

***USSCA***

Scale Racing Series

2021 Rule Book

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USSCA President

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**2020/2021 Rule Changes:**

1. The Red Fox Audi (#RFAUDIPROD2019) has been added to the production class.
2. The Ralph Thorne Production body ((# 124-2-2) has been added to the Production body list.
3. Reminder: At the beginning of the 15-minute tech period, a clock will be set in the tech area.  Racers late for tech will be docked 3 laps for each full minute that they are late. This penalty period will run until the Race Director has finished entering the racer’s names into the computer, at which time tech will close and the race will start, without the racers who have not completed technical inspection.
4. The 4.5” class will use Truck bodies. Body rules will stay the same. Rear spoiler no higher than 1 5/8”, ¼” front bumper, & must have wheel wells cut out.
5. The Betta UK Maserati (#PXB005) from Project X has been approved for the Production class.
6. All 4.5” cars must weigh a minimum of 100 grams.
7. The 4.5” class will now be teched at 83 mm, .050 Clearance & .790” front tires.

**General Rules:**

**Raceway Responsibilities:**

1. Raceway will open at 8:00 AM on race day.
2. Tech will open at 9:15 AM and racing will start at 9:30 AM SHARP!
3. Track time between classes will be a maximum of 15 minutes.
4. Must provide a race director for the entire day.

**Racer Responsibilities:**

1. Racers must participate in corner marshaling.
2. Racers must marshal the same class as they race.
3. Cars must be available for tech-in during the race prior to the class you are racing.
   * 1. Tech will open 15 minutes prior to each class.
     2. All cars **MUST** be in the tech line **PRIOR** to the end of the 15-minute time period.
4. Anyone caught cheating will **FORFEIT** all points and winning for that class, on that day.
   * 1. A racer may clean tires with lighter fluid or a tire conditioner. Using tape or a lint roller for the purpose of cleaning tires is allowed. Adding glue to tires WILL NOT be allowed.
5. Cooperation from everyone to conduct races on a timely basis.
6. All lane stickers **MUST** be placed on the front of the car over the guide flag.
7. Sportsmanlike conduct is **MANDATORY.**
8. Marshal abuse will **NOT** be tolerated.
   * 1. First offense will result in a deduction of 5 laps.
     2. Second offense will result in a 10-lap deduction.
     3. Third offense will result in an **EXPULSION** from that class for that day.

**Drops:**

There will be only one drop. This allows everyone the same opportunity to miss one race whether it is a personal preference not to patronize the establishment or personal reasons, which may arise.

**Scheduling:**

Scheduling may be subject to change. Raceways will be notified immediately so that racers can be notified of any changes when at all possible.

**New Products:**

All new products will **NOT** be permitted in the USSCA series unless it is approved by USSCA. All new products must be submitted to the USSCA President by October 30th for approval. Any newly approved product will not be allowed to compete until January of the following year or the start of a new racing season. All slot car parts and bodies **MUST BE COMMERCIALLY AVAILABLE** by the **DISTRIBUTOR and RACEWAY!**

**Lap Counter:**

The lap counter will be considered correct unless it can be proven otherwise. If a major error occurs in the counting process that cannot be corrected, the race director may assign responsible stewards to count laps or verify the counter, Restart the segment, or Restart the race form the last possible point. For a major error in counting, the steps taken should preserve as much of the race as possible, while remaining as fair as possible. Any car crossing the lap counter will be either credited with its lap or the car will be placed behind the lap counter. If you cross the lap counter at the end of the race, a lap may be added.

**General Rules Cont.:**

**Tech:**

At the beginning of the 15-minute tech period, a clock will be set in the tech area.  Racers late for tech will be docked 3 laps for each full minute that they are late. This penalty period will run until the Race Director has finished entering the racer’s names into the computer, at which time tech will close and the race will start, without the racers who have not completed technical inspection.

**Track Calls:**

The power will only be turned off for extremely unfair or dangerous situations. The following are the only acceptable reasons:

Braid up.

Power failure.

Debris in the slot.

An Un-marshalable car.

Lap counter or track equipment failure.

Insufficient number of marshals at President’s discretion.

Too many cars off is **NOT** a track call.

1. During the track call, there will be absolutely no work performed on the car by the driver.  The marshal can straighten out the braids and/or the body. Pit helpers can help with fixing the body and/or braid but cannot "FIX" the car. Doing so will result in a 20-lap penalty. A second infraction will result in a disqualification. This includes work on the car or lane by pit helpers of the driver.
2. If the car **IS ON THE FLOOR & WITHIN REACH OF THE MARSHALL**, the race director will determine if a track call **will be called.** If a car ends up under the track, in the track’s infield, under a pit table, on or under a chair or an area that a car cannot be picked up and placed back on the track quickly, a track call **MUST BE MADE**. This is to ensure that the rears tires are clean when the car returns to the track. This will benefit all racers.

