

# **FORMULA RENAULT 2.0**

**USER MANUAL**

**A. Introduction**



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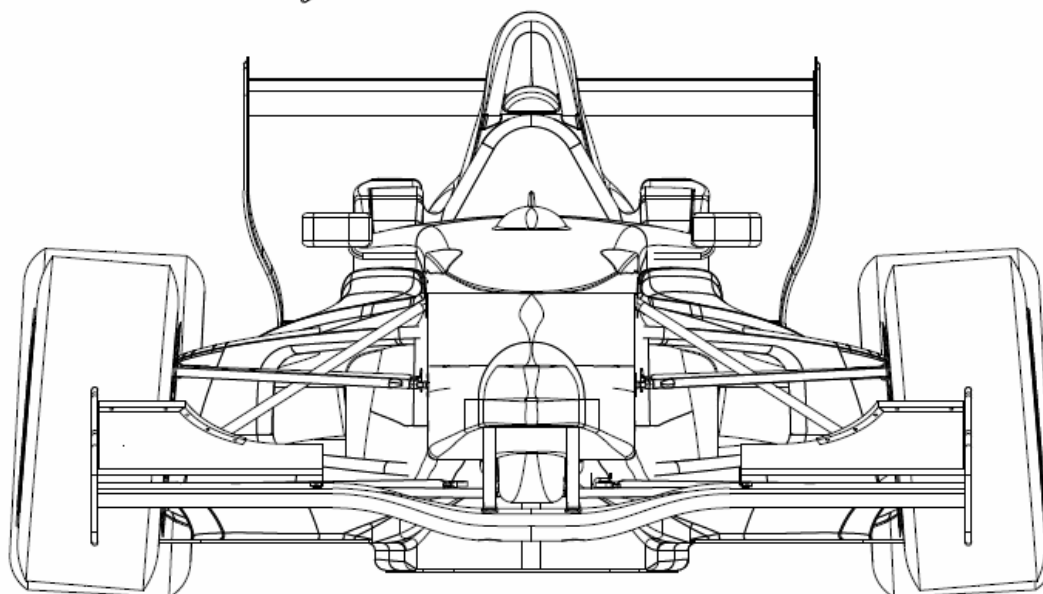
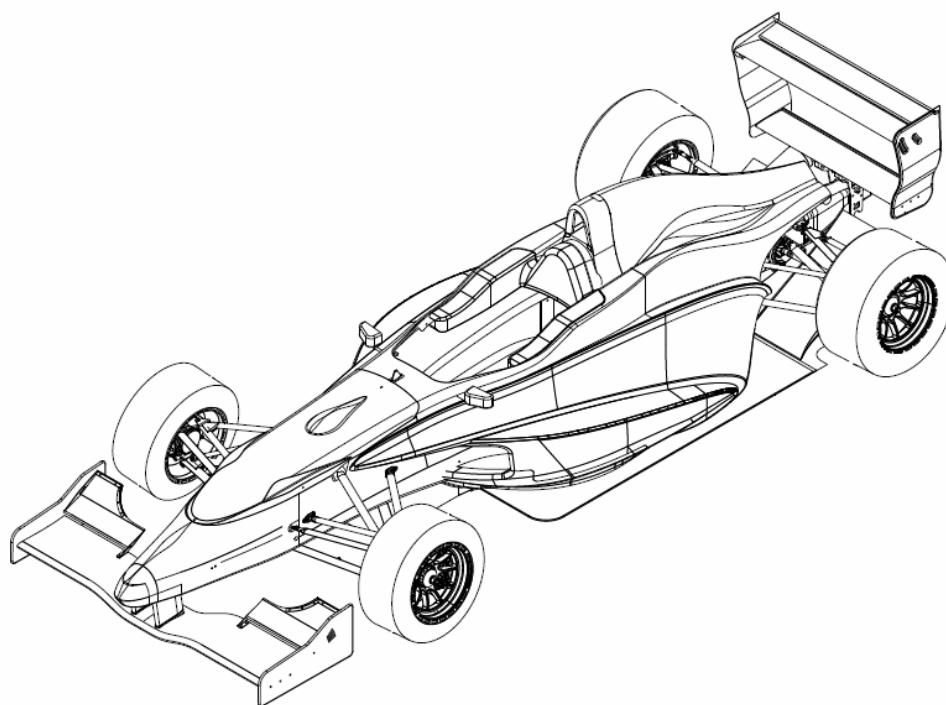
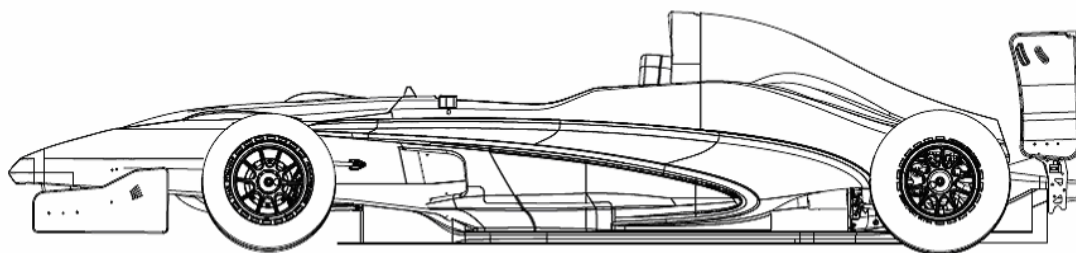
The repair procedures prescribed by the manufacturer in this manual have been written in compliance with the technical specifications in force at publication issuing date. They are subject to modifications in case of changes made by the manufacturer to the production of the various components and accessories of his brand name vehicles".

