Performance Electronics ECU1

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 temperatures, 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.
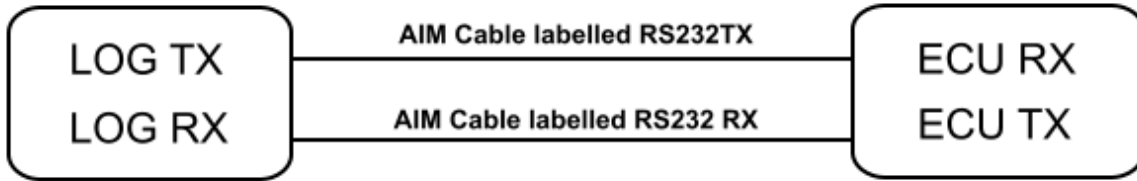
Warning: once the ECU is connected to the logger it is necessary to set it in the logger configuration in Race Studio 2 software.
Select Manufacturer "Performance EI" and Model "ECU_1_EXT"

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

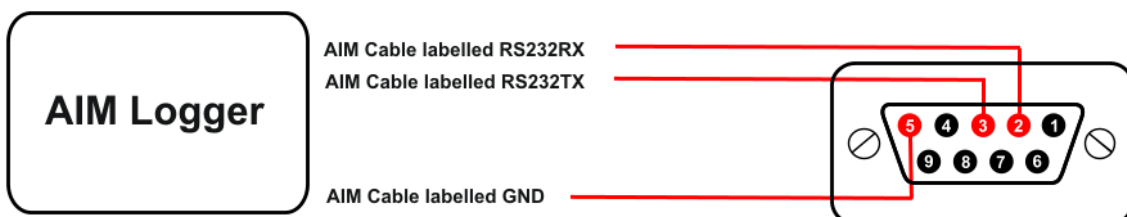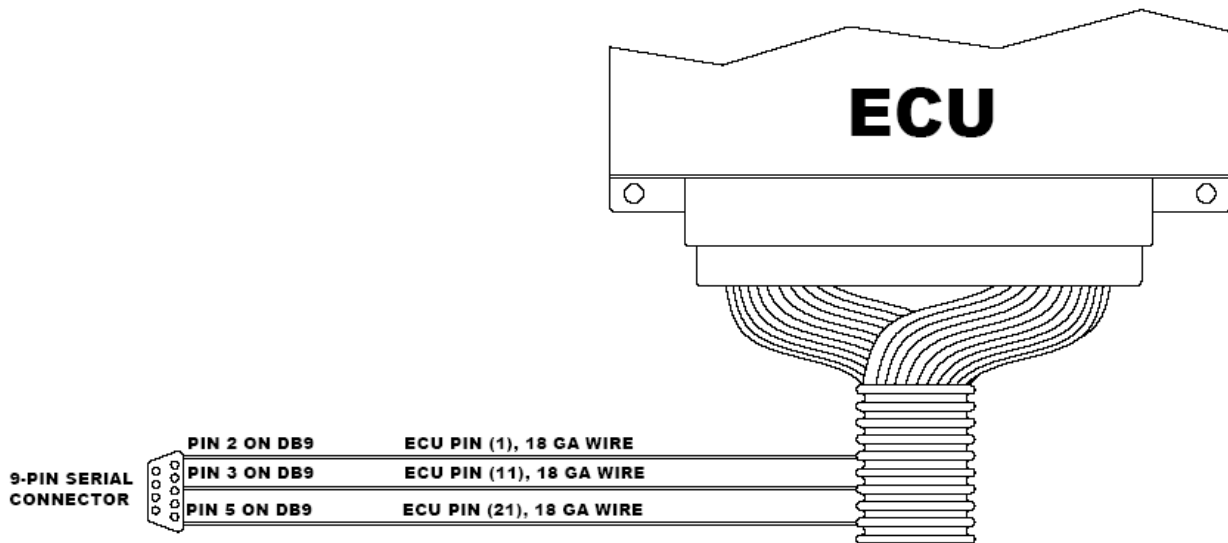## 1 – Performance Electronics serial communication setup

Performance Electronic ECU1 is equipped with a serial communication setup used to communicate parameters to an external logger whose standard setup is shown here below.

```
LOG TX            AIM Cable labelled RS232TX            ECU RX
LOG RX            AIM Cable labelled RS232 RX           ECU TX
```

2 – Connection to AIM loggers

AIM loggers can be connected to Performance Electronics ECU 1 via DB9 serial port according to the following wirings schemes:

- Connect the AIM cable labelled "RS 232 RX" with DB9 female Pin 2
- Connect the AIM cable labelled "RS 232 TX" with DB9 female Pin 3

ECU

```
                    PIN 2 ON DB9       ECU PIN (1), 18 GA WIRE
9-PIN SERIAL        PIN 3 ON DB9       ECU PIN (11), 18 GA WIRE
CONNECTOR           PIN 5 ON DB9       ECU PIN (21), 18 GA WIRE
```

```
AIM Logger          AIM Cable labelled RS232RX
                    AIM Cable labelled RS232TX
                    AIM Cable labelled GND
```

3 – Communication protocol

Channels received by AIM loggers connected to Performance Electronics ECU1 ECU are:

ID	CHANNEL NAME	FUNCTION
ECU_1	PERF_RPM	RPM
ECU_2	PERF_TPS	Throttle Position Sensor
ECU_3	PERF_MAP	Manifold Absolute Pressure
ECU_4	PERF_IAT	Intake air Temperature
ECU_5	PERF_ECT	Water Temperature
ECU_6	PERF_BATT_VOLT	Battery Voltage
ECU_7	PERF_ANALOG1	Analog Channel 1
ECU_8	PERF_ANALOG2	Analog Channel 2
ECU_9	PERF_ANALOG3	Analog Channel 3