

SIMATIC PC

Panel PC 670 Panel PC 870

Start-Up Instructions

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This Start-Up Instructions manual is valid for the following units:

Panel PC 670: Order Number 6AV77xx-...

Panel PC 870: Order Number 6AV77xx-xC...
and 6AV77xx-xD...

Release 11/02

A5E00174923

Safety Guidelines

This manual contains notices which you should observe to ensure your own personal safety, as well as to protect the product and connected equipment. These notices are marked as follows according to the level of danger:



Danger

indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.



Warning

indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.



Caution

used with the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Caution

used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Notice

indicates that unwanted events or status can occur if the relevant information is not observed.

Note

draws your attention to particularly important information on the product, handling the product, or to a particular part of the documentation.

Qualified Personnel

Equipment may be commissioned and operated only by qualified personnel. Qualified personnel within the meaning of the safety notices in this manual are persons who are authorized to commission, ground and identify equipment, systems and circuits in accordance with safety engineering standards.

Correct Usage

Please note the following:



Warning

The device may only be used for the application cases specified in the catalog and the technical description and may only be used in combination with third-party equipment and components recommended or approved by Siemens.

Startup must not take place until it is established that the machine which is to accommodate this component conforms with the guideline 98/37 EC.

Appropriate transport, and appropriate storage, installation and assembly, as well as careful operation and maintenance, are required to ensure that the product operates perfectly and safely.

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We have checked the content of this publication for compliance with the described hardware and software. However, discrepancies cannot be excluded, with the result that we cannot guarantee total compliance. The information in this publication is, however, checked regularly, and any necessary corrections are included in the following editions. We welcome any suggestions for improvement.

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Preface

Purpose

This Start-Up Instructions manual is a component part of the documentation for the SIMATIC Panel PC 670 and SIMATIC Panel PC 870 (subsequently referred to as Panel PC 670/870).

This Start-Up Instructions manual contains the information for installation engineers and system operators necessary for the mechanical and electrical installation of the Panel PC 670/870 and starting it up.

Caution

The contents of the Panel PC 670/870 Start-Up Instructions are superordinated to those of the Equipment Manual of the Panel PC 670/870.

Siemens AG assumes no liability resulting from failure to observe the instructions.

Documentation

- Start-Up Instructions (this document).

The Start-Up Instructions manual is supplied in printed form together with the Panel PC 670/870 and is available in German, English, French, Italian and Spanish. The Start-Up Instructions manual is also provided in the languages mentioned in electronic PDF format on the Documentation & Drivers CD.

- SIMATIC Panel PC 670/870, operating unit equipment manual

The equipment manual contains information on operating the operating unit, error diagnostics and the hardware.

Target groups include installation engineers as well as service and maintenance technicians.

- SIMATIC Panel PC 670, computer unit equipment manual
SIMATIC Panel PC 870, computer unit equipment manual

The equipment manual contains information on extension options for the computer unit, on the configuration, error diagnostics and the hardware.

All the equipment manuals mentioned are supplied with the Panel PC 670/870 electronically in PDF format on the Documentation & Drivers CD and are available in German, English, French, Italian and Spanish.

Target groups include installation engineers as well as service and maintenance technicians.

Notation

Different font formats simplify orientation within the text:

<i>Motor on</i>	The text on the screen of the operating unit is displayed in typewriter font.
<i>Output</i>	Inputs and outputs on the screen of the operating unit are displayed in italic typewriter font.
<i>File → Edit</i>	Menu items, dialog names, tab controls and buttons of the operating system and the application are displayed in italic font. In context with menu items the complete path is always described.

Note

The content of this Start-Up Instructions is organized according to the sequence of work necessary and, thus, structurally corresponds to a working plan subdivided into the individual working steps. The work involved is identified by the heading **Step x** and chronologically ordered according to the sequence of steps.

All the other chapters and sections serve to provide information before performing the respective step.

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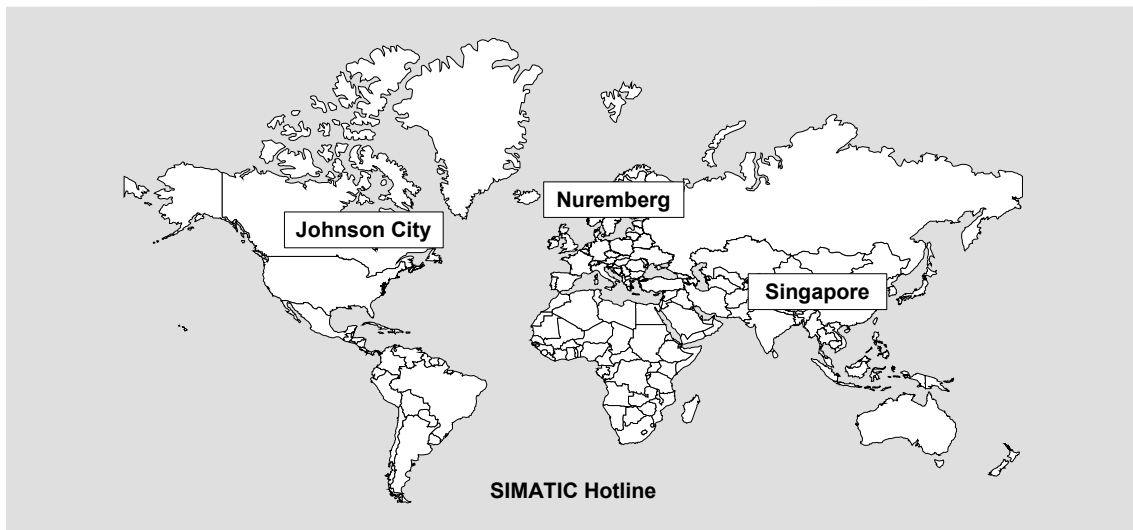
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Internet: <http://www.sitrain.com>

E-Mail: info@sitrain.com

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The addresses can be found:

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- In the Internet under
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- In the Interactive Catalog CA01
<http://www.siemens.com/automation/ca01>

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Unpacking and Installing the Panel PC 670/870

1.1 Unpacking and Checking the Delivery Contents

Unpacking

Step 1

- Check the packaging of the Panel PC 670/870 for visible signs of transport damage.
If signs of transport damage are apparent, contact the transporting company responsible immediately.
- Open the packing and unpack the contents.

Note

Do not dispose of the original packaging – save it for a future transportation of the Panel PC 670/870.

Keep all the documents supplied! They belong to the Panel PC 670/870 and are required for the initial startup.

Checking

Step 2

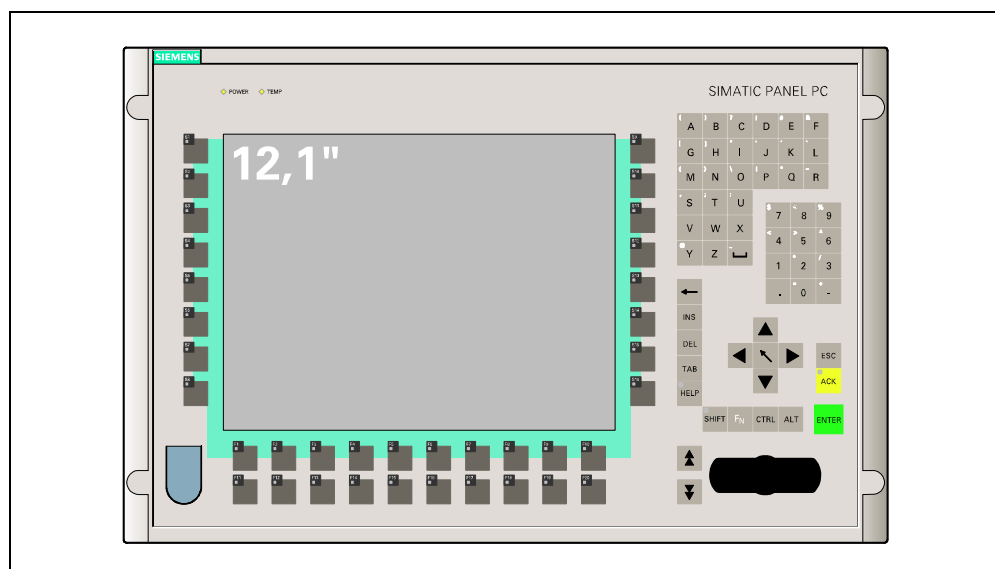


Figure 1–1 View of the Panel PC 670/870 12" operating unit with membrane keyboard

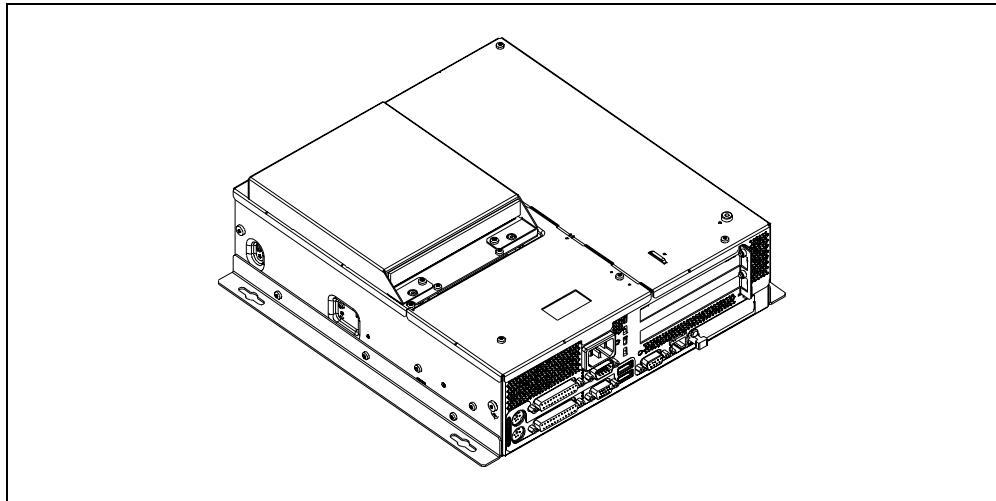


Figure 1-2 View of the Panel PC 670 computer

- Check that the content of the delivery package is complete and free of damage. Check the content against the "delivery contents" list enclosed.
- If the delivery content is incomplete or damaged, inform the transporting company responsible and set the contents aside unused.

Entering the operating unit number

Step 3

Enter the SVP number (production number) and the MLFB number of the Panel PC 670/870 in the table below.

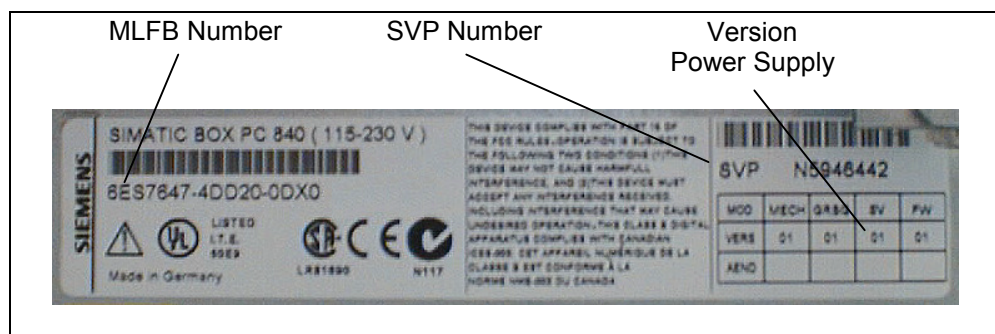


Figure 1-3 Rating label (example)

The SVP number and the MLFB number enable the operating unit to be identified by the service center in case of any repairs required.

Both numbers are on the rating plate on the ventilation side at the top (refer to Figure 1-3).

Also enter the Microsoft Windows "Product Key" of the "Certificate of Authenticity" (COA) in the table. The Product Key can be found on the unit on the power supply cover. The Windows Product Key is necessary should the operating system need to be reinstalled.

SVP number	
MLFB number	
Microsoft Windows Product Key	

1.2 Installation of the Panel PC 670/870

Before starting with the installation work, please observe the information below:

Installation notes

Caution

The Panel PC 670/870 is approved for operation in closed rooms.

When installing the Panel PC 670/870, observe the information in Chapter "Technical Data" of the Panel PC 670 or Panel PC 870 Equipment Manual as well as the following points:

- Place the screen in such a way that it is not exposed to direct radiation by sunlight or other light sources.
- Place the screen in an ergonomic position for the user – select a corresponding installation height.
- Position the operating unit and computer so that the air vents in the housing are not covered following installation.
- Ensure that the cabinet/panel has sufficient volume for the air exchange. Further information on this is available in the Panel PC 670/870 Operating Unit Equipment Manual, Chapter 2.4.
- The maximum air inlet temperature for the computer must not exceed 45°C when the unit is operating at maximum capacity.
- These installation notes also apply to the operating unit in a decentralized structure.
- When assembling the Panel PC 670/870, observe the permissible installation angles, depicted in the following diagram.

Installation angle

Step 4

**Warning**

If the Panel PC 670/870 is installed in a position which is not permissible, all approvals complying with UL 1950 and EN 60950 are annulled.

The Panel PC 670/870 is available in two different designs:

- Panel PC 670/870 in a **centralized** design – computer and operating unit from one unit.
- Panel PC 670/870 in a **decentralized** design – computer and operating unit are assembled spatially separated.

The following installation angles are permitted according to the respective design of the Panel PC 670/870:

1. Panel PC 670/870 in a **centralized** design

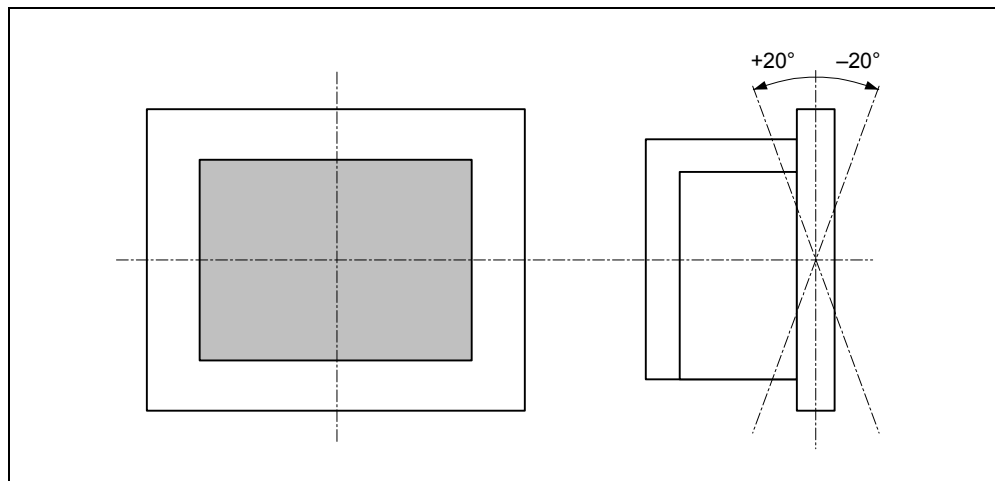


Figure 1-4 Permissible installation angles for the Panel PC 670/870 in a centralized design

Vertical installation as well as deviations up to $\pm 20^\circ$ in the indicated directions are permitted.

2. Panel PC 670/870 in a **decentralized** design

Only applies to the operating unit:

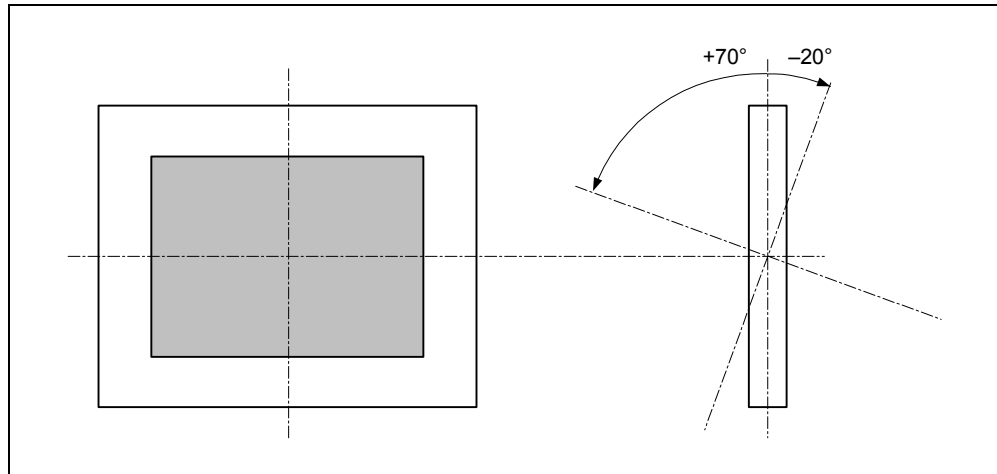


Figure 1-5 Permissible installation angles for the Panel PC 670/870 in a decentralized design

Vertical installation as well as deviations up to $+70^\circ$ to -20° in the indicated directions are permitted.

The installation position for the computer is described in Chapter 1.3.

Select the installation angle according to your own needs and continue to the next step to define the degree of protection.

Degree of protection and type of fixation

Step 5

Applies to both centralized and decentralized designs:

The degree of protection, which you decide on, is dependent on the type of fixation:

- Protection Class IP65
This degree of protection is achieved by fixing the operating unit by means of clamping saddles together with a seal running around the circumference.
- Protection Class IP54
This degree of protection is achieved by fixing the operating unit by means of screw mountings.

Select the degree of protection in accordance with the intended use of the equipment and, thus, the type of fixation. After having made the selection, chose the necessary installation cut-out.

Note

The Panel PC 670/870, 12" touchscreen is not designed for installation using screw mountings.

Select installation cut-out**Step 6**

Applies to the computer in a decentralized design:

No installation cut-out is required for the computer. Skip this working step.

Applies to both centralized and decentralized designs:

Select an appropriate installation area taking the installation notes and selected installation angle into account.

Note

Ensure sufficient air volume for heat transportation within the switching cabinet/panel. Further information on this is available in the Panel PC 670/870 Operating Unit Equipment Manual, Chapter 2.4.

Also ensure sufficient free space to pull out the Panel PC 670/870 from the installation cut-out.

When selecting the installation cut-out, ensure that the switching cabinet/panel contains reinforcement bars to stabilize the cut-out. If necessary, install such reinforcement bars.

Figure 1–6 below contains:

- the dimensioning of the holes required for the retaining screws and
- the dimensioning of the pressure points of the screws regarding the clamping saddles.