**Qualifying:**

All races will be run in a round robin format (equipment permitting). There will be **NO QUALIFYING.** Otherwise, two consecutive races will be counted as one main. Starting place will be determined by luck of the draw. We will be drawing numbers or entry forms will be shuffled randomly.

**Black Flag:**

The race director is obliged to black flag any car, which is dragging, interfering with other cars or continuously de-slotting due to mechanical problems. Upon being black flagged, the driver must bring the car in for repairs immediately. If the problem is not corrected, the black flag may be enforced again as required.

**Lane Change:**

All drivers are required to use a lane change card or some type of card or item to mark their heat finish spot in-between heats.

**Protests:**

Anybody can protest for a cost of $25.00. This fee will go toward the series general treasury. Once this fee has been paid, a USSCA official will take apart the car and check for any illegal parts.

**Race Format:**

All classes will run 2-minute heats with a 2-minute lane change.

**General Rules Cont.:**

**Racing Agenda:**

Race day will proceed as follows:

1.        4.5” Trucks

2.        Indy

3. Retro Can-Am

4.        GT-1

**Entry Fees:**

1.        4.5” Trucks $10.00

2.        Indy $10.00

3. Retro Can-Am $10.00

4.        GT-1 $10.00

***4.5" Truck Rules***

**CHASSIS:**

1. Any 4.5" chassis that is a maximum of 3.25” wide & is commercially through a distributor & available at the raceway. Must be approved prior to October 30, 2019.
2. If using extenders must use original manufacturer’s extenders on the chassis, they were designed for.
3. May solder extender to chassis.
4. May remove front wings for extender / front wheel clearance only.
5. May be laser, EDM, Water Jet, milled, die cut. stamped and formed metal only.
6. May brace chassis in any way you would like.
7. A steel guide tongue reinforcement may be used, but the original guide tongue may not be removed, modified, or moved.
8. Must use rear & front axle bushings on chassis that allow front bushings to be installed. Ball bearings are NOT allowed.
9. Total weight must be a minimum of **100 grams**.

**GEARS:**

1. Must run a 9:37 gear ratio.
2. Angled pinions are allowed.
3. May solder pinion on motor.
4. Must use 64 pitch gears.

**AXLES/TIRES:**

1. Minimum axle diameter front 3/32", rear 3/32". Drill blank axles allowed.
2. Tires front and rear must be composed of black foam rubber only. No dyed tires allowed.
3. May add nail polish to fronts.
4. Rear minimum tire diameter .810". Front minimum tire diameter .790” with a minimum front tire width of .400”. Maximum rear tire width .810''.
5. Independent rotating fronts allowed.
6. **MUST RUN** with the Front tires and axle on the car for the **ENTIRE RACE**.
7. Solid, one-piece front axles only, no stubbies.
8. Front axles may be soldered solid, but front wheels must rotate. May use front oilites.
9. Steel axles only. No hollow or other lightweight axles.
10. Must rear axle bushings. Offset axle bushings are allowed. Ball bearings are NOT allowed.
11. Maximum width is 83mm.
12. .050” clearance at the back, up to the rear axle.
13. Must have .015" clearance in front of chassis, measured where chassis widens behind front axle, sitting on tires on tech block with the Guide not touching. Gauge must slide under without lifting tires from tech block.

**LEAD WIRES:**

1. Magnet wire or magnet type wire is not allowed.
2. Guide clips are allowed.
3. May add wire guide or retainer.
4. Weighted guide flags are allowed,

***4.5" Truck Rules Cont.***

**BODIES**:

1. Body must be commercially available and on approved body list.
2. 1/8" minimum front & rear bumper and must see the front splitter on the front of the car. On the Outisight 4.5 truck body, the rear must have a 1 1/8” rear fender height that is measured from the top of the spoiler downward. Can not put holes or any cuts and/or slits into rear.
3. Maximum rear spoiler height of 1 5/8", measured from the tech block to the top of the spoiler. The tech tool must go all the way across without any part of the spoiler going over the tech tool.
4. Must have three scale appearing numbers.
5. Body must be fully painted and cover the entire chassis.
6. May reinforce body with tape or Lexan.
7. All windows must be clear and retain factory Lexan.
8. Front wheel wells must be cut out. No cutting into the top of the fenders. Chassis or track must not be visible.
9. Must use a fully molded 3 D driver figure interior. Must have a two-color presentably, realistically painted. No paper interior. Must be stock car type interior. Must completely cover the chassis.
10. Bodies may not be moved forward or backward on the chassis.
11. Tires must be located in the proper positions. Wheel wells must be cutout. Full wheel and tire must be visible when viewed from the side.
12. May NOT cut out the rear of the body.

