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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.

Website : 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 mis-treated. Do not recharge, disassemble or dispose of in fire. Replace only with the same or equivalent type recommended 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 reaction core 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.

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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 dialing while the New Zealand standard is DTMF tone dialing. There is no guarantee that Telecom lines will always continue to support pulse dialing. It is strongly recommended that pulse dialing 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

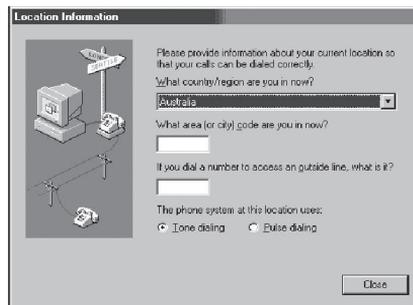
The default modem setting in Windows 98 / Windows Me operating system is United States of America. If you are residing in Australia or New Zealand, please choose the appropriate country where you are located.

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

Please see below instruction for quick modem setup.

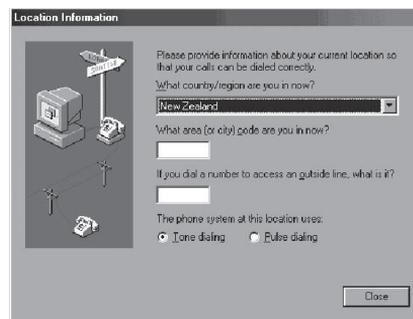
A. If you are located in Australia

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



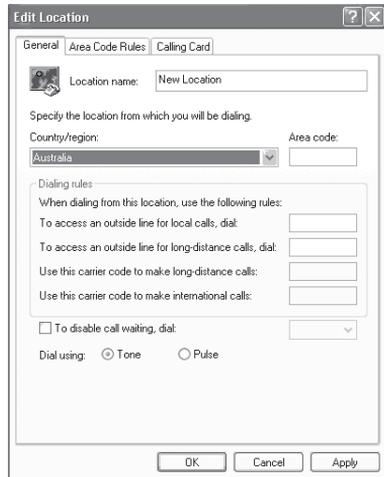
Note:

Please check with your local distributor for the availability of Win Me and Win 98SE support.

Note: Modem setting in Windows XP

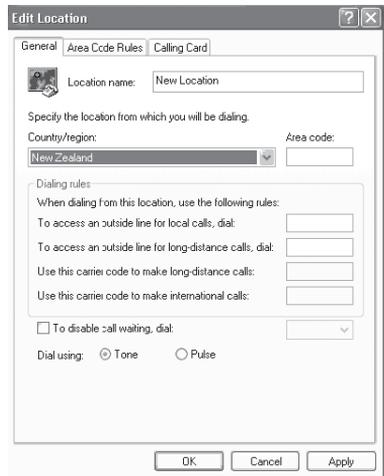
A. If you are located in Australia

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 or ignoring this warning can cause a dangerous situation that could result in death or severe injury.
 CAUTION	Incorrect handling or 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.

Symbol	Meaning
	The symbol indicates a warning or caution. The symbol inside the triangle 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 the circle 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	Indicates a point necessary for correctly operating the hardware or software.
 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® 98 operating system” is written as “Windows 98”.

“Microsoft® Millennium® Edition operating system” is written as “Windows Me”.

“Microsoft® MS-DOS® operating system Version 6.2/V” is written as “MS-DOS”.

“Microsoft® Windows® operating system Version 3.1” is written as “Windows 3.1”.

“Microsoft® Windows NT® Server network operating system Version 3.5” and “Microsoft® Windows NT® Workstation operating system Version 3.5” are both written as “Windows NT 3.5”.

“Microsoft® Windows NT® Server network operating system Version 3.51” and “Microsoft® Windows NT® Workstation and NT Server Version 4.0” are both written as “Windows NT 4.0”.

“Windows NT 3.51” and “Windows NT 4.0” are both written as Windows NT.

“Fujitsu 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, quick point IV operation methods 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.

SECTION 1

SECTION 2

SECTION 3

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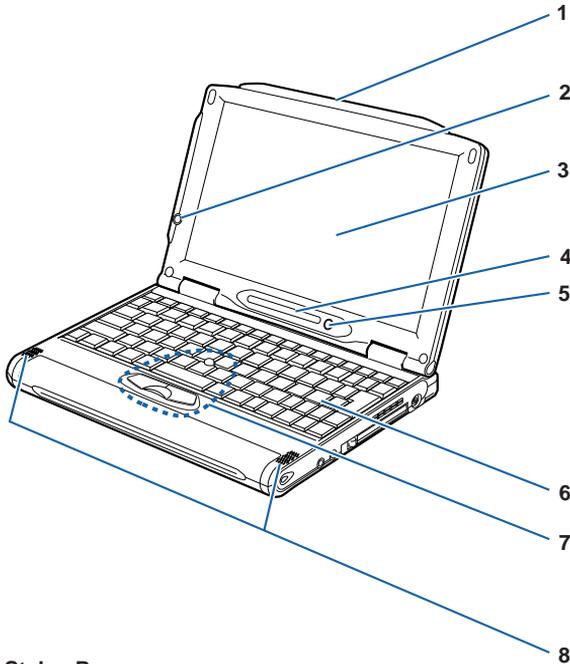
SECTION

1

This section explains basic operations and basic items for using this computer, including the names of the parts and their functions, quick point IV operation methods and battery operation.

1. Names and Functions of the Parts

Front features of the computer

**1 Stylus Pen**

A Stylus pen for the use in operation on the Touch Panel .

2 E-mail button

Used to start Email application.

- This button is programmable.

