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# INTRODUCTION:

The 2019 Formula DRIFT PRO/AM is composed of the following 10 organizations approved by Formula DRIFT across North America:

<u>USDrift</u>	Just Drift	Southwest Drift	Lone Star Drift	Midwest Drift Union
Evergreen Drift Spec-D		East 10 Drift	The Drift League	Sonoma Drift

We are pleased to provide you with the 2019 edition of the Formula DRIFT PRO/AM Technical Regulations. The following three (4) organizations are using this rulebook for their 2019 season:

USDrift Midwest Drift Union Spec-D Southwest Drift

If you are participating in a series not using this rulebook, please contact that respective series for their specific rulebook.

This edition of the rules are based off the Formula DRIFT PRO2 Rulebook and establishes the foundation for the organization and the conduct of the Formula DRIFT PRO/AM. This is done to help competitors build their cars to Formula DRIFT PRO and PRO2 specifications with as minimal changes as possible should they advance into Formula DRIFT. Participants, teams, drivers, and officials are strongly encouraged to review these rules carefully.

Formula DRIFT and Formula DRIFT PRO/AM wish you a safe and successful competition season.

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# **COMPETITION VEHICLES**

#### 1.1 VEHICLE ELIGIBILITY

- A. Eligible models must be considered a "production vehicle" and have had a minimum build run of 600 units in each model year.
- B. Eligible body styles include: coupe, sedan, convertible, or wagon, and must have no more than five (5) doors.
- C. Vehicles must maintain the original OEM steel unibody and/or steel frame structure between the OEM front and rear suspension mounting points.
- D. No trucks or SUVs will be allowed.
- E. Vehicles that do not meet the above eligibility criteria must petition for approval from Formula DRIFT PRO/AM.

#### 1.2 VEHICLE ELIGIBILITY INSPECTION

#### 1.2.1 Vehicle Eligibility Inspections

Prior to the first time a vehicle is entered into any EVENT for the current season; the COMPETITION DIRECTOR will issue a FORMULA DRIFT PRO/AM VEHICLE IDENTIFICATION (VID) number/sticker and conduct an annual inspection of each vehicle. Upon verification of compliance to the rules, and annual tech sticker will be issued and affixed to the main roll bar hoop at the driver's left. Only vehicles that have passed the annual inspection, and have an annual tech sticker affixed, will be allowed to compete unless approved by the COMPETITION DIRECTOR. NOTE: The COMPETITION DIRECTOR herein shall refer to person with that title in the respective PRO/AM series a driver is competing in. As such, the COMPETITION DIRECTOR may or may not differ from each PR/AM series.

Issuance of the tech sticker is not an endorsement of the performance of the vehicle, nor an indication that the vehicle meets all of the required Technical Specifications. The tech sticker signifies that the vehicle has passed the initial Safety Inspection and will be permitted to go on course during scheduled FORMULA DRIFT PRO/AM practice, qualifying, and tandem drift sessions.

The annual tech sticker will be withheld from any vehicle that does not comply with the required Safety Specifications. If the tech sticker is withheld, it is the team's responsibility to meet with the COMPETITION DIRECTOR to determine what action is required to achieve compliance. The COMPETITION DIRECTOR shall maintain inspection records of each entered vehicle in an online database. These inspection records will be available as a digital logbook with access available to Formula DRIFT, all of the Formula DRIFT PRO/AM series, and the driver/team for their respective vehicle.

To be eligible for competition in an EVENT, all vehicles must have the following:

- a. A FORMULA DRIFT PRO/AM VEHICLE IDENTIFICATION (VID) number.
- b. A current annual technical inspection sticker.

During Technical Inspection, there may only be one person from the team serving as a representative for the vehicle being inspected. The area should be closed off and private. All other personnel must leave the area.

# 1.2.2 <u>Vehicle Event Technical Inspections</u>

At a time, place, and in a manner determined by event officials, prior to racing activities of any nature (including without limitation testing, practice, qualifying, competition, etc.) all vehicle and driver equipment must undergo a technical inspection.

In addition, every vehicle is subject to further technical inspection at any time before, during, or after an event, at the time, in the place, and manner directed by any event official. Formula DRIFT PRO/AM may at any time inspect, seal for inspection, and/or tear down a participant's vehicle. Not complying in full with any inspection request will result in disqualification from further competition and such other penalties as deemed appropriate by Formula DRIFT PRO/AM. All determinations by event officials regarding the timing and method of technical inspections shall be final and not subject to appeal or review.

Technical inspection assists event officials with determining, in their judgment, eligibility for participation in an event. The technical inspection does not in any way change the fact that the driver, the crew members, and the vehicle owner are ultimately responsible for the safety and operation of the vehicle and equipment.

The participant agrees that the participant is in the best position to know about the construction and operation of the participant's vehicle, equipment, clothing, and whether there has been compliance with all Formula DRIFT PRO/AM rules, regulations, and agreements, including but not limited to those contained in the rulebook. Moreover, in the case of technical violations, the participant acknowledges, understands and agrees that the participant is charged with full knowledge of every component of the participant's vehicle and that even is a third party has caused the participant's vehicle to be noncompliant, the participant will still be held responsible for and charged with any applicable violation and/or sanction. Disclaiming knowledge of the particular part(s), or disclaiming knowledge of the rule(s), or disclaiming responsibility for the actions of the third party will not be defenses to any violation and/or sanction therefor.

Any means or tactic used that could deceive the judges or interfere with the judging process is strictly prohibited and will be subject to disciplinary actions.

### 1.3 RETENTION OF VEHICLES AND PARTS

Participant hereby grants Formula DRIFT PRO/AM, and each of their agents and assigns, full and unconditional permission to collect and retain vehicles, parts of vehicles, equipment, and/or any other items used in conjunction with participation that are owned by or in possession of the participant or present at an event (collectively "Items"), including such items that may be relevant to the investigation of an incident, the inspection or testing of such items, or for any other purpose. Formula DRIFT PRO/AM may exercise the right to take and retain items at any time when Formula DRIFT PRO/AM determines in its sole and absolute discretion that such actions are necessary. Participant fully releases Formula DRIFT PRO/AM from any liability whatsoever for loss of, damage to, or destruction of any such items. When an item is suspected of being out of compliance with a Formula DRIFT PRO/AM rule, or when an item has been involved in an incident, Formula DRIFT PRO/AM may in its sole and absolute discretion collect and retain such items if Formula DRIFT PRO/AM believes it is necessary to do so to further investigate, make a final determination, and/or preserve evidence, all in Formula DRIFT PRO/AM's sole and absolute discretion. At any time that Formula DRIFT PRO/AM collects and retain items, Formula DRIFT PRO/AM will try to safeguard such items and return such items when Formula DRIFT PRO/AM has completed its work with them, but Formula DRIFT PRO/AM makes no representation or warranties that the items will not be lost, damaged, destructively tested, destroyed, or otherwise affected. Formula DRIFT PRO/AM is not responsible for payment, reimbursement, damage, or loss to the participant as a result of compliance testing. If Formula DRIFT PRO/AM believes that an item should be retained or destroyed, or indefinitely or permanently retained, to prevent further use of such item in competition. Formula DRIFT PRO/AM may so retain or destroy such item.

### 1.4 PARTICIPANT OBLIGATIONS

Participants must take whatever steps requested by a Formula Drift PRO/AM Official, including tear down of the vehicle and removal of parts to facilitate inspection of race equipment. This obligation includes, but is not limited to, installing inspection holes, inspections ports, and/or other means of inspections in the frame, roll cage bars, suspension components, and the like. Formula Drift PRO/AM is not responsible for payment, reimbursement, damage or loss to the participant as a result of such inspections.

