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AiM Infotech

Pectel SQ6

Release 1.01



ECU



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1

Introduction

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

- Pectel SQ6

2

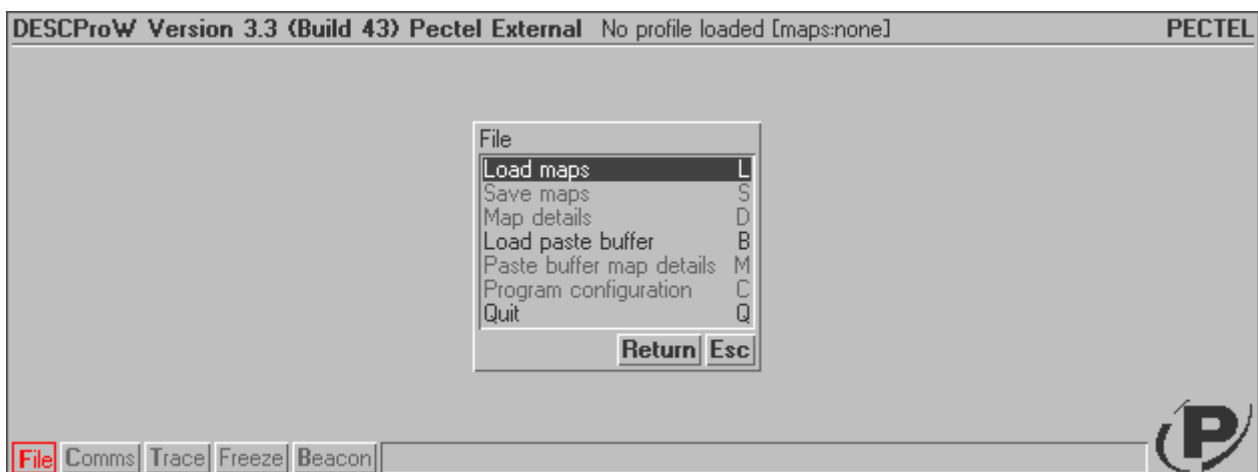
Software setup

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”

