



## Thunder Light Rules

*These rules will be enforced to ensure that all who participate have an opportunity to be competitive. Anything not covered by these rules must be approved by Track Officials. Upon inspection, Track Officials may penalize, fine, suspend, withhold money, and/or points, confiscate parts, or disqualify any competitor for rule infractions. If a competitor is disqualified for using illegal parts, the competitor may lose all points accumulated prior to and including date of disqualification under the discretion of Track Officials. The use of carbon fiber or titanium parts are not allowed. Any questions regarding rules should be addressed with the Track Officials, prior to assuming legality. It is the competitors' responsibility to read and understand all rules. It is the competitors' responsibility to declare what engine option they are competing under. The Thunder Lites Division is not a NASCAR Feature Division and does NOT require competitors to hold a NASCAR feature division license to compete, but Track Officials highly recommends competitors too.*

### **CLASS INTENT:**

*The Thunder Lites was formed to give young drivers/teams a fun, low-cost way to get involved into auto racing. This division of racing is intended to require minimal expense and technical expertise. These vehicles are to remain "PURE" (free from anything different, unmodified, unmixed, untainted, etc.) unless otherwise stated in these rules. These rules are intended to make the process of preparing a race car as simple as possible, with minimal changes using stock OEM running gear and keeping to stock appearance. Any interpretations of these rules are solely the decision of Track Officials. If in doubt, don't do it, ask your tracks Track Official. The term "Stock or "OEM" includes ALL after-market products and applies to ALL components. Stock components "MUST" conform to Original Equipment Manufacturers (OEM) specifications for the cars make, model, and year (VIN specific) No alterations from stock OEM components unless provided specifically in the rules. This division is intended for youths aged 10 to 15 Years old. Exceptions can be made for drivers with previous experience.*

### **1. Eligible Models**

- A. Eligible vehicles include Four (4) cylinder/Front Wheel Drive models of US and foreign Manufacturers built prior to 2013. Track Officials will not allow factory "HIGH-PERFORMANCE" configuration. Eligible cars should be constructed from running vehicles in relatively good condition. No convertibles, pick-up trucks, SUVs, 4WD, or AWD of any kind. No special high-performance cars. If you have "ANY" questions about the eligibility of a year, make, or model of a vehicle PLEASE contact your Track Officials prior to building or buying for approval. No car will be able to compete that will threaten the viability of less expensive and readily available model/sedans. ENGINES and ALL OTHER DRIVETRAIN COMPONENTS "MUST" REMAIN STOCK AS MANUFACTURED, and "MUST" REMAIN VIN# MATCHING. No interchanging of components allowed. No performance enhancements of any kind will be permitted.

- B. Track Officials may allow some configurations that don't totally conform to these rules. This will only be done for pre-existing cars on a case-by-case basis known as "Grand-fathering". This will not be done to alter the division as an affordable means of racing and any car with a non-conformance will be required to have weight added to their car and clearly marked with a Track Penalty decal.
- C. In 2025 the Maximum HP Allowed will be 200HP This will be determined by what the O/E Manufacture has listed