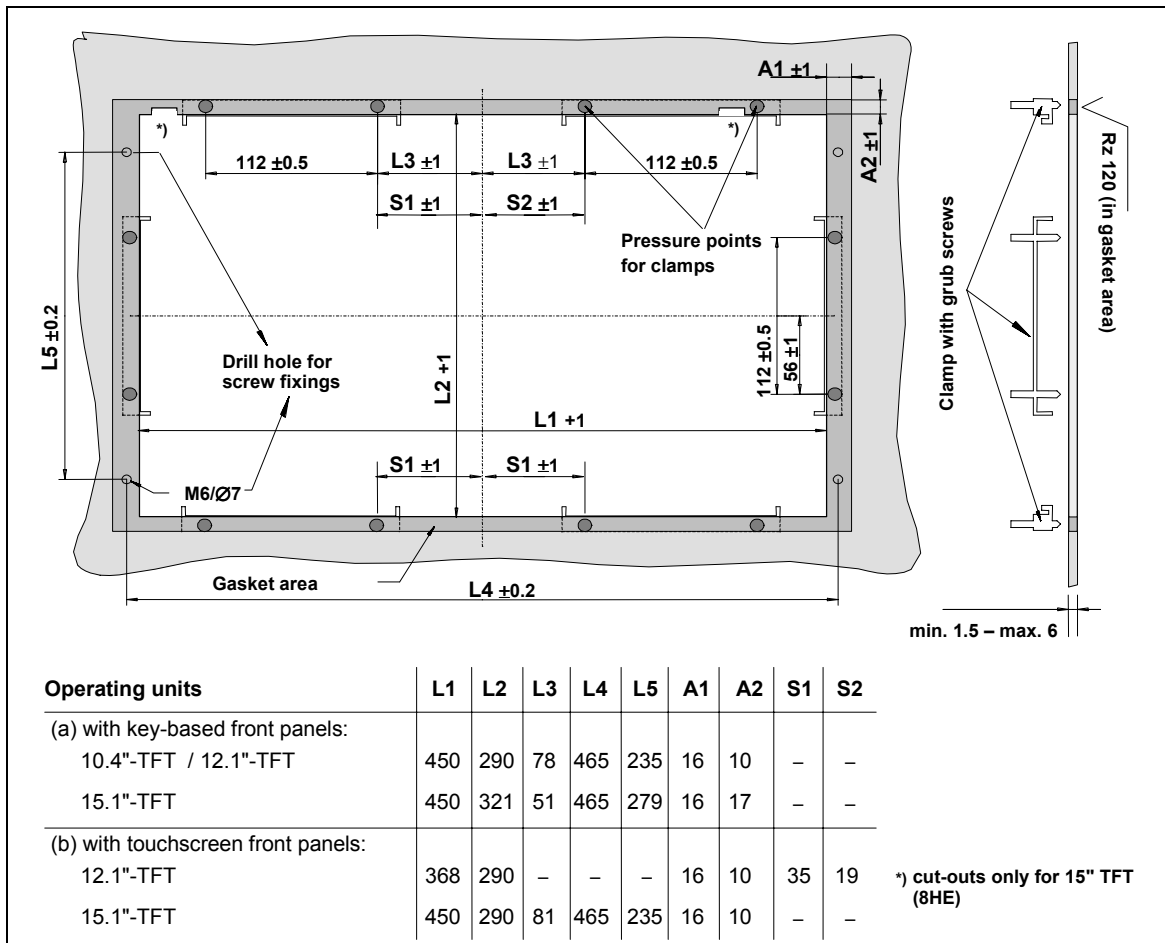


Figure 1-6 Installation cut-out for Panel PC

Refer to Figure 1-6 to check that the screws and pressure points on the rear side, and the shaded seal area are freely accessible after completion of the installation cut-out.

Otherwise, it is possible that the installation cut-out cannot be used.

When the conditions mentioned are fulfilled, complete the installation cut-out according to the next step.

Making the installation cut-out

Step 7

Applies to both centralized and decentralized designs:

Figure 1–7 below contains the dimensions for the installation cut-out for the Panel PC 670/870 or the operating unit in a decentralized design.

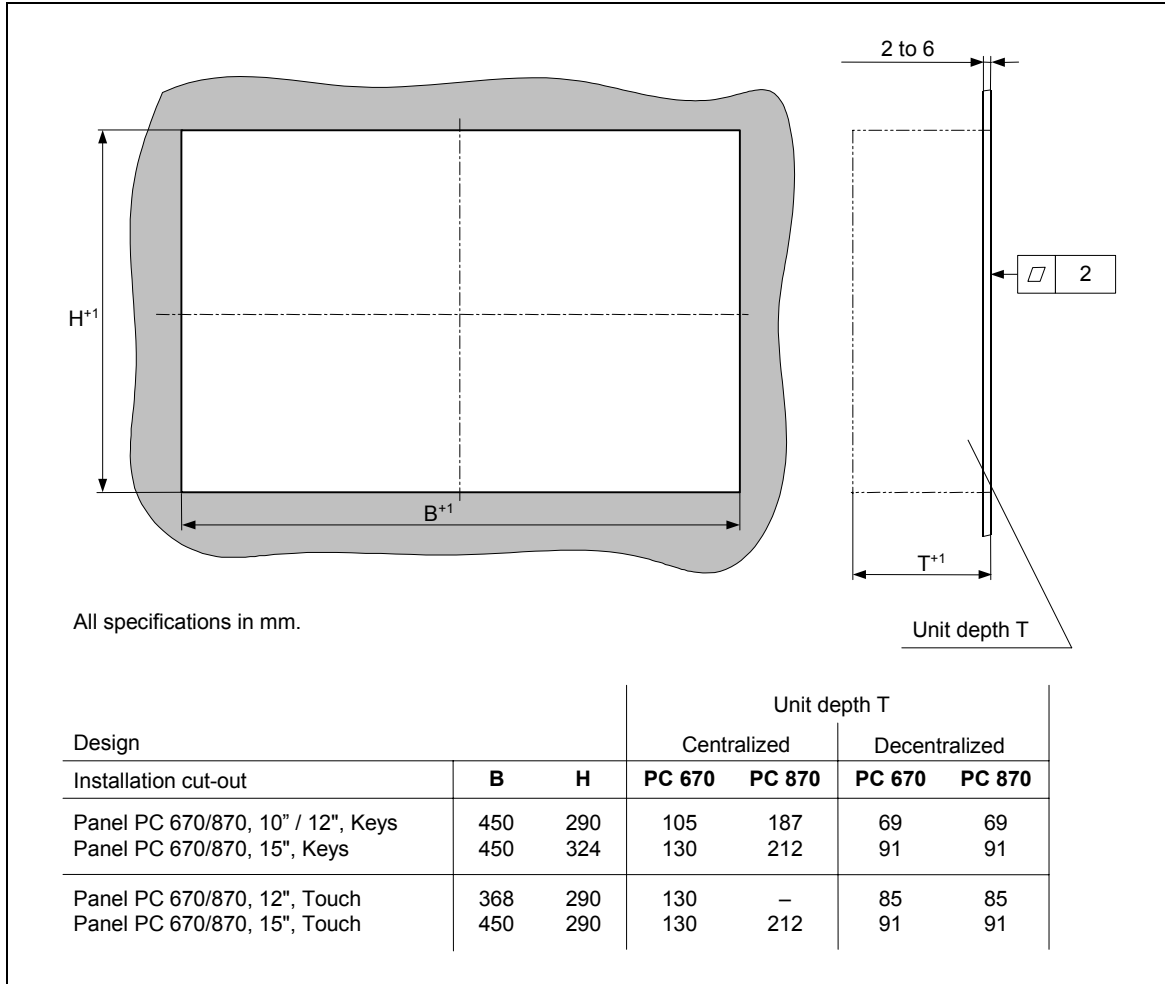


Figure 1–7 Dimensions for installation of the operating unit (specifications without the CD-ROM option)

After completing the installation cut-out, insert the Panel PC 670/870 or operating unit in the cut-out and fix it according to the type of fixation selected (refer to Step 8).

Fixation

Step 8

Fixation using clamping saddles

Applies to both centralized and decentralized designs:

Skip this working step if screw mounting fixation has been decided upon.

The clamping saddles and threaded pins required for the installation are part of the material supplied in the delivery content. Proceed as follows:

1. Insert the Panel PC 670/870 or operating unit in the installation cut-out from the front.
2. From the back, fasten the operating unit in the installation cutout by tightening the setscrews (torque: 0.4 - 0.5 Nm) of the six clamps (see Figure 2–2).

In the case of a decentralized design, secure the computer as described in Step 11.

Otherwise, installation is complete. Refer to Chapters 2.1 to 2.3 for information concerning the position of the interfaces, the operating panel and the operating system. Then continue with Step 11.

Fixation using screw mountings

Applies to both centralized and decentralized designs:

Skip this working step if clamping saddle fixation has been decided upon.

Proceed as follows:

1. Drill appropriate holes in the installation cut-out in accordance with the specifications to L4 and L5 in Figure 1–6.
2. Carefully break out the drill hole caps on the front of the operating unit.

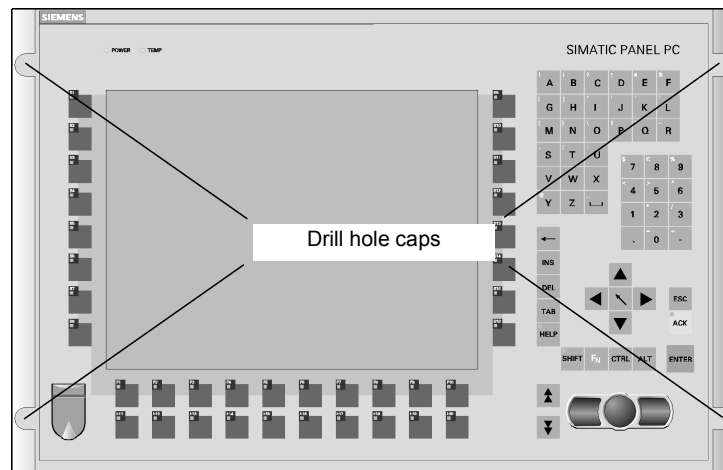


Figure 1–8 Drill holes with caps

3. Install the assembled operating and computer units or operating unit in the prepared installation cut-out from the front.
4. Fasten the operating unit with suitable nuts and bolts through the drill holes.

The installation with screw mountings meets the IP54 degree of protection.

In the case of a decentralized design, secure the computer as described in Step 11.

Otherwise, installation is complete. Refer to Chapters 2.1 to 2.3 for information concerning the position of the interfaces, the operating panel and the operating system. Then continue with Step 11.

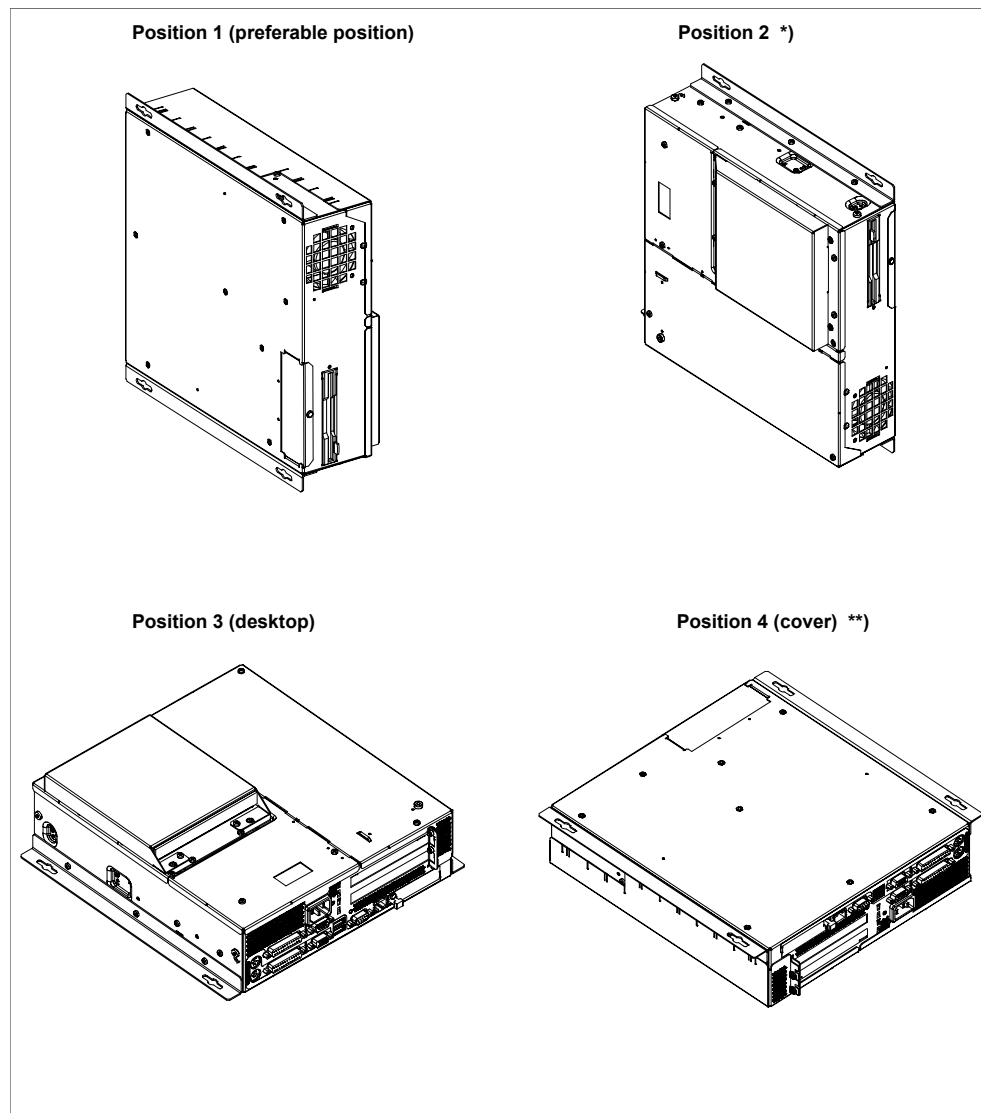
1.3 Installation of the Computer Unit

Skip this chapter if the centralized design has been chosen.

Only applies to the computer unit:

Permissible installation positions for the computer unit complying with UL1950/EN60950/CSA22.2 No. 950

An angle of $\pm 20^\circ$ is allowed in every permissible installation position.



*) Not permitted where an LS240 drive is installed.

***) Not permitted where a disk/CD-ROM/LS240 drive is installed.

Figure 1-9 Permissible installation positions for the computer unit in a decentralized design

Additional permissible installation position for the computer unit complying with UL508/CSA 22.2 No. 142

An installation angle of $\pm 15^\circ$ is permitted in this position.

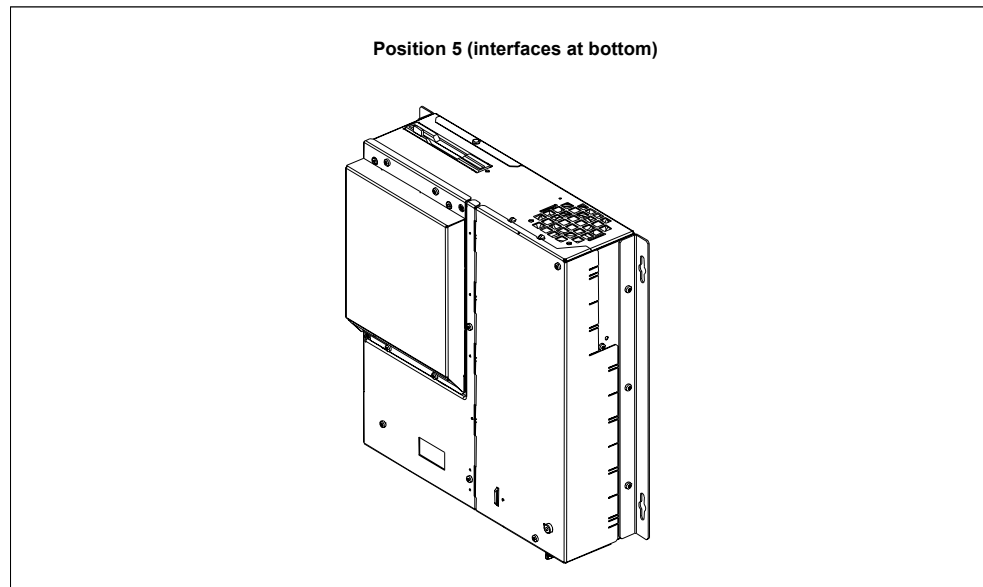


Figure 1–10 Additionally permissible installation positions for the computer unit in a decentralized design

Select an appropriate installation location taking the installation notes and selected installation angle into account.

Note

Ensure sufficient air volume for heat transportation within the switching cabinet/panel. Further information on this is available in the Panel PC 670/870 Operating Unit Equipment Manual, Chapter 2.4.

Also ensure sufficient free space to pull out the Panel PC 670/870 from the installation cut-out.

When selecting the installation location, ensure that the switching cabinet/panel contains reinforcement bars to stabilize the cut-out. If necessary, install such reinforcement bars.

Figure 1–11 below contains the dimensioning for the holes for the screw mountings.

Installation

Step 9

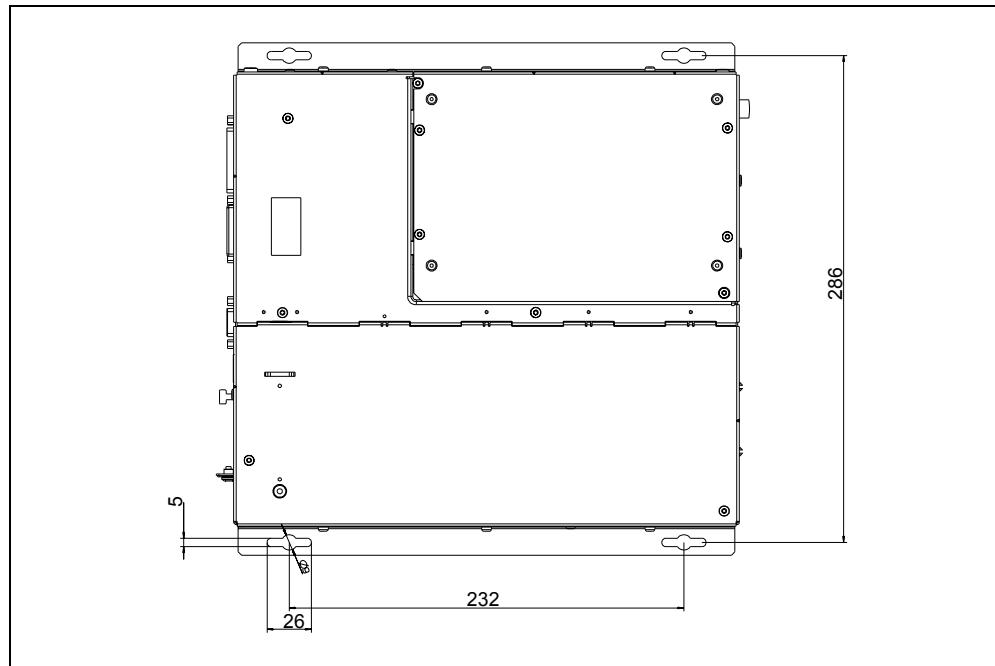


Figure 1–11 Dimensions for installation of the computer unit

Install the computer unit.

Installation is complete. Refer to Chapters 2.1 to 2.3 for information concerning the position of the interfaces, the operating panel and the operating system. Then continue with Step 11.

