



# 2022 RULE BOOK

Jan 13<sup>th</sup> 2022

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## 1. **GENERAL:**

- 1.1. These rules have been written with three goals in mind; promote safety, ensure fair competition, and help control costs. No set of rules can encompass all eventualities so there will be times when officials and drivers will have to work together to find an appropriate response to unforeseen developments. The United Racing Series officials reserve the right to amend any rule with prior (fair) notice to competitors. Regardless of all else, United Racing Series officials will be the final authorities in interpretation and application of these rules and the equipment used to enforce these rules.
- 1.2. Cars with frequent or multiple compliance problems may be considered evidence of intentional cheating. In that case the Competition Director will determine if a penalty is in order.
- 1.3. Cars found non-compliant post-race could be subject to penalties up to and including disqualification. Any violation relating to sealed engine tampering, altering tire compound/tire softening or traction control (electronic and/or hydraulic) will result in a one calendar year suspension for both driver & car owner.
- 1.4. Tech inspection centers on the pre-race formal check; however, the car is subject to inspection at any time from the start to finish of a race meet. Although the pre-race check often focuses on a specific theme at each meet to ensure all items get checked during a season, there is no restriction on what is checked on a given car, nor is it required that the same item be checked on every car. The same is true of post-race inspections.

## 2. **SAFETY:** will continue to be our number one priority – i.e., belts, fuel cell, on track.

- 2.1. Safety: In the pits and on the track, takes precedence over all else.
- 2.2. Pit Safety: In the pits, safety will be greatly enhanced by attention to the basics including the wearing of protective clothing and eye wear at appropriate times; fire safety practices and the presence of a class “BC” fire extinguisher; proper storage and disposal of flammables, chemicals, and wastes; elimination of distractions and horseplay and safe working practices such as the use of jack stands.
- 2.3. Driver Protection: Drivers are required to wear full coverage; one or two-piece Nomex multi-layered fire suits which are S.F.I. rated. Fire retardant undergarments are mandatory with a single-layered suit. Fire retardant gloves and shoes are mandatory. Driver helmets must be full face and conform to Snell SA-2015 or higher SA standards and have a certification sticker visible inside the helmet. Head & Neck restraint mandatory.
- 2.4. Belts and Harness: A quick-release 5-point belt (shoulder and lap) of no less than 2" in width, and 2" width anti-submarine harness in good condition are mandatory. Shoulder harnesses must be mounted and secured at the driver's shoulder height. Belts must be securely fastened to the frame, cross-member or roll cage by means of a suitable reinforced mounting, in such a manner that all fittings are

in direct line with the direction of pull. Belts may not be any older than 3 years (manufacturer's date). All belts and mounting will be subject to inspection.

- 2.5. Fire Control: It is HIGHLY recommended that APC Late Model Series cars have an onboard fire system. On-board fire systems should be a 5LB system and spray into driver's compartment. All entries must at least have a CSA approved fire extinguisher "ABC" rating, dated for the current year, which always accompanies the car. Fire Extinguishers, whether a suppression system or a stand-alone extinguisher, must be mounted in such a manner so the gauge is visible when looking in from outside the car.
- 2.6. Pit Paddock: Fueling on jack stands is not allowed in the paddock. Fueling in the paddock area shall not be done in trailers, buildings, or under pop up tents. It is highly recommended that anyone handling fuel, wear appropriate safety attire.
- 2.7. All teams are required to keep at least one 10 lb. "BC" rated fire extinguisher in the pit paddock and on pit road. 20lb "BC" rated fire extinguisher highly recommended.
- 2.8. Window Net: An approved nylon ribbon type net must be installed in driver's side window opening. Net sizing must be at least 16" x 18". Net must be installed so it is tight. Window net anchors must be attached to roll bars, not body. Window net must be quick-release type. Net must be permanently anchored at the bottom and release at the top. Lever-latch releases are highly recommended.
- 2.9. Dash: Car must have a fabricated full dash from left to right. All gauges must be installed directly in front of driver and on a vertical plane of dash. No part of dash shall continue to floor panel.
- 2.10. Steering Wheel: All cars must be equipped with a quick release steering wheel. Centre of the wheel must be padded. Collapsible column highly recommended.
- 2.11. Roll Bar Padding: All roll bars within driver's area must be covered with approved roll bar padding. No sharp edges, intrusions, or bare metal near driver.
- 2.12. Seat: Full containment seat mandatory. Seats must be bolted or secured solid, so that seat will not shift or loosen on impact. A minimum 6 seat bolts, min 3/8 inch or larger will anchor the seat. Seat must be completely to the left of the centerline of the car and inside frame. Aluminum or Carbon fiber seats only, No fiberglass seats
- 2.13. Sheet metal surrounding driver must be 22-gauge magnetic steel, including front firewall. Interior must be complete with no visible holes.

