

AMILO Pro V2020



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... any technical problems or other questions which you would like to be clarified?

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(see the included Help Desk list or go to: <http://www.fujitsu-siemens.com/support/helpdesk.html>)
- your sales partner
- your sales outlet

Additional information is provided on the Help Desk list and in the "Warranty" manual (the "Warranty" manual is included on the "Drivers & Utilities" CD provided).

The latest information on our products, tips, updates, etc., can be found on the internet under:
<http://www.fujitsu-siemens.com>

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AMILO Pro V2020

Operating manual

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January 2005 edition

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Innovative technology ...

and ergonomic design make your AMILO Pro the ideal easy to use and reliable notebook.

Your notebook is available in several different versions. Most of the sections in this manual apply to all models - any differences are pointed out separately. Some of the illustrations and features in this manual may differ from your model and are for guidance only.

Your operating system (e.g. Microsoft Windows XP) has already been preinstalled and optimally configured so that you can be up and running from the moment you switch on your AMILO Pro for the first time.

Your notebook features the very latest technology so that you get the best performance from your computing experience. Depending on which model you own, you have access to:

- Up to 1 Gbyte Mbyte of main memory (RAM)
- A DVD+RW, or a DVD±RW dual drive, or a CDRW / DVD combo drive to watch DVD movies and record your own disks
- S-Video out for connecting your notebook to your television
- An IEEE 1394 (FireWire) connection for high speed devices such as digital camcorders
- Three USB ports which provide easy expansion with webcams, game pads, printers and more
- An internal modem for connecting to the internet
- A PC card slot (CardBus or PCMCIA) for using one type I or type II PC card
- An onboard sound card and stereo speakers for your audio enjoyment.
You can even connect headphones, a microphone and external speakers for even better performance.

With the user-friendly *BIOS Setup Utility* you can control the hardware of your notebook and protect your system better against unauthorised access by using the powerful password properties.

This operating manual tells you how to put your AMILO Pro into operation, and how to operate it in daily use.

Further information about your AMILO Pro can be found:

- in the manuals "Safety" and "Warranty"
- in the wireless LAN software documentation (PDF file on the "Driver & Utilities" CD)
- in your operating system documentation
- in the information files (e.g. *.TXT, *.DOC, *.WRI, *.HLP, *.PDF)

Notational conventions

The following symbols are used in this manual:



Indicates information which is important for your health or for preventing physical damage. Failure to follow the instructions may lead to loss of data, invalidate your warranty, destroy the notebook, or endanger your life.



Indicates important information which is required to use the system properly.



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

This font indicates screen outputs.

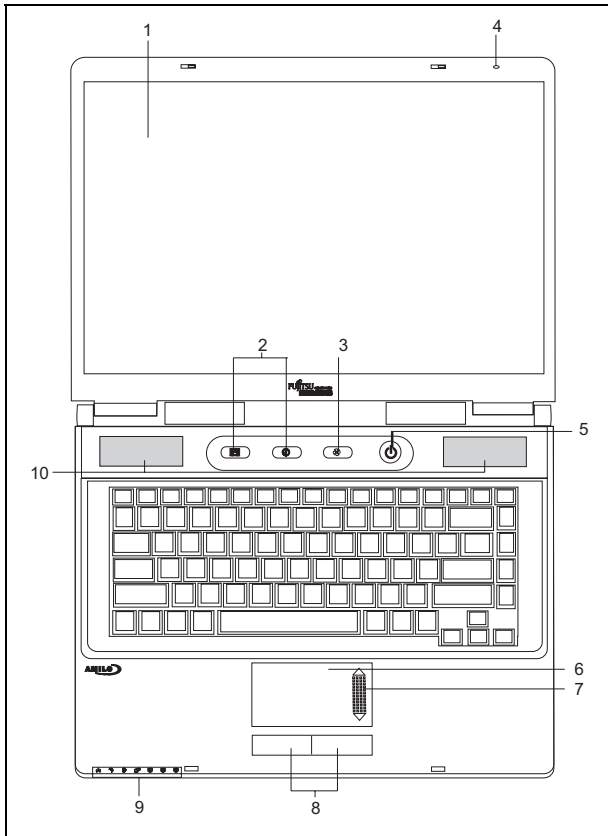
This font indicates programme names, commands, or menu items.

"Quotation marks" indicate names of chapters, hard disks, CDs, DVDs, and terms that are being emphasised.

Notebook views

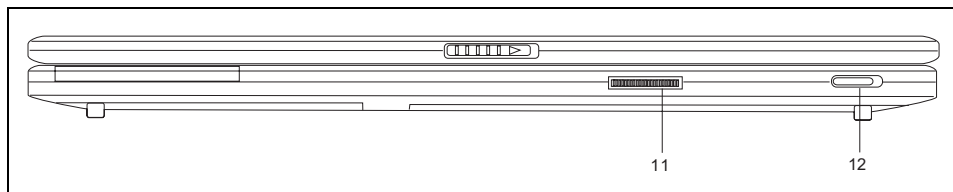
This chapter presents the individual hardware components of your notebook. You can obtain an overview of the displays and connections of the notebook. Please familiarise yourself with these components before you start to work with your notebook.

Opened Notebook



- 1 = LCD screen
- 2 = Easy Launch keys
- 3 = processor fan controlling
- 4 = Built-in microphone
- 5 = ON/OFF switch of the Notebook
- 6 = Touchpad
- 7 = Touchpad scroll bar
- 8 = Touchpad buttons
- 9 = Status indicators
- 10 = Built-in loudspeakers

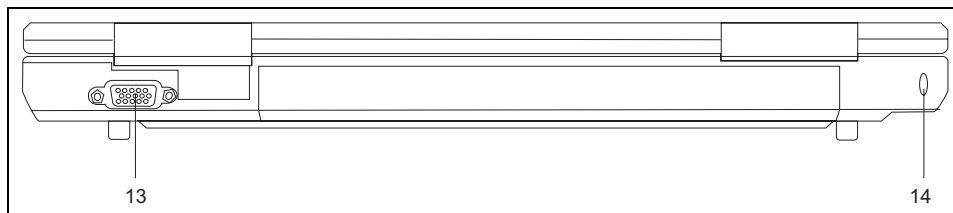
Front



11 = Memory card slot

12 = On/Off switch for Wireless LAN

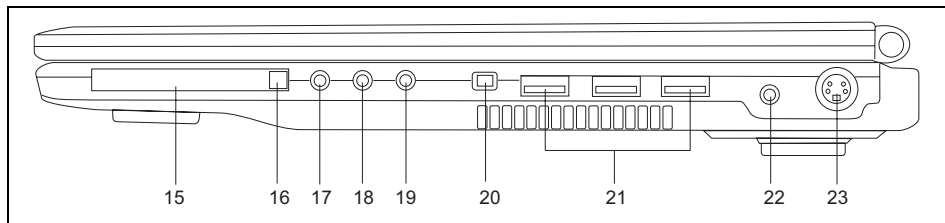
Back panel



13 = Monitor port

14 = Kensington Lock device

Right side panel



15 = PC card slot

16 = PC card eject button

17 = Headphones port

18 = Audio connector

19 = Microphone jack

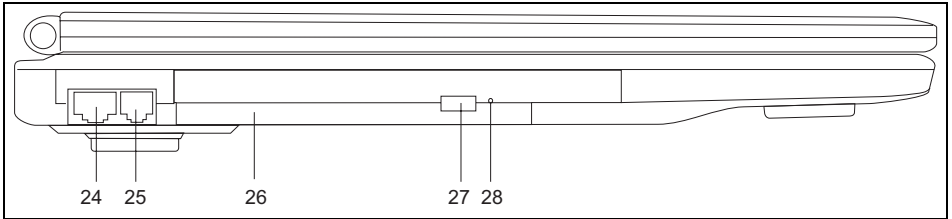
20 = FireWire port

21 = USB ports

22 = DC jack (DC IN)

23 = S-Video out

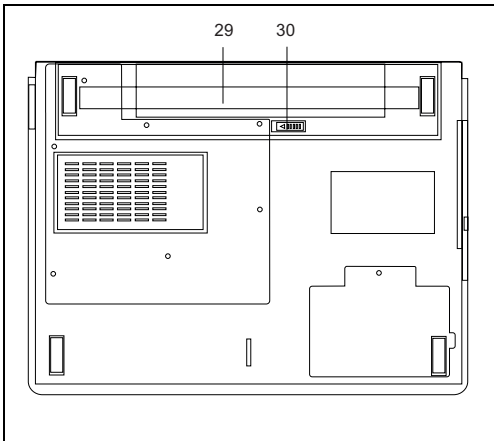
Left side panel



24 = LAN port
 25 = Modem port
 26 = Optical drive

27 = Insert/Eject button
 28 = Opening for manual ejection

Under side



29 = Battery compartment
 30 = Battery release latch

Important notes

Here you will find essential safety information regarding your notebook. In addition, the manufacturer's notes contain helpful information about your notebook.