Connecting and Switching On the Panel PC 670/870

2.1 Interfaces

Computer unit

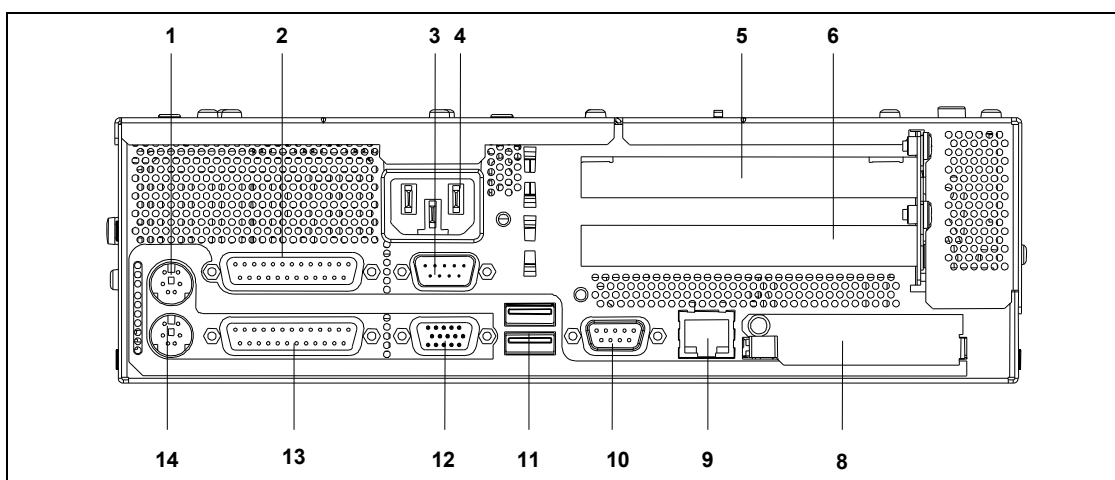


Figure 2-1 Interfaces on the Panel PC 670 computer unit

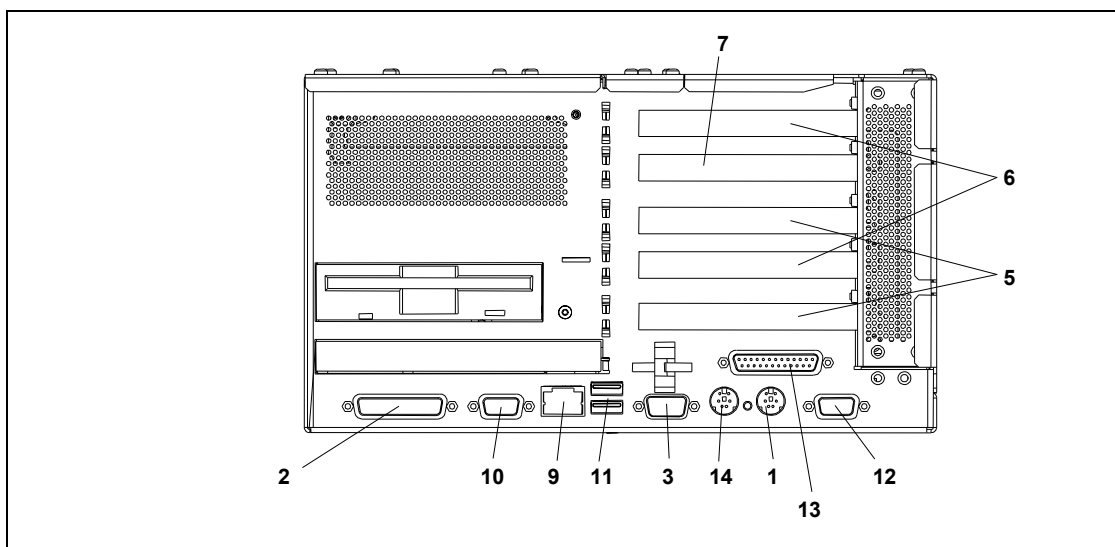


Figure 2-2 Interfaces on the Panel PC 870 computer unit

1 Mouse

PS/2 socket for connecting a PS/2 mouse.

2 COM 1/Modem/Programmable Logic Controller (PLC)

The COM 1 (TTY) interface can be used to connect e.g. S5 PLCs. By implementing the adapter supplied, the interface can also be used as a 25-pin V.24 standard interface to connect devices with a serial interface, such as modem, mouse or printer.

3 COM 2

Serial interface 2 (V.24) to connect devices with a serial interface, such as modem, mouse or printer.

4 AC/DC power supply connection

Device socket for AC voltage power supply or screw terminals for DC voltage power supply.

5 PCI expansion slot

Internal slot for PCI expansion modules.

6 PCI/ISA expansion slot

Internal slot for expansion modules.

7 ISA slot

Internal slot for ISA expansion modules.

8 PC card (Panel PC 670 only)

Connection for PC cards of the type I/II/III.

9 Ethernet

RJ 45 Ethernet connection. The Ethernet network is a local network with a bus structure for data communication with data transmission rates of 10 or 100 Mbps.

10 PROFIBUS/MPI

Using the potential isolated PROFIBUS/MPI interface, the Panel PC 670/870 can be connected to an S7 PLC or a PROFIBUS network.

11 USB

2 connections for Universal Serial Bus. Using the USB connection, it is possible to connect external devices, such as CD drives, printers, modems or mouse and keyboard. Also refer to Chapter 2.7.

12 VGA

A VGA monitor can be connected here.

13 LPT1

The parallel interface serves to connect devices with a parallel interface, e.g. a printer.

14 Keyboard

Connection for a PS/2 keyboard.

Operating unit

On the rear side of the operating unit (refer to Figure 2–3) are two flatband cables for connection to the computer unit:

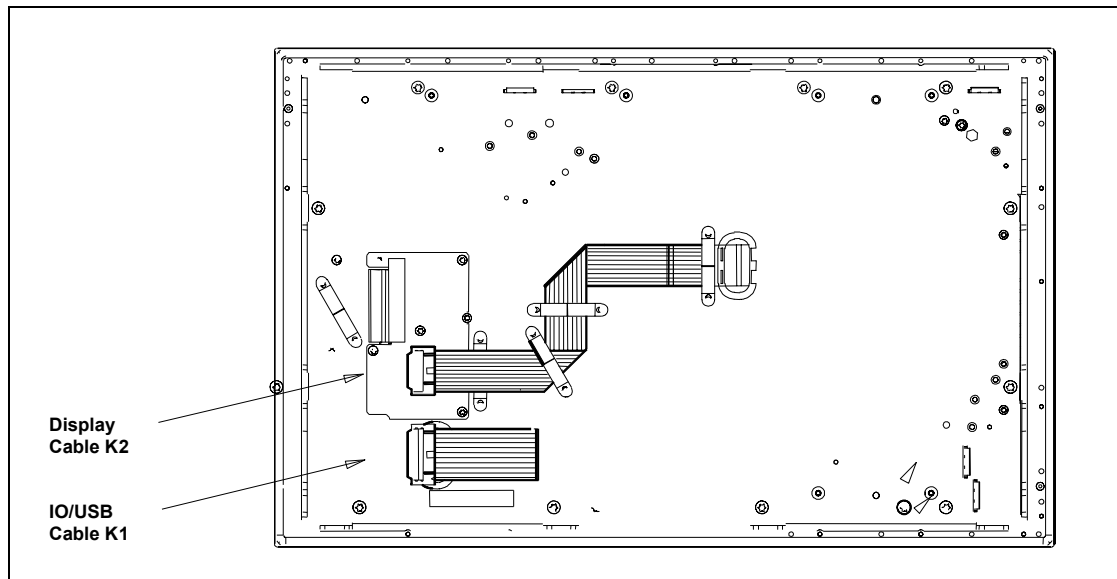


Figure 2–3 Operating unit interfaces

- The I/O USB cable K1 on X1 for all signals which is responsible for the connection of operating units in addition to the display interface. This cable is depicted in Figure 2–3 folded together and is approx. 20 mm longer than illustrated.
- The display cable K2

General information

Step 10

When the equipment is started up for the first time, it is necessary to connect a PS/2 keyboard and a PS/2 mouse. Connect the keyboard and mouse before switching on the Panel PC 670/870.

Further information on the operating unit is provided in Chapters 2.2 and 2.3.

2.2 Operating Units with Keypad Fronts

The front side of the Panel PC 670/870 is equipped with a membrane keyboard and mouse.

The integrated USB mouse with two mouse buttons is a "piezo mouse", i.e. the direction of the mouse pointer movement is controlled by the position of pressure on the pressure surface, while the speed of the mouse pointer movement is controlled by the force of pressure applied.

Optionally an external mouse can be connected to the USB port at the front. The piezo mouse remains active in this case.

The arrangement of the operating elements is illustrated in Figure 2–4.

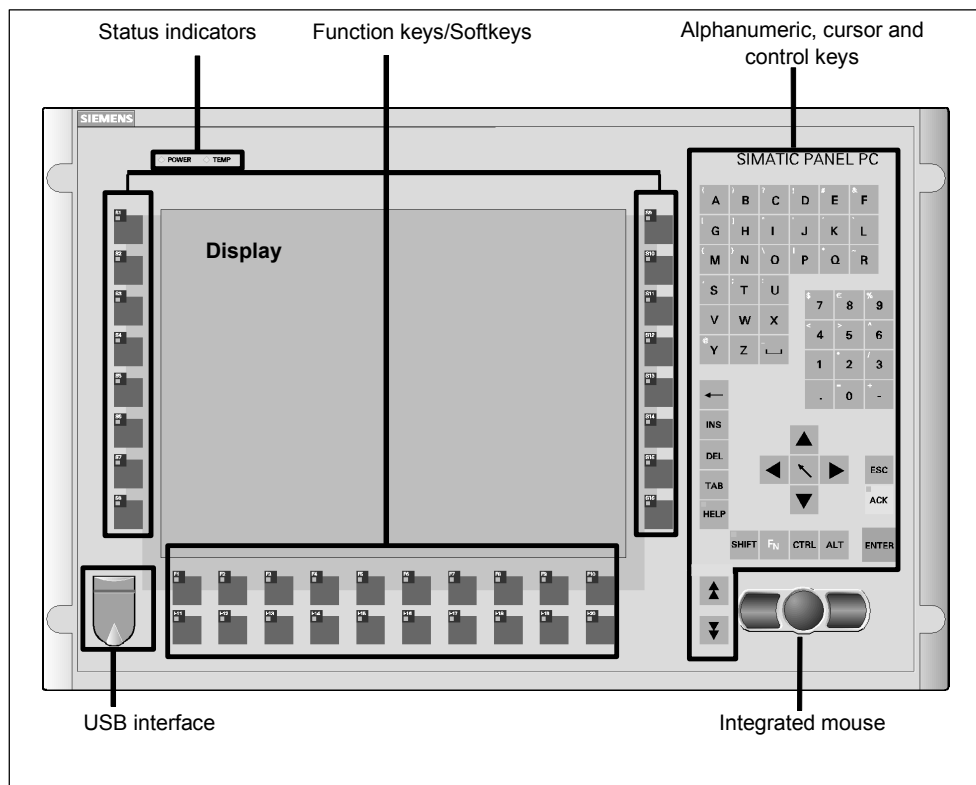


Figure 2–4 Front view of the operating unit

Note

The Panel PC 670/870 Documentation & Drivers CD contains several master files to create labeling strips with which to label the keys. These labeling strips can be edited and printed using MS Word, MS Excel or Coral Draw.

Only the keyboard labeling strips, available on option, are suitable for printing using a laser printer.

Keyboard:

The layout of the membrane keyboard is USA International. Please ensure that the layout of any other keyboard that may be connected also complies with this character set. Only those characters inscribed on the external keyboard match those displayed on the screen.

**Danger**

Simultaneously pressing more than one function key can trigger malfunctions on the Panel PC 670/870.

Only press the function keys and softkeys in succession (refer to Figure 2–4).

Also refer to Chapter 3.3.8.

Continue with Chapter 2.4.

2.3 Operating Units with Touchscreen Fronts

The 12" and 15" versions with touchscreen fronts differ with regard to their dimensions and display sizes. The 12" model has no drill hole caps on the side.

Figure 2–5 illustrates an example of an operating unit with a 15" touchscreen front and operating indicators, USB interface and display.

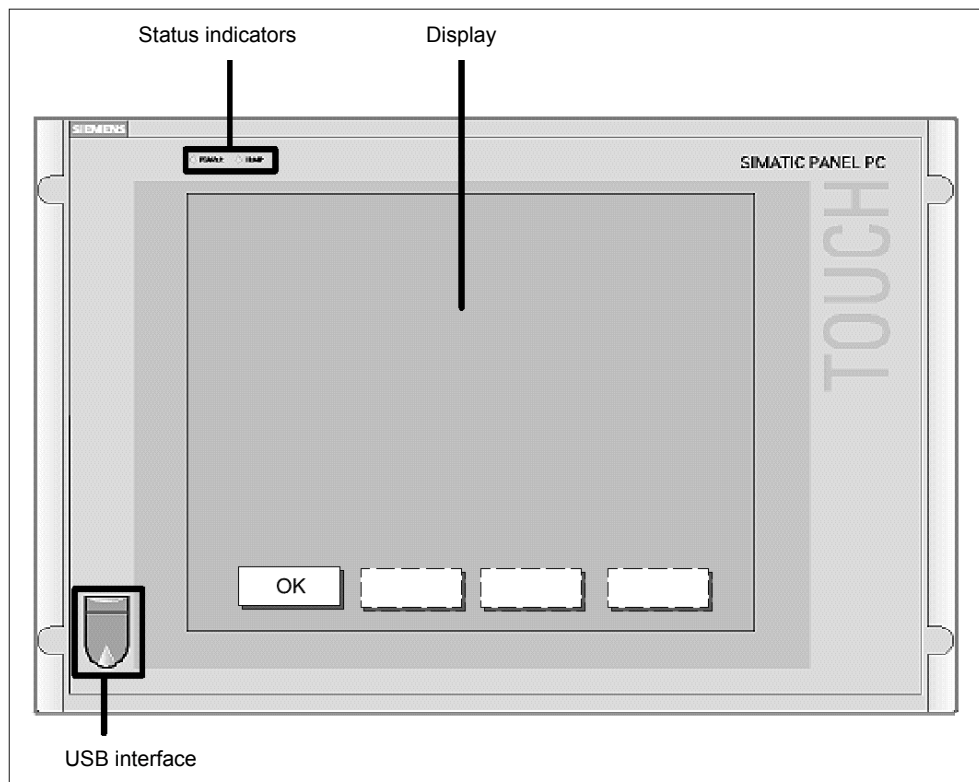


Figure 2–5 Example of a 15.1" operating unit with touchscreen front

Operation

The operating unit is operated by touching the touch-sensitive screen which contains application-specific functions, e.g. touching a button displayed.

Continue with Step 11.

2.4 Power Supply

Connection

Step 11

The Panel PC 670/870 can be operated on AC-120/230 V power supplies. The voltage selection is performed automatically.

Plug the power cable in the AC/DC power supply connection on the computer unit – in the case of a decentralized design, also in the operating unit's AC/DC power supply connection.



Danger

Since the operating unit does not have a power switch, turning off and completely disconnecting power requires pulling the power plug.

This location should be easily accessible. For the installation in a cabinet, a central power disconnect switch must be provided.

Notice

As soon as power is supplied to the operating unit via the power supply connection, the BIOS and operating system installed are loaded.

If the power supply is switched off during this routine, the operating unit is not shut down properly. The *Scandisk* program must then be activated.

To prevent an unintentional unplugging of the power plug from the computer unit, we recommend using the power plug lock contained in the accessories kit. In the case of the decentralized design, the operating unit is provided with cable clips to fasten the power plug.

Notice

A ferrite core is contained in the material supplied with the Panel PC 670. Connect the ferrite core supplied directly behind the device socket of the power supply cable.

The operating unit can also be supplied with a DC 24 V power supply, according to the order option. Plug the 3-point power supply connector into the socket on the Panel PC 670/870. Note the pin assignment depicted on the housing.

When these steps have been completed, continue with Step 12.

2.5 Initial Startup

Checklist

Step 12

Before startup, go through the following checklist:

- Have you considered the environmental conditions of the Panel PC 670/870 and the connected peripheral devices?
- Are the peripheral devices connected properly and have all the required presettings been made?
- Have you checked the connection to the power supply?

Caution

Risk of damage to the Panel PC 670/870!

Ensure that no condensation is formed on or in the operating unit when transporting it during cold weather periods or when it is exposed to extreme temperature fluctuations.

Before starting it up, the operating unit must be brought to room temperature slowly. In case of condensation, wait approximately 12 hours before switching the operating unit on.

Switching on

Step 13

Notice

Before switching the operating unit on, refer to Chapters and 2.6 2.7 in respect of any special features to be taken into account which are dependent on the operating system installed and the periphery to be connected.

After connecting the peripheral devices and the system unit, mains power can be applied to the Panel PC 670/870.

Panel PC 670/870 in a centralized design:

Connect the mains power cable to a socket with a grounding conductor or switch on the mains supply on the mains isolating switch. The green power LED lights up.

The Panel PC 670/870 is then put into operation and the boot routine started.

Panel PC 670/870 in a decentralized design:

Connect the computer and operating units by means of the green connection cable "Cu-Link". Connect the decentralized operating unit to the mains power supply. The green power LED lights up. Connect the mains power cable to a socket with a grounding conductor or switch on the mains supply on the mains isolating switch.

Note

If there is no display signal (e.g. the "Cu-Link" plug is not connected), the operating unit has a "white" screen.

The Panel PC 670/870 is then put into operation and the boot routine started.

License number**Step 14**

After connection to the mains, the Panel PC 670/870 performs a self-test. During the self-test, the message `Press <F2> to enter SETUP` appears briefly.

After the self-test has been completed, the operating system is loaded. The "Welcome" page will be displayed. Follow the on-screen prompts.

1. Go to the next page.
2. Accept the license agreement and continue to the next page.
3. Enter the license number – if necessary – confirm it and switch to the next window. The system settings are then updated and the desktop is set up.

Screen resolution and panel type selection

Step 15

After the system settings have been updated, the following dialog appears in which to select the screen resolution:

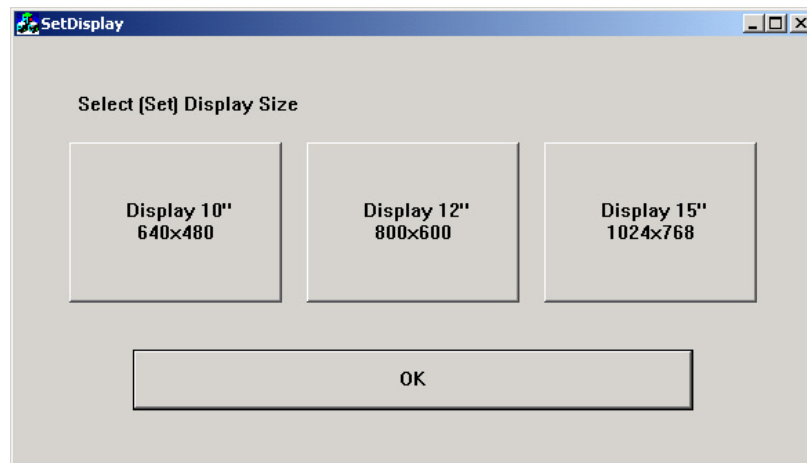


Figure 2–6 Selecting the screen resolution

Select the screen resolution corresponding to your device and confirm the selection with *OK*.

Then select the panel type for the device:

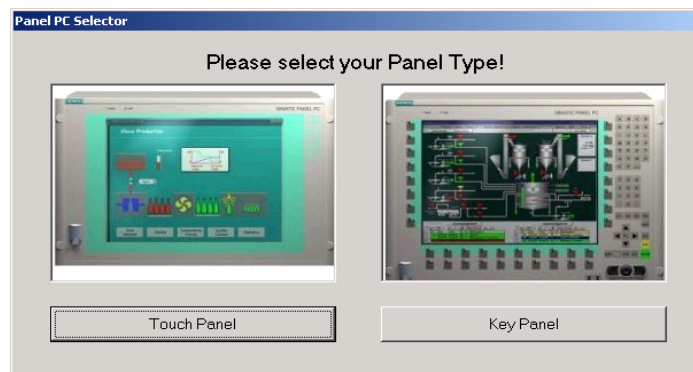


Figure 2–7 Selecting the panel type

Select the panel type corresponding to your device.

The system settings of the operating system are then updated according to the selections made. This finalizes the initial startup.

2.6 Operating System

The Panel PC 670/870 is approved for the following operating systems:

Panel PC 670

- Windows 98 SE, German/English
- Windows NT 4.0 with USB driver extension, German/English
- Windows 2000 Professional Multi-Language;
German, English, French, Italian, Spanish, Japanese, Korean, Chinese (simplified), Chinese (traditional)
- Windows XP Professional Multi-Language;
German, English, French, Italian, Spanish, Japanese, Korean, Chinese (simplified), Chinese (traditional)

Panel PC 870

- Windows NT 4.0 with USB driver extension, German/English
- Windows 2000 Professional Multi-Language;
German, English, French, Italian, Spanish

Note

In the case of high system utilization and/or high levels of network operation, it is generally recommended to use the Windows NT, Windows 2000 and Windows XP operating systems for the Panel PC 670/870.

2.6.1 Windows 98 (only applies to Panel PC 670)

When the Panel PC 670 is started up for the first time, the system requests entry of the appropriate OEM license number during the operating system boot routine. Please refer to the label supplied for this information. After entering the license number, enter a name for the computer so that it can be identified within a network.

