AiM User Guide

Kit for EVO4, Solo and SoloDL on Yamaha R1-R6 2004-2013

Release 1.04

KIT

1
Models and years

This manual explains how to install AiM Solo and SoloDL on Yamaha R1-R6 2004-2013 and how to connect EVO4 and SoloDL to the Engine Control Unit (ECU) of the bike. Supported models and years are:

- Yamaha R1   1000cc   2004-2013
- Yamaha R6   600cc   2004-2013

Warning: for this models/years AiM recommends not to remove the stock dash.Doing so will disalble 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

Different kits for Solo, Solo DL and EVO4 on Yamaha R1-R6 2004-2013 are available according to the bike model and production year. All kits include the same installing bracket while the ECU connection cable changes according to the bike production year.

2.1
Kit for SoloDL and bracket for Solo

Available SoloDL kits are shown here below with the related part numbers.

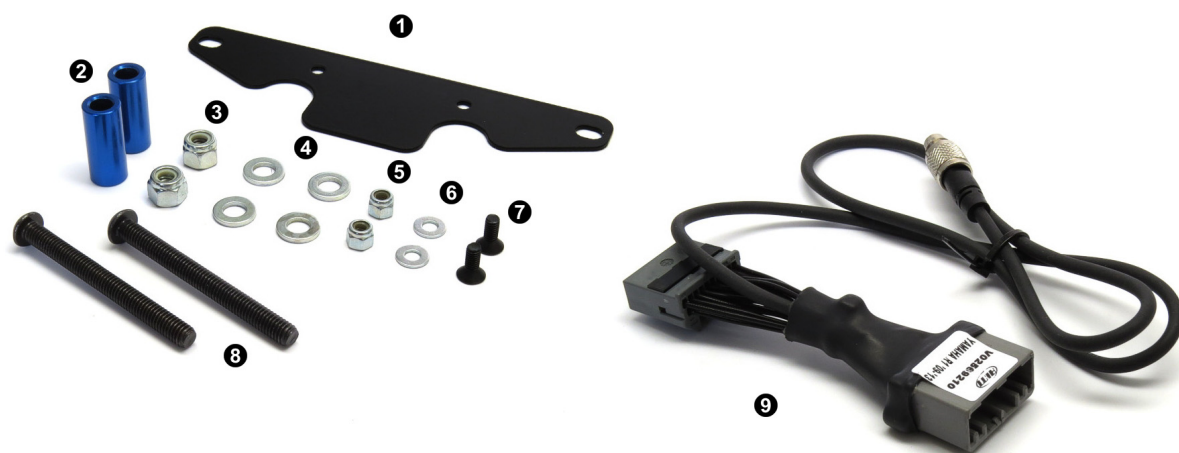Kit SoloDL for Yamaha **R1 2004-2008** and **R6 2006-2013** – part number: **V0256919CS**

The kit includes:
- 1 bracket (**1**)
- 2 distance pieces (**2**)
- 2 M6 self-locking nut (**3**)
- 4 M6 washers (**4**)
- 2 M4 self locking nuts (**5**)
- 2 M4 washers (**6**)
- 2 4x10 Allen screws with countersunk head (**7**)
- 2 6x60 pan head Allen screws (**8**)
- 1 AiM interface cable for Yamaha R1 2004-2008 and R6 2006-2013 (**9**)

AiM cable (**9**) and bracket (**1**) can also be bought separately as spare parts.
- **SoloDL cable** for Yamaha R1 2004-2008 R6 2006-2013: **V02569190**
- **Solo/SoloDL bracket** for Yamaha R1 2004-2008: **X46KSYR16**

SoloDL kit for Yamaha **R1 2009-2013** – part number: **V0256921CS**

The kit includes:
- 1 bracket (**1**)
- 2 distance pieces (**2**)
- 2 M6 self-locking nut (**3**)
- 4 M6 washers (**4**)
- 2 M4 self locking nuts (**5**)
- 2 M4 washers (**6**)
- 2 4x10 Allen screws with countersunk head (**7**)
- 2 6x60 pan head Allen screws (**8**)
- 1 AiM interface cable for Yamaha R1 2009-2013 (**9**)

