

Panasonic

Reference Manual

Personal Computer

Model No. **CF-C1 Series**



Model No. **CF-F9 Series**

Model No. **CF-S9 Series**

We recommend that this Reference Manual be printed.





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.
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. When using with the Fn key and the Ctrl key functions interchanged, read with the Fn key and the Ctrl key reversed.
Windows 7  (Start) - [All Programs]	This illustration means to click  (Start), then to click [All Programs].
Windows XP [start] - [Run]	This illustration means to click [start], then to click [Run].
→ or ⇒	These symbols indicate related pages. → : If this is clicked, it will jump to the page corresponding Reference Manual. ⇒ : Refer to the <i>Operating Instructions</i> .
XXXX*1	If *1 is clicked, it will jump to a related topic.

- “Genuine Windows® 7 Professional (32-bit)” or “Genuine Windows® 7 Professional (64-bit)” is indicated as “Windows” or “Windows 7”.
- In this manual, “Genuine Microsoft® Windows® XP Professional Service Pack 3” and “Genuine Microsoft® Windows® XP Tablet PC Edition Service Pack 3” are indicated as “Windows” or “Windows XP” unless otherwise indicated.
- <CF-C1 Series>
The computer screen supporting touching methods (using digitizer pen / stylus / your fingers) is referred to as the “screen”.
- <CF-C1 Series>
In this manual, the digitizer pen and the stylus are referred to as the “pen (included)”.
- <CF-C1 Series>
In this manual, the Digitizer + Multi Touch Screen (Capacitive) is referred to as the “digitizer”, and the Multi Touch Screen (Resistive) is referred to as the “touchscreen”.
- <CF-F9/CF-S9 Series>
The following software package is described as follows:
 - “WinDVD™ 8 (OEM Version)” as “WinDVD”
- This manual explains using the Windows XP and Windows 7 default setting.
- Some illustrations are simplified to help your understanding and may look different from the actual unit.

Windows 7

Sound and Video

- Sound (e.g. MP3, WMA) and video (e.g. MPG, WMV) recorded in PC Cards and SD Memory Cards may be interrupted during playback. If this happens, copy them to the hard disk drive and play back.
- Sound and video in AVI files may be interrupted or produce a time-lag during playback. If this happens, Click  or  on the notification area. Select [High performance]. This may remedy the problem.
- Depending on the processing status on Windows, sound may be interrupted at Windows startup. You can mute the sound at startup.
 - ① Right-click the desktop and click [Personalize] - [Sounds].
 - ② Remove the check mark from [Play Windows Startup sound], and click [OK].

Windows 7

Entering hibernation suddenly

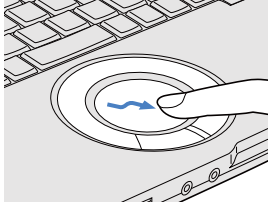
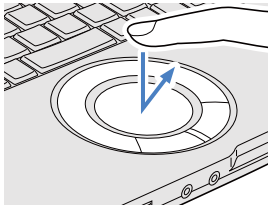
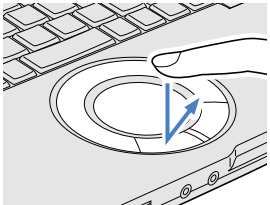
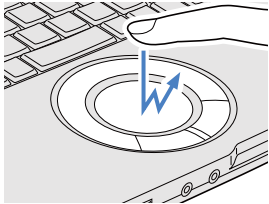
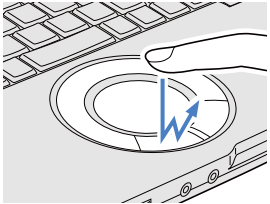
The computer may enter the hibernation mode by thermal control if you use the computer in a high ambient temperature and use an application that uses a lot of CPU power.

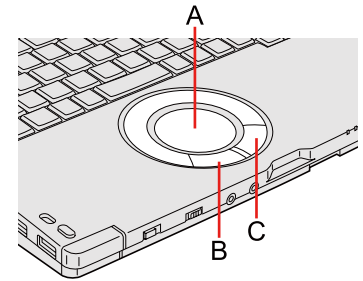
Wait a few minutes (at least 5) before turning the computer on again if this occurs.

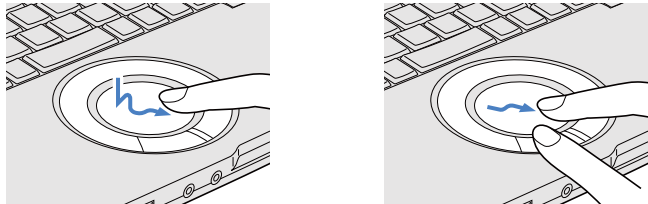
Using the Touch Pad

In this section, illustrations of the CF-C1 Series are used as examples.
Use the Touch Pad to move the cursor on the screen and perform computer operations.

- A. Work Surface (Touch Pad)
- B. Left Button
- C. Right Button

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



Function	Operation
Dragging	 <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	Trace a circle around the Touch Pad. (→ below)

NOTE

- You can change the speed of the double-click or the operations of mouse buttons by clicking [Windows 7](#) (Start) - [Control Panel] - [Hardware and Sound] - [Mouse] / [Windows XP](#) [start] - [Control Panel] - [Printer and Other Hardware] - [Mouse].

Scroll

- The Touch Pad utility (→ [page 6](#))
You can scroll continuously by tracing a circle on the Touch Pad (Start scrolling from the edge of the Touch Pad).

Vertical scroll	It can be used in the default setting.
Horizontal scroll	A setting is required to use the horizontal scroll.

Windows XP

- The Virtual Scrolling function (→ [page 9](#))
You can scroll vertically (or horizontally) by tracing repeatedly in the desired direction.

Vertical scroll	The Virtual Scrolling function must be set to enable.
Horizontal scroll	

You can use separate settings for each account regarding whether to use the Touch Pad utility or the Virtual Scrolling function.

Using the Touch Pad Utility



You can scroll easily by tracing a circle on the Touch Pad.


NOTE

- External mouse drivers cannot be used at the same time as the Touch Pad utility.


1 Make the following settings to use the horizontal scroll.

Once the settings have been made, it is not necessary to make the same settings the next time.

① **Windows 7** Click  on the notification area and click .



Windows XP Click  on the notification area.

② click [Settings].

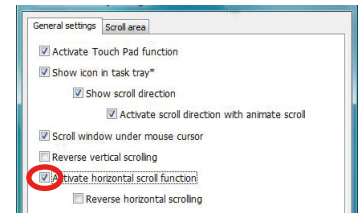
When  is not displayed:

Click **Windows 7**  (Start)/ **Windows XP** [start] - [All Programs] - [Panasonic] - [Touch Pad Utility settings].

If a message appears indicating that the Touch Pad utility is not running, click

Windows 7  (Start)/ **Windows XP** [start] - [All Programs] - [Panasonic] - [Touch Pad Utility], and display .




③ Add a check mark for [Activate horizontal scroll function] in the [General settings] screen, and click [OK].



2 Place the cursor over the area that you want to scroll, and tap (click).

3 Remove your finger from the pad, then place your finger in the appropriate area to begin scrolling.

The finger position on the Touch Pad can be changed using the Touch Pad utility. (→ page 8) This explanation assumes in the default setting.

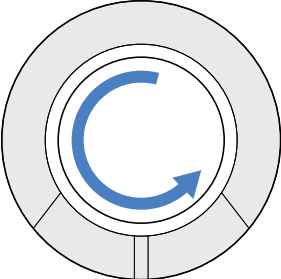
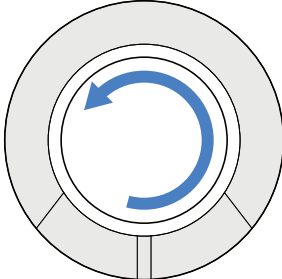
	Vertical scroll* ¹	Horizontal scroll
Position where finger is placed		
Icon  / 	When you place your finger on the Touch Pad, the icon changes.	
 on the notification area		

*¹ If the horizontal scroll function has not been enabled, the segment shown in the figure above (A) is also included in the area to begin vertical scrolling.

4 Trace a circle around the Touch Pad without lifting your finger from the pad.

The scroll direction can be changed using [Reverse vertical scrolling] or [Reverse horizontal scrolling] in the Touch Pad utility. (→ page 8)

	Vertical scroll	Horizontal scroll* ²
Trace clockwise	To scroll down 	To scroll right

	Vertical scroll	Horizontal scroll ^{*2}
Trace counter-clockwise	To scroll up 	To scroll left 

^{*2} When the horizontal scroll function has not been enabled, any scrolling will be vertical scrolling.


- The screen will not scroll if you trace toward the center of the Touch Pad.
- On screens that cannot be scrolled (e.g., desktop screen), if you scroll, 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.
- For example, on a screen that will only scroll horizontally, even if you execute a vertical scroll, the screen will scroll horizontally.

5 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.
- To scroll in the opposite direction, trace a circle in the opposite direction without removing your finger from the Touch Pad.

6 When you finish scrolling, remove your finger from the Touch Pad.

■ Change the settings for the Touch Pad utility

1 **Windows 7** Click  on the notification area and click .

Windows XP Click  on the notification area.

2 Click [Settings].

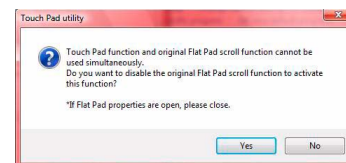
When  is not displayed: → [page 6, step 1-2](#)



3 Change the settings.

4 Click [OK].

NOTE

- 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: Click [Yes]. The Virtual Scrolling function will be disabled.
 - To use the Virtual Scrolling function: Click [No].You can uninstall the Touch Pad utility using the following procedure.





- ① Click  or  on the notification area.
- ② Click [Exit].
- ③ Click [start] - [Control Panel] - [Add or Remove Programs] - [Touch Pad Utility], and then click [Uninstall] to remove the program.

Windows XP

Using the Virtual Scrolling Function

Set the Virtual Scrolling function using the following procedure. The Touch Pad utility will be disabled.

- 1 Click  on the notification area.
- 2 Click [Settings].
When  is not displayed: → page 6, step 1-②
- 3 Remove the check mark from [Activate Touch Pad function] in [General settings], and then click [OK].
- 4 Click [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse] - [Device Settings].
- 5 Click the device name (e.g., Synaptics TouchPad) in [Devices], then click [Settings].
- 6 Click [Virtual Scrolling], add a check mark for the scroll functions you want to use, then click [OK].
- 7 Click [OK] at [Mouse Properties].

Handling the Touch Pad

- By design, the Touch Pad is to be used with a fingertip only. 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 CF-C1 Series>

The screen of your computer allows you to perform the same operations as the Touch Pad or mouse by touching its surface.

<Only for model with digitizer>

The computer supports, using the digitizer pen(included) and your fingers.

<Only for model with touchscreen>

The computer supports, using the stylus (included) and your fingers.

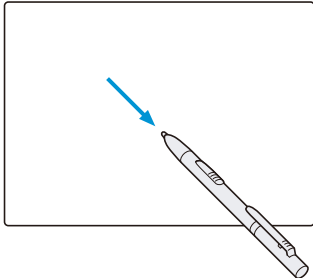
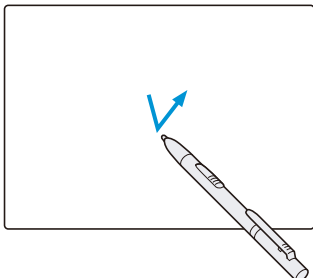
In this manual, the digitizer pen and the stylus are referred to as the “pen (included)”.

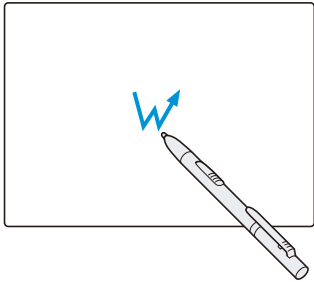
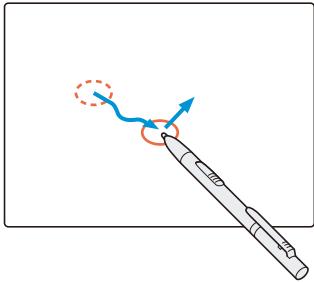
The operation settings can be changed. (→ [page 14](#))

Operation by Touching the Screen

■ Touching with the pen (included)

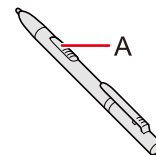
In this section, illustrations of the digitizer pen are used as examples.

Functions	Operation
Moving the cursor	 <p>The cursor is moved to the location pointed by the pen (included).</p>
Clicking (Tapping)	 <p>One tap</p>

Functions	Operation
Double-clicking (Double-tapping)	 <p>Two quick taps</p>
Dragging	 <p>Touch and hold the object (i.e. file or icon), move the pen (included) on the surface (dragging the object to the desired location), then release the pen (included).</p>


■ To right-click

- You can choose either of the two ways below.
 - Touch and hold the object with the pen (included), and release the pen when a circle surrounding the object appears.
- <Only for model with digitizer>
 - Press and hold the button (A) of the digitizer pen, and then touch the object.





■ To Display the mouse image

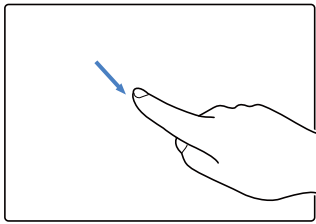
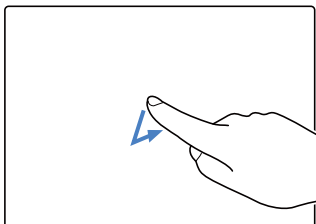
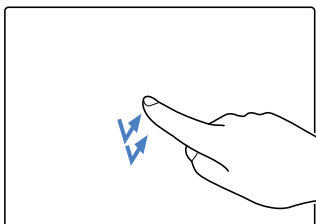
Windows 7

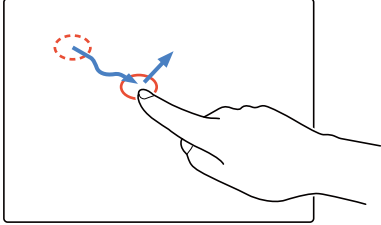
- ① Click  (Start) - [Control Panel] - [Hardware and Sound] - [Pen and Touch].
- ② Click [Touch], and add a check mark for [Show the touch pointer when I'm interacting with items on the screen].

Windows XP

- ① Touch the item you want to right-click and continue touching until  is completely displayed.
- ② Move the pen (included) away from the surface of the display.
Moving the pen (included) away from the surface of the display before  has not completely displayed will result in a left click.
- When needed, the above settings can be configured using the following procedure.
 - ① Click [start] - [Control Panel] - [Printers and Other Hardware] - [Tablet and Pen Settings] - [Pen Options].
 - ② Click [Press and hold] in [Pen Action] and then click [Settings].
 - ③ In [Press and Hold Settings], change the settings and then click [OK].
 For more information, refer to “Help” in the bottom right corner of the [Press and Hold Settings].

■ Touching with your fingers

Functions	Operation	
Moving the cursor		The cursor is moved to the location pointed with finger.
Clicking (Tapping)		One tap with one finger
Double-clicking (Double-tapping)		Two quick taps with one finger

Functions	Operation
Dragging	 <p>Touch and hold the object (i.e. file or icon), move the finger on the surface (dragging the object to the desired location), then release the finger.</p>

The following operations may not be possible depending on the application program being used.

Functions	Operation
Zoom in, zoom out	Use two fingers to touch the image or text you want to zoom in or out on, and draw your fingers apart to zoom in and together to zoom out.
Rotate	Use two fingers to touch the image or text, and use one finger as the center of rotation and the other finger to rotate.



■ To right-click


Touch and hold the object with the finger and release the pen when a circle surrounding the object appears.


■ Windows 7 Change the settings for the screen

- When needed, the screen settings can be configured using the following procedure.

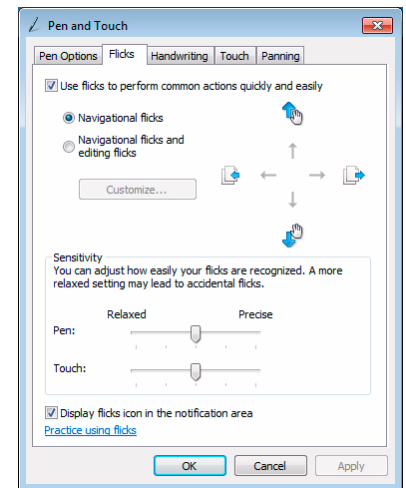
- ① To Display [Pen and Touch] screen.

Click  on the notification area and click . And then click [Customize your flicks settings].

When  is not displayed:

Click  (Start) - [Control Panel] - [Hardware and Sound] - [Pen and Touch], and add the check mark in [Display flicks icon in the notification area] in [Flicks].

- ② Make necessary changes and click [OK].



CAUTION

- If a change is made to the display resolution, or the cursor cannot be pointed correctly with the pen (included), be sure to calibrate the screen. (→ [page 15](#))
- When mouse drivers are installed (e.g., IntelliMouse), the screen 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 screen 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 screen driver is active. Therefore, do not touch the internal LCD when only an external display is in use.
- The screen function does not work in the Setup Utility.

Windows XP

- The screen function does not work in the “Full Screen” of [Command Prompt].

NOTE

- Do not move the pen (included) too quickly. If the pen (included) moves too quickly, the cursor may be unable to follow its movement.

Calibrating the Screen

When you cannot point correctly with the pen (included) or your fingers, calibrate the screen by following the steps below. A standard user needs to perform the calibration as an administrator before performing the calibration for each user.

<Only for model with digitizer>

Windows 7

■ Calibration by an administrator

NOTE

- At first, log on to Windows as an administrator, and perform this calibration.
- Rotate the display to primary landscape before performing the calibration. (→ [page 22](#)).

1 Run [Tablet PC Settings].

Click  (start) - [Control Panel] - [Hardware and Sound] - [Tablet PC Settings].

2 Click [Calibrate].

3 Click [Pen input] or [Touch input].


To calibrate the screen for the digitizer pen operation, click [Pen input].
To calibrate the screen for the finger operation, click [Touch input].

- 4 If [User Account Control] is displayed, click [Yes].
- 5 Using the digitizer pen or finger, touch each of the “+” target marks one by one, and then click [Yes].

■ Calibration by a standard user

NOTE

- Perform the following calibration for each user.

- 1 Run [Tablet PC Settings].
Click  (start) - [Control Panel] - [Hardware and Sound] - [Tablet PC Settings].
- 2 Click [Calibrate].
- 3 Click [Pen input] or [Touch input].
To calibrate the screen for the digitizer pen operation, click [Pen input].
To calibrate the screen for the finger operation, click [Touch input].
- 4 Using the digitizer pen or finger, touch each of the “+” target marks one by one, and then click [Yes].

Windows XP

■ Calibration by a standard user

NOTE

- Perform the following calibration for each user.

- 1 Click [start] - [Control Panel] - [Printers and Other Hardware] - [Tablet and Pen Settings].
- 2 Click [Calibrate...].
- 3 Click [Pen] or [Touch].
To calibrate the screen for the digitizer pen operation, click [Pen].
To calibrate the screen for the finger operation, click [Touch].
- 4 Using the digitizer pen or finger, touch each of the “+” target marks one by one.

- 5 Click [OK] for the digitizer pen operation, or [Finished] for the finger operation.

<Only for model with touchscreen>

Windows 7

■ Calibration by an administrator

NOTE

- At first, log on to Windows as an administrator, and perform this calibration.
- Rotate the display to primary landscape before performing the calibration. (→ [page 22](#)).

- 1 Run [Tablet PC Settings].

Click  (start) - [Control Panel] - [Hardware and Sound] - [Tablet PC Settings].

- 2 Click [Calibrate].

- 3 If [User Account Control] is displayed, click [Yes].

- 4 Using the stylus, touch each of the “+” target marks one by one, and then click [Yes].

■ Calibration by a standard user

NOTE

- Perform the following calibration for each user.

- 1 Run [Tablet PC Settings].

Click  (start) - [Control Panel] - [Hardware and Sound] - [Tablet PC Settings].

- 2 Click [Calibrate].

- 3 Using the stylus, touch each of the “+” target marks one by one, and then click [Yes].

Windows XP

■ Calibration by an administrator

If an administrator performs calibration once, other administrators will not need to do even if multiple user accounts are created. This does not need to be performed two times or more for one computer.

- 1 Click [start] - [Control Panel] - [Printers and Other Hardware] - [Tablet and Pen Settings].
- 2 Set the following with [Calibration] in [Settings].
- 3 Using the stylus, touch each of the “+” target marks one by one, and then click [Yes].

■ Calibration by a standard user

- 1 Click [start] - [Control Panel] - [Printers and Other Hardware] - [Tablet and Pen Settings].
- 2 Set the following with [Calibration] in [Settings].
- 3 Using the stylus, touch each of the “+” target marks one by one, and then click [Yes].

Handling the Screen

- Use the pen (included) with the computer. Do not use pencils, implements with sharp tips or hard objects for screen operations. The screen may be damaged as a result.
- 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 to 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 screen, such as oil.
- Do not apply too much pressure when operating the screen.
Only a light touch is required to operate the screen. Applying too much pressure may damage the surface.
- Do not touch the screen outside of the LCD display area.
The screen input area is defined by the LCD display screen. Touching the screen outside of the display area may result malfunctions or damage to the screen.
- **When the screen 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” (→ page 19).

<Only for model with digitizer>

- The screen uses electromagnetic induction and may not work properly near strong electrical field or magnetic field such as:
 - Near AM radio base station or relay station antennas
 - Near CRT displays that generate strong electromagnetic field noiseMove the screen away from such locations so it will work properly.

Handling the pen (included)

- Clean the pen (included) tip and screen prior to operation. Foreign particles can scratch the screen and impede the operation of the pen (included).
- Use the pen (included) only for the computer screen. Using it for any other purpose may damage the pen (included) and scratch the screen.

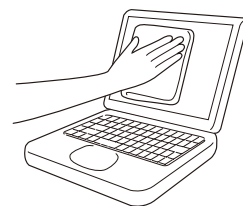
Suggestions About Cleaning the LCD Surface

To improve the outdoor visibility of the display, a low reflection coating has been added. In order to avoid scratches and peeling of this coating, an approved soft cloth has been included to wipe the LCD surface of the computer. Before using the computer, be sure to read the instructions provided below.






- Be sure to wipe the LCD display to remove fingerprints, etc., with the soft cloth.
- Do not wipe areas other than the LCD display with the soft cloth.

<How to use the soft cloth>

- Use the soft cloth when it is dry. Do not apply water or solvents to the soft cloth.
- First, lightly wipe foreign particles and dust adhering to the LCD display on one side of the soft cloth. Do not use force, since the LCD surface may be damaged with the foreign particles or dust. Next, wipe off fingerprints, etc., with the other side of the soft cloth. After wiping off foreign particles and dust, wash the soft cloth (refer to the following) to remove the foreign particles and dust from the soft cloth.
- When the soft cloth becomes dirty, wash it with neutral detergent. Do not use bleach or a fabric conditioner (softener), or carry out sterilization by boiling.
- If the LCD gets wet, wipe the surface lightly with the soft cloth.
- We recommend wiping the LCD display before using the computer.



<Only for CF-C1 Series>

Button	Function
	LCD Brightness ☀️ : down ☀️ : up
	Input Panel Tablet PC Input Panel on/off ● This button does not work on the Welcome screen.
	Rotation Rotates the display. (→ page 22) ● Do not press the button again until the display rotation is completed.
	Security Works as Ctrl + Alt + Del.
	USER Dashboard for CF-C1 on/off (→ page 33)

NOTE

- The Tablet buttons work when the Windows screen is displayed.
- The Tablet buttons may not work immediately after Windows is started up or the Windows logon screen (or the Welcome screen) is displayed.

Setting the Tablet Buttons

NOTE

- You can have different settings for each user.
- On the Windows logon screen and Welcome screen, the tablet buttons are enabled and work in default irrespective of the settings you made.

■ To change the tablet button functions

You can change the functions of the following tablet buttons.

 (LCD Brightness) /  (Input Panel) /  (Rotation) /  (USER)

To change the functions of the LCD Brightness buttons

1 Open the Dashboard for CF-C1.

Press  (USER) button.

2 Select a function in [Brightness buttons].

Brightness Up/Down: Use the buttons to adjust the LCD brightness (default setting)

Page Up/Down: Use the buttons to control page up/down

Up/Down Arrow keys: Use the buttons to move the cursor up/down

3 Close the Dashboard for CF-C1.

To change the functions of the Input Panel/Rotation/USER buttons

1 Open the Dashboard for CF-C1.

Press  (USER) button.

2 Click [Change settings] in [Tablet buttons].

The  [Tablet PC Settings] /  [Tablet and Pen Settings] screen appears.

3 Select the button for which you want to change the function under [Tablet button].

4 Click [Change...].

The  [Tablet Button Actions] /  [Change Tablet Button Actions] screen appears.

5 Select a function in [Press:] / [Action:].

If you want to use the selected button to start an application program, select  [Start a program] /

 [Launch an application], click [Browse...] and select the program to be started.

If you select [(none)], the selected button will not function when pressed.

6 Click [OK], and then [OK].

<Only for CF-C1 Series>


After Windows is started up, you can rotate the display and perform the Touch Pad and screen operations in the rotated mode.

Rotating the Display

1 Press  (Rotation) button.

■ To select the angle and rotate the display


When using the computer in the tablet mode

- Press  (Rotation) button.

When the computer is held in an upright position, the display will automatically rotate to the most suitable orientation.

If the display has already been at the most suitable orientation, the display will not rotate.

When the computer is held in a level position, the display will rotate 90 degrees clockwise at each press.

- **Windows 7** Press and hold  (Rotation) button.


The display will continue rotating 90 degrees clockwise.

When using the computer in the laptop mode

- Press  (Rotation) button.

When the rotation angle is changed from the default value, the display will rotate by the set angle.

When the rotation angle is not changed, the display will rotate to [Primary Landscape].

- **Windows 7** Press and hold  (Rotation) button.

The display will continue rotating 90 degrees clockwise.

NOTE

- Be sure to use the above procedures to rotate the display.

Changing the Settings

By using the Display Rotation Tool, you can change the settings of the display rotation.

1 **Windows 7** Click  on the notification area and right-click .

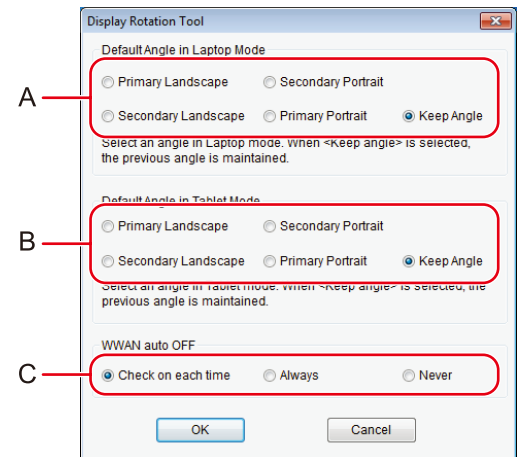
Windows XP Right-click  on the notification area.

2 Click [Setting...].

3 Change the settings.

- A. Changing the angle in the laptop mode (Default: Keep Angle)
- B. Changing the angle in the tablet mode (Default: Keep Angle)
- C. Activating/deactivating the confirmation message that allows you to select whether to turn off wireless WAN when the antenna is placed close to the user.
 - Depending on the model, this item does not appear.

4 Click [OK].




NOTE



- If you shut down Windows when you rotate the display, the Touch Pad and screen do not match the display angle next time you start up Windows for a few seconds.
 - The Touch Pad and the screen may not match the display angle if you change display properties or Intel(R) Graphics Media control panel when you rotate the display.
 - When some applications are running, the display may not be rotated and the operation of the Touch Pad and the screen may not match the display angle.
 - The computer's performance will decrease somewhat.
 - While the display is rotated:
 - Do not use the Extended Desktop (The Touch Pad or screen may fail to operate properly).
 - Do not calibrate the screen.
 - Do not set the display resolution larger than the resolution of the internal LCD.
 - If motion video is played while the display is rotated, the picture may not be displayed properly or the sound may be broken up. This problem can be corrected by rotating the display to primary landscape.
 - The Touch Pad scroll function does not work while the display is rotated.
 - **Windows 7**

If the display is rotated when the resolution is set to 800 x 600 pixels, depending on the Windows specifications, incorrect values may be shown for the resolution displayed in [Resolution] of [Display Settings]. Continue using these settings, without changing [Resolution].
 - The display cannot be rotated in the Setup Utility.
 - **Windows XP**






The display cannot be rotated in the "Full Screen" of [Command Prompt].
 - The display rotation angle may differ before and after Logging on.
-

NOTE

- Do not repeatedly press the keys in quick succession.
- Do not use the key combinations together with Touch Pad (external mouse), screen or other key operations.
- Do not use the key combinations before you log on to Windows. Wait until the hard disk drive indicator  turns off. On the Setup Utility screen, you can use the key combinations of **Fn + F1**, **Fn + F2** and **Fn + F3**. By using the key combinations of **Fn + F3**, the display is switched between the internal LCD and the external display.
- The key combinations may not work with some applications.
- The pop-up icon appears after logging on to Windows. It may not appear in some application conditions (e.g., when [Command Prompt] is set to “Full Screen”).

Key	Functions	Pop-up Icon
Fn+F1 Fn+F2	<p>LCD brightness (Fn+F1= down / Fn+F2= up)</p> <p>You can select a different brightness level setting for when the AC adaptor is connected and for when it is not connected. (In the default setting, the LCD brightness is set to be darker when the AC adaptor is not connected.)</p> <p>NOTE</p> <ul style="list-style-type: none">● <CF-C1 Series> Alternatively, you can push  (LCD Brightness) buttons.● The brightness of the power indicator changes in keeping with the brightness level of the internal LCD.	

