

AiM User Guide

Kit for EVO4, Solo and SoloDL
on BMW S1000RR

Release 1.01





1

Models and years

This user guide explains how to install AiM Solo and SoloDL on BMW S1000RR and how to connect EVO4 and SoloDL to the Engine Control Unit (ECU) of the bike. Supported models and years are:

- BMW S1000RR all models and years

2

Kit content and part number

An installation kit with bracket and ECU interface cable is available for Solo/SoloDL while a connection cable is available for EVO4.

2.1 Kit for SoloDL and bracket for Solo

SoloDL installation kit is shown here below; part number is: **V0256923CS**.



The kit includes:

- 1 bracket (1)
- 1 8x45 pan head Allen screw (2)
- 1 toothed washer (3)
- 2 4x10 Allen screws with countersunk head (4)
- 1 rubber loose piece (5)
- 1 distance piece (6)
- 1 AiM interface cable for BMW S1000RR (7)

AiM cable (7) and bracket (1) can also be bought separately as spare parts.

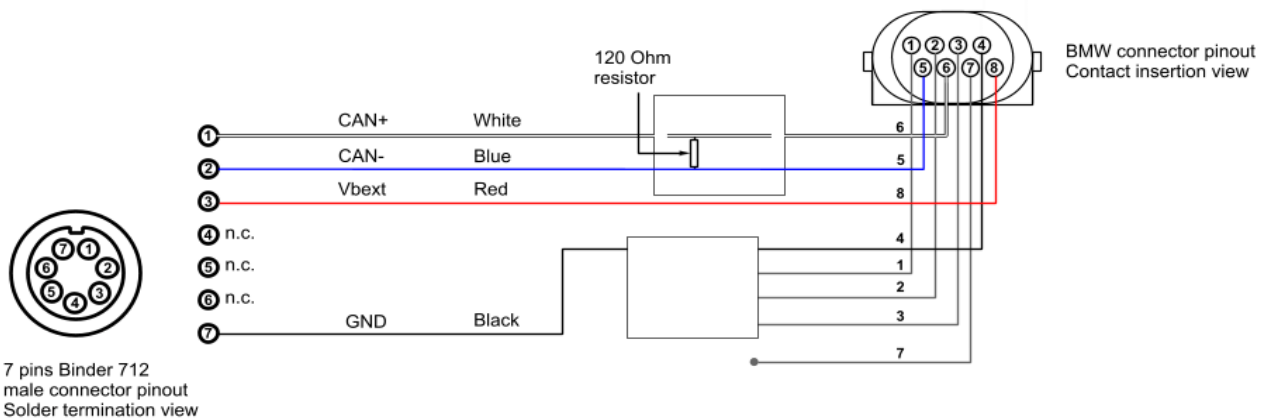
- SoloDL cable for BMW S1000RR: **V02569230**
- Solo/SoloDL bracket for BMW S1000RR: **X46KSBMWS1**

2.2 AiM cable for SoloDL

BMW S1000RR cable for SoloDL is shown below; its part number is: **V02569230**.



The image below shows the cable construction scheme.

