PROG TOOL

User Manual

ver 2.7

BEWARE 	Dixell S.p.A. reserve to itself the right to modify this instruction manual without any warning. Last available can be downloaded from the internet site.

Carefully read this manual before to install and operate the PROG TOOL series and follow the instruction exactly. We recommend to keep it handy for quick reference.

SAFETY PRECAUTIONS – READ BEFORE TO PROCEEDE IN THE USE OF THIS MANUAL

Symbols

Installation and wiring

⚠ This symbol indicates a potentially hazardous operation/situation that can result in injuries for the personnel and/or a damage for the Inverter.

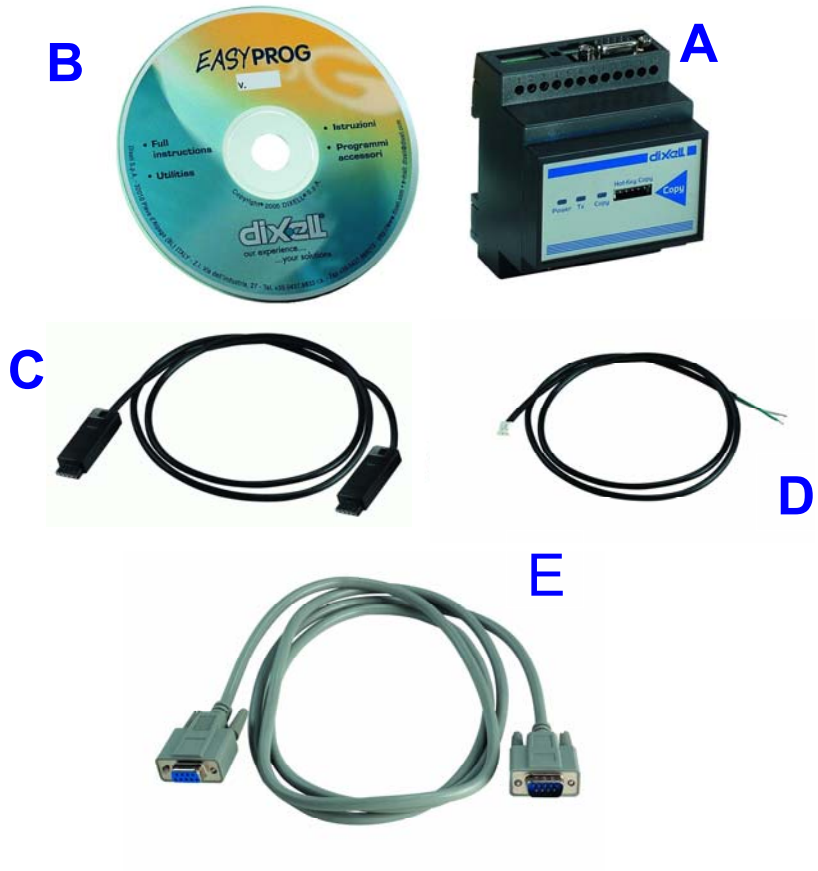
⚠ This symbol indicates high voltage and is used to call you attention on operations that could be dangerous to you and other persons.

INDEX

1 PACKAGE CONTENTS

In the PROG TOOL KIT are contained the following items:

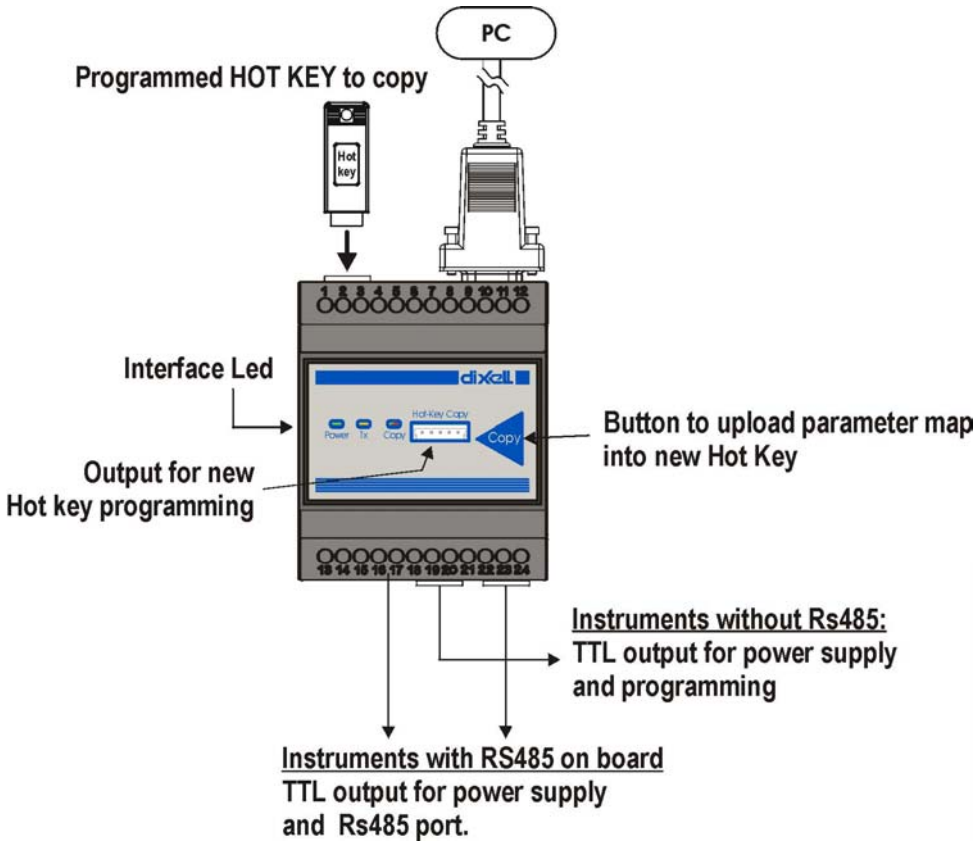
A 1 PROG TOOL unit
B 1 CD-ROM with EASY PROG software and the instruction manual
C 1 CAB/PTK2 cable (2 meters length)
D 1 CAB/PTK485 connect to output Rs485 (2 meters length)
E 1 CAB/SW 9-9 connect to the PC (1.8 meters length)

