



StockMod

**POWRi Pure Stock
Specifications**

(As of 1/1/2024)

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General Rules of Conduct, Track Technical Inspections, Transponders & RACEceivers, it is the responsibility of each POWRi Pure Stock competitor to read, understand and abide by the host Speedway General Track Rules. POWRi Pure Stock drivers are to represent the POWRi Racing League in a professional and courteous manner at all times. Any unsportsmanlike conduct by a participant shall be grounds for disqualification and/or punitive action. All sanctioned tracks share information regarding unsportsmanlike behaviors and disqualifications.

1. Balancer

- a. No modifying of harmonic balancer, 8.9 lbs. min. Stock 8”.

2. Battery

- a. If battery voltage is checked it can't be higher than 13.4 volts.
 - i. Must be securely mounted.
 - ii. One (1) 12-volt battery only (no 16-volt batteries).
 - iii. Voltage converters are not allowed.
 - iv. All battery posts must be securely covered.
 - v. No other types of batteries are allowed in Race car.

3. Body

- a. 1960 or newer OEM American made stock passenger cars with factory steel top. Front-wheel drive bodies are not allowed. No convertibles, front-wheel drives, four-wheel drives, or rear engine vehicles.
- b. Sunroofs must be reinforced and enclosed. All bodies must be steel OEM, any part of OEM body “front fenders, doors, lower quarter panels” being replaced must be made of steel and look like OEM panels. Spoilers, wings, or anything that alters the stock appearance is not allowed. May run skirts no lower than 2 inches from bottom of door where meets fender. Bottom of doors must remain in OEM location (maximum five (5) inches outside frame and no lower than bottom of frame). Trunk lid may be OEM or replaced with aluminum or steel.
- c. Aftermarket nosepieces and/or tailpieces are permitted. The front nose piece must remain six (6) inches above the ground. Body and engine must match. Newer style bodies may be used “Newer Monte Carlo, T-Bird etc.” must hold and remain stock appearance with OEM panels.
- d. A and B Pillars must be stock appearance.
- e. Hoods may be made from aluminum.
- f. Must have factory body lines made into an aluminum hood.
- g. A minimum of three (3) windshield bars must be in place in front of the driver.
- h. A maximum seven (7) inch metal sun visor may be added to the top of windshield opening. Other visors in door openings or side windows are not allowed. All hoods and trunks must be securely fastened, pinned not bolted.
- i. The back of the hood must be sealed off from the cockpit and remain in the OEM installed location. Concaved hoods are not allowed. All sharp edges, torn fenders, and body panels to be repaired prior to the next race.
- j. All glass, plastic, upholstery, rear seats, lights, mirrors, and chrome must be removed. Interior tin or other covers not allowed.
- k. Dashboard may not extend more than thirty-two (32) inches from the back of engine block. Dashboard must be flat and level, except for cowl in front of driver. All doors must be secured shut (welded, chained, bolted, etc.).