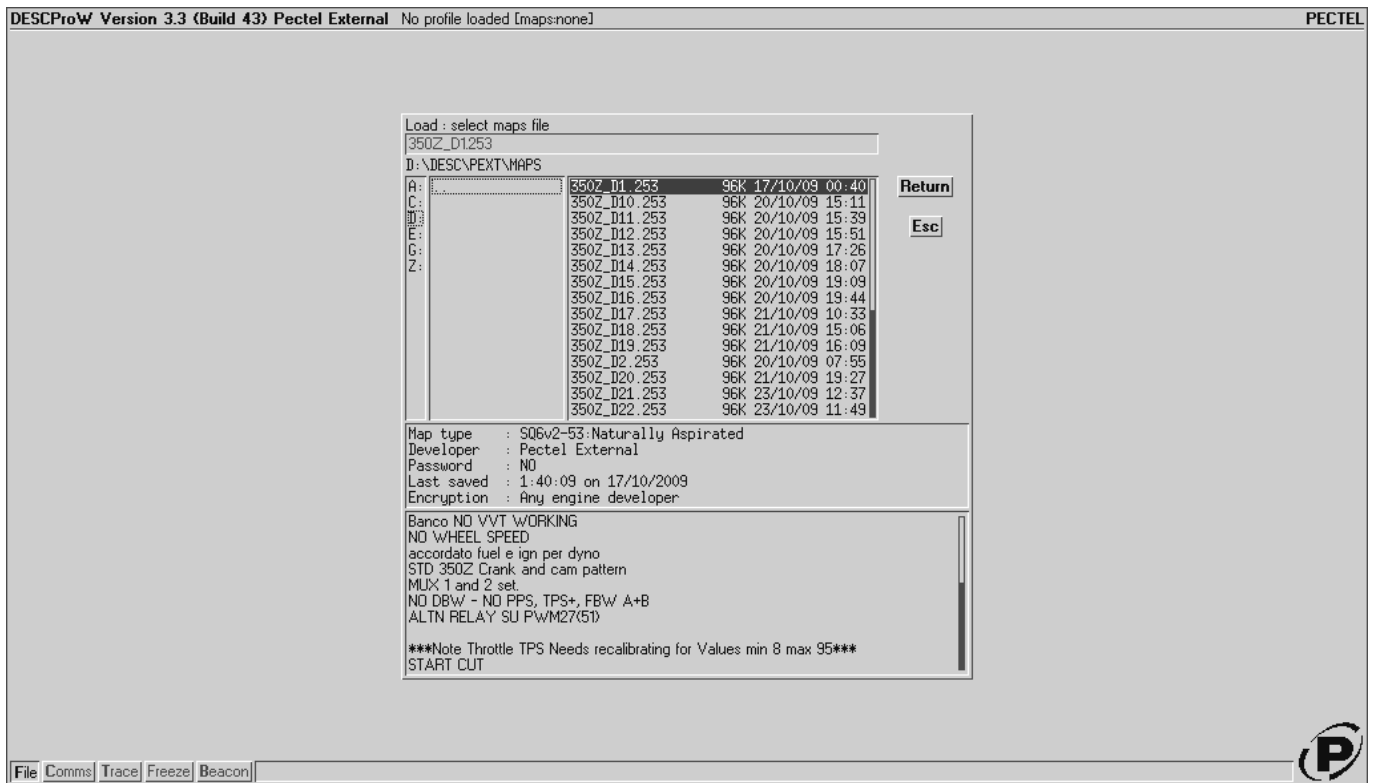
With reference to the image below

- press “F” or click “File” bottom left
- press “L” or select “Load maps”

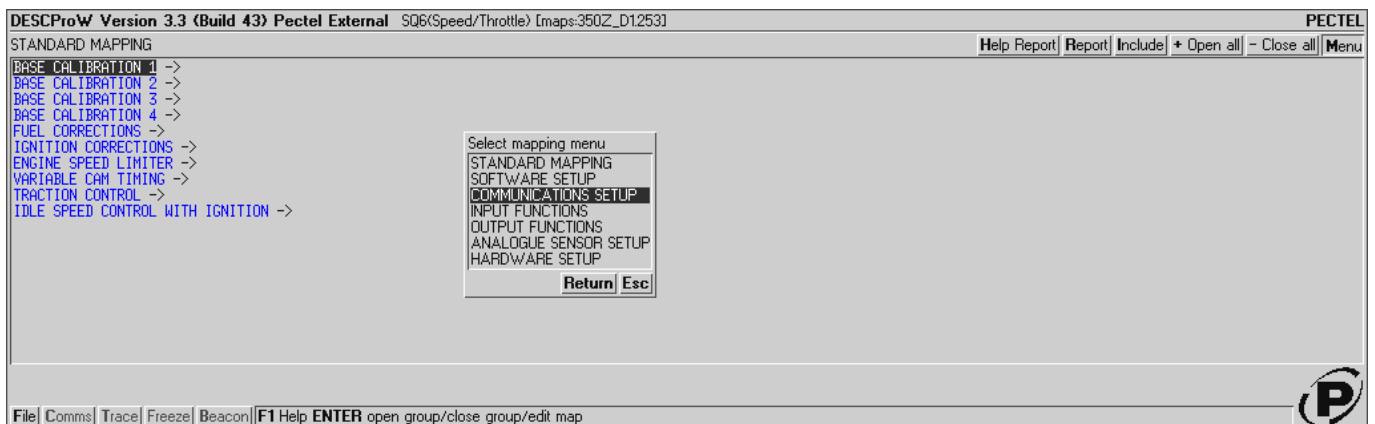




- select Map/Calibration file (in the example “350Z_D1_253”)
- press “Enter” or click “Return”: the software reads the ECU configuration (called MAPS)

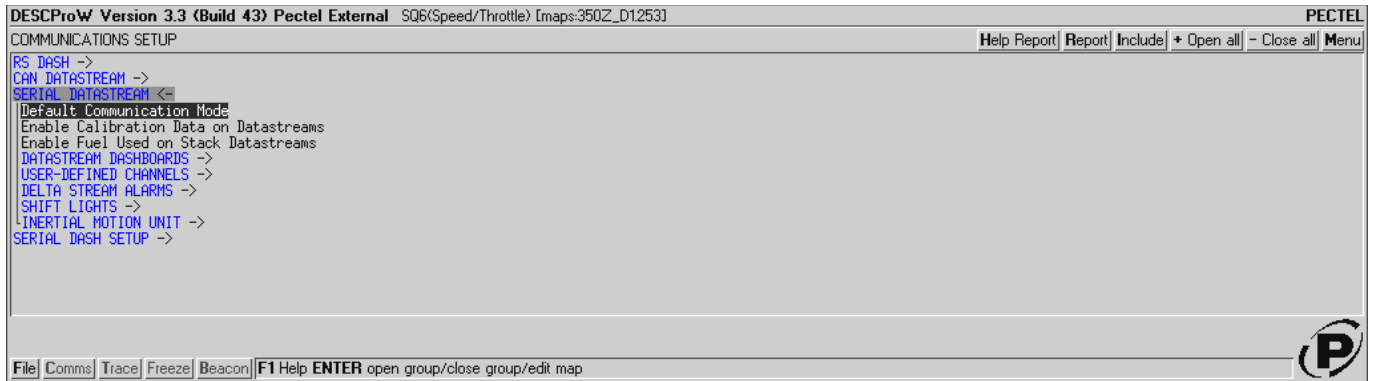


- when finished press “M” or click “MENU”
- select “BASE CALIBRATION 1”
- select “Communication Setup”
- press “Enter” or click “Return”

