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Explanations of the adjustments for the track pad cursor control are taken in part from the ALPS GlidePoint Driver User's Guide, copyright by LCS/Telegraphics in 1996.

DECLARATION OF CONFORMITY
according to FCC Part 15

Responsible Party Name	:	FPCA
Address	:	Fujitsu PC (Asia) Pte Ltd 200 Pandan Loop #05-03, Pantech 21 The Computer Centre Singapore 128388
Telephone	:	65-776 0688
Declares that product: Model	:	LifeBook B2174

This device complies with Part 15 of the FCC Rules. Operations are subject to the following two conditions: (1) This device must not be allowed to cause harmful interference, (2) This device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT SAFETY INSTRUCTIONS

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

AUSTRALIAN WARNINGS

WARNING

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

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

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

Call Attempts/Retries:

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

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

NEW ZEALAND WARNINGS

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

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

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

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

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

This device is equipped with pulse dialling while the New Zealand standard is DTMF tone dialling. There is no guarantee that Telecom lines will always continue to support pulse dialling. It is strongly recommended that pulse dialling is not used.

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

For repeat calls to the same number.

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

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

For Automatic calls to different numbers.

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

For Automatically answered Incoming Calls

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

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

WARNING

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

Note: Modem setting in Windows 98

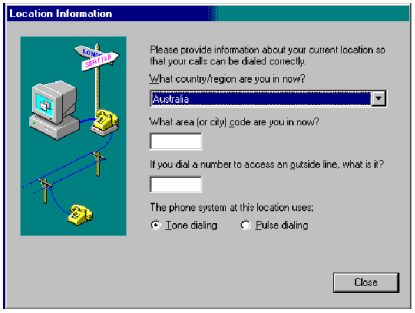
The default modem setting in Windows 98 operating system is United States of America. If you are residing in Australia or New Zealand, please choose the appropriate country where you are located.

Dial type must be set to Tone Dialing if you are either in Australia or New Zealand.

Please see below instruction for quick modem setup.

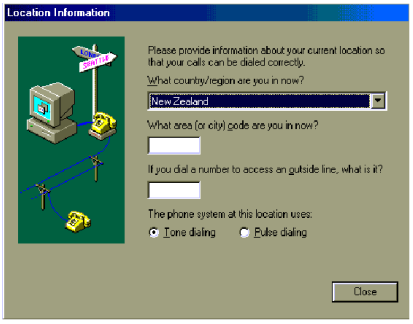
A. If you are located in Australia

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



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

Key notation and operation methods

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

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

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

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

Screen examples

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

● **Notation in text**

Here is what symbols in text mean.

Symbol	Meaning
Critical Points	Indicates a point necessary for correctly operating the hardware or software.
 **Column**	Gives the meaning and brief explaination 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® 98 operating system" is written as "Windows 98".
"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® 2000 operating system" is written as "Windows 2000".
"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 operating system Version 3.51" are both written as "Windows NT 3.51".
"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

Getting Started

This section explains boot sequence for using this computer.

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, connector box handling, and battery operation.

SECTION 2

This section explains installation of options for this computer.

SECTION 3

This section explains how to care for your computer.

SECTION 4

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

CONTENTS

SECTION 1

SECTION 2

SECTION 3

SECTION 4

Starting Your LifeBook

POWER ON

Power Switch

The power switch is used to turn on your notebook from its off state. Once you have connected your AC adapter or charged the internal Lithium Ion Battery, you can power on your notebook.

⚠ CAUTION

When you turn on your notebook be sure you have a power source. This means that at least one battery is installed and charge, or that the AC adapter is connected and has power.

Locate the power switch of your notebook. The power switch are located either at the rear, front or on the side of your notebook.

⚠ CAUTION

Do not carry your notebook around with the power on or subject it to shocks or vibration, as you risk damaging your notebook.

When you Power On your notebook, it will perform a Power On Self Test (POST) to check the internal parts and configuration for correct functionality. If a fault is found, your notebook will emit an audio warning and/or an error message will be displayed. Depending on the nature of the problem, you may be able to continue by starting the operating system or by entering the BIOS setup utility and revising the settings.

After satisfactory completion of the Power On Self Test (POST), your notebook will load your operating system.

⚠ CAUTION

Never turn off your notebook during the Power On Self Test (POST) or it will cause an error message to be displayed when you turn your notebook on the next time.

BOOT SEQUENCE

The procedure for starting-up your Fujitsu LifeBook notebook is termed the Bootup sequence and involves your notebook's BIOS. When your notebook is first turned on, the main system memory is empty, and it needs to find instructions to start up your notebook. This information is in the BIOS program. Each time you power up or restart your notebook, it goes through a boot sequence which displays a Fujitsu logo until your operating system is loaded. During booting, your notebook is performing a standard boot sequence including a Power On Self Test (POST). When the boot sequence is completed without a failure and without a request for the BIOS Setup Utility, the system displays the operating system's opening screen.

The boot sequence is executed when:

- You turn on the power to your notebook.
- You restart your notebook from the Windows Shut Down dialog box.
- The software initiates a system restart. Example: When you install a new application.
- You reset the system by pressing the three keys [CTRL+ALT+DEL].

BIOS SETUP UTILITY

The BIOS Setup Utility is a program that sets up the operating environment for your notebook. Your BIOS is set at the factory for normal operating conditions, therefore there is no need to set or change the BIOS' environment to operate your notebook.

The BIOS Setup Utility configures:

- Device control feature parameters, such as changing I/O addresses and boot devices.
- System Data Security feature parameters, such as passwords.

Entering the BIOS Setup Utility

To enter the BIOS Setup Utility do the following:

1. Turn on or restart your notebook.
2. Press he [F2] key once the Fujitsu logo appears on the screen. This will open the main menu of the BIOS Setup Utility with the current settings displayed.
3. Press the [RIGHT ARROW] or [LEFT ARROW] key to scroll through the other setup menus to review or alter the current settings.

BIOS Guide

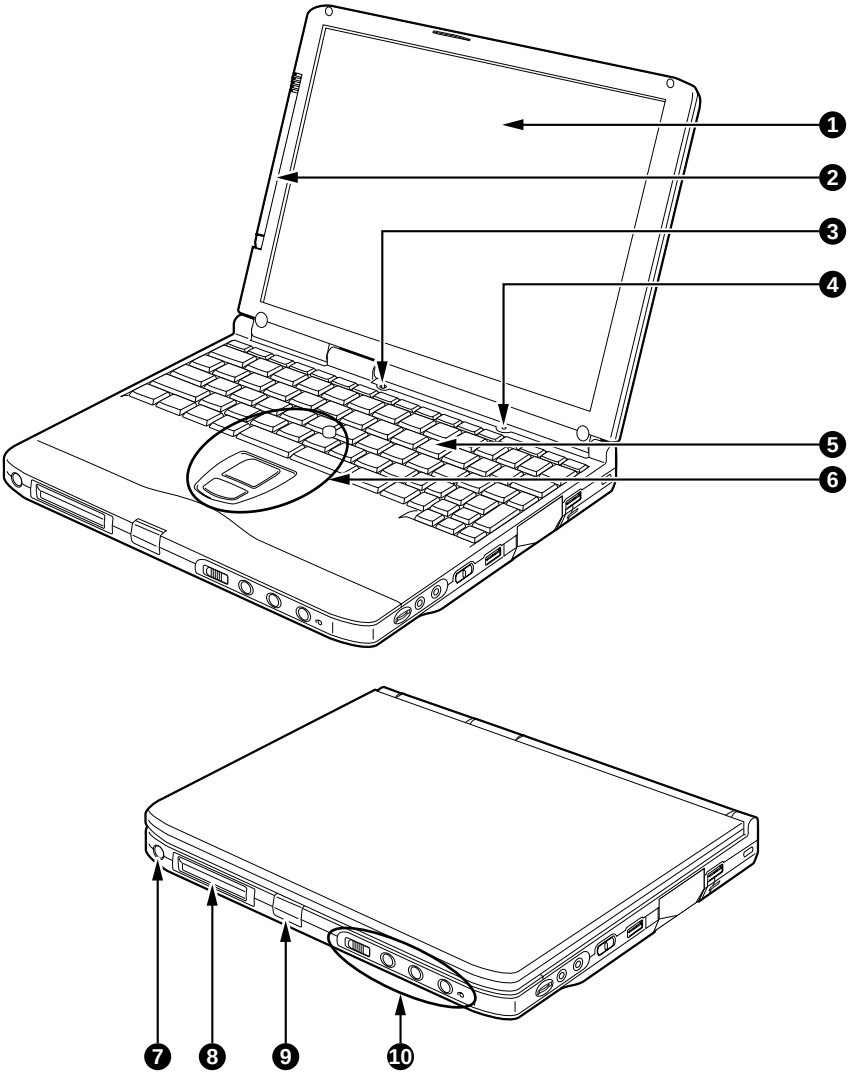
A guide to your notebook's BIOS is available online. Please visit our technical support section at **www.fujitsu-pc-asia.com**.Once there, click on the notebook series from the pull down menu and select the appropriate notebook model.

SECTION 1

SECTION 1

1. Names of the Parts and their Functions

Front/Top



❶ **LCD panel**

Displays text, graphics, etc.
The LCD is covered with a touch-sensitive panel if your computer is a touch-panel model.

Critical Point

- The TFT color LCD panel used with this computer has been made using high resolution technology, but there might be dots that are always lit up or always not lit up on part of the screen.
- There may be some slight inconsistencies on the LCD panel with variations in temperature. Please note that this is not a malfunction.

❷ **Pen holder**

Holds a pen (stylus) if your personal computer is a touch-panel model.

❸ **Cover close switch**

When the LCD panel is closed, this switch turns off the backlight and suspends operation of the personal computer.

❹ **Condenser Microphone**

Allows sound (monaural) recording.

❺ **Keyboard**

Keys are pressed to give commands to the computer main unit.

❻ **Quick Point IV**

This operates the mouse pointer.

❼ **Suspend/Resume switch**

This switch suspends/resumes the computer main unit. From here on, it is written as SUS/RES switch.

❽ **LCD**

Displays the status of the computer main unit. See “Status Indicator LCD”.

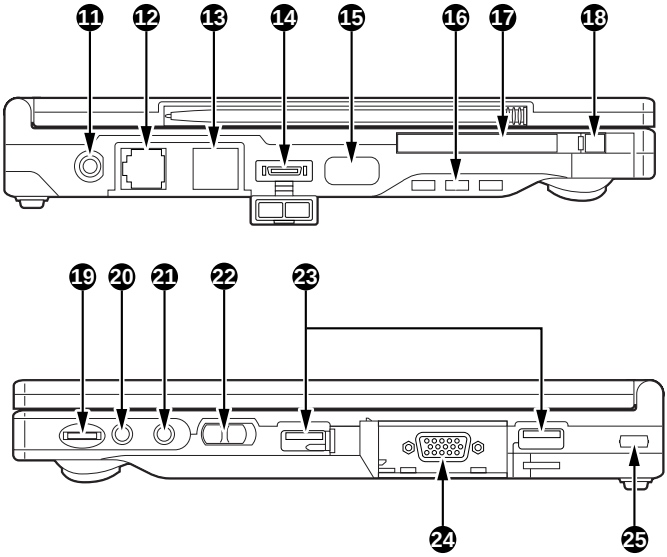
❾ **Latch**

This is pressed to release the lock when the LCD panel is opened.

❿ **One-touch operation button**

Allows you to launch application software or check the arrival of an e-mail.

Left Side/Right Side



11 DC-IN connector
Connector for connecting the AC adaptor that comes with this computer.

12 Modular jack
A modular jack is provided for some models.

13 LAN connector
A LAN connector is provided for some models.

14 Mini-serial connector
A mini-serial connector. (Not available for this model)

15 Infrared communications port
Interface for carrying out infrared communications.

16 Air-cooling fan
Exhausts heat from your personal computer.

⚠ CAUTION

BREAKDOWN
Be careful not to block the air-cooling fan vent, otherwise heat will accumulate inside the computer, causing damage to it.

⑰ **PC card slot**

Slot for inserting separately sold PC cards.
This PC card slot is identified as the “slot-1”, which is connected with the main unit of this personal computer.

⑱ **PC card eject/lock button**

Press this button to eject the PC card.
This button also serves as the PC card lock that prevents the inserted PC card from accidentally getting out of the PC card slot.

⑲ **Volume control**

Adjusts the sound volume. Turning it towards you lowers the volume; turning it away from you raises it.

