

2008 USPRO SERIES TECHNICAL RULES

USPRO RACE TEAMS/CARS will follow the USPRO SAFTY REQUIREMENTS, PENALTIES, GENERAL RULES, GENERAL PROCEDURES, AND RACE PROCEDURES, as delineated in the ASA LMS 2008 RULE BOOK.

ELIGIBLE MODELS

USPRO subscribes to the Approved Body Configuration (ABC); spec. bodies manufactured exclusively by Five Star Race Car Bodies (Five Star), Twin Lakes, WI, and Aluminum Racing Products Inc. (ARP Bodies), Greenbrier, TN.

Approved Models

Chevrolet-Monte Carlo/Impala SS
Ford-Taurus/Fusion

Pontiac-Grand Prix
Dodge-Intrepid/Charger/Avenger

General Specifications

Non-compliance with any rule(s) as stated in the **USPRO** Rulebook will deem the car ineligible for competition until the infraction(s) is repaired. Offset or Perimeter chassis are approved for competition. All height measurements are taken with the driver out of the car. All weight measurements are taken with driver in the car.

- A. Minimum weight shall be twenty-seven hundred (2,700) pounds, minimum weight is measured with full fuel cell; all driver safety equipment installed or in place; radio and RaceSafe System installed; driver in the car
- B. Maximum left-side percentage of weight shall fifty-nine percent (59%)
- C. Wheelbase is a minimum of one-hundred-two (102") inches, measured from centerline of the front spindles to the centerline of the rear spindles, on both sides.
- D. Treadwidth is a maximum of sixty-five (65.0") inches, with a tolerance of one (1") inch, measured from the centerline of the front and rear tires
- E. Ride height or frame to ground clearance is a minimum of three (3") inches and a maximum of five-inches (5") Pre or Post Race, both sides of the car. Ride height is measured with all four (4) tires inflated to USPRO mandated pressures. Teams are required to present their cars with tires inflated to recommended cold tire pressures and are permitted to adjust tire pressures, after technical inspection and prior to Qualifying; GM Performance Parts Shootout; or the Main Event to recommended cold tire pressures.

Bodies

The only approved body for the **USPRO** is the 2008 Approved Body Configuration (ABC) as produced by Five Star Race Car Bodies (Five Star), Twin Lakes, WI, and/or Aluminum Racing Products Inc. (ARP Bodies), Greenbrier, TN. and in accordance with current ABC 2008 Rulebook.

Refer to ABC 2008 Rulebook for all body specifications and tolerances. The **USPRO** has deviated from certain ABC specifications and dimensions. These areas are defined later in the rulebook. During inspection process, car must be presented in race ready condition, less-driver.

USPRO mandates all spoilers to be six-one-half inches (6.5") tall x sixty-inch (60") wide x one-quarter-inch (1/4") thick polycarbonate.

Belly or flush panning of the body is prohibited. Panning of the nose area is permitted provided the panning does not extend rearward of the leading edge of the radiator. Air may not be exhausted from the underside of the car. **USPRO** mandates the presentation of a stock-appearing, professionally finished

racecar. A detailed, professional-quality paint job is mandatory. The car must be fully painted with legible numbers affixed, in a finished form with all required decals in place, when the car is presented to technical inspection.

- A. Car base color and number color must be of high contrast to maximize legibility of number.
- B. Front bumper cover area reflect the body style of the car in block type letters (i.e. Chevrolet Monte Carlo; Dodge Charger; Dodge Intrepid; Ford Fusion; Ford Taurus; Pontiac Grand Prix). Detail body decal packages available from ARP; Five Star or any ABC Body Approved Dealer.
- C. Rear bumper cover license plate area reflect the appropriate manufacturer's symbol (i.e. Chevrolet Bow Tie, Dodge Five Star, Ford Oval or Pontiac "Pontiac"). Detail body decal packages available from ARP; Five Star or any ABC Body Approved Dealer.
- D. "B" pillar must reflect appropriate manufacturer name, written vertically (i.e. Chevy, Dodge, Ford or Pontiac). Detail body decal packages available from ARP; Five Star or any ABC Body Approved Dealer.
- E. All cars starting an event must have a complete, painted body with full details, including headlight and taillight decals. Cars not adhering to this are subject to penalties and fines at the discretion of the **USPRO**.
- F. Jack-point locations may be marked with a two-inch (2") arrow or other identification mark
- G. Wheel openings maybe no larger than seven (7") measured from the edge of the rim to the outer edge of the wheel opening.
- H. The use of reverse NACA ducts is prohibited. Air intake into the cockpit must be through NACA ducts mounted in the side "A or B" pillar vent windows or the rear opera or "C" pillar windows.
- I. Exhausting of air through the cockpit from the engine compartment or under the car is prohibited. The bottom or floor of the air box may not have vents; flutes; or NACA ducts installed.
- J. lexan rub rails are allowed

Car Numbers/Decals

USPRO mandates all cars have an officially issued number. It is mandated the driver name be centered in the window valance area, of the top of the front windshield. Name must be in block style, all capital letters; each letter must be one-inch (1") wide by five-inches (5") tall.

