AiM Infotech

Pectel SQ6

Release 1.01

ECU

# 1
# Introduction

This user manual explains how to connect Pectel ECUs to AiM devices. Supported model is:

- Pectel                                                SQ6

# 2
# Software setup

Pectel SQ6 ECU needs a software setup to correctly communicate with AiM devices. Pectel provides DESCProW software. To set the ECU follow these steps:
- connect Pectel SQ6 to your PC
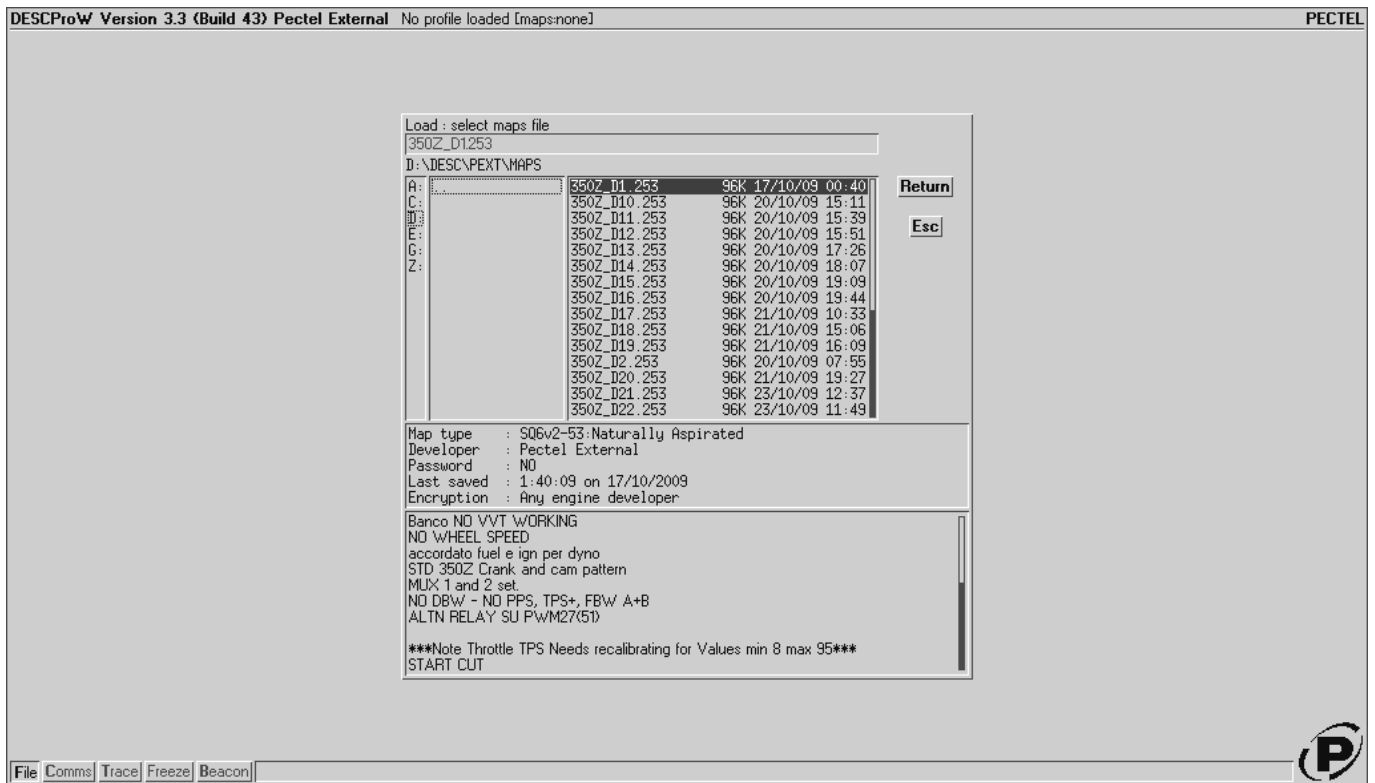- run DESCProW software (version used in this user manual is 3.3 – build 43)
- click "ON-LINE"

