

Is there ...

... any technical problem or other question you need clarified?

Please contact:

- one of our service partners

 your sales partner
 your sales outlet
 The addresses of your service partners are contained in the guarantee booklet or in the service address booklet.

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February 2000 edition

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Introduction

This Operating Manual tells you how to put your PC into operation and how to operate it in daily use. This description applies for all configuration levels. Depending on the configuration level chosen some of the hardware components described may not be available on your PC. Please observe the notes on your operating system.

Your device is a powerful PC which is suitable for both professional and private use.

You can incorporate operable drives (for example DAT drive, streamer) as well as other boards.

Depending on the configuration level chosen, your PC is supplied with Windows 9x, Windows 2000 or Windows NT as the operating system.

Your PC has a number of security features to ensure that no unauthorized persons can access your data. For example, you can activate a screen saver with password protection. The security functions in the *BIOS Setup* also allow you to protect your data by means of passwords.

Further information on this PC is provided:

- in the manual "Safety, Guarantee and Ergonomics"
- in the Operating Manual for the monitor
- in the Technical Manual for the system board
- in the manual "BIOS Setup"
- in the documentation of your operating system
- in the information files (e. g. *.TXT, *.DOC, *.WRI, *.HLP)



Some of the manuals listed can be found on the CD "Drivers & Utilities" provided with your computer. These manuals can be read and printed with the Acrobat Reader contained on the CD.

Notational conventions

The meanings of the symbols and fonts used in this manual are as follows:



indicates information which is important for your health or for preventing physical damage.



indicates important information that is required to use the system properly.

► Texts which follow this symbol describe activities that must be performed in the order shown.

Texts in this typeface are screen outputs.

Texts in italics indicate commands or menu items.

"Quotation marks" indicate names of chapters and terms that are being emphasized.

Important notes

In this chapter you will find information regarding safety which it is essential to take note of when working with your PC. The manufacturer's notes contain helpful information on your PC.

Safety

This device complies with the relevant safety regulations for data processing equipment. If you have any questions, contact your sales outlet or our customer service center.



The safety information is contained in the manual "Safety, Guarantee and Ergonomics". The following outlines some of the most important safety information:

During installation and before operating the device, please observe the instructions on environmental conditions in the chapter entitled "Technical data" as well as the instructions in the chapter "Preparation for use and operation".

Please check whether the device is set to the local power supply (see chapter "Preparation for use and operation").

The On/Off switch does not separate the system unit completely from the line voltage. To disconnect the line voltage completely, remove the power plug from the grounded power outlet.

Replace the lithium battery on the system board in accordance with the instructions in the chapter "System expansions - Replacing lithium battery".

Caution: components on the system board can get very hot.

Manufacturer's notes

Keep this Operating Manual together with your device. If you pass on the device to third parties, you should include this manual.

Energy saving

When the PC is delivered, some energy-saving functions are already set (see the Technical Manual for the system board or the manual "BIOS Setup").

- If you are not using your PC, switch it off
- In the BIOS Setup you may set further energy-saving functions for the PC (see the Technical Manual of the system board or in the manual "BIOS Setup").

Energy saving under Windows NT

If the attached monitor and screen controller support power management in accordance with VESA (DPMS), the screen saver *Powersaver* can be used to switch the monitor into power management mode.

Energy saving under Windows 9x

Using the <code>DeskLock</code> program you can lock the mouse and keyboard so that no input can be made. If the attached monitor supports power management in accordance with VESA (DPMS), it can be switched into power-saving mode at the same time.

In addition the *Screen Saver* tab allows you to set energy-saving functions for your screen. Select the following item in the menu: *Start - Settings - Control Panel - Display - Display Properties - Screen Saver - Energy saving features of monitor*.

With the default setting *Control Panel - Power - Advanced* additional energy saving features of Windows 9x are available.

Energy saving under Windows 2000

The Screen Saver tab allows you to set energy-saving functions for your screen. Select the following item in the menu: Start - Settings - Control Panel - Display - Display Properties - Screen Saver - Energy saving features of monitor.

With the default setting *Control Panel - Power Options - Advanced* additional power management features of Windows 2000 are available.

Disposal and recycling

This device has been manufactured to the greatest possible degree from materials which can be recycled or disposed of in a manner that is not environmentally damaging. The device is taken back after use, to be recycled, provided that it is returned in a condition that is the result of normal use. Any components not reclaimed will be disposed of in an environmentally acceptable manner.



For devices marked with this symbol Fujitsu Siemens Computers GmbH offers a guarantee for **36 months** with a **Bring-in-Service**. The guarantee starts on the day of delivery (sale date) by Fujitsu Siemens Computers GmbH or a Fujitsu Siemens partner.

We herewith declare that it will be possible to repair any device marked with the eco-label for at least 5 years after production of that device has discontinued

Information on power management and energy saving mode can be found in chapter "Technical data".

Do not throw lithium batteries or accumulators into the trashcan. They must be disposed of in accordance with local regulations concerning special waste.

If you have any questions on disposal, please contact your local office, our customer service center, or:

Fujitsu Siemens Computers GmbH Recyclingcenter D-33106 Paderborn

Tel.: ..49 5251 818,010 Fax: ..49 5251 818,015

CE certificate



The shipped version of this device complies with the requirements of the EEC directives 89/336/EEC "Electromagnetic compatibility" and 73/23/EEC "Low voltage directive".

FCC Class B Compliance Statement

If there is an FCC statement on the device, then:

The following statement applies to the products covered in this manual, unless otherwise specified herein. The statement for other products will appear in the accompanying documentation.

NOTE:

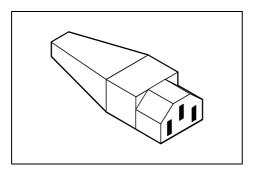
This equipment has been tested and found to comply with the limits for a "Class B" digital device, pursuant to Part 15 of the FCC rules and meets all requirements of the Canadian Interference-Causing Equipment Regulations. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in strict accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Fujitsu Siemens Computers B V is not responsible for any radio or television interference caused by unauthorized modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Fujitsu Siemens Computers B V The correction of interference caused by such unauthorized modification, substitution or attachment will be the responsibility of the user.

The use of shielded I/O cables is required when connecting this equipment to any and all optional peripheral or host devices. Failure to do so may violate FCC rules.

