

ACCELEG

Installation Guide



13/09/2022

Table of Contents

PRESENTATION	4
FUNCTIONALITY	4
HOW IT WORKS	4
FEATURES	4
COMPLIANCE.....	4
KIT CONTENTS	5
RECOMMENDATIONS.....	6
GENERAL GUIDELINES.....	6
SAFETY INSTRUCTIONS.....	6
MECHANICAL / ELECTRICAL.....	6
INSTALLATION.....	7
INSTALLATION OF THE ACCELEG	7
CONNECTION TO THE ECU.....	13
SETUP & FIRMWARE UPDATE.....	14
CHECKS.....	15
OPERATIONAL TEST.....	15
SET THE PEDAL RESTING POSITION.....	16
FAILURES & SOLUTIONS	18
UNINSTALLATION	19
ACCELEG UNINSTALLATION.....	19

Presentation

Functionality

Acceleg is a left foot electronic accelerator.

How it works

Acceleg is a foot-operated electronic accelerator located to the left of the brake pedal, which is installed on vehicles with an automatic transmission and an electronic accelerator pedal.

Acceleg is equipped with a contactless sensor that ensures a longer service life. The user's instruction is transmitted electrically to a Sojadis ECU. This ECU will then transmit the setpoint to the vehicle using signals adapted to the vehicle (analogue, PWMs, SENT, etc.).

Acceleg integrates a kick-down (hard point at the end of the pedal stroke) allowing, for example, the deactivation of the speed limiter (depending on the vehicle).

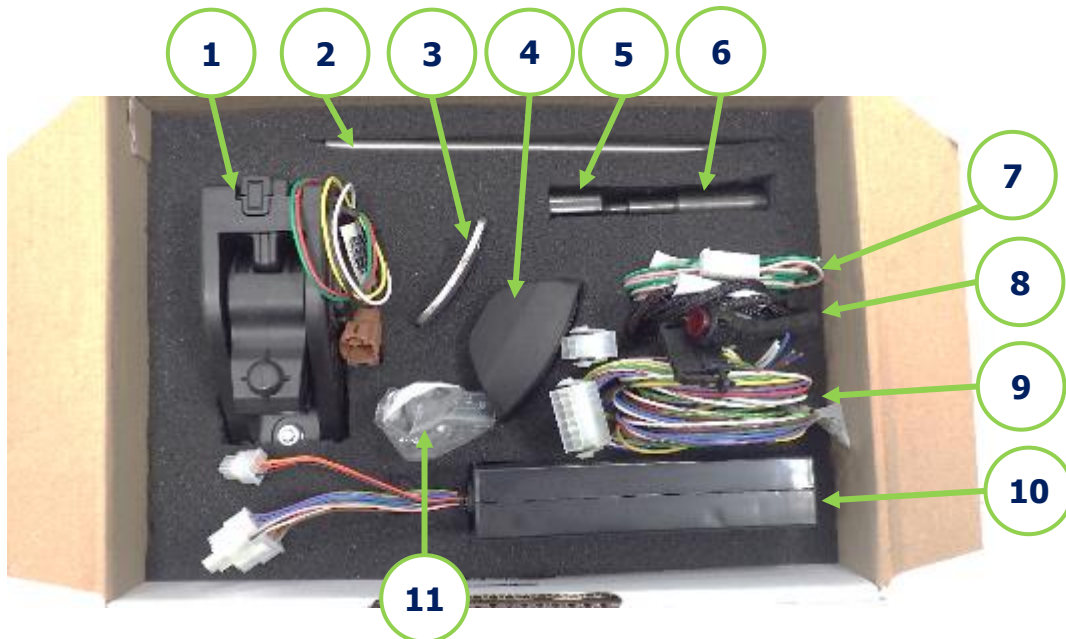
Features

- Compatible with new generation ACCEL ECU (Sojadis CAN link)
- Compatible with previous ACCEL Sojadis ECU (analog link)
- Power supply +14Vdc (+15 or +30) (operation from 10 to 16Vdc - operation consumption <25mA)
- Setup and firmware update via USB (PC compatible only)
- Operating temperature: -40 to +80°C
- 4-year warranty

Compliance

- Complies with the EMC Directive (Directive 2014/30/EU) / UN Regulation No. 10 revision 6 (E-ECE-324-Add.9-Rev.6)
- Complies with the General Product Safety Directive 2001/95/EC
- Compliant with the REACH regulation (n°1907/2006)

Kit contents



REPERE	REFERENCE	DESIGNATION	QTE
1	GPA	ACCELEG	1
2	TIGE-PEDALE	Pedal rod	1
3	GPS	Pedal pad plate	1
4	98 321 339 80	Pedal cover	1
5	GPO-A	GPO + V_G_C-D4-L16-G2	1
6	APG-01-COMPLET	1/4 turn socket	1
7	F6-ACC	Vehicle harness – 2 pins	1
8	F14-ACC	Switch/LED harness – 4 pins	1
9	F1-ACL	Vehicle harness – 12 pins	1
10	CAL	ECU	1
11	GPG	Knurled axle	1
	V_V_BT-4X10-ZN	TCB torx 4X10 Plastite screw	1
	V_V_BHC-M10X16ZN	TBHC M10x16 screw	1
	V_E_HR-M6	M6 flange nut	3
	RESISTANCE-390R	Resistor	1
	V_E_HR-M8	Hex serrated flange nut M8	2
	TFM-M8X40_DR2213	Screwed spacer sleeve M8x40 with internal and external thread	2
	V_R_P-D8-L-ZB	Plain washer large type D8	2
12**	NI-ACCELEG-X.X-XX.pdf	Installation guide	1
13**	NU-ACCELEG-X.X-XX.pdf	User manual	1

** Installation guide and user manual are also available for download on sojadispro.com

Recommendations

General guidelines

All interventions (installation, repair, etc.) must be carried out by qualified personnel, according to the indications provided in this manual and in compliance with the standards and regulations in force in the country concerned.

