This Installation Guide is valid for the following units:
Panel PC 670: Order Numbers 6AV772... and 6AV773...
Panel PC 870: Order Numbers 6AV77xx-xC... and 6AV77xx-xD...

Release 08/03
Safety Guidelines

This manual contains notes 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 about the product, proper handling of 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 is conforms with the guideline 98/37 EC. Appropriate transport, storage, installation, and assembly as well as careful operation and maintenance are required to ensure that the product operates flawlessly and safely.

**Trademarks**
The registered trademarks of the Siemens AG can be found in the preface.

**Masthead**
Editor and Publisher: A&D PT1
Preface

About this manual

This Installation Guide is not enclosed with the delivery of the SIMATIC Panel PC 670/870.

Note

This Installation Guide is only valid for the Panel PC 670/870 ordered from Siemens AG and supplied without an operating system.

Notation

Different font formats simplify orientation within the text:

**Motor on**
The text on the screen of the operating unit is displayed in typewriter font.

**Output**
Inputs and outputs on the screen of the operating unit are displayed in italic typewriter font.

**File → Edit**
Menu items, dialog names, tab controls and buttons of the operating system and the application are displayed in italic font.
The complete path is always described with menu items.

Trademarks

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- SIMATIC HMI®
- SIMATIC Panel PC®
- HMI®
- ProTool®
- ProTool/Lite®
- ProTool/Pro®

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Introduction

1.1 General Information

All the following information relates to the SIMATIC Panel PC 670 (6AV772... and 6AV773...) and Panel PC 870 (6AV77xx-xC... and 6AV77xx-xD) with a touch panel or front keyboard.

In the case of a Panel PC 670/870 without an operating system installed, drivers which are not part of the scope of delivery must be installed later. To complete the installation, various conditions must be fulfilled and are explained below.

Information concerning driver installation for the following operating systems is provided:

- Microsoft Windows 98SE
- Microsoft Windows NT 4.0
- Microsoft Windows 2000
- Microsoft Windows XP

No detailed information is provided on installation of the operating system itself. The information applies to the operating system languages English and German.

The material supplied with the Simatic Panel PC 670/870 includes the "PC 670/870 Documentation & Drivers" CD 02/2003. All the necessary drivers are included on it.

Note

Connect an external mouse and PS/2 keyboard for the following installation procedures.
1.2 Conditions for Installation

It is recommended to create the following partitions on the hard disk:

- **Windows 98SE**
  - Drive C:
    Size 6 GByte, Format: FAT32, Status active
  - Drive D:
    Size: Rest, Format: FAT32

- **Windows NT**
  - Drive C:
    Size 2 GByte, Format: FAT, Status active
  - Drive D:
    Size: Rest, Format: NTFS

- **Windows 2000**
  - Drive C:
    Size: 6 GByte, Format: FAT 32, Status active
  - Drive D:
    Size: Rest, Format: NTFS

- **Windows XP**
  - Drive C:
    Size: 10 GByte, Format: FAT 32, Status active
  - Drive D:
    Size: Rest, Format: NTFS

Install the operating system required according to the installation instructions provided by Microsoft. Select the standard configuration. During the operating system installation, ignore the Network Installation menu option. The network card is installed at a later date. (Refer to Ch. 3).

Service packs

Before installing the Service Pack, check whether the Service Packs language corresponds to the language of the operating system installed.

The following Service Packs are required:

- **Windows NT**
  SP6a or higher

- **Windows 2000**
  SP2 or higher
1.3 Starting the Docu & Drivers CD

The interactive operator menu of the Docu & Drivers CD is started after activating the "CDStart.exe" program.

First, select the required user language, whereby the languages "German" and "English" are available.

**Note**

After the language selection, a message appears indicating the Panel PCs for which the drivers contained on the CD can be used. It is essential to pay attention to this message.

