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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.

Data Storage Media and Customer Responsibilities

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

AUSTRALIAN WARNINGS

WARNING

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

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

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

Call Attempts/Retries:

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

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

NEW ZEALAND WARNINGS

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

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

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

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

This equipment shall not be set to make automatic calls to the Telecom "111" Emergency Service.

This device is equipped with pulse 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

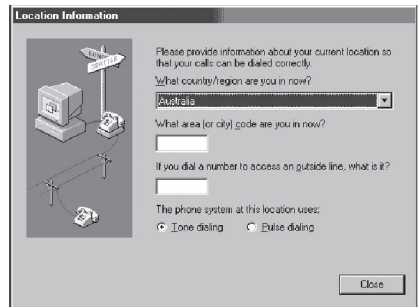
The default modem setting in Windows 98 / Windows Me operating system is United States of America. If you are residing in Australia or New Zealand, please choose the appropriate country where you are located.

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

Please see below instruction for quick modem setup.

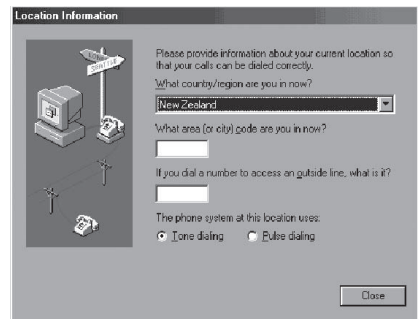
A. If you are located in Australia

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



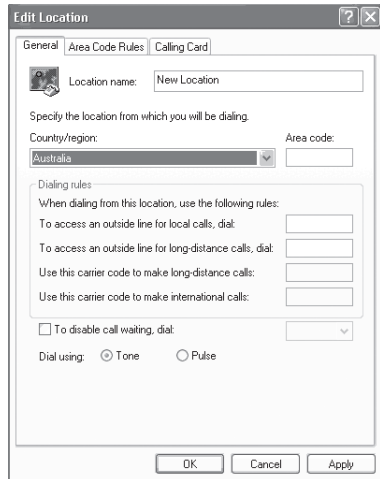
Note:

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

Note: Modem setting in Windows XP

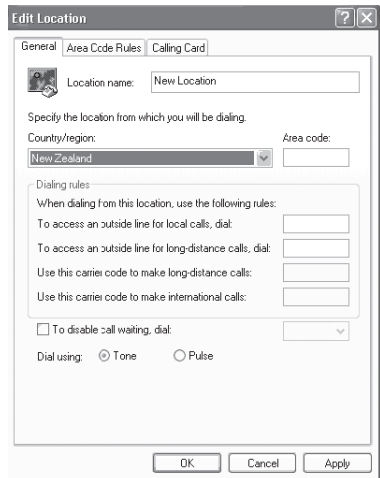
A. If you are located in Australia

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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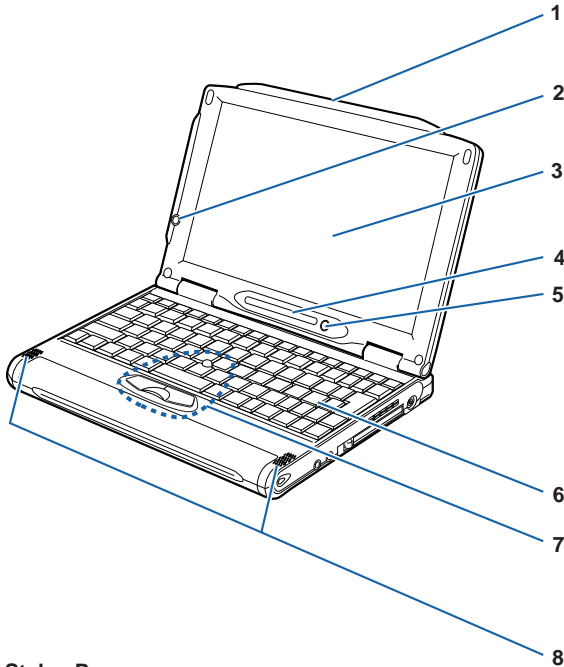
SECTION

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

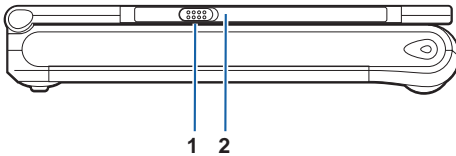
Critical Point

- 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

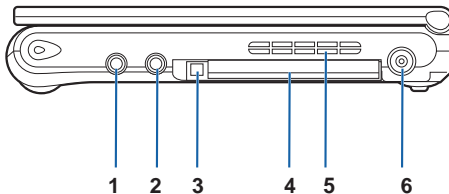
Left/right features of the computer

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

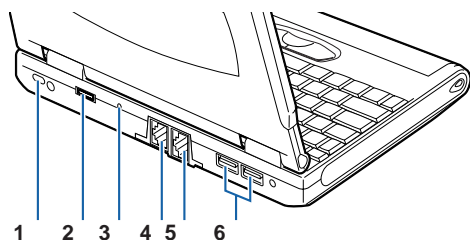


- Do not block the air vent, otherwise the temperature in the computer will rise and sometimes cause damage to the computer.

6 DC-IN connector

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

Rear features of the computer



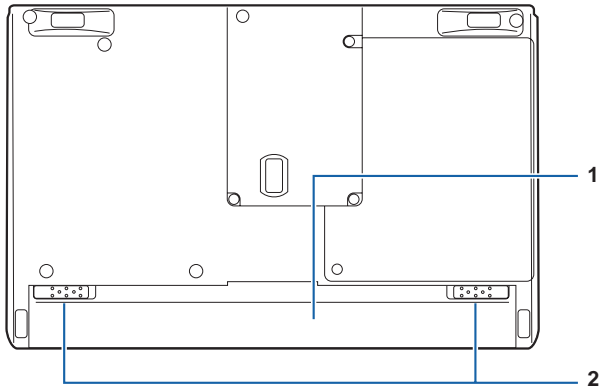
(The illustration varies depending on the model and use conditions.)

- 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



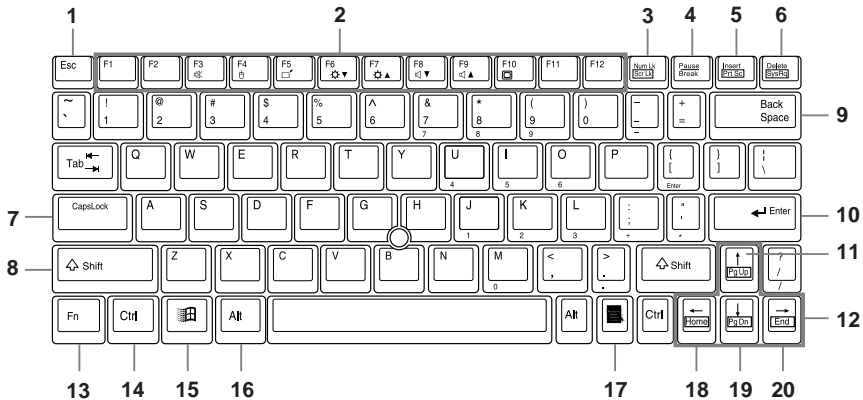
- 1 Battery pack**
An internal battery pack is installed here.
- 2 Battery pack lock**
Slide this to remove the battery pack.

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 scree display.
- Break
Its function depend 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.

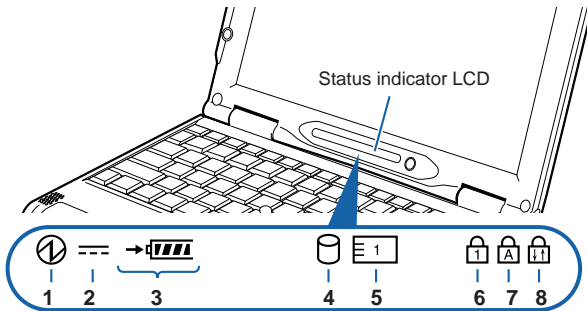
20 End key

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.

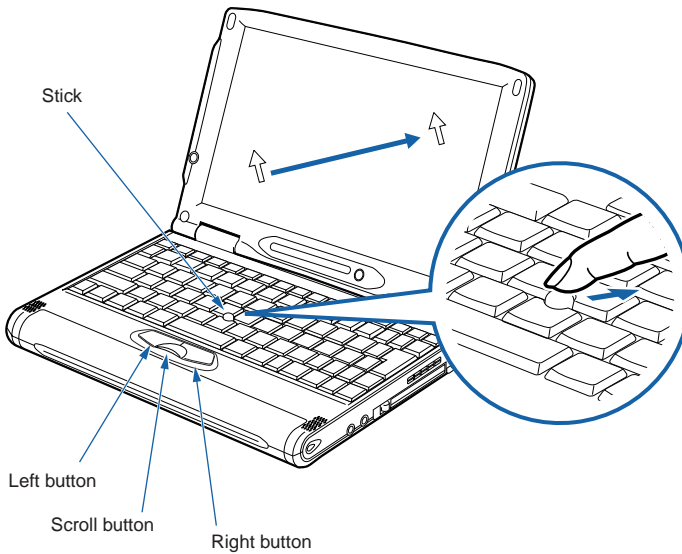
4. Using Quick Point IV

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

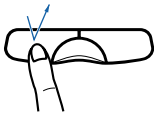
■ Controlling stick

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.

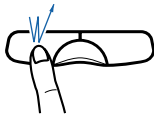
■ How to press buttons

- **Clicking**



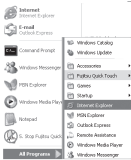
Clicking means pressing the left button once and releasing it immediately. Pushing the right button once is called “right clicking.”

- **Double-clicking**



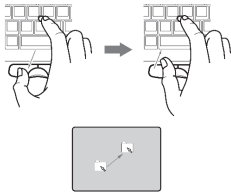
Double-clicking means pressing the left button twice in rapid succession and releasing it immediately.

- **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.

