DESKPOWER E600 Series User's Manual

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FC

DECLARATION OF CONFORMITY
according to FCC Part 15 Class B

This device complies with Part 15 Class B of the FCC Rules. Operations are subject to the following two conditions:
(1) This device may not be allowed to cause harmful interference, (2) This device must accept any interference received, including interference that may cause undesired operation.

Wesbite: www.fujitsu-pc-asia.com

i

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully. Save these instructions for future reference.

2. Follow all warnings and instructions marked on the product.

3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this product near water.

5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.

7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

8. This product is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This will only plug into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.

9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

10. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed 15 amperes.

11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points that could result in a fire or electric shock. Never spill liquid of any kind on the product.

12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.

13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power cord or plug is damaged or frayed.
    b. If liquid has been spilled into the product.
    c. If the product has been exposed to rain or water.
    d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal condition.
    e. If the product has been dropped or the cabinet has been damaged.
    f. If the product exhibits a distinct change in performance, indicating a need for service.

14. **CAUTION. When replacing the battery, be sure to install it with the polarities in the correct position. There is a danger of explosion if the battery is replaced with an incorrect type or is mistreated. Do not recharge, disassemble or dispose of in fire. Replace only with the same or equivalent type recommeded by the manufacturer. Dispose of the used battery according to the manufacturer's instructions.**

15. Use only the proper type of power supply cord set (provided in your accessories box) for this unit. It should be a detachable type: UL listed/CSA certified, BS1363,ASTA,SS145 certified, rated 10A 250V minimum, VDE approved or its equivalent. Maximum length is 15 feet (4.6 meters).

16. **NOTE:**
    Please take extra precaution when connecting the LAN cable; do not connect the LAN cable to the peripheral device's connector, that might have excessive voltage.

Before reading this manual

This section describes safety precautions and convention used in this manual. Be sure to read this.

For Safe Operation

This manual contains important information for using the DESKPOWER personal computer.
Read this manual thoroughly before using your PC. In particular, "Safety Precautions" in this manual must be read and understood.
This manual including "Safety Precautions" must be readily available at all times.

This equipment is compliant with the PC industry standard (PC-11-1988) of the Japan Electronics and Information Technology Industries Association.

Note

This product is a Class B Information Technology Equipment and conforms to the standard set by the Voluntary Control Council for Interference by Technology Equipment (VCCI).This product is designed to be used in a domestic environment, however, it may cause radio interference when used in the vicinity of a radio or television receiver.
Make sure that you read the manual when using this product.

Fujitsu, as a member of the International Energy Star Program, recognizes that this equipment is compliant with the standard of the International Energy Star Program.

The International Energy Star Program is a worldwide program for promoting energy saving for computers and other office equipment. The program aims at promoting the development and use of products equipped with the functions that can effectively reduce energy consumption and uses a voluntary system that allows enterprises to join at their own discretion. The target products are office equipment including computers, displays, printers, facsimiles, and copying machines. The standards for individual types of equipment and the mark ( ) prepared by the Program are used commonly among member countries.

Caution

This equipment is class B information technology equipment based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). Although the equipment is intended for use in residential environments, it may create interference if placed near radio or television.
Handle the equipment in accordance with the manual.

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iv

Using this Product for High-Safety Applications

This product is for office, personal, home, ordinary industry and other general use. It is not designed and manufactured for use in high-safety applications.
Do not use this product for such applications without taking measures to satisfy the high-safety requirements.
High-safety applications require extremely high level of safety, and involve serious hazards to life and health if the required safety is not assured. High-safety applications include the following.
● Nuclear reaction control in nuclear facilities, automatic aviation control, air traffic control, mass-transportation control, life-supporting medical equipment, and missile launch control.

Some parts (including the CRT display, LCD, or hard disk drive) used on this product have a limited life. When used continuously for a prolonged period, these parts will need earlier replacement.

Backing Up the Data

The customer is responsible for maintaining the integrity of data (including the basic and application software) stored or installed on the product. We do not warrant the integrity of data stored or installed on the personal computer the customer sent for repair. Take appropriate measures such as making a backup.
We assume no responsibility for loss of data and any direct or incidental damage due to any cause other than those specified in the warranty.

This computer is designed for use within the country. If you are using it abroad, please do so on your own responsibility.

This equipment may be adversely affected by the momentary drop of the supplied voltage due to lightning. Use of an AC uninterruptible power supply is recommended for measures against the momentary drop of the supplied voltage.
(This message is based on the Japan Electronics and Information Technology Industries Association's guidelines for measures against momentary voltage drop in PCs.)

Since this equipment contains special materials controlled by the Foreign Exchange and Foreign Trade Control Law. Authorization under the law may be required to export this equipment.

Microsoft Service Pack

Microsoft Corp. offers Service Pack to provide the users of Microsoft® Windows® with more stable system operation (http://www.microsoft.com/).

The latest version of the Service Pack helps you configure the most stable system using Microsoft® Windows® provided at that time by Microsoft Corp.

We recommend you to use the latest version.

In some environments, however, the Service Pack may cause unexpected failure. Read Readme.txt for the Service Pack before use.

Again, we recommend you to make a system backup in case of failed installation.

Components of this product (motherboard, CD-ROM, hard disk, and floppy disk drive) contain traces of heavy metals (lead and chrome) and chemical (antimony).

Conventions Used in This Manual

Introduction

This manual tells you how to put your PC into operation and how to operate it in daily use.
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.
You can incorporate operable drives (for example DAT drive) as well as other boards.
Depending on the configuration selected, the operating system is preinstalled on your hard disk (e.g. Windows XP).
Your PC has a number of security features to ensure that no unauthorised persons can access your data, for example, you can activate a screen saver with password protection. 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.

Notational conventions

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

⚠ **CAUTION**	Indicates information which is important for your health or for preventing physical damage.
🛈	Indicates important information which is required to use the system properly.

● Text which follows this symbol describes activities that must be performed in the order shown.

Text in this typeface indicates screen outputs.
"Quotation marks" indicate names of chapters or terms.

Important Notes

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

❑ **Safety**

⚠ CAUTION

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 "Preparing for Use".

Please check whether the device is correctly set for the local power supply (see "Preparing for Use" chapter).

The main switch and the ON/OFF switch do not disconnect the system unit from the mains voltage. To completely disconnect the mains voltage, remove the power plug from the grounded mains outlet.

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

Caution: components in the system 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
● If you are not using your PC, switch it off.
● In the BIOS Setup you may set further energy-saving functions for the PC.
● Depending on the operating system, you can set additional power-management features.

Energy saving under Windows 2000/XP

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/XP are available.

❑ FCC Class B Compliance Statement

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 is not responsible for any radio or television interference caused by unauthorised modifications of this equipment or the substitution or attachment of connecting cables and equipment other than those specified by Fujitsu. The correction of interference caused by such unauthorised 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.

❑ **Transporting the PC**

⚠ CAUTION

Transport all parts separately in their original packaging or in a packaging which protects them from knocks and jolts, to the new site. Do not unpack them until all transportation manoeuvres are completed.
Never drop the monitor!

❑ **Cleaning the PC**

⚠ CAUTION

Turn off all power and equipment switches and remove the power plug from the mains supply.
Do not clean any interior parts yourself, leave this job to a service technician.
Do not use any cleaning agents that contain abrasives or may corrode plastic.
Ensure that no liquid enters the system.
Ensure that the ventilation areas of the system unit and the monitor are free.

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

Cleaning the keyboard and the mouse
Use disinfectant wipes to clean the keyboard and the mouse.
The mouse mechanism and the mouse ball can be cleaned by removing the retaining ring on the underside of the mouse.

Additional information can be found in the documentation for your keyboard and mouse.

❑ **Disposal and recycling**

This device has been manufactured to the highest possible degree from materials which can be recycled or disposed of in a manner that is not environmentally damaging. The device may be 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.

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

Reference to products
In this manual, the product names are referred to as follows:
This manual includes information on other operating systems.

Product name	Description used in the manual		
Microsoft® Windows® XP Professional	Windows XP Professional	Windows XP	Windows*
Microsoft® Windows® XP Home Edition	Windows XP Home Edition		
Microsoft® Windows® 2000 Professional	Windows 2000		

Warning and caution labels

Your PC bears the warning and caution labels as shown below.
The warning and caution labels must not be removed or damaged.

