TECHNICAL REGULATIONS

RADICAL CUP SCANDINAVIA

2023 - 2025

(RCS-TR)

Terminology / Abbreviations:

SBF = Swedish Automobile Sports Federation

TR = SBF Technical Regulations

RCS = Radical Cup Scandinavia

RPE = Radical Performance Engines

RM = Radical Motorsport Ltd

HANS/FHR = Frontal Head Restraint

RCS-TR = Radical Cup Scandinavia Technical Regulations

RCS-SR = Radical Cup Scandinavia Sporting Regulations

ECU = Electronic Control Unit

BoP = Balance of Performance

SO = Scrutineering Officer

SG = Radical Cup Global Scrutineering Guide

RCS-TR 1 Introduction

1.1 The RCS-TR are derived from the SG and are intended to complement the RCS-SR. Any component, modification, or procedure not expressly permitted within these regulations is strictly prohibited.

1.2 The SG is to be regarded as a supplementary reference consistent with these RCS-TR. In the case of any discrepancies or conflicting provisions, these RCS-TR shall prevail.

RCS-TR 2 General

2.1 Only vehicle models produced by RM are eligible for participation in RCS. All cars must always remain in full compliance with the RCS-TR during an event.

2.2 The designation "original" refers to any product, component, or system that is either manufactured by or explicitly specified by Radical Motorsport or its authorized suppliers.

2.3 In order to maintain fairness, quality, and safety, all products, components, and systems governed by these regulations—such as spare parts, tyres, and consumables — must be sourced through the series organizer or an authorized official Radical Motorsport distributor. All inquiries regarding spare parts and related components shall be directed at the appropriate official distributor.

2.4 All components must be original and appropriate for the specific vehicle model, except where explicitly permitted by the RCS-TR or through officially published bulletins. Repairs to parts or chassis must follow the manufacturer's guidelines for the respective model and may under no circumstances be modified. Unless expressly stated otherwise, any deviation from the original specification is strictly prohibited.

2.5 The SO is authorized to inspect any participating vehicle to ensure compliance with the applicable regulations. However, ultimate responsibility for such compliance lies with each individual competitor. In the event of a dispute concerning a vehicle's conformity with these regulations, it is the competitor's obligation to demonstrate compliance to the satisfaction of the organizers; the burden of proof does not lie with the organizers to establish non-compliance.

2.6 As a means of verification, any component on a competitor's vehicle may be removed by the technical staff and replaced with an equivalent component supplied by the series organizer or sourced from another competitor's vehicle.
The vehicle's ECU may also be subject to detailed examination.

2.7 Any breach of these RCS-TR may result in penalties.

2.8 At all race events, the series organizer will provide on-site spare parts support. Available spare parts are primarily allocated for sale to registered series participants, with priority over Guest entries. The series organizer does not guarantee the availability of all components.

2.9 The series organizer may, at any point during the season, register a "development car" which may be equipped with modifications not compliant with these regulations.
The purpose of such a development car is to evaluate components or system solutions under actual race conditions. The intent is, for example, to assess whether a component is "race-worthy" and potentially include it in the regulations, thereby making it eligible for championship use.
The development car shall be identified with starting number "0" and is not eligible for championship points or series awards.

RCS-TR 3 Classes

3.1 RCS is organized into individual point-scoring classes, as specified in RCS-TR sections 3.2, 3.3, and 3.4. Each class corresponds to designated RM vehicle models. Although races may be conducted within a combined event schedule, results are classified independently by class.

3.2 PRO SR1
RM models eligible for this class: **SR1, SR1 XXR.**

3.3 PRO SR3
RM models eligible for this class: **SR3 RS, SR3 RSX, SR3 XX, SR3 XXR.**

3.4 Platinum Class
RM models eligible for this class: **SR10 XX, SR10 XXR.**

RCS-TR 4 Safety Equipment

4.1 All personal safety equipment must comply with the provisions set out in SBF Technical Regulations 6. The use of an FIA-approved HANS/FHR device is mandatory.

4.2 The use of a 6-point safety harness, as supplied by RM, is compulsory. The harness must comply with current validity standards (within valid age for usage) and be certified for use with FHR systems.

RCS-TR 5 Chassis

5.1 The vehicle must retain its original tubular spaceframe chassis with aluminium floor and side sections, incorporating the integrated roll-over structure. The factory-supplied towing eye must be fitted in accordance with the manufacturer's specifications.

