Juego completo de PC MEDION® con pantalla LCD panorámica de 50,8 cm/20" MEDION® AKOYA® P5310 D





MEDION Service Center Visonic S.A. c/ Miguel Faraday, 6 Parque Empresarial "La Carpetania", N-IV Km. 13 28906 Getafe, Madrid España

Hotline: 902196437 Fax: 914604772

homepage: www.medion.es/ E-mail: service-spain@medion.com

Manual de instrucciones

MD 8350

Conexiones posteriores

Conexiones frontales



POS	Descripción de los componentes	véase página
Α	Unidad Óptica (CDRW/DVD/DVDRW)	40
В	Botón de apertura de la unidad óptica	40
С	Puerto eSATA	14
D	Lector de Tarjetas	43
E	Entrada Micrófono	14, 45
F	Frontal	13
G	ON/OFF (enciende y apaga el PC) / Indicador de estado	21
Н	Puerto PS/2 para ráton & teclado	14
1	IEEE 1394 (FireWire) 6-polos (p. ej. Cámara de video)	15, 47
J	Red Gigabit LAN (RJ-45, 10/100/1000 Mbit/s)	15, 49
K	Altavoces (cen bass) Altavoces (front out) Altavoces (surr-1) Altavoces (surr-2)	16, 45
L	Puerto HDMI	16, 44
М	Puerto para Monitor VGA / DVI	17, 44
N	Conexión & Interruptor de la red	20
0	Puertos USB 2.0 (p. ej. Escáner, Cámara Digital)	18, 48
Р	Salida Auriculares	19, 45
Q	Digital Audio OUT SPDIF (opt.)	16, 45
R	Entrada Audio (Line in)	19, 45



Notes on this Manual

Keep these instructions with your computer at all times. The proper set up, use and care can help extend the life of your computer. In the event that you transfer ownership of this computer, please give these instructions to the new owner.

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

If you want to start up your PC immediately, please read the chapters *Operational Safety* (page 3) and *Setting up and Getting Started* (page 8).

We strongly recommend you read this entire manual to ensure the proper set-up and operation of your PC.

Many application programs incorporate extensive help functions. As a general rule, you can access help functions by pressing F1 on the keyboard. These help functions will be available to you while you are using the Microsoft Windows® operating system or the respective application program.

We have listed further useful sources of information in the section *Getting to know Windows*® 7 starting on page 52.

Audience

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

Purchase Details

Enter your purchase details below for quick reference.

Serial Numbers	
(i.e. Microsoft®)	
Place and date of Purchase	

You will find the PC serial number on the rear of the PC. Also copy this number into your guarantee documents, if necessary.

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 our products.**

Making Copies of this Manual

This manual contains information protected by law. All rights reserved. Duplicating this information in mechanical, electronic, or any other form, without the written approval by the manufacturer, is prohibited by copyright law.

© 2010 Medion®. All rights reserved. Microsoft®, MS-DOS®, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries. Pentium® is a registered trademark of Intel Corporation. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.

Information in this document is subject to change without notice.

Table of Contents

Safety	I
Operational Safety	3
Data Security	4
Setting Up & Getting Started	5
Included with your PC	7
Setting Up	8
Set-up Location	8
Ambient Temperature	8
Ergonomics	9
Connecting	11
Cabling	11
Front Connectivity	12
Connecting eSATA Devices	13
Remove eSATA Devices	
Connecting a Microphone	
Connecting PS/2 Devices	
Connecting IEEE 1394 (Fire Wire) Devices	
LAN Connection	
Connecting Speakers/Audio Output	
PCs with Surround Sound	
Connecting HDMI Devices	
Connecting the Monitor	
Connecting USB Devices	
Connecting Headphones	
Connecting a Sound Source/Audio Input	
Connecting the Power Supply	
Getting Started	
Step 1: Power On	
Switch	
On/off Switch	
Step 2: Starting Initial Setup	
Step 3: FinalisingShort Description of the Windows Desktop	
·	
Operation	
Use in accordance with regulations	
Operational safety	
Repair	28

Surrounding Temperature	
Power Supply	
Setting up	
Connections on the back	
Connecting the monitor	
1 Connect signal cable	
2 Connect audio cable	
3 Connect the power supply	
4 Power on	
Operating elements	
Operating the OSD menu	
The OSD menu	
The Mouse	
The Keyboard	37
The Alt and Ctrl Keys	37
The Hard Drive	38
Important Directories	39
The Optical Drive	40
Loading a Disc	40
How to Remove a Disc	40
Playing Back and Retrieving Data from Discs	41
Regional Playback Information for DVD	
Subjects Concerning the CD/DVD-Rewriter	42
The Card Reader	43
The Graphics Card	44
Appearance and Personalization	44
The Sound System	45
IEEE 1394 (Fire Wire)	47
Application Options for IEEE1394	47
Technical Specifications	
USB Port	48
The Network	49
What is a Network?	49
Wireless LAN	
Safety Note	
Conditions	
Troubleshooting within the Network	
Software	52
Getting to Know Windows [*] 7	
Windows 7 - News	
Windows 7 - Help and Support	54

Windows 7 – Getting Started	55
Windows 7 - User Account Control	
Windows 7 – Control Panel	
Windows Media Center	
Installation of Software	
How to Install your Software	
Software Uninstallation	
Windows Activation	
Product Activation on your PC	
BIOS Setup	
Execution of the BIOS Setup	
BullGuard Internet Security	
Customer Service & Self Help	
Data and System Security	
Data Security	69
Maintenance Programs	
System Restore	70
Correction	70
Windows® Update	71
Windows Update Information for Data Security	72
System Restore	73
Limits of the Recovery	73
Carrying out a Restore	73
FAQ – Frequently Asked Questions	74
Customer Service	75
Troubleshooting	
Localise the Cause	
Errors and Possible Causes	
Additional Support	
Driver Support	
Transporting the PC	
Cleaning and Care	78
Upgrades and Repairs	78
Notes for Service Engineers	78
Notes on Laser Radiation	
Recycling and Disposal	
Battery Treatment	
Appendix	81
Information about Conformity	83
Information about the Regulatory Compliance according to R&TTE	83
FCC Compliance Statement	
•	

Pixel errors in the TFT monitor	85
Index	88

Chapter 1

Safety

Subject	Page	
Operational Safety	3	
Data Security	4	

Operational Safety

Please read this chapter carefully and observe all listed notes.

This ensures a reliable operation and long life expectancy of your PC.

- Do not allow children to play unattended with electrical equipment. Children are incapable of judging potential risks properly.
- Keep the packing materials, such as plastic sheeting away from children. The danger of suffocation could arise in the case of misuse.
- Do not open the PC casing or use the PC with the casing removed. When the casing
 is open there is a danger to life from electric shock.
- Optical drives are Laser Class 1 devices. These lasers must remain in their sealed PC casing. Do not remove the drive covers, as exposure to the lasers may prove harmful.
- Do not insert objects through the slots and openings of the PC. This may lead to electric shock, electrical short-circuit or fire that will damage your PC.
- Do not cover the slots and openings in the PC casing. These openings are for ventilation purposes. Covering these vents may lead to overheating. Please keep free a minimum distance of 20 cm on all sides when setting up the PC.
- Do not subject the device to drops of water or spray or place any containers filled with liquid, such as vases, on the device. Liquid penetrating can impair electrical safety.

Switch off your PC immediately or do not switch it on at all and contact customer service ...

- ... if the power cord or the connectors attached to it are burnt or damaged. Replace the defective power cord with an original power cord. Under no circumstances may a defective power cord be repaired.
- ... if the housing of the PC is damaged or fluids have leaked into it. Have the PC checked by customer service first, because the PC may not be safely operated otherwise and there may be a life-threatening risk of electrocution!

Data Security

Attention!

Every time you update your data make back-up copies on an external storage medium. 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.

Chapter 2

Setting Up & Getting Started

Subject	Page
Included with your PC	7
Setting Up	8
Connecting	9
Getting Started	20

Included with your PC

Please check that the contents listed below are supplied with your package. You MUST provide your PC's serial number when contacting a customer service representative. Your PC bundle should include the following components:

- PC and power cord
- PS/2 keyboard
- USB mouse
- 50.8 cm / 20" Widescreen multimedia monitor and power cord
- VGA cable
- DVI cable
- Audio cable
- OEM Version of Operating System
- Documentation

Note

Keep the original packing, in case the device ever requires shipment.

Setting Up

Remember that choosing the proper location for your PC is just as important as connecting it correctly.

Set-up Location

- Keep your PC and all units connected to it away from moisture, dust, heat and direct sunlight. Failure to observe these instructions can lead to malfunctions or damage to the PC.
- To prevent damage to your PC from a fall, place and operate the PC and all connected units on a stable, balanced and vibration-free surface.

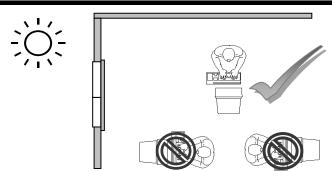
Ambient Temperature

- The PC can be operated at an ambient temperature of between 10° and 35°C (+41° and +95°F) and at a relative humidity of between 30% and 70% (without condensation).
- When powered off, the PC can be stored at temperatures between -20° and 50°C (-40° and +158°F).
- Unplug the cable during thunderstorms and make especially sure to remove the antenna cables, if present. We recommend the use of a surge protector for additional safety, in order to protect your PC from being damaged by power peaks or lightning strikes through the power network.
- Delay operating a PC after transport until the device has adjusted to the ambient temperature. In situations of large temperature or humidity differences condensation may build up moisture inside the PC, which might cause an electrical short circuit.

