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AiM User Guide

Kit for EVO4/EVO4S and  
Solo/ SoloDL on Ducati 899, 959, 1199, 1199R and  
1299 Panigale

Release 1.08

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**PANIGALE**

KIT



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# 1

## Models and years

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This user guide explains how to install AiM Solo and SoloDL on Ducati Panigale bikes and how to connect EVO4, EVO4S and SoloDL to the bike Engine Control Unit (ECU). Supported models and years are:

- 899 Panigale 2013-2015
- 959 Panigale from 2016
- 1199 Panigale 2012-2014
- 1199R Panigale from 2015
- 1299 Panigale from 2015

**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 consequences that may result from the replacement of the original instrumentation cluster.

# 2

## Solo/SoloDL kit and EVO4/EVO4S connection cable

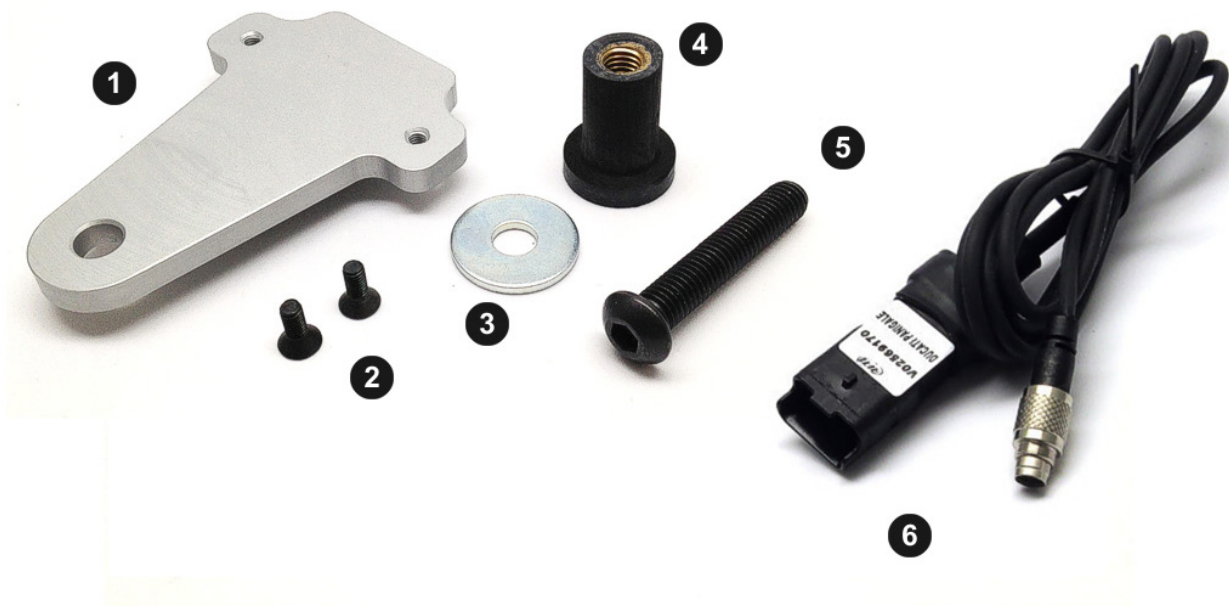
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AiM developed an installation kit with bracket and ECU interface cable for Solo/SoloDL and an ECU interface cable for EVO4 and EVO4S.

## 2.1

# Kit and bracket for Solo/SoloDL on Ducati Panigale

Solo/SoloDL installation kit is shown here below; part number is: **V02569170CSP**.



The kit includes:

- 1 bracket (1)
- 2 4x10 Allen screws with countersunk head (2)
- 1 washer(3)
- 1 rubber distance piece (4)
- 1 8x45 pan head Allen screw (5)
- 1 AiM ECU interface cable for Ducati Panigale (6)

AiM cable (6) and bracket (1) can also be bought separately as spare parts.

