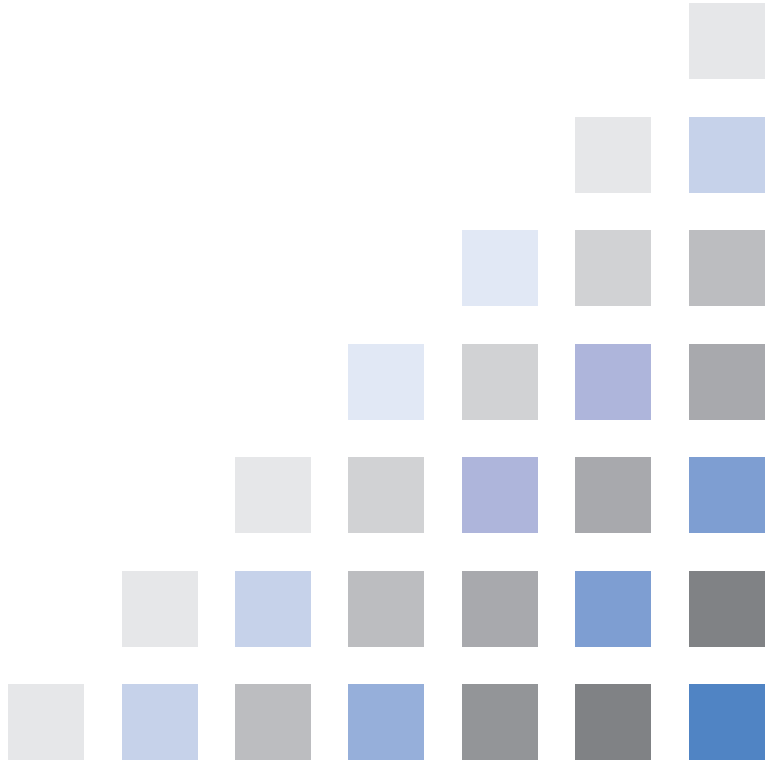


SHARP®

NOTEBOOK COMPUTER
PC-UM30 Series
OPERATION MANUAL



Notice for Users in the USA

FCC Statement

WARNING - FCC Regulations state that any unauthorized changes or modifications to these equipments not expressly approved by the manufacturer could void the user's authority to operate these equipments.

Note: These equipments have been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. These equipments generate, use and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If these equipments do cause harmful interference to radio or television reception, which can be determined by turning the equipments off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

A shielded I/F cable, the included ferrite core for LAN cable and the included cable for the CD-ROM drive are required to insure compliance with FCC regulation for Class B computing equipment.

* As an ENERGY STAR[®] Partner, SHARP has determined that this product meets the ENERGY STAR[®] guidelines for energy efficiency.

Declaration of Conformity

SHARP PERSONAL COMPUTER, PC-UM Series, and SHARP CD-ROM DRIVE UNIT, CE-CD05

These devices comply with part 15 of the FCC rules. Operation is subject to the following conditions:(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible Party: SHARP ELECTRONICS CORPORATION
Sharp Plaza, Mahwah, New Jersey 07430-2135
TEL: 1-800-BE-SHARP

About the Modem

This equipment complies with Part 68 of FCC rules. On the bottom of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The modem jack of this equipment complies with Sub-part F of Part 68 of FCC rules.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs contact the telephone company to determine the maximum REN for the calling areas.

If the terminal equipment causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it necessary.

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make the necessary modifications in order to maintain uninterrupted service.

If trouble is experienced with this equipment, please contact Sharp Electronics Corp. for repair and (or) warranty information (Refer to the end of this section). If the trouble is causing harm to the telephone network, the telephone company may request you remove the equipment from the network until the problem is resolved.

The equipment cannot be used on public coin service provided by the telephone company. Connection to Party Line Service is subject to state tariffs. (Contact the state public utility commission, public service commission or corporation commission for information.)

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual. (The telephone number provided may not be a 900 number or any other number for which charges exceed local or long-distance transmission charges.) To program this information, refer to the manual of the communication software.

For Wireless LAN Bundled Model

Wireless LAN / Modem Model Name: T60H418

FCC ID: MCLT60H418

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning

This product utilizes tin-lead solder, and fluorescent lamp containing a small amount of mercury.

Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org

Copyright

It is the intent of Sharp that this product be used in full compliance with the copyright laws of the United States and that prior permission be obtained from copyright owners whenever necessary.

Product Information and Customer Assistance

For Product Information and Customer Assistance:

Call: 1-800-BE-SHARP (237-4277)

Sharp Systems of America

5901 Bolsa Avenue, Huntington Beach, CA 92647

Home Page: <http://www.sharpsystems.com>

E-mail address: support@sharpsystems.com

CAUTION:

TO PREVENT ELECTRICAL SHOCK, DISCONNECT THE AC CORD AND THE BATTERY BEFORE SERVICING.

CAUTION:

FOR A COMPLETE ELECTRICAL DISCONNECTION, PULL OUT THE MAIN PLUG AND THE BATTERY.

VORSICHT:

UM DIE STROMZUFUHR VOLLSTÄNDIG ZU UNTERBRECHEN, DEN NETZSTECKER HERAUSZIEHEN UND DIE BATTERIE ÈNTFERNEN.

ATTENTION:

POUR UN ARRET TOTAL DU SYSTEME, DECONNECTEZ LA PRISE DE COURANT SECTEUR ET LA BATTERIE.

VARNING:

FÖR TOTAL ELEKTRISK URKOPPLING, KOPPLA UR KONTAKTEN OCH TA UR BATTERIET.

PRECAUCION:

PARA UNA COMPLETA DESCONEXION ELECTRICA DESENCHUFE LA CLAVIJA DE LA RED Y LA BATERIA.

Safety Precautions

General

- Follow all cautions and instructions, which may be marked, on the computer.
- Except as described elsewhere in this manual, refer all servicing to qualified personnel. Immediately shut off the computer and seek servicing under the following conditions:
 - when the power cord or plug is damaged or frayed
 - when liquid has been spilled on the computer
 - when the computer has been dropped or the cabinet has been damaged

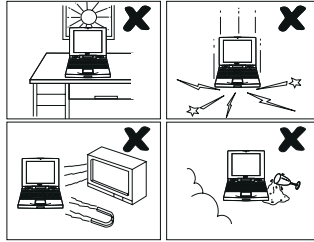
Location

- Do not expose the computer to direct sunlight.
- Try to avoid dusty environments.
- Keep the computer away from any magnetic devices and TVs.
- Keep the computer away from excessive humidity or fluids such as rain, snow, water spray, juice, coffee, steam, etc.
- Do not move the computer from an extremely cold place to an extremely warm place. A temperature difference of more than 10°C (18°F) will cause condensation inside the unit, which may cause damage.
- Do not block or cover slots or openings on the cabinet. These protect the computer from overheating.
- Do not place the computer on unstable or uneven work surfaces.
- Do not use the computer on your lap or any part of your body for an extended period during operation or charging to avoid injury from heat exposure.

Usage

- Never push any objects of any kind into cabinet openings. They may touch dangerous voltage points or short parts that could result in fire or electrical shock.
- Turn off the computer before installing or removing peripheral devices (except when connecting USB devices, IEEE 1394 devices, CF cards, and PC cards).
- Check the AC power cord and power connectors periodically for damage. Replace the power cord immediately if damage is found.
- Never subject your computer to sudden shocks or extreme vibration.

- Do not drop the computer nor hit it with other equipment.
- Do not scratch the surface of the LCD screen.
- Turn off the computer and disconnect the AC power cord before cleaning.



Battery Precautions

CAUTION

DANGER OF EXPLOSION IF BATTERY IS INCORRECTLY REPLACED. REPLACE ONLY WITH THE SAME OR EQUIVALENT TYPE RECOMMENDED BY THE MANUFACTURER. DISCARD USED BATTERIES ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.

Handling

- Never put the battery pack in a fire, as it could explode and cause injury.
- Do not attempt to open or alter the battery pack.
- Do not place the battery where it might get hotter than 60°C (140°F).
- Do not allow metal objects such as jewelry to short across the battery terminals, as it could heat up and explode.
- Do not allow liquids to come in contact with the battery pack.
- Avoid dropping the pack or other violent shock.
- Do not solder anything to the battery terminals.

Charging

- Charge the battery pack only with the AC adapter included with your computer.

Discharging

- Do not use the battery pack for any purpose other than powering the computer.

Storage

- Store the battery pack in a cool and dry place. Never allow the temperature to exceed 60°C (140°F) during storage.
- Recharge the battery pack after storage, before use.

Modem Precautions

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.
- Avoid using the telephone during a lightning storm. There may be a remote risk of electric shock from lightning.
- Do not use the telephone to report a gas leak while in the vicinity of the leak.

Wireless LAN Precautions

- Do not communicate with wireless LAN in specific environment where radio-susceptible equipments are nearby such as on airplanes, in hospital, etc.
- Do not touch the antennas while communicating.
- Keep the distance at least 7.9" (20cm) between the antennas and your body while communicating.

About This Manual

Notice

Information in this manual is subject to change without notice and does not represent a commitment on the part of SHARP Corporation and its sales subsidiaries.

SHARP Corporation and its sales subsidiaries shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material.

SHARP strongly recommends that separate permanent written records be kept of all important data. Data may be lost or altered in virtually any electronic memory product under certain circumstances. Therefore, SHARP assumes no responsibility for data lost or otherwise rendered unusable whether as a result of improper use, repairs, defects, battery replacement, use after the specified battery life has expired, or any other causes.

SHARP assumes no responsibility directly or indirectly, for financial losses or claims from third persons resulting from the use of this product and any of its functions, such as stolen credit card numbers, the loss of or alteration of stored data, etc.

Edition

1st Edition, October 2002.

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Recording Important Information

For future reference, please record the following information in the spaces provided below.

Model Number:

Serial Number:

Date of purchase:

Dealer's Name:

Place of purchase:

Password:

The serial number is printed on a sticker located on the bottom of the computer.

Manual Conventions

This manual uses a set of style conventions described below.

Notes and Cautions are italicized with icons:



A note icon informs you of a special technique or information that may help you perform a task or better understand a process.



A caution icon alerts you to something that may cause problems or damage to hardware, software or data.

Key Labels on the Keyboard, when referred to in the instructions, are shown in boldface:

Press **Enter** to continue.

When two or more keys are pressed simultaneously, the key labels are separated by a plus (+) sign:

Restart your computer by pressing **Ctrl+Alt+Delete**.

Sample Entries are shown in lower cases of different typeface.

`c:\windows\systems`

Words/Texts on Screen, such as window titles or possible parameters, are italicized:

Double-click this icon to display the *Power Options Properties* dialog box.

Set the item to *Enabled*.

Screens reproduced in this manual may differ slightly from the screens you see on your computer.

Section Titles in other parts of this manual are italicized:

Refer to *Installing Battery Pack* section of Chapter 1.

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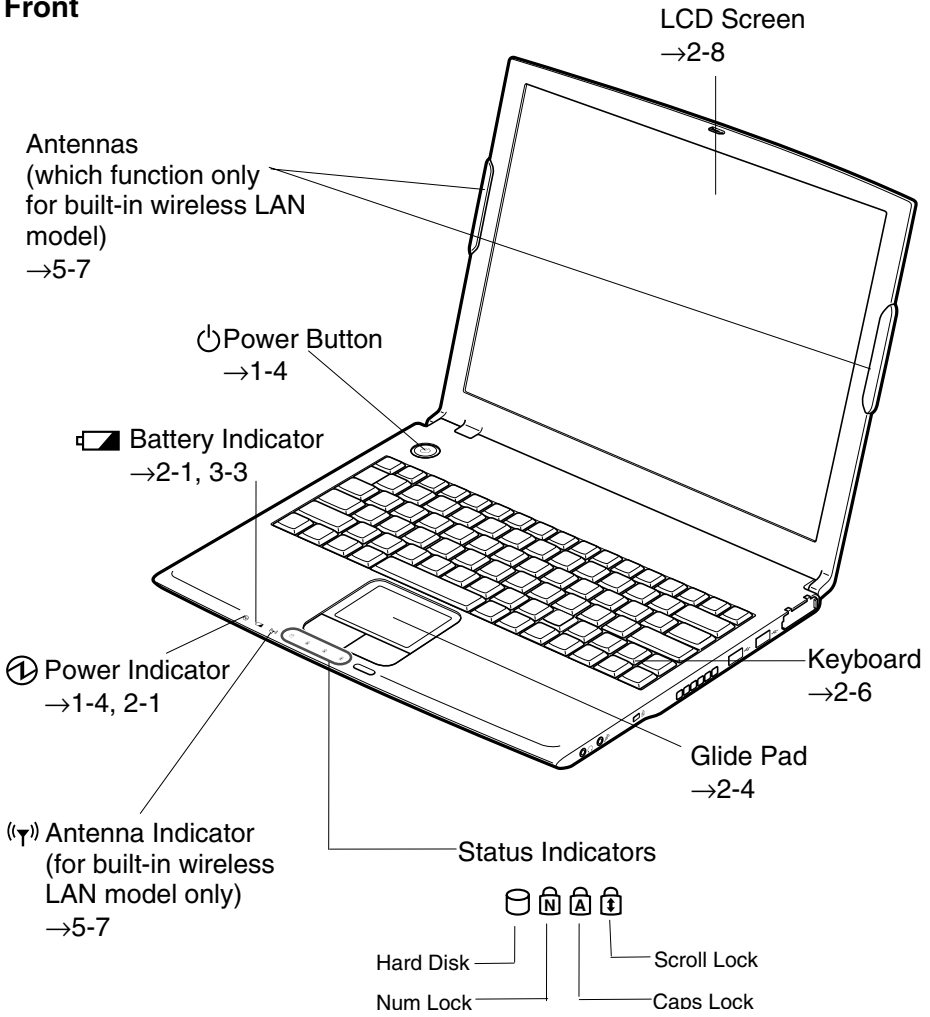
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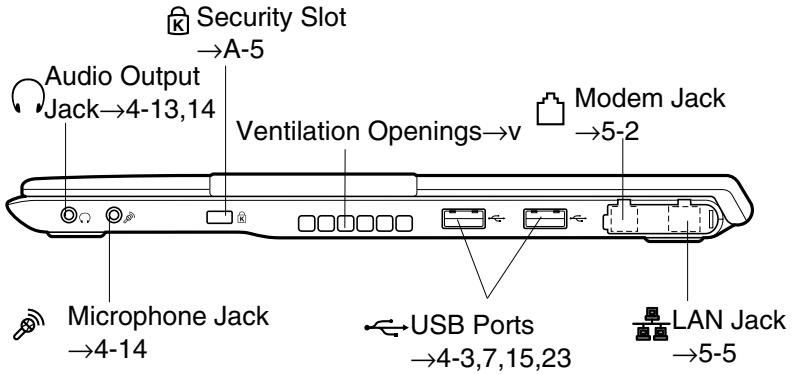
Overview of Computer

Each number after an arrow indicates the page referring to the part. Actual appearance of your computer may be slightly different depending on the model.

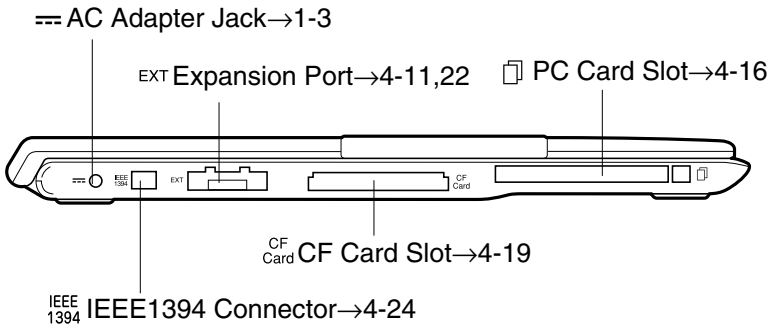
Front



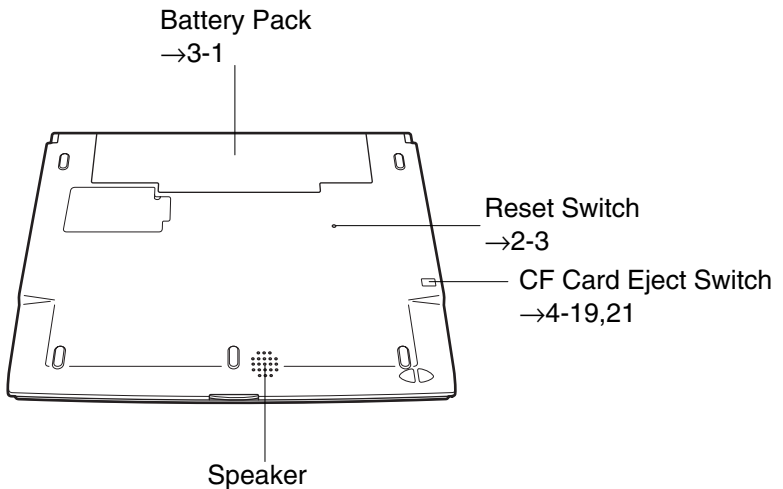
Right



Left



Bottom



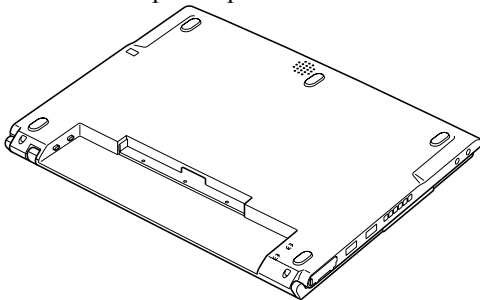
Quick Setup

Your computer is designed and pre-configured for easy setup and use. This chapter describes the steps to set up your computer and running as quickly as possible. Read this chapter first.

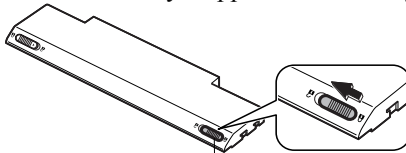
Installing a Battery Pack

Your computer is powered with either the rechargeable battery pack or AC power. See the next chapter for more information on power sources. Before using the computer for the first time:

1. Place the computer upside down.

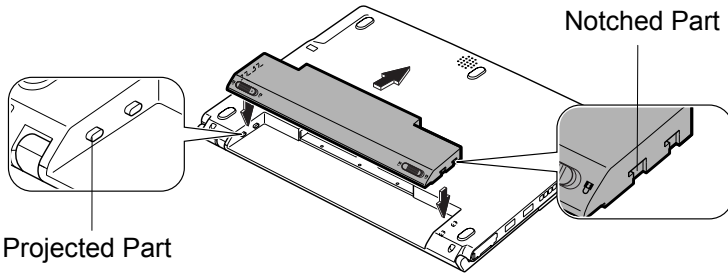


2. Slide the battery stopper on the battery pack to the unlocked position (a).

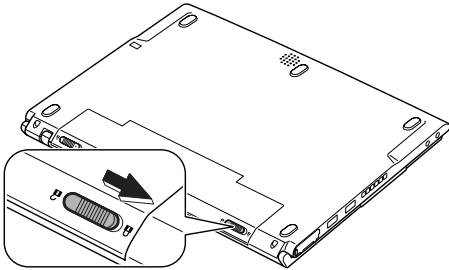


Battery Stopper

3. Insert the battery pack into the computer by matching the notched parts of the battery to the projected parts on the computer; then, push the battery pack until you hear the clicking sound.