### **3. RADIOS:**

- 3.1. 2-way radios are mandatory.
- 3.2. All cars must have one person in a specified area monitoring the race director and scoring officials with the ability to relay messages to their driver.
- 3.3. All radio frequencies MUST be registered with the United Racing Series.
- 3.4. All spotters must monitor race control and scoring officials by scanner or stand-alone radio at all times during the event.

#### 4. **AIR CLEANER:**

- 4.1. Filter element diameter 14" maximum, height maximum 4-1/2".
- 4.2. All air shall be filtered through element. Top of air cleaner must be solid, no holes.
- 4.3. Element may not be sprayed or soaked with any type of chemicals or liquids.
- 4.4. Cowl induction will be acceptable, the front of the cowl must seal to the back of the hood when the hood closes. A rectangular opening maximum 20 inches long by 3 inches wide may be removed from the sheet metal at the center of the cowl.
- 4.5. No forward mounted air ducting allowed.
- 4.6. Air cleaner base must mount directly to carb, a thin gasket will be allowed.
- 4.7. Air cleaner must fit under hood without raising or distorting hood contour.
- 4.8. No high-performance air flow enhancing air cleaners allowed.

#### 5. **BATTERY/ELECTRICAL SYSTEM:**

- 5.1. Must be anchored securely and separated from driver by a firewall. Minimum two 5/16" mounting bolts.
- 5.2. 12 VOLT electrical system only.

#### 6. **BODY:**

- 6.1. ABC Body 102" minimum wheelbase, (measured with "referee"). All vehicles will conform to the ABC body rules and templates. Minimum tolerances will be enforced both before and after events. Tire pressure will be set at 20lbs for roof height measurement.
- 6.2. Approved Bodies:
  - "ABC" Body – "ABC" Body committee Approved bodies. As per 2004 and up approved Body Configuration Official rule book.  
<http://arbbodies.com/newsite/wpcontent/uploads/2015/09/ABCrulebook-web.pdf>
    - At all times, the ABC "A" measurement must maintain a min. length of 11.5 inches. Also, 20 inches is the minimum length allowed for the nose, measured from the bottom leading edge at center and up to the hood seam.
    - Refer to CURRENT ABC Rulebook for all body rules and all panels must have ABC stickers.
    - All cars must "ABC" body approved front grill screen.
  - Five Star – Gen 6 body -  
<http://www.fivestarbodies.com/store/downloads/ABCrulebook-web.pdf>
    - Refer to CURRENT ABC Rulebook for all body rules and all panels must have ABC stickers.
    - All Cars must use Five Star Gen 6 front grill screen.
- 6.3. Body Width:
  - ABC Body - NON-GEN 6 body cars. 80.5" measured in front of the rear wheels & front valance in front of front wheels.
  - GEN 6 Body cars – ABC Body rule – 79.5 Inch measured at wheel wells & front of the rear wheels & front valance in front of front wheels.

- **NOTE: 2023 race season - ALL cars – 79.5-inch measured wheel wells & front of the rear wheels & front valance in front of front wheels.**

