



**StockMod**

# **POWRi Midwest Mod Specifications**

**(As of 1/1/2024)**

# Index

<b>Bodies</b>	<b>2,8</b>
<b>Balancer</b>	<b>2</b>
<b>Battery</b>	<b>2</b>
<b>Brakes</b>	<b>2</b>
<b>Bumpers</b>	<b>2</b>
<b>Camshaft</b>	<b>3</b>
<b>Crankshaft and Rods</b>	<b>3</b>
<b>Carburetor</b>	<b>3</b>
<b>Communications</b>	<b>3</b>
<b>Differential/Rear End</b>	<b>3</b>
<b>Driveshaft</b>	<b>3</b>
<b>Engine</b>	<b>4</b>
<b>Engine Option A</b>	<b>4</b>
<b>Engine Option B</b>	<b>4</b>
<b>Exhaust</b>	<b>4</b>
<b>Frames</b>	<b>4</b>
<b>Front suspension</b>	<b>5</b>
<b>Fuel Systems</b>	<b>5</b>
<b>Gauges/Electronics</b>	<b>5</b>
<b>Heads</b>	<b>6</b>
<b>Intake manifold</b>	<b>6</b>
<b>Oil Pans</b>	<b>6</b>
<b>Pistons</b>	<b>6</b>
<b>Rear suspension</b>	<b>6</b>
<b>Roll Cage</b>	<b>7</b>
<b>Seat And Seat Belts</b>	<b>7</b>
<b>Shocks</b>	<b>7</b>
<b>Starter</b>	<b>7</b>
<b>Tires</b>	<b>7</b>
<b>Transmission</b>	<b>7</b>
<b>Weight</b>	<b>8</b>
<b>Wheel</b>	<b>8</b>
<b>Wheelbase</b>	<b>8</b>

General Rules of Conduct, Track Technical Inspections, Transponders & RACEceivers, it is the responsibility of each POWRi Midwestern Modified competitor to read, understand and abide by the host Speedway General Track Rules. POWRi Midwestern Modified 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. Bodies**

- a. Sail panels
  - i. Please reference the Midwest Mod body dimension page for sail panel and spoiler sides. (Dimension X, Y for sail panel)
  - ii. 2" spoiler allowed, must be mounted under decking, 90 degrees straight up from decking. Deck height remains max 39 inches with spoiler no greater than 41 inches.
  - iii. No Nose Wings allowed.
  - iv. Must match both sides, no cut outs. MD3 nose not allowed, window opening must be a minimum of at least 12 inches on all 4 corners. The body may extend 2" on left side & 1 inch past the tire on right side. Max. deck height 39 inches. No Tolerance. No reverse hood rake.
  - v. Bodies must be centered on chassis no skew allowed a tolerance of two inches is allowed.
- b. Plastic and/or composite body panels are not allowed except for the rear quarter panels and doors. The rear quarter and doors may be constructed from a fire-retardant plastic or composite material.

**2. Balancer**

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

**3. Battery**

- a. All batteries must be mounted in a safe manner. The top of the battery must be covered.
- a. If battery voltage is checked it can't be higher than 13.4 volts.
  - i. Must be securely mounted inside frame rails and covered.
  - 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.

**4. Braking System**

- a. Must be operating on all four wheels and must lock up all four wheels during inspection.
- b. Must have caliper and rotor on all four wheels. The caliper and rotor must be standard size and weight. Vented rotors are required on front and rear wheels.
- c. Electronic brake actuators are not allowed. Brake shut offs are not allowed.
- d. Calipers may not be lightened, must be OEM, made of steel and must match front to front and rear to rear. Brake pads may not be altered or lightened and must match side to side.
- e. Rotors must be steel and may not be lightened, scalloped, slotted, or drilled. Rotors may be re-drilled for different bolt patterns or larger studs. Oil bath hubs are not allowed.
- f. Front-to-rear brake bias is permitted (no left to right).
- g. Brake floaters are not allowed.
- h. Brake lines must be visible.
- i. Must maintain minimum OEM dimension for hubs, rotors, pads, and calipers.

