

TENNESSEE 900 CC MODLITES

1. SAFETY EQUIPMENT: Rules apply all times car is on track. Snell rated SA2015 or SA2020 helmet required. SFI-approved full fire suit required. Fire retardant gloves, shoes and neck brace (or head and neck restraint) required. Right and left seat head supports required if using head and neck restraint system. Recommended: Fire bottle (securely mounted), arm restraints, head sock and underwear. Driver's side window net required, must be full square type (not triangle type). Must be mounted to roll cage and open so latch is at top front of window. Minimum two-inch wide SFI-approved five point safety belt assembly required, must be mounted securely to main roll cage. Recommended: Safety belts no more than two years old. Ignition kill switch required within easy reach of driver and must be clearly marked 'OFF' and 'ON'.

2. FRAME: Main frame rails must be minimum one inch by two inch rectangular steel tubing with minimum wall thickness of 0.120 inches or minimum 1.5 inch O.D. DOM steel tubing with minimum 0.095 inch wall thickness. Main frame rails consist of length between front lower a-arm cross member and rear main roll bar upright. Main frame rails must be the same material and length (0.5 inch tolerance). Right side main rail may be raised one inch. Main frame rails must have a minimum three cross bars, securely welded on both sides, between firewall and back of seat, and same material as main frame rails, rear cross bar can be altered for drive shaft clearance. Cross-bracing under driver is recommended. Frame may taper forward of driver seat area. Narrow nose cars manufactured prior to the 2018 are allowed. Cars manufactured after 2018 must meet current frame rule.

3. ROLL CAGE: Roll cage must be DOM steel minimum 1.25 inch O.D. tubing with minimum 0.083 inch wall thickness. Cross-brace or diagonal is recommended in top halo. All cars must have door bars minimum one inch O.D. with 0.065 inch wall thickness, securely welded, across door openings on both sides. Cars with bars mounted on doors should have full doorframe and minimum of two horizontal cross bars minimum one inch O.D. with 0.083 inch wall thickness. Cars with functioning doors, must have 0.250 inch by two inch steel stops welded in on each side of opening, totaling a minimum of four inches on each end of door. Dash bar, minimum one inch O.D. with 0.065 inch wall thickness, from doorpost to doorpost, is required. Steel door plate is recommended. All bars forward of cage must be lower than hood. Classic pickups may have two rear kickers going from upper rear roll cage down to rear clip.

4. GENERAL BODY SPECIFICATIONS: (See body diagram) All bodies must be 5/8 scale. All cars must pass freely through (can not touch) 60.5 inch wide by 52.5 inch height inspection hoop. All body measurements have 0.50 inch tolerance (unless noted otherwise) and

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measured with driver in car. Wheel base is 73 inches, plus/minus one inch tolerance, measured with front tire in line with rear tire. Maximum width 60 inch car width. Maximum 52 inch car height. Maximum 55 inch, minimum 46 inch interior deck width. All bodies must be centered on chassis and chassis specifications are the same for all body styles. Driver roof hatch allowed. Car number: Must be two inches thick and 12 inches tall on both sides and roof of car; four inches tall on rear and front. Transponder: must be located anywhere behind rear firewall.

4a.MOD LITE BODY SPECIFICATIONS: (See body diagram) All open wheel modified cars (IMCA/DIRT) are considered Mod Lite bodies. Nose and Hood: Aluminum or plastic nosepieces allowed, mounted in approved manner. Approved plastic nosepiece is allowed on IMCA body design only. DIRT nosepiece design must resemble approved DIRT nose. Maximum 1.5 inch side fins allowed on aluminum nose, must end at hood. Front hood taper starts at the nose and may taper to door panels at rear of hood becoming part of windshield area rules. Driver and passenger side window openings must be minimum 18 inches wide by 10 inches tall (no tolerance). Roof: Maximum 14 degree roof rake front to rear, zero degree side to side, measured in relation to main frame rail. No deflector on upper sides or rear of roof panel. Maximum 1.5 inch rolled down rock guard allowed on roof front. Maximum 0.75 inch raised ridge down top edges/sides of roof. Maximum 0.75 inch rear roof stiffener (must face down).