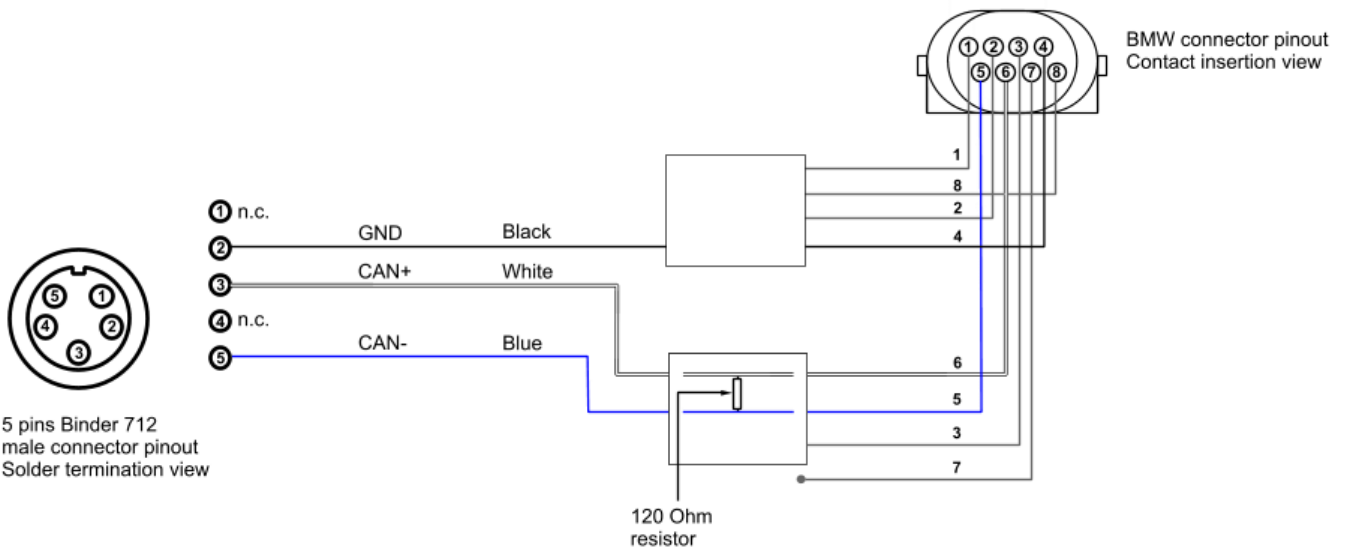


2.3 AiM cable for EVO4

BMW S1000RR cable for EVO4 is shown below; its part number is: **V02563200**.



The image below shows the cable construction scheme.



3

Installation and connection

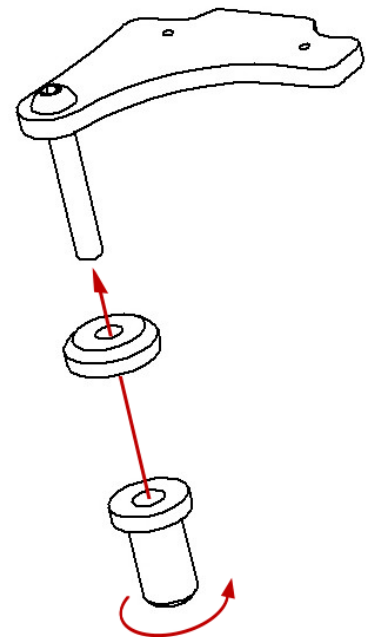
Here you find the instructions to install Solo and SoloDL and to connect EVO4 and SoloDL to your BMW S1000RR bike ECU. EVO4 cable is long enough to allow installation of the logger under the bike seat.

3.1

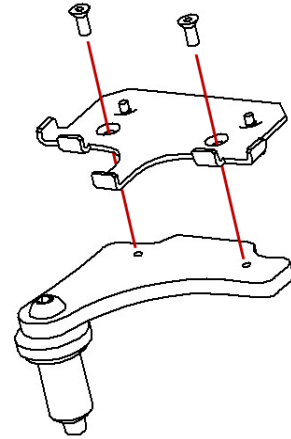
Installation of Solo and SoloDL

To install Solo/SoloDL on your BMW S1000RR:

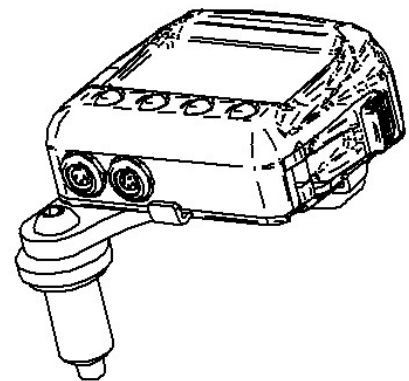
Screw the rubber loose piece on the bolt inserting the distance piece.



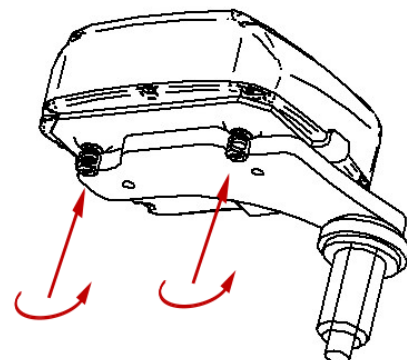
Fix Solo/SoloDL bracket to the adapter bracket for BMW S1000RR using the two countersunk screws.