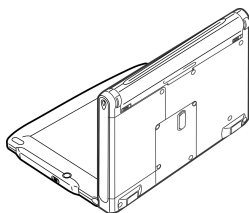
5. Replacing the Internal Battery Pack

**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.

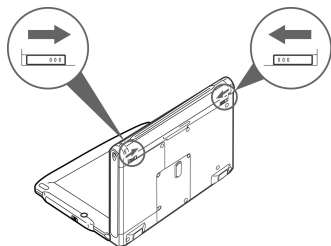
Replacing the internal battery pack

- 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.

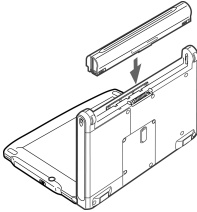
Remove the battery pack, slide in both of the battery pack locks to unlock it.



(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.

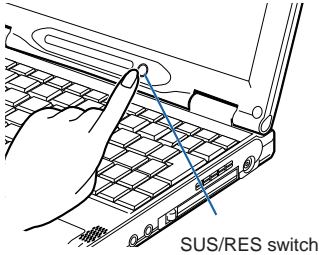
Critical Point

- 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

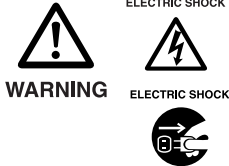
- If you continue to operate the computer when the battery is low, the data you are entering or in the process of saving may be lost. Connect the AC adapter immediately or, if you do not have one, quit the application you are running after saving the working data and then shut down the power to the computer.
- 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



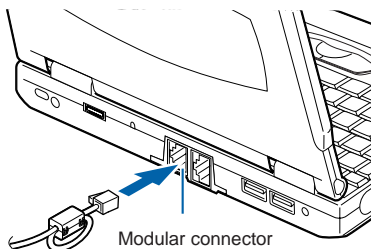
FAILURE



- 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.

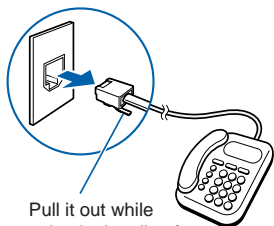
Connecting a modular cable

- 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.)

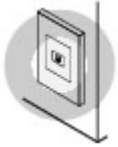
- 2 Disconnect your telephone's modular cable from the modular jack of the telephone line.**



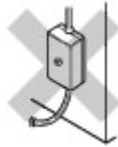
Pull it out while pressing in the clip of the modular cable.

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.



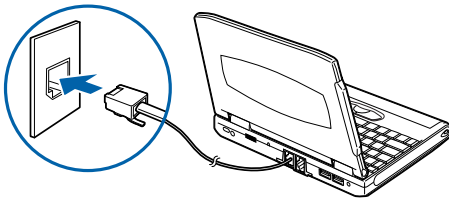
Modular type



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



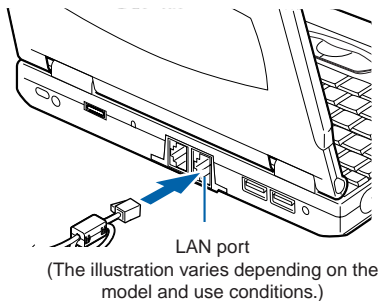
- Don't put any finger into the LAN port, or you could get an electric shock.

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	Enter the network name to which you want to connect. This is a required item. For the network name, ask your LAN administrator. <i>AdHoc network:</i> Set the same name for all of the computers that are to be connected. Infrastructure network: Specify the same name as that specified on the access point that is to be connected. For access point instructions, refer to the manual that comes with the access point.
Key Format	Click the down arrow and select the input for the Network key. <i>ASCII characters</i> 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". <i>Hexa-decimal characters</i> Select this when using hexadecimal characters for the Network Key. Use this if there is a wireless LAN card in the network that has the Network Key set to a character code. In 'Network Key', input the same value as the other wireless LAN card.

Table 12: Setting parameters

- 8 When you finish your entry, click [OK]. [Wireless Network Connection 2 Properties] appears again.
- 9 Make sure the network name you specified for the.....

Network Connection

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

● Network Settings

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

TCP/IP Settings

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

Critical 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 [NetworkTasks], 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
<p>IP packet isn't reaching its destination</p>	<p>Run the PING command to check the connection</p>	<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.

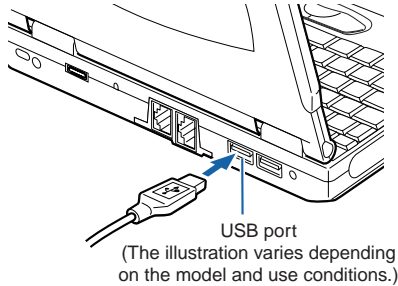
Critical Point

- 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

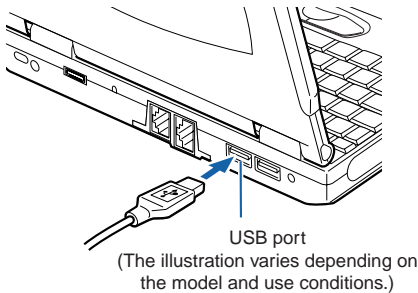
USB device	<p>Refers to USB standard-compliant devices. Here are typical examples of USB devices. Prepare a USB device that meets your need.</p> <ul style="list-style-type: none"> • Digital camera • CCD camera • Mouse • Terminal adapter • Printer • Scanner • Keyboard • Speaker
USB cable	<p>Used to connect 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



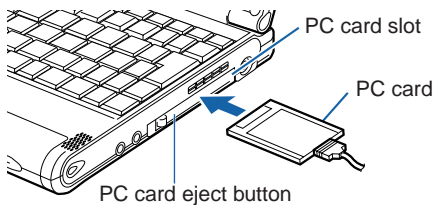
Do not put your finger into the PC card slot when you install a PC card, or you may be injured.

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




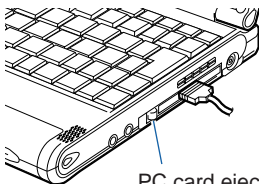
- A PC card may be quite hot right after use. Wait for a while before removing a PC card after Step 3, to avoid burning your fingertips.

- 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

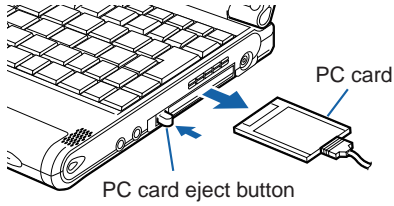
- Don't eject the PC card by clicking the Stop button in the Safety Remove Hardware dialog box that appears when you double-click the  icon (Safety Remove Hardware) in the lower right corner of the screen (notification area where a clock is displayed). Doing so may cause your computer to become unstable.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



PC card eject button

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.

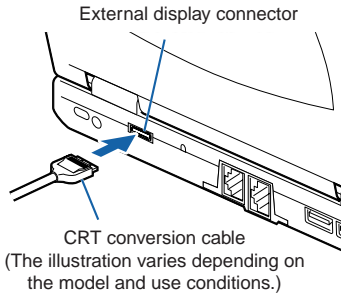


FAILURE



- 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

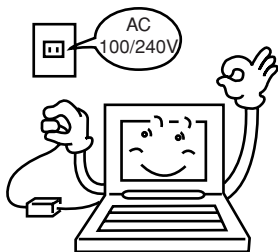
When you are having trouble with this computer, there is something you think is strange, or there is something you want to do, but do not know how. This section is divided into related items.

● 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 be crashing into the surface and destroying the data when there is a failure nor to wear from reading.

CMOS RAM

Complementary metal oxide semiconductor random access memory. This is a technology for manufacturing random access memory which 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.

连接 Windows XP 系统

本章介绍如何为运行 Windows XP 的计算机设置无线 LAN 连接。

要点

- 在您接收到 LifeBook 时, 集成无线 LAN 设备和驱动程序已经安装好。以下步骤概括列出了设置设备参数的步骤。

工作流程

正确设置无线 LAN 需要按照正确的顺序执行几个步骤。下面是要执行的总体步骤。本步骤的后面会详细介绍每个步骤。

- 1 设置参数
 - 设置配置文件
 - 设置加密
- 2 网络设置
 - 设置协议和检查网络
 - 设置文件和打印机共享
 - 检查连接

设置参数

- 1 单击 [开始]→[控制面板]。
- 2 单击 [网络和 Internet 连接]。
- 3 单击 [网络连接]。当前已安装的网络列表会显示出来。
- 4 右键单击列表中的 [Intersil PRISM Wireless LAN PCI Card], 然后从显示的菜单中单击 [属性]。[无线网络连接 2 属性]会出现。
- 5 单击 [无线网络] 选项卡。[无线网络]选项卡会出现。
- 6 执行以下步骤。
 - 确定已选择 [使用 Windows 配置我的网络设置]。
 - 单击 [首选网络] 下的 [添加]。[无线网络属性] 会出现。
- 7 设置参数。
 - 对于 AdHoc 网络, 请为所有计算机(使用加密密钥进行连接)指定相同的值。
 - 对于结构网络, 请指定与访问点加密密钥相同值的加密密钥(网络密钥)。要了解如何检查为访问点设置的加密密钥, 请参阅随访问点提供的手册。

要点

- 一定要指定加密密钥。如果不指定加密密钥，则任何一台装有无线网卡的计算机都可以连接。这样可以防止其它用户窃取或销毁您的数据。

项目	说明
网络名称	输入您想连接的网络名称。这是一个必需的项目。SSID 要知道网络名称，请向 LAN 管理员查询。 <i>AdHoc 网络：</i> 为连接的所有计算机设置相同的名称。 <i>结构网络：</i> 指定与要连接的访问点上已指定的相同名称。有关访问点的说明，请参阅随访问点附带的手册。
密钥格式	单击向下箭头，选择网络密钥的输入。 <i>ASCII 字符</i> 将 ASCII 字符用于网络密钥时选择这个。可以使用的字符包括：0-9, A-Z, a-z, _ (下划线) 例如：要将密钥设置为“ABC12”，输入“ABC12”。 <i>十六进制字符</i> 将十六进制字符用于网络密钥时选择这个。 如果在网络密钥已设置为字符代码的网络中有无线网卡，请使用这个。在“网络密钥”中，输入与其它无线网卡相同的值。

表 12：设置参数

- 8 完成输入后，单击 [确定]。[无线网络连接 2 属性] 会再次出现。
- 9 确定网络名称您指定给.....

