

Foglio istruzioni

Technical leaflet



Technology & Evolution

Technical leaflet





CAREL bases the development of its products on several years' experience in the HVAC field, on continuous investment in technological innovation of the product, on rigorous quality procedures and processes with in-circuit and function tests on 100% of its production, on the most innovative production technologies available on the market. CAREL and its branch offices/affiliates do not guarantee, in any case, that all the aspects of the product and the software included in the product will respond to the demands of the final application, even if the product is built according to state-of-the-art techniques. The client (builder, developer or installer of the final equipment) assumes every responsibility and risk relating to the configuration of the product in order to reach the expected results in relation to the specific final installation and/or equipment. CAREL in this case, through specific agreements, can intervene as consultant for the positive result of the final start-up machine/application, but in no case can it be held responsible for the positive working of the final equipment/apparatus.

The CAREL product is a state-of-the-art product, whose operation is specified in the technical documentation supplied with the product or can be downloaded, even prior to purchase, from the website <u>www.carel.com</u>.

Each CAREL product, in relation to its advanced technological level, needs a phase of definition / configuration / programming / commissioning so that it can function at its best for the specific application. The lack of such phase of study, as indicated in the manual, can cause the final product to malfunction of which CAREL can not be held responsible.

Only qualified personnel can install or carry out technical assistance interventions on the product.

The final client must use the product only in the manner described in the documentation related to the product itself.

Without excluding proper compliance with further warnings present in the manual, it is stressed that in any case it is necessary, for each Product of CAREL:

- To avoid getting the electrical circuits wet. Rain, humidity and all types of liquids or condensation contain corrosive mineral substances that can damage the electrical circuits. In any case, the product should be used and stored in environments that respect the range of temperature and humidity specified in the manual.
- Do not install the device in a particularly hot environment. Temperatures that are too high can shorten the duration of the electronic devices, damaging them and distorting or melting the parts in plastic. In any case, the product should be used and stored in environments that respect the range of temperature and humidity specified in the manual.
- Do not try to open the device in any way different than that indicated in the manual.
- Do not drop, hit or shake the device, because the internal circuits and mechanisms could suffer irreparable damage.
- Do not use corrosive chemical products, aggressive solvents or detergents to clean the device.
- Do not use the product in application environments different than those specified in the technical manual.

All the above reported suggestions are valid also for the control, serial unit, programming key or nevertheless for any other accessory in the product portfolio of CAREL.

CAREL adopts a policy of continuous development. Therefore, CAREL reserves the right to carry out modifications and improvements on any product described in the present document without prior notice.

The technical data in the manual can undergo modifications without obligation to notice.

The liability of CAREL in relation to its own product is regulated by CAREL's general contract conditions edited on the website <u>www.carel.com</u> and/or by specific agreements with clients; in particular, within the criteria consented by the applicable norm, in no way will CAREL, its employees or its branch offices/affiliates be responsible for possible lack of earnings or sales, loss of data and information, cost of substitute goods or services, damage to things or persons, work interruptions, or possible direct, indirect, incidental, patrimonial, of coverage, punitive, special or consequential in any way caused damages, be they contractual, out-of-contract, or due to negligence or other responsibility originating from the installation, use or inability of use of the product, even if CAREL or its branch offices/affiliates have been warned of the possibility of damage.



Disposal of the product

The appliance (or the product) must be disposed of separately in accordance with the local waste disposal legislation in force

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1. Introduction

CAREL presents a new solution for the monitoring and telemaintenance of air-conditioning and refrigeration systems.

This solution is made up three fundamental parts: a device featuring exceptional stability and reliability, a robust operating system that offers excellent performance, and a monitoring and telemaintenance product that has been tested and appreciated in hundreds of installations (PlantVisorPRO). The purpose of this document is to provide instructions on setting up the system.

1.1 Markings and connectors

Front panel



1. Supervisory system ON/OFF

Rear panel

- 1. Power cable
- 2. Serial ports
- 3. Parallel port
- 4. Analogue modem telephone connector
- 5. Video connector
- 6. Ethernet network connector
- 7. USB ports
- 8. Mouse and keyboard connector



PlantVisorPRO Embedded / controllers connections



Fig. 1.3

2. Installation

The system is supplied with a black and white cable that must be connected to position (8). This cable should then be connected to a mouse and a keyboard, the mouse to the black end and the keyboard to the white end. Once the mouse and the keyboard have been connected, plug the monitor into connector (7). Then plug the power cable into connector (1) and the 220 Vac power supply. Finally, connect the CAREL 485 network. The connector used depends on the type of converter selected. The system is supplied together with the CAREL PC-GATE converter. To use this converter, connect the serial cable to the COM2 port, that is, connector (2). To use the 485 USB converter (CVSTDUMOR0), any of the USB ports can be used, connector (5). **Optional:** if the PlantVisorPRO Embedded needs to be connected to an Ethernet network, plug the network cable into connector (6). Connector (3) can be used to interface to a parallel printer.

2.1 Setup

Once the cables have been connected (see the previous paragraph), switch the system on using button (1). At the end of start-up phase, the following screen is displayed, prompting the user to select the language the screens will be displayed in. Once having made the selection, click "OK".

