

P-TERMINAL CONFIGURATION INTERFACE

TECHNICAL GUIDE

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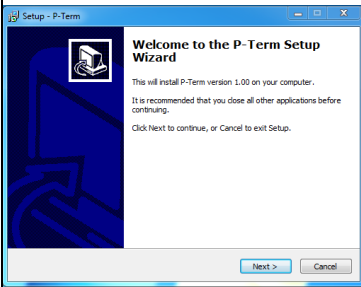
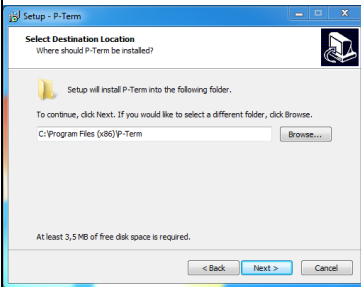
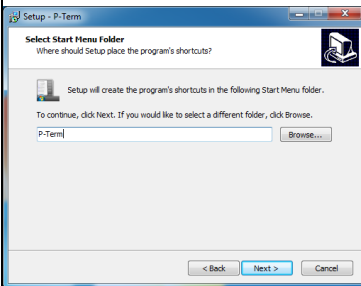
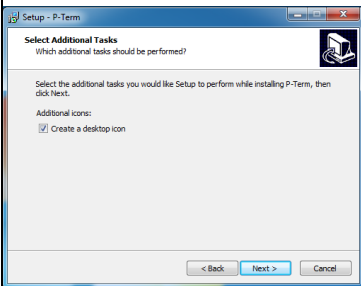
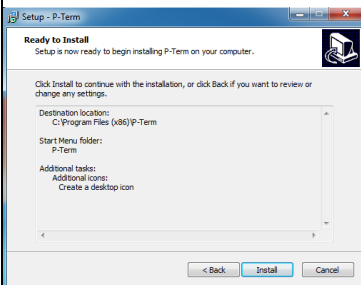
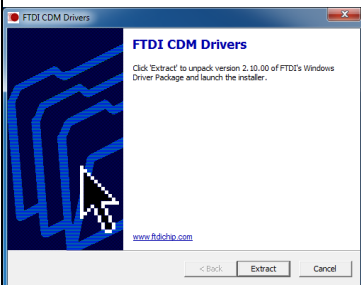
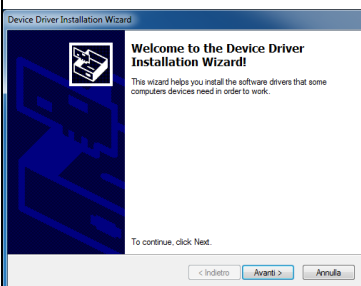
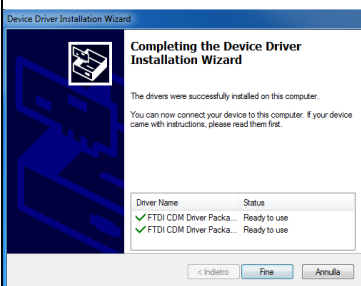
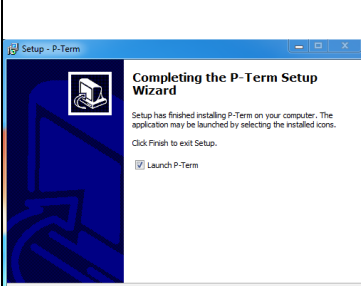
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The information given in this technical guide can be modified without advance notice.

This revision supersedes and replaces all previous versions.