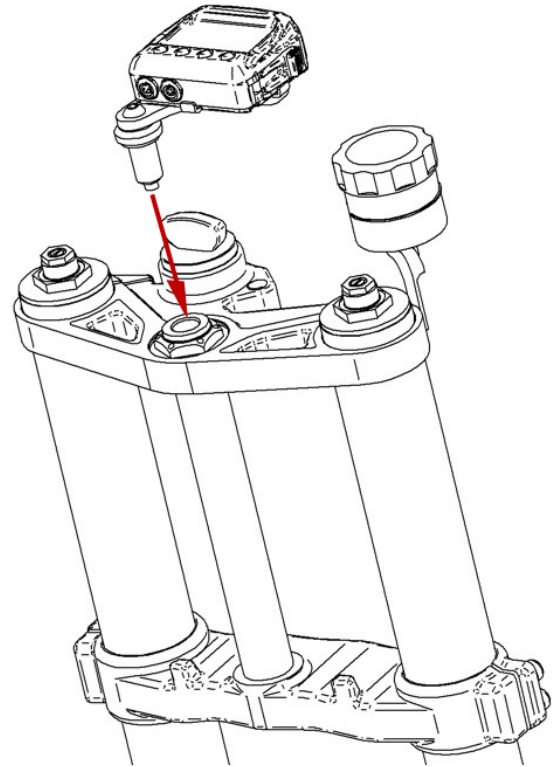
Hook Solo/SoloDL to its bracket.



Fix it using the screws already inserted rear on the same bracket.

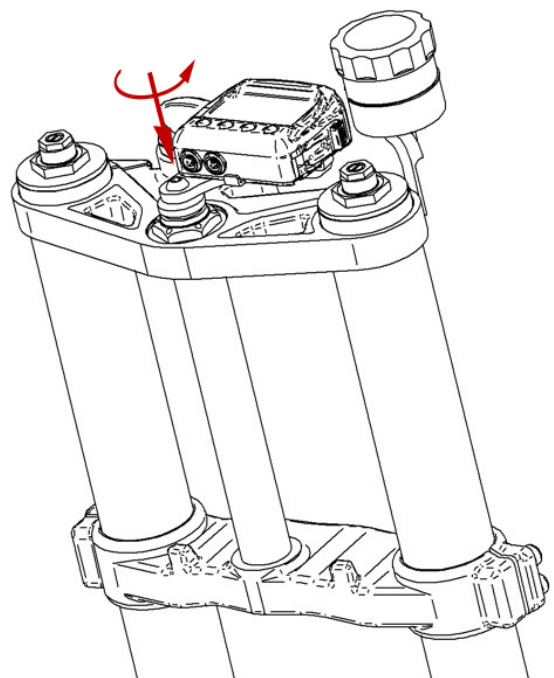


Insert the loose piece in the handle bar hinge until the distance piece abuts the hinge.



Tighten the central screw on the hinge so that this last grips.

If necessary unscrew and replace – slightly moving it – the brake liquid pan.



3.2

Connection of SoloDL and EVO4 to the bike ECU

To connect EVO4 and SoloDL to the ECU of the bike use the connector you find under the bike tail shown below.

Open the bike tail.

Please note: if your bike has an anti-theft alarm system unplug its connector, if not just remove the connector cup. In the image here on the right the connector has been unplugged.



The image on the right shows the connector in detail.

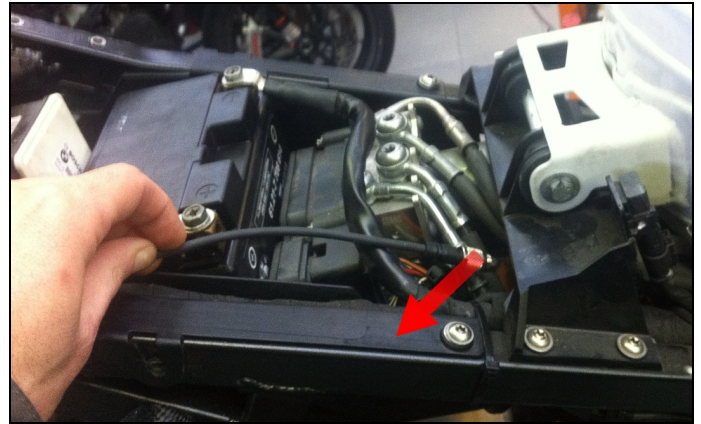


Connect AiM wiring to BMW wiring as highlighted on the right.



If you have installed an AiM **EVO4** logger take the cable to the logger.

If you have installed an AiM **SoloDL** logger make the cable pass along the saddle frame indicated in the image here on the right.