Ergonomics

Note

Ensure that the monitor is set up in such a way that **reflections**, **glare** and **light/darkness contrast** are avoided.



You should not position the monitor in close proximity to a window as this is usually the brightest area of the room and may cause visual impairments during daylight hours.

Always position the monitor in a line of sight that runs parallel to the window front (see picture).

You should also apply a parallel line of sight with respect to artificial lighting. This means that in a room lit by artificial light essentially the same criteria and objectives apply. Should it not be possible to arrange the monitor as outlined above, the following measures might be helpful:

- Turn, lower or incline the monitor.
- Place horizontal or vertical shades at the windows.
- Work in Comfort

Note

Take regular breaks from the work at your screen to prevent tenseness and exhaustion.

Sitting in one position for long periods can be uncomfortable. To minimize the potential for physical discomfort or injury, it's important that you maintain proper posture.

Overall:

Change your position frequently and take regular breaks to avoid fatigue.

Back:

While sitting at your work surface, make sure your back is supported by the chair's backrest. This should be in an erect position or angled slightly backwards.

Legs:

Your thighs should be horizontal or angled slightly downward. Your lower legs should be near a right angle to your thighs. Your feet should rest flat on the floor. If necessary, use a footrest, but double check that you have your seat height adjusted correctly before getting a footrest.

Arms:

Your arms should be relaxed and loose, elbows close to your sides, with forearms and hands approximately parallel to the floor.

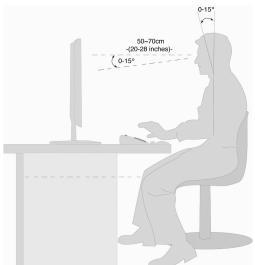
Wrists:

Your wrists should be as straight as possible while using the keyboard, mouse or trackball. They should not be bent sideways, or more than 10 degrees up or down.

Head:

Your head should be upright or tilted slightly forward. Avoid working with your head or neck twisted.

- Hand rest:
 2" 4"
- Viewing distance: 20" 27.5"
- Legroom (vertical): minimum 25.5"
- Legroom (horizontal): minimum 23.6"
- Top line of screen at eye level or slightly below.



Connecting

For a better guidance, open up the left inner page of the cover with the diagrams to find the location of the described connections.

Note

The devices listed are not necessarily included with your PC. All the **connections** listed are **optional** and will not inevitably be available on your PC.

Cabling

Please follow the instructions below in order to correctly connect your PC:

- Arrange cables in such a way that no one can tread on or trip over them.
- Do not place objects on the cables.
- Do not allow any great forces to be exerted on the plug-in connections, from the side, for example. This might lead to damage on and in your device.
- Do not use any force when connecting cable and plugs and pay attention to the correct alignment of the plugs.
- Pull it out at the plug and do not pull the cable, if you separate a connection cable from your device.
- Avoid short-circuits and breaks in the cable by not squashing or bending the cable sharply.
- To avoid damage to your PC, connect your peripherals (e.g., keyboard, mouse and monitor) whilst your PC is powered off. Some devices can be connected whilst your PC is in use. These devices usually have a USB connector. Please follow the appropriate instructions for each device.
- Keep the PC 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 external interfaces. Please only use double screened cables for printer cables.
- Do not replace the cables supplied with the machine by any others. Use the cables belonging to the scope of the delivery exclusively, because they will have been tested extensively in our laboratories.
- Also only use the connection cable supplied with the devices for the connection of your peripheral devices.

- Make sure that all connection cables have been connected to the peripheral devices associated with them, in order to avoid disruptive radiation. Remove unneeded cables.
- 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".
- In the first hours of operation, new devices may emit a typical, unavoidable but
 completely harmless smell, which will decline increasingly in the course of time.
 We recommend that you ventilate the room regularly, in order to counteract the
 formation of the smell. During the development of this product, we have made
 sure that the applicable limits are clearly decreased.

Note

You only need to connect those components to your computer that you require. If you do not have the described device available you may carry out the connection later.

Front Connectivity

Diagram reference: F

Some connections are located behind the front flap. This offers you the great advantage of creating frequently used connections quickly and conveniently, without turning the PC round. The flap, which can be slid, also protects the connections.

Connecting eSATA Devices

Diagram reference: C

eSATA stands for "external Serial ATA" and is used for connecting external hard disks. Unlike common USB standards, the transmission speed of an eSATA connection is higher than that of external USB hard disks.

Note

Take care that the connector and the socket fit exactly to avoid damaging the contacts. Because of its asymmetric form the plug only fits into the socket in one position.

1. Connect the cable to the eSATA socket in the front of your PC.

Remove eSATA Devices

1. Before removing an eSATA hard disk from your PC, click on the icon "Safely remove hardware" in the task bar and then on the hard disk to be removed.

Connecting a Microphone

Diagram reference: E

- 1. You can use the pink socket to connect a microphone with a **3.5 mm** mono jack plug.
- 2. Position the microphone in such a way that it does not point directly at the speakers. If you hear feedback, characterised by loud whistling noises, reposition the microphone until the sound stops.

Connecting PS/2 Devices

Diagram reference: H

You can omit this step if you want to connect a USB mouse or keyboard.

- 1. Connect the mouse cable to the right, green PS/2 port.
- 2. Connect the keyboard to the left, blue PS/2 port.

Connecting IEEE 1394 (Fire Wire) Devices

Diagram reference: I

Warning!

Connect your IEEE 1394 devices after initial set-up of your new PC. This will prevent unnecessary confusion during installation. These devices can generally be connected during operation. Read the manual for your peripheral device first.

• The voltage outputs of your PC for IEEE 1994 are protected by a fuse (limited power source according to EN60950). This ensures that a malfunction of the PC will not damage the peripheral devices connected to the respective jacks.

Note

Take care to ensure that the connector and the socket fit exactly to avoid damaging the contacts. Because of its asymmetric form the plug only fits into the socket in one position.

1. Connect the IEEE 1394 cable to the IEEE 1394 port of your PC.

LAN Connection

Diagram reference: J

Your PC is equipped with a network connection, in order to prepare it for network operation.

The network cable usually has two **RJ45** plugs so that it is unimportant which plug is connected to which jack.

- 1. Connect the one plug of the cable to the PC jack.
- 2. Connect the other plug to the other PC or hub/switch.

For further information refer to chapter "The Network" starting at page 47.

Connecting Speakers/Audio Output

Diagram reference: K

Here you can connect your **active speakers** for replaying or **audio connection cables** for recording. Please refer to the user's guide of your stereo installation for information about which connector you should use (usually **Line In** or **Aux**).

 Connect the cable with the 3.5 mm stereo jack plug into the green socket on the rear of your PC.

PCs with Surround Sound

Diagram reference: K

Connect your surround equipment as follows:

- 1. Connect the front speaker to the green socket marked with **front out**.
- 2. Attach the rear loudspeakers to the connector surr-1.
- 3. Your centre speaker or subwoofer can be connected to the socket **cen bass**.

Connect to the optional surr-2 socket two more speakers for the back surround.

An digital audio output (SPDIF) can be connected to an optical cable.

Diagram reference: Q

- 1. Connect the optical cable to position SPDIF.
- 2. Connect the other end of the cable to an audio device with a corresponding digital input.

Connecting HDMI Devices

Diagram reference: L

HDMI is the abbreviation for "High Definition Multimedia Interface" which is a digital interface to transfer image and sound signals.

1. To this port you can connect a TV device, a monitor or a projector, if these devices also have a corresponding connector.

Connecting the Monitor

Diagram reference: M

Your PC is equipped with a VGA and a DVI connector.

Note

Always only connect one data cable, in order to avoid problems with the signal allocation, if your monitor has several inputs (e.g. VGA and DVI).

Note

Take care that the connector and the socket fit exactly to avoid damaging the contacts. Because of its asymmetric form the plug only fits into the socket in one position.

- 1. Connect the data cable of the monitor to the socket on the graphics card (reference **M**). If necessary, remove the white guard-ring on the monitor plug
- 2. Hand-tighten the screws on the monitor cable.

Connecting USB Devices

Diagram reference: O

Warning!

Connect your USB devices **after initial set-up** of your new PC. This will prevent unnecessary confusion during installation. These devices can generally be connected during operation. Read the manual for your peripheral device first.

• The voltage outputs of your PC for USB are protected by a fuse (limited power source according to EN60950). This ensures that a malfunction of the PC will not damage the peripheral devices connected to the respective jacks.

You have a choice of several connection sockets. It does not matter which you use.

Note

Take care that the connector and the socket fit exactly to avoid damaging the contacts. Because of its asymmetric form the plug only fits into the socket in one position.

1. If you wish to use a **printer**, **scanner** or other device with a USB port, connect the cable to the USB socket on your PC.

Note

Connect your devices always to the same port otherwise your operating system will give a new ID and asks for driver installation.

Connecting Headphones

Diagram reference: P

Here you connect headphones/earphones.

1. Connect the cable with the **3.5 mm stereo** jack plug in the green socket at the front of your PC (diagram reference **P**).

Caution!

The use of headphones/earphones with a high volume can lead to lasting damage to your hearing. Set the volume to the lowest level before reproducing any sound. Start the sound reproduction and increase the volume to the level that is comfortable for you. Changing the basic settings of the equalizer can also cause damage to the hearing of the listener.



It can cause damage to the hearing ability of the listener if a device is operated through earphones with an increased volume for a long period.

Connecting a Sound Source/Audio Input

Diagram reference: R

This port is used to accommodate a connecting cable for external **analogue** audio sources (i.e. stereo system, keyboard/synthesizer).

 Connect the cable with the 3.5 mm stereo jack plug to the light-blue coloured socket.

