

4 CHAMPIONSHIP TECHNICAL REGULATIONS

4.1 Introduction

- 4.1.1 It should be clearly understood that if the following texts do not clearly specify that you can do it **you must work on the principle that you cannot.**
- 4.1.2 A signed entry to this championship determines that the following technical regulations have been accepted by drivers, owners and all team representatives.
- 4.1.3 The onus is on the Competitor to provide documentation, acceptable to the Organizers, to support the compliance of any part of the vehicle with these regulations.
- 4.1.4 Technical passports are mandatory and are issued by the ATCUAE.
- 4.1.5 The Organizers reserve the right to exclude any vehicle, which, in their opinion, does not comply with the spirit of the Series/Regulations. They also reserve the right in their absolute discretion to reallocate a car to an alternative class within the Series in the interests of fair competition.
- 4.1.6 Where an entry is deemed by the organizers to have an advantage over the rest of the entries in its class it may be either reclassified or a penalty imposed on the vehicle over and above any success penalties, at the discretion of the organisers. (i.e. additional weight or ride height). A review of the penalties/weights will be carried out on a regular basis in the light of performance or expected performance. Competitors will be formally notified in writing of any increased weight or ride height in advance of the next round in the series. Any ballast weight must be fitted in accordance with these Technical Regulations.
- 4.1.7 All vehicles must comply with FIA Safety Requirements and these Technical Regulations as relevant and as clarified in writing by the Organizers at all times while competing in practice sessions and races that are part of the Series. The driver is responsible for the conformity of his car at all times before, during or after an event.
- 4.1.8 The organizers will appoint the official rolling road dynamometer for the 2017/18 season.
- 4.1.9 Any future technical bulletins issued by the organizers may supersede these regulations.

4.2 General Description of Vehicles

- 4.2.1 The Dubai Autodrome Motor Sports Club NGK Racing Series is open to competitors driving closed roofed Production Based GT Cars, such as GT3, GT4, Challenge and Cup Cars, Silhouettes are also eligible, complying with these regulations. GT1, GT2, DTM and any vehicle that has a carbon fibre monocoque or open roof are excluded from this championship with the exception of GT4 cars. In all cases the DAMC has the sole right to determine vehicle eligibility.

Vehicles will be initially classified into the following classes;

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|---------------|---|
| Class 3 (GTA) | FIA Homologated GT3 Cars plus cars complying with a Min 3.0kg/hp, approved by the organizers |
| Class 4 (GTB) | Min 3.6kg/hp including Cup and Challenge Cars |
| Class 5 (GTC) | FIA Homologated GT4 Cars plus cars complying with Min 4.0kg/hp, Max 4.7kg/hp approved by the organizers |

Class 6

This is open to competitors whose cars do not comply with UAE Touring Car or Classes 3, 4 or 5 Regulations and driving either:

- 1) Large scale production GT cars
- 2) Large scale production Road Sports Cars
- 3) **Closed wheel Sports Cars.**
- 4) Mass production based closed roof saloon cars complying with ART 254 of the ISC
- 5) All cars must be approved by the organizers prior to registration or entry.

The cars must comply with Article 4.3 'Safety Requirements' of the 2017/18 UAE Touring Car Championship and 2017/18 NGK Racing Series Technical Regulations.

~~TIRES: Class 6 Slick or Semi Slick Tires are free (subject to agreement with the DAMC)~~

- ~~1) Tire buffing is prohibited.~~
- ~~2) The use of any heating / heat retention devices, tire treatments and compounds is prohibited.~~

Should entries in Classes 3, 4 and 5 be less than three at any round then those entries will be moved to Class 6.

GT3. These cars will normally run to the 2017 FIA GT3 regulations and balance of performance, and GT3 cars with national homologation by other ASN's, subject to DAMC/ATCUAE agreement in each case.

GT4. These cars will normally run to the GT4 European Cup regulations

For power/weight the weight is based on a race car excluding fuel and an average driver weight. An average driver's weight will be fixed at 90kg. The vehicle brake horsepower will be that measured at the wheels, with all car doors, bonnet and boot closed tyre pressures at 2.1bar and a dynamometer certificate should be presented along with the fully completed vehicle technical declaration prior to its first race.