Rear of the PC main unit

DESKPOWER E600

MODEL : DT4

FC NRTL/C 162874

100-127V (6.0A) /200-240V (3.0A) 50/60Hz

MADE IN SINGAPORE
By Fujitsu Limited, Japan (M)

FUJITSU LIMITED

⚠ **WARNING**
Electric shock

To prevent electric shock, switch off the PC and connected peripherals and unplug power cords from respective outlets before disassembling the unit and installing a built-in option.

Inside the PC main unit

⚠ **WARNING**

Electric shock

To prevent electric shock and/or fire, do not remove the cover of this unit, which includes a high voltage section.

⚠ ATTENTION

115V of voltage switch in the power supply corresponds to 100-127V
230V of voltage switch in the power supply corresponds to 200-240V

⚠ WARNING

Electric shock

• Before mounting or dismounting an optional unit in/from your PC, switch off the PC and all connected units and unplug all power cords from respective outlets to prevent electric shock.

xii

Organization of This Manual

Before Reading This Manual
This section contains cautions for safe operation, representations and symbols used in this manual.
Be sure to read this first!

Chapter 1   Preparing for Use

This chapter provides the names and functions of individual parts.

Chapter 2   Operation

This section describes the location of installation and installation of the computer.

Chapter 3   Troubleshooting and Tips

This chapter provides the basic information on the PC and operation.

Chapter 4   System Expansion

This chapter provides basic information on how to handle the peripherals installed
(or can be installed) on the PC.

Chapter 5   Technical Data

This chapter describes the specifications of this PC.

Contents

CHAPTER 1   Preparing for Use

CHAPTER 2   Operation

CHAPTER 3   Troubleshooting and Tips

CHAPTER 4   System Expansion

CHAPTER 5   Technical Data

CHAPTER 1

Preparing for Use

Preparing for Use

⚠ CAUTION

Please take note of the safety information in the "Important notes" chapter.

■ 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.

■ Steps for Initial Setup

First-time setup includes the connection of the monitor, mouse and keyboard to the system unit and the setup of the supplied software.

● **External devices**

If you have received other devices in addition to your PC (e.g. a printer or a modem), do not connect these until after the initial installation. The following sections contain a description of how to connect these external devices: "Connecting external devices to the serial port" and "Connecting external devices to the parallel port".

● **Drives and boards**

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".

Perform the following steps in the prescribed order:

1. Decide where you are going to use the PC, and then set it up.

2. Connect the monitor, mouse and keyboard to the PC.

3. Check the rated voltage of the PC and connect it to the mains voltage.

4. Switch the PC on and follow the instructions on the screen.

■ Setting Up the PC

⚠ CAUTION

When installing your PC, give consideration to the recommendations and safety notes.

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 and protect it from dust, humidity and heat.

When installing the PC, provide sufficient clearance around the PC, as indicated in the "Technical data" chapter to ensure adequate ventilation. In order to avoid overheating, do not cover the ventilation area of the monitor or the PC.

Do not place several system units one above the other.

The PC can be used either horizontally or vertically. 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 / plastic feet of the devices will mark the surface they stand on.

Vertical operating position
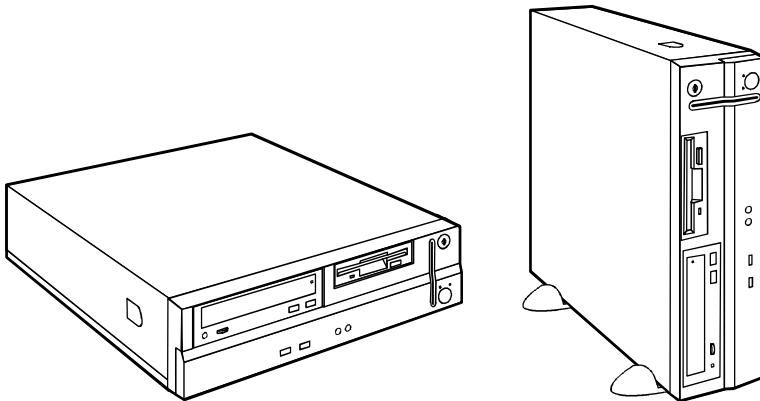
The vertical operating position is only permissible with base feet. The base feet secure the device against tipping over.

⚠ CAUTION

The set-up direction is specified. The ON/OFF switch must be at the top to ensure sufficient ventilation.

3

- **Proceed as follows to prepare the PC for the vertical operating position:**
  1. If you have already operated the PC, switch it off and disconnect all cables from the casing.
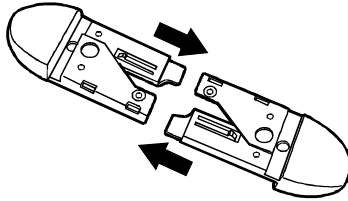
  2. Assemble the base feet in the direction of the arrow.
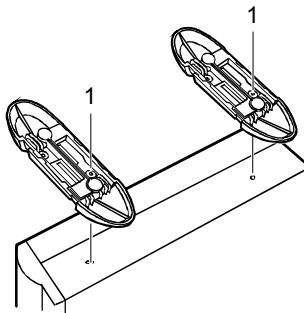
  3. Place the casing on the right side so that the On/Off switch is at the bottom.
  4. Fit the base feet with the screws included (1) (one screw per foot and hole).
  5. Place the unit on the base feet and reconnect any cables disconnected previously.

■ Connect the Monitor, Mouse and Keyboard

The ports for monitor, mouse and keyboard are on the rear and front (USB ports) of the PC.

Keyboard port / purple   PS/2 mouse port / green

Monitor port / blue   USB port / black

❑ Connecting the monitor

Connecting standard keyboard
1. Follow the instructions contained in the monitor manual to prepare the monitor for operation (e.g. connecting cables).
2. Plug the data cable into the monitor port ▢ of the PC.
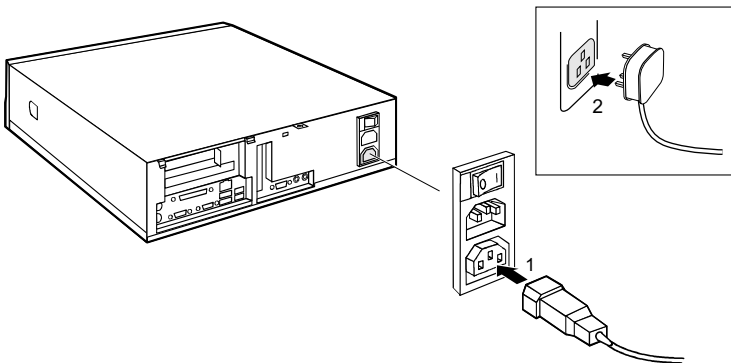
3. Depending on the connector, plug the monitor's power cable into either the PC (1) or a grounded mains outlet (2).

We recommend to connect the monitor power cable to the server monitor socket. The monitor is then switched off automatically when you switch the PC off.

⚠ CAUTION

The monitor power cable may only be connected to the PC monitor socket if the monitor current consumption is smaller than 1,5 A with 230 V or 3 A with 115 V. The values for the monitor current consumption can be found in the technical data on the monitor or in the operating manual for the monitor.

❑ **Connecting the mouse**
Depending on the equipment level selected, your PC will be supplied with a PS/2 mouse or a USB mouse.

Connecting a PS/2 mouse
● Connect the PS/2 mouse to the PS/2 mouse port ⬆ of the PC.

Connecting USB mouse
● Connect the USB mouse to a USB port ⬄ of the PC.

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 the keyboard**
Depending on the equipment level selected, your PC will be supplied with a standard keyboard or a USB keyboard.

Connecting standard keyboard
Use the supplied keyboard cable only.
● Plug the other end of the keyboard cable (square plug) into the socket on the underside of the keyboard.
● Plug the round plug of the keyboard cable into the keyboard port ⌨ of the PC.

Connecting USB keyboard
Use the supplied keyboard cable only.
● Plug the other end of the keyboard cable (square plug) into the socket on the underside of the keyboard.
● Insert the rectangular USB plug of the keyboard cable into a USB port ⬄ of the PC.