#### 1.5 MAINTENANCE OF VEHICLE ELIGIBILITY

It is the responsibility of the team to maintain a vehicle's eligibility.

#### 1.6 VEHICLE MODIFICATIONS

Any vehicle which after being issued an annual technical inspection sticker by the COMPETITION DIRECTOR is dismantled, or modified, or in any way changed which might affect its safety or call into question its eligibility, or which is involved in an accident with similar consequences, must be re-presented by the team for approval. It is the responsibility of the team to notify the COMPETITION DIRECTOR of any modifications.

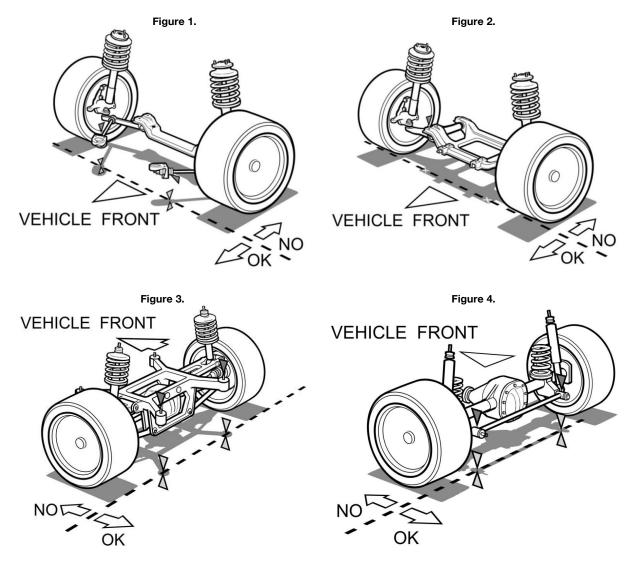
### 1.7 VEHICLE DAMAGE

If a vehicle is damaged due to an accident or other incident, the COMPETITION DIRECTOR may remove the annual tech sticker. A new tech sticker may be issued after the vehicle is re-inspected or repaired and then re-inspected. It is the responsibility of the team to notify the COMPETITION DIRECTOR of any and all damage.

# 2 CHASSIS

### 2.1 CHASSIS MODIFICATIONS

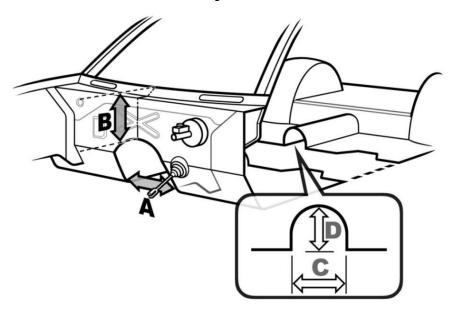
- A. The original OEM floor pan, frame, and/or unibody must remain unmodified between the vertical planes created by the original forward most and rearward most suspension point or subframe mounting point.
- B. Unibody or chassis may be stitch or seam welded.
- C. Plating of chassis is prohibited.
- D. Front suspension examples are in Figure 1 and Figure 2.
- E. Rear suspension examples are in Figure 3 and Figure 4.
- F. The original OEM floor pan, frame, and/or unibody must remain unmodified between the horizontal planes created by the floor pan at the lowest horizontal plane to the roof at its highest horizontal plane. With the exception of the transmission tunnel and firewall dimensions listed below and the fuel cell rule.
- G. Items in the unmodified zone that are allowed to be removed can include original rear window parcel shelf, tabs, or mounts for the unused OEM steering columns, unused OEM windshield wiper mounts, and the exterior rood panel can be replaced with a composite panel.
- H. Removal of the trunk sill portion at the base of the rear window is prohibited.
- I. Rear suspension tower cross-members located at the top of the rear suspension towers may be removed from the unibody interior only if a suitable replacement structure of equivalent strength is installed.
- J. No part of the engine casing may cross the vertical threshold of the original firewall into the transmission tunnel.
- K. No other modifications may be made to the vehicle chassis, frame, or unibody including the installation and use of air jacks.
- L. Any holes in the firewall must be 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 driver's compartment.



### 2.1.1 FIREWALL AND TRANSMISSION TUNNEL MODIFICATIONS

- A. Modifications of the stock, OEM firewall, and transmission tunnel in Figure 5.
- B. Dimension A: Tunnel Width may be no wider than 18-inches.
- C. Dimension B: Minimum dimension of 10-inches between the bottom of the windshield and the top of the transmission tunnel.
- D. Dimension C: Modifications to drive shaft tunnels behind the engine firewall vertical plane should not exceed an overall width of 10.000-inches.
- E. Dimension D: Modifications to drive shaft tunnels behind the engine firewall vertical plane should not exceed an overall width of 10.000-inches.
- F. Taper length from the firewall to the end of the transmission tunnel into the beginning of the drive shaft hump may be no longer than 36-inches.
- G. Modifications to firewall and transmission tunnel must be done with 0.036-inch steel or 0.059-inch aluminum.





# 2.2 ROLL CAGE

# 2.2.1 GENERAL

- A. All roll cage structures must be designed in an attempt to protect the occupants from any angle, 360-degrees.
- B. The roll cage shall attach to the chassis/unibody in eight (8) points.
- C. Gussets of such as dimple die plates are allowed along A-pillar, B-pillar, and roof structure. Gussets shall be made from steel plate no thicker than 0.125-inch.
- D. No gussets or attachment of any form may pass from the door bars to the chassis, unibody, or rocker panel.
- E. Plating of chassis is prohibited.
- F. Bolt-in roll cages are not allowed.
- G. No portion of the cage may permeate the firewall and shall be fully contained within the driver's compartment.
- H. No additional bracing may be used between the strut tower and the firewall.
- Any number of additional reinforcing bars, gussets, or supports is permitted within the confines of the roll cage.
- Modifications to the chassis or notching for roll cage clearance must have prior written approval from the COMPETITION DIRECTOR.

#### 2.2.2 PADDING

- A. Padding must meet SFI spec 45.1 or FIA 8857-2001.
- B. Padding is required anywhere the driver helmet may come in contact with the roll cage and along the base of the driver's side A-pillar bar and box if applicable.

#### 2.2.3 WELDING

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 the bends in the roll cage hoop (measured at the centerline of the 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.

All welds shall be visually inspected and shall be acceptable if the following conditions are satisfied:

- A. Welds shall be continuous around the entire tubular structure.
- B. The weld shall have no cracks.
- C. Grinding down of welds is prohibited.
- D. Thorough fusion shall exist between weld metal and base metal.
- E. All craters shall be filled to the cross section of the weld.
- F. Undercut shall be no more than 0.01-inch deep.
- G. 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.

#### 2.2.4 ROLL CAGE MATERIAL

- A. Roll cage material must be Seamless SAE 1020 or 1025 mild steel tubing, DOM, and/or chromoly.
- B. ERW tubing is not permitted.
- C. All roll cage tubing in the requirements listed below must be a minimum of 1.5 x 0.095-inch for all materials.
- D. The minus tolerance for wall thickness should not be less than 0.01-inch below the nominal thickness.
- Vehicles weighing over 500 lbs. with driver must petition with the COMPETITION DIRECTOR for approval of the roll cage prior to entering any event.

