AiM Infotech

BMW M235i Racing ECU

Release 1.04

ECU

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:

- BMW M235i Racing   from 2014 onward

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CAN connection

These models feature a standard diagnostic protocol based on CAN, accessible through the the 5 pins Binder 712 female connector located in the vehicle passenger area. As you can see here below on the left, in the passenger area you find two Binder connectors; the one to be used is labelled **Data System Team**. For this installation refer to the following pinout of the Data System Team plug (vehicle side – front view) and connection table.
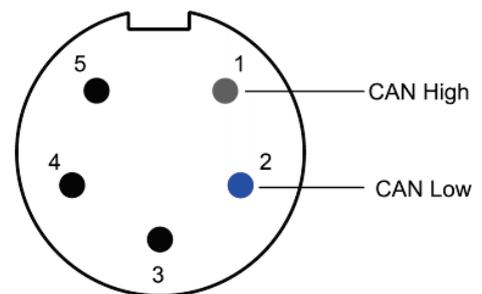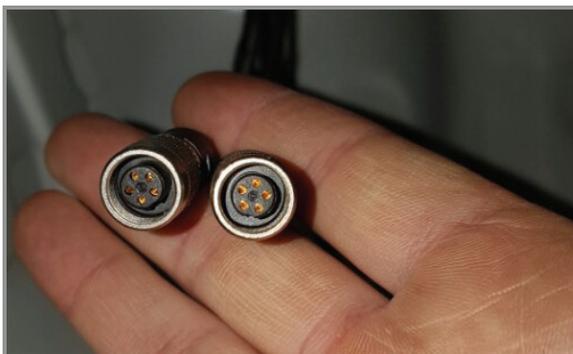
Binder 712 female connector pin	Pin function	AiM cable
1	CAN High	CAN+
2	CAN Low	CAN-

Warning: do not plug the connector directly in AiM devices ECU inputs.

3

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: **BMW**
- ECU Model: **M235i**

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"BMW – M235i" protocol

Channels received by AiM devices configured with "BMW – M235i" protocol are:

CHANNEL NAME	FUNCTION
ECU RPM	RPM
ECU GEAR	Active gear
ECU SPEED	Vehicle speed
ECU WS RL	Rear left wheel speed
ECU WS RR	Rear right wheel speed
ECU WS FL	Front left wheel speed
ECU WS FR	Front right wheel speed
ECU INL ACC	Inline accelerometer
ECU LAT ACC	Lateral accelerometer
ECU GYRO	Yaw rate
ECU WATER T	Water temperature
ECU AIR T	Air temperature
ECU OIL T	Oli temperature
ECU GEAR T	Gearbox temperature
ECU AIR P	Air pressure
ECU STER ANG	Steering angle

ECU THROTTLE	Throttle position sensor
ECU BATTERY	Battery voltage
ECU FUEL RAW	Fuel level (raw value)
ECU CUR IBS	Battery current
ECU FN ABS	Function ABS
ECU FN ACS	Function ACS
ECU BRK STATE	Brake switch

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.