

SVENSKA BILSPORTFÖRBUNDET



# **TECHNICAL REGULATIONS**

## **Radical Cup Scandinavia**

### **2015 - 2017**

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## 10. Technical regulations - General

### 10.1 Introduction

These technical regulations are created in consensus with Svenska Bilsportförbundet (Racingutskottet) and it is to be clear that:

The use of the word "original" as a description in these technical regulations are to be interpreted as: Parts manufactured/delivered by Radical Sportscars UK Ltd or approved by Radical Sweden. No modifications are allowed except for repair or adjustments.

### 10.2 Descriptions

Radical Cup Scandinavia allows Radical Prosport, PR6, SR1 and SR3. The cars shall uphold to the current technical regulations at any time during official practices and raceheats. It is the responsibility of the competitor to uphold to this.

### 10.3 General technical regulations

All parts should be Radical original with exceptions for those which are set in this regulation if nothing else has been set in technical bulletins. The welding and repairs done on cars are to be done with respect towards the existing regulations and are to follow the manufacturers instructions.

### 10.4 Technical inspection

The Radical technicians role is are to give advice and support to teams and drivers, see to that the technical regulations are upheld, to be available at scrutineering and to support the appointed chief technical officer and scrutineers during competition.

### 10.5 Scrutineering

The scrutineers appointed by the organizer hold the complete rights to check competing cars at any time during a competition (practice, qualifying, race heats). The organizer is to provide directives on how to carry through the scrutineering's and/if a more detailed technical check is to be implemented, the Radical technician will be available as support. Check-lists of the technical checks shall be reported in writing to whom it may concern within the SBF.

### 10.6 Chassis

Square-pipe space frame chassis with aluminum floors and sides. The space frame shall have an integrated roll cage.

### 10.7 Towing eyes

Towing is primarily carried out with the help of the roll cage for Prosport and PR6. Original towing eyes in the front should be available and installed as it's designated by the manufacturer.

### 10.8 Bodywork

#### 10.8.1 Type

Original glasfibre or composite bodywork according to specification from Radical Sportscars.

### 10.8. 2 Make

No modifications on the bodywork such as shape and profile may be made. The material used in the bodywork may not be changed. The bodywork may be repaired with glasfibre or composite as well as polyester plastics. The front undertray and the front splitter shall be installed. The rear undertray is optional.

Original Gurney strip and dive planes may be fitted at any time. Original rear wing shall be installed as shown by instructions. The wings attack-angle may be adjusted with the help of the integrated adjustment points which may not be modified. Damaged parts shall be replaced with new or repaired ones.

### 10.8.3 Ground Clearance

Ground clearance (height) is free.

## 11.0 Not applicable

## 12.0 Engine Specifications

Engine, gearbox and driveline regarding Radical may only be renovated by Radical Performance Engines LTD (RPE) if the original sealing and eventual guarantee is to be applied. Radical Sweden may appoint a representative for engine renovations I Sweden for participants of Radical Cup Scandinavia. To guarantee that the correct parts are used during the renovation of engines, all parts shall be ordered through Radical Sweden.

Starter-motor and generator shall be installed as a standard.

### 12.1 Approved modifications

No modifications are allowed if they are not approved by Radical UK or Radical Sweden.

### 12.2 Cooling System

It is allowed to cover the intercoolers to control/regulate the temperature or change it's function. Electrical cooling fan is allowed.

### 12.3 Intake System

Only the ram air-box and air filter as well as the throttle body that were delivered with it's respective model for PR6, SR1 and SR3 are allowed unless RPE has replaced the respective parts with another part for the model. It is allowed to mount an induction system in the Prosport. The throttlebody or carburettor opening may not be modified in comparison to the original.

### 12.4 Exhaust System

Only the original manifolds that were delivered with each model of Radical are allowed. If a combined solution of a catalyst and exhaust is used it is allowed to use commercial petrol according to 12.14.3. If a catalyst is not used the car will run on environmental fuel as described by 12.14.3.

Noiserestrictions according to SBF, TR 4.

### 12.5 Engine Control Unit

Radical/RPE original ignition system must be installed on PR6, SR1 and SR3. The maximum RPM limit on the system is 8500 rpm for the SR1 and 10500 rpm for the remaining models. At any time during a race-weekend, Radical Sweden holds the right to control the Engine Control Unit of any series competitor.

### 12.6 Fuel System

The original fuel supply-system is to be installed on PR6, SR1 and SR3.