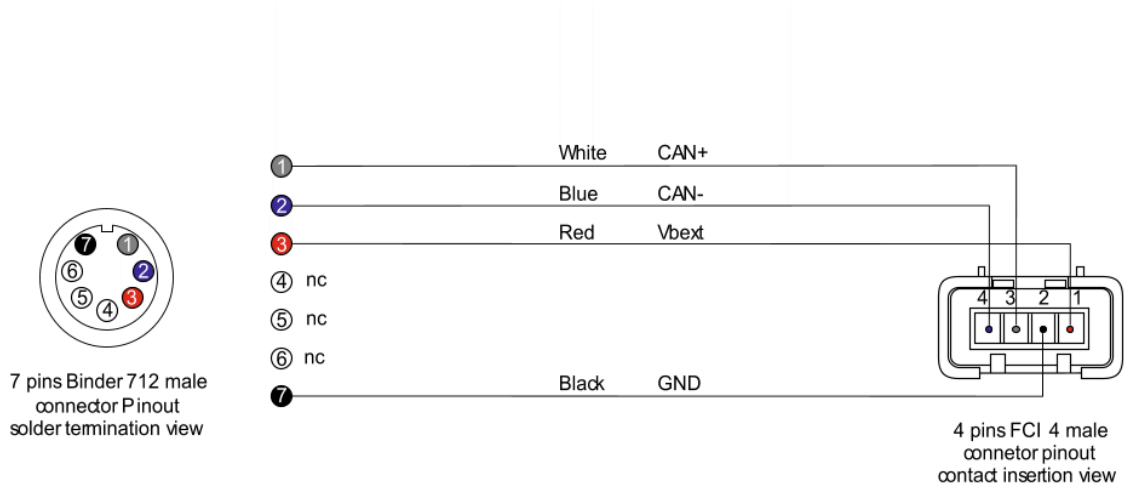
- SoloDL cable for Ducati Panigale: **V02569170**
- Solo/SoloDL bracket for Ducati Panigale: **X46KSTSDP**

## 2.2 AiM cable for SoloDL and EVO4S

AiM cable for SoloDL and EVO4S on Ducati bikes is shown below; its part number is: **V02569170**.



The image here below shows the cable constructive scheme

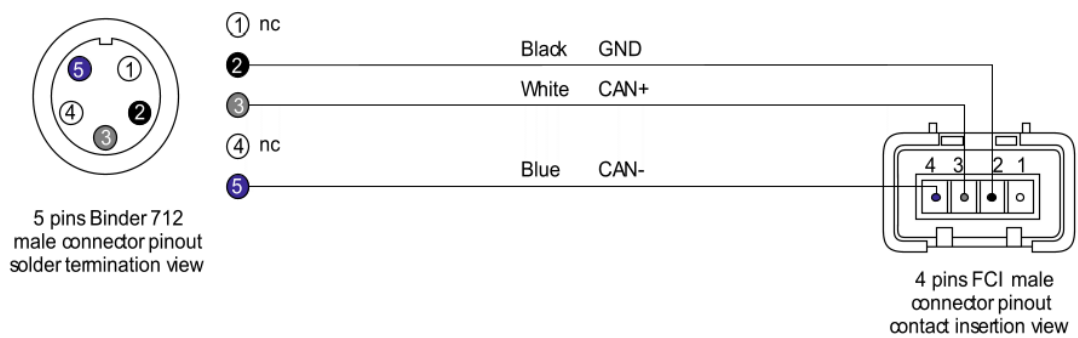


## 2.3 AiM cable for EVO4

AiM cable for EVO4 on Ducati bikes is shown below; its part number is: **V02563150**.



The image here below shows the cable constructive scheme



## 3

# Installation and connection

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Here you find the instructions to install Solo and SoloDL on Ducati Panigale and to connect EVO4, EVO4S and SoloDL to the bike ECU. EVO4 cable length allows installation of the logger under the bike seat.

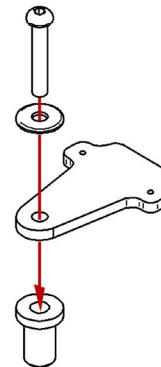
## 3.1

# Installation of Solo and SoloDL

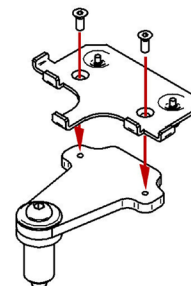
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To install Solo/SoloDL on your Ducati bike:

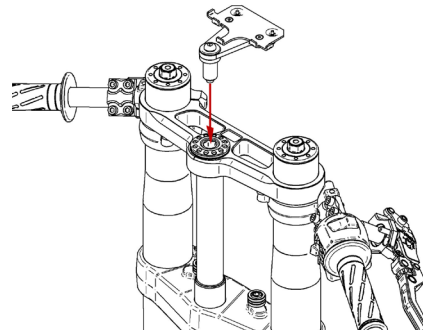
Place the washer and the rubber distance piece in line with Panigale bracket hole and insert M8 screw tightening all pieces.