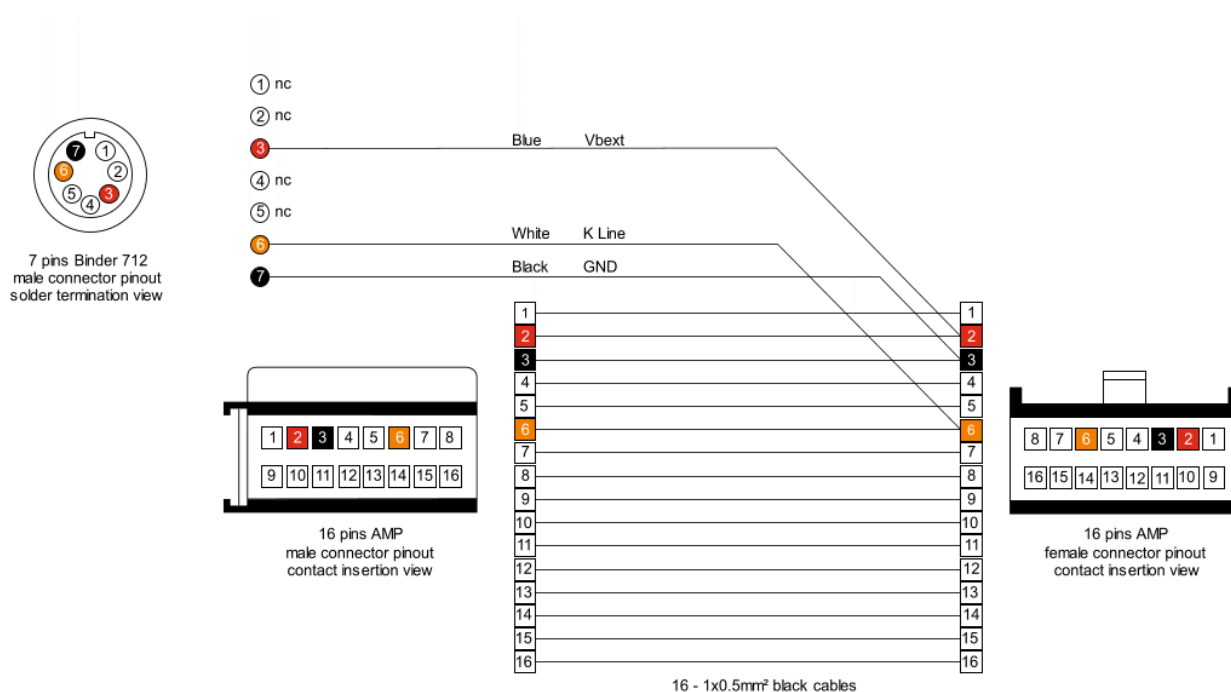AiM cable (**9**) and bracket (**1**) can also be bought separately as spare parts.
- **SoloDL cable** for Yamaha R1 2009-2013: **V02569210**
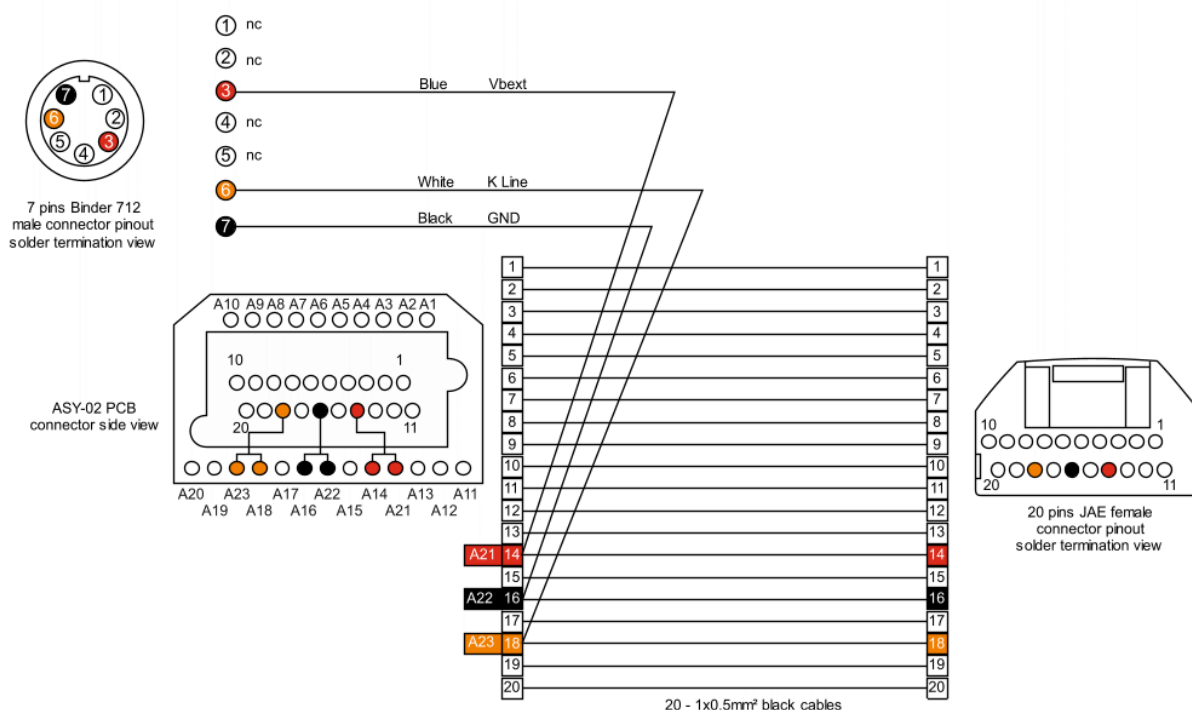- **Solo/SoloDL bracket** for Yamaha R1 2009-2013: **X46KSYR16**

SoloDL kit for Yamaha **R6 2004-2005** – part number: **V0256920CS**

The kit includes:
- 1 bracket (**1**)
- 2 distance pieces (**2**)
- 2 M6 self-locking nut (**3**)
- 4 M6 washers (**4**)
- 2 M4 self locking nuts (**5**)
- 2 M4 washers (**6**)
- 2 4x10 Allen screws with countersunk head (**7**)
- 2 6x60 pan head Allen screws (**8**)
- 1 AiM interface cable for Yamaha R6 2004-2005 (**9**)

