



# Panasonic<sup>®</sup>

## Personal Computer Reference Manual

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Model No. **CF-T2 Series**

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XP

2000

We recommend that this Reference Manual be printed.

- If the user has logged on without the administrator authority, some functions may not be executable, and some screens may be not displayed as shown in this manual.  
If this happens, log on with the administrator authority to enable these functions.
- This manual covers two types of models, as distinguished by the type of LCD screen (models with touchscreen and models without touchscreen).
- Confirm the latest information on optional products in catalogs, etc.

## Illustrations and Terminology in this Reference Manual

- **NOTE**  
NOTE provides a useful fact or helpful information.
- **CAUTION**  
CAUTION indicates a condition that may result in minor or moderate injury.
- **WARNING**  
WARNING indicates a hazard that may result in moderate or serious injury.
- **Windows XP**  
Information for Microsoft® Windows® XP Professional users. "Windows" or "Windows XP" in this manual.
- **Windows 2000**  
Information for Microsoft® Windows® 2000 Professional users. "Windows" or "Windows 2000" in this manual.
- **Enter**  
This illustration means to press the [Enter] key.
- **Fn+F5**  
This illustration means to press and hold the [Fn] key, then press the [F5] key.
- **[start] - [Run]**  
This illustration means to click , then to click [Run]. For some applications, you may need to double-click.
  - In Windows 2000, [start] is displayed as [Start]
- **For U.S.A. and Canada**  
Information for CF-T2\*\*\*\*\*M users.
- **For Hong Kong**  
Information for CF-T2\*\*\*\*\*H users.
- **⇒ *Operating Instructions***  
This illustration means to refer to the *Operating Instructions*.
- Windows XP screens are used in this manual when no specific OS (operating system) notes are required.

- Some of the illustrations in this manual may differ slightly in shape from the actual items in order to make the explanation easier to understand.
- About the terminology used in this manual and the Setup Utility concerning the internal LCD and an external display

	This manual and the Setup Utility	[Intel(R) 82852/82855 GM/GME Graphics Controller Properties] <sup>*1</sup>
To display the same screen on both the LCD and external display	Simultaneous display	Intel(R) Dual Display Clone


<sup>\*1</sup> To display [Intel(R) 82852/82855 GM/GME Graphics Controller properties]:  
Windows XP  
Select [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics].  
Windows 2000  
Select [Start] - [Settings] - [Control Panel] - [Intel(R) Extreme Graphics].

CAUTION




- Do not press the following key combinations repeatedly in (quick) succession. Also, do not press different key combinations quickly one after another.
- Do not press the following key combinations while using the touch pad (external mouse), touchscreen (only for models with touchscreen) or other keys.



NOTE

- Do not press the following key combinations until you log on to Windows and the hard disk drive indicator turns off. Note, however, that the key combinations **Fn+F1**, **Fn+F2** and **Fn+F3** are operable in the Setup Utility.
- The key combinations below may not work while some applications are running. Besides, the popup window may not be displayed depending on the state of the application you are using (e.g., when [Command Prompt] is set to "Full Screen").

Key	Functions	Popup Window (Displayed after logging on to Windows)
<b><u>Fn</u>+<u>F1</u></b> <b><u>Fn</u>+<u>F2</u></b>	<b>LCD brightness control (down)</b> <b>LCD brightness control (up)</b> Pressing this key combination adjusts the brightness of LCD. The brightness setting is stored in memory separately under the condition the AC adaptor is connected and under the condition the AC adaptor is not connected.	

Key	Functions	Popup Window (Displayed after logging on to Windows)
<b><u>Fn+F3</u></b>	<p><b>Display change</b></p> <p>By pressing this key combination, you can select either an external display, internal LCD or simultaneous. (→ <a href="#">page 69</a>)</p> <p>This key combination does not work when [Command Prompt] is set to "Full Screen".</p> <p><b>CAUTION</b></p> <hr/> <ul style="list-style-type: none"><li>● Do not press another key until the display destination has been completely switched.</li><li>● Do not press this key combination in the following conditions.<ul style="list-style-type: none"><li>• While MPEG files are playing.</li><li>• When the Extended Desktop is being utilized.</li></ul></li></ul> <hr/> <p><b>NOTE</b></p> <hr/> <p><b><u>Windows XP</u></b></p> <ul style="list-style-type: none"><li>● When switching to a different user with the Fast User Switching function, this key operation may not work. In this case, log off all users and restart the computer.</li></ul> <hr/>	

Key	Functions	Popup Window (Displayed after logging on to Windows)
<b><u>Fn</u>+<u>F4</u></b>	<b>Speaker on/off switch</b> Pressing this key combination turns on/off audio from the internal speaker and headphone jack.  <b>NOTE</b> <ul style="list-style-type: none"><li>Disabling the speakers will also disable the warning beep.</li><li>Speakers connected to the USB port cannot be muted.</li></ul>	 OFF (MUTE)   ON
<b><u>Fn</u>+<u>F5</u></b> <b><u>Fn</u>+<u>F6</u></b>	<b>Volume control (down)</b> <b>Volume control (up)</b> Pressing this key combination adjusts the volume of the internal speaker and headphone jack.  <b>NOTE</b> <ul style="list-style-type: none"><li>This key combination cannot be used to adjust the volume of the warning beep or speakers connected to the USB port.</li></ul>	
<b><u>Fn</u>+<u>F7</u></b>	<b>Power off using the standby function</b> Pressing this key combination causes the current status of the computer to be saved to memory, and powers off the computer. (→ <a href="#">page 22</a> )	—

Key	Functions	Popup Window (Displayed after logging on to Windows)
<b><u>Fn+F9</u></b>	<b>Remaining capacity of the battery pack</b> Pressing this key combination displays the remaining battery capacity on the screen.	<div> When the battery pack is inserted in the computer (example)</div> <div> When the battery pack is not inserted in the computer</div>
<b><u>Fn+F10</u></b>	<b>Power off using the hibernation function</b> Pressing this key combination causes the current status of the computer to be saved to the hard disk, and powers off the computer. (→ <a href="#">page 22</a> )	—

## Hotkey Settings

There are two Fn key functions as follows:

- Fn key lock function  
After **Fn** is pressed once, it stays in the "pressed" position until another key is pressed. This is convenient when it is difficult to press two buttons simultaneously.
- Popup windows display ON/OFF

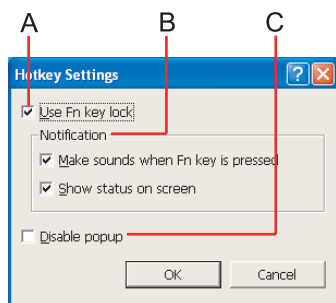
### 1 Run the Hotkey Settings.

#### Windows XP

Select [start] - [All Programs] - [Panasonic] - [Hotkey Settings].

#### Windows 2000

Select [Start] - [Programs] - [Panasonic] - [Hotkey Settings].



## 2 Set the parameters.

### A. Use Fn key lock

Add the check mark if you want to enable the Fn key lock function. The following Fn key lock function will then be enabled.

- To use **Fn** only once:

1 Press **Fn** once. (Locked)

2 Press another key for combination. (Lock released)

- To use **Fn** successively:

1 Press **Fn** twice. (Locked)

2 Press another key for combination.

Fn key remains locked until **Fn** is pressed once more.

### B. Notification

This setting is only available when [Use Fn key lock] is checked.

**[Make sounds when Fn key is pressed]\*1**

Notifies the user with a sound when **Fn** is locked or released.

**[Show status on screen]:**

Displays the Fn key status on the taskbar.

**Fn** is locked

**Fn** is not locked

### C. Disable popup

Add the check mark if you want to turn the popup window display function OFF.

The full-screen display of [Command Prompt] screen or MPEG files may change to a window display if **Fn+Fx**\*2 keys are pressed. To prevent this, turn the popup window display function OFF.

## 3 Select [OK].




### NOTE





- The Fn key lock function also works with **Fn** and other keys (e.g. **→**, **←**) aside from **Fx**\*2.
- Each user can select separate settings for whether or not to use the Hotkey settings.

\*1 If MUTE is set, you will not hear a beep.

\*2 "**Fx**" indicates any function key from **F1** to **F10**.



	Power status	<ul style="list-style-type: none"><li>● Not lit Power off / Hibernation mode</li><li>● Green Power on</li><li>● Blinking green Standby mode</li></ul>
	Battery pack status	<ul style="list-style-type: none"><li>● Not lit Battery pack is not connected or charging not being performed.</li><li>● Orange<sup>*1</sup> Charging in progress.</li><li>● Green<sup>*1</sup> Fully-charged.</li><li>● Red The battery level is very low (the charge is less than approx. 9% capacity). Connect the AC adaptor. You can use the computer when the battery indicator light is orange. If you do not have an AC adaptor, save your data and power off your computer. After replacing the battery pack with a fully charged one, turn your computer on.</li><li>● Blinking red<sup>*1</sup> Battery pack or charging may not be working properly. Quickly save your data and power off your computer. Remove the battery pack and disconnect the AC adaptor, then connect them again. If the problem persists, contact your technical support office. Possible failure in the battery pack or charging circuit.</li><li>● Blinking orange<sup>*1</sup> Battery cannot be recharged temporarily because the internal temperature of the battery pack is outside of the acceptable temperature range for recharging. Once the allowable range requirement is satisfied, charging begins automatically. Your computer can be used normally in this state.</li></ul>
	Caps Lock	This indicator lights green when <b>Caps Lock</b> is pressed. Subsequent non-shifted input is capitalized.

	NumLk (Numeric key)	These indicators light green when <b>NumLk</b> is pressed. When the green light is on, if the <b>Fn</b> is pressed along with keys on certain other segments of the keyboard, then those keys will operate as numeric keys. The [Enter] key functions differently depending on the application.
	ScrLk (Scroll lock)	This indicator lights green when <b>Fn+ScrLk</b> are pressed. Scroll lock functions differently depending on the application.
	Hard disk drive status	This indicator lights when the hard disk drive is accessed.
	SD memory card status	This indicator lights when the SD memory card or MultiMedia Card is accessed.

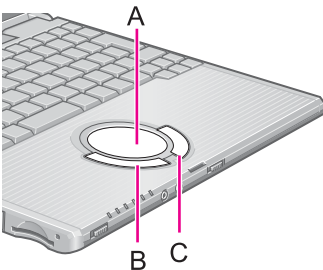
\*1 When the AC adaptor is connected.

# Touch Pad


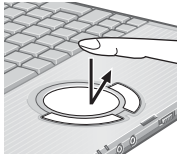
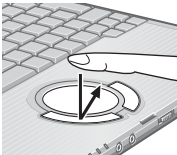
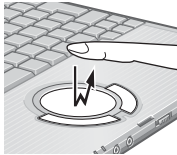
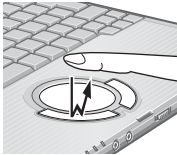
Use the touch pad to move the cursor on the display and perform normal computer operations.

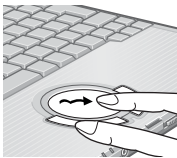
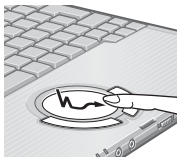
**CAUTION**

- By design the touch pad is to be used with a finger tip only. Therefore, do not use any implement which causes damage on the work surface.



- A. Work Surface (touch pad)
- B. Left Button
- C. Right Button

Function	Operation	
Moving the Cursor	 Move the tip of your finger lightly over the work surface.	
Tapping/Clicking	 tapping	or  clicking
Double-Tapping/Double-Clicking	 double-tapping	or  double-clicking

Function	Operation
Dragging	<div></div> <p>Two quick taps, but on the second tap leaving your finger down (applying pressure) and moving it on the work surface. or While holding down the button, moving your finger on the work surface.</p>
Scroll	→ page 13

## NOTE

- Refer to [Mouse Properties] for information on basic operations other than the above.  
To display [Mouse Properties]:  
**Windows XP**  
Select [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse].  
**Windows 2000**  
Select [Start] - [Settings] - [Control Panel] - [Mouse].

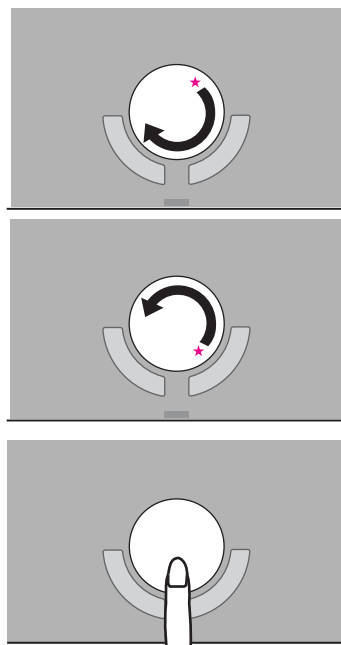
## Using the Touch Pad Utility

The Touch Pad Utility enables you to scroll easily by tracing a circle around the touch pad.

### NOTE

- Depending on the application software, the scroll operation may differ, or the scroll function may not operate properly.

### How to Scroll



- 1 Select the screen you want to scroll.
- 2 Position the cursor over the area you want to scroll.
- 3 Trace a circle around the edge of the touch pad as indicated in the diagrams.  
To scroll down (trace clockwise)

To scroll up (trace counter-clockwise)

- 4 Once scrolling has begun, continue to trace a circle on the touch pad without removing your finger from the pad.
  - As long as you are tracing a circle, you can continue scrolling using any position on the touch pad. It is not necessary to trace a circle around the edge of the pad.
  - To scroll in the opposite direction, trace a circle in the opposite direction without removing your finger from the touch pad.

- 5** When you are finished scrolling, remove your finger from the touch pad.

## Hints for Easier Touch Pad Operation

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- You can change various touch pad settings using the following procedure:  
Windows XP  
[start] - [All Programs] - [Panasonic] - [Touch Pad utility settings]  
Windows 2000  
[Start] - [Programs] - [Panasonic] - [Touch Pad utility settings]  
Settings can be changed for the following functions:
  - Use Touch Pad function (On/Off)
  - Display icon in task tray (On/Off)
  - Animated icon in task tray (On/Off)
  - Rotate icon when wheel is operated (On/Off)
  - Scroll item under mouse cursor (On/Off)
  - Scroll speed setting
  - Set initial scroll scope
- On screens that cannot be scrolled (e.g., desktop screen), if you use the touch pad as described in Step **3** (→ [page 13](#)), the computer may try to scroll the screen, causing the cursor to freeze. If this happens, remove your finger from the touch pad and begin again, this time starting from the center of the touch pad.

## Using the Virtual Scrolling Function




Because the Touch Pad Utility and the Virtual Scrolling function both offer scrolling functions that use the touch pad, these two features cannot be used simultaneously. If you try to use them at the same time, a message may be displayed asking you if you want to enable the Touch Pad Utility.

- To use the Touch Pad Utility:  
Select [Yes]. The Virtual Scrolling function will be disabled.
- To use the Virtual Scrolling function:  
Select [No], and then remove the Touch Pad Utility and set the Virtual Scrolling function using the following procedure. In this case, the Touch Pad Utility will be disabled.

### Windows XP

- 1** Log on with the administrator authority.  
Do not use the Fast User Switching function.
- 2** Select  on the taskbar with the right button, and select [Exit].  
If  is not displayed on the taskbar, display it using the following procedure.  
In [start] - [All Programs] - [Panasonic] - [Touch Pad utility settings] - [General settings], add a check mark for [Display icon in task tray] and select [OK].
- 3** In [start] - [Control Panel] - [Add or Remove Programs], select [TouchPadUtility], then select [Change/Remove].
- 4** At the confirmation message, select [OK], then select [Finish].
- 5** Select  at [Add or Remove Programs].
- 6** Select [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse] - [Device Settings].
- 7** Select the device name in [Devices] (e.g., Synaptics TouchPad), then select [Settings].
- 8** Select [Virtual Scrolling], add a check mark for the scroll functions you want to use, then select [OK].
- 9** Select [OK] at [Mouse Properties].

## Windows 2000

- 1 Log on with the administrator authority.
- 2 Select  on the taskbar with the right button, and select [Exit].  
If  is not displayed on the taskbar, display it using the following procedure.  
In [Start] - [Programs] - [Panasonic] - [Touch Pad utility setting] - [General settings], add a check mark for [Display icon in task tray] and select [OK].
- 3 In [Start] - [Settings] - [Control Panel] - [Add/Remove Programs], select [TouchPadUtility], then select [Change/Remove].
- 4 At the confirmation message, select [OK], then select [Finish].
- 5 Select  at [Add/Remove Programs].
- 6 Select [Start] - [Settings] - [Control Panel] - [Mouse] - [Device Settings].
- 7 Select the device name in [Devices] (e.g., Synaptics TouchPad), then select [Settings].
- 8 Select [Virtual Scrolling], add a check mark for the scroll functions you want to use, then select [OK].
- 9 Select [OK] at [Mouse Properties].

## NOTE

- To begin using the touch pad utility again:
  - 1 Log on with the administrator authority.
  - 2 Run the setup program.

### Windows XP


Select [start] - [Run], input [c:\util\touchpad\setup.exe], then select [OK].

### Windows 2000

Select [Start] - [Run], input [c:\util\touchpad\setup.exe], then select [OK].

- 3 Select [Next] at the welcome message.
- 4 Select [Finish].