Assemble SoloDL cable to the bike original wiring making it pass between the fuel tank and the chassis as in the image here on the right.

Please avoid positions where the cable would be exposed to direct heat.



Connect the cable to SoloDL as here on the right.



4

Configuring with Race Studio 2

When EVO4/SoloDL has been connected it is necessary to set it up as connected to that ECU using Race Studio 2 software.

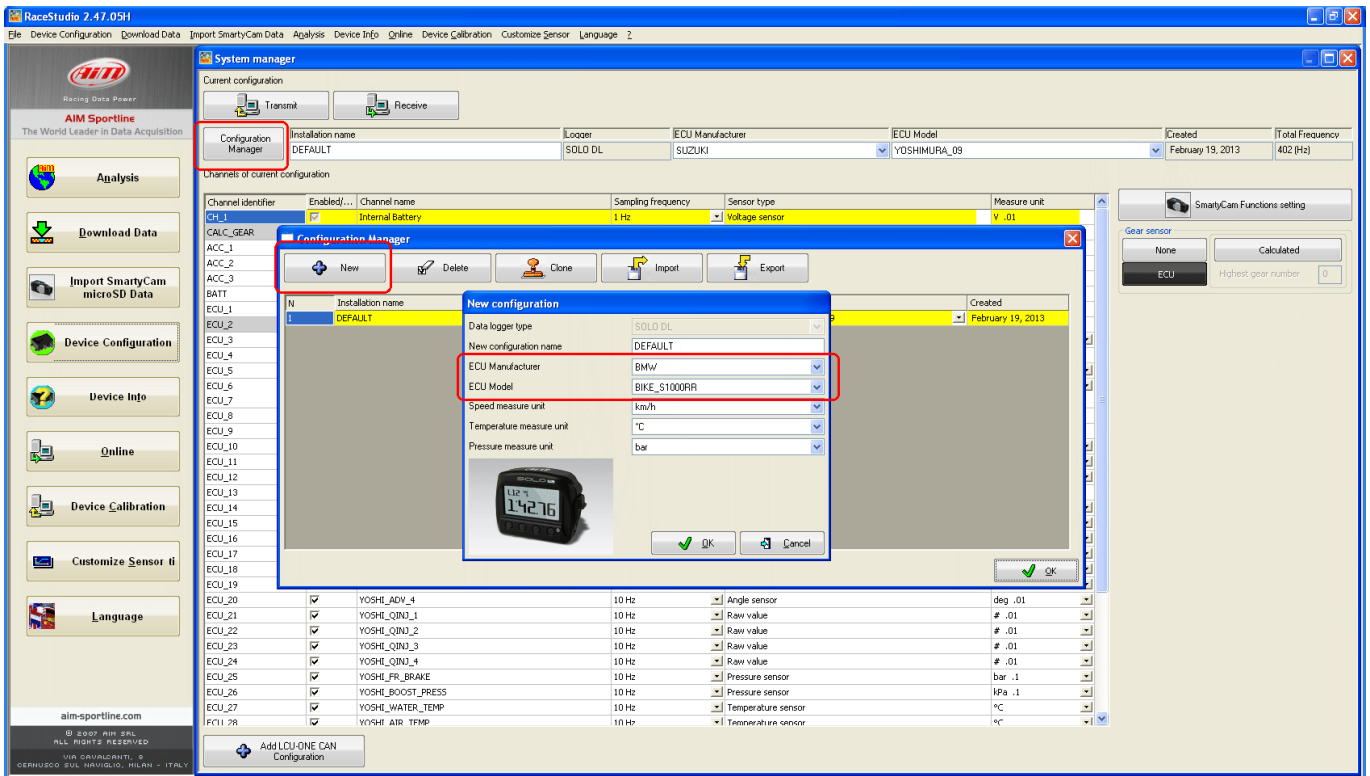
4.2

Configuring SoloDL

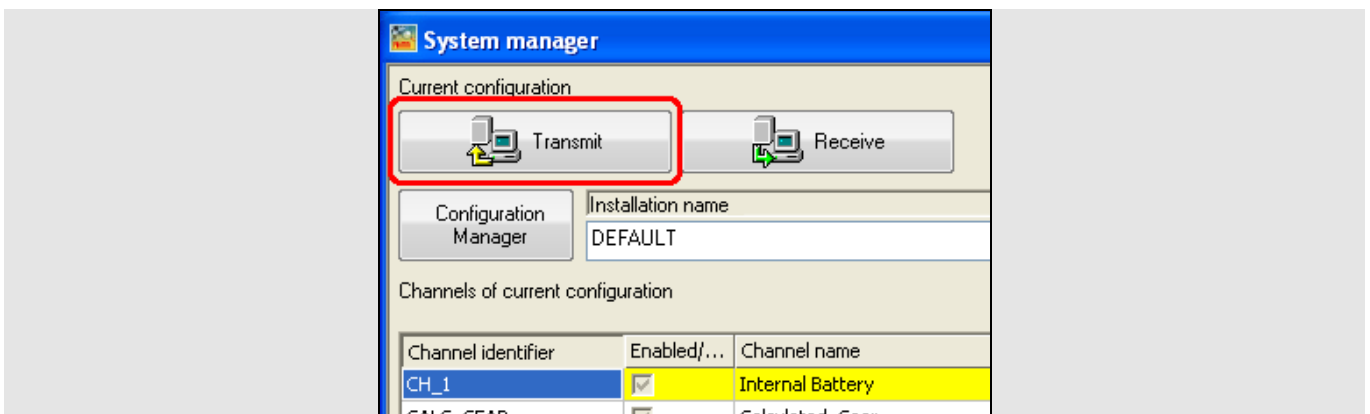
Run the software, press “Device Configuration” on the software left keyboard and select “SoloDL” in the panel that shows up as below.



The software shows SoloDL configuration page: press “Configuration Manager” and select the configuration you want to use or press “New” to create a new one. In this second case “New Configuration” panel appears: select ECU Manufacturer “BMW” and ECU model “BIKE_S1000RR” as shown below.



Confirm pressing “OK” in both panels and transmit the configuration to SoloDL pressing “Transmit” as shown below.