Check the vehicle's operation before any intervention.

Safety instructions

It is forbidden to carry out any manipulations (soldering, crimping, removing lugs from their housings, etc.) on bare live parts. These items must be turned off.

If "+ PERMANENT" is handled, switch off the vehicle by following the specific range for the type of vehicle (battery disconnection or other).

Electric or hybrid vehicles

All personnel working on an electric or plug-in hybrid vehicle must have received specific training on electric vehicles and be authorised to work on these vehicles (please, comply with the regulations in force in the country concerned).

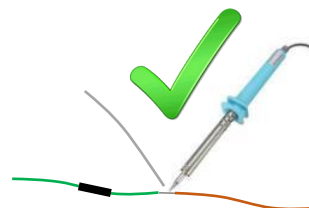
Before carrying out any work on an electric or hybrid vehicle, it is essential to be informed of the risks involved, to apply the recommended safety instructions and, if necessary, to seek the advice of authorised personnel.

Disconnect the charging cord from the mains before working on the vehicle (if rechargeable).

Mechanical / Electrical

Observe the tightening torques, using a torque spanner that is checked periodically.

Do not use quick connectors for electrical wiring.
Make connections only by soldering, or by crimping, using appropriate tools.



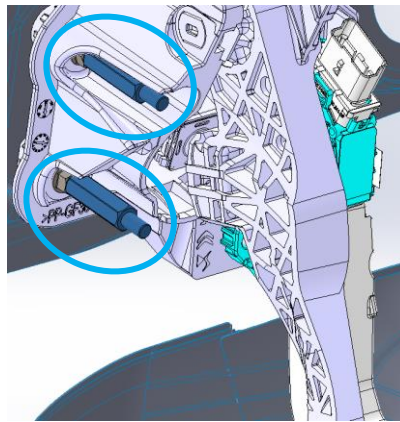
Installation

Installation of the ACCELEG

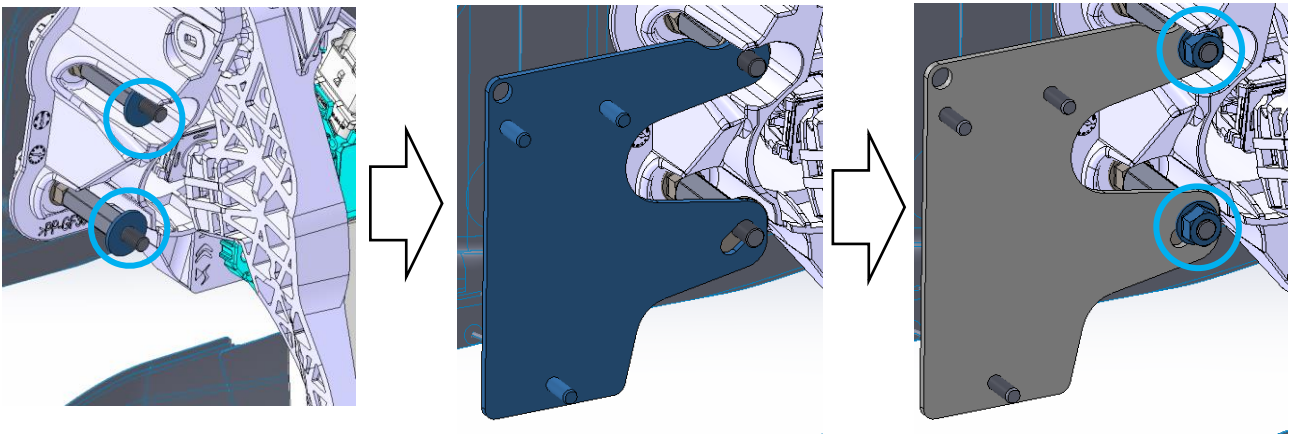


The installation described below is carried out on a PEUGEOT 208 (P21). The installation is to be adapted according to the vehicle to be fitted but the recommendations apply to all.

Screw two M8x40 bolts onto the bolts on the left of the brake pedal.

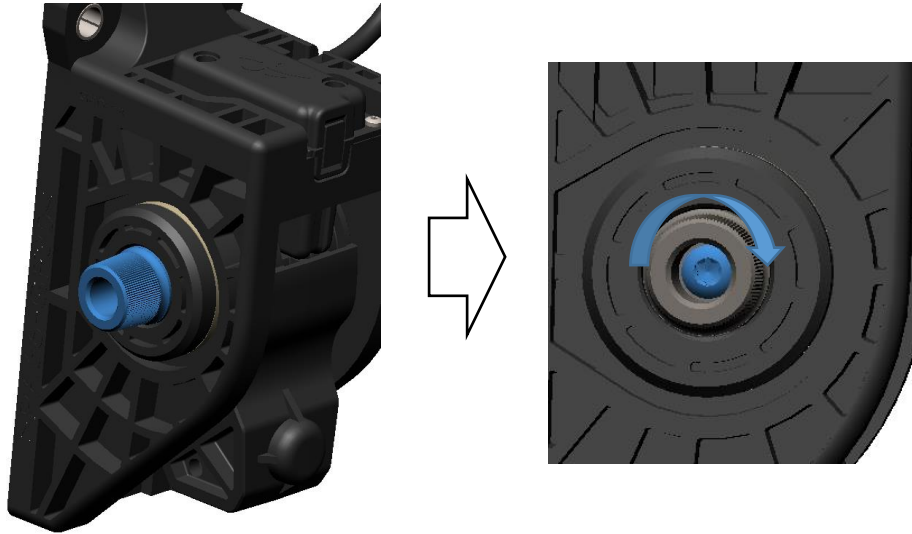


Insert an 8 series L washer (NFE 25513 or DIN 9021) between each column and the GPU counter-plate, then screw the GPU counter-plate in place using the 2 Hex serrated flange nut M8.