USPRO mandates a five-inch (5") tall car number, white in color; lettering style optional, be located in upper right corner of passenger side window valance; the right-front air damn area and the right-rear bumper cover. No numbers are permitted in the area of the headlights or tail lights. Car numbers must be centered on the left and right side door panels, a minimum six inches (6") rearward of edge of vent window.

- A. Numbers must be a minimum twenty-one inches (21") tall x three inches (3") wide. Numbers must be centered top to bottom and left to right.
- B. A minimum 35-inch high x 4-inch wide stroke roof number, facing the inside or driver side of the car is mandatory.
- C. The team number cannot be changed or assigned to another racecar, except by specific directions from **USPRO** Officials.
- D. Any wheeled vehicle, including racecars; passenger vehicles; ATV's; golf carts; scooters and racecar transporter must bear the team assigned car number and/or USPRO Registration number assigned to the team owner or display a valid event parking pass.
- E. Teams are required to have a five-inch (5") Team Car Number displayed on the passenger side window; upper right hand corner of the windshield on the team hauler.
- F. Teams are required to have a five-inch (5") Team Car Number displayed on the REAR upper right hand corner of the race car hauler, and on the front and rear panels of said teams pit box.

Templates

Maximum template tolerance is 0.375" inches (3/8"). All cars must conform to all ABC templates, comparison pieces, and/or other measuring devices as applied and measured by USPRO Officials within the ABC approved Body Configuration tolerance. USPRO will use the ABC Official Referee for technical inspection purposes

Engine Specifications and Requirements

All engines used for **USPRO** competition must be sealed by the manufacturer and/or a **USPRO** Certified Engine Rebuilder and must remain in the "as shipped" condition. The Series uses a double redundant sealing system which must be visible at all times. All engines, with or without this sealing process are subject to testing and or confiscation at any time during a sanctioned event. Competitor's refusing confiscation, impounding and/or replacement, will be disqualified from the event, and all future events until engine issue has been resolved. Disqualification includes forfeiture of all monies, points and contingencies earned for that event. Teams may be subjected to additional fines, penalties and/or points loss, based on inspection of the engine. Teams fined or penalized for engine infractions are not eligible for competition until all fines and/or penalties have been fulfilled or paid.

- a. Engine/Body combinations must be match manufacturers nameplate
- b. Engine mounts must be reinforced steel or aluminum.
- c. Aftermarket SFI Approved engine dampers are permitted. There can be no moving parts or viscous style damper permitted.
- d. Use of or installation of an open or closed loop vacuum system, to evacuate air from the engine is prohibited.

Approved Engines

GM part number 88958604

Dodge part number P5007958

Stanton Dodge part number ASALMS75360

McGunegill Ford part number ASA 425 LM

Ford part number M-6007-D347R2

Ford part number M-6010-BOSS302

All Ford engines must run 1.5 rocker arms purchased from McGunegill Engine Performance. GM engines have the option of running 1.6 rockers arms with an upgraded valve spring and retainer kit available from Phil Harper Motorsports

Engine Location

Engine **WILL** be installed in a normal, upright position. Engine ground clearance shall be eleven-inch (11") minimum measured from centerline of the crankshaft at the harmonic balancer to a level ground plane. Engine set back of 3.5 inches (3 1/2") will be measured from the center of the #1 spark plug to the center of the upper ball joint Engine set-back location tolerance is plus or minus .5-inches (1/2").

Ignition System

USPRO approved, must meet a mandatory RPM limit of 6300.

Carburetor

Holley 650 CFM 4150 HP carburetor, part number 80541-1, "box-stock", is mandated. Carburetor must be securely fastened to the intake manifold and include one (1) .0625-inch (1/16") or smaller flange gasket. Drop-in spacers, alteration, physical changes, machining, re-shaping or tampering with any part of the original parts, internal or external, is prohibited. **EXCEPTION:** The General Motors 604 crate engine is permitted a maximum one-inch (1) tall aluminum spacer with four (4) non-tapered holes as manufactured by any manufacturer. Aluminum spacers are subject to inspection by USPRO Officials. Following is a listing of tuning and replacement parts permitted for use on the Holley 4150 HP Carburetor. Only genuine Holley replacement parts are permitted and must match exactly parts replaced.

