SIEMENS

SIMATIC
Field PG P4

Getting Started   Edition 08/2004

First Steps in Commissioning

Safety guidelines

This Getting Started contains notices intended to ensure personal safety, as well as to protect the products and connected equipment against damage. These notices are highlighted by the symbols shown below and graded according to severity by the following texts:

> ⚠ **Danger**
>
> indicates that death, severe personal injury or substantial property damage will result if proper precautions are not taken.

> ⚠ **Warning**
>
> indicates that death, severe personal injury or substantial property damage can result if proper precautions are not taken.

> ⚠ **Caution**
>
> indicates that minor personal injury can result if proper precautions are not taken.

> **Caution**
>
> indicates that property damage can result if proper precautions are not taken.

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

Qualified Personnel

Repair, maintenance and servicing of device only to be carried out by qualified personnel. Qualified persons are defined as persons who are authorized to commission, to ground, and to tag circuits, equipment, and systems in accordance with established safety practices and standards.

Correct Usage

Note the following:

> ⚠ **Warning**
>
> This device and its components may only be used for the applications described in the catalog or the technical description, and only in connection with devices or components from other manufacturers which have been approved or recommended by Siemens.
>
> This product can only function correctly and safely if it is transported, stored, set up, and installed correctly, and operated and maintained as recommended.

Trademarks

SIMATIC®, SIMATIC HMI® and SIMATIC NET® are registered trademarks of Siemens AG.

Third parties using for their own purposes any other names in this document which refer to trademarks might infringe upon the rights of the trademark owners.

This Getting Started offers you step by step instructions on how to install and start SIMATIC Field PG P4.

The references to the manual are intended to give you an initial overview of the information in the manual.

Electronic Manual

You can find the electronic manual on the included DVD "Backup PG" under the filename "HBFieldPG_b.pdf". This manual offers information on many useful topics, for example, on optional hardware expansion, modification of the device configuration and technical data.

To read or to print out the manual you need the Adobe Acrobat Reader. The Adobe software is preinstalled on the PC as well as on the DVD "Backup PG".

The manual also includes declarations of conformity with regard to safety and EMC requirements.

⚠ **Warning**

To avoid damage to assets and for the sake of your own personal safety, please take note of the information on safety in this user guide and in the electronic manual. These notes are highlighted with triangular warning signs. They are presented in different ways and in accordance with the degree of risk.

Hotline Services

SIMATIC Hotline open round the clock, worldwide:

Worldwide (Nuernberg) **Technical Support** 24 hours a day, 365 days a year Phone: +49 (180) 5050-222 Fax: +49 (180) 5050-223 E-Mail: adsupport@ siemens.com GMT: +1:00		
Europe / Africa (Nuernberg) **Authorization** Local time: Mon.-Fri. 7:00 to 17:00 Phone: +49 (180) 5050–222 Fax: +49 (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 (423) 262 2522 Fax: +1 (423) 262 2289 E-Mail: simatic.hotline@ sea.siemens.com GMT: –5:00	**Asia / Australia** (Beijing) **Technical Support and Authorization** Local time: Mon.-Fri. 8:00 to 17:00 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 SIMATIC Hotlines and the authorization hotline are generally German and English.		

Unpacking the SIMATIC Field PG P4

Unpack your SIMATIC Field PG P4 as follows:

1. Remove the packing.
2. Do not throw the original packing away. Keep it in case you have to transport the unit again sometime in the future.

Checking the Contents

3. Check with the packing list to make sure no components are missing.

4. Check the packing and its contents for any shipping or transport damage.

5. Please inform your local dealer of any shipping or transport damages and of outstanding items indicated on the packing list.

Entering the Serial number (S VP...) and the Ethernet address

6. Enter the **serial number** (S VP...) and the **Ethernet address** of your programming device in the table below. You can find the serial number on the type label attached to the base of the device. The Ethernet address can be found in the BIOS setup settings in the main menu under the 'Hardware Options' function.

   If a PC is stolen and subsequently submitted for repair, the repair center will be able to identify it by these numbers.

Entering the Microsoft Windows "Product Key" from the "Certificate of Authenticity"

7. Enter the Microsoft Windows "Product Key" from the "Certificate of Authenticity" (COA) in the table. You will find the "Product Key" on the base of the device. You need the Windows "Product Key" if you want to reinstall the operating system.

Serial number	S VP...
Order No.	6ES...
Microsoft Windows Product Key	
Ethernet Address	

☞ Installing the SIMATIC Field PG P4

1. Set up the SIMATIC Field PG P4 to ensure safety and a comfortable posture.
2. Pull the slide lock at the side of the display forward to open the display.
3. Open the display towards the top and adjust it to a comfortable angle of vision. The display can be adjusted within any inclination angle from 0 to 180°.