6

■ Connecting the PC to the Mains Voltage
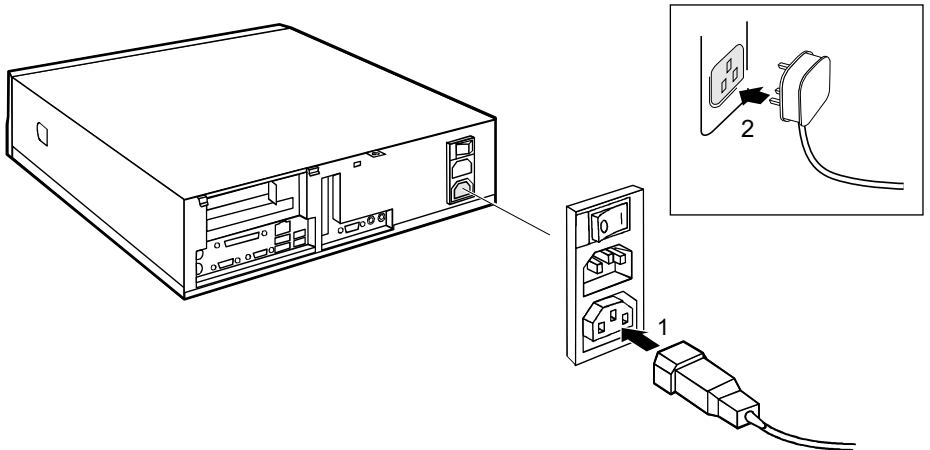
100 V - 127 V   200 V - 240 V
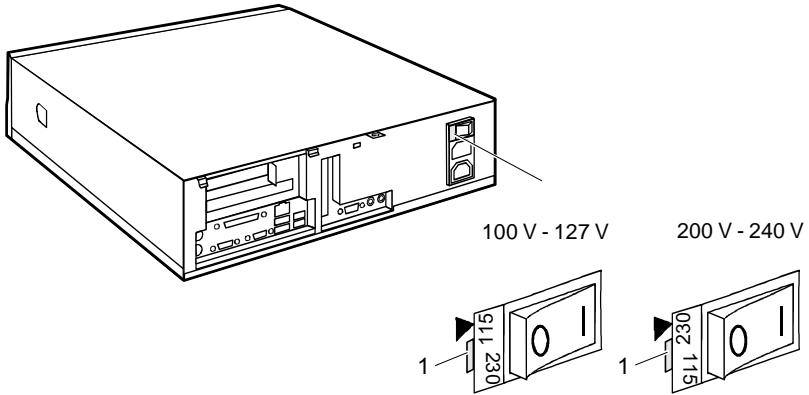
1 =   Notch for inserting the screwdriver
►   Check the voltage setting.

⚠ CAUTION

The value indicated with an arrow must be compatible with the local rated voltage:
- 115 = 100 V to 127 V
- 230 = 200 V to 240 V

If the voltage setting is incorrect, then lift out the manual voltage adjuster with a screwdriver (1), turn it to the required setting and reinsert it.

►   Connect the power cable to the PC (1).
►   Plug the power plug into a grounded mains outlet (2).

■ Initial Switch-on: Software will be Installed

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

When you switch on your PC for the first time, the supplied software is installed and configured. You should plan some time for this, as this process must not be interrupted.

⚠ CAUTION

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

During installation the PC may only be rebooted when you are requested to do so!

Otherwise the installation will be not be performed correctly. If a fault occurs during the installation, the contents of the hard disk must be completely restored.

You may need the Windows licence number during the installation. This number is located on a sticker on your PC.

❑ Switching on monitor and PC

● Switch the monitor on.

● Switch the PC on. To do this, follow the instructions below.
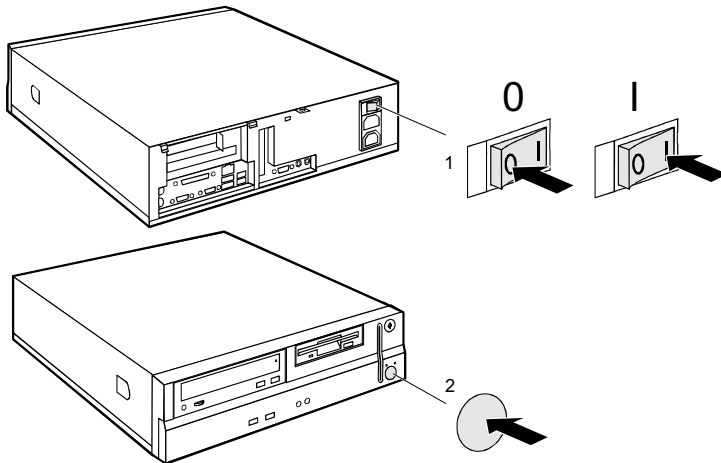
1 = Main power switch
2 = ON/OFF switch
0 = PC is switched off
I = PC is ready-to-operate

● Switch the PC on with the main power switch on the back panel.

● Press the ON/OFF switch on the front of the PC.

The relevant indicators light.

8

❑ **Installing the software**
● During installation, follow the instructions on 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, manuals etc. on the "Composite" CD supplied.

■ Connecting External Devices

⚠ CAUTION

Read the documentation on the external device before connecting it. The power plug must be removed before connecting external devices, apart from USB devices.
Do not either connect or disconnect cables during storms.
Always take hold of the actual plug. Never unplug a cable by pulling the cable itself.
Connect and disconnect the cables in the order described below!

Connecting cables
● Turn off all power and equipment switches.
● Remove all power plugs from the mains outlets.
● Plug all cables into the PC and peripherals. You must observe the information provided in the "Important notes" chapter.
● Plug all data communication cables into the utility sockets.
● Plug all power cables into the grounded mains outlets.

Disconnecting cables
● Turn off all power and equipment switches.
● Pull all power plugs out of grounded mains outlets.
● Unplug all data communication cables from the utility sockets.
● Unplug all cables from the PC and peripherals.

USB devices are hot-pluggable. This allows cables from USB devices to be connected and disconnected with the system switched on.
Additional information can be found in the "Connecting external devices to the USB ports" section and in the documentation for the USB devices.

❑ **Ports on the PC**

The ports for external devices are on the rear and on the front of the PC. The ports available on your PC depend on the configuration level you have selected. The standard ports are marked with the symbols shown below (or similar).

Keyboard port, purple

PS/2 mouse port, green

Serial port 1, teal or turquoise

Serial port 2, teal or turquoise

Monitor port, blue

Parallel port / Printer, burgundy

Headphones port, light green

Microphone jack (mono), pink

Audio output (Line out), lime green

Audio input (Line in), light blue

USB - Universal Serial Bus, black

LAN

LAN connector

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

❑ **Connecting external devices to the serial port**

External devices can be connected to the serial port (e.g. a modem).

● Connect the data cable to the external device.
● Connect the data cable to the serial port [○|○|○] .

For an exact description of how to connect external devices to the serial port, please refer to the device documentation.

● **Settings of the serial port**
  If you need to change the settings of the serial port (e.g. address, interrupt), you can do so in the BIOS Setup. The settings for the port are described in the technical manual for the mainboard or in the "BIOS Setup" manual.

● **Device drivers**
  The devices connected to the serial port require drivers. Your operating system already includes many drivers. Nevertheless, if the driver you need is not on the hard disk, please install it from the data carrier supplied with the device or with the application programme.

❑ **Connecting external devices to the parallel port**

External devices can be connected to the parallel port (e.g. a printer).

● Connect the data cable to the external device.
● Connect the data cable to the parallel port 🖺 .

For an exact description of how to connect external devices to the parallel port, please see the device documentation.

● **Settings of the parallel port**
  If you need to change the settings of the serial port (e.g. address, interrupt), you can do so in the BIOS Setup. The settings for the port are described in the technical manual for the mainboard or in the "BIOS Setup" manual.

● **Device drivers**
  The devices connected to the serial port require drivers. Your operating system already includes many drivers. Nevertheless, if the driver you need is not on the hard disk, please install it from the data carrier supplied with the device or with the application programme.

❑ **Connecting external devices to the USB ports**

You can connect a wide range of external devices to the USB port (e.g. printer, scanner, modem or keyboard).

> USB devices are hot-pluggable. This allows cables from USB devices to be connected and disconnected with the system switched on.
>
> Additional information can be found in the documentation for the USB devices.

- Connect the data cable to the external device.
- Connect the data cable to the USB port ⏚⟨⟩.

> ● **Device drivers**
>
> The devices you connect to the USB ports usually require no driver of their own, as the required software is already included in the operating system. However, if the USB device requires its own software, please install it from the data carrier provided with the USB device.