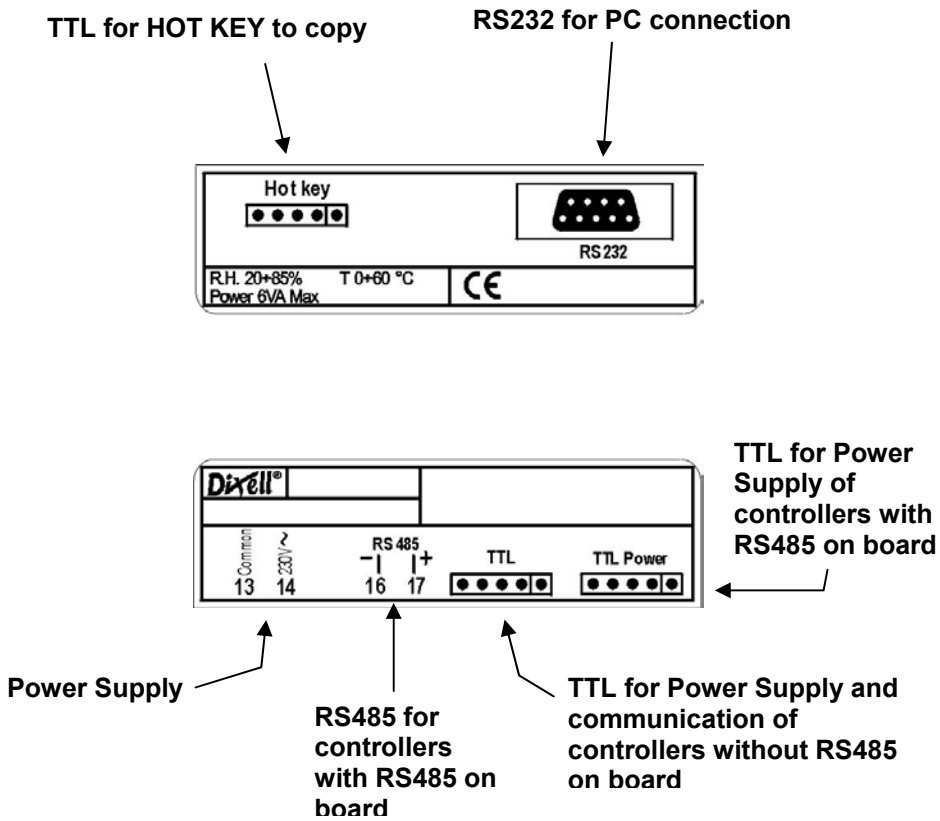


2 USE OF PROG TOOL

PROG TOOL unit can be used to program HOT KEYs and to interface Dixell controllers to a PC in order to modify their parameter map by means of the EASY PROG software.

2.1 WIRING DIAGRAMS





2.2 MEANING OF THE LEDS

PROG Tool is equipped with 3 LEDS used to signal its working status.