Power cord selection



The power cord for this unit has been packed separately and has been selected for use in the appropriate country. It must be used to prevent electric shock. Use the following guidelines if it is necessary to replace the original cord set.

The female receptacle of the cord set must meet CEE-22 requirements (see Figure).

For the United States and Canada

Use a UL listed and CSA labeled cord set consisting of a three-conductor cord with a maximum length of 15 feet.

For units that stand on a desk or table, type SVT or SJT cord sets shall be used.

For units that stand on floor, only SJT type cord sets shall be used.

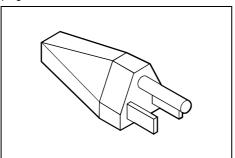
The cord set must be selected according to the current rating for your unit. Please consult Table A for the selection criteria for power cords used in the United States and Canada.

Table A:

Cord Type	Size of Conductors in Cord	Maximum Current Rating of Unit
SJT	18 AWG	10 Amps
	16 AWG	12 Amps
	14 AWG	12 Amps
SVT	18 AWG	10 Amps
	17 AWG	12 Amps

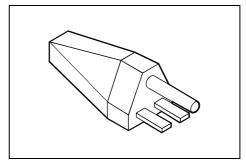
For units set at 115 V:

use a parallel blade, grounding type attachment plug rated 15 A, 125 V. $\,$



For units set at 230 V (domestic use):

use a tandem blade, grounding type attachment plug rated 15 A, 250 V.



For units set at 230 V (outside of the United States and Canada):

use a cord set consisting of a minimum AWG according to Table A and a grounding type attachment plug rated 15 A, 250 V. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed and should be marked HAR.

For the United Kingdom

Should the plug on the flexible cord not be of the type for your socket outlets, do not use an adapter but remove the plug from the cord and discard. Carefully prepare the end of the supply cord and fit a suitable plug.

WARNING

THIS APPLIANCE MUST BE EARTHED

IMPORTANT

The wires in this mains lead are colored in accordance with the following code:

Green and Yellow: Earth
Blue: Neutral
Brown: Live

As the colors of the wires in the mains lead of this appliance may not correspond with the colored markings identifying the terminals in your plug, proceed as follows:

- The wire which is colored Green and Yellow must be connected to the terminal in the plug
 which is marked with the letter E or by the earth symbol or colored Green or Green and Yellow.
- The wire which is colored Blue must be connected to the terminal which is marked with the letter N or colored Black.
- The wire which is colored Brown must be connected to the terminal which is marked with the letter L or colored Red.

Transporting the PC



Transport all parts separately, and in their original packaging or in a packaging which protects them from knocks and jolts, to the new site.

Never drop the monitor (risk of implosion)!

Cleaning the PC



Turn off all power and equipment switches and pull the power plug out of the grounded power outlets.

Do not clean any interior parts yourself, leave this job to a service technician.

For cleaning, do not use any abrasive powder or cleaning agents that dissolve plastics to avoid damaging the casing.

Ensure that no liquid enters the system (danger of short circuit).

Ensure that the ventilation areas of the system unit and the monitor are free to avoid overheating.

Cleaning the system unit and the monitor

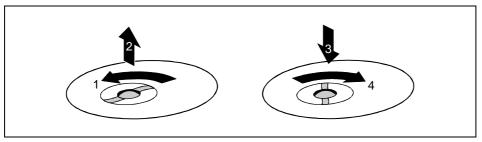
Wipe the system unit and monitor casing with a dry cloth. If particularly dirty, use a cloth which has been moistened in mild domestic detergent and then carefully wrung out.

Important notes Cleaning the PC

Cleaning the keyboard and the mouse

Use disinfectant wipes to clean the keyboard and the mouse.

Remove the retaining ring on the underside of the mouse and then clean the mouse mechanism and the rotating ball.



- Using both thumbs exert downward pressure on the notches of the retaining ring and turn the ring anticlockwise (1).
- ▶ Remove the retaining ring and the rotating ball from the mouse (2).
- ▶ Clean the three small wheels in the mouse and the ball with a lint-free cloth.
- ▶ Replace the ball and the retaining ring (3).
- ► Using both thumbs exert downward pressure on the notches of the retaining ring (4) and turn the ring clockwise. You must feel the ring engage.

Preparation for use and operation



Please pay attention to the safety information provided in the chapter "Important notes" and in the manual "Safety, Guarantee and Ergonomics".

Unpacking and checking the delivery

It is recommended not to throw away the original packaging material! It may be required for reshipment at some later date.

- Unpack all the individual parts.
- ▶ Check the delivery for damage incurred during transportation.
- Check whether the delivery agrees with the details in the delivery note.

Should you discover that the delivery does not correspond to the delivery note, notify your local sales outlet immediately.



If you have received drives or boards with your PC, please do not install them until after first-time setup. How to install drives and boards is described in the chapter "System expansions".

Setting up the PC



When installing your PC, give consideration to the recommendations and safety notes in the manual "Safety, Guarantee and Ergonomics".

Set up the PC only in its correct orientation. The points to observe are illustrated on the following pages.

Do not expose the PC to extreme environmental conditions (see chapter "Technical data"). Protect it from dust, humidity and heat.

Provide at least 200 mm of clearance on the left, in front of and behind the ventilator area of the system unit to ensure adequate ventilation. Do not cover the ventilation areas of the monitor and the system unit.

Do not place several system units one above the other.

We recommend that you place your equipment on a surface with good anti-slip qualities. In view of the multitude of different finishes and varnishes used on furniture, it is possible that the rubber feet of the devices will mark the surface they stand on.

Connecting devices



The power plug must be disconnected!

Do not connect or disconnect cables during a thunderstorm (electric shock).

Always take hold of the actual plug body. Do not pull the cable (you could damage the plug or socket)!



Read the documentation on the external device before connecting it.

Connect and disconnect the cables in the order described below.

Connecting cables

- Turn off all power and equipment switches.
- Unplug all power plugs from the grounded power outlets.
- Connect all cables at the system unit and peripherals. You must observe the information provided in the chapter "Important notes".
- Plug all data communication cables into the utility sockets.
- Plug all power cables into the grounded power outlets.