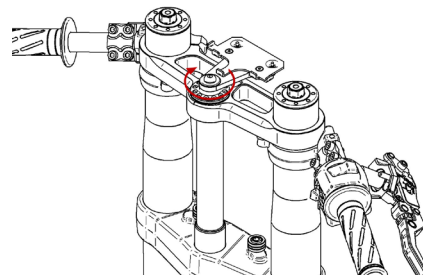
Fix Solo bracket to Panigale one using the two countersunk screws you find in the kit.



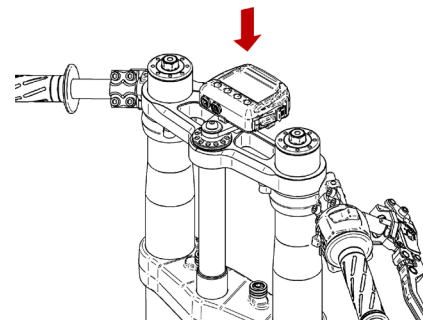
Insert the assembled brackets in the handle bar hole.



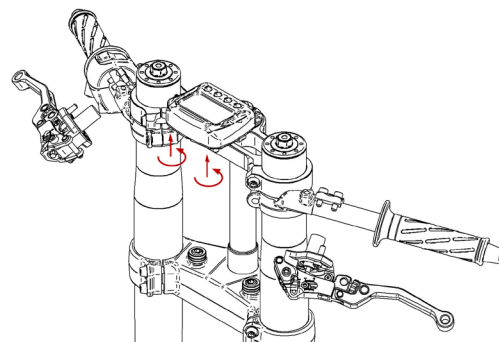
Tighten the M8 screw and the distance piece until the assembled brackets about the bike fork.



Hook Solo to its bracket.



Tighten Solo bracket screws.



## 3.2

### Connection of SoloDL, EVO4 and EVO4S to the ECU

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To connect EVO4, EVO4S and SoloDL to the ECU of the bike use the connector you find under the passenger seat.

Open the bike tail and remove the connector cup highlighted in the image here on the right.



Once the cup has been removed the connector appears as here on the right.





Connect AiM wiring to Ducati wiring as here on the right.



Take the cable to the logger as here on the right.

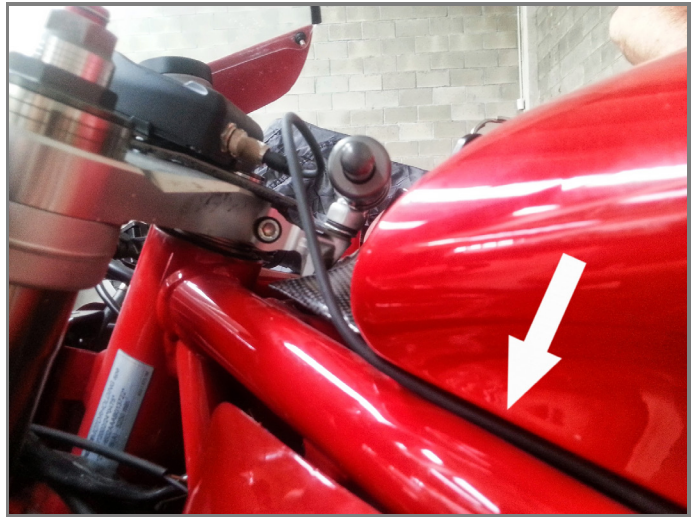


To reach SoloDL make the cable pass between the fuel tank and the bike frame.

