

Formula Drift Professional Drifting 2010 Pro-Am Supplemental Rules and Regulations



Formula Drift Pro Championship
2010 Pro-Am Affiliate Supplemental Rules and Regulations

Introduction

Entering its seventh season, **Formula DRIFT** is recognized as the North American professional drifting championship series. As the first official series in North America, Formula DRIFT has taken competitive motorsports to the extreme attracting fans and car enthusiasts from all walks of life. This high-skilled, high-powered motor sport where drivers intentionally maneuver their cars into well executed, controlled sideways slides at high speeds through a marked course, has dozens of professional drivers competing in all seven competitions this year.

The Formula Drift Pro Am Affiliate system is an extension to the Formula Drift Pro Championship. The FD Pro Am Affiliate system is made up on various regional point series that caters to the team/driver in transition from amateur to professional. These Affiliate Series will feed the best up-and-coming drivers into the Formula Drift professional ranks.

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1 SERIES ADMINISTRATION

1.1 ADMINISTRATIVE CONTROL

The Formula Drift Pro Championship is a wholly owned subsidiary of Formula Drift Holdings, LLC. (FORMULA DRIFT) and sanctions all Formula Drift events including the Formula Drift Pro Championship, Formula Drift Team Championship, Formula Drift Pro-Am Series, and other events managed by FORMULA DRIFT (EVENTS). The business administration of the series is managed by Formula Drift Holdings, LLC.

2 REQUIRED SAFETY EQUIPMENT

2.1 OCCUPANT SAFETY EQUIPMENT

Each occupant must wear the following equipment during all on-track sessions:

2.1.1 Helmet

All occupants must wear a safety helmet during on-track sessions. Only helmets certified to meet the following standards are permitted:

- Snell Memorial Foundation – **SA2005, SA2010**
- SFI Foundation – Spec 31.2, Spec 31.2A

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- British Helmet Standard – BS 6658:1958

Hair protruding from beneath a driver's helmet must be completely covered by fire-resistant material. Drivers with facial hair must wear face shields of fire-resistant material (i.e. balaclava or helmet skirt).

2.1.2 Driving Suit

One-piece driving suits are required and must be made of fire-resistant material and certified to SFI spec 3/2A-5 or greater, or homologated to "FIA 2000" specs, which effectively covers the body, including neck, ankles and wrists. Multi-layer driving suits are recommended.

Fire-resistant underwear is recommended.

Gloves, Shoes, and Socks are required. Socks must be made of fire-resistant material. Shoes and gloves must be made of leather, or any other approved fire-resistant material and must be free of holes, tears or other openings except those made by the manufacturer of the equipment.

2.1.3 Eye Glasses

Any corrective eyeglass material used shall be of safety glass-type, and meet U. S. Government standards.

2.2 RESTRAINT SYSTEMS

Occupant Restraint Systems must conform to Appendix B of the Formula Drift Professional Drifting Rules and Regulations.

2.3 SEATS

All cars must have a seat for the driver. Seats must be homologated to FIA standard 8855-1999 or SFI 39.2.

Sample FIA seat homologation label:



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Note: Letters must be at least 8mm high

The homologation labels must be visible

2.4 ROLL CAGES

Roll cages are required.

2.4.1 BASIC DESIGN CONSIDERATIONS

- A. The basic purpose of the roll cage is to protect the occupant if the car turns over, runs into an obstacle, or is struck by another car. It shall be designed to withstand compression forces from the weight of the car coming down on the rollover structure and to take fore/aft and lateral loads resulting from the car skidding along on its rollover structure.
- B. Forward braces and portions of the main hoop subject to contact by the occupant's helmet (as seated normally and restrained by seatbelt/shoulder harness) shall be padded with non-resilient material. Ethafoam® or Ensolite®, or other similar material with a minimum thickness of one-half (1/2) inch and conforming to SFI spec 45.1 is required

2.4.2 General Construction

All roll cages must be based on a single Main Hoop of one (1) continuous length of tubing with smooth continuous bends and no evidence of crimping or wall failure. The radius of bends in the roll cage hoop (measured at centerline of tubing) shall not be less than three (3) times the diameter of the tubing.

Welding shall conform to American Welding Society D1.1:2002, Structural Welding Code, Steel Chapter 10, Tubular Structures. Whenever D1.1 refers to "the Engineer" this shall be interpreted to be the owner of the vehicle. Welds shall be continuous around the entire tubular structure. All welds shall be visually inspected and shall be acceptable if the following conditions are satisfied:

1. The weld shall have no cracks.
2. Thorough fusion shall exist between weld metal and base metal.
3. All craters shall be filled to the cross section of the weld.
4. Undercut shall be no more than 0.01 inch deep.

Aluminum bronze or silicon bronze welding technique is permitted, but extreme care shall be used in preparation of parts before bronze welding and in the design of the attaching joints.

