

SIEMENS

SIMATIC PC

Panel PC 670 Operating System Installation

Installation Guide

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This installation guide is valid for the
Panel PC 670 with order number
6AV772... or 6AV773...

Edition 05/02

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 fatal 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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Exclusion of Liability

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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Order No.

Preface

This manual

This installation guide does not belong to the scope of material supplied with the SIMATIC Panel PC 670.

Note

This installation guide only applies to Panel PC 670s which are ordered from Siemens AG without an operating system.

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.

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Introduction

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1.1 General Information

All the following information relates to the Panel PC 670 with touch panels or keyboard units. In the case of a Panel PC 670 without an operating system installed, drivers which are not available as part of the operating system supplied must be installed. To do this, various conditions must be fulfilled and are explained in the following.

This Installation Guide contains information on installing drivers for operating systems in German and English for the following operating systems:

- Microsoft Windows NT 4.0
- Microsoft Windows 2000

These operating systems have been officially approved for installation on the Panel PC 670.

Other supplementary drivers are available on the "PC 670/870 Documentation & Drivers" CD supplied for other operating systems. This CD is part of the material supplied with the Panel PC 670.

No detailed information is provided on the installation of the operating system itself.

The application, installed with InstallShield, can be deinstalled by executing in the InstallShield Setup again. The application must be closed in this case.

Note

Connect an external mouse and PS/2 keyboard for the installation procedures described below.

1.2 Conditions for Installation

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

- **Windows NT**
 - C:\ Size 2 Gbyte, Format: FAT, Status active
 - D:\ Size: Rest, Format: NTFS
- **Windows 2000:**
 - C:\ Size: 10 Gbyte, Format: FAT 32, Status active
 - D:\ Size: Rest, Format: NTFS

Install the operating system required. Select the standard configuration. When installing the operating system, ignore the menu item Network Installation. The network card is installed at a later stage.

Service Packs

Before installing the service packs, check that the service pack language is the same as the language of the operating system installed.

The following service packs are required:

- **Windows NT**
 - SP6a
- **Windows 2000**
 - SP2

Installing the Windows NT 4.0 Operating System

Setting Up the Drivers Directory

In order to copy all the necessary drivers from the "PC 670/870 Documentation & Drivers" CD on the hard disk to *c:\drivers.nt4*, the Setup program on the CD in directory *installshield pc670_870* must be activated. The directory is created automatically. During the installation, it is necessary to select between keyboard- and touch-panel.

All the other Setup programs required are subsequently started from the directory *c:\drivers.nt4*.

Chipset Driver

Before any other drivers or applications are loaded, the VIA chipset drivers must be installed. These are located in the directory *c:\drivers.nt4\chipset\via_pn133t*. The installation routine is started with *Setup.exe*.

ATI S3 Graphic Drivers

During the operating system installation, a standard VGA card with a resolution of 640 x 480 is detected. The drivers for the ATI graphic chip integrated in the Panel PC 670 must also be installed.

Select *Start → Settings → Control Panel* and then the *Display\Settings* menu item under *Configuration*. *VGA compatible graphic card* appears under *Graphic Cards*. Then select *Change\Disk\Browse* to select the drivers located in *c:\drivers.nt4\display\s3_twister\winnt*.

Restart the Panel PC 670 following the installation. Following the restart, the S3 tools of the ATI graphic card can be configured via the Control Panel.

"Intel Pro" Network Drivers

The network drivers are installed using *Start → Settings → Control Panel*. After clicking the left mouse button on the *Network icon*, the user is prompted to install the NT network support. After starting the assistant, select the option item *Connect directly to network*.

The next step is to select the network card. Use *Select from list*. Enter the path *c:\drivers.nt4\network\inte100b* manually. Select *Intel Pro Adapter* in the following window. In general, *TCP/IP* is selected as the network protocol used. The network services used remain in the standard selection defined. After setting up the network, the NT service pack must be installed once again before restarting the system because, during installation of the network drivers, original Windows files are updated.

USB STACK

The USB STACK must be installed in order to activate the USB controller. This is located in the directory *c:\drivers.nt4\usb stack*. The installation routine is started with *Setup.exe*. During this procedure, the *Touchware* software required to operate the touchscreen is also installed. Following the installation, the system must be restarted and the display calibrated.

This step is omitted when using a keyboard unit. This is automatically detected.

Touchware 5-Point Patch

The next step is to install the 5-point patch in order to prevent calibration errors. This is started using *c:\drivers.nt4\touchware\5point_patch\setup.exe* and is activated following the next restart.