Interface LED

Power Green Led = Power supply On

TX Yellow Led = Hot Key programming

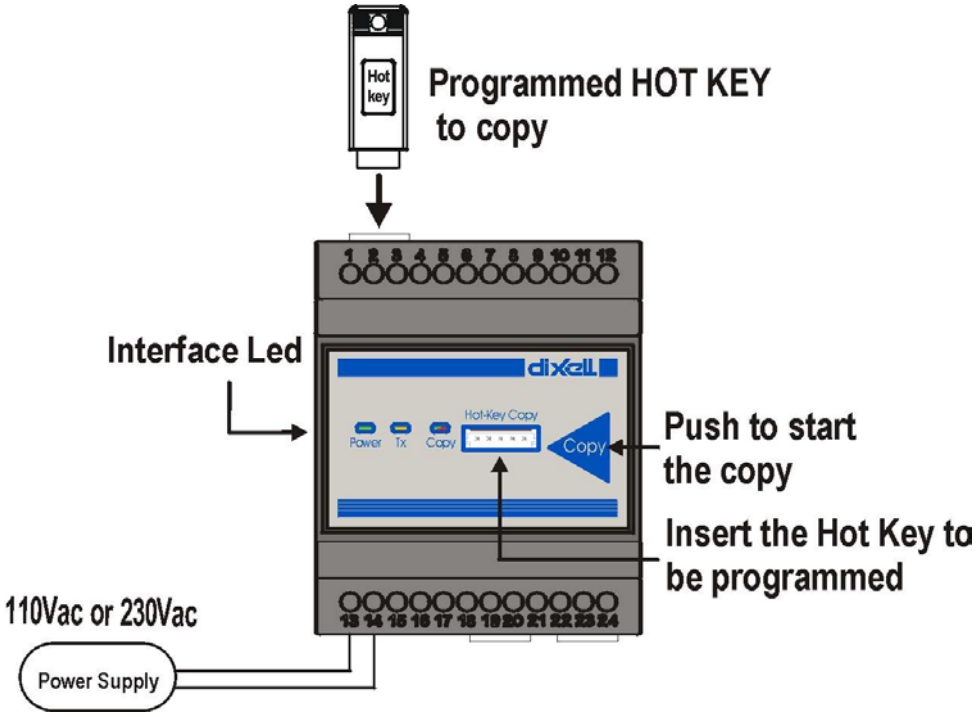
TX Yellow Led blinking = comunicaion between PC and PROG TOOL

Copy Red Led = Hot Key programming error

Copy Green Led = Hot key programming successful

2.3 PROGRAMMING FROM HOT KEY TO HOT KEY

This function allows to create copies of any HOT KEY already programmed.



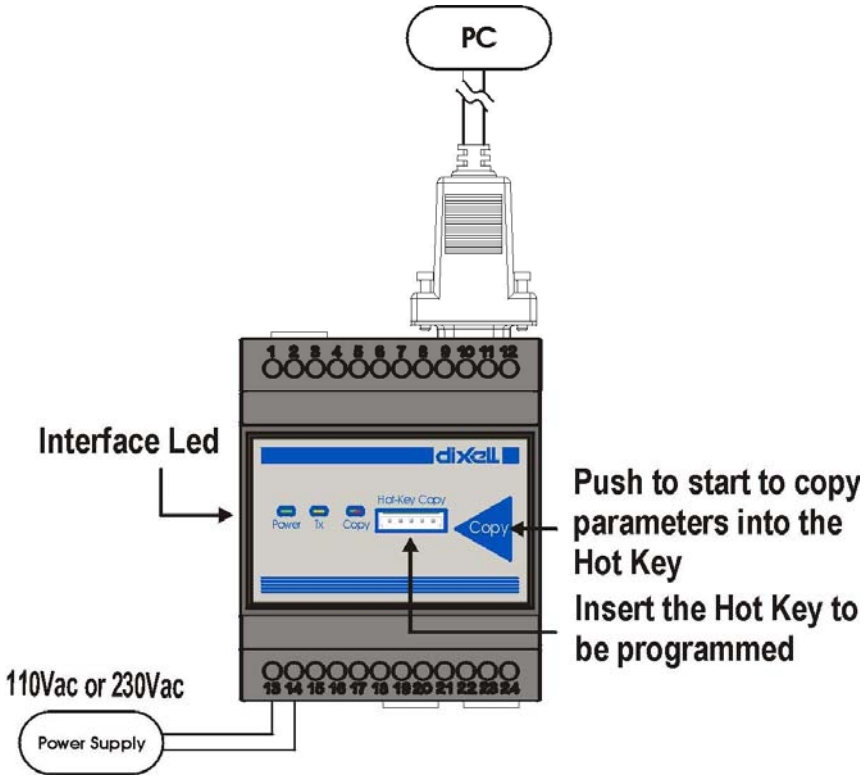
Connect the power supply to terminals 13 and 14 e check that the "Power" Led is on.

1. Insert the origin HOT KEY into the connector located on the side of the PROG TOOL
2. Insert HOT KEY to be programmed into the connector "Hot-Key Copy" on the front of the PROG TOOL
3. Push the "Copy" button to start the transfer of data from the origin HOT KEY to the new one. During this operation Led "Copy" is blinking

4. After few seconds Led “copy” stops blinking giving the result of the operation:
   Led “copy” RED = error during the programming of the HOT KEY, repeat the operation and if needed replace the HOT KEY.
   Led “copy” GREEN = operation successfully completed; the Hot Key has been correctly programmed.
5. Remove the new Hot Key. Is possible to create more copies by plugging other new Hot Key.

2.4 PROGRAMMING FROM PC TO HOT KEY

By using a PROG TOOL connected to a PC and the software EASY PROG (included in the CD-Rom) is possible to create new Hot Key to match our requirements.



1. Using EASY PROG create a parameter map with the desired values and copy it into PROG TOOL (see paragraph “HOW TO CREATE AN HOT KEY ” at page 23).
2. Connect PROG TOOL to the PC using an RS232 serial cable RS232 (like our CAB/SW 9-9)
3. Plug HOT KEY to be programmed into “Hot-Key Copy” connector located on the front of the PROG TOOL
4. Push button “Copy” on the front of PROG TOOL; Led “copy” starts blinking.
5. After few seconds Led “copy” stops blinking giving the result of the operation:
   Led “copy” RED = error during the programming of the HOT KEY, repeat the operation and if needed replace the HOT KEY.
   Led “copy” GREEN = operation successfully completed; the Hot Key has been correctly programmed
6. Remove the new Hot Key.