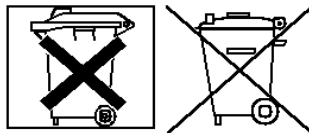
Safety notes



Pay attention to the information provided in the "Safety" manual and in the following security notes.

Observe the sections in the manual marked with the symbol on the left.

- When connecting and disconnecting cables, observe the relevant notes in this operating manual.
- Only use batteries designed for this notebook.
Do not store batteries for longer periods in the notebook.
Take care not to drop the batteries or otherwise damage their casing (fire risk).
If the rechargeable batteries develop a fault please stop using them immediately.
Do not touch the contacts of the batteries.
Never interconnect the positive and negative terminals of a battery.
Batteries are harmful to the environment. You should dispose of them following guidance from your local District Council.
- There is a lithium battery (button cell) installed in your notebook. Please note:
The battery should only be replaced by an authorised technician. Incorrect handling may lead to a risk of explosion.
Only use batteries approved by Fujitsu Siemens Computers.
Batteries are harmful to the environment. You should dispose of the lithium battery following guidance from your local District Council.
- All batteries containing pollutants are marked with one of the two symbols below (crossed-out garbage can).



In addition, the marking is provided with the chemical symbol of the heavy metal decisive for the classification as a pollutant.

Cd Cadmium

Hg Mercury

Pb Lead

Important notes

- Read the information on the ambient conditions in the chapter "Technical data" and the chapter "Using your notebook for the first time" before putting your notebook into operation and switching it on for the first time.
- When cleaning the device, please observe the relevant notes in the "Cleaning the notebook" paragraph.
- Keep this operating manual together with your notebook.
If you pass on the notebook to a third party, you should also pass on the operating manual.
- If you have a notebook with wireless LAN, you must also observe the additional safety precautions for devices with wireless LAN in the "Safety" manual.

This notebook complies with the relevant safety regulations for data processing equipment. If you have questions about using your notebook in a particular area, please contact your sales outlet or our hotline/help desk.

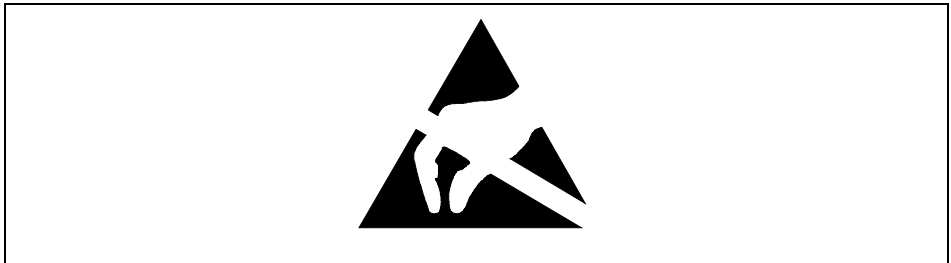
Notes on installing and removing boards and components



Only qualified technicians should repair your notebook. Unqualified users who open the notebook's case expose themselves to electric shock and fire hazards. It will also invalidate your warranty.

- Switch the notebook off and pull the power plug out of the mains socket.
- Remove the battery.
- Take care when you use the locking mechanisms on the battery and any other component.
- Never use sharp objects such as screwdrivers, scissors or knives as leverage to remove covers.

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



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

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

Manufacturer's notes

Declarations of Conformity

The "Declarations of Conformity" concerning the AMILO Pro can be found at our internet address: <http://www.driver-cd.com>.

Hereby, Fujitsu Siemens Computers, declares that the AMILO Pro is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Copyright-protected technology

This product incorporates copyright protection technology that is protected by method claims of certain U. S. patents and other intellectual property rights owned by Macrovision Corporation and other rights owners. Use of this copyright protection technology must be authorised by Macrovision Corporation, and is intended for home and other limited viewing uses only unless otherwise authorised by Macrovision Corporation. Reverse engineering or disassembly is prohibited.

Energy saving

If you will not be using your notebook, switch it off.

Make use of the device's energy saving functions (see "Using your notebook"). The notebook uses less power when the power management features are enabled. You will then be able to work for longer before having to recharge the battery.

Energy saving under Windows

If a monitor with energy saving features is connected to your notebook, you can use the *Screen Saver* tab to activate the energy saving features of the monitor. Select a screen saver in the menu *Start - Control Panel - Appearance and Themes - Display - Screen Saver*.

You may set further energy saving functions in the menu *Start - Control Panel - Performance and Maintenance - Power Options*.

Recycling and disposal

Do not throw batteries or accumulators into the household waste.

Our devices are mostly produced of materials that can be turned over for proper recycling. The device may be taken back after use to be recycled, provided that it is returned in a condition that is the result of normal use. Any components not reclaimed will be disposed of in an environmentally acceptable manner. To dispose of devices please contact your local District Council for advice.

Further information about country-specific disposal and recycling possibilities can be found on the following website www.fujitsu-siemens.com/recycling.

If you have any questions on disposal, please contact your local office or our Help Desk.

CE marking



CE marking for devices without wireless LAN

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



CE marking for devices with wireless LAN

This equipment complies with the requirements of Directive 1999/5/EC of the European Parliament and Commission from 9 March, 1999 governing Radio and Telecommunications Equipment and mutual recognition of conformity.

This device is approved for use in Belgium, Denmark, Germany, Finland, Greece, Great Britain, Ireland, Italy, Luxembourg, the Netherlands, Austria, Portugal, Sweden, Switzerland, Spain, Iceland, Liechtenstein and Norway. Contact the corresponding government office of the respective country for current information on possible operating restrictions. If your country is not included in the list, then please contact the corresponding supervisory authority as to whether the use of this product is permitted in your country.

Restrictions

- **France**
Limited frequency range: only the channels 10 to 13 (2457 MHz or 2472 MHz) may be used in France. It is prohibited to use the device outdoors.
- **Italy**
A ministerial permit is also required for use indoors. Please contact the seller concerning the required procedure. It is prohibited to use the device outdoors.
- **Netherlands**
A licence is required for use outdoors. Please contact the seller concerning the required procedure.

Battery storage



If you do not use the batteries for long periods, remove them from the notebook. Never store the batteries in the unit.

Store the battery when it is half full or two-thirds full. The battery should be stored in a dry area at a temperature between 0°C and +30°C. The lower the temperature at which the batteries are stored, the lower is the rate of self-discharge.

Travelling with your notebook

Please follow these guidelines when travelling with your notebook.

Before you travel

- Back up important data stored on your hard disk.
- Turn off the wireless module before you travel. This will help keep your notebook secure, and also prevent it from affecting sensitive equipment in hospitals, airports and other areas.
- If you wish to use your notebook during a flight, first check with the flight attendants if it is OK to do so.
- If you are travelling abroad, check that the mains adapter can be operated with the local mains voltage. If this is not the case, obtain the appropriate power adapter for your notebook. Do not use any other voltage converter!



If you travel in another country, check whether the local power supply and the specifications of the power cable are compatible. If this is not the case, buy a power cable that matches the local conditions. Do not use a connection adapter for electrical devices to connect the notebook.

Your modem may not be fully compatible with the telephone system in the country you are visiting. This may result in poor performance, or the modem will not work at all.

Transporting the notebook

- Remove all disks (e.g. CD, DVD) from the drives.
- Switch the notebook off.
- Unplug the power adapter and all external devices from the power socket.
- Disconnect the power adapter cable and the data cables for all external devices.
- Close the LCD screen so that it locks into place.
- To protect against damaging jolts and bumps, use a notebook carrying case to transport your notebook.
- Protect the notebook from severe shocks and extreme temperatures (e.g. direct sunlight in a car).

Cleaning the notebook

- ▶ Switch the notebook off.
- ▶ Unplug the power adapter from the mains outlet.
- ▶ Remove the battery.



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

Only use cleaning products designed for computers. Normal household cleaners and polishes can damage the markings on the keyboard and the device, the paintwork or the notebook itself.

Ensure that no liquid enters the notebook.

Wipe the casing with a dry cloth.

If particularly dirty, use a cloth which has been moistened in mild domestic detergent and then carefully wrung out.

To clean the keyboard and the touchpad, you can use disinfectant wipes.

Using your notebook for the first time



Please read the "Important notes" chapter.

Before you can use your notebook for the first time you need to charge the battery and install the supplied software. Your operating system (e.g. Windows XP) and the hardware drivers have been preinstalled for you.

Upon delivery, the battery can be found in the battery compartment. The battery must be charged if you want to operate your notebook with the battery.

When not plugged into a mains outlet, the notebook runs on its built-in battery. You can increase the battery's life by enabling the system's energy saving functions.

When you use your notebook in your home or office, we recommend you use the mains adapter instead of the battery.

Please see the "Connecting external devices" chapter for instructions on how to connect devices such as a mouse and a printer to the notebook.