网络连接

这一部分介绍如何为运行 Windows XP 的计算机设置网络连接。

● 网络设置

在这一部分中，您要设置“TCP/IP 设置”，完成网络连接需要的“检查计算机名称和工作组”任务。

TCP/IP 设置

- 1 在 [无线网络连接属性] 中单击 [一般]。

要点

- 如果 [无线网络连接 2 属性] 没有显示, 请单击 [开始] → [设置] → [控制面板], 然后双击 [网络连接] 图标。右键单击 [无线网络连接], 然后从出现的菜单中单击 [属性]。

2 执行以下步骤。

- 单击 [Internet 协议 (TCP/IP)]。
- 单击 [属性]。[Internet 协议 (TCP/IP) 属性] 窗口会出现。

3-4 设置一个 IP 地址。请网络管理员检查设置。

项目	说明
AdHoc 网络	设置 IP 地址和子网掩码。单击 [使用下面的 IP 地址], 然后输入 [IP 地址] 和 [子网掩码] 的值。
结构网络	选择 [自动获得 IP 地址]。对于 DNS 服务器, 选择 [自动获得 DNS 服务器地址]。对于 IP 地址、DNS 服务器和默认网关(如果有), 请按照网络管理员的说明执行。

表 13: 设置 IP 地址**5 单击 [确定]。****要点**

- 如果您更改了设置, [关闭] 会显示出来...

● 检查计算机全名和工作组

- 1 单击 [开始] → [控制面板]。确定已选择“传统视图”。
- 2 双击 [系统] 图标。[系统属性] 会出现。
- 3 单击 [计算机名称] 选项卡。
- 4 选择 [计算机全名] 和 [工作组]。请网络管理员检查设置。

项目	说明
计算机名称	用来标识网络上计算机的名称。您可以为每台计算机指定任何名称。最多可以使用 15 个单字节字符。为易于标识, 请使用型号或用户名。
工作组	网络组的名称。最多可以使用 15 个单字节字符。 <i>AdHoc 网络:</i> 为同一网络内的所有计算机指定同一个名称。 <i>结构网络:</i> 指定要连接的工作组名称。

表 14: 设置计算机名称和工作组

要更改设置, 请单击 [更改], 然后按照屏幕上的说明进行操作。[系统属性] 会再次显示。

5 单击 [确定]。在出现信息提示您重新启动计算机时, 单击 [是]。

共享

在这一部分中, 您要设置驱动器、文件夹和打印机的共享。

只有在您与网络上的其它计算机共享文件或打印机时才需要设置这一项。

共享驱动器、文件夹和打印机之后, 您就可以通过网络上的任何一台计算机使用它们。

● 设置 [Microsoft 网络的文件和打印机共享]

- 1 单击 [Start] → [控制面板]。确定已选择“经典视图”。
- 2 双击 [网络连接] 图标。确定已选定它。如果尚未选择, 请选择它, 然后单击 [确定]。您不需要执行以下步骤。转到下一部分“共享文件”。
- 3 如果 [Microsoft 网络的文件和打印机共享] 没有显示在列表中, 请单击 [安装], 然后执行步骤 5 和后面的步骤。
- 4 在您单击 [安装] 时, [选择网络组件类型] 窗口会出现。
- 5 执行以下步骤。
 - 单击 [服务]。
 - 单击 [添加]。[选择网络服务] 会出现
- 6 执行以下步骤。
 - 单击 [Microsoft 网络的文件和打印机共享]。
 - 单击 [确定]。您将返回到 [无线网络连接 2 属性] 窗口, [Microsoft 网络的文件和打印机共享] 已添加到了列表。
- 7 单击 [关闭]。

● 共享文件

下面示例显示如何在 c: 盘上设置共享“Work”文件夹。

- 1 单击 [开始] → [我的电脑]。
- 2 双击 [本地磁盘(c:)] 图标。
- 3 右键单击“Work”文件夹，然后从出现的菜单中单击 [共享和安全]。[Work 属性] 会出现。
- 4 单击 [如果您了解在安全方面的风险，但又不想运行向导就共享文件，请单击这儿]。

要点

- 如果您已经单击了 [如果您了解在安全方面的风险，但又不想运行向导就共享文件，请单击这儿]，这个窗口将不会出现。

在 [Work 属性] 窗口中，[网络共享和安全] 下面的说明会改变。

- 5 选择 [在网络上共享这个文件夹]。
如果被共享的文件为只读，请取消 [允许网络用户更改我的文件]。
- 6 单击 [确定]。该文件已被设置为共享。“Work”文件夹的图标会改变

● 打印机共享

- 1 右键单击要共享的打印机，然后从出现的菜单中单击 [共享]。要共享打印机的属性会显示出来。
设置打印机共享。
在显示屏上，打印机共享设置由“网络设置向导”建议，但对于无线 LAN 网络，安全由网络名称 (SSID) 或网络密钥维护。执行以下步骤可以让您不使用“网络设置向导”来设置打印机共享。
- 2 单击“确定”。如果您了解在安全方面的风险，但又不想运行向导就共享文件，请单击这儿。“启用打印机共享”将会显示出来。
- 3 选择“只启用打印机共享”。
- 4 单击“确定”。打印机属性将被指明。
- 5 选择“共享此打印机”。
- 6 在“共享名”中输入共享的打印机名称。
- 7 单击“确定”。该打印机将被共享，打印机图标会变成共享图标。

检查连接

网络设置完成之后，在另一台计算机上访问共享的磁盘可以检查无线 LAN 网络的连接。

● 访问另一台计算机

- 1 单击 [开始] → [我的电脑]。
- 2 从 [其它位置] 的左菜单中，单击 [网上邻居]。
- 3 从 [网络任务] 的左菜单中，单击 [查看工作组计算机]。您现在加入的工作组会出现。
- 4 双击您想连接的计算机。您在 [计算机共享] 中设置的磁盘会出现。
- 5 双击您想连接的磁盘。磁盘的内容会显示出来，可以让您使用。

● 检查连接

- 1 单击 [开始] → [控制面板]。
- 2 双击 [PRISM 设置] 图标。[PRISM 无线设置] 会出现。
- 3 在 [链接] 选项卡上检查连接。当前的连接状态会显示出来

项目	说明
状态	显示当前的连接状态。 如果连接成功，您所连接其它计算机的 MAC 地址会显示出来。如果您连接了一台以上的计算机，则连接最好的计算机机会显示出来。
当前频道	显示用于连接的当前频道。
当前 Tx 速率	显示当前的传输速率 (Mb/秒)。
[关闭无线通讯]/ [打开无线通讯]	单击 [关闭无线通讯] 可以断开连接。 单击 [打开无线通讯] 可以连接到网络。
重新扫描	单击这个按钮可以搜索连接的其它计算机。
吞吐率 (字节 / 秒)	显示发送 (Tx) 和接收 (字节 / 秒) (Rx) 数据传输的实际数据传输速率。
链接质量	显示链接质量。AdHoc 连接不会显示。
信号强度	显示信号强度。AdHoc 连接不会显示。

表 15: 检查连接

关于 IP 地址

● 设置 IP 地址

如果您不确定该如何设置 IP 地址，请参阅以下步骤。

如果网络已经有一个访问点(DHCP 服务器)，请如下所示设置 IP 地址：

Windows 2000: [自动获得 IP 地址]

Windows XP: [自动获得 IP 地址]

要点

- DHCP 服务器会自动为网络上的计算机或其它设备分配 IP 地址。
- AdHoc 网络没有 DHCP 服务器。

如果已经给网络上的计算机分配了 IP 地址，请让网络管理员检查一下已为这台计算机设置的 IP 地址。

如果在网络上没有找到访问点：

IP 地址会使用 1 到 255 之间的四个值表示。
每台计算机的设置如下：圆括号内的值是子网掩码。

< 例如 >

计算机 A: 192.168.100.2 (255.255.255.0)

计算机 B: 192.168.100.3 (255.255.255.0)

计算机 C: 192.168.100.4 (255.255.255.0)

:

:

计算机 X: 192.168.100.254 (255.255.255.0)

疑难解答

本章包含疑难解答信息，其中包括了原因和措施，在使用这个设备时您可能会碰到这些问题。

● 疑难解答表

问题	可能的原因	可能的解决方案
感叹号 (!) 或十键叉 (x) 会附加到 [Intersil PRISM Wireless LAN PCI Card]。	识别设备故障。	重新开机。
	安装驱动程序故障。	重新开机。
在双击 [网络计算机] 图标时其它计算机没有显示出来。	在 Windows 启动时您没有输入密码。在“用户名 / 密码”窗口显示时您单击了 [Cancel] 或 [ESC]。	一定要在启动 Windows 时输入用户名和密码，并单击 [确定]。如果您忘记密码，请输入另一个用户名。新的用户名和密码会注册到计算机。
	网络没有正确设置。	检查协议、工作组和共享的设置。 要检查这个设置，您需要不同的步骤，具体情况视所使用的操作系统而定。请参阅本手册相应的部分。
	在网络被搜索到和所连的计算机显示之前，需要一些时间。	执行以下步骤搜索计算机。 <ul style="list-style-type: none"> 单击 [开始] → [搜索] → [其它计算机]。 在 [名称] 中输入所连的计算机名称，然后单击 [搜索]。 双击已被搜索到的计算机的图标。
	安装驱动程序故障。	确定驱动程序已正确安装。
	TCP/IP 协议没有安装，或 IP 地址设置不正确。	确定 TCP/IP 协议已经安装。要检查这个设置，您需要不同的步骤，具体情况视所使用的操作系统而定。请参阅本手册相应的部分。

