



REGULATIONS 2020



**OTA**

ONTARIO TIME ATTACK

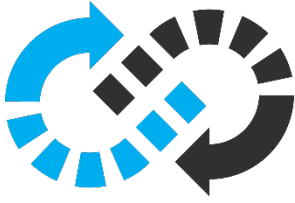
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PS: For last minute updates please monitor our website:  
<http://www.time-attack.ca>

**Revision 1, Publish date: May 28, 2020**

**2020 Sponsors updated, added ECE R22.05 helmets**

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<http://casc.motorsportreg.com>

### **WEB PAGE**

[time-attack.ca](http://time-attack.ca)

### **FIND ALL OTA-RELATED NEWS**

<https://linktr.ee/ontariotimeattack>



Best 5 of 6 Events Count for 2020 Ontario Time Attack Championship

**SCHEDULE**

Date	Day of Week	Event	Location
<b>Postponed</b>	Saturday	Open House	JRP
<b>Cancelled</b>	Saturday	School #1	DDT
May 31	Sunday	Event #1	DDT
June 27	Saturday	School #2	CTMP
June 28	Sunday	Event #2	CTMP
July 11	Saturday	Raw Time Challenge	CTMP
July 25	Saturday	Event #3	TMP
Aug 29	Saturday	Event #4	SMP
Aug 30	Sunday	Event #5	SMP
Sept 12	Saturday	Event #6	TMP

**COVID 19 Alert: Watch for schedule announcements on an event by event basis. We will run as many events as government regulations and competitor registrations permit**

**ONLINE EVENT REGISTRATION**

<http://casc.motorsportreg.com>

- CTMP – Canadian Tire Motorsport Park Grand Prix Track
- DDT – Canadian Tire Motorsport Park Driver Development Track
- SMP – Shannonville Motorsports Park
- TMP – Toronto Motorsports Park

# 2020 ONTARIO TIME ATTACK EVENT REGULATIONS



## INTRODUCTION

These Rules and Regulations are designed to provide for the orderly conduct of Ontario Time Attack events (herein referred to as OTA) and to establish minimum acceptable requirements for such events. The Rules and Regulations of Sections 1, 2 and 8 shall govern the conduct of all Canadian Automobile Sport Clubs – Ontario Region (CASC-OR) OTA events. By registering for these events, all participants shall be deemed to have understood and contracted to abide by these Rules and Regulations. They are intended as a guide for the conduct of the sport and are in no way a guarantee against injury or death or property damage to participants, spectators, or others.

Competitors are reminded that participation in any form of motor sport involves a certain level of risk. This level of risk is accepted by the competitor whenever they enter an event. CASC-OR-OTA events held under these rules must adhere to the safety requirements herein. Though the safety standards are adequate for this type of sport, it is ultimately the competitor's responsibility to ensure their own safety and the safety of those around them. Modification allowances defined in the CASC-OR-OTA rules may require installation/fabrication by qualified individuals. If you lack the tools or knowledge to attempt such modifications, please consult those who have the expertise to properly modify your vehicle. CASC-OR-OTA assumes no responsibility or liability for any results attained by consulting this rulebook. Due to the passage of time, these Rules and Regulations will be subject to change. Competitors are warned that they should check with their local CASC-OR-OTA representative before using this book to prepare a vehicle for the series. Requests for clarification **MUST** be submitted to the CASC-OR-OTA Director in writing. Other than provided by the General Competition Rules, only the OTA Director can rule on rule book clarification unless other arrangements have been issued in writing.

These regulations are intended to assist in the conduct of Competitions and to further general safety. They are a guide and in no way guarantee against injury or death to participants, spectators or others. No express or implied warranties of safety or fitness for a particular purpose shall be intended or result from publication or compliance with these regulations. By participation in these competitions all participants are deemed to have agreed to comply with these regulations.

## RULES APPLY TO ALL CASC-OR TIME ATTACK EVENTS

Each OTA event in Ontario Region must comply with Section 1, 2 and 8 while Sections 3 to 7 apply to all Regional Championship events and are optional for all other OTA events. This is to say all OTA events (definitions below), including informal club level events, must comply with Section 1, 2 and 8 in order to be covered by Club Insurance.

## ORDER OF PRECEDENCE

The precedence of Regulations shall be as follows:

1. CASC-OR General Competition Rules (GCRs)
2. Regulations of the CASC-OR Competition  
(2020 Ontario Time Attack Event Regulations)
3. CASC-OR Bulletins
4. Series Supplementary Regulations (if applicable)
5. Event Supplementary Regulations
6. Instructions from Officials

Event Supplementary Regulations shall not contradict these Ontario Time Attack Event Regulations **without written approval of the CASC-OR Time Attack Director.**

The official version of the **2020** Ontario Time Attack Event Regulations is the published copy, located at: <http://time-attack.ca/rules/>

## DEFINITIONS

Time Attack: One-car-at-a-time speed events, held under these OTA Regulations, where speeds reach those of racing. Competitor and spectator safety are of highest concern. Events include time trials, sprints, driving schools, testing and practice days and any other event held under these Regulations except a defined Solo 2 event and never drag races.

## CAR CLASSIFICATION PRINCIPLES

### 1) IPAX Classification System

Fundamental Assumptions

- 1) OTA vehicle performance potential can be predicted based on three factors: weight, horsepower and handling index. For the sake of consistency, "curb weight" is the measure of weight used for production vehicles. For the sake of consistency "rated power" is the measure of power for production vehicles. Handling index is an arbitrary factor, related primarily to the chassis refinement, that is used to adjust the classification of stock vehicles to be reflective of their performance potential in stock trim.
- 2) Performance potential means the best possible lap time that can be expected from a car that has been optimally prepared within the rules, driven by an excellent driver over a familiar course.
- 3) The OTA car classification system is based on a Performance Index model in which each class is 5 Performance Index Points (PIPs) wide.
- 4) The OTA car classification system strives to be a linear system in which adjacent classes are separated by a constant increment in performance potential (approximately 1 second on a 75 second lap time).

Guiding Principles

- 1) OTA is a grass-roots form of racing, intended primarily for stock and moderately modified street-legal vehicles on DOT legal tires; accordingly, the classification rules shall concentrate on this vehicle demographic. Although other vehicles are permitted to compete, cars which have been prepared for wheel-to-wheel racing series, purpose-built cars and highly modified cars challenge the basic assumptions of the classification system and may be punitively classified.

- 2) Modifications that significantly affect the performance parameters (weight, power, and chassis refinement) shall be charged PIPs commensurate with their effect on performance potential. In all cases when assessing the performance potential of a modification it shall be assumed that the optimum implementation of a modification has been accomplished.
- 3) The OTA car classification system strives to be mathematically consistent with respect to weight changes. In other words, PIPs assigned to modifications primarily affecting the weight of a vehicle shall affect the car's classification in a way that reflects the actual weight change that can be expected for such a modification. Where necessary actual race weights may be permitted.
- 4) The OTA car classification system strives to be mathematically consistent with respect to power changes. In other words, PIPs assigned to modifications primarily affecting the power of a vehicle shall affect the car's classification in a way that reflects the actual power change that can be expected for such a modification. Where PIPs cannot be expected to accurately predict power actual measured dyno power values may be permitted.
- 5) The OTA car classification system strives to be mathematically consistent with respect to suspension changes. In other words, PIPs assigned to modifications primarily affecting the suspension (i.e., chassis refinement) of a vehicle shall affect the car's classification in a way that reflects the actual benefit in performance potential for such a modification. Further, the classification system assumes that all fully developed race suspensions converge toward a common performance potential, regardless of the basic design.
- 6) The OTA car classification system strives for simplicity to the extent possible. Modifications that result in small performance potential gains (e.g., intakes), or are primarily intended to improve safety (e.g., brakes), or are logistically convenient may be declared zero PIP modifications.
- 7) As a general rule, PIPs are assigned based on the assumption that a modification is fully optimized to produce the greatest possible performance benefit. No credit is given for modifications that are not optimized (whether intentional or not). The classification system shall not split hairs. Modifications that earn PIPs must be clearly defined and have a significant performance benefit. If a given class of modification is to be given a graduated PIP scale, the graduations must be clearly defined, and they must correspond to distinctly different levels of performance potential.
- 8) The OTA car classification system expects safety and will not reward unsafe practices. This said, safety is its own reward and the classification system shall not use negative PIPs to further a safety agenda (e.g., a HANS device may provide additional safety, but it has no performance benefit so cannot be assigned a negative PIP value). Examples of how safety is encouraged are:
  - a) All brake modifications are zero PIP.
  - b) Rollover protection is given negative PIP values that reflect the weight penalty incurred so that competitors are not penalized for their use.



## **2) RAW TIME CHALLENGE**

- 1) The RTC classification System is intended to be comparable to the rulesets used in other popular North American Time Attack Series in order to provide the opportunity for vehicles built to those rulesets to compete in OTA events using a similar format

## **3) GENERAL**

- 1) OTA accepts no responsibility as to the safety of any competing vehicle, nor as to the safety of any modifications made to any competing vehicle. All competitors must submit a safety check list before each weekend or event which indicates the competitor's certification that his/her car is safe for racetrack use.
- 2) The OTA car classification system is intended to provide a level playing field for all optimally prepared cars in the target demographic; however, it recognizes that not all cars can be competitive at all levels of preparation.
- 3) All rules shall be written in a manner such that their meaning and intent is clear. Where exceptions or individual rulings must be made due to unique circumstances the intent of the rules shall be maintained.

## SECTION 1: SAFETY AND COMPETITION

### 1.0 HELMETS and HEAD / NECK RESTRAINTS

- 1.0.1. Drivers and passengers must wear helmets during all track sessions. Helmets may be either open faced or closed face.
- 1.0.2. Acceptable helmets:
- FIA 8860-2004 (expiry Dec 31 2020)
  - **FIA 8860-2010 (or newer) (expiry TBD)**
  - FIA 8860-2018
  - Snell 2010 SA, 2010 SAH, or 2010 M
  - Snell 2015 SA, 2015 M or newer
  - SFI Foundation 31.1/2010
  - SFI Foundation 31.1/2015 (or newer)
  - **ECE R22.05 (Not for roll caged cars, expiry 10 years after date of manufacture on an unaltered helmet label)**
- The scrutineer may accept helmets meeting comparable standards to those listed above. Helmets bearing only “DOT” marking are not acceptable.
- 1.0.3. Helmets homologated to Snell M or ECE R22.05 standards are not acceptable for use in vehicles equipped with roll cages.
- 1.0.4. Helmets must be in good condition both inside and outside.
- 1.0.5. It is strongly recommended that helmets be discarded due to deterioration, after a serious accident or an impact to the helmet.
- 1.0.6. No helmet may be modified from its specification as manufactured, except in compliance with instructions approved by the manufacturer. Hardware may be mounted on a helmet for FIA/SFI approved HANS/FHR devices, provided the hardware is installed in accordance with recommendations provided by the manufacturer of the helmet and/or the devices.
- 1.0.7. Paint can react with helmet shell material and affect its protective capacity, therefore, where a manufacturer provides guidelines or restrictions on the painting or decoration of helmets, these must be followed.
- 1.0.8. It is highly recommended that competitors use a FIA or SFI FHR (Frontal Head and Neck Restraint.)

### 1.1. RESTRAINT SYSTEMS / SEAT BELTS AND SEATS

Safety Equipment Type	OE Structure	Harness Bar	CASC-OR Legal Roll Bar	CASC-OR Legal Roll Cage
OEM 3 Point Belt	Approved	Approved	Approved	No
FMVSS 209 4 Point Belt with ASM	Approved	Approved	Approved	No
FIA 4-point Belts with ASM	No	With FHR	With FHR	No
SFI or FIA 5- or 6-point Belts	No	With FHR	Approved	Approved
Snell M2010+ Helmet	Approved	Approved	Approved	No
Snell SA2010+ Helmet	Approved	Approved	Approved	Approved
SFI 31.1/2010+ Helmet	Approved	Approved	Approved	Approved
FIA 8860-2004/2018+ Helmet	Approved	Approved	Approved	Approved
OEM Seat with Whiplash Protection	Approved	Approved	Approved	No
Reclining Sport Seat (recommend ECE 17 or FMVSS208 std.)	Approved	Approved	Approved	No
SFI approved or FIA homologated fixed back seats	Approved	Approved	Approved	Approved

1.1.1. All safety equipment must be in good working condition. Examples given, but not limited to, no impacts to helmets, no strain marks or tears in belt webbing, seats must be free of structural cracks, etc.

1.1.2. All safety equipment must be installed per the safety equipment manufacturer's recommendations and must be approved for the vehicle in which it is being installed. See Appendix A for non-OE safety equipment installation requirements.

1.1.3. Recommended or required standards:

1. Two-point (vintage) belts must be upgraded to three-point meeting FMVSS209 or ECER16.04 standards.
2. All three-point belts must meet FMVSS209 or ECER16.04 standards.
3. Four Point belts must meet FMVSS209 or ECER16.04 standards, be approved by the manufacturer for the vehicle, and have an integrated Anti-Submarining Mechanism from the manufacturer. Note that some "Tuner" belts do not meet these standards. Burden of proof for validity and correct installation is on the driver of the car.
4. Five- or Six-point belts consisting of two shoulder straps, two waist straps and one or two crotch strap(s) must meet one of the following standards: SFI 16.1, 16.2, FIA 8853-98 or newer.

Belts must be within the SFI or FIA recommended validity dates. For SFI belts, two years from the date of manufacture indicated on the SFI label. For FIA standards belts, before the date of expiry on the FIA label.

1.1.4. Belts must be used in complete original sets; e.g.: lap belts from one set cannot be used with shoulder belts from another set.

1.1.5. "CG-Lock" devices are permitted. Other devices that lock the lap belt portion of the stock seat belt in place may be permitted if approved by the scrutineer.

1.1.6. An additional lap belt may be worn over some stock seat belts during competition to help restrain participant movement. Only a lap belt can be used for this purpose; i.e.; no shoulder straps, and the additional lap belt shall not interfere with the operation of the stock restraint system.

1.1.7. Any vehicle equipped with non-DOT racing slicks shall meet all safety regulations requirements for MOD1.

1.1.8. **Competitors choosing to modify any aspect of the factory installed system of seatbelts and airbags in their particular vehicle shall take the necessary steps to completely understand the effect of the modification on the operation of the entire system for their particular year, make and model of vehicle. Specifically, the competitor shall determine whether the modification to the factory installed occupant restraint system affects any other aspect of the occupant restraint system on which the competitor chooses to rely. On some vehicles, the entire occupant restraint system is disabled by the removal or modification of a single component. As an example of what this means, the removal of an air bag equipped steering wheel or OEM seat may also render the factory seat belt pre-tensioners inoperative. While**

these regulations do not require that competing vehicles be equipped with functioning air bags, a competitor choosing to use the factory seatbelt system during competition shall ensure that the factory installed seatbelt system remains fully operational, including seat belt pre-tensioning devices, where equipped. If the factory seatbelts are not fully operational, other permitted driver restraint systems shall be used during competition. As a practical matter, for competitors with certain types of vehicles, this may mean that use of a factory seatbelt during competition also requires the factory airbag system to remain intact and unmodified.

### **1.1.9. BOLT-IN HARNESS BAR SYSTEM (HBS)**

The purpose of installing a bolt-in HBS is to permit the competitor the option of wearing a properly installed FIA 8854/98 approved 4-point ASM (Anti Sub Marining) belt system or an OTA listed 5 / 6 point belt system with a SFI 38.1 or FIA 8858-2002 or newer Frontal Head Restraint, without the need of installing a Roll Bar or Roll Cage in their street vehicle. The FHR must be used if the competitor is using the harness bar for restraint.

A bolt-in HBS is permitted subject to the following:

1. It is the competitor's sole responsibility to ensure that the HBS is both properly installed and capable of withstanding the sudden load forces that can be generated as a result of an impact, collision or any other type of incident.
2. The HBS shall be commercially manufactured with the highest workmanship. It must be rated by the manufacturer as capable of withstanding a minimum of a 6600 lbs. load applied through the shoulder belts, without failure.
3. The main bar shall cross between the B-pillars behind the driver's seat at a height that places the shoulder belts at a downward angle of 0 to 20 degrees. The distance behind the driver's seat shall be kept to a minimum but not more than 10". The main bar shall incorporate properly spaced loops or threaded bobbins to locate the shoulder belts as recommended by the seat belt and FHR manufacturer.
4. To help achieve the necessary main bar strength, it shall be either reinforced along its entire length or alternatively it may have a third or fourth attachment brace partway along its length. Each brace shall be bolted separately to a rear seat belt inner attachment point.
5. The main bar shall be attached at each end to an intermediary plate of at least 6 mm thickness. The intermediary plate shall be bolted as close as possible to the B-pillar upper seat belt attachment points.
6. Each HBS shall incorporate an anti-rotation device to prevent the main bar from rotating under load. When rods are used for this purpose, one end of the rod shall be attached to the intermediary plate or bar, the other end of the rod shall be bolted to either a rear seat belt outer attachment point, a front seat belt outer attachment point or a front seat floor mount attachment bolt.
7. All seat belt attachment point bolts shall be 7/16" fine thread of at least grade 8 or OE spec.
8. For a vehicle without rear seat belt attachment points, the braces are to

be attached to mounting plates which are either welded or bolted to the chassis. These mounting plates shall be the same specifications required for an OTA approved Roll Bar.