Jets

Bleeds
Needle and Seat
Emulsion bleeds
Power Valves
Accelerator pump nozzles
Accelerator pump cam
Floats include all offered by Holley for the HP 4150 650 CFM Carburetor.
Floats maybe modified/angel cut.

NOTE 1: The use of any type Epoxy on the Holley 650 CFM 4150 HP carburetor, part number 80541-1 is prohibited.

MASTER KILL SWITCH

USPRO mandates the use of a Rotary-type, master kill switch, labeled ON/OFF. The switch location is mandated to be mounted on the internal roll cage bars, directly to the right of the driver seat for accessibility from the left or right side windows. Switch must disconnect or "kill" all electrical power to the car from the battery. **Switch must be wired in series with the Positive side of the battery cable.**

STARTER

Each car must have and start events with a working starter.

BATTERY

The battery(s) must be located in a battery box securely mounted flush with the bottom edge of the mainframe rail of the sub-frame. Battery(s) must be isolated from the fuel cell area and covered with a plastic cover to eliminate the threat of a spark fire. Metal-type covers are not permitted. Battery mounting in the cockpit area is not permitted.
RSS and radio battery must be mounted in a secure position inside the car.

EXHAUST

All cars must have working exhaust system with no exhaust pipes exiting through the door. Cars that do not meet this requirement will not be allowed to compete in the event. Exhaust must exit under car behind driver and use a turn down elbow. No "stinger" or merge collectors of any type are permitted.

FUEL

All fuel must pass all appropriate fuel tests required by **USPRO**. No electric fuel pumps will be allowed. No fuel lines routed through drivers compartment. No oxygenizing agents allowed. We reserve the right to take fuel samples for analysis. Fuel cells are required to have two, one-inch wide minimum, steel straps, top and bottom. Fuel cells must be mounted (10) ten inches minimum from the ground (race ready), ALL (4) four SIDES MEASURED. Fuel cell must be securely fastened to the framework, NO MOVING PARTS. Post race (after event) inspection tolerance will be 1/4th (.250) to 1/2th (.500) inch. Maximum capacity of fuel cell is 22 U.S. gallons. No pressure type fuel systems or refueling systems are permitted. Fuel cells are mandatory, complete with min. 18 gauge steel enclosing container (no aluminum permitted) and integral foam filled bladder. Dry break systems will be allowed. Ball check valves in Dry-break or Kaiser-style filler systems are prohibited. Check valve must be of the rubber Flapper style. Alternative to Dry-break shall be a fuel cell fill spout with a secure fitting screw-type cap, subject to approval by **USPRO**.

A mandated minimum .125 inch (1/8") plate, size to cover the width and height of the canister, must be mounted between the fuel cell and the quick change rear end cover as well as between the rear-side of the canister facing the rear bumper.

OPTIONAL MOUNTING: Rear plate maybe mounted to the 2" x 2" cross member between the bumper cover and the fuel cell canister.

TRANSMISSION

Transmissions used for competition in an **USPRO** sanctioned event must be stock from the manufacturer, no aftermarket; adders or options permitted. Transmissions found not to be stock

from the manufacturer will be confiscated and subject the team(s) to additional fines and penalties as deemed appropriate by USPRO Tech Dir. **NO TITANIUM PARTS OR CASES**

ALLOWED

- a. Transmissions shall be either manual or clutch-less type automatic with a minimum of two (2) and a maximum of (4) forward gears with a functioning reverse.
- b. All transmissions will have a final gear ratio of 1 to 1.
All other transmission gear ratios will be 118 or higher (numerical number).
- c. Drop out features causing the disengaging of the cluster gear or auxiliary shaft is prohibited.
- d. Transmission must utilize a Tail shaft housing
- e. Transmissions must remain stock as produced by manufacturer with no thinning: cutting: lightening or drilling of gears permitted.
- f. No aluminum sliders, Idlers, or reverse gears; no "factory produced" thin or lightweight upgrade gears permitted.
- g. No aftermarket Gun Drilling of Main or Tail shaft is permitted.
- h. All approved transmissions must have either an "as produced" internal clutch or utilize a multi-disc, steel-racing clutch. External clutch must be a minimum disc diameter of 5.5". Clutch must be contained by an approved for racing bellhousing.
- i. Bellhousing must have a 2.5 inch (2 ½") inspection hole to insure a clear view of the clutch.
- j. Transmission with direct drive couplers and internal factory produced clutches are permitted.
- k. No Ceramic-coated bearings or Carbon clutch disc are permitted.
- l. All internal transmission parts are subject to disassembly and inspection.