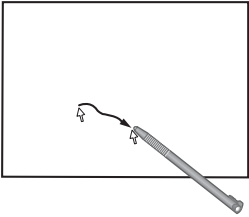
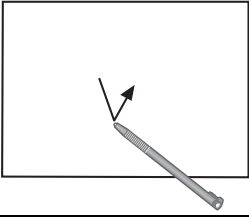
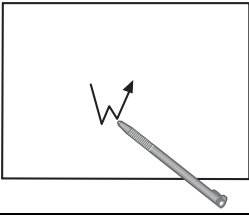
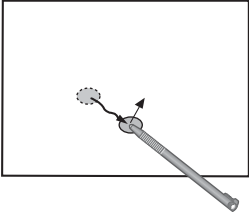
- At the confirmation message asking if you want to enable the Touch Pad Utility, select [Yes].
  - When the setup is complete,  will be displayed on the taskbar.
- 

## Handling the touch pad

- Do not place any object on the work surface or press down forcefully with sharp-pointed objects (e.g., nails) or hard objects that can leave marks (e.g., pencils and ball point pens).
- Try to avoid having any harmful substances such as oil, come in contact with the touch pad. The cursor may not work properly in such cases.
- **When the touch pad becomes dirty:**  
Wipe to remove dirt by using a dry soft cloth such as gauze or a soft cloth first applied with detergent diluted with water and then thoroughly wrung. Do not use benzene or thinner, or rubbing alcohol. Doing so may adversely affect the surface, e.g., discoloration. In addition, do not use commercially-available household cleaners and cosmetics, as they may contain components harmful to the surface.

**Only for models with touchscreen**


Your computer is equipped with a touchscreen function allowing you to perform the same operations as the touch pad or mouse by touching the surface of the display with the stylus (included). The following explanation gives one example (for the default settings). The operation settings can be changed. (→ [page 20](#))

Functions	Operation
Moving the cursor	<div></div> <div>The cursor is moved to the location pointed by the stylus.</div>
Clicking (Tapping)	<div></div> <div>One tap</div>
Double-clicking (Double-tapping)	<div></div> <div>Two quick taps</div>
Dragging	<div></div> <div>Touch and hold the object (i.e. file or icon), move the stylus on the surface (dragging the object to the desired location), then release the stylus.</div>

## CAUTION

- When the internal LCD is used alone or with an external display simultaneously, the touchscreen function cannot be used when the area of either display is set larger than default setting of the display resolution.
- If a change is made to the display resolution, or the cursor can not be pointed correctly with the stylus, be sure to perform [Calibration]. (→ page 20)
- When mouse drivers are installed (e.g., Intellimouse), the touchscreen function may not be used.
- When the operation of panning (only the internal LCD) is performed while the display resolution is set higher than the resolution of the internal LCD, the touchscreen function will not work properly.
- Even when only an external display is in use, the cursor will move on the external display if the surface of the internal LCD is touched when the touchscreen driver is active. Therefore, do not touch the internal LCD when only an external display is in use.
- The touchscreen function can not be used when using the full screen in [Command Prompt].

## NOTE


- Select  to view [Important Tips] for using the touchscreen. You can also view [Important Tips] using the following procedures.  
**Windows XP**  
Select [Important Tips] in [start] - [All Programs] - [Panasonic] - [On-Line Manuals].  
**Windows 2000**  
Select [Important Tips] in [Start] - [Programs] - [Panasonic] - [On-Line Manuals].

## Configuring the Touchscreen


When needed, the touchscreen can be configured using the following steps.

### 1 Display [Mouse Properties] screen.

#### Windows XP

Select  on the taskbar and then select [TouchScreen] or select [TouchScreen] in [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse].

#### Windows 2000

Select  on the taskbar and then select [TouchScreen] or select [TouchScreen] in [Start] - [Settings] - [Control Panel] - [Mouse].

#### A. Double click settings

Set the width and height of the double click.

#### B. Advanced configuration

Set the advanced settings.

#### C. Test

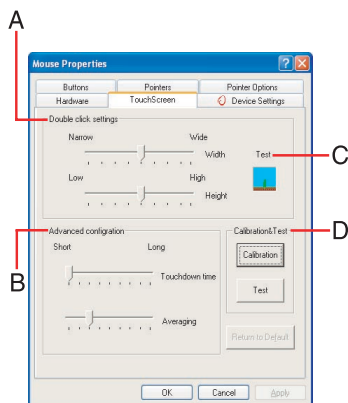
Test for the "Double click settings".

#### D. Calibration & Test

Define the calibration setup. Use this procedure when the cursor, the stylus (included) touches do not appear to agree. (Necessary for changes in the alignment of the touchscreen with visual images or an adjustment of the display resolution.)


Touch the "+" mark on the calibration screen for about one second.

After the calibration procedure is executed (e.g., after the nine "+" marks are touched), the procedure ends when **Enter** is pressed.



### 2 Make necessary changes and select [OK].

#### NOTE

- The double-click speed of the touchscreen can be changed in [Buttons].
- For more information, click  at the upper right corner.

## Handling the Touchscreen

- Use the stylus included with the computer. Do not use an implement other than the stylus that comes with the computer.
- Do not place any object on the surface or press down forcefully with sharp-pointed objects (e.g., nails), or hard objects that can leave marks (e.g., pencils and ball point pens).
- Do not apply pressure within 5 mm of the perimeter of the display panel. The cursor may move to the edge of the display.
- Do not operate the computer when such things as dust are on the screen. Do not allow contact with substances that could dirty the touchscreen, such as oil.
- **When the touchscreen becomes dirty:**
  - Wipe to remove dirt by using a dry soft cloth included with the computer.
  - Do not use benzene or thinner, or rubbing alcohol.
  - For more information, refer to "Suggestions About Cleaning the LCD Surface" that comes with the soft cloth.

## Handling the Stylus

- Clean the stylus tip and screen prior to operation. Foreign particles can scratch the screen and impede the operation of the stylus.
- Use the stylus only for the computer screen. Using it for any other purpose may damage the stylus and scratch the screen.
- Do not use pencils, implements with sharp tips or hard objects for screen operations. The screen may be damaged as a result.
- Since the stylus is retractable tip, be sure to use the stylus only after the stylus tip is ready for use (i.e., clicked open). Otherwise, scratches may result on the screen.

## Starting Up Your Computer Quickly

If you use the standby or hibernation function, you can shut down the computer without closing programs and documents. Upon restarting your computer from either the standby or hibernation mode, you can immediately continue working in all programs, or documents that were open at the time the computer was placed into standby or hibernation mode.

### Differences between the Standby and Hibernation Functions

Function	Where data is saved to	Time until recovery	Requires power supply
Standby function	Memory	Short	Yes (if power is cut, all data is lost)
Hibernation function	Hard disk	Rather long	Power is not required to maintain data

#### NOTE

- We recommend plugging in the AC adaptor if the standby function is to be used for a long period of time. If the AC adaptor cannot be connected, we recommend that hibernation mode be used instead of the standby mode.
- If the standby or hibernation function is used repeatedly, the computer may not work properly. To stabilize computer operations, shut down Windows on a regular basis (about once a week) without using the standby or hibernation function.

## Entering the Standby or Hibernation Mode

Use any of the following methods to enter the standby or hibernation mode.  
To use the hibernation mode, set [Power Options] in advance (→ [page 23](#)).  
(Enabled in factory preset.)

- Fn key combinations (→ [page 6](#))
- Using the power switch (→ [page 25](#))

- From the shut down screen
  - Standby
    - Windows XP  
In [start] - [Turn Off Computer], select [Stand By].
    - Windows 2000  
In [Start] - [Shut Down], select [Stand by] and select [OK].
  - Hibernation
    - Windows XP  
In [start] - [Turn Off Computer], press and hold **Shift**, then select [Hibernate].
    - Windows 2000  
In [Start] - [Shut Down], select [Hibernate] and select [OK].

## Setting for Using the Hibernation Mode

At the time of purchase, the computer is set so that hibernation mode can be used.

### Windows XP

- 1** Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options].
- 2** In [Hibernate], add the check mark for [Enable hibernation] and select [OK].

### Windows 2000

- 1** Select [Start] - [Settings] - [Control Panel] - [Power Options].
- 2** In [Hibernate], add the check mark for [Enable hibernate support] and select [OK].

## Precautions



### ■ Before entering the standby or hibernation mode

- Be sure to save all data.
- When a file in an external device such as a CD drive, external hard disk, or ATA card is opened, close the file.
- Even when a password has been set in the Setup Utility, [Enter Password] does not appear when the computer resumes from the standby or hibernation mode. If you want to use the security function when using the standby or hibernation mode, use the Windows password as follows:

#### Windows XP

- 1 Select the account to change in [start] - [Control Panel] - [User Accounts].
- 2 Set the password.
- 3 Add the check mark for [Prompt for password when computer resumes from standby] in [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].

#### Windows 2000

- 1 Set the password in [Start] - [Settings] - [Control Panel] - [Users and Passwords].
  - 2 Add the check mark for [Prompt for password when computer goes off standby] in [Start] - [Settings] - [Control Panel] - [Power Options] - [Advanced].
- Do not enter either the standby or hibernation mode under the following conditions. You may corrupt your data or file, the standby or hibernation function may not work, or the computer (or peripherals) may fail to work properly.
    - While the floppy disk drive is being accessed, or hard disk drive indicator  or SD memory card indicator  is on.
    - When playing/recording audio files and displaying images (such as MPEG files).
    - When using communications software or the network function.
    - When using PC Cards.  
(If these cards fail to work properly, restart the computer.)

### ■ When entering the standby or hibernation mode

Standby mode: until the power indicator blinks green

Hibernation mode: until the power indicator goes off



- Avoid the following:
  - Touching the keyboard, touch pad, touchscreen (only for models with touchscreen), or power switch.
  - Using external mouse or other peripheral devices
  - Connecting or disconnecting the AC adaptor.
  - Closing or opening the display.

## ■ In standby or hibernation mode

- Do not insert or remove peripherals; abnormal operation may result.
- In standby mode, power is consumed. If PC Cards are inserted, more of that power is consumed. When all power has been consumed, all data saved at standby is lost since it is retained in memory. We therefore recommend plugging in the AC adaptor when using the standby function.

## Using the Power Switch

### ■ Setting

#### Windows XP

- 1** Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].
- 2** Select [Stand by] or [Hibernate] for [When I press the power button on my computer], then select [OK].

#### Windows 2000

- 1** Select [Start] - [Settings] - [Control Panel] - [Power Options] - [Advanced].
- 2** Select [Standby] or [Hibernate] for [When I press the power button on my computer] and then select [OK].

## NOTE

- When [Stand by]<sup>\*1</sup> or [Hibernate] is selected as the setting for [When I close the lid of my portable computer] in the following menu, the computer will enter either the standby or hibernation mode when the display is closed.

### Windows XP

[start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced]

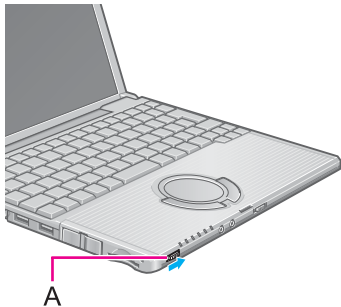
### Windows 2000

[Start] - [Settings] - [Control Panel] - [Power Options] - [Advanced]

<sup>\*1</sup> **Windows 2000**  
[Standby]

## ■ Entering the standby or hibernation mode

- 1 Slide the power switch (A); at the beep<sup>\*2</sup> sound, release your finger. The computer will enter either the standby or hibernation mode, depending on the setting.



## CAUTION

- After releasing your finger from the power switch, do not touch the power switch until the power indicator goes off or blinks.
- At the beep<sup>\*2</sup> sound, release your finger from the power switch. If you continue to slide the power switch and hold it for more than four seconds, the computer will emit a second beep<sup>\*2</sup> then power off. Data not previously saved will be lost.

### Windows XP

Even when [When I press the power button on my computer] is set to [Shut down] with [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced], if you slide the power switch for more than four seconds and do not release it, a second beep<sup>\*2</sup> will sound and the power will be turned off forcibly. Data not previously saved will be lost.

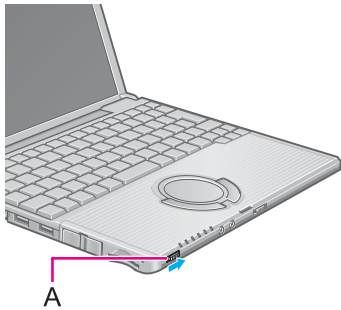
### Windows 2000

Even when [When I press the power button on my computer] is set to [Power Off] with [Start] - [Settings] - [Control Panel] - [Power Options] - [Advanced], if you slide the

power switch for more than four seconds and do not release it, a second beep<sup>\*2</sup> will sound and the power will be turned off forcibly. Data not previously saved will be lost.

<sup>\*2</sup> When the speaker function is disabled, e.g., by the key combination **Fn+F4**, there will be no beep sound.

## Resuming Operation



### 1 Slide the power switch (A).

Operation will also resume when the display is opened. If the computer does not resume when the display is opened, slide the power switch.

### CAUTION

- Until resuming is complete (requires about 15 seconds/60 seconds if connected to a network), avoid the following:
  - Touching the keyboard (except for password input), touch pad, touchscreen (only for models with touchscreen), or power switch.
  - Using external mouse or other peripheral devices
  - Connecting or disconnecting the AC adaptor.
  - Closing or opening the display.
  - Shutting down or restarting Windows.
  - Entering either the standby or hibernation mode again.

### NOTE

#### Windows 2000

- When the computer enters standby/hibernation mode and then resumes while a USB 1.1 device (e.g., USB floppy disk drive (optional)) is connected, a device disconnection warning message may appear on the screen, but this will not impede the computer's operation.

To prevent unauthorized access of your computer, the various security measures are provided below.

Situation	Function to use
You do not want your computer to be used without permission	<ul style="list-style-type: none"><li>● Supervisor Password (→ <a href="#">page 30</a>)</li><li>● User Password (→ <a href="#">page 32</a>)</li><li>● SD Memory Card Security Function (→ <a href="#">page 56</a>)</li></ul>
You do not want the data on the hard disk to be read, or data to be written to the hard disk, in cases including theft.	<ul style="list-style-type: none"><li>● Hard Disk Lock (→ <a href="#">page 34</a>)</li></ul>

## NOTE

- Windows has a security function that differs from the above security measures. For detailed information, refer to the Windows help.
- For security functions for the wireless LAN, refer to the following menu.  
**Windows XP**  
Select [Getting Started Guide] or [User's Guide] in [start] - [All Programs] - [Intel].  
**Windows 2000**  
Select [Getting Started Guide] or [User's Guide] in [Start] - [Programs] - [Intel].

## When you do not want your computer to be used without permission

You should set your "Supervisor Password" and "User Password" (The User Password can only be set when the Supervisor Password has been set).

If you set the password and set [Password on boot] to [Enable], your computer cannot be accessed without the password.

### Starting Up When the Password is Set

Enter Password [       ]

When [Password on boot] of [Security] menu is set to [Enable], enter your password<sup>\*1</sup> and press **Enter**.

- When the correct password is inputted, the computer will start.
- When three incorrect password attempts or nothing is input for one minute<sup>\*2</sup>, the computer will power off.

<sup>\*1</sup> Supervisor Password or User Password set in the Setup Utility (not the Windows password).

<sup>\*2</sup> If the setup utility has been started up, the power will not be turned off even after one minute has passed.

#### ■ When the Setup Utility is started with Supervisor Password

- You can register all items of the Setup Utility. (→ [page 88](#))





#### ■ When the Setup Utility is started with User Password

- You can not register [Advanced] and [Boot] menu.
- [Clear registered SD card], [Set Supervisor Password] and [Hard Disk Lock] will not be displayed on [Security] menu. The User Password can be changed only when [User Password Protection] has been set to [No Protection]. The User Password cannot be deleted.
- [Get Default Values] will not be displayed on [Exit] menu.
- **F9** does not work.

## NOTE

- When [Password on boot] in the Setup Utility is set to [Disable], the password is not necessary when the computer is started up, but the password becomes necessary when the Setup Utility is started up. This alternative makes it possible to prevent the contents of the Setup Utility from being changed.

## Setting the Supervisor Password (enabling, changing, disabling)

- 1 Run the Setup Utility. (→ [page 88](#))
- 2 Using either  or , select [Security].
- 3 Using either  or , select [Set Supervisor Password] and press **Enter**.
- 4 Only when the Supervisor Password has been set:  
Enter your password at [Enter Current Password] and press **Enter**.
- 5 Enter your password at [Enter New Password] and press **Enter**.
  - To disable the Supervisor Password  
Press only **Enter**.
- 6 Re-enter your password at [Confirm New Password] and press **Enter**.
  - To disable the Supervisor Password  
Press only **Enter**.
- 7 At [Setup Notice], press **Enter**.
- 8 Press **F10** and select [Yes], then press **Enter**.

## CAUTION

---

- Do not forget your password. If your Supervisor Password is forgotten, you will be unable to use your computer. Contact your technical support office.
  - When running the Setup Utility, do not leave your computer even for a short time, as the possibility exists for the password to be set/changed by another person.
- 

## NOTE





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- Your password will not be displayed on the screen.
  - Only up to seven alphanumeric characters can be used.
    - There is no distinction between upper and lower case letters.
    - Use only the upper horizontal row of numeric keys to input your password.
    - Do not input your password while holding down on **Shift** or **Ctrl**.
  - Disabling the Supervisor Password also disables the User Password.
-

## Setting the User Password (enabling, changing, disabling)

### NOTE

- When the Supervisor Password has not been set, the User Password can not be set. Set the Supervisor Password if you have not done so. (→ [page 30](#))
- To disable the User Password, start up the Setup Utility with the Supervisor Password.