9. The Chief Scrutineer may deem other HBS designs acceptable, however such design must meet and exceed the USA National Highway Traffic Safety Administration DOT and SAE J385 Rev. MAR 95, Motor Vehicle Seat Belt Anchorages-Performance Requirements.

## **1.2. FIRE SAFETY**

1. While operating their vehicle on the track, all competitors and passengers, shall wear long sleeved shirts, long pants, fully-enclosed shoes and socks (no sandals, crocs, etc.). It is recommended that these be made from natural fabrics (i.e. wool, linen, silk and cotton) that are more resistant to flame than a blend or synthetic. These are listed from the most to the least flame retardant provided they are close knit and uncoated.
2. All competitors driving 'Modified 1' or Unlimited RTC class vehicles, except those whose vehicles are licenced for street use and are competing on DOT approved tires, shall wear single layer Nomex (or better) gloves and driving suit in good condition.
3. All competitors driving 'Open Modified' class vehicles shall wear the driver safety equipment mandated by the CASC-OR Race Regulations. This includes but is not limited to: an approved helmet, and the following items made of fire-resistant material approved by ASN Canada, FIA, SCCA or SFI: gloves, underwear, shoes, two-layer one-piece driving suit, balaclava and socks.
4. It is recommended that all competitors while marshaling wear long sleeved shirts, long pants, fully-enclosed shoes and socks (no sandals), all made from fabrics as referenced in 1.2.1.
5. Fire suppression or personal use extinguishers may be used. They must be securely fastened and not be able to become a projectile.  
Fire suppression is recommended for cars with roll cages.

## **1.3 ROLL OVER PROTECTION – ROLL BARS AND CAGES**

1. A roll bar's purpose is to help protect a driver if the vehicle rolls over. A roll bar is required for:
  - i) vehicles with fold down or completely removable tops (e.g., convertibles)
  - ii) vehicles that have accumulated 25 PIPs or more from their starting PI, excluding aero and tire PIPs.
  - iii) vehicles using non-DOT approved racing slicks (see 5.1A2.4)
  - iv) vehicles with a Performance Index (PI) of 110% or greater
  - v) 'Open Modified' class vehicles
2. All roll bar installations are subject to the approval of the Chief Scrutineer. The Chief Scrutineer may approve roll bar installations that meet other recognized standards.

## DESIGN

- 3 The roll bar shall be designed to withstand compression forces resulting from the weight of the car coming down on the roll structure and to take fore and aft loads resulting from the car skidding along the ground on the roll bar structure.
- 4 The roll bar will have a minimum of four pieces of same diameter and tubing thickness:
  - i) A main hoop formed from a single piece of tube, die bent with no crimps and a maximum of four radiused bends, spanning the full width of the cockpit. Radii shall be at least three times the tube diameter. It shall reach a minimum of two inches above the driver's helmet or as close to the roof as possible while not deviating more than 10 degrees from vertical. It shall not be more than 254mm / 10" behind the driver's helmet.
  - ii) Diagonal bracing which shall be either:
    - a) A straight diagonal brace in the plane of the main hoop running from one main hoop upper corner (typically along the horizontal portion, just inboard of the upper corner radius) to the opposite side vertical tube as close as feasible to the floor mounting plate. It is highly recommended that the tube ends be within 100mm / 4" of a backstay and a mounting plate. (This configuration is required if the plane of the main hoop is not obstructed) or,
    - b) In instances where the plane of the main hoop is obstructed by essential equipment such as a driver's seat, two diagonal braces running from the top of the main hoop to the fore/aft braces as close as feasible to the aft mounting plates. An example is the M2 Hard Core roll bar for the 1999-2005 Mazda Miata MX-5 manufactured by Bethania Garage ([www.bethania-garage.com/m2\\_hardcore.htm](http://www.bethania-garage.com/m2_hardcore.htm))
  - iii) Two (2) straight fore/aft braces attached as near as practical to the top of the main hoop, no more than 150mm / 6" below the horizontal portion of the main hoop. They must be mounted as close as possible to the side panels and form an angle of at least 30° with the vertical.

## MATERIAL

- 1 The roll bar hoop and all braces shall be of seamless or ERW or DOM mild steel tubing, or high strength alloy steel such as chrome molybdenum SAE 4130 or BS4- T45. It is recommended that mild steel tubing be used as chromium alloys present difficulties in welding and shall be normalized to relieve stress. Proof of the use of alloy steel will be the responsibility of the Entrant.
- 2 The minimum size seamless or DOM tubing to be used shall be as follows:

Curb Weight	Mild Steel	Alloy Steel
Up to 1500 lbs.	1.375" x 0.095"	1.375" x 0.080"
1501-2500 lbs.	1.500" x 0.095"	1.375" x 0.095"
Over 2500 lbs.	1.500" x 0.120"	1.500" x 0.095" Or 1.750" x 0.095"

- 3 ERW tubing may be used in the following sizes only.

Curb Weight	ERW Tubing
Up to 2500 lbs.	1.500" x 0.120"
Over 2500 lbs.	1.750" x 0.120"

- 4 The minus tolerance for wall thickness shall not be more than 0.25mm / 0.010" below the nominal thickness.
- 5 An inspection hole of at least 3/16-inch diameter shall be drilled in a non-critical area of the main hoop to facilitate verification of wall thickness

## MOUNTING

- 1 Where bolts and nuts are used to fasten the roll bar to the vehicle's chassis or frame (i.e., bolt-in roll bar), the bolts shall be at least 3/8-inch diameter SAE Grade 5.
- 2 Where welding is used to fasten the roll bar to the vehicle's chassis or frame, all welds shall be of the highest possible quality with full penetration. Arcwelding, particularly heliarc, shall be used whenever possible. Alloy steels shall be normalized after welding per supplier recommendations.
- 3 In cars with frame type construction, the roll bar and braces shall be attached to the frame of the car wherever possible. Mounting plates attached to the frame, regardless of whether welded or bolted, shall be at least 3mm or 1/8 inch thick.
- 4 In the case of cars with unitized or frameless construction, or cars with frames where frame mounting of the roll bar and braces is impractical, mounting plates shall be used to secure the roll-bar structure to the floor of the car. The minimum mounting plate area shall be 120mm<sup>2</sup> / 18.6 in<sup>2</sup>. The important consideration is that the loads be distributed over as large an area as possible and as close to vertical structures as possible. Mounting plates bolted to the structure shall not be less than 3mm or 1/8-inch-thick with a backup plate of equal size and thickness on the opposite side of the panel with the plates through bolted together.

Wherever possible, the mounting plate should extend onto a vertical section of the structure such as a door pillar to form multiple planes of attachment. Tubes can be notched to attach on multiple horizontal / vertical planes to reduce likelihood of lateral shearing of the tube from a mounting plate or a mounting plate punching vertically through the floor or other panels.

## PADDING

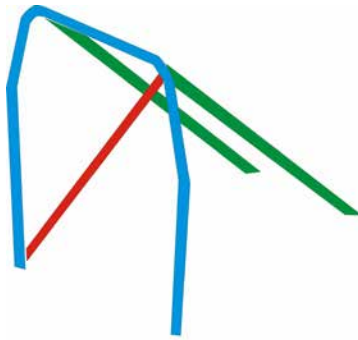
- 1 Forward braces and portions of the main hoop subject to contact by the driver's helmet (with the driver seated normally and restrained by seat belt/shoulder harness) shall be padded with foam meeting SFI or FIA standards for roll bar padding. High density Ensolite or Ethafoam may be deemed acceptable for cars built to other recognized competition rulesets.
- 2 A system of head restraint to prevent whiplash and to prevent the driver's head from striking the underside of the roll bar hoop shall be provided. The head restraint shall be capable of withstanding a force of 200 pounds in an aft

direction. It is recommended that a headrest of approximately 230 cm<sup>2</sup> / 36 in<sup>2</sup> with resilient padding two inches thick be used.

#### ADDITIONAL INFORMATION

- .1 A Roll Cage is not required but is recommended for any car that requires roll over protection. FIA Article 253 for current year homologations is recommended for aid with cage design and specification, or CASC-OR Race rules available at: <http://www.casc.on.ca>

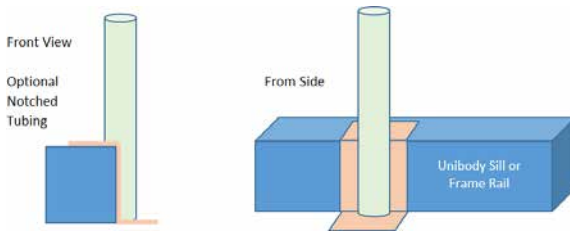




Blue = Main hoop with maximum four bends  
 Green = Rear Stays, greater than 30° angle  
 Red = Minimum one diagonal within 100mm of base and upper radius



Sample multi-plane Mounting Pad



## **1.1. ROLL OVER PROTECTION – GENERAL**

1. Windows of the driver and passenger door shall be completely up or completely down. If down, the use of window nets or SFI approved arm restraints by the driver (and passenger, if applicable) are highly recommended.
2. Sunroofs, moonroofs and T-tops shall be in the closed and locked position.
3. Vehicles with fold down or completely removable tops (e.g., convertibles) shall have those tops in the up and locked position.
4. In vehicles without tops, the use of window nets or SFI approved arm restraints by the driver (and passenger, if applicable) are highly recommended.
5. If window glass is removed it shall be replaced with acrylic (e.g., Plexiglas) or polycarbonate (e.g., Lexan) material.
6. If the OE windshield is removed, it shall be replaced with polycarbonate (e.g., Lexan) of 6 mm minimum thickness of identical size and curvature as the original. The windshield shall be supported by three inner supports to prevent the windshield from collapsing inward. These supports shall be 0.75" x 0.125" min aluminum straps with a minimum spacing of 8" between straps.
7. Any car that has a modified windshield will require approved roll over protection. Any car that has a windscreen only will also require approved roll over protection

## **1.2. VEHICLE REQUIREMENTS**

All vehicles and equipment shall be acceptable to Scrutineering at all times. Organizers may refuse a non-classified vehicle if the Organizer believes the vehicle is unsafe. Organizers may exclude any vehicle based on technical inspection or Scrutineering. The vehicle shall meet the following basic requirements:

1. A wheelbase of 208 cm (82") or longer; front and rear tracks of 107 cm (42") or wider for cars in all classes except Open Mod. Open Mod minimum wheelbase is 183 cm (72"). The maximum permissible height of competing vehicles is 160 cm (63"). Please note that this prohibits most SUVs, Pickup trucks and similar from competing in OTA.
2. All competing vehicles must be at least as wide as they are tall. Height is defined as the tallest point of the vehicle as measured from the ground with the tires at recommended pressures and width is defined as the measurement taken from the outside of the left front tire contact patch to the outside of the right front tire contact patch.
3. Four road wheels of 10" diameter or larger. and four pneumatic tires in good condition, having no blemishes or under tread material showing and a proper working tandem (or dual) hydraulic braking system for all four wheels that can only be operated by a single purpose control.
4. An enclosed driver protection structure, complete with exterior panels, up to at least waist level when seated in the appropriate driving position. Exterior panels shall be made of metal, glass reinforced plastic or fire-resistant material, except when the panels are 'OE'.

- 5 Use only hydrocarbon-based gasoline or diesel fuel, including biodiesel, fuel containing ethanol, or any additives (e.g., propylene or other octane boosters) added directly to the 'OE' fuel tank. Any external (to the 'OE' fuel system) source of fuel or fuel additive is prohibited, including nitrous oxide systems and propane.
- 6 An operational, on board self-starter and shall be able to idle on the grid (i.e., without overheating) for reasonable periods of time without affecting the conduct of the event.
- 7 Battery location is free within the bodywork provided Rule 5.1.C.17 is abided. Flooded lead acid type batteries located in the driver/passenger compartment shall be in a nonconductive marine-type container or equivalent. The hot terminal shall be insulated. All batteries shall be attached securely to the frame or chassis.
- 8 Hubcaps, centre caps, wheel disks and trim rings, not bolted to the wheels, are removed.
- 9 Be equipped with coolant catch tanks. Crankcase breather tubes shall not vent onto the track but into an adequate size catch can.
- .10 Passes all safety inspections.
- .11 To maintain a professional appearance, licence plates shall be either completely removed or completely visible during competition. Ad hoc covering with masking tape or equivalent is not permitted.
- .12 Be equipped with at least one functional rearview mirror.

### **1.3. COMPETITOR ELIGIBILITY**

- 1 To be eligible to compete, a competitor shall be a full member of a CASC-OR affiliated club and hold a valid CASC-OR Time-Attack Competition Licence or a Competition Licence Grade C or higher. A competitor must be legally licenced to drive a motor vehicle on a highway in Ontario. A competitor who holds a Competition Licence issued by another recognized racing association and is not a member of a CASC-OR affiliated club may compete, but they will not be scored in the Ontario Time Attack Championship Series. A Competition Licence is not required for attendance as a student at a school, or at the school portion of a combined school/race, but the student shall be a full member of a CASC-OR affiliated club.
- 2 All competitors, officials, workers, volunteers and passengers shall read and sign the insurance waiver before being allowed into a restricted area (e.g., timing vehicle, marshal post or other non-public area) or to compete in the event.
- 3 A competitor may only enter an event once. However, any single vehicle may be entered by a maximum of two drivers.
- 4 Each entrant/driver shall be responsible for the conduct of their crew.
- 5 Competitor help is essential for the success of events. Organizers may require competitors to marshal and may exclude one or more results or deny runs of those who do not fulfill requested duties.

- 6 Consumption of alcoholic beverages at an event by any driver, entrant, crew member or official before the absolute and total end of all the day's on-track activities are expressly forbidden.
- 7 Each competitor shall present upon demand, by any race official or fellow competitor, a copy of their car's classification declaration on paper for inspection (including, if applicable, a dyno declaration). Any competitor who is unable to provide such documentation shall be scored in Modified, typically Modified 1 class at the event in question.
- 8 All competitors must attend the driver's meeting, unless prior arrangement has been made with the Organizer, to be allowed to compete. This is for the safety of both the competitor and the other entrants.

#### **1.4. PASSENGERS**

- .1 Passengers may be carried in the front passenger seat only during the lapping sessions, provided they have read & signed the appropriate waivers. No passengers will be allowed during competition runs.
- .2 Minors (those under the age of majority for the province where the event takes place) can ride as a passenger, provided they have the consent of the organizer and their Parents/Guardians have signed the Underage Waiver. Minors are subject to the following requirements:
  - a) May not ride in competition, only in lapping or fun runs;
  - b) May ride with Parent or Guardian only;
  - c) Helmet and seat belt shall fit the minor correctly;
  - d) Seat belt shall comply with Section 1.1;
  - e) Shall be at least 14 years old.
- .3 Passengers shall wear safety equipment as required for the driver and shall keep their hands and arms inside the vehicle at all times. Passengers shall not carry items such as food, drink, cameras, video recorders, purses, etc.

#### **1.5. DRIVING AND SCORING**

- .1 Only the competitor's fastest lap including penalties shall be scored (unless otherwise indicated).
- .2 A competitor's score for a lap shall be recorded in seconds and fractions of seconds.
- .3 Elapsed times and penalties for each run by each competitor shall be posted continually throughout the event.
- .4 A DNS (Did Not Start) is given if the competitor fails to leave the start position when directed to do so by the Clerk of the Course. All of the laps of that run shall be recorded as a DNS.
- .5 A 2WO (Two Wheels Off) is given for two or more full wheels simultaneously leaving the track surface during a run, including warm-up and cool-down laps. A 200 second penalty shall be applied against all laps in a run where a 2WO is given. The track surface includes the curbing but not past the curbing where it exists.

- .6 A non-competing vehicle is defined as a vehicle that:
  - i. has gone 2WO (see 1.8.5)
  - ii. has gone 4WO, has stopped off course in a safe place and remains there until the session ends,
  - iii. is on a cool-down lap, or
  - iv. as voluntarily stopped competing by slowing down and signaling following cars to pass and/or signaling that they are returning to the pits.
- .7 A DNF (Did Not Finish) is given if, during a competitor's run, the vehicle leaves the course through the official exit. The remaining laps of the run will be recorded as a DNF. Completed laps will count provided no other competitor was impeded by the DNF vehicle exiting the course.
- .8 Should a vehicle break during a run, no rerun shall be allowed. However, the driver may complete his/her remaining run(s) in another vehicle providing the vehicle is in the same class.
- .9 A two (2) driver, single vehicle entry shall have a minimum of five (5) cars run between their numerical order runs or the equivalent amount of time shall be allowed to pass.
- .10 The class and PI of a vehicle may not be changed after the start of the competition (first car on the track) unless approved by the Steward(s) of the event.
- .11 If there are additional runs to be added to the original published program, it shall be announced before any competitor starts their originally scheduled final run.