Display lock

☞ **Devices of the SIMATIC Field PG P4**
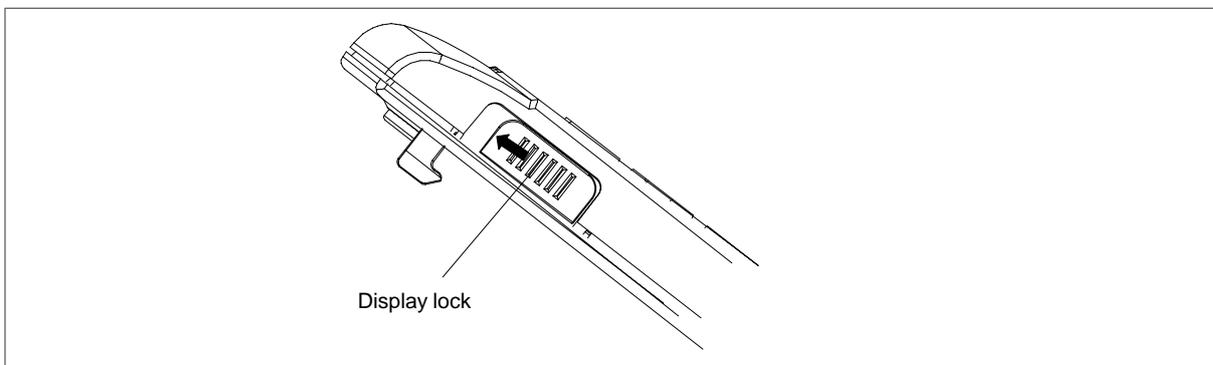
View with closed display
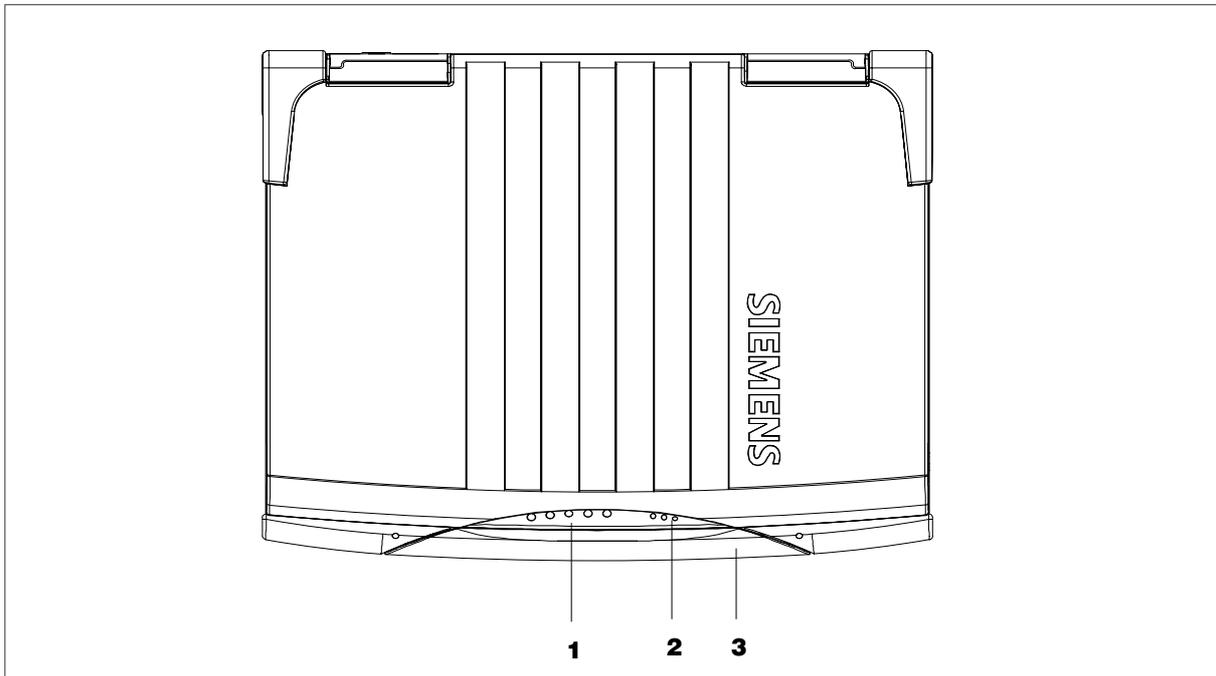
1 System·LEDs

The system LEDs (battery status ⬜ , device 🔲On , drives ⬭ , MPI/DP **MPI/DP** and Memory Card

⬜) indicate the operate state of the rechargeable battery, unit, drives, MPI/DP and Memory Card interface.

These LEDs are also visible when the display is closed. The drive access displays are arranged on the right hand side of the corresponding drives.
For detailed information on the LED displays refer to Chapter 2.4 of the electronic manual.

