



## **2010 GP2 Lightning-Rods Specifications**

**This FORMULA is NON-CONTACT and cars should be prepared with a professional racing appearance. This standard is required to be kept up throughout the drivers racing season. Cars with tatty, dented and badly battered panels will not be passed by the scrutineer.**

### **VIOLATIONS**

**When referring to the engine, gearbox, differential, mechanical or construction, rules and regulations the principle will always be: Unless permission is specifically granted to make modifications, or any variation, unless these rules state you can do it, you CANNOT DO IT.**

**Cars, Engines and Fuel will be checked on a random basis. Violations will result in an immediate suspension of all racing facilities and any refusal will also result in an immediate suspension. The Promotion reserves the right to purchase any car for £800. If this is refused a ban will result.**

**N.B. Drivers are reminded that scrutineer checks can be carried out at any time. If parts are suspected of being illegal make sure you leave them with the promotion if you do not agree. If you refuse it will automatically make the parts illegal. It is the responsibility of the driver to prove to the Promotion that the part is legal by the way of written proof of where the part originated. This must be done within seven days, otherwise the part(s) in question will be deemed to be illegal and will result in immediate suspension from racing.**

**1 DRIVERS- NO COMPETITOR UNDER THE AGE OF 16 WILL BE ALLOWED TO RACE.**

- 2** **CARS**- 4 Door Saloon cars or 5-Door Hatchbacks up 1600cc may be used. The only cars eligible for use are those listed hereafter. **NO TURBOS, NO SUPERCHARGERS, NO FUEL INJECTIONS, NO DRY SUMP SYSTEMS PERMITTED. ONLY 8 VALVE ENGINES PERMITTED.** Cars must be **BRIGHTLY COLOURED** and neat and tidy at all times. Any car contravening this Rule will **NOT** be allowed to race.

**SEE SEPARATE ELIGIBLE CARS SPECIFICATON SHEET ATTACHED**

- 3** **ENGINES**- All parts to engines must be original. The only modifications that can be done are the ones that are stated. Engines must be of the type originally fitted to the car and obviously cars must have same make of engine to make of car e.g. Vauxhall CAR/Vauxhall ENGINE. It is permissible to have the **CYLINDER HEAD SKIMMED** by a **MAXIMUM OF 40 THOU.**

**FLYWHEELS MUST NOT BE LIGHTENED.**

**CAMSHAFTS MUST remain STANDARD.**

**PEUGEOT 206 MUST USE MANIFOLD, CARBURETTOR, EXHAUST SYSTEM ETC FROM PEUGEOT 205 & 306.**

**RENAULT MEGANE MK1 MUST USE MANIFOLD, CARBURETTOR, EXHAUST SYSTEM ETC FROM RENAULT 19.**

**VAUXHALL Mk3 & Mk4 MUST USE CYLINDER HEAD, MANIFOLD, CARBURETTOR, EXHAUST SYSTEM ETC. FROM VAUXHALL ASTRA Mk 2 MODELS.**

**Engines MUST be bolted into position and must remain in original position- Mounting points or engine cradles must not be changed in anyway.**

- 4** **CARBURETTOR**- must be the item originally fitted to the engine and the casting must not be altered in anyway. (In the case of the **FORD SIERRA** the only **CARBURETTOR PERMISSABLE** is the **WEBBER CARBURETTOR** as

**ORIGINALLY FITTED). Jets may be changed, although no reprofiling or enlargement of air or fuel galleries allowed. Floats must not be modified. An Air filter unit must be fitted, Competition type filters may be fitted.**

- 5 EXHAUSTS- Full length standard exhaust system MUST BE IN PLACE, and Silencers must reduce the noise levels below 95 decibels at all times. No Performance exhausts. If a silencer or silencers break AWAY during racing, the driver will be excluded. Manifolds must be of the standard type originally fitted to the car.**

**Peugeot 206 must use Manifold & Exhaust system ETC. from either Peugeot 205/306.**

**Renault Megane Mk1 must use Manifold & Exhaust system ETC. from Renault 19.**

**Vauxhall Astra Mk3 & Mk4 must use Manifold & Exhaust system ETC. from Astra Mk2 Models.**

- 6 TRANSMISSION- GEARBOXES MUST be of the type originally fitted to the car, although Gear ratios may be altered. The car must retain the same number of gears as original. Also the External Appearance of the Gearbox must remain unchanged.  
NO Locked or Limited Slip Differentials allowed.**

