



2020 STREET STOCK RULES

2020 rule updates shown in **BOLD-Red and underlined**

Notice to Competitors: There have been additions and updates to this rule package for 2020 and it is solely the competitors responsibility to read the information presented here in order to be informed as well as be in compliance with all aspects of the rules as set forth in this document.

1. APPROVED MODELS

- 1.1 General Motors: '73-up Nova/Venture/Monte Carlo, '73-up Chevelle/Lemans/Malibu, '73-up Impala/Parisienne or similarly designed cars. Ford: '73-up Torino/T-Bird, '78-up Granada/Crown Victoria or similarly designed cars. Up to '91 Crown Victoria. Chrysler: '73-up Dart/Satellite/Charger, '78-up Volare/Diplomat or similarly designed cars. 1992-1995 Ford Crown Victoria allowed (must use drum brake housing from '91 and prior)
- 1.2 **No Mustang, Camaro, Nova, Cuda or similarly designed cars.**
- 1.3 Any other models are subject to approval by track management.
- 1.4 If in doubt, please contact track management before you build.
- 1.5 Minimum wheelbase of 105" (factory specifications) with not more than one inch difference (+/-) side to side.

2. BODY

NOTE: All body panels must be steel with the exception of the nose, tail, and hood. In addition the floor must be constructed as close as possible to OEM (flat w/tunnel) Any non-conforming bodies will be allowed to compete but will be subject to a weight penalty to be determined by the tech director on an individual case basis.

- 2.1 All chrome moldings, ornaments, door handles, glass, tail lights, headlights or plastic components must be removed, except grille and windshield.
- 2.2 Grille must be stock production for body used. If grille has been damaged and replacement is not available then the grille may be fabricated from sheet metal to closely resemble OEM stock. The repair must be approved by speedway tech officials.

- 2.3 Mesh may be placed in front of rad, no larger than radiator opening, attached directly to the stock radiator support, and subject to approval by officials.
- 2.4 Quarter panel windows may have lexan installed. All window pillars must remain.
- 2.5 Lexan or stock glass windshield is permitted. A minimum of two steel vertical braces on the inside of the windshield placed to right of center are MANDATORY.
(See Appendix "E").
- 2.6 Top of windshield must be reserved for class sponsors.
- 2.7 Inner body panels may be removed. This includes the roof and rear quarter inner panels. These panels MUST be sufficiently steel braced on underside to prevent panel bowing and deforming.
- 2.8 A fabricated floor pan and firewall will be allowed. **The steel must be similar to OEM in design and construction and be a minimum of 20 gauge (0.036).** Firewall may be of a flat panel design. Construction must include square/round tubing to form the structure. The floor layout must be similar to OEM which will be flat from driver to passenger side except for the driveline tunnel.
Any deviation from this design must be approved by tech as a penalty may apply. Any questions on this construction or any other please contact the tech director.
- 2.9 Sheet steel may be fabricated to close in the area behind the roll cage. It will begin at side window height and extend straight back to the rear window parcel shelf. Sheet steel must be a minimum of 20 gauge (.036). No floor will be required under this boxed in area. Any questions on this construction please contact the tech director.
- 2.8 An 1/8" minimum steel plate must be welded to the outside of the door bars from top to bottom and front to back. Completely filling in between bars is acceptable.
- 2.9 Doors must be welded or bolted securely shut.
- 2.10 Hood and trunk interior webbing may be removed. These hood and/or trunk panels MUST be sufficiently steel braced on underside to prevent panel bowing, deforming and allow the mounting of hinges.
- 2.11 Original hinges must remain. If OEM spring hinges cannot be installed, the hood and/or trunk MUST be steel hinged and have at a minimum a prop rod installed to support the hood and/or trunk when open. Latches MUST be removed. A minimum of two pull type pins must be used on hood and trunk lids.
- 2.12 A single exterior rub rail may be used on each side of the car, from behind the front wheel, parallel to the ground, to ahead of the rear wheel, break for the wheel opening, and continue toward the rear of the car and fasten to the side of the rear bumper. Square tubing or round pipe only, maximum 1" outside diameter may be used. Exposed bolt heads must be carriage type only. No sharp edges. Rub rails must fit flush with side of car and blend with car color. Numbers and lettering must be over rub rails. **The ends of the rub rails must be tapered at each end and closed.**
- 2.13 Aftermarket front and rear bumper covers for Street Stocks such as Fivestar will be permitted. No dirt type noses or tails. These bumper covers must fit flush to existing fenders and hood/trunk. No extensions will be allowed below the existing bumper covers.

NOTE: specific bumper rules apply. See bumper rule 4.10.

- 2.14 **For 2020 plastic/fiberglass panels will be allowed on the hood, roof, nose, and tail. Panels must come from approved body manufactures such as Fivestar/Duraflex/AR All other panels (fenders/quarters) must be steel with a minimum 20 gauge (0.036) thickness.**

- 2.15 The rear tail of the trunk lid may be removed only for those cars running an aftermarket bumper cover.
- 2.14 No front spoiler. No cut-down doors. A rear spoiler will be allowed. May be aluminum, sheet metal or plastic. The spoiler must measure 60"W x 5"H maximum. No side boxing but it may be braced. The bottom of the spoiler must not be mounted beyond the rear edge of the bumper cover. The spoiler must be centered on the trunk lid or bumper cover.
- 2.15 A Five Star type fiberglass hood with scoop will be allowed. It must be hinged at the rear and pinned at the front. Flat steel hoods may be raised slightly at base of the windshield.
- 2.15 Rocker panels and nose must have a minimum height of 6" ground clearance. Rear quarters and rear bumper covers must be OEM height.
- 2.16 All cars must begin each race meet with a complete body (hood, doors, fenders, trunk lid, etc.) unless damaged in practice and/or O.K.'d by pit Steward.

3. INTERIOR

- 3.1 All interior flammable material must be removed with the exception of the driver's seat.
- 3.2 A completely enclosed steel firewall front and rear is mandatory.
- 3.3 Floors may not have any holes. They may be repaired with steel but must retain their original appearance.
- 3.4 Metal interior panels MAY be removed. If interior panels have been removed, they must be steel braced to sufficiently prevent bowing and deforming. They will be subject to a weight penalty if excessively lightened.
- 3.5 **All interior panels including floor and firewall must be magnetic steel of a minimum 20 gauge (0.036) thickness.**
- 3.6 The inner panel on the driver's door and passenger door may be removed. (see "Body")
- 3.7 Seat backs must be secured to the roll cage to prevent it from falling forward or backward.
- 3.8 An aluminum racing seat is MANDATORY. Containment seat recommended. No fiberglass seats. Seat must be securely mounted to roll cage.

