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updated 28.09.2010
application version: 00.170910

USER MANUAL
ZeelProg PCDI-24V

Supported control units: **PCDI-24V**

ZeelProg is PC application for programming ZEELTRONIC engine *control units*. For programming special PC-USB programmer is needed.

- ***ZeelProg*** automatically detects PC-USB programmer connection and enables all functions (without PC-USB programmer, ***ZeelProg*** application is locked).
- ***ZeelProg*** automatically detects type of engine *control unit* connected to PC-USB programmer.

CONTENT

ZeelProg SOFTWARE INSTALLATION GUIDE

CD content:
- driver (USB programmer driver)
- NET Framevork
- ZeelProg

Software can be also downloaded from web site:
http://www.zeeltronic.com/page/zeelprog.php

ZeelProg application can be installed on Windows XP/Vista.
"NET Framework 3.5" needs to be installed.

Installation:
① Insert CD-ROM and browse content.
② Install USB programmer driver with running "CDM20600.exe" from CD-ROM "driver" directory.
③ Install ***ZeelProg*** with running "setup ZeelProg.exe" from CD-ROM "ZeelProg" directory.

If ***ZeelProg*** does not start, install "NET Framework" from CD-ROM "NET Framework" directory.

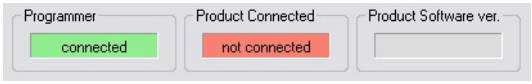
ZeelProg USER INTERFACE

Auto detection

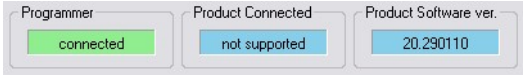
Zeelprog automatically detects USB-Programmer connection and type of *control unit*.

⇨ Programmer connected, product (*control unit*) connected:

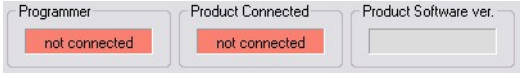
⇨ Programmer connected, product (*control unit*) not connected:



⇨ Programmer connected, product (*control unit*) not supported:



⇨ Programmer not connected, product (*control unit*) not connected:

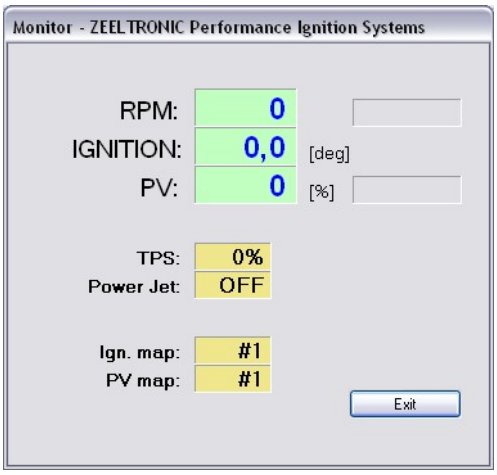


Menu structure

⇨ **File menu** is active when PC-USB programmer is connected

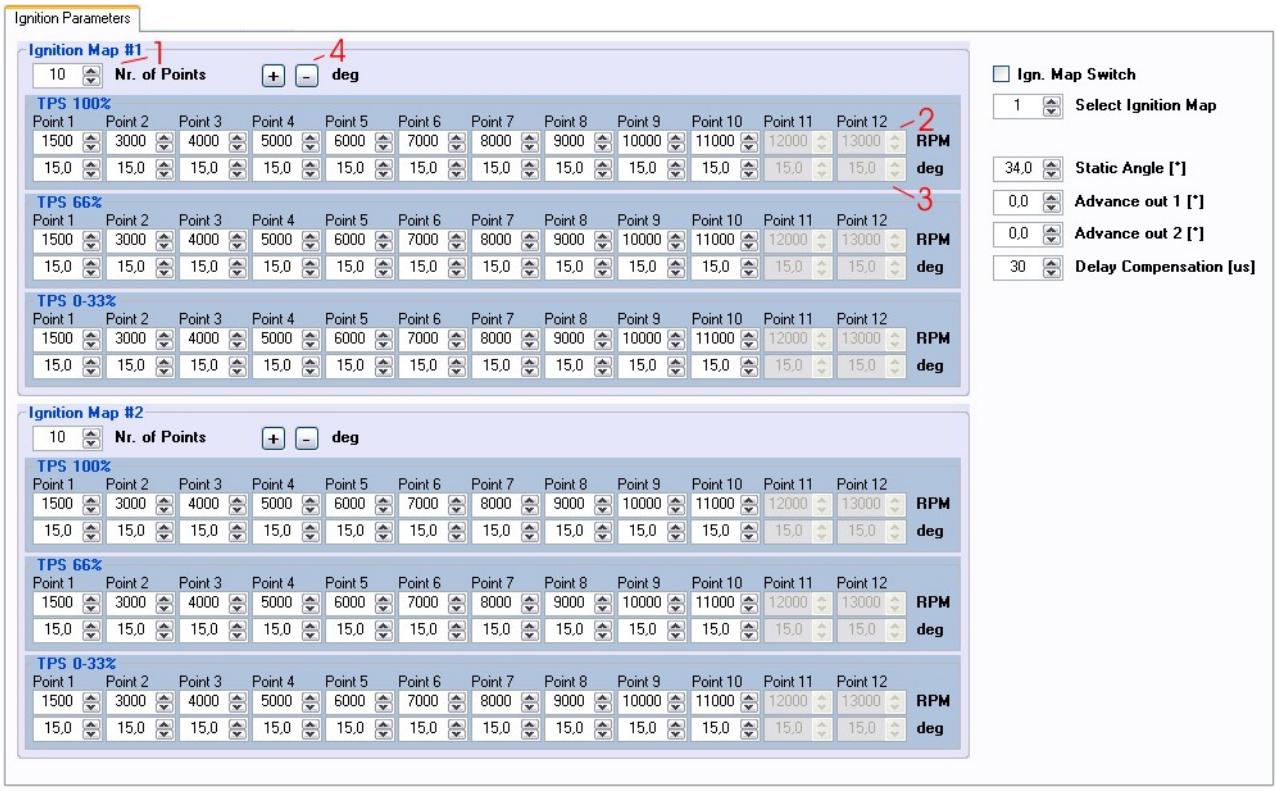
Open → Open an existing *.zee file
Save As → Save all parameters to *.zee file

⇨ **Monitor** is active when *control unit* is connected to PC-USB programmer.
Clicking on the **Monitor** opens Monitor window.



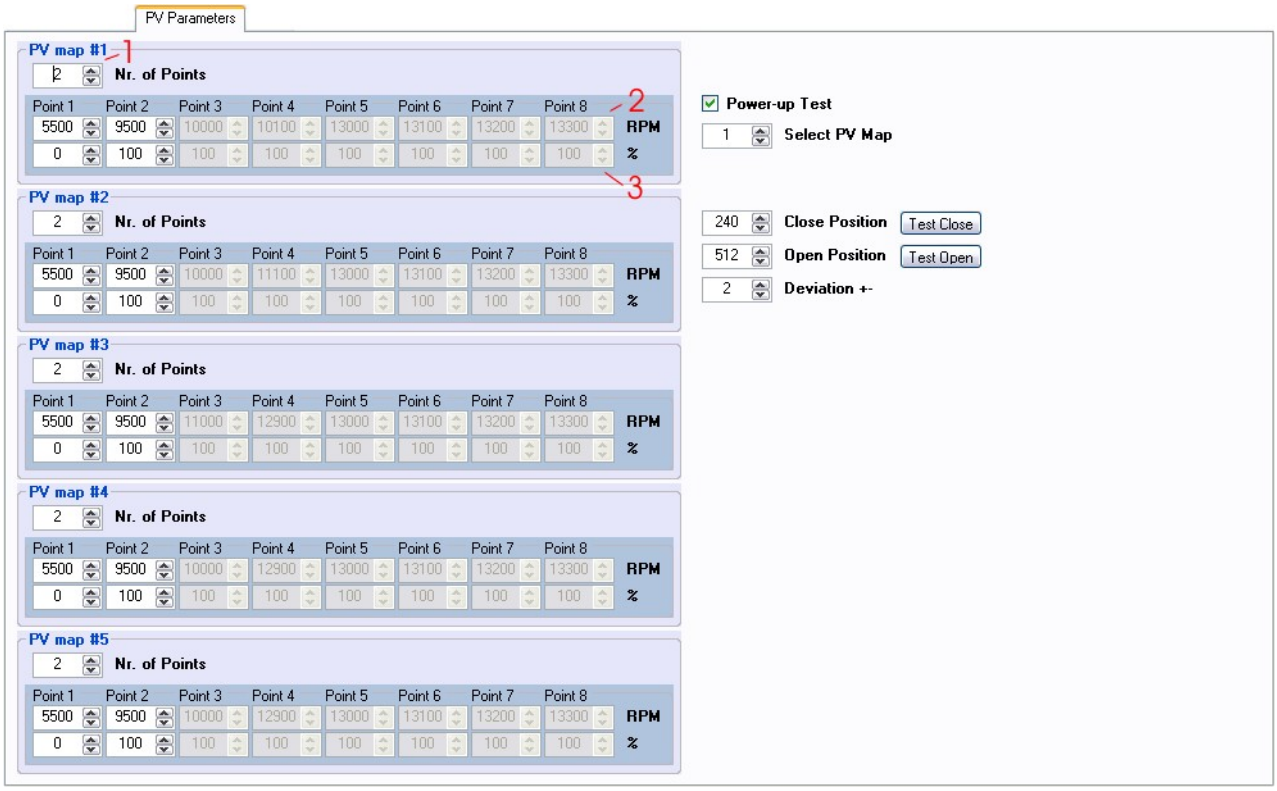
⇨ Clicking on **About** opens About window and show some basic information about ***ZeelProg*** application.