- 7 WHEELS and TYRES- Only conventional Road tyres permitted. No racing tyres, No mud & snow compounds, No Yokohamas, No Colway remoulds, NO 50, 55 60 or 65 profile tyres, or any other NOBBLY or COMPETITION type tyres permitted. Tyres must be of the same diameter size as original fitting. Tyre gaiters are not permitted. The cutting of tyres is not permitted. Any tyres with buffed markings will not be accepted. The Promotion reserves the right to review the regulations relating to tyres at anytime and to prohibit the use of any tyre not considered to be within the spirit of the regulations. Wheels must be of standard type and size as originally fitted to the car and cars must not have say for example a 14" wheel on one side and 13" wheel on the other.**

**ONLY 165X70 SERIES TYRES PERMITTED.**

**8** **SUSPENSION** - Negative camber on the near-side front wheel only is permitted. Self constructed contraptions to aid cambering are **NOT PERMITTED**. Shock Absorbers and Struts **MUST** be exactly as per original and must be identical on both sides. Platforms must not be moved or altered in anyway. Rear Spring leaves can be flattened and rear coil springs can be cut and welded to enable suspension to be lowered, but the use of lowering blocks is not permitted. Front coil springs may be cut for lowering purposes but must not be welded. All cars must retain the original diameter coil springs e.g. Vauxhall Belmonts **MUST NOT** use Ford Sierra coil springs nor can a Ford Sierra use the front coil springs on the rear or vice versa. No Diesel car suspension components to be used.

**NO PROFESSIONALLY ADAPTED SPRINGS OR COIL SPRINGS TO BE USED.**

Anti-Roll bars to remain standard to the car. **NO SPACERS or WASHERS PERMITTED.**

Gas Shocks are not permitted even if they were originally fitted.

Back Axles must be standard to the vehicle.

**9** **BRAKES**- To be as original and to work on all wheels .  
Handbrake is compulsory.

**10** **BODYWORK**- The car must have an all steel body which may not be cut, narrowed or shortened. Doors must not be cut. Removal of structural stiffeners is not permitted, although a small portion of the inner panel may be removed from the driver's door to enable fitting of chicken bars. The Car must remain standard throughout other than items mentioned within these rules.

welding is not permitted anywhere on the car with the exception of Seam the doors.  
Tack welding is allowed this is defined as being 2" weld with a 6" gap before the next weld. **NO OUTSIDE ARMOURING WILL BE PERMITTED.**

Bonnets and Boots must **NOT** be welded, but must be securely fastened down when racing. A Maximum of two 5/16" bolts with 6" plates and of maximum length of 10" **MUST BE** used to secure the bonnet in position.

Original Bumpers **MUST BE FITTED** to all cars at all times.

No Aero-foils or Spoilers of any sort will be permitted on any car.

**Tow Bars MUST be removed and there must be no strengthening of chassis.**

**11 Roll Cages- No Alloy cages or part cages allowed. The minimum steel roll cage protection you must have is one front hoop, one rear hoop, two roof connecting bars, one dash cross bar, two N/S chicken bars and two O/S chicken bars. The roll cage hoop feet must be on four welded 23cm square plates 3mm (min.) thick, or a piece of 38x38mm box section, 2.5mm minimum thickness, connecting front and rear hoop feet welded to the sill or floor. All joints must be welded over 90% of the joint unless professional clamps are used. The cage must not protrude through the bulkhead. Rear cage bars may extend as far as rear panel interior but must be no less than 4" from rear panel interior. All bars connected to the cage must be steel. The minimum thickness of the roll cage is 1 ¼ "OD 10 swg (3mm) tube 1 ½ " OD 12 swg (2.5mm) tube 1 ½" x 1 ½" 10 swg (3mm) box iron.**

**12 SCREENS AND MIRRORS- ALL GLASS MUST BE REMOVED before the car is brought to the Raceway. All cars must be ready for racing before they are brought to the Stadium. Any driver found dumping seats, smashing windows etc will be suspended from racing. You must fit a rear-view mirror inside the car with a maximum surface area of 24" inches. A Driver's door outside mirror is COMPULSORY.**

**13 STOP LIGHTS- Either two stop/brake lights or one single stop/brake strip-light must be fitted onto the rear parcel shelf or hung from the roof. If two lights, they must be a minimum of 30 inches (762 mm) apart facing rearward. Lamp(s) must be operated by the standard stop light switch as fitted to the particular model of car. No other switches or modifications to switches to be made. Bulbs to be of 21 watt intensity.**

**For round type lamps: minimum diameter 3" (76mm), maximum diameter 5" (127mm).**

**For square/rectangular type lamps: minimum 3" (76mm) square, maximum 5" (127mm) square. For strip type lamps 16" (406mm) maximum width.**

**14 BATTERIES AND ELECTRICAL- Batteries must be securely clamped in place and covered with a leak proof material (such as rubber) to prevent spillage of acid. An electrical cut-off switch must be fitted to the rear nearside corner of the**

car.

