

## Solo

## SOLO EVENTS BOARD | October 27th

The Solo Events Board met by conference call October 27th. Attending were SEB members Mark Labbancz, Nick Dunlap, Bob Davis, Zack Barnes, Keith Brown, Mark Scroggs, and Marshall Grice; Charlie Davis and Arnie Coleman of the BOD; Rick Myers of the National Staff. These minutes are presented in topical order rather than the order discussed. Comments regarding items published herein should be directed via the website <a href="https://www.soloeventsboard.com">www.soloeventsboard.com</a>.

## **Recommended Items**

The following subjects will be referred to the Board of Directors for approval. Address all comments, both for and against, to the Solo Events Board. Member input is suggested and encouraged. Please send your comments via the form at <a href="https://www.soloeventsboard.com">www.soloeventsboard.com</a>.

## General

#25260 Protest Rules 8.3.4 8.3.4 Conduct of Inspection

The inspection and/or disassembly shall be conducted under the supervision of the PC. They shall determine which portions of the inspection and/or disassembly, if any, may be observed, and by whom. The owner or driver of a protested car, or his/her representative, will be allowed to observe the inspection and/or disassembly but shall not interfere in any way. The PC shall have authority to impose penalties upon finding any additional illegal non-compliant item(s), including those not listed by the protestor during an the inspection and/or disassembly.

#### **Street Category**

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#30740 FS Changes
   Per the SAC make the following changes to Appendix A:
      Move from BS to FS:
         Chevrolet
           Camaro SS 1LE (V8) (2017-2021)
         Dodge
           Challenger R/T Scat Pack Widebody (2019-21)
         Ford
           Mustang GT w/ Performance Package - Level 2 (2018-20)
           Mustang Mach 1 (all) (2021)
           Mustang Shelby GT350 (2015-20)
#30742 AS to BS moves
   Per the SAC make the following changes to Appendix A:
      Move from AS to BS:
         Alfa Romeo
            Giulia Quadrifoglio (2017-21)
         Chevrolet
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EFFECTIVE FIRST DAY OF THE MONTH UNLESS OTHERWISE NOTED
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Corvette (C6 base and Z51) (2005-13)

Jaguar

F-Type (non-V8) (2014-21)

Mercedes-Benz

SLK55 AMG (2012-16)

**Porsche** 

911 (996, non-turbo) (1999-2004)

#31141 Passat vr6 wagon

Per the SAC make the following changes to Appendix A:

HS

Volkswagen

Passat (all, excl. 2.0L turbo & 3.6L VR6)

Passat (W8)

Passat (all)

#### Super Street R

#30743 Potential SSR additions

Per the SAC add the following listings to class SSR in Appendix A:

**BMW** 

M2 Competition (2019-21)

M3 CS & M4 CS (2018-20)

Chevrolet

Corvette Stingray (C8) (2020-21)

Ford

Mustang GT500 (2020+)

Porsche

Cayman & Boxster 718 GTS & GTS 4.0

Cayman GT4 (2020-2021)

Toyota

Supra 6cyl (2020-2021)

# **Street Touring Category**

#30573 Putting the Super in Street Touring

Based on membership feedback the STAC and SEB are recommending the addition of a new supplemental class (see 4.8.B), Super Street Touring (SST) with make and model listings in Appendix A as shown below.

Super Street Touring is intended for the highest performance cars in the Street Touring category. It will have the same allowances as STU but with unlimited wheel and tire sizes.

## **Super Street Touring**

Alfa Romeo

4C (incl. Spider) (2015-20)

Giulia Quadrifoglio (2017-21)

Audi

TT RS (2012-13, 2018-2021)

RS 3 (2017-19)

RS 4 (2007-08)

RS 5 (2013-21)

RS 6 (C5 chassis) (2003-04)

RS7 (2014-2018)

S5 (2008-19)

S6 (2013-18)

S7 (2012-18)

TTS (2016-20)

**BMW** 

M2 (except Performance Edition ZL9) (2016-19)

M2 Competition (2019-21)

M3 & M4 (F80/F82 chassis; non-CS) (2015-20)

Z4 M Coupe/Roadster (2006-2008)

Cadillac

ATS-V (2016-19)

Chevrolet

Camaro Z28 (2014-15)

Camaro ZL1 (non-1LE) (2012-15, 2017-20)

Camaro LS & LT (2.0L Turbo; including 1LE) (2016-21)

Corvette (C6, C6Zo6 non-ZR1) (2005-13)

Corvette Z06 (C5) (2001-04)

**Ford** 

Focus RS (2018)

Mustang Shelby GT350 (2015-18)

Mustang Shelby GT350 (incl. Handling Package) (2019-20)

Mustang Boss 302 (2012-13)

Honda

S2000

Lotus

Elise (non-SC) (2005-11)

Esprit Turbo (1996-2004)

Evora S (2011-14)

Evora GT (2020-21)

Exige (non-S) (2006)

Mercedes

C63 AMG (non-Black Series)(2008-2020)

Nissan



GT-R (excluding NISMO & Track Edition & GT-R50) (2009-21)

#### Porsche

718 Boxster (base & T) (2017-21)
718 Cayman (base & T) (2017-21)
Boxster GTS (981 chassis) (2015-16)
Boxster S (981 chassis) (2013-16)
Boxster S (987 chassis) (2009-12)
Cayman GTS (981 chassis) (2015-16)
Cayman S (981 chassis) (2013-16)
Cayman S (987 chassis) (2009-12)
911 (996, non-turbo) (1998-2005)
911 Carrera (incl. 4, S, 4S, GTS) (997 chassis)(2005-2012)

## Toyota

Supra, 6cyl (2020-21) Supra, 4cyl (2021) Supra Turbo (1993½-98)

In conjunction with these new class listings, the following addition to the Classes subsection of the Street Touring Category preamble in Section 14 is recommended:

Super Street Touring (SST) – Highest performance sports cars and coupes.

#### **Kart Category**

#31509 Non-license / Permit 15year old driver in KM

Per SEB recommendation and BOD approval, the JDP program has been discontinued; in conjunction, the following portions of section 4.1.A and 19.2.A are recommended to be removed from the Solo Rules as shown.

## 4.1.A:

## 4.1 DRIVER CREDENTIALS

A. Drivers must be SCCA® members. (A Weekend Membership meets this requirement.)

Drivers in all categories except Kart-must possess a currently valid automobile driver's license or permit. Driving license or permit restrictions must be followed. If those restrictions require a passenger and the event allows a passenger, that passenger must be either the driver's parent/legal guardian or an instructor who meets the restriction requirements. Instructors must have the written permission of the driver's parent/legal guardian witnessed by an adult SCCA® member or notarized (Sections 1.3.2 and 4.13) to ride as a passenger and the restrictions imposed by the underage driver's state of residence must allow the instructor to ride as a passenger.

Kart Modified (KM) drivers that do not have a driver's license or permit must meet the following prerequisites:

- 1. Minimum age is 15 years old.
- 2. Drivers must have approval of the event Chairman and the event Solo® Safety Steward.
- 3. Drivers must have participated in at least four (4) National Solo® Events in Formula Junior class A (JA). Formula Junior drivers, regardless of license status, must follow the minimum age restrictions per Section 19.2.

The provisions of Section 4.1.D provide event officials discretion with regard to the entry of any driver, including the ability to prevent a driver from completing their runs provided a full refund is given.

19.2.A:



19.2 KART MODIFIED (KM)

A. Minimum Age and Weights:

1. Minimum driver age: 15 years

## **Member Advisories**

#### **Tire Rack Solo Nationals**

#31755 Call for Nationals Course Designers

Course Designers who wish to be considered for the 2022 Tire Rack Solo Nationals are invited to submit their qualifications in writing to the SEB via <a href="https://www.soloeventsboard.com">www.soloeventsboard.com</a>.

#### **Street Category**

#31078 Exhaust replacement clarification

Thank you for your letter. Any pollution control devices located in the exhaust system may not be removed or replaced per 13.10.C. It is the opinion of the SEB that the referenced exhaust section (over axle pipes on 2020 and 2021 Porsche GT4/Spyder/GTS 4.0 cars) is considered a pollution control device.

### **Xtreme Street Category**

#29939 class of 2019 dodge Durango SRT

Thank you for your input. The Durango SRT does not meet the rollover requirements of Section 3.1 and therefore would not be Solo Rules compliant for autocross competition.