## **1.6. RERUNS**

- .1 A rerun is only granted when authorized by the Clerk of the Course.
- .2 When a rerun is granted, it shall be taken a minimum of five (5) cars after the competitor's original run, or after the equivalent amount of time has been allowed to pass.
- .3 A rerun shall only be for the number of timed laps affected.
- .4 If a competitor is red-flagged or white-flagged while on their run, a rerun may be granted provided the competitor did not cause the flag.
- .5 If a vehicle is red-flagged as a result of a timing failure, a rerun may be granted by the Clerk of the Course.

## **1.7. VEHICLE NOISE**

- .1 The organizers of an event may establish a maximum vehicle noise level either by class or for all vehicles. Measurement can be at different locations around the facility being used. Competitors are warned that track licences increasingly specify noise limits and it is the competitor's responsibility to ensure their vehicle complies with the maximum vehicle noise level established for each event in which they compete. There are no protests or appeals allowed on organizer decisions regarding maximum vehicle noise levels, measurement or action taken by the organizers.

Sample specified maximum vehicle noise levels:

98db for 'Modified' cars

95db all other cars at Shannonville Motorsport Park, Toronto Motorsport Park

92db for all cars at CTMP Drivers' Development Track

- 2 The Clerk of the Course at a Regional Championship Event will prohibit any vehicle from running which twice exceeded the noise level on the course or in a test session, as measured by a CASC-OR approved Noise Meter. At any non-championship event the Organizer or Clerk may prohibit any vehicle from running which the organizer deems to violate the maximum vehicle noise level.

## **SECTION 2: EVENT ORGANIZATION**

### **2.0 COURSE SAFETY**

- .1 The Clerk of the Course may, at his discretion, declare a vehicle 2WO under the following circumstances:
  - a) A driver dirties the track surface by cutting corners, knocks a pylon onto the track, or drags any other object onto the track surface that may force other vehicles on-track to slow or change their line in order to avoid it;
  - b) A driver spins on-track, but holds up the event (i.e., forces a full course red flag to be thrown);
  - c) A driver ignores or misses flags.
  - d) A driver's on-track conduct, in the opinion of the Clerk of the Course, endangers the driver, other competitors, or slows the progress of the event (i.e., going too slowly on a warm-up or cool down lap).
- 2 The Organizer may choose to restrict the eligibility of a vehicle or competitor to participate in an event.

### **2.1 FLAGS**

- .1 Starting Flag: Used to send new vehicles onto the track—only when instructed to do so by the Clerk of the Course – can either be a waving or pointed green flag or a very clear hand signal motioning the Driver into action.
- .2 Black and White Checkered Flag: indicates the end of a competition session when waved at the finish line or other location specified in the Supplementary Regulations.
- .3 Red Flag: Waved at all marshal stations and by the Starter - only when instructed to do so by the Clerk of the Course - it informs all Drivers to safely come to a complete stop and then slowly proceed to the next Marshal station for further instruction. Drivers shall be prepared to stop at any time.

A red flag is most commonly used in Time Attack if a vehicle has gone off-track and is positioned where it endangers the safety of participants or if track conditions are no longer safe to drive on.
- .4 Black Flag: Displayed at the start/finish line or any marshal station - only when instructed to do so by the Clerk of the Course – it informs the Driver to return to the pits immediately and await instructions from an Official.

A black flag is most commonly used when a vehicle has been missed with the checkered flag or if the vehicle appears to have mechanical trouble such as leaking fluid, blowing excessive amounts of smoke, or loose parts.

- .5 White Flag: Displayed at any Marshal station - only when instructed to do so by the Clerk of the Course – it informs the Driver to slow down and make space from the vehicle ahead. Drivers are to proceed at a pace that creates safe space from the vehicle ahead but does not slow the vehicle behind. Drivers are to look as far ahead on the course as possible for a waving Green Flag.
- .6 Green Flag: Displayed to replace the yellow flag at any Marshal station as soon as enough space has been created between vehicles – in the opinion of the Clerk of the Course – indicating that the Driver shall immediately return to full speed, with the next timed lap beginning when the vehicle crosses the Start/Finish line.
- .7 Blue Flag: Displayed at any Marshal station to alert the Driver that a faster following vehicle must be allowed to pass as soon as is safely possible. Failure to obey this flag may result in a black flag being displayed for that vehicle or the loss of competition lap times for holding up competitors and/or the event.
- .8 Yellow Flag: Displayed to indicate a dangerous condition on or near the track surface. Competitors are expected to lower their speed sufficiently to allow avoidance of any obstacles or dangerous situations.

## **2.2 RUNS**

- .1 A run is a set of timed laps, as defined in a driver's meeting. The definition of a run may be modified during or after competition by event officials due to force majeure. It is recommended that run groups are alternated when possible to avoid preference to changing weather conditions.

## **2.3 PASSING**

- .1 Passing during lapping is permitted on the straights only and must be completed before the turn in point of the next corner. THERE IS TO BE NO SIDE BY SIDE THROUGH A CORNER. Point-by passing must be initiated by the car being passed as soon after the apex as possible. Based on the different track configurations, the supplemental regulations for each event shall outline the designated passing zones.
- 2 Passing during competition shall only occur:
  - a) when the vehicle being passed is non-competing (see 1.8.6) AND:
    1. is 4WO, stopped, shows no indication of moving AND is stopped sufficiently far off course as to not be a hazard, OR,
    2. has voluntarily stopped competing, slowed down, and is signaling following cars to pass and/or signaling that they are returning to the pits.

OR:

- b) when a competition is specifically organized as a Time Attack with passing event, and the regulations that shall apply to passing during lapping and competition are prescribed in the Supplementary Regulations governing the competition.

## **2.4 REQUEST FOR ACTION**

The Clerk of the Course may submit to the Steward(s) a "Request for Action" describing a suspected breach of the Regulations or of misbehaviour by any participant. The Steward(s) of the Event shall act on this request in the same manner as they would act on a protest and shall have the same authority to levy penalties as in a protest.

## **2.5 PROTEST AND APPEALS**

- .1 Any protest or appeal shall follow the procedures as defined in the CASCOR GCRs and shall be made within 30 minutes of the posting of the provisional results.
- .2 The Protest fee shall be \$50; the fee shall only be returned if the protest is deemed well founded or if so directed by the Stewards of the Event.
- .3 The Appeal fee shall be \$100; the fee shall only be returned if the appeal is deemed well founded or if so directed by the Stewards of the Event.
- .4 In all cases, \$15 of a protest fee, \$25 of an appeal fee, shall be retained by CASC-OR.

# **SECTION 3: CHAMPIONSHIP SCORING**

## **3.0 CHAMPIONSHIP CATEGORIES**

There will be two championships scored, consisting of an IPAX Championship and a Raw Time Challenge (RTC) Championship. Each Championship will be separately scored as provided in this section 3. Competitors may compete in one or both championships

## **3.1 OVERALL CHAMPION**

- .1 The Overall Champion in each category will be decided based on the best points score for five (5) of the **six** (6) Events in **2020**.

## **3.2 NOVICE CHAMPION**

- .1 The novice competitor with the highest points from their five (5) highest scored events shall be declared the Novice Champion.
- .2 To be considered an OTA Novice, a competitor shall not have competed in more than three (3) Time Attack, Solosprint, stage rally race, race school, ice race or equivalent events, be a past Solo 2 Overall Champion prior to the start of the current Championship season or have worked as a performance driving instructor. Competitors with other types of experience may, at the Director's discretion, be considered an OTA Novice.

## **3.3 CLASS CHAMPION**

- .1 The competitor with the greatest points in a class from their highest scored five (5) events shall be declared the class champion provided they competed in a minimum of five (5) events.

## **3.4 CHAMPIONSHIP SCORING SYSTEM**

- .1 To be considered a competitor for scoring purposes, a competitor shall start a run at least once.



- 2 A non-competing chief event Organizer and/or, if appointed by CASC-OR, a non-competing Steward, shall be awarded points equal to their second-best other event. These officials may drive timed laps and may compete for club awards provided no practice runs are taken. However, for points, they shall not be considered a competitor, or as part of a class and shall not be listed in the official results as a competitor. No individual shall be awarded points in this manner more than once during the series.
- 3 If an event is deleted from the championship, and no substitution is made, the number of events to be scored shall be decreased by one for every event so deleted.
- 4 If a competitor requires a licence at an event the Organizer may issue a temporary licence valid for that day. The competitor may then immediately compete as if they were a licence holder. The Organizer, after the event, shall submit a completed licence application on behalf of the competitor together with the required fee. If CASC-OR subsequently refuses to issue a licence the competitor shall suffer a retroactive exclusion from all events, loss of points and awards.

### **3.5 CHAMPIONSHIP SERIES SCORING**

- .1 Competitors will be scored based on their fastest lap time of the event.
- .2 For each event, iPAX points are awarded based on this formula: (Fastest Event IPAX Time ÷ Competitor Fastest IPAX Time) X 100.  
For the slower tracks, a “Competitor’s Fastest IPAX Time” formula is; (Competitor’s Performance Index (PI) x .0024 + .76024) x Competitor’s Fastest time, E.g. At CTMP DDT a GT3 competitor with a Performance Index of 79.4 x .0024 + .76024 and a time of 97.886 seconds has an IPAX score of 93.070. When compared to the Fastest Event Competitor IPAX score of 92.522, this competitor’s points are (92.522/93.070) x 100 = 99.411.  
The calculation for the faster tracks (CTMP GP, Calabogie) a “Competitor’s Fastest B IPAX Time uses this formula; (Competitor’s Performance Index (PI) x .0036 + .64036) x Competitor’s Fastest time. Remainder of calculation is similar to above.
- .3 For each event, Raw Time Challenge points are awarded based on the winner being awarded 100 points, and each successively lower finishing position being awarded one point less. IE: second receives 99 points, third receives 98 points and so on.

### **3.6 IDENTIFICATION AND ADVERTISING**

- .1 All competitors shall purchase (if required) and display the following identifying items on their vehicles at all times during the competition:
  - i. Current year series standard door cards showing car number and OTA sponsor identification, and
  - ii. Current year windshield banners (if applicable) showing car number and OTA sponsor identification.

Acceptable methods of attachment include static cling, adhesive or magnetic backing, the use of neatly trimmed BLACK electrical tape or some combination of the above to ensure that the identifying items remain in place. Contrasting tape colours shall not be used. In every case, the presentation of the door card or windshield banner shall be properly aligned and professional

looking so as to showcase the sponsor identification.

- 2 Only one entry number shall be displayed while on the course even if there are 2 drivers.
- 3 Placement of sponsor decals is mandatory and cars not prominently displaying them will not be allowed to compete. All decals shall be in place prior to event scrutineering. Certain exemptions and dispensations may be allowed at the discretion of the OTA Director.

### **3.7 CONTINGENCY AWARDS**

- .1 To be eligible for contingency awards, each competitor shall fulfill all contracted obligations between OTA and the participating sponsor companies.

### **3.8 OTA WORKSHOP AND BANQUET**

- .1 The date and time of the OTA Workshop and Year-end Banquet will be announced on the OTA website.

### **3.9 PROPOSED REGULATION CHANGES**

- .1 Any interested OTA competitor may submit a proposed future regulation change regarding vehicle modifications. The OTA Director shall make a published decision regarding all proposed changes by April 1 of the year the changes are to become effective. The reason for any decision need not be published.

## **SECTION 4: VEHICLE CATEGORIES**

### **4.0 VEHICLE CATEGORIES**

- 1 There are 14 iPAX vehicle categories, Open Modified, Modified 1 (MOD1), Modified 2 (MOD2), Modified 3 (MOD3), Super Grand Touring1 (SGT1), Super Grand Touring2 (SGT2), Super Grand Touring3 (SGT3), Grand Touring1 (GT1), Grand Touring2 (GT2), Grand Touring3 (GT3), Grand Touring4 (GT4), Touring1 (T1), Touring2 (T2), Touring3 (T3).
- 2 There are 4 Raw Time Challenge (RTC) vehicle categories, Enthusiast (RTC 3), Street (RTC 2), Limited (RTC 1), Unlimited (MOD 1).
- 3 Sections 4, 5 and 6 will determine which vehicle category(ies) an iPAX vehicle may compete in.
- 4 Section 4 and Section 7 will determine which vehicle category(ies) an RTC vehicle may compete in. Sections 4.1 to 4.8, 5 and 6 do not apply to RTC vehicles unless that vehicle is also entered in the iPAX Championship.

### **4.1 SERIES RACE, KIT CARS, & NON-PRODUCTION VEHICLES**

- .1 The following vehicles, sometimes called kit cars, may compete with the same safety equipment as a 'Starting Class' vehicle provided they are equipped with proper roll over protection (see Sections 1.3 and 1.4), are road registered, and compete on DOT approved tires:

Aurora (Cobra style), Dutton, Caterham and Lotus 7 style home finished cars.

Kit cars will be classified as Modified 1 unless the OTA Car Classification Committee issues a special classification for that vehicle, based on a Dyno Chart (see 5.0H Dyno Option), proof of curb weight, and other information as deemed necessary.

- 2 Vehicles sold by the manufacturer for one of the following race series:

Player's/GM Motorsport, Rothmans/Porsche turbo cup, Honda/Michelin, or Ontario Street Stock Challenge (Nissan Sentra Series) are eligible to compete based on the starting vehicle type adjusted by PIPs incurred for all modifications.

- 3 Non-production vehicles, which include: formula; sports racing; open-wheel; tube frame; non-production drive configuration; more than one engine, shall compete in 'Open Modified' class.
- 4 Low horsepower Non-production vehicles can be integrated into lower classes to be more competitive. They will require all Open Modification Safety Rules. To be considered for Integration to a lower class, competitors will submit to the CCC; Car make, model, Race class it normally Road Races in, Dyno Plot, Race weight. These vehicles will have a Handling Index of 100 and will require declaration of Tire PIPs (Rule 5.1.A2). If the car horsepower, weight, aero and tire type is changed during season, a Classification re- submission is required.

#### **4.2 PRODUCTION VEHICLES**

Production vehicle is defined as a single, specific, make, model and year, entered in any class and shall meet all of the following "production vehicle" requirements:

- Have been series produced.
- Have been federalized for legal public road use in Canada, unless specifically waived by these Regulations.
- Have been available for purchase and delivery to the general public through the vehicle manufacturer's retail sales outlet in Canada, unless specifically waived by these Regulations.
- Conform to all the original equipment specifications, as defined in Section 4.3, except for the mandatory requirements of these Regulations and the authorized modifications for the appropriate vehicle category.
- Or, has been exempted by 4.1.1 or 4.1.2 above.
- Compliance with the second and third points above may be waived by either a CASC-OR Bulletin or by inclusion of the model in the "OTA Vehicle Classification List"

#### **4.3 ORIGINAL EQUIPMENT SPECIFICATIONS**

- 1 Original equipment specification 'OE' is defined as: all the original equipment parts, or the exact equivalent to original equipment replacement parts, that could have been purchased on that "production vehicle" in conjunction with all original equipment specifications, and installed by the vehicle manufacturer. For example, pistons could be replaced with aftermarket items if they were the same weight and compression ratio. Stronger (e.g., forged) replacement components that are otherwise equivalent to OE (weight, compression ratio, stroke, etc.) are considered to be equivalent to OE. If a competitor is unsure if a part is 'OE' equivalent, he/she shall ask the OTA Car Classification Committee for a written ruling.
- 2 Dealer-installed parts or specifications, unless required by a directive from the vehicle manufacturer, are not defined as 'OE'. Parts or specifications that the vehicle manufacturer listed as "competition" or similar purposes are not

defined as 'OE'.

#### **4.4 AUTHORIZED MODIFICATIONS**

Modifications permitted for competition in this rulebook may not be legal for vehicles operated on public roads and highways. It is the responsibility of the competitor to ensure that his/her vehicle complies with all applicable laws and safety standards when it is driven on the street.

- .1 Authorized modifications for the appropriate vehicle category are the only permitted modifications. If these Regulations, or a current year CASC-OR Bulletin, do not specifically permit a modification to the original equipment specifications, then the modification is not authorized. (i.e., If in doubt - don't.)
- .2 Where it is permitted to replace an item, it is authorized to remove the 'OE' item to facilitate the specified replacement. Where it is permitted to modify an item, only the specified item may be modified.
- .3 Rules on modifications are written to convey the function, extent or intention of a modification. Any method used to circumvent the function, extent or intention of any modification is not considered an authorized modification. If there is any uncertainty about the function, extent and/or intention of a rule on vehicle modification, it is the competitor's responsibility to seek clarification from an OTA Car Classification Committee member before undertaking the modification in question.

