Operations are subject to the following two conditions:
(1) This device may not be allowed to cause harmful interference, (2) This device must accept any interference received, including interference that may cause undesired operation.

Wesbite: www.fujitsu-pc-asia.com

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully. Save these instructions for future reference.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. This product is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This will only plug into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.
9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
10. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed 15 amperes.
11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points that could result in a fire or electric shock. Never spill liquid of any kind on the product.
12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power cord or plug is damaged or frayed.
    b. If liquid has been spilled into the product.
    c. If the product has been exposed to rain or water.
    d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal condition.
    e. If the product has been dropped or the cabinet has been damaged.
    f. If the product exhibits a distinct change in performance, indicating a need for service.
14. **CAUTION. When replacing the battery, be sure to install it with the polarities in the correct position. There is a danger of explosion if the battery is replaced with an incorrect type or is mistreated. Do not recharge, disassemble or dispose of in fire. Replace only with the same or equivalent type recommeded by the manufacturer. Dispose of the used battery according to the manufacturer's instructions.**
15. Use only the proper type of power supply cord set (provided in your accessories box) for this unit. It should be a detachable type: UL listed/CSA certified, BS1363, ASTA,SS145 certified, rated 10A 250V minimum, VDE approved or its equivalent. Maximum length is 15 feet (4.6 meters).

High Safety Required Use

This Product is designed, developed and manufactured as contemplated for general use, including without limitation, general office use, personal use, household use and ordinary industrial use, but is not designed,developed and manufactured as contemplated for use accompanying fatal risks or dangers that, unless extremely high safety is secured, could lead directly to death, personal injury,severe physical damage or other loss (hereinafter 'High Safety Required Use'), including without limitation, nuclear power reactioncore control in nuclear atomic facility, airplane automatic aircraft flight control, air traffic control, operation control in mass transport control system,medical instrument for life support system, missile launching control in weapon system. You shall not use this Product without securing the sufficient safety required for the High Safety Required Use.

Data Storage Media and Customer Responsibilities

The only effective protection for the data stored in a computer, such as on a hard disk, is for you, Purchaser to regularly back up the data. Fujitsu and its affiliates, suppliers, service providers and resellers shall not be responsible for any software programs, data or other information stored or used on any media or part of any Product returned to Fujitsu or its service providers for Warranty Service or other repair, including but not limited to the costs of recovering such programs, data or other information. It is solely your responsibility as the Purchaser to back up any software programs, data, or information stored on any storage media or any part of a Product returned for Warranty Service or repair to the designated service centers.

AUSTRALIAN WARNINGS

WARNING

FOR SAFETY REASONS, ONLY CONNECT EQUIPMENT WITH A TELECOMMUNICATIONS COMPLIANCE LABEL. THIS INCLUDES CUSTOMER EQUIPMENT PREVIOUSLY LABELLED PERMITTED OR CERTIFIED.

Connection of Non Certified/Approved peripherals may result in the equipment operating outside the Australian EMI Standards.

Modems connected to the Australian telecommunications network must be operated in accordance with the Labelling Notice. This modem has been specifically configured to ensure compliance with the ACA Standards. Do not adjust your modem or software outside the values indicated below. To do so would result in your modem being operated in a non-compliant manner.

Call Attempts/Retries:

Applications software shall be configured so that no more than 3 attempts are made to establish a connection to a given number (Note: if the modem can detect service tones, up to 10 attempts can be made). If the call sequence is unsuccessful, there shall be a delay of at least 30 minutes before attempting to call the number again.

Failure to set the modem, and any application software used with the modem, to the values shown above will result in the modem being operated in a non-compliant manner. Consequently, this would be in violation of the Labelling Notice for this equipment, and the Telecommunications Act 1997 prescribes penalties for the connection of non-compliant equipment.

NEW ZEALAND WARNINGS

The grant of a Telepermit for any item of terminal equipment indicates only that Telecom has accepted that the item complies with minimum conditions for connection to its network. It indicates no endorsement of the product by Telecom, nor does it provide any sort of warranty. Above all, it provides no assurance that any item will work correctly in all respects with another item of Telepermitted equipment of a different make or model, nor does it imply that any product is compatible with all of Telecom's network services.

This equipment is not capable under all operating conditions of correct operation at the higher speeds for which it is designed. 56 KBPS connections are likely to be restricted to lower bit rates when connected to some PSTN implementations. Telecom will accept no responsibility should difficulties arise in such circumstances.

Immediately disconnect this equipment should it become physically damaged, and arrange for its disposal or repair.

This equipment shall not be used in any manner, which could constitute a nuisance to other Telecom customers.

This equipment shall not be set to make automatic calls to the Telecom "111" Emergency Service.
This device is equipped with pulse dialling while the New Zealand standard is DTMF tone dialling. There is no guarantee that Telecom lines will always continue to support pulse dialling. It is strongly recommended that pulse dialling is not used.

Some parameters required for compliance with Telecom's Telepermit requirements are dependent on the equipment (PC) associated with this device. The associated equipment shall be set to operate within the following limits for compliance with Telecom's Specifications:

For repeat calls to the same number.

There shall be no more than 10 call attempts to the same number within any 30 minute period for any single manual call initiation, and

The equipment shall go on-hook for a period of not less than 30 seconds between the end of one attempt and the beginning of the next attempt.

For Automatic calls to different numbers.

The equipment shall go on-hook for a period of not less than 5 seconds between the end of one attempt and the beginning of the next attempt.

For Automatically answered Incoming Calls

Incoming calls shall be answered between 3 and 30 seconds from the start of the ringing.

For correct operation, the total of the RNs of all devices connected to a single line at anytime should not exceed 5. The RN of this Equipment is 0.5.

WARNING

Connection of Non Certified/Approved peripherals may result in the equipment operating outside the New Zealand EMI Standards.

Note: Modem setting in Windows 98 / Windows Me

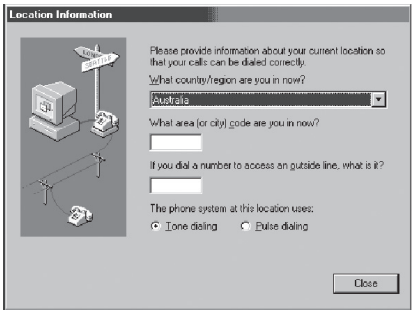
The default modem setting in Windows 98 / Windows Me operating system is United States of America. If you are residing in Australia or New Zealand, please choose the appropriate country where you are located.

The Modem will only operate with Tone Dialing; Selection of Pulse dialing is not possible.

Please see below instruction for quick modem setup.

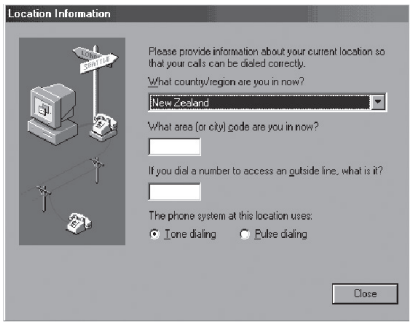
A. If you are located in Australia

1. Go to Control panel, select modem icon.
2. Choose Australia in “What country/region are you in now?”
3. Select Phone system as “Tone Dialing”
4. Close



B. If you are located in New Zealand

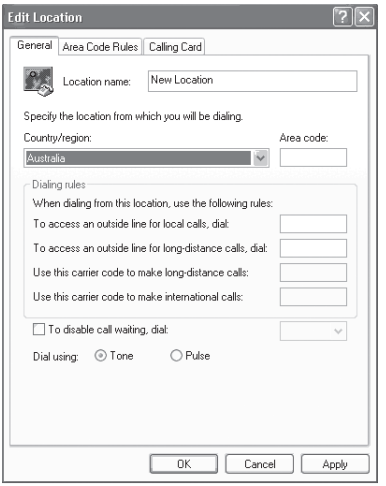
1. Go to Control panel, select modem icon.
2. Choose New Zealand in “What country/ region are you in now?”
3. Select Phone system as “Tone Dialing”
4. Close



Note: Modem setting in Windows XP

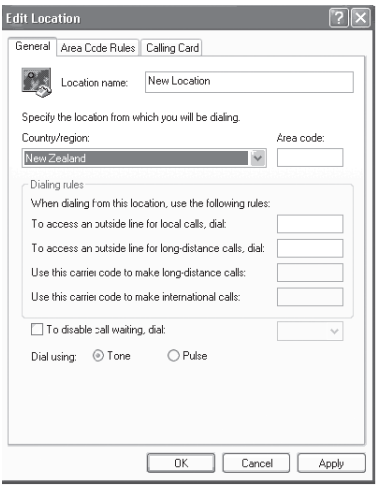
A. If you are located in Australia

1. Click Start select Control panel select “Phone and Modem Options”.
2. Double click New Location.
3. Choose “Australia” in Country/region pull down menu bar.
4. Select Phone system as “Tone Dialing”.
5. Click OK and Apply.



B. If you are located in New Zealand

1. Click start select Control panel select “Phone and Modem Options”.
2. Double click New Location.
3. Choose “New Zealand” in Country/region pull down menu bar.
4. Select Phone system as “Tone Dialing”.
5. Click OK and Apply.



Note:
The screens and illustrations shown in this examples may slightly vary depending on the operating environment that you have installed.

NOTATION IN THIS DOCUMENT

Warnings

This manual uses a variety of icons as visual marks so that you can use this computer safely and correctly and avoid damage and danger to yourself and to others. These icons and their meanings are as follows. Please learn these icons before reading this manual. Learning these icons will be useful for understanding this manual.

Icon	Meaning
⚠ **WARNING**	Incorrect handling ignoring this warning can cause a dangerous situation that could result in death or severe injury.
⚠ **CAUTION**	Incorrect handling ignoring this warning can cause a dangerous situation that could result in moderate or minor injury or could result in equipment damage.

The symbols below are used together with the icons above to indicate what type of danger or damage is involved.

symbols	Meaning
	The symbol △ indicates warning or caution. The symbol △ indicates the concrete nature of the warning. (The example on the left is a caution for electric shock.)
	The circle and slash indicates prohibited behavior. The symbol inside the circle indicates the concrete nature of the prohibition. (The example on the left indicates that disassembly is prohibited.)
	The ● indicates instructions that must be followed. The symbol inside indicates the concrete nature of those instructions. (The example on the left tells you to unplug the power plug from the socket.)

Key notation and operation methods

Explanations of key operations do not show all the characters on the keyboard. Instead they indicate just the keys necessary to the explanation as follows.

Examples: **[Ctrl]** key, **[Enter]** key, **[→]** key

When multiple keys are to be pressed at the same time, this is indicated by connecting them with **[+]**.

Examples: **[Ctrl]** + **[F3]** keys; **[Shift]** + **[↑]** key

Screen examples

The screens shown in this manual are examples. Please understand that the file names and screens you use may be different.

● **Notation in text**

Here is what symbols in text mean.

Symbol	Meaning
Critical Points	Critical Point Indicates a point necessary for correctly operating the hardware or software.
 **Column**	Column Gives the meaning and brief explanation of a term.
→	Indicates the page to see elsewhere in this manual.

● **Command input (key input)**

Within the text of this manual, command input (giving commands to the computer by pressing keys) is indicated as follows.

Example: dir c:
↑

In the position indicated in the example above by the ↑, the space left between the characters indicates that a space needs to be left in the entry by pressing the space bar (the long key with nothing written on it at the center of the front of the keyboard). Commands are written in this manual as lowercase latin letters, but uppercase letters may be used.

● **Product names**

The following product names are abbreviated as follows in this manual.

"Microsoft® Windows XP® operating system" is written as "Windows XP".
"Microsoft® Windows® 2000 operating system" is written as "Windows 2000".
"Microsoft® Millennium® Edition operating system" is written as "Windows Me".
"Microsoft® Windows® 98 operating system" is written as "Windows 98".
"Windows NT 4.0" and "Windows NT 3.51" are both written as Windows NT.
"LifeBook" is written as "this computer" or "the computer main unit".

Configuration of this Manual

SECTION 1

This section explains basic operations and basic items for using this computer, including the names of the parts and their functions, flat point operation methods, floppy disk unit handing, and battery operation.

SECTION 2

This section explains installation of options for this computer.

SECTION 3

This section explains what to do when trouble occurs with this computer and when messages are displayed. Read this section as the necessity arises.

CONTENTS

SECTION 1

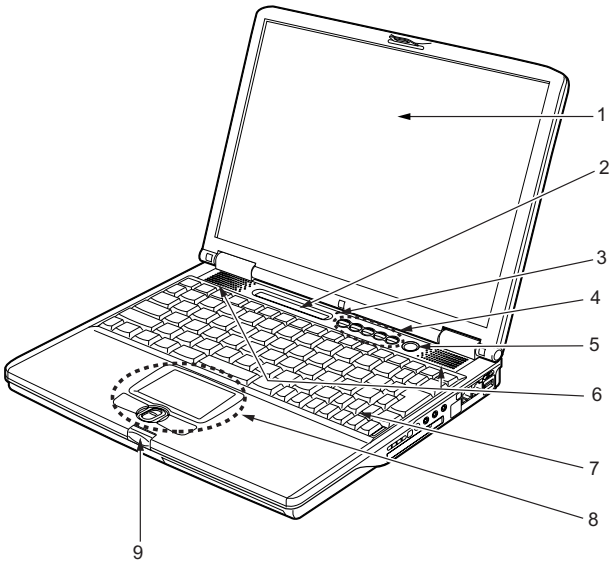
SECTION 2

SECTION 1

This section explains basic operations and basic items for using this computer, including the names of the parts and their functions, Flat point operation methods, floppy disk unit handing, and battery operation.

1 Names of the Parts and their Functions

Front features of the computer



❶ LCD display
The monitor of your computer.

Critical Points

◆ About the characteristics of LCD displays
For reasons of characteristics specific to LCD displays, the following phenomena may occur but they are not defects in your LCD display.

- The TFT color liquid crystal display (LCD) of you computer consists of more than 2,350,000 pixels (dots) (if the resolution is 1024x768), which are arranged in rows and columns through the utilization of high-level technology. For technical reasons, however, some dots on your LCD display may not light up or be always lit, but this does not mean that the display is defective.
- There may be a slight difference in color between your LCD display and another LCD display because of differences in manufacturing condition. Moreover, your LCD display may produce colors somewhat unevenly because of temperature changes, etc.

❷ Status indicator LCD
Displays the operating status of the computer.

❸ Built-in microphone
Used for sound recording.

Critical Points

- The microphone may cause a howling noise when you are using, for example, a karaoke software program for which the microphone needs to be used along with the internal speakers. If howling occurs, adjust the volume on your computer or use commercially available headphones or an external microphone. When the microphone is not in use, you should cut it off (mute).
- The built-in microphone may not pick up all the sounds depending on the distance or direction from the sound source. It is recommended that you use an external microphone if you want to record sounds clearly.

❹ One-touch buttons/Security panel
These buttons are used to set/reset security lock, password input during power on of the PC unit and application start-up.

❺ SUS/RES (Suspend/Resume) switch
Used to turn on your computer, to put it into standby (suspending operation) mode, or to resume system operation.

❻ Speakers
A sound output device of the computer

❼ Keyboard
Allows you to type in letters and give commands to the computer.

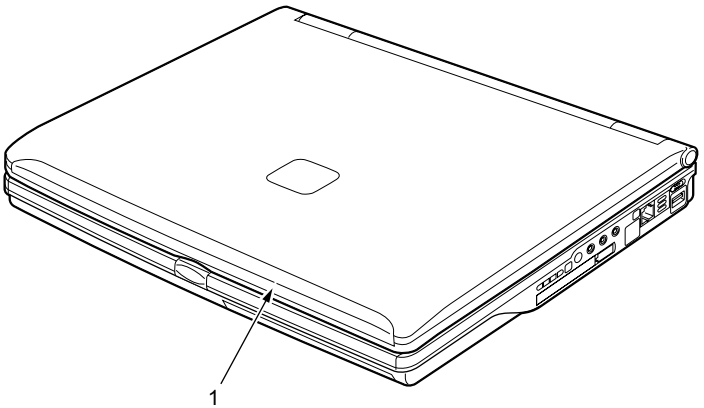
❽ Flat Point
Used to move the mouse pointer on the screen. The scroll button at the center allows you to scroll a window up or down.

Critical Points

- For some applications, windows may not be scrolled using the scroll button.

❾ Latch
This latch locks the liquid crystal display (LCD) to avoid accidental opening.
Press it to unlock and open the LCD.

❑ Top of the PC Main Unit



❶ **Built-in wireless LAN antenna (for models with a wireless LAN module)**
Your PC came with a built-in LAN antenna.

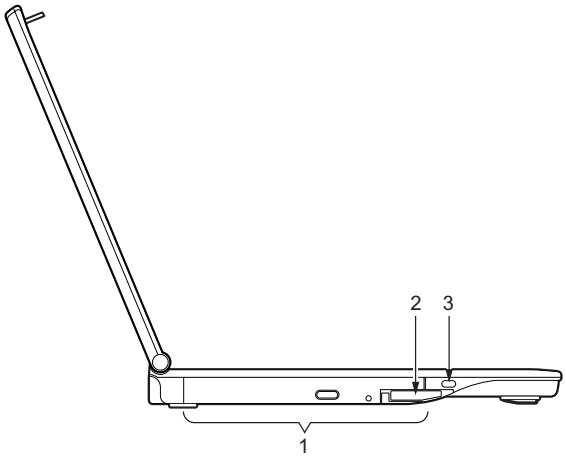
Note:
Wireless LAN ugradeability is only applicable to selected countries. Please contact your local sales representative for more information.

Critical Points

- When using your PC, especially when using the build-in wireless LAN module for communication, take care not to touch the antenna. To avoid degradation in communication quality, do not place your PC close to a conductor (substance that allows electricity to pass along or through it).

Left/right features of the computer

❑ Left panel of the computer



❶ **Mobile multi-bay**
Your computer came with a Combo Drive (DVD & CD-RW) or CD-RW drive built into this bay. Depends which model you have.

Critical Points

- To avoid damage to your computer, do not use the computer when the mobile multi-bay is vacant.

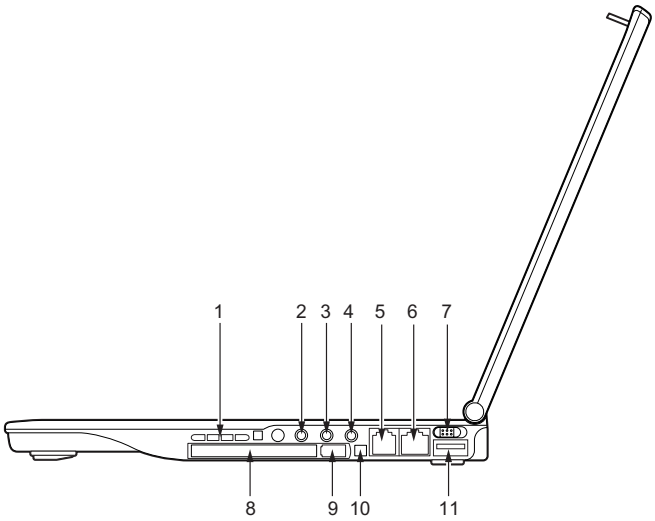
❷ **Mobile multi-bay unit release lever**
Raise the lever when removing the unit from the mobile multi-bay.

❸ **Antitheft lock port**
Used to connect a commercially available antitheft cable.

Critical Points

- The antitheft lock port supports the Kensington's Micro Saver Security System.
- When an anti-theft lock is connected, the mobile multi-bay unit cannot be removed.

❑ Right panel of the computer



⚠ CAUTION

HEARING LOSS

- Before connecting a cable to the headphone jack, LINE IN jack, or microphone jack, lower the volume on the computer to a minimum by pressing the [F8] key while holding down the [Fn] key. Otherwise, the device connected could sustain damage or a very loud noise could impair your hearing.

❶ Air Vents
This is the air ventilation hole.

❷ Microphone jack
Used to connect a commercially available monaural microphone (with a f3.5-mm mini plug) for sound recording. Some types of microphones (e.g., dynamic microphones) cannot be used with your computer. So before purchasing a microphone, make sure it is compatible with your computer.

❸ LINE IN jack
This is an analog input (LINE IN) terminal used to connect the computer to the LINE OUT terminal of an AV system (with a 3.5-mm stereo mini plug).

❹ **Headphone jack**
Used to connect commercially available headphones (with a f3.5-mm mini plug). Headphones with some types of plugs cannot be connected. So before purchasing headphones, make sure they are compatible with your computer.

⚠ CAUTION

HEARING LOSS

- Don't raise the volume too high especially when you are listening with headphones. Listening to very loud sound for a long time could impair your hearing.

HEARING LOSS

- Don't turn on or off the computer while you are wearing headphones, or noise could impair your hearing.

❺ **Modem port**
This connector allows you to connect the computer to a telephone line and enables PC communications and Internet connection through the modular cable.

❻ **LAN port**
Used to connect the computer to a local-area network (LAN) via an optional LAN cable so that you can use your computer on a network or connect to the Internet.

❼ **Main switch**
Used to turn on your computer.

❽ **PC card slot**
Used to install a PC card.

Critical Points

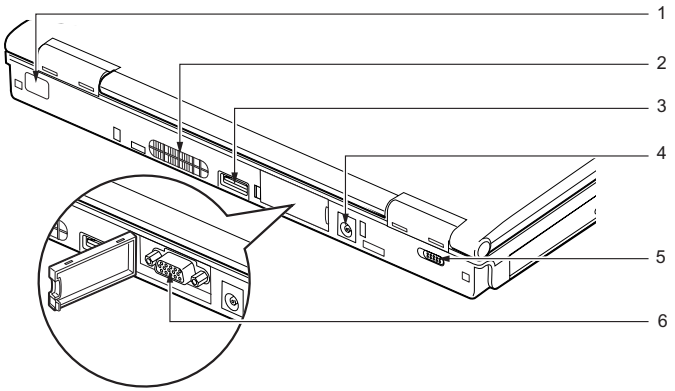
- Your computer came with a dummy card in the PC card slot.

❾ **PC card eject/lock button**
Used to eject the PC card. This button also prevents the PC card from accidentally coming out of the slot.

❿ **IEEE 1394 (DV) port**
Used to connect a peripheral device, e.g., a digital video camera (DV), to the computer via a DV cable.

⓫ **USB port**
You can connect separately available USB standard peripherals such as a FDD unit or printer to this port.

Rear features of the computer



❶ Infrared Port
The fast IrDA compatible port allows you to communicate with another IrDA compatible infrared device without a cable.

❷ Air Vents
Used to discharge heat out of the computer. The cooling fan automatically starts rotating when the temperature in the computer rises to a specific level.

⚠ CAUTION

FAILURE

- Do not block the air vent, otherwise the temperature in the computer will rise and sometimes cause damage to the computer.

❸ USB port
You can connect separately available USB standard peripherals such as a FDD unit or printer to this port.

❹ DC-IN connector
This is the connector to connect the AC adapter supplied to the computer.