Adobe Acrobat Reader is required in order to view instructions and technical drawings. For simpler operation, it can be installed using the operator menu.
Click on the "Next" button to access the next selection menu on the Docu & Drivers CD.

The individual menu options are explained in the following chapters.
Click on the "Documentation" button in the Docu & Drivers CD selection menu to call in the Documents menu:
2.1 Documents

The following documents can be called in using the Documentation menu:

- Start Up Instructions, Panel PC 670/870
- Equipment Manual Computing Unit, Panel PC 670
- Equipment Manual Computing Unit, Panel PC 870
- Equipment Manual Operating Unit, Panel PC 670/870

These documents are available in PDF format in five languages. The language is selected by clicking on the respective button.

2.2 Dimensioned Drawing

After clicking on the "Dimensioned Drawing" button in the Documentation menu, a further menu appears from which to access the drawings for the various computing and operating units available.

The menu is used to select the respective drawing in either PDF format or as a construction file (DXF format).
2.3 Softkey Labeling Strips Templates

After clicking on the "Softkey Labeling Strips" button in the Documentation menu, Windows Explorer opens.

It contains the templates to print labeling strip inserts in the following formats:

- Bitmap
- CorelDraw®
- Excel®
- Word®

**Note**

Please refer to the information in the "15 Inch Labeling Strip editing recommendations.rtf" file.
Installing Drivers

Click on the "Driver Installation" button in the Docu & Drivers CD selection menu to call in the Driver Installation menu:

This menu is used to select the operating system submenus related to the corresponding unit used.

Depending on the operating system used, driver installation is performed manually (Windows NT 4.0) or via "Plug and Play" (Windows 98SE, Windows 2000, Windows XP).

Some drivers, however, still need to be installed manually even with these operating systems.

**Note**
Different drivers are required depending on the operating system used. It is essential to observe the correct selection.

The respective instructions can be called in via the operator menu.
Note

It may also be necessary to restart the system to activate the drivers. Further information on this is available from the operator menu or the respective installation instructions.

Apart from the drivers, various utility programs can also be installed from the submenus.
3.1 Panel PC 670

3.1.1 Panel PC 670 with Windows 98SE

The drivers and utility programs can be installed in any sequence via the menu. In the case of a system reinstallation, the chipset and display driver should be installed first.

Some applications require that the USB-Keyboardcontroller driver has been installed beforehand. Information on this appears on the respective right-hand side as help text.

Special features

- Network driver

  The network driver is installed via the Control Panel. Detailed instructions can be called in by clicking the mouse on the button.

- Touchware (only for units with a touch front)

  Please observe the information in the Installation Guide. In the case of a full reinstallation or units ordered without an operating system, the unknown "Microtouch Touchscreen USB-Controller" device must be removed from the Device Manager manually before starting the Touchware installation.
• Touchware settings
  
The Touchware is stated by clicking on the "Microtouch/Touchware" icon on the
desktop. The "Drawing" and "Rightclick" settings should be defined as active as
a default setting under "Touchsettings" and "Touchmode", respectively.

• Display brightness control (SETBRIGHTNESS)
  
The "Setbrightness" tool is provided to control the brightness of the integrated
back-lighting. A condition for SETBRIGHTNESS is the prior installation of the
ATL library.

• Touchinput
  
If the ATL library is not available in the Panel PC, it must be installed before
installing "Touchinput" (refer to the "ATL" button).

3.1.2 Panel PC 670 with Windows NT 4.0

The drivers and utility programs can be installed in any sequence via the menu.
In the case of a system reinstallation, the chipset and display driver should be
installed first.

Some functions require that the USB-Keyboardcontroller is installed beforehand.
Information on this appears on the respective right-hand side as help text.
Special features

- Network driver
  After the network has been set up, the NT service pack should be installed again before restarting.

- Touchware settings
  The installation of the 5-point patch is necessary in order to prevent calibration errors. The Touchware is stated by clicking on the "Microtouch/Touchware" icon on the desktop. The "Drawing" and "Rightclick" settings should be defined as active as a default setting under "Touchsettings" and "Touchmode", respectively.