Connecting the Power Supply

Diagram reference: N

Finally, connect the power supply to your PC and monitor.

1. Plug the main connection cable into the plug socket and connect it with the main cable connection (N) of your PC.

Observe the following safety precautions:

Please note

Even with the power switch switched off some parts of the device receive current. You must unplug the power plug from the socket, if you want to interrupt the power supply to your PC or cut off your device from current entirely.

- The power socket must be in the vicinity of the PC and within reach of the power cables. Do not stretch the power cables tightly to reach a power socket.
- Only operate the PC on grounded plugs of the domestic power net.
- Use only the supplied power cord.
- To provide additional protection against electric shock, power surges, lightning strikes, or other electrical damage to your PC, we recommend the use of a surge protector.
- The power supply unit has an On/Off switch that can be used to power off the PC. When the switch is Off (0) no power is being consumed.

Do not start your PC yet!

First, read the following section to find out what you need to know in order to get started.

Getting Started

The software on this PC comes **fully pre-installed**. You do not have to load any of the CD's/DVD's supplied.

With many programs (e.g., telephone-CD's or encyclopaedias), however, it is necessary to insert the corresponding CD/DVD in order to call up the data which is stored on it. The software will ask you to do this as necessary. Once you have made all the connections and secured the necessary connectors you can turn on the monitor, the other peripherals and finally the PC itself.

Step 1: Power On

1. Power on the monitor and your peripherals.

Switch

Diagram reference: N

2. Provide power to your PC by pressing the switch to position [I].(You will stop the flow of current to the PC by pressing the switch to position [0])

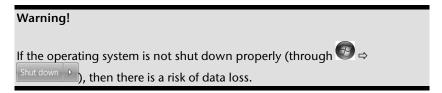


On/off Switch

Diagram reference: G

3. Press the On/off switch briefly to start loading the operating system.

You can program the function of the main switch in the power management of Windows® (please refer to on-line help). The PC will always be switched off, if the main switch is pressed for more than 4 seconds.



Step 2: Starting Initial Setup

The PC starts and now goes through a number of phases:

Note

Ensure that there is no bootable CD (e.g. the Recovery-CD) in the CD-ROM drive. Such disks will prevent the operating system from loading directly off the hard drive.

The operating system is loaded from the hard disk. During the initial set-up, the loading process takes slightly longer than normal to register the operating system and the individual components completely. Your operating system is finished loading when a welcome screen is shown on your display.

Follow the instructions on the screen. Dialogue boxes will explain any steps that need to be taken. The greeting procedure will guide you through the following screens and dialoques.

Should you have any questions just click on



License agreement

Please read through the license agreement 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 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.

Step 3: Finalising

After the login procedure the Windows® desktop appears on your screen.

This can be adjusted so that the screen of your computer looks different. The basic operation, however, is ensured.

Short Description of the Windows® Desktop

Start Button

Clicking the Start button brings up a menu where you can access help, software programs, files, and settings

All Programs

All of the software programs installed on your PC are ordinarily listed here. Click **All Programs** to reveal an extensive menu.

Taskbar

You can start programs and switch between already active programs using the taskbar beneath the screen. You can place every program in the taskbar under Windows® 7, so that you can always open it with a single click. Furthermore, you can rearrange the symbols on the taskbar by clicking on them and dragging them to the desired position. Move the cursor over the symbols, and the system will display a miniature of every file or window open in the program. When you move your cursor over the miniature, the system will display a full-screen preview of the particular window. If you move the cursor away from the miniature, the full-screen preview will close.

Windows Search

Windows Search helps you find almost all data located on the PC, quickly and easily. With Windows® 7, you get search results with greater relevance, and they are easier to understand.

6 Program Bar

The most commonly used software programs are listed here. The operating system recognises all this automatically. Clicking on an entry with the right mouse key enables you to decide which entry on the list to keep or to remove. The program linked to the input is not erased.

O Turn Off

To turn off the PC, click on the **Shut down** button with the left mouse key.

Desktop

Click on this Button if you would like to minimise all the windows open onto the taskbar, in order to obtain a clear view of the Desktop.

O Desktop Icons

Desktop icons link to their respective programs. To start a program, double-click its desktop icon.

The desktop encompasses nearly the entire screen and acts as the shelf space for such entries or for other links, to which you would like rapid access.

22

O Logged in User

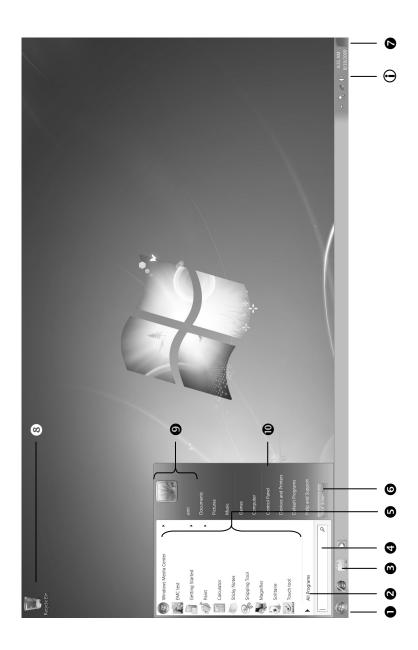
This tells you which user is logged in to your PC.

© Control Panel

You can use the icons in Control Panel to change the appearance and functionality of Windows®7. These icons represent options for configuring your PC. You should, however, consult "Help and Support" on the potential effects of certain changes.

System tray

System tray on the current time. When certain events occur, for example, upon receipt of an e-mail message or upon opening the task manager, it may happen that too many notification symbols are displayed in this field. Windows® displays a notification symbol when an event occurs. After a short time, Windows® places the symbol in the background, in order to maintain the straightforwardness of the field. You can access the symbols placed in the background by clicking on a button in the system tray.



Chapter 3

Operation

Subject	Page	
Monitor	27	
The Mouse	36	
The Keyboard	37	
The Hard Drive	38	
The Optical Drive	40	
The Card Reader	43	
The Graphics Card	44	
The Sound Card	45	
The USB Port	47	
Network	49	
Software	52	

Monitor

Use in accordance with regulations

- The TFT monitor serves exclusively to reproduce the video signals of external devices, such as computers, for example, of which the connections and image resolutions match the technical data of the TFT monitor given here. Any other use is not in accordance with regulations.
- This device is only suitable for use in dry internal rooms.
- This device has only been conceived for private use. The device is not designed for
 operation in a heavy industry business. Use subject to extreme environmental
 conditions can result in damage to your device.

Operational safety

Note

Please read the "Operational safety" chapter on page 3 under all circumstances before bringing the device into operation.

- The device is not intended to be used by individuals with restricted physical, sensory or intellectual abilities (including children), or a lack of experience and/or knowledge, unless they are supervised by an individual responsible for their safety or have received instructions about how the device is to be used from such a person. Children should be supervised to ensure that they do not play with the device.
- Keep the packaging materials, such as plastic film, away from children. The danger of suffocation could arise in the case of misuse.
- Never open the casing of the TFT monitor (electric shock, short circuit and the danger of fire)!
- Do not introduce **any objects** into the **inside of the TFT monitor** through the slots and openings (electric shock, short circuit and the danger of fire)!
- The slits and opening of the TFT monitor serve ventilation. Do not cover these openings (overheating, danger of fire)!
- Do not exert any pressure on the display unit. There will be the danger of the monitor breaking.
- Attention! There will be the danger of injury if the display unit has been broken.
 Pack up the broken parts with protective gloves and send them to your service centre for specialist recycling. Then wash your hands with soap, because it cannot be excluded that chemicals can escape.

- Do not touch the display unit with your fingers or with sharp objects, in order to avoid damage.
- Keep your TFT monitor and all the connected devices away from moisture and avoid dust, heat and direct solar radiation. Failure to comply with this information can lead to faults or damage to the TFT monitor.
- Do **not** operate your **device in the open air**, because external influences, such as rain, snow, etc. could damage the device.
- Do not subject the device to drops of water or spray and do not put any containers filled with liquid (vases or similar) on the device. Liquids penetrating can impair the electrical safety of the device.
- Do not put any open sources of fire (candles or similar) on the device.
- Pay attention to sufficiently large clearances in the wall unit. Maintain a minimum clearance of 10 cm around the device for sufficient ventilation.
- Place and operate all components on a stable, level and vibration-free base, in order to avoid the TFT monitor falling.
- Avoid fading effects, mirror effects and too strong contrasts between light and dark, to save your eyes and to guarantee comfortable workstation ergonomics.
- Take regular breaks when working at your TFT monitor, to prevent tension and tiredness.

Repair

- Leave the repair of your TFT monitor exclusively to qualified specialist personnel.
- Please contact our authorised Service Partners exclusively in the case of a necessary repair.

28

Surrounding Temperature

- The TFT monitor can be operated at a surrounding temperature from 0° C to +35° C and at a relative ambient moisture level of < 80% (non-condensing).
- TFT monitor can be stored at -20° C to +60° C when it has been turned off.
- Wait to bring the device into operation until it has reached the surrounding temperature, after the TFT monitor has been transported.
 Moisture, which can cause an electrical short-circuit, can form within the TFT monitor in the case of wide variations in temperature or moisture.

Power Supply



Please pay attention: Parts of the device will be subject to voltage, even if the mains switch has been switched off. Pull the mains plug from the socket, to interrupt the power supply to your TFT monitor or to release the device from voltage completely.