- 1 Calculation of power to weight ratio: weight (car + 90kg) divided by HP measured at the wheels.
- 2 Additional "performance balance" measures may be enforced by the organizers if the performance is inappropriate.
- 3 The organizers reserve the right to grant waivers for the above stated rules if a car cannot comply with these regulations because of weight or engine capacity as long as this gives no unrealistic advantage.

The organizers reserve the right to amend the class structure to reflect more accurately the type of vehicles actually entered for the series and to create sub-classes at their discretion in order to more accurately reflect the series entries and level of competition. The organizers reserve the right in their absolute discretion to re-classify any vehicle into the class they deem most appropriate in the interests of fair competition within the series.

- 4.2.2 The coefficient can be altered during the season by the Series organisers. Notification of changes will be given to all teams in writing as per regulation.
- 4.2.3 Cars will be classed in accordance with their performance – as measured by horsepower (DIN) at the wheels and weight (Kg). To establish weight, only the scales operated by the organizers will be official. Any Invitation Car must be weighed and power checked prior to Qualifying at the discretion of the Scrutineer.
- 4.2.4 The cars weight and horsepower may be checked by Scrutineers at any time during the competition throughout the season and if changes are found, which would advantage the car, the organizers will require the competitor to either amend the weight or horsepower in order to maintain the co-efficient or penalties may be issued by the stewards.
- 4.2.5 Any Protests/ Disputes that cannot be agreed will be policed by the final figures produced on a Rolling Road. The Rolling Road will be nominated by the Series organisers, the car will be sealed and transported to the Rolling Road, tested and returned to the competitor in a timeframe set by the organisers. All costs will be paid for by complainant, in advance, both the complainants' car and the disputed car will be tested and both costs charged to complainant.
- 4.2.6 Technical Passports are mandatory for non FIA/National Homologated GT3 and GT4 cars and are issued by the ATCUAE. All cars are also required to submit a vehicle technical declaration (VTD) before being able to score points and be eligible for podium; this declaration does not supersede the ATCUAE technical passport but is in addition too.
- 4.2.7 The competitor must complete the Technical Passport and VTD before their first race in the championship. No points will be scored until this data is provided. This includes Invitation Cars.
- 4.2.8 Should any vehicle be upgraded they must be re-weighted and re-classified. The points already received before the upgrade will not be transferred to the new class.
- 4.2.9 On accepting entry to the NGK Racing Series you are accepting that power testing of your vehicle may be carried out at the competitors cost to establish the power to weight ratio. Due to the nature of rolling road power testing any weaknesses or defects to the power train or driveline may be exacerbated by this.
If the series scrutineer or rolling road operators are unhappy with the condition of the vehicle they may decline to test unless rectification is carried out.
However they may not be able to foresee every mechanical defect on your vehicle and for this reason power testing will only be carried out at your own risk.
Union Properties, Dubai Autodrome, its agents nor the rolling road operators can or will be held responsible for any failures howsoever caused.
- 4.2.10 Examination of Vehicles

The organizers, in addition to any other powers they may have under these Regulations, reserve the right before or after any race in the championship to designate any one or more of the competing cars for special eligibility scrutineering. Upon such selection being made the competitor shall immediately place the car under the control of the organizers and be deemed to have permitted all such scrutineering, examination and testing as the organizers may responsibly require undertaking. The organizers have the right to:

- a) Examine the car at the circuit for such period as they may reasonably require and take fuel samples and/or

- b) Retain the car for detailed examination at premises chosen by the organizers. If the organizers elect to retain the car they shall make it available for collection by the competitor at least seven days prior to the qualification session for the next race in the championship unless the car is found to be in breach of these regulations and/or
- c) Seal the car and its components in such a manner as they may choose and require the competitor at their own expense to present the car at any other premises chosen by the organizers for detailed examination within a specified period and/or remove the car by transporter at no expense to the competitor to an appointed location. The competitor will be advised in writing of the time, date and location of the subsequent testing or eligibility examination.

The overseen stripping of the engine or any required component will be undertaken by the competitor and/or mechanic/technician nominated by the competitor.

The organizers reserve the right to re-inspect vehicles at any time during the course of the season, should there have been a regulation infringement or circuit incident.