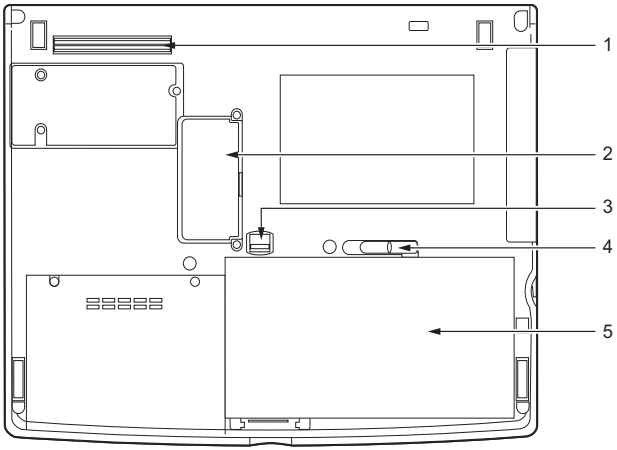
❺ Wireless switch
Turns on or off the communication feature using the wireless LAN module.
Slide the switch to the right to turn on the wireless LAN module, or to the left to turn it off.
Always keep the switch in the OFF position in a hospital, on an airplane or where the use of electronic devices is restricted.

❻ External display connector
Used to connect an optional external display, such as a CRT display.

IMPORTANT

- When you connect peripheral devices to each corresponding connector, confirm the correct direction of the connector and insert directly into the connector.

Bottom features of the computer



❶ **Port Replicator Connector**
This connector allows you to connect the Port Replicator to your notebook.

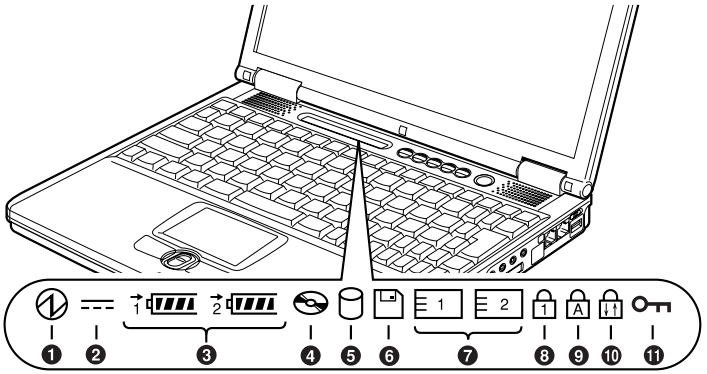
❷ **Expansion RAM (Random Access Memory) module slot**
The memory module on your computer is installed here.
If needed, you can increase the amount of memory by replacing the memory module.

❸ **Release button**
Slide this button to unlock the internal battery pack.

❹ **Internal battery pack lock**
Slide this to install or remove the internal battery pack.

❺ **Internal battery pack**
An internal battery pack is installed here.

Status indicator LCD



Critical Points

- No indicator is displayed on the status indicator LCD when the main switch is turned off, except when the computer is being recharged.

❶ SUS/RES Indicator (⏻)
This indicator comes on when the computer is running and blinks in standby status.

❷ AC Adapter Indicator (⎓)
This indicator comes on when the power is supplied from the AC adapter.

❸ Battery installation indicator (1, 2, ▭)
This indicator appears when the battery is installed. The numbers 1 and 2 indicate the internal battery and an optional add-on battery installed in the mobile multi-bay, respectively.

Battery Charge Indicator (➡)
This indicator appears when the battery is charged.

Remaining Battery Power Indicator (▮▮▮)
This indicator indicates the remaining battery power.

❹ CD Access Indicator (💿)
This indicator appears when a CD or DVD is accessed.

❺ Hard Disk Access Indicator (🗄)
This indicator appears when the internal hard disk is accessed.

Critical Points

- If you turn off the main switch or operate the SUS/RES switch while the hard disk access indicator is showing, the data on the hard disk may be corrupted.

❻ Floppy Access Indicator ( )

The Floppy Drive Access indicator states whether the floppy disk drive is being accessed. This indicator will flash if your software tries to access a disk.

❼ PC Card Access Indicator ( )

This indicator appears when a PC card is accessed.

❽ Num Lock (Numerical Lock) Indicator ( )

This indicator appears when the keyboard is set to ten-key mode. You can activate and deactivate the ten-key mode by pressing the [Num Lk] key.

❾ Caps Lock Indicator ( )

This indicator appears when the keyboard is set for all capital letters. You can activate or deactivate the Caps Lock mode by pressing [CapsLock] key.

❿ Scroll Lock Indicator ( )

This indicator appears when the scroll lock is activated to avoid screen scrolling. You can set and reset the scroll lock by pressing the [Scr Lk] key while holding down the [Fn] key.
The operation varies depending on the application when this indicator appears.

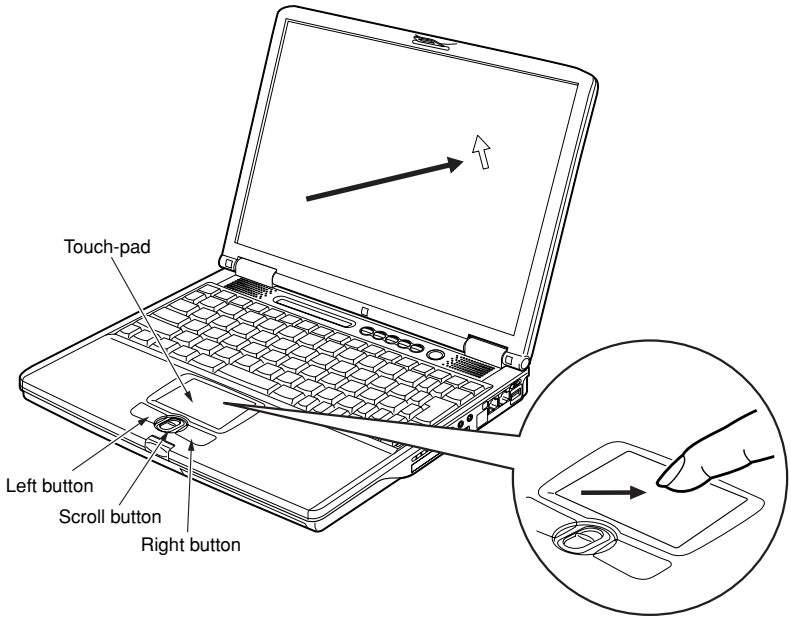
⓫ Security display ( )

When a password is set with the accompanying "Security Button", this lights up when the password is required. If the security display lights up when this computer's power is switched On or when it resumes operation, input the password.

2 Pointing Device

About the Flat Point

The Flat Point is a handy pointing device that enables you to move the mouse pointer freely with your finger. It consists of a touch-pad, left and right buttons on this side of the touch-pad, and the scroll button between the left and right buttons.
The touch-pad has the same function as the ball in a mouse. You can move the mouse pointer in any directions on the screen by sliding the tip of a finger on the touch-pad. Moreover, if you tap the touch-pad with a finger, you can click, double-click, point to, or drag any object on the screen.
The left and right buttons correspond to the left and right buttons of a mouse, and their functions vary from application to application.
Pressing the scroll button forward or backward enables you to easily scroll a window up or down.

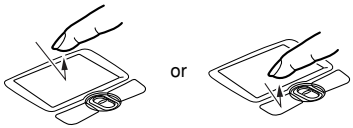


Critical Points

- The Flat Point may malfunction if condensation occurs or if it is moistened. In addition, if you operate it with a moistened or sweaty finger, or if the Flat Point surface is dirty, the mouse pointer may not move correctly. In such a case, turn off your computer and wipe dirt off with a soft cloth slightly dampened with dilute detergent.
- Some applications do not allow you to use the scroll button to scroll windows.
- You can use an optionally available USB mouse instead of the Flat Point.

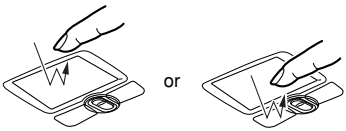
How to use the Flat Point

- **Click**



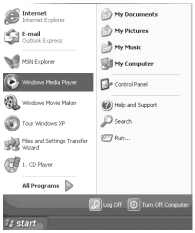
“Click” means quickly pressing the left button once or tapping the touch-pad once.
Pressing the right button once is called “right-click.”

- **Double-click**



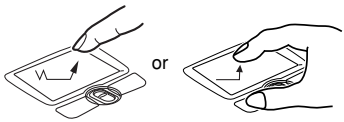
“Double-click” means pressing the left button twice in a row or tapping the touch-pad twice in a row.

- **Point**



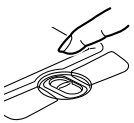
“Point to an item” means moving the mouse pointer onto a menu item, and so on, to select it. Pointing to an item highlights it and displays an explanation about it. If the item to which you pointed has a submenu (such items are marked with ▶), the submenu appears.

- **Drag**



To drag an object, move the mouse pointer onto the object, move the object to the desired location by sliding the finger on the touch-pad while holding the left button down, and then move the finger off the pad. Or, move the mouse pointer onto the object, and tap the touch-pad twice in a row. After that, without moving the finger off the pad, slide it to move the object to the desired location, and then move the finger off the pad.

- **Scroll**



To return, push this forward.
To advance, push this backward.

To scroll a window, click anywhere in the window and push the scroll button forward or backward to scroll the window.

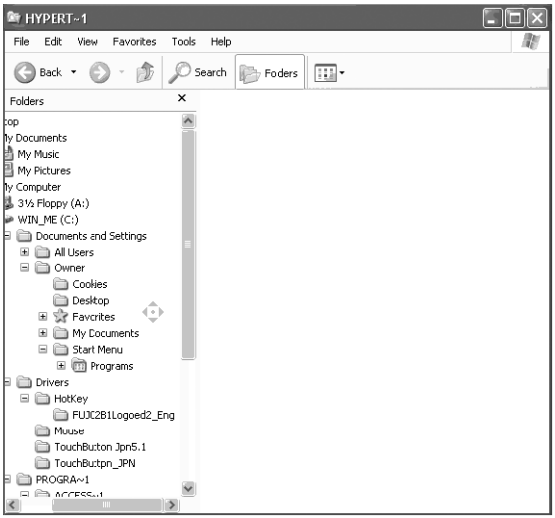
Critical Points

- You can change the functions assigned to the right and left buttons and also adjust the mouse speed, using the Mouse Properties dialog box. To display this dialog box, click the Printers and other hardware icon in the Control Panel window and select Mouse.
- When tapping the touch-pad, tap it quickly with the tip of a finger but not strongly.
- The mouse pointer moves in the same direction as you slide a finger on the touch-pad. If the finger reaches one edge of the pad before you move the pointer to the desired location, move the finger off the pad temporarily, put it in an adequate place on the pad and start sliding the finger again.

❑ Using the scrolling function

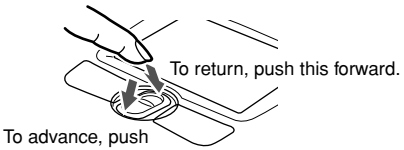
The scroll button enables you to easily scroll a window.

1 Click any place in the area (of the window) that you want to scroll.



(The illustration varies depending on the model and use conditions.)

2 Move the scroll button forward and backward.
The window scrolls in the same direction you moves the button.

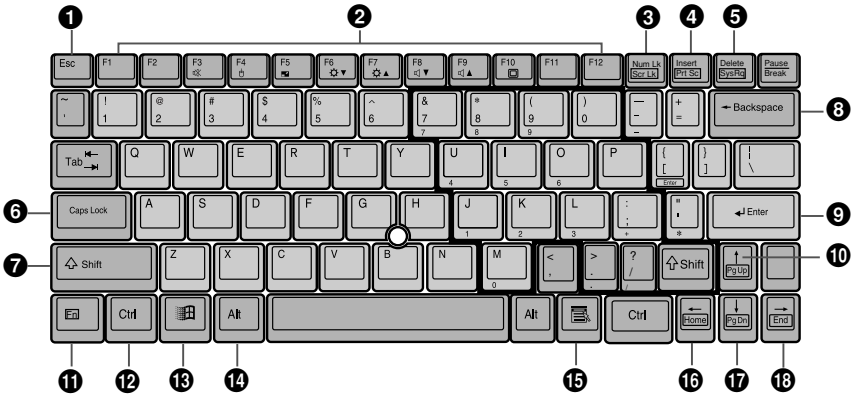


3 Keyboard

Keyboard

❑ Names and functions of the principal keys

Keys that can be used as ten-keys



❶ Esc (Escape) key
Used to cancel the current task and return to the previous task.

❷ Function keys
Functions assigned to these keys vary from application to application.

❸ Num Lk (Numerical Lock) key
Pressing the [Num Lk] key activates the ten-key mode. To deactivate the ten-key mode, press it once again.

❹ Insert / Prt Sc (Print Screen) key

- Insert key
  Used to specify whether to overwrite an existing string or to insert a new string.
- Prt Sc (Print Screen) key
  Used to save the currently displayed windows as pictorial data (bitmap file). To do so, press the [Insert] key while holding the [Fn] key down.
  To save only the active window as pictorial data, press the [Insert] key while holding the [Alt] and [Fn] keys down.
  Using painting software (e.g., Paint), you can edit, save, and print pictorial data. To do so, you need to import it to the painting software by selecting the Paste command from the Edit menu.

❺ **Delete key**

Used to delete the character on the right of the cursor. With this key, you can also delete the file or icon you selected.

By pressing the [Delete] key while holding the [Ctrl] and [Alt] keys down, you can forcibly terminate the out-of-control application or computer.

❻ **Caps Lock key**

To fix to the English Capital mode, press the [CapsLock] key.

To deactivate the English Capital mode, press these key again.

❼ **Shift key**

Used in combination with other keys. By pressing a key while holding the [Shift] key down, you can enter the character or symbol printed in the upper case of the key.

❽ **Back Space key**

Used to delete the character on the left of the cursor.

❾ **Enter key**

Used to confirm the string entered.

In text processing, pressing this key inserts a hard return in the text. That's why this key is also called the Return key.

❿ **Pg Up (Page Up) key/Cursor keys**

Used to return to the previous page. To do so, press the [↑] key while holding the [Fn] key down.

Used to move the cursor upward, downward, to right and left.

⓫ FUNCTION KEYS

Your LifeBook notebook has 12 function keys, F1 through F12. The functions assigned to these keys differ for each application.

The [FN] key provides extended functions for the notebook and is always used in conjunction with another key.

- [FN+F3]: Pressing [F3] while holding [FN] will toggle the Audio Mute on and off.
- [Fn+F4]: Pressing [F4] while holding [Fn] will toggle the Quick Point feature on and off. Note that the [Fn+F4] combination only works if Manual Setting is selected in the BIOS.
- [FN+F6]: Pressing [F6] repeatedly while holding [FN] will lower the brightness of your display.*
- [FN+F7]: Pressing [F7] repeatedly while holding [FN] will increase the brightness of the display.*
- [FN+F8]: Pressing [F8] repeatedly while holding [FN] will decrease the volume of your LifeBook note-book.**
- [FN+F9]: Pressing [F9] repeatedly while holding [FN] will increase the volume of your LifeBook notebook.**
- [FN+F10]: Pressing [F10] while holding [FN] allows you to change your selection of where to send your display video. Each time you press the combination of keys you will step to the next choice. The choices, in order, are: built-in display panel only, both built-in display panel and external monitor or external monitor only.

* There are eight brightness levels.
** There are 17 audio levels.

⓬ Ctrl key

Used in combination with other keys.

⓭ Windows key

Used to open the Start menu.

⓮ Alt key

Used in combination with other keys.

⓯ Application key

Used to open the pop-up menu for the item selected.
This key has the same function as the right button of the Flat Point.

⓰ Home key/Cursor keys

Used to move the cursor to the beginning of the line on which it is currently placed. To do so, press the [←] key while holding the [Fn] key down. Pressing the [←] key while holding the [Ctrl] and [Fn] keys down causes the cursor to move to the beginning of the text.

⓱ Pg Dn (Page Down) key/Cursor keys

Used to display the next page. To do so, press the [↓] key while holding the [Fn] key down.
Used to move the cursor upward, downward, to right and left.

⓲ **End key/Cursor keys**

Used to move the cursor to the end of the line on which it is currently placed. To do so, press the [→] key while holding the [Fn] key down. Pressing the [→] key while holding the [Ctrl] and [Fn] keys down causes the cursor to move to the end of the text.

Used to move the cursor upward, downward, to right and left.

❑ About the ten-key mode

The ten-key mode refers to the mode that enables you to use certain character entry keys as ten-keys (a key arrangement that makes it easy to type in figures). To activate the ten-key mode, simply press the [Num Lk] key. In the ten-key mode, 🔒 is displayed on the status indicator LCD. The figure you can enter with a ten-key is marked on the front surface of the key. Note that connecting an optional ten-key pad disables the ten keys on your computer.

4 Replacing the Internal Battery Pack

WARNING

ELECTRIC SHOCK

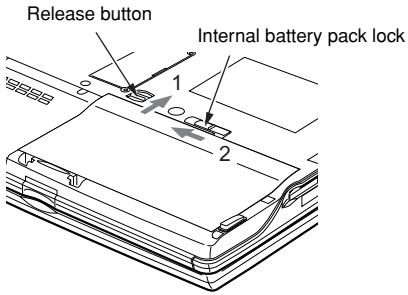
- Before replacing the battery pack, be sure to turn off the computer and disconnect the AC adapter from it. Also, don't touch any connector of the computer or battery pack to avoid electric shock or malfunction.

❑ Replacing the internal battery pack

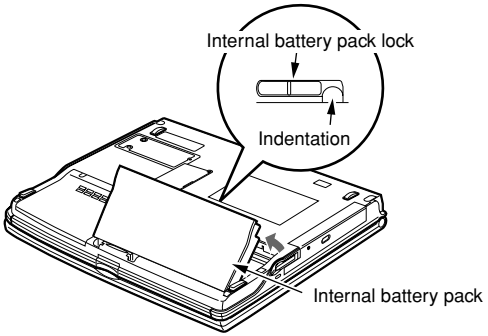
1 Turn off the power to the computer and disconnect the AC adapter.

2 Close the LCD display and turn the bottom side of the computer up.

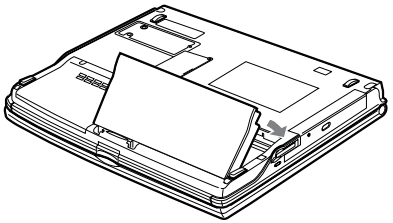
3 Release the lock.
(1) Slide the internal battery pack lock while sliding the release button in the direction of the arrow, and (2) release the lock.



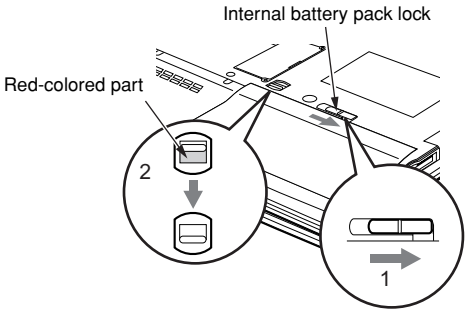
4 Remove the internal battery pack.
Put a finger in the indentation opened as a result of sliding the internal battery pack lock, and lift the internal battery pack.



5 Install a new battery pack.
Insert the new battery pack diagonally into the bay and push it down until it is set in place.



6 Slide the internal battery pack lock until it clicks into place.
(1) Slide the internal battery pack lock to the right end, and (2) make sure that the red-colored part of the release button is completely hidden.



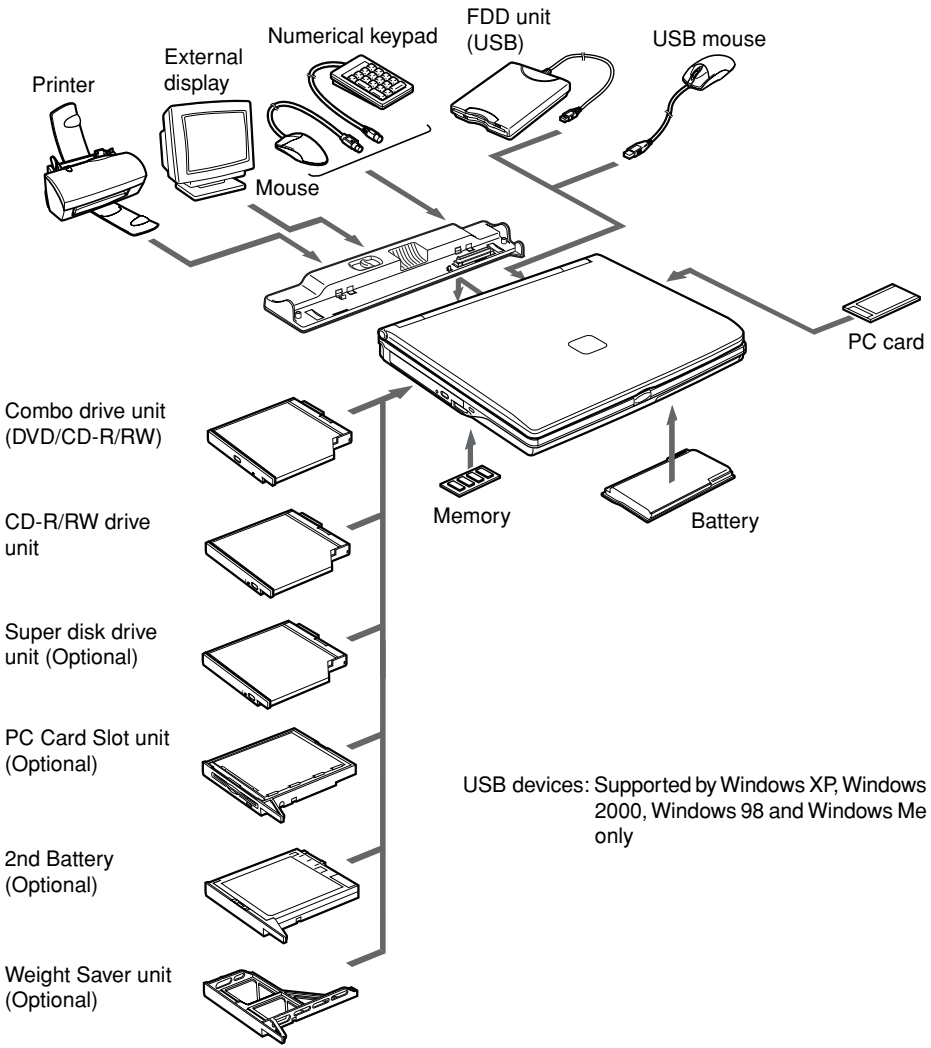
SECTION 2

This section explains installation of options for this computer.

1 Options

Options

You can expand the functions of this computer by connecting various options.



USB devices: Supported by Windows XP, Windows 2000, Windows 98 and Windows Me only

Peripherals

Below explanation is necessary for your knowledge before connecting your peripherals.

- **Some setting up works are required for a certain peripherals**
  You cannot use some PC peripherals just by connecting it to a PC. Those peripherals require some setting up work after connection. For example, printers and PC cards require "driver installation" work after connecting them. And memory and other peripherals do not require such setting up works. Make sure to consult with this document for the peripheral connection to complete the work correctly.