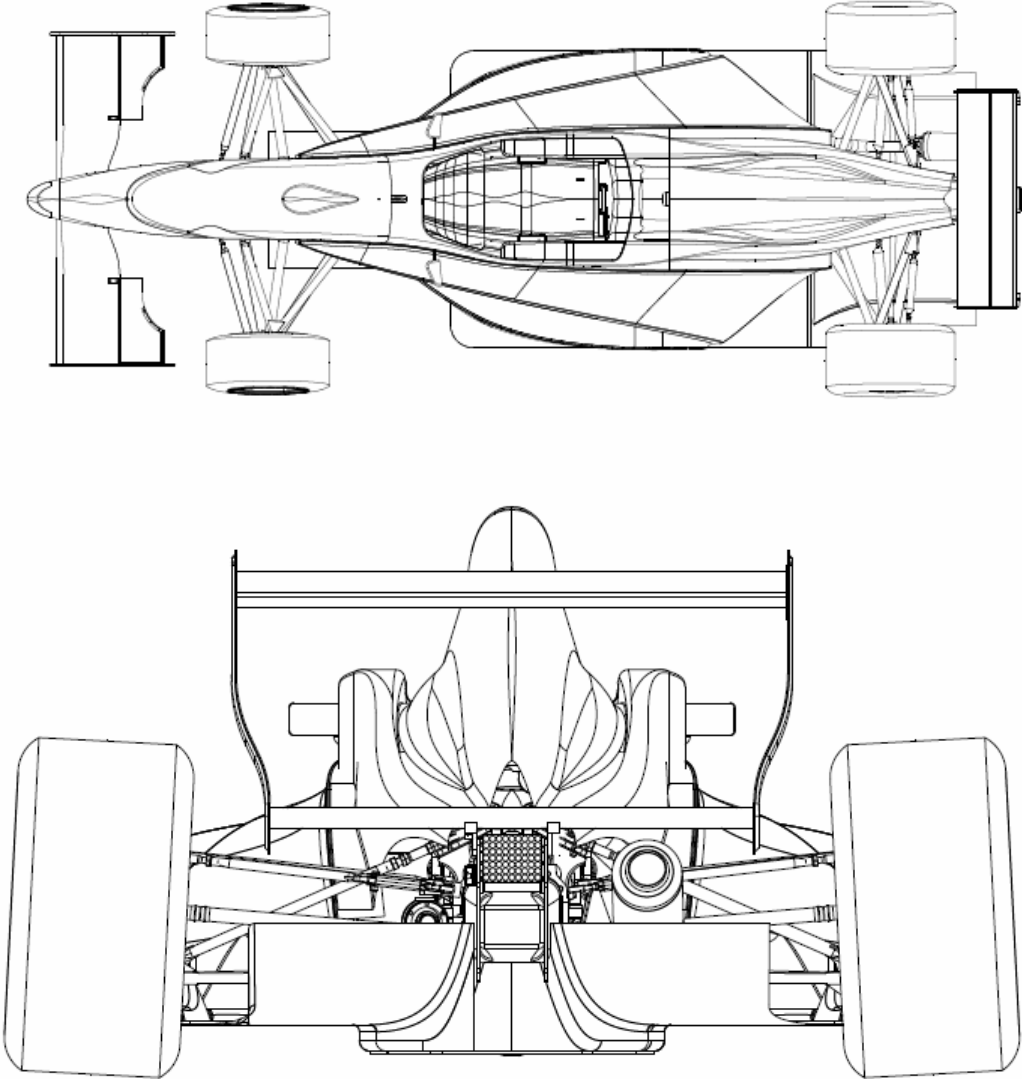
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# 1. OVERVIEW OF THE CAR





