



## 2023 Modifieds

### **Body**

Car may be any make or model with any body style. Must have stock appearing roof with a minimum of 9 sq. ft, with A pillars that cover the roll cage and are attached to the windshield frame. Cars must have a hood which covers the motor and rad. Rear wheels must not stick out past nerf bars or scrub rails. Any flares must not be out past tires. Bodies must be complete at beginning of each race event. Roof minimum 38 inches in height, measured 10 inches back from windshield. Left side window opening must be a minimum of 13 inches high and 24 inches wide. All cars must be neat and brightly painted. Numbers must be 20" high X 4" wide, on both doors and on the roof using paint or decals (bottom of the roof number should be on the right-hand side of the car). Numbers are not permitted on rear quarter panel of car. A 4-inch number must be on the front nose area for line-up purposes. **Spoiler material** – Lexan only with a maximum height of 46 inches (including spoiler sides and supports) from ground to top of spoiler. Supports may extend from the top of the spoiler forward and taper down to the rear quarter panel. You must be able to see through or over the rear spoiler.

All right-side bodywork must be within the inner edge of the RR tire as observed from the front of the car. This includes any under tray, "kick up" or other appendages to the main bodywork.

### **Bumpers & Side Nerf Bars/Scrub Rails**

Front bumper may extend past the frame only 2" on each side. Front and rear bumpers must be located a minimum of 13" and a maximum of 17" from the ground to the center of the bumper. Front bumper must be double bumper style. Rear bumper may be double bumper style or have a hoop underneath original bumper. Double side scrub rails are highly recommended. They should be close together at the front and widen out to approximately 12" at the back. All bumpers and side rails must have rounded corners. The rear bumper shall not be wider than the body and a nerf bar

should extend outward and forward from the rear bumper to within 1" of the outside of the rear wheel and then return to the frame.

Side nerf bars/scrub rails may be fabricated from minimum 1¼ inch – maximum 1¾ inch O.D. round. Double side scrub rails recommended and should close together at the front and widen to approx. 12 inches at the back and cannot extend past the tires.

### **Roll Cage**

Steel roll cage must be constructed of no less than 1-3/4-inch O.D. x 0.095-inch wall thickness. No aluminum or other soft metals allowed. Front and rear roll bars must be connected at the top and bottom of both sides at seat height. Side bars are compulsory, and driver's side must extend in panels. Minimum of 4 door bars on left side (driver's side) and 3 on the right side. Plates in left side door bars recommended. All joints recommended to have gussets of not less than 0.125-inch thickness. Roll bars must be mounted on top of frame. Right side roll cage must go straight up to window level before it may angle in towards the driver's area. Window level is 15 inches above top of frame on new cars built. Right side door bars must at least form an X running from front to back. 19 inches +/- 1 inch from top of roof. Roll bars in driver's immediate area must be padded. Left leg protection bar must be installed between roll cage and left front frame rail. All bars running forward and rearward of roll cage assembly may be constructed of tubing of not less than 1½ inch O.D. minimum 0.083-inch wall thickness.

### **Interior**

Interior of car can only be constructed of minimum 22-gauge steel or aluminum. All flammable materials are not allowed in or around the driver's area

**Brake Pedals**

Must be in standard position on left side of transmission and drive shaft tunnel.

**Firewall**

Firewall must be constructed of minimum 22-gauge steel. A foot box may be fabricated on left side. Driver's compartment must be totally sealed from engine and racetrack

**Floor**

Driver's area floor which extends from drive shaft tunnel to left side roll cage and from behind driver's seat, in line with rear roll cage main hoop continuing into driver's foot box must be constructed of no less than 1/8 inch or 16-gauge magnetic steel plate.

**Gas Pedal**

A gas pedal toe bar (kick-up) is mandatory.