- **See also the documents for the peripherals**
  The peripheral installation methods shown in this document are only a few examples. Make sure to consult with the documents for the peripherals as well as this document.

- **Use genuine products**
  Use genuine optional device from our company. We cannot guarantee proper function on this PC for the peripherals from other sources. When it is necessary to use the peripheral from the other source, consult with the manufacturer of the product.

- **Use the peripherals that conform to ACPI standard**
  This PC is set to ACPI mode for Windows XP, Windows 2000 and Windows 98. Power save and other functions may not work correctly if a peripheral does not conform to ACPI mode.

- **Notes on installation/removal**
  The installation of the peripheral must be done after the setting up of an operating system except for a PS/2 mouse. The set-up function might not complete correctly if such a peripheral is attached before the operating system set up.

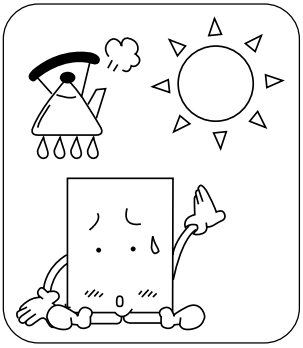
Critical Points

- ◆ When you connect a peripheral to a connector, make sure that the direction of the connection is correct and connect straight.
- ◆ When you connect more than one peripherals, complete setting for each peripherals before installing others.

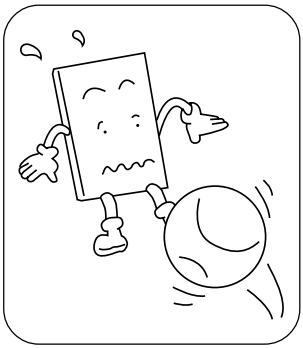
2 Using a PC Card

Precautions for PC Cards

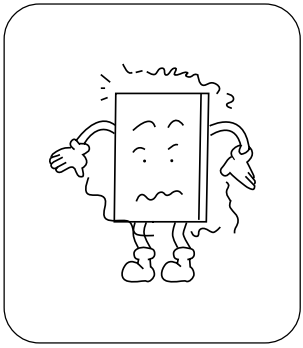
Observe the following points when using PC cards to prevent breakdown.



Do not place PC cards in high-temperature locations and locations subject to direct sunlight.

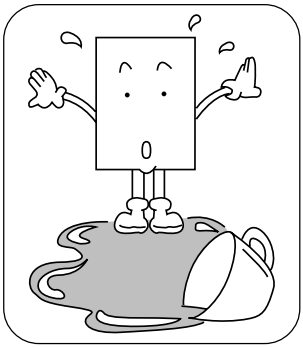


Do not subject PC cards to strong shocks.

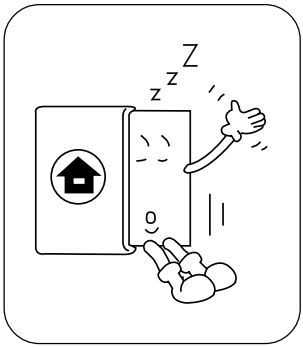


Avoid rubbing PC cards and building up static electricity.

Do not place heavy objects on top of PC cards.



Be careful to avoid spilling coffee and other liquids on PC cards.



When storing a PC card, always place it in its special case.

❑ Caution in using PC cards

CAUTION

FAILURE

- A PC card is composed of parts very sensitive to static electricity, and it may be damaged even by static built up in a human body. Before handling a PC card, always touch a metal object with your hand to discharge static.

You should pay attention to the following points when you use PC cards in order to prevent failure

- Avoid exposing PC cards to direct sunlight or high temperature.
- Avoid subjecting PC cards to shocks.
- Do not place heavy objects on top of them.
- Avoid getting PC cards wet.
- Store PC cards in their cases when not in use.

❑ PC cards that can be used with your computer

Your computer is compatible with PC Card Standard-compliant Type I PC cards and Type II PC cards. Here are some examples of these types of cards.

- **Adapter card**
  This PC card is needed to load pictorial data from a smart media for digital cameras into the computer.
- **SCSI Card**
  This PC card is needed to connect a SCSI device, such as a SCSI hard disk or MO (Magneto-Optical) drive.

Critical Points

◆ Your computer does not support PC cards with a working voltage of 12V.

❑ Preparing necessary items

PC card	Prepare a PC card that meets your need.
PC card driver	A CD or floppy disk that contains the PC card driver is supplied with some PC cards.
Manual of the PC card	Setting procedures vary depending on the PC card used. So be sure to read also the manual of your PC card.

Installing a PC card

CAUTION

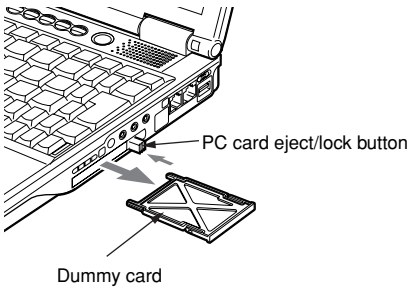
INJURY

- Do not put your finger into the PC card slot when you install a PC card, or you may be injured.

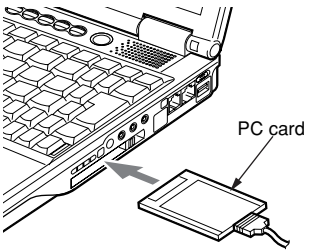
Critical Points

- It may be required to turn off the power to the computer or to install a device driver when you install a specific PC card. Check with the manual supplied with each PC card.

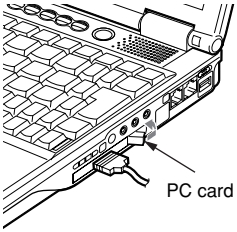
1 Eject the dummy card from the PC card slot.
Raise and press the PC card eject/lock button to eject the dummy card.



2 Install a PC card.
Insert the PC card into the PC card slot as far as it will go, with the labeled face facing upward.



3 Lock the PC card.
Fully pull out the PC card eject/lock button, collapse it backward, and lock the PC card with the fitting.



4 If the PC card is being installed for the first time, install any necessary driver.
Some PC cards require the installation of a driver. Check the manual supplied with each PC card and install a driver if required.
A floppy disk or a CD may be required to install a driver.

5 Click the icon (Safely Remove Hardware) in the lower right corner of the screen (notification area where a clock is displayed), and make sure that the name of the PC card inserted is displayed correctly.
- If the name of the PC card is displayed, click any vacant area on the desktop. in the “Ejecting a PC card” section, and insert the PC card again.

Critical Points

- When you use a PC card attached with a cable, do not put anything heavy on, or apply a shock to, the connector of the cable connected with the PC card, or it may damage the equipment.

Ejecting a PC card

Critical Points

- When you remove a PC card attached with a cable, do not pull the cable connected to the PC card or it will result in failure.
- When you remove a PC card, follow the procedure below or it will result in failure.
- Some PC cards require shutting down when you remove them. Consult with the manual of the PC card.

CAUTION

HIGH TEMPERATURE

- A PC card may be quite hot right after use. Wait for a while before removing a PC card after Step 3, to avoid burning your fingertips.

INJURY

- When you remove a PC card, do not insert your finger into the PC card slot to avoid cutting your fingertips.

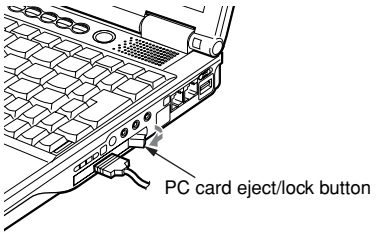
1 Click the icon (Safely Remove Hardware) in the lower right corner of the screen (notification area where a clock is displayed).

Critical Points

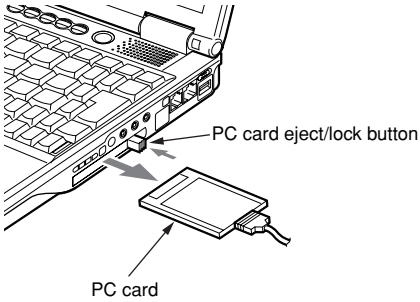
- Don't eject the PC card by clicking the Stop button in the Safely Remove Hardware dialog box that appears when you double-click the icon (Safely Remove Hardware) in the lower right corner of the screen (notification area where a clock is displayed). Doing so may cause your computer to become unstable.

2 If the PC card is being installed for the first time, install any necessary driver.
XXXXXXXX refers to the name of the PC card inserted.

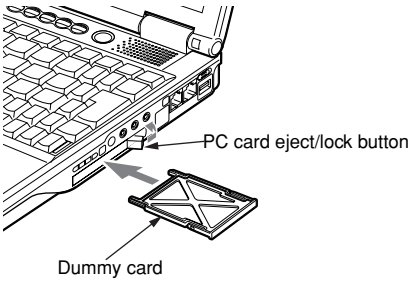
3 When the message "Remove Hardware" appears, raise the PC card eject/lock button.



4 Eject the PC card.
Press the PC card eject/lock button to eject the PC card.



5 Install the dummy card.
Insert the dummy card into the PC card slot as far as it will go, fully pull out the PC card eject/lock button, and collapse it backward to lock the dummy card.



3 Using a CD/DVD

In this manual, CD-ROMs, music CDs and CD-R/RW discs are collectively referred to as CDs, and DVD-ROMs and DVD-VIDEOs are referred to as DVDs.

⚠ CAUTION

INJURY

- When inserting or ejecting a CD or DVD, don't put any fingers on the disc tray to prevent possible injury to them.

❑ Caution in handling a CD/DVD

Keep the following in mind when using a CD/DVD.

- When you unscrew the screws on your PC, use the cross-point screwdriver with the appropriate size for the screws. Using screwdrivers other than that may damage the head of screws.
- When taking out a disc from the case or loading it in your computer, don't touch any surface of it.
- Handle a disc with care so as not to put fingerprints on it, to make it dirty or dusty, or to scratch it, otherwise no data could be read from it, written or rewritten on it. Soiled audio CDs or DVD-VIDEOs may not be played back normally.
- Don't stick any label on any surface of a disc, or write anything to it with a ball-point pen or pencil.
- Be careful not to spill coffee or any other liquid over a disc.
- When a disc is dirty or condensation occurs on it, wipe the disc radially from the center with a slightly moistened cloth, then with a dry cloth. Don't use a hairdryer to dry it or don't let a wet disc dry naturally.
- Don't use benzene, thinner, water, record cleaner, antistatic spray, or silicone cloth to clean discs.
- Always keep discs in their cases when they are not in use.
- Don't bend a disc or put any heavy object on top of it.
- Don't store discs in an extremely hot or cold place.

	CD-ROM, audio CD, video CD, photo CD	**CD-R**	**CD-RW**	**DVD-ROM, DVD-VIDEO**
Reading (playback)*1	O	O	O	O*2
Writing	X	O	O	X
Rewriting	X	X	O	X

*1: Note that some types of discs cannot be used with your computer or application software may be required to play them.

*2: DVD-ROMs refer to DVDs containing information, including programs with which you can see the data on computer displays.
DVD-VIDEOs refer to DVDs on which sound and pictorial data are recorded.
DVD-RAM, DVD-RW, DVD+RW, or DVD-Audio discs cannot be used with your computer.

When you purchase CD-R/RW discs be sure check whether they meet the data writing and rewriting speeds of your drive.

Critical Points

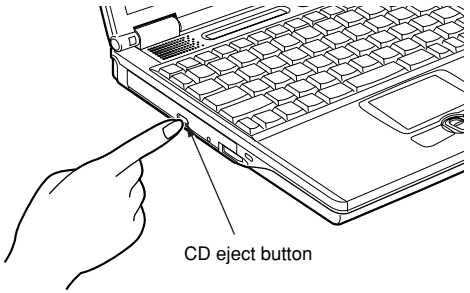
- Don't use CDs or DVDs other than round discs (e.g., deformed discs, including star-shaped discs and card-type discs).
  Data cannot be read/written correctly from/on a deformed disc or a deformed disc could cause the CD/DVD drive to fail.
- The region code of your computer's DVD drive is 3. DVD-VIDEOs with a country-specific region code may not be used with your drive if their region codes don't agree with that of your drive.
- Some DVD discs are copy-protected for copyright protection. Your computer has Descramble and Authentication features to prevent unauthorized duplication of DVDs, so that if data protected by copyright is copied, it cannot be played because of an authentication error.

Loading a disc

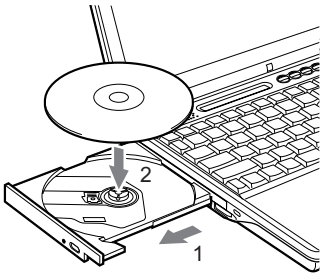
IMPORTANT

- You should preferably power the computer from the AC adapter when frequently accessing a CD or playing back a DVD-VIDEO.
- To set a disc on the disc tray, align the center of the disc with the projection at the center of the tray and push the disc down until it clicks into place.
  Otherwise it may come off in the drive, causing damage to the disc tray and drive or the disc itself.
- When you are using a disc that starts automatically when it is loaded, don't put your computer into standby mode. If you place the computer into standby (suspending operation) mode while using an auto-run CD, the CD will start twice when you resume system operation (when you restore the operation at the point at which you suspended operation), and this could cause the computer to malfunction. If you let the CD start twice, exit all programs on the CD, and load it over again.
- When data is being read, the CD/DVD runs at very high speeds and sometimes causes vibration and hiss noise.

1 Press the CD eject button.
The disc tray pops out a little.



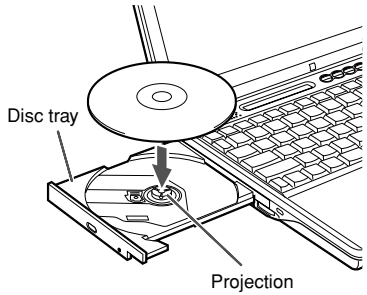
2 Pull out the tray gently.



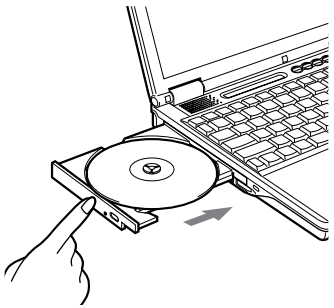
Critical Points

- If the tray does not come out
  - If you have already shut down Windows, turn your computer back on and press the CD eject button.
- If the main switch is in the Off position (○), slide it to the | position to turn on the computer, and then press the CD eject button.
  You may press the CD eject button even when the icon is blinking on the status indicator LCD.

3 Set a disc on the tray while holding the tray.
Align the hole of the disc with the projection at the center of the tray with the labeled surface up, and push the disc down until it clicks into place. Failure to fit a disc correctly onto the projection could prevent the disc from being ejected.



4 Push the tray gently into the computer.
It takes about 10 seconds for your computer to get ready to start the loaded disc.



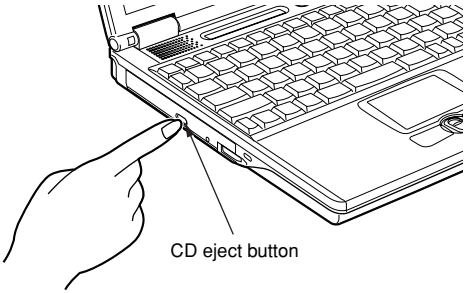
Critical Points

- If a message appears, asking you what to do “If a disc containing this kind of file is inserted ...,” click “No, ...” and click OK.
- When you load a multi-session CD, it may take much time for your computer to get ready to start.
- If you insert an audio CD in your computer while Windows is running, CD Player application starts automatically to play it. You can use the one-touch buttons or CD Player to perform the following operation.

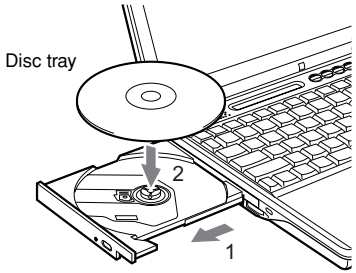
Ejecting the disc

1 Exit the application you started from the disc.

2 Press the CD eject button.
The tray pops out a little.



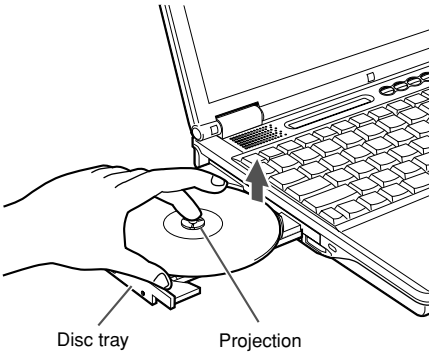
3 Pull out the tray gently.



Critical Points

- If the tray does not come out
  - If you have already shut down Windows, turn your computer back on and press the CD eject button.
  - If the main switch is in the Off position (○), slide it to the | position to turn on the computer, and then press the CD eject button.
- You may press the CD eject button even when the icon is blinking on the status indicator LCD.

4 Take out the disc while holding the tray with a hand.
To detach the disc, lift the edge of the disc while holding the projection with a finger.



5 Push the tray gently into the computer.

Critical Points

- If the disc won't come out:
  1. Click the Start button, and select My Computer.
  2. Move the mouse pointer onto the CD Drive icon in the My Computer window.
  3. Press the right button once on the Flat Point.
  4. Click Eject.
     The tray pops out a little.
  5. Pull out the tray gently and take out the disc from it.

  If you cannot eject the disc by this method, follow these steps.
  1. Turn off your computer.
  2. Insert a straightened paper clip, etc., into the pinhole on the right of the CD eject button.
     The tray will pop out a little.
  3. Pull out the tray gently and take out the disc from it.

4 About Memory

❑ Installing/removing memory

This section explains how to install/remove memory in or from your PC.

⚠ WARNING

ELECTRIC SHOCK

- To avoid shock hazards, always turn off your PC and detach the AC adopter from it before installing/removing memory.

SWALLOWING

- To avoid danger of suffocation, keep detached small parts, such as covers, caps or screws, away from babies and children.
  If a child has swallowed any of these parts, consult the doctor immediately.

⚠ CAUTION

FAILURE

- When installing or removing memory, catch hold of its edge to avoid touching the terminal or IC. Be careful not to touch internal parts or terminals to avoid poor contact.

FAILURE

- Memory is composed of static-sensitive parts and it is broken easily if static electricity build in a human body is discharged and flows through it. To avoid damage to the memory, be sure to touch a metal object to discharge static electricity before touching the memory.

FAILURE

- Before installing or removing memory, always turn off your PC. Installing or removing memory with Windows XP/2000/Me/98 on standby or your PC in the Hibernation mode could result in the loss of data or cause damage to your PC or memory.

IMPORTANT

- To remove screws from your PC, use a – 1 screwdriver that matches the size of the screws (M2). The use of a screwdriver of any other size could cause damage to the head of a screw.
- Do not install any memory other than Fujitsu tested memory.

Critical Points

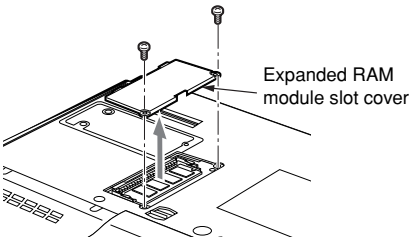
- To check the memory size, open the Information menu of BIOS Setup Utility and select Memory Slot from it. The size of the memory installed on your PC is displayed like this: “64MB SDRAM.” If your PC does not start although memory is installed correctly, the memory can be faulty or defective. In that case, contact Fujitsu Personal Echo Center or your local retailer.
- To avoid damage to your PC, do not touch any internal parts other than those you need to touch for the installation or removal of memory.
- To avoid damage to your PC, take care not to drop detached screws, and so on into the PC.
- To upgrade the memory on your PC, for example to 1 GB, you will need to remove the existing RAM module or modules.

❑ Installing memory

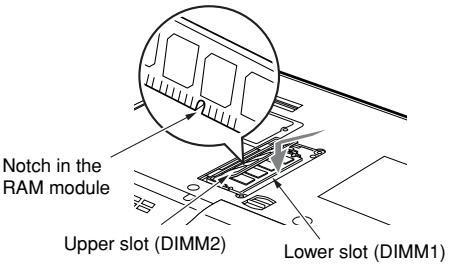
1 Turn off your PC and disconnect the AC adopter from it.

2 Close the LCD panel and place your computer upside down.

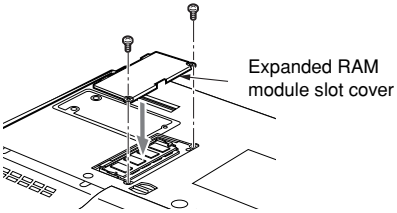
3 Remove two screws and detach the expanded RAM module slot cover.
Detach the expanded RAM module slot cover on the bottom of the PC.



4 Install a new RAM module.
Align the notch in the RAM module with the protrusion in the slot, and insert it diagonally into the slot until it clicks into place.
Your PC is provided with two expanded RAM module slots: upper slot (DIMM 2) and lower slot (DIMM 1).



5 Attach the expanded RAM module slot cover and secure it with screws.
Reattach the cover removed in Step 3.



IMPORTANT

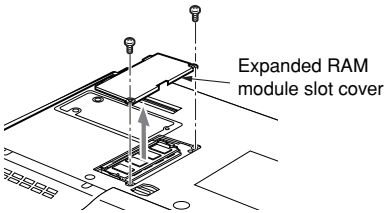
- If memory is not installed properly, the message “Expanded Memory Error” will be displayed in English or nothing will be displayed on the screen when you first turn on your PC after installing the memory. If this happens, turn off the main switch of your PC, and remove and reinstall the memory correctly.

❑ Removing memory

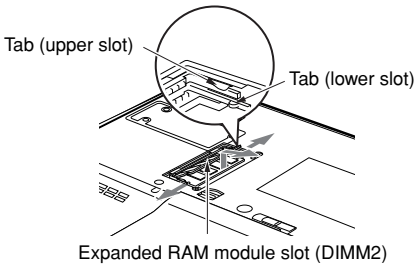
1 Turn off your PC and disconnect the AC adopter from it.

2 Close the LCD panel and place your PC upside down.

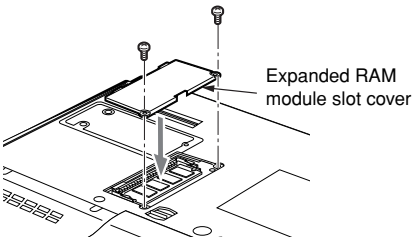
3 Remove two screws and detach the expanded RAM module slot cover.
Detach the expanded RAM module slot cover on the bottom of the PC.



4 Remove the memory.
Detach the RAM module from the slot while opening in opposite directions both tabs fastening the RAM module, as shown in the figure below.



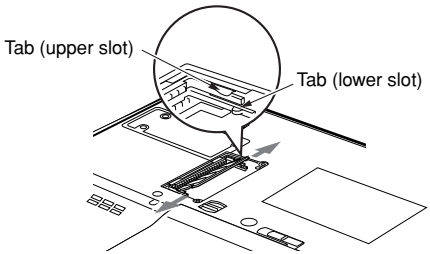
5 Attach the expanded RAM module slot cover and secure it with screws.
Reattach the cover removed in Step 3.