5.2 The front deformable crash box must remain securely mounted to the chassis at all times. In the event of deformation, the crash box may not be repaired under any circumstances for safety reasons and must be replaced with a new, complete original unit.

RCS-TR 6 Bodywork / Aerodynamics

6.1 All vehicles entered in RCS must be maintained in a presentable and professional condition, with bodywork free from excessive wear or damage. Any body or surface damage sustained must be repaired prior to participation in the next scheduled event.

6.2 Only factory-specified fiberglass or composite bodywork may be used, and no modifications to shape, structure, or material composition are permitted. Repairs may be carried out using fiberglass, composite, or polyester-based materials equivalent to the original, provided the original geometry, surface contour, and profile are fully preserved.

6.3 Each vehicle must retain the body style corresponding to its designated model and/or generation. Cross-model body panel combinations are only permitted where explicitly defined in the SG.

6.4 The factory-supplied front splitter and undertray must be correctly installed. Use of a rear diffuser is prohibited in the PRO SR1 class. In all other classes, the diffuser is mandatory and must match original specification. Vehicles competing in PRO SR3 and Platinum Class may be equipped with the upgraded carbon fibre front splitter and rear diffuser, where specified and applicable to the model.

6.5 Permitted bodywork upgrades for each respective model are detailed in the SG.

6.6 Original front dive planes (canards) may be used, provided they are installed in accordance with the model-specific guidelines.

6.7 The original rear wing must be installed as per the manufacturer’s specification and may not be modified. The wing’s angle of attack may only be adjusted using the integrated adjustment points, which themselves must not be modified.

6.8 Ride height is unrestricted for all classes.

RCS-TR 7 Cockpit

7.1 The original instrumentation, optional steering wheel, and data logging system designated for each specific model/generation must be used. For discontinued models, AIM MXL and AIM MXL2 dash units may be replaced with an AIM MXS dash as a direct substitute.

7.2 The seat(s) within the cockpit may be padded or fitted with inserts to enhance the driver's seating position and comfort.

7.3 The use of either a single-seat or twin-seat configuration is permitted. Original seat mounting points must be used.

7.4 Central seating position option is permitted.

RCS-TR 8 Engine, Transmission, and Drivetrain

8.1 General

8.1.1 The engine, transmission, drivetrain, and all related electronic systems must remain in accordance with the original specifications or bulletins issued by RPE and are not subject to modification. Servicing or rebuilding of engines and gearboxes is permitted only by RPE or by an authorized partner designated by the series organizer.

8.1.2 The engine, gearbox, drivetrain, and related electronic systems must match the specification—including any optional equipment—that applied to the respective model and generation at the time of production. Any upgrades or use of updated components must be in accordance with the manufacturer's official guidelines, such as those communicated via technical bulletins or the SG.

8.1.3 The original starter motor and alternator must be installed as standard. Refer to section 11.5 for details.

8.2 Cooling System

8.2.1 The standard water and oil coolers supplied for each specific model/generation must be retained.

8.2.2 Tape applied directly to the radiators or mesh screen in the duct inlet to control the temperature is permitted. Use of an electric fan for the water cooler is allowed.

8.2.3 Pre-heating of oil and water is permitted.

8.2.4 'Hanging' radiators with brackets to prevent them from wearing through the sidepod is permitted.

8.2.5 Adding rubber or sleeves to protect oil and water lines from chaffing is permitted.

8.2.6 Permitted oil/water cooling system updates are listed in the SG.

8.3 Inlet Manifold

8.3.1 The entire induction system must remain standard for the engine and may not be modified. The standard airbox and air filter supplied by RM must be retained and used. Throttle body dimensions must correspond to those specified for each engine variant in the SG.

8.3.2 Heat-resistant tape may be applied to the air filter box.

8.4 Exhaust System

8.4.1 The exhaust system, including the silencer, must remain as standard and as supplied by RM for the specific model/generation. It is not permitted to wrap the exhaust system with heat wrap or apply any form of ceramic coating.

8.4.2 Officials may mandate the addition of a noise quietening product to the exhaust systems. These must be used as supplied and may not be modified in any way. Minor modification of the original standard system to attach the prescribed noise quieting product is permitted.

8.5 Engine Management

8.5.1 The ECU must be a Life Racing unit with locked software provided by RM. The original wiring harness for ECU data extraction must be installed and fully operational. The SO must have access to the vehicle's ECU at any time during a race weekend to verify that the correct software is installed. Alternatively, the SO may supply a replacement ECU unit, which the competitor is required to install upon request. The ECU must be mounted in the original factory-specified location.

