



Full-Size Pro Division Rules

Sanctioned by D.E.M.O.

Car Choice

Any American made RWD sedan or station wagon, including imperials. (All cars must be fresh)
You can have a maximum of (2) Old Iron and (2) 03 and newer per team.

General

All welds on the car can be a maximum width of ½ inch and single pass only. No fresh paint on the frame or underbody.

Front Frame

No frame shaping will be permitted. Front frame rails may be shortened to the front of the core support mounting hole. The entire hole must be visible and cannot be cut into in any way. Cadillac's must measure 18 inches going forward from the spring pocket forward. Full Frame Chryslers can be shortened 4 inches from the front most part of the inside frame rail at the front bumper. Sub frame Chryslers cannot be shortened at all. The Y's can be closed by pulling the outside part of the frame in applicable cars.

Upper and lower frame seams (exterior seams only) can be welded from firewall forward. (1) single bead that is maximum of ½ inch width. Area where front rail meets the side rail can be welded as well but nothing beyond that point. Seam welding is limited to main frame seams only. Do not weld brackets for suspension or engine saddle seams. Engine saddle can be plated with 3/8-inch-thick plate. This plate cannot be any wider than the engine saddle and may not extend any further out (towards tire) than the center of the shock mount. Cars may have one tilt point in 1 direction per rail and can be re-welded in that specific area only. Rails cannot be cut apart and narrowed and then re-welded in any section of the rail. Frame locators that locate the two halves must be visible. Width measurements will also be taken and compared to factory dimensions. A-arm brackets and a-arms cannot be moved from factory locations.

Center Frame

No frame shaping will be permitted. No modifications on center rails beyond what is allowed to mount crossmember and seam welding stated in front frame section.

Rear Frame

No frame shaping will be permitted unless otherwise stated. The only modification allowed on the rear frame rails will be the addition of hump plates. No welding of frame seams anywhere. Rails cannot be squeezed together or narrowed. Rails will be measured from side to side and compared to factory measurements. The top of the rails can be dimpled or cut for bending purposes only and cannot be re-welded. All factory coil-sprung or factory unibody cars can have a 22-inch maximum length hump plate.

Factory leaf cars can have a 12-inch maximum length hump plate. All plates must be centered in the hump area. Hump plates can be a maximum thickness of 1/4 inch and must contour the frame with no more than 1 inch overhang on top or bottom.

Front Suspension

A-arms must be OEM factory from passenger car origin. A-arms are interchangeable but must be a direct bolt on to factory configuration with no modifications. No aftermarket coil springs, or coil spring spacers allowed. Only (1) coil spring allowed per spring pocket. 1 inch all thread can replace the factory shock. Four nuts and three washers per all-thread. Nut and washer on lower a-arm can be welded.

Measurement for lower a-arm washer is 5x5 inches by 1/4 inch thick (or 5-inch round). Top nut and standard store bought 1 inch washer with 3-inch diameter can be welded. No welding on bottom a-arm other than nut and washer for all thread shock, ball joint rings, and bump stops for spindles. Bump stops can be no larger than 2x2 inch x 1/4 inch thick box tubing and cannot be longer than 2 inches. Upper a-arm can have strapping to weld arm down. One strap on front side toward bumper and one strap on back side of a-arm toward driver. Measurement of flat strap can be 2 inch wide, 1/4 inch thick, and 4 inches long. These plates must be rectangular. Strapping must attach to the a-arm. A-arms cannot be moved from factory location. Towers and brackets cannot be moved, welded, or altered.

Steering

Unless stated in rules, steering components must be of factory car origin and mount in factory location. You may use an adapter plate, but it must not strengthen the car in any way. Aftermarket spindles are allowed. Aftermarket ball joints and rings or Heim joints are allowed and can be welded to upper and lower a-arms. Ball joint sleeves and/or rings cannot exceed 3x3 inches tall or 3/8 inch thick and can be welded to the spring pocket. Heim joints can be a maximum of 3/4 inch bolt – 6 inches long max. No King pin set ups, these bolts must be separate. Aftermarket tie rods are allowed. Hydraulic steering is allowed but no hydraulic cylinders can be used. Aftermarket columns are allowed but the mounting of these systems cannot strengthen car in anyway. Idler arms may be welded with (2) 1 inch welds. Sway bar can be aftermarket 1 1/4 inches round stock max. The sway bar can be mounted in factory location using a 2x2 inch by 4-inch-long piece of tubing. The sway bar cannot run the profile of the frame and must be bent down from the mounting location and bolted or welded to the lower a-arm; maximum contact with the lower a-arm is 2x2 square inches and it can be bolted or welded. (1) single 5/8-inch maximum bolt may be used.