Key	Functions	Pop-up Icon
<p>Fn+F3</p>	<p>Display switching (→ page 99)</p> <p>Windows 7</p> <p>When an external display is connected you can change the operating mode. (The change you made may not be effective until Enter is pressed.) You can also change the operating mode by pressing ⌘ + P.</p> <p>Computer only → Duplicate → Extend → Projector only</p> <p style="text-align: center;">↑</p> <ul style="list-style-type: none"> • After pressing ⌘ + P, you can select the operating mode by using the left and right cursor keys. <p>Windows XP</p> <p>(When an external display is connected)</p> <p>Internal LCD → Simultaneous display → External display</p> <p style="text-align: center;">↑</p> <p>NOTE</p> <ul style="list-style-type: none"> • <CF-C1 Series/CF-F9 Series> When an external display is connected to an optional port replicator (→ page 98), the display switching may work differently from the above. For further information, refer to the Operating Instructions of the mini port replicator. • When an external display is connected, refer to the External Display (→ page 99). <p>CAUTION</p> <ul style="list-style-type: none"> • Do not press any keys until the display has finished switching. • Do not use this function: <ul style="list-style-type: none"> • When an external display is not connected. • When playing motion video such as DVD or MPEG. • When using the Extended Desktop. • Until Windows startup is completed (during Setup Utility, etc.), the simultaneous display cannot be used and pressing Fn + F3 switches the display between the internal LCD and the external display. 	<p>—</p>



Key	Functions	Pop-up Icon
<u>Fn</u>+<u>F4</u>	Speaker on/off NOTE <ul style="list-style-type: none"> Beeps do not sound if you turn off the speaker sound. 	 OFF (MUTE)  ON
<u>Fn</u>+<u>F5</u> <u>Fn</u>+<u>F6</u>	Volume (<u>Fn</u> + <u>F5</u> = down / <u>Fn</u> + <u>F6</u> = up) NOTE <ul style="list-style-type: none"> When fine-tuning the sound volume, press and hold <u>Fn</u>, and press <u>F5</u> or <u>F6</u> intermittently. 	
<u>Fn</u>+<u>F7</u>	Activate  sleep /  standby (→ page 62)	—
<u>Fn</u>+<u>F9</u>	Remaining battery power	→ page 38
<u>Fn</u>+<u>F10</u>	Activate hibernation (→ page 62)	—
<u>Fn</u>+<u>NumLk</u>	Run the ScrLk (Scroll Lock) function The functions differ depending on the application software.	—
<u>Fn</u>+<u>Home</u>	Lead to the last page or move the cursor to the end of the current line (End)	—
<u>Fn</u>+<u>↑</u>	Move the back page (PgUp)	—
<u>Fn</u>+<u>↓</u>	Move the next page (PgDn)	—

Hotkey Settings

You can make two settings:

- **Fn key lock**
When you press **Fn**, the key is locked (pressed-down) until you press another key. Use this when pressing difficult key combinations.
- **Pop-up icon on/off**

1 Start up the Hotkey Settings.

Click  (Start)/  [start] - [All Programs] - [Panasonic] - [Hotkey Settings].

2 Make the settings.



[Use Fn key lock]

- When using an **Fn** key combination
 - ① Press **Fn** once. (Locked)
 - ② Press another key. (Lock released)
- When using successive **Fn** key combinations
 - ① Press **Fn** twice. (Locked)
 - ② Press another key.
Fn key remains locked until you press **Fn** again.

[Notification]

[Make sounds when Fn key is pressed]^{*1}

[Show status on screen]: Displays the Fn key status on the notification area.

- : **Fn** is locked.
- : **Fn** is not locked.

[Disable popup]

The Pop-up icon will not be displayed.

3 Click [OK].

NOTE

- You can have different settings for each user.

^{*1} If the speakers are muted, beeps do not sound.

<Only for CF-C1 Series>


You can use the Software Keyboard instead of the on-screen keyboard of Tablet PC Input Panel. By using the Software Keyboard, you can change the size of the Software Keyboard, and can use the numeric keypad.

NOTE

- You cannot uninstall Tablet PC Input Panel. When you enter text, select either the Software Keyboard or Tablet PC Input Panel.




Starting the Software Keyboard

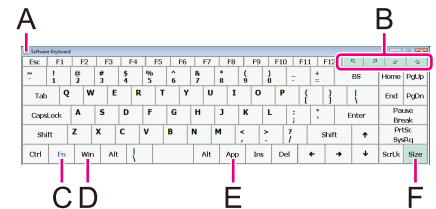
1 Click **Windows 7** / **Windows XP** on the notification area.

Alternatively, you can click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Panasonic] - [Software Keyboard].

2 Touch the software keyboard.

- To use shortcut key
Example : **Ctrl + C**
Press **Ctrl** (turns blue) and then press **C**.
- If you added the input language, the language bar (e.g. **EN**) is displayed on the notification area. To select the keyboard language, use the language bar on the notification area. If the keyboard language does not change, click the title bar of the software keyboard and then click on the application.

- A. Software keyboard menu (→ page 30)
- B. Moves the software keyboard to a corner of the screen.
- C. Works as the **Fn** key. (Available function is displayed.)
- D. Tapping : Works as shortcut key. ( + **F** etc.)
Double-clicking : Works as the  key.
- E. Works as a right-click. (Same function as the  key)
- F. Changes the size of the Software Keyboard, and can use the numeric keypad.

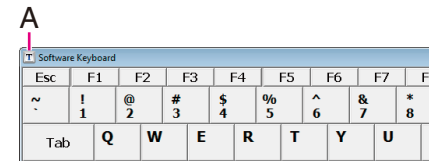


NOTE

- You cannot use **Ctrl** + **Alt** + **Del** on the software after logging on.
- Windows XP** You cannot use the software keyboard in the "Full Screen" of [Command Prompt].
- You can set a different language to each application (→ Windows help), and the keyboard layout switches according to the application.
- Depending in the language, some keys are displayed in orange. You can use them to input characters such as **ë** and **ö**.

Software Keyboard Menu

1 Click **T** (A).

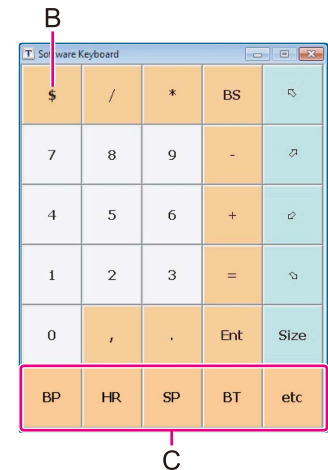


2 Add a check mark to the function you want to use.

- **[Auto Move]**
The software keyboard moves automatically to avoid overlapping the selected window.
- **[Auto Restore]**
The software keyboard minimized on the notification area will be restored when you change the input mode. This may not work on some applications.
- **[Always On Top]**
The software keyboard appears on the top.
- **[Transparent]**
The software keyboard appears semi-transparent.
- **[Big Size]/[Medium Size]/[Small Size]**
Select the size of the software keyboard.
- **[Ten key (Big)]/[Ten key (Medium)]/[Ten key (Small)]**
Select the size of the numeric keypad.
- **[Change Size Automatically (Big ↔ Medium)]**
The size changes according to the angle of the screen display.

NOTE

- You can change the currency symbol (B) of the numeric keypad.
 - Windows 7** Click (Start) - [Control Panel] - [Clock, Language, and Region] - [Regional and Language] - [Formats] - [Additional settings] - [Currency] - [Currency symbol].
 - Windows XP** Click [start] - [Control Panel] - [Date, Time, Language and Regional Options] - [Regional and Language Options] - [Regional Options] - [Customize] - [Currency] - [Currency symbol]
- After changing the currency symbol, click **T** (A), and then change the size of the numeric keypad so that the selected currency symbol is shown.
- You can input the unit by using (C).



Starting the Software Keyboard Using the Tablet Button

To start the Software Keyboard using the tablet button, proceed as follows.

1 Open the Dashboard for CF-C1.

Press  (USER) button.

2 Click [Change settings] in [Tablet buttons].

The  [Tablet PC Settings] /  [Tablet and Pen Settings] screen appears.

3 Select [Input Panel] under [Tablet button].

4 Click [Change...].

The  [Tablet Button Actions] /  [Change Tablet Button Actions] screen appears.

5 Select a function in [Press:] / [Action:].

6 Select [Start a program] / [Launch an application].

7 Click [Browse...], and input the following.

Windows 7

Windows 7 (32-bit) : c:\Program Files\Panasonic\MEISKB\SkbInch.exe

Windows 7 (64-bit) : c:\Program Files (x86)\Panasonic\MEISKB\SkbInch.exe

Windows XP

c:\Program Files\Panasonic\MEISKB\MEISKB.exe

8 Click [OK], and then [OK].




<Only for CF-C1 Series>

You can make a bitmap file (.bmp) of a simple character and a figure such as signature by handwriting on the touch pad and the screen.

CAUTION

- Do not use the Fast User Switching function while Hand Writing Utility is active.


NOTE

- The display of Hand Writing Utility may be distorted if the number of display colors is changed.
 - ① **Windows 7** Click  on the notification area and right-click .
 - Windows XP** Right-click  on the notification area.
 - ② Click [Exit Hand Writing Utility], and then restart Hand Writing Utility.
- Hand Writing Utility may not work properly if another application software is active. In this case, close the application software and try handwriting again.

Starting Hand Writing Utility

- 1 **Windows 7** Click  on the notification area and double-click .

Windows XP Double-click  on the notification area.

Alternatively you can click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Panasonic] - [Hand Writing Utility].

NOTE

- Select the image size before handwriting by clicking [Option] - [Window size]. If you change the size after handwriting, the image quality will become lower.
- You can copy the bitmap image by clicking [Edit] - [Copy], and paste it in another application software that supports bitmap format.

<Only for CF-C1 Series>

You can perform the following operations easily by using the Dashboard for CF-C1.

1 Open the Dashboard for CF-C1.


Press  (USER) button.

2 Make the operation.

[Battery 1] [Battery 2]


Check the remaining battery charge for the battery pack 1 ([Battery 1]) and the battery pack 2 ([Battery 2]).

[Volume]

Adjust the sound volume. Slide  to the right or left to increase or decrease volume respectively. To mute the sound, add a checkmark to [Mute].

[Microphone]

Adjust the microphone input level. Slide  to the right or left to increase or decrease the level respectively.

 To disable microphone input, add a checkmark to [Mute].

[Web camera] (Only for model with web camera)

Enable or disable the built-in web camera.

When the camera is enabled, click [Disable] to disable it.

When the camera is disabled, click [Enable] to enable it.

[Screen input]

When [Touch + Pen] is selected, you can operate the screen with the pen (included) and other input methods such as your fingers. When [Pen Only] is selected, the screen will only respond to the pen (included). We recommend selecting this option to prevent accidental operations that may occur when your hand touches the screen while using the pen (included).

<Only for model with digitizer>

Select [Touch Only] when you want to operate the screen with only your fingers.

When you change the setting, a confirmation message appears. Follow the instructions displayed on the screen.

[Pen and Touch]

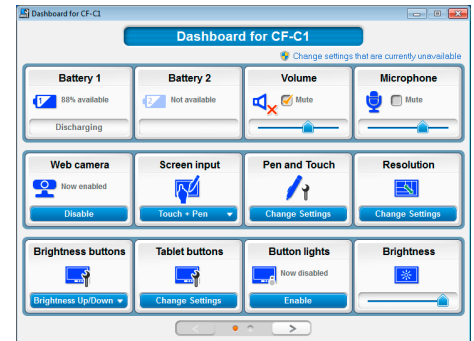
Change the pen (included)/finger operation mode as follows.

① Click [Change settings].

The  [Pen and Touch] /  [Tablet and Pen Settings] screen appears.

② Select the action to change under  [Pen action] /  [Pen Action].

③ Click [Settings...].



- ④ Make changes on the screen that appears.
- ⑤ Click [OK], and then [OK].

[Resolution]

Set the screen resolution and **Windows 7** screen orientation / **Windows XP** color quality as follows.

- ① Click [Change settings].
- ② Make settings on the screen that appears.
- ③ Click [OK].

[Brightness buttons]

Assign different functions to  (LCD Brightness) buttons.

Refer to “To change the functions of the LCD Brightness buttons” (→ [page 21](#)).

[Tablet buttons]

Assign different functions to  (Input Panel) /  (Rotation) /  (USER) buttons.

Refer to “To change the functions of the Input Panel/Rotation/USER buttons” (→ [page 21](#)).

[Button Lights]


Enable or disable the Tablet Buttons backlight.

When the backlight is enabled, click [Disable] to disable it.

When the backlight is disabled, click [Enable] to enable it.

[Brightness]

Adjust the LCD brightness.



Slide  to the right or left to increase or decrease the brightness respectively.

NOTE

- When there are 13 or more functions, click  or  to go to the next or previous page.

3 Close the Dashboard for CF-C1.

You can close the Dashboard for CF-C1 by pressing  (USER) button when the Dashboard for CF-C1 window is active.

You can also close the Dashboard for CF-C1 by clicking **Windows 7**  / **Windows XP** .



Using Dashboard for CF-C1 as an Application Launcher

You can launch application programs easily by registering them to the Dashboard for CF-C1 screen. Log on to Windows as an administrator, and proceed as follows.

1 Open the Dashboard for CF-C1.

Press  (USER) button.

NOTE

- When there are 13 or more functions, click  or  to go to the next or previous page.

2 Click [Change settings that are currently unavailable].

3 Click [Yes].

4 Click [Click to add].

5 Input a name for the application in [Application Name].

6 Click [...] and select an application program to be registered.

7 Click [Open], then click [OK].



NOTE

- Instead of performing steps 5 and 6, you can drag and drop the application program icon directly into [Click to add].

■ Launching an application program




1 Open the Dashboard for CF-C1.

Press  (USER) button.

2 Click [Launch] for the desired application program.

■ Changing settings and deleting application programs

First log on to Windows as an administrator.

- 1 Open the Dashboard for CF-C1.**
Press  (USER) button.
- 2  Click [Change settings that are currently unavailable].**
- 3  Click [Yes].**
- 4 Click ▾ to the right of [Launch] under the target application program, and select [Change] to change settings, or [Delete] to delete the application program.**
- 5 If you selected [Change], change the settings and click [OK].**
If you selected [Delete], click [Yes].


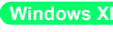
Specifying Usable Functions on Dashboard for CF-C1

You can specify functions that can be used by standard users on the Dashboard for CF-C1.

Functions not specified will be dimmed and standard users will not be able to use these functions.

- An administrator must click [Change settings that are currently unavailable] to use these functions.

Log on to Windows as an administrator, and proceed as follows.

- 1 Click  (Start) /  [start] - [All Programs] - [Panasonic] - [Dashboard for CF-C1 settings].**
- 2 Click [Yes].**
- 3 Add a checkmark to the functions you want to specify.**
- 4 Click [OK].**

NOTE

- Once you add a checkmark to [Application Launcher Settings], standard users can also perform the above procedure.

Checking the Battery Status

Battery indicator(s)

<CF-C1 Series>

□1 Battery pack 1

□2 Battery pack 2

<CF-F9/CF-S9 Series>



Battery Indicator	Battery Status
Not lit	Battery pack is not connected or no charging.
Orange light on / flashing ^{*1*2}	Charging in progress. If [Battery Charging Indicator] in the [Main] menu of the Setup Utility is set to [Flashing], the indicator will alternately become lighter and darker (Flashing) (→ page 150).
Green ^{*1}	Fully charged.
Red	The remaining battery power is approximately 9% or less.
Blinking red ^{*1}	Battery pack or charging circuit 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. The battery pack or charging circuit may be defective.
Blinking orange ^{*1*2*3}	The battery cannot be charged temporarily due to the following reasons: <ul style="list-style-type: none"> ● Its internal temperature is out of the acceptable range. ● The power supply is not enough because software applications or peripheral devices are consuming a large amount of power.

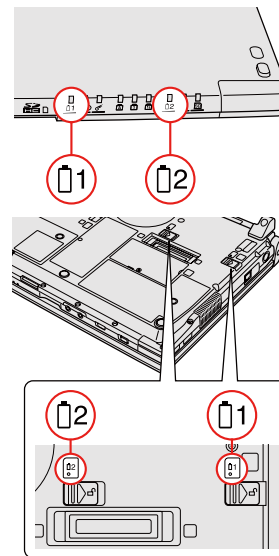
^{*1} When the AC adaptor is connected.

^{*2} The orange display light has three modes: on, flashing and blinking. Note the difference between flashing and blinking.

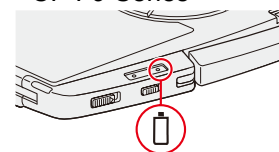
^{*3} <CF-C1 Series>

The battery indicator blinks orange several times also when you slide the battery latch, but this is not a trouble. For details, refer to “To check the battery with less remaining power” (→ [page 41](#)).

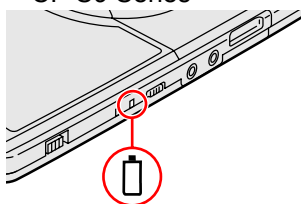
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



NOTE

- Once the battery is fully charged, the computer performs recharging only when the remaining battery power becomes less than approximately 95% (75% when the battery's Economy Mode (ECO) is enabled), so overcharging is avoided.

Checking the Remaining Battery Power





There are three methods to check the remaining battery power.

■ To check the remaining battery power on the screen

(After logging on to Windows)

1 Press **Fn** + **F9**.




<CF-C1 Series>

Display	Condition
	When the battery pack is inserted. (example)
	When the battery pack is not inserted.
	[ECO] is displayed when the battery's Economy Mode (ECO) is enabled.
	When the battery is being discharged. (Indicated by the yellow rectangle.)

Left icon: Battery pack 1

Right icon: Battery pack 2

<CF-F9/CF-S9 Series>

Display	Condition
	When the battery pack is inserted. (example)
	When the battery pack is not inserted.
	[ECO] is displayed when the battery's Economy Mode (ECO) is enabled.

■ To check the remaining battery power and remaining time using the Windows Battery Meter (Windows Power Meter)

(After logging on to Windows)

Windows 7 Click  or  on the notification area.

Windows XP Double-click  on the notification area when the AC adaptor is not connected.

NOTE

- The battery display may not correspond to the actual remaining battery power in the cases as below. To correct the display, perform the Battery Recalibration (→ [page 44](#)).
 - The battery indicator remains red.
 - The battery indicator lights orange and the display shows 99% for a long time (79% when Economy Mode (ECO) is enabled).
 - Low battery warning appears soon after a short time of use.
- The battery display may not be the same as that of **Windows 7** Battery Meter/ **Windows XP** [Power Meter] in [Power Options Properties]. This is not a malfunction.

■ To check the remaining battery power using the battery indicator

(When the power is off or in sleep or hibernation)

1 <CF-C1 Series/CF-S9 Series>

Close the display completely.

<CF-F9 Series>

Close the display and confirm that the latch is locked.

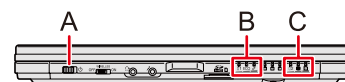
2 Disconnect the AC adaptor.

3 Slide the power switch (A) and confirm the battery indicator (B, C).

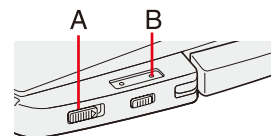
<CF-F9/CF-S9 Series>

Battery Indicator (B)	Remaining Battery Power
Red	0 % - 4 %
Blinking orange	5 % - 19 %
Orange	20 % - 49 %
Blinking green	50 % - 94 %
Green	95 % - 100 %

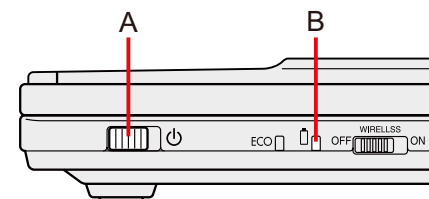
<CF-C1 Series>















<CF-F9 Series>



<CF-S9 Series>

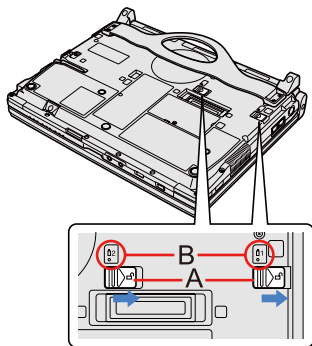


<CF-C1 Series>

Indicators		Charging Status (Remaining Battery Power) • When the battery's Economy Mode (ECO) (→ page 45) is disabled	Charging Status (Remaining Battery Power) • When the battery's Economy Mode (ECO) (→ page 45) is enabled
  	orange/none/none	0 % - 49 %	0 % - 39 %
  	green/none/none	50 % - 74 %	40 % - 59 %
  	green/green/none	75 % - 94 %	60 % - 74 %
  	green/green/green	95 % - 100 %	75 % - 80 %

<CF-C1 Series>

■ To check the battery with less remaining power



When using the main and second battery packs, you can check the battery with less remaining power.

Slide one of the latches (A) to the unlocked position without removing the battery pack.

One of the battery indicators (B) corresponding to the battery pack with less remaining power will flash in orange several times.

NOTE

- If you are using only a battery pack, the battery indicator corresponding to the battery compartment with the battery bay weight saver will flash in orange several times.

<CF-C1 Series>

■ To check the battery charging status using the indicators

You can use the indicators illustrated below to easily and quickly check the battery charging status.



- 1 Start up the Setup Utility (→ [page 148](#)).
- 2 Select [Main].
- 3 Set [Battery Charging LED Mode] to [Multiple].
- 4 Press **F10**, and then select [Yes] and press **Enter**.
- 5 Turn off the computer, and close the display completely.
- 6 Connect the AC adaptor, if not connected.
- 7 Check the battery charging status.

Indicators		Charging Status (Remaining Battery Power) • When the battery's Economy Mode (ECO) (→ page 45) is disabled	Charging Status (Remaining Battery Power) • When the battery's Economy Mode (ECO) (→ page 45) is enabled
	orange/none/none	0 % - 49 %	0 % - 39 %
	green/none/none	50 % - 74 %	40 % - 59 %
	green/green/none	75 % - 94 %	60 % - 74 %
	green/green/green	95 % - 100 %	75 % - 80 %

When the battery charging status is checked by the indicators, you cannot check to see whether the battery's Economy Mode is enabled or disabled.

<CF-C1 Series>

■ To check the remaining battery power using the Dashboard for CF-C1

The Dashboard for CF-C1 allows you to easily check the remaining battery power (→ [page 33](#)).

Computer behavior with low battery

The default settings are as follows.

When the remaining battery power becomes 10% Windows 7 [Low battery level]/ Windows XP [Low battery alarm]	When the remaining battery power becomes 5% Windows 7 [Critical battery level]/ Windows XP [Critical battery alarm]
<ul style="list-style-type: none"> ● Displays a message that the remaining battery power is low. <p style="text-align: center;">↓</p>	<ul style="list-style-type: none"> ● Displays a message that the remaining battery power is low, and then the computer enters hibernation.
Charge the battery.	Connect the AC adaptor or replace the battery to start up the computer.
<ul style="list-style-type: none"> ● Connect the AC adaptor immediately. If you do not have the AC adaptor, exit the running programs and Windows, then confirm that the power indicator is off. ● If you have a fully charged spare battery, turn off the computer, replace the battery and turn the computer on again. ● If another charged battery pack is available, replace the current battery pack with the charged one. 	<ul style="list-style-type: none"> ● Connect the AC adaptor and charge the battery. ● If you have a fully charged spare battery, turn off the computer, replace the battery and turn the computer on again. When the computer enters hibernation with the battery down and you resume the operation without charging the battery, Windows may not start up normally or the alarm function may not operate normally from then on. ● If another charged battery pack is available, replace the current battery pack with the charged one.
Windows XP Do not replace the battery pack when the computer is in standby.	

Correcting the Battery Display (Battery Recalibration)

The “Battery Recalibration” function measures and memorizes the battery capacity. To correct the battery display, use this function to fill the battery and then discharge it completely. Perform the procedure at least once immediately after purchasing the computer. Normally the interval of “Battery Recalibration” is three months. The battery display may not be correct when the battery pack deteriorates after a long time use. In this case, perform the procedure again.

- 1 Connect the AC adaptor.**
- 2 Close all the applications.**
- 3 Perform “Battery Recalibration”.**

- ① Click **Windows 7** (Start) / **Windows XP** [start] - [All Programs] - [Panasonic] - [Battery] - [Battery Recalibration].
- ② When the confirmation message appears, click [Start].
 - Frequent recalibration of the battery can degrade the battery. A caution message appears when the “Battery Recalibration” is performed at the shorter interval than approximately a month. In this case, cancel the “Battery Recalibration”.
- ③ When the message requests shut down of Windows, click [Yes].

The “Battery Recalibration” starts.

After the battery pack is fully charged, discharging starts. When the discharging is completed, the power goes off automatically.

After the “Battery Recalibration” is finished, normal charging starts.

CAUTION

- Do not close the LCD while “Battery Recalibration” is being executed.

NOTE

- The temperature range should be 10°C to 30°C {50°F to 86°F}.

If “Battery Recalibration” is executed at low temperatures, recalibration may not be performed properly.
- The “Battery Recalibration” may take a long time due to the large battery capacity. This is not a malfunction.

<CF-C1 Series>

 - Full charge: Approximately 2.5 hours [MAX] when only battery pack 1 is installed / Approximately 3 hours [MAX] when battery packs 1 and 2 are installed
 - Complete discharge: Approximately 2 hours when only battery pack 1 is installed / Approximately 4 hours when battery packs 1 and 2 are installed

<CF-F9 Series>

 - Full charge: Approximately 3.5 hours [MAX]
 - Complete discharge: Approximately 3 hours

<CF-S9 Series>

- Full charge: Approximately 3.5 hours [MAX]
- Complete discharge: Approximately 4 hours
- “Battery Recalibration” does not increase the battery’s capacity. If “Battery Recalibration” is executed frequently, deterioration of the battery may result.
- If the computer is turned off during the “Battery Recalibration” (e.g., due to power failure, or accidental removal of the AC adaptor and battery pack), the “Battery Recalibration” will not be completed.
- You can also perform the “Battery Recalibration” with the following procedure.
 - ① Restart the computer.
 - ② Press and hold **F9** while the [Panasonic] boot screen is displayed just after the computer starts the startup procedure.
 - ③ When the remaining battery power is displayed, press **Enter**.
 - ④ Follow the on-screen instructions.

Switching between Long Battery Life and Extended Operating Time (Economy Mode (ECO))

The battery pack is a consumable item, and deteriorates gradually each time it is used.


Use effective switching of the battery’s Economy Mode (ECO) to reduce battery pack deterioration, and enable the battery pack to last a little longer. Switch the battery’s Economy Mode (ECO) in accordance with the way you use your computer.

	The battery’s Economy Mode (ECO)	
	Disabled	Enabled
Recommended usage	Mobile Using your computer while on the move	Desktop AC adaptor is connected most of the time
Operation time	Extended	Normal
Lifetime of battery	Normal	Extended

- The battery’s Economy Mode (ECO) disabled:
In the default setting, the battery’s Economy Mode (ECO) is set to “Disabled”.
Charge the battery to 100% (fully charged). We recommend that you disable the battery’s Economy Mode (ECO) if you use the battery pack frequently.
- The battery’s Economy Mode (ECO) enabled:
Stop the battery recharging at 80% of fully charged. By stopping the battery recharging before 100% (fully charged), the burden on the battery is reduced and deterioration is prevented, so the lifetime of battery pack will be extended. The computer will not operate as long on the battery as when the battery’s Economy Mode (ECO) is disabled.
If you often use the computer with the AC adaptor connected, and if you want to prevent deterioration of the battery pack, we recommend that you enable the battery’s Economy Mode (ECO).



Switching the battery's Economy Mode (ECO)

Windows 7

- 1 Click  on the notification area and then click .
- 2 Click [Enabled] or [Disabled] in [The battery's Economy Mode (ECO)].

Windows XP

- 1 Right-click either  (Disable) or  (Enable) on the notification area.

If  or  is not displayed, click [start] - [All Programs] - [Panasonic] - [Battery] - [Economy Mode(ECO) Setting Utility].

- 2 Click [Economy Mode(ECO) Enable] or [Economy Mode(ECO) Disable].

	Windows 7 [Enabled]/ Windows XP [Economy Mode(ECO) Enable]		Windows 7 [Disabled]/ Windows XP [Economy Mode(ECO) Disable]
	Remaining battery power: 81% or more.	Remaining battery power: 80% or less.	
Economy Mode (ECO) Indicator	Blink (The battery will discharge until the remaining battery power is 80% or less.)	Light	off

- ① When the confirmation message is displayed, read the message on the screen carefully, and click [OK].
- ② Use the computer with the AC adaptor unplugged until the remaining battery power is 80% or less. When the remaining battery power falls to 80% or less, battery discharge ends, and the Economy Mode (ECO) indicator lights.
If you continue using the computer with the AC adaptor, it may take about a day until the remaining battery power falls to 80%.
- ③ When the confirmation message is displayed, read the message on the screen carefully, and click [OK].
- ④ Connect the AC adaptor.
If you do not click [OK] at step ③, the computer will go into forced **Windows 7** sleep/ **Windows XP** standby after about three minutes to prevent the remaining battery power from dropping.
 - The computer will go into forced **Windows 7** sleep/ **Windows XP** standby even while application software is running or data is being sent or received, or when the hard disk is being accessed, so be sure to connect the AC adaptor.

NOTE

- After disconnecting the battery pack, if you connect it to a computer on which the battery's Economy Mode (ECO) settings differ, the battery will either recharge or discharge until the next time the computer is turned on, giving priority to the battery pack setting on that computer.

Replacing the Battery Pack

The battery pack is a consumable item so the replacement will be necessary. If the battery operation time becomes noticeably short and not recovered even after recalibrating the battery, replace with a new battery.

CAUTION

- The battery pack is not charged when you first purchase it. Be sure to charge it before using for the first time. Charging starts automatically when the AC adaptor is connected to the computer.
- Use only the specified battery pack with your computer.
- In **Windows 7** sleep/ **Windows XP** standby, do not remove/replace the battery pack. Otherwise your data will be lost and the computer may be damaged.
- Make sure no foreign objects are under the computer.

<For CF-C1 Series operating on a single battery / CF-F9 /CF-S9 Series>

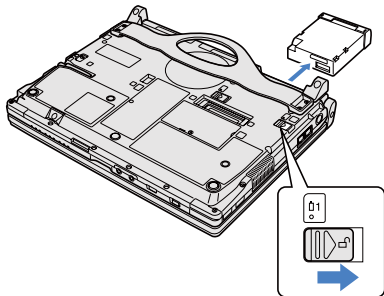
1 Turn off the computer.

