

AiM User Guide

Solo 2/Solo 2 DL, EVO4S and
ECULog kit for Aprilia RSV4,
RSV4 1100 and Tuono V4
2017-2020

Release 1.04





1

Models and years

This manual explains how to connect, EVO4S Solo 2 DL and ECULog to the bike engine control unit (ECU).

Compatible models and years are:

- | | |
|---------------------|-----------|
| • Aprilia RSV4 | 2017-2018 |
| • Aprilia RSV4 1100 | 2019-2020 |
| • Aprilia Tuono V4 | 2017-2020 |

Warning: for these models/years AiM recommends not to remove the stock dash. Doing so will disable some of the bike functions or safety controls. AiM Tech Srl will not be held responsible for any consequence that may result from the replacement of the original instrumentation cluster.

2

Kit content and part numbers

AiM developed a specific installation bracket for Solo2/Solo 2 DL that fits Aprilia RSV4 1100 and a CAN connection cable to the ECU for Solo 2 DL, EVO4S and ECULog that fits Aprilia RSV4, Aprilia RSV4 1100 and Aprilia Tuono V4 bikes.

2.1

Bracket for Solo 2/Solo 2 DL (Aprilia RSV4 1100 only)

Part number of Solo 2 / Solo 2 DL bracket kit for Aprilia RSV4 1100 only – shown below is:
X40KSARSV40.

The kit includes:

- 1 bracket (1)
- 1 Allen screw with rounded head M8x45mm (2)
- 2 Allen screws with flat head M4x10mm (3)
- 1 toothed washer (4)
- 1 rubber dowel (5)



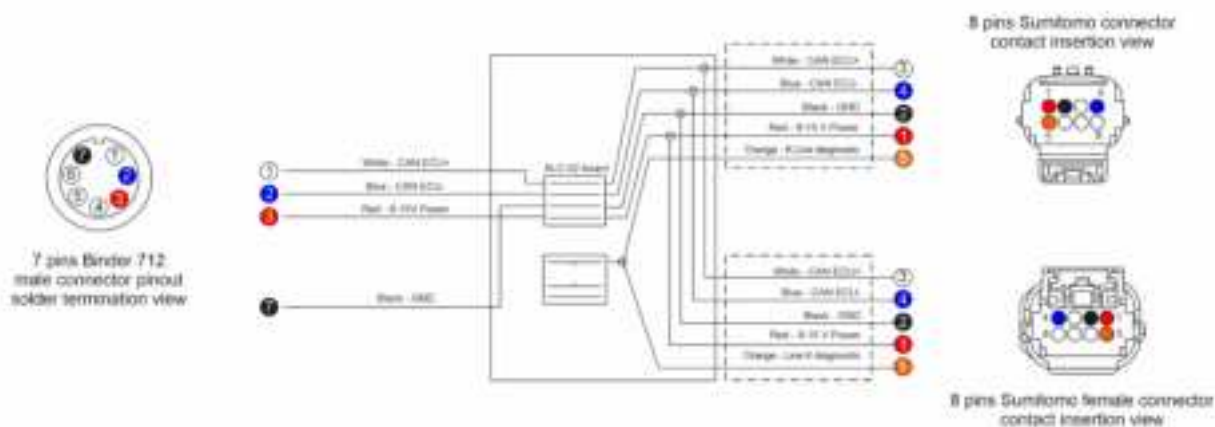
2.2

AiM CAN cable for Solo 2 DL, EVO4S and ECULog

CAN connection cable for Solo 2 DL, EVO4S and ECULog for Aprilia RSV4, Aprilia RSV4 1100 and Aprilia Tuono V4 is shown below. Its part number is: **V02589090**.



The image below shows the cable constructive scheme.



2.3

AiM kit for Solo 2 DL (CAN cable + Bracket)

Please note: connection cable for Solo 2 DL and installation bracket for Aprilia RSV4 1100 can also be bought together with part number: **V02589090CS**

3

Solo 2 DL, EVO4S and ECULog connection

Aprilia RSV4 communication protocol is CAN based; it can be reached through the dedicated 8 pins connector for V4-MP module connection, placed on the bike left side.



