



## *Ring accelerator*

### *Installation instructions*



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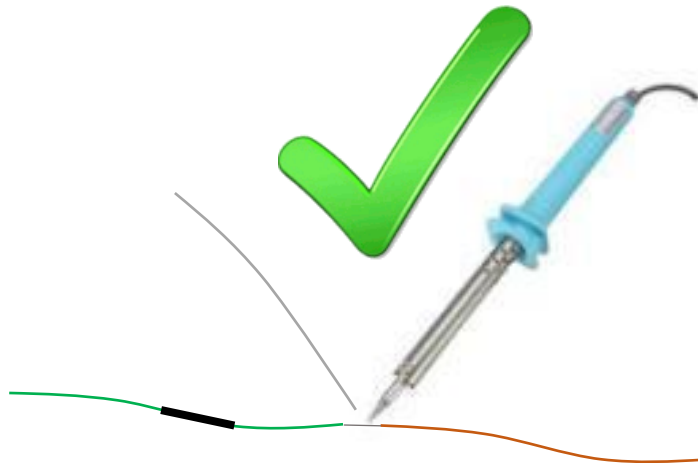
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## Recommendations concerning the electrical connections

**It is forbidden** to use quick coupler / rapid connector for your electric wiring.  
See below some examples:



**Please disconnect the battery.  
Weld the wires amongst them.**



**If you do not follow these recommendations, SOJADIS won't be responsible for any malfunction.**

## Ring Accelerator presentation

The Ring Accelerator can be on or under the steering-wheel. By pressing the ring (pulling for under ring), you can accelerate with a very good precision.

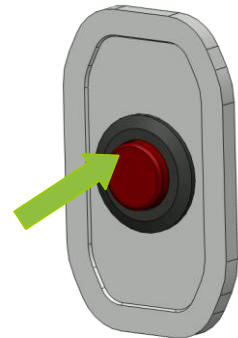


The airbag still works when the ring accelerator is fixed on/under the steering wheel.

Two possible choices of driving:

- Conventional, with accelerator pedal
- Manual, with the Ring Accelerator

A power push-button enables the manual mode.



The Ring Accelerator can be installed on vehicles equipped with automatic transmission and power accelerator pedal.

A Manual Brake can be installed with this system.

## Mechanical part: over ring accelerator installation

Insert the ring supports on both sides of the steering-wheel (see picture below). These supports need to be installed symmetrically. Check that both supports are well fixed to the steering-wheel.



Fix the ring support on the ring on both supports installed previously. Tighten softly the provided screws. (See below)



Fix the ring support on a way to not disturb the visibility of the dashboard.



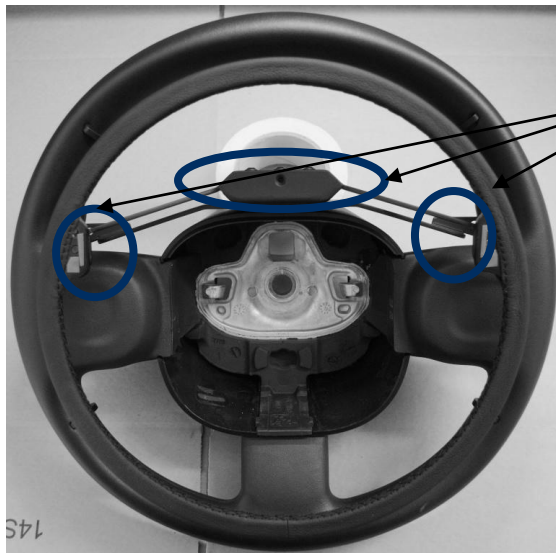
With a Snap-ring / circlip pliers, move the ring support aside (see picture below), in order to lock it against the steering-wheel. Then, tighten both screws.  
Do this 2 or 3 times on both sides to have a strong tightening and a perfect position of the ring support in the middle of the steering-wheel.





Install the ring on the top side of the rotating ring support. Make sure that the ring is in front of the driver position.

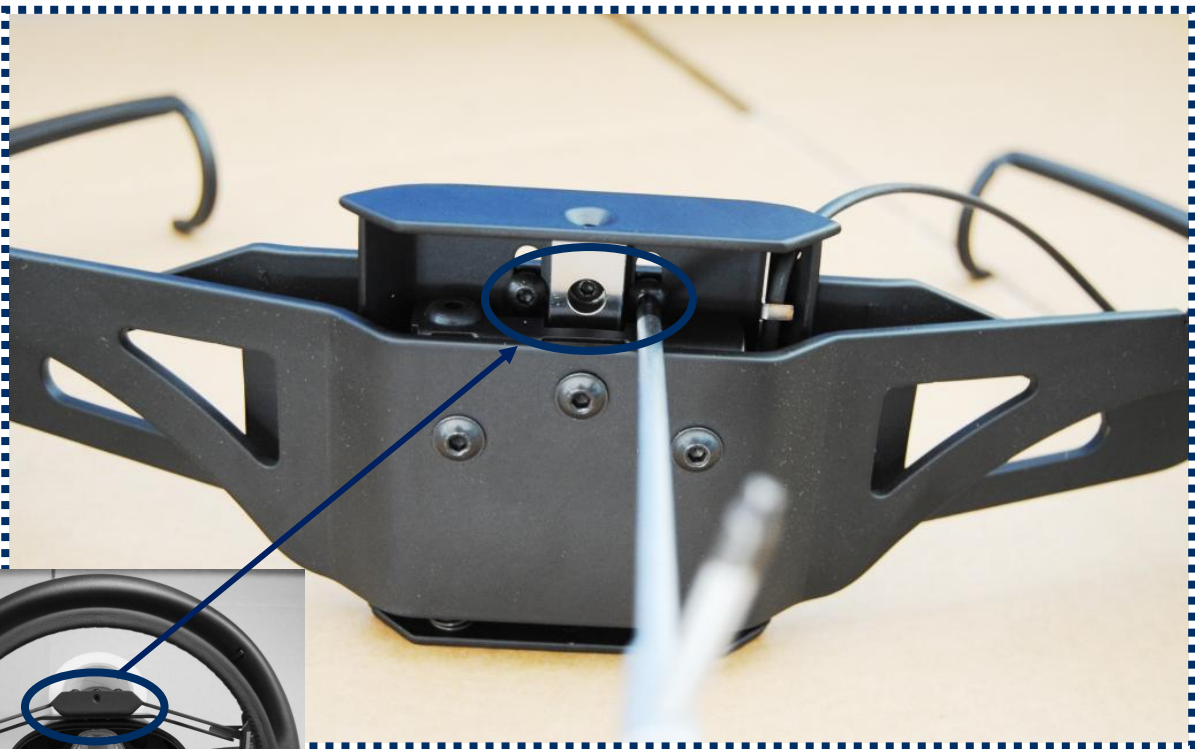
After this, screw the screws of the rotating ring support.



