AiM Infotech

Ferrari
F430 Challenge,
F430 GT3,
F430 GT3 Scuderia

Release 1.04

This tutorial explains how to connect Ferrari racing cars to AiM devices. Supported years are:

- Ferrari F430 Challenge from 2007 onwards
- Ferrari F430 GT3 from 2006 onwards
- Ferrari F430 GT3 Scuderia from 2009 onwards

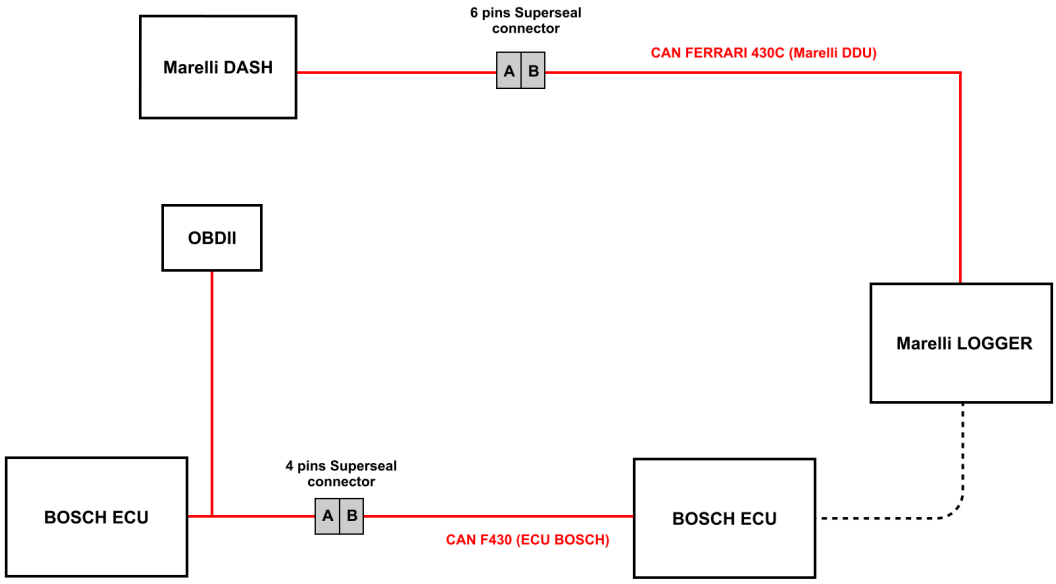
Please note: a dedicated AiM ECU Bridge kit for these cars is available: part number **X90BGFF43MA**

1 CAN lines

Ferrari F430 Challenge, F430 GT3 and F430GT3 Scuderia feature 2 Bosch ECUs and communicate using the CAN Bus. The vehicle has two CAN lines both AiM compatible. They are:

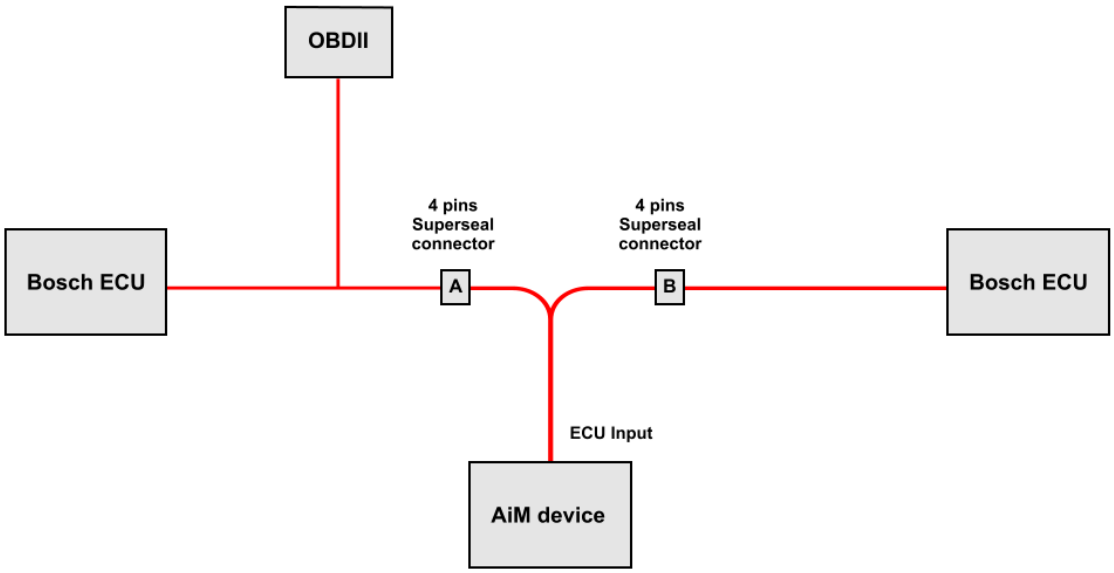
- "F430 (ECU Bosch)" **recommended**: connects the vehicle control units – among which are two Marelli ECUs – using two 4 pins Superseal connectors;
- "F430C (Marelli DDU)": connects Marelli Dash to Marelli logger using two 6 pins Superseal connectors.

