



# World Time Attack Challenge

TECHNICAL REGULATIONS FOR ALL VEHICLES

Version 2.2

Updated 15 February 2016

# TECHNICAL REGULATIONS - 2016

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## GENERAL REGULATIONS

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If you have any questions please contact [scrutineer@superlap.com.au](mailto:scrutineer@superlap.com.au) and allow up to 14 days for a response.

The regulations of the World Time Attack Challenge are designed to ensure the highest level of safety. Each driver and vehicle must comply with all written and oral directions of the event promoters and/or event officials. Failure to comply may result in immediate exclusion from the event, with no refund of entry fees.

### 1. PREAMBLE

- 1.1 Each automobile must remain in compliance with all provisions of the regulations contained herein and relevant CAMS regulations at all times during the event. Vehicles may be checked for compliance at any time throughout the event, refusal to comply will result in a penalty up to exclusion in conjunction with the Stewards;
- 1.2 Any aspect relating to the construction, modification and/or preparation of each automobile that is not specifically authorised in these regulations or the relevant CAMS regulations is not permitted.

### 2. VEHICLES

- (a) each vehicle must be a recognised model from a vehicle manufacturer (see definitions);
- (b) a vehicle defined as an Open Wheel vehicle, Clubman, Kit car or centre-steered vehicle are NOT permitted, as determined by the event promoter;
- (c) each vehicle must have only four (4) wheels with the steering acting on the front wheels only unless rear wheel steering is originally fitted, in which case the original system may remain;
- (d) each vehicle may only contain one conventional internal combustion engine however Pro Class vehicles may be fitted with a KERS or electric power type device;
- (e) each vehicle must comply with the WTA Safety Regulations.

### 3. COMPETITIONS

#### THE EVENT WILL COMPRISE FOUR COMPETITIONS:

#### 3.1 Clubsprint:

- (a) designed to be the entry level class for World Time Attack with modification restrictions and tyre limits to contain costs;
- (b) professional drivers as determined by the event promoter are not permitted in Clubsprint class;
- (c) a Supercar as determined by the vehicle list within these regulations is not permitted; and
- (d) each Clubsprint vehicle must use the Advan AD08 Neova control tyre.

#### 3.2 Open Class:

- (a) Further freedoms allowed beyond Clubsprint class, whilst retaining some restrictions;
- (b) each Driver must be nominated on the entry form and may not drive more than two cars within this class; and
- (c) each Open Class vehicles must use the Advan A050 Control tyre.

### **3.3 Pro Am Class:**

- (a) this class is for the owners of Pro or Open class cars who want to compete without the presence of professional drivers as determined by the event promoter;
- (b) refer to the vehicle modification freedoms allowed for Pro class. All regulations are as per Pro Class with the exception of the driver rule. Entry is by application; and
- (c) each Pro Am Class vehicle must use the Advan A050 Control tyre.

### **3.4 Pro Class:**

- (a) the highest level of Time Attack racing for professional teams. Additional freedoms are allowed beyond Open class;
- (b) Pro class is by invitation only by application to the event promoter. Invitations will be at the sole discretion of the event promoter;
- (c) each Driver must be nominated on the entry form and may not drive more than two cars within this class; and
- (d) each Pro Class vehicle must use the Advan A050 Control tyre.

## **4. VEHICLE SIGNS**

- (a) Each compulsory event sponsor and event promoter decal, including numbers, as supplied by the event promoter must be placed on the vehicle as per instructions provided at documentation. Any vehicle found to be on track without each compulsory decal may be excluded from results.
- (b) Other than the event tyre supplier, no signage or livery of any tyre company is to be displayed larger than 500mm long and 200mm high on any competing vehicle and no more than four individual signs per vehicle.

## **5. GRANDFATHER CLAUSE**

**In certain and restricted circumstances the event promoter may allow a vehicle of significant WTAC competition history to compete under the previous WTAC regulations. This will be at the sole discretion of the event promoter and any vehicle approved may be subject to a penalty as determined by the event promoter. This penalty may include the addition of weight over the minimum required, a tyre restriction or other penalty as determined and advised by the event promoter.**

# **SAFETY REGULATIONS**

## **1. DRIVER SAFETY APPAREL**

**As a minimum, each driver is required to wear the following which must be presented for inspection at pre-event scrutiny:**

- (a) a Helmet complying with the requirements for a National Speed Event in accordance with CAMS Manual of Motor Sport Schedule D. If using a Frontal Head Restraint (FHR), such as a HANS® device, then the helmet must be compliant for use of a FHR;
- (b) footwear, socks and gloves each compliant with FIA 8856-2000 standard;
- (c) in an open car, goggles or a visor with a lens material other than glass (i.e. to AS1609-1981) are mandatory.

The use of a FHR is highly recommended.

The use of apparel of a higher standard is highly recommended.

## 2. APPAREL FOR EACH WTAC CLASS

For each WTAC Class each driver shall be required to wear the following which must be presented for inspection at pre-event scrutiny:

### 2.1 Clubsprint:

- (a) non-flammable clothing extending from neck to wrist to ankles (apparel of nylon or similar material is forbidden).

### 2.2 Open Class (in addition to the requirements of Clubsprint):

- (a) a one piece driving suit complying with, as a minimum, FIA 1986 standard;
- (b) a balaclava complying with FIA 8856-2000 must be worn.

### 2.3 Pro and Pro Am (in addition to the requirements for Clubsprint and Open):

- (a) underwear complying with FIA 8856-2000;
- (b) a Frontal Head Restraint, such as a HANS ® device.

## 3. VEHICLE SAFETY

Each vehicle must comply, as a minimum, with the CAMS Manual of Motor Sport (CAMS Manual) Schedule A and B. The following is also required for each WTAC Class:

### 3.1 All classes:

- (a) a minimum of one (1) hand held fire extinguisher, with a minimum capacity of 900g, compliant with CAMS Manual Schedule H.
- (b) A convertible type vehicle must be equipped with a hard top or a roll cage that complies with CAMS regulations, and/or meets the approval of the Chief Scrutineer.