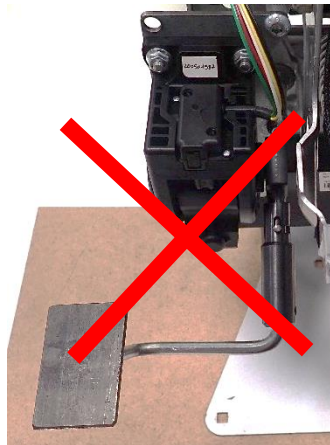


In case of modifications to the counter-plate supplied by SOJADIS, it is recommended to use 3 fixing points whenever possible.

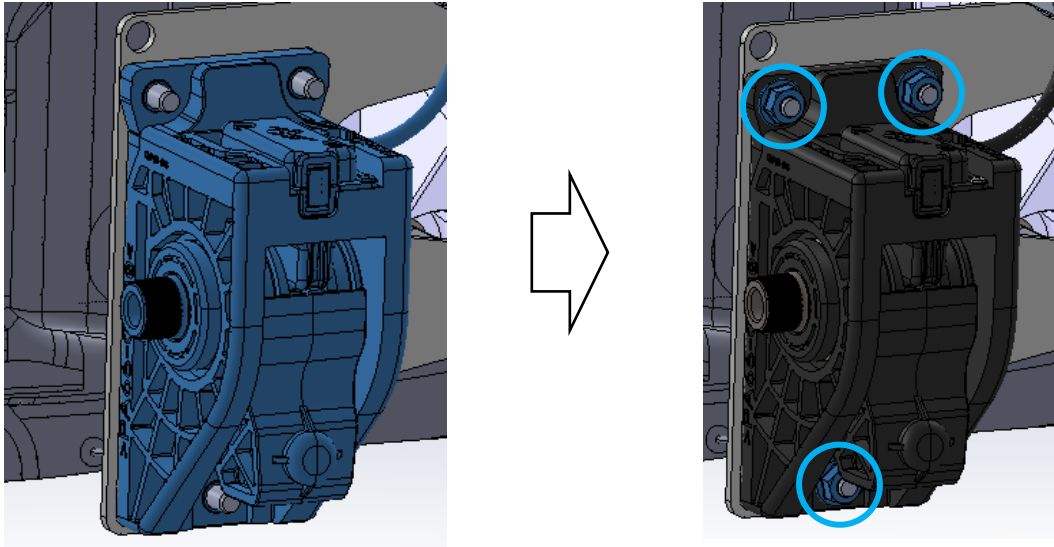
Insert the knurled axle into its housing and tighten the Torx screw to a torque of 1.2 N.m (T20 for tightening). In this configuration it is strongly recommended to position the knurled axle on the left side of the pedal.



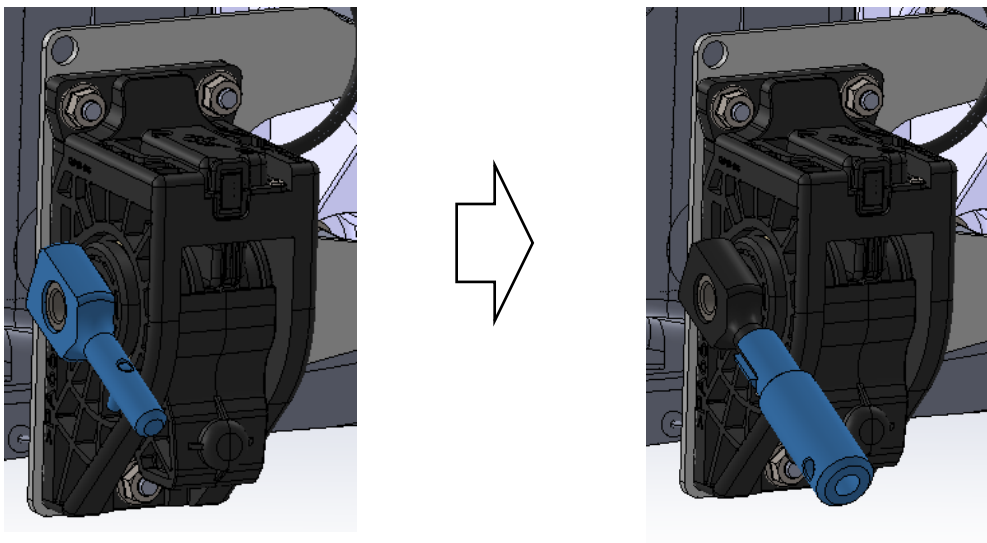
In order to ensure the best possible, certain assemblies should be avoided. See examples below.



Position the pedal assembly on the bracket, then screw on the 3 locknuts.



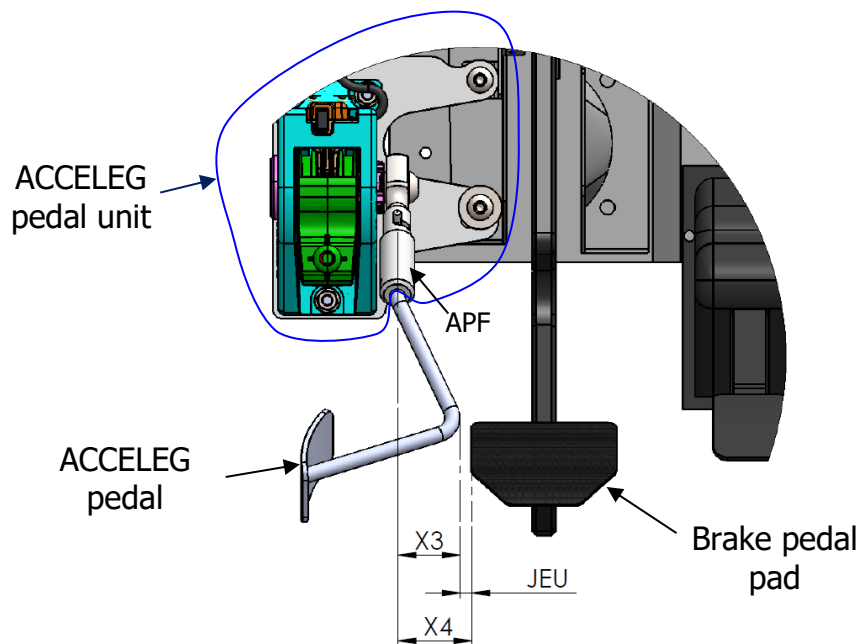
Position the GPO part on the knurled axle, then insert the APF part.