### **Street Modified Category**

#31754 SMAC Members Needed

The SMAC presently has openings, and interested members are invited to submit their qualifications in writing to the SMAC and SEB via <a href="https://www.soloeventsboard.com">www.soloeventsboard.com</a>

#### **Change Proposals**

## **Modified Category**

#30269 DM turbo engine inlet restriction

The MAC is looking for feedback on the following rule change proposal:

18.1.D.6:

Supercharging and turbocharging are permitted for all engines subject to the displacement factor of 18.B. In DM, such induction systems must have a restrictor on the inlet side of the turbo/supercharger. All inducted air must pass through this restrictor which must be constructed of metallic material. The minimum orifice (choke) of the restrictor shall be no greater than 33 mm (1.3"). The restrictor passage may be shaped fore and aft of the choke region. The restrictor choke region must be made of one piece without moving parts. Inlet restrictor must be mounted within 18" of turbo inlet. Tubing materials after restrictor with a maximum inside diameter of 3" must be rigid made from non-expanding parts, silicone couplers are allowed for connection of tubes.

#30883 Oil injection vs. oil pre-mix

The MAC is seeking member input on the addition of the following new subsection in Appendix A - Modified class F (FM):

A.12 "Pre-mix fuel is allowed along with disconnecting the oil pump actuating arm from the throttle assembly. Oil pump must remain installed and operating but injection lever may be fixed in position."

# **Other Items Reviewed**



### **Event Operations**

#30898, 30899, 30905, 30920, 30924, 31034, 31114, 31121, 31139, 31143, 31156 Simulators, Rule 4.9, Pre-Running (various)

Thank you for your input. The SEB continues to discuss the topic of simulator use and its effects on competition fairness, and to consider member input on this topic.

#### General

#24068 Approved means for preheating tires

Thank you for your input.

#28364 Solo Awards banquet

Thank you for your input. The National Office and SEB are accepting feedback through the Solo Nationals Survey on various elements of the 2021 SCCA Solo National Championships including the banquet and trophy presentations.

#29473 Solo Class Structure

Thank you for your input. As has been mentioned at some of the town hall meetings in the past 2 years, the SEB is continuing discussions with the Advisory Committees to determine a path forward for some amount of class consolidation. This will obviously be done over a longer period of time with opportunity for membership feedback along the way.

## **Street Category**

#31153 New GR86/BRZ to Street Class

Thank you for your input. In the opinion of the SAC and SEB it is too early to classify the 2022 BRZ and GT86. We will closely monitor the performance of the NEW BRZ and GT86 and class it appropriately at a later time, after more performance information is available.

#31164 Request to classify Chevy Spark EV in H Street

Thank you for your input. The Chevy Spark EV does not meet the Rollover Potential Guidelines outlined in Solo Rules section 3.1.A.

#31217 Yokohama in Street

Thank you for your input. The SAC, STAC and SEB will continue to monitor tire performance balance with current and future tire models.

## **Street Touring Category**

#31163 Regarding EVX and STU (31098)

Thank you for your input.

#31165 What about the SS 1LE in the proposed Super Street Touring?

Thank you for your input. The SS 1LE is already classed in STU.

#31170 Support letter to #30774

Thank you for your input.

#### **Kart Category**

#26802 Rules change/clarification request

Thank you for your input. After extensive consideration, the SEB and BOD have approved the discontinuation of the JDP program.

## **Not Recommended**

## Street Category



#31146 Revision for BMW M2 classing

Thank you for your input. The SAC believes the M2 is appropriately classed.

#31181 Get rid of DSC & DAs

Thank you for your input. The SAC is continuing to evaluate the future of the shock rules.

#31202 2021 Supra and 981 Porsches

Thank you for your input. The SAC believes the 981 Cayman is appropriately classed. Please see letter #31065 regarding the 2021 Supra classification.

## **Kart Category**

#30831 Put the Modified back in KM

Thank you for your input. While your proposal falls within the spirit of what is means to be 'Modified', at this time the KAC does not see body worn aero, nor 14" street car tire/wheel swaps as fitting with the competitive makeup of the class.

## **Handled Elsewhere**

## **Street Category**

#31138 GT4 GPF Documentation

Thank you for your input and documentation. The SAC believes the rules surrounding emissions control devices are adequate as written. Please see the response to #31078.

### **Street Touring Category**

#30774 996 and 997 Porsche to SST

Please see the updated version of item #30573 elsewhere in this Fastrack.

#31081 Please class the 2022 GR86 & BRZ to STX

Thank you for your input. See response to item #31062 in the November Fastrack.

#31154 New GR86/BRZ to ST

Thank you for your input. Please see the response to Item #31062 in the November Fastrack.

#31159 2022 BRZ/86

Thank you for your input. Please see the response to Item #31062 in the November Fastrack.

#31207 Classing of new BRZ/86 in ST

Thank you for your input. Please see the response to Item #31062 in the November Fastrack.

#31210 Car Models Already Classed Elsewhere Listed in SST Proposal

Thank you for your input. Please see the response to letter #30573 elsewhere in this Fastrack.

### **Kart Category**

#28964 Minor KM driver experience requirement adjustment

Please see the response to item #26802 elsewhere in this Fastrack.

### **Tech Bulletins**

## **Street Category**

#31065 Request 2021 Toyota GR Supra Classing Review.

In accordance with section 3.2 in the Solo Rules, the SAC recommends the following change to Appendix A:



AS

Toyota

Supra (2021)

BS

Toyota

Supra (2020-2021)

#31136 Classification of 2020 Mercedes AMG GLC63s

Per the SAC please add the following to Appendix A:

SS

Mercedes Benz

GLC63 (inc S)

#31172 NSX Type-S

Per the SAC, add the following to the Appendix A:

**Exclusion List:** 

Acura

NSX Type S (2022)

#### **Kart Category**

#31507 Removal of Formula Junior left over rules Part 1

This and item #31508 document the removal of Solo Rules content pertaining to the JDP program, which has been discontinued per SEB recommendation and BOD approval.

Change the following sections as shown:

Table of Contents:

2.8 Junior Driver Program......33

1.1:

1. SOLO® EVENTS 1.1 MANDATORY PROVISIONS Sections 1.0 (except 1.5), 2.0 (except 2.3, 2.7, and 2.8), 3.1, 3.3 (except 3.3.3.A), 3.6, 4.1, 4.2, 4.3, 4.10, 4.12, 4.13, 5.3, 5.4, 5.5, 5.6, 5.7, and 5.11 are mandatory in all SCCA® Solo® Events that an SCCA® Region solely or jointly organizes, conducts, sanctions, or otherwise cooperates as a Region in organizing. The titles of mandatory sections are underlined herein. At events where kart classes (KM, JA, JB, JC) are offered, Sections 2.7 and 2.8 are mandatory. Vehicle classifications (e.g., Section 3.2) are not mandatory. Regions should use classing structures which are best for the development of their programs. However, Regions may not allow faster karts per age group than those already described in Section 19. National vehicle classifications are located in Appendix A of these rules. Suggested optional classes and rules are located in Appendixes A, B, G, and H. The entire SCCA® Solo® Rules are mandatory for SCCA® National Solo® Events. Additional rules governing the SCCA® ProSolo® National Series are in Section 20.

1.3.2.0

O. Children under twelve (12) years of age and pets shall be prohibited in the staging, grid, start, finish, and course areas. Drivers from five (5) to twelve (12) years of age who are participating in an approved Junior Driver program under the requirements of Section 19.2 are exempt from this prohibition during their run group. Children who are riding as passengers and meet the requirements of 1.3.2.D are also exempt during the run group in which they are riding. Otherwise, they also are prohibited from these areas. Furthermore, staging, grid, start, finish, and course workers should be at least sixteen (16) years



of age. Drivers from eight (8) to sixteen (16) years of age should be assigned to other worker duties as outlined in Appendix H.II.B.4

2.2.0

O. Any Solo® event where Formula Junior (FJ) uses the same course layout as all other classes: For any heat in which FJ is in competition, no car in the vicinity of the FJ grid or the course may be in motion under its own power when any FJ kart is moving under its own power. From the start of FJ competition, when the first driver in the class leaves the grid for the start line until the last driver has returned his kart to the FJ grid, this rule shall apply

2.8

2.8 JUNIOR DRIVER PROGRAM The Formula Junior (FJ) program is provided that allows regions to permit minors up to 18 years of age to compete in Solo® events in non-shifter-based racing karts. The purpose of this program is to serve as a tool for membership recruitment and retention by providing competition opportunities for the entire family. The rules for organizing and conducting a Junior Driver program are in Section 19, Appendix G, and Appendix H. As this program continues to develop, rule updates or clarifications may appear periodically in Fastrack News on the official SCCA® website (www.scca.com).

3.8.D

D. Kart Modified (KM) and Formula Junior (JA, JB, and JC): World Formula engine: Briggs & Stratton Performance Guide and Racing Log which includes specifications and part numbers. Other approved karts: Technical manual including the specifications to which the kart was prepared.