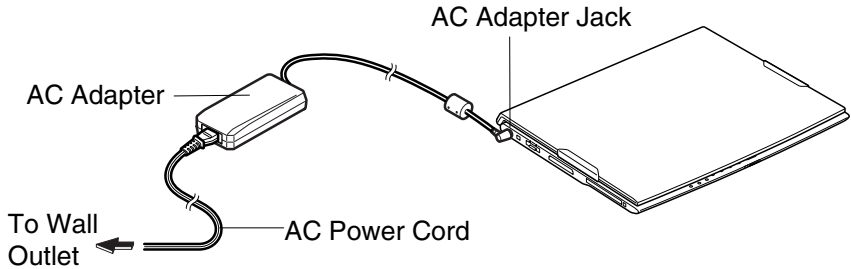
4. Slide the battery stopper to the locked position (A).



5. Turn over your computer and go to the next section.

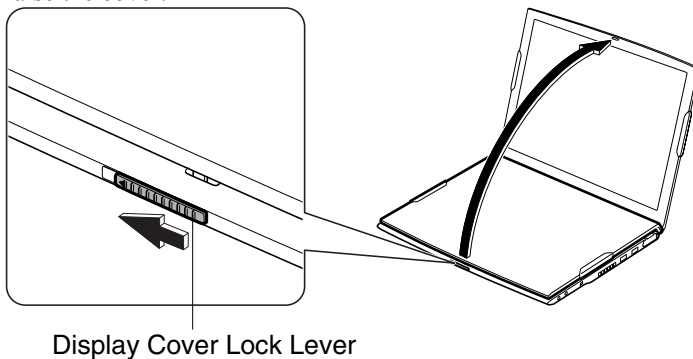
Connecting to AC Power Source

1. Plug the AC adapter cable to the AC adapter jack on the left side of your computer.
2. Plug the AC power cord into the AC adapter.
3. Plug the AC power cord into a wall outlet.

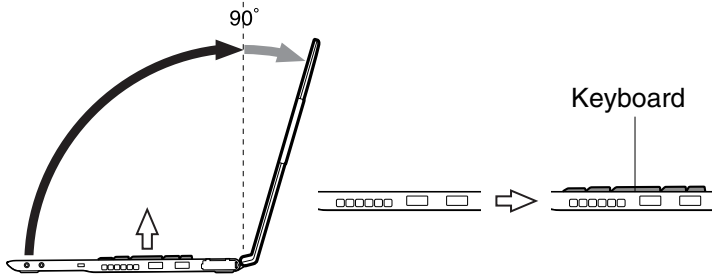


- *Always use the AC adapter included with the computer or the optional one (may not be available in some countries). Using other AC adapters may damage the computer.*
- *Always hold the AC power cord by its plug when removing it from the wall outlet. Never pull on the cord.*
- *When using the computer for the first time, be sure to operate it on AC power. If on battery power instead, you may not be able to complete the Windows setup if the battery does not have enough power.*

4. Slide the display cover lock lever to the left until the display cover releases, and raise the cover.

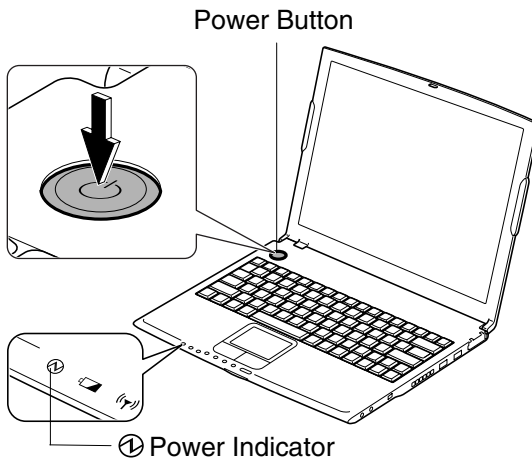



5. Tilt the cover in more than 90 degrees.



The keyboard of your computer will rise automatically when you open the display cover. You need to tilt the cover in more than 90 degrees to raise the keyboard completely. Otherwise the keyboard or the computer may malfunction.

6. Press the power button to turn on your computer.



When you turn on the computer, the power indicator () turns green, the computer goes through a self test to detect any problems, and Windows setup process starts. See the next page.

Setting Up Windows

The steps in the setup process are as follows:

- Configuring your location, language and keyboard type
- Configuring your time zone (for U.S. Users)
- Accepting license agreement
- Naming your computer
- Creating an account
- Completing configuration

To setup Windows, follow the instructions on the screen. See also the Windows manual. It takes approximately 10-15 minutes to complete the entire setup process.



- *Do not turn off the computer until completing Windows setup. If you turn it off, you cannot set up Windows later.*
- *Be sure to connect the computer to AC power source. If using the battery instead, you may not be able to complete the Windows setup if the battery does not have enough power.*
- *Do not connect any peripheral devices to your computer until Windows setup completes. Otherwise your computer may malfunction.*



- *If the display turns off, some power management may function. In this case, press any key to resume your computer from the power management.*
- *If you cannot operate the keyboard or the touch pad, press the power button for more than four seconds to turn off the computer. Be sure that the power indicator turns off; then, after more than 10 seconds, press the power button to turn it on again.*

After completing Windows setup, set your date and time. Double-click the time appearing on the right of the taskbar to open *Date and Time Properties* dialog box. Confirm *Time Zone* is correctly selected, and set date and time.

Properties Dialog Box in Windows

In this manual, you will often see the expression “XXX Properties dialog box.” A dialog box is a window containing text boxes, check boxes, buttons, etc., with which you can send commands to Windows or other application programs. To open the properties dialog boxes, click *start - Control Panel*. There are two types of views for the *Control Panel*. One is Category view, and the other is Classic view. If you select Category view, you can choose the category that may be related to what you want to do, then, choose your task by clicking it. If Classic view selected, all the icons appear simultaneously. Each icon represents its component or feature. Double-click the icons to open their dialog boxes or windows. Some of the dialog boxes you will use often are:

- Display
- Phone and Modem Options
- Mouse
- Power Options
- System

Turning Off the Computer

When you're finished using your computer, turn it off with one of the following ways:

- From the *start* menu
 1. Click *start - Turn Off Computer*.
 2. In the *Turn off computer* dialog box, click *Turn Off*.
- With the power button

Before using this step, confirm that *Shut down* is selected in *When I press the power button on my computer* in *Advanced* tab of *Power Options Properties* dialog box.

Close the cover to keep the screen and keyboard clean and protected.



If you have not saved a file, a dialog box will appear asking whether you want to save it.



- *Do not turn off or reset the computer while the hard disk indicator or the indicator on the optional external floppy disk drive unit or the external CD-ROM drive unit is lit. Doing so may damage or even wipe out the data.*
 - *Before turning it back on, wait at least ten seconds after turning off the computer. Turning the power off and on in rapid succession can damage the computer's electrical circuitry.*
-

Basic Operations

This chapter describes the basic operations of your computer.



Choosing Power Source

You can use the computer with one of the following power sources:

- AC power from a wall outlet
Use AC power whenever possible; rely on the battery only when AC power is not available.
- Rechargeable battery
Your computer is equipped with a standard battery. You can also use an optional battery. See Chapter 3 for the battery information.

About the Power Indicators

The following indicators show the power status of your computer.

Indicator	Light	Meaning	
	On (green)	Operating	
	Blinking (green)	In System Standby	
	Off	Powered off or in System Hibernate	
	Connected to AC Power Source	On (green)	Fully charged
		On (orange)	Being charged
		Blinking (orange)	In abnormal state (Remove the battery pack and install it again.)
	Powered by Battery	Off	Has power
		Blinking (red)	Almost completely discharged (The warning beep sounds.)

The battery indicator is always off when the computer is turned off and not connected to AC power source.



- *When the battery is hot, the battery indicator may turn off and stay off until the battery becomes cool.*
- *For more information on System standby/hibernate, see Chapter 3.*

Using the AC Adapter

When connected to a wall outlet, the AC adapter provides power for operation and charges the battery. The AC input voltage can range from 100 to 240 volts so that you can use the computer with the appropriate plug adapter.



The AC power cord included with the computer is appropriate for the voltage used in the area in which you purchased your computer. If you attempt to connect the computer to a wall outlet other than in this area, check the voltage of the outlet and use an AC power cord appropriate for the outlet. Consult local service staff if you are not sure.

Resetting the System

You may need to restart the system if the computer becomes inoperable or after adding new hardware or software. When the message appears after the installation, click *OK*, *Yes*, etc. to restart Windows.

You can also restart Windows by clicking *start - Turn Off Computer*; then, *Restart*.

Warm Boot (Software Reset)

If the system is locked up because of a software problem, you can reset or reboot the system by pressing the **Ctrl+Alt+Del** keys simultaneously and select *Users* tab of *Windows Task Manager* dialog box. Click *Disconnect* or *Logoff*, then, *Yes*.



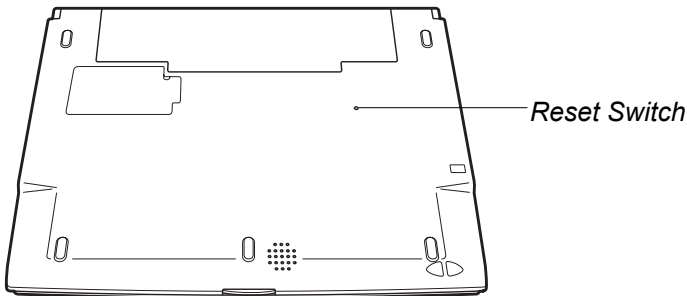
Resetting may cause data loss. Use the resetting process only if the normal Windows Shut Down does not work because of software malfunction. Although resetting will not damage the system, you may lose the data you are processing.

Power Switch

You can turn off the computer with the power button if you encounter hardware or software problems which lock up the system. In this case, press the power button for more than four seconds.

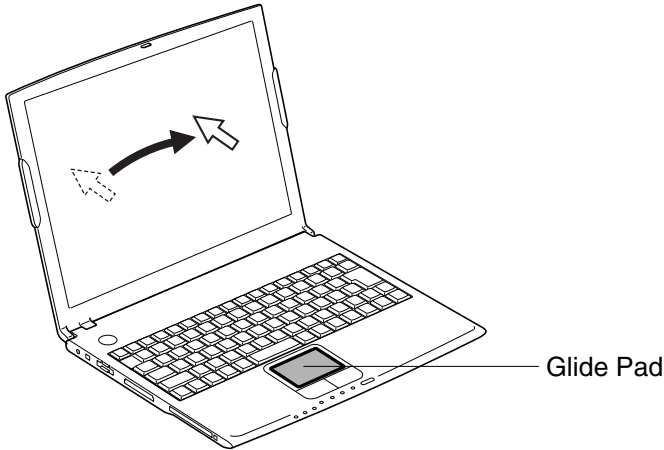
Reset Switch

If you cannot turn off the computer by pressing the power button, you can use the reset switch on the bottom of your computer. To reset the system, insert a narrow object into the small hole to press the switch.



Using the Glide Pad

Your computer is equipped with an integrated pointing device called a glide pad. Using the glide pad, you can move the pointer, select an item from a menu, and perform other tasks in the same way you would with a mouse.



- *Do not hit or scratch the surface of the glide pad with pointed objects (such as a ballpoint pen).*
- *Do not operate the glide pad with a moist finger. This may cause the glide pad to operate incorrectly.*

Using the Glide Pad

Take a moment to become familiar with how the glide pad works.

Place Your Fingertip

Place your left or right hand next to the glide pad, resting your wrist naturally in a relaxed manner. Place your thumb or finger on the glide pad.

Move Your Fingertip

The rectangular pad of the glide pad acts like a miniature duplicate of the display. As you slide your fingertip across the pad, the pointer on the screen moves in the same direction across the screen. The glide pad is very sensitive, so you do not have to exert much pressure on the pad. The glide pad will respond to a light touch from your fingertip.

Click, Double-click, and Right-click

To click or double-click, you can use the left button just like that of a mouse. Instead of clicking the left button, you can also just tap gently anywhere on the rectangular pad. For right-clicking, you must use the right button.

Drag and Drop

You can move icons or windows by using “drag and drop” below:


1. Position the pointer over the object.
2. Press the left button; do not release it.
3. Holding it down, move the pointer. The object moves together with the pointer.
4. Release the button when the object reaches its destination.

Or you can tap the pad twice and hold it instead of pressing the left button in the step 2.

Scroll

You can scroll through information in a list or in a document by using the glide pad. To view information vertically, place your finger on the most right part of the glide pad and slide your finger up and down. To view horizontally, place your finger on the bottom part of the glide pad and slide your finger to the left or the right. This procedure works only in limited applications.

Changing the Configuration

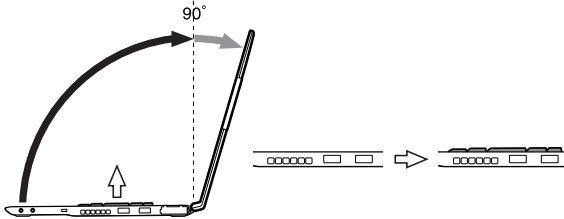
In the *Mouse Properties* dialog box, you can change the configuration of the glide pad, such as swapping left and right buttons, changing the pointer size, etc. Double-click  icon on the taskbar.

Using the Keyboard

Your computer, equipped with the Windows Enhanced Keyboard, provides all the functionality of a full-sized desktop keyboard. The keyboard will rise automatically when you open the display cover.



The keyboard of your computer will rise automatically when you open the display cover. You need to tilt the cover in more than 90 degrees to raise the keyboard completely. Otherwise the keyboard or the computer may malfunction.



Special Keys



Windows Key

Opens the Windows start menu.



Application Key

Opens an application-specific short-cut menu equivalent to right-clicking.

System Function Keys

When pressed together with the **Fn** key, function keys set specific system parameters. This combination is sometimes referred to as “hot keys”.

Fn + F1 Turns the wireless LAN antenna on and off
(This combination functions for built-in wireless LAN model only and when *Wireless LAN* of *Device Configuration* section in *Security* menu in Setup Utility is set to *Enabled*.)

Fn + F3 Decreases the audio volume

Fn + F4 Increases the audio volume

Fn + F5 Rotates display mode between LCD only, an external monitor only, and both (when connecting an external monitor).

Fn + F6	Decreases the LCD screen brightness.
Fn + F7	Increases the LCD screen brightness.
Fn + F11	Turns the LCD screen on and off.
Fn + F12	Forces the computer into System standby. See <i>Power Management</i> of Chapter 3 for more information.

Controlling Audio

You can control the output volume of your computer with the following steps.

With the keyboard

Press **Fn** and **F3** keys simultaneously to decrease the output volume.

Press **Fn** and **F4** keys simultaneously to increase the output volume.

On Windows

1. Click *start - Control Panel*.
2. Click *Sounds, Speech, and Audio Devices*; then, *Sounds and Audio Devices*. If Classic view is selected, double-click *Sounds and Audio Devices* icon.
3. In *Sounds and Audio Devices Properties* dialog box, slide the lever to control the output volume.
4. Click *OK* and close the dialog box; then the *Control Panel* window.



Check the box of Place volume icon in the taskbar in the step 3. Next time you find the speaker symbol on the taskbar, and it is easy to control the volume.

If you want to control the output volume of each source individually:

1. Click *start - Control Panel*.
2. Click *Sounds, Speech, and Audio Devices*; then, *Sounds and Audio Devices*. If Classic view is selected, double-click *Sounds and Audio Devices* icon.
3. In *Sounds and Audio Devices Properties* dialog box, click *Advanced...* button of *Device volume* section.
4. Slide the lever of the source that you want to control.
5. Close the dialog box, then; click *OK* and close the *Control Panel* window.

If you control:

- Wave** → Controlling the volume of CD/DVD or WAVE file
- SW Synth** → Controlling the volume of MIDI file

Adjusting the Display

You can adjust the brightness, resolution, and number of colors of the internal LCD display.

Changing Brightness of Display

Press **Fn** and **F6** keys simultaneously to decrease the brightness of the display.

Press **Fn** and **F7** keys simultaneously to increase the brightness of the display.

Changing Resolution and Number of Colors

When shipped, your computer is set to the default resolution and color. The default resolution is 1024 x 768 at 64K colors. To change the resolution and the number of colors, follow the instructions below:

1. In the *Display Properties* dialog box, select *Settings* tab.
2. Select the number of the colors in the *Color quality*, and select the resolution in the *Screen resolution*. Refer to the table below.
3. Click *OK*; then, *Yes*.

Resolutions and Colors you can choose

Resolution	Number of Colors
800 x 600	64K 16M ^{(*)2}
1024 x 768	64K 16M ^{(*)2}
1280 x 1024 ^{(*)1}	64K 16M ^{(*)2}
1400 x 1050 ^{(*)1}	64K 16M ^{(*)2}
1600 x 1200 ^{(*)1}	64K 16M ^{(*)2}

^{(*)1} Only 1024 x 768 dots appear even on the internal LCD screen of 1280 x 1024, 1400 x 1050 or 1600 x 1200 resolution. To see the hidden parts, move mouse pointer to the parts and scroll it. To set 1280 x 1024, 1400 x 1050 and 1600 x 1200 resolution mode selectable, open the *Display Properties* dialog box, click *Settings* tab, then, *Advanced* button and uncheck *Hide modes that this monitor cannot display*

of *Monitor* tab. (Only a member of the Computer administrators group can set the resolutions selectable.)

(*2) On the internal LCD screen, the number of colors in this mode is made using a Dithering algorithm.



- *You cannot switch to display resolutions and number of colors that are not available.*
- *In the Color quality, Medium (16 bit) means 65,536 (64K) colors, and Highest (32 bit) means about 16,770,000 (16M) colors.*
- *If you select Highest;*
 - *Drawing speed may be delayed.*
 - *When playing animation, the screen may be distorted.*

Changing Wallpaper and Setting Screen Saver

You can enjoy various desktop patterns or screen savers.

Changing Wallpaper

1. In the *Display Properties* dialog box, select *Desktop* tab.
2. Select appropriate wallpaper in *Background*.
3. Click *OK*.

Setting Screen Saver

1. In the *Display Properties* dialog box, select *Screen Saver* tab.
2. Select an appropriate screen saver in *Screen saver* and set time when screen saver starts.
3. Click *OK*.

Sharing the Computer

If you are sharing the computer with your colleagues or family members, set a user account for each person. Every user can choose their favorite desktop setting, web site lists, or make their own *My Documents* folder etc., and save them to their user accounts. When you turn on the computer, select your user account.