4. BUMPERS AND FRAMES

- 4.1 Bumpers and frames must be in stock location and not reinforced. Any fabricated bumpers will be inspected for excessive bracing. Bracing will be removed if deemed excessive by tech officials.
- 4.2 Frame repair O.K. with stock thickness material.
- 4.3 No shortening of frames.
- 4.4 No joining sub-frames.
- 4.5 Rear cross member (at bumper) may be replaced with same size channel iron.
- 4.6 No square tubing.
- 4.7 Stock bumpers may remain and have a tight, good quality chain solidly bolted between bumper and frame so bumper will remain with car at all times.
- 4.8 OEM bumper shocks will no longer be required.
- 4.9 A larger mounting plate may be used where the bumper mounts to the bumper shock to better secure bumper. No reinforcement in any other area of bumper.

4.10 When using an aftermarket front or rear bumper cover, a tubular bumper must be used. The tubing must be minimum .095 wall thickness. The tubing must be curved to extend just behind the fenders. Tubing will be attached to brackets securing assembly to the frame horns. No excessive bracing allowed. **An example of an approved tubular bumper is shown in "APPENDIX "F".**

5. ELECTRICAL

5.1 The battery may be moved to a mounting plate securely attached to the frame rail outside of the drivers compartment (preferably ahead of left rear tire). **A dry cell battery will be MANDATORY.**

5.2 Charging system and starting system must be operating.

5.3 **A Master Shut-off Switch must be mounted in the middle of the car,** such that the driver can reach the switch while belted in the car. The location must be accessible to safety workers outside of the car, regardless of how the car is sitting. It must be **fluorescent orange** to ease finding it during an emergency. **Decals to be used with the switch to indicate OFF and On.** May be mounted to cage or dash bars in center.

5.4 A neutral safety switch must be installed to prevent the vehicle from being started in gear. An **example of a switch circuit is shown in APPENDIX "G".**

6. MINIMUM WEIGHT

6.1 **ALL cars must weigh a minimum of 3400 lbs. with the driver at all times.**

6.2 **ALL cars must maintain a maximum left side of 53%. The maximum rear will be 45%. These weights and percentages must be maintained for any regular length race.**

6.3 **For extended lap races the weight allowed will be 3400 minimum pre-race. There will be a tolerance allowed for weight loss during the race. Any car weighing substantially less than the average of the other cars post-race may be disqualified pending further inspection.**

6.4 All weights/percentages will be taken with driver in normal seated position.

6.5 Any added weight must be fastened solidly to the frame.

6.6 No ballast (added weight) will be permitted in the driver's compartment.

7. BRAKES

7.1 Car must have four wheel brakes in working order, drums on rear.

7.2 No bias valves permitted.

7.3 Power booster must remain in stock location on firewall. If the power brake booster was not an option for the make and model of the car or if it has been removed, a removable 10 lb. weight must be mounted on the firewall at the master cylinder This weight will NOT be added to the existing minimum car weight.

- 7.4 Brake duct and hose allowed for each front brake. No blower fans. Air must be ducted to the brake rotor only not to tire. Air may be pulled from grille or bumper area.
- 7.5 No drilled, slotted or "J" hooked rotors allowed.
- 7.6 Brake pedals must be "hung mounted" as originally manufactured.

8. CHASSIS AND SUSPENSION

- 8.1 All suspension parts are to be stock with no modifying **(except where noted)**.
- 8.2 Upper and lower ball joints must be OEM type and match OEM mounting to arm. No truck ball joints. No low friction ball joints (i.e. Allstar). No rebuildable joints (i.e. Howe). ALL ball joints MUST meet OEM length.
- 8.3 The car must be a minimum of six (6) inches of the ground measured at any point under the frame Ground clearance will be the same on both sides. Inspection height gauges must pass under frame with no contact. NO lifts allowed.

8.4 All vertical measurements will be taken with driver in car.

- 8.5 Stock size rubber mount must be used between frame and body. Body mounts may be solid rubber or steel but must retain original dimensions and mounting points.
- 8.6 Front coil springs may be OEM or OEM replacement type. Conventional OEM type race springs allowed (i.e. AFCO, Hypercoil). No beehive or progressive rate springs allowed. Front springs must have stock coil spacing. Springs must be a minimum of 5.0" O.D. (+/- 1/2 ") in diameter. Front springs must sit in the original OEM spring seats. Solid shims may be used on the top of the spring and seated in the original spring seat. Solid wedges are permitted in the front springs. **An adjustable spring seat (i.e. AFCO #56118) will be allowed in the FRONT only. Springs must be magnetic steel.**

8.7 For 2020 NO suspension travel limiting devices will be allowed unless specifically noted. (Examples include, but are not limited to: bump stops, coil binding, chains, or shock mounting locations). This includes front and rear suspension. The front coil springs MUST have tape applied to the coil wire to check for coil contact. In addition cars may be inspected for binding and excessive travel in the front end. Tech may use various methods to check for this condition. Absolutely no travel limiting allowed.

- 8.8 For 2018 a rear leaf spring suspension will be allowed. The stock arch must be maintained on the springs. Number of leaves is optional. No adjustable shackles will be allowed. Only one mounting hole on front and rear. No lowering blocks. The only allowable leaf spring combination will be the Nova front and rear clip which will be joined to give an OEM wheelbase of 111". (No Camaro or other leaf spring setups allowed.)
- 8.9 No cutting and/or welding pitman arm.
- 8.10 No air shocks or bags.
- 8.11 Stock sway bar only. Bar MUST be mounted in original brackets under frame rail. Sway bar MUST be mounted in OEM position on top of control arm. **OEM sway bar not to exceed 1 5/16" O.D. (1.3125)**
The sway bar links may be adjustable. This may be accomplished on each side by using a combination of a bolt or threaded rod, nuts, washers, and/or unequal length spacers.
Solid blocks, chains, or other devices will be allowed but must be approved in advance by tech.

- 8.12 Springs must be of original design and in stock location. No coil-over spring/shock combinations.
- 8.13 Rear coil springs may be OEM or OEM replacement type. Conventional OEM type race springs allowed (i.e. AFCO, Hypercoil). No beehive or progressive rate springs allowed. Rear springs must be a minimum of 5" O.D. (+/- 1/2 "). Rear springs must have original spacing. Rear spring seats may be modified to accept closed coil-ground spring. Recommended 1" bucket type spring seat on differential housing. Solid shims may be used on the top of the spring. Solid wedges (either rubber or metal) may be used between the coil spring spacing. **Springs must be magnetic steel.**

For 2020 a rear weight jacking kit will be allowed. It may be installed on the left or right rear spring but not BOTH.

