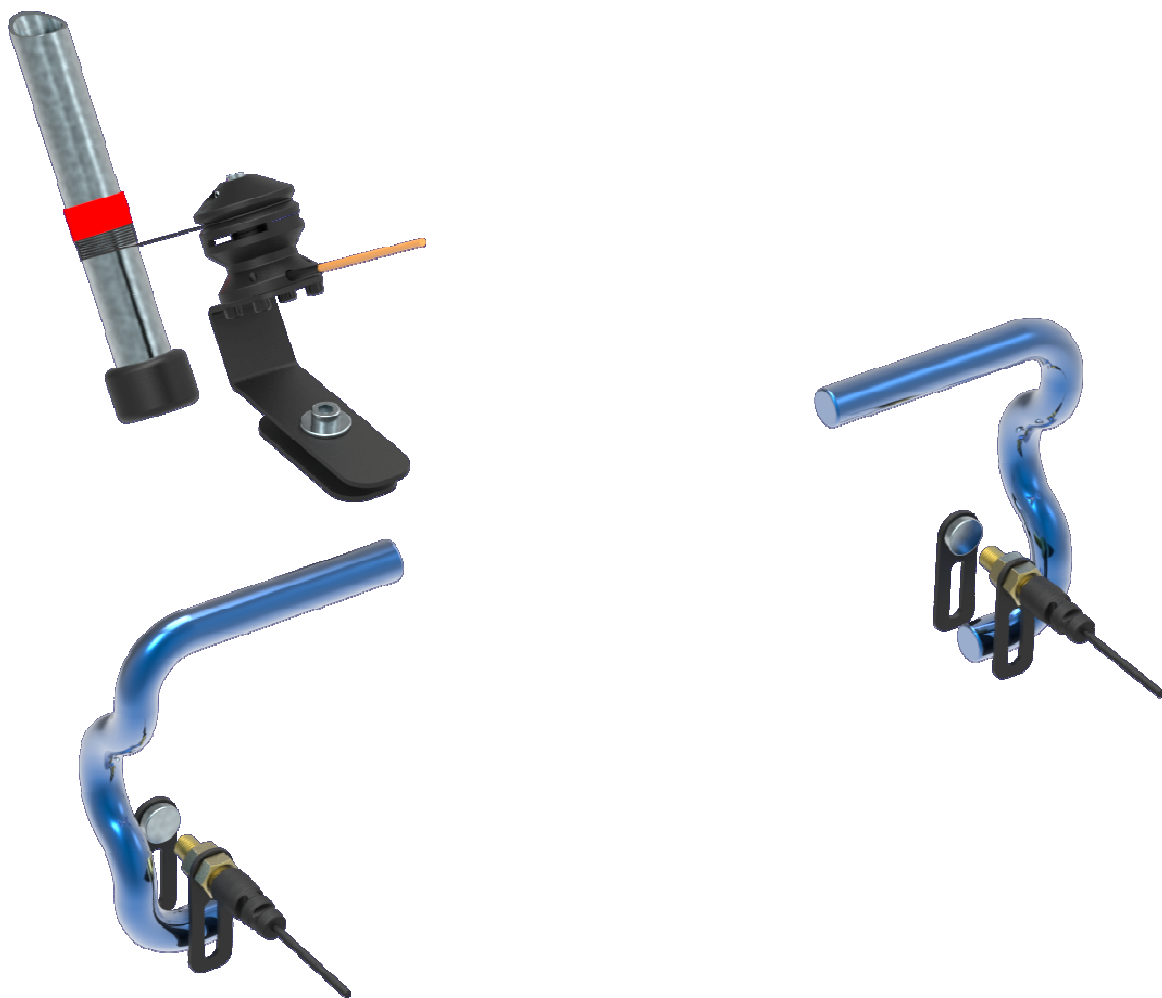




Installation of the Position Sensors

Manual (EN)



The position sensors

In our ranger there are 2 types of technologies

- a) **The Hall Effect sensor, A2405** (pedal): this sensor works with the magnetic field. By separating it or bringing it closer the sensor determines the pedal's position.



