NOTEBOOK COMPUTER

MANUAL

WARRANTY

PLEASE READ THIS LIMITED WARRANTY CAREFULLY TO UNDERSTAND YOUR RIGHTS AND OBLIGATIONS.

The receipt is considered valid proof of purchase and should be kept in a safe place. This receipt will be required for receiving any warranty service. Medion warranty applies to original purchase of this produt from an approved Medion reseller and is not transferable.

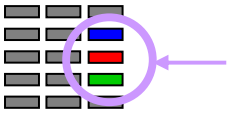
Our company warrants to the end user that each product, including related software, accessories, media and supplies, shall be free from defects in materials and workmanship for twelve months from date of purchase. This warranty covers only those defects that arise as a result of normal use of the product. This warranty does not cover any other problems, including problems that arise as a result of improper maintenance or modification; software, accessories, media or supplies not provided or supported by the supplier; or operation outside the manufacturer's specifications.

Any part of this Notebook repaired or exchanged by a valid service representative will be covered under the original warranty period. Back up all programs and data before shipping this Notebook for repair under the warranty agreement. Do not leave any media in the disk drives. Products shipped without accessories will be returned without accessories. Any replacement product or component may be either new or like new, provided that it's functionality is at least equal to that of the product being replaced.

The TFT display technology used in this Notebook is highly superior to the traditional DSTN technology. Transistors control more than 2 million color dots each. Despite state-of-the-art assembly methods, we cannot completely eliminate scattered defective color dots, called pixel errors, causing display errors in the range of micrometers. Pixel errors at a rate up to 0.0005% are not considered to cause a reduction of usability nor a claim of warranty (see regional court of appeal Cologne [OLG Köln] 1993, AZ 19 U 92/91: CR1993,208 and OLG Cologne 1994, AZ 19 U 183/93: NJW RR 1994, 1077).

Definition of dot defect:

- 3 bright pixel (white color)
- 3 dark pixel
- 6 defect dots (red, green, blue) permanently bright or dark



LIMITATION OF WARRANTY

To the extent allowed by local law, no other warranties are made with respect to this personal computer or the warranty services by any person, including but not limited to our company and its suppliers. The express warranty stated above is the only express warranty made to you and is provided in lieu of all other express or implied warranties and conditions (if any) including any created by any other documentation or packaging. For additional warranty information, please refer to enclosed warranty card.

LIMITS OF LIABILITY

To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event shall the company or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damage, whether based on contract or any other legal theory and whether advised of the possibility of such damages. This includes loss or damage of personal data on your Notebook.

LOCAL LAW

This warranty statement gives you legal rights. You may also have other rights that vary from jurisdiction to jurisdiction. To the extent this warranty statement is inconsistent with local law, certain disclaimers and limitations of this statement may not apply to the customer.

MAKING COPIES OF THIS MANUAL

Table of Contents:

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INTRODUCTION

NOTES ON THIS MANUAL

This manual is divided into sections to help you find the information you require. Along with the Table of Contents, an Index has been provided to help you locate information.

In addition, many application programs include extensive help functions. As a general rule, you can access help functions by pressing F1 on the keyboard. These help functions are available to you when you use the Microsoft Windows® operating system or the various application programs.

We strongly recommend that you read the Online Manual for your Notebook, which can be found in the **Start Menu**.

Information about your PC

This interactive manual is designed to provide additional information about your Notebook as well as useful links accessible via the World Wide Web.

AUDIENCE

These instructions are intended for both the novice and advanced user. Regardless of the possible professional utilization, this Notebook is designed for day-to-day household use. The functions and applications for use with this Notebook have been designed with the entire family in mind.

DOCUMENT YOUR NOTEBOOK

It is important to document the details of your Notebook purchase in the event you need warranty service. The serial number can be found on the back of the Notebook:

Serial Number .....

Date of Purchase .....

Place of Purchase .....

QUALITY

Medion has selected the components in this computer for their high level of functionality, ease of use, safety and reliability.

Through balanced hardware and software design we are able to provide you with an innovative personal computer useful for applications relating to both work and leisure.

We are pleased to welcome you as our newest customer.
Thank you for choosing Medion.

SERVICE

Medion is pleased to provide individualized customer service throughout the life of your Notebook. Please feel free to contact a customer service representative with any questions relating to this Notebook. A separate section on Customer Service is included in this manual, starting on page 59.

INCLUDED WITH YOUR NOTEBOOK:

1 - Notebook
1 - Li-Ion Battery
1 - Power adaptor with power cord (**FSP090-1ADC21**)
1 - Modem cable
1 - Application and Support CD (Drivers etc.)
1 - Microsoft Windows® Getting Started Manual + Recovery CD (for re-installing the operation system, for factory roll-back refer to page 60)
1 - Instruction Manual
1 - Warranty card

SAFETY INSTRUCTIONS

This manual contains important information on the safe and proper setup, use and care of your Notebook computer. Please read this manual carefully and follow all instructions. These instructions should be kept with your computer at all times. Proper set up, use and care can help extend the life of your Notebook. In the event that you transfer ownership, please provide these instructions to the new owner.

Please follow the instructions in this section for the safe operation of your Notebook:

DATA SECURITY

How important is the information you will be storing on your Notebook? You need to guard against the loss of your data by making backup copies. You can backup your data onto CD, floppy disk, or other media such as Zip drives. It depends upon how much data you have. In this way, if something happens to the hard drive in your Notebook, you have another copy of your data.

The supplier does not assume liability for data loss or damage to data storage units, and no claims can be accepted for damages resulting from the loss of data or consequential losses.

OPERATIONAL SAFETY

It is important to follow all of the safety instructions in this manual to ensure the safety of you and your Notebook.

- **DO NOT** open the case of the Notebook, the battery or the power adaptor. When the case is open there is a danger of severe electric shock.

- **DO NOT** insert objects through the slots and openings of the Notebook. This may lead to electric shock, electrical short-circuit or fire that will damage your Notebook.
- **DO NOT** allow small children to play unattended with electrical equipment.

- **DO NOT** cover the slots and openings of the Notebook. These openings are for ventilation purposes. Covering these vents may lead to overheating.
- **This Notebook is NOT designed for use within industrial environments.**

General Safety Information

If you find that:

- the power cord/power adapter is worn or damaged.
- liquid is spilled on the unit.
- the Notebook fails to work properly.
- the Notebook is dropped or the housing is damaged.

You should:

- shut-down your Notebook immediately.
- remove the power cord from the socket.
- contact Customer Service.
- do not restart unless you have contacted Customer Service.

Ambient Temperature

- The Notebook is most reliably operated at an ambient temperature between **+41°** and **+104° F** and at a relative humidity between **30%** and **70%** (without condensation).
- When powered off, the Notebook can be stored at temperatures between **32°** and **140° F**.

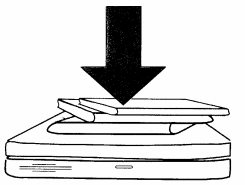
CD-ROM/CD-RW/DVD Drive Safety

- CD-ROM-/CDRW-/DVD-drives are **Laser Class 1** devices. These lasers **must** remain in their sealed casing.
- **Danger** — Invisible laser radiation when open. Avoid direct exposure to beam. This product is certified by the manufacturer to comply with DHHS rules 21CFR, Chapter 1, Subchapter J, applicable at date of manufacturer. Refer to optical drive labels for additional details.
- **DO NOT** remove the drive covers, as exposure to the lasers may be harmful**.**
- **DO NOT** look directly into the laser, even when wearing eye protection.

TFT Display Safety

- To avoid damage to the TFT Display, **never** open it a full 180º. **Do not** forcibly open it.
- In order to avoid damage to the display, **do not** touch it with your fingers or sharp objects.
- **Never** lift the Notebook by the TFT Display; doing so could break the hinges.
- There is a risk of injury if the **TFT display breaks**. Use **protective gloves** to pack up the broken pieces and contact customer service to arrange for proper disposal.

  It is important to thoroughly wash your hands after handling a broken TFT display. There is a chance that **chemicals** may have been released.



- **Never** place objects on top of the Notebook that would exert any pressure on the display. There is a danger that even slight pressure may break the TFT display.

POWER ADAPTER

- Do not open the power adapter housing. When the housing is open there is a **danger** of severe electric shock. It contains no user-serviceable parts.
- The electric outlet must be in the vicinity of the Notebook and within reach of the power adapter cables. **DO NOT** stretch the power cables tightly to reach an electric outlet.
- To disconnect your Notebook from the power source, or set the Notebook to battery operation, remove the power cord from the Notebook's power socket.
- Only use the Notebook with a power adaptor (**FSP090-1ADC21**) operating at **AC 115V~/60 Hz.** In European countries use the Notebook at **AC 220-240V~/50 Hz.**

  For details on power consumption, please refer to the rating plate on the rear of your Notebook. If you are unsure of the type of power supply available at the point of use, ask your local power company.
- Use **only** the supplied power cord.
- If using an extension cord, make certain that it meets your local safety requirements. If in doubt, consult an electrician.
- To provide additional protection against electric shock, power surges, lightning strikes, or other electrical damage to your Notebook, we recommend the use of a **surge protector**.

BATTERY OPERATION

To extend the life and power of your battery and guarantee secure operation, the instructions below should be followed:

- Never expose the battery to **direct sunlight** or **heat** for long periods.
- **Do not** dispose of the battery by fire as they may explode. Check with local codes for possible special disposal instructions.
- **Do not** open the battery housing; it contains no user-serviceable parts.
- Disregarding these instructions will lead to damage and under some circumstances may even cause the battery to **explode**.

- Keep the battery away from electrically conductive materials, chemical substances and cleaning agents.
- Only use the originally supplied power adapter to charge the battery (**FSP090-1ADC21**).
- Fully discharge the battery before recharging it.
- Replace the battery **only** with the same type or an equivalent type recommended by the manufacturer.
- Charge the battery only until the battery charging light goes out. Also, refer to the instructions under "Charging the Battery" on page 27 for instructions on checking the battery level.
- Only change the battery when the unit is switched off.
- **Batteries are classified as special waste** and should always be disposed of properly. Contact Customer Service for more details.
- Keep batteries away from children at all times.
- Use only the batteries and power adapter/cord indicated in this manual.

MODEM

- If your system has a modem, please make sure you connect it to an **analog** telephone line only. Connecting to a digital PBX, a digital line designed for broadband services or ISDN, a shared service line or a payphone will damage the modem or the devices to which it is connected.

TOUCH PAD

- Light pressure with the tip of your finger is all that is required to operate the touch pad. Because the touch pad is electrostatic sensitive, objects cannot be used in place of your fingers. Using a pen or other object can damage the touch pad or cause the Notebook to malfunction.

CABLING

- Arrange cables so no one can walk on or trip over them.
- **DO NOT** place objects on any of the cables.

Caution – To reduce the risk of fire, use only No. 26 AWG or larger telecommunication cords (applies to American Standards).

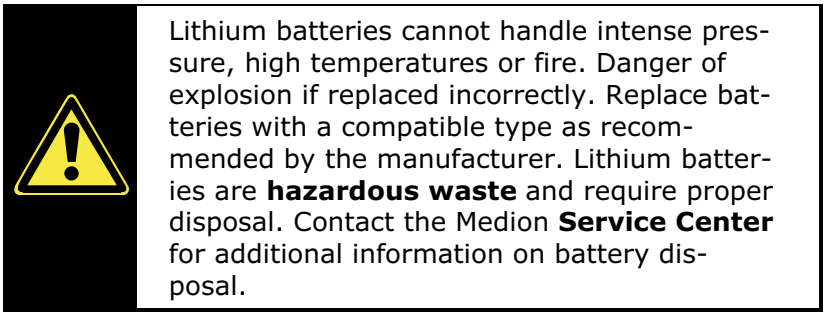
SET-UP LOCATION

- Keep your Notebook and all connected peripherals away from moisture, dust, heat and direct sunlight. Failure to do so can lead to Notebook malfunction or damage.
- It is highly recommended you do not use the Notebook outdoors.
- Operate the Notebook and all peripherals on a stable, balanced and vibration-free surface.
- **Do not** leave the base of your Notebook on your lap or any part of your body for a long period of time while the Notebook is turned **ON** or is charging. The Notebook can become very warm while it is turned on or charging and can cause discomfort or injury from heat exposure.