问题	可能的原因	可能的解决方案
在双击 [网络计算机] 图标时其它计算机没有显示出来。	TCP/IP 协议没有安装, 或 IP 地址设置不正确。	<p>如果 TCP/IP 协议已安装, 请执行以下操作, 检查 IP 地址:</p> <ol style="list-style-type: none">1. Windows 2000: 单击 [开始] → [程序] → [附件] → [命令提示符]。 Windows XP: 单击 [开始] → [所有程序] → [附件] → [命令提示符]。2. 输入 “IPCONFIG” 命令, 然后按 [Enter]。 (如果硬盘为 C 盘, 请输入 C:\>ipconfig) <p>检查 IP 地址已正确显示在 “IP 地址” 下面。</p> <p>例如: IP 地址: 10.0.1.3 子网掩码: 255.255.255.0 默认网关: 10.0.1.1</p> <p>缩短两台计算机之间的距离, 或移走中间的障碍物, 然后重试连接。</p>
	由于无线电信号差, 通讯未连接。	

问题	可能的原因	可能的解决方案
IP 数据包没有达到目标。	运行 PING 命令检查连接	<p>执行以下步骤运行 PING 命令，检查 IP 数据包是否已正确发送到目标。</p> <p>要运行 PING 命令，必须已经安装了 TCP/IP 协议。首先您要确定 IP 地址，还要确保您的 IP 地址可以响应，然后确保其它计算机可以找到。</p> <ol style="list-style-type: none"> 1. Windows 2000: 单击 [开始] → [程序] → [附件] → [命令提示符]。 Windows XP: 单击 [开始] → [所有程序] → [附件] → [命令提示符]。 2. 输入: ipconfig > 目录 \ 文件名, 这里目录和文件名代表您要查找 IP 地址的位置。 3. 单击 [Enter], 然后转到上面指定的位置。系统的 IP 地址将会包含在该文件中。 4. 要检查您的 IP 地址是否工作正常, 请返回 DOS 提示符, 输入: ping <IP 地址>, 然后按 [Enter]。您将接收到几个回复, 之后是 PING 统计信息 (类似于下面)。 5. 要检查您的系统是否能与其它系统通讯, 请转到 DOS 提示符, 然后输入: \>>ping XXX.XXX.XXX.XXX. (在 XXX.XXX.XXX.XXX 位置换成目标 IP 地址)。 <p>例如: 如果目标 IP 地址为 10.0.1.3: C: \>ping 10.0.1.3</p> <p>如果连接成功, 类似于下面的信息会出现。</p> <pre>Pinging 10.0.1.3 with 32 bytes of data: Reply from 10.0.1.3: bytes=32 time=1ms TTL=32 Reply from 10.0.1.3: bytes=32 time<10ms TTL=32 Reply from 10.0.1.3: bytes=32 time=4ms TTL=32 Reply from 10.0.1.3: bytes=32 time<10ms TTL=32</pre> <p>如果连接失败 [Request timed out] (请求超时), [Destination host unreachable] (目标主机未找到) 或类似信息会出现。如果出现这种情况, 请参阅本章的“其它计算机未显示出来”部分。</p>

问题	可能的原因	可能的解决方案
不能连接到网络	有几种可能的原因，见右边所列。请参阅本手册或用户指南的具体章节。	<p>可能是以下原因。请依次检查每项。</p> <ul style="list-style-type: none"> • 网络名称或加密密钥不正确。 • 驱动程序没有正确启动。 • 目标计算机没有打开。 • 您没有权限访问目标计算机。 • 卡出现故障。 • 硬件冲突。
我想删除驱动程序。 (Windows 2000)		<p>Windows 2000:</p> <p>删除驱动程序时，确定该设备连接着计算机。如果在设备没有与计算机相连时，您尝试删除其驱动程序，则驱动程序不会被删除。</p> <ol style="list-style-type: none"> 1. 右键单击桌面上的 [我的电脑]，然后从出现的菜单中单击 [属性]。 [系统属性] 会出现。 2. 单击 [硬件] 选项卡。 3. 单击 [设备管理器...]。[设备管理器] 窗口会出现。 4. 单击 [网络适配器] 旁边的 [+] 号。 5. 右键单击 [Intersil PRISM Wireless LAN PCI Card]，然后从显示的菜单中单击 [卸载]。[确认设备删除] 会出现。 6. 单击 [确定]。 7. 关闭 [系统属性]。 8. 确定其图标已经从屏幕右下角的任务栏上消失。 9. 单击 [开始]→[设置]→[控制面板]。 10. 双击 [添加 / 删除程序]。 [添加 / 删除程序] 会出现。 11. 执行以下步骤。 <ul style="list-style-type: none"> • 单击 [PRISM 11Mbps Wireless LAN for Windows]。 • 单击 [更改 / 删除]。 <p>这时会出现一个窗口询问您是否确实要删除该驱动程序。</p> <ol style="list-style-type: none"> 12. 单击 [是]。 <p>驱动程序被删除后，会出现一个窗口显示该驱动程序已被删除。</p> <ol style="list-style-type: none"> 13. 单击 [确定]。 14. 关闭 [添加 / 删除程序] 和 [控制面板]。 15. 关闭 Windows，然后关机。

问题	可能的原因	可能的解决方案
我想删除驱动程序。 (Windows XP)		<p>Windows XP:</p> <p>删除驱动程序时，确定该设备连接着计算机。如果在设备没有与计算机相连时，您尝试删除其驱动程序，则驱动程序不会被删除。</p> <ol style="list-style-type: none"> 1. 单击 [开始]，右键单击 [我的电脑]，然后从出现的菜单中单击 [属性]。[系统属性] 会出现。 2. 单击 [硬件] 选项卡。 3. 单击 [设备管理器]。 4. 单击 [网络适配器] 旁边的 [+] 号。 5. 右键单击 [Intersil PRISM Wireless LAN PCI Card]，然后从显示的菜单中单击 [卸载]。[确认设备删除] 会出现。 6. 单击 [确定]。 7. 关闭 [系统属性]。 8. 确定其图标已经从屏幕右下角的任务栏上消失。 9. 单击 [开始] → [控制面板]。[控制面板] 会出现。 10. 双击 [添加 / 删除程序]。[添加 / 删除程序] 会出现。 11. 执行以下步骤。 <ul style="list-style-type: none"> • 单击 [PRISM 11Mbps Wireless LAN for Windows]。 • 单击 [更改 / 删除]。 <p>这时会出现一个窗口询问您是否确实要删除该驱动程序。</p> <ol style="list-style-type: none"> 12. 单击 [是]。 <p>驱动程序被删除后，会出现一个窗口显示该驱动程序已被删除。</p> 13. 单击 [确定]。 14. 关闭 [添加 / 删除程序] 和 [控制面板]。 15. 关闭 Windows，然后关机。

技术规格

● 集成无线 Lan 设备的技术规格

项目	说明
网络类型	IEEE 802.11b
传输速率	11/5.5/2/1Mbps (自动更改)
频率范围	2,400 - 2,483 MHz
频道	使用 13 个频道中的一个
卡类型	非智能
VCC	B 类
安全	网络命名, 加密密钥
支持的操作系统	Windows 2000, Windows XP
电流	最大: 350mA
建议用于无线 LAN (AdHoc 网络) 的最大装置数	10 或更少

部分

2

这一部分介绍这款计算机的安装选项。

1. 连接外设之前

下面介绍连接外设之前需要了解的基本知识。

- **对于某些外设需要更改设置。**

有些外设不是连接到计算机就能马上使用。这些外设需要在连接之后更改一些设置。例如，连接打印机和 PC 卡之后需要“安装驱动程序”。有些外设不需要更改设置。请连接外设时务必查阅本手册的内容以正确完成所有设置。

如果安装驱动程序，需要软盘，请准备一个可用的 FDD 装置（USB）

- **参阅本手册。**

本手册示范介绍如何连接外设。连接外设时，请务必参考它的手册。

- **使用正品。**

要了解有关 FUJITSU 正品选件的信息，请向经销商咨询。如果使用其它制造商的外设，我们不能保证计算机一定能正常运行。如果需要使用其它制造商的外设，请向该产品的制造商咨询。

- **使用符合 ACPI 标准的外设**

此款计算机已设置为 ACPI 模式。如果外设没有在 ACPI 模式运行，节能和其它功能可能无法正常工作。

另外，此款计算机不支持低级待机（ACPI S1）功能。


如果使用的任一外设只支持低级待机功能，请不要将您的计算机置入待机或眠模式。

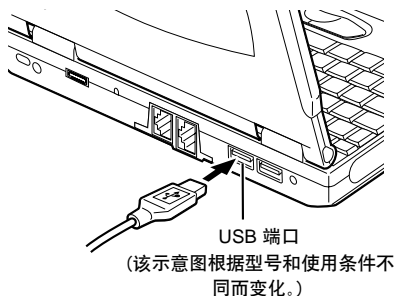
要点

- 在您将一个外设连接到接口时，确定连接的方向和方法正确。
- 如果连接一个以上的外设，则要在完成一个外设的设置之后再安装下一个。

2. 连接鼠标

连接 USB 鼠标

- 1 将鼠标电缆插入到计算机后面板的 USB 端口。
插入接口，使标有  的一面朝上。





要点

- 即使在计算机打开时，也可以连接和断开鼠标。
- 连接鼠标不会自动禁用压杆式鼠标。要禁用压杆式鼠标，请按照下一节“禁用快指 IV”中的步骤进行操作。

禁用压杆式鼠标

当 USB 鼠标连接到计算机时，不仅是 USB 鼠标，而且压杆式鼠标也会被启用。要禁用压杆式鼠标，请按照以下步骤执行。





- 1 同时按  和  键。

每次您同时按  和  键时，压杆式鼠标就会在“启用”和“禁用”之间切换。当您启用或禁用压杆式鼠标时，信息“Internal pointing device: Enabled”(内部指点设备：启用)或“Internal pointing device: Disabled”(内部指点设备：禁用)会相应出现在屏幕上。

重要

- 在将鼠标连接到计算机之前，请不要禁用压杆式鼠标。

要点

- 即使您同时按下  和  键会禁用压杆式鼠标，但在计算机重新启动或恢复运行后，它又会自动启用。要禁用它，请再次同时按下  键和  键。
- 只有当您在 BIOS Setup Advanced [高级] 菜单中的“Keyboard/Mouse Settings”(键盘/鼠标设置)下面将“Internal pointing device”(内部指点设备)项目设置为“Manual”(手动)时，才能启用或禁用“压杆式鼠标”。如果没有选择 Manual 选项，请选择它。
- 如果您将 BIOS Setup Advanced 菜单内“Keyboard/Mouse Settings”的“Internal pointing device”设置为“Always disabled”(总是禁用)，则压杆式鼠标会一直被禁用。