### 3.2 Clubsprint:

- (a) a minimum of a four (4) point Safety Harness in compliance with CAMS Manual Schedule I;
- (b) a seat for the driver that is suited to the use and fitment of a Safety Harness. The use of a motor sport seat compliant with FIA standard 8855-1999, as a minimum, is highly recommended;
- (c) a battery isolation (master) switch, which effectively isolates all electrical circuits from the battery and stops the engine, is highly recommended;
- (d) original brake lights fitted which must be working when the brake is applied;
- (e) with no fewer than two functional rear vision mirrors.

### 3.3 Open Class:

- (a) a minimum of a five (5) or six (6) point Safety Harness in compliance with the CAMS Manual of Motor Sport Schedule I;
- (b) a seat for the driver that is of a fixed back design and recognised for use in motor sport. The use of a motor sport seat compliant with FIA standard 8855-1999, as a minimum, is highly recommended;
- (c) a battery isolation (master) switch, which effectively isolates all electrical circuits from the battery and stops the engine. There must be second switch, or a remote means of operating the main switch, from the vicinity of the base of the A pillar on the driver side, and clearly marked.

### 3.4 Pro Am and Pro Class (in addition to the requirements for Open Class):

- (a) a seat for the driver compliant, as a minimum, with FIA 8855-1999 standard;
- (b) an on-board (or plumbed in) fire extinguisher system of a minimum of 2.4litre capacity and recommended to comply with the FIA requirements;
- (c) a single brake light, mid mounted, which must work when the brake is applied and must be easily and externally visible at the rear of the car;
- (d) a rear vision camera system may be used in place of rear vision mirrors. Each rear view camera system must be approved by the Chief Scrutineer.

#### 4. PRE EVENT SCRUTINY REQUIREMENTS

**Each vehicle must present for scrutiny in a clean, tidy and ready to start condition. Scrutiny must be completed before the vehicle shall be permitted to take part in the competition or its on-track activities. Each vehicle that holds a CAMS Logbook must present the logbook at scrutiny. Following Scrutiny each vehicle will be fitted with a sticker confirming that the vehicle has passed scrutineering prior to it being able to compete. The event promoter will be the sole judge of eligibility for each vehicle in each WTAC class, in conjunction with the Chief Scrutineer. The following details further requirements for each vehicle, in accordance with the CAMS Manual:**

- (a) ensure all loose objects are removed from the vehicle;
- (b) have each battery firmly clamped and the battery location identified by a blue triangle;
- (c) be fitted with two separate fastening systems on any bonnet or other panel where the leading edge can be raised;
- (d) be fitted with a front and rear tow point that is clearly marked;
- (e) have fitted an adhesive cover to any forward facing glass components, save for the windscreen;
- (f) have the engine compartment sealed completely from the cockpit;
- (g) be constructed to minimize the entry of foreign matter into the driving compartment from the road or road wheels;
- (h) have any propeller shaft and/or universal joint, if passing through the cockpit, fitted in a fixed casing;
- (i) be constructed in a way that any longitudinal propeller shaft is protected from striking the ground;
- (j) have any driving chain effectively guarded;
- (k) have any container within the cockpit which can hold more than 500mL of hot liquid (other than a series heater core) enclosed in a sealed compartment isolating it from the cockpit;
- (l) have each fuel tank vented externally to the bodywork;
- (m) be fitted with a bulkhead constructed from a flame- and liquid-proof material. If the material is clear it shall be a minimum of 6mm thick. This bulkhead shall effectively seal the cockpit from any fuel tank, fuel system pumps/collectors or refuelling system;
- (n) if fitted with any crankcase breather discharging to the atmosphere, each breather be vented into a catch tank of minimum capacity of two litres for engines up to 2000cc or three litres for over 2000cc;
- (o) if fitted with any engine radiator coolant vent discharging to the atmosphere, each coolant vent be vented to a catch tank of a minimum capacity of one litre;
- (p) each window or windscreen fitted made from a material which is clear or, if tinted compliant with Australian Standards AS2080;
- (q) if fitted with rigid brake pipes have such pipes made of steel bundy tubing or equivalent. The installation must be such to protect the pipes against vibration and damage;
- (r) if fitted with any camera/video recorder attached to the automobile it must be securely mounted and approved by the Chief Scrutineer. Suction cup mounts will not be permitted to be fitted to the external surfaces of the vehicle without the addition of a secondary tether secured to the vehicle;
- (s) be fitted with a return mechanism which, in the event of any throttle linkage failure, will close each throttle;
- (t) be fitted with a driver-operable reverse gear;
- (u) be fitted with a steering wheel not incorporating any wood, unless such is the original component of the automobile.

## 5. DURING EVENT SCRUTINY

**Each vehicle may be required, at the request of a scrutineer, to undergo any further check or inspection at any time during the event;**

- (a) any vehicle found to be leaking oil or fluids whilst competing will be suspended from the event until the Chief Scrutineer / Clerk of the Course is satisfied that action has been taken to rectify the leak. Should there be a further reoccurrence of a leak whilst competing then the vehicle will be deemed in breach of the regulations and may be applied a further penalty that may include exclusion from the event in conjunction with the Stewards;
- (b) each tyre for use must be marked and recorded before use in the WTAC competition by the appointed tyre scrutineer.

## PERMITTED VEHICLE MODIFICATIONS

**All vehicles must be presented as originally manufactured (see definitions) apart from the freedoms allowed in these regulations.**

### FURTHER NOTE

**Any vehicle that does not meet the definitions listed will need to be considered on a case-by-case basis. If your vehicle does not have shock towers, frame rails, or any other items listed or you are unclear (for example a vehicle which came equipped with push rod suspension) you must submit your vehicle modifications for approval.**

### 1. BODY

#### 1.1 Clubsprint:

- (a) Alternative materials are permitted for the Front Bar, Bonnet, Side Skirts, Rear Bar and Boot provided they follow the same shape as the original part.
- (b) Alternative materials are permitted for front and rear flares.
- (c) **Wheel arch** modifications of OEM fenders to allow fitment of the control tyre are permitted.
- (d) OEM fenders must be of original material however flare extensions are permitted to cover control tyre.
- (e) The top 1/3 of the tyre must not protrude outside the guard/flare when the wheels are facing forwards.
- (f) The remainder of the vehicle body must remain as original from the manufacturer. (No wide body kits)

#### 1.2 Open:

- (a) Alternative materials are permitted **for removable panels including roof section** however all bodies must follow the same shape and retain the original look and style of the vehicle.
- (b) Front and rear bars may be modified to incorporate aero design. Front bar may not extend further than 150mm forward and rear bar no further than 100mm rearward than the vehicles bodywork.
- (c) Total Vehicle width in front view (measured at its widest point, excluding mirrors) must not exceed 250mm wider than original.
- (d) Headlights may be removed but replaced with suitable decals where possible in the original location.
- (e) Windows may be replaced with Lexan, however original glass windscreen must be retained.