- l. The front and rear inner wheel wells may be removed. Front and rear bumpers are mandatory. Sharp edges are not allowed.
 - m. Tubular front and rear bumpers are permitted, maximum two 1.75" by ninety-five thousandths (0.095) inch and must be bent to fit with rounded ends and must be covered by molded plastic nosepiece and/or tailpiece.
 - n. Bumpers must be mounted frame-end to frame-end. The center of bumper must be between sixteen (16) and twenty (20) inches and no part of the bumper may be lower than twelve (12) inches from the ground. Bumpers must be hollow (cannot be filled or solid). Bumpers must be in stock location. Front and rear bumpers must be capped to the fender, the width of the bumper. Reinforced bumpers are not allowed.
 - o. Bodies with excessive damage (as determined by an official) will not be allowed to compete.
 - p. OEM floor may be repaired or replaced with forty-nine hundredths (.049) inch steel but must remain OEM dimensions.
 - q. Trunk floor must be removed above rear-end to the point where trunk floor drops down. The truck floor must remain under the fuel cell. The truck floor may be replaced under the fuel cell with forty-nine thousandths (0.049) inch steel but must remain above frame rails.
 - r. Firewalls must remain OEM and in OEM location and extend out to body. OEM firewall may be repaired or replaced with forty-nine thousandths (0.049) inch steel but must remain OEM dimensions. Firewall may be flat or straight and may be no further back than back edge of oval hole on g body metric frame or seven (7) inches from back of motor.
 - s. All racecars must be numbered with large legible numbers on both sides, on top and on the nose and rear panels. Numbers on the sides of the racecar should be in contrasting color from the body and be at least four (4) inches thick and at least eighteen (18) inches high. Top numbers should be at least four (4) inches thick and twenty-four (24) inches high. 41" from front of roof to rear of hoop.
4. **Braking System**
- a. Must be OEM, must be operating on all four wheels and must lock up all four wheels during inspection. Must have OEM calipers and OEM rotors on front and OEM drums or OEM disc brakes on rear. OE drums are permitted on nine-inch Ford rear ends. Aluminum GM drums are not allowed. All components must be made of steel. Rear disc brakes are permitted on floater and non-floater rear-ends. Must use OEM vented rotors. Drilling, lighting and/or scalloping of rotors is not allowed. Slotted rotors are not allowed. Minimum ten and one-half (10.5) inch diameter is permitted. No brake shut offs.
 - b. Electronic brake actuators are not allowed. May use single master cylinder aftermarket brake pedal. No balance bars. 1 steel master cylinder rod from pedal to master cylinder. Steel brake lines are mandatory and must be visible for inspection. Anti-lock braking systems are not allowed. Brake shut offs and/or bias adjusters are not allowed. Master cylinder must be in stock location on firewall. May use an aftermarket single master cylinder, OEM type. Calipers must be OEM steel and all matches. Brake pads must match side to side. Must maintain minimum OEM dimension for hubs, rotors, pads, and calipers.
 - c. Brake pads cannot be altered front or rear.

5. Camshaft

- a. Hydraulic camshafts only & must pull at least 15 inches of vacuum at 1000 RPM. no tolerance. Hydraulic cam 430 maximum lift at cam, 1.5 only ratio Aluminum rockers allowed, NO 15.2 or 1.6 or Bigger NO tolerance. Poly Locks permitted. No roller cams. Lifters stock type, no Rhoades, anti-pump up, high revolution, etc. Stock type wire clip.

6. Carburetor

- a. 4412 Holley, no modifications except jets and choke removed (not choke tower). No Aftermarket Metering Blocks except E85. E85 must be stamped on the metering block. If running E85 must have a sticker on drivers a-pillar identifying E85.
- b. No electric fuel pumps, manual only.
- c. Spacer plate for carburetor from intake to carburetor only. Carburetor must have vacuum ports for testing vacuum. Carburetor spacer must be 1 inch max, 2-hole standard bore only. Maximum diameter is 1.75 inch per hole. The hole must be the same dimension all the way through the spacer. No tapered or super sucker spacers. Carburetor must pass all GO/NO GO Gauges.
- d. A one (1) inch adapter plate or spacer is permitted. Distance between bottom of carburetor and top of intake manifold cannot exceed one and one-quarter (1.25) inch including gasket. Spacer thickness must remain the same front to back and side to side.

7. Cockpit

- a. Loose objects and/or weights are not allowed. Air bags are not allowed. Rear view mirrors are not allowed. Dash tin work may be no further than thirty-two (32) inches back from the rear of the engine block. No Enclosed cockpit. The back deck must stop at the rear fire wall.

8. Communications

- a. All competitors must have a RACEceiver 1600 in car radio to compete at the track.

9. Crankshaft and Rods

- a. Stock appearing, no light weight, no H-beam rods. Press fit rods only. No floating rods, 5.7 rod on GM max. Aftermarket Eagle, Scat, etc. stock type ok. No lightening of any kind to crankshaft, 3.48 stroke max.
- b. Decking must stop at rear firewall

10. Drive Shaft

- a. A loop is required and must be constructed of at least one-quarter (0.25) inch by two (2) inch solid steel. Loop must be mounted no more than six (6) inches from the front of the drive shaft tube. Alternatively, two (2) loops of one-quarter (0.25) inch by one (1) inch solid steel fastened to cross member are permitted. Must be painted white, made of steel and a minimum of two and one half (2.5) inches in diameter. Yokes must be made of steel.