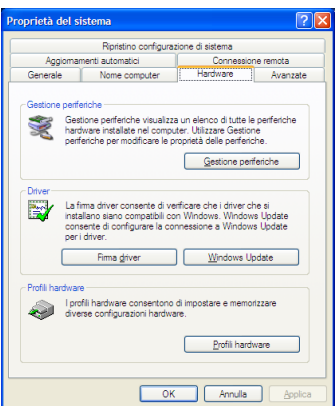
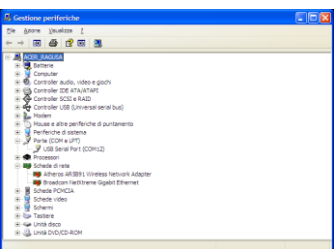
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1. Installation

Step	Note				
1	Launch the “P-Term Setup.exe” installation program and follow the instructions given below				
Step	Window	Note	Step	Window	Note
2		The first window opens Select [NEXT]	3		Select the program installation folder Select [NEXT]
4		Select the position of the program shortcuts Select [NEXT]	5		Create an icon on the desktop Select [NEXT]
6		Check the selections made Select [Install]	7		Drivers Select [Extract]
8		Driver installation begins Select [Next]	9		Driver installation complete Select [Finish] P-Terminal installation begins
10		P-Terminal installation complete Remove the “Launch P-Term” flag and Select [Finish]			

Step	Note				
11	Connect the USB2DxR device, or directly the DER2, to a free USB port through the USB cable.				
Step	Window	Note	Step	Window	Note
13		Connection found Select “Not yet” and Select [Next]	14		Select “Install the software automatically” and Select [Next]
15		Select [Continue]	16		First part of installation complete Select [Finish]
17		Repeat the procedure Select “Not yet” and Select [Next]	18		Select “Install the software automatically” and Select [Next]
19		Select [Continue]	20		Installation complete Hardware recognised Select [Finish]

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

Step	Window	Note	Step	Window	Note
21		Start Settings Control panel System Select “Hardware”	22		Select “Device Manager” then “Ports (COM and LPT)” There must be a device present at “USB Serial port”
			NOTE: The COM port address of the installed USB2DxR device is indicated in brackets		

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.