#### 1.3 Pro and Pro Am (additional to the permitted modifications outlined in Open):

- (a) Total vehicle width (measured at its widest point, excluding mirrors and front winglets/canards as outlined for Pro class) must not exceed 350mm wider than original.
- (b) Windscreen may be replaced with Lexan but must be in original position.
- (c) Original tail lights must be retained in original position and must be visible from rear (cannot be decals). The addition of a single working brake light may be fitted as a minimum if original lights are inoperable.

- (d) The B pillar may be moved only to improve driver access and must be retained.

## 2. CHASSIS

- (a) All vehicles must retain the original firewall.
- (b) Modifications can be made for transmission clearance, wiring or roll cage, however the resulting **firewall** must resemble the original and continue to be both structural and create a seal between the forward area and the cockpit. Any replacement material must be of the same thickness as the original firewall and of similar material (e.g., steel for steel, aluminium for aluminium).
- (c) Original shock towers must be retained.
- (d) No fully tubular construction or composite monocoques are allowed.

### 2.2 Open Class:

- (a) The rear most part of the engine block may be no more than 51mm rearward of the most forward point of the mainly vertical firewall. If the vehicle is rear engine, the front most part of the engine block may be no more than 51mm forward of the most rear point of the mainly vertical firewall.
- (b) The Firewall may be modified for clearance of engine but must remain in original position.
- (c) Aftermarket sub frames are permitted to be used provided they are bolted in.
- (d) Wheel arch "tubbing" or removal of material is permitted front and rear for the sole purpose of bump
- (e) Clearance for tires or cooling system ducting forward of the front shock towers.
- (f) Allowance for removal of material for fitment of fuel or fluid tanks associated fittings and exhaust is permitted in the rear section of the vehicle.
- (g) **Rear floor maybe modified to accommodate rear differential in vehicles that were originally front wheel drive vehicles.**

### 2.3 Pro and Pro Am Class:

- (a) Composite/ Carbon fibre materials can be used only in non-structural components unless originally fitted.
- (b) Forward retention of the original chassis:
- (c) Original frame rails (see definitions) and **front** shock towers must be retained from the upper portion of the shock towers and back. Modifications are allowed solely for the addition or relocation of suspension pickup geometry.
- (d) For the rear retention of the original chassis the original floor pan and frame rails must be retained from the firewall to the forward most point of the rear wheel arch. Allowance for removal material for fitment of fuel or fluid tanks and associated fittings is permitted
- (e) Modifications are allowed only as needed for exhaust, driveshaft clearance, mounting of roll cage, seat or other safety items. Under no circumstances can any portion of the frame rails or floor pan be removed or modified from the rear of the driver's seat forward to the firewall except as required for exhaust clearance, transmission clearance, tail-shaft clearance or the detailed addition of bushes or brackets in mounting under surfaces.

## 3. MINIMUM VEHICLE WEIGHTS

**Minimum weight will be deemed to include all liquid tanks at normal levels and with a maximum of 5 litres of fuel. All weights are without driver. All vehicle weights must be based on a "production vehicle status" and not a "factory special" with a minimum of 500 of the vehicle produced worldwide. Minimum weights for vehicles is detailed in Appendix A - Vehicle Weights Table.**

### 3.1 Clubsprint:

Minimum weight for Clubsprint will be determined by the manufacturer's original specifications for the lightest version of that particular model of vehicle, minus 5%. E.g. Mitsubishi Lancer Evo 9 not merely Mitsubishi Lancer. Vehicles with original weight exceeding 1500kg will not apply the 5% rule but will have a minimum allowed competition weight of 1425kg. **Naturally aspirated vehicles are permitted an additional 10% decrease to the minimum weight.**

### 3.2 Open:

Minimum weight for Open Class will be determined by the manufacturer's original specifications for the lightest version of that particular model of vehicle, minus 15%. E.g. Mitsubishi Lancer Evo 9 not merely Mitsubishi Lancer. Vehicles with original weight exceeding 1500kg will not apply the 15% rule but will have a minimum allowed competition weight of 1275kg.

### 3.3 Pro and Pro Am:

Minimum weight for Pro Class will be determined by the manufacturer's original specifications for the lightest version of that particular model of vehicle, minus 20%. E.g. Mitsubishi Lancer Evo 9 not merely Mitsubishi Lancer. Vehicles with original weight exceeding 1500kg will not apply the 20% rule but will have a minimum allowed competition weight of 1200kg.

## 4. ROLLOVER PROTECTION

### 4.1 Clubsprint:

Rollover protection is strongly recommended for Clubsprint.

Each vehicle with a performance level, based on lap time, quicker than a 1.45 min lap of Sydney Motorsport Park Grand Prix Circuit must be fitted as a minimum with a CAMS Type 2 Safety Cage (half cage).

### 4.2 Open, Pro Am and Pro:

Rollover protection is compulsory and must be of a minimum 6-point construction that complies with CAMS regulations, and/or meets the approval of the Chief Scrutineer.

## 5. AERODYNAMIC AIDS

- (a) All aerodynamic additions must be within the body parameters outlined for the relevant vehicle class.
- (b) Strength and method of aero component fastening will be checked thoroughly at scrutineering and if found to be unsuitable the vehicle will not be permitted to start until improvements are made to meet approval of the Chief Scrutineer.
- (c) Active aero including any hydraulically or electronically actuated or movable components are not permitted in any class.
- (d) All measurements have a tolerance of +/-3mm to allow for inaccuracy of hand measurement and thermal expansion.
- (e) It is permitted to fit the following:

### 5.1 Clubsprint:

- (a) Front under tray/splitter must follow the outline of the front bar and may extend 50mm ahead of the vehicle bodywork, no further rearward than the front axle and no wider than the front OEM guards.
- (b) Front canards/winglets are permitted but must not extend wider than 50mm beyond OEM coachwork.
- (c) OEM rear wings or aftermarket rear wings with up to two separate elements may be used in an unmodified form. The width of the wing must not exceed the widest part of the body. Only one aftermarket wing per vehicle is permitted.
- (d) Rear wing must be fitted as such to be over the body or boot in plan view, except in case of a hatchback, the rear wing assembly is only required to begin over the body. No portion of the wing can be higher than the horizontal line from the highest point of the roof sheet metal except in the case of a hatchback where the wing can be no higher than 150mm from the highest point of the wing to the roofline and must be on the rear portion of the roof.
- (e) Rear diffuser/ under tray must not extend beyond the vehicles bodywork and forward only to the rear axle.
- (f) Aftermarket side mirrors are permitted.