- 1 Run the Setup Utility. (→ [page 88](#))
- 2 Using either  or , select [Security].
- 3 Using either  or , select [Set User Password] and press **Enter**.
- 4 Only when the User Password has been set:  
Enter your password at [Enter Current Password] and press **Enter**.
- 5 Enter your password at [Enter New Password] and press **Enter**.
  - To disable the User Password  
Press only **Enter**.
- 6 Re-enter your password at [Confirm New Password] and press **Enter**.
  - To disable the User Password  
Press only **Enter**.
- 7 At [Setup Notice], press **Enter**.
- 8 Press **F10** and select [Yes], then press **Enter**.

### CAUTION

- Do not forget your password. If a password is forgotten, you will be unable to use your computer. If this happens, log on with the Supervisor Password, or ask a person who knows the Supervisor Password.



- When running the Setup Utility, do not leave your computer even for a short time, as the possibility exists for the password to be set/changed by another person.
- 

## NOTE

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- Your password will not be displayed on the screen.
  - Only up to seven alphanumeric characters can be used.
    - There is no distinction between upper and lower case letters.
    - Use only the upper horizontal row of numeric keys to input your password.
    - Do not input your password while holding down on **Shift** or **Ctrl**.
  - When you do not want the User Password enabled or changed without permission:
    - 1 Run the Setup Utility and enter the Supervisor Password.
    - 2 Go to [Security] menu. Using **↑** and **↓**, select [User Password Protection] and press **Enter**.
    - 3 Using either **↑** or **↓**, select [Protected] and press **Enter**.
-

## When you do not want the data on the hard disk to be read/written





When the Hard Disk Lock is set to [Enable], it is impossible to read/write data from/to the hard disk when the hard disk is inserted in a different computer, since a password is also set for the hard disk. When the hard disk is returned to the original computer, you can read and write data as before. In this case, however, make the settings in the Setup Utility exactly the same as they were before the hard disk was removed.

It is possible to set the Hard Disk Lock even if [Password on boot] is set to [Disable], but we recommend that [Password on boot] be set to [Enable] for security reasons. (Note that this Hard Disk Lock does not guarantee complete protection of data.)

### NOTE

- In the default setting, [Hard Disk Lock] is set to [Disable].
- You cannot set [Hard Disk Lock] without setting the Supervisor Password. Set the Supervisor Password if you have not done so. (→ [page 30](#))
- The hard disk lock function only works with the internal hard disk. This function does not work with the external hard disk.

## Setting the Hard Disk Lock (enabling, disabling)

- 1 Run the Setup Utility. (→ [page 88](#))
- 2 Using either  or , select [Security].
- 3 Using either  or , select [Hard Disk Lock] and press **Enter**.
- 4 Select [Enable] or [Disable].
  - To enable the Hard Disk Lock  
Select [Enable] and press **Enter**. At [Caution], press **Enter**.
  - To disable the Hard Disk Lock  
Select [Disable] and press **Enter**.
- 5 Press **F10** and select [Yes], then press **Enter**.

## CAUTION

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- If your computer requires repair
    - Be sure to set [Hard Disk Lock] to [Disable].
-

## Saving Power

One of the main features of notebook-type computers is that you have the power of computing away from your home or office. In the following, information is provided on how to maximize use of the battery pack which is necessary for such computing.

- **Four Important Points**
  - **POINT 1**  
Be sure to charge your battery before and after use.
  - **POINT 2**  
To get the maximum use of your battery, set the power management mode.
  - **POINT 3**  
Check to see that you have your AC adaptor with you before leaving your home or office.  
Purchasing a spare battery (CF-VZSU24U/CF-VZSU24AU) is highly recommended.
  - **POINT 4**  
Always watch your battery level!


## Power Saving Methods

- **Leave your computer off when it is not in use**  
(⇒ *Operating Instructions* “Starting Up/Shutting Down”)
- **Adjust the brightness (darker) with Fn+F1**
- **Before stepping away from your computer, press Fn+F7 or Fn+F10 to put your computer in the standby or hibernation mode (→ [page 6](#))**
- **Remove peripheral devices (USB devices, PC Cards, external mouse, etc.) when not in use**
- **Use the power saving function**
  - Windows XP**  
In [start] - [Control Panel] - [Performance and Maintenance] - [Power Options], set time for [Turn off monitor] in [Power Schemes], along with other detailed settings, to save power. By selecting [Max Battery] in [Power schemes], the battery's operating time can be extended even further.
  - Windows 2000**  
In [Start] - [Settings] - [Control Panel] - [Power Options], set time for [Turn off monitor] in [Power Schemes], along with other detailed settings, to save power.
- **Setting the Intel® SpeedStep™ technology (→ [page 38](#))**

## CAUTION

- When installed in a network environment (except when the Wake Up from LAN function is in use).  
Do not use the standby or hibernation mode.  
After resuming operation from the standby or hibernation mode, the network connection may be severed or the computer will not work properly.

## NOTE

- Select  to view [Important Tips] for using the battery pack. You can also view [Important Tips] using the following procedures.  
**Windows XP**  
Select [Important Tips] in [start] - [All Programs] - [Panasonic] - [On-Line Manuals].  
**Windows 2000**  
Select [Important Tips] in [Start] - [Programs] - [Panasonic] - [On-Line Manuals].

## Setting the Intel(R) SpeedStep (TM) Technology





### Windows 2000

By using the Intel® SpeedStep™ technology applet, you can set the computer's performance to optimize power consumption.

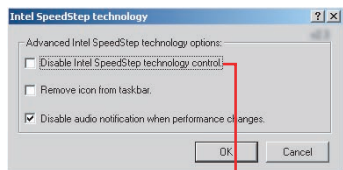
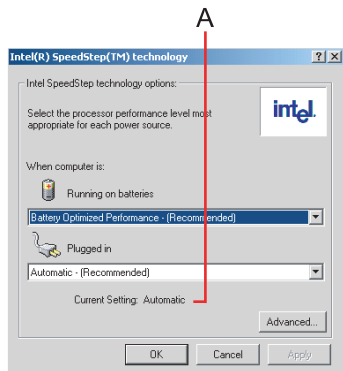
### Starting Up the Intel(R) SpeedStep (TM) Technology

- 1 Select  on the taskbar.

#### NOTE

- The icon differs depending on the current setting.
  -  Maximum Performance (The CPU performance is maximized at all times.)
  -  Automatic (The CPU performance is automatically maximized only when necessary.)
  -  Battery Optimized Performance
  -  Maximum Battery (Maximum battery life)
- You can also start using [Start] - [Settings] - [Control Panel] - [Power Options] - [Intel(R) SpeedStep(TM) technology].

- A. Displays settings currently in effect.  
B. Do not add the check mark.



## Use the Battery Indicator to Check the Battery Status

Battery Indicator	Battery Status
Not lit	Battery pack is not connected or charging not being performed.
Orange <sup>*1</sup>	Charging in progress.
Green <sup>*1</sup>	Fully-charged.
Red	<p>The battery level is very low (the charge is less than approx. 9% capacity).</p> <p>Connect the AC adaptor. You can use the computer when the battery indicator light is orange. If you do not have an AC adaptor, save your data and power off your computer. After replacing the battery pack with a fully charged one, turn your computer on.</p>
Blinking red <sup>*1</sup>	<p>Battery pack or charging may not be working properly. Quickly save your data and power off your computer. Remove the battery pack and disconnect the AC adaptor, then connect them again. If the problem persists, contact your technical support office. Possible failure in the battery pack or charging circuit.</p>
Blinking orange <sup>*1</sup>	<p>Battery cannot be recharged temporarily because the internal temperature of the battery pack is outside of the acceptable temperature range for recharging. Once the allowable range requirement is satisfied, charging begins automatically. Your computer can be used normally in this state.</p>

<sup>\*1</sup> When the AC adaptor is connected.

### NOTE

- This computer prevents overcharging of the battery by recharging only when the remaining power is less than approx. 95% of capacity after the battery is fully charged.

## Check the Remaining Battery Power

There are two methods to check the remaining battery power.

- Press **Fn+F9**. (After logging on to Windows)
- Check the number of lighting LED indicators. (When the power is off or in standby/ hibernation mode) (→ [page 41](#))

### NOTE

- In the following cases, there may be a difference between the remaining battery capacity displayed on the indicator and the actual remaining battery capacity. To correct this, execute the Refresh Battery utility. (→ [page 43](#))
  - The battery indicator light remains red.
  - The battery remaining displays 99% and the indicator light is orange for a long period of time.
  - Low battery warning appears after a short period of time.  
This may be caused by the use of standby mode for long periods of time. The battery is discharging while the computer is in standby mode when the AC adaptor is not connected.
- There may be a discrepancy between the % value that is displayed on the taskbar icon, and [Power Meter] in [Power Options Properties]. This is not a malfunction.

Press **Fn+F9** to Check the Remaining Battery Power on the Screen  
(After logging on to Windows)



When the battery pack is inserted in the computer (example)

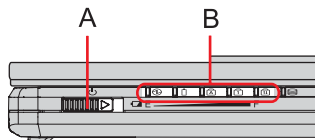


When the battery pack is not inserted in the computer



## Check the number of lighting LED indicators (When the power is off or in standby/hibernation mode)

You can view the number of lighting LED indicators (B) to check the remaining battery capacity when the AC adaptor is not connected and you slide the power switch (A) with the display closed and the latch locked.



The number of lighting LED indicators (B)	Remaining Battery Capacity
0	0 % - 4 %
1	5 % - 24 %
2	25 % - 49 %
3	50 % - 74 %
4	75 % - 94 %
5	95 % - 100 %

## When the Remaining Battery Charge Becomes Low

The following is factory default setting.

When remaining battery capacity falls to 10% [Low battery alarm]	When remaining battery capacity falls to 5% [Critical battery alarm]
<ul style="list-style-type: none"><li>● Displays a message indicating the low battery level.</li></ul>	<ul style="list-style-type: none"><li>● Displays a message indicating the low battery level.</li><li>● The computer will enter standby or hibernation mode. <a href="#">Windows XP</a> Hibernation mode <a href="#">Windows 2000</a> Standby mode</li></ul>
↓	↓
Charge your battery.	Connect the AC adaptor before starting up the computer next time.
<ul style="list-style-type: none"><li>● Connect the AC adaptor immediately. If you do not have the AC adaptor with you, exit any programs currently running, then exit Windows, and confirm that the power indicator is off.</li><li>● If you have a fully charged spare battery, turn off the computer, replace the battery, and turn the computer on again. Do not replace the battery pack while the computer is in standby mode.</li></ul>	<ul style="list-style-type: none"><li>● If the computer starts up or resumes while the AC adaptor is not connected, Windows may not operate properly or alarm operations may not work properly.</li></ul>

Above settings can be changed.

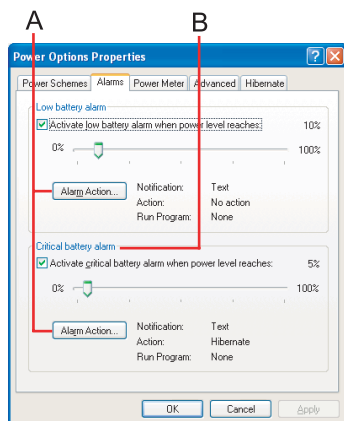
1 Display [Alarms] screen.

[Windows XP](#)

Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Alarms].

[Windows 2000](#)

Select [Start] - [Settings] - [Control Panel] - [Power Options] - [Alarms].



- 2 Set alarm operations and remaining battery level for operating alarm functions.  
When disabling the speaker by pressing **Fn+F4**, the sound alarm is also disabled.

- A. When making a setting for [When the alarm goes off, the computer will] in [Alarms] - [Alarm Action]:

### Windows XP

Add a check mark for [Force stand by or shutdown even if a program stops responding].

### Windows 2000

Add a check mark for [Force standby or shutdown even if a program stops responding].

- B. Set the value for [Critical battery alarm] to 5% or more.  
This is necessary for the standby or hibernation function to be completed (assuring data is saved) when the battery level is low.

## Accurately Displaying Battery Capacity

The battery pack has a function for measuring, storing and learning about battery capacity. Using this function properly to accurately display remaining battery capacity requires that the battery pack be fully charged (charged to 100%), then fully discharged, and then fully charged again. This procedure should be performed once after you purchase the computer. As you use the battery pack over a long period of time, the remaining capacity display may become inaccurate due to aging of the battery pack and other factors. The procedure described below should be performed again.

### NOTE

- If the computer is turned off while refreshing the battery (electrical power outage, accidental removal of the AC adaptor or battery pack, etc.), the battery will not be refreshed correctly.

- 1 Attach the battery pack, then connect the AC adaptor.  
Remove all peripherals (except for the battery pack and AC adaptor).
- 2 Use the "Refresh Battery" utility to fully discharge the battery pack.
  - 1 Run the Setup Utility. (→ page 88)
  - 2 Select [Refresh Battery] from [Exit] menu and press **Enter**.

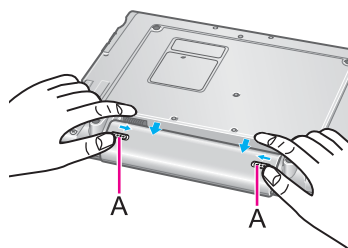
- 3 At the confirmation message, select [Yes] and press **Enter**.  
Once the battery indicator turns green, the battery pack will be completely discharged. It takes approximately 3 hours until the power automatically goes off through the complete discharge of the battery from the fully charged state.
- 3 Allow the battery pack to charge until the battery indicator turns green.  
Charging Time: Approximately 3 hours.

## Replacing the Battery Pack

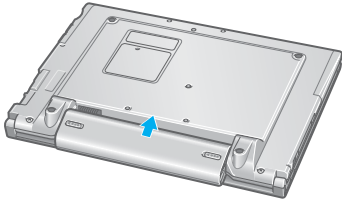
The battery pack is a consumable item and therefore will require replacement (CF-VZSU24U/CF-VZSU24AU). When the charge provided by your battery pack is supplied for only a short period of time, even after fully charging according to the instructions, it may be time to replace your battery pack.

### CAUTION

- Do not touch the terminals on the battery pack and the computer. The battery pack may no longer function properly if the contacts are dirty or damaged. Also, the computer may not operate properly.
- The battery pack is not charged when it is first purchased. Be sure to charge it before using it for the first time. When the AC adaptor is connected to the computer, charging begins automatically.
- Use only the specified battery pack (CF-VZSU24U/CF-VZSU24AU) with your computer.
- In the standby mode, do not remove/change the battery pack. Removing the pack in the standby mode will erase your data and may damage the computer.



- 1 Power off your computer.  
(⇒ *Operating Instructions* "Starting Up/Shutting Down")  
Do not shut down using the standby function.
- 2 Turn your computer over and remove the battery pack.  
Remove the battery pack while sliding the latches (A) inward.  
**For U.S.A. and Canada**  
Descriptions are given using illustrations not featuring the hand strap for convenience of explanation.



## 3 Insert the battery pack.

Make sure the battery pack is facing the correct direction, then slide it in the direction of the arrow, and then check to ensure that the battery pack is held firmly by the latches on the left and right sides.

### CAUTION

- Be sure the battery pack is properly connected to the connector.

SD-MovieStage makes it possible to record the multimedia contents stored on your hard disk drive or various other media onto an SD memory card.

## Setting Up the SD-MovieStage

### For U.S.A. and Canada

#### Windows XP

- 1 Select [start] - [Run], input [c:\util\sdmovie\setup.exe], then select [OK].  
Follow the on-screen instructions.

#### Windows 2000

- 1 Select [Start] - [Run], input [c:\util\sdmovie\setup.exe], then select [OK].  
Follow the on-screen instructions.

#### NOTE

- At [Choose Destination Location], do not change the destination folder.
- At [Select the Video System], select [NTSC] or [PAL].

## Running the SD-MovieStage

### CAUTION

- Be sure to log on with the administrator authority when running the SD-MovieStage.



### Windows XP

- 1 Select [start] - [All Programs] - [Panasonic] - [SD-MovieStage] - [SD-MovieStage].

### Windows 2000

- 1 Select [Start] - [Programs] - [Panasonic] - [SD-MovieStage] - [SD-MovieStage].

### NOTE

- The screensaver may not work while SD-MovieStage is running.
- For more detailed information, refer to the operation manual of the SD-MovieStage.

### Windows XP

Select [start] - [All Programs] - [Panasonic] - [SD-MovieStage] - [Manual].

### Windows 2000

Select [Start] - [Programs] - [Panasonic] - [SD-MovieStage] - [Manual].

### For Hong Kong

In [Manual], there are PDF files in English, Traditional Chinese, and Simplified Chinese.

Before displaying these files, you must install the Acrobat Reader for each language.  
(⇒ *Operating Instructions* "First-time Operation")

This slot conforms to the PC Card Standard; therefore, communications and SCSI devices may be utilized. The slot allows you to use one Type I or Type II card.

