



updated 15.04.2014
application version: 00.140414

PROGRAMMING MANUAL ZeelProg PDCI-30

Supported control units: **PDCI-30**

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.

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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.

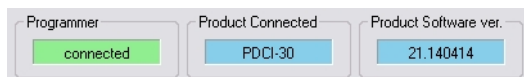
If **ZeelProg** does not start, install "NET Framework" from CD-ROM "NET Framework" directory.

ZeelProg USER INTERFACE

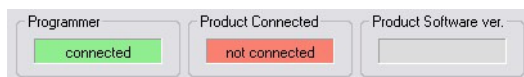
Auto detection

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

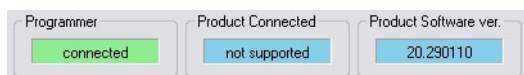
⇒ Programmer connected, product (*control unit*) connected:



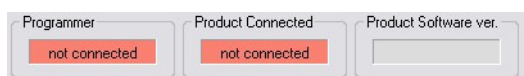
⇒ Programmer connected, product (*control unit*) not connected:



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



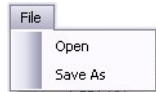
⇒ Programmer not connected, product (*control unit*) not connected:



Menu structure

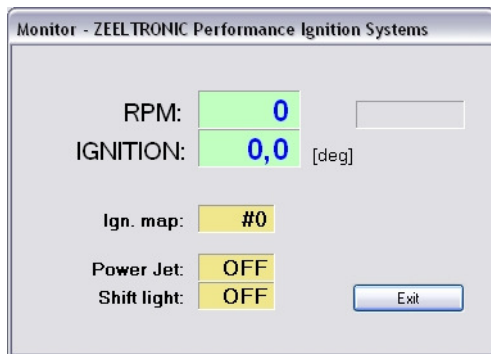


⇒ **File menu** is active when PC-USB programmer is connected



- 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

The screenshot displays the 'Ignition Parameters' configuration window. It is divided into several sections:

- Ignition Map #1:** Shows 12 points with RPM values ranging from 2000 to 12000 and deg values from 20.0 to 7.5.
- Ignition Map #2:** Shows 12 points with RPM values ranging from 2000 to 13200 and deg values from 27.0 to 6.5.
- Quick Shift:** Includes a checked 'Smart Shift' option and a 'Kill Time [ms]' set to 70.
- Power Jet:** Includes an unchecked 'Invert Polarity' option, 'ON' rpm set to 6000, and 'OFF' rpm set to 8000.
- General Settings:** Includes 'Ign. Map Switch' (unchecked), 'Select Ignition Map' (set to 1), 'Nr. of Pickups' (set to 3), 'Static Angle [°]' (set to 35.0), 'Advance [°]' (set to 0.0), 'Advance Out 1 [°]' (set to 0.0), 'Advance Out 2 [°]' (set to 0.0), 'Advance Out 3 [°]' (set to 0.0), 'Delay Compensation [us]' (set to 30), 'Rev Limit [rpm]' (set to 13000), and 'Shift Light [rpm]' (set to 12000).

- ⇒ **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
- ⇒ **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.
- ⇒ **Nr. of Pickups**... **PDCI** can run with 1, or 3 pickups. When using one pickup, then all 3 ignition coils fire at the same time.
- ⇒ **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.
- ⇒ **Advance out 3**...advances, or retards ignition output 3 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.
- ⇒ **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.
- ⇒ **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.
- ⇒ **Power Jet 'ON' rpm**... revs for activating Power Jet
- ⇒ **Power Jet 'OFF' rpm**... revs for deactivating Power Jet
- ⇒ **Invert Polarity of Power Jets**... when checked, operation of power jets is inverted.

Example:

Power jet ON (RPM) = 8000rpm

Power jet OFF (RPM) = 10000rpm

Power jet is switched on when revs are between 8000-10000rpm, otherwise power jet is switched off.

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.

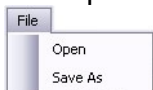
Successful programming is indicated as: 

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**.

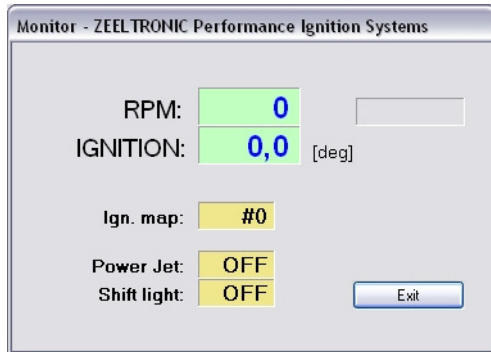


MONITOR FUNCTION

⇒ **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
