

## **REGULATION RFC South Europe (extracted)**

### **4. REQUIREMENTS AND EQUIPMENT VEHICLES (ALL CATEGORIES).**

#### **4.1. IDENTIFICATION OF VEHICLES**

Have allowed all vehicles less than 3.5 tonnes, four-wheel, all drive, excluding quad. All vehicles registered to the event will be identified with a number. The identification numbers of participants should be applied on both sides and the front of the vehicle (bonnet). Any number difficult to read, should be repositioned before the vehicle is allowed to take part in the event. And 'the competitor's responsibility to keep their identity recognizable number during the entire event. Provide a plan of the base 35cm and in height 25cm for applying the competition number in the three positions mentioned above.

#### **4.2. EQUIPMENT, CONDITIONS AND FUNCTIONS**

All equipment necessary or required equipment, devices, safety equipment, and components of the vehicle, as described in the Rules (including attachments or regulatory surcharges), must be in good condition at the time of scrutineering. The equipment and components must function throughout the course of the race and, if damaged, must be repaired or replaced. Otherwise the vehicle can not proceed to the race.

##### **4.2.3. SEAT BELTS – SEATS**

All vehicles must have seat belts approved for circulation on public roads or minimum type 4 points for each occupant. The belts of occupants must be in new or mint condition, they must not have cuts, to be frayed, with chemical stains, burns or excessive dirt and must be flexible conditions (the material must not be rigid). All safety belts must have a label bearing the name of the manufacturer and the approval code. Belts only ventral NOT allowed. The seat belts must be mounted on elements that can withstand the maximum load of the belt in an accident without breaking or media failure. The seat belts should be installed so that they are not in contact with any surface that may damage them. The seat belts must be worn by tight occupants of the vehicle whenever the vehicle is in motion. The seat belts must be used with a seat that has the correct number of slots and placed in the appropriate locations for belts. The seats must not be modified in order to create slots for belts. The seat belts have to be matched to a seat in excellent condition, mounted on a system firmly installed on the chassis, roll bar or body of the vehicle. Any adjustment of the slides must be securely fixed to the vehicle chassis or bodywork. Headrest with at least 5 cm of shock absorbing material thickness and with a surface area of at least 200cm<sup>2</sup> are required.

##### **4.2.4. WINDOWS-SECURITY NET**

Vehicles equipped with the doors windows should keep them closed for a minimum 2/3 of their height during all stages, except for the stretches in which you face the fords where they will be opened. For vehicles without windows or doors, are obligatory safety nets and must cover all the side openings of the passenger compartment of the vehicle and extended so that no flap or part of each occupant body can protrude from the vehicle at any time when occupants are properly seated with your seatbelts fastened in the driving position. Safety nets should be set within the roll bar to prevent damage in the event of rollover or collision. Anchored nets inside the frame of the door are allowed. Nets must be secured so that both occupants can disengage and leave the vehicle without any help at any position of the vehicle. The edge of the net attachment contour must be as strong as, or stronger than the net itself. The net anchors must be carried out with a maximum of

15cm between one and the other. acceptable anchors are: metal clamps, screws, metal hooks. Collar or the plastic anchors are not allowed. The nets must be sufficiently tensioned so that in case a thrust of about 20kg, the net has a drop of not more than 10cm, the mesh holes must not exceed 10x10 cm is exercised. For vehicles using doors as standard or the like, in the Lexan windows can replace the safety nets only if the fastening devices of Lexan are set to the same port. The side windows in Lexan must be engaged so as to allow the rapid removal in the event that the door is not opened.

#### 4.2.5. EXTINGUISHERS

All vehicles must be equipped with a fire extinguisher traversable approved by at least 1 kg (2.5 lb) of superior, ABC dry type or equivalent Halon. The fire extinguisher must have a pressure gauge, must be fully charged and easily accessible from inside the vehicle (it is recommended that it is accessible by all occupants). An additional fire extinguisher of 1kg (2.5 lb) or higher, type ABC, Dry Halon or equivalent, must be installed in a location easily accessible from the outside by people who are not familiar with the vehicle. All fire extinguishers must be installed so that no tool for removal is not necessary.

