



TECHNICAL REGULATIONS

EAST AFRICAN SAFARI CLASSIC RALLY



9TH - 18TH DECEMBER 2023

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EAST AFRICAN SAFARI RALLY LTD
P.O. BOX 14910 - 00800
NAIROBI, KENYA

EMAIL: info@eastafricansafarirally.com
Website: www.eastafricansafarirally.com

APPENDIX B- VEHICLE REGULATIONS

FIA's Appendix K technical regulations apply to this event with additional freedoms as stated hereafter.

1. Eligible Cars (FIA Group1, 2,3, 4 and Group A and B)

Passenger type Motor Cars built before 31st December 1985 with not more than six seats (including Estate Car derivatives) and where homologated in period' they will be found to be recorded within the list found at: <http://www.fia.com/list-previously-homologated-cars>.

2. These Appendix B Technical regulations are specific to this event and are additional to the FIA regulations allowing additional technical freedoms and imposing safety regulations appropriate to this event.
3. When preparing and specifying a car for Classic Safari Rally remember that FIA Appendix K regulations are the primary regulation framework set which sometimes overrides period Appendix J regulations.
4. The use of a wide variety of vehicles entered to 'period' Safari Rallies is encouraged.
5. If you have any doubt as to what is technically correct, then please ask the Rally Office or Chief Scrutineer for advice.
6. It is recommended competitors take advantage of Appendix 1 regulations to ensure reliability.

Classic Safari Rally Class Structure

Class 1 – Upto and including 1600cc
Class 2 – Up to and including 2000cc
Class 3 – Up to and including 3000cc
Class 4 – Over 3000cc

4-wheel drive, turbochargers and superchargers are NOT permitted.

Where a vehicle has been manufactured after 31st December 1985 and is mechanically and bodily identical to those manufactured and consistent with an appropriate FIA homologation prior to this date, its body and the vehicle will be considered eligible to enter the event. The onus is on the competitor to prove the specification of the vehicle is consistent with these regulations.

It is the responsibility of the entrant/competitor to comply with these regulations and to prove to the organiser that their vehicle complies with these regulations.

2. SAFETY REQUIREMENTS FOR ALL CARS

2.1 Protective Padding on Roll Cage –

Refer: Appendix K, ARTICLE 3.6 FIA INTERNATIONAL SPORTING CODE. FIA Compliance 8857 – 2001, Type A (Tech list Number. 23).

Competitor cars who wish to be excluded from fitting protective roll cage padding, may do so subject to signing an organisers risk disclaimer document.

2.2 All vehicles in the main rally event must be fitted with a roll cage. Specifications of the roll cage in the FIA Appendix J are highly recommended. Welding or bolting of the roll cage and reinforcement to suspension turrets is permitted. **Should the roll cage be damaged during the event then it must be inspected by the Chief Scrutineer. The car will only be permitted and eligible to continue if the cage is deemed safe by the Technical Delegate and/or Chief Scrutineer. Competitors are not allowed to repair or replace a roll cage once damaged.**

2.3 Vehicles must carry a minimum of two hand held fire extinguishers of 2.4 litre AFFF or 2kg dry powder minimum capacity. Extinguishers must be securely mounted, with **two** steel clip retaining bands per extinguisher, easily accessible to both crew members, have a visual method of checking validity and the charge state either by gauge or certified weight label.

2.4 Vehicles must have a protective bulkhead of non-flammable material between the engine and the crew compartment capable of preventing passage of fuel and flames in case of an accident.

2.5 The vehicle must be fitted with a fireproof bulkhead or container to current FIA standards between the fuel tank(s) and the crew compartment capable of preventing the passage of the flame and/or fluid.

2.6 Where the fuel tank(s) and/or fuel pumps are mounted within the bodywork, a drain hole and hose of no less than 20mm diameter must be present to evacuate any leaked fuel in the case of unforeseen tank failure or leakage. Fuel tanks mounted to the underside of the vehicle only require a venting hole drilled through at the lowest point in the protection guards if fitted.

2.7 Fluid lines (excepting 'Aircraft standard' hoses and connections) hoses, connections, overflow and filler pipes within the cockpit space must be enclosed inside a liquid proof secondary covering (metal tube or rubber hose) in which instance the secondary covering ends must terminate outside the cockpit space.