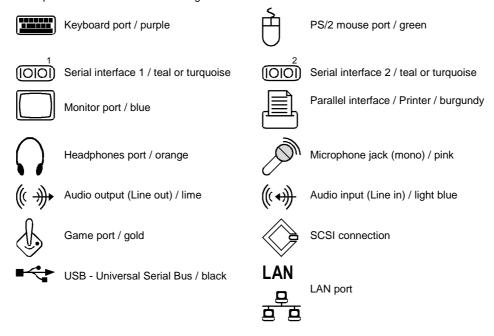
Disconnecting cables

- Turn off all power and equipment switches.
- Unplug all power plugs from the grounded power outlets.
- Unplug all data communication cables from the utility sockets.
- Disconnect all cables from the system unit and peripherals.

Ports for external devices

The ports for external devices are on the rear of the system unit. The ports available on your device depend on the configuration level you have selected. The standard ports are marked with symbols like those below or similar symbols. Exact details of the position of the ports are supplied in the Technical Manuals for the boards.

Example for the icons and color coding of connections

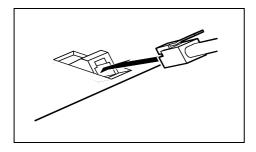


Some of the devices that you connect require special drivers (see the documentation for the connected device and for the operating system).

Connecting the keyboard



Use only the keyboard cable supplied.



- Plug the round plug of the keyboard cable into the keyboard port on the system unit.
- Plug the other connector of the keyboard cable into the socket on the underside of the keyboard.

Connecting the mouse

Plug the connector of the mouse cable into the mouse port.



If you do not attach a mouse at the PS/2 mouse port, you can disable the mouse controller in the *BIOS Setup* in order to free the IRQ12 for a different application.

Connecting devices with serial or parallel port

- ► Connect the data cable to the external device.
- ► Connect the data cable of the external device to the appropriate port on the system unit.



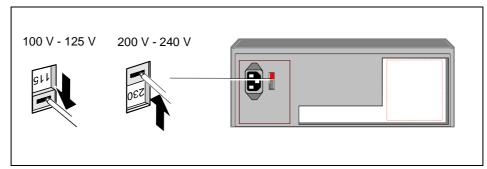
Most devices that you connect to the serial or parallel port require special drivers. Your operating system already includes many drivers . But if the driver you need is not on the hard disk please install it from the floppy disk supplied with the device or with the application program.

If you need to change the default settings of the serial or parallel port (e. g. address, interrupt), you can do so in the *BIOS Setup*. The default setting for the interfaces are described in the Technical Manual for the system board or in the "BIOS Setup" manual.

Connecting the monitor to the line voltage

- ▶ Prepare the monitor as described in the Operating Manual for the monitor.
- ▶ Plug the data cable of the monitor into the monitor port of the system unit.
- ▶ Plug the power cable of the monitor into the grounded power outlet.

Connecting the PC to the line voltage

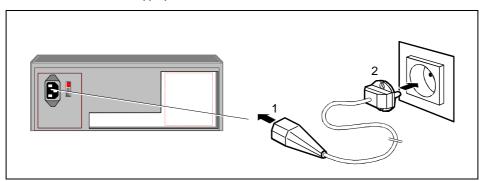


Check the rated voltage.



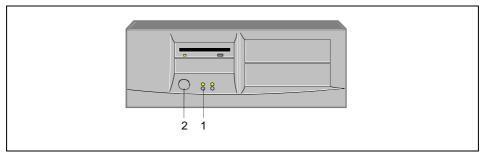
The value shown or the value marked with an arrow must agree with the local line voltage: 115 = 100 V to 125 V 230 = 200 V to 240 V

▶ Push the switch in the appropriate direction.



Plug the system unit's power cable into the system unit (1) and then into the grounded power outlet (2).

Switching the PC on and off



1 = Power-on indicator

2 = ON/OFF switch

System unit is ready-to-operate

The power-on indicator (1) glows orange or flashes green/orange. In this mode, you can switch the system unit on with the ON/OFF switch (2). The exact description of the power-on indicator (1) is contained in the section "Indicators on the system unit".

System unit is on

The Power-on indicator (1) lights green. The system unit can be switched ready-to-operate with the ON/OFF switch (2).

Switching on the PC for the first time

If the PC is integrated into a network, the user and server details as well as the network protocol are required. Contact your network administrator if you have any questions about these details.

When you switch on your PC for the first time the supplied software is set up and configured.

If you require the license number of Windows, you will find it either on a sticker on your PC or printed on the front cover of the Windows manual provided.

- Switch your monitor on.
- ► Switch the system unit on with the ON/OFF switch.

The power-on indicator lights green and the PC is started.



While the PC boots, the screen remains dark for up to a minute depending on the system configuration. To see the start-up messages, you can switch off this standard setting in the *BIOS Setup* in the *Quiet Boot* entry.

Adjust the brightness if necessary (see the Operating Manual for the monitor).

Some variants require you to start the software installation by pressing the function key F1.



Once the installation has been started the PC must not be switched off.

You should only reboot the PC during installation if you are requested to do so. Otherwise the installation will be not be performed correctly. If a fault occurs in the installation the contents of the hard disk must be completely restored.

During installation follow the instructions on the screen.

Consult the operating system manual if there is anything unclear about the requested input data.



You will find further information about the system, drivers, utilities, updates, and manuals etc. on the "Drivers & Utilities" CD supplied.

Switching on the PC

- ▶ Switch the monitor on (see the Operating Manual for the monitor).
- ▶ Switch the system unit on with the ON/OFF switch.

The power-on indicator lights green and the PC is started.



While the PC boots, the screen remains dark for up to a minute depending on the system configuration. To see the start-up messages, you can switch off this standard setting in the *BIOS Setup* in the *Quiet Boot* entry.

If you have assigned the system password, you must enter this when requested to do so, in order to start the operating system.

Switching off the PC

- Shut down the operating system properly. Windows in the Start menu via the Quit function.
- If the operating system does not automatically switch the system unit off, turn the system unit ready-to-operate when requested to do so by pressing the ON/OFF switch.

If the system unit is ready-to-operate, the power-on indicator lights up orange. The system unit uses a minimum of electricity.



The On/Off switch does not separate the system unit from the line voltage. To disconnect the line voltage completely, remove the power plug from the socket.

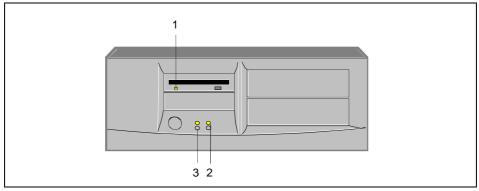
▶ Switch the monitor off (see the Operating Manual for the monitor).

