AiM Infotech

Hydra EMS Nemesis 2.5 and 2.6 ECU

Release 1.03

ECU

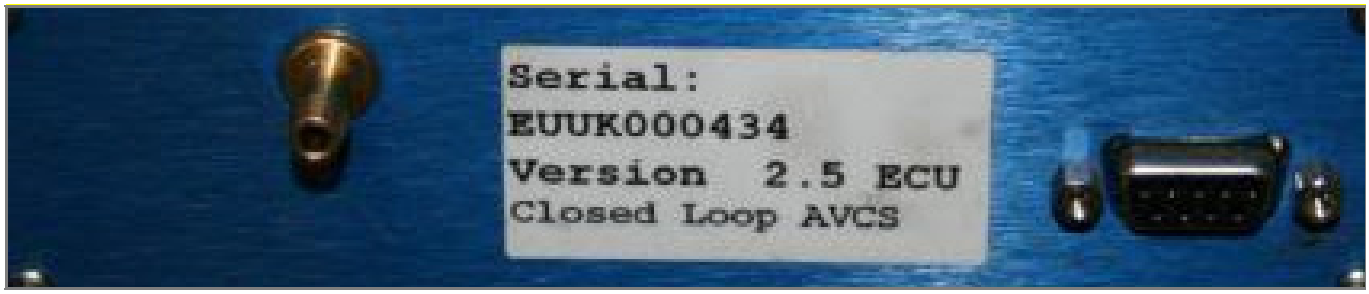
1 Supported models

This tutorial explains how to connect Hydra EMS ECUs to AiM devices. Supported models are:

- Hydra EMS Nemesis 2.5
- Hydra EMS Nemesis 2.6

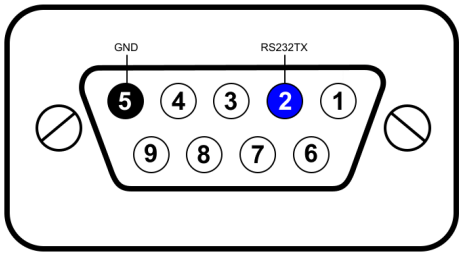
2 Wiring connection

Hydra EMS Nemesis ECUs feature a serial communication protocol on the DB9 female connector placed rear on the ECU as shown here below.



2.1 Wiring connection of Hydra EMS Nemesis 2.5

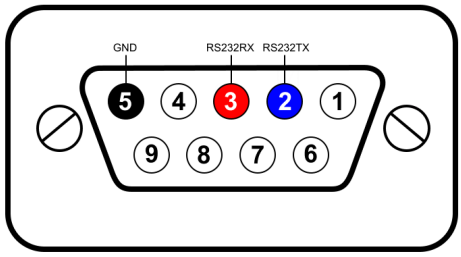
Here below is DB9 female connector pinout and connection table of Hydra EMS Nemesis 2.5 ECU.



DB9 connector pin	Pin function	AiM cable label
2	RS232TX	RS232RX
5	GND	GND

2.2 Wiring connection of Hydra EMS Nemesis 2.6

Here below is DB9 female connector pinout and connection table of Hydra EMS Nemesis 2.6 ECU.



DB9 connector pin	Pin function	AiM cable label
2	RS232TX	RS232RX
3	RS232RX	RS232TX
5	GND	GND

3 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 “Hydra_EMS”
- ECU Model:
    - "Nemesis_2.5" or
    - "Nemesis_2.6"

4 Available channels

Channels received by AiM devices connected to "Hydra EMS" "Nemesis_2.5" or "Nemesis_2.6" protocol are the same also if the channel name can be slightly different as specified in the following table:

ID	CHANNEL NAME	FUNCTION
ECU_1	HYDRA_RPM	RPM
ECU_2	HYDRA_WHEELSPD	Wheel speed
ECU_3	HYDRA_OILPRESS	Oil pressure
ECU_4	HYDRA_OILTEMP	Oil temperature
ECU_5	HYDRA_WATERTEMP	Engine coolant temperature
ECU_6	HYDRA_FUELPRESS	Fuel pressure
ECU_7	HYDRA_BATTVOLT	Battery supply
ECU_8	HYDRA_THROTANG (2.5) or HYDRA_TPS (2.6)	Throttle position
ECU_9	HYDRA_MANIFPRESS (2.5) or HYDRA_MAP (2.6)	Manifold air pressure
ECU_10	HYDRA_AIRCHARGETEMP (2.5)or HYDRA_AIRTEMP (2.6)	Intake air temperature
ECU_11	HYDRA_EXHTEMP	Exhaust temperature
ECU_12	HYDRA_LAMBDA	Lambda value
ECU_13	HYDRA_FUELTEMP	Fuel temperature
ECU_14	HYDRA_GEAR	Engaged gear
ECU_15	HYDRA_ERRORFLAG (2.5) or HYDRA_ERRORS (2.6)	Errors