Competitors will be personally and solely responsible for ensuring that their cars comply with their registration details and with these regulations for each event at which they are entered. Failure to comply in either aspect will be a breach of these regulations. Queries concerning eligibility should be referred in writing to the organizers of the championship/series at least seven days prior to the event entered, to permit a ruling in advance of any meeting at which it is intended to complete.

Tests may be carried out by the organizers or their representatives at any time during the season. All costs for each test will be borne solely by the competitor.

4.3 Safety Requirements

The following requirements are based upon FIA Appendix J Article 253 Safety Equipment and apply as relevant and as clarified below. Copies of the specific, detailed FIA requirements are available from the FIA website or ATCUAE upon request.

- 4.3.1 Lines and pumps – Must be in accordance with Article 253 Article 3.
- 4.3.2 Braking safety system – Must be in accordance with Article 253 Article 4.
- 4.3.3 Additional fasteners – Must be in accordance with Article 253 Article 5.
- 4.3.4 Safety Belts – Must be in accordance with Article 253 Article 6 and ATCUAE Bulletin 2015/T01 dated 17.06.2015.
- 4.3.5 Fire Extinguishing Systems – Must be in accordance with Article 253 Article 7.
- 4.3.6 Safety Cage – Must be in accordance with Article 253 Article 8.
- 4.3.7 Rear view mirrors – Must be in accordance with Article 253 Article 9.
- 4.3.8 Towing eyes – Must be in accordance with Article 253 Article 10.

- 4.3.9 Windows – The front windscreen must be made out of laminated glass or impact-withstanding polycarbonate (on condition that it's thickness is not less than 6.0 mm and that its external surface is treated to resist wear). The front and rear windscreens may be fitted with metal safety strips to keep the windscreens into place. In order to protect the windscreen, the addition of a maximum of 4 translucent films on the external face may be fitted.

A sun strip is allowed on the windscreen but all other tinting or filming that affects the transparency levels of any glass surfaces is not permitted. If windows are required to be open at any time when the car is running on track then window nets to FIA specification must be fitted.

- 4.3.10 General Circuit Breaker– Must be in accordance with Article 253 Article 13.

- 4.3.11 Fuel Tanks – Must be in accordance with Appendix J 253 Article 14.

- 4.3.12 Exception to above may be made if the car, based on a production road model, was built by the manufacturer or the manufacturer's agent as a race car e.g. Cup Cars or Challenge Cars and this can be verified via valid documentation which must satisfy the ASN's Senior Technical Officer and must be submitted at least 20 days prior to the first race entered. In this instance the car must have the original fuel tank and lines fitted.

- 4.3.13 Protection Against Fire – Must be in accordance with Article 253 Article 15.

- 4.3.14 Seats, Anchorage Points and Supports – Must be in accordance with Article 253 Article 16.

4.4 DRIVERS SAFETY EQUIPMENT

At all times whilst practicing for or competing in events for the championship, drivers must use safety equipment meeting the following requirements.

- 4.4.1 CLOTHING – Clean flame-resistant overalls, gloves, long underwear, balaclava, socks and shoes meeting the FIA 8856-2000 standard.

- 4.4.2 Substances which may circulate in any cooling system worn by drivers are restricted to water or air at atmospheric pressure. Water systems must not require the saturation of a garment in order to function.

- 4.4.3 CRASH HELMET – As per Technical Lists No 25 and 49 of the FIA.

- 4.4.4 Any decoration, cleaning or modification made to this equipment must only be done strictly in accordance with the manufacturer's instructions.

- 4.4.5 This equipment is designed to save lives and if it is damaged in any way or is involved in an accident that gives any possible concern of damage then it should be replaced immediately. Organizers reserve the right to impound or render inoperative any equipment which may or may not have been compromised.

- 4.4.6 Equipment will be checked prior to competing in an event and the organizers reserve the right to impound and render inoperative any equipment which gives cause for concern by its apparent condition.

- 4.4.7 The use of a FHR device FIA standard 8858-2002 is mandatory.

4.4.8 It is recommended that drivers of open top cars wear arm restraints whilst on track.

4.5 GENERAL TECHNICAL REQUIREMENTS AND EXCEPTIONS

The General Description and Safety Requirements above must be complied with in addition to the following regulations, and together they will form the Technical Regulations of the Series.

Unless otherwise specifically stated or otherwise agreed in writing by the organizers the Technical Regulations of the Series apply to cars in all classes. Any variance between classes is only allowed where specifically stated.