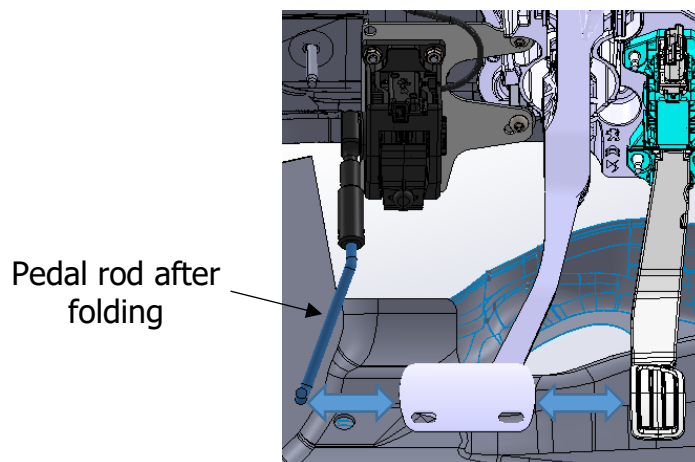
Shape the rod so that the pad is at a safe distance from the brake pedal, and the driver can press on the pad, not the rod, when accelerating.
It is advisable to follow the method below before folding.

Method to be followed before folding:

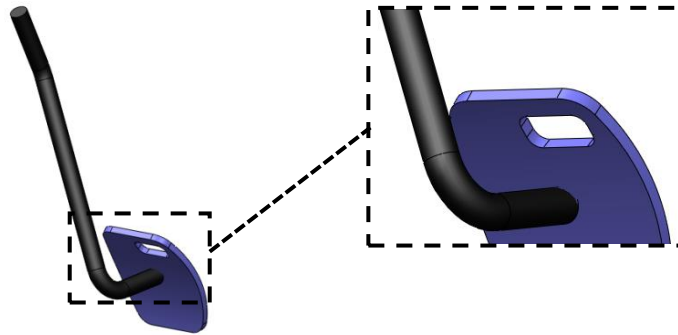
- 1 – Mount the ACCEL SOJADIS pedal unit on the vehicle.
- 2 – Measure the X4 gap between the axis of the APF part and the nearest edge of the brake pedal.
The edge closest to the brake pedal is the one that may come into contact with the ACCEL SOJADIS pedal rod during braking, if it pivots on its bayonet (example: in the visual below it is the edge of the brake pedal pad).
- 3 – The X3 max dimension can be determined using the following formula: $X3 \text{ max} = X4 - 10 \text{ mm}$



- 4 – Shape your ACCEL pedal, taking care not to reach the X3 max dimension.

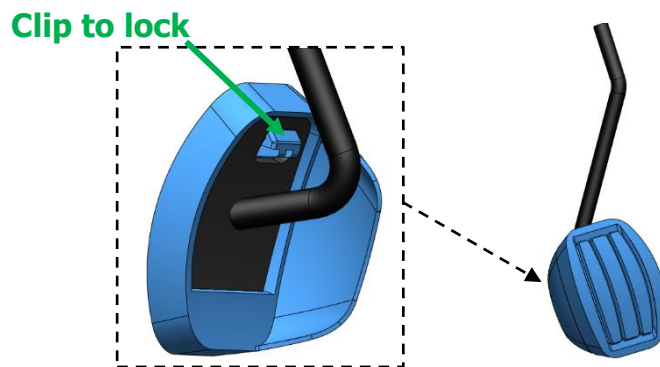


After shaping the pedal rod, weld the pad on it.



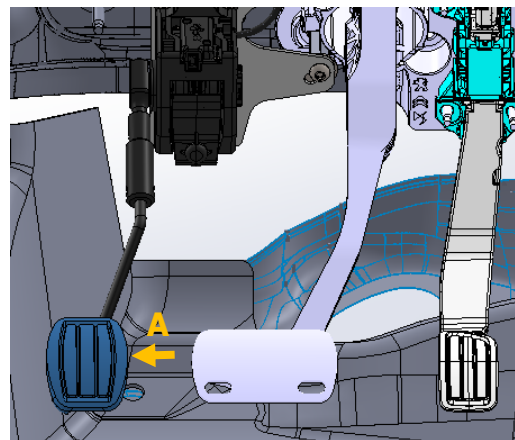
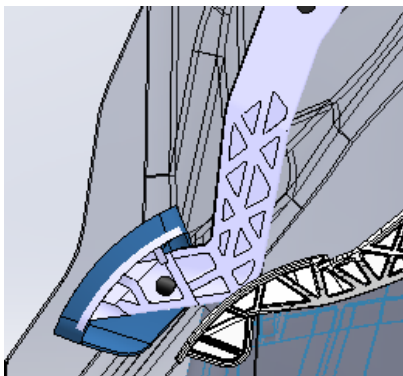
The hole in the pad must be in the upper position.

Insert the pedal cover on the pad and lock the clip on the plate by levering with a screwdriver.