2 Keyboard·LEDs

The keyboard LEDs display the current status of the shift keys Num Lock ⬆1 , Caps Lock ⬆A and

Scroll Lock ⬆↕ . When the unit is powered up, the displays of these keys are actuated briefly. The keyboard Is ready for operation.
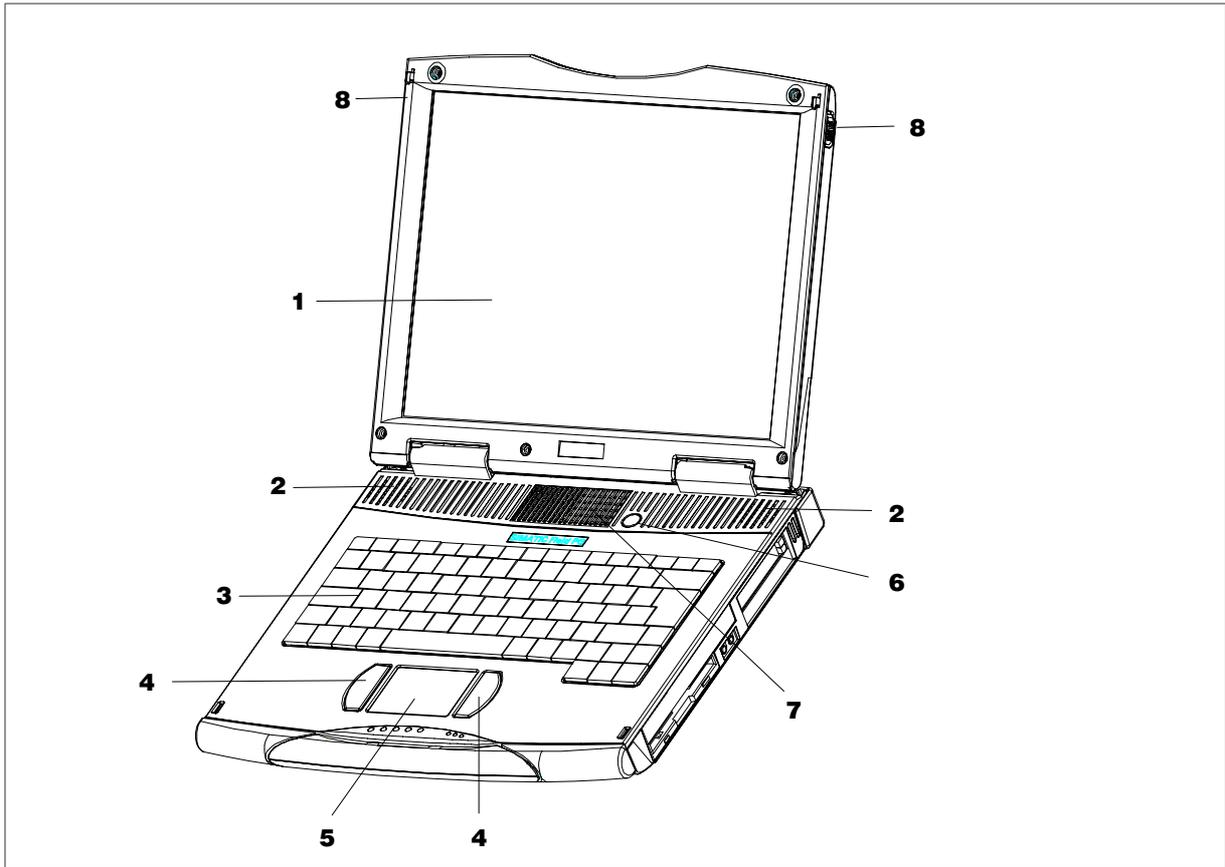
3 Device handle

Folding handle for transporting the device.

⚠ **Caution**
Always stand the PG on its base. If you place it down on the interface side there is a risk that it will fall over and damage sensitive components of the unit.

Front view with open display

1   Display

The Field PG P4 is equipped with a 14.1" TFT display with a resolution of 1024 x 768 pixels (XGA) or 1400 x 1050 pixels (SXGA+) and up to 256,000 colors.

2   Stereo speaker

The speaker outputs system alarm signals and audio signals generated by the software. Loudness is adjusted via speaker icon in the task bar or in the Windows Start menu via **all Programs > Accessories > Entertainment > Volume Control**.

3   Keyboard

The keyboard is split into three key areas: the alphanumerical keyboard with special keys, the function keys and the control keys.

4   Mouse buttons

You can use the left or right mouse button to select menu items or process text or graphic objects after having marked the respective object.

5   Touchpad

The Touchpad has a pressure sensitive surface for precise mouse pointer positioning.

6   On/Off-button (Power Button)

Use the On/Off pushbutton to power up the Field PG P4 (into active state) or to switch it from active to inactive state (Off, Standby or Hibernate). The Power Button can be parameterized under Windows. The Windows NT versions do not support this power management. *Refer to Chapter 2.5 of the electronic manual.*

7 Air venting slots

Here is the ventiduct.

⚠️ **Caution**

The ventiducts for incoming and outgoing air must not be obstructed. Otherwise, there is a risk of overheating. Do not operate your device with the display cover completely closed, to guarantee optimum cooling.