Interior deck: IMCA interior deck maximum five degree rake front to rear, zero degree side to side. Deck must be flat. No concave, convex or dished decking. DIRT side pod interior, 56 inch maximum, 36 inch minimum length, with maximum 30 degree rake and can not extend past centerline of rear axle. Side pod not permitted on IMCA body style. Cockpit cover with maximum 0.50 inch lip allowed providing on/off cutoff switch is accessible from outside car. Sail Panel: Minimum 20 inch, maximum 38 inch sail panel must be mounted to outside of interior deck. Modlites can have windows but must match side to side. Rear top edge of sail panel maximum 44 inches from ground. Sail panel can extend maximum 2 inches past interior deck with maximum four inch bow. Spoiler: One piece, adjustable, rear spoiler allowed with maximum five inch material length and four inch material height from deck. Spoiler bend/break allowed for reinforcement. Maximum overall spoiler height is 40 inches from ground. Spoiler braces must fit within confines of sail panel rules/dimensions.

4b.CLASSIC MODIFIED BODY SPECIFICATIONS: All dwarf cars are considered Classic Modified bodies. 1928-1948 American made production vehicles only, two-door vintage coupe, sedan, sedan delivery, wagon, or pick-up truck. No convertibles. Must have grill shell,

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any material, or simulated open radiator matching original body. Hood louvers allowed for cooling, must maintain stock contour. Engine compartment must conform to scale and match body contour. Hole may be cut for breather clearance only. No ram air induction. Doors, windows, and cowlings must retain stock appearing. Trunk must be closed with trunk lid or fully enclosed trunk access panel conforming to original bodylines. Louvers allowed no holes. No fenders, sharp edges, wings, lips or spoilers. Body must be metal, 26-gauge steel, minimum 0.040 inch aluminum or approved composite doors, rear quarter panels (FMVSS302 burn rating). Body contour must follow frame and roll cage. Driver door must be operational and equipped with a secure latch.

5. DRIVER COMPARTMENT AND SEAT: Windshield area must have protection bars or screen in front of driver. All other driver compartment areas must remain open. Deflectors, no wider than roll bar area, may be used in front of driver. Firewall must be metal, completely separate engine compartment from driver and must seal to underside of hood. Engine protruding into driver compartment must be enclosed. Drive shaft tunnel must have minimum of two, 360-degree hoops, between front firewall and seat back, constructed of minimum 0.1875 by 1.5 inch steel or 1 inch O.D. tubing with 0.095 inch wall thickness. 18-gauge steel from front to rear firewall over driveshaft tunnel is recommended. Aluminum high-back seat only. Seat must be securely bolted to frame/roll cage. All cars must have a securely mounted bar located behind top of seat at shoulder level. Maximum 65 inch seat setback measured from the upper ball joint to the rear bottom of seat and maximum 74 inches measured at top of seat. No driver-adjustable devices allowed while car is in competition except brake adjuster and shutoff.

6. FRONT SUSPENSION: Front suspension must not extend rearward past the most forward panel of firewall. Hub offsets must be within 1.5 inch side to side. Hubs front and rear must be maximum 1.5 inches (combined distance) from main frame rails on both sides of car, measured from center of rotor at hub location (with rotor parallel to frame rail) to vertical plane of frame rail. Front and rear sway bars allowed, with no adjustable components. No straight front axles.

7. STEERING: All steering components must have safety fasteners such as cotter pins or self-locking nuts. Manufactured quick-release steering wheel hubs mandatory. Rack and pinion steering is mandatory.

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8. SHOCKS: One steel, non-adjustable, shock per wheel only, must remain as one unit with spring. No Schrader valves. Approved examples are the Bilstein SG Series, QA1 twin tube, AFCO, BSB or similar type shocks. One or all shocks may be claimed per event for \$250 each.

9. SPRINGS: One spring per wheel only, must remain as one unit with shock. No torsion bars or leaf springs. Coil-over shock/spring are the only allowable means of supporting the chassis. No Spring stacking. Take up/helper springs and rubber bump stops allowed. Take up/ helper spring must be flat in design and no thicker than 0.125 inches. An acceptable take up/helper spring is an Eibach part #HELPER188.

10. REAR SUSPENSION: Three link rear suspension design only, consisting of two lower control arms and one upper control arm to control up and down movement of rear end. One pan hard/J bar allowed for side-to-side control of rear end. No sliding pan hard/J bars. 30 inch maximum rear control arms. Torque-absorbing devices allowed. No lift bars, watts link, floating birdcages or brake floaters allowed.