Placing a PC (with soft power off function) in a ready-to-operate state by means of software

Prerequisite: Your system must support switching off with software and this functionality must be enabled in *BIOS Setup* (*Soft Power OFF - Enabled*). In addition, the soft off software must be installed on Windows NT systems.

You can switch your PC ready-to-operate under Windows 9x and Windows NT via the *Shutdown the Computer* menu or by using the *DeskOff* program.

Indicators on the system unit



- 1 = Floppy disk indicator
- 2 = Power-on indicator

3 = Hard disk indicator

1 - Floppy disk indicator

The indicator lights up when the floppy disk drive of the system unit is accessed. You may only remove the floppy disk when the indicator is dark.

2 - Power-on indicator

- green:
 - The system unit is on.
- orange:
 - The system unit is ready-to-operate.
 - In this mode the PC consumes very little power and can be switched on at the ON/OFF switch.
- flashes green/orange:
 - The indicator only flashes on systems which support the ACPI function (Advanced Configuration and Power Interface).

The system unit is in the energy-saving mode (standby). After being switched on with the ON/OFF switch, the PC returns to the state it was in before the energy-saving mode. In the energy-saving mode the system unit may not be disconnected from the mains supply, as this may otherwise result in data loss.

3 - Hard disk indicator

The indicator lights up when the hard disk drive of the system unit is accessed.

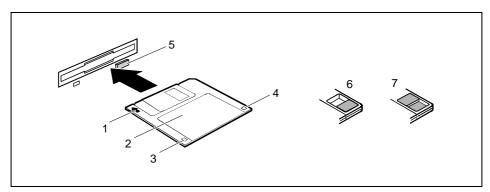
CD-ROM drive

Normally, a CD-ROM drive is installed in the 5 1/4" bay. The CD-ROM indicator lights up when the CD-ROM drive of the system unit is accessed. You may only remove the CD when the indicator is dark.

Working with floppy disks



Follow the instructions supplied by the vendor of the floppy disks. Never clean the floppy disk drives with cleaning disks. Even just one attempt would destroy the read/write head in the disk drive within 20 seconds.

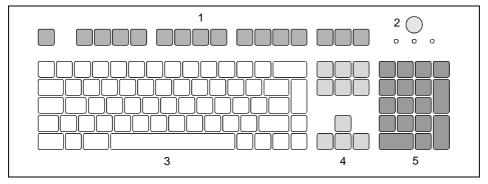


- 1 = Insertion direction
- 2 = Label area
- 3 = Write protection tab for a 720 Kbyte or a 1.44 Mbyte floppy disk
- 4 = Identification of a 1.44 Mbyte floppy disk or write protect tab on a 120 Mbyte floppy disk
- 5 = Eject button for inserted floppy disks
- 6 = Floppy disk is write-protected
- 7 = Floppy disk is not write-protected
- ► To insert a floppy disk, push it into the drive in the insertion direction (1) until it engages. The label should be facing upward.
- ► To remove the floppy disk, press the eject button (5).

The write-protect slider enables you to protect the data on the floppy disk from inadvertent overwriting or deletion.

- ► To protect the data on the floppy disk from being overwritten, push the write-protect slider to position (6). The hole is now visible.
- ► To remove write protection, push the slider to position (7). The hole is now covered.

Keyboard



- 1 = Function keys
- 2 = ON/OFF switch (optional)
- 3 = Alphanumeric keypad
- 4 = Cursor control keys
- 5 = Numeric keypad (calculator keypad)

Important keys and key combinations

The following description of keys and key combinations refers to MS Windows. Details of other keys and key combinations can be found in the documentation of the relevant application program.



ON/OFF switch

Depending on the setting in the *BIOS setup*, the system can be switched on, off or on and off with this switch. If the operating system Windows 98 with ACPI or the operating system Windows 2000 has been installed, you can set additional functions of this switch in the Control Panel.



Enter key

confirms or starts the marked selection. The enter key is also referred to as the "Return" key or "Carriage Return".



Start kov

invokes the START menu of Windows.



Menu key

invokes the menu for the marked item.



Shift kev

enables upper-case letters and the upper key symbols to be displayed.



Alt Gr (e. g. German keyboard)

produces a character shown on the right-hand side of a key (e. g. the character "\" on the key [3]).



Euro key

enables the output of the euro symbol.



Num Lock key

by pressing the Num Lock key you switch between the upper- and lower-case levels of the calculator keypad.

At upper-case level (Num Lock indicator lit) the digit and comma keys are active. At lower-case level (Num Lock indicator not lit) the cursor control functions are active in the calculator keypad.



Ctrl key

starts key combination actions.

Settings in BIOS Setup

The *BIOS Setup* menu allows you to set your hardware configuration and system functions. When the PC is delivered, the default entries are valid (see Technical Manual for the system board or in the manual "BIOS Setup"). You can customize these settings to your requirements in *BIOS Setup*.

The Technical Manual for the system board shows you how to call and operate *BIOS Setup*. The menus and setting options provided by *BIOS Setup* are also described in detail.

Property and data protection

Your PC enables you to protect your system and personal data in a number of ways against unauthorized access. By combining these options, you can achieve optimum protection for your system.

Security functions under Windows

Under MS-Windows you can activate a screen saver and protect it with a password. Only those users who know the password can deactivate the screen saver and access any open files. Detailed information on screen savers under MS Windows is provided by the associated help function.

Security functions under Windows NT

You can use the SSLAUNCH program to start the screen saver POWERSAVER immediately. These programs are located on the "Drivers & Utilities" CD.

Information on *POWERSAVER* and *SSLAUNCH* can be found in the *POWERSAV.HLP* and *SSLAUNCH.EXE* files.

Security functions under Windows 9x

The <code>DeskLock</code> program enables you to activate the screen saver using a short-cut. Detailed information on this program is provided by the associated help function.

You can lock the keyboard and mouse with a password-protected screen saver.

BIOS Setup security functions

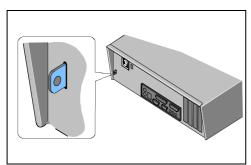
The Security menu in $BIOS\ Setup$ offers you various options for protecting your personal data against unauthorized access, e. g.:

- Preventing unauthorized BIOS Setup calls
- Preventing unauthorized system access
- Preventing unauthorized access to the settings of boards with their own BIOS
- Preventing system booting from the diskette drive
- Activating virus warnings
- Preventing unauthorized writing of diskettes
- Protecting BIOS from overwriting

By combining these options, you can achieve optimum protection for your system.