Rear Suspension

Coil spring cars – any OEM automotive car coil spring is permitted. Coils springs can be wired or chained to rear end and package tray (nothing excessive). Factory shock can be replaced with 1 inch all thread. (1) piece of all thread per shock permitted. All thread can run through the body and act as a body mount, but all thread must run through coil spring and exit through factory hole on package tray. Coil spring must line up with axle tubes. All thread may extend a maximum of 6 inches above the package tray. Rear-end must mount in factory 4-link configuration. Control arms can be replaced with maximum 2-inch wide by 3 inches tall by 1/4 inch thick box tubing. Watts link conversion is allowed for any coil sprung sedan. Upper brackets must be no larger than 6-inch-tall and 12 inch wide by 3/8 inches thick material and must be (2) separate brackets. Each bracket can be attached with (4) 5/8-inch bolts max. Lower arm must be located in the factory location (You may reinforce this bracket with 1/8 inch plate),

or you can use a female box and relocate the box to the inside of the box (towards the drive shaft) and bolt it using (4) 5/8-inch bolts max. This female box can be a maximum of 3x4 inches and ¼ inch thick plate. Control arms must be no longer than factory length but may be shortened. No leaf spring conversions for coil sprung cars permitted.

Leaf spring cars – leaf's can be a maximum of 3/8 inch thick and no wider than 2 ¾ inches; the main spring must be a factory length spring to the make and model of car you are running, with a 1-inch stairstep down on both ends. Maximum of (9) springs total permitted, with main leaf being on top of spring pack. Eyelets on the main spring must be factory configuration. Leaf springs must mount as they did from factory and cannot be re-located. Shackles can be replaced with ¼ inch replica shackles and can be welded in factory location. Aftermarket shackles are permitted to be 6x3 inches by ¼ inch thick maximum. Rear-end must be on top of main spring. A total of (6) clamps per side can be used. (Plates or weld on clamps) Clamps cannot exceed 2x4 inches by ¼ inch thick. If using plates for clamps, the plates cannot exceed 2x4 inches by 1/4 inch thick and can only have a maximum of (2) bolts per clamp. The maximum size of bolts is 3/8 inch by 6 inches tall. The plates cannot connect to frame in any way before and/or after show. Only one center pin maximum 5/8 inch is permitted. Rear-end mounting pads must not exceed 12 inches in length. Factory shock can be replaced with (1) 1 inch all thread. All thread can run through the body and act as a body mount, but all thread must run through coil spring and exit through factory hole on package tray. The coil spring must line up with axle tubes. All thread must only extend 6 inches above the package tray.

Wheels and Tires

Any tire and wheel combo permitted. Outside/Inside bead locks rings cannot be wider than 2 inches. Solids are permitted. No foam filled tires permitted on the rear of any car. Bead lips and valve stem protection is permitted. (Wheel and Tires combo subject to change depending on if we run on asphalt or dirt)

Front Bumper

Any OEM automotive or replica car bumper allowed. Bumper may be seam welded and stuffed. Replicas but must meet factory measurements. 8-inch-tall maximum height on all bumpers. No sharp or jagged edges allowed anywhere on bumper for safety reasons.

See below for mounting:

Remove factory shock and/or bracket completely and replace with (1) 4 ½ (including bends) inch by 3/8-inch-thick plate (max) welded to top or outside of frame (facing the tire) only. This plate can extend no further back than the center line of the spring pocket. Plate cannot be folded over two sides of frame and welded and must touch backside of bumper. Plate can be cut to follow contour of frame. Also, a 2-inch wide by ¼ inch thick by 8-inch-long flat strap can be welded to bottom of frame. This plate must touch the bumper and run straight back. Core support bolt can run through this strap if applicable. No part of the front bumper can be behind the front of frame toward driver. May use a 6x6 inch x ¼ inch plate to make a flat mounting surface on the back of the front bumper, where it would be welded to the frame.