CHAPTER 2
Operation

Operation

■ Switching On the PC

- If necessary, switch the monitor on (see the operating manual for the monitor).
- Switch the PC on with the main power switch on the rear of the PC.
- Press the ON/OFF switch on the front of the PC.

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

■ Switching Off the PC

- Shut down the operating system properly. For Windows: select Shut Down from the Start menu.
- If the operating system does not automatically switch the PC off, turn the PC to ready-to-operate when requested to do so by pressing the ON/OFF switch.

If the PC is ready-to-operate, the PC consumes very little power.

Switch off the PC at the power switch. The PC no longer uses any power.

> The main power switch and the power button do not disconnect the PC from the mains voltage. To completely disconect the mains voltage, remove the power plug from the socket.

- If necessary, switch the monitor off (see the operating manual for the monitor).

■ Indicators On the PC

The indicators are on the front of the PC. Which indicators are available on your PC depends on the configuration level you have selected.
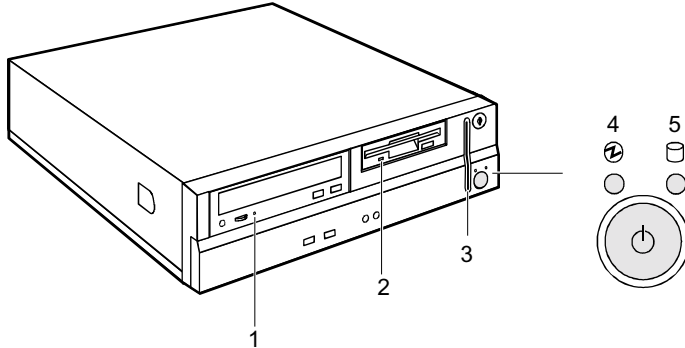
1 = CD-ROM indicator

2 = Floppy disk indicator

3 = SmartCard reader indicator

4 = Power-on indicator

5 = Hard disk indicator

1   CD-ROM indicator

The indicator lights up when the CD-ROM drive is accessed. You may only remove the CD when the indicator is dark.

2   Floppy disk indicator

The indicator lights up when the floppy disk drive of the PC is accessed. You may only remove the floppy disk when the indicator is unlit.

3   SmartCard reader indicator

The indicator lights up when the SmartCard reader is ready-to-use.
The indicator flashes when the SmartCard is accessed.

4   Power-on indicator

–   The indicator lights green:
    The PC is on.
–   The indicator lights orange:
    The PC is in energy-saving mode. After being switched on the PC or returns to the state it was in before the energy-saving mode.

⚠ CAUTION

In an energy-saving mode the PC must not be switched off with the power switch or disconnected from the mains supply, as this may result in data loss.

–   The indicator does not light up:
    The PC is switched off (power switch at 0 or disconnected from the power supply) or ready-to-operate. If the PC is ready-to-operate, the PC can be enabled with the ON/OFF switch.

5   Hard disk indicator

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

16

■ 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. You may customise these settings to your requirements in the BIOS Setup.

■ Property and Data Protection

Software functions and mechanical locking offer a broad range of functions for protecting your PC and your personal data from unauthorised access. You can also combine these functions.

■ Unlocking and Locking Casing

With the casing lock you can lock the casing to prohibit unauthorised persons from opening it.
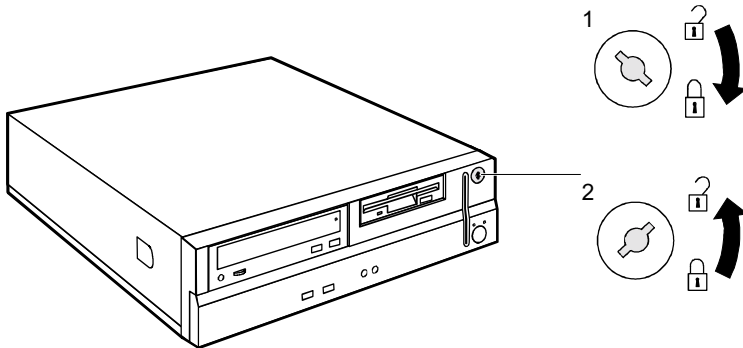
Locking the casing

● Turn the key downward (1).

Unlocking the casing

● Turn the key upward (2).

⚠ WARNING

Please keep the key in a safe place. Fujitsu and its suppliers shall not be liable for any consequential damages caused by lost key.

■ Anti-theft Protection and Lead-sealing

There are three ways to protect your PC from theft:

- With the Kensington Lock device (1) and with a Kensington MicroSaver
- With a chain (lead-seal)
- With a (pad)lock

To prevent unauthorised persons from opening the casing, the casing can be sealed. To do this, feed the sealing chain through the eye (2) and seal the chain with the lead seal.

You can also attach a padlock to the eye (2) to prevent unauthorised opening of the casing. You can also use this eye to anchor the casing if necessary.
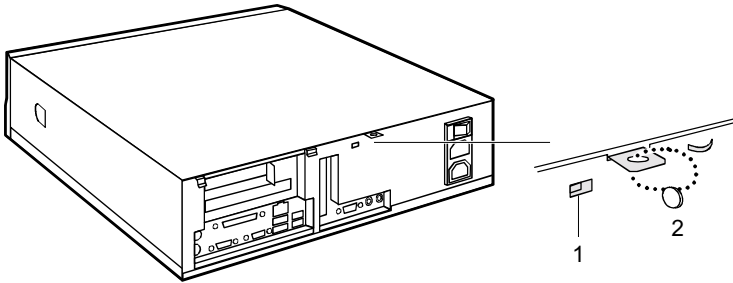
1 =   Device for "Kensington Lock"
2 =   Eye for lead seal and (pad)lock

■ BIOS Setup Security Functions

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

- Preventing unauthorised BIOS Setup entry
- Preventing unauthorised system access
- Preventing unauthorised access to the settings of boards with their own BIOS
- Preventing system booting from the diskette drive
- Activating virus warnings
- Preventing unauthorised writing of diskettes
- Protecting BIOS from being overwritten
- Protecting the PC from being switched on by an external device

You can also combine these functions.

CHAPTER 3
Troubleshooting
and Tips

Troubleshooting and Tips

⚠ CAUTION

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

If a fault occurs, try to correct it as described in the following places:

- in this chapter
- in the documentation of the connected devices
- in the help systems of the software used
- in the documentation of your operating system

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.
- Make a note of any error messages displayed.
- Contact your sales outlet or our customer service centre.

■ Installing New Software

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

■ Power-on Indicator Remains Unlit after you have Switched on your Device

This may be due to the following:

The mains voltage supply is faulty

- Check that the power cable is plugged properly into the system unit and grounded mains outlet.
- Switch the PC on.

Internal power supply overloaded

- Remove the PC's power plug from the grounded mains outlet.
- Wait for a moment.
- Plug the power cable into the grounded mains outlet again.
- Switch the PC on.

20

❏ **The screen stays blank**
If your screen remains blank this may be due to the following:

Monitor is switched off
- Switch your monitor on.

Power saving has been activated (screen is blank)
- Press any key on the keyboard.

or

- Deactivate the screen saver. Enter the appropriate password.

Brightness control is set to dark
- Adjust the brightness control. For detailed information, please refer to the operating manual supplied with your monitor.

Power cable not connected
- Switch off the monitor and the PC.
- Check that the monitor power cable of the monitor is properly connected to the monitor and, depending on the connector, to the PC or to the grounded mains outlet.
- Check that the PC power cable is properly plugged into the PC and grounded mains outlet.
- Switch on the monitor and the PC.

Monitor cable not connected
- Switch off the monitor and PC.
- Check that the monitor cable is properly connected to the PC and monitor.
- Switch on the monitor and the PC.

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 or Safe Mode with Network.
- Set the correct values for the attached monitor as described in the operating manual of the monitor by selecting Start → Settings → Control Panel → Display → Settings.

Wrong monitor has been set under Window XP

- Restart the PC.
- Press [**F8**] while the system is booting.

Either the Windows Advanced Start Options menu or the menu for selecting the operating system appears.

- If the menu for selecting the operating system appears, press [**F8**].
- Select Safe Mode or Safe Mode with Network.
- Set the correct values for the attached monitor as described in the operating manual of the monitor by selecting Start → Settings → Control Panel → Display and then the Appearance, Themes, Settings tabs.

The wrong RAM modules have been inserted

See the technical manual for the mainboard 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 on the PS/2 mouse port 🖱 .

