

AiM InfoTech

Omex 600 and 710 ECUs

Release 1.03

 **OMEX**



ECU



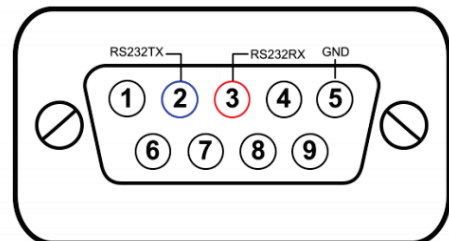
1 Supported models

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

- Omex 600 V0.70D or later
- Omex 710 V0.70D or later

2 Wiring connection

Omex 600 and Omex 710 ECUs feature a data transmission bus based on serial RS232, on the DB9 connector placed rear on the ECU and shown here below on the left. On the right you see DB9 connector pinout. Below is connection table.



Front connector pin

- 2
- 3
- 5

Function

- RS232 TX
- RS232 RX
- Ground

AiM Cable

- RS232 RX / ECU RS232 TX
- RS232 TX / ECU RS232 RX
- GND

Please note:

AiM wiring harnesses supplied after September 2018 have the following labels:

ECU RS232TX (white) to be connected to **ECU TX** pin

ECU RS232RX (blue) to be connected to **ECU RX** pin (if indicated in the connection table above)

AiM wiring harnesses supplied before September 2018 have the following labels:

RS232RX (white) to be connected to **ECU TX** pin

RS232TX (blue) to be connected to **ECU RX** pin (if indicated in the connection table above)

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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: **GEMS**
- ECU Model: **OMEX_600_700**

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"GEMS – OMEX_600_700" protocol

Channels received by AiM devices configured with "GEMS – OMEX_600_700" protocol are:

CHANNEL NAME	FUNCTION
OMEX RPM	Engine RPM
OMEX TPS	Throttle position sensor
OMEX ECT	Engine coolant temperature
OMEX IAT	Intake air temperature
OMEX AIR PRESS	Air pressure
OMEX BATT VOLT	Battery voltage
OMEX MAPASLOAD	Manifold air pressure
OMEX LAMBDA1	Lambda value 1
OMEX LAMBDA2	Lambda value 2
OMEX LAMBDATAR	Lambda target
OMEX FUEL1 PW	Fuel injection
OMEX SPARK TOT	Spark advance

Technical note: not all data channels outlined in the ECU template are validated for each manufacturer's model or variant; some of the outlined channels are model and year specific, and therefore may not be applicable.