Critical Points

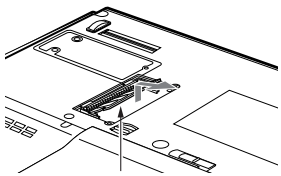
◆ To replace the memory in the lower slot, follow these steps.

1. Open the tabs on both sides of the lower slot in opposite directions, as shown in the figure below. This causes the memory to come up slightly.



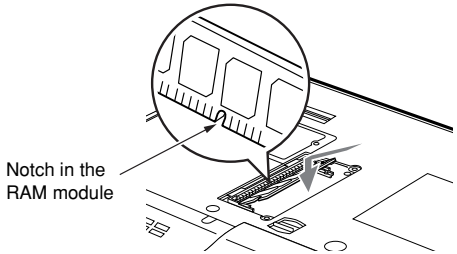
2. Similarly, open the tabs on both sides of the upper slot. This causes the memory to come up further.
   Detaching the memory forcibly without releasing the tabs on both sides of the upper slot could damage the tabs. To avoid this, be sure to release them when removing the memory.

3. Detach the memory.
   Pull the memory diagonally upward to detach it from the lower slot.

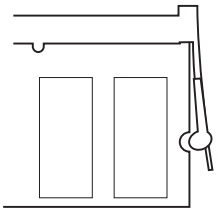


Expanded RAM module slot (DIMM1)

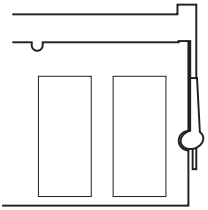
4. Install a new RAM module in the lower slot.
   Align the notch in the RAM module with the protrusion in the lower slot, and insert it diagonally into the slot until it clicks into place.



Check to see that the memory is fastened securely by the tabs on both sides. If a tab is in a state shown below, the memory is not mounted correctly.



In this case, further push the memory into the slot.



5 Expanding Memory

❑ Preparing necessary items

Memory (Expanded RAM module)	You can additionally install memory.
Philips screwdriver (Size: #1)	Used to remove the screw securing the cover. Use a Philips screwdriver that meets the size of the screw (M2.0). Using a screwdriver of other size may cause damage to the screw head.

❑ Replacing memory

⚠ WARNING

ELECTRIC SHOCK

- Before replacing memory, always turn off your computer and disconnect the AC adapter from it, or you could get an electric shock.

SWALLOWING

- The cover, cap, screw, etc., removed could choke babies and children if they are swallowed accidentally. To avoid danger of suffocation, always keep them out of the reach of babies and children.

  In the event any of these items is swallowed, consult a doctor immediately.

⚠ CAUTION

FAILURE

- When replacing memory, don't touch its terminals or ICs but hold its edges. Also, be careful not to touch any components or terminals inside the computer. Touching a terminal with oily fingers could cause poor contact.

FAILURE

- Memory is composed of parts very sensitive to static electricity, and it may be damaged even by static built up in a human body. Before handling memory, always touch a metal object with your hand to discharge static.

FAILURE

- Before replacing memory, be sure to turn off the computer. Replacing while the computer is in standby or hibernation mode could cause damage to the computer or memory.

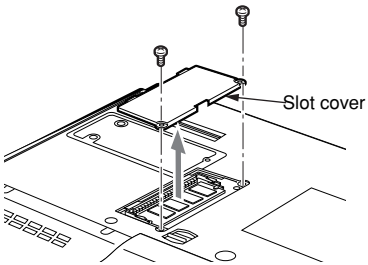
Critical Points

- Be sure to install memory on your computer before turning on the computer.
- To avoid damage, be careful not to drop a screw removed, etc., in the computer.

1 Turn off the computer and disconnect the AC adapter.

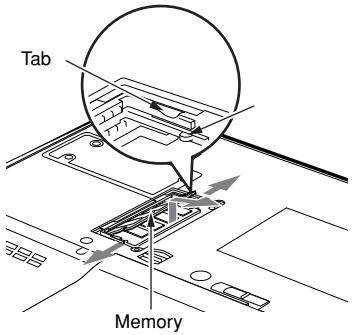
2 Close the LCD display, and turn and place the computer upside down.

3 Remove the two screws shown in the following figure and detach the expansion RAM module slot cover.
Detach the expansion RAM module slot cover at the bottom of the computer.



4 Remove the memory.

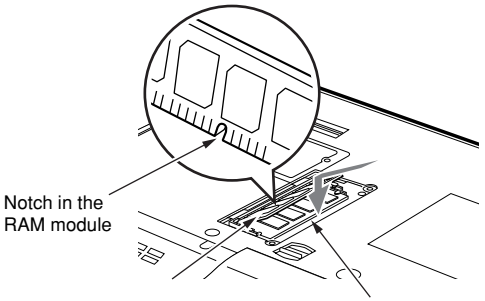
Disengage the two tabs securing the memory on both sides, and pull the memory out of the slot.



5 Install a new RAM module.

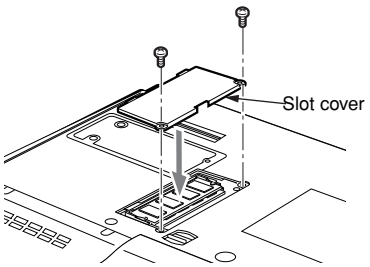
Align the notch in the RAM module with the protrusion on the connector, diagonally insert the RAM module into the slot, and push it down until it clicks into place.

Notch in the RAM module



6 Attach the expansion RAM module slot cover as it was.

Attach the cover that was detached in step 3.



❑ Checking the size of the memory installed

IMPORTANT

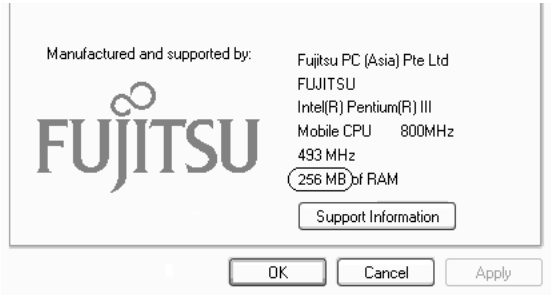
- If memory is not installed correctly, the message “Extended memory error” appears or nothing is displayed on the screen when you turn on the computer. In such a case, turn off the main switch of your computer and reinstall the memory.

1 Turn on the computer.

2 Click the Start button, and select Control Panel.
The Control Panel window appears.

3 Click Performance and Maintenance and then System.
The System Properties dialog box appears.

4 Make sure that the circled numerical value in the figure below has increased by the size of the memory you added.



The figure shows an example of the expansion of 256 MB of memory.
Depending on the system configuration, the memory size displayed may be 1 MB smaller than the actual memory size.

5 Click OK.
The Control Panel window appears again.

Critical Point

◆ If the memory size displayed is incorrect, check whether the memory is installed properly.

6 Using a Mobile Multi-bay Unit

❑ Cautions in using a mobile multi-bay unit

Take the following precautions when using a multi-bay unit to avoid damage to it.

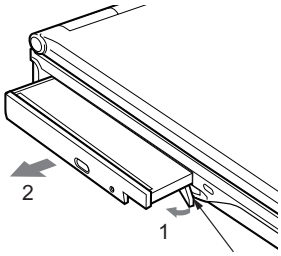
- The internal DVD-ROM & CD-R/RW drive (that came with your computer) is very sensitive to vibration and shock as it rotates a disc at a very high speed. To prevent a breakdown in the drive and data corruption, do not move the computer or apply shock or vibration to it while the disc is being accessed.
- Do not store a mobile multi-bay unit in an extremely hot or cold place or where the temperature can greatly change.
- Do not place a mobile multi-bay unit where it will be exposed to direct sunlight or bring it close to any heat generating apparatus.
- Do not use a mobile multi-bay unit where it will be exposed to shock or vibration.
- Do not use a mobile multi-bay unit in a damp or dusty location.
- Do not use a mobile multi-bay unit if a foreign object such as water or metal chips has gotten in it. If any foreign object has gotten in it, contact the Fujitsu Customer Support Center or your Fujitsu retailer.
- When a mobile multi-bay unit is dirty, wipe it gently with a dry, soft cloth or a soft cloth moistened with water or detergent diluted with water. Never use volatile liquids such as benzene or thinner.
- Do not disassembly or take apart any mobile multi-bay unit.
- Do not use or store a mobile multi-bay unit near an apparatus producing a strong magnetic field.

1 If your computer is in Suspend mode, press the SUS/RES button to resume operation.

2 Click the icon (Safely Remove Hardware) in the lower right corner of the screen (notification area where a clock is displayed).

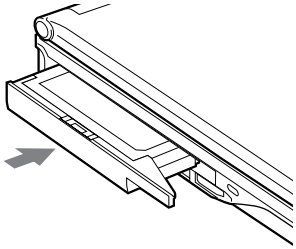
3 Select the device you want to unplug or eject and then click Stop.
XXX refers to the name of the mobile multi-bay unit currently in use.

4 Remove the unit.
(1) Raise the mobile multi-bay unit release lever, and
(2) Safely pull out the DVD/CD-RW drive



5 **Press the SUS/RES button.**
The computer goes into Suspend mode.

6 **Install a new unit.**
Push in the unit as far as it will go with the connector-mounted face facing forward.



7 **Press the SUS/RES button again to resume operation.**

IMPORTANT

- To avoid damage to your computer, always use it with a mobile multi-bay unit installed in the bay.
- Raise the mobile multi-bay unit release lever only when removing the mobile multi-bay unit. If you raise the lever by mistake, the lock may be released. In such a case, turn off your computer, remove the unit, and reinstall it.

7 Port Replicator

The port replicator is described here.

IMPORTANT

- The port replicator can be installed/removed regardless of the condition of the PC. If the FDD unit is connected to the FDD unit connector of the port replicator, however, install/remove the port replicator after switching the PC power off.
- Certain peripheral devices connected to the port replicator may operate unstably if the port replicator is installed/removed while the PC power is on. If this happens, switch the PC power off prior to installing/removing the port replicator.

Installing the Port Replicator

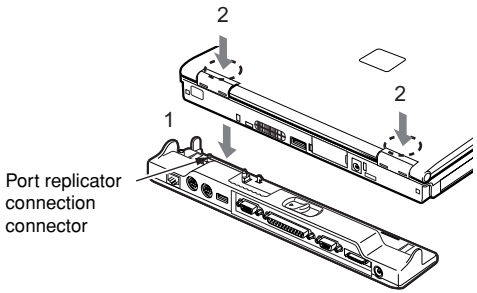
This section describes how to install the port replicator.
If any peripheral device is connected to the PC rear side, remove it beforehand.

⚠ CAUTION

INJURY

- Be careful not to catch your fingers in the space between the PC and the port replicator when installing it. It may cause an injury.

1 Install the port replicator to the PC bottom side.
Fitting the connectors on the PC and the port replicator, lower the PC horizontally (1), lightly press the parts shown below (2), and firmly set the port replicator.



IMPORTANT

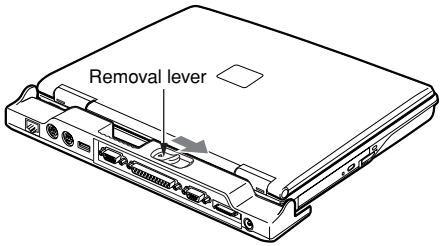
- To install a peripheral device to or remove it from the port replicator, be sure to switch the PC power off and disconnect the AC adapter in advance.
- Do not carry the PC with the port replicator installed. The connectors on the PC and/or the port replicator may be damaged.

Removing the Port Replicator

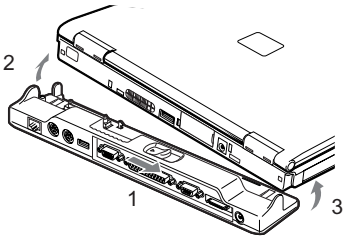
This section describes how to remove the port replicator.

1 If any peripheral device is connected to the port replicator, switch the power off.

2 Release the port replicator lock.
Release the lock by sliding the port replicator removal lever.



3 Remove the port replicator.
While keeping the removal lever in the unlocking position (1), lift the side having the connector first (2) then the other side of the PC (3) to remove the port replicator.



8 About the Integrated Wireless Lan (For selected model)

Before Using This Device

Thank you for purchasing a Fujitsu LifeBook with an Integrated Wireless LAN. This manual describes the basic operating procedures for the Wireless LAN (referred to as the "device" in this manual) and how to set up a wireless LAN network. Before using this device, read this manual carefully to ensure correct operation of the device. Keep this manual in a safe place for reference while using the device.

❑ Characteristics of the Device

This device consists of a wireless LAN card that is attached to the computer via a mini-PCI slot. The main characteristics are as follows:

- It uses the power saving communications system in the 2.4 GHz band, and does not require any license for radio communication.
- It uses Direct Sequence Spread Spectrum (DS-SS), which is resistant to noise.
- The Wireless LAN Mini-PCI module complies with Wi-Fi, and is able to communicate at the maximum transfer rate of 11 Mbps.
- The maximum communication range is approximately 80 feet (25 meters) inside a building. The range may be shorter depending upon the installation factors, such as walls and columns.
- Unauthorized access can be prevented with the use of SSID and encryption key.

Wireless Lan Modes

❑ Using This Device

AdHoc Mode

The "AdHoc Mode" refers to the network connecting two computers using wireless LAN cards. This connection is called an "AdHoc network."
Using an AdHoc network, you can obtain a network connection easily and at a low cost.
In the AdHoc mode, you can use the function supported by Microsoft Network, such as File and Print Sharing to exchange files and share a printer or other peripheral devices.
To use the AdHoc Mode, you must set the same SSID and the same encryption key for all the computers that are connected. All connected computers can communicate.

❑ Infrastructure Mode

If a number of computers are connected simultaneously in the AdHoc mode, the transfer rate may be reduced, communications may become unstable, or the network connection could fail. This is because all wireless LAN cards are using the same radio frequency in the network.
To improve this situation, you can use a wireless LAN access point, which is sold separately. The wireless LAN network is in the "Infrastructure mode" when it uses an access point, and such a connection is called the "Infrastructure Network."
By using an access point, you can set and use a different communication channel for each network group. Each channel is given a different radio frequency, and it eliminates the collision of communications and provides a more stable communications environment.
Infrastructure mode is most suitable when you are configuring multiple wireless LAN networks on the same floor. To connect a wireless LAN network to a wired LAN, you need an access point.

❑ How to Handle This Device

The Integrated Wireless LAN device is already installed in your LifeBook computer. Under normal circumstances, it should not be necessary for you to remove or re-install it. The LAN has been configured to support the operating system with which your system shipped.

Connecting Windows® 98/2000 Systems

This chapter describes how to set the wireless LAN connection for computers running Windows 98 or Windows 2000.

Critical Points

- When you receive your LifeBook, the integrated wireless LAN device and drivers have already been installed. This procedure outlines the steps for setting the device parameters.

Workflow

The proper setup of the wireless LAN requires several steps which must be performed in the proper order. Following is a general outline of the steps that must be performed. Each step is detailed later in this procedure.

1. Setting parameters
   - Setting the profile
   - Setting the encryption
2. Network settings
   - Setting the protocol and checking the network
   - Setting file and printer sharing
   - Checking the connection

Setting Parameters

1 Click [Start] → [Settings] → [Control Panel].

2 Double-click the [PRISM Settings] icon. The [PRISM Wireless Settings] appears.

3 Set the profile as specified in Table 1. Ask your network administrators to check the setting.

4 When you finish your entry, click [Apply].

Item	Description
Profile	Enter the system file name in which the parameter information is to be saved.
Mode	*Ad Hoc Network*: Click the down arrow and select “802.11 AdHoc”. *Infrastructure Network*: Click the down arrow and select “Infrastructure”.
SSID	Enter the network name to which you want to connect.
Transmit Rate	Obtain the information from your network administrator. If you do not have a network administrator, select “Fully Automatic”.
Power Save Enabled	Not supported.
AdHoc Channel	*AdHoc Network*: Select the same channel, 1-13, for all connected computers. If there is more than one wireless LAN nearby (such as on the same floor), we recommend that the channels for each LAN be 5 numbers apart (e.g., if there are two other LANs nearby, the channels used should be 1, 6, and 11). *Infrastructure Network*: Not an option.

Table 1: Profile Parameters

5 Click the [Encryption] tab.

6 Set the encryption items in accordance with Table 2.

- AdHoc Network: Specify the same value for all the computers for which the encryption key is used for connection.
- Infrastructure Network: Specify the identical encryption keys to the encryption keys set for the access point. For instructions on how to check the encryption keys set for the access point, refer to the access point manual.

Critical Points

◆ Make sure that you specify the encryption keys. If you do not specify the keys, any computer with a wireless LAN card can be connected. This presents a risk that your data may be stolen or destroyed.

Item	Description
Encryption (WEP)	Click the down arrow and select an encryption option. • *Disable*: Disables the encryption. In this case, "Create keys with Passphrase" and subsequent items are greyed out, and you cannot enter anything. • *64 bit*: The encryption is set. Select either "Create keys with Passphrase", "Create keys manually", or "ASCII Input", and enter the encryption keys. • *128 bit*: The encryption is set. Select either "Create keys with Passphrase", "Create keys manually", or "ASCII Input", and enter the encryption keys.
Create Keys with Passphrase	Not supported.
Passphrase	Not supported.
Create Keys Manually (Hexadecimal Input)	Select this to use hexadecimal character codes to set the encryption keys (Keys 1 - 4). Enter a 10-digit value when you have selected [64 bit] for the encryption. Enter a 26-digit value when you have selected [128 bit] for the encryption.
ASCII Input	Select to use the ASCII codes to set encryption keys (Keys 1 - 4). Select this if network does not contain other wireless LAN cards that are set with encryption key using character codes. Enter a 5-digit value when you have selected [64 bit] for the encryption. Enter a 13-digit value when you have selected [128 bit] for the encryption. You can use the following characters: 0 - 9, A - Z, a - z, _ (underscore). For example, to set "ABC12" for the encryption key, enter "ABC12."
Default Key	Click the down arrow, and select a key from Keys 1 - 4.

Table 2: Encryption Key Setup

7 When you finish your entry, click [Apply].

8 Click [OK]. [PRISM Wireless Settings] closes.
You have completed the parameter settings.

Critical Points

- When you are using ADSL (PPPoE) with the infrastructure network to connect to the Internet, you need to change the MTU size set for the computer. To change the MTU size, refer to the manual that comes with the access point.

Network Connection: Windows 98

The section describes how to set the network connection if your computer running Windows 98.

Network Settings

In this section, you set "TCP/IP Settings," and complete "Checking Computer Name and Workgroup" required for the network connection.

❑ TCP/IP Settings

1 Click [Start] → [Settings] → [Control Panel].

2 Double-click the [Network] icon. [Network] appears.

3 Perform the following steps.
- Click [TCP/IP].
- Click [Properties].

Critical Points

◆ If you have more than one [TCP/IP...] entry, select [TCP/IP → Intersil PRISM Wireless LAN PCI Card]. [TCP/IP Properties] appears.

4 Set an IP address. (When you are done, ask your network administrator to check the setting).
- AdHoc Network: Select [IP address], and enter a value for [IP address] and [Subnet Mask].
- Infrastructure Network: Select [Obtain an IP address automatically].

5 Click [OK]. [Network] appears again.
In the next step, you will check the computer name and workgroup.

❑ Checking the Computer Name and Workgroup

1 Click the [Identification] tab on the [Network] window.

Critical Points

◆ If this tab is not found on the [Network] window, click [Start] → [Settings] → [Control Panel], and double-click the [Network] icon.

2 Check the entry for [Computer name] and [Workgroup]. Ask your network administrator and check the setting, if you have a network administrator.

Item	Description
Computer Name	A name to identify the computer on the network. You can specify any name for any computer. Use up to 15 single-byte characters. For easiest identification, use the model name or user name.
Workgroup	The name of the network group. Use up to 15 single-byte characters. • *AdHoc Network*: Specify the same name to all computers within the same network. • *Infrastructure Network*: Specify a workgroup name to connect to.
Computer Description	Additional description for the computer. This is not necessary.

Table 3: Computer Name and Workgroup

Critical Points

- ◆ Including a period or other special characters may prevent you from connecting to the network.

3 Click [OK]. When a message appears prompting you to restart the computer, click [Yes].

❑ Sharing

In this section, you set sharing of the drive, folder, and printer.
You need to set this only when you are sharing files or a printer with other computers on the network.
When you share a drive, folder, or printer, you can use these from any computer on the network.

❑ Setting File and Printer Sharing for Networks

1 Click [Start] → [Settings] → [Control Panel].

2 Double-click the [Network] icon. The [Network] window appears.

3 Click [File and Print Sharing...]. [File and Print Sharing] appears.

4 Click and check one or both of the options.

5 Click [OK]. [File and Printer Sharing for Microsoft Networks] is added under [The following network].

❑ **Sharing Files**

The following example shows how to set sharing the "Work" folder on the c drive.

1 Double-click [My Computer] → [C: drive] on the desktop.

2 Right-click the "Work" folder, then click [Sharing] from the menu that appears. The [Work Properties] window appears.

3 Click [Sharing], and select items, as specified in Table 4.

Item	Description
Share Name	Specify a share name for the drive or folder that you want to share.
Access Type	Limits the read/write permission for the drive to be shared. • Read-Only Password: Specifies read-only for the drive to be shared. • Full Access Password: Allows read and write for the drive to be shared. • Depends On Password: Identifies either Read-Only or Full, depending upon the password.
Passwords	A password used for [Access Type]. • Read-Only Password: Specify a password to allow read. • Full Access Password: Specify a password to allow read and write.

Table 4: Password Setup

4 Click [OK]. The folder is set for sharing, and the "Work" folder icon changes.

❑ **Printer Sharing**

1 Click [Start] → [Settings] → [Printers]. [Printers] appears, showing the printers that are connected.

2 Right click the printer that you want to share, and then click [Sharing] from the menu that appears.

3 Click [Sharing], and select necessary items.

Item	Description
Not Shared	Disables printer sharing.
Shared as	Enables printer sharing.
Share Name	Specifies a share name for the printer to be shared.
Comment	Enter a description of the printer to be shared.
Passwords	Specify passwords. If you specify a password, you need to enter it when using the printer.

Table 5: Printer Sharing

4 Click [OK]. The folder is set for sharing, and the "Work" folder icon changes.

❑ **Checking the Connection**

After the network setting is completed, access the shared drive on another computer to check the connectivity of the wireless LAN network.

❑ **Accessing Another Computer**

1 Double-click the [Network Neighborhood] on the desktop. The computers that are connected to the network are displayed.

2 Double-click the computer that you want to access. The drive that you set with "Sharing" is displayed. The drive is not displayed unless it is set for sharing, even if it exists.

3 Double-click the drive that you want to access. The drive is displayed showing its contents and made available to you. If you have a question or problem, refer to "Troubleshooting".