11. Engine

- a. NO Evacuation System allowed to headers, in either engine option.

12. Engine Option A

- a. Maximum size of engine block: 350 gm .060 max. 351 Windsor Ford .060 max. 360 Chrysler .060 max harmonic balancer on GM min. 8 in. Smaller engine allowed no stroker engines allowed! OEM firing orders cannot be changed. No beehive or high-performance valve springs allowed. 9 to 1 compression max. Motor Option A: Size of engine: Max. compression 9 to 1.350 GM .060 max.351 Windsor Ford .060 max.360 Chrysler .060 max.

13. Engine Option B

- a. Crate Engine:
 - i. Must use unaltered sealed GM 602 crate engine with additional IMCA Cable-Lok system POWRi or USRA seals NO EXCEPTIONS. Upon inspection, any different, altered, or missing GM seal bolts or IMCA Cable-Locks, POWRi, USRA seals will result in a penalty of 1 week suspension and a \$500 fine. Legal aftermarket oil pans ...Champ pan #CP100LTRB and Champ pick-up #100SB, or with Kevko pan IMCA92 and Kevko pick-up #1005-3/4.
 - ii. 602 GM crate engine MUST run a 6,000-rpm setting. Carburetor rule will be the same as motor option A. Engine must pull a minimum of 15" of vacuum at 1000 rpm. Track has option to enforce these restrictions with a cubic inch pump gauge or by visibly checking parts and part numbers. Disqualification and loss of points if found illegal.
- b. Bored 602 Crate Engine
 - i. Max bore is 30 over.
 - ii. Must be resealed by POWRi Only. Please contact POWRi for details.
 - iii. Only Piston allowed are 423MPS or H423DCP.
 - iv. 602 GM crate engine MUST run a 5,800-rpm setting.

14. Exhaust

- a. Stock cast iron exhaust manifolds or In Frame rail headers 1 5/8 in. max. diameter, 3" max diameter collector 2-inch o.d. pipe, must extend past driver.
- b. No step headers allowed.
- c. No stock car over the mid plate headers allowed.

15. Frame

- a. Wheelbase must be a minimum one-hundred ten (110) inches for unibody frames or a minimum one hundred seven and one-half (107.5) inches for full frames. A maximum one (1) inch difference from side to side is permitted.
- b. May be "X" braced. Unibodies must be tied from rear frame to front frame.
- c. Motor must be in stock location and a minimum one and three quarter (1.75) inches from center of fuel pump to right front top of cross member or 18.5" to right front of unaltered cross member to rear of engine block on "G" body cars. Motor mounts must be solid to chassis. From a point no further forward than one (1) inch behind the factory seam, the rear of the frame behind the rear tires may be replaced in stock location with two (2) inch by three (3) inch {2x3} steel tubing with a maximum twelve one hundredths (0.120) inch wall thickness. Factory seam must remain visible and must replace the same length of material removed. Titanium products, parts or components are not allowed anywhere on the racecar. Frame may not exceed nine (9) inches or lower than five (5) inches of ride height. Frame will be measured behind the front tires and ahead of the rear tires with driver in the racecar. Frame, cross member, all spring locations, shock locations and suspension mounting points must remain OEM unaltered and may not be altered in any way for engine placement or suspension clearance.

16. Front Suspension

- a. NO ALTERING OF STOCK COMPONENTS No aluminum or titanium components allowed. Magnet must stick to all components. Must be original and match frame. OEM center link, idler arm, pitman arm, tie rods, spindles, and front lower control arms for frame being used. Steel tube tie rod adjusting sleeves allowed. Suspension must be unaltered approved OE in stock location and replaceable by stock part. All suspension

bushings must remain OEM rubber type bushings with the OEM inner steel sleeve attached to the OEM rubber. No forward or backward movement allowed. Ball joints must be OE type and mount in factory location with no modifications. Non-adjustable tubular aftermarket upper A-frames (with or without aluminum cross shaft) are permitted but must match factory specs for the frame being used, 8" right front, 8 1/2" left front on G body.