## 2. CONTACTS

### 2.1. Organizers

#### **RENAULT SPORT**

ZA Courtaboeuf 2  
14, Avenue des Tropiques  
91978 Les Ulis Courtaboeuf Cedex  
FRANCE  
Tel : +33-1 76 82 40 00  
**Sporting manager:** Emmanuel Esnault  
Tel : +33-1 76 82 40 59  
[emmanuel.esnault@renault.com](mailto:emmanuel.esnault@renault.com)

### 2.2. Technical contacts

For any questions or advice, please contact:

#### Technical support

#### **RENAULT SPORT**

Renault Sport Technologies  
ZA Courtaboeuf 2  
14, Avenue des Tropiques  
91978 Les Ulis Courtaboeuf Cedex  
FRANCE  
Tel : +33-1 76 82 40 00  
Fax : +33-1 76 82 12 40  
<http://extranet.renault-sport.com>

#### **Racing Technical Support:**

[support.fr20@renault.com](mailto:support.fr20@renault.com)  
**Racing Technical Dpt Manager:**  
Benoît Dupont  
Tel : +33-1 76 82 40 35  
[benoit.dupont@renault.com](mailto:benoit.dupont@renault.com)

#### Spare parts service

#### **RENAULT SPORT**

Magasin pièces compétition Renault Sport  
Avenue de Bréauté  
76 885 Dieppe  
FRANCE  
Tel : +33-1 76 86 33 00  
Fax : +33-1 76 86 34 01

#### **Spare Parts Dpt Manager:**

Dominique Duperis  
Tel : +33-1 76 86 33 00  
[dominique.duperis@renault.com](mailto:dominique.duperis@renault.com)

#### Engine supplier



ORECA  
Technopole  
58470 Magny Cours  
FRANCE  
Tel : +33-3 86 21 08 00  
Fax : +33-3 86 21 08 02

#### **Customer liaison :**

Alain Sauvagère  
Tel : +33-3 86 21 08 00  
[a.sauvagere@oreca-magnycours.com](mailto:a.sauvagere@oreca-magnycours.com)

