

Last Updated 12-2-2013

2014 Lakeport – Ukiah Speedway

Modified Rules

A technically proficient racing division that is still both affordable to build and equal to drive. It is an evolution from the 1996 IMCA Modified rules that does not depend on parts manufactured for the IMCA.

1 General

1.1 Glossary

1.1.1 OEM

Original Equipment Manufacturer: Manufactured by the original manufacturer.
The part may not be modified in any way that affects the performance specifications.

1.1.2 Stock

OEM, or after-market with performance specifications that are comparable to that of the OEM part.
The part may not be modified in any way that affects the performance specifications.

1.1.3 Technical Discretion

Inspection and assessment according to the spirit and intended purpose of the rules. The spirit, intended purpose, and safety concerns will always override the current wording of the rules.

1.1.4 Abbreviations

OD Outer Diameter Tube or hole cross-section diameter measured from the outer edges.
ID Inner Diameter Tube or hole cross-section diameter measured from the inner edges.

1.1.5 Measurement Units

A double-quote 2" inches
A single-quote 2' feet
A super-script circle 90° angle in degrees
Sound level 90dBA A-weighted decibels

A measure of sound weighted by how it affects the human ear. 0 dBA is barely not hearable in a quiet room, and 140 dBA will cause pain.

1.2 Rule changes from the previous year are highlighted in gray (Spelling, wording, and format changes are not). **1.3** All rules are subject to Technical Discretion.

1.4 No traction control (TC / ETC) devices are allowed in any part of the car.

2 Model

2.1 Year 1960 to 2014

2.2 Wheelbase Minimum 108", both sides.

2.3 Includes Factory production complete full parallel American passenger car frames only.

3 Weight

3.1 Minimum total 2,500 lbs. car and driver before race.

3.2 Maximum left side 58%

3.3 Weights

3.3.1 Each 0 – 100 lbs. of weights must be secured to the car with either two (2) 1/2" bolts or four (4) 3/8" bolts..

3.3.2 Must be painted white and clearly marked with the car number.

3.4 Any deviations from these standards will be subject to major weight penalties.

4 Chassis

4.1 Frames may be cut in the rear only at a point no further than 36" from the center of the rear end housing.

4.2 No front clips or tube type allowed.

4.3 Frames may not be widened or narrowed.

4.4 Right frame rail must be full and complete.

4.5 Left side frame rail must be full and complete to the front of the foot box.

4.6 A minimum of 4" of the original frame rail must be maintained.

4.7 The front cross member may be notched for radiator and/or steering clearance only.

4.8 Minimum side rail frame height from the ground is 3 1/2" with driver. Nothing below 2" anywhere.

4.9 Maximum overall width, front or rear, shall not exceed 78" from outside of tread to outside of tread (measured at the top of tires.)

4.10 Rear of frame may be altered to accept leaf or coil springs.

5 Suspension

5.1 Front suspension must be unaltered OEM, in stock location, and replaceable by stock parts from the same type of suspension, except where specified.

5.2 Bottom A-frames cannot be altered or moved.

5.3 Tube-type upper A-frames allowed and can be moved.

5.4 No aluminum A-frames.

5.5 Lower ball joints must remain within stock hole.

5.6 Trailing arms, panhard bars, and Heim rods must be steel. Right hand trailing arm(s) must be a solid link with standard Heim rodends.

5.7 Steel Heim rods on tie rods are allowed. After market screw-in ball joints are allowed.

5.8 Stock spindles only. No fabricated or aluminum spindles.

5.9 No torsion bars allowed in the rear.

5.10 No hydraulic, ratchet, or electric weight jacks anywhere in or on the car.

5.11 Springs

5.11.1 Steel springs only.

5.11.2 Coil spring must be at least 41/2 " outside diameter.

5.11.3 No coil over assemblies allowed in the front.

5.11.4 Additional springs (any diameter) in other locations is permissible (See §5.6).

5.12 Shocks

5.12.1 No air shocks or air bags allowed.

5.12.2 One shock per wheel only.

5.12.3 Additional shocks in other locations permissible.

5.12.4 Bump stops are allowed.

5.13 Sway Bar

Front sway bar must be OEM type.