#### **4.5 MODIFICATION - DEFINITION**

Modification is defined as:

- .1 The removal of a part, except when it has been replaced by an exact equivalent to 'OE' replacement part.
- .2 The addition of a part, except when the added part is an exact 'OE' part, or an exact equivalent to 'OE' replacement part, and is in fact replacing the 'OE' part.
- .3 A non-original equipment method of adjustment or service procedure.
- .4 A change to an original equipment specification or a substitution.

#### **4.6 TECHNICAL INSPECTION**

- .1 The vehicle shall be made available to the technical inspector or Chief Scrutineer upon request. The vehicle shall pass all the mandatory inspections.
- .2 At each OTA event weekend, the competitor shall present to the technical inspector or the Chief Scrutineer a completed copy of the Vehicle Technical Self-Declaration form. This form is to be completed in advance of the weekend by either the competitor or his/her licenced mechanic.
- .3 The Car Classification Committee, working with the Chief Scrutineer and the Director may initiate vehicle inspections before, during, or immediately after the competition that test the conformity of the vehicle used in competition with the vehicle declared on the approved PIP schedule. The determination of the number and class of vehicles to be inspected, and the nature of the inspections to be performed is at the sole discretion of the Committee. Competitors are required to make their vehicle available for inspection when requested. Failure to do so will result in exclusion from the event unless valid reasons or extenuating circumstances are provided to the Stewards and

accepted by them. Vehicle inspections may include physical inspection, weighing the vehicle, and requiring competitor to provide a dyno plot, either at the event, if a dyno is present, or subsequent to the event, if not. Requested dyno plots shall conform to the requirements of Section 5.0 H, be provided on a timely basis, and in any event shall be provided in advance of the next competition in which the vehicle is entered. Vehicle inspections may require mechanical disassembly.

- 4 The competitor shall be responsible for performing all required dis- assembly and reassembly under the supervision of the Chief Scrutineer of the Event or his/her designate.
- 5 If the car is found to be in compliance with its approved PIP schedule the Event Organize or, in the cast of a protest, the Protestor, shall bear the expense (if any) of the dis-assembly, inspection and reassembly. If it is not in compliance the competitor shall bear the expense. A protestor may be required by the Stewards to provide a deposit equal to the estimated cost of dis-assembly, inspection and reassembly before such work begins.
- 6 Failure to comply with an order for mechanical dis-assembly shall result in exclusion from the Competition or the Event, and any additional penalties deemed appropriate by the Stewards of the Event.

#### 7 BURDEN OF PROOF

Competitors have the sole burden of proving that their vehicle conforms to all applicable Regulations and, except for Open Mod, Mod1, conforms to all the production vehicle requirements. Each competitor shall be prepared to produce the owner's manual, manufacturer's shop manual(s), manufacturer's catalogue(s) and other official documentation as evidence of conformity and eligibility of their vehicle.

Competitors shall consent to carrying a GPS-based data acquisition system on board, and/or to having their cars weighed as raced at any time requested by the Car Classification Committee.

#### 4.7 AUTHORIZED MODIFICATIONS – ZERO PIP VALUE

The modifications defined in Subsection 4.8.0 through 4.8.3 are assessed a zero Performance Index Point (PIP) value and are therefore the only permitted modifications for 'Starting Class' category vehicles without the declaration of PIPs.

#### 4.8.0 GENERAL MODIFICATION

- 1 Stereo systems, alarm systems, gauges, switches, wipers, lights, mirrors, and other similar parts that provide no performance or handling gains, may be added or replaced with similar parts.
- 2 The sun visors, steering wheel (including any air bag contained therein), floor pedals, shifter knob and lever may be modified.
- 3 Spare tire(s), tools, jack, loose floor mats and clip-in rear storage security shelf/net/blind shall be removed.
- 4 Hubcaps, wheel discs and trim rings shall be removed if they are not fully secured.
- 5 The seat belt(s) may be replaced with any seat belt(s) and attachment hardware that complies with the requirements of Competitor Safety, Section 1.1, Restraint System.

- 6 Rollover protection that complies with the requirements of Competitor Safety may be added. See Sections 1.3 and 1.4. The interior trim and seats may be modified only to the extent necessary to facilitate the addition.
- 7 Tow-bar brackets, tie-down hooks and trailer hitches may be added or removed. The bumper, frame, exterior trim and exterior panels may be modified only to the extent necessary to facilitate the addition or removal.
- 8 Driver and passenger seats may be replaced with reclining sports seats. Any other unauthorized modification to the seating, including 5.1C.10 and 5.1C.11, shall be declared under Section 5.1C, Body & Trim.

#### **4.8.1 ENGINE & TRANSMISSION**

- 1 The spark plugs, points, rotor(s), distributor cap(s), ignition coil(s), high tension leads, mechanical ignition timing system components, multiple spark discharge and/or capacitive spark discharge components and rev limiting devices may be modified. Competitors are reminded that the computerized components (and their programming) of the ignition system and the engine management systems shall remain 'OE'.
- 2 The battery may be replaced with any similar full-size automobile battery, provided the location is 'OE' and the quantity of batteries is not decreased.
- 3 The air cleaner assembly may be modified to the intake side of the throttle body on normally aspirated engines and to the turbo or supercharger on forced induction engines. The 'OE' airflow sensor or throttle body may not be replaced or modified.
- 4 Catch tanks, oil filters, fuel filters and oil coolers on the engine, transmission and final drive housing may be modified or added. Catch tanks may be either recirculating or vented to the atmosphere.
- 5 Cylinders may be over-bored up to 1.016 mm (.040 in.) and the pistons replaced with 'OE' oversize pistons.
- 6 The 'OE' 'limited-slip' type differential carrier may be replaced with an equivalent size 'OE' 'open' type differential carrier provided the ring and pinion gears remain 'OE'.
- 7 The traction control or similar system may be disabled or removed. Altering or disabling the traction control by reprogramming the ECU is NOT permitted.
- 8 The engine and transmission locating mount(s) may be modified provided the location of the engine and transmission remain 'OE'.
- 9 The engine cooling system may be modified. The thermostat(s) may be substituted or removed.
- 10 Nut, bolts, screws, studs, washers and other similar fasteners may be replaced, provided that they serve no other function than to fasten items, as per 'OE'.
- 11 The OE catalytic converter may be replaced with an aftermarket catalytic converter, and multiple OE catalytic converters may be replaced by one aftermarket catalytic converter provided they meet (not exempt) current provincial emissions regulations. All exhaust gases must pass through the catalytic converter except those vented by pre- turbo external waste gate(s).
- 12 Fuel line rerouting, except into the interior, is permitted. Insulation may be

added.

- .13 An alternate driveshaft and/or half-shafts may be used.
- .14 The clutch system may be modified. The clutch system is defined as: linkage/operating system, bell housing, throw-out bearing, disc, clutch delay valve, pressure plate and pilot bearing. The transmission shift linkage may be modified.
- .15 The exhaust system may be modified under the following limitations:
  - The cat-back exhaust system, excluding any other part of the exhaust manifold(s), may be modified provided the exhaust system meets (not exempt) current Ontario emission regulations.
  - Exhaust system components may be insulation wrapped or treated with high temperature coatings.
  - Wastegates may be ported.
- .16 The automatic transmission shift program & torque converter may be modified.
- .17 Underdrive or alternate accessory drive pulleys are permitted.
- .18 An OE Limited Slip Differential, excluding the gear ratio, may be modified.
- .19 Oil pans and pumps may be modified.

#### **4.82 SUSPENSION & RUNNING GEAR**

- .1 Wheel alignment may be adjusted. The alignment settings shall be within the manufacturer's original specifications for non-competition purposes. Installation of alignment adjustable devices, as described in Section 5.1B.3, are permitted for the sole purpose of setting alignment to within OE specifications.
- .2 The braking system may be modified, including calipers, rotors, hydraulics, pads and the ABS system. A brake cooling system may be added.
- .3 The road wheel(s) may be replaced with any 10-inch or larger diameter road wheel(s) provided no modification is done to facilitate wheel clearance other than modification to the inner-fender panel(s) and/or minor grinding of the strut or other suspension components, provided these modifications serve no other function. The fender shall remain 'OE', however inner fender lips may be rolled/flattened to facilitate tire clearance.
- .4 Tires must be street legal with a UTQG rating of at least **180** provided that:
  - i. Except for "OE" tires, the specific brand and model of tire is available in at least 2 wheel diameters.
  - ii. no modification is done to facilitate tire clearance other than modification to the inner fender panel(s) and/or minor grinding of the strut or other suspension components, provided these modifications serve no other function. The fender shall remain "OE", however inner fender lips may be rolled or flattened to facilitate tire clearance.
  - iii. The widest point of the tire, above the axle, does not protrude more than 13mm (0.5") from the widest point of the OE wheel well opening when measured in a vertical plane coincident with the axle line.

- .5 The suspension mounting points on the chassis/frame may be reinforced. Strut and other suspension mounting point braces may be added to the chassis/frame and firewall. Suspension braces, (e.g., strut tower braces, tunnel braces, and tie-bars) subframe connectors and firewall braces may be added. The chassis/frame and floor pan may be modified only to the extent necessary to facilitate this.
- .6 Updating or backdating of suspension components is permitted provided all of the following conditions are met:
  - i. the components installed come from the same model (but a different year)
  - ii. the components are directly interchangeable without modification
  - iii. the two model years have the same SUSP rating
- .7 Anti-roll bar end links may be replaced with alternate end links.

### **4.8.3 BODY AND TRIM**

- .1 The front fender(s) may be replaced with any front fender(s) of equivalent size and shape to 'OE, and equivalent or greater weight than 'OE'.
- .2 Spoilers, air dams and skirts (i.e., body kits) and splitters may be added or replaced provided the replacement does not fall under Section 5.1A3 and is of equivalent or greater weight than 'OE'. The exterior panels, exterior trim and bumpers may be modified only to the extent necessary to facilitate the addition or replacement.
- .3 Grills, ducts and scoops in exterior panels may be enlarged or added to facilitate engine cooling/induction or brake cooling, provided these modifications serve no other function.
- .4 Exterior mouldings, badges and mirrors may be modified.
- .5 Rear bumper skins can be modified to allow for exhaust piping.
- .6 The rear seal between the body and the hood may be removed, and the rear of the hood may be raised to vent the engine compartment.
- .7 OE style side skirts within the factory body lines, for cosmetic purposes/stone guards.

## **SECTION 5: IPAX PERFORMANCE INDEX POINT (PIP) SCHEDULE**

**Modification Performance Index Points (PIP) defined in Section 5.0 can be automatically calculated for the competitor when they create an account, select their car and modifications in the Car Classification Database (CCDB) at <http://ccdb.casc.on.ca>**

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### **5.0 ENGINE**

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#### **A INTAKE SYSTEMS:**

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|----|--|-------|
| .1 | Modification to the intake manifold(s); throttle body; plenum; or intake air sensor system; any or all.  | 1 PIP |
| .2 | Modification to the 'carburetor system', including fuel pump(s) and fuel pressure regulator(s), excluding the number of venturi and excluding the intake manifold. | 1 PIP |
-



.3	Interchange of the OE carburetor with another carburetor(s) that have a greater number of venturi than OE	3 PIP
.4	Interchange of the OE 'carburetor system' with a 'throttle body fuel injection system' with the same number of air throttles as the number of OE venturi; includes all required sensors and control units and all items under Sections 5.0A.2, A.3 and C.1.	3 PIP
.5	Interchange of the OE 'carburetor system' with a 'throttle body fuel injection system' that has a greater number of air throttles than the number of OE venturi; includes all required sensors and control units and all items under Sections 5.0A.2, A.3, and C.1.	5 PIP
.6	Interchange of the OE 'carburetor system' with a 'multi point fuel injection system'; includes all required sensors and control units and all items under Sections 5.0A.2, A.3 and C.1.	6 PIP

## **B EXHAUST SYSTEMS:**

.1	Non-turbocharged vehicles: Modification to the exhaust manifold(s), heat exchanger(s) or exhaust header(s) and including any other intermediate pipe between the cylinder head and the catalytic converter. (e.g., X- or H-pipes).	2 PIP
.2	Factory original turbocharged vehicles: Modification to exhaust manifold system, defined as exhaust manifold(s); heat exchanger(s); and exhaust header(s); includes exhaust up-pipes(s).	2 PIP
.3	Modification to the pipes between the exhaust manifold(s) and the catalytic converter(s) (e.g. turbo up-pipe(s), X-pipes, H-pipes). Do not claim if 5.0B.1 or 5.0B.2 is claimed.	1 PIP
.4	Removal or gutting of the catalytic converter(s) and/or other modifications such as modification or removal of emissions control systems including: emission control air pump nozzle(s); thermal reactor(s) and integrated plumbing; PCV and fuel evaporator systems that render the vehicle noncompliant with the applicable emissions standards for a street- driven vehicle of the type.	1 PIP
.5	Factory original turbocharged vehicles: Modification to downpipe.	1 PIP

## **C ENGINE ELECTRONIC AND FUEL SYSTEM:**

.1	Naturally aspirated vehicles: Modification to the computerized component(s) of the ignition or engine management system (e.g., chipping the ECU or reprogramming it from OE by other means for any reason). Also includes use of fuel with an Octane rating of 95 or more or modifications under 5.0.C.3	2 PIP
.2	Factory original turbocharged and supercharged vehicles:  Modification to the computerized component(s) of the ignition or engine management system (e.g., chipping the ECU or reprogramming it by other means for any reason). Also includes use of fuel with an Octane rating of 95 or more or modifications under 5.0.C.3 .	3 PIP

.3	Modifications to any of the fuel pump(s); fuel pressure regulator(s); fuel injector(s); engine sensors; and any other non-engine management computer component that effects the fuel pressure or fuel mapping.	1 PIP
<b>D FORCED INDUCTION SYSTEMS</b>		
.1	Modification to, excluding addition of, intercooler or water injection system; any or all.	1 PIP
.2	Addition of an intercooling system.	3 PIP
.3	Addition of an intercooler spray system (spraying water or any non-oxidizer or accelerant.)	3 PIP
.4	Addition of water injection system.	1 PIP
.5	Addition of a methanol injection system.	3 PIP
.6	Modification that affects the boost pressure control system, any or all Note: This also applies to vehicles where the boost is controlled by the ECU even if PIPs have been taken for reprogramming or chipping the ECU.	3 PIP
.7	Factory supercharged vehicles: Modification to the pulley system.	3 PIP
.8	Port and polish and/or thermal coating of a turbocharger or supercharger.	1 PIP
.9	Factory supercharged vehicles: Modification to the rotating elements of an OE supercharger, excluding the pulley system.	2 PIP
.10	The addition of a turbocharger system to a vehicle that did not come factory equipped with one; includes all modifications permitted under Sections 5.0A.1, 5.0B.2, 5.0B.3, 5.0C.2, 5.0D.4.	13 PIP
	Note: Additional PIPs are assessed for modifications under Sections 5.0A.2, 5.0D.1, 5.0D.2.	
.11	The addition of a supercharger system to a vehicle that did not come factory equipped with one; includes all modifications permitted under Sections 5.0A.1, (Roots type superchargers only), 5.0C.2, 5.0D.5. Note: Additional PIPs are assessed for modifications under Sections 5.0A.2, 5.0B.1, 5.0D.1, 5.0D.2.	9 PIP
.12	Trimming of OE turbo wheels or replacing wheels in stock turbo housing.	2 PIP
.13	Change of OE turbochargers such that the compressor inducer diameter and/or turbine exducer diameter is not larger than 105% of OE, excludes exhaust manifold under 5.0B.2.	2 PIP
.14	Change of OE turbochargers such that the compressor inducer diameter and/or turbine exducer diameter is not larger than 122% of OE, excludes exhaust manifold under 5.0B.2.	5 PIP
.15	Change of OE turbochargers such that the compressor inducer diameter and/or turbine exducer diameter is not larger than 132% of OE, excludes exhaust manifold under 5.0B.2.	7 PIP
.16	Change of OE turbochargers such that the compressor inducer diameter and/or turbine exducer diameter is equal to or greater than 132% of OE, excludes exhaust manifold under 5.0B.2	9 PIP

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**E CYLINDER HEAD(S) AND VALVETRAIN SYSTEMS**

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.1	Modification of the camshaft(s), including valve springs, valve or VTEC controller).	3 PIP
.2	Modification to the rocker arms, including addition of rocker arms or to the valve timing controller (e.g., cam gears or VTEC controller). excludes camshaft(s) and any or all other valvetrain components.	1 PIP
.3	Modification to the 'OE' cylinder head(s), including porting and polishing and any modification to the valves; excludes any changes that affect compression (i.e., milling the head, reshaping the combustion chamber, non-OE head gasket thickness, any or all).	2 PIP
.4	Substitution of the factory original OE cylinder head(s) for a different OE cylinder head(s) from the same manufacturer, including Section 5.0E.1, valvetrain and camshaft(s) but excluding Section 5.0A.1, intake manifold and throttle body; excludes any or all performance or race head(s) available from the OE manufacturer or the aftermarket.	4 PIP

Note: 'OE' for the purposes of this rule means that the cylinder head shall have been produced for use on a production vehicle; excludes any cylinder head available in the manufacturer's performance catalog.