## 2.3. Renault Sport Technologies partners

Chassis



Brakes



Steering wheel, Fusebox  
Gearbox command



Electronics



Gearbox



Tyres



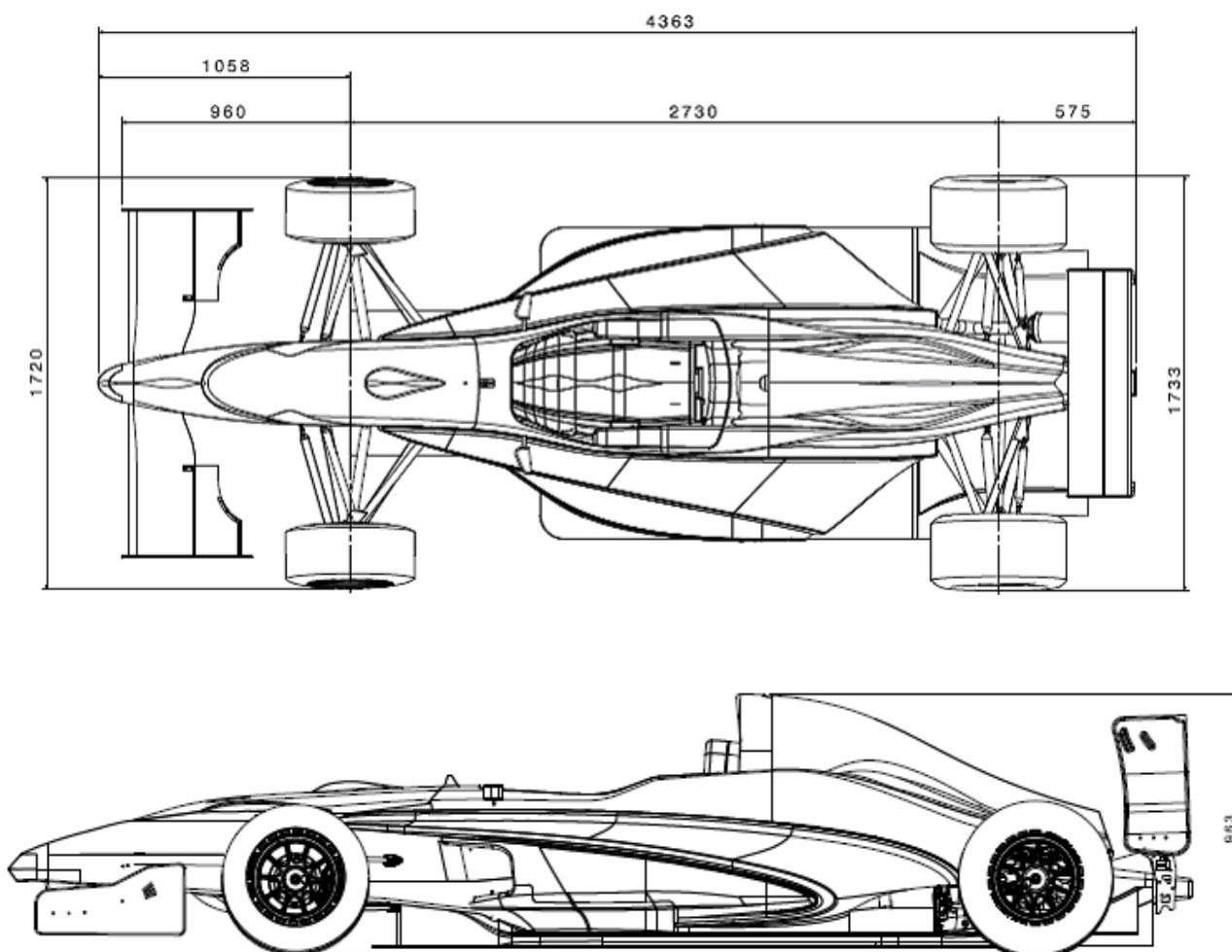
Lubricants



Dampers



### 3. DIMENSIONS



Front track	<i>mm</i>	1502
Rear track	<i>mm</i>	1440
Wheelbase	<i>mm</i>	2730
Overall length	<i>mm</i>	4363
Overall Width	<i>mm</i>	1733
Overall height	<i>mm</i>	963
Weight	<i>Kg</i>	505