- 6.4. Minimum nose/body height is 4" and Maximum of 8". (While in tech for the purposes of tech inspection)
- 6.5. No panels allowed extending top edge of doors. The car body must be acceptable to United racing series Officials at all times. No car will be allowed to start a race without a full body.
- 6.6. All cars must have both A-Pillar vent windows. Vent windows may only have 1 inch of straight-line deflection. The surface must be smooth and must not have bead rolls or breaks.
- 6.7. No carbon fiber components.
- 6.8. All body panels and windows must be mounted and properly braced on the chassis to prevent deflection under racing conditions.
- 6.9. Rear Spoiler: A 6.5" high X 60" wide rear spoiler, (measured across rear) with no side boxing is allowed. All rear spoilers will be centered side to side on the rear deck. Rear spoiler must be clear Lexan.
- 6.10. Windshield: Lexan windshield with a minimum thickness of 1/8" must be full and complete. No holes or ducting allowed. One brace from top to bottom must be on inside center of windshield. The car must run a rear window (minimum thickness of .093") and it too must be braced on the inside only. No additional material may be added in pillar area. The quarter windows should be Lexan. However, should the original fiberglass remain, the intended opening should be made to look like a window.
- 6.11. 3" X 14" mirror mounted in the stock location is permitted. In addition to the larger mirror, an optional left side mirror that is no larger than 4" maybe installed. The left side mirror may not extend or protrude outside the vehicle.
- 6.12. Numbers must be on the roof (readable from the right side of the car) and both doors. Numbers must at least 18" high and 3" wide. All numbers must be dark on a light background or light on a dark background. No gold, silver, metal flake or trick numbers. A number must be placed on the front of the car below the left headlight cover.
  - United Racing Series reserves the following space on all cars for official series sponsor decals. NOTE: Team decals, advertising slogans, text or sponsor identification must not be placed on the areas indicated below.
    - Top 4 inches of front windshield.
    - Top 4 inches of rear window.
    - 16 inches back from front lower rocker panel & 90 degrees upward to forward leading edge of front nose on both sides of the car.
- 6.13. Rear bumpers: No bars below rear bumper body cover.
- 6.14. Rub rails: Only Lexan rub rails or 3" flat bar (1/4" thickness aluminum or steel) No metal/aluminum bars or tubing permitted.

- 6.15. Race cars must be presentable in appearance at all times. Cars that are considered improperly prepared may be rejected by UNITED RACING Series officials.
- 6.16. No types of under-body air deflectors are allowed. "Panning" permitted under engine only. All air for blowers or coolers in the engine compartment must be pulled from the nose. Air may not be blown or forced onto the tire or bead. Air may only be directed to the brake rotors. The duct work between the nose and the radiator may not be carbon fiber and no wider than 29" inches.
- 6.17. Tape may not be used anywhere on the car to control the flow of air.

## 7. BRAKES:

- 7.1. Functional four-wheel brakes with a working caliper on each wheel are mandatory.  
Calipers may be made of steel, cast iron, or aluminum only.
- 7.2. Maximum four pistons per caliper. Maximum one caliper per wheel.
- 7.3. Magnetic steel brake rotors only. No cast iron faced aluminum. No carbon fiber material is allowed.
- 7.4. Front brake rotors must be a minimum of 1.250-inch (1 1/4-inch) thick and made of magnetic steel.
- 7.5. Rear brake rotors must be a minimum of 0.750-inch (3/4-inch) thick and made of magnetic steel.
- 7.6. Floating rotors permitted.
- 7.7. All cooling ducts must be routed from the front nose of vehicle. Two hoses per brake, with a maximum 3" flexible hose to the brake.
- 7.8. Electronic wheel speed sensors or brake activators will not be permitted. An on-board pressure adjuster is allowed.
- 7.9. No brake recirculation systems
- 7.10. All brake lines must be visible for inspection.

## 8. CHASSIS:

- 8.1. Front clip and main frame 2"-inch x 3"-inch x .095" minimum.
- 8.2. Chassis width 48"-inch Min. outside rail to outside rail.
- 8.3. Fuel cell containment area: Must have a safety loop designed to protect the rear of the cell.
- 8.4. Four-point roll cage 1.750" inch (1-3/4-inch) x .090" DOM minimum.
- 8.5. Minimum cage height 39"- inch from the bottom of the rail to the top of the cage.
- 8.6. Minimum four left-side horizontal door bars. Minimum height 22-inch" to bottom of frame.
- 8.7. Minimum length for door bars 39"-inch centre to centre. All door bars must have a minimum 16 gauge (1/16") magnetic steel plate bolted or welded to the space between each left-side door bar.
- 8.8. Width of halo to be no less than 28"-inch outside to outside. Length of halo to be 28"-inch minimum.