11. REAREND: Quick-change rear ends allowed with steel tubes only (maximum .250 inch wall tubing). Rear end must be locked or have a solid spool. No titanium axles.

12. BUMPERS AND NERF BARS: Steel bumpers and nerf bars must be on car and securely mounted. All bumpers must be constructed with minimum one inch O.D. tubing with maximum 0.125 wall thickness. Front bumper width maximum 30 inches, minimum 20 inches. Rear bumper width maximum 56 inches, minimum 20 inches, constructed with three vertical bars. Rear bumper maximum ten inches beyond rear deck. Full length nerf bars mandatory, mounted two or three points between front and rear tires, with maximum 1.25 inch O.D. tubing and 0.125 wall thickness. Nerf bars may extend (at rear) maximum one inch outside rear tire tread only.

13. TIRES/WHEELS: Must use 13 inch bead Hoosier race tire, with ModLite/STARS stamped on sidewall (soft or medium compounds). Tires may be ground, straight siped or grooved. All tires must durometer minimum 40 before race and at least 15 minutes after race. Steel 13-inch wheels only, with minimum 0.090 wall thickness. 7 inch minimum and 8 inch maximum wheel width, any offset. Aluminum wheel spacers allowed. No wide five wheels allowed. Bead locks are optional. Foam type or securely bolted plastic mud covers allowed. Wheel cover rings must be welded to wheel.

14. BRAKES: Must be steel approved, operative four wheel, disk brakes. Aluminum calipers allowed. Drilling, cutting or scalloping of rotors allowed. No surface cracks of any type

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allowed on any rotor. Adjustable brake bias, brake shut offs and racing master cylinders allowed.

15. EXHAUST: Header must attach directly to head in stock exhaust port location. Engine exhaust must include muffler and exit rearward. All muffler devices must include baffles. If mandated, any muffler must meet local track regulations.

16. FUEL SYSTEM: Fuel pump must be mounted outside driver compartment. Racing fuel cell required, maximum 5 gallon capacity, located in trunk, recommended remote filler neck. Reinforced or steel braided line must be used in all high-pressure areas. Emergency electrical cut off switch must be clearly marked 'OFF' and 'ON' and must be installed on right rear shelf or rear firewall. Engines must remain with the fuel injector or carburetor that was supplied with the engine from the factory. i.e., No interchanging a carburetor on an engine that came with fuel injection. No aftermarket fuel injection and turbo chargers. Fuel injector screens may be removed and O-ring type may be changed. Carburetor/fuel injection boot must fasten directly to head in stock intake port location. After market velocity stacks permitted. Factory supplied air boxes and or aftermarket air filters maybe used with OEM velocity stacks.

17. FUEL: Any type of manufactured pump gasoline including ethanol-based fuels such as E85 will be allowed. Race gas is allowed. No methanol, nitro or nitrous oxide additives allowed.

18. WEIGHT: Minimum weight limit of 1325 pounds, no tolerance, after race with driver in car. No exposed weights and/or loose objects in driver compartment, above interior deck or outside body. Weights must be securely mounted to frame or roll cage and painted white with car number on it. Must be attached with at least two 0.50 inch bolts. No added weight to rear axle tubes allowed.

19. BATTERY/STARTER: Battery must be securely mounted to chassis outside driver compartment and positive terminal must be covered. Charging system optional. No auxiliary starters.

20. IGNITION/ELECTRONICS: OEM stock ignition system only (Flashed by Crutchfield performance only and sealed).

21. TRANSMISSION/DRIVESHAFT: Must have working transmission, clutch, and starter with all parts in place. Complete Clutch assembly must remain in engine. External reverse boxes

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allowed. No quick shifting devices (exception is driver with disabilities). Must use steel drive shaft from transmission adapter to automotive rear end. Minimum 2.50" x .083" or 2" x .120".

22. ENGINE COMPARTMENT: Engines must be front mounted in engine compartment. Engine setback: The "square of the engine" (rear fins of the jugs) may not extend rearward more than 17" from the center of front spindle. No part of the engine or transmission may extend rearward more than 21 inches from center of front spindle.

23. 900 cc ENGINE SPECIFICATIONS: All engines must be sealed from Crutchfield Performance (yamaha fz09 2014 to 2020).

