

DELLORTO

Deuss Service Tool

For

“ECS” System ECU

PRELIMINARY

Instructions Manual

Revision History

Level	Date	Author	Change Description and section(s) affected by the change
1.00	25/02/2013	Luca Arena	First release
1.10	03/05/2013	Luca Cerini	Added table of "Error codes"

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NOTE TO READERS

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1. Kit contents

1.1.

The Deuss Service Tool, is a kit to realize diagnostic operations in the Electronic Carburetor System:

The kit includes:



USB OBDII cable

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To Crimp 3 WAY Connector

OBDII interface Vehicle cable

- Software program to download in Dell'Orto website :
 - <http://www.dellorto-pe.com/dellorto/> **DEUSS-SERVICE-TOOL.Rxxx**
- USB Key for software protection and SW running.

1.2. Contacts

Dell'Orto - Electronic System Manager - Riccardo Barbieri (+39 031 7692112) - riccardo.barbieri@dellorto.it

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1.3. Term and abbreviations

ECS	Electronic Carburetor System
EWT	Engine water temp
MIL	Malfunction indicator lamp
NTC	Negative temperature coefficient
PWM	Pulse width modulation
RPM	Revolutions per minute
TPS	Throttle position sensor

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2. Installation Product

DO NOT INSERT THE USB CABLE OR THE USB KEY BEFORE TO INSTALL THE PROGRAMM

Once you downloaded the installation package, it needs:

- To extract the zip file in a temporary directory
- To do Double click on : Setup_SERVICE_Vxxx.exe
- To follow the Setup instructions

At the end of installation procedure:

- To insert the USB OBDII cable and wait for installation driver complete
- To insert the USB KEY (HASP violet) and wait for installation driver complete

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3. Run the software and create vehicle connection

Once the software was been installed in to PC, in the desktop you have the icon:

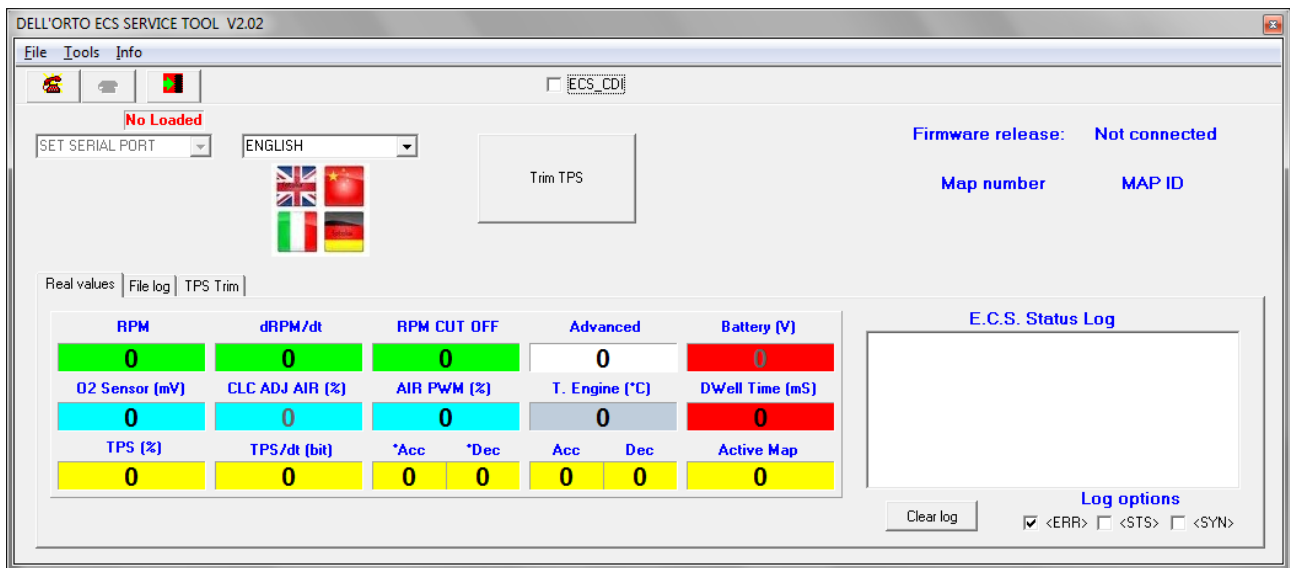


To connect the USB OBDII by the OBDII interface to the vehicle

PC ↔ OBDII ↔ OBDII Inteface ↔ vehicle

To turn the Key vehicle in run position or crank engine

To run the Program , double click DEUSS_SERVICE Icon



To click on “red phone” icon to connect the ECU

3.1. Real time values viewer

The Real time values window, allows to read the engine control values:

RPM	Revolution Per Minute of the engine
dRPM/dt	Variation in time of RPM
RPM CUT OFF	Number of cut spark events
Advanced	Timing spark advance applied
Battery	Voltage Battery
O2 Sensor	Oxygen Sensor voltage
CLC ADJ AIR	Contribution of Close Loop Control in title adjustment
AIR PWM	Applied Duty cycle to title control
T. Engine	Engine temperature
Dwell Time	Activation time of primary coil spark
TPS	Throttle position sensor (Driver Demand)
dTPS/dt	Variation in time of TPS
Acc° /Dec °	Contribution of transition algorithm in Advance timing
Acc /Dec	Contribution of transition algorithm in Title control
Active Map	Used configuration map

3.1. TPS Trim

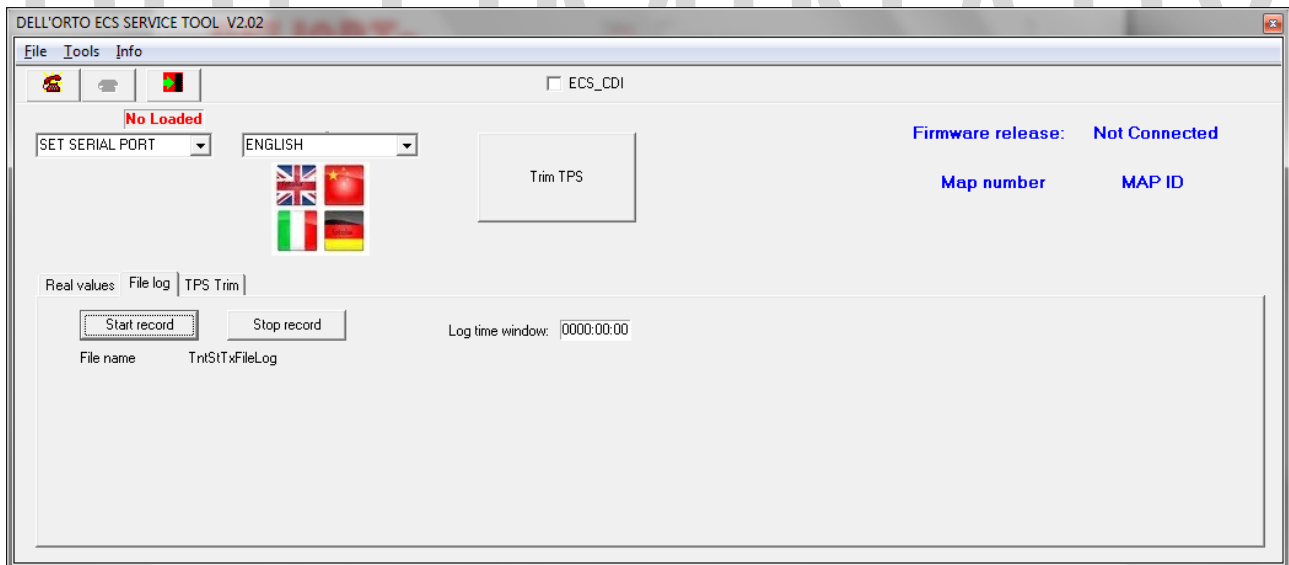
In case of carburetor substitution or idle screw modification , it is necessary to trim the TPS values:

Click on “Trim TPS” and follow the procedure step by step

3.2. File log

The file log window allows the user to record the real value datas in a file; it need to click on “Start record” and choose the name of the file.