IMPORTANT ADDITIONAL SAFETY INSTRUCTIONS

When using any electronic equipment, basic safety precautions should always be taken. Following the guidelines below can reduce the risk of fire, electric shock and injury to person:

- Do not use this product near water (e.g., near a bathtub, lavatory or kitchen sink, in a wet basement or near a swimming pool).
- Avoid using a telephone/modem (other than a cordless type) during an electrical storm. There is a remote risk of electric shock from lightning.
- Do not use the telephone/modem to report a gas leak in the vicinity of the leak.



Lithium batteries cannot handle intense pressure, high temperatures or fire. Danger of explosion if replaced incorrectly. Replace batteries with a compatible type as recommended by the manufacturer. Lithium batteries are **hazardous waste** and require proper disposal. Contact the Medion **Service Center** for additional information on battery disposal.

UPGRADES AND REPAIRS

- Only a qualified Service Engineer should perform upgrades and repairs to your Notebook.
- If you do not have the necessary qualifications, go to an appropriate **Service Engineer**. Please contact the **Service Center** if you are experiencing technical problems with your Notebook.

NOTES FOR SERVICE ENGINEERS

- Before opening the housing, disconnect the Notebook from all power sources and remove any connecting cables. If the Notebook has not been disconnected from the power outlet before being opened, there is a **danger** of severe electric shock. There is also a risk of damage to the components.
- Internal components of the Notebook may be damaged by **electrostatic discharge** (ESD). Perform system upgrades and changes in an **ESD-protected work area**. If no such work area is available, wear an **antistatic wrist strap** or touch a highly conductive metal object. Your service center can repair damage sustained by inappropriate handling for a fee.
- Use only **original spare parts**.

CAUTION: The CMOS lithium batteries cannot tolerate intense pressure, high temperatures or fire. Keep away from children! Danger of explosion if replaced incorrectly. Only replace with a compatible type (CR2032) as recommended by the manufacturer. Lithium-Batteries are **hazardous waste** and need to be disposed of properly. If necessary, we will take back your used CMOS lithium battery.

Notes on Laser Radiation :

Laser devices of Laser Class 1 to Laser Class 3b may be used in the Notebook. Where the Notebook housing remains closed, the device meets the requirements of **Laser Class 1.** By opening the Notebook housing you will gain access to laser devices of up to Laser Class 3b.

- The CD-ROM/CD-RW/DVD/DVD+RW drive contains no user-serviceable parts. Only the **manufacturer** should perform repairs to the CD-ROM/CD-RW/DVD/DVD+RW drives.

When removing and/or opening laser devices, the following guidelines must be observed:

- **DO NOT** look into the laser beam, even while wearing optical protection.
- **DO NOT** allow yourself to be exposed to the laser beam. Avoid exposure of the eyes or skin to direct or stray radiation.

MAINTENANCE INSTRUCTIONS

This section provides information on the proper maintenance and care of your Notebook. Following these measures can extend its lifetime.

CLEANING AND CARE

- **Warning!** There are no user-serviceable or user-cleanable parts inside the Notebook housing. Never open the Notebook housing.
- **DO NOT** use any solvents, corrosive or gaseous cleaning agents.
- **DO NOT** use CD-ROM cleaning disks or similar products that clean the lens of the laser to clean your CD-ROM/CD-RW/DVD-drive.

- Before cleaning, always remove the power adapter plug and all connecting cables.
- Only use a damp, lint-free cloth to clean the Notebook.

CARE OF THE TFT DISPLAY

- Always close the Notebook when not in use. Avoid touching or scratching the surface of the screen as it is easily damaged.
- Make sure that no water drops are allowed to remain on the screen. Water can cause permanent discoloration.
- Clean the screen with a dry, soft, lint-free cloth.
- Do not expose the screen to bright sunlight or ultraviolet radiation.

TRANSPORTING THE NOTEBOOK

Please use the following guidelines when transporting the Notebook:

- Switch off the Notebook. This will prevent damage to the hard disk. When the Notebook is turned off, the hard disk heads are moved into a safe area.
- Remove any CDs and floppy disks. This will prevent damage to the disks or to the drive heads.
- Close the Notebook and ensure that the cover locks shut.
- Always use the Notebook carrying case. This helps to protect the Notebook from dirt, moisture, jolts and scratches.
- Fully charge your battery and any spare batteries immediately before a long journey.
- Should you need to ship your Notebook, always use the original packaging and make certain the shipper knows the contents contain fragile electronic equipment.
- Wait until the Notebook has reached ambient (room) temperature before turning it on or connecting it to the power adapter. Drastic variations in temperature and humidity can create condensation within the Notebook and may cause it to short-circuit.

SECURING YOUR NOTEBOOK

SETTING A USER PASSWORD

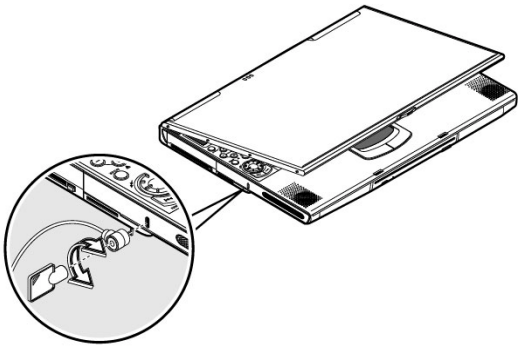
You can prevent unauthorized access to your Notebook by setting a User Password. If a User Password is set, you will be prompted for the password each time the Notebook is started. The User Password is set in the **BIOS**.

Attention: It is important to record your password in a safe place. If you forget your password, you will not be able to cancel it or access the software on your Notebook. If this happens, you will need to contact your service center.

USING A SAFETY LOCK

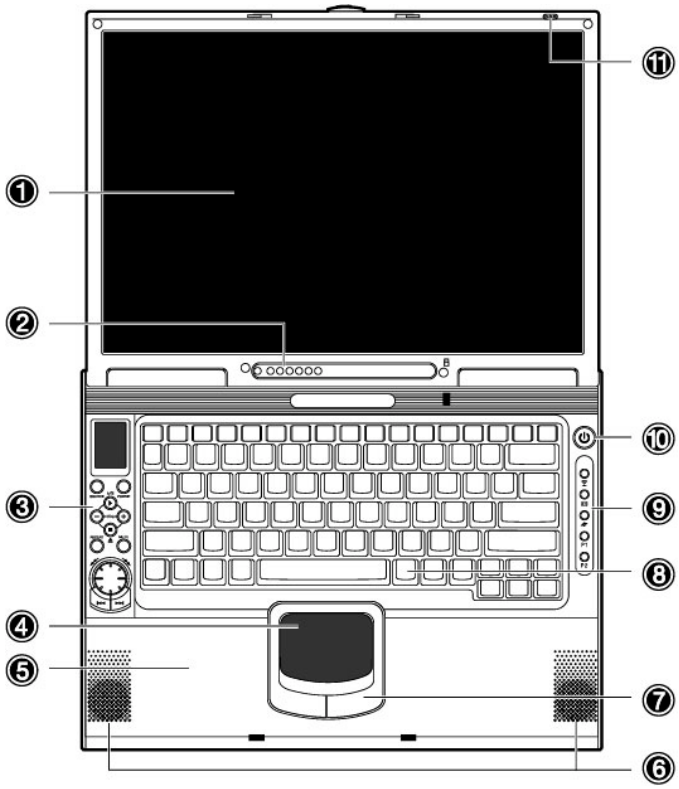
You can prevent theft by using a special type of lock called a **Kensington-lock**, which can be bought at your local retailer.

A Kensington lock has a cable that wraps around a stationary object and a "T" shaped end that inserts into the Kensington lock port on your Notebook. Either a key or combination dial is used to secure the lock in place.



VIEWS OF THE NOTEBOOK

OPEN NOTEBOOK

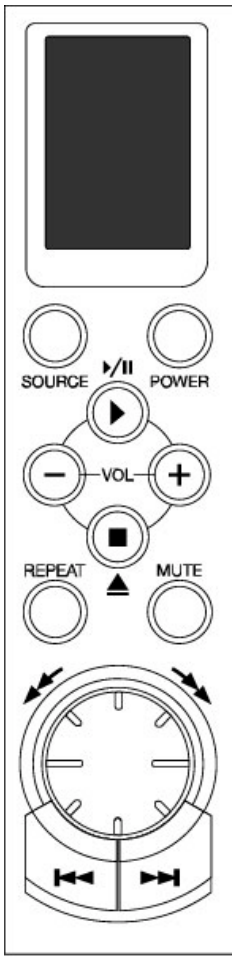


(Diagram the same)

❶	TFT display (⇨ p. 30)	❼	Touch pad keys (⇨ p. 33)
❷	Indicators (⇨ p. 19)	❽	Keyboard (⇨ p. 32)
❸	AV Media Player	(to play CDs without booting the notebook)	
❹	Touch pad (⇨ p. 33)	❾	Hotkeys (⇨ p. 20)
❺	Palm rest	❿	Power ON/OFF (⇨ p. 25)
❻	Speakers	⓫	Microphone

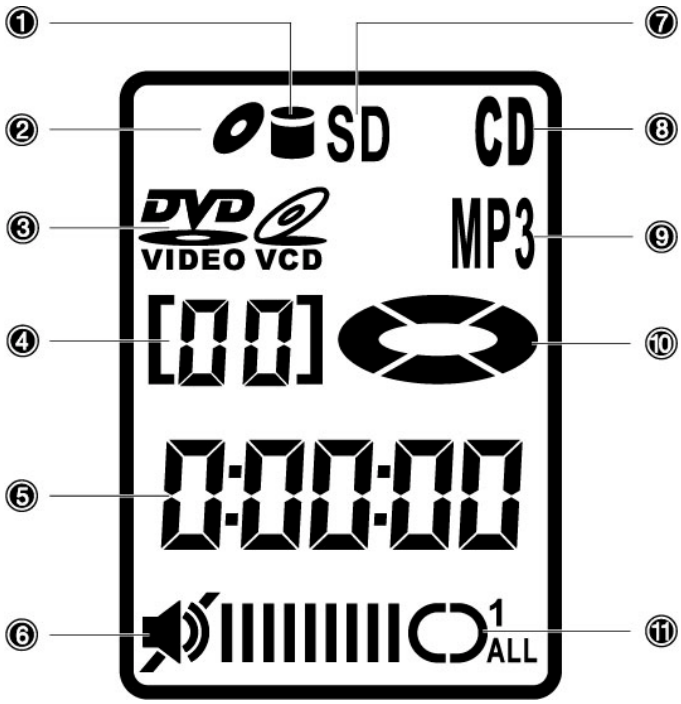
AV (AUDIO/VIDEO) MEDIA PLAYER

Power	ON / OFF
Source	Source selection - CD, SD/MMC or hard disk* if the notebook is turned on
▶ / II	Play / Pause
- / + Vol	Volume control
■ / ⏏	Stop / Eject
Repeat	Selects the options: no repeat, repeat the current track or repeat all
Mute	Mute the sound
◀◀ - / - ▶▶	Fast rewind and fast forward if the notebook is turned on when viewing DVD or VCD movies
⏮/⏭	Previous / next Track



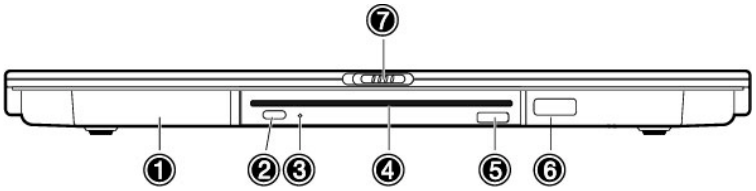
* You need to set up your play list and make it active, then select hard disk as the source in the AV panel in order to play MP3s in the play list.