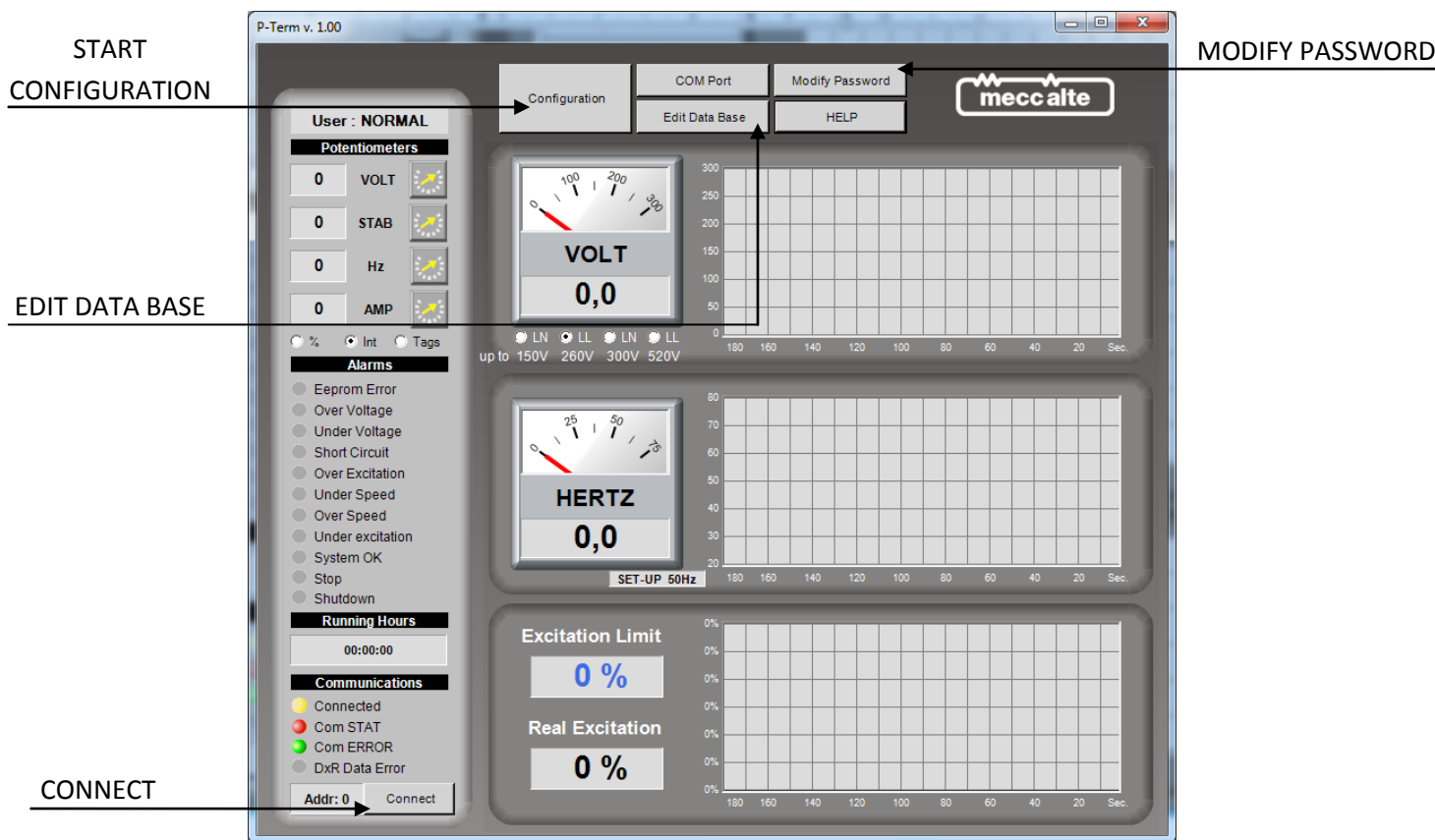


Fig. 1

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.

	Refer to <i>DSR or DER regulators manuals</i> 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