- 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 programme is started. Detailed information can be found in the user guide for the mouse and application programme.

■ The Floppy Disk Cannot be Read or Written

- Check that the write protection of the floppy disk or the floppy disk drive is activated.
- Check the entry for Diskette A: in the Main menu of the BIOS Setup.
- Check that the floppy disk drive controller is enabled.
- Check that the cables of the floppy disk drive are properly connected.

■ Time and/or Date is not Correct

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

● Set the time and date.

> If the time and date are repeatedly wrong when you switch on your PC, the on-board battery is flat. Change the lithium battery as described in the "Extensions to the mainboard" - "Replacing lithium battery" chapter.

■ Error Messages on the Screen

Error messages and their explanation are contained:

● In the technical manual for the mainboard

● In the "BIOS Setup" manual

● In the documentation for the programmes used

■ Restoring the Hard Disk Contents

Should you need to restore your hard disk, the instructions are provided on the case of the "Recovery CD" (delivered with your system).

■ Tips

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

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

● Press the ON/OFF switch again.

Cause: System crash

● Press and hold the ON/OFF switch for at least four seconds until the PC switches off.

Out of system resources

If you have too many applications running at once, you may experience problems due to a lack of system resources. In this case you should:

● close unnecessary applications

 or

● run the applications in a different order

CHAPTER 4

System Expansion

System Expansion

⚠ CAUTION

It may be necessary to update the BIOS when carrying out a system expansion or hardware upgrade.

When installing components that become very hot, make sure that the maximum permissible temperatures of the individual components are not exceeded.

The PC must be switched off when installing/removing the system expansions and may not be in the energy-saving mode.

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

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

Refer to the technical manual for the mainboard before making any extensions to the mainboard.

■ Information about Boards

Take care with the locking mechanisms (catches and centring pins) when you are replacing board or components on board.

To prevent damage to the board or the components and conductors on it, please take care when you insert or remove boards. Make sure expansion boards are inserted straightly.

Never use sharp objects (screwdrivers) for leverage.
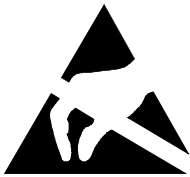
Boards with electrostatic sensitive devices (ESD) are identifiable by the label shown.

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

● You must statically discharge yourself before working with boards (e.g. by touching a grounded object).

● The equipment and tools you use must be free of static charges.

● Pull out the power plug before inserting or removing boards.

● Always hold boards with ESDs by their edges.

● Never touch pins or conductors on boards fitted with ESDs.

■ Opening the Casing

● Switch the PC off. The PC must not be in the energy-saving mode!

⚠ CAUTION

Please take note of the safety information in the "Important notes" chapter.
Pull the power plug out of the mains outlet!

● Remove all cables from the casing.
● Place the casing in a convenient working position.
● Turn the key upward if necessary to unlock the casing.
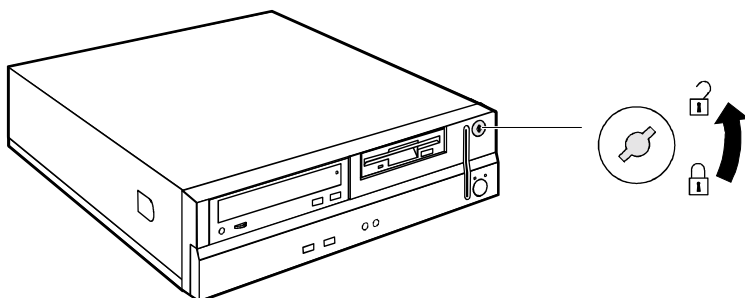
● Press the two locking catches (1), hold them pressed and slide the upper casing in the direction of the arrow (2) until the spacing (a) is approximately 2 cm.
● Lift off the top cover in an upward direction (3).

27
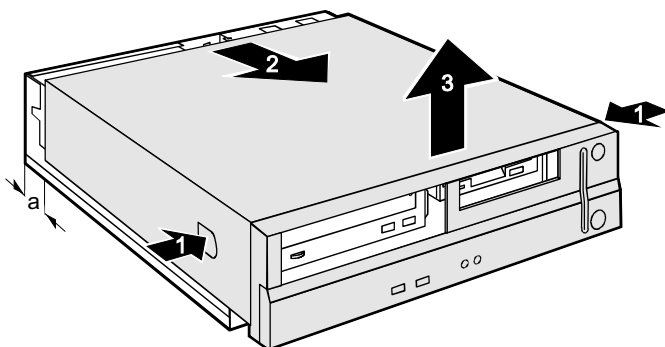
■ Closing the Casing

- Place the top cover on the casing base (1) so that the distance (a) is approximately 2 cm. Ensure that the top cover of the casing engages in the guide rails in the lower part of the casing.
- Push the top cover in the direction of the arrow (2) until it engages.
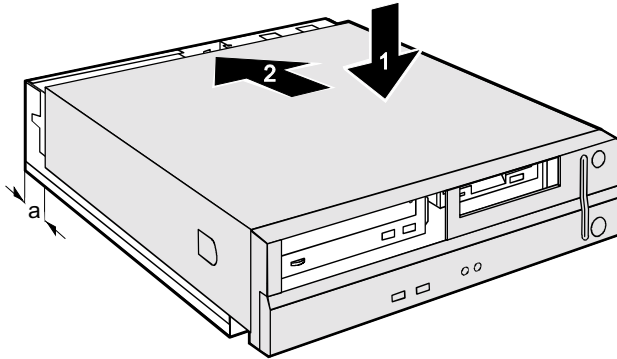
- Turn the key downward if necessary to lock the casing again.
- Return the PC to its original position.
- Reconnect the cables.
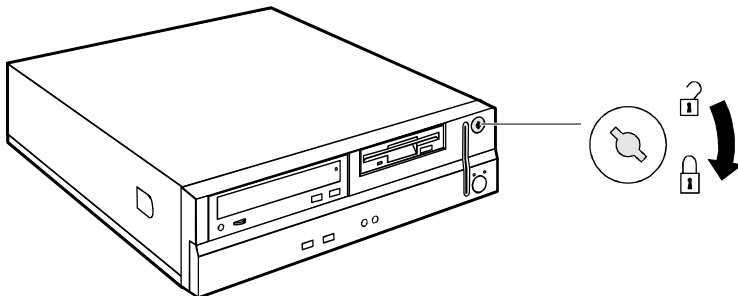
■ Installing and Removing a Board

⚠ CAUTION

Please take note of the "Information about boards".

❑ **Removing board bracket**

1 Open the casing (see "Opening the casing").

2 Pull the board bracket out off the casing in the direction of the arrow.
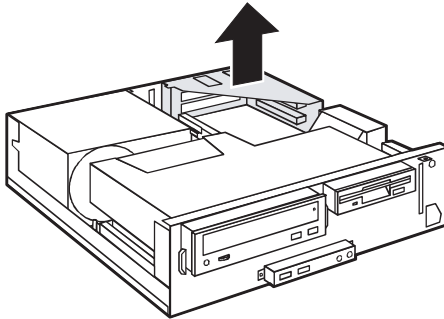
❑ **Installing board bracket**

1 Insert the board bracket into the casing in the direction of the arrow until it clicks into position.

2 Close the casing (see "Closing the casig").
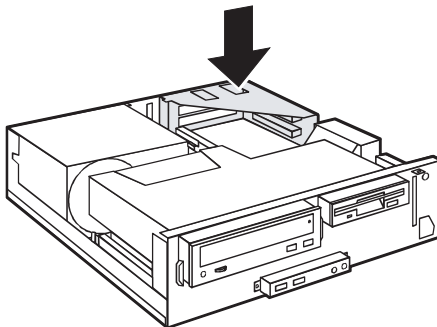
❏ **Installing a board**

    1   **Make the required settings for the board.**

⚠ CAUTION

    Do not dispose of the slot cover. For cooling, protection against fire and in order to comply
    with EMC regulations, you must refit the slot cover if you remove the board.
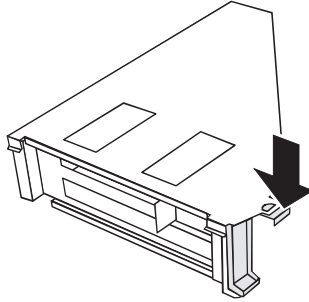
    2   **Press on the retaining bracket in the direction of the arrow and fold it down.**
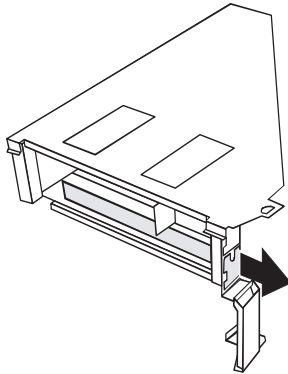
    3   **Pull the slot cover out of the slot in the direction of the arrow.**

4   Push the board up to its slot in the direction of the arrow as far as the stop.

5   Press the board into the slot so that it engages.
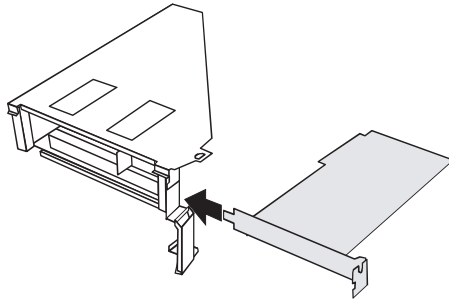
6   Fold up the retaining bracket again so that it engages.