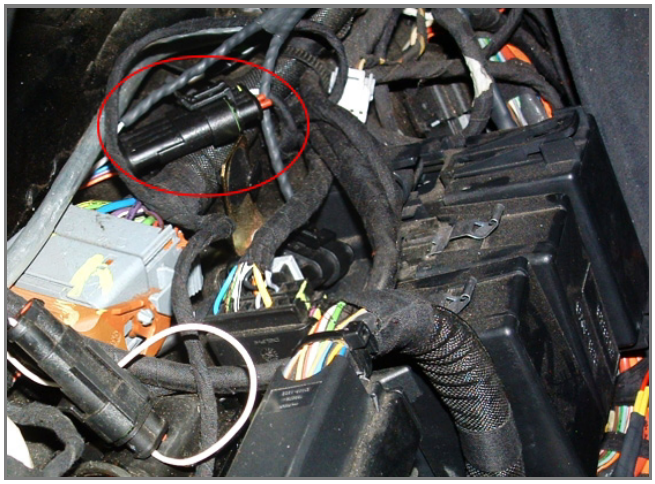
Here below is a scheme of both connections.



1.1
CAN F430 (ECU Bosch) connection – recommended

This connection is made using the 4 pins Superseal connectors. Split apart the two connectors and connect AiM device following this scheme. **Please note:** pins numbers are printed on the connector.