You will find a detailed description of the Security menus and how to assign passwords in the Technical Manual for the system board or in the "BIOS Setup" manual.

Anti-theft protection



With the chain lock and the hole in the tab you can permanently connect your unit to a piece of office furniture to protect if from theft.

To prevent unauthorized persons from opening the system unit, you can lock the casing with a lock

Troubleshooting and tips



Take note of the safety notes in the manual "Safety, Guarantee and Ergonomics" and in the chapter "Preparation for use and operation", when you connect or disconnect cables.

If a fault occurs, try to correct it as described:

- in this chapter
- in the documentation of the connected devices
- in the help systems of the software used.

If you fail to correct the problem, proceed as follows:

- Switch the PC off.
- Make a note of the steps and the circumstances that led to the fault. Also make a note of any error messages displayed and the Ident-No. of your device.
- Contact your sales outlet or our customer service center. Please observe your service agreements.

Installing new software

When installing programs or drivers, important files may be overwritten and modified. To be able to access the original data in the case of any problems following installation, you should backup your hard disk prior to installation.

Power-on indicator remains dark after you have switched on your device

This may have the following causes:

The line voltage supply is faulty

Check that the power cable is plugged properly into the system unit and grounded power outlet.

Internal power supply overloaded

- ▶ Disconnect the power plug of the system unit from the grounded power outlet.
- Wait for a moment
- ▶ Plug the power plug into the grounded power outlet again.

The screen stays blank

If your screen remains blank this may have the following causes:

Monitor is switched off

Switch your monitor on.

The PC starts

While the PC boots, the screen remains dark for up to a minute depending on the system configuration. To see the start-up messages, you can switch off this standard setting in the *BIOS Setup* in the *Quiet Boot* entry.

Power cable or monitor cable not connected

- Switch off the monitor and the system unit.
- Check that the power cable is properly connected to the monitor and system unit or to the grounded power outlet.
- Check that the monitor cable is properly connected to the system unit and monitor (if not permanently attached).
- ▶ Switch on the monitor and the system unit.

Screen has been blanked

Press any key on the keyboard.

or

▶ Deactivate screen blanking (screen saver). Enter the appropriate password.

Brightness control is set to dark

Set the brightness control to bright. For detailed information, please refer to the Operating Manual supplied with your monitor.

Wrong monitor has been set under Windows NT

- ► Restart the PC in standard VGA mode.
- ► Set the desired resolution in the *Control Panel* window using the *Display* program, and adjust the monitor display as described in the Operating Manual.

Wrong monitor has been set under Windows 9x

- Restart the PC.
- ▶ If the message $Starting\ Windows\ 9x$ appears, press function key $\boxed{\texttt{F8}}$.

The Windows 9x start menu appears.

- ► Select the option Safe mode or Safe mode with network support.
- Set the correct values for the attached monitor by selecting Start Settings Control Panel -Display - Settings.

Wrong monitor has been set under Windows 2000

- Restart the PC.
- ▶ If the message *Starting Windows* appears, press function key [F8].

The Windows 2000 Advanced Options Menu appears.

- ▶ Select Safe Mode of Safe Mode with Network.
- Set the correct values for the attached monitor by selecting Start Settings Control Panel -Display - Settings.

The wrong RAM memory modules have been inserted

See the Technical Manual for the system board for information on which memory modules can be used.

No mouse pointer displayed on the screen

- ▶ Shut down the operating system properly.
- Switch the PC off.
- Check that the mouse cable is properly connected to the system unit.
 If you use an adapter or extension lead with the mouse cable, check the connections.
- Make sure that only one mouse is connected.
- ► Switch the PC on.
- ► The mouse controller must be enabled, if you use a PS/2 mouse. Check in the *BIOS Setup* that the mouse controller is enabled.
- Check that the mouse driver is properly installed and is present when the application program is started. Detailed information can be found in the User Guide of the mouse or application program.

The floppy disk cannot be read or written

- Check that the write protection of the floppy disk or the floppy disk drive is activated (refer also
 to the Technical Manual of the system board or in the manual BIOS).
- ► Check the relevant entries for *Diskette A:* or *B:* in the *Main* menu of the *BIOS Setup*.
- ► Check that the floppy disk drive controller is enabled (refer also to the Technical Manual of the system board or in the manual "BIOS Setup").
- Check that the cables of the floppy disk drive are properly connected (refer to chapter "System expansions").

Time and/or date is not correct

Set the time and/or date. You can set the time and date in the BIOS Setup or in the operating system.



If the time and date are repeatedly wrong when you switch on your PC, the battery is flat. Change the lithium battery as described in the Chapter "System expansions".

Keyboard does not react or types incorrect characters

- ▶ Check that the keyboard cable is properly connected to the system unit.
- ► Check whether you have set the correct keyboard driver (country setting).
- ► The program you have started does not allow any further entries. Try to end the program, e. g. with the Task Manager.

Forgot BIOS password

If you have forgotten a BIOS password, contact our customer service center.

Error messages on the screen

Error messages and their descriptions are listed in the Technical Manual of the system board or in the "BIOS Setup" manual and in the documentation of the installed software.

Restoring the hard disk contents

Instructions for this purpose can be found in the documentation (booklet) of the CD "Drivers & Utilities".

Tips

The PC cannot be switched off with the ON/OFF switch

Cause: The PC has not been switched on with the ON/OFF switch.

► Press the ON/OFF switch again.

Cause: System crash

Press the ON/OFF switch for at least four seconds, until the device switches off.

PC switches on briefly and then off again

The power cable has been plugged. For technical reasons, this brief switching on and off is necessary.

Out of system resources

If you have too many applications running at once, you may experience problems due to a lack of system resources. If this happens, you should close applications you do not require or call the applications in a different order.

BIOS settings in power management do not become active

The *Auto insert notification* setting may be active for the CD-ROM drive. This setting causes Windows 9x to inquire about any modifications on the drive at regular intervals. Because of this the timer for the idle time cannot time out.

To activate power management, proceed as follows:

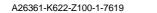
- ▶ In Windows 9x, select Start Settings Control Panel System Device Manager CD-ROM.
- Select the installed CD-ROM drive from the list.
- ▶ Select Settings.
- ▶ Deactivate the *Auto insert notification* box.