# 2.2.5 ROLL CAGE MOUNTING PLATE

- A. Each mounting plate or box shall be at least 0.08-inch thick steel.
- B. Each mounting plate or box must be fully welded to the structure of the vehicle.
- C. Each mounting plate or box shall not be greater than one-hundred (100) square inches and shall be no greater than 12-inches or less than 2-inches on a side. The mounting plate may be multi-angled, but must not exceed these dimensions in a flat plane.
- D. Whenever possible, mounting plates shall extend onto a vertical section of the structure such as a rocker box or door pillar.
- E. Any number of tubes may attach to a single plate or to each other.

# 2.2.6 MAIN HOOP

- A. 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 four (4) bends, totaling 180-degrees +/- 10-degrees.
- B. The roll cage main hoop should start from the floor of the vehicle and be attached to the chassis/unibody via Mounting Plate specifications.
- C. Diagonal lateral brace is a piece of tubing equal to the roll bar diameter, installed across the main hoop to prevent lateral distortion. This brace must attach to the driver side upper corner of the main hoop, not more than 6-inches from the center of the radius, and to the opposing leg, not more than 6-inches from the base plate.
- D. A horizontal brace is a piece of tubing equal to the roll bar diameter, installed behind the driver's seat for the purpose of mounting seat belts. This tube shall be no higher than shoulder height and continue the full width of the main hoop, attached to both legs.
- E. The diagonal brace or the horizontal brace must be one (1) continuous piece of tube, with the other attaching to it.

# 2.2.7 FRONT/SIDE HOOPS

The front hoops, side hoops, or down tubes shall begin at the floor. Several configurations are allowed:

- A. <u>Side Hoop Configuration</u>: Side hoops connect directly from the floor of the driver'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 four (4) bends totaling 90-degrees +/- 10-degrees.
- B. Front Hoop Configuration: A front hoop connected to the floor on both sides of the driver 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 four (4) bends, totaling 180-degrees +/- 10-degrees.
- C. <u>Halo Configuration</u>: Top "halo" hoop following the roof line in one continuous piece from each side of the main hoop along the top 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 four (4) bends, totaling 180-degrees +/- 10-degrees and a maximum of two (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.

# 2.2.8 REAR HOOP SUPPORTS

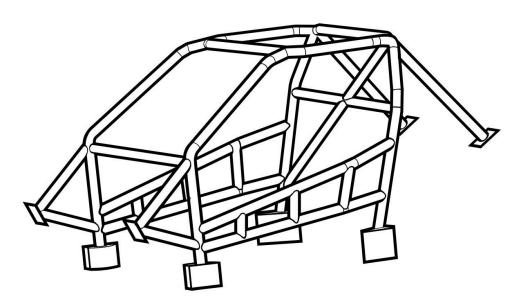
- A. The main roll hoop shall have two braces extending to the rear attaching to the chassis/unibody.
- B. Braces shall be attached as near as possible to the top of the main hoop not more than 6-inches below the top and at an included angle of at least 30-degrees.
- C. No bends are allowed on rear braces.
- D. On vehicles 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.

### 2.2.9 SIDE PROTECTION

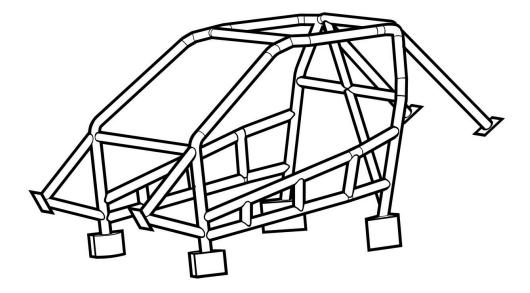
- A. All vehicles shall have a minimum of two (2) door bars across each front door opening.
- B. The door bars may run parallel, or in the shape of an "X".
- C. If the two (2) door bars do not intersect as they do when forming an "X", then a minimum of two (2) vertical tube sections shall connect the upper and lower door bars.
- D. Teams may also choose to install "NASCAR-style" bars and extend into the outer door skin. In this configuration, the outer door bars must also have a minimum of three (3) vertical tube sections connecting the upper and lower bars.
- E. Side protection must not pass through the B-pillar.
- F. No gussets or attachment of any form may pass from the door bars to the chassis, unibody, or rocker panel
- G. The inner door panel and door internals may be removed.

### 2.2.10 ANTI-INTRUSION OR WHEEL INTRUSTION BARS

- A. The anti-intrusion bars or wheel intrusion bars are designed for additional foot protection.
- B. All vehicles shall have anti-intrusion bars or wheel intrusion bars with one (1) tube extending forward from each front down tube and one (1) tube from the base plate forward to the firewall, but not penetrating any panel.



**Left Hand Drive Configuration** 



**Right Hand Drive Configuration** 

#### 2.3 BALLAST

- A. Ballast must serve only the unique purpose of adding weight to a vehicle.
- B. A vehicle may have up to 50-pounds of ballast weight added to it.
- C. Ballast must be mounted ahead of the rear axle.
- D. Blocks must weigh no less than 5-pounds each and cannot be made of liquid of any type, pellets, or any other granulated material.
- E. Ballast must be securely bolted in place with a minimum of one (1) 0.5-inch diameter Grade 8 bolt.
- F. No weight shifting devices are allowed, including but not limited to, hydraulic or electronic devices.
- G. Dislodged weight ballast cannot be returned to the vehicle for weigh in purposes.

# 2.4 BUMPERS

- A. All vehicles must be equipped with safe front and rear bumpers.
- B. Unless factory OEM, all bumpers must be made entirely of magnetic steel.
- C. Bumper must be constructed of 1-inch to 1.75-inch outer diameter tubing with a minimum wall thickness of 0.063-inch to a maximum wall thickness of 0.125-inch.
- D. All bumper tubing must remain hollow.
- E. Bumpers must be fastened to the vehicle with a minimum of four (4) 3/8-inch fasteners per side (minimum Grade 5) or welded to prevent the bumper from being dislodged from the vehicle.
- F. Bumpers mounted with quick release pins are allowed with sleeved tubing.
- G. Bumpers should be rounded off or capped off to prevent becoming locked to or piercing another vehicle.
- H. Bumpers at minimum must span the width of the front and rear frame rails.
- I. Tubing must not be exposed and must remain behind the bumper covers with minimal clearance between the bumper cover and the bumper bar itself.
- J. Bumper bars must remain in the confines of the body line and body work, without additional covers or body work extensions in order to do so.
- K. The bumper covers must be approved by Formula DRIFT PRO/AM and be acceptable to the Competition Director.
- L. Bumper must be fixed. Use of shock absorbers, dampers, springs, pivots, and slip joint will not be allowed in the design of the bumper structure.

# 3 SUSPENSION AND BRAKES

- A. In cockpit/driver adjustable suspension will not be allowed. Examples include, but not limited to, sway bars and electronic shock/damper adjusters, such as Tein EDC.
- B. No suspension changes or adjustments will be allowed between runs by any means, including remotely. No actuators, servos, or motors of any kind will be allowed.
- C. Driver adjustable brake bias is allowed.