- Display brightness control (SETBRIGHTNESS)
  The "Setbrightness" tool is provided to control the brightness of the integrated back-lighting. This, however, is dependent on the availability of the ATL library, so it must be installed first.

- Touchinput
  If the ATL library is not available in the Panel PC, it must be installed before installing "Touchinput" (refer to the "ATL" button).
3.1.3 Panel PC 670 with Windows 2000

Following the installation of Windows 2000, the "Plug and Play" hardware detection integrated detects new hardware directly after a restart. However, some devices only become functional following manual installation of the respective driver.

The drivers and utility programs can be installed in any sequence via the menu.

In the case of a system reinstallation, the chipset and display driver should be installed first.

Some functions require that the USB Keyboardcontroller is installed beforehand. Information on this appears on the respective right-hand side as help text.

Special features

- Touchware settings

  The Touchware is stated by clicking on the “Microtouch/Touchware” icon on the desktop. The "Drawing" and "Rightclick" settings should be defined as active as a default setting under "Touchsettings" and "Touchmode", respectively.

- Display brightness control (SETBRIGHTNESS)

  The “Setbrightness” tool is provided to control the brightness of the integrated back-lighting.
3.1.4 Panel PC 670 with Windows XP

Following the installation of Windows XP, the “Plug and Play” hardware detection integrates detects new hardware directly after a restart. However, some devices only become functional following manual installation of the respective driver.

The drivers and utility programs can be installed in any sequence via the menu.

In the case of a system reinstallation, the chipset and display driver should be installed first.

Some functions require that the USB-Keyboardcontroller is installed beforehand. Information on this appears on the respective right-hand side as help text.

Special features

- Touchware settings
  
  The Touchware is stated by clicking on the "Microtouch/Touchware" icon on the desktop. The "Drawing" and "Rightclick" settings should be defined as active as a default setting under "Touchsettings" and "Touchmode", respectively.

- Display brightness control (SETBRIGHTNESS)
  
  The "Setbrightness" tool is provided to control the brightness of the integrated backlighting.

- Network
  
  The "Plug and Play" hardware detection integrated in Windows XP detects the "Onboard" "Intel 82559 Fast Ethernet LAN" network adapter automatically and it is installed by means of the Microsoft-certified Intel driver.
3.2 Panel PC 870

3.2.1 Panel PC 870 with Windows NT 4.0

The drivers and utility programs can be installed in any sequence via the menu. In the case of a system reinstallation, the chipset and display driver should be installed first.

Some functions require that the USB-Keyboardcontroller is installed beforehand. Information on this appears on the respective right-hand side as help text.

Special features

- Network driver
  After the network has been set up, the NT service pack should be installed again before restarting.

- Touchware settings
  The installation of the 5-point patch is necessary in order to prevent calibration errors. The Touchware is stated by clicking on the "Microtouch/Touchware" icon on the desktop. The "Drawing" and "Rightclick" settings should be defined as active as a default setting under "Touchsettings" and "Touchmode", respectively.
• Display brightness control (SETBRIGHTNESS)
  The "Setbrightness" tool is provided to control the brightness of the integrated back-lighting. A condition for SETBRIGHTNESS is the prior installation of the ATL library.

• Touchinput
  If the ATL library is not available in the Panel PC, it must be installed before installing "Touchinput" (refer to the "ATL" button).

3.2.2 Panel PC 870 with Windows 2000

Following the installation of Windows 2000, the "Plug and Play" hardware detection integrated detects new hardware directly after a restart. However, some devices only become functional following manual installation of the respective driver.

The drivers and utility programs can be installed in any sequence via the menu.

In the case of a system reinstallation, the chipset and display driver should be installed first.