8 Display-interlock

The display unit is connected to the base unit with two locks. The slide interlock is mounted at the side of the display unit.

Rear view
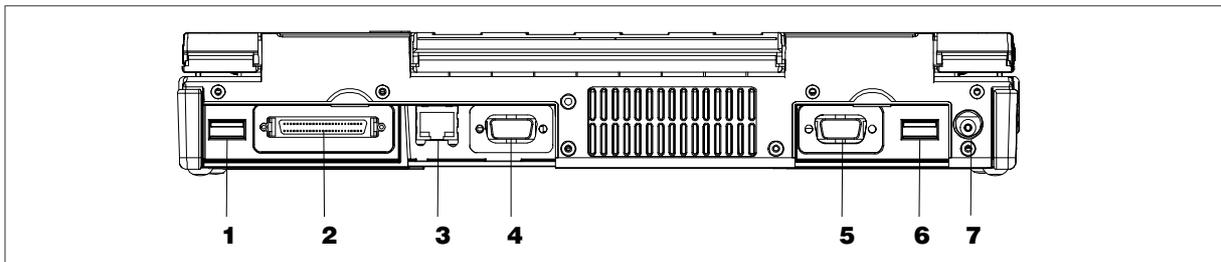
1 USB

Universal Serial Bus connector. You can use the USB port 2.0 to connect external devices, for example, CD drives, printers, modems as well as a mouse and keyboard. The Windows NT versions only support mouse and keyboard.

2 Interface Cable (I Cable)

You can connect the I Cable supplied in the consignment to this port.
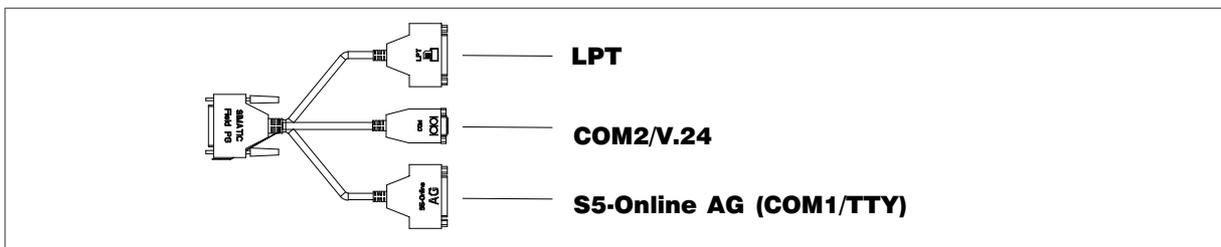
The I Cable enables the connection to S5 automation devices (COM1/TTY), to devices with a serial port (COM2/standard V.24) such as a modem or mouse and to devices with a parallel port (standard LPT) such as a printer or scanner. Please, use the I Cable on a level surface only (e.g. desk) to prevent contact problems. *Refer to Chapter 3.6 of the electronic manual.*

⚠️ **Caution**

Only the I Cable may be connected to this port. If you connect other devices with a 50-pin mini SCSI connectors, your Field PG P4 or the connected device may be damaged as a result.

3 Ethernet

RJ45 Ethernet connector. Ethernet is a local area network with a bus structure for data communication with a data transfer rate of 10 or 100 megabit per second (Mbps).

4 MPI/DP Multipoint Interface

The MPI/DP interface is isolated from line potential. You can use it to connect the SIMATIC Field PG P4 to an S7 automation system or to a PROFIBUS network. *Refer to Chapter 3.12 of the electronic manual.*

5 VGA

You can connect an appropriate external monitor to this connector.

Caution

Make sure the monitor can handle the resolution and refresh rate settings. Otherwise, it can result in damage.

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6 USB

Second USB port 2.0.

7 DC·In 17.5 V

Socket for the DC output plug of the AC adapter that is included in the scope of delivery.

View of the right side
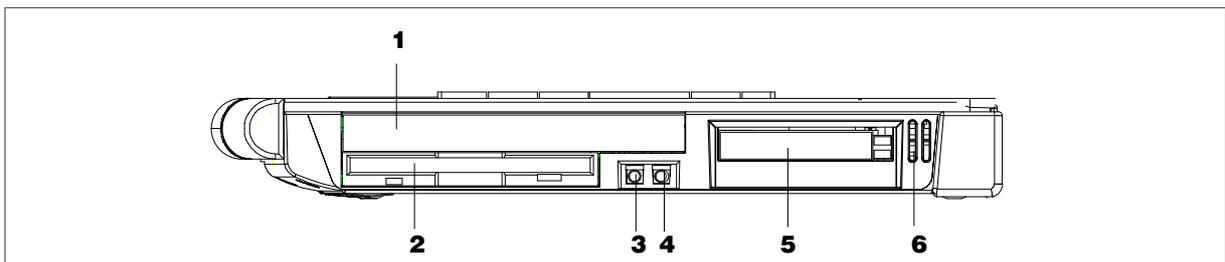
1 Optical drive

Depending on the device configuration, it can come with a DVD-ROM/CD-RW or a DVD+R/+RW drive. For example, you can read the electronic manual of the supplied "Backup PG" DVD with this drive.