### 5.2 Open:

- (a) Front under tray/splitter must follow the outline of the front bar and may extend only 150mm beyond the original coachwork longitudinally forward. It can extend rearwards to the front axle centreline.
- (b) Front aero is permitted but must not extend higher than the top of the bonnet or 100mm beyond the vehicle bodywork at its closest point, whichever is smallest.



- (c) Front canards/winglets are permitted but must not extend more than 75mm beyond the coachwork and must remain within the maximum vehicle width defined in Article 1 Body.
- (d) Rear Wing assembly design is free and may have up to two elements. It must extend no higher than the horizontal line from the highest point of the roof, no wider than 100mm per side wider than the body width and 100mm further rearward than the original coachwork except in the case of a hatchback where the wing can be no higher than 250mm from the highest point of the wing to the roofline and must be on the rear portion of the roof. End plates are measured separately with a maximum thickness of 10mm.
- (e) Rear diffuser/under tray may extend up to 100mm beyond the vehicles bodywork and forward only to the rear axle.
- (f) Original under body floor between the axles is required, no flat bottoms, diffusers, etc. may extend forward of the rear axle or aft of the front axle.

### 5.3 Pro and Pro Am:

- (a) Front under tray/splitter may extend up to 300mm forward of the vehicles bodywork.
- (b) Front appendages may not be fitted higher than the bonnet. Front/rear winglets/canards cannot extend more than 300mm per side past the splitter/under-tray maximum overhang. End plates are measured separately with a maximum thickness of 10mm.
- (c) Rear wing assembly design is free and may extend up to 150mm per side wider than the original coachwork in front view. **The wing can be no higher than 250mm from the horizontal line from the highest point of the factory roof panel.**
- (d) End plates are measured separately with a maximum thickness of 10mm.
- (e) Rear diffuser/under tray may extend 300mm rearward beyond the furthest point of the vehicles bodywork.
- (f) Flat floors are permitted in Pro class. The flat floor is not permitted to be part of the structural monocoque. Mechanical force is not permitted to be used with the design of the floor.

## 6. ENGINE

- (a) All vehicles must use unleaded or E85 fuel in accordance with CAMS requirements.
- (b) Engine changes during the event are permitted subject to the approval of the Chief Scrutineer.
- (c) The Mazda 26B four rotor is considered a production engine by the promoter.

### 6.1 Clubsprint:

- (a) Engine modifications are free except that vehicles must retain an engine from the OEM manufacturer of that vehicle and the number of cylinders or in the case of a rotary engine, rotors must remain as per OEM.
- (b) The use of a turbocharger or supercharger is allowed. *For example if the vehicle is a Toyota that came with a four cylinder engine the vehicle can be fitted with any Toyota 4 cylinder engine that can also use forced induction.*

### 6.2 Open, Pro Am and Pro:

- (a) Engine modifications are free save for the engine must **be based on a production engine from a recognised vehicle manufacturer.**
- (b) The crankshaft centre line may be lowered. The engine positioning and mounts being free provided that its relationship to the firewall is not exceeded as in Article 2 Chassis.

## 7. NITROUS OXIDE

The following details the requirements to use Nitrous Oxide. Any vehicle that does not meet these requirements will need to seek approval from WTAC PRIOR to the Event for any variation.

Competitors are reminded of the dangers associated with the incorrect use of nitrous oxide. It is highly recommended that systems are sourced in complete form, from a recognised manufacturer. The following regulations apply;

### 7.1 Nitrous Lines

Must be outside of cockpit for the driver, except where the bottle is mounted in the driver's compartment, in which case the line must be plumbed outside the compartment as near as possible to the bottle outlet. Where lines pass converter or flywheel area, they must be encased in 3mm (1/8 inch) minimum thickness steel tubing. High pressure rated hose of minimum 1500 psi is required, and a sintered bronze filter, fit for purpose, must be fitted in the gas supply line.

### 7.2 Bottle Mounting

Bottles must be mounted outside of the engine compartment. Any bottle located in the driver's compartment must be mounted with metal brackets secured to a structural point of the vehicle, and a relief valve, vented outside the driver's compartment, to the atmosphere. Bottles must be upright or semi upright. Inverted bottles not permitted. Bottles must be equipped with on/off taps. Bottle shut-offs requiring special keys are not acceptable. Bottles used must be purpose built for use with nitrous oxide. Electric devices used for raising the temperature of nitrous oxide bottles must be produced for that purpose by an industry manufacturer, and may not be modified in any way.

### 7.3 Switching

Both solenoids must operate from a common switch and the system must be capable of being switched off by three means: (1) when the throttle is closed; (2) by a special arming switch that provides power to the solenoids; (3) through the normal ignition switch.

### 7.4 Markers

All vehicles using Nitrous Oxide must display special markers located on the outside of the vehicle, in the area where the supply bottle is located and adjacent to the vehicles WTAC competition No. on the side of the vehicle. The marker shall be a yellow diamond with 125mm sides, with N<sup>2</sup>O printed in black letters.



### 7.5 Warning Light

A prominent blue warning light, located on the dashboard of the vehicle and visible through the windscreen, must indicate when the system is armed.

### 7.6 Permitted WTAC Classes for Nitrous Oxide

- (a) **Clubsprint Class:** not permitted
- (b) **Open Class:** naturally aspirated vehicles only
- (c) **Pro Am Class:** naturally aspirated vehicles only
- (d) **Pro Class:** all vehicles

## 8. EXHAUST

- (a) The complete exhaust system may be modified or replaced as per:

### 8.1 NOISE

- (a) Clubsprint Class must comply with 95db @ 30m noise restrictions.
- (b) All other classes are exempt from noise restrictions however we do recommend the use of a muffler or silencer.