With reference to the image below
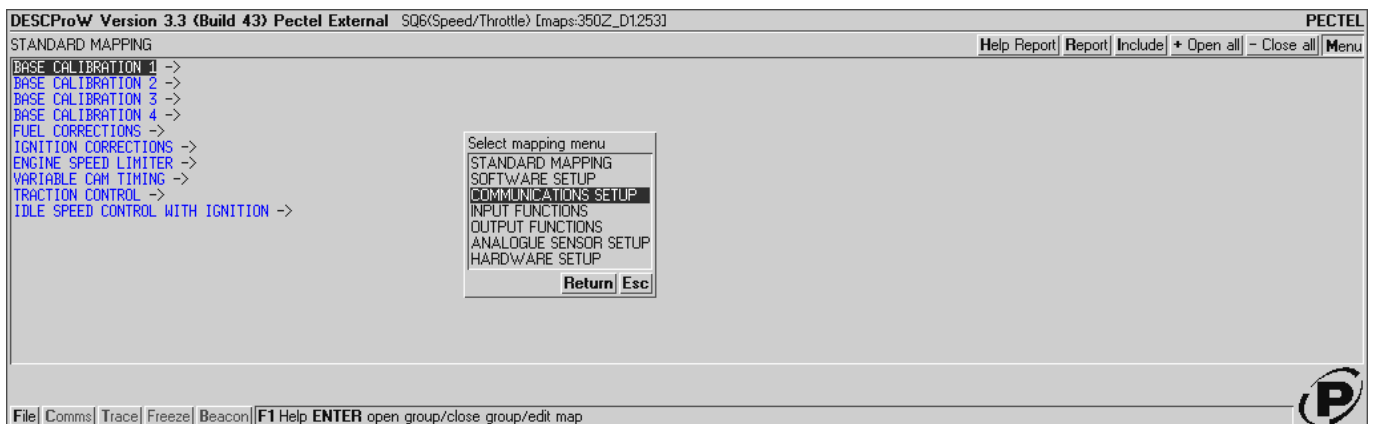- press "F" or click "File" bottom left
- press "L" or select "Load maps"
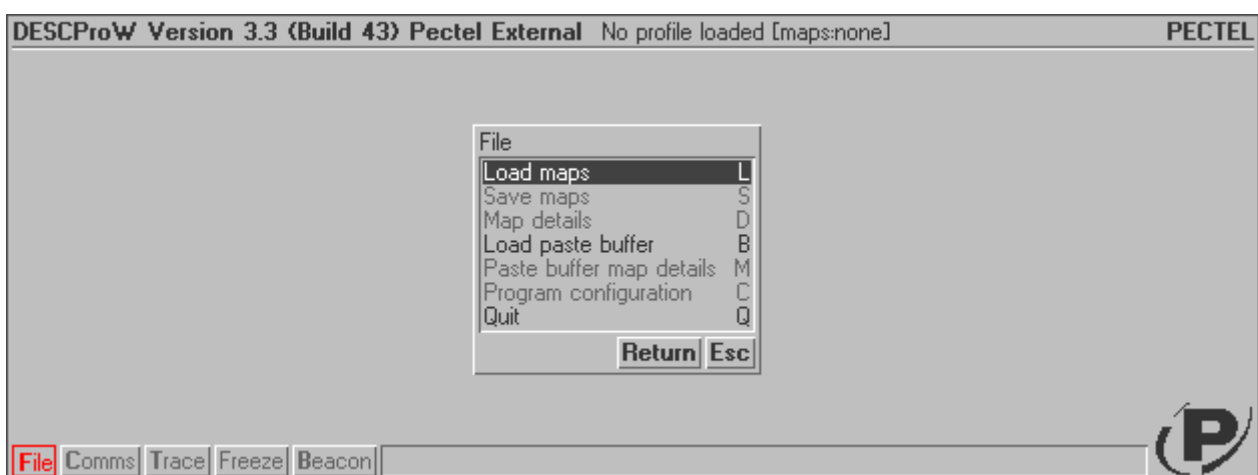
- select Map/Calibration file (in the example "350Z_D1_253)
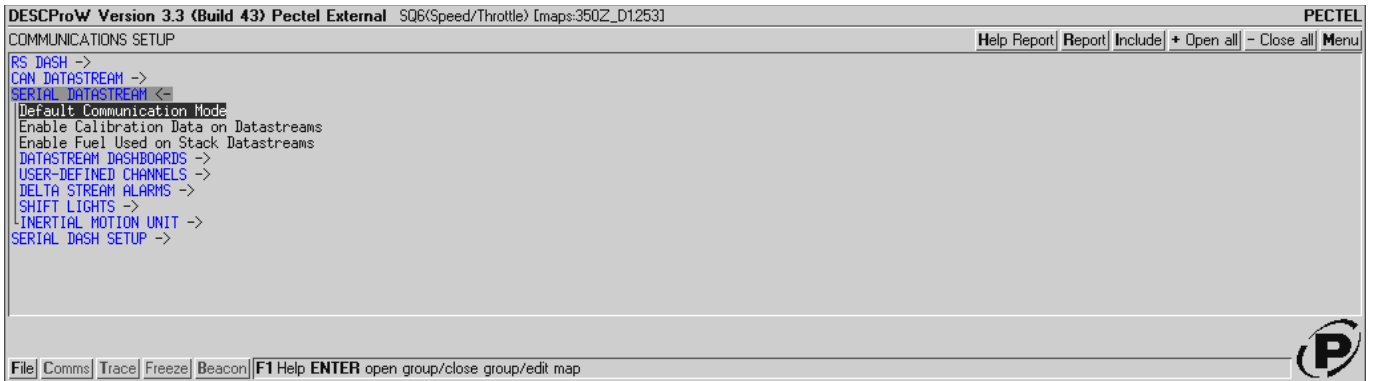- press "Enter" or click "Return": the software reads the ECU configuration (called MAPS)