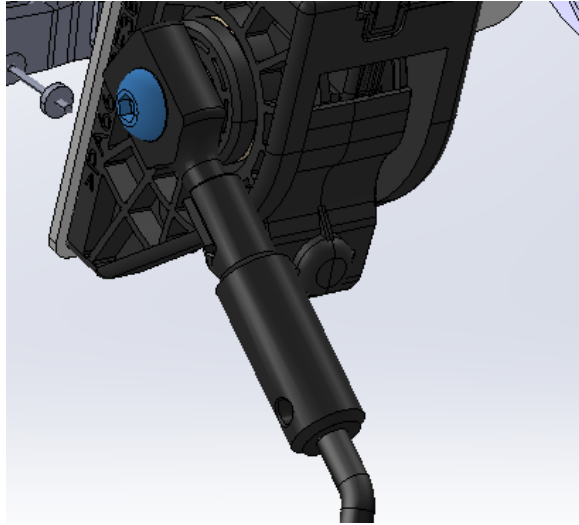


Insert the pedal rod into the APF and check that the top of the pad is level with the other ones.

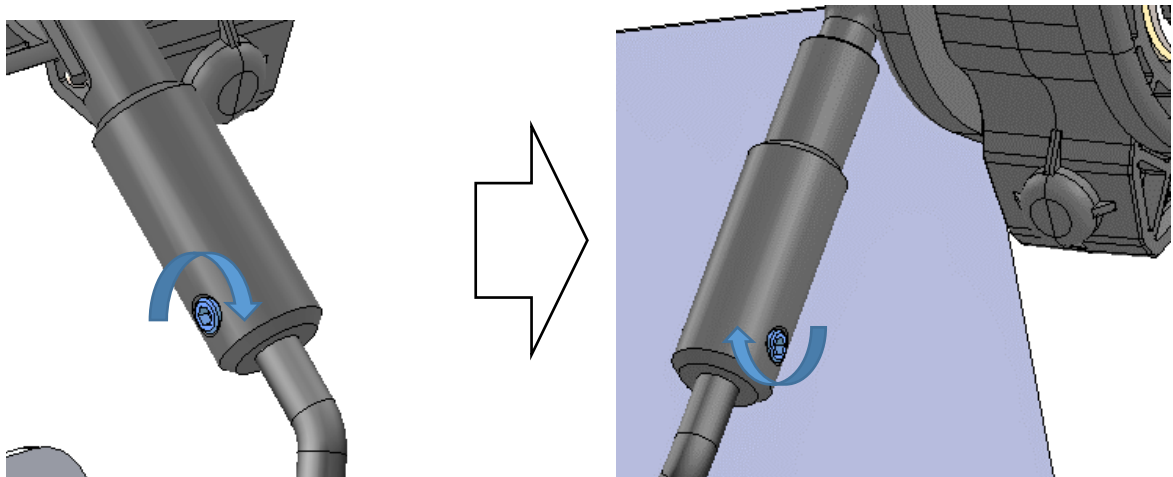
Vue A



Hold the pedal and tighten the M10 screw to a torque of 35 N.m.



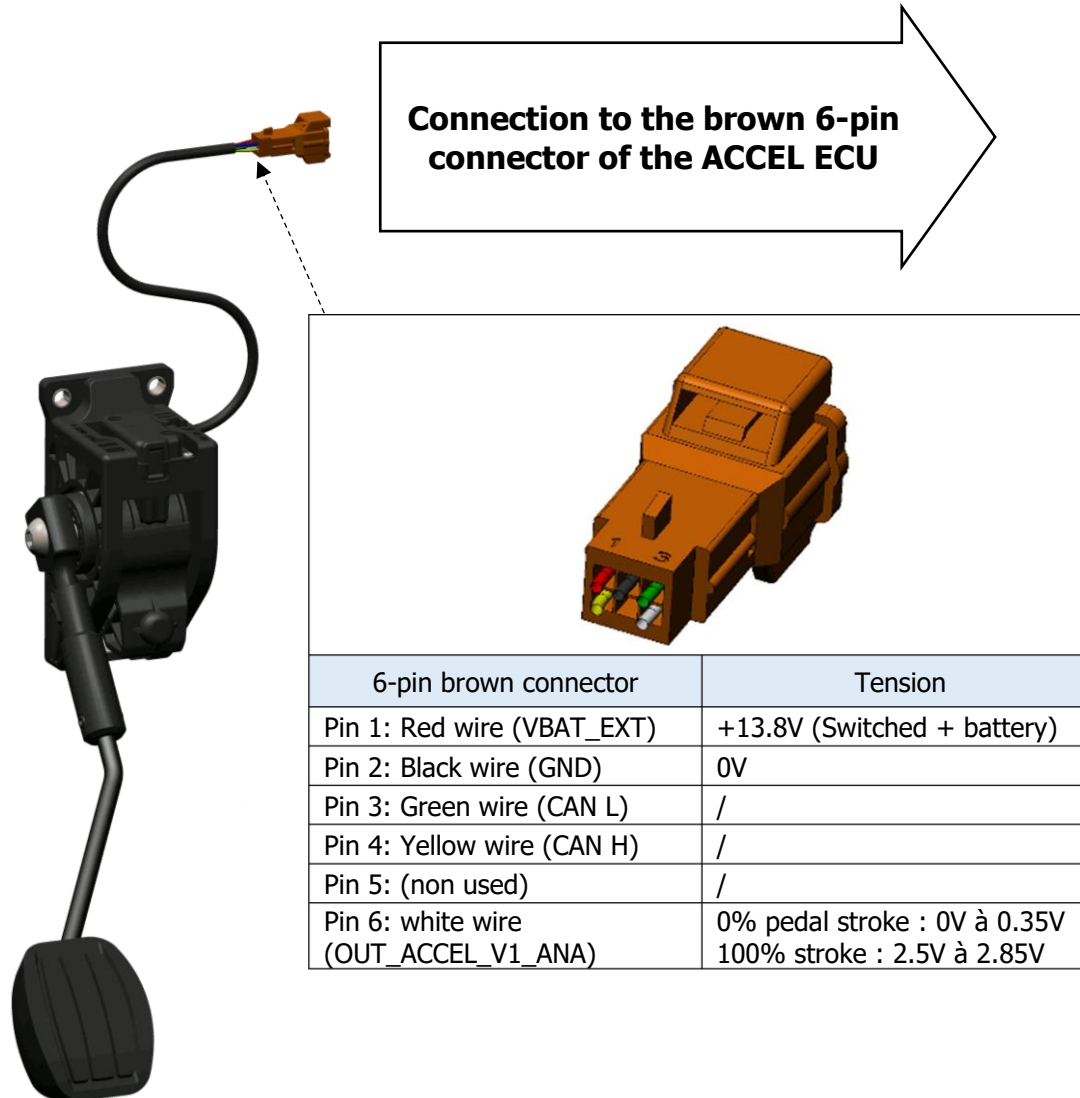
Tighten the first set screw and then the second one..