- 15** **SEATS** - Fibreglass seats and other special competition seats are now mandatory and must be securely fitted. The back of the seat must be adequately supported at shoulder height and a strong head restraint must be an integral part of the roll cage, if not part of the seat.
- 16** **FUEL TANKS**- Only tanks with a max. capacity of 2 gallons or less are permitted. These must be fitted rear of the driver but in front of the rear axle centre line and be securely mounted, they must also be 6" away from the battery, i.e. they are no longer allowed to be fitted in the boot area. All tanks must be fitted with a breather system which prevents spillage if a car overturns. The original petrol tank of the car must be removed and a manual shut-off tap must be fitted in the new system, within easy reach of the driver. Fuel lines must be of steel or copper type. All tank filler caps must be of secure leak proof metal with a screw fitting. One single S.U electric pump may be fitted in place of the mechanical fuel pump. A complete metal firewall must exist between the driver and the engine compartment.
- 17** **RADIATORS**- You must not alter the position of the radiator i.e. it must be kept under the bonnet compartment as per original. A water tank with a maximum capacity of 4 gallons may be used. It must be made of steel and fitted with a pressure relief system. Bulk heads and bonnets **MUST NOT** be cut to accept water tanks. Electric Fans may be fitted to radiators.
- 18** **NUMBERS**- A fin plate fitted to the roof with your racing number clearly painted on is required. Fin plates **MUST** be painted White with Black numbers thereon. Fin numbers to have 1 ½" stroke and be 9" at least high. It is emphasised that cutting of the roof to make Fin Plate is **NOT PERMITTED**. Door numbers must be 12" high, with a minimum 2" stroke in contrasting colours. Any Driver who has not proper numbering may not be scored.
- 19** **ROOF COLOURS**- When notified of your grading, driver will paint at least 90% of the roof to their appropriate grading colour. White, Yellow, Blue or Red. Race car numbers can be painted on the top of the roof, but will not be used as an excuse to have the incorrect roof grading. Winner of the Irish Championship must paint his/her roof Green.

**Silver stripe denotes Points Champion.**

**Gold stripe denotes Golden Helmet Champion.**

**If you win a race at a meeting; you will start the remaining races from the rear of your grade, Should you win another race at the same meeting - you will be automatically upgraded.**

**20 SIGN WRITING- Only Racing Number, name of driver, sponsors and Mechanics names maybe written on the car, apart from the following: "GROUP 2 LIGHTNING-ROD" which must be written in full across rear end of car.**

**21 SAFETY EQUIPMENT**

**HELMETS- Helmets must be a minimum standard as directed by British Oval Racing Safety Executive (B.O.R.S.E). These are BS6658 Type A/FR, FIA8860-2004, Snell SA2005, SFI Foundation 31.1A, SFI Foundation 31.2 A. The E2205 European standard helmet may be used in Fibreglass or Tri-Composite form only. It is important that the helmet fits the driver correctly. Shatterproof goggles/visors must be worn although tinted visors are not advisable. Your helmet must display the current ORCi (ORC09) sticker.**

**SAFETY BELT AND EQUIPMENT- A minimum of 3" (75mm) wide safety belts (1.75" (40mm) sub-strap) are mandatory. This must be a full five point buckle release harness (including NASCAR type) with sub-strap and must be fitted and bolted to the floor and/or the roll cage. Shoulder belts with a sternum protection latch are highly recommended. The sub-strap must be used at all times and all belts must connect to the quick release buckle. In the case of NASCAR lever latch buckles it is advisable to fit a secondary means of detent to prevent overall sleeves accidentally unhooking buckles during racing. A small section of Tubegrip elasticated bandage slid over the hooked buckle serves this purpose. Special attention must be paid to the condition of seat belts and fixings once fitted. An extra bar is to be fitted to roll cage behind driver's seat approx 4" below shoulder height of driver. Your seat belts may be fixed to this bar. The bar is to be of roll cage material**

specification. A quick release cloth window net must be fitted to the driver's door window aperture. The netting should have holes not larger than 7.5cm or 3" wide. It should come down level with the steering wheel, and should be flexible and easily removable separate to the movement of the door.