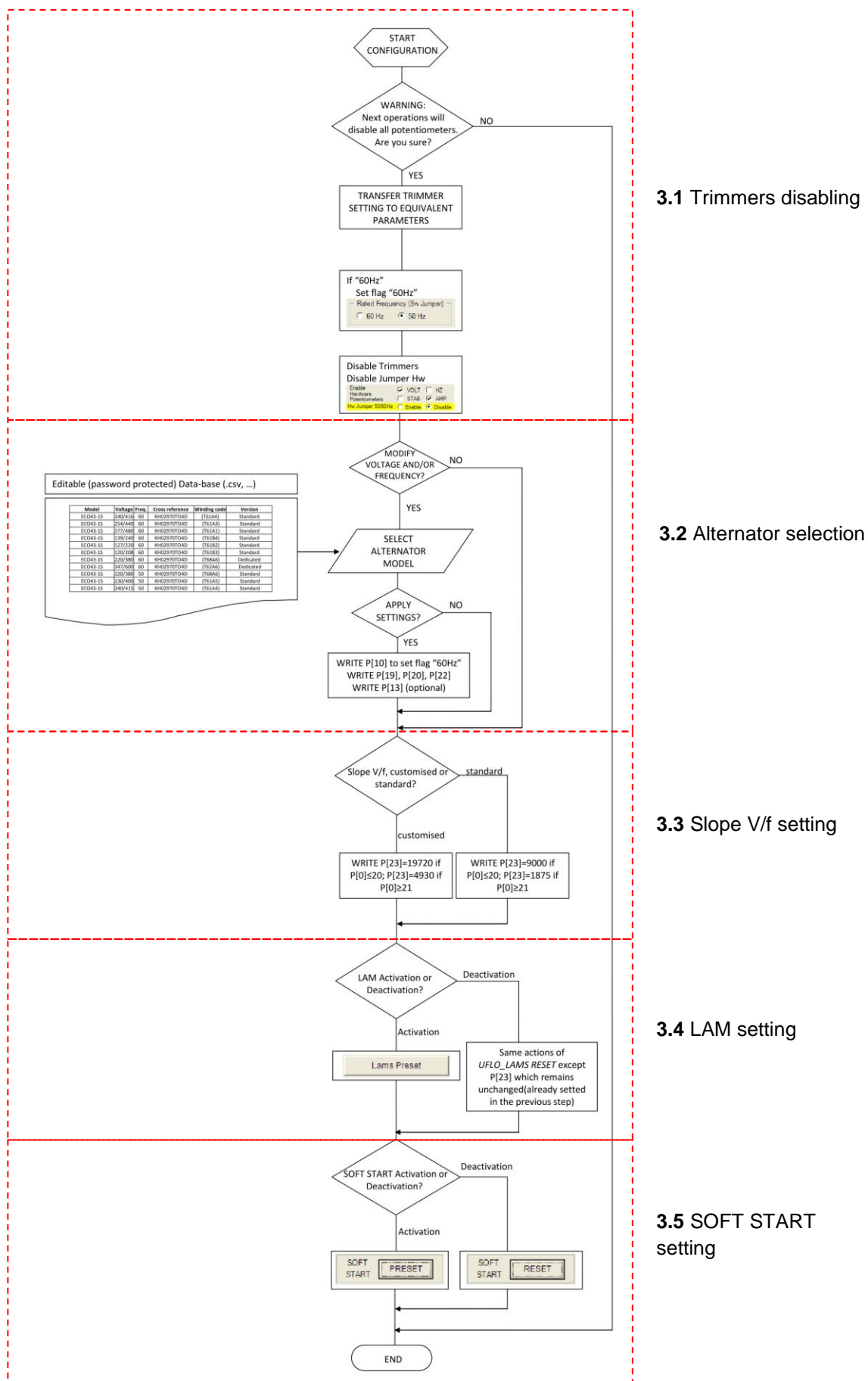


Fig. 2

3.1 Trimmers disabling

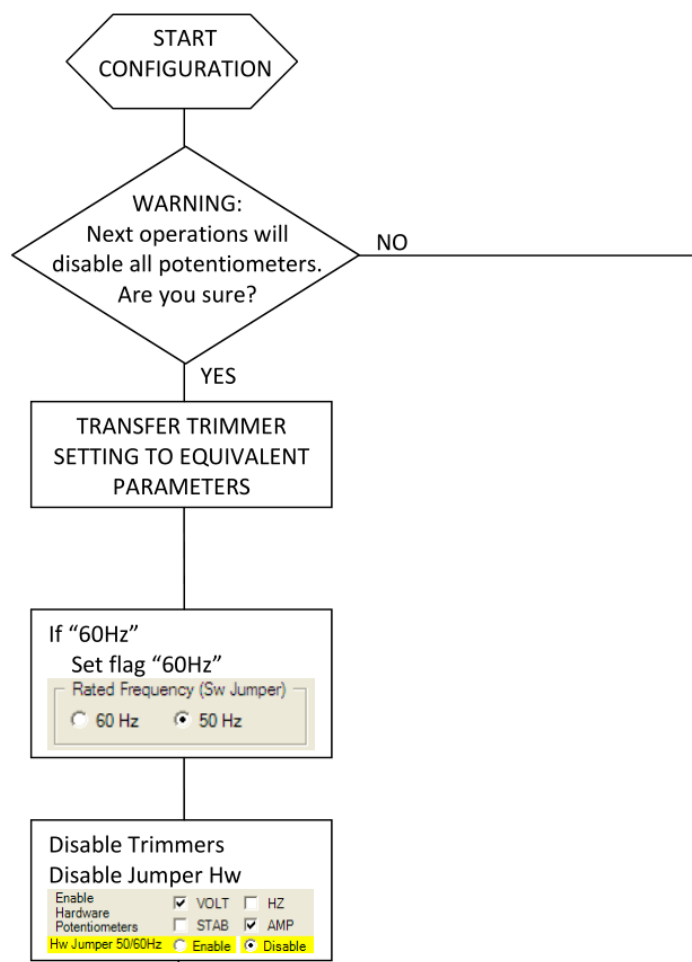


Fig. 3

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

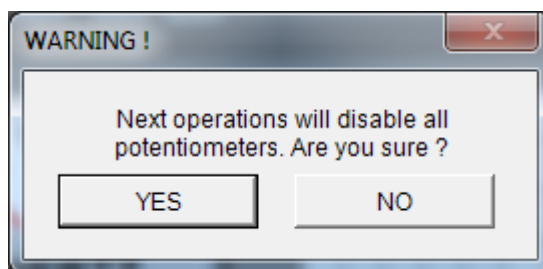


Fig. 4

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