3 LCD display

The monitor of your computer

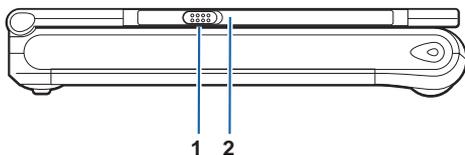
Critical Point

- 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 your computer consists of more than 1,840,000 pixels (dots) (if the resolution is 1024x600), 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.

- 4 Status indicator LCD**
Displays the operating status of the computer.
- 5 SUS/RES (Suspend/Resume) switch**
Used to turn on your computer, to put it into standby (suspending operation) mode, or to resume system operation.
- 6 Keyboard**
Allows you to type in letters and figures and to give commands to the computer.
- 7 Quick Point IV**
Used to control the mouse pointer.
- 8 Speakers**
A sound output device of the computer

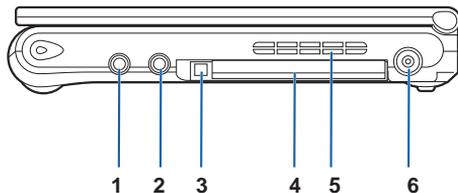
Left/right features of the computer

Left panel of the computer



- 1 Wireless Switch**
Used to turn on and off the wireless LAN device.
Always keep this switch in the OFF position where the use of electronic devices is prohibited, e.g., in hospitals and on airplanes. e.g., in hospitals and on airplanes.
- 2 Incoming mail lamp**
If you press the E-mail button, this lamp lights while the computer is checking whether there is unread mail or the lamp blinks when there is unread mail.

Right panel of the computer



1 Headphone jack

Used to connect commercially available headphones (with a 3.5-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



- Turn the sound volume level of the computer to the minimum prior to connection to the headphone or microphone jack. Failure to do so may result in the equipment being damaged and/or your hearing being adversely affected.



- 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.



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

2 Microphone jack

Used to connect a commercially available monaural microphone (with a 3.5-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.

3 PC card eject button

Used to eject the PC card.

4 PC card slot

Used to install optional PC cards.

5 Air vent

Hole through which heat is discharged out of the computer.



CAUTION

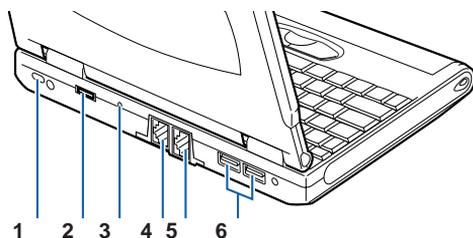


- Do not block the air vent, otherwise the temperature in the computer will rise and sometimes cause damage to the computer.

6 DC-IN connector

This is the connector to connect the AC adapter supplied to the computer.

Rear features of the computer



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

1 Antitheft lock port

Used to connect a commercially available antitheft cable.

2 External display connector

Used to connect an optional external display, such as a CRT display, using the bundle CRT conversion cable.

3 Shutdown switch

Used to shut down the computer forcibly. If this button is pressed while an application is running, the data being processed may be lost.

4 Modem Port

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

5 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 LAN.

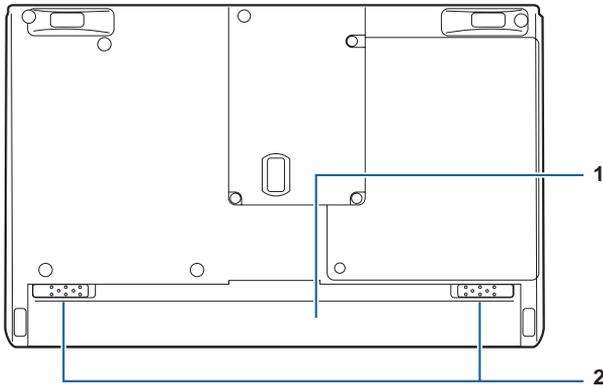
6 USB port

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

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



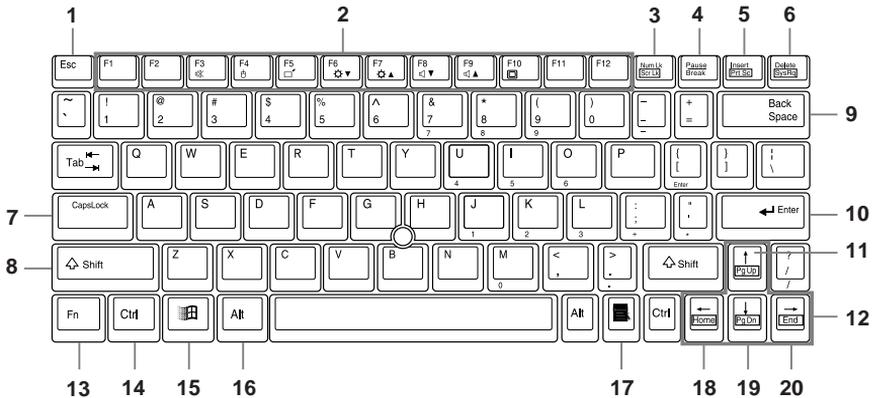
- 1 Battery pack**
An internal battery pack is installed here.
- 2 Battery pack lock**
Slide this to remove the battery pack.

2. Exterior Features

Keyboard

Names and functions of the principal keys

Keys that can be used as ten-keys.



1 Esc (Escape) key

Used to cancel the current task and return to the previous task.

2 Function keys

Functions assigned to these keys vary from application to application.

3 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.

4 Pause / Break key

- Pause key
Press this key to pause the screen display.
- Break
Its function depends on the application software.

5 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.

6 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.

7 Caps Lock key

To fix to the English Capital mode, press the [**CapsLock**]. To deactivate the English Capital mode, press these keys again.

8 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.

9 Back Space key

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

10 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.

