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Solo 2/Solo 2 DL Bike Engine Control

Aim Solo 2/Solo 2 DL Bike Engine Control Unit User Guide

Contents

Aim Solo 2/Solo 2 DL Bike Engine Control.

Specifications

- **Product:** AiM User Guide
- **Compatible Models:** Solo 2/Solo 2 DL, EVO4S, ECULog for Aprilia RSV4, RSV4 1100, Tuono V4 2017-2020
- **Release Version:** 1.04

Product Usage Instructions

Models and Years
This manual explains how to connect EVO4S, Solo 2 DL, and ECULog to the bike's engine control unit (ECU) for the models and years specified.

Kit Content and Part Numbers

- **Bracket for Solo 2/Solo 2 DL (Aprilia RSV4 1100 only)**
- **AiM CAN cable for Solo 2 DL, EVO4S, and ECULog** – Part number: V02589090
- **AiM kit for Solo 2 DL (CAN cable + Bracket)** – Part number: V02589090CS

Solo 2 DL, EVO4S, and ECULog Connection
To connect Solo 2 DL, EVO4S, and ECULog to Aprilia RSV4 models, use the dedicated 8-pin connector on the bike's left side.

Configuration with RaceStudio 3
Before connecting the ECU to the AiM device, configure it using RaceStudio 3 software with the specified parameters.

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

Release 1.04

Models and years

- 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.

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.

Bracket for Solo 2/Solo 2 DL (Aprilia RSV4 1100 only)
The part number of the Solo 2 / Solo 2 DL bracket kit for Aprilia RSV4 1100 only shown below:

X40KSARSV40.

The kit includes:

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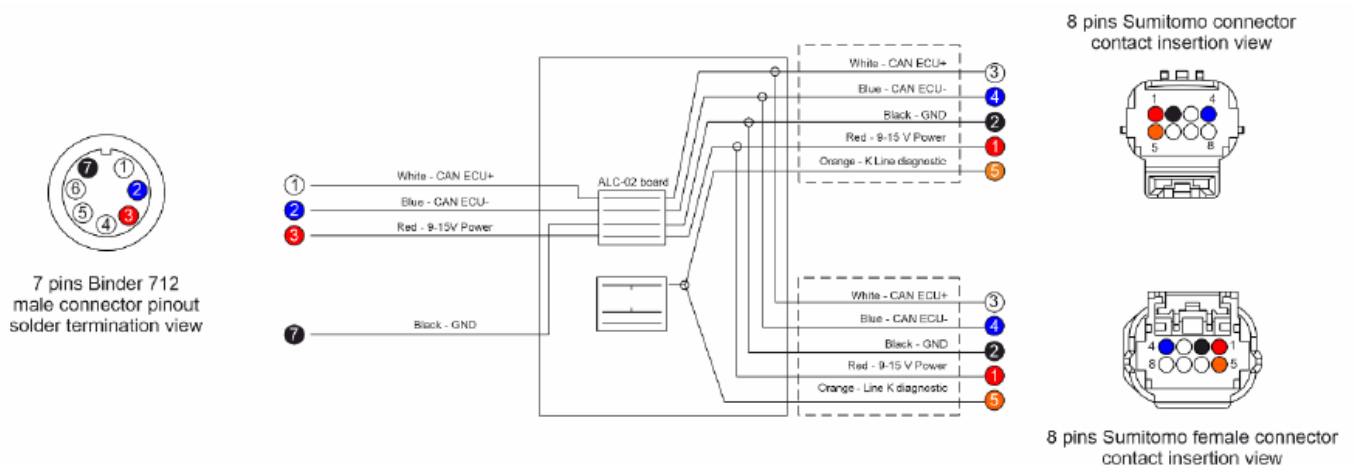- 1 toothed washer (4)
- 1 rubber dowel (5)

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's constructive scheme.

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

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.
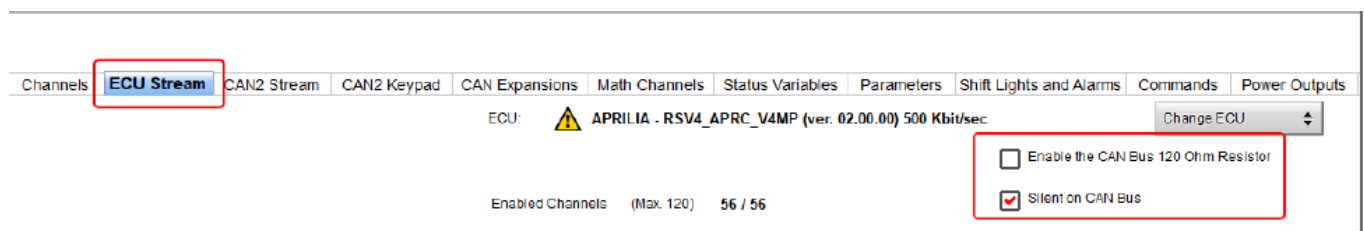
Configuration with RaceStudio 3

Before connecting the ECU to the 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:

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

CHANNEL NAME

- RSV4 RPM
- RSV4 GEAR
- RSV4 BK SPEED
- RSV4 WH SPD F
- RSV4 WH SPD R
- RSV4 ACC LONG
- RSV4 ACC LAT
- RSV4 ROLL RATE
- RSV4 YAW RATE
- RSV4 ENG TEMP
- RSV4 Brake press
- RSV4 Baro

- RSV4 MAP2 Target
- RSV4 MAP1 Target
- RSV4 MAP2
- RSV4 MAP1
- RSV4 Advance
- V4MP Lean angle
- RSV4 Pitch angle
- RSV4 Roll angle
- RSV4 PFANGCOR 1

FUNCTION

- RPM
- Engaged gear
- Bike speed
- Front wheel speed
- Rear wheel speed
- Longitudinal acceleration
- Lateral acceleration
- Roll rate
- Yaw rate
- Engine coolant temperature
- Brake pressure
- Barometric pressure
- Manifold air pressure 2 target
- Manifold air pressure 1 target
- Manifold air pressure 2
- Manifold air pressure 1
- Ignition advance
- Lean angle
- Pitch angle
- Roll angle

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 TorqueEndd

- 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
- The 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.	

Frequently Asked Questions

- **Q: Can I remove the stock dash from my bike?**

  A: AiM recommends not removing the stock dash for certain models/years as it may disable bike functions or safety controls. AiM Tech Srl will not be responsible for any consequences resulting from replacing the original instrumentation cluster.

- **Q: What communication protocol does the Aprilia RSV4 use?**

  A: The Aprilia RSV4 communication protocol is CAN-based and can be accessed through the dedicated 8-pin connector for V4-MP module connection on the bike's left side.

Documents / Resources

[Aim Solo 2/Solo 2 DL Bike Engine Control Unit](#) [pdf] User Guide
Solo 2, Solo 2 DL, EVO4S, ECULog, Solo 2Solo 2 DL Bike Engine Control Unit, Solo 2Solo 2 DL, Bike Engine Control Unit, Engine Control Unit, Control Unit, Unit

References

- **[User Manual](#)**