- 8.14 No suspension travel limiting devices will be allowed unless specifically noted. (Examples include, but are not limited to: bump stops, coil binding, chains, or shock mounting locations). This includes front and rear suspension.
- 8.15 One stock replacement shock absorber per wheel in stock position using stock mounting hardware is permitted. Absolutely NO RACING shocks allowed. Shocks may be stock replacement GAS shocks. All shock numbers MUST be readable. Shocks will be deemed illegal if numbers are unreadable. All shocks must be mounted at original shock angles. Only one upper and lower mounting hole allowed for shock attachment.
- 8.16 **For 2015 a tubular upper control arm will be allowed for the METRIC (108") CHASSIS ONLY. The arms must meet the following dimensions:**



- **Steel arm construction**
- **Steel cross shaft**
- **Bushing material - Steel**
- **Tube O.D.- 1.000"**
- **LH Arm C-C: 8.5" (+/- 1/2 ")**
- **RH Arm C-C: 8" (+/- 1/2 ")**
- **Cross shaft solid hole, C-C: (i.6.875"metric)**
- **Offset – 1 1/4"**

A metric chassis with OEM upper control arms may use a steel control arm bushing. For 2018 an aftermarket upper control arm will be allowed for GM mid (112") and full size chassis (116") as well as the Ford chassis (114"). Arms must meet the same specs as the metric chassis arm shown above.

All other suspension bushings must be rubber or urethane including rear control arms.

- 8.17 Only stock OEM spindles and rotors for year, make, and model may be used.
- 8.18 A quick release steering wheel MUST be installed on either an OEM collapsible steering column or a solid steering column shaft. This quick release wheel will be MANDATORY.
- 8.19 All steering components must meet the original specifications of the manufacturer for specific year, make and model.
- 8.20 For 2017 an aftermarket race style power steering pump will be allowed. Pump must be cast iron magnetic steel. Steering gear must remain OEM.

8.21 For 2018 aftermarket “non-adjustable” rear control arms (upper and lower) will be allowed for ALL chassis. They may be from such companies as Speedway Motors. They must meet the exact same specs as an OEM arm. Only rubber or urethane bushings will be allowed. No offset bushings.

Further information is found in APPENDIX “B” in this rule package.

8.22 Camber angle will be inspected. The camber specifications will be as follows:

LF wheel maximum camber will be 4.0 degrees positive or negative (+/- 0.5 degree)

RF wheel maximum camber will be 8.0 degrees positive or negative (+/- 0.5 degree)

Camber will be checked using a Longacre C/C gauge # 78295.

9. ROLL CAGE/BRACING

NOTE: See “Appendix A” for updated cage diagram

Forward Roll Cage/Bracing (front cage uprights forward-front hoop)

- 9.1 Two parallel bars attached to the front cage uprights will extend forward and join the upright radiator support bars at the front. This will form the “front hoop”.
- 9.2 One cross bar will join the radiator upright support bars.
- 9.3 A maximum of one bar is permitted to run side to side in front of rad. Bracing will be toward the rear only (maximum 18" back from rad).
- 9.4 A radiator mounting bracket may be used to allow for quick removal of radiator. It must fit under the hood and not extend in any way beyond the frame rails. All existing support members for front fenders and rad support must remain (front shroud). No hood pins are to be mounted on this bracket. It is strictly for radiator support.
- 9.5 Diagonal and circular bracing bars will be allowed to extend from the parallel bars to join the frame rails.
- 9.6 A single horizontal bar will be allowed to join the two parallel cage bars ahead of the firewall but behind the engine.
- 9.7 Two bars may extend diagonally from the above bar to join the parallel bars.
- 9.8 Two bars are permitted to come forward off the front two uprights through the firewall and down to the frame. These bars must be welded to the frame behind the upper control arm mounts.
- 9.9 A foot protection bar must be installed on the driver's side from the left front upright of the cage to the frame but not ahead of the front firewall

Center Roll Cage/Bracing (interior main cage)

- 9.10 The main cage will consist of four upright bars to form the cage perimeter. These uprights must be welded to the frame. The two front bars will be angled back inside the body “A” pillars. The rear bars will extend up to the roof. These four bars will be welded to the “halo” bars that will form the perimeter of the upper cage
- 9.11 Top of the roll cage halo bars must be touching the roof.
- 9.12 There must be a minimum of 3" clearance between the driver's helmet and top of the halo.
- 9.13 The driver’s side door bars will consist of a minimum of three parallel bars attached

between the front and rear cage upright bars and angled out to the inside of the outer door panel. The parallel bars must be joined by a minimum of six evenly spaced vertical bars to support and strengthen the door bar construction.

- 9.14 The driver door bars MUST be filled in and covered with a minimum 1/8" thick steel plate. This is MANDATORY on the driver's side. Plating must cover all drivers' door bar area.
- 9.15 The passenger door bars may replicate the driver's side but may also be constructed of vertical and diagonal bars or x-braced for side impact protection.
- 9.16 There must be cross bracing or X-bracing in the rear of cage from side to side behind the driver's seat to allow for shoulder belt installation.
- 9.17 There may be one bar mounted horizontally (parallel to floor pan) connecting the cross brace bar and run straight to the dash bar. This bar MUST be padded.
- 9.18 A bar ("Petty bar") connecting from the rear cage cross bar to run diagonally down to and join the bottom of the right front cage bar or frame. No other bars will be allowed to run off this bar.
- 9.19 Two bars (max) are recommended to run from side to side, attached to the roll cage or bottom door bars, following the contour of the floor, to allow for seat installation. These two bars will have the seat mounted to them directly and must not be fastened to the frame or body of the car.

Rearward Roll Cage/Bracing (rear of cage to bumper-rear hoop)

- 9.20 A maximum of six bars may be attached to the rear of the center cage section. These bars may be connected diagonally from the center cage bars rearward to the frame and extend to the bumper. These bars may be cross or X-braced. Diagonal support bracing may connect parallel rearward bars to frame rails.
- 9.21 Gussets are required at all welds around driver's compartment. All welds must be electric. Cage welding must be professional and will be subject to inspection. Any cages not properly constructed will not be allowed to compete until repaired.
- 9.22 Minimum pipe size .095 wall thickness with minimum diameter 1.75" od.
- 9.23 Gas tank protection required . Two pipes, behind the tank, off the frame at 90 degrees joined by one pipe across top no higher than the gas tank. A second pipe is allowed between the uprights (not welded to the frame). One brace is allowed from each upright pipe. Braces must be welded to the frame and be toward the front of the car only and must extend no further forward than 18" from the uprights. None of the gas tank protection can be welded, bolted, or in any other way fastened to any other bracing. It may only be fastened to the frame.
- 9.24 See Appendix "A" for updated details of the cage construction. If there are any questions regarding cage construction please contact the speedway tech director.