**MOTOR:**

1. Must use Proslot Sealed Balanced 16D motor. (Part #PS2002)
2. Motors must not have been opened or tampered with in any way.
3. Motors must be factory sealed and using the unmodified factory seal only. Seals may have clear "fingernail polish" added to extend life of seal. NO other modifications to the seals allowed.
4. Any motor brush may be used.
5. Any motor spring may be used.
6. Can **NOT** make any alterations to the end bell and can.
7. Can motor bushing may be soldered.

***Indy***

**CHASSIS:**

1. Must use any of the following chassis that is commercially available and approved by USSCA:
   1. Cheetah 7 narrow Indy, C-21 Indy (Part#: JK251171), or C-21 Wide Pan (Part#: JK251172)
2. Must be stamped and formed metal only.
3. A steel guide tongue reinforcement may be used, but the original guide tongue may not be removed, modified, or moved.

**Gears/Axles/Wheels:**

1. Must use a 10:37 gear ratio using only 64 pitch gears.
2. Angled pinions are allowed.
3. Rear & Front 3/32” solid steel axles only. Must use axle bushings. Offset bushings are allowed.
4. Must use black JK front tires that are the same as are shipped on the RTR car. Use part #T113F
5. No independent rotating front wheels.
6. Front tires must be black, .750” minimum & .375” wide.
7. May add nail polish to fronts.
8. **MUST RUN** with the Front tires and axle on the car for the **ENTIRE RACE**.
9. Rear tire minimum diameter is .750”. No “SPEED” rubber. Maximum rear tire width .810''.
10. For all tracks, .062” clearance at the back, up to the rear axle will be used.
11. Maximum width is 3.25”.
12. No clearance required in the front of chassis. Front wheels and oilites can be soldered or un-soldered.

**LEAD WIRES:**

1. Magnet wire or magnet type wire is not allowed.
2. Guide clips are allowed.
3. May use weighted guide flags.
4. May add wire guide or retainer.

**BODIES:**

1. Body must be .010” thick and be commercially available and on the approved body list.
2. Maximum rear spoiler height of 1 1/2", measured from the tech block to the top of the spoiler.
3. Must have three scale appearing numbers.
4. Body must be fully painted and cover the entire chassis.
5. Must use body clips. May reinforce body with tape or lexan. May add tape or body armor to the front nose area, rear wing, and body clip locations. On the wide body car, the body fender behind the rear wheel may be cut off.
6. Must use a fully molded 3 D driver figure interior. Must have a two-color presentably, realistically painted. No paper interior. Chassis nor track may be visible.

**MOTORS:**

* Motors must not have been opened or tampered with in any way. The following motors are allowed:
* JK Hawk 7 (Part #JK30307)
* JK Retro Hawk (Part #JKHR or #JKHR-SS),
* Mid-America Eagle (Part #MA-605)
* Mid-America Retro Eagle (Part #MA-606)
* Professor Motor Retro (Part #PMTRHR)

***Production***

**CHASSIS:**

1. Any 4" chassis that retails for under $40, is a maximum of 83mm wide & is commercially through a distributor & available at the raceway. Must be approved prior to October 30, 2019.
2. The chassis may be laser, EDM, Water Jet, milled or die cut.
3. All chassis will consist of one solid “STEEL” center section & a maximum of 2 separate pans that may be made of aluminum. May brace chassis in any way you would like.
4. A steel guide tongue reinforcement may be used, but the original guide tongue may not be removed, modified, or moved.