The maximum height will be 26 inches from ground to top of the bumper.

Rear Bumper

Any OEM automotive or replica car bumper allowed except for OEM or replica Chrysler pointy. Box square tubing bumpers will be permitted. Square tubing will be a maximum 2x8 by 3/8 inch thick and minimum 2x6 inch by 3/8 inch thick. OEM Bumpers may be seam welded and stuffed. A maximum 30-degree slant will be allowed, and it must meet all other specifications. Regardless of the bumper option you choose, the bumper must be a minimum of 6 inches tall. No sharp or jagged edges allowed anywhere on bumper for safety reasons.

See below for mounting:

Bumpers must be mounted in the factory location on all makes and models. Wagons are not permitted to relocate the rear bumper to the frame.

Option 1:

If you choose to run the factory bracket, it must remain in the factory location, and you can weld up to 14 inches (continuous) to the frame. The 14 inches is measured from the bumper going towards the hump.

Option 2:

Remove all factory brackets and/or shocks and hardnose rear bumper to frame. A 4-inch wide, by 3/8 inch thick, by 14-inch-long flat plate can be welded on any side of the frame. This plate can be welded to 1 side of the frame only. The 14-inch strap must connect to the rear bumper. You can also add (2) additional 2 inch wide, by 1/4 inch thick, by 4-inch-long straps (2 per mounting location). Sheet metal can be moved to hardnose bumper but cannot be rewelded beyond rules stated in the trunk/tailgate section. Quarter panels cannot be shortened beyond what is necessary to mount bumper. No part of rear bumper can be in front of the back of frame toward driver. No frame rails can be shortened at all.

The minimum height from ground to bottom of bumper will be 14 inches. Wagons will be measured 14 inches to the frame at the very end of the frame rail behind the shackles or the bumper. (Whichever is the lowest point)

Body Mounts

You may weld (1) 3x3 inch by 3/4 inch tall piece of metal with per factory body bolt hole.

The maximum bolt size is 1 inch diameter and 6 inches in length. Washers for body bolts can be no larger than 6 inches by 6 inches by 1/4 inch thick. Body bolts cannot be moved from the factory location for any reason. Bolts must start in the factory location on frame and can be run through the body and be secured on top with a washer and nut. No extra body mounts permitted for any reason. Fire wall body bolts can only stick up a 1/2 out of a single nut.

Core support mounts can run from bottom of frame through the core support and can act as (2) of the (8) hood mount locations. Maximum of (4) nuts and washers per core support mount permitted. Nuts and washers can be welded if desired on core support body mount only. Washers on core support body mount must be a standard store bought 1 inch washer with a diameter no larger than 3 inches. A maximum of (2) nuts and washers for all other body mounts permitted and must be free floating. All body mounts except for the core support locations, must have a 3/4-inch-tall spacer between the frame

and body. The minimum/maximum size for the spacer is 3x3 inch thick by ¼ inch tall. Body spacers are allowed to be threaded.

Drivetrain

Any automotive engine and transmission is allowed. Aftermarket driveshafts are allowed. Any rear-end is allowed. Bracing for the rear-end cannot extend more than 13 inches in any direction from center line of rear-end. Bracing cannot extend more than 5 inches from the center line of rear-end on the last 12 inches on ends of rear toward tires. Crossmember can be factory or maximum 2x3 inch steel. Cross member must mount in factory location and must be straight across. Angle iron to mount cross member can be no larger than 3x3 inch by (¼) inch thick angle iron and no longer than 6 inches. Cross-member must touch angle iron.

The engine and transmission mounting are addressed below.

Full cradle with aftermarket steel bell and transmission braces allowed. The distributor protector cannot be wider than 12 inches. Cradle can mount to top of engine saddle in (3) spots only (1 on each side and under the engine) with either a block style mount or aftermarket bushing style mount. Mount must not exceed 9 inches in length on either side. Mount cannot be recessed inside of saddle. Pulley protectors cannot be any wider than 14 inches and must not encounter any steering components. Fans shrouds are permitted. Fan shrouds maximum dimensions are 22 inches wide and 4 inches out from the front side of the water pump flange.