10. FUEL SYSTEM

- 10.1 Original gas tank must be removed.
- 10.2 A smaller tank (max 12 gallon) must be installed in the trunk, between the frame rails, as close to the rear firewall as possible, securely strapped to the frame of the car.
- 10.3 Filler must be inside trunk.
- 10.4 **All fuel cells must meet a minimum clearance of 12 inches to the ground from any point at the bottom of the fuel cell with the car at ride height (Driver out).**

- 10.5 Two pieces of tubing, pipe or angle iron may (Mandatory if trunk floor is removed or weak) be welded between the frame rails to install tank. These pieces may be parallel or in an "X".
- 10.6 Tank must be secured to frame without movement.
- 10.7 All fuel lines must run under the floor and be metal. Steel braided fuel line may be used provided it is attached at or near OEM locations and is also OEM inside diameter. Steel or braided fuel line from the fuel pump to the carburetor is required, no rubber lines or filters in this line.
- 10.8 Steel or braided fuel line from the fuel pump to carburetor may be wrapped to insulate line from heat and possible vapor lock. No cool cans or any other fuel cooling methods allowed.
- 10.9 A metal box completely enclosing a plastic tank is mandatory.
- 10.10 May use any size approved fuel cell positioned as above.
- 10.11 Any gas leak of any kind will park a car.
- 10.12 Fuel: Filling station gas only with no additives. No aviation fuel allowed.
- 10.13 Stock mechanical fuel pump only. (No electric fuel pumps)
- 10.14 Throttle must have two return springs on separate brackets. One spring must be mounted toward front of carb and the other spring mounted toward rear of carb.**
- 10.15 Vent line from fuel cell must be vented through the left rear of the bumper cover clearly exposed, not behind the trunk lid. The vent line must be equipped with a check valve.**
- 10.19 AIR CLEANER AND AIR FILTER: Only Track approved round air cleaner element minimum 12 inches and maximum 17 inches diameter will be permitted. A Track approved completely dry pleated paper element - minimum 1 ½ inches - maximum 4 inches high must be used in the air cleaner at all times. All air shall be filtered through element. The air filter element may not be sprayed or soaked with any type of chemicals or liquids. Only a round metal air cleaner housing is permitted. The top and bottom of the air cleaner must be solid and must be the same diameter. No lips or expanded edges are permitted. The air filter housing must be the same diameter as the air filter element. The air cleaner housing must be centered and sit level on the carburetor. The bottom of the air cleaner housing must be lower than the top of the carburetor choke horn. No tubes, funnels or any device, which may control the flow of air, is permitted inside of the air cleaner or between the air cleaner and the carburetor.
- 10.20 No K&N Air filters (or K&N style filters) will be allowed

11. CARBURETOR

- 11.1 Carburetor must be stock 2 barrel originally available on the vehicle.
- 11.2 Serial Numbers must be readable. (2G-Chev, Autolite-Ford Carter or Holley-Dodge).
- 11.3 No 500 CFM Holley carbs.
- 11.4 Choke blade may be removed.
- 11.5 Air horn must not be removed.
- 11.6 Casting ridge may not be removed.
- 11.7 Booster must be stock. May not be shortened, tapered or raised.
- 11.8 Booster O.D. not to exceed 18/32" (.567).
- 11.9 Booster I.D. not to exceed 4/32" (.124).
- 11.10 Booster height 9/32" (Measured from top of fuel bowl).

- 11.11 Carburetor may be drilled for Holley jets. **Maximum 78.**
- 11.12 Throttle plates may be drilled for idle.
- 11.13 Throttle shaft may not be thinned. Screws must be as OEM.
- 11.13 Venturi bore not to exceed 1 3/8" (1.375).
- 11.14 Throttle body bore not to exceed 1 11/16" (1.680)
- 11.15 Carburetor gaskets must remain stock.
- 11.16 Only stock thickness throttle body gasket. No carb adapters.

11. REAR END / DRIVESHAFT

11.1 For 2014 a locked rear end will be allowed. A steel mini spool (i.e. Coleman) is preferred. No limited slip, positraction or other devices will be allowed.

- 11.2 Rear end and all other suspension parts must be stock type and remain in original location.
- 11.3 Gear rule:

ALL G.M. engine cars maximum 3.73

Ford and Chrysler maximum 3.55

Minimum gears for all cars 2.70.

- 11.4 All gears are to be in original housing.
- 11.5 Front and rear DRIVE SHAFT loop required
- 11.6 DRIVE SHAFT of steel construction only. **Must be painted white.**

12. RADIATORS

- 12.1 Radiator (only one allowed) must be in stock location. Aluminum radiators will be allowed. They must be OEM replacement type units. They are to fit within the radiator support.
- 12.2 Must have a cooling system overflow located in engine compartment only.
- 12.3 Water is the only acceptable coolant. No anti-freeze.
- 12.4 An electric cooling fan will be allowed. It may be used as a pusher or puller fan. Only one cooling fan allowed. OEM fan may be removed.

13. ENGINES

For 2014 The GM #12499529 long block crate engine will be allowed. It comes complete except for an intake manifold, water pump, and balancer. A 2 bbl cast iron OEM intake must be used. The carburetor will be a 2 bbl Rochester which must be used with no adapter. This engine is available through any local GM dealer. The engine will be sealed by Speedway 660 prior to competition. A minimum \$50 sealing charge will be applied. This engine is also used at Petty Raceway and is also sealed. Any inquiries into this engine package may be directed to the Speedway 660 tech director. Engine specs are found in APPENDIX "D".

CRATE ENGINE REPAIR/REFRESH

Sussex Engine will be the authorized service center for all crate engines. These engines may be repaired or refreshed. Engines must have at least one season before a refresh will be allowed. The repair/refresh procedure will begin by the team contacting 660 to identify the condition then Sussex will be contacted and perform the appropriate repairs. Sussex Engine will have a list of approved procedures that will be followed to perform the repair /refresh work. The Tech director will reseal the engine and a \$100 resealing fee will be charged. Non-compliance to this program will deem the engines to be illegal and will be removed from inventory. Sussex Engine will also perform inspections of any engines in the class for validation and compliance of the rules when required.

- 13.1 Must run stock engine; i.e. G.M. in G.M., Ford in Ford, MOPAR in MOPAR.
- 13.2 All engine parts must meet OEM specs for engine and brand.
- 13.3 Engine must have an engine mount restraint on the left side if using original stock motor mounts.
- 13.4 Solid mounts acceptable provided they conform to OEM specs.

The minimum crankshaft height will be the frame height plus 7 inches = 13”.

- 13.5 Engine must be located in stock position.
- 13.6 GM: may run 350, FORD may run 351 Windsor, MOPAR : 360 cu. in. only.
FACTORY PRODUCTION FIRING ORDER ONLY.
- 13.7 NO 327 CU. IN. ENGINES.
- 13.8 The following specs are for the GM 350, 351 Windsor, and the 360 MOPAR:
BORE/STROKE:

350 Chev - 4.000"/3.485"
351 Ford - 4.000"/3.500"
360 MOPAR - 4.000"/3.578"

Engine overbore of .040 MAXIMUM will be allowed

- 13.9 CAM/LIFTERS: Hydraulic lifters (no mushroom type) and a hydraulic lifter camshaft with maximum specifications as follows (all measured at the valve):

G.M. lift - intake .390 exhaust .410
Ford lift - intake .419 exhaust .448
MOPAR lift - intake .410 exhaust .410

For 2020 there will be a duration rule applied to GM “built” engine camshafts in this class. The GM crate is not included.