AiM cable (**9**) and bracket (**1**) can also be bought separately as spare parts.
- **SoloDL cable** for Yamaha R6 2004-2005: **V02569200**
- **Solo/SoloDL bracket** for Yamaha R6 2004-2005: **X46KSYR16**

2.2
Cables for SoloDL

Different cables for SoloDL on Yamaha R1-R6 2004-2013 are available also as spare parts according to the bike model and production year.
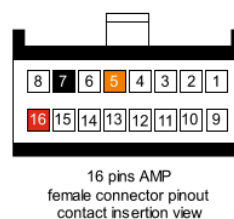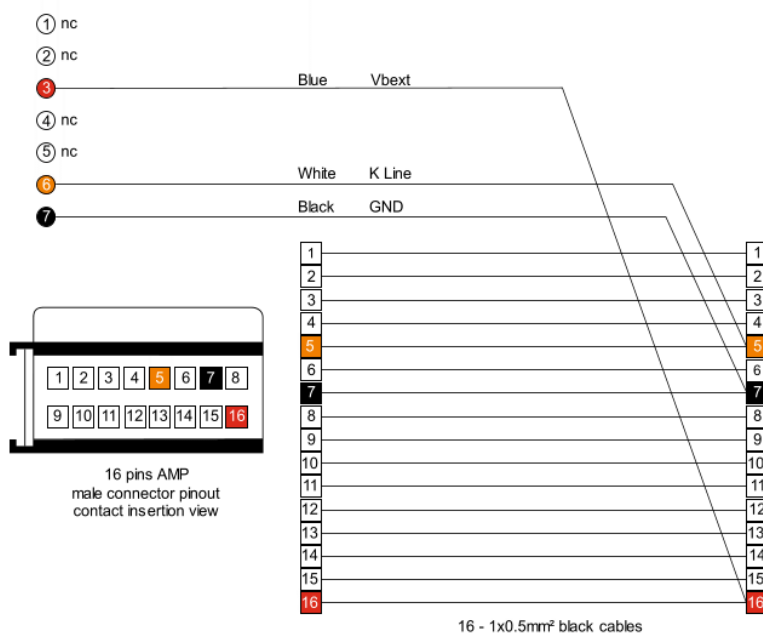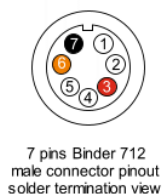
SoloDL cable for Yamaha R1 2004-2008 and R6 2006-2013 part number is: **V02569190**. Here below on it is shown on top while on bottom you see the construction scheme.

SoloDL cable for Yamaha R1 2009-2013 part number is: **V02569210**. Here below on it is shown on top while on bottom you see the construction scheme.

SoloDL cable for Yamaha R6 2004-2005 part number is: **V02569200**. Here below on it is shown on top while on bottom you see the construction scheme.
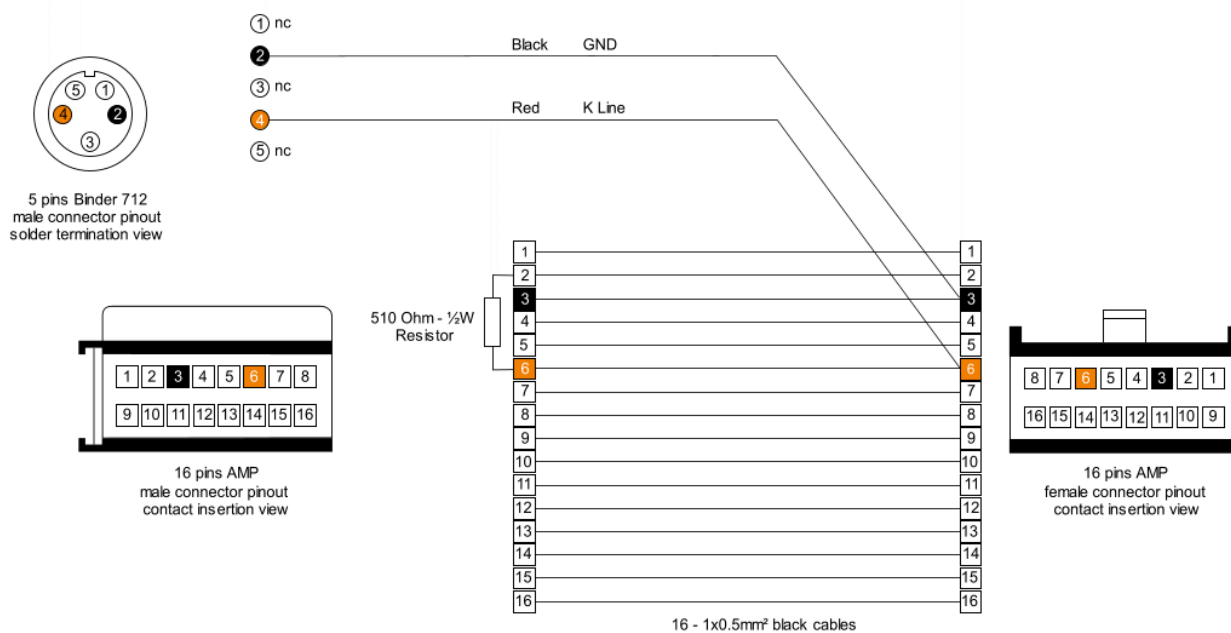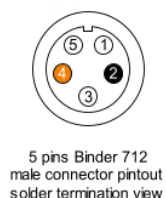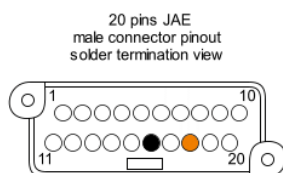

