



2024 NorCal Mini Stock **F4 Technical Rules**

All American Speedway reserves the right to alter or amend these rules and regulations in the interest of safety, cost control and / or fair competition. Any changes will be posted as an "addendum" to the rules.

It is the responsibility of each competitor to read and understand the contents of this rule book. In the event of a disagreement or dispute regarding the interpretation or application of the rules written herein, the decision of the speedway manager shall prevail.

Illegal components may be confiscated by All American Speedway and become property of the speedway.

All deficient safety issues must be corrected before the car is allowed to compete. All non - safety rules infractions will be addressed by the All American Speedway technical staff and, if deemed to have a performance advantage, may require the competitor to repair before being allowed to compete, or, if deemed acceptable, may require a weight penalty be added for that nights event and the repair to be made before the next event can be participated in.

1. DRIVER ELIGIBILITY

2. Drivers or passengers in this division must be at least 14 years old. **A NASCAR Charger license is NOT required for this division in 2024.**

3. Any driver competing for rookie of the year points or who has competed in fewer than 5 races must display an obvious yellow stripe on the rear bumper of his or her vehicle while competing.

1. COMPETING VEHICLES:

1. Open to all pre 2010 American or foreign manufactured 3-cylinder or 4-cylinder; stock bodied cars or compact trucks with a stock 105" maximum wheelbase.
2. Front or rear wheel drive.
3. No jeeps, convertibles, vans or station wagons.
4. Wheelbase must match year, make & model of car used.
5. A tolerance of plus (+) or minus (-) 1 inch will be allowed.
6. No four wheel drive vehicles.

2. WEIGHT

1. Minimum weight, including driver, is before and after the main event.

*ALL CARS WILL WEIGH ONE POUND PER CC AFTER RACE WITH A MINIMUM OF 2000 LBS. The following engine packages will follow weight as follows.

*TOYOTA 20R BLOCK WITH 22R HEAD MUST WEIGH 1 POUND PER CC

*FORD 2300 HEAD ON 2000 BLOCK MUST WEIGH 2250 LBS

*FORD PINTO/RANGER 2000CC (SMALL VALVE)) MUST WEIGH 2100 LBS

*FORD PINTO/LIMA STYLE ENGINE WITH 1.50" INTAKE AND 1.75" EXHAUST VALVES MAY COMPETE AT 2300 LBS

* TOYOTA 3SGE, HONDA K SERIES, AND FORD DURATEC SERIES WILL HAVE A BASE WEIGHT OF 2300 LBS *HONDA B20 MAY RUN B18 HEAD AND FUEL SYSTEM AT 2300 LBS. (INTAKE, THROTTLE BODY, INJECTORS, AND RAIL)



NOTE: At the discretion of the AAS DOC, any vehicle that appears to have a distinct performance advantage may be required to add additional weight in 20lb. increments. All cars under 98" in wheelbase will be required to add 50 lbs. bolted in the rear trunk area with the minimum of (2) ½" bolts.

3. ENGINES

1. Only standard production four cylinder engines for make allowed. (Volkswagen to Volkswagen, Honda-to- Honda, etc.)
2. Maximum 2500 cc OEM engine size. Overbore to maximum .60 OVER
3. Must be mounted in stock location and centerline.
4. Block OEM only, modification allowed.
5. Aftermarket and modified internal parts allowed.
6. Engine size in cc must be posted and visible to tech.
7. Connecting rods of aftermarket supply are approved of similar weight and material
8. Pistons, valves, and valve springs may be factory type replacements of similar weight and material.
9. Oil pans may be over-sized, interior baffles allowed. Claimer pan approved. Oil coolers and remote filter locations are approved. Oil coolers must be mounted outside of the driver's compartment. Must be located forward of the front firewall and rearward of the radiator.
10. Camshafts may be after-market type of any manufacturer. Roller cam and lifters not approved, unless OEM for engine being used.
11. Cam timing gear is optional. market or OEM valve train components allowed.

4. CYLINDER HEAD

1. Cylinder head must be OEM for make of car. No racing heads allowed (i.e. Yates, Ford Motorsport, Cosworth, etc.)
2. Four valve heads to be used only on the correct cc factory block.
3. Only factory produced OEM parts and components will be approved unless otherwise specified.
4. No porting of cylinder heads allowed.
5. Stock type rocker arm assembly only.
6. SPRINGS/RETAINERS/LOCKS- May be aftermarket to match cam. Double Springs O.K. May machine heads to use double springs.