- 8.9. Leg protection bar mandatory. Roll cage structure shall be braced to front frame stub with a hoop section surrounding the engine compartment, and rearward with diagonal members connecting to rear frame section.
- 8.10. Left side drivers foot box must have a minimum .125-inch (1/8) thickness magnetic steel plate bolted or welded in place to protect driver's feet. Plate must cover the entire left side of drivers' foot box.
- 8.11. Driver to be protected from left-rear trailing arm intrusion by 1/8" plate, 12" x 12".
- 8.12. Towing Loops: Each rear frame rail must have a 3" inside diameter tow loop (strong enough to lift the car) securely fastened as far rearward as possible extending above the trunk floor.
- 8.13. Front bumper bar, rear bumper and chassis right side door bars (outrigger/kick-up bar) must be a minimum 1.250-inch x 0.065-inch OD magnetic steel tubing. All support substructures must be constructed of minimum 1-inch x 0.065-inch OD magnetic steel round or square tubing.
- 8.14. Drilling holes to lighten any part of body, chassis, suspension, or bolts is not permitted.
- 8.15. Door bars – for driver removal in an emergency situation the following is mandatory:
  - 2 ½ inch hole in each door intrusion panel located near front & rear main roll bar.
  - The 2 ½ inch hole must be located 3 inches from the door bar centerline.
  - Each hole must be sealed.
  - See Diagram 1.1 (at bottom of rule book)

## 9. **SUSPENSION/STEERING:**

- 9.1. Front Upper Control Arms: Any stock or aftermarket tubular upper control arms. magnetic steel only.
- 9.2. Lower Front Control Arms: O.E.M. type or approved tubular steel aftermarket control arms accepted. All control arms and mounting hardware must be magnetic steel.
- 9.3. Rear Control (Trailing) Arms: Must be maximum of 30" from mounting hole centre to mounting hole centre. Steel solid rod ends or magnetic steel heim ends allowed. No hydraulic or spring devices allowed.
- 9.4. Upper Rear End Link: Maximum length 30" mounting hole centre to mounting hole centre. No coil, spring, or hydraulic device allowed. Magnetic steel heim ends allowed. Rear mounting point for rear end upper link must be mounted above the rear axle assembly. NO torque arm 3 link systems.
- 9.5. No "BIRD CAGE" Assembly permitted in the rear suspension. Trailing arms must mount to rear end in a solid fashion (magnetic steel heim allowed) and no part of the trailing arm mounting may freely rotate around the rear end housing.
- 9.6. Springs: Magnetic steel springs only. Non-metallic spring spacers are allowed between coil windings.

- 9.7. Sway Bar: Max Sway bar size 2 Inch diameter. Must be equipped with magnetic steel heim ends at connecting points.
- 9.8. Panhard Bar: Must use magnetic steel heim ends at connecting points. Panhard cannot be adjustable from driver seat.
- 9.9. Shocks: Front/Rear
- a) Bilstein AS2 Series: Non-adjustable & Rebound adjustable Bilstein AS2 shock approved. 7&9 Inch shaft lengths only.
- Unaltered stock Bilstein AS2 - 46MM linear or digressive pistons only.
    - Part # E4-B46-20SNDT – Linear – 12MM Shaft
    - Part # E4-AK1-Z024A01 – Digressive – 12 MM Shaft
    - Part # E4-B46-20SNCT – Linear – 8MM Shaft
    - Part # E4-AK1-Z033A00 – Digressive – 8 MM Shaft
  - Unaltered stock 7&9-inch Bilstein AS2 non-adjustable or single adjustable shafts only.
  - Must use unaltered stock Bilstein AS2 valving shims.
  - All Bilstein AS2 shocks components must be unaltered and stock Bilstein AS2 components.
- 9.10. Steering and Hubs: Steering components, steering box and spindles must be magnetic steel (NO ALUMINUM SPINDLES ALLOWED OR BILLET/CNC MACHINED STEEL TYPE SPINDLES). Magnetic steel Steering arms only. Hubs with a 5 x 5" bolt pattern. Wide five hubs optional. Stock or aftermarket. Rack and pinion steering allowed. MAGNETIC Steel heim ends must be used for tie rods (5/8inch minimum).
- 9.11. ALL Steering/Suspension mounting hardware must be magnetic steel. NO TITANIUM. No lightweight fasteners.
- 9.12. No chassis/suspension adjustments permitted from inside of car. All chassis/suspension adjustments must be made from outside cockpit.

## **10. WHEELS/TIRES:**

- 10.1. Wheel stud threads must protrude through nuts.
- 10.2. Bleeder or pop-off valve devices are not permitted.
- 10.3. No Blowers or hoses will be allowed to blow air on the tire/wheel
- 10.4. Wheel rim: Rim size 15"X10". Wheel rims must be magnetic steel only.
- 10.5. Wheel rims must be identified with team # on ALL wheel rims.
- 10.6. No soaking or altering of tire in any manor allowed. Drivers/teams soaking or altering tires will receive major penalties.
- 10.7. All tires MUST be purchased at track from UNITED RACING SERIES approved tire vendor.