① nc
② nc
❸   Blue   Vbext
④ nc
⑤ nc
❻   White   K Line
❼   Black   GND

7 pins Binder 712
male connector pinout
solder termination view

16 pins AMP
male connector pinout
contact insertion view

16 pins AMP
female connector pinout
contact insertion view

16 - 1x0.5mm² black cables

2.3
Cables for EVO4

Different cables for EVO4 on Yamaha R1-R6 2004-2013 are available according to the bike model and production year.

EVO4 cable for Yamaha R1 2004-2008 and R6 2006-2013 part number is: **V02563170**. Here below on it is shown on top while on bottom you see the construction scheme.
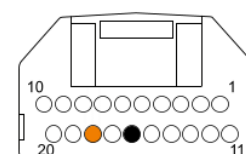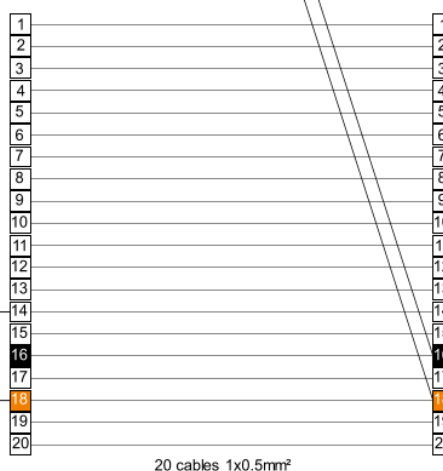
EVO4 cable for Yamaha R1 2009-2013 part number is: **V02563190**. Here below on it is shown on top while on bottom you see the construction scheme.
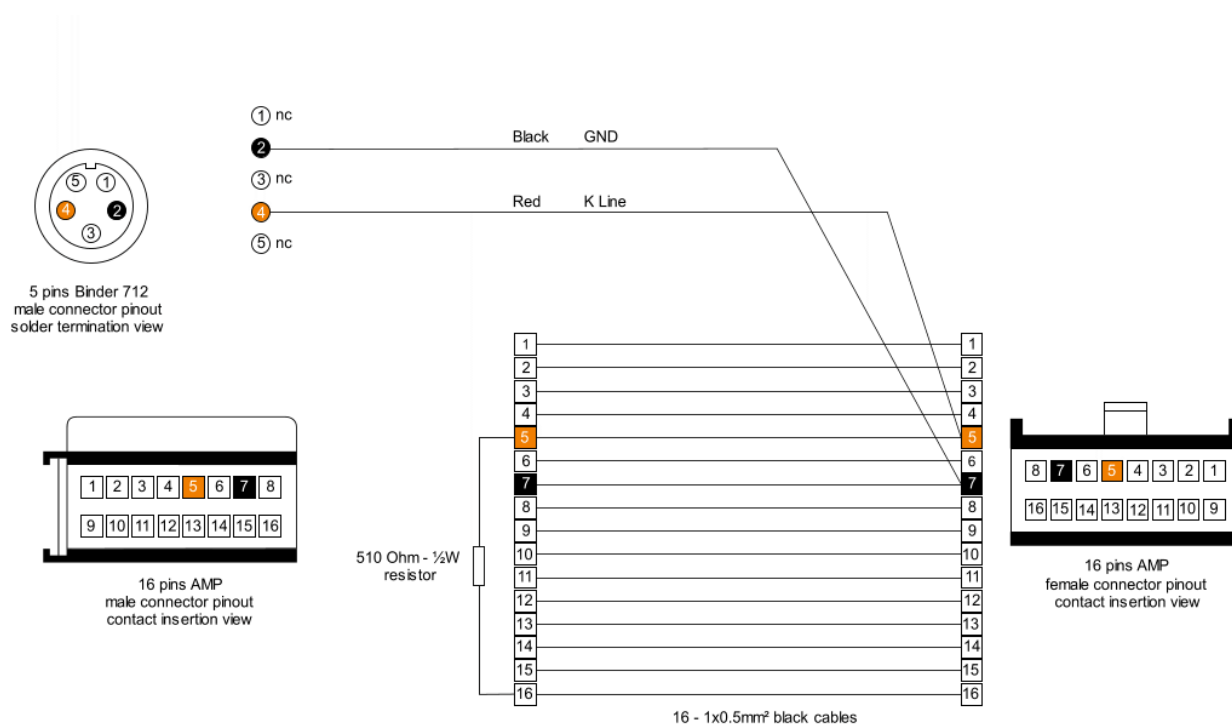
EVO4 cable for Yamaha R6 2004-2005 part number is: **V02563180**. Here below on it is shown on top while on bottom you see the construction scheme.