## 8.2 Clubsprint:

- (a) The exhaust must exit within 100mm of the original location and shall not protrude more than 100mm beyond the rear most portion of the bodywork.

## 8.3 Open, Pro Am and Pro:

- (a) For rearward facing exhaust the outlet(s) shall be between 75mm and 600mm above the ground and within 100mm longitudinally of the rear of the bodywork. If the exhaust is directed sideways the outlet(s) must be located rearward of the midpoint of the wheelbase and shall not project beyond the maximum width of the vehicles bodywork or terminate more than 50mm inwards of the coachwork. A side exit exhaust must exit in a direction away from the centreline of the vehicle.

## 9. TRANSMISSION, DIFFERENTIAL AND DRIVELINE

- (a) Clutches and flywheel are free.
- (b) Gearbox and differential may be replaced by another of free design.
- (c) Internal components of transmission and differential are free.
- (d) The bell housing is free.
- (e) Gearbox and differential oil coolers are permitted.
- (f) Automatic transmissions if provided as an option by the manufacturer for that model are permitted.

### 9.1 Clubsprint:

- (a) Original mounting points for Transmission and Differential must be used.
- (b) Sequential change systems are not permitted unless OEM.

### 9.2 Open:

- (a) Driveline is free save for original number of drive wheels must be retained e.g. 2WD, 4WD.
- (b) Original mounting points for Transmission and Differential must be used except where front wheel drive has been converted to rear wheel drive.
- (c) Sequential shifting is permitted but Paddle style shifting mechanisms are not permitted unless originally fitted.
- (d) Transmission tunnel modifications necessary to allow the fitment of a transmission are permitted.
- (e) Replacement tail shafts are permitted.

### 9.3 Pro and Pro Am:

- (a) Driveline is free save for 4WD which may be converted to 2WD. An original 2WD vehicle cannot be converted to 4WD.
- (b) Mounting points are free.
- (c) Paddle shifting mechanisms are permitted.

## 10. SUSPENSION

- (a) Springs and Dampers may be replaced however the number of dampers per vehicle must remain as original.
- (b) Suspension bushes are free.
- (c) Original mounting points of the suspension may be reinforced and altered in design but not in location (**except Pro Am and Pro**).
- (d) Sway bars are free.
- (e) Minimum ride heights: Each fully sprung part of the automobile, except for the exhaust system, must be at least the specified height above the ground when measured at any point within the wheelbase. The automobile ride height will be measured without the driver and tyre pressures at a minimum of 20psi.
- (f) All measurements have a tolerance of +/-3mm to allow for inaccuracy of hand measurement and thermal expansion.

**10.1 Clubsprint:**

- (a) Minimum ride height of 80mm measured as described in rule 9(e). Only the exhaust may sit lower than this height.
- (b) Vehicle must use original chassis mounting points and uprights but suspension geometry and arms are free
- (c) Original hub location must be retained.

**10.2 Open:**

- (a) Original mounting points for suspension sub frames may be reinforced and altered in design but not in location.
- (b) Minimum ride height of 65mm measured as described in article 9(e). This includes all side skirts, splitters, bodywork.
- (c) Suspension is free, save for the mounting points as per article 9(c).

**10.3 Pro and Pro Am:**

- (a) Minimum ride height of 50mm measured as described in article 9(e).

**11. BRAKES**

- (a) With the exception of computer controlled diagonal or transverse braking systems, which are not permitted in any class unless originally fitted, the complete braking system is free except for:

**11.1 Clubsprint:**

- (a) Original mounting points must be used.

**12. TYRES**

Tyre restrictions will apply to all competition classes as follows:

- (a) All tyres must be marked by the organisers at scrutineering.
- (b) The use of any tyre softening chemical or treatment on tyres is strictly prohibited and will result in immediate exclusion from the event
- (c) Random tyre checking will be conducted throughout the event, failure to comply will result in a penalty up to exclusion.
- (d) Tyre sizes are defined by width(mm)/aspect ratio(profile)/diameter(inch)

**12.1 Clubsprint:**

- (a) Must use Advan Neova AD08
- (b) Maximum of 8 tyres may be used throughout the event.
- (c) Tyres on all wheel drive vehicles must be no wider than 265 unless specified larger by the manufacturer for that particular vehicle in which case the tyre must match the manufacturers size specification. Two wheel drive vehicles must be no wider than 295 unless specified larger by the manufacturer in which case the tyre must match the manufacturers specification.
- (d) If the tyre is not available in the Advan size range then the vehicle must use the original specification tyres or a similar tyre deemed appropriate and this must be checked and approved by the organisers prior to competing.

**12.2 Open:**

- (a) Must use Advan A050 in Soft or Medium compound.
- (b) Maximum of 12 tyres may be used throughout the event.

**12.3 Pro Am:**

- (a) Must use Advan A050 in Soft or Medium compound.
- (b) Maximum of 16 tyres may be used throughout the event.

**12.4 Pro:**

- (a) Must use Advan A050 in Soft or Medium compound.

- (b) Maximum of 24 tyres may be used throughout the event.

**12.5 Tyre Size Restriction for Ultra-Light Vehicles**

- (a) An Ultra-light vehicle is a vehicle that in modified format as per Appendix A for vehicle class weights has a competition weight of less than 1001kg for 4WD vehicles, 901kg for RWD vehicles and 801kg for FWD vehicles.
- (b) Any vehicle falling into these categories the following tyre size restrictions will apply:

4WD (tyre width in mm)	RWD (tyre width in mm)	FWD (tyre width in mm)
<750kg = 205 tyre	<700kg = 205 tyre	< 700kg = 225 tyre
751kg-800kg = 225 tyre	701kg-750kg = 225 tyre	701kg-750kg = 255 tyre
801kg-950kg = 255 tyre	751kg-800kg = 255 tyre	751kg-800kg = 265 tyre
951kg-1000kg = 265 tyre	801kg-900kg = 265 tyre	>801kg = 295 tyre
>1001kg = 295 tyre	>901kg = 295 tyre	

**13. WHEELS**

- (a) Wheels are free and size is unrestricted but must be suited to the tyre size used.
- (b) A maximum of one metallic spacer may be used behind each wheel. Consideration must be given to wheel stud length when fitting spacers. For **Clubsprint** class the maximum spacer size is 30mm per side.