5. INTAKES

1. One two-barrel carburetor only. Any OEM 2bbl carb, or Standard Holley 7448 or 4412 approved. Maximum 1" adapter or spacer plate allowed.
2. Only single throttle body allowed on fuel-injected cars.
3. Intake manifolds will be stock with factory casting numbers.

6. CARBURETORS AND FUEL INJECTION

1. Any single two barrel carburetor allowed. Maximum 500 CFM.
2. Choke horn may be removed.
3. Air cleaner mandatory at all times on carbureted cars. F.I. cars aftermarket air box (K&N etc.) allowed.
4. Air cooled Volkswagen may use any carburetor setup with up to 650 cfm.
5. Must have two return springs.

6. Only single throttle body allowed on fuel injected cars.
7. OEM or aftermarket ECU or aftermarket PROM chip allowed to remove rev limiter.
8. All ECU will be subject to tech. All remote, wireless or laptop tuning must be approved by officials while at the track. ECU. Feel free to tune at home.
9. No download of data from ECU will be permitted. If having computer problems, a tech official must be present before the scanner (ODB code fault type) is connected to ECU. Officials will be told what the problem is, if one exists, and shown the part (TPS, MAP sensor etc.) that is causing the fault.
10. Fuel injection must be stock for year, make and model. Modifications allowed. OEM or aftermarket ECU allowed. Fuel mapping, timing, delete sensors, etc. may be modified. Only single throttle body. allowed on fuel injected cars. Aftermarket throttle body OK. Aftermarket injectors allowed. 450cc maximum size

7. ELECTRICAL SYSTEM

1. Must have a working starter at all times. IF A CAR IS UNABLE TO START UNDER OWN POWER YOU WILL START AT THE REAR
2. Crank trigger ignition allowed.
3. A master on off switch must be located in reach of an official **in** case of emergency and must be clearly labeled.
4. Battery must be mounted securely in an approved battery box.
- 5: Battery must be located forward of the fuel cell and behind the driver's compartment. Battery must be secured by a minimum of 2 fasteners
6. Alternator optional.
7. No in-car adjustable timing.
8. No magnetos allowed.
9. Aftermarket distributors and MSD units allowed.
10. Only one coil is allowed unless OEM.

8. COOLING SYSTEM

1. Cars must carry an approved catch can or overflow tank; cannot be mounted in the driver's compartment.
2. No antifreeze or ethylene glycol coolants allowed. Red Line Water Wetter allowed.

9. LUBRICATION

1. No graphite based oil.
2. No dry sump systems.

10. EXHAUST

1. Mufflers are mandatory
2. Any exhaust system mounted through the car must be covered in a neat safe manner. Subject to tech.
3. Must be securely mounted.
4. Exhaust must extend behind the driver and exit outside of the car.
5. Header or exhaust manifold type is optional.

6. All vehicles in this division competing, practicing or testing at All American Speedway are required to comply with the mandated maximum sound output restriction. All individual vehicles are required meet a maximum decibel output of 90 DBA or less as measured from the viewing pad area above turn four. No exceptions.

11. TRANSMISSION

1. OEM standard for make, adapters allowed.
2. Must have working first and reverse gear
3. Scatter shield mandatory. 1/4" steel or approved blanket with 180 degree coverage.
4. Starter mounting position must remain in stock location.
5. Front wheel drive vehicles may use posi-traction or limited slip differential.
6. Flywheel may be cut or surfaced but must retain factory casting numbers.
7. Clutch disc and pressure plate will be stock type replacement only.

12. DRIVE SHAFTS - REAR WHEEL DRIVE

1. Must be stock production for make, model and year.
2. Must have two U-shaped brackets no less than 2" wide and 1/4" inch thick fastened to the floor to keep the drive shaft from coming dislodged.
3. Drive shaft must be painted white.

13. FRAMES

1. Original frame rails required. No lightening. May be reinforced.
2. Rear firewall with minimum 20 gauge steel is required between the driver's compartment and the fuel cell cover must be removable for tech inspection.
3. Original floor pan required. Must be complete in the driver's compartment, rocker panel to rocker panel.
4. Fender wells may be removed.
5. No roll cage bars to the front bumper directly. Must retain a crush zone and are subject to tech.
6. All cars must have tow hooks, must be readily visible and available.