### 3.1. Capacities

Products	Quantity	Characteristics
Petrol	50 L	Unleaded 98
Engine oil	5.9 L	Elf Excelcium 5W40
Gear box oil	1.5 L	Elf HTX755
Coolant	4.0 L	-
Brake fluid	2.0 L	FR 2.0 brake fluid
Clutch fluid	0.5 L	DOT 4 mini

### 3.2. General information and suppliers

Front suspension	Push rod mono damper Barazi Epsilon
Rear Suspension	Push rod twin dampers Barazi Epsilon
Chassis	Caparo Barazi Epsilon
Bodywork	Caparo Barazi Epsilon
Composites	Caparo Barazi Epsilon
Gearbox gears and differential	Sadev – 7 ratios/ Limited slip differential
Gearbox command	Electric by XAP
Springs	Eibach
Dampers	SACHS 2 ways
Steering wheel	XAP
Rims	Team Dynamics, Front 9", Rear : 10,5"
Brake system	Caparo AP braking
Battery	Deka
Clutch	ZF SACHS Race Engineering
Engine	Renault Sport
Type	F4R 832 V4 – 1998 cm <sup>3</sup>
Power	210 bhp
Engine max torque	220 Nm
Engine max revs	7500 rpm

### 3.3. Car Identification

The car is identified by a plate with the following information:

- Car Type
- Chassis number





## 4. USE

### 4.1. Switch Panel



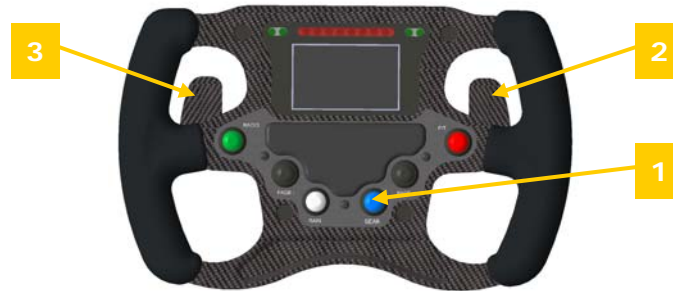
- 1- Master switch off
- 2- Master switch on
- 3- Ignition switch
- 4- Starter switch
- 5- Fire extinguisher control switch
- 6- Brake balance bar
- 7- Data download plug
- 8- Fire extinguisher nozzle

### 4.2. Elementary procedures

#### 4.2.1. Starting procedure

- Press the "ON" button (2)
- A readout is displayed on the dashboard
- Lower the "ignition" switch (3)
- Check that no speeds are engaged (the letter "N" (for neutral) is displayed in the "Gear" window) and press the start button (4).
- Make sure that the oil pressure rise up immediately

### 4.2.2. Gear shifting procedure



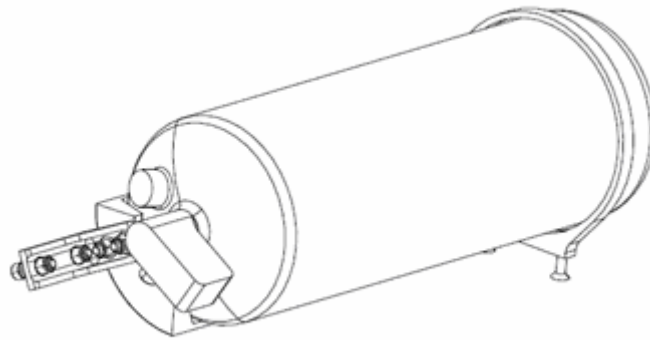
N->1st	<ul style="list-style-type: none"> <li>- Push the clutch pedal</li> <li>- Push the GEAR button(1)</li> <li>- Push the right shift paddle (2)</li> </ul>
1st-> 2 <sup>nd</sup> ->3rd->...->7th	<ul style="list-style-type: none"> <li>- Push the right shift paddle (2)</li> </ul>
7th->6th->...->2 <sup>nd</sup> ->1st	<ul style="list-style-type: none"> <li>- Push the left shift paddle (3)</li> </ul>
1st->N	<ul style="list-style-type: none"> <li>- Push the clutch pedal</li> <li>- Push the GEAR button(1)</li> <li>- Push the left shift paddle (3)</li> </ul>
N->R	<ul style="list-style-type: none"> <li>- Push the clutch pedal</li> <li>- Push the GEAR button(1)</li> <li>- Push the left shift paddle (3)</li> </ul>
R->N	<ul style="list-style-type: none"> <li>- Push the clutch pedal</li> <li>- Push the GEAR button(1)</li> <li>- Push the right shift paddle (2)</li> </ul>