- Only operate the TFT monitor at an earthed socket with 100-240V~, 50/60 Hz. Ask
 your energy supplier if you are not sure about the power supply at the set-up location.
- We recommend the use of protection against excess voltage for additional safety, in order to protect your TFT monitor against damage because of voltage peaks or electrical flashes on the mains network.
- Pull the power pack from the socket, to interrupt the electricity supply to your device. Always hold the power pack firmly when pulling out the cable. Never pull the line.
- The socket must be located close to the TFT monitor and be easily accessible.
- Lay the cable so that no-one can tread on it or trip over it.
- Do not place **any objects on the** cable, because it could be damaged otherwise.
- Your device features an on-/off switch to power the TFT-display on or off. If the switch is set in the OFF position, no power is consumed. Put the on-/off switch to the OFF position or use a master-slave-power strip to avoid power consumption when the device is switched off.
- Maintain at least one metre clearance from high frequency and magnetic sources
 of interference (television device, loudspeakers, mobile phone, cell phone, etc.), in
 order to avoid disruptions to function and data loss.

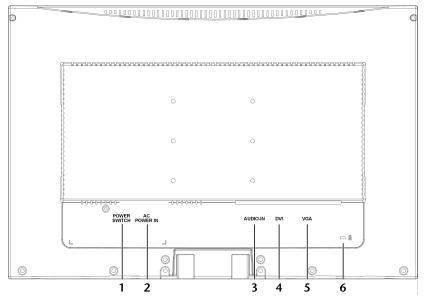
Setting up

Attach the stand of the TFT monitor as illustrated. Carry out this step before connecting the monitor.



(III.: Installation of the monitor stand)

Connections on the back



(III.: Rear of the monitor)

- 1. POWER switch
- 2. Power supply (POWER IN)
- 3. 3.5 mm stereo jack audio connection (AUDIO IN)
- 4. DVI-D 24-Pin connection (DVI)
- 5. Mini 15-pin D-sub connection (VGA)
- 6. Intake device for protection against theft (Kensington lock)

30

Connecting the monitor

- Ensure that the TFT monitor has not yet been connected to the electricity supply (mains plug not yet plugged in) and that neither the TFT monitor nor the computer has been switched on.
- Prepare your computer for the TFT monitor if necessary, so that the correct settings for it will be present.

1 Connect signal cable

 Plug the signal cable into the appropriate VGA or DVI connections on the computer and the TFT monitor.

Note

Always only connect one data cable, in order to avoid problems with the signal allocation, if your monitor has several inputs (e.g. VGA and DVI)...

2 Connect audio cable

 Plug the audio cable into the appropriate audio sockets on the computer and the TFT monitor.

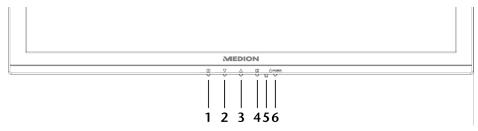
3 Connect the power supply

Connect the power cable of the power pack to the TFT electricity supply connection. Now, connect one end of the mains cable to the power pack and connect the other end to a suitable socket. The mains socket must be in the vicinity of the TFT monitor and be easily accessible (use the same electricity circuit as for the PC).

4 Power on

• The TFT-display can be powered on or off using the power switch on the back. If the switch is set to **OFF**, no power will be consumed. First set the power switch to **I**, next activate the display with the on/standby switch on the front and then power on your computer.

Operating elements



(III.: Front operating elements)

Ref.	Button	Description
1		You will start the OSD (On Screen Display) with this button. Press this button again if you wish to leave the OSD. The Power block, when the OSD is not activated
		$\square + \Delta$ OSD block, when the OSD is not activated Hold the key combination until the bar siplayed has moved
		from left to right completely, to activate/de-activate the block. A corresponding message will appear on the screen.
2	∇	Select a parameter and reduce its value with this button, when the OSD is switched on.
		If you are not in the OSD: Direct call-up of the Contrast/Brightness menu.
3	Δ	Select a parameter and increase its value with this button, when the OSD is switched on.
		If you are not in the OSD: change picture format.
4	2	Confirm the selection of the parameter to be changed with this button.
		If you are not in the OSD: Automatic adjustment.
5	Operational display	Shows the operational state.
6	<u></u>	You can switch the TFT monitor on or to the Standby mode with this button.

32

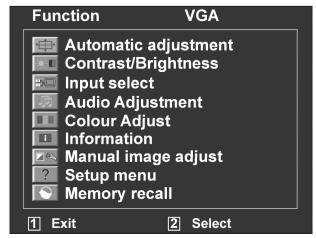
Operating the OSD menu

- 1. Press the button, in order to activate the OSD.
- 2. Select the options from the Main Menu with the ∇/Δ function selection buttons.
- 3. Confirm your selection with the **2** button.
- 4. Press the **u** button, in order to leave the OSD.

Important!

The OSD will be faded out automatically if you have not operated any button on the TFT monitor for the pre-set time.

The OSD menu



(III.: OSD menu)

Important!

The menus described here can differ from those on your monitor because of possible technical changes.

Menu point	Function / sub-menu		
*	Automatic adjustment: Sets the horizontal and vertical position, phase (fine tune) and clock cycle (H size) automatically.		
*	Contrast: Sets the white value of the monitor foreground.		
· 조	Brightness: To adjust the brightness of the video.		
	DCR: You can switch the DCR function (dynamic contrast) on and off here.		
	Input select: The signal input will be switched.		
	Audio Ac	ljustment: For setting the audio function.	
		Volume: Sets the sound output of the loudspeakers.	
		Mute: Enables the selection between Mute On/Off.	
	Colour Adjust: For the selection of the colours, in order to improve the brightness and the colour saturation. Selection can be made between: Cool, Normal, Warm and user-defined colours.		
		Cool: Adds blue to the monitor, creating a cooler white.	
		Normal : Adds red to the monitor, creating a warmer white and a brighter red.	
		Warm: Adds green to the monitor, creating a darker colour tone.	
		User colour: Individual settings for red(R), green(G) and blue(B).	
i		ion: Displays information about the current input signal of the card of your computer.	
	Manual Image Adjust		
	←	Horizontal size: Sets the width of the monitor.	
	←	H./V. Position: Sets the horizontal and vertical position of the video image.	
		Fine Tune: Fine tune to improve the display of the TFT monitor.	
		Sharpness: For the adjustment of the clarity in the case of a signal that does not correspond to the physical resolution of the screen.	
	1	Aspect ratio: change picture format.	
?	Setup Me	enu: Set the language, OSD position and OSD time out.	
		Language: Enables the user to select between the available languages.	

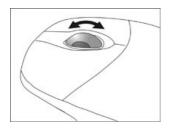
	OSD Po	OSD Position: Horizontal and vertical setting of the OSD position.	
		H. Position : For the horizontal setting of the OSD position.	
		V. Position : For the vertical setting of the OSD position.	
		me out: For switching off the On Screen Display (OSD) atically after the expiry of a preset period of time.	
	OSD ba	ackground: Enables the OSD background to be switched off.	

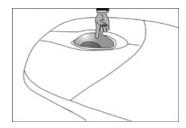


Memory Recall: To recreate the factory settings for controlling video and audio.

The Mouse

The mouse has beside the two keys a wheel that can be used to scroll through a document or internet pages.





Note

The scroll wheel can be used as a button. The functionality depends on the application. In Word for example you can push the wheel to move up and down as a scroll function.

If the mouse course moves jerkily on the screen, try a different surface (mouse pad). Glass and metallic surfaces might cause problems.

The Keyboard

This section contains useful information on using the keyboard. All diagrams are schematic.

The Alt and Ctrl Keys

The left **Alt** key performs certain functions in conjunction with other keys. The application program determines these functions. In order to enter a combination of keys that include the **Alt** key, hold the **Alt** key down while pressing the other key. The right **Alt** key operates in a similar way but selects certain special characters. The **Ctrl** key, like the **Alt** key, carries out program functions.

Useful key combinations (software-dependent):

Key Combination	Function and Description
Alt + F4	As a rule ends the program selected or closes the window opened.
Alt + Print screen	Copies the image of the window currently active to the clipboard.
Shift + '	Generates the @ character required for e-mails (pro-nounced: at).
Ctrl + Alt + Del	Windows security is launched.

(Country-specific variances are possible.)

The Hard Drive

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

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 PC, so you may note that some of the space on your hard drive is already taken.

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 operating system of the PC, further application programs and backup files are located on the hard drive and reduce its total capacity.

The hard drive is addressed as drive C and D.

Note

Never switch off the computer while the busy indicator is lit since this may result in loss of data. A flickering hard drive display is your indication that the PC is accessing the hard drive.

In your first partition (C:\) you will find the operating system, application programs and the users' documents.

The second partition (**D**:\) serves for data security and contains additional drivers (**D**:**Driver**) and tools (**D**:**Tools**) for your PC.

Note

You will also find in two otherwise non-overwriteable partitions the system restoration start files (\Rightarrow p. 73), as well as installation files for Windows® 7. These partitions are not visible and should not be erased.

Important Directories

In the following we have listed the most important directories and described their content.

Attention!

Do not delete or modify these directories or their contents since data could be lost or the functionality of the system could be at risk.

C:\ The master directory of drive C: includes important files required to

start Windows®. In the factory setting these files are hidden for safety

reasons.

C:\Programs As the name suggests, in this directory programs install the files be-

longing to the application.

C:\Windows The main directory of Windows. This is where the files of the operat-

ing system are saved.

D:\Driver This folder includes the drivers required by your computer (pre-

installed).

D:\Tools Here you find additional programs and other documentation for your

PC.

The Optical Drive

Diagram reference: A, B

Loading a Disc

Attention!

Do not place protective foils or other stickers on your CD's. To avoid damage to your drive, do not use deformed or damaged CD's. Attention: Do not use scratched or dirty discs, discs with pieces broken off or discs of poor quality. Because of the high speeds in the drive the discs might break and damage your data as well as your drive. Examine the discs before you enter them. If damage or dirt is visible, you should not use them. Damage caused by faulty media is excluded from warranty and any repair will be charged.