CD-ROM drive

Information on the CD-ROM drive can be found in the manual of the CD-ROM drive or on the "Drivers & Utilities," CD.

Other manuals

Other manuals are contained on the "Drivers & Utilities" CD.



System expansions



It may be necessary to update the BIOS when carrying out a system expansion or hardware upgrade. In this instance, please contact our customer service center.

When installing components with a high power loss, make sure that the maximum permissible temperatures of the individual components are not exceeded.

The device must be switched off when installing/removing the system expansions and may not be in the Suspend mode.

This chapter describes all the activities required to modify your PC hardware (e. g. installing boards or drives).

Memory and processor upgrading are described in the Technical Manual for the system board.

Read the supplied documentation before installing new drives and/or boards.

Refer to the Technical Manual for the system board before making any extensions on the system board.

Information on boards

To prevent damage to the system board or the components and conductors on it, please take great care when you insert or remove boards. Take care above all to ensure that extension boards are slotted in straight without damaging components or conductors on the system board, or any other components, for example EMI spring contacts.

Be especially careful with the locking mechanisms (catches, centering pins etc.) when you replace the system board or components on it, for example memory modules or processors.

Never use sharp objects (screwdrivers) for leverage.



Boards with electrostatic sensitive devices (ESD) are identifiable by the label shown.

When you handle boards fitted with ESDs, you must observe the following points under all circumstances:

- You must always discharge yourself (e. g. by touching a grounded object) before working.
- The equipment and tools you use must be free of static charges.
- Pull out the power plug before inserting or pulling out boards containing ESDs.
- Always hold boards with ESDs by their edges.
- Never touch pins or conductors on boards fitted with ESDs.

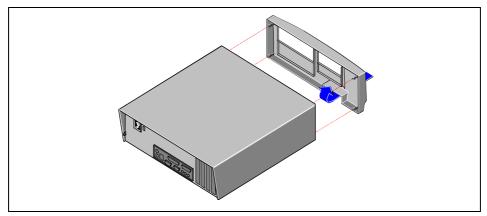
Opening the system unit

➤ Switch the PC off.

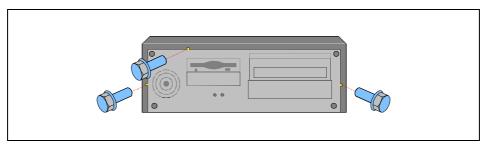


Pull the power plug out of the power outlet so that the system is totally removed from the line voltage!

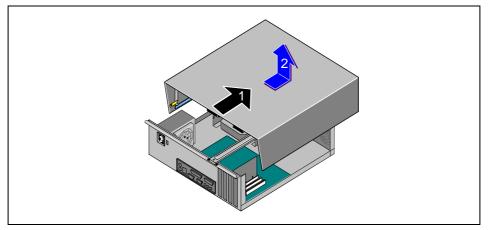
- ► If any cables attached to the system unit are obstructing you, pull out the connectors on the system unit.
- ▶ Place the system unit in a convenient working position. Remove any anti-theft protection devices installed.



Grasp the front panel by the lower corners and remove it carefully.

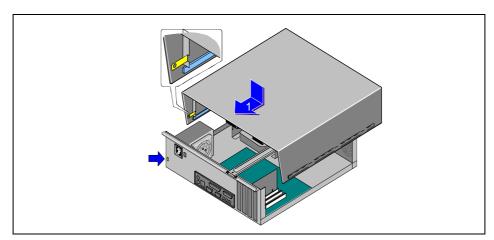


▶ Remove the three screws on the front if present.

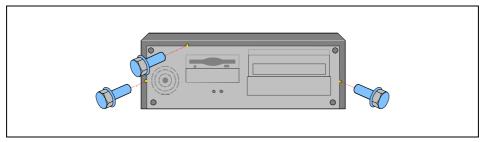


▶ Push the top cover approx. 5 cm in the direction of the arrow (1) and remove it upward (2).

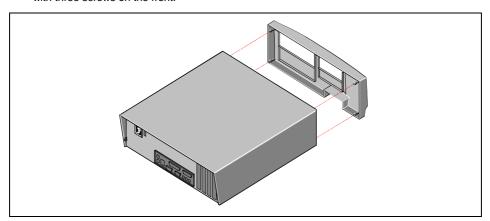
Assembling the system unit



- Place the top cover on the system unit from above so that the guides on the inside of the top cover fit in the rails on the base of casing and the padlock device fits in the gap provided.
- ▶ Push the top cover in the direction of the arrow (1) until it engages.



► If you have removed three screws when opening the system unit, secure the top cover again with three screws on the front.



- Replace the front panel.
- ▶ Return the system unit to its original position.
- ▶ If you have disconnected cables, reconnect them at the rear.
- ► Secure any anti-theft protection devices removed previously.

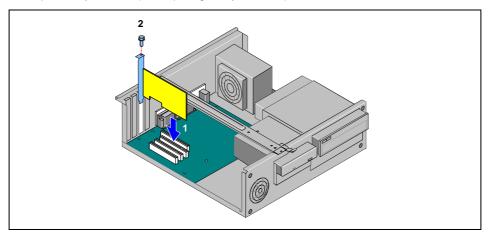
Installing a board

The number, position and arrangement of the board slots on system board can be found in the technical manual for the system board. Boards may be installed when the device is shipped.

If you want to install an audio card, you may have to switch off an existing onboard audio controller in the *BIOS Setup*. If you want to install a graphics card, you may have to switch off an existing onboard graphics controller in the *BIOS Setup*. For additional information, see the description provided with the board.

Installing a board

▶ Open the system unit (see "Opening the system unit").



Press the rear slot cover plate out of the slot.



Do not dispose of the rear slot cover plate. For cooling, protection against fire and in order to comply with EMC regulations, you must refit the rear slot cover plate if you remove the board.

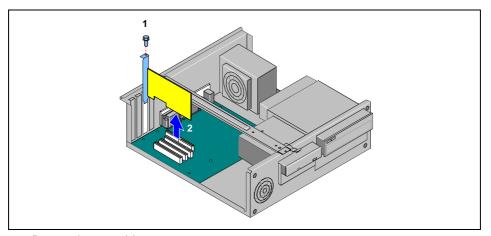
- ► Take the new board out of its packaging.
- ► Make the required settings for the board.
- ▶ Push the board up to its slot (1).
- ▶ Press the board into the slot so that it engages.
- Fix the board with the screw (2).
- ▶ If necessary, plug the lines on the board.
- ► Close the system unit (see "Assembling the system unit").