#### 3.1 FRONT SUSPENSION

- A. OEM front subframes and crossmembers must be stock and available on the exact year, make, and model that is competing in Formula DRIFT PRO/AM.
- B. Original suspension design type must remain; double wishbone, MacPherson strut, etc.
- C. Modified or aftermarket suspension parts, including hubs, are allowed.
- D. Suspension relocation brackets that move suspension points or pivots, regardless if they are bolt-in, to the chassis will not be allowed.
- E. MacPherson strut upper mount pivot must remain within the centerline dimension of the OEM unaltered factory bolt pattern on the chassis. Refer to Figure 6 and Figure 7. The OEM pattern on the chassis must remain unaltered and be the only means of mounting the upper strut mount. All OEM bolt holes must be present and utilized.
- F. Vehicles with the MacPherson upper strut mounts not represented in the illustrations (Figure 6 or Figure 7) must contact the Formula DRIFT Technical Department.
- G. Front subframe must remain in the factory location. No relocation of the subframe on any plane will be allowed.
- H. All original suspension mounting tabs must remain in the original position. No cutting, welding, bending, drilling, or modifications of any kind will be allowed.
- 1. Front subframes may only be modified to directly allow for oil pan/starter clearance and steering rack relocation. The front subframe must remain intact on at least one (1) major member on one (1) 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.

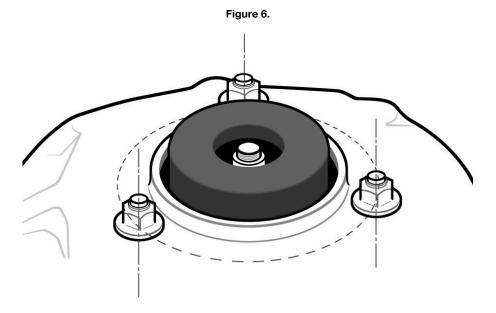
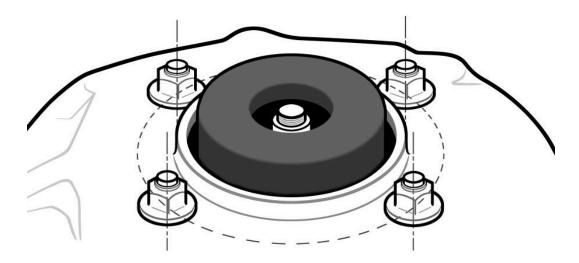


Figure 7.



### 3.2 STEERING

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

### 3.3 REAR SUSPENSION - LIVE AXLE

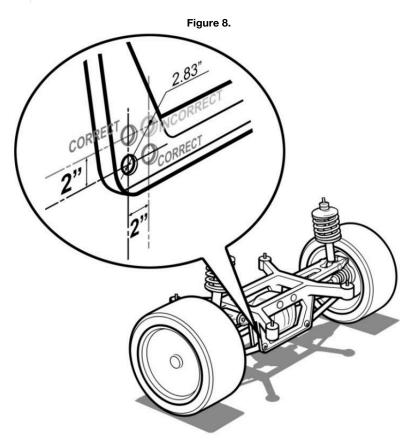
- A. The original chassis mounting point must remain unaltered and in the original factory position.
- B. Suspension relocation brackets that move suspension points or pivots regardless if they are bolt-in to the chassis will not be allowed.
- C. Original suspension design must remain; i.e. 3-link, 4-link, etc.

## 3.4 REAR SUSPENSION - INDEPENDENT

- A. OEM rear subframes and crossmembers must be stock and available on the exact make that is competing in Formula DRIFT PRO/AM. <u>NOTE</u>: The 2019 Formula DRIFT PRO and PRO2 rulebooks both require that the OEM rear subframes and crossmembers must be stock and available on the exact year, make, and model that is competing.
- B. Original suspension design type must remain; i.e. 5-link, 4-link, strut, etc.
  - 1. Suspension modifications must maintain the same link count as the factory hub.
  - 2. Suspension link is defined as a rigid member with attachment/pivot point on the subframe/chassis and the hub.
- C. Example: If the factory hub has five (5) attachment/pivot points on the hub and the subframe/chassis with five (5) independent links, then the aftermarket hub and arm configuration will also have five (5) attachment/pivot points on the hub and the subframe/chassis with five (5) independent links to maintain the factory suspension type.
- D. The original chassis mounting points must remain unaltered and in the original factory position.
- E. Modified or aftermarket suspension parts, including hubs, are allowed.
- F. Subframe height may be adjusted. <a href="NOTE">NOTE</a>: The 2019 Formula DRIFT PRO and PRO2 rulebooks both require the subframe to remain at the factory height listed in Table 1. No relocation of the subframe on any plane will be allowed. If you plan to compete in Formula DRIFT PRO or PRO2 and your vehicle is not listed on Table 1 and has a removable subframe, please contact Formula DRIFT Technical Department.
- G. If your vehicle has chassis tearing or subframe stud problems, please contact Formula DRIFT Technical Department.
- H. All original suspension and subframe mounting tabs must remain in the original position. No cutting, welding, bending, drilling, or modifications of any kind will be allowed, including subframe bushing to chassis mounts.
- I. Additional mounting tabs may be added to the subframe to relocate the suspension arm mounting points a maximum of 2-inches on any plane from the original mounting position.
- J. This will be measured center to center from the original pivot point to the new pivot point. Please refer to Figure 8. This rule only applies to vehicles with a rear subframe and to pivot points on the rear subframe.
- K. Rear subframes may 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 modification, such as cutting, welding, strengthening, etc. is not allowed.

Table 1.

	Rear subframe to Chassis clearance (inch)					
Make	Year	Model	Front mounts	Rear mounts		
BMW	1990-2000	E36	0.640	0.465		
	1998-2006	E46	0.400	0.570		
	2004-2012	E90/92	0.520	0.630		
Cadillac	2015-2018	ATS coupe	0.600	0.485		
Chevrolet	2010-	Camaro	0.741	1.547		
Ford	2015	Mustang	0.400	0.400		
Holden	2013-2017	UTE	0.925	1.585		
Hyundai	2008-	Genesis	0.765	0.635		
Infiniti	2009-2013	G37	0.620	0.500		
	1989-1994	S13	0.675	0.600		
Nissan	1995-1998	S14	0.675	0.600		
	1999-2002	S15	0.675	0.600		
	2003-2009	350z	0.600	0.300		
	2010-	370z	0.725	0.200		
	2013-	GTR	0.400	0.470		
Mazda	2003-2012	RX-8	0.420	0.470		
Lexus	2001-2010	SC430	0.750	0.660		
	1991-2000	SC300	0.700	1.750		
Scion	2010-	FRS	0.445	0.335		
Subaru	2010-	BRZ	0.445	0.335		
Tolerance ± .060 inch						



### 3.5 BRAKE SYSTEM

- A. The primary brake system must hydraulically operate all four (4) wheels.
- B. Brake systems that use a single (non-tandem) master cylinder to operate all four (4) wheels are prohibited.
- C. Brake systems may be biased only front to rear. No brake bias may be used in a side to side configuration.
- D. Dual master cylinder pedal assemblies are allowed.
- E. Driver adjustable brake bias is allowed.
- F. When a brake light pressure sensor is used, it must be mounted in line with the front brake master cylinder and have no restrictions in between.
- G. Brake pressure switch must be mounted within 1-foot of the master cylinder.
- H. Brake lights must operate with the ignition off, only the master cutoff being on is required for operation.
- I. Secondary hydraulic e-brake systems are allowed as a fully separate system or as a pass-through system.
- J. Secondary brake system/e-brake must only operate the rear wheels.
- K. Carbon fiber, carbon ceramic, and carbon variant brakes or rotors are not allowed.