6 Body

6.1 All bodies must comply with the Body Dimensions table and diagram (See the end of the document).

6.2 Handmade body parts may be constructed of steel, aluminum, or fiberglass.

6.3 Neither side of the body can extend beyond the rear tire, and the combined width of both the left and right rear tires outside the body must be at least 6".

6.4 Firewall and floorboards are mandatory.

6.5 Roof

6.5.1 A roof is optional.

6.5.2 A car with a roof must meet all **MODIFIED BODY DIMENSIONS**.

6.5.3 A car with no roof must use arm restraints and cannot have side boards. May use a window net on right-side opening. **6.5.4** Sail panels must closely resemble examples shown on the body diagram (end of document). Any reinforcing lips on the rear of the sail panels must be 180° bends.

6.6 Hood

6.6.1 The engine compartment will remain open with no side panels.

6.6.2 Hood sides may have a maximum 4" drop.

6.6.3 The hood scoop height can be a maximum of 6", and must be closed in the rear (does not include air cleaner.) **6.6.4** The hood can only have a 3" maximum rake from front to rear.

6.7 Wings and Spoilers

6.7.1 No wings or extended flanges to direct air are allowed anywhere outside or inside the car. 2 1/2" Vertical side wing allowed on nose

6.7.2 Rear Spoiler will be allowed at competitor's option. Spoiler shall be made of clear lexan, maximum of 8 inches in height. No wider than the rear deck edge, and must be mounted to the rear deck edge. Forward braces shall be no taller than 8" tapering down to 2" and extend forward no more than 24".

6.8 Bumpers / Nerf Bars

6.8.1 Both front and rear bumpers must be made of at least 1 1/4" OD steel tubing, and must be able to support the car when lifted by a tow truck.

6.8.2 Must not have any sharp or protruding edges or ends.

6.8.3 Front Bumper

6.8.3.1 Must be two (2) bar front bumpers with the bottom loop parallel to the ground, and the top bar directly above so that top and bottom bars are even.

6.8.3.2 May be mounted no more than 2" outside of the frame horn to the outside of the frame horn.

6.8.4 Rear Bumper

6.8.4.1 Must resemble one of three configurations (See the diagrams on page 6)

(Diagram A) Straight bumpers can be no wider than 5" outside of frame.

(Diagram B) If the bumper is wider than 5", the ends must be bent forward at a 90° angle.

(Diagram C) Bumper constructed in a loop design.

6.8.4.2 Must be no more than 2" wider than the body on each side.

6.8.4.3 Must not extend beyond the width of the rear tires.

6.8.5 Nerf Bars

6.8.5.1 Must not extend beyond the width of the rear tires.

6.9 Windows

6.9.1 May utilize a half-windshield with side wings. Roadster windshield may have no side wings and must attach directly to the roll cage.

6.9.2 Driver and passenger side windows on both sides of the car must have at least a 12" vertical opening (door panel to roof). Roadsters must also maintain a 12" vertical opening between the deck and the top of the roll cage.

6.10 Paint

6.10.1 Any images or content visible on the car is subject to the approval of the track officials.

6.10.2 Car Numbers

6.10.2.1 Must be a contrasting color and easily readable by the track officials. Do not use reflective or silver paint or tape (like duct tape) as it can not be seen at night.

6.10.2.2 Sponsor artwork and names must not interfere with car number legibility and be neatly lettered.

6.10.2.3 Both side numbers must be at least 18" high with a line width of at least 4".

6.10.2.4 Front and rear numbers are required and must be at least 6" high with a line width of at least 1".

7 Roll Cage

7.1 Material

- 7.1.1 Must consist of continuous hoops made from at least 1 3/4 (1.75") OD .095" thick steel tubing.
- 7.1.2 Low carbon, mild steel tubing is recommended.
- 7.1.3 No brazing or soldering allowed.