**5. Bumpers**

- a. Bumpers must be used front and rear. The front bumper must be mounted on frame end and be of a semicircle configuration with the bottom loop parallel to the ground. Front bumper must be ten (10) inches high from bottom bar to top of top bar. Material must be one and one quarter inch minimum, two-inch maximum O.D. steel pipe. Rear bumpers may be constructed of pipe, square tubing, but must not have sharp edges. Rear bumpers and nerf bars must not extend beyond the width of rear tire. Bumpers must be able to support a car when lifted by a wrecker.

**6. 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.

**7. Crankshaft and Rods**

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

**8. 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.

**9. Communications**

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

**10. Differential/Rear End**

- a. Any passenger car type or truck rear end may be used. Floater rear ends are allowed. Any steel approved OEM passenger car or truck non-cambered rear end allowed. All components must be steel. Inspection hole in housing required. Solid steel axles or gun drilled steel axles and one-piece steel drive flanges only. May have Aluminum axel caps.
- b. Quick change option is allowed and must use 10" ring gear with aluminum or steel spool, steel axle tubes, minimum one-inch-wide spur gears and bolt on rear cover. Safety hubs (floater) allowed. Steel axles only. All additional components must be steel axle caps, U-joint caps, and one-piece drive flange. One inch inspection hole required in housings. No scalloped ring gears cambered rear ends, heavyweight axle tubes (max .250" wall) or housing braces. NO lightweight gears. Pinion plate must be steel.

**11. Driveshaft**

- a. Minimum two-inch diameter, white, steel driveshaft. Steel slip-yokes only. 360-degree drive shaft loop required and must be constructed of at least .25-inch by two-inch steel, or one-inch tubing, mounted six inches back from front U-joint.

- b. Carbon fiber drive shafts will be allowed as an option. Must be white.
- 12. Engine**
- a. NO Evacuation System allowed to headers, in either engine option.
  - b. Location of Rear of engine (bellhousing flange) must be at least 72 inches forward from the centerline of the rear axle. The center of the crankshaft must be within two and one-half (2 1/2) inches of centerline of the ball joints.
- 13. 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 engines allowed no stroker engines allowed! OEM firing orders cannot be changed. No beehive or high-performance valve springs allowed. 9 to 1 compression max.
- 14. 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 POWRi, IMCA Cable-Locks, 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.
    - iii. Carburetor rule will be the same as motor option A.
    - iv. The engine must pull a minimum of 15" of vacuum at 1000 rpm.
    - v. Track has the 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.
- 15. Exhaust**
- a. Any collector type header allowed. Exhaust must be directed away from areas of possible fuel spillage. No Zoomies. No 180-degree headers. No step down or Y-type headers.
- 16. Frame**
- b. Factory production complete full-perimeter 1960 or newer parallel American passenger car frames only. Frames may be cut in the rear only at a point equal to or behind rear of engine.
  - c. May only be altered for the installation of springs and shocks. The top of frame may not be altered for upper "A" frame clearance.
  - d. All components must be made of steel and be properly welded.
  - e. Must be full and complete on both sides, may not be widened or narrowed and must be able to support roll cage on both sides. All factory holes must be present for inspection. All measurements must meet the frame diagram tolerances listed or be within one-half (0.5) inch (either way) of OEM measurements on any measurement not listed on frame diagram—NO TOLERANCE.

- f. Minimum height from ground is four (4) inches. Exception: Front cross member may be notched for radiator clearance only. Outside frame rails may not be raised. (See measurement “L” on frame diagram).
- g. The rear frame may be altered to accept leaf or coil springs.
- h. Hydraulic, ratchet or electric weight jacks are not allowed anywhere on the racecar. Aluminum jack bolts are not allowed.
- i. The wheelbase must be a minimum of one-hundred eight (108) inches on both sides and a maximum of one hundred twelve (112) inches on both sides (no tolerance).
- j. Tubular front clips are not allowed.
- k. Overall width of the racecar may not exceed seventy-eight (78) inches. Width shall be measured from the widest points on each side of the racecar (the tires).
- l. Rear of engine (bell housing flange) must be mounted at least seventy-two (72) inches forward from the center line of the rear axle—NO TOLERANCE.