① nc

❷   Black   GND

③ nc

④   Red   K Line

⑤ nc

5 pins Binder 712
male connector pinout
solder termination view

16 pins AMP
male connector pinout
contact insertion view

510 Ohm - ½W
resistor

16 pins AMP
female connector pinout
contact insertion view

16 - 1x0.5mm² black cables
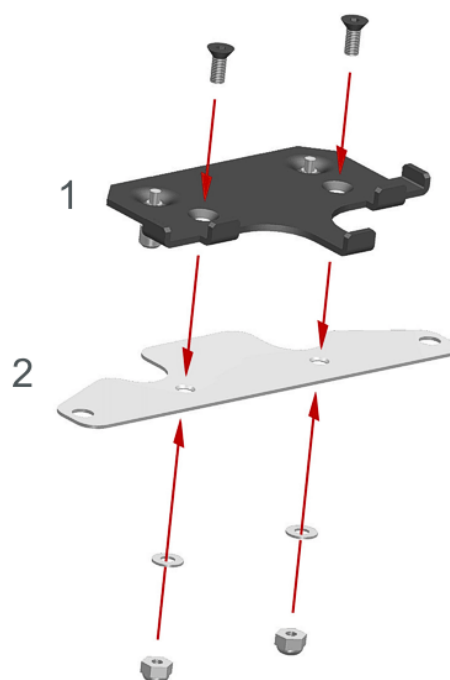
3
Installation and connection

Here you find instructions to install Solo and SoloDL and to connect EVO4 and SoloDL to the ECU of your Yamaha R1-R6 2004-2013. All EVO4 cables for Yamaha are long enough to allow installation of the logger under the bike seat.
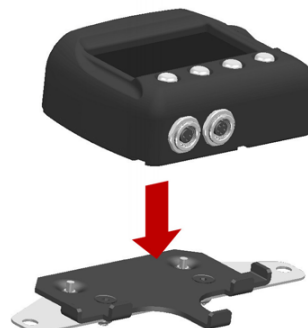
3.1
Installation of Solo and SoloDL

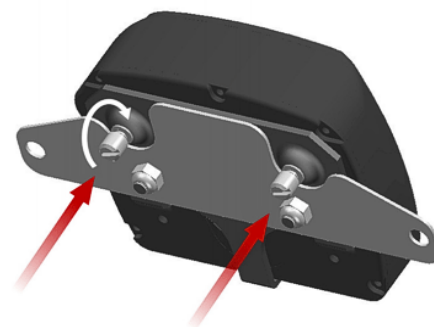To install Solo/SoloDL on your Yamaha R1-R6 2004-2013:

Fix Solo/SoloDL bracket (**1**) to Yamaha R1-R6 2004-2013 adapter bracket (**2**) using the screws included in the kit.
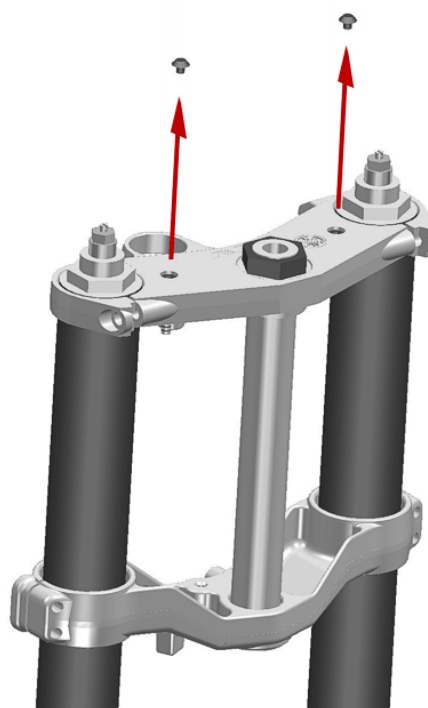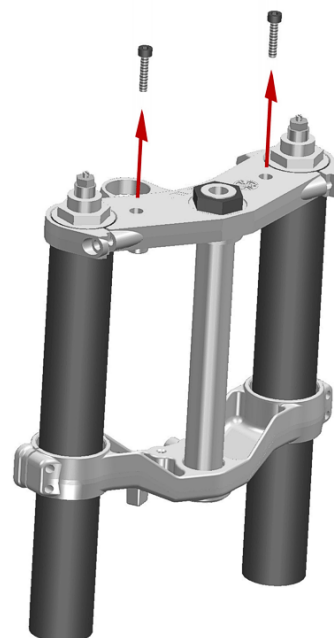
Hook Solo/SoloDL to its bracket.

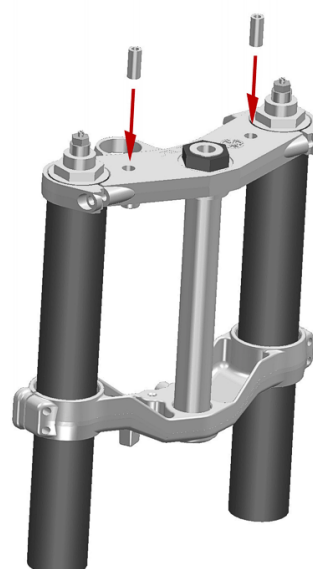Fix it using the screws already inserted rear on Solo/SoloDL bracket.