2.8 Hot liquids of any type passing through the passenger compartment must be contained within aircraft standard metal braided nitrile rubber or PTFE hose (Good ridge or similar hose types).

2.9 A sealed metal cover or container must enclose any oil tank or expansion bottle located within the crew compartments.

2.10 Additional metal fuel containers are permitted if not transported within the passenger compartment, they must be securely fixed, with a secure cap locking arrangement, and presented full of fuel for checking and approval by the Scrutineering Team.

2.11 All vehicles in the rally must be fitted with a circuit breaker which can isolate all electric circuits and stop the engine from both inside and outside the car and these must be clearly labelled with a red arrow.

2.12 All vehicles in the main rally must be fitted with full harness seat belts to the current FIA standard.

2.13 All cars must be fitted with a windscreen of laminated type class.

- 2.14 The maximum fuel tank capacity is free. If the tank is not a standard tank as supplied by the manufacturer, then it must be an FIA approved safety fuel tank or any tank acceptable to the Chief Scrutineer. A capacity of 100 Litres is recommended.
- 2.15 All cars must carry a substantial First Aid Kit with the minimum contents.
- 2.16 All cars must carry two substantial red warning triangles and a waterproof SOS/OK board. Size A3.

3. BODY MODIFICATIONS

- 3.1 The original bodywork shape and materials cannot be changed other than the use of lightweight panels for doors, bonnet, boot, wings etc. **only provided the manufacturer has homologated them before 31st December 1985.** Proof of homologations is the responsibility of the competitor if requested.
- 3.2 Easing of the wheel arches to accommodation permitted wheel/ tyre size is allowed respecting FIA Appendix J 261 cc and where proof is provided that easing was 'used in period FIA international competitions.
- The use of homologated wheel arch extensions is permitted.
- If EASCR suitable wheel / tyre units may only fit subject to wheel arch easing and/ or reshaping and 'proof of use in period' cannot be provided, then refer to section 6 – Technical Waivers.
- 3.3 Wheel arch extensions must be visually and dimensionally similar to those 'used in the period' and have the same external profile.
- 3.4 Extra roof vents and exhaust vents for the passenger compartment are allowed.
- 3.5 Vehicles must have mud flaps of stout material behind the rear wheels and driven wheels as a minimum.
- 3.6 For safety reasons, side and rear windows may be manufactured from clear rigid transparent material of at least 5mm thickness.
- 3.7 Animal Catchers and 'roo' bars are permitted.
- 3.8 Jump plates and jump straps or holders are permitted.
- 3.9 Protection guards for the engine, gearbox and differentials are permitted and recommended.

4. MECHANICAL MODIFICATIONS

4.1 ENGINES

- 4.1.1 Engines must be that originally specified for the car by the manufacturer, or an engine homologated as an option before 31st December 1985.
- 4.1.2 Engine capacity is restricted to the manufacturer's specification for cars produced before 31st December 1985 or homologated option before that date. However, a 2.00mm/0.080" overbore beyond the homologated bore size is permissible. **The organisers will be checking and measure bore/stroke of the engines before scrutineering. Competitors are advised to ensure their entry is in the correct classes entered.**
- 4.1.3 Camshafts are subjected to period. They must remain original in location and number, but their specification is free.
- 4.1.4 Engine oil cooler may be added within the bodywork and may not protrude the cars silhouette.
- 4.1.5 Turbochargers and superchargers are **not permitted**.
- 4.1.6 Carburettors and manifolds. Induction is free but must respect period designs and technologies. Fuel injection systems must run with period management systems and any modern ECU (electronic control unit) within period "look" casings are not permitted. Period ECU's must retain their original input and output functions and evidence of such fuel injection systems, component parts and their technical composition must be produced to the Scrutineer.
- 4.1.7 A snorkel may be fitted for which one hole may be made in the engine bonnet, not exceeding **100mm** diameter. Such a snorkel fitting must not enter the cabin of the vehicle but must be supported along the exterior side of the windscreen pillar.
- 4.1.8 The mechanical method of coil discharge triggering within a distributor i.e., points and condenser may be changed and converted to an electronic one. The original distributor housing may be changed but the distributor must retain its original function and location. Twin spark cylinder heads will not be allowed unless homologated in period.
- 4.1.9 Electronic ignition conversions (ECU's) that are 'programmed' or 'mapped' and use of external sensors to the distributor as a means of triggering are not permitted. This includes any form of programmable within the cockpit of the car.
- 4.1.10 Exhaust systems are free but must respect the law of the country.