Touchware Settings

Start the touchware by clicking on the Microtouch/Touchware icon on the desktop. The settings *Drawing* and *Rightclick* must be active as standard settings under *Touchsettings\ Touchmode*.

Virtual Keyboard (Touchinput)

If the *The Microsoft Active Template Library (ATL) ATL.dll* file is not available in the *c:\windows\system32* directory, the file *setup.exe* in the directory *c:\drivers.nt4\ATL.dll* must be executed before installation of TouchInput.

On completion, the *setup.exe* file in the *c:\drivers.nt4\touchinput* directory is executed.

The virtual keyboard can then be started via the icon on the desktop.

USB Keyboard Controller

Use of other various components of the Panel PC 670, such as Setbrightness, Keypad, LED control on keyboard unit, assumes the USB keyboard controller has already been installed. This is located in the directory *c:\drivers.nt4\usb keyboardcontroller* and is installed by means of a right click on the *usb taco.inf* file.

Alternatively, the Windows hardware wizard can be used for installation following a restart. In both cases, the path *c:\drivers.w2k\usb keyboardcontroller* must be manually entered for the file *tacousb.inf*.

Brightness Control (SETBRIGHTNESS)

The "Setbrightness" tool is provided to control the brightness of the screen's back-lighting. The tool is located in the `c:\drivers.nt4` directory and is installed by means of `setup.exe`.

The program is called in either using the icon on the desktop or via the Control Panel under *Start* → *Settings* → *Control Panel* → *Display*.

Safecard On Motherboard (SOM)

Installation is started via the `c:\drivers.nt4\som\winnt4\install.bat` batch.

After all the files have been copied, the *Modified Settings* window appears. The Panel PC 670 must then be restarted.

Function description

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

Keyboard Lock (KEYHOOK)

The Keyhook tool must be installed for security-related reasons.

The program contains two functions.

Function 1 (only necessary for WinCC)

The *KeyHook* software tool serves to turn the keyboard code of the function keys F13–F20 and S1–S16 on a Panel PC 670 with keyboard unit on which the WinCC application is operated.

Call in

Start → *Settings* → *Control Panel* → *Keyboard* → *Register KeyHook Start Now*

Function 2 (required for all SIMATIC Panel PCs with keyboard units)

The *KeyHook 2.x* version installs a mutual keyboard lock for function keys F1–F20 and S1–S16. If several function keys are pressed at the same time, only the function assigned to the first key pressed is activated. All other function keys are ignored.

Program Membrane Keyboard (KEYPAD)

This tool enables modification of the assignment of keyboard codes for individual keys on the keyboard.

The program is started by calling in the respective display size assigned to the keypad file (e.g. Keypad 10 for the 10" operating unit). After loading the relevant standard table, it is possible to edit the assignment of the individual keys. The modifications carried out are transferred to the keyboard controller by clicking on the "Send" switch (also refer to the detailed description in the directory `\drivers pc 670\drivers.nt4\keypad`).

Installing the Windows 2000 Operating System

General Information

On completion of the installation of the Windows 2000 operating system, the integrated "Plug and Play" hardware detection detects any new hardware directly after the Panel PC 670 has started up. At this point, however, the Windows hardware wizard should be stopped because the drivers required must first be decompressed from the directory *c:\drivers.w2k*. In most cases, Install-Shields are provided for this.

Note

All applications installed with Install-Shield, can be deinstalled by executing the Install-Shield Setup again. The respective application must not be active.

Setting Up the Drivers Directory

In order to copy all the necessary drivers from the "PC 670/870 Documentation & Drivers" CD on the hard disk to *c:\drivers.w2k*, the Setup program on the "PC 670/870 Documentation & Drivers" CD supplied is executed in the *\installshield pc670_870pc670* directory. The directory is created automatically. During the installation, it is necessary to select between keyboard- and touch-panel.

Following the installation, *c:* contains the directory *drivers.w2k*. All the other Setup programs required are subsequently started from the directory *c:\drivers.w2k*.

Chipset Driver

Before loading any other drivers or applications, the VIA chipset drivers must be installed. Windows 2000 Service Pack 2 must be installed. The chipset drivers are installed by activating the *ininst.exe* file located in the *c:\drivers.w2k\chipset\via_pn133t* folder.

ATI S3 Graphic Drivers

During the operating system installation, a standard VGA card with a resolution of 640 x 480 is detected. The driver for the ATI graphic controller integrated in the Panel PC 670 should be installed now.