❑ **Checking the Connectivity**

1 Click [Start] → [Settings] → [Control Panel].

2 Double-click the [PRISM Settings] icon. [PRISM Wireless Settings] appears.

3 Check the connectivity on the [Link] tab. The current condition of connection is displayed.

Item	Description
State	Shows the current condition of connection. The MAC address of the other computer that you are connected to is displayed, when the connection is successfully made. If you are connected to more than one computer, the computer that has the best connectivity is displayed.
Current Channel	Shows the current channel used for the connection.
Current Tx Rate	Shows the current transfer rate in Mbits/sec.
[Radio Off]/ [Radio On]	Click [Radio Off] to disconnect. Click [Radio On] to connect to network.
Rescan	Click to search for others to connect to.
Throughput (Bytes/sec)	Shows the actual transfer rate of the transfer data for send (Tx) and receive (Rx).
Link Quality	Shows [Excellent], [Good], [Fair], [Poor], or [Not Connected], depending on the link quality. This is not shown for the AdHoc connection.
Signal Strength	Shows [Excellent], [Good], [Fair], [Poor], or [Not Connected], depending on the signal strength. This is not shown for the AdHoc connection.

Table 6: Connectivity Condition

Network Connection: Windows 2000

The section describes how to set the network connection for a computer with Windows 2000.

❑ **Network Settings**
In this section, you set “TCP/IP Settings,” and complete

2 Double-click the [Network and Dial-up Connections] icon. The [Network and Dial-up Connections] window appears.

3 Right click the [Local Area Connection], then click [Properties] from the menu that appears. The [Local Area Connection Properties] window appears.

Critical Points

◆ More than one network adapter is installed in your system if more than one [Local Area Connection] entry is displayed. In this case, select the [Local Area Connection] entry with [Intersil PRISM Wireless LAN PCI Card] displayed under [Device Name].

4 Perform the following steps.
- Click [Internet Protocol (TCP/IP)].
- Click [Properties]. The [Internet Protocol (TCP/IP) Properties] window appears.

5 Set an IP address as indicated in Table 7. Ask your network administrator to check the setting.

Item	Description
For AdHoc Network	Set the IP address and subnet mask: Click [Use the following IP address], and enter a value for [IP address] and [Subnet mask].
For Infrastructure Network	Select [Obtain an IP address automatically]: For the DNS server, select [Obtain DNS server address automatically]. For the IP address, DNS server, and default gateway, follow the network administrator's instructions, if any.

Table 7: Setting an IP Address

6 Click [OK]. The [Local Area Connection Properties] window appears again.

7 Click [OK]. When a message appears prompting you to restart the computer, click [Yes].

❑ **Checking the full computer name and workgroup**

1 Click [Start] → [Settings] → [Control Panel].

4 Check [Full computer name] and [Workgroup]. Ask your network administrator and check the setting.

Item	Description
Full Computer Name	A name to identify the computer on the network. You can specify any name to each computer. For easier identification, use the model name or user name.
Workgroup	A name for the network group: • *AdHoc Network*: Specify the same name to all computers within the same network. • *Infrastructure Network*: Specify a workgroup name to connect to. To change the setting, click [Properties], and follow the instructions on the screen. [System Properties] appears again.

Table 8: Checking computer name and workgroup

5 Click [OK]. When a message appears prompting you to restart the computer, click [Yes].

Sharing

In this section, you set sharing of the drive, folder, and printer.

You only need to set this when you are sharing files or a printer with other computers on the network.

When you share a drive, folder, or printer, you can use them from any computer on the network.

❑ **Setting [File and Printer Sharing for Microsoft Networks]**

1 Click [Start] → [Settings] → [Control Panel].

2 Double-click the [Network and Dial-up Connections] icon. The [Network and Dial-up Connections] windows appears.

3 Right click the [Local Area Connection], then click [Properties] from the menu that appears. [Local Area Connection Properties] appears.

Critical Points

◆ More than one network adapter is installed in your system if more than one [Local Area Connection] entry.

4 If [File and Printer Sharing for Microsoft Networks] is displayed in the list, make sure that it is checked. If it is not checked, check it and click [OK]. You do not have to perform the following steps. Go to the next section, entitled " Sharing Files."

If [File and Printer Sharing for Microsoft Networks] is not found in the list, click [Install], and perform Step 5 and subsequent steps. When you click [Install], the [Select Network Component Type] window appears.

5 Perform the following steps.

- Click [Service].
- Click [Add]. The [Select Network Service] window appears.

6 Perform the following steps.

- Click [File and Printer Sharing for Microsoft Networks].
- Click [OK]. You will go back to [Local Area Connection Properties], and [File and Printer Sharing for Microsoft Networks] is added to the list.

7 Click [OK].

Critical Points

◆ If you have changed the setting, [Close] is shown instead. Click [Close].

❑ **Sharing Files**

The following example shows how to set sharing the " Wor k" folder on the c: drive.

1 On the desktop, double-click [My Computer] → C: drive.

2 Right-click the " Wor k" folder, then click [Sharing] from the menu. The [Work Properties] window appears.

3 Click [Share this folder] and set necessary items, as indicated in the following table.

Item	Description
Share Name	You can specify a share name for the drive or folder that you want to share.
Comment	You can enter the description for the drive or folder that you want to share.
User limit	Specifies the limit for the number of sharing users.

Table 9: Sharing Files

4 Click [OK]. The folder is set shared, and the " Work" folder icon changes.

❑ **Printer Sharing**

1 Click [Start] → [Settings] → [Printers]. The Printers window appears, showing the printers that are connected.

2 Right click the printer that you want to share, then click [Sharing] from the menu that appears.

3 Click [Sharing], and select necessary items.

Item	Description
Not Shared	Disables printer sharing.
Shared As	Enables printer sharing.
Share Name	Specifies a share name of the printer to be shared.
Comment	Enter the description of the printer to be shared.
Passwords	If you specify a password, you need to enter it when using the printer.

Table 10: Printer Sharing

4 Click [OK]. The printer sharing is set, and the icon changes.

Checking the Connection

After the network setting is completed, access the shared drive on another computer to check the connectivity of the wireless LAN network.

❑ **Accessing Another Computer**

1 **Double-click the [My Network Places] icon on the desktop. [My Network Places] appears.**

2 **Double-click [Computers near me]. The computers that are connected to the network are displayed.**

3 **Double-click the computer that you want to access. The drive that you set with "Sharing" are displayed.**

4 **Double-click the drive that you want to access. The drive is displayed showing its contents and made available to you.**

❑ **Checking the Connectivity**

1 **Click [Start] → [Settings] → [Control Panel].**

2 **Double-click the [PRISM Settings] icon.**

3 **Check the connectivity on the [Link] tab. The current condition of connection is displayed.**

Item	Description
State	Shows the current condition of connection. The MAC address of the other computer to which you are connected is displayed when the connection is successful. If you are connected to more than one computer, the computer that has the best connectivity is displayed.
Current Channel	Shows the current channel used for the connection.
Current Tx Rate	Shows the current transfer rate in Mbits/sec.
[Radio Off]/ [Radio On]	Click [Radio Off] to disconnect. Click [Radio On] to connect to the network.
[Rescan] button	Click this button to search for others to connect to.
Throughput (Bytes/sec)	Shows the actual transfer rate of the data transfer for send (Tx) and receive (Rx).
Link Quality	Shows either [Excellent], [Good], [Fair], [Poor], or [Not Connected], depending on the link quality. Not shown for AdHoc connection.
Signal Strength	Shows either [Excellent], [Good], [Fair], [Poor], or [Not Connected], depending on the signal strength. Not shown for AdHoc connection.

Table 11: Checking the Connectivity

SECTION 2

Connecting Windows XP Systems

This chapter describes how to set up the wireless LAN connection for computers that are running Windows XP.

Critical Points

- When you receive your LifeBook, the integrated wireless LAN device and drivers have already been installed. This procedure outlines the steps for setting the device parameters.

Workflow

The proper setup of the wireless LAN connection requires that several steps be performed in the proper order. Following is a general outline of the steps to be performed. Each step is detailed later in this procedure.

1 Setting parameters
- Setting the profile
- Setting the encryption

2 Network settings
- Setting the protocol and checking the network
- Setting file and printer sharing
- Checking the connection

Setting Parameters

1 Click [Start] → [Control Panel].

2 Click [Network and Internet connection].

3 Click [Network connection]. A list of networks that are currently installed is displayed.

4 Right click [Intersil PRISM Wireless LAN PCI Card] in the list, and click [Properties] from the menu that is displayed. [Wireless Network Connection 2 Properties] appears.

5 Click the [Wireless Networks] tab. The [Wireless Networks] tab appears.

6 Perform the following steps.
- Make sure that [Use Windows to configure my wireless network settings] is checked.
- Click [Add] under [Preferred networks]. [Wireless Network Properties] appears.

7 Set parameters.
- For the AdHoc network, specify the same value to all the computers, for which the encryption key is used for connection.
- For the infrastructure network, specify the encryption key (network key) with the same value to the encryption key of the access point. For how to check the encryption keys set for the access point, refer to the manual supplied with the access point.

Critical Points

- Be sure to specify the encryption keys. If you do not specify the keys, any computer with a wireless LAN card can be connected. This presents a risk that other users may steal or destroy your data.

Item	Description
Network Name SSID	Enter the network name to which you want to connect. This is a required item. For the network name, ask your LAN administrator. *AdHoc network*: Set the same name for all of the computers that are to be connected. Infrastructure network: Specify the same name as that specified on the access point that is to be connected. For access point instructions, refer to the manual that comes with the access point.
Key Format	Click the down arrow and select the input for the Network key. *ASCII characters* Select this when using ASCII characters for the Network Key. Characters that can be used follow: 0-9, A-Z, a-z, and _ (underscore) *Example*: To set the key to " ABC12" , input " ABC12" . *Hexa-decimal characters* Select this when using hexadecimal characters for the Network Key. Use this if there is a wireless LAN card in the network that has the Network Key set to a character code. In 'Network Key', input the same value as the other wireless LAN card.

Table 12: Setting parameters

8 When you finish your entry, click [OK]. [Wireless Network Connection 2 Properties] appears again.

9 Make sure the network name you specified for the.....

Network Connection

The section describes how to set the network connection for a computer running Windows XP.

❑ Network Settings

In this section, you set " TCP/IP Settings," and complete " Checking Computer Name and Workgroup" required for the network connection.

TCP/IP Settings

1 On [Wireless Network Connection Properties], click [General].

Critical Points

◆ If [Wireless Network Connection 2 Properties] is not displayed, click [Start] → [Settings] → [Control Panel], and double-click the [Network Connection] icon.
Right click the [Wireless Network Connection], and then click [Properties] from the menu that appears.

2 Perform the following steps.

- Click [Internet Protocol (TCP/IP)].
- Click [Properties]. [Internet Protocol (TCP/IP) Properties] appears.

3 Set an IP address. Ask your network administrator and check the setting.

Item	Description
AdHoc Network	Set the IP address and subnet mask. Click [Use the following IP address]. Enter a value for [IP address] and [Subnet mask].
For Infrastructure Network	Select [Obtain an IP address automatically]. For the DNS server, select [Obtain DNS server address automatically]. For the IP address, DNS server, and default gateway, follow the network administrator's instructions, if any.

Table 13: Setting an IP address

5 Click [OK].

Critical Points

◆ If you have changed the setting, [Close] is shown...

❑ **Checking the Full Computer Name and Workgroup**

1 Click [Start] → [Control Panel]. Make sure the Classic View is selected.

2 Double-click the [System] icon. [System Properties] appears.

3 Click the [Computer Name] tab.

4 Check [Full computer name] and [Workgroup]. Ask your network administrator and check the setting.

Item	Description
Computer Name	A name to identify the computer on the network. You can specify any name to each computer. Use up to 15 single-byte characters. For easier identification, use the model name or user name.
Workgroup	A name of the network group. Use up to 15 single-byte characters. *AdHoc Network*: Specify the same name to all computers within the same network. *Infrastructure Network*: Specify workgroup name to connect to.

Table 14: Setting computer name and workgroup

To change the setting, click [Change], and follow the instructions on the screen. [System Properties] appears again.

5 Click [OK]. When a message appears prompting you to restart the computer, click [Yes].

Sharing

In this section, you set sharing of the drive, folder, and printer.

You need to set this only when you are sharing files or a printer with other computers on the network.

When you share a drive, folder, or printer, you can use these from any computer on the network.

❑ **Setting [File and Printer Sharing for Microsoft Networks]**

1 Click [Start] → [Control Panel]. Make sure the Classic View is selected.

2 Double-click the [Network Connection] icon. Make sure that it is checked. If it is not checked, check it, and click [OK]. You do not have to perform the following steps. Go to the next section, " Sharing Files."
If [File and Printer Sharing for Microsoft Networks] is not found in the list, click [Install], and perform Step 5 and the subsequent steps. When you click [Install], [Select Network Component Type] appears.

5 Perform the following steps.
- Click [Service].
- Click [Add]. [Select Network Service] appears.

6 Perform the following steps.
- Click [File and Printer Sharing for Microsoft Networks].
- Click [OK]. You will go back to [Wireless Network Connection 2 Properties], and [File and Printer Sharing for Microsoft Networks] is added to the list.

7 Click [Close].

❑ **Sharing Files**

The following example shows how to set sharing the " Wor k" folder on the c: drive.

1 Click [Start] → [My Computer].

2 Double-click the [Local Disk (c:)] icon.

3 Right click the " Wor k" folder, and then click [Sharing and Security] from the menu that appears. [Work Properties] appears.

4 Click [If you understand the security risks but want to share files without running the wizard, click here].

Critical Points

◆ If you have already clicked [If you understand the security risks but want to share files without running the wizard, click here], this window does not appear.

In the [Work Properties] window, the description under [Network Sharing and security] changes.

5 Check [Share this folder on the network].
Uncheck [Allow network users to change my files], if the shared folder is for read only.

6 Click [OK]. The folder is set shared, and the " Work" folder icon changes.

❑ **Printer Sharing**

2. Right-click the printer to be shared, and click [Sharing] from the menu that appears. The properties of the printer to be shared will be displayed. Set printer sharing.
On the display, the printer sharing setting is recommended by the Network Setup Wizard, but for the wireless LAN network, security is maintained by network name (SSID) or network key. The following steps allow you to set up printer sharing without using the Network Setup Wizard.

3 Click 'If you understand the security risks but want to share printers without running the wizard, click here. 'Enable Printer Sharing' will be displayed.

4 Select 'Just enable printer sharing'.

5 Click 'OK'. The printer properties will be indicated.

6 Select 'Share this printer'.

7 Enter the sharing printer name in 'Share name'.

8 Click OK. The printer will be shared, and the printer icon will become a sharing icon.

Checking the Connection

After the network setting is completed, access the shared drive on another computer to check the connectivity of the wireless LAN network.

❑ **Accessing Another Computer**

1 Click [Start] → [My Computer].

2 From the left menu in [Other Places], click [My Network Places].

3 From the left menu in [Network Tasks], click [View workgroup computers]. The workgroup in which you are participating will appear.

4 Double click the computer to which you want to connect. The drive that you set in [Computer Sharing] appears.

5 Double click the drive to which you want to connect. The contents of the drive will appear, and is available for use.

❑ **Checking the Connectivity**

1 Click [Start] → [Control Panel].

2 Double-click the [PRISM Settings] icon. [PRISM Wireless Setting] appears.

3 Check the connectivity on the [Link] tab. The current condition of connection is displayed

Item	Description
State	Shows the current condition of connection. The MAC address of the other computer that you are connected to is displayed, when the connection is successfully made. If you are connected to more than one computer, the computer that has the best connectivity is displayed.
Current Channel	Shows the current channel used for the connection.
Current Tx Rate	Shows the current transfer rate in Mbits/sec.
Radio Off/ Radio On	Click [Radio OFF] to disconnect. Click [Radio On] to connect to the network.
Rescan	Click this button to search for others to connect to.
Throughput (Bytes/sec)	Shows the actual transfer rate of the transfer data for send (Tx) and receive (Rx).
Link Quality	Shows the link quality. This is not shown for the AdHoc connection.
Signal Strength	Shows the signal strength. This is not shown for the AdHoc connection.

Table 15: Checking connectivity

Troubleshooting

This chapter contains troubleshooting information, including causes and actions, for problems you may find while using this device.

❑ Troubleshooting Table

Problem	Possible Cause	Possible Solution
An exclamation mark (!) or cross (x) is attached to [Intersil PRISM Wireless LAN PCI Card].	A failure to recognize the device.	Restart the computer.
	A failure in installing the driver.	Restart the computer.
Other computers are not displayed when the [Network Computer] icon is double-clicked.	You did not enter the password when Windows 98 started. You clicked [Cancel] or [ESC] when User Name/ Password window was shown.	Make sure that you enter user name and password and click [OK] when starting Windows 98. If you forget your password, enter another user name. A new user name and password is registered in the computer.
	The network has not been set up correctly.	Check the setting for the protocol, workgroup, and sharing. To check this, you need a different procedure, depending upon the operating system that you use. Refer to the appropriate section of this manual.
	It takes time before the network is searched and the computer connected is displayed.	Perform the following steps to search for the computer. • Click [Start] → [Search] → [Other Computers]. • Enter the computer name that you are connecting to in [Name], and click [Search]. • Double-click the icon of the computer that has been searched.
	A failure in installing the driver.	Make sure that the driver is correctly installed.
	The TCP/IP protocol is not installed, or, the IP address is not set correctly.	Make sure that the TCP/IP protocol is installed. To check this, you need a different procedure, depending on the operating system that you use. Refer to the appropriate section of this manual.

Problem	Possible Cause	Possible Solution
Other computers are not displayed when the [Network Computer] icon is double-clicked.	The TCP/IP protocol is not installed, or, the IP address is not set correctly.	If the TCP/IP protocol is installed, do the following to check the IP address: 1. Windows 98: Click [Start] → [Programs] → [MS-DOS Prompt]. Windows 2000: Click [Start] → [Programs] → [Accessories] → [Command Prompt]. Windows XP: Click [Start] → [All Programs] → [Accessories] → [Command Prompt]. 2. Enter " IPCONFIG" command, and press [Enter]. (If your hard disk is C drive, enter C:\>ipconfig) Check that the IP address is correctly displayed under the IP Address. Example: IP address: 10.0.1.3 Subnet Mask: 255.255.255.0 Default Gateway: 10.0.1.1
	No communication due to poor radio signal.	Shorten the distance between computers or remove visible obstacles between them, and retry the connection.

Problem	Possible Cause	Possible Solution
IP packet isn't reaching its destination	Run the PING command to check the connection	Perform the following steps to run the PING command to check if the IP packet is correctly delivered to the destination. To run the PING command, the TCP/IP protocol must be installed. First you will determine your IP address, then you will make sure your IP address can respond, and then you will make sure other computers can be addressed. 1. Windows 98: Click [Start] → [Programs] → [MS-DOS Prompt]. Windows 2000: Click [Start] → [Programs] → [Accessories] → [Command Prompt]. Windows XP: Click [Start] → [All Programs] → [Accessories] → [Command Prompt]. 2. Type: ipconfig > *directory\filename* where *directory* and *filename* represent the location at which you want to find the IP address. 3. Click [Enter], then go to the location you specified above. The IP address for your system will be contained in the file. 4. To check that your IP address is functioning properly, go back to the DOS prompt and type: ping *<IP address>*, then press [Enter]. You will receive several replies, followed by the PING statistics (similar to below). 5. To check that your system is communicating with other systems, go to the DOS prompt and type: \>ping XXX.XXX.XXX.XXX. (With the destination IP address in place of XXX.XXX.XXX.XXX). Example: if the destination IP address is 10.0.1.3: C:\>ping 10.0.1.3 A message similar to the following appears if the connection is successful. Pinging 10.0.1.3 with 32 bytes of data: Reply from 10.0.1.3: bytes=32 time=1ms TTL=32 Reply from 10.0.1.3: bytes=32 time<10ms TTL=32 Reply from 10.0.1.3: bytes=32 time=4ms TTL=32 Reply from 10.0.1.3: bytes=32 time<10ms TTL=32 If the connection fails, [Request timed out], [Destination host unreachable], or a similar message appears. In this case, refer to the " Other computers are not displayed" portion of this chapter.

Problem	Possible Cause	Possible Solution
Cannot connect to the network	There are several possible causes, as listed to the right. Refer to the specific section of this manual or your user's manual.	The following causes are possible. Check each one of them. • The network name or encryption key is not right. • The driver has not correctly started. • The destination computer is not turned on. • You do not have the access privilege to the destination computer. • The card has failed. • Hardware conflict.
I want to remove the driver. (Windows 98)		**Windows 98:** When removing the driver, make sure that the device is attached to the computer. If you try to remove the driver while the device is detached from the computer, the driver is not removed. 1. Right click the [My Computer] icon on the desktop, and then click [Properties] from the menu that appears. [System Properties] appears. 2. Click the [Device Manager] tab. 3. Click [+] beside [Network adapters]. 4. Perform the following steps. • Click [Intersil PRISM Wireless LAN PCI Card]. • Click [Remove]. [Confirm Device Removal] appears. 5. Click [OK]. The device is removed, and [System Settings Change] appears. 6. Click [No]. 7. Close [System Properties]. 8. Make sure that the icon has disappeared from the task tray in the lower right corner of the screen. 9. Click [Start] → [Settings] → [Control Panel]. [Control Panel] appears. 10. Double-click [Add/Remove Programs]. [Add/Remove Programs Properties] appears. 11. Double-click [PRISM 11Mbps Wireless LAN for Windows]. A window appears asking you if you really want to remove the driver. 12. Click [Yes]. When the driver is removed, a window appears showing that the driver has been removed. 13. Click [OK]. 14. Close [Add/Remove Programs Properties] and [Control Panel]. 15. Shut down Windows, and turn off the computer.

Problem	Possible Cause	Possible Solution
I want to remove the driver (Windows 2000)		**Windows 2000:** When removing the driver, make sure that the device is attached to the computer. If you try to remove the driver while the device is detached from the computer, the driver is not removed. 1. Right click the [My Computer] icon on the desktop, and then click [Properties] from the menu that appears. [System Properties] appears. 2. Click the [Hardware] tab. 3. Click [Device Manager...]. The [Device Manager] window appears. 4. Click [+] beside [Network adapters]. 5. Right click [Intersil PRISM Wireless LAN PCI Card], and click [Uninstall] from the menu that is displayed. [Confirm Device Removal] appears. 6. Click [OK]. 7. Close [System Properties]. 8. Make sure that the icon has disappeared from the task tray in the lower right corner of the screen. 9. Click [Start] → [Settings] → [Control Panel]. 10. Double-click [Add/Remove Programs]. [Add/Remove Programs] appears. 11. Perform the following steps. • Click [PRISM 11Mbps Wireless LAN for Windows]. • Click [Change/Remove]. A window appears asking you if you really want to remove the driver. 12. Click [Yes]. When the driver is removed, a window appears showing that the driver has been removed. 13. Click [OK]. 14. Close [Add/Remove Programs] and [Control Panel]. 15. Shut down Windows, and turn off the computer.