4.2 TRANSMISSION

- 4.2.1 The gearbox casing and number of gears must be as originally specified by the car manufacturer, or a gearbox 'variant option' added to the homologation form before 31st December 1985.
- 4.2.2 Gearbox ratios and gear material types are free. The bell housing may be substituted or modified.
- 4.2.3 A gearbox and / or axle oil cooler may be added within the bodywork silhouette.
- 4.2.4 Gearbox and / or cooling system pipes passing through the cockpit area must be manufactured from 'Aircraft Standard' metal braided hose and connections or rigid metal tubing covered by rubber hose in which case both hose ends must be external to the cockpit volume.

- 4.2.5 Fuel tanks and radiators mounted within the cockpit area must be sealed within a containment box(s) and externally ventilated with a controlled drain system to manage fluid leakage within the containment box.
- 4.2.6 Axles, axle ratios and axle mountings on the axle side and not the body side are free and may be fitted with limited slip differentials. Mounting of the axle onto the body must be as homologated or as original during the period. Acceptable period evidence of the axle mounting should be produced by the competitor.
- Track widths irrespective of axle type must respect homologated maximum dimensions the silhouette of the body of the vehicle.
- 4.2.7 Axle attachment brackets affixed to the body shell or body frame must be identifiable as per those the manufacturer originally specified or a 'variant option' as evidenced by the homologation form. It is the sole responsibility of the competitors or their representatives to provide proof of the period evidence of an axle mounting system.
- 4.2.8 Axle and suspension to body fixing point (bracket) reinforcement must be respecting of FIA's Appendix K and 'period FIA Appendix J' regulations that require additional material fully contacts the original body panel and bracket material.
- 4.2.9 Differential type is free except those types with any form of electronic or hydraulic control.
- 4.2.10 Axle electrical components are limited to those required for temperature measurement and oil pump switching only.

4.3 BRAKES

- 4.3.1 Brakes are free.
- Composite brake discs and / or callipers are **not permitted**.

4.4 WHEELS AND TYRES

- 4.4.1 Tyre cutting is allowed to vary the tread pattern.
- 4.4.2 Wheel rim diameters may not exceed 15".
- 4.4.3 Tyre diameter may not exceed 670mm.
- 4.4.4 Tyres must be of a type offered for general sale to the public and described in manufacturer literature as being for road or 'rally' purposes.
- 4.4.5 Tyres which are 'manufacturer described' as being for off-road use, or racing purposes are not permitted and are unlikely to be manufacturer approved for public road use.
- 4.4.6 Studded or slick tyres are not permitted.
- 4.4.7 Mud terrain tyres are not permitted.
- 4.4.8 Spare wheels may be mounted outside the car completely but may not protrude outside the perimeter of the bodywork when viewed overhead (plan view applies). Exterior wheel mounting brackets, straps and attachment points will be subject to extraordinary safety inspection during normal scrutiny as public safety procedure and if deemed 'unsafe' the organisers reserve the right to demand that modifications are implemented and completed, or brackets entirely removed.
- Applicable from the start of scrutineering until passing the final control.

Additional spare wheels may be mounted outside the car completely but are not permitted to protrude from the silhouette of the body of the car.