24. ENGINE TECH PROCEDURES: Carburetors or Fuel Injection and all 3 spark plugs must be removed before checking compression. After ten compression revolutions of cranking: Maximum 220 p.s.i. per cylinder average of 3 cylinders, no variance.

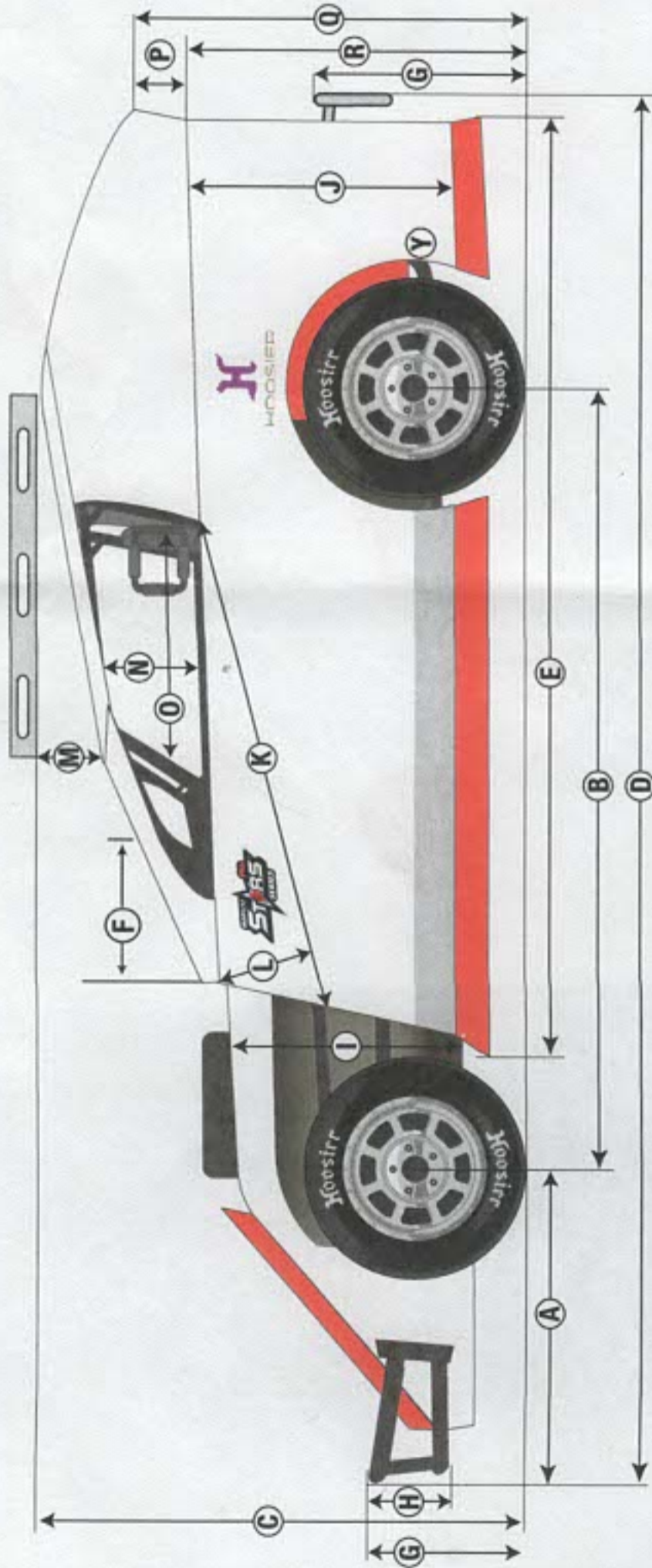
25. Engine Protest: If seals are broken on motor automatic disqualification, (\$500.00 fine to be paid before allowed to race in the class). ECU can be protested, ECU will be sealed and sent to crutchfield performance to be checked and made sure to be legal, if the ecu is legal the fee's associated with the protest claim will be received from the protester, if the protester win the protest and the ECU is deemed tempered with and is illegal, the owner of the illegal ECU will have to pay the cost associated with the claim to crutchfield performance, they will also be responsible for paying their winnings back to the track to be divided back to the field, lose their points for the race, and also pay a \$500.00 dollar fine before being allowed to race with the class again, no ECU or engine will be sold to them until all fees have been paid, second offense will increase in fines, and third offence the owner of the vehicle will be suspended indefinitely. The above rules are the same for engines have the engine seals tempered with.