Critical Point

- If the volume is raised too high when using a microphone, howling may occur between the speaker and the microphone.

⑳ **Headphone jack**

For connecting commercially available headphones.

Critical Point

- Things that can be fitted to the headphone jack.
  - Headphones, earphones, amplifier-installed external speakers (mini-plug with 3.5mm outer diameter. However you may not be able to fit them because of the shape, so check before inserting.)

㉑ **Microphone jack**

Can be connected with a commercially available microphone.

㉒ **MAIN switch**

This is the switch for turning the power to the computer main unit on and off.

㉓ **USB connector**

Connector for connecting a peripheral equipment which meets the USB standard.

㉔ **CRT connector**

Connect an optional CRT display to this connector.

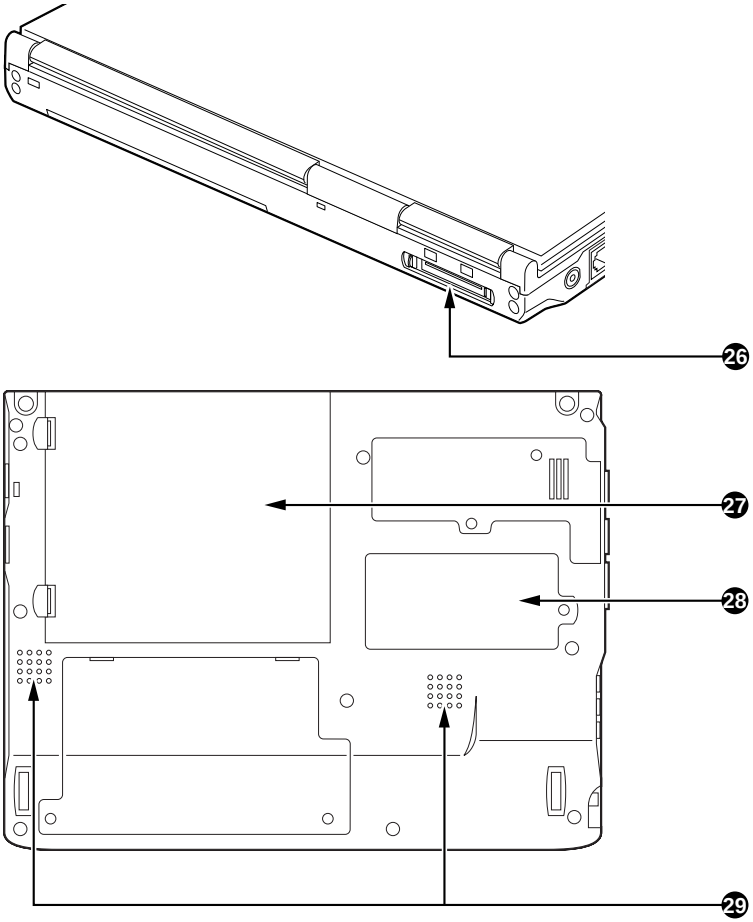
㉕ **Anti-theft lock**

Can be connected with a commercially available anti-theft cable.

Critical Point

- The anti-theft lock is for the Kensington Microsaver Security System.

Rear/Bottom



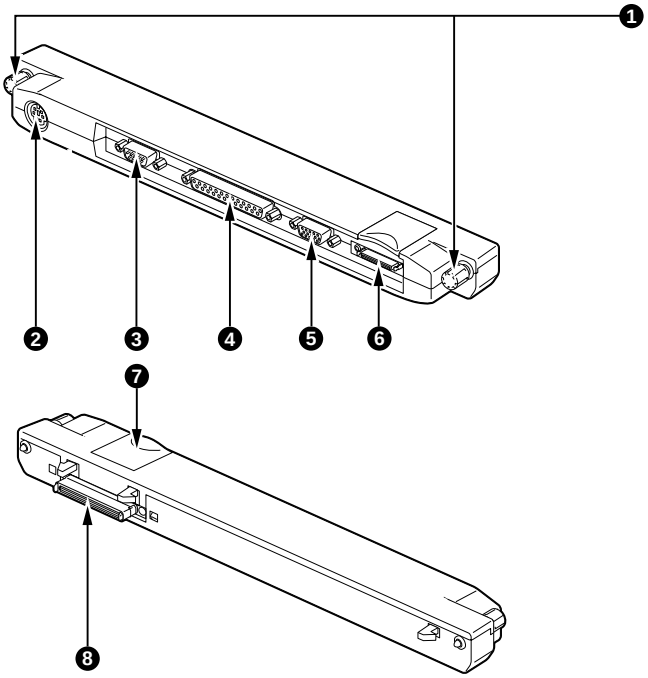
26 Connector box connector
Connect the connector box to this connector.

27 Internal battery pack
The internal battery pack is mounted here.

28 Expansion RAM module slot
Slot for fitting a separately sold expansion RAM module.

29 Speaker
Outputs the sound of the computer main unit.

Connector Box



1 Connector lock

After connecting the connector box to the personal computer, turn these connector locks to secure the connection between them.

2 Mouse connector / Extension keyboard connector

Connect an optional PS/2 mouse.

Connect an optional keypad, etc. to this connector.

3 Serial connector

Connect an optional unit conforming to the RS-232C interface standard to this connector.

4 Parallel connector

Connect an optional unit such as a printer, etc. to this connector.

5 VGA out

6 Floppy disk unit connector

Connect an optional floppy disk unit to this connector.

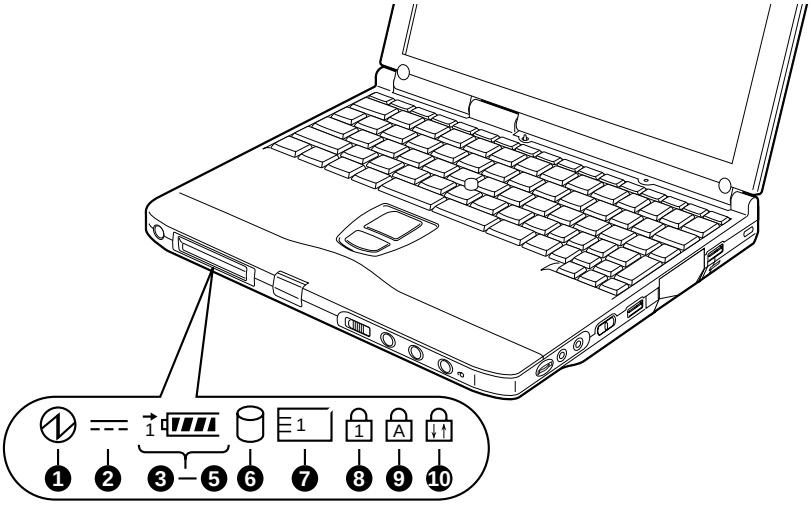
7 Connector release lever

Raise this lever to detach the following connector from your personal computer.

8 Interface Connector

Connect the connector box to the personal computer.

Status Indicator LCD



❶ **SUS/RES indicator ( )**
When this computer is operating, this indicator lights up; when the computer is in suspend mode, this indicator flashes or goes out.

❷ **AC adaptor indicator ( )**
Lights up when the power is being supplied from the AC adaptor.

❸ **Battery pack mounting indicators (1,)**
Lights up when the built-in battery pack is used as the power supply.

❹ **Battery charging indicator ( )**
Lights up when the battery is charging; flashes when the battery is too hot or cold to charge.

❺ **Remaining battery charge indicator ( )**
Displays the amount of charge remaining in the battery.

❻ **Hard disk access indicator ( )**
Lights up while the internal hard disk is being accessed.

❼ **PC card access display ( )**
Lights up while the PC card is being accessed.

❽ **Num Lock indicator (1)**
Lights up when [Num Lk] is pressed to put the keyboard into numeric keypad mode.

❾ **Caps Lock indicator (A)**
Lights up when [Shift] + [Caps lock] is pressed to put the keyboard into CAPS mode.

❿ **Scroll Lock indicator ( )**
Lights up or goes out each time the [Scr Lk] keys is pressed.

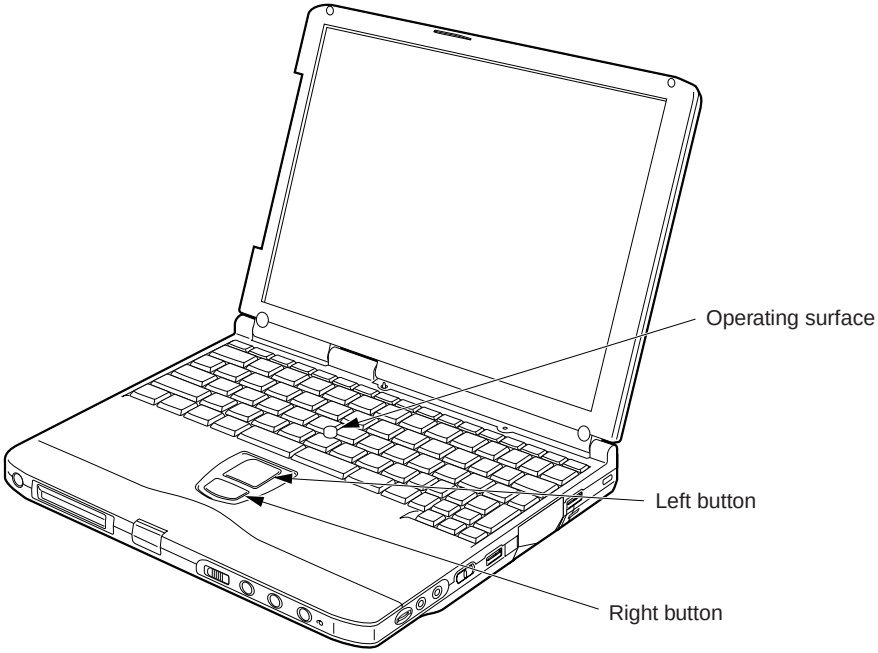
Critical Point

- If you switch off the main switch or operate the SUS/RES switch while the hard disk access indicator is lit, the data being accessed may be destroyed.
- When the main switch is switched off, all the indicators other than charging go off. However, the AC adaptor lamp comes on regardless of the status indicator lamp when power is being supplied.

2. Quick Point IV

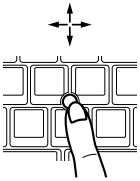
What Is the Quick Point IV?

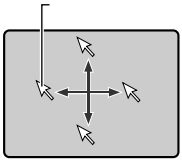
The Quick Point IV is a handy pointing device that allows you to move the mouse pointer with a fingertip. It is composed of a stick at the center of the keyboard and buttons on this side of the keyboard.
The stick acts like a mouse ball and you can move the mouse pointer in any direction on the screen by moving the stick to and fro, and to the right and left with a fingertip.
The upper button has the same function as a mouse left button and the lower button as a mouse right button, though their functions vary depending on the software used.



Quick Point IV Usage

● **Manner to operate the stick**





The small arrow (mouse pointer) on the screen moves as you move the stick with a fingertip. Move the stick to and fro, and to the right and left to see how the pointer moves on the screen.

● **Manner to press the button**

• Click

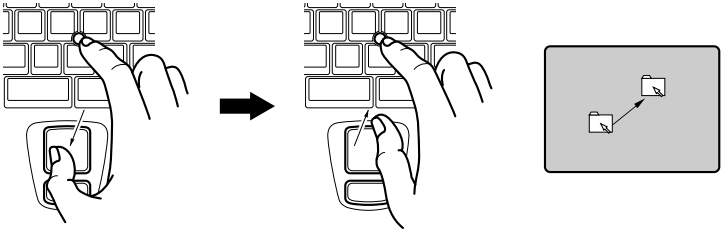
"Click" refers to tapping on the upper button once, pressing it down and then immediately releasing it.
"Right click" refers to tapping on the lower button once.

• Double click

Press the upper button twice until it clicks, then immediately release it.

