DTA – P8V30

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 "DTA" Model "P8_V30". 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.

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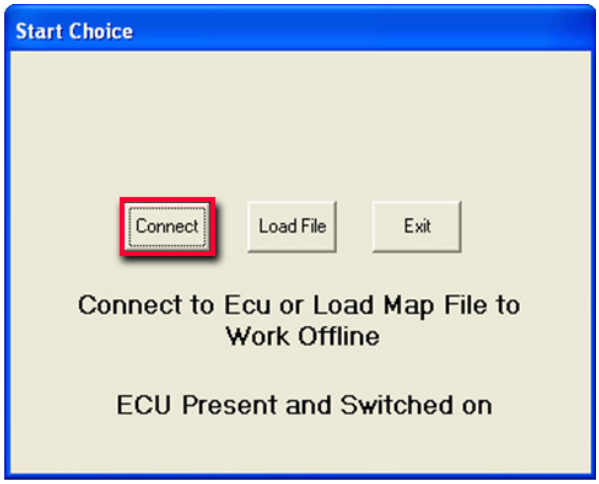
Chapter 1 – Serial communication Setup

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.

Chapter 2– DTA Software configuration

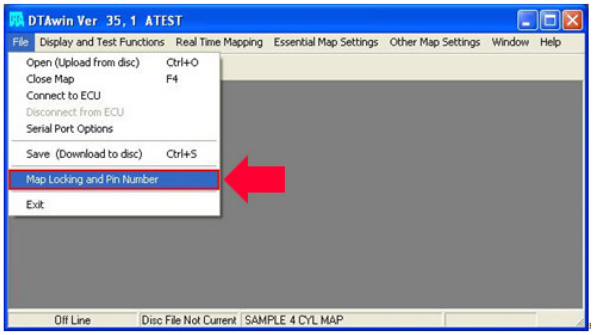
For DTA ECU to communicate with AIM logger configure the ECU using DTAWin software and follow these steps.

- Launch DTAWin software.
- "Start Choice" window is prompted.
- Click on "Connect" button.
- If a windows saying "No Matching File on disc Use Save to Make one" appears, please click on "OK" button and then on "Connect" button

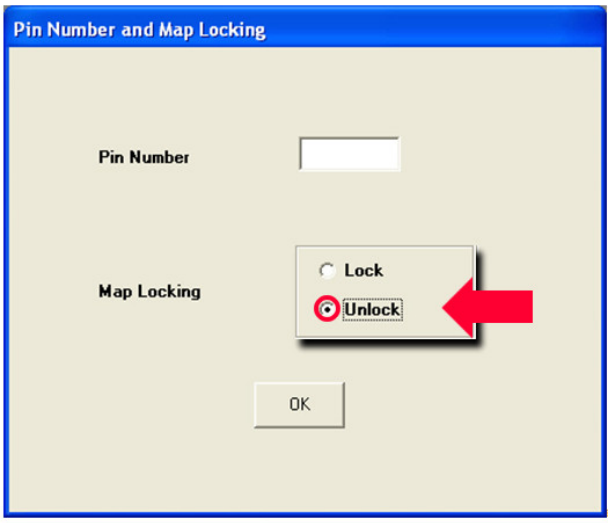


DTAWin main window appears.

- Click on "File" button on the top toolbar and select "Map Locking and Pin Number" option.

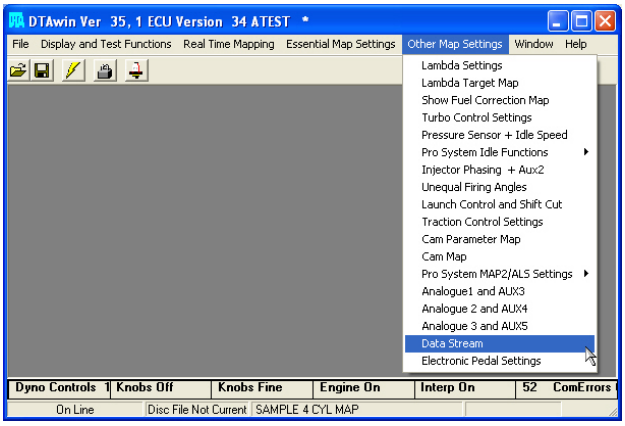


When "Pin Number and Map Locking" window appears, enable "Unlock" checkbox and press "OK" button.