11 Pg Up (Page Up) key

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

12 Cursor keys

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

13 Fn key

This key, specific to your computer, is used in combination with other function keys, as described below.

- [Fn]+[F3] : Turns on or off the sound output (internal speaker and headphones).
- [Fn]+[F4] : Enables or disables Quick Point IV when the Manual option is selected under "Internal pointing device" of the BIOS Setup Advanced Menu window.
- [Fn]+[F5] : Switches between Full-Screen mode and Normal Display mode (display in the center of the screen) when the resolution is changed to a different value than the default value.
- [Fn]+[F6] : Reduces the brightness of the LCD backlight.
- [Fn]+[F7] : Increase the brightness of the LCD backlight.
- [Fn]+[F8] : Turns down the volume.
- [Fn]+[F9] : Turns up the volume.
- [Fn]+[F10] : When an external display is connected, this combination of keys can be used to switch between the LCD display and the external display.

* The plus sign means that you need to press the key on the right of the plus sign while holding down the key on the left of it.
e.g.) [Fn]+[F3] -> Press and hold [Fn], and press [F3] without releasing [Fn].

14 Ctrl key

Used in combination with other keys.

15 Windows key

Used to open the Start menu.

16 Alt key

Used in combination with other keys.

17 Application key

Used to open the pop-up menu for the item selected.

This key has the same function as the right button of Quick Point IV.

18 Home key

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 [] key down. Pressing the [] key while holding the [] and [] keys down causes the cursor to move to the beginning of the text.

19 Pg Dn (Page Down) key

Used to display the next page. To do so, press the [] key while holding the [] key down.

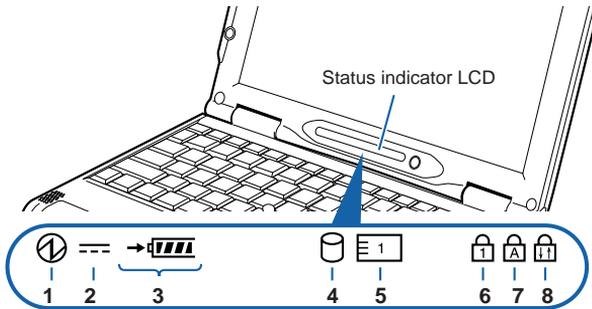
20 End key

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 [] key down. Pressing the [] key while holding the [] and [] keys down causes the cursor to move to the end of the text.

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 [] 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.

3. Status Indicator LCD



Critical Point

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

1 SUS/RES indicator (①)

This indicator comes on when the computer is running and blinks in standby status.

2 AC adapter indicator (---)

This indicator comes on when the power is supplied from the AC adapter.

3 • Battery installation indicator (1 [])

This indicator appears when the battery is installed.

• Battery charge indicator (→)

This indicator appears when the battery is charged and blinks when battery charge is not in progress because the battery is too hot or too cold.

• Remaining battery power indicator ([])

This indicator indicates the remaining battery power.

4 Hard disk access indicator ([])

This indicator appears when the internal hard disk is accessed.

Critical Point

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

5 PC Card access indicator ()

This indicator appears when a PC card is accessed.

6 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 [] key.

7 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 [] key.

8 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 [] key while holding down the [] key.

The operation varies depending on the application when this indicator appears.

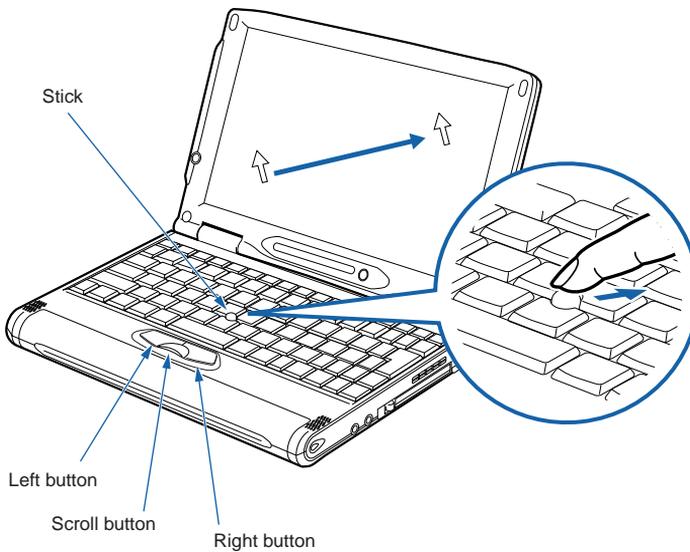
4. Using Quick Point IV

Quick Point IV

Quick Point IV is a convenient pointing device, which enables you to control the mouse pointer with your fingertip. It is composed of a stick located at the center, and buttons located at the front of the keyboard.

The stick functions as a ball inside a mouse and moves the mouse pointer around the screen - up, down, left and right as you press it lightly with your finger tip.

The left button works as the left mouse button and the right button as the right mouse button. The functions they perform vary depending on the application you are running.



Critical Point

- You can use a separately available USB mouse.
- The surface of the stick cap will become slippery after long use. Replace the old cap with a new rubber cap supplied with the computer.

How to use Quick Point IV

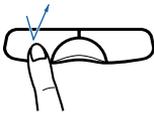
■ Controlling stick

Put your finger tip on the stick and press it up, down, left or right and the mouse pointer will move accordingly. Try to press the stick while confirming the mouse pointer movements on the screen.

The mouse pointer may sometimes move spontaneously, but this does not indicate that Quick Point IV is defective. If this phenomenon arises, wait (for about 3 seconds) until the mouse pointer comes to a full stop before starting operation.

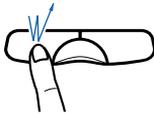
■ How to press buttons

- **Clicking**



Clicking means pressing the left button once and releasing it immediately. Pushing the right button once is called “right clicking.”