Unpacking and checking your notebook

- ▶ Unpack all the individual parts.
- ▶ Check your notebook for damage incurred during transportation.



Should you discover damages incurred during transportation, notify your local sales outlet immediately!



We recommend that you keep the original packaging material. You may need the packaging in the future if you need to transport your device.

Selecting a location

Select a suitable location for the notebook before setting it up. Consider the following points when looking for a location:

- Do not put your notebook on a soft surface such as a carpet, a rug, or your knee. This can block the air vents and cause overheating and damage.
- Place the notebook on a stable, flat, nonslippery surface. Please note that the rubber feet may mark certain types of surfaces.
- The notebook and the power adapter should be at least 200 mm apart.
- Keep other objects 100 mm away from the notebook and its power adapter to ensure adequate ventilation.
- Never cover the fan intake or exhaust openings of the notebook or the power adapter.
- Do not expose the notebook to extreme environmental conditions. Protect the notebook from dust, humidity, and heat.

Connecting the power adapter



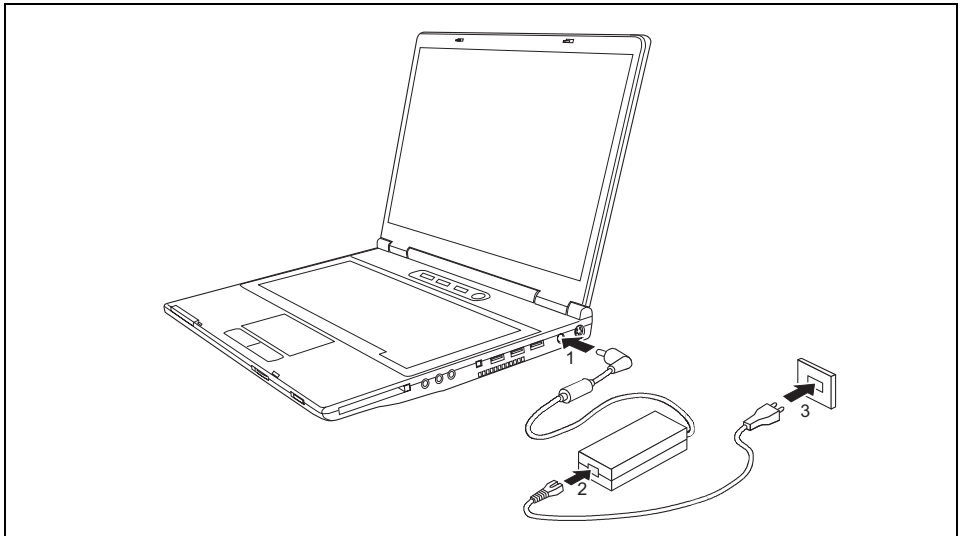
Please take note of the information in the section "Safety notes".

The power cable supplied conforms to the requirements of the country in which you purchased your notebook. Make sure that the power cable is approved for use in the country in which you intend to use it.


The mains adapter's AC cable should only be connected to a mains socket if the notebook is connected to the mains adapter.

Do not use the power adapter for other notebooks or devices.

Do not use a power adapter that is not specially intended for this notebook.



- ▶ Connect the power adapter cable to the DC jack (DC IN) of the notebook (see chapter "Notebook views", Number 22).
- ▶ Connect the power cable to the mains adapter.
- ▶ Plug the power cable into a mains outlet.

The battery indicator  flashes. The battery will charge.

Using your notebook

This chapter describes the basics for operating your notebook.

Please see the "Connecting external devices" chapter for instructions on how to connect devices such as a mouse and a printer to the notebook.

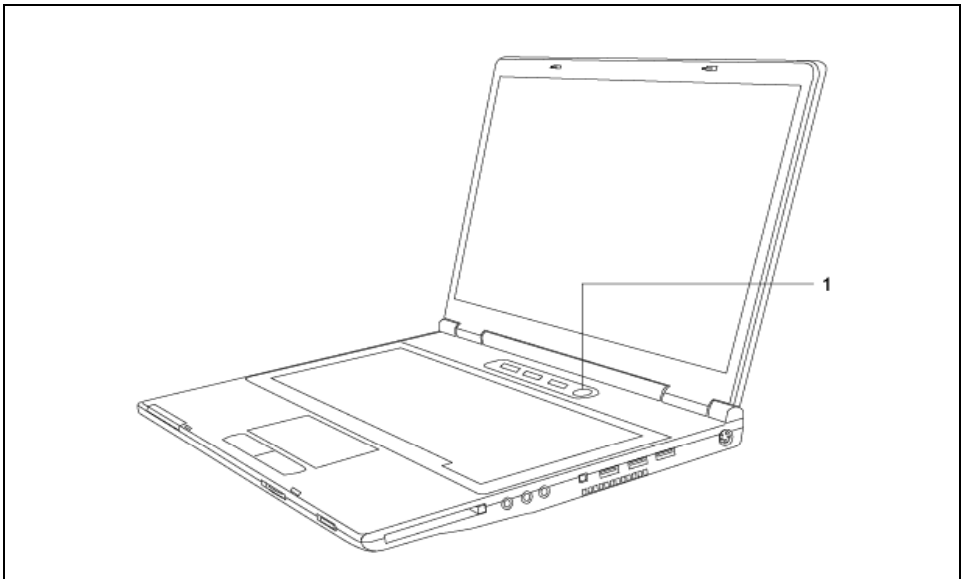


Please take note of the information in the "Important notes" chapter.

Switching the notebook on and off

Switching on the notebook

- ▶ Slide the release (on front of notebook) to the right and fold up the LCD screen.



- ▶ Press the ON/OFF switch (1) to switch the notebook on.

Switching off the notebook

- ▶ Shut down the operating system properly (e. g. Windows XP by clicking *Start* then *Turn off Computer*).
- ▶ If the notebook is not switched off automatically, press the ON/OFF switch for approx. five seconds.
- ▶ Close the LCD screen so that it locks into place.

Status indicators

The status indicators (see chapter "Notebook views", Number 9) provide information on the states of the power supply, the drives and the keyboard functions.



Power-on/battery indicator

- The indicator lights up green when the notebook is switched on and when the battery is fully charged.
- The indicator flashes yellow while the battery is being charged.

This indicator is also visible with the notebook closed.



Drive indicator

The indicator flashes when the hard drive or the CD/DVD drive is being accessed.



Num Lock indicator

The indicator lights up when the **Num** key has been pressed. The numbers on the upper right on keys in the integrated numeric keypad are enabled.



Caps Lock indicator

The indicator lights up when the caps lock key has been pressed. All the characters you type appear in uppercase. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.



Wireless LAN indicator (optional)

The indicator lights up when wireless LAN is activated.
The indicator does not light when wireless LAN is deactivated.



Scroll indicator (Scroll Lock)

The indicator lights up when the keys **Fn** + **Scroll Lock** have been pressed. The effect this key has varies from programme to programme.



Energy-saving mode indicator

The indicator lights green when whisper mode is active (see the "Processor fan controlling" chapter).

If you device is in standby mode at this moment, the light flashes green.
This indicator is also visible with the notebook closed.

Keyboard

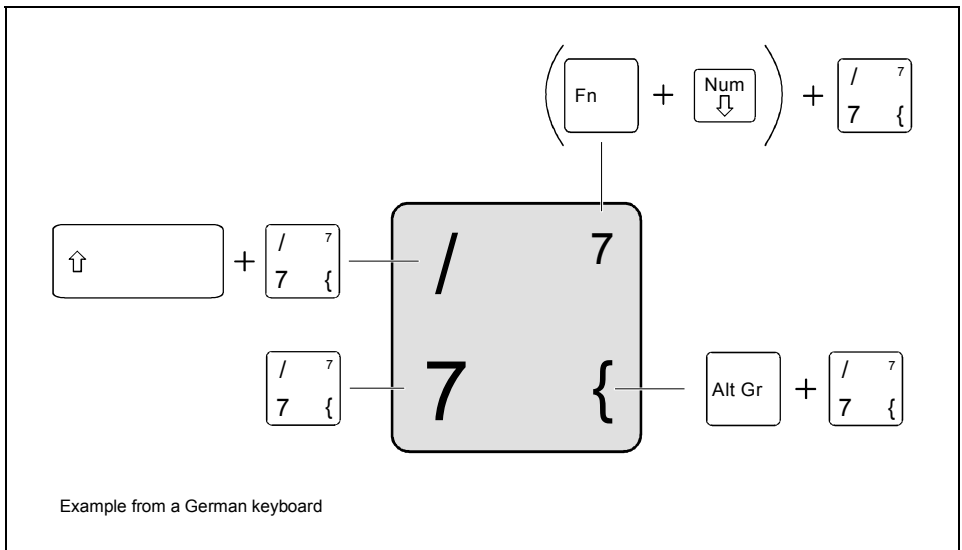
i

The keyboard of your notebook is subject to continuous wear due to normal use. The keyboard markings are subjected to particularly high loads. The keyboard markings can wear off in the course of using the notebook.