3. 连接 USB 设备


准备必要的项目

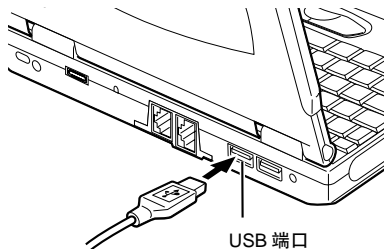
USB 设备	<p>指 USB 标准兼容设备。以下是一些典型的 USB 设备。准备符合您需要的 USB 设备。</p> <ul style="list-style-type: none"> • 数码相机 • CCD 相机 • 鼠标 • 终端适配器 • 打印机 • 扫描仪 • 键盘 • 扬声器
USB 网线	<p>用来将 USB 设备连接到计算机。有些 USB 设备配带有 USB 电缆。对于有些 USB 设备，如 USB 鼠标，USB 电缆是其中集成的一部分。有关更多信息，请参阅您想连接 USB 设备的手册。</p>
USB 设备驱动程序	<p>有些 USB 设备附带有包含各自驱动程序的光盘或软盘。请参阅 USB 设备的说明手册，使用与计算机上所装 Windows 兼容的设备。</p>
USB 设备的手册	<p>连接方法视所连的 USB 设备而定。因此，还应参阅所使用 USB 设备的手册。</p>

要点

- 如果所连 USB 设备不需要从其它电源供电，则每个 USB 端口能够向它提供 500mA 的电能。有关更多信息，请参阅 USB 设备的说明手册。

连接 USB 设备

- 1 将电缆连接到您想使用的 USB 设备。
- 2 将电缆的另一端插入到计算机后面板的 USB 端口。
插入电缆，使 USB 接口带标志的  面朝上。



(该示意图根据型号和使用条件不同而变化。)

- 3 安装设备驱动程序。

有些 USB 设备连接后就可以使用，它们不需要安装驱动程序。有关更多信息，请参阅所使用 USB 设备的手册。

可能需要软盘或光盘来安装驱动程序。

要点

- 如果在连接 USB 电缆时，“安装硬件”对话框出现，请单击“继续”，以安装设备驱动程序。

4. PC 卡

使用 PC 卡的注意事项



注意



不合格

PC 卡是由对静电敏感的部件组成,甚至人体释放的静电也会对它造成损坏。接触 PC 卡之前,务必用手触摸一下金属物体,释放身上的静电。

使用 PC 卡时应注意以下事项以免出现故障。

- 避免将 PC 卡放在强光或高温下。
- 避免受 PC 卡遭受振动。
- 不要将重物压在 PC 卡上。
- 避免弄湿 PC 卡。
- 不使用时应将 PC 卡存放在包装盒内。

可以配合此款计算机使用的 PC 卡

此款计算机与符合 PC 卡标准的 Type I PC 卡和 Type II PC 卡兼容。

以下是这些类型卡的示例。

- **适配器卡**
将数码相机智能媒体中的图形数据装入到计算机需要这种 PC 卡。
- **SCSI 卡**
连接 SCSI 设备,如 SCSI 硬盘或 MO(光磁)驱动器需要这种 PC 卡。
- **网卡**
将两台计算机连接起来,并使其共享数据或打印机,需要这种 PC 卡。

要点

- 此款计算机不支持工作电压为 12V 的 PC 卡。

准备必要的项目

PC 卡	准备符合您需要的 PC 卡。
PC 卡驱动程序	有些 PC 卡会附带包含有 PC 卡驱动程序的光盘和软盘。
PC card 卡手册	设置步骤视所使用的 PC 卡而定。因此也请务必阅读 PC 卡的手册。

安装 PC 卡



注意



伤害

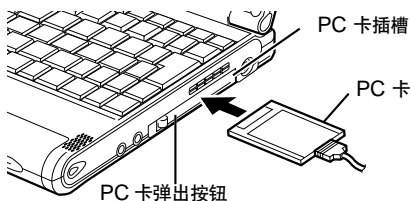
安装 PC 卡时，不要把手指伸到 PC 卡插槽中，否则可能会对您造成伤害。

要点

- 在安装某类 PC 卡时，可能会要求您关掉计算机电源，或安装设备驱动程序。请查阅随每个 PC 卡附带的手册。

1 安装 PC 卡。

按住 PC 卡弹出按钮，完全将 PC 卡插入到 PC 卡插槽，使其标有产品名称的一面朝上。



2 如果是第一次安装 PC 卡，请安装必要的驱动程序。

有些 PC 卡需要安装驱动程序。如果需要，请查阅随每个 PC 卡附带的手册，安装驱动程序。可能需要软盘或光盘来安装驱动程序。

3 单击屏幕右下角(显示时钟的通知区域)的 图标(安全去除硬件)，确定插入的 PC 卡名称已正确显示。

- 如果名称显示出来，则说明计算机已正确识别该 PC 卡。单击桌面上的空白区域。
- 如果名称没有显示，则说明计算机没有正确识别该 PC 卡。按照“弹出 PC 卡”一节介绍的步骤 3-5 弹出 PC 卡，然后再重新安装。


弹出 PC 卡

要点


- 在您卸下带有电缆的 PC 卡时，请不要拉 PC 卡上所连的电缆，否则可能会造成故障。
- 卸下 PC 卡，请按照以下步骤执行，否则可能会造成故障。
- 有些 PC 卡需要关机后再卸下它们。请查阅 PC 卡的手册。

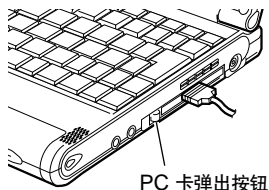


- 使用之后，PC 卡温度可能很高。在步骤 3 之后，要等一会儿再卸下 PC 卡，以免烧伤您的手指。
- 卸下 PC 卡时，不要将手指伸到 PC 卡插槽中，以免伤害您的指尖。

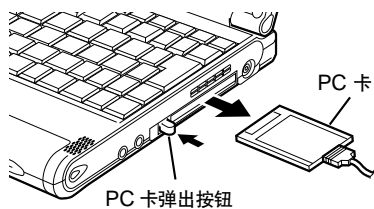
- 1 在屏幕右下角(显示时钟的通知区域)内单击  图标(安全去除硬件)。

要点

- 在您双击屏幕右下角(显示时钟的通知区域)内的  图标(安全去除硬件)时，不要通过单击出现的“安全去除硬件”对话框中的“停止”按钮来弹出 PC 卡。这样做可能会造成计算机运行变得不稳定。
- 2 单击“XXXXXXXX 可以被安全去除”。XXXXXXXX 是指已插入 PC 卡的名称。
 - 3 当出现信息“去除硬件”时，请按 PC 卡弹出按钮。
PC 卡弹出按钮会弹出来。



- 4 弹出 PC 卡。
按 PC 卡弹出按钮，拉出弹出来的 PC 卡。



- 5 推入 PC 卡弹出按钮。

重要

- 弹出 PC 卡之后一定要推入弹出按钮。如果在按钮弹出的状态下使用计算机则可能会损坏按钮。

5. 连接外部显示器

准备必要的项目

外部显示器	准备一台支持 PC/AT 兼容或 DOS/V 计算机的外部显示器。
CRT 转换电缆	用来转换显示器电缆接口，使显示器可以连接到计算机。
显示器电缆	多数外部显示器在其背后附带有显示器电缆，或带有单独的电缆。 如果您的外部显示器没有附带显示器电缆，或者 CRT 转换电缆不能连接到您的显示器电缆，请准备一条专为 PC/AT 兼容或 DOS/V 计算机设计的，并且接口与 CRT 转换电缆接口兼容的显示器电缆。
所使用外部显示器的手册	连接方式视显示器而定。因此也请阅读所使用外部显示器的手册。

连接外部显示器

这一部分介绍如何将 CRT 显示器连接到计算机后面板的外部显示器接口。



警告



电击

- 在计算机上连接或断开外部显示器之前，请务必关闭计算机，并从计算机上断开交流适配器。如果没有这样做则可能会造成电击。



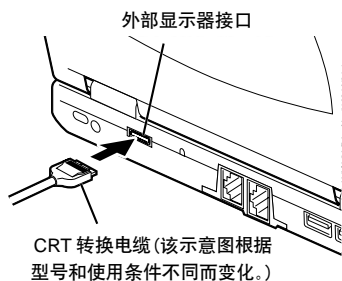
注意



不合格

- 连接电缆之前，请仔细阅读本手册，以便能够正确连接。电缆连接不正确可能会使计算机和外部显示器出现故障。

- 1 关机后从计算机上断开交流适配器。
- 2 将购买的显示器电缆连接到 CRT 转换电缆。
注意两个接口的方向，使其完全吻合。
- 3 将 CRT 转换电缆插入到计算机后面板的外部显示器接口。
注意两个接口的方向，使其完全吻合。



- 4 将 CRT 转换电缆的另一个接口插接到 CRT 显示器。
要了解连接电缆的方式，请参阅 CRT 显示器的手册。
- 5 将 CRT 显示器的电源线插接到墙上插座，然后打开。
- 6 将交流适配器连接到计算机，打开电源，然后切换显示器。

如果在连接外部显示器之后出现“添加新硬件向导”对话框，请执行以下步骤。

- 如果外部显示器附带有包含文件的光盘或软盘，请按照外部显示器手册的说明，安装所有必需的文件。

要点

- 外部显示器连接到计算机之后，计算机的 LCD 和外部显示器都可以作为计算机的显示器同时启用。
- 要从计算机中断开 CRT 转换电缆，请按住接口顶部的按钮拉出它。

部分

3

这一部分介绍在计算机出现问题
和显示信息时执行哪些操作。
请在需要时阅读这一部分的
内容。

1. 发生这种情况时

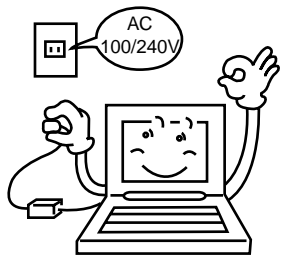
如果计算机发生故障，或者出现了一些奇怪的情况；或者您对某些操作毫无头绪时，请参阅以下章节。