2 Floppy disk drive

You can use 3.5 disks (with 1.44 Mbytes or 720 Kbytes of memory).

3 Headphones

You can connect an external stereo headphone or another audio output device to this headphone jack. The internal speaker is automatically disabled when a headphone is connected.

4 Microphone

You can connect an external microphone or another audio output device to this microphone jack.

5 PC-Card slots

The PC-Card slots can be used for Cardbus (32 Bit) and PCMCIA (16 bit) cards. You can insert card-size communication modules for MODEM, FAX-MODEM, ISDN, Token Ring, ETHERNET, memory expansions and SCSI interfaces. CardBus Cards are not supported by Windows NT. *Refer to Chapter 3.10 of the electronic manual.*

6 Air venting slots

Here is the ventiduct.

⚠	**Caution**
	The ventiducts for incoming and outgoing air must not be obstructed. Otherwise, there is a risk of overheating.

View of the left side
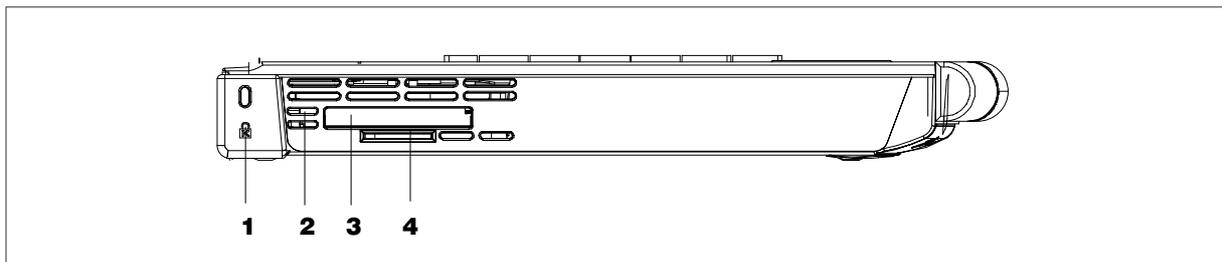
1 Opening for the Kensington lock 🔒

A security cable with a lock is connected to this opening. You can use it to protect your PG against theft by locking the cable to the writing desk or any heavy appliance.

2 Air venting slots

Here is the ventiduct.

⚠	**Caution**
	The ventiducts for incoming and outgoing air must not be obstructed. Otherwise, there is a risk of overheating.

3 SIMATIC Memory Card interface

This interface can be used to read, program or delete SIMATIC Memory Cards for SIMATIC S5 and SIMATIC S7. The supplied S5 adapter can also be used to program or read out SIMATIC S5 EPROM modules.

4 SIMATIC Micro Memory Card interface

This interface can be used to read, program or delete Micro Memory Cards.

Bottom view

1   Rechargeable battery

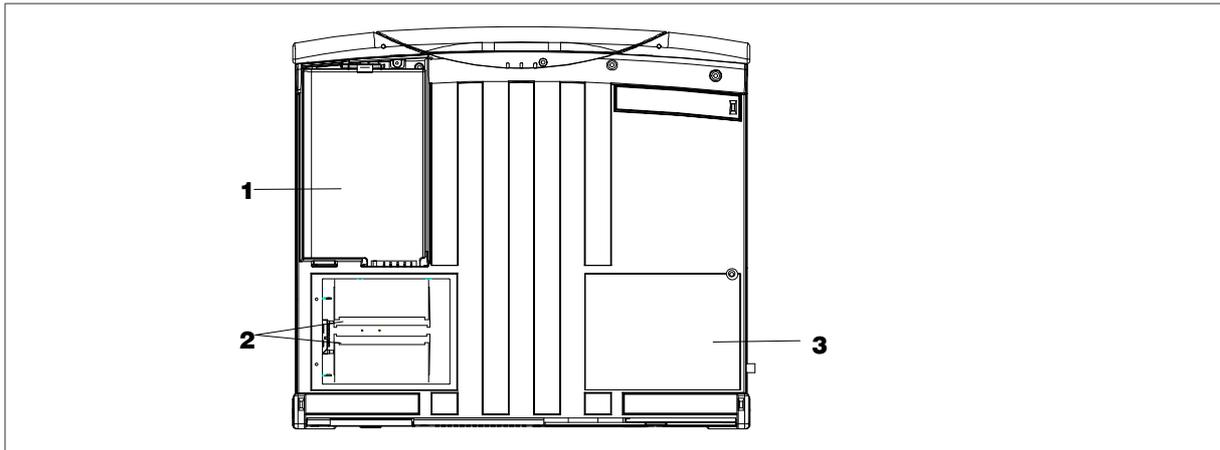The supplied rechargeable battery is installed behind a cover. The rechargeable battery (Lithium ion) provides mobility of the device, independent of an external power supply. The rechargeable battery also protects against data in case of power failure. Use the recharchable battery supplied with the device only. *Refer to Chapter 3.3 of the electronic manual.*

2   Memory expansion

You can install memory modules in these slots to increase main memory. Maximum memory expansion: 2 x 512 Mbyte. The memory modules can be accessed by removing the lid from the bottom of the device. *Refer to Chapter 4.1 of the electronic manual.*

3   Rating plate and Certificate of Authenticity

The rating plate and "Certificate of Authenticity" with the Microsoft Windows "Product Key". You need this to install new software.