NOTE: *is now possible to create other copies of the Hot Key by simply repeating the procedure from point 2 to 6*

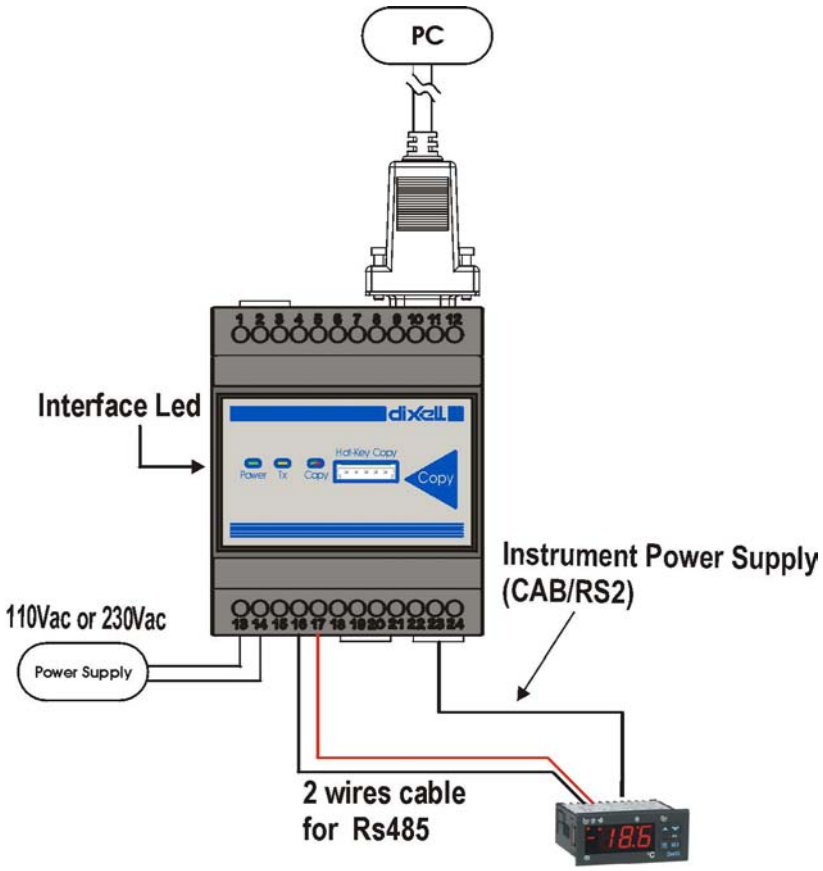
2.5 PROGRAMMING FROM PC TO CONTROLLER

Use of PROG TOOL combined with software EASY PROG allows to check and/or to modify the parameter map of a controller.
The controller has to be connected to PROG TOOL following one of the wiring diagrams in the next pages (it varies according to the presence or not of RS485 port on board the device) and it must be verified the compatibility (model and software version) with EASY PROG by looking to the table at page **Errore. Il segnalibro non è definito.** of this manual.

NOTE: *reading and/or writing of parameters is possible only with those controllers equipped with RS485 or TTL serial communication port. For the instruments not equipped with serial port (PRIME series and WING BASIC series) only the creation of HOT KEY is*

allowed.

2.5.1 WIRING OF A CONTROLLER EQUIPPED WITH RS485 SERIAL COMMUNICATION PORT



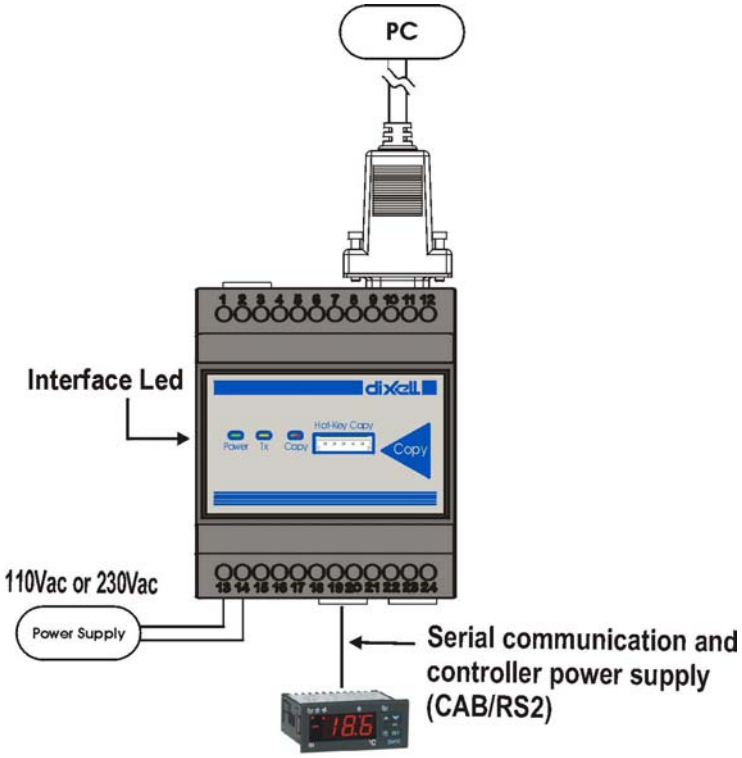
1. Using a 2 wire cable connect controller RS485 to RS485 terminals of PROG TOOL (16 and 17) taking care to respect the + and – polarity
2. With one of the 2 CAB/RS2 supplied with PROG TOOL KIT connect the "**+5V Supply**" terminal located on one side of PROG TOOL to TTL port of the controller. This grant the power Supply to the controller without any additional wiring being required.