● 没有通电。

检查点	原因和解决方案
交流适配器是否连接？	购买后首次使用这个计算机时，电池没有充过电，因此您必须连接交流适配器，并打开主开关。
主开关是否打开？	如果主开关没有打开，则即使按下 SUS/RES 按钮，计算机也不会通电。
电池是否已充电？	如果打开主开关时听到哔声，则说明电池在电量不足的情况下运行(电池电量不足)。连接交流适配器。
计算机是否已经长期没有用过？	如果在长期没有使用计算机的情况下，第一次使用，请连接交流适配器，并打开主开关以打开电源。

● LCD 面板上没有显示任何内容

检查点	原因和解决方案
状态指示器 LCD 上是否显示有任何内容？	连接交流适配器，并打开主开关。
① 是否显示在 LCD 面板上？	<ul style="list-style-type: none"> • 显示 使用亮度和对比度控制调整亮度和暗度。 • 闪烁 按下暂停 / 恢复开关，使计算机进入运行模式。 • 状态指示器 LCD 上的图标关掉时。 如果计算机靠电池电源运行，请检查电池状态，看它是否已足够充电来用于操作。如果未充电，请连接交流适配器，给它充电。如果您是在连接着交流适配器的情况下使用这个计算机，请检查它是否正确插接到电源插座和计算机。







检查点	原因和解决方案
您是否按下了任何键?	在这个计算机上, 如果设置了电源管理功能, 并且长时间没有按过键, 则 CPU 会停止运行, LCD 面板背光会关闭。(如果是这种情况, 按一下任何一个键即可使背光再次亮起。)如果计算机非常频繁的停止操作, 请更改 BIOS setup 设置。
是否设置为输出到 CRT?	使用 [Fn] + [F10] 键切换到 LCD 显示屏。

● LCD 面板模糊不清。

检查点	原因和解决方案
您是否调整过亮度?	使用键盘上的 [Fn] + [F6] 键或 [Fn] + [F7] 键调整 LCD 背光的亮度。

● 电池没有充电。

检查点	原因和解决方案
交流适配器是否连接?	检查交流适配器是否正确插接到电源插座和计算机。
电池是否过热 (LCD 显示屏上的  闪烁)?	如果环境温度太高, 则在使用过程中电池温度也会变得很高, 可能是电池保护功能已经启动, 停止了充电。
计算机温度是否过低 (LCD 显示屏上的  闪烁)?	如果电池温度太低, 可能是电池保护功能已经启动, 停止了充电。
充电是否中途停止?	如果您在使用计算机, 并在充电开始之后,  LCD 关闭之前断开交流适配器, 则电池将不会完全充电。如果已经开始充电, 则在  LCD 关闭之前, 请不要断开交流适配器。

● 剩余电池电量指示器没有停止闪烁。

检查点	原因和解决方案
电池是否正确连接?	检查电池是否已正确连接。如果已正确连接, 则是电池组发生故障, 因此需要更换电池组。
电池电量是否不足?	连接上交流适配器, 对电池充电。

● 软盘不能使用。

检查点	原因和解决方案
软盘是否正确插入到软盘驱动器?	标签一面朝上, 将软盘插入驱动器挡盖中, 牢固插入, 直至听到卡嗒声。
软盘是否已经格式化?	新的软盘必须格式化(初始化)之后才能使用。格式化软盘。
软盘装置是否已牢固安装?	牢固将软盘驱动器装置插入到系统。
BIOS Setup 菜单中的“Floppy disk A”(软盘 A)和“Floppy controller”(软盘控制器)是否设置正确?	如果已使用软盘, 请为“Floppy disk A”选择“1.44/1.2MB 3.5”, 为“Floppy controller”选择“Use”。
是否已在 BIOS Setup 菜单中为项目“Floppy disk access”(软盘访问)选择了“Administrator only”(仅限管理员)?	如果已使用软盘, 请为该项目选择“Accessible at any time”(随时可以访问)。如果已使用超级磁盘, 访问性将不能由这个项目控制。
软盘是否写保护?	将软盘上的写保护舌片设置到写启用位置。
换一张软盘是否可以使用?	如果可以使用其它软盘, 则说明出问题的软盘已损坏。

● 扬声器不出声或声音很小。

检查点	原因和解决方案
是否调整了音量控制?	调整音量控制, 将音量调整到正确的级别。如果音量调整无效, 请检查声音驱动程序是否安装正确。

● 不能从麦克风或线路输入插孔录制。

检查点	原因和解决方案
音量调整是否正确?	调整音量控制以获得正确的音量。如果线路插孔连接着声源, 则检查一下该连接。如果按照上述操作并检查之后, 仍然不能录制, 请激活“音量控制”中的“录制”项目, 然后再次调整音量。

● LCD 面板合不上。

检查点	原因和解决方案
是否有什么东西卡在 LCD 面板中?	强行关闭 LCD 面板可能会损坏它。检查是否有什么东西卡在 LCD 面板中。另外, 如果回形针等金属物件卡在按键之间也会造成故障。

● 电源管理功能未执行。

检查点	原因和解决方案
是否在 BIOS setup 中将“Power Savings”(节能)设置为关?	重置 BIOS setup。

● 不能从 CD-ROM 驱动器读取数据。

检查点	原因和解决方案
CD-ROM 放置是否正确?	带标签的一面朝上, 正确放置 CD-ROM。
CD-ROM 上是否有污渍、凝结或水份?	用一块柔软的干布从中心向外擦拭。
CD-ROM 是否被刮伤或严重弯曲?	更换 CD-ROM。
您使用的是不是非标准 CD-ROM?	使用符合标准的 CD-ROM。
CD-ROM 驱动器装置是否牢固安装?	请牢固安装 CD-ROM 驱动器装置。

● 光盘不能从 CD-ROM 中弹出来。

检查点	原因和解决方案
它是否处在操作模式下?	只有在个人计算机主装置处在操作模式时, 光盘才能弹出, 这是因为它的 CD-ROM 驱动器有一个电子锁。确定个人计算机主装置处在操作模式下, 然后按弹出按钮。如果由于某些原因, 即使在按下弹出按钮时, 光盘托盘也不打开, 请将回形针或其它东西插入到弹出按钮右边的小孔中, 然后拉出托盘。如果托盘仍然未打开, 请用鼠标右键单击“我的电脑”窗口中的 CD-ROM 图标, 然后单击“弹出”。

● 超级磁盘不能弹出。

检查点	原因和解决方案
计算机是否正在操作?	由于超级磁盘驱动器使用电子锁固定超级磁盘, 因此, 只有当计算机处于操作状态时才能弹出该磁盘。如果由于某些原因不能弹出超级磁盘, 请将拉直的回形针或其它类似物件插入紧急磁盘弹出孔, 往里推。磁盘将会从驱动器中弹出来。

2. 保养与维护

如果您能精心呵护富士通 LifeBook 笔记本，则会延长它的寿命，提高其可靠性。这一部分介绍维护笔记本及其设备的一些方法。

注意：

如果误用，电子设备可能会造成危险。使用本设备或类似设备必须在成人监督下进行。切勿让儿童接触任何电子设备的内部组件，也不要让他们拉扯电缆。

LIFEBOOK 笔记本

LifeBook 笔记本保养

- LifeBook 笔记本是一个耐用，但也易被损坏的电子设备。应精心保养。
- 养成一个好的习惯，旅行时要把笔记本放在合适的携带箱里。
- 不要尝试自己维修计算机。一定要严格遵守安装说明。
- 不要让它靠近食物和饮料。
- 如果意外将液体溅到了笔记本内：
 1. 关机。
 2. 调整笔记本的位置，使液体可以流出来。
 3. 让它风干 24 小时，如果需要，可以更长。
 4. 如果在变干后，笔记本无法启动，请致电服务中心。
- 不要在潮湿的环境（如浴室、游泳池）中使用 LifeBook 笔记本。
- 一定要使用供您的笔记本使用的交流适配器和电池。
- 使笔记本远离沙尘和其它有害环境。
- 不要使 LifeBook 笔记本长时间暴露于强光下，140°F (60°C) 以上的高温会对笔记本造成损坏。
- 不使用时要使接口和插槽的护盖保持闭合。
- 不要将重物或尖锐物件放在计算机上。
- 如果您在公文包或其它携带箱里携带 LifeBook 笔记本，确定箱子内没有任何物品之后再合上箱盖。
- 切勿跌落 LifeBook 笔记本。
- 不要用尖锐物件接触屏幕。

清洁 LifeBook 笔记本

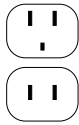



- 务必断开电源插头。（拔插头，而非拉电线。）
- 使用湿润、不起球的软布清洁 LifeBook 笔记本。切勿使用研磨剂和溶剂。
- 使用软布擦除屏幕上的灰尘。严禁使用玻璃清洁剂。

存放 LifeBook 笔记本

- 如果要將 LifeBook 笔记本存放一个月或更长时间，请关机后取出所有锂离子电池。
- 分开存放 LifeBook 笔记本和电池。如果您装着电池存放笔记本，则电池会放电，电池寿命也会缩短。另外，带有故障的电池还可能对笔记本造成损坏。
- 将 LifeBook 笔记本存放在凉爽、干燥的位置。温度应介于 - 25°C (13°F) 到 60°C (140°F) 之间。

携带 LifeBook 笔记本旅行

- 切勿在开机状态下携带 LifeBook 笔记本。
- 不要把 LifeBook 笔记本当做行李箱进行检查。要随身携带。
- 旅行时一定要带上随 LifeBook 笔记本附带的系统恢复光盘。如果在旅行中遇到系统软件问题，可能需要使用它来解决故障。
- 切勿让 LifeBook 笔记本通过金属探测器。请让安检人员手工检查您的笔记本。但是，您可以使 LifeBook 笔记本通过正确调谐的 X 射线机。为避免出现问题，应将笔记本放到靠近安检机入口处，并尽快拿开，也可以让安检人员手工检查您的笔记本。安检人员可能会要求您打开笔记本。确定您手边有充电的电池。