No portion of the cage may permeate the firewall and shall be fully contained within the occupant's compartment.

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The main components of the cage must be made of the same material, size and thickness of tubing.

2.4.3 Roll Cage Material

Seamless SAE 1020 or 1025, etc. mild steel tubing (DOM) is the preferred material for Roll Cage construction. Please contact FORMULA DRIFT for approval if any alloy material will be used. An approved supplier MUST construct alloy steel cages. ERW tubing is not permitted.

2.4.4 Tubing Size

Roll Cage tubing must conform to the table below and is determined by the vehicle weight as raced without fuel and driver. The minus tolerance for wall thickness should not be less than .010" below the nominal thickness.

Vehicle Weight	<u>Alloy or DOM</u> O.D. x wall thickness (inches)
Up to 3500 lbs	1.500 x .095

Vehicles weighing over 3500 lbs. must petition FORMULA D for approval of the roll cage prior to entering an EVENT.

2.4.5 Inspection Hole

An inspection hole at least 3/16 inch diameter, but no greater than 1/4 inch diameter, shall be drilled in a non-critical area of all tubes to facilitate verification of wall thickness.

2.4.6 Main Hoop:

The main roll hoop (behind the driver) shall extend the full width of the driver/passenger compartment and shall be as near the roof as possible with a maximum of 4 bends, totaling 180 degrees ± 10degrees.

The roll cage Main Hoop should start from the floor of the car, and, in the case of tube frame construction, be attached to the chassis tubes by means of gussets or sheet metal webs with support tubes beneath the joints to distribute the loads. It is recommended that gussets be used.

The Main Hoop shall incorporate a diagonal lateral brace to prevent lateral distortion of the hoop. Any number of additional reinforcing bars is permitted within the structure of the cage.

A section of tubing equal to the roll bar shall be installed horizontally from the main hoop to the diagonal brace behind the drivers seat. This tube shall be no higher than shoulder height and continue from the diagonal to the passenger side main hoop upright

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2.4.7 Front/Side Hoops:

The front hoops, side hoops, or down tubes shall begin at the floor.

Several configurations are allowed:

Side Hoop Configuration: Side Hoops connect directly from the floor of the occupant's compartment and continue, in one piece, to connect to the Main Hoop. If Side Hoops are used, they are to be connected together by a single horizontal tube across the top of the windshield with a maximum of 4 bends totaling 90 degrees \pm 10 degrees.

Front Hoop Configuration: A front hoop connected to the floor on both sides of the occupant compartment and following the line of the front pillars in one continuous piece may be used. A front hoop must be connected at the top by horizontal bars running back to the main hoop on each side, above the doors with a maximum of 4 bends, totaling 180 degrees \pm 10degrees.

HALO Configuration: A top "halo" hoop following the roof line in one continuous piece from each side of the main hoop along the tops of the doors and windshield. A HALO must be connected to the floor with forward "down tubes" following the line of the front pillars with a maximum of 4 bends, totaling 180 degrees \pm 10degrees and a maximum of 2 bends allowed on the down tubes.

The front, side or down hoops may extend through the dash pad, including the forward part of the door panel if it is an extension of the dash panel.

One (1) "Knee" bar is recommended in a horizontal plane between forward cage braces in the dash area for all configurations.

2.4.8 Rear Hoop Supports:

The main roll hoop shall have two braces extending to the rear attaching to the frame or chassis. Braces shall be attached as near as possible to the top of the main hoop not more than six (6) inches below the top and at an included angle of at least thirty (30) degrees. No bends are allowed on rear braces. On cars where the rear window/bulkhead prohibits the installation of rear braces, the main hoop shall be attached to the body by plates welded to the cage and bolted to the stock shoulder harness mounting points.

2.4.9 BOLT IN ROLL CAGES

Bolt In roll cages are not allowed.

2.4.10 Supplemental Bracing:

Supplemental bracing is allowed.

2.4.11 Side Protection:

All cars shall have a minimum of two (2) door bars across each front door opening. The door bars may run parallel, or in the shape of an "X". If the two

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door bars do not intersect as they do when forming an "X", then a minimum of two vertical tube sections shall connect the upper and lower door bars. Teams may also choose to install a second row of double horizontal door bars that run parallel to the inner bars and extend into the outer door skin, these are also known as "NASCAR-STYLE" bars. In this configuration, the outer bars must also have a minimum of two (2) vertical tube sections connecting the upper and lower bars. The inner door panel and door internals may be removed.

2.4.12 Mounting Plates:

2.4.12.1 Each mounting plate shall be at least .080" thick

2.4.12.2 Mounting plates must be fully welded to the structure of the vehicle.

2.4.12.3 Each mounting plate shall not be greater than 100 square inches and shall be no greater than twelve (12) inches or less than two (2) inches on a side. The mounting plate may be multi-angled but must not exceed these dimensions in a flat plane.