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.5	Substitution of the factory original OE cylinder head(s) for a non-OE cylinder head(s), including high performance or race head(s) from OE and aftermarket manufacturers; including Section 5.0F.1, valvetrain and camshaft(s), but excluding Section 5.0A.1, intake manifold and throttle body.	7 PIP
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Note: 'Non-OE' for the purposes of this rule means that the cylinder head has been purpose-built for high performance or race applications, was never equipped from the factory on any production vehicle and comes with significantly improved design characteristics equivalent to Section 5.0E.3

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**F RECIPROCATING ENGINE SYSTEMS**

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.1	Any change from factory original OE compression resulting from: modification to the pistons; modification to the cylinder head(s) combustion chamber; milling the cylinder head(s); modification to cylinder head gasket(s) thickness; decking the block; any or all.	2 PIP
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Note: Any change from OE compression resulting from Sections 5.0F.2 and/or 5.0F.3 shall be assessed PIPs under Section 5.0F.1. If OE compression is re-established without gaining a measurable performance improvement in the process (e.g., using a thicker head gasket), no PIPs need be declared under Section 5.0F.1.

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.2	Cylinder overbore greater than 1.016 mm (.040 in.).	2 PIP
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.3	Any change to the stroke of the engine, including modification of the connecting rods and/or crankshaft.	3 PIP
.4	Rotary engine modification, including porting and apex seal modification; excludes any change to the number of rotor chambers and vehicle drive configuration.	7 PIP

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## **G ENGINE SWAPS**

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.1	Substitution of a complete unmodified engine and engine management components with the following restrictions:	
	i.	If, as part of the drivetrain swap, the transmission/transaxle includes a limited slip differential when the OE transmission/transaxles did not, 1.5 PIPs shall be declared under Section 5.1A.2.
	i.	If, as part of the drivetrain swap, the transmission/transaxle used has gearing and/or a final drive different from that originally equipped (OE) with the engine being installed, PIPs shall be declared under Section 5.1A.1.
1.2	Swapped engines may be modified and assessed PIPs under Sections 5.0A through F.	
1.3	Swapped engines will result in the vehicle being assigned a new Starting PI based on the horsepower rating of the installed engine.	
1.4	Any vehicle with an engine swap may be required, at the discretion of the Classification Committee or OTA Director, to provide a dyno plot (see Section H for requirements) for the purposes of classification. Changes to the transmission, final drive etc. to be assessed PIPs under section 5.1.A.1.	

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## **H DYNO PLOT REQUIREMENT**

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.1	Any competitor with a turbocharged or supercharged vehicle that has accumulated 12 PIPs or more, as assessed in Section 5.0.A thru G, Engine, is required to provide the Car Classification Committee (CCC) with a dyno plot (at the competitor's expense) from a reputable dynamometer facility documenting the SAE corrected horsepower level for the engine.
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Any competitor, regardless of engine type or level of modification, may request to submit a dyno plot for the purposes of classifying their vehicle if they have good reason to believe the factory reported horsepower rating for their vehicle is inaccurate. The Car Classification Committee or OTA Director may deny any dyno plot request if the request is deemed baseless and/or if the competitor fails to substantiate their request.

The horsepower level from the dyno plot will be converted to crank horsepower using the conversion table below and then substituted for the base horsepower rating in the classification spreadsheet in order to determine an accurate classification category for the vehicle in question. This rule replaces PIPs assessed for Sections 5.0A through G.

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### Wheel-To-Crank Horsepower Conversion Table:

Instructions: To convert wheel horsepower to crank horsepower (which is then substituted into the classification spreadsheet in order to determine your vehicle's new Starting PI), divide your peak or maximum wheel horsepower value as measured on the dyno by the value below that matches the dyno type used and the drivetrain configuration of your vehicle.

Dyno type \ Drivetrain	FWD	RWD	AWD
DynoJet (inertia dyno)	0.865	0.855	0.845
Mustang (eddy current dyno)	0.840	0.830	0.820
DynaPack (hub dyno)	0.870	0.865	0.860
Dyno Dynamics	0.769	0.769	0.769

- 
- .2 In order for the CCC to accept the validity of the dyno plot provided by a competitor, the test shall be conducted as follows: using the gear closest to 1:1 ratio (unless another gear gives a higher dyno reading power result, in which case that gear shall be used) as the test gear for all dyno runs; using the same wheels and tires that will be used during OTA competition if an inertia-style (i.e., DynoJet) or eddy current (i.e., Mustang) dyno is used; using the same fuel (i.e., octane level) as used during OTA competition; using the same boost controller set at a declared level (i.e., you cannot increase the boost level at the track beyond the boost level used during the dyno test); and any/all other 'tuning' settings shall be the same as those used during OTA competition; providing three plots showing that the process provides consistent results; using the average value for calculation purposes; providing adequate cooling and not testing a heat soaked motor. If ANY change is made to the engine or associated systems that affect power production, including tuning changes effecting ignition and fuel timing, cam timing, or other, this shall be reported, and a new and accurate dyno graph may be required to be submitted for classification purposes.
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- .3 The dyno plot shall be submitted in the format provided using the dyno plot form designated for the purpose and shall be generated by using best practices and shall not use any method that would result in an understatement of power.
- 
- .4 Any abuse of this rule by a competitor will result in an immediate and retroactive (for the current season) scoring of the vehicle in question in 'Modified, typically Modified 1' class.
- 
- .5 Failure to submit a dyno plot when one is required will result in a minimum penalty of 5 PIPs assessed on top of the vehicle's final PIP total, with a maximum PIP penalty to be determined by and at the discretion of the CCC.
- 
- .6 For any vehicle with questionable factory horsepower data (i.e., no known accurate and verifiable source), a dyno plot may be required by the CCC for the purposes of classifying the vehicle in question.
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.7 Classification based on a declared power level is not permitted.

Acceptable dyno plots shall be provided by the competitor at least one week in advance of the event at which they are needed. Dyno plots shall be accepted by two members of the Car Classification Committee before a car may be classified using this option.

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.8 A dyno plot does not relieve the competitor of the obligation to declare all engine modifications.

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.9 When a dyno plot is used, the Final PI should be the higher of;

- the Final PI calculated from the horsepower on the dyno plot form, or
- the Final PI calculated from the engine PIP schedule based on the first 5 Engine PIPs being fully claimed and all additional Engine PIPs being claimed at a minimum value 0.25 PIP (Minimum Expected Gain (MEG)).

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.10 A lower dyno plot value, but not less than the equivalent of 2.5 Engine PIPs, may be accepted if the vehicle performance is validated by a data logging method acceptable to the Car Classification Committee, and that data supports the use of a lower power level.

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## 5.0 OTHER MODIFICATIONS

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### A1. DRIVE TRAIN

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.1 Modification to the transmission gears or final drive gear ratio. 1 PIP

.2 Installation of a Limited Slip Differential on a car not originally equipped with an LSD. 1.5 PIP

.3 Addition of aftermarket sequential transmission 1.5 PIP

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### A2. TIRES

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.1 **Installation of four street tires with a tread wear rating (UTQG) of 250 or greater. ("Enduro Tires")** - 5 PIP

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.2 Installation of four "street tires" with a tread wear rating (UTQG) of **180 to 249**, as well as GG compound Toyo brand tires, R888, R888R and RA-1, and Nitto NT01, **but excluding Kumho Ecsta V720 ACR, which are classified as non-premium R compound tires, notwithstanding their UTQG rating** (see rule 4.8.2.4) 0 PIP

.3 Installation of "non-premium" R compound tires, defined as DOT Legal competition tires that have a moulded tread pattern with non-circumferential siping, **including Kumho Ecsta V720 ACR.** 5 PIP

.4 Installation of "premium" race compound tires defined as tires that only have circumferential moulded grooves but also includes Continental Canadian Touring Car Championship (CTCC) Hoosier Grand AM Cup, foreign market Yokohama A048R and full wet weather race tires. 10 PIP

.5 Installation of race slicks 15 PIP

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**A3. AERODYNAMIC MODIFICATIONS**

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.1	An air dam is defined as a non-OE surface that extends across the front fascia and below the contour of the front fascia, to reduce air flow under the car. A front splitter is defined as a non-OE horizontal surface that extends forward of the contour of the front fascia and not further aft than the front axle and that is mounted at or below the bottom of the OE fascia. Installation of an air dam that is deeper than 0.75" below the OE front fascia and/or installation of a front splitter not extending more than 4" past the forward most, sides (excluding side mirrors), of the OE vehicle body.	1 PIP
.2	Installation of a front splitter extending more than 4" past the forward most, sides (excluding side mirrors), of the OE vehicle body.	2 PIP
.3	A rear spoiler is defined as non-OE contoured lip mounted on the trunk lid or roof. Installation of a rear spoiler with a height above the basic body contour of 1" or more.	1 PIP
.4	A rear wing is defined as a non-OE surface with an airfoil shaped cross section mounted above the body contour. Installation of a rear wing up to 4" above the highest point of the OE vehicle body and car sides (excluding side mirrors).	2 PIP
.5	Installation of a rear wing greater than 4" above the highest point of the OE vehicle body and car sides (excluding side mirrors).	3 PIP
.6	Any aerodynamic change to the underbody between the front and rear wheels including both vertical and horizontal skirts.	.5 PIP
.7	Rear diffusers behind the rear axle and/or removal of the rear bumper skin.	1 PIP
.8	Addition of front diffusers and/or fender venting for diffuser either at the top of the fender or rear of the fender.	.5 PIP
.9	Hood venting if included with the use of an air dam or splitter.	.5 PIP
.10	Addition of dive planes or canards.	.5 PIP

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**A4. WEIGHT REDUCTION PIPs**

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Any car that has submitted a Curb weight that is lower than the OEM curb weight in the CCDB (without driver) will be assessed PIPs on the following basis:

If the race curb weight is more than 10% less than OEM curb weight as defined in the Car Classification Data Base then 0.5 PIPs per percentage point or partial percentage point weight loss beyond 10% weight loss will be assessed.

Per example, a 12.6 % weight loss from OEM curb weight will be assessed 1.5 PIPs and a 15.2% weight loss will be assessed 3 PIPs.

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**B. SUSPENSION AND RUNNING GEAR**

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Suspension and running gear modifications that accumulate sPIPs are noted in this section. The total number of sPIPs accumulated shall be converted to PIPs in accordance with the table at the end of this section for the purpose of calculating the running class.

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.1	Modification to the front suspension anti-roll bar.	1 sPIP
.2	Modification to the rear suspension anti-roll bar.	1 sPIP
.3	Non-stock alignment settings is defined as adjustment of caster, camber and/or toe outside the limits specified by the manufacturer for non-competition purposes.  Note: Changes permitted are minor hardware (e.g., fastener, shims), upper control arms with any rubber or urethane bushings. Camber/caster plates and/or are permitted with any bushing material type. On lowered cars modification to an existing Panhard rod is permitted to compensate for the change in ride height. Bushings using spherical bearings, heim joints or Delrin fall under Rule 5.1.B.10.	1 sPIP
.4	Modification to the OE shock absorbers/struts, including all operational and attachment parts. Factory specified ride height shall be maintained.	2 sPIP
.5	Modification to the OE suspension springs or ride height.  Note 1: Non-OE ride height adjustable spring perches are permitted but any change to the damping elements of the shocks/struts shall be claimed under 5.1.B.4 Note 2: Coil-overs consist of non-OE Springs and Shocks requiring checking of both Rule 5.1.B.4 and 5.1.B.5 for a total of 6 PIPs	4 sPIP
.6	Modification to the subframe or k-member; excludes a-arms or any other suspension arms or links.	2 sPIP
.7	Use of wheels/tires that protrude beyond the OE wheel well opening (see rule 4.8.2.4.iii) of the vehicle including flaring and/or widening of the fenders.	2 sPIP
.8	Installation of a Panhard rod to a car that does not have a Panhard rod OE, or the installation of a Watts linkage	1 sPIP
.9	Installation of a torque link on a live rear axle.	1 sPIP
.10	Non-authorized modification of any/all other suspension components, including a-arms; control arms; trailing arms; bushing limiters, bushings not covered elsewhere in this section.	1 sPIP



**CONVERSION TABLE sPIP to PIP**

	≤0	1	2	3	4	5	6	7	8	9	10	11	≥12
SUSP	sPIP	sPIP	sPIP	sPIP	sPIP	sPIP	sPIP	sPIP	sPIP	sPIP	sPIP	sPIP	sPIP
15%	0.0	1.5	3.1	4.5	6.0	7.3	8.6	9.8	11.0	12.1	13.1	14.1	15.0
20%	0.0	1.5	3.0	4.4	5.7	7.0	8.2	9.4	10.5	11.5	12.5	13.4	14.3
25%	0.0	1.4	2.8	4.2	5.5	6.7	7.9	9.0	10.0	11.0	11.9	12.8	13.6
30%	0.0	1.4	2.7	4.0	5.2	6.4	7.5	8.5	9.5	10.4	11.3	12.1	12.8
35%	0.0	1.3	2.6	3.8	5.0	6.1	7.1	8.1	9.0	9.8	10.6	11.3	12.0
40%	0.0	1.2	2.4	3.6	4.7	5.7	6.7	7.6	8.4	9.2	9.9	10.6	11.2
45%	0.0	1.1	2.3	3.3	4.4	5.3	6.2	7.1	7.8	8.5	9.2	9.8	10.3
50%	0.0	1.1	2.1	3.1	4.1	5.0	5.8	6.5	7.2	7.9	8.4	8.9	9.4
55%	0.0	1.0	2.0	2.9	3.7	4.5	5.3	5.9	6.6	7.1	7.6	8.0	8.4
≥60%	0.0	0.8	1.7	2.5	3.3	4.0	4.7	5.3	5.8	6.2	6.6	7.0	7.3

Note: Find row with your car's SUSP rating, **BOLD** number in the column containing the number of sPIPs accumulated represents the PIP value of this suspension modification. For example, a 30% SUSP car with 6 sPIPs shall add 7.5 PIPs to its starting PI due to its suspension modifications.

### C. BODY AND TRIM

Body & Trim modifications accumulate bPIPs per rules in this section. The total number of bPIPs are converted to PIPs using the Conversion table in 5.1C.21.

The negative bPIP(s) claimed for roll over protection and fire suppression systems can only be used to offset bPIP(s) claimed under Body & Trim, Section 5.1C.

Where a replacement exterior panel is claimed, the exterior surface of the replacement panel shall completely replace the 'OE' panel and shall be without holes and any other interruptions in surface continuity, unless authorized. The replacement panel shall be metal, glass-reinforced plastic or fire-resistant material.

Any modification to the "A", "B" or "C" pillars, crumple zones or interior bracing must be approved by the CCC and/or scrutineer prior to approval for competition. Usually this will require addition of roll over protection, stronger than the OEM parts removed.

Note: Any vehicle with more than 5 un-factored bPIPs in Section 5.1C 'Body & Trim' MUST submit a 'race trim' curb weight, as prescribed in Section 5.1D 'Curb Weight Option'.

.1	Installation of roll over protection that complies with the design requirements of Section 1.3 Roll Over Protection commonly referred to as a roll cage AND a fire suppression system meeting the requirements defined in Section 1.2.5.	-2 bPIP
.2	Installation of roll over protection that complies with the design requirements of Section 1.3 Roll Over Protection commonly referred to as a roll bar. Note that convertible cars are not eligible for this negative PIP.	-1 bPIP
.3	Modification of any/all 'exterior panels' including opening/ closing hardware, defined as: roof, trunk lid, hatch back or similar lid (excluding all windows, valance, hood, and sunroof).	2 bPIP
.4	Modification of the hood (e.g., fiberglass or carbon fiber), including all attachment hardware.	2 bPIP

.5	Modification of the 'OE' sunroof, moonroof, or T-top, including all attachment and operational hardware. Panels or covers removed must be replaced with a solid material (e.g., sheet metal).	1 bPIP
.6	Removal of the heater core and any associated heating system hardware.	1 bPIP
.7	Removal of the lighting systems, including the headlights, tail lights, and all associated hardware and wiring.	.5 bPIP
.8	Non-authorized seat modification, of any or all front seats.	1 bPIP
Note: Removal of hardware as described in Section 5.1C.10 and 5.1C.11 shall be assessed separately.		
.9	Non-authorized rear seat modification.	1 bPIP
.10	Removal of passenger seat internal hardware defined as: airbags; motors; heaters; any other safety devices; any or all.	.5 bPIP
.11	Removal of driver seat internal hardware defined as: airbags; motors; heaters; any other safety devices; any or all.	.5 bPIP
.12	Removal of the air conditioning compressor and any associated air conditioning system hardware.	.5 bPIP
.13	Modification to any/all windows, excluding the windshield, defined as: glass; attachment hardware; and mouldings.	.5 bPIP
.14	Modification to the windshield. All cars with windshield modifications require the use of accepted roll over protection.	1 bPIP
.15	Modification to 'interior trim', not otherwise specified as an authorized mod, defined as: dash; console; headliner; interior mirrors; air bags; carpet; and any other interior body panels forward of the driver's seat back.	1 bPIP
.16	Modification to 'interior trim', not otherwise specified as an authorized mod, defined as: headliner; air bags; carpet; and any other interior body panels aft of the driver's seat back.	1 bPIP
.17	Non-authorized battery(ies) or change in location(s); any or all.	1 bPIP
.18	Modification to the front and/or rear 'bumper systems', defined as: bumper, attachment hardware; brackets; energy absorbing devices; and any other bumper system part.	1 bPIP
.19	Replacing the fuel tank(s) with a safety fuel cell(s) (see definition below), provided a bulkhead separates the fuel cell from the vehicle interior. The interior trim and floor pan may be modified only to the extent necessary to facilitate the replacement.	1 bPIP

**DEFINITION:**

A Fuel Cell is defined as consisting of an FIA approved inner bladder/tank, approved fuel cell foam and a metal container as specified herein.