7.2 Design

- 7.2.1 Must consist of a configuration of front and rear hoops connected by tubing on the sides or side hoops.
- 7.2.2 The main cage may be no further forward than the engine plate.
- 7.2.3 No brace bars forward of the cage may be higher than the stock hood height.
- 7.2.4 Protection of the feet is mandatory. A bar across the back of the engine with vertical bars and rub rails, or similar protection.
- 7.2.5 Any halo over 24" must have a cross bar running front to rear.
- 7.2.6 Must have minimum of one (1) cross bar in the top halo of the roll cage.
- 7.2.7 Driver's head must not protrude above cage with helmet on and strapped in driver's seat.

7.2.8 Door Bars

- 7.2.8.1 Must have a minimum of three (3) driver side door bars of at least 1 1/2" OD .065" thick tubing, as parallel with the ground as possible, and located alongside the driver so as to provide maximum protection for the driver, but without causing undue difficulty getting in or out of the vehicle.
- 7.2.8.2 The side bars must be welded to the front and rear of the roll cage members.
- 7.2.8.3 Door plates recommended.
- 7.2.9 Roll bar padding required in the driver compartment.
- 7.2.10 Design, material, and welds are subject to Technical Discretion.

7.3 Mounting

- 7.3.1 Must be frame-mounted in at least six (6) places.
- 7.3.2 Must be securely supported and braced.

8 Engine

- 8.1 Any American make engine may be used.
- 8.2 All engines used in competition must be able to be used in a conventional passenger car without alterations.
- 8.3 No aluminum blocks.
- 8.4 Castings and fittings must not be changed.
- 8.5 No machine work on the outside of the engine, or on the front or rear of the camshaft is allowed.
- 8.6 No total dry sump systems are allowed. Wet system must be operative.
- 8.7 No magnetos.
- 8.8 Motor mounts cannot be removed or altered.

8.9 Mounting

- 8.9.1 The rear of the engine (bell housing flange) must be mounted at least 72" forward from the center line of rear axle.
- 8.9.2 The engine offset must be kept within 2" of centerline of front cross member.
- 8.9.3 The engine height minimum will be 11" from the ground to the front center of crankshaft.

8.10 Fuel Delivery

- 8.10.1 A single two (2) or four (4) barrel carburetor is allowed.
- 8.10.2 Restrictor Plate - Optional
- 8.10.3 Must be naturally aspirated.
- 8.10.4 No fuel injection.

9 Fuel and Fuel System

- 9.1 No electric fuel pumps.

9.2 Fuel

- 9.2.1 Approved gasoline or alcohol is allowed.
- 9.2.2 No Nitrous (N²O), or any other performance enhancing fuel or combustion additive.

9.3 Fuel Cell

- 9.3.1 Racing fuel cell required.
- 9.3.2 Maximum capacity of 32 gallons.
- 9.3.3 Must be completely enclosed in a metal container.
- 9.3.4 Must be securely bolted rearward of the axle, and between the rear tires.
- 9.3.5 Must be mounted by at least two (2) 2" wide metal straps around the cell front to back, top and bottom.
- 9.3.6 Must be a minimum of 4" ahead of the rear bumper.
- 9.3.7 Must have an electrical grounding wire from the fuel cap plate on the fuel cell to chassis ground.
- 9.3.8 Must be protected by a hoop that is both lower and wider than the cell, and is made from at least 1 1/2" OD .065" thick tubing.
- 9.3.9 Must have check valves.
- 9.3.10 The pick-up must not be underneath the fuel cell.

9.4 Gas Cap

- 9.4.1 Must be strapped to the fuel cell.
- 9.4.2 Must be clearly marked with the car number.

10 Radiator / Cooling System

- 10.1 Any overflow tubes must be directed to the ground, inside the frame rails.
- 10.2 Radiators and oil coolers must not protrude above the interior.