4.5 SUSPENSION

- 4.5.1 The principal design features and geometric principles of the front and rear stub axles and hubs must be as the vehicle manufacturer specified as 'production' parts or a 'variant option' as included to the homologation form. For strength and reliability reasons and to enable fitting bigger wheel bearings, stub axles and hub dimensions and materials may be changed but not the fundamental design principle(s).
- 4.5.2 Twin shock absorbers unless in period are **not permitted**.
- 4.5.3 Rubber bushes may be replaced by larger or smaller diameter parts, rod ends or uniballs.
- 4.5.4 Suspension bolts sizes may be increased.
- 4.5.5 The original chassis pick points must be respected and mounting location points must respect original rotational centres with a tolerance of +/- 10mm.
- 4.5.6 Strengthening and reinforcement of suspension components is permitted. Reinforcements must respect the original profile of the component.
- 4.5.7 Sheet metal suspension components is permitted. Reinforcements must respect the original profile of the component. (For example – a tube-based component cannot replace a pressed sheet component.)
- 4.5.8 The road spring type and number must respect the homologation form.
- 4.5.9 The primary road spring 'rate' is free.
- 4.5.10 Shock absorbers are free but must respect the original suspension geometry.
- 4.5.11 Shock absorbers may not incorporate electrical control or sensors.
- 4.5.12 Sway bars (Anti roll bars) may be fitted, added, increased in size or removed.
- 4.5.13 Check straps to limit shock absorber extension are permitted.
- 4.5.14 The principal design features and geometric principles of the front and rear stub axles and hubs must be either as the vehicle manufacturer specified as 'production' parts or a 'variant option' as included to the homologation form. For strength and reliability reasons and to enable fitting bigger wheel bearings stub axle and hub dimensions and materials may be changed but not the fundamental design principle(s).
- 4.5.15 Suspension to hub mountings may be modified to reinforce 'fixed' mechanical joints with the objective of improving reliability but such modification should not increase the suspension travel.
- 4.5.16 The attachment of the strut casing to the hub/stub axle/upright must be in the same plane as envisaged by the manufacturer.
- 4.5.17 The stub axle to upright or strut method of attachment may be changed from welded to bolted by the addition of lugs and tubes. The chief scrutineer **MUST** approve modifications of this type.
- It is recommended that approval in principle be agreed upon before starting any modifications or manufacturing parts.**
- 4.5.18 The overall profile, shape and principle of non-original suspension part(s) should remain broadly similar to the part it replaces.
- 4.5.19 Suspension section thicknesses may be increased by adding material to reinforce known weak areas and/or to fit a bigger wheel bearing for example. **Extreme interpretations will be rejected.**

- 4.5.20 Original materials and manufacturing methodology may be changed for other materials and techniques. Therefore, a casting can be replaced by a billet machined, fabricated or forged part.
- 4.5.21 The geometry of suspension parts must remain as specified by the manufacturer. Therefore, suspension components modified in accordance with EASCR App B freedoms must remain directly interchangeable with the period homologation compliant component it replaces, excepting the stub axle to hub assembly strut attachment method.
- 4.5.22 Wheel travel must not be increased through redesign or manufacturing alterations.
- 4.5.23 Suspension arm connections between the upright/stub axle and suspension arm must remain dimensionally original. The rotational centre of the suspension arm outer joint(s) relative to the wheel/hub centre line must remain the same as the manufacturer's original part.
- 4.5.24 Strut attachment geometry must remain dimensionally original. Only the attachment method can be changed, so a "welded in unit with stub axle" (manufacturer original strut design) can be changed to a two piece "stub axle and strut with bolt attachments" design.
- 4.5.25 Plate materials may be mixed with cast materials to add lugs for strut fixings.
- 4.5.26 Suspension components not in accordance with the homologation form or App B 4.5.1 – 4.5.24 may be accepted under a Technical Waiver if the manufacture method and design principles "respects the spirit and intent" of the technical regulations.

4.6 STEERING

- 4.6.1 Power/ electric steering may be installed irrespective of a vehicles period homologation status.

5.0 WEIGHT

- 5.1 The weight of the car must not be less than the weight of the production car and or the homologated weight that is stated in the papers.

6.0 TECHNICAL WAIVER SYSTEM

Objectives:

- *Technical Waivers provide a system by which **exceptionally** mechanical component(s) or assembly variations not in accordance with manufacturer original production homologated 'variant option' or EASCR Appendix A specifications may be used without protest risk.*
- *Technical Waivers are published to the EASCR event website and generally circulated to entrants and teams to advertise component(s) or assembly variant requests.*
- *The acceptance and publication of a Technical Waiver publicises that the Technical Delegate/Chief Scrutineer and a majority of competitors have accepted that the specified technical variation resolves a sourcing, cost or reliability issue.*
- *To provide a medium whereby vehicles having one or more commonly accepted 'in period' technical weakness may contest EASCR with a reasonable expectation of completing the event route.*
- *To recognise that EASCR is a particularly challenging long-distance event with regulations, which necessarily limits service, and support resources, which has a*

recognised consequential effect on the quantity and volume of spare parts each entrant, may carry.

- *To encourage and enable a wide variety of vehicles to contest the EASCR event.*

Design proposals for “revised optional” (new manufacture) parts or “modified period original” (modified original standard) parts **MUST BE SUBMITTED** to the scrutineer prior to use on the 2022 safari Classic event. The Chief Scrutineer will decide if design proposal “respects the spirit and intent” of the regulation.