6.10

All competitors (vehicle with driver or driver's representative) will be impounded with their class after competing until released by the Chief of Impound or an official designee. While in Impound, vehicles in all categories except Modified and Kart Modified, and Formula Junior must have hoods and trunks fully opened. During this time competitors may visually inspect each other's vehicles.

#31508 Removal of Formula Junior left over rules Part 2

This and item #31507 document the removal of Solo Rules content pertaining to the JDP program, which has been discontinued per SEB recommendation and BOD approval.

Change the following sections as shown:

4.3.1

4.3.1 Helmets Helmets meeting the following standards must be worn while on course: Snell Memorial Foundation standards EA 2016, SA2020, SA2015, SA2010, SAH2010, SA2005\*, M2020D, M2020R, M2015, M2010, M2005\*, K2020, K2015, K2010, K2005\*; SFI standards 31.1/2015, 31.1/2010, 31.1/2005\*, 41.1/2015, 41.1/2010, 41.1/2005\*; ECE 22.05 or R22.05; FIA standards 8860-2018, 8860-2018-ABP, 8859-2015, 8860-2010, 8860-2004; or British spec BS6658-85 type A\* are acceptable. Full face or modular helmets shall be worn while competing in an open- 2021 SCCA® National Solo® Rules — 45 4. Drivers wheel car, formula car, or kart. Face shield, goggles, or similar face protection (conventional eyeglasses are not sufficient) shall be worn while competing in any other vehicle with less than the standard-size windshield. Formula Junior drivers must use helmets meeting the above; SFI 24.1/2020, 24.1/2015, 24.1/2010, 24.1/2005\* (Youth Helmets); or Snell CMR2016, CMR2007 (Children's Motorsports Restricted), CMS2016, CMS2007 (Children's Motorsports Standard) specifications. Also, Formula Junior helmets must be of closed face design incorporating full face shields and chin bars.

19.1.B.1.b

b. FJ: Must comply with 4.3.1. and be a helmet of closed face design, with full-face shield and chinbar.

Solo Trials Rules - Appendix D, X.4:



4. 125 cc shifter karts are permitted with the appropriate driver safety gear as specified in the Solo® Rules. However, depending upon surface irregularities of the site, the Divisional Solo® Safety Steward (DSSS) may prohibit these karts. Formula Junior karts are not permitted.

Solo Safety Steward Guidebook - Appendix E

#### I.A. Purpose

The Solo® Safety Steward (SSS) program is an ongoing training and licensing program aimed at increasing the safety of SCCA® Solo® events by highlighting the potential hazards of uncontrolled spectator viewing areas, uncontrolled spectator movement adjacent to Solo® courses, and driver/worker safety relative to course design or layout. The SSS program is being expnaded to include a closer working relationship with the Junior Driver Program (Appendix H). It is the intention of the SCCA® that all material contained herein be reviewed with all students during a Solo® Safety Steward Seminar.

#### I.C. Junior Driver Program

The key components of the upgraded Junior Driver Program (JDP) are focused in four areas; course standards, driver instruction, kart rules/inspection, and event operations. While there will be some changes in the Solo® Rules to support these upgrades, the primary tool in accomplishing the upgrades will be training programs and materials that will aim to educate Region officials on Junior Driver best practices and procedures. The completion of this training will result in the issuance of licenses to Solo® event officials that will certify Regions to be sanctioned to operate a JDP at their Solo® events. All SCCA® Solo® events after February 1, 2018 that include a Junior Driver Program must have licensed JDP officials for the event to be sanctioned.

The following licenses will be issued after training and are required for sanctioning Solo® events with a Junior Driver Program after February 1, 2018:

- Solo Safety Steward/JDP: Current Solo Safety Stewards (SSS) can have their license upgraded to include JDP after receiving the training. The JDP training will be incorporated into ongoing SSS training for new and renewing stewards, so after a few years we will revert to just one SSS license instead of two licenses (SSS and SSS/JDP).
- JDP/Course Design License: If a member is only interested in designing courses and not becoming a SSS, they can take this specific part of the training for this license. If the Region does not have at least one SSS/JDP license holder, they must have a JDP Course Design license holder. If they do have a SSS/JDP license holder, a JDP Course Design license holder is not required, although recommended.
- Youth Steward License: The current Youth Steward licenses will lapse as of February 1, 2018 and will be replaced with a license that will be issued after receiving the upgraded training on driver instructions and event operations.
- JDP/Tech License: This license will be issued after receiving training on the proper procedures to do a technical inspection of the unique components found on a kart.

# Clarifications - Appendix F

## KART CATEGORY CLARIFICATIONS

## Briggs and Stratton® Engine

The Briggs & Stratton® World Formula® engine as homologated by CIK® is eligible for competition in JA and JB.

#### **EasyKart**

The EasyKart is considered compliant for KM provided its construction meets the requirements of Section 19, particularly 19.2.D.3.

World Formula Chain / Sprocket / Gear



It is permissible to use an alternate chain/sprocket/gear (type 35) on the World Formula® engine as used in the FJ classes

Karts at Solo Events - Appendix G

II.G Annual Safety Inspection (Section 3.3.3.A) is not permitted for Junior Driver karts; they must be inspected at each event.

Junior Drivers - Appendix H

## APPENDIX H - JUNIOR DRIVER PROGRAM (JDP)

- I. Objective The Junior Driver Program (JDP) is unlike any other in SCCA Solo. It was started with the philosophy that having children compete at Solo events would allow families to participate in and enjoy the autocross experience together.
- II. Rules and Procedural Updates
  - A. The full operational and vehicle allowance rules can be found on www. scca.com.
  - B. As this program remains in the developmental phase, rule updates or clarifications may appear periodically in the Fastrack® section of the official SCCA® publication or www.scca.com.



## Solo

## **SOLO EVENTS BOARD | November 19-21**

The Solo Events Board met in person November 19-21. Attending were SEB members Mark Labbancz, Nick Dunlap, Bob Davis, Zack Barnes, Keith Brown, Mark Scroggs, and Marshall Grice; Charlie Davis and Arnie Coleman of the BOD; Rick Myers and Brian Mason of the National Staff. These minutes are presented in topical order rather than the order discussed. Comments regarding items published herein should be directed via the website www.soloeventsboard.com.

## **Recommended Items**

The following comprises the full list of items which are being recommended to the Board of Directors, with an effective date of 1/1/2022.

#### General

ITEM 1) #25260 Protest Rules 8.3.4

8.3.4 Conduct of Inspection

The inspection and/or disassembly shall be conducted under the supervision of the PC. They shall determine which portions of the inspection and/or disassembly, if any, may be observed, and by whom. The owner or driver of a protested car, or his/her representative, will be allowed to observe the inspection and/or disassembly but shall not interfere in any way. The PC shall have authority to impose penalties upon finding any additional illegal non-compliant item(s), including those not listed by the protestor during an the inspection and/or disassembly.

## **Street Category**

Ford

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ITEM 2) #29055 Audi A3 2.0t Fwd reclass
   Change Appendix A listings as follows:
      D Street class (DS)
          Audi
            A3 (2.0T, all) (2015-20)
            A3 quattro (3.2L V6, AWD) (2006-09)
            A3 (AWD) (2006-20)
      G Street class (GS)
          Audi
            A3 (1.8T; FWD) (2015-16)
            A3 (FWD) (2015-20)
ITEM 3) #29117 Clarification on Vehicle classification
   Change Appendix A listings as follows:
       GS
         Ford
          Fusion (6-cyl)
      HS
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Fusion (2006-2012)

ITEM 4) #30740 FS Changes

Change Appendix A listings as follows:

Move from BS to FS:

Chevrolet

Camaro SS 1LE (V8) (2017-2021)

Dodge

Challenger R/T Scat Pack Widebody (2019-21)

**Ford** 

Mustang GT w/ Performance Package - Level 2 (2018-20)

Mustang Mach 1 (all) (2021)

Mustang Shelby GT350 (2015-20)

ITEM 5) #30742 AS to BS moves

Change Appendix A listings as follows:

Move from AS to BS:

Alfa Romeo

Giulia Quadrifoglio (2017-21)

Chevrolet

Corvette (C6 base and Z51) (2005-13)

Jaguar

F-Type (non-V8) (2014-21)

Mercedes-Benz

SLK55 AMG (2012-16)

**Porsche** 

911 (996, non-turbo) (1999-2004)

ITEM 6) #31141 Passat vr6 wagon

Change Appendix A listings as follows:

HS

Volkswagen

Passat (all, excl. 2.0L turbo & 3.6L VR6)

Passat (W8)

Passat (all)