11 Electrical System**11.1 Battery**

- 11.1.1 Batteries must be securely mounted and shielded from the driver.
- 11.1.2 All cars must have the capability to start without being pushed or pulled.

11.2 Radios are mandatory except for the drivers that are grandfathered in.

Radio frequencies must be on record with the Speedway Officials or radios will not be allowed.

11.3 No electronic traction control (ETC) devices.

11.4 Transponders

11.4.1 Must be located 13' ($\pm 1''$) from the tip of the front nose of the car with a clear sight of the track surface (sheet metal will degrade the signal). The mount must be $\pm 1''$ so that the transponder log matches what is seen by the scorekeepers and fans.

11.4.2 To pass technical inspection, the transponder must be in place prior to inspection and must remain in working condition for the rest of the event. **Measure and adjust your transponder mount before every event.**

11.4.3 If the bumper-to-transponder distance changes for any reason (like damage, repair, or modification), either the front nose or the transponder mount must be adjusted to re-establish that distance before every event.

11.4.4 **H.E.I.-DUI MSD ignition system will be allowed except model 1TK127212 that has adjustable timing control and finger tipped rely system in them. Also digital programmable ignition controllers are not allowed.**

12 Steering

12.1 Steering in the cockpit may be modified to suit the driver's taste, but must be kept on the left side of the cockpit. No center steering allowed.

12.2 Steering box must be OEM type and must remain within original bolt pattern for the type of frame used.

12.3 No rack & pinion allowed.

13 Drive Train

13.1 Front wheel drive is not allowed.

13.2 All cars must be able to engage in gear while the motor is running.

13.3 Clutch

All manual gear-type transmissions must have a working clutch, and the flywheel must have an SFI approved explosion-proof steel bell housing.

13.4 Transmission

13.4.1 Bert, Falcon, and Brinn types are allowed.

13.4.2 The transmissions must have at least one (1) forward and one (1) reverse gear, plus a neutral position.

13.4.3 Automatic transmissions must remain in OEM stock appearing automatic case.

13.4.4 No five speed transmissions.

13.4.5 No 'in and out' boxes.

13.4.6 No quick change devices.

13.5 Driveline

13.5.1 360° driveline hoops are required, constructed of at least 1/4" x 2" steel or 1" tubing, and mounted between 6" to 12" back from the front U-joint.

13.5.2 The driveline and yoke must be steel with a minimum 2" diameter.

13.5.3 Must be painted white.

14 Rear End

14.1 Any passenger car type or truck rear end may be used.

14.2 No aluminum allowed, except lowering blocks, axle cap, drive plate, spools, and lockers. **14.3**

No quick change devices allowed.

14.4 No cambered rear ends (one piece drive flange only).

15 Exhaust System

15.1 Must be mounted in such a way as to direct spent gasses away from the cockpit of the vehicle, and away from areas of possible fuel spillage.

15.2 Any method of noise reduction may be used to meet a maximum of 90 dBA at 100'.

16 Wheels / Rims

16.1 No wide-five wheel adapters allowed.

16.2 No aluminum hubs.

16.3 Conventional unaltered 8" steel wheel.

16.4 Plastic or aluminum wheels are not allowed.

16.5 Brakes

16.5.1 OEM type calipers. No aluminum or plastic allowed.

16.5.2 Rotors must be steel and cannot be lightened or drilled. Rotors may be re-drilled for different bolt pattern or larger studs.

16.5.3 After-market hats and rotors are allowed for the front and rear.

16.5.4 All four wheels must lock up during inspection

16.6 Tires

16.6.1 Goodyear Eagle 2863-300 and 2862-300 or American Racer MR970.

16.6.2 No altering, conditioning, or softening of the tires allowed.

16.6.3 No recaps allowed

17 Safety

17.1 Interior

17.1.1 Safety Belts Minimum five point type. The shoulder harness must be mounted securely to the roll cage. Belts, sub belts and shoulder harness must be no more than five (5) years old and must pass tech.