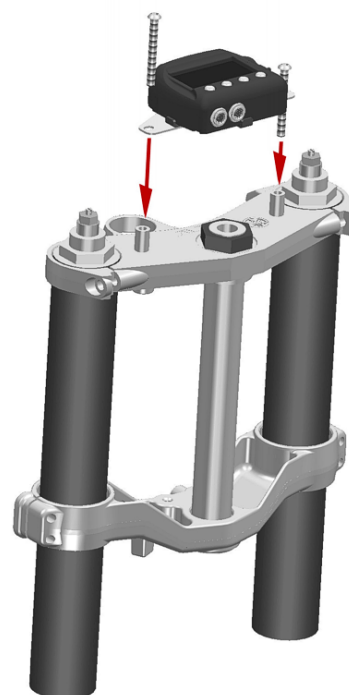Remove the screw caps from the bike handlebars.

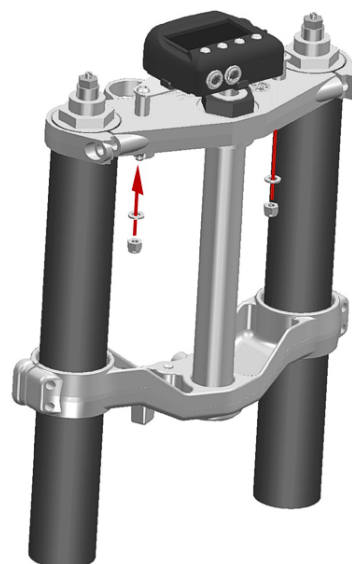Remove the original screws that fix the handlebars to the bike top plate.

Insert in the screws housings the cylindrical distance pieces you find in the kit.

Place the adapter bracket holes in line with the
distance pieces you inserted in the handlebars –
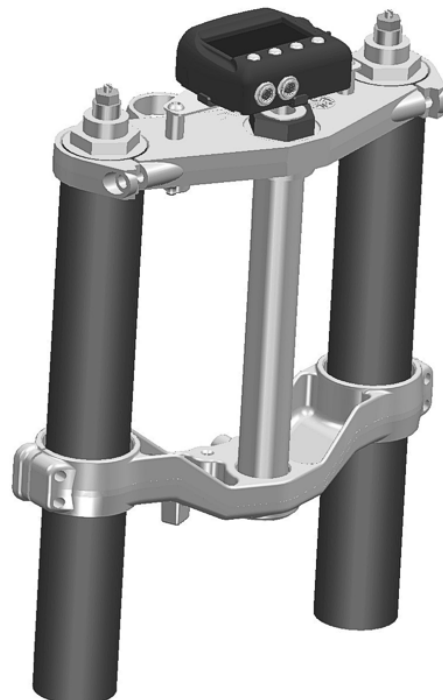if original – and insert and tighten the screws.

If your handlebars are not original lock the bolt
with the nuts you find in the kit.

The image here on the right shows SoloDL correctly installed.

3.2
Connection of SoloDL and EVO4 to the bike ECU

To connect EVO4 and SoloDL to your bike ECU use the connector you find rear of the bike stock dash.
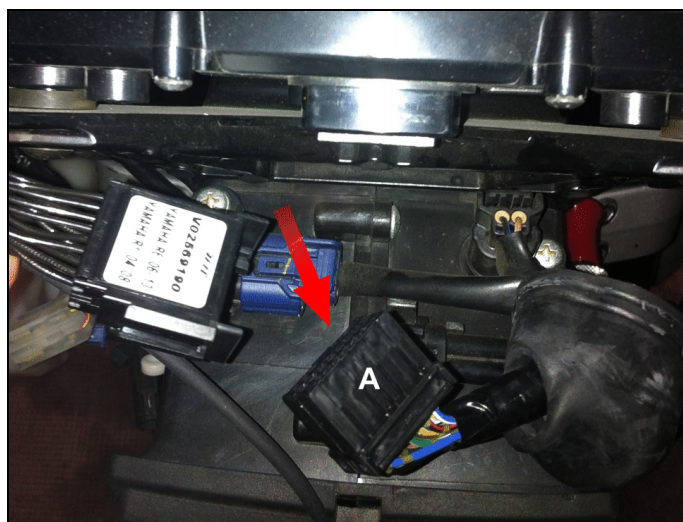
Remove the windscreen chassis to uncover the stock dash rear connector highlighted here on the right.

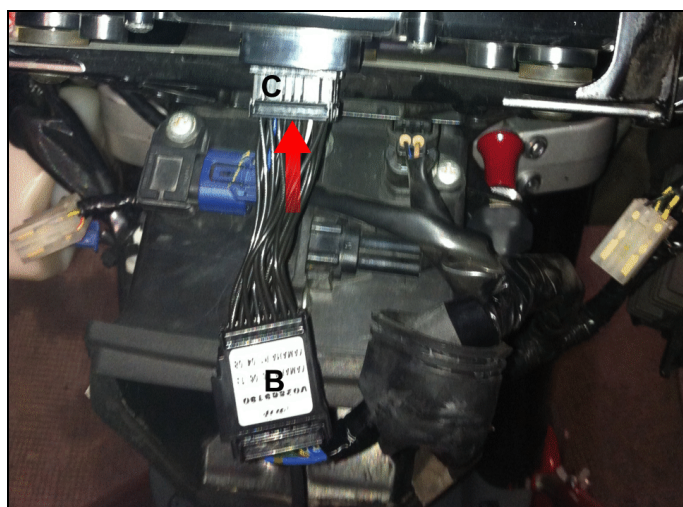Remove the rubber cover from the connector as in the image.