Ignition Parameters



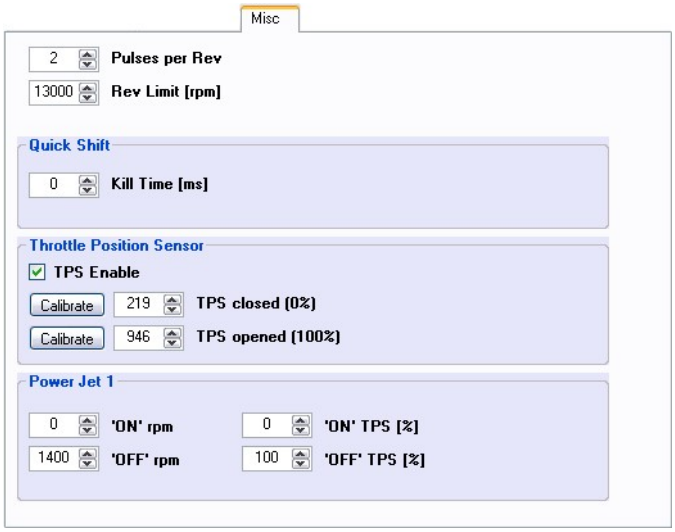
① **Nr. of Points** for each ignition map can be set from 4 to 12.
② **RPM** of each ignition point can be set from 100rpm to 20000rpm in 100rpm steps.
③ **deg**...advance of each ignition point can be set from 0deg to 85deg in 0,1deg steps
④ increasing, or decreasing advance of all ignition points in same ignition map
⇨ **Ignition Map Switch**...enables, or disables ignition map switch. When checked, ignition map can be selected with switch.
⇨ **Select Ignition Map**...selection is active only when **Ignition Map Switch** is not checked.
⇨ **Static Angle** is pickup advance position from TDC (Top Dead Centre)
⇨ **Advance Out 1**...advances, or retards ignition advance on ignition output 1, from -10deg to 10deg in 0,1deg steps. Positive value advances and negative value retards.
⇨ **Advance Out 2**...advances, or retards ignition advance on ignition output 2, from -10deg to 10deg in 0,1deg steps. Positive value advances and negative value retards.
⇨ **Delay Compensation**...ensure correct ignition angle through whole revs. Default value is 30us.

PV Parameters



① **Nr. of Points** for each PV map can be set from 2 to 8.
② **RPM** of each PV point can be set from 100rpm to 20000rpm in 100rpm steps.
③ **%**...PV position of each PV point can be set from 0% to 100% in 1% steps.
⇨ **Power-up Test**...enables, or disables PV test at switching on power supply.
⇨ **Select PV Map**... selected PV map.
⇨ **Close Position** of PV servo. Close position is 0% on PV map.
⇨ **Open Position** of PV servo. Open position is 100% on PV map.
⇨ **Test Close**...clicking on **Test Close** button, opens Test Close window. Function is active when PC-USB programmer and *control unit* are connected.
⇨ **Test Open**...clicking on **Test Open** button, opens Test Open window. Function is active when PC-USB programmer and *control unit* are connected.
⇨ **Deviation**...prevents 'hunting' of PV servo.