The keyboard has been designed to provide all the functions of an enhanced keyboard. Some enhanced keyboard functions are mapped with key combinations.

The following description of keys refers to Windows. Additional functions supported by the keys are described in the relevant manuals supplied with your application programmes.

The figure below shows how to access the different characters on keys with overlaid functions. The example applies when the CapsLK indicator is not lit.



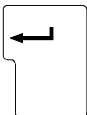
Backspace key

The Backspace key deletes the character to the left of the cursor.



Tab key

The Tab key moves the cursor to the next tab stop.



Enter key (return)

The enter key terminates a command line. The command you have entered is executed when you press this key.



Caps Lock

Caps Lock key

The Caps Lock key activates uppercase mode (CapsLK indicator lit). The Caps Lock function causes all the characters you type to appear in uppercase. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.

To cancel the Caps Lock function, simply press the Caps Lock key again.



↑

Shift key

The Shift key causes uppercase characters to appear. In the case of overlay keys, the character printed on the upper left of the key appears when that key is pressed.



Fn

Fn key

The **[Fn]** key enables the special functions indicated on overlay keys (see "Key combinations").

If the external keyboard does not feature a **[Fn]** key, you can simultaneously press the **[Ctrl]** + **[Alt]** keys instead.



↑

Cursor keys

The cursor keys move the cursor in the direction of the arrow, i.e. up, down, left, or right.



← ↓ →



Pause
Break

Pause key

The **[Pause]** key temporarily suspends display output. Output will resume when you press any other key.



Start key

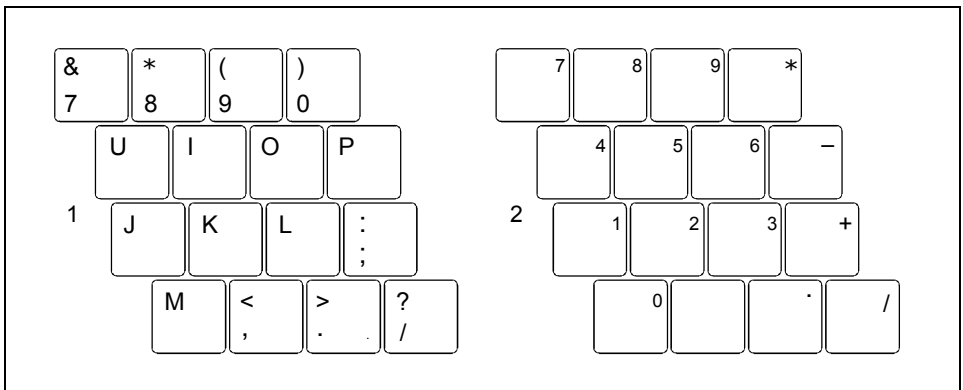
The Start key invokes the Windows Start menu.



Menu key

The Menu key invokes the menu for the selected item.

Numeric keypad



When the numeric keypad is turned on (NumLK is indicated) you can output the symbols on the upper right on the keys.

Key combinations

The following description of key combinations refers to functions when using Microsoft Windows. Some of the following key combinations may not function in other operating systems and with some device drivers.

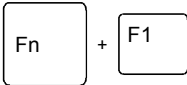
Other key combinations are described in the relevant manuals supplied with your application programmes.

Key combinations are performed as follows:

- ▶ Press and hold the first key in the combination.
- ▶ While holding the first key down, press the other key or keys in the combination.

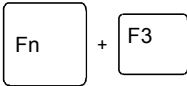


If the external keyboard does not feature a **Fn** key, you can simultaneously press the **Ctrl** + **Alt** keys instead.



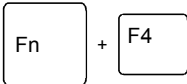
Enabling Suspend mode

This key combination switches the notebook into the Suspend mode.



Switching the loudspeakers on/off

This key combination switches your notebook's loudspeaker off and on.

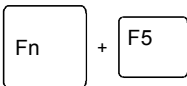


Switching between internal and external screen

If an external monitor is connected, the monitor on which the output is to be displayed can be selected with this key combination.

You can opt to use:

- just the notebook's LCD screen
- just the external monitor
- both the LCD screen and the external monitor.



Increasing the volume

This key combination raises the volume of the integrated loudspeakers.



Reducing the volume

This key combination reduces the volume of the integrated loudspeakers.



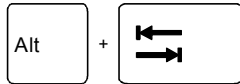
Increasing screen brightness

This key combination increases screen brightness.



Decreasing screen brightness

This key combination decreases screen brightness.



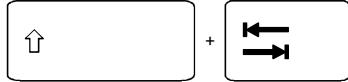
Switching between open applications

With this key combination you can switch between several open applications.



Carrying out a warm boot

This key combination triggers a reset and warm-boots the notebook. First hold down the **Ctrl** and **Alt** key, and then press the **Del** key. First the Task Manager is displayed. Then you must press all three keys again to re-boot.



Backtab (Shift+Tab)

This key combination moves the cursor back to the previous tabular stop.



Key combinations with the Windows keys are contained in the manual for your operating system.

Easy Launch keys

Your notebook is equipped with two Easy Launch keys (see chapter "Notebook views", Number 2). You can start the following applications by pressing a single key.



E-mail

Use this button to start the standard e-mail programme for your system.



Internet

With this button you can start the standard internet browser for your system.

Processor fan controlling




Whisper mode

This key reduces the speed of the fan.



When whisper mode is active, the processor works at reduced speed.

If you want the notebook to deliver full performance, deactivate whisper mode.

The status indicator  lights green when whisper mode is active. If your device is in standby mode at this moment, the light flashes green.

Touchpad and touchpad buttons



Keep the touchpad clean. Protect it from dirt, liquids, and grease.

Do not use the touchpad if your fingers are dirty.

Do not rest heavy objects (e.g. books) on the touchpad or the touchpad buttons.

The touchpad (see chapter "Notebook views", Number 6) enables you to move the mouse pointer on the screen.

You can use the touchpad to scroll. The scroll bar on the right edge of the touchpad is marked with arrows (see chapter "Notebook views" Number 7).

The touchpad buttons (see chapter "Notebook views", Number 8) allow the selection and execution of commands. They correspond to the buttons on a conventional mouse.

Moving the pointer

- ▶ Move your finger on the touchpad.

The pointer will move accordingly.

Selecting an item

- ▶ Move the pointer to the item you wish to select.
- ▶ Tap the touchpad once or press the left button once.

The item will be selected.

Executing a command

- ▶ Move the pointer to the field you wish to select.
- ▶ Tap the touchpad twice or press the left button twice.

The command will be executed.

Dragging an object

- ▶ Select the desired object.
- ▶ Press and hold the left button and drag the object to the desired position with the finger on the touchpad.

The item will be moved.

Scrolling with the touchpad scroll bar

- ▶ Move your finger upwards or downwards on the scroll bar at the right edge of the touchpad.

The display area moves up or down.

LCD screen

Information on LCD monitor

High-quality TFT displays are installed in notebooks from Fujitsu Siemens Computers GmbH. For technical reasons, TFT monitors are manufactured for a specific resolution. An optimal, clear picture can only be ensured in the resolution intended for the respective TFT monitor. A monitor resolution which differs from the specification can result in an unclear picture.

The monitor resolution is understood to be the number of horizontal and vertical pixels (i.e. picture elements) which make up the monitor display. For example, "UXGA" stands for 1600 x 1200 pixels. Each pixel consists of three so-called subpixels of the colours red, green and blue. As a result, a UXGA monitor consists of $1600 \times 1200 \times 3 = 5.760.000$ subpixels.

Frequently used monitor resolutions	Number of pixels
XGA	1024 x 768
WXGA	1280 x 800
SXGA	1280 x 1024
SXGA+	1400 x 1050
UXGA	1600 x 1200

The screen resolution of the LCD monitor of your notebook is optimally set at the factory.

Permanently unlit or lit pixels

The standard of production techniques today cannot guarantee an absolutely fault-free screen display. A few isolated constant lit or unlit pixels may be present. The maximum permitted number of pixels faults is stipulated in the stringent international standard ISO 13406-2 (Class II).

Example:

A 15" LCD screen monitor with a resolution of 1024 x 768 has $1024 \times 768 = 786432$ pixels. Each pixel consists of three subpixels (red, green and blue), so there are almost 2,4 million subpixels in total. According to ISO 13406-2 (Class II), a maximum of 4 pixels and 5 subpixels may be defective, i. e. a total of 17 faulted subpixels. That is approx. 0.0002 % of the entire subpixel!

Background lighting

TFT screens are operated with background lighting. The luminosity of the background lighting can decrease during the period of use of the notebook. However, you can set the brightness of your monitor individually.

Monitor settings

Setting the desktop area

The screen resolution of the LCD monitor of your notebook is optimally set at the factory.

Changing the font size

Under *Start - Control Panel - Appearance and Themes - Display - Advanced* you can choose between a larger and a smaller font in the *Font size* field.