Unless specifically authorized in these Regulations, the use, substitution of, and/or addition of any parts, or materials, is prohibited.

Welding or repair materials may be added, manufacturers, or other approved, replacement parts may be fitted for the sole purpose of restoring the vehicle to the manufacturers' standard specification or to comply with the safety requirements of these Regulations.

4.6 Chassis

4.6.1 Modifications permitted;

- a) Seam welding is allowed providing the material used follows the original shape and is in contact with it.
- b) A single brace may be fitted between struts but not connected to the bulkhead.

4.6.2 Modifications prohibited;

Any other modification, unless specifically approved in writing by the organisers, is prohibited.

4.7 Bodywork

4.7.1 Modifications permitted;

- a) Strengthening sections on boot, bonnet and doors only may be removed.
- b) Glass sunroofs where fitted must be replaced by a non-shattering solid material in a fixed closed position and this may be permanently fitted in place.
- c) Wheel arches may be extended above the centre line of the wheel by not more than 75mm from the outermost point of the original wing. Large wheel boxes are specifically excluded.
- d) Raising the rear edge of the engine cover by not more than 25mm from its original position and/or adding additional ventilation slots is permitted to provide additional airflow and cooling. Any additional ventilation slots must have protective mesh or louvers type coverings.
- e) The fitment is permitted of additional or replacement for the originally manufacturer fitted aerodynamic devices is allowed as follows;
 - Front spoilers/air dams/splitters are permitted below the level of the road wheel centres, up to 15 cm beyond the overall plan periphery of the existing bodywork, excluding bumpers.
 - Rear spoilers are permitted within the overall plan periphery of the original vehicle excluding bumpers.
 - Any new devices must be constructed and fitted in a sturdy manner and satisfy the organizers that they do not present additional hazards.

- Ultimately the organisers reserve the right to reject the design of any new devices that they do not accept are within the spirit of the series regulations.
- f) Any under tray fitted must be provided with drainage holes to prevent accumulation of liquids.
- g) All interior trim, including carpets and soundproofing, may be removed. If the inner door trims are removed they must be neatly replaced with aluminium, Kevlar or similar materials. The dashboard must be retained or replaced with a neatly fitted replacement.
- h) Air bags must be removed.
- i) Any central locking system must be isolated during competition use. Doors must be able to be opened in the event of an emergency.
- j) Air conditioning systems may be disconnected and removed however suitable ventilation systems must be put in place to ensure cooling of the driver given the climatic conditions that exist in the UAE.
- k) Steering wheels are free providing they have a continuous rim.
- l) Mud flaps may be removed.
- m) Headlight glass must be protected with tape.
- n) Accessories and equipment which have no influence upon the performance or reliability of the vehicle may be freely removed or added.
- o) The roofs used to close open cars must be a genuine hard top offered as an option for the car by the manufacturer, or be from a recognised manufacturer. It must be made of the same materials and have the same weight as the manufacturers' hard top option, otherwise the organisers reserve the right to add additional ballast to the car.

4.7.2 Modifications prohibited:

- a) Where parts of the vehicles (other than the sunroof) were non-metallic as supplied by the manufacturer they may be retained as original or replaced by a similar material to the same design.
- b) The silhouette and plan view of the original vehicle must be retained except as defined in 4.7.1 c), d) and e). Any other modification, unless specifically approved in writing by the organisers, is prohibited.

4.8 Engine

4.8.1 Permitted Modifications;

- a) Except as prohibited by these regulations, all modifications are permitted.

4.8.2 Prohibited Modifications;

- a) The cylinder block must be from the same manufacturer and be of the same configuration. I.e. if originally fitted with a 4 cylinder can only be replaced with a 4 cylinder.
- b) Engines cannot be replaced once signing-on procedures are completed.

4.8.3 Location;

The engine must be installed in the original engine compartment and the crankshaft axis must be retained in the original orientation. The number of mounting points must remain the same but the type of mounting may be amended.

4.8.4 Oil and Water Cooling Systems

- a) The oil system is free.
- b) An oil cooler may be fitted within the overall periphery of the bodywork.

- c) Any engine oil tank breather or overflow tube venting into the atmosphere must be led into catch tanks with transparent inspection possibilities capable of being readily emptied. These catch tanks must be a minimum of 2 litre capacity or minimum 3 litre capacity for engines in excess of 2 litre capacity.
- d) Heaters/Air conditioners may be removed in their entirety.