• Drag

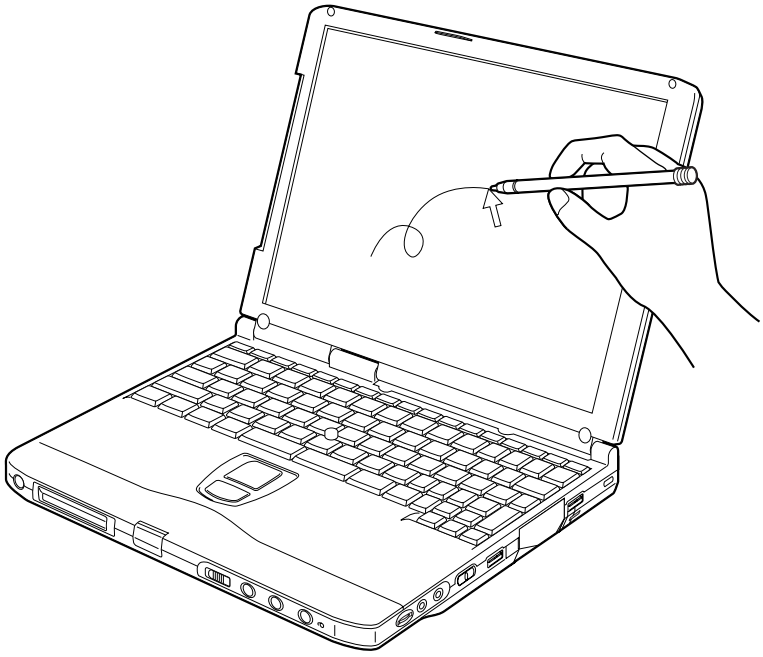
To "drag" the selected objective across the screen, move the stick while holding down the upper button and release the button in the desired position.



3. About the touch panel

What is the touch panel?

The touch panel is a handy pointing device that enables you to directly control the mouse pointer on the screen. The touch-sensitive panel covering the LCD screen can be operated with the pen which comes with your personal computer. The touch panel which allows you to directly control objects on the screen ensures intuitive and speedy computer operations.



The mouse pointer moves as you move the pen on the screen.

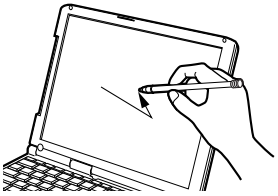
Critical Point

- Always use the supplied pen to operate the touch panel. Using a finger or a ballpoint pen can make the touch panel dirty or damage it.

How to use the touch panel

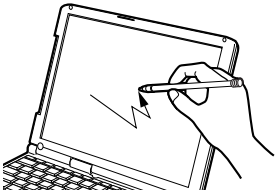
• Single-click

Tap on the screen once with the pen and move it off the screen immediately.



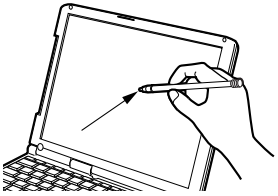
• Double-click

Tap on the screen twice in quick succession with the pen and move it off the screen immediately.



• Drag

Move the pen while pressing it lightly against the screen.



Critical Point

- To right-click on an object, press the **[ ]** key (application key) while pressing the pen lightly against the desired object. Right clicking is effective only for right-clicking an icon; to right-click on other objects on the screen, use the Quick Point IV.
- Opening a sub-menu and choosing an icon require different ways of pointing (positioning the mouse pointer over an object).
  - To open a sub-menu:
    Touch the desired menu item with the pen.
  - To choose an icon:
    Place the pen near the desired icon on the screen and drag the pen onto the icon to highlight it.
- The mouse pointer's position can disagree with the point you touch with the pen after the screen resolution is changed. In such a case, calibrate the effective area of the panel.

Calibrating the touch panel

(Only for models with a touch panel)

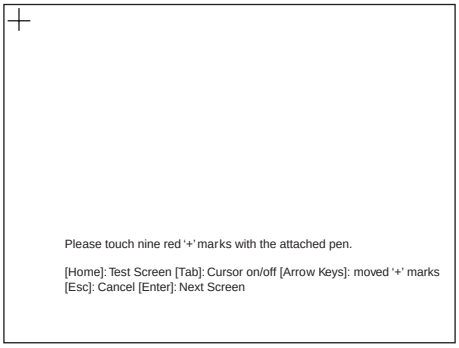
If the mouse pointer's position does not correspond to the point you touch with the pen, for example, after the screen resolution is changed or the driver program is reinstalled, you need to calibrate the effective area of the touch panel.

Critical Point

- With the pen which comes with your computer, point to the red **[+]** mark on the screen.
- Be careful not to touch the touch panel with a finger, etc. during operation.
- The point you touch with the tip of the pen is recognized when you move the pen off the touch panel.

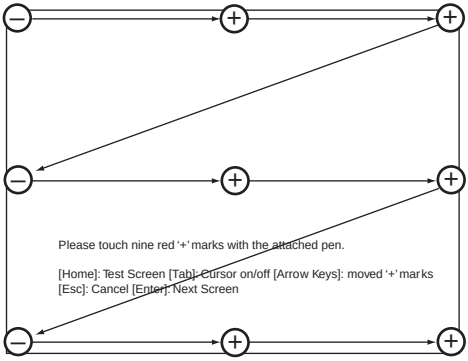
1 Click on Start, Program, then Touch Panel Calibration.
The screen turns white, enabling you to calibrate the touch panel.

2 With the tip of the supplied pen, point to and touch the red [+] mark on the screen.
Point to the red **[+]** mark accurately because this mark acts as the datum for positioning. You can hide the mouse pointer from view by pressing the Tab key.



The **[+]** mark moves to the next position when you touch it.

3 Similarly, touch the [+] mark in each position (a total of nine positions).



Critical Point

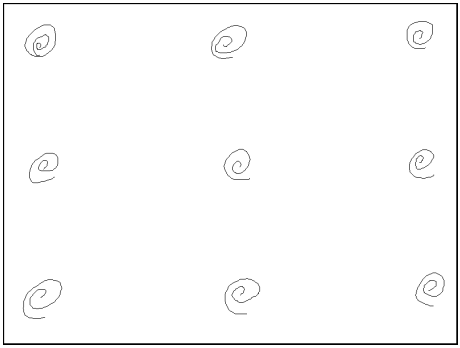
- If you touch the **[+]** mark in a position twice in quick succession, move the mark with arrow keys **[←]**, **[→]**, **[↓]** and **[↑]**, then touch it once again.

4 Press the Enter key.
A window appears on the screen to show the calibration result.

Critical Point

- If the message “Correction Parameter Error” is displayed, click on OK and repeat the above steps 2 though 4 once again.

5 Slide the pen in each of the four corners and at the center of the screen to check if the touch panel is calibrated correctly.



6 After calibrating the touch panel correctly, press the Enter key.

7 The Touch Panel Calibration program exits.
The touch panel is now calibrated correctly.

Critical Point

- The mode of clicking of your computer is set by default at “Single-click to select and double-click to open”. If you wish to change it to “Point to select and single-click to open”, then follow the procedure below.
  ① Double-click on the My Computer icon.
  ② Click on Folder Option in the View menu.
  ③ Check Custom to enable it (◉), then click on Limited.
  ④ In the Mode of Clicking dialog, check “Point to select and single-click to open” to enable it (◉), and then click on OK.
  ⑤ Close all the dialog boxes and windows.
- The touch panel does not support right-clicking.
- The touch panel calibrating method described in this user’s guide is intended for models with the Quick Point IV. For other models, therefore, the method of calibrating their touch panels can be different from that described in this guide.

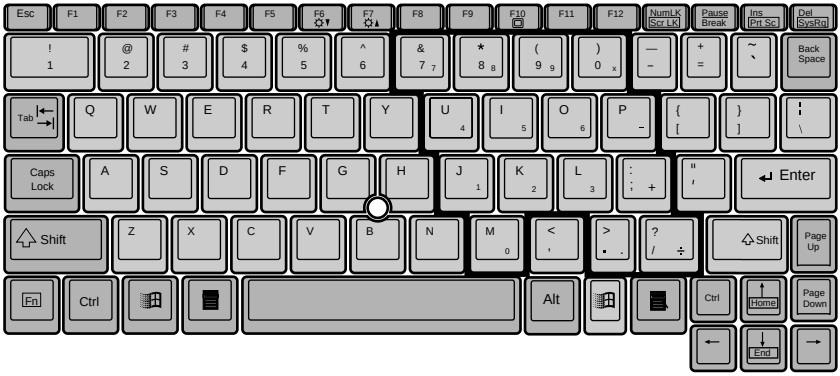
4. Keyboard

Keyboard

The keyboard is the device for giving instructions to the computer, inputting data, and executing. The keys can be divided into two types.

: Control keys

: Character keys



Numeric Keypad Mode

The mode in which some of the character keys are used as numeric keys (with a key layout that makes numeric input easier) instead of their normal functions is called numeric keypad mode. The keyboard is switched to numeric keypad mode with **[Num Lk]**. (In numeric keypad mode, 1 is displayed on the status indicator LCD.) The keys surrounded by thick lines in the diagram above become the numeric keypad. The numbers input with these keys are printed in pink on the front of each key.

Critical Point

- When the separately sold numeric keypad is connected, if you press Num Lk to put the computer into numeric keypad mode, the keys on the external numeric keypad are enabled, but the numeric keypad section on the keyboard is disabled.

Names of the Main Keys and their Functions

[Esc] (escape) key

The usage is determined by the application software. It is often used to return to the previous operation.

[F1-F12] (function) keys

The usage depends on the application software.

[Fn] key

A key unique to this computer; it has the following functions.

[Fn + F3]	This switches ON/OFF of the speaker. When a pip sounds with this operation, the speaker is on. When nothing sounds, the speaker is turned off.
[Fn + F5]	This selects whether or not to use the entire LCD screen for display in test mode.
[Fn + F10]	Rotates among the three display options: LCD only, CRT only, both LCD and CRT.

Space key

Inputs a single space character.
(This is the long key with nothing written on it at the center of the front of the keyboard.)

[↑] [↓] [←] [→] **(cursor) keys**

Move the cursor.

[Enter] key

Also called the return key or the line feed key. This key inputs line feeds and executes command.

[Ctrl] key

Used in combination with other keys; its functions depend on the application software.

[Shift] key

Used in combination with other keys.

[Alt] key

Used in combination with other keys; its functions depend on the application software.

[Caps Lock] key

To lock the keyboard into caps mode, press this key together with the Shift key. Pressing this key again ends caps mode.

[Num Lk] (numerical lock) key
Press to put the computer into numeric keypad mode.

[Scr Lk] (scroll lock) key
Its functions depend on the application software.

[Prt Sc] (print screen) key
Press this key to make a hard copy of the screen.

[Pause] key
Press this key to pause the screen display.

[Break] key
Its functions depend on the application software.

[Ins] (insert) key
Press this key to insert a new character between characters. The new characters are entered at the cursor position.

[Del] (delete) key
Press this key to delete a character. Pressing the Delete key and the Ctrl and Alt keys at the same time resets this computer.

[Home] key
Press this key to move the cursor directly to the head of the row or the head of the document.

[End] key
Press this key to move the cursor directly to the end of the row or the end of the document.

[Pg Up] key
Press this key to switch to the previous screen.

[Pg Dn] key
Press this key to switch to the next screen.

[Back Space] key
Press this key to delete the character to the left of the cursor position.

[Sys Rq] (system request) key
When this key is supported by the application software, this key is used for such functions as resetting the keyboard. Press this key together with the **[Alt]** key.

[] (Windows) key (only valid for Windows 98)
Press this key to display the Start menu.

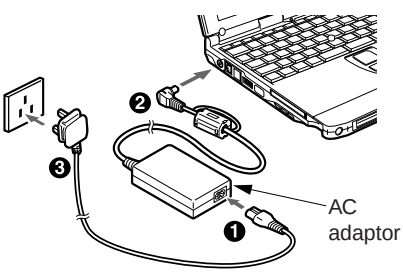
[] (Application) key (only valid for Windows 98)
Press this key to display the shortcut menu for the selected item. This key has the same role as the mouse right click.

5. Switching on the Power

Switching on the power

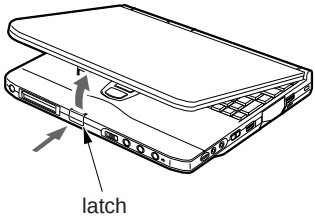
This item explains the normal way to switch the computer main unit power on and off.

1 Connect the AC adaptor.



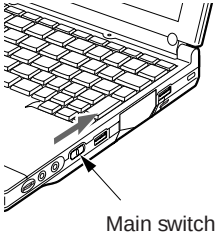
First connect the AC power cord to the AC adaptor (❶), next connect the other cord of the AC adaptor to the personal computer's DC-IN connector (❷). Lastly, plug the AC power cord into an AC outlet (❸).

2 Open the LCD panel.



Push the latch to release the lock, then lift the display panel with your hand.

3 Switch on the main switch of the computer main unit.



Power is supplied from the AC adaptor or the battery, the power comes on, and the POST starts. Also, the ⏻ etc. on the status indicator L

Critical Point

- Do not carry this computer around or subject it to shock or vibration with the power on. These can result in breakdown.