- when finished press "M" or click "MENU"
- select "BASE CALIBRATION 1"
- select "Communication Setup"
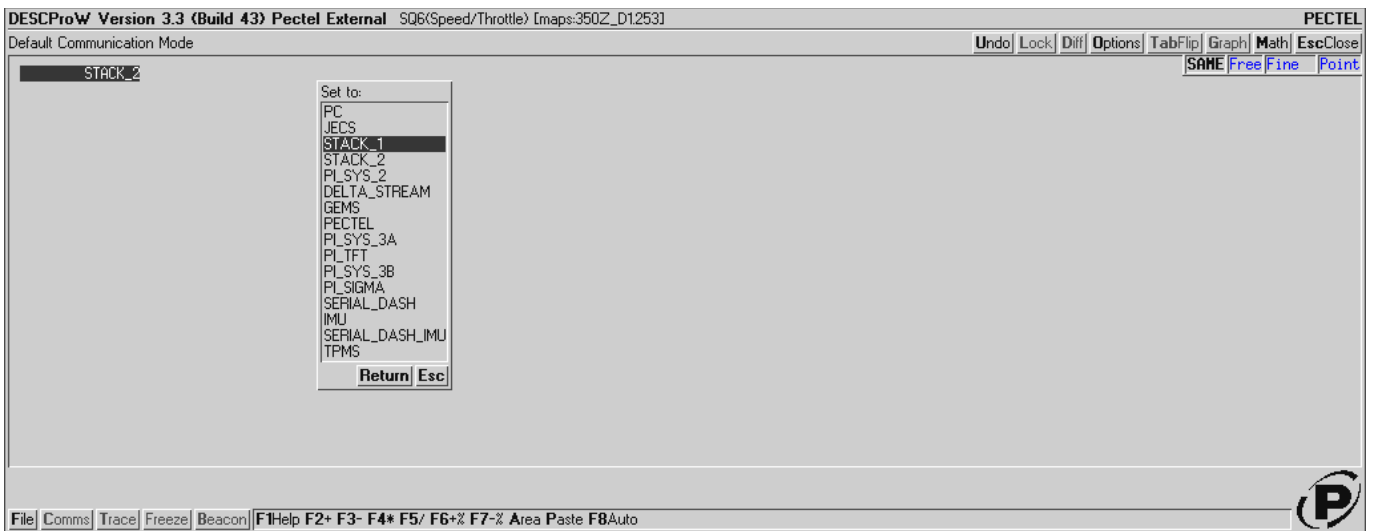- press "Enter" or click "Return"