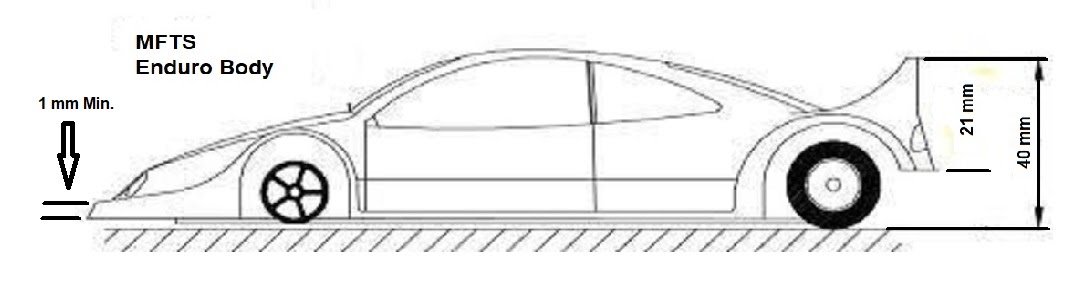
**Gears/Axles/Wheels:**

1. Must run an 11-tooth pinion. Can run any pitch gear.
2. Rear 3/32” or 1/8” solid steel axles only.
3. Must use rear axle bushings. Offset oilites are allowed. Ball bearings are NOT allowed.
4. Sticker Fronts may be used instead of a front axle.
5. If using a front axle, must be the following:
   1. Metallic Front wheels, .500” minimum
6. No minimum rear tire diameter.
7. For most tracks, .050” clearance at the back, up to the rear axle will be used. Maximum width is 83mm.
8. For all “FLAT” tracks, .032” clearance at the back up to the rear axle will be used with no minimum tire size. Maximum width will remain 83mm.
9. No tech at the front.

**LEAD WIRES:**

1. Magnet wire or magnet type wire is not allowed.
2. Guide clips are allowed.
3. May add wire guide or retainer.
4. Weighted guide flags are allowed.

**BODIES:**



1. A sedan style DTM bodies will be used, must be commercially available and on the approved body list.
2. Maximum rear spoiler height of 1 5/8" or 40 mm measured from the tech block to the top of the spoiler.
3. Bodies must have front cut lines clearly visible. The rear must have a 13/16th inch or 21 mm rear fender height that is measured from the top of the wing downward. You are not allowed to put holes or any cuts/slits into rear.
4. Front wheel wells may be cut out, left clear, or use front stickers. No cutting into the top of the fenders.
5. Must have three scale appearing numbers.
6. Body must be fully painted and cover the entire chassis.
7. May reinforce body with tape or lexan.
8. All windows must be clear and retain factory lexan.
9. Must use a fully molded 3 D driver figure interior. Must have a two-color presentably, realistically painted. No paper interior. Chassis or track must not be visible.

**MOTORS:**

* Motors must not have been opened or tampered with in any way. The following motors are allowed:
* JK Hawk 7 (Part #JK30307)
* JK Retro Hawk (Part #JKHR or #JKHR-SS),
* Mid-America Eagle (Part #MA-605)
* Mid-America Retro Eagle (Part #MA-606)
* Professor Motor Retro (Part #PMTRHR)

***Retro Cam-Am***

**CHASSIS:**

1. Any personally built or commercially available scratch-built chassis in kit form or built conforming to these specifications is allowed.
2. Chassis Materials include the following:Brass: sheet, rod, and tube; Bronze: rod; Steel: wire, pin tubing, and commercial guide tongues are allowed. No other materials are allowed. Chassis parts, such as pans, brackets, guide tongues, etc., that are made using EDM, laser, or water-cutting techniques are allowed only if they are individual commercially-available components or components of chassis kits (i.e. these techniques may not be used in the private manufacture of one-off components). Materials such as printed circuit boards are not legal.
3. Total weight must be a minimum of 100 grams.
4. Maximum chassis width is 3.125”
5. Maximum width with body is 3.250”

**Gears/Axles/Wheels:**

1. Only 48 pitch crown gears will be allowed.
2. Only an 8-tooth pinion will be allowed. A 9-tooth pinion can be used for the Retro Hawk motor only.
3. Rear 3/32” or 1/8” solid steel axles only.
4. Front tires must be a minimum of .750” with a .225” minimum width.
5. Wheels with an “O” ring are prohibited.
6. May use ball bearings in front and/or rear axles.
7. Minimum rear tire diameter is .8125” across the full width of the tire. Must also be a maximum width of .810”.
8. .050” clearance at the back, up to the rear axle will be used.
9. Maximum tire width is 3 1/8”.
10. .015” tech at the front of the chassis.

**LEAD WIRES:**

1. Magnet wire or magnet type wire is not allowed.
2. Guide clips are allowed.
3. May add wire guide or retainer.
4. Weighted guide flags are allowed.