**Put Thread sealant / Thread  
locker / Loctite on the screws**

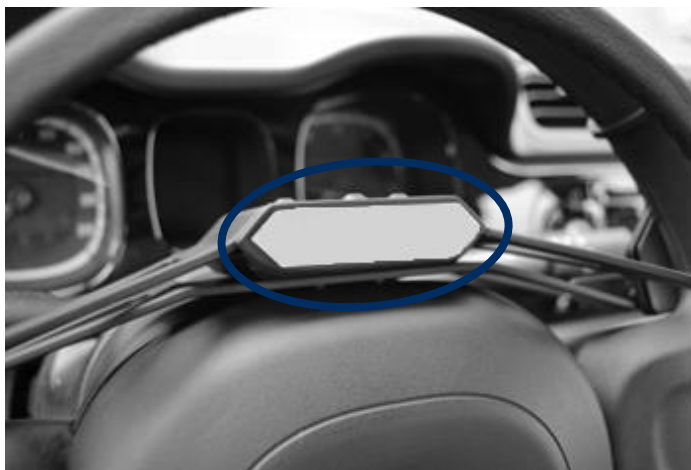
Check that the pushing of the ring works well and check that the maximal pressure of the ring is 22 mm.

If this is not the case, unscrew the screws (see picture below) to adjust the pressure distance.



Make the wiring in the steering-wheel (see wiring instructions in the following pages), replace the airbag and the steering-wheel.

Check once again the tightening of the different supports. Then, remove the stickers and personalize it with the stickers provided in the kit (see picture below).



For the electric wiring, see the electric part.

Contact us to know the availability for each vehicle. You can also visit our Intranet available from our website **SOJADIS** ([www.sojadis.com](http://www.sojadis.com))



## Mechanical part: under ring accelerator installation

Insert the ring supports on both sides of the steering-wheel (see picture below). These supports need to be installed asymmetrically. Check that both supports are well fixed to the steering-wheel.



Fix the ring support on the ring on both supports installed previously. Tighten softly the provided screws. (See below)

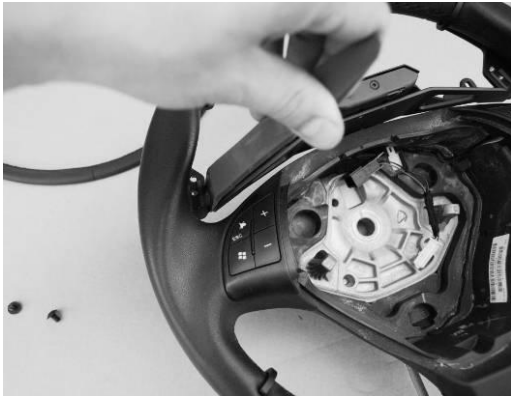


Fix the ring support on a way to not disturb the visibility of the dashboard.



With a Snap-ring / circlip pliers, move the ring support aside (see picture below), in order to lock it against the steering-wheel. Then, tighten both screws.

Do this 2 or 3 times on both sides to have a strong tightening and a perfect position of the ring support in the middle of the steering-wheel.



Place the leather-covered ring in the upper part of the sliding support with the "soft" part of the ring towards the driver.

After aligning concentrically the ring with the steering wheel, tighten it to the sliding support by the supplied screws (see picture below).



**Screws**

**Put Thread sealant / Thread  
locker / Loctite on the screws**

**Check that the pushing of the ring** works well and check that the maximal pressure of the ring is 22 mm.

If this is not the case, unscrew the screws (see picture below) to adjust the pressure distance

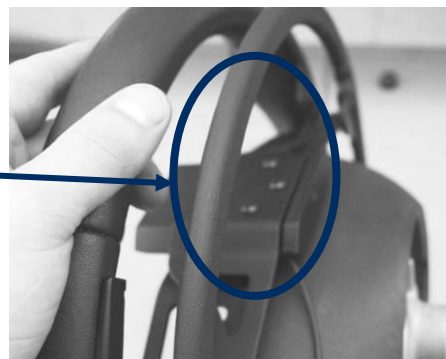
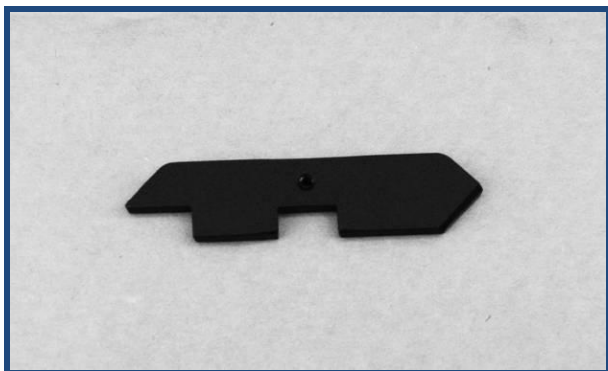