Driveshaft

The driveshaft shall be made of steel or aluminum, painted white. Carbon-fiber Driveshafts are prohibited. Containment loops, constructed of a minimum 0.1875-inch thick steel, are Mandatory.

Front Suspension

Independent front suspension with articulated upper and lower control arm(s) is mandatory. The type of shock absorbers used is subject to the **USPRO** Approved Shock Absorber Manufacturers Listing as published.

One (1) shock absorber and one (1) spring are per corner of the car is permitted. Front suspension adjustment must be done from under the car or by lifting the hood. No holes in the hood, fenders or other body parts from the windshield forward to adjust front suspension component(s) are permitted. Suspension travel limiters of any type (bump stops, coil bind) are not permitted on any part of the suspension or chassis. No suspension adjustment devices are permitted in the driver's compartment area. Knob-type brake bias adjusters are recommended. Weight transfer or suspension adjustment devices, adjustable while the car is under way are prohibited. Spring rubbers are permitted and must be removed manually. No removal devices may extend out side the body of the car or be accessible in the driver's compartment.

Rear Suspension

Non-independent, live axle type rear suspension is mandatory. Rear ends may be Quick-change with full-floating hubs or 9-inch Ford type. Rear axle tubes must be steel or aluminum. No open tube rear ends permitted. A maximum left side rear camber of 1.5 degree is permitted. Right

side maximum camber is 1.5 degrees. All camber measurements are made with the rear axle level. Material used for rear end center section is at the discretion of the team **(NO TITANIUM)** but hub pins must be steel. Rear end coolers are recommended. Remote rear suspension adjusters are permitted when accessible through the rear window. A maximum of three (3) one-inch (1") diameter holes are permitted in the rear window. Each hole can allow access to one adjustment device only. No adjuster may extend forward of the rear window area. All pumps used to circulate fluid for the purpose of cooling the rear end, must be mounted in the center of the car.

BRAKES

USPRO has an Approved Brake Caliper Manufacturers list. Only Brake Calipers from Approved manufacturers are permitted for use at an USPRO sanctioned event. Hydraulically actuated, four-wheel brakes are mandatory. Brake calipers must have a maximum of four (4) standard stamped stainless steel pistons. No up graded piston of any type or material is permitted. Maximum Net Racer Price from any manufacturer must not exceed \$300.00 per standard caliper. Rotors must be made of iron or steel; No Anti-lock Braking Systems (ABS) and/or Recirculators are permitted. Driver compartment brake bias adjuster permitted. Crank or Round type brake bias adjusters knobs must be securely mounted. Round brake bias adjuster knobs are recommended.

SHOCKS

The type/brand of shock absorbers used is subject to the **USPRO** Approved Shock Absorber Manufacturers List and **must be fully functional as purchased with a racers cost not exceed \$350.00 per shock. All shock parts (internal or external) must be of the same manufacture.** No travel limiters; bump stops; external reservoir or canister type shocks are permitted.

IN CAR RADIOS

In car radios will be MANDATORY. Spotters will be required for every car and event (including hot laps) and attend all pre-race meetings and perform all necessary functions during the race in designated area. ALL TEAMS ARE REQUIRED TO FURNISH **USPRO** OFFICIALS WITH TEAMS RADIO FREQUENCY.

MIRRORS

Mirrors mounted "inside the race car" are allowed. All mirrors must be mounted in a safe location inside the race vehicle. **No outside mirrors.**

ONBOARD COMPUTER AND ANALYSIS EQUIPMENT

These are not allowed at anytime, and if found you will be subject to penalties.

CHASSIS

Offset or Perimeter style chassis are approved for competition at USPRO sanctioned events.