To avoid the risk of the pedal coming loose, do not tighten the two needle screws at the same time. Tighten one after the other so that the rod rests on a side of the APF.

Connection to the ECU

Connect the ACCELEG to the brown 6-pin connector of the ACCEL ECU (depending on the vehicle).
 For the installation of the ECU, please refer to the instructions supplied with this kit or available on our website www.sojadispro.com.

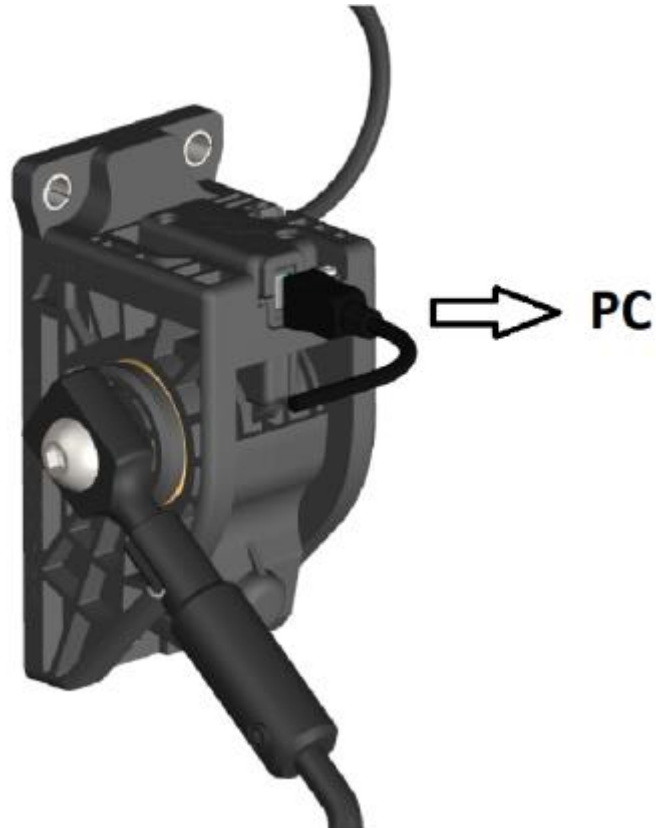


Setup & Firmware update

To setup and update the ACCELEG, install the Soj@box software (available for download at www.sojadispro.com).

Remove the protective cap and connect a cable between the PC and the ACCELEG (mini-USB connector).

Launch the Soj@box application on the PC and follow the software instructions. Unplug the USB connector from the ACCELEG, and replace the protective cap.



Checks

Operational test

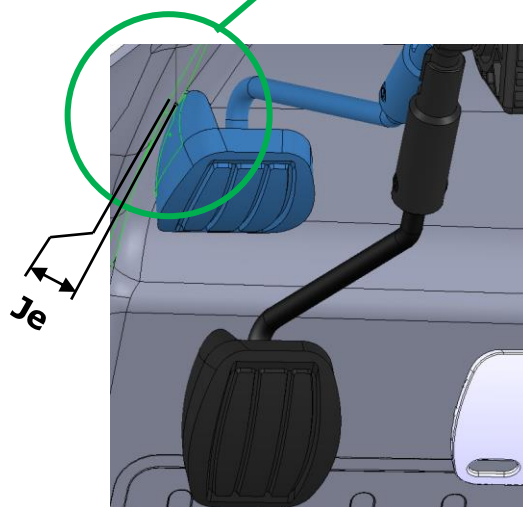
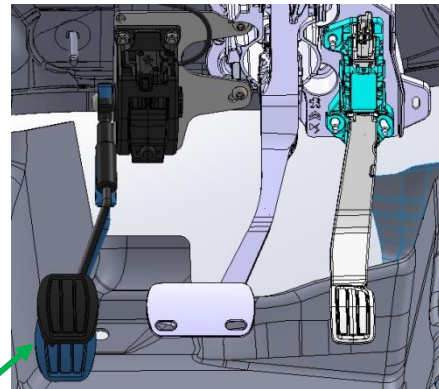
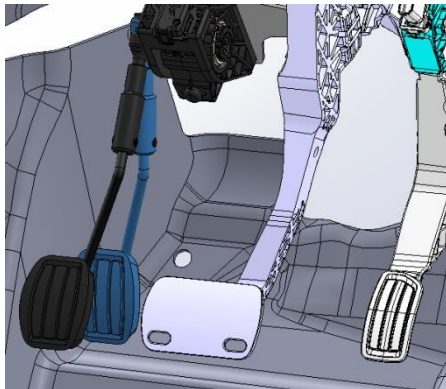
Check the pedal operation.