**Seat**

Aluminum seats are mandatory. Minimum of 0.123 inch or 1/8-inch thickness. Seat must be bolted securely with minimum diameter of 3/8 inches or larger with large steel plate washers. Seat must be positioned completely to the left of the centerline of the car and inside the frame rail. Full upper body head and shoulder containment seat is highly recommended. Approved padded headrest is mandatory and must be securely mounted

**Steering Wheel**

Removable racing steering wheel with quick release metal hub and wheel center pad are mandatory.

**Windshield**

Minimum of 1/8 inch thick Lexan in front of driver mandatory. Two interior supports 1 inch wide, and 1 inch deep (not plastic) recommended. Windshield must be able to deflect any debris or oil that might enter driver's compartment from the front. If bullet-style windshield used, center window bar recommended. A 2-inch x 2-inch mesh recommended on right-hand side and must seal to firewall and hood.

**Chassis**

Chassis main frame rail must have a minimum perimeter of 10 inches x 0.095-inch wall thickness, box tubing extending from front clip to rear suspension. Driver's side frame must be built out to the side of the car. Right side frame must be no closer to the center of the car than the inside edge of the front clip/stub being used. Chassis built with factory production frames that are at a point no further than 36 inches from the rear end housing may use 2-inch x 2-inch box tubing. Minimum chassis width is 46 inches. Fabricated front clips allowed. The complete underside of the chassis must not be plated and is to remain completely exposed for all components. The use of an engine skid plate is acceptable for oil pan protection must remain removable.

**Engine Location**

Engine must be centered in the frame. A maximum of 1 inch left of the chassis centerline and located a minimum of 70.5 inches measured from the front of rear end tube to the back of the engine block. Engine mounts or motor plates are optional.

## **Steering and Hubs**

Spindles magnetic steel only. Rack and pinion steering allowed. Aluminum tie rods adjusting sleeves allowed. Steel helm ends **MUST** be used on tie rods. Aftermarket center link allowed. Wheel stud must protrude through wheel nut. **NO** drilling holes or lightening of parts.

## **Front Suspension**

Tubular steel aftermarket control arms permitted. All control arms and mounting hardware must be made of magnetic steel. Aluminum cross shafts allowed on uppers.

## **Rear Axle**

Full floaters mandatory. No aluminum tubes. Full spool only - No Gold Tracs, limited slip devices or any type of traction control device allowed, electronic, mechanical, or otherwise. Upper and lower trailing arms not to exceed 30 inches from center to center on mounting holes. If the rear suspension is equipped with a torque arm, the maximum length is 40 inches from the center of the rear axle to the forward mounting point. No spring loaded or hydraulic devices on trailing arms or upper rear end link arms allowed. No cambered rear axle assemblies allowed.

## **Shocks**

Only one shock absorber per corner is allowed and may be aluminum or steel bodied rebuildable type. External adjustments of any design are not allowed as well as any external reservoirs will not be permitted. Coil bind or bump stops of any type or design are not permitted.

## **Springs**

Load bolts and rated coil springs allowed. Minimum spring OD is 2½ inches. Coil springs must be magnetic steel. Rear suspension may be coil spring or leaf spring type. Plastic or fiber leaf springs are not permitted. Each corner may include two spring rubbers. Each spring rubber may only make one 360-degree loop (approx. 8" in length) with the two ends lining up to complete the single round.

## **Brakes**

All four wheels must have properly working brakes. Disc brakes are allowed with mandatory dual master cylinders and an adjustable balance bar accessible from the driver's position. Aluminum or steel single or 4 piston brake calipers are allowed with a maximum retail value of \$250. Brake rotors must be magnetic steel, undrilled with a minimum thickness of 1 inch for the front and 0.750 inches for the rear.