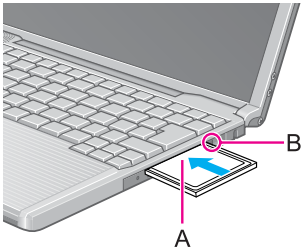
## CAUTION

- 
- Check the PC Cards' specifications. Be sure the total operating current does not exceed the specified limit. Damage may result otherwise.  
Allowable Current: 3.3 V: 400 mA, 5 V: 400 mA
  - ZV card, SRAM card, FLASH ROM card (except for an ATA interface) and card requiring 12V are not supported.
  - With the repeated insertion/removal of a PC Card, the computer may no longer recognize the PC Card (depending on the type of card). In such cases, restart the computer.
  - If the computer freezes after resuming from the standby or hibernation mode, try removing and then reinserting the PC Card. If this does not correct the problem, restart the computer.
-



## Inserting/Removing the PC Card

### Inserting a PC Card



- 1 Simply slide the PC Card in with label-side up (A) until it snaps into place.  
Refer to the operating instructions of each card on how to insert the card (insertion is typically label-side up).  
After the card is inserted, bend the eject button (B).

### CAUTION

- When using a PC Card to connect a peripheral device (SCSI, IEEE 1394, etc.):
  - 1 Connect the peripheral device to the card.
  - 2 Turn the device on.
  - 3 Slide the card in until it snaps into place.
- When inserting a card, do not force the card in if difficulty is encountered. Depending on the shape of the card, a segment may remain protruding from the slot after insertion. Do not try to force the card all the way in. You may damage the slot, making it impossible to remove the card.

## Removing a PC Card


### CAUTION

- Do not remove a PC Card while your computer is in the standby or hibernation mode.
- Note that the operation of removing the PC Card may not be complete, depending on the status of the PC Card or device connected to the PC Card, such as when a SCSI card is used to connect an external hard disk to the computer. In such cases, turn off the power from [start]<sup>\*1</sup> menu, then remove the card.


<sup>\*1</sup> [Windows 2000](#)  
[Start]

### 1 Disable the card function.

#### [Windows XP](#)

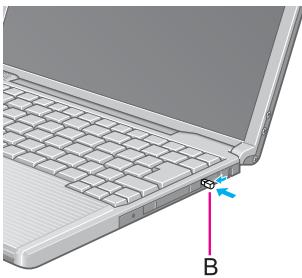
- 1 Select  on the taskbar, select the PC Card, then select [Stop].
- 2 Follow the on-screen instructions.  
(When the PC Card has been removed after the computer is turned off, this step is not necessary.)

#### [Windows 2000](#)

- 1 Select  on the taskbar, select the PC Card, then select [Stop].
- 2 Follow the on-screen instructions.  
(When the PC Card has been removed after the computer is turned off, this step is not necessary.)

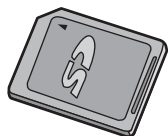
### 2 Raise the bent part of the eject button (B).

### 3 Press the button (B) and slide the PC Card out.



## About SD Memory Card/MultiMedia Card

### SD Memory Card



The SD memory card is a small, lightweight memory card developed using advanced copyright protection technology which is compatible with content on-demand services. The SD memory card may be used in ways such as the following.

- Write music data (checkout) to the card and listen to the music.
- Use to exchange data with devices equipped with an SD memory card slot.
- Use as a memory card. (The SD memory card can be used as a drive for storing files, etc.)
- You can insert an SD memory card instead of entering a password to start your computer or log on to Windows. (→ [page 56](#))

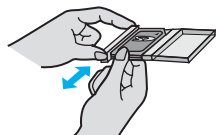
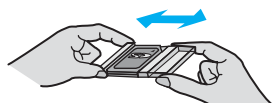
#### ■ Formats for SD memory cards

- When using the SD memory card with other peripheral devices, format the SD memory card using the peripheral device. For details, refer to the instruction manual for that device.

Note that the SD memory card is not supported by formats other than the SD memory card standard.

#### **Windows 2000**

- This computer does not support formats for NTFS file systems. Do not format the SD memory card using the NTFS file format.



#### ■ Opening and closing the case

- To ensure that the card performs properly, always use both hands to open and close the case, making sure that the sides (four locations) remain horizontal.

#### ■ Removing and storing the SD memory card

- When removing or inserting the card, always slide it along the tray. When storing the card, make sure it is properly inserted in the tray before closing the case.

#### ■ Important handling and storage information

- Always store the SD memory card in its case after removing it from a computer.

- Do not take the SD memory card apart or try to modify it.
- Do not hit, bend, or drop the card, or allow it to get wet.
- Do not touch the metal terminals with your hands or with metal.
- Do not remove the labels on the card.
- Do not attach other labels or seals to the card.
- Do not leave the card in locations that can become very hot, such as inside a car that can become hot or in direct sunlight.
- Do not leave the card in dusty locations or locations that are very humid.
- Do not leave the car in locations subject to corrosive gas, etc.

## ■ When resuming from standby or hibernation mode

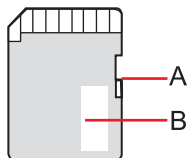
- After resuming from standby or hibernation mode, do not access the SD memory card for about 30 seconds.

## ■ Protecting important data

- Set the write-protect switch (A) to the LOCK position. Unlock the switch when you want to record (checkout), edit, or save data.
- Use an oil-base felt-tip pen to write in the memo area (B) on the card. Do not use a pencil or ball-point pen. Doing so can damage the card body or destroy data stored in the card.
- Do not remove the card or turn off the device while data is being read from or written to the card, or for a short time after the writing operation, while the SD memory card indicator (→ [page 54](#)) is lit. Doing so can destroy data stored in the card. (Note that Panasonic assumes absolutely no liability for any loss of data recorded by the user, or any other damages, direct or indirect.)
- We recommend backing up important data to another storage medium.

## ■ Data transfer rate

- The transfer rate using the SD memory card slot on this computer is 2MB per second. The transfer rate is 2MB per second even if you use an SD memory card that supports high-speed transfer rates.



## MultiMedia Card (MMC)

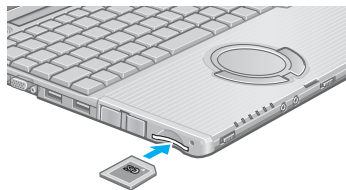
The MultiMedia Card can be used in ways such as the following.

- Use to exchange data with devices equipped with a MultiMedia Card slot.
- Use as a memory card. (The MultiMedia Card can be used as a drive for storing files, etc.)

This computer may be unable to use MultiMedia Cards under some conditions; for example, if the MultiMedia Card has been formatted using certain peripheral devices.

## Inserting/Removing the SD Memory Card/MultiMedia Card

### Inserting the Card

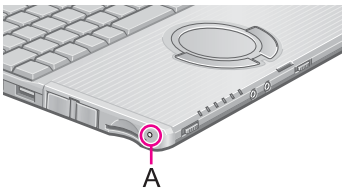


- 1 Insert the card firmly with the label side facing up and with the cut corner in front.

#### CAUTION


- Make sure you insert the card in the proper direction. If the card is inserted in the wrong direction, the card or slot may be damaged.

## Removing the Card



- 1 When you press the card, it will come out of the slot a little bit. Now pull it all the way out.

### CAUTION

- When removing the card, always press it and allow it to come out a little bit before you remove it. If you try to force the card out of the slot while it is locked in place, the card or slot may be damaged.
- Do not remove the card until the SD memory card indicator  (A) turns off completely.
  - Do not remove the card while data is being read from or written to the card.
  - The computer may continue to access the card for some length of time after operations such as writing to the card. If you try to remove the card before the operation is completed, important data may be damaged, or it may not be possible to properly access the card the next time it is inserted.

## SD Memory Card Drive Name

Even if no SD memory card/MultiMedia Card has been connected, a drive name will still be displayed as "Removable Disk" in Explorer and other programs.

To change the drive name, use the SD Drive Name Change Tool with the following procedure.

### NOTE

- Log on with the administrator authority.
- The drive names for A: Drive, B: Drive, C: Drive, and Z: Drive cannot be changed.


### ■ How to install the SD Drive Name Change Tool

- 1** Select [start]<sup>\*1</sup> - [Run].
- 2** Input [c:\util\chgsddrv\setup.exe] and select [OK], then follow the on-screen instructions.


<sup>\*1</sup> [Windows 2000](#)  
[Start]

### ■ How to change drive names

#### [Windows XP](#)

- 1** Select [start] - [All Programs] - [Panasonic] - [SD Drive Name Change Tool].
- 2** Select  in [New drive name], select the drive name, and select [OK].

#### [Windows 2000](#)

- 1** Select [Start] - [Programs] - [Panasonic] - [SD Drive Name Change Tool].
- 2** Select  in [New drive name], select the drive name, and select [OK].

## SD Memory Card Security Function

When you initialize an SD memory card, you can provide the card a security function. You can insert an SD memory card instead of entering a password for purposes such as the following.

- In order to start your computer.
- In order to log on to Windows.
- When you want to use the computer in standby or hibernation mode, or while the screensaver is active.

### NOTE

- To use the SD memory card when logging on to Windows:  
The Windows logon user and a password must be set in [Control Panel] in advance.
- Use the formatted SD memory card.
- In addition, you can set the security function on a single SD memory card for multiple computers.  
Note, however, that if the card is used when logging on to Windows, all of the computers must use the same user name and password as those on the SD memory card.
- This security function only works in the SD memory card slot. It does not work in devices such as an SD card reader connected through a USB connection.
- An SD memory card with the above settings can be used as an ordinary memory card in other devices as well.

## Initialization (SD Card Setup)

An SD memory card must be initialized in order to use the security function. Use the following procedure to initialize an SD memory card.

- 1** Turn on the computer.
- 2** Insert the SD memory card in the SD memory card slot.

### Windows XP

When [Removable disk] appears, select [Take no action], then select [OK].



## 3 Start the SD card setup program.

### Windows XP

Select [start] - [All Programs] - [Panasonic] - [SD Card Setup].

### Windows 2000

Select [Start] - [Programs] - [Panasonic] - [SD Card Setup].

If an SD memory card has not been inserted, the following message appears: [Set the SD card in place]. Insert an SD memory card and select [Retry].

## 4 Select [Next] in the Welcome screen.

## 5 Select the functions you want to use and the SD memory card setting method, then select [Next].

### A. Use when starting computer

Add the check mark if you want to use the SD memory card instead of a password entry in order to start the computer.

### B. Use when logging on to Windows

Add the check mark if you want to use the SD memory card instead of a password entry on the Windows logon screen.

### Windows XP

If the check mark is added, the Welcome screen will no longer appear, and the user switching function and remote desktop connection will be disabled.

### C. Leave set<sup>\*1</sup>

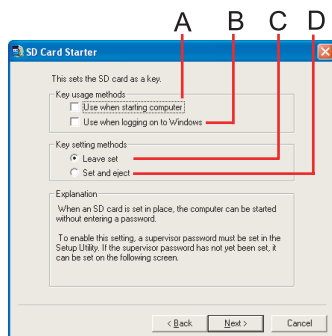
Add the check mark if you want to leave the SD memory card put in place instead of entering a password. The card may be removed after the computer is started or after you log on to Windows.

### D. Set and eject<sup>\*1</sup>

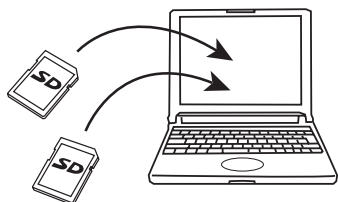
Add the check mark if you want to set and eject the SD memory card instead of entering a password.

<sup>\*1</sup> The setting method is set separately for each computer. Different SD memory cards may not use different setting methods on the same computer.  
To change only the setting for [Use when starting computer], change the setting in [Security] menu of the Setup Utility.

## 6 Select [Restart the computer after entering settings], then select [Finish].



- 7** Change the settings as necessary.  
Operation differs depending on the setting in step **5**.



If you add the check mark for [Use when starting computer] in step **5**:

Up to two SD memory cards can be registered for a single computer. The Supervisor Password must be set to register.

- **If the Supervisor Password has been set**

Enter the Supervisor Password, then select [OK].

- **If the Supervisor Password has not been set**

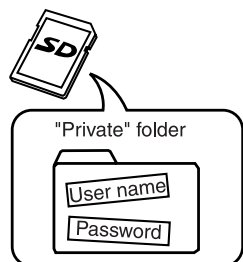
Follow the on-screen instructions to set the Supervisor Password.

**1** Enter the Supervisor Password, then press **Tab**.

**2** Reenter the Supervisor Password entered in step **1**, then select [OK].

**3** Select [Yes] on the confirmation screen.

[Supervisor Password] and [Password on boot] will be set to enable.



If you add the check mark for [Use when logging on to Windows] in step 5:

The Windows logon user name and password are registered in the SD memory card. To register, the Windows logon user name and password must be set in [Control Panel] in advance.

- 1 Enter the user name, then press **Tab**.
- 2 Enter the password, then press **Tab**.
- 3 Reenter the password entered in step 2, then select [OK].
  - If the message [The specified logon user name was not found] is displayed:  
The user name set on the SD memory card is different from the Windows user name.
    - When [No] is selected  
Return to Step 6 (→ page 57).  
Enter the different user name and password that has been set in [Control Panel], or create a Windows user name and password in [Control Panel] and then make the setting on the SD memory card.
    - When [Yes] is selected  
The user name set on the SD memory card will be different from the Windows user name. When restarting the computer after completing these settings, enter the Windows user name and password to log on without using the SD memory card. After this, if you use the [Control Panel] to set the user name and password that has been set on the SD memory card, you will be able to log on using that SD memory card.
- 4 Select [Yes] on the confirmation screen.

A [Private] folder will be created in the SD memory card, and a Windows logon user name and password will be registered. Do not delete [Private] folder. Doing so will cancel [Use when logging on to Windows].

## Using an SD Memory Card

An SD memory card that has been initialized (SD Card Setup) can be used as described below.

### ■ If the card is set for [Use when starting computer]

Enter Password

[ ]

When the screen on the left appears...

- If [Leave set] was selected in step **5** for [Initialization (SD Card Setup)]  
Insert the SD memory card.  
If an SD memory card is already inserted, the password input screen does not appear.
- If [Set and eject] was selected in step **5** for [Initialization (SD Card Setup)]  
Insert the SD memory card, then eject it.

### NOTE

- Without using the SD memory card, you can also start your computer by entering the Supervisor Password or User Password.

### ■ If the card is set for [Use when logging on to Windows]

If you are prompted to enter your password during Windows logon...

- If [Leave set] was selected in step **5** for [Initialization (SD Card Setup)]  
Insert the SD memory card.  
If an SD memory card is already inserted, reinsert it. However, if it is already inserted when starting the computer, the Windows logon screen does not appear when the computer is started.
- If [Set and eject] was selected in step **5** for [Initialization (SD Card Setup)]  
Insert the SD memory card, then eject it.

If you are prompted to enter your password when you try to use the computer in standby or hibernation mode, or while the screensaver is active...

- If [Leave set] was selected in step **5** for [Initialization (SD Card Setup)]  
Insert the SD memory card.  
If an SD memory card is already inserted, reinsert it.
- If [Set and eject] was selected in step **5** for [Initialization (SD Card Setup)]  
Insert the SD memory card, then eject it.

## CAUTION

- **If the card is set for [Use when logging on to Windows]**

When you are logging on to Windows or trying to resume computer while the screensaver is active, if the SD memory card indicator is blinking, enter the password through the keyboard without removing the SD memory card. A software application, etc. may be accessing the SD memory card. Remove the SD memory card in the following cases:

- Before logging off.
- Before the computer enters either the standby or hibernation mode.
- If there is a possibility that the screensaver will be activated.
- If you use an SD memory card with incorrect settings:
  - When the computer is being started, [Enter Password] appears for approximately three seconds, after which the computer will turn off.
  - You cannot log on to Windows.
  - You cannot resume computer from standby or hibernation mode.
  - You cannot disable the screensaver.

Reinsert an SD memory card with correct settings, or enter the appropriate password.

- If the card is set for [Use when logging on to Windows] and [Set and eject], insert the SD memory card, then eject if after you hear a beep indicating card recognition. (If MUTE is set, you will not hear a beep.)
- If the computer does not respond properly when you insert the SD memory card, remove the card and wait a few seconds, then reinsert it.
- Do not remove or insert the SD memory card until Windows has completed loading.

## NOTE

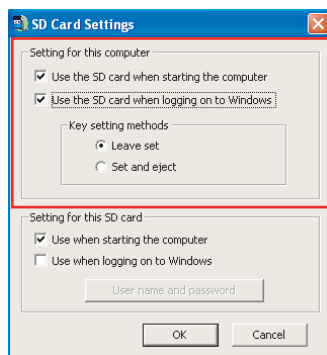
- Without using the SD memory card, you can also enter your password to log on to Windows or resume from standby or hibernation mode when the computer is in standby or hibernation mode, or when the screensaver is active.

## Setting Up an SD Card after the SD Card Setup Program Has Been Used

After you run the SD Card Setup program once, the setup screen that appears the next time you run it will be different. This section describes how to set up an SD card in such cases.