Synchronising the display on the LCD screen and an external monitor

Your notebook supports the simultaneous display on the LCD screen and an external monitor. Pressing the key combination **[Fn] + [F4]** switches between LCD only, external monitor and LCD and external monitor only. The last setting is useful if you would like high resolution and refresh rate on an external monitor.

Battery

The battery is one of the most important components of your notebook. When not plugged into a mains outlet, the notebook runs on its built-in battery. You can increase the life of the battery by caring for the battery properly. The average battery life is around 500 charge/discharge cycles. You can extend the battery life by taking advantage of the available energy saving functions.



Only use batteries approved by Fujitsu Siemens Computers for your notebook.

Take care not to drop the batteries or otherwise damage their casing (fire risk).

If the rechargeable batteries develop a fault please stop using them immediately.

Do not touch the contacts of the batteries.

Never interconnect the positive and negative terminals of a battery.

Batteries are harmful to the environment. You should dispose of them following guidance from your local District Council.

Observe the information on battery storage in the "Important notes" chapter.

Charging, caring for and maintaining the battery

The notebook battery can only be charged, when the ambient temperature is between 5 °C and max. 35 °C.

You can charge the battery by connecting the notebook to the power adapter (see "Connecting the power adapter").

You can maintain long life from your battery by allowing it to discharge fully before you recharge it again. To do this, leave your notebook turned on when it is operated with the battery. Once the battery is running low you will hear a warning alarm. If you do not connect the mains adapter within five minutes of the warning alarm described above, your notebook will automatically switch off.

Information on the battery charging time is contained in the "Technical data" chapter.

Monitoring the battery charging level

Windows also has a "Battery status meter" in the taskbar for monitoring the battery capacity. When you place the mouse pointer on the battery symbol, the system displays the battery status.

Removing and installing the battery



Only use batteries approved by Fujitsu Siemens Computers for your notebook.

Never use force when inserting or removing a battery.

Make sure that no foreign bodies get into the battery connections.

Removing battery

- ▶ Switch the notebook off and pull the power plug out of the mains socket.
- ▶ Close the LCD screen so that it locks into place.
- ▶ Disconnect all cables connected to the notebook.
- ▶ Turn your notebook over and place it on a sturdy, flat surface.
- ▶ Push the battery lock (see chapter "Notebook views", Number 30) in the direction of the arrow and hold it in place.
The arrow is shown on the battery lock.
- ▶ Remove the battery from the battery compartment (see chapter "Notebook views", Number 29).

Inserting battery

- ▶ Push the battery into the battery compartment until it engages.
- ▶ Close the battery compartment.

Using the power-management features

The notebook uses less power when the power management features are enabled. You will then be able to work longer when using the battery before having to recharge it.

You can also use energy saving modes such as *Standby* or *Hibernate* for times when you are not using your notebook but want to keep coming back to it.



If you are connecting to a network, or the Internet, we advise you to turn off the energy saving modes as they interrupt your connection.

When you are finished working with your notebook we advise you to come out of an energy saving mode and then turn off as normal.

Never turn off your notebook while it is in an energy saving mode.

If the notebook is in an energy-saving mode mode:

- Do not connect any external devices.
- Do not disconnect any external devices.
- Do not attempt to switch the notebook on if the built-in battery is flat.
- Do not add or remove RAM.
- Do not add or remove a PC card.

When you close the lid, the notebook automatically enters an energy-saving mode.

The energy saving functions can be activated under *Start - Control Panel - Performance and Maintenance - Power Options*. Under Windows, *Hibernate* is activated by default.

PC cards

A PC card slot (CardBus or PCMCIA) enables the notebook to operate one type I or type II PC card.



Consult the documentation supplied by the PC card's manufacturer and follow the instructions provided.

Never use force when inserting or removing a PC card.

Make sure that foreign objects do not fall into the PC card slot.

Installing a PC card

- ▶ Press the eject button (see chapter "Notebook views", Number 16). The placeholder for the PC card will project further out of the notebook's case.
- ▶ Pull the placeholder for the PC card out of the slot (see chapter "Notebook views", Number 15).



Keep the placeholder for the PC card in a safe place. When you remove the PC card you should also refit the placeholder for the PC card. Thus you prevent foreign objects from getting into the PC card slot.

- ▶ Insert the PC card end with the connector contacts into the card slot guide rails. The labelled side of the PC card must face upwards.
- ▶ Gently push the PC card into the slot until you feel it click into place.




Consult the documentation supplied with the PC card for information on how to install the necessary device drivers.

You should also read the help files supplied on CD, the information provided for the PC card driver or the information provided by the operating system (e. g. Windows XP *Help and Support Center*).

You can push the PC card slot eject button into the notebook casing. To do this, press the eject button until it engages.

Removing a PC card

Use the small PC card icon located in your task bar to stop the card:

- ▶ Click on the  symbol in the taskbar with the left mouse button.
- ▶ Select the PC card you want to stop and remove.
- ▶ Press the Enter key.

Wait for the dialogue box which tells you that it is now safe to remove the PC card.

- ▶ Press the eject button. The PC card will project further out of the notebook's case. If the eject button is lowered, you must first cause the eject button to release from the notebook casing. To do this, press the eject button until it releases.
- ▶ Slide the PC card out of the notebook.
- ▶ Insert the placeholder for the PC card into the slot guide.
- ▶ Gently slide the placeholder for the PC card into the slot until you feel it click into place.

Memory card reader

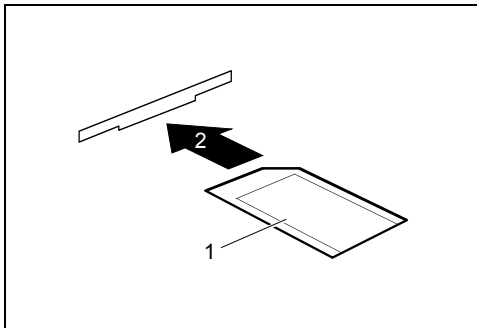
Your notebook is equipped with a memory card reader. Your memory card reader supports the following formats:

- Secure Digital (SD™ Card)
- MultiMediaCard (MMC)
- Memory Stick (Sony®)

Using memory cards



Please read the documentation supplied with the memory card for any special instructions.



- 1 = Label area
2 = Insertion direction

Inserting memory card

- ▶ Depending on the memory card used, insert the memory card in the upper or lower slot guide with the connection contacts first (see chapter "Notebook views", Number 11).
- ▶ Carefully push the memory card into the slot.

Removing memory card

- ▶ Pull the memory card out of the slot.

Hard disk

The hard disk is the most important storage medium of your notebook. You can work considerably faster and more efficiently if you copy applications and files from CDs to your hard disk.

Optical drive

Your notebook is delivered with an optical drive. Depending on the variant, your notebook is equipped with a combo drive (CD-RW/DVD), a DVD+RW drive or a DVD±RW dual drive.

Optical drives can either only read or both read and write different CDs or DVDs. The meaning of the respective CD and DVD types is described in the following:

CD-ROM

Abbreviation for **C**ompact **D**isc - **R**ead **O**nly **M**emory. A CD-ROM is an optical data storage device that can contain a maximum of 700 Mbytes. These data cannot be changed.

CD-R

Abbreviation for **C**ompact **D**isc **R**ecordable. A CD-R is an optical data storage device that can only be written with a maximum of 700 Mbytes of data. Then these data cannot be changed, but can be read as often as desired.

CD-RW

Abbreviation for **C**ompact **D**isc **R**e**W**riteable. A CD-RW is an optical data storage device that can be written with a maximum of 700 Mbyte of data a virtually unlimited number of times. This means the data can be deleted and changed.

DVD (DVD-ROM and DVD video)

Abbreviation for **D**igital **V**ersatile **D**isc or **D**igital **V**ideo **D**isc. A DVD is an optical data storage medium that can contain a maximum of 17 Gbytes of data. These data cannot be changed.

DVD+R/DVD-R

Abbreviation for **D**igital **V**ersatile **D**isc **R**ecordable or **D**igital **V**ideo **D**isc **R**ecordable. A DVD+R or a DVD-R is an optical data storage device that can only be written once with a maximum of 4.7 Gbytes of data. Then these data cannot be changed, but can be read as often as desired.



DVD+R and DVD-R are different standards. DVD+Rs and DVD-Rs can only be written by drives which support the respective standard.

DVD+RW/DVD-RW

Abbreviation for **D**igital **V**ersatile **D**isc or **D**igital **V**ideo **D**isc **R**e**W**riteable. A DVD+RW or a DVD-RW is an optical data storage device that can be written with a maximum of 4.7 Gbytes of data virtually an unlimited number of times. This means the data can be deleted and changed.



DVD+RW and DVD-RW are different standards. DVD+RWs and DVD-RWs can only be written by drives which support the respective standard.