- b) **The potentiometer sensor, A2401** (steering wheel): this sensor depends on the position of the mobile part. When pulling or letting the string go, the sensor determines the steering wheel's position.



Installation

Installation of the Hall Effect's sensor to the pedals:

There are way too many mechanical configurations with the shape of the pedals and the installation that is different with every kart manufacturer.

Different sort of supports are delivered so that it's possible to find the right installation, depending of the Kart's configuration, for the good working of the sensor.

Example 1



Warning: if you bend the magnetic support (like on the image) so that it's +/- facing the sensor, please first remove the magnet.

Please note: with this type of « powerful » magnet, when the pedal is pushed, the magnet has to be +/- at 15mm if the sensor for a better working.

Example 2



On this second example, we applied a high quality adhesive tape to fix the support of the sensor.

Installation of the potentiometer sensor:

Important: for an optimal working, the sensor has to be installed in parallel with the steering column. To do that, bend and install the support that has to be adapted to the kart's chassis.



1) Turn the steering wheel to the LEFT

2) Wrap the string around the steering wheel's axle by doing many rounds.

IMPORTANT: before applying the adhesive tape to maintain the string to the column, pull on the string to "roll out" +/- 10mm on the rotor's sensor from its minimum position (as shown on the picture bellow) then apply the adhesive tape.



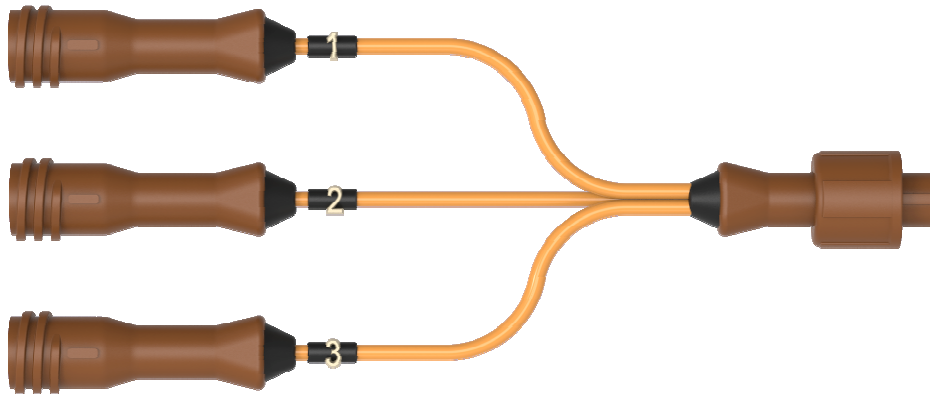
3) Turn the steering wheel from the LEFT to the RIGHT and vice-versa to check the good working of the potentiometer. The string must not overlap its self.



Sensor connection

Connect the sensor,

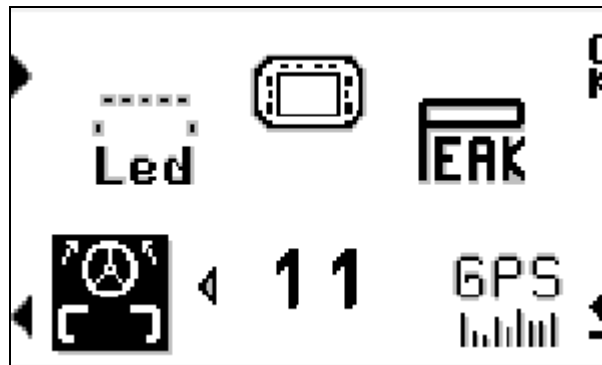
- From the steering wheel to the connector **1**
- From the brake pedal to the connector **2**
- From the accelerator pedal to the connector **3**