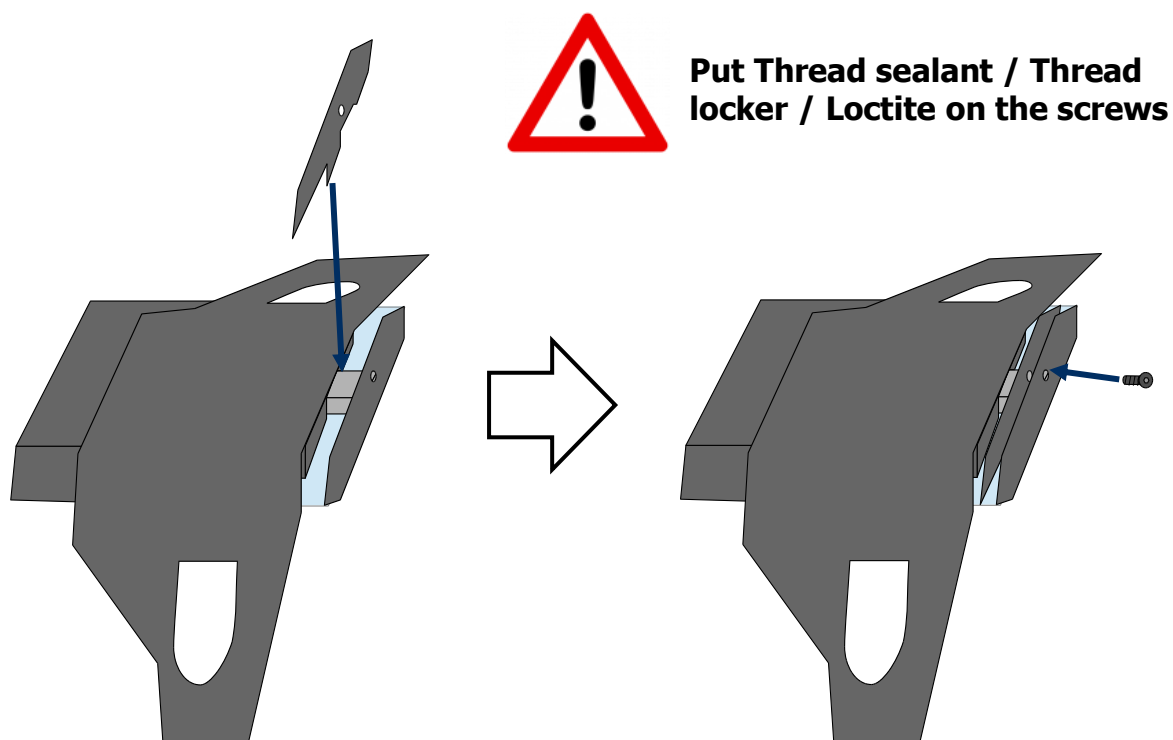
Place the steering wheel with the ring on the steering column, verifying that there is enough space for the fingers between the ring and the original controls (see pictures below).



If there is not enough space, insert the 5mm supplied thickness to reduce the device's stroke (see pictures below).



This piece must be placed on the sliding system in the contact area when at rest and fixed by the supplied M3 countersunk screw (see pictures below).



Make the wiring in the steering-wheel (see wiring instructions in the following pages), replace the airbag and the steering-wheel.

Check once again the tightening of the different supports. Then, remove the stickers and personalize it with the stickers provided in the kit (see picture below).



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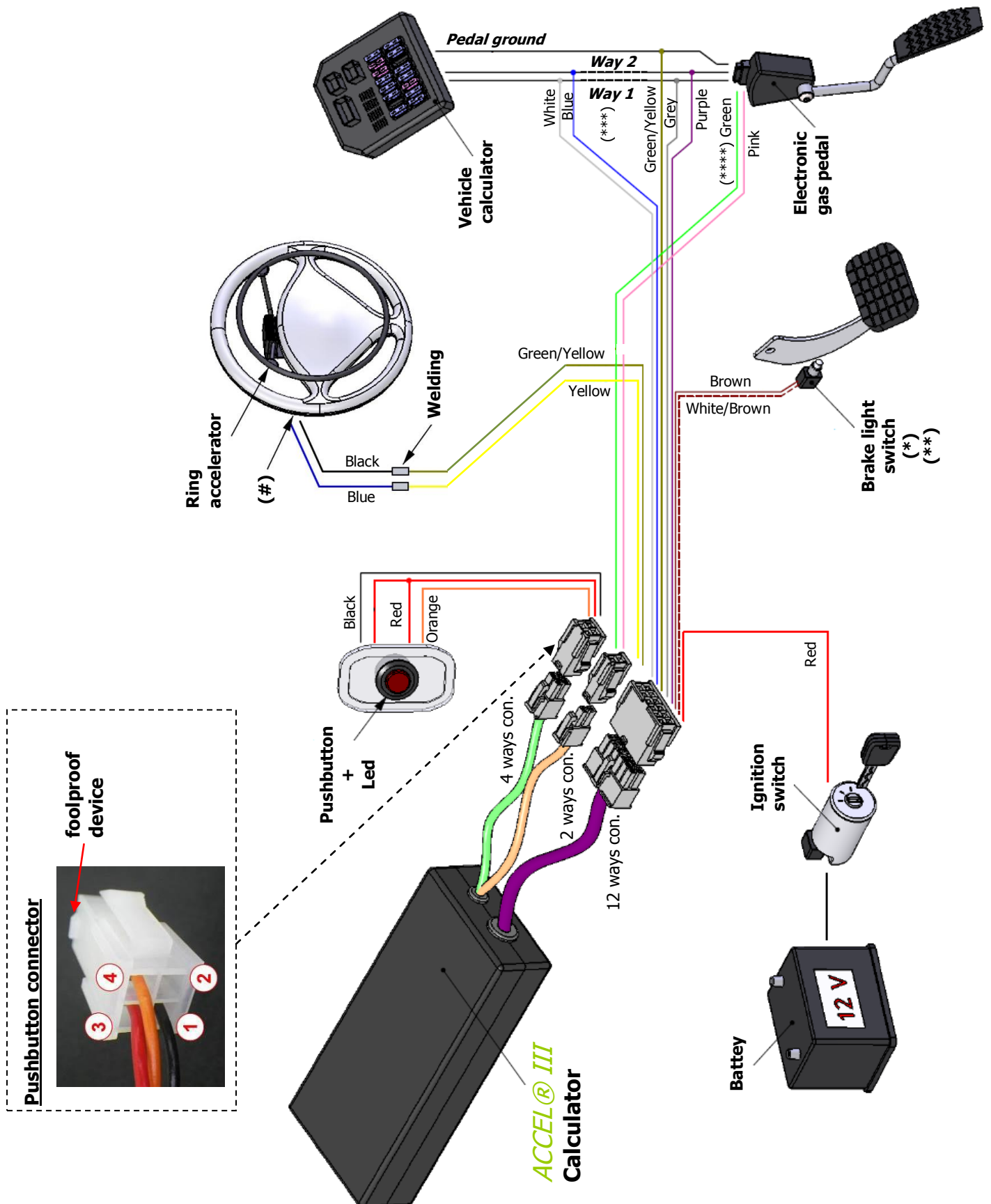
## Electric part: ring accelerator wiring