The maximum allowable duration will be: Intake: 195° Exhaust: 204°

- 13.10 No solid Anti-pump or Rhoads lifters. This includes any type of lifter that falls into this category (i.e. high bleed). Any lifters that are not as OEM will be subject to tear down and internal inspection.

Comp Cam Race Hydraulic lifter #84000-16 will be the only non OEM lifter allowed in GM engines.

13.11 For 2020 no blueprinted or reground cams permitted. Camshafts must be installed straight up. No degreasing or offset keys or bushings on camshaft or crankshaft.

13.12 The engine MUST be able to achieve an **ABSOLUTE MINIMUM of 20" of vacuum @ 800 RPM at idle-in park with no throttle or mixture screw assistance.** Any engine that does not meet this minimum spec as measured with the track gauge will be automatically disqualified. An easily accessible manifold vacuum port must be available to conduct this test. It is highly recommended that a competitor's gauge be checked against the track gauge to ensure compliance with this rule.

13.13 PISTONS/RODS : stock cast (dished or flat top) pistons only (or equivalent replacement).

13.14 G.M. must have four relief valves from manufacturer. Stock rods (No 6" G.M. rods) and pressed wrist pins only. No floating pins.

13.15 Aftermarket rod bolts and nuts are allowed.

13.16 COMPRESSION RATIO: Maximum compression ratio of 8.5:1 is set. (8.7:1 on whistler will be deemed illegal). Compression and displacement may be determined by volume gauge, manual measure and/or electronic sonic tester (whistler).

13.17 HEADS: All cylinder heads must be cast iron, OEM smog type, with specifications as follows:
G.M: 333882, 3986336, 3998920, 3998993, 462624 castings only. Maximum intake diameter 1.94". Maximum exhaust diameter 1.5". Minimum Combustion Chamber volume 76cc.
Min combined deck clearance plus head gasket thickness .040".
Maximum intake runner volume 160cc.
Maximum exhaust runner volume 60cc.

FORD: D5AE, D5AEA, D5AECA D5TE, D5TEDA, D5TEEB, D70A, D80E castings only.
Maximum intake diameter 1.84". Maximum exhaust diameter 1.55". Minimum combustion chamber volume 69cc. (flat top piston)
Maximum intake runner volume of 125cc. (flat top piston)
Minimum combustion chamber volume of 60cc, and maximum intake runner volume of 140cc,
a dished piston with .120" cup must be used.
Minimum combined deck clearance plus head gasket thickness .070" for all heads.

MOPAR: 3169974, 3671587, 3751357, 3751857, 3769596, 4027596 castings only.
Maximum intake diameter 1.88". Maximum exhaust diameter 1.5" (318); 1.6"(360).
Minimum combustion chamber volume 68cc.
Minimum combined deck clearance plus head gasket thickness with a flat top piston .110".
Maximum intake runner volume 162cc.
Maximum exhaust runner volume 72cc.

13.18 All cylinder heads must have stock intake and exhaust valves and stock valve spring dimensions (1.275" Chev, 1.437" Ford, 1.5"MOPAR). Stock replacement stainless valves are permitted. Valve stem length, diameter and keeper group location must be stock. Steel retainers must be used.

13.19 No undercut valves.

13.20 Valve spring seat pressure is not to exceed 100 lb. maximum @ installed height. This applies to all engines.

- 13.21 No angle milling, porting, port matching, polishing, sandblasting, coating and/or blueprinting will be allowed. Heads may be milled for straightness only.
- 13.22 Stock rocker arms (or equiv. replacement) with stock ratios (GM and MOPAR 1.5, Ford 1.6).
- 13.23 Jam nuts are allowed.
- 13.24 Poly lock rocker arm nuts will be allowed as well as screw in studs and guide plates. No other cylinder head modifications will be permitted.
- 13.25 CRANKSHAFT: Only standard cast production design. Stroke may not be increased or decreased. Only standard factory OEM production steel or cast crankshafts with stock strokes permitted. Must have OEM readable numbers. No aftermarket crankshafts. Engine balancer must be OEM stock. It is to measure no less than 6" in diameter by 1" in thickness at outer edge. NO stroker kits.
- 13.26 **INTAKE MANIFOLD:** Must run stock cast iron 2 barrel intake manifold with no adapters. No angle milling, porting, port matching, polishing, sandblasting, coating and/or blueprinting will be allowed. OEM numbers must be readable.

EXHAUST MANIFOLD: No ram horn manifolds. No inverted exhaust. No porting and/or polishing.

Exhaust must exit behind the driver in front of rear wheel(s). **Exhaust pipe must be 2" O.D. maximum from exhaust manifold to pipe exit.** A single exhaust must use an OEM crossover pipe. If dual exhaust is used, pipes may not be joined (no balance pipe). Pipes must be tight at all joints and securely fastened. Exhaust pipe (or pipes) must not extend past the rocker panel extension.

- 13.27 AIR CLEANER: Air cleaners mandatory. Any OEM replacement O.K. as long as hood will cover it without modification. No ram air or cowl induction allowed. OEM pleated paper filter elements only.
- 13.28 OIL PAN/VALVE COVERS: OEM type oil pan and stock valve covers. May run a kickout type oil pan. Must have crankcase breathers to control oil vapor.**

- 13.29 WATER PUMP: Stock cast iron water pump only. No aluminum.
- 13.30 FUEL PUMP: Mechanical fuel pump only in stock location. No belt driven fuel pumps.
- 13.31 OILING : OEM oil pump only. No dry sumps.
- 13.32 TIMING: Stock timing chain (or equivalent replacement). No belts.
- 13.33 STARTER: Stock OEM starter for engine used.
- 13.34 For 2018 a PMRG (Permanent Magnet Reduction Gear) starter will be allowed.
- 13.35 DISTRIBUTOR: Only stock distributor and stock type coil allowed. No dual points. No external amplifiers.

GM HEI ignition system will be allowed in a non-GM engine. It must be a stock OEM replacement unit.

- 13.36 Distributor must be wired to match the FACTORY PRODUCTION FIRING ORDER ONLY.
- GM firing order is 1-8-4-3-6-5-7-2
 - CHRYSLER firing order is 1-8-4-3-6-5-7-2
 - FORD firing order is 1-3-7-2-6-5-4-8.

13.37 WIRES - OEM stock replacement plug wires or performance wires will be allowed. Wires MUST not be larger than 10mm and size must be clearly marked on wire insulation.

14. TIRES AND WHEELS

14.1 The track tire rule for will be the Hoosier 890 exclusively. Tires must be purchased only from Speedway 660 inventory.

