

REFERENCE	BT_2013_FR1.6_3_UK
DATE	26 September 2013
SUBJECT	Technical advises and rules update
PART	

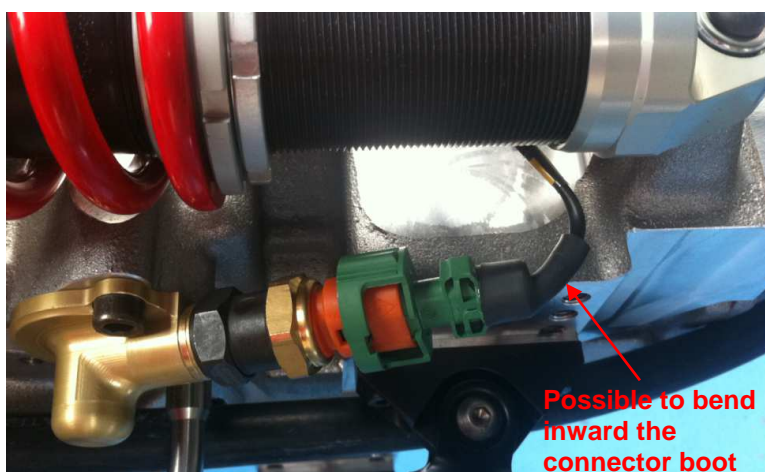
**Technical bulletin only applicable for FR1.6 NEC Junior and Nordic championships.**

### 1. Gear cut switch loom passing

To avoid any contact with the engine cover, the gear cut switch loom must be fitted under the damper as shown on the picture below:



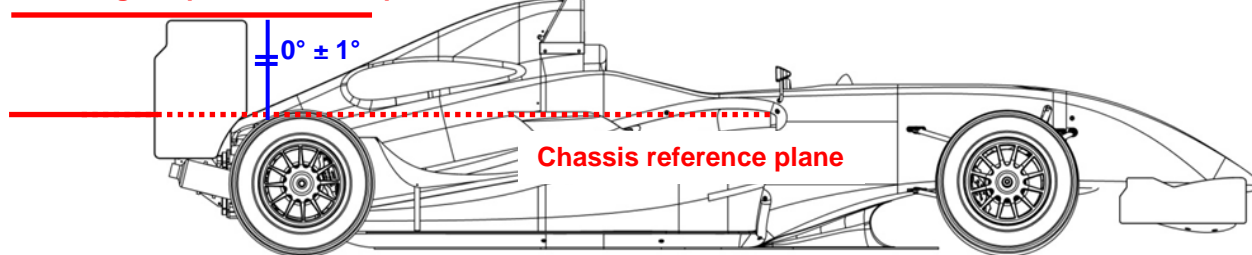
It's allowed to heat up the connector boot to bend it inward of the car in order to easy the wire passing.



## 2. Rear wing position

The rear wing endplate angle is ruled according to the picture below:

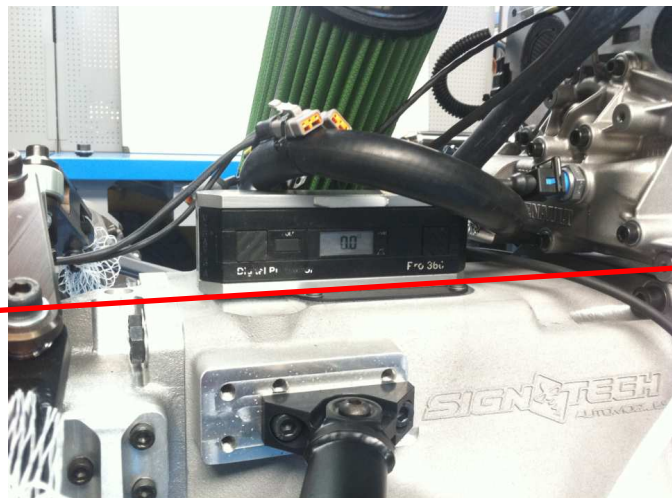
### Rear wing endplate reference plane



The chassis reference plane and the endplate reference plane must be parallel (angle= $0^\circ \pm 1^\circ$ ) and must be measured using a digital level following the procedure below:

- I. Chassis reference plane: the chassis reference is the top surface of the catch tank along the longitudinal axis as shown on the photo below:  
The digital level must prior be reset to 0 on this reference plane