3. Check that the serial address of the controller (parameter “**Adr**”) is set to **1**. If it doesn’t modify parameter setting.

   NOTE: *if the serial address is different from **1** the communication of the controller with PROG TOOL will not be possible at all.*

4. Connect PROG TOOL to the PC by using an RS232 cable (such as Dixell CAB/SW 9-9)
5. Now, by means of EASY PROG software is possible to check and modify the parameter map of the device (see paragraph HOW TO MODIFY A PARAMETER MAP" at page 21).

2.5.2 WIRING OF A CONTROLLER WITHOUT BUILT- IN RS485



1. With one of the 2 CAB/RS2 supplied with PROG TOOL KIT connect the "**TTL**" terminal located on one side of PROG TOOL to TTL (Hot Key) port of the controller. This grant to the controller both power supply and serial communication without any other wiring being necessary.
2. Connect the PROG TOOL to the PC using an RS232 cable (such as Dixell CAB/SW 9-9)
3. Check that the serial address of the controller (parameter "**Adr**") is set to **1**. If it doesn't modify parameter setting
4. Now, by means of EASY PROG software is possible to check and modify the parameter map of the device (see paragraph "HOW TO MODIFY A PARAMETER MAP" at page 21).

3 EASY PROG

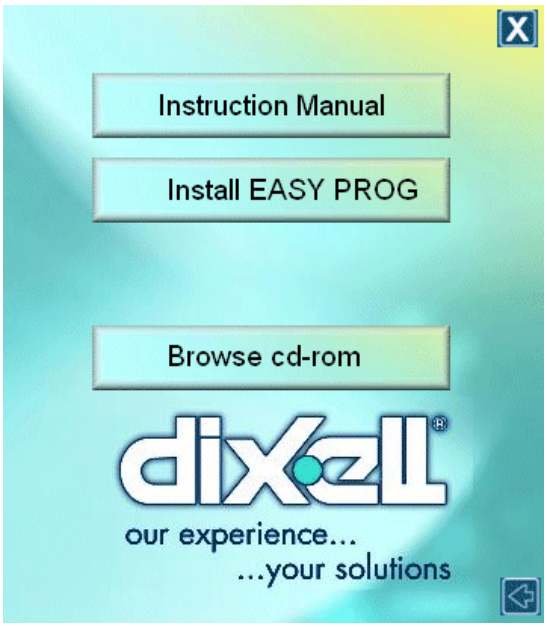
EASY PROG software, used in combination with PROG TOOL, Allows the managing of the parameter map of DIXELL controllers.
With it is possible to:

- Create an HOT KEY (with the desired parameters values) to use to program a Dixell controller
- Check the parameter map of a controller connected to the PROG TOOL and modify it
- Create a file containing the parameters map of a controller. This file can then be used by different user of PROG TOOL KIT to program a controller.

3.1 HOW TO INSTALL EASY PROG

Once inserted the CD in the PC automatically appears the window that allows the selection of the language for the installation procedure and for the following use of the software.

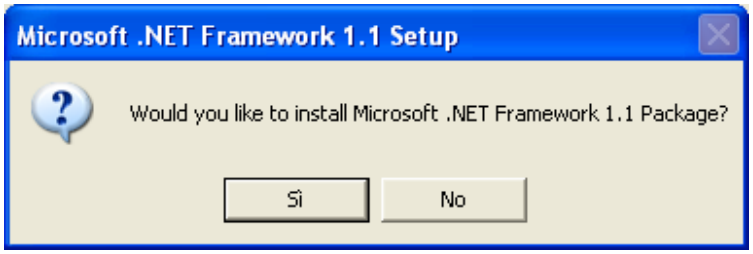
Select the language to access the installation menu:



the four possible choice are:

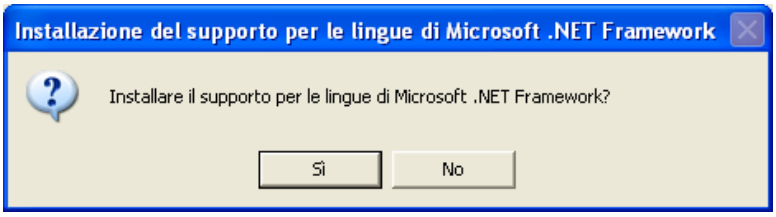
- **Instruction manual**: Allows to view and to print the instruction manual (Acrobat Reader® v5.0 or higher is required)
- **Install EASY PROG**: to proceed with EASY PROG software installation
- **Browse CD-Rom**: to browse the CD-Rom

By choosing EASY PROG" the installing procedure starts.
Once selected the language is enough to follow the instruction on the screen.
During the procedure you'll be asked to install the package "Microsoft .NET Framework 1.1"



Select “Si” to proceed with the installation.

