose, Philosophy and Intent:**

The purpose of this regional class is to provide a class for the IT-A and IT-7 (1<sup>st</sup> Gen) RX-7's to continue competing while still maintaining the IT philosophy and budget, (because 12A engine parts are no longer in production). IT-7R will give (current 1<sup>st</sup> Gen ITA and IT-7) competitors a class to move into utilizing an economical and easy conversion. Any allowable modifications, changes or additions are as stated herein and there are no exceptions. IF IN DOUBT, DON'T. IT-7R will be grouped with IT for Southeast Division events.

## **2. Specifications:**

Shall conform to GCR 9.1.3.C \*Additionally any Mazda Renesis engine (2003-2008) shall be used (unmodified with details/exceptions as listed below)

## **3. Authorized modifications:**

Shall conform to GCR 9.1.3.D.2 a-d

**Either 4A or 4B Engine Compartment spec may be utilized-No mixing between spec's allowed.**

**4A. Engine Compartment (Fuel Injected) Contact Blair Stitt NCR SCCA for "4A" sourcing details, [racerpepe@yahoo.com](mailto:racerpepe@yahoo.com), 919-608-3444**

- a) Engine management computer shall be replaced with a MegaSquirt 3 ecu (engine mounted sensors are open) .
- b) Throttle body shall be replaced with BBK part #1700 (stock intake manifolds shall be used)
- c) Throttle body adapter shall be part # 7R-7500
- d) Stock RX-8 ignition and coils shall be used
- e) Stock RX-8 exhaust manifold shall be retained. Exhaust shall be maximum of 3 inch I.D. single tube or dual 2 inch I.D. tubing.
- f) The addition of an external scatter shield; specifications per GCR 9.3.40 is mandatory (IT7-R is specifically INCLUDED)
- g) Battery tray may be removed and battery of minimum 243 cubic inches (length x width x height) may be used and mounted on the structural rail (frame rail) lengthwise, no more than 5 1/2 inches from the radiator support.
- h) Engine mount adaptor(s) shall be part # 7R-7100, mounted to stock 1<sup>st</sup> Gen RX-7 engine mounts

i) Intake (in front of throttle body) shall be composed only of unmodified Spectre Part # 8791 , Vibrant part # 2175 and K&N part # rr-3001

j) Racing Beat steel flywheel part # 11436 or 11437 (NOTE: these are the same flywheel but with Different clutch (215mm vs 225mm) hardware)

**4B. Engine Compartment (Carbureted) Contact Estus White NCR SCCA for “4B” sourcing details, [wankelcity@aol.com](mailto:wankelcity@aol.com),704-933-4446:**

a) Stock RX-8 header must be used

b) 12A parts that shall be utilized, Nikki carburetor, Distributor, Front engine cover, water pump, stock intake manifold, front pulley and oil pan

c) Installation conversion shall be facilitated by use of official installation kit (part number # ES-100) consisting of:

1) 12A intake to Renesis adapter

2) 12A style steel flywheel

3) Front motor mount adaptors (designed to be bolted with supplied hardware, or highly recommend welding)

4) 12A oil pan adaptor/baffle plate

5) All necessary parts, brackets, hardware, and gaskets to complete this conversion

6) Step by step conversion hand book

#### **5. Engine Cooling System:**

Shall conform to GCR 9.1.3.D.3

#### **6. Transmission/Final Drive:**

Shall conform to GCR 9.1.3.D.4 \*Additionally any 1979-1991 RX-7 (unmodified) non turbo transmission may be used. (Note: upper portion of transmission tunnel may be (minimally) modified to accommodate longitudinal variations in shifter location with the listed transmissions)

#### **7. Chassis: (includes sections for Suspension Control and Mounting Points)**

Shall conform to GCR 9.1.3.D.5

#### **8. Brakes:**

Shall conform to GCR 9.1.3.D.6 \*Additionally any 1979-1991 RX-7 (non-turbo) brake hubs, calipers, rotors and mounts or aftermarket equivalent (i.e. a direct stock replacement per aftermarket catalog listing) may be

used provided they mount to the stock 1979-1985 spindles (adaptor plates allowed). Note: any upgraded (alternate) brakes noted above (other than stock 12A) incur a + 50 lb weight addition.

**9. Wheels/Tires:**

- a) Maximum rim diameter is fifteen (15) inches. Maximum rim width is seven (7) inches. Minimum weight of wheel shall be 13 lbs without spacers.
- b) All cars shall use the Toyo Proxis RA-1 or R888 tires

**10. Body Structure:**

Shall conform to GCR 9.1.3.D.8

**11. Driver/Passenger Compartment-Trunk:**

Shall conform to GCR 9.1.3.D.9

**12. Electrical---**Shall conform to GCR 9.1.3.D.10

**13. Safety:**

Shall conform to GCR 9.1.3.D.11

**14. Measurement Standards** Shall conform to GCR 9.1.3.E (and Appendix G, GCR) and as specified below:

IT-7R	Engine Type	Displacement	Comp Ratio	Wheel Base (inch)	Wheel Dia.	Gear Ratio	BrakesStd(mm)	Weight	Notes
Mazda RX-7 1979-1985 12A chassis w/13B Renesis	2 Rotor	2600cc	10.0	95.3	13/14/15	Stock 79-91 RX-7- Non- Turbo	(F) 227 Disc (R) 236 Disc alt. (F) 277 disc (R) 272 disc	2330 (std brakes)  2380 (alt Brakes)	

**Prepared by Lee F. Graser , SEDiv Planning Committee October 2012/modified January 2013, to agree numerically with changes in GCR 9.1.3.D (pre request of J. Bauer, National office)**