**14. INTERIOR**

- (a) Local modification to interior for fitment of a roll cage is allowed. Interior is free save for the following exceptions:

**14.1 Clubsprint:**

- (a) Complete original dash must be retained; additional switches and gauges may be added.
- (b) Original door trims must be retained.
- (c) Replacement instrument cluster is permitted.
- (d) Removable steering wheels are permitted if the vehicle is fitted with a roll cage as a safety precaution with regard to entry and exit access.

**14.2 Open, Pro Am and Pro:**

- (a) Door trims of free material and design must be fitted.
- (b) Window nets may be fitted and are highly recommended.
- (c) Driving position may be moved rearwards, but not beyond the rear foot well.
- (d) All vehicles must retain a full length dashboard.

## 15. VEHICLE SUPERCAR LIST (INELIGIBLE FOR CLUBSPRINT CLASS)

Audi R8

Ferrari - All

Lamborghini - All

Nissan GTR (R35)

Porsche - All except 924/944

Chevrolet C6 Zo6, ZR1 Corvette

Dodge Viper

Aston Martin - All

Mercedes SLS or any Black series

McLaren - All

Lexus LFA

TVR - All

Ford GT

## 16. DEFINITIONS

- (a) **CAMS** - Confederation of Australian Motor Sport
- (b) **Alternative Materials** - Materials of suitable and acceptable strength and construction for use in motor vehicle parts and panels.
- (c) **Body work** - Refers to the exterior body of a motor vehicle.
- (d) **Dashboard** - A dashboard (also called dash, instrument panel, or fascia) is a control panel placed in front of the driver of an automobile, housing instrumentation and controls for operation of the vehicle.
- (e) **Firewall** - A firewall is a fire proof barrier that separates the engine from the driver and passengers.
- (f) **Frame Rails** - Two primary boxed sections running fore to aft on the vehicle.
- (g) **Recognised Model** - A model which the organisers, at their sole discretion, recognise as a model of vehicle produced by a manufacturer to a given specification.
- (h) **Standard Specification** - As originally supplied from the manufacturer, including allowable production tolerances.
- (i) **Sub Frame** - A structural component of an automobile that uses an additional separate structure to carry certain components, such as the engine, drivetrain, or suspension. The sub frame is bolted to the original integral monocoque, chassis or frame rails of the vehicle and may be equipped with rubber bushings to dampen vibration.
- (j) **Suspension Pick-Up Point** - A bracket, lug or similar mechanical component attached to, or integral with, the fully sprung part of a vehicle, to which is attached a partially unsprung suspension component, and about which such suspension component moves through an arc or solid angle consequential to normal suspension travel.
- (k) **Original** - A component which is the one originally fitted when manufactured Eg. OEM (Original Equipment Manufacturer).
- (l) **Vehicle** - A land vehicle propelled by its own means, running on at least four wheels not aligned, which are designed to be in contact with the ground. The steering must be controlled by at least two of the wheels, and the propulsion by at least two of the wheels.
- (m) **WTAC** - World Time Attack Challenge

# Appendix A

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**Vehicle Weights.** All weights in kg. If your vehicle is not listed contact the event organisers.

<b>Make</b>	<b>Model</b>	<b>Weight</b>	<b>Clubsprint</b>	<b>Open</b>	<b>Pro AM</b>	<b>Pro</b>
BMW	E36	1,460	1387	1241	1168	1168
Chevrolet	Corvette C5 ZO6	1,413	1342.35	1201.05	1130.4	1130.4
Daihatsu	Charade	740	703	629	592	592
Holden	Astra	1,120	1,064	952	896	896
Holden	VL Commodore	1,250	1187.5	1062.5	1000	1000
Honda	Civic	925	878.7	786.2	740	740
Honda	CRX	886	841.7	753.1	708.8	708.8
Honda	DC5R	1,180	1121	1003	944	944
Honda	NSX	1,274	1210.3	1082.9	1019.2	1019.2
Honda	Integra	1060	1007	901	841	841
Honda	NSX	1,274	1210.3	1082.9	1019.2	1019.2
Honda	S2000	1250	1187.5	1062.5	1000	1000
Lexus	ISF	1,735	1648.25	1474.75	1388	1388
Lotus	Exige	914	868.3	776.9	731.2	731.2
Lotus	Elise	860	817	731	688	688
Mazda	RX8	1,309	1243.55	1112.65	1047.2	1047.2
Mazda	NC MX5	1,110	1054.5	943.5	888	888
Mazda	NB MX5	1,065	1011.75	905.25	852	852
Mazda	NAMX5	940	893	799	752	752
Mazda	FC RX7	1,190	1130.5	1011.5	952	952
Mazda	FD RX7	1,150	1092.5	977.5	920	920
Mazda	FB/SA RX7	1,000	950	850	800	800
Mercedes	C63	1779	1690.05	1512.15	1423.2	1423.2

Mitsubishi	Colt	1,074	1020.3	912.9	859.2	859.2
Mitsubishi	Eclipse	1,305	1239.75	1109.25	1044	1044
Mitsubishi	Evolution 5	1,260	1197	1071	1008	1008
Mitsubishi	Evolution 6	1,260	1197	1071	1008	1008
Mitsubishi	Evolution 6.5	1,260	1197	1071	1008	1008
Mitsubishi	Evolution 7	1,320	1254	1122	1056	1056
Mitsubishi	Evolution 8	1,320	1254	1122	1056	1056
Mitsubishi	Evolution 9	1,310	1244.5	1113.5	1048	1048
Mitsubishi	Evolution X	1,420	1349	1207	1136	1136
Nissan	180SX	1225	1163.75	1041.25	980	980
Nissan	240Z	1,068	1014.6	907.8	854.4	854.4
Nissan	260Z	1111	1055.45	944.35	888.8	888.8
Nissan	Bluebird	1070	1016.5	909.5	856	856
Nissan	R31 Skyline	1310	1244.5	1113.5	1048	1048
Nissan	R32 GTR	1,430	1358.5	1215.5	1144	1144
Nissan	R33 GTR	1540	1463	1309	1232	1232
Nissan	R33 GTST	1,390	1320.5	1181.5	1112	1112
Nissan	R34 GTR	1,536	1459.2	1305.6	1228.8	1228.8
Nissan	R35 GTR	1,740	1653	1479	1392	1392
Nissan	S13 Silvia	1224	1162.8	1040.4	979.2	979.2
Nissan	S14 Silvia	1253	1190.35	1065.05	1002.4	1002.4
Nissan	S15 Silvia	1253	1190.35	1065.05	1002.4	1002.4
Porsche	Porsche 944	1180	1121	1003	944	944
Subaru	BRZ	1,190	1130.5	1011.5	952	952
Subaru	WRX GC8	1240	1178	1054	992	992
Subaru	WRX GD	1,310	1244.5	1113	1048	1048
Subaru	WRX GE	1,394	1324.3	1184.9	1115.2	1115.2