Problem	Possible Cause	Possible Solution
I want to remove the driver (Windows XP)		**Windows XP:** When removing the driver, make sure that the device is attached to the computer. If you try to remove the driver while the device is detached from the computer, the driver is not removed. 1. Click [Start], right click [My Computer], and then click [Properties] from the menu that appears. [System Properties] appears. 2. Click the [Hardware] tab. 3. Click [Device Manager]. 4. Click [+] beside [Network adapters]. 5. Right click [Intersil PRISM Wireless LAN PCI Card], and click [Uninstall] from the menu that is displayed. [Confirm Device Removal] appears. 6. Click [OK]. 7. Close [System Properties]. 8. Make sure that the icon has disappeared from the task tray in the lower right corner of the screen. 9. Click [Start] → [Control Panel]. [Control Panel] appears. 10. Double-click [Add/Remove Programs]. [Add/Remove Programs] appears. 11. Perform the following steps. • Click [PRISM 11Mbps Wireless LAN for Windows]. • Click [Change/Remove]. A window appears asking you if you really want to remove the driver. 12. Click [Yes]. When the driver is removed, a window appears showing that the driver has been removed. 13. Click [OK]. 14. Close [Add/Remove Programs] and [Control Panel]. 15. Shut down Windows, and turn off the computer.

If a Second LAN Device is Installed

❑ INSTRUCTIONS FOR DISABLING ANOTHER LAN DEVICE

If you have another LAN card on your computer running Windows 98, perform the following steps to disable that LAN card before installing the driver.

❑ **For Windows 98**

1 Click [Start] → [Settings] → [Control Panel].

2 Double-click [System]. [System Properties] appears.

3 Click [+] beside [Network adapters], and double-click the standard built-in LAN device.
The following devices appear depending on your computer model.
- [Intel(R) 82559 Fast Ethernet LOM with Alert on LAN 2*]
- [Intel(R) 8255x-based PCI Ethernet Adapter(10/ 100)]
- [Realtek RTL8139(A/B/C/8130)PCI Fast Ethernet NIC]
- or others.

The LAN Card Properties window appears.

4 Check [Set disable with this hardware profile], and click [OK]. An [x] mark is added to the LAN card icon.

5 Click [OK].

6 Restart the system.

About IP Addresses

❑ SETTING IP ADDRESSES

If you are not sure how to set the IP address, refer to the following procedure.

If you have an access point (DHCP server) on the network, set the IP address as follows:

Windows 98: [Obtain an IP address automatically]

Windows 2000: [Obtain an IP address automatically]

Windows XP: [Obtain an IP address automatically]

Critical Points

- A DHCP server is a server that automatically assigns IP addresses to computers or other devices in the network.
- There is no DHCP server for the AdHoc network.

If the IP address is already assigned to the computer in the network, ask the network administrator to check the IP address to be set for the computer.

If no access point is found in the network:

An IP address is expressed with four values in the range between 1 and 255.
Set the each computer as follows: The value in parentheses is a subnet mask.

<Example>

Computer A: 192.168.100.2 (255.255.255.0)

Computer B: 192.168.100.3 (255.255.255.0)

Computer C: 192.168.100.4 (255.255.255.0)

:

:
Computer X: 192.168.100.254 (255.255.255.0)

Specifications

❑ Technical Specifications for Integrated Wireless Lan Device

Item	Description
Network Type	IEEE 802.11b
Transfer Rate	11/5.5/2/1Mbps (auto change)
Frequency Range	2,400 - 2,483 MHz
Channels	One of 13 channels is used
Card Type	Non-intelligent
VCC	Class B
Security	Network name, encryption key
Supported Operating Systems	Windows 98, Windows 2000, Windows XP
Power Current	Max: 350mA
Maximum number of units recommended for wireless LAN (AdHoc network)	10 or less

Glossary

❑ Glossary of Terms Used in This Document

AdHoc
A name of a wireless LAN configuration.
It is a type of communication using wireless cards only.
Another type of communication is called Infrastructure (using a wireless card and an access point).

ADSL
Asymmetric Digital Subscriber Line Technology for transporting high bit-rate services over ordinary phone lines.

Channel
A radio frequency band used for communication between wireless cards and access points.

DHCP
Dynamic Host Configuration Protocol A protocol used to automatically acquire parameters required for the communication, such as IP address.
The sender of IP address is called a DHCP server, and the receiver is called a DHCP client.

DNS
Domain Name System
A function to control the association between the IP address and the name assigned to the computer. If you do not know the IP address but if you know the computer name, you can still communicate to that computer.

Encryption Key (Network Key)
Key information used to encode data for data transfer.
This device uses the same encryption key to encode and decode the data, and the identical encryption key is required between the sender and receiver.

IEEE 802.11b
The U.S. IEEE (Institute of Electrical and Electronic Engineers) promotes standardization of LAN, and its standards committee (IEEE 802.11) has promoted 1-Mbps and 2-Mbps wireless LAN. Currently, another standards committee (IEEE 802.11b) is working for standardization of the faster 11-Mbps wireless Lan.

Infrastructure
A name of a wireless LAN configuration. This type of communication uses an access point.
Another type of communication is called AdHoc.

IP Address
An address used for computers to communicate in the TCP/IP environment.
Current IPv4 (version 4) uses four values in the range between 1 and 255. (Example: 192.168.100.123).
There are two types of IP address: global address and private address.
The global address is an only address in the world.
A private address is an only address in theclosed network.

LAN

Local Area Network

A connection of computers within a relatively limited area, such as the same floor, or the same building.

MAC Address

Media Access Control Address

A unique physical address of a network card.
For Ethernet, the first three bytes are used as the vendor code, controlled and assigned by IEEE. The remaining three bytes are controlled by each vendor (preventing overlap), therefore, every Ethernet card is given a unique physical address in the world, being assigned with a different address from other cards. For Ethernet, frames are sent and received based on this address.

MTU

Maximum Transmission Unit

The maximum data size that can be transferred at a time through the Internet or other networks.
You can set a smaller MTU size to obtain successful communication, if you have difficulty transferring data due to the fact that the maximum size is too large.

PPPoE

Point to Point Protocol over Ethernet

A protocol for Ethernet, using a Point-to-Point Protocol (PPP), which is used for connection on the phone line.

Protocol

Procedures and rules use to send and receive data between computers.
- Method of sending and receiving data
- Process used to handle communication errors

Conditions required for communication are organized in procedures for correct transfer of information.

SSID

Service Set Identifier

Specifies which network you are joining. Some systems allow you to specify any SSID as an option so you can join any network.

TCP/IP

Transmission Control Protocol/Internet Protocol
A standard Internet protocol that is most widely used.

Wi-Fi Compatible

Wi-Fi (Wireless Fidelity) Identifies that the product has passed the interoperability test, supplied by the WECA (Wireless Ethernet Compatibility Alliance), which guarantees the interoperability of wireless IEEE 802.11 LAN products. For more information on the Wi-Fi standard, go to the WECA website at: www.wirelessethernet.com.

9 About the Internal Modem

Your computer has a V.90-compliant built-in fax modem.

⚠ WARNING

ELECTRIC SHOCK

- Do not insert your fingers into a modular jack, or you may receive an electric shock.

⚠ CAUTION

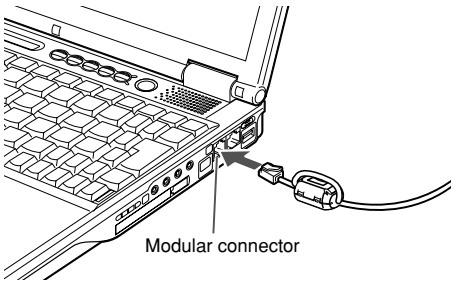
FAILURE

- When using a modular cable, always connect it to a modular connector, otherwise your computer could break down.

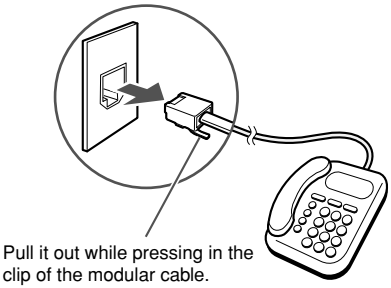
❑ Connecting a modular cable

1 Turn off the power to the computer and disconnect the AC adapter.

2 Insert the supplied modular cable into the modular connector on the right panel of the computer.
Insert firmly until it clicks.

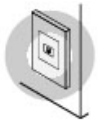


3 Disconnect your telephone's modular cable from the modular jack of the telephone line.

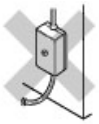


IMPORTANT

If your telephone line connector is rosette type, it must be changed to a modular type.
If such a change is necessary, have it done by an authorized person. You can also ask your telephone company to do the work.

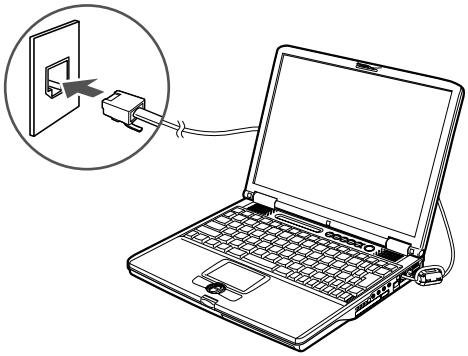


Modular type



Rosette type

4 Connect the modular cable to the modular jack of the telephone line.
Insert the plug on the other end of the cable you have connected to the computer in Step 1.



Critical Points

- Follow these steps to check whether the device driver has been installed correctly.
  1. The telephone is not usable with its modular cable disconnected. Do not forget to connect it for telephone use after finishing Internet communication.
  2. A modular cable may not be connected to your computer if it is routed around a household electrical appliance, or wound and tied in an bundle.
  3. If the supplied modular cable is too short to connect your computer to a modular jack for the telephone line, purchase a commercially available modular cable with a proper length. Note that the use of a long modular cable may result in a transmission failure or a reduction in the transmission rate.
  4. Do not connect a modular cable to the LAN port, otherwise your computer could break down.

❑ Caution in using the internal modem

Connecting to the Internet for a long time while still running some applications applies a considerable load on the CPU of the computer. It may lead to interruption of communication via the internal modem. In this case, exit all applications you are running except your browser and e-mail software before accessing the Internet again.

10 Using Internal LAN

Your computer has a built-in LAN device, so that it can be connected to a 10BASE-T or 100BASE-TX network.

❑ Preparing necessary items

LAN cable	LAN cables are available in two types: straight type and cross type. You need to use a cable that meets the data transfer rate of the network. So refer to the manual for the network device to which you intend to connect your computer and prepare an adequate cable.
Network device	Prepare a device that meets the objective of network connection. Here are some examples of network devices. • Network Adapter • Network Cable • Hub

Connecting a LAN cable

⚠ WARNING

ELECTRIC SHOCK

- Before connecting a LAN cable, always turn off your computer and disconnect the AC adapter, or you could get an electric shock.

ELECTRIC SHOCK

- If it thunders, immediately turn off the computer and disconnect the AC adapter and LAN cable from it. Lightning could cause damage to the computer and cause a fire in the worst case.

⚠ CAUTION

ELECTRIC SHOCK

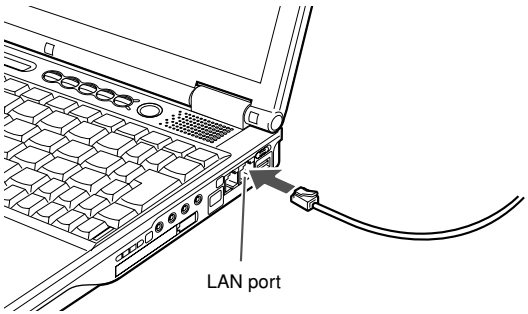
- Don't put any finger into the LAN port, or you could get an electric shock.

FAILURE

- Be sure to plug a LAN cable correctly in the LAN port. Failure to do so could cause your computer to fail.

1 Turn off your computer and disconnect the AC adapter.

2 Plug a LAN cable in the LAN port on the right panel of the computer.



3 Plug the LAN cable in the network device.
Connect the other end of the LAN cable that you connected in step 2, to the LAN port of the network device, then turn on the network device.

4 **Connect the AC adapter to the computer and turn the power on.**

5 **Click the Start button and select Control Panel.**

6 **Click Performance and Maintenance, then Power Option.**

7 **Click ⌄ of "System standby" on the Power Schemes tab, and select "Never."**

8 **Click ⌄ of "System suspended" and select "Never."**

9 **Click OK.**

10 **Make all necessary network settings.**

IMPORTANT

- When you are connecting to a local area network (or the Internet) using the LAN function, you should not put your computer into Standby or Hibernation mode. Doing so could cause your computer to break connection with the network or the Internet, depending on the environment in which your computer is being used.

  Turn off your computer if you are not using the computer for the connection.
- Your computer is configured by default so that the LAN device will not operate if you turn on the computer before connecting a LAN cable to it when the computer is powered by the internal battery.

Critical Points

- When disconnecting the LAN cable from the LAN port, pull it while pushing in the tab to avoid damage to the plug.
- When using the LAN device, you should preferably power your computer from the AC adapter since the LAN device consumes a large amount of electrical power.
- The built-in LAN device in your computer cannot be used along with any LAN card.
- If the LAN device does not operate normally, make all necessary settings.
- To avoid damage to the LAN device, do not connect a LAN cable to a modular jack.

11 Connecting a USB Device

❑ Preparing necessary items

USB device	Devices that can be connected to USB ports. Here are some typical examples of USB devices. Prepare a USB device that meets your needs. • Digital camera • CCD camera • Mouse • Printer • Scanner • Keyboard • Speaker
USB cable	Used to connect a USB device to the computer. Some USB devices come with a USB cable. For some USB devices, e.g., USB mice, the USB cable is an integral part of them. For more information, refer to the manual for the USB device you want to connect.
USB device driver	Some USB devices come with a CD or floppy disk that contains their respective drivers. Refer to the instruction manual for the USB device and use one that is compatible with Windows installed on your computer.
Manual for USB device	Ways of connection vary from USB device to USB device. So be sure to read also the manual for the USB device used.

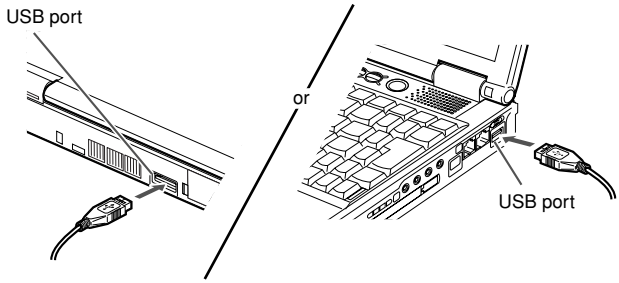
Critical Points

◆ Each USB port is capable of supplying up to 500mA to the USB device connected if the device requires no power supply from any other source. For more information, refer to the instruction manual for your USB device.

Connecting a USB device

1 Connect a cable to the USB device you want to use.

2 Plug the other end of the cable in the USB port of your computer.
Insert the cable with the USB connector's -marked surface facing upward.



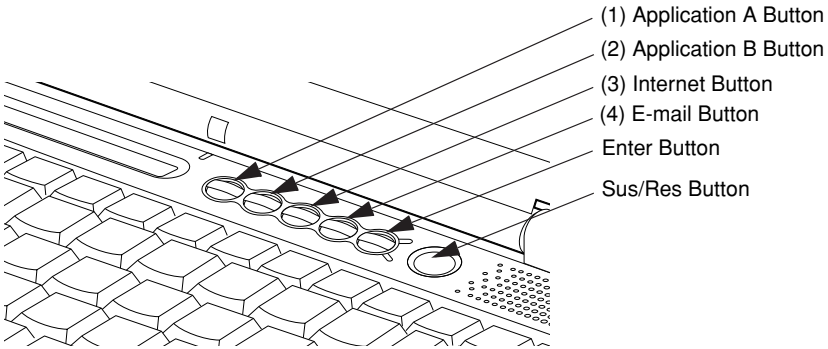
3 Install the device driver.
Some USB devices get ready for use only if being connected and they don't require the installation of a driver. For more information, refer to the manual for the USB device used.

Critical Points

- If the Install Hardware dialog box appears when you connect a USB cable, click Continue to install the device driver.

12 LifeBook Security/Application Panel

LifeBook Security / Application Panel



A unique feature of your LifeBook is the Security/Application Panel that allows you to secure your LifeBook from unauthorized use. The Security/Application Panel also allows you to launch applications with a touch of a button when your system is on. If the security system is activated, upon starting your LifeBook or resuming from suspend mode the security system requires you to enter a password code using the buttons on the Security/Application Panel. After entering a correct password, your LifeBook resumes system operation. (Refer diagram above)

Setting up your LifeBook Security Panel

- **Numbered Buttons**
  Use these buttons to enter your password.(Refer diagram above)

- **Enter Button**
  After entering the button strokes, push this button to enter the password into the LifeBook. (Refer diagram above)

Passwords

The user and supervisor password may be set on this LifeBook. A supervisor password is typically the same for all LifeBooks in a working group, office, or company to allow for system management. Individual LifeBooks in a group environment should not use a common password. A password consists of one to five button strokes plus the enter button. A valid stroke consists of pushing one or up to four buttons simultaneously. The following are valid button strokes:

- Pushing [4] by itself
- Pushing [2] and [3] at the same time
- Pushing [1], [2], and [4] at the same time
- Pushing [1], [2], [3], and [4] at the same time

The following are valid passwords. The numbers within braces ({ }) are button strokes using more than one button.

- {[2]+[3]}, [1], [enter]
- [4], [enter]
- {[1]+[3]}, {[2]+[3]+[4]}, [1], [4], [2], [enter]

● **Setting Passwords**
When shipped from the factory, no passwords are set. You have a choice of having no password or setting a supervisor and user password. You must set the supervisor password before the user password.

Critical Points

- ◆ The purpose of supervisor password is to be able to bypass the user password in case the user password is forgotten. The supervisor password alone will not lock the system.
- ◆ You have to set both the supervisor and user passwords for the security panel to work.

● **Setting Supervisor Password**
You must have set a supervisor password before setting any user passwords. The supervisor password can bypass the user password.

1. Go to the **Start** menu.
2. Click on **Run**.
3. Type in FJSECS.EXE, then press [Enter]
4. Follow the on-screen instructions to set the Supervisor password.

- **Setting User Password**

  1. Go to the **Start** menu.
  2. Click on **Programs.**
  3. Click on **Security Panel Application** and **Set User Password.**
  4. Follow the on-screen instructions to set the User password.

Critical Points

- ◆ You may change or remove the supervisor or user password by repeating the steps defined above.

Operating your LifeBook Security/Application Panel

The security lock feature is in effect both when the system resumes from Off or suspend state. You always need to push the Suspend /Resume button to input the user password. Your system will not begin the boot sequence without entering your supervisor/user password.

- **From Off State**

  1. Turn on your system.
  2. When the Security Indicator flashes, enter the password and press Enter button. For example, if the password is 22222, Press Button Number 2 five times and press Enter button. The LifeBook will boot to normal operation.

- **From Suspend State**

  1. Press your Suspend/Resume button.
  2. When the Security Indicator flashes, enter the password and press Enter button. The LifeBook should resume normal operation.

- **Incorrect Password Entry**

  If an invalid supervisor or user password is entered three times in succession, the system will "beep" for about one minute. If a valid password is entered within a minute (while system beeps), the beeping will stop and the LifeBook will resume normal operation. If no or an invalid password is entered while the system beeps, the system will return to its previous locked state (suspend or off) and the Security Indicator will go off. To reactivate the LifeBook after a password failure, you must press the Suspend/Resume button, then enter a correct password.

Critical Points

- Remember the user password you specified on the Security Panel Application. If you forget the password you will not be able to use your computer. The supervisor password can override the user password.

Precautions

- **Opening and Closing the Cover**
  Closing the cover automatically places the LifeBook into suspend mode. Opening the cover does not automatically place the LifeBook into normal operation. Instead, you must enter the proper security password after pushing the Suspend/Resume button.

- **Low Battery Operations**
  If your LifeBook has low battery, pushing the suspend/ resume button only turns on the Security Indicator. Your LifeBook does not unlock, the Security Indicator turns off after one minute. To resume normal operation, first attach a power supply to the LifeBook. Then you may unlock the LifeBook.

Uninstalling the security Panel Application

You have two options when uninstalling the security panel application:

- Uninstall the security panel application software. This will disable all security feature.
- Uninstall the security panel application with password still active. This will not allow any changes to the password.

- **Uninstalling the Security Panel Application Software**
  Remove passwords when User wants no password protection whatsoever and doesn't want to give anybody the utility to set a password on their computer. In this case, if passwords (supervisor, user, or both) are set, the passwords must first be cleared BEFORE removing the application. To clear passwords, follow same procedure in SETTING PASSWORD CODES except this time, select REMOVE, enter current password then click **Next**. When asked to confirm select **Yes**.

- **Removing Security Panel Application With Password still Active**
  Using this feature will not allow any changes to the password.

Critical Points

- Removing the applications does not remove the password. It simply removes the utility to change/ add/ remove passwords. To change your password you must reinstall the application.

- **User:**
  1. Go to Start Menu, Click on **Control Panel.**
  2. Open **Add/Remove Programs Properties** in the Control Panel.
  3. Select the **Security Panel Application** in the list, and click **Add/Remove.**
  4. When the Confirm File Deletion box appears, click **Yes.**

- **Supervisor:**
  1. Go to **Start** Menu, Click on **Control Panel.**
  2. Open **Add/Remove Programs Properties** in the Control Panel.
  3. Select the **Security Panel Application for Supervisor** in the list, and click **Add/Remove.**
  4. When the Confirm File Deletion box appears, click **Yes.**

- **Reinstalling the Security/Application Panel**
  To reinstall supervisor or user security application, you will need your Software Drivers CD where the programs is located at LifeBook_Options\Security Panel.It contains the setup files for supervisor and user security application.

  1. Double-click the Setup SETUPS.EXE file. The Installing Security Panel Application window will appear. Follow the instructions on the screen.
  2. Double-click the Setup SETUP.EXE file. The Installing Security Panel Application window will appear. Follow the instructions on the screen. Supervisor and user passwords can be set by the Windows Software which are FJSECS.EXE and FJSECU.EXE respectively. FJSECU.EXE for user password cannot run without supervisor password. First you need to run FJSECS.EXE to set supervisor password before setting user password. Follow instructions under Setting Passwords.

The LifeBook Security Panel is designed to prevent theft or unauthorized access to your LifeBook. It is important that you remember the password that has been set in your LifeBook otherwise the LifeBook will not be able to operate or resume from suspend.

The LifeBook Security Panel is a high security feature. Should you forget the password that you have set, you are required to return your LifeBook to:

Fujitsu PC Asia Pacific Pte. Ltd.
238A Thomson Road, #24-01/05
Novena Square Tower A
Singapore 307684

Note: The authorised Fujitsu Service Center will not be able to reset the password. Please remember to keep your password in a safe place.
There is a service charge for unlocking the password restricted LifeBook. You will bear all the cost returning the LifeBook to our service centre to unlock the password.