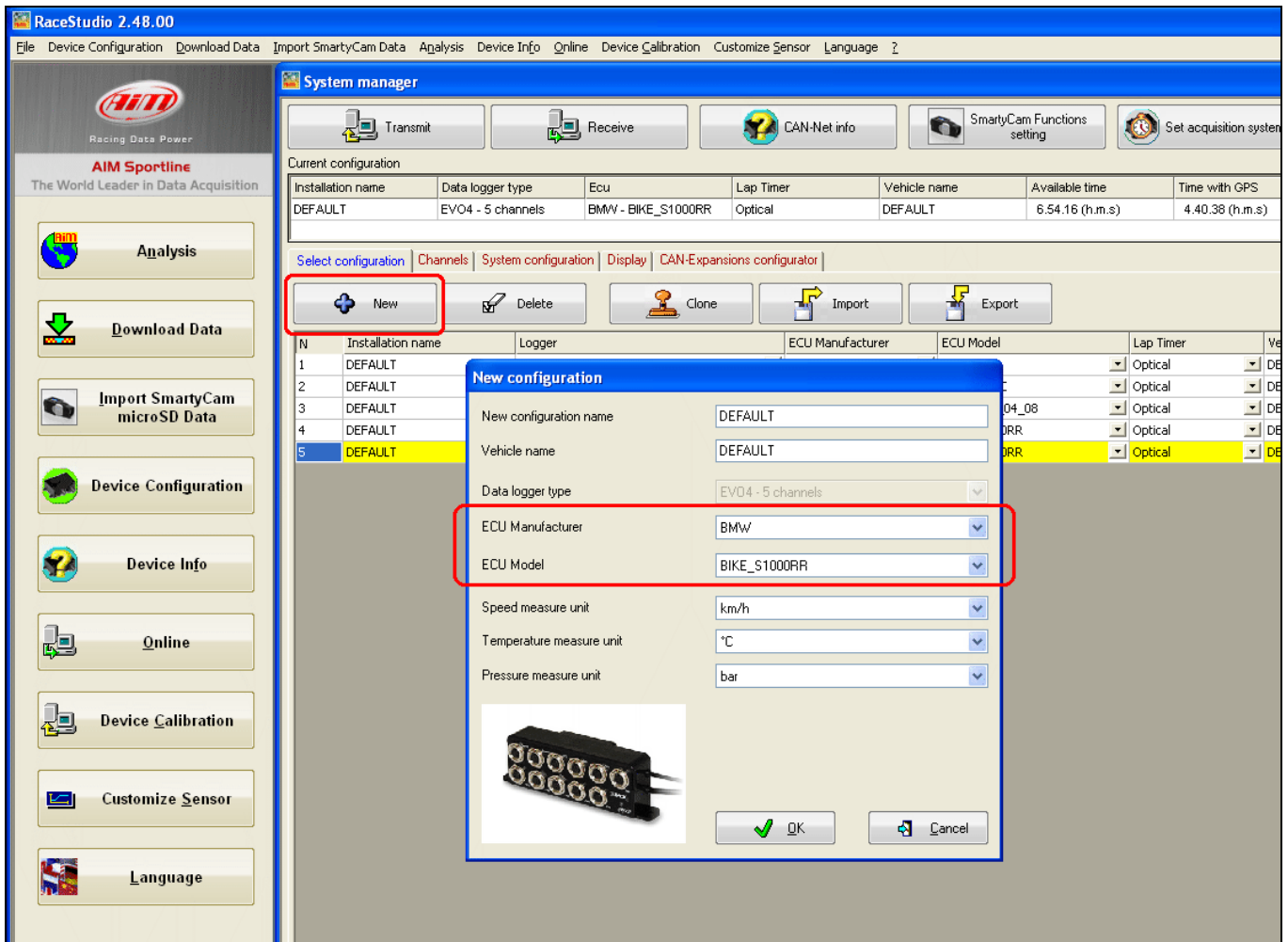


4.2 Configuring EVO4

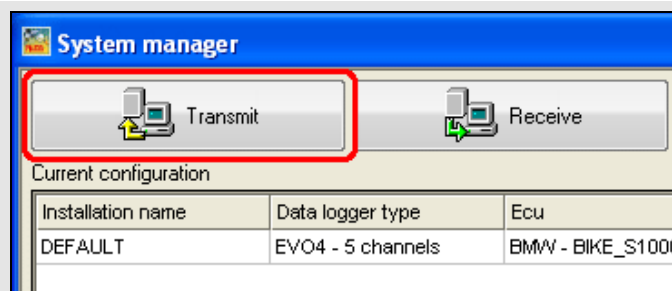
Run the software, press “Device configuration” on the software left keyboard and select “EVO4” in the panel that shows up on the right as here below.



The software shows EVO4 configuration page: select the configuration you want to use or press “New” to create a new one. In this second case “New configuration” panel shows up: select ECU Manufacturer “BMW” and ECU model “BIKE_S1000RR” as shown below.



Confirm pressing “OK” and transmit the configuration to EVO4 pressing “Transmit” as shown below.



5

BMW S1000RR protocol

Channels received by SoloDL and EVO4 with BMW "BIKE_S1000RR" protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	S1_RPM	RPM
ECU_2	S1_THROTTLE	Throttle position
ECU_3	S1_GEAR	Engaged gear
ECU_4	S1_NEUTRAL	Neutral sensor