## Super Street R

ITEM 7) #30743 Potential SSR additions

Change Appendix A listings as follows:

Add to class SSR:

**BMW** 



M2 Competition (2019-21)

M3 CS & M4 CS (2018-20)

Chevrolet

Corvette Stingray (C8) (2020)

**Ford** 

Mustang GT500 (2020+)

Porsche

Cayman & Boxster 718 GTS & GTS 4.0

Cayman GT4 (2020-2021)

911 GT3 (991 chassis)

Toyota

Supra 6cyl (2020-2021)

## **Street Touring Category**

ITEM 8) #25039 Cosmetic rule inquiry

Modify 14.2.F as follows:

- 14.2.F. Addition *or substitution* of spoilers, splitters, rear wings, bumper covers, valances, side-skirts, and non-functional scoops/vents is allowed provided that either:
- 1. It is a standard or optional production part which could be ordered on the US model vehicle as part of the base package or part of a higher trim package. The trim package must be classed in any of the current Street Touring classes.
- 1. It is a production part which is standard or optional equipment of a US model of the vehicle. ("Model" is defined in Section 12.)
- 2. It is listed in the vehicle manufacturer's US accessory catalog for that vehicle for normal highway use. This does not allow for parts sold through a manufacturer's performance catalog (e.g., Ford Racing, HPD, Mazdaspeed, Mopar Performance, Mugen, NISMO, SPT, TRD, etc).

ITEM 9) #28150 Final Catalytic Converter allowance on Fed. vs. Cali. Cars

Modify 14.10.E as follows:

Any catalytic converters are allowed with the following constraints. Multiple catalytic converters may be replaced by a single unit. The inlet(s) of the replacement converter(s) must be located between the cylinder head and a point 6" (152.4 mm) further along the exhaust flow path from the original exit of the final OE converter.

For vehicles that were delivered with multiple exhaust configurations (i.e. California vs 49-state legal cars) any of the OE exhaust configurations may be used for the purpose of determining the location of the aftermarket catalytic converter.

The extents of an OE converter are defined by the expansion chamber in which the catalyst is contained, regardless of placement within larger exhaust sections. Replacement converters must have a minimum catalyst density of 100 cells per inch and minimum substrate length of 3" (76.2 mm).

ITEM 10) #28997 Third Brake Light / Rear Wing Removal Rule in Street Touring

Modify Rule 14.2.C as follows:



Factory rub strips, emblems, mud flaps, bolt-on front valance lips/spoilers, and fog lights (except those integral to a headlight or turn signal) may be removed. Rear wings may be removed so long as the vehicle retains a any federally-mandated third brake light.

ITEM 11) #29712 STU and STH Catch-All overlap

Change Appendix A listings as follows:

Street Touring Sport (STS)

"Catch-All" Sedans & Coupes NOC (non-sports-car-based; 4-seat minimum; up-to less than 3.1L (3100cc) normally-aspirated

Street Touring Hatchback (STH)

"Catch-All" Sedans & Coupes NOC (non-sports-car-based; 4-seat minimum; up-to-less than 2.5L (2500cc) forced-induction)

ITEM 12) #30319 14.8.B: Bushing allowances

Change section 14.8 as follows:

14.8.B

Suspension bushings may be replaced with bushings of any materials (except metal) as long as they fit in the original location. Offset bushings may be used. In a replacement bushing, the amount of metal relative to the amount of non-metallic material may not be increased. This does not authorize a change in type of bushing (e.g., ball and socket replacing a cylindrical bushing) or use of a bushing with an angled hole whose direction differs from that of the original bushing. If the standard bushing accommodated multi-axis motion via compliance of the component material(s), the replacement bushing may not be changed to accommodate such motion via a change in bushing type, for example to a spherical bearing or similar component involving internal moving parts. Pins or keys may be used to prevent the rotation of alternate bushings but may serve no other purpose than that of retaining the bushing in the desired position.

14.8.D

Differential mount bushings may be replaced but must attach in the standard location(s) without additional modification or changes. Differential position may not be changed. The amount of metal in a replacement bushing may not be increased relative to the amount of metal found in a standard bushing for the particular application. Solid metal bushings are specifically prohibited.

14.8.K

Subframe mount bushings may be replaced, but must attach in the standard location(s) without additional modification or changes. Subframe position may not be changed. The amount of metal in a replacement bushing may not be increased relative to the amount of metal found in a standard bushing for the particular application. Solid metal bushings are specifically prohibited.

ITEM 13) #30573 Putting the Super in Street Touring

Add supplemental class SST in Appendix A as follows:

### Super Street Touring

Alfa Romeo
4C (incl. Spider) (2015-20)
Giulia Quadrifoglio (2017-21)
Audi
TT RS (2012-13, 2018-2021)
RS 3 (2017-19)
RS 4 (2007-08)

RS 5 (2013-21)

RS 6 (C5 chassis) (2003-04)

RS7 (2014-2018)

S5 (2008-19)

S6 (2013-18)

S7 (2012-18)

TTS (2016-20)

#### **BMW**

M2 (except Performance Edition ZL9) (2016-19)

M2 Competition (2019-21)

M3 & M4 (F80/F82 chassis; non-CS) (2015-20)

Z4 M Coupe/Roadster (2006-2008)

#### Cadillac

ATS-V (2016-19)

#### Chevrolet

Camaro Z28 (2014-15)

Camaro ZL1 (non-1LE) (2012-15, 2017-20)

Camaro LS & LT (2.0L Turbo; including 1LE) (2016-21)

Corvette (C6, C6Zo6 non-ZR1) (2005-13)

Corvette Z06 (C5) (2001-04)

#### **Ford**

Focus RS (2018)

Mustang Shelby GT350 (2015-18)

Mustang Shelby GT350 (incl. Handling Package) (2019-20)

Mustang Boss 302 (2012-13)

## Honda

S2000

## Lotus

Elise (non-SC) (2005-11)

Esprit Turbo (1996-2004)

Evora S (2011-14)

Evora GT (2020-21)

Exige (non-S) (2006)

#### Mercedes

C63 AMG (non-Black Series)(2008-2020)

## Nissan

GT-R (excluding NISMO & Track Edition & GT-R50) (2009-21)

## **Porsche**

718 Boxster (base & T) (2017-21)

718 Cayman (base & T) (2017-21)

Boxster GTS (981 chassis) (2015-16)

EFFECTIVE FIRST DAY OF THE MONTH UNLESS OTHERWISE NOTED

Boxster S (981 chassis) (2013-16)

Boxster S (987 chassis) (2009-12)

Cayman GTS (981 chassis) (2015-16)

Cayman S (981 chassis) (2013-16)

Cayman S (987 chassis) (2009-12)

911 (996, non-turbo) (1998-2005)

911 Carrera (incl. 4, S, 4S, GTS) (997 chassis)(2005-2012)

Toyota

Supra, 6cyl (2020-21)

Supra, 4cyl (2021)

Supra Turbo (1993½-98)

In conjunction with these new class listings, add the following addition to the Classes subsection of the Street Touring Category preamble in Section 14:

Super Street Touring (SST) – Highest performance sports cars and coupes.

## **Street Prepared Category**

ITEM 14) #26949 Wastegate Modification

Change 15.10.C.4.b as follows:

b. No changes are allowed to wastegate(s)-size, number, or location. Wastegate openings may be modified by removing material to increase flow through the wastegate. No material may be added and no other modifications to the wastegate are authorized. This does not allow removal of any material to increase airflow into, through or out of the turbocharger's turbine or compressor housings. No changes are allowed to variable-geometry turbine (VGT) hardware.

ITEM 15) #29368 Shelby GT350R to ESP

Add to Appendix A as follows:

**ESP** 

Ford

Mustang Shelby GT350/GT350R (S550) (2015-2020) \*Limited Prep\*

ITEM 16) #29666 NC Miata SP Classing Change

Change Appendix A listings as follows:

CSP

Mazda

MX-5 (2006-15)

**BSP** 

Mazda

MX-5 (2006-15)

DSP

Mazda

MX-5 (2006-15) \*Limited Prep\*

## **Prepared Category**

ITEM 17) #28910 Appendix C for Prepared Cars with no Windshields



Modify 17.12.A.1 as follows:

**17.12 SAFETY** 

A. Roll Bars/Roll Cages (Aluminum is not an allowed material)

 All open Prepared Category vehicles shall have at a minimum a roll bar complying with Appendix C. Additionally, two (2) roll hoop braces meeting the minimum tubing size requirements of Appendix C.B.2 table shall be required.