- 1. Push the eject button (Diagram reference, **B**) on the right of the optical drive to open the tray.
- 2. Place the disc on the tray so that it lays flat with the label facing upward.
- 3. Push the eject button again to close the tray.
- 4. Push the tray back into the optical drive carefully.

 The 'E' drive letter will have been allocated to your optical drive in the delivery status. You will have easy access to your files on your disks with Windows Explorer

(Computer). Start the Computer Help Program by means of the Desktop link or by pressing the Windows key and the 'E' key at the same time. Open Windows Explorer by means of Start ⇒ All Programs ⇒ Accessories. The pre-installed media reproduction will be used automatically during access to DVD videos (or audio and video files on normal data CDs)..

How to Remove a Disc

- 1. To remove a disc push the eject button (Diagram reference **B**) again to open the drawer.
- 2. Remove the disc and store it at a safe place.
- 3. Shut the drawer.

Attention!

While the PC is accessing the optical drive the media activity is lit. Do not try to remove the disc from the drive while this LED is lit.

Playing Back and Retrieving Data from Discs

Note

Some disks start automatically upon insertion. This depends on the operating system and the related settings.

Your PC is able to playback and to retrieve Audio CDs, DVD Movies and Data discs.

After loading the disc your operating system will open a selection window with different options for playback.

If your operating system doesn't open the selection window you still have the possibility of access to the optical drive via the **Windows Explorer** or the **Computer**.

Regional Playback Information for DVD

The playback of DVD movies includes the decoding of MPEG2 videos, digital AC3 audio data and the deciphering of CSS protected contents.

CSS (sometimes called copy guard) is the name of a data protection program incorporated by the movie industry as an action against illegal copies.

Among the numerous regulations for CSS licensees the most important ones are the country specific playback restrictions.

In order to facilitate the geographically restricted release of movies, DVD titles are released for certain regions.

Copyright laws require the restriction of each DVD movie to a certain region (usually the region, in which it is sold).

DVD movie versions can be published in several regions but the CSS regulations require that each CSS decipherable system may only be used in one region.

Attention!

The decoding software included with your PC 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/DVD-Rewriter

Normal Discs are pressed from a digital, glass master and then sealed. In the case of blank disc, the information is burnt onto the disc with the laser of the Rewriter. Therefore these discs are more sensitive than normal CDs.

Please avoid the following when using recordable/rewriteable discs - especially blanks - that have never before been used:

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

The Card Reader

Diagram reference: D

MS / SD / MMC	
CF	SM / XD

If your PC is equipped with a card reader, you can handle different memory card types. The following table refers to the use of the card reader:

Slot	Card type	Contacts
MS	Memory Stick Memory Stick Pro	pointing downwards
SD	SD (Secure Digital)	
MC	MMC (MultiMediaCard)	
CF	CF (Compact Flash) IBM® Microdrive	point to front
SM/XD	SmartMedia XD	point to bottom pointing upwards

If a card is inserted, a free drive will be assigned* by Windows®.

^{*} Only if this concerns a removable disk.

The Graphics Card

Diagram reference: L, M

Appearance and Personalization

This program offers you the possibility of adjusting the presentation on your display. This includes the background image, the screensaver, Active Desktop (web) and additional settings of your display and your graphics card, for example. The program can be started in the following way:

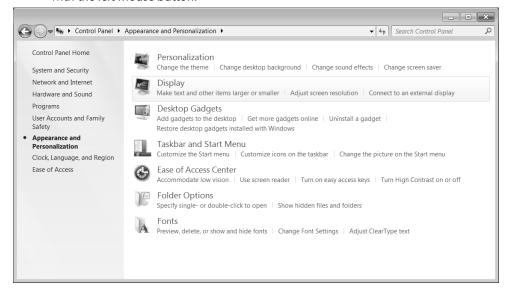
 Right mouse click on the Windows interface (Desktop) and left mouse click on Personalization

or

Via Start

Control Panel

Appearance and Personalization with a double-click with the left mouse button.



44

The Sound System

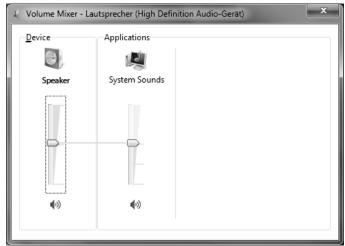
Diagram reference: E, K, P, Q, R

Note

The speaker outputs \mathbf{K} are designed for active speaker systems or headphones. Passive speakers cannot be used or if they are the quality will be significantly reduced.



Click on Mixer, in order to open the volume mixer.



By using the external connections you have the possibility to connect your PC with a surround system.

Note

Only connect the headphones/earphones to the front connector of your PC (diagram reference: **P**).

Caution!

The use of headphones/earphones with a high volume can lead to lasting damage to your hearing. Set the volume to the lowest level before reproducing any sound. Start the sound reproduction and increase the volume to the level that is comfortable for you. Changing the basic settings of the equalizer can also cause damage to the hearing of the listener.



It can cause damage to the hearing ability of the listener if a device is operated through earphones with an increased volume for a long period.

IEEE 1394 (Fire Wire)

Diagram reference: I

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

Application Options for IEEE1394

- Connection of digital devices of the entertainment industry, such as set-top speakers, digital video and camcorder, 'Digital Versatile Disk' (DVD), television etc.
- Multimedia applications and video processing.
- Input and output devices such as printers, scanners, etc.

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 be plugged in or unplugged during operation (hot plugging).
- The standard cord ('Shielded Twisted Pairs' –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 in these cases 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).

USB Port

Diagram reference: O

Note

Devices connected directly to the USB bus should not draw more than 500 mA. The voltage output is protected by a fuse (Limited Power Source according to EN 60950). Should the devices need more power than this, it will be necessary to provide a hub (distributor / booster).

On the USB it is possible to connect up to 127 devices which correspond to the USB standard (1.1 and 2.0 supported).

Note

If possible, always connect your USB devices to the same port where it has been installed. Otherwise you will get a new ID and your operating system will ask for a new installation of the driver.

The Network

Diagram reference: J

Your PC is provided with a Fast Ethernet-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 PC to another or several other PCs. Users can transfer information and data between computers and share resources such as printers, modems and hard disk drives. Here are some practical examples:

- You can exchange Email and manage appointments in an office.
- Users share a printer in a network and save their data on a central server.
- Two or more PCs can be connected to play network games or share data.

Wireless LAN

Your PC is equipped with WLAN. The components (Module, antenna) are already integrated and activated in your computer. You can turn off the wireless LAN function with the help of the Windows® Device Manager.

This function allows you to create a wireless network link with a partner.

Safety Note

Attention!

Don't use this feature in environments where highly sensitive devices are placed such as in hospitals etc. To avoid any interference disable this option in your device manager.

Conditions

The partner used can be a wireless **access point**. An access point is a wireless transmitter that communicates with your notebook and controls access to the network connection (e.g., a home network or a broadband connection such as DSL).

Wireless access points are often found in offices, airports, universities or Internet cafés. They offer access to enterprise services and networks or to the Internet.

Access authorizations are normally needed. A fee may be required to use a public access point. To set up a wireless network to share Internet access, files, and printers at home, you will need an access point, a router, and a broadband (DSL or cable) modem. Some access points can also serve as a router and/or a broadband modem. Check with your retailer to find the best solution for your needs.

A link to another computer with wireless LAN functionality can also be created without an access point. This will allow you to share files, but you will need an access point and a router to share an Internet connection. The wireless network link works according to standard IEEE 802.11n^{*} and is compatible to standard IEEE 802.11 b/g. Other standards (802.11a etc.) are not supported.

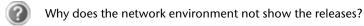
The transmission speed can vary according to distance and other factors.

Search for "wireless networking" in Windows Help and Support for more information.

50

In order to use its full capacity, a WLAN router following the 802.11n standard is required.

Troubleshooting within the Network



- 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".

Software

This section concerns itself with software. We make a distinction between the operating system, the software (application program), **Windows activation**, **BIOS and the security package BullGuard**, which is delivered with the device.

Getting to Know Windows® 7

With Windows® 7, Microsoft is launching the new operating system and successor to Vista®.

Windows® 7 contains a number of innovative functions and technologies, enabling your PC to work quickly and reliably, while being easy to use.

Windows® 7 - News

Improved Taskbar

The Taskbar at the bottom of the screen enables you to start programs and change between programs which are already running. Using Windows® 7, you can place any program in the Taskbar, so that it will always open with one single click. You can also arrange the symbols on the Taskbar simply by clicking on them and dragging them to the desired position. The symbols are also considerably bigger, so that they are easier to use. Moving the cursor over the symbols will display miniatures of each file or each window open in the program. Moving the cursor over the miniature displays a full-screen preview of the particular window. Moving the cursor away from the miniature closes the full-screen preview.

Jump lists

Jump lists offer a practical possibility when opening files which you have recently worked on. To display recently used files, just right-click the application symbol on the Taskbar. Right-clicking on the Word symbol will display recently used Word documents. You can also easily place other files in the jump list if you would like to have them readily at hand, in which case they will always be displayed. This allows you to access documents which you use more frequently, with just a few mouse clicks.

The jump lists from a few programs, such as Windows® Media Player, can be filled in advance with frequently used commands. Thus, for example, the Windows® Media Player jump list might contain options to play all music or to re-open the latest play list.

The Internet Explorer jump list displays frequently and most recently visited websites. For certain programs, this enables rapid access commands which, in the past, could only be retrieved from the program itself, such as the command to create a new e-mail message.