17. Fuel:

- a. No Alcohol-based fuels.
- b. Pump gas, E85, or racing fuels allowed. No oxygen bearing additives. No pressurized fuel systems. Fuel cells mandatory. Fuel max. capacity of 22 gallons.
- c. E85 must have a sticker on the driver's A-Pillar stating the driver is running that fuel.
- d. Must have new style screw on lip with flapper in top. Fuel cells must be encased in an approved metal container of no less than 20-gauge steel or 1/8-inch aluminum.
- e. Fuel cells must be mounted between frame rails as far forward as possible and using four, two (2) inches by 1/8-inch metal straps, two in each direction.
- f. Bumper must be equipped with a drag loop extending below bottom of the cell. No electric fuel pumps.

18. Fuel Cells

- a. Must be a commercially manufactured racing fuel cell. Boat or stock automotive tanks not allowed. Maximum 22-gallon cell. Steel outer can mandatory. Must be mounted above trunk floor pan and must be mounted securely inside trunk of car. Must be mounted by a minimum of 2 1/8" thick x 2" wide solid steel straps around the fuel cell. Must have firewall between fuel cell and driver. Must have a check valve. Fuel cell vent including cap vent, must have check valves, a flapper spring, or a ball type filler valve. Fuel lines passing thru cockpit must be enclosed in metal tubing. Fuel filters not allowed in cockpit.

19. Gauges/Electronics

- a. No Alternator.
- b. Mandatory MSD (part #8727CT) rev control box is permitted with unaltered wiring harness (motor option A max RPM setting must be 6,200 / motor option B max RPM setting must be 6,000). 12-volt ignition system only. HEI distributor only. OEM firing order cannot be changed.
- c. Ignition rotor, cap, coil, and module must remain OEM appearing. No ignition boxes, remote coil, or accessories.
- d. All wiring must be visible for inspection. Only gauges allowed are analog oil pressure and water temperature and analog tachometer or Digital tachometers are permitted. (Memory recall allowed).
- e. Ground wire must be visible for inspection, and it is recommended that it be mounted near or on the distributor. No traction control allowed. NO MSD or Davis Tech coils or modules. Must utilize OEM distributor and ignition.
- f. Stock-appearing coils, coil covers and modules only. Square coil covers are not allowed. Multiple spark ignitions are not allowed. Crank trigger ignitions are not allowed. GM external coils are not allowed. All ignition parts must remain out of the reach of the driver.
- g. No Bluetooth or cellular devices are allowed in the race car.

20. Heads

- a. 76 cc min., stock, no performance heads (no double humps, no 292,041 castings, no lt1., no bowtie, no center bolt valve cover. Stock replace Dart Head 10024360 Only Allowed after Oct 2023. No porting or polishing, screw in 3/8 studs with shoulder, guide plates are allowed, 194/160 valves max. no 202/160 allowed. 305heads on 305 only! Heads: GM OEM approved head numbers are: 14079267, 3986336, 3986339, 3986339X, 3986388, 3932441, 376445, 3928454, 3932454, 3876487, 3973487, 3973487X, 3973493, 3951598, 468642, 330862, 333882, 3998920, 3998991, 3998993, 3998997, 3970126.
- b. FORD: World Products Windsor Jr 5303 Bare, 53030 Complete. If using this head must run dished pistons. 50 thousand head gaskets to reach 9:1 Compression. Rockers 1.6 cam lift at lifter is 268 to match a 430 lift at rocker. Stock OEM Balancer only.
- c. MOPAR: Indy-X Head 20301 LA-X Roller Tip Rocker PRW 3231811 1.5 9:1 Compression Stock OEM Balancer only.

21. Intake manifold

- a. Only intakes allowed are GM 2101, ford 2121 or 2181, Chrysler 2176 or 3776. Intake must be unaltered (part #2701).

22. Oil Pan

- a. Must have 1 inch inspection hole above oil level for inspection. Inspection hole needs to be installed in a manner so that official can see crankshaft and rods for proper inspection otherwise pan will be removed for inspection. No aluminum oil pans.

23. Pistons

- a. Flat top 4-valve relief only. Hypereutectic 4-valve relief pistons ok.