NOTE: *“Microsoft .NET Framework 1.1” Must be installed. Without this package it won’t be possible at all to use EASY PROG*

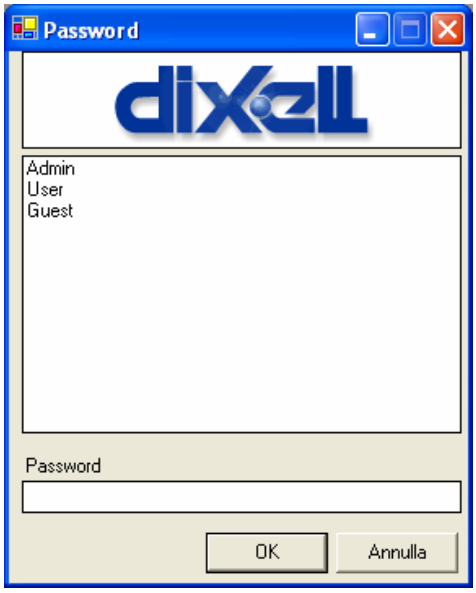


To the question of installation of the support for language to press “Si”.

SYSTEM REQUIREMENTS: EASY PROG works only under **WINDOWS XP** or **WINDOWS 2000**.

3.2 HOW TO RUN EASY PROG

After the software is installed to start the program simply double click on the icon EASY PROG on the desktop.
Immediately you'll be asked to insert a password to access the program



Since the first start 3 users are present. They have different access rights to program:

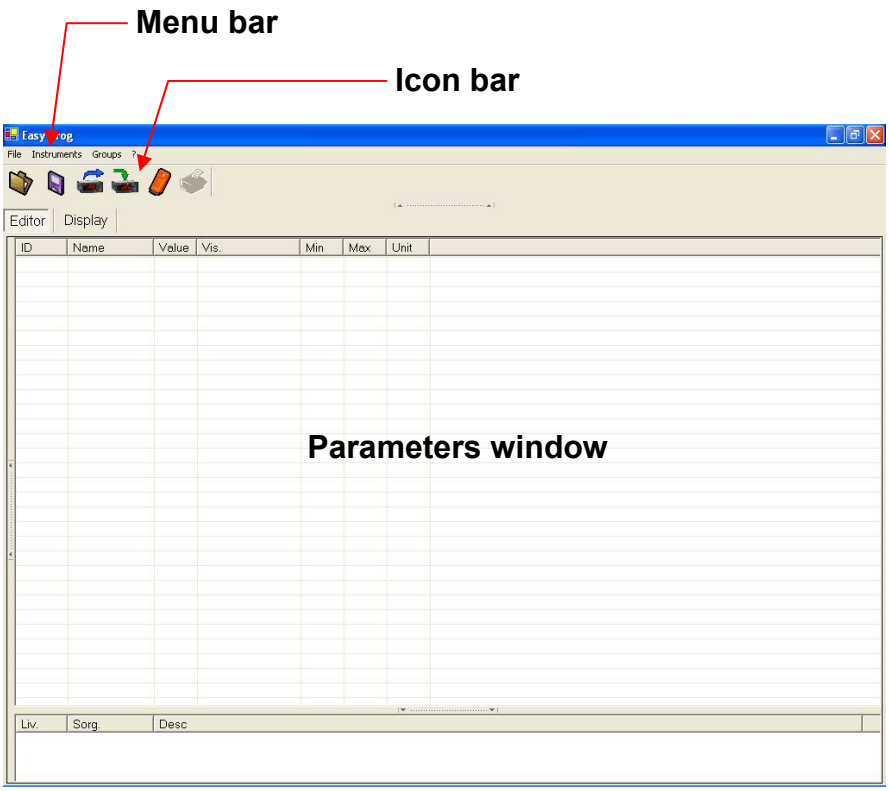
- **Admin:** is the administrator user. It gives access to all the functions of the program and to all the parameters of the controllers. The password is: ***admin***
- **User:** is the standard user. It can see/modify only small number of parameters (only level PR1). The password is: ***user***
- **Guest:** same as "User", but the password is: ***guest***

To start the program select the user you wish to use, type the relative password and press OK.

3.3 HOW TO USE EASY PROG

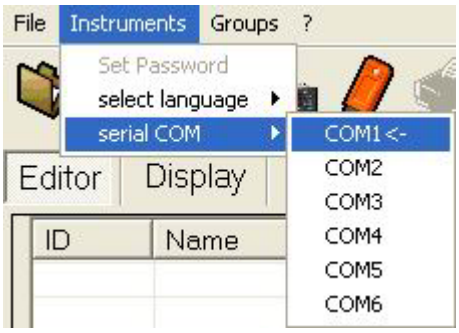
EASY PROG main window is divide into 3 zones:

1 The **menu bar,** contains the operative menu
2 The **icon bar**, with the icons relative to the most common commands
3 The **parameters window**, which contains the parameters and the relative descriptions



In this page is possible operates all the necessary action to create or to modify a parameters map, to check the programming of an instrument or to make a HOT KEY with the desired parameters values.