Unplug the connector (**A**).

Plug the stock wiring connector to the first AiM wiring connector (**B**).

Plug the second AiM wiring connector (**C**) to the stock dash rear connector.

Pull the connector (**C**) shown in the previous image until you hear a click. The image on the right shows the connector correctly plugged in.

If you installed **EVO4**, take AiM cable – highlighted in the image – to it.
If you installed a **SoloDL** make AiM cable pass around the bike stock dash.

The cable will come up over the original dash as indicated here on the right.

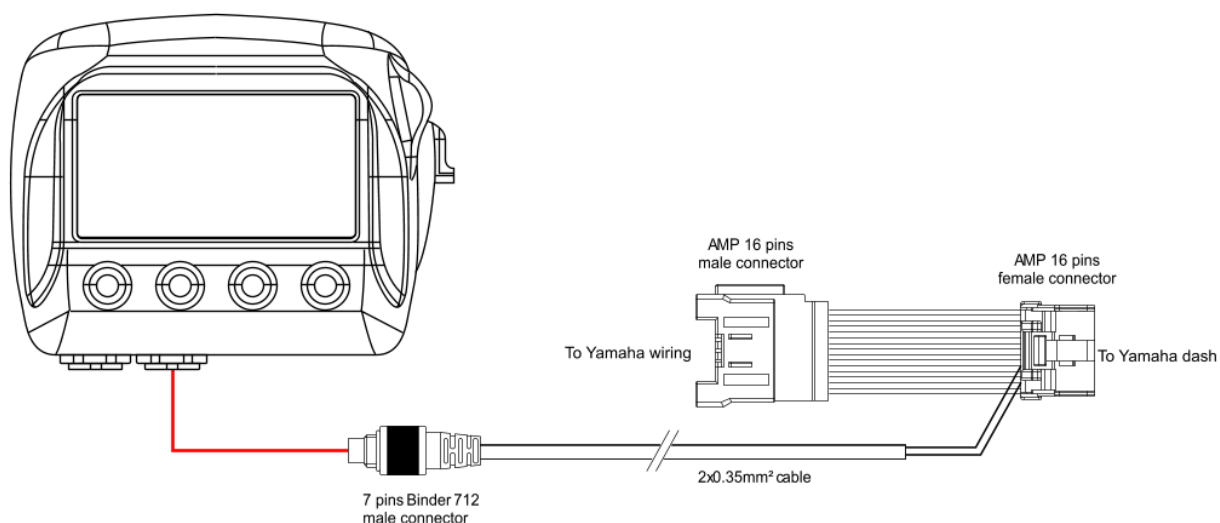Make AiM cable pass between the bike handlebar plate and SoloDL adapter bracket.

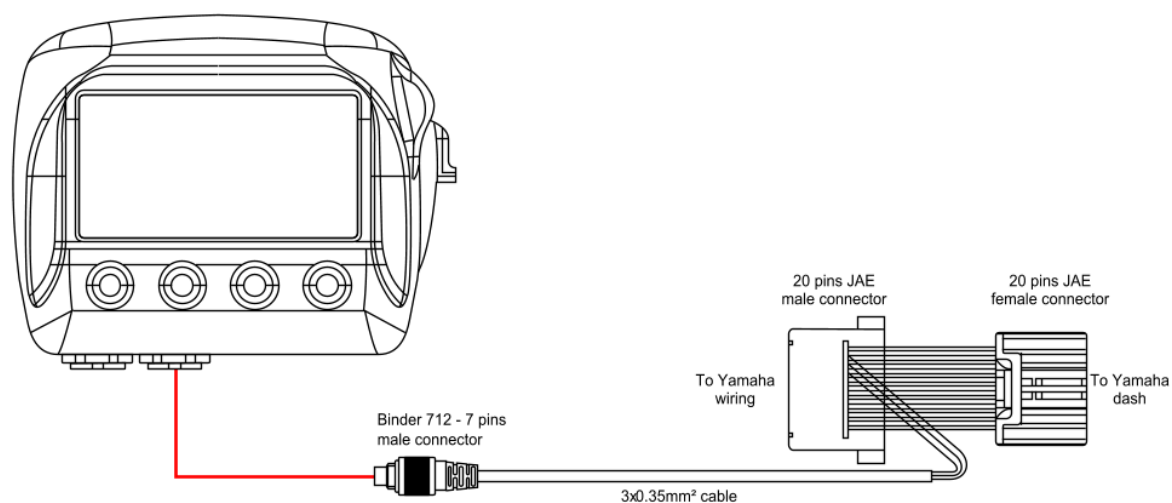Connect SoloDL as shown here on the right.