Special features

The Panel PC 670 is shipped with BIOS setting `LEGACY SUPPORT DISABLED`. That means the full functional range of a USB keyboard is not available during the initial boot sequence (before Windows is started). There are no restrictions for using a USB keyboard to make changes in the BIOS Setup. When using an operating panel with touchscreen front, changes can only be made to the BIOS using an externally connected USB or PS/2 keyboard.

Following a faulty operation, e.g. uncontrolled system shutdown or power failure, the Panel PC 670 starts the *Scandisk* program during the subsequent boot routine. It is not possible for the user to stop this automatically started program using an integrated membrane keyboard or external USB keyboard.

The following steps are recommended in order to interrupt this automatic process:

1. When Scandisk has been completed, switch the device off and on again. Windows reboots without any keyboard input.

If Windows is not rebooted, switch the operating unit off again. Carry out the following steps:

2. Plug in the USB keyboard and switch on the power supply.
3. Press the "F2" key during the boot routine.
4. Select `Hardware Options` in the BIOS Setup and switch the `LEGACY SUPPORT` setting to `ENABLED`.
The USB keyboard is also supported in Enabled mode.

Notice

If `Legacy Support` is activated in the BIOS (enabled), individual problems may occur with specific ISA/PCI extension boards.

5. After rebooting the system again, select `Hardware Options` in the BIOS Setup and switch `LEGACY SUPPORT` back to `DISABLED`.

If Windows 98 is terminated and *Start in MS DOS Mode* is selected, input is only possible using an external PS/2 keyboard.

Power management

The default `Power Saving` setting *Disabled* must not be changed in the BIOS setup.

2.6.2 Windows NT 4.0 TM

When a Panel PC 670/870 is started up for the first time, the system may request entry of the appropriate OEM license number during the operating system boot routine. Please refer to the label supplied for this information. After entering the license number, enter a name for the computer so that it can be identified within a network. It is advisable to enter an administrator password when using Microsoft Windows NT 4.0.

Notice

Do not forget that, when installing or restoring Windows NT 4.0, Service Pack 6a or higher must also be installed.

DHCP utility

The DHCP utility is set up during the installation of Windows NT. It is predefined as disabled.

If the DHCP utility is to be used, it must be activated.

1. Select the buttons *Start* → *Settings* → *Control Panel* → *Utilities*. The *Utilities* window opens.
2. Select *DHCP Client Utility*. Double-clicking on it opens the *Utility* window.
3. Select the *Automatic* option button and confirm the selection with *OK*.
4. Close the window which is open.

Check the entries relating to the computer name after ending the network configuration.

1. Select the buttons *Start* → *Settings* → *Control Panel* → *Network* → *Protocols*.
2. Select *TCP/IP*. A double-click opens the window *Microsoft TCP/IP Properties*.
3. Select the *DNS* tab control then option button *Automatic* and confirm the selections with *OK*.
4. The *Host Name* field contains the computer name; correct it as necessary and confirm using *OK*.

USB Keyboardcontroller

The *USB Keyboardcontroller V1.0* driver is installed by default. It provides the following functions:

- The LEDs on the integrated function keys can be controlled, e.g. using ProTool and WinCC.
- Keyboard tables can be modified using the *Keypad* application (refer to Chapter 3.3.3).
- The brightness of the back-lighting can be changed using the *SetBrightness* application (refer to Chapter 3.3.7).

BIOS settings

The Panel PC 670/870 is shipped with BIOS setting `LEGACY_SUPPORT DISABLED`. That means the full functional range of a USB keyboard is not available during the initial boot sequence (before Windows is started). There are no restrictions for using a USB keyboard to make changes in the BIOS Setup. When using an operating panel with touchscreen front, changes can only be made to the BIOS using an externally connected USB or PS/2 keyboard.

The USB Legacy Support is preset to `DISABLED` in the BIOS Setup under menu item `Hardware`.

The Windows NT 4.0 USB driver extension for use of the integrated membrane keyboard, mouse, and touchscreen has already been pre-installed.

Selection of an operating menu when starting Windows NT 4.0 is only possible with an external PS/2 keyboard or by changing the BIOS option `USB Legacy Support` to `ENABLED`.

Notice

If `Legacy Support` is activated in the BIOS (enabled), individual problems may occur with specific ISA/PCI extension boards.

Power management

The default `Power Saving` setting `Disabled` must not be changed in the BIOS setup.

Restrictions

Only applicable to Panel PC 670/870 with keypad front panels:

- The LEDs on an externally connected PS/2 keyboard have no function.
- Only external USB keyboards without integrated HUB or standard USB mice (without special, additional functionality, e.g. wheel) are approved for connection to the front side USB interface and the USB interface on the computer.

Service Pack

The following Service Pack is required:

- Windows NT: Service Pack 6a

Service Pack 6a is contained with the Panel PC 670/870 supplied.

In the case of a new installation of Windows NT, the Windows NT Service Pack must be installed before all other additional drivers. After a driver has been installed, the Service Pack must be reinstalled.

2.6.3 Windows 2000

When a Panel PC 670/870 is started up for the first time, the system may request entry of the appropriate license number during the operating system boot routine. After entering the license number, enter a name for the computer so that it can be identified within a network. It is advisable to enter an administrator password under Microsoft Windows 2000.

Notice

If external PS/2 and USB keyboards are used at the same time, it is possible that the keyboard LEDs are not updated correctly.

Auto Logon

If Auto Logon should be activated, set the following.
Log on as system administrator:

1. Select *Start* → *Settings* → *Control Panel* → *Users and Passwords*:
2. Deactivate the checkbox *Users and enter user name and password for the computer*.
3. Apply the settings and enter the password.

Special features

The Panel PC 670/870 is shipped with BIOS setting `LEGACY_SUPPORT DISABLED`. That means the full functional range of a USB keyboard is not available during the initial boot sequence (before Windows is started). There are no restrictions for using a USB keyboard to make changes in the BIOS Setup. When using an operating panel with touchscreen front, changes can only be made to the BIOS using an externally connected USB or PS/2 keyboard.

The `USB Legacy Support` is preset to `DISABLED` in the BIOS Setup under menu item `Hardware`.

Service Pack

The following Service Pack is required:

- Windows 2000: Service Pack 2 or higher

2.6.4 Windows XP

When a Panel PC 670/870 is started up for the first time, the system may request entry of the appropriate license number during the operating system boot routine. After entering the license number, enter a name for the computer so that it can be identified within a network. When using Microsoft Windows XP, it is advisable to enter an administrator password.

Notice

If external PS/2 and USB keyboards are used at the same time, it is possible that the keyboard LEDs are not updated correctly.

Special features

The Panel PC 670/870 is shipped with BIOS setting `LEGACY_SUPPORT DISABLED`. That means the full functional range of a USB keyboard is not available during the initial boot sequence (before Windows is started). There are no restrictions for using a USB keyboard to make changes in the BIOS Setup. When using an operating panel with touchscreen front, changes can only be made to the BIOS using an externally connected USB or PS/2 keyboard.

The USB Legacy Support is preset to `DISABLED` in the BIOS Setup under menu item `Hardware`.

2.6.5 Operating system not installed

Information on installing the operating systems is available for:

- Windows NT
- Windows 98 (Panel PC 670 only)
- Windows ME (Panel PC 870 only)
- Windows 2000

in Internet under <http://www.siemens.com/simatichmi>.

Note

The Panel PC 670/870 is optionally available without an operating system.

During the installation of a third party operating system, the user must integrate all software components (e. g. drivers) required for the operating system by himself.

The Panel PC 670/870 offers specific application functions (e.g. touchscreen, function keys on the front side) beyond the functional scope of a standard PC. When a third party operating system is installed by the user, the usability of these application functions cannot be guaranteed, in contrast to a Panel PC 670/870 with operating system supplied by Siemens.

When a third party operating system is integrated in the Panel PC 670/870, support can only be provided by Siemens AG to a minimum extent for the reasons explained.

Note

Operating systems which do not support USB (e.g. DOS) cannot be used with the Panel PC 670/870.

2.7 Installing Additional User Software

After the initial start-up has been completed, the required additional software can be installed on the Panel PC.

When the installation is completed, it is recommended to defragment the hard disk drive.

Defragmenting the hard disk

Step 16

Proceed as follows to defragment the hard disk drive:

Procedure	
1	<p>Valid for SIMATIC software with authorization:</p> <p>Ensure that the authorizations required for the software installed are not on the Panel PC hard disk drive.</p> <hr/> <p>Notice</p> <p>During defragmentation, authorizations stored on the Panel PC hard disk are destroyed.</p>
2	<p>Start the defragmentation program supplied with the respective operating system:</p> <p>Windows 98: Windows 2000: Windows XP: The scope of these operating systems includes a defragmentation program. Start Windows Explorer and mark the required drive. In the context menu, select the menu item <i>Properties</i> and then select the <i>Extras</i> option in the Properties dialog. Start the procedure in the <i>Defragmentation</i> section. Follow the instructions provided by the defragmentation program.</p> <p>Windows NT: The Windows NT operating system does not include a defragmentation program and must be purchased separately. The procedure for defragmentation is described in the documentation to the respective program.</p>
3	<p>Valid for SIMATIC software with authorization:</p> <p>After the defragmentation is completed, the necessary authorizations can be transferred back onto the hard disk drive.</p>

When defragmentation has been completed successfully, it is recommended to make a backup copy of the hard disk drive. More information on this is provided in Chapter 3.2, Section "Backup copy of the hard disk drive".

2.8 Use of USB Peripheral Devices

USB interfaces

Panel PC 670 operating system	With membrane keyboard	With touchscreen
Windows 98 SE, German/English	yes	yes ¹
Windows NT 4.0 with USB driver extension, German/English	With restrictions ²	With restrictions ²
Windows 2000 Professional Multi- Language	yes	yes
Windows XP Professional Multi-Language	yes	yes

Panel PC 870 operating system	With membrane keyboard	With touchscreen
Windows NT 4.0 with USB driver extension, German/English	With restrictions ²	With restrictions ²
Windows 2000 Professional Multi- Language	yes	yes

Notice

A short circuit of the voltage supply on the USB front connector causes a reset on the Panel PC.



Caution

Wait 10 seconds after inserting or unplugging a USB unit before starting to use USB units available (e.g. external keyboard or mouse).

This also applies to touch panels, particularly with regard to touch operation.

¹ In order to install USB devices, it is necessary to use a PS/2 mouse and PS/2 keyboard.

² Refer to Section "Panel PC 670/870 - Windows NT 4.0 with USB Stack" on Page 2-20.

Note

When using standard USB peripheral devices, note that their electromagnetic interference immunity is often only sufficient for office environments. For startup and maintenance purposes, such devices are adequate. However, components suitable for the industrial environment must be used for the process operation.

The USB peripheral devices (e.g. keyboard, printer) are developed and marketed by individual vendors. Support for the USB periphery devices is provided via the respective product supplier. The terms of liability of the individual vendors or suppliers shall apply.

The following types of USB peripheral devices can be distinguished:

- low power USB components:
max. 100 mA current; e.g. mouse, keyboard,
- high power USB components:
max. 500 mA current; e.g. hard disk, floppy drive etc.

In the case of Panel PC 670/870 with power supply up to model edition C (refer to rating plate Figure 1–3), the following applies:

- High power USB devices can only be used with the front USB port of the Panel PC 670 if those devices have their own power supply or the devices are connected via an external USB hub with a separate power supply.
 - This restriction is not applicable for operating units with a power supply from edition model D (refer to rating plate).
-

Panel PC 670/870 – Windows NT 4.0 with USB Stack

The operating system manufacturer does not support USB in the case of Windows NT 4.0. In order to use the integrated mouse and the membrane keyboard with operating system Windows NT 4.0, the Panel PC 670/870 has been extended by the introduction of USB driver software. This extension makes the internal keyboard and mouse operational.

Only the following devices have been approved for connection to USB interfaces on the front and USB interfaces on the computer unit and interfaces on the rear side of the decentralized operating unit:

- external USB keyboards with integrated Hub complying to USB specification 1.1,
- external USB keyboards without USB hub,
- standard USB mouse (without special, additional functionality, such as scrolling wheel).

Notice

In order to be able to use the additional functions provided by the USB driver, the menu item *USB Legacy Support* must be set to *Disabled* in the BIOS.

Note

In the case of Windows NT, the second USB interface is not supported (refer to Figure 2–1 on Page 2–1, top USB interface).

Panel PC 670/870 – Windows 2000

The Panel PC 670/870, in centralized design, is equipped with a front side USB interface and two more on the rear side integrated in the operating unit. In its decentralized design, the Panel PC 870 is also equipped with a rear side USB interface in the decentralized operating unit.

The USB interface is a flexible and easy way to use standard USB peripheral components.

In this way, for example, an external USB-compliant keyboard and mouse can be connected. If the USB-capable keyboard is also equipped with an external USB port (USB hub), other USB-capable devices (e.g. mouse) can be connected to it.

Notice

When installing a USB device for the first time, please note that the device driver required must be available during installation if it is necessary for operation.

Note

Register an intelligent USB device with the operating system before removing the device using the *Unplug or eject hardware* dialog.

More information on this is provided in the documentation to your operating system.

Panel PC 670 – Windows XP

The Panel PC 670/870, in centralized design, is equipped with a front side USB interface on the operating unit and two more on the rear side integrated in the computer unit. In its decentralized design, the Panel PC 670/870 is also equipped with a rear side USB interface in the decentralized operating unit.

The USB interface is a flexible and easy way to use standard USB peripheral components.

In this way, for example, an external USB-compliant keyboard and mouse can be connected. If the USB-capable keyboard is also equipped with an external USB port (USB hub), other USB-capable devices (e.g. mouse) can be connected to it.

Notice

When installing a USB device for the first time, please note that the device driver required must be available during installation if it is necessary for operation.

Note

Register an intelligent USB device with the operating system before removing the device using the *Unplug or eject hardware* dialog.

More information on this is provided in the documentation to your operating system.

Panel PC 670 – Windows 98

The Panel PC 670, in centralized design, is equipped with a front side USB interface and two more on the rear side integrated in the operating unit. In its decentralized design, the Panel PC 670 is also equipped with a rear side USB interface in the decentralized operating unit.

The USB interface is a flexible and easy way to use standard USB peripheral components.

For example, either an external USB-capable keyboard or USB-capable mouse can be connected to this port in addition to the keyboard and mouse already integrated. If the USB-capable keyboard is also equipped with an external USB port (USB hub), other USB-capable devices (e.g. mouse) can be connected to it.

Notice

When installing a USB device for the first time, please note that the device driver required must be available during installation if it is necessary for operation.

When using USB components under Windows 98 SE, please note that the following actions restrict the Plug-and-Play capability and, thus, influence the reliable functioning of the entire system:

- Parallel use of several USB devices
- Unplugging and inserting USB devices during operation
- Registering new, unknown USB devices

More information on the specific behavior of individual USB devices is provided in the respective manufacturer's documentation and on the Microsoft support pages for Windows 98 SE (e.g. <http://support.microsoft.com>).

Microsoft operating systems Windows 2000 and Windows XP provide a stable support for USB technology.

Operating the Panel PC 670/870

3

3.1 Normal Operation

The operating system and additional user software is installed on the hard disk.

Note

After all the necessary applications have been installed, it is recommended to create a mirror image of the hard disk contents. This should then be saved on a CD-ROM, for example.

Activation

After switching on the power supply, the Panel PC 670/870 performs a self-test. During the self-test, the message `Press <F2> to enter SETUP` appears briefly.

After the self-test has been completed, the operating system is loaded and the desktop displayed.

Shut Down

Terminate the operating system using *Start* → *Exit*. After the operating system has been shut down, the Panel PC 670/870 can be disconnected from the power supply.

Note

In the case of operating systems Windows 98, Windows 2000 and Windows XP, the Panel PC 670/870 can be disconnected from the power supply as soon as the display turns dark after terminating the operating system.



Warning

When using the direct key module, ensure that the function and special keys remain operable until the entire unit has been switched off from the power supply.

3.2 Data Backup and Restoring the Operating System

Backup copy of the hard disk drive

The Panel PC 670/870 hard disk drive is partitioned into two sections – namely drives C and D. Drive C contains the operating system, drive D is available for user data.

It is recommended to make a backup copy of the entire hard disk drive at regular intervals.

The following tools, for example, can be used for this:

- Symantec Norton Ghost
- Powerquest Drive Image Professional

Information on the backup tools mentioned is available in the Internet at the addresses <http://www.symantec.de> and <http://www.powerquest.de>.

After updating or formatting the hard disk drive, proceed as follows to restart the Panel PC 670/870:

1. Format and partition the hard disk drive.
2. Copy the data backed up after the initial start up to drives C and D using the same backup tools.

Note

Please note that a backup copy of the hard disk drive cannot be loaded on every device.

Hard disk backup copies are **not** compatible with the following generations of devices:

6AV761x-..., 6AV762x-...	⇔	6AV772x-..., 6AV773x-...
6AV77xx-xA..., 6AV77xx-xB...	⇔	6AV77xx-xC..., 6AV77xx-xD...

During the transition to the new generation of devices, an initial start-up must be executed (refer to Chapters 2.5 to 2.7).

Restore CD

An image of drive C is provided on the Restore-CD supplied. Using the *EasyRestore* program, it is possible to restore the state of drive C as it was on delivery. In this case, the current content of drive C is deleted.

Notice

Only use the Restore CD supplied. Check the MLFB number of the Restore-CD against that of the Panel PC 670/870, they should be identical. The MLFB number of the Panel PC 670/870 is located on the rating plate (refer to Figure 1–3).

Notice

Check whether the active Partition C still exists. Use the MS-DOS tool *fdisk*, for example, to do this. If the active partition is no longer available, recreate it, observing the following:

If the active Partition C is no longer available and the *EasyRestore* program is started, data is lost on Partition D.

Observe the following procedures during the restore process to reset the initial state of drive C.

Windows NT, Windows 98

- Call in the BIOS, select the settings *Main* → *Boot Options* and check that menu item *Boot Sequence*. The menu item must be set so that it is possible to boot from the CD-ROM.
- Insert the Restore-CD and restart the Panel PC anew.
- Affirm the license agreement and read the warning message. After confirmation, the original image is restored on drive C.

Windows 2000, Windows XP

- Call in the BIOS, select the settings *Main* → *Boot Options* and check that menu item *Boot Sequence*. The menu item must be set so that it is possible to boot from disk.
- Insert the Restore disk and Restore CD 1 and restart the Panel PC anew.
- Insert Restore-CD 2 following the corresponding request. Affirm the license agreement and read the warning message. After confirmation, the original image is restored on drive C. Follow the instructions which appear on the screen.

Recovery CD

Note

The Recovery-CD can be used for the installation or restoring the operating system. Only those drivers required for that specific operating system are installed.

The drivers required by the Panel PC 670/870 are contained on the Panel PC 670/870 Documentation & Drivers CD. A setup is necessary in order to install the drivers. This is on the CD under:

InstallshieldPC670_870\setup.exe

After calling in the Setup, the drivers are copied in one of the following directories on the hard disk, depending on the operating system:

- *c:\drivers.w98*
- *c:\drivers.nt4*
- *c:\drivers.w2k*
- *c:\drivers.wxp*

To install the individual drivers, open the respective directory and activate the *setup.exe* file.

3.3 Additional Drivers and Applications

3.3.1 Documentation & Drivers CD

The Documentation & Drivers CD supplies contains the specific driver and Panel PC applications for the operating systems supported.

Note

These drivers and programs supplied have been system tested and approved for this Panel PC.

All the other drivers and programs are excluded from the terms of warranty.

3.3.2 Touchware settings

Note

Please allow the Panel PC 670/870 to warm up for a few minutes prior to calibration.

User-specific touchware settings can be defined via the settings *Touch Settings* and *Tools* in the Touchware (refer to Figure 3–2).