Column

- POST is the abbreviation for POWER ON SELF TEST, which is a self-diagnostic test that checks for abnormalities within the computer. This test is automatically carried out when the power is switched on for this computer. If the power is switched off during the POST, an error message is displayed the next time the computer is started up. Do not cut off the power during the POST.

6. Switching off the Power

This item explains how to switch off the power and gives precautions for switching off the power.

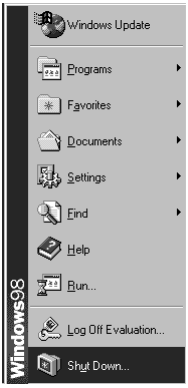
Precautions when Switching Off the Power

The following precautions must be observed when switching off the power.

- When switching off the main switch, end Windows 98 first.
- When the main switch is switched off, if the suspend mode is suspend, the suspend function stops working. If the application software has been suspended during execution, it is necessary to save the data, then end the application software.
- After you switch off the main switch, wait at least about ten seconds before switching it back on again.

Switching Off the Power

1 Click the Start button.
The Start menu is displayed.



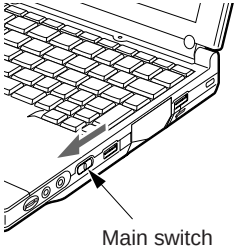
2 Click Shut Down.
The following message is displayed.

3 Check that Shut down the computer is selected, then click Yes.
The power is switched off.

Critical Point

- You can reset this computer by selecting Restart the computer with the screen shown in Step 2. Resetting means that the data in memory is all erased and the operating system is loaded again from the hard disk or a floppy disk.

4 Switch off the main switch.
Slide the main switch in the direction of the arrow (◯ side). The status indication LCD ⏻ indicator goes out and the power for the computer main unit is cut off.



Critical Point

- If the computer will be unused for a long period, disconnect the AC adaptor.

7. Suspend/Resume Function

What Is the Suspend/Resume Function?

When this computer is suspended with the SUS/RES switch, the suspend/resume function retains the programs and data in memory as is so that you can resume operations immediately the next time you press the SUS/RES switch.

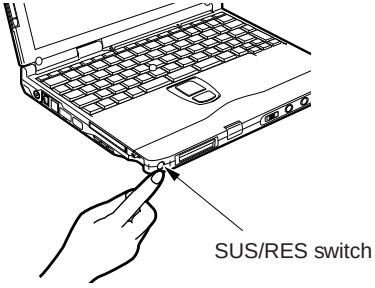
Suspending

There are three ways to suspend this computer, using the SUS/RES switch, Cover close switch and the Start menu.

- **Using the SUS/RES switch**

  1 Suspending

  Check that is out. When you press the SUS/RES switch, if the BIOS setup suspend mode is suspend, flashes and the computer goes into suspend mode.



Critical Point

- Which of the two destinations suspending saves the data in the computer to depends on the BIOS setup Power menu setting as follows.

  System RAM:

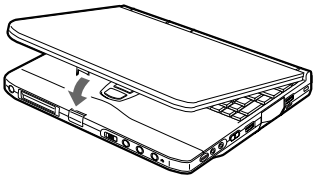
  When “Suspend” is set with the BIOS setup Power menu Suspend Mode item, the data is saved to system RAM. Power for the system RAM is supplied from the AC power supply if the AC adaptor is connected or from the battery if the AC adaptor is not connected.

  Save to Disk area:

  If “Save to Disk” is set with the BIOS setup Power menu Suspend Mode item, the data is written to the Save to Disk area on the hard disk.
- If you hold down the Fn key while pressing the SUS/RES switch, the data is saved to the hard disk regardless of the Power menu setting.

- **Using the cover close switch**

  1 Close the LCD panel.
  This unit goes into suspend mode using the cover close switch.



Critical Point

- When the BIOS setup Lid Closure Suspend setting is “Disabled”, this unit does not go into suspend mode even if you close the LCD panel.

- **Use the [Quit Windows] dialog.**

  1 Click the [START] button and then click the [Quit Windows].
  The [Quit Windows] dialog appears on the display.

  2 Click [Standby].
  This computer is suspended.

Critical Point

- If the BIOS setup Suspend Mode setting is “Suspend”, suspend mode is ended in the following cases. Save important data to the hard disk, etc.
  - The main switch is switched off.
  - In battery operation, the battery runs out. (The battery is still used in suspend mode.)
- If you start with the internal battery fully charged, suspend mode lasts about one day maximum with the AC adaptor not connected.

Precautions for Suspending

Pay attention to the following points when using the suspend function.

- When the computer is connected to a network using a LAN card or modem and when the peripheral equipment is expanded with a PC card, you may not be able to use the suspend/ resume function. When you have expanded functions with a PC card, also check the manual for the cards you are using.
- Do not operate the SUS/RES switch when using Windows NT.
- In the following cases, do not use the suspend function, but switch on/off the computer main unit power supply with the main switch.
  - **When this computer is unused for a long period**
    When this computer will be unused longer than the effective period (about one day maximum) for battery power for suspend mode, save all data, close Windows 98, then switch off the main switch. If you suspend with the BIOS setup Suspend Mode set to Save to Disk, the power goes off with the main switch still on. In this case, it does not matter if you switch off the main switch. The next time you switch on the main switch, operation resumes.
  - **When installing or removing options**
    There are some options that can be installed without switching off the main switch. See SECTION 2 of this manual and the manual that comes with the option product.

Critical Point

- The SUS/RES switch does not work in the following cases.
  - When the main switch is off
  - When the battery has run out
  - When the BIOS setup SUS/RES Switch is set to disabled

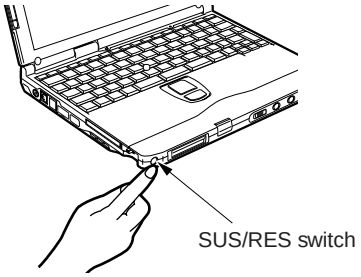
Resuming

This personal computer can be resumed by the SUS/RES switch or the cover close switch.

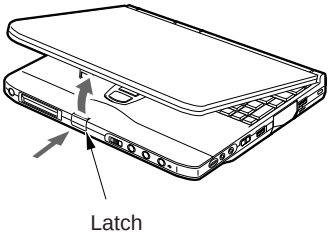
Critical Point

- When resuming this personal computer after it was suspended, resume it 10 or more seconds after the last suspending operation.
- The screen occasionally flickers during suspending/resuming operation.

- **Resuming with the SUS/RES switch.**
  1 **Press the SUS/RES switch for resuming the personal computer.**
  As the SUS/RES switch is pressed, the ⏻ mark of the status indicator LCD stops blinking and continues lighting. This indicates that the personal computer is in the operating status.



- **Resuming with the cover close switch.**
  1 **Fold out the LCD display.**
  The personal computer is resumed by the cover close switch.



Critical Point

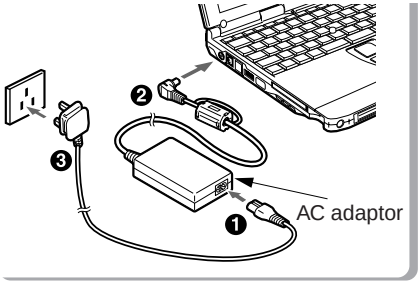
- When the Lid Open Resume of the BIOS setup is set to “Disabled”, the personal computer won’t be resumed by folding out the LCD display.

8. Battery

Battery Charging

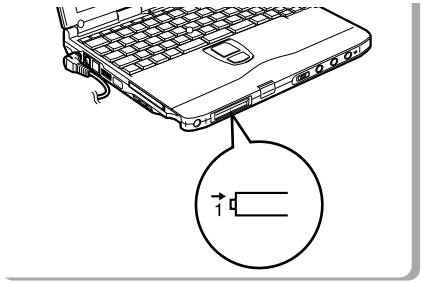
For portability, this computer can operate either from the AC adaptor or from its battery. This item explains how to charge the battery.

1 Connect the AC adaptor.



First connect the AC power cord to the AC adaptor (❶), next connect the other cord of the AC adaptor to the personal computer's DC-IN connector (❷). Lastly, plug the AC power cord into an AC outlet (❸).

2 is displayed.



During charging, is displayed on the status indicator LCD and the remaining battery charge is displayed.

● **Relationship between computer modes and battery charging time**

Main switch	SUS/RES switch	Computer mode	Charging mode	Charging time
ON	Resume	Operating mode	Standard charging	About 4.5 hours
	Suspend	Suspend mode	Quick charge	About 2.5 hours
OFF	—	Stopped		

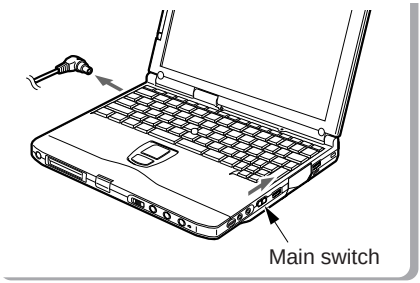
Critical Point

- When the battery charging indicator (➞) goes out and the remaining battery charge indicator at the leftmost end changes its mode from blinking ( ) to continuous lighting ( ), charging the battery is complete.
- The battery capacity falls if the ambient temperature is too low or too high. We recommend charging in the range 10°C-30°C.
- When the expansion battery pack is charged, the built-in battery pack is charged together with it.

Battery Operation

This item explains operation with the battery.

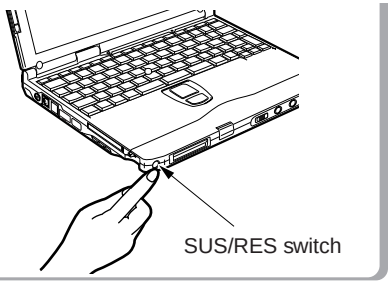
1 Disconnect the AC adaptor and switch on the main switch.



Slide the main switch in the direction of the arrow (▌side).

⏻ is displayed.

2 When the MAIN switch is on, press the SUS/RES switch.



⏻ stops flashing and stays lit up.

Critical Point

- When the ambient temperature is lower, the battery operating time is reduced. We recommend that you use the battery within the range from 5°C to 35°C.
- With this computer, the battery operating time depends on the conditions under which the battery is used. However, the operating time of a new, fully-charged battery is as follows.

  Only Internal Battery: about 1.5 to 3.0 hours

  Conditions: Main unit only, full charge, with power management on. (The battery operating time depends on the conditions of use.)

Checking the Remaining Battery Charge

This computer indicates the amount of battery charge remaining with the remaining battery charge indicator on the status indicator LCD.

● **Remaining battery charge indicator**


Indicates battery charge level of about 76% to about 100%

⇩


Indicates battery charge level of about 51% to about 75%

⇩


Indicates battery charge level of about 26% to about 50%

⇩


Indicates battery charge level of about 16% to about 25%

⇩


Indicates the low battery state (battery charge level of about 15% or lower).
The warning beeps and ▮ flashes.

⇩


Indicates that the battery has run out (0% charge level).

Critical Point

- Indication of the remaining battery charge indicator () may be slightly different from the real remaining charge rate depending on the operating environment (temperature, number of times that the battery was previously charged and discharged, etc.) because of the characteristic of the battery (lithium ionic battery). In charging the battery, keep it in mind that the battery is incompletely charged when the battery charging indicator (➞) is still on though the remaining battery charge indicator indicates the full charge level ().
- When the battery charge remains at a rate of 90 % or more, the battery cannot be recharged. The battery can be recharged when its remaining charge is at a rate of 89 % or less.

● **Battery abnormality indicator**


Indicates that the battery can not be charged normally.

Critical Point

- When  is displayed, take out the battery pack and re-install it. If this display still remains, the battery pack is abnormal, so replace it.

Low Battery State

This item explains the display when this computer's battery is low and what to do.

1 **The low battery is announced in the following way.**
The warning beeps and the battery mark on the status indicator LCD flashes.

Critical Point

- If the audio volume is set too low, you may not be able to hear the warning beep.

2 **Press the SUS/RES switch.**
When the battery goes low, quickly press the SUS/RES switch to suspend operation. Since the suspend/resume function works even if the computer is suspended during operation, the program and data are not lost.

Critical Point

- If you want to resume operation immediately, connect the AC adaptor, then press the SUS/RES switch again.

3 **Charge the battery.**
Connect the AC battery to charge the battery.