8.5.2 To ensure performance balance, the SO may mandate ECU reprogramming to adjust the performance of specific models or model variants.

8.5.3 It is permitted to shield the ECU unit from heat, provided that its removal remains unhindered at all times.

8.6 Fuel System

8.6.1 The original fuel system specific to each model/generation must be used.

8.6.2 The fuel pump may not be replaced with any unit other than the specification provided by RM for the respective model/generation, or as approved via technical bulletin and/or the SG.

8.6.3 Optional quick-refueling systems are permitted.

8.6.4 The original fuel drain system is mandatory. During fuel testing, each competitor is responsible for providing the necessary extraction equipment to facilitate fuel sample collection. A minimum of 1 liter of fuel must remain accessible for sampling at any time.

8.6.5 The original aluminum fuel tank or fuel cell specific to each model/generation must be used.

8.6.6 All vehicles must use environmentally approved fuel in accordance with SBF G9 and may exceed the octane limits defined by FIA regulations (102 RON and 90 MON).

8.6.7 If an official fuel supplier is appointed for the series, all participants are required to use the designated fuel provided by that supplier, as directed by the series organizer. The supplier and fuel specifications will be announced via bulletin prior to the first event of the season.

8.6.7.1 Such fuel must be used during all official sessions, including testing.

8.6.7.2 Each competitor/team is responsible for submitting their required fuel quantity to the series organizer for each event. The series organizer will collect fuel orders well in advance of each round. The organizer assumes no responsibility for incorrect orders or delivery issues.

8.7 Transmission

8.7.1 The original 6-speed gearbox specific to each model/generation must be used. The pneumatic paddle-shift system from RM is permitted, provided that the specific model/generation is originally equipped with a gearbox designed to support this system.

8.7.2 The reverse gear system supplied by RM for each specific model/generation must remain fully operational and be useable by the driver while seated in the driving position.

8.7.3 The final drive system must remain as supplied by RM, including the differential and limited-slip mechanism. Gear ratios may only be adjusted by changing the sprockets/final drive gears provided by RM.

8.7.4 Differential Bellville Washers may not be modified to adjust differential pre-load.

8.7.5 The following PRO SR1 final drive ratio must be used, unless an official bulletin permits an alternative: Front Sprocket 17T (Part No. TC0049), Rear Sprocket 46T (Part No. TC0018).

RCS-TR 9 Suspension

9.1 All cars must be equipped with AVO or INTRAX dampers supplied by RM, as appropriate for the specific model/generation. Permitted modifications or adjustments are specified in the the SG.

9.2 Dampers may be freely adjusted with respect to ride height, preload, rebound, high-speed compression, and low-speed compression.

9.3 Spring rates for the dampers may be freely selected, provided they comply with the manufacturer's specifications for the respective model/generation.

9.4 The original suspension components specific to each model must be used and may not be modified.

9.5 Suspension and chassis bushings, rose joints and uniballs must remain unmodified and may only be replaced with original parts. The hardness and sleeve type of each bushing must not be installed in any position other than its original factory location.

9.6 Anti-roll bar diameter may be freely selected within the range specified by the manufacturer. Competitors are permitted to disconnect the anti-roll bar by removing one of its mounting bolts.

RCS-TR 10 Braking System

10.1 General

10.1.1 The original braking system specific to each model/generation must be used. Calipers, brake discs, and brake pads must conform to the manufacturer's specifications.

10.1.2 Only brake pads supplied by the series organizer or an official Radical Motorsport distributor are permitted.

10.1.3 An adjustable brake bias system is allowed.

10.1.3.1 It is permitted to flip the brake bias bar over to achieve greater front bias. See Technical Bulletin 2024.2 Brake Bias Settings for more information.

10.1.4 It is permitted to tape over brake cooling inlets to regulate airflow.

10.2 PRO SR1

10.2.1 Only Radical 4-piston calipers are permitted for both front and rear axles.

10.2.2 Only ventilated front and rear brake discs with a 240 mm diameter, as supplied by RM, are permitted.

10.2.3 Front brake cooling is only permitted on SR1 XXR, according to SG.

10.3 PRO SR3

10.3.1 Only Radical 4-piston brake calipers are permitted on both the front and rear axles.

10.3.2 Only ventilated front and rear brake discs with a 260 mm diameter, or the upgraded 280 mm floating discs with aluminum hubs, as supplied by Radical Motorsport, are permitted.