4.8.5 Induction Systems;

- a) Forced induction is only permitted on cars where it was fitted as standard by the manufacturer.
- b) Forced induction system must be of the same operating type as fitted originally by the manufacturer.
- c) The organizers reserve the right to specify that a restrictor of a nominated size be fitted to specific models. All air feeding the engine must pass through the restrictor in such circumstances.
- d) Nitrous oxide injection systems are not permitted.
- e) An air filter must be fitted.

4.8.6 Exhaust Systems;

Free provided the silencing requirements of these regulations article 4.18 must be respected at all times.

4.8.7 Ignition Systems;

Free.

4.8.8 The ECU must not contain an electronic map which is capable of delivering more power than that which is allowed within the vehicles class.

4.8.9 Fuel Delivery Systems;

Free. Fuel injection may be replaced by carburettor(s) and vice versa.

4.9 Suspensions

4.9.1 Prohibited Modifications;

- a) Suspension parts must not be fabricated or manufactured of composite materials unless originally fitted as OEM standard parts. Optional or variant parts are not permitted.

4.9.2 Wheelbase/Track

The wheelbase and track must remain as standard except for the effects of the permitted adjustments in camber/castor and the permitted wheel spacers.

4.9.3 Ground clearance – a minimum ground clearance of 50mm in all classes. For reference this will be measured with tyre pressures at 1.5 bar. The reference tyre gauge will be the gauge used by the approved tyre supplier. Plus +25mm ground clearance must be achievable should the organizers choose to apply a ride height penalty (4.1.5)

4.10 Transmission

4.10.1 Permitted Modifications;

- a) The transmission is free provided its orientation is as the road car equivalent.

4.10.2 Prohibited Modifications;

- a) Manufacturer fitted four wheel drive systems must be retained. A four wheel drive system must not be added to a model originally built by the manufacturer as a two wheel drive vehicle.

4.10.3 Transmission and Final Drive Ratios

- a) Reverse gear must be retained as one of the gear ratios and must be operable by the normally seated driver.

4.10.4 Clutch and Flywheel are free.

4.11 Electricals

4.11.1 Exterior Lighting;

The exterior lighting system must be complete and in full working order, however auxiliary lighting may be removed, e.g. front fog lights.

4.11.2 Batteries;

The battery may be relocated but must be suitably enclosed and secured. The earth lead must be identified by yellow marking. Terminal posts must be covered.

4.11.3 Windscreen Wipers;

Windscreen wiper(s) must be fitted and operate as a complete system. Single wiper systems are allowed.

4.11.4 Generators;

Charging systems must be fitted in their original location and functioning.

4.11.5 Radio transmission;

Pit to car or car to pit radio transmissions are permitted, provided the user has a licence to own and operate said system in the UAE. This documentation must be present and available for viewing at any time during the entirety of the meeting.

4.11.6 On Board Video Cameras

Cars may only carry video cameras on the race track with the express permission of the event organizers. Permission will be subject to the approval of the use that will be made of the video footage gained by the circuit operator, approval of the camera fitment by the event scrutineers and final sign off by the Clerk of the Course.

4.12 Brakes

4.12.1 Permitted Modifications;

- a) Brakes are free except as detailed within these regulations.
- b) Ducting for the purpose of cooling brakes is permitted beneath the car and from the front bumper/spoiler.

4.13 Wheels and Steering

4.13.1 Prohibited Options;

- a) Wheels made partially or entirely from composite materials are prohibited, as are wheels made from forged magnesium.
- b) Pressure control valves on the wheels are forbidden.

4.13.2 Dimensions;

The wheel and tyre combination must be covered by the bodywork of the vehicle so that the upper part of the complete wheel, located vertically over the wheel hub centre, must be covered by the bodywork when measured vertically.

4.13.3 Steering;

- a) Steering movement must be controlled to avoid fouling of wheels on chassis or bodywork. Rear wheel or four wheel steering is only permitted if fitted as standard on the production vehicle.
- b) The steering system must retain the original mechanism but the internals and ancillaries are free.