## **2- Body & Chassis**

- A. Roll Cage: All cars must have a four (4) point roll cage constructed of 1 ½" x .095 wall magnetic steel tubing. The roll cage shall consist of four (4) vertical upright bars connected at the top on all sides and shall be adequately cross braced. The base of the upright members shall be solidly welded to the frame of the car. Four (4) curved door bars on the left side and three (3) curved or straight door bars on the right side is mandatory. The roll cage members must closely conform to window/door/roof contour and not be readily apparent when car is viewed from the side. Offset cages are not allowed. Roll cages must not alter the geometry of the vehicle. All roll cages are subject to Track Officials approval.
- B. Front Support Bars: Forward bars attached to the main cage can only go to the strut tower, minor front bracing for protection of the radiator allowed, subject to Track Officials approval.
- C. Rear Support Bars: Rear roll cage bars are allowed for added crash protection (only one (1) bar per side). Rear bars should mount from back of cage to rear trunk area only. Rear bars cannot directly connect/support to the upper/top part of strut/shock tower or connect directly to strut itself (suspension). Also, the side-to-side cage bar may be connected to the top of the cage bar that goes into the trunk area.
- D. All the interior/trim panels must be removed, this doesn't allow removal of metal inner panels, the only exception would be the removal of the driver's door interior metal for cage purposes, and the hood inner panel may be removed. Firewalls between passenger and trunk area must be covered with magnetic steel. If inner sheet metal panels are removed for other than door cage bars, Track Officials may add a weight penalty.
- E. VIN#: All cars "MUST" have the factory equipped VIN number.
- F. Doors: All doors MUST be welded shut.
- G. Exterior Trim: All exterior trim must be removed. All exterior holes must be patched, door handles openings, headlights openings, taillight openings, etc. with sheet metal.
- H. Dash: You MUST use the full-length dash. Stock OEM dash allowed.
- I. Glass: All glass must be removed - headlights, taillights, reflectors, side mirrors, including all windows, regulators, and door locks. Front windshield can remain stock or it may be replaced with Lexan.
- J. Bumper Covers: Aftermarket nose and tail pieces may be used if it is for make and model. Nonconforming panels must be modified to fit the car NOT the car to fit the panel.
- K. Rub Rails: Rub rails are allowed between the front and rear tires only. Only Polycarbonate (Lexan) rub rails are allowed.
- L. NO MIRROR ALLOWED.

## **3. Brakes**

- A. Cars must have operational brakes on all four (4) wheels.
- B. All brakes components MUST remain stock as OEM manufactured. No performance enhancements of any kind will be allowed.

## **4. Drivetrains**

- A. All drivetrain components MUST remain stock as OEM manufactured. No interchanging of components allowed (this will be checked by OEM VIN# code). No performance enhancements of any kind will be allowed.

- B. No differential gear changes allowed. No locked differentials allowed.
- C. Cars MUST be front wheel drive. No AWD or RWD.
- D. Transmission/Differential MUST be free of fluid leaks.
- E. NO traction control devices (OEM or Aftermarket).
- F. 50LB Weight Break for Automatic Transmissions
- G. 50LB Penalty for Limited Slip Differential

## **5. Electrical**

- A. Safety Kill Switch: All cars MUST have a safety kill switch on the left side of dashboard (Negative side of battery). Switch must be clearly marked ON/OFF.
- B. Battery: Only one (1) 12v battery. Battery must be securely mounted in stock location or relocated to behind the driver's seat and protected by a non-conductive cover. Battery box subject to Track Officials approval
- C. All air bag sensors and air bags must be disarmed for safety purposes.
- D. Computer: Only one (1) OEM computer allowed. No performance enhancements of computer chips or performance computer chips allowed.

## **6. Engine**

- A. Engines MUST remain stock as OEM manufactured. No interchanging of components allowed. No performance enhancements of any kind will be allowed.
- B. Engines: Must be a Four (4) cylinder, fuel injected engine model, stock for year and make of car being used, in completely stock form. Engine size and Transmission must be match for car (this will be checked by VIN code). No turbo or super chargers allowed.
- C. Engine MUST be free of oil leaks and fluid leaks.

## **7. Engine Cooling**

- A. Radiator: Radiator must be mounted in stock location. All cars MUST be equipped with an overflow tank.
- B. NO ANTIFREEZE ALLOWED

## **8. Exhaust & Muffler**

- A. Exhaust Manifold: Stock header or high-performance exhaust manifold may be used, ONLY, if the car came OEM from the factory with that equipment. Stock exhaust pipe should extend from the manifold to the flange of the catalytic converter.
- B. Catalytic Converter: The catalytic converter needs to be removed.
- C. Muffler: Mufflers are mandatory. All cars MUST meet the minimum 96dB rule. No side exhausts. Exhaust must dump under the car at 90 degrees toward the track surface. Mufflers and pipes must be securely fastened to the vehicle.