To end the record, click on “Stop record”

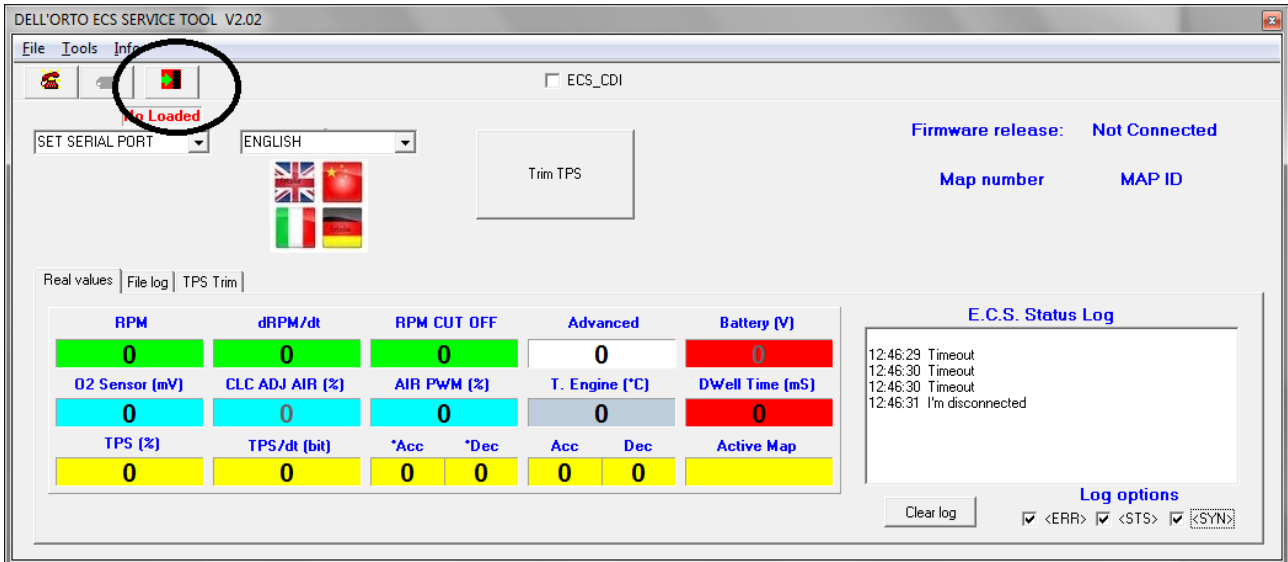


E.C.S. Status log window

The window shows to user the actual status of the system; in case any error is present, a dedicated message will be displayed

4. Calibration Map Update

In case of a new file.map (new calibration Map) is available from Vehicle Maker, it's possible to update the ECS system accordingly:



Click the circled, select the file (*.map) and wait for procedure complete.

IMPORTANT NOTE: After New Map download it is mandatory to Trim the TPS

5. Error codes

When a fault or error is detected ECU send an error code (column 1) and use MIL LED to report (column 3)

Error table			
Code	Error	MIL LED	Description
10	Err_Flash_Chk		Checksum error of data in flash memory
11	Err_Flash_Dev		Flash error, it is possibile a hardware error
104	Err_Teng_CC	(0,3)	Engine temperature sensor in short circuit
105	Err_Teng_CA	1.5 sec off 3 blinks	Engine temperature sensor in open circuit
120	Err_Air_CC	(0,2)	Air valve in short circuit
121	Err_Air_CA	1.5 sec off 2 blinks	Air valve in open circuit
130	Err_Starter_CC	(0,5)	Starter in short circuit
131	Err_Starter_CA	1.5 sec off 5 blinks	Starter in open circuit
138	Err_Speed_CC	(0,6)	Speed sensor in short circuit or open circuit
139	Err_Speed_CA	1.5 sec off 6 blinks	
170	Err_Tps_Lo	(0,1)	TPS signal lower than 0,2V
171	Err_Tps_Hi	1.5 sec off 1 blink	TPS signal higher than 4,8V
190	Err_Lambda_CC	(0,4)	Lambda sensor short circuit to GND or 5 Volt
191	Err_Lambda_CA	1.5 sec off	
192	Err_Lambda_NA	4 blinks	No sensor activity detected
	Autotuning in progress	1 sec on 1 sec off	Autotuning in progress
	Autotuning failed	Led on	Autotuning failed