### 3.6 WHEELS

- A. Beadlocks, wheel screws, and any means of attachment between wheel and tire is prohibited.
- B. The space between the rim and the internal portion of the tire must be filled only with air. Use of inner tubes, tire balls, mousse, Tubliss systems, and tire pressure relief valves are not allowed.
- C. Wheels must be DOT approved for use on passenger car vehicles, including bead seat profile and dimensions.
- D. Center lock, mono lug, and center lug wheels are prohibited.
- E. Carbon fiber or hybrid fiber/alloy wheels are not allowed.

### 3.7 WHEEL TETHERS

Wheel tethers are recommended on the front and rear wheels.

# 4 DRIVETRAIN

#### 4.1 ENGINE

- A. Engine substitutions and modifications are free, but may only run on gasoline, diesel, and ethanol blends.
- B. Electric and hybrid power systems are eligible for competition with prior written approval from the COMPETITION DIRECTOR.
- C. All fluid systems must be free of leaks.
- D. Skid plates are allowed for the protection of engine associated components such as lines for oil, cooling, and fuel. Skid plates shall cover the minimal area needed for the protection of those components. Metallic skid plated shall be made up of a maximum thickness of 0.125-inch steel or 0.1875-inch aluminum.

#### 4.2 COOLING SYSTEM

- A. Cooling system modifications are free but must be fully closed and free of leaks.
- B. Automatic water sprayers are allowed during competition, but must not be leaking on the track, starting line, or grid area.
- C. If cooling system lines are routed in the driver's compartment or a trunk area that is open to the driver, they must be separated from the driver by a crushable metal enclosure made up of 0.036-inch steel or 0.059-inch aluminum.
- D. Radiators located inside the driver's compartment must be separated from the driver and may be ducted through a maximum of two (2) 10-inch holes in the chassis floor.
- E. Cooling systems shall be filled with water only. Coolant additives such as NEO "Keep Cool" and Redline "Water Wetter" are allowed.
- F. Radiator catch tanks with a minimum capacity of one (1) quart are required. Catch tanks must be securely fastened and sealed from the driver's compartment.
- G. All engine components and exterior components that support engine operation, such as coolers, pumps, tanks, and lines must be protected and within the confines of the factory frame rails and factory bumper or tubular bumper structure.

# 4.3 OIL SYSTEM

- A. Oil system modifications are free but must be fully closed and free of leaks.
- B. If the oil tank is located in the driver's compartment area or a trunk area that is open to the driver, they must be separated from the driver by a crushable metal enclosure made up of 0.036-inch steel or 0.059-inch aluminum.
- C. The floor of the enclosure must be designed to prevent accumulation of fluids.
- D. Oil catch tanks with a minimum capacity of one (1) quart are required. Catch tanks must be securely fastened and sealed from the driver's compartment. Wristbands are recommended on all breather filters.
- E. All engine components and exterior components that support engine operation, such as oil cooler, Accusump, dry-sump tank, oil filter, and oil lines must be protected and within the confines of the factory frame rails and factory bumper or tubular bumper structure.

#### 4.4 FUEL SYSTEM

# 4.4.1 FUEL TANK/CELL

- A. The fuel system is design free, but engines may only run on gasoline, diesel, and ethanol blends. All other fuels require written approval from the COMPETITION DIRECTOR.
- B. Safety fuel cells are required for all vehicles with a relocated fuel tank.
- C. Safety fuel cells shall consist of a bladder enclosed in a metal container.
- D. Safety fuel cell support structures must be welded to the vehicle. Bolt-on support structures are prohibited.
- E. If the factory fuel tank is retained, it must be mounted in the factory location, and in the factory manner while being enclosed by the factory sheet metal.
- F. Drag race style fuel cells with bottom mount sumps and/or fittings are prohibited. Fuel cells meeting SFI 28.1 are recommended.
- G. Fuel tank/cell must be separated and completely sealed to prevent the passage of fluids or flames from entering the driver's compartment by a permanently mounted steel or aluminum bulkhead. The bulkhead in a hatchback vehicle must be affixed to the chassis and no movable structure or panel, such as the hatch will be allowed as part of the bulkhead. Fuel cells may be installed in the interior of the vehicle, preferably within the confines of the roll cage structure.
- H. The floor pan may be modified to fit a fuel cell and lines.
- I. Fuel cells must have a flapper valve installed to prevent spillage in the event of a roll over.
- J. Fuel system must not leak on the track, starting line, or grid area.
- K. Installation of discriminator valves may be required on vent lines to prevent fuel leaks.
- L. Pressurized refueling is prohibited.

### 4.4.2 FUEL LINES

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

- C. Teams may install dry-break fuel-filler attachments in the rear quarter windows, into the rear windshield, or trunk lid to facilitate re-fueling from outside the vehicle.
- D. The fuel filler tube between the fuel filler neck and the fuel cell, or tank, must be bulk-headed with 0.036-inch steel or 0.059-inch aluminum and sealed.

#### 4.5 NITROUS OXIDE

- A. Nitrous oxide bottles must be securely mounted inside the body line and protected within the confines of the factory frame rails and factory bumper or tubular bumper structure.
- B. All nitrous bottles must be recertified every five (5) years and stamped to indicate the last inspection date.
- C. All nitrous bottles must be stamped with minimum DOT 1800-pound rating.
- D. The use of commercially available thermostatically controlled bottle warmers is accepted. The use of any other method of externally heating nitrous bottles is prohibited.
- E. The use of plastic bottle brackets is prohibited.
- F. Nitrous bottles located in the driver compartment must have a "BLOW DOWN TUBE" which consists of a pressure relief valve (example from NOS Part Number NOS 16169) and be vented to the outside of the driver's compartment (example from NOS Part Number 16160).

#### 4.6 EXHAUST SYSTEM

- A. Exhaust system modifications are free but must past the rear axle or in the original location.
- 3. Mufflers are not required; however, some venues may have sound ordinances.

#### 4.7 STARTER

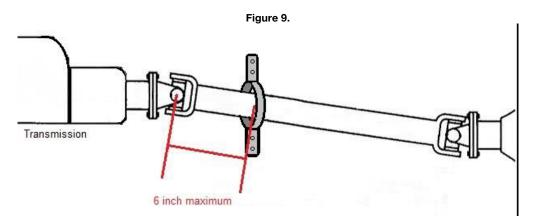
All vehicles must be equipped with an on-board starter and power supply which must be in working order at all times.

#### 4.8 TRANSMISSION

- A. All vehicles must be equipped with a functioning reverse gear.
- B. Transmission and/or final drive modifications are free, but only the rear wheels may propel the vehicle.
- C. Clutch release must be manually operated by driver's foot.
- D. Automatic transmission prohibited.
- E. Automated, timer-type, pneumatic, electric, electronic, hydraulic, etc. shifting mechanism prohibited; each individual shift must be a function of the driver and controlled manually.

#### 4.9 DRIVESHAFT

- A. All vehicles are strongly recommended to have a driveshaft retaining loop mounted within 6-inches of the forward most universal joint and be securely attached to a unibody or frame structure, as in Figure 9. NOTE: The 2019 Formula DRIFT PRO and PRO2 rulebooks both require this.
- B. The driveshaft loop may be made of minimum 0.250-inch x 2-inch wide steel strap or 0.875-inch x 0.065-inch steel tubing and be securely mounted in case of universal joint failure (example from Summit Racing Part Number SUM-G7900).