- 1** Turn on the computer.
- 2** Insert the SD memory card in the SD memory card slot.  
**Windows XP**  
When [Removable disk] appears, select [Take no action], then select [OK].
- 3** Start the SD card setup program.  
**Windows XP**  
Select [start] - [All Programs] - [Panasonic] - [SD Card Setup].  
**Windows 2000**  
Select [Start] - [Programs] - [Panasonic] - [SD Card Setup].
- 4** Change the settings as necessary.

## ■ Setting for this computer



### [Use the SD card when starting the computer]

- Add the check mark if you want to use the SD memory card instead of a password entry in order to start the computer.
- Removing the check mark erases the information pertaining to all SD memory cards currently registered on the computer. You will no longer be able to start the computer with any previously registered SD memory card. Remove the check mark if there is a possibility of unauthorized card use by another party (e.g., if you lose an SD memory card).

#### **If you remove the check mark**

- Removing the check mark from [Use the SD card when starting the computer] does not disable the Supervisor Password. (The password input screen appears when the computer is started.)
- To prevent the password input screen from appearing, run the Setup Utility and disable the Supervisor Password. (→ [page 30](#))
- Note that once you remove the check mark, if you want to use the SD memory card again, you will need to reenter [Use when starting the computer] under [Setting for this SD card].
- This setting can also be changed on [Security] menu of the Setup Utility.

### [Use the SD card when logging on to Windows]

- Add the check mark if you want to use the SD memory card instead of a password entry in order to log on to Windows.
- If you remove the check mark, you will not be able to log on to Windows by inserting an SD memory card with a set password.

### [Key setting methods]

- Perform step **5** under [Initialization (SD Card Setup)].
- Changing the setting for [Use the SD card when starting the computer] can also be done on [Security] menu of the Setup Utility.
- If you want to change the setting method between [Use the SD card when starting the computer] and [Use the SD card when logging on to Windows], select the setting method using this screen when you log on to Windows, then select the setting method using [Security] menu in the Setup Utility during computer startup. When the setting method is changed in [Key setting methods], the settings in the Setup Utility will also be changed.

## ■ Setting for this SD card

(Settings for the SD memory card currently in use)

If no SD memory card is inserted, all of the fields under [Setting for this SD card] are grayed out and none of them can be selected.



### [Use when starting the computer]

- Add the check mark if you want to use the SD memory card instead of a password entry in order to start the computer.
- When this box is selected, a check mark is also entered automatically in [Use the SD card when starting the computer].

### [Use when logging on to Windows]

- Add the check mark if you want to use the SD memory card instead of a password entry in order to log on to Windows.
- Removing the check mark erases the user name and password from the SD memory card.

### [User name and password]

- You can change the Windows logon user name and password which are set in the inserted SD memory card.  
The set user name appears, so enter the password and select [OK]. Next, enter the new user name and password.
- [User name and password] is grayed out if [Use when logging on to Windows] is not selected.



## 5 Select [OK].

Operation differs depending on the setting in step 4.

If you add the check mark for [Use the SD card when starting the computer] or [Use when starting the computer] in step 4.

Up to two SD memory cards can be registered for a single computer. The Supervisor Password must be set to register.

- **If the Supervisor Password has been set**

Enter the Supervisor Password, then select [OK].

- **If the Supervisor Password has not been set**

Follow the on-screen instructions to set the Supervisor Password.

**1** Enter the Supervisor Password, then press **Tab**.

**2** Reenter the Supervisor Password entered in step **1**, then select [OK].

**3** Select [Yes] on the confirmation screen.

**4** Restart the computer.

[Supervisor Password] and [Password on boot] will be set to enable.

If you add the check mark for [Use when logging on to Windows] in step **4**.

The Windows logon user name and password are registered in the SD memory card. To register, the Windows logon user name and password must be set in [Control Panel] in advance.

- 1** Enter the user name, then press **Tab**.
- 2** Enter the password, then press **Tab**.
- 3** Reenter the password entered in step **2**, then select [OK].
  - If the message [The specified logon user name was not found] is displayed:  
The user name set on the SD memory card is different from the Windows user name.
    - When [No] is selected  
Return to Step **4**. (→ page 62)  
Enter the different user name and password that has been set in [Control Panel], or create a Windows user name and password in [Control Panel] and then make the setting on the SD memory card.
    - When [Yes] is selected  
The user name set on the SD memory card will be different from the Windows user name. When restarting the computer after completing these settings, enter the Windows user name and password to log on without using the SD memory card. After this, if you use the [Control Panel] to set the user name and password that has been set on the SD memory card, you will be able to log on using that SD memory card.
- 4** Select [Yes] on the confirmation screen.
- 5** Restart the computer.

A [Private] folder will be created in the SD memory card, and a Windows logon user name and password will be registered. Do not delete [Private] folder. Doing so will cancel [Use when logging on to Windows].

If you remove the check mark from [Use when logging on to Windows] in step **4**.

- 1** Enter the password and select [OK].
- 2** At the confirmation message [The user name and password registered in the SD card will be erased. Are you sure you want to proceed?], select [Yes].
- 3** Restart the computer.

Use a RAM module meeting the RAM module specifications below. If a module is used that does not meet the specifications, there are cases in which data may become unusable or the computer may not operate properly.

- RAM module specifications (⇒ *Operating Instructions* "Specifications")  
172 pins, Micro DIMM, 2.5 V, DDR SDRAM, PC2100

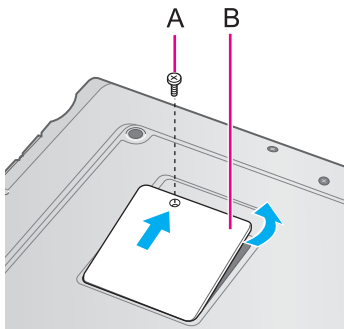
## CAUTION

- RAM modules are extremely sensitive to static electricity. There are cases where static electricity generated by the human body has adversely affected such modules. When inserting or removing a RAM module, do not touch the terminals or internal components, insert objects other than the module, or allow foreign particles to enter. Doing so has been known to cause damage, fire or electric shock.

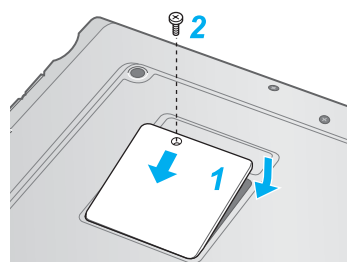
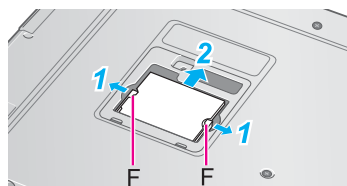
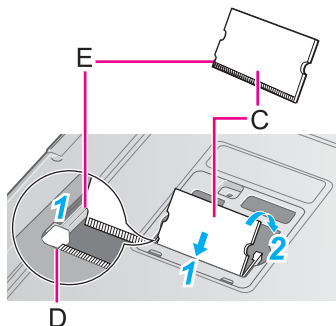
## Inserting/Removing the RAM Module

## CAUTION

- If the RAM module is difficult to insert or difficult to press down, do not force it. Check once more to ensure that the module is positioned correctly.
- Use the proper size screw driver to insure that the screw does not get stripped.



- 1 Power off your computer.  
(⇒ *Operating Instructions* "Starting Up/Shutting Down")  
Do not shut down using the standby or hibernation function.  
Disconnect the AC adaptor.
- 2 Turn the computer over and remove the battery pack and the screw (A), then remove the cover (B).



## 3 Insert/Remove RAM module.

### ● Inserting the RAM module

- 1 Match the notch (E) in the RAM module (C) with the protrusion at the edge of the slot (D), and insert the module diagonally. Insert it firmly until the gold colored terminals are no longer visible.
- 2 Press the module down until the right and left hooks lock into place.

### ● Removing the RAM module

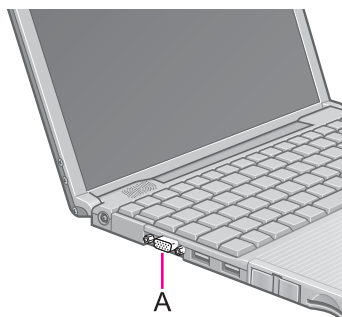
- 1 Gently open the left and right hooks (F).
- 2 Gently remove the RAM module from the slot.

## 4 Put the cover back in place.

- 1 Insert the cover diagonally, then fit it in place.
- 2 Fasten the screw.

## NOTE

- Whether the RAM module is properly recognized or not can be confirmed in [Information] menu of the Setup Utility (→ [page 89](#)). If the RAM module is not recognized, power off the computer and insert it again.



- 1 Power off your computer.  
(⇒ *Operating Instructions* “Starting Up/Shutting Down”)  
Do not shut down using the standby or hibernation function.
- 2 Connect the external display.  
Connect the external display to the external display port (A) on your computer.
- 3 Turn on the external display, then turn on your computer.  
After Windows starts up, the screen is displayed on the display destination set in the following menu.  
**Windows XP**  
[start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices]  
**Windows 2000**  
[Start] - [Settings] - [Control Panel] - [Intel(R) Extreme Graphics] - [Devices]

It is possible to change the setting to display only on the external display or on both the internal LCD and the external display with **Fn+F3**.

- 4 Set your external display.  
**Windows XP**  
Select [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices] - [Monitor] and make the settings.  
**Windows 2000**  
Select [Start] - [Settings] - [Control Panel] - [Intel(R) Extreme Graphics] - [Devices] - [Monitor] and make the settings.

## NOTE

- The display destination after resuming from hibernation mode or after restarting may differ from the display destination before entering hibernation mode or before restarting.  
When changing the display destination after Windows has started, do not press any keys or slide the power switch until the display destination has changed completely.
- **Fn+F3** does not work when [Command Prompt] screen is set to "Full Screen".

- When the external display is used alone, set the number of colors, resolution, or refresh rate to suit the external display. These settings are separate from when the internal LCD is used alone or with an external display simultaneously.
- When the computer is set to [Intel(R) Dual Display Clone] mode, MPEG and other video files may not be played back smoothly, depending on the size of the video playback screen.
- Also, carefully read the operating instructions of the external display.
- When connecting a monitor that does not conform to the Plug & Play standards. Either select the correct external display driver using in the following menu. Or use the driver disk that was supplied with your monitor.

#### Windows XP

[start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Monitor] - [Properties] - [Driver] - [Update Driver]

#### Windows 2000

[Start] - [Settings] - [Control Panel] - [Display] - [Settings] - [Advanced] - [Monitor] - [Properties] - [Driver] - [Update Driver]

- If a picture is not displayed properly, lower the level of [Hardware acceleration] in the following menu.

#### Windows XP

[start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Troubleshoot]

#### Windows 2000

[Start] - [Settings] - [Control Panel] - [Display] - [Settings] - [Advanced] - [Troubleshooting]

---

## About [Intel(R) Extreme Graphics]

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Changes to the Extended Desktop and selection of the display destination can be done in [Intel(R) Extreme Graphics].

## Extended Desktop

With Extended Desktop, you can use both the internal LCD and the external display as an extended display domain. You can also drag a window from the internal LCD to the external display. To use Extended Desktop;

**1** Display [Intel(R) Extreme Graphics] screen.

**Windows XP**

Select [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices].

**Windows 2000**

Select [Start] - [Settings] - [Control Panel] - [Intel(R) Extreme Graphics] - [Devices].

**2** Select [Extended Desktop], make the settings for [Primary Device] and [Secondary Device].

To make the settings for each display (colors, screen area, etc.), select [Device Settings] and change the settings where necessary, then select [OK].

**3** Select [OK].

At the confirmation message, select [OK].

### NOTE

- There are some applications that cannot be used in the Extended Desktop.
- When the button to maximize a window is pressed, one of the displays will show the maximized display.
- A window that has been maximized cannot be moved to the other display.
- You cannot switch the display destination by pressing **Fn+F3**.
- When the Extended Desktop is being utilized;
  - The pop-up window displayed by **Fn** key combination is shown only on the primary device.

- When changing the primary device ([1]) and secondary device ([2]), be sure to change them in the following menu. If you use other procedures, the window may not be displayed properly.

#### **Windows XP**

Select [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices]. - [Extended Desktop]

#### **Windows 2000**

Select [Start] - [Settings] - [Control Panel] - [Intel(R) Extreme Graphics] - [Devices]. - [Extended Desktop]

---

## Precautions

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- When the application running is not shown on the display, refer to the following items.
- Under the condition the application is in the external display, or after the application is closed in the external display, there are cases the application will not be shown in the display when executed the next time if the position of the extended display is changed or the Extended Desktop is closed.

#### **When there is no display after the position of the Extended Display is changed:**

The application running is being displayed at the position of the extended display before the change. Return the position of the extended display to the condition before the change. Move the application to the internal LCD, and then correct the position of the extended display.

#### **When there is no display when the Extended Desktop is disabled:**

The application running is being displayed in the external display. Set the Extended Desktop again, move the application from the external display to the internal LCD and then disable the Extended Desktop.

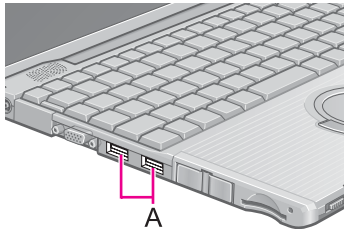
- To prevent images from being burned onto the external display
- Manually shut off the power to the external display when not in use.



- When the display domain for the Extended Desktop is changed, there are cases the wallpaper and icons become displaced.
  - Wallpaper: Change the setting for the wallpaper.
  - Icons: Run the command to automatically realign the icons. (Auto Arrange)
- When an animated pointer is used for the mouse pointer (e.g., when changing the theme in [Appearance and Themes] of [Control Panel])
  - An error may occur when resuming from the standby or hibernation mode. In such cases, change the mouse pointer to the standard pointer with the following procedure.
    - 1 Display [Mouse Properties].
      - Windows XP**  
Select [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse].
      - Windows 2000**  
Select [Start] - [Settings] - [Control Panel] - [Mouse].
    - 2 Select [Pointers].
    - 3 Select [None] in [Scheme], then select [OK].

## Connecting/Removing USB devices

### Connecting USB devices




- 1 Connect the USB device to the USB port (A) on your computer, referring to the operating instructions of the USB device.  
You may need to install drivers compatible with the operating system you are using for your USB devices. Follow the on-screen instructions and refer to the operating instructions for USB devices on how to install the driver.

#### NOTE

- USB devices may be connected or removed without turning off the computer's power.
- When a USB device is connected, there are cases the standby or hibernation function will not operate in a normal manner due to the USB device. In addition, a USB device may have to be removed temporarily and the computer restarted in cases where the computer is unable to start up properly.
- Some devices will not operate when connected to a USB HUB; these devices must be connected directly to the USB port on your computer.
- Depending on the USB device connected, the computer may not recognize when the USB device is connected or disconnected, or the device may not operate properly.

#### Windows XP

- In this case, select [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager] - [Universal Serial Bus Controllers] - [USB Root Hub] - [Power Management] and remove the check mark from [Allow the computer to turn off this device to save power].
- When a USB device is removed and then inserted,  may appear in the Device Manager and the device may not be correctly recognized. If this happens, try removing and connect the device once more.
- When USB devices are connected, power consumption increases. Remove USB devices when not in use, especially when operating on battery power.
- After connecting the USB device to one port and installing the driver, it may be necessary to reinstall the driver when the device is connected to the other port.

## Windows 2000

- When the computer enters standby or hibernation mode and then resumes while a USB 1.1 device (e.g., USB floppy disk drive (optional)) is connected, a device disconnection warning message may appear on the screen, but this will not impede the computer's operation.
- 

## Removing USB devices

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### CAUTION

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- Do not remove a USB device while your computer is in the standby or hibernation mode.
  - Save important data and close each application.
- 

### 1 Disable the device function.

#### Windows XP

- 1 Select  on the taskbar and select the USB device, then select [Stop].
- 2 Follow the on-screen instructions.  
(When  is not displayed or when the USB device has been removed after the computer is turned off, this step is not necessary.)

#### Windows 2000

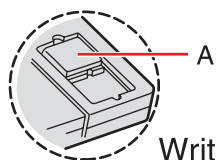
- 1 Select  on the taskbar and select the USB device, then select [Stop].
- 2 Follow the on-screen instructions.  
(When  is not displayed or when the USB device has been removed after the computer is turned off, this step is not necessary.)

### 2 Remove the USB device.

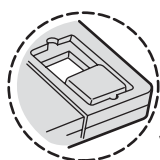
## USB Floppy Disk Drive

Note the following when using a optional USB floppy disk drive (CF-VFDU03).

- Do not power off your computer or press the floppy disk drive eject button while the floppy disk drive being accessed.  
Doing so may damage the data on the floppy disk and render the floppy disk useless.
- Use care when handling floppy disks.  
To protect the data on your floppy disks or to prevent a floppy disk from becoming stuck in your computer, avoid the following:
  - Sliding the shutter on the floppy disk manually.
  - Exposing the disk to a magnetic field.
  - Storing the disk in locations prone to high temperatures, low pitched noise, dampness, or dust.
  - Applying more than one label on the disk.
- Confirm the contents of a floppy disk before formatting it.  
Confirm that no important data is on the floppy disk, because all data on the floppy disk will be erased.
- Use the write-protect tab (A).  
This is a must for preserving important data. This prevents your data from being erased or overwritten.
- The USB floppy disk drive cannot be used at the same time as other floppy disk drives.
- Do not directly open application files (e.g., Microsoft Word, Microsoft Excel) which are stored on the floppy disk.  
First copy the files to the hard disk, then open the copied files from the hard disk.