☞   **Connection to the Power Supply Unit**

The SIMATIC Field PG P4 can be operated with the supplied external AC adapter on 120 V/230 V power supply networks or with the rechargeable battery. The external power supply automatically selects the voltage. You should install the supplied battery pack before you connect the device to the power supply:

1. Flip the Field PG P4 over, with closed display unit, and lay it down on a flat mat.
2. Unlock and open the battery pack cover on the bottom of the device.
3. Insert the battery pack.
4. Close the cover and turn the device over again.
5. Plug the supplied patch cord into the external power supply and plug the low-voltage plug into the unit's connector.
6. Connect the external power supply to a socket outlet with grounded protective conductor.
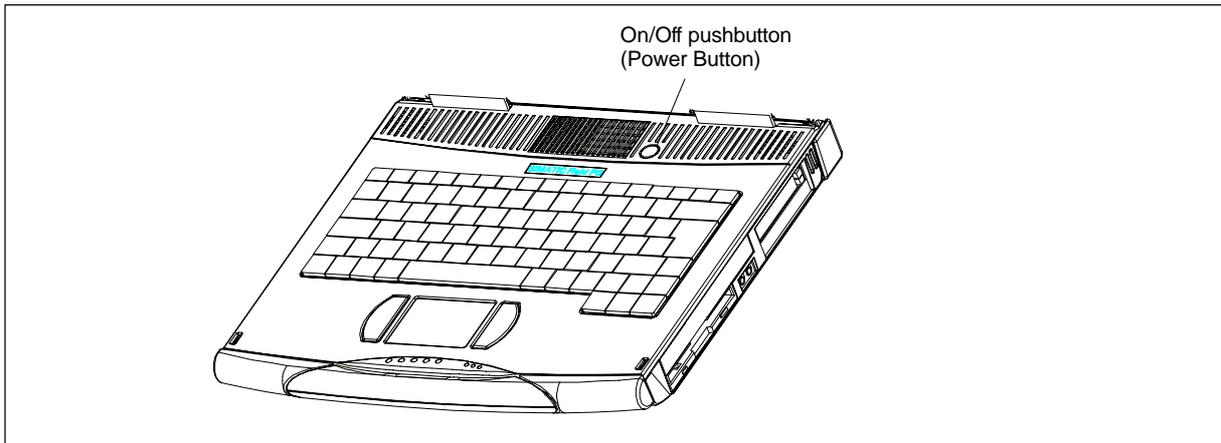
> ⚠ **Warning**
>
> For reasons of safety you must use the patch cord and power supply that is included in the delivery. Operation of the unit is only permitted on grounded 120V/230V power supply networks.

☞ Powering Up the SIMATIC Field PG P4

• Hold down the On/Off pushbutton (Power Button) for approx. 1 second to power up the unit.

On/Off pushbutton
(Power Button)

The operating system and system software supplied with the SIMATIC Field PG P4 are preinstalled on the hard disk. Time consuming installation of the operating system and SIMATIC software programs is not required. Just unpack and power up your unit and you can immediately start your programming tasks without having to take extensive setup actions.

When powering up the device you have to distinguish between the following:

• **Initial start** to set up the SIMATIC Field PG P4's software and a
• **Complete restart** after initial start and software activation.

☞ Initial Start of the SIMATIC Field PG P4

When powering up the SIMATIC Field PG P4 for the **first** time the operating system is set up automatically (depending on the version delivered: Windows NT, Windows 2000 Professional or Windows XP Professional). Please proceed as follows:

1. Switch on the SIMATIC Field PG P4.

2. The PC executes a self-test. During self-test the following message appears on the screen:
   ```
   Press <F2> to enter SETUP or <ESC> to show Bootmenu
   ```

Wait until the message disappears and follow the instructions displayed on the screen.

3. If necessary, enter your product key. The product key can be found on the device or on the Windows manual in the line "Product Key" of the "Certificate of Authenticity".

Caution

Do not switch off the PG during initial startup. Otherwise, full initialization will fail.
Do **not** change the BIOS default values.

Startup under Microsoft Windows

The operating system is set up once you have entered the requisite information. The **Welcome to Windows** screen helps you to get familiar with the Desktop user interface.

Now, the user interface is displayed following system startup every time you power up or reset the P.