Call in via:

- *MicroTouch TouchWare* icon on the desktop or
- *Start* → *Settings* → *Control Panel* → *MicroTouch Touchscreen*

Modifying touch settings

Proceed as follows to change the touch settings:

1. Start the Touchware Settings as described above.

2. Select the tab control *Touch Settings*. The following window appears:

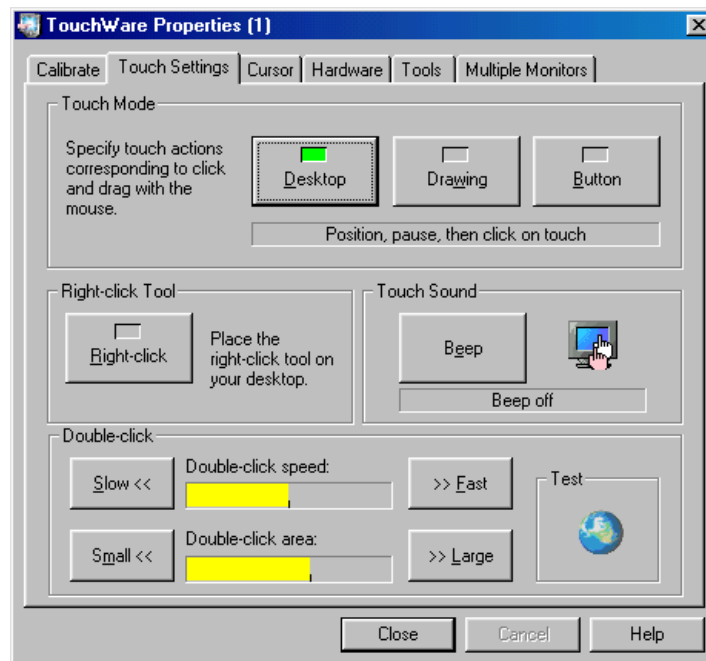


Figure 3–1 Touch Settings tab control

3. Select the *Touch Settings* tab control and then *Drawing*.
Use the mouse to click on *Right-click* to activate the *Right-Click Tool*.

Note

It is recommended to alter the setting as described above in order to simplify operation using Windows.

Repeat calibration

If necessary, select 2-point calibration style.

If this is not predefined, proceed as follows:

1. Start the Touchware Settings as described above.

2. Select the tab control *Touch Settings*. The following window appears:

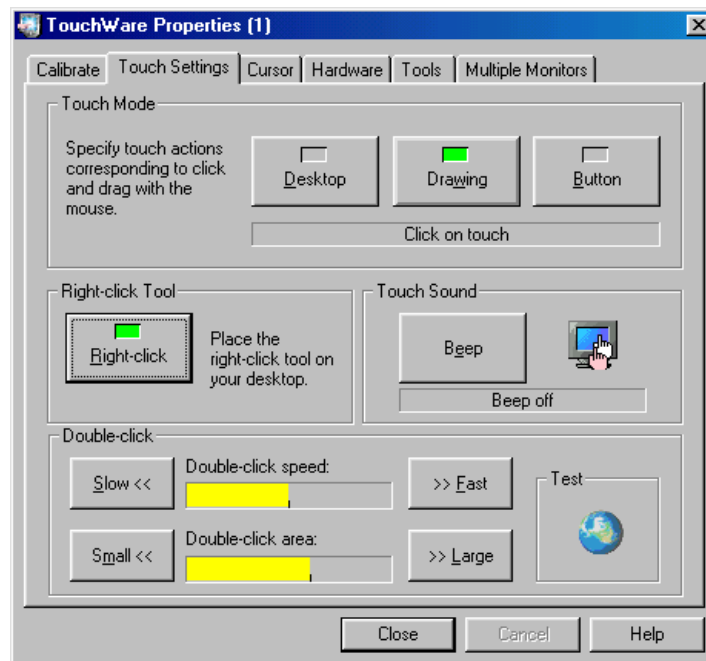


Figure 3–2 MicroTouch touchscreen properties

Note

Explanatory text concerning the buttons provided in the following windows can be called in by pressing the *Help* button.

3. Define the Touch Settings.
4. Select the tab control *Tools*, and press the button *Options*. The *MicroTouch Touchscreen Options* window opens.

5. Select the *Advanced* button. The following window appears:

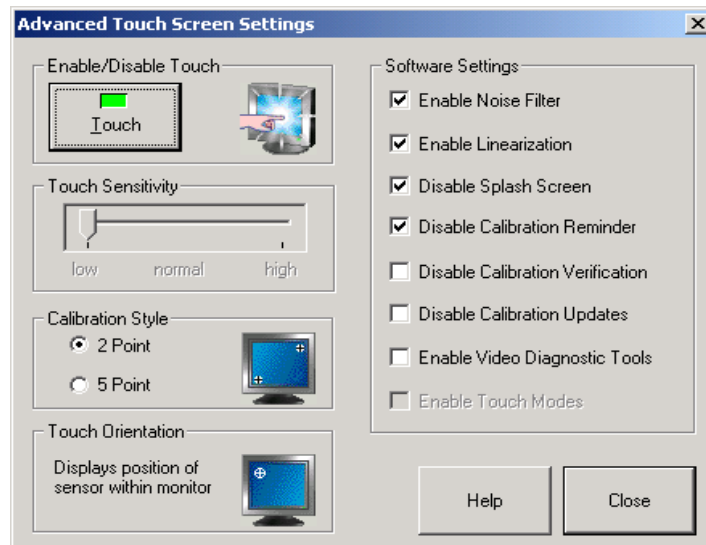


Figure 3–3 Advanced Touchscreen Settings

6. Select the option *2 Point* for *Calibration Style*.
7. Activate the checkboxes as depicted in Figure 3–3.
8. Confirm the input twice using *Close*.
9. Select the tab control *Calibrate*.

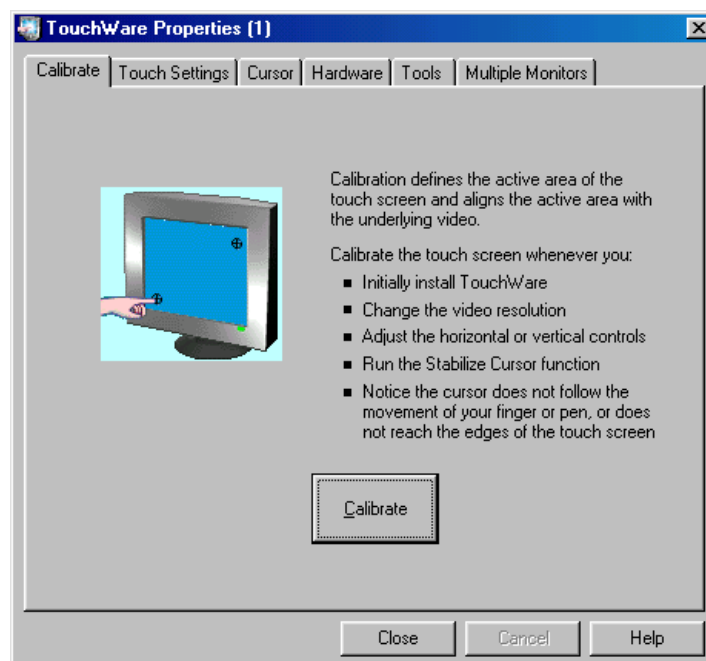


Figure 3–4 Calibrate

10. Select the *Calibrate* button.
A window for touch calibration appears.
11. Touch the touchscreen at the cross-hairs.

During calibration, two cross-hairs are displayed which must be pressed for a minimum of 3 sec. to a maximum of 10 sec. Finally, the *Calibration Complete* window appears.
12. Press the *Done* button to terminate the calibration process.

Special features

The touch controller, integrated in the front, is designed to automatically compensate for changes in the surface tensions of the touch sensor (e.g. due to large temperature fluctuations). As a consequence, however, this feature may initiate an automatic calibration when exactly the same point is continually pressed for a while (>15 seconds).

If this happens,

Do not touch the screen touched for a short time. It is then recalibrated to the original state.

An incidentally located background function is activated by the software ProTool/Pro if touched when setting the touch parameters in the window *Microtouch* → *Touchsettings: Desktop* or when the screen saver is activated.

Warning

Do not touch the screen:

- during the PC boot routine (until the acoustic BEEP signal),
 - when plugging USB components in or out, and
 - if the warning message *Do not touch the screen...* appears. Wait at least 1 second after the message has disappeared.
-

3.3.3 Keypad

Call in

Select one of the following files according to the keypad front:

Keypad front	File
10"	c:\drivers.xxx\keypad\keypads10.exe
12"	c:\drivers.xxx\keypad\keypads12.exe
15"	c:\drivers.xxx\keypad\keypads15.exe

"xxx" has the following significance:

- Windows 98: w98
- Windows NT: nt4
- Windows 2000: w2k
- Windows XP: wxp

Function

Applies for Windows 98, Windows 2000 and Windows XP:

The *Keypad* tool can be used to modify the predefined keyboard assignment on the membrane keyboard.

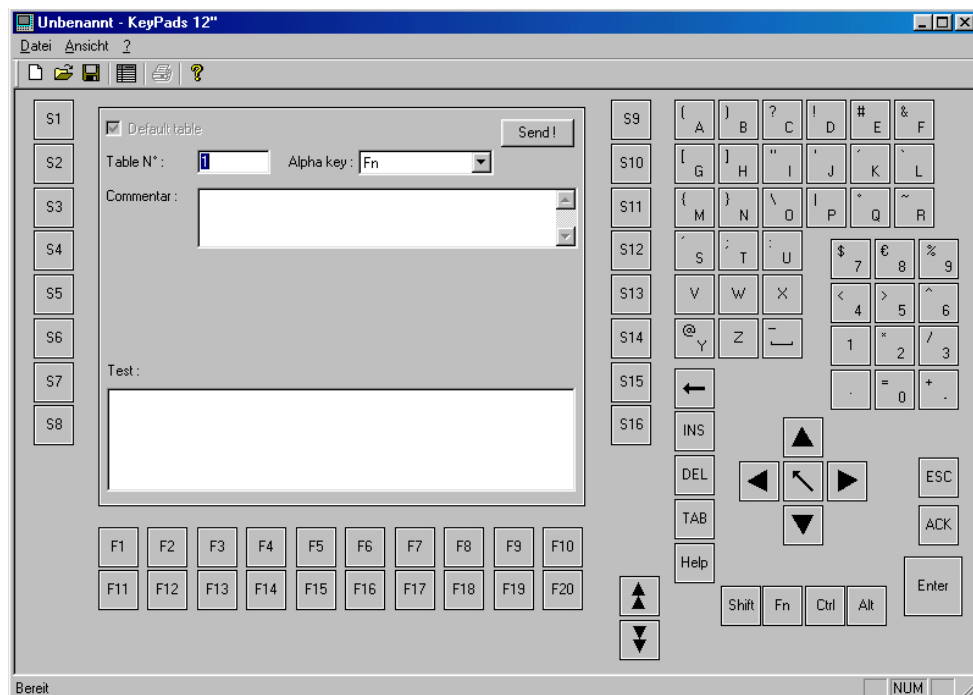


Figure 3–5 Keypad

3.3.4 SIMATIC SOM (safecard on motherboard)

Call in

SIMATIC SOM is active after starting the Panel PC 670/870. An icon is present in the message field. Double-click on the icon to open the following screen.

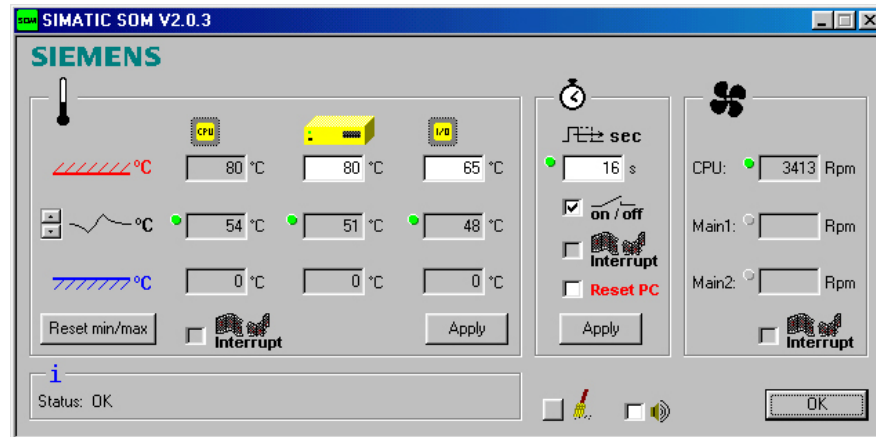


Figure 3–6 SIMATIC SOM

Function

This window can be used to view information, for example, on the current temperature of the CPU, the desktop and input/output components and, if necessary, to set limit values.

3.3.5 TouchInputPC

Call in

Using the *TouchInputPC* icon on the desktop.

Function

Using the *TouchInputPC* screen keyboard, it is possible to enter characters using the touchscreen or the mouse.



Figure 3–7 Keyboard *TouchInputPC*

3.3.6 Setdisplay

Call in

`c:\drivers.xxx\setdisplay\setdisplay.exe`

- In Windows 98, xxx is replaced by: w98
- In Windows NT, xxx is replaced by: nt4
- In Windows 2000, xxx is replaced by: w2k
- In Windows XP, xxx is replaced by: wxp

Function

Setdisplay can be used to adjust the screen resolution according to the display size:

- 10"-display: 640 x 480
- 12"-display: 800 x 600
- 15"-display: 1024 x 768

3.3.8 KeyHook

Only applies to Panel PC 670/870 with keypad front panels.



Danger

This program may not be deinstalled for safety-related reasons.

Call in

Start → Settings → Control Panel → Keyboard – and KeyHook tab control.

Function

KeyHook has the following two functions:

1. *KeyHook* prevents the impermissible, simultaneous activation of two function keys. Also refer to Chapter 2.2.
2. Applies for Windows NT, Windows 2000 and Windows XP:

The function keys F13 to F20 and S1 to S12 issue key combinations. Pressing the F13 button, for example, represents pressing the key combination Shift, F1 and releasing it the key combination Shift, F1. A different sequence of key combinations may be necessary for certain software products (e.g. SIMATIC WinCC). Using the *Keyhook* – tool, the Makecode "Shift, F1" and Breakcode "Shift, F1" are changed to Makecode "Shift, F1" and Breakcode "F1, Shift".

In order to start the function, select the *KeyHook* tab control.

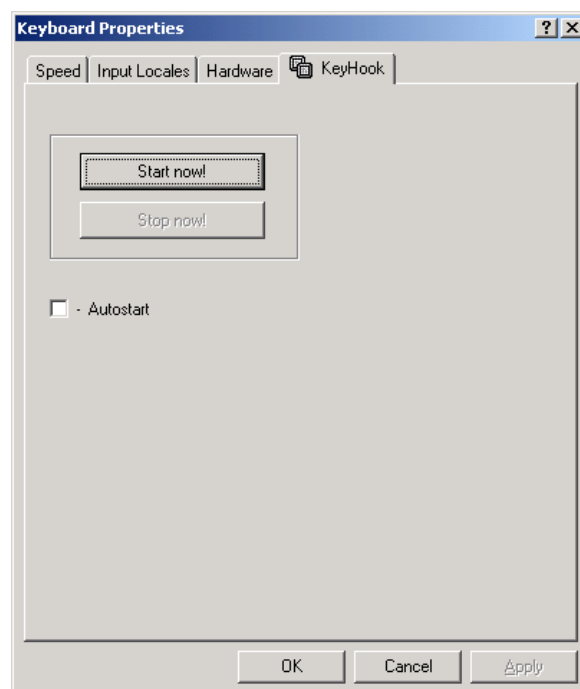


Figure 3–10 Keyhook

3.3.9 CheckLanguageID

Only applies for Windows 2000 Multi-Language and Windows XP Multi-Language.

Call in

c:\drivers.w2k\checklang\checklangid.exe

or

c:\drivers.wxp\checklang\checklangid.exe

Function

Serves to display the language currently set.

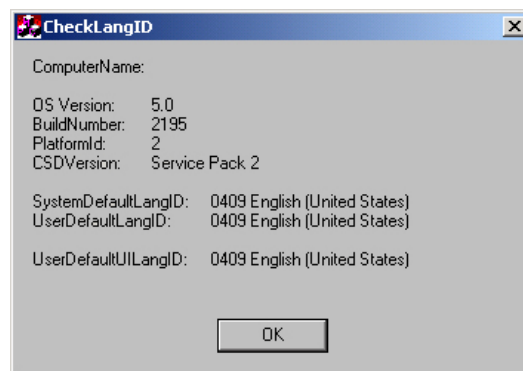


Figure 3–11 CheckLanguageID

These represent the following:

- SystemDefaultLangID: System language
- UserDefaultLangID: User language
- UserDefaultUILangID: Language of the user interface

Note

All three languages displayed should be assigned to the same ID.

3.3.10 Language settings

Only applies for the Panel PC 670/870 with Windows 2000 Multi-Language and Windows XP Multi-Language.

Changing user interface languages

The user interface language can be changed using the *Multilanguage User Interface* desktop button.

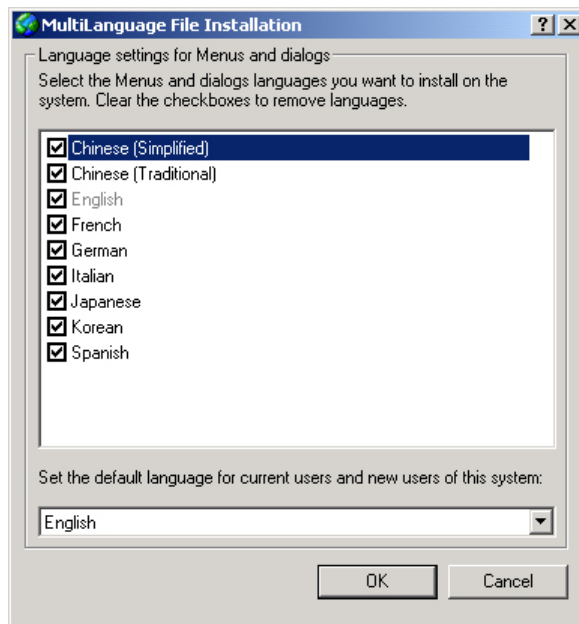


Figure 3–12 Changing user interface languages

The languages installed are listed in the above dialog. The bottom field indicates the language currently set.

In order to change the languages, select the relevant language in the bottom field. The change takes effect when the user logs off and on again or initiates a restart.

Note

If the user interface language should be changed, select *Start* → *Settings* → *Control Panel* → *Regional Options*. The following window appears.

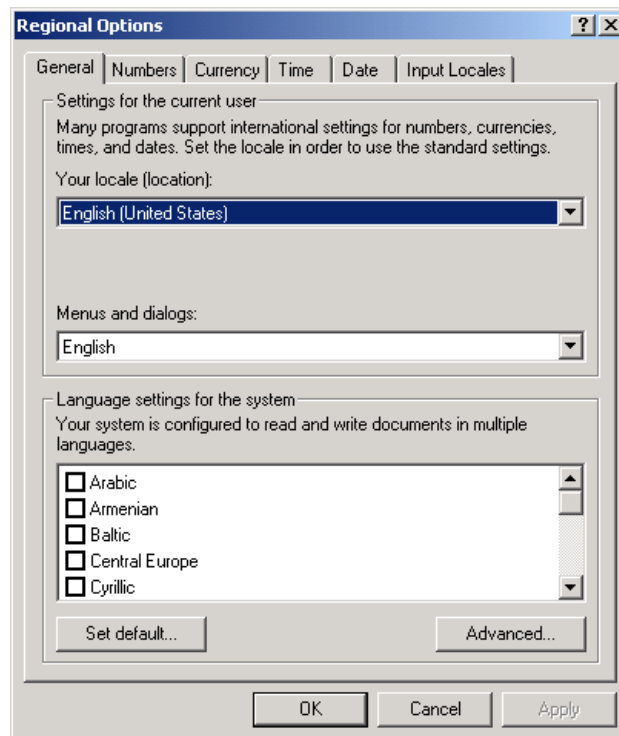


Figure 3–13 Language setting

In order to define a standard language, select the *Set default* button. Select the language required in the window which subsequently opens. Confirm the selection by clicking *OK* twice.