14.2 Tires must have a readable bar code by the Speedway 660 tire scanner. The code is found on both sides of the tire. Any tire that has an unreadable bar code will be deemed illegal.

14.3 For 2020 there will be durometer testing for tire softener. This will be a gradual implementation as ongoing testing will be done to obtain a fair and repeatable softness number. This will be communicated to the teams to ensure compliance.

14.4 The maximum wheel size will be 15" x 8". Cars with 15" x 7" wheels may still be used but may add a 1" wheel spacer.

14.5 For 2019 wheel backspace will be limited to 2" only on all wheels.

14.6 For 2019 a 1" wheel spacer will be allowed at all wheels with 108" chassis ONLY. These spacers may require longer wheel studs which must extend past the lugnut.

For 2020 a metric chassis may run a maximum 1" spacer with a 2" backspace wheel OR a wheel with a 1" backspace and NO SPACER. You may run one setup but not BOTH. The same thickness spacer must be used on all four wheels.

NO spacers will not be allowed on chassis longer than 108".

14.6 Aftermarket wheels are allowed on all four corners.

14.7 Fenders may be trimmed to allow for tire clearance. The contour of the wheel well must remain stock appearing. . No flaring of fenders and all cuts made must be smooth and rolled under to avoid cutting a competitor's tire. Excessive cutting will not be permitted and will be at the discretion of tech officials.

15. TRANSMISSION

15.1 Three speed OEM automatic transmission only. These are limited to GM THM 350, Chrysler 904, and Ford C4 models only.

15.2 Transmission must have three gears forward and one gear reverse, plus a neutral and a park position. Must have stock shift pattern. No reverse valve bodies.

15.3 It must be able to be shifted by the driver in position. No "slap stick" shifters.

15.4 Must have a stock torque converter. Minimum 12" converter.

15.5 Transmission cooler legal. Must be located in engine compartment. Recommend cooler be fitted with high pressure hoses and fittings.

15.6 Cars must start in neutral or park only.

15.7 Must have stock shift points. The transmission must be able to be automatically upshifted to high gear at 1500 RPM with vehicle rear wheels raised.

15.8 The OEM transmission must have an operating vacuum modulator. This unit is used on all of the OEM transmissions for this class.

15.9 OEM Transmission gear ratios will be as follows:

GM THM 350: 1- 2.52, 2 – 1.52, 3 – 1.0

Ford C4: 1- 2.46, 2 - 1.46, 3 – 1.0

Chrysler 904: 1- 2.74, 2 – 1.74, 3 – 1.0

16. NUMBERS

16.1 Numbers must be on the roof, readable from the right side of the car, and on both front doors at least 22 inches high and four inches wide.

16.2 Must have a six inch number on the top passenger corner of windshield, painted white.

16.3 All numbers must contrast the color of the car (dark on light, light on dark).

16.4 No trick numbers.

16.5 The driver will be informed of any numbers difficult to score.

16.6 Anyone requesting a number should call 506-454-RACE (7223) weekdays 8:00 a.m-5:00 p.m.

17. DRIVER SAFETY

17.1 A four point harness is mandatory. A Five point harness is recommended.

All seat belt mounting brackets must be installed in the direction of pull to avoid excessive stress to the anchor points during driving [fatigue stress] or during an accident. **(See APPENDIX “G”).**

17.2 Harness must be worn whenever car is on racetrack. **Harness build date must 2018 or newer.**

17.3 **A SFI 3.3 rated neck collar will allowed. It will be the MINIMUM acceptable neck support device that may be worn. The current HANS device will still be the recommended neck safety device.**

17.4 **Full face helmets are MANDATORY. The SNELL standard SA2010 will be MANDATORY minimum standard for 2020. SA2010 helmets will NOT be allowed for the 2021 season. The helmet must accompany the vehicle at time of inspection.**

17.5 **The HANS device tether straps will be inspected. While not mandatory at this time, the straps are recommended to be replaced every 5 years or in the case of hard impact then immediately.**

17.6 No tying, riveting, bolting, or any method other than a proper attachment will be acceptable.

17.7 Snell approved helmets must be worn whenever car is on racetrack.

17.8 A securely mounted, easily removed fire extinguisher is required, within easy reach of the driver. **It must have a recharge slip dated no earlier than January 1st of the current year.**

17.9 Fire extinguisher must be minimum of 2.5lbs. Additionally a fire extinguisher of a minimum 5 lb. must be clearly visible in the teams pit area. Extinguisher must display car number on the side.

17.10 Flame resistant driver suits must be worn whenever car is on racetrack.

17.11 Flame resistant gloves and shoes must be worn whenever car is on racetrack

- 17.12 Window net with quick release attachments is mandatory. Driver's window net must be securely attached at the bottom with quick release top latch.
- 17.13 Drivers are responsible to ensure all safety equipment is in good condition and securely installed.
- 17.14 Seat must be aluminum and be secured to the roll cage (both bottom and back) with minimum grade 8 fasteners. A complete containment seat is highly recommended but head supports at a minimum will be MANDATORY.

18. MISCELLANEOUS

- 18.1 All cars must have at least one tow hook front and rear attached to the frame.
- 18.2 There also must be a loop in the center of each bumper (cable or chain) that can be used for easy pick-up.
- 18.3 No performance or aftermarket speed equipment of any kind. **(Unless expressly stated)**.
- 18.4 Outside mirror may be used as long as it is not out past inside the car at the discretion of the Race Director. Outside mirror not out past body.
- 18.5 Anything not specified as being allowed must be stock. **(Unless expressly stated)**.
- 18.6 Stock part are those manufactured for the normal family sedan, not taxis, police cars, muscle or any other special editions.
- 18.7 Any misinterpretation of the rules will be subject to a final decision by track officials.
- 18.8 Track officials may check any car at any time.
- 18.9 Track reserves the right to amend any rule with prior (fair) notice to competitors.
- 18.10 Speedway 660 reserves the right to confiscate and retain any parts or components that are deemed to be non-conforming to the rules set forth in these pages.
- 18.11 The decision of track management will be final.
- 18.12 **Anything that is not specifically shown in these rules will be considered illegal. Please contact the tech director for clarification. DO NOT ASSUME!**
- 18.13 **Cars from other tracks or Series will be allowed to compete at the discretion of officials. Contact the speedway tech director for clarification.**
- 18.14 **For 2020 any car that fails inspection must be reinspected before it is allowed to compete at the next event**

19. LISTENING DEVICES

- 19.1 SCANNERS: **Mandatory for use in 2014.** They are to be mounted in a secure and driver accessible location. May require an external antenna. ONLY the track frequency is to be programmed. Scanners will be subject to inspection for other frequencies.

NO transmitting devices of any kind allowed. Any competitor found with a transmitting device will be subject to a disqualification up to and including a season ban. Decision of track management will be final.