Set a New User Account

1. Click *start - Control Panel*.
2. Click *User Accounts*. If Classic view is selected, double-click *User Accounts* icon.
3. Click *Create a new account* string.
4. Type a name for the new account and click *Next*.
5. Select the account type; then, click *Create Account*. If you have selected a *Limited* account, then that user account has limits for using the computer. See *Help and Support Center* in *start* menu for more details.
6. Close *User Accounts* dialog box; then, the *Control Panel*.

If more than one user accounts are set to the computer, you must select which user account you will log in when you turn on the computer.

Log off the Computer

“Log off” is useful because you do not have to turn off the computer when you finish your task and pass the computer to another person. There are two ways to log off the computer, *Switch User* or *Log Off*.

If you select *Switch User*, you can pass the computer to another person without closing your current applications. For example, if you are viewing a Web site, and your colleague needs to open a program on the computer, use *Switch User*. You can then view the same Web site by just switching users after your colleague finishes with the computer.

If you select *Log Off*, the system will close all your session and you need to save your files before logging off the computer.

1. Click *start - Log Off*.
2. Select *Switch User* or *Log Off*. If you select *Log Off*, the dialog box, which asks you to save your data may appear.

3. Select a new account to start Windows XP again.



If you cannot see Switch User in Log Off Windows dialog box, click Change the way users log on or off string in User Accounts dialog box, and check Use Fast User Switching and click Apply Options.

Set Password to User Account

You can set a password to each user account to avoid unauthorized use of your computer. Once you set the password, you need to enter it when you log on to its account. If you lose the password, you cannot start the computer with that user account, so unnecessary password setting can cause trouble in starting the system.

Setting Password

1. Click *start - Control Panel*.
2. Click *User Accounts*. If Classic view is selected, double-click *User Accounts* icon.
3. Select the account you want to set a password to. You will only have this option if you log onto the computer as a member of the Computer administrators group. If you log on the computer with a limited user account, go to the next step. (You cannot set a password to another user account.)
4. Select *Create a password* string.



- *If the password has been already set, Create a password will not appear.*
- *Only the members of the Computer administrators group can set a password to another user account.*

5. Type a new password.
6. Type the new password again to confirm it.
7. If necessary, type a password hints word to remember the password you set.
8. Click *Create Password*.
9. Close the *User Accounts* dialog box; then, the *Control Panel* window.

Changing Password

1. Follow the steps 1-2 on the above section.
2. Select the account you want to change, if you log on to the computer as a member of the Computer administrators group. If you log on the computer with

a limited account, go to the next step. (You cannot change the password of another user account.)

3. Select *Change the password* string or *Change my password* string.



- *If the password has not been set yet, Change the password or Change my password will not appear.*
- *Only the members of the Computer administrators group can change the password of another user account.*

4. Type the current password. If you are changing another user's password, skip this step.
5. Type a new password.
6. Type the new password again to confirm it.
7. If necessary, type a password hints word to remember the password you set.
8. Click *Change Password*.
9. Close the *User Accounts* dialog box; then, the *Control Panel* window.

Deleting Password

1. Follow the steps 1-2 on *Setting Password*.
2. Select the account you want to delete its password, if you log on to the computer as a member of the Computer administrators group. If you log on to the computer with a limited account, go to the next step. (You cannot delete the password of another user account.)
3. Select *Remove the password* string or *Remove my password* string.



- *If the password has not been set yet, Remove the password or Remove my password will not appear.*
- *Only the members of the Computer administrators group can delete the password of another user account.*

4. Type your password and click *Remove Password*. If you log on to the computer as a member of the Computer administrators group and want to delete the password of another user account, just click *Remove Password*.
5. Close the *User Accounts* dialog box; then, the *Control Panel* window.

Battery and Power Management

This chapter explains how to manage the computer's power effectively and use the battery pack.



In this section, you often see the expression “Power Options Properties dialog box”. To open the dialog box:

- 1. Click start - Control Panel.*
- 2. Click Performance and Maintenance - Power Options in Category view or double-click Power Options icon in Classic view.*

Battery Pack

When not connected to an external power source, your computer operates with the rechargeable battery pack. The duration of the battery life may be longer if the computer's power management is active. See the next section for power management.

To keep the battery life long:

- Condition the battery pack if the actual remaining power in your battery is less than what Windows *Power Meter* indicates. (See *Conditioning the Battery Pack* section in this chapter.)
- Turn off your computer when you are not using it.



- *The duration of the battery depends on the computer usage. Using applications, which heavily use external peripherals, will result in shorter battery life.*
- *When using the computer for several hours with battery packs, enable power management and set System hibernate. Refer to the Power Management section in this chapter.*
- *When the battery has not been charged, your computer may not operate properly. Connect the AC power source to charge the battery.*

Charging the Battery Pack

1. Connect the AC adapter to the computer. While the battery is being charged, the battery indicator lights orange.
2. When the battery is fully charged, the battery indicator turns green. Charging time may vary according to the status of the computer.



- *The battery indicator may turn off even while the battery pack is being charged. This is because the battery pack is hot, and the charging stops temporarily. When the battery becomes cool, the charging will start and the battery indicator will turn on again.*
- *The battery pack may not be installed correctly if the battery indicator blinks orange. In this case, turn off the computer, remove the AC adapter and the battery pack; then, install the battery pack and connect the AC adapter again. If the battery indicator still blinks orange, ask your local dealer for assistance.*
- *When the battery pack is hot (for example, after a long usage), it may take longer to be fully charged.*

3

Checking the Battery Level

You can check the battery level by pointing to the battery or AC plug icon on the taskbar, or double-clicking the icon to open the *Power Meter* dialog box. If the battery is fully charged, remaining capacity level will not appear even if you point the icon.

If you cannot see the battery or AC plug icon, follow the instructions below:

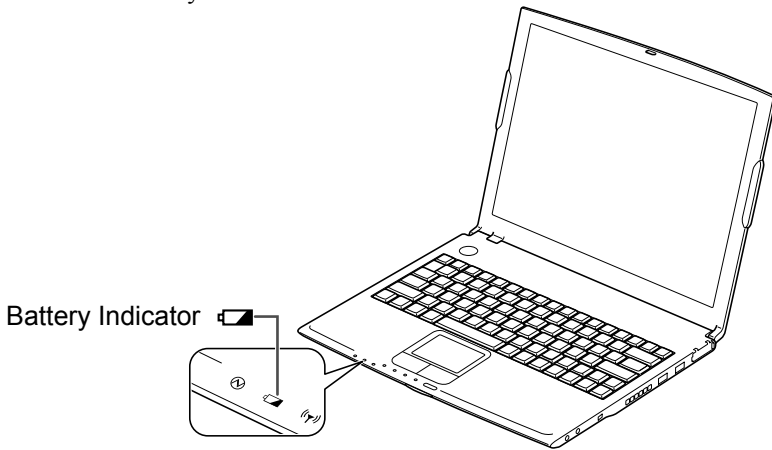
1. In the *Power Options Properties* dialog box, select *Advanced* tab.
2. Check *Always show icon on the taskbar* and click *OK*.
3. Close the *Control Panel* window.



- *The remaining operating time depends on the power you are consuming. If you are using the audio system, PC card slot, CF card slot, hard disk drive, or peripheral devices with your computer, it may consume more battery life.*
- *If the actual remaining power in your battery is less than what Power Meter indicates, you should condition the battery pack as per the procedure on Conditioning the Battery Pack section in this chapter.*

Low Battery Indication

When the battery power becomes significantly low, the battery indicator (🔋) blinks red, the warning beep sounds. Save your data and turn off the computer, or connect the computer to AC power immediately. Otherwise, the computer will be shut down and the data may be lost.



In Windows, the alarm will tell you when the battery drops to the specified level by sounding an alarm or displaying a message, and let your computer go on *System standby/System hibernate* or shut down automatically.

1. In the *Power Options Properties* dialog box, select *Alarms* tab.
2. Set the battery level at which the alarms are activated. We recommend you set *Critical battery alarm* to 5 % or more and *Low battery alarm* to more than the value of *Critical battery alarm*.
3. Set the *Alarm Action...* to the appropriate settings.
4. Click *OK* twice.
5. Close the *Control Panel* window.

Conditioning the Battery Pack

You need to condition the battery pack when the actual remaining power in your battery is less than what Windows Power Meter indicates, or you buy a new battery pack.

1. Connect the computer to AC power source and turn on the computer.
2. When the message *Press <F2> to enter SETUP* appears, press **F2** to open the Setup Utility.
3. Disconnect the AC adapter, and leave the computer on until the battery is completely discharged and the system shuts down automatically.
4. Connect the computer to AC power source and let the battery fully charged again.
5. Turn on the computer and follow the steps 2 to 4 again.
6. Restart the computer. The conditioning process completes.



*Do not connect the computer to wall outlet while discharging the battery.
The conditioning will be cancelled.*

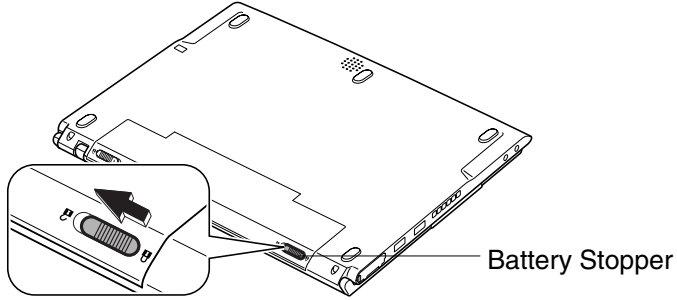
Changing the Battery Pack

The capacity of a battery pack gradually decreases when used repeatedly (the deterioration rate depends on the operating environment). If the battery life becomes extremely short even after the conditioning, you should buy a new standard battery pack (CE-BL17). An optional high capacity battery pack (CE-BL18) is also available in some countries.

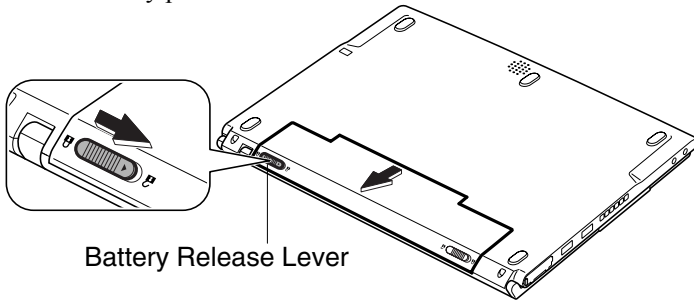
When you replace the battery pack with a new one:

1. Turn off the computer and disconnect the AC adapter from the computer.
2. Close the display cover and turn over the computer on a flat place.

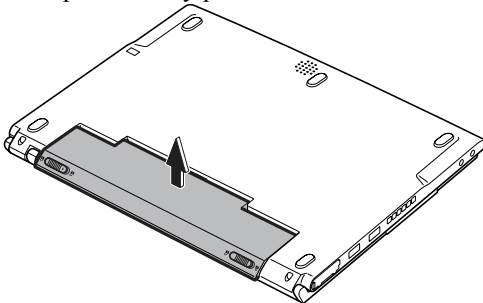
3. Slide the battery stopper to the unlocked position (Ⓐ).



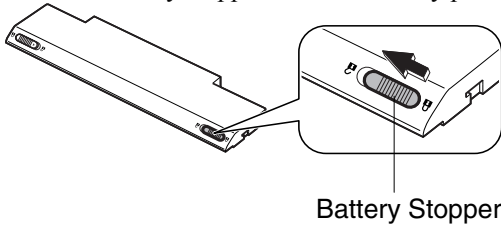
4. Slide the battery release lever to the unlocked position (Ⓐ) and hold it; then, pull out the battery pack.



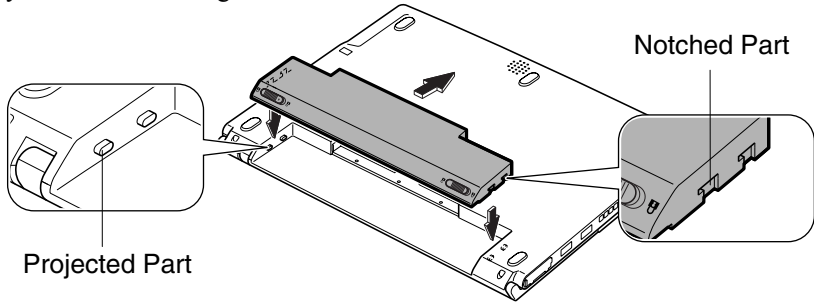
5. Lift up the battery pack and remove it from the computer.



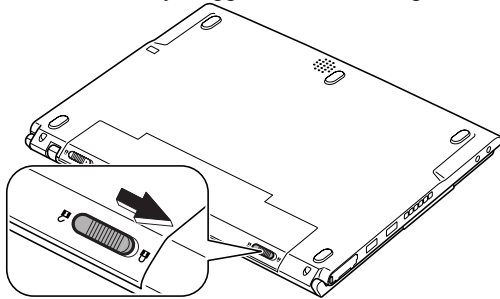
6. Slide the battery stopper of a new battery pack to the unlocked position (Ⓐ).



7. Insert the battery pack into the computer by matching the notched parts of the battery to the projected parts of the computer; then, push the battery pack until you hear the clicking sound.



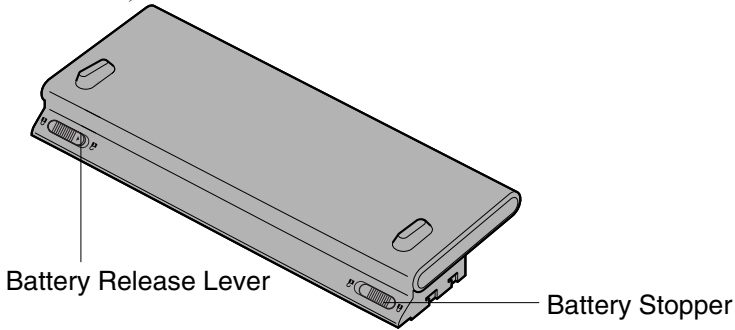
8. Slide the battery stopper to the locked position (Ⓐ).



9. Turn over the computer and it's ready to use.

Optional High Capacity Battery Pack

With an optional high capacity battery pack (CE-BL18), the computer is powered longer than with the standard battery pack only. (may not be available in some countries).



Never connect any high capacity battery packs but the optional ones (CE-BL18).

Connecting High Capacity Battery Pack

Follow the steps in *Changing the Battery Pack* in this chapter.

Charging High Capacity Battery Pack

Follow the steps in *Charging the Battery Pack* in this chapter.

Checking the Battery Level of High Capacity Battery Pack

Follow the steps in *Checking the Battery Level* in this chapter.

Conditioning the High Capacity Battery Pack

Follow the steps in *Conditioning the Battery Pack* in this chapter.

Power Management

Power management saves electricity and extends battery life by controlling power supply to built-in devices. You can set the following power management properties on Windows.

- Stopping power supply to the hard disk
- Stopping power supply to the display
- Controlling CPU speed
- Using System standby/hibernate

To open *Power Options Properties* dialog box, click *start – Control Panel*, and click *Performance and Maintenance*; then, *Power Options*. If Classic view is selected, double-click *Power Options* icon.



Note that the power management may not seem to function when you are using an application program that accesses the hard disk periodically.

Stopping Power Supply to the Hard Disk

1. In the *Power Options Properties* dialog box, select *Power Schemes* tab.
2. Set *Turn off hard disks* to an appropriate value, and click *OK*.
3. Close the *Control Panel* window.

Stopping Power Supply to the Display



This procedure is also effective for an attached external monitor complying with power management.

1. In the *Power Options Properties* dialog box, select *Power Schemes* tab.
2. Set *Turn off monitor* to an appropriate value, and click *OK*.
3. Close the *Control Panel* window.

Controlling CPU Speed

Windows XP controls the processor performance to reduce power consumption.



Do not control the processor performance, or connect/disconnect the AC adapter while communicating, or reading/writing data. Otherwise the computer may malfunction.

1. In the *Power Options Properties* dialog box, select *Power Schemes* tab.
2. Select an appropriate power scheme in *Power schemes* according to the table below, and click *OK*.
3. Close the *Power Options Properties* dialog box; then the *Control Panel* window.

Power Scheme	Processor Performance	
Home/Office Desk	Using AC Power	Always runs at highest performance state
	Using Battery	Performance state will be chosen based on CPU demand
Portable/Laptop	Using AC Power	Performance state will be chosen based on CPU demand
	Using Battery	Performance state will be chosen based on CPU demand
Presentation	Using AC Power	Performance state will be chosen based on CPU demand
	Using Battery	Uses liner performance reduction as battery discharges
Always On	Using AC Power	Always runs at highest performance state
	Using Battery	Always runs at highest performance state
Minimal Power Management	Using AC Power	Performance state will be chosen based on CPU demand
	Using Battery	Performance state will be chosen based on CPU demand
Max Battery	Using AC Power	Performance state will be chosen based on CPU demand
	Using Battery	Uses liner performance reduction as battery discharges



- *Note that Power schemes includes other power management settings (such as a timer for System standby, etc.) appearing on Power Schemes tab. Confirm those settings are set to the appropriate value when you select the processor performance using power schemes facility.*
- *You can set your own power scheme. Set all power management settings to your suitable ones, and click Save as...; then, type an appropriate name and click OK.*
- *Once the preinstalled power scheme settings listed on the previous page are deleted, there is no way but re-installation to resume them.*

Using System Standby/Hibernate

System standby/hibernate is a very useful power management tool. For example, after your computer has entered *System standby* mode, you can restart your computer more quickly when compared to a restart, after a normal shutdown operation. When your computer resumes from *System standby/hibernate*, the system restores the exact last state of the computer. In Windows, you can define *System standby* or *System hibernate* the system enters under what conditions.

- *System standby* stores the current condition of the computer in RAM and stops power supply to all but a few essential components. Your system enters and resumes from *System standby* per the conditions mentioned later. In *System standby*, the power indicator or the battery power indicator blinks green. To resume from *System standby*, operate the computer again.
- *System hibernate* saves the current condition of the computer in an area of the hard disk and turns off the computer. Your system enters and resumes from *System hibernate* per the conditions mentioned later. In *System hibernate*, the power indicator or the battery power indicator turns off. To resume from *System hibernate*, press the power button.



When entering/resuming from System standby/hibernate, follow the instructions below:

- *Finish communications, printing, and playing music or video before entering System standby/hibernate.*
 - *Do not operate the computer or peripheral devices, or connect/disconnect peripheral devices, while entering/resuming from System standby/hibernate.*
 - *While operating with a battery, the computer may not resume from System standby/hibernate if the battery capacity is not enough. In this case, connect the AC adapter to your computer.*
 - *Save your data before your computer enters System standby. If the power supply to the computer is stopped, the RAM contents will be lost.*
 - *Select your user account if Windows requires when the computer resumes from System standby/hibernate.*
-

Supporting System Hibernate



If your battery becomes completely discharged during System standby, you will lose unsaved data and will need to reboot your computer. Therefore, if you are planning to leave your computer powered by battery for long periods of time, we recommend System hibernate.