If you have installed or removed a PCI board, check in the *BIOS Setup* the settings for the relevant PCI slot. If necessary, change the settings. Further information is provided in the documentation for the PCI board.

Removing a board

- ▶ Open the system unit (see "Opening the system unit").
- ▶ Remove the lines connected to the board.



- Remove the screw (1).
- ▶ Remove the board from the system unit (2).
- ▶ Place the board into an appropriate packaging.



To ensure proper cooling, fire protection and observation of the relevant EMC (electromagnetic compatibility) regulations, you must mount a rear slot cover plate.

- ► Press the rear slot cover plate into the slot.
- ► Close the system unit (see "Assembling the system unit").
- i

If you have installed or removed a PCI board, check in the $BIOS\ Setup$ the settings for the relevant PCI slot. If necessary, change the settings. Further information is provided in the documentation for the PCI board.

Installing and removing drives

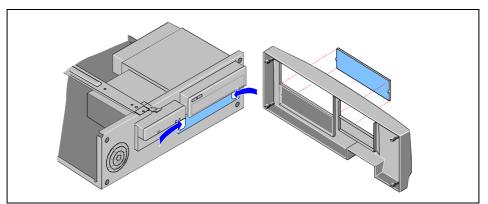
The system unit houses a total of four accessible drives (two 5 1/4-inch drives and two 3 1/2-inch drives) and one non-accessible half-height (Slimline) drive.

IDE drives

By default four IDE drives are supported. Ideally hard disks are connected to IDE port 1, and accessible drives, for example CD-ROMs, to IDE port 2 (see also the Technical Manual for the system board).

Installing an accessible 5 1/4-inch drive

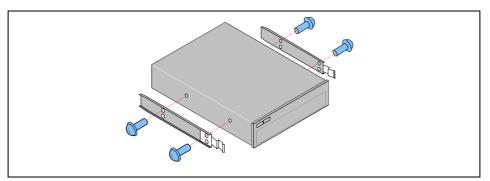
▶ Open the system unit (see "Opening the system unit").



Remove the plastic filler panel and the protection shield.

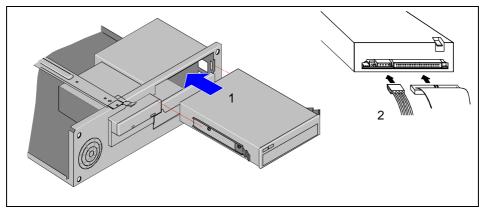


Do not throw away the covers. For cooling, protection against fire and in order to comply with EMC regulations, you must refit the covers if you remove the drive again later.

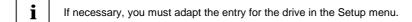


► Take the new drive out of its packaging.

- ► Fasten the guide rails with the four screws on the drive.
- ▶ Make the required settings on the drive (if necessary, on installed drives as well).

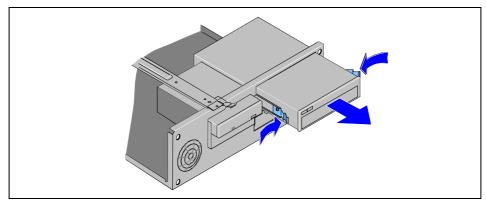


- ► If the drive is the first 5 1/4" drive in your system, then use the upper bay, and use the lower bay for the second 5 1/4" drive.
- ► Insert the drive in the bay so that the guide rails on the drive fit into the guides in the drive cage. Slide the drive into its bay until it snaps in place (1).
- ► Plug the connectors of the data cable and the power supply cable into the drive (2). Make sure the polarity is correct.
- ► Close the system unit (see "Assembling the system unit").



Removing an accessible 5 1/4-inch drive

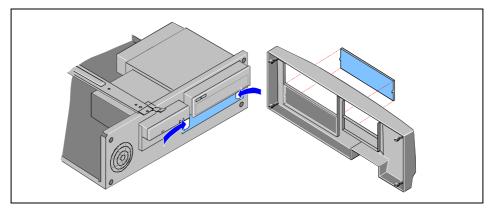
▶ Open the system unit (see "Opening the system unit").



- ▶ Pull the data and the power supply connectors from the desired drive.
- ▶ Press sideways on the two springs that secure the drive in the drive cage.
- ▶ Pull out the drive.



For cooling, protection against fire and in order to comply with EMC regulations, you must refit the shielding plate.



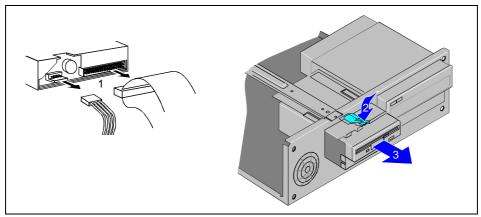
- Mount the shielding plate.
- ▶ Press the plastic drive cover into the front panel until it snaps in place.
- ► Close the system unit (see "Assembling the system unit").



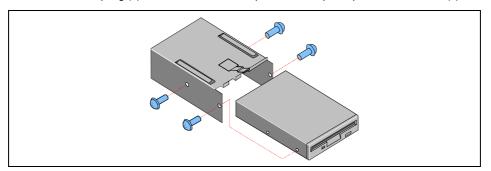
If necessary, you must adapt the entry for the drive in the Setup menu.

Changing the floppy disk drive

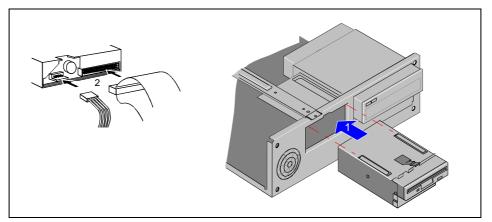
► Open the system unit (see "Opening the system unit").



- ▶ Pull the data and the power supply connectors from the floppy disk drive (1).
- ▶ Press on the spring (2) that hold the bracket in place at the top and pull out the bracket (3).



- ▶ Remove the four screws and push the floppy disk drive out of the bracket.
- ► Take the new floppy disk drive out of its packaging.
- ▶ Push the floppy disk drive into the bracket and secure it with four screws.

