

Pectel T6 ECU



INTRODUCTION

AIM has developed special applications for many of the most popular ECUs: 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...

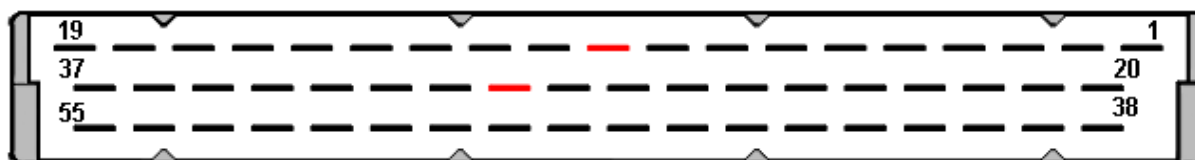
All AIM loggers include – free of charge – **Race Studio 2** software, a powerful tool to configure the system and analyze recorded data on your PC.

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 “Pectel” Model “T_2/T_6”. 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 – Serial Communication Set-Up

The ECU is equipped with a serial communication interface(RS 232) used to communicate parameters to an external data logger, or to configure the ECU itself. Pectel T6 ECU has a 55 pins AMP connector shown here below:



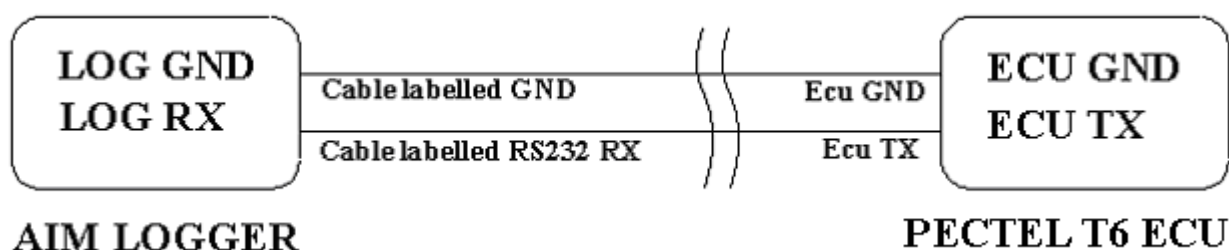
2 – ECU Configuration by “DESCPRO” software

The ECU needs to be properly configured through “Descpro”, the software provided by Pectel to communicate with data loggers. To configure the ECU, follow these steps:

- Connect the ECU to a Pc with “DESCPRO” installed and turn the ECU on (ECU **pin 31 at 12 V** and pin **30/48/12 at GND**);
- run DESCPRO, mark **[Serial]** at start up, choose **[COM]** port and click **[ON LINE]**;
- the software reads the ECU configuration (called “MAPS”); when finished, press **[Menu]** top-right on the screen and choose **[software Setup]** in the next window;
- Now choose **[Datalogging and Serial Cooms]** with arrow –keys and press return (or double click with mouse pointer).
- the default mode should be **[PC]**, press return and a dialogue–window appears; choose **[STACK]** and press return;
- transmit the new configuration to the ECU: click **[File]** and choose **[program current maps into ECU flash]**; confirm the operation when prompted.
- after the transfer quit “DESCPRO”; ECU is ready to communicate with AIM logger.

3 – Connection to AIM data loggers

To connect an AIM datalogger to the ECU, please connect AIM cable labelled (RS232RX) to pin10 of the ECU (ECU TX), and AIM cable labelled GND with pin 30 of the ECU (ECU GND) as shown here below:



Pin	Function	Comments
10	ECU TX	Connection to AIM “RSR232 RX” cable
30	ECU GND	Connection to AIM “GND” cable

4 – ECU communication protocol

Channels received by AIM data loggers connected to Pectel T6 ECU are:

ID	CHANNEL NAME	FUNCTION
ECU_1	PECTEL_RPM	RPM
ECU_2	PECTEL_WHEELSPD	Wheel speed
ECU_3	PECTEL_OILPRESS	Oil pressure
ECU_4	PECTEL_OILTEMP2	Oil temperature 2
ECU_5	PECTEL_WATERTEMP	Water temperature
ECU_6	PECTEL_FUELPRESS	Fuel pressure
ECU_7	PECTEL_BATTVOLT	Battery voltage
ECU_8	PECTEL_THROTANG	Throttle angle
ECU_9	PECTEL_MANIFPRESS	Manifold pressure
ECU_10	PECTEL_AIRCHARGETEMP	Intake air temperature
ECU_11	PECTEL_EXHTEMP	Exhausted temperature
ECU_12	PECTEL_LAMBDA	Lambda value
ECU_13	PECTEL_FUELTEMP	Fuel temperature
ECU_14	PECTEL_GEAR	Engaged gear