The first operation to do is to select the communication port of the PC the PROG TOOL is connected to.
In the menu bar click on "Instruments" then on "serial COM". then select the serial com port.



NOTE: *reading and/or writing of parameters is possible only with those controllers equipped with RS485 or TTL serial communication port. For the instruments not equipped with serial port (PRIME series and WING BASIC series) only the creation of HOT KEY is allowed*

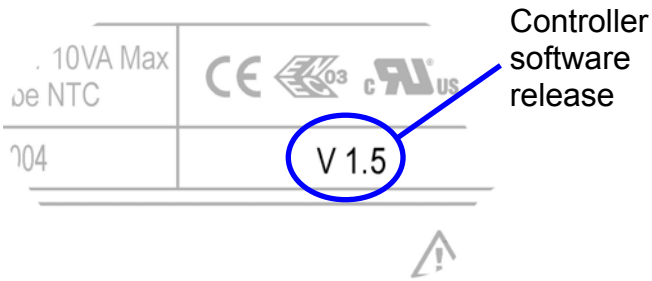
3.3.1 HOW TO READ PARAMETERS FROM A CONTROLLER

To read the parameters map of a instrument connected to PROG TOOL proceed as follows:
First of all check that the model and the software version of the instrument are included in the table of compatibility present at appendix "A" of this manual (page **Errore. Il segnalibro non è definito.**).
Then connect the instrument to PROG TOOL following the instructions of the paragraph 2.5 (page 9).
Click on the icon  (open map from device) on the icon bar or select "Read Device" from menu "File" in the menu bar.
the PROG TOOL will start to read the parameter map of the controller, at the end operation it will be possible to modify the values of the parameters as described at page 21 in the paragraph

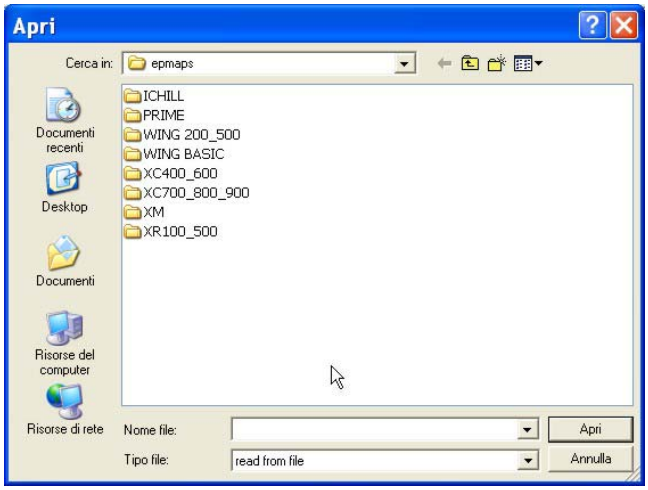
“HOW TO MODIFY A PARAMETER MAP".

3.3.2 HOW TO CREATE A NEW PARAMETER MAP

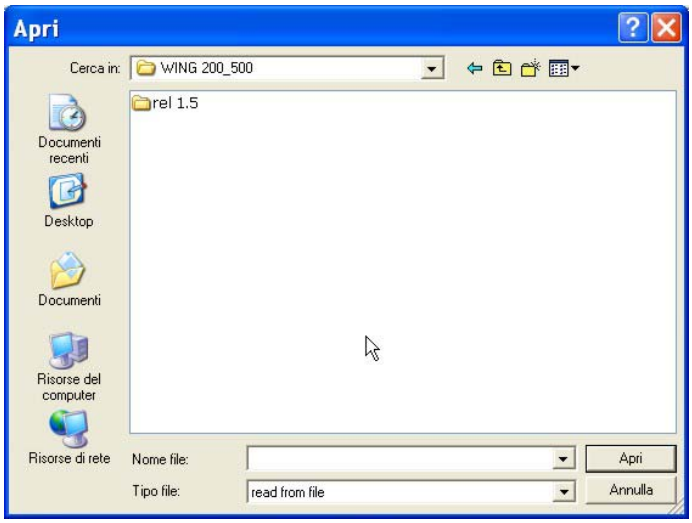
To create a new parameters map to be used to program an instrument or an Hot Key proceed as follows:
Check that the model and the software release of the instrument are included in the compatibility table in appendix “A” of this manual (page **Errore. Il segnalibro non è definito.**).



Connect the instrument to PROG TOOL following the instructions present in paragraph 2.5 (page 9).
Click on the icon  (open map from file) on the icon bar or select “open file” from menu “File” in the menu bar.



Select the folder relative to the family the controller we want to modify the map belong to (for example, if you want to create the XW260L map to select the "**WING 200_500**" family) and then the file relative the software release of the instrument.