Critical Point

- Reading from and writing to the hard disk uses large amounts of power. When saving data to the hard disk with the battery low, connect the AC adaptor.
- If you leave this computer running with the battery low, it is suspended automatically. However, if data is being read from or written to the hard disk or other media, the suspending waits until that processing is complete.
- If you continue using the computer with the battery low, in the worst case, the data being created or saved may be lost. Quickly connect the AC adaptor.

Replacing the Internal Battery Pack

Save the program to the hard disk or a floppy disk before replacing the internal battery pack. This item explains how to replace the internal battery pack.

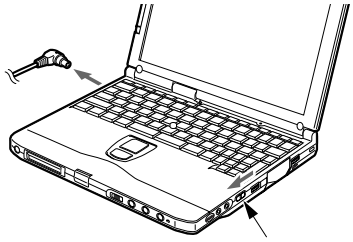
⚠ WARNING

ELECTRIC SHOCK
Always turn off the computer main unit main switch and disconnect the AC adaptor before installing/removing the internal battery pack in order to avoid electric shock.

⚠ CAUTION

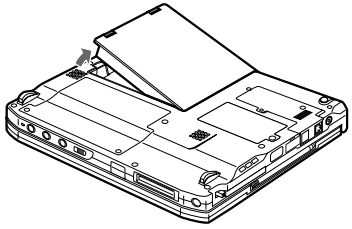
INJURY
Do not remove screws from any places other than those indicated in the manual when installing/removing the internal battery pack.
There is a risk of injury or malfunction if you remove screws from places not indicated.

1 Turn the main switch off and disconnect the AC adaptor.



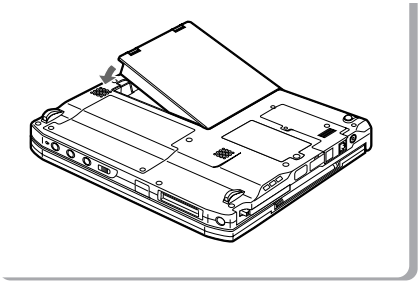
Slide the main switch in the direction of the arrow (to the O side).
Disconnect the AC adaptor from the computer main unit.

2 Take out the internal battery pack.



Raise the two latches on the internal battery pack while holding them, and remove the internal battery pack.

3 Install the new internal battery pack.



Connect the connector of the new internal battery pack to the connector of your personal computer, and then insert and latch the battery pack.

Precautions for Battery Pack

⚠ WARNING

ELECTRIC SHOCK
All battery packs are extremely delicate products. When installing or removing one, do not drop it or subject it to strong shocks. If this should happen, do not use that battery pack in the interest of safely, because there is a risk of electric shock or malfunction.

- **Discharge**
  - After you charge the battery pack, even if you store it without using it, over about 1 month it will naturally discharge.

- **Service life**
  - The battery pack is a consumption item. After you use it for a long time, its charging capacity drops.
  - Replace the battery after about 300 to 500 charge/discharge cycles.
  - When the battery operating time becomes extremely short, the battery has reached the end of its service life.

- **To extend the battery operating time**
  Use the BIOS setup Power menu.

- **Conditions under which the battery operating time becomes shorter**
  - Using in cold or hot location
    The battery operating time is influenced by the environmental temperature and the battery operating time can be shorter at low temperature (5°C) than at high temperature (35°C). Also, high temperatures not only lower the charging efficiency, but are also a cause of battery pack deterioration.
  - When the battery charging capacity drops
    When the battery pack has been used for a long time, its charging capacity drops. In this case, replace it with a new battery pack.

- **Use the AC adaptor in the following cases**
  - When using the hard disk or CD-ROM frequently
  - When using a LAN or a Modem

9. Connector Box

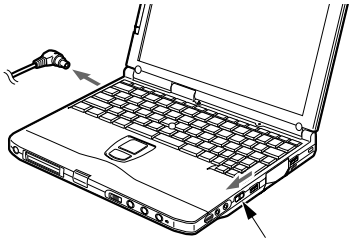
Connecting the Connector Box

The following explains how to connect the connector box to the personal computer.

WARNING

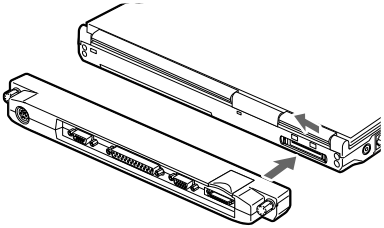
ELECTRIC SHOCK
When connecting the connector box to the personal computer, be sure to turn off the MAIN switch of the personal computer and disconnect the AC adaptor from it beforehand. If the connector box is connected as the personal computer is on, it may cause an electric shock or a machine failure.

1 Turn off the MAIN switch of the personal computer and disconnect the AC adaptor from it.



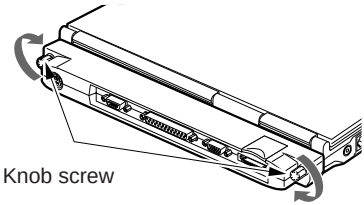
Slide the MAIN switch in the direction of the arrow (toward ○ side).
Disconnect the AC adaptor from the personal computer.

2 Connect the connector box to the personal computer.



Open the cover of the connector box connector located on the rear side of the personal computer, and tightly connect the connector box to the personal computer by their respective connectors.

3 Lock the connector box by turning the knob screws.



Tighten the right and left knob screws evenly to lock the connector box.

Disconnecting the Connector Box

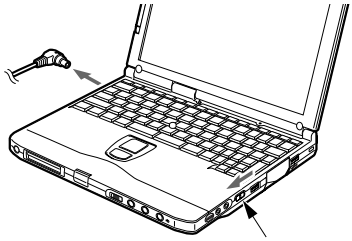
The following explains how to disconnect the connector box from the personal computer.

⚠ WARNING

ELECTRIC SHOCK

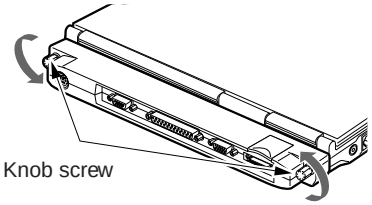
When disconnecting the connector box from the personal computer, be sure to turn off the MAIN switch of the personal computer and disconnect the AC adapter from it beforehand. If the connector box is disconnected as the personal computer is on, it may cause an electric shock.

1 Turn off the MAIN switch of the personal computer and disconnect the AC adaptor from it.

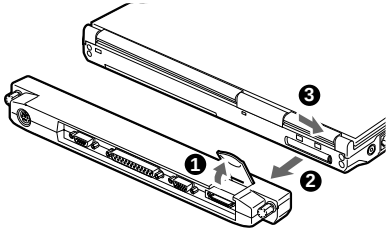


Slide the MAIN switch in the direction of the arrow (toward ○ side).
Disconnect the AC adaptor from the personal computer.

2 Loosen the right and left knob screws to unlock the connector box.



3 Disconnect the connector box from the personal computer.



Raise the connector box release lever and detach the connector box. After this, close connector cover.

10. Built-in LAN (local-area network) device

This item explains how to connect a LAN cable into the LAN connector.

Connection

⚠ WARNING

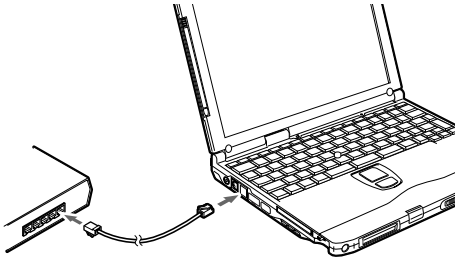
ELECTRIC SHOCK
Be sure to turn off your personal computer and disconnect the AC adaptor from it before connecting a LAN cable to the computer, otherwise you might get an electric shock.

ELECTRIC SHOCK
When it thunders in the neighbourhood, immediately turn off your personal computer and disconnect the AC adaptor and the LAN cable from it, otherwise your computer might be struck and damage by lightning and thus cause a fire.

⚠ CAUTION

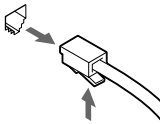
ELECTRIC SHOCK
Do not touch the LAN connector with your finger, otherwise you might get an electric shock.

1 **Turn off the computer and disconnect the AC adaptor from it.**
2 **Plug a LAN cable into the LAN connector on your personal computer to connect it to a network.**



Critical Point

- To unplug the LAN cable from the LAN connector, pull the jack while holding down the latch. Failure to do so might damage the jack, cable or connector.
- Your computer consumes more electric energy when it is connected to a LAN. When using a LAN, therefore, it is advisable to use the AC adaptor to supply power to your computer.



11. Built-in FAX modem

This item explains how to plug a telephone cable into the modular connector.

Connection

⚠ WARNING

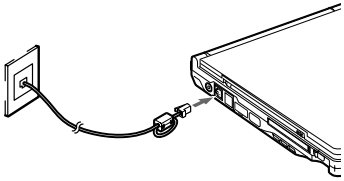
ELECTRIC SHOCK
Be sure to turn off your personal computer and disconnect the AC adaptor from it before connecting a modular cable to the computer, otherwise you might get an electric shock.

ELECTRIC SHOCK
When it thunders in the neighbourhood, immediately turn off your personal computer and disconnect the AC adaptor and the modular cable from the computer, otherwise your computer might be struck and damage by lightning and thus cause a fire.

⚠ CAUTION

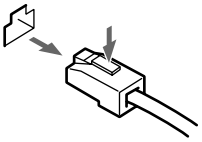
ELECTRIC SHOCK
Do not touch the modular connector with your finger, otherwise you might get an electric shock.

1 **Turn off the computer and disconnect the AC adaptor from it.**
2 **Using a telephone cable, connect the computer to the telephone line.**



Critical Point

- To disconnect the modular cable from the connector, pull the jack while holding down the latch. Failure to do so might damage the jack, cable or connector.
- Your computer consumes more electric energy when using the built-in modem. When using the modem, therefore, it is advisable to use the AC adaptor to supply power to your computer.



⚠ CAUTION

The internal modem has a maximum speed of 56000bps by ITU-T V.90 standard. Its maximum speed of 53000bps is the highest allowed by FCC, and its actual connection rate depends on the line conditions. The maximum speed is 33600bps at upload.

⚠ CAUTION

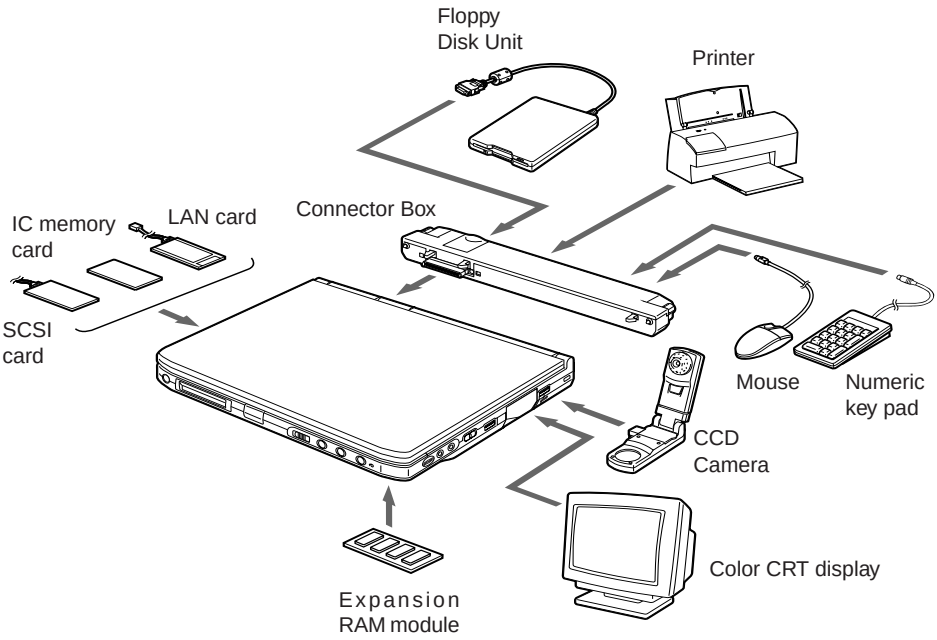
The internal modem is not intended for use with Digital PBX systems. Do not connect the internal modem to a digital PBX as it may cause serious damage to the internal modem or your entire notebook.
Consult your PBX manufacturer's documentation for details. Some hotels have digital PBX systems.
Be sure to find out BEFORE you connect your modem.

SECTION 2

1. Options

Options

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



⚠ WARNING

ELECTRIC SHOCK
Only connect equipment recommended by Fujitsu.
Connecting any other equipment can cause electric shock, fire, or breakdown.