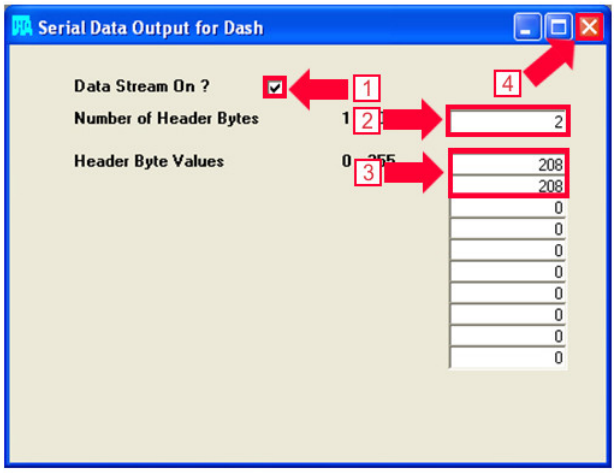
The system comes back to DTAWin Main window;

- click on “Other Map Settings” on the top toolbar and select “Data Stream” option.

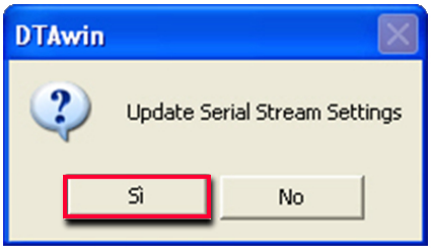


When Serial Data Output for Dash window appears, set it as follows:

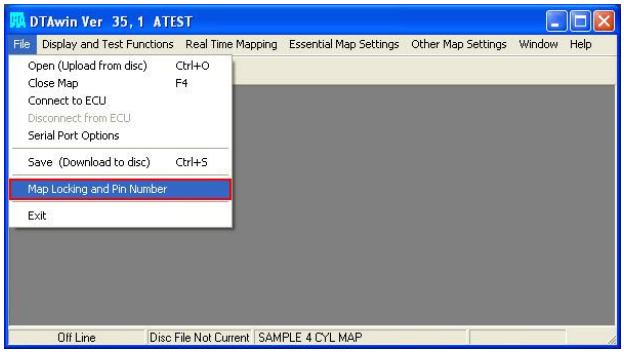
- enable “Data Stream on?” checkbox
- Fill “Number of Header Bytes 1-10” box with number “2”
- Set 208 on the first two rows of Header Bytes Value box
- Close the window clicking on the red cross on the top right corner



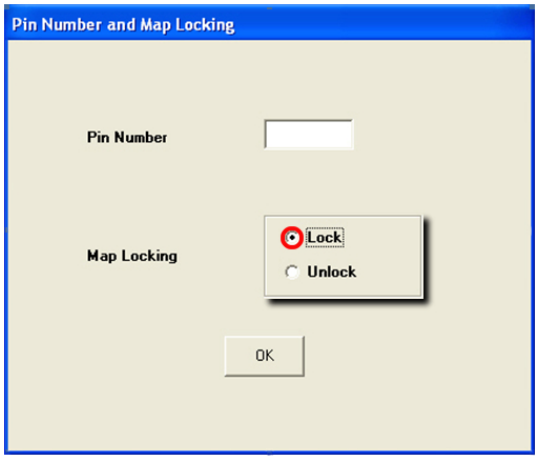
A window asking for confirmation appears; click on “Yes” button.



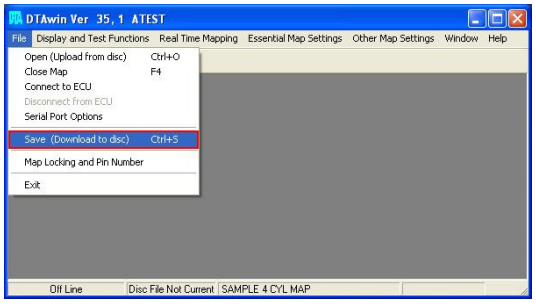
DTAWin main window appears. Please click on “File” button on the top toolbar and select “Map Locking and Pin Number” option.



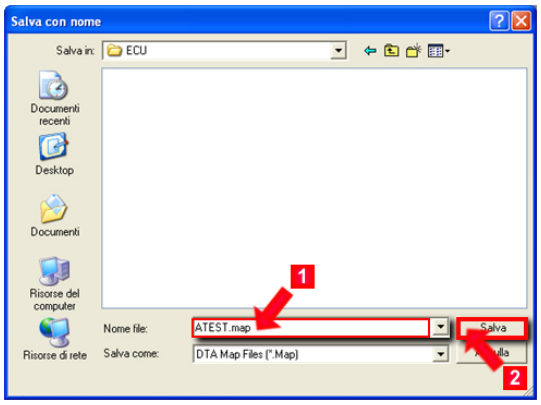
When “Pin Number and Map Locking” window appears, enable “Lock” checkbox and then press “OK” button.