## **11. WHEELBASE-TRACK WIDTH:**

- 11.1. 102 Inch wheelbase min. (Measured using ABC BODY referee")
- 11.2. Wheelbase must not exceed 1/2" from one side to the other.



### 11.3. Track width:

- ABC Body - NON-GEN 6 body cars. Measured with “referee”, 67.5 Inch maximum – (zero tolerance).
- ALL GEN 6 body cars Measured with “referee”: 66 Inch maximum – (zero tolerance).
- **NOTE: 2023 RACE SEASON - ALL cars will be 66 Inch maximum – (zero tolerance) measured with “referee”.**

## Engine, Drivetrain, etc

### 12. COOLING SYSTEM:

- 12.1. Radiator must remain stock in appearance and remain in standard position.
- 12.2. Stock type water pump only.
- 12.3. Radiator dust screens permitted.
- 12.4. Radiator must include liquid overflow can (minimum capacity 1 liter) mounted ahead of engine firewall. Overflow vent must exit the vehicle at the base of the windshield.
- 12.5. No anti-freeze allowed in the cooling system.
- 12.6. No pressurized systems, cool down units, pumps or exotic fans.

### 13. CLUTCH ASSEMBLY:

- 13.1. Triple or Twin disc of a 5.5-inch minimum diameter and flex plate permitted.
- 13.2. All cars must have magnetic steel or aluminum steel bell housing. Starter motor must be in stock location.
- 13.3. If using stock-type flywheel & clutch assembly, a shatter-proof bell housing must be used.
- 13.4. No carbon fiber or extensively modified units.

### 14. TRANSMISSIONS:

- 14.1. The following are the only approved transmissions for APC Late Model Series:
  - Two-speed oval track Richmond transmissions (T-10 case).
  - Winters 60200 “Raptor” Transmission. No Magnesium transmissions allowed. The Winters 60200 “Raptor” Transmission must weigh a minimum of 39 pounds.
- 14.2. No overdrive gear ratio permitted in any transmission.
- 14.3. No less than 123:1 ratio permitted in any transmission.
- 14.4. Shifter: Conventional-type shifter or rods. Shifter must have boot or cover at all times. Shifter boot must have a wire wrap sealing the top of the boot to the shifter.

### 15. REAR AXLE ASSEMBLY:

- 15.1. Rear axle ring and pinion may be of any gear ratio. Full floating quick-change or 9-inch permitted.
- 15.2. Rear differential housing must be centered in car. Aftermarket spools are permitted. No cambered rear axle assemblies allowed, (assemblies include and

not limited to, axle shafts, drive plates & any other components that are part of a cambered rear axle assembly). No limited slip or posi-traction devices permitted.

15.3. Magnetic steel axle shaft assemblies only. Aluminum axle tubes are allowed.

15.4. Matching white lines are to be painted on each hub to indicate the relationship of one axle to the other. These lines are to be positioned so that they are lined up the same on each side - i.e. both lines would run from the 3 to the 9 o'clock position.

#### **16. DRIVE LINE:**

16.1. Drive shaft and universals must be similar to standard production type.

16.2. Steel, 360-degree retainer loops, 1/4-inch-thick by 2 inches wide, must be positioned at the front and rear of shaft, and within 12 inches of each U-joint.

16.3. No aluminum or carbon fiber drive shafts.

16.4. Magnetic steel drive shaft must be painted white.

#### **17. TRACTION CONTROL:**

17.1. Cars will not be permitted to carry on board computers, micro-controllers, processors, recording devices, electronic memory chips, traction control devices.

17.2. No electronic and/or hydraulic traction control devices.

17.3. Violators will be suspended for one calendar year.

#### **18. IGNITION SYSTEM/ELECTRICAL:**

18.1. Any tampering, alterations, or violations with respect to the ignition box and related components will result in the immediate suspension of the driver, car owner, and chief mechanic for a minimum of 1 year (365 days) from the date of the infraction. Further monetary fines and reduction of points will be assessed by series official.