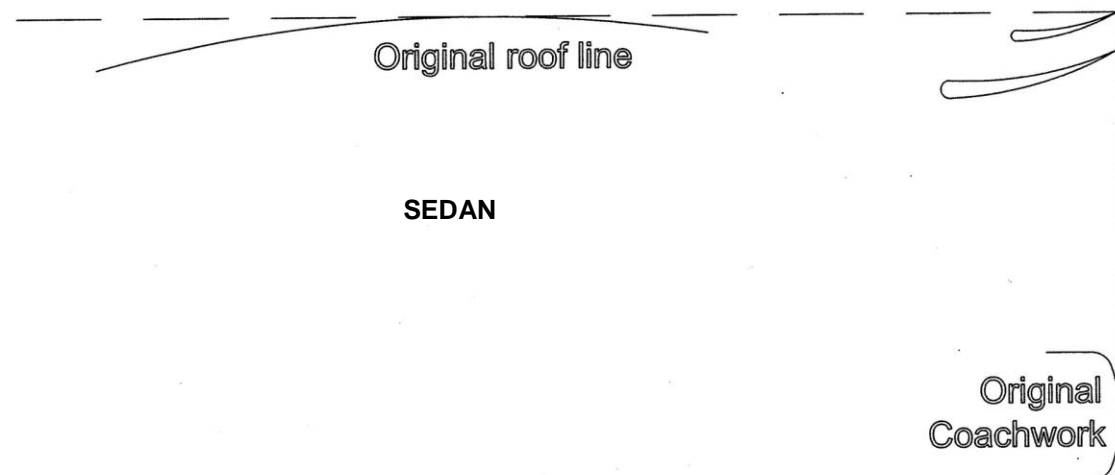
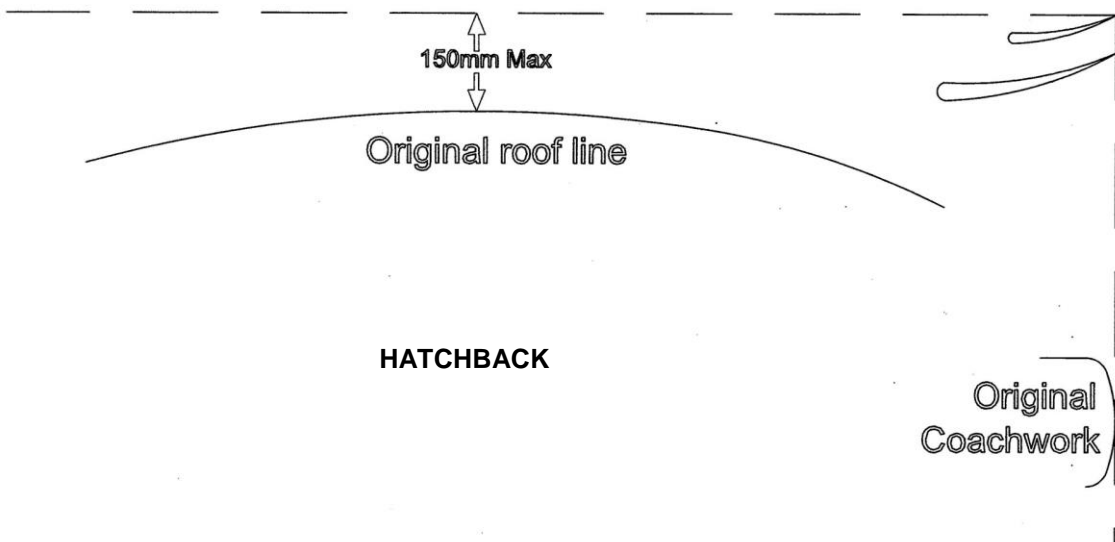
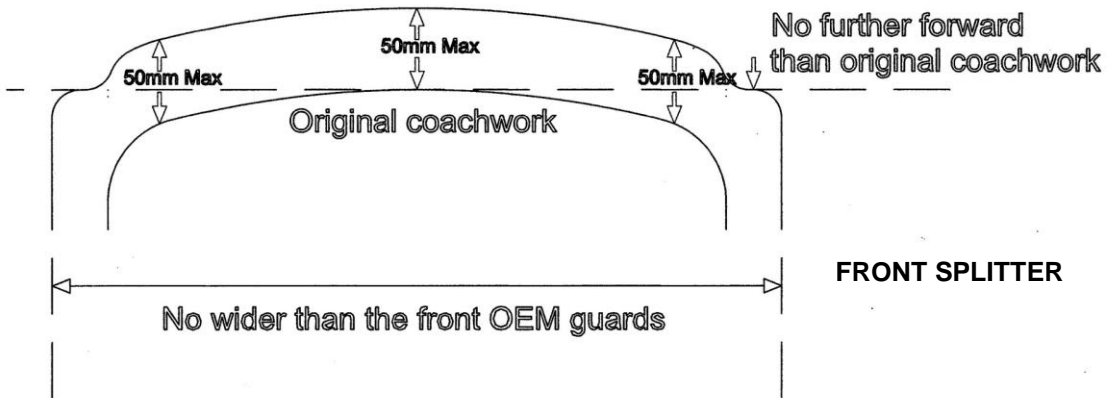