26. POINT STRUCTURE/PROCEDURES: Refer to Duck River Raceway Park for track points.

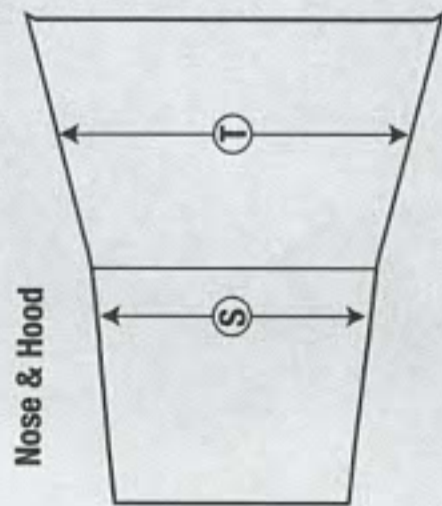
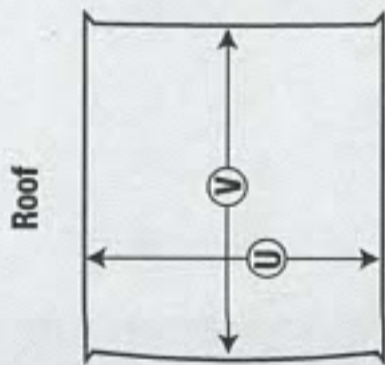
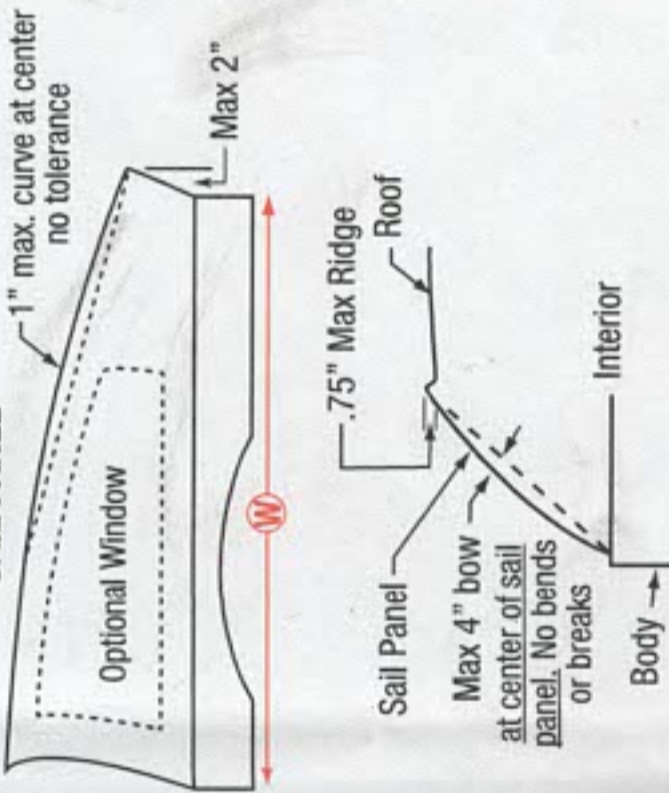
27. EIRI: (Except in rare instances) Decisions of Officials are final and binding without exception.

28. Point of Contacts: Cade Crutchfield for Engine questions or concerns (423-661-9061) Joseph Dunlap for Body or other questions concerning rules questions. (580-230-7744)

STARS Mod Lite Body Dimensions For 2024



- A 30" max.
- B 73" max +/- 1"
- C 52" max 42" min
- D 132" max
- E 86" max
- F 16" max., must be same on both sides.
- G 18" max 12" min
- H 8" max 6" min
- I 29" max 20" min (excluding breather protectors)
- J 30" max
- K 56" max 36" min interior pod length
- L 30 degree max pod dirt rake
- M 14 degree max rake on roof to frame
- N 10" min
- O 18" min
- P 4" max spoiler height, 5" max spoiler material
- Q 44" max to top rear edge of sail panel
- R 36" max 30" min
- S 24" max
- T 24" max at front 55" max at rear
- U 42" max 36" min
- V 48" max 40" min
- W 38" max 20" min
- Y Transponder Location



SAIL PANELS: Must slope down from rear edge of roof and extend from roof to deck and be the same on both sides. May extend 2" maximum past rear edge of interior deck.

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