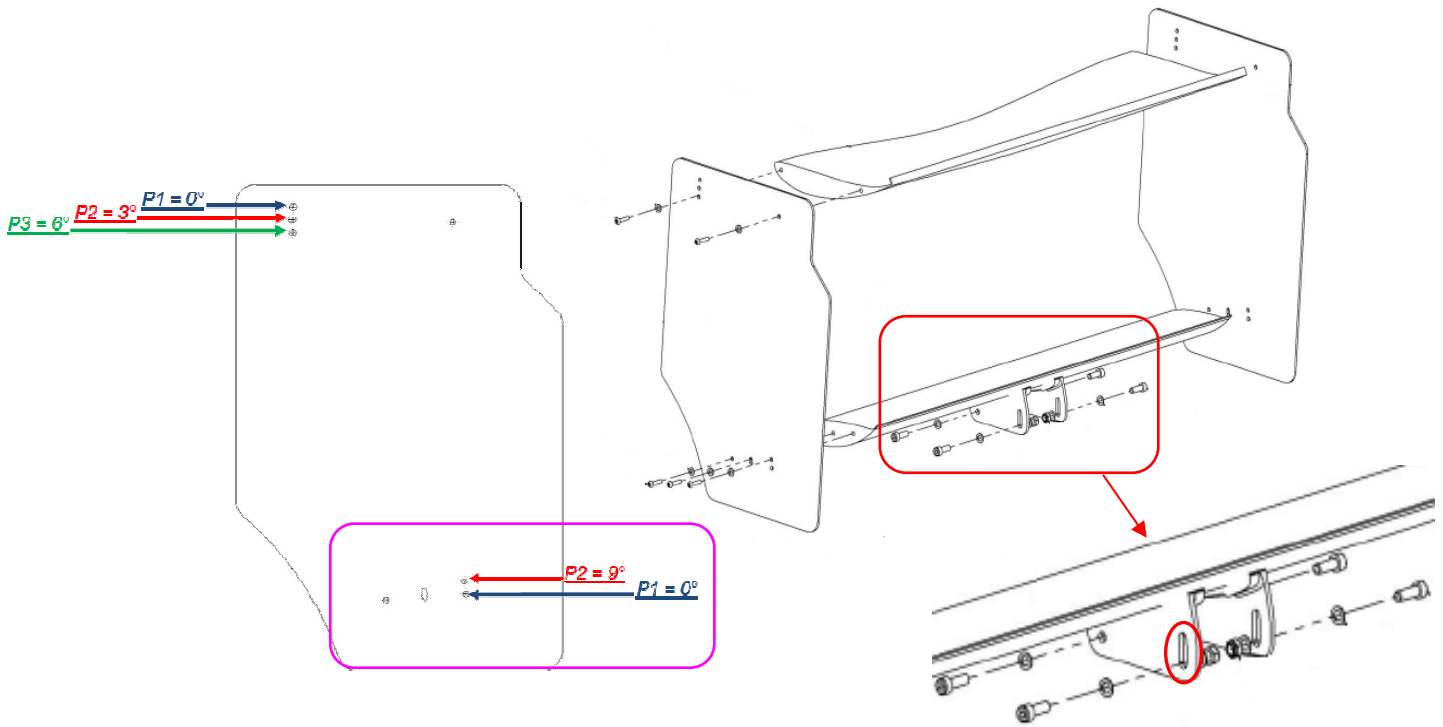
### Chassis reference plane



- II. Rear wing endplate reference plane: Top edge of the rear wing endplate  
The digital level must be positioned on the top edge of the endplate as shown below:



In order to respect this rule, the rear wing endplate angle can be adjusted thanks to the rear mainplane angle setting options (**left side**) and the lower rear wing brackets using the setup slot (**right side**) as shown on the picture below:



### 3. Exhaust thermal protection

Thermal protections on or around the exhaust line are now strictly forbidden.



Example of exhaust thermal protections now forbidden

#### 4. Minimum car weight

The minimum car weight of the FORMULA RENAULT 1.6 is now ruled at **483kg (four hundred and eighty three kilograms)** at any moment of an official event, without fuel and driver.

#### 5. Oil filter

Following the nomenclature, we remind you that only one oil filter is allowed to be mounted on the Formula Renault 1.6. The specified oil filter is the genuine part fitted on the car which is defined as below:

Supplier reference:      **MAHLE OC 467**  
Signatech reference:    **G04-02A002V1**



## 6. Front rocker evolution

We have detected cracks on several front rockers (**ref: G04-17D001 V1**) **after few years of running** as shown below:



We strongly recommend teams to check the front rocker in this particular area and to monitor regularly this part from crack initiation, especially after crashes.

Consequently, Signatech has modified the design of the current front rocker reducing the stress level in this weakness part area.

This new front rocker (see picture below) now replace the old front rocker and is available under the following reference

Front rocker V2: ref: G04-17D001 V2.



New front rocker (ref: G04-17D001 V2)

Both front rockers V1 and V2 are allowed to be fitted on the car.