Notice

If the standard language is not selected as described, applications do not display Asian characters, for example, correctly.

Changing the standard language

If a different standard language needs to be activated, select *Start* → *Settings* → *Control Panel* → *Regional Options* and select the *Input Locales* tab.

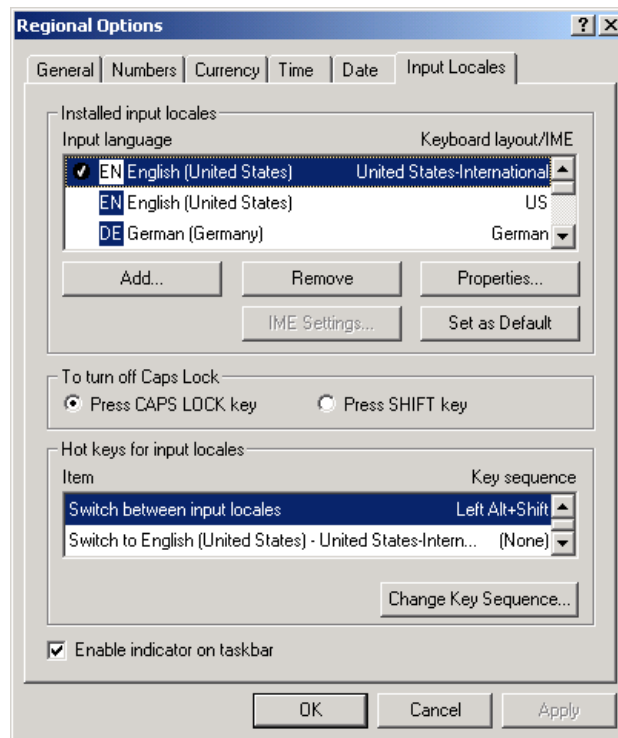


Figure 3–14 Standard language

In order to install another standard language, select the *Add* button. The languages available for selection correspond to those defined in Figure 3–13 under *Language settings for the system*.

It is also possible to change the standard language by clicking on the Language icon, located in the message field, with the right mouse button.

Electromagnetic Compatibility

4

The Panel PC 670/870 meets the requirements of German EMC laws as well as European Directives concerning EMC.

The following includes information on interference immunity of the Panel PC 670/870 and on interference suppression.

The Panel PC 670/870s have been conceived as installation devices with Protection Class IP65 on the front side. Their installation in grounded metal cabinets (e.g. 8 MC cabinet according to the NV21 catalog) guarantees compliance with EN 61000-4-2 standards.

The touch panel versions without a USB interface on the front side meet the requirements complying with NEMA 4.

Pulse shaped interference

Pulse shaped interference	Tested with	Corresponds to Severity Level
Electrostatic discharge complying with EN 61000-4-2	8 kV 4 kV	3 (Air Discharge) 2 (Contact Discharge)
Burst Impulses (rapid, temporary interference) according to EN 61000-4-4	2 kV (Power Line) 2 kV (Process Data Line)	3 3
High-energy single Impulse (Surge) according to EN 61000-4-5 (24 V model only with protective lightning conductor KT Type A D 24 V, Order No. DSN:919253)		
Asymmetric Connection	2 kV (Power Line)	3
Symmetric Connection	1 kV (Power Line)	3

Sinusoidal wave interference

RF Radiation complying with EN 61000-4-3

- Electromagnetic RF field, amplitude-modulated
from 80–1000 MHz
10 V/m
80 % AM (1 kHz)
- Electromagnetic RF field, pulse-modulated
900 ± 5 MHz
10 V/m
50 % ED
200 Hz pulse repetition frequency
- RF interference on signal lines, data lines, etc. complying with EN 61000-4-6,
radio frequency, asymmetric, amplitude-modulated
from 0.15 –80 MHz
10 V RMS value
80 % AM (1 kHz)

Interference emission

Radiated interference of electromagnetic fields according to
EN 55011: Limit Value Class A, Group 1.

from 30–230 MHz	< 30 dB (μV/m)Q
from 230–1000 MHz	< 37 dB (μV/m)Q
measured from a 30 m distance	

Radiated interference from mains AC line power supply complying with EN 55011:
Limit Value Class A, Group 1 (only 230 V operating units)

from 0.15–0.5 MHz	< 79 dB (μV)Q < 66 dB (μV)A
from 0.5–5 MHz	< 73 dB (μV)Q < 60 dB (μV)A
from 5–30 MHz	< 73 dB (μV)Q < 60 dB (μV)A

General Information

5

Faulty pixels in display

A minimum number of faulty pixels in the display cannot be avoided. The following is permissible:

	Pixel number
Permanently light and permanently dark pixels	≤ 12
Permanently light green pixels	≤ 5

The production process for modern flat screens (LCD) does not currently guarantee that all pixels in the screen are error free. As long as it is not a case of an accumulation of locally erroneous pixels, there are no relevant functional restrictions.

Disposal

Please observe the following safety-related information on correct handling and disposal of lithium batteries:



Warning

Improper handling of lithium batteries represents a risk of explosion – therefore, lithium batteries:

- should never be recharged
- should never be opened
- should never be short circuited
- should never be reverse poled
- should never be heated over 100 °C
- should be protected from direct sunlight.

Condensation must not form on lithium batteries.

Only replace lithium batteries with those of the same type or one recommended by the manufacturer.

Used lithium batteries do not belong in normal, household waste. They must be disposed of individually as special waste, packed in a sealed plastic bag.

In the case of transport, applicable regulations on dangerous goods must be observed by the respective transporting company (identification requirements).

FM approval

Note

Not all unit configurations have an FM approval.

If the unit has been awarded the FM approval, the following symbol appears on the rating plate:



Complying with Factory Mutual Approval Standard Class Number 3611 Hazardous (classified) Locations Class I, Division 2, Group A, B, C, D and Class I, Zone 2, Group II C.



Warning

Personal injury and equipment damage can occur.

Personal injury and equipment damage can occur in hazardous areas if a plug connection is disconnected from the operating unit while the system is running.

In hazardous areas, always switch off the power supply to the operating unit before disconnecting plugs.



WARNING:

DO NOT DISCONNECT WHILE CIRCUIT IS LIVE

UNLESS LOCATION IS KNOWN TO BE NONHAZARDOUS.

Appendix

Abbreviations

ANSI	American National Standards Institute
ASCII	American Standard Code for Information Interchange
BIOS	Basic Input Output System
CD-ROM	Compact Disk – Read Only Memory
CPU	Central Processing Unit
DC	Direct Current
DHCP	Dynamic Host Configuration Protocol
DNS	Domain Name Service
DP	Decentralized Periphery
DSN	Data Source Name
ESD	Electrostatically Sensitive Device
EMC	Electromagnetic Compatibility
H	Height
HF	High Frequency
HMI	Human Machine Interface
IF	Interface
LCD	Liquid Crystal Display
LED	Light Emitting Diode
Mbps	Megabits per second
PC	Personal Computer
PU	Programming Unit
PPI	Point to Point Interface (SIMATIC S7)

PS/2	Personal System 2
PLC	Programmable Logic Controller
T	Device depth
TCP/IP	Transmission Control Protocol/Internet Protocol
USB	Universal Serial Bus
VGA	Video Graphics Array
W	Width

SIEMENS

SIMATIC PC

Panel PC 670

Panel PC 870

Beiblatt zur Inbetriebnahmeanleitung

Supplement to Start-up Guide

Dieses Beiblatt ist gültig für die Liefereinheiten mit den Bestellnummern:
This supplement is valid for products with following order numbers:

Panel PC 670 Bestellnr.: **6AV772...**, **6AV773...**

Panel PC 870 Bestellnr.: **6AV770...**, **6AV771...**

Ausgabe 03/03

Beiblatt zur Inbetriebnahmeanleitung

A5E00212362

Deutsch

Dieses Beiblatt enthält wichtige Hinweise. Die Aussagen in diesen Hinweisen sind den Aussagen in der Inbetriebnahmeanleitung, in den Release Notes, im Handbuch und in der Online-Hilfe in der Verbindlichkeit übergeordnet.

Bitte lesen Sie diese Hinweise sorgfältig durch, da dort für Sie hilfreiche Informationen enthalten sind.

Den Inhalt des Beiblattes finden Sie ab Seite 5.

English

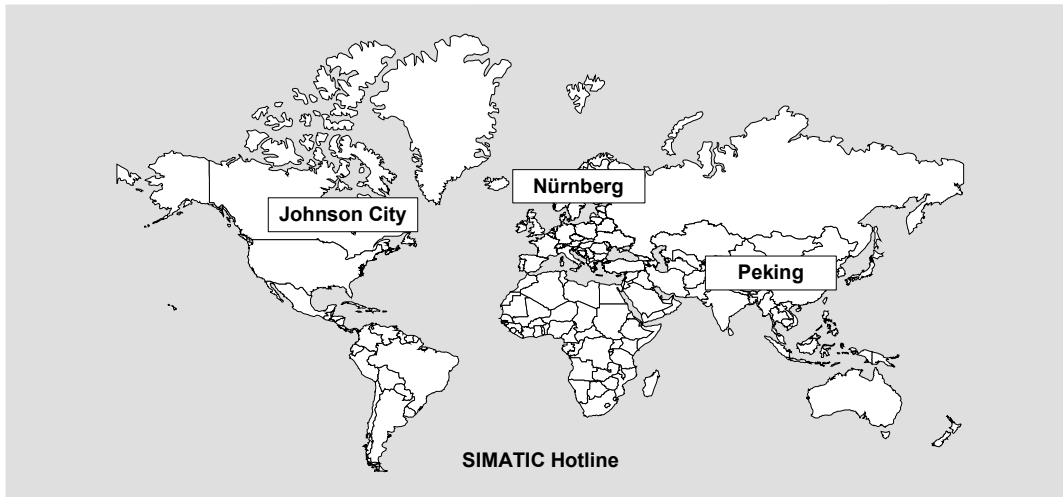
This supplement contains important information. The statements made take precedence over those in the installation notes and release notes, as well as the manual and online help.

Please read this supplement carefully, it contains helpful information.

The contents of the supplement can be found starting from Page 19.

A&D Technical Support

Weltweit erreichbar:



Weltweit (Nürnberg) Technical Support Ortszeit: 0:00 bis 24:00, 365 Tage Telefon: +49 (0) 5050-222 Fax: +49 (0) 5050-223 E-Mail: adsupport@siemens.com GMT: +1:00		
Europa/Afrika (Nürnberg) Authorization Ortszeit: Mo.–Fr. 8:00 bis 17:00 Telefon: +49 (0) 180 5050-222 Fax: +49 (0) 180 5050-223 E-Mail: adsupport@siemens.com GMT: +1:00	United States (Johnson City) Technical Support and Authorization Ortszeit: Mo.–Fr. 8:00 bis 17:00 Telefon: +1 (0) 770 740 3505 Fax: +1 (0) 770 740 3699 E-Mail: isd-callcenter@sea.siemens.com GMT: –5:00	Asien/Australien (Peking) Technical Support and Authorization Ortszeit: Mo.–Fr. 8:30 bis 17:30 Telefon: +86 10 64 75 75 75 Fax: +86 10 64 74 74 74 E-Mail: adsupport.asia@siemens.com GMT: +8:00

Auskunft vom Technical Support und von der Authorization erhalten Sie in den Sprachen Deutsch und Englisch.

Service & Support im Internet

Das SIMATIC Customer Support bietet Ihnen über die Online-Dienste umfangreiche zusätzliche Informationen zu den SIMATIC-Produkten an:

- Allgemeine aktuelle Informationen erhalten Sie
 - im Internet unter
<http://www.siemens.com/simatic>
- Aktuelle Produktinformationen, FAQs, Tipps und Tricks und Downloads erhalten Sie
 - im Internet unter
<http://www.siemens.com/automation/service&support>

Trainings-Center

Um Ihnen den Einstieg in die Automatisierungssysteme zu erleichtern, bieten wir entsprechende Kurse an. Wenden Sie sich bitte an Ihr regionales Trainings-Center oder an das zentrale Trainings-Center in D 90327 Nürnberg.

Telefon: +49 (911) 895-3200

Internet: <http://www.sitrain.com>

E-Mail: info@sitrain.com

Weitere Unterstützung

Bei weiteren Fragen zu den SIMATIC HMI-Produkten wenden Sie sich bitte an Ihren Siemens-Ansprechpartner in den für Sie zuständigen Vertretungen und Geschäftsstellen.

Die Adressen finden Sie:

- im Siemens-Katalog ST 80
- im Internet unter
<http://www.siemens.com/automation/partner>
- im interaktiven Katalog CA01
<http://www.siemens.com/automation/ca01>

Beiblatt zur Inbetriebnahmeanleitung Panel PC 670 und 870

1.1 Gültigkeit

Dieses Beiblatt ist gültig für die Liefereinheiten mit den Bestellnummern:

- Panel PC 670 Bestellnr.: **6AV772...** und **6AV773...**
- Panel PC 870 Bestellnr.: **6AV770...** und **6AV771...**

1.2 Einschränkungen

- Die Windows-Funktionen *Ruhezustand* und *Standby-Modus* beim Herunterfahren des Betriebssystems dürfen beim Panel PC nicht aktiviert werden.
- Fast User-Umschaltung bei Windows XP wird nicht empfohlen.

1.3 Korrektur der Inbetriebnahmeanleitung

In der Inbetriebnahmeanleitung Panel PC 670 und 870, Kapitel 2.6.2, Windows NT, Absatz „Einschränkungen“ gilt folgender Text:

- Die LEDs an einer extern angeschlossenen PS/2-Tastatur haben keine Funktion (gilt für die Tastenfront und die Touchfront).
- Für den Anschluss an die frontseitige USB-Schnittstelle und an die USB-Schnittstelle der Rechneinheit bzw. an die rückseitige Schnittstelle der dezentralen Bedieneinheit sind nur folgende Geräte freigegeben:
 - Externe USB-Tastaturen mit eingebauten Hub gemäss USB-Spezifikation 1.1. Es dürfen keine weiteren USB-Geräte in den Tastatur-Hub gesteckt werden.
 - Externe USB-Tastaturen ohne USB-Hub
 - Standard-USB-Mäuse (ohne spezielle Zusatzfunktionalität, wie z. B. Laufrad)

1.4 Allgemeine Bemerkung zum Panel PC 670 und 870

Bei hoher Systemauslastung und Netzwerkbetrieb wird generell der Einsatz der Betriebssysteme Windows 2000 und Windows XP empfohlen.

Vorsicht

Um einen sicheren Betrieb der Panel PC 670 und 870 zu gewährleisten, muss zwischen dem Ziehen und erneutem Stecken von USB-Geräten mindestens 10 s gewartet werden.

Achtung

Während des gesamten Installationsvorganges darf der Panel PC 670 und 870 nicht ausgeschaltet werden, da sonst Teile der Software verloren gehen können, die für einen fehlerfreien Betrieb Ihres Panel PC 670 und 870 notwendig sind.

Für eine erfolgreiche Erstinstallation des Betriebssystems müssen die Defaultwerte im BIOS verwendet werden.

Schließen Sie für die nachfolgenden Installationsvorgänge eine externe Maus an die PS/2-Tastatur an.

1.5 CD-RW/DVD-Laufwerk

Vorsicht

Gefahr von Datenfehlern beim Brennen von CD-RW

Die Qualität der Rohlinge schwankt erheblich, daher können Datenfehler beim Beschreiben nicht ausgeschlossen werden, auch wenn zunächst keine Fehlermeldung auftritt. Korrekt geschriebene Daten werden nur durch zusätzlichen Vergleich gewährleistet. Zur Sicherheit sollte nach dem Schreiben ein Datenvergleich erfolgen.

Vorsicht

CD/DVD-Laufwerke sind empfindlich gegen unzulässige Erschütterungen. Während des Betriebes können Erschütterungen zu Beschädigungen des Laufwerks bzw. des Datenträgers führen. Das Schreiben auf CD im Dauerbetrieb ist nicht zulässig, da Brenner und Medien nicht Dauerlauf geeignet sind.

Der Betrieb des Brenners im CD/DVD-Laufwerk ist nur bei einer Umgebungstemperatur von +5 °C bis +40 °C zulässig.

1.6 USB-Funktionalität unter Windows 98 SE beim Panel PC 670

Beachten Sie bei der Verwendung von USB-Komponenten unter Windows 98 SE folgendes:

- Parallele Verwendung von mehreren USB-Geräten,
- Ziehen und Stecken von USB-Geräten während des Betriebes und
- das Anmelden von neuen, unbekanntem USB-Geräten können die Plug-and-Play-Fähigkeit einschränken

und damit die sichere Funktion des Gesamtsystems beeinflussen.

Weitere Hinweise zum besonderen Verhalten einzelner USB-Geräte finden Sie in den jeweiligen Herstellerunterlagen und auf den Microsoft-Supportseiten für Windows 98 SE (z. B. <http://support.microsoft.com>).

Eine optimale und stabile Unterstützung der USB-Technologie bieten die neuen Microsoft-Betriebssysteme Windows 2000 und Windows XP.

Hinweis

Bitte überprüfen Sie regelmäßig, ob neuere Treiberversionen oder Hotfixes für Ihren Panel PC zum Download bereitliegen.

Besuchen Sie hierzu unsere Internetseite und abonnieren Sie unsere Newsletter – <http://my.ad.siemens.de/myand>.

1.7 Softwareneuinstallation und Systemwiederherstellung

1.7.1 Neuinstallation der Software

Mit Hilfe der Recovery-CD und der CD „Panel PC 670/870 Documentation and Drivers“ können Sie bei Bedarf die Software neu installieren. Eine ausführliche Beschreibung zur Neuinstallation der Software finden Sie im Internet unter der Adresse <http://www.ad.siemens.com/simatic-cs>, FAQ zum Thema Panel PC 670 oder 870.

1.7.2 Systemwiederherstellung (Restore-CD) für Panel PC 670

Die mitgelieferten Restore-CDs ermöglichen es, den Panel PC wieder in den Auslieferungszustand zu versetzen (siehe Inbetriebnahmeanleitung).

Die mitgelieferten Restore-CDs für Panel PC 670:

- Windows XP mit SP1
 - Restore-CD 1/4, Windows XP (MUI) A5E00207998
 - Restore-CD 2/4, Windows XP (MUI) A5E00208001
 - Restore-CD 3/4, Windows XP (MUI) A5E00208010
 - Restore-CD 4/4, Windows XP (MUI) A5E00208011
- Windows 2000 mit SP2
 - Restore-CD 1/2, Windows 2000 (MUI) A5E00148439
 - Restore-CD 2/2, Windows 2000 (MUI) A5E00151768
- Windows NT4 mit SP6
 - Restore-CD 1, Windows NT, deutsch A5E00148437
 - Restore-CD 1, Windows NT, englisch A5E00148438
- Windows 98 SE
 - Restore-CD 1, Windows 98 SE, deutsch A5E00148440
 - Restore-CD 1, Windows 98 SE, englisch A5E00148441

sind nur für den Panel PC 670 mit den Bestellnr. 6AV772... und 6AV773... verwendbar (Image der Festplatte C:, das mit Easy Restore zurückübertragen wird und den Auslieferungszustand des Bediengerätes wiederherstellt).

Images von anderen Panel PCs (z. B. Bestellnr. 6AV76...) sind aufgrund unterschiedlicher Chipsätze und Treiber nicht auf Panel PC 670 mit der Bestellnr. 6AV772... oder 6AV773... einsetzbar.