Request submissions for optional part approval must include

- Photographs of the original parts and a representation of the proposed revised part, drawings, solid model images or images of “mocked up” parts or similar are suggested.
- Detail regarding the proposed manufacturing methodology
- The original parts material and proposed new part material
- The manufacturing methodology (i.e., casting, billet machined, forged, fabricated sheet etc)
- A list of any revisions and/or changes compared to the original part
- The Chief Scrutineer may request any other additional information he deems required before ruling on a request

- 6.1 Technical Waiver acceptance is a privilege, not a right that may be withdrawn by the Technical delegate/ Chief Scrutineer subject to a 12-month notice period.
- 6.2 A Technical Waiver may benefit one or more specified competing vehicles or may be requested to be applying to any vehicles respecting a specified FIA homologation form. In either instance applicants must include ‘intended beneficiary’ details within their Technical Waiver request.
- 6.3 Entrants or their representatives should submit a Technical Waiver request(s) to the event secretariat for consideration and due processing.
- 6.4 The event secretariat will send the Technical Waiver request to the event Technical Delegate and/or Chief Scrutineer for review and request a provisional approval or rejection decision.
- 6.5 In an instance where the event Technical Delegate and/or Chief Scrutineer decides that a Technical Waiver ‘provisional approval’ would be inappropriate then applicants will be informed and given the opportunity to adjust their request and/ or provide more information.
- 6.6 Where the Technical Delegate and/or Chief Scrutineer deems a Technical Waiver request incomplete, the applicant will be invited to revise or withdraw the Technical Waiver request.
- 6.7 When the technical delegate and/ or Chief Scrutineer is satisfied that a Technical Waiver request is reasonable, the request will be deemed ‘Provisionally Approved’ and the event secretariat will be instructed to publish the document to invite peer comments.
- 6.8 Provisionally approved Technical Waivers will include a publication date, the duration of the probationary period and the name of the provisionally approving event official.
- 6.9 Interested parties may comment or object to a ‘provisionally approved Technical Waiver’ by writing to the event secretariat (info@eastafricansafarirally.com) and the ‘provisional approving’ event official thus initiating procedure App B article 6.11.
- 6.10 When the Technical Delegate receives comment(s) and/ or objection(s) and/ or Chief Scrutineer in response(s) to the publication of a ‘provisionally approved Technical Waiver’ then the Technical Delegate and/ or Chief Scrutineer will respect majority