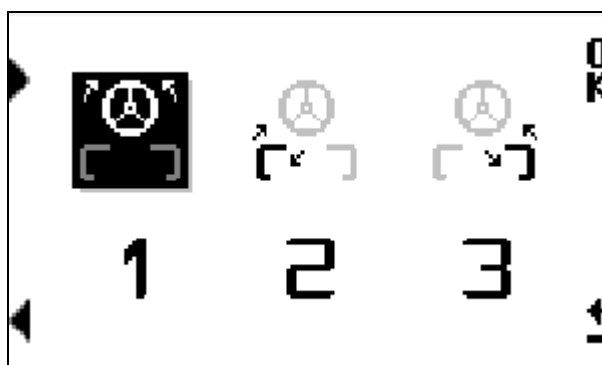
Calibration of the sensors in the PROIII EVO

The PRO III EVO has to use the firmware starting from the version 4v40

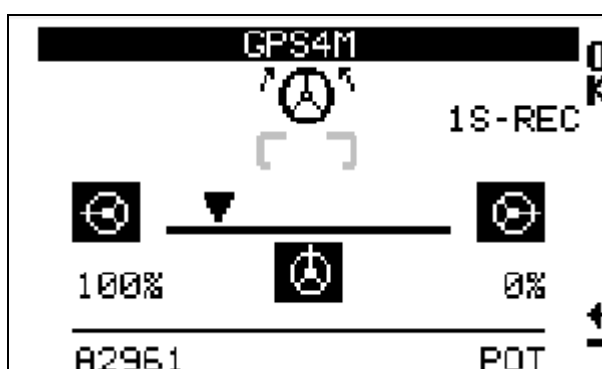
In the SETUP menu of the system, click on the icon 11,



Select 1 to calibrate the steering wheel sensor
Select 2 to calibrate the brake pedal sensor
Select 3 to calibrate the acceleration pedal sensor

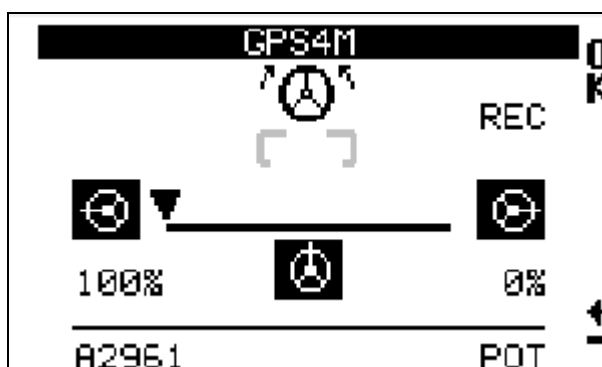


Calibration of the steering wheel sensor



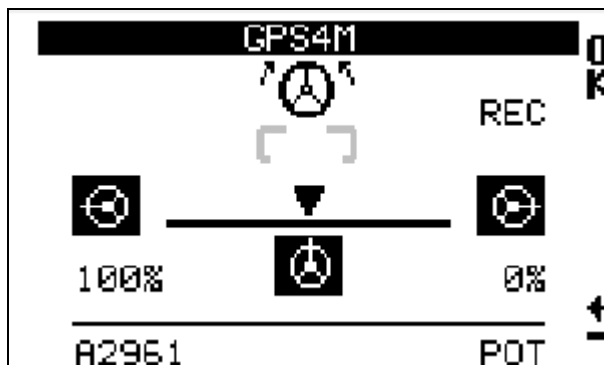
Press OK during 1 second to restart the calibration:

The sentence "1S-REC" will be replaced by "REC". At that moment, the system is ready to memorize the steering wheel's position on the left :



Turn the steering wheel at 100% to the left and confirm with OK.

Then, you can memories the steering wheel's central position by putting it in central position and pressing OK.



Then, you can memories the steering wheel's position to the right.

Turn it 100% to the right and confirm by pressing OK.



The memorization of the 3 positions is over.