## **Ignition**

1. Car must be self-starting.
2. Ignition on/off switch must be mounted in the centerline of the car and clearly labelled so that the ignition can be turned off from outside of either side of the car in the event of an emergency.
3. The only switches allowed are a) Master on/off mounted in the center of the car, b) push button start switch, c) Ignition power, and d) fan switch if equipped with an electric fan.
4. An operational rev chip must be accessible through the passenger window.
- 1. ALL MSD WIRING TO REMAIN OPEN FOR INSPECTION. ALL WIRING MUST USE WEATHER PAK CONNECTOR 6 AND 2 PIN AT THE MSD MODULE, AND 2 PIN AT THE DISTRIBUTOR. MALE CONNECTORS ARE REQUIRED ON THE BOX AND DISTRIBUTOR. 4 PIN CONNECTOR IS REQUIRED AND MUST BE ACCESSABLE ON THE REAR OF THE TACHOMETER.**

2. Soft touch rev control part 8728 must be mounted on the right-hand side of the dash (same as ignition box) if a stock distributor and stock module are used.

3. All built engine cars will have an operational 7000 rev chip installed.
4. All crate engines will have an operational 6400 rev chip installed.
5. Only 1 MSD box, one coil, and one wiring harness per vehicle.
6. Stock type distributor, a DUI, or MSD distributor allowed. (Continued on next page)
7. No other electrical devices are allowed anywhere on the vehicle All 6AL, 6ALN wiring to be standard:
  - a. Red wire/ignition switch
  - b. Use a brown wire/tach output
  - c. Black wire/coil negative
  - d. Orange wire/coil positive
  - e. Green wire/dist. Negative
  - f. Purple wire/dist. Positive
  - g. Connectors to be within 12 inches of the 6AL or 6ALN box.
  - h. Battery pos. And neg. May be hard wired to master disconnect and chassis ground.

**1. The MSD 6CT ignition box is not allowed because of its quick reset feature.**

### **Battery**

Battery must be anchored securely and outside of the driver's compartment by a firewall, located ahead of the rear end, no lower than the bottom of the frame rail and in between the frame rails. A battery disconnect switch is mandatory and should be located within reach of track official or safety crew and clearly marked on and off

### **Weight Location**

Weight must be securely fastened to the chassis and mounted no lower than frame rails. No weight to be added rearward of fuel cell. All added weight must be painted white and clearly identified with car number on each piece.

### **Wheels & Tires**

15-inch diameter steel racing wheels with a maximum width of 10 inch measured from bead seat to bead seat.

1. American Racer Mandatory Spec Tire options for 2023:
  - o 27.0/10.0-15S Slick EC21 compound
  - o 26.5/10.0-15S Slick EC21 compound
  - o 26.0/10.0-15s Slick EC21 compound

### **Wheelbase/Track Width**

Minimum 102-inch Wheelbase and must be within 1 inch from side to side. Wheel track width will be a maximum of 82 inches measured from outside of tire bulge at spindle height. There will be a weight penalty for 105 and under of .5 % left side weight (example 104.99 wheelbase 59.5 %  
105.00 wheelbase 60.0 %)

### **Weight**

<b>Engine</b>	<b>Weight</b>	<b>RPM Chip</b>
Crate Engine "602" (350 hp)	2600	6400
Crate Engine "604" (approved 400 hp)	2750	6400
Built Engine	2775	7000

Car weight to be measured with driver.

Left side weight 60% max.

50 lb. weight break for automatic transmission.

50 lb. weight penalty for ford or dodge crate engines

50lb weight penalty for an approved rebuilt crate motor.

Allowance of 15lbs for spent fuel off total weight will be allowed on all feature events

Allowance of 30lbs for spent fuel off total weight will be allowed on all feature events.

### **Crate Engine Options**

Only approved, sealed, unaltered engines. No changes, substitutions, or modifications to engine.

Any tampering, alterations, violations, or refusal of tech with respect to the crate engine program 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 tampered 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.

Approved engines are:

- Chevrolet 350/350hp Circle Track Crate Engine Part "602"
- Chevrolet 350/400 Limited Late Model Crate Engine Part "604."
- Ford Part 347 Sealed Crate Engine #M-6007-DS347JR2

## **Built Engine**

Definition: Parts available from your local dealer through ordinary parts catalogue may be accepted as stock. Parts ordered through dealer performance catalogues will not necessarily be considered legal.