- **Double-clicking**



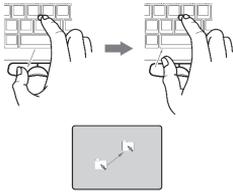
Double-clicking means pressing the left button twice in rapid succession and releasing it immediately.

- **Pointing**



Pointing 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, the submenu appears.

- **Dragging**



To scroll the screen, click on the area within the window, then move the stick while keeping the scroll button depressed. The stick movements upward, downward, to right and left allow you to scroll the screen in the corresponding directions.

Critical Point

- 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.
- The mouse pointer may sometimes move in the reverse direction when you move it slowly for several seconds by slightly tilting the Quick Point IV stick, but this does not indicate that Quick Point IV is defective. Wait for a while until the mouse pointer comes to a full stop.

5. Replacing the Internal Battery Pack

**WARNING**

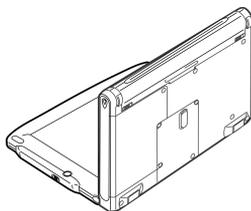
ELECTRIC SHOCK



- 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.

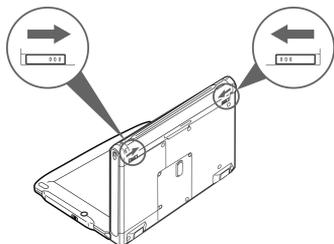
Replacing the internal battery pack

- 1 Turn off the power to the computer and disconnect the AC adapter.
- 2 Place the computer, as shown below.



- 3 Remove the battery pack.

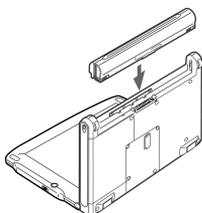
Remove the battery pack, slide in both of the battery pack locks to unlock it.



(The following illustrations vary depending on the model and use conditions.)

4 Install a new battery pack.

Insert the new battery pack horizontally into the computer and push it firmly until it clicks. The battery pack is automatically locked.



Charging

1 Connect the AC adapter.

With the connection of the AC adapter, charging starts. The battery charge indicator (➡) and the remaining battery power indicator appear on the status indicator LCD.

2 Make sure that the battery charge indicator disappears and disconnect the AC adapter.

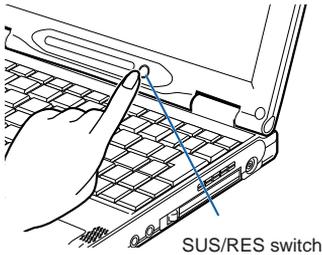
Critical Point

- Charge the battery when you start using this computer after purchase or if you have not charged it for more than 1 month.
- Battery charging is complete when the battery charge indicator disappears and the leftmost remaining battery power indicator changes from a blinking (🔋) to a lit (🔋). Take sufficient time for battery recharging to make sure that the battery is fully charged.
- When the remaining battery power is still 90% or more, the unit does not start charging even if the AC adapter is connected. Charging starts when the power is 89% or less.
- When the computer is turned off, the indication on the status indicator LCD disappears soon after charging is complete.
- The battery charging capability deteriorates if the room temperature is too high or too low.
- Battery charging might not begin if the battery temperature is too high after usage (the battery charge indicator blinks in this case). Charging starts when the battery temperature falls after a while.

Using the computer with the battery

Here is the explanation of how to use the computer with the battery.

1 Remove the AC adapter and press the SUS/RES switch.



Critical Point

- When the room temperature is low, the battery operation time becomes shorter.
- When the battery has been used for a longer period, the battery operation time duration becomes shorter because of the charging capability deterioration. If you notice that the operation time length becomes extremely short, replace the battery with a new one.

Checking the remaining battery power

You can check the remaining battery power by looking at the remaining battery power indicator on the status indicator LCD when the power is on or during charging.

Remaining battery power indicator



This means that the remaining battery power is between about 76% and 100%.



This means that the remaining battery power is between about 51% and 75%.



This means that the remaining battery power is between about 26% and 50%.



This means that the remaining battery power is between about 13% and 25% (This represents 0% to about 25% of remaining battery power during charging).



This indicates a low battery status (the remaining battery power is about 12% or less). The lightning bolt blinks.

⊕ If the battery is weak



This means that the battery is completely exhausted (The remaining battery power is 0%).

Critical Point

- The remaining battery power indicator may show a different indicator value from the actual remaining battery power depending on the environment of use (temperature, battery usage and recharging cycle numbers, etc.) because of the characteristics of the lithium ion battery.
- Charging does not start even if the AC adapter is attached when the remaining battery power is 90% or more. Charging starts when the power is 89% or less.

Battery malfunction indicator



This means that the battery is not charged properly.

Critical Point

- When  appears, turn off the power to the computer and reinstall the battery. If the indication persists, the battery is defective. Replace it with a new battery.

If the battery is weak

When the battery power is beginning to run down, the remaining battery power indicator on the status indicator LCD blinks (). In this case, connect the AC adapter and recharge the battery.

Critical Point

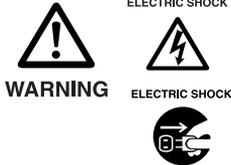
- If you continue to operate the computer when the battery is low, the data you are entering or in the process of saving may be lost. Connect the AC adapter immediately or, if you do not have one, quit the application you are running after saving the working data and then shut down the power to the computer.
- Reading and writing processes on the hard disk consume a large amount of power. If you save data on the hard disk when the battery is low, we recommend you to connect the AC adapter.
- If the computer is left in a low battery condition, it automatically goes into the standby mode. If the system is reading/writing on the hard disk or other data storage media, however, it will wait until the process is completed before entering the standby mode.