### 4.2.3. Switching off procedure

- Raise the « Ignition » switch (3)
- Press red button « off » (1), the dashboard goes out.

## 4.3. Safety equipments

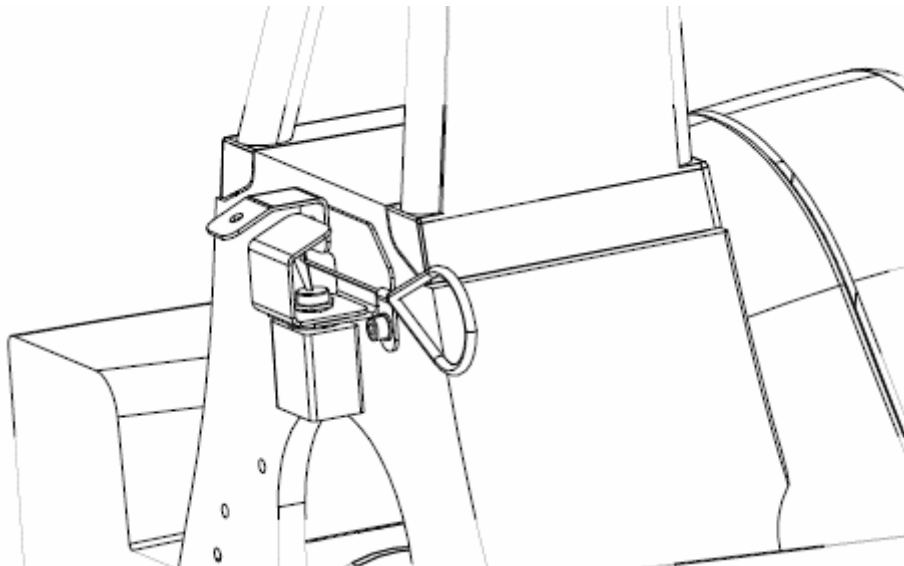
### 4.3.1. Extinguisher



The extinguisher is located under the fuel tank. Its command box is located under the front damper cover. Use the switch to test the battery and to arm the system.