### ring accelerator wiring

See Wiring diagram next page

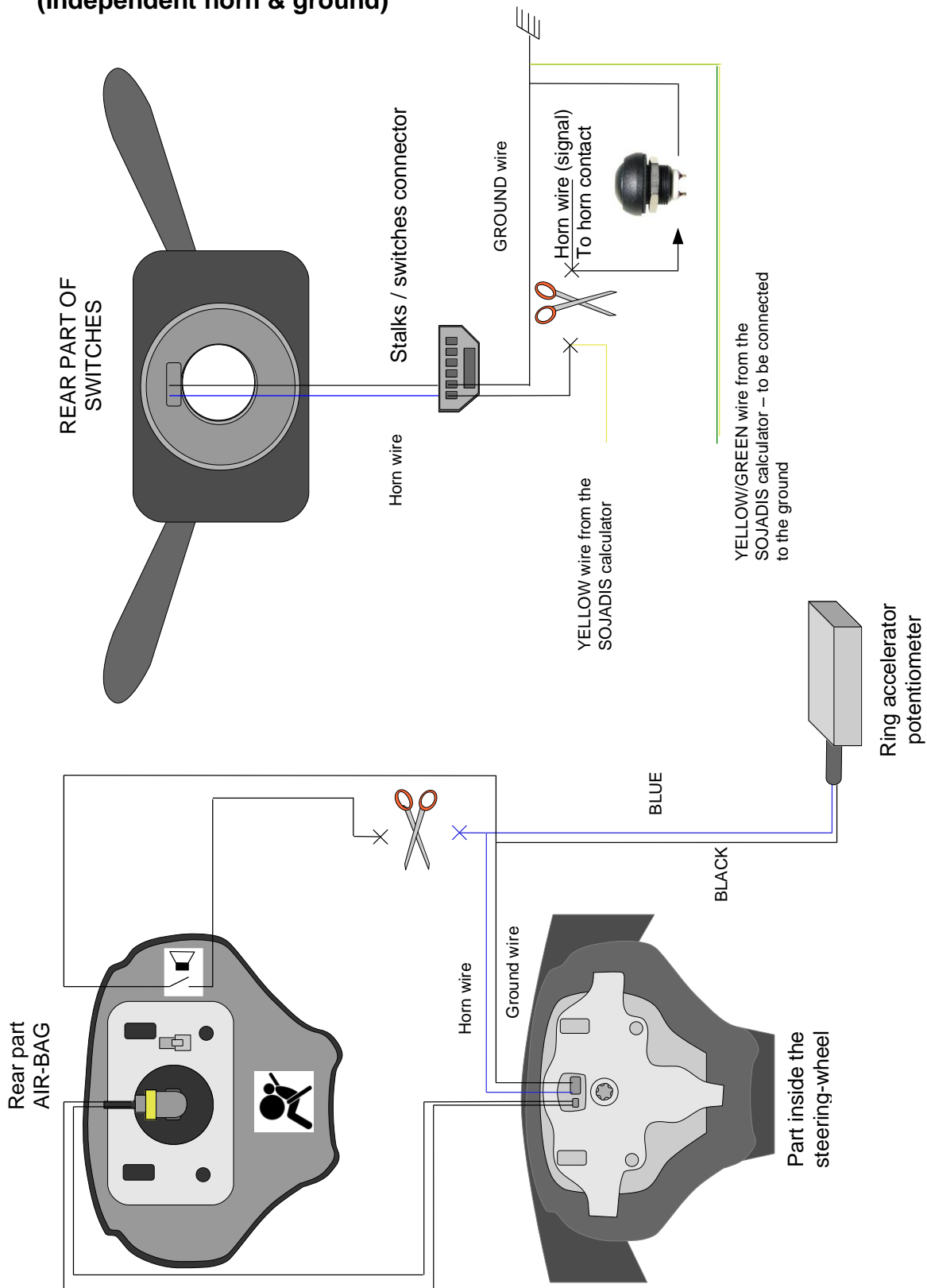
#### Notes:

- \* : Make the connexion on both sides of Stop contact normally open.
- \*\* : Some vehicles are equipped with 2 Stop LED lights, slightly illuminated when in LOW BEAM. In this case, please contact **SOJADIS** or your supplier/dealer.
- \*\*\* : Way 1 (White wire on Calculator side and Grey wire on pedal side) and Way 2 (Blue wire on Calculator side and Violet wire on pedal side) are analogical ways, parameterizable from 0 to 5 V.  
If the vehicle's signals are not analogical or linear and/or if they are not included in this line, please contact **SOJADIS** or your supplier.
- \*\*\*\* : ACCEL® III integrates one parameterizable contact (Pink and Green wires) as *Contact "Repos"* (closes up at acceleration) or Contact Kick Down (closes up at the end of acceleration).  
The second one disables the speed-limiting device (see *Utilisation examples below*).
- # : The blue and black wires are connected to rotating connector of the vehicle, instead of Horn wires or one of the airbags.  
If you plug them to the airbag, it is necessary to close the command line of the airbag with 2.2 ohms resistor/resistance (contact **SOJADIS** or your dealer).