18.2. Car must be self-starting & must have a master disconnect switch mounted in centre of the car.

18.3. All cars must have any of the following ignition boxes. All ignition boxes must be mounted on the right side of the dash within 6" (six inches) of the "A" post

- MSD 6AL or 6ALN, MSD 6425 - Digital 6AL Ignition Control
- MSD 6CT - 6427
- Crane Cams Ignition part # 6000-6701
- FAST ignition system part # FST6000-6700 or FST6000-6701
- JMS – Daytona Sensors - CD-1 Super Speedway Ignition System - 6000-6701K
- **NOTE: 2023 Race Season: MSD ignition boxes will not be permitted**

18.4. The operational rev chip/Rev settings must be accessible through the passenger window all ignition wiring to remain open and clearly visible for inspection. All ignition modules must have 6400 RPM limit chip or ignition module set to 6400 RPM.

- 18.5. Stock-type distributor & module for make and model or GM HEI-type distributor from DUI optional or stock type MSD distributor. Only one (1) ignition box, one coil, and one wiring harness per vehicle. No other electrical devices are allowed anywhere on the vehicle.
- 18.6. All ignition wiring to remain open for inspection. All wiring must use weather pak connector 6 and 2 pin at ignition box, and 2 pin at the distributor. Male connectors are required on the box and distributor. See notes below:
- All 6AL wiring to be standard:
  - Red wire/ ignition switch
  - Use a brown wire/ tach output
  - Black wire/ coil negative
  - Orange wire/ coil positive
  - Green wire/ dist. Negative
  - Purple wire/ dist. Positive
  - Connectors to be within 12 inches of the ignition box.
  - Battery pos. and neg. may be hard wired to master disconnect and chassis ground
- 18.7. Distributor pickup positive (Purple/violet wire) & Distributor pickup negative MUST be routed separately from all other wiring & MUST remain open for inspection. Both wires must be routed directly from ignition box to distributor and CAN NOT be connected to any other wires/components.
- 18.8. Transponder: Transponder MUST be wired directly to main battery switch. Transponder must be located on left rear frame rail behind rear axle, 172 inches from furthest forward point on front nose.

## 19. FUEL CELL:

- 19.1. Bladder-type cell mandatory.
- 19.2. 22 U.S. gallons maximum size allowed.
- 19.3. The fuel cell and or cell guard will be no lower than 8" from the ground.
- 19.4. Fuel cell must be complete with safety flap foam and safety valve in vent line. Vent line must exit rear of the car.
- 19.5. A minimum of 22-gauge magnetic steel is to be used for fuel cell case.
- 19.6. Dry break system allowed. If used, filler system to be located on the left side rear quarter panel behind the rear wheel FIRMLY supported from within.
- 19.7. Filler cap assemblies must be grounded to the chassis for the prevention of static build- up.
- 19.8. Max 11 gal approved refueling container allowed.
- 19.9. Minimum 0.125-inch (1/8") thick magnetic steel or 0.250-inch (1/4") thick aluminum intrusion plates mounted between fuel cell and rear axle and on the rear of the fuel cell. Intrusion plates must protect the entire fuel cell. Cars may also utilize a fuel cell container made of 0.125-inch (1/8") thick magnetic steel plate.

## **20. FUEL LINE(S) & FUEL SYSTEM:**

- 20.1. Must be a single Armored/Kevlar hose.
- 20.2. If fuel line is routed through cab and must run through a steel tube and painted either yellow or red in direct contrast to the colour of the car. The conduit will extend at least 2 inches beyond each firewall.
- 20.3. The conduit in the car in addition to being painted in the contrasting colour will also be labeled "Fuel line, Do Not Cut".
- 20.4. In-Line Fuel Safety Check Valve MANDATORY. Example: Part # OBERG FILTERS SV-0828 FUEL SAFETY CHECK VALVE, SRI In-Line Fuel Safety Valve Part #FPFFSV mounted near fuel cell.
- 20.5. Fuel vent must have safety flap valve.
- 20.6. Fuel Pump: Mechanical pump only.
- 20.7. No icing, Freon type chemicals or refrigerants may be used in or near the fuel system or engine compartment. No cooling of fuel cell or fuel system.

## **21. FUEL:**

- 21.1. Fuel: VP Race Fuel RX96 only.
- 21.2. Additives and/or blending of any type including methanol, alcohol, nitrous oxide, propylene oxide, nitromethane or other performance enhancing chemical additives will not be permitted. Fuel may be tested from time-to time and/or submitted for verification by designated UNITED RACING SERIES Officials to VP Race Fuels.