7   If necessary, connect the cables.

8   Reinstall the board bracket in reverse order as described above.

9   Close the casing (see "Closing the casing").
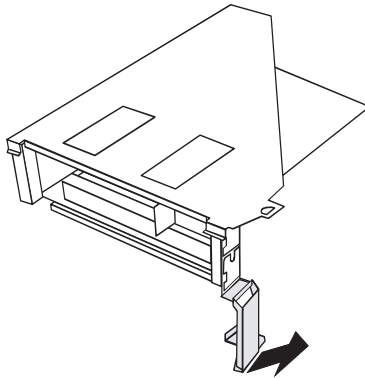
If you have installed or removed a PCI board, check the relevant PCI slot settings in the BIOS Setup. If necessary, change the settings. Further information is provided in the PCI board documentation.

The upper slot is suitable for low-profile cards with an adapter.

❑ **Removing a board**

    1   **Disconnect the cables connected to the board.**
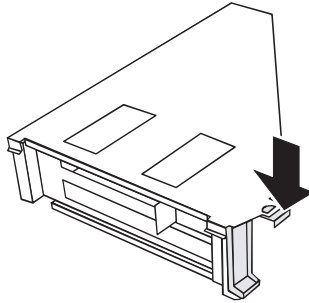
    2   **Press on the retaining bracket in the direction of the arrow and fold it down.**
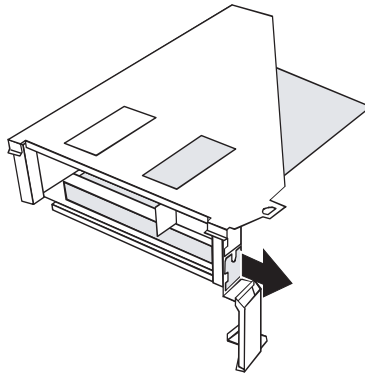
    3   **Pull the board out of the slot of the board bracket in the direction of the arrow.**
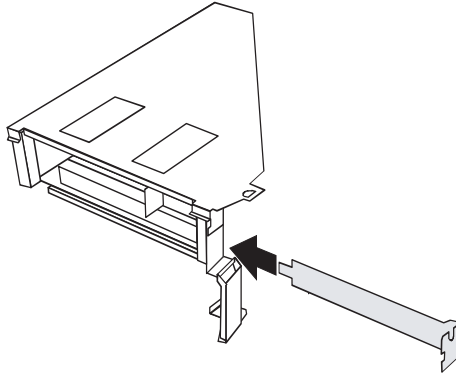
4 **Push the slot cover into the slot in the direction of the arrow. Ensure that the point of the slot cover engages on the outside of the board bracket.**

5 **Fold up the retaining bracket again so that it engages.**

⚠ CAUTION

For cooling, protection against fire, and in order to comply with EMC (electromagnetic compatibility) regulations, you must refit the slot cover.

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

The upper slot is suitable for low-profile cards with an adapter.

■ Low-Profile Boards

For units with a particularly low overall height, there are so-called low-profile boards with a slot cover with a lower overall height to match the low-profile units. To also install these low-profile boards in normal board slots, you must mount a corresponding slot adapter beforehand The slot adapter is located on the slot cover of the upper slot.
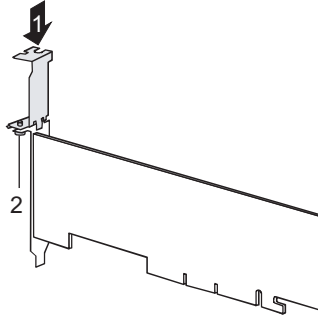
□ **Mounting slot adapter**

● Fit the slot adapter in the direction of the arrow (1) on the slot cover of the low-profile board and screw it on (2).

Now you can install the low-profile board in a suitable slot like a normal board (see the "Installing a board" chapter).
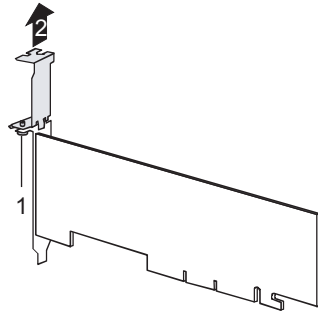
□ **Removing slot adapter**

● Unscrew the screw (1) and remove the slot adapter in the direction of the arrow (2).

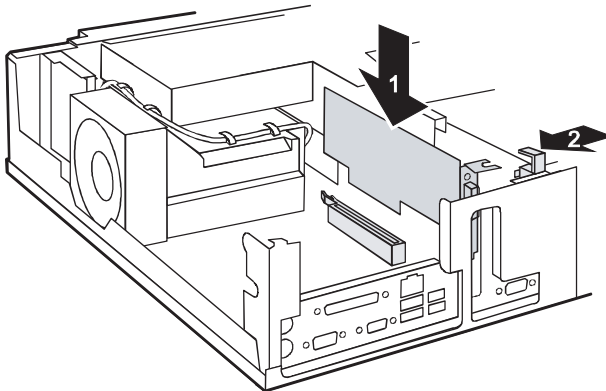# ■ Installing and Removing the Graphics Card

Your device has a special slot for graphics cards.

❑ **Installing the graphics card**

    1   **Open the casing (see "Opening the casing" chapter).**

    2   **Remove the board bracket as described in "Removing board bracket" section.**
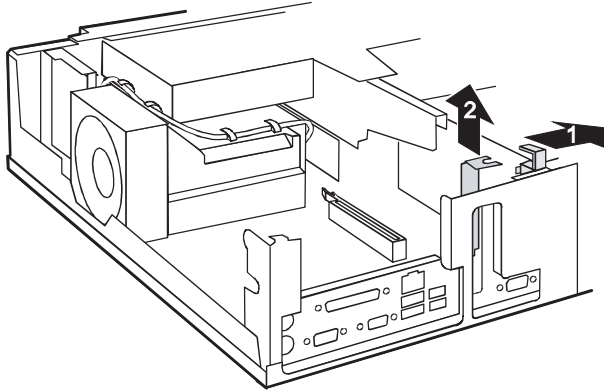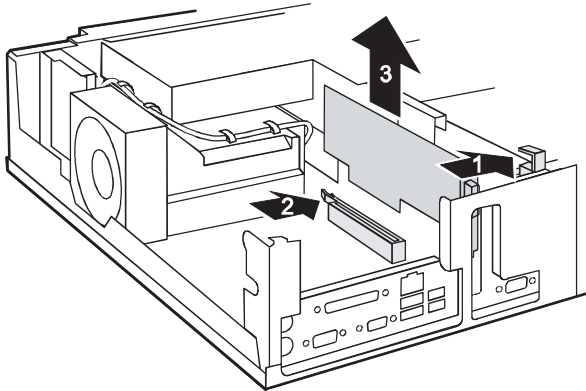

    3   **Press sideways against the retaining bracket and fold it up in the direction of the arrow (1).**

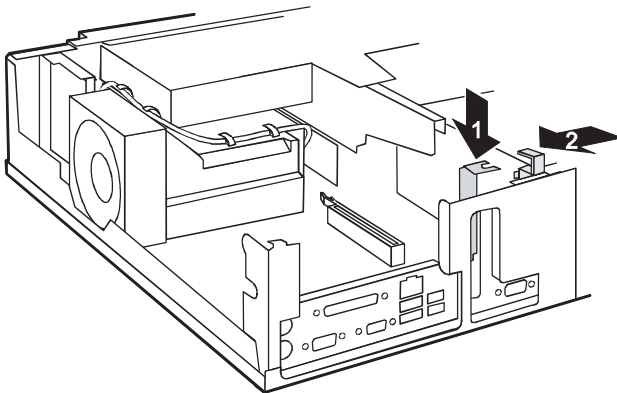   **4**   **Pull the slot cover out of the slot in the direction of the arrow (2).**