AV (AUDIO/VIDEO) CONTROL PANEL



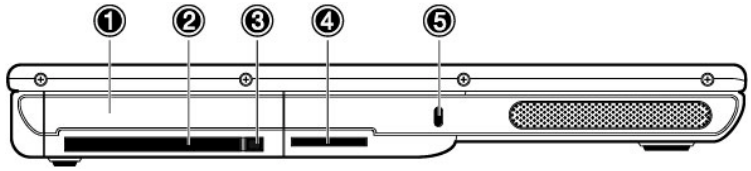
❶	Hard disk access	❻	Volume level
❷	Optical drive access	❼	SD access
❸	Optical disk type	❽	Audio CD access
❹	Track number	❾	MP3
❺	Elapsed time	❿	Playback status
⓫	Repeat track display		

FRONT VIEW



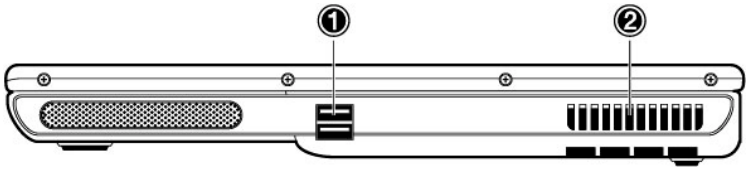
❶	Battery bay (⇨ p. 26)	❹	Drive slot
❷	Disc eject button (⇨ p. 37)	❺	Infrared port (⇨ p. 53)
❸	Activity LED optical drive	❻	Bass ON/OFF
❼	Display catch (⇨ p. 30)		

LEFT SIDE



❶	Hard disk bay
❷	PC card slot PCMCIA, optional (⇨ p. 49)
❸	PC card eject button (⇨ p. 49)
❹	SD/MMC slot
❺	Kensington lock (⇨ p. 13)

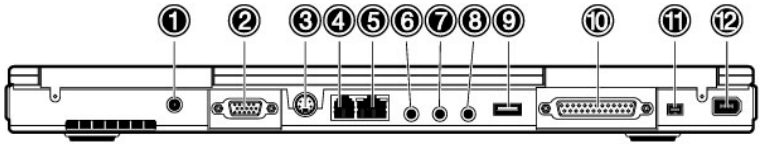
RIGHT SIDE



❶	USB ports (⇨ p. 51)	❷	Fan slot*

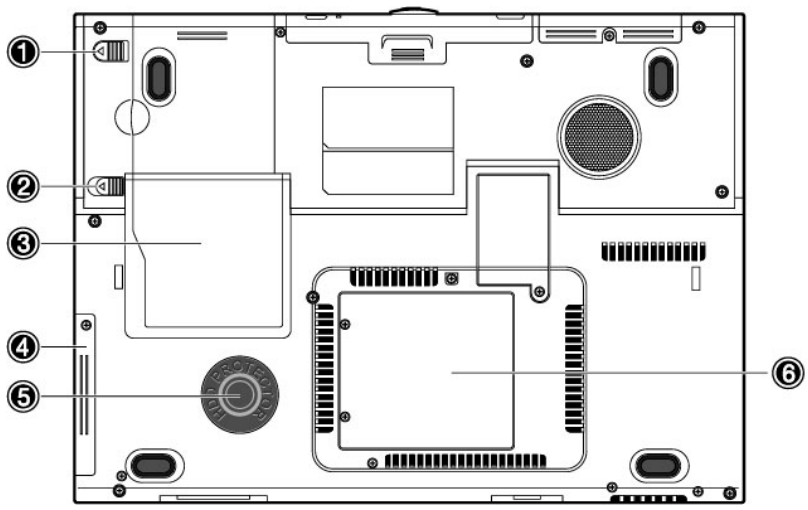
***Caution! Do not cover when in use!**

REAR SIDE



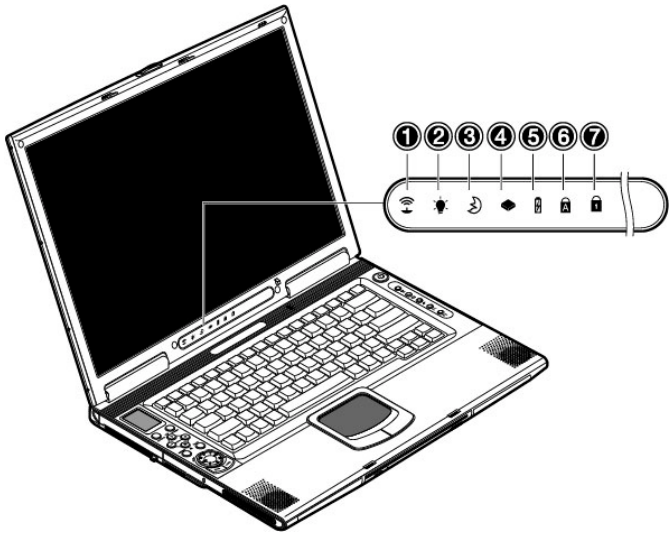
❶	Power socket (⇨ p. 25)	❼	Line in (⇨ p. 45)
❷	External monitor (⇨ p. 31)	❽	Line out/SPDIF (optional) (⇨ p. 45)
❸	TV/Video out (⇨ p. 31)	❾	USB port (⇨ p. 51)
❹	Modem port (RJ-11) (⇨ p. 45)	❿	Parallel port (⇨ p. 51)
❺	LAN port (RJ-45) (⇨ S. 46)	⓫	IEEE1394 (4-pin) (⇨ p. 52)
❻	Microphone in (⇨ p. 45)	⓬	IEEE1394 (6-pin) (⇨ p. 52)

BOTTOM VIEW



❶	Battery lock/unlock latch (⇨ p. 26)	❹	Hard disk bay
❷	Battery release latch (⇨ p. 26)	❺	Hard disk protector
❸	Battery bay (⇨ p. 26)	❻	Memory compartment

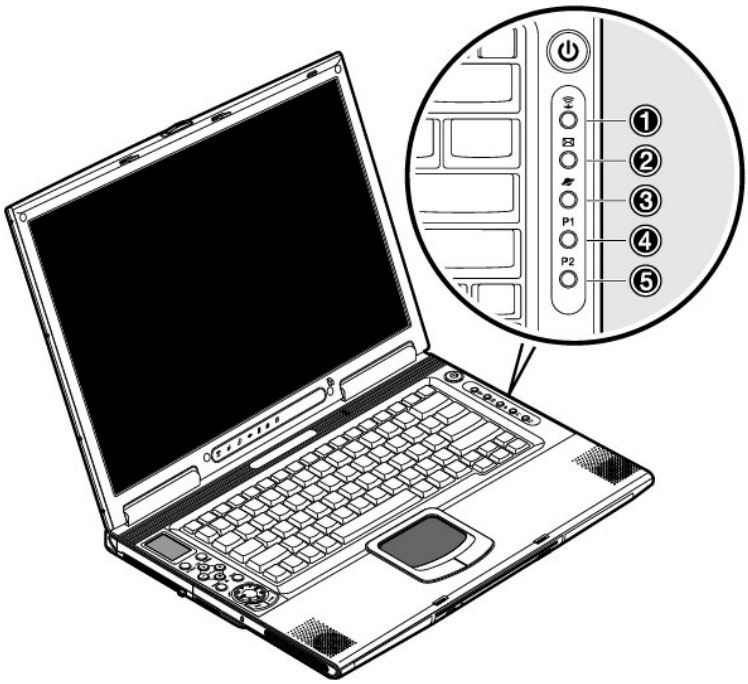
INDICATORS



LED's indicate the power and operating system states of the Notebook. The meaning of each LED is:

❶		Wireless LAN (optional)
❷		This LED **lights green** when the system is switched on. If the battery level is low, the LED **lights orange**.
❸		This LED **lights** when the Notebook is in stand-by mode. It **flashes** when resuming normal operation.
❹		This LED **lights** when the Notebook is accessing the hard disk or CD/DVD-ROM drive.
❺		This LED **lights** when the battery is charging. It lights only when the power adapter is connected and a battery is in place.
❻	A	This LED lights when CAPS Lock has been activated. This sets the keyboard to capital letters.
❼	1	This LED lights when NUM Lock has been activated. It sets the keyboard so that numbers are assigned to certain characters, simplifying numerical data input.

HOTKEYS



❶		WIRELESS LAN	To enable or disable the wireless LAN. (optional)
❷		E-MAIL	Launches the E-Mail Program.
❸		INTERNET	Launches the Internet Browser.
❹	P1-2	USER DEFINED	These keys can be assigned with applications defined by the user.

GETTING STARTED

Before you get started using your notebook, first take a few moments to read the important section on **Safety**.

This Notebook comes with software **fully pre-installed**. You do not have to install any of the CDs supplied. However, with many programs (e.g., telephone CDs or encyclopedias) it is necessary to insert the corresponding CD to access the data that is stored on it. The software will prompt you to do this when necessary.

STEP 1

Before starting the Notebook please insert the battery. For further information read the section titled "Power Supply" starting on page 25. Open the display (see page 30) and switch on the Notebook using the On/Off switch (see page 14.)

If the battery level is insufficient, connect the power adapter.

Note: Make sure there is no bootable CD (e.g., the Recovery CD) in the CD-ROM drive. Such disks will prevent the operating system from loading off the hard drive.

The Notebook starts and goes through a number of phases:

1. The Notebook first performs a quick self-check.
2. Then the **operating system** is loaded from the hard disk. During this one-time initial set-up, the loading process takes slightly longer than normal. This time is needed for the system to completely register the operating system and the individual components.
3. Your operating system is finished loading when a welcome screen is shown on your display.

STEP 2

The greeting procedure will guide you through a series of dialogue boxes. The information in each dialogue box will explain the steps that need to be taken. So, just follow the instructions on the screen.

Should you have any questions just click on  .

ENTER PERSONAL DETAILS

In one of the initial start-up dialog boxes a request will appear on the screen for you to enter your personal details. Please enter the requested information in the white input fields. You can select the fields by clicking on them with the mouse. When you press Enter, or click on the Continue button you progress to the next window.

MOUSE FAMILIARIZATION PROGRAM

The greeting procedure will also take you through a mouse familiarization program. Use this program if you need to learn how to operate the mouse. When ready, quit the program by pressing the **ESC** (escape) key on the top left of the keyboard.

LICENSE AGREEMENT

The greeting procedure also displays the license agreement. Please read this carefully. It contains important legal information on the use of your software. In order to see the full text, use the mouse and the scroll bar on the right side of the screen to move downwards until you have reached the end of the document. You accept the agreement by clicking on the **I accept the agreement** option field. Only by doing so will you be entitled to use the product under lawful terms and conditions and be entitled to open the sealed Windows® manual.

STEP 3

After the login procedure the Windows® desktop appears on your screen. This can be adjusted so that the screen of your computer looks different.

SHORT DESCRIPTION OF THE WINDOWS® DESKTOP

❶ The Start button

Click once on this button with your left mouse key to call the illustrated start menu.

❷ Program bar

The most commonly used programs are listed here. The operating system recognizes them automatically. If you press the right mouse key on an entry you can determine which entry is kept and which is deleted from the list. The program associated with the entry will **not** be deleted.

❸ All Programs

Here you find the entries to every program installed on your PC. Here, too, you can edit entries with the right mouse key.