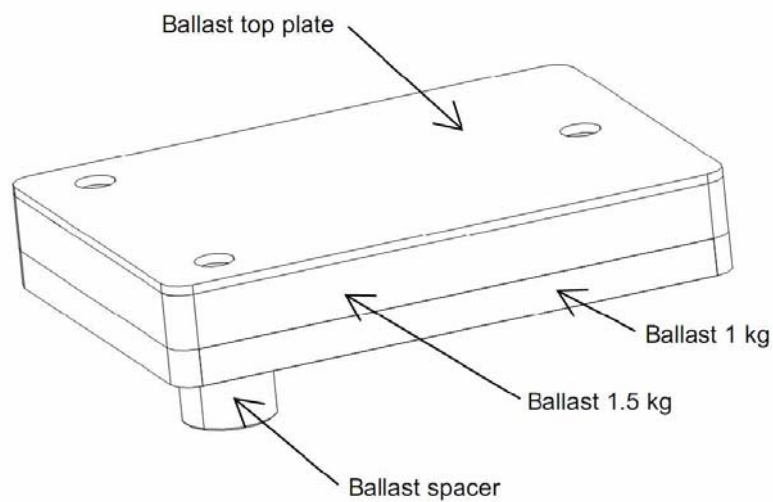
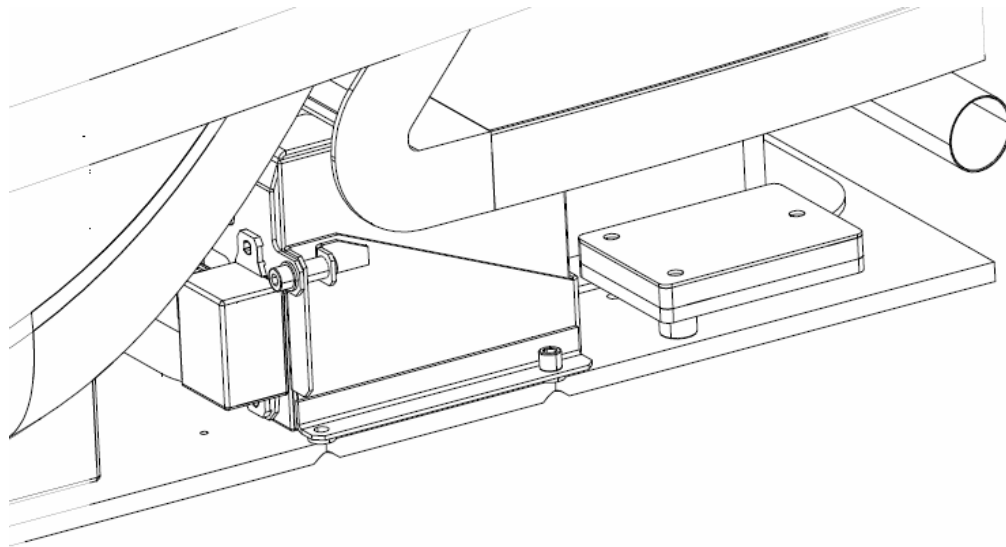
### 4.3.2. Emergency command



The emergency command activates both the electrical master switch and the extinguisher.

## 4.4. Ballasts

The ballast must be placed in the cockpit behind the battery.  
The use of the official ballast is mandatory (please refer to the nomenclature).



## 4.5. Noise level

The static noise level measured according to the F.I.A. norms is 107.8 dB.

## 5. LIFETIME FOR THE DIFFERENT MECHANICAL PARTS

The mileage of the parts must be respected by the user all along the vehicle's life. The mileages announced in the table below are the maximum expected mileages before change, excluding any incident.

In case of accident or failure of one of these parts before the expected mileage, please contact Renault Sport.

<b>Suspension</b>	
Suspension wishbones and pushrods	20 000 km
Anti Roll bars and anti roll bar adjustable blades	20 000 km
Suspension ball joints	12 000 km
Front and rear rocker axial and radial needle bearings	12 000 km
Rocker caps	12 000 km
Rocker ball joints	12 000 km
<b>Steering</b>	
Steering column and toe rods	20 000 km
Steering rack and pinion	20 000 km
<b>Tub and bodywork</b>	
Brake pedal	20 000 km
Bellhousing to engine installation studs	20 000 km
Chassis to engine installation studs	20 000 km
Bellhousing to gearbox installation studs	20 000 km
Underwing stays	20 000 km
<b>Wheels, transmission and starter motor</b>	
Brake discs	1500 km
Brake pads	600 km
Wheel rims	6000 km
Starter Motor	10 000 km
Transmission tripod joint	15 000 km
Wheel bearings	6 000 km
Drive shafts	9 000 km
<b>Systems</b>	
Wiring loom	12 000 km
Water radiator & Oil coolers	20 000 km
<b>Wing assemblies</b>	
Front and rear wing assemblies (including support plates between nose box and front wing, and between lower rear main plane and rear crash box)	20 000 km

## 6. GENERAL INFORMATION

### 6.1. General contents

- A. Introduction
- B. Chassis
- C. Engine
- D. Transmission
- E. Looms and Electronics
- F. Tyres

### 6.2. Release History

Version	Date	Parts Updated	Content
1.0	15/11/09	All	Initial release