Combo drive (CD-RW/DVD)



The combo drive is a Class 1 laser according to IEC 60825-1. It contains a light emitting diode (LED) which may produce a stronger laser beam than a Class 1 laser. It is dangerous to look directly at this beam. Therefore, do not remove any drive housing parts.

You can read all CD/DVD types specified above with the combo drive. You can also write CD-Rs and CD-RWs.

Please ask your local computer store for assistance if you are not sure which CD or DVD type suits best for your needs, e. g. backing up data, recording films, storing pictures etc..

DVD+RW drive



The DVD+RW drive is a Class 1 laser according to IEC 60825-1. It contains a light emitting diode (LED) which may produce a stronger laser beam than a Class 1 laser. It is dangerous to look directly at this beam. Therefore, do not remove any drive housing parts.

With the DVD+RW drive you can read all CD/DVD types named above. You can also write CD-R, CD-RW and DVD+RW.

Please ask your local computer store for assistance if you are not sure which CD or DVD type suits best for your needs, e. g. backing up data, recording films, storing pictures etc..

DVD±RW dual drive



The DVD±RW drive is a Class 1 laser according to IEC 60825-1. It contains a light emitting diode (LED) which may produce a stronger laser beam than a Class 1 laser. It is dangerous to look directly at this beam. Therefore, do not remove any drive housing parts.

With the DVD±RW dual drive you can read all CD/DVD types named above. You can also write CD-Rs, CD-RWs, DVD+Rs, DVD+RWs, DVD-Rs and DVD-RWs.

Please ask your local computer store for assistance if you are not sure which CD or DVD type suits best for your needs, e. g. backing up data, recording films, storing pictures etc..

Handling CD/DVDs



Observe the following guidelines when handling CD/DVDs:

- Avoid touching the surface of a CD/DVD. Hold CDs/DVDs by their edges!
- Always store CDs/DVDs in their cases. This will protect CD/DVD from dust, scratches and other damage.
- Protect your CDs/DVDs from dust, mechanical vibration and direct sunlight!
- Avoid storing a CD/DVD in areas subject to high temperatures or humidity.



In order to make use of the full recording speed of your drive, please use disks marked "Multispeed" or "High Speed"

Use only DVD blanks of the type DVD+RW. Other types of DVD blanks are not supported by your optical drive.

Inserting or removing a CD/DVD

Your notebook must be switched on.

- ▶ Push the insert/eject button (see chapter "Notebook views", Number 27).

The drive tray will open.

- ▶ Gently pull the drive tray completely out.
- ▶ Place the CD/DVD in the drive tray with the label facing upwards.

or

- ▶ Take out an inserted CD/DVD.
- ▶ Push in the drive tray until you feel it lock into place.

Manual removal (emergency removal)

In the event of a power failure or damage to the drive it may be necessary to manually remove the CD/DVD.

- ▶ Switch the notebook off.
- ▶ Press a pen or a piece of wire (e.g. a paperclip) firmly into the opening (see the "Notebook views" chapter, Number 28).

The drive tray is ejected. You can now pull the drive tray out of the drive.

Regional codes for DVD films and DVD players

DVD films and DVD players (e.g. the DVD drive of your notebook) are always provided with a regional code. The regional codes of DVD films and DVD players must match so that the DVD film can be played back.

There are six different regional codes:

- Regional code 1: USA and Canada
- Regional code 2: Egypt, Europe, Japan, South Africa and the Middle East
- Regional code 3: Southeast Asia (including Hong Kong, Indonesia, Philippines, South Korea, Taiwan)
- Regional code 4: Australia, New Zealand, South Eastern Pacific, Central and South America and the Caribbean
- Regional code 5: Africa (except South Africa), India and the former states of the USSR
- Regional code 6: China

The DVD drive of your notebook supports the function RPC-II (Phase II System of Regional Playback Control). This function permits the final user to change the regional code of the drive up to five times to play back corresponding DVD films. Then the last regional code selected is retained and cannot be changed again.



If a DVD film is to be watched in all regions, it has the regional code 0.

Before buying a DVD film you should check that the regional code of the DVD film matches the regional code set for the DVD drive of your notebook.

Adjusting AutoPlay function of optical drive

Windows XP uses AutoPlay technology. This allows you to tell Windows how to use different types of CD or DVD disks.

You can set the AutoPlay function of the optical drive according to your needs. For example, if you insert a music CD you can tell Windows XP to open Media Player and start to play it.

Proceed as follows:

- ▶ Click *Start* and then *My Computer*.

The *My Computer* window will appear.

- ▶ Select the CD / DVD icon you want to change and click it with the right-hand mouse or touchpad button.

A context menu appears.

- ▶ Click on *Properties*.
- ▶ Click on the *AutoPlay* tab.
- ▶ Adjust the AutoPlay function to meet your needs.



Please note that you must select the desired action and confirm it with *Apply* for each individual CD/DVD content type.

Audio: Setting volume

- ▶ Set the desired volume with the key combination **[Fn] + [F5]** or **[Fn] + [F6]**.
- or
- ▶ To adjust the volume use the Windows volume control from the *Start* menu - *Programs* - *Accessories* - *Multimedia* - *Volume Control*.

Integrated 56k modem

The integrated 56k modem supports all data communication applications, such as:

- Modem operation: High-speed downloads at up to 56,000 bit/s (V.90). Downward-compatible to V.34 modems.
- Fax mode: Transmitting and receiving at up to 14,400 bit/s
- Simple country adaptation with programme

The modem complies with the EU Directive 91/263/EEC (Telecommunications terminal equipment directive) and has been checked in agreement with the guideline TBR-21.

The modem can be operated in the following countries:

Multifrequency (MFC) dialling


Belgium, Denmark, Germany, Finland, France, Greece, Great Britain, Holland, Ireland, Iceland, Italy, Luxembourg, Norway, Austria, Portugal, Sweden, Switzerland and Spain.

Pulse dialling:

Belgium, France, Holland and Italy.

Also in: Poland, Slovenia, South Africa and Hungary.

Connecting notebook modem to telephone connection


- ▶ Connect the modem cable supplied to the country-specific telephone adapter.
- ▶ Connect the modem cable to the modem port  (see chapter "Notebook views", Number 25) of the notebook.
- ▶ Connect the modem cable to your telephone wall socket.



Please note that the telephone line is busy and that you cannot use your telephone if the modem cable is plugged into the telephone wall socket. Pull the modem cable out of the telephone socket after you have finished your internet session or the fax mode and reconnect the telephone cable.

Ethernet and LAN

The internal LAN module of your notebook supports Ethernet-LAN (10/100 Mbps).

- ▶ Connect the LAN cable to the notebook's LAN connector  (see chapter "Notebook views", Number 24).
- ▶ Connect the network cable to your LAN network connector.

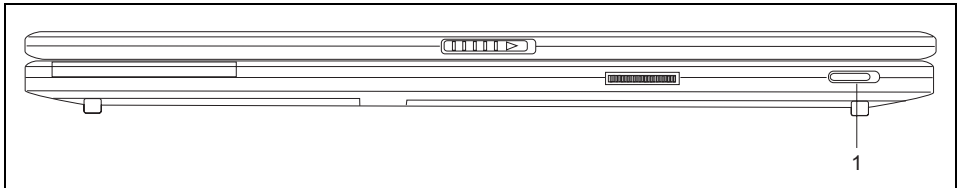
Wireless LAN (optional)



The installation of a wireless LAN module not approved by Fujitsu Siemens Computers GmbH voids the permits (CE!, FCC) issued for this device.

A wireless LAN is integrated in your notebook.

Switching wireless LAN module on and off



- ▶ Slide the ON/OFF switch for Wireless LAN (1) into the "ON" position to activate the wireless LAN module.

The wireless LAN indicator  lights up.

or

- ▶ Slide the ON/OFF switch for Wireless LAN (1) into the "OFF" position to deactivate the wireless LAN module.

The wireless LAN indicator  goes out.



Pay attention to the additional safety precautions for devices with wireless LAN provided in the "Safety" manual.

Detailed information can be found in the online help file and PDF document for your wireless LAN software. The "Wireless LAN" manual is provided on the "Drivers & Utilities" CD.

Security functions

Your notebook has several security features that you can use to secure your system from unauthorised access.

This chapter will explain how to use each function, and what the benefits are.



Please remember that in some cases, for example, forgetting your password, you can be locked out and unable to access your data. Please note therefore the following hints:

- Make regular backups to external storage devices such as external hard drives, CD or DVD disks.
- Some security functions need you to choose a password. Make a note of the passwords and keep them in a safe place.

If you forget your passwords you will need to contact the help desk. Passwords are not covered by your warranty and a charge will be made for assistance.

Overview of all security functions

The following sections explain the security features that are supplied with your notebook as standard.

Kensington Lock

With the Kensington MicroSaver, a sturdy steel cable, you can help protect your notebook from theft. For this reason your notebook is equipped with a device for the Kensington MicroSaver. The Kensington MicroSaver is available as an accessory.