Write Enable

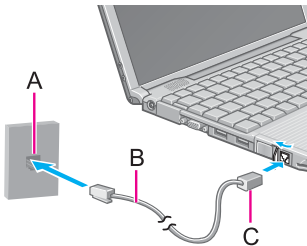


Write Disable

## Connecting the Internal Modem with a Telephone Jack

### CAUTION

- Do not use the PBX internal phone lines installed in company offices. Doing so may lead to a fire or electric shock.
- It is not possible to connect the modem to any of the following lines.
  - Internal home phones
  - Intercoms
- Be sure to connect the modem telephone cable into the modem port, not into the LAN port.
- The modem may be damaged by sudden high voltage surges, as may occur in the event of a lightning strike. We recommend use of a surge protector.



- 1 Connect the computer and the telephone jack (A) using a modem telephone cable (B).  
Open the modem cover, position the cable so that the tab (C) matches the port (🔌), and insert the cable until you hear a "click".

- 2 Change the settings as necessary.

#### Windows XP

- 1 Select [Edit] in [start] - [Control Panel] - [Printers and Other Hardware] - [Phone and Modem Options] - [Dialing Rules], then select the location from which you will be dialing in [Country/region].
- 2 Input the necessary information (items such as the country, area code, etc.), select [OK], then select [OK].

#### Windows 2000

- 1 Select [Edit] in [Start] - [Settings] - [Control Panel] - [Phone and Modem Options] - [Dialing Rules], then select the location from which you will be dialing in [Country/region].
- 2 Input the necessary information (items such as the country, area code, etc.), select [OK], then select [OK].

### NOTE

- Do not enter either the standby or hibernation mode during communications.

## Windows XP

- When creating a new connection via the New Connection Wizard, the following error message may be displayed: [System error 1717 has occurred. The interface is unknown.] This will not affect the operation of the computer. Disregard this error message.
- 

## Ring Resume Function

With this function, if the telephone that is connected to the modem rings in the standby mode, the power of the computer automatically switches ON.

This function is convenient when using automatic information receiving applications such as a FAX application.

When using this function, it is necessary to run a software application able to maintain the condition to receive telephone calls and to return the computer to the original condition after a call. For further details, refer to the operating instructions provided with software applications.

## Enabling the Ring Resume Function

---

### Windows XP

- 1** Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] and then select the modem you are using from [Modems].
- 2** Select [Power Management], add the check mark for [Allow this device to bring the computer out of standby], then select [OK].

### Windows 2000

- 1** Select [Device Manager] in [Start] - [Settings] - [Control Panel] - [System] - [Hardware] and then select the modem you are using from [Modems].
- 2** Select [Power Management], add the check mark for [Allow this device to bring the computer out of standby], then select [OK].

### CAUTION

---

- When using this function, it is recommended that the AC adaptor be connected to the computer.

- Concerning the setting for [System standby]<sup>\*1</sup>
  - Roughly consider the communication time and then set [System standby]. There may be cases where the computer enters the standby mode after the time set for [System standby] elapses even during communications, and cuts off the communications.
  - If [Never] is set, the computer will not enter the standby mode during communications, but once the computer resumes, the power of the computer will remain on while the user is absent.
- When the Ring Resume function is being used, some time elapses before a connection is established (equal to the time for the computer to resume). To allow the computer to resume, set the "Call" to a larger value than a typical telephone call. If it is not possible for the sending side to set a long "Call", set the "Number of rings until answer" (with the software application that is able to maintain the condition to receive telephone calls) to a small value.

---

<sup>\*1</sup> To display the setting for [System standby],

**Windows XP**

Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes].

**Windows 2000**

Select [Start] - [Settings] - [Control Panel] - [Power Options] - [Power Schemes].

## NOTE

- This function does not work when the computer is off or is in hibernation mode.
- After operations are resumed from standby mode, the screen remains dark. The former screen display will be restored when the keyboard, touch pad or touchscreen (only for models with touchscreen) is touched.
- The computer cannot resume if a telephone is connected to the line of a modem (e.g., a PC Card modem) other than the internal modem.

When using the computer as a network computer, some additional settings may have to be made depending on the usage conditions. We recommend asking your system administrator or the person in charge of the network.

## Connecting LAN

### CAUTION

- Do not connect the modem telephone cable into the LAN port.

- 1** Power off your computer.  
(⇒ *Operating Instructions* “Starting Up/Shutting Down”)  
Do not shut down using the standby or hibernation function.
- 2** Connect the cable.  
Connect the LAN port (A) and the network system (server, HUB, etc.) using a LAN cable.
- 3** Turn on the computer.

### CAUTION

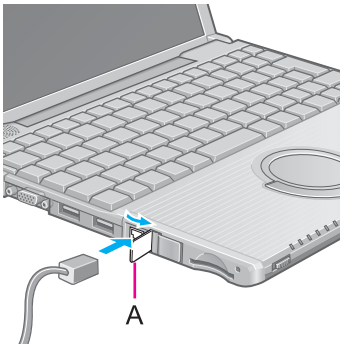
- Do not use the standby or hibernation functions during communications (except when the Wake Up from LAN function is in use), as this may cause an error in data transmission or reception. The timeout function may engage even during data transmissions, causing the computer to automatically go into standby or hibernation mode. When not using the Wake up from LAN function, we recommend disabling the timeout function using the following menu.

#### **Windows XP**

[start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes]

#### **Windows 2000**

[Start] - [Settings] - [Control Panel] - [Power Options] - [Power Schemes]





## NOTE

- If you are unable to connect to the network (when the indicator of your HUB unit does not light):
  - 1 Display [Device Manager] screen.  
Windows XP  
Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware].  
Windows 2000  
Select [Device Manager] in [Start] - [Settings] - [Control Panel] - [System] - [Hardware].
  - 2 Select the network adapter you are using from [Network adapters].
  - 3 Select [Advanced].
  - 4 Confirm the settings of each item.

## Wake up from LAN

This is a function of the internal LAN to automatically power the computer on from a network server when the computer is in the standby or hibernation mode. To use this function, it is necessary to have a network environment that accommodates Wake up from LAN.

### Enabling the Wake up from LAN Function

#### Windows XP

- 1 Select [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware].
- 2 Select the network adaptor name you are using from [Network adapters].
- 3 Select [Power Management], add the check mark for [Allow the computer to turn off this device to save power] and [Allow this device to bring the computer out of standby], then select [OK].
- 4 Remove the check mark from [Prompt for password when computer resumes from standby] in [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced], then select [OK].

### Windows 2000

- 1 Select [Device Manager] in [Start] - [Settings] - [Control Panel] - [System] - [Hardware].
- 2 Select the network adaptor name you are using from [Network adapters].
- 3 Select [Power Management], add the check mark for [Allow this device to bring the computer out of standby.] and [Allow the computer to turn off this device to save power.], then select [OK].
- 4 Remove the check mark from [Prompt for password when computer goes off standby] in [Control Panel] - [Power Options] - [Advanced], then select [OK].

### NOTE

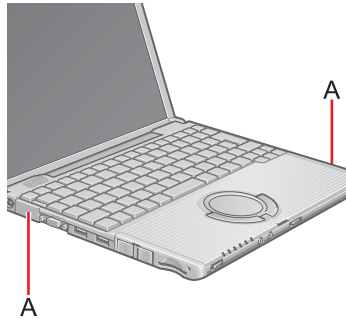
---

- Be sure to connect the AC adaptor, and enable the supply of power.
- Even when a password is set in the Setup Utility and [Password on boot] is set to [Enable], it is not necessary to input the password set in the Setup Utility when the computer resumes from standby or hibernation mode.
- The Wake up from LAN function will not operate under the following conditions:
  - When the computer has been shut down.
  - When the power switch is slid over for four seconds or longer to turn off the power (e.g., when the computer hangs).
  - When the AC adaptor and battery pack are removed from the computer or reattached to the computer.
  - When the LAN cable is disconnected and reconnected.
- After operations are resumed from standby mode, the screen remains dark. The former screen display will be restored when the keyboard, touch pad, or touchscreen (only for models with touchscreen) is touched.
- The computer may start up if accessed by another computer on the network.

### Windows XP

The following procedure can be used to prevent startup due to unintentional access by a computer.

- 1 Select [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager] - [Network adapters], then select the network adaptor name you are using, and then select [Power Management].
  - 2 Add the check mark for [Only allow management stations to bring the computer out of standby], then select [OK].
-



If you use a wireless LAN, you can use a network without cable connections.

## CAUTION

- Communication is performed through the wireless LAN antenna. Do not block the antenna area (A) with your hand or otherwise interfere with the passage of the radio signals.



## NOTE

- The communication speeds and distances differ depending on the devices that support the wireless LAN, the installation environment and other ambient conditions.
- One characteristic of radio waves is that their transmission rate tends to drop as the communication distance increases. It is recommended that the devices supporting the wireless LAN be used in close vicinity to each other.
- The rate may drop while a microwave oven is being used.

## Windows XP

- Do not use the Fast User Switching function.

## Precautions

- Do not use wireless LAN on airplanes, in hospitals, or in other locations where wireless LAN signals may affect the operation of devices in the vicinity.
- If you intend to use the computer in the environments described above, turn the wireless LAN off using the following method:
  - 1 Double-click  or  on the taskbar.
  - 2 Select your wireless LAN adaptor and select [General].
  - 3 Select [Off] for [Switch radio].
  - 4 Select [OK].

The icon will turn to .

- To prevent theft of data or unauthorized access to the hard disk via a wireless LAN (→ [page 28](#)).
- If you plan to use wireless LAN functions, we recommend that you do so only after making the appropriate security settings, such as for data encryption.
- We recommend turning the wireless LAN off when it is not used or out of range (→ [page 83](#)).
- If you leave the wireless LAN on, the battery's operating time is shortened.

## The Settings

To use the wireless LAN, set the profile using the following procedure.  
The settings will vary for different network environments depending on the network system being used. For more details, ask your system administrator or the person in charge of the network.

### CAUTION

- Set profiles for each user using the following procedure.


### NOTE

#### Windows XP

- If [Windows XP is currently configured to manage the Intel(R) PRO/Wireless LAN adaptor.] is displayed, select [Yes].



#### Windows 2000

- After setting the profile, delete the profile displayed at the time of purchase (profile name: Default).



- 1 Double-click  on the taskbar.
- 2 Select your wireless LAN adapter and select [General].
- 3 Select [On] for [Switch radio].

- 4 Select [Networks] and select [Add].
- 5 Enter the profile name and network name (SSID), and then make other necessary changes, then select [Next].  
**For Hong Kong**  
Use only one-byte alphanumeric characters when entering the profile name.
- 6 Make necessary changes and select [Finish].
- 7 Select [OK].

## NOTE

- About WLAN Security Client  
WLAN Security Client is an implementation of the client side of the IEEE 802.1X-Port Based Network Access Control protocol.
- Since the WLAN Security Client has already started when  is displayed on the taskbar, do not double-start it. If  is not displayed, start up the WLAN Security Client in the following menu.  
**Windows XP**  
Select [start] - [All Programs] - [Intel] - [WLAN Security Client Manager].  
**Windows 2000**  
Select [Start] - [Programs] - [Intel] - [WLAN Security Client Manager].
- For more information about how to use the WLAN Security Client, refer to [Help] in the menu bar or;  
**Windows XP**  
Select [Getting Started Guide] or [User's Guide] in [start] - [All Programs] - [Intel].  
**Windows 2000**  
Select [Getting Started Guide] or [User's Guide] in [Start] - [Programs] - [Intel].

## Check the Communication Status

Double-click  or  on the taskbar to check the communication status.

For more information about how to use the Intel PROSet, refer to [Help] in the menu bar.

### If the function fails to operate correctly

Read the operating instructions for the access point carefully and check the settings.

#### ■ The access point fails to be displayed in [Available Networks]

- Select the profile you are using, and select [Advanced] in [Networks]. [Connect to ad hoc networks only] may have been selected in [Connection preference]. In this case, select [Connect to infrastructure and ad hoc networks].
- This computer uses channels 1 through 11<sup>\*1</sup>. Check the channel being used.

<sup>\*1</sup> In the case of wireless communications, the frequency band being used can be divided into segments, so that different communications can be conducted on each band segment. A "Channel" refers to the individual frequency bandwidth divisions.

#### ■ The access point cannot be accessed

- The network key setting may not conform to the access point. Check the network key setting of the access point and, if necessary, set it again correctly.
- Depending on the access point and settings, access may not be accepted unless the computer's MAC address is registered beforehand. In this case, check the computer's MAC address using the following procedure and register it according to the operating instructions of the access point.

**1** Display [Command Prompt].

**Windows XP**

Select [start] - [All Programs] - [Accessories] - [Command Prompt].

**Windows 2000**

Select [Start] - [Programs] - [Accessories] - [Command Prompt].

**2** Input [ipconfig /all], and press **Enter**.

**3** Make a note of the 12-digit string of alphanumerics displayed on "Physical Address" line on Wireless LAN side. Then input [exit], and press **Enter**.

- The IP address of the access point is wrong
  - Following the operating instructions of the access point, set the IP address of the access point again correctly.

## Running the Setup Utility

- 1 Turn on or restart the computer.
- 2 Press **F2** while [Panasonic] boot screen is displayed soon after the computer begins the startup procedure.  
If [Enter Password] is displayed, enter your password. When a User Password is entered, some contents cannot be changed. (→ [page 29](#))

### NOTE

- If you fail to press **F2** at the right moment, the Setup Utility will not start up. In this case, power off the computer and try again.
- To close the Setup Utility, press **Esc**, select the exiting method in [Exit] menu, then press **Enter**.

## Key Operations

- **F1**  
To display the corresponding "help" file.
- **Esc**  
To display [Exit] menu.
- **↑ ↓**  
To move among the items.
- **← →**  
To move among the menus.
- **F5 F6**  
To move among the values.
- **Enter**  
To display sub-menu of each item selected by **↑** or **↓**.
- **F9**  
To set default settings (except the password). (When starting up the Setup Utility with the User Password, this key is not available.)
- **F10**  
To save the settings and exit.



NOTE

- When setting date and time, **Tab** can be used to move the cursor.

Information Menu

Language:	[English]
Model No.:	CF-xxxxxxxx
Serial No.:	xxxxxxxxxx
CPU Type:	xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
CPU Speed:	xxx MHz
BIOS:	Vx.xxLxx
Embedded Controller:	Vx.xxLxx
System Memory:	xxx MB
Primary Master:	xx GB

■ Parameters

( \_\_ : Default)

Language	<u>English</u> Japanese
----------	----------------------------

Select the language for displaying the Setup Utility.

Main Menu

System Time:	[xx:xx:xx] <sup>*1</sup>
System Date:	[xx/xx/xxxx] <sup>*2</sup>
Touch Pad:	[Enable]
Display:	[Simultaneous]
Display Expansion:	[Enable]

<sup>\*1</sup> Time is shown in 24-hr. style.  
<sup>\*2</sup> Date is shown in order of Month/Day/Year.

■ Parameters

( \_\_ : Default)

Touch Pad	Disable <u>Enable</u>
Display <sup>*3</sup>	External Monitor Internal LCD <u>Simultaneous</u>
Display Expansion	Disable <u>Enable</u>

<sup>\*3</sup> The display destination in cases where Windows is not running is set here. If an external display is not connected, all information will appear on the internal LCD even if [External Monitor] or [Simultaneous] is selected.  
After Windows starts up, the screen is displayed on the display destination set in the following menu.  
**Windows XP**  
[start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices]  
**Windows 2000**  
[Start] - [Settings] - [Control Panel] - [Intel(R) Extreme Graphics] - [Devices]

Advanced Menu

Modem:	[Enable]
LAN:	[Enable]
Boot up from LAN:	[Enable]
Wireless LAN:	[Enable]
Legacy USB Support:	[Enable]

NOTE

- [Advanced] menu cannot be changed when the Setup Utility is started up with the User Password.

■ Parameters

( \_\_ : Default)

Modem	Disable <u>Enable</u>
LAN	Disable <u>Enable</u>
Boot up from LAN*1	Disable <u>Enable</u>
Wireless LAN*2	Disable <u>Enable</u>
Legacy USB Support	Disable <u>Enable</u>

\*1 This can be set only when [LAN] is set to [Enable].  
This function can only be used with the internal LAN. This does not work for a wireless LAN or LAN card.

\*2 This function can only be used with the internal wireless LAN. This does not work for a wireless LAN card.

Security Menu

Password on boot:	[Enable]
SD Startup:	[Disable]
▶Clear registered SD card:	[Enter]
▶Set Supervisor Password:	[Enter]
Setup Utility Prompt:	[Enable]
Boot First Menu:	[Enable]
Hard Disk Lock:	[Disable]
User Password Protection:	[No Protection]
▶Set User Password:	[Enter]

NOTE

- When the Setup Utility is started up with the User Password;
  - [Clear registered SD card], [Set Supervisor Password] and [Hard Disk Lock] will not be displayed.
  - [Setup Utility Prompt] and [Boot First Menu] will be displayed, but cannot be set.
  - The User Password can be changed only when [User Password Protection] has been set to [No Protection]. The User Password cannot be deleted.