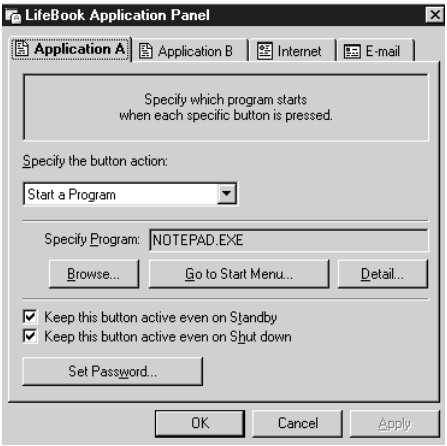
Email: www.fujitsu-pc-asia.com\contactus

Configuring your LifeBook Application Panel

When you start Windows, the LifeBook Application Panel is automatically activated.
As an application launcher, the LifeBook Application Panel is very flexible, giving you a variety of options. To set up the Panel to best suit your needs, we have provided the Application Panel Setup utility that quickly and easily helps you make the most of this valuable feature.

To configure your LifeBook Application Panel with Application Panel Setup:

1. **Click on Start.**
2. **Click on Control Panel.**
3. **Click on Application Panel.**



The Application Panel Setup utility will appear. There are tabs that correspond to the application buttons on the LifeBook Application Panel. When you receive your notebook, these buttons are configured to launch specific applications. Below is the example of applications associated with each button.

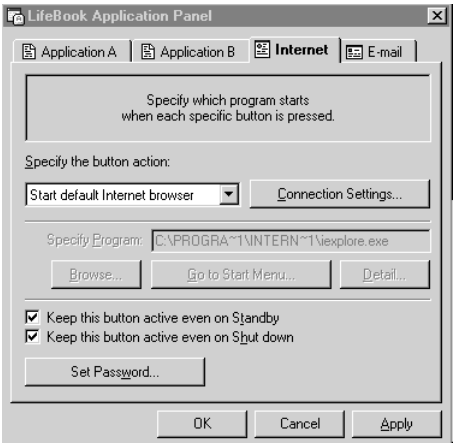
Label	Button Function	Default Application
1	Application A	Notepad
2	Application B	Calculator
3	Internet	Internet Explorer
4	E-Mail	Outlook Express/*others email application

Critical Points

- The tabs in Application Panel Setup may not be in the same order as the buttons on your LifeBook notebook. Please carefully select the tab you wish to change.

To change an application associated with the Application A, Application B, or E-mail buttons, click on the tab for the button you would like to reconfigure – for example, Application A. Click on Browse from Start Menu, scroll down the list of applications, click on the application you wish to launch with this button, and then click OK. The button will now launch the new application.
The Internet tab is different. It comes set to launch your default Windows Internet browser, (Internet Explorer, unless changed.) In order to reconfigure it to launch another program follow these easy steps:

1. **Click on Other from the Internet browser box.**
2. **Click on Browse from Start Menu.**
3. **Scroll down the list of applications, and the click on the application you wish to launch with this button.**
4. **Click OK.**

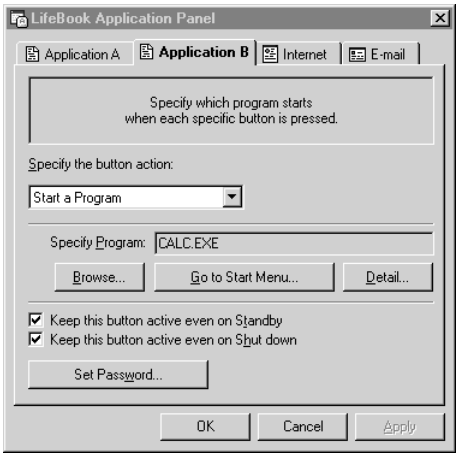


The button will now launch the new application. If you want to return to launching your Windows default Internet browser with this button, you need only click on “Default Internet Browser” from the Internet browser box. Be aware that you will erase the settings for the “other application”. If you wish to go back to launching the “other application” from this button, you will need to reconfigure it as described above.
When you have finished with Application Panel Setup click on OK, and the new settings will take effect. You can reconfigure your LifeBook Application Panel as often as you like.

Critical Points

- The Internet or E-mail buttons can be configured to launch any application you wish, not just an Internet browser or e-mail program.

Enabling/disabling Application Launcher button (Select Models Only)
At the bottom of each application setup page are two selectable options. The first will “Keep this button active even on Standby”, and the second will “Keep this button active even on Hard Drive Timeout”. You can enable/disable either or both of these functions simply by check or unchecking the check Box.



Configure your E-mail Account Settings

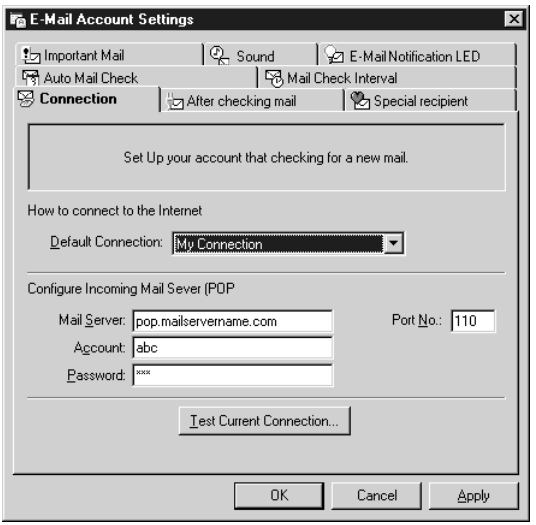
Critical Points

- The E-mail Notification LED is available on select LifeBook notebook models only.
- To use the E-mail LED notification, you must have access to a POP3 Server with no Security Password Authentication. Contact your service provider to determine if they support POP3 without Security Password Authentication.

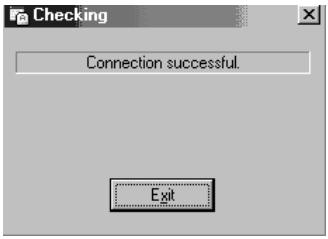
Connection

To configure the E-mail Account Settings:

1. **Click on Start.**
2. **Click on Control Panel.**
3. **Click on Application Panel.**
4. **Click on the E-Mail tab.**
5. **Click on E-Mail Account Settings...**
6. **The E-Mail Setup screen appears. Choose the type of connection: LAN or Dial Up.**



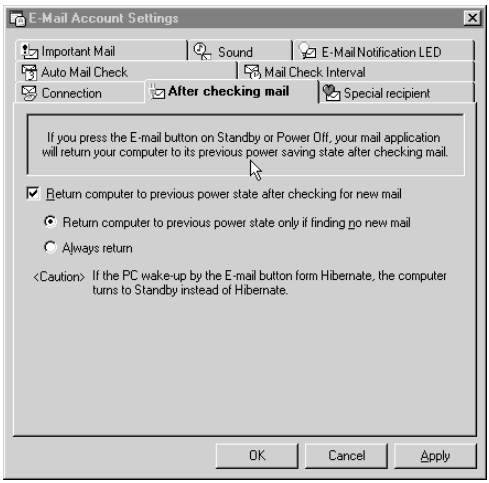
- If LAN: Click on LAN. Enter the POP3 Server name, your account name and password for that account. Consult your Service provider if you do not know or are unsure of the information requested.
- If Dial Up: Click on Dial Up. Choose the Dial up configuration (as previously set in Dial Up Networking) you wish to retrieve mail from. Enter the POP3 Server name, your account name and password for that account. The account name and password should be the same information you entered in the Dial Up configuration. After all the information has been entered, test the connection by clicking on "Testing connection with current setting". If an error occurs, check the settings and information on Dial Up Network and E-mail LED notification.



After the setup (Dial Up Networking/E-mail) is completed, you are ready to retrieve mail. When you press the E-mail button, your system will establish connection with your provider, check for and retrieve new mails, terminate the connection.

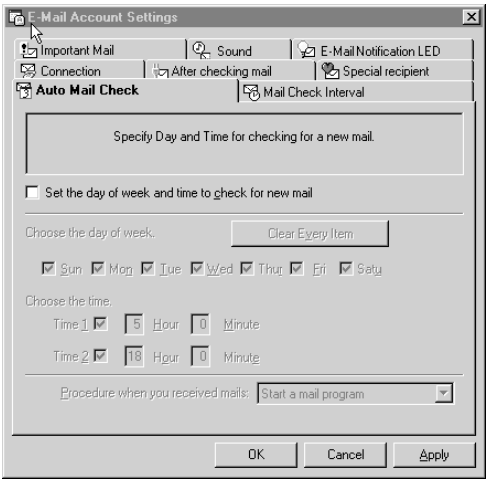
To configure After checking mail

This setting let you set your computer to return back to the previous power saving state after checking mail.



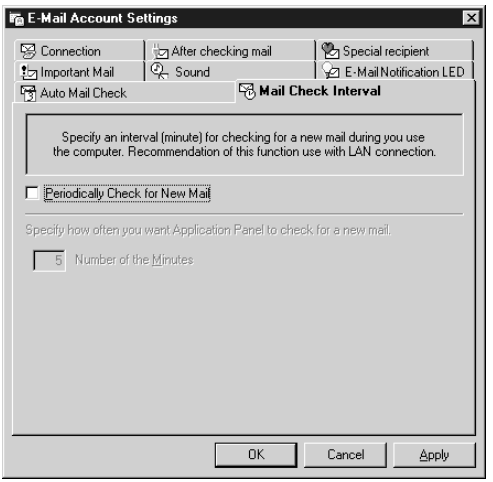
To configure Auto Mail Check

This function allow you to specify day and time for checking new mail. Only applicable when the PC stays Standby.



To configure Mail Check Interval

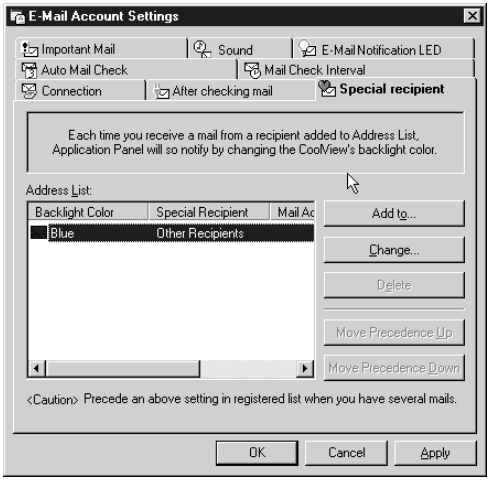
This function allow you to specify an interval (minutes) for checking for a new mail during you use the computer. Recommendation of this function use with LAN connection.



To configure Special recipient

This function allow you to add a special recipient on the Address List.

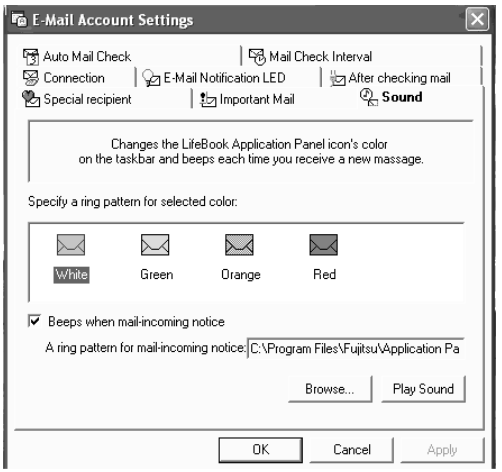
You have to specify from the Mail Check Interval to check the check box of Periodically check for New Mail from the menu Mail Check Interval.



There is an icon like envelop appear on the taskbar. When you received the email from the special recipients that you configure.

To configure Important Mail (Only applicable for CoolView Panel model)
This function allow you to change the icon color on the taskbar to notifies you that an important mail comes.

To configure Sound
This allow you to change the LifeBook Application icon's color on the taskbar and beeps each time you receive a new message.



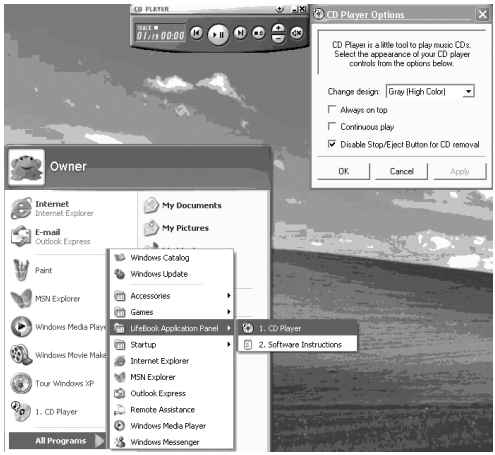
Desktop Control Panel

Your LifeBook notebook includes a CD Player control panel. You may use this panel to operate the Disc Player.

To use the desktop control panel:

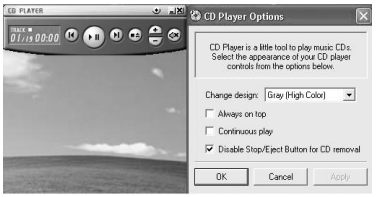
1. **Click on Start.**
2. **Click on All Programs.**
3. **Click on LifeBook Application Panel.**
4. **Click on Display CD Player.**

The CD Player will appear in the upper left corner of your screen.
To close the panel, click on the "x" button. To minimize the panel, click on the "-" button.

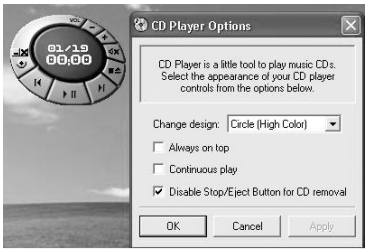


You can select from four appearances for your CD Player. Simply double click on the track display area of the panel, and a menu will appear which will allow you to select from a pull down menu. On the CD Players Options menu box, you have an options to select : Always on top, Continuous play and Disable Stop/Eject Button from the CD removal. If you click on "Always on top" the desktop controls will always be seen on your screen, no matter what other application you are running. If you click on "Continuous Play", your Disc Player will automatically start over at the beginning as soon as it finishes the last track. By default the Eject Button is disable from the CD Player Options. Once you click the Eject button from the CD Player, the drive will not eject. If you want the Eject Button to be function, uncheck this options.

You can change the CD Player design by selecting the setting from the pull down menu from the CD Player options.

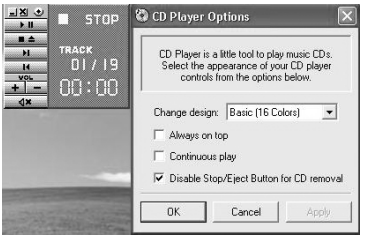


Grey (High Color)



Circle (High Color)

Stick (High Color)



Basic (16 colors)

You can move the CD Player to anywhere on your desktop. Drag it by clicking on the track number display, holding it down, and dragging the control panel.
When you have placed it where you would like, release the mouse button.

Critical Points

- If you have your display set to 256K colors the basic display will appear no matter which one you select. You will need to set your display colors to more than 256K in order to select other display appearances.
- When you close the Disc Player's desktop control panel, it will stop the audio Disc Player.

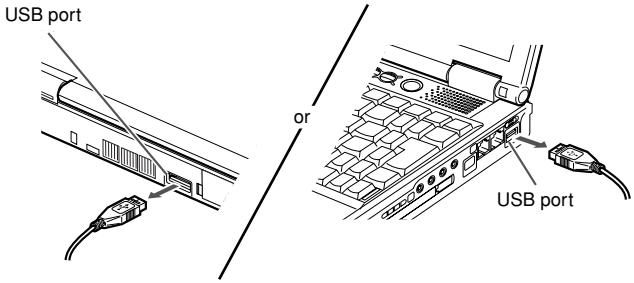
Precautions

- LifeBook Application Panel uses the date and time settings of your LifeBook notebook. If the date and time are off, you can adjust this setting in the Windows Control Panel.
- If you insert an audio CD which has both audio and data tracks into the Disc Player, the Disc Player may fail to play the first audio track.
- The Volume Up, Volume Down and Mute controls for the Disc Player desktop control panel adjusts the volume of the CD audio line only. It does not adjust your notebook's master software volume control or the manual volume on the LifeBook notebook.
- The Disc Player desktop control panel is designed to be displayed in High Color (16-bit) or in True Color (24-bit or more). If you have your notebook's display set for 256 colors or less, the Disc Player control panel will display in a "basic" mode.

13 Connecting a Mouse

Connecting a USB mouse

1 Plug the USB mouse cable in the USB port of the computer.
Align the connectors by matching their shapes and insert the connector of the mouse straight into the USB port of the computer.



Critical Points

- A USB mouse can be connected and disconnected even when the computer is on.
- Connecting a USB mouse does not automatically disable the Flat Point. To disable the Flat Point, follow the steps described in the next section, “Disabling the Flat Point.”

❑ Disabling the Flat Point

When a USB mouse is connected to your computer, not only the mouse but also the Flat Point are enabled. To disable the Flat Point, follow these steps.

1 After Windows starts, press the [F4] key while holding the [Fn] key down.
The Flat Point switches between Enabled and Disabled each time you press the [F4] key while holding the [Fn] key down. When you activate or deactivate the Flat Point, the message “Internal pointing device: Enabled” or “Internal pointing device: Disabled” appears on the screen, respectively.

IMPORTANT

- Don’t disable the Flat Point before connecting a USB mouse to your computer.

Critical Points

- Even when you disable the Flat Point by pressing the [F4] key while pressing down the [Fn] key, the Flat Point is enabled after restarting or resuming operation of the computer. To disable it, you need to press the [F4] key again while holding the [Fn] key down.
- The Flat Point can be turned on and off manually only when the “Internal pointing device” item is set to “Manual” under “Keyboard/Mouse Settings “ in the BIOS Setup Advanced Menu. If the Manual option is unselected, select it.
- If you set the “Internal pointing device” item of the “Keyboard/Mouse Settings” in the BIOS Setup Advanced Menu to “Always disabled”, the Flat Point is always disabled.

14 Printer

This section describes connection of a printer to the parallel connector on the connector box. With a printer, you can print the documents and images that are generated on the PC.

Critical Points

- If the printer is one corresponding to USB connection, the USB connector can also be used for connection.

Connecting Printer

⚠ WARNING

ELECTRIC SHOCK

- To connect/remove a printer, be sure to switch the PC power off and disconnect the AC adapter beforehand. Otherwise you may undergo an electric shock.

⚠ CAUTION

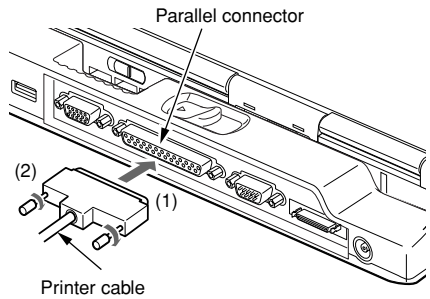
FAILURE

- When connecting cables, read this manual well to avoid misconnection.
  If the PC is used with a wrong connection, the PC and/or the printer may be damaged.

1 Switch the PC power off and disconnect the AC adapter.

2 Install the connector box.

3 Connect the printer cable to the parallel connector on the connector box.
When viewed from the front, the connectors are in a trapezium shape.
Study the shapes of the connectors and firmly insert the cable connector (1), then fix it, tightening the left and right screws on it (2).



4 **Connect the printer cable and the power cable to the printer.**
Refer to the printer manual for the details on connection.
Some printers may already have their power cables fixed on them.

5 **Insert the printer power cable plug to a receptacle and switch the printer power on.**

6 **Connect the AC adapter to the PC and switch the PC power on.**

7 **If the printer is connected for the first time, install the driver.**
Read the printer manual to install the driver.
Floppy disk(s) or CD(s) may be used for driver installation.

Critical Points

- Printer connection needs a printer cable. Some printer packages may not include a printer cable.
- In addition, the printer cable that is attached to the printer may not be used due to a different connector shape. If this is the case, obtain a separately available cable that can be connected to the PC.
- The printer connection procedures differ depending on your printer. Refer to the printer manual for the details.

15 Connecting an External Display

❑ Preparing necessary items

External display	Prepare an external display that supports PC/AT-compatible or DOS/V computers.
Display cable	Cables for connection between a computer and an external display. Generally, an external display comes with a separate cable or a cable fixed to the back. If no display cable is included with your external display or if the cable connector is not compatible with your computer, prepare a display cable that is designed for PC/AT-compatible or DOS/V computers and that has a connector compatible with the external display.
Manual for the external display used	Ways of connection vary from display to display. So be sure to read also the manual for the external display used.

Connecting an external display

This section explains how to connect a CRT display to the external display connector on the rear panel of your computer.

⚠ WARNING

ELECTRIC SHOCK

- Before connecting or disconnecting an external display to your computer, always turn off the computer and disconnect the AC adapter from it. Failure to do so could lead to an electric shock.

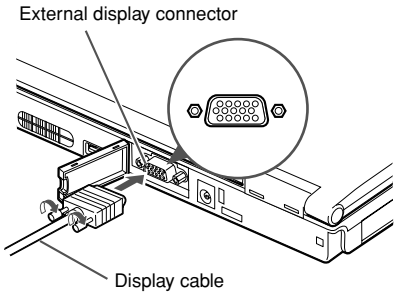
⚠ CAUTION

FAILURE

- Before connecting a cable, read this manual carefully so that you can connect it correctly.
  Connecting a cable incorrectly could cause your computer and external display to break down.

1 **Turn off the computer and disconnect the AC adapter from it.**

2 **Connect the display cable to the external display connector on the rear panel of your computer.**
A display cable connector has a trapezoidal cross section.
Adjust the orientation of the connector, (1) insert the cable connector, and (2) secure the display cable with the screws on both sides of the connector.



3 **Connect the display cable to the CRT display.**
For the way to connect the cable, refer to the manual for your CRT display.

4 **Plug the power cable of the CRT display in a wall outlet and turn it on.**

5 **Connect the AC adapter to the computer, turn it on, and then switch displays.**
- Switching displays

Critical Points

- The following may take place when you turn on your computer for the first time after connecting an external display to it.
  - Images are displayed on both the computer's LCD display and the external display.
  - The Add New Hardware Wizard dialog box appears.
    In this case, follow the on-screen instructions to install the display driver.

SECTION 3

This section explains what to do when trouble occurs with this computer and when messages are displayed. Read this section as the necessity arises.

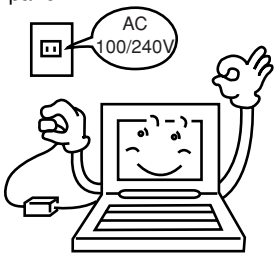
1 When This Happens

When you are having trouble with this computer, there is something you think is strange, or there is something you want to do, but do not know how. This section is divided into related items.

● The power does not come on.

Checkpoint	Cause and Solution
Is the AC adaptor connected?	When using this computer for the first time after purchase, the battery is not yet charged, so you must connect the AC adaptor and turn on the main switch.
Is the main switch turned on?	If the main switch is not turned on, the power will not come on even if the SUS/RES button is pressed.
Is the battery charged?	If a beep is heard when the main switch is turned on, then the battery is running low (LOW BATTERY). Connect the AC adaptor.
Has the computer been left unused for a long time?	When using the computer for the first time after leaving it unused for a long time, connect the AC adaptor and switch on the main switch to switch on the power.

● Nothing displayed on the LCD panel

Checkpoint	Cause and Solution
Is ⏻ displayed on the LCD panel? 	• **Displayed** Adjust the brightness and darkness with the brightness and contrast controls. • **Flashing or not displayed** Press the SUS/RES button to put the computer into operating mode. Check if the battery is charged. If it is not charged, connect the AC adaptor and charge it. If you are already using this computer with the AC adaptor connected, check that it is correctly plugged into the power socket and into the computer.
Is anything displayed on the status indicator LCD?	Connect the AC adaptor and switch on the main switch.