❹ Information about your PC

Click on this button once with the left mouse key to receive important information about your PC as well as valuable hints and additional assistance.

❺ Switching off

Click on this button with the left mouse key to switch off the PC.

❻ Task bar

Here you receive information and status reports about the operating system and the running programs.

❼ „Icons" on the „Desktop"

Icons are program links used to start the respective programs. A **double click** (press the left mouse key quickly twice) on the symbol starts the application.

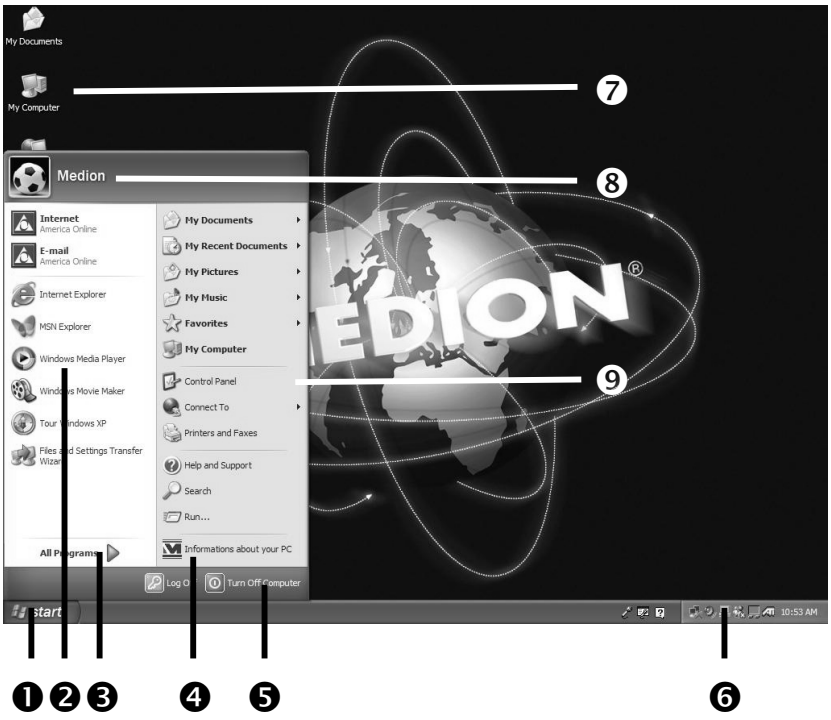
The **Desktop** includes almost the complete screen and is the filing area for those entries or other links you would like to access quickly.

❽ Logged in user

This shows the logged in user. The image is changed by clicking on it.

❾ Control Panel

This is the central control of your computer. Here you are able to configure your computer at will. However, you should read about the implications of possible changes in „Help and Support".



POWER SUPPLY

ON/OFF SWITCH

The On/Off switch (page 14) is used to power up/down the Notebook. The system is powered down, independently of the operating system, if the switch is continuously pressed for longer than 4 seconds.

WARNING! Do not switch off your Notebook while the **hard disk** or the floppy drive is running and the corresponding **media activity LEDs** are lit. Otherwise data may be lost. To protect the hard disk you should always wait for 20 seconds after powering down the Notebook before powering it up again.

POWER ADAPTER

Your Notebook is supplied with a universal A.C. power adapter, which automatically adjusts to the available power source. The following levels are supported: **AC 100-240V~/ 50-60 Hz.** Please follow the power supply **safety instructions** found on page 6.

The power adapter is connected via a power cord to an AC wall socket. The DC power lead from the power adapter is connected to the rear of the Notebook (see page 18).

The adapter provides the Notebook with power and also charges the battery. The power supply indicators of the Notebook (see page 19) provide details on the operating state. The battery is also being charged when you are working on your Notebook with the power adapter. The power adapter is still live if the Notebook is not connected with it. You should therefore unplug the power adapter from the wall socket if it is not connected to the Notebook.

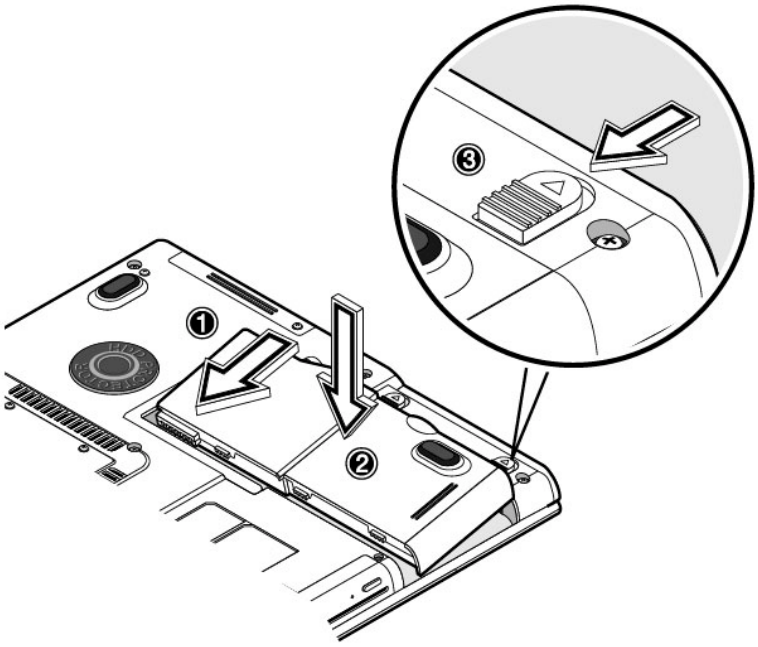
WARNING! Use only the power adapter and power cord supplied with your Notebook.

BATTERY OPERATION

In order to extend the life and power of your battery, and to guarantee reliable operation, it is essential that the safety instructions on page 7 are followed.

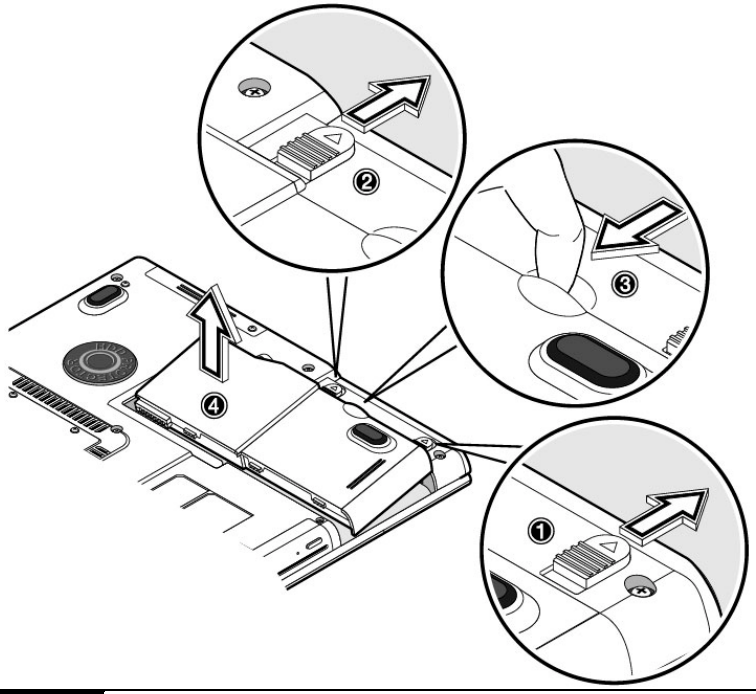
INSERTING THE BATTERY

Slide the battery, contacts first, into the battery compartment.



REMOVING THE BATTERY

Slide the battery locks to remove the battery.



WARNING! Do not remove the battery while the Notebook is running on battery power. You increase the possibility of losing data.

CHARGING THE BATTERY

The battery is charged via the power adapter. If the power adapter is connected, it charges the battery automatically, whether the Notebook is turned on or not.

When the Notebook is switched off, full charging takes a few hours. If the Notebook is switched on, the charging process takes a significantly shorter time since a fast charging procedure is performed. However, it is recommended that from time to time you discharge the battery completely and recharge it afterwards with the Notebook switched off.

BATTERY POWER

A fully charged Li-Ion battery will provide power for around 2 hours of operation. However, the battery life will vary according to how the power saving functions are set, the way you work, the size of the main memory and the display type.

When working in Windows an audible warning signal will be given off as soon as the battery level drops below a set minimum value. When this happens, the processing power is reduced in order to save power.

NOTE: Battery warning signals and "Low-Battery" mode will be heard immediately when the power pack is first connected.

CHECKING THE BATTERY LEVEL

In order to check the current level of the battery, move the cursor over the power symbol in the taskbar. 

When in battery mode, a battery symbol is displayed and when the power adapter is in use a power connector is displayed. If the battery is being charged the power connector has a lightning symbol superimposed over it. Further information on power settings can be obtained by double clicking on the symbol.

NOTE: If you ignore the warning signal when the battery level is low, your Notebook goes into suspend mode. (Depending on the BIOS/OS setting this will be Save-to-Disk or Save-to-RAM).

WARNING! If the battery is empty, your data will not be retained for long in Save-to-RAM mode.

WARNING! Never remove the battery while the Notebook is switched on or if the Notebook has not yet gone into suspend mode, as this may lead to loss of data.

POWER MANAGEMENT

Your Notebook offers automatic and modifiable power saving functions that you can use to maximize battery life and reduce overall operating costs. The power saving modes are known as standby mode and suspend (hibernate) mode.

APM AND ACPI

Advanced **P**ower **M**anagement (APM) was developed by Intel and Microsoft and controls the main power functions of the system. **A**dvanced **C**onfiguration and **P**ower Management **I**nterface (ACPI) was developed by Intel, Microsoft and Toshiba, in order to control power saving and Plug&Play functions in systems. The new ACPI standard added many enhancements to APM. Now the closing and opening of the display can be assigned various functions through power management. For example, the Notebook can be programmed to switch off when the display is closed. Likewise the On/Off switch can be set so it activates the standby mode. ACPI offers you a number of setting options. (See: System Control, "**Power Management Features**")

STANDBY MODE

When in standby mode, the contents of the RAM of your Notebook are preserved while practically all other components of your Notebook are shut down, reducing your power consumption to a minimum. By pressing any key on the keypad, you can bring your Notebook back to the fully operational state.

SUSPEND (HIBERNATE) MODE

The hibernate mode is an alternative to a complete shutdown of the Notebook. In this mode all data from RAM (system and graphic data) are copied to the hard disk as a file. As soon as the data has been safely saved, the Notebook powers down. When the Notebook is switched on again, this file is written back to RAM by the BIOS. In a few moments the Notebook is in the exact state as when it was last used. If while working on a document the Notebook is closed (assuming the correct ACPI setting), the Notebook saves the data in RAM for you automatically. You will restart at precisely the line in which you were working prior to the interruption.

DISPLAY

Unlike a normal monitor, the TFT display does not produce either radiation or flicker.

OPENING AND CLOSING THE DISPLAY

A display catch keeps the display closed when the Notebook is not in use. To open, use your thumbs to slide the bar left then lift the display with your thumbs and index finger and position it as desired.

WARNING! The display should **not** be opened fully to 180°. Do not try to forcibly open it.

The opening and closing of the display can be assigned various functions via the Power management feature. For example, the Notebook can be programmed to power down when the display is closed.