Improved Desktop

Windows® 7 simplifies working with the windows on the Desktop. This provides you with more intuitive possibilities for opening and closing, as well as for changing the size and for rearranging.

Windows® 7 makes the performance of everyday tasks even simpler. For example, the Snaps function makes it easier than ever to compare two open windows. You do not need to adjust the size of the open window for comparison. Simply pull the window, using the mouse, to one of the edges at the side of the screen, and it will fill half the screen. Snap the window on both sides, and it is already easier than ever to compare two windows.

If you would like to display all Desktop mini-applications, simply move the mouse into the lower right hand corner of the Desktop. This makes all open windows transparent, so that the Desktop and all the mini-applications located on it will be instantly visible.

Click on the Titlebar of the window, "shake" it, and all open windows will be displayed as symbols on the Taskbar. "Shake" the window again, and the other windows will be displayed again.

Better device management

Windows® 7 enables you to close, manage and use all devices through the "Devices and Printers" central function.

All devices are displayed in a central position.

With the new Device Stage Technology, Windows® 7 even goes one step further in device management. Device Stage helps you use all compatible devices connected to your computer. Thanks to Device Stage, now you display the device status in one single window and carry out often-used commands. You will even find pictures of the devices here, easily enabling you to see which devices are connected. The manufacturer of the devices can even adapt Device Stage. If the manufacturer of your camera, for example, prepares an adapted version of Device Stage, you can see the number of photos on the camera and receive links to useful information when you link the camera to the PC.

Homegroup

With homegroups, a new function of Windows® 7, the linking of home computers is really simple. A home network group is created automatically, for example, when you link the first PC under Windows® 7 with the home network. The addition of additional PCs with Windows® 7 to the home network group is quickly accomplished. You can indicate exactly what should be released on each PC for all other PCs in the home network group. Finally, the shared use of files on the various home PCs, and on many other devices, is so simple that it is as if all files were located on one single hard drive. This allows you to store digital photos on the computer in your home office and then enjoy easy access to them from a laptop in any other room in the house. Similarly, the printer in home office is automatically released for all PCs in the house, as long as they are all in the home network group.

Beginners and persons changing from other Windows versions systems are advised to read this material carefully.

Windows® 7 - Help and Support

An answer to almost every question can be found in this program.

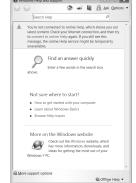
This help function fully covers the Windows operating system. It is helpful for both beginners and professionals. You can print or

bookmark the information, which is categorized into topics. You start like this:

1. Click on **Start**



2. Now select **Help and Support** ②



Windows® 7 – Getting Started

Learn everything you need to know about the features of the PC.



It is the aim of this feature to enable both beginners and experienced users to make additional setting for the optimal use of Windows®7 after first bringing the PC into operation.

Getting Started has been subdivided into many small groups of subjects, so that the user will have the possibility of adjusting the content optimally to his or her knowledge. There are some of the links in the following:

- Go online to find out what's new in Windows[®]7
- Personalize Windows
- Transfer files and settings from another computer
- Use a homegroup to share with other computers in your home
- Choose when to be notified about changes to your computer
- Back up your files
- Add new users to your computer
- Change the size of the text on your screen

Use Getting Started to understand your PC better and in order to be able to use it optimally. It will also serve you as an additional source of information for recognizing and removing potential problems.

You will call up **Getting Started** as follows:

1. Click on Start



2. Select Getting Started in the Program List.

Windows® 7 - User Account Control

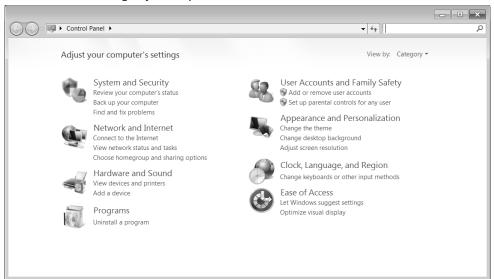
The User Account Control contributes to the prevention of unauthorized changes to the PC.

A window with the message "Do you want to allow the following program to make changes to this computer?" will appear as soon as you carry out an unauthorized change.

- Click on **Continue**, in order to continue the procedure.
- Click on **Cancel**, in order to end the procedure.

Windows® 7 - Control Panel

You can change Windows settings using the control panel. The settings control almost everything relating to Windows displays and functionalities, and they enable you to organise Windows according to your requirements.



When you first open the **Control Panel**, a few of the most frequently used elements of the Control Panel are displayed by category.

For further information on any element in the Control Panel category view, hold the cursor over the symbol or category name and read the pop-up display text.

To open one of these elements, click on the associated symbol or category name.

For a few of these elements, a list, with executable tasks will open, with a selection of individual Control Panel elements.

Searching for the desired control elements may be effected in the following ways:

- Enter a word or expression in the search field.
- Click on Large Icons or Small Icons under Display Settings to display a list of all Control Panel elements.

Windows Media Center

The Windows Media Center is the platform for your individual home entertainment in Windows® 7. You will be able to record television, TV broadcasts, DVDs and music, look at photos and much more by a remote (not included in the scope of the delivery) or by a click of the mouse, with the Windows Media Center.

You will start your individual entertainment as follows:

- 1. Turn on your PC.
- 2. Click on Start
- Click on Start .
 Click on Windows Media Center.

Information

The support of the functions depends on the hardware equipment of the PC. For example, the TV function requires a TV tuner (not included in the scope of supply).

An overview of the Windows Media Center functions is below:

Main menu	Sub-menu
TV + Films	Recordings
	You will have the possibility of recording broadcasts if you connect a TV tuner. You can play back the broadcasts recorded, delete them or burn them on external media through this Menu point.
	Play back DVD
	You will play DVDs through this Menu point.
	Set up TV
	You will have the possibility of configuring the TV signal here, if you have an external TV tuner available.
Online Media	Programmes
	This library of programmes offers a listing of various online media. You will call up content through the Internet, from the online video library, through news portals to the music shop, by means of the online media. An existing Internet connection is the requirement for the use of this function.

Main menu	Sub-menu

Tasks	Settings
	Adapt the Windows Media Center to your requirements and needs here. For example, make the settings for the protection of children here.
	Stand by
	You will not only close the Windows Media Center but you will be able to put the whole operating system in stand-by through this sub-menu. Pay attention that all applications have been already closed before putting the system into stand-by.
	Burn CD/DVD
	Call up your burning software to start a burning process through this sub-menu
	Synchronising
	If you connect an external device, such as an MP3 player or a digital camera; you will be able to synchronise the respective data to an external device with the PC through this sub-menu.
	Extension set-up
	You will be able to set up a Windows Media Center extension by means of this sub-menu. You will be able to access the data on your PC by means of a cable or wireless network.
	'Only media'
	You will switch to the full image of the Media Center by means of this sub-menu.
Images + Videos	Library of images
	All the images stored in your PC will be located in the library of images. Start the playback in a slide show here.
	Play back everything
	Select 'Play back everything', to start the playback of a slide show directly.
	Video library
	All the videos stored in your PC will be located in its video library.

Main menu	Sub-menu
Music	Music library
	All the music titles stored in your PC will be located in the music library. You will be able to start the selected playback of an album, an artist or a selected title here.
	Play back everything
	You will start the playback of all the files stored in your music library by means of this sub-menu.
	Radio
	You will have the possibility of listening to a radio broadcaster and to administrate it, if you have external radio tuner hardware available.
	Search
	You will be able to search for music titles, composers, artists, albums, etc. in a targeted way by means of this sub-menu. The search will start as soon as you have entered the first letters.

Installation of Software

Note

If your operating system is configured so that the installation procedure accepts only signed drivers (default) and software an information screen will appear.

The software included in delivery is already pre-installed in the factory.

Attention!

You may find that during the installation procedure important files may be changed or even cancelled. To avoid further problems in using older files after an installation, make sure you safeguard your hard disk. See page 69 for further information regarding data backup.

How to Install your Software

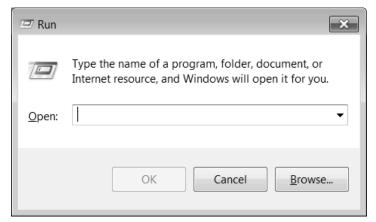
Please follow the instruction of the software vendor. We will describe a **typical** installation. Once you insert a CD, the installation menu is started automatically.

Note

If the automatic start does not work, it is likely that the so-called **Autorun** function has been deactivated. Read the respective chapter in Windows Help on how to activate this function.

An example for the manual installation **without** the autorun function:

- 1. Click on Start
- 2. Click on ▶ All Programs.
- 3. Open the Accessories program point.
- 4. Select the item <a> Run.
- 5. Now enter the letter of the CD-ROM drive followed by a colon and the program name setup:



- 6. Click on "OK".
- 7. Follow the instruction given by the program.

Software Uninstallation

In order to remove installed software from your PC, follow the next steps:

- 1. Click on **Start**.
- 2. Click on Control Panel.
- 3. Then select the **Programs** option.
- 4. Select the respective program, start the uninstallation and follow the instructions on the screen.

62

Windows Activation

Microsoft is committed to the protection of intellectual property rights and the reduction of software piracy. Therefore Windows® 7 contains software-based product activation technology. Your copy of Windows® 7 has already been activated for your PC.

Product activation is needed if some components of your PC have been replaced or you use a non-authorized BIOS. If necessary you can activate Windows® 7 as often as requested.

You will probably need to activate Windows® 7 by telephone even if Internet Activation is available. This is due to the pre-activated SLP version which runs with a special Product-ID. However, activation needs your unique Product ID which can be found on the **Certificate of Authenticity** sticker on your PC housing. When you call, please inform your agent that you are running an OEM-(SLP) version of the software.