Installation is initiated by executing the *setup.exe* file in the directory *c:\drivers.w2k\display\ati*. The program appears with Twister Driver Setup. Restart the Panel PC 670 following successful installation.

Network Drivers

As a result of the hardware plug-and-play detection integrated in Windows 2000, the "Onboard Network Adapter Intel 82559 Fast Ethernet LAN" is automatically detected and installed with the internal Windows 2000 drivers. The "PC 670/870 Documentation & Drivers" CD contains a newer version. The easiest way to install the drivers is to use the Control Panel. In this case, the Intel 82559 driver in the Device Manager is marked and started via *Properties* of the "Driver Wizard". The new driver must be selected manually. This is done by selecting the *Find* option and then *Enter path*. Then select the path for *c:\drivers.w2k\network\inte100b*.

Installing Intel Pro Set II 4.x:

Intel Pro Set II is a simple diagnostics and configuration tool for the Intel Pro adapter range.

In this case, note that the basic drivers for the network adapter must be installed before the installation of Pro Set II. Installation is started by activating *setup.exe* in the directory *c:\drivers.w2k\network\inte100b*.

Follow the instructions on the screen.

Notice

Intel Pro Set II Version 5.x must not be used.

USB Keyboard Controller

Use of other various components, such as Setbrightness, Keypad or LED control on keyboard units, assumes the USB keyboard controller has already been installed. The driver is located in the directory *c:\drivers.w2k\usb keyboardcontroller*. Installation is started by "selecting" the *usbtaco.inf* file and then clicking the right mouse button.

Alternatively, the Windows hardware wizard can be used for installation following a restart. In both cases, the path *c:\drivers.w2k\usb keyboardcontroller* must be manually entered for the file *tacousb.inf*.

Touchware (installation only necessary for touch panels)

Installation of the touchware is started by activating *setup.exe* in the directory *c:\drivers.w2k\touchware\disk1*. In this case, select installation option *USB* and then *Express Install*. Restart the Panel PC 670 following successful installation.

Touchware Settings

Start the touchware by clicking on the Microtouch/Touchware icon on the desktop. The settings *Drawing* and *Rightclick* must be active as standard settings under *Touchsettings\ Touchmode*.

Virtual Keyboard (Touchinput)

If the file *ATL.dll* is not available on drive c:\, the file *setup.exe* in the directory *c:\drivers.nt4\ATL.dll* must be executed before installation of TouchInput.

On completion, the *setup.exe* file in the *c:\drivers.w2k\touchinput* directory must be executed.

Safecard On Motherboard (SOM)

Function

This application can be used, for example, to acquire information on the current temperature values in the area of the CPU, the box and input/output components and also modify limit values if necessary. A Watchdog function for active applications is also integrated.

Installation is initiated by activating the *setup.exe* file located in the directory *c:\drivers.w2k\touchinput*.

Brightness Control (SETBRIGHTNESS)

The "Setbrightness" tool is provided to control the brightness of the screen's back-lighting. The tool is located in the *c:\drivers.nt4* directory and is installed by means of *setup.exe*.

The program is called in either using the icon on the desktop or via the Control Panel under Display Properties.

Keyboard Lock (KEYHOOK)

The Keyhook tool must be installed for security-related reasons.

The program contains two functions.

Function 1 (only required in conjunction with SIMATIC WinCC)

The *Keyhook* software tool serves to turn the keyboard code (Make and Brake code) of the function keys F13–F20 and S1–S16 on a Panel PC 670 with keyboard unit on which the WinCC application is operated.

Call in:

Start → *Settings* → *Control Panel* → *Keyboard* → *Register KeyHook Start Now*

Function 2 (required for all SIMATIC Panel PCs with keyboard units)

The *KeyHook 2.x* version installs a mutual keyboard lock for function keys F1–F20 and S1–S16. If several function keys are pressed at the same time, only the function assigned to the first key pressed is activated. All other function keys are ignored.

Program Membrane Keyboard (KEYPAD)

This tool enables modification of the assignment of keyboard codes for individual keys on the keyboard.

The program is started by calling in the respective display size assigned to the keypad file (e.g. Keypad for the 10" operating unit). After loading the relevant keyboard code table, it is possible to edit the assignment of the individual keys. The modifications carried out are transferred to the keyboard controller by clicking on the "Send" switch (also refer to the detailed description in the directory *c:\drivers.w2k*).

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 Devices
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
PLC	Programmable Logic Controller
PPI	Point to Point Interface (SIMATIC S7)

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