Some functions require that the USB-Keyboardcontroller is installed beforehand. Information on this appears on the respective right-hand side as help text.
Special features

- **Touchware settings**
  
  The Touchware is stated by clicking on the "Microtouch/Touchware" icon on the desktop. The "Drawing" and "Rightclick" settings should be defined as active as a default setting under "Touchsettings" and "Touchmode", respectively.

- **Display brightness control (SETBRIGHTNESS)**
  
  The "Setbrightness" tool is provided to control the brightness of the integrated back-lighting.

- **Virtual keyboard (Touchinput)**
  
  If the ATL library is not available in the Panel PC, it must be installed before installing "Touchinput" (refer to the "ATL" button).
### 3.2.3 Panel PC 870 with Windows XP

Following the installation of Windows XP, the “Plug and Play” hardware detection integrated detects new hardware directly after booting. However, some devices only become functional following manual installation of the respective driver.

The drivers are freely selectable for installation using the menu. In the case of a system reinstallation, the chipset and display driver should be installed first. Some functions require that the USB-Keyboardcontroller is installed beforehand. Information on this appears on the respective right-hand side as help text.

**Special features:**

- **Touchware settings**
  
  The Touchware is stated by clicking on the “Microtouch/Touchware” icon on the desktop. The “Drawing” and “Rightclick” settings should be defined as active as a default setting under "Touchsettings" and "Touchmode", respectively.

- **Display Brightness control (SETBRIGHTNESS)**
  
  The "Setbrightness" tool is provided to control the brightness of the integrated back-lighting.

- **Network**
  
  The "Plug and Play" hardware detection integrated in Windows XP detects the onboard "Intel 82559 Fast Ethernet LAN" network adapter automatically and it is installed by means of the Microsoft-certified Intel driver.
Click on the "Other Software" button in the Docu & Drivers CD selection menu to call in the Driver Installation menu:

**Internet Explorer 6.0**

To bring the system up-to-date, Internet Explorer 6.0 should be installed.

*Note*

In the case of Windows NT4.0, please note that the Java extension must be completed before installation of Internet Explorer 6.0.

**Direct X8.1 for Windows 98SE**

If third-party software is installed, which requires Open-GL functionality for example, DirectX 8.1 must be installed.
Service packs

In the case of Windows NT4.0, it is recommended to install SP5 or SP6a according to requirements.

Hotfixes

This contains various fault elimination measures. Details on a hotfix appear in the Info field as soon as the mouse pointer is moved onto the respective button.

It is recommended to install all the hotfixes contained on the CD related to a specific operating system.
Browsing the CD

Windows Explorer opens and can be used to browse through the CD and its folders.
General Information

Installing hotfixes

Install the relevant hotfixes by clicking the mouse on the respective button. A brief explanation of the respective hotfix appears on the right-hand side in the Info area.

Key lock (KEYHOOK)

Caution

For security reasons, it is essential to install the Keyhook tool in the case of units with a front keyboard.

The program contains two functions:

- Function 1 (only required for WinCC):
  
  The KeyHook tool serves to exchange the keycodes of function keys F13 to F20 and S1 to S16 on a Panel PC 670/870 with front keyboard on which the WinCC application will be run.
  
  Call in
  
  "Start" > "Settings" > "Control Panel" > "Keyboard", "KeyHook" tab control, "Start Now" button.

- Function 2 (is required for all SIMATIC Panel PCs with front keyboard)
  
  The keyHook 2.x version involves the installation of a mutual key lock of function keys F1 to F20 and S1 to S16. If several function keys are pressed simultaneously, only the function of the key pressed first is activated. All the other function keys are suppressed.

Programming the keyboard (KEYPAD)

Only for units with a front keyboard:

This tool enables the modification of the assignment of keycodes to individual keys. After loading the relevant standard table, it is possible to edit the assignment of the individual keys. The changes made are transferred to the keyboard controller by clicking on the "Send" switch and saved there in a nonvolatile memory.
USB-STACK (only for Windows NT4.0)
The so-called USB-STACK was developed for Windows NT4.0, which does not support USB. This enables the use of the USB controller integrated in the front. Following installation, the system must be restarted and the display subsequently calibrated.

