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application version: 00.200611

PROGRAMMING MANUAL

ZeelProg PDCI-23

Supported control units: **PDCI-23, PDCI-23HALL**

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

<i>ZeelProg</i> SOFTWARE INSTALLATION GUIDE	3
<i>ZeelProg</i> USER INTERFACE	3
<u>Auto detection</u>	3
<u>Menu structure</u>	4
<u>Ignition Parameters</u>	5
PROGRAMMING AND SETTING NEW PARAMETERS	6
<u>Changing control unit parameters</u>	6
<u>Make new *.zee file without connecting control unit</u>	9
MONITOR FUNCTION	7

***ZeelProg* SOFTWARE INSTALLATION GUIDE**

CD content:

- driver (USB programmer driver)
- NET Framework
- 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.

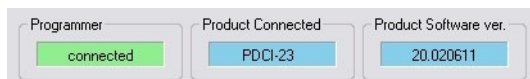
If ***ZeelProg*** does not start, install "NET Framework" from CD-ROM "NET Framework" directory.

***ZeelProg* USER INTERFACE**

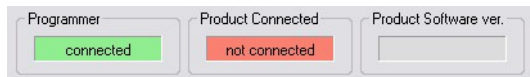
Auto detection

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

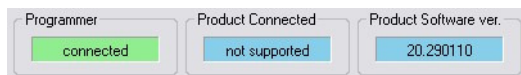
⇒ Programmer connected, product (*control unit*) connected:



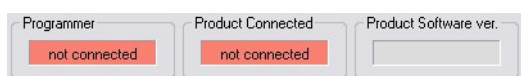
⇒ Programmer connected, product (*control unit*) not connected:



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



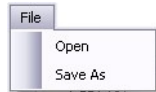
⇒ Programmer not connected, product (*control unit*) not connected:



Menu structure

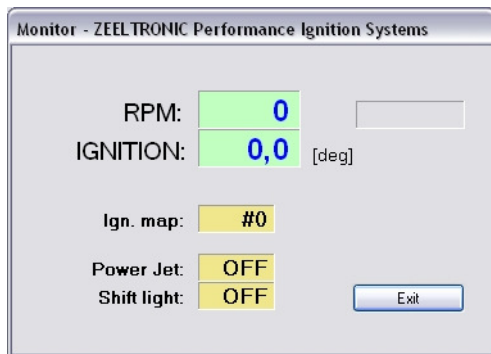


⇒ **File menu** is active when PC-USB programmer is connected



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

Ignition Parameters

Ignition Map #1

Nr. of Points: 12 deg

Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8	Point 9	Point 10	Point 11	Point 12	RPM	deg
1500	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000		
15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0		

Ignition Map #2

Nr. of Points: 12 deg

Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	Point 7	Point 8	Point 9	Point 10	Point 11	Point 12	RPM	deg
1500	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000		
15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0	15,0		

Quick Shift

☒ Smart Shift

60 Kill Time [ms]

Power Jet

6000 'ON' rpm

8000 'OFF' rpm

☐ Ign. Map Switch

1 Select Ignition Map

1 Pulses per Rev

35,0 Static Angle [°]

0,0 Advance [°]

0,0 Advance Out 1 [°]

0,0 Advance Out 2 [°]

30 Delay Compensation [us]

15000 Rev Limit [rpm]

12000 Shift Light [rpm]

- ⇒ **Nr. of Points** for each ignition map can be set from 4 to 12.
- ⇒ **RPM** of each ignition point can be set from 100rpm to 20000rpm in 100rpm steps.
- ⇒ **deg**...advance of each ignition point can be set from 0deg to 85deg in 0,1deg steps
- ⇒ **Static Angle** is pickup advance position from TDC (Top Dead Centre)
- ⇒ **Advance**...advances, or retards whole ignition map from -10deg to 10deg in 0,1deg steps. Positive value advances and negative value retards.
- ⇒ **Advance out 1**...advances, or retards ignition output 1 for -10deg to 10deg in 0,1deg steps. Positive value advances and negative value retards.
- ⇒ **Advance out 2**...advances, or retards ignition output 2 for -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.
- ⇒ **Ignition Map Switch**...enables, or disables ignition map switch. Ignition map can be selected with switch, when function is enabled.
- ⇒ **Select Ignition Map**...selection is active only when **Ignition Map Switch** is not enabled.
- ⇒ **+', '-' deg**... increase, or decrease advance of all ignition points in whole ignition map
- ⇒ **Smart Shift**... enable, or disable Smart Shift. Smart shift function automatically adjusts kill time for different revs. Shift kill time must be always set, as basic kill time.
- ⇒ **Kill Time**... for shifting without using clutch - shift sensor is required. Function is disabled with setting to 0ms.
- ⇒ **Rev limit**...limits maximum revolutions. Set to maximum 20000rpm in 100rpm steps.
- ⇒ **Shift light**...activate shift light output above programmed revs. Set to maximum 20000rpm in 100rpm steps.
- ⇒ **Power Jet**... simple power jet function. Power Jet is activated above "ON rpm" and deactivated above "OFF rpm" and below "ON rpm".

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:



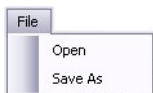
Error while programming is indicated as:



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**.

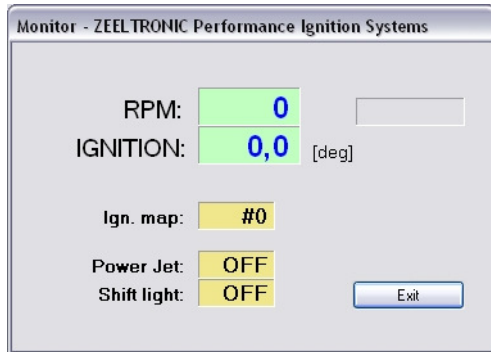


MONITOR FUNCTION

⇒ **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, selected ignition map, shift light operation, rev limit operation, power jet operation.

NOTES