20. **SCORING DEVICES**

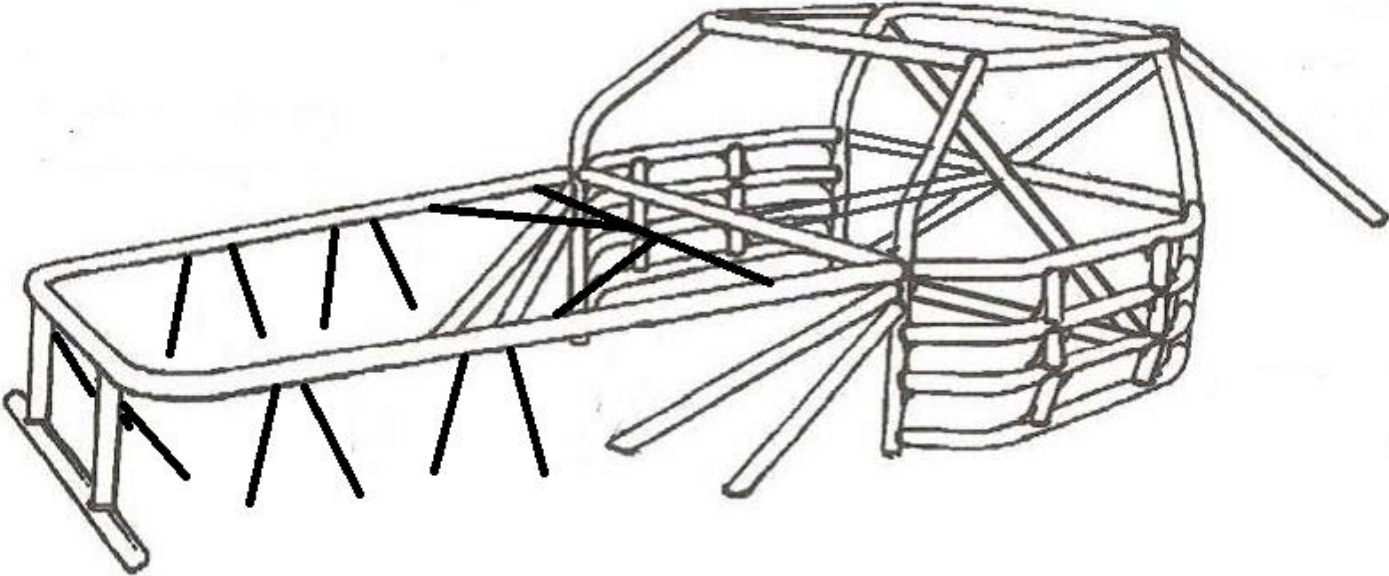
20.1 Transponders will be available at the track on raceday.

20.2 Transponder location will be on the inside of the right frame rail 6" ahead of the engine crossmember.

NOTE: For clarification of these rules or for any other technical inquiries please contact the Speedway 660 Tech Director (Don Greer) at dgreer76@gmail.com

APPENDIX "A"

Street Stock Cage



APPENDIX "B"

Approved Metric Chassis Rear Control Arms



Metric Lower Arm Metric Upper Arm



Metric Lower Arm Metric Upper Arm



Metric Lower Arm



Metric Upper Arm

NOTE: The forward holes in the Johnson Chassis upper arm must be filled or otherwise made non-functional. This will be strictly enforced. The arms must meet OEM length.

Other Approved Arms (example)



1973-77 GM A-Body Rear Control Arms with Bushings

APPENDIX "C"

GM Performance #12499529 Small Block Chevy 350/290 Long Block Engine



350/290 HP Technical Information

Horsepower 290 @ 5100 RPM

Torque 326 Ft. Lbs. @ 3750

Max. Recommended RPM.... 5100

Compression Ratio 8.5:1

Block10066034 iron four bolt with two piece rear main seal

Connecting Rods... 10108688 Powdered Metal

Pistons & Pins....12514101 Aluminum

Piston Rings12507985

Camshaft3896962 Flat Tappet

Rocker Arm.....10089648 1.5 Ratio

Intake Valves.....10093027 1.94"

Exhaust Valves14095451 1.50"

Lifters5232720 Flat Tappet

Oil Pump12555284

Oil Pan10066039

Spark PlugsR45TS Ignition Timing ...34deg

Fuel.....87 Octane

This engine block has provisions for either a left or right hand dipstick.

The user must plug the unused side with a plug. (Not included) LH plug: 3837057 -RH plug: 9421743

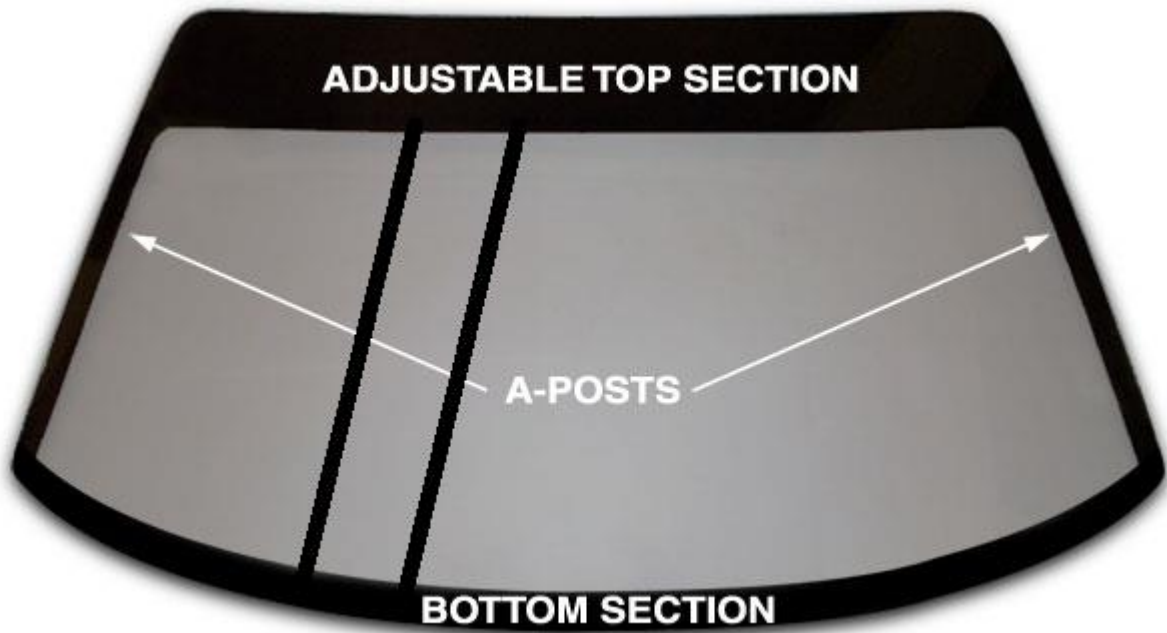
Engine does not include intake, water pump, or balancer.