ITEM 18) #30487 91-94 Mercury Capri Non Turbo Classing Clarification and Proposal

Change Appendix A listings as follows:

In Class DP:

Ford & Mercury

Mustang & Capri (4-cyl non-turbo) (1979-93 86)

In Class EP:

Ford & Mercury

Capri (FWD, 4-cyl non-turbo) (1991-94)

## **Modified Category**

ITEM 19) #28954 Proposal for changes to DM and EM

Change section 18 and Appendix A as shown below:

Section 18, 18.0, 18.1 changes:

#### 18. MODIFIED CATEGORY

## **Category Objectives**

- Provide a competitive outlet for the highest level of allowed modifications.
- Accommodate competitors with purpose built competition vehicles, with allowances for a wide variety of designs and origins.

## **Category Values**

- Maximum speed and handling for given car parameters.
- Rules stability to protect member investment and encourage commitment.
- Highest levels of drivetrain and suspension development (varies among the individual classes).
- Custom design and fabrication.
- Maximum tire adhesion with minimum constraint (varies among the individual classes).

## **Core Modifications**

- Chassis and suspension customization.
- Unconstrained automotive-based powertrain (varies among the individual classes).
- Minimum weights generally based on displacement.

#### Classes

- A Modified (AM) Least restricted class with significant aero allowances and unlimited drivetrain.
- B Modified (BM) GCR-based formula cars and sports racers with a high power/weight and aero allowances.



 C Modified (CM) – GCR-based formula cars and sports racers with medium power/weight and restricted aero allowances.

- D Modified (DM) Highly modified very lightweight production-based or approved kit cars with a maximum equivalent displacement of 2 liters and lower weights than EM.
- E Modified (EM) Highly modified lightweight production-based or approved kit cars with no limit on displacement and higher weights than DM.
- F Modified (FM) Small, very agile, GCR-based formula cars.

Sports cars and sedans altered in excess of Prepared Category, sports racing and two-seat specials, Formula cars, single-seat specials, dune buggies, and kit cars may compete in Modified Classes A through F (AM through FM).

Rules for Anti-lock Braking Systems (ABS), Traction Control Systems (TCS) and Stability Control Systems (SCS) in CM and FM are as dictated for those cars by the Club Racing General Competition Rules (GCR). ABS is explicitly prohibited in all other Modified classes with the exception of AM, *DM, and EM,* where ABS specifically is allowed. RPM ramp rate limits, tuning of engine output using rpm based boost limits and similar systems that do not use wheel speed sensors, GPS, accelerometers, or other measures of car motion are excepted from limits on TCS and are allowed in classes AM, BM, DM and EM. The use of full TCS and SCS is permitted in DM and EM, with weight additions as shown in Appendix A, but is pro prohibited in AM and BM. Additionally, in DM and EM, a Stock Tub car (18.1.C.1) may use any ABS, TCS, and/or SCS with no weight adjustment as long as it was a standard option on the car and the original unmodified control unit and programming are used. Engine RPM limiting devices (rev limiters) and cooling fans are allowed in all Modified classes. Data acquisition systems are allowed in all Modified classes unless specifically prohibited by the applicable section(s).

Modified Category cars are divided into classes based on potential Solo® performance. They need not be licensed for or capable of street use. The Solo® Rules shall take preference over the Club Racing GCR concerning safety requirements for vehicles in this Category. Aerodynamic devices must be securely mounted on the entirely sprung part of the car and must not be movable when the car is in motion. The use of any moving device (e.g. a fan, propeller, turbine) or hinged wing to create downforce is prohibited. Movable side skirts are not permitted except where noted herein or in Appendix A, Modified Category.

## 18.0.A. Sound Control Modifications

If a formula car or sports racer is restricted by a GCR-stated exhaust length or vehicle length and therefore prohibited from installing the necessary exhaust devices to quiet the car to meet local dB limits, the following shall apply:

The vehicle exhaust system length may be extended to allow for the installation of noise suppression devices. This allowance is provided solely to reduce the exhaust noise emanating from these cars by allowing the installation of (a) noise limiting device(s) and in so doing keep the total exhaust length to a minimum for safety reasons. The installation and the noise limiting device(s) shall serve no other purpose than that stated and this allowance only applies to an extension of the exhaust system, not the vehicle bodywork or frame.

## 18.0.B. Engine Classifications

- Four-stroke cycle and two-stroke cycle, naturally aspirated, internal combustion engines will be classified on the basis of actual piston displacement.
- 2. Rotary Engines (Wankel) These units will be classified on the basis of a piston displacement equivalent to 1.6 times (1.6 x) the volume determined by the difference between the maximum and minimum capacity of the working chamber, times the number of rotors.
- Turbocharged or supercharged versions of the above engines will be classified on a basis of 1.4 times (1.4 x) the computed displacement.

#### 18.0.C. Aerodynamics

The area of a wing shall be computed by multiplying the width and depth of the wing assembly (top view) without regard to the curvature and/ or inclination of the wing or number of elements. Any airfoil



shadowed by another airfoil with more than six inches between them will have its own projected area added to the wing area calculation. Any diffuser-type aerodynamic device under the car which is used in downforce generation is not included in the wing area calculation. This specification supersedes Section 12, Wing Area Computation, for these classes.

#### 18.0.D. Tires

Any tire (including recaps) meeting the applicable portions of Section 3.3 is allowed.

#### 18.0.E. Safety Requirements

The following shall be required in all Modified Category vehicles:

 Scattershields/Chain Guard: The installation of scattershields or explosion-proof bell housings shall be required on all cars where the failure of the clutch, flywheel, or torque converter could create a hazard to the driver or passengers. Chain drive cars shall be fitted with a protective case/shield to retain the chain in case of failure.

The following material requirements apply to scattershields/explosion-proof bell housings:

- 1/8 in. (0.125"; 3.18 mm) SAE 4130 alloy steel
- 1/4 in. (0.250"; 6.35 mm) mild steel plate
- 1/4 in. (0.250"; 6.35 mm) aluminum alloy
- · SFI or NHRA approved flexible shields
- 2. Master Switch: All cars shall be equipped with a master switch easily accessible from outside the car. Club Racing Spec Racer Ford vehicles shall be wired per RFSRII. The master switch shall be installed directly in either battery cable and shall cut all electrical circuits but not an on-board fire system if so equipped. It shall be clearly marked by the international marking of a spark in a blue triangle and mount-ed in a standard location. OFF position shall be clearly indicated at the master switch location. The standard locations shall be as follows:
  - a. Formula and Sports Racing Cars: In proximity to the right-hand member of the roll bar but in a location so that it cannot be operated accidentally. It can be mounted on a bracket welded to the inside of the upright member or mounted so that the operating lever or knob is outside of the body panel immediately inboard of the upright member.
  - b. Closed Sports Racing Cars, Production Cars, and GT Cars: In front of the windshield on either the cowl or on top of the fender, but close enough to the windshield to be accessible if the car is overturned. Alternatively, it may be mounted below the center of the rear window or on a bracket welded, clamped or bolted to the roll cage or dash, easily accessible through the open window. (Drilling of holes in roll cage to attach the bracket is prohibited.)
  - c. Open Production and GT Cars: May exercise a choice among the above locations.
- 3. Driveshaft Hoop: RWD DM and EM vehicles shall have a drive-shaft hoop capable of preventing the shaft from entering the driver's compartment or damaging any fluid or electrical lines in the event of joint or shaft breakage. All cars in competition using open driveshafts must have a retainer loop with 360° of enclosure, ¼ in. (0.250"; 6.35 mm) minimum thickness and 2.0 in. (50.8 mm) wide, or ⅓ in. (0.875") x 0.065" (22.23 mm x 1.65 mm) welded steel tubing, securely mounted and located so as to support and contain the driveshaft in event of U-joint failure. Vehicles that have a closed "tunnel" or other such structure which the driveshaft passes through such as the vehicle's frame, may be considered for an exemption from the SEB if that structure meets the criteria stated above.

Note: DM and EM vehicles are exempt from the scattershield, drive-shaft hoop, and Master Switch requirements if they are using DOT-approved tires.

4. The roll bar structure must meet the requirements of either Appendix C or the Club Racing GCR required by class rules. Roll cages are strongly recommended.



Specials are required to have the roll bar extend at least 2.0" (50.8 mm) above the driver's helmet in the normal seated position and a head restraint keeping the driver's head from going under or behind the roll bar. It is strongly recommended that all cars adhere to this specification.