Trans brace must form to the shape of the transmission and must only connect to motor and crossmember. Trans brace can be welded, bolted, strapped, or chained to crossmember but choose only 1 method. The mount on crossmember can be no wider than 10 inches and must be centered on crossmember. The firewall or cowl area can be shaped for the placement of the engine and trans.

Cage/Halo/Gas Tank Protector

No cage component, including halo bar, can be larger than 6-inch material (round or box tubing) with the exception of your side bars which have no maximum dimensions besides the length. Side bars can be 62 inches max length and are not permitted to extend more than 18 inches behind the center post on a four-door car and 10 inches behind the center post on a two-door car. Side bars cannot extend beyond the dash bar. If you combine cage material it must conform to all cage specifications and when stacked cannot exceed the max allowed measurement when added together. No cage component can be contoured or rounded. A 4-point cage surrounding the driver consisting of (1) dash bar, side bars and (1) rear seat bar is permitted. All cage material must be 3 inches off the floor of the car. The dash bar must be 3 inches from the distributor protector and 3 inches above the topside of the transmission tunnel. The only connecting point for cage can be a-pillar, b pillar, and down legs. You are permitted up to (4) down legs (2) per side. Down legs can have a maximum size of 3x3 inch ¼ inch material. These down legs must be vertical and must run off the side bars and can only be welded to the frame. Your down legs cannot go any further forward than the front interior door seam or must remain entirely in front of the rear body bolt before the hump. A 10x10 inch by ¼ inch thick plate can be added to the b- pillar only to assist with attaching cage to body (no added metal to a-pillar mount permitted). The bar behind the seat must be no farther back than the kick panel. You may have a center bar connecting the rear bar and dash bar. The center bar cannot extend behind the rear bar or in front of the dash bar and must be at least 4 inches above the topside of the transmission tunnel.

A 32-inch-wide gas tank protector may be added and must be centered in the car. Must be 3 inches off the floor measured from the body bolt height. The gas tank protector can attach to package tray with (2) 5/8-inch bolts with standard 5/8 thick washer. Sheet metal in-between the gas tank protector and package tray cannot be removed.

A Halo bar is mandatory can will be permitted to attach to the frame. These will not count towards your down legs. The halo bar may be max 6-inch material. The halo bar must be vertical coming up from side bars and must run straight across roof side to side. Extensions to bolt halo to roof can be no longer than 2x2 inch by 6 inch long by ¼ inch max. Maximum of (3). Cage, gas tank protector, and halo bar can have (1) gusset per corner. Gussets are considered a cage component and must adhere to the size limitations. Any material protecting the gas tank must be vertical and can extend to the bottom of the roof line. No cage component can be farther back than where the gas tank protector meets package tray on coil spring cars. Gas tank protector cannot be beyond the body centerline of the rearend for leaf spring cars.

Interior Bolt ins

Aftermarket components for controlling the car are allowed. However, no interior component including pedals, battery box, and steering column may strengthen the car in any way. Mounting of these components may not attach to, or be within 2 inches of the frame, crossmember, and/or body bolts. Transmission coolers are allowed but cannot be mounted in a way that strengthens the car. Fuel cells and batteries must be safely mounted (2 batteries max). All bolt ins cannot extend beyond the floor where your feet are or under the seat.

Doors

Shaping of sheet metal on doors is allowed but sheet metal cannot be doubled over and / or welded. Doors can be welded solid (exterior only) with a maximum 3 inch by 1/8-inch strap that must follow the door seam. These straps may not overlap in any way. Both front doors can be reinforced with 3/16-inch-thick metal on the outside and inside. Driver's door reinforcement is mandatory. The outside door skin cannot extend more than 3 inches from the front factory door seam or rear door seam in any direction. The inner door skin can be welded from the rocker to the top of the door. Only driver and front passenger door is permitted. Inner and outer door can be welded together on topside only on all doors. Metal to achieve this must be 3 inch wide by 1/8-inch-thick strap maximum.