IMPORTANT

- This computer is preset to enter the standby mode automatically when the remaining battery level becomes about 3%. Do not change the settings in the following items under “critical battery alarm” in the Alarm tab of the Power Option Properties dialog box.

If you use your computer with these items unchecked, the power will be immediately shut down when the battery becomes dead and unsaved data will be lost. It could also lead to a system failure.

Notes on the battery



WARNING

- The battery is very sensitive. When you install or remove the battery, be careful not to subject it to shocks by dropping it or otherwise. For safety, do not use a battery that has been subjected to shocks, as it may cause an electric shock or burst.

- **Electric discharge**

- The battery continues to discharge even if the computer is not used after charging, so we recommend you charge the battery immediately before use.
- If you are not going to use the computer for a long time (more than one month), remove the battery and store it in a cool place. If the battery is left installed in the computer for a long time, it will discharge excessively and the life of the battery will be shortened.

- **Battery life**

- The battery continues to age and deteriorate even if the computer is not in use for a long time. Check the battery condition at least once a month by using the computer with the battery power source.
- The battery is a consumable product and the battery's charging capacity is reduced as the battery ages.
- If your battery runs low quickly, it is a sign that it is getting old.

- **Disposing of the battery**

- When you dispose of a battery, take measures so as to insulate the battery terminals with tape to prevent short-circuiting. Also, check with your local government authority for details regarding disposal of batteries.

- **Prolonging actual battery life**

- Use the power saving function to prolong the actual battery life.

- **Conditions where the actual battery life will be shortened**

- The actual battery life varies depending on the temperature of use, and may be shortened in a low temperature environment.
- The battery charging capacity is reduced as the battery ages. If your battery is running low quickly, you should replace it with a new one.

- **Use the AC adapter when;**

- Performing PC communication or Internet communication for a long time,
- Using the hard disk and CD/DVDs frequently,
- Using a LAN, or
- restoring the pre-installed software status of the computer when you purchased it.

- **For PC communication or Internet communication**

- PC communication and Internet communication consume a large amount of power. Carefully check the remaining power of the battery.

6. About the Internal Modem

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



WARNING

ELECTRIC SHOCK



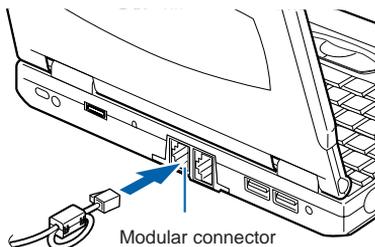
FAILURE



- Do not insert your fingers into a modular jack, or you may receive an electric shock.
- When using a modular cable, always connect it to a modular connector, otherwise your computer could break down.

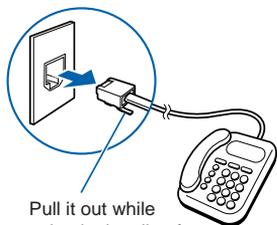
Connecting a modular cable

- 1 Insert the supplied modular cable into the rear panel of the computer.**
Insert firmly until it clicks.



(The following illustrations vary depending on the model and use conditions.)

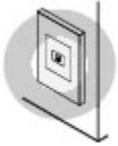
- 2 Disconnect your telephone's modular cable from the modular jack of the telephone line.**



Pull it out while pressing in the clip of the modular cable.

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.



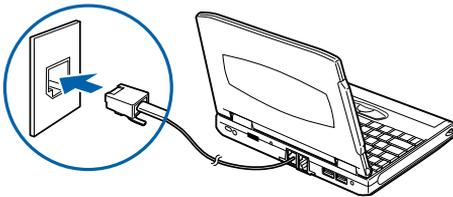
Modular type



Rosette type

3 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 Point**

- The telephone is not usable with its modular cable disconnected. Do not forget to connect it for telephone use after finishing Internet communication.
- A modular cable may not be connected to your computer if it is routed around a household electrical appliance, or wound and tied in a bundle.
- 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.
- 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.

7. Using a LAN

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. <ul style="list-style-type: none">• Dialup router• Cable modem• ADSL modem• Hub
Manual for the network device used	Ways of connection and setting procedures vary depending on the network device used. So be sure to read also the manual for the network device used.

Connecting a LAN cable



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.



ELECTRIC SHOCK



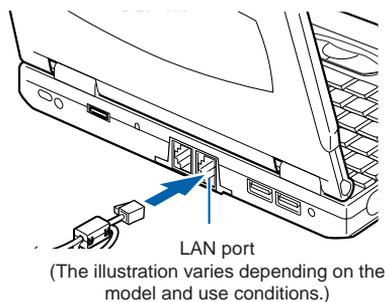
- Don't put any finger into the LAN port, or you could get an electric shock.

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 back 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 hibernate**” 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.
Needless to say, however, you should turn off your computer whenever you will not use it for a long period of time.
- 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 Point

- Before disconnecting the cable from the LAN port, turn off the computer and unplug the AC adapter from 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.
- To avoid damage to the LAN device, do not to connect a LAN cable to the moduler connector.

8. About the Integrated Wireless Lan

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 2000 Systems

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

Critical Point

- 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	<i>Ad Hoc Network:</i> Click the down arrow and select "802.11 AdHoc". <i>Infrastructure Network:</i> 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	<i>AdHoc Network:</i> 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). <i>Infrastructure Network:</i> 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 Point

- 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. <ul style="list-style-type: none"> • <i>Disable</i>: Disables the encryption. In this case, "Create keys with Passphrase" and subsequent items are greyed out, and you cannot enter anything. • <i>64 bit</i>: The encryption is set. Select either "Create keys with Passphrase", "Create keys manually", or "ASCII Input", and enter the encryption keys. • <i>128 bit</i>: 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 Point

- 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

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

- 1 **Double-click the [Network and Dial-up Connections] icon. The [Network and Dial-up Connections] window appears.**
- 2 **Right click the [Local Area Connection], then click [Properties] from the menu that appears. The [Local Area Connection Properties] window appears.**

Critical Point

- 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].