- double click "SERIAL DATASTREAM"
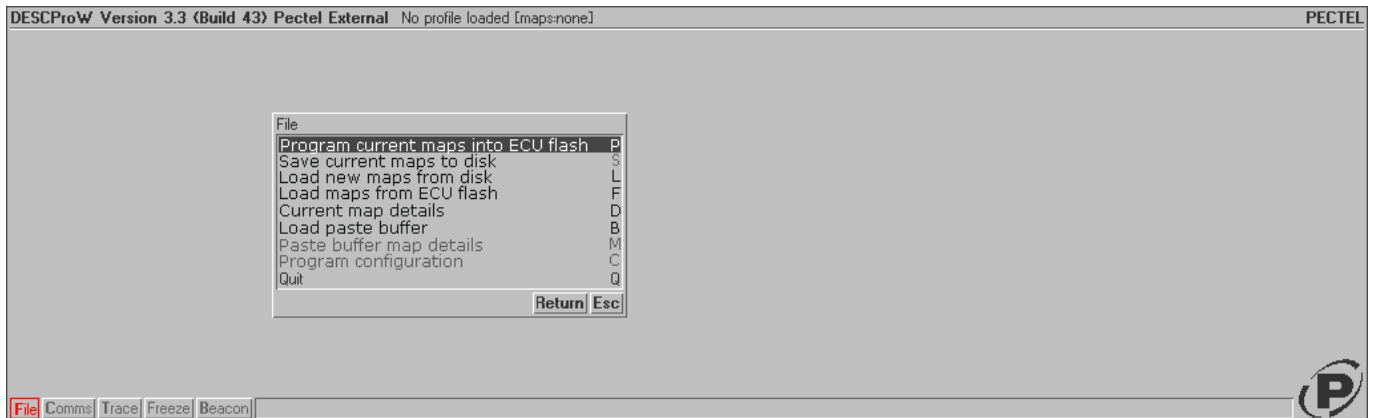- select "Default Communication Mode"



- check communication mode setting: if is "Stack_1" everything is ok, if not – like in the image below – press "Enter"
- select "Stack_1"
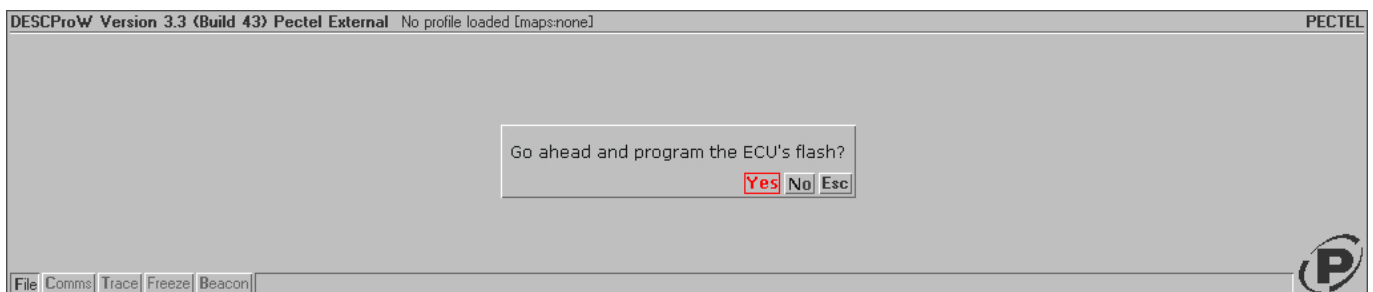- press "Enter" or click "Return"