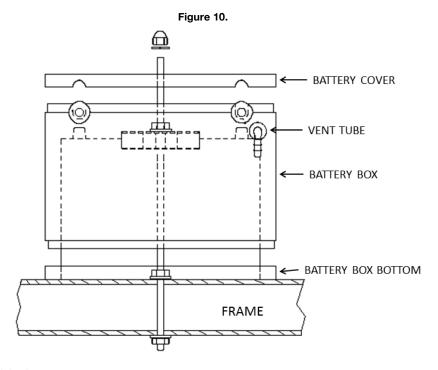
#### 4.10 DRIVESHAFT

- A. Traction control, torque management, and other non-specified "driver aids" are not allowed including, but not limited to, speed sensors, linear transducers, driveshaft rpm, and steering position.
- B. Wheel speed and driveshaft sensors must be removed.

# 5 ELECTRICAL SYSTEM

### 5.1 BATTERY

- A. The battery must be securely mounted, and the positive terminal completely insulated to avoid contact with any other metal parts.
- B. A maximum of two batteries are allowed on vehicles with an internal combustion engine. All batteries must be connected and in use.
- C. Batteries may be relocated.
- Relocated batteries must be fastened to the frame or unibody with a minimum of two (2) 3/8-inch diameter bolts.
- E. Plastic hold down brackets and J-bolts or hooks are prohibited.
- F. If the battery is located in the driver's compartment, it must be in a sealed box bolted with the battery fastened inside the box securely bolted to the unibody/chassis and properly vented and drained.
- G. Refer to Figure 10 (example from Taylor Cable Part Number 48103).



(2) 3/8" THREADED RODS TO PASS THROUGH BATTERY BOX AND HOLDDOWN TO SECURE THE BATTERY TO THE VEHICLE'S FRAME

# 5.2 BATTERY

- A. A master electrical cutoff switch, wired to completely shut off all engine and electrical system function, except for electrically operated fire suppression systems 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 appropriate "OFF" markings.
- B. The electrical terminals of the cut-off switch and/or any relays used in the circuit must be sufficiently insulated.

# **6 BODY EXTERIOR AND INTERIOR**

### 6.1 BODY PANELS

- A. Vehicles must maintain the OEM look and feel.
- B. Panels must be clean, free of damage, and presentable for competition.
- C. All bodywork must be painted or covered and securely attached to the vehicle.
- D. Aftermarket body panels, front and/or rear fascias, side skirts, and wings are permitted.
- E. One-piece front ends are not permitted.
- F. Over fenders are permitted and should be installed as in Figure 11.
- G. Body work that is not designed as OEM or an OEM replacement of the original make and model of the vehicle must be approved by the COMPETITION DIRECTOR.
- H. Bumper bars must remain in the confines of the body lines and body work, without additional covers or body work extensions in order to do so.
- I. The bumper covers must be approved by the COMPETITION DIRECTOR.
- J. All aftermarket panels and aerodynamic devices must be securely fastened to the vehicle and are subject to approval of the COMPETITION DIRECTOR.

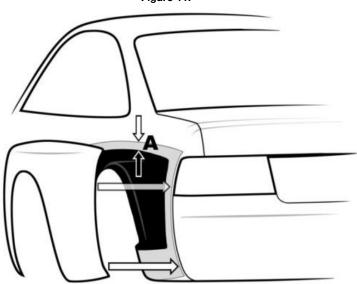


Figure 11.

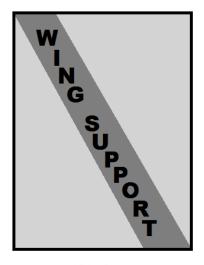
### 6.2 DOORS

- A. Doors must be mounted to the chassis with unmodified factory hinges (quick release doors are prohibited).
- B. Doors must use the factory latch mechanism.
- C. The inside and outside door latch/lock operating mechanism must be functional and readily accessible for the driver to exit the vehicle.
- D. Doors with an exposed interior must have the sharp edges removed or covered.

# **6.3 WING**

- A. Wings that are multi-piece mounted on standoffs and those that are not directly attached to the trunk will be prohibited at tracks where they may come into contact with walls, fencing, and signage. This will be determined by the COMPETITION DIRECTOR.
- B. No vertical aerodynamic elements may be added to vehicles other than two (2) wing standoffs and two (2) wing end plates.
- C. The size of each may not exceed 12-inch x 16-inch dimensionally in size per piece. Refer to Figure 12.
- D. Wings with standoffs must have the endplates and the wing tethered with independent cables to the vehicle.
- E. Wings must be securely bolted to the vehicle; use of quick release pins is prohibited.
- F. The installation of these devices may not obstruct the view, from any angle, or operation of any safety device, signaling light, indicator, or other equipment.

Figure 12.



12 inches

### 6.4 WINDSHIELD

- A. Windshields must be OEM glass or Lexan/polycarbonate replacement.
- B. Lexan/polycarbonate windshields must be a minimum thickness of 0.1875-inch.
- C. Lexan/polycarbonate windshields must be securely mounted and have a vertical brace 0.750-inch wide x 0.0625-inch aluminum which is securely mounted down the center of the opening inside the vehicle.

16 inches

D. Windshields must be clear, use of tint is prohibited.

# 6.5 WINDOWS AND WINDOW RESTRAINTS

- A. Door, quarter, and rear window must be OEM glass or clear/polycarbonate with minimum thickness of 0.125-inch and securely bolted in place.
- B. Side windows shall have a window net, OEM glass, or a piece of Lexan/polycarbonate in place of both front window openings whenever the vehicle is on-track.
- C. Side windows and rear windows must be clear. Use of tint is ok, provided it is not blacked out or limo tint, wrap is prohibited.
- D. Competitors may choose to use arm restraints in lieu of side windows or a window net.
- E. Competitors with convertible vehicles must use arm restraints.

# 6.6 WIPERS

Vehicles must have a functioning windshield wiper.

### 6.7 MIRRORS

- A. Two (2) external, rear facing mirrors are required, and must be positioned so that the driver can see objects along both sides of the vehicle.
- B. OEM mirrors in the OEM mounting position are encouraged.

#### 6.8 HOOD PINS

- A. Two (2) hood pins, equally spaced across the front of the hood located within 24-inches of the leading edge of the hood are strongly recommended. <u>NOTE</u>: The 2019 Formula DRIFT PRO and PRO2 rulebooks both require the use of hood pins.
- B. The original stock latch may remain, however the removal of the latch and use of hood pins is strongly recommended. NOTE: the 2019 Formula DRIFT PRO and PRO2 rulebooks both require that the original stock latch must be removed or modified to allow opening of the hood from the outside in the event of a crash/fire.

# 6.9 DECALS

All required FORMULA DRIFT PRO/AM series and/or other decals or markings must be present in the specified locations for the respective series in which you are participating in. Each series may have different requirements and should have the specifications available on their website, forum, or other outlet in which information is disseminated.

# 6.10 TOWING APPARATUS

Must be equipped for the front and rear as follows:

- A. Load rating of not less than the gross vehicle weight.
  - B. Minimum internal hole diameter of 2-inches.

- C. If made of a metal, it must not protrude more than 1-inch beyond the bumper and not require manipulation of the bodywork to access.
- D. Colored in a contrasting color to the surrounding body work.
- E. If not clearly visible, a decal marked with appropriate "TOW" markings or an arrow in a contrasting body color must be used designating the position.