⚠ CAUTION

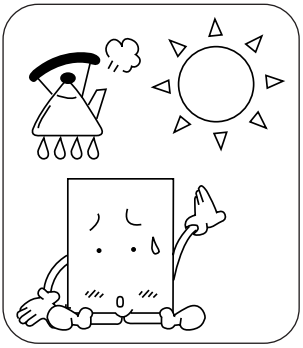
INJURY
When installing/removing options, do not remove any screws other than those specified by this manual.
Removing any other screws can cause injury and breakdown.

BREAKDOWN
Read this manual carefully and connect cables correctly. If you use this computer with cables connected incorrectly, this can cause breakdown of the computer main unit and of the peripheral equipment.

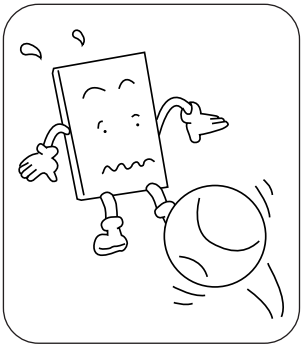
2. PC Cards

Precautions for PC Cards

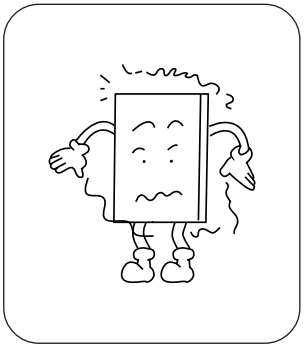
Observe the following points when using PC cards to prevent breakdown.



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

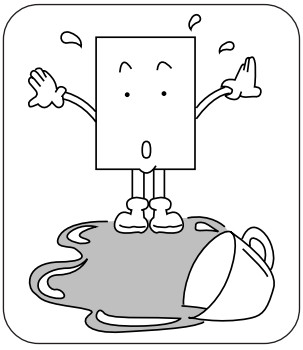


Do not subject PC cards to strong shocks.

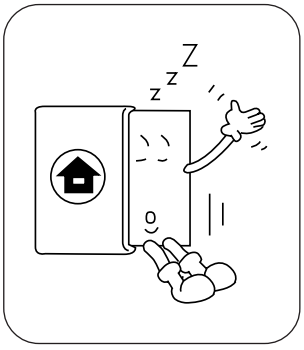


Avoid rubbing PC cards and building up static electricity.

Do not place heavy objects on top of PC cards.



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

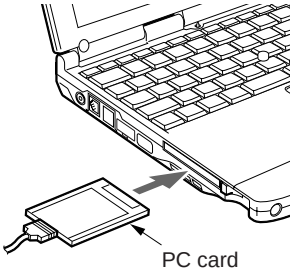


When storing a PC card, always place it in its special case.

Installing PC Cards

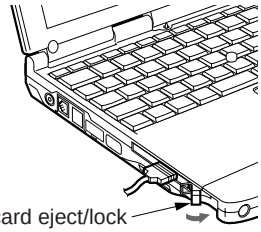
PC card is a generic term for business card sized cards which have a program and data memory function or peripheral equipment functions such as a modem or LAN adaptor. This item explains how to install a PC card.

1 Install the PC card.



Insert the PC card into the PC card slot with the product name facing upwards.

2 Tilt the PC card eject/lock button down to lock the PC card.



Pull out the PC card eject/lock button completely and then tilt it down to lock the PC card with the fastener.

Critical Point

- For some PC cards, the main power switch should be turned off. Refer to the manual attached to your PC card.
- In order to avoid damage, be careful not to knock or put anything on top of the connection point between the PC card and the cord.

Removing PC Cards

This item explains how to remove a PC card.

1 Click the PC card icon on the task bar.

A message is displayed for stopping the installed PC card.

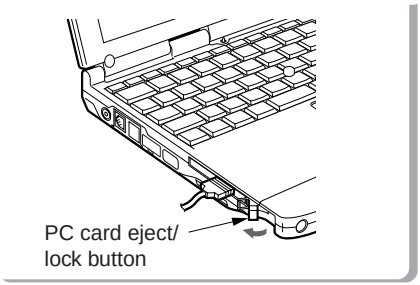
2 Click the PC card to be removed.
The PC card operations stop and the following screen is displayed.

Critical Point

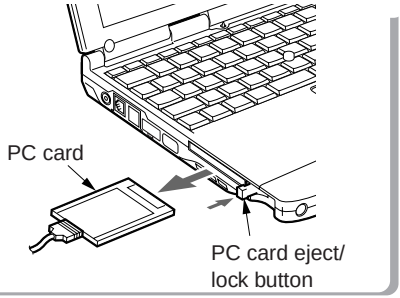
- For IC memory cards, the “This device cannot be removed” message may appear. If this message does appear, close Windows 98 and switch off the computer main unit power before removing the IC memory card.

3 Click OK.

4 Raise the PC card eject/lock button.



5 Remove the PC card.



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

Critical Point

- Never remove a PC card by pulling on its cord. Twisting on the cord can break the PC card.
- Always use the procedure above for removing PC cards. Removing PC cards in any other way can cause breakdown.

3. Expansion RAM Modules

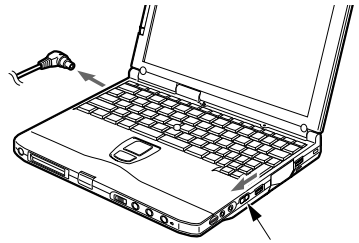
Installing an Expansion RAM Module

This item explains how to install expansion RAM modules.

⚠ WARNING

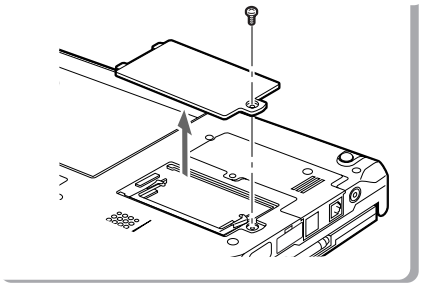
ELECTRIC SHOCK
Always turn off the computer main unit main switch and disconnect the AC adaptor when installing an expansion RAM module in order to avoid electric shock.

1 Turn off the main switch and disconnect the AC adaptor.



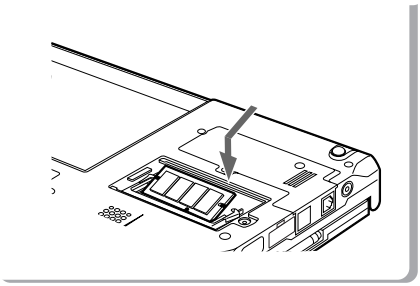
Slide the main switch in the direction of the arrow (to the ○ side).
Disconnect the AC adaptor from the main unit.

2 Remove the cover of the expansion RAM module slot.



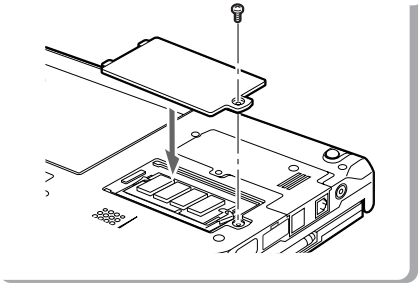
Take out the screws on the bottom of the computer main unit and remove the cover of the expansion RAM module slot.

3 Install the expansion RAM module.



Align the notch of the expansion RAM module with the projection on the connector, insert firmly diagonally from above and push down until the module clicks into place.

4 Fit the cover of the expansion RAM module slot.



Fit the cover removed in 2.

CAUTION

DAMAGE

The expansion RAM module is made up of parts that are extremely vulnerable to static electricity and can be damaged by the static electricity built up in the body. When installing or removing an expansion RAM module, hold it by the edges. Do not touch any terminals or ICs. Also, do not touch any parts or terminals within the computer main unit.

● **Checking expansion memory**

To check the extended memory capacity after installing an expansion RAM module, look at the DIMM item of the BIOS setup info menu. For example, when a 32 MB expansion RAM module has been installed, "32 MB" is indicated in the DIMM item. If the memory capacity indicated in the DIMM item is not increased after installing an expansion RAM module though it has correctly been installed, it is possible that the RAM module is faulty or defective. In such the case, consult with the store at which you purchased the RAM module about the trouble.

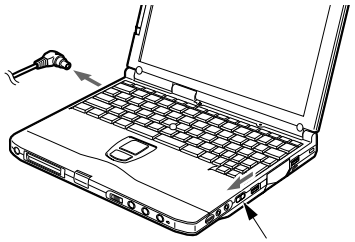
Removing an Expansion RAM Module

This item explains how to remove an expansion RAM module.

WARNING

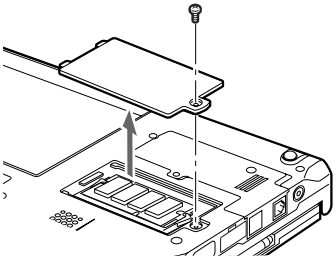
ELECTRIC SHOCK
Always turn off the computer main unit main switch and disconnect the AC adaptor when removing an expansion RAM module in order to avoid electric shock.

1 Turn off the main switch and disconnect the AC adaptor.



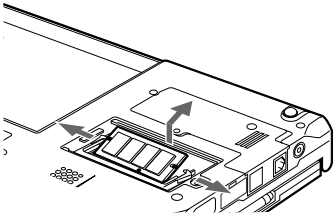
Slide the main switch in the direction of the arrow (to the ○ side).
Disconnect the AC adaptor from the main unit.

2 Remove the cover of the expansion RAM module slot.



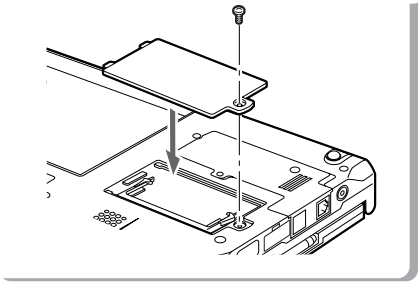
Remove the cover of the expansion RAM module slot on the bottom of the computer main unit.

3 Remove the expansion RAM module.



Open the hooks on both sides that retain the expansion RAM module to the left and right, then remove the expansion RAM module from the slot.

4 Fit the cover of the expansion RAM module slot.



Fit the cover removed in 2.

4. Floppy Disk Unit

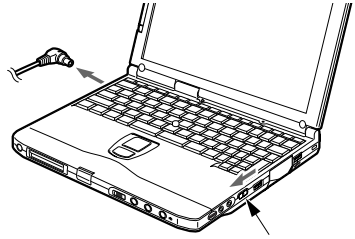
Installing a Floppy Disk Unit

The following explains the method to connect a floppy disk unit.

⚠ WARNING

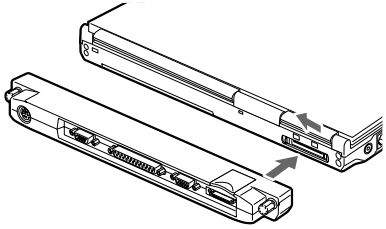
ELECTRIC SHOCK
Always turn off the computer main unit main switch and disconnect the AC adaptor when installing or removing a floppy disk unit in order to avoid electric shock.

1 Turn off the main switch and disconnect the AC adaptor.

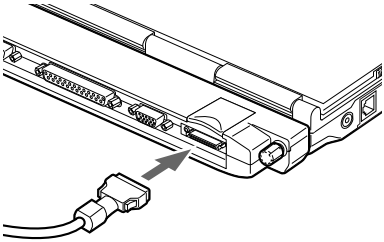


Slide the main switch in the direction of the arrow (to the ○ side).
Disconnect the AC adaptor from the main unit.

2 Connect the connector box to the rear of the personal computer by their respective connectors.



3 Install the floppy disk unit.



Precautions for Floppy Disk Units

Take the following precautions when using the floppy disk unit in order to prevent damaging it.

- Avoid storing the floppy disk unit in extremely hot and cold locations, or in locations subject to severe temperature changes.
- Keep the floppy disk unit out of direct sunlight and away from heating equipment.
- Avoid storing the floppy disk unit in locations subject to shock or vibration.
- Avoid using the floppy disk unit in damp or dusty locations.
- Never use the floppy disk unit with any liquid, metal or other foreign matter inside it. If any foreign matter gets inside the floppy disk unit, consult your local dealer.
- Wipe the floppy disk unit clean with a dry soft cloth or with a soft cloth moistened with water or a neutral detergent solution. Never use benzine, paint thinner or other volatile material.
- Never disassemble or dismantle this product.

Critical Point

- Use the floppy disk unit away from equipment that creates a magnetic field such as a CRT monitor or an AC adaptor.