USB Keyboardcontroller
The following additional functions are supported by the USB Keyboardcontroller:
- Keyboard programming
- Brightness control of the backlighting
- Control of the key LEDs

A condition for using these functions is that the USB Keyboardcontrollers has been installed. Refer to the descriptions on the CD for details on the installation routine.

Touchware (only for touch panels)
Installation is started by calling in the menu from the Docu & Drivers CD. Details on the installation are provided in the relevant instructions on the Docu & Drivers CD. The "Drawing" and "Rightclick" settings should be defined as active as a default setting under "Touchsettings" and "Touchmode", respectively. The "Rightclick" option enables the simulation of the right mouse button on a unit with a touch panel.

Touchware 5-point patch (only for Windows NT4.0)
The installation of the 5-point patch is necessary in order to prevent calibration errors. In the case of a unit with a touch panel, select the "2-point calibration" option as the "Calibration Style" in Microtouch Touchware. This option is available in the "Tools\Options\Advanced" menu. The USB Keyboardcontroller and USB-Stack must have been installed beforehand. The Touchware can be called in via the corresponding icon on the desktop.
## Appendix

### Abbreviations

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<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
</tr>
<tr>
<td>ASCII</td>
<td>American Standard Code for Information Interchange</td>
</tr>
<tr>
<td>BIOS</td>
<td>Basic Input Output System</td>
</tr>
<tr>
<td>CD-ROM</td>
<td>Compact Disk – Read Only Memory</td>
</tr>
<tr>
<td>CPU</td>
<td>Central Processing Unit</td>
</tr>
<tr>
<td>DC</td>
<td>Direct Current</td>
</tr>
<tr>
<td>DHCP</td>
<td>Dynamic Host Configuration Protocol</td>
</tr>
<tr>
<td>DNS</td>
<td>Domain Name Service</td>
</tr>
<tr>
<td>DP</td>
<td>Decentralized Periphery</td>
</tr>
<tr>
<td>DSN</td>
<td>Data Source Name</td>
</tr>
<tr>
<td>ESD</td>
<td>Electrostatically Sensitive Device</td>
</tr>
<tr>
<td>EMC</td>
<td>Electromagnetic Compatibility</td>
</tr>
<tr>
<td>H</td>
<td>Height</td>
</tr>
<tr>
<td>HF</td>
<td>High Frequency</td>
</tr>
<tr>
<td>HMI</td>
<td>Human Machine Interface</td>
</tr>
<tr>
<td>IF</td>
<td>Interface</td>
</tr>
<tr>
<td>LCD</td>
<td>Liquid Crystal Display</td>
</tr>
<tr>
<td>LED</td>
<td>Light Emitting Diode</td>
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<tr>
<td>Mbps</td>
<td>Megabits per second</td>
</tr>
<tr>
<td>PC</td>
<td>Personal Computer</td>
</tr>
<tr>
<td>PU</td>
<td>Programming Unit</td>
</tr>
<tr>
<td>PPI</td>
<td>Point to Point Interface (SIMATIC S7)</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>--------------</td>
<td>------------------------------------</td>
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<tr>
<td>PS/2</td>
<td>Personal System 2</td>
</tr>
<tr>
<td>PLC</td>
<td>Programmable Logic Controller</td>
</tr>
<tr>
<td>T</td>
<td>Device depth</td>
</tr>
<tr>
<td>TCP/IP</td>
<td>Transmission Control Protocol/Internet Protocol</td>
</tr>
<tr>
<td>USB</td>
<td>Universal Serial Bus</td>
</tr>
<tr>
<td>VGA</td>
<td>Video Graphics Array</td>
</tr>
<tr>
<td>W</td>
<td>Width</td>
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