A Fuel Tank is defined as consisting of a cross-linked polymer tank intended for use as a fuel tank in a race car, approved fuel cell foam and a metal container as specified herein.

.20	Modification to flywheel (reduction in rotating mass).	1 bPIP
.21	Body and Trim PIPs (bPIPs) shall be converted to regular PIPs in accordance with the following table for the purpose of calculating the final PI. The HP value used to convert bPIPs to PIPs shall be the rated power of the vehicle unless the Dyno Plot option has been taken; in which case the HP value shall be the crank HP calculated using the Dyno Plot option.	1 bPIP

0 bPIPs	less than 135 HP	136 to 175 HP	176 to 220 HP	221 to 270 HP	271 to 350 HP	over 350 HP
≤0	0	0	0	0	0	0
0.5	0.5	0.4	0.3	0.3	0.2	0.2
1	1	0.8	0.6	0.5	0.4	0.3
1.5	1.5	1.2	0.9	0.8	0.6	0.5
2	2	1.6	1.2	1.0	0.8	0.6
2.5	2.5	2.0	1.5	1.3	1.0	0.8
3	3	2.4	1.8	1.5	1.2	0.9
3.5	3.5	2.8	2.1	1.8	1.4	1.1
4	4	3.2	2.4	2.0	1.6	1.2

#### **D. CURB WEIGHT OPTION**

To use the Curb Weight Option the vehicle MUST be weighed by the competitor in full 'race trim' defined as: full fluids (i.e., brake, transmission, coolant, and fuel); competition wheels and tires; no spare tire, jack, floor mats and any other items normally removed prior to OTA competition; any/all other Body & Trim modifications as the car will sit in pit lane during OTA competition. The competitor shall weigh the car on properly calibrated and operated, corner weight scales or a Commercial weight scale capable of accurately measuring passenger vehicle weight. The competitor will provide a photo of scale weight reading to the CCC and must still indicate all "Body & Trim" modifications in their CCDB classification. Any competitor whose vehicle is equipped with a roll bar meeting OTA Event Regulations, (as defined in Sections 1.3 and 1.4) may opt to provide the Car Classification Committee with 'race trim' curb weight data with photo for classification purposes.

Any car with an engine or transmission swap (as defined in Section 5.0G) requires a "race trim" curb weight.

If an OE fuel tank has been replaced with a fuel tank of greater than OE capacity, the Curb Weighing shall be performed with not more than maximum OE fuel capacity in the non-OE tank.

Note 1: Ballast or the addition of any fixed dead weight for the purposes of increasing 'race trim' weight and thus lower a vehicle's Classification is prohibited. Exceptions may be made, at the discretion of the Classification Committee or OTA Director, that allow regional race cars (i.e., Touring GT Championship) equipped with ballast to compete without being required to remove the ballast.

## SECTION 6 IPAX VEHICLE CLASSIFICATION

### 6.0 VEHICLE CLASSIFICATION

- .1 Any vehicle not specifically listed will be provisionally classified at the event it enters. It will be classified by the first official who is both present and willing to make the classification in the following order of precedence:
  - the OTA Director
  - the Classification Committee Chairman,
  - one or any or all of the members of the Classification Committee,
  - failing which the Event Organizer.
- 2 A series competitor shall request that the CASC-OR OTA Director classify an unlisted vehicle prior to competition to ensure points are accumulated in the same class all year (see .3, below). Please include your proposed classing, explanation and suitable back up material.
- 3 Vehicle classification will become official when it is verified by the Car Classification Committee and the OTA Director; classifications are provisional until that time and may be changed. Points and events will not be retroactively re-scored if a provisional classification is changed.
- 4 A vehicle that is wrongly classified or is not officially classified may be protested as specified in the GCRs.
- 5 In instances where it is determined that a vehicle used in competition is not correctly classified on the approved PIP schedule after a competition has commenced, the Stewards shall apply the following penalties in determining the results of the competition:
  - .1 If the vehicle is classified with a declared PI that exceeds the actual PI of the vehicle as presented, the vehicle shall continue to be classified with the declared PI until a revised declaration is completed. A revised PIP schedule shall only be accepted for competitions that have not yet commenced.
  - .2 If the vehicle is classified with a declared PI that is less than the actual PI of the vehicle as presented, 10 PIP's shall be added for every 0.5 PIP's of undeclared modifications, and the resulting PI shall be used to determine the results of the competition. Previously completed competitions will not be re-scored. A revised PIP schedule shall be submitted and approved before the vehicle is entered in future competitions.
  - .3 Notwithstanding .1 and .2 above, if the Stewards determine that the circumstances warrant a greater penalty, they may apply it. Circumstances to be considered shall include any history of previous violations. These penalties may include:
    - a fine,
    - addition of time to posted lap times or loss of finishing position,
    - or
    - exclusion from the competition.

## 6.1 CLASSIFICATION SYSTEM

A linear classification framework has been developed to systematically classify vehicles. The key elements of the system are detailed below.

- 1 The first step in classifying a vehicle is to determine its 'Performance Index' (PI). PI is calculated using a 'Weight to Horsepower Index' (W-HP) and a 'Handling Index' (SUSP) for the factory original version of the vehicle to be classified. This information provides a means to measure each vehicle's on-track performance potential.
- 2 A 'Weight to Horsepower Index' (W-HP) is derived at for each representative vehicle by comparing that vehicle's curb weight plus driver's weight, divided by its HP, to a scale with a maximum value of 33.0 and a minimum value of 4.0. For example, a vehicle, plus driver's weight, that weighs 3,400 lbs. and has 300 HP from the factory will have a W-HP of  $3,400/300 = 11.3$ . Its W-HP Index would be  $(\text{Max WHP}-\text{WHP}) \div (\text{Max WHP}-\text{Min WHP}) = (33.0-11.3) \div (33.0-4.0) = 23.7 \div 29.0 = 74.7\%$ . Driver's Weight is part of PI calculation.
- 3 The 'Handling Index' (SUSP) is a value from 5 to 100, in increments of 5, that is assigned to each representative vehicle to judge its handling and braking capability (and other non-engine output or weight related criteria) relative to other vehicles. More details and a list of examples for each value in the handling index scale are outlined in Section 6.2, Handling Index. The examples provided are to be used as reference points to establish handling indexes for non-classified vehicles.
- 4 A 'Performance Index' (PI) is established for each vehicle to rank the vehicles relative to each other and is based on a weighted average of the two sub-indices described in Subsections 6.1.2 and 6.1.3. The relative weighting of the indices is 70% W-HP and 30% SUSP, as listed in Section 6.3, Relative Weighting of Indices. The result is truncated at one decimal place. Add a 1.9 Adjustment Factor to all PI calculations to align with existing classes.
- 5 The root or 'Starting Class' for each vehicle is based on where that vehicle's Performance Index (PI) falls relative to the 'Starting Class' break points, as detailed in Section 6.4, 'Starting Class' Categories and Break Points.
- 6 Non-stock vehicles, i.e., vehicles that are assessed PIPs and/or authorized modifications, fall into any of the classes above its 'Starting Class', based on category break points described in Section 6.4, Starting Class Categories and Break Points; Section 4, 'Vehicle Categories, Eligibility, and Modifications'; and Section 5, 'Performance Index Point Schedule'
- 7 The OTA Car Classification Committee web database to simplify the task of calculating performance indices and classifying vehicles is; <http://ccdb.casc.on.ca>. Vehicles with a 'Weight to Horsepower Index' (W-HP) value of less than 4 lbs. per HP shall be classified on a case-by-case basis by the Car Classification Committee.

## 6.2 HANDLING INDEX

There are a number of factors that influence handling - suspension design,

steering geometry, frame/chassis rigidity, wheelbase, track, weight distribution, centre of gravity, roll stiffness, size of tire that will physically fit on the vehicle, etc. The Classification Committee has quantified these various handling attributes (and other non-engine output or weight attributes) into a 'Handling Index' number. This table consists of a list of 'Handling Index' numbers with examples of common vehicles that were used as a reference in evaluating other vehicles.

### Index Vehicle Examples

75	Corvette Z06 (2004)
70	Porsche 911 GT2 (2003), Ferrari F430
65	Mitsubishi Evo X(2011), Porsche Cayman R (2012) , Dodge Viper 2006
60	Subaru Impreza STI (2009), Porsche Boxster S (2005), Corvette coupe (2003)
55	Honda S2000 (2006), Nissan 350 (2003), Lotus Evora (2010)
50	Scion FRS/Subaru BRZ (2013), Mazda RX-8 (2006), Honda Civic Si
45	BMW 325 (2006,) Chevrolet Camaro (2002), Mazda Miata (open diff) 2006
40	Subaru Impreza WRX (2008), Honda Prelude (2001), Ford Mustang (2005)
35	Nissan Altima SE-R (2005), Mazda6 (2004), Honda Civic EX (2006)
30	Toyota Matrix (2006), Pontiac Fiero (1988), Hyundai Tiburon (2007)
25	Nissan Sentra (2007), Honda Accord LX (2003), Ford Mustang (1991)
20	Hyundai Accent (2006), Chevrolet Aveo (2006)

### 6.3 RELATIVE WEIGHTING OF INDICES

Weight-to-Horsepower Index	70%
Handling Index	30%

### 6.4 'STARTING CLASS' CATEGORIES AND BREAK POINTS

#### .1 Classification System

CLASS:	Performance Index (PI) Break Points:
Open Modified	130 (Open wheel-based race cars)
Modified 1	110-129.9 (Sedan based race cars) (Car + driver, LBS/HP less than 4, classified as Open Modified)
Modified 2	100-109.9
Modified 3	95-99.9
Super Grand Touring 1	90-94.9
Super Grand Touring 2	85-89.9
Super Grand Touring 3	80-84.9
Grand Touring 1	75-79.9
Grand Touring 2	70-74.9
Grand Touring 3	65-69.9
Grand Touring 4	60-64.9
Touring 1	55-59.9
Touring 2	50-54.9
Touring 3	less than 50 (Performance Index less than 40 will use PAX of 40)

- .2 Open Modified and MOD1 Classes for non-production vehicles, and highly modified sedan-based vehicles which challenge the basic assumptions of the classification system (e.g. section 6.1.7 applies). These classes are open ended and operate outside the linear classifications system as defined in 6.4.1. Therefore, the PAX factor is based on the best performance of cars expected to run in the OTA series but cannot take into account the maximum potential of all vehicles eligible for these classes.

The “OTA Vehicle Classification List” forms part of these regulations by reference. It contains the official Starting Class information for all production-based vehicles recognized and classified by the Car Classification Committee. Changes and additions to this list will be made official by means of a rule Bulletin. Except to correct typographical errors cars will not be reclassified after the start of the first competition event of the year; however, new cars can be added at any time. To determine your vehicle’s root or ‘Starting Class’, refer to the online Vehicle Classification database <http://ccdb.casc.on.ca>.

Create an account and log in to the site (it is free) and use the “My Saved Car” feature to create a car from the Base Car List. Then create a PIP schedule to find out which class your modifications have placed the car in.

## **SECTION 7: RTC VEHICLE CATEGORIES**

### **7.0 GENERAL RULES**

- .0 The RTC classification System is intended to be comparable to the rulesets used in other popular North American Time Attack Series to provide the opportunity for vehicles built to those rulesets to compete in OTA events using a similar format.

Raw Time Challenge uses a simplified classification system. Classification Sections 4.1 to 4.8, 5 and 6 do not apply to RTC vehicles unless that vehicle is also entered in the iPAX scored Championship.

- .1 RTC vehicles must be mass produced road going vehicles, constructed by a recognized manufacturer, be equipped with a government mandated VIN and available to the public for licenced use on public roads.
- .2 RTC vehicles may be AWD, RWD or FWD.
- .3 The OEM floor pan and shock tower locations must remain intact for RTC vehicles in all categories. The OEM wheelbase shall be retained.
- .4 All RTC vehicles must have a silhouette that is largely faithful to the original, with the general body shape and outline remaining largely true to the original stock body.
- .5 The use of Nitrous Oxide is not permitted in any RTC category.
- .6 Modifications not specifically provided for in this section 7 must be submitted for clarification to the Car Classification Committee for a decision.

## **7.1 ENTHUSIAST (RTC 3)**

### **7.1.A EXTERIOR/CHASSIS/AERO**

- .1 Full carbon fiber or other lightweight material bodies are not permitted. Bolted on components, i.e. bumpers, fenders, hood and trunk may be of alternate materials. Doors shall remain OEM.
- .2 NO aftermarket over fenders or fender flares may be installed
- .3 The OEM tub/chassis shall remain intact and not modified in any way; this refers to the entire shell and any welded-on component.
- .4 The shock towers may be modified only to allow the installation of camber/caster plates and only as necessary to obtain the required camber and caster.
- .5 Modifications to OEM suspension pick up points are not permitted.
- .6 Seam-welding is not permitted.
- .7 Flat bottom floors or under trays are not permitted unless OEM.
- .8 One significant aftermarket aerodynamic element is permitted in the front, and one in the rear of the vehicle. For example, a splitter OR canards may be used in the front of the vehicle, and a diffuser OR rear wing may be used in the rear of the vehicle.
- .9 Front air dams, lips, splitters and rear diffusers may not extend more than 3 inches beyond the bodywork as viewed from above. Aftermarket front splitters may only extend rearward to the front edge of the front wheel opening and shall not be solidly mounted to the chassis, only to the bumper cover or OEM trays.
- .10 Only one rear wing is permitted, including OEM or aftermarket spoilers. Dual element wings are not permitted. Dual element wings may be taped together with heavy-duty tape that shall not come off during the session. If the tape does come off, that session will not be scored.
- .11 No portion of the rear wing may be the highest point on the vehicle, except that end plates and swan type mounts may be higher than the roofline by up to 3 inches. Height exceptions are allowed for hatchbacks and wagons that have no rear deck for mounting a wing. "Duck bills" may be retained and may be used for wing mounting on hatchbacks/wagons only. Wing width shall also be within the footprint of the vehicle's bodywork and below the roofline.
- .12 No portion of the rear wing may extend more than 3 inches rearward of the rear most point on the bodywork.
- .13 Vehicles are limited to a maximum of four canards. Canards shall be mounted entirely forward of the front wheel and tire assembly. Canards may project a maximum of 5 inches beyond the OEM bodywork.
- .14 Active aero is not permitted.

### **7.1.B ENGINE/DRIVETRAIN/FUEL**

- .1 Dog engagement or sequential gearboxes are not permitted unless OEM.
- .2 Unleaded gasoline or Diesel may be used as fuel. Ethanol, E-85, leaded



gasoline, methanol or exotic fuels are not allowed as the primary fuel. Water/Methanol injection is permitted with a maximum of 50% methanol mix.

- .3 Vehicles shall be equipped with working catalytic converter(s) if originally equipped, through which all exhaust shall pass, except exhaust expelled by turbo waste gate dumps.
- .4 Exhaust "tips" shall not extend more than 3-inches beyond the bodywork.
- .5 Engine swaps are not permitted
- .6 Drivetrain changes are not permitted (i.e. FWD to AWD or AWD to RWD conversions).
- .7 Hybrid drive is permitted only in full OEM form with no modifications to the drive, control or battery systems.