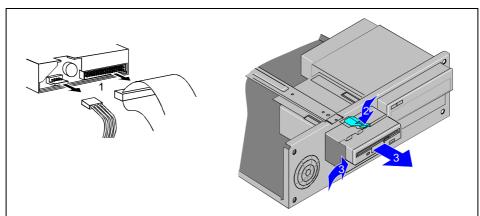


- ▶ Push the carrier (1) into the system unit until it snaps into place.
- Plug the data and the power supply connectors into the floppy disk drive (2). Make sure the polarity is correct.
- ► Close the system unit (see "Assembling the system unit").
- i

If necessary, you must adapt the entry for the drive in the Setup menu.

Installing a second 3 1/2-inch drive

▶ Open the system unit (see "Opening the system unit").

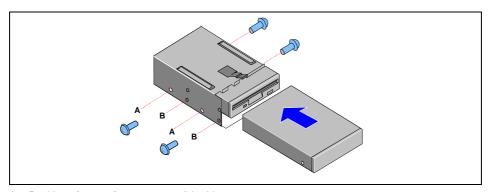


- ▶ Pull the data and the power supply connectors from the floppy disk drive (1).
- ▶ Press on the spring (2) that holds the bracket in place at the top.
- ► Pull out the bracket (3).

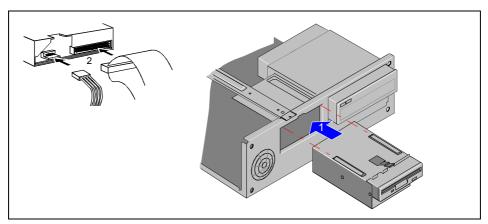
► Remove the protection shield (4).



Do not throw away the covers. For cooling, protection against fire and in order to comply with EMC regulations, you must refit the covers if you remove the drive again later.



- A = Position of screw for non-accessible drive
- B = Position of screw for accessible drive
- ► Take the new drive out of its packaging.
- ▶ Push the drive into the bracket and secure it with four screws.



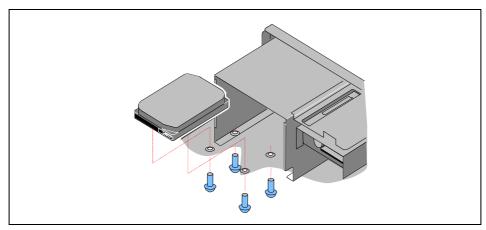
- ▶ Push the bracket into the system unit until it snaps into place (1).
- Plug the connectors of the data cable and the power supply cable into the drives (2). Make sure the polarity is correct.
- ► Close the system unit (see "Assembling the system unit").
- i

If necessary, you must adapt the entry for the drive in the Setup menu.

Replacing a hard disk drive

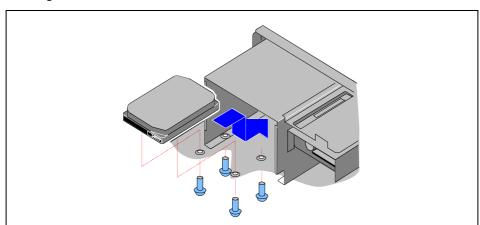
Open the system unit (see "Opening the system unit").

Removing the hard disk



- ▶ Pull the data and the power supply connectors from the hard disk drive.
- Carefully tilt the system unit so that you have access to the screws on the underside of the casing.
- ▶ Remove the four screws with which the hard disk drive is secured while holding the drive so that it does not fall into the system unit.
- ► Remove the hard disk drive.

Installing a hard disk drive



- ► Take the new hard disk drive out of its packaging.
- Slide the new hard disk drive into its bay.

- Fasten the drive with the four screws.
- ▶ Insert the connectors for the power supply cable and data cable.
- ▶ Close the system unit (see "Assembling the system unit").



If necessary, you must adapt the entry for the drive in the Setup menu.

Extensions on the system board

Details of how and if you can upgrade the main memory or the processor of your PC are provided in the Technical Manual for the system board. Below the necessary steps are described to enable you to work on the system board.

- ▶ Open the system unit (see "Opening the system unit").
- ▶ Make the desired expansions (see the Technical Manual for the system board).

Replacing lithium battery

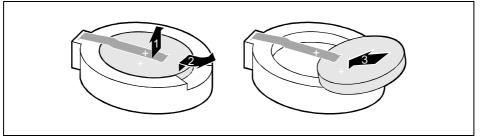


Incorrect replacement of the lithium battery may lead to a risk of explosion.

The lithium battery may be replaced only with an identical battery or with a type recommended by the manufacturer.

Do not throw lithium batteries into the trashcan. It must be disposed of in accordance with local regulations concerning special waste.

Make sure that you insert the battery the right way round. The plus pole must be on the top!



- ▶ Lift the contact (1) a few millimeters and remove the battery from its socket (2).
- ▶ Insert a new lithium battery of the same type in the socket (3).
- ► Close the system unit (see "Assembling the system unit").

Technical data

Electrical data

Begulations complied with: EN 60950 / VDE 0805

Rated voltage range: (selectable) 100 V to 125 V / 200 V to 240 V

Frequency: 50 Hz - 60 Hz

Max. rated current

System unit
 100 V -120 V/5.0 A
 200 V -240 V/3.0 A

Maximum power draw in operation: $< 50 \text{ W}^*$) Minimum power draw in operation: $< 30 \text{ W}^*$)

reduced by Windows 9x

 $\begin{array}{lll} \textit{Power management advanced} \\ \textit{Power draw in energy saving mode:} & < 30 \text{ W} \text{ *}) \\ \textit{Power draw in the 'ready' status} & < 5 \text{ W} \text{ *}) \end{array}$

Noise emission: Sound power level (L_{WAd}) < 55 dB (A) *)

*) These values only apply for a SCENIC eD with the configuration below. When additional or other components are incorporated, the power consumption or the sound emission (L_{WAd}) in energy saving mode may exceed the requirements for the environment symbol ("Blue Angel") (30 W or 55 dB).

Processor (256 Kbyte cache): Pentium III Processor at 800 MHz

Main memory: 128 Mbyte Floppy disk drive: 1.44 Mbyte Hard disk drive: 10 Gbyte

Software: Windows 98 Power management - Advanced...

CD-ROM drive: 48fold

LAN: 10/100 Mbit Ethernet Controller

Dimensions

Width/depth/height: 380 mm/440 mm/ 130 mm

Weight

in basic configuration approx. 8.5 kg

Environmental conditions

Condensation in operating must be avoided.

Clearance required to ensure adequate ventilation:

left-hand side min. 200 mm
 front min. 200 mm
 rear min. 200 mm

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