SCREEN RESOLUTION

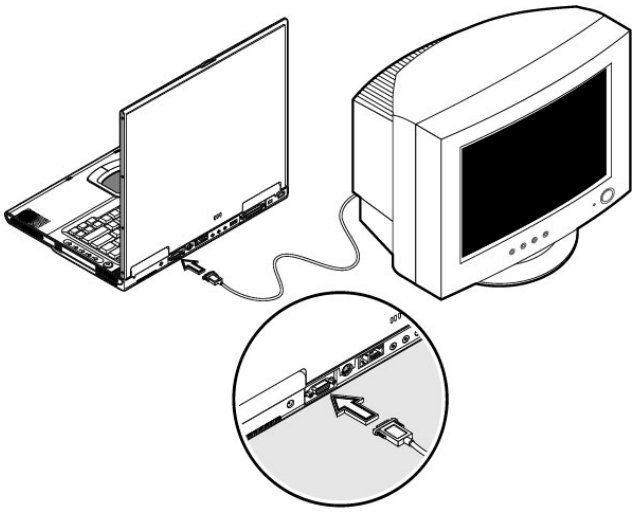
The integral screen has 1280 x 854 pixels. If in the Windows help program "Display Properties" you select a display with different parameters, the display may not use up the full screen area. Enlargement can lead to distortion of the display, especially with text.

You could work with a higher resolution if you connect an external monitor with increased resolution. However, in order to increase the screen resolution you may have to decrease the depth of color since the video memory has a limited capacity. With the Windows "Display Properties" program you can adapt the display to the modes supported.

CONNECTING AN EXTERNAL MONITOR

The Notebook has a port for connecting an external monitor. To connect and configure the Notebook for an external monitor:

1. Connect the signal cable of the external monitor to the VGA port of the Notebook (see page 18).
2. Connect the external monitor to the electrical socket and power it up.
3. Start the "**Display Properties**" program and select "**Settings**".
4. Under "**Settings**" click on "**further options**" and select "**Screen**". Click on "**Modify**" and change the Device Driver Updates option. Click on "**Display all models**" and select your monitor.
5. Once the drivers for your monitor have been installed, select the "**Display Device**" button and enter the display you want.



THE KEYBOARD

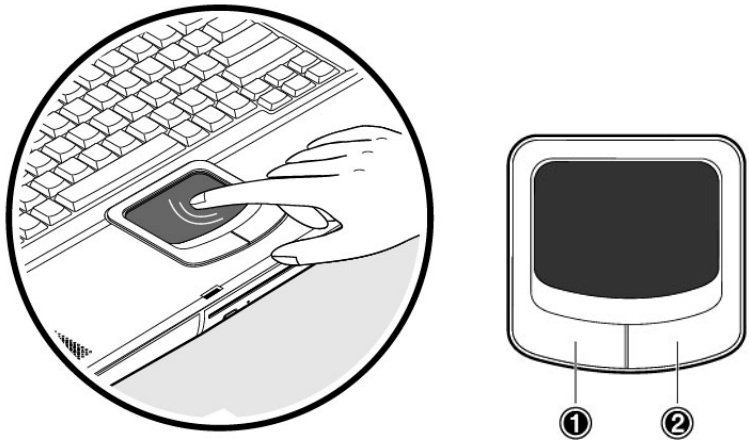
By dual assignment of certain keys you have the same range of functions available to you as with a normal Windows keyboard. Some functions are input using the FN key, which is normal on notebook computers.

NOTEBOOK-SPECIFIC KEY COMBINATIONS

<FN> + <F1>	Displays a list of the specific key combinations
<FN> + <F2>	Toggles on/off suspend mode. For further information see "***Power management***" on p. 29.
<FN> + <F3>	Toggles the TV-output on and off.
<FN> + <F4>	Switches the backlight of the display on and off.
<FN> + <F5>	Toggles the speakers on and off.
<FN> + ▷	Increases brightness. This is used if the display is too dark.
<FN> + ◁	Decreases brightness. This is used if the display is too bright.
<FN> + <F11>	Toggles the Number-Lock on and off.
<FN> + <F12>	Toggles the CAPS-Lock on and off.

TOUCH PAD

The touch pad's primary function is to move the cursor around or select items displayed on the screen with the use of your fingertip instead of a mouse. It is positioned in front of the keyboard (see page 14). The pointer follows the direction which is specified by moving your finger or thumb over the touch pad.



DO NOT use a ball-point pen or other object on the touch pad, as this could damage or cause a malfunction of your touch pad.

Below the touch pad are the left (❶) and right (❷) mouse buttons which can be used as on a normal mouse. You can also perform a direct click or double click using the touch pad by tapping the surface briefly once or twice.

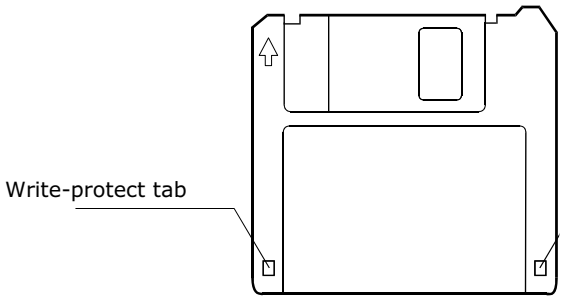
In the Windows Control Panel under the "Mouse" heading you will find a number of useful settings that will make your day to day work easier.

Although using a touch pad may take some getting used to, you will quickly find that it is just as easy to use as a normal mouse.

THE FLOPPY DISK DRIVE

Your notebook is delivered **without** a floppy disk drive. You can connect an external USB floppy disk drive (not included).

A floppy disk drive can read and write 3.5" floppy discs with a storage capacity of 720 KB or 1.44 MB. It is an excellent medium for storing and transporting small quantities of data. In order to access a disk, first place the formatted disk in the floppy drive. The floppy disk drive is addressed by the operating system as drive A.



On both types of floppy disks there is an arrow in the front upper left corner and a write-protect tab in the bottom left corner. (See illustration above)
If the write-protect tab is open no data can be written to or deleted from the floppy disk.

If you wish to remove the floppy disk, press the eject button (see page 17). Whenever the computer is accessing the floppy disk, the LED on the floppy disk drive is lit.

WARNING! Do not try to remove the floppy disk from the drive while it is being accessed, as this may lead to loss of data.

THE HARD DRIVE

The hard drive is the main storage medium combining large storage capacity and rapid data access.

The Windows operating system cannot use the full capacity of the hard drive, which means that there will be a difference between the capacity that the BIOS displays and what the operating system displays.

The hard drive contains the operating system of the computer, other application programs and backup files. These programs and files are pre-installed on your Notebook, so you may note that some of the space on your hard drive is already taken.

Whenever the computer is accessing the hard disk, the corresponding LED illuminates (see page 14.)

WARNING! Never switch off the computer while the busy indicator is lit since this may result in loss of data.

If you are looking for a file on the hard drive and you know the name, go to Search on the Start menu to find the file. Following is some general information on where you might find some common files.

Usually your hard drive is divided into several partitions, as shown below. The partitions of your hard drive may vary from what is shown here.

Local Disk	C:	Windows XP Software programs Your documents
Recovery	D:	Drivers for internal PC components Restore software Installation files for software that came with your PC

IMPORTANT DIRECTORIES

The most important directories preinstalled on your PC are shown below. These directories may vary from what is shown here.

Caution: Don't delete files unless you know what they are. Windows XP might require these files for your computer to operate correctly. Also, do not alter or resize the partitions – this will make it impossible to restore your computer to the factory settings.

C: This is the main hard disk drive partition for your computer. It is where your program files, settings, and documents are stored, as well as files necessary for running Windows XP.

C:\Program Files Includes files belonging to software programs.

C:\Windows The main directory for Windows XP.

C:\Documents and Settings Includes the settings and documents for all PC users.

D: Includes files for restoring hardware components, software programs, or your entire PC to working order.

D:\Driver Drivers for internal PC components.

D:\Recovery Includes the files needed to perform a system restore.

D:\Tools Includes installation files for software that came with your PC.

THE OPTICAL DRIVE

Depending on the model, your Notebook will be fitted with a CD-ROM, a DVD-drive, a CD-Rewriter, or a Combo drive, which is capable of reading DVDs, CDs and to burn blank media. This section describes the CD-ROM drive.

With the CD-ROM drive data can be read or audio CD's played. Compact disks can store large quantities of data and offer relatively fast access.

NOTE: In this manual the terms "CD-ROM" or "CD" are normally used, as these are the most widespread, although for the DVD-ROM version the terms "CD/DVD-ROM" or "CD/DVD" would be appropriate.

INSERTING A CD/DVD

This computer features a slot-loading optical drive. To insert a disc into the optical drive, gently push the disc into the slot and the drive will lock the disc in place and pull it inside.

Attention! The slot-loading drive in this system does not accept non- conventional size CDs or DVDs (e.g., 80 mm).

In the delivered state your CD-ROM drive is given the drive letter "**F**". Using Windows-Explorer you can easily access the data on your CDs. Start Explorer by selecting ⇨ Start ⇨Program ⇨ Windows Explorer, or by simultaneously pressing the Windows key and the "**E**" key.

When accessing audio and video disks (or audio and video files on normal CD's) the pre-installed media playback program will automatically start when the disks are inserted.

If you wish to remove a CD, press the eject button.

WARNING! While the Notebook is accessing the CD-ROM drive the media activity indicator is lit. Do not try to remove the CD from the drive while this LED is lit.

OPTICAL DRIVE AS BOOTDRIVE

The optical drive can be used for booting the operating system. If the PC doesn't boot from the disk, even if it is bootable, it could be possible that the drive isn't specified as a boot device in the BIOS. In this case, check the BIOS to be sure the optical drive is set as a boot device.

DVD TECHNOLOGY

The Compact Disc (CD) was introduced in 1982. Who could imagine doing without the CD as a storage medium for data, multimedia, computer games and video now? A CD can hold up to 700 MB of data, but that amount is too small to store the high-quality encoding of an entire feature film. The DVD (**D**igital **V**ersatile **D**isc) has the same dimensions as a CD but stores more data at a greater density. In some cases, both sides of the DVD can be used to store information. Furthermore, each side can contain two layers of information (dual layer.)

Thanks to high data density, the transfer speed is considerably higher than for a CD, so that a DVD drive with 6 times speed can transfer considerably more data than a 6-speed CD drive. A DVD drive can also read both DVD-ROMs and CD-ROMs, providing the user access to an astounding amount of media.

VARIOUS DVD FORMATS

Format	Side A	Side B	Max. capacity
DVD-5	SL	-	4.7 GB
DVD-9	DL	-	8.5 GB
DVD-10	SL	SL	9.4 GB
DVD-14	DL	SL	13.2 GB
DVD-18	DL	DL	17.0 GB

SL=Single Layer, DL=Dual Layer

DVD-VIDEO

Some of the special characteristics of DVD-video are:

- Up to 8 hours of feature films on a single DVD.
- Up to 8 audio tracks and 32 subtitle tracks on a single DVD.
- Greater picture quality than VHS or SVHS.
- Time-frame navigation and picture stills.
- Selection of different camera angles in some media.
- **Parental Control**, in which certain scenes or an entire film or rating of films can be made accessible only to certain age groups. DVD players can, for example, be set so that scenes or films that have not been approved for younger audiences will not play.

In spite of the high storage capability of the DVD, the data must be extremely compressed in order for a complete feature film to be stored. This extreme compression combined with exceptional picture quality is provided by the MPEG2 image coding method on the DVD. This places high demands on the Notebook's processor, so when playing a DVD please close all other applications. To increase Notebook performance, you may also wish to purchase a plug-in MPEG2 decoder card, which has its own decompression processor and will thus free the Notebook's processor.

NOTE: The decoding software included with your Notebook may be changed for regional DVD decoding up to five times, after which the drive will only play DVD movies for the region setting last entered. Changing the region code after that will require factory resetting which is **not** covered by warranty. If resetting is desired, shipping and resetting costs will be billed to the user.

SUBJECTS CONCERNING THE CD-REWRITER

If you plan on making your own CDs, you should first have some information about CD-blanks.