### **7.1.C SUSPENSION/BRAKES/TIRES/WHEELS**

- .1 RTC 3 vehicles shall use DOT-approved treaded tires with a minimum UTQG-rating of 220 or higher.
- .2 Maximum Tire Width: AWD: 245; RWD: 255; FWD: 245
- .3 Aftermarket suspension control arms may only be stock geometry or commonly available toe/camber adjusters.
- .4 Adjustable shocks/dampers are not permitted to have more than one-way dampening adjustments.
- .5 In-car driver-adjustable suspension or sway bars are not permitted unless OEM for the vehicle.
- .6 Sway bars or links are not permitted to be mounted in or pass through the vehicles' interior.
- .7 Active suspension is not permitted unless it is OEM for the vehicle.
- .8 Aftermarket sub-frames are not permitted.
- .9 The top of the tire may not protrude past the widest point of the wheel arch when viewed from above

### **7.1.D INTERIOR/ROLLCAGE/SAFETY/MISC.**

- .1 All cars shall be currently registered street-driven cars with valid insurance coverage. All Enthusiast Class drivers will be asked to present valid registration and insurance paperwork during the mandatory pre-race tech inspection.
- .2 Headlights, taillights and mirrors shall be installed and in working condition.
- .3 All Enthusiast Class cars shall be driven to and from the track.
- .4 Roll cages shall not penetrate the firewall or attach to plates doing the same. If a six-point roll cage is installed, interior and trim components may be modified only as needed to facilitate installation of the cage system BUT shall be installed. No more than 6 mounting points are permitted.
- .5 No roll bar to chassis or chassis gusseting permitted.

- .6 Cars with fully gutted interiors are NOT permitted. OEM dash, headliner, carpet, center consoles, ALL passenger seats and all interior trim shall be present and installed. All components associated with the above components are required and shall be in factory working condition. Headliner may be removed if a roll cage is present.
- .7 OEM Glass is required in all positions. Front door windows shall be in full down position. Polycarbonate "Lexan" replacement windows are not permitted unless as part of an aftermarket hard top.

## **7.2 STREET (RTC 2)**

### **7.2.A EXTERIOR/CHASSIS/AERO**

- .1 Full carbon fiber or other lightweight material bodies are not permitted. Bolted on components i.e. bumpers, front fenders, hood and trunk may be of alternate materials. Doors shall remain OEM.
- .2 After-market over-fenders and fender flares may be installed on the rear OE fenders. Rear OE fenders may only be modified to allow tire clearance. On vehicles with bolt on rear fenders the entire fender may be replaced with an aftermarket fender.
- .3 Front fenders may be trimmed or vented for aero.
- .4 All glass roof panels may be replaced with alternate materials.
- .5 The OEM tub/chassis shall remain intact and not modified in any way; this refers to the entire shell and any welded-on component with allowances for roll cage, seat mounting and fuel cells only.
- .6 All OEM structure and protection shall remain intact and not modified in any way.
- .7 The shock towers may be modified only to allow the installation of camber/caster plates and only as necessary to obtain the required camber and caster.
- .8 Modifications to OEM suspension pick up points are not permitted except for camber gain adjustment on non-Macpherson strut vehicles.
- .9 All vehicles shall use the OEM front and rear shock towers in the OEM locations.
- .10 Seam-welding is permitted. No additional material other than the weld material may be added.
- .11 Flat bottom floors are not permitted between front and rear wheel centerlines unless OEM.
- .12 Front air dams, lips, splitters and rear diffusers may not extend more than 5 inches beyond any portion of the bodywork. Splitters may only extend rearward to the centerline of the front wheels. Diffusers may only extend forward to the centerline of the rear wheels.
- .13 Only one rear wing is permitted, including OEM or aftermarket spoilers. Dual element wings are not permitted. Dual element wings may be taped together

with heavy-duty tape that will not come off during the session. If the tape does come off, that session will not be scored.

- .14 No portion of the rear wing may be the highest point on the vehicle, except that end plates and swan type supports may be higher than the roofline by up to 3 inches. Height exceptions are allowed for hatchbacks and wagons that have no rear deck for mounting a wing. "Duck bills" may be retained and may be used for wing mounting on hatchbacks/wagons only.
- .15 No portion of the wing may extend more than 5 inches rearward of the rear most point on the bodywork. Rear diffusers may protrude no more than 5 inches from the rear body work in any direction.
- .16 Vehicles are limited to a maximum of four canards. Canards shall be mounted entirely forward of the front wheel and tire assembly. Canards may project a maximum of 5 inches beyond the OEM bodywork.
- .17 Active aero is not permitted.

### **7.2.B ENGINE/DRIVETRAIN/FUEL**

- .1 Dog engagement or sequential gearboxes are not permitted unless OEM.
- .2 Unleaded gasoline, e85 or diesel may be used as fuel. Leaded gasoline, methanol or exotic fuels are NOT permitted as the primary fuel. Water/Methanol injection is permitted with a maximum of 50% methanol mix.
- .3 Vehicles shall be equipped with working catalytic converter(s) if originally equipped, through which all exhaust shall pass, except exhaust expelled by turbo waste gate dumps.
- .4 Exhaust "tips" shall not extend more than 3-inches beyond the bodywork.
- .5 Engine swaps are to be of the same configuration and be available in that chassis. Swapped engines may add or subtract up to 2 cylinders or 1 rotor in a rotary.
- .6 Drivetrain changes are not permitted (i.e. FWD to AWD or AWD to RWD conversions).
- .7 Hybrid drive is permitted only in full OEM form with no modifications to the drive, control or battery systems.

### **7.2.C SUSPENSION/BRAKES/TIRES/WHEELS**

- .1 RTC 2 vehicles shall use DOT-approved treaded tires with a minimum UTQG-rating of 180 or higher. Equivalent tires from other markets (such as EU and Japan) are permitted if there is official documentation validating claims.
- .2 Maximum Tire Width: AWD: 255; RWD: 275; FWD: 255
- .3 Aftermarket suspension control arms may only be stock geometry or commonly available toe/camber adjusters.
- .4 Adjustable shocks/dampers are not permitted to have more than two-way adjustments.
- .5 In-car driver-adjustable suspension or sway bars are not permitted unless OEM for the vehicle.

- 6 Sway bars or links are not permitted to be mounted in or pass through the vehicles' interior.
- 7 Active suspension is not permitted unless OEM for the vehicle.
- 8 Aftermarket sub frames are not permitted.
- 9 The top of the tire may not protrude past the widest point of the wheel arch when viewed from above.

## **7.2.D INTERIOR/ROLLCAGE/SAFETY/MISC.**

- 1 Roll cages shall not penetrate the firewall or mount to plates doing the same. If a six-point roll cage is installed any interior and trim components may be modified only as needed to facilitate installation of the cage system BUT shall be installed. No more than 6 mounting or attachment points are permitted.
- 2 No roll bar to chassis or chassis gusseting permitted.
- 3 Cars with fully gutted interiors are NOT permitted. OEM dash and all related controls and components, if factory equipped (i.e. radio, heater controls, HVAC assembly, instrument cluster etc...) shall be maintained and functional. Radio shall power up, if factory equipped. Blower motor shall be functional. Steering wheel controls may be removed, steering wheels are open. OEM dash, OEM center consoles, OEM front door panels, glove box, kick panels and doorsills shall remain. A functional passenger seat shall be present. Headliner and carpet and all trim shall be present b-pillar forward. Headliner may be removed if a roll cage is present.
- 4 OEM Glass is required in all positions. Front door windows shall be in full down position. Polycarbonate "Lexan" replacement windows are not permitted unless as part of an aftermarket hard/soft top.
- 5 Headlights, taillights and mirrors shall be installed and in working condition.
- 6 All Street class drivers shall present valid registration and insurance paperwork during the mandatory pre-race tech inspection.

## **7.3 LIMITED (RTC 1)**

### **7.3.A EXTERIOR/CHASSIS/AERO**

- 1 Full carbon fiber or other lightweight material bodies are not permitted. Bolted on components, i.e. bumpers, front fenders, hood and trunk may be of alternate materials. Doors shall remain in unmodified OEM condition unless there is alternate driver side impact protection from a roll cage. Roof panels may be replaced with an alternate material if the vehicle has a 6point or better roll cage.
- 2 After-market fenders and fender flares may be installed. Rear OE fenders may only be modified to allow tire clearance. On vehicles with bolt on rear fenders the entire fender may be replaced with an aftermarket fender.
- 3 The OEM Glass windshield shall be installed; polycarbonate "Lexan" windows are acceptable in all other positions.
- 4 Front door glass may be removed.
- 5 All glass roof panels may be replaced with alternate materials.

- .6 The OEM floor pan shall remain intact from the front firewall to the forward edge of the rear seat tray or trunk if no rear seat. Modifications to allow for the installation of a FIA-approved fuel cell, roll cage, seat mounting, air jacks or exhaust routing are permitted. Modifications to the firewall are limited to clearance for an engine swap, wiring, and plumbing; it shall be structural and sealed.
- .7 OEM front and rear shock towers shall remain intact and attached to OEM tub as stock. Shocks/struts shall attach to these towers and shall pass through the original hole in the towers. The shock tower may be modified to install shock mounts, reinforcements or spacers but the OEM structure shall remain in place. They may be clearanced for engine swap fitment only.
- .8 Live axles may be replaced by IRS and vice versa using OEM or equivalent upgraded components from another vehicle and shall be mounted as closely to the OEM designed geometry of the donor car as possible. A 4 link may be replaced by a Panhard bar and torque arm on live (solid) axle vehicles. Donor parts shall come from an RTC eligible vehicle.
- .9 Frame and chassis may be modified to allow for proper suspension travel but are restricted to those modifications necessary to accomplish the above. The chassis/frame rails ahead of the front and behind the rear shock towers and suspension pick up points may be modified or removed.
- .10 Only one wing is permitted including OEM or aftermarket spoilers. "Duck bills" may be retained and may be used for wing mounting,
- .11 Full under tray/flat bottom is not permitted. Diffusers and splitters may only protrude inward to the axle centerline unless OEM.

### **7.3.B ENGINE/DRIVETRAIN/FUEL**

- .1 Sequentially shifted transmissions are not permitted unless OEM. Gear sets may be dog engaged.
- .2 Diesel, any gasoline and ethanol are permitted. Methanol, nitro-methane, RC fuel and other equivalent exotic fuels are not permitted. Water/Methanol injection is permitted with a maximum of 50% Methanol mix.
- .3 Re-location of the engine and or transmission is not permitted.
- .4 Engine swaps are open. If an engine and or transmission swap is performed the new engine and or transmission shall be installed as close as is possible to the OEM engine and transmission location.
- .5 Engine exhaust shall exit behind front axle with allowances for external waste gate dumps. If the exhaust exits upward in front of the driver a respirator system is required.
- .6 Hybrid drive is permitted only in full OEM form with no modifications to the drive, control or battery systems.

### **7.3.C SUSPENSION/BRAKE/TIRES/WHEELS**

- .1 RTC 1 vehicles shall use DOT-approved treaded tires with a minimum UTQG-rating of 60 or higher.

- .2 Adjustable shocks/dampers with a maximum 3-way adjustment are permitted.
- .3 Aftermarket active suspension is not permitted. Vehicles with OEM semi-active or active suspension are permitted to use the OEM system in an unmodified form.
- .4 In-car suspension adjustment is not permitted unless OEM equipped.
- .5 Suspension type changes are limited to OEM component transfer from donor car to complete an IRS conversion or vice versa. Components shall be mounted as closely to OEM designed geometry and position of the donor as possible. Donor components shall come from an RTC eligible production vehicle.
- .6 Tire warmers are not permitted.

### **7.3.D INTERIOR/ROLLCAGE/SAFETY/MISC.**

- .1 A six-point roll cage with side impact protection is strongly recommended.
- .2 The roll cage may penetrate the firewall. The firewall shall be sealed.
- .3 All vehicles are required to have front and rear tow hooks
- .4 Vehicles with fully gutted interiors are NOT permitted. OEM dash panel shall be retained but may be trimmed for clearance. Shift lever surround and center armrest may be removed. Radio may be removed. Headliner and carpet may be removed. Doors may be "gutted" if a six-point roll cage with side impact protection is installed.

### **7.4 UNLIMITED (MOD 1)**

#### **7.4.A CLASSIFICATION**

- .1 Unlimited RTC vehicles are those which are modified beyond the limits of RTC 1. Levels of preparation and modification are expected to be comparable to iPAX vehicles that are classified as Mod 1 and shall therefore meet the same standard. Unlimited RTC vehicles shall conform to the safety regulations that apply to iPAX vehicles classified as Mod 1.

## **SECTION 8: ORGANIZER'S GUIDELINES**

### **8.0 COURSE SAFETY**

- .1 It is important that the spectator viewing areas and the spectator parking areas be kept a safe distance from the course, especially the start/finish area. Course security is a priority. Spectators are to be expected, and adequate crowd control provisions should be in place. Unless protected by substantial barriers, spectator areas should be roped/taped off or clearly defined.
- .2 Full consideration should be given to safety in the pits, around the start/finish areas, and near the flag stations. Particular attention should be given to assuring that no-one including Timekeepers and Marshals are placed in hazardous locations.
- .3 There should be adequate course Marshals to oversee all competition runs and to ensure safety as well as equality to all competitors.

- 4 Where the course is not visible in its entirety from a central point where the Clerk of the Course is located, a reliable communication system linking the flagging stations with the Clerk of the Course is to be established.
- 5 The Clerk of the Course may, at his discretion, declare a vehicle 2WO under the following circumstances:
  - a) A driver dirties the track surface by cutting corners, knocks a pylon onto the track, or drags any other object onto the track surface that may force other vehicles on-track to slow or change their line in order to avoid it;
  - b) A driver spins on-track, but holds up the event (i.e., forces a full course red flag to be thrown);
  - c) A driver ignores or misses flags.
  - d) A driver's on-track conduct, in the opinion of the Clerk of the Course, endangers the driver, other competitors, or slows the progress of the event (i.e., going too slowly on a warm-up or cool down lap).
- 6 The Organizer is to provide each marshal station and the start/finish area with red, yellow, green, white and black flags plus a 10BC or better fire extinguisher. The Marshals are to be instructed in their proper use.
- 7 The minimum number of 10BC or better fire extinguishers provided at each event is equivalent to the number of marshalling stations plus four (4) spares.
- 8 The Organizer is to have a prearranged plan to cope with major emergencies. This, as a minimum, means having quick access to an unlocked cellular phone with a list of local emergency phone numbers. Note: 911 dialing is not available in all areas. Organizers are responsible to post all area emergency numbers for quick access by organizing staff and safety officials.
- 9 The Organizer may choose to restrict the eligibility of a vehicle or competitor to participate in an event.
- 10 The Clerk of the Course is responsible for monitoring the safety of the course when vehicles are on the track. Should the course become obstructed, the Clerk is to direct that a red flag be displayed at all marshalling stations (see 8.1.4 below). Once the obstruction has been sufficiently cleared the Clerk may direct the marshalling stations to restart vehicles with a green flag (see 8.1.7 below).

### **8.1 PERMITS**

- .1 A permit will be required for all CASC-OR sanctioned championship events. The permit fee is payable at least 30 days before the event. A permit shall not be required for OTA schools, lapping days, and test & tune events.
- 2 A flag, timer or other equipment rental fee (if required) shall be submitted 6 weeks before the event. Equipment shall be returned to CASC-OR before the following weekend, or sooner if specified, or the rental fee will be repeated for each weekend (unless by other written agreement). The amount of such fees shall be set annually by CASC-OR.
- .3 Any club organizing a Championship Event or an event requiring a permit shall submit to the OTA Director, for approval, the following items at least thirty (30) days in advance of the event:
  - a) Event Supplementary Regulations for approval before publication to the sport;
  - b) Copies of advertising material to be used to publicize the event to the general public and competitors;

- c) Copies of the material sent to the media;
- d) Event flyers.

## **8.2 EVENT FLYERS AND SUPPLEMENTARY REGULATIONS**

- .1 The Supplementary Regulations and the Event Flyer may be combined in one document or issued in two parts.
- .2 An Event Flyer shall contain:
  - a) The words "sanctioned by the Canadian Automobile Sport Clubs Ontario Region" or "sanctioned by CASC-OR." With the website link, [www.time-attack.ca](http://www.time-attack.ca);
  - b) The names of the event, series sponsors, event sponsors and organizing club;
  - c) Date and location of the event;
  - d) The entry fee schedule;
  - e) The name, telephone number and email address of the Organizer or alternate club contact;
- .3 Event Supplementary Regulations shall contain:
  - a) The names of the event and organizing club;
  - b) The name, telephone number and email address of the Organizer or alternate club contact;
  - c) The names and contact information for the Steward(s) of the meeting and the Clerk(s) of the course;
  - d) Date and location of the event;
  - e) The time of registration, scrutineering, drivers' meeting, first run and close of registration;
  - f) The entry fee schedule;
  - g) Any maximum vehicle noise level restrictions, if different from what is in these regulations;
  - h) Passing rules and procedures, plus a description of the passing zones (if used);
  - i) A detailed list of prizes and trophies to be awarded;
- .4 In the case of a series of individual events, the above information may be combined in a set of Series Supplementary Regulations.
- .5 Any Supplementary Regulations are to be posted at the event and competitors are to be made aware of them at the Drivers' Meeting.