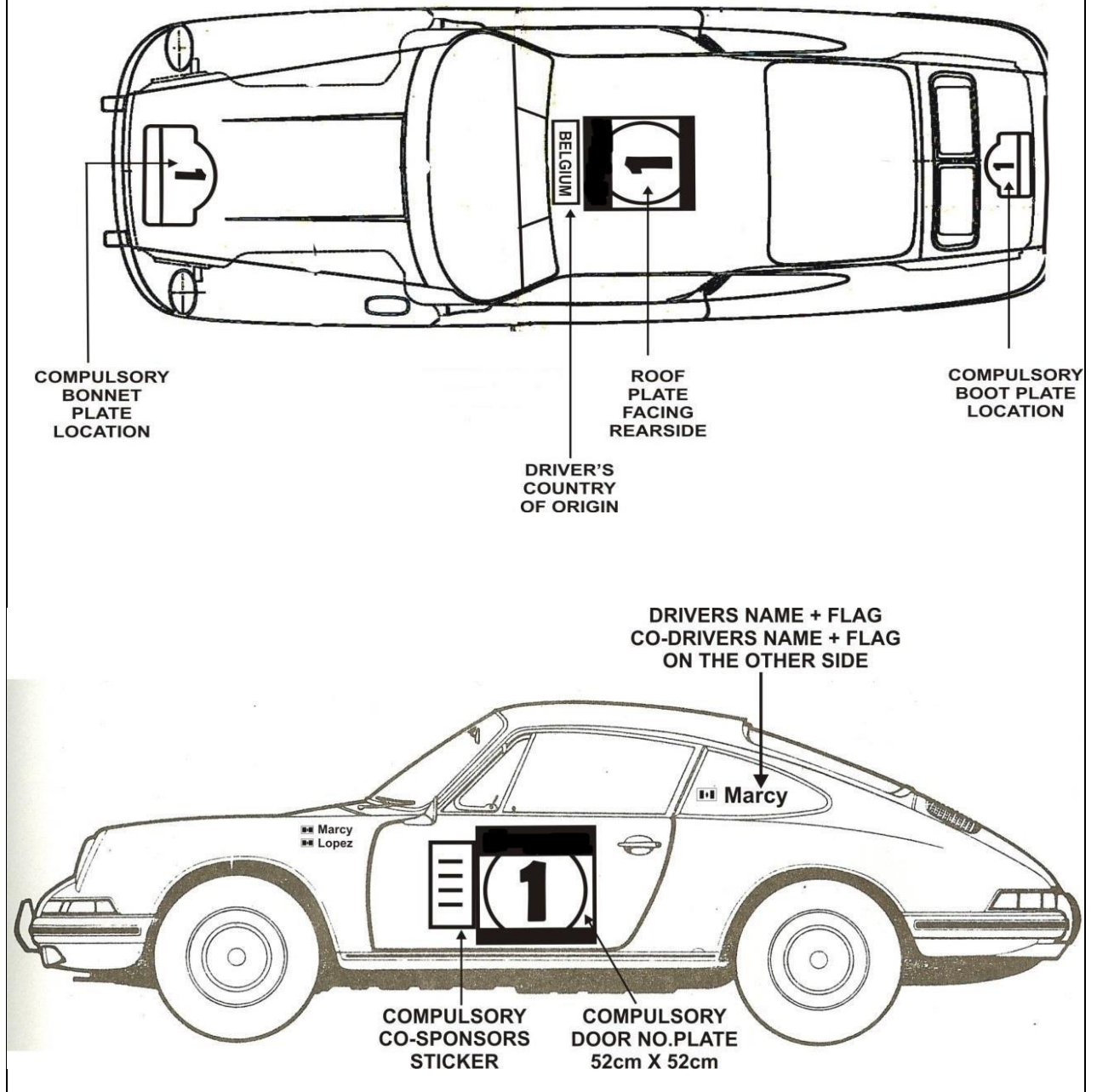
‘interested party’ opinion.

- 6.11 When comment(s) and/ or objection(s) are received by the Technical Delegate and/ or Chief Scrutineer as responses to provisionally approved Technical Waiver(s) then the waiver request and its provisional approval will be deemed withdrawn. The Technical Delegate and/ or Chief Scrutineer will arbitrate between objectors and entrants or their representatives who may be asked to submit a revised Technical Waiver request for consideration.
- 6.12 The event Technical Delegate and/ or Chief Scrutineer and/ or the Event Directors and/ or non- competing third parties may submit a Technical Waiver(s) request subject to the process described in article 6.3
- 6.13 Exceptionally, the event Technical Delegate and/ or Chief Scrutineer may accept and approve a Technical Waiver(s) without consultation in the instance where an entrant or his representative substantially prove historic acceptance of a technical variation which has been used on more than one edition of the EASCR event.
- 6.14 Where an entrant or representative submits a Technical Waiver request between editions of the event and before a substantial ‘subsequent event mail list’ exists, the secretariat may decide to circulate ‘provisionally approved Technical Waivers’ utilising the previous events mail list in order to publicise the request reasonably.

Technical Waiver request forms may be downloaded from the event website.

APPENDIX C - ADVERTISING

1. Location of Compulsory stickers and their position on the rally car.
2. Location of the bonnet and Boot Plate is as per the diagrams below and no other location will be accepted.
3. Stickers must not be cut or defaced in any way before attaching onto the rally car.



**Appendix D – TRACKING
RALLY SAFETY SYSTEM
INSTALLATION MANUAL**



1.0 GENERAL

- 1.1. It is mandatory that each rally vehicle to have properly installed and working “RALLY SAFETY SYSTEM” on board of the racing vehicle.
- 1.2. The system is rented at the administrative check, and it is installed and sealed by the organizer at the scrutineering.
- 1.3. A deposit published in the supplementary regulations must be paid in cash only at the administrative check. Deposits are refunded in cash at sight when the equipment is returned to the organizer in working condition.
- 1.4. The tracking devices will be dismantled by the organizer in the last Parc Ferme or Time control. If a crew retires the rally, they can dismantle the Rally Safety System without causing any damage to the hardware and return it to the HQ, where after checking of the condition of the devices and hardware, the deposit will be refunded.