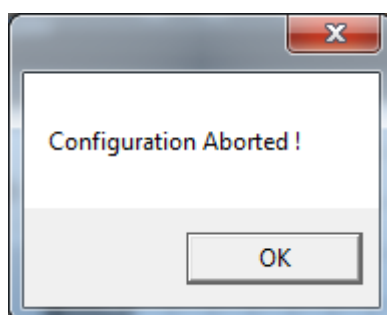


Fig. 5

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

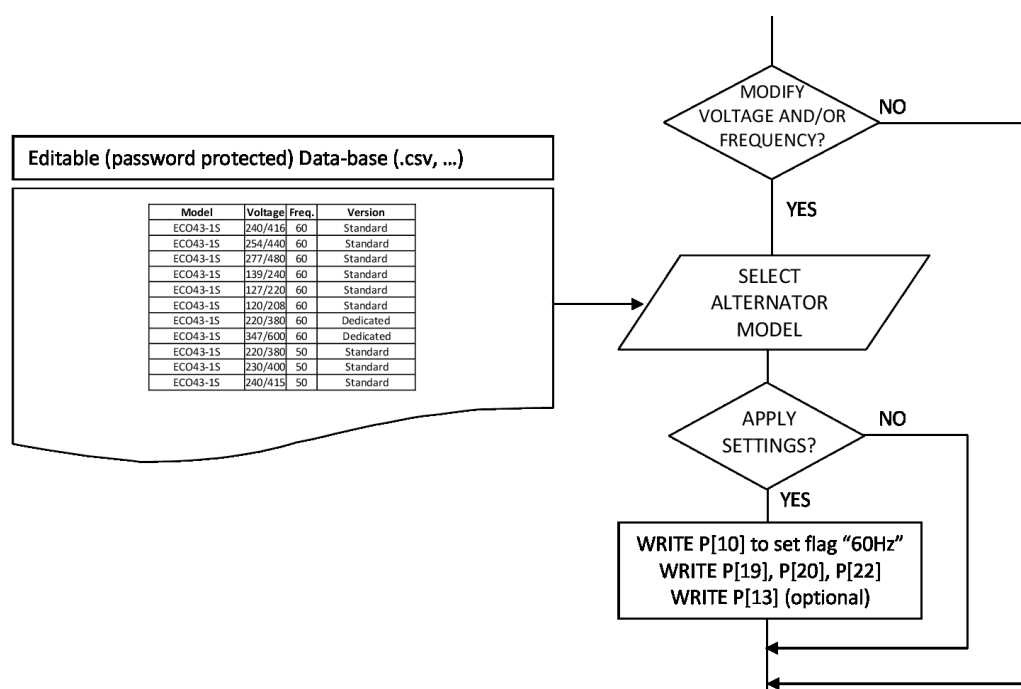


Fig. 6

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.

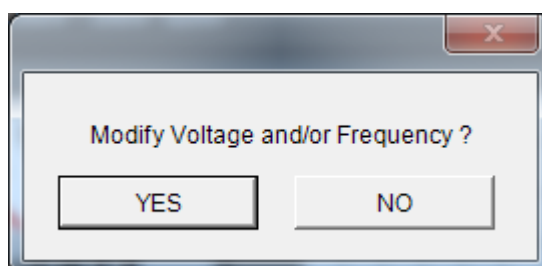


Fig. 7

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.