If the counter-plate supplied by SOJADIS is modified, it is imperative to carry out road tests (with triggering of the kickdown) in order to check that it does not distort.

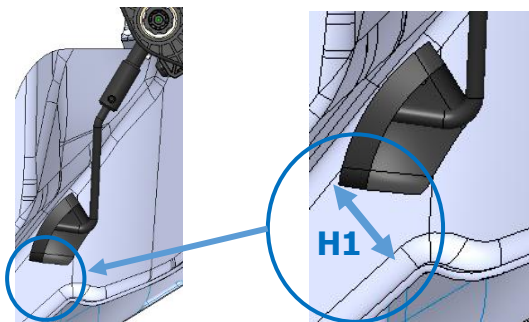


There must be no obstacles in the area of movement of the pedal.
Check that the pedal pad does not get stuck in the floor mat.
The pad must return to its initial position after being released.

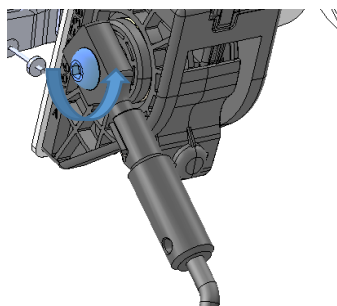


Set the pedal resting position.

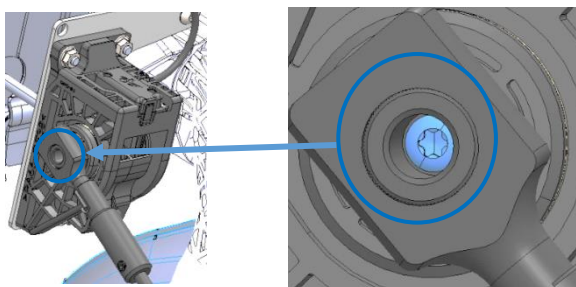
Mark the position of the pedal (see example below).



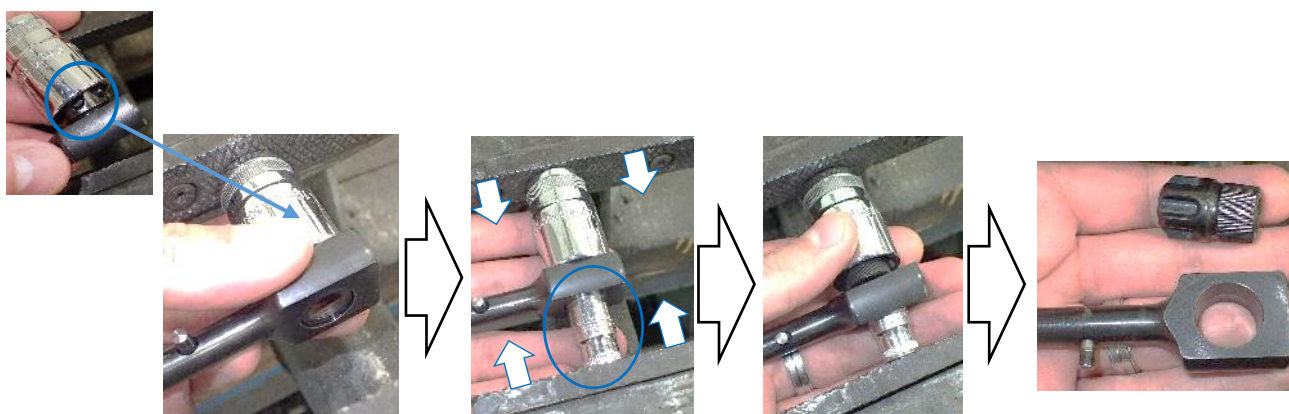
Loosen M10 screw **holding the pedal rod.**



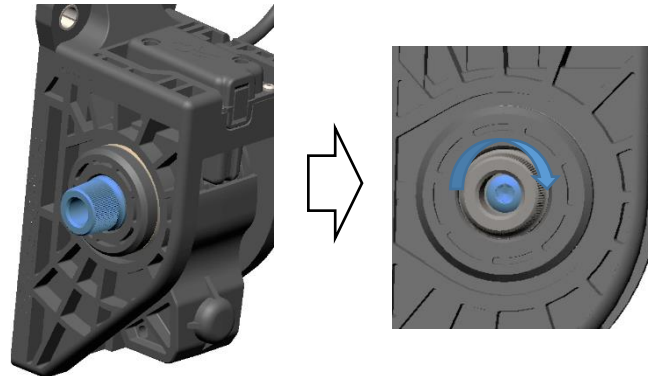
Loosen the screw at the bottom of the knurled axle with a T20 bit.



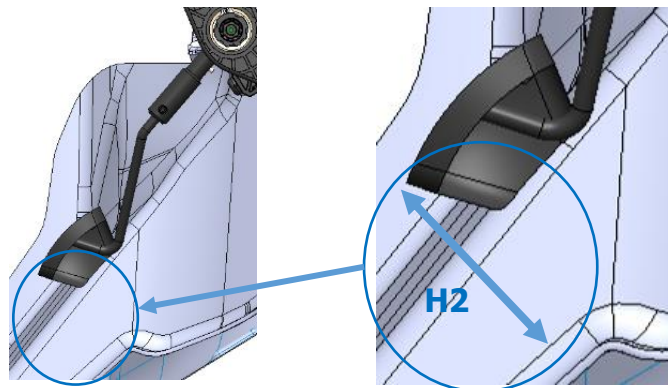
Using a vice, a 19 socket and a 10 socket, remove the knurled axle (same method as for removing a bearing using a press).