- 5. Firewalls and floors shall prevent the passage of flame and debris to the driver's compartment. For cars having fluid lines in a non-standard routing over the belly pan, the belly pan shall have drain holes to prevent the accumulation of fluids.
- No fuel shall be added after the exhaust valve on a piston engine, or after the beginning of the exhaust port of a rotary engine.
- FSAE cars using electronic throttle control must be able to demonstrate throttle closure to zero when power is cut via kill switch.
- 8. Ballast may be added to obtain minimum weight requirements. However, it must be attached and secured in a safe manner.
- Club Racing GCR specific items and/or equipment not required in Modified Category are as follows:
  - a. Fuel cells
  - b. Windscreens, side mirrors and tail/stop lights.
  - c. Headlight covers, lenses, and bulbs.
  - d. Log books.
  - e. Fire retardant driver's suits.
  - f. Homologation.
  - g. Fuel test ports.
  - h. Production-based dune buggies need not meet door requirements.
  - i. Running lights.
  - j. Deformable structures as defined by the GCR Formula Atlantic rules.
  - k. On-board fire systems.
  - Reverse gear in BM and FM vehicles.
  - m. A front impact attenuation device (GCR Section 9.4.5.G) is not required in Solo® Modified Category vehicles.
  - n. Driver restraint system aging requirements (GCR Section 9.3.19) do not apply.

The 180° vision rule is recommended.

Note: If any conflict exists between the Club Racing GCR and the Solo® Rules, the Solo® Rules shall take precedence.

See Sections 3.8 and 8.3.1 for documentation requirements.

Refer to Appendix A for additional class-specific vehicle preparation rules.

Refer to Appendix F for past clarifications of these rules.

The following types of cars are assigned to the Modified Category:

## 18.1 MODIFIED PRODUCTION-BASED CARS

### A. Eligibility

Modified classes D (DM) and E (EM) contain production-based cars which are permitted additional modifications beyond those allowed in Prepared classes XP through FP. Models must meet the



requirements of Section 13 (first paragraph), be specifically listed in Appendix A, meet the specifications below, or be otherwise recognized by the SEB.

#### 1. Kit Cars

Kit cars, which were originally designed, constructed, and licensable for street use, may participate in DM and EM if they are approved by the SEB. Members desiring approval of a particular kit car should provide the SEB with detailed information regarding the kit model and contact info, if available, for the OE manufacturer. For obsolete kit cars, the member will be expected to provide construction specifications, dimensions, and photographs for the SEB to examine and keep on file. The SCCA® will evaluate each submitted kit model individually and the evaluation will ensure that the specific model:

- a. Follows current DM and EM allowances regarding minimum floor pan dimensions (see Section 18.1.C.1).
- b. Has no unusually advantageous aerodynamic features.
- c. Has no exceptionally low center of gravity.
- d. Has no exceptionally high strength-to-weight ratio.
- e. Has no other unique features that would upset the competitive balance in DM and EM.
- f. Has independently-verifiable evidence of at least 10 examples which meet the approved specification produced. Extremely limited production sports racer-type efforts are discouraged.

Constructed examples of approved kits are subject to the following:

- g. They will automatically take the Modified Tub weight penalty (see Appendix A).
- h. They will have the same weight-displacement scales and weight bias penalties as productionbased cars.
- i. They will be allowed all, but no more than, the modifications that production-based cars are permitted, with the exception that minimum width for all kit cars shall be no less than 65" (165.1 cm) as measured at the narrower end of the car at the tire outer sidewalls with a minimum 14 psi of tire pressure.
- j. They are subject to the same engine and transmission restrictions as production-based cars.
- k. They must meet the same safety requirements as production-based cars.
- They must compete with full standard bodywork and that body must remain recognizable as that
  of the approved make and model. For these purposes, the chassis of exoskeleton type cars is
  considered part of the bodywork.
- m. Functional wings are not permitted even if they are part of the original kit manufacturer's specification and/or components. If present, they must meet section 18.1.F.6.

A newly-added model is not eligible for the current year's Solo® National Championships unless its listing was published no later than the July issue of the official SCCA® publication.

The list of currently approved models is as follows:

- Exomotive Exocet
- Factory Five Racing 818 (S & R)
- Sylvia Sports Cars J15

#### 2. Clones

Clones/replicas of SCCA®-recognized production cars are permitted to compete in DM and EM provided they comply with the following requirements:

a. They are substantially similar to and recognizable as the original manufactured vehicle on which they are based.



Their specifications do not violate any rule stated herein.

c. A clone shall not benefit from kit car manufacturer "running changes" unless those changes have also been submitted and approved.

#### 3. Other Models

The Panoz Roadster and Porsche 550 Spyder are eligible for competition in DM and EM. as a modified production-based car using the Modified Tub minimum weights.

#### 4. Specifications

Weight and displacement specifications are as shown in Appendix A.

## B. Bodywork

- 1. Respecting Section 18.1.F: Aerodynamic Aids, bodywork may be modified beyond the allowances of Section 17.2; however, the shape of the body must remain recognizable as that of the approved make and model. The body must be made of a fire resistant material. Doors, hoods, trunk lids, sunroofs, hatchbacks, etc. need not function as originally designed. Bumpers, grilles, lights, glass, and trim may be removed. Side mirrors and tail/stop lights are not required.
- Firewalls and floors shall prevent the passage of flame and debris to the driver compartment. For cars having fluid lines in a non-standard routing over the belly pan, the belly pan shall have drain holes to prevent the accumulation of fluids.
- 3. The driver must be provided with clear and unobstructed access to the driver's compartment.
- 4. Interiors may be gutted. The driver's seat must be securely mounted. Steering and driver seating must be completely to the left or right of the vehicle longitudinal centerline. The seat must be mounted such that no part of the driver's body below the waist may cross the longitudinal centerline of the car.
- 5. Body panels may be altered and air ducting installed to accommodate the installation of the water radiator. If the radiator encroaches into the driver compartment, it must be separated from the driver by a metal bulkhead or enclosing container.
- Hoods may be altered to allow for induction system changes without restriction. Such alterations shall serve no other purpose.
- 7. Standard bumpers may be retained, removed, or replaced with alternate materials. The bumper, if retained, will contribute its contour to the top view outline of the car for measurement purposes.

  Bumpers made of alternate materials shall retain the shape and size of the original.
- 8. Doors may be replaced with ones of alternate materials. No other part of the original outside bodywork between the original passenger compartment fore and aft bulkheads, such as rocker panels, floor pan, or frame, shall have reduced thickness or be replaced with light-or material.

### C. Body and Frame

## 1. Stock Tub

- a. No part of the original outside bodywork between the original passenger compartment fore and aft bulkheads, such as rocker panels, floor pan, or frame, shall have reduced thickness or be replaced with lighter material.
- b. A bulkhead is defined as a transverse panel that is a separator or step between the driver's compartment and the engine or main luggage area.
- c. In cars where a rear luggage compartment is not totally closed off from the passenger compartment, the base of the floor pan step or base of a part-height panel that would limit rearward travel of the rearmost of seat bottoms is the rear bulkhead point. If there are built-in seat track catches or stops, they are assumed disabled for this definition of travel.
- d. Heavier gauge material repairs or heavier replacement sections are all allowed as long as they closely resemble the original.
- e. No removal of the interior sides of the pillars or tub to leave just an outer shell.



- f. Interior storage compartment doors, luggage/trunk compartment panels, parcel shelves may be modified or removed.
- g. Wheel wells and bulkheads are open to modification as long as the driver is protected from fire and debris.
- h. Floor pan width must match or exceed that between the insides of the original rockers. Length must be matched between the original passenger compartment bulkhead locations. Floor pan is defined in Section 12, Floor Pan. Longitudinal structure such as rockers may not cover or overlap the floor pan width. The full standard floor pan width or greater must be visible when viewed from directly above for at least the length of the door openings. The floor pan may only be cut for drivetrain / exhaust / tire / suspension clearance.
- i. Tunnels and other vertical floor pan features, as defined in Section 12, Floor Pan, are included as part of the floor pan of a Stock Tub and shall be at least the original size. They can be longer, wider, and taller.
- j. No car of any sort with a floor pan less than 37" (94.0 cm) wide for front-engine cars or less than 42" (106.7 cm) wide for mid- and rear-engine cars shall be allowed in DM or EM.
- k. A Stock Tub car over 93" (236.2 cm) in wheelbase may change its wheelbase and remain a Stock Tub car if the stock rear bulkhead location and floor pan length are retained.

No weight adjustment.

