AiM Infotech

Ducati Panigale 899, 959,1199, 1199R and 1299

Release 1.04

ECU

1 Models and years

This user guide explains how to connect Ducati Panigale bikes to AiM devices. Supported models and years are:

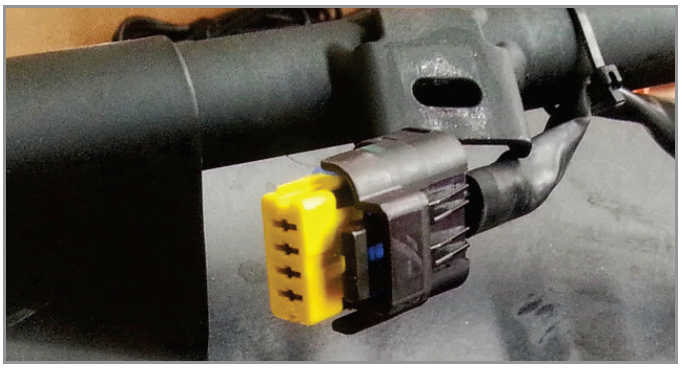
• 899 Panigale	2013 - 2015
• 959 Panigale	2016 - 2019
• 1199 Panigale	2012 - 2014
• 1199 R Panigale	2015 - 2017
• 1299 Panigale	2015 - 2019

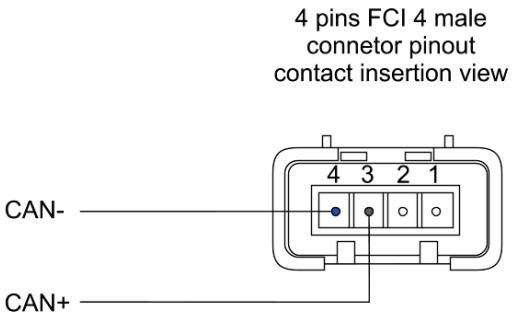
Warning: for these models/years AiM recommends not to remove the stock dash. Doing so will disable some of the bike functions or safety controls. AiM Tech Srl will not be held responsible for any consequences that may result from the replacement of the original instrumentation cluster.

2
Wiring connection

These bike models feature a bus communication protocol based on CAN, accessible through the DDA connector placed under the bike tail. For this installation refer to the following pinout of the DDA (vehicle connector – rear view).

Here below the DDA connector pinout is shown as well as connection table.





DDA connector pin	Pin function	AiM cable	AiM color cable
3	CAN High	CAN +	White
4	CAN Low	CAN -	Blue

3
Race Studio configuration

Before connecting the AiM device to the ECU, set all functions using AiM software Race Studio. The parameters to select in the AiM device configuration are:

- ECU Manufacturer: **DUCATI**
- ECU Model: **PANIGALE** for Ducati 899 Panigale and 1199 Panigale
  1299 for Ducati 959, Ducati 1199R Panigale and 1299 Panigale

4
Ducati protocols

Channels received by AiM devices connected to Ducati Panigale bikes change according to the selected protocol.

4.1
"DUCATI – PANIGALE" protocol

Channels received by AiM devices connected to "Ducati – Panigale" protocol are:

CHANNEL NAME	FUNCTION
ECU DTC RDC	Ducati traction control intervention
ECU DTC PERC	Ducati traction control percentage
ECU SPD REAR	Rear wheel speed sensor
ECU SPD FRONT	Front wheel speed sensor
ECU DTC LEV	Ducati traction control level
ECU GEAR	Engaged gear
ECU NEUTRAL SW	Neutral switch
ECU BRAKE SW	Brake switch
ECU TURN RIGHT	Right turn indicator
ECU TURN LEFT	Left turn indicator
ECU SW ENG MAP	Engine MAP selector
ECU SW BEAM	High beam switch
ECU BRK FRONT	Front brake pressure
ECU BRK REAR	Rear brake pressure
ECU RPM	RPM
ECU TPS1 ENG	Throttle position cylinder 1
ECU TPS2 ENG	Throttle position cylinder 2
ECU CLUTCH SW	Clutch switch

ECU TPS HAND	Manual throttle
ECU WATER T	Engine coolant temperature
ECU INT AIR TEMP	Intake air temperature
ECU BATTERY	Battery supply
ECU OILP SW	Oil pressure switch
ECU BARO	Barometric pressure
ECU MAP SELCT	Map selection
ECU AFR HOR	Horizontal cylinder lambda value
ECU LAMB TMP H	Horizontal cylinder lambda temperature
ECU DIAG H	Horizontal cylinder lambda diagnosis
ECU AFR VER	Vertical cylinder lambda value
ECU LAMB TEMP V	Vertical cylinder lambda temperature
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.

4.2
"DUCATI - 1299" protocol

Channels received by AiM devices connected to "Ducati – 1299" protocol are:

CHANNEL NAME	FUNCTION
ECU SPD REAR	Rear wheel speed sensor
ECU SPD FRONT	Front wheel speed sensor
ECU SW MAP	Switch map
ECU BRK P F	Front brake pressure
ECU SPD FRONT 01	Front wheel speed
ECU RPM	Engine RPM
ECU GEAR	Engaged gear
ECU TPS_TARG	Throttle position sensor target value
ECU TPS1 ENG	Throttle position cylinder 1
ECU TPS2_ENG	Throttle position cylinder 2
ECU TPS HAND	Manual throttle
ECU WATER T	Engine coolant temperature
ECU INT AIR TEMP	Intake air temperature
ECU BATTERY	Battery supply
ECU OILP SW	Oil pressure switch
ECU BARO	Barometric pressure
ECU AFR HOR	Horizontal cylinder lambda value
ECU LAMB TMP H	Horizontal cylinder lambda temperature
ECU DIAG H	Horizontal cylinder lambda diagnosis
ECU AFR VER	Vertical cylinder lambda value
ECU LAMB TEMP V	Vertical cylinder lambda temperature
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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.