AiM User Guide

Kit EVO4S, SOLO 2/SOLO 2 DL for Yamaha YZF-R1/R1M from 2015 and YZF-R6 from 2017

Release 1.00

KIT

1
Models and years

This manual explains how to connect EVO4S and SOLO 2 DL to the bike engine control unit (ECU) and how to install AiM SOLO 2/SOLO 2 DL on the bike steering plate.

Compatible models are:
* Yamaha YZF-R1   from 2015
* Yamaha YZF-R1M   from 2015
* Yamaha YZF-R6   from 2017

Warning: for this 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 number

AiM developed a specific installation bracket for SOLO 2/SOLO 2 DL and a connection cable to the ECU for EVO4S/SOLO 2 DL.

2.1
Bracket for SOLO 2/SOLO 2 DL

Part number for **SOLO 2/SOLO 2 DL** installation bracket for **Yamaha YZF R1/R6** – shown below – is: **X46KSYR115**.

Installation kit contains:
1 bracket (**1**)
1 rubber dowel (**2**)
1 allen screw with flat head M6 (**3**)
1 rubber washer (**4**)
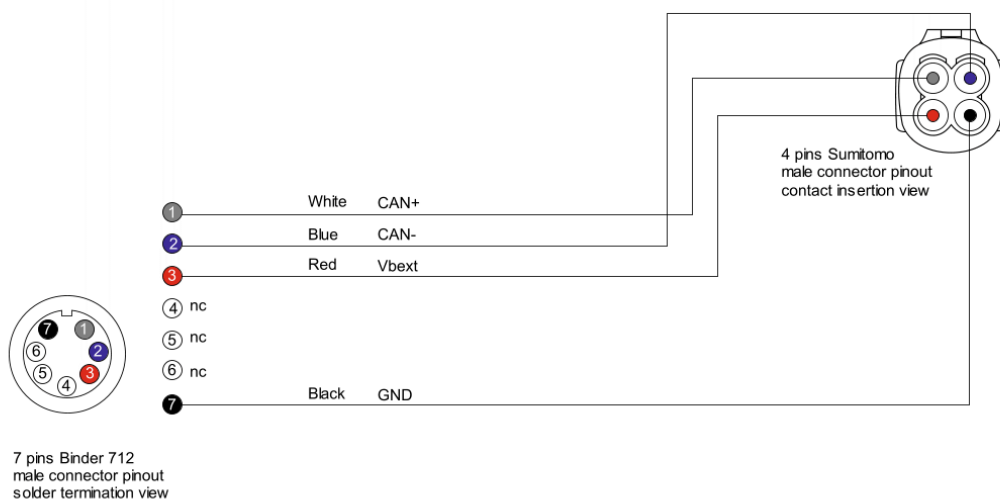2 allen screws with flat head M4x10 (**5**)

2.2
AiM cable for SOLO 2 DL

Part number for **SOLO 2 DL** connection cable for **Yamaha YZF R1/R6** – shown below – is: **V02569340.**

Following image shows the cable constructive scheme.