3 **Perform the following steps.**

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

- 4 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

- 5 Click [OK]. The [Local Area Connection Properties] window appears again.
- 6 Click [OK]. When a message appears prompting you to restart the computer, click [Yes].

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

- 1 Click [Start] → 2 [Settings] → 3 [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: <ul style="list-style-type: none"> • <i>AdHoc Network</i>: Specify the same name to all computers within the same network. • <i>Infrastructure Network</i>: 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] window appears.
- 3 Right click the [Local Area Connection], then click [Properties] from the menu that appears. [Local Area Connection Properties] appears.
- 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 Point

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

● Sharing Files

The following example shows how to set sharing the “Work” folder on the c: drive.

- 1 On the desktop, double-click [My Computer] → C: drive.
- 2 Right-click the “Work” 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

Connecting Windows XP Systems

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

Critical Point

- 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 Point

- 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	<p>Enter the network name to which you want to connect. This is a required item. For the network name, ask your LAN administrator.</p> <p><i>AdHoc network:</i> Set the same name for all of the computers that are to be connected.</p> <p>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.</p>
Key Format	<p>Click the down arrow and select the input for the Network key.</p> <p><i>ASCII characters</i></p> <p>Select this when using ASCII characters for the Network Key. Characters that can be used follow: 0-9, A-Z, a-z, and _ (underscore) <i>Example:</i> To set the key to "ABC12", input "ABC12".</p> <p><i>Hexa-decimal characters</i></p> <p>Select this when using hexadecimal characters for the Network Key.</p> <p>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.</p>

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 Point

- 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.

3-4 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 Point**

- 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. <i>AdHoc Network:</i> Specify the same name to all computers within the same network. <i>Infrastructure Network:</i> 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.”**
- 3 If [File and Printer Sharing for Microsoft Networks] is not found in the list, click [Install], and perform Step 5 and the subsequent steps.**
- 4 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 “Work” folder on the c: drive.

- 1 Click [Start] → [My Computer].
- 2 Double-click the [Local Disk (c:)] icon.
- 3 Right click the “Work” 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 Point

- 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

- 1 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.
- 2 Click OK. If you understand the security risks but want to share printers without running the wizard, click here. ‘Enable Printer Sharing’ will be displayed.
- 3 Select ‘Just enable printer sharing’.
- 4 Click ‘OK’. The printer properties will be indicated.
- 5 Select ‘Share this printer’.
- 6 Enter the sharing printer name in ‘Share name’.
- 7 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

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 2000: [Obtain an IP address automatically]

Windows XP: [Obtain an IP address automatically]

Critical Point

- 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)

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 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. 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. <ul style="list-style-type: none"> • 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.	<p>If the TCP/IP protocol is installed, do the following to check the IP address:</p> <ol style="list-style-type: none"> Windows 2000: Click [Start] → [Programs] → [Accessories] → [Command Prompt]. Windows XP: Click [Start] → [All Programs] → [Accessories] → [Command Prompt]. <p>2. Enter "IPCONFIG" command, and press [Enter]. (If your hard disk is C drive, enter C:\>ipconfig)</p> <p>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</p> <p>Shorten the distance between computers or remove visible obstacles between them, and retry the connection.</p>
	No communication due to poor radio signal.	

Problem	Possible Cause	Possible Solution
IP packet isn't reaching its destination	Run the PING command to check the connection	<p>Perform the following steps to run the PING command to check if the IP packet is correctly delivered to the destination.</p> <p>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.</p> <ol style="list-style-type: none"> 1. Windows 2000: Click [Start] → [Programs] → [Accessories] → [Command Prompt]. Windows XP: Click [Start] → [All Programs] → [Accessories] → [Command Prompt]. 2. Type: <code>ipconfig > directory/filename</code> where <i>directory</i> and <i>filename</i> 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: <code>ping <IP address></code>, 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: <code>\>ping XXX.XXX.XXX.XXX</code>. (With the destination IP address in place of XXX.XXX.XXX.XXX). <p>Example: if the destination IP address is 10.0.1.3: <code>C:\>ping 10.0.1.3</code></p> <p>A message similar to the following appears if the connection is successful.</p> <p>Pinging 10.0.1.3 with 32 bytes of data:</p> <p>Reply from 10.0.1.3: bytes=32 time=1ms TTL=32</p> <p>Reply from 10.0.1.3: bytes=32 time<10ms TTL=32</p> <p>Reply from 10.0.1.3: bytes=32 time=4ms TTL=32</p> <p>Reply from 10.0.1.3: bytes=32 time<10ms TTL=32</p> <p>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.</p>

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.	<p>The following causes are possible. Check each one of them.</p> <ul style="list-style-type: none"> • 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 2000)		<p>Windows 2000:</p> <p>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.</p> <ol style="list-style-type: none"> 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. <ul style="list-style-type: none"> • Click [PRISM 11Mbps Wireless LAN for Windows]. • Click [Change/Remove]. <p>A window appears asking you if you really want to remove the driver.</p> <ol style="list-style-type: none"> 12. Click [Yes]. <p>When the driver is removed, a window appears showing that the driver has been removed.</p> <ol style="list-style-type: none"> 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
<p>I want to remove the driver (Windows XP)</p>		<p>Windows XP:</p> <p>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.</p> <ol style="list-style-type: none"> 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. <ul style="list-style-type: none"> • Click [PRISM 11Mbps Wireless LAN for Windows]. • Click [Change/Remove]. <p>A window appears asking you if you really want to remove the driver.</p> <ol style="list-style-type: none"> 12. Click [Yes]. <p>When the driver is removed, a window appears showing that the driver has been removed.</p> <ol style="list-style-type: none"> 13. Click [OK]. 14. Close [Add/Remove Programs] and [Control Panel]. 15. Shut down Windows, and turn off the computer.