24. Rear-End

- a. Truck rear-ends are not allowed. Ford nine-inch rear-ends, and floater rear-ends are permitted but must be mounted like stock rear-end for that make and model. Rear-end may be locked. No locker rear-ends Floater rear-end is optional. Gun-drilled or titanium axles are not allowed. Axles must be made of steel and solid. Rear-end must be centered on chassis. All gears must maintain factory specs and weights. No added weight on rear-ends.

25. Rear Suspension

- a. NO ALTERING OF STOCK COMPONENTS
- b. Upper trailer arm brackets must follow suspension bushing rule and remain level side to side. Center of rear lower control arm bolt holes may be no lower than 2 7/8" inches from bottom of axle housing and the same on both left and right. Upper Trailing arm mounts maximum 2 1/2" from top of housing to center of bolts and must be same right to left, Forward and back, and must remain tight Rear spring perches must be solid, may be no more than one (1) inch tall, must be the same on both sides and must be centered on the rear end housing. Rear trailing arms, upper and lower must be stock length for OEM frame being used. Bushings must be made of rubber with steel sleeves. OEM TYPE. Trailing arms must be in OEM mounts on frame and cannot be adjustable on chassis or rearend. Leaf springs may use lowering blocks but cannot be adjustable. No spring sliders, no split leaf, no mono leaf, and must have same number of leaves in front and behind axle. Spring perches must be welded solid to rear end. No slapper type traction devices, or torque arms.
- c. May have after market upper and lower control arms. Must be steel. Have O.E.M type bushings and must be factory in length, non-adjustable.

26. Roll Cages

- a. Must use a minimum ninety-five one-thousandths (0.095) inch wall thickness tubing with a minimum one and five hundredths of a (1.500) inch diameter for main cage and door bars. No offset cages. Aluminum and/or other soft metals are not allowed. Roll bar connections must be properly welded. Front hoops are permitted. 1.750" tubing in Main 4-point roll cage highly recommended. Roll bars within the driver's reach must be padded with an accepted material as determined by an official. Fire retardant material is highly recommended. Installation and workmanship must be acceptable to officials. Full-perimeter four-post roll cage of continuous hoops, with an "X" brace in rear hoop is mandatory and front down bars must be tied together. Rear kickers must be used. Minimum tubing dimension for "X" brace and rear kickers are eighty-three one-thousandths (.083) inch wall thickness by one and one quarter (1.25) inch diameter tubing. Must be securely welded to OEM frame.
- b. Must have a minimum of one (1) cross bar in top halo. A minimum of forty (40) inches between front and rear down bars at the top of the door panel is mandatory.
- c. Maximum of seventy-six (76) inches from back of engine to front edge of rear hoop is permitted and top halo must be no less than forty (40) inches across left to right and twenty-nine (29) inches front to back, from outside to outside. Rear of seat at the top of shoulders maximum 70" from back of engine.
- d. With helmet on and driver securely strapped into the racing seat, top of driver's head must not protrude above the roll cage. Three horizontal door bars on both sides are mandatory. Minimum of four uprights tied from frame to top door bar on driver's side, three on passenger side. Steel door plates made of eighteen (18) gauge, or forty-nine one-thousandths (0.049) inch minimum thickness metal must be securely welded to outside of doors bars on driver's side.
- e. Plate must cover the area from the top door bar to the rocker panel and from the rear down post to six (6) inches in front of the seat. Must be visible for inspection. Must have a tow hook on front and rear. May have two bars for protection in front of radiator, behind bumper, within confines of body and no wider than stock frame horns.
- f. Absolutely no square tubing or galvanized pipe allowed in main cage. Fuel cell protection bar is mandatory and must be mounted frame rail to frame rail and be no higher than the fuel cell and inside the trunk area. Maximum one and three-quarters (1.75) inch diameter by ninety-five one-thousandths (.095) wall thickness tubing required. Frame "X" bracing and any added bars to the frame and cage may be a maximum of one and three-quarters (1.75) inch diameter by twelve one-hundredths (0.12) wall thickness round tubing only or one and one-quarter (1.25) inch by twelve one hundredths (0.12) inch wall thickness square tubing.

