AiM Infotech

Hydra EMS Nemesis 2.5 and 2.6 ECU

Release 1.02

ECU

AiM

This tutorial explains how to connect Hydra EMS ECUs to AiM devices.

1
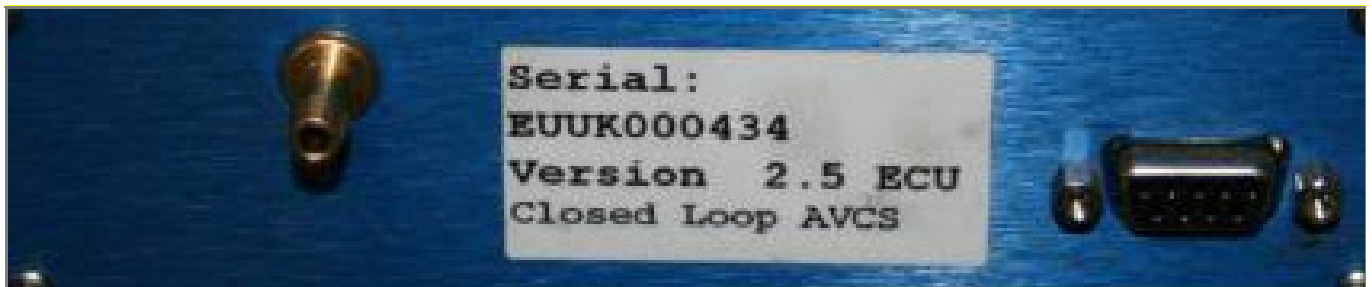# Supported models

Supported models are:

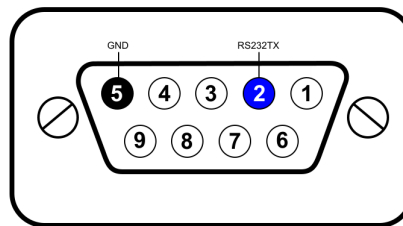|		
• Hydra EMS	Nemesis	2.5
• Hydra EMS	Nemesis	2.6

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.

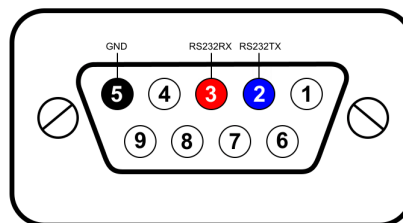| DB9 connector pin	Pin function	AiM cable label
2	RS232TX	RS232RX
5	GND	GND

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 Logger configuration

Before connecting the device to the ECU set it up as follows:

- Run Race Studio 2 software and follow this path:
- Device Configuration –> Select the device you are using;
- select the configuration or press "New" to create a new one;
- select ECU manufacturer "Hydra_EMS" and ECU Model:
  - o "Nemesis_2.5" or
  - o "Nemesis_2.6"
- transmit the configuration to the device pressing "Transmit".

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