Please select	setup language
English	•
<u>o</u> k	<u>E</u> xit

Fig. 2.1

Then the user license must be accepted; click "Next >".



Fig. 2.2

PlantVisorPRO Embedded Wait until the "Install language" button is enabled, then select the language for installing PlantVisorPRO, and click "Install language".

PlantVisorPRO	Welcome to PlantVisorPRO
Please select the PlantVisorPRO installation language	English Install Language <u>Exit</u>

Fig. 2.3

Once installation is complete, the following screen is displayed:

- click "ignore" to not install extra modems for the time being
- click "modem settings" to install an extra modem now

PlantvisorPRO Ignore	PlantVisorPRO	
all you need where you need it		Modem Settings
	all you need where you need it	A Ignore

Fig. 2.4

The last screen displayed is the following:

- click "ignore" to not install a printer for the time being
- click "printer settings" to install a printer now

PlantVisorPRO	
	Printer Settings
all you need where you need it	A Ignore

Fig. 2.5

2.2 Configuration

At the end of start-up phase (see the previous paragraph), the PlantVisorPRO management console is opened. This indicates that the system is fully operating.



Fig. 2.6

The "System Manager" button allows to access the operative system. The access to these functions is password protected. Only two users can access these functions. The users in question have the following profiles "administrator" and "maintenance". The first features "PVPROAdmin" as login and "12345678" as password, the second "PVPROInstaller" as login and "12345678" as password.

We suggest to change the password after the first access to the system.

Login		
PVPROAdmin		_
Password		
1		
	014	



Once the password has been entered, the following window will be displayed.

System Configuration		
System Interface		1
🔿 Task Manager	C Explorer	<u> </u>
Restart System	🔿 Shutdown System	L
C Configure Video Adapter	C Configure Network	Close
C Configure Date/Time	C Configure Modem	
C Computer management	C Configure Keyboard	
C View license notice	C Configure Printers and Faxes	
C Safely remove hardware	🔿 On Screen Keyboard	
C Calibrate monitor		
Browser Option		
📕 Run Browser in Kiosk mode		

Fig. 2.8

To access the desired function, simply select it and click Run. To exit, simply click Close.

The following functions are available:

- ✓ Task Manager. Manages the processes that are currently running
- ✓ Explorer. Accesses the operating system shell.
- ✓ Restart the system.
- ✓ Close System. Physically shutdown the system.
- ✓ Configure the video adapter.
- ✓ Configure the network. This should be used if the system is connected to a network with domain.
- ✓ Configure date/time. This is used to set the date and the time of the system, as well as a set the time zone.
- ✓ Configure modem.
- ✓ Computer management. This is used to access the programs for managing the operating system.
- ✓ Configure keyboard. This is used to select the layout of the keyboard.
- ✓ User license. Displays the conditions of use.
- ✓ Configure printers and fax. This is used to open the window for installing a printer in the system.
- ✓ Safely remove hardware.
- ✓ On screen keyboard
- ✓ Calibrate monitor.
- Browser in Kiosk mode. Activating this functions displays the pages in full screen mode. To switch from the pages to the supervisor monitor press ALT+TAB.

3. Technical specifications

3.1 Features and functional limits

- a) Make sure that the power supply is between 100 Volts AC and 240 Volts AC. The frequency of the power supply must be 50 Hz.
- b) The network board is 10/100 Base-TX Ethernet, that is, it operates at both 10 Megabit and 100 Megabit completely automatically.
- c) A printer can be connected either to the parallel port or a USB port. The system comes with the generic driver (e.g. generic printer, text only). To install a printer with its driver, use a USB driver or an installation CD-ROM.
- d) Install the system on a solid surface.
- e) Do not expose to sunlight or rain.
- f) The temperature must be between 0 °C and +45°C(32 °F to 113 °F), both in storage and operating conditions.
- g) The humidity must be below 90% RH non-condensing, both in storage and operating conditions.
- h) Avoid placing the system near radio sources.
- i) Do not place heavy objects on the device.
- j) Do not turn the device upside down.
- k) The internal analogue modem must be connected to the analogue telephone line using an RJ-11 connector.
- I) Power supply ATX 100 W.
- m) Certification: CE, FCC class B, LVD.

4. Dimensions

The dimensions of PlantVisorPRO Embedded are $260 \times 240 \times 62 \text{ mm}$ (10.24 " x 9.45" x 2.44"). For the correct ventilation of the device, there must be at least 15 cm of free space on each side.

5. Accessories

The PlantVisorPRO Embedded is supplied together with the following accessories:

- 1. Pc-GATE 485 converter
- 2. Pc-GATE power supply
- 3. 9-pins serial connection cable.
- 4. Mini DIN Combo connector for mouse and keyboard connection.

6. Note

- PlantVisorPRO Embedded is a part of CAREL supervisory and telemaintenance system, that can not be used "stand alone ". It is not possible to upload a different software.

- PlantVisorPRO Embedded should be connected to the CAREL instruments network for the central management of data and alarms.

- The installation of PlantVisorPRO Embedded should be started up by a qualified technician

The warranty is not valid for improper use of the product or damage due to wrong connection on the unit.



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