1.7.3 Systemwiederherstellung (Restore-CD) für Panel PC 870

Die mitgelieferten Restore-CDs für Panel PC 870:

- Windows XP mit SP1
 - Restore-CD 1/4, Windows XP (Mui) A5E00200527
 - Restore-CD 2/4, Windows XP (Mui) A5E00200528
 - Restore-CD 3/4, Windows XP (Mui) A5E00200529
 - Restore-CD 4/4, Windows XP (Mui) A5E00200530
 - Boot-Diskette A5E00200531
- Windows 2000 mit SP2
 - Restore-CD 1/2, Windows 2000 (Mui) A5E00161358
 - Restore-CD 2/2, Windows 2000 (Mui) A5E00161357

- Windows NT4 mit SP6
 - Restore-CD 1, Windows NT, deutsch A5E00161375
 - Restore-CD 1, Windows NT, englisch A5E00161369

sind nur für den Panel PC 870 mit der Bestellnr. 6AV770x-xCxx-... und 6AV771x-xDxx-... verwendbar (Image der Festplatte C:, das mit Easy Restore zurückübertragen wird und den Auslieferungszustand des Bediengerätes wieder herstellt).

Achtung

Images von anderen Panel PCs, z. B. Bestellnr. 6AV76... und 6AV77..., sind aufgrund unterschiedlicher Chipsätze und Treiber nicht auf dem Panel PC 870 mit der Bestellnr. 6AV770... oder 6AV771... einsetzbar.

1.8 Stromversorgung



Warnung

Der Panel PC mit DC-Stromversorgung darf nur an 24-V-Stromversorgungsnetze angeschlossen werden, die der Anforderungen einer sicheren Kleinspannung entsprechen (SELV).

Der Kabelquerschnitt muss so groß gewählt werden, dass bei Kurzschluss an dem Panel PC kein Schaden durch die Kabel entstehen kann.

Bei Montage der Systeme in einer nicht zulässigen Einbaulage erlöschen die Zulassungen gemäß, UL 508 und EN 60950.

Der Panel PC 670 mit DC-Stromversorgung gilt als offenes Betriebsmittel (Spannungsversorgungsseite). Der Montageaufbau muss daher die Anforderungen an ein Brandschutzgehäuse erfüllen.

1.9 Geschirmte Kabel

Vorsicht

Achten Sie beim Anschluss von Peripheriegeräten darauf, dass geschirmte Kabel und Metallstecker verwendet werden, da sonst die Betriebsgenehmigung erlischt! Fixieren Sie die Stecker der Schnittstellenkabel mit Hilfe eines Schraubendrehers am Gehäuse des PCs. Sie verbessern damit die elektrische Abschirmung.

1.10 Touchfront

Der maximal zulässige Druck auf die Touchscheibe beträgt laut Hersteller 25 Gramm mit einem Plastikstift mit 1 mm Radius und 50 Gramm mit einem 1,6 cm dicken Silikonfinger.

1.11 Tastenfront

Das Betätigen der Tasten mit einem harten Gegenständen (z. B. Schraubendreher) führt zur Minderung der Lebensdauer der Tasten.

1.12 Keyhook

Aus Sicherheitsgründen ist die Deinstallation des Tools *Keyhook* nicht gestattet. Diese Tool unterbindet die bei gleichzeitiger Betätigung von mehreren Tasten auftretenden Fehlfunktionen.

1.13 TFT-LC-Display

Ein dauerhaft anstehendes Bild mit hellen Bildinformationen kann zu einem „Einbrenneffekt“ bei der LC-Anzeige führen.

Wird ein Bildschirmschoner genutzt, ist folgendes zu beachten:

- Bei Bildschirmschonern, die die Back-Light-Röhre ausschalten, gilt: Jedes Einschalten vermindert die Lebensdauer der Hintergrundbeleuchtung um ca. 50 min.
- Bei Verwendung von Bildschirmschonern, die bei eingeschalteter Hintergrundbeleuchtung aktiv schwarz ansteuern (z. B. starfield simulation/ fliegende Sterne) können sich die Flüssigkeitskristalle wieder regenerieren. Dabei ist die Betriebsdauer der Hintergrundbeleuchtung zu beachten.

Je nach Anwendungsfall ist der Einsatz eines Bildschirmschoners, das regelmäßige Ausschalten der Hintergrundbeleuchtung oder die permanente Anzeige der Kundenapplikation gegeneinander abzuwägen.

1.14 Einbau des Panel PCs in ein Gehäuse/Schaltschrank

Hinweis

Die Lufteintrittstemperatur an der Rechneinheit (Schnittstellenseite) darf 45 °C nicht überschreiten. Maßgeblich hierfür ist die Temperatur gemessen in 10 cm Abstand von der Lufteintrittsöffnung (Schnittstellenseite) in der Rechneinheit. Der minimale Abstand des Panel PCs vom Gehäuse beträgt auf der Luftaustrittsseite (Lüfter) 10 cm.

Bitte beachten Sie dies besonders bei der Dimensionierung von geschlossenen Gehäuse.

Vorsicht

Gilt für Panel PCs, die in Schwenkarmgehäuse eingebaut sind:

Vermeiden Sie während des Betriebs schnelle oder ruckartige Bewegungen des Schwenkarmes, da bei diesen Bewegungen Kräfte wirken, die zu einer irreversiblen Schädigung der Festplatte führen können.

1.15 Panel PC 670 und 870 in dezentraler Aufbauform



Warnung

Bei Panel PC 670 und 870 mit Tastenfront in dezentralem Aufbau ist das Systemprogramm *KeyHook2* nicht aktiviert. Dieses Programm ist u. a. für eine sichere Benutzung der Funktionstasten und Softkeys (F- und S-Tasten) der Folientastatur erforderlich. Bei nicht aktiviertem KeyHook kann es zu Fehlinterpretationen der tatsächlich gedrückten F- und S-Tasten durch das Betriebssystem kommen.

Es wird dringend empfohlen, KeyHook zu aktivieren.

Um KeyHook zu aktivieren, führen Sie nach der Erstinbetriebnahme des Bediengerätes folgende Schritte durch:

1. Rufen Sie die Datei *setup.exe* im Pfad *c:\Drivers.xxx\KeyHook2* auf. KeyHook wird daraufhin deinstalliert.
2. Starten Sie den Panel PC erneut
3. Rufen Sie nochmals die Datei *setup.exe* im Pfad *c:\Drivers.xxx\KeyHook2\Setup* auf.
4. KeyHook wird nun installiert. Folgen Sie den Anweisungen.
5. Starten Sie den Panel PC erneut.

Nun ist die sicherheitsrelevante Applikation KeyHook2 korrekt aktiviert.

Allgemeines

Dieses Kapitel enthält zusätzliche Informationen über den Anschluss von USB-Geräten an einen Panel PC 670 bzw. 870.

Neben den allgemeinen Vorgaben und Empfehlungen zu USB-Geräten in der Inbetriebnahmeanleitung gelten für Panel PCs in der dezentralen Aufbauform die nachfolgenden Richtlinien:

Bediengerät mit Windows 98 und Touch- bzw. Tastenfront

Die USB-Schnittstelle an der Front- bzw. der Remote-Schnittstelle ist für maximal einen weiteren USB-Hub freigegeben. Für die USB-Schnittstelle(n) an der Recheneinheit bzw. Front gelten hier nur eingeschränkte USB-Spezifikationen. Erlaubt ist lediglich eine externe Maus oder externe USB-Tastatur.

Bediengerät mit Windows NT und Touch- bzw. Tastenfront

Das Betriebssystem Windows NT 4.0 ist für den Panel PC 670 und 870 in dezentraler Aufbauform **nicht** freigegeben.

Bediengerät mit Windows 2000 bzw. Windows XP und Touch- bzw. Tastenfront

Achtung

Die USB-Schnittstelle an der Front- bzw. Remote-Baugruppe ist für maximal einen weiteren USB-Hub freigegeben. Für die USB-Schnittstelle(n) an der Rechneinheit gelten die allgemeinen USB-Spezifikationen.

USB-Schnittstelle

Neben den allgemeinen Vorgaben gilt:

Wird ein USB-Hub eingesetzt, darf die maximale Kabellänge zum Hub 1,8 m nicht überschreiten. Am Hub darf nur ein weiteres USB-Gerät mit einer Kabellänge von max. 1,8 m angeschlossen sein.

Vereinfachtes Blockdiagramm

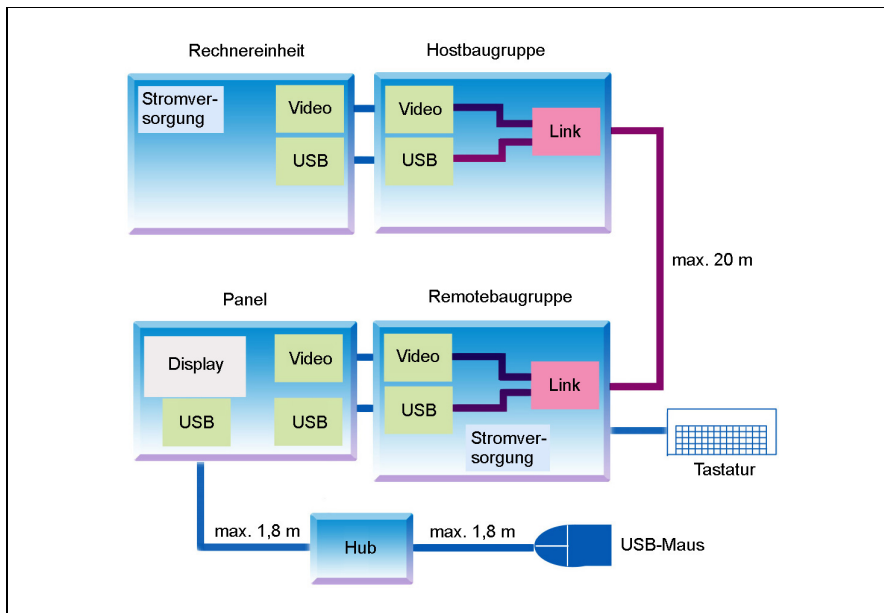


Bild 1-1 Grundfunktion eines Panel PC 670 bzw. 870 dezentral

Panel PC mit dezentraler Front und dem Betriebssystem Windows XP oder Windows 2000

Hinweis

Dieses Kapitel gilt für Panel PC 670 bzw. 870 mit dem Betriebssystem Windows XP.

Bei der Inbetriebnahme und dem erstmaligen Einschalten des Panel PC 670 bzw. 870 mit dezentraler Front wird der Treiber *tastdrv.sys* für die USB-Tastatursteuerung neu erkannt.

Während des Installationsvorgangs erscheint folgendes Fenster:

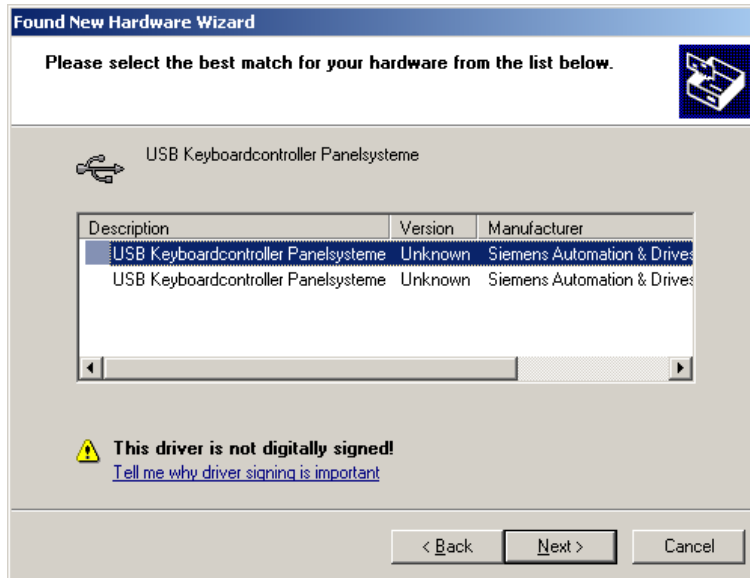


Bild 1–2 Fenster *Found New Hardware Wizard*

Für die vollständige Installation sind folgende Arbeitsschritte notwendig:

1. Betätigen Sie die Schaltfläche *Next*.

Folgendes Fenster erscheint:

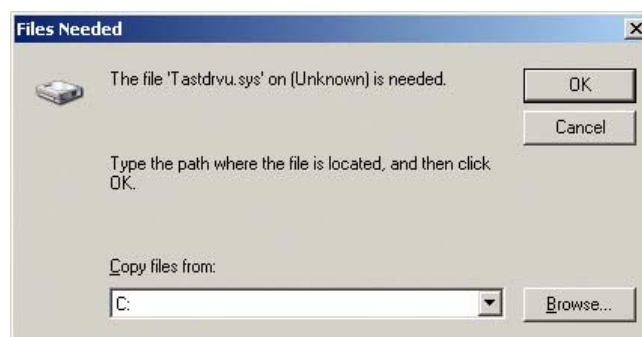


Bild 1–3 Fenster *Files Needed*

2. Betätigen Sie die Schaltfläche *Browse...*
3. Wählen Sie in dem sich öffnenden Fenster folgendes Verzeichnis:
c:\drivers.wxp\usb keyboardcontroller

4. Betätigen Sie die Schaltfläche *OK*.

Der USB-Keyboard-Controller wird dann installiert.

Die Applikation *Setbrightness* beispielsweise setzt einen korrekt installierten USB-Keyboard-Controller voraus.

Hinweis

Dieser Treiber ist von Microsoft nicht zertifiziert.

1.16 Hinweise zur Inbetriebnahme

Störaussendung mit der AC-Stromversorgung 105 W

Wird die AC-Stromversorgung mit der Leistung 105W verwendet, so ist der beiliegende Ferrit auf folgende Art am Netzkabel zu befestigen:

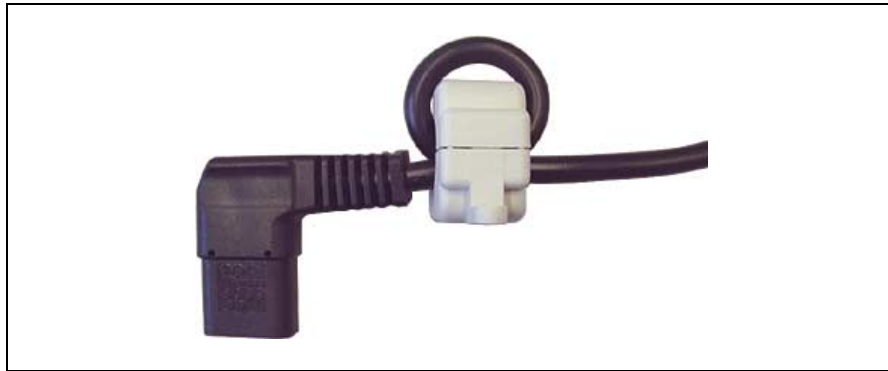


Bild 1–4 Ferrit am Netzkabel

Störfestigkeit bei Betrieb von PC-Cards

Die ESD-Störfestigkeit von PC-Cards beträgt 4 kV (Kontaktentladung).

1.17 Stromversorgung

In folgendem Bild ist die Kontaktbelegung an der 24-V-Stromversorgung dargestellt.



Bild 1-5 24-V-Stromversorgung

1.18 Panel PC mit dem Betriebssystem Windows 2000 und SP3

Hinweis

Dieses Kapitel gilt für Panel PC 670 bzw. 870 mit dem Betriebssystem Windows 2000 und Service Pack 3.

Bei der Installation des Service Pack 3 für Windows 2000 wird die neue Funktion *Automatic Updates* installiert.

Über *Start* → *Systemsteuerung* → *Automatic Updates* erhalten Sie folgendes Auswahlfenster:

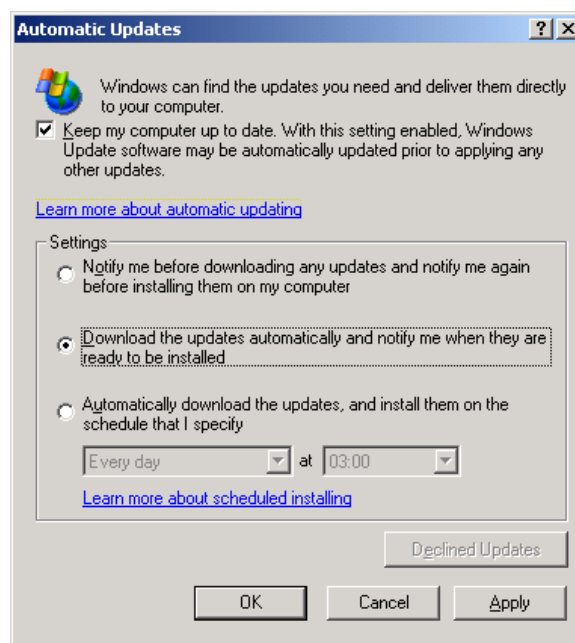


Bild 1–6 Fenster *Automatic Updates*

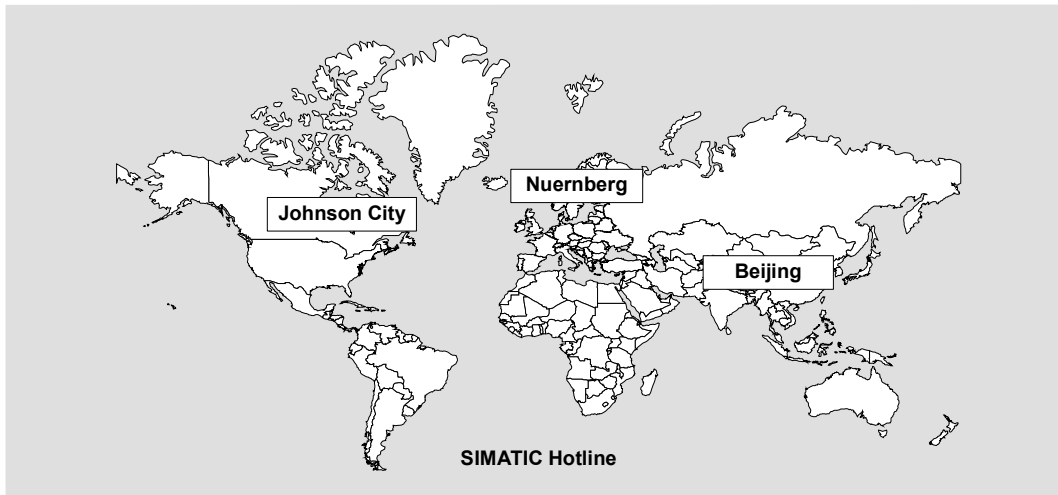
1. Deaktivieren Sie in diesem Fenster das Kontrollkästchen *Keep my computer up to date. With this setting enabled, ...*
2. Betätigen Sie dann die Schaltfläche *OK*.

Achtung

Wenn das Kontrollkästchen in diesem Fenster aktiviert bleibt, können auf dem betreffenden PC über das Internet automatisch Updates veranlasst werden, für die keine Freigabe seitens der Siemens AG vorliegt.

A&D Technical Support

Available worldwide:



Worldwide (Nuernberg) Technical Support 24 hours a day, 365 days a year Phone: +49 (0) 180 5050-222 Fax: +49 (0) 180 5050-223 E-Mail: adsupport@siemens.com GMT: +1:00		
Europa/Africa (Nuernberg) Authorization Local time: Mon.–Fri. 7:00 to 17:00 Phone: +49 (0) 180 5050-222 Fax: +49 (0) 180 5050-223 E-Mail: adsupport@siemens.com GMT: +1:00	United States (Johnson City) Technical Support and Authorization Local time: Mon.–Fri. 8:00 to 17:00 Phone: +1 (0) 770 740 3505 Fax: +1 (0) 770 740 3699 E-Mail: isd-callcenter@sea.siemens.com GMT: –5:00	Asia/Australia (Beijing) Technical Support and Authorization Local time: Mon.–Fri. 8:30 to 17:30 Phone: +86 10 64 75 75 75 Fax: +86 10 64 74 74 74 E-Mail: adsupport.asia@siemens.com GMT: +8:00

The languages of the Technical support and the Authorization are generally German and English.