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



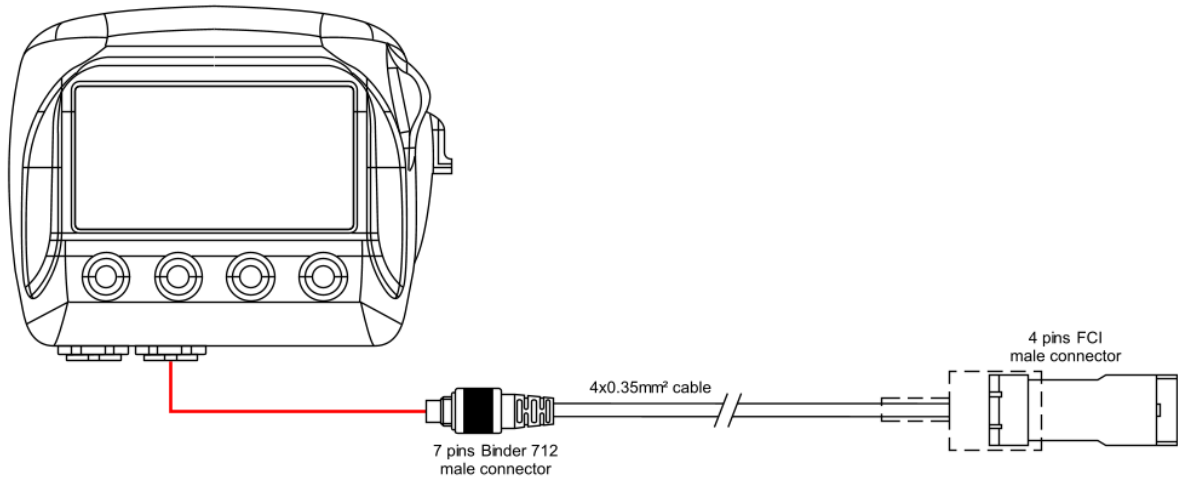
The image here on the right shows the cable reaching SoloDL.



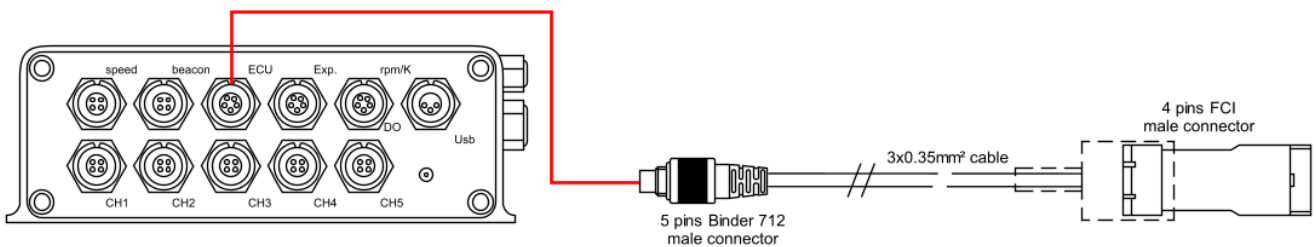
Connect the cable to SoloDL as here on the right.



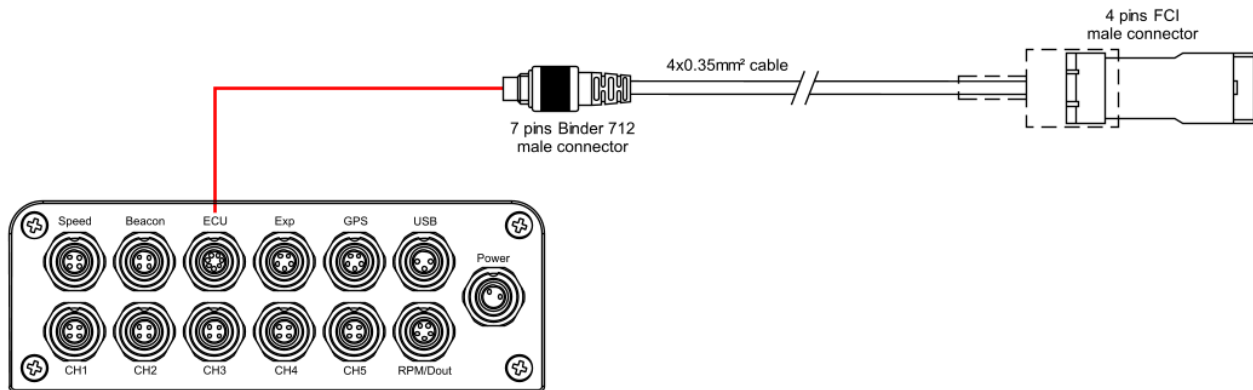
To connect AiM SoloDL to **V02569170** cable use the seven pins Binder 712 female connector placed right under the logger as shown here below.



To connect AiM EVO4 to **V02563150** cable use the five pins Binder 712 female connector labelled "ECU" of the logger – third from the left on the top row – as shown here below.



To connect AiM EVO4S to **V02569170** cable use the seven pins Binder 712 female connector labelled "ECU" on the logger front as shown here below.