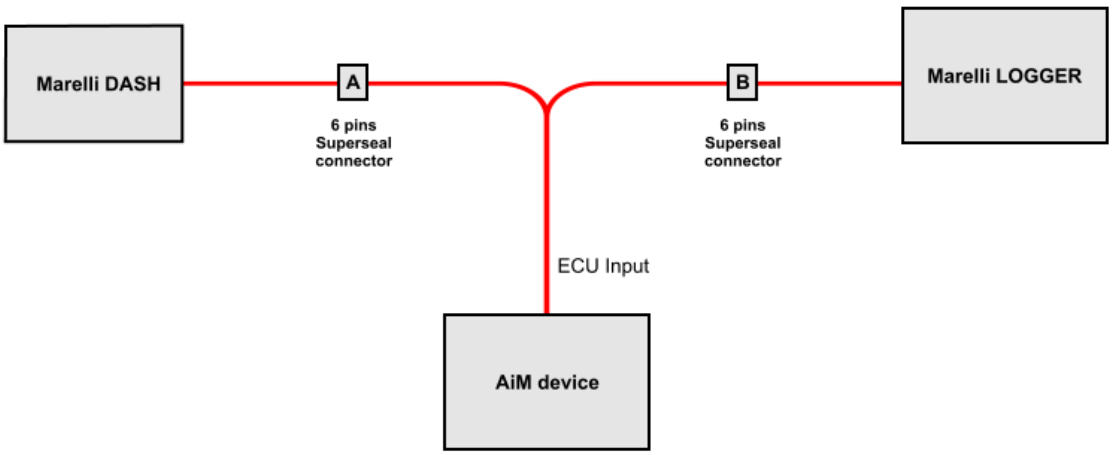




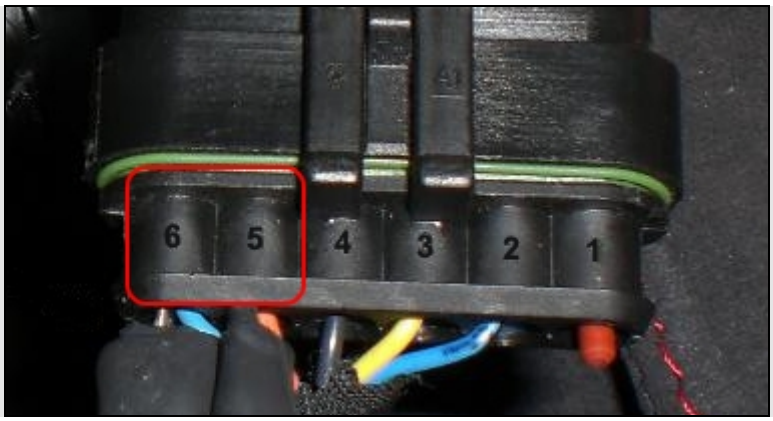
4 pins Superseal connector pin	Pin function	AiM cable label
1	CAN High	CAN+
2	CAN Low	CAN-

1.2
CAN F430C (Marelli DDU) connection

This connection is made using the 6 pins Superseal connectors. Here below is the connection scheme.



Split apart the two 6 pins Superseal connectors and place AiM device between the two connectors; then follow the table below. Pins number are printed on the connector.



6 pins Superseal connector pin	Pin function	AiM cable label
6	CAN High	CAN+
5	CAN Low	CAN-

2
AIM device configuration

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

- ECU manufacturer “Ferrari” and, according to the CAN line you are using,
- ECU Model
    - “430 (ECU Bosch)” **or**
    - “430C (Marelli DDU);

3
Available channels

Channels received by AiM devices connected to Ferrari F430 Challenge, F430 GT3 and F430 GT3 Scuderia change according to the CAN line you are using.

3.1
CAN F430 (ECU Bosch) available channels

Channels received by AiM devices connected to "Ferrari "430 (ECU Bosch)" protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	F430_RPM	RPM
ECU_2	F430_WH_SPD_FL	Front left wheel speed
ECU_3	F430_WH_SPD_FR	Front right wheel speed
ECU_4	F430_WH_SPD_RL	Rear left wheel speed
ECU_5	F430_WH_SPD_RR	Rear right wheel speed
ECU_6	F430_VEH_SPEED	Vehicle speed
ECU_7	F430_PPS	Pedal position
ECU_8	F430_GEAR	Engaged gear
ECU_9	F430_STEER_ANG	Steering angle
ECU_10	F430_BRK_SW	Brake switch
ECU_11	F430_STEER_SPD	Steering wheel speed
ECU_12	F430_ECT	Engine coolant temperature
ECU_13	F430_OILT	Oil temperature
ECU_14	F430_CST	Traction control 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.

3.2
CAN F430C (Marelli DDU) available channels

Channels received by AIM devices connected to "Ferrari" "430C (Marelli DDU)" are:

ID	CHANNEL NAME	FUNCTION
ECU_1	F430C_RPM	RPM
ECU_2	F430C_SPD_FL	Front left wheel speed
ECU_3	F430C_SPD_FR	Front right wheel speed
ECU_4	F430C_SPD_RL	Real left wheel speed
ECU_5	F430C_SPD_RR	Rear right wheel speed
ECU_6	F430C_TPS	Throttle position
ECU_7	F430C_ECT	Engine coolant temperature
ECU_8	F430C_OILTEMP	Oil temperature
ECU_9	F430C_FUELLEV	Fuel level
ECU_10	F430C_BRAKE	Brake sensor
ECU_11	F430C_GEAR	Engaged gear
ECU_12	F430C_STR_WHEEL_ANG	Steering wheel angle

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.