插座类型	位置
	美国、加拿大、拉丁美洲部分国家、日本、韩国、菲律宾和台湾
	俄罗斯和独联体 (CIS)、欧洲多数国家、拉丁美洲部分国家、中东、非洲部分国家、香港、印度和南亚多数国家
	墨西哥、英国、爱尔兰、马来西亚、新加坡和非洲部分国家
	中国、澳大利亚和新西兰

- 在卸下硬盘旅行时，要用不导电的材料布或纸包裹好硬盘。如果要硬盘通过手工检查，确保需要时可以安装硬盘。切勿让硬盘通过金属探测器。请让安检人员手工检查您的硬盘。但是，您可以使硬盘通过正确调谐的 X 射线机。
- 如果跨国旅行，一定要带上必要的插头适配器。检查前页图表，确定需要哪种类型的插头适配器，也可以向旅行社查询。

电池

电池保养

- 务必小心处理电池。
- 严禁使电池终端短路（即不要使用金属物件接触两个终端）。不要将未封装的电池与硬币、钥匙或其它金属物品混放在口袋或钱包里。混放在一起可能会引起爆炸或火灾。
- 切勿摔落、刺穿、拆开或焚烧电池。
- 应按照本手册中的说明给电池充电，并且要放在通风的地方。
- 不要将电池在高温下存放一天多或两天。高温会缩短电池的使用寿命。
- 不要将电池存放六个月以上而不充电。

延长电池寿命

- 只要可能，就应使用交流或可选的汽车 / 航空适配器给 LifeBook 笔记本供电。
- 如果 LifeBook 笔记本整天都靠电池供电，则要在晚上连接上交流适配器，给电池充电。
- 将亮度调到适合的最低亮度。
- 设置电源管理功能，最大程序延长电池寿命。
- 如果打开了 LifeBook 笔记本，而实际上您又不使用，这时请将它置入“暂停”模式。
- 限制使用 DVD/CD-RW/CD-ROM。
- 禁用 Windows 光盘自动插入功能。
- 总是使用完全充电的电池。
- 不使用时弹出 PCMCIA 卡。

软盘和驱动器

软盘保养

- 避免在潮湿或尘土多的地方使用软盘。
- 切勿靠近磁体或磁场存放软盘。
- 不要在磁盘或磁盘标签上使用铅笔或橡皮擦书写和擦除。
- 不要将软盘放在高温或低温，或环境温度变化非常大的地方。存放温度应介于 50°F (10°C) 到 125°F (52°C)
- 不要触摸金属挡盖背后磁盘的暴露部分。

软盘驱动器保养

- 要清洁、擦拭软盘驱动器，请使用柔软的干布或蘸水或中性清洁剂的柔软湿布擦拭。严禁使用苯、涂料稀释剂或其它挥发性材料。
- 避免将软盘驱动器放在高温或低温，或环境温度变化非常大的地方。存放温度应介于 50°F (10°C) 到 125°F (52°C)
- 应使软盘驱动器远离强光和散热设备。
- 避免将软盘驱动器存放在易受碰撞或振动的地方。
- 如果软盘驱动器或软盘内落入液体、金属或其它异物，切勿再使用软盘驱动器。
- 严禁拆开或拆解软盘驱动器。

DVD/CD-RW/CDs

DVD/CD-RW/CD 保养

- DVD/CD-RW/CD 是精密设备，如果精心保养，则性能会非常可靠。
- 不使用时要把 DVD/CD-RW/CD 存放在包装盒内。
- 一定要拿 DVD/CD-RW/CD 的边缘，避免触摸表面。
- 避免将 DVD/CD-RW/CD 存放在温度异常的地方。
- 不要弯曲 DVD/CD-RW/CD，或在它们上面放重物。
- 不要将液体溅到 DVD/CD-RW/CD 上。
- 不要刮擦 DVD/CD-RW/CD。
- 不要在 DVD/CD-RW/CD 上贴标签。
- 不要使灰尘落到 DVD/CD-RW/CD 上。
- 切勿使用圆珠笔或铅笔将标签表面书写内容。一定要使用毡笔。
- 如果 DVD/CD-RW/CD 遭到温度的突然变化，则在其表面上可能会形成冷或热凝结。使用干净、不起球的软布擦去湿气，然后让它在室温条件下风干。切勿使用吹风机或加热器风干 DVD/CD-RW/CD。
- 如果 DVD/CD-RW/CD 变脏，只应使用 DVD/CD-RW/CD 清洁剂，或使用干净、不起球的软布从里到外擦拭。

DVD/CD-RW/CD-ROM 驱动器保养

DVD/CD-RW/CD-ROM 驱动器非常耐用，但也应精心保养。请注意以下几点：

- 驱动器以极高的速度旋转光盘。因此它在运行时不要四处移动或使其遭受碰撞或振动。
- 避免在温度异常的环境下使用或存放驱动器。
- 避免在潮湿或多尘土的地方使用或存放驱动器。
- 避免在磁体或产生强磁场的设备附近使用或存放驱动器。
- 避免在易受碰撞或振动的地方使用或存放驱动器。
- 严禁拆开或拆解DVD/CD-RW/CD-ROM 驱动器。

PC 卡

PC 卡保养

PC 卡非常耐用，但也应精心保养。随 PC 卡附带的说明文档会提供具体保养信息，但您要注意以下几点：

- 使 PC 卡远离尘土和污浊的环境，如果没有装在笔记本中，要把 PC 卡放在其保护封套中。
- 避免长时间暴露于强光或高温下。
- 保持卡的干燥。
- 切勿绕曲或弯曲卡，也不要将重物放在卡的上面。
- 不要强行将卡装入插槽。
- 避免摔落卡，或使其遭到强烈振动。

3. 词汇表

● 本文档中使用的术语表

AdHoc

无线 LAN 配置的名称。

它是一种只使用无线卡的通讯类型。

另一种通讯类型是“结构”(使用无线卡和访问点)。

ADSL

通过普通电话线传输高位速率服务的“不对称数字用户线路技术”。

APM

高级电源管理。

并行端口

一种到其它设备的连接方式,通过这种连接,数据可以使用一条线以位的形式同时成块传输,而其它线路只用于控制设备,而不适用于数据传输。

BIOS

基本输入输出系统。存储在 ROM 中的一个程序和一组默认参数,用来在开机时测试和控制笔记本,直至从磁盘装入安装的操作系统。BIOS 中的信息会传输到安装的操作系统,为其提供有关硬件配置和状态的信息。

bps

每秒位数的缩写。用来描述数据传输速率。

操作系统

一组控制程序(包括驱动程序),用来把应用程序命令转换成某个品牌和型号微处理器需要的精确形式,以便特定设备产生想要的效果。

CardBus

一种速度更快的 32 位 PC 卡接口,提供与 32 位 PCI 结构相似的性能。

CD-ROM

光盘只读存储器。一种数字数据存储形式,它用激光,而非磁头进行光学读取。一般的 CD-ROM 可以包含约 600MB 的数据,它的表面不能挤压,否则会破坏数据,造成故障,使之无法读取。

程序

发给计算机的一组集成编码命令,告诉硬件应执行什么操作,如何执行,以及何时执行。

重新启动

请参阅“复位”。

串行端口

一种到其它设备的连接方式,通过这种连接,数据可以使用一条线一次传输一位,而其它线路只用于控制设备,而不适用于数据传输。

高速缓存

集成到微处理器中的一块内存，它比系统 RAM 速度更快，并且以特殊的结构形式使整体的数据处理速度变得更快。

磁盘

一种旋转盘面式磁性数据存储媒体。盘面非常硬的是硬盘，而柔韧性比较好的是软盘。而软盘通过盘面装在硬壳内的则通称磁盘。

磁盘

通过盘面装在硬壳内软盘。

磁盘驱动器

旋转磁盘的硬件，它配有用于在磁盘上读写数据的磁头和控制电路。

CMOS RAM

补充金属氧化物半导体随机存取存储器。这种技术用来制造需要很低电量就能运行的随机存取存储器。

COM 端口

通讯端口的缩写。这是一种串行接口连接。

CRT

阴极射线管。一种使用电子束撞击荧光屏的显示设备。它可以按照电子束位置和强度的不同产生视觉图像。

单声道

使用一个通道处理所有声源声音的系统。

DC

直流电。不会随时间周期性波动的电压或电流。

DHCP

动态主机配置协议 一种用来动态获取通讯所需参数，如 IP 地址的协议。IP 地址的发送者被称为 DHCP 服务器，接收者被称为 DHCP 客户机。

DIMM

双列直插式存储器模块。

DMA

直接存储器访问。用于存储器到存储器数据传输，且不需要 CPU 操作的特殊电路。

DMI

桌面管理接口。一种标准，它为 PC 管理应用程序提供了一个从本地或远程都能查询和配置 PC 计算机系统硬件、软件组件和外设的通用方法。

DNS**域名系统**

一种用来控制 IP 地址与分配给计算机的名称之间关联的功能。如果您不知道 IP 地址，但知道计算机名称，则您仍然可以与这台计算机通讯。

DOS

磁盘操作系统 (MS-DOS 是指 Microsoft 磁盘操作系统)。

ECP

扩充能力端口。一组用于电子设备间高速数据通讯和互连的标准。

ESD

静电释放。突然放电形成缓慢积聚起来的静电。例如：干燥的气候里门把手会电击您一下，或磨擦头发发出火花。

FCC

联邦通讯委员会。

分区

硬盘驱动器上的一块空间，它被单独分隔，对于操作系统来说好象是一个单独的磁盘，并且由操作系统相应定址。

复位

重新装入操作系统的操作。复位会擦除 RAM 上存储上的所有信息。

GB

十亿字节。

红外线

超出可视光谱红色部分之外的光线，人眼看不到它。

恢复

中断后继续。在您的笔记本中，它是指从一个休眠的状态返回到活动状态。

I/O

输入 / 输出。以电子形式进入和离开笔记本的数据。

I/O 端口

用于以电子形式进入和离开笔记本的数据的接口和相关控制电路。

IDE

智能化驱动器电子设备。一种用于硬盘驱动器装置内硬盘驱动器的控制接口。

IEEE 802.11b

美国 IEEE (电气和电子工程师协会) 推行的 LAN 标准, 它的标准委员会 (IEEE 802.11) 推行过 1-Mbps 和 2-Mbps 无线 LAN。当前, 另一个标准委员会 (IEEE 802.11b) 正在制定更快的 11-Mbps 无线 LAN 标准。