Confirm that *System hibernate* is supported with the following steps below.

1. In the *Power Options Properties* dialog box, select *Hibernate* tab.
2. Confirm *Enable hibernation* is checked.
3. Click *OK*.
4. Close the *Control Panel* window.

Set Timer to Enter System Standby/Hibernate Automatically

Your computer will enter System standby/hibernate automatically when the specified time has passed without any operation. To set the time:

1. In the *Power Options Properties* dialog box, select *Power Schemes* tab.
2. From the pull-down menu of *System standby* or/and *System hibernates*, select the elapsed time before the computer automatically enter System standby/hibernate.
3. Click *OK*.
4. Close the *Control Panel* window.

Entering System Standby/Hibernate

Your computer enters *System standby/hibernate* in each of the following cases:

- You select *Stand By* or *Hibernate* (which will replace *Stand By* if you press **Shift** key) in the *Turn off computer* dialog box. To open the dialog box, click *start – Turn Off Computer*.
- The specified time in *System standby* or *System hibernates* in *Power Schemes* tab of *Power Options Properties* dialog box has passed without any operation (See the previous section).
- The screen cover is closed.

The above functions if you perform the following:

1. In the *Power Options Properties* dialog box, select *Advanced* tab.
2. Select *Hibernate* or *Stand by* in *When I close the lid of my portable computer* field.
3. Click *OK*.
4. Close the *Control Panel* window.

- You press the power button.

The above functions if you perform the following:

1. In the *Power Options Properties* dialog box, select *Advanced* tab.
2. Select *Hibernate* or *Stand by* in *When I press the power button on my computer* field.
3. Click *OK*.
4. Close the *Control Panel* window.

- You press **Fn+F12**.

The above functions if you perform the following:

1. In the *Power Options Properties* dialog box, select *Advanced* tab.
2. Select *Hibernate* or *Stand by* in *When I press the sleep button on my computer* field.
3. Click *OK*.
4. Close the *Control Panel* window.



*If Ask me what to do is selected in the step 2 of You press the power button or You press **Fn+F12**, the Turn off computer dialog box will appear when you press the power button or **Fn+F12** key combination. You can select System standby or System hibernate at that timing.*

- The battery level is low.

The above functions if you set the alarm in Windows. See *Low Battery Indication* in this chapter.

Disabling Power Management

1. In the *Power Options Properties* dialog box, select *Power Schemes* tab.
2. Set *Turn off monitor*, *Turn off hard disks*, *System standby*, and *System hibernates* to *Never*; then, click *OK*.
3. Close the *Control Panel* window.

Peripherals

This chapter describes how to use peripheral devices with your computer. You can connect a floppy disk drive unit, a CD-ROM drive unit, a printer, an external monitor, an IEEE 1394 device, PC cards, CF cards, or other devices to your computer. To ensure proper use, be sure to read the instructions for each peripheral device before connecting it to your computer.

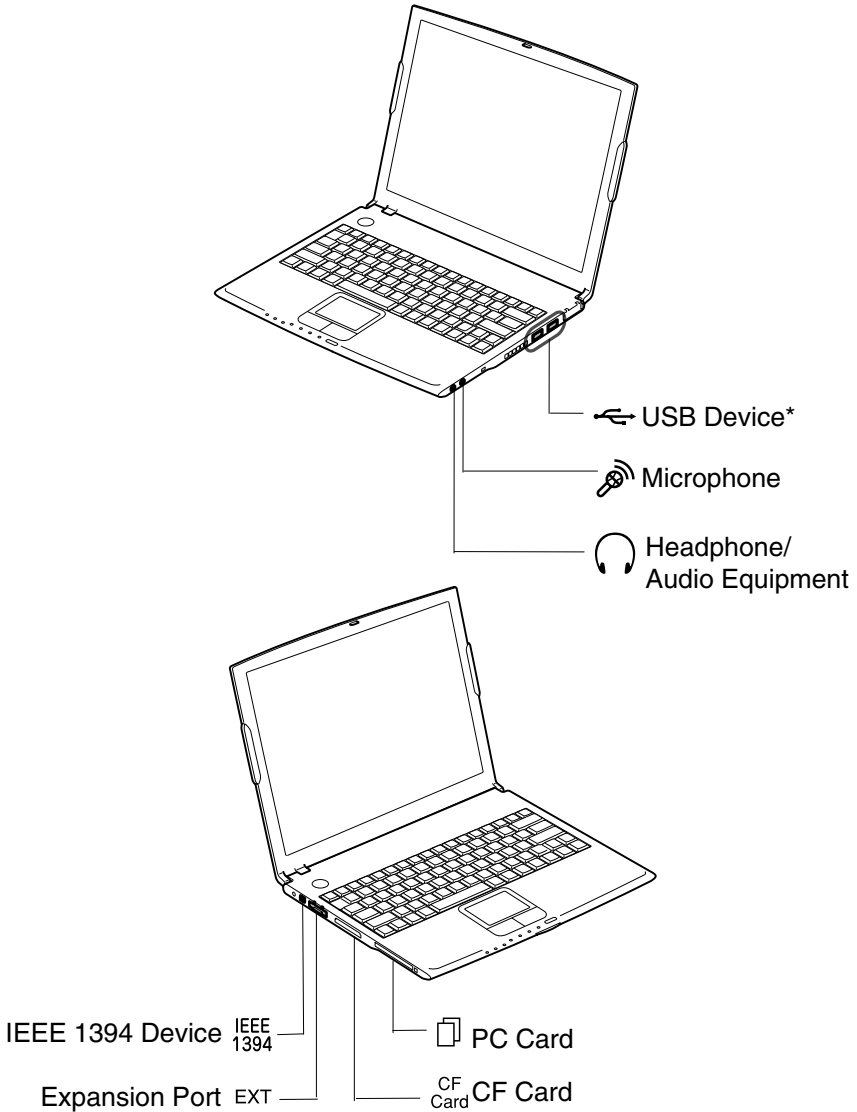
Using Peripherals

You can use the peripheral devices shown on the next page. For the details, refer to the section explaining each device, or contact your dealer.



- *Be sure to turn off the computer and the peripheral devices before connecting them (except when inserting a PC card or a CF card or connecting USB devices, an IEEE 1394 device, etc.).*
- *Confirm the peripheral device you will connect is Windows XP compatible.*
- *Some devices have to be turned on after the computer is turned on.*
- *Some devices require that you install the drivers before use (You may need to connect the optional external floppy disk drive unit or the external CD-ROM unit to install the drivers.)*

Peripheral Connection Overview



*Including the optional external floppy disk drive unit (CE-FD05) and the external CD-ROM drive unit (CE-CD05).

Optional External Floppy Disk Drive Unit

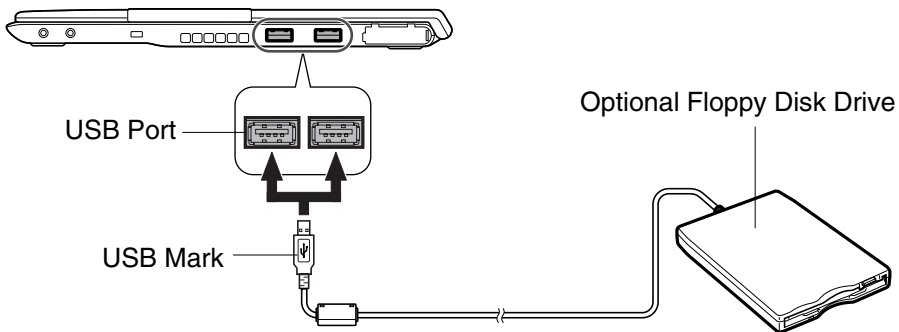
You can use double-density (2DD) 720KB or high-density (2HD) 1.44MB floppy disks with the optional external floppy disk drive unit (CE-FD05).

Connecting the Optional External Floppy Disk Drive Unit



- Do not place the floppy disk drive unit on its side or upside down.
 - Do not press on the floppy disk drive unit. It may damage the drive or cause malfunction.
 - Do not place the AC adapter on the floppy disk drive unit. It may cause the drive to malfunction.
-

Connect the floppy disk drive unit cable to either of the USB ports on the right side of the computer. Be sure to let the USB mark side up when connecting the cable to the computer.

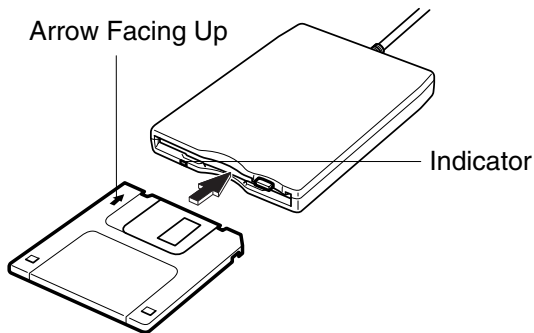


Handling Floppy Disks

- Do not open the shutter and touch the disk inside; otherwise, you will not be able to read or write data to the disk.
- Do not place floppy disks near magnets or heat source, in direct sunlight or in a dusty place, etc.
- Never subject a disk to sudden shocks or extreme vibration. Do not drop, bend, or place heavy objects on a disk.
- Do not spill liquid onto a disk.

Inserting a Floppy Disk

Hold the floppy disk with the arrow facing up, toward the drive. Slide the disk into the drive until it locks into place.



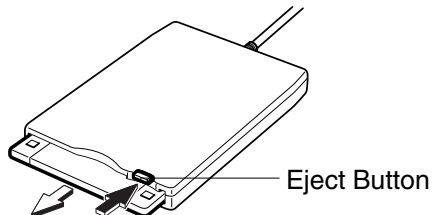
- *Always insert a floppy disk straight into the floppy disk drive.*
 - *When inserting the disk, make sure it is not upside down.*
 - *Do not use excessive force when inserting the floppy disk. If you have difficulty inserting or removing disks, seek the assistance of an authorized service technician.*
 - *Do not touch the disk while reading/writing data. It may cause malfunction of the computer and the drive.*
-

Ejecting a Floppy Disk



Before ejecting the floppy disk, make sure the indicator of the floppy disk drive unit is not lit.

Press the eject button firmly. The disk pops out slightly. Eject it and store it properly.



Formatting a Floppy Disk


1. Make sure the floppy disk is not write-protected, and insert it into the floppy disk drive.
2. Click *start - My Computer*.
3. Right-click *3 1/2 Floppy (A:)* icon; then, click *Format...* from the pop-up menu.
4. Select the appropriate formatting options.
5. Click *Start* to start formatting.



- *When you format a floppy disk, all data previously stored on the disk is lost.*
 - *You cannot format a double-density (2DD) 720KB floppy disk.*
-

Removing Optional External Floppy Disk Drive Unit

To remove the unit, you need to perform the following steps before you remove it:

1. Click *Safely Remove Hardware* icon () on the taskbar.
2. Click *Safely remove Mitsumi USB Floppy – Drive(A:)*; then, *Safe To Remove Hardware* dialog appears.
3. Remove the unit from the computer.

External CD-ROM Drive Unit

A compact disc (CD) is a storage medium, with which you can read data, play music, install and run programs, etc. The external CD-ROM drive unit (CE-CD05) can be connected to either of the USB ports on the right side of the computer.

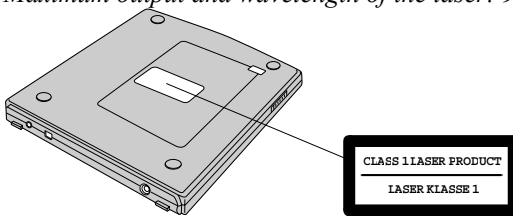


In some countries, the external CD-ROM drive unit (CE-CD05) is not supplied with the computer, although it is provided as an option.



CAUTION FOR LASER

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. Maximum output and wavelength of the laser: 903 μ W, 785nm



Precautions

- Do not disassemble the CD-ROM drive unit and do not repair it by yourself. Doing so may cause electrical shock hazard, or a laser may damage your eyes.
- Do not store or use the CD-ROM drive unit in a dusty, humid, oily environment, or under damp or moist conditions.
- Do not turn up the volume too high, when using the headphones.
- Do not leave the CD-ROM drive unit in direct sunlight, near a heat source or especially in a hot automobile.
- Do not drop or jar the CD-ROM drive unit.
- Do not touch the pins/terminals of the USB cable.
- When the CD-ROM drive unit has been moved from a cold place to warm place, it may damp or moist. Leave it for about 1 hour before using.
- Keep magnetic objects away from the CD-ROM drive unit.
- Do not insert any foreign metal object inside the CD-ROM drive unit.
- Do not touch the lens.

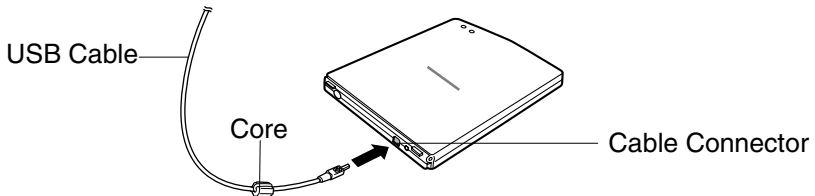
- If noise is heard from radio or TV, move the CD-ROM drive unit 6 ft. (about 2 m) away from the radio or TV.

Connecting the External CD-ROM Drive Unit

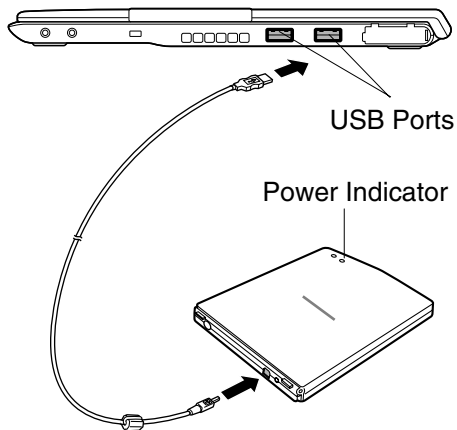


- *Do not place the CD-ROM drive unit on its side or upside down.*
 - *Do not press on the CD-ROM drive unit. It may damage the drive or cause malfunction.*
 - *Do not place the AC adapter on the CD-ROM drive unit. It may cause the drive to malfunction.*
-

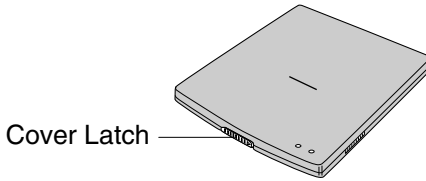
1. Connect the core side connector of the included USB cable to the cable connector of the drive unit.



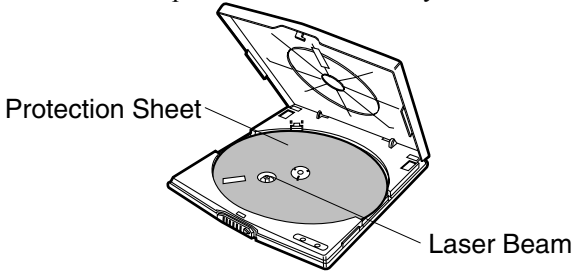
2. Insert the USB connector of the cable into one of the USB ports of the computer. The CD-ROM drive unit automatically turns on and the power indicator lights up.



- Slide the cover latch to the right and open the cover.



- Remove the protection sheet before you use the drive for the first time.



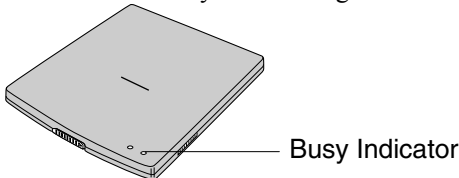
Handling CDs

- Do not write on either side of the disk, particularly the non-label side. Data is read from the non-label side. Do not mark this surface.
- Keep your disks away from direct sunlight, heat and excessive moisture.
- Always hold the CDs by the edges. Fingerprints, dirt or water on the CDs cause noise or improper tracking. If a CD is dirty or does not play properly, clean it with a soft, dry cloth, wiping straight out from the center, along the radius.

Inserting a CD

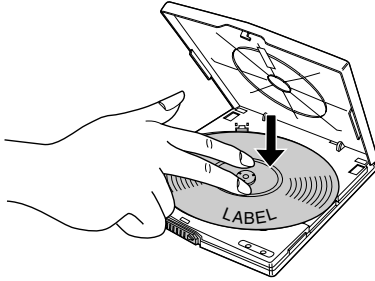
You can operate the external CD-ROM drive unit only when the computer is on.

- Make sure the busy indicator light is not on.



- Slide the cover latch to the right to open the cover and raise it.

- Place your CD onto the disk spindle and press on the center of your CD with label side up, until it locks onto the disk spindle.



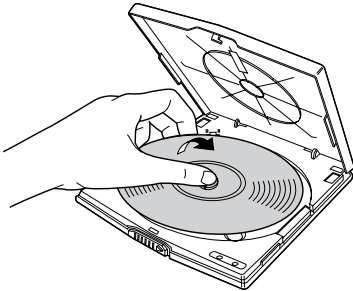
- Close the disk cover.



- Insert a CD firmly until it is locked onto the spindle; then, close the disk cover, or the disk may fall off the spindle and get damaged.
- Do not leave the tray open. Also, avoid touching the lens in the tray. If the lens becomes dirty, the CD-ROM may malfunction.
- Do not wipe the lens with materials with rough surface (such as paper towels). Instead, use a cotton swab to gently wipe the lens.

Removing a CD

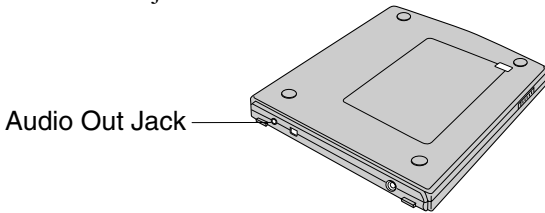
- Make sure the busy indicator is not lit.
- Slide the cover latch to the right and open the cover.
- Press down the disk spindle and remove the CD from the tray holding its edge.




- Make sure the busy indicator is not lit or blinking before opening the disk cover.
- When opening the cover, if the CD is still spinning, wait until it has stopped, then remove it.

Playing a CD

With some CD-ROMs, you can hear the sound of them through the audio out jack of the CD-ROM drive unit. Connect headphones or speaker system with an amplifier to the audio out jack.

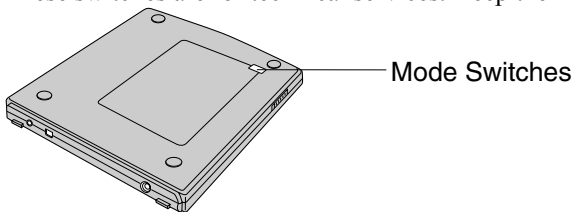


Removing the External CD-ROM Drive Unit

1. Click *Safely Remove Hardware* icon () on the taskbar.
2. Click *Safely remove USB Mass Storage Device*; then, *Safe To Remove Hardware* dialog appears.
3. Remove the USB cable from the computer.

Mode Switches

There are the mode switches on the bottom of the CD-ROM unit. These switches are for technical services. Keep them as a default setting, *OFF*.