## **22. CARBURETOR:**

- 22.1. All engines: Must use Holley #80541-1 OR #80541-2 Carb must be unaltered & pass "go- no-go" test. Maximum gasket thickness is .065". "602" only crate engine allowed carb spacer (See 602 Engine Package).

### **22.2. Ford Crate Engines**

- 22.2.1. D347SR/SR7 engine must be equipped with a one piece, 4 hole, 1" thick, adjustable base plate produced by Allstar Performance PN# ALL26060 equipped with four 1.250" base plate inserts PN# ALL26066 produced by Allstar Performance. Base plate & plate inserts must be purchased from United racing series. Base plates & inserts must NOT be altered.
- 22.2.2. The base plate and inserts must be exactly as supplied from the manufacture. Any non-factory modifications, taper, bevels, sanding, polishing and/or polishing marks (even from cleaning) will not be allowed.
- 22.2.3. A one-piece paper gasket maximum .065" thickness that matches the exterior dimensions of the carburetor throttle base plate must be installed between the carburetor and adjustable base plate. A

one-piece paper gasket maximum .065" thickness must be installed between the adjustable base plate and the intake manifold.

22.3.No screens allowed in and or under the carburetor.

22.4.No altering of the intake manifold with respect to the fuel atomization is allowed.

22.5.Any attempt to pull outside air other than down through venturi's is not permitted.

22.6.Mandatory two throttle return springs.

**23. EXHAUST SYSTEM:**

23.1.Headers: Maximum primary tube size of 1 3/4" and maximum 3" collector allowed. Tri-Y headers allowed. Magnetic steel only (No Stainless). Only 1 maximum 3" balance tube between the right and left header system is allowed.

23.2.Exhaust must exit right side of car. Pipes to be cut flush to the body and above the frame rail.

23.3.MUFFLERS: mufflers must be removable for inspection and must remain unaltered in appearance.

**24. HEIGHTS/WEIGHTS**

24.1:

Engine Package	Total weight	Left-Side %	Rev Chip
GM "604" – "Red Sealed" Unopened, APC engine seals installed by APC SERIES approved supplier.	2750 LBS	58%	6400
GM "604" (Blue Sealed) CRATE:	2780 LBS	58%	6400
Ford 347 Sealed Crate Engine Part # M-6007- D347SR/SR7: 1-inch base plate with 1.250 restrictor insert.	2795 lbs.	58%	6400
GM "602" CRATE:	2750 lbs. (2700lbs @ Delaware & Jukasa)	58%	6400

24.2. Weight Penalties:

Engine setback – 1/2" – 4"	15 lbs. added to total weight
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- 24.3. Rear Weight: 52.5% rear weight max.
- 24.4. No frame height rule. However, a car that continues to bottom out or rub the track will be sent to the pits to raise the car so as not to damage the track's racing surface. (Body must meet all ABC body rules).
- 24.5. All weights will be checked before race with car race ready.
- 24.6. All weights will be measured with driver sitting in driver seat with hands on steering wheel, helmet on driver lap & driver sitting fully in driver seat.
- 24.7. Minimum Crankshaft height: 11-inch, measure at crankshaft centerline
- 24.8. All body measurements will be checked without driver.
- 24.9. Engine must be located where the front most spark plug must be centered or ahead of the upper ball joint line.

## **25. WEIGHT LOCATION:**

- 25.1. Weight must be no lower than frame rails and in block form, no less than 10 lb. pieces.
- 25.2. No weight to be added rearward of fuel cell.
- 25.3. All ballast weight must be either fastened to or encased within the frame rail.
- 25.4. No tungsten, lead shot, ball bearing type, or liquid type ballast permitted.
- 25.5. All added weight must be double bolted and painted white, with car number clearly marked on each piece.
- 25.6. Loss of add-on weight will result in a severe penalty.
- 25.7. If stacked or bolted weight exceeds 30 lbs. it must be bolted into an approved weight tray.

## **ENGINE OPTIONS**

Any crate engine that fails technical inspection will result in the immediate suspension of the driver, car owner, and chief mechanic for a minimum of 1 year (365 days) from the date of the infraction.

Further monetary fines and reduction of points will be assessed by the technical committee. The engine which must be removed at the team's expense will be impounded at both the team's expense and risk until the ruling is finalized. The UNITED RACING SERIES reserves the right to destroy all tampered with parts.