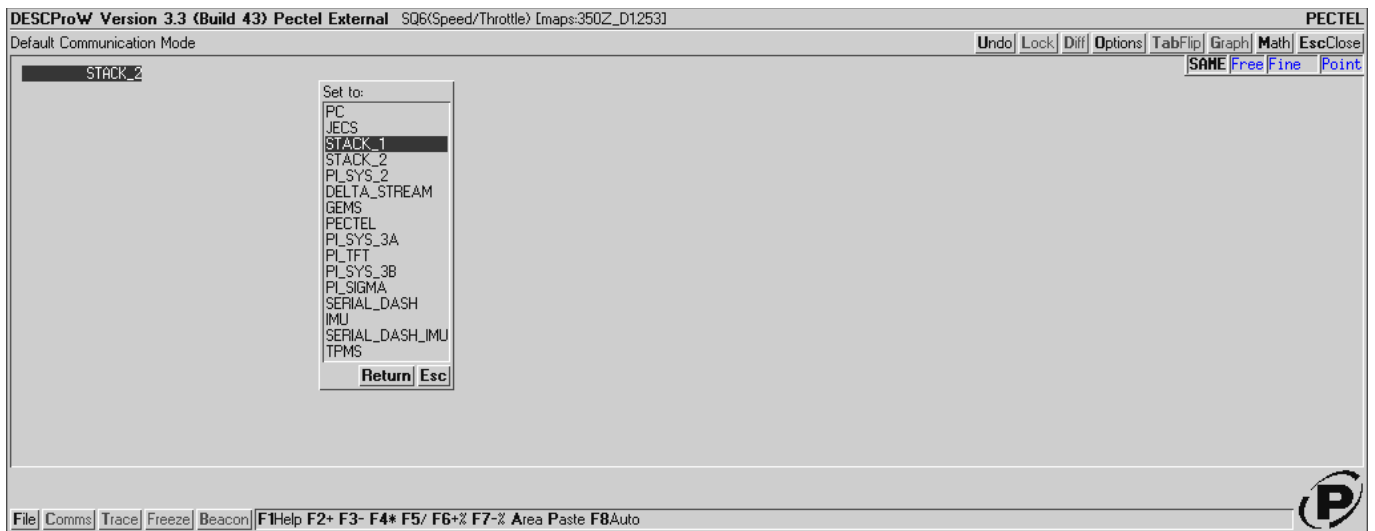




- double click "SERIAL DATASTREAM"
- select "Default Communication Mode"

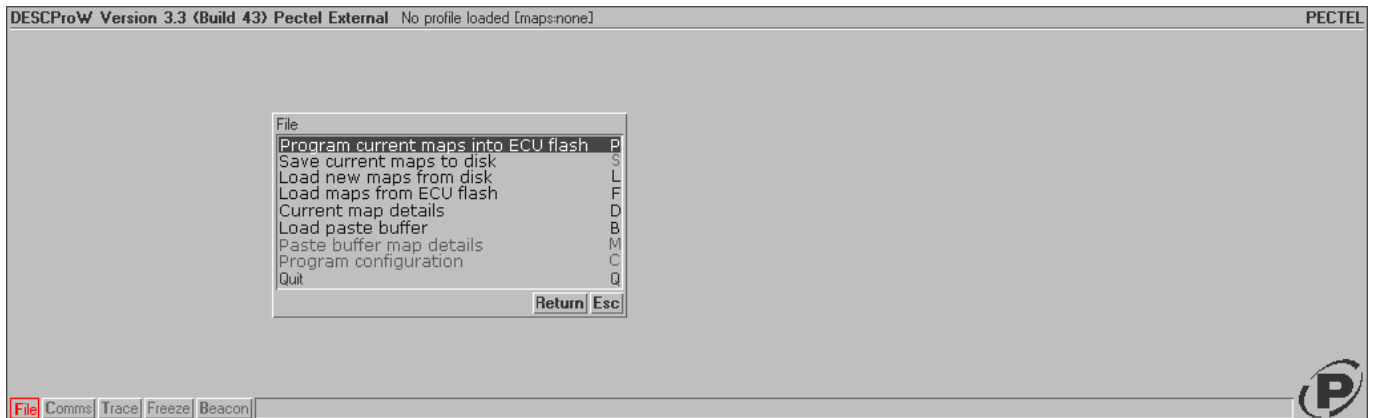


- check communication mode setting: if is "Stack_1" everything is ok, if not – like in the image below – press "Enter"
- select "Stack_1"
- press "Enter" or click "Return"

