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1. Installation

<table>
<thead>
<tr>
<th>Step</th>
<th>Window</th>
<th>Note</th>
<th>Step</th>
<th>Window</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>Launch the “P-Term Setup.exe” installation program and follow the instructions given below</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td><img src="image1.png" alt="Window" /></td>
<td>The first window opens Select [NEXT]</td>
<td>3</td>
<td><img src="image2.png" alt="Window" /></td>
<td>Select the program installation folder Select [NEXT]</td>
</tr>
<tr>
<td>4</td>
<td><img src="image3.png" alt="Window" /></td>
<td>Select the position of the program shortcuts Select [NEXT]</td>
<td>5</td>
<td><img src="image4.png" alt="Window" /></td>
<td>Create an icon on the desktop Select [NEXT]</td>
</tr>
<tr>
<td>6</td>
<td><img src="image5.png" alt="Window" /></td>
<td>Check the selections made Select [Install]</td>
<td>7</td>
<td><img src="image6.png" alt="Window" /></td>
<td>Drivers Select [Extract]</td>
</tr>
<tr>
<td>8</td>
<td><img src="image7.png" alt="Window" /></td>
<td>Driver installation begins Select [Next]</td>
<td>9</td>
<td><img src="image8.png" alt="Window" /></td>
<td>Driver installation complete Select [Finish] P-Terminal installation begins</td>
</tr>
<tr>
<td>10</td>
<td><img src="image9.png" alt="Window" /></td>
<td>P-Terminal installation complete Remove the “Launch P-Term” flag and Select [Finish]</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Step 11
Connect the USB2DxR device, or directly the DER2, to a free USB port through the USB cable.

<table>
<thead>
<tr>
<th>Step</th>
<th>Window</th>
<th>Note</th>
<th>Step</th>
<th>Window</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td><img src="image1" alt="Connection found" /></td>
<td>Select “Not yet” and Select [Next]</td>
<td>14</td>
<td><img src="image2" alt="First part of installation complete" /></td>
<td>Select “Install the software automatically” and Select [Next]</td>
</tr>
<tr>
<td>15</td>
<td><img src="image3" alt="Select [Continue]" /></td>
<td>Select [Continue]</td>
<td>16</td>
<td><img src="image4" alt="Installation complete" /></td>
<td>Hardware recognised Select [Finish]</td>
</tr>
<tr>
<td>17</td>
<td><img src="image5" alt="Repeat the procedure" /></td>
<td>Select “Not yet” and Select [Next]</td>
<td>18</td>
<td><img src="image6" alt="Repeat the procedure" /></td>
<td>Select “Install the software automatically” and Select [Next]</td>
</tr>
<tr>
<td>19</td>
<td><img src="image7" alt="Select [Continue]" /></td>
<td>Select [Continue]</td>
<td>20</td>
<td><img src="image8" alt="Installation complete" /></td>
<td>Hardware recognised Select [Finish]</td>
</tr>
</tbody>
</table>

The USB2DxR device is now ready to operate, and installation can be verified.

<table>
<thead>
<tr>
<th>Step</th>
<th>Window</th>
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<th>Step</th>
<th>Window</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td><img src="image9" alt="Start Settings" /></td>
<td>Start Settings Control panel System Select “Hardware”</td>
<td>22</td>
<td><img src="image10" alt="NOTE" /></td>
<td>The COM port address of the installed USB2DxR device is indicated in brackets</td>
</tr>
</tbody>
</table>

NOTE: The COM port address of the installed USB2DxR device is indicated in brackets

**NOTE:** There must be a device present at “USB Serial port”
2. Description of the P-Term software

The P-Term program can be started directly from the respective icon on the desktop of Windows. When opened, the user interface appears as shown in Fig. 1.

The COM port (emulated) indicating to which the USB2DxR communication interface was connected, is assigned automatically when connected to the USB port. If there is only one USB2DxR communication interface, the COM port (emulated) to which it is connected is automatically defaulted. If several interfaces are connected, the device used to exchange data can be selected from the Com Port button. Establish the connection clicking on “Connect” button. Connection is confirmed when the Connected indicator changes from yellow to green. If communication occurs without any errors, the Com STAT indicator changes from red to green. IMPORTANT: Communication can only take place if all three indicators, Connected, Com STAT and Com ERROR are green.