RECORDABLE/REWRITEABLE CDS (CD-R/CD-RW)

Normal CDs are pressed from a digital, glass master and then sealed. In the case of blank CDs, the information is burnt onto the CD with the laser of the CD-Rewriter. These disks are more sensitive to environmental conditions than normal CDs. Please avoid the following when using recordable/rewriteable disks – especially blank CDs that have never been used before:

- radiation by direct sunlight (UVA/UVB)
- scratches and damage to the disk surface
- extreme temperatures

COLORS OF BLANK CDS

Blank CDs have a reflective layer (silver or gold) and a colored synthetic layer that is initially transparent. This synthetic layer is available in green or blue. The laser ray reflected back from the reflective layer hits the synthetic layer and "burns" it, making it impassable for the laser ray. This is how the information is imprinted onto the blank disk.

There is no one answer to the question about which color combination is best to use for a blank CD. The writing device (CD-Rewriter) and the reading devices (CD-ROM, hi-fi CD-player, Discman etc.) must be compatible. If you have problems reading a particular type of CD, we recommend you try a CD with a different colored synthetic layer.

WHAT TYPES OF CDS CAN BE COPIED?

CD-ROM, CD-R and CD-RW drives have technical limits. Copying all CDs perfectly is simply not possible. The source CD-ROM drive and source CD both can cause problems in duplication. We therefore recommend that before you permanently copy a CD you select the **Simulation** option. This process does a test run of the reproduction before attempting to burn data onto the CD.

Even if you use the simulation option, it is possible to make a damaged copy of a CD without an error message being displayed. This can occur if there is data or other information to protect against the CD being copied "hidden" between the tracks of the source CD. Using the software included with your Notebook, however, can help you make backup copies of almost any CD type.

The following table contains a list of CD types that can be copied, and some remarks on how to make backup copies.

CD-Type	Comments
Audio	If your drive is not a CD-R or a CD-RW drive, a source CD-ROM drive is required which can read digital audio data. Not all drives support the extraction of digital audio data. You can copy audio CDs in "Disk-at-Once" mode if the source CD-ROM drive is fast enough.
Boot-CD	Using the software included in delivery, you can make bootable CDs.
Data-CD 1/2 ISO 9660 Joliet	If no special formatting or methods to prevent copying have been used, it should be possible to copy this format without any problems.
Extended play CDs	CDs with a capacity of up to 80 Min./700 MB can be generated. Not every drive works perfectly with these CDs.
Mixed Mode	Some CDs can be copied without problems, others cannot. This might be because the formatting does not permit copies of CDs to be made or because of deviations from the standard. Some CDs do not comply with the standards.
PSX-CD	Playstation™ games are supported.
UDF (Packet Writing)	Some CD-ROM drives cannot read UDF-CDs. If the CD-ROM drive is able to read Multi-Session-CDs, there shouldn't be any problems. This format requires the nero – InCD program.

WHAT DOES ... MEAN?

Boot-CD	See ➲El Torito
Buffer Underrun	Due to an empty intermediate buffer, the continuous flow of data to the CD-RW has been interrupted and as a result data has been lost.
CD-Extra	CD-Format that contains audio and data-tracks. As the audio data is at the beginning, audio CD players can also play these CDs.
CD-R	Recordable CD
CD-RW	Re-writeable CDs
Disk at once (DAO)	Writing the data in one process. This is important for copying music CDs so they are true to the original.
El Torito	Required for Boot CDs. If a CD has been formatted with this format, a PC can be booted from this CD if it has the appropriate BIOS settings. It does not support long filenames.
Extraction	(Audio-) Taking digital audio data from a CD-ROM drive.
Finalizing	If an audio CD has not been finalized, the CD can only be played back in the CD-Rewriter. Hi-Fi players cannot play back CDs that have not been finalized.
Fixing	In contrast to finalizing which finalizes the entire CD, fixing is restricted to one ➲session.
Hybrid-CD	Format with two data systems: ➲HFS (Apple Mac) and ➲ISO 9660 (other OS')
HFS	Hierarchical File System for Apple MacOS.
Image	Image of a CD or a partition structure.
ISO 9660	CD-ROM file system specified in 1984: Level 1 = 8.3 name convention (ABCD1234.EXT) Level 2 = 8.3 name convention + special signs Level 3 = up to 128 digits

Joliet	➲ISO 9660-Format extended by Microsoft. File names up to 64 digits whereby this extension is only visible under Windows®9X/NT. Other systems only see the ➲ISO 9660-Format.
Lead-In / -Out	Marks the physical start and end of a ➲session. The ➲TOC is saved in the Lead-In area.
Mixed Mode	A CD containing both data and music tracks, whereby the data is contained in the first ➲track and the music is contained in the second track.
MP3	MP3 (MPEG3) is a compression procedure that reduces a CD music track to approximately one tenth of its original size. Files which have been compressed using this procedure can usually be recognized due to their file extension *.mp3. To play back these files you need a software decoder. A conventional CD player is not capable of playing back these music tracks.
Multi-Read	CD-drives that have this capability are able to read CD-RWs. This is achieved by amplifying the laser unit.
Multi-Session	See ➲session; To access other sessions of a CD click the right mouse button on the appropriate CD-ROM drive in Windows Explorer and select "properties". You can select a session from the file card "data carrier".
On the fly	This write procedure does not create an ➲Image-file. A small project file with file references is used to write the CD. To be able to do this, you need a fast computer.
Packet Writing	The CD is treated like a hard disk. You can save (write) the data from an application directly onto the CD. This only works from Windows®95 or higher. Another pre-condition is that the first ➲track of the CD contains an ➲UDF-driver. This driver is loaded automatically when the CD is inserted into the drive.

PSX-CD	CD for the Sony™ Playstation™. To operate the PSX-CD backup copies, the Playstation™ must be equipped accordingly.
Sector	Smallest addressable unit of a CD.
Session	A session includes all data that has been burnt onto the CD in one writing process. Only one data ➲track can be written per session, however a number of audio➲tracks can be written. Every CD can have a number of sessions, but these CDs can only be read by devices capable of reading multi-sessions.
TOC	(Table of contents) Directory of ➲tracks.
Track	On a music CD, one track is equivalent to one song. In the case of data it is a summary of ➲sectors of the same type to record data.
Track at once (TAO)	On multi-session CDs, all tracks are written onto the CD in one working process. The ➲TOC and the connections are written between the data blocks and cause a pause of approximately 2 seconds between the songs.
UDF (Universal Disk Format)	Platform-wide CD file system which is used in the ➲packet writing process. The required UDF driver is always loaded from the CD and makes it possible for CD writers and CD-Rewriters to access the CD as it would a hard disk.
Extended play CDs	By reducing the distance between tracks, the capacity of a CD can be extended. You require special CD blanks (80 Min./ 700MB) and a recorder, as well as matching software that supports this. The products included in delivery are capable of these tasks.
Unicode	16-Bit-digit set. The standard ASCII-set of signs is saved in 8 Bit mode and therefore has a limited scope, for example no Arabic letters.

THE SOUND CARD

Your Notebook has an integrated stereo sound card (on-board) with 16-bit and 3D spatial sound effects (3D). The sound card is compatible with the industry standard **Sound Blaster** and **Microsoft Sound System Version 2.0**. This guarantees optimal support for all popular programs and games.

You can alter the volume by using the volume control of your Notebook (p. 15). If you wish to alter the base volume, click on the loudspeaker symbol in the task bar. A double click opens the sound mixer.

EXTERNAL AUDIO PORTS

/ Audio in	For recording via an external audio sources (It is set through the Audio properties).
Microphone in	For recording via an external microphone.
Stereo out / SPDIF (optional)	For sound reproduction via external stereo equipment such as loudspeakers or head-phones. (The internal loudspeakers are switched off when this port is used).

Your Notebook has a loudspeaker, so you can always play-back sounds without additional equipment. The connection of a Hi-Fi system increases the sound quality significantly.

MODEM

The modem is fitted with an RJ-11 interface, into which a standard telephone lead can be plugged. If your modem is a combo card please make sure that it is used only with the appropriate port.

WARNING! Use only with an analog telephone line. The modem cannot withstand the voltage levels of digital telephone systems such PBX or lines such as ISDN or Broadband services.

MODEM PORT

Insert one end of the RJ11-connection (telephone plug connector) into the modem/network interface and the other into an analogue telephone socket that is easily accessible.

NOTE: Do not place the Notebook in Suspend (or Sleep) mode if you are connected to your Internet provider, since this will cause the modem connection to be lost.

THE NETWORK

If your Notebook is provided with a Fast Ethernet-Network connector, you can connect it to a network. The following explanation refers to Notebooks with a network connector. You will find further information about networking in the **Help** section within the **Start** menu.

WHAT IS A NETWORK?

A network means connecting your Notebook to one or several other computers. Users can transfer data between computers and share resources such as printers, modems and hard disk drives.

Here are some practical examples:

- You can exchange E-mail and manage appointments in an office.
- Users can share a printer in a network and save their data on a central server.
- Users can share one modem or one ISDN card among computers for Internet access.
- Two or more computers can be connected to play network games or share data.

WHAT DO YOU NEED FOR NETWORKING?

Some requirements have to be fulfilled to successfully network computers:

1. The Notebook must have a network card that supports the same network technology as the other computers on the network. Unless otherwise quoted, your Notebook will support the current **Fast Ethernet** (10/100 Mbit) standard.
2. The network cards must be connected. You need a Shielded Twisted Pair-cable (CAT5) that has an **RJ-45**-connector.
   - If you want to directly connect two PCs you need a **Cross-Link** cable.
   - If more PCs must be connected you need a supplementary distributor (**Hub** or **Switch**) and a Patch cable.
3. All connected PCs need a network **operating system**. Windows® can act as a network operating system.
4. All networked PCs must speak the same "language" to understand one another. They use protocols for this purpose. The setting of protocols, therefore, must be the same for all networked PCs.
5. The correct protocols must be enabled to make shared access possible. This requires the installation of the server „**File and printer release for Microsoft® networks"**. It is also factory installed.
   The release is awarded on the PC where the resource (folders or printers) are located.
   Here the release name or, if necessary, a required password can be determined.
   A successful release is indicated by a stretched out hand below the icon.
6. The released resources can be shown and linked via the network environment.

TROUBLESHOOTING WITHIN THE NETWORK

Why does the network environment not show the releases?

The network environment is delayed in time. Check the release by searching for the respective **computer name**.

Why does an error message appear when I click on the network environment?

The **computer name** must be unique on the network and may not be the same as the **task group**.

It appears that the network boards are unable to communicate. What might be the problem?

Maybe one of the used network boards works with a **different speed** (e. g. 10 instead 100 Mbit) and your network computer is unable to recognize this. If necessary, set the network driver to the compatible speed.

If two PCs should be linked you require a **cross-link cable**, otherwise use a **patch** cable.

In addition, check the **protocols** and the **configuration**.

The data transmission is incorrect or very slow. What might be the problem?

Maybe you have the wrong cable (UTP / CAT3 or lower) or the problem is the proximity of a power cord or another source of interference.

For further hints on troubleshooting refer to the Windows help under „**Network errors** ".

THE PC CARD SLOT (OPTIONAL)

The PC card slot on the left side (see page 17) of the Notebook can be used to operate credit card-sized PC cards. Most PC cards are communications or interface devices such as ISDN-, Faxmodem-, Network- or SCSI-adapters.

Some PC cards contain memory chips or hard disks for data storage. If you use such cards with your Notebook, the system assigns the card a drive name, so that you may access the resources. The PC card drive in your Notebook supports PCMCIA 2.1 - (Type II), and CardBus (Type I) cards. Cards of Type I are 3.3 mm, and Type II 5 mm thick.

32-BIT CARDBUS PORT

CardBus cards have a 32-bit architecture with which high data transfer speeds of up to 132 MB can be achieved, similar to PCI. In this way your Notebook can also support data intensive devices such as 100Mbps Fast Ethernet, Fast SCSI peripherals and video conferencing devices.