#### 2. Modified Tub

- a. All attributes of a Stock Tub must be maintained in this category except as explicitly allowed below. There is a weight adjustment associated with a modified tub.
- b. A modified tub is one that mainly achieves a lower CG and improved strength to weight ratio.
- c. Lightweight replacement body panels, a thinned-down standard fiberglass body, or a lift-off lightweight shell attached to the main body structure are examples of a modified tub when done in the bulkhead-to-bulkhead region.
- d. Vertical features above the bottom floor pan plane do not have to satisfy original minimum size or shape. Note that the original width and length of the floor pan still have to meet the original dimensions. Drivetrain tunnels and seat mounting platforms may be made smaller than standard with a Modified Tub weight adjustment. A flat floor pan is legal.
- e. Floor pan material, thickness, and method of attachment are open under Modified Tub allowances.
- f. Rear passenger doors, if present, may be replaced with non-functional panels. Front and rear doors and door openings may be altered to accommodate compliant wheelbase changes.
- g. All other cars, Stock or Modified Tub, whose factory wheelbase are less than 93" (236.2 cm) may still change their wheelbase, but it must be done without violating the floor pan length as determined by both front and rear factory bulkhead locations.
- h. All series of Lotus 7, 7A, Super 7 and their clone or kit forms (such as Birkin, Westfield, Locost) are automatically classified as Modified Tubs. This also applies to the Shelby Cobra and its clones.
- i. Tube frame cars are included in this modified tub category.

#### 3. Materials (all tubs)

- a. Except as specifically authorized, ferrous metal (containing iron) must be used for all primary load-bearing structures of the car. The primary load bearing structure is the main tub or chassis and its connections to the suspension. No aluminum cages or roll bars are allowed. Any ferrous or aluminum alloy is permitted for suspension arms, location links, and uprights/spindles. Beryllium and beryllium alloys are not allowed anywhere on the car.
- b. The exceptions to the above are parts of the donor production cars that were originally non-metal. In all cases, replacement of these parts or addition of more load bearing structure must be by



metal. Lighter replacement sections may not be used between bulkheads in a Stock Tub without it becoming a Modified Tub.

- c. Except as specifically authorized, lightweight substitute materials such as carbon fiber are permitted only so long as they are clearly not load bearing in the primary structure or the suspension. For example, outer body panels in the central tub region must be attached in a flexible manner such as with Dzus® fasteners if non-standard material composition or non-standard material thicknesses are to be used.
- d. Cars that have been approved for DM and EM as clones do not have the freedom to use better strength per weight structural materials than those originally used in the corresponding places in the originals. The only exception is the use of high carbon or chromoly steel in place of mild steel.

#### D. Drivetrain

- 1. Engines must be derived from production automobiles available in the US or elsewhere. Complete race engines derived from production automobile block designs such as the Pontiac® Super Duty 4 and the Cosworth® 16-valve series are allowed. Motorcycle, UTV, ATV, side-by-side, snowmobile, marine, or any other initially non-automobile design is not allowed even if it was also made available in an automobile. Non-automobile engines are prohibited. 4-stroke automobile motors shall not be converted to 2-stroke.
- 2. Engine and/or drivetrain changes are permitted within the following limitations:
  - a. Original front-engine design must remain a front-engine design (i.e., no part of the engine block or cylinder head may extend rear-ward of the midpoint of the wheelbase).
  - b. Original rear- or mid-engine designs may be interchanged with each other, but no part of the engine block or cylinder head may extend forward of the midpoint of the wheelbase.
- 3. Non-automobile CVTs are prohibited. Automobile-based CVTs are only allowed with their matching factory engine.
- 4. Internal and external components of the engine, transmission, and rear differential are unrestricted. Any shifting mechanism or pattern is permitted. Driveshafts may be made of any material deemed safe. Supercharging and turbocharging are permitted without restriction but shall require the displacement specifics of Section 18.0.B.3.
- 5. For weight designations in EM, Mazda retary engines are compared to the piston engines listed (i.e., 3.2L OHC vs. 4.5L OHV) calculations as follows:
- 13B 2-rotor normally aspired engine (1308 cc x 1.6 = 2093 cc)
- 13B 2-rotor forced induction engine (1308 cc x 1.6 x 1.4 = 2930 cc)
- 20B 3-rotor normally aspirated engine (1962 cc x 1.6 = 3139 cc)
- 20B 3-rotor forced induction engine (1962 cc x 1.6 x 1.4 = 4395 cc)
- 5. Supercharging and turbocharging are permitted for all engines subject to the displacement factor of 18.B. In DM, such induction systems must have a restrictor on the inlet side of the turbo/supercharger. All inducted air must pass through this restrictor which must be constructed of metallic material. The minimum orifice (choke) of the restrictor shall be no greater than 33 mm (1.3"). The restrictor pas-sage may be shaped fore and aft of the choke region. The restrictor choke region must be made of one piece without moving parts.

#### E. Minimum Weights

Minimum weights for cars in DM and EM and all adjustments to these weights are shown in Appendix A.

#### F. Aerodynamic Aids

1. These classes are restricted downforce classes. No aerodynamic tunnels, wings, or sealing skirts may be added. No bargeboards, ramps, vanes, wickerbills, or other aerodynamic devices are



allowed except as specified herein or as part of an SCCA®-approved GT-1 bodywork package for the specific make and model.

2. The hood, tub, roof, rear fenders, and rear deck are not permitted to be reshaped to achieve downforce. The front of the car may be reshaped to accommodate the construction of spoilers, air dams, and splitters, and may be widened to rear body width as specified in Section 18.1.E.3.c below. Ramps joining the front fender flares to the splitter/spoiler/airdam assembly which are included as part of a SCCA®-approved GT-1 front bodywork package are allowed.

#### 3. Front Aero

- a. The standard OE or a non-standard front spoiler or air dam may be used. A non-standard front spoiler is not permitted to protrude forward beyond the overall outline of the car as viewed from above or aft of the forward most part of the front fender opening and shall not be mounted more than 4.0" (101.6 mm) above the horizontal centerline of the front wheel hubs.
- b. The spoiler may cover the normal grille opening at the front of the car. Cooling duct openings are permitted. If the front radiator is removed or relocated, no aerodynamic use of the unobstructed front radiator pathway may be made. The front spoiler may be attached to the original bodywork or it may replace the bodywork it would otherwise cover.
- c. The front spoiler may not be wider than either the front or rear bodywork, measured as the maximum distance between the outside edges of the wheel well openings or fender flares at axle height. The total fore-to-aft curvature or deviation of the rear spoiler, measured at the trailing edge, shall not exceed 10.0" (254.0 mm) as viewed from above. The front spoiler must be connected to bodywork above the spoiler across its full width. New bodywork may be added to close the gaps between the fenders, nose, and spoiler/splitter/airdam assembly on cars with open or irregular front bodywork such as the Ford® Model T, MG® TD, Morgan®, and Lotus® 7. When these or similar vehicles use a full-width front spoiler, the car's spoiler/airdam is required to be vertical (between 80-100°) for the lower 8.0" (20.3 cm) of its ex-tent. The change in top view outline caused by these bodywork changes is allowed.
- d. Front splitters are allowed but must be installed parallel to the ground within ±1.0" (±25.4 mm) fore to aft. The splitter trailing edge must be fully sealed to the front bodywork/fender flair/ spoiler and the splitter may not get wider as it extends forward. From each point on its trailing edge the splitter can extend no more than 8.0" (15.2 cm) directly forward of the top-view outline of the car. The splitter must be a single plane with the top and bot-tom surfaces parallel, with an overall height of 1.0" (24.5 mm) or less. The leading edge of the splitter may be rounded (the radius area may extend backwards no more than the splitter thickness). The bottom of the splitter may attach to the belly pan but is not required to do so.

Splitter endplate mounting location may be at the outside lateral end or inboard of the outside lateral end of the splitter. Additional mounting plates or strakes may be added inboard of the endplates but these must be no larger than the endplates.

- e. A front splitter and its associated features shall not function as a diffuser.
- f. An OE splitter which does not conform to these requirements may be used unmodified on the original make and model.
- g. Canards are allowed and may extend a maximum of 6" (15.24 cm) forward of front bodywork/fascia as viewed from above. No portion of the canard may extend past the widest part of the front bodywork/ fascia as viewed from above. Canard area will be measured in the same manner as wings using Section 12, Definitions. Canard area may not exceed 1.2 sq. ft. (1114.8 cm²). The canards may have endplates. The endplates may connect the splitter and the canard. The splitter and canard endplate total surface area is limited to 100 sq. in. (645.2 cm²) for each side.

## 4. Rear spoilers

a. If a rear spoiler is used, it shall be mounted to the rear hatch, deck, or trunk lid, and mount no further forward than the base of the rear window. The spoiler extension for the entire spoiler is set by one measurement at the lateral midpoint of the car. At that point, the spoiler may not extend more than 10.0" (25.4 cm) from the attachment point out to the outer or free edge. This sets the



maxi-mum height above ground at all other locations on the spoiler. The result may be a flat topped rather than contoured spoiler. Alternatively, the spoiler may be mounted at the rear of the roof, or to the rear hatch lid at or near the top of the hatch; in such a configuration the spoiler may extend no more than 7.5" (19.1 cm) from the original bodywork, measured as described above. The spoiler angle of attack is free. The rear spoiler is measured from leading, attached edge to trailing or outermost, free edge. Its measurement is independent of its angle of attack.