<b>Engine</b>	<b>Maximum Overbore</b>	<b>Displacement</b>
<b>CHEVROLET – 305-350</b>	060	360 cu. In.
<b>DODGE – 318-160</b>	060	371 cu. In.
<b>FORD – 351 (Windsor only)</b>	060	362 cu. In.

## **Cylinder Block Assembly (Short Block)**

All engine blocks must be product of the manufacturer of the make for the engine being used in competition. Aftermarket engine blocks will not be permitted. The engine block must retain all factory engine dimensions, except for the maximum overbore and the surfacing of the engine block deck. Angle cutting of the engine block will not be permitted. Aluminum blocks will not be permitted. Only iron cylinder sleeves may be used to repair. Must maintain stock lifter bore: Dodge .904 inch, Chevrolet .842 inches. Repair sleeving of lifter bores permitted to a maximum of 4. Crankshaft must be stock OEM-type. Must have factory I.D. numbers that are legible. Only standard polishing and balancing allowed. Connecting rods must be magnetic steel only. Piston – stock type, flat top or dished three ring pistons with all rings in place. Top of block to piston clearance may be 0.00 deck. Compression ratio on all makes 9.5:1 or lower. However, due to measuring variations with the equipment, a whistle of 9.9:1 will be deemed legal. If on an engine teardown, the engine exceeds 9.5:1 compression, based on exact measurements performed, the engine will be declared illegal.

## **Cylinder Heads**

Cast iron OEM heads only, must be stock valve angle for manufacturer. NO acid dipping, angle milling, polishing, porting, or port matching of heads to intake or exhaust. NO hollow, sodium or titanium valves allowed. Valves stem size 11/32 inch. Valves 1.94 intake and 1.6 exhaust. NO Chrysler “308, Magnum or “W” series heads. Ford and Chrysler must use OEM stock valve stem size. All Dodge, Ford and GM aftermarket cylinder heads must be approved by Tech.

Must use OEM type valve springs and retainers. Maximum spring diameter 1.260 inch. Roller rockers and stud girdles allowed. Screw in studs or pinning of studs is allowed. Rocker locks allowed. Guide plates allowed. Shaft rockers allowed on Chrysler. NO roller lifters. NO aluminum, ceramic, titanium, or exotic metals allowed.

## **Camshaft**

Flat tappet hydraulic camshaft only. Maximum total valve lift .520 inch. Roller rockers and stud girdles allowed. Screw in studs or pinning of studs is allowed. Rocker locks allowed. Guide plates allowed. Shaft rockers allowed on Chrysler. NO roller or mushroom lifters, NO aluminum, ceramic, titanium, or exotic metals allowed.

## **Intake Manifold**

Manifold must remain stock and unaltered as produced by manufacturer. Water crossover cooling lines allowed. NO acid dipping, grinding, porting, port matching, turtles or modifications allowed. Chevrolet engines –Part #2101 (newer style only) or 2701 Vortec Performer Part #2116 Edelbrock Performer intake only.

Ford engines –Part #2665, 2750 or 2181 Edelbrock Performer intake. Dodge engines –Part #2176 Edelbrock Performer intake or Mopar part #P4876335.



## **Oil Pan and Lubrication**

Magnetic steel oil pans only. NO aluminum oil pans. Wet sump systems only. Oil pan must not be lower than cross member or frame rails of race car. Any oil is permissible. Oil filter must be directly attached to block. Any approved oil filter and breather caps may be used. Windage tray may be used. Minimum ground clearance must be retained.

NO external oil pump(s) (aftermarket) or external reservoir tanks allowed. 6½ inch deep oil pan minimum mounted no lower than the main frame rail.

## **Distributor**

Stock type 12-volt electronic HEI, DUI or MSD distributor allowed. 12-volt battery operated ignitions only. Coil, rotor, module, or cap may be aftermarket. All built engines will have an operational 7000 rev chip installed and all crate engines will have an operational 6400 rev chip installed. Soft touch rev limiter control MSD part no. 8728 or DUI part no. 380777 must be mounted on the right side of dash or deck panel out of reach of the driver. All wiring and connections must remain open and available for tech inspection. Tech will have the option at any time to either test or exchange any chip. Anyone caught tampering with chips or rev limiter will be automatically disqualified.