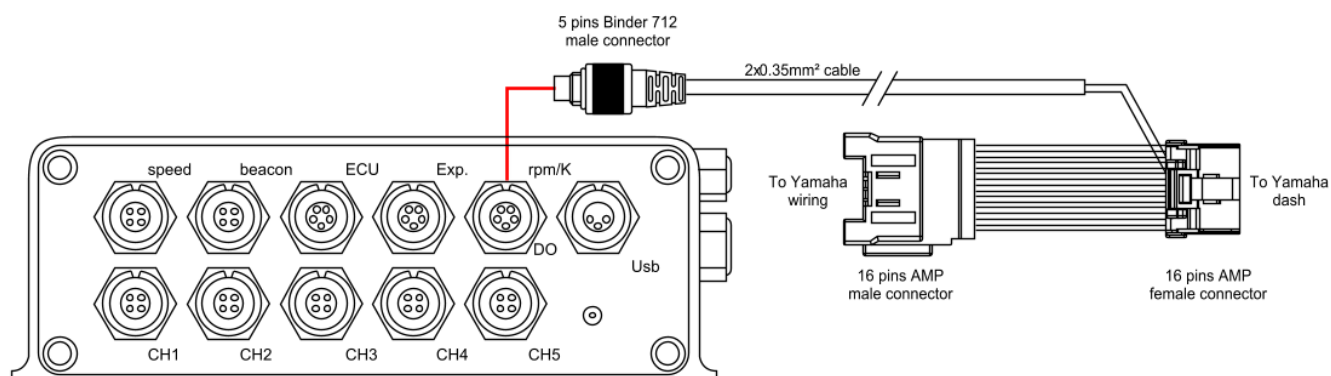Images here following shows correct connection between AiM SoloDL and EVO4 and Yamaha bikes.

Connection between AiM SoloDL and Yamaha R1 2004-2008 and R6 2004-2013 (cable with AMP connectors) is shown here below.
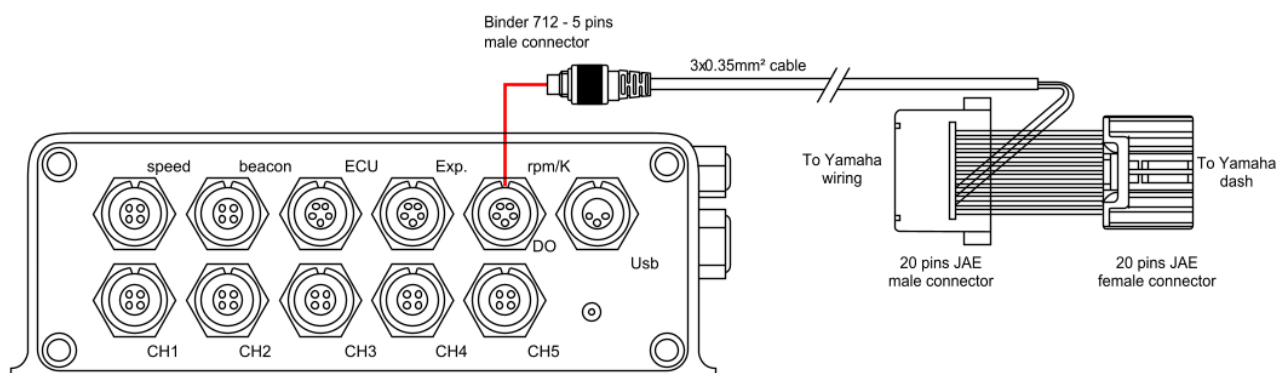

Connection between AiM SoloDL and Yamaha R1 2009-2013 (cable with JAE connectors) is shown here below.

Connection between AiM EVO4 and Yamaha R1 2004-2008 and R6 2004-2013 (cables with AMP connectors) is shown here below.

Connection between AiM EVO4 and Yamaha R1 2009-2013 (cable with JAE connectors) is shown here below.

4
Configuring with Race Studio 2

Before connecting EVO4/SoloDL to your Yamaha bike set it up using AiM Race Studio 2 software. Parameters to select in the logger configuration are:

- ECU Manufacturer: "YAMAHA
- ECU Model:
  - o BIKE_R1_04_05_06   for Yamaha R1 from 2004 to 2006 included
  - o BIKE_R1_07-08   for Yamaha R1 from 2007 to 2008 included
  - o BIKE_R1_09_11   for Yamaha R1 from 2009 to 2013 included
  - o BIKE_R6_04_05   for Yamaha R6 from 2004 to 2005 included
  - o BIKE_R6_06_10   for Yamaha R6 from 2006 to 2013 included

5
Yamaha protocol

Channels received by SoloDL and EVO4 with Yamaha protocol are the same with the different protocols but it is necessary to set the protocol corresponding to the year of production of your bike to receive them correctly.

ID	CHANNEL NAME	FUNCTION
ECU_1	R1_RPM	RPM
ECU_2	R1_WH_SPEED	Wheel speed
ECU_3	R1_ECU_ERR	ECU error
ECU_4	R1_WATER_TEMP	Engine coolant temperature
ECU_5	R1_AIR_TEMP	Intake air temperature