## 4 Configuring with Race Studio

Before connecting the bike ECU to EVO4, EVO4S and SoloDL to set these last up using AiM Race Studio software. The parameters to select in the logger configuration are:

- ECU Manufacturer: "Ducati"
- ECU Model:
  - "Panigale" for Ducati 899 Panigale and 1199 Panigale
  - "1299" for Ducati 959, 1199R Panigale and 1299 Panigale

## 5 Ducati protocols

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Channels received by SoloDL, EVO4 and EVO4S connected to "Ducati" "Panigale" bikes changes according to the selected protocol.

### 5.1 "Ducati" "Panigale" protocol

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Channels received by SoloDL, EVO4 and EVO4S connected to "Ducati" "Panigale" protocol are:

<b>ID</b>	<b>CHANNEL NAME</b>	<b>FUNCTION</b>
ECU_1	ECU_RPM	RPM
ECU_2	ECU_SPD_REAR	Rear speed
ECU_3	ECU_TPS1_ENG	Throttle position cylinder 1
ECU_4	ECU_TPS2_ENG	Throttle position cylinder 2
ECU_5	ECU_TPS_HAND	Manual throttle
ECU_6	ECU_WATER_T	Engine coolant temperature
ECU_7	ECU_SPD_FRONT	Front speed
ECU_8	ECU_INT_AIR_TEMP	Intake air temperature
ECU_9	ECU_BATTERY	Battery supply
ECU_10	ECU_BRAKE_SW	Brake switch
ECU_11	ECU_CLUTCH_SW	Clutch switch
ECU_12	ECU_NEUTRAL_SW	Neutral switch
ECU_13	ECU_OILP_SW	Oil pressure switch
ECU_14	ECU_TURN_RIGHT	Right turn indicator
ECU_15	ECU_TURN_LEFT	Left turn indicator
ECU_16	ECU_SW_ENG_MAP	Engine MAP selector
ECU_17	ECU_SW_BEAM	High beam switch
ECU_18	ECU_BARO	Barometric pressure



ECU_19	ECU_LAMB_H	Horizontal cylinder lambda value
ECU_20	ECU_LAMB_TMP_H	Horizontal cylinder lambda temperature
ECU_21	ECU_DIAG_H	Horizontal cylinder lambda diagnosis
ECU_22	ECU_LAMB_V	Vertical cylinder lambda value
ECU_23	ECU_LAMB_TEMP_V	Vertical cylinder lambda temperature
ECU_24	ECU_DIAG_V	Vertical cylinder lambda diagnosis
ECU_25	ECU_BRK_FRONT	Front brake pressure
ECU_26	ECU_BRK_REAR	Rear brake pressure
ECU_27	ECU_DTC_RDC	Ducati traction control intervention
ECU_28	ECU_DTC_PERC	Ducati traction control percentage
ECU_30	ECU_GEAR	Engaged gear
ECU_31	ECU_DTC_LEV	Ducati traction control level
ECU_32	ECU_MAP_SELCT	Map selection

**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.

## 5.2 "Ducati" "1299" protocol

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Channels received by SoloDL, EVO4 and EVO4S connected to "Ducati" "1299" are:

ID	CHANNEL NAME	FUNCTION
ECU_1	ECU_RPM	RPM
ECU_2	ECU_SPD_REAR	Rear wheel speed sensor
ECU_3	ECU_TPS1_ENG	Throttle position cylinder 1
ECU_4	ECU_TPS2_ENG	Throttle position cylinder 2
ECU_5	ECU_TPS_HAND	Manual throttle
ECU_6	ECU_WATER_T	Engine coolant temperature
ECU_7	ECU_SPD_FRONT	Front speed
ECU_8	ECU_INT_AIR_TEMP	Intake air temperature
ECU_9	ECU_BATTERY	Battery supply
ECU_10	ECU_TPS_TARG	Throttle position sensor target value
ECU_11	ECU_CLUTCH_SW	Clutch switch
ECU_12	ECU_GEAR	Engaged gear
ECU_13	ECU_OILP_SW	Oil pressure switch
ECU_14	ECU_BARO	Barometric pressure
ECU_15	ECU_LAMB__H	Horizontal cylinder lambda value
ECU_16	ECU_LAMB_TMP_H	Horizontal cylinder lambda temperature
ECU_17	ECU_DIAG_H	Horizontal cylinder lambda diagnosis
ECU_18	ECU_LAMB__V	Vertical cylinder lambda value
ECU_19	ECU_LAMB_TEMP_V	Vertical cylinder lambda temperature
ECU_20	ECU_DIAG_V	Vertical cylinder lambda diagnosis

**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.