## **9. Fuel**

- A. Fuel Tank: Racing fuel cell is permitted and highly recommended but is not mandatory. Fuel cells may not be more than 15 gallons in capacity. Fuel cell must be securely fastened with minimum of two (2) 2" x 1/8" metal straps inside the trunk. No cutting of trunk floorboard when installing a fuel cell. A sheet metal firewall must separate the trunk from the driver's compartment. Relocated fuel cells must be in the center of the car.
- B. If using a fuel cell an aftermarket fuel pressure regulator may be used but must maintain OEM factory fuel pressure.
- C. Fuel: Petroleum based automotive gasoline is the only fuel allowed. No alcohol, no methanol, no nitrous oxide, or any other fuel additives allowed.

## **10. Letter and Appearance**

- A. All cars must be numbered. All numbers must be confirmed with Track Officials. Track reserves the rights to reassign numbers to avoid scoring duplications. Car registration for cars that raced the previous year (minimum of 3 races) will have first refusal of numbers until January 31st, then will be first come first serve, if duplicate number requested will refer to previous year's points.
- B. All cars must have numbers on both doors and roof. All numbers must be a minimum of 18" and must be registered and approved. Roof numbers must face the passenger's side. All numbers must be distinctly contrasting to the color of the car. No reflector or metallic numbers. All numbers to be subject to visual approval of Track Officials.
- C. All cars must be presentable on race day and subject to Track Officials approval.
- D. All cars must have their total weight and left side weight decal on the right front corner of the roof, and their Track Safety decal on the left front corner of the roof.

## **11. Ride Height**

- A. All Cars No point of the car can be below 5in (This includes Lead and All Body)

## **12. Safety**

\*\* POSTED IN RACE PROCEDURES \*\*

## **13. Seat**

- A. Racing Seat: Aluminum padded racing type drivers' seat is required. Seat must be bolted to brackets firmly and welded to the roll bar assembly.

## **14. Steering and Suspension**

- A. Everything about the vehicle must remain stock OEM as manufactured for the year, make and model of vehicle being used.
- B. Must maintain a Min of 5 in ride height at all times
- C. Steering Column: Car may use factory steering column and steering. Any aftermarket column may be used if it is collapsible. A removable quick release steering wheel is highly recommended.
- D. Camber: All suspension components must remain stock as OEM manufactured with the exception of adding camber adjustments on the left front and right front suspension only. This is to help prevent outside/inside tire edge wear and for aiding in car handling. A maximum of 2 1/2 inches of negative camber is allowed on the right front wheel, left front wheel is allowed 1-inch maximum positive camber. No cutting or changing springs. Right front and left front upper strut mounts may be slotted for camber adjustments only. Rear camber is allowed but must not be more than a 1/4-inch positive camber on the left rear and 1/4-inch negative camber on the right rear. Camber will be measured on the concrete pad with a straight edge (square) with driver in car. Measurements will be taken at the bottom rim lip and at the top of the rim lip the difference between the two is the total camber in inches.
- E. Springs/Struts/Shocks: Front Springs must match from Left to Right Same Height/Same Number of Coils/Same Wire Dia. Rear Springs Must match Left to Right Same Height/Same Number of Coils/Same Wire Dia. All Springs must be same design and variable look the same from left to right. No covers allowed on shocks and struts. If you replace any part, you must have the sales slip with you if asked by a Track Official. No altered, or high-performance components allowed. No weight jacking devices to increase or decrease spring rate, but you will be allowed the use of one (1) rubber spring spacer, maximum one (1) spring rubber per wheel. Spring rubber length cannot exceed more than the one (1) coil wound (circumference). Or you may use the taller spacers, these are roughly 3/4" wide by 2" tall, you can use up to three (3) of these if its only used in one (1) coil wound (circumference).
- F. Suspension Travel: Stock Bump stops on struts must have Three (3)" inches of travel before the bump stop hits the strut at normal ride height.