1.5. It is the competitor’s responsibility to ensure that the Rally Safety System always remain permanently connected and switched on with the antenna connected throughout the duration of the rally. Any crew that fails to do so, or if it is noted that the system is not in operation through the fault of the crew, will be reported to the Clerk of the Course and will incur a penalty of at least 15 minutes, which may be increased at the discretion of the Stewards.

2.0 SYSTEM COMPONENTS

2.1 GPS Tracker – 75 x 75 x 30 mm. Installed by the organizer at scrutineering on the required position. The device is IP 67 protected and have built in battery providing back up power if the external power is lost. See bellow possible installation locations and positions.

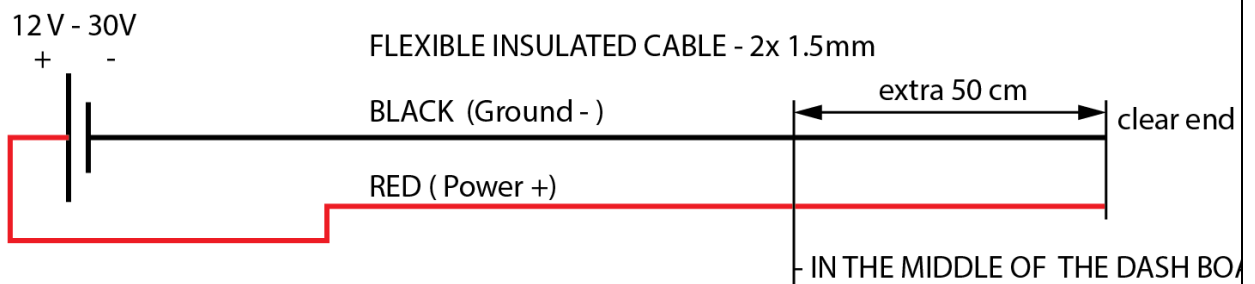


2.2 It is forbidden to unseal, disassemble, and remove the external power supply for the devices. Checks will be carried out during the event.

3.0 POWER SUPPLY

- 3.1 **IMPORTANT!!!** The battery master cut-off (kill) switch **MUST NOT DISCONNECT** the power supply for the Rally Safety System.
- 3.2 It is the responsibility of the competitors alone to provide, **DIRECT POWER SUPPLY** from the vehicle's battery according to the drawings provided.
- 3.3 The power cables must be “flexible” (multi wire), insulated cables – 2 x min 0.5 to 1.25 mm² (preferably with **RED** and **BLACK** insulation color).
- 3.4 The connection may have an **IN-LINE FUSE** - “**BLADE TYPE**” of 5A.

VEHICLE's BATTERY



- 3.5 The wires must be prepared in advance and connected to the vehicle's battery when the vehicle is presented for scrutineering.
- 3.6 The cable must have minimum 50cm extra usable length from the middle of the dashboard (See installation position).
- 3.7 The connection to the Rally Safety System will be done with a simple connector terminal supplied by the organizer.

3.8 Electrical details:

- The allowed range of voltage is 6V to 30V DC.
- The nominal voltage is 12V.
- Energy consumption in idle state (at 12.6V power supply): 250mA r.m.s.
- Maximal power consumption – 2W

4.0 CONNECTORS

4.1 The power supply cables (Power+ and Ground-) must be equipped with FULLY INSULATED FEMALE Crimp Spade Terminal Connector - 6.3 x 0.8mm.

4.2 See the graphic bellow for example:



5.0 MOUNTING OF THE SYSTEM COMPONENTS:

5.1 It is the competitor's responsibility to ensure that there is enough free space for each of the system components to be installed.

5.2 The system components will be installed by the organizer at the scrutineering.

5.3 The mounting of the components is specific of each vehicle type using the following (supplied by the organizer): Cable/zip ties, 3M Velcro tape, Electrical connectors.

#	Location	Fixing
1 – Power supply cable end	Middle of the cockpit or co-driver „A-pillar“	Zip ties
2 – GPS Tracker	„A-pillar“ or dashboard or horizontal roll-bar tube	Zip ties or Velcro tape

APPENDIX G – TECHNICAL WAIVERS LIST (FOR WAIVERS ALREADY APPROVED) AVAILABLE ON OUR WEBSITE.