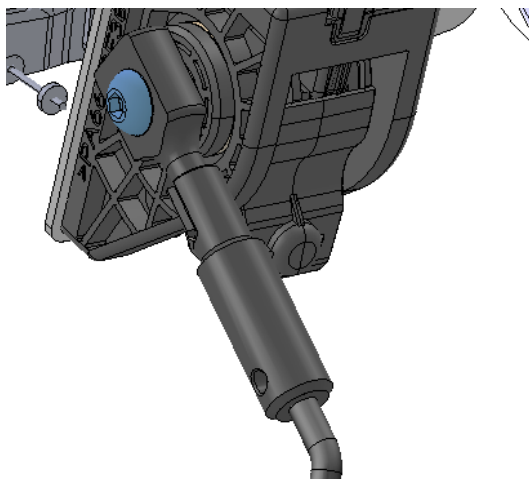
Insert the knurled axle into its housing and then tighten the Torx screw to a torque of 1.2 N.m (T20 socket for tightening).



Reposition the pedal higher or lower than the mark depending on the desired result.



Hold the pedal and tighten the M10 screw to a torque of 35 N.m.



Failures & Solutions

FAILURES	POSSIBLE CAUSES	CONTROLES ET REMEDES
Accelerator pedal remains stuck on the floor	The M10 screw connecting the APF to the knurled axle is not tight enough.	Check the tightness of the M10 screw. The M10 screw must be tightened to 35 N.m.
	An element clamps the pedal at the end of its stroke.	Visually check that there are no parts (e.g. carpets, bumps, etc.) that are binding the pedal at the end of its stroke.
I have the feeling that there is a lack of acceleration when I press the pedal.	The pedal pad mechanically limits the acceleration travel of the pedal.	Check that it is possible to reach the kick down by pressing the pedal fully. If not, change the pedal position at rest and repeat the test (see page 16 of this guide; "Set the pedal resting position").
	The acceleration stroke of the sensor has not been learned correctly.	Carry out an "ACCELEG learning process" using the Sojabox software.
I have the feeling that there is a time-out at the beginning of the pedal stroke.	The pedal is not at 0% when the ignition is switched on.	Reset the system with the pedal at rest.
There is a lot of play in the pedal.	The Torx screw securing the connection between the plastic splined shaft and the knurled axle is not sufficiently tightened.	Loosen the M10 screw and then check the tightness of the Torx screw. The Torx screw should be tightened to 1.2 N.m. Then tighten the M10 screw again to a torque of 35 N.m.

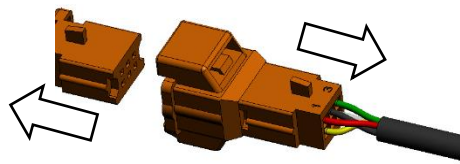
Uninstallation

To avoid faults on the vehicle, switch off the vehicle according to the specific range for the vehicle type (battery disconnection or similar).

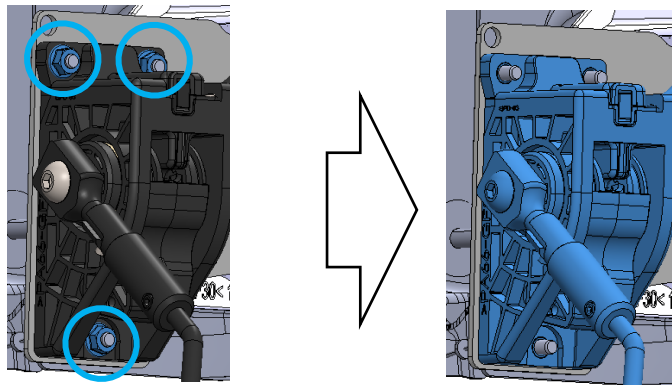
To facilitate the re-installation of the equipment, please proceed with the utmost care (damage resulting from incorrect removal is not covered by the Sojadis warranty).

Acceleg uninstallation

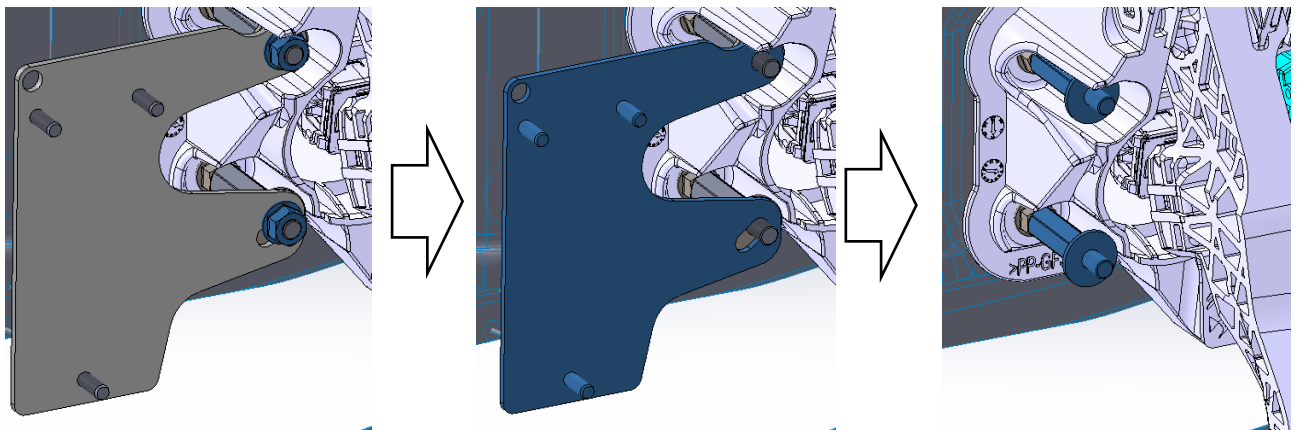
Disconnect the Acceleg from the ECU harnesses by disconnecting the brown connector.



Remove the 3 locknuts and then remove the pedal unit.



Remove the bolts connecting the SOJADIS counter-plate to the vehicle and remove the counter-plate.





CRÉATEUR d'aides à la conduite

NI-ACCELEG-1.4-EN.docx