SIMATIC Customer Support Online Services

The SIMATIC Customer Support team offers you substantial additional information about SIMATIC products via its online services:

- General current information can be obtained
 - In the Internet under
<http://www.siemens.com/simatic>
- Current Product Information leaflets, FAQs (Frequently Asked Questions), Downloads, Tips and Tricks can be obtained
 - In the Internet under
<http://www.siemens.com/automation/service&support>

Training Center

Siemens offers a number of training courses to familiarize you with the SIMATIC S7 automation system. Please contact your regional training center or our central training center in D 90327 Nuremberg, Germany for details.

Telephone: +49 (911) 895-3200

Internet: <http://www.sitrain.com>

E-Mail: info@sitrain.com

Other Sources of Assistance

In case of technical queries, please contact the Siemens representatives in the subsidiaries and branches responsible for your area.

The addresses can be found:

- In the Siemens Catalog ST 80
- In the Internet under
<http://www.siemens.com/automation/partner>
- In the Interactive Catalog CA01
<http://www.siemens.com/automation/ca01>

Supplement to Panel PC 670 and 870 Start-up Guide

1.1 Validity

This supplement applies to the equipment supplied with the order numbers:

- Panel PC 670 MLFB No.: **6AV772...** and **6AV773...**
- Panel PC 870 MLFB No.: **6AV770...** and **6AV771...**

1.2 Restrictions

- The Windows functions *Idle State* and *Standby Mode* must not be active on the Panel PC when shutting down the operating system.
- Fast User switch is not recommended for Windows XP.

1.3 Correction of the Start-up Guide

The text in the Panel PC 670 and 870 Start-up Guide, Chapter 2.6.2 Windows NT, Paragraph "Restrictions" should read:

- The LEDs on an externally connected PS/2 keyboard have no function (applies to keyboard and touch panel units).
- Only the following devices have been approved for connection to USB interfaces on the front and USB interfaces on the computer unit and interfaces on the rear side of the decentralized operating unit:
 - external USB keyboard with integrated hub complying to USB Specification 1.1. No other USB devices may be plugged into the keyboard hub.
 - external USB keyboards without USB hub
 - standard USB mouse (without special, additional functionality, such as scrolling wheel).

1.4 General Comments on the Panel PC 670 and 870

In the case of high level system utilization and network operation it is generally recommended to use the Windows 2000 and Windows XP operating systems.

Caution

In order to ensure reliable operation of the Panel PC 670 and 870, wait at least 10 s between unplugging USB devices and plugging them in again.

Notice

The Panel PC 670 and 870 must not be switched off while the installation process is in progress or parts of the software, necessary for proper operation of the Panel PC 670 and 870, may be lost.

The default values in the BIOS must be used to ensure the initial installation of the operating system is successful.

For the installation actions described in the following connect an external mouse or the PS/2 keyboard.

1.5 CD RW/DVD Drive

Caution

Risk of data errors when printing on CD-RW.

The quality of write CDs varies considerably and, as a result, it is not possible to rule out data errors when copying data to CDs even if no error messages appear. Verification that data has been copied correctly can only be provided by carrying out an additional comparison. To ensure integrity, compare the data after writing it on a CD.

Caution

CD/DVD drives are sensitive to impermissible vibration. When in operation, vibrations can lead to damage to the drive and data medium. It is not permitted to copy data onto CDs in continuous operation because the CD writer and medium are not designed for continuous operation.

The CD/DVD writer drive may only be operated in an ambient temperature of +5 °C to +40 °C.

1.6 USB Functionality Using Windows 98 SE on a Panel PC 670

Observe the following when using USB components with Windows 98 SE:

- parallel use of several USB devices,
- unplugging and plugging USB devices during operation and
- logging on new, unknown USB devices can restrict the Plug-and-Play capability

and, thus, affect the reliable operation of the entire system.

More information on the specific behavior of individual USB devices is provided in the respective manufacturer's documentation and on the Microsoft support pages for Windows 98 SE (e.g. <http://support.microsoft.com>).

Microsoft operating systems Windows 2000 and Windows XP provide an optimum, stable support for USB technology.

Note

Check whether new driver versions or hotfixes for your Panel PC are available to be downloaded on a regular basis.

To do this, visit our Internet pages and subscribe our Newsletter – <http://my.ad.siemens.de/myand>.

1.7 Reinstalling Software and Restoring the System

1.7.1 Reinstalling software

Software can be reinstalled, if necessary, using the Recovery CD and the "Panel PC 670/870 Documentation and Drivers" CD. A detailed description of the software reinstallation procedure is provided in Internet at the following address: <http://www.ad.siemens.com/simatic-cs>; FAQ on the subject of Panel PC 670 or 870.

1.7.2 Restoring the system (Restore CD) for Panel PC 670

The Restore CDs supplied enables the Panel PC to be restored to its state on delivery (refer to the Start-up Guide for more information).

The Restore CDs supplied for the Panel PC 670:

- Windows XP with SP1
 - Restore CD 1/4, Windows XP (MUI) A5E00207998
 - Restore CD 2/4, Windows XP (MUI) A5E00208001
 - Restore CD 3/4, Windows XP (MUI) A5E00208010
 - Restore CD 4/4, Windows XP (MUI) A5E00208011
- Windows 2000 with SP2
 - Restore CD 1/2, Windows 2000 (MUI) A5E00148439
 - Restore CD 2/2, Windows 2000 (MUI) A5E00151768
- Windows NT4 with SP6
 - Restore CD 1, Windows NT, German A5E00148437
 - Restore CD 1, Windows NT, English A5E00148438
- Windows 98 SE
 - Restore CD 1, Windows 98 SE, German A5E00148440
 - Restore CD 1, Windows 98 SE, English A5E00148441

can only be used for Panel PC 670s with order numbers 6AV772... and 6AV773..... (image of hard disk C: which is transferred back using Easy Restore and restores the initial state of the unit).

Images from other Panel PCs (e.g. order numbers 6AV76...) cannot be restored on the Panel PC 670 with order numbers 6AV772... or 6AV773... due to the implementation of different chipsets and drivers.

1.7.3 Restoring the system (Restore CD) for Panel PC 870

The Restore CDs supplied for the Panel PC 870:

- Windows XP with SP1
 - Restore CD 1/4, Windows XP (MUI) A5E00200527
 - Restore CD 2/4, Windows XP (MUI) A5E00200528
 - Restore CD 3/4, Windows XP (MUI) A5E00200529
 - Restore CD 4/4, Windows XP (MUI) A5E00200530
 - Boot Disk A5E00200531
- Windows 2000 with SP2
 - Restore CD 1/2, Windows 2000 (MUI) A5E00161358
 - Restore CD 2/2, Windows 2000 (MUI) A5E00161357

- Windows NT4 with SP6
 - Restore CD 1, Windows NT, German A5E00161375
 - Restore CD 1, Windows NT, English A5E00161369

can only be used for Panel PC 870s with order numbers 6AV770x-xCxx-... and 6AV771x-xDxx-... (image of hard disk C: which is transferred back using Easy Restore and restores the initial state of the unit).

Notice

Images from other Panel PCs (e.g. order numbers 6AV76... and 6AV77...) cannot be restored on the Panel PC 870 with order numbers 6AV770... or 6AV771... due to the implementation of different chipsets and drivers.

1.8 Power Supply



Warning

Panel PCs with a DC power supply may only be connected to a 24 V power supply network which complies with the requirements of safety extra low voltage (SELV).

The cross-section of the cable must be sufficiently large so that in the case of a short circuit on the Panel PC, no damage can be caused by the cable.

If the systems are installed in impermissible installation locations, the approvals complying to UL 508 and EN 60950 are annulled.

A Panel PC 670 with a DC power supply is considered an open operating resource (power supply side). Therefore, the installation must fulfill the requirements for fireproof housing.

1.9 Shielded Cable

Caution

When connecting periphery units, ensure that shielded cable and metallic connectors are used, otherwise operation authorization is annulled! Fix the interface cable plugs to the PC housing with the aid of a screwdriver. This improves the electrical screening.

1.10 Touch Front

According to the manufacturer, the maximum permissible pressure which may be applied to the touch screen is 25 gram using a plastic pen with a 1 mm radius and 50 gram using a 1.6 cm thick silicone finger.

1.11 Keypad Front

Operating the keys with hard items (e.g. screwdriver) reduces their service life.

1.12 Keyhook

For reasons of operational reliability, it is not permitted to deinstall the *Keyhook* tool. This tool prevents malfunctions occurring if more than key is pressed simultaneously.

1.13 TFT LC Display

The permanent display of a screen containing bright picture information can lead to a "burn in effect" in the case of an LC display.

If a screensaver is used, observe the following:

- The following applies in the case of screensavers which switch off the back-lighting:
each time it is switched on reduces the service life of the back-lighting by approx. 50 min.
- If screensavers are used which activate black when the back-lighting is switched on (e.g. starfield simulation / flying stars) the liquid crystals could regenerate. Observe the service life of the back-lighting.

Depending on the use, it is necessary to weigh up the pros and cons of implementing of screensavers which regularly switch off the back-lighting or the continuous display of the customer's application.

1.14 Installation of the Panel PC in the Housing/Switching Cabinet

Note

The air intake temperature for the computer unit (interface side) must not exceed 45 °C. The basis for this is the temperature measured a distance of 10 cm from the air inlet slots (interface side) of the computer unit. The Panel PC must be a minimum of 10 cm from the housing on the air inlet side (fan).

Please pay particular attention to this when dimensioning for closed housing.

Caution

Applies to Panel PCs installed in a swivel arm housing.

Avoid any fast or jerky movements of the swivel arm during the operation since such movements may cause serious damage of the hard disk.

1.15 Decentralized Panel PC 670 and 870



Warning

The SIMATIC Panel PCs with front keyboard and a decentralised design is shipped without activation of the system programme *KeyHook2*. This programme is needed for a safe utilisation of the function keys and the softkeys (F and S keys) of the membrane keyboard. If KeyHook is not activated the operating system may carry out erroneous interpretation of the F and S keys actually pressed.

It is strongly recommended to activate KeyHook.

In order to activate KeyHook carry out the following steps after the first start-up:

1. Start the file *setup.exe* in the path *c:\Drivers.xxx\KeyHook2*.
KeyHook will be uninstalled.
2. Restart the Panel PC
3. Restart the file *setup.exe* in the path *c:\Drivers.xxx\KeyHook2\Setup*.
4. KeyHook will now be installed.
Follow the instructions.
5. Restart the Panel PC.

The safety relevant application KeyHook2 will be correctly installed.

Generally

This chapter supplies additional information on USB devices connected to a Panel PC 670 or 870.

Beside the general specifications and recommendations for USB devices contained in the Installation Guide, the following guidelines apply to decentralized Panel PCs:

Operating unit with Windows 98 and touch panel or key panel front

The USB interface of the front interface or the remote interface is available for not more than one additional USB hub. The USB specifications do only apply restrictedly to the USB interface(s) of the computer unit or the front. Just one external mouse or USB keyboard is permitted.

Operating unit with Windows NT and touch panel or key panel front

The Windows NT 4.0 operating system is **not** suitable for the decentralized Panel PC 670 and 870.

Operating unit with Windows 2000 or Windows XP and touch panel or key panel front

Notice

The USB interface of the front interface or the remote unit is available for not more than one additional USB hub. The general USB specifications apply to the USB interface(s) of the computer unit.

USB interface

In addition to the general specifications, the following applies:

If an USB hub is used, the maximum length of the connection cable to the hub is 1.8 m. Only one additional USB device with a maximum length of the connection cable of 1.8 m is allowed to be connected to the hub.

Simplified block diagram

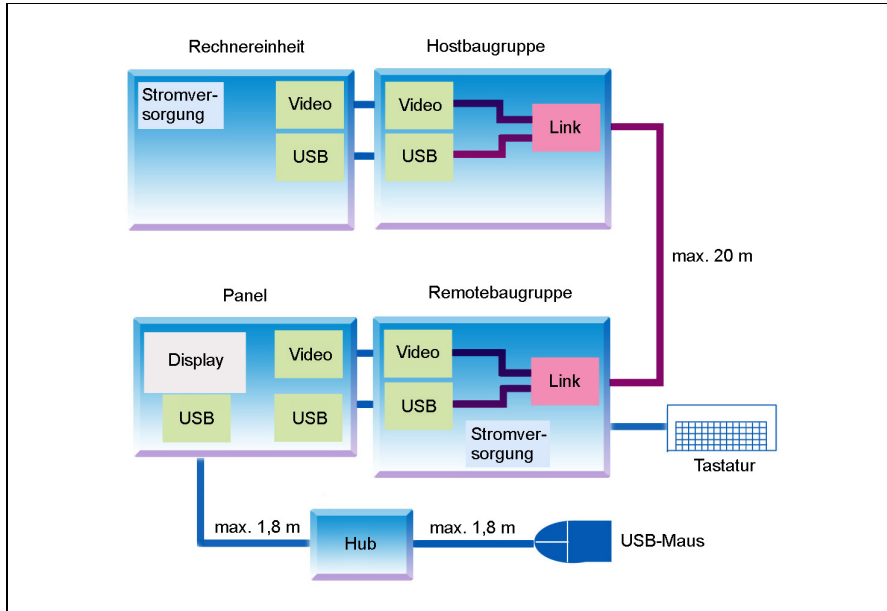


Figure 1–1 Basic function of a decentralized Panel PC 670 or 870

Panel PC with Decentralized Front and Windows XP or Windows 2000 operating system

Note

This chapter applies to the Panel PC 670 and 870 with the Windows XP operating system.

During commissioning and switching on the Panel PC 670 or 870 with decentralized front for the first time, the *tastdrv.sys* driver for the USB keyboard controller is detected anew.

The following window appears during the installation routine:

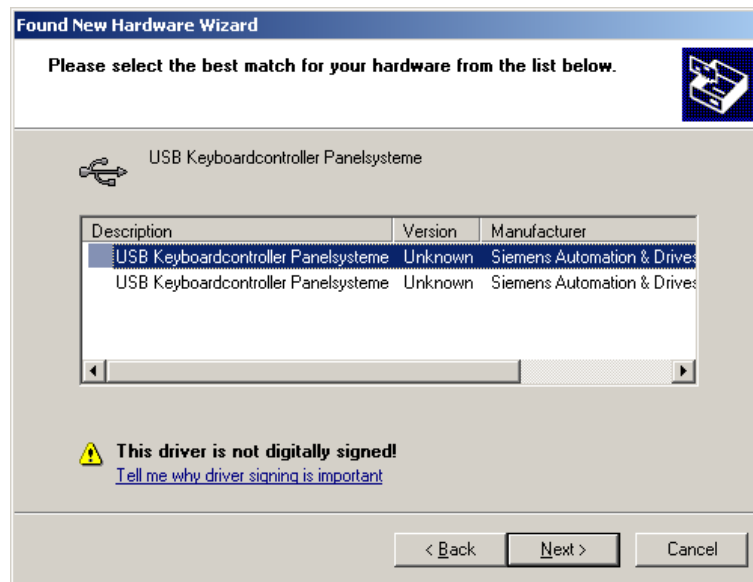


Figure 1–2 Found New Hardware Wizard window

Carry out the following steps for a full installation:

1. Press the *Next* button.

The following window appears:

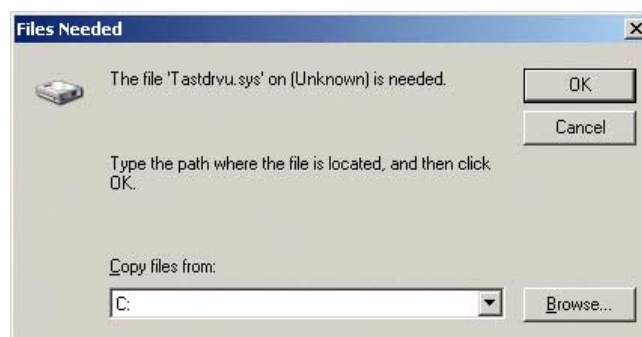


Figure 1–3 Files Needed window

2. Press the *Browse...* button.
3. Select the following directory from the window which opens:
c:\drivers.wxp\usb keyboardcontroller

4. Press the *OK* button.

The USB Keyboard controller is then installed.

The *Setbrightness* application, for example, assumes the correct installation of the USB Keyboard controller.

Note

This driver is not authorized by Microsoft.

1.16 Notes on putting into operation

Interferences when using the 105 W AC power supply

If the 105 W AC power supply is used, the supplied ferrite is to be attached to the power supply cable as shown below:

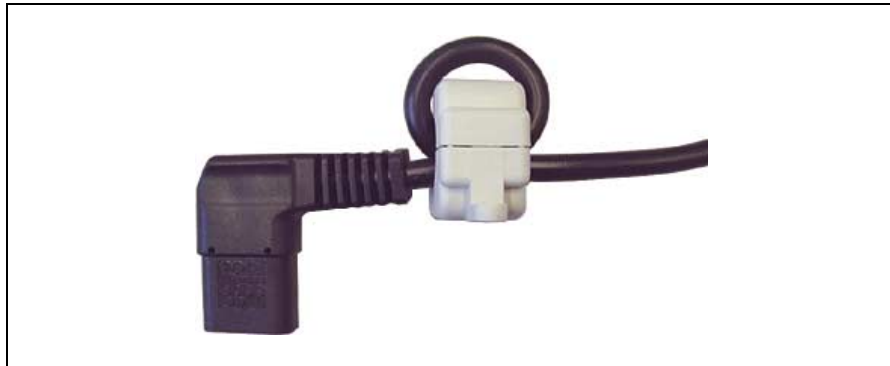


Figure 1–4 Ferrite attached to the power supply cable

Resistance to interference of PC cards

The resistance to interference of PC cards is 4 kV (contact discharging).

1.17 Power supply

The figure below depicts the configuration of the contacts of the 24 V power supply.



Figure 1-5 24 V power supply

1.18 Panel PC with Windows 2000 Operating System and SP3

Note

This chapter applies to the Panel PC 670 and 870 with the Windows 2000 operating system and Service Pack 3.

During the installation of Service Pack 3 for Windows 2000, the new *Automatic Updates* function is also installed.

Use *Start* → *Control Panel* → *Automatic Updates* to call in the following selection window:

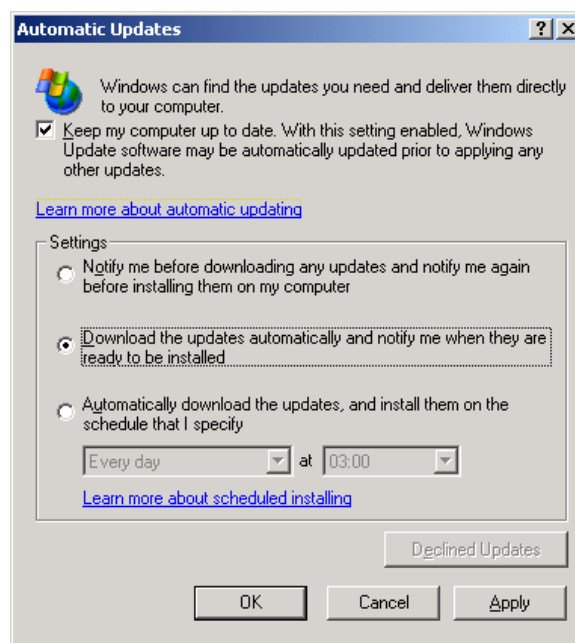


Figure 1–6 *Automatic Updates* window

1. Deactivate the *Keep my computer up to date. With this setting enabled, ...* checkbox in this window.
2. Then press the *OK* button.

Notice

If the checkbox remains active in this window, updates which have not been approved by Siemens AG can be downloaded automatically on the PC concerned via Internet.