4.2.5.1 An integrated extinguishing system in the vehicle, in addition to the portable extinguishers is permitted. In the case in which a vehicle has installed integrated extinguishing system, the capacity of the moveable extinguishers must remain 1Kg (2.5lb) each as a minimum. For petrol vehicles are recommended strongly extinguishers moveable from a minimum 2kg (5 lb). All fire extinguishers must have a nameplate showing the test date not older than one year.

#### 4.2.6. WINCH

All vehicles must be equipped with at least one (1) winch with pulling capacity adequate to the weight of the vehicle. The winches have to be in excellent condition. And strongly it recommended a second winch installed to pull the vehicle in back. All winches shall be fitted with a functioning brake, able to keep the vehicle, with weight in running order, on a slope of 80°. Motors, solenoids, and spare parts for winches are recommended.

##### 4.2.6.1. WINCH CABLES

The cables of the winches have to be in excellent or new conditions. At least 1 (one) spare cable of at least 30 meters in length must be on board the vehicle. The cables for the winches should be "sealed" in a workmanlike manner and with a minimum length of 30 meters. The hooks of the winch cables must be of the security, the open ones are not allowed.

##### 4.2.6.2. DAMPER FOR CABLE WINCH

A damper for the winch cable, the minimum weight of 1 (one) kg, must be placed in proximity of the half of the tension in the line.

#### 4.2.7. SNORKEL

An engine intake air system shall be provided for deep wading.

#### 4.2.8. "STRAP" FOR TREE

A band, "strap", for the trunk protection must be used during the coupling operations of the vehicle to a tree. The band must be in excellent condition and have a minimum holding, online, 3000kg.

#### 4,2,9 SHACKLES

Are required 4 (four) shackles with minimum 3,25t.

#### 4.2.10 SNATCH BLOCK

required snatch block in excellent condition, with a load capacity of 8000kg minimum

#### 4.2.11. ANCHOR

Recommended an anchor ground.

#### 4.2.12. FIRST AID KIT

The kit must be accessible to the crew of the vehicle without the necessity of having to remove any panels. Crews with special medical needs should highlight these needs in prominent places such as the helmet or suit.

#### 4.2.13. SURVIVAL SUPPLIES

Highly recommended to all competitors to bring water, food, medicines and any other supplies needed to deal safely throughout the duration of the race, even without assistance depending on your needs. At a minimum, at least 1 liter of water per day per occupant is recommended at the time of the start of each day of competition.

### 4.3. GENERAL CHARACTERISTICS OF VEHICLES

4.3.1 Is responsibility of each competitor / driver present a safe vehicle at the time of the scrutineering event. Competitors must keep their safety equipment throughout the course of the race. All vehicles must be fully functional for the entire duration of the race.

4.3.2 All vehicle occupants must be able to enter and exit the vehicle without any help with the vehicle in any position. metal partitions must isolate the passenger compartment from any fluid, engine coolant or sour.

4.3.3 oil radiators, transmission coolers or other heaters must have a protection which, in case of breakage or loss, will prevent liquids from reaching the occupants. All liquid carrying pipes that pass through the vehicle must be secured with a bulkhead. coated pipes with steel braid are not exempt from being protected.

4.3.4 All vehicles must have a bulkhead constructed entirely of metal that separates the cockpit from the danger of fire in the engine compartment and in the tank compartment. If the tank is installed at the rear and is highest of the occupant's shoulder, an attached waterproof metal bulkhead must extend at least 5 cm above the top of the tank. In the case of vehicles with front engine, the hood is considered part of the bulkhead and must be compulsorily installed. The rear-engined vehicles are not required to have any hood installed.

4.3.5 The passenger loading platforms are mandatory in all vehicles and must be anchored with a minimum of 6 screws for each side of the minimum diameter of 6 mm or welded. The platforms must cover the entire area from the front of the pedal right behind the seats and the outer lateral limits of the vehicle up to the same limit on the opposite side.

4.3.6. All Vehicles with opening doors must have a locking system which can not be released accidentally.

4.3.7. No type of front or dangerous front or rear bumper, chassis heads or other objects protruding from the vehicle are permitted.

4.3.8. A rear-view mirror to each vehicle is required. The mirrors must have a reasonable view of the rear of the vehicle without obstructions.

4.3.9. All replacement parts or extra equipment, transported in the vehicle must be well secured or enclosed in special housings in order to prevent the leakage or detachment during the event. All replacement parts or extra equipment must be securely fixed and located so as to minimize the risk of contact with the occupants of vehicle.