### 12.7 Suspension System

The front and rear suspension and shock absorber-system is a unique twin wishbone-pushrod construction with a Nik-link, anti-roll system. On the Clubsport, manufactured up until 2001, it's a conventional adjustable anti-roll bar, installed in the rear end. Only shock absorbers according to Radicals spare parts list for every respective model are allowed. Springs are free of use.

### 12.8 Transmission

Standard integrated 6-speed gearbox is to be used. RPE paddleshift-system may be installed and used. Original chain drive and differential shall be installed on the Prosport and PR6. The size of engine and end sprockets may vary. Reverse gear shall be installed.

### 12.9 Electrical system

#### 12.9.1 External lights

The rear lights shall be installed and in working condition.

#### 12.9.2 Rear fog light

The rear fog light shall be installed and in working condition.

#### 12.9.3 Battery

The car is to be fitted with an electrical starter motor and battery, these should be controllable by the driver from the seating position to be able to restart the engine. Main power switch is obligatory according to TR 5.13.

#### 12.9.4 Generator

Shall be mounted and in working condition.

#### 12.9.5 Instruments

Radical original instruments/add on steering wheel alternatively a log system with at least the same functions, is to be used.

### 12.10 Brake system

Radical original brake system is to be used for PR6, SR1 and SR3. The brake parts used should follow the same specification as Radical original. To mount an adjustable brake proportioning valve is allowed. It is not allowed to exchange the calipers or modify the diameter of the existing caliper.

### 12.11 Wheels

Approved wheels for Prosport, Pr6 and SR1 are the original Radical wheels. Dimensions: Front 13"x7½"; Rear 13"x10. For the SR3 the following dimensions are to be used: Front 8"x15"; Rear 10½" x 16".

### 12.12 Tires

Tirespecification: Dunlop PR6 and SR3 slicks and raintires are to be branded with Radical.

Tiredimension Prosport and PR6: Front: 190/535x13"; Rear: 230/570x13"

Tiredimension SR3: Front: 200/580x15 (257)"; Rear: 265/605x16"

Dunlop tires for SR1 are patterned R tires marked with Radical and are used in both dry and wet conditions. The maximum number of tires is limited to four front tires and four rear tires during a season.

A maximum of two front tires and two rear tires are allowed per race -weekend for the remaining models.

During the year, registered tires can be freely used. Ruined or faulty tires may be exchanged during a competition. The tire or tires that is to be replaced shall be shown and approved as well as kept by chief technical officer. The number of rain tires are free.

### 12.13 Weight Limits

The minimum weight of the car, including the driver and the drivers personal safety equipment (helmet, driver's suit etc), is shown in the chart below for it's respective model and engine combination.

Radical model	Minimum weight
Clubsport up to 1300 cc och <u>SR1 with 1340 cc</u>	560 kg
Prosport up to 1300 cc	570 kg
Prosport up to 1340 cc	580 kg
PR6 up to 1300 cc	570 kg
PR6 up to 1340 cc	590 kg
SR3 up to 1340 cc	670 kg
SR3 up to 1500 cc	690 kg

### 12.14 Fueltank and fuel

#### 12.14.1 Type

Type of fueltank: Original Radical aluminum-tank shall be used. Optional in the form of Radical Fuel cell is available.

#### 12.14.2 Location

The position of the fueltank may not be modified from it's original position.

#### 12.14.3 Fuel

For cars equipped with a catalyst, normal commercial fuel that fulfills Swedish standard EN 228 or SS 14 54 22 may be used. Cars without a catalyst shall use enviromental fuel. The octanelevels may not exceed the FIA-regulations 102,0 RON and 90,0 MON. Rules for fuel tests according to SBF, G16 2014.

## 13 Fireextinguisher

Fixed fireextinguishersystem is optional. If the system is installed it must uphold to the standards according to SBF, TR 5.7.

### 13.1 Location

If an fireextinguisher is mounted it shall be protected and located inside or close to the driver's space. It has to be mounted in a way that allows it to pass an acceleration force of 25G. All parts in the system shall resist an open flame.

### 13.2 Operation

If a fireextinguisher is mounted, the driver shall be able to, from his or her normal seating position, with the steering wheel in place and secured with seat belts, control and operate the fireextinguisher system. The system also has to be able to be controlled/operated from outside the car. This means that the mechanism to operate the system shall be located in immediate relation to the main electrical switch and be clearly marked with a red letter "E" in a white circle with a ringed in red bar and a diameter of 10 cm.