**For the wiring inside the steering-wheel, see the diagrams below**

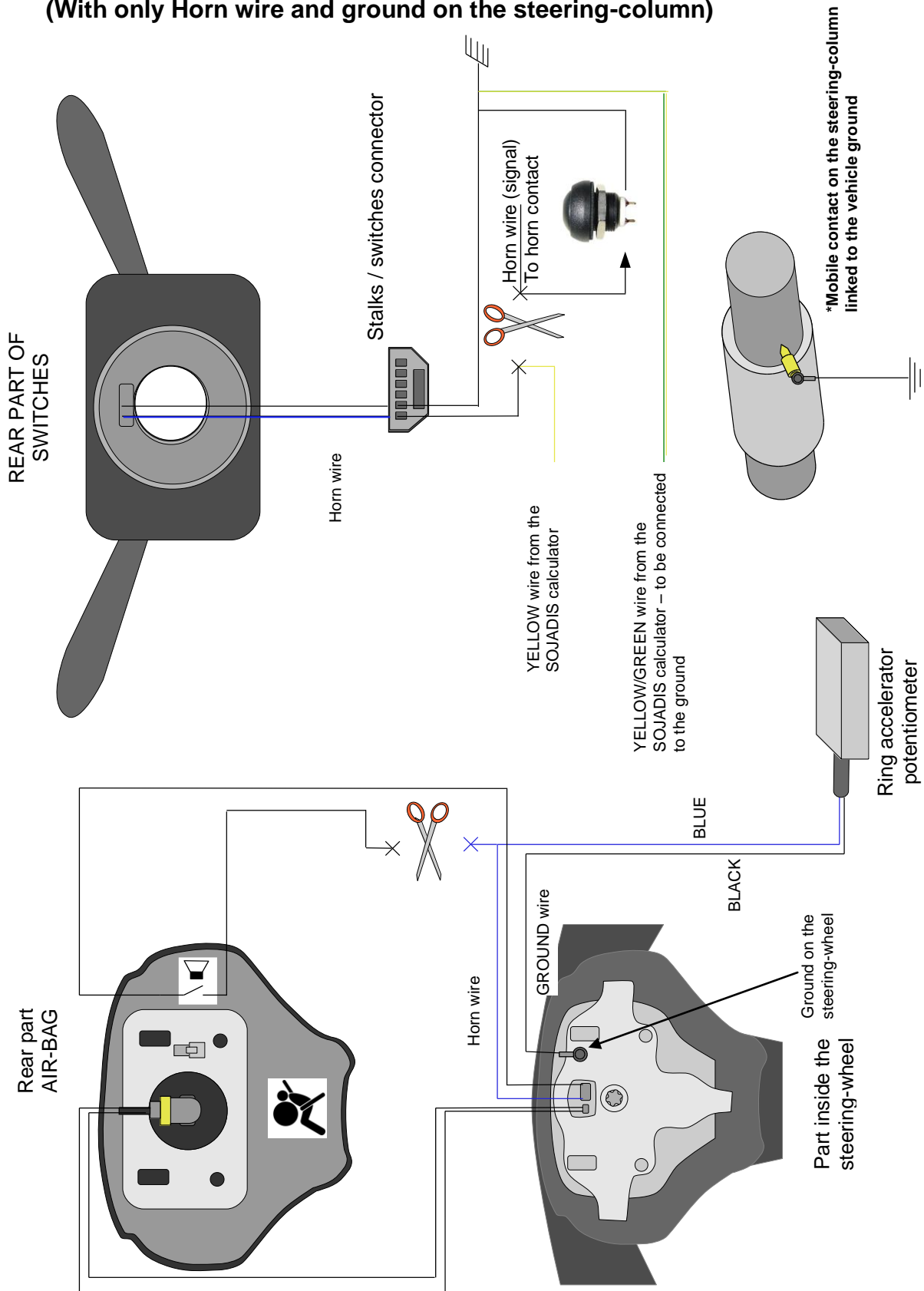
Wiring diagram via the rotary switch/rotating contactor – SOLUTION A  
(Independent horn & ground)



Link the blue wire from the ring accelerator potentiometer to the yellow wire from SOJADIS calculator in option in this diagram. If we cannot use the internal Ground of the steering-wheel, which has a free connection on the airbag spiral, then link the yellow/green wire of the SOJADIS calculator to the black wire of the potentiometer.

Wiring diagram via the rotary switch/rotating contactor – SOLUTION B

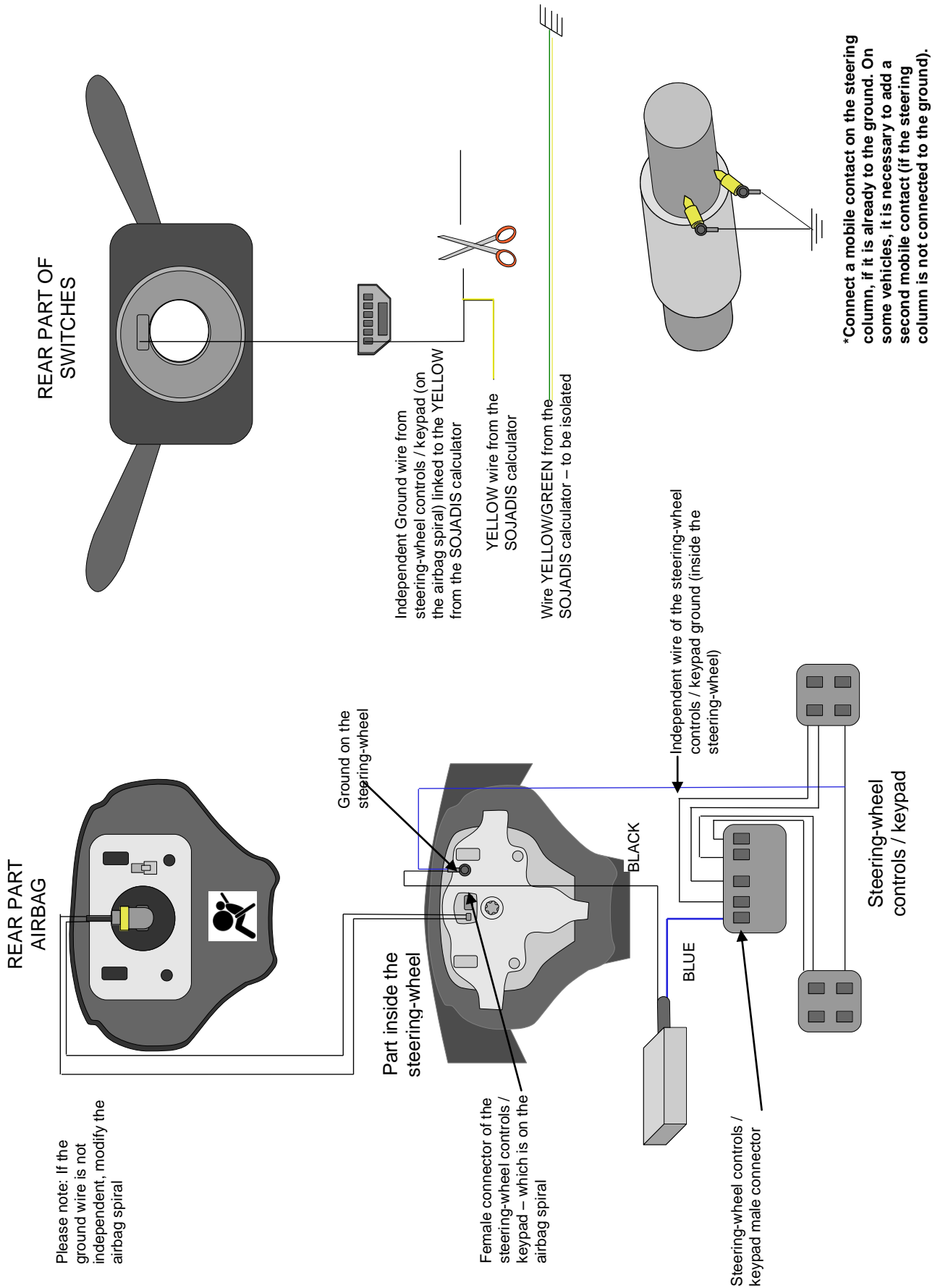
(With only Horn wire and ground on the steering-column)