Authorization / License Key

To use the STEP 5 or STEP 7 programming software, you require a product-specific authorization or a License Key. Software protected thus may only be used with the corresponding activation. The authorizations and license keys for the SIMATIC software can be found on the License Key Disk supplied with your PG.

To perform the software activation:
- Insert the License Key Disk in drive A:
- Click on the Windows **Start** button and
- select the menu command **Simatic > License Management > Automation License Manager** to open the Automation License Manager. It will guide you through the installation routine of the authorizations or License Keys onto your hard disk.

Notice

The License Key Disk supplied with the PG contains only authorizations or
License Keys for the SIMATIC software you ordered only. The SIMATIC software you receive will correspond to your order form.
The License Key Disk of the supplied version "Upgrade Installation" contains only the software for upgrading already existing authorizations or License Key.
Software without authorizations or a License Key in the scope of supply cannot be used when installed on the PG.

Keep the License Key Disk in a safe place so that you can save the authorizations or License Keys to diskette.

Additional software

You can now install the the supplied operating software for the DVD-ROM/CD-RW or the DVD+R/+RW drive. Place the CD in the drive and follow the instructions on the screen.

☞   Complete restart of the SIMATIC Field PG P4

Once the SIMATIC Field PG P4s operating system is set up, the user interface of the operating system is displayed following system startup every time you switch on or reset the PC.

Starting the SIMATIC software programs

STEP 5 (does not exist on all delivered versions)
- Click **Start** on the Windows task bar and select the desired program choosing **Simatic > STEP 5**.

  Please note that you have to install the authorization disk before working with STEP 5

STEP 7
- Click on the icon **SIMATIC Manager** on the Windows desktop or
- Click **Start** on the Windows task bar and select the desired program choosing **Simatic > STEP 7**.

> **Note**
>
> The transfer of a STEP 7-configuration from one PG to another is supported by the archive/retrieve options in STEP 7.
> Open the SIMATIC Manager. For the transfer select the menu command **File > Archive** or **File > Retrieve**.
> The procedure is explained in detail in the Online Help of STEP 7, in the chapter "Steps for File Archiving/Retrieval".

STEP 7-Micro/WIN 32

- Click on the icon **STEP7-MicroWIN** on the Windows desktop or
- Click **Start** on the Windows task bar and select the desired program choosing **Simatic > STEP 7-MicroWIN 32**.

☞ Shut down the SIMATIC Field PG P4

Either close the display lid, press the On-/Off-pushbutton (Power Button) or select the respective Windows Start menu command to switch the Field PG P4 from normal mode to one of the following modes:

- Standby (save to RAM),
- Hibernate (save to Disk),
- Off (Windows is shut down).

If the unit is shut down under Windows OS it is switched off automatically. If not operated under Windows you can switch the unit off via On-/Off-pushbutton.

> **Notice**
>
> The Windows NT versions do not support the standby and hibernate operating modes. After shut down the Field PG P4 always has to be switched off via the Power Button.

Hold down the On-/Off pushbutton for more than 7 seconds to trigger the "Override" function. The device is switched off.

For details on operate states refer to Chapter 2.5 in the electronic manual. We strongly recommend to read this chapter.

> **Note**
>
> Via **Setup > Control Panel > Power Management** under Windows 2000 and Windows XP you can parameterize the reaction of the On-/Off-pushbutton and of the display lid.
>
> To isolate the unit totally from the power supply network, you must unplug the patch cord and remove the rechargeable battery. *Refer to Chapter 3.2 in the electronic manual.*

> **Note**
>
> The drivers for the PROFIBUS DP / MPI SIMATIC interfaces and the programming interfaces for Memory Cards do not support the ACPI functions 'standby mode' and 'hibernate state'. The energy options of your device are preconfigured accordingly.

☞ Reinstallation of the Software

In case of software errors reinstall your software using the Recovery CD, the Backup PG DVD and the Restore CD.

Recovery CD: contains the tools for installing the hard disk and the operating system.

Backup PG DVD: contains the documentation, the SIMATIC Software and the hardware drivers.

Restore CD: contains an hard disk Image file with the original delivery software (Operating system with installed hardware drivers).

To restore the delivery state, proceed as follows:

- Insert the **Restore CD** in the drive, restart the device and press the **ESC button** when the BIOS message "Press <F2> to enter Setup" is output. After initialization, a "Boot Menu" is displayed.

- Press Enter to confirm your entries.

- Select the **CD-ROM Drive** using the cursor.

- Now follow the instructions on the screen.

Caution

All the existing **data**, **programs**, **user settings** and **authorizations** or **License Keys** on the drives **will be deleted** in the process and will thus be lost.

You will find the description of the functions in the README.TXT file on the Restore CD.

☞ Error Diagnosis

The information in the following section offers support for you to diagnose and partially remedy common errors by yourself.