17.1.2 Seats Aluminum high-back seat only. Must be bolted in and mounted within the original frame boundaries, and no lower than the bottom of the frame rail ahead of the rear tire.

17.1.3 Arm Restraints Required for convertibles.

17.1.4 Roll Bar Padding Required in the driver's compartment. A fire retardant type is **strongly** recommended.

17.1.5 Kill Switch Required within easy reach of the driver and from the car windows, and clearly marked "OFF" and "ON". **17.1.6**

Window Nets Required on the driver side of the car and must latch at the top front of the window opening area.

17.1.7 Fire Extinguisher Must have readable gauge or indicator and must be full. On-board fire system **strongly** recommended. **17.1.8**

Loose objects and/or weights must not be used in the driver compartment or outside of the body or hood area.

17.2 Driver Equipment

17.2.1 Helmets Required and must be Snell SA 2000, or SFI 31.1 or 41.1. Must be worn at all times the car is on the track. Helmet

must accompany the vehicle at the time of inspection.

17.2.2 Suits Fire suits, gloves and shoes (SFI approved) of a flame retardant nature must be worn by all competitors.

18 Policy Statements

18.1 Any modifications not covered in these rules will not be allowed unless approved by Speedway Officials

18.2 Equipment will not be considered legal simply because it went through inspection unobserved or because a rule has not been written against it.

18.3 Cars are subject to inspection at any time.

18.4 Officials reserve the right to confiscate and hold any parts and/or equipment not conforming to the rules

18.5 Officials reserve the right to judge, decide, and establish what constitutes a legal part of car.

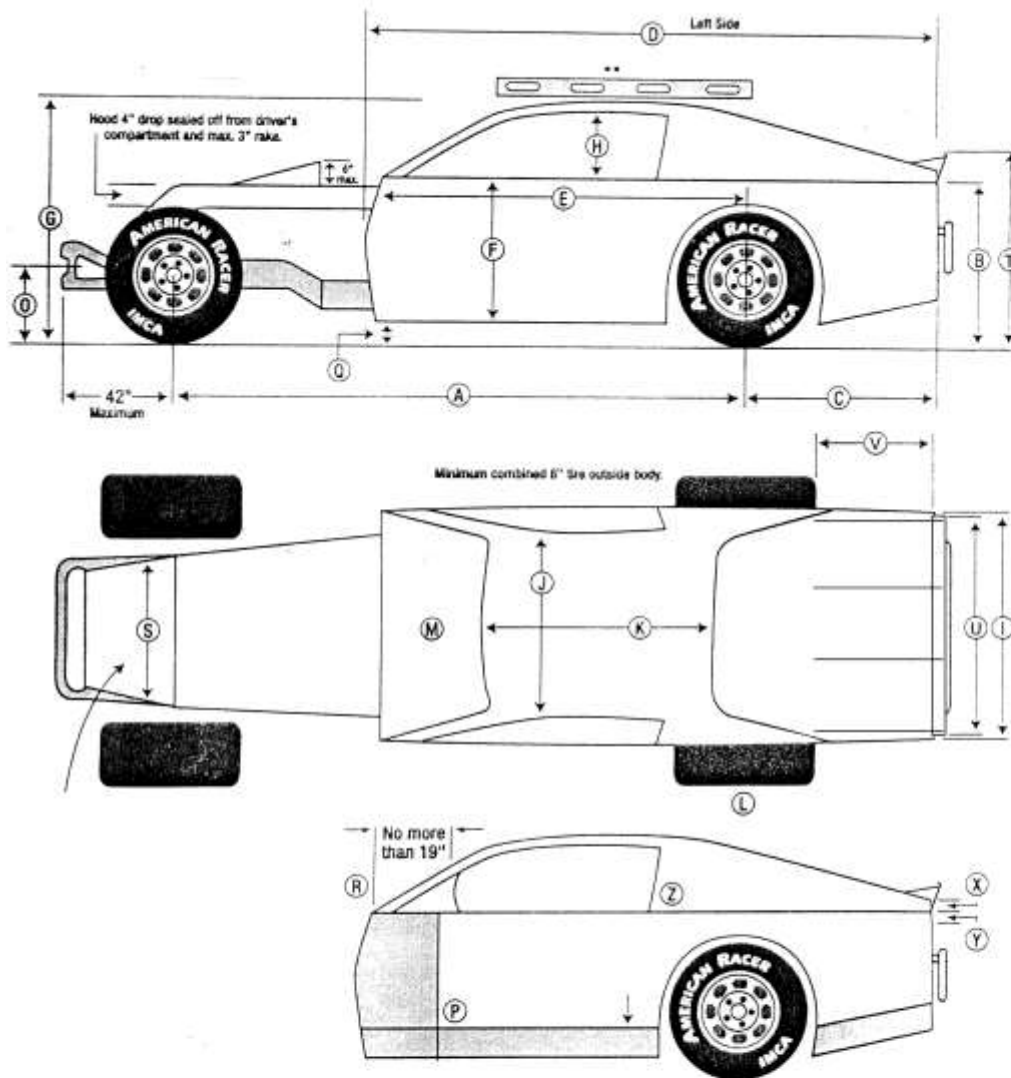
18.6 Weight may be added or adjusted at any time to benefit or equalize the racing program.