Quarter Panels

Quarter panels can be bolted together using (5) 3/8-inch bolts with 1 inch diameter washers. Front and rear quarter panels can be creased. Shaping of sheet metal on quarter panels is allowed but sheet metal cannot be doubled over and / or welded. Absolutely no metal may be added to quarter panels. Quarter panels must remain vertical. It is understood the shaping of sheet metal affects the vertical appearance. The top quarter panels cannot be pushed any farther than the inner edge of frame rail on the same side of car. The top of the quarter panel must measure 10-inches tall from the body bolt elevation. This measurement will be taken at the top of the quarter panel above taillight area. You will be permitted to completely remove quarter panel sheet metal (all except the floor pan) if you desire. This would resemble the half trunks on a Cadillac. For squeezing see the trunk section below:

Trunk

Speaker decks can be removed. The trunk lid must be from the same make of the car and must be trunk lid. No metal may be added to trunk lid or rain channel. (2) 8 by 8-inch holes must be cut in the trunk lid for inspection purposes. Holes must be over body mount area behind humps. The backside of the rear wheel tubs and all body mounts inside trunk must be accessible and visible during inspection. The Trunk lid must mount in factory location but can be contoured down toward top of the package tray without exceeding quarter panel rule. The trunk lid must remain 10 inches off the floor. Bolts for hinges must be factory size but can run through the top layer of trunk lid and be secured with washers/nuts with the washer being no larger than 1-inch outer diameter. Trunk can be attached to car by welding 5 by 5 inch by 1/8-inch-thick plates on exterior trunk seams only. The 5 inches on, 5 inches off, method will be utilized. Station wagon tailgates must remain in the factory location but can be lowered into the box if applicable. Attaching tailgate to car must be done in the same manner as a trunk lid; 5 inches on and 5 inches off on the perimeter of tailgate only. The trunk floor can be cut, folded and squeezed to sit above the rear frame rails. You will not be permitted to push the trunk floor or folded sheet metal further than the outside of the frame rails. The main seam; from the front of the wheel tub going back toward the rear of the car can be welded on all cars using the 1 inch of weld and 3 inches off method. This weld is to be a single pass and ½ inch wide bead only.

Coil spring cars can have one extra body mount per rail in trunk area. A maximum of one inch diameter for all thread may be used. All thread can weld to frame but must be in-between trunk body mounts and remain straight up and down. Four standard nuts and four 3-inch washers may be used per side. Nuts and washers can be welded. Nuts and washers must be standard size and located on all thread as intended. All thread cannot be sleeved with any additional material. The maximum length on all thread is 30 inches long.

Hood

Hoods must be off for inspection but will be a part of the inspection process. No metal may be added to hood for any reason, except (8) 1 inch store bought washers or 3 inch by 1/8-inch diameter washers welded on top of hood for hood bolts. Access holes and/or exhaust holes may be bolted back together in a total of (12) locations by using 3/8-inch bolts and 1-inch outer diameter washers or 1-inch-long welds. Hoods can be secured to the car in (8) locations. Your core support bolts will be considered (2) of the (8) locations. Factory hinges will be considered (2) of the (8) locations if used. Bolts to secure hood cannot exceed 1-inch diameter and 6 inches tall. Bolts can be welded to fender and/or firewall. A 5x5 inch by ¼ inch thick plate can be added to each bolt location to assist with welding bolts to fender or firewall. Plate may be folded into an angle if desired. Washers to secure hood cannot exceed 5x5 inches by ¼ inch thick. All hood bolts must be outside of the exhaust tube width.

Firewall

No modifications other than flattening window wiper area toward interior of car to accommodate a distributor protector, attaching window bars per the rules, and/or welding hood bolts on to secure hood per the rules. No rewelding factory firewall seams or adding metal allowed.

Window Bars

Front Window Bar – You are permitted (1) 2x2 inch by ¼ inch wall tubing that must attach to the top side of the dash bar and your halo bar only. No part of the tubing may extend past the front or rear of the dash bar.

Back Window Bar – You are permitted (1) 2x2 inch by ¼ inch wall tubing attached from the halo to the top of the trunk lid at the trunk and speaker deck seam.

The tube in the back window can only be attached 6 inches onto roof (the first 6 inches of the roof line) and 6 inches on trunk lid. You may use a 6x6 inch by ¼ plate to assist with welding your bar on the roof and trunk lid. These 2 pieces must touch. The 5 inches connected trunk lid must start at trunk seam by speaker deck and can run back toward rear bumper. The tubing cannot extend beyond what is welded in any circumstance.

