AiM InfoTech

Ferrari

458 Italia, 458 Speciale

Release 1.08

1 Models and years

This document explains how to connect AiM devices to the vehicle Engine Control Unit (ECU) data stream.
Supported models and years are:

• Ferrari 458 Italia	from 2010	2015
• Ferrari 458 Speciale	from 2014	2015
• Ferrari 488_GTB	from 2016	2019
• Ferrari 599_GTB_Fiorano	from 2007	2012
• Ferrari F12 Berlinetta	from 2012	2017
• Ferrari FF	from 2011	2016
• Ferrari California	from 2008	2017

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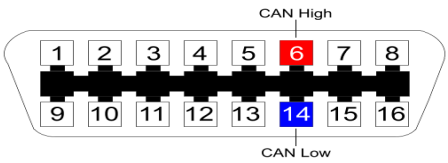
OBDII Connection

These models feature a standard diagnostic protocol based on CAN, accessible through the OBDII plug placed under the stock dash at the left of the steering column (images below). For this installation refer to the following pinout of the OBDII plug (vehicle side – front view) and connection table.



OBDII connector pin	Pin function	AiM cable	AiM cable color
6	CAN High	CAN+	White
14	CAN Low	CAN-	Blue

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Race Studio configuration

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

- ECU manufacturer: **Ferrari**
- ECU Model: **458**
  458 SMC (Only RS3)

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“Ferrari – 458” protocol

Channels received by AiM devices configured with "Ferrari – 458" protocol are.

CHANNEL NAME	FUNCTION
ECU RPM	RPM
ECU GEAR	Active gear
ECU VEH SPEED	Vehicle speed
ECU SPD RR*	Rear right wheel speed
ECU SPD RL*	Rear left wheel speed
ECU SPD FR*	Front right wheel speed
ECU SPD FL*	Front left wheel speed
ECU LONG ACC	Longitudinal accelerometer
ECU LAT ACC	Lateral accelerometer
ECU ROLL RATE	Roll rate
ECU PITCH RATE	Pitch rate
ECU YAW RATE	Yaw rate
ECU STEER SPEED	Steering wheel speed
ECU ECT	Engine coolant temperature
ECU CAT2 TEMP	Catalyst temperature 2
ECU CAT1 TEMP	Catalyst temperature 1
ECU OUT AIR T	Ambient air temperature
ECU ENG OILT	Oil temperature
ECU ENG OILP	Oil pressure
ECU BRAKE PRESS	Brake pressure
ECU EDIFF PR	Differential pressure
ECU STEER ANGLE	Steering wheel position
ECU ENG TQ REQ 01	Engine torque request 01
ECU CALC LOAD	Calculated load value
ECU ABS LOAD	Absolute load value
ECU TPS	Throttle position sensor
ECU FUEL LEV	Fuel level
ECU PPS	Pedal position sensor
ECU ENG TRQ DRV	Engine torque drive
ECU FUEL CONS	Fuel consumption

ECU EDIFF TQ	Differential torque
ECU ENG TQ REQ	Requested engine torque
TCASRControl	Traction and stability control disabled
ECU LAUNCH	Launch control
Main Selector	Main mode selector - **see Appendix**
ECU CLUTCH SW	Clutch switch
ECU BRAKE SW	Brake switch
ECU TC INTERV	Traction control intervention
ECU VDC INTERV	Vehicle dynamic control
ECU GEAR AUTO	Active automatic gear
ECU SUSP SET	Suspension setting – **see Appendix**

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.

Please note: The channels with the asterisk (*) is not available on the 458 SMC protocol.

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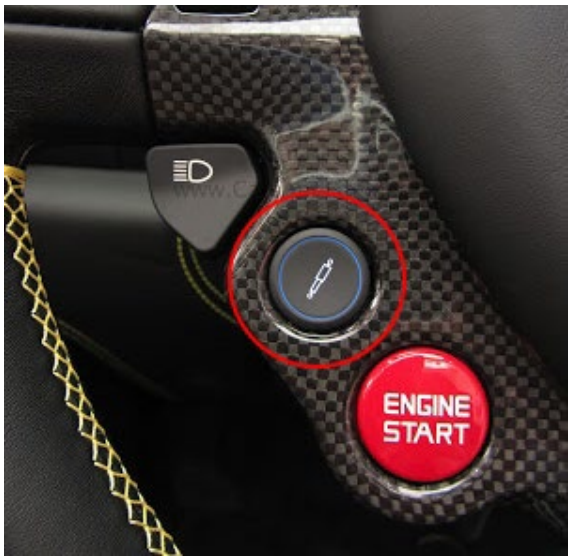
Appendix

Suspensions and ECU Main Selector can be manually set pushing the related button – Suspensions: left image below – and through the proper selector – ECU Main: right image below.



With reference to the right image above, available ECU mode settings are:

- Rain – light blue box: 1
- Sport – white box: 2
- Race – Yellow box: 3
- Traction control disabled – orange box: 4
- Traction and stability control disabled – red box: 5