4.3.10. All of the vehicle body parts must remain on the vehicle, also for accidental causes during the entire event duration.

#### 4.3.11. ROLLBAR

4.3.11.1. Rollbar is considered the property at least 1 (one) arch over the crew's heads and 4 point major act to protect vehicle occupants, for vehicles with closed bodywork; with at least two (2) arch and 6 points for open vehicles. The side-by-side vehicles fitted with rollbars outset are allowed. FLS reserves the right not to accept any design rollbar that, in the opinion of the Technical Commissioner, is not suitable for racing. And the responsibility of the competitor / driver to ensure safety conditions in your vehicle including the design, construction, quality of construction, maintenance and repairs to the rollbar structure of the vehicle itself.

4.3.11.2. All vehicles must be equipped with a roll bar constructed of pipe materials with adequate strength to withstand shocks in the event of ruinous overturning of the vehicle. The minimum measures recommended below are for the diameter and wall thickness to be used for the main structure considering the weight of the vehicle tare with a subsidy of included onboard, occupants excluded:

4.3.11.2.1. Tare of less than 1450kg - 35mm diameter x 3mm thickness. Tare from 1451kg to 1995kg - 40mm diameter x 3mm thickness. Tare of more than 1996kg - 50mm diameter x 3mm thickness. Aluminum or other non-ferrous materials are not allowed

4.3.11.3. All welds must be of good quality and with good penetration into the metal. All parts of the rollbar must be at a minimum distance of 8cm from the helmets of each occupant of the vehicle when seated in the normal driving position. All parts of the roll that can collide with the body or parts of the wearer should be coated with materials suitable to dampen the rollbar impatti. It must be anchored to the chassis or body of the vehicle. All the ends that connect the rollbar with the body or shell must be able to support the maximum impact. Rollbar installed on the body must have a minimum of two plates "sandwich" of equal size, minimum thickness of 3.5 mm bolted on both sides of the body where the roll rests. The bolts must have a diameter not less than 10mm and with a resistance class equal to or greater than 10.9. All vehicles, except those equipped with standard metal doors must have at least a sidebar on each side of the vehicle which can protect the occupants from side impacts. The side bars must be of the same material and the same size of the main rollbar. The side bar should be positioned so as to provide maximum protection for the occupants and must be paid arch front and in the middle of the roll bar. The position of the side bar may not cause difficulties in the entrance or the output from the vehicle. A metal sheet of ferrous material with a minimum thickness of 1.0 mm or

aluminum the minimum of 3mm thickness has to cover the upper part of the main roll, immediately above the heads of the occupants in the area that covers the passenger compartment of the vehicle.

#### 4.3.12. ENGINE

4.3.12.1 The engine must be free of fluid leaks. See ENVIRONMENT section for more information about ecological considerations.

4.3.12.2. All engine breathers must end inside a container of fluids and the dipsticks must have a locking system. See ENVIRONMENT section for more information about ecological considerations.

4.3.12.3. Approved break-flame systems should be installed in the exhaust system on all vehicles. The final output of the discharge must be extended away from the occupants, from the fuel tank and tires. excessively noisy vehicles are not allowed. See ENVIRONMENT section for more information about ecological considerations.

#### 4.3.13 TRANSMISSION

4.3.13.1 Transmission and gearbox must be free of fluid leaks. See ENVIRONMENT section for more information about ecological considerations.

4.3.13.2 All vents of the transmission must be terminated within a container of fluid, and the level of rods must have a locking system. See ENVIRONMENT section for more information on ecological considerations.

4.3.13.3. All vehicles must have the ability to transmit power to all four wheels and must be equipped with a functioning of reducer system (transfer). It is considered a reducer gear system which acts after the change and reduces the ratio (numerically higher) than 1: 1.

4.3.13.4. Cruises and the drive shafts must be covered with a ferrous metal bulkhead minimum thickness least 1mm or 3mm minimum thickness aluminum in order to prevent pieces of metal cruise from being thrown against the occupants in the event of breakage. The protective material must be installed only between the occupants and the transmission shafts. The floor of the vehicle is considered as bulkhead.

#### 4.3.14. STEERING

4.3.14.1. hydro assisted steering systems must be free of fluid leaks. See ENVIRONMENT section for more information on ecological considerations.