18.7 OFFICIAL'S DECISIONS ARE FINAL

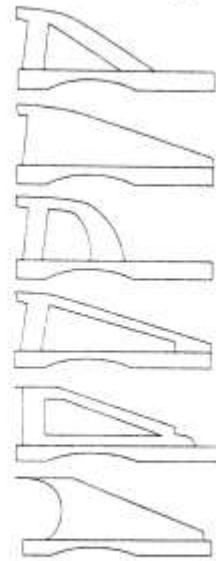
Modified Body Dimensions

Min	Max
A 108"	—
B 28"	38"
C 34"	45"
D 106"	120"
E —	72" or not past back of block right side
F 22"	27"
G 42"	52"
H 12" opening, both sides	18"
includes Roadsters	
I 54" Must be same front to back. 68"	
J 44"	50"
K 41"	56"
L Left rear tire must be partially outside body and nerf bar, and visible from front, rear and top.	
M Driver's compartment must be totally sealed from engine and race track. May use 1/2 size window with side	
N 8" minimum / 90° angle	
P Body side panels no lower than 31/2" Q 31/2" —	
R 19" includes front window sides Min Max	
S Bumper may be mounted no more than 2" outside frame horn; nose piece no wider than frame horn.	
T	44"
U	67"
V —	36"
X 2" maximum at car rear. Must have gradual slope from roof to this point.	
Y 4" maximum interior slope front to rear.	
Z Interior slope is 6" front to rear. Top of the interior must be flush with the top of door and quarter panels. An optional escape hatch right side may be used by bringing the metal from top of right door down to the driver compartment to provide a 12" opening. If this hatch has more than a 2" drop, the front and rear of hatch must be 90° angle to the interior. If less than 2" drop, front and rear can be at 45° angle to interior.	
* Right side; left side may extend forward to cover foot box.	
** Using a level and/or straightedge, must have between 0" and 2" clearance at rear of roof, 1/2" to 5" at front.	
*** Rear panel must be solid and attach to deck and extend to quarter panels and be securely fastened. Body and Frame minimum 3 1/2" above ground. Lexan may be used in quarter windows only.	

Modified Body Dimensions



EXAMPLES
(Sail panels must be the same on both sides of body.)



Rear bumper must resemble one of the following designs. (A) Solid bumper of square or round tubing, no wider than five inches outside each rear frame rail. (B) If rear bumper is wider than five inches outside rear frame rails, it must be capped, with no sharp edges, and bent forward on the ends at a 90 degree angle. (C) A bumper constructed in a loop design.