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 2000, Windows XP
Power Current	Max: 350mA
Maximum number of units recommended for wireless LAN (AdHoc network)	10 or less

SECTION

2

This section explains installation of options for this computer.

1. Before Connecting Peripherals

Here is an explanation of the basic knowledge you need before connecting peripherals.

- **Some changes to settings are required for certain peripherals.**

You cannot use some peripherals just by connecting them to the computer. Such peripherals require some changes to settings after connection. For example, printers and PC cards require “driver installation” work after connecting them. Some peripherals do not require such setting changes. Always consult with this manual when connecting a peripheral to complete any settings correctly.

If a floppy disk is required for the driver installation, prepare an optionally available FDD unit (USB)

- **Refer to the manual.**

This manual explains how to connect peripherals as an example. When connecting a peripheral device, always make reference to the manual for it besides this manual.

- **Use genuine products.**

To know about FUJITSU genuine optional devices, consult with your dealer. We cannot guarantee the proper function of this computer when using peripherals from other sources. If it becomes necessary to use a peripheral from another source, consult with the manufacturer of that product.

- **Use peripherals that conform to ACPI standards**

This computer is set to ACPI mode. Power saving and other functions may not work correctly if a peripheral does not work in ACPI mode.

Moreover, your computer does not support the Low-Level Standby (ACPI S1) feature.

If any peripheral device used supports only the Low-Level Standby feature, don't put your computer into standby or hibernation mode.

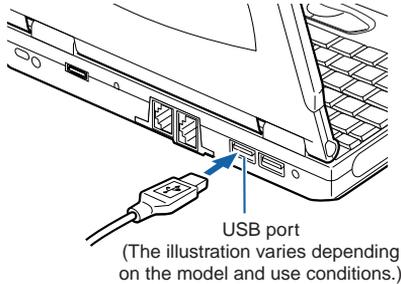
Critical Point

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

2. Connecting a Mouse

Connecting a USB mouse

- 1 **Plug the mouse cable in the USB port on the rear panel of the computer.**
Insert the connector with the  marked-face up.



Critical Point

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

Disabling Quick Point IV

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

- 1 **Press the [F4] key while holding the [Fn] key down.**

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

IMPORTANT

- Don’t disable Quick Point IV before connecting a mouse to your computer.

Critical Point

- Even when you disable Quick Point IV by pressing the [F4] key while pressing down the [Fn] key, Quick Point IV 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.
- Quick Point IV 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”, Quick Point IV is always disabled.

3. Connecting a USB Device

Preparing necessary items

USB device	<p>Refers to USB standard-compliant devices. Here are typical examples of USB devices. Prepare a USB device that meets your need.</p> <ul style="list-style-type: none"> • Digital camera • CCD camera • Mouse • Terminal adapter • Printer • Scanner • Keyboard • Speaker
USB cable	<p>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.</p>
USB device driver	<p>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.</p>
Manual for USB device	<p>Ways of connection vary from USB device to USB device. So be sure to read also the manual for the USB device used.</p>

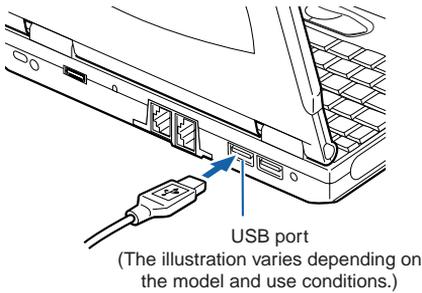
Critical Point

- 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 on the rear panel 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.

A floppy disk or a CD may be required to install a driver.

Critical Point

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

4. PC Cards

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.
- **LAN card**
This PC card is needed to connect your computer to other computers in order to share data or a printer with them.

Critical Point

- 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



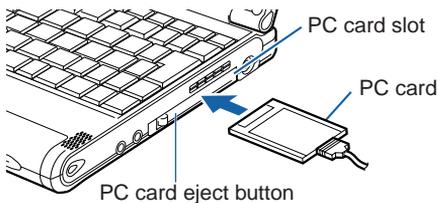
Do not put your finger into the PC card slot when you install a PC card, or you may be injured.

Critical Point

- 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 Install the PC card.

While pressing and holding down the PC card eject button, fully insert the PC card into the PC card slot with the PC card product name facing upward.



2 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.

3 Click the icon (Safety 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 is displayed, the PC card is recognized correctly by the computer. Click a blank space on the desktop.
- If no name is displayed, the PC card is not recognized correctly by the computer. Eject the PC card, following steps 3 – 5 described in the “Ejecting a PC card” section, and install the PC card again.

Ejecting a PC card

Critical Point

- 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.



HIGH TEMPERATURE

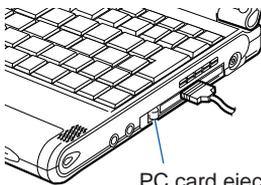


- A PC card may be quite hot right after use. Wait for a while before removing a PC card after Step 3, to avoid burning your fingertips.
- When you remove a PC card, do not insert your finger into the PC card slot to avoid cutting your fingertips.

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

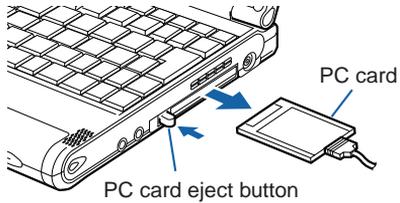
Critical Point

- Don't eject the PC card by clicking the Stop button in the Safety Remove Hardware dialog box that appears when you double-click the  icon (Safety 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 Click “XXXXXXXXX can be removed safely.” XXXXXXXXX refers to the name of the PC card inserted.
 - 3 When a message “Remove hardware” appears, press the PC card eject button.
The PC card eject button pops out.