- Do not use the **Windows 7** sleep/ **Windows XP** standby function.

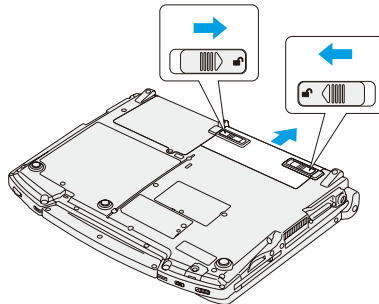
2 Turn your computer over and remove/insert the battery pack.

- To remove
Slide the latch (for CF-C1 Series) / the left and right latches (for CF-F9/CF-S9 Series) to the unlocked position, and pull out the battery pack.

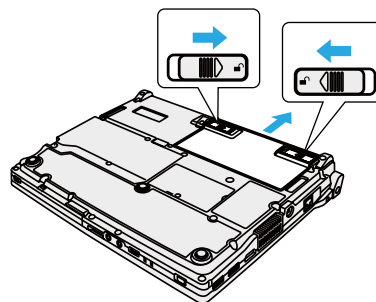
<CF-C1 Series>



<CF-F9 Series>

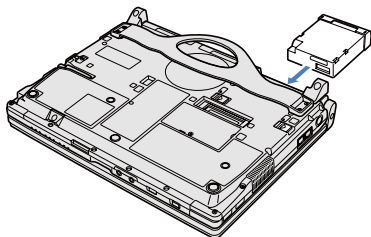


<CF-S9 Series>

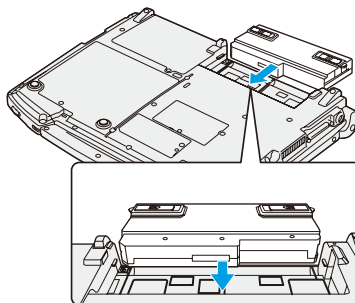


- To insert
For CF-C1 Series: Slide the battery pack in parallel with the arrow direction until it clicks to the secured position.
For CF-F9/CF-S9 Series: Slide the battery pack in parallel with the arrow direction and attach it so that the left and right projections on the new battery pack match the dents of the computer.

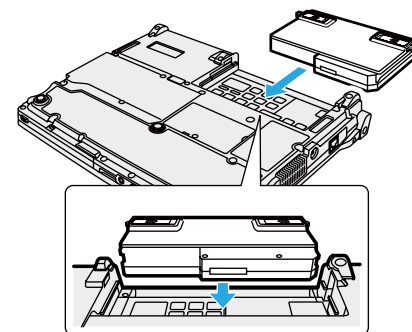
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



Be careful about the battery pack direction.

In case that the projection does not match the dents of the computer, detach the battery pack once, then slide it while pushing it lightly to avoid floating.

CAUTION

- Make sure the latches are securely locked, otherwise the battery pack may fall when you carry the computer.
- Do not remove the battery pack forcibly when the latches are locked. Doing so may damage the battery pack.
- Do not apply pressure from the top of the closed display when the battery pack has been removed. Doing so may damage the LCD.

<For CF-C1 Series operating on the battery packs 1 and 2>

If one of the two battery packs has remaining power, you can replace the other battery pack without turning off the computer (Hot swap).

First check the battery with less remaining power, which is to be replaced (→ [page 41](#)).

1 Turn your computer over and remove/insert the battery pack.

- To remove
Slide the latch corresponding to the battery pack to be replaced to the unlocked position, and pull out the battery pack.
- To insert
Slide the battery pack into the battery compartment until it clicks to the secured position.

<CF-C1 Series>

Adding the Second Battery Pack

When using your computer with a battery pack, you can insert the second battery pack. Proceed as follows.

- 1 Turn your computer over.**
- 2 Slide the latch corresponding to the battery compartment to which you are going to insert the second battery pack, and remove the battery bay weight saver.**
- 3 Slide the second battery pack into the battery compartment until it clicks to the secured position.**

Windows 7

You can save power by turning off devices not in use or by darkening the screen. Also, by using the power plans prepared for this computer beforehand, you can easily make necessary settings all at once suitable for each specific scene to save power. You can use this computer a longer period of time when using the battery. When using the power plan for power saving, the power can be saved effectively even when the AC adaptor is used (except for the power saving function in Power Plan Extension screen).

■ Switch the power plan to [Panasonic Power Management] (→ [page 52](#))

When you switch the power plan, ON/OFF for CD/DVD drive (for CF-F9/CF-S9 Series), brightness of the screen, rotation of the cooling fan, etc. are automatically set to the recommended values. Furthermore, you can set the contents of each power saving function separately which were set by switching the power plan.

■ Reduce the brightness of the internal LCD by pressing **Fn+F1** (→ [page 25](#))

■ Use Sleep/Hibernation

When you have to leave the computer, press **Fn+F7** to set the computer to Sleep or **Fn+F10** to set to Hibernation.

■ When the network communication is not working, turn off the wireless LAN using the wireless switch (→ [page 133](#))

■ Disconnect external devices (USB devices, PC cards, external mouse, etc.) that are not being used

■ When using the battery, do not use applications that place a significant load on the CPU

Some application software may place a large burden on the CPU only with start-up and may consume power.

■ When you are using the screen saver with 3D graphics, change to another screen saver (e.g. [Blank], etc.)

To change the screen saver, right-click the desktop, click [Personalize]-[Screen Saver] and click the title of the screen saver.

Power Plan



8 power plans have been prepared. You can switch among the power plans (combinations of power saving settings) according to each scene such as outdoor, presentation, etc. Also, you can set each power saving function in detail which constitutes the power plans.

Power plan	Scene	Contents (default setting)
Balanced ^{*1}	Normal use	Power consumption is increased or reduced when necessary. [Turning display off], [Setting the computer to Sleep], etc. are the same settings as for [Panasonic Power Management], but [Wireless Adaptor Settings], etc. in [Wireless Adaptor Settings] of [Change advanced power settings] differ.
Power saver ^{*1}	When you rarely use application software or peripheral devices	Lowered performance saves power. The battery operation time and life become longer.
High performance ^{*1}	When you frequently use application software or peripheral devices	Computer processing speed takes priority and power consumption increases.
Panasonic Power Management (Standard) ^{*2}	Normal use	Power consumption is increased or reduced when necessary. Recommended for most environments.
Panasonic Power Management (Presentation)	When making a presentation	Power is saved. To prevent the screen from darkening during presentation, screen saver use and automatic sleep are forbidden.
Panasonic Power Management (Mobile)	When using the computer with the battery on the road, etc.	Power is saved when the battery is used. When the AC adaptor is connected, the performance takes priority.
Panasonic Power Management (Power Saving)	When you want to minimize the power consumption (i.e. when using the computer with the battery, etc.)	Lowered performance saves power. The battery operation time becomes longer.
Panasonic Power Management (Better Heat Dispersion)	When the computer is hot	Heat generation from the computer is reduced by lowering the performance or setting the cooling fan to high speed.

^{*1} Standard power plan for Windows

^{*2} Default setting

■ Switching the power plan

- 1 Click  on the notification area and click .
- 2 Click the power plan you wish to set from the displayed menu.
Click [Current extension setting displayed] to display the current setting of Power Plan Extension Utility.
- 3 Confirm the changed contents of the power plan and click [OK].
- 4 If the screen to set to restore the power plan is displayed, select whether restoring the power plan to the previous state (before switching) after a certain period of time or not, and then click [OK].

Panasonic's unique power saving functions

The power saving function designed by Windows and Panasonic's unique power saving functions (Power Plan Extension Utility) are two different types of power saving functions constituting the power plan of this computer. The following explains Panasonic's unique power saving functions (Power Plan Extension Utility) settings.

NOTE

- See [Help and Support] of Windows for more information about the Windows power saving functions.

Item	Power saving contents
Windows Aero	Switching Window Aero to Enabled/Disabled. <div style="border: 1px solid blue; padding: 5px; margin-top: 10px;"> NOTE <ul style="list-style-type: none"> ● When you set Windows Aero to Disabled using the Windows function, this function is disabled. </div>
Display power saving function	You can switch the setting on whether LCD refresh rate is automatically reduced to 40 Hz (Enabled) or not reduced (Disabled) when the brightness of internal LCD is set to below 20cd/m ² * ³ while the battery is used. <div style="border: 1px solid blue; padding: 5px; margin-top: 10px;"> NOTE <ul style="list-style-type: none"> ● The screen may flicker. (The default setting is [Disabled] (60 Hz).) ● When you play back motion pictures, the playback screen may not be smooth. </div> <p>*³ When the display brightness is set to 20% at the power plan setting</p>

Item	Power saving contents
Fan control mode	<p>You can switch the rotation of the cooling fan to: Adjust according to the computer temperature (Standard)/Reduce heat generation by faster rotation (High speed)/Reduce the fan noise by slower rotation (Low speed).</p> <p>NOTE</p> <ul style="list-style-type: none"> You can also switch according to the procedure of [Extension setting manual temporary switching].
Screen-saver	<p>Switching the screen saver to Enable (Permitted)/Disable (Prohibited).</p> <p>NOTE</p> <ul style="list-style-type: none"> When you set Screen Saver to (None) using the Windows function, this function is disabled.
Wired LAN's power while sleeping	<p>Switching the wired LAN Wake Up function to Use (On)/Not use (Off).</p> <ul style="list-style-type: none"> When set to [Off], the power consumption is reduced in Sleep/Hibernation. When set to [Off], the wired LAN Wake Up function cannot be used because the wired LAN is turned off in Sleep. Set to [On] to use the wired LAN Wake Up function. <p>NOTE</p> <ul style="list-style-type: none"> The setting becomes effective after restarting the computer.
Intel(R) video driver power saving function	<p>Switching the effectiveness of Intel (R) Display Power Saving Technology to Disabled/Enabled 1: Low/Enabled 2/Enabled 3/Enabled 4/Enabled 5: High.</p> <p>NOTE</p> <ul style="list-style-type: none"> When [Enabled] is set, the screen quality is kept to a certain degree by lowering the display brightness or adjusting the contrast and colors. Setting [Disabled] is recommended for work that requires subtle image and color nuances or in video editing using video editing applications. The setting becomes effective after restarting the computer.

Item	Power saving contents
The battery's Economy Mode (ECO)	<p>Switching the full-charging capacity of the battery to 80% (Enabled)/100% (Disabled)</p> <ul style="list-style-type: none"> ● When [Enabled] is selected, the battery operation time becomes shorter, but the battery deterioration due to full-charging (100%) is alleviated. Consequently, the battery life becomes longer. To make the battery operation time longer, select [Disabled]. <p>NOTE</p> <ul style="list-style-type: none"> ● You can also switch according to the procedure of [Extension setting manual temporary switching].
<CF-F9/CF-S9 Series> The optical disc drive's power	<p>Switching the setting on whether to turn off the internal CD/DVD drive immediately or turn off after a certain period of time (1 minute /3 minutes /5 minutes) automatically.</p> <p>Turning off automatically is not available in the following conditions.</p> <ul style="list-style-type: none"> ● When the CD/DVD drive contains some media ● When an external CD/DVD drive is connected ● When Roxio Creator LJB is operating and the target drive is the internal CD/DVD drive <p>Turning off manually is not available either in the following conditions.</p> <ul style="list-style-type: none"> ● When WinDVD is operating ● When the CD/DVD drive is being used <p>NOTE</p> <ul style="list-style-type: none"> ● You can also switch according to the procedure of [Extension setting manual temporary switching].
Reminder to set power plan back	<p>Switching the setting on whether to use (Enabled) or not to use (Disabled) the function to restore the power plan after a certain period of time when you switch the power plan</p>

Switching Power Plan Extension Utility manually

You can manually switch the fan control mode, the optical disc drive's power (for CF-F9/CF-S9 Series), and the battery's Eco Mode (ECO).

NOTE

- The contents set by [Extension setting manual temporary switching] are not associated with the power plan. The settings become disabled if the power plan is switched. The settings associated with the power plan are enabled.

1 Click on the notification area and click .

Click the items you wish to set from [Extension setting manual temporary switching] and click the settings from the displayed menu.

2 Check marks have been added for the current settings.



Customize the Power Plan

You can copy the power plan to make a new plan, or you can change the power plan settings.

■ Customizing with Power Plan Extension Utility

The following operations are available with Power Plan Extension Utility.

- **New**
Create a new power plan.
- **Edit**
Change the Power Plan setting.
- **Copying and adding**
Copy the existing power plan and save with a new name. The setting values for the original setting plan are also copied (including the setting values for [Power Plan Extension Utility]).
- **Setting to active**
Switch the power plan.
- **Delete**
Delete the power plan. You cannot delete the active power plan and Windows power plans (Balance/Power saving/High performance). To delete the current power plan, switch to another power plan by clicking another power plan and clicking [Active].
- **Restoring the power plan set at the factory**
Return all 8 power plans prepared in advance to the default values. If some power plans among 8 plans have been deleted, those plans will be restored.

- 1** Click  on the notification area and click .
- 2** Click [Extension setting - Edit].
- 3** Click [Editing the power plan].
- 4** Select [New], [Edit], [Copying and adding], [Setting to active], [Delete] or [Restoring the power plan set at the factory].
- 5** Make the settings according to the screen instructions as necessary.
- 6** Click [Close].
- 7** Click [OK].

Windows XP

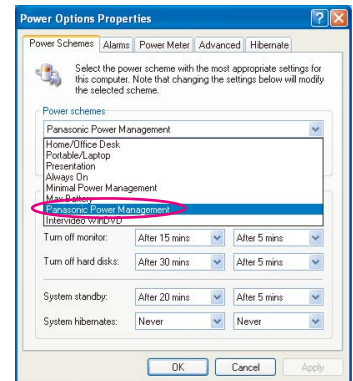
In the default setting, [Power schemes] is set to [Panasonic Power Management], but you can reduce power consumption using the following method.

When using the battery, the computer can be used for a longer period of time.

Power conservation effects can be achieved even when the AC adaptor is connected.

■ Change [Power Schemes]

- Click [start] - [Control Panel] - [Performance and Maintenance] - [Power Options], and then set [Panasonic Power Management].
Power consumption can also be minimized with detailed settings; for example, by reducing the time setting for [Turn off monitor].



Windows XP

■ Use Power Saving Utility (→ page 58)

- Power Saving Utility provides additional power saving functions not available in [Power Schemes].

■ Adjust the brightness (darker) with the **Fn+F1** key (→ page 25)

■ Leave your computer off when not in use

■ Remove peripheral devices (USB devices, PC Cards, external mouse, etc.) when not in use

■ When the network communication is not working, turn off the wireless LAN using the wireless switch (→ page 133)

■ Use Standby/Hibernation

- Press **Fn + F7** to set the computer to standby or **Fn + F10** to set it to hibernation when you have to leave the computer. This shuts down computer operation to reduce power consumption.
Disable Wake Up from wired LAN function when it is not needed. This reduces power consumption in Standby/Hibernation.
To confirm current settings, click [start] - [All Programs] - [Panasonic] - [Power Saving Utility] to view [Wired LAN standby power saving function].

■ When using this computer with the battery pack only

- We recommend against using applications that place a significant load on the CPU. Some screen saver place a large burden on the CPU even when you are not operating the computer. We recommend that you do not use a screen saver.

NOTE

- To extend the battery operation time, activate the power saving function of the USB2.0 Root Hub. In the default setting, the power saving function is activated.

<Only for CF-C1 Series with Web Camera>

■ Disable the Web Camera when not in use (→ [page 116](#))

Windows XP

Using Power Saving Utility

A single setting allows you to enable all the following power saving features. Enable each of these functions to prolong battery operation time.

- **Screen display power saving function**
Refresh rate will automatically be reduced to 40 Hz, if the internal LCD brightness level is set below 20cd/m² while using the battery. When [Enable] is set, the displayed screen may be distorted.
- **Intel video driver power saving function (Intel(R) Display Power Saving Technology)**
This function adjusts video contrast, color and other factors to lower internal LCD power consumption while retaining adequate image quality.
Disable this function for work that requires subtle image and color nuances or in video editing using video editing applications.
- **Wired LAN standby power saving function**
Enabling this function disables the Wake Up from wired LAN function to save power in standby/hibernation. Disable this function if you want to use the Wake Up from wired LAN function.

■ Setup

1 Click [start] - [All Programs] - [Panasonic] - [Power Saving Utility].

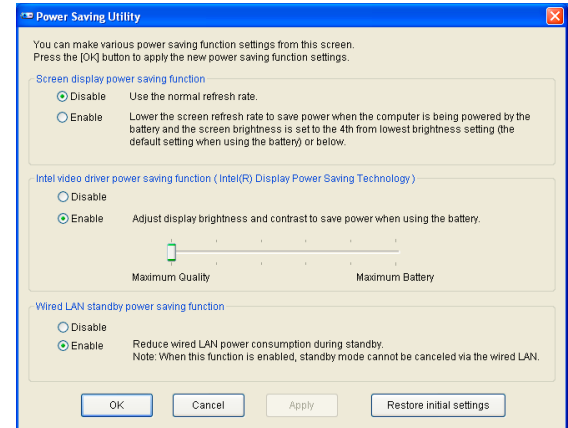
2 Click [Enable] for each function.

Click [OK] in the confirmation screen that appears.

- To enable “Intel video driver power saving function”
Select [Enable], and slide the slide bar to the “Maximum Battery” end.

3 Click [OK].

Click [Restore initial settings] to return to the factory default settings, and click [OK].



NOTE

- Even if you can enable each function using power saving utility, you can also enable them as follows.
 - For how to enable the Intel video driver power saving function.
 - ① Click [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Graphics and Media].
 - ② Click [Power].
 - ③ Click [Maximum Battery Life].
 - ④ Click [Apply].
 - ⑤ Click [OK].
 - For how to enable/disable the Wake Up from wired LAN function (→ [page 132](#))

Starting Up Your Computer Quickly



The **Windows 7** sleep/ **Windows XP** standby or hibernation functions allow you to shut off the computer without closing programs and documents. You can quickly return to the programs and documents that you were working on before sleep or hibernation.

Function	Data is saved to	Recovery time	Power supply
Windows 7 Sleep Windows XP Standby	Memory	Short	Required. (If power is not supplied, all data will be lost.)
Hibernation	Hard disk	Rather long	Not required. (However power is slightly consumed to keep the hibernation.)

Setting Sleep/Standby or Hibernates

Windows 7

■ Sleep

- 1 Click  or  on the notification area, and click [More power options] - [Change when the computer sleeps].
- 2 Select the setting for [Put the computer to sleep:], and then click [Save changes].
 - The setting for hibernation may change unexpectedly when you change the setting for sleep. Confirm that the time to enter hibernation is 1,080 minutes (default setting) or longer (below).

■ Hibernation

- 1 After the step 1 of “Sleep” setting (above), click [Change advanced power settings].
- 2 Double-click [Sleep], and double-click [Hibernate after].
- 3 Click the item and select the setting.
- 4 Click [OK].

Windows XP

- 1 Click [Start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Advanced].
- 2 Click [Stand by] or [Hibernate] for [When I close the lid of my portable computer:] / [When I press the power button on my computer:], and then select [OK].

NOTE

- You do not need to make the setting if you use the Windows menu to enter standby or hibernation.



Precautions

- Connect the AC adaptor if the computer will be in **Windows 7** sleep/ **Windows XP** standby for a long period of time. If you cannot use the AC adaptor, use hibernation instead.
- **Windows XP**
 - When carrying your computer, turn the computer off without using the standby or hibernation function. When the computer has been in standby for a specific period of time and the computer automatically enters hibernation depending on the setting, the computer will turn itself on temporarily. (In the default setting, [System hibernates] is set to [Never].)
- Using **Windows 7** sleep/ **Windows XP** standby or hibernation repeatedly may cause malfunction of the computer. To stabilize computer operation, restart Windows regularly (about once a week) without using **Windows 7** sleep/ **Windows XP** standby or hibernation.
- Save the necessary data.
- Close files you have opened from removable disks and network drives.
- The password you set in the Setup Utility is not requested at resuming. To enable it, select [Enabled] in [Password On Resume] in the [Security] menu of the Setup Utility (→ [page 155](#)).

CAUTION

The following problems will occur when you fail the password input (failing three times or leaving the computer unattended for one minute or more) while resuming from **Windows 7** sleep / **Windows XP** standby or hibernation.

- Failing the password input while resuming from hibernation:
 - At the next resume, Panasonic boot screen will appear. At this time, do not start the Setup Utility and do not change settings. Otherwise, resume may not operate correctly.
 - Cannot resume from hibernation by the Wake Up from wired LAN function, the Task Scheduler or the operation to open the display.
- Failing the password input while resuming from **Windows 7** sleep / **Windows XP** standby:
 - Cannot resume from **Windows 7** sleep / **Windows XP** standby using the USB devices.

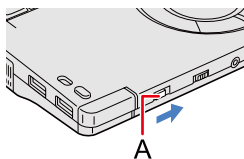
- Do not enter **Windows 7** sleep/ **Windows XP** standby or hibernation in the conditions below, otherwise the data or file may be corrupted, sleep or hibernation may not work, or malfunction may occur in the computer or the peripheral devices.
 - When any of the indicator  and the SD Memory Card indicator  is on (accessing drive or card).
 - <CF-F9 Series>
 - When the CD/DVD drive indicator is blinking (the drive is being accessed).
 - When playing/recording audio files or displaying DVD-Video such as MPEG files.
 - When playing a DVD-Video.
 - When writing to a disc.
 - When using communication software or network function.
 - When using peripheral devices.(If peripheral devices fail to work normally, restart the computer.)
- The computer does not enter **Windows 7** sleep/ **Windows XP** standby or hibernation immediately after resuming. Wait approximately one minute.
- When the Wake up from wired LAN function is enabled (the function is enabled in the default setting), battery consumption will increase while in standby or hibernation.
- **Windows XP**
 - The computer does not enter standby or hibernation immediately after resuming. Wait approximately one minute.

Entering/Resuming from Sleep/Standby or Hibernation

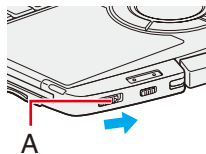
■ To enter sleep/standby or hibernation

- 1 Close the display, or slide the power switch (A) until a beep^{*1} sounds.

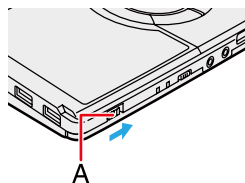
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



Windows 7 Sleep/ **Windows XP** Standby: The power indicator (A) blinks green.

Hibernation: The power indicator (A) goes off.

- You can alternatively use the Windows menu to enter **Windows 7** sleep/ **Windows XP** standby or hibernation.

- **Windows 7**

Click  (Start) -  - [Sleep] / [Hibernate].

Windows XP

To enter standby, click [start] - [Turn Off Computer] - [Stand By]. To enter hibernation, click [start] - [Turn Off Computer], then press and hold **Shift** and click [Hibernate].

CAUTION

While the computer is entering **Windows 7** sleep/ **Windows XP** standby or hibernation

- Do not:
 - Touch the keyboard, Touch Pad, screen, or power switch.
 - Use an external mouse or other peripheral devices.
 - Connect or disconnect the AC adaptor.
 - <CF-F9/CF-S9 Series>
 - Operate the drive power/open switch.
 - Operate the wireless switch.
 - Close or open the display.
 - Insert and remove the SD/SDHC Memory Card*2.

Wait until the power indicator blinks green (**Windows 7** sleep/ **Windows XP** standby) or goes off (hibernation).

- It may take one or two minutes to enter **Windows 7** sleep/ **Windows XP** standby or hibernation.
- **Windows 7** At the beep*1, immediately release the power switch. After releasing the switch, do not operate it until the power indicator blinks or goes off. If you slide and hold the power switch for longer than four seconds, the computer will forcibly shut down and unsaved data will be lost even if you have set [When I press the power button:] to [Shut down] in [Choose what the power button does].
- **Windows XP** At the beep*1, immediately release the power switch. After releasing the switch, do not operate it until the power indicator blinks or goes off. If you slide and hold the power switch for longer than four seconds, the computer will forcibly shut down and unsaved data will be lost even if you have set [Shut down] in [When I press the power button on my computer:] (→ [page 60](#) “Setting Sleep/Standby or Hibernates”).

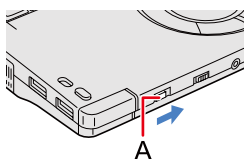
In **Windows 7** sleep/ **Windows XP** standby or hibernation

- Do not attach or remove a peripheral device. Doing so may cause malfunction.
- Power is consumed in **Windows 7** sleep/ **Windows XP** standby. Power consumption may increase when a PC Card is inserted. When power is exhausted, the data retained in memory will be lost. Connect the AC adaptor when using the **Windows 7** sleep/ **Windows XP** standby function.

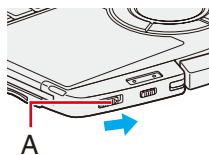
■ To resume from sleep/standby or hibernation

1 Open the display, or slide the power switch (A).

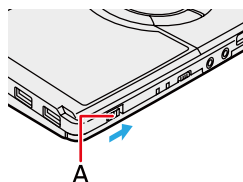
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



- In the default setting, the Windows password will be requested to resume.

CAUTION

- Do not perform the following operations until resuming is complete. After the display is resumed, wait approximately 15 seconds (normally) or 60 seconds (when the computer is on a network).
 - Touch the keyboard (except for password input), Touch Pad, screen, or power switch.
 - Use an external mouse or other peripheral devices.
 - Connect or disconnect the AC adaptor.
 - Close or open the display.
 - Shut down or restart Windows.
 - Enter **Windows 7** sleep / **Windows XP** standby or hibernation (Wait approximately one minute).
 - <CF-F9/CF-S9 Series>
Operate the drive power/open switch.
 - Operate the wireless switch.
 - Insert and remove the SD/SDHC Memory Card*².
- **Windows 7** If the computer enters sleep while a USB keyboard or mouse is connected, touching the USB keyboard keys or mouse will resume the computer.

NOTE

- <Only for model with Bluetooth>
After resuming from **Windows 7** sleep / **Windows XP** standby or hibernation, the message “TosBtMng has stopped working” may appear. Then click [Close program]. If Bluetooth connections are cut off, click **Windows 7** (Start)/ **Windows XP** [start] - [All Programs] - [Bluetooth] - [Bluetooth Settings], and connect to the Bluetooth devices again.

*1 If the speakers are muted, beeps do not sound.

*2 **Windows 7** SD/SDHC/SDXC Memory Card.

You can set the password and/or enable/disable some functions for security purpose.

- Another security measure
 - <Only for model that supports TPM>
 - Embedded Security (TPM) (→ [page 155](#)): For further information, refer to the *Installation Manual* of “Trusted Platform Module (TPM)”.

Setting the Supervisor Password/User Password

Set the Supervisor Password before setting the User Password.

- 1 Start up the Setup Utility (→ [page 148](#)).**
- 2 Select [Security].**
- 3 Select [Set Supervisor Password] or [Set User Password], and press Enter.**
- 4 Enter your password in [Create New Password] and press Enter.**
 - When the password has been set, you need to enter your password in [Enter Current Password] and press Enter.
 - To disable the password, leave the input field empty and press Enter.
- 5 Enter your password again in [Confirm New Password] and press Enter.**
- 6 Press F10, and then select [Yes] and press Enter.**

CAUTION

- Do not forget your password. If you forget your Supervisor Password, you will not be able to use your computer. Contact technical support office.
- When running the Setup Utility, do not leave and go away from your computer even for a short time, since other people may set or change the password.

NOTE

- The password will not be displayed on the screen.
- You can use up to 32 alphanumeric characters (including spaces).
 - The case (upper/lower) is ignored.
 - Use only the upper horizontal row of numeric keys to input your password.
 - You cannot use **Shift** and **Ctrl** to input a password.
- Disabling the Supervisor Password also disables the User Password.

Preventing Your Computer from Unauthorized Use

You can set a start-up password to prevent your computer from unauthorized use.

- 1 **Set the password (→ page 65), and select [Enabled] in [Password On Boot] in the [Security] menu of the Setup Utility (→ page 155).**

NOTE

- If the Supervisor Password or User Password has been set, the password input screen will be displayed on starting-up of the Setup Utility even though [Password on boot] is set to [Disabled].

Preventing Your Hard Disk Data from Being Read or Written

When the [Hard Disk Lock] is set to [Enabled], it is impossible to read/write data from/to the hard disk when the hard disk is inserted in a different computer. To be able to read/write data on the original computer, the Setup Utility settings must be the same as when the hard disk was removed.

It is possible to set the hard disk lock even if [Password on boot] is set to [Disabled], but we recommend that [Password on boot] be set to [Enabled] for security reasons.

(Note that this hard disk lock does not guarantee complete protection of data.)

- 1 **Select [Enabled] in [Hard Disk Lock] in the [Security] menu of the Setup Utility (→ page 155).**

CAUTION

- When starting up the computer, if the message [Hard disk access is prohibited by “Hard Disk Lock”] appears, run the Setup Utility, and change the settings to match the details when [Hard Disk Lock] was set.
- You cannot use the hard disk lock function without setting the Supervisor Password. Set the Supervisor Password beforehand (→ page 65).
- When you have your computer repaired
 - Contact technical support office.
 - Before sending back the computer, be sure to set the [Hard Disk Lock] to [Disabled].

NOTE

- The hard disk lock function works with the built-in hard disk. It does not work with the external hard disk.

<CF-F9/CF-S9 Series>

NOTE

- Connect the AC adaptor if writing operation takes a long time. If the remaining battery power becomes low and the power is not supplied, writing operation may not be completed.
- Use Windows features or writing software to write to discs (e.g. “Using Roxio Creator LJB” → [page 82](#)). Ensure the disc is compatible with the selected writing speed.
- The quality of written data depends on the disc.
- <Only for CF-F9 Series>
Do not touch the handle of the computer when the CD/DVD drive is being used.

Handling Precautions


Drive handling care

- Do not expose the drive to excessive smoke that may leave a residue, e.g., oil smoke, or tobacco smoke. Doing so can shorten the life of the drive lens.
- We recommend cleaning the drive lens with an air puffer used for camera lenses.
(Do not use any spray-type of lens cleaning products.)