4.3.14.2. The vent pipes of hydro assisted steering systems must be connected to a container which prevents leakage. See ENVIRONMENT section for more information on ecological considerations.

#### 4.3.15. SUSPENSION

The dampers must be free of leaks. See ENVIRONMENT section for more information about ecological considerations.

#### 4.3.16. BRAKES.

4.3.16.1. The braking system must be structured so as to apply an appropriate force on all 4 wheels in order to stop the vehicle. The brakes must be in safe condition and free from leakage during the entire event. If it was a problem with the brake system, this must be placed before the event continuation. See ENVIRONMENT section for more information about ecological considerations.

4.3.16.2. Each vehicle must have a parking brake system that maintains active when the vehicle is parked and the occupants are out of vehicle.

#### 4.3.17. TANKS

4.3.17.1. original tanks, made of steel or polyurethane are all accepted. All aluminum tanks must have an internal safety tank of type "bladder" without exception. The tanks built without homologous must meet the specifications for the auxiliary tanks.

4.3.17.2 auxiliary tanks of approved production vehicles can be added. Any auxiliary tanks built without homologation must be safe tanks. A safety tank consists of a bag (bladder) enclosed in a rigid container. The container should be constructed with a minimum of 1mm thick steel, aluminum 1.5mm or 3.1mm Marlex polyethylene, the magnesium is prohibited. There must be a partition wall between the tank and the vehicle occupants. The tank must be installed so as to be protected from damage caused by collisions with other vehicles, impacts with debris or crushed stone coming from underneath the vehicle, damage in the event of overturning of the vehicle or possible damage due to bending or twisting of the frame. The container should be securely attached to the vehicle with screws or metal bands. The anti shaking fuel systems (baffling) are required within each tank. The foam is considered an acceptable anti shaking system. SFI or FIA approved FT3 tanks are accepted.

4.3.17.3. Fuel batteries are permitted provided that follow these guidelines: They must be made of aluminum with a minimum thickness of 3mm or 1mm steel, they must be fixed to the frame using the rubber insulators and may not have a capacity greater than 1 liter. Batteries shall be installed so as to be protected from damage in case of impact as for the tanks.

4.3.17.4. No basket or other portable fuel container is allowed in each vehicle during the event.

4.3.17.5. alternative fuels (LPG and natural gas) are in true an approved reservoir road type.

#### 4.3.18. CONNECTIONS, FILLING AND BREATHER

4.3.18.1. All original fittings and related components are accepted.

4.3.18.2. The design and installation of the tank and related components must prevent fuel spillage from draft duct, from the pipes and the filler neck if the vehicle is partially or fully reversed upside down. Isolating valves on the fuel supply pipe, the return pipe and the vent tube are accepted. Ball valves or a combination of ball valves and non-return valves on the flow tubes, return and vent are accepted. The isolating valves must be located so that they are easily accessible to be closed in case the vehicle overturned. See

ENVIRONMENT section for more information about ecological considerations.

4.3.18.3. The tank must be filled and vented outside the passenger compartment.

4.3.18.4 Filler necks fitted with plugs with positive locking system and without vent must be positioned so as to prevent their opening while the vehicle is in motion or during a rollover or an accidental impact. Caps Monza type tank is strictly prohibited.

4.3.18.5. All filler orifices anchored to the chassis or bodywork must be connected to the tank using a flexible conduit. All filler necks should be surrounded by a bulkhead (the body panel can be considered acceptable if sealed. This bulkhead shall direct any excess fuel directly out of the vehicle, away from the occupants from the engine compartment and discharges.

4.3.18.6. The vent duct, different from those of the series of vehicles, must follow one of these routes: A. The vent must be extended at the highest point of the roll near the tank, through the vehicle in escendere width below the bumper plate or at least 75mm below the tank if lower.

B. The vent duct must make a complete circle above the tank up to a point located at least 100mm above the tank. From this point you must make a full turn of the outer perimeter of the tank while staying at the same height and then descend at least 75mm below the lowest point of the tank.

4.3.18.7. Mats or tarpaulins are needed during all supplies. No vehicle can be refueled outside of the spaces approved for the assistances. The fuel storage in the service areas should be considered a priority security. FLS and strongly recommends the use of safety signs and No Smoking / No open flames in areas used to fuel storage tape. See ENVIRONMENT section for more information on ecological considerations.