■ Parameters

( \_ : Default)

Password on boot	Disable <u>Enable</u>
SD Startup <sup>*1</sup>	<u>Disable</u> Enable
SD Setting Method <sup>*1*2</sup>	<u>Leave Set</u> Set and Eject
Clear registered SD card <sup>*1</sup>	To the sub-menu

Set Supervisor Password	To the sub-menu
Setup Utility Prompt	Disable <u>Enable</u>
Boot First Menu	Disable <u>Enable</u>
Hard Disk Lock <sup>*3</sup>	<u>Disable</u> Enable
User Password Protection	<u>No Protection</u> Protected
Set User Password <sup>*3</sup>	To the sub-menu

<sup>\*1</sup> This is displayed only when an SD memory card has been registered.  
However, [SD Startup] and [SD Setting Method] cannot be set if [Password on boot] is set to [Disable].

<sup>\*2</sup> This can be set only if [SD Startup] has been set to [Enable].

<sup>\*3</sup> Setting impossible when the Supervisor Password is not set.

## Boot Menu

Floppy Drive\*<sup>1</sup>  
Hard Disk Drive  
USB CD Drive\*<sup>1</sup>  
LAN\*<sup>2</sup>

\*<sup>1</sup> This is displayed even if a floppy disk drive or CD drive is not connected.

The following drive can be used for startup (recommended).



Panasonic USB floppy disk drive:CF-VFDU03 (optional)



Panasonic CD drive:CF-VDRRT1 (optional)

\*<sup>2</sup> This is not displayed when [LAN] is set to [Disable] or [Boot up from LAN] is set to [Disable] on [Advanced] menu.

The default order is as follows:

[Floppy Drive] -> [Hard Disk Drive] -> [USB CD Drive] -> [LAN].

To move a device up by one in the order, select the device with  and , and then press **F6**.

To move a device down by one in the order, select the device with  and , and then press **F5**.

### NOTE

- [Boot] menu cannot be changed when the Setup Utility is started up with the User Password.

- **Boot Menu**

The device for starting up the operating system can also be selected during computer start-up. After the computer is turned on, and **Esc** is pressed at [Panasonic] boot screen, [Boot Menu] (the device selection display) will appear. When the setting of [Boot] menu is changed, the selection screen display will also change. [Boot Menu] is displayed only when [Boot First Menu] in [Security] menu is set to [Enable].

Exit Menu

Save Values & Exit
Exit Without Saving Changes
Get Default Values
Load Previous Values
Save Current Values
Refresh Battery
Hard Disk Backup / Restore

■ Parameters

Save Values & Exit	Exit the Setup Utility and save your changes to CMOS.
Exit Without Saving Changes	Exit the Setup Utility without saving your changes to CMOS.
Get Default Values <sup>*1</sup>	Set the default settings.
Load Previous Values	Load previous values from CMOS for all Setup items.
Save Current Values	Save your changes to CMOS.
Refresh Battery	Refreshing the Battery (→ <a href="#">page 43</a> ).
<b><u>For U.S.A. and Canada</u></b> Hard Disk Backup / Restore <sup>*2</sup>	Backup data to a backup area in the hard disk. Also, restore backed up data to the original hard disk. Before executing, be sure to read “Hard Disk Backup Function” in the <i>Operating Instructions</i> .

<sup>\*1</sup> This item may not be displayed when starting up the Setup Utility with the User Password.

<sup>\*2</sup> Only displayed when a backup area is created.

## Network Connections and Communications Software

If the power saving function (standby or hibernation mode) activates while communications software is being used, the network connection may be interrupted, or performance may be adversely affected. If this happens, restart the computer.

Be sure to close the communications software before using the power saving function.

When using the computer in a network environment, we recommend that you set [System standby] and [System hibernates] to [Never], using the following procedure:

### Windows XP

Select [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes]

### Windows 2000

Select [Start] - [Settings] - [Control Panel] - [Power Options] - [Power Schemes]

## When Using the Files on the Retail Version of the Windows CD-ROM

The Windows files included in the Retail Version of the Windows CD-ROM for each OS are contained in the following folders:

### Windows XP

c:\windows\docs, c:\windows\dotnetfx, c:\windows\i386, c:\windows\support,  
c:\windows\valueadd

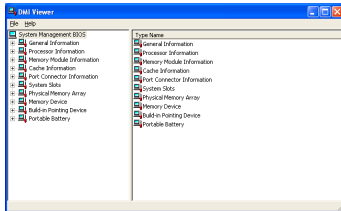
### Windows 2000

c:\winnt\cdimage



This computer conforms to the specifications of the Desktop Management Interface (DMI). The DMI Viewer can be used when you want to know information on the internal systems this computer supports, starting with the CPU and memory.

## Running DMI Viewer



### Windows XP

- 1 Select [DMI Viewer] from [start] - [All Programs] - [Panasonic].

### Windows 2000

- 1 Select [DMI Viewer] from [Start] - [Programs] - [Panasonic].

The screen shown left is displayed.

When you select an item, detailed information on that item will be displayed.

## Saving information to a file

Displayed information can be saved to a text file (.txt). Run the DMI Viewer and display the information you wish to save.

- 1 Select save method.
  - To save the item that is displayed  
Select [Save Selected Data] from [File] menu.
  - To save all items  
Select [Save All Data] from [File] menu.
- 2 Select the folder, input the file name , then select [Save].

The following is a list of the messages that BIOS can display. Most of them occur during POST. Some of them display information about a hardware device, e.g., the amount of memory installed. Others may indicate a problem with a device, such as the way it has been configured. Following the list are explanations of the messages and remedies for reported problems.

If your system displays any of the below error messages other than the ones marked with an asterisk (\*), write down the message and contact your technical support office. If your system fails after you make changes in the Setup menus, reset the computer, enter Setup and install Setup defaults or correct the error.

## **0200 Failure Fixed Disk**

Fixed disk is not working or not configured properly. Check to see if fixed disk is attached properly. Run Setup.

Find out if the fixed-disk type is correctly identified.

## **0211 Keyboard error**

Keyboard not working.

## **0212 Keyboard Controller Failed**

Keyboard controller failed test. Requires repair of system board.

## **0213 Keyboard locked - Unlock key switch**

Unlock the system to proceed.

## **0230 System RAM Failed at offset : nnnn**

System RAM failed at offset nnnn of in the 64k block at which the error was detected.

## **0231 Shadow RAM Failed at offset : nnnn**

Shadow RAM failed at offset nnnn of the 64k block at which the error was detected.

## **0232 Extended RAM Failed at offset : nnnn**

### **Extended RAM Failed at address line : nnnn**

Extended memory not working or not configured properly at offset or address line nnnn.

## **0250 System battery is dead - Replace and run SETUP**

The CMOS backup battery is dead. Replace the battery and run Setup to reconfigure the system.

## **\*0251 System CMOS checksum bad - Default configuration used**

System CMOS has been corrupted or modified incorrectly, perhaps by an application program that changes data stored in CMOS. The BIOS installed Default SETUP Values. If you do not want these values, enter Setup and enter your own values. If the error persists, check the system battery or contact your technical support office.

## **0260 System timer error**

The timer test failed. Requires repair of system board.

**0270 Real time clock error**

Real-time clock fails BIOS test. Requires repair of system board.

**0271 Check date and time settings**

Real-time clock is illegal. Run Setup and set the date and clock.

**\*0280 Previous boot incomplete - Default configuration used**

Previous POST did not complete successfully. POST loads default values and offers to run Setup. If the failure was caused by incorrect values and they are not corrected, the next boot will likely fail. On systems with control of **wait states**, improper Setup settings can also terminate POST and cause this error on the next boot. Run Setup and verify that the wait-state configuration is correct. This error is cleared the next time the system is booted.

**02D0 System cache error - Cache disabled**

Contact your technical support office.

**Failing Bits : nnnn**

The hex number nnnn is a map of the bits at the RAM address which failed the memory test. Each 1 (one) in the map indicates a failed bit. See error 230,231 or 232 for offset address of the failure in System, Extended or Shadow memory.

**Operating System not found**

Operating system cannot be located on either drive A: or drive C:. Enter Setup and see if fixed disk and drive A: are properly identified.

**Press <F1> to resume, <F2> to Setup**

Displayed after any recoverable error message. Press <F1> to start the boot process or <F2> to enter a Setup and change the settings. Write down and follow the information shown on the screen.

# Dealing with Problems (Advanced)

When a problem occurs, refer to this page. If a problem appears to be related to a software application, read the software related manual. If you still cannot troubleshoot the problem, contact your technical support office. You can use the PC Information Viewer to check the computer's usage status (→ [page 112](#)).

## ■ Starting Up

The power indicator or battery indicator is not lit	<ul style="list-style-type: none"><li>● Check the cable connection for the AC adaptor.</li><li>● Check to see if a fully charged battery is properly inserted.</li><li>● Remove the battery pack and disconnect the AC adaptor, then connect them again.</li></ul>
The computer does not operate when a USB device is connected	<ul style="list-style-type: none"><li>● The computer may not operate when certain USB devices are connected. Disconnect the USB device, or set [Legacy USB Support] to [Disable] in [Advanced] menu of the Setup Utility.</li></ul>
[Enter Password] is displayed	<ul style="list-style-type: none"><li>● Input your Supervisor Password or User Password. If you have forgotten it, contact your technical support office.</li></ul>
POST Startup Error(s) is displayed	→ <a href="#">page 98</a>
Windows startup, or an operation is extremely slow	<ul style="list-style-type: none"><li>● Press <b>F9</b> in the Setup Utility (→ <a href="#">page 88</a>). This will restore the Setup Utility's settings to their default values (except the password settings). Then, the Setup Utility must be run once again for you to input the appropriate operating environment settings. (The processing speed depends on the application software used, so this operation may not cause the processing speed to increase.)</li><li>● If operations slow down during streaming playback, try changing the number of colors of the display.</li></ul>
The date and time are incorrect	<ul style="list-style-type: none"><li>● You can set the date and time using the following menu: <a href="#">Windows XP</a> [start] - [Control Panel] - [Date, Time, Language, and Regional Options] - [Date and Time] <a href="#">Windows 2000</a> [Start] - [Settings] - [Control Panel] - [Date/Time]</li><li>● If you continue to experience problems, the internal battery maintaining the clock may need to be replaced. Contact your technical support office.</li><li>● When the computer is connected to a LAN, confirm the date and time of the server.</li><li>● This computer will not correctly recognize the date and time starting from the year 2100 A.D.</li></ul>

## ■ Starting Up

<p>When resuming from the standby or hibernation mode, [Enter Password] does not appear even if a password has been set in the Setup Utility</p>	<ul style="list-style-type: none"><li>● Even when a password has been set in the Setup Utility, [Enter Password] does not appear when the computer resumes from the standby or hibernation mode. If you want to use the security function when using the standby or hibernation mode, use the Windows password as follows: <b>Windows XP</b> Select the account to change in [start] - [Control Panel] - [User Accounts] and set the password, then add the check mark for [Prompt for password when computer resumes from standby] in [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced]. <b>Windows 2000</b> Set the password in [Start] - [Settings] - [Control Panel] - [Users and Passwords], then add the check mark for [Prompt for password when computer goes off standby] in [Control Panel] - [Power Options] - [Advanced].</li></ul>
<p>When "Invalid system disk. Replace the disk, and then press any key" (or a similar message) is displayed</p>	<ul style="list-style-type: none"><li>● This means a floppy disk that does not contain system startup information has been left in the floppy disk drive. Remove the floppy disk, and press any key.</li><li>● This message may appear when certain USB devices are connected. Remove the USB device, or set [Legacy USB Support] in [Advanced] menu of the Setup Utility to [Disable].</li><li>● If the message still appears even after trying the above two measures, this may be an indication that some type of hard disk failure has occurred. Contact your technical support office.</li></ul>
<p>When the administrator password is forgotten</p>	<ul style="list-style-type: none"><li>● Set the password again in the following procedure. <b>Windows XP</b> If you have created a password reset disk (⇒ <i>Operating Instructions</i> "First-time Operation"), a message is displayed when you fail to correctly enter the password. Follow the message's instructions and set the password again by using the password reset disk. If you have not created a password reset disk, after reinstalling, setup Windows and then set the password again. <b>Windows 2000</b> After reinstalling, setup Windows and then set the password again.</li></ul>

## ■ Starting Up

<p>When the previous item is not the cause</p>	<ul style="list-style-type: none"> <li>● Press <b>F9</b> in the Setup Utility. This will restore the Setup Utility's settings to their default values (except the password settings).</li> <li>● Try removing all peripheral devices.</li> <li>● Check a disk error using the following procedure. <ol style="list-style-type: none"> <li>1 Display [Local Disk (C:) Properties] <p><b>Windows XP</b> Select [Local Disk(C:)] with the right button in [start] - [My Computer], and select [Properties].</p> <p><b>Windows 2000</b> Select [Local Disk(C:)] with the right button in [My Computer], and select [Properties].</p> </li> <li>2 Select [Tools] - [Check Now].</li> <li>3 Select [Start] after selecting required items in [Check disk options].</li> </ol> </li> <li>● At startup, hold down <b>F8</b> when [Panasonic] boot screen disappears, and release your finger when the Windows Advanced Option Menu is displayed. Start the computer in Safe Mode, and confirm the details of the error.</li> </ul>
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## ■ Display

<p>No display after powering on</p>	<ul style="list-style-type: none"> <li>● When there is no display to an external display, <ul style="list-style-type: none"> <li>• Check your cable connection to the external display.</li> <li>• Confirm your display is powered on.</li> <li>• Check the settings for your external display.</li> </ul> </li> <li>● The display destination may be set to the external display. Try changing the display destination by pressing <b>Fn+F3</b>. If you want to switch the display destination repeatedly by pressing <b>Fn+F3</b>, make sure that the display destination has switched completely each time before pressing <b>Fn+F3</b> again.</li> </ul>
<p>The power has not been turned off, but after a certain period of time, there is no display</p>	<ul style="list-style-type: none"> <li>● Has the computer been set to the power-saving mode? To resume operation of your computer from the condition the power of the display is off (for energy conservation purposes), press any key unrelated to the direct triggering of a selection, like <b>Ctrl</b>.</li> <li>● To save power, your computer may have automatically entered the standby mode (power indicator blinks green) or hibernation mode (power indicator turns off). In such cases, slide the power switch.</li> </ul>

## ■ Display

When the battery pack is used, the screen is darker than when the AC adaptor is connected	<ul style="list-style-type: none"> <li>Press <b><u>Fn</u>+<u>F2</u></b> and adjust the brightness. Note, however, that when the brightness is increased, the battery running time will become shorter. Brightness can be set to separate levels for when the AC adaptor is connected and when it is disconnected.</li> </ul>
The cursor cannot be controlled properly	<ul style="list-style-type: none"> <li>If you are using an external mouse, ensure that the external mouse has been connected correctly.</li> <li>Restart the computer by using the keyboard. (Press <b><u>F2</u></b>, <b><u>U</u></b>, and select [Restart] with <b>→ ← ↑ ↓</b>, then press <b><u>Enter</u></b>.)</li> <li>If the computer does not respond to keyboard commands, read “No response” (→ page 111).</li> </ul>
An afterimage appears (e.g., green, red, and blue dots remain on the display) or there are dots not displaying the correct colors	<ul style="list-style-type: none"> <li>If an image is displayed for a prolonged period of time, an afterimage may appear. This is not a malfunction. The afterimage will disappear when a different screen is displayed.</li> <li>High-precision and advanced technologies are necessary in the production of color liquid crystal displays (color LCDs). Therefore, if 0.002% or less of the picture elements either fail to light or remain constantly lit (that is, more than 99.998% of elements are functioning properly), no defect is considered to exist.</li> </ul>
The screen becomes disordered	<ul style="list-style-type: none"> <li>Changing the number of colors and resolution of the display may affect the screen. Restart the computer.</li> </ul>
The external display no longer displays properly	<ul style="list-style-type: none"> <li>When an external display not compatible with the power saving mode is used with the computer, the display may not function correctly when the computer enters the power saving mode. In such cases, turn off the power to the external display.</li> </ul>
During simultaneous display, the screen of the external display becomes disordered	<ul style="list-style-type: none"> <li>Try changing the display by pressing <b><u>Fn</u>+<u>F3</u></b>.</li> <li>If you continue to experience problems, try changing the display destination in the following menu. <b>Windows XP</b> [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Extreme Graphics] - [Devices] <b>Windows 2000</b> [Start] - [Settings] - [Control Panel] - [Intel(R) Extreme Graphics] - [Devices]</li> </ul>
When an MPEG file is being played with Media Player, the display destination cannot be switched using <b><u>Fn</u>+<u>F3</u></b>	<ul style="list-style-type: none"> <li>The display destination cannot be switched while an MPEG file is playing. Stop playing the MPEG file before switching the display destination.</li> </ul>

## ■ Display

<b>For Hong Kong</b> Application is not displayed properly, or characters are garbled	<ul style="list-style-type: none"><li>● Is the application a non-Unicode program? When non-Unicode programs are run on Windows XP, you must select the language appropriate to that program. Set [Language for non-Unicode programs] in [Control Panel] - [Date, Time, Language, and Regional Options] - [Regional and Language Options] - [Advanced]. Note that only a user with the administrator authority can change this setting.</li></ul>
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## ■ Setup Utility