\*The mobile contact to be linked to the ground is not supplied in the kit. Here is the code to order it: cod. HT-ACC-R.13

## Wiring diagram via the rotary switch/rotating contactor – SOLUTION C

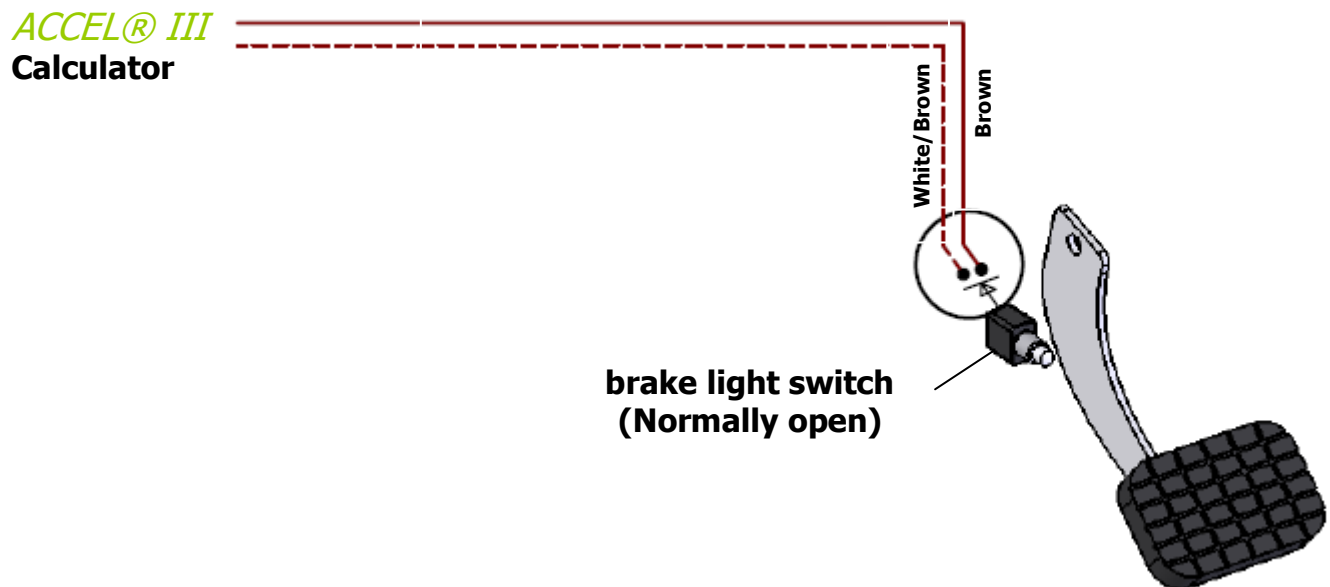
### (Case with steering-wheel controls / Keypad)



**\*The mobile contact to be linked to the ground is not supplied in the kit. Here is the code to order it: cod. HT-ACC-R.13**