4.14 Tyres

~~4.14.1 Slick racing tyres are permitted in all classes. FIA Homologated Dunlop tyres with compounds 392 / FF008 or any other Dunlop tyre deemed equivalent by the manufacturer. Contact 'chris_keogh@goodyear.com'. Tyres for all classes is free.~~

4.14.2 The car must race on the set of tyres that it qualified on and tyres will be marked accordingly, the changing of tyres during the race is only permitted under force majeure e.g. puncture. Any tyre changed will be judged by the appointed tyre technicians and officials.

4.14.3 No alteration to any of the tyres from the manufacture's specification is permitted. Re-cutting, re-grooving, buffing, or in any other way modifying the tread pattern is not permitted. Any form of chemical treatment is prohibited and all of the manufacture's data must be clearly visible. Buffing of sidewalls to remove data is prohibited. It is forbidden to use and/or the mere presence of tyre-warmers or any other method to artificially increase or lower the tire temperature throughout the event. The fitting of valve caps is compulsory.

~~4.14.4 Exemption can only be granted if Dunlop is unable to supply suitable tyres (to be judged by DAMC). If exemption is granted the cost per event amounts to Dhs 2000/-~~

4.15 Weight

4.15.1 The specified weight: see 4.2.1

4.15.2 BALLAST – The organizers reserve the right to impose additional ballast weights, over and above any success penalties, on particular cars in order to equalize performance and encourage close racing. If such ballast is imposed then it must be carried in the normal passenger seat location within the car. Any ballast must be attached to the shell/chassis via at least 4 mounting points using bolts with a minimum diameter of 8 mm each with steel counter plates of at least 400 sq.mm surface area and 3 mm thickness. Provision must be made for the fixation of seals by scrutineers if deemed necessary.

4.15.3 Weight Removal – Any replacement or removal of vehicle parts to achieve a lower weight or to redistribute weight that in the opinion of the organisers could possibly prejudice safety will not be permitted. IF IN DOUBT DO NOT DO IT.

4.16 Fuel

Only UAE (United Arab Emirates) commercial available petrol or diesel as defined by the FIA Appendix J Article 252, Article 9 may be used, without any additive other than that of a lubricant on current sale. The organizers reserve the right to nominate a specific source from which all fuel used by competing cars must be purchased. The organisers reserve the right to take fuel samples at any stage during an event to check that the fuel being used is correct.

4.17 Seat position

The driver's seat and steering wheel position must be off-set from the vehicle centre line by a minimum of 30cm.

4.18 Silencing

Vehicles must at all times during an event be silenced to meet a maximum level of 105 dB(A) at $\frac{3}{4}$ maximum rpm, measured at 0.5m from the end of the exhaust pipe with the microphone at exhaust outlet level at an angle of 45 degrees. Where more than one exhaust outlet is present the test will be repeated for both outlets and the higher reading taken. The inclusion of temporary parts to achieve silencing requirements is prohibited.

4.19 Transponders

All competing vehicles must have fitted for all practice, qualifying and race sessions, a working electronic self-identification module (transponder) of a suitable type. Types of transponder are: **AMB personal TRANX 260 direct powered transponder, AMB Pro Transponder** and **AMB Driver ID Transponder**. **It is the responsibility of the competitor to provide** and fit the module in a safe and appropriate position as recommended by the manufacturer.

4.20 Numbers and Championship Decals

- 4.20.1 All cars must be identified by competition numbers displayed on each side of the vehicle, angled to the right-hand side. The numbers must be classic type European style digits in black with a minimum height of 23 cm and a minimum stroke width of 3.8cm mounted on a white rectangular background measuring at least 48 cm x 33 cm and extending at least 5 cm beyond the numbers. For light coloured cars, there will be a black line 5cm wide all around the white rectangular background. The race number must be displayed in the top right hand corner of the front windscreen in a high visibility colour.
- 4.20.2 The Dubai Autodrome reserves the right to nominate sponsors decals which must be displayed in un-obscured positions on both sides of the car and on the top part of the screens to qualify for awards. The diagrams demonstrating the required positions of the decals are below and form part of these Regulations.
- 4.20.3 The Dubai Autodrome sponsors decals will be provided by the Series Organizers.
- 4.20.4 The first set of decals will be provided within the registration fee there after all decals will be charged for.

4.20.5 DAMC reserves the following spaces on all cars for series sponsors/partners.