Cleaning the External CD-ROM Drive Unit

- Do not use solvents such as benzine, thinner, alcohol, record cleaner or anti-static spray.
- Clean the outside of the drive with a soft, dried cloth.
- Clean the lens with a commercial lens blower if the lens is dirty.

Display

You can use an external monitor with your computer. To display the images on both displays simultaneously, use the 1024x768 resolution.

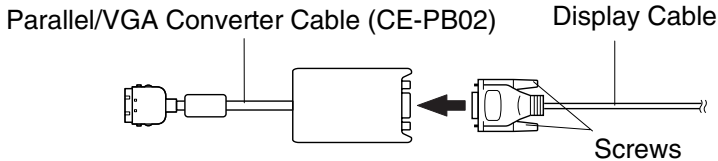


- *Some monitors, which are not compatible with your computer, may not display correctly.*
- *In this section, you often see the expression “Display Properties dialog box.” To open the dialog box, right-click somewhere on the Windows desktop and select Properties from the pop-up menu.*

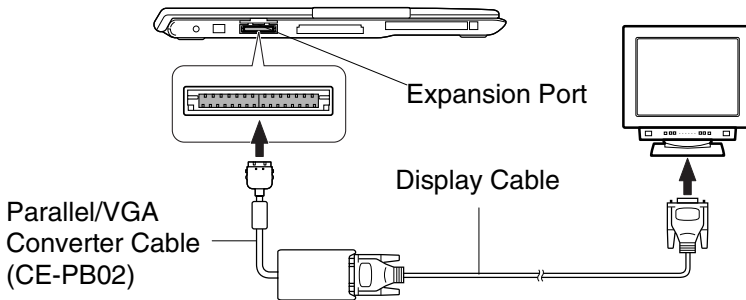
Connecting an External Monitor

Use the provided parallel/VGA converter cable (CE-PB02) to connect an external monitor with your computer.

1. Turn off the computer and the external monitor.
2. Connect the provided parallel/VGA converter cable with the display cable as shown below. If the display cable has screws, make sure to tighten them.



3. Open the cover of the expansion port on the left side of your computer.
4. Connect the parallel/VGA converter cable to the expansion port, then, the other end of the display cable to your external monitor. If the display cable has screws, be sure to tighten them.



5. Turn on the external monitor; then, the computer.

Disconnecting an External Monitor

1. Turn off the computer and the external monitor.
2. Loosen both screws of the display cable if it has, and remove the connector from your external monitor.
3. Press the buttons on both sides of the connector of the parallel/VGA converter cable and hold them; then, remove it from the computer.



Make sure to close the cover after you finish using the expansion port to avoid being damaged.

Displaying on an External Monitor

To display the image on an external monitor, you may need to install the driver for your external monitor. Before using the external monitor, refer to the manual included with your external monitor.

Switching the Display

1. In the *Display Properties* dialog box, select *Settings* tab; then, click *Advanced* button.
2. Select *Intel® Graphics Technology* tab; then, click *Graphics Properties...*
3. Select the output display and click *OK*.
4. Click *OK* three times and close the *Control Panel* window.



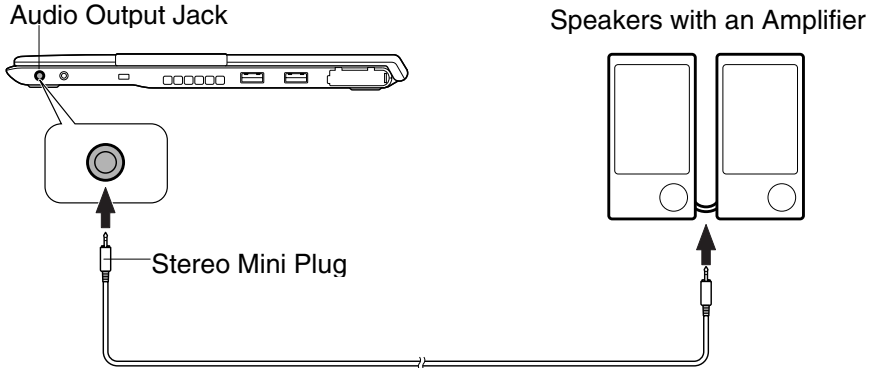
- *You can also switch the display with **Fn+F5**.*
- *When you log on the computer as a member of the Limited group, you cannot switch the display with the dialog box. Use **Fn+F5** keys.*
- *While playing video or animation, you may not be able to switch the display.*
- *The screen may be distorted when you switch the display. In this case, refresh the screen by right-clicking on the Windows desktop and clicking Refresh in the pop-up menu.*

Audio System

You can output sound to speakers, audio equipment or headphones.

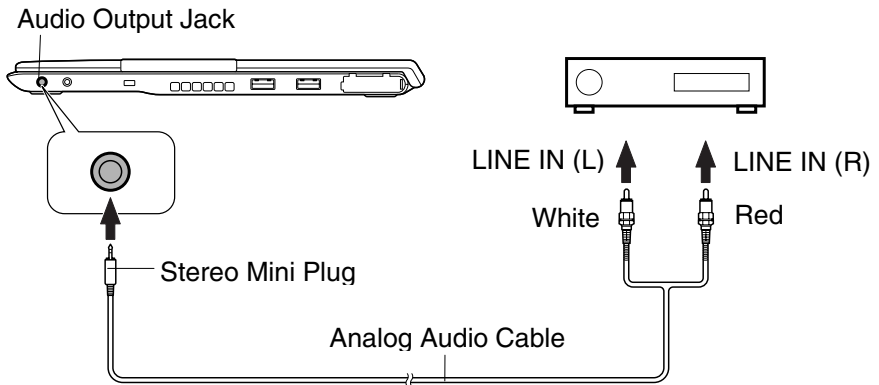
Connecting Speakers

You can connect stereo speakers with an amplifier to the audio output jack on the right side of the computer



Connecting Audio Equipment

You can connect analog audio equipment to the audio output jack on the right side of the computer.

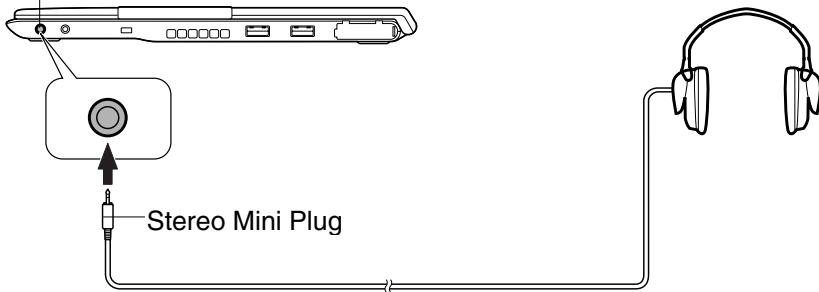


*You can adjust the output volume on Windows by double-clicking the speaker symbol on the taskbar or use **Fn + F3** or **F4** keys combination.*

Connecting a Headphone

Use the headphone with an impedance of more than 8Ω . (32Ω is recommended.)

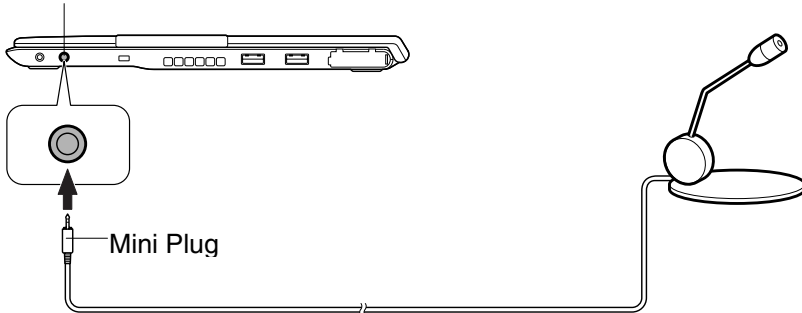
Audio Output Jack



Connecting a Microphone

You can input sound using an external microphone connected to the microphone jack. Use an electret condenser microphone with an impedance of $2.2k\Omega$ and an allowable voltage of 2V.

Microphone Jack



To record sound:

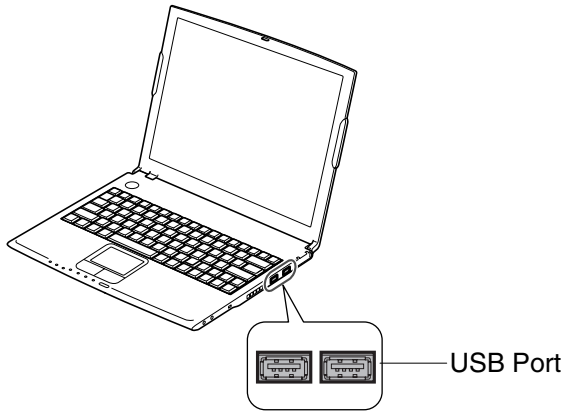
1. Click *start*; then, point *All Programs – Accessories – Entertainment*.
2. Click *Sound Recorder*.
3. See *Help for Sound Recorder* for more information.

USB Device



Your computer has an interface called Universal Serial Bus (USB) and its two USB ports support USB1.1 and USB2.0. With a USB connection, you can connect/disconnect peripherals without turning off the computer. Generally, when you connect a device to the computer, the necessary driver will be installed automatically. See also the manuals of peripheral devices supporting USB.



When a new device is correctly connected to the computer, the appropriate driver is automatically installed. If the driver is not installed correctly, you will see the message on the screen. In this case, install the driver with the instructions on the screen.



To remove USB devices, you may need to perform the following instructions before you remove them:

1. Click *Safely Remove Hardware* icon () on the taskbar. If you cannot find the icon, click  to show all kinds of icons. If the icon does not appear, go to Step3.
2. Click *Safely remove xxxx* (xxxxx is the name of your USB device); then, *Safe To Remove Hardware* dialog appears.
3. Remove the device from the computer.

PC Card

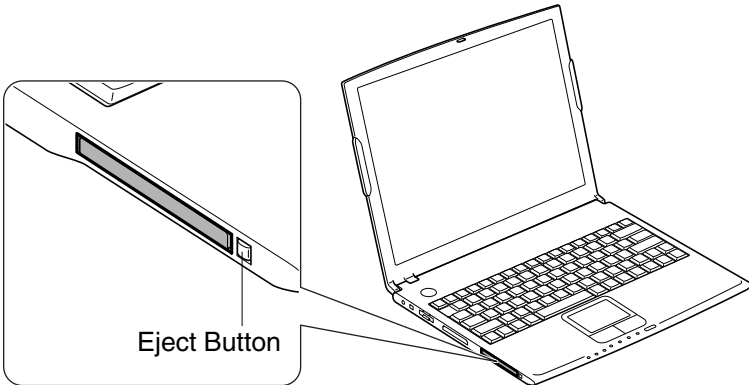
Your computer is equipped with a PC card (PCMCIA) slot, which can accommodate a Type II card or a CardBus compliant card. You can insert/eject the card without turning off the computer. Before inserting a PC card into the slot, refer to its manual.

Inserting a PC Card

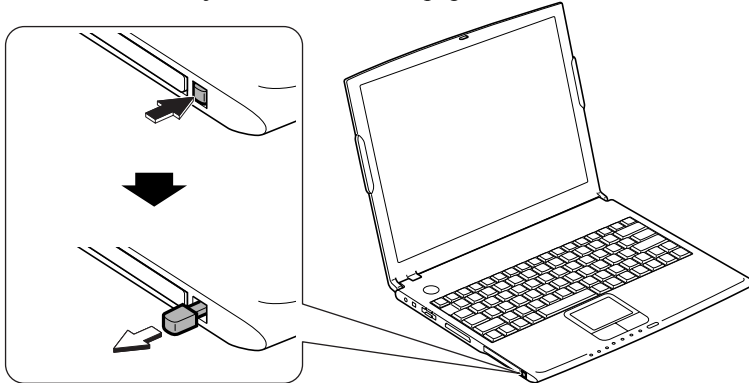


When a new card is correctly inserted, the appropriate driver is automatically installed. If the driver is not installed correctly, you will see the message on the screen. In this case, install the PC card driver by following the instructions on the screen.

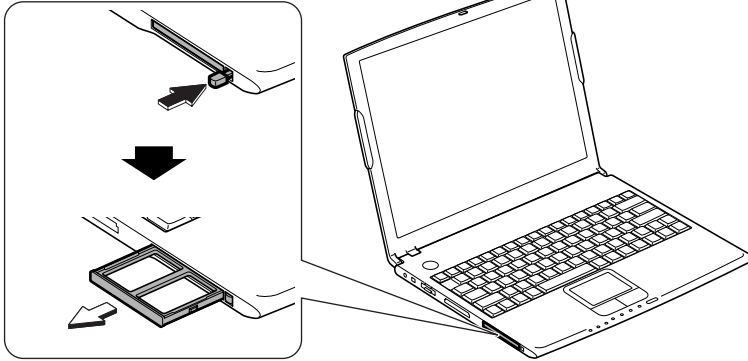
1. Confirm the PC card eject button is inside the computer cabinet.



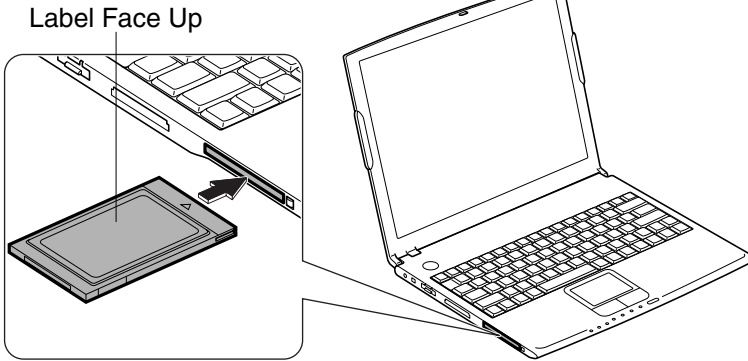
2. Push the PC card eject button so that it pops out from the side of the computer.



3. Push the PC card eject button again and remove the protection card.



4. Push the PC card eject button all the way inside the cabinet for safekeeping.
5. Insert a PC card into the slot with the label face up until it locks into place.



If the dialog box asking you *What do you want Windows to do?* appears, select the task you want.

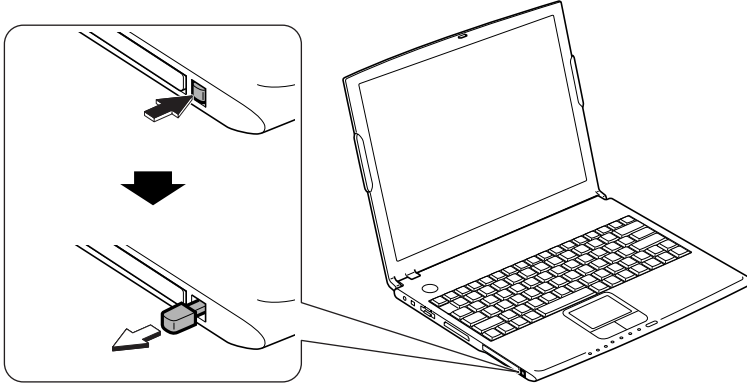
Ejecting a PC Card



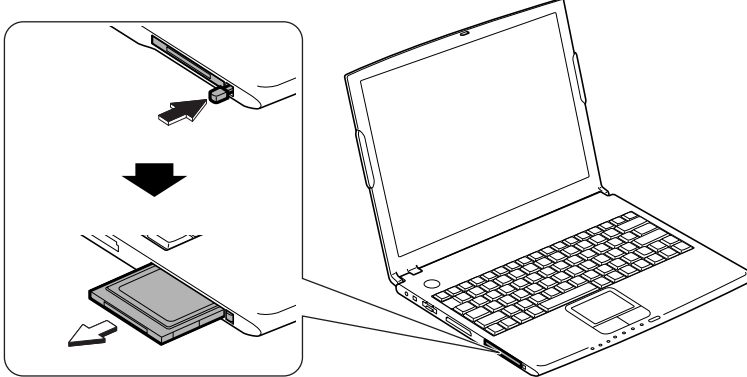
- *Some PC cards may become hot after long use.*
 - *Be sure to use the procedure below when ejecting a PC card. Otherwise, the system may not work properly.*
-

1. Click *Safely Remove Hardware* icon () on the taskbar. If you cannot find the icon, click  to show all kinds of icons.

- Click *Safely remove xxxx* (xxxxxx is the name of your PC card); then, *Safe To Remove Hardware* dialog appears.
- Push the PC card eject button so that it pops out from the side of the computer.



- Push the eject button so that the inserted PC card pops out; then, remove it.



- Push the PC card eject button all the way inside the cabinet for safekeeping.
- Insert the protection card.



Be sure to insert the protection card after you finish using the PC card slot to protect the PC card slot from being damaged.

CF Card

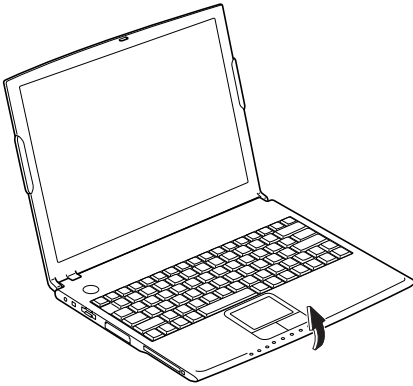
Your computer is equipped with a CF card slot, which can accommodate a Type II card compliant with CompactFlash standard. You can insert/eject the card without turning off the computer. Before inserting a CF card into the slot, refer to its manual.

Inserting a CF Card

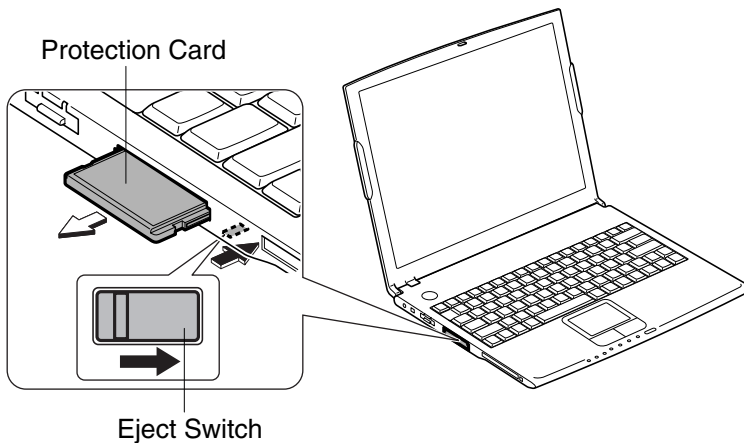


When a new card is correctly inserted, the appropriate driver is automatically installed. If the driver is not installed correctly, you will see the message on the screen. In this case, install the CF card driver by following the instructions on the screen.