4 Eject the PC card.

Press the PC card eject button and pull out the PC card that has popped out.



5 Push in the PC card eject button.

IMPORTANT

- Always push in the PC card eject button after ejecting a PC card. Using your computer with the eject button jutting out could cause damage to the button.

5. Connecting an External Display

Preparing necessary items

External display	Prepare an external display that supports PC/AT-compatible or DOS/V computers.
CRT conversion cable	Used to transform a display cable connector so that the display can be connected to your computer.
Display cable	Most external displays come with a display cable connected to the back or a separate cable. If no display cable is included with your external display or if the CRT conversion cable cannot be connected to your display cable, prepare a display cable that is designed for PC/AT-compatible or DOS/V computers and that has a connector compatible with the CRT conversion cable connector.
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.



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.

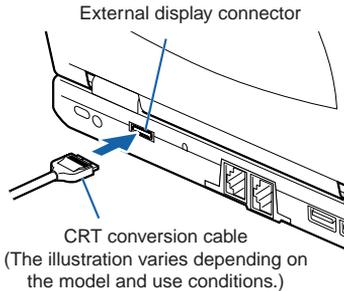


FAILURE



- 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 a commercially available display cable to the CRT conversion cable.**
Engage the connectors securely with attention paid to their orientations.
- 3 **Insert the CRT conversion cable in the external display connector on the rear panel of the computer.**
Engage the connectors securely with attention paid to their orientations.



- 4 **Plug the other connector of the CRT conversion cable into the CRT display.**
For the way to connect the cable, refer to the manual for your CRT display.
- 5 **Plug the power cable of the CRT display in a wall outlet and turn it on.**
- 6 **Connect the AC adapter to the computer, turn it on, and then switch displays.**

If the Add New Hardware Wizard dialog box appears after you have connected the external display, perform the following.

- If your external display came with a CD or a floppy disk containing files, install all necessary files, following the instructions of the manual for the external display.

Critical Point

- After an external display is connected to your computer, both the computer's LCD and the external display may be activated simultaneously as the monitor of the computer.
- To disconnect the CRT conversion cable from the computer, pull it while pushing down the button on the top of the connector.

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

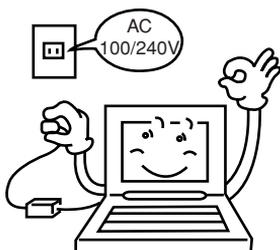
When you are having trouble with this computer, there is something you think is strange, or there is something you want to do, but do not know how. This section is divided into related items.

● 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 switch on the main switch.
Is the main switch switched on?	If the main switch is not switched on, the power will not come on even if the SUS/RES switch 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 anything displayed on the status indicator LCD?	Connect the AC adaptor and switch on the main switch.
Is  displayed on the LCD panel?	<ul style="list-style-type: none"> • Displayed Adjust the brightness and darkness with the brightness and contrast controls. • Flashing Press the SUS/RES switch to put the computer into operating mode. • When the icon is off on the status indicator LCD. When the computer runs by the battery power, check the battery status if it is sufficiently charged for operation or not. 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.



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
Did you adjust the brightness?	Adjust the luminance of the LCD's backlight with the [Fn] + [F6] keys or [Fn] + [F7] keys on the keyboard.

● **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, 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
Is 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 the floppy disk unit securely installed?	Firmly install the floppy disk drive unit to the system.
Are both items of "Floppy disk A" and "Floppy controller" of the BIOS Setup menu set properly?	In the case a floppy disk is used, select "1.44/1.2MB 3.5" for the item "Floppy disk A" and "Use" for the item "Floppy controller".
Is "Administrator only" selected for the item "Floppy disk access" of the BIOS Setup menu?	In the case a floppy disk is used, select "Accessible at any time" for this item. When a super disk is used, accessibility cannot be controlled by this item.
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 to adjust the volume to a proper level. If volume adjustment with the volume control results in failure, check to see if the sound driver is correctly installed.

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

Checkpoint	Cause and Solution
Is the volume adjusted properly?	Turn the volume control to obtain the correct volume. If the line jack is connected to the sound source, then check that connection. If recording still results in failure after the above-mentioned operation and check, activate the item "Recording" of the "Volume Control" and again adjust the volume with it.

● **LCD panel does not close.**

Checkpoint	Cause and Solution
Is something caught in the LCD panel?	Forcing the LCD panel closed can damage it. Check for something caught in the LCD 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.

● **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.
Is the CD-ROM drive unit securely installed?	Securely install the CD-ROM drive unit.

● **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 something 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".

● **Super disk cannot be ejected.**

Checkpoint	Cause and Solution
Is the computer in operation?	Since the super disk drive secures the super disk by the electronic lock, the disk can be ejected only when the computer is in the operation status. If the super disk cannot be ejected for some reason, insert a thin linear wire such as a straightened paper clip or the like into the emergency disk ejecting hole and push it into the depth. The disk will be resultingly ejected from the drive.

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 loose 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 adapter whenever possible.
- If your LifeBook notebook is running on battery power all day, connect it to the AC adapter 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 heating 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

● 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.

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.

Channel

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

Cache Memory

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

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.

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.

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 form required by a specific brand and model of device in order to produce the desired results from that particular equipment.

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.

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 from 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 from 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.

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 the closed network.

KB

Kilobyte.

LAN**Local Area Network**

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

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.

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.

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 from 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.

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.

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.

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.

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.

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.

TCP/IP

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

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.

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.

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/write 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.