#### **17. Front Suspension**

- a. Front suspension must match the frame and be in stock location.
- b. Parts must be replaceable from stock oem type parts from same type suspension except upper a-frame and a-frame mount. Tube type upper a-frame may be used. A fabricated a-frame mount may be used but must be in a stock location. A lower aftermarket a-frame can be used but must be in a stock location.
- c. All suspension components must be unaltered from the manufacturer. No fabricated spindles. Adjustable strut bars can be used on the front end only. No coil over shocks allowed either front or rear. One shock per wheel.
- d. The steering box must be stock oem type and be in stock location. No rack and pinion steering. No center steering. Adjustable sway bars allowed. Front springs must be stock metric dimensions & Chevelle must be stock dimensions 5”x 9.5 Max. 500 lb. min front spring rate. Will be checked.

#### **18. Fuel Systems**

- 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.

#### **19. Gauges/Electronics**

- a. 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, Bored crate engine max RPM 5,800).
- b. 12-volt ignition system only. HEI distributor only. OEM firing order cannot be changed. Ignition rotor, cap, coil, and module must remain OEM appearing.
- c. No ignition boxes, remote coil, or accessories. 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).

- d. Ground wire must be visible for inspection, and it is recommended that it be mounted near or on the distributor.
- e. No traction control allowed. NO MSD or Davis Tech coils or modules. Must utilize OEM distributor and ignition. Stock-appearing coils, coil covers and modules only. Square coil covers are not allowed. Multiple spark ignitions are not allowed.
- f. 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 Alternators allowed.**
- h. No Bluetooth or cellular devices are allowed in race cars.

#### 20. **Heads**

- a. 76 cc min., stock, no performance heads (no double humps, no 292,041 castings, no 1t1., no bowtie, no center bolt valve cover. Stock replacement Dart Head 10024360 Only. 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.
- 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
- c. Mopar: Indy-X Head 20301 LA-X
- d. Roller Tip Rocker PRW 3231811 1.5 9:1 Compression Stock OEM Balancer.

#### 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 Pans**

- a. Extra capacity oil pans are permitted. No dry sumps allowed. Oil pump must mount in stock position. 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.

#### 23. **Pistons**

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

#### 24. **Rear suspension**

- a. Two options: aftermarket three link design or multi-leaf spring design. All components must be steel. All mounts and brackets must be welded or bolted solid. You may not run a dampening shock above the rear-end.
- b. Three link design requirements - must use minimum 15-inch center to center of heims lower trailing arms both sides need to be the same, (1/2- inch tolerance), no swing arms.
- c. Straight tube only no bent tubes. Solid pull bars are required, no spring bars, rubber bushings or any type of torque device.
- d. Pull bar must be mounted solid (no rubber or any type of cushion in the mounting bracket). Must be located at top center of rear end housing and remain centered on housing over drive shaft (1 inch tolerance left to right).
- e. May use minimum 23-inch long Panhard bar located behind rear end housing or minimum 19-inch-long J-bar mounted to a steel pinion bracket. Measurements are from center of heim joint to center of heim joint.
- f. May mount rear spring over axle housing or use coil cover eliminators (sliders). A lower spring perch or coil cover mount must be welded to rear end housing solid mount or pivot ball allowed. No birdcages or floating mounts allowed.

- g. Must use steel upper weight jack if springs are mounted over axle housing. No shock type eliminators. No weight on top of rearend tubes or housing.
- h. Maximum length rear spring 16”.
- i. Minimum length rear spring 11”.

