

Pectel T2 ECU



Racing Data Power

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 Setup

The ECU is equipped with a Serial communication setup (RS232) used to communicate parameters to an external data logger or to configure the ECU itself.

The serial communication is show here below:



2 – ECU configuration by “DESCPRO” software

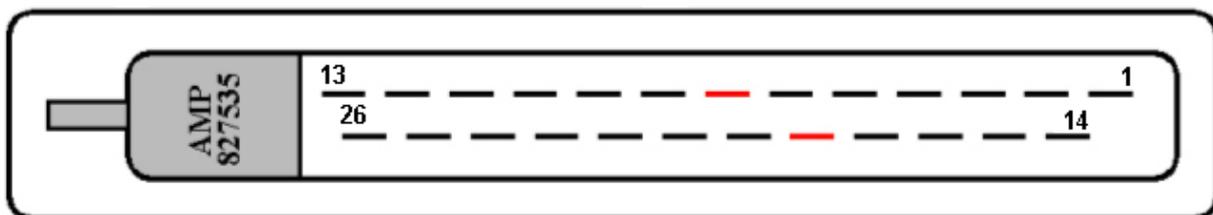
To communicate to AIM loggers, Pectel ECU must be properly configured through “DESCPRO”, the software provided by Pectel to communicate with data loggers. To set the ECU, follow these steps:

- connect the ECU to a PC with “DESCPRO” installed and turn the ECU on (ECU pin **6** at **12V** and pin **18/5** 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 then [**software Setup**];
- press [**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.
- the new configuration needs to be transmitted to the ECU: click [**File>> 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 with AIM loggers

Pectel T2 is equipped with a 26 pins AMP connector used to communicate parameters to AIM logger (image below). To connect AIM logger to the ECU, please connect:

- cable labelled “RS232RX” of AIM logger to pin 7 of the ECU (ECU TX)
- cable labelled “GND” of AIM logger to pin 18 of the ECU (ECU GND)



PIN	Function	Comments
7	ECU RS232TX	Connection to AIM “RS232RX” cable
18	ECU GND	Connection to AIM “GND” cable

4 – ECU communication protocol

Channels received by AIM loggers connected to Pectel T2 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