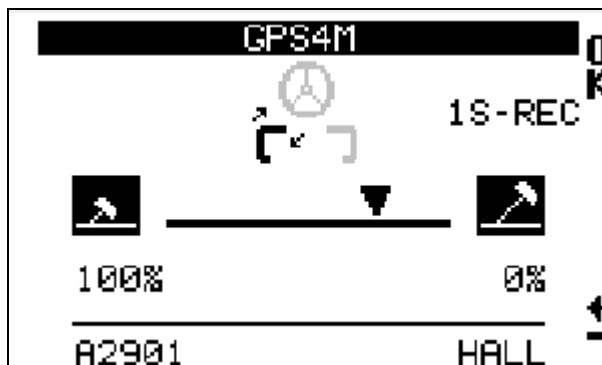
Check if the cursor moves with the movement of the steering wheel.

Calibration of the brake sensor

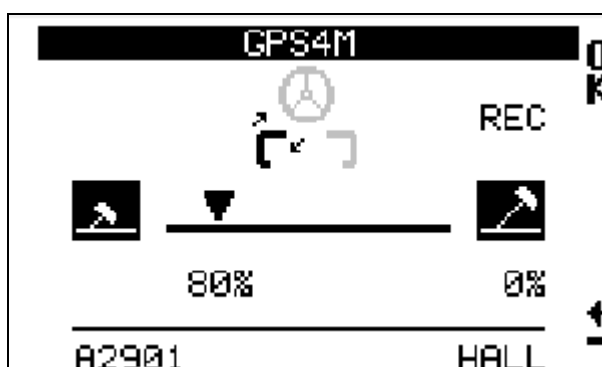
Select 2 to calibrate the brake's sensor.



Press OK during 1 second to start the calibration:

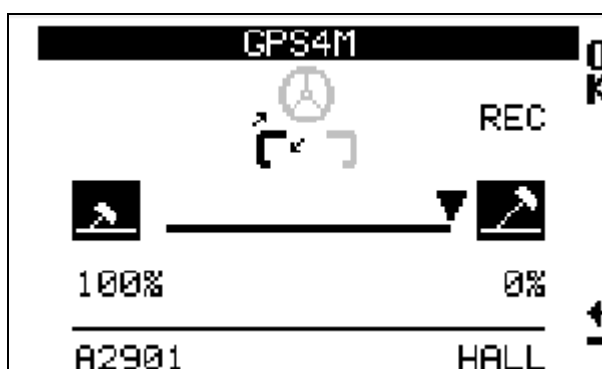


The sentence "1S-REC" will be replaced by "REC". At that moment, the system is ready to memories the pedal's position in its maximum position.



Important: only for the brake pedal : the memorization of the maximum position will be done at 80% instead of 100% to keep a reserve and make up for the wear of the brake pad.

Press the brake pedal at 100% and press on OK to confirm.



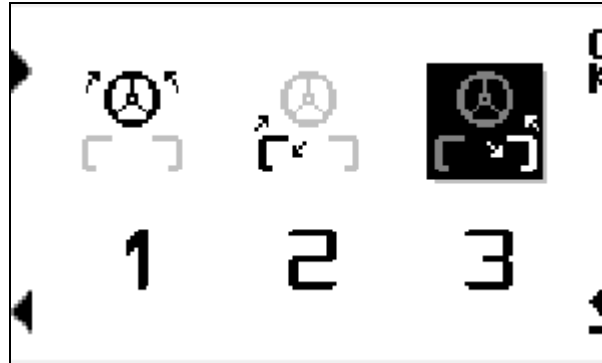
Then, you can memories the pedal's position at rest. Release the pedal of any pressure and press OK to confirm.

The memorization of the 2 brake pedals positions is over.

Check if the cursor moves with the pedal's movement.

Calibration of the acceleration sensor

Select 3 to calibrate the acceleration sensor



The procedure is the same as the one for the brake pedal.



Rue de l'Industrie, 3b – 1400 NIVELLES (BELGIUM)

www.alfano.com