    5   **Push the board up to its slot (1) in the direction of the arrow as far as the stop.**

    6   **Press the board into the slot so that it engages.**

    7   **Fold the retaining bracket down again in the direction of the arrow (2). Ensure that the retaining bracket engages.**

    8   **Install the board bracket as described in "Installing board bracket" section.**

    9   **Close the casing (see "Closing the casing" chapter).**

❑ **Removing the graphics card**

   1   Open the casing (see "Opening the casing" chapter).

   2   Remove the board bracket as described in "Removing board bracket" section.

   3   Press sideways against the retaining bracket and fold it up in the direction of the arrow (1).

   4   Press against the ledge of the slot (2) to release the graphics card from the slot.

   5   Pull the graphics card out of the slot in the direction of the arrow (3).

   6   Push the slot cover into the slot in the direction of the arrow (1). Make sure that the tip of the slot cover engages in the notch in the casing bottom.

   7   Fold the retaining bracket down again in the direction of the arrow (2). Ensure that the retaining bracket engages.

   8   Install the board bracket as described in "Installing board bracket" section.

   9   Close the casing (see "Closing the casing" chapter).

■ Installing and Removing Drives

In the standard model the PC may be equipped with the following drives:

- One accessible 3$\frac{1}{2}$ inch drive (floppy drive)
- One non-accessible 3$\frac{1}{2}$ inch drive (hard disk)
- One accessible 5$\frac{1}{4}$ inch drive (e.g. DVD or CD ROM drive)

or:

- One accessible 3$\frac{1}{2}$ inch drive (floppy drive)
- Two non-accessible 3$\frac{1}{2}$ inch drive (hard disk)

"Accessible drives" are e.g. DVD or CD ROM drives, into which a data carrier can be inserted from outside. Non-accessible drives are e.g. hard disk drives.

❑ **IDE drives and serial ATA drives**

By default IDE drives and serial ATA drives are supported.

■ Replacing Drive in 5$\frac{1}{2}$ inch Bay

- Open the casing (see "Opening the casing" chapter).

❑ **Removing a drive**

    1 Pull the data and the power supply connectors from the desired drive.
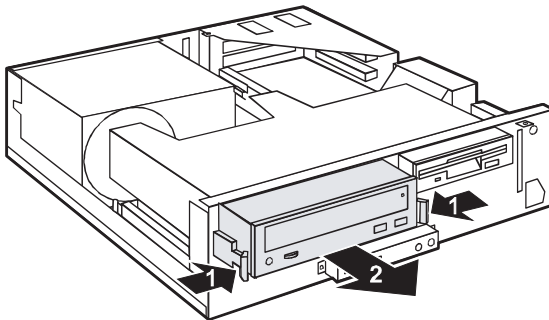

    2 Press the EasyChange rails (1) together and pull the drive out of the casing (2).

    3 Remove the EasyChange rails from the drive.
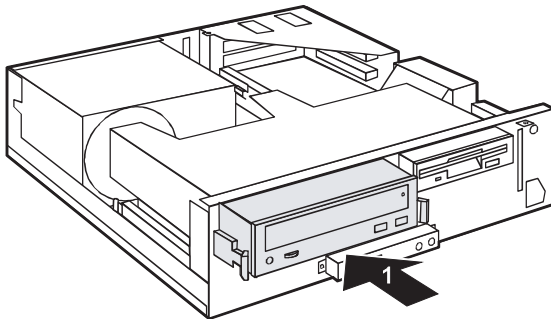
If your PC is equipped with a drive carrier instead of the drive, you can remove and install the carrier in the same way.

❑ **Installing a drive**

    1   Take the new drive out of its packaging.

    2   Adjust the required settings on the drive (if necessary, on already-installed drives as well).
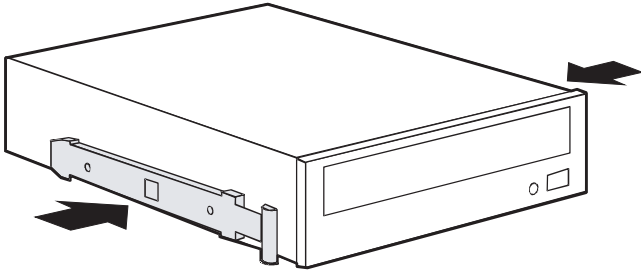
    3   Press the EasyChange rails into the provided holes.

    4   Push the accessible drive into the casing (1) until the EasyChange rails engage.

    5   Plug the data and the power supply connectors into the drive. Make sure the polarity is correct.

It may be necessary to modify the entry for the drive in the BIOS Setup.

    6   Close the casing (see "Closing the casing" chapter).

■ Folding Up and Down the Drive Cage

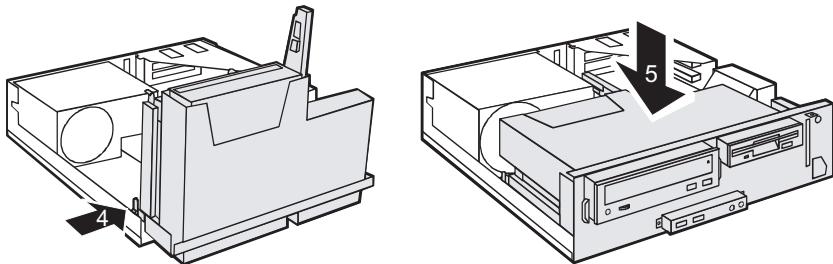● Open the casing (see "Opening the casing").

Please also observe the sticker on the drive cage.

❑ **Folding up the drive cage**
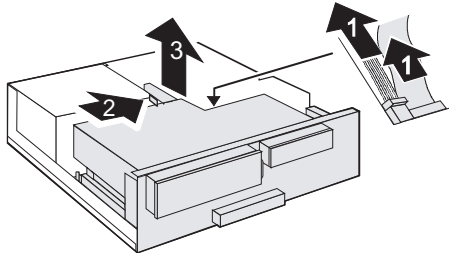
1 **Disconnect the cables from the floppy disk drive (1).**
2 **Press on the drive cage lever (2).**
3 **Fold the drive cage completely upward in the direction of the arrow (3).**
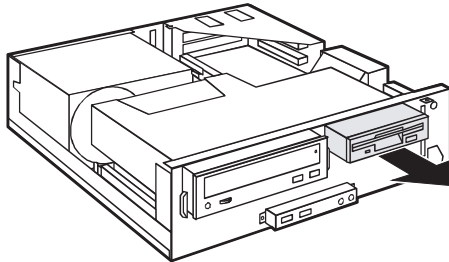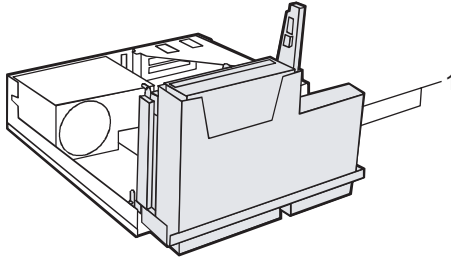
❑ **Folding down the drive cage**

1 **Press on the locking lug (4) of the drive cage and then fold the drive cage with light pressure in the direction of the arrow (5) until the lever engages. Make sure that no cables are pinched in the process.**
2 **Connect the cables to the floppy disk drive.**

■ Changing the Floppy Disk Drive

● Open the casing (see "Opening the casing" chapter).
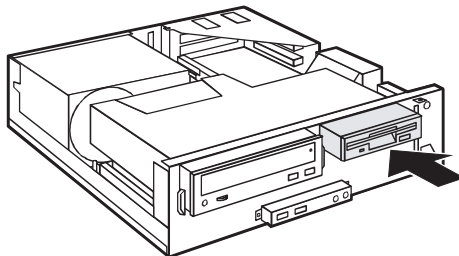● Fold up the drive cage (see "Folding up and down the drive cage" chapter).
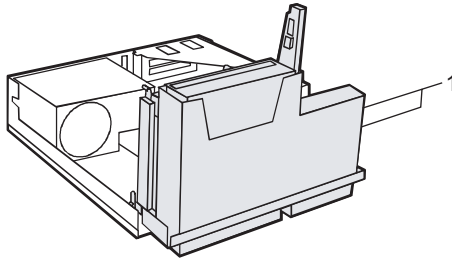
❑ **Removing the floppy disk drive**
    1   Remove the screws (1).
    2   Fold down the drive cage (see "Folding up and down the drive cage" chapter).
    3   Pull the drive out of the casing.

