

## Nira I3+ ECU



## INTRODUCTION

AIM has developed special applications for many of the most popular ECU: by special applications we mean user-friendly systems which allow to easily connect your ECU to our high tech data loggers: user needs only to install harness between the **logger** and the ECU.

Once connected, the logger displays (and/or records, depending on the logger and on the ECU data stream and configuration) values like RPM, engine load, throttle position (TPS), air and water temperature, battery voltage, speed, gear, lambda value (air/fuel ratio analog channels...

All AIM loggers include – free of charge – **Race Studio 2** software, a powerful tool to configure the system and analyze recorded data on your PC.

**Warning: once the ECU is connected to the logger it is necessary to set it in the logger configuration in Race Studio 2 software.**

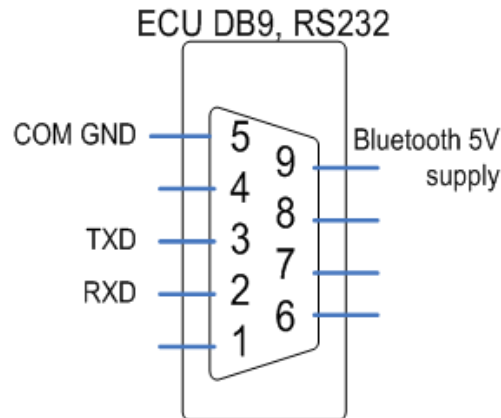
**Select Manufacturer “Nira” and Model “I3+”.**

**Refer to Race Studio Configuration user manual for further information concerning the loggers configuration.**

**Warning: for any further information concerning ECU firmware/software settings and/or upgrading it is always recommended to address to the ECU dealer.**

## 1 – Nira I3+ – serial communication setup

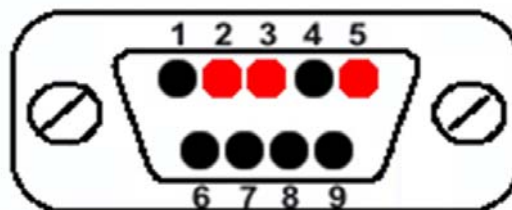
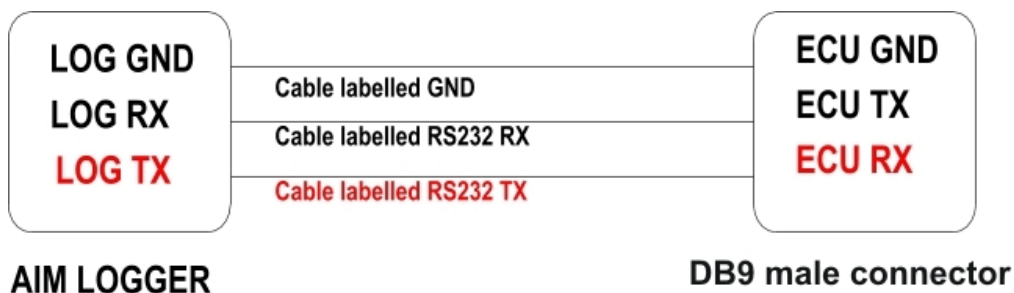
Nira I3+ ECU has a serial communication protocol (RS232) and is equipped with a male DB9 connector used to communicate parameters to an external logger or to configure the ECU itself. Here below the DB9 connector pinout is shown.



## 2 – Connecting Nira I3+ ECU to AIM loggers

To put **AIM loggers** in communication with Nira I3+ please connect cables as follows:

- AIM cable labelled “RS232RX” to pin 3 of the DB9 male connector;
- AIM cable labelled “RS232TX” to pin 2 of the DB9 male connector;
- AIM cable labelled “GND” to pin 5 of the DB9 male connector.



DB9 male connector – Nira I3+

### 3 – Nira I3+ communication protocol

Channels received by AIM loggers connected to Nira I3+ ECU are:

ID	NOME CANALE	FUNZIONE
ECU_1	NIRA_RPM	Rpm
ECU_2	NIRA_WATER_TEMP	Water temperature
ECU_3	NIRA_BATTERY_VOLT	Battery voltage
ECU_4	NIRA_TPS	Throttle position sensor
ECU_5	NIRA_MAP	Manifold air pressure
ECU_6	NIRA_AIRTEMP	Air temperature
ECU_7	NIRA_EXHAUST_GAS_TEMP	Exhausted gas temperature
ECU_8	NIRA_LAMBDA	Lambda
ECU_9	NIRA_AUX1	Auxiliary1
ECU_10	NIRA_AUX2	Auxiliary2
ECU_11	NIRA_AUX3	Auxiliary3
ECU_12	NIRA_AUX4	Auxiliary4