



updated 25.04.2017  
application version: 00.170421

## PROGRAMMING MANUAL ZeelProg PDCI-22

Supported control units: **PDCI-22**

**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>	6
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/7/8/10.  
"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.

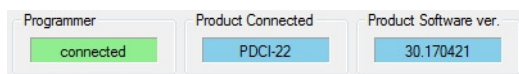
If **ZeelProg** does not start, install "NET Framework" from CD-ROM "NET Framework" directory.

## **ZeelProg USER INTERFACE**

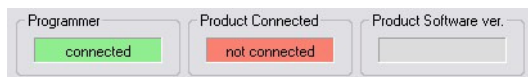
### Auto detection

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

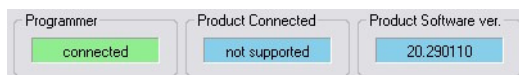
⇒ Programmer connected, product (*control unit*) connected:



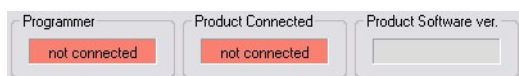
⇒ Programmer connected, product (*control unit*) not connected:



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



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



## Menu structure

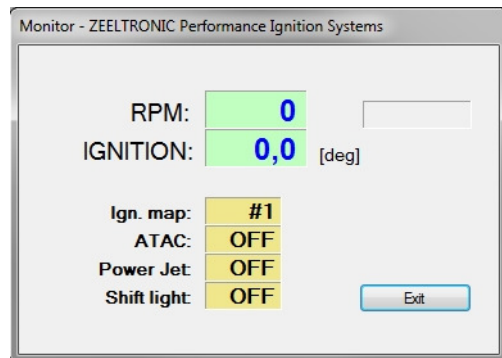


⇒ **File menu** is active when PC-USB programmer is connected



- 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 Map #1**

Nr. of Points:  + - 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	5000	7500	9000	11500	12000	12500	13000	13100	13200	13300		
21.0	25.0	25.0	20.5	18.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0		

**Ignition Map #2**

Nr. of Points:  + - 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	6000	10000	10500	11000	12000	12500	13000	13100	13200	13300		
21.0	25.0	25.0	18.0	17.0	15.0	12.0	12.0	12.0	12.0	12.0	12.0		

**Ign. Map Switch**

**Select Ignition Map**

**Static Angle [°]**

**Advance [°]**

**Delay Compensation [us]**

**Rev Limit [rpm]**

**Shift Light [rpm]**

**ATAC on [rpm]**

**Quick Shift**

**Smart Shift**

**Kill Time [ms]**

**Power Jet**

**Invert Polarity**

**'ON' rpm**

**'OFF' 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
- ⇒ **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.
- ⇒ **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.
- ⇒ **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.
- ⇒ **ATAC on**...activate ATAC solenoid 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.*

5

## 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.

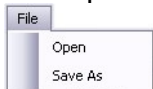
Successful programming is indicated as: 

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**.

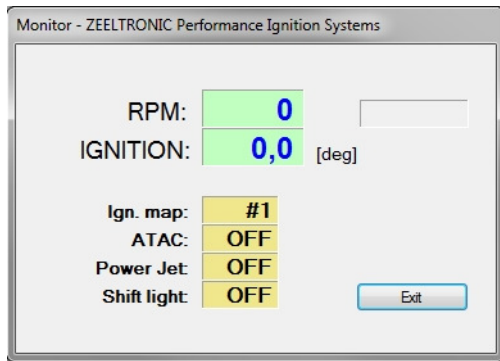


## MONITOR FUNCTION

⇒ **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

---