***Retro Cam-Am cont.***

**BODIES:**

1. Must use approved Can-Am body that is listed in the “Approved Body List “page and must be commercially available.
2. Must use a .010” body thickness.
3. Maximum rear body height is 1.375” measured with the car on all four wheels on the tech block (unsupported by the guide flag), from the tech block surface to the top of the highest point of the rear of the body, excluding any add on spoiler.
4. Severe raking of the body for aerodynamic effect is not allowed.
5. A single, flat plastic spoiler set at any angle may be attached to the rear of the body or under the rear of the body on the vertical portion behind the body. Spoilers may not be attached on top of the body.
6. Spoiler cannot be wider than the body, .500” maximum height.
7. Front grill is .063” (1/16”) except Ti22 body.
8. Must have three scale appearing numbers.
9. Body must be fully painted and cover the entire chassis.
10. May reinforce body with tape or lexan.
11. All windows must be clear and retain factory lexan.
12. Front wheel wells must be cut out. No cutting into the top of the fenders.
13. Must use a fully molded driver figure interior. Must have a two-color presentably, realistically painted. No paper interior.

**MOTORS:**

1. Only JK Retro Hawk (Part #JKHR) or Proslot FK (PS-4002FK) or Proslot Scorpion (PS-4007) motors can be used.
   * For the JK Retro Hawk, the motor shaft CANNOT be cut down or trimmed. Motors must not have been opened or tampered with in any way.
2. For the Proslot FK and the Scorpion, may do the following:
   1. Motors must not have been opened or tampered with in any way.
   2. Motors must be factory sealed and using the unmodified factory seal only. Seals may have clear "fingernail polish" added to extend life of seal. NO other modifications to the seals allowed.
   3. Any motor brush may be used.
   4. Any motor brush may be used.
   5. Any motor spring may be used.
   6. Canstraighten the brush hoods on the end bell.
   7. Can motor bushing may be soldered.
   8. Motors that have been refurbished will NOT be allowed.

If it’s not listed here, it’s not legal. For the safety of turn marshals and other racers, race cars that are damaged to the point of the chassis being exposed must pit and be repaired immediately with adhesive or tape. Front and rear windows, front bumpers and grills must be repaired immediately. Rear Bumpers must be repaired before the start of the next heat.

**2021 APPROVED BODY LIST**

***4.5'' Truck***

Any 4.5” Truck Lexan Body that is COMMERCIALLY AVAILABLE by the DISTRIBUTOR will be allowed in this class.

***Indy***

**Narrow Chassis:**

JK #61181B (Dalara 06), JK #61192B (Champ Car), JK #61193B (Champ Car G Force),

JK 61152B (Champ Car)

**Wide Body:**

JK #6113B

***Production:***

Attan:

Mercedes (#ATT1601), Volvo (#ATT1401), BMW (#ATT1501)

Betta UK (Project X):

Maserati (#PXB005)

JK:

Jaguar GTS (#7111), Saleen GTS (#7112), Ferrari Maranello (#7113), Cadillac CTS (#7123), Aston Martin (#7124), Corvette C6 (#7126)

Parma/Champion:

Saleen (#263X\_CH)

Outisight:

Mercedes (# OS-088), Corvette (# OS-081)

Mid-America (ABCD):

Audi (# OS-088)

Ralph Thorne:

NSX Production (# 124-2-2)

Red Fox:

#320 BMW DTM (#RFPRODB7), Fusion DTM (#RFPRODF7), Mercedes (#RFPRODM5),

Audi (#RFAUDIPROD2019)

***Retro Can-Am:***

For a complete list of legal bodies, go to the following link: <http://irraslotracing.com/approvedbodies.html>

Outisight OS-478 is allowed.

***Points Summary:***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Single Race Points | | |  |  | | |
| Place |  | Points |  |  |  |  |
| 1st Place |  | 25 |  |  |  |  |
| 2nd Place |  | 22 |  |  |  |  |
| 3rd Place |  | 20 |  |  |  |  |
| 4th Place |  | 18 |  |  |  |  |
| 5th Place |  | 16 |  |  |  |  |
| 6th Place |  | 14 |  |  |  |  |
| 7th Place |  | 12 |  |  |  |  |
| 8th Place |  | 10 |  |  |  |  |
| 9th Place |  | 9 |  |  |  |  |
| 10th Place |  | 8 |  |  |  |  |
| 11th Place |  | 7 |  |  |  |  |
| 12th Place |  | 6 |  |  |  |  |
| 13th Place |  | 5 |  |  |  |  |
| 14th Place |  | 4 |  |  |  |  |
| 15th Place |  | 3 |  |  |  |  |
| 16th Place |  | 2 |  |  |  |  |
| 17th Place |  | 1 |  |  |  |  |
| 18th Place |  | 1 |  |  |  |  |
| 19th Place |  | 1 |  |  |  |  |
| 20th Place |  | 1 |  |  |  |  |
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