14. SUSPENSION

1. Must be per manufacturer and model.
2. Reinforcing allowed
3. May be lowered
4. Coil-overs allowed
5. Springs optional: must be per manufacturer type (i.e. leaf, coil etc.) make, model, and year.
6. Weight jacks, screw jacks, and adjustable sleeves allowed.
7. Sway bars optional, one piece only.
8. Spindles and/or steering knuckles must be OEM or direct replacement.
9. Control arms: OEM replacement or aftermarket allowed. Must be mounted in stock location
10. Mounts may be slotted, adjustable and/or heavy duty

11. Aluminum shocks allowed. Struts may be aluminum or steel body OEM or replacement, heavy duty OK.
12. Pan hard bar allowed. May be adjustable.
13. Wheel base must be within plus or minus one inch, not to exceed 105".
14. 3.5" minimum ride height measured at lowest point of left front frame rail behind left front tire.
15. No aluminum housing or axle tubes. Spherical bearings may be used in upper ears. No quick change rear- ends .No traction control to include electronic traction control devices.9-inch rear end ok. Steel housing with welded steel tubes only, cast iron 3rd member only. No bolt on snouts, no bolt in tubes and no floaters.
16. No chain limiters or limiting devices allowed.

15. STEERING

1. Steering racks and steering boxes may not be moved or repositioned from stock OEM location
2. Heim Joints allowed.
3. Steering column must be padded

16. BODIES

1. All cars must have complete bodies, trunk and deck lid, hoods, fenders, etc.
2. No car will be allowed to run more than one week with fenders lost in previous competition.
3. All bodies must be installed on frame as per manufactured, and in the stock location.
4. Hood may be modified to clear air cleaner. Not to be overdone and subject to Tech.
5. Doors must be stock appearing; may be made of aluminum. All doors must be securely fastened.
6. Hood may be lightened and trimmed to allow an aftermarket nosepiece. No wedge or dirt style noses allowed. Hood must have rolled edges with no sharp edges. Fiberglass replacement hood ok. with **25lb** penalty
7. Fenders may be altered for clearance only. aftermarket fenders okay fiberglass **OR PLASTIC** fenders 25lbs **penalty**.
8. Front hoods must use hood pins, rear deck lid, if operable must use hood pins.
9. Side skirts, air dams, front and rear spoilers allowed, must be securely fastened.
10. One 6" rear spoiler allowed. Must be mounted past the rear tires and not protrude farther back than the outermost edge of the bumper. Must not exceed the width of the body. No sideboards.
11. Sunroofs must be removed and covered.

17. BUMPERS

1. Aftermarket bumpers and bumper covers allowed
2. Cannot extend outside of body lines
3. Side nerf bars allowed: 1-1/2" maximum outer diameter tubing or 1" x 2" rectangular tubing. Ends must be capped and smooth, no jagged or rough edges. Must not extend past the outer edge of tires.

18. GLASS

1. Windshields mandatory. Must be mounted in the original position and within the windshield cavity.
2. Lexan windshield OK. Or the screen Must be riveted in a safe manner. Subject to tech.

3. Mirrors must be mounted within the bodylines of the car.
4. Quarter and back windows may be replaced with Lexan. No glass.

19. ROLL BARS

1. Full roll cage constructed of 1.5 x .095" steel seamless tubing required. No water pipe.
2. Minimum three crash bars on the driver's side, two on the passenger side. Driver's sidebars must extend into the driver's door cavity and touch door skin; at least one bar must extend into the passenger side door cavity.
3. One windshield bar must run from the top of the cage to the cowl area to prevent caving in. Must be 1.5 x .095
4. A minimum 1/4" inspection hole in the driver's side vertical support.
5. All cars must have window net on driver's side securely fastened. Subject to tech.
6. Cage legs must extend from floor to roof and conform to inside body contour. Subject to tech.
7. Roll cage workmanship and installation are subject to tech.
8. Cars must have 1/8" steel or aluminum plate on driver's side door bars.
9. Reinforcement is allowed **in** the back of the front firewall.
10. Front hoops are highly suggested. Cars **with** front hoops receive **25** lb weight break.
11. A six-point roll cage is mandatory
12. Gussets are suggested on all 90-degree joints

20. SEATS

1. Aluminum racing seats are mandatory. Must be high back with double wrap around.
2. No homemade seats allowed.
3. Must be securely fastened to the roll cage at top with two bolts and at bottom with two bolts.
4. It is recommended that all seats have padded rib or shoulder protection and leg extensions on right and left sides.