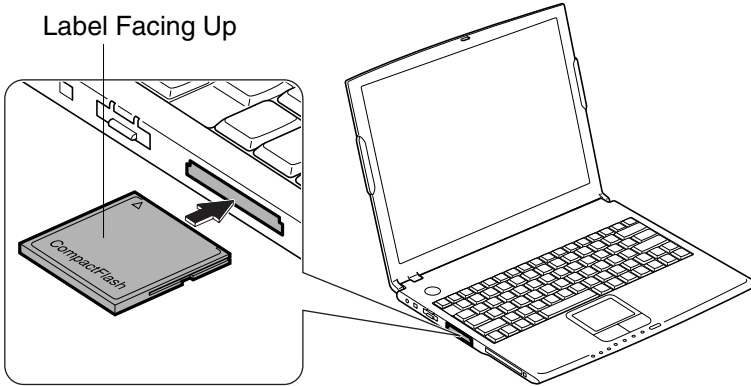
1. Lift up the front of the computer.



2. Slide the CF card eject switch inward, which is on the bottom of the computer and remove the protection card.



3. Insert a CF card into the slot with the label face up until it locks into place.





If the dialog box asking you *What do you want Windows to do?* appears, select the task you want.

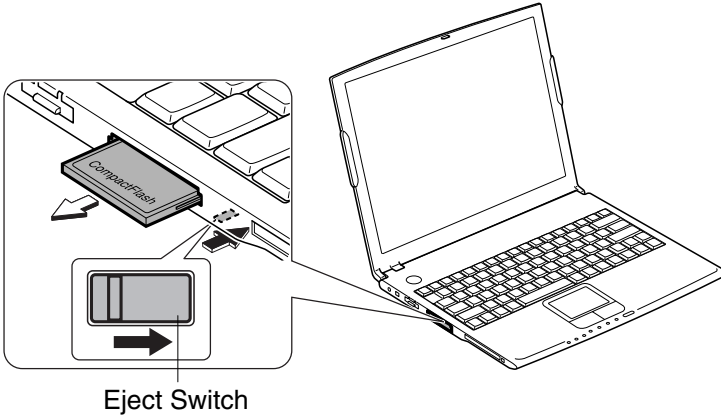
Ejecting a CF Card



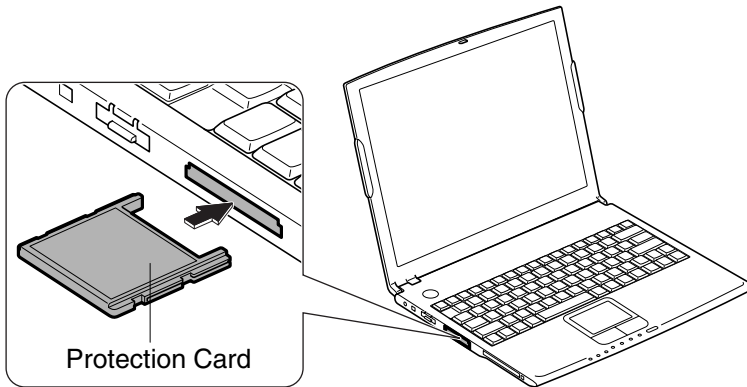
- *Some CF cards may become hot after long use.*
 - *Be sure to use the procedure below when ejecting a CF card. Otherwise, the system may not work properly.*
-

1. Click *Safely Remove Hardware* icon () on the taskbar. If you cannot find the icon, click  to show all kinds of icons.
2. Click *Safely remove xxxx* (xxxxx is the name of your CF card); then, *Safe To Remove Hardware* dialog appears.

3. Lift up the front of the computer and slide the CF card eject switch inward, which is on the bottom of the computer and remove the CF card.



4. Insert the protection card.



Be sure to insert the protection card after you finish using the CF card slot to protect the CF card slot from being damaged.

Printer

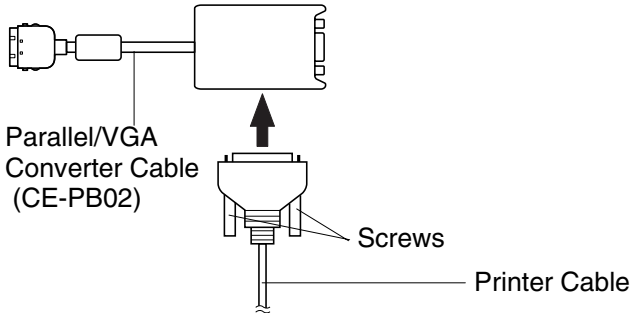
You can connect a printer to the expansion port with the provided parallel/VGA converter cable (CE-PB02) or either of the USB ports for the printer.



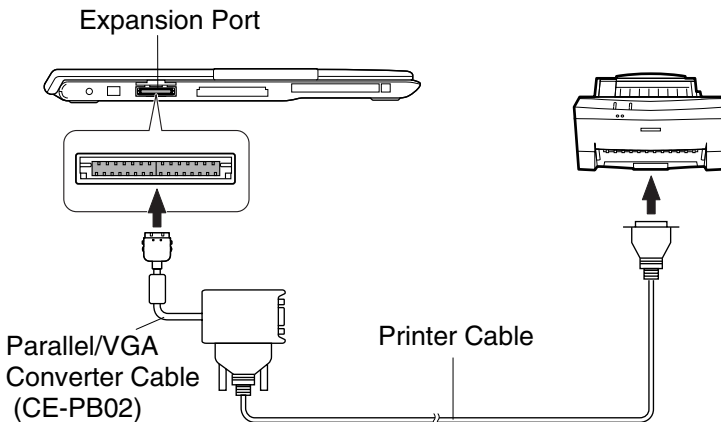
Before using a printer, read the printer manual and install the printer driver.

Connecting to the Expansion Port

1. Turn off the computer and the printer.
2. Connect the provided parallel/VGA converter cable with the printer cable. If the printer cable has screws, make sure to tighten them.



3. Open the cover for the expansion port on the left side of the computer; then, connect the parallel/VGA converter cable to the expansion port and the other end of the printer cable to the printer.



4. Turn on the printer; then, the computer.



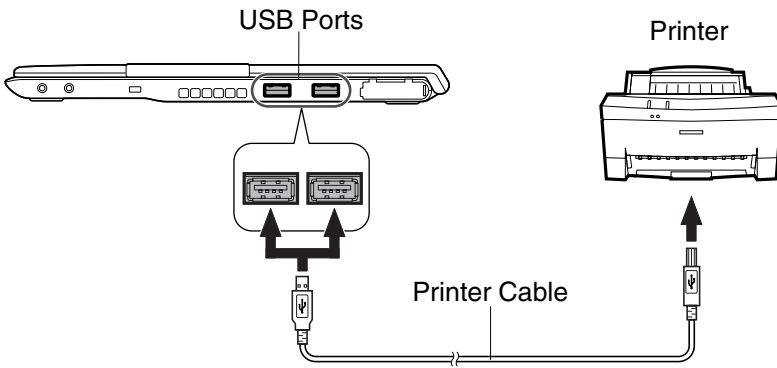
To avoid damaging the expansion port, close the expansion port cover after you disconnect the parallel cable from the port.

Connecting to the USB Port



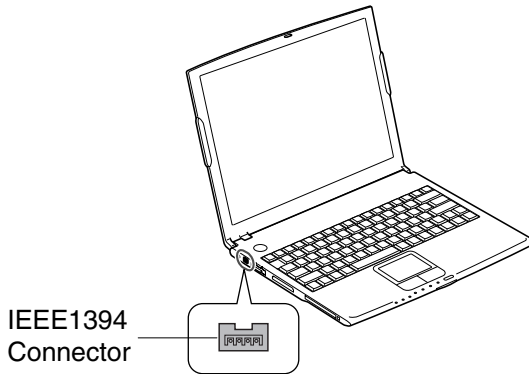
Be sure to read the printer manual before connecting the USB printer to the computer. Some printer may not use New Hardware Find wizard to install the printer driver.

You can connect the USB printer to the computer without turning off the computer.



IEEE 1394 Device

You can connect an IEEE 1394 device to the IEEE 1394 connector on the left side of the computer. The IEEE 1394 is digital interface for handling digital video, digital audio and other data in two directions between devices, and for controlling other equipment.



When two or more IEEE 1394 compatible devices are connected to the computer in a daisy chain, operations and data transactions are possible not only with the equipment that is directly connected, but also with other devices via the directly connected device.



- *Confirm the IEEE 1394 device you will connect is Windows XP compatible.*
- *Some IEEE 1394 devices require that you install drivers before use.*
- *Use AC power source for the computer especially when reading/writing the data.*

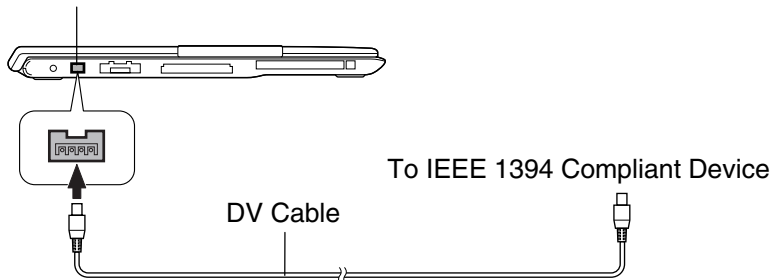
Connecting an IEEE 1394 Device



- You need not turn off the computer before connecting the device.
- Be sure to read the manuals of the IEEE 1394 device before connecting it to the computer.



1. Connect the end of the DV cable into the IEEE 1394 connector of the computer.
2. Connect the other end of the DV cable into the DV connector of the IEEE 1394 device.

IEEE 1394 connector



3. Install the driver according to the instructions on the screen. Generally when you connect the device to the computer, the necessary driver will be installed automatically.
4. Start the appropriate application for handling your data.

Disconnecting an IEEE 1394 Device

1. Click the *Safely Remove Hardware* icon () on the taskbar. If you cannot find the icon, click  to show all kinds of icon. If the icon does not appear, go to Step 3.
2. If the name of your device appears, click *Safely remove xxxxx* (xxxxx is the name of your IEEE 1394 device.); then, *Safe To Remove Hardware* dialog appears.
3. Remove the DV cable from the computer.

Communication Functions

This chapter explains how to use the built-in modem, the wired LAN unit and the wireless LAN function.

Built-in Modem

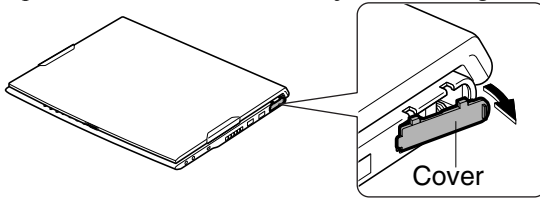
You can use the built-in modem for data transfer and fax communication.



- *The built-in modem on your computer is designed only for regular analog telephone lines. The modem may be damaged when connected to a digital ISDN terminal or a digital PBX.*
 - *Use TA (terminal adapter) to connect the built-in modem to a digital telephone line.*
 - *If an unusual device is attached to the line you are connecting to, the modem may not function properly. Remove the device or contact the dealer of the device.*
 - *Before connecting to a PBX, consult the PBX maintenance staff or its service company. If the electric characteristics of your PBX are different from those of a regular analog line, the modem will not function properly. If you connect the modem to a digital PBX, both the modem and the PBX may be damaged.*
-

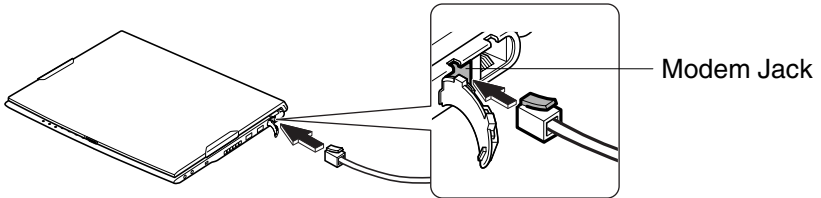
Connecting the Modem To a Telephone Line

1. Turn off your computer.
2. Open the cover for the modem jack on the right side of your computer.



To avoid damaging the modem, close the cover after you finish using the built-in modem.

3. Connect one end of the included modem cable to the modem jack.



Do not insert the modem cable into the LAN jack. It may damage the LAN jack or the modem cable.

4. Connect the other end of the modem cable to the telephone line.
5. Turn on the computer.



Connect the modem to the telephone line directly. Do not use a distributor or allotter.

Configuring the Modem

You may have already configured your modem during Windows Setup process. Otherwise, make the necessary adjustments as shown below.

Modem Configuration

When you use the modem first time, you must type your location's information.

1. Click *start - Control Panel - Printers and Other Hardware*; then, *Phone and Modem Options*. If Classic view is selected, double-click *Phone and Modem Options* icon.
2. In *Location Information* dialog box, select your country, type your area code, etc., and select your dial type; then, click *OK*.

After the configuration, click or double-click *Phone and Modem Options* (icon) to open *Phone and Modem Options* dialog box and double-click the location name of *Locations* in *Dialing Rules* tab for the information you set above.

You can change the settings or make a new location by clicking *Edit...* or *New...*

Internet Connection

Windows XP has a special Internet Connection Wizard to help you to connect to the Internet with ease. Click *start - Control Panel*. Click *Network and Internet Connections*; then, *Network Connections*. If Classic view is selected, double-click *Network Connections* icon. In *Network Connections* dialog box, click *Create a new connection* of *Network Tasks*. When the *New Connection Wizard* dialog box appears, follow the instructions on the screen. If you plan on connecting to the Internet by using the modem to dial an Internet Service Provider (ISP), have your account information and dial-up number ready before you begin the wizard. Once you set your connection, you can see or edit the connection status by double-clicking the icon appearing on *Dial-up* of *Network Connections* dialog box.

Power Management

To use communication software, you may have to disable power management. See *Disabling Power Management* of Chapter 3.



- See also the manual or online help of the software you are using.
- Within the communications software you are using, set the COM port of the built-in modem to COM3.
- Do not enter System standby/hibernate while using communication software.
- The communication speed may vary depending on the traffic, local telecommunications infrastructure, and ISP (Internet Service Provider) infrastructure.
- Before commencing with fax communication, it is recommended that you exit other application programs.

LAN unit

You can connect to a LAN (Local Area Network) with the 100 Base-TX/10 Base-T LAN units on your computer. To activate the LAN unit, perform the following steps.



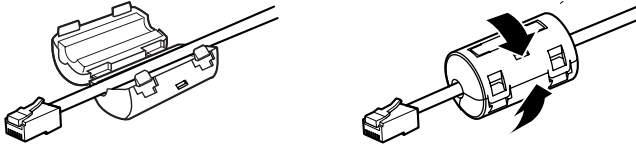
Never insert any cables, but a LAN cable, which have different electric characteristics from those of the LAN cables. Otherwise, the LAN unit and the cables may be damaged.



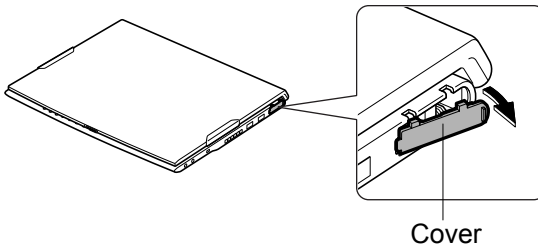
Use a category 3 or a category 5 LAN cable when connecting to 10 BASE-T LAN, and the category 5 only when connecting to 100 BASE-TX LAN.

Connect the Computer To LAN

1. Turn off the computer.
2. If your computer is provided with the LAN cable, go to Step 4. If with the core for a LAN cable, go to the next step.
3. Attach the provided core to one end of your LAN cable. Insert the cable into the core and close the core until it clicks.

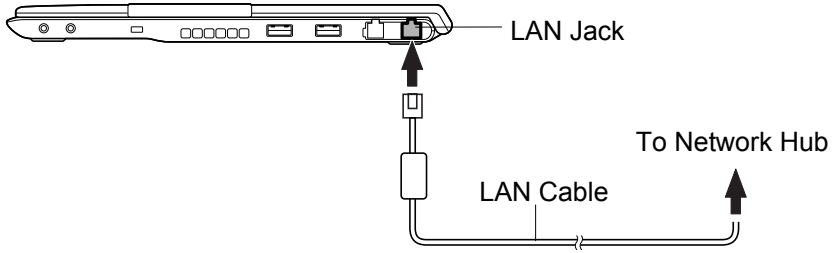


4. Open the cover for the LAN jack on the right side of your computer.



To avoid damaging the LAN unit, close the cover after you finish using the LAN unit.

5. Connect the core end of the LAN cable to the LAN jack and the other end to the network hub.



Do not insert the LAN cable into the modem jack. It will damage the LAN cable and the modem jack.

6. Turn on the computer.

Configuring the LAN Unit

1. Click *start - Control Panel*.
2. Click *Network and Internet Connections*; then, *Network Connections*. If Classic view is selected, double-click *Network Connections* icon.
3. Right-click *Local Area Connection*.
4. From the pop-up menu, click *Properties*.
5. In the *Local Area Connection Properties* dialog box, set the network setting according to the instruction of your network administrator.



- *Attach the provided core to your LAN cable to insure compliance with requirements of EMC regulations for computing equipment. If your computer is provided with a LAN cable, always use that LAN cable. If your LAN cable has no core attached, please attach the provided core before use.*
- *Make sure to log on the computer as a member of the Computer administrators group. Otherwise, you cannot set or change some settings for the LAN unit.*

If you cannot access the network,

1. Click *start - Control Panel*.
2. Click *Performance and Maintenance*; then, *System*. If Classic view is selected, double-click *System* icon.
3. Click *Hardware* tab; then, *Device Manager* button.
4. Double-click *Network adapters*, then, *Realtek RTL8139 xxxxx*.
5. Click *Advanced* tab, and select *Link Speed/Duplex Mode* in *Property* list and select an appropriate value in *Value* pull-down menu.
6. Click *OK* and close the *Device Manager* window.
7. Click *OK* and close the *Control Panel* window.

Wireless LAN (may not be available in some countries)

Your computer has an integrated wireless LAN function compliant with IEEE 802.11b standard. You can access the network by the wireless LAN.

There are two kinds of wireless networks: a network using an access point and a peer-to-peer wireless network. You can connect your computer to a wired LAN or the Internet through an access point that is also compliant with IEEE 802.11b standard. Peer-to-peer wireless network consists of a number of computers each equipped with wireless networking interface. Each computer can communicate directly with other wireless enabled computers.

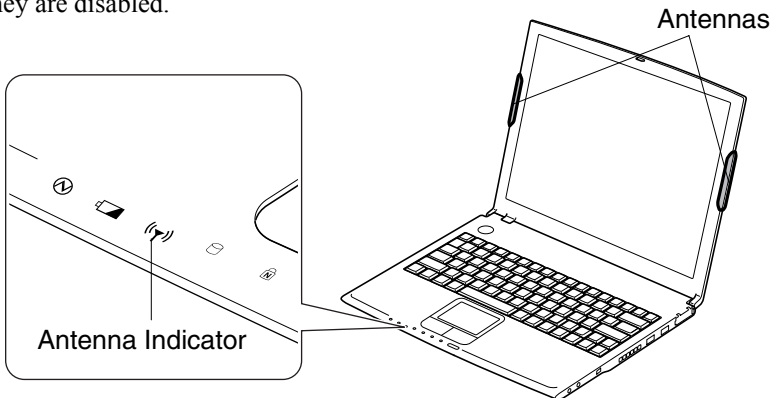


The range to give reliable performance and the quality of connection vary depending on the environment where you perform.