Checkpoint	Cause and Solution
Have you been pressing any of the keys?	On this computer, if the power management functions are set and no key is pressed for a certain period of time, the CPU stops and the LCD panel backlight goes out. (In this state, pressing any key lights up the backlight again.) If the computer stops too frequently, change the BIOS setup settings.
Is it set to output to the CRT?	Switch over to the LCD display with the **[Fn]** + **[F10]** keys.

● **LCD panel hard to read**

Checkpoint	Cause and Solution
Is the control adjusted?	Adjust the brightness with the brightness and contrast controls.

● **Battery is not charged**

Checkpoint	Cause and Solution
Is the AC adaptor connected?	Check that the AC adaptor is correctly plugged into the power socket and into the computer.
Is the battery overheated (The ➡ on the LCD display flashes.)?	If the ambient temperature is high and the battery temperature becomes too high during use, the battery protection function may be triggered to stop the charging.
Is the computer too cold (The ➡ on the LCD display flashes.)?	If the battery temperature falls too low, the battery protection function may be triggered to stop the charging.
Was the charging stopped midway?	If you use the computer and disconnect the AC adaptor between the start of charging and the time the ➡ LCD turns off, then the battery will not become fully charged. Once you start charging do not remove the AC adaptor until the ➡ LCD turns off.

● **The remaining battery charge indicator does not stop flashing.**

Checkpoint	Cause and Solution
Is the battery connected correctly?	Check that the battery is connected correctly. If it is connected correctly, there is an abnormality in the battery pack, so replace the battery pack.
Is the battery low?	Attach the AC adaptor and charge the battery.

● **Floppy disk can not be used.**

Checkpoint	Cause and Solution
If the floppy disk loaded into the floppy disk drive correctly?	Insert the floppy disk with its label facing up, into the drive shutter and keep inserting firmly until you hear a clicking sound.
Is the floppy disk formatted?	New floppy disks can not be used until they are formatted (initialized). Format the floppy disk.
Is Diskette A set to Not Installed in the BIOS setup?	Check the Diskette A item in the BIOS setup Main menu.
Is Diskette access set to Supervisor only in the BIOS setup?	Check the Diskette access item in the BIOS setup Security menu.
Is the floppy disk write inhibited?	Set the write protect tab on the floppy disk to the write enable position.
Does it work with a different floppy disk?	If it works with a different floppy disk then the problem floppy disk may be damaged.

● **No sound or minimal sound from speaker**

Checkpoint	Cause and Solution
Is the volume control correctly adjusted?	Turn the volume control for the correct volume. If this does not change the volume, double click the task bar sound indicator and adjust the volume. Check also whether the sound driver is installed correctly.

● **Can not record from Mic or Line In jack**

Checkpoint	Cause and Solution
Is the mic correctly adjusted?	Turn the volume control to obtain the correct volume. If the line jack is connected to the sound source, then check that connection. If this still does not solve the problem, then double click the task bar sound indicator and adjust the volume.

● **LCD panel does not close.**

Checkpoint	Cause and Solution
Is something caught in the LCD display panel?	Forcing the LCD display panel closed can damage it. Check for something caught in the LCD display panel. Also, a metal object such as a paper clip can cause a breakdown if it gets caught in between the keys.

● **The power management function is not executed.**

Checkpoint	Cause and Solution
Is Power Savings set to off in the BIOS setup?	Reset the BIOS setup.
Are you executing a program that rewrites the screen?	If you are executing a program that rewrites the screen even when no key is pressed, for example a clock display or screen save, the power management function is not executed.

● **Data cannot be read from the CD-ROM drive.**

Checkpoint	Cause and Solution
Is the CD-ROM correctly set?	Set the CD-ROM correctly with its label facing upwards.
Is there any dirt, condensation or water on the CD-ROM?	Wipe it from the center outwards with a dry, soft cloth.
Is the CD-ROM scratched or extremely warped?	Replace the CD-ROM.
Are you using a non-standard CD-ROM?	Use a CD-ROM which conforms to the standards.

● **The CD cannot be ejected from the CD-ROM.**

Checkpoint	Cause and Solution
Is it in operating mode?	The CD can only be ejected when the personal computer main unit is in operating mode because its CD-ROM drive has an electronic lock. Check that the personal computer main unit is in operating mode and press the EJECT button. If for some reason the CD tray does not come out even when you press the EJECT button, insert a clip or somthing into the hole to the right of the EJECT button and pull the tray out. If the tray doesn't still come out, click the CD-ROM icon in the "My Computer" window with the right button of the mouse and then click "EJECT".

2 Care and Maintenance

If you use your Fujitsu LifeBook notebook carefully, you will increase its life and reliability. This section provides some tips for looking after the notebook and its devices.

Caution:
Electrical equipment may be hazardous if misused. Operations of this product or similar products, must always be supervised by an adult. Do not allow children access to the interior of any electrical products and do not permit them to handle any cables.

LIFEBOOK NOTEBOOK

Caring for your LifeBook Notebook

- Your LifeBook notebook is a durable but sensitive electronic device. Treat it with care.
- Make a habit of transporting it in a suitable carrying case.
- Do not attempt to service the computer yourself. Always follow installation instructions closely.
- Keep it away from food and beverages.
- If you accidentally spill liquid on your notebook:

  1. Turn it off.
  2. Position it so that the liquid can run out.
  3. Let it dry out for 24 hours, or longer if needed.
  4. If your notebook will not boot after it has dried out, call your support representative.
- Do not use your LifeBook notebook in a wet environment (near a bathtub, swimming pool).
- Always use the AC adapter and batteries that are approved for your notebook.
- Avoid exposure to sand, dust and other environmental hazards.
- Do not expose your LifeBook notebook to direct sunlight for long periods of time as temperatures above 140°F (60°C) may damage your notebook.
- Keep the covers closed on the connectors and slots when they are not in use.
- Do not put heavy or sharp objects on the computer.
- If you are carrying your LifeBook notebook in a briefcase, or any other carrying case, make sure that there are no objects in the case pressing on the lid.
- Do not drop your LifeBook notebook.
- Do not touch the screen with any sharp objects.

Cleaning your LifeBook Notebook

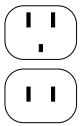
- Always disconnect the power plug. (Pull the plug, not the cord.)
- Clean your LifeBook notebook with a damp, lint-free cloth. Do not use abrasives or solvents.
- Use a soft cloth to remove dust from the screen.Never use glass cleaners.

Storing your LifeBook Notebook

- If storing your notebook for a month or longer, turn your LifeBook notebook off and remove all Lithium Ion batteries.
- Store your LifeBook notebook and batteries separately. If you store your notebook with a battery installed, the battery will discharge, and battery life will be reduced. In addition, a faulty battery might damage your notebook.
- Store your LifeBook notebook in a cool, dry location. Temperatures should remain between -25°C (13°F) and 60°C (140°F).

Travelling with your LifeBook Notebook

- Do not transport your LifeBook notebook while it is turned on.
- Do not check your LifeBook notebook as baggage. Carry it with you.
- Always bring your System Recovery CD that came with your LifeBook notebook when you travel. If you experience system software problems while travelling you may need it to correct any problems.
- Never put your LifeBook notebook through a metal detector. Have your notebook hand-inspected by security personnel. You can, however, put your LifeBook notebook through a properly tuned X-ray machine. To avoid problems, place your notebook close to the entrance of the machine and remove it as soon as possible or have your notebook hand-inspected by security personnel. Security officials may require you to turn your notebook On. Make sure you have a charged battery on hand.

Outlet type	Location
	United States, Canada, parts of Latin America, Japan, Korea, the Philippines, Taiwan
	Russia and the Commonwealth of Independent States (CIS), most of Europe, parts of Latin America, the Middle East, parts of Africa, Hong Kong, India, most of South Asia
	Mexico, United Kingdom, Ireland, Malaysia, Singapore, parts of Africa
	China, Australia, New Zealand

- When travelling with the hard drive removed, wrap the drive in a non-conducting materials (cloth or paper). If you have the drive checked by hand, be ready to install the drive if needed. Never put your hard drive through a metal detector. Have your hard drive hand-inspected by security personnel. You can however, put your hard drive through a properly tuned X-ray machine.
- Take the necessary plug adapters if you're travelling overseas. Check the following diagram to determine which plug adapter you'll need or ask your travel agent.

BATTERIES

Caring for your Batteries

- Always handle batteries carefully.
- Do not short-circuit the battery terminals (that is, do not touch both terminals with a metal object). Do not carry lose batteries in a pocket or purse where they may mix with coins, keys, or other metal objects. Doing so may cause an explosion or fire.
- Do not drop, puncture, disassemble, mutilate or incinerate the battery.
- Recharge batteries only as described in this manual and only in ventilated areas.
- Do not leave batteries in hot locations for more than a day or two. Intense heat can shorten battery life.
- Do not leave a battery in storage for longer than 6 months without recharging it.

Increasing Battery Life

- Power your LifeBook notebook through the AC or optional auto/airline adapater whenever possible.
- If your LifeBook notebook is running on battery power all day, connect it to the AC adapater overnight to recharge the battery.
- Keep brightness to the lowest level comfortable.
- Set the power management for maximum battery life.
- Put your LifeBook notebook in Suspend mode when it is turned on and you are not actually using it.
- Limit your DVD/CD-RW/CD-ROM access.
- Disable the Windows CD automatic insertion function.
- Always use fully charged batteries.
- Eject PCMCIA cards when not in use.

FLOPPY DISKS AND DRIVES

Caring for your Floppy Disks

- Avoid using the floppy disks in damp and dusty locations.
- Never store a floppy disk near a magnet or magnetic field.
- Do not use a pencil or an eraser on a disk or disk label.
- Avoid storing the floppy disks in extremely hot or cold locations, or in locations subject to severe temperature changes. Store at temperatures between 50°F (10°C) and 125°F (52°C)
- Do not touch the exposed part of the disk behind the metal shutter.

Caring for your Floppy Disk Drive

- To clean, wipe the floppy disk drive clean with a dry soft cloth, or with a soft cloth dampened with water or a solution of neutral detergent. Never use benzene, paint thinner or other volatile material.
- Avoid storing the floppy disk drive in extremely hot or cold locations, or in locations subject to severe temperature changes. Store at temperatures between 50°F (10°C) and 125°F (52°C)
- Keep the floppy disk drive out of direct sunlight and away from hating equipment.
- Avoid storing the floppy disk drive in locations subject to shock and vibration.
- Never use the floppy disk drive with any liquid, metal, or other foreign matter inside the floppy disk drive or disk.
- Never disassemble or dismantle your floppy disk drive.

DVD/CD-RW/CDs

Caring for your DVD/CD-RW/CDs

- DVD/CD-RW/CDs are precision devices and will function reliably if given reasonable care.
- Always store your DVD/CD-RW/CDs in its case when it is not in use.
- Always handle DVD/CD-RW/CDs by the edges and avoid touching the surface.
- Avoid storing any DVD/CD-RW/CDs in extreme temperatures.
- Do not bend DVD/CD-RW/CDs or set heavy objects on them.
- Do not spill liquids on DVD/CD-RW/CDs.
- Do not scratch DVD/CD-RW/CDs.
- Do not put a label on DVD/CD-RW/CDs.
- Do not get dust on DVD/CD-RW/CDs.
- Never write on the label surface with a ballpoint pen or pencil. Always use a felt pen.
- If a DVD/CD-RW/CD is subjected to a sudden change in temperature, cold to warm condensation may form on the surface. Wipe the moisture off with a clean, soft, lint free cloth and let it dry at room temperature, DO NOT use a hair dryer or heater to dry DVD/CD-RW/CDs.
- If a DVD/CD-RW/CD is dirty, use only a DVD/CD-RW/CD cleaner or wipe it with a clean, soft, lint free cloth starting from the inner edge and wiping to the outer edge.

Caring for your DVD/CD-RW/CD-ROM Drive
Your DVD/CD-RW/CD-ROM drive is durable but you must treat it with care. Please pay attention to the following points:

- The drive rotates the compact disk at a very high speed. Do not carry it around or subject it to shock or vibration with the power on.
- Avoid using or storing the drive where it will be exposed to extreme temperatures.
- Avoid using or storing the drive where it is damp or dusty.
- Avoid using or storing the drive near magnets or devices that generate strong magnetic fields.
- Avoid using or storing the drive where it will be subjected to shock or vibration.
- Do not disassemble or dismantle the DVD/CD-RW/D-ROM drive.

PC CARDS

Caring for your PC Cards
PC Cards are durable, but you must treat them with care. The documentation supplied with your PC Card will provide specific information, but you should pay attention to the following points:

- To keep out dust and dirt, store PC Cards in their protective sleeves when they are not installed in your notebook.
- Avoid prolonged exposure to direct sunlight or excessive heat.
- Keep the cards dry.
- Do not flex or bend the cards, and do not place heavy objects on top of them.
- Do not force cards into the slot.
- Avoid dropping cards, or subjecting them to excessive vibration.

3 Glossary

AC Adapter
A device which converts the AC voltage from a wall outlet to the DC voltage needed to power your notebook.

Active-Matrix Display
A type of technology for making flat-panel displays which has a transistor or similar device for every pixel on the screen.

APM
Advanced Power Management.

Auto/Airline Adapter
A device which converts the DC voltage from an automobile cigarette lighter or aircraft DC power outlet to the DC voltage needed to power your notebook.

BIOS
Basic Input-Output System. A program and set of default parameters stored in ROM which tests and operates your notebook when you turn it on until it loads your installed operating system from disk. Information from the BIOS is transferred to the installed operating system to provide it with information on the configuration and status of the hardware.

Bit
An abbreviation for binary digit. A single piece of information which is either a one (1) or a zero (0).

bps
An abbreviation for bits per second. Used to describe data transfer rates.

Boot
To start-up a computer and load its operating system from disk, ROM or other storage media into RAM.

Bus
An electrical circuit which passes data between the CPU and the sub-assemblies inside your notebook.

Byte
8 bits of parallel binary information.

Cache Memory
A block of memory built into the micro-processor which ins much faster to access than your system RAM and used in specially structured ways to make your overall data handling tine faster.

CardBus
A faster, 32-bit version of the PC Card interface which offers performance similar to the 32-bit PCI architecture.

CD-ROM
Compact disc read only memory. This is a form of digital data storage which is read optically with a laser rather than a magnetic head. A typical CD-ROM can contain about 600MB of data and is not subject to be crashing into the surface and destroying the data when there is a failure nor to wear from reading.

CMOS RAM
Complementary metal oxide semiconductor random access memory. This is a technology for manufacturing random access memory which requies very low level power to operate.

COMM Port
Abbreviation for communication port. This is your serial interface connection.

Command
An instruction which you give your operating system. Example: run a particular application or format a floppy disk.

Configuration
The combination of hardware and software that make up your system and how it is allocated for use.

CRT
Cathode Ray Tube. A display device which uses a beam of electronic particles striking a luminescent screen. It produces a visual image by varying the position and intensity of the beam.

Data
The information a system stores and processes.

DC
Direct current. A voltage or current that does not fluctuate periodically with time.

Default Value
A pre programmed value to be used if you fail to set your own.

DIMM
Dual-in-line memory module.

LAN
Local Area Network. An interconnection of computers and peripherals within a single limited geographic location which can pass programs and data amongst themselves.

LCD
Liquid Crystal Display. A type of display which makes images by controlling the orientation of crystals in a crystalline liquid.

Lithium ion Battery
A type of rechargeable battery which has a high power-time life for its size and is not subject to the memory effect as Nickel Cadmium batteries.

LPT Port
Line Printer Port. A way of referring to parallel interface ports because historically line printers were the first and latter the most common device connected to parallel ports.

MB
Megabyte.

Megahertz
1,000,000 cycles per second.

Memory
A repository for data and applications which is readily accessible to your notebook CPU.

MHz
Megahertz.

MIDI
Musical Instrument Digital Interface. A standard communication protocol for exchange of information between computers and sound producers such as synthesizers.

Modem
A contraction for MOdulator-DEModulator. The equipment which connects a computer or other data terminal to a communication line.

Monaural
A system using one channel to process sound form all sources.

MPU-401
A standard for MIDI interfaces and connectors.

NTSC
National TV Standards Commission. The standard for TV broadcast and reception for the USA.

Operating System
A group of control programs that convert application commands, including driver programs, into the exact form required by a specific brand and model of microprocessor in order to produce the desired results from that particular equipment.

Parallel Port
A connection to another device through which data is transferred as a block of bits simultaneously with a wire for each bit in the block and with other wires only for control of the device not for transfer of data.

Partition
A block of space on a hard drive which is set aside and made to appear to the operating system as if it were a separate disk, and addressed by the operating system accordingly.

PCMCIA
PCMCIA is trademark of the Personal Computer Memory Card International Association. The Personal Computer Memory Card International Association is an organization that sets standards for add-in cards for personal computers.

Peripheral Device
A piece or equipment which performs a specific function associated with but not integral to a computer. Examples: a printer, a mode, a CD-ROM.

Pitch (keyboard)
The distance between the centers of the letter keys of a keyboard.

Pixel
The smallest element of a display, a dot of color on your display screen. The more pixels screen. The more pixels per area the clearer your image will appear.

POST
Power On Self Test. A program which part of the BIOS which checks the configuration and operating condition of your hardware whenever power is applied to your notebook. Status and error messages may be displayed before the operating system is loaded. If the self test detects failures that are so serious that operation can not continue, the operating system will not be loaded.

Disk
A spinning platter of magnetic data storage media. If the platter is very stiff it is a hard drive, if it is highly flexible it is a floppy disk, if it is a floppy disk in a hard housing with a shutter it is commonly called diskette.

Disk Drive
The hardware which spins the disk and has the heads and control circuitry for reading and writing the data on the disk.

Diskette
A floppy disk in a hard housing with a shutter.

DMA
Direct Memory Access. Special circuitry for memory to memory transfer of data which do not require CPU action.

DMI
Desktop Management Interface. A standard that provides PC management applications with a common method of locally or remotely querying and configuring PC computer systems hardware and software components, and peripherals.

DOS
Disk Operating System (MS-DOS is a Microsoft Disk Operating System).

Driver
A computer program which converts application and operating system commands to external devices into the exact from required by a specific brand and model of device in order to produce the desired results from that particular equipment.

ECP
Extended Capability Port. A set of standards for high speed data communication and interconnection between electronic devices.

ESD
Electro-Static Discharge. The sudden discharge of electricity form a static charge which has built-up slowly. Example: the shock you get from a doorknob on a dry day or the sparks you get form brushing hair on a dry day.

Extended Memory
All memory more than the 640KB recognized by MS-DOS as system memory.

FCC
Federal Communication Commission.

Floppy Disk
A spinning platter of magnetic data storage media which is highly flexible.

GB
Gigabyte.

Hard drive
A spinning platter of magnetic data storage media where the platter is very stiff.

Hexadecimal
A decimal notation for the value of a 4 bit binary number. (0-9, A, B, C, D, E, F) Example: 2F in hexadecimal = 00101111 = 47 in decimal.

I/O
Input/Output. Data entering and leaving your notebook in electronic form.

I/O Port
The connector and associated control circuits for data entering and leaving your notebook in electronic form.

IDE
Intelligent Drive Electronics. A type of control interface for a hard drive which is inside the hard drive unit.

Infrared
Light just beyond the red portion of the visible light spectrum which is invisible to humans.

IR
An abbreviation for infrared.

IrDA
Infrared Data Association. An organization which produces standards for communication using infrared as the carrier.

IRQ
Interrupt Request. An acronym for the hardware signal to the CPU that an external event has occurred which needs to be processed.

KB
Kilobyte.

Program
An integrated set of coded commands to your computers telling your hardware what to do and how and when to do it.

PS/2
An IBM series of personal computers which established a number of standards for connecting external devices such as keyboards and monitors.

RAM
Random Access Memory. A hardware component of your notebook that holds binary information (both program and data) as long as it has the proper power applied to it.

RAM Module
A printed circuit card with memory and associated circuitry which allows the user to add additional memory to the computer without special tools.

Reset
The act of reloading the operating system. A reset erases all information stored in RAM.

Restart
See Reset.

Resume
To proceed after interruption. In your notebook this refers to returning to active operation after having been in one of the suspension states.

ROM
Read Only Memory. A form of memory in which information is stored by physically altering the material. Data stored in this way can not be changed by your notebook and does not require power to maintain it.

SDRAM
Synchronous Dynamic Random Access Memory.

Serial Port
A connection to another device through which data is transferred one bit at a time on a single wire with any other wires only for control of the device not for transfer of data.

Shadow RAM
A technique of copying data or applications stored in ROM (Read Only Memory) into RAM (Random Access Memory) for access during actual operation. RAM is much faster to access than ROM, however ROM contents are not lost when power is removed. Shadowing allows permanently stored information to be rapidly accessed.

SMART
Self-Monitoring, Analysis and Reporting Technology (SMART) is an emerging technology that provides near-term failure predictions for hard drives. When SMART is enabled the hard drive monitors predetermined drive attributes that are susceptible to degradation over time. If a failure is likely to occur. SMART makes a status report available so that the LifeBook can prompt the user to back up the data on the drive. Naturally not all failures are predictable. SMART predictability is limited to those attributes which the drive can self-monitor. In those cases where SMART can give advance warning, a considerable amount of precious data can be saved.

SRAM
Static random access memory. A specific technology of making RAM which does not require periodic data refreshing.

Status Indicator
A display which reports the condition of some portion of your hardware. On your notebook this is an LCD screen just above the keyboard.

Stereo (audio)
A system using two channels to process sound from two different sources.

Stroke (keyboard)
The amount of travel of a key when it is pressed from resting to fully depressed.

Suspend
To make inoperative for a period of time. Your notebook uses various suspension states to reduce power consumption and prolong the charge of your battery.

SVGA
Super VGA.

S-Video
Super Video. A component video system for driving a TV or computer monitor.

System Clock
An oscillator of fixed precise frequency which synchronizes the operation of the system and is counted to provide time of day and date.

TFT
Thin Film Transistor - A technology for flat display panels which uses a thin film matrix of transistors to control each pixel of the display screen individually.

UL
Underwriters Laboratories - An independent organization that tests and certifies the electrical safety of devices.

VGA
Video Graphics Array. A video display standard originally introduced by IBM with the PS/2 series of personal computers.

VRAM
Video Random Access Memory. A memory dedicated to video display data and control.

WFM
Wired for Management is Intel's broad-based initiative to reduce the total cost of ownership (TCO) of business computing without sacrificing power and flexibility.

Write Protect
Prevent alteration of the binary state of all bits in a storage media. Example: all information on a device such as a floppy diskette; a block of space in a storage media such as partition of a hard drive; a file or directory of floppy diskette or hard drive.

XGA
Extended VGA.

Zip Drive
A 100MB read/rite removable media disk drive.

Zoomed Video
A PC Card port which allows notebook PCs to deliver full screen broadcast quality video through third party PC Cards, including TV tuners, video capture, and MPEG full-motion video.