#### **6.11 LIGHTS**

# 6.10.1 OEM LIGHTS

- A. All OEM lights must remain in place, headlights, taillights, and break lights must function normally.
- B. Brake lights and taillights may only be red, tinting is prohibited.
- C. Rearward facing strobe lights of any color is strictly prohibited.
- D. Any variation of red and/or orange colored headlights is prohibited.
- E. Headlight replacements and modifications are subject to approval by the COMPETITION DIRECTOR.
- F. The use of electrical, mechanical, and/or hydraulic cutoff switches, relays, or any other device that renders the brake lights inoperative is any way, is strictly prohibited.

### 6.10.2 THIRD BRAKE LIGHT STRIP

- A. Light strips must be connected to the existing brake light circuit.
- B. Rear brake light strip must be mounted on a fixed, non-removable panel or structure.
- C. Brake light strips are 36-inches long and must remain 36-inches long.
- D. Damaged light strips with over 50% not functioning will need to be replaced prior to competition.

### **6.12 INTERIOR**

- A. The interior of the vehicle must be clean and professional in appearance.
- B. All non-essential and/or loose items must be removed.
- C. All carpeting and/or sound deadening material must be removed.
- D. Supplemental Restraint Systems (SRS) must be removed.

### 6.13 DASHBOARD

- A. The dashboard must be either stock, fiberglass, or carbon fiber stock appearing replacement.
- B. Dash replacements must be the same dimension, appearance, and position of stock dashboard.
- C. Sheetmetal dashboards are prohibited.

# **6.14 STEERING WHEEL**

Any steering wheel, except wood rimmed, may be used.

# 7 DRIVER'S SAFETY EQUIPMENT

### 7.1 HELMET

- A. All occupants must wear a safety helmet during on-track sessions. Only helmets certified to meet the following standards are permitted.
  - 1. Snell Memorial Foundation SA2010, SAH2010, SA2015
  - 2. SFI Foundation Spec 31.2A
  - 3. FIA 8860-2004, 8860-2001
- B. Full-faced helmets are required.
- C. Helmet visors must be closed during on-track sessions.
- D. Helmet chin straps must be buckled or fastened while on course.
- E. Hair protruding from beneath a driver's helmet must be completely covered by fire-resistant material Driver's with facial hair must wear face shields of fire-resistant material (i.e. balaclava or helmet skirt).
- F. Cameras may not be mounted to competitor's helmets.

#### 7.2 DRIVING SUIT

- A. One-piece driving suits are required and must be made of fire-resistant material and certified to SFI spec 3.2/A/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.
- B. Gloves, shoes, and socks are required and must be fire-resistant material and certified to SFI spec 3.3/5 or greater, or FIA 8856-2000 specs.
- C. Articles must be free of holes, tears, or other openings, except those made by the manufacturer of the equipment.
- D. Fire-resistant underwear is recommended.

### 7.3 EYE GLASSES

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

### 7.4 SEATS

- A. All vehicles must have at least one (1) seat, although it is preferred to have two (2); one (1) for the driver, and one (1) for a passenger.
- B. Seat(s) must be homologated to FIA standard 8855-1999.
- C. All vehicles are strongly recommended to have a "Halo style" driver seat for side impact protection. A "Halo style" driver seat will be required starting in 2020. NOTE: The 2019 Formula DRIFT PRO and PRO2 rulebooks both require this.
- D. The usable life of a FIA homologated seat is five (5) years from the date of manufacture indicated on the seat label. Homologation labels must be visible.

#### Sample FIA seat homologation label

In compliance with :
FIA Standard 8855-1999

Manufacturer Name : Name of Manufacturer

Serial n°: xxx xxx

Model : Model Name
Homologation N° : CS.xxx.xx
Date of Manufacture : MAY 2012

# 7.4.1 <u>SEAT SUPPORT</u>

Seat supports shall be of the type listed on FIA technical list No. 12 (lateral, bottom, etc.)

# 7.4.2 MOUNTING HARDWARE

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

# 7.5 SEAT BELTS

All occupants shall utilize a driver restraint system that conforms to these regulations.

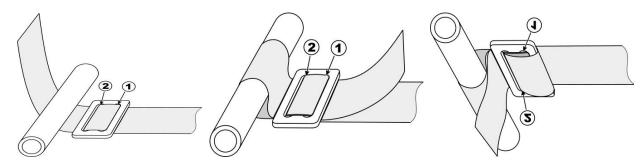
A. All occupants in Formula DRIFT PRO/AM events must utilize either a five-point, or six-point, restraint harness meeting the following specifications at all times during practice, qualifying, and the race.

- B. A minimum five-point system for use in vehicles is required. The system consists of a 2-inch or 3-inch lap belt, 3-inch shoulder straps or 2-inch shoulder straps when used with an approved SFI 38.1 Head and Neck Restraint, and a single or double sub-strap with a minimum 2-inch webbing.
- C. All harness belts must meet either SFI or FIA homologations.
- D. There shall be a single release common to the lap belt, shoulder belts, and sub-strap harness.
- E. SFI certification
  - SFI certification harness systems may be certified to SFI spec 16.1 or 16.5 and shall bear the appropriate label(s) on shoulder belts, lap belts, and sub-straps. Each harness is punched with the year and month of manufacture.
  - 2. SFI certification shall expire two (2) years after the punched month and date on the belt.
  - 3. SFI 16.1 belts must have a 3-inch lap belt. 2-inch Head and Neck Restraint specific shoulders are permitted when used with an approved SDFI 38.1 Head and Neck Restraint.
  - 4. SFI 16.5 belts may have a 2-inch or 3-inch lap belt. 2-inch Head and Neck Restraint specific shoulders are permitted when used with an approved SFI 38.1 Head and Neck Restraint.

#### F. FIA certification

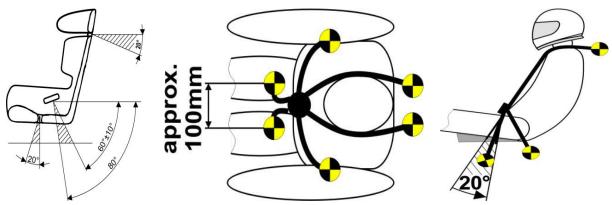
- FIA certification harness systems may be homologated by the FIA to specification 8853/98 and shall bear the appropriate label(s) on each element of the belt. FIA belts are dated with an expiration year with the belts expiring on December 31<sup>st</sup> of the year punched or printed on the FIA tags.
- FIA belts have a certification period five (5) years plus the remaining months of the year purchased.
- G. Regardless of the date of manufacture, the safety harness shall be replaced if the webbing is cut/frayed, if any of the buckles are bent/cracked, if the vehicle has been in a severe impact, or at the direction of the COMPETITION DIRECTOR. If any of these conditions exist, the COMPETITION DIRECTOR shall cut the certification labels off the harness. The team will then have to replace the belt.
- H. Only separate shoulder straps are permitted. "Y-type" and "H-type" configurations are not allowed. Sternum straps connecting the two (2) shoulder belts over the chest are not allowed. The shoulder harness shall be mounted as closely behind the seat back as possible, not to exceed 12-inches. The shoulder harness shall be above a line drawn downward from the shoulder point at an angle of no more than 20-degrees with the horizontal and shall not be above 0-degrees. The shoulder straps shall pass through the seat back when the occupant is seated, without interference (up, down, or side to side), to the attachment points (Figure 13).
- I. The lap belts shall be mounted rearward of the pelvis, between two (2) lines drawn at 45-degrees, and 80-degrees, below the horizonal with the optimum angle of 60-degres (Figure 14). The lap belts shall pass through the seat, without interference, from the attachment points and should ride over the pelvis, just below the pelvic crest, to the buckle. The top of the buckle should be positioned at least 1-inch below the belly button. The lap belt attachment must allow the lap belt to pivot at the mounting point to prevent the webbing from being loaded at an edge when loaded and must pull on the hardware in a plane.
- J. The minimum acceptable bolts used in the mounting of all belt end harnesses are SAE Grade 5. Where possible, seat belt, shoulder harness, and anti-submarine strap should be mounted to the roll structure, or frame of the vehicle. Where this is not possible, large diameter mounting washers or equivalent should be used to spread the load. Bolting through aluminum floor panels, etc., is not acceptable.
- K. The single or double anti-submarine strap shall be attached to the floor structure of the vehicle and have a metal-to-metal connection. Bolts through the floor pan must use a backing plate on the underside of the body. If the chassis does not have a steel floor pan, other provisions must be made to prove a steel plate or bar traversing the frame rails and transmission tunnel of sufficient strength to take a minimum load of at least 1,200-pounds for each mounting point.
- L. All seat belt systems are to be mounted according to the manufacturer's instructions or to the SFI Guide to Seat Belt Mounting (Figure 14).
- M. If "3-bar" adjusters are used for a lap or shoulder belt, they shall be placed as close to the mounting points as possible and must be wrapped with the final loop (Figure 13).
- N. Occupants of convertible vehicles must use arm restraints.