Error/Cause	Remedy
Power-ON LED is not lit	
• PG is switched off • Power supply connection error • Rechargeable battery exhausted or not installed	• Push the Power Button • Check the connection to the power supply, mains cable, mains plug • Recharge/install the battery pack
External monitor stays dark	
• LCD enabled is entered in SETUP	• CRT enabled or SIMULTAN entered in SETUP
The message: "Invalid configuration information... Press the F1 key for continue, F2 to run Setup utility" appears on the display/monitor	
• Incorrect configuration data	• Press the "F2" key, check the configuration data in the Setup program, enter default values if necessary, check error messages in the first Setup mask
The message: "No boot device available" appears on the display/monitor	
• No bootable disk in the drive • Wrong hard disk type entered in Setup	• Use the "Fixed Disk Function" in the Setup program

The message: "Keyboard stuck key failure" appears on the display/monitor	
• A blocked key was found during the system self-test of the keyboard	• Check keyboard • Restart system
Every time a key is pressed, a beep sounds without characters being displayed	
• Keyboard buffer overflow	• <CTRL > <PAUSE>
< \ > Key does not exist	
• Incorrect keyboard driver being used	• Load correct keyboard driver <ALT> <9>< 2>

☞   Further Support and Sales Information

If you have further questions on how to use the SIMATIC Field PG P4, please contact your Siemens representative or the SIMATIC Hotline:

- You can obtain general up-to-date information in the **Internet** under
  `http://www.siemens.com/simatic-pg`

- You can find your local partner for Automation & Drives in our Partner Database in the **Internet** under the URL
  `http://www.siemens.com/automation/partner`

Repair Centers

Country	City	Code	Phone	Fax
Argentina	Buenos Aires	+54	11 4738 7476	11 4738 7351
Australia	Melbourne	+61	3 9721 7809	3 9721 7565
Austria	Vienna	+43	0 51707 23235	0 51707 53730
Belgium	Brussels	+32	2 536 7592	2 536 6851
Brazil	Sao Paulo	+55	11 833 4455	11 833 4848
China	Shanghai	+86	21 3220 0899 331	21 62135538
Czech Republic	Mlada Boleslav	+420	326 713 852	326 713 954
Denmark	Copenhagen	+45	4477 5151	4477 5143
Finland	Helsinki	+358	10 511 3303	10 511 3661
France	Paris	+33	1 49 22 32 08	1 49 22 31 63
Germany	Augsburg	+49	821 2595 248	821 2595 252
Germany	Berlin	+49	30 386 33212	30 386 34947
Germany	Bielefeld	+49	521 291 479	521 291 538
Germany	Bremen	+49	421 364 2111	
Germany	Chemnitz	+49	371 475 3870	371 475 3877
Germany	Erlangen	+49	9131 7 34219	9131 7 35263
Germany	Essen	+49	201 816 1382	201 816 1522
Germany	Hamburg	+49	40 2889 2938	40 2889 4362
Germany	Hamburg	+49	40 2889 2061	40 2889 3618
Germany	Hannover	+49	511 877 2241	511 877 1320
Germany	Karlsruhe	+49	721 595 4183	721 595 8709
Germany	Cologn	+49	221 576 2997	221 576 3112

Country	City	Code	Phone	Fax
Germany	Leipzig	+49	341 210 2049	341 210 2480
Germany	Mannheim	+49	621 456 1334	621 456 3334
Germany	Munich	+49	89 9221 6213	89 9221 4080
Germany	Nuremberg	+49	911 654 6117	911 654 6125
Germany	Saarbrücken	+49	681 386 2145	681 386 1066
Germany	Stuttgart	+49	711 137 6001	711 137 6203
Great Britain	Manchester	+44	161 446 5760	161 446 5352
India	Bombay Mumbai	+91	22 7600159	22 7600152
Italy	Milan	+39	02 95426402	02 95426433
Japan	Tokyo	+81	3 3570 3050	3 3570 3066
Mexico	Mexico D.F.	+52	33 3818 2188	33 3818 2189
Netherlands	The Hague	+31	70 333 8048	70 333 3878
Philippines	Pamplona, Las Pinas City	+63	2 873 1556	2 872 8237
Poland	Warsaw	+48	22 870 91 66	22 870 91 49
Portugal	Lisbon	+351	21 416 7375	21 416 7333
Russia	Moscow	+7	095 737 24 60	095 737 24 70
Singapore	Singapore	+65	740 7167	740 7196
South Africa	Johannesburg	+27	15 291 2187	15 291 2176
South Korea	Seoul	+82	2 5279 358	2 5279 369
Spain	Madrid	+34	91 514 8400	91 304 9217
Sweden	Stockholm	+46	8 728 1462	8 728 1703
Switzerland	Zurich	+41	585 581 305	585 545 865
Taiwan	Taipei	+886	7 8151 361, ext. 150	7 8151 360
Thailand	Bangkok	+66	2 715 4609	2 715 4674
USA	Johnson City, TN	+1	423 461 2497	423 461 2094