Misc Parameters



- ⇨ **Pulses per Rev**...set to 2
- ⇨ **Rev limit**...limits maximum revolutions. Set to maximum 20000rpm in 100rpm steps.
- ⇨ **Kill Time**...for shifting without using clutch - shift sensor is required. Function is disabled with setting to 0ms.
- ⇨ **TPS Enable**...when checked, TPS input is enabled.
- ⇨ **TPS closed (0%)**... close position of throttle sensor
- ⇨ **TPS opened (100%)**... open position of throttle sensor
- ⇨ **'ON' rpm (Power Jet)**... revs for activating power jet output
- ⇨ **'OFF' rpm (Power Jet)**... revs for deactivating power jet output
- ⇨ **'ON' TPS (Power Jet)**... (only if TPS enabled) throttle position for activating power jet output
- ⇨ **'OFF' TPS (Power Jet)**... (only if TPS enabled) throttle position for deactivating power jet output

➲ Power Jet example:
Power jet 1 ON (RPM) = 8000rpm
Power jet 1 OFF (RPM) = 10000rpm
Power jet 1 ON (TPS) = 70%TPS
power jet 1 OFF (TPS) = 90%TPS

PROGRAMMING AND SETTING NEW PARAMETERS

➲ While programming or reading, *control unit* does not need to be connected to power supply, because it is supplied through PC-USB programmer.

Changing control unit parameters

① Read parameters from connected *control unit*, by pressing **Read** button.

Progress bar indicate read and verify process.

Successful reading is indicated as: 

Error while reading is indicated as: 

If error occurs, then repeat reading.

② Change parameters

③ Program parameters to connected *control unit*, by pressing **Program** button.

Progress bar indicate program and verify process.

Successful programming is indicated as: 

Error while programming is indicated as: 

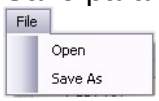
If error occurs, then repeat programming.

Make new *.zee file without connecting control unit

① Connect PC-USB programmer to PC.

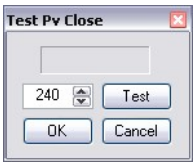
② Set parameters

③ Save parameters by clicking **Save As** from **File menu**.



Set PV close position

⇨ Clicking on **Test Close** button opens Test Close window.
Function is active when PC-USB programmer and *control unit* are connected.



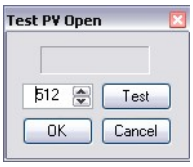
⇨ PV servo close position can be tested before confirming... PV servo moves to close position, after clicking on **Test** button.

⇨ If PV servo can't move to close position then **error 1** will occur. To clear **error 1** change close position and click on **Test** button.

⇨ Click on **OK** button to confirm close position, or **Cancel** to keep old close position.

Set PV open position

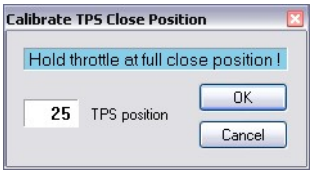
⇨ Clicking on **Test Open** button opens Test Open window.
Function is active when PC-USB programmer and *control unit* are connected.



⇨ PV servo open position can be tested before confirming... PV servo moves to open position, after clicking on **Test** button.
⇨ If PV servo can't move to open position then **error 1** will occur. To clear **error 1** change open position and click on **Test** button.
⇨ Click on **OK** button to confirm open position, or **Cancel** button to keep old open position.

Calibrate TPS Close Position

⇨ Clicking on **Calibrate** button opens Calibrate TPS Close Position window.
Function is active when PC-USB programmer and *control unit* are connected.



⇨ To calibrate TPS close position, hold throttle at full close position and confirm with clicking on **OK** button.
⇨ To exit without calibrating, click on **Cancel** button.

Calibrate TPS Open Position

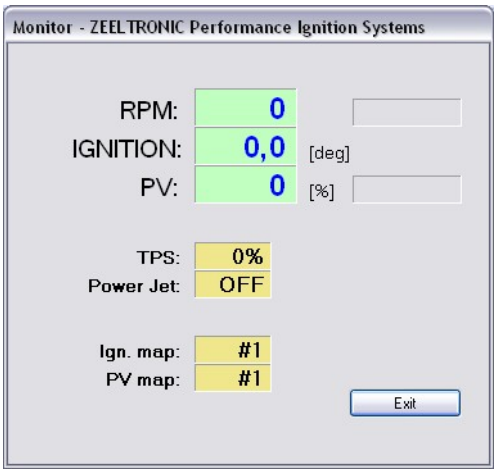
⇨ Clicking on **Calibrate** button opens Calibrate TPS Open Position window.
Function is active when PC-USB programmer and *control unit* are connected.

⇨ To calibrate TPS open position, hold throttle at full open position and confirm with clicking on **OK** button.
⇨ To exit without calibrating, click on **Cancel** button.

MONITOR FUNCTION

⇨ **Monitor** function is active when *control unit* is connected to PC-USB programmer.

Clicking on **Monitor** opens Monitor window.



⇨ Monitor show engine revolution, ignition advance angle, PV servo position, throttle position, power jet, selected ignition map, selected PV map, rev limit activation and PV error.
⇨ PV error 1...when PV servo can't move to position.
⇨ PV error 2...when too high current on PV servo output.