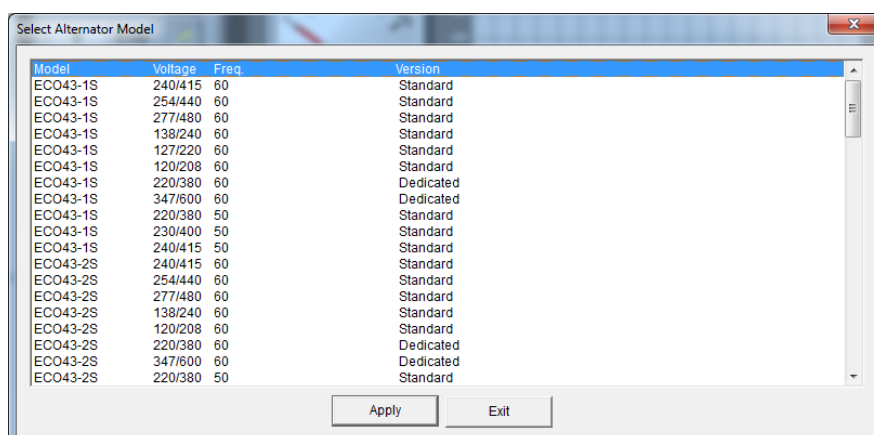


Fig. 8

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

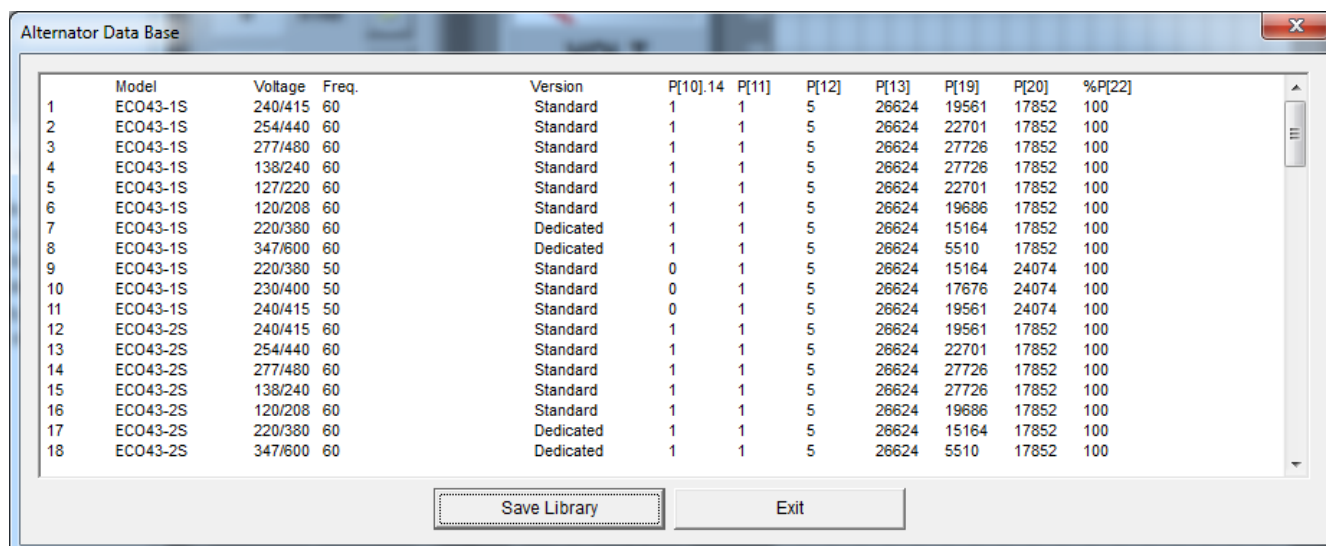
P[13]: Coefficient to set Ki and Kp separately

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.



