

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
	Ferrari 458 Italia Ferrari 458 Speciale Ferrari 488_GTB Ferrari 599_GTB_Fiorano Ferrari F12 Berlinetta Ferrari FF Ferrari California	Ferrari 458 Italiafrom 2010Ferrari 458 Specialefrom 2014Ferrari 488_GTBfrom 2016Ferrari 599_GTB_Fioranofrom 2007Ferrari F12 Berlinettafrom 2012Ferrari FFfrom 2011Ferrari Californiafrom 2008

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2 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.



3Race 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:
- ECU Model:

Ferrari 458 458 SMC (Only RS3)



4 "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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<mark>5</mark> 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