The CardBus port is backward compatible with 16-bit PC cards with a 5V power supply, though the CardBus only requires a power-saving 3.3V.

USE OF PC-CARDS

In order to run a PC card, special software is needed (drivers, etc.). The card manufacturer usually supplies this software. Support for the card port is a component of Windows® and at present represents the optimum in operational smoothness. You should consider this point when choosing between alternative operating systems.

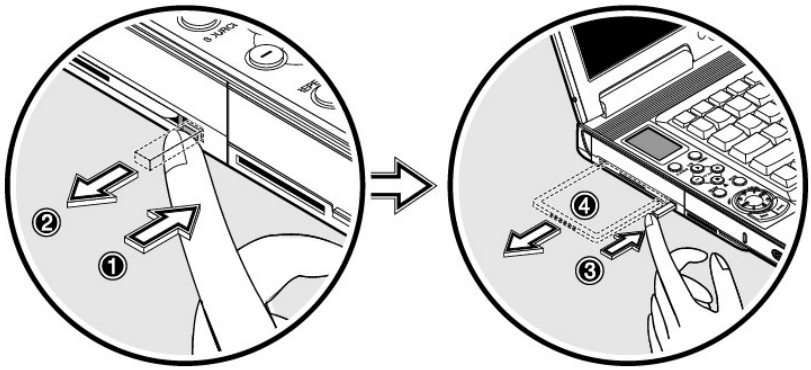
INSTALLING A PC CARD

Follow the PC card installation instructions that are given for use under Windows® and have the necessary driver software ready. Once you have started Windows®, slip the card carefully into the slot provided.

When the card is fully inserted two audible signals will be heard, provided it has been correctly recognized and successfully configured.

If only one signal is heard, this signifies a problem with the card recognition. In this case, follow the instructions that accompany your new PC card.

REMOVING A PC CARD



To remove your PC card:

1. In **System Properties** start the program ⇨ **PC Card (PCMCIA)**.
2. Stop the card to be removed.
3. Wait for confirmation from Windows®.
4. Press the corresponding eject button next to the slot.

CONNECTION OPTIONS

The Notebook has a number of input and output interfaces for connection of peripheral devices such as a printer, scanner, keyboard, and so on. This section presents the individual ports. For further information, refer to page 18, where the positions of the respective ports are described.

UNIVERSAL SERIAL BUS (USB) PORT

The Universal Serial Bus (USB) is the newest standard for connecting input devices, scanners and other peripherals. On the USB port it is possible to connect up to 127 devices that correspond to the USB standard.

Devices connected directly to the USB bus should not draw more than 500 mA. Should the devices need more power than this, it will be necessary to provide a hub (distributor / booster). The data transfer speed is 1.5 Mbit or 12 Mbit, depending on the device connected.

PARALLEL INTERFACE

You can connect a printer or a device such as a scanner or ZIP drive to this 25-pin parallel interface. The parallel interface supports Standard/EPP/ECP. You can set the desired mode in the computer's BIOS, though this parameter will already be correctly preset.

IEEE 1394 (FIRE WIRE)

The IEEE 1394 connector, also known as iLink® or Fire Wire is a serial bus standard used for fast digital data exchange.

TECHNICAL SPECIFICATIONS

- Depending on the application, the maximum data transfer is about 100, 200 or 400 Mbit/s, corresponding to a data throughput of up to 50 MB per second.
- The device can usually be plugged in or unplugged during operation (hot plugging).
- The standardized cord ('Shielded Twisted Pair' - STP) includes 6 strands. Two lines are live (8V up to 40V, 1.5 A max.) and can be used as an external power supply. The four signal lines transfer data or control information. Some devices do not require a power supply via the cord so that four pole plugs are used.
- The voltage output of the 6-pole IEEE 1394 jack is protected by a fuse (limited power source according to EN60950).

INFRARED INTERFACE

The infrared port is located on the front side of the Notebook (see page 17). The IR port corresponds to the "IrDA Serial Infrared Data Link Version 1.1" standard. It is used for wireless point-to-point communication.

You can use SIR/FIR applications in order to exchange files with other devices which are IR-aware. If the mode setting does not match that of the communicating device, you must set the necessary mode in the BIOS. FIR (Fast Infrared) supports up to 4 Mbps and SIR (Serial Infrared) up to 115.2Kbps.

At present, the interface can be used to link up with other computers, peripherals and a number of PDA's (**P**ersonal **D**igital **A**ssistants). The Notebook identifies the infrared port as a serial port.

INSTRUCTIONS FOR USING THE IR PORT

When using IR be sure to follow these instructions:

- Make sure that the desired IR mode has been set in the BIOS set-up.
- The angle between the two IR ports should not be greater than ±15°.
- Align the devices in such a way that the two infrared interfaces are at the same height and exactly opposite each other.
- Distance between devices should not be more than 1 meter.
- Do not move either of the devices during IR data transfer.
- In environments with a lot of noise or vibration, data transfer may be defective.
- Keep a safe distance from direct sunlight, lightning, incandescent and fluorescent light and other infrared devices such as remote controllers.

IMPORTANT: If you do not require the infrared for long periods, please deactivate the infrared function in the control panelin order to save on Windows resources.

MEMORY EXPANSION

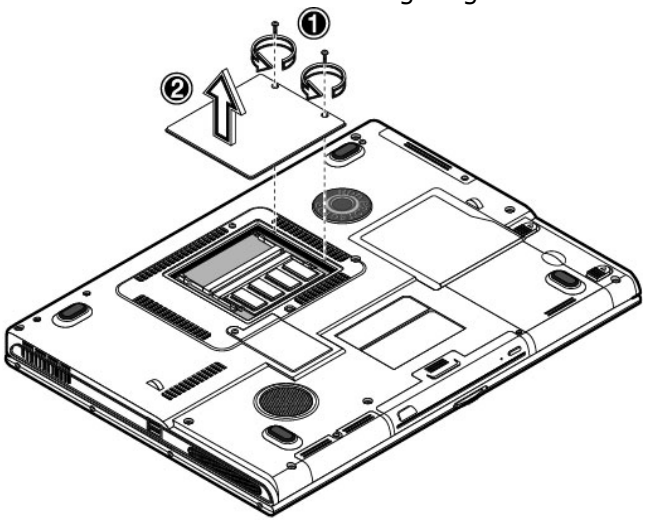
Expanding the main memory is a good way of increasing power, as less access to the hard disk is needed. It is not necessary to configure memory. If it has been installed correctly, your computer will recognize it automatically. Only buy memory modules from authorized dealers, in order to ensure compatibility and reliability.

Note: A qualified engineer should install Memory modules.

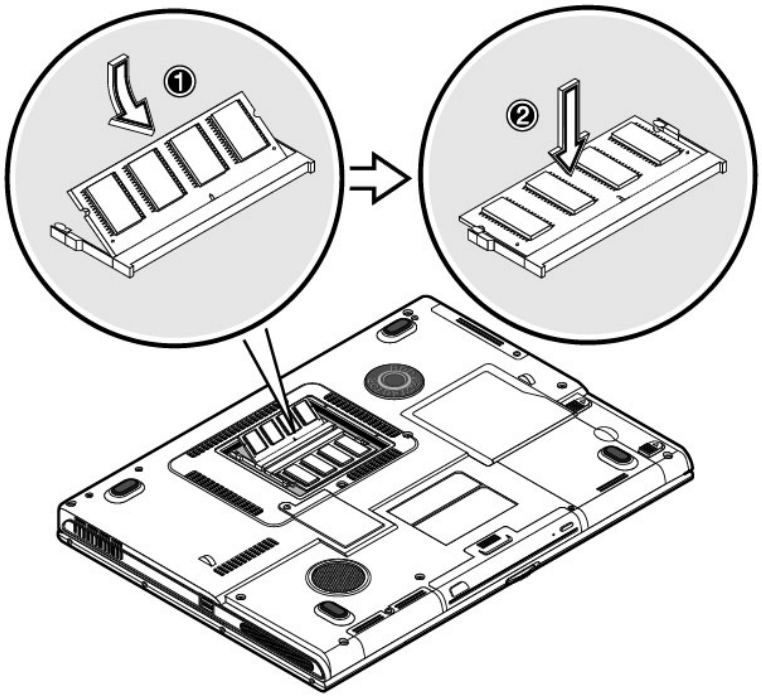
Note: Your Notebook does not support EDO-DRAM.

This is how to extend the memory:

1. Please read the safety instructions starting on page 3 thoroughly and follow all the instructions given.
2. Remove all cables connected to the Notebook, disconnect the power supply and remove the battery.
3. Turn the Notebook upside-down.
4. Open the memory compartment using the proper screwdriver. Refer to the following diagram.



5. After removing the memory cover insert the memory upgrade in your Notebook using the diagram below:



6. Replace the memory cover, battery, and all connections.
7. Restart the Notebook and check to see if the memory has been recognized correctly.

SOFTWARE

This section deals with software, differentiating between BIOS, application programs and operating systems.

WINDOWS XP MANUAL

This manual provides general information about the operating system. We recommend that all beginning users or users of previous versions of Windows read this information.

WINDOWS XP TOUR

Windows XP includes a tour that you can take to familiarize yourself with the operating system. This tour can be found by clicking on the **Start** menu. If your **Start** menu has been altered, you can find the tour by selecting **All Programs**, then **Accessories**.

MICROSOFT INTERACTIVE TRAINING

Training is the most powerful way to acquire skills that help you perform a specific task efficiently. On the **Start** menu, choose **All Programs**, choose **Accessories**, and then choose **Microsoft Interactive Training**.

WINDOWS XP HELP AND SUPPORT

An answer to almost every question can be found in this program. You'll find it in the **Start** menu.

INSTALLATION OF THE SOFTWARE

Note: If your operating system is configured so that the installation procedure accepts only signed drivers and software an information screen will appear. Confirm by clicking on "**Continue**".

The software included with the Notebook was pre-installed at the factory.

WARNING! During software installation important files can be changed or deleted. To avoid problems in using older files after installation, make sure to safeguard your hard disk.

THIS IS HOW TO INSTALL YOUR SOFTWARE:

Please follow the instructions provided by the software vendor. We will describe a typical installation. Once you insert a CD, the installation menu is started automatically.

Note: If the installation program does not automatically start when the installation CD is inserted, it is likely that the **Autorun** function has been deactivated. Refer to Windows Help to activate this function.

To perform an installation without the Autorun function:

1. Open the **Start** menu and select **RUN**.
2. Now enter the letter of the CD-ROM drive followed by a colon and the setup program's name.
3. Click on "OK".
4. Follow the instructions given by the program.

WINDOWS ACTIVATION

Microsoft is committed to the protection of intellectual property rights and the reduction of software piracy. Windows XP contains software-based product activation technology. Your copy of Windows XP has already been activated for your Notebook. However, product activation is needed if some components of your Notebook have been replaced or you use non-authorized BIOS. If necessary, you can activate Windows XP as often as needed.

You will probably need to activate Windows XP by telephone even if Internet Activation is available. This is due to the pre-activated SLP version that runs with a special Product-ID. However, activation needs your unique Product ID that can be found on the **Certificate of Authenticity** sticker on your Notebook housing. When you call, please inform the agent that you are running an OEM (SLP) version of the software.

THE BIOS SET-UP-PROGRAM

In BIOS setup (Basic Configuration) there are a number of configurable parameter settings available for your Notebook. For example, you can change the operating mode of the interfaces, security features or power management.

WARNING! The Notebook is factory pre-set to guarantee optimum operation. Only modify the parameters if necessary and if you are familiar with the configuration options.

RUNNING THE BIOS SET-UP

You can only run the BIOS configuration program at system start-up. If the Notebook has already started, power it down and then up again. Press the **F2** function key in order to start the BIOS-SET-UP.

NAVIGATING THE BIOS UTILITY

There are six menu options: System Information, Basic System Settings, Start up Configuration, Onboard Devices Configuration, System Security and Load Default Settings.