Figure 13.



The figure above is the preferred method for harness attachment to harness bar.

Figure 14.



# 7.6 SEAT BELTS

- A. Competitors may choose to use arm restraints in lieu of windows or a window net.
- B. Competitors with convertible vehicles must use arm restraints.

# 7.7 HEAD AND NECK RESTRAINTS

- A. All drivers are strongly recommended to use a head and neck restraint certified in accordance with SFI 38.1, FIA 8858-2002 or 8858-2010. A head and neck restraint certified in accordance with SFI 38.1, FIA 8858-2002 or 8858-2010 will be required starting in 2020. NOTE: The 2019 Formula DRIFT PRO and PRO2 rulebooks both require this.
- B. SFI 38.1 devices must be recertified by the manufacturer or authorized manufacturer representative every five (5) years. Each certification is good for five (5) years from the month and year punched on the SFI label.
- C. FIA 8858 devices do not require recertification, however, the dating year printed on the tether must not be more than five (5) years old.
- D. After any significant impact, it is recommended that the device tether be replaced.

# 7.8 FIRE SUPRESSION SYSTEM

All vehicles are strongly recommended to have a fire suppression system installed. At minimum, a fire extinguisher is required. NOTE: The 2019 Formula DRIFT PRO and PRO2 rulebooks both require the use of a fire suppression system.

# 7.8.1 FIRE EXTINGUISHER

- A. All cars without a fire system shall have at least a fire extinguisher securely mounted inside within the driver's reach while normally seated, belts fastened, and steering wheel in place. The bracket shall be metal and of the quick release type. The mounting hardware shall be bolted through. Fire extinguisher bottles made of plastic or aerosol-type cans are prohibited.
- B. The following chemicals are allowed:
  - Halon 1301, 1211, or Halotron I, hexafluoropropane, HFC-236a, CC0610, FE-36, two (2) pounds minimum; ABC dry chem., two (2) pound minimum; 10BC potassium bicarbonate (Purple K) or sodium bicarbonate; or 1A10BC multipurpose, ammonium phosphate and barium sulfate or Monnex.
- C. All fire bottles should have a gauge indicating their charge status (which should be in the green range). Any bottle without a gauge should be weighed to determine content. Once a bottle has been even slightly discharged, it should be replaced or refilled.

# 7.8.2 APPROVED FIRE EXTINGUISHER SYSTEMS

- A. Those approved by the FIA on Technical List Number 16 or certified to SFI Spec 17.1
- B. NOTE: While FIA Technical List Number 16 lists the systems approved by the FIA, Section 3 of FIA Technical List Number 6 lists the minimum amounts of extinguishant needed depending on the type of extinguisher system being used. As a minimum, teams shall use the minimum amount of extinguishant listed for the driver's compartment and engine of Category N, A, and B vehicles.
- C. All systems must be equipped with a means of checking the pressure of the contents. This does not apply to non-pressurized systems with a CO<sub>2</sub> propellant cartridge.

# 7.8.3 INFORMATION THAT MUST BE VISIBLE ON THE CONTAINER

- A. Capacity.
- B. Type of extinguishant.
- C. Weight or volume of the extinguishant.
- D. Date the extinguisher must be checked, which must be no more than two (2) years after the date of filling, or the date of the last check.

#### 7.8.4 FIRE SYSTEM MOUNTING

- A. All extinguishers must be adequately protected and must be situated within the driver's compartment.
- B. In all cases, their mountings must be able to withstand a deceleration of 25 g.
- C. All extinguishing equipment must withstand fire.

#### 7.8.5 TRIGGERING DEVICES

- A. Any triggering system having its own source of energy is permitted, provided it is possible to operate all extinguishers should the main electrical circuits of the vehicle fail.
- B. The driver, when seated normally with the safety belts fastened, and the steering wheel in place, must be able to activate the fire system, by means of a spark proof breaker switch, or a manual push/pull apparatus.
- C. This switch/apparatus must be located on the dashboard, or center console, and must be marked with a letter "E" in red, inside a white circle of at least 2-inches in diameter with a red edge.
- D. If the fire system activation switch used by the driver is located within 12-inches of one of the front door window openings, a second fire system activation switch is not necessary.
- E. Otherwise, a second fire system activation switch/apparatus must be fitted for external access.
- F. The approved locations for the second switch are along the A-pillar or on the windshield cowl in close proximity to the master electrical cut-off switch.
- G. It also must be marked with the letter "E" in red, inside a white circle of at least 2-inches in diameter with a red edge.

# 7.8.6 NOZZLES

- A. The nozzles shall be of the same number and type as those specified by the manufacturer for use with the type of extinguishant being used in the system.
- B. Additionally, the nozzles shall be in the locations specified by the manufacturer.

### 7.8.7 SAFETY PINS

All fire safety pins must be removed while staging, grid, and on course.

# 8 TIRES

# 8.1 TIRE REGULATIONS

- A. Front and rear tires are limited to a maximum of 260mm measured with Formula DRIFT tire tool.
- B. Tires must be used unmodified; filing, buffing, or any other disguising of tire sidewall is prohibited.

# 8.2 TIRE MEASURING PROCEDURE

- A. Rear tires will be measured while on the vehicle, on the ground, in a ready-to-drive state.
- B. Tires will be measured across the width of the tread 3-inches up from where the tread meets the ground, from the rear of the vehicle.
- C. The measuring device is a flat sliding ruler with legs extending out from the flat at 45-degrees. With the legs contacting the sidewall, and the flat contacting the tread, the dimension defined by the scale is the measured width of the tire.
- D. The official measuring tool is available directly for purchase directly from Formula DRIFT.

### 8.3 TIRE MODIFICATION

- A. Any attempt to modify tires in any manner is prohibited. "Grooving" or "shaving" of tires is prohibited.
- B. The use of traction compounds or any other substance that may alter the physical properties of the tire are prohibited.
- C. Tire warmers or any other means of artificially altering the tire temperatures are prohibited.
- D. Tire balancing with fluids or internal loose weights is prohibited.

# **RECORD OF REVISIONS**

RELEASE	UPDATE
2019.1	Removed exact year and model requirements for rear subframes and crossmembers.