	Model	Voltage	Freq.	Version	P[10].14	P[11]	P[12]	P[13]	P[19]	P[20]	%P[22]
1	ECO43-1S	240/415	60	Standard	1	1	5	26624	19561	17852	100
2	ECO43-1S	254/440	60	Standard	1	1	5	26624	22701	17852	100
3	ECO43-1S	277/480	60	Standard	1	1	5	26624	27726	17852	100
4	ECO43-1S	138/240	60	Standard	1	1	5	26624	27726	17852	100
5	ECO43-1S	127/220	60	Standard	1	1	5	26624	22701	17852	100
6	ECO43-1S	120/208	60	Standard	1	1	5	26624	19686	17852	100
7	ECO43-1S	220/380	60	Dedicated	1	1	5	26624	15164	17852	100
8	ECO43-1S	347/600	60	Dedicated	1	1	5	26624	5510	17852	100
9	ECO43-1S	220/380	50	Standard	0	1	5	26624	15164	24074	100
10	ECO43-1S	230/400	50	Standard	0	1	5	26624	17676	24074	100
11	ECO43-1S	240/415	50	Standard	0	1	5	26624	19561	24074	100
12	ECO43-2S	240/415	60	Standard	1	1	5	26624	19561	17852	100
13	ECO43-2S	254/440	60	Standard	1	1	5	26624	22701	17852	100
14	ECO43-2S	277/480	60	Standard	1	1	5	26624	27726	17852	100
15	ECO43-2S	138/240	60	Standard	1	1	5	26624	27726	17852	100
16	ECO43-2S	120/208	60	Standard	1	1	5	26624	19686	17852	100
17	ECO43-2S	220/380	60	Dedicated	1	1	5	26624	15164	17852	100
18	ECO43-2S	347/600	60	Dedicated	1	1	5	26624	5510	17852	100

Fig. 9

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.

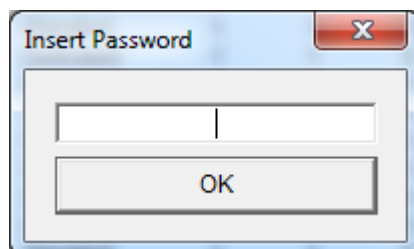


Fig.10

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.