Removing a Floppy Disk Unit

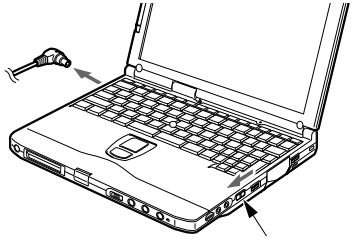
This item explains how to remove a floppy disk unit.

WARNING

ELECTRIC SHOCK

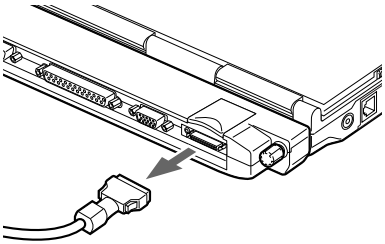
Always turn off the computer main unit main switch and disconnect the AC adaptor when installing or removing a floppy disk unit in order to avoid electric shock.

1 Turn off the main switch and disconnect the AC adaptor.



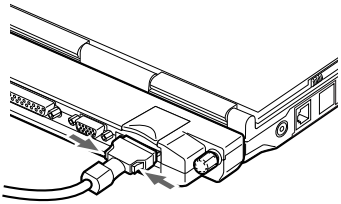
Slide the main switch in the direction of the arrow (to the ○ side).
Disconnect the AC adaptor from the main unit.

2 Remove the floppy disk unit.



Critical Point

- When you remove a connector, press both sides of the connector and pull it. Pulling a cable unnecessarily can cause damage.



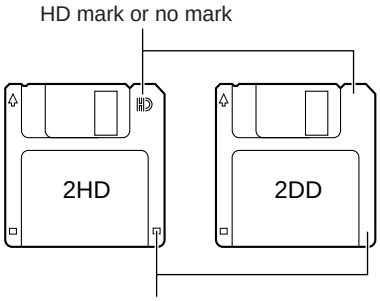
What is a Floppy Disk?

A floppy disk is a medium for storing programs or data. This item explains basic knowledge and precautions regarding floppy disks.

Types of floppy disks

If floppy disks are classified according to the amount of data they can store (the memory capacity), typically there are the following 2 types.

- 2HD floppy disks
  These have 1.44MB (megabyte: unit of data amount) and 1.2MB memory capacities.
- 2DD floppy disks
  These have 720KB (kilobyte) memory capacities, half of the 2HDs.
  The differences between the 2 kinds of floppy disks are shown in the diagram on the right.



3 mode drive

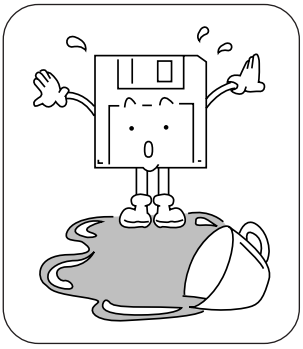
This computer's floppy disk drive is a 3 mode drive that can read 1.44MB, 1.2MB and 720KB memory capacity floppy disks. Therefore it can read nearly all floppy disks. However, when exchanging data with another computer, you have to be careful if the other computer's floppy disk drive is not a 3 mode drive. For example, if the other computer can read 1.2MB floppy disks but not 1.44MB floppy disks, you have to enter the data after putting it into 1.2MB format in advance with this computer.

Critical Point

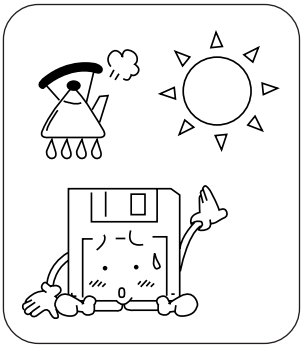
- Some floppy disks cannot be read by this computer, depending on the floppy disk format.

Precautions on Handling

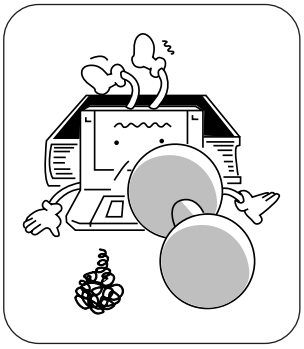
Take the following precautions when using floppy disks in order to avoid damaging them.



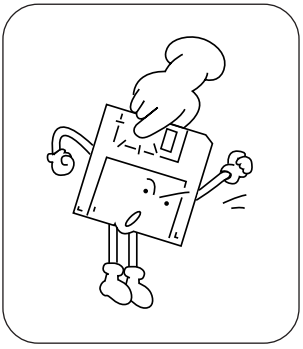
Be careful not to spill liquids such as coffee onto them.



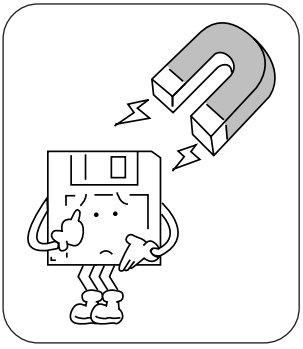
Do not place them in places with high temperatures or in direct sunlight.



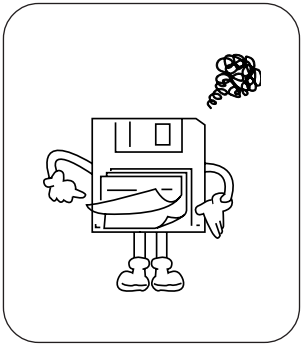
Do not bend them or place heavy objects on top of them.



Never touch the surface of the disk.



Do not bring them near to magnetic fields.



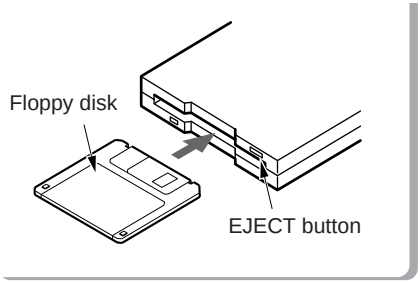
Do not stick labels on over each other.

Loading/Ejecting a Floppy Disk

This item explains how to load and eject floppy disks.

Loading

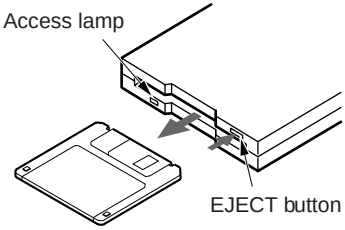
Insert into the floppy disk drive.



Insert the floppy disk with the label upwards and the shutter side first until the EJECT button springs out.

Ejecting

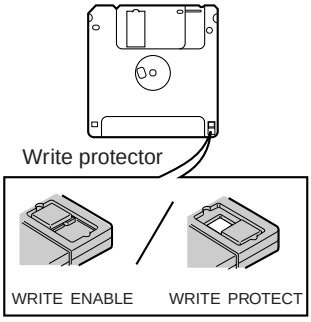
Press the EJECT button.



Check that the floppy disk unit's access lamp is out, then press the EJECT button.

Critical Points

- If you eject the floppy disk while the floppy disk unit's access lamp is still on, there is a risk of losing the data on the disk.
- When you do not want to erase the data saved on the disk, or when you do not want to write additional data, slide the floppy disk's write protector so that the hole is open (WRITE PROTECT state). When you want to write data again, slide the write protector so that the hole is closed.



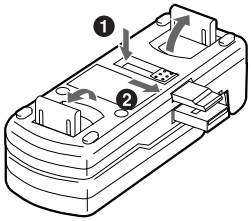
5. CCD Camera

Connecting a CCD Camera

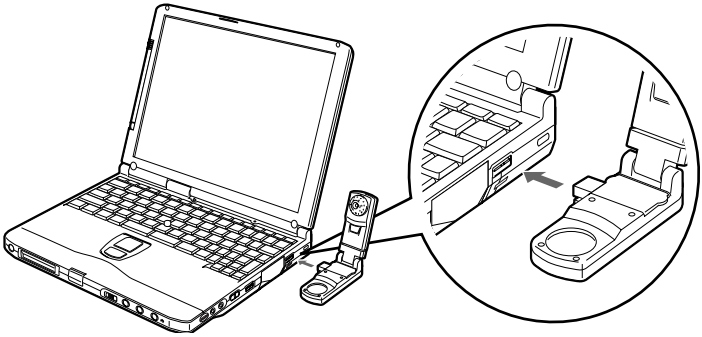
This item explains how to connect a CCD camera.
* Depending on the model, a Fujitsu video capture software is preloaded into your computer.

● **To connect a CCD camera directly to the USB connector**

1 **Raise the tilt foot on the back of the CCD camera and slide the connector.**
Keep holding the connector slide button (❶) while sliding the connector (❷).

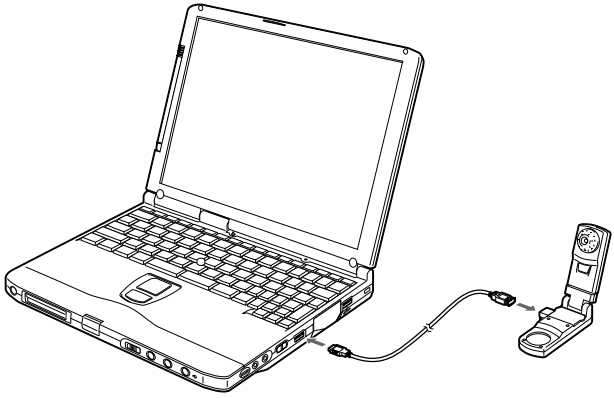


2 **Connect the CCD camera to your personal computer.**
Fully engage the CCD camera connector and its hook with the USB connector and the jack just under it on the back of your personal computer to fix them firmly.



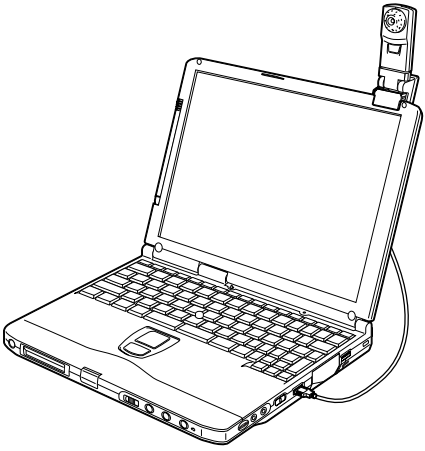
● **To connect a CCD camera, using a connecting cable**

1 Connect the larger plug of the connecting cable to the CCD camera and the smaller plug to your personal computer.



2 Fix the CCD camera to your personal computer.

Pull out the personal computer fixing tab from the CCD camera and fix the personal computer on the top of the CCD camera.

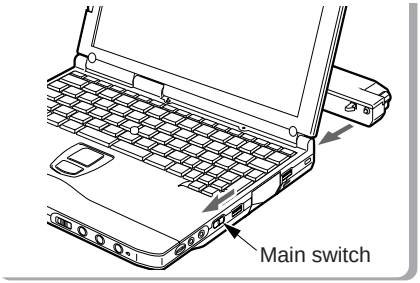


6. Mouse

Connecting a Mouse

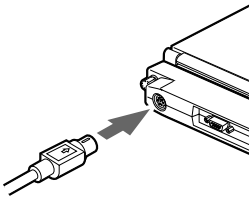
This item explains how to connect a mouse.

1 Turn off the main switch of your personal computer and attach the connector box to it.



Slide the main switch in the direction shown by the arrow (toward ○) to attach the connector box.

2 Connect a mouse to the connector box.



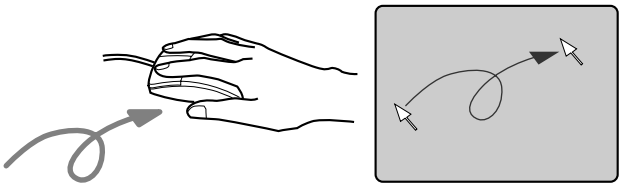
Have the arrow marked on the connector facing up.

Critical Point

- For using the mouse, select “Keyboard/Mouse Features” from the “Advanced Menu” of the BIOS setup first, and then properly set the Pointing Device Configuration.

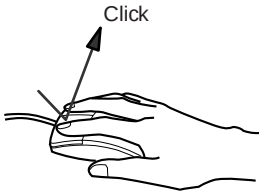
Using the Mouse

- **Moving the Mouse.**
  Place your hand on the mouse so that your fingers are resting on the left and right buttons and move the mouse by sliding it over your desktop or other smooth surface. The arrow (called the mouse pointer) on the screen moves in the same way as the mouse. Try moving the mouse while watching the screen.



