



AiM Infotech

Ducati 749 and 999

Release 1.05



ECU



1

Bike years

This tutorial describes how to connect AiM devices to Ducati 749 and 999 bikes. Supported models and years are:

- | | |
|----------------|-----------|
| • Ducati 749 | 2002-2007 |
| • Ducati 749 S | 2002-2007 |
| • Ducati 749 R | 2002-2007 |
| • Ducati 999 | 2002-2006 |
| • Ducati 999 S | 2002-2006 |
| • Ducati 999 R | 2002-2006 |

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

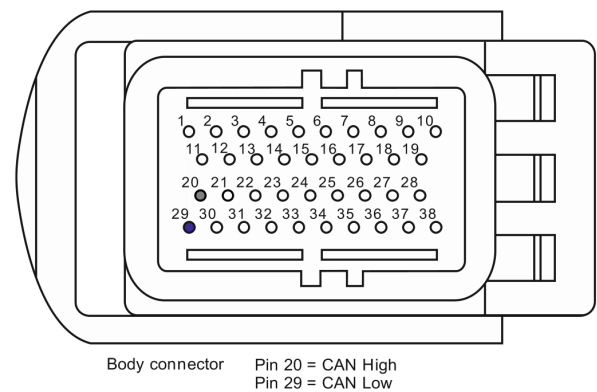
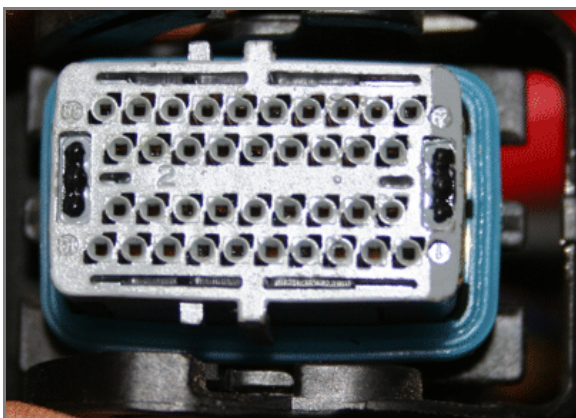
CAN bus connection

Ducati 749 and 999 bikes are equipped with a Marelli IAW 5.9 ECU that communicates using the CAN bus. This can be reached directly on the ECU or through the bike rear dashboard connector.

2.1

Direct ECU connection

Ducati 749 and 999 ECU is equipped with two 38 pins male connectors; they are named "Engine" (black) and "Body"(grey). We will use Body connector only. Here below it is shown with its pinout and the connection table.



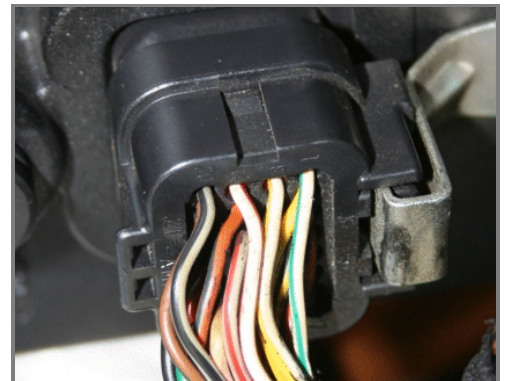
Body connector pin	Pin function	AiM cable
20	CAN High	CAN+
29	CAN Low	CAN-

This is a slow CAN bus (125 kb/s); when connecting your AiM device to the bike you need to **remove the 120 Ohm resistor** that is mounted between CAN+ and CAN- in AiM device CAN cable. **In case** the resistor is integrated in AiM device, like is in most AiM dash loggers, then **connect AiM CAN- to a GND line**.

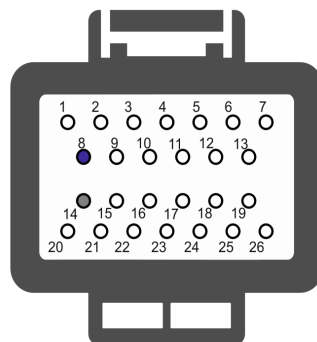
2.2

Connection through the dashboard

The dashboard connector is placed on its back. Here below it is shown on the dashboard and in detail.



To connect AiM devices to Ducati ECU through the dashboard use its 26 pins rear connector. Here below are its pinout and the connection table.



Dash connector

Pin 14 = CAN High
Pin 8 = CAN Low

Dash connector pin	Pin function	AiM cable
14	CAN High	CAN+
8	CAN Low	CAN-

This is a slow CAN bus (125 kb/s); when connecting your AiM device to the bike you need to **remove the 120 Ohm resistor** that is mounted between CAN+ and CAN- in AiM device CAN cable. **In case** the resistor is integrated in AiM device, like is in most AiM dash loggers, then **connect AiM CAN- to a GND line on pin 22** of the dash connector.

3

Configuration with Race Studio 2

Before connecting the ECU to AiM device set this up using AiM Race Studio 2 software. The parameters to select in the device configuration are:

- ECU manufacturer: "Ducati"
- ECU Model: "Marelli IAW 5.9M (CAN)"

4

Available channels

Channels received by AiM devices connected to "Ducati" "Marelli IAW 5.9M (CAN)" protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	M59_RPM	RPM
ECU_2	M59_SPEED	Vehicle speed
ECU_3	M59_NEUTRAL	Neutral signal
ECU_4	M59_ECT	Engine coolant temperature
ECU_5	M59_AIRT	Intake air temperature
ECU_6	M59_VBATT	Battery supply
ECU_7	M59_OIL_LIGHT	Oil level alert

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.