Product Activation on your PC

In few cases it may still be required to activate Windows® 7. If an activation via the **internet** is acknowledged with an error message you should perform the following steps.

- 1. Please select the **telephone activation** and click until the related screen appears.
- 2. Now click on **change product key**. A new window appears. Enter the product key. This is located on the **Certificate of Authenticity (COA)**, on the computer's casing.
- 3. Acknowledge your entry and follow the instructions on the screen. Notify your Microsoft consultant, if necessary, that you have an OEM license in connection with your PC.

BIOS Setup

In the BIOS set up (your PC's Basic Configuration) you have a number of parameter settings available for your PC. For example, you can change the operating mode of the interfaces, security features or power management.



The PC is factory pre-set to guarantee optimum operation. Please only modify the parameters if this is absolutely essential and if you are familiar with the configuration possibilities.

Execution of the BIOS Setup

You can only execute the configuration program when starting the system. If the PC has already been started exit Windows® and reboot. Prior to rebooting the PC press the key "DEL" and keep it pressed until the message "Entering Setup" appears.

BullGuard Internet Security

The BullGuard Internet Security Package is a combination of the currently most up-to-date PC security technologies on the market and thus offers you 24-hour optimum protection.

BullGuard is already installed, so that additional installation will not be necessary. If you nevertheless have to carry out an installation (e.g. after system restoration), you will find the software package on the application/support disc supplied with the machine.

BullGuard Internet Security consists of the following security components:

Antivirus

The centrepiece of any serious PC security application, the Antivirus application screens your e-mails, and scans your hard drives for viruses and malware. The Bull-Guard Antivirus combines the highest update frequency in the business with a nononsense user-interface.

Antispyware*

BullGuard Antispyware protects your PC from all known kinds of spyware and adware by searching and cleaning files, registry keys, processes and cookies, protecting you from identity theft and the loss of personal information.

Spamfilter*

The BullGuard Spamfilter will protect you from annoying spam and potentially costly phishing attempts - a key tool in keeping your Inbox free from unsolicited mail.

• Backup*

Backing up your files has never been easier with both local and online backup. Not only can you customise the size of your online backup drive to suit your needs - once uploaded, you can access these files from any computer connected to the internet anywhere in the world!

Support*

BullGuard Support is a key component in all BullGuard products. Assistance with all security related questions available to all users directly from the application. No FAQ, no automated response – real people and live help.

*Information

The **Antispyware, Spam filter, Backup** and **Support** components will only be released at the free registration and will be deactivated after the expiry of 90 days.

Procure a BullGuard subscription through the internet link given below, in order to be able to continue to use this module.

The BullGuard Internet Security Package will be updated with the most up-to-date virus information for 90 days after the **free registration**.

The registration window will only appear after your PC has been restarted. You can register by entering your email address.

Note

Keep your password in a secure place.

The antivirus software will continue to run after the expiry of 90 days, but it will no longer be updated, so that your PC will not be protected against new viruses.

The purchase of various subscriptions through BullGuard is possible in order to always receive the most up-to-date information and updates.

A subscription can be purchased on the internet and carried out without complications. An additional release or the entering of a licence is not necessary. Neither changes nor additional settings will have to be made.

The release will take place automatically after the purchase of a subscription.

Read the information about this on the internet at:

https://www.bullguard.com/buy_new.aspx?

Note

The operating system and anti-virus software are automatically updated when the first online connection is made. These processes usually take a few minutes, during which time the operating speed of the computer may be affected although this is only noticeable on initial start-up.

Chapter 4

Customer Service & Self Help

Subject	Page
Data and System Security	69
System Restore	70
FAQ – Frequently Asked Questions	73
Customer Service	75
Upgrades and Repairs	78
Recycling and Disposal	79

Data and System Security

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

Please also read the notes on page 4.

Data Security

Back up data regularly on external media such as a CD-R or CD-RW. Windows offers **Back-up Status and Configuration**.

This program is 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 the help programs such as **Disk Defragmenter** and **Disk Cleanup**. The help program **System Information** can also be helpful as it gives you detailed information about your system configuration. You can also find these programs in **Accessories** ⇒ **System Tools** too.

System Restore

Windows® 7 provides a useful function (**System Restore**) enabling the storage of the so-called **Recovery points**.

The system remembers the current configuration as a snapshot and returns to this, if necessary. The advantage is that an unsuccessful installation can be cancelled.

Recovery points are created automatically by the system, but they can also be set manually.

You can determine and configure yourself the maximum memory taken up by this. You find this program in the program file under **Accessories** ⇒ **System Tools**.

We recommend setting a **recovery point** before installing new software or drivers. At this point if the system does not run properly this recovery point should enable you to return to a workable configuration without deleting newly created documents. In the next paragraph you will find your options for the repair of an incorrect installation.

Correction

Windows® 7 includes various functions ensuring that the PC as well as the 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 the functionality of the operating system, the applications and devices. The recovery function or functions you use depend on the type of occurring problem or error. For detailed information refer to the Windows help.

Windows® Update

Windows Update is the online updating of Windows. Use Windows Update to download elements such as security updates, important updates, the newest help files, drivers and Internet products from the Internet.

The website is regularly augmented by new content, so that you can download the newest updates and error corrections at any time, to protect the PC and guarantee its functioning.

Windows Update will search through the PC and provide a list of individual updates especially for the configuration of your PC.

Each update that Microsoft regards as important for the operation of the operating system, programs or hardware components will be classified as an "important update" and automatically selected for installation for you.

Important updates will be provided to remove known problems and to protect the PC against known security risks.

Carry out four simple steps, to download the updates needed and to keep your computer on the current status of technology:

- 1. Click on Start .
- 2. Click on ▶ All Programs.
- 3. Open Windows Update.
- 4. Click on Check for update.
- Click on Add to select the desired update and to add it to the updates to be installed, while you are searching through the available updates in each category. You can also read a complete description of each individual element by clicking on the Read further Link.
- Click on Check and install updates, when you have selected all the desired updates, and then click on Install now.

Windows Update Information for Data Security

Windows Update needs certain information about the respective PC, so that a suitable list with updates can be provided for you. This information will include the following:

- Version number of the operating system
- Version number of Internet Explorer
- Version numbers of additional software programs
- Plug & Play identification key of the hardware devices

Windows Update will stand up for the protection of your private data and will not record your name, address, email address or other forms of personal data. The information collected will only be used during the time that you are visiting the website. It will also not be stored.

The update can only be executed via the Internet. Ensure that you are on-line with your PC when downloading the updates.

System Restore

If your system is not functioning properly, you should use the Application Support Disc to restore your system.

Limits of the Recovery

- Changes made to the original configuration (RAS, Desktop or Internet settings) and installed Software will be ignored by this Recovery and will not be reloaded.
- Driver Updates or hardware installed by you will be ignored by this Recovery.

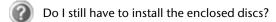
Carrying out a Restore

- Remove any mass storage devices you may be using (memory cards, USB sticks, etc.).
- 2. Switch on the PC.
- Press the corresponding key when you see the message "Press F11 to run recovery" or "Press F12 to run recovery".

After a few seconds, the message "Windows is loading files" will appear. Wait until the files are loaded. The "Power Recover" menu will then appear.

- 4. Select the language of the restoration menu.
- 5. Click on "Next".
- Click on "Restore to HDD no backup of user data".
 All data on the PC are irretrievably erased, restoring delivery condition.
- 7. Click on **Next** and follow the further instructions, which will appear on the screen, to restore the delivery condition.

FAQ – Frequently Asked Questions



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

Where can I find the drivers necessary for my PC?

The drivers are on the second partition of the hard drive, in the Drivers and Tools directories.

What is the Windows activation?

Your operating instructions include a chapter about this subject.

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.
- ... you installed a new motherboard.
- ... a different BIOS version has been installed.
- ... you install the software on to another computer.

When is the recovery of the factory setting recommended?

This method should be chosen as the last resort. Read chapter "System Restore" concerning the possible alternatives.

ndix

Customer Service

Troubleshooting

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

Localise the Cause

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

- Check power points, power cable and all power switches.
- Switch off the PC and check all cable connections. Check the connections to peripherals. Do not exchange cables, even though they may look similar. The polarity in those cables may be different. When it is confirmed that the computer has power and all connections are correct, turn the computer on again.

Frequent use of the programs **Disk Defragmenter** and **Disk Cleanup** will help you to avoid problems with your operating system.

The tool "System Information", available in the program folder "System Tools" is also very useful.

Errors and Possible Causes

The monitor 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:

• Click the clock on the taskbar and correct the date and time.

After a system restart a new drive letter is assigned to the cards in the card slots.

• This can happen, when the card reader re-initializes the slots during a system start. New IDs might be assigned, which can lead to new drive letters for some cards.

No data can be accessed from the optical drive.

- Check whether the disc is inserted correctly.
- Is the optical drive displayed in Windows Explorer? If so, test another disc.

The mouse does not work.

- Check the cable.
- Is the mouse functioning in another application program? Is the mouse deactivated in "Device Manager".

There is not enough room on the HDD.

 Audio or video recordings need a great deal of memory (between 1 and 2 GB/hour). Safeguard files that you do not need on external media, such as DVD/CD-Rs or hard drives or other external media.

The PC does not start up.

If all cable connections are correct, then try to reset the power supply of the PC. Set
the power switch at the rear of the PC to position 0 (OFF). Now press down the
main switch at the front of the PC for 10 seconds. Wait 5 more seconds and the restart the PC.