10.3.3 The SR3 XXR may be upgraded with AP Racing optional brake components, as supplied by Radical Motorsport.

10.4 Platinum Class

10.4.1 For the SR10, Radical 4-piston calipers must be used on both front and rear axles. Ventilated brake discs with either 300 mm or 315 mm diameter (front and rear) are permitted. Combinations are allowed as specified in the SG.

10.4.2 Upgraded brake cooling systems are permitted as outlined in the the SG.

RCS-TR 11 Electrical System

11.1 The original electrical system specific to each model/generation must be used.

11.2 Exterior Lighting

Vehicles may be operated with or without the full lighting kit supplied by RM. In both cases, headlight covers must be installed. Front headlights and/or DRLs are recommended. If the vehicle is equipped with front lighting, such lighting may not be removed without prior approval from the SO.

Brake lights must be installed, fully functional, and must not be wired in a manner that allows them to be deactivated.

11.3 Rear Rain Light

High-intensity LED rear lights supplied by RM must be installed and remain fully operational. Either two lights must be mounted symmetrically relative to the vehicle's centerline, or one centrally mounted FIA-approved light (as per FIA Technical List 19) may be used. All rear lights must have a minimum luminous intensity of 21W.

When rain tyres are fitted, the rain light must remain switched on at all times.

11.4 The battery (or batteries) and electric starter motor supplied by RM are mandatory. The starter motor must be operable repeatedly by the driver while seated in the normal driving position.

11.5 The alternator must remain as standard, as supplied by RM, and must be in proper working condition. See also section 8.1.3.

11.6 A main power switch, as per the original specification, is mandatory.

11.7 The installation of external lap timers and/or cameras is permitted, provided such equipment does not alter, interfere with, or integrate into the vehicle's original systems. Any additional equipment must be installed prior to safety scrutineering.

11.8 An onboard camera system must be installed and fully operational in all vehicles. Upon request, the recorded footage must be made available to the SO or Clerk of the course (Race Director).via SD card or USB drive. The footage must clearly show the cockpit, including the driver's stee-ring inputs, as well as a forward-facing view in the direction of travel. The vehicle's integrated AIM camera system shall be the primary recording device used.

RCS-TR 12 Tyres and Wheels

12.1 Only single piece wheels supplied by RM of the following specification are permitted.

- **SR1 -** Cast wheels, size 13" x 7.5" front and 13" x 9" rear.
- **SR3/SR10 -** Cast wheels, size 15" x 8" front and 16" x 10.5" rear.

Permitted wheel specifications for each class, model, and generation are detailed in the SG.

12.1.2 The installation of newer wheel designs on older model variants—and older wheel designs on newer models—is permitted, provided the wheels comply with the specifications outlined in the SG.

12.2 Only tyres that are marked, approved, and supplied by the series organizer or an appointed supplier are permitted. Tyre serial numbers will be used to verify their origin.

12.3 A complete set of tyres consists of two (2) front tyres and two (2) rear tyres.

12.4 Tyre registration must be completed before the commencement of the official test session for the event. At the time of registration, the serial numbers of each tyre must be submitted to the race organization as per the provided instructions.
It is the sole responsibility of each driver/team to ensure proper tyre registration.

All tyre registrations must be submitted digitally, in accordance with the guidelines issued by the series organizer.

12.4.1 PRO SR3/Platinum Class - Maximum Number of Tyres:

A maximum of one (1) set of slick tyres may be registered per event.

12.4.2 Exception to Rule 12.4.1: For each driver's first event of the season, a maximum of two (2) sets of slick tyres may be registered.

12.4.3 PRO SR1 - Maximum Number of Tyres:

A maximum of five (5) sets of dry-weather tyres may be registered per season.

12.4.4. PRO SR1 – Wet tyres may only be used when track conditions are officially declared as wet by the Clerk of the course (Race Director).

12.5 The number of wet tyres per event is unrestricted.

12.6 Competitors are free to manage and utilize their registered tyres at their own discretion.

12.7 Tyre manufacturer and specifications will be announced via bulletin prior to the first event of the season.

RCS-TR 13 Weight Limits

13.1 The weight limits specified below apply at all times during an event, including test/practice sessions, qualifying, and race heats. The minimum weight includes the driver wearing full personal safety equipment.

13.2 Weight Limit per Class

Class	Minimum weight
PRO SR1	600 kg
PRO SR3	720 kg
Platinum Class	835 kg

13.5 To ensure performance balance, the race organization reserves the right to instruct competitors to add and enforce "BoP" (Balance of Performance) weight to any vehicle at any time, in addition to the specified base minimum weights.