To communicate through the wireless LAN, activate the integrated antennas with the following steps.

Activate Antennas

You can enable/disable the antennas by pressing **Fn + F1** key combination. When the antenna indicator (☎) lights green, the antennas are enabled. When the indicator light is off, they are disabled.



Fn + F1 key combination functions only when Wireless LAN in Security menu in Setup Utility is set to Enabled.

Connecting to the Internet via an Access Point

You can connect your computer to the Internet or a wired network via an access point supporting IEEE 802.11b. Refer to the manual of the access point or consult your network administrator if you are not sure.

Communicating with Other Computers



- *Confirm each computer is enabled for wireless LAN first.*
- *Make sure to log on the computer as a member of the Computer administrators group. Otherwise, you cannot set or change some settings for wireless LAN.*

1. Click *start – Control Panel*.
2. Click *Network and Internet Connections – Network Connections*. If Classic view is selected, double-click *Network Connections*.
3. Select *Wireless Network Connection*; then, click *Change settings of this connection* of *Network Tasks*.
4. Double-click *Internet Protocol (TCP/IP)* in *This connection uses the following items*.
5. In *Internet Protocol (TCP/IP) Properties* dialog box, select *Use the following IP address* and set a unique *IP address* to 192.168.1.2 through 192.168.1.254 and the *Subnet mask* to 255.255.255.0; then, click *OK*.



- *The IP address of each computer should be unique.*
- *The Default gateway can be blank.*

6. Click *Wireless Networks* tab; then, *Advanced* button in the lower right of the dialog box. *Advanced* dialog box appears.
7. Select *Computer-to-computer (ad hoc) networks only*; then, click *Close* button.
8. Click *Add...* button in *Preferred networks of Wireless Network Connection Properties* dialog box.
9. Type a name of the network in *Network name (SSID)* field of *Wireless Network Properties* dialog box.



- *Confirm your computer and other computers are connecting to the same network.*

10. Click *OK* twice; then, close the *Control Panel* window.




11. Configure the network by setting the name of your computer and workgroup.



To communicate with other wireless enabled computers, set the computer name and the workgroup name. The computer name should be unique and the workgroup name should be same as others.


Confirming the Status of the Wireless Connection

Before performing the following instructions, confirm the devices that you want to communicate with are enabled for wireless LAN.


1. Click *Wireless Network Connection* icon ( or ) on the taskbar. If you cannot find the icon click  to show all kinds of icon. *Wireless Network Connection* dialog box appears. If *Wireless Network Connection Status* dialog box appears, go to Step 7.
2. Select a network you want to access in *Available wireless networks* in *Wireless Network Connection* dialog box. If the network requires the *Network key* entered, go to Step 4. If it is not set *Network key*, the caution message appears.



*When the network name you want to access does not appear, click **Advanced** tab; then, **Refresh** button of *Available networks* in *Wireless Network Connection Properties* dialog box; then, click **OK**.*


3. When you agree with the message, check the box of *Allow me to connect...* and go to Step 5.
4. Type the required *Network key*. (Refer to *Connecting the WEP configured network* section.)
5. Click *Connect* button.
6. Click *Wireless Network Connection* icon () on the taskbar.
7. In *Wireless Network Connection Status* dialog box, confirm your connection status.



- *The number of green signals () shows the connection quality. The more signals light on, the better quality is given to the computer.*
- *When the quality of connection is poor, adjust the distance between the computer and other devices or the access point you are communicating with and/or the facing direction of the computer.*

Connecting the WEP configured network

Wireless communication has security issues. Some networks are configured with WEP (Wired Equivalent Privacy) keys or encryption keys to protect the transmitted data. To connect into the WEP configured network, follow the steps below.

1. Right-click *Wireless Network Connection* icon () on the taskbar and click *View Available Wireless Networks*.
2. Select the network you want to connect in *Available wireless networks* of *Wireless Network Connection* dialog box.
3. Type its encryption key in *Network key* field, type it again to confirm and click *Connect* button.



- *When you select a network that is not configured for encryption settings in the step 2, the caution message appears. If you agree to connect to the unsecured network, check the box of Allow me to connect to the selected wireless network, even though it is not secure.*
- *When the key index of your computer is different from that of the network, you cannot access the network. Set the same key index with the following steps. Note that some access points have the key index options 0 through 3. Refer to the table below for matching.*
 1. *Open the Wireless Network Connection Properties dialog box. (Refer to the steps in Communicating with Other Computer section.)*
 2. *Select the network you want to access in Preferred networks section and click Properties button.*
 3. *Confirm the box of Data encryption (WEP enabled) is checked, uncheck the box of The key is provided for me automatically and set the key index.*

Key index matching table

Access Point 1	Access Point 2	PC-UM32
1	0	1
2	1	2
3	2	3
4	3	4

(ex. When your access point type is “Access Point 2” and its key index is set to 0, set 1 to the key index of your computer.)

Network Setup Utility

With the Network Setup Utility, you can set up your specific network settings adjusted for your environments such as work, home, etc. and select the appropriate one to the environment. You can also change the network settings.



- *Not every setting item can be stored.*
- *The Network Setup Utility may not be compliant with all network environments.*

Loading Network Settings

To set your specific network settings, confirm that your computer is connected into the network and has the proper settings for your current environment and follow the instructions below.

1. Click *start – All Programs – SHARP Network Setup Utility – SHARP Network Setup Utility*.
2. Click *OK*.
3. Click *Set*, select *SHARP icon* or *Windows icon*, then, click *Select icon* button.
4. Select an icon and click *OK*. Type a network name, then, click *OK*. The selected icon appears in the *Network Setup Utility* window.



It takes a moment to load the network settings.

Switching Network

To switch the network set above, confirm your computer is ready to connect into the network and follow the instructions below.

1. Click *start – All Programs – SHARP Network Setup Utility – SHARP Network Setup Utility*.
2. Click *OK*.
3. Select the appropriate network icon in the *Network Setup Utility* window.
4. Click *OK*.



- *Make sure your computer is connected to the proper environment.*
- *If your hardware or software configuration has been changed, you may not be able to switch to the network properly. In this case, you may need to reconfigure the settings.*

Changing Network Settings

To change the loaded network settings, right-click on the icon you want to change the settings in the *Network Setup Utility* window and click *Edit settings* in the pop-up menu. Then, edit the settings.

Deleting Network

To delete the loaded network settings, right-click on the icon you want to delete in the *Network Setup Utility* window and click *Delete setting* in the pop-up menu. Then, click *OK*.

Setup Utility

This chapter describes how to run the Setup Utility to change settings on your computer.

Running the Setup Utility

With the Setup Utility, you can customize the system configuration information, such as time and date, port assignments, or passwords. The information you have specified is saved in a special area called CMOS RAM, which the system reads every time you turn on the computer. Your computer is shipped from the factory with the appropriate setting of the Setup Utility. Leave it as default in normal use.

Contents of the Setup Utility

The Setup Utility consists of five menu pages, as follows:

- **Main:** Configures basic setting
- **Advanced:** Configures device interface (I/O ports, etc.)
- **Security:** Sets Passwords
- **Boot:** Sets where the system boots from
- **Exit:** Exits the Setup Utility or returns to the default values

Entering and Exiting the Setup Utility

1. Turn on the computer.
2. When Press <F2> to enter SETUP appears, press **F2**.
3. Change to the desired settings. Refer to the next section.
4. Select *Exit* menu; then, press **Enter**.
5. Select one of the exit methods, and press **Enter**.
6. Confirm the message and press **Enter** again. The system restarts.



When the Setup Utility is opened, power management does not work. Do not close the display cover.

Changing the setting of the Setup Utility

To change the settings:

1. Use → or ← key to select the menu.
2. Use ↑ or ↓ key to select the item.

Minus or **Space** key : Changes the value.

In the item with ► mark, press **Enter** to open a sub menu. Press **Esc** to close the sub menu and return to the previous menu.

For date and time, press **Enter** on the item to select the value you want to change; then, use minus key or space bar to change the value.

3. Close the Setup Utility by following the steps above.

Main Menu

System Time defines the system time, using the format *hour:minute:second* (24-hour format). Use **Tab** key to move the cursor, and minus key or space bar to change numerals.

System Date defines the system date, using the format *month/day/year*. Use **Tab** key to move the cursor, and minus key or space bar to change numerals.

Hard Disk Type shows the type of the hard disk of your computer. Press **Enter** to show the details.

Internal NumLock defines whether the numlock keys of the built-in keyboard are always disabled or not. (Num lock indicator will turn when **Fn+NumLk** are pressed regardless of this setting. An external keyboard will be numlocked if connected.)

C3 State defines whether the system reduces power consumption while the CPU is idling.

Quick Boot defines whether the system skips the check of the internal memory while booting, to shorten the boot time

Quiet Boot defines whether the SHARP logo appears on the screen while booting.

Video RAM Size shows the minimum size of the video memory on Windows. The volume of the video memory varies automatically by the integrated video controller in Windows environment.

CPU Information shows the information on the CPU.

System Memory shows the volume of the conventional memory used in MS-DOS. Always set to 640KB.

Extended Memory shows the volume of the extended memory more than 1MB.

BIOS Version shows the BIOS version of the system.

EC/KBC Version shows the EC or keyboard controller version of the system.

CLKRUN defines whether CLKRUN function is set to enabled or disabled.

Advanced Menu

LPT Port sets the printer port, selecting the LPT port mode. Enabled means that you can set the items by yourself. Auto means the Mode can be selected (*Bi-directional*, *ECP* (Extended Capabilities Port mode), *EPP* (Enhanced Parallel Port mode) or *Output only*). *Disabled* means that you cannot use the port.

Internal Pointing Device enables or disables the built-in glide pad.

System Beep controls the volume level of the beep before Windows starts.

Resolution Expansion defines whether the Setup Utility screen is expanded when the resolution is 640x480 or 800x600. *Enabled* means that the screen is expanded.

Plug&Play O/S enables or disables plug & play function.

PCI Configuration normally has to be as default.

Security Menu

Set Supervisor Password defines the supervisor password (up to eight characters). See the next section about the supervisor password.

Set User Password defines the user password (up to eight characters). See the next section about the user password.



If you lose your password, you will be unable to access the computer or change the configuration. Make sure to select a password you will never forget, or write it down and protect it in a secure place. Otherwise, you will have to contact your dealer for assistance.

Password on boot defines whether you have to type the password for booting the computer.

Hard Disk boot Sector defines whether the boot sector of the hard disk is write-protected. When formatting the hard disk or reinstalling software, set to *Normal*.

Device Configuration enables and disables built-in devices such as USB, Audio system, modem, LAN, PC card, IEEE1394, and wireless LAN.

Supervisor and User Password

Setting a password will protect your computer against unauthorized access. Once a password is set, the system requires the password when entering to the Setup Utility. And if *Password on boot* is enabled, the system will require a password when the computer is turned on.



If you enter a wrong password three times, the message System Disabled appears. Press the power button to shut down the computer, and after 10 seconds, press the power button to turn it on again.

Your computer supports two different levels of password security: Supervisor password and User password. You cannot set a user password unless you have set a supervisor password. If you share the computer with others, we recommend that you set both the supervisor and the user password, and let others know the user password only.

If you type the user password when you enter the Setup Utility, you can change *System Time* and *System Date* of the *Main* menu, *Resolution Expansion* of the *Advanced* menu and *Set User Password* of the *Security* menu only.

Setting the Password

1. In the *Security* menu of the Setup Utility, select *Set Supervisor Password* or *Set User Password* and press **Enter**.
 2. Type your password (up to eight characters), and press **Enter**.
 3. Type the same password again, and press **Enter** twice.
 4. Select *Exit* menu and confirm *Exit Saving Changes* is highlighted; then press **Enter**.
 5. Confirm *Yes* is highlighted and press **Enter**. The system restarts.
-

Changing the Password

1. In the *Security* menu of the Setup Utility, select *Set Supervisor Password* or *Set User Password* and press **Enter**.
 2. Type your current password, and press **Enter**.
 3. Type your new password, and press **Enter**.
 4. Type your new password again, and press **Enter** twice.
 5. Select *Exit* menu and confirm *Exit Saving Changes* is highlighted; then press **Enter**.
 6. Confirm *Yes* is highlighted and press **Enter**. The system restarts.
-

Deleting the Password

1. In the *Security* menu of the Setup Utility, select *Set Supervisor Password* or *Set User Password* and press **Enter**.
2. Type your current password, and press **Enter**.
3. Without typing any characters, press **Enter**.
4. Press **Enter** twice.
5. Select *Exit* menu and confirm *Exit Saving Changes* is highlighted; then press **Enter**.
6. Confirm *Yes* is highlighted and press **Enter**. The system restarts.

Boot Menu

Boot Sequence specifies where the system boots from. Press **Enter** to open the sub menu. The system boots from the drive at the top of the list. If the system cannot find the drive, it will boot from the second one; then, third one; then forth one. Use arrow keys to select the drive you want to move; then, use minus key or space bar to move it up and down.

USB FDD enables or disables the USB floppy disk drive.

LAN Boot defines whether the system boots from other server via the LAN unit of the computer.

Exit Menu

Exit Saving Changes saves the settings you have changed and exits the Setup Utility.

Exit Discarding Changes exits the Setup Utility without saving the settings you have changed.

Load Setup Defaults returns the values of all items to the default. To exit, select one of the above items.

Discard Changes returns the values of all items to the values you last saved. To exit, select one of the above two items.

Save Changes saves the settings you have changed. To exit, select one of the above two items.

Appendixes

The appendixes contain additional information on the use and care of your computer.

Memory Module

You can install a memory module(s) into some models and upgrade the memory size. See the specification sheet in the provided supplement for the default memory size of your computer and find whether it is expandable. For available memory modules, contact your local dealer.

Installing a Memory Module



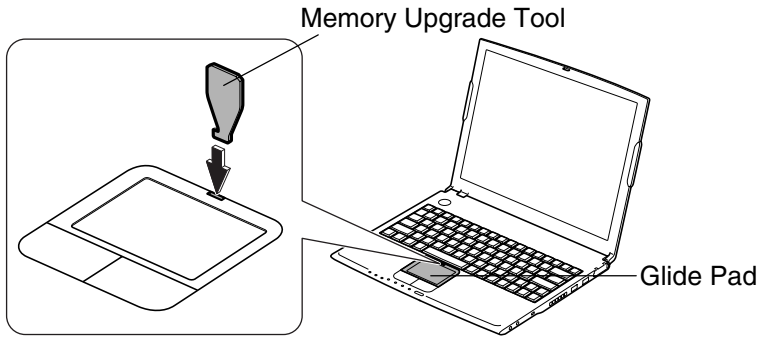
- *Do not handle the memory module in the location where static electricity is easily generated such as on the carpet.*
 - *Before installing the memory module, carefully discharge static electricity from your body by touching an unpainted metal area.*
 - *Avoid touching the integrated circuits on a memory module. Handle all components by the edges.*
 - *Keep the memory module in the anti-static wrapping until you are ready to install it.*
-

1. Turn off the computer, and disconnect the AC adapter and remove the battery pack and peripheral devices. See Chapter 3 for removing the battery.
-

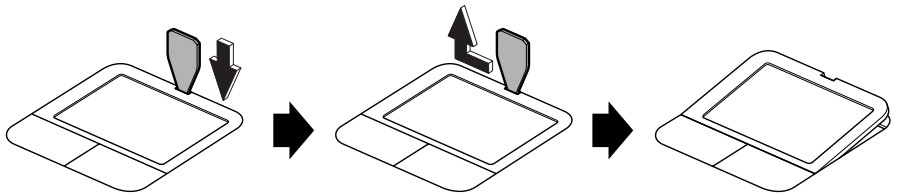


- *Make sure to turn off your computer and remove the AC adapter. Otherwise you may receive an electrical shock.*
 - *After a long usage of the computer, the temperature inside the computer may be hot. Wait until it becomes cool.*
-

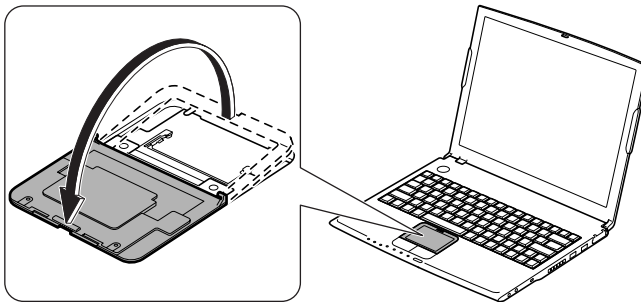
2. Open the display cover and set the provided memory upgrade tool with the projected part pointed to the left as shown below; then, gently insert the tool straight into the small hole of the glide pad. (Never insert anything but the provided memory upgrade tool.)



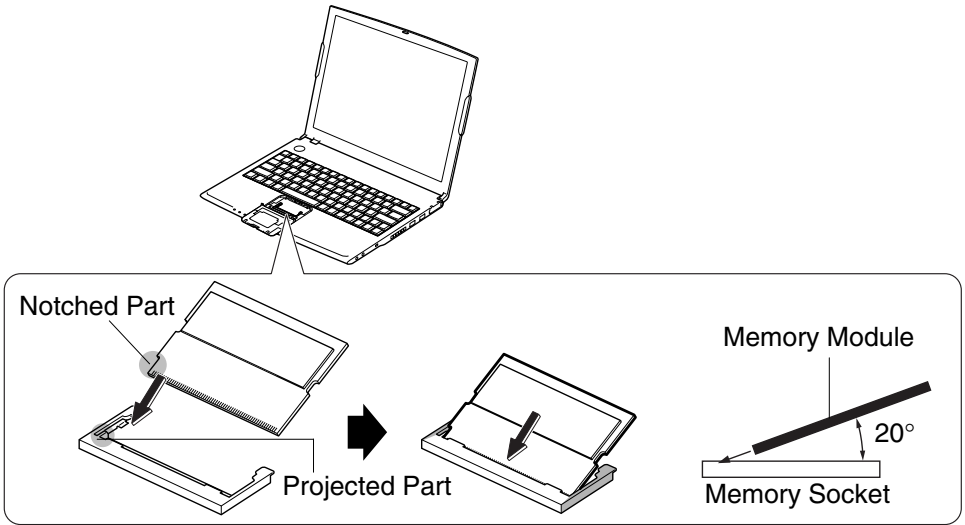
3. Push down the tool into the hole, slide it completely to the left and lift it up. The glide pad is slightly opened.