## **Carburetor**

Any engine can use the following:

One stock 4412 – 500CFM old style, metering block numbers 5924, 5925 & 10570 Holley factory produced 2-barrel carburetor.

- No modifications.
- Only changes allowed are jets, power valve, removal of choke parts and filling in of choke rod holes.
- Spacer/adaptor maximum 1 inch in thickness. One 0.065 gasket will be allowed on either side of the spacer.
- The legal carburetor adaptor pairing with Edelbrock intakes is Canton Racing Products part #85-060, unaltered as produced or equivalent (i.e., Bicknell # BRP 376).
- Holes in spacer plate must be located in the center of the intake holes. No venturis in or below the spacer plate.

OR

One unaltered 4-barrel Holley gauge legal 650 CFM carburetor

602 crate motors have the option of using a spacer between the carb and the intake manifold, but it cannot exceed 1 inch in thickness. One 0.065 gasket will be allowed on either side of the spacer.

- All other motors must have the carburetor bolt directly to the intake manifold with one 0.065 gasket and no spacer.

All cars must have a minimum of 2 throttle return springs, 1 throttle stop and an air cleaner (see below)

## **Air Cleaner**

Only round air cleaner element. Minimum of 12 inches and maximum of 14 inches diameter by a maximum of 4.5 inches high permitted. All air shall be filtered through element. No forward air

ducting allowed. Air cleaner base must be mounted directly to carburetor or raised sufficiently higher to safely clear the accelerator linkage.

## **Cooling System**

Aluminum radiators allowed. Electric fans allowed. Stock fans must be shrouded for protection. Radiator must include a liquid overflow container of a sufficient size to contain excess coolant during overheating conditions. It must be mounted outside of the driver compartment safely away from the driver.

NO ANTIFREEZE allowed in the cooling system.

## **Driveshaft**

Drive shaft and universals must be steel. Drive shaft must be painted white. Steel 360-degree retainer hoops, a minimum of ¼ inch thick x 2 inches wide, must be positioned at the front and rear of shaft within 6 to 12 inches of each U-joint. NO chains.

## **Exhaust System**

Headers allowed. Maximum 1¾" diameter tubing from header flange to collector to a maximum 3½" collector. No ceramic coated headers inside or out allowed. Exhaust system must either exit outside of body under 18 inches high and turned either downward and out **OR** exit under car on right side and behind driver and turned downward. Mufflers are mandatory. Muffler(s) used must remain unaltered and must meet track decibel reading.

## **Fuel**

Track approved fuel only, or pump fuel

## **Fuel Line**

A single AN-8 (1/2 inch) steel armored or Kevlar braided fuel line is mandatory and must be securely fastened under floor. NO NEOPRENE allowed. NO COPPER LINES. NO PLASTIC OR GLASS FILTERS. If fuel line runs through interior of car (cab), it must run through a steel tube painted either red or yellow and marked "FUEL LINE" in contrast to your car.

## **Fuel Pump**

Stock type mechanical fuel pump only. NO electric fuel pumps

## **Fuel Cell**

Maximum 22 U.S. gallons allowed. Fuel cell is to be securely mounted in the trunk area between the frame rails and no lower than 8 inches at ride height. A minimum of 20-gauge steel is to be used for fuel cell case. Must have a rear hoop bar for protection. If no vent line, cap must have a check valve. Fuel cell cap must be tethered to the car. No plastic or glass fuel filters. There must be a fuel shut-off valve in working order and clearly marked **ON** and **OFF**, mounted on the parcel shelf, accessible from either side of the car by track or safety officials.