Toyota	FT86	1,190	1130.5	1011.5	952	952
Toyota	Supra	1,460	1387	1241	1168	1168

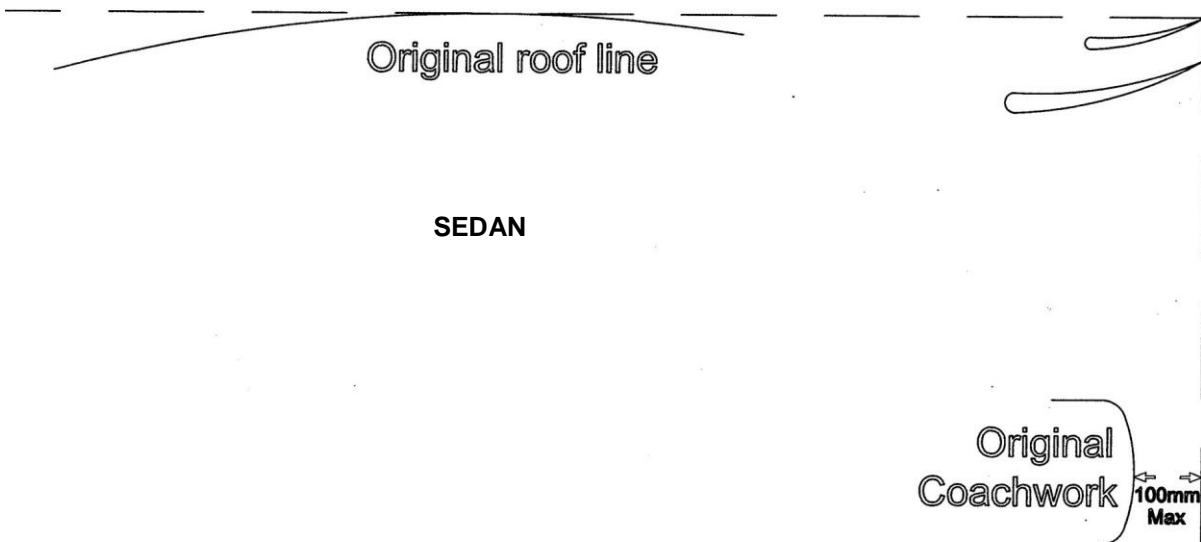
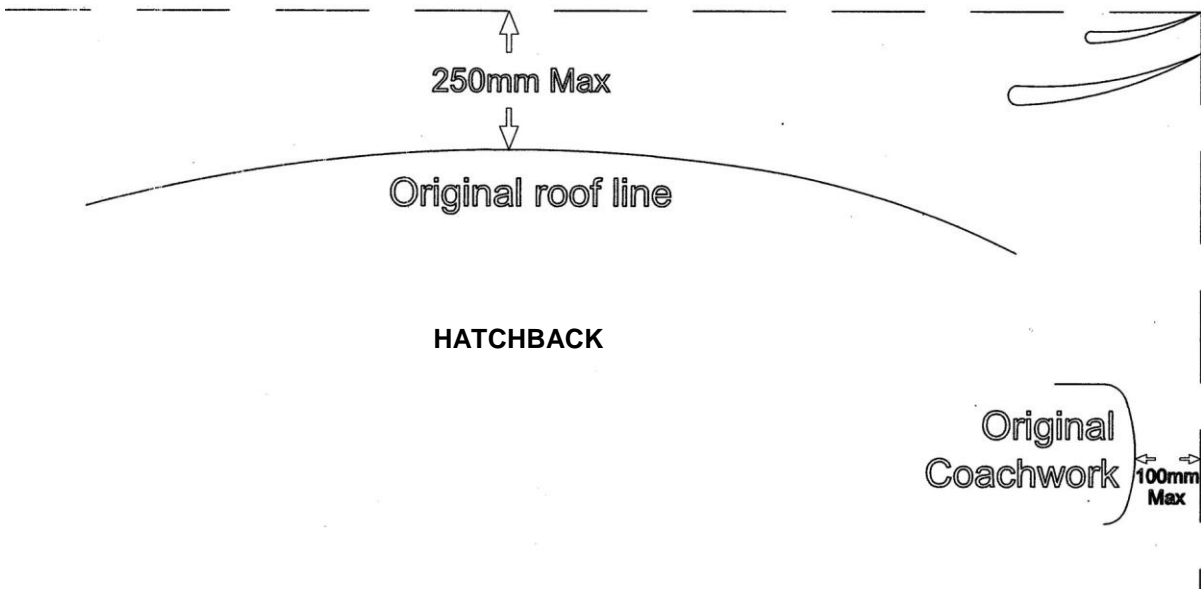
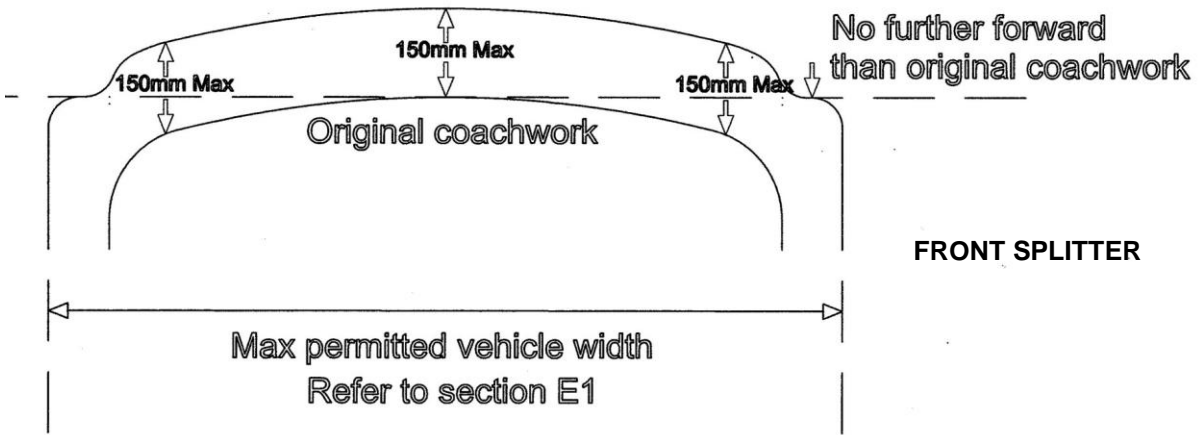
# Appendix B

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## Aero Limits Diagrams – Clubsprint Class



**Aero Limits Diagrams – Open Class**



**Aero Limits Diagrams – Pro Class**