2.4.12.4 Whenever possible, mounting plates shall extend onto a vertical section of the structure (such as a rocker box or door pillar).

2.4.12.5 Any number of tubes may attach to a single plate or to each other.

2.5 MOUNTING HARDWARE (BOLTS)

All hardware used in the mounting of seats, or other structural supports shall be SAE Grade 5 or better with a 5/16" minimum diameter.

2.6 FIRE SUPPRESSION SYSTEM

All cars must be fitted with a minimum two (2) lb. fire-extinguishing bottle mounted in the driver's compartment within reach of the driver when he/she is in the normal seated position. The mounting bracket must be a quick-release type, and must be mounted so that it can be removed easily for label inspection and verification of full charge by weighing.

Acceptable extinguishants are Halon 1211, Halon 1301, Underwriters Laboratory 10BC rated Potassium Bicarbonate (Purple K), Underwriters Laboratory 1A10BC Ammonium Phosphate/Barium Sulfate, or Monnex.

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3 COMPETITION VEHICLES

3.1 VEHICLE ELIGIBILITY

3.1.1 Determination

3.1.1.1 Only vehicles listed in Appendix K are eligible and must have a valid manufacturer VIN number or equivalent.

3.1.2 Body Work

3.1.2.1 Cars must maintain the OEM look and feel and be clean, free of damage and presentable for competition.

3.1.2.2 Aftermarket body panels, front and/or rear fascias, side skirts and wings, etc are permitted; body work that is not designed as O.E.M. or an O.E.M. replacement of the original make and model of the vehicle must be approved by FORMULA DRIFT TECHNICAL MANAGER.

3.1.2.3 No vertical aerodynamic elements may be added other than, 2 (two) wing standoffs and 2 (two) wing end plates. The size of each of these may not exceed 12x16 inches in size per unit (**dimension, not surface area**). The installation of these devices may not obstruct the view, from any angle, or operation any of safety device, signaling light, indicator, or other equipment.

3.2 ENGINE & TRANSMISSION

3.2.1 Modifications

3.2.1.1 Engine, transmission, ECU and/or final drive modifications are free, but only the rear wheels may propel the vehicle.

3.2.1.2 Engine and radiator catch tanks with a minimum capacity of one (1) quart each are required and securely fastened and sealed in the engine compartment.

3.2.1.3 All fluid systems must be free of leaks.

3.2.1.4 All cars must be equipped with an on-board starter and power supply which must be in working order at all times

3.2.1.5 All vehicles must be equipped with a **functioning** reverse gear.

3.2.2 Traction Control

Traction control and other non-specified “driver aids” are not allowed. Wheel speed sensors must be removed.