## **Transmission (Manual)**

1. OEM Transmission only - must be 3 or 4 speed.
2. Must have reverse gear and all forward gears must be operational.
3. Transmission must be stock with no internal lightening of parts, not altering of shift patterns and/or ratios

4. Original brass synchro's must be installed.

### **Transmission (Auto)**

1. Automatic transmissions may be strengthened.
2. Modifications to shifting patterns are permitted, provided full shift pattern is retained. Scatter shield is highly recommended with automatic transmission.
3. Stock-type working torque with a minimum weight of 25 lbs. wet.
4. Stall test will be conducted in both forward and reverse gears.
5. Transmission oil coolers are mandatory but must not be mounted inside driver's compartment however must be contained inside the body of the car.
6. Transmission must be 2 or 3 speed automatic only.
7. Must have approved shifter.

### **Clutch And Flywheel**

Stock O.E.M.-type friction disc minimum diameter 9 inches – NO turned NO drilled or extensively modified stock units. Steel pressure plates only allowed. Stock style clutch disc but can be solid racing disc. Total clutch weight to be determined (24 lbs.) Flywheel must not weigh less than 13 pounds. Only steel ring gears – No aluminum. The 602 and 604 crate option may use the 5.5-inch clutch.

### **Bellhousing**

Steel bellhousing only. Starter mounting position must remain stock (same as on standard production bellhousing). Inspection hole must be in the bellhousing and be large enough to permit inspection of flywheel and pressure plate. The 602 and 604 crate engine option can use an aluminum bell housing if the clutch is a 5.5-inch clutch.

### **Belts And Harness**

A quick release SFI approved 5-point harness of no less than 3 inches in width, good condition is mandatory. Belts must be securely fastened to the frame, cross member or roll cage with a minimum of 3/8 inch grade 8 bolts and locknuts, in such a manner that all fittings are in a direct line with the direction of the pull, as per manufacturer's instructions. NO inertia reels allowed. NO bolts inserted through belt webbing. Anti-submarine/crotch belt is mandatory. Belts must have date tag attached and must not be any older than 3 years (manufacturer's date). All belts and mounting are subject to technical inspection.

In 2022 – must have date tag attached and must not be any older than 3 years (manufacturer's date). Belts with the new SFI tag and expiry date will expire at the end of the month listed on the tag.

### **Fire Control**

Cars must have a minimum 2.5 lb. approved steel fire extinguisher, securely mounted in an approved steel bracket on the right side of interior, within easy reach of the driver when seated and belts are fastened. All control and nozzle parts are to be made of metal and not plastic. Extinguisher must have a recharge slip dated May 1<sup>st</sup> of the current year. On board fire systems are highly recommended. On board fire system gauge must be visible and readable by tech.

### **Fire Suit**

Drivers are required to wear full coverage, one- or two-piece Nomex fire suit. Complete fire suit must be worn in all practice and race events and until car is parked in pit area. Fire-retardant gloves are mandatory socks and undergarments are strongly recommended. Driver's apparel must be clean at all times. Racing shoes mandatory.

## **Helmet**

For the 2022 race season Helmets must have a Snell certification of 2015 or 2020. This will be the final year for the 2010 certification (depending on availability of new). Helmets without certification sticker affixed to the inside of helmet are not acceptable for use. A full-face helmet is recommended. It is highly recommended that drivers wear eye protection designed for auto racing. Helmet restraints such as Hans Device, Hutchens Device or similar will be highly recommended for all events.

## **Radios**

Approved 1-way radio receiver mandatory. Two-way radios are allowed.

## **Window Net**

An approved nylon mesh net is mandatory, installed in driver's side window opening. Window net anchors must be attached to the roll bars, not to the body. Window nets must be quick release type. Net must be permanently anchored at the bottom and release at the top.

**NOTES: IN THE SPIRIT OF EQUALIZING COMPETITION, CHANGES MAY BE MADE TO THESE RULES AS REQUIRED. All DRIVERS, CAR OWNERS AND/OR TEAMS WILL BE ADVISED OF ANY RULE AMENDMENTS IN WRITING.**

Noncompliance with the specifications outlined herein may subject violating driver, car owner, chief mechanic and/or team(s) to disqualification, loss of points and earnings for that race and may subject themselves to an immediate and indefinite suspension and/or fine.