BIOS password protection

You can protect your personal data from unauthorised access with a supervisor password.

Password protection for the BIOS Setup Utility

With the supervisor password you prevent unauthorised opening of the *BIOS Setup Utility*, and with it access to important system settings. In the *BIOS Setup Utility* you can also activate protection for the operating system.

Password protection for the operating system

With corresponding settings in the *BIOS Setup Utility* you can block starting of the operating system. Only those who know the supervisor password can access the system.

Brief overview of the security functions

Security function	Type of protection	Preparation
Kensington Lock	Mechanical	Mount and lock Kensington MicroSaver (accessory)
BIOS password protection	Password protection for <i>BIOS Setup Utility</i> and operating system with supervisor password. The password consists of a maximum of six alphanumeric characters.	Specify a Supervisor password and, if desired, activate the password protection for the operating system in the <i>BIOS Setup Utility</i> .

Using Kensington Lock

- ▶ Fit the Kensington MicroSaver on the device (see the "Notebook views" chapter, Number 14) on your notebook.

Configuring password protection in BIOS Setup Utility



Before using the various options of password protection for your data security in the *BIOS Setup Utility*, please note the following hints:

- Make a note of the passwords and keep them in a safe place. If you forget your supervisor password you will not be able to access your notebook. Passwords are not covered by your warranty and a charge will be made for assistance.
- Make regular backups to external storage devices such as external hard drives, CD or DVD disks.



Your password can be up to six characters long and contain letters and numbers. It does not matter if you use upper or lowercase characters.

Protecting BIOS Setup Utility (supervisor password)



If you have opened these operating instructions on the screen, we recommend that you print out the following instructions. Because you cannot call the instructions onto the screen while you are setting up the password.

The supervisor password prevents unauthorised usage of *BIOS Setup Utility*. With the supervisor password you have access to all functions of the *BIOS Setup Utility*.



Please refer to section "Settings in BIOS Setup Utility" for a description of entering and operating the *BIOS Setup Utility*.

Setting a supervisor password

- ▶ Enter the *BIOS Setup Utility* and go to the *Security* menu.
- ▶ Select the *Change Supervisor Password* option and press the Enter key.

With *Enter New Password*: you are then requested to enter a password.

- ▶ Type a password and press the Enter key.

With *Confirm New Supervisor Password* you are asked to confirm the password.

- ▶ Enter the password again and press the Enter key.

With *Password Installed* you receive a confirmation that the new password has been saved.

If you do not want to make any other settings, you can exit *BIOS Setup Utility*.

- ▶ Select the *Save Changes and Exit* option under *Exit*.
- ▶ Press the Enter key.

The notebook is rebooted and the new password is effective. If you now want to open the *BIOS Setup Utility*, you must enter your supervisor password.

Change supervisor password

In order to change the Supervisor password you need to be logged into the *BIOS Setup Utility* using the existing Supervisor password.

- ▶ Enter the *BIOS Setup Utility* again.
- ▶ Follow the steps for setting the supervisor password.

Cancelling password

To cancel a password (without setting a new password) run the following steps:

- ▶ Enter the *BIOS Setup Utility* and go to the *Security* menu.
- ▶ Select the *Change Supervisor Password* option and press the Enter key.

With *Enter New Password* you will then be asked to enter a password.

- ▶ Press the Enter key twice.
- ▶ Select the *Save Changes and Exit* option under *Exit*.
- ▶ Press the Enter key.

Your notebook will now restart and the password is cancelled.

Password protection of operating system



With the supervisor password or the user password, you have assigned in the BIOS Setup Utility (see "Setting a supervisor password" section), you can also prevent booting of the operating system.

Activating system protection

- ▶ Enter the *BIOS Setup Utility* and go to the *Security* menu.
- ▶ Select the *Password Check* option.
- ▶ Select the *Always* option.
- ▶ Select the *Save Changes and Exit* option under *Exit*.

Your notebook will now restart and you are asked to enter your password (the supervisor password).

Deactivating system protection

- ▶ Enter the *BIOS Setup Utility* and go to the *Security* menu.
- ▶ Select the *Password Check* option.
- ▶ Select the *Setup* option.
- ▶ Select the *Save Changes and Exit* option under *Exit*.
- ▶ Press the Enter key.

The notebook reboots and there is no longer any password protection for the operating system.

Connecting external devices



Before you connect or disconnect any devices from your notebook please read the safety notes in the "Important notes" chapter.

Always read the documentation supplied with the device you wish to connect.

Never connect, or disconnect cables during a thunderstorm.

Never pull on a cable when disconnecting it. Always hold the plug.

Follow the steps below in order, when connecting or disconnecting devices to your notebook:

Connecting devices to notebook

1. Turn off your notebook and all external devices.
2. Unplug your notebook and all devices from the mains sockets.
3. Connect the cables for your external devices following the supplied instructions.
4. Plug all power cables into the mains sockets.

Disconnecting devices from notebook

1. Turn off your notebook and all external devices.
2. Unplug your notebook and all devices from the mains sockets.
3. Disconnect the cables for your external devices following the supplied instructions.



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

Connecting an external monitor

An external monitor can be connected to the notebook.

- Using the **[Fn] + [F4]** key combination you can switch back and forth between the external monitor and the LCD screen.
- You can display the same picture on the external monitor and the LCD screen simultaneously.
- ▶ Switch off the notebook and the external monitor.
- ▶ Connect the external monitor to the monitor port (see chapter "Notebook views", Number 13) on your notebook.
- ▶ First switch on the monitor and then the notebook.

Setting the refresh rate for your external monitor

The refresh rate must be correctly set so that the image does not flicker.

- ▶ Select the monitor type in the menu *Start - Control Panel - Appearance and Themes - Display - Settings - Advanced - Display*.
- ▶ Now select the *Adapter* tab.
- ▶ Adjust the refresh rate and then click *Apply*.



If the refresh rate set is too high, the monitor may be damaged. Please see the documentation included with your monitor for the maximum possible refresh rate.

Connecting USB devices

You can connect external devices to the USB ports (see the "Notebook views" chapter, Number 21) which also have a USB interface (e.g. a printer, a scanner or a modem).



USB devices are hot-pluggable. This means you can connect and disconnect devices while your operating system is running.

USB 1.x has a maximum data transfer rate of 12 Mbit / s.

USB 2.x has a data transfer rate of up to 480 Mbit/s.

Additional information can be found in the documentation for the USB devices.

- ▶ Connect the data cable to the external device.
- ▶ Connect the data cable to a USB port of the notebook.



Device drivers

Some USB devices will be automatically recognised and installed by your operating system. However, newer devices will need to be installed using the supplied CD / DVD. Always follow the instructions supplied with the device to complete the installation.

Connecting external audio devices

Audio connector

You can use the Audio port (see the "Notebook views" chapter, Number 18) to connect audio devices with an analog output to your notebook.

Headphones port

You can use the headphone port (see the "Notebook views" chapter, Number 17) to connect an external microphone to your notebook.

Microphone jack

You can use the microphone port (see chapter "Notebook views", Number 20) to connect an external microphone to your notebook.

Adjusting the volume

- ▶ To adjust the volume use the Windows volume control from the *Start* menu - *Programs* - *Accessories* - *Multimedia* - *Volume Control*.

Connecting an external device to S-Video Out

You can connect an external device (e.g. a TV) to the S-Video Out socket of your notebook (see chapter "Notebook views", Number 23) to view films from DVDs, photos or presentations etc.

- ▶ Switch off the notebook and the external device.
- ▶ Connect the external device to the S-Video Out socket of your notebook.
- ▶ First switch the external device on and then the notebook.

Activating television set

- ▶ Select the monitor type in the menu *Start* - *Control Panel* - *Appearance and Themes* - *Display* - *Settings* - *Advanced* - *Displays*.
- ▶ Click on *Apply*.

Connecting FireWire devices

Your notebook is equipped with a FireWire port, which operates at 400 Mbit per second. Peripheral devices such as digital audio/video devices or other high-speed devices can be connected to the FireWire port.

- ▶ Connect the peripheral device to the FireWire port (see chapter "Notebook views", Number 20) of your notebook.

Settings in BIOS Setup Utility

In *BIOS Setup Utility* you can set the system functions and the hardware configuration of the notebook.

When it is delivered, the notebook is set to factory default settings. You can change these settings in *BIOS Setup Utility*. Any changes you make take effect as soon as you save and quit the *BIOS Setup Utility*.

The *BIOS Setup Utility* programme contains the following menus:

Main: For system settings such as time and date and information about the notebook

Advanced: For system settings such as interfaces, keyboard and hard disks

Security: For security settings such as the password

Boot: For specifying the start order

Power: For setting the energy saving functions

Exit: For saving the changes and terminating the *BIOS Setup Utility*

Start BIOS Setup Utility

- ▶ Reboot the notebook (switch off/on or reboot operating system).

The following or a similar display appears on the screen during booting:

F2: Setup F12: Boot Menu

- ▶ When this message appears, press the function key **F2**.