To enter a menu, highlight the item using the cursor up/down keys; then press **Enter**.

While in a menu, follow these instructions:

- Press the cursor up/down keys to move between parameters.
- Press the cursor left/right keys to change the value of a parameter.
- Press Esc while you are in any of the menus to return to the main menu.

Note: If you are unsure if your parameter settings are correct, you should load the "**Set-up-Defaults**".

DATA AND SYSTEM SECURITY

The programs described below are part of your Windows operating system. You will find additional information on these programs in the Windows Help file.

DATA SECURITY

Back up data regularly on external media such as a CD-R or CD-RW. Windows offers both a **Backup** program and a **Files and Settings Transfer Wizard**.

Both programs are found in **Accessories/System Tools** within the Start menu. You should make a backup disk with all your passwords and the operating system's original configuration.

MAINTENANCE PROGRAMS

You can avoid some hardware and software errors with disk maintenance programs such as **Disk Defragmenter** and **Disk Cleanup**. The program **System Information** can also be helpful since it gives you detailed information about your system configuration. You will find these programs in **Accessories/System Tools**.

PASSWORD RESET DISK

To protect individual user accounts from complications resulting from lost passwords, users should create a password reset disk and keep it in a safe place. Windows Help describes how to create a password-reset disk.

SYSTEM RECOVERY

Before performing a recovery, you should review the "Troubleshooting" section in this manual to see if you can resolve the problem. If not, it is possible that a software file required by Windows XP to operate the computer was damaged or deleted. If this is the case, there are basically two strategies for recovery.

- Restoring Microsoft Windows XP using Windows XP System Restore
- Restoring the factory settings using the Application Support CD provided by Medion

RESTORING MICROSOFT WINDOWS XP

Windows XP System Restore allows you to set "recovery points." This feature enables you to take a snapshot of the current system configuration, which you can return to should an unsuccessful installation of an application, device, or driver cause instability in the system.

While Windows XP automatically creates recovery points, you can also set them manually. In addition, you can configure the maximum amount of memory used for this.

To use System Restore to set recovery points or restore your system, click the **Start** menu, then choose **All Programs**, then choose **Accessories**, then choose **System Tools**, then choose **System Restore**. Select the task that you would like to perform and follow the on screen instructions. For detailed information refer to Windows XP Help and Support.

System Restore includes various functions to help ensure that your PC and installed applications and devices work correctly. These functions assist you in solving the problems which might occur by adding, deleting or replacing files required for proper functioning of Windows XP, and your software and devices. The restore function you use depends on the type of problem or error.

In general, it is a good idea to set a recovery point before installing a new software program or driver. If the system becomes unstable during or after the installation, you can usually return to a workable configuration without deleting newly created documents. If Windows XP System Restore does not solve your problem refer to the next section, *Restoring the Factory Settings.*

RESTORING THE FACTORY SETTINGS

If your system is not functioning properly and Windows XP System Restore did not solve the problem, then you should use the Application Support CD provided by Medion to restore the entire system to the factory settings.

LIMITS OF THE RESTORATION

- Any changes made to the original factory configuration (for example, settings for your display, printers, network, or Internet connection) will be overwritten by this restoration.
- Any software that you installed after purchasing the computer will be erased and will need to be reinstalled.
- An image from the original system will be copied over from D:\Recovery to C:\Local Disk. ***Everything*** on the C:\Local Disk partition will be erased. This includes all of your documents and settings.
- If you delete the directory D:\Recovery or the files located in this directory, a recovery is no longer possible. Therefore, you should copy the file RETTEN.EXE and all other RETTEN.00X files to a CD.
- Any changes that have been made to the size of the hard drive partition will affect the ability to restore the PC. Do not change the partition sizes.

PERFORMING THE RESTORE

1. *Copy your data files to external media (such as a floppy disk, CD-R, CD-RW, DVD-RW, or flash card) BEFORE you continue!*

2. Insert the "Application Support CD" and reboot the PC.

   Caution: Do not use the "Medion Product Recovery" CD-ROM (a Windows XP CD for restoring Windows XP itself) for restoration purposes. This disc does not restore the original factory setup of the PC.

3. Select the option "**Boot from CD-ROM**" from the first screen.

4. On the next screen, type **E** to set the language to English.

5. The next screen has three 3 selections:

   Setup Recovery

   MS DOS Prompt

   Quit

   Select **Setup Recovery**, which brings up a screen with instructions in four languages. The second paragraph is English. Follow the onscreen instructions, read the warning, and press **Enter** to continue.

6. In the next screen, read the warning, then type in the word "**Start**" and press **Enter**.

7. The next screen will display a yellow colored progress bar toward the bottom of the screen. It will indicate restoration progress.

When the restore is completed, it automatically restarts the PC. .

FAQ – QUESTIONS FREQUENTLY ASKED

When do I have to activate Windows?

Your software has been preactivated in the factory. An activation will only be required, if ...

... several components are replaced by others.

... your installed a new motherboard.

... a different BIOS version has been installed.

... you install the software to another computer.

What is the Windows activation?

Your operating instructions include a chapter about this subject.

How do I perform a data backup?

Use the program Backup for this.

It is important that you follow the operating instructions of this programs.

Make a backup and another backup of selected data to an external medium (CD-R), to familiarize yourself with the technique.

A backup is unsuitable if you are not able to recover the data, the medium (floppy disk, CD-R) is defective or no longer available.

Do I still have to install the enclosed CDs/DVDs?

No. Basically all programs are already preinstalled. The disks are only intended as backup copies.

When is the recovery of the factory setting recommended?

This method should be chosen as the last resort. Read chapter „**System recovery** " on page 60 concerning the alternatives possible.

Why is the boot partition missing when booting from the support/ application CD?

The first partition is formatted with the file system NTFS. Compared to FAT32 this file system offers more security and a more efficient access. However, NTFS partitions can only be read from operating systems supporting this. This is not the case in the aforementioned CD.

TROUBLESHOOTING

LOCALIZE THE CAUSE

Errors can have simple causes, but sometimes they are caused by faulty equipment. We would like to give you some tips to help solve common problems. Should these instructions not lead to success, please feel free to call us.

CHECK CABLES AND CONNECTIONS

Visibly check all cables and connections. Should all lights be off, check whether all equipment is supplied with power.

- In battery mode, connect the Notebook to the power adapter and ensure that the battery is charged up.
- If you are operating the Notebook with the power adapter, check the electrical socket, power cord and all switches in the circuit of the electrical socket.
- Switch off the Notebook and check all cable connections. Check the connections to peripherals. Do not exchange cables, even though they may look similar. The polarity in the cables may be different. When it is confirmed that the computer has power and all connections are correct, turn the computer on again.

THE POWER ON SELF TEST (POST)

The Power On Self Test (POST) is executed during each boot process to test the memory, motherboard, display, keyboard and other components. If the Notebook does not pass the POST but beeps several times, or if the screen remains blank, call your Notebook support technician.

ERRORS AND POSSIBLE CAUSES

The display is blank:

- Confirm that the system is not in stand-by mode. Press any key on the keyboard to test this out.

Wrong Date and Time:

- Double-click the clock on the taskbar and correct the date and time.

An error message appears during boot-up:

- You may have a floppy disk in the disk drive so the system is looking for an operating system on that floppy. Remove the disk and press any key.

No data can be accessed from the optical Drive:

- Check whether the CD is inserted correctly.
- Is the CD-ROM (Drive E) displayed in Windows Explorer? If so, test another CD.

The Printer does not work:

- Check the printer cable.
- Do a Printer Self Test.
- Should several pieces of equipment be operating from the same port, check all peripherals and reinstall the drivers.
- If you have access to the Internet, download and install the latest drivers from the manufacturer's Web site.

The mouse or touch pad does not work.

- Check the cable connection.
- Check to see if the mouse works in another application program and if there is a problem of compatibility between the mouse (e.g. Microsoft Intellimouse) and the touch pad.

ADDITIONAL SUPPORT

If the suggestions in the above section have not solved your problem, please contact the customer service hotline and we will attempt to help you solve the problem. Before you call, however, please have the following information available:

- How is your computer configured?
- What additional peripherals do you use?
- What messages, if any, appear on your screen?
- What software were you using when the error occurred?
- What steps have you already undertaken to solve the problem?
- Have you upgraded or removed drivers or hardware?
- Can you manually repeat the problem?
- If you have been given a customer number previously, please have this available.

DRIVER SUPPORT

This Notebook has been extensively tested in our laboratories with a large number of compatible devices. It fulfils all required standards and complies with the standard "Designed for Windows", which certifies utmost compatibility. However, the software drivers for individual components are updated from time to time. This is a regular process provided by the manufacturer to mend possible compatibility problems that may occur with components (e.g., programs or hardware) that were not tested at the time of your Notebook's manufacture. Driver updates and the latest information on your product are available on the Internet.

Visit Medion on the Web at
www.medion.com

STANDARDS

This Notebook meets the requirements of the following standards:

ELECTROMAGNETIC COMPATIBILITY

This Notebook meets the following requirements for standards of electromagnetic compatibility and electrical safety:

EN 55022	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement.
EN 55024	Information technology equipment - Immunity characteristics - Limits and methods of measurement.
EN 61000-3-2	Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase).
EN 61000-3-3	Limits - Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with a rated current up to 16 A.

- Keep the Notebook at least one meter (approximately three feet) away from **high frequency** and **magnetic interference sources** (e.g., televisions, loudspeaker cabinets, mobile telephones, etc.) in order to avoid malfunctions and/or loss of data.
- Please note that only **shielded** cables shorter than 3 meters (9.84 ft) should be used for the LPT, COM, USB, IEEE 1394, audio, video and network interfaces with this Notebook.
- When connecting additional components, please observe the *Guidelines on Electromagnetic Compatibility (EMC)*.

ELECTRICAL SAFETY

EN 60950	Safety of information technology equipment.

- The connection of devices is limited to equipment that complies with EN60950 "Safety of information technology equipment" or EN60065 "Audio, video and similar electronic apparatus. Safety requirements"
- For U.S. / Canadian purposes: The Notebook should only be connected to equipment which complies with UL 60950 / CAN CSA 22.2 No 60950

ERGONOMICS

EN 29241-3	Ergonomic requirements for office work with visual display terminals (VDTs). Visual display requirements.
EN ISO 9241-8	Ergonomic requirements for office work with visual display terminals (VDTs). Requirements for displayed colors.

SUPPLEMENTARY INFORMATION

This product complies with the requirements of the R&TTE Directive 1999/5/EC and carries the CE-marking accordingly.

CE 0682 (!)

FCC COMPLIANCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. 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 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 the equipment and 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 technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cables, if any, must be used in order to comply with the emission limits.

DECLARATION OF CONFORMITY

According to 47CFR, Parts 2 and 15 for Class B Personal Computers:

We: **Medion Aktiengesellschaft**
(Name of the Responsible Party)

Located at: **Gänsemarkt 16 – 18**
D-45127 Essen
Germany
(Adress, City, State, Zip Code)

Fax : 0 201 / 81 081 – 227
(Facsimile Number **for conformity issues only**)

Declare under sole responsibility that the product identified herein, complies with 47CFR Parts 2 and 15 of the FCC rules as a Class B digital device. Each product marketed, is identical to the representative unit tested and found to be compliant with the standards. Records maintained continue to reflect the equipment being produced can be expected to be within the variation accepted, due to quantity production and testing on a statistical basis as required by 47CFR §2.909. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. The above named party is responsible for ensuring that the equipment complies with the standards of 47CFR §§15.101 to 15.109.

Trade Name: **Medion**

Type or
Model Number: **WIM 2000**

Party Responsible: **MEDION AG**

Executed on (Date), at (Place): **3rd of February 2003, Essen**

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