**UNITED RACING SERIES RESERVED THE RIGHT TO IMPOUND ENGINES FOR FURTHER INSPECTION AT APPROVED ENGINE REPAIR FACILITY.**

**NOTE:** All teams must register engine manufacture at their first race of 2022 & must continue with same engine manufacture for entire season. (If teams wish to change engine manufacture during season, you must consult Competition Director).

## **26. Approved Engines:**

Approved engine packages for APC Late Model Series

- GM "604" Crate Engine: Part # 88958604/88869604
- Ford 347 Sealed Crate Engine Part # M-6007-D347SR/D347SR7

- GM “602” Crate Engine: Part # 889586602/19258602/88869602 with following changes. – See Section 28 for details
    - Double Roller Timing Chain.
    - 6-3/4 magnetic steel, non-fluid balancer.
    - 7” deep oil pan, kick-out allowed
    - 1” carburetor spacer with maximum .065 gaskets on either side
27. GM “604” Crate Engine & Ford 347 Part # M-6007-D347SR/D347SR7
- 27.1. Engines MUST maintain factory specifications. SEE UNITED RACING SERIES ENGINE PROGRAM.
- 27.2. NOTE: “Red Sealed” 604 Engines: “RED SEALED” Engines must be purchased from GRISDALES RACING PRODUCTS
- 27.3. Ford 347SR/SR7 Crate engines must use damper supplied by manufacturer. GM 604 may use any aftermarket crankshaft damper.
- 27.4. All engine repairs MUST be approved by UNITED RACING SERIES Competition Director.
- 27.5. Any approved repairs MUST be completed by a UNITED RACING SERIES approved engine repair facility.
- 27.6. Must have an operational 6400 RPM rev chip installed.
- 27.7. 10.0:1 Compression Ratio MAX
- 27.8. No vacuum pumps/systems permitted on any engines.
28. GM “602” Crate Engine:
- 28.1. Engines MUST maintain factory specifications. SEE UNITED RACING SERIES ENGINE PROGRAM
- 28.2. All engine repairs MUST be approved by UNITED RACING SERIES Competition Director.
- 28.3. Any approved repairs MUST be completed by UNITED RACING SERIES approved engine repair facility.
- 28.4. Approved “602” changes: Double Roller Timing Chain & 7” deep oil pan, kick-out & 6 3/4 magnetic steel, non-fluid balancer must be completed by UNITED RACING SERIES approved engine repair facility.
- 28.5. Oil Pan: All oil pan bolt holes and bolt hole flanges must be visible.
- 28.6. Must have an operational 6400 RPM rev chip installed.
- 28.7. 602 Engine may use any aftermarket crankshaft damper.

NOTE: Interpretation of these rules will be solely up to the judgment of the officials in charge of the area in question. UNITED RACING SERIES reserves the right to impound non-complying components with no compensation to the owner(s). Noncompliance with the specifications outlined herein may subject violating teams to disqualification, loss of points and moneys and/or fine.

UNITED RACING SERIES RESERVES THE RIGHT TO IMPOUND ANY CAR OR COMPONENT FOR FURTHER INSPECTION. REFUSAL TO COMPLY WITH REQUEST MAY END IN EXPULSION OF DRIVER AND/OR OWNER, FINE OR PENALTY AND/OR SUSPENSION.

ALL DECISIONS BY PIT STEWARDS, CHIEF TECHNICAL INSPECTOR OR APC LATE MODEL SERIES EXECUTIVE COMMITTEE MEMBERS WILL BE FINAL. ALL RULES SUBJECT TO INTERPRETATION BY APC LATE MODEL SERIES OFFICIALS. RULE BOOKS WILL BE ISSUED TO MEMBERS.

ALL EQUIPMENT NOT GOVERNED BY THE AFOREMENTIONED RULES ARE TO BE SUBMITTED TO UNITED RACING SERIES COMPETITION DIRECTOR, NOT LESS THAN 30 DAYS PRIOR TO THE DATE OF INTENDED USAGE. NO EQUIPMENT WILL BE CONSIDERED APPROVED BY REASON OF HAVING PASSED THROUGH INSPECTION UNOBSERVED. RULES APPLY TO ALL RACE EVENTS.

UNITED RACING SERIES RESERVES THE RIGHT TO CHANGE THE RULES  
NOTE: IF IT DOESN'T SAY YOU CAN DO IT, ASK THE TECH DIRECTOR FIRST

For questions contact UNITED RACING SERIES Competition Director  
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Diagram: 1.1