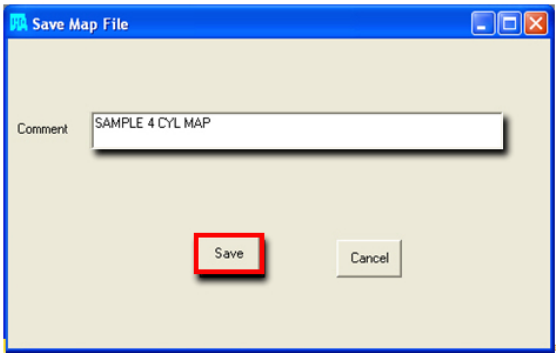
DTAWin main window appears. Click on “File” button on the top toolbar and select “Save (Download to disc)” option.



“Save as” window appears. Insert file name and press “Save” button.

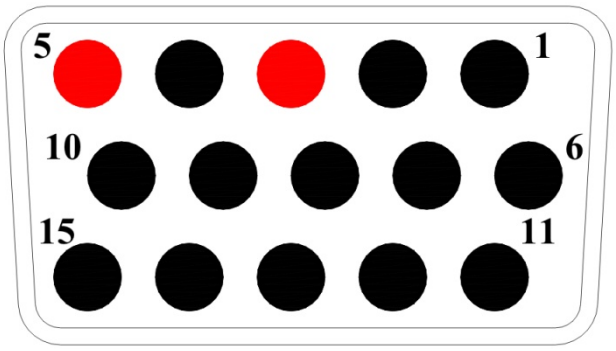


“Save Map file” window appears. Insert Map comment and click on “Save” button.

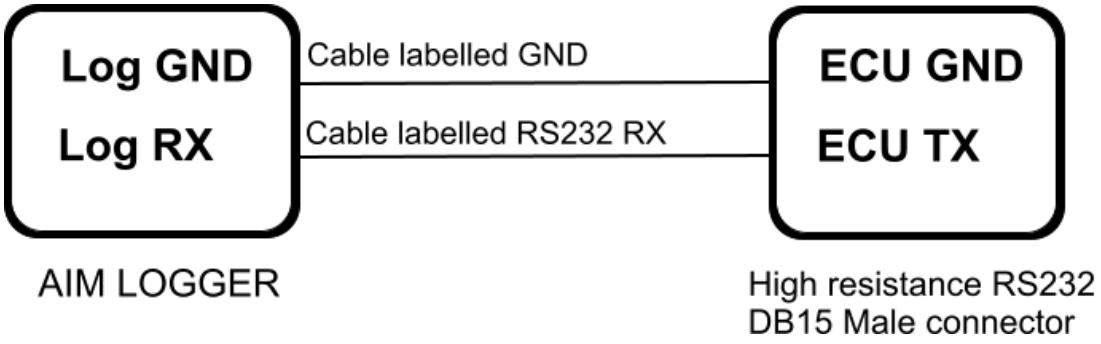


Chapter 3 – Connection with AIM loggers

DTA P8V30 ECU has a DB15 female connector; to connect the ECU with AIM loggers an RS232 DB15 male high resistance connector, shown below, is needed.



To connect AIM logger to the ECU, connect AIM cable labelled as "**RS232RX**" with **Pin 2** of the **RS232 DB15 male connector** (goes to ECU TX), AIM cable labelled as "**GND**" with **Pin 5** of the **RS232 DB15 male connector** (goes to ECU GND) as shown below.



PIN DB15	Function	Comments
5	GND	
2	RS232TX	

Chapter 4 – DTA P8V30 ECU communication protocol

Channels shown on AIM data loggers via serial protocol with DTA P8V30 are:

ID	CHANNEL NAME	FUNCTION
ECU_1	DTA_RPM	RPM
ECU_2	DTA_THROTANG	Throttle position sensor
ECU_3	DTA_WATERTEMP	Water cooling temperature
ECU_4	DTA_AIRTEMP	Air temperature
ECU_5	DTA_MANIFPRESS	Manifold air pressure
ECU_6	DTA_LAMBDA	Lambda value
ECU_7	DTA_BATTV	Battery voltage
ECU_8	DTA_WHEELSPD	Wheel speed
ECU_9	DTA_ANA1	Analog Channel#1
ECU_10	DTA_ANA2	Analog Channel#2
ECU_11	DTA_ANA3	Analog Channel#3