## Brake contactor Wiring:

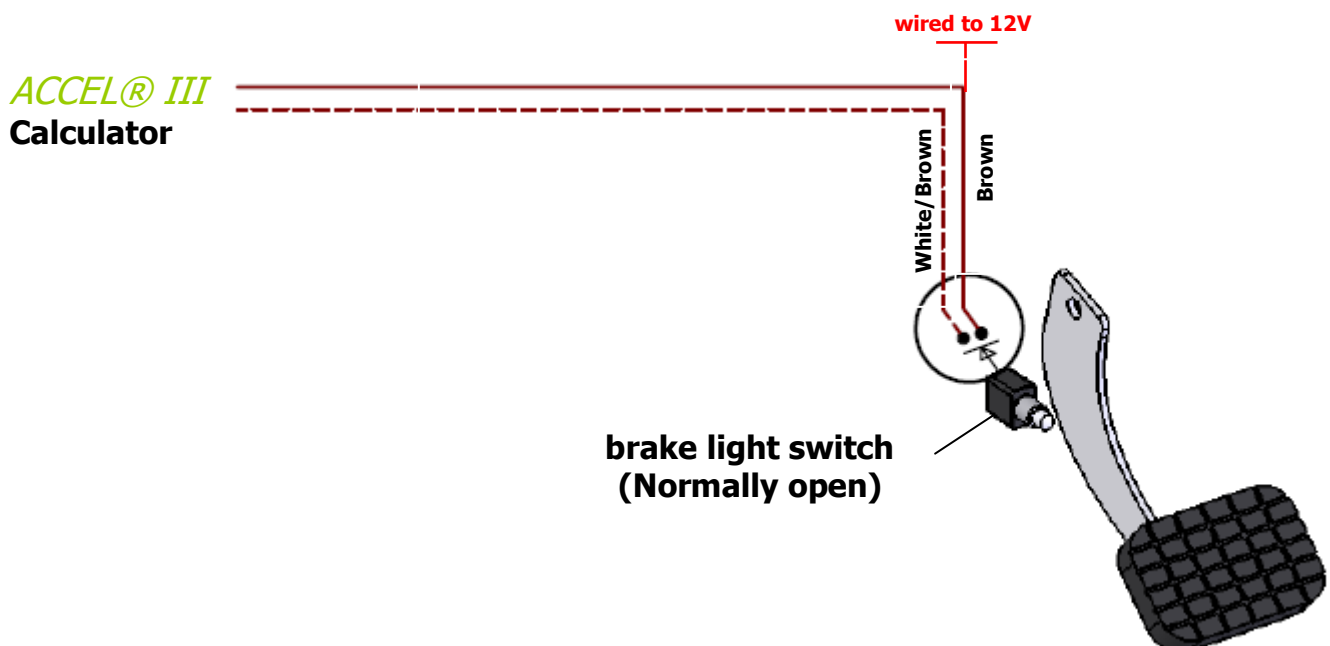
### Use of the contactor of origin:



If the vehicle has a normally open brake light switch and has no LED stop lights, wire the 2 brown wires on both sides of the brake light switch.

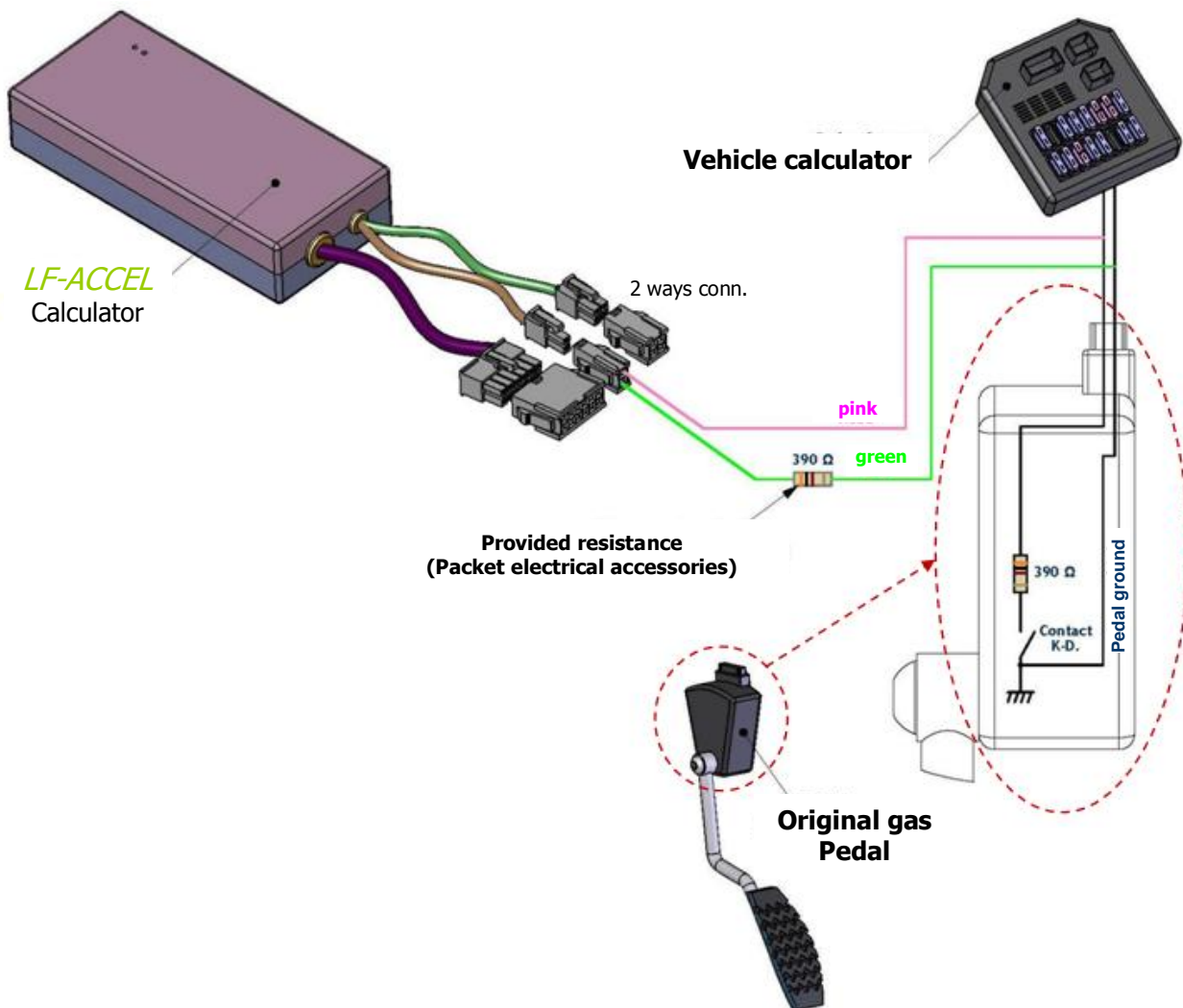
### Use of another brake light switch:

If you cannot use the vehicle brake light switch of origin, put in place another contactor on the brake pedal and wire it like below:





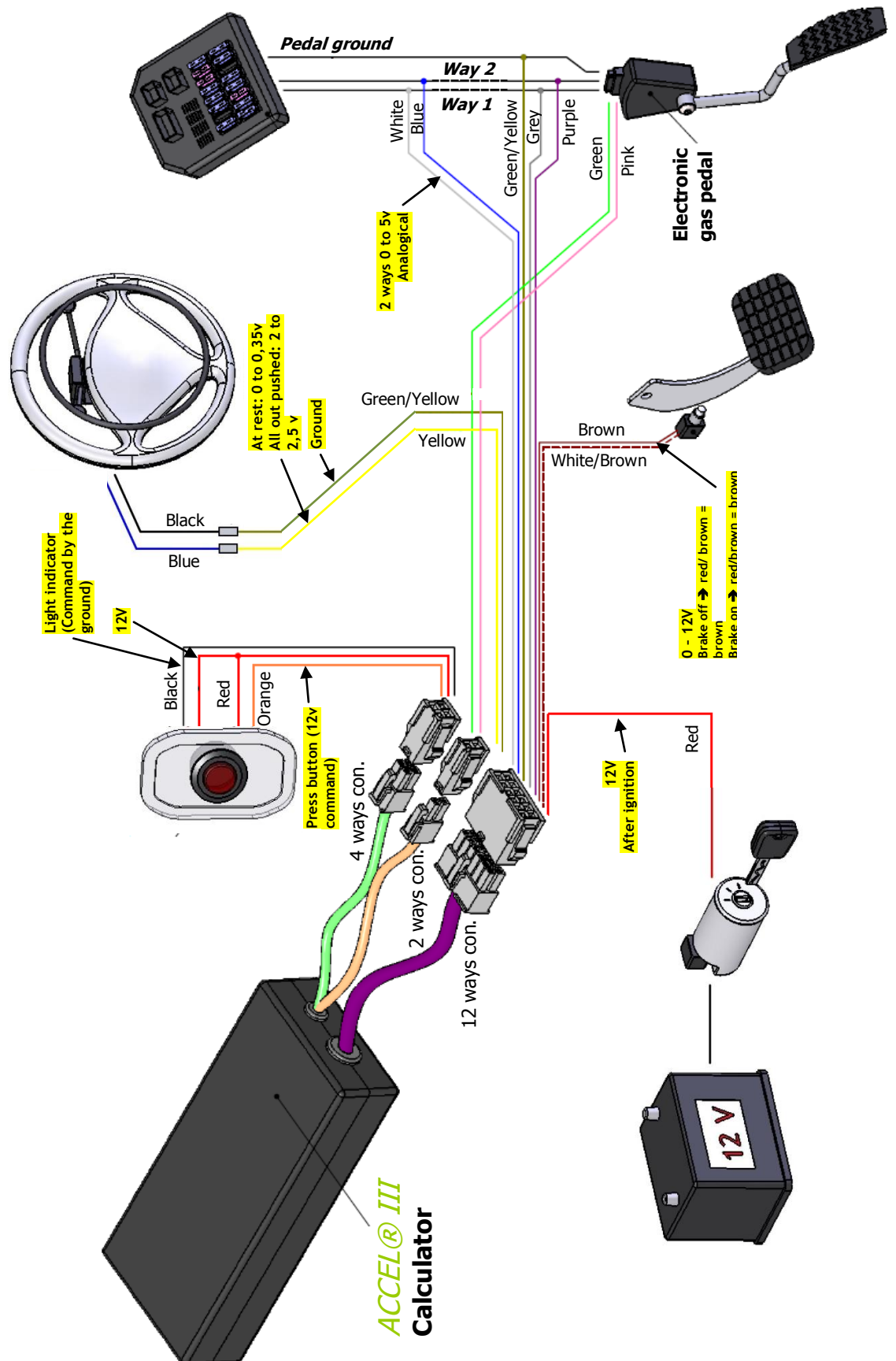
Use example of Kick Down Contact to disable the speed-limiting device on PEUGEOT and CITROEN vehicles :



allowing the driver to disable the speed-limiting device if needed.

**ACCEL® III** Kick-Down contact activated and with 390  $\Omega$  resistance, when wired as indicated below, makes possible to disable the speed limiting device by pushing the commands to the maximum extend.

## Ring accelerator tension references

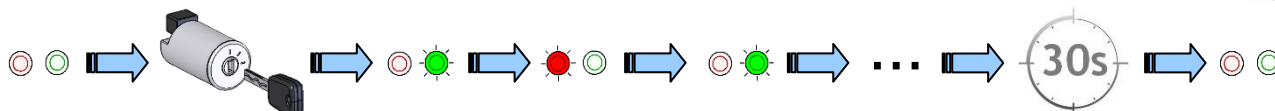


## Ring accelerator quick diagnostics

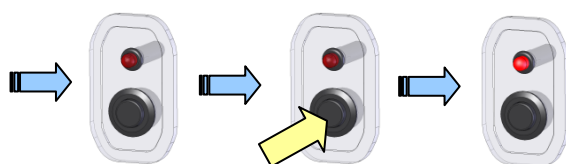
The red and green LEDs on the calculator enable quick and easy system diagnosis.



- Switch on the system:


























- From the car starting, the red and green LEDs are winking alternately.
- *The ring accelerator* can be switched on (by pressure on the push button) within 30 seconds following the cars starting.



- After the activation, the red Led next to the push button are lighting.
- If the *Ring accelerator* is not activated in the 30s, we have to switch off the car and switch on again in order to activate it.

- Ring accelerator diagnosis**

Function	LEDs	Indicator
Contact off	 	
Contact on – 30 first seconds Waiting for the <b>ACCEL® III</b> activation	 	
	 	
Contact on – after the 30 first seconds <b>ACCEL® III</b> activation impossible	 	
Brake pulled (With <b>ACCEL® III</b> activated)	 	
Commands <b>ACCEL® III</b> loosen (With <b>ACCEL® III</b> activated – brake not activated)	 	
Commands <b>ACCEL® III</b> pushed (With <b>ACCEL® III</b> activated – Brake not activated)	 	
Commands <b>ACCEL® III</b> « all out » pushed (With <b>ACCEL® III</b> activated – brake not activated)	 	



SOJADIS EQUIPEMENT  
Place du Maréchal Leclerc – 49 510 JALLAIS – France  
S.A.R.L. au capital de 7500€- RCS ANGERS 2007 B 00057  
Siret 493 658 785 00016 - Code APE 4520 B - TVA intra : FR58 493 658 785



Contact : +33 (0)2 41 64 05 58  
[sojadis@sojadis.com](mailto:sojadis@sojadis.com)