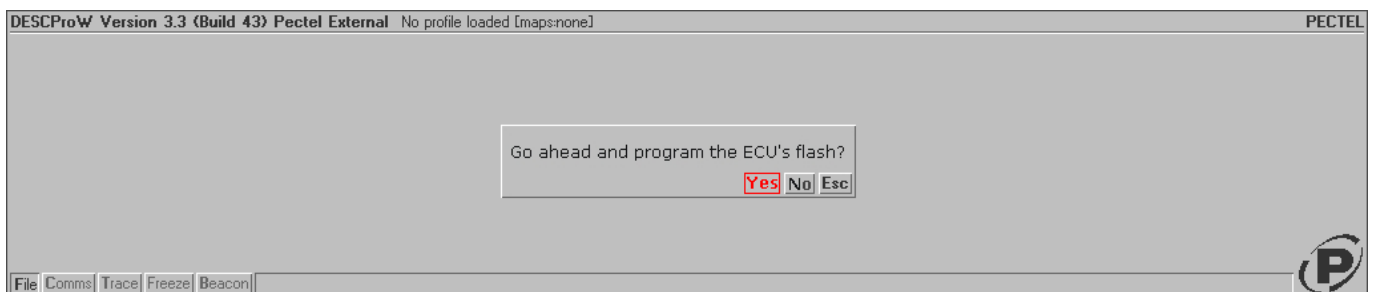


The new configuration needs to be transmitted to the ECU:

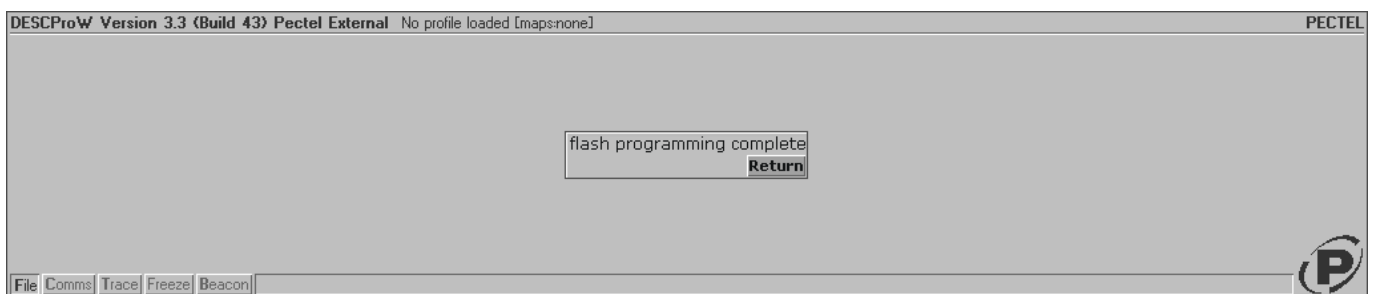
- press “F” or click “File”
- select “Program current maps into ECU flash”
- press “Enter” or click “Return”



- confirm when prompted clicking “YES”



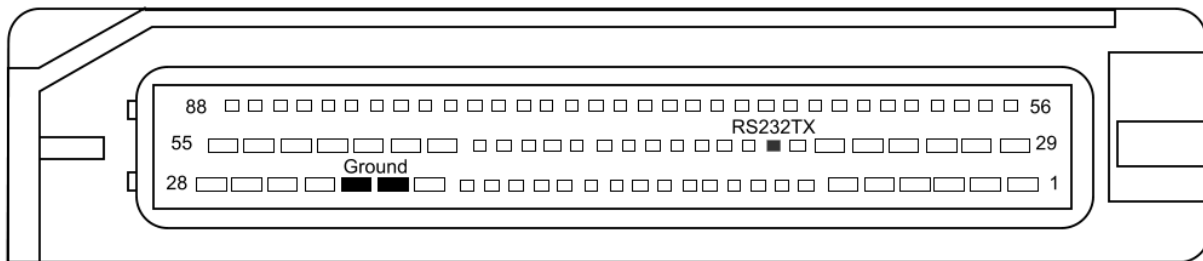
- press [F10] to save the configuration
- if the procedure has been successful transmitted this message is shown:



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