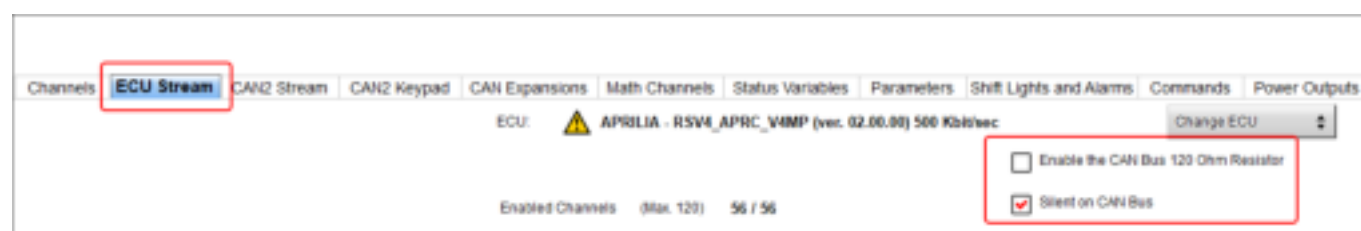
4

Configuration with RaceStudio 3

Before connecting the ECU to AiM device set this last one up using AiM RaceStudio 3 software. The parameters to select in the device configuration are:

- ECU Manufacturer: **Aprilia**
- ECU Model: **RSV4_APRC_V4MP** (RaceStudio 3 only)

After this first selection, uncheck the “120 Ohm resistor” box and check the “Silent mode on CAN Bus” under the “ECU Stream” tab:



5

"Aprilia – RSV4_APRC_V4MP" protocol

Channels received by AiM devices configured with "Aprilia – RSV4_APRC_V4MP" protocol are:

CHANNEL NAME	FUNCTION
RSV4 RPM	RPM
RSV4 GEAR	Engaged gear
RSV4 BK SPEED	Bike speed
RSV4 WH SPD F	Front wheel speed
RSV4 WH SPD R	Rear wheel speed
RSV4 ACC LONG	Longitudinal acceleration
RSV4 ACC LAT	Lateral acceleration
RSV4 ROLL RATE	Roll rate
RSV4 YAW RATE	Yaw rate
RSV4 ENG TEMP	Engine coolant temperature
RSV4 Brake press	Brake pressure
RSV4 Baro	Barometric pressure
RSV4 MAP2 Target	Manifold air pressure 2 target
RSV4 MAP1 Target	Manifold air pressure 1 target
RSV4 MAP2	Manifold air pressure 2
RSV4 MAP1	Manifold air pressure 1
RSV4 Advance	Ignition advance
V4MP Lean angle	Lean angle
RSV4 Pitch angle	Pitch angle
RSV4 Roll angle	Roll angle
RSV4 PFANGCOR 1	-



RSV4 PFANGCOR 2	-
V4MP Throttle	Throttle position
RSV4 THRT HAND	Hand throttle position
RSV4 TPS1	Throttle position sensor 1
RSV4 TPS2	Throttle position sensor 2
V4MP Torque end	Torque reduction
V4MP Inj Time	Injection time
RSV4 Odometer	Odometer
RSV4 V BATT	Battery voltage
RSV4 Pit speed	Pit limiter speed
RSV4 ATC	ATC – Aprilia traction control
RSV4 AWC	AWC – Aprilia wheel control
RSV4 ALC	ALC – Aprilia launch control
RSV4 AQS On	AQS on – Aprilia quick shift on
RSV4 Pit on	Pit limiter on
RSV4 Pit active	Pit limiter activated
V4MP ATC level	ATC level – Aprilia traction control level
V4MP Speed	Bike speed
V4MP ABS int	ABS intervention
V4MP Slip	Tyre slip
RSV4 Sistfas	-
RSV4 Cntlostsync	Lost syncs counter
Cruise selector	Cruise selector
RSV4 ALC INT	Aprilia launch control intervention
RSV4 SEL MAP	Map selector
RSV4 WARNING	Warning light
RSV4 Urg serv	Urgent service lamp



RSV4 MIL	Malfunctioning indicator lamp
RSV4 TC INT	Traction control intervention
RSV4 FUEL LOW	Low fuel level
Set confirm	Selection key confirmation
RSV4 Tipover	Tip over sensor
TC menu set butt	Traction Control setting key
RSV4 SIDE STAND	Side stand led
RSV4 ABS	ABS

Please note: throttle position may or may not come across in the CAN data stream due to an update by the manufacturer.

Technical note: not all data channels outlined in the ECU template are validated for each manufacturer model or variant; some of the outlined channels are model and year specific and therefore may not be applicable.