If a password has been assigned:

- ▶ Enter the password and press the Enter key.

If you have forgotten the password, contact your system administrator or contact our customer service centre.

Operating BIOS Setup Utility



Press the **F1** key to display help on the operation of *BIOS Setup Utility*. The description of the individual settings is shown in the right-hand window of the *BIOS Setup Utility*.

- ▶ Select the menu in which you want to make settings with the cursor keys.
- ▶ Press the Enter key.

The menu is displayed on the screen.

- ▶ Use the cursor keys to select the option you wish to change.
- ▶ Change the option with the keys **PgUp** or **PgDn**.
- ▶ Press the Enter key to confirm your selection.
- ▶ Press the **Esc** key to exit the selected menu.
- ▶ For future reference, make a note of the changes you have made (for example, in this manual).

Exiting BIOS Setup Utility

You have to select the desired option in the *Exit* menu and activate it with the enter key.

Save Changes and Exit - Save the settings and exit the BIOS Setup Utility

Select *Save Changes and Exit* and *Yes* to save the current settings and exit the *BIOS Setup Utility*. The notebook is rebooted and the new settings come into effect.

Discard Changes and Exit - Discard changes and exit the BIOS Setup Utility

Select *Discard Changes and Exit* and *Yes* to discard the changes you have made. The settings which were in force when *BIOS Setup Utility* was called remain effective. *BIOS Setup Utility* is terminated and the notebook is rebooted.

Discard Changes- Discard Changes without exiting BIOS Setup Utility

Select *Discard Changes* and *Yes* to discard the changes you have made. The settings which were in force when *BIOS Setup Utility* was called remain effective. You can now make additional settings in the *BIOS Setup Utility*. If you want to exit *BIOS Setup Utility* with these settings, select *Discard Changes and Exit* and *Yes*.

Load optimal Defaults - Apply default values

To revert all the menus of *BIOS Setup Utility* to the default entries, select *Load optimal Defaults* and *Yes*.

Troubleshooting and tips



Take note of the hints in the "Important notes" chapter, when you connect or disconnect cables.

If a fault occurs, try to correct it as described. If you fail to correct the problem, proceed as follows:

- ▶ Make a note of the steps and the circumstances that led to the fault. Also make a note of any error messages displayed.
- ▶ Switch the notebook off.
- ▶ Contact your sales outlet or our hotline/help desk.

Reinstalling Windows XP

You can reinstall the Windows XP operating system with the "Windows XP Recovery CD" and the "Drivers & Utilities" CD.

The instructions are provided on the case of the Recovery CD.



During the reinstall process your personal files and any installed programs will be deleted. We advise that you backup your files to an external hard drive, or CD / DVD disk before you start.

- ▶ Switch the notebook on.
- ▶ Press the **F12** key when the message `F2: Setup F12: Boot Menu` appears on the screen.
- ▶ Insert the "Windows XP Recovery CD" into the optical drive.
- ▶ Select the *CD-ROM* and press the Enter key.
- ▶ Follow the instructions on the screen.

After the installation you must install all the drivers again. Some installed hardware components will not be correctly supported until this has been done.

- ▶ Insert the "Drivers & Utilities" CD into the optical drive.
The CD starts automatically.
- ▶ Click on the *Desk Update* button.
- ▶ Select *Automatic driver installation (Express)* and click *Start installation*.
- ▶ Follow the instructions on the screen.
- ▶ Restart your notebook when the driver installation is completed.

The notebook's date or time is incorrect

- ▶ Set the time and/or date in the *Main* menu of the *BIOS Setup Utility* .



If the date and time are repeatedly incorrect when you switch on the notebook, the buffer battery that supplies the internal clock is dead. Please contact your sales outlet or our hotline/help desk.

The LCD screen of the notebook remains blank

Monitor is switched off

- ▶ Press a key or enter the password

External monitor or television set connected

- ▶ Press the key combination **Fn** + **F4** (selecting internal/external display).

The LCD screen is difficult to read

Reflection

- ▶ Turn the notebook or alter the tilt of the LCD screen.

The external monitor stays blank

If your screen remains blank this may be due to the following:

Monitor is switched off

- ▶ Switch the external monitor on.

Power saving has been activated (screen is blank)

- ▶ Press any key to continue.

Brightness is set too dark

- ▶ Adjust the brightness of the monitor.

Screen output is set to the notebook's LCD screen

- ▶ Press the key combination **Fn** + **F4** (selecting internal/external display).

The external monitor's power cable or data cable is not connected properly

- ▶ Switch off the external monitor and the notebook.
- ▶ Check whether the power cable is plugged properly into the external monitor and into the power socket.
- ▶ Check whether the data cable is properly connected to the notebook and the external monitor (if it is plugged in with a connector).
- ▶ Switch on the external monitor and the notebook.

The external monitor is blank or the image is unstable

The wrong external monitor has been selected or the wrong screen resolution has been set for the application programme.

- ▶ End the application programme under Windows with **Alt** + **F4**. If the fault continues to occur after ending the programme, switch over to the notebook's internal LCD screen with **Fn** + **F4**. Change the following setting:
- ▶ Select the correct monitor or set the correct screen resolution.
 - Setting the screen resolution: Select *Start - Control Panel - Appearance and Themes - Advanced - screen resolution* and then the screen resolution you require.
 - Selecting the monitor: Select the correct monitor under *Start - Control Panel - Appearance and Themes - Display - Settings - Advanced - Display*.

The notebook cannot be started

The battery is not installed correctly

- ▶ Switch the notebook off.
- ▶ Check whether the battery is installed correctly in its compartment.
- ▶ Switch the notebook on.

The battery is dead

- ▶ Charge the battery.

Or

- ▶ Install a charged battery.

Or

- ▶ Connect the power adapter to the notebook.

The power adapter is not connected correctly

- ▶ Switch the notebook off.
- ▶ Check whether the power adapter is connected correctly to the notebook.
- ▶ Switch the notebook on.

The notebook stops working

The notebook is in Standby or Suspend mode

- ▶ Reactivate the notebook by pressing a key (Standby mode) or by switching it back on (Suspend mode).

An application programme has caused the malfunction

- ▶ Close the application programme or restart the notebook by switching it on/off or with a warm boot.

The battery is dead

- ▶ Charge the battery.

Or

- ▶ Install a charged battery.

Or

- ▶ Connect the power adapter to the notebook.

The printer does not print

- ▶ Make sure that the printer is switched on and is on-line (see the manuals supplied with the printer).
- ▶ Check that the cable connecting the notebook and the printer is connected properly.
- ▶ Check whether the correct printer driver is loaded (see printer documentation).

Acoustic warnings

A beep sounds every few seconds

The battery is almost flat.

- ▶ Charge the battery.

Technical data

Processor:	Intel Pentium M, FSB: 400 MHz
Main memory:	Maximum of 1 Gbyte DDR266 SO DIMM (PC2100) or DDR333 SO DIMM (PC2700) 2 slots for 256 or 512-Mbyte modules
Disk drives:	Hard disk drive Optical drive

Electrical data

Regulations complied with:	CE!
Maximum power draw: (notebook on with battery charging)	approx. 65 W

LCD screen

Display diagonal:	15 inch XGA TFT/15 inch SXGA + TFT 15.4 inch WXGA TFT/15.4 inch WSXGA+ TFT
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Graphics

Chip:	Intel 855 GME integrated
Video memory:	up to 64 Mbyte shared memory
Supported resolutions on external monitor:	1600 x 1200
Colour depth:	32 bit

Audio

Sound:	18-bit stereo audio (AC'97)
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Input devices

Keyboard:	86 keys
Touchpad:	2 keys

Slots

PC Card slot (CardBus/PCMCIA):	PCMCIA 1 x type I or II
Memory card reader:	Flash Card Port SD/MS/MS Pro/MMC

Technical data

Ports

Monitor port:	15-pin female connector
Microphone jack:	connector, mono
Audio port:	connector, stereo
Video port:	4-pin mini DIN female connector
USB port (Universal Serial Bus):	3x 2.0
LAN connector:	Female connector, RJ-45
Modem port:	Female connector, RJ-11
FireWire port:	S400, 4-pin
Kensington Lock	

Environmental conditions

Environment class (3K2)

Temperature

- Operation (3K2): 5 °C 35 °C
- Transport (2K2): -15 °C 60 °C

Dimensions

Width/depth/height: 333 mm, 272 mm, 33/25 mm

Weight (depending on configuration): approx. 2.7 kg

Battery

Charging time (when not in operation): approx. 3 hours

Operating time: approx. 2.5 hours (depending on application)

Power adapter 65 W

Main

- Rated voltage: 100 V to 240 V (automatic)
- Frequency: 50 Hz to 60 Hz (automatic)

Sub

- Rated voltage: 20 V
- Max. rated current: 3.25 A

You can readily order an additional power adapter and an additional power cable.

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