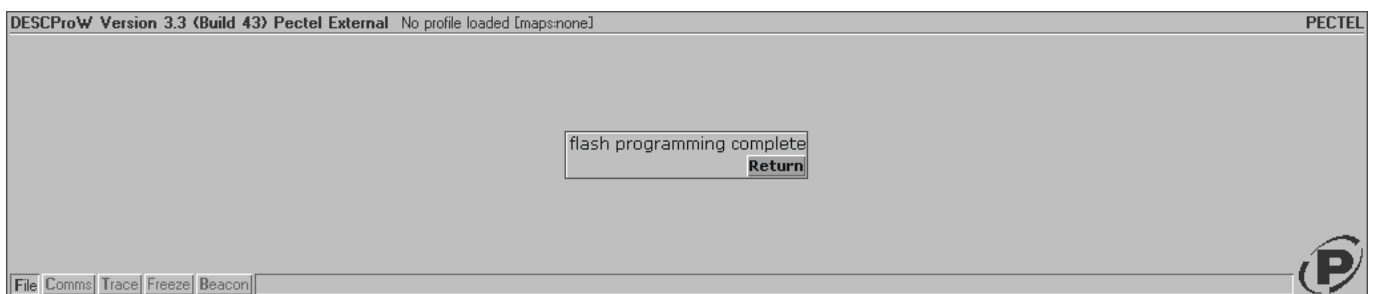The new configuration needs to be transmitted to the ECU:
- press "F" or click "File"
- select "Program current maps into ECU flash"
- press "Enter" or click "Return"



- confirm when prompted clicking "YES"



- press [F10] to save the configuration
- if the procedure has been successful transmitted this message is shown:

# 3
# Wiring connection

Pectel SQ6 ECU features a serial communication protocol on the 88 pins front male connector highlighted here below. Bottom of it is connection table.
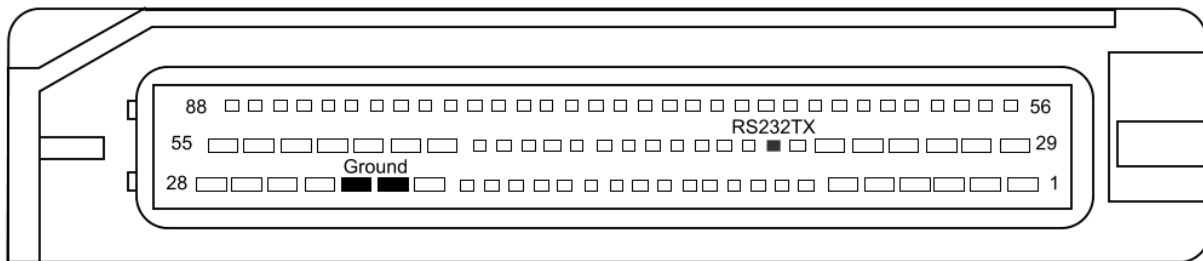


| Front connector pin | Pin function | AiM cable |
|---------------------|--------------|-----------|
| 36                  | RS232TX      | RS232RX   |
| 23 or 24            | Ground       | GND       |

# 4

# AiM device configuration

Before connecting the ECU to AiM device, set this up using AiM Race Studio software. The parameters to select in the device configuration are:
- ECU manufacturer "Pectel"
- ECU Model: "SQ6"

# 5

# Available channels

Channels received by AiM devices connected to "Pectel" "SQ6" protocol are:

| ID | CHANNEL NAME | FUNCTION |
|---|---|---|
| ECU_1 | PECTEL_RPM | RPM value |
| ECU_2 | PECTEL_SPEED | Speed vehicle |
| ECU_3 | PECTEL_OILPRESS | Oil pressure |
| ECU_4 | PECTEL_OILTEMP | Oil temperature |
| ECU_5 | PECTEL_ECT | Engine coolant temperature |
| ECU_6 | PECTEL_FUELPRESS | Fuel pressure |
| ECU_7 | PECTEL_BATTVOLT | Battery voltage |
| ECU_8 | PECTEL_TPS | Throttle position sensor |
| ECU_9 | PECTEL_MAP | Manifold pressure |
| ECU_10 | PECTEL_AIRCHARGETEMP | Air charge temperature |
| ECU_11 | PECTEL_EXHTEMP | Exhaust gas temperature |
| ECU_12 | PECTEL_LAMBDA | Lambda value |
| ECU_13 | PECTEL_FUELTEMP | Fuel temperature |
| ECU_14 | PECTEL_GEAR | Gear number |
| ECU_15 | PECTEL_COUNTER | Counter |
| ECU_16 | PECTEL_FUELLEVEL | Fuel level |
| ECU_17 | PECTEL_ERRORFLAG | Error |