**25. Roll Cage**

- a. Must consist of continuous hoops not less than one and one-half inches outside diameter and must have a wall thickness of at least .095 inch. Must be frame mounted in at least six (6) places. Body mounted roll cages are not acceptable. Must consist of configuration of front and rear hoops connected by tubing on sides or side hoops in a manner deemed acceptable by the inspector. A driver’s head must not protrude above cage with helmet on while strapped in driver’s seat. Roll cage must have a 3/16-inch inspection hole in non-critical area. Must have at least three (3) horizontal bars at driver’s door welded to front and rear of roll cage members.

**26. Seat And Seat Belts**

- a. Racing seats are mandatory. All cars must be equipped with an approved quick release type seat belt and shoulder harness securely fastened to frame and roll cage. Seat belt material should be at least three (3) inches wide AND CANNOT BE OLDER THAN 2 YEARS. The seat and steering wheel may be located to suit the driver’s taste but must be kept on the left side of the car. No center steers. Please see the Safety Requirements Rules for more information.

**27. Shocks**

- a. One steel, nonadjustable, unaltered shock per wheel only. Take apart from factory Oem shocks allowed. No external gas ports of any kind. No screws. No Schrader valves. No ports, none.
- b. All shock mounts, including screw jack type, must be welded. Must have 1” minimum of shock travel up & down at ride height with driver in car. No external or internal bumpers or stops.
- c. No coil over, air or remote reservoir shocks. No Schrader valves or bladder type valve allowed. The front half of any shock may be shielded. NO Chain or Shock Eliminator Front either side.
- d. Must have shock on all four (4) corners.

**28. Starter**

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

**29. 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.

**30. Transmission:**

- a. OEM three-, four- and five-speed and automatic production-types are permitted. With engine running and racecar in stationary position, driver must be able to engage racecar in gear and then move forward and then backward at time of inspection. In-and-out boxes are not allowed. Ball spline transmissions are not allowed. May all be clutch-operated or an OEM automatic with a coupler. May use a hand or clutch pedal operated ball valve for neutral.



- b. Aftermarket transmissions are permitted.
  - c. Approved aftermarket transmissions are Bert (part #BERLMZ), Bert 2nd Generation are not allowed; Brinn (part #70001), Falcon (part #60100), RaceGator (part #140002/140002-C) and Mitchell Machine Bullet Tranny with internal clutch. Clutch must be inside of bell housing for OEM production-type transmissions.
  - d. The starter must bolt to engine block or factory location.
  - e. One (1) forward gear and one (1) reverse gear must be in working order, plus a neutral position, and must be able to be shifted by driver.
  - f. Aluminum flywheels are not permitted. Must have full-sized steel bell housing. Flywheel must bolt to crankshaft. Clutch must bolt to flywheel, a minimum six and one-quarter (6.25) inch clutch.
  - g. Automatic and aftermarket transmissions must have a guard of 270 degrees around flex plate or flywheel and must be constructed of at least one-quarter (0.25) inch steel. Alternatively, automatic transmissions may utilize an SFI-certified aftermarket guard. Flex plates must be SFI certified.
  - h. Internal clutches are not allowed except for approved aftermarket transmissions.
31. **Weight**
- a. Minimum weight is 2,500 pounds with driver after race, no tolerance. All lead weights must be mounted securely with 2 weight clamps and 1/2-inch bolts. The lead must be painted white and have your car number on the lead.
32. **Wheel**
- a. Wheel width must not exceed eight (8) inches. No aluminum wheels. Bead locks are allowed on the right rear only. Any foam or plastic type mud cover mounted on right side wheels. Inner mud plugs on LR only. No solid or heavy wheels, standard weight sticker wheels only. No metal wheel spacer aluminum only. Spacer can be no bigger than a drive flange 6.5 inches in diameter. No Tolerance.
33. **Wheelbase**
- a. 108 inches minimum, 112 inches maximum on both sides.