Roll Cage Construction

Following are the minimum specification requirements for roll cage construction approved for **USPRO** competition. **USPRO** Officials reserve the right to sonic test structural chassis members at any time during a sanctioned event. Structural chassis member(s) found in violation of minimum requirements render that chassis ineligible for competition until minimum standards are met or exceeded. Drilling holes to lighten any part of the body, chassis, suspension or bolts is not permitted. Only steel round; rectangular or square tube is approved for roll cage or chassis construction of any main or supporting sub-structures. Wall thickness; size and/or diameters are specified where necessary. A four-point (4) roll cage structure utilizing a minimum 1.75-inch x

.090-inch (1-3/4"x.090") OD D.O.M. steel tubing is mandatory. The entire structure must be welded to the primary frame structure with a minimum of four (4) horizontal driver side door bars. **Front Clip and Mid-Section Rails are mandated to be 2" x 3" x .083" wall steel tubing. The Rear Kick-up Section must be a minimum of 2" x 2" x .083" wall steel with a recommended use of 2" x 3" x .083" wall steel. No material substitution permitted. Main frame rails and side rails must be located within the normal Treadwidth of the car.** Roll cage structure must be braced to the front frame stub, with the hoop section surrounding the engine compartment; running rearward with diagonal member's connection to the rear frame section. Nose and rear bumper cover supporting structures must be a minimum 1.500-inch x .063-inch OD steel tube. No material substitution permitted.

Ballast Weight

Ballast weight attached to any frame rail, must be attached with one (1) one-half inch (1/2") grade 5 or greater bolt per each Fifteen (15) pounds of weight. Each bolt must be installed with a flat washer against the ballast weight and secured with a locking type nut or standard nut with a cotter pin; safety wire; or jam nut. Ballast contained inside a frame rail must be secured by one (1) each one-half inch (1/2") bolt mounted to a one-half inch (1/2") welded nut for each fifteen (15) pounds of ballast. Frame rails containing ballast weight must be capped with one-eighth inch (1/8") steel plate welded on the forward side of the frame rail.

Ballast boxes may not be mounted outside of the frame rails in any manor that creates a forward facing ninety (90) degree corner. **Ballast weight installed outside of the frame rails, will be in a ballast box made of a minimum of one-eighth (1/8") thick steel and welded directly to the frame rails.** No ballast weight is permitted to be welded to or attached to leg or doorplates. Holes drilled through frame rails for mounting ballast weight require a three-quarter inch (3/4") dia x 12 gauge tubing steel sleeve welded on each side of the frail rail. All ballast weight must be painted white with the car number legibly displayed in red or black on the weight and the total weight displayed. Lead shot; liquid ballast or ballast adjustment devices are not permitted. Tungsten, bb, or liquid weight is not permitted at anytime for ballast weight.

Ground Clearance

All ground clearance measurements are taken with the driver out of the racecar, full fuel cell and tires pressure set to **USPRO** mandated pressures. Ground clearance minimums are

- a. Mainframe rails, - three-inch (3.0") min.
- b. Front Valance (bumper cover) and Rocker Panels, - four-inch (4") min – six-inch (6") max.

NOTE: When raising front valance over the 4"min, crankshaft height and mainframe rails must be raised accordingly.

Steering Column

Quick-release, metal-to-metal steering wheel hubs are mandatory. Steering shaft must be padded or encased by protective sleeve, and resilient padding SFI Specification 45.1, up to but not including the release mechanism. **USPRO** recommends a collapsible steering shaft meeting SFI Specification 42.1

WHEELS

All wheels must be steel and approved by **USPRO**. Approved wheels must be 15-inch diameter; five-lug (5) steel; 5" x 5" hub or wide 5 pattern; 10-inch rim width; have the car number clearly

displayed in two (2") inch high numbers on the outside of the rim. Bleeder and/or pop-off valve devices are not permitted nor are alteration or defacing of wheel identification numbers; labels; code numbers or serial numbers. Wheel(s) failing these criteria will be ineligible for competition. A minimum of five (5) lug nuts per wheel, minimum 1-inch (1") solid steel nuts, showing a minimum of two (2) threads through the nut, must extend through the lug nut when bolting wheel to the hub. Wheel Spacers, if used, must be made of steel or aluminum and a minimum 6.75 inches in diameter. Shims are not permitted when mounting wheel studs to hubs.

TIRES

USPRO reserves the right to specify the tire manufacturer; and tire type; at any and/or all sanctioned events. The number of tires permitted per event is specified on the Official Entry Blank for each event. All tires are subject to impound and/or testing at the will of **USPRO** Officials.

USPRO incorporates a dry-tire policy. Alteration of a tire(s) is not permitted and defined as – changing the physical and/or chemical composition of the tire by cutting; grinding; buffing; warming; cooling or the use of chemicals whereby the tread area or the interior surfaces of the tire is changed from the manufacturer's specifications; alteration or defacing of tire identification numbers; labels; code numbers or serial numbers. Any violation of this nature causes the tire(s) to be deemed ineligible for competition.