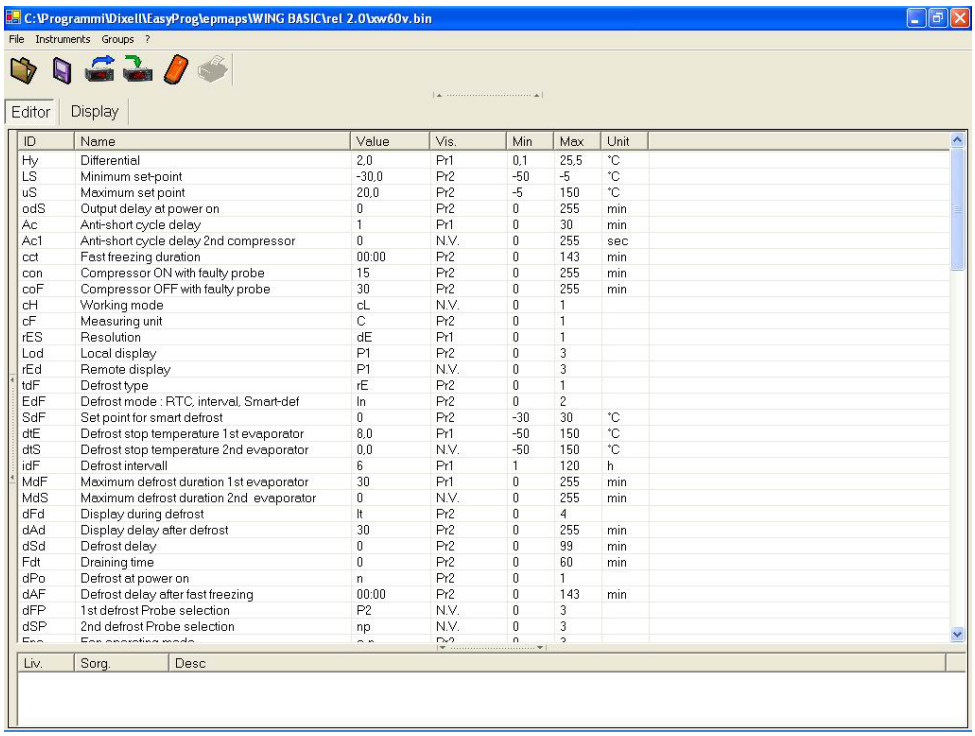


NOTE: *is possible that a family of instruments have different software release, you are asked to strictly respect the correspondence of the controller / parameter map software releases otherwise there's an high risk to damage the controller*

Using icon  is also possible to load and to display a parameter map previously created and saved in the PC.

3.3.3 HOW TO MODIFY A PARAMETER MAP

When the parameter map is displayed (being it loaded from an instrument or a new map) it will appear the window below.



On the main windows there's the detailed list of the parameters belonging to the controller, the description of the parameters, the values, the level of visibility (Pr1 / Pr2) and the limits within which is possible to set the parameters.

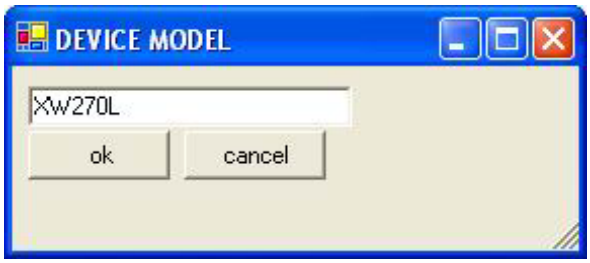
It is possible to display only the parameters belonging to a specific function (defrost, fan, regulation and so on.) by clicking on the menu cliccando "Groups" in the menu bar and then selecting the desired group

Clicking on the value of the parameter is possible to modify it and to set the value desired.
In the same way is possible to modify the level of visibility of the parameters (Pr2, Pr1 or N.V not visible)

By Clicking on the icon  (save map on file) is possible to save in the PC the parameter map (it's also possible to use the menu “save file…” in the “File” menu).

3.3.4 HOW TO CREATE AN HOT KEY

Through the PROG TOOL and EASY PROG software is possible create custom HOT KEY's.
Wire PROG TOOL to the PC (see paragraph *"PROGRAMMING FROM PC TO HOT KEY*" page 8).
Modify the desired parameters map (or create a new one) and click on the icon  (transfer map into Prog Tool)
In the window "Device Model" set the model of the controller you want to program with the Hot Key and than click OK.



***BEWARE:** check carefully that the model of the controller you are going to program with the Hot Key corresponds to the model the parameters map belong to. If different the HOT KEY will be unusable.*

EASY PROG will transfer the map into the PROG TOOL.
Plug the empty HOT KEY in the "Hot-Key Copy" connector located on the front of the PROG TOOL and the push button "Copy"; Led "copy" starts blinking.
After few seconds Led "copy" stops blinking giving the result of the operation:
Led "copy" RED = error during the programming of the HOT KEY, repeat the operation and if needed replace the HOT KEY.
Led "copy" GREEN = operation successfully completed; the Hot Key has been correctly programmed
Remove the new Hot Key.

NOTE: is now possible to create other copies of the Hot Key by repeating the above procedure.

3.3.5 HOW TO PROGRAM A CONTROLLER

Using PROG TOOL and EASY PROG software is also possible to directly program a controller parameter map.
Connect the controller to PROG TOOL and then this last to the PC (see paragraph *"PROGRAMMING FROM PC TO CONTROLLER*" page 9).

Modify the desired parameters map and then to click on icon  .
EASY PROG will transfer the parameters map to the Controller.

BEWARE: *Check carefully that the model and the software release of the instrument to be programmed correspond to model and software release the parameters map belongs to*.