When opening/closing the disc cover

- When the computer is on, use the drive power/open switch. (→ page 75)
- When closing the disc cover, press down the center of the disc cover (<CF-F9 series>position indicated “CLOSE”, <CF-S9 series>position of the arrow.) to ensure that the cover is locked.

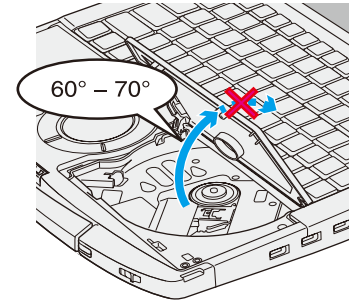
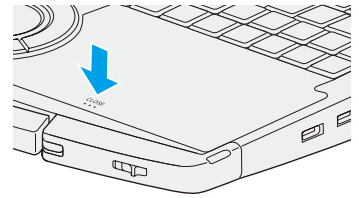
<CF-F9 Series>

- Do not access the drive until after the disc cover is closed and the CD/DVD drive indicator changes to lighting from blinking.
- Do not access the drive until the indicator  turns off.
- When inserting or removing a disc, be careful not to touch the lens and other parts of the laser pickup.
- Do not leave the tray open and do not touch the lens.
The lens and disc can become dusty in some conditions. It may cause malfunction in reading or writing.

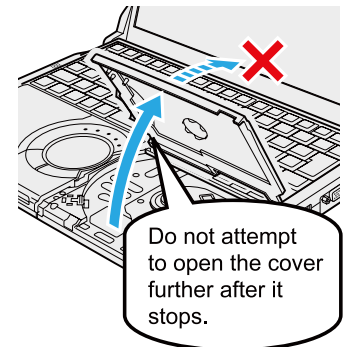
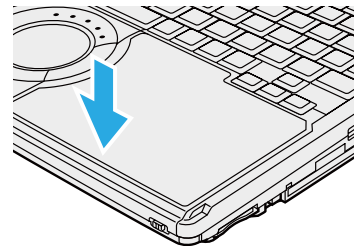
The disc cover can be opened up to an angle of 60° - 70°. (The CF-S9 Series will automatically open to this maximum open position.) Do not attempt to force it open any further. If you accidentally touch the disc cover causing the disc cover to open more than the degrees described above, press the cover forward slowly until the stopper returns to its original position.

- Be sure to close the display only after confirming the disc cover is closed. If the disc cover is not closed, the LCD may become damaged.
- Never insert a foreign object such as a paper clip into the drive. Doing so may cause malfunction.
- Insert the disc securely.
If the disc cover is closed without securely inserting the disc, the disc may be damaged.

<CF-F9 Series>



<CF-S9 Series>



While the drive is being accessed

- Do not open the drive or move the computer while the drive is being accessed. Doing so could cause the disc to shift position and this may damage the disc, or cause the drive to malfunction. In addition, after running an application involving access to a disc, close the application before opening the disc cover.
- Do not move the computer while in the midst of writing or rewriting, as this may result in a writing failure.
- Do not apply excessive force to the disc cover.
- Do not operate the drive power/open switch.
- Do not shock the computer by removing or inserting cables and cards, etc. This may result in a read or write malfunction.
- <CF-F9 Series>
Do not pull out and push the carrying handle.

Disc handling care

- Do not use deformed, warped, or irregularly shaped discs. Reading of disc may not be possible depending on the disc conditions (cracks, dirt, modification, data recording quality, copy protection, recording equipment/software that was used to create the disc, etc.)
- Before using a disc, carefully read the operating/handling instructions and package of the disc.
- If the discs are not handled appropriately, they may become dirty or scratched. Furthermore the writing speed may get slower and the data may not be correctly written on or read from the disc. Other damage may cause a drive failure.
- Note the following precautions.
 - Do not touch the disc surface (the side with no printing).
 - Keep the disc surface clean and free from dirt, dust, fingerprints and scratches.
 - Do not write on the surface of the disc with a ballpoint pen or other writing instrument.
 - Do not attach stickers to discs.
 - Do not drop, bend, or place heavy objects on top of discs.
 - Do not place or store discs in locations exposed to heat, direct sunlight, humidity or dust.
 - If a disc is brought from a cold to a warm location, condensation may form on the disc. For read-only discs, wipe off the condensation using a soft, dry, lint-free cloth before using the disc. For recordable/rewritable discs, wait until the condensation dries.
 - When not using discs, keep them in their protective cases or cartridges.

To clean discs

<For read-only discs>

Wipe discs with a dry, soft cloth from the center toward the edge.

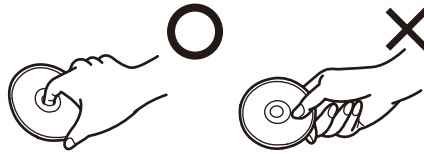
If discs get very dirty, wipe with a moist, soft cloth from the center toward the edge, then wipe again with a dry cloth to take up remaining moisture.

<For recordable/rewritable discs>

It is recommended to use the Panasonic disc cleaner.

Do not use a cloth.



How to hold a disc

Turning On/Off the CD/DVD Drive

When you are not using the CD/DVD drive, you can turn the drive power off to minimize power consumption.

■ When you want to minimize power consumption (example)

- Set [Optical Drive Power] in the Setup Utility to [Off]. (→ [page 150](#))
The drive power remains off when the computer is started up.
- To use the drive, turn it on with the drive power/open switch or using [Extension setting manual temporary switching] in the Power Plan Extension Utility.
- When finished using the drive, turn the drive power off.

NOTE

- The drive power/open switch and the Power Plan Extension Utility only operates after Windows has started up.
- When the drive power is turned off, the message “The ‘MATSHITA DVDXXXXXXXXXX’ device can now be safely removed from ...” will appear, but the CD/DVD drive is an internal device, so it cannot be removed.
- If the software application may not recognize the drive, exit the software application, and then start up the application once more after checking to make sure that the drive power is on.

Windows 7

- The drive power/open switch and [The optical disc drive's power] setting in Power Plan Extension Utility work only when [Optical Drive] is set to [Enabled] in the Setup Utility [Advanced] menu.
- When you switch the drive power and other application software message is displayed on the notification area, after the message disappears, a message indicating the drive power state is displayed.

Confirm CD/DVD drive indicator to check the power status of the drive

<CF-F9 Series>

- Off: Drive power is off or the disc cover is opened.
- Green: Drive power is on, but the drive is not accessed.
- Blinking green: Drive power is on, and the drive is being accessed or the disc cover is going to open.

<CF-S9 Series>

- Off: Drive power is off or the disc cover is opened.
- Green: Drive power is on.

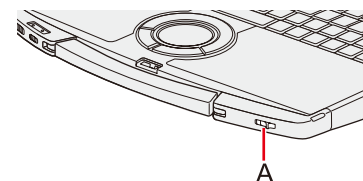
Turning on or off immediately

There are two methods, as follows.

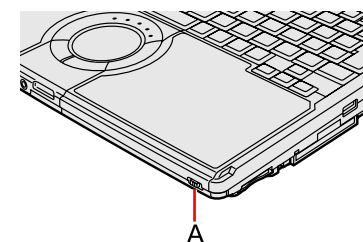
- Slide the drive power/open switch (A) to the left.
 - Each time you slide the switch, you will hear a beep and the drive power will turn on or off.
 - If you slide the switch to the right, you will hear a beep and the disc cover will open after the drive power turns on.

After you hear the beep, it may take a few moments before the drive power turns on/off, or until the cover opens. (If the speaker is muted, beeps do not sound.)

<CF-F9 Series>

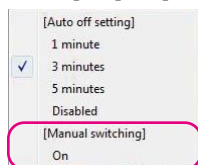


<CF-S9 Series>



Windows 7

- Using [Extension setting manual temporary switching] in Power Plan Extension Utility.
 - ① Click on the notification area and click .
 - ② Click [On] or [Off] in [Manual switching] of [The optical disc drive's power].



Windows XP

- Using [Manual Switching] of the Optical Disc Drive Power-Saving Utility.
 - ① Click or on the notification area.
 - ② Click [On] or [Off] for [Manual Switching].

NOTE

- In the following cases, it is not possible to turn off using **Windows 7** [Extension setting - Edit] / **Windows XP** [Manual Switching]:
 - When WinDVD is running
 - During writing or reading of a disc
- Do not slide the drive power/open switch repeatedly.

Windows 7

- The [Auto off setting] of [The optical disc drive's power] in Power Plan Extension Utility works only for the internal CD/DVD drive.

Windows XP

- When is displayed in the notification area:

- The [Optical Drive] in the [Advanced] menu of the Setup Utility is set to [Disabled]. In this case, you cannot use the Optical Disc Drive Power-Saving Utility or the drive power/open switch.



Turning off the power automatically after a certain period of time



Windows 7

Set time for [The optical disc drive's power] on [Extension setting - Edit] screen of Power Plan Extension Utility beforehand. After turning on the CD/DVD drive or removing the disc by opening the disc cover, when a certain period time passes with the cover closed without setting a disc, you can automatically turn the drive off. (→ page 54)

Windows XP



[Auto Off Setting] of this utility automatically turns the drive power off after the CD/DVD drive power has been turned on, or after a disc has been removed from the CD/DVD drive, if a certain period of time passes during which a disc is not set in the drive.

This utility starts up when computer is started, and  or  appears on the notification area.

- To turn the power on again after it has turned off: See “Turning on or off immediately” (→ page 71)
- To restart this utility after selecting [Exit], click [start] - [All Programs] - [Panasonic] - [Optical Disc Drive Power-Saving Utility], or restart the computer.
- When the cursor is placed over  or , pop-up text will indicate the drive status and the setting time.

[Auto Off Setting]	[Manual Switching]
1minute	On
✓ 3minutes	Version
5minutes	Exit
Disable	

Change the time until the power turns off

- 1 Click  or  on the notification area.
- 2 Select the desired time in [Auto Off Setting].

This setup operates only when the disk is not set





[Auto Off Setting]	[Manual Switching]
1minute	On
✓ 3minutes	Version
5minutes	Exit
Disable	

NOTE

- In the following cases, the drive power will not turn off even after the time set in [Auto Off Setting].
 - When a disc is set in the drive
 - When an external CD/DVD drive is connected
 - When WinDVD is running







Disc Information

- You can read from/write to the following discs.

CD-R	CD-RW*1		
			

DVD-RAM*2*3*4	DVD-R*4*5	DVD-RW*4*5*6	+R*4*5	+RW*4*5
				

- You can read from the following discs.

CD-ROM	CD DIGITAL AUDIO	CD TEXT	CD-EXTRA	Video CD	Photo CD*7
					

DVD-ROM	DVD-Video	DVD-R DL*5*8	+R DL*5*8
			

*1 Does not support Ultra-Speed CD-RW to write.

*2 Only non-cartridge type or removable cartridge type can be used.

*3 You can read, write or rewrite as with the hard disk using Windows Explorer, without using the writing software. After writing using Roxio Creator LJB, it will no longer be possible to write using other writing software. To write using Explorer again, you need to format the disc. Be sure to remove the check mark from [Quick Format].

*4 To write DVD-Video mode/VR mode/+VR mode, specific software is required

*5 DVD-Video mode/VR mode/+VR mode: Finalize using DVD recorder (→ [page 81](#))

*6 Does not support DVD-RW Ver.1.0.

*7 Specific Software is required.

*8 When playing back videos recorded over both layers of a one-sided, dual-layer disc, videos or sounds are interrupted at the point where the recording layers change.

■ Recommended discs for writing

Visit the following web site: <http://pc-dl.panasonic.co.jp/itn/support/disk/diskinfo.html>

Using DVD Discs

To play DVD-Video or MPEG2 files, you need to use DVD playback software such as WinDVD (→ [page 79](#)).

■ Region code setting

DVD-Video are allocated to region codes according to where they are sold. To play a DVD-Video, the player's software and the drive must have the corresponding region code.

e.g.,

For U.S.A. and Canada: "1"

For Europe: "2"

For Southeast Asia (including Hong Kong and Taiwan): "3"

- The region code of the drive is not set at purchase. The operation depends on the DVD-Video that is first played.
 - **DVD-Video with a specific region code:**
The drive will automatically be set at the same region code as the DVD-Video.
 - **DVD-Video with multiple region codes:**
The screen to confirm the region code appears. (It may not appear with some DVD-Video.)

CAUTION

- You can change the region code setting up to five times including the initial setting. Be extremely careful because you cannot change the region code anymore after the fifth change, even if you reinstall the operating system.
 - Any problem resulting from illegal changing or altering of the region code is the user's responsibility.
-

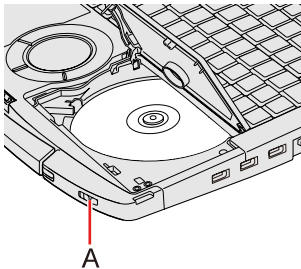
NOTE

- [Confirm Region] appears when the DVD-Video has only one region code and the drive is set for another region code. ([Confirm Region] may not appear with some DVD-Video discs.) To check the current region code and the number of remaining times of changing the code, right-click on the WinDVD screen and click [Setup] - [Region].
-

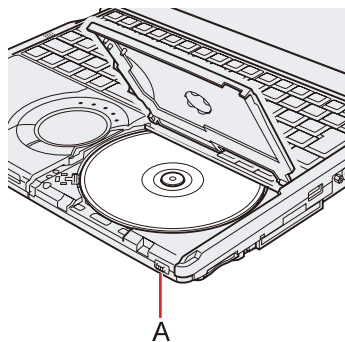
Inserting/Removing a Disc

- 1 Turn on the computer.
- 2 Slide the drive power/open switch (A) to the right.
 - If the CD/DVD drive indicator is off (drive power is off), it will take some time for the drive power to turn on, and for the disc cover to open. Wait for a moment.

<CF-F9 Series>



<CF-S9 Series>



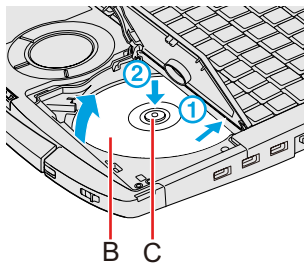
- 3 Raise the disc cover a little.
 - The disc cover can be opened up to an angle of 60° - 70°. (The CF-S9 Series will automatically open to this maximum open position.) Do not attempt to force it open any further. If you accidentally do so, press the cover forward slowly until the stopper returns to its original position.
 - If the disc cover cannot open if a hand is on the disc cover or the display is closed, the drive will not be accessed correctly. In this case, open and close the disc cover once or restart the computer.

4 Insert/Remove a disc.

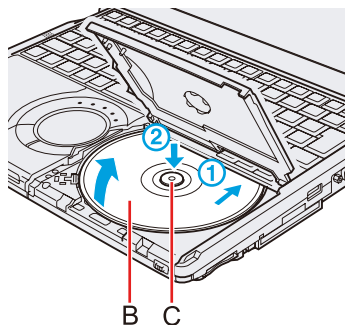
- To insert
 - ① With the title side of the disc (B) facing up, insert the disc under the keyboard.
 - ② Push down on the center of the disc until it clicks in place.
- To remove

Press on the center spindle (C) and carefully lift up the edge of the disc.

<CF-F9 Series>



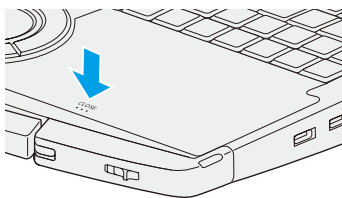
<CF-S9 Series>



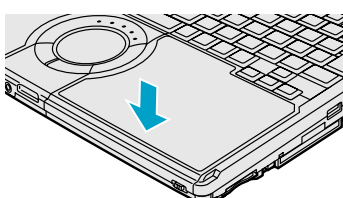
5 Close the disc cover.

Press down the center of the disc cover (<CF-F9 series>position indicated “CLOSE”, <CF-S9 series>position of the arrow.) to ensure that the cover is locked.

<CF-F9 Series>



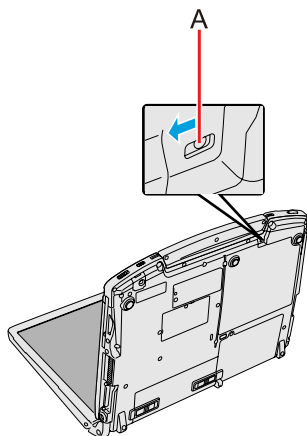
<CF-S9 Series>



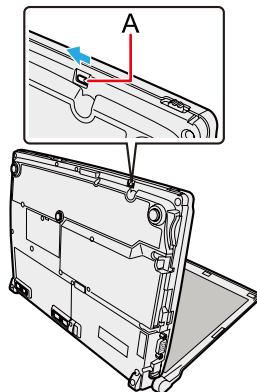
NOTE

- To remove a disc when the disc cover cannot be opened or when the computer is powered off:
 - Insert a pointed object (e.g., the bent-out tip of a paper clip, or the tip of a ballpoint pen) into the emergency hole (A), and move in the direction of the arrow.

<CF-F9 Series>



<CF-S9 Series>



- After setting the disc, do not click the CD/DVD drive icon (on Windows Explorer, etc.) until the disc is recognized by the computer.
- For AutoPlay CD:
 - An AutoPlay CD may start during file access depending on the status of the disc.
- When playing back motion video from a disc, playback may not be smooth in some conditions.

<CF-S9 Series>



Power-saving mode

If the drive is not accessed for 30 seconds, the drive motor will automatically be shut down to reduce the power consumption. When the drive is accessed again, the drive motor is turned on. In this case, reading of the disc data will take approximately 30 seconds.


Changing the Internal CD/DVD Drive Letter

You can change the drive letters for the CD/DVD drive.

Windows 7

- ① Turn on the CD/DVD drive.
- ② Click  (Start) - [All Programs] - [Panasonic] - [Optical Disc Drive Letter-Setting Utility].
 - A standard user needs to enter an administrator password.
- ③ Click  in [New drive letter], click the drive letter, and click [OK].
- ④ Add a check mark for [In the future, do not show this message.] and click [OK].

Windows XP

- ① Log on to Windows as an administrator.
- ② Confirm whether the CD/DVD drive power is on.
If the drive power is off, turn it on.
- ③ Click [start] - [All Programs] - [Panasonic] - [Optical Disc Drive Letter-Setting Utility].
- ④ Click  in [New drive letter], click the drive letter, and click [OK].

NOTE

- If you use the Fast User Switching function to log on as a different user while Optical Disc Drive Letter-Setting Utility is running, you will not be able to start up Optical Disc Drive Letter-Setting Utility from the second user account.



<CF-F9/CF-S9 Series>

WinDVD is a software application for DVD playback. For further information, refer to the software's online manual.

- DVD-Audio cannot be played back using WinDVD.

Running WinDVD

1 Double-click on the desktop.

- Alternatively click  (Start) /  [start] - [All Programs] - [InterVideo WinDVD] - [InterVideo WinDVD for Panasonic].
- Use WinDVD as administrator.

If the AutoPlay screen is displayed after a disc is set in the CD/DVD drive, click [Play DVD movie-using InterVideoWinDVD].

■ To access the online manual

After starting WinDVD, perform either of the following procedures.






- Click “?” on the WinDVD control panel.
- Right-click on the WinDVD screen and click [Help].

SUPPORT INFORMATION

If WinDVD does not operate properly, we recommend carefully reading the online help file first for problems with the operating environment or operations.

If you still cannot troubleshoot the problem, enter the required information in the inquiry form on the homepage (<http://apps.corel.com/lp/ivi/>), and submit the form.

CAUTION

- Do not start WinDVD while the indicator  is blinking immediately after the computer is turned on.
- While WinDVD is running, do not:
 - Enter  sleep /  standby or hibernation.
 - Switch the display by pressing  + **P** or **Fn** + **F3** /  **Fn** + **F3** .
 - Turn off the CD/DVD drive power.
If performing the operations described above, shut down WinDVD, then restart.
- During motion video playback, do not:
 - Eject the disc.
 - Use other applications or the Command Prompt.
 - Change the settings of the screen properties.
 - Turn off the CD/DVD drive power.
If performing the operations described above, shut down WinDVD, then restart.

- Do not install another player software together with WinDVD. Doing so may interfere with smooth playback. Some DVD-Video discs contain the player software and start installing. In this case, cancel the installation as soon as possible. If you accidentally installed another player software and find a problem in playback, try either of the following procedures.
 - Uninstall the player software by clicking **Windows 7** (Start) / **Windows XP** [start]- [Control Panel] - **Windows 7** [Uninstall a program] / **Windows XP** [Add or Remove Program].
(Refer to the instruction manual for the name of player software.)
 - Set WinDVD as the playback software if you can select the option in the player software settings.

NOTE

- OEM version of WinDVD that has been installed does not support some of the functions in Help items.

Notes During Use

■ Use WinDVD for playing back a DVD Video

- If the AutoPlay screen is displayed, select [Play DVD video using InterVideo WinDVD].
- If Windows® Media Player is used for playback, audio may come out neither at all nor properly since some audio codecs are not available.

■ If you maximize the video display window

- You can return to the original window size by double-clicking over the images.

Windows 7


■ When battery operation time has become short

- Click  on the Player Panel and click [Display]. Set [Deinterlace] to [Auto] in the Video Center.

■ If you have uninstalled WinDVD accidentally

- Reinstall it by following the steps below.


Windows 7

- ① Click  (Start) and input [c:\util\windvd\setup.exe] in [Search programs and files], and press **Enter**.
- ② Follow the on-screen instructions and install WinDVD.
 - A standard user needs to enter an administrator password.

Windows XP

- ① Log on to Windows as an administrator.
 - ② Input [c:\util\windvd\setup.exe]^{*1} in [start] - [Run] and click [OK].
Follow the on-screen instructions and install WinDVD.
 - When the [License Agreement] screen^{*1} appears, click [Yes] if you agree to the terms.
- ^{*1} Refer to “LIMITED USE LICENSE AGREEMENT” in the Operating Instructions for this computer.

■ If the video skips during WinDVD playback

- If playback pauses or fast forwards between cuts in a video program, disable the cache memory function using WinDVD Power Mode Switching Utility.
 - ① **Windows 7** Click  (Start) and input [c:\util\windvdpw\windvdpw.exe] in [Search programs and files], and press **Enter**.
 - Windows XP** Click [start] - [Run] and input [c:\util\windvdpw\windvdpw.exe], and then click [OK].
If the “This setting becomes active the next time WinDVD is started.” message appears, click [OK] and start WinDVD before performing step ①.
 - ② Click [Disable] and click [OK].
 - ③ Click [OK].
 - ④ Run WinDVD.

DVD Discs Created Using a DVD Recorder

- Playback may not be possible depending on the DVD recorder or the discs.
- You must finalize^{*2} discs other than DVD-RAM before playback. For further information, refer to the instruction manual of the DVD recorder.
- You cannot play discs protected with copyright management technologies such as CPPM (Content Protection for Prerecorded Media) and CPRM (Content Protection for Recordable Media).

^{*2} A process that enables the playback of the discs on other DVD players, etc.

<CF-F9/CF-S9 Series>

■ Applicable Media

- Refer to the Disc Information (→ [page 73](#)).
- Refer to the software's online manual (below).


About Copies

When writing to discs, make sure that you are not infringing upon any copyrights. It is illegal to copy audio CDs for non-personal use.

When backing up software, make sure that you are not infringing upon any software copyrights for that product.

Windows 7

Using Windows Feature

- 1 Insert a disc you can use for writing.
- 2 In the [AutoPlay] screen, click [Burn files to disc using Windows Explorer].
 - Alternatively you can click  (Start) - [Computer], and right-click [Burn to disc].
 - Follow the on-screen instructions.

Using Roxio Creator LJB

“Roxio Creator LJB” is a CD/DVD recording software application developed by SONIC Solutions. For further information, refer to the software's online manual (below).

- 1 Click  (Start) /  [start] - [All Program] - [Roxio] - [Roxio Creator LJB].

CAUTION

- **If you format a disc using Windows functions, you cannot write with Roxio Creator LJB.**
Do not format a disc using Windows functions when you write to the disc using Roxio Creator LJB. For rewritable discs (i.e. CD-RW, etc.), writing is possible using Roxio Creator LJB if all the disc contents are deleted.
- **If you set an unused disc in the CD/DVD drive, [Automatic playback] screen may appear and then Windows format screen may be displayed. Do not format the disc when you use Roxio Creator LJB.**
When you write to the disc using Roxio Creator LJB, start Roxio Creator LJB before setting the disc. Windows format screen will not be displayed, which prevents the disc from being mistakenly formatted.

■ To access the online manual

- ① After starting Roxio Creator LJB, click [Help]-[Tutorial].

Usage Precautions

■ When an external CD/DVD drive has been connected

- Do not turn the CD/DVD drive power off on this computer when writing to a disc in an external CD/DVD drive. Turning the power off may result in a malfunction, such as an interruption in the external CD/DVD drive operation.

Windows 7

Using DVD-RAM for Windows 7

- Formatting must be executed to write a file to a DVD-RAM. It is possible to write a file to a formatted DVD-RAM in the same way as writing a file to a floppy disk or hard disk.


■ Format type

There are six types of DVD-RAM formats, as shown below. We recommend that you choose the format type depending on the application.

Format	Feature
FAT32	This format is supported by Windows 95 (OSR2) / 98 / Me / 2000 / XP / Vista / 7. DVD-RAM discs in FAT32 format cannot be used on Windows 95 (other than OSR2) / Windows NT.
UDF1.02	This format is supported by Windows 98 / Me / 2000 / XP / Vista / 7, and compatible with the Video mode of DVD-ROM / DVD-R / DVD-RW / +R / +RW.
UDF1.50	Standard format for DVD-RAM. Data with large file sizes (video or audio data) can be written at high speed. We recommend this format when using DVD-RAM for storing data.
UDF2.00/2.01	This format is used for DVD video recorders conforming to “Video Recording Standards” as established by the DVD Forum, or for PC recording software conforming to the same standards.
UDF2.5	This format is supported by Windows Vista / 7, and is used for Blu-ray recorders or PC recording software conforming to “Video Recording Standards” as established by the Blu-ray Disc Association. This format cannot be used for DVD recorders conforming to “Video Recording Standards” as established by the DVD Forum, or for PC recording software conforming to the same standards.

■ Formatting method

When formatting is executed, data recorded on the disc is erased. Back up data as required.

- ① Set a DVD-RAM in the CD/DVD drive.
- ② Close all applications that use DVD-RAM.
- ③ Click  (Start) - [Computer], right-click the CD/DVD drive and click [Format].
- ④ Select the settings and click [Start].
 - When the disc was recorded with Roxio Creator LJB and you want to record using Explorer, remove the check mark from [Quick Format].
 - It may take long time if you removed the check mark from [Quick Format].
 - Do not cancel formatting partway. Otherwise the disc may no longer accept writing.

CAUTION

- If you have written using Roxio Creator LJB, you cannot write using other software since the format becomes different. To make this possible, remove the check mark for [Quick format] on the format display and format the disc.

Windows XP

Using DVD-RAM for Windows XP

■ Writing to DVD-RAM

- Logical formatting must be executed to write a file to a DVD-RAM. It is possible to write a file to a logically formatted DVD-RAM in the same way as writing a file to a floppy disk or hard disk.
If you write using Roxio Creator LJB, because the format is different, it will no longer be possible to write using applications other than Roxio Creator LJB. To enable writing, it will be necessary to select [Quick format] when formatting the disc.

Refer to [Using DVD-RAM disc].

To display:

Click [start] - [All Programs] - [DVD-RAM] - [DVD-RAM Driver] - [Using DVD-RAM disc].


When [DVD-RAM] is not displayed even if you click [start] - [All Programs], install DVD-RAM Driver.

- ① Click [start] - [Run] and input [c:\util\drivers\ramdrv\english\setup.exe] and then click [OK].
As for english folder, change to the language you install.
Follow the on-screen instructions.

■ Logical format type

There are six types of DVD-RAM formats (→ [page 83](#)). We recommend that you choose the format type depending on the application.

■ Logical format method

- Formatting software and drivers required to conduct each type of formatting have been installed on this computer. When formatting is executed, data recorded on the disc is erased. Back up data as required.
 - ① Log on to Windows with the administrator authority.
 - ② Set a disc in the CD/DVD drive.
 - ③ Close all applications that use DVD-RAM.
 - ④ Click [start] - [All Programs] - [DVD-RAM] - [DVD-RAM Driver] - [DVDForm].
 - When [DVD-RAM] is not displayed even if you click [start] - [All Programs], install DVD-RAM Driver. Click [start] - [Run] and input [c:\util\drivers\ramdrv\english\setup.exe] and then click [OK]. As for english folder, change to the language you install. Follow the on-screen instructions.
 - ⑤ Click  in [Format Type], and select the format type, then click [Start].
 - [Volume label]
UDF format has been selected, input the volume label. When the volume label is not input, it will be set automatically (UDF year / month / day).
 - [Quick format]
Inspect all sectors on the disc, and execute replacement processing of bad sectors. Normally, it is not necessary to select this.

CAUTION


- If you have written using Roxio Creator LJB, you cannot write using other software since the format becomes different. To make this possible, you need to perform the logical format. For further information, see “Using DVD-RAM disc”. “Using DVD-RAM disc” is displayed by clicking [Start] - [All Programs] - [DVD-RAM] - [DVD-RAM driver] - [Using DVD-RAM disc].

Notes During Use

■ If you have uninstalled Roxio Creator LJB accidentally

Reinstall it by following the steps below.

Windows 7

- ① Click  (Start) and input [c:\util\sonic\emc] in [Search programs and files], and press **Enter**.
- ② Right-click [setup] in [emc] folder and click [Run as administrator].
If there are two or more “setup” files, right-click the file whose [Type] is [Application].
Follow the on-screen instructions.
 - A standard user needs to enter an administrator password.

Windows XP

- ① Log on to Windows as an administrator.
- ② Click [start] - [Run] and input [c:\util\sonic\emc\setup.exe], then click [OK].
Follow the on-screen instructions.

SUPPORT INFORMATION

- About User Registration

Follow the steps below for user registration.

- ① While connected to the Internet, start up Roxio Creator LJB.
 - ② Click [Help] - [Resister Now] and follow the on-screen instructions.
- If Roxio Creator LJB does not operate properly, we recommend carefully reading the online help file first for problems with the operating environment or operations.

If you still cannot troubleshoot the problem, contact Sonic Solutions.