76

Additional Support

If the suggestions in the above section have not solved your problem, please contact the service hotline and we will attempt to help you solve the problem. Before you contact the Technology Centre, 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 quote this.

Driver Support

This PC 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, often 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 PC'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

Transporting the PC

Please observe the following guidelines when transporting the PC:

• To avoid damage during transport, store the PC in its original packaging.

Cleaning and Care

The lifetime of the PC can be extended by taking the following measures:

Warning!

There are **no user-serviceable** or user-cleanable parts inside the PC housing.

• Before cleaning, always remove the power plug and all connecting cables. Clean the PC with a damp, lint-free cloth. 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- /DVD-drive.

Upgrades and Repairs

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

Notes for Service Engineers

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

Caution!

Lithium batteries cannot handle intense pressure, high temperatures or fire. There is a 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 Service Centre for additional information on battery disposal.

Notes on Laser Radiation

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

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

- The CD-ROM-/CDRW-/DVD-drives installed contain no user-serviceable parts.
- Only the manufacturer should perform repairs to the CD-ROM-/CDRW-/DVD-drives.
- 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.

Recycling and Disposal



At the end of its life, the appliance must not be disposed of in household rubbish. Enquire about the options for environmentally-friendly disposal



Do not dispose of used batteries in the household rubbish! They must be deposited at a collection point for used batteries.



To avoid damage during transport, the PC is stored in protective packaging. The packaging is produced mostly from materials which can be disposed of in an environmentally friendly manner and therefore can be professionally recycled.

Should you have any questions concerning the disposal please contact your dealer or our service.

Battery Treatment

Batteries may contain combustible materials. By misuse, this may cause battery **leakage**, **heat**, **explosion** or **ignition**, bringing about **injury** or **damage** to the device.

Please observe strictly the following matters:

- Keep children away from batteries.
 If by any chance, the batteries are swallowed, consult a doctor immediately.
- Do not charge batteries (except rechargeable batteries).
- Do not forcibly discharge batteries.
- Do not short-circuit batteries.
- Do not heat or dispose of in fire.
- Do not disassemble or deform batteries.
 Your hands and fingers may be injured, or the liquid of the battery may get into your eyes or adhere to your skin. If this happens, rinse with a large quantity of water immediately and consult a doctor.
- Do not expose batteries to strong impact by dropping or throwing the batteries.
- Do not reverse the positive (+) and negative (-) terminals to avoid short-circuit.
- Do not mix used and new or different types of batteries together.
 Your equipment may not operate properly. In addition, the battery exhausted first may be excessively drained (over-discharged).
- Remove promptly the used batteries from the device.
- Replace all batteries with new batteries of the same type at the same time.
- Insulate the terminal parts with tape or the like when storing or disposing of batteries.
- Check that the contacts in the device and on the batteries are clean and clean them if necessary, before inserting the batteries.
- Do not throw rundown batteries in the domestic refuse! Respect the environment and throw them in the specific containers for separate collection. If necessary, turn to your retailer or to our service assistance. Thank you!

pendix

Chapter 5

Appendix

Subject	Page
Information about conformity	83
Pixel errors in the TFT monitor	85
Index	88

Information about Conformity

The device fulfils electromagnetic compatibility and electricity safety requirements.

Your device complies with the basic requirements and the relevant guidelines of the 2004/108/EU EMV Guidelines [electromagnetic compatibility] and the 2006/95/EU Guideline for low voltage devices.

This device fulfils the basis requirements and the relevant regulation of the Ecodesign Guideline 2009/125/EG (Commission Regulation 1275/2008). Electromagnetic Compatibility

Information about the Regulatory Compliance according to R&TTE

The following remote equipments may have been supplied with this PC:

Wireless LAN

Due to the capacity of the built-in wireless LAN solution (> 100 mW) the device may only be used within buildings in France.

Currently none of the other EU-countries have any restrictions. For use in other countries please obtain information about the applicable regulations locally.

The company declares herewith that these devices are in agreement with the fundamental requirements and the other relevant terms of the 1999/5/EG Guideline. Complete declarations of conformity are available under www.medion.com/conformity.





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.

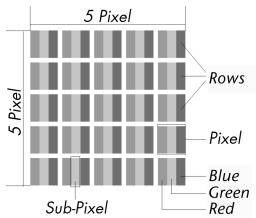
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Shielded interface cables, if any, must be used in order to comply with the emission limits.

Pixel errors in the TFT monitor

A total of **approx**. **4.3 m** control transistors are used in the case of Active Matrix TFTs with a resolution of **1600 x 900 pixels**, each composed of three sub-pixels (red, green, blue). A failure or incorrect control of pixels or individual sub-pixels can arise occasionally, because of this very high number of transistors and the extremely complex manufacturing process associated with it.

There have been continuous approaches to define the number of permitted pixel errors in the past. However, these attempts have for the most part been very complicated and completely different from manufacturer to manufacturer. MEDION follows the strict and transparent requirement of the ISO 9241-307, Class II Norm, which are summarised in brief in the following, in the handling of guarantees for all TFT display products for this reason.

Among other matters, the 9241-307 ISO Standard defines generally applicable guidelines in relation to pixel errors. The pixel errors are categorised into four error classes and three types of error. Each individual pixel is composed in its turn of three subpixels each with a basic colour (red, green, blue).



Types of pixel error:

- Type 1:
 Pixels shining for a long time (bright, white point), although **not** activated.

 A white pixel arises because of the illumination of all three sub-pixels.
- Type 2: Pixels not shining (dark, black point), although activated
- Type 3:
 Abnormal or defective sub-pixels coloured red, green or blue (e.g. shining for a long time with half brightness, not lighting one colour, flashing or flickering, but not Type 1 or 2)

Addition: Cluster of Type 3 (= failure of two or more sub-pixels in a block of 5×5 pixels. A cluster is a field of 5×5 pixels (15×5 sub-pixels).

Classes of pixel error:

Error Class	Type 1	Type 2	Type 3	Cluster of	Type 3
I	0	0	0	-	0
II	2	2	5	-	2
III	5	15	50		5
IV	50	150	500		50

The permitted number of errors of the types specified above in each class of error relates to a million pixels and must be converted in accordance with the physical resolution of the display.

A maximum **permitted** number in **Error Class II** follows from this:

For a resolution of	M. pixel	Sub-pixels	(Type, see above)
1024 x 768 (38 cm)	0.786432	2.359296	2 2 4 - 2
1280 x 1024 (43, 46, 48 cm)	1.310720	3.932160	3 3 7 - 3
1600 x 1200 (48 cm)	1.920000	5.760000	4 4 10 - 4
1440 x 900 (48 cm wide)	1.296000	3.888000	3 3 7 - 3
1600 x 900 (51 cm wide)	1.440000	4.320000	3 3 7 - 3
1680 x 1050 (51 cm wide, 56 cm wide)	1.764000	5.292000	4 4 10 - 4
1920 x 1080 (60 cm wide)	2.073600	6.220800	4 4 10 - 4
1920 x 1200 (65 cm wide)	2.304000	6.912000	4 4 10 - 4

Error Class I is only used in the case of special applications, e.g. in the medical sector, and is associated with corresponding supplementary costs. Error Class II has become established as the standard for manufacturers conscious of quality and with very good display units.

Example:

A 50,8 cm - display unit consists of 1600 horizontal and 900 vertical scanning elements (pixels), that is 1.440.000 pixels in total. This gives a factor of about 1,44 in relation to one million pixels.

Error Class II therefore allows 4 errors of both Type 1 and Type 2, 10 Type 3 errors and 4 Type 3 clusters.

Index

A
Ambient temperature
В
Battery Treatment 80 BIOS Setup 63 BullGuard Internet Security 64
С
Cabling 11 Care 78 Carrying out a restore 73 CD-ROM 40 CF 43 Cleaning 78 Cleaning agents 78 Compact Flash 43 Connect 31 Audio cable 31 Power supply 31 VGA signal cable 31 Connecting 11 eSATA Devices 13 Headphones 18 IEEE 1394 (FireWire) 14 Microphone 13 Monitor 16 Power supply 19 PS/2 devices 13 Sound source /audio input 18 Speakers/audio output 15 USB devices 17 Power 31 Control panel 57 Customer service 75
D
Data and system security69

Data security 4 Directories 39 Disc drive 40 Driver support 77
Frors and possible causes
=
FAQ
G
Getting Started
1
Hard drive
BM [®] Microdrive
EEE 1394 (Fire Wire)47 ncluded with your All-In-One PC7
nstallation of Software 61
<
Keyboard 37
Keys 37
-
aser radiation 79
License Agreement
M
·· Maintenance 78
Maintenance programs

×
Į
О
U
Э
d
D
< .

Memory Stick 43 MMC 43 Mouse 36 MultiMediaCard 43
N
Network 49 LAN Access Point 50 Troubleshooting 51 What is a network? 49 Wireless LAN 50
0
On/off Switch20 Operation
Keyboard37
Mouse
Operational safety Data security4
Set-up location8
Ambient temperature8
Connecting11
Cabling11 Optical disc drive40
P
•
Power On20 Power supply31
Program bar22
R
R&TTE83 Recycling and disposal79
Repair28
S
SD43
Secure Digital43

Service engineers	
Set-up location	
SmartMedia	
Software	
Software uninstallation	
Sound system	45
Standards	
FCC compliance statement	
Start button	
System restore	70
Т	
Transporting	77
Troubleshooting 70,	75
U	
Upgrades and repairs	78
USB port	48
V	
VGA signal cable	31
W	
Windows activation	63
Windows Media Center	
Windows [*] 7	
User account control	56
Control panel	57
Getting started	55
Help and Support	
News	
Windows* Desktop	
Windows Update	
Wireless LAN	50