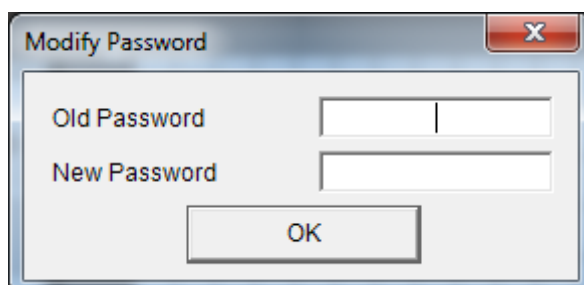


Fig. 11

3.3 Slope V/f setting

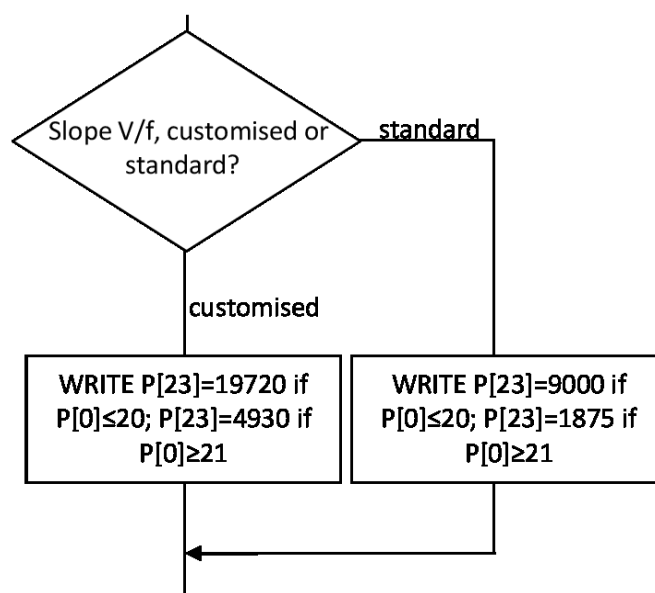


Fig. 12

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

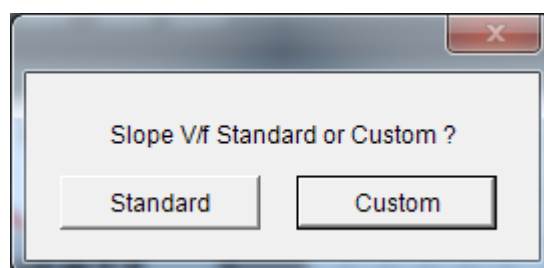


Fig. 13

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

3.4 LAM Setting

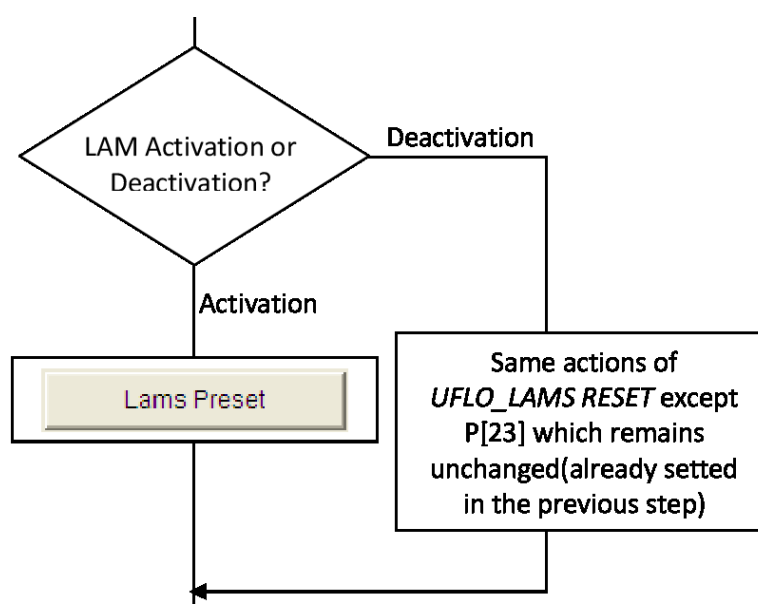


Fig. 14

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

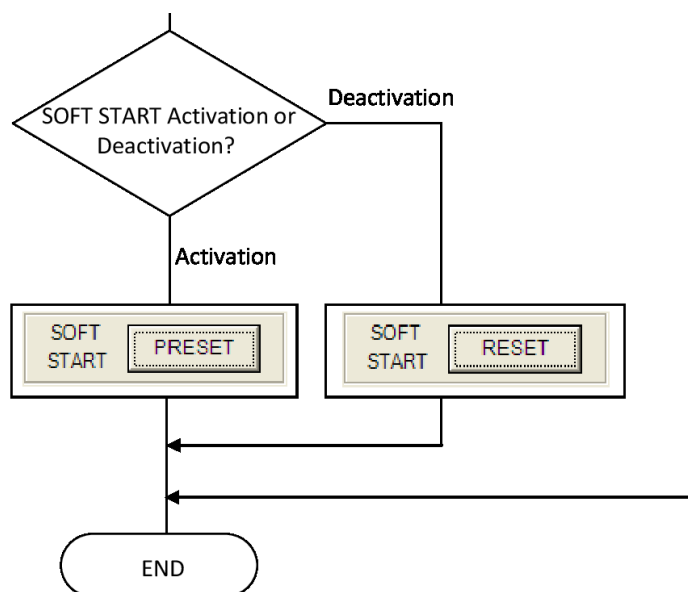


Fig. 15

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	
Title	Link
Communication interface USB2DxR	http://www.meccalte.com/send_file.php?fileid=Usb2DxR.pdf
DSR Digital Regulator	http://www.meccalte.com/send_file.php?fileid=manual_dsr_en.pdf
DER1 Digital Regulator	http://www.meccalte.com/send_file.php?fileid=Manuale_DER1_EN_rev06.pdf
DER2 Digital Regulator	http://www.meccalte.com/send_file.php?fileid=Manual_DER2_EN_rev01.pdf

REVISION HISTORY		
Revision	Date	Description
Rev. 00	06/2017	Initial Release

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