ECU_5	S1_WATER_TEMP	Engine coolant temperature
ECU_6	S1_SEL_MAP	Selected map
ECU_7	S1_CHK_ENGINE	Engine check
ECU_8	S1_SPEED_F	Front wheel speed
ECU_9	S1_HAND_THRT	Manual throttle
ECU_10	S1_SPEED_R	Rear wheel speed
ECU_11	S1_INTK_AIR_T	Intake air temperature
ECU_12	S1_YAW_RATE	Yawing rate
ECU_13	S1_ROLL_RATE	Rolling rate
ECU_14	S1_ACC_LATER	Horizontal accelerometer
ECU_15	S1_ACC_VERTIC	Vertical acceleration
ECU_16	S1_TC_INTERV	Traction control intervention
ECU_17	S1_TC_OFF	Traction control in OFF state (alarm)
ECU_18	S1_CLUTCH_SW	Clutch switch
ECU_19	S1_SIDE_STAND	Side stand
ECU_20	S1_BRK_FR_SW	Front brake
ECU_21	S1_BRK_RR_SW	Rear brake
ECU_22	S1_ACC_LONGIT	Longitudinal acceleration
ECU_24	S1_OIL_PRESS_SW	Oil pressure switch
ECU_25	S1_EWS_CTRL	Immobilizer control
ECU_26	S1_BRK_FAIL	Brake malfunctioning (error)
ECU_27	S1_ABS_OFF	ABS in OFF state (alarm)
ECU_29	S1_MAP_MENU	Map selection menu