URL:

English (U.S.): <http://www.roxio.jp/enu/support/default.html>

English (U.K.): <http://www.roxio.jp/eng/support/Default.html>

French: <http://www.roxio.jp/fra/support/contact/>

German: <http://www.roxio.jp/deu/support/>

Dutch: <http://www.roxio.jp/nld/support/Default.html>

You can insert the PC Card Type I (3.3 mm) or II (5.0 mm) to the PC Card slot.

NOTE

- The following types of card are not supported:
PC Card Type III, ZV card, SRAM card, FLASH ROM card (excluding ATA interface type), and other cards that require 12V of operating voltage.

Inserting/Removing the Card

CAUTION

- Do not remove a PC Card while your computer is in the **Windows 7** sleep/ **Windows XP** standby or hibernation.
- Do not forcefully insert the card. Depending on the shape of the card, parts of the card may remain outside after insertion. The PC Card slot or the card may be damaged or become stuck if it is forced in.
- Note that the PC Card removal may not be complete, depending on the status of the PC Card or the device connected to the PC Card; this may occur when a SCSI card is used to connect an external hard disk to the computer. In such cases, turn off the power from the **Windows 7** (Start)/ **Windows XP** [start] menu, then remove the card.

■ To insert the card

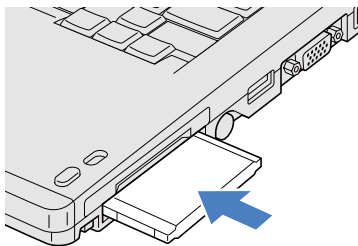
1 Insert the PC Card with the label side up until it securely fits in the slot.

- For further information, refer to the instruction manual of the card.

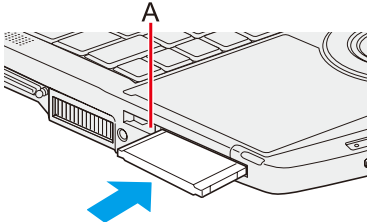
2 <CF-F9 Series>

After the card is inserted, bend the eject button (A).

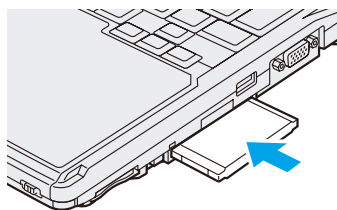
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



■ To remove the card

1 Disable the card function.

Windows 7

- ① Click on the notification area and then click .
- ② Select the card.

Windows XP

- ① Double-click on the notification area and select the card, then click [Stop].
- Follow the on-screen instructions. This step is not necessary when removing the card after turning off the computer.

2 Remove the card.

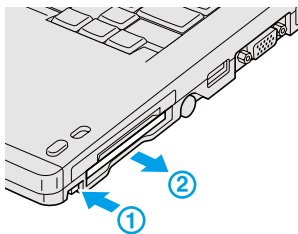
<For CF-C1/CF-S9 Series>

- ① Push the eject button.
- ② Draw the card straight out.

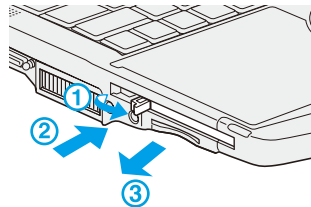
<For CF-F9 Series>

- ① Raise the bent part of the eject button.
- ② Press the eject button so the card comes out of the slot.
- ③ Draw the card straight out.

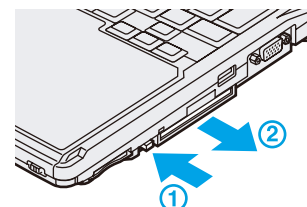
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



NOTE

- Check the card's specification to prevent the total operating current from exceeding the allowable limit. Otherwise malfunction may occur.
Allowable Current: 3.3 V: 400 mA, 5.0 V: 400 mA
- After repeating insertion and removal, some types of card will not be recognized. In this case, restart the computer.
- If the computer freezes after resuming from **Windows 7** sleep/ **Windows XP** standby or hibernation, remove and reinsert the card. If the problem persists, restart the computer.

- When a card is inserted, power consumption increases. Remove the card when it is not in use, especially when operating by battery power.
 - To connect peripheral devices (SCSI, IEEE1394, etc.) using a PC Card, follow the steps below (one example).
 - ① Connect the peripheral device to the card.
 - ② Turn on the power of device.
 - ③ Insert the card until it securely fits in the slot.
 - Some PC Cards may not be recognized correctly. In this case, refer to “A PC Card does not work” (→ [page 175](#)).
-

<Only for CF-C1 Series with Smart Card slot>

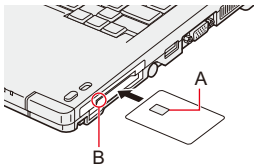
You need software to use a Smart Card.

CAUTION

- Do not:
 - Hit, bend, or drop the card.
 - Touch the contact part with fingers or metal object.
 - Place the card in very hot location for a long time.
 - Remove the card immediately after inserting it.

Inserting/Removing the Smart Card

■ To insert the card



1 Insert the Smart Card with the contact part (A) in front.

- Insert the card until it surely fits in the slot.

■ To remove the card

1 Press the eject button (B).

The Smart Card pops out.

CAUTION

- Use the eject button to remove the card, otherwise the reading contact may be damaged.

SD/SDHC Memory Card Information


The SD Memory Card slot on this computer only accepts SD/SDHC Memory Cards*¹.

*¹ **Windows 7** SD/SDHC/SDXC Memory Cards

- To format the SD/SDHC Memory Card on this computer, do not use [Format] of Windows, but use the SD/SDHC Memory Card format software.
You can download the software from the web site below.
http://panasonic.jp/support/global/cs/sd/download/sd_formatter.html
- To use the SD/SDHC Memory Card on other devices, format the card on the devices. For further information, refer to the instruction manual of the devices.

Inserting/Removing the SD/SDHC Memory Card

CAUTION



- Do not remove or insert the SD/SDHC Memory Card until Windows has completed loading.
- Do not remove the card or turn off the computer in the following cases, otherwise the data may be corrupted.
 - While the computer is in **Windows 7** sleep / **Windows XP** standby or hibernation.
 - While the SD Memory Card indicator  is on.
 - While data is being read from or written to the card.
 - Immediately after the writing operation.
The computer may still continue the access to the card just after writing operation. If you remove the card before the operation is completed, the data may be damaged or the card access may no longer be performed normally.
- Note that Panasonic assumes absolutely no liability for any loss of data recorded by the user, or any other damages, directly or indirectly.

■ To insert the card

- 1** Insert the SD/SDHC Memory Card with the label side facing up and with the cut corner on top.



■ To remove the card

Preparation


- Save the data and close all applications.
- Confirm the SD Memory Card indicator  is off.
- When SD Memory Card security function is enabled, it may be possible to remove the card even when  is blinking.

1 Disable the card function.

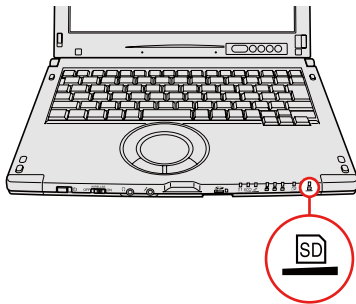
Windows 7

- ① Click  on the notification area and then click .
- ② Select the card.

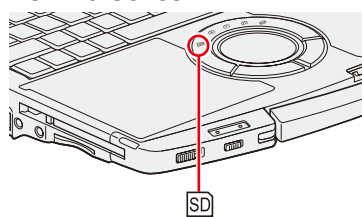
Windows XP

- ① Double-click  on the notification area and select [SD Memory Card], then click [Stop].
- Follow the on-screen instructions. This step is not necessary when removing the card after turning off the computer.

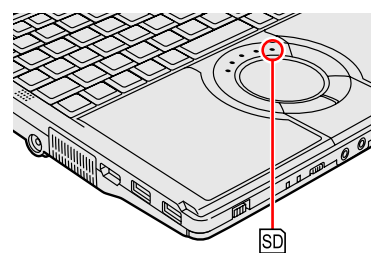
<CF-C1 Series>



<CF-F9 Series>



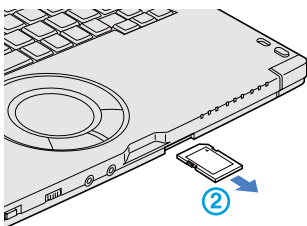
<CF-S9 Series>



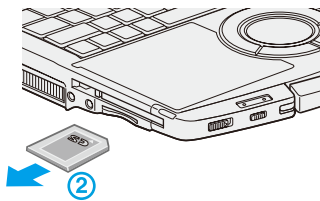
2 Remove the card.

- ① Press the card so it comes out of the slot.
- ② Draw it straight out.

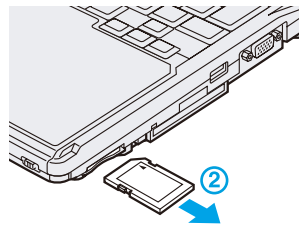
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



Use RAM modules that comply with the specifications below. Using any other module may cause malfunction or result in computer failure.

RAM module specifications:

DDR3 SDRAM, 204 pins, SO-DIMM, 1.5 V, PC3-6400

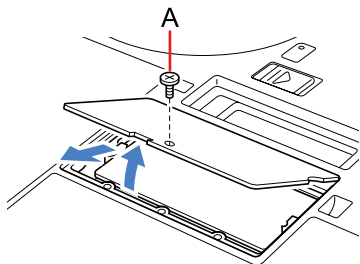
CAUTION

- Use recommended RAM module products. Do not use non-recommended RAM modules. Non-recommended RAM modules may not operate properly, and may cause damage to your computer. Some non-recommended RAM modules may overheat, causing the cover to warp. Refer to various sources for recommended RAM module.
 - RAM modules are extremely sensitive to static electricity. There are cases where static electricity generated by the human body has adversely affected such RAM 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.
-

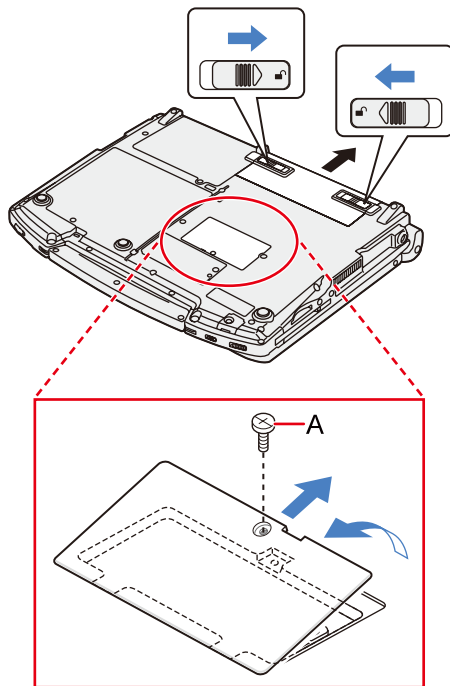
Preparation

- ① Turn off your computer.
 - Do not use the sleep (Windows 7) / standby (Windows XP) or hibernation.
 - Make sure no foreign objects are under the computer.
- ② Disconnect the AC adaptor and remove the battery pack.
- ③ Remove the screw (A) and the cover on the bottom of the computer.
 - Use the appropriate screw driver so as not to strip the thread of screw.

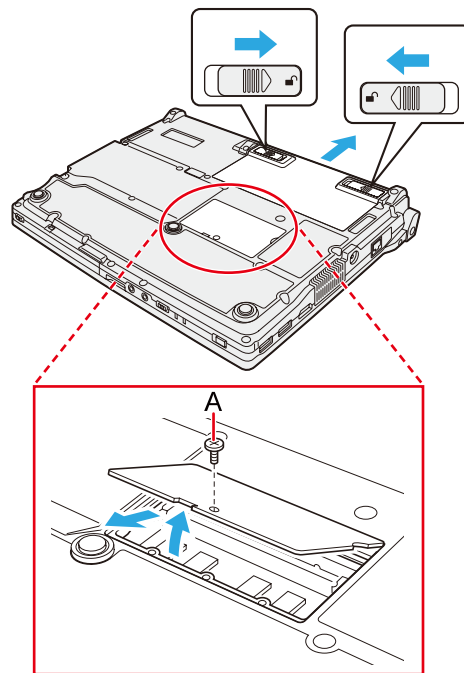
<CF-C1 Series>



<CF-F9 Series>



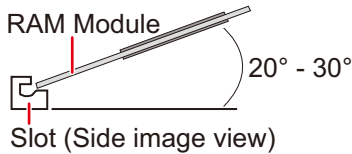
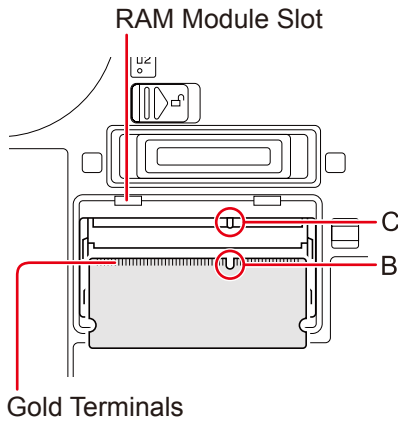
<CF-S9 Series>



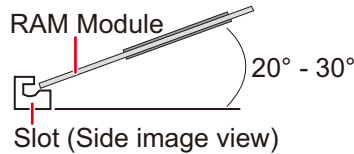
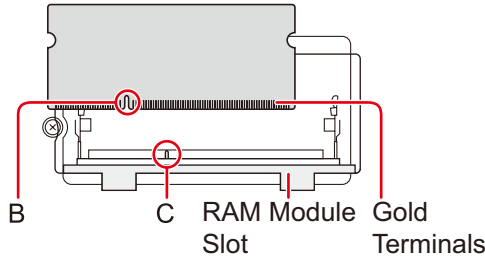
Inserting the RAM Module

- 1** Place the RAM module lightly in parallel with the RAM module slot so that the notch (B) of the RAM module and the protrusion (C) of the RAM module slot is in the same direction.
- The gold terminals are visible at this point.
 - RAM module is at an angle of 20° - 30° with the horizontal line.

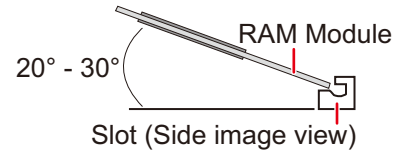
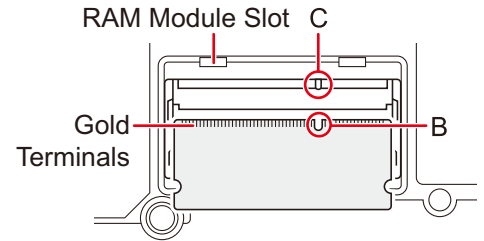
<CF-C1 Series>



<CF-F9 Series>



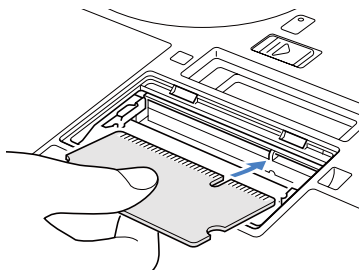
<CF-S9 Series>



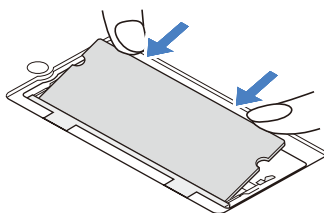
2 Insert the RAM module parallel to the slot firmly until the gold terminals are invisible.

- If it is hard to insert the RAM module, do not try forcibly but check the module's direction.

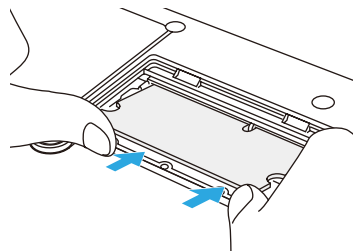
<CF-C1 Series>



<CF-F9 Series>



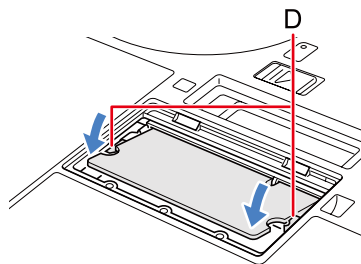
<CF-S9 Series>



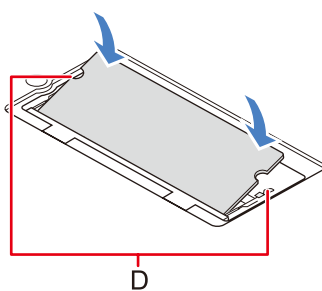
3 Press the RAM module down until the right and left hooks (D) lock into place.

- When pressing down the module, the right and left hooks will open slightly and will return after locking.
- If it is hard to press down the RAM module, do not try forcibly but check the module's direction.

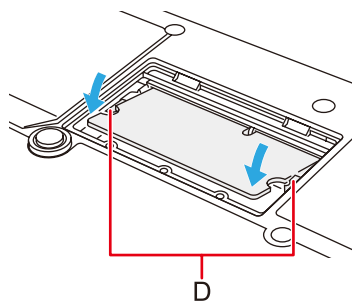
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



4 Set the cover and battery pack back.

NOTE

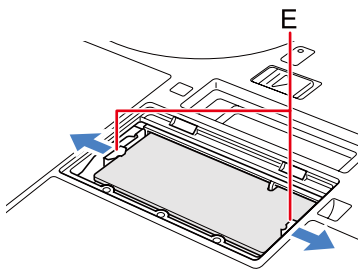
- If the RAM module is recognized correctly, the total size of this computer's memory and RAM module memory is displayed on the [Information] menu of the Setup Utility.
If the RAM module is not recognized, turn off the computer and insert it again.

Removing the RAM Module

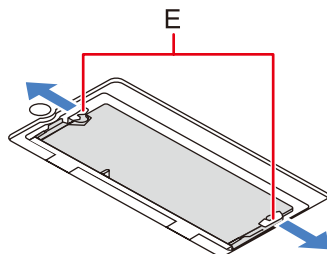
1 Carefully open the left and right hooks (E).

The RAM module will be raised.

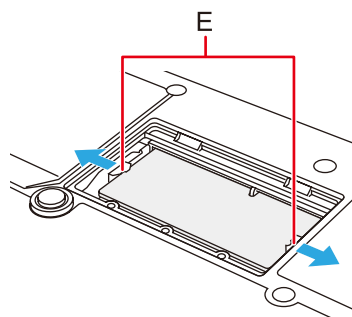
<CF-C1 Series>



<CF-F9 Series>

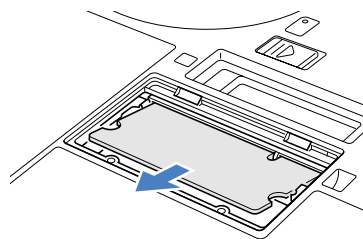


<CF-S9 Series>

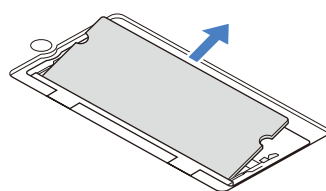


2 Carefully remove the RAM module from the slot.

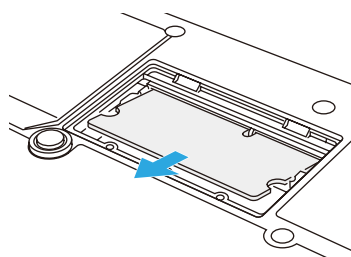
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



3 Set the cover and battery pack back.

<CF-C1/CF-F9 Series>

You can use the following optional port replicator. This device frees you from being bothered by a lot of cable connections when you carry the computer. It also allows you to connect various peripherals.

<CF-C1 Series>

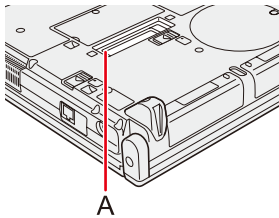
- Desktop port replicator CF-VEBC11

<CF-F9 Series>

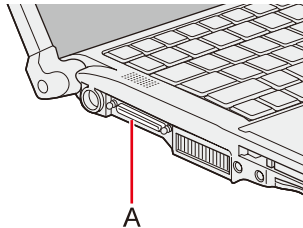
- Mini port replicator CF-VEBU08U
- Desktop port replicator CF-VEBF81W

Connect the port replicator to the port replicator connector (A).

<CF-C1 Series>



<CF-F9 Series>



For further information, refer to the instruction manual of the port replicator.

NOTE

- To use the port replicator, set [USB Port] setting to [Enabled] (default) in the [Advanced] menu of the Setup Utility.
- When the port replicator is connected, following devices should be connected to the port replicator.
 - LAN cable
 - External display
 - AC adaptor (CF-VEBU08U/CF-VEBF81W)
 - External display (CF-VEBU08U/CF-VEBF81W)The LAN port on the computer is disabled (CF-VEBU08U).
The external display port on the computer is disabled (CF-VEBF81W).

<CF-C1 Series>

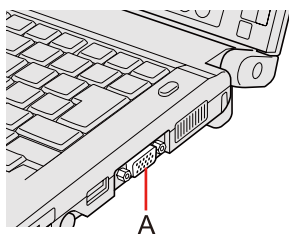
- Connect or disconnect the port replicator while the computer power is turned off.

You can switch the output destination to an external display.
Connect the external display to the external display port (A).

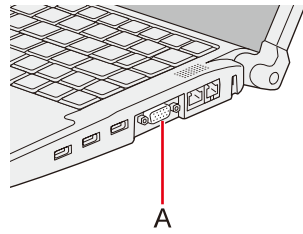
<CF-S9 Series>

You can also switch the output destination to an external HDMI display.
Connect the HDMI display to the HDMI port (B).

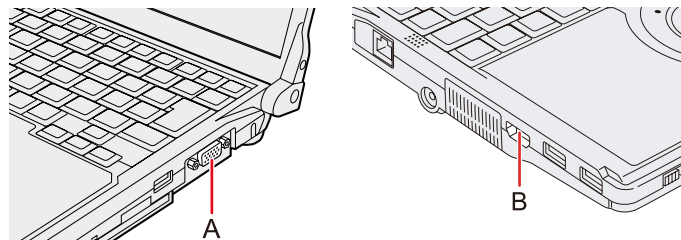
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



Switching the Display Mode

The following are the display modes.

Computer only	The screen is displayed only on the internal LCD.
Duplicate	The same screen is displayed on the internal LCD and the external display.
Extend	You can use the internal LCD and the external display as an extended display area.
Projector only	The screen is displayed only on the external display.

Do not switch using a method other than the one explained here.

■ Using key function

- 1** **Windows 7** Press **⊞ + P** or **Fn + F3** or click **⊞ (Start) - [Connect to a Projector]**.
Windows XP Press **Fn + F3**.

- 2** **Click the display mode.**

You can switch the display mode by pressing key.

NOTE

- Until Windows startup is completed (during Setup Utility, etc.), the simultaneous display cannot be used and pressing **Fn + F3** switches the display between the internal LCD and the external display.

■ Using Graphics Driver

- 1 Right-click the desktop, and click [Graphics Properties].**
- 2 Click [Multiple Displays].**
- 3 Select the display in [Operating Mode].**

To display the image only on the internal LCD, select [Single Display] and select [Built-in Display] for [Primary Display].

To display the same image on both the internal LCD and an external display, select [Clone Displays].

To display the image only on an external display, select [Single Display] and select [Monitor] for [Primary Display].
- 4 Click [Apply].**
- 5 Click [OK].**
- 6 If necessary, click [General Settings], set the color depth, resolution, etc., and click [OK].**

■ Using the [Screen Resolution] screen

- 1 Right-click the desktop, and click [Screen Resolution].**
- 2 Select the output destination at [Multiple displays].**

To display the screen only on the internal LCD, select [Show desktop only on 1].

To display the same screen on the internal LCD and the external display, select [Duplicate these displays].

To activate the extended mode (→ [page 102](#)), select [Extend these displays].

To display the screen only on the external display, select [Show desktop only on 2] (when “1” is assigned to the internal LCD)

<CF-S9 Series>



If both an analog display and an HDMI display are connected, and when [Clone Displays] or [Extended Desktop] is selected, three displays can be selected at [Primary Display] and [Second Display].

[Digital Television XXXXXXXXX] indicates the HDMI display, [Monitor XXXXXXXXX] indicates the analog display, and [Built-in Display] indicates the internal LCD.
- 3 Click [Apply].**
- 4 Click [Keep] if a confirmation screen is displayed.**

NOTE

- After resuming from **Windows 7** sleep/ **Windows XP** standby or hibernation, or restarting the computer, the output destination may not be the same as the one selected in the previous status.
- When you change the display after Windows starts up, do not press any key until switching is complete.
- Display switching by pressing **Windows 7** **⌘** + **P** or **Fn** + **F3** / **Windows XP** **Fn** + **F3** may not work when you use the Fast User Switching function to switch the user. In this case, log off all users and restart the computer.
- Do not connect or remove the external display during **Windows 7** sleep / **Windows XP** standby or hibernation.
- It may take some time to switch between displays depending on the displays used.
- Use the [Intel® Graphics and Media Control Panel] screen to set the color depth, resolution and refresh rate.
- When you change the output destination after Windows starts up, do not press any key until switching is complete.
- You cannot use the simultaneous display until Windows starts up.
- **Windows XP** Simultaneous display and display switching do not work when [Command Prompt] screen is set to "Full Screen".
- When you use the external display only, set the suitable number of colors, resolution, or refresh rate separately from when you use the internal LCD only or when you use the simultaneous display. Depending on the settings, some external displays may be distorted or may not display the mouse cursor correctly. In this case, set the settings to lower value.
- When you use the simultaneous display, DVD-Video, MPEG files and other motion image files may not be played back smoothly.
- Carefully read the instruction manual of the external display.
- When connecting an external display that does not conform to the Plug & Play standards, select the display driver accordingly in the following menu, or use the driver disc supplied with the monitor.
 - ① **Windows 7** Click  (Start) - [Control Panel] - [Adjust screen resolution] - [Advanced Settings] - [Monitor] - [Properties].
A standard user needs to enter an administrator password.
Windows XP [start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Monitor] - [Properties].
 - ② Click [Driver] - [Update Driver].
- **Windows XP** If a picture is not displayed normally, lower the level of [Hardware acceleration] in the following menu. [start] - [Control Panel] - [Appearance and Themes] - [Display] - [Settings] - [Advanced] - [Troubleshoot]
- When an external display is connected to an optional port replicator, the display switching may work differently from the above. For further information, refer to the instruction manual of the port replicator.
- <CF-S9 Series>
If the HDMI display does not support connection to a personal computer, the screen may appear blurry, or the output destination may not be changed by pressing **⌘** + **P** or **Fn** + **P**.

CAUTION

- Before disconnecting the external display, switch to the internal LCD by pressing **Windows 7**  + **P** or **Fn** + **F3** / **Windows XP** **Fn** + **F3**. Otherwise the displayed image quality may become different after disconnection (e.g., wrong resolution). In this case, press **Windows 7**  + **P** or **Fn** + **F3** / **Windows XP** **Fn** + **F3** to reset the image quality.
- The screen may become distorted due to the following operations. In this case, restart the computer.
 - Disconnecting an external display for which you have set high resolution or high refresh rate.
 - Connecting/disconnecting an external display during computer operations.

Using Extended Mode

Windows XP

■ To switch to the extended desktop

- 1** Click [start] - [Control Panel] - [Other Control Panel Options] - [Intel(R) Graphics and Media] - [Display Devices].
- 2** Click [Extended Desktop], and make the settings for [Primary Device] and [Secondary Device].
- 3** Click [OK].

At the confirmation message, click [OK].

NOTE

- Always change the settings in the manner described above.
- It may not be possible to use the extended desktop with some software applications.
- When you click the maximize button, the window is displayed on one of the displays. You cannot move the maximized window to the other display.
- Do not use the display rotation in the extended desktop.
- To switch to the Extended Desktop, be sure to use the [Intel® Graphics and Media Control Panel] screen or the [New Display Detected] screen.
- The pop-up icon displayed by **Fn** key combination appears only on the primary device.
- Set the internal LCD to the primary device when using the screen. The cursor will move on the primary device when you touch the internal LCD.
- **When the application running is not shown on the display:**
When the application is in the external display or after the application is closed in the external display, there are times 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 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.

- When the display domain for the Extended Desktop is changed, the wallpaper and icons may become displaced.
- **When an animated pointer is used for the mouse pointer:**

An error may occur when resuming from the **Windows 7** sleep / **Windows XP** standby or hibernation. In such cases, change the mouse pointer to the standard pointer with the following procedure:


- ① **Windows 7** Click  (Start) - [Control Panel] - [Hardware and Sound] - [Mouse].
Windows XP Click [start] - [Control Panel] - [Printers and Other Hardware] - [Mouse].
- ② Click [Pointers].
- ③ Click [(None)] in [Scheme], then click [OK].

Changing the Sound Output Destination

<CF-S9 Series>

When an HDMI display is connected, you can specify sound to be output via the speakers of the personal computer or via the speakers of the HDMI display.

Windows 7

- ① Click  (Start) - [Control Panel] - [Hardware and sound] - [Sound].
- ② Select the audio output destination.
- ③ Click [Set Default] and click [OK].

Windows XP

- ① Click [start] - [Control Panel] - [Sounds, Speech, and Audio Devices] - [Sounds and Audio Devices] - [Audio].
- ② Select the audio output destination for [Default device] under [Sound playback].
- ③ Click [OK].

NOTE

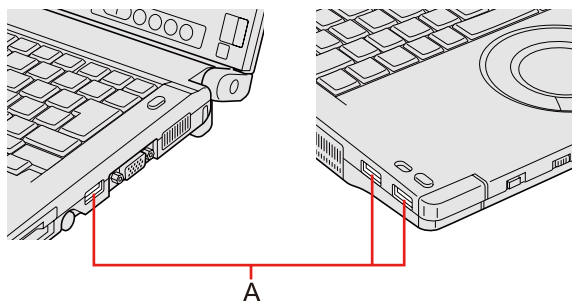
- When connecting an HDMI compatible display without speakers mounted, audio may not be output from this unit and the HDMI compatible display. Follow the above steps to change the setting so the audio is output from this unit's speaker.

Connecting/Removing USB Devices

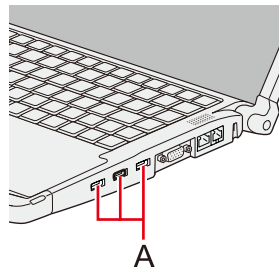
■ To connect the device

- 1 Connect the USB device to one of the USB ports (A).