- G. All suspension parts must mirror each other left to right. This includes springs, bump stops, and sway bars links.
- H. All suspension components must remain stock as OEM manufactured. No cutting, grinding, heating, bending, etc. No interchanging of components allowed. No performance enhancements of any kind will be permitted.

### **15. Transponder/Scanner/Radio/Electronics/Cellular Phones**

- A. A: Transponder- All cars must be equipped with a transponder and must be operational at all times during practice, qualifying, and features. If at any time your transponder isn't working, you will be Black flagged off the track. Transponder will be mounted ten (10)' feet from the front most point of the car.
- B. Scanners- Each competitor must have a one-way scanner programmed to 454.000 at all times during practice, qualifying, and feature event, so Track Official/Race Control/Scoring can stay in contact.
- C. Cars will not be allowed to carry "ANY" on board computers, micro-controllers, processors, recording devices, electronic memory chips, traction control devices, or digital readout gauges. Cellular phones are not allowed in cars at any time. Go-Pro type devices must be approved by Track Officials prior to use.
- D. No 2-Way Radios allowed. No 2-Way Communication allowed.

### **16. Weight**

- A. A base weight will be 2250lb. for 150hp cars or less, all 151hp and above cars will weigh 15 pounds per HP  
Example  $191 \text{ HP} \times 15 = 2865$ . You will weigh 2865lbs
- B. Left Side Weight as follows.
  - 54% for all cars from up to 140hp
  - 53% for all cars from 141hp to 170hp
  - 52% for all cars from 171hp & up(in 2025 there will be a cap off 200hp for eligible models)
- C. Maximum Penalty Weight  
After your 3<sup>rd</sup> win loose a .5% of Left Side and loose a .5% for every win thereafter with a cap of 2%
- D. Penalty weight is Track Specific
- E. All weight must be painted white and have the car number clearly marked on it.
- F. Car weights may be adjusted by Track Officials at any time to equal competition.

### **17. Wheelbase**

- A. Cars MUST maintain the stock OEM wheelbase for the Year, Make, and Model.

### **18. Wheels and Tires**

- A. Wheels: Stock Steel Wheels 13" inch thru 16" inch Steel rim size allowed. Maximum wheel width allowed is seven (7)" inches. Rims must match OEM offsets.
- B. Wheel Studs must even with or beyond lug nuts. One (1)" inch lug nuts mandatory on all wheels.
- C. Tires: No racing or performance tires allowed. Tires "MUST" be a DOT approved tire up to 205 series (width of tire) with no less than a 55-side wall. Tire tread wear may not be lower than 400 and must have a minimum of 5/32" tread. Tires may be different sizes front to back to manipulate gearing, but tires must be same size on the left side to the right side. No running larger tires on one side and smaller tires on the other side to increase tire stagger. When swapping tire sizes, please remember cars "MUST" maintain the ground clearance or 5". All tires are subject to Track Officials approval.

Everything about the vehicle must remain stock for the year, make and model of vehicle being used, except as permitted or required in this guidebook, vehicles must remain completely stock in appearance, configuration, setup, and running gear including motors, transmission, etc... Any variances from this guidebook will result in

the disallowance of competition until the variance is corrected, this will be at the discretion of Track Officials. FINAL WORD ON RULES: If it's not in the rules and provisions listed herein, DON'T DO IT. Contact your Track Official prior to. In short, if it doesn't say you can do it than DON'T DO IT. If anyone is caught doing something to enhance the performance of their car without prior Track Officials approval, then you will be disqualified from the race.

Any rule may be adjusted to ensure an Equal and Competitive racing division and not to disallow any car to not compete during the season.

It is the responsibility of the competitor to read and understand these rules. If you have questions about any of these rules, please ask your Track Official before building.

Any interpretation or deviation of these rules and/or procedures is left to the discretion of Track Management. Their decisions are final.