- b. The spoiler may not be wider than the rear bodywork, measured as the maximum distance between the outside edges of the wheel well openings or fender flares at axle height. The total fore-to-aft curvature or deviation of the rear spoiler, measured at the trailing edge, shall not exceed 10.0" (25.4 cm) as viewed from above.
- c. Aerodynamic aids permitted in Section 18.1.F shall not function as wings. Therefore, the spoiler may not overhang the bodywork such that air passes both over and underneath it. If the rear spoiler overhangs the side of the car, the lower edge of the spoiler shall be supported by bodywork that will prevent air from passing underneath the spoiler. This may be accomplished by extending the spoiler to join the bodywork or wheel opening/fender flare beneath the overhang.
- 5. Diffusers are allowed at the rear of the car only; no part of the rear diffuser shall cross the wheelbase centerline into the front half of the vehicle. The diffuser may protrude rearward beyond the top view outline of the car. The diffuser shall have no more than 25.0" (63.5 cm) front to back of expanding chamber; this 25.0" expansion chamber length is inclusive of all parts/components/body forward and rearward of the diffuser. A diffuser is defined as an expanding chamber between the vehicle and the ground for the purpose of accelerating air ahead of it to develop low pressure. Vanes or strakes are allowed inside the diffuser; sideplates and strakes may extend below the diffuser surface as long they do not attain a definite seal with the ground on level ground. Closed undersides or belly pans (lower surface) are permitted. The entire length of the underbody may be closed off to permit proper airflow to a rear diffuser or to smooth the underside of the car. The belly pan shall be flat within 1.0" (25.4 mm) total deviation. No tunnels or other underbody aerodynamic features are permitted. Chassis rake is free. Additionally, no side skirt or body side, etc., may extend more than 1.0 cm (0.394") below this lower surface anywhere on the car to the rear of the front axle unless specifically permitted by these rules.
- 6. If a factory production car or kit car was supplied with tunnels or wings, they may remain but they must be blocked in a safe manner to prevent them from functioning to provide downforce. For example, foam or sheet metal may be firmly attached in tunnels or on wings to ruin their shape or to stop airflow.
- 7. Vanes, strakes, and/or endplates (elements) are permitted on front and rear spoilers. A minimum distance of 6.0" (152.4 mm) must separate adjacent elements. These do not have to be square or rectangular; the side profile shape is open. For each element, the total area may be no more than:
  - 56 sq. in. (362.9 cm²) for a roof spoiler;
  - 100 sq. in. (645.16 cm²) for a trunk spoiler;
  - 100 sq. in. (645.16 cm<sup>2</sup>) for a front splitter.
- 8. Wings may be added, removed, or modified. Non-OE wings may only be attached to the chassis or body behind the centerline of the rear axle. The total combined surface area of all wings shall not exceed 8 sq. ft. (0.7432 m<sub>2</sub>) as calculated per Section 12, Definitions. The number of wing elements is limited to 2. Wings designed to be adjustable while the car is in motion must be locked in a single position. Spoilers under 17.2.P and rear wings are mutually exclusive such that a builder may use one or the other, but not both. Wing endplate surface area is limited to 200 sq. in. (1290.3 cm<sub>2</sub>) each and the number of endplates is limited to a maximum of 2. No part of the wing may extend past the widest part of the car.

#### G. Brakes

The use of any type brakes, pads, and components are permitted (disc or drum). The location of brake components (inboard vs. outboard) may be changed from original. The original "emergency" or hand brake may be removed.

### H. Tolerances

A tolerance of  $\pm \frac{1}{2}$ " ( $\pm 12.7$  mm) shall be used when measuring floor pan dimensions from the car's original specifications.

#### I. Other

- 1. At least ½ the width of each tire must be covered by the fenders when viewed from the top of the fender perpendicular to the ground. No sharp edges are permitted.
- 2. Suspension systems and wheels are free.
- 3. The use of a windscreen is not required.
- 4. Roll bar requirements for cars competing in DM and EM are as specified in Section 3.3.2.

## Appendix A changes:

## **MODIFIED CLASS D (DM)**

Modified Production and GT cars with internal combustion engine dis-placement 2000 cc and under as follows:

- A. The Mazda 12A and 13B Rotary engines are permitted in DM with the following restrictions:
  - 1. No replacement of cast iron engine case segments with aluminum.
  - 2. On the 12A engine, only side and rotor housings from 1974-86 engines shall be used.
  - 3. No replacement of 12A or 13B sections, such as side plates, with those from other series engines (i.e., Renesis-type parts).
  - 4. On 12A engines: no peripheral-porting or J-porting is allowed. Bridge-porting that does not cut into the water O-ring is permit-ted. On 13B engines, 4- and 6-port: Maximum porting permitted is street-porting. No bridge-porting, J-Porting, or peripheral-porting.

В.	Weight with driver vs. computed displacement (lbs.):	1400
	Piston engines, normally-aspirated up to & including 1800 cc	1280
	• 12A rotary engines, normally-aspirated w/ porting restriction	1280
	Piston engines, normally-aspirated 1801-2000 cc	1380
	13B rotary engines, normally-aspirated w/ porting restriction	1380
	Forced induction w/ displacements per 18.0.B, up to 2000 cc w/ inlet restrictor	1380
C.	Performance Adjustments (lbs.):	
	AWD     Add 200	)
	Modified Tub     Add 40	
	TCS/ABS/SCS     Add 204	100
	• Wings Add 20	)
	ABS and/or SCS (no additional weight adjustment)     Add 250	)
Đ.	Weight Bias Adjustment with driver sitting in the driver's seat (lbs.):	
	- RWD with less than 51% weight on drive wheels Deduct 35	
	• FWD Deduct 35	

## **MODIFIED CLASS E (EM)**

AWD Not affected

Modified Production and GT cars as follows:



Α

В

C

31	DAT OF THE MONTH UNLESS OTHERWISE NOTED		
١.	Weight with driver vs. Displacement (lbs.):	1700	
	► Piston engine up to & including 3200 cc OHC	1700	
	Piston engine up to & including 4500 cc pushrod/OHV	1700	
	- 2-rotor rotary engine all configurations	1700	
	3-rotor rotary engine, normally-aspirated	1700	
	Piston engine, unlimited displacement	1800	
	3-rotor rotary engine, forced induction	1800	
B. Performance Adjustments (lb.):			
	• AWD	Add 300	
	Modified Tub	Add 50	
	• TCS/ABS/SCS	Add <del>300</del> -100	
	• Wings	Add 200	
	ABS and/or SCS (no additional weight adjustment)	Add 375	
: Weight Bias Adjustment with driver sitting in the driver's seat (lbs.):			
	- RWD with less than 51% weight on drive wheels	Deduct 50	
	• FWD	Deduct 50	

#### **Kart Category**

ITEM 20) #31509 Non-license / Permit 15year old driver in KM

Per SEB recommendation and BOD approval, the JDP program has been discontinued; in conjunction, the following portions of section 4.1.A and 19.2.A are recommended to be removed from the Solo Rules as shown.

#### 4.1.A:

### 4.1 DRIVER CREDENTIALS

A. Drivers must be SCCA® members. (A Weekend Membership meets this requirement.)

Drivers in all categories except Kart-must possess a currently valid automobile driver's license or permit. Driving license or permit restrictions must be followed. If those restrictions require a passenger and the event allows a passenger, that passenger must be either the driver's parent/legal guardian or an instructor who meets the restriction requirements. Instructors must have the written permission of the driver's parent/legal guardian witnessed by an adult SCCA® member or notarized (Sections 1.3.2 and 4.13) to ride as a passenger and the restrictions imposed by the underage driver's state of residence must allow the instructor to ride as a passenger.

Kart Modified (KM) drivers that do not have a driver's license or permit must meet the following prerequisites:

- 1. Minimum age is 15 years old.
- 2. Drivers must have approval of the event Chairman and the event Solo® Safety Steward.
- 3. Drivers must have participated in at least four (4) National Solo® Events in Formula Junior class A (JA). Formula Junior drivers, regardless of license status, must follow the minimum age restrictions per Section 19.2.

The provisions of Section 4.1.D provide event officials discretion with regard to the entry of any driver, including the ability to prevent a driver from completing their runs provided a full refund is given.

19.2.A:



19.2 KART MODIFIED (KM)

A. Minimum Age and Weights:

1. Minimum driver age: 15 years