Camshaft:

The 350/290 HP engine uses an aggressive flat tappet camshaft to achieve the level of performance for its intended usage. Camshaft lift is .450" intake / .460" exhaust. Camshaft duration (@.050") is 222 degrees intake and exhaust. Lobe centerline is 114 degrees. Normal engine manifold vacuum for the 350/290 HP engine is 10-12" Hg at idle (650-750 rpm).

APPENDIX “D”

Windshield Braces

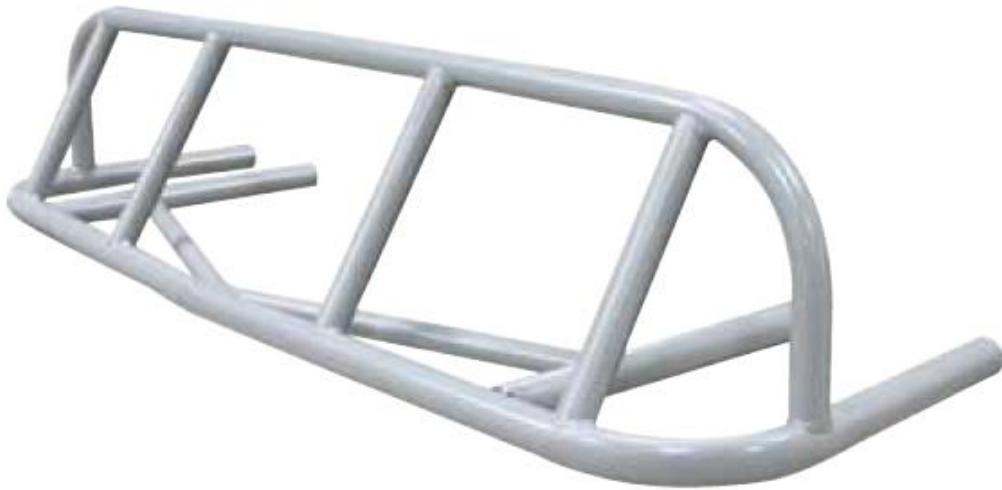


2.5 Lexan or stock glass windshield is permitted. Two steel vertical braces on the inside of the windshield placed to right of center are MANDATORY.

APPENDIX “E”

Bumpers

Monte Carlo SS Rear Bumper Kit



Kit shown assembled and must be welded

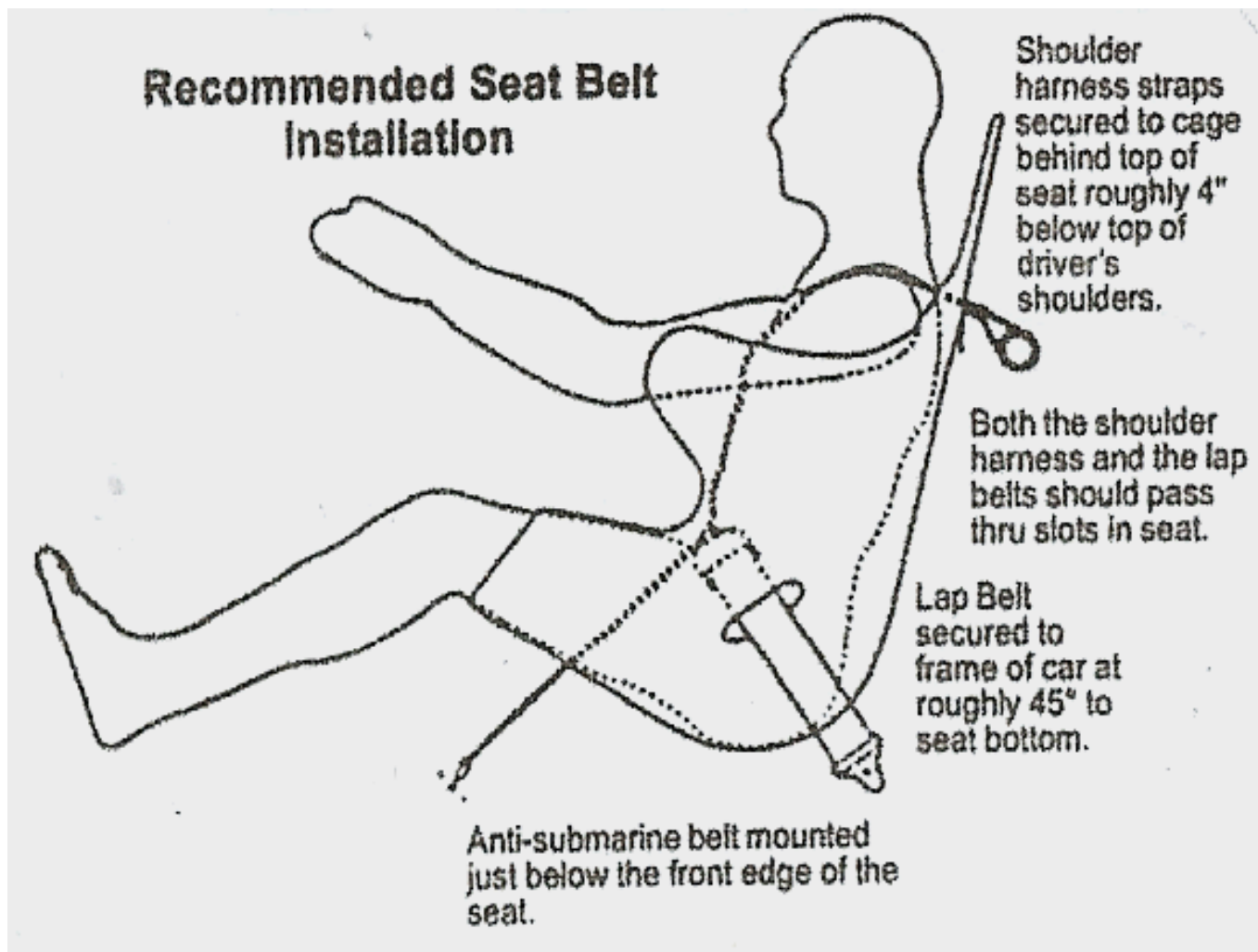
Kit includes pre-bent and notched 1-3/4" x .095 wall tubing to assemble a strong rear bumper that can be mounted to any width chassis and support the Allstar Performance and other aftermarket 1983-88 Monte Carlo SS rear bumper covers. Kit must be welded.



ALL22378 1983-88 Monte Carlo SS Universal Rear Bumper Kit

APPENDIX "F"

Seat Belt Installation



All brackets must be installed in direction of pull to avoid excessive stress to the anchor points during driving [fatigue stress] or during an accident.

APPENDIX "G"

This electrical diagram is shown as an example of a neutral safety circuit.

Neutral Safety Switch