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3.3 CHASSIS & SUSPENSION

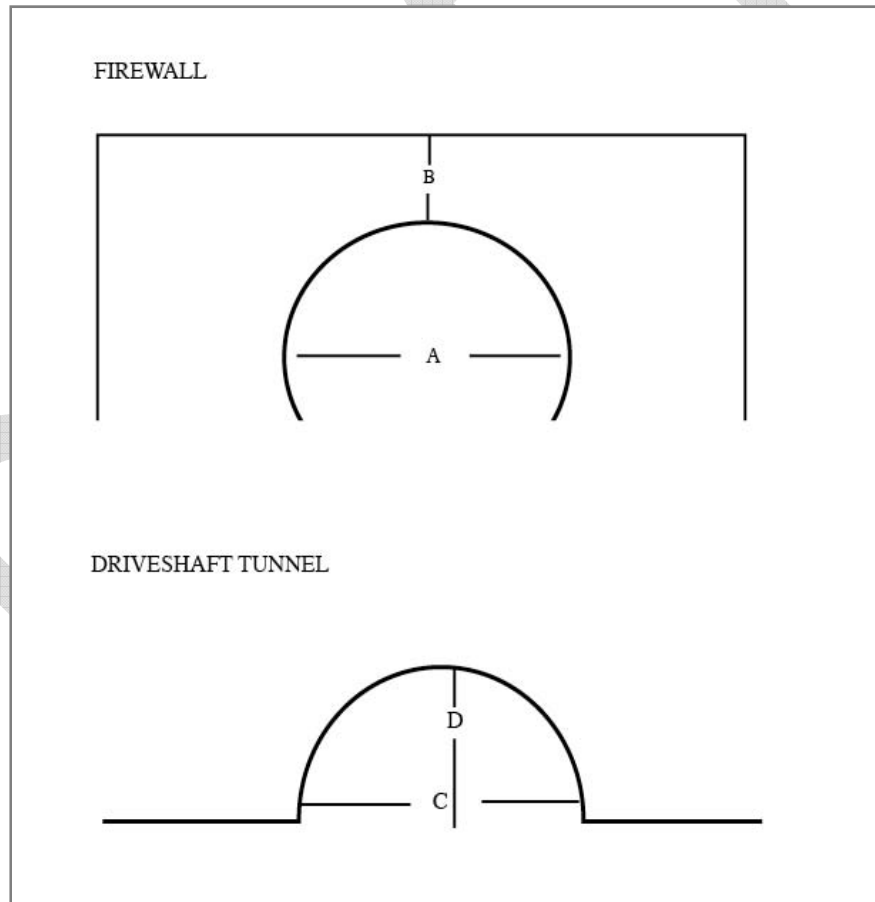
3.3.1 Basic Chassis Design

The vehicle chassis, frame and / or unibody must remain unmodified between the vertical planes created by the original forward most and rearward most suspension mounting points unless otherwise specified in these rules. Uni-body or chassis may be seam welded.

3.3.2 Suspension Design

The basic OEM suspension design type may be freely modified. The original suspension mounting “pick-up points” must remain in the stock, unmodified location.

3.3.3 Modifications of the stock, OEM firewall and transmission tunnel are allowed as follows:



- **Dimension A: Tunnel Width May be no wider than 18 Inches**
- **Dimension B: Minimum dimension of 10 inches between the bottom of the windshield and the top of the transmission tunnel.**

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- **Dimension C: Modifications of the driveshaft tunnels behind the transmission tunnel taper vertical plane should not exceed an overall width of 10 inches.**
- **Dimension D: Modifications to driveshaft tunnels behind the transmission tunnel taper vertical plane should not exceed an overall width of 10 inches.**
- **Taper Length: (from the firewall to the end of the transmission tunnel into the beginning of the driveshaft hump) may be no longer than 36 inches.**
- **No part of the engine casing may cross the vertical plane of the original firewall into the transmission tunnel.**
- **No other modifications may be made to the vehicle chassis, frame, or uni-body unless otherwise specified in these rules.**
- **Any holes in the firewall must be of the minimum size for the passage of controls and wires, and must be completely sealed to prevent the passage of fluids or flames from the engine compartment to the cockpit.**

3.3.4 Front cross member and/or front or rear sub-frame

Front and rear sub-frames and cross members must be stock and available on the exact model that is competing in Formula Drift. The subframe must also be mounted in the exact stock location, without being moved in any plane.

Front subframes may only be modified to directly allow for oilpan / starter clearance and steering rack relocation. The front subframe must retain intact on at least one major member on one face that spans the entire width of the subframe, thereby keeping the original dimensions of the subframe intact. Any other modifications, cutting, welding, strengthening, etc is not allowed.

Rear subframes may only be modified to allow for mounting or relocating a differential. The rear subframe must retain at least one major member that spans the entire width of the subframe, thereby keeping the original dimensions of the subframe intact. Any other modifications, cutting, welding, strengthening, etc is not allowed.

3.3.5 Modified or aftermarket suspension parts

Modified or aftermarket suspension parts, including hubs, are allowed.

3.3.6 Steering

Modifications of steering components (steering rack, tie rods, etc) are free. **This includes mounting the steering rack to the front subframe.**

3.4 FUEL SYSTEM

3.4.1 Fuel Cells

The fuel system design is free.

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3.4.2 Fuel Lines

Fuel lines and fittings must be high-pressure type and routed in such a way that do not interfere with moving parts and be securely insulated and attached to the unibody or chassis.

No fuel lines may be routed through the driver's compartment.

3.5 ELECTRICAL SYSTEM

3.5.1 Master Cut-Off

A Master electrical cut-off switch, wired to completely shut off all engine and electrical system function (except for electrically operated fire suppression systems, if applicable) is mandatory and must be mounted outside the vehicle, on the right side cowl just below the windshield and is to be clearly marked with the appropriate "OFF" markings.

The electrical terminals of the cut-off switch and/or any relays used in the circuit must be sufficiently insulated.

3.5.2 Battery

The battery must be securely mounted and the positive terminal completely insulated to avoid contact with any other metal parts. Batteries may be relocated. If the battery is located in the drivers compartment, it must be in a sealed box bolted to the unibody/chassis with the battery securely fastened inside the box and properly vented and drained.

3.6 BRAKE SYSTEM

The brake system must operate all 4 wheels.

3.7 ENGINE COOLING SYSTEM

Cooling system modifications are free but must be fully closed and free of leaks.

Cooling systems shall be filled with water only. "Water wetter" is allowed.

3.8 INTERIOR MODIFICATIONS

3.8.1 The interior of the vehicle must be clean and professional in appearance. All non-essential and/or loose items must be removed. Any removable equipment such as spare tires, tools, bins, etc., shall be removed along with attaching hardware, brackets and covers

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2/1/2010

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