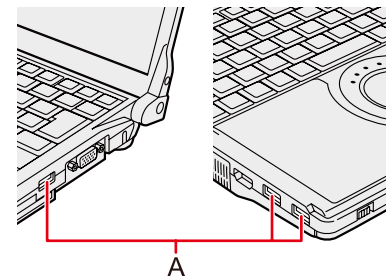
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>





For further information, refer to the instruction manual of the USB device.



■ To remove the device

- 1 Disable the USB device.

Windows 7

- ① Click  on the notification area and then click .
- ② Select the USB device.

Windows XP

- ① Double-click  on the notification area and select the USB device, then select [Stop].
 - Follow the on-screen instructions.
- These steps are not necessary when;
 - Removing the device after turning off the computer.
 -  is not displayed.
 - The device does not appear in the list in step ①.

- 2 Remove the USB device.

CAUTION

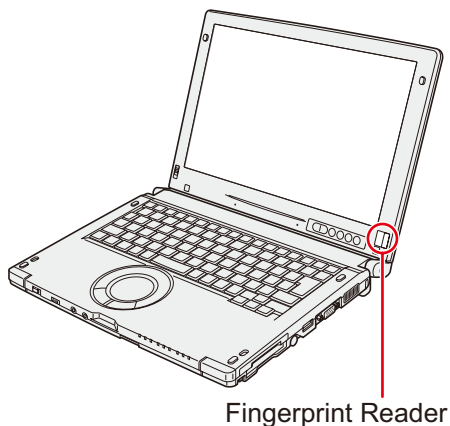
- Do not remove a USB device while your computer is in the **Windows 7** sleep/ **Windows XP** standby or hibernation.
- Save important data and close all applications.

NOTE

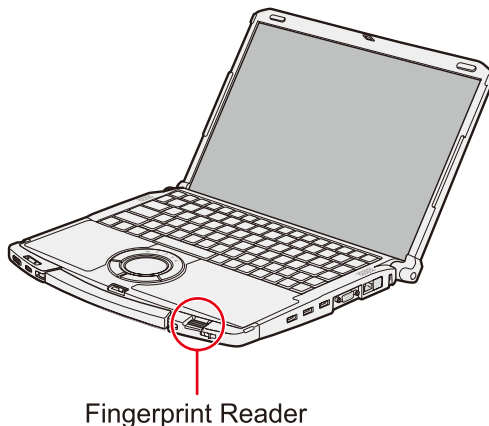
- You may need to install the driver for the USB device. Follow the instruction manual of the USB device.
- You may need to install the driver again when connecting the device to another port.
- When a USB device is connected, **Windows 7** sleep/ **Windows XP** standby and hibernation may not function normally. If the computer does not start up normally, remove the USB device and restart the computer.
- **Windows 7** If the computer enters sleep or hibernation while a USB keyboard or mouse is connected, touching the USB keyboard keys or mouse will resume the computer.
- Some devices will not operate when connected to a USB HUB. These devices must be connected directly to the USB port on your computer.
- When the USB device is removed and then inserted while the computer is on, ⚠ or ! may appear in the Device Manager and the device may not be correctly recognized. In this case, remove and connect the device again, or restart the computer.
- When a USB device is connected, power consumption increases. Remove the USB device when it is not in use, especially when operating by battery power.

<Only for model with Fingerprint Reader>

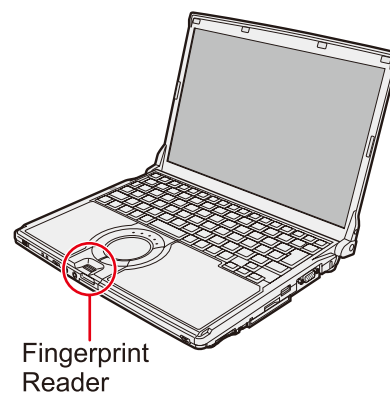
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



NOTE

- Enrollment and authentication is unavailable to an extremely minority of people including those whose fingerprints give little data for personal identification.

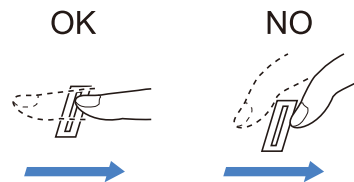
How to Use the Fingerprint Reader

This section explains how your fingerprints are enrolled and authenticated.

1 Slide your finger on the Fingerprint Reader.

- To prevent a reading error.
 - ① Set the first joint of your finger on the sensor as illustrated to the right.
 - ② Slide your finger while keeping it in contact with the fingerprint sensor.
 - ③ Slide your finger until the sensor is visible.
- When the fingerprint sensor does not enroll or authenticate your fingerprint properly:
 - You slid your finger too fast or too slow.
 - Your finger was soiled or it has a scar on the surface.
 - Your finger was wet or extremely dry.
 - Your fingerprint does not have sufficient data for personal identification.

For further information, refer to "Problems with Fingerprint Reader" (→ [page 177](#)).



NOTE

- It is strongly recommended to enroll at least two fingers.

CAUTION

- We shall not be liable for any loss or damage whatsoever resulting from your Fingerprint device or neglect of Fingerprint device use, or any data loss resulting from such developments as Fingerprint authentication device malfunctioning.
<CF-C1 Series>
- To protect the fingerprint sensor, be sure to close the display when not using the fingerprint reader.

Overview

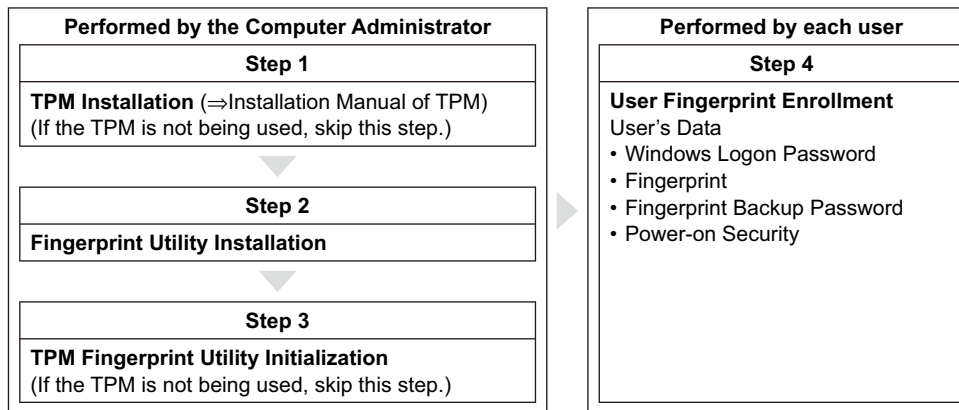
Fingerprint's Outline

The conventional security systems use ID/passwords and token devices such as IC cards to authenticate users. Therefore the passwords and token devices are exposed to the risk of being lost, stolen and hacking.

The Fingerprint authentication method uses user's fingerprints instead of passwords for security authentication. You can use your fingerprints to start up your computer and log on Windows.

We recommend you use the Fingerprint Reader in combination with the TPM (Trusted Platform Module) to increase the security level of your computer.

Recommended Installation Procedure



■ To access the online manual

This manual describes Step 2, 3 and the initial part of Step 4.
For further steps, refer to the Protector Suite Help menu.

- Click **Windows 7** (Start) / **Windows XP** [Start] - [All Programs] - [Protector Suite] - [Control Center] - [Help] - [Help].

Precautions

■ Security Functions

- Fingerprint Authentication Technology does not guarantee complete authentication and individual identification. Please acknowledge we shall not be liable for any loss or damage whatsoever resulting from the use of, or inability to use your Fingerprint device.
- The Fingerprint authentication method uses multiple fingerprints, encryption keys, credentials data and passwords. You might not be able to use your data if you lose fingerprints, keys, credentials and passwords. Back up the Fingerprint authentication data in a safe place. For further information, refer to “Backup” (→ page 112).
- General interaction with third-party applications: There is no guarantee that there will not be any negative interaction with any third-party software, and will not accept any responsibility for such an interaction.

Installation

1 TPM Installation

Refer to the *Installation Manual* of “Trusted Platform Module (TPM)”.

Windows 7

Click (Start), input “c:\util\drivers\tpm\readme.pdf” in [Search programs and files], and press **Enter**.

Windows XP

Click [start] - [Run] and input “c:\util\drivers\tpm\readme.pdf”, and click [OK].

2 Fingerprint Utility Installation

Performed by the Computer Administrator.

- ① Log on to Windows as an Administrator.
- ② Close all other programs.

③ **Windows 7**



Click (Start), input the following in [Search programs and files], and press **Enter**.

Windows 7(32-bit): c:\util\drivers\fngprint\install\32-bit\Setup.exe

Windows 7(64-bit): c:\util\drivers\fngprint\install\64-bit\Setup.exe


Windows XP


Click [start] - [Run] and input “c:\util\drivers\fngprint\install\32-bit\Setup.exe”, and click [OK].

- ④ Click [Next].
Installation starts. Follow the on-screen instructions.
- ⑤ When the “Protector Suite *.* has been successfully installed.” message appears, click [Finish].
At the confirmation message, click [Yes].
The computer restarts.
- ⑥ Log on to Windows as an Administrator.
The “Fingerprint software Icon”  appears in the notification area.
 - If the icon does not appear, click .



3 TPM Fingerprint Utility Initialization

Performed by the Computer Administrator.

The “Invalid TPM status” message is displayed by the “Fingerprint software Icon”  in the notification area.



- If the icon does not appear, click .
- If the TPM is not being used, skip this step.
 - ① Click on the “Invalid TPM status” message and then click [Initialize].
Follow the on-screen instructions.

NOTE

- If the “Invalid TPM status” message is not displayed
Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center] - [Settings] - [Advanced Settings] - [Trusted Platform Module (TPM)] - [Initialize]. And then click  (Start) - [All Programs] - [Protector Suite] - [Control Center] - [Identity] - [Multifactor], and choose a method of authentication.

4 User Fingerprint Enrollment

Performed by each user.

- ① Double-click the “Fingerprint software Icon” 
 - If the icon does not appear, click .
- ② If the License Agreement appears, carefully read it, and then click [Accept].
- ③ Select an enrollment mode, if so required, and click [Apply].
 - Enrollment mode
You can make the configuration for the enrollment only once during this initialization phase.
 - Enrollment to the biometric device
All enrolled fingerprints are stored directly in the fingerprint sensor. The user data will be secured by the hardware protection keys obtained by the fingerprint sensor. There is a limit to the number of fingerprints that can be enrolled.

NOTE

- The numbers of fingers to register for the fingerprint sensor may vary depending on the characteristics of fingers.


- Enrollment to the hard disk

All enrolled fingerprints are stored on the hard disk. There are no limits for the numbers of fingers to register, although there is a limit for the numbers of those for Power-on Security.


- Follow the on-screen instructions.

NOTE

- Enroll at least two fingers. Even if one of them is injured, you can use another one to access your account and secret data. For further information about the enrollment, refer to “How to Use the Fingerprint Reader” (→ [page 106](#)) and [Tutorial].

- Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center] - [Help] - [Tutorial].

- We recommend you use the Power-on Security feature. This feature prevents unauthorized access to the user's computer at the BIOS level.

① Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center].

② Click [Identity] - [Status].

③ Click [Power-on security status] - [Change].

④ Click [Edit], and Add the check mark to [Enable power-on security], and then click [Apply].

⑤ Click [Identity] - [Power-on Password].

⑥ When the “Power-on Security” screen appears, click [Manage Passwords...].

⑦ Select [Power-On] in [Password Types], and click [Set password...].

⑧ Enter the Power-On password, and click [OK].

⑨ Click [Close].

⑩ Add a check mark for [Power-On] in [Password Types].

⑪ Enter the Power-On password, and click [OK].

⑫ Click [Apply].

More Advanced Security

You can increase your computer's security level by setting the BIOS level described in this section. There is [Fingerprint Security] in [Security] menu in the Setup Utility. Can be changed only when [Set Supervisor Password] is set.

Sub-Menu Protection You can change displayed or not displayed and enabled or disabled of the Sub-Menu.	Not Protected <u>Protected</u>
Power-on Security Change Enable or Disable of Power-on Security (→ page 110). When the Power-on Security is set to [Disabled], the Power-on Security does not function even if [Power-on Security] is set to [Enabled] on the Setup Utility.	<u>Disabled</u> Enabled
Security mode You can start up Windows by sliding a registered finger when [Simple] is set. If you set [High], you have to enter Supervisor Password by following authentication in Power-on Security. It will not be displayed if Power-on Security is disabled.	<u>Simple</u> High

Useful Information



Backup

The file described below is necessary for recovering the Fingerprint authentication data. Back up this file periodically in a safe location such as removable disk to avoid data loss resulting from some accidents. We recommend you to store the file in a removable disk or network drive because the benefit of Fingerprint authentication security can be reduced if you keep the file in the internal hard disk drive.


The backup password described below is necessary for bypassing the Fingerprint authentication. We recommend you set the backup password using the [Manage Fingerprints] wizard. If you do not define the backup password, you may lose your data in case of authentication hardware failure.

- File used by each user
 - Backup user passport data
(Default name: <UserAccount>.vtp)
You need this file when you replace the embedded fingerprint chip, or the hard disk drive, or when reinstalling Windows. This file contains the fingerprints, encryption keys, and logon authentication data.

NOTE

- How to Backup:
Select [Identity] in [Account Operations] to save the user data.
 - Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center] - [Identity] - [Account Operations].
For further information, refer to the Protector Suite Help menu.
 - Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center] - [Help] - [Help].
- Password used by each user
 - Backup Password for Enrollment
This backup password can be used in case of hardware failure to bypass the fingerprint authentication.

CAUTION

- The passwords other than those explained above are also used for security, so do not lose them.
For further information, refer to the Protector Suite Help menu.
 - Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center] - [Help] - [Help].
-

Limitations in Use

- Password Bank^{*1} limitations: The following web pages cannot be supported.
Web pages which are created by the following technologies:
 - Web forms created on the fly using JavaScript.
 - Web forms which looks as one form (e.g. login field, password field), but internally created with two independent forms.
 - There can be auto submit problems with web forms which do not have Submit button. All forms that you cannot submit with **Enter** will be entered by Password Bank, but not submitted.
- Password Bank^{*1} limitations: The following Windows applications cannot be supported.
 - Applications which do not use standard Windows controls and draw controls by their own.
 - This includes any Java based application.

^{*1} For further information, refer to the Protector Suite Help menu.

- Click  (Start) /  [start] - [All Programs] - [Protector Suite] - [Control Center] - [Help] - [Help].

<CF-F9/CF-S9 Series>

- “Sensor Scrolling Feature” is not supported.

Handling & Maintenance

- The enrolling and authentication sensitivity may decline under the conditions below. Wipe off stains or moisture on the sensor surface with a soft cloth.
 - The surface of the fingerprint sensor is soiled with dust, skin oil, or sweat.
 - The surface of the fingerprint sensor is wet as a result of moisture or condensation.
- Static electricity may also cause the sensor to malfunction. To make your finger static-free, touch a metal surface before placing it on the fingerprint sensor. Exercise caution against static electricity in winter and other dry conditions.
- Malfunction or damage may occur when:
 - The fingerprint sensor surface was damaged by the strong rubbing of a solid material, scratches, or being pecked with a pointed item.
 - The sensor was touched with a finger soiled with mud, damaging the sensor surface with a tiny substance, and staining the surface.
 - The sensor surface was covered with a seal, or soiled with ink.

Deleting (Initializing) Owner's Data

When you dispose of the computer or transfer the ownership, delete (initialize) the owner's data to avoid unauthorized access.


To initialize the owner's data, perform steps **1** to **3**.

In other cases, refer to the required steps.

NOTE


- The data enrolled in the fingerprint sensor is not image data. You cannot restore fingerprint image data from the data enrolled in the fingerprint sensor.

1 Disable Power-on Security.

- ① Log on to Windows as an Administrator.
- ② Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center].
- ③ Click [Identity] - [Status] - [Power-on security status].
- ④ Click [Edit], and remove the check mark from [Enable power-on security], and click [Apply].
- ⑤ Click [Identity] - [Power-on Password].
- ⑥ Click [Manage Passwords...].
- ⑦ Select [Power-On] in [Password Types], and click [Unset password...].
- ⑧ Enter the Power-On password, and click [OK].
- ⑨ Click [Close].
 - Confirm that fingerprint data is not registered.


2 Delete Fingerprint Data.

Performed by each user.

- ① Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center].
- ② Click [Identity] - [Account Operations].
- ③ Click [Delete user data].
 - At the confirmation message, click [Yes].
- ④ Enter Windows log on password then, click [Submit].
 - Confirm that there is no item in [Password Types].

3 Uninstall Protector Suite.

Performed by the Computer Administrator.

- ① Log on to Windows as an Administrator.
- ② Close all programs.
- ③ Click **Windows 7**  (Start) - [Control Panel] - [Uninstall a program] / **Windows XP** [start] - [Control Panel] - [Add or Remove programs].
- ④ Double-click [Protector Suite *.*], **Windows XP** and select [Remove].
- ⑤ Select [Remove all Protector Suite *.* data], and click [Next].
 - Uninstallation starts. Follow the on-screen instructions.
- ⑥ When the “Protector Suite *.* has been successfully uninstalled.” Message appears, click [Finish].

- If the confirmation message appears, click [Yes].
- The computer restarts.

Starting Over

If the specific solutions for your problem in Fingerprint Reader (→ [page 177](#)) do not work, you can use these instructions as the last measure and start over. However, please note that you can lose your data - passwords, secret keys and fingerprints.

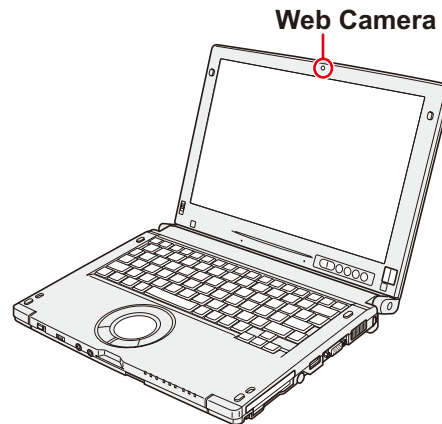
- ① Log on to Windows as an Administrator.
 - You can always access the computer by using your Windows log on password.
- ② Try to export your passport to a file if you are planning to use your passwords, secret keys or enrolled fingers in the future.
 - If you exported your passport recently, this step is not required.
 - If biometrics authorization works and your finger is recognized, use [Account Operations] wizard, swipe your finger and continue according to wizard's instructions.
 - If biometrics authorization works, but your finger is not recognized, you can start the [Account Operations] wizard and export the passport even without using your fingerprint. You need to cancel fingerprint dialog, and you will be prompted for a password. If you do not use backup password, enter your Windows log on password. Otherwise, enter your backup password.

CAUTION

- We recommend you set the backup password.
 - If biometrics authorization does not work, there is no way to backup your data.
- ③ Deleting the passport.
 - Use the [Delete your data] wizard. Please note that all your stored secret data (passwords, [File Safe] encryption keys [Personal Safe] data) will be lost. If you backed up the data, you can restore it in the next step; otherwise it will be lost permanently. To perform the delete operation it is necessary to cancel the fingerprint verification operation to get to the password dialog, then enter your Windows log on password or backup password.
 - ④ Make sure your fingerprint sensor is working.
 - Use the Tutorial wizard to verify that the fingerprint sensor works. If not, reboot and try again. If it still does not work, please contact your technical support office.
 - ⑤ Restore or create passport.
 - If you have a backup of your data, you can now use [Account Operations] wizard to restore your data. Otherwise you can create a new passport by using the [Manage Fingerprints] wizard.

<Only for CF-C1 Series with Web Camera>

Description of Parts




NOTE

- To use the Web Camera, the software corresponding to the Web Camera is needed.
- When the computer is moved from hot and humid environment to low temperature environment, dew condensation may mist up inside the lens. This is not a malfunction. Wait until the lens dry.

Windows XP

Prior to Using the Web Camera

Before using the Web Camera, enable the Web Camera functions.

- 1 Open the Dashboard for CF-C1.**
Press  (USER) button.
- 2 Click [Enable] under [Web camera].**

NOTE

- To save power, we recommend that you disable the Web Camera when not in use.

Starting up Camera Utility

Start up the Camera Utility to take pictures and videos.

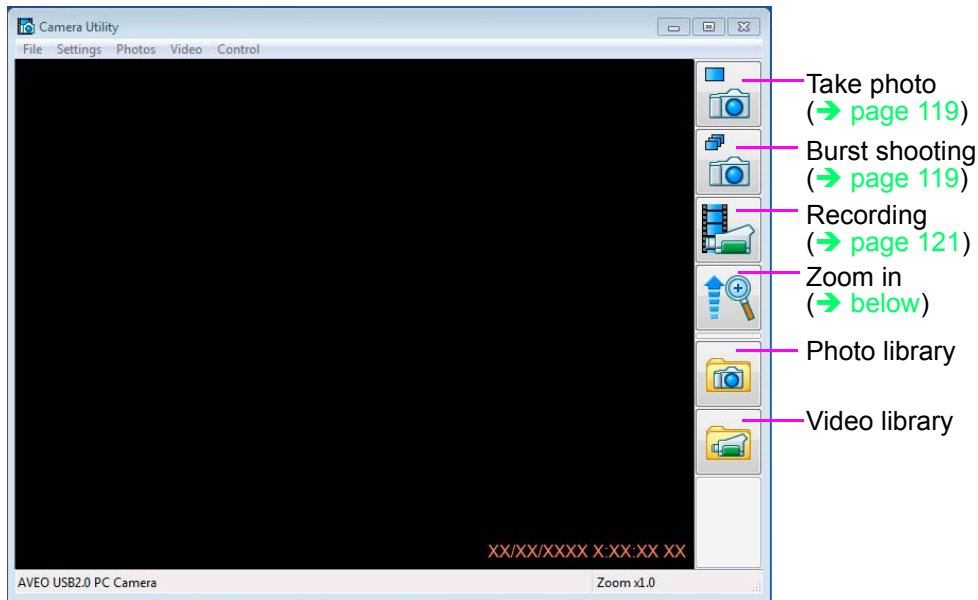
- 1 Click **Windows 7**  (Start) / **Windows XP** [start] - [All Programs] - [Panasonic] - [Camera Utility].

NOTE

- If you use this utility and other multi-media software at the same time, an error may occur. Close all multi-media software including this utility and restart this utility.
- If an error message appears and nothing is displayed, restart this utility.
- Two or more users cannot use this utility with Windows Fast User Switching function.
- When the computer has resumed from **Windows 7** sleep/ **Windows XP** standby or hibernation, an error may appear and the connection with the camera device may be lost. If this occurs, restart this utility.




Taking Pictures

Taking Pictures



■ Zoom In

To enlarge or reduce the camera image.

- 1 Click  or click **[Control] - [Zoom]** and select **[x 1.0]**, **[x 1.5]**, **[x 2.0]**, **[x 2.5]**, or **[x 3.0]**.
 - You can assign the Zoom In function to the tablet button. (→ page 124 “Assigning the Zoom In/Take Photo Functions to the Tablet Button”)
 - Each time you click  the zoom magnification goes up in the order of [x 1.0], [x 1.5], [x 2.0], [x 2.5], [x 3.0].
To return to [x 1.0], click  when the zoom is [x 3.0].
 - You can zoom in/out by dragging the screen up-and-down.

■ Mirroring

You can change mirror the camera.


1 Click [Control] - [Mirror] - [ON] or [OFF].

■ Take Photo


You can record the camera image as a picture.

1 Adjust the direction of camera, zoom (→ [page 118](#)), picture quality (→ [page 120](#)), etc.

2 Click  or click [Photos] - [Take photo].

- While taking photos, the icon changes to  indicate the photo is being captured.
- You can assign the Take Photo function to the tablet button.
(→ [page 124](#) “Assigning the Zoom In/Take Photo Functions to the Tablet Button”)


NOTE

- You can view pictures by clicking  or through Windows Explorer (default location is my pictures folder).
- When the distance between the camera and subject is too close, the image may be out of focus.

■ Burst Shooting

You can take pictures in fixed intervals.

1 Click  or click [Photos] - [Start Burst Shooting]

- During Burst shooting, the icon changes to 

2 Click  or click [Photos] - [Stop Burst Shooting]

NOTE



- During Burst shooting, naming, saving or canceling photos is not available.
The default name for saving photos is the date and time the picture was taken.

Changing the Settings for Taking Pictures

- 1 Click [Photos] - [Settings...]
- 2 Change to preferred settings and click [OK]




- When the following boxes are checked,

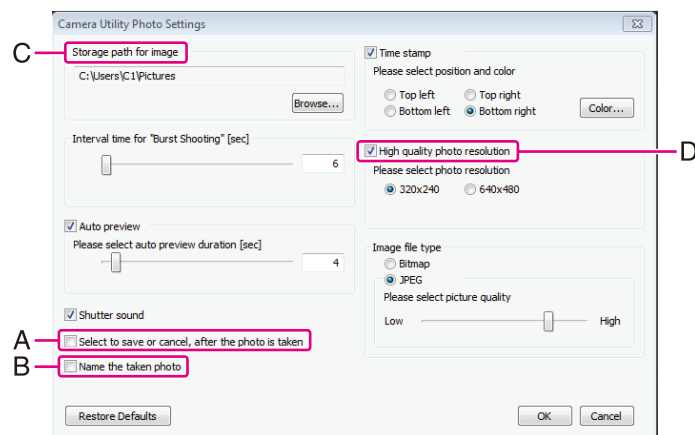
- Box (A) only: Select to save or cancel, after the photo is taken

Save () and delete icons () will appear after the photo is taken. Photo will be saved using default name (date/time).

- Box (B) only: Name the taken photo
Photos can be named (and saved) using the windows File Name box that appears after a photo is taken. Select a destination folder, and create a file name to save. Photo can be deleted by selecting “cancel”.

- Boxes (A) and (B): Select to save or cancel, after the photo is taken & Name the taken photo

Save () and delete icons () will appear after the photo is taken. Photo can be named after save icon () is selected using the windows File Name box.




NOTE

- At (C), if you specify an externally connected storage device as the save destination, the camera software may operate slowly. In this case, specify the internal hard disk as the save destination.
- High-quality pictures can be obtained by checking (D). Also, regardless of the display screen size, you can take pictures with the selected resolution.
 - When this feature is enabled, photos may take more time to load.
 - When this feature is disabled, photos will be saved with the resolution selected for the [Video Format] (→ [page 123](#)).

Recording Video

■ Recording Video

1 Click  or click [Video] - [Start Recording]

While recording, the icon changes to .

2 Click  or click [Video] - [Stop Recording]

NOTE



- You cannot zoom, mirror or display the date/time stamp while recording.
- When the distance between the camera and subject is too close, the image may be out of focus.
- If you specify an externally connected storage device as the save destination, the camera software may operate slowly. In this case, specify the internal hard disk as the save destination.
- The file is saved with the resolution set for [Video Format] (→ [page 123](#)).
- If you rotate the display, pictures may not be displayed correctly. Do not rotate the display while recording. Movies cannot be recorded unless the display is set to primary landscape. Be sure to return the display to primary landscape before recording movies.

Changing the Settings for Recording Video

- 1 Click [Video] - [Settings...]
- 2 Change to preferred settings and click [OK]




- When the following boxes are checked,

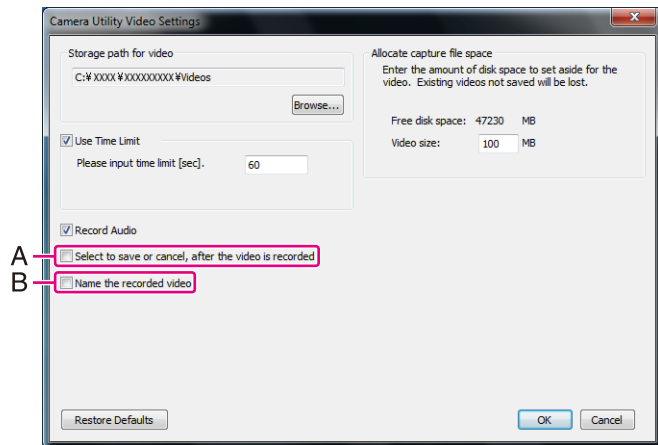
- Box (A) only: Select to save or cancel, after the video is recorded

Save () and delete icons () will appear after the video is taken. Video will be saved using default name (date/time).

- Box (B) only: Name the recorded video
Video can be named (and saved) using the windows File Name box that appears after stopping the video. Select a destination folder, and create a file name to save. Video can be deleted by selecting “cancel”.

- Boxes (A) and (B): Select to save or cancel, after the video is recorded & Name the recorded video

Save () and delete icons () will appear after the video is taken. Video can be named after save icon () is selected using the windows File Name box.



NOTE

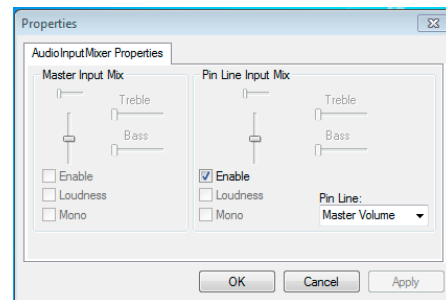
- If a size of a temporary file to save recorded video becomes too big, it will take some time to start recording video.

Settings

■ Setting Audio

Set your sound preferences on the [Audio Control] screen.

1 Click [Settings] - [Audio Control]



NOTE

- To set sound preference, please attach an external microphone.
- Some items cannot be set depending on the device.

■ Setting Image Quality

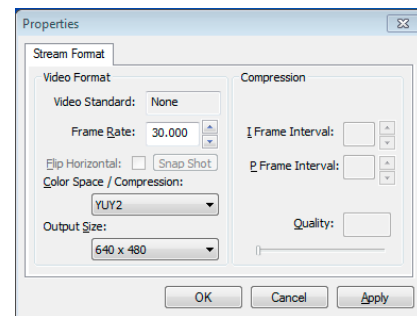
Set your image quality preferences on the [Image Control] screen.

1 Click [Settings] - [Image Control]

■ Setting the Compressed Data Format/Resolution for the Image

1 Click [Settings] - [Video Format]

- [Color Space / Compression]
Set the compressed data format for the image.
- [Output Size]
Set the image resolution.