White   CAN+
Blue   CAN-
Red   Vbext
nc
nc
nc
Black   GND

4 pins Sumitomo
male connector pinout
contact insertion view

7 pins Binder 712
male connector pinout
solder termination view

Installation bracket and connection cable for SOLO 2 DL for Yamaha YZF R1/R6 can be bought together. Part number: **V0256934CS.**
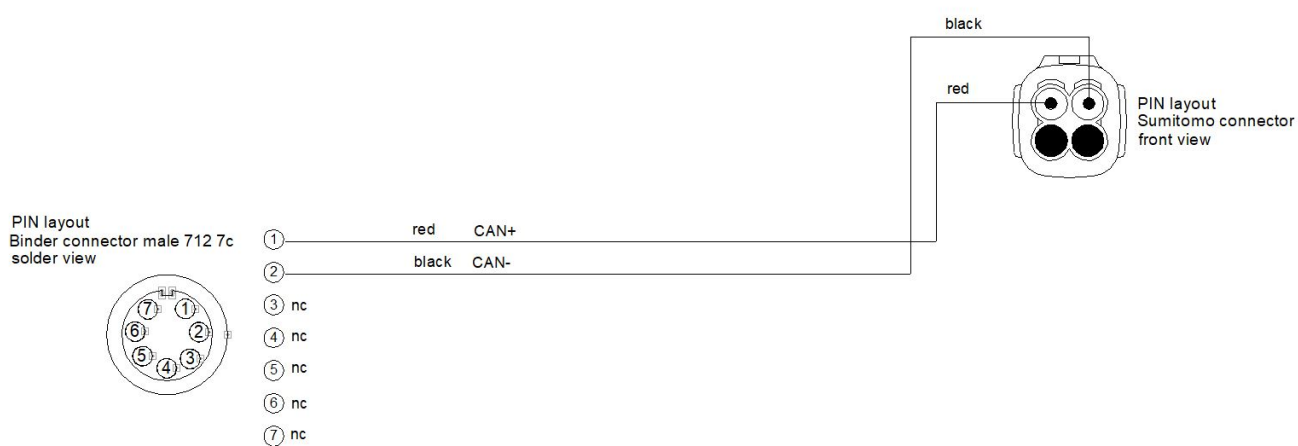
2.3
AiM cable for EVO4S

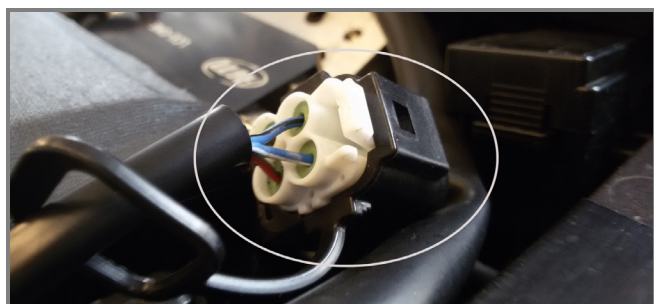Part number for **EVO4S** connection cable for **Yamaha YZF R1/R6** – shown below – is: **V02585150.**

Following image shows the cable constructive scheme.

3
EVO4S/SOLO 2 DL connection

Yamaha bikes communicate using the CAN protocol that can be reached through the Sumitomo connector placed under the bike seat and shown below.

Below each connector lead colour and function is expressed.

Cable colour	Cable function
Blue/White	CAN High
Blue/Black	CAN Low
Red	+Vb (unswitched)
Black	GND

4
Configuring with Race Studio 3

Before connecting EVO4S/SOLO 2 DL to the bike ECU, set all functions using the AiM software Race Studio 3. The parameters to set in the AiM device configuration section are ("ECU Stream" tab):

- ECU Manufacturer: "Yamaha"
- ECU Model: "CAN_2015"

5
"Yamaha – CAN_2015" protocol

Channels received by Solo 2 DL and EVO4S connected to "Yamaha – CAN_2015" are:

CHANNEL NAME	FUNCTION
ECU W SPD F	Wheel Speed Front
ECU W SPD R	Wheel Speed Rear
ECU RPM	RPM
TCS MODE	Traction Control Mode
ECU GEAR	Gear
ECU GEAR RAW	Gear raw value
ECU POW MODE	Power mode
ECU THROTTLE	Throttle position sensor
ECU TPS HAND	Throttle Handgrip
ECU LIFT SET	Lift Control Set
ECU LAUNCH SET	Launch Control Set
ECU SCS SET	Slide Control System Set
ECU QSS SET	Quick Shift Set
ECU R ABS IN	Rear ABS intervention
ECU F ABS IN	Front ABS intervention
ECU LAUNCH IN	Launch control intervention
ECU LIFT IN	Lift control intervention
ECU SCS IN	Slide control system intervention
ECU TCS IN	Traction control system intervention
ECU MAP SEL	Map selection
ECU ECT	Engine Coolant Temperature
ECU AAT	Ambient Air Temperature
ECU ACCX	Accelerometer X
ECU ACCY	Accelerometer Y

ECU GYRO	Gyroscopes
ECU BRK F REQ	Brake Pressure Front Request
ECU BRK R REQ	Brake Pressure Rear Request
ECU BRKP F	Brake Pressure Front Actuated
ECU BRKP R	Brake Pressure Rear Actuated

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.