#### 4.3.19 ELECTRICAL SYSTEM

##### 4.3.19.1. CUT BATTERY

A battery detaches General of bright color, highly visible and easily distinguishable must be positioned in the passenger compartment. It must be easily accessible by all occupants. The master switch or battery breaker, in case of systems with multiple batteries, must disable the entire electrical system of the vehicle.

##### 4.3.19.2. BATTERIES.

All batteries must be installed and secured safely with metal supports or ratchet straps so as to prevent the displacement in the event of an impact or rollover. All batteries containing acid must be enclosed in an airtight container. The container must be large enough to contain an amount of acid equal to that contained in the batteries. Batteries must not be placed in the cockpit. Batteries are considered in the cockpit when there is an insulating bulkhead between the battery and the vehicle occupants. All batteries must be of the sealed type, maintenance free. Batteries of "gel" type are highly recommended.

##### 4.3.19.3. LIGHTS

All vehicles must have the lights needed to cope trails at night.

#### 4.3.20. TIRES AND RIMS

4.3.20.1. All tires and wheels must be in good condition and should not be considered insecure by the coach. The tires must be at least 12mm of tread. Tires for agriculture, chains, nails and crawlers are prohibited.

4.3.20.2. Carve, sculpt or other modifications made to remove material from the tire are permitted.

## 5. CATEGORIES

### 5.1. CATEGORY "PREPARED" .

5.1.1 All vehicles 4WD arising from mass production are eligible provided they meet the rules outlined in this Regulation, with the following limitations and exceptions: a minimum of 1000 (one thousand) vehicles must have been produced by the manufacturer. Is the competitor's responsibility to support the burden of proving the legality, in case of dispute, of any part of the vehicle including but not limited to: the number copies products, provision of mechanical parts (engine / transmission, cooling system, step and width).

#### 5.1.2. FRAME

The serial chassis shall be maintained. The rear part of the frame and the rear cross member can be removed or trimmed for the only reason to install a non-original bumpers and / or winches. The frames can be reinforced by adding material.

#### 5.1.3. BODY

All vehicles must look like a vehicle produced in series, the body must be completed with the following limitations and exceptions: Changes to the bodywork to improve performance or interference with tires are allowed but the original appearance must be retained as expected by the manufacturer. And 'it considered the body: the complete cabin including internal and external sheets, floor, doors, hood, fenders, grille and so on. The body must be whole, with the following limitations and exceptions: Holes can be drilled in every part of the body with the sole and exclusive purpose of passage of the rollbar tubes and levers gearbox / reducer that must pass through the body. The holes have special restrictions specified in the section of this Regulation. The original doors can be modified to create the half doors and / or may be replaced with tubular ports. Doors must be opened and closed, bolted on panels are not permitted. The hood can be replaced with a different material provided that it retains the original form, it must be able to open. The glasses are not necessary but are allowed proving that respect the road rules. Alternatives to traditional safety glass are allowed, see the appropriate section of this Regulation. The inside of the front and rear wings must be intact and not modified with the following exceptions: The fender can be changed for the sole purpose of passing the tire. The outer part of the front fenders and rear must be intact and not modified with the following exceptions: The outer fender can be trimmed for the sole purpose of passing the tire. The modification of the outer fender can not be excessively trimmed (not more than 50mm between each part of the mudguard and the tire maximum compression. The original media can not be changed or removed for any reason if not to allow the passage of the roll bar through the body to be fixed to the frame. The original bumpers are not required and can be edited or deleted. Excessive damage to any part of the frame or body (before the event start) can be considered a modification and a repair may be needed and determined by the Technical Commissioner.

#### 5.1.4. ENGINE

The original engine can be replaced with another. Its position must be respected.

#### 5.1.5. TRANSMISSION

The original transmission can be replaced with another. Its position must be respected

#### 5.1.6. TRANSFER

The original transfer can be replaced with another. His position must be respected.

#### 5.1.7. AXLES

Any type of axle is permitted provided it complies with the maximum original width. Of the spacers they can be installed with a maximum of 30mm per wheel. Axles with hub reduction are not allowed (portal axles).