[Enter Password] is displayed	<ul style="list-style-type: none"><li>● Enter the Supervisor Password or User Password. If you have forgotten it, contact your technical support office.</li></ul>
[Advanced] and [Boot] menu can not be registered	<ul style="list-style-type: none"><li>● Restart the Setup Utility with the Supervisor Password.</li></ul>
Some items in [Security] menu can not be registered	<ul style="list-style-type: none"><li>● Restart the Setup Utility with the Supervisor Password.</li></ul>
<b>F9</b> does not work	<ul style="list-style-type: none"><li>● Restart the Setup Utility with the Supervisor Password.</li></ul>

## ■ Shutting Down

Windows cannot be shut down or restarted	<ul style="list-style-type: none"><li>● If a USB device is connected, try removing it.</li></ul>
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## ■ Standby/Hibernation Function



Unable to enter standby or hibernation mode	<ul style="list-style-type: none"><li>● If a USB device is connected to the computer (note: only for some USB devices), remove the USB device temporarily. If the problem persists, restart the computer.</li></ul>
Unable to automatically enter standby or hibernation mode	<ul style="list-style-type: none"><li>● If a peripheral is connected to the computer, disconnect the device.</li></ul>
The computer does not resume	<ul style="list-style-type: none"><li>● Did you slide the power switch and hold it for four seconds or more? If you slide the power switch and hold it for four seconds or more, the power will be turned off forcibly. In this case, all unsaved data will be lost.</li></ul>





## ■ Battery Indicator

The red indicator lights	<ul style="list-style-type: none"><li>● The battery level is very low (the charge is less than approx. 9% capacity). Connect the AC adaptor. You can use the computer when the battery indicator light is orange. If you do not have an AC adaptor, save your data and power off your computer. After replacing the battery pack with a fully charged one, turn your computer on.</li></ul>
The red indicator blinks	<ul style="list-style-type: none"><li>● Quickly save your data and power off your computer. Remove the battery pack and disconnect the AC adaptor, then connect them again. If the problem persists, contact your technical support office. Possible failure in the battery pack or charging circuit.</li></ul>
The orange indicator blinks	<ul style="list-style-type: none"><li>● Battery cannot be recharged temporarily because the internal temperature of the battery pack is outside of the acceptable temperature range for recharging. Once the allowable range requirement is satisfied, charging begins automatically. Your computer can be used normally in this state.</li></ul>

## ■ Keyboard

Only numbers can be inputted	<ul style="list-style-type: none"><li>● Check whether the indicator  is on. If it is on, the computer is in ten-key keyboard mode. To disable the ten-key mode, press <b>NumLk</b>.</li></ul>
Only capital letters are being input	<ul style="list-style-type: none"><li>● Check whether the indicator  is on. If it is on, the computer is in Caps Lock mode. To disable the Caps Lock mode, press <b>Caps Lock</b>.</li></ul>
How to input European characters (ß, à, ç), symbols or Euro Currency Symbol is unclear	<ul style="list-style-type: none"><li>● Display the character map and point to the desired font name, such as European fonts, and select it with the following the procedure. <b>Windows XP</b> Select [start] - [All Programs] - [Accessories] - [System Tools] - [Character Map]. <b>Windows 2000</b> Select [Start] - [Programs] - [Accessories] - [System Tools] - [Character Map].</li></ul>
<b>Windows 2000</b> After resuming, input keys do not work properly	<ul style="list-style-type: none"><li>● When the computer enters standby or hibernation mode while <b>Alt, Ctrl</b> or <b>Shift</b> are held down, these keys may remain in "pressed" mode when the computer resumes operation. Pressing these keys once will return the keys to normal.</li></ul>


## ■ Network

Unable to connect to a network	<ul style="list-style-type: none"><li>● Confirm that either [Modem], [LAN] or [Wireless LAN] is set to [Enable] in the Setup Utility.</li><li>● When using the computer as a network computer, some additional settings may have to be made depending on the usage conditions. We recommend asking your system administrator or the person in charge of the network.</li><li>● If the standby or hibernation mode is entered, the computer may have to be restarted.</li><li>● Are the I/O address, interrupt levels, and memory address set correctly? Also, check whether these settings for network are competing with other peripheral devices.</li><li>● If the link lamp on the HUB unit is not on and the network cannot be accessed, set the speed to match the HUB unit. (→ <a href="#">page 81</a>)</li></ul>
Unable to use wireless LAN	<ul style="list-style-type: none"><li>● Confirm that [Wireless LAN] is set to [Enable] in the Setup Utility.</li><li>● Confirm that  is displayed on the taskbar. If  is not displayed on the taskbar, confirm that [On] is selected for [Switch radio] in [Intel(R) PROSet] - [General].</li><li>● Confirm the setting of the IP address for the access point, following the operating instructions for that access point.</li><li>● Confirm whether the Intel(R) PROSet is installed using the following menu. <a href="#">Windows XP</a> [start] - [Control Panel] - [Add or Remove Programs]. <a href="#">Windows 2000</a> [Start] - [Settings] - [Control Panel] - [Add/Remove Programs]. If it has not been installed, input [c:\util\drivers\wlan\proset\proset.exe] in [start]<sup>*1</sup> - [Run] to install. <sup>*1</sup> <a href="#">Windows 2000</a> [Start]</li></ul>

## ■ Connecting Peripherals

An error occurs while installing the driver	<ul style="list-style-type: none"><li>● When you install the driver for a PC Card or peripheral device, be sure to use a driver that is compatible with the operating system. If you use an incompatible driver, malfunction may occur. For information on drivers, contact the manufacturer of the peripheral device you purchased.</li></ul>
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## ■ Connecting Peripherals

<p>Your peripheral does not work</p>	<ul style="list-style-type: none"><li>● Make sure a driver is installed.</li><li>● Contact the manufacturer of the product.</li><li>● When operation resumes from the standby or hibernation mode, devices such as a mouse, modem or PC Cards may not function properly. In such cases, you will need to restart your computer or reinitialize the individual devices.</li><li>● When  is displayed in the Device Manager, try removing and inserting the device once more. If the problem persists, restart the computer.</li><li>● Depending on the device connected, the computer may not recognize when the device is connected or disconnected, or the device may not operate properly.</li></ul> <p><b>Windows XP</b></p> <p>Use the following procedure.</p> <p>Select the applied device in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager], then remove the check mark for [Allow the computer to turn off this device to save power] in [Power Management]. (This item may be unavailable for some types of devices.)</p>
<p>The cursor does not move from mouse operations</p>	<ul style="list-style-type: none"><li>● Check your mouse connection.</li><li>● A driver which is compatible with the connected mouse must be installed.</li><li>● If the device does not operate when the driver is installed: In the Setup Utility, set [Touch Pad] to [Disable].</li></ul>
<p>The device will not operate if a different mouse driver is installed</p>	<ul style="list-style-type: none"><li>● When you install a different mouse driver, such as IntelliPoint for Microsoft's IntelliMouse, the mouse driver currently installed in the computer may need to be uninstalled. Use the following procedure to uninstall this driver.</li></ul> <p><b>1</b> Display the screen to uninstall the program.</p> <p><b>Windows XP</b></p> <p>Select [start] - [Control Panel] - [Add or Remove Programs].</p> <p><b>Windows 2000</b></p> <p>Select [Start] - [Settings] - [Control Panel] - [Add/Remove Programs].</p> <p><b>2</b> Uninstall [Synaptics TouchPad] and [TouchPadUtility] separately.</p>

## ■ Connecting Peripherals

A PC Card does not work	<ul style="list-style-type: none"><li>● Make sure the card is properly inserted.</li><li>● Confirm that the card conforms to the PC Card Standard.</li><li>● Note that after a driver (PC Card driver on other) is installed, the computer must be restarted.</li><li>● Check that the proper port settings have been made.</li><li>● Read the operating instructions for the PC Card. Or, you may need to call the manufacturer of the PC Card.</li><li>● Try removing/reinserting the PC Card by following the proper procedure. (→ <a href="#">page 49</a>)</li><li>● Confirm that a driver for your operating system has been installed.</li></ul>
USB floppy disk drives do not work as a boot drive	<ul style="list-style-type: none"><li>● Only the Panasonic CF-VFDU03 USB floppy disk drive (optional) can be used.</li><li>● Make sure [Legacy USB Support] is enable in the Setup Utility.</li><li>● After powering off the computer, connect the USB floppy disk drive and restart the computer.</li></ul>
You do not know the available RAM module	→ <a href="#">page 67</a>
Cannot tell whether the RAM module has been correctly installed	<ul style="list-style-type: none"><li>● You can check whether the RAM module is recognized using [Information] menu in the Setup Utility. If the RAM module is not recognized, turn the computer off and reinsert the RAM module.</li></ul>
The RAM module has not been recognized	<ul style="list-style-type: none"><li>● Make sure the RAM module has been properly inserted.</li><li>● Use the RAM module that supports the recommended specifications (→ <a href="#">page 67</a>).</li></ul>
The address map for IRQ, I/O port address, etc. is unclear	<ul style="list-style-type: none"><li>● The current address map can be displayed with the following procedure. <b>Windows XP</b> [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager] - [View] - [Resources by type]. <b>Windows 2000</b> [Start] - [Settings] - [Control Panel] - [System] - [Hardware] - [Device Manager] - [View] - [Resources by type].</li></ul>

## ■ Connecting Peripherals

<b>Windows XP</b> Insufficient performance when forwarding data via a PC card (e.g., unstable video images when writing videos to a DV camera using an IEEE1394 PC card)	<ul style="list-style-type: none"><li>● Execute the following operations after logging on with administrator authority.<ol style="list-style-type: none"><li>1 Input [c:\util\cpupower\setup.exe] in [start] - [Run], and select [OK]. Follow the on-screen instructions.</li><li>2 Select [Performance] in [start] - [All Programs] - [Panasonic] - [CPU Idle Setting] and select [OK], then select [Yes]. The computer will be restarted automatically.</li></ol></li><li>● These operations will be helpful in alleviating the loss of data forwarding performance that results from CPU power saving functions, but will not be effective against performance losses resulting from other causes.</li><li>● These operations will reduce the battery operating time somewhat, so if no error occurs, we recommend that you return the computer's settings to [Battery (Windows XP Standard)] in [CPU Idle Setting].</li></ul>
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## ■ Disk Operations

Cannot read/write to a floppy disk	<ul style="list-style-type: none"><li>● Are you using the Panasonic CF-VFDU03 USB floppy disk drive (optional)?</li><li>● Has the floppy disk been correctly inserted?</li><li>● Has the floppy disk been correctly formatted?</li><li>● Your floppy disk content may be corrupted.</li></ul>
Unable to write to a disk	<ul style="list-style-type: none"><li>● Is the floppy disk write-protected?</li></ul>
How to format a floppy disk is unclear	<ul style="list-style-type: none"><li>● Format the floppy disk using the following procedure. <b>Windows XP</b> Select [Format] in [start] - [My Computer] - [3.5 Floppy (A:)] - [File]. After confirming the disk volume and format type, start formatting. <b>Windows 2000</b> Select [Format] in [My Computer] - [3 1/2 Floppy (A:)] - [File]. After confirming the disk volume and format type, start formatting.</li></ul>
Unable to read/write to the hard disk	<ul style="list-style-type: none"><li>● Your drive or file may not have been properly set.</li><li>● Check to see if the hard disk is full. If it is full, delete unnecessary files.</li><li>● Your hard disk content may be corrupted. Contact your technical support office.</li></ul>


## ■ Touch Pad

Unable to input using the touch pad	<ul style="list-style-type: none"><li>● Has the Setup Utility been used to set [Touch Pad] to [Enable]?</li><li>● When external mouse drivers are installed (e.g., IntelliMouse), the touch pad may not be used.</li><li>● Has the touch pad driver been properly installed?</li></ul>
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## ■ Touchscreen (only for models with touchscreen)

Unable to input by touching the display	<ul style="list-style-type: none"><li>● When mouse drivers are installed (e.g., Intellimouse), the touchscreen is unable to be used.</li><li>● Has the touchscreen driver been properly installed?</li><li>● It is necessary to perform [Calibration] to point correctly with the stylus included with the computer.</li></ul>
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## ■ Sound

The sound is not heard	<ul style="list-style-type: none"><li>● Try changing the mute by pressing <b>Fn+F4</b> or <b>Fn+F6</b>.</li></ul>
Volume does not change when <b>Fn+F5</b> or <b>Fn+F6</b> is pressed	<ul style="list-style-type: none"><li>● If the Windows sound function is not active, the volume will not change even if  is displayed.</li></ul>
The audio is distorted	<ul style="list-style-type: none"><li>● Audio distortion may occur when operations are performed by pressing <b>Fn</b> in combination with another key. Stop playing and start again.</li></ul>
When starting Sound Recorder, it displays the message: "There was an error updating the registry"	<ul style="list-style-type: none"><li>● Sound Recorder displays this error message when started by a user with a limited account if the user's language setting is different to that of the user with administrator authority which last started it. This will not affect the operation of the computer.</li></ul>

## ■ SD Card Setup (SD memory card security function)

Cannot use SD memory card security function	<ul style="list-style-type: none"><li>● The SD memory card must be set up in order to use the security function (→ <a href="#">page 56</a>).</li></ul>
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## ■ SD Card Setup (SD memory card security function)

Cannot log on with the SD memory card	<ul style="list-style-type: none"><li>Windows logon user name and password are not set in the SD memory card correctly. Enter the Windows user name and password without using the SD memory card. After logging on, reset the SD memory card (→ <a href="#">page 56</a>), or use the [Control Panel] to create a user with the user name and password set on the SD memory card.</li></ul> <p><b>For Hong Kong</b></p> <ul style="list-style-type: none"><li>If you change the setting for Language for non-Unicode programs after the check mark has been added in [Use when logging on to Windows] under [SD Card Settings] - [Setting for this SD card], remove the check mark from [Use when logging on to Windows] under [SD Card Settings] - [Setting for this SD card], and set the user name and password again. (→ <a href="#">page 56</a>)</li></ul>
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## ■ Fast User Switching Function

### Windows XP

Some applications may not work properly	<ul style="list-style-type: none"><li>When switching to a different user with the Fast User Switching function, the following problems may occur.<ul style="list-style-type: none"><li>Some applications may not work properly.</li><li>Key combination with <b>Fn</b> may not work.</li><li>It may not be possible to set the settings of the display.</li><li>The wireless LAN cannot be used.</li></ul></li></ul> <p>In this case, log off all users, and try the operation once more. If the problem persists, restart the computer.</p>
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## ■ Others

No response	<ul style="list-style-type: none"><li>Press <b>Ctrl+Shift+Esc</b> to open Task Manager and close the software application which is not responding.</li><li>After shutting down by sliding the power switch for more than four seconds, slide the power switch to power on and open the application again. If the program no longer works normally, delete the program using the following menu. Then reinstall the program.</li></ul> <p><b>Windows XP</b> [start] - [Control Panel] - [Add or Remove Programs]</p> <p><b>Windows 2000</b> [Start] - [Settings] - [Control Panel] - [Add/Remove Programs]</p>
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## Check the Computer's Usage Status

You can use the PC Information Viewer to check the computer's usage status, and use this information when calling your technical support office for advice. (If you have not logged on with administrator authority, some information will be displayed as [Not Found].)

### ■ Running PC Information Viewer

#### Windows XP

- 1 Select [start] - [All Programs] - [Panasonic] - [PC Information Viewer] - [PC Information Viewer].

#### Windows 2000

- 1 Select [Start] - [Programs] - [Panasonic] - [PC Information Viewer] - [PC Information Viewer].

Click on the items to display detailed information for each item.

### ■ Save information to a file

Displayed information can be saved to a text file(.txt).

- 1 Run the PC Information Viewer and display the information you wish to save.
- 2 Select [Save].
  - To save the item that is displayed.  
Select [Save only the information displayed] and select [OK].  
Some of the hidden information on the screen, which cannot be shown without scrolling the screen, will be saved, too.
  - To save all items.  
Select [Save all the information] and select [OK].
- 3 Select the folder, input the file name, then select [Save].



## ■ Save a copy of the screen to a file

You can save a copy of the screen currently being displayed to a file in bitmap format (.bmp).

**1** Display the screen you want to save.

**2** Press **Ctrl+Alt+F8**.

[pcinfo.bmp] file will be saved in [My Documents] folder. If [pcinfo.bmp] file already exists, it will be overwritten. (If [pcinfo.bmp] file is set as a "Read-only" or "Hidden" file, the new file cannot be saved.)

### NOTE

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- You can also save a copy of the screen to a file using the following procedure.

#### Windows XP

Select [start] - [All Programs] - [Panasonic] - [PC Information Viewer] - [Screen Copy].

#### Windows 2000

Select [Start] - [Programs] - [Panasonic] - [PC Information Viewer] - [Screen Copy].

- At the time of purchase, the computer is set so that a copy of the screen can be saved to a file by pressing **Ctrl+Alt+F8**. This setting can be changed using the following procedure.

**1** Select [PC Information Viewer].

#### Windows XP

Select [start] - [All Programs] - [Panasonic] - [PC Information Viewer].

#### Windows 2000

Select [Start] - [Programs] - [Panasonic] - [PC Information Viewer].

**2** Select [Screen Copy] with the right button, and select [Properties] - [Shortcut].

**3** Move the cursor to [Shortcut key], and press the key to be used for the shortcut.

- Colors are saved in 256 colors.
  - When using an Extended Desktop  
A copy of the screen displayed on the primary device will be saved.
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