27. Shock & Springs

- a. Shock mounts must be the on the same side as came out on OEM frame being used and mount in stock location on frame and within two (2) inches of center of trailing arm bolt (up and down, left to right). Spacers, lumber, or chains are not allowed.
- b. Anything welded to frame or spring is not allowed.
- c. One (1) unaltered steel non-adjustable OEM mount shock in OEM location. Only specified shocks allowed see list. Afco: 10 series Front 1020,1021,1022. Rear 1030, 1031, 1032,1033, 1035, 1043 Shock shaft must be able to compress all the way into shock body.

- d. Shock shaft must move in both directions from its installed position and measured at ride height. Shock cannot preload the spring. Coil-over, remote and/or air reservoir shocks are not allowed. Bladder-type valves and/or Schrader valves are not allowed. Rear spring perches must be solid, may be no more than one (1) inch tall, must be the same on both sides and must be centered on the rear end housing.
- e. Progressive springs are not allowed. No struts allowed. Spring rubbers are not allowed. Springs must be mounted straight up and down (not tipped) and on the center of the housing. Suspension travel limiting devices are not allowed.
- f. Racing springs allowed. Maximum 14" tall rear springs. Front springs height must match side to side. Rear spring heights must match side to side. No spring spacers or weight jack bolts.
- g. Must have one shock on each corner, all 4 must be in working order.

28. Starter

- a. Engine must have a working starter and must be capable of starting car on demand.

29. Steering

- a. Steering box must be unaltered OEM and have no less than 2 1/2 turns lock to lock and remain within original bolt pattern for type of frame used. External steering quickner's allowed. Steering linkage must be steel and in OEM stock location on left side of cockpit tube. Rack and pinion are not allowed. Quick-release metal coupling on steering wheel is mandatory. Plastic couplings are not allowed. No sweet, KSE, or any brand fast ratio steering boxes.

30. Tires

- a. Tires may be grooved and sipped, no tire doping.
- b. Tire Options:
 - i. KK704 American Racer.
 - ii. 8-inch asphalt take offs.
- c. All tires must cold durometer at 50.
- d. No mixing of tires between asphalt take off and American Racers.

31. Transmission

- a. Option 1
 - i. All forward and reverse gears must be operational, plus a neutral position. With engine running and car in still position, driver must be able to engage car in gear and move forward, then backward. Only OEM production transmissions allowed. No 'in and out' boxes or quick-change devices allowed. Functioning shift levers must be in OEM location. One steel or aluminum OEM style/size flywheel allowed, must be bolted directly to end of crankshaft. 10.4 in min. clutch stock appearing pressure plate must weigh min. of 15 lbs. Pressure plate will be weighed by itself. Stock spring type disc, no solid hub, min. 15 lb. Flywheel will be weighed by itself. Must be unaltered three- or four-speed in OEM production case. No five (or more) speeds allowed. Must have working clutch inside explosion-proof steel bell housing with one hole for throw out bearing lever or hose, must be 270 degrees around top of clutch and flywheel area. No mini clutch allowed. No racing clutches. Components must rotate, consistent with engine rpm, while car is in any gear. No Bert, Brinn or Falcon type transmissions allowed.

- b. Option 2
 - i. Stock automatic transmission with full size working torque convertor. No power glides, 3-speed automatics only no TCI CNR, etc. type torque convertors. Mandatory must have approved scatter shield constructed of minimum 0.125 inch by 3-inch steel, 270 degrees around flex plate. Only external lines allowed are for transmission cooler. Claim on torque convertors is \$75.

32. Weight

- a. The total weight of the car with the driver and full race gear will be 3,000 pounds after the completion of the race. No ballast mounted in the cock pit. No ballast mounted on bumpers. All lead ballast must be painted white with the car number displayed on it. Ballast must have a minimum of two ½” bolts and two weight clamps per 50 pounds of lead. No more than 25 pounds of lead per any one mount.

33. Wheels

- a. 8-inch max width steel wheels. Bead lock allowed on right rear only. 1-inch Lugnutz mandatory. 2-inch maximum offset including wheel spacers. No solid or heavy wheels, standard weight sticker wheels only. No solid steel wheel spacers must be Aluminum. Spacer can be no bigger than a drive flange 6.5 inches in diameter. No Tolerance.