## **8.3 ORGANIZERS DOCUMENTATION**

- .1 At a race track, the Organizer shall display the following items at a central and easily accessible location, e.g., registration area or the same location where run groups, marshalling assignments, and lap times are posted:
  - a) Permit;
  - b) Insurance certificate;
  - c) Copy of Supplementary Regulations;
  - d) List of officials, this list shall also be read at a drivers' meeting.

## **8.4 COURSE**

- .1 Any changes made to the course/track configuration, made with the approval of the steward(s), shall be brought to the attention of the competitors, at a driver



- 2 The course, including the start and finish, shall be clearly defined. When course pylons are used, their location shall be clearly marked to assure accurate replacement after being displaced.
- 3 Course pylons shall have a minimum height of ten (10) inches and shall be of a distinctive colour. Pylons shall be heavy enough to prevent movement other than that caused by contact with a competing vehicle.
- 4 The course shall meet the approval of the Chief Steward prior to the start of the competition.

## **8.5 TIMING**

- .1 An electronic timer is to be used as the primary timing system at all championship events. It is operated under the direction of the Chief Timer throughout the event.
- .2 If, in the opinion of the Chief Timer, a failure has occurred with the timing system, a rerun may be given by the Clerk of the Course.
- .3 In the event of a total failure of the primary timing system, another timing device or system may be used. The device shall be capable of timing to a hundredth of a second. A manual analogue or digital stopwatch may be used, provided that the Organizer, Steward(s) and the Chief Timer accept it.
- .4 In the case of .3 above, if a competitor's official time was on a timing system only capable of timing to a hundredth of a second while another competitor's official time was on a timing system capable of timing to a thousandth of a second, then the following shall apply: if the competitors are tied to a hundredth of a second, then the thousandth of a second timing portion shall not be considered for scoring points.

Example: A time of 61.495 shall be considered tied with a time of 61.49.

## **8.6 PADDOCK**

- .1 A paddock area is to be provided for the use of competing vehicles and their service vehicles and a speed limit of 15 km/h shall be enforced.

## **8.7 STEWARDS**

- .1 Where no non-competing Steward is appointed, either by the Region, or failing that by the organizing club, then the Organizer shall appoint a committee of 3 competitors as acting Stewards who shall carry out the duty of Chief Steward. Stewards, if possible, should be experienced competitors, come from different classes and be members of other than the organizing club. Names of the Steward(s) should be announced at the Drivers Meeting and published in the Supplementary Regulations.

## **8.8 INSURANCE and WAIVERS**

- .1 OTA Event insurance is provided under the ASN Canada FIA insurance plan. All OTA events organized by a CASC-OR club shall be covered by this minimum level of insurance.
- 2 Clubs organizing OTA events that advertise to attract spectators to the event (paid or otherwise) shall obtain spectator insurance.
- 3 All competitors, officials, timers, workers, team personnel and all other persons who are permitted to enter areas normally closed to the general public are to read, understand & sign the ASN Canada FIA supplied General Waiver before being allowed to go into the course area, timing vehicle/area, or to marshal, volunteer or participate in the event.
- 4 Competitors, or other participants, under the age of majority are to complete and sign the ASN Canada FIA supplied "Minor Participant Waiver". An

“Annual Parental Consent Waiver” shall also be signed by parents/guardians.

- 5 All ASN Canada FIA supplied waivers may be downloaded from their website at [www.asncanada.com](http://www.asncanada.com) and printed by the Organizer(s) for use during the event. Care should be taken to ensure all words on the printed copies are clearly legible.
- 6 All waivers are to be completed in full including the date(s) and name of the event at the top of the waiver.
- 7 In the registration process, individuals responsible for the waiver are to maintain the waiver under their control at all times and sign the witness section as each participant signs the waiver.
- 8 Property owners or sponsors who request they be added to the event insurance certificate as additional insureds can be accommodated by Organizers listing the additional insureds in the event insurance application.

### **8.9 INCIDENT REPORTS**

- 1 All accidents, injuries, incidents and impacts or damages occurring during the event are to be reported by sending a completed ASN Canada FIA Incident Report Form to both the CASC-OR office and the ASN Canada FIA office within forty-eight hours of the conclusion of the Event. An Incident Report is to be completed for each and every accident(s) whether or not a claim is anticipated. Organizers may download and print the Incident Report form from the ASN Canada FIA website.
- 2 The Incident Report should be completed in full following the instructions in the form, with as many details as possible, including names and addresses of any witnesses or injured parties as well as medical treatment provided, details of any video tapes and photographs that may have been taken, etc.
- 3 The original Report should be mailed to the ASN Canada FIA office after it has been faxed.

### **8.10 OFFICIAL RESULTS**

- 1 Official results should include:
  - a) Name and date of the event;
  - b) Name of the Chief Organizer, Clerk of the Course, Chief Timer, and Steward(s);
  - c) The words: "sanctioned by Canadian Automobile Sports Clubs Ontario Region";
  - d) An acknowledgement of sponsors;
  - e) Name of each competitor including first name, not initial;
  - f) Club of each competitor;
  - g) Vehicle sponsors if recorded on the entry form;
  - h) Make and model of car driven by each competitor;
  - i) Time for the best run/lap including penalties, for final position;
  - j) Results published in classes, in the finishing order;
  - k) A complete list of all trophy and prize-winners
- 2 Copies of the official results of any event requiring a permit (schools exempt) shall be sent to the CASC-OR office and the OTA Director.
- 3 Official results for the Regional Championship shall be sent within eight (8)

days of the event and posted to the OTA website within fifteen (15) days.

- .4 Official results that do not comply with all of the above shall be returned to the Chief Organizer with a directive to re-issue them in the proper form and/or the performance bond (if applicable) shall be forfeited.
- .5 The event results are provisional for 30 minutes after being posted, at which time, if there are no protests or appeals, they shall become Official.

### **8.11 COMPETITION EVENT REPORT**

- .1 CHIEF STEWARD'S REPORT submitted to OTA Director and CASC-OR within fourteen (14) days of the event.

## **SECTION 9: COMPETITION COURSES**

### **9.1 APPROVAL OF COURSES**

Competition courses shall be subject to the approval of CASC-OR Ontario Time Attack. Specifically, CASC-OR Ontario Time Attack may:

- a) restrict the number of Cars which may be started simultaneously or in total;
  - a. The maximum number of vehicles permitted on track at one time is determined by taking the length of the track in meters and dividing it by 125;
  - b. Vehicle spacing is controlled by the Clerk of the Course;
- b) restrict the number of entries which may be accepted for a Competition event. To be determined by OTA Committee;
- c) restrict the course to certain classes and categories of Cars as per OTA Regulations;
- d) restrict the course to certain grades of Drivers as per OTA Regulations;

### **9.2 MEASUREMENT OF COURSES**

The official length of a course shall be measured along the centre line of the course

### **9.4 INSPECTION OF COURSES**

- .1 A Committee of at least two OTA members will inspect a new track prior to competition. They will then report back to the Ontario Time Attack Director and the Ontario Time Attack Committee with their recommendation(s).
- .2 A track inspection will be subject to, but not limited to the following:
  - Minimum width of track - 12M
  - Check condition of asphalt. Track surface should be clean and free of debris.
  - Adequate Run off areas.
  - Placement of concrete walls, tire walls and steel guardrails must be adequate to protect non-participants. These should be checked for firm location and properly tightened where applicable. In the case of tire barriers, the tires should be bolted tightly in place.
  - Ensure no hay bales are placed on the track surface.
  - Ensure obstacles such as buildings, trees, light standards, etc. will not be in runoff areas.
  - Curbing should be checked that is not damaged. If so, it must be repaired prior to competition.
  - All edges, verges and lateral areas should be level with the edge of the track.

- All areas behind curbs should be filled in and level.
  - Clerks must have a line of sight to all areas of the track, or have radio contact to dedicated workers who do.
  - Pit entry and pit exit must be well marked.
  - Passing zones will be determined, such that they can be clearly marked by cones placed at beginning and end of zone.
  - Identification of a suitable grid area.
  - Identification of a suitable paddock area.
  - Determine the number and location of marshal stations.
  - Determine the location for ambulance and rescue vehicle(s)
  - Determine if any dangerous or unusual items exist that should be marked with cones – this may include timing equipment, or other items that competitors should be aware of.
  - Optionally, organizers should identify other track features and equipment:
    - The provision of radios, fire extinguishers and flags
    - The location of emergency services, such as police and hospitals for input into the emergency plan
    - Camping facilities, including washrooms, showers and power.
- .3 Based on the inspection committee's report, the Ontario Time Attack committee will approve or reject the course.

## Appendix A: Supplemental Safety Equipment Information

Please note that you should follow the installation instructions of your safety equipment manufacturer as applied specifically to your vehicle. In the absence of information specific to your equipment, the following serves as minimum standards and guidance.

### 1.0 Safety Harness Use

- a) A safety harness must be used in its homologation configuration without any modification or removal of parts and in conformity with the manufacturer's instructions.
- b) The effectiveness and longevity of safety belts are directly related to the manner in which they are installed, used and maintained.
- c) The safety harness, in its entirety, must be replaced after every severe collision, and whenever the webbing is cut, frayed or weakened due to the actions of chemicals or sunlight.
- d) The safety harness must also be replaced if metal parts or buckles are bent, deformed or rusted.
- e) Any safety harness which does not function properly must be replaced.

#### 1.1 Fit of Safety Harness

- a) The lap and crotch straps must not pass over the sides of the seat, but through the seat in order to wrap and hold the pelvic region over the greatest possible surface.
- b) The lap straps must fit tightly in the bend between the pelvic crest and the upper thigh. Under no conditions must they be worn over the region of the abdomen.
- c) Care must be taken that the straps cannot be damaged through chafing against sharp edges.

#### 1.2 Installation Points

- a) It is prohibited for the safety harness lap straps to be anchored to the seat or its supports.
- b) A safety harness may be installed on the anchorage points of the vehicle as long as those anchorage points are not part of the seat or its supports.
- c) The recommended geometrical locations of the anchorage points are shown on page 49:

In the downwards direction, the shoulder straps must be directed towards the rear and must be installed in such a way that they do not make an angle of more than 45° to the horizontal from the upper rim of the backrest, although it is recommended that this angle should not exceed 10°. The maximum angles in relation to the centre-line of the seat are 20° divergent or convergent. Anchorage points creating a higher angle to the horizontal must not be used.

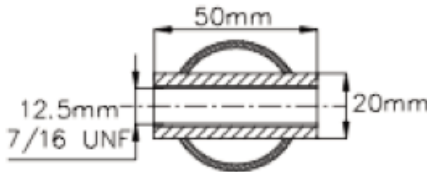


### 1.3 Locking Bales

If the manufacturer provides for safety wiring the locking bale to prevent accidental unfastening of the safety harness straps from their anchorage points, then it shall be necessary for the all such components to be safety wired.

### 1.4 Alternative Anchorage Options

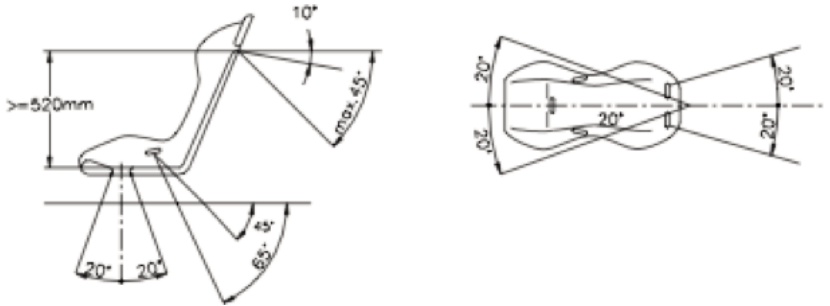
- a) If installation using the OEM anchorage points is impossible for the shoulder and/or crotch straps, new anchorage points must be installed on the shell or the chassis (as near as possible to the centre-line of the rear wheels for the shoulder straps). The shoulder straps may also be fixed to the safety roll cage or to a reinforcement bar by means of a loop and may also be fixed to the top anchorage points of the rear OEM belts, or be fixed or leaning on a transversal reinforcement welded to the backstays of the roll bar. (See drawing below.)
- b) In this case, the use of a transversal reinforcement is subject to the following conditions:
- The transversal reinforcement shall be a tube measuring at least 38 (1.5") mm x 2.5 mm or 40 (1.6") mm x 2 mm, made from cold drawn seamless carbon steel, with a minimum tensile strength of 350 N/mm<sup>2</sup>;
  - The height of this reinforcement must be such that the shoulder straps, towards the rear, are directed downwards with an angle of between 10° and 45° to the horizontal from the rim of the backrest, an angle of 10° being recommended;
  - The straps may be attached by looping or by bolts, but in the latter case an insert must be welded for each mounting point (see drawing below for the dimensions);
  - These inserts will be positioned in the reinforcement tube and the straps will be attached to them using bolts as per 14.4.9 M12 8.8 or 7/16 UNF specification.



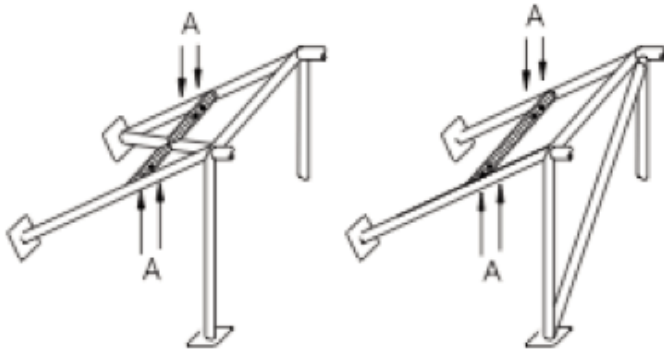
- Each anchorage point must be able to withstand a load of 1470 daN, or 720 daN for the crotch straps.
- In the case of one anchorage point for two straps, the load considered will be equal to the sum of the required loads.
- For each new anchorage point created, a steel reinforcement plate with a surface area of at least 40 cm<sup>2</sup> and a thickness of at least 3 mm must be used.

**1.5 Principles of Mounting to the Chassis/Monocoque**

a) General mounting system: see drawing below 253-43.



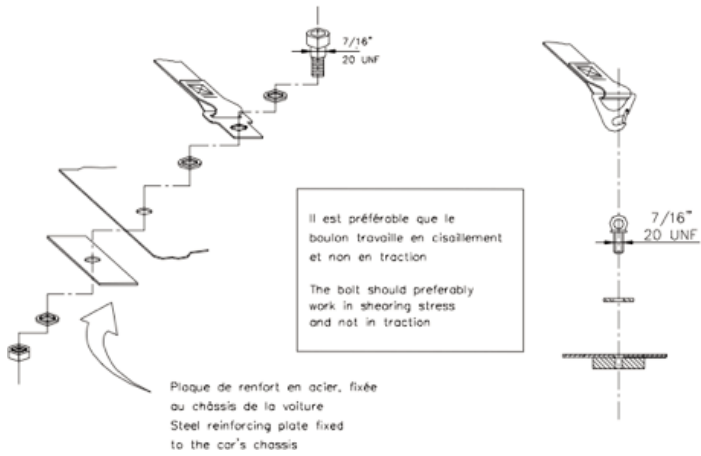
b) Shoulder Strap Mounting: see drawing below:



Ⓐ trous de montage pour harnais  
mounting holes for harness

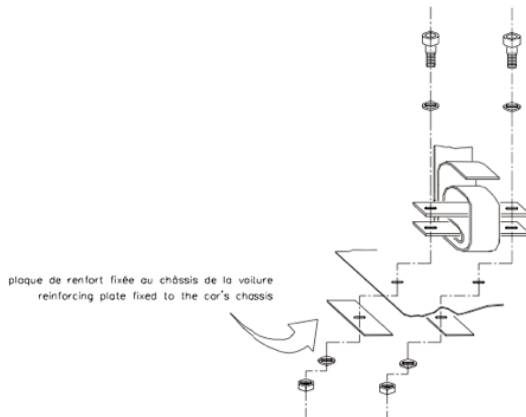
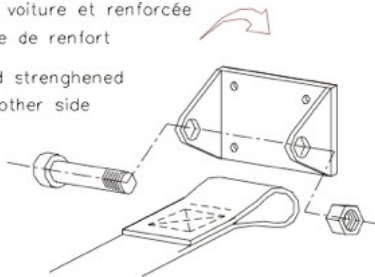


c) Crotch Strap Mounting: see drawing below:



plaque fixée au châssis de la voiture et renforcée  
de l'autre côté par une plaque de renfort

plate fixed to the chassis and strengthened  
by a reinforced plate on the other side



## OTA PARTICIPATING CLUBS



[oshawamotorsportclub.com](http://oshawamotorsportclub.com)

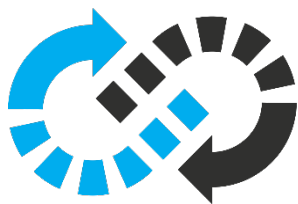


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