21. FUEL TANKS AND FUEL

1. No methanol. Pump fuel only (e-85 allowed)
2. Electric fuel pumps allowed. If mounted in the rear area, the pump must be protected by a skid plate.
3. Oil pressure override is mandatory with an electric fuel pump.
4. Fuel tank or fuel cell must be moved into trunk and be securely fastened in a safe manner, equal distance between frame rails. All tanks must be approved by tech. Stock tank is approved but highly recommended.
5. Must have a ground strap on the fuel cell.
6. Maximum fuel capacity of 15 U.S. Gallons.
7. Fuel vent line and filter neck must be equipped with a check valve. No converted grease or oil containers or similar utensil may be used as a fuel tank.
8. Fuel cell mount subject to official approval
9. 5" minimum ground clearance.



10. No fuel cooling cans or devices will be allowed. No glass or plastic filters or filter canisters allowed.
11. Any fuel lines that run through the driver's compartment must be one piece steel braided line or encased in a steel tube. No connections inside the driver's area. Steel braided line highly recommended.

22. BRAKES

1. All cars must have four wheel brakes in operating condition, brake bias allowed. A maximum of one proportioning valve on each car.
2. Rotors can be aftermarket but stock calipers
3. Maximum two cooling ducts or scoops per wheel. 3" Max flexible hose.
4. No anti-lock brakes or components allowed.

23. WHEELS

1. 8" maximum wheel width.
2. One piece steel wheels only.
3. No wheel spacers between wheel and hub.
4. 72-inch track width measured at spindle height from the bulge on outside of tire; MAX (front and rear will be check)

24. TIRES:

1. ANY 200 tread wear tire allowed. Max width 205 minimum height 50 series. At no time will additives, chemicals, softeners, enhancers or strengtheners be applied to any tires.
2. Any tire brought into a facility found to be softened or not having a durometer within spec, will be confiscated, and penalties issued. Officials are permitted to enter your pits and haulers to check for softened tires or anything that may be detrimental to the class in the best interest of "fair play." Thank you for remembering this all season.

25. TRANSPONDERS

1. Transponders are required and must be mounted 130" back from the forward most point on the car. Must be aimed at the ground, and no higher than 24" off the ground. Transponders will be available to rent from AAS.
2. Transponders must be run at all times, including ALL PRACTICE SESSIONS to ensure proper operation with scoring. Transponders may be rented from Speedway. If you enter the racing surface with no transponder you will be Black Flagged. If this happens during a race, you will relinquish your starting position and return to the pits to obtain one.

26. RADIOS

1. **Raceceiver radios will be mandatory. 2 way radios or other driver / crew communication will be permitted and optional. Spotter MUST scan raceceiver radio/race control to use this option**

27. SAFETY REQUIREMENTS

1. Aluminum, made for racing seats will be required for the driver and passenger. The seats must be securely mounted to the rear hoop of the roll cage and a steel bottom frame welded or bolted to the floor.⁷

Seats shall be bolted to the mounts with minimum 3/8" grade 8 bolts and large washers to prevent pull through.

2. SFI rated racing seat belts and harnesses are required. Seat belt sets must not be more than 5 years old per the SFI tag. Belts with missing or unreadable tags will be required to be replaced. A minimum 3" wide strap 5 point harness with individual double shoulder belts or "y" type shoulder belts is required.

Seat belts should include an anti-sub belt to prevent the racer from sliding forward under the lap belts.

Seat belts will be securely fastened to the main roll cage with welded tabs and minimum 1/2" bolts.

Seat belts bolted directly to the floor pan will be required to have a 3/16" steel reinforcing plate welded to that mounting point. Shoulder belts should be anchored 6" below the shoulder by either bolting or securing around the spreader bar with the proper hardware.

3. Ribbon style window nets are required on the driver's side and mounted securely to the top of the door with a release mount at the top that is easily accessible to track safety crew.

13.4 Snell approved SA2010 or newer full face racing helmet is required for driver and passenger. Motorcycle or sport helmets will not be allowed.

13.5 A head restraint or neck collar is recommended to be worn at all times. A Hahns, Hutchins, Zamp or other SFI approved head and neck restraint is strongly recommended.

13.6 SFI certified racing suits are required for all drivers and passengers at all times while on the track. Driver's suits with large holes or tears will be required to be replaced. SFI rated gloves, shoes, and long underwear are highly recommended.

13.7 An automatic trigger or on board fire suppression system is highly recommended.

All American Speedway reserves the right to change these rules at anytime, without notice. These rules are subject to revision and/or amendment as needed in addition to the interpretation of officials.