❑ **Installing the floppy disk drive**
    1   Slide the drive cage into the casing.

2   **Fold up the drive cage (see "Folding up and down the drive cage" chapter).**
3   **Fasten the floppy disk drive with the screws (1).**
4   **Fold down the drive cage (see "Folding up and down the drive cage" chapter).**
5   **Connect the cables.**
6   **Close the casing (see "Closing the casing" chapter).**

It may be necessary to modify the entry for the drive in the BIOS Setup.
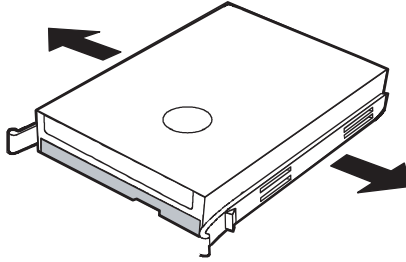
■ Replacing a Hard Disk Drive

● Open the casing (see "Opening the casing" chapter).
● Fold up the drive cage (see "Folding up and down the drive cage" chapter).

❑   **Removing the hard disk drive**
1   **Disconnect all cables connected to the drive (data cable, power supply cable).**
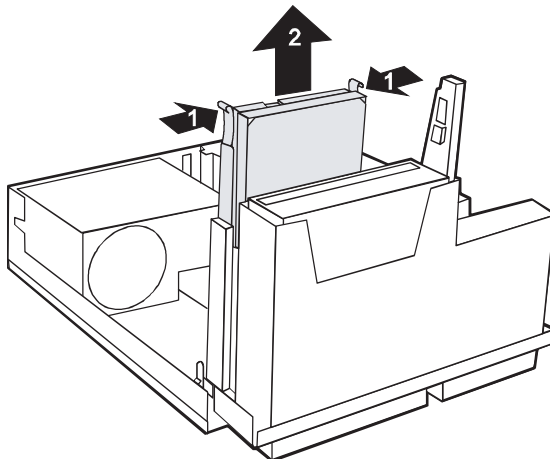
3   Press the EasyChange rails in the direction of the arrows (1).

4   Pull the hard disk drive out of the carrier (2).

5   Pull the EasyChange rails off the hard disk drive.

❑   **Installing a hard disk drive**

1   Take the new hard disk drive out of its packaging.

2   Make the required settings on the drive if necessary (e.g. Master/Slave/CableSelect with IDE drives).

3   Secure the EasyChange rails on the side of the hard disk by inserting the upper pins of the EasyChange rail in the corresponding holes of the hard disk.
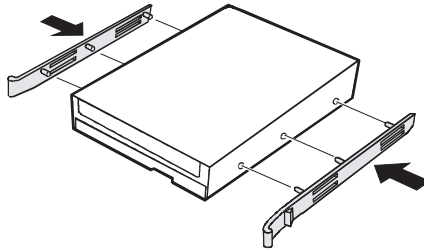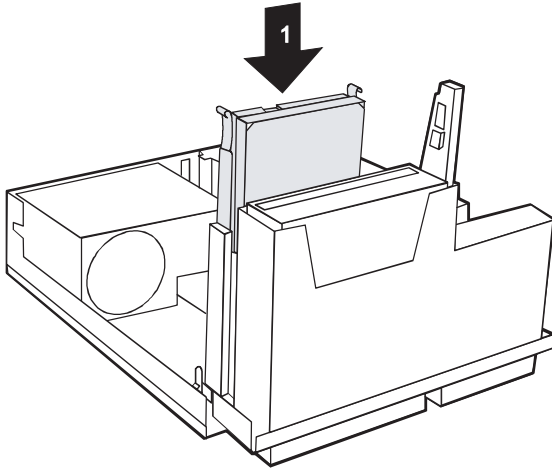
4　**Push the hard disk drive into the casing (1) until the EasyChange rails engage.**

5　**Connect the data and power supply cables to the hard disk drive or to the hard disk drives.**

With IDE drives, connect the blue plug of the data cable to the connection on the mainboard. Connect the plug on the other end to the hard disk drive.

6　**Fold down the drive cage (see "Folding up and down the drive cage" chapter).**

7　**Close the casing (see "Closing the casing" chapter).**

It may be necessary to modify the entry for the drive in the BIOS Setup.

■ Replacing Lithium Battery

In order to permanently save the system information, a lithium battery is installed to provide the CMOS-memory with a current. A corresponding error message notifies the user when the charge is too low or the battery is empty. The lithium battery must then be replaced.

⚠ CAUTION

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 household waste. They 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!

The lithium battery holder exists in different designs that function in the same way.
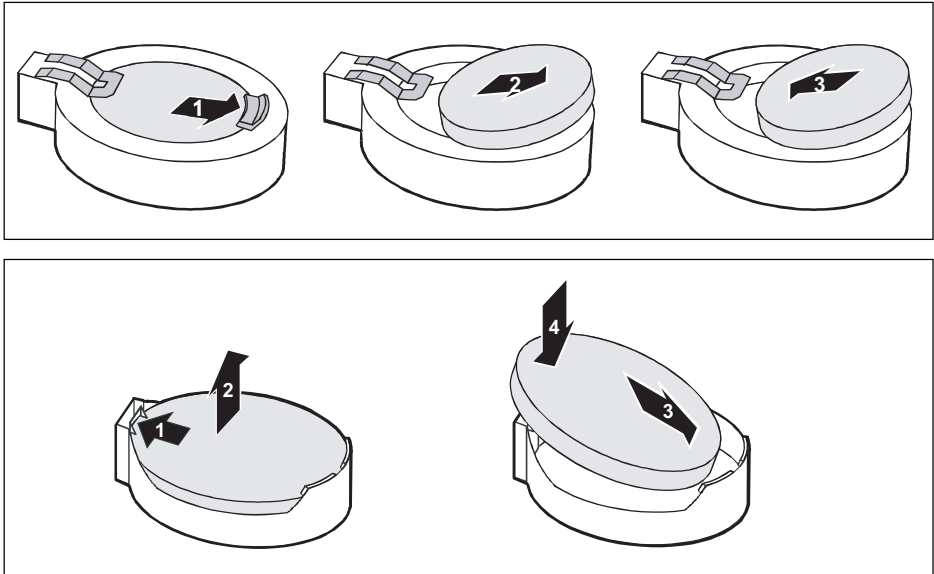
1   **Press the locking lug in the direction of the arrow; the battery jumps somewhat out of the holder (1).**

2   **Remove the battery (2).**

3   **Push the new lithium battery of the identical type into the holder (3) and press it downward until it engages (4).**

4   **Close the casing (see "Closing the casing" chapter).**

CHAPTER 5

Technical Data

Technical Data

■ Electrical Data

	DESKPOWER E600
Regulations complied with:	IEC60950/EN60950, UL60950, CSA22.2 No.60950
Protection class:	I
Rated voltage range	100 V -127 V / 200 V - 240 V
Frequency:	50 Hz -60 Hz
Max. rated current • PC with monitor socket • Monitor socket (output)	100 V -127 V / 6,0 A 200 V -240 V / 3.0 A 100 V -127 V / 3.0 A 200 V -240 V / 1,5 A
Dimensions Width/depth/height:	350 mm/383 mm/95 mm
Weight with the basic configuration	approx. 9,4 kg
Environmental conditions Environment class 3K2 Environment class 2K2	DIN IEC 721 part 3-3 DIN IEC 721 part 3-2
Temperature: • Operating (3K2) • Transport (2K2)	15 °C .... 35 °C -25 °C .... 60 °C
Condensation in operating must be avoided. Clearance required to ensure adequate ventilation Horizontal operating position: • left • front • rear Vertical operating position: • front • rear • top	 min. 200 mm min. 200 mm min. 200 mm min. 200 mm min. 200 mm min. 200 mm

The data sheet of the PC contains further technical data. You will find the data sheet on the Internet at http://www.fujitsu-pc-asia.com