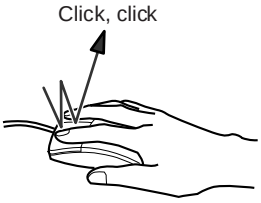
Button operations

• Click



Press the left mouse button once until it clicks. The action of pressing the right button once firmly enough that it clicks is called a “right click”.

• Double click

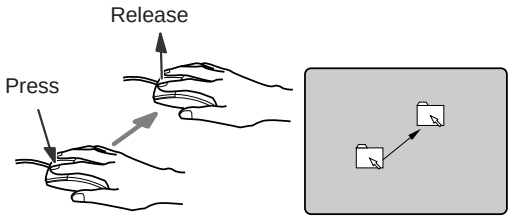


Press the mouse left button two times quickly in a row.

• Pointing

Align the mouse pointer with a menu item. When there is another level for the menu item the cursor is on (when > is displayed at the right of the menu item), that menu level is displayed.

• Dragging



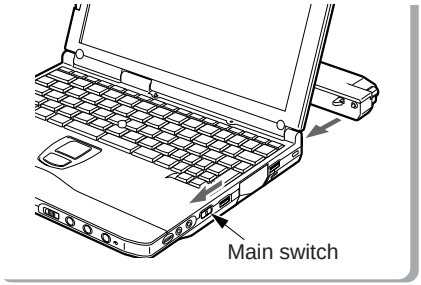
Move the mouse pointer with the mouse left button held down, then release the button at the desired position.

7. Numeric Keypad

Connecting a Numeric Keypad

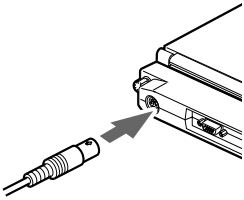
This item explains how to connect a numeric keypad.

1 Switch off the main switch.



Slide the main switch in the direction of the arrow (◯ side).

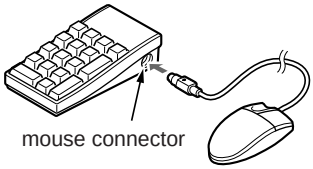
2 Connect the numeric keypad.



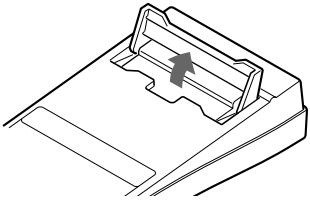
Have the arrow marked on the connector facing up.

Critical Point

- When a mouse is connected to the numeric keypad mouse connector, the mouse connector on the computer main unit cannot be used.



- You can adjust the tilt of the numeric keypad with the tilt feet on the bottom of the numeric keypad.



8. Printer

Connecting a Printer

This item explains how to connect a printer.

⚠ WARNING

ELECTRIC SHOCK
Always switch off the computer main unit main switch and disconnect the AC adaptor before connecting/disconnecting a printer. Connecting/disconnecting a printer with the power on can cause electric shock.

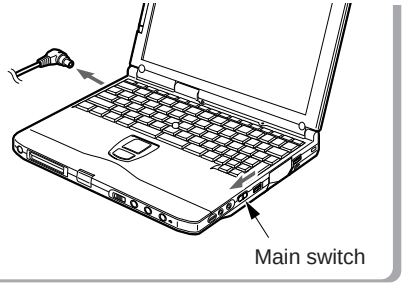
⚠ CAUTION

BREAKDOWN
When connecting cables, read this manual carefully and make sure to connect correctly. Using this computer with cables incorrectly connected can cause breakdown of the computer main unit and the printer.

Critical Point

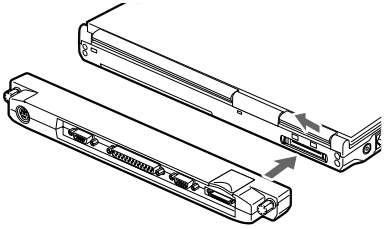
- Connecting a printer requires a printer cable. Sometimes this cable does not come with the printer. Even if the printer cable does come with the printer, sometimes it has the wrong configuration for this computer. In either of these cases, separately purchase a printer cable that you can connect to this computer.
- How to connect the printer depends on the printer. For details, refer to the printer manual.

1 Switch off the main switch and disconnect the AC adaptor.

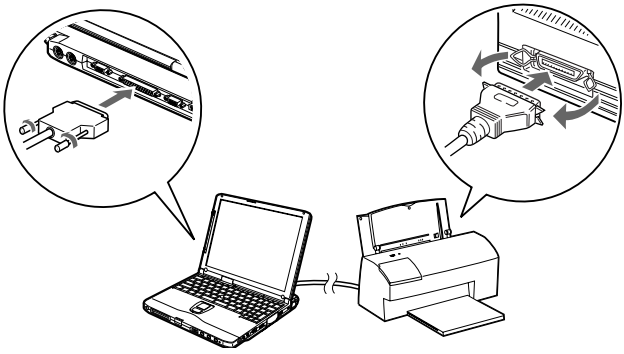


Slide the main switch in the direction of the arrow (○ side). Disconnect the AC adaptor.

2 Connect the connector box to the rear of the personal computer by their respective connectors.



3 Connect the printer to the computer main unit.
Connect the printer cable between the connector box's parallel connector and the printer's connector, and then fix it securely with screws and fixtures.



4 Connect the printer's power cord and switch on its power.

5 Connect the AC adaptor to the computer main unit and switch on main switch.

6 Make the printer settings.

9. CRT Monitor

Connecting an External CRT Monitor

An external CRT monitor can be connected to this computer. This item explains how to connect a CRT monitor to the CRT connector on the right of the computer main unit.

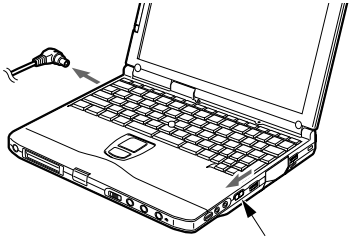
⚠ WARNING

ELECTRIC SHOCK
Always switch off the computer main unit main switch and disconnect the AC adaptor before connecting/disconnecting a CRT monitor. Connecting/disconnecting a CRT monitor with the power on can cause electric shock.

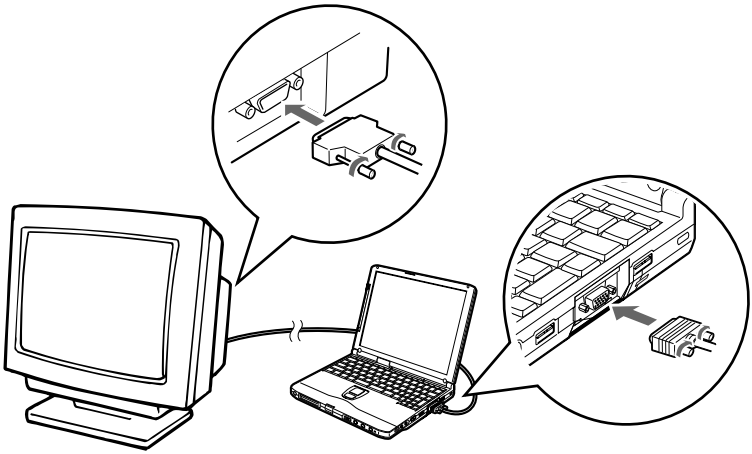
⚠ CAUTION

BREAKDOWN
When connecting cables, read this manual carefully and make sure to connect correctly. Using this computer with cables incorrectly connected can cause breakdown of the computer main unit and the CRT monitor.

1 **Switch off the main switch and disconnect the AC adaptor.**
Slide the main switch in the direction of the arrow (○ side).
Disconnect the AC adaptor.



2 **Connect the CRT monitor to the computer main unit.**
Connect the CRT cable between the personal computer's CRT connector and the CRT monitor's connector, and then fix it securely with screws and fixtures.



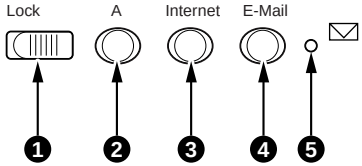
3 **Connect the CRT monitor's power cord and switch on its power.**

4 **Connect the AC adaptor to the computer main unit and switch on main switch.**

5 **Switch the screen display.**
When you press **Fn + F10,** the display switches to the next step in the sequence:
LCD → simultaneous display → CRT → LCD.

10. One Touch Operation buttons

The one touch operation buttons function as quick access for pre-configured applications, browser or e-mail. It enables users to start a program quickly with a single press on the buttons.



❶ **Lock**
When this button is set to lock location, all one-touch operation buttons are locked or disabled to prevent careless operation.

❷ **A**
Start an application. Press the button to start an application.

❸ **Internet**
Press this button to start your default browser.

❹ **E-mail**
Press this button to launch your email program.

❺ **E-mail arrival indicator lamp.**
This lamp indicates e-mail status :
- Turned on : Checking new arrival of e-mail
- Blinking : Newly arriving e-mail is recognized
- Turned off: No new mail

Critical Point

The one-touch operation buttons cannot be used in the following cases.
● The MAIN switch is set at the OFF position (slid to the "◯" side).

Checking new arrival of E-mail

Press the E-mail button to check to see if there is new arrival of E-mail. New arrival of E-mail can be checked even when the Windows 98 is shutdown.

Important note

When the MAIN switch is turned off (set at "◯" side), new arrival of E-mail cannot be checked with the E-mail button.
For operating the E-mail button, set up the computer so as to access the Internet beforehand.

1 **Connect the system to access your email software.**

2 **Make sure the lock button is at correct position.**

3 **Press the E-mail button.**
When the E-mail button is pressed, the computer accesses the Internet to check to see if there is new arrival of E-mail or not.
A while later, the Outlook Express is activated and newly arriving E-mail, if there is any, is received by the computer.
30 seconds after the computer completes reception of new E-mail(s), it automatically discontinues accessing the Internet.

Arrival of new E-mail can be checked with the E-mail arrival indicator lamp.
This function is convenient for checking arrival of new E-mail as the LCD panel is closed.
When the E-mail button is pressed, the E-mail arrival indicator lamp goes on and then blinks or goes out to indicate arrival or non-arrival of E-mail as shown below.

Turned on:	Checking new arrival of E-mail (accessing the Internet)
Blinking:	Newly arriving E-mail is recognized.
Turned off:	No arrival of E-mail is recognized.

If the LCD panel is opened, the suspended computer is resumed, or the Outlook Express is quitted, the E-mail arrival indication lamp goes out.

SECTION 3

SECTION 3

1. Care and Maintenance

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

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

LIFEBOOK NOTEBOOK

Caring for your LifeBook Notebook

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

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

Cleaning your LifeBook Notebook

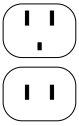
- Always disconnect the power plug. (Pull the plug, not the cord.)
- Clean your LifeBook notebook with a damp, lint-free cloth. Do not use abrasives or solvents.
- Use a soft cloth to remove dust from the screen. Never use glass cleaners.

Storing your LifeBook Notebook

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

Travelling with your LifeBook Notebook

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

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

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

BATTERIES

Caring for your Batteries

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

Increasing Battery Life

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

FLOPPY DISKS AND DRIVES

Caring for your Floppy Disks

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

Caring for your Floppy Disk Drive

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

DVD/CD-RW/CDs

Caring for your DVD/CD-RW/CDs

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

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

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

PC CARDS

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

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

2. Glossary

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

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

APM
Advanced Power Management.

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

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

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

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

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

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

Byte
8 bits of parallel binary information.

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

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

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

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

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

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

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

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

Data
The information a system stores and processes.

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

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

DIMM
Dual-in-line memory module.

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

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

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

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

MB
Megabyte.

Megahertz
1,000,000 cycles per second.

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

MHz
Megahertz.

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

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

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

MPU-401
A standard for MIDI interfaces and connectors.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

FCC
Federal Communication Commission.

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

GB
Gigabyte.

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

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

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

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

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

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

IR
An abbreviation for infrared.

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

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

KB
Kilobyte.

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

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

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

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

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

Restart
See Reset.

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

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

SDRAM
Synchronous Dynamic Random Access Memory.

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

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

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

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

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

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

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

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

SVGA
Super VGA.

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

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

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

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

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

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

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

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

XGA
Extended VGA.

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

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

SECTION 4

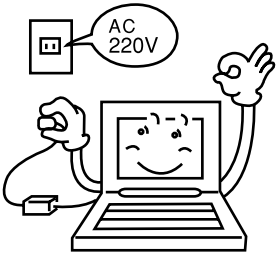
1. When This Happens

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? 	• **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 adapter 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 or LS-120 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, port replicater or LS-120 disk unit.
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.

● **Message displayed on screen.**
See the message list.

● **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.

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