NOTE

- Make sure the image resolution is within the range of the display resolution of this computer (Refer to “Specifications - Display Method” in *OPERATING INSTRUCTIONS*).
- If you set [Output Size], the [Frame Rate] is automatically determined.
- The setting items depend on the device, some items cannot be selected.
- When [High quality photo resolution] in [Camera Utility Photo Settings] is not selected, resolution of the photo to be saved is determined by the setting configured for [Output Size].
- Resolution of the movie to be saved is determined by the setting configured for [Output Size].
- Previewed images and movies will be displayed according the Camera Utility window size, regardless of [Output Size] settings.

■ Assigning the Zoom In/Take Photo Functions to the Tablet Button

You can assign the Zoom In/Take Photo functions to the tablet buttons.

1

Windows 7

Click  (Start) - [Control Panel] - [Hardware and Sound] - [Set tablet buttons to perform certain tasks].

Windows XP

Click [start] - [Control Panel] - [Printers and Other Hardware] - [Tablet and Pen Settings] - [Tablet Buttons].

2

Click the name of the tablet button and click [Change...].

The **Windows 7** [Tablet Button Actions] / **Windows XP** [Change Tablet Button Actions] screen appears.

3

Select a function in **Windows 7** [Press:] / **Windows XP** [Action:].

4

Select **Windows 7** [Start a program] / **Windows XP** [Launch an application].

5

Click [Browse...], and input the following.

<When assigning the “Zoom in” function> (→ [page 118](#))

c:\Program Files*¹\panasonic\PCam\pcam.exe /zoom_in

<When assigning the “Take photo” function> (→ [page 119](#))

c:\Program Files*¹\panasonic\PCam\pcam.exe /shutter

<When assigning the “Take photo” function by specifying the file name> (→ [page 120](#))

c:\Program Files*¹\panasonic\PCam\pcam.exe /shutter_name

*1 **Windows 7** (64-bit) :Program Files (x86)

6 Click [OK], and then [OK].

NOTE

- When the Camera Utility is not running, and if you press the buttons to which the “Zoom in” function, “Take photo” function, etc. are assigned, the Camera Utility is activated.
- If you operate the Utility after assigning the “Take photo” function, the same operation will be performed as the one when the check marks both for (A) and (B) are not added in “Changing the Settings for Taking Pictures”. (→ [page 120](#))
- If you operate the Utility after assigning the “Take photo” function by specifying the file name, the same operation will be performed as the one when the check mark for (A) is added and check mark for (B) is not added in “Changing the Settings for Taking Pictures”. (→ [page 120](#))

<Only for model with internal modem>

Connecting the Internal Modem with a Telephone Jack

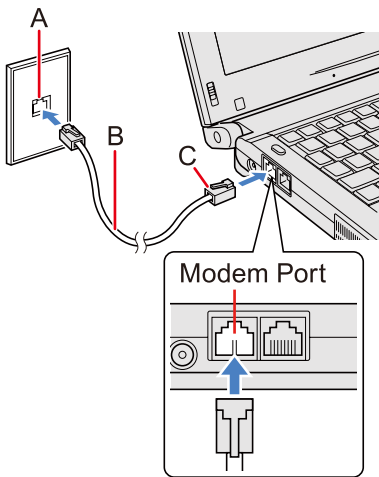
CAUTION

- You cannot connect the modem to the following lines.
 - Interphone
 - Intercoms
 - ISDN
- Be sure to connect the telephone cable into the modem port, not into the LAN port.
- Use a surge protector since the modem may be damaged by a sudden high voltage surge that may occur in the event of a lightning strike.

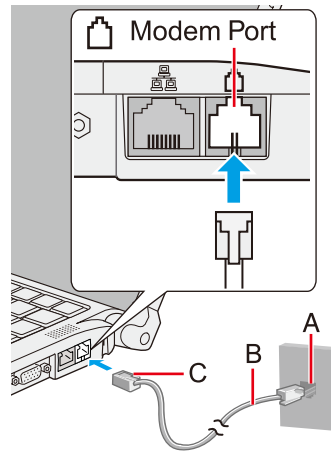
1 Connect the computer and the telephone jack (A) using the telephone cable (B).

- Hold the cable so that the shape of the connector (C) matches the port, and insert fully until it clicks.

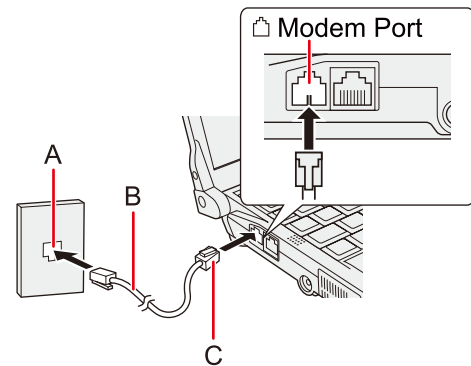
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



2 Windows 7

Click  (Start) - [Control Panel] - [Connect to the Internet] - [Dial-up] and change the settings as necessary.

Windows XP

Click [start] - [Control Panel] - [Printers and Other Hardware] - [Phone and Modem Options] and change the settings as necessary.

NOTE



- Do not enter **Windows 7** sleep/ **Windows XP** standby or hibernation during communications.
- To remove the cable, press and hold the lever and pull out.

Ring Resume Function

The computer automatically resumes from **Windows 7** sleep/ **Windows XP** standby when the telephone connected to the modem rings.

You will need software to keep the computer in an idle state waiting for a phone call, and if you prefer, to turn the computer to **Windows 7** sleep/ **Windows XP** standby again afterward. For further information, refer to the instruction manual of the software application.

Windows 7

- 1** Click  (Start) - [Windows Fax and Scan].
- 2** Click [Tools] - [Fax Settings].
 - A standard user needs to enter an administrator password.
 - Check whether the modem you are using is displayed in Device name. If not, click [Select fax device] and select the correct modem.
- 3** Add a check mark for [Allow the device to receive fax calls] and click [OK].
- 4** Click  (Start) - [Computer] - [System properties] - [Device Manager].
 - A standard user needs to enter an administrator password.
- 5** Double-click [Modems], and then double-click the internal modem.
- 6** Click [Power Management] and add a check mark for [Allow this device to wake the computer], and then click [OK].



Windows XP

- 1 Click [start] - [Printers and Faxes].
- 2 Click [Set up faxing] in the [Printer Tasks] area on the left.
 - This operation is not necessary next time.
- 3 Right-click the fax icon and then click [Properties].
- 4 Click [Devices] - [Properties].
- 5 Click [Receive], and then add the check mark for [Enable device to receive] and click [OK].
- 6 Click [Device Manager] in [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware].
- 7 Double-click [Modems], and then double-click the internal modem.
- 8 Click [Power Management], add the check mark for [Allow this device to bring the computer out of standby], then click [OK].

■ To set the time to return the computer to sleep/standby

The computer will enter **Windows 7** sleep/ **Windows XP** standby after the set time even when the communication is not completed. You can avoid such uncompleted communication if you select [Never], but the computer does not return to **Windows 7** sleep/ **Windows XP** standby after resuming by a phone call.

Windows 7

- ① Click  or  on the notification area.
- ② Click [More power options] - [Change when the computer sleeps].
- ③ Set the expected communication time for the sleep setting.

Windows XP

- ① Click [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes].
- ② Set the expected communication time.

NOTE

- This function does not work when the computer is off or is in hibernation.
- Connect the AC adaptor.
- The screen remains dark after the computer resumes from **Windows 7** sleep/ **Windows XP** standby. The previous screen display will be restored when you touch the keyboard, Touch Pad or screen.
- The computer cannot resume if the telephone is not connected to the internal modem (e.g., you cannot use a PC Card modem).
- The computer needs some time to respond, so set the calling time longer than normal. If this is not possible on the transmission side, reduce the number of rings before answering on the software that you are using to keep the computer in idle waiting for the call.

CAUTION

- To ensure proper network operations, use a twisted pair cable (category 5 or higher) less than 100 m in length.
- Do not use the **Windows 7** sleep/ **Windows XP** standby or hibernation during communications (except when the Wake up from wired 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 **Windows 7** sleep/ **Windows XP** standby or hibernation. When not using the Wake up from wired LAN function, following settings:
Windows 7 [Never] for [Put the computer to sleep:] and [Hibernate after]. (→ [page 60](#))
Windows XP [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes]

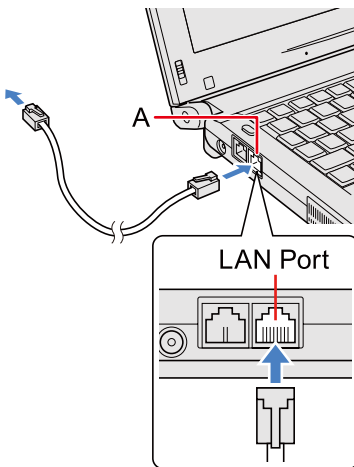
1 Turn off your computer.

- Do not use **Windows 7** sleep/ **Windows XP** standby or hibernation.

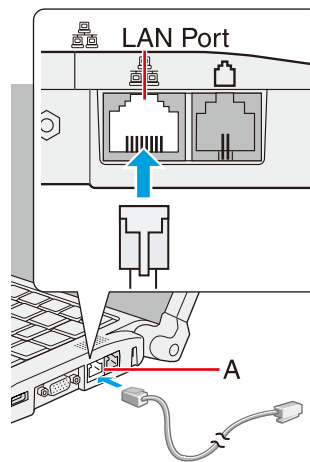
2 Connect the cable.

Connect the LAN port (A) and the network system (server, HUB, etc.) using a LAN cable.

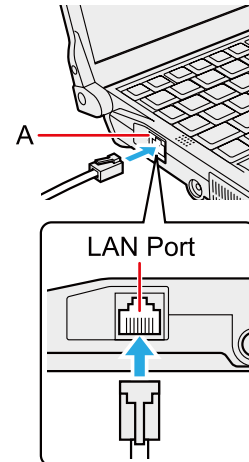
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>

**3 Turn on the computer.**


Power On by LAN/Wake Up from Wired LAN

NOTE

- Even when a password is set in the Setup Utility and [Password on boot] is set to [Enabled], entering the password is unnecessary for turning on or resuming the computer.
- Connect the AC adaptor.
- The Power On by LAN function is off under the following conditions:
 - When you turn the computer off by sliding the power switch for four seconds or longer (e.g., after a hung-up).
 - When you reattach the AC adaptor and battery pack to the computer after removing them.
- The screen remains dark after the computer resumes from **Windows 7** sleep/ **Windows XP** standby. The previous screen display will be restored when you touch the keyboard, touch pad or screen.

Enabling the Power On by LAN function


The computer automatically turns from off to on when the computer is accessed from the network server via the internal LAN port.

- 1** Select [Allow] in [Power On by LAN] in the [Advanced] menu of the Setup Utility (→ page 151).
- 2** In [Caution], press Enter.
- 3** Press F10, and then select [Yes] and press Enter.
- 4** Log on to Windows as an administrator.
- 5** **Windows 7** Click  (Start) - [Computer] - [System properties] - [Device Manager].
Windows XP Click [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].
- 6** Double-click [Network adapters] and double-click [Intel(R) 82577LM Gigabit Network Connection], and then click [Advanced].
- 7** Click [Enable PME] in [Property] and select [Enabled] in [Value].
- 8** Click [OK].

Enabling/Disabling the Wake Up from wired LAN function

When the Wake Up from wired LAN function is enabled, the computer automatically resumes from sleep or hibernation when the computer is accessed from the network server via the internal LAN port. (Default setting)

The Wake Up from wired LAN function can be switched to enable/disable by performing the following procedure.

- 1** **Windows 7** Click  (Start) - [Computer] - [System properties] - [Device Manager].
 - A standard user needs to enter an administrator password.**Windows XP** Click [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].
- 2** Double-click [Network adapters] and double-click [Intel(R) 82577LM Gigabit Network Connection], and then click [Power Management].
- 3** Add check marks for [Allow the computer to turn off this device to save power] and **Windows 7** [Allow this device to wake the computer] / **Windows XP** [Allow this device to bring the computer out of standby].

We recommend you to make the above two settings ON/OFF simultaneously.

- The computer may resume when another computer in the network makes unintentional access. Using the following procedure, you can prevent accidental startup by unintentional access.

Add a check mark for **Windows 7** [Only allow magic packet to wake the computer] / **Windows XP** [Only allow management stations to wake the computer.].

- 4** Click [OK].

<Only for model with wireless LAN, Bluetooth, and/or wireless WAN>

- The wireless switch on the front of the computer (below)
- Wireless Switch Utility (→ [page 134](#))
- **Windows 7** Settings in the Network and Sharing Center (→ [page 138](#))
- Settings in the [Advanced] menu of the Setup Utility (→ [page 151](#))
- **Windows XP** Settings in the Wireless Connection Disable Utility (→ [page 135](#))

The Wireless Switch

■ To disable all wireless communication

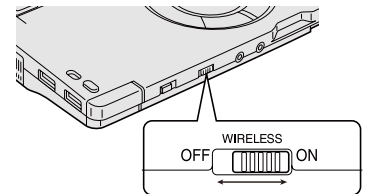
1 Switch to OFF.

■ To enable wireless communication

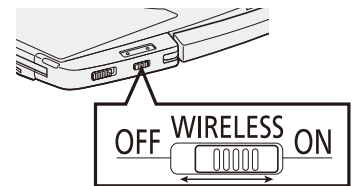
1 Switch to ON.

- In the default setting, the wireless switch enables all wireless devices when it is set to ON.

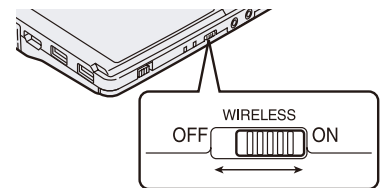
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



NOTE


<CF-C1 Series>




- When [Wireless Switch] is set to [Disabled] in the [Advanced] menu of the Setup Utility, wireless communication cannot be enabled/disabled with the wireless switch or the Wireless Switch Utility. Set [Wireless Switch] to [Enabled], then use the wireless switch to enable wireless communication.

Wireless Switch Utility

This utility allows you to control the function of the wireless switch. This utility also allows you to enable or disable wireless devices from a pop-up menu in the notification area. In the default setting, all wireless devices are enabled.

■ The Wireless Switch Utility icon

The icon appears when click (**Windows 7** when click ) on the notification area. It shows the status of wireless devices.


-  : Indicates that the wireless devices are enabled.
-  : Indicates that the wireless devices are off.
-  : Indicates that the wireless devices have been disabled in the Setup Utility.

■ To enable or disable particular wireless devices

- 1** Click the Wireless Switch Utility icon to show the pop-up menu.
- 2** Select ON or OFF for the device you want to enable or disable.

■ To change the function of the Wireless switch

In the default setting, the on/off settings that were selected for each device at the time you last turned off the wireless switch are restored when you set the wireless switch to ON again. You can change this function.

- 1** **Windows 7**
Click  on the notification area and then click the Wireless Switch Utility icon.
Windows XP
Click the Wireless Switch Utility icon on the notification area.
- 2** Click [Settings].

3 Select the setting you want to assign to the wireless switch.

[Selects the device for which to turn the device status on each time with the dialog box.]

Display a dialog each time you set the Wireless switch to ON so you can choose which wireless device to enable.

[Turns on the following device.]

Only selected devices are enabled when you set the Wireless switch to ON.

[Turns on the device that was on immediately before the wireless switch was turned off the last time.]
(default)

When you turn on the wireless switch, the on/off settings that were selected when you last turned off the wireless switch will be restored.

4 Click [OK].

■ To check the wireless communication status

1

Windows 7

Click  on the notification area and place the cursor over the Wireless Switch Utility icon.

Windows XP

Place the cursor over the Wireless Switch Utility icon on the notification area.

NOTE

- Do not turn on/off the switch repeatedly at too short intervals.
- Do not restart, log off, or enter sleep or hibernation immediately after turning on/off the switch.
- Do not turn on/off the switch while Windows is starting up.
- To use wireless communication, set the wireless devices ([Wireless LAN] / [Bluetooth] / [Wireless WAN]) to [Enabled] (default) in the [Advanced] menu of the Setup Utility.
- It may take some time to turn off wireless communication after switching the wireless switch off.
- If the IEEE802.11a setting is changed in [Device Manager], the display will be changed accordingly.

Windows XP

Wireless Connection Disable Utility

You can automatically disable the wireless LAN connection when a LAN cable is connected to your computer. You need to install the Wireless Connection Disable Utility to use this function.

Installing the utility

1 Log on to Windows as an administrator.

- 2 Click [start] - [Run] and input [c:\util\wdisable\setup.exe], and click [OK].
- 3 Follow the on-screen instructions to install the Wireless Connection Disable Utility.




Checking the status of the Wireless Connection

NOTE

- The Wireless Switch Utility should also be installed so that the Wireless Connection Disable Utility works.
- The utility does not automatically disable the Bluetooth connection.

■ Status indication

After installation, the Wireless Connection Disable Utility is automatically started after a user is logged in. An icon appears when click on the notification area.

-  : Indicates that
 - the utility is enabled, and
 - the wireless connection is disabled since a LAN cable is connected.
-  : Indicates that
 - the utility is enabled, and
 - the wireless connection is enabled since no LAN cable is connected.
-  : Indicates one of the following statuses;
 - the utility does not monitor the LAN port status,
 - the Wireless Switch Utility has not been started, or
 - the built-in wired LAN device is not detected (In case of [LAN] is set [Disabled] in the Setup Utility.) or disabled with the device manager.

■ Menu

Right-clicking the utility icon in the notification area opens a menu as follows.

- **Monitoring LAN Cable: ON**
Enables the Wireless Connection Disable Utility to monitor the LAN port and disable wireless connection when a LAN cable is connected.
- **Monitoring LAN Cable: OFF**
Disables the Wireless Connection Disable Utility, and enables wireless connection regardless of whether a LAN cable is connected or not.
- **Exit**
Exits the Wireless Connection Disable Utility and enables wireless connection.

<Only for model with wireless LAN>

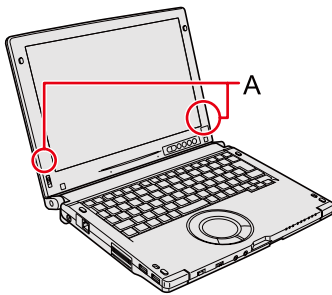
CAUTION

- **Do not use wireless LAN on airplanes, in hospitals, or in other locations where wireless LAN signals may affect devices.**
Follow the instructions of airline companies and hospitals. If you use the computer in these locations, turn off the wireless LAN.
- **To avoid unauthorized access to the computer through wireless LAN**
We recommend you to make security settings such as encryption before using wireless LAN. Otherwise the hard disk data such as the shared files can be exposed to the risk of unauthorized access.

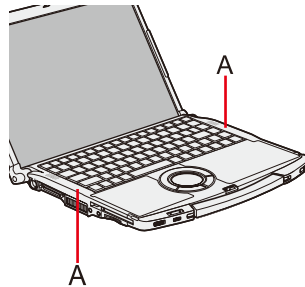
NOTE

- Communication is established through the wireless LAN antenna (A). Do not block the antenna area with your hand or body.

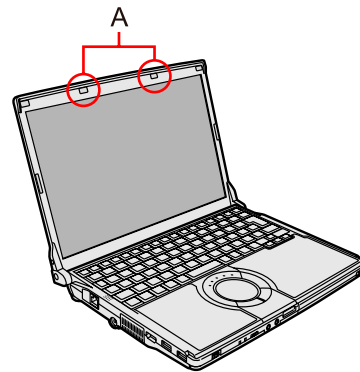
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



- Do not use the Fast User Switching function. The wireless LAN cannot perform.
- The transmission rate will be lower when a microwave oven is used.
- If IEEE802.11a is enabled or disabled while the computer is connected to an IEEE802.11b/g access point, the connection will be temporarily interrupted.
- To use wireless LAN, set [Wireless LAN] to [Enabled] (default) in the [Advanced] menu of the Setup Utility (→ [page 151](#)).

<CF-C1 Series>

- Wireless communication may momentarily be interrupted when you use the display rotation function in the Tablet mode.

Using the Wireless LAN Function

Before using a wireless LAN, turn the wireless LAN communication on.



Turning on/off the wireless LAN communication

1 Slide the wireless switch to turn on/off wireless LAN. (→ page 133)

- When turning on wireless LAN
If you cannot turn on wireless LAN using the wireless switch, confirm the Wireless Switch Utility setting (→ page 134).

Windows 7


If you cannot turn on wireless LAN in the Wireless Switch Utility, try the following procedure.

- ① Click  or  on the notification area and click [Open Network and Sharing Center].
- ② Click [Change adapter settings].
- ③ Right-click [Wireless Network Connection] and click [Enable].
 - A standard user needs to enter an administrator password.
 - When [Disable] is displayed, [Wireless Network Connection] is already enabled.
- ④ Turn on wireless LAN in the Wireless Switch Utility.

NOTE

Windows 7

You can use the following procedure instead of turning on wireless LAN in the Wireless Switch Utility.

- ① Click  (Start) - [Control Panel] - [Adjust commonly used mobility settings].
- ② Click [Turn wireless on] in [Wireless Network].
 - When [Turn wireless off] is displayed, the wireless network is already on.
 - If you cannot select [Turn wireless on], the wireless switch is turned off.

Windows XP




It may take some time to turn off wireless LAN after switching the wireless switch to off.

Windows XP




Setting the profiles

Preparation

Follow the instruction manual of the wireless LAN access point to make settings for the access point to recognize the computer.

- 1 Slide the wireless switch to the right to turn on the wireless LAN.**
- 2 Double-click  /  /  on the notification area.**

The [Intel® PROSet/Wireless] screen appears.

When  or  is displayed, skip step 3.
- 3 When you double-clicked  in step 2, slide the wireless switch to turn on.**
- 4 Click [Profiles...] at the lower right corner of the window, and click [Add...].**
- 5 Enter the profile name and wireless network name (SSID), and make other necessary changes, then click [Next].**
- 6 Make necessary settings and click [OK].**
- 7 Select the profile you set and click [Connect].**
- 8 Click [Close].**

NOTE




- You need to set the profile for each user.
 - The settings depend on the network environment. For further information, ask the system administrator or the person in charge of the network.
 - For further information of Intel® PROSet/Wireless software, refer to [Help] in the menu bar.
-

Windows 7




Setting the wireless LAN access point

Preparation






Follow the instruction manual of the wireless LAN access point to make settings for the access point to recognize the computer.

- 1 Turn the wireless LAN on.**
- 2 Click  or  on the notification area.**
- 3 Select an access point, and click [Connect].**
- 4 Input the key you set for the access point to recognize the computer, and click [OK].**
Wait for the computer to connect to the wireless LAN access point.
When the icon on the notification area is changed to , the wireless LAN setting is complete.
- 5 Click [Close].**



NOTE

- The settings depend on the network environment. For further information, ask the system administrator or the person in charge of the network.
 - If you use the stealth type wireless LAN access point which restricts automatic detection of the wireless LAN access point, take the following procedure.
If you do not perform the procedure below, you may not be able to access the wireless LAN access point automatically or the wireless LAN access point may not be displayed on the [Connect to a network] screen.
 - ① Click ,  or  on the notification area, click [Open Network and Sharing Center] - [Set up a new connection or network] - [Manually connect to a wireless network] and click [Next].
 - ② Input necessary information and add check marks for [Start this connection automatically] and [Connect even if the network is not broadcasting] and click [Next].
-

Setting the Wireless LAN Standard IEEE802.11a (802.11a)

- 1 **Windows 7** Click  on the notification area and click  or .
- Windows XP** Click  or  on the notification area.
- 2 Click [802.11a Enabled] or [802.11a Disabled].

NOTE

- In some countries, communication using IEEE802.11a (5 GHz wireless LAN) standard is restricted by law.
- The Wireless Switch Utility icon ( or ) indicates the on/off status of wireless LAN and/or wireless WAN, not the setting of IEEE802.11a.
- If IEEE802.11a is enabled or disabled while the computer is connected to an IEEE802.11b/g access point, the connection will be temporarily interrupted.
- You can also change the IEEE802.11a setting in [Device Manager].

① Windows 7

Click  (Start) - [Computer] - [System properties] - [Device Manager].

- A standard user needs to enter an administrator password.

Windows XP

Log on to Windows as an administrator, and click [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].

- ② Double-click [Network adapters] and double-click [Intel(R) Centrino(R) Advanced-N 6200 AGN].
- ③ Click [Advanced], and then select [Wireless Mode] in [Property].
- ④ Select the settings in [Value] (e.g., [5. 802.11a/g]).
- ⑤ Click [OK].

If you enable or disable 802.11a using the pop-up menu of Wireless Switch Utility, the setting in [Device Manager] will be accordingly changed as below.

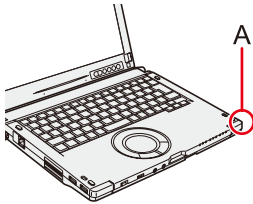
Settings in Device Manager		Settings in Wireless Switch Utility	
Windows 7	Windows XP	When 802.11a is enabled	When 802.11a is disabled
[6. 802.11a/b/g] [4. 802.11b/g]	[802.11a, 802.11b and 802.11g] [802.11b and 802.11g]	a+b+g is enabled	b+g is enabled
[3. 802.11g] [5. 802.11a/g]	[802.11g only] [802.11a and 802.11g]	a+g is enabled	g is enabled
[1. 802.11a] [2. 802.11b]	[802.11a only] [802.11b only]	a is enabled	b is enabled

<Only for model with Bluetooth>

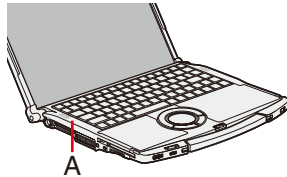
NOTE

- Communication is established through the Bluetooth antenna (A). Do not block the antenna area with your hand.

<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>



- When Bluetooth is installed, [Bluetooth] is displayed in the [Advanced] menu of Setup Utility. To use Bluetooth, set [Bluetooth] to [Enabled] (default) in the [Advanced] menu of the Setup Utility.
- The transmission rate will be lower when a microwave oven is used nearby.
- It may take some time to turn off Bluetooth after switching the wireless switch to off.
- When you uninstall the Bluetooth driver, turn Bluetooth off the default setting, the wireless switch enables all wireless devices when it is set to ON.

<CF-C1 Series>

- Wireless communication may momentarily be interrupted when you use the display rotation function in the Tablet mode.

Using the Bluetooth Function

Before using Bluetooth, turn the Bluetooth communication on.

- 1 Slide the wireless switch to turn on/off Bluetooth. (→ [page 133](#))

■ To check the Bluetooth communication status

- ① Place the cursor over the Wireless Switch Utility icon on the notification area.
A tooltip appears.

■ To access the online manual

- ① Click [Windows 7](#) (Start) / [Windows XP](#) [start] - [All Programs] - [Bluetooth] - [Bluetooth User Guide].


■ Fast User Switching Function

When switching to a different user with the Fast User Switching function, Bluetooth may not be used. In this case, log off all users without using Fast User Switching function and perform the operation once more. If the problem persists, restart the computer.

NOTE

- To turn on/off particular wireless devices
 - ① Click the Wireless Switch Utility icon to show the pop-up menu.
 - ② Select On or Off for the device you want to turn on/off.
- The Wireless Connection Disable Utility does not automatically disable the Bluetooth connection.
- **Windows 7**

After resuming from sleep or hibernation, the message “TosBtMng has stopped working” may appear.

Click [Close program]. If Bluetooth connections are cut off, click  (Start) - [All Programs] - [Bluetooth] - [Bluetooth Settings], and connect to the Bluetooth devices again.

<CF-C1 Series>

Inserting/Removing the Hard Disk Drive

To change your hard disk drive, contact your technical support office.

CAUTION

- Back up all the important data before removing the hard disk drive.
- If you need to read the hard disk data on another computer for repair or any other purpose, set [Hard Disk Lock] to [Disabled] in the [Security] menu of the Setup Utility (→ [page 155](#)) before removing the hard disk drive.
- Carefully remove/insert the hard disk drive since the hard disk drive is extremely sensitive to shock. Note that static electricity may affect some internal components.

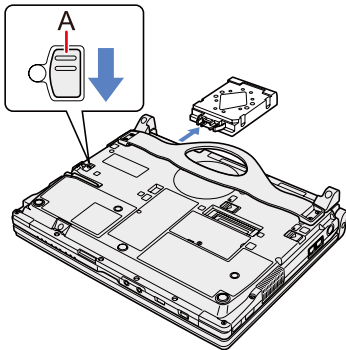
1 Turn off the computer and disconnect the AC adaptor.

- Do not use [Windows 7](#) sleep/ [Windows XP](#) standby or hibernation.

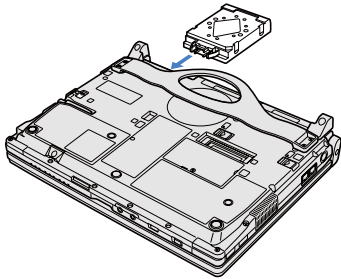
2 Remove the battery pack (→ [page 47](#)).

3 Insert/Remove the hard disk drive.

- To remove
 - ① Slide the latch (A) to the arrow direction, and slide the hard disk drive out of the slot.



- To insert
- ① Insert the hard disk drive until it securely fits in the slot.



CAUTION

- Confirm that the latch is surely locked so that the hard disk does not fall when you carry the computer.

NOTE

- You can erase the data before changing the hard disk drive (→ [page 191](#)).
- You can check that the hard disk is recognized or not in the [Information] menu of the Setup Utility (→ [page 149](#)). If the hard disk is not recognized, turn off the computer and insert it again.

<Only for models with Flash Memory Drive>

Some of the models contain the flash memory drive instead of a hard disk drive. (A hard disk drive is not mounted.) Replace “hard disk” and “hard disk drive” mentioned in the other chapter of this manual with “flash memory” and “flash memory drive”. The procedure for inserting/removing the flash memory drive is same as the one of for the hard disk drive (→ [page 144](#)).

NOTE

- [Hard Disk] displayed on [Information] Menu of the Setup Utility refers to the flash memory (→ [page 149](#)).
- [Hard Disk Lock] displayed on [Security] Menu of the Setup Utility restricts read/write operation for the flash memory data (→ [page 155](#)).
- The flash memory is self-diagnosed as “Hard Disk” (→ [page 184](#)).