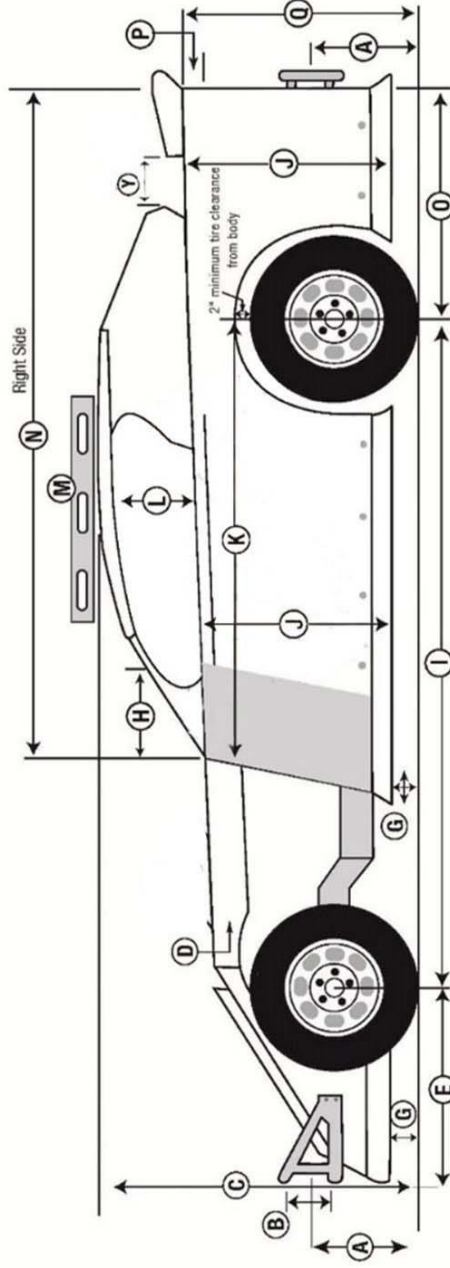
# POWER1 Midwest Mod Body DIMENSIONS

**A** 20" max. 16" min. (ground to center of bumpers, front and rear)  
**B** 6.5" min. (center to center)  
**C** 54" max. roll cage, 56" max. roof, 42" min. both  
**D** Hood 6" max. drop (sides), sealed off from driver's compartment and max. 6" rake.  
**E** 36" max.

**G** 4" min. ground clearance; Door may extend max. 6" past block at bottom, both sides.  
**H** 19" max., must be same on both sides.  
**I** 112" max. 108" min.  
**J** 31" max. 24" min.  
**K** 72" max. or not past back of block, at top. Left side may extend forward to cover foot box.  
**L** 18" max. 12" opening, both sides.  
**M** With level, must have no more than 2" clearance at rear of roof and 5" at top front.

**N** 120" max. 106" min.  
**O** 48" max. 34" min.  
**P** Interior slope is 6" max. front to rear and flat across. If flat at front half of interior you have used up 50% of your 6" so from behind driver to rear you may only have 3".  
**Q** Top of interior must be flush with top of doors and quarters. Optional escape hatch from driver to passenger door allowed.  
**R** Min. 24" nose must be flat and flush with sides.  
**S** 66" max. 24" min. must cover radiator.  
**T** 52" max. 44" min. (includes sides)  
**U** 56" max. 47" min.  
**V** Tires max 1" inside body both sides.  
**W** 66" max. 53" min. same front to back  
**X** 43" max. 24" min.  
**Y** 3" minimum

**REAR FILLER PANEL:** 8" min. / 90 degree angle. Must be solid, attached to deck, extend to quarter panels, securely fastened.  
**SPOILER BRACES:** Maximum 3 total. Bottom edge of spoiler brace must be flush with rear edge of interior deck.  
**SAIL PANELS:** Must slope down from rear edge of roof and be within confines of these dimensions and the same on both sides. Must mount to outside of, and can be no wider than interior deck. Must mount under roof sides.



All body measurements are max. unless otherwise specified. Dimensions have zero tolerance.