## 7. Gearbox input shaft evolution

On the current input shaft assembly V1 (ref: D6690020114J6J1), pitting issues has been encountered mainly impacting the 1<sup>st</sup> and 2<sup>nd</sup> gear ratio.

The input shaft assembly (ref: D6690020114J6J1) includes:

- Input shaft V1 (ref: F9002008)
- 1<sup>st</sup> output gear pinion V1 (F9002141)
- 2<sup>nd</sup> output gear pinion V1 (F9002142)

To solve pitting issues, the input shaft assembly including both ratios has been modified increasing the pinion tooth width of on the 1<sup>st</sup> and 2<sup>nd</sup> gears as shown below:



Old input shaft assy V1

New reinforced input shaft assy V2

The reinforced input shaft assembly is now replacing the current one under the following references:

Input shaft assembly V2 ref: **D66900236J6J1**

including

Input shaft V2 ref: **F9002528**

1st output gear pinion V2 ref: **F9002529**

2nd output gear pinion V2 ref: **F9002530**

Parts included in the input shaft assembly V1 must not be mixed with parts of the V2 version.

## 8. Electronics

The loom supplier has changed from 2013. Hence, looms design and some connectors has changed too. Consequently, some parts directly linked with the loom have also evolved regarding their connectors.

All these modifications involve the following parts:

	Old version (before 2013)	New version (2013)
Main loom	G04-18A001V1	G04-18A001V2
Front loom	G04-18A002V1	G04-18A002V2
Engine loom	G04-18A003V1	G04-18A003V2
<b>Parts attached to the looms</b>		
Fuel tank loom	G04-01A007V1	G04-01A007V2
Fuel pump loom	G04-01A006V1	G04-01A006V2
Damper displacement sensor	G04-18A036V1	G04-18A036V2
Steering rack angle sensor	G04-18A022V1	G04-18A022V2
Main relay	G04-18A008V1	G04-18A008V2
Fuel relay	G04-18A009V1	G04-18A009V2
Fire switch	G04-18A007V1	G04-18A007V2
Positive battery power cable	G04-18A010V1	G04-18A010V2
Alternator cable	G04-18A016V1	G04-18A016V2
Battery negative cable	G04-18A013V1	G04-18A013V2
Positive starter power cable	G04-18A011V1	G04-18A011V2
Engine negative Power cable	G04-18A012V1	G04-18A012V2
Camshaft sensor (Renault reference)	8 200 285 798	8 200 963 886

Old and new parts are allowed to use on the car.  
It is forbidden to mix old and new versions.

## 9. Extinguisher

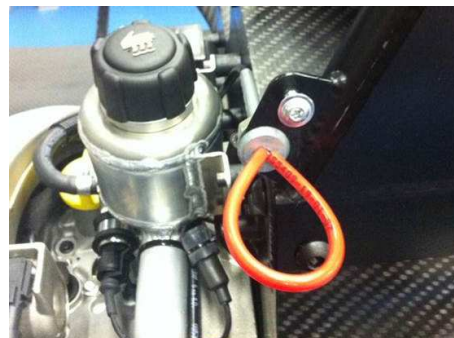
Two models of extinguishers are allowed to use on the car:

- Lifeline Zero2000 3,375L
- Sparco FW20-10 4,25L

The two following types of external extinguisher command are allowed to use on the car:



*Pulling command*



*Pulling loop cable*

## 10. Beacon receiver

From this year, a new beacon receiver has been released replacing the old beacon receiver version (ref: G04-05B007V1) as shown below:



*Old beacon receiver  
ref: G04-05B007V1*



*New beacon receiver  
ref: G04-05B007V2*

This new part is now available under the following reference:

New Beacon receiver ref: **G04-05B007V2**

Both old and new lap beacons are allowed to use on the car.

## 11. Modyn

The current modyn V1 (ref:G04-02A001V1) is now replaced by a new modyn which is now available under the following reference:

Modyn V2 ref:**G04-02A001V2**

Both modyns are allowed to use on the car until the end of the season.

## 12. Fuel tank

From 2013, the fuel tank supplier has changed from Merin to STAC.

Both old and new types are allowed on the car.

Fuel tank Merin ref: **G04-05B007V1**

Fuel tank STAC: ref: **G04-05B007V2**



### 13. Driveshaft

Two types of driveshaft are allowed:

Driveshaft V1 ref: **F9002517**

Driveshaft V2 ref: **F9002566**



**Driveshaft V1**

**Driveshaft V2**

Driveshaft V1 is not available anymore.

The maximum recommended mileage for both driveshafts is 3000km; however, Signatech is currently working to improve the lifetime of this part.