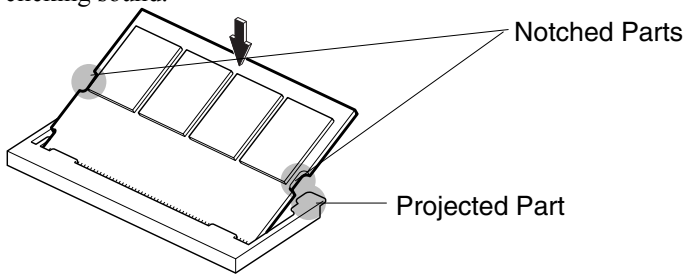
4. Hold the tool with its projected part hooked on the glide pad and gently open the pad.



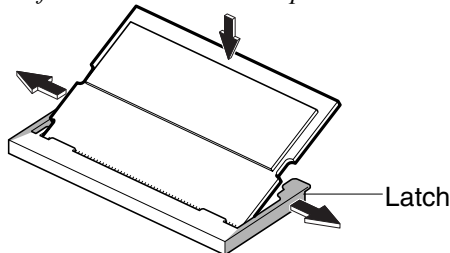
5. Align the memory module as shown below and insert it into place, matching the notched part of the module with the projected part of the memory socket of the computer. You hear the clicking sound when the module is set correctly.



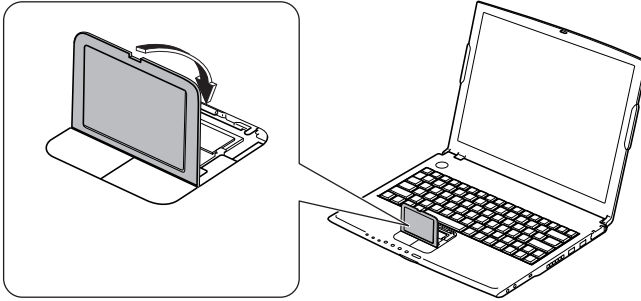
6. Press the memory module softly into the memory socket, matching the notched parts of the module with the projected parts of the socket until you hear the clicking sound.



When you have difficulty inserting the memory module, try to bend the both latches of the slot outwards and press down the module into place.



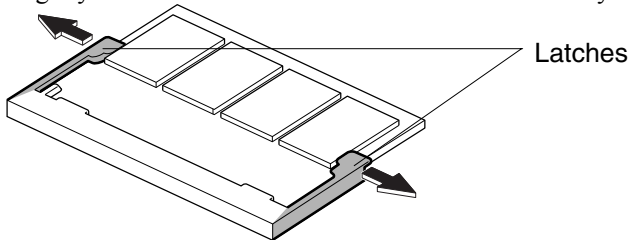
7. Set the glide pad straight up as shown below; then, replace it in the oriented position. You hear the clicking sound when it is placed correctly.



8. Close the display cover and turn over the computer.
9. Replace the battery pack and turn over the computer; then, connect the AC adapter. See Chapter 3 for replacing the battery.
10. Open the display cover, turn on the computer, and check the memory size:
Click *start – My computer – View system information* of *System Tasks*.
Your memory size appears at the bottom of the sentence. Share video memory size will not be included with the value.

Uninstalling the Memory Module

1. Follow the steps 1 through 4 on *Installing a Memory Module* section.
2. Slightly bend the two latches outwards until the memory module is released.



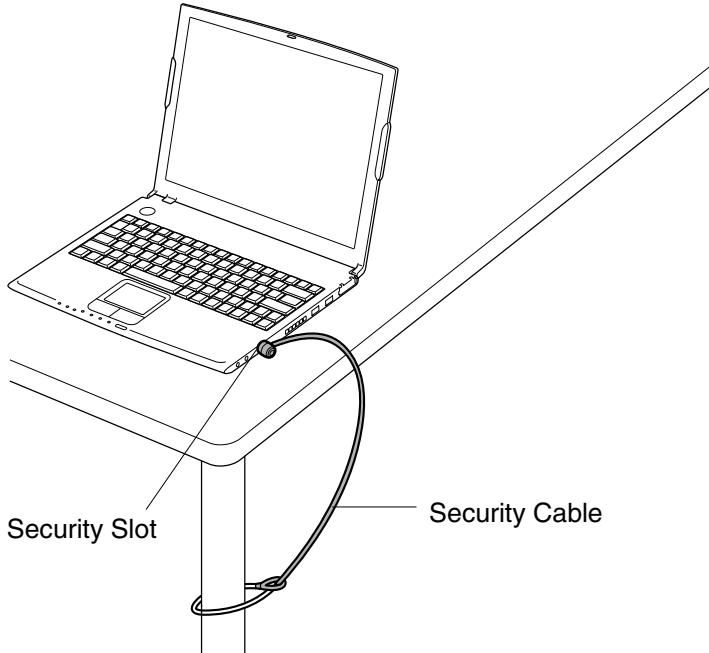
3. Remove the memory module and follow the steps 7 through 10 shown above.

Maintenance and Care

This appendix provides you with information on how to maintain the computer in excellent working condition.

Using a Security Cable

You can connect a security cable into the security slot on the right side of your computer to prevent theft.



Cleaning the Computer

Cabinet

Apply a small amount of mild cleaning solution to a dry, lint-free cloth and wipe the cabinet with the cloth.



- *Never clean the computer while it is powered on.*
 - *Do not use alcohol, benzene, thinner or other strong chemical agents that may damage the cabinet.*
-

Screen

The surface of the screen may become smeared and accumulate dust during use. Avoid touching the screen with your fingers when using the system. Gently wipe the surface of the screen with a soft cloth that has been dipped in a mild detergent solution and squeezed dry.

Glide Pad

Wipe the glide pad with a soft, dry cloth.

Ventilation Openings

Dust on the ventilation openings may cause overheating of the computer. Wipe the ventilation openings with a soft, dry cloth.

Traveling With the Computer

This computer is designed for portability. For safety and convenience when traveling, please follow these guidelines.

- Before traveling, back up your data on floppy disks or other external media.
- Do not travel with any peripheral devices connected such as an optional external floppy disk drive unit or the external CD-ROM drive and also the parallel/VGA converter cable connected.
- Do not carry the computer powered on. This may result in loss of data and/or damage to the hard disk drive.
- Make sure the display cover is closed before traveling. Otherwise, the cover may be opened unawares, and the display or the keyboard will be damaged.
- If you carry the computer in a bag, try to avoid unnecessary pressure, caused by the stuff of the bag, to the computer.
- Disconnect the AC adapter from the computer.
- Fully charge the standard battery pack and bring the AC adapter and the AC power cord.
- Avoid sudden shocks or extreme vibration.

Troubleshooting

This chapter describes how to troubleshoot computer problems.

Common Problems

Problems with your computer can be caused by something as minor as an unplugged power cord or as major as a damaged hard disk drive. The information in this troubleshooting section is designed to help you find and solve minor problems. If you still have a problem after trying all the suggested remedies in this chapter, contact your dealer.

The problems that you might encounter can be divided into two basic categories: hardware and software. Hardware problems can be further divided into being of an electrical or a mechanical nature. You will know you have a hardware problem if, for example, the screen is blank, or the computer cannot recognize the disk drives.

Software problems can occur at several levels. Both your operating system and your software application programs are capable of generating errors and error messages. If you encounter a software error, try to determine if the error message is from your operating system or from an application program, and refer to the appropriate manual for possible remedies.

You can also refer to the Windows manual or Windows help program to solve the problem. To access the help program, click *start –Help and Support*. It also gives you troubleshooting tips and an index.

Successful troubleshooting is the result of careful observation, deductive reasoning, and an organized approach to solving the problem. If you encounter a problem, begin by performing a careful visual inspection. Check the exterior of the computer first. If no lights are lit, check the battery charge or power outlet, the plug and power cord, and any power switches that may affect your computer. If the computer has been connected to any peripheral devices, look for loose or disconnected cables. You may also need to check the fuses and breakers in your electric box. A few common problems and suggested solutions are presented in the examples that follow.

Trouble when Starting

Question: Why doesn't the power indicator or the battery indicator turn on?

- Make sure the AC adapter is correctly connected to the AC adapter jack of your computer.
- Make sure the AC power cable is correctly connected to a live wall outlet. Connect another electric equipment to the wall outlet and check whether it is live or not.
- Make sure the battery pack is correctly installed and charged.
- If the battery pack is discharged, connect the AC adapter.

Question: Why do I get the message *Invalid system disk*?

- You may have inserted a non-bootable disk in the optional external floppy disk drive unit (either a defective disk or one without an installed operating system). Remove the disk.

Question: Why can't I boot from the floppy disk?

- Make sure that the optional external floppy disk drive unit is correctly connected to the computer.
- Check whether the floppy disk set to the optional external floppy disk drive unit contains a system disk.
- Check whether *Floppy Disk Drive* is set to the first in *Boot Sequence* and *USB FDD* is set to *Enabled* in *Boot* menu of the Setup Utility.

Question: Why do I get the message *Press<F1> to resume, <F2> to setup*?

- The setting of the Setup Utility is deleted. Run the Setup Utility and get default value of the Setup Utility. Be sure to set the date and time correctly.

Question: Why do I get the message *Operating system not found*?

- Run the Setup Utility and get default value of the Setup Utility. Be sure to set the date and time correctly.

Trouble with Display

See the *Display* section in Chapter 2 and 4.

Question: Why is the screen blank?

- Press any key to see if any power management feature has turned off the screen to save power.
- See the power indicator to check whether the computer is turned on.
- If you are using a battery pack, make sure it is correctly installed and has a charge remaining.
- Make sure the LCD screen is selected as the display by pressing **Fn+F5**.
- Check whether the display is on by pressing **Fn+F11**.
- If you still have the problem after trying the above, follow the steps in *Why doesn't the keyboard or the glide pad function?*

Question: Why does the external monitor display nothing or the image on it distorted?

- Confirm the monitor is turned on.
- Confirm the monitor is connected correctly.
- Make sure an external monitor is selected as the display by pressing **Fn+F5**.
- If you use **Fn+F5** to change the display, the image may be distorted. Press **Fn+F5** again to return the previous display and use *Display Properties* dialog box to change it again. (Refer to Chapter 4.)
- Make sure the value of the *Screen resolution* in the *Settings* tab of the *Display Properties* is lower than the resolution of the external monitor.
- Make sure the external monitor is not near any electric devices having strong magnetic fields such as a TV set or radio.
- Do not share an outlet with a TV set or radio.

Question: Why can't I change the display with Fn+F5 keys?

- When playing the animation or game, **Fn+F5** key combination may not work. Close the currently running application.
- Use *Display Properties* dialog box to change it. (Refer to Chapter 4.)

- When you select *Extended Desktop* mode, **Fn+F5** key combination does not work.

Trouble with Keyboard/Glide Pad

Question: Why doesn't the keyboard or the glide pad function?

- Try the following in this order:
 1. Press **Ctrl+Alt+Delete** and select *Users* tab of *Windows Task Manager* dialog box. Click *Disconnect* or *Logoff*; then, *Yes*.
 2. If the step 1 fails to work, press the power switch for more than four seconds to turn off the system. Ten seconds later, turn the computer on.
 3. If you still cannot turn off the system with the power switch, confirm the hard disk indicator is not lit and press the reset switch on the bottom of your computer to turn off the system (refer to *Resetting the System* section of Chapter 2). Ten seconds later, turn on the computer by pressing the power switch.

Question: Why does the glide pad malfunction?

- The surface of the glide pad or your palm may be moist or dirty and grease. Wipe the glide pad with a soft, dry cloth.

Trouble with Floppy Disks

Question: Why can't I use a floppy disk?

- Confirm the optional external floppy disk drive unit is correctly connected.
- Confirm the floppy disk is inserted correctly.
- Confirm the drive or file name is correct.
- The floppy disk may not be formatted or could be corrupted. Format the disk or use another disk.
- If you cannot write to a floppy disk, the disk may be write-protected. Eject the disk and ensure that the write-protect tab covers the detection hole.
- If you cannot write to a floppy disk, the disk may be full. Use another disk.

Trouble with the Hard Disk

Question: Why can't I read or write data to/from the hard disk?

- Confirm the drive and file names are correct.
- Confirm the hard disk has sufficient free space.

Trouble with the CD

Question: Why can't I read data from a compact disc or play files?

- Confirm the external CD-ROM drive unit is correctly connected to the computer.
- Confirm the CD is inserted correctly.
- Confirm the drive and file names are correct.
- Confirm the CD is not stained or scratched.
- Confirm the CD or files are supported.

Trouble with Communication

Question: Why can't I communicate through the built-in modem?

- Confirm the telephone line is properly connected to the modem jack.
- Confirm the dial setting (pulse or tone) of Windows or communication software is matched with the telephone line.
- Confirm the country/region setting is appropriate.
- Confirm the network configuration is appropriate.
- Confirm the user name or password is correct.
- Confirm the COM port in the communication software is set appropriately.
- Turn off the power management in the Windows.
- If an unusual device is attached to the line you are connecting to, the modem may not function properly. Remove the device or contact the dealer of the device.
- If connected to a PBX, consult the PBX maintenance staff or its service company. If the electric characteristics of your PBX are different from those of a regular analog line, the modem will not function properly. If you connect the modem to a digital PBX, both the modem and the PBX may be damaged.

Question: Why is the communication speed so slow?

- Close the applications currently opened.
- Try to connect another ISP (Internet Service Provider), or try to connect in some other time.

Question: Why can't I access the LAN?


- Confirm the cable is properly connected to the LAN jack and the network hub.
- Confirm the network configuration is appropriate.
- Confirm the user name or password is correct.

Question: How can I detect the MAC address?

- Follow the instructions below:
 1. Click *start – All Programs – Accessories – Command Prompt*.
 2. Type `ipconfig/all`; then, press **Enter**. The IP information appears.
 3. For the LAN, see the numbers of *Physical Address* in *Ethernet adapter Local Area Connection* section. For the Wireless LAN, see the numbers of *Physical Address* in *Ethernet adapter Wireless Network Connection* section.
 4. Type `exit`; then, press **Enter**.

Question: Why can't I detect the access point on my computer? (for wireless LAN communication)

- Confirm the access point is powered on.
- Confirm the antenna indicator is lit.
- Restart your computer.
- Confirm your computer is enabled for the wireless LAN.
- Detect the access point by following the steps below
 1. Click *start – My Computer*.
 2. Select *My Network Places* in *Other Places* field; then, *View network connections* in *Network Tasks* field. *Network Connections* dialog box appears.
 3. Right-click *Wireless Network Connection*; then, click *Disable*.
 4. Right-click *Wireless Network Connection*; then, click *Enable*.

- When you have more than one available access points, your computer may be connected to the access point other than the one you want to access:
 1. Right-click *Wireless Network Connection* icon () on the taskbar; then, click *View Available Wireless Networks*.
 2. Select the desired network in the *Available wireless networks* list; then, connect to the network. (Refer to *Confirming the Status of the Wireless Connection* section in Chapter 5.)

Question: Why can't I connect to the network via an access point? (for wireless LAN communication)

- Confirm the wireless LAN antennas are enabled. When the antenna indicator lights green, the antennas are enabled. If not, press **Fn+F1** keys.
- Confirm *Any available network (access point preferred)* is selected in *Networks to access* of *Advanced* dialog box. (To open *Advanced* dialog box, refer to *Communicating with Other Computers* section of *Wireless LAN* in Chapter 5.)
- Confirm the ESSID of your computer matches the ESSID of the access point you want communicate with.
- Confirm the *Network key* is correctly entered if the WEP security of the access point is enabled.
- You may accidentally enable IEEE802.1x authentication. Uncheck the box of *Enable IEEE802.1x authentication for this network* when you connect the network in *Wireless Network Connection* dialog box. (Refer to *Connecting the WEP configured network* in Chapter 5.)

Question: Why can't I communicate with other computers through a wireless LAN?

- Confirm the wireless LAN antennas are enabled. When the antenna indicator lights green, the antennas are enabled. If not, press **Fn+F1** keys.
- Confirm each computer is enabled for wireless LAN.
- Confirm *Computer-to-computer (ad hoc) networks only* is selected in *Networks to Access* of *Advanced* dialog box of each computer. (To open *Advanced* dialog box, refer to *Communicating with Other Computers* section of *Wireless LAN* in Chapter 5.)
- Adjust the distance between the computers by bringing your computer closer to others and remove any obstructions that may impede the communication; then, try

to connect again. (The distance between computers or access points should be less than approximately 190 ft. (60 m) in the direct line-of-sight.)

- Confirm the IP address and the subnet mask of each computer are set correctly.
- Confirm the WEP key is correctly entered if the WEP security of other devices, which you want to communicate with, is enabled.

Trouble with Peripherals

Question: Why don't peripheral devices function correctly?

- Confirm they are correctly connected to your computer.
- Confirm they are Windows XP compliant.
- Confirm drivers necessary for the devices are installed.
- Set *System standby* and *System hibernates* to *Never* in *Power Options Properties* dialog box. If this does not work, set *Turn off hard disks* to *Never*.

Question: Why can't I print?

- Make sure the printer is turned on.
- Check whether the computer and the printer are connected correctly.
- Check whether the printer is ready to print.
- Check whether the printer has enough paper.
- Check whether the printer driver is installed.
- From the *start* menu, select *Control Panel – Printers and Other Hardware - Printers and Faxes*. If Classic view is selected, double-click *Printers and Faxes* icon. Confirm your printer is installed there. If not, click *Add a printer* or *Printer Tasks* to install your printer.
- See also the Windows help program by clicking *start – Help and Support*.

Other Troubles

Question: Why is the battery pack discharged so quickly?

- Initialize the battery pack.

Question: Why is the date and/or time incorrect?

- Correct the date and time in Windows. Double-click the time appearing on the taskbar and set them in *Date and Time Properties* dialog box.

Question: Why can't I use a hardware device?

- Make sure the hardware device is not crossed out with an X mark using the following procedure.
 1. Click *start– Control Panel*.
 2. Click *Performance and Maintenance*; then, *System*. If Classic view is selected, double-click *System* icon.
 3. Click *Hardware* tab; then, *Device Manager*.
 4. Double-click the device you cannot use.
 5. Confirm *Use this device (enable)* appears in *Device usage*.

Question: Why can't I produce sound?

- Press **Fn + F4** to increase the output volume.
- Double-click the speaker symbol on the taskbar and check the Windows volume.

Question: Why can't I turn off the computer?

- Follow the instructions on *Why doesn't the keyboard or the glide pad function?* section.

Question: Why the computer is so hot?

- When charging the battery pack, its surrounding area or the front of the keyboard may become hot, but this is not a problem.

Question: Why can't I record the sound from the microphone?

- Follow the instructions below:
 1. Double-click the speaker symbol on the taskbar.
 2. Click *Options* and select *Properties*.
 3. Select *Recording* in *Adjust volume for* and confirm *Microphone* is checked in *Show the following volume controls*; then click *OK*.
 4. Confirm the box of *Select* is checked in *Microphone of Recording Control* dialog box.
 5. Close the *Recording Control* dialog box.

Question: Why can't find the drivers and applications?

- You may accidentally remove them. They are stored on the last recovery disk. (i.e. when two recovery CDs are provided, they are stored on the "Disk 2".) When you are not sure how to install them or the CD does not have the drivers or applications, consult local service staff.

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* For built-in wireless LAN model only