Core Support

Core support cannot be moved from factory location and must line up with factory body mount hole on frame. (Neither can be moved) Expanded metal (1/4 Inch max) or radiator guard (1/4-inch max) can be as tall as core support and as wide as the core support mounts. Expanded metal/radiator guard must be mounted directly in front of radiator. Expanded metal/radiator guard can be attached to core support by weld only. The radiator must mount in factory core support tray and can have only (4) mounting locations top and bottom. You can use a maximum of (4) ½ inch diameter pieces of threaded rod to mount radiator. You can also use 2-inch-wide strapping 8 inches long to assist with mounting. The mounts for radiators cannot strengthen core support in any way. Radiator cannot connect to motor, pulley protector, fan shroud or cradle in any way. Core support seam welding will be limited to a total of 16 inches. Seam welds can be placed anywhere on the core support including welding fenders to the core support. Core support spacers can go all the way through the core support and can be welded. Spacer material cannot exceed 3x3 inch thick square stock. Square stock can be welded to the top side of frame or factory bracket (depending on make/model of car) and core support only. You are permitted (1) 5x5 by ¼ inch plate welded to the frame/bumper and bottom of the core support spacer.

1 inch all-thread can be used within the core support spacer to then extend from the spacer through the hood and act as 2 of your hood bolts. You may have (1) 3x3 by 8-inch-long kicker running straight forward off of the core support spacer to the bumper. If your all-thread does not come up directly through the core support, then you can use (1) 3x6 inch by ¼ inch thick flat plate to be welded to the top of the core support. A maximum of 3 inches of the strap can be welded to the top of the core support.

Rust Repair

Rust repair is limited to the top side of the body including pans/window lips/vinyl tops. Rust cannot be removed, and any rust repair must be the same thickness and have a maximum 1-inch overlap. No seam repair will be permitted. No rust repair on frames will be permitted. If you have any questions, you must contact the head inspector first.

03 and Newer

Option 1: Allowed a direct bolt in style steel cradle.

Option 2: You are allowed to weld in a 98-02 Fomoco cradle. The cradle can only be welded and must be mounted between the factory bolt holes used to bolt in the factory aluminum cradle. You will be permitted to weld factory Fomoco upper a-arms brackets in the factory intended manner.

Spring pocket: You are permitted to build your own spring pocket that attaches to the outside of the frame only. This must remain 1 inch from the engine cradle. Your spring pocket can be built with ¼ inch material (1 layer only) and can be maximum 6 inches in diameter. The spring pocket must be flat on top to give the a-arm a spot to rest. It may not reinforce the a-arm.

Steering: You will be permitted to mount a gear box to the frame just like a 98-02 Fomoco crown vic. You can drill 3 holes and use a maximum 5/8 outside diameter round tube to sleeve the frame for your bolts. An adapter plate may be used but cannot strengthen the frame in any way. Your drag link may be shortened, and a 3-inch round pipe can be used to sleeve it.

#9 Wire Rules

You will be permitted 2 spots (4 total loops) or (1) 3/8-inch cable per window that may go to the frame or cross member. The cable will be permitted a maximum 12" turnbuckle, used to tighten the cable only. All wire or cable must stay in the passenger compartment and will not be permitted to be wrapped multiple times around the frame. The cage will not be permitted to assist in the strength of the wire or cable in any way. (1) standard 5/8-inch washer per window may be used to weld to the body for the wire to go through.

You may tie the frame rails together behind the rearend (in the hump area only) with a maximum of (4) loops of #9 wire or 1 loop of 3/8 chain or cable. The wire or cable may go around the frame or through a factory hole. You may weld (1) 3/8-inch chain link per side to run your wire through. This must be in the hump area.

Patch-It Plates

All cars will get (2) patch it plates fresh to be used in their discretion. These must meet all patch-it rules and can be welded on prior to inspection. All plates must be purchased from D.E.M.O. at the event. After round 1 each driver will receive (8) patch it plates per car. A maximum of (10) plates will be permitted on any car after round 1. The plates will be 6x6 inch by 1/8-inch flat stock. You can shape these plates. Anything you cut off you will lose. These plates cannot be removed once they have been welded on the car. These plates cannot overlap but the ½ inch welds on the perimeter of the plates can touch.