The user interface of the P-Term software (rel. 1.0x), which appears as indicated in Fig. 1, can program and monitor from 1 to 16 slave units connected by USB. The available functions are briefly described in the following tables with the respective references to the relative figures.

The flow chart on section 3 gives an overview of all the software steps after the Configuration button is pressed.

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Refer to DSR or DER regulators manuals for parameters nomenclature and functions.

This is an ONLY ONE-WAY software. If special setting are made on the AVR, this can be lost. After the setting has been changed using P-Term, there’s no way to reset the default configuration without using DxR Terminal Software.
3. Functional flow chart

3.1 Trimmers disabling

3.2 Alternator selection

3.3 Slope V/f setting

3.4 LAM setting

3.5 SOFT START setting

Fig. 2
3.1 Trimmers disabling

After **Configuration** button is pressed, the first step is about the potentiometers disabling.

If **NO** button is selected, the configuration will be aborted.

If **YES** button is selected, all potentiometers and Hw jumpers will be disabled and the corresponding setting will be saved in the internal AVR memory.
3.2 Alternator selection

The second step is about the modification of voltage and frequency. This function can be used in case the AVR has to be moved from its default alternator to another one (or also if the alternator default voltage and frequency are changed) or in case of AVR purchased on his own or for example in case of replacement of an on-field AVR.

If button **NO** is selected, the voltage and/or frequency modification will be aborted. If button **YES** is selected an alternators Data Base will open.

If **Exit** button is selected, the Voltage and/or Frequency modification will be aborted and the software will continue with the next question.
After the alternator choice, if Apply button is selected the action will be confirmed and the following parameters will be updated:

- P[10]: bit14: frequency setting
- P[11]: shift to left stability proportional gain
- P[12]: shift to left stability integral gain
- P[13]: Coefficient to set Ki and Kp separately
- P[19]: Vout reference if the VOLT trimmer is disabled
- P[20]: Stability value if the STAB trimmer is disabled
- P[22]: Excitation overcurrent threshold value if the AMP trimmer is disabled

The value of parameters involved can be modified using Edit Data Base command in the main window. After press the button, this command will ask to select and open the .csv file present in the installation folder, which is the origin file of the database library. In this way an editable Data Base version will open.

When the manual editing is finished press the Save Library button and insert the password to switch the User Mode from Normal to Expert and save the update.

Only after this step a new library file will be generated.

If the .csv file is changed directly in the installation folder, this won’t modify the Data Base because the changes wasn’t made through the software and no library file was generated.

The default Password is “meccalte”.
This can be changed using the Modify Password button in the main window.
3.3 Slope V/f setting

The third step is about the Voltage/frequency slope (parameter P[23]).

If Custom button is pressed a slope more steep than Standard one will be setted.

3.4 LAM Setting

The fourth question is about LAM activation or Deactivation. If Activation button is selected, the same operation of DxR Terminal LAMS PRESET command will be followed.
If **Deactivation** button is selected, the same operation of DxR Terminal UFLO_LAMS RESET command will be followed less the parameter P[23], already changed in the previous step. Please see DxR Terminal and DSR/DER user manuals for LAMS PRESET and UFLO_LAMS RESET command and involved parameters descriptions.

### 3.5 SOFT START Setting

![Diagram of SOFT START Setting](image)

Fig. 15

The fifth question is about SOFT START Activation or Deactivation. If **Activation** button is selected, the same operations of DxR Terminal SOFT START PRESET command will be followed. If **Deactivation** button is selected, the same operations of SOFT START RESET command will be followed.

Please see DxR Terminal and DSR/DER user manual for SOFT START PRESET and SOFT START RESET command and involved parameters description.

### 4. System requirements

PC with O.S. Microsoft Windows XP®, Windows Vista®, Windows 7® or Windows 8® and .NET Framework from version 4.1 and up, development tools.

Screen with minimum resolution of 1024 x 768 pixels
## TECHNICAL REFERENCE GUIDES

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## REVISION HISTORY

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<th>Revision</th>
<th>Date</th>
<th>Description</th>
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<tbody>
<tr>
<td>Rev. 00</td>
<td>06/2017</td>
<td>Initial Release</td>
</tr>
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</table>

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