5.1.8. STEERING Steering components can be removed or changed and the steering rods can be installed in any position and at any angle with the following limitations: All vehicles must maintain a mechanical steering system (such as fully hydraulic systems are not allowed, if not equipped series) and the steering system must be able to control the direction of the vehicle without the use of systems such as power steering. The rear axle steering is not allowed.

#### 5.1.9. SUSPENSION

The suspension layout can be changed. Must ensure the anchorage of the wheels to the frame. The pitch must remain within the 50mm from the original measure. End stroke compressible rubber, bump stop, sponge / foam or other similar material are allowed. Shocks of any make and model are allowed and can be installed in any position and direction. The shock absorbers must be in good condition. The dampers must be connected directly to the axle and frame. Suspension Control manual systems (hydraulically controlled) are not permitted.

#### 5.1.10. TIRES AND RIMS

The tires must have a maximum outer diameter of 37 "(94cm), as specified on the sidewall by the original manufacturer. For further information see the relevant section of this regulation.

### 5.2. CATEGORY "PROTOTYPE"

5.2.1. All vehicles with 4-wheel drive from the production of the series and not, are eligible, provided they respect the rules outlined in this Regulation, with the following limitations and exceptions.

5.2.2. FRAME Any changes to the chassis is allowed. Frames constructed in a single copy are allowed. Tubular frames are permitted.

#### 5.2.3. ENGINE - TRANSMISSION - GEAR – AXLES

Any engine, gearbox, transfer, axle is allowed provided it complies with the standards described in this regulation.

#### 5.2.4. STEERING

Any components and steering configuration are permitted subject to the rules described in this Regulation. Rear steering is permitted.

#### 5.2.5. SUSPENSION

The suspension must guarantee the anchoring of the wheels to the frame. Any components and configuration are permitted subject to the rules described in this Regulation. Suspension Control manual systems (hydraulically forced) are permitted.

#### 5.2.6. TIRES AND RIMS

The tires can have a maximum outer diameter of 40 "(102cm), as specified on the side of the original tire. Any type of tire is permitted subject to the rules described in this Regulation. For further information see the relevant section of this regulation.

### 6. SERVICE VEHICLES

All assistance vehicles must have exposed the number corresponding to the number of registration to the event place on both sides of the vehicle, in the front passenger side of the front windshield and rear window.

### 7. SAFETY EQUIPMENT

7.1. Fireproof suits in one piece are recommended. It is highly recommended that each fireproof suit is embroidered in the upper right pectoral with the full name of the competitor, blood type, allergies and any other important medical information.

7.2. Helmets must be approved and must have the adhesive of one of the following specifications: Snell M2005 / SA2005 / M2010 / DOT SA2010 / ECE22-05 / BSI, 8858-2010 FIA. The inside and outside of the helmet must be free of defects (tears or damage). FLS and strongly recommended that participants use helmets specifically designed for motoring.

7.3. Protective visors or protective glasses in the eye are required for all competitors whose vehicles are without glass.

7.4. Restraint systems for the neck (Hans devices) are highly recommended for all competitors. These collars should provide adequate support and have a fire-resistant coating in good condition or in mint condition.

7.5. A pair of work gloves is mandatory for every member of the crew.

7.6. A change of clothing is recommended.

### 8 RULES AND REGULATIONS OF THE EVENT

8.1 The CO shall meet to decide on issues regarding the infringement of rules, sportsmanship and conduct during the event, especially those identified by the Officers of the race.

8.2. All competitors must be 18 years of age to attend the event. Any participant who does not complete or do not sign the application form and its annexes will not be admitted to the competition. Registration forms in person must be signed in the presence of an officer of the FLS and. No competitor may enter the event, testing area or receive the official map of the event before he signed the application form and its annexes. The contestant must have subscribed to all the demands of FLS and. No person may sign the registration forms

and its annexes for another person, even if provided with a written proxy. Any competitor who had a registration form with a forged signature will be disqualified, also can be suspended for future events organized by FLS asd. All drivers must have a driver's license in the European or international format, category "B" or better recognized, valid and must be submitted to the checks. Both crew members (pilot and co-pilot) must present themselves to the checks provided with healthy and robust constitution medical certificate for sports activities. All competitors must have insurance for damage to third parties. No competitor can be registered as a conduit for more than one vehicle. The competitors forming the team can not be changed, with the only exception for the co-pilot that can be replaced with another competitor already registered the event.