IP 地址

计算机在 TCP/IP 环境下通讯使用的地址。

当前的 IPv4 (版本 4) 使用 1 到 255 之间的四个数值 (例如: 192.168.100.123)。

有两种类型的 IP 地址: 全局地址和专用地址。

全局地址是一个全球唯一的地址。专用地址是封闭的网络中唯一的地址。

IR

红外线的缩写。

IrDA

红外线数据协会。一个制订红外线载波通讯标准的组织。

IRQ

中断请求。发送给 CPU 的硬件信号缩写, 通知已发生外部事件, 需要处理。

击键(键盘)

一个按键从松开到完全按下的过程。

加密密钥(网络密钥)

用来为数据传输编码数据的密钥信息。本设备使用相同的加密密钥编码和解码数据, 而且在发送者和接收者之间要求相同的加密密钥。

间距(键盘)

键盘上不同字母键中心之间的距离。

交流适配器

一种将墙上插座的交流电压转换成给笔记本供电所需直流电压的设备。

结构

无线 LAN 配置的名称。这种通讯方式使用访问点。另一种通讯方法是 AdHoc。

KB

千字节。

扩充内存

MS-DOS 识别为系统内存 640KB 之外的其它所有内存。

LAN

局域网

在相对有限区域, 如同一楼层, 或同一建筑物内计算机的连接方式。

LAN

局域网。在一个有限的空间内, 计算机与外设的互连, 在它们之间可以相互传送程序和数据。

LCD

液晶显示器。一种通过控制晶性液体中晶体方向来生成图像的显示器。

锂离子电池

一种可充电电池，它供电时间较长，且它不像镍镉电池那样会影响内存。

立体(声音)

使用两个通道处理两个不同声源声音的系统。

LPT 端口

打印机并行端口。一种连接并行接口端口的方式，这是因为以前并行打印机是第一位的，而后面是连接到并行端口的最常用设备。

MAC 地址**媒体访问控制地址**

网卡的唯一物理地址。对于以太网，前三个字节用于厂商代码，该代码由 IEEE 控制和分配。剩余的三个字节由每个厂商控制(防止重叠)，因此每个以太网卡在全球都有一个唯一的物理地址，被分配了一个与其它网卡不同的地址。对于以太网，会根据这个地址发送和接收帧。

MB

兆字节。

MHz

兆赫。

MIDI

数码音响接口。计算机和发声设备(如合成器)之间交换信息使用的标准通讯协议。

命令

给操作系统发出的指令。例如：运行某一应用程序或格式化软盘。

默认值

在您自己没有设置的情况下，会使用的预先设定值。

MPU-401

MIDI 界面和接口标准。

MTU**最大传输单位**

某一时间可以通过 Internet 或其它网络传输的最大数据大小。如果由于最大数据量太大造成数据传输困难，您可以设置较小的 MTU 大小以获得成功的通讯。

内存

用来存储可随时供笔记本 CPU 使用的数据和应用程序的储藏库。

NTSC

全国电视系统委员会制式。美国电视广播和接收的标准。

PCMCIA

PCMCIA 是 Personal Computer Memory Card International Association (个人计算机存储卡国际协会) 的商标。Personal Computer Memory Card International Association 是一个为个人计算机附加卡制订标准的组织。

配置

构成系统的硬件和软件组合，以及分配使用的方式。

频道

用于无线卡和访问点之间通讯的无线电频段。

POST

开机自检。BIOS 中的一个程序，只要笔记本通电，它就会检查硬件的配置和操作状态。在装入操作系统之前可能会显示状态和错误信息。如果自检检测到会使操作无法继续的严重故障，操作系统将不能装入。

PPPoE

基于以太网的点对点协议

用于使用点对点协议 (PPP) 以太网的协议，电话线连接使用这种协议。

PS/2

IBM 系列个人计算机，它建立了许多用于连接外部设备，如键盘和显示器的标准。

汽车 / 航空适配器

一种用来将汽车点烟器或飞机直流电源插座中的直流电压转换成给笔记本供电所需直流电压的设备。

驱动程序

一种计算机程序，用来将应用程序和操作系统的命令转换成某一品牌和型号外部设备需要的精确形式，以便特定设备产生想要的效果。

RAM

随机存取存储器。笔记本内保存有二进制信息 (程序和数据) 的硬件组件，只要系统正常通电，它就会工作。

RAM 模块

包括有内存和相关电路的印制电路板，它可以让用户将附加内存添加到计算机，而不必使用特殊工具。

ROM

只读存储器。一种改变资料的内存，信息以物理的形式存储在其中。以这种方式存储的数据不能被笔记本更改，无需电源也能保存这些数据。

软盘

一种具有很高柔韧性的旋转盘面式磁性数据存储媒体。

SDRAM

同步动态随机存取存储器。

十六进制

4 位二进制数字值的十进制表示法。(0-9, A, B, C, D, E, F) 例如: 十六进制的 2F = 00101111 = 十进制的 47。

数据

系统存储和处理的信息。

SMART

自监视、分析和报告技术 (SMART) 是一项紧急技术, 可以为硬盘驱动器提供近期故障预测。当 SMART 启用时, 硬盘驱动器会监视已被怀疑退化的预确定驱动器属性。如果这种故障可能发生。SMART 会生成一个状态报告, 以便 LifeBook 可以提示用户备份驱动器上的数据。当然并非所有故障都能预测。SMART 预测仅限于那些驱动器可以自监视的属性。在 SMART 可以给出提前警告的情况下, 您可以保存大量有用的数据。

SRAM

静态随机存取存储器。一项不需要定期数据刷新的 RAM 生成技术。

SSID

服务组标识

指定您加入的网络。有些系统允许您将任何 SSID 指定为一个选项, 以便您能加入任何一个网络。

缩放视频

允许笔记本 PC 通过第三方 PC 卡传输全屏广播质量视频的 PC 卡端口, 其中包括电视调谐器、视频捕捉和 MPEG 全动态视频等。

SVGA

超级 VGA。

S-Video

超级视频。用于驱动电视或计算机显示器的分量视频系统。

TCP/IP

传输控制协议 /Internet 协议

一项广泛采用的标准 Internet 协议。

TFT

薄膜晶体管 - 平面显示器采用的一项技术, 它使用薄膜矩阵晶体管单独控制显示屏上的每个像素。

调制解调器

调制器和解调器的缩写。将计算机或其它数据终端连接到通讯线的设备。

UL

(美国) 保险商实验所 - 一个测试和认证设备电子安全的独立组织。

VGA

视频图形阵列。最初由 IBM 在 PS/2 系列个人计算机上推出的视频显示标准。

VRAM

视频随机存取存储器。专用于视频显示数据和控制的存储器。

外设

与计算机相关联，但并未集成到计算机，执行某项功能的组件或设备。例如：打印机、调制解调器和 CD-ROM。

位

二进制数字的缩写。以一(1)或零(0)形式存在的单个信息。

WFM

Wired for Management(有线管理)是 Intel 提出的一项措施，旨在降低商业计算的所有权总成本(TCO)，同时不会牺牲功率和灵活性。

Wi-Fi 兼容

Wi-Fi(无线保真度)标识该产品已通过由 WECA(无线以太网兼容性联盟)提供的协同性测试，保证可以配合无线 IEEE 802.11 LAN 产品使用。有关 Wi-Fi 标准的更多信息，请参阅 WECA 网站：www.wirelessethernet.com。

XGA

扩充 VGA。

系统时钟

可以同步系统操作的固定精度频率振荡器，通过计算来提供日期和时间信息。

像素

最小的显示元素，显示屏幕上的彩色点。屏幕像素越多。单位面积的像素就越多，图像也会越清晰。

写保护

防止改变存储媒体上所有位的二进制状态。例如：软盘等设备上的所有信息；硬盘驱动器分区等存储媒体上的一块空间；软盘或硬盘驱动器的文件或文件。

协议

用于在计算机之间发送和接收数据的程序和规则。- 发送和接收数据的方法 - 用来处理通讯错误的过程。通讯需要的条件在程序中组织，以便正确传输信息。

引导

启动计算机，并将其操作系统从磁盘、ROM 或其它存储媒体装入到 RAM。

硬盘驱动器

一种盘面非常硬的旋转盘面式磁性数据存储媒体。

影子 RAM

将 ROM(只读存储器)中存储的数据或应用程序复制到 RAM(随机存取存储器)以便在实际操作中进行存取的技术。RAM 存取比 ROM 存取更快,但是在断电时 ROM 中的内容不会丢失。影子内存可以实现快速存取永久性存储信息。

有源矩阵显示

平面显示器采用的一种技术,这种显示器备有一个晶体管或类似设备作用于屏幕上的每个像素。

暂停

在一段时间内不动作。此款笔记本使用不同的暂停状态来降低电量消耗,延长电池使用时间。

兆赫

每秒 1,000,000 周。

状态指示器

报告硬件某些部分状态的显示装置。在笔记本上,它是键盘上方的 LCD 屏幕。

字节

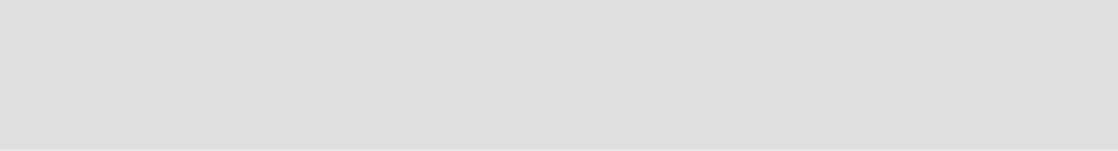
8 位并行二进制信息

Zip 驱动器

100MB 读写活动媒体磁盘驱动器。

总线

在笔记本内的 CPU 和子部件之间传送数据的电路。





* H L M A N 0 0 1 2 - 0 0 *