**CLOTHING**- Drivers must wear bright coloured racing overall type clothing of flame retardant Proban or a high specification material and this must be maintained in a clean and tidy condition in view of the public. N.B. If wet weather clothing is used this must be worn IN ADDITION TO and NOT INSTEAD OF the regulation flame retardant overall type of clothing described above. Fire Retardant Gloves and fireproof Balaclavas are MANDATORY and MUST be marked appropriately. Neck Braces are recommended.

**FIRE EXTINGUISHERS**- A 1kg dry powder gauge fire extinguisher is highly recommended and, if fitted, this should be in a tube with a spring top and should be within easy reach of the driver. Old type BCF (green) fire extinguishers are not permitted. All tow vehicles must carry a minimum of a 2kg fire extinguisher dry powder or gas, which must be within easy reach of the driver and mechanics at all times, especially when refuelling.

**22** Petrol must only be brought to the racing in a metal (Jerry can) type containers.

**23** Smoking is not permitted in the Pits.

**24** **GENERAL RULES OF RACING**- Each driver is only permitted one car per meeting and each car is only permitted one driver per meeting- this will be strictly enforced. Any driver spinning the wheels or driving up and down the pits will be banned for a minimum of 4 meetings and not allowed to take part in that night's racing. Cars must travel at 5mph in the pits. No passengers allowed in or on the car. Drivers must not push or work on their cars during a race. No outside assistance is allowed during racing. There must be no deliberate fencing, or driving at a driver's door or dangerous driving. A car pushed at (in the opinion of the Steward) unreasonable speed from the rear into a bend shall be deemed to have been deliberately 'fenced'. A driver who has deliberately fenced another driver will be black flagged and suspended for four meetings.

## **25 FLAG SIGNALS**

**Green - GO, All Clear to Race**

**Red - Stop Racing.**

**Yellow (Stationary) - Take care as a driver is still in a stationary car, but continue to Race.**

**Yellow (Waved) - Race Suspension, All Cars must remain in single file and slow to 15mph, or in exceptional circumstances stop.**

**No Overtaking is permitted.**

**Blue - Driver must hold their line as faster cars are trying to overtake.**

**Chequered Flag - Race Winner.**

**Black - Driver disqualified for an infringement or for health and safety reasons, driver must leave the track immediately.**

**Black Cross - Driver under surveillance for a rules infringement, may be penalised after race conclusion.**

**White flag with Blue Centre - Drivers should exercise caution as oil or other debris may be on the track.**

## **26 CARS ELIGIBLE FOR USE**

|   |               |
|---|---------------|
| <b>Ford Sierra - 5 door (1982-1993)</b>                   | <b>1593cc</b> |
| <b>Peugeot 206 - 5 door (1998-2003)</b>                   | <b>1587cc</b> |
| <b>Peugeot 306 - 5 door (1993-2003)</b>                   | <b>1587cc</b> |
| <b>Renault 19 - 4 &amp; 5 door (1988-2000)</b>            | <b>1565cc</b> |
| <b>Renault Megane Mk1 - 4 &amp; 5 door (1995-2002)</b>    | <b>1598cc</b> |
| <b>Vauxhall Astra Mk2 - 5 door (1984-1991)</b>            | <b>1598cc</b> |
| <b>Vauxhall Astra Mk3 - 4 &amp; 5 door (1991-1997)</b>    | <b>1598cc</b> |
| <b>Vauxhall Astra Mk4 - 5 door (1998-2003)</b>            | <b>1598cc</b> |
| <b>Vauxhall Belmont Mk2 - 4 door Saloon (1986-1991)</b>   | <b>1598cc</b> |
| <b>Vauxhall Cavalier Mk3 - 4 &amp; 5 door (1988-1995)</b> | <b>1598cc</b> |

***PEUGEOT 206 MUST USE MANIFOLD, CARBURETTOR, EXHAUST SYSTEM***

**ETC FROM PEUGEOT 205/306**

**RENAULT MEGANE MK1 MUST USE MANIFOLD, CARBURETTOR, EXHAUST SYSTEM ETC FROM RENAULT 19.**

**VAUXHALL ASTRA Mk3 & Mk4 MUST USE CYLINDER HEAD, MANIFOLD, CARBURETTOR, EXHAUST SYSTEM ETC. FROM ASTRA Mk2 MODELS.**

*These rules are the property of Ballymena Raceway and have been registered with the Copyright Registry 2010 and as such may not be reproduced in whole or in part.*