Windows XP

Disabling auto-defragment

Windows automatically processes “defragment” to speed up in accessing files, etc. However, this process is not always necessary because you can access files at high speed even if they are decentrally-saved in the flash memory. Also, we recommend disabling auto-defragment because reducing the number of writing times is effective to use the flash memory for a long period of time.

NOTE

- If auto-defragment is disabled, this function will not work when an external hard disk is connected, too. Change the setting when necessary to prevent the computer performance from being affected.
- The “how to use the hard disk” section of the PC Information Viewer is not available.

■ Disabling auto-defragment processed in the background by Windows

- 1 Close all the applications.**
- 2 Click [start] - [Run], and input “c:\util\setdfrg\setdfrg.exe” and click [OK].**
 - If you have logged on as a standard user, enter an administrator password and click [OK].
 - Automatic Defragmentation Setting Utility starts up.
- 3 Click [Deactivate automatic defragmentation].**
 - To return the setting to the previous value, click [Activate automatic defragmentation (Windows standard)]
- 4 When the screen shows the display to change the setting, click [OK].**

You can make the settings of the computer's operating environment (password settings, startup drive selection, etc.)

Starting the Setup Utility

- 1 Turn on or restart the computer.
- 2 Press **F2** or **Del** while [Panasonic] boot screen is displayed soon after the computer starts the startup procedure.

When [Enter Password] is displayed, enter your password.

When you start the Setup Utility with Supervisor Password

- You can make the settings of all items of the Setup Utility.

When you start the Setup Utility with User Password

- Note the following:
 - In the [Advanced] menu, you cannot make the settings of all items.
 - In the [Security] menu, you can change only the User Password when [User Password Protection] is set to [No Protection]. You cannot delete the User Password.
 - In the [Exit] menu, you cannot make the setting of [Load Default Values] and [Boot Override].
 - **F9** (Setup Defaults) does not function.

Information Menu

Underlined items are the factory presets.

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

Product Information

Model No. Serial No.	Computer information (cannot be changed.)
-------------------------	--

System Information

Processor Type Processor Speed Memory Size Available Memory Hard Disk	Computer information (cannot be changed.)
---	--

BIOS Information

BIOS Embedded Controller Intel(R) ME Firmware Accumulative Operating Time Access Level	Computer information (cannot be changed.)
--	--

Main Menu

Underlined items are the factory presets.

<p>System Date</p> <ul style="list-style-type: none"> Day of the Week/Month/Day/Year. You can use <u>Tab</u> to move the cursor. 	[xxx xx/xx/xxxx]
<p>System Time</p> <ul style="list-style-type: none"> 24-hr. style. You can use <u>Tab</u> to move the cursor. 	[xx:xx:xx]

Main Configuration

Touch Pad	<p>Disabled</p> <p><u>Enabled</u></p>
<p>Fn/Ctrl Key</p> <ul style="list-style-type: none"> Select whether to switch <u>Fn</u> with <u>Ctrl</u> functions, and vice versa on the internal keyboard. Do not attempt to replace the markings on the keys, or the keys themselves. 	<p><u>Normal</u></p> <p>Replace</p>
<p>Display</p> <ul style="list-style-type: none"> The display during the Windows start-up process. When an external display is not connected, the information appears on the internal LCD even though [External Monitor] is set. 	<p><u>External Monitor</u></p> <p>Internal LCD</p>
<p>Optical Drive Power</p> <ul style="list-style-type: none"> Only for CF-F9/CF-S9 Series You can set the drive power to [On] or [Off] when the computer is started up. When set to [Off]. <ul style="list-style-type: none"> From the next time you start the computer, you will be unable to start up from CD/ DVD drive. The disc cover cannot be opened until Windows has started. To start up from the CD/DVD drive, set this to [On]. If operations are resumed from hibernation while a disc is set, it may take about 20 seconds for operations to resume. 	<p><u>Off</u></p> <p>On</p>
Battery Charging Indicator	<p>On</p> <p><u>Continuous</u></p> <p>Flashing</p>
<p>LED Brightness</p> <ul style="list-style-type: none"> You can set the brightness of the power indicator. ([Auto]: The brightness varies according to brightness of the internal LCD. [Dimmer]: The brightness remains dark and does not vary.) 	<p><u>Auto</u></p> <p>Dimmer</p>

Battery Charging LED Mode <ul style="list-style-type: none"> • Only for CF-C1 Series • You can use the LED indicators on the front of the computer to check the battery charging status (→ page 42). When [Single] is selected, the battery charging status is indicated by the single LED. When [Multiple] is selected, the battery charging status is indicated by multiple LEDs when the computer power is off and the display is closed.	<u>Single</u> Multiple
---	---------------------------

Advanced Menu

CPU Configuration

Underlined items are the factory presets.

Execute-Disable Bit Capability <ul style="list-style-type: none"> • [Enabled] indicates that this computer supports hardware-based Data Execution Prevention (DEP). 	Disabled <u>Enabled</u>
Hyper Threading Technology	Disabled <u>Enabled</u>
Core Multi-Processing	Disabled <u>Enabled</u>
Intel(R) Virtualization Technology	Disabled <u>Enabled</u>
Intel(R) Trusted Execution Technology <ul style="list-style-type: none"> • Only for model that supports Intel(R) AMT 	Disabled Enabled

Peripheral Configuration

Optical Drive <ul style="list-style-type: none"> • Only for CF-F9/CF-S9 Series 	Disabled <u>Enabled</u>
LAN	Disabled <u>Enabled</u>
Power On by LAN <ul style="list-style-type: none"> • Can be changed only when [LAN] is set to [Enabled]. • To use [Power On by LAN], make additional settings in [Device Manager] (→ page 131) 	<u>Deny</u> Allow
Wireless Switch <ul style="list-style-type: none"> • Only for CF-C1 Series 	Disabled <u>Enabled</u>
Wireless LAN <ul style="list-style-type: none"> • Only for model with wireless LAN 	Disabled <u>Enabled</u>
Wireless WAN <ul style="list-style-type: none"> • Only for model with wireless WAN 	Disabled <u>Enabled</u>

Bluetooth <ul style="list-style-type: none"> • Only for model with Bluetooth 	Disabled Enabled
Modem <ul style="list-style-type: none"> • Only for model with internal modem 	Disabled Enabled
PC Card Slot	Disabled Enabled
Setting <ul style="list-style-type: none"> • Set the PC Card Slot operation mode. Normally select [Standard]. 	Standard Compatible
SD Slot	Disabled Enabled
Smart Card <ul style="list-style-type: none"> • Only for CF-C1 Series with Smart Card slot 	Disabled Enabled
USB Port	Disabled Enabled
Legacy USB Support <ul style="list-style-type: none"> • <CF-C1 Series> Select whether to use the function that makes the computer recognize USB keyboard, USB floppy disk drive and USB CD/DVD drive ([Enabled]) or not ([Disabled]) before starting Windows. • <CF-F9/CF-S9 Series> Select whether to use the function that makes the computer recognize, USB keyboard and USB floppy disk drive ([Enabled]) or not ([Disabled]) before starting Windows. 	Disabled Enabled
Camera <ul style="list-style-type: none"> • Only for CF-C1 Series with Camera 	Disabled Enabled
Microphone <ul style="list-style-type: none"> • Only for CF-C1 Series 	Disabled Enabled
► Tablet Button <ul style="list-style-type: none"> • Only for CF-C1 Series 	Enters the sub-menu.

Boot Menu

Boot Mode	Fast Normal
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Boot Option Priorities

<CF-C1 Series>

<Default order>

Boot Option #1	USB Floppy Disk* ¹
Boot Option #2	Hard Disk
Boot Option #3	CD/DVD Drive
Boot Option #4	LAN
Boot Option #5	USB Hard Disk
Boot Option #6	USB CD/DVD Drive
Boot Option #7	eSATA Port

<CF-F9/CF-S9 Series>

Boot Option #1	USB Floppy Disk* ¹
Boot Option #2	Hard Disk
Boot Option #3	CD/DVD Drive
Boot Option #4	LAN
Boot Option #5	USB Hard Disk
Boot Option #6	USB CD/DVD Drive

■ To change the boot order

- Press **Enter** on the boot device you want to change and select the boot device from the following menu.
 - When a selected boot device in the following menu already exists in either of the [Boot Option (#1 to #6)]^{*2}, the boot device appears at the newly selected position by switching the positions with the original boot device that existed before at the position.
 - When you select [Disabled] in the following menu, the disabled [Boot Option] is ignored and the boot device in the next [Boot Option] operates.

Hard Disk
CD/DVD Drive
LAN
USB Floppy Disk ^{*1}
USB Hard Disk
USB CD/DVD Drive
Disabled

^{*1} The operation is confirmed by Panasonic USB floppy disk drive (optional: CF-VFDU03U).

^{*2} For CF-C1 Series: [Boot Option (#1 to #7)]

Security Menu

Boot Prompt Configuration

Underlined items are the factory presets.

Setup Utility Prompt <ul style="list-style-type: none"> When [Setup Utility Prompt] is set to [Disabled], the message “Press F2 for Setup / F12 for LAN” is not displayed on [Panasonic] boot screen. However, F2 and F12 will work even if the message is not displayed. 	Disabled <u>Enabled</u>
Boot Popup Menu	Disabled Enabled
Password On Boot	Disabled <u>Enabled</u>
Password On Resume	Disabled Enabled
Boot Device on Hibernation Resume	Try prior devices <u>Hard Disk only</u>
Set Supervisor Password	Enter the sub-menu.
Hard Disk Lock <ul style="list-style-type: none"> Can be changed only when [Set Supervisor Password] is set. 	Disabled Enabled
User Password Protection	<u>No Protection</u> Protected
Set User Password <ul style="list-style-type: none"> Can be changed only when [Set Supervisor Password] is set. 	Enter the sub-menu.
▶ Embedded Security (TPM) <ul style="list-style-type: none"> Only for model that supports TPM For information on TPM, refer to the <i>Installation Manual</i> of “Trusted Platform Module (TPM)”. Click Windows 7 (Start) / Windows XP [start], input “c:\util\drivers\tpm\readme.pdf” in Windows 7 [Search programs and files] / Windows XP [Run], and press Enter .	Enter the sub-menu.
▶ Fingerprint Security <ul style="list-style-type: none"> Only for model with Fingerprint Reader 	Enter the sub-menu.
▶ AMT Configuration <ul style="list-style-type: none"> Only for model that supports AMT 	Enter the sub-menu.

Exit Menu

Save Values and Reboot	To reboot the system after saving the changes.
Reboot Without Saving Changes	To reboot the system without saving the changes.

Save Options

Save Current Values	To save the changes for all Setup options.
Load Previous Values	To load previous values for all Setup options.
Load Default Values	To return the settings to the default values.

Boot Override

(Device Information)	To select a boot device which operates only in the next booting.
----------------------	--

Windows 7

▶ Repair Your Computer	To perform system recovery tools.
▶ Diagnostic Utility	To start Diagnostic Utility.

Windows XP

You can enlarge the screen items such as characters, icons, title bars and cursor.

CAUTION

- “Icon Enlarger” will not start up if the display resolution is set lower than 1024 x 768 dots.

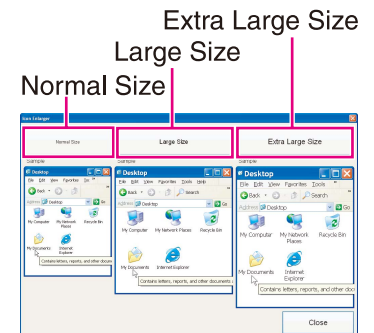
NOTE

- A part of the enlarged menu or some screen items may be hidden. In this case, overlay the cursor to display pop-ups, scroll the screen, or use other functions to display the hidden items.
- The Icon Enlarger setting affects the website characters displayed by Internet Explorer and the e-mail characters in Outlook Express. Some characters of website and e-mail may not be enlarged.

Preparation





Close all of the applications before using “Icon Enlarger”.

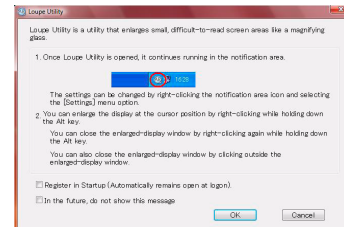
- 1 Click [start] - [All Programs] - [Panasonic] - [Icon Enlarger].**
 - 2 Select the size.**
 - 3 Click [OK].**
- The screen will be displayed in the selected size.






You can magnify the specific part of the screen.

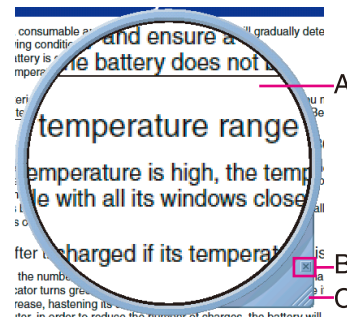
Activating the Loupe Utility

- 1 Click **Windows 7**  (Start)/ **Windows XP** [start] - [All Programs] - [Panasonic] - [Loupe Utility].
- 2 Click [OK].
 -  appears on the notification area.
 - **Windows 7** If does not  appear, click  on the notification area.



Using the Loupe Utility

- 1 Point the cursor  at the part of the screen you want to magnify.
- 2 Press and hold **Alt**, and right-click.
 - The part pointed by the cursor is magnified.
 - Alternatively you can double-click , or right-click  and click [Show Loupe].
- 3 Drag the loupe window (A) to move the magnified part.
 - To hide the loupe window, click the Hide button (B).
 - Alternatively you can click any part out of the loupe window, or press and hold **Alt** and right-click.
 - To change the loupe window size, drag the bottom-right corner (C).
The size range you can enlarge/shrink depends on the screen's resolution.



NOTE

- If you execute the scroll operation while the loupe window is displayed, the window directly below the loupe window will scroll vertically. The loupe window will not be displayed during vertical scrolling. When vertical scrolling stops, the loupe window will be displayed in the same position where it appeared before scrolling began.
- Not compatible with the horizontal scroll function in the Touch Pad utility. (→ [page 6](#))

- The magnified text or image in the loupe window is fixed at the moment that the part is magnified (e.g., at the moment you press and hold **Alt** and right-click). To reflect the change you made on the original screen to the loupe window, click the loupe window.
- The Loupe Utility does not work with some applications.

Setting the Loupe Utility

1 **Windows 7** Click  on the notification area , and right-click .

Windows XP Right-click  on the notification area.

2 Click [Settings].

[Show/hide shortcuts assignment]

- When using the external mouse/Touch Pad
 - ① Click [Mouse/Touch pad]
 - ② Click a combination of **Ctrl**, **Alt**, and **Shift**, and add the check mark. (Multiple keys can be combined; for example, **Ctrl** + **Alt**)
 - ③ Select either [Right click] or [Left click] to use in combination with the key(s) selected in step ② above.
- When using the keyboard
 - ① Click [Keyboard].
 - ② Click the text box and then press the key used for the shortcut. (e.g., **Alt** + **Z**, **Ctrl** + **Alt** + **Z**, etc.)

[Window shape]

Select the shape of the loupe window.

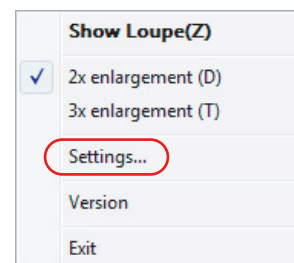
[Autorun]

You can turn on/off autorun of the Loupe Utility and the explanation window.

[Restore Defaults]

Click to restore the default settings.

3 Click [OK].



Problems with Starting Up, Shutting Down and Sleep/Standby and Hibernation

Cannot boot from a floppy disk

- Depending on the floppy disk you are using, the computer may not boot properly. The operation is confirmed by Panasonic USB floppy disk drive (optional: CF-VFDU03U) when the computer boots from the floppy disk.
- Check that the boot disk is correctly inserted.
- Run the Setup Utility, and confirm the following settings.
 - [USB Port] and [Legacy USB Support] are set to [Enabled] in the [Advanced] menu. (→ [page 152](#))
 - [USB Floppy Disk] is the first device shown in [Boot Option #1] in the [Boot] menu. (→ [page 153](#))
- Turn off the computer, and reconnect the external floppy disk drive.

Windows startup is slow

- This problem may be eliminated by adding external memory.*1
- If you install resident software after purchasing this computer, disable the resident software.
- Defragment the disk with the Disk Defragmenter.

Disk Defragmenter may take some time. (The time required will depend on the disk capacity.)


 - About the defragmentation
When files have been repeatedly written or rewritten to the hard disk, some files may become segmented and saved in fragments. If this fragmentation continues, it may take some time to read from or write to the hard disk. The Disk Defragmenter is a function that sorts these fragmented files in the most efficient order and enables you to read from and write to the hard disk quickly.
 - How to defragment disks:
 - ① Click **Windows 7** (Start) / **Windows XP** [start] - [All Programs] - [Accessories] - [System Tools] - [Disk Defragmenter].
 - A standard user needs to enter an administrator password.
 - ② **Windows 7** Click [Defragment disk].
Windows XP Click [Defragment] on the [Disk Defragmenter] screen.
Defragmentation begins. It may take a long time depending on the drive volume, etc.
 - ③ When “Defragmentation is complete...” is displayed, click [Close].


*1 The processing speed depends on the application software used, so this operation may not cause the processing speed to increase.

The computer does not enter sleep/standby or hibernation

- If a peripheral is connected, first remove the peripheral, and then enter **Windows 7** sleep/ **Windows XP** standby or hibernation. If the computer still fails to enter **Windows 7** sleep/ **Windows XP** standby or hibernation, restart the computer.
 - It may take a minute or two to enter **Windows 7** sleep/ **Windows XP** standby or hibernation. Wait for a moment.
 - The computer may not enter **Windows 7** sleep/ **Windows XP** standby properly and seems to be frozen in the mode that the computer is communicating via the modem. When you cannot execute operations, slide the power switch for four seconds or more to forcibly turn your computer off.
 - When the display is closed, the computer may not enter **Windows 7** sleep/ **Windows XP** standby or hibernation.^{*2}
In order to activate **Windows 7** sleep/ **Windows XP** standby or hibernation, set [Touch Pad] to [Disabled] in the [Main] menu of the Setup Utility. (→ [page 150](#))
 - If the computer does not enter **Windows 7** sleep/ **Windows XP** standby or hibernation, applications that prohibit **Windows 7** sleep/ **Windows XP** standby or hibernation may be running. Close all of the applications.
- ^{*2} Functions that cause the computer to automatically enter **Windows 7** sleep/ **Windows XP** standby or hibernation after a certain time interval has passed.

The computer does not power off (Windows does not shut down)

- If a peripheral is connected, disconnect it, and then shut down.
If it is possible to shut down when the peripheral is disconnected, then there may be a problem with the peripheral. Consult the peripheral manufacturer.
- Also check the items in “No response”. (→ [page 163](#))
- If it is no longer possible to shut down Windows after installing application software:
 - Windows 7**
Click  (Start) - [Control Panel] - [Uninstall a program], and remove the installed application.
 - Windows XP**
Click [start] - [Control Panel] - [Add or Remove Programs], and remove the installed application.
If it is possible to shut down when the application is removed, then consult the application software manufacturer.

- Check a disk error using the following procedure:
 - ① Remove all peripheral devices (including an external display).
 - ② **Windows 7**
Click  (Start) - [Computer], right-click [Local Disk (C:)] and click [Properties].
Windows XP
Click [Start] - [My Computer], right-click [Local Disk(C:)] and click [Properties].
 - ③ Click [Tools] - [Check Now].
 - A standard user needs to enter an administrator password.
 - ④ In [Check disk options], add a check mark for [Automatically fix file system errors] and [Scan for and attempt recovery of bad sectors], and click [Start].
The time taken to check the disk depends on the settings in [Check disk options].
If the disk check does not solve the problem, perform the reinstallation procedure and return the hard disk to its condition in the default setting. (⇒ *Operating Instructions* “Reinstalling Software”)

Windows XP

The computer does not resume

- If you slide and hold the power switch for four seconds or longer, the power will be turned off forcibly and the computer will not resume. In this case, all unsaved data will be lost.
- You disconnected the AC adaptor and the battery pack while the computer was in standby mode. If the computer's power supply is disconnected in standby mode, unsaved data will be lost and the computer will not resume.
- The battery is exhausted. Standby and hibernation consume some power.

Problems with Operation during Use

Windows operation is slow

- Also check the items in “Windows startup is slow”. (→ [page 160](#))

Cannot scroll with the Touch Pad

- If external mouse driver installed, you may not be possible to use Touch Pad. Uninstall external mouse driver.

Some applications may not work properly

- When switching to a different user with the Fast User Switching function, the following problems may occur:
 - Some applications may not work properly.
 - Key combination with the **Fn** may not work.
 - It may not be possible to set the settings of the display.
 - Personal Secure Drive function of Security Platform (TPM) may not work (only for models that supports TPM).
 - The wireless LAN cannot be used. (only for models with wireless LAN)


In this case, log off all users without using Fast User Switching function, and try the operation once more. If the problem persists, restart the computer.

- Some software applications installed after the time of purchase are not compatible with operating system. Refer to application software manufacturer homepage or other sources.
- **Windows 7**
While you are using motion video playback software, benchmark software for graphic, etc., if error screen is displayed or application software does not function normally, set [Display power saving function] to [Disabled] in [Extension setting - Edit] of [Power Plan Extension Utility].

No response

- Is there an input screen (e.g., password input screen at startup) hidden behind another window? Use the **Alt+Tab** to check for other windows being displayed.
 - Press the **Ctrl+Shift+Esc** to open Task Manager and close the software application which is not responding.
 - After sliding the power switch for at least four seconds to turn off the computer, turn on again.
- If Windows runs correctly, but the application software does not start, following procedure:

Windows 7

Click  (Start) - [Control Panel] - [Uninstall a program] and remove the failing application software, then reinstall the application software.

Windows XP

click [start] - [Control Panel] - [Add or Remove Programs] and remove the failing application software, then reinstall the application software.

Cannot play movies with the Windows[®] Media Player

- When you try to play a movie, is [Codec required] displayed?
Some video files use a Codec that is not installed as a standard. In these instances, if you play back the video file after connecting to the Internet, the Codec may be downloaded automatically, allowing you to play back the file.

Problems with Battery

The battery indicator lights red

- The remaining battery power is very low (the charge is approx. 9% or less). 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 again.

The battery indicator is blinking

- If blinking red:
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. The battery pack or charging circuit may be defective.
- If blinking orange:
 - Battery cannot be recharged temporarily because the internal temperature of the battery pack is outside the acceptable temperature range for recharging. Your computer can be used normally in this state. Once the range requirement is satisfied, charging begins automatically.
 - Software applications and peripheral devices (USB devices, etc.) are consuming too much power. Exit the software applications currently running, and remove all peripherals. Once the range requirement is satisfied, charging begins automatically.

The battery indicator is flashing

- The battery is recharging.
If [Battery Charging Indicator] in [Main] menu of the Setup Utility is set to [Flashing], the indicator will alternately become lighter and darker.

To increase the lifetime of the battery

- You can prevent deterioration of the battery pack and extend the lifetime of the battery by setting the battery's Economy Mode (ECO) to "Enabled" in [Windows 7](#) Power Plan Extension Utility/ [Windows XP](#) Economy Mode (ECO) setting utility. (→ [page 45](#))
However, when the battery's Economy Mode (ECO) is set to "Enabled", the battery pack stops charging at 80% of fully charged, so the battery operation time is shorter.
To enable/disable the battery's Economy Mode (ECO), refer to "Switching the Economy Mode (ECO)". (→ [page 46](#))

Problems with Cursor

The cursor cannot be controlled properly

- Make sure [Touch Pad] is set to [Enabled] on the [Main] menu of the Setup Utility. (→ [page 150](#))
- With the following procedure, check that no external mouse driver is installed. If it is installed, it may not possible to use the Touch Pad.

① **Windows 7**

Click  (Start) - [Computer] - [System properties] - [Device Manager].

Windows XP




Click [Start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].

② Double-click [Mice and other pointing devices].






If a name other than [Synaptics PS/2...] is displayed, then an external mouse driver is installed. Delete it, then restart the computer.

- Restart the computer by using the keyboard.

Windows 7

Press  and press  twice, and press  to select [Restart] and press **Enter**.

Windows XP

Press , **U**, and select [Restart] with    , then press **Enter**.

If the computer does not respond to keyboard commands, read “No response”. (→ [page 163](#))

The cursor moves randomly

- Check that no external mouse driver is installed. Refer to steps ① and ② under “The cursor cannot be controlled properly”. (above)
- Do not press the area around the display. The cursor may move to the edges of the screen.

The cursor cannot be moved with a connected mouse

- Check that the mouse is correctly connected.
- Install the driver for the connected mouse.
For details of the mouse driver, consult the mouse manufacturer.
(In some cases, later versions may be available.)
If operation is not correct even after installing the driver, set [Touch Pad] to [Disabled] in the [Main] menu of the Setup Utility. (→ [page 150](#))

Problems with Display

Screen is too dark or too bright

- Press **Fn** + **F2** or push ☀️ (LCD Brightness Up) button (For CF-C1 Series) (becomes brighter).
Press **Fn** + **F1** or push ☁️ (LCD Brightness Down) button (For CF-C1 Series) (becomes darker).
- If the screen becomes darker after disconnecting the AC adaptor:
The computer has different set brightness levels for when the AC adaptor is connected and for when it is not connected. Based on the settings in the default setting, the screen will become darker when the AC adaptor is removed. If you press **Fn** + **F2** to increase the brightness when the AC adaptor is not connected, this brightness is maintained, and determines the brightness next time the AC adaptor is disconnected.
(Making the display brighter shortens the battery operating time.)
- If you make the display brighter when the AC adaptor is not connected, the battery operation time will become shorter.

There are red, green, or blue dots on the screen, or display defects (always-on pixels or always-off pixels)

- This is not a malfunction.
High-precision and advanced technologies are necessary for 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), this is not considered a defect.

Nothing is displayed on the screen

- Check if the power-saving mode is active.
 - If the power indicator is lit:

The display is turned off. Press a key with no independent effect, such as **Ctrl** or **Shift**.
Do not use a key that may make a selection (**Enter**, **Space**, **Esc**, **Y**, **N**, numeric keys, and so on).
 - If the power indicator is blinking or is not lit:

The **Windows 7** sleep/ **Windows XP** standby or hibernation is entered. Slide the power switch.
- Disconnect the external display before checking a disk error (→ [page 162](#)) or before using commercially available partitioning software. If you run this software with the external display still connected, in some cases, nothing will be displayed on the screen. If this occurs, wait until the process is complete and the screen display returns.
- The display destination may be set to the external display.

Try changing the display destination by pressing **Fn** + **F3**.
If you want to switch the display destination repeatedly by pressing **Fn** + **F3**, make sure that the display destination has switched completely each time before pressing **Fn** + **F3** again.
- The screen may become darker. Press **Fn** + **F2** to make the screen brighter.
- The screen remains dark, if the computer is resumed through either USB device, wired LAN or wireless LAN.

Press a key with no independent effect, such as **Ctrl** or **Shift**.
Do not use a key that may make a selection (**Enter**, **Space**, **Esc**, **Y**, **N**, numeric keys, and so on).
- When the display is rotated and the screen saver starts, the screen may go black for approximately 1 minute, depending on the type of screen saver. Change the type of screen saver.

There is an afterimage

- Display a different screen.

If the same screen is displayed for a long time, this may leave an afterimage.

The screen becomes disordered

- The screen display may become distorted if the resolution or number of colors is changed, or if an external display is connected or disconnected while the computer is operating. Restart the computer.

Windows XP Switching between internal and external displays does not work

- The display destination cannot be switched while a video such as an MPEG file and a DVD Video are playing. Stop playing the video before switching the display destination.

The LCD brightness changes a number of times when the AC adaptor is disconnected

- Intel(R) video driver power saving function (Intel(R) Display Power Saving Technology) is active and automatically changes the LCD brightness.



Image colors are not reproduced as expected when displaying photographs or other images

- We recommend disabling the [Intel(R) video driver power saving function (Intel(R) Display Power Saving Technology)].

Nothing appears on the external display, or the display is not correct

- Check that the external display cables are correctly connected.
- Check that the external display is turned on.
- Check that the external display settings are correct.
- 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 this case, turn on the external display again. However, in the case of some external displays, the screen display may be distorted or the mouse cursor may not be properly displayed depending on the settings. In this case, try setting the number of colors, screen area (resolution), and refresh rate to smaller values.

Windows 7 Takes long time to display the [Power Option] screen

- Perform the following steps to confirm whether the number of Power Plan Extension Utility configurations created when using Power Saving Utility has reached 100 or more.
 - ① Click  or  and then click [More power options].
When more than one power plan is displayed, click [Change plan settings] for the power plan you want to delete and click [Delete this plan].

The [Panasonic] boot screen is not displayed on the external display

- As soon as the computer starts up, press **F2** or **Del** several times and start the Setup Utility.

Problems with Input



Pressing a letter key produces a number

- The computer may be in ten-key mode.
If NumLk indicator  lights up, press **NumLk**, to disable the ten-key mode, and then input.

Only capital letters are being input

- The computer may be in Caps Lock mode.
If Caps Lock indicator  lights up, press **Caps Lock**, to disable the Caps Lock mode, and then input.

How to input European characters (ß, à, ç etc.), symbols or Euro currency symbol is unclear

- With the following procedure, enter a character using the code table.
 - ① Click  (Start)/  [start] - [All Programs] - [Accessories] - [System Tools] - [Character Map].
 - ② Point to the desired font name, such as European fonts, and select it.

Combined key operations with the Fn key do not work

- Check whether [Fn/Ctrl Key] is set to [Replace] in the [Main] menu of the Setup Utility. (→ [page 150](#)).
Change the setting back to [Normal], or if continuing with [Replace] selected, use **Ctrl** in place of **Fn**.

<CF-C1 Series>

Cannot point the correct position using the pen (included)

- Perform the screen calibration. (→ [page 15](#))



<CF-C1 Series>

When you want to use the input panel

Windows 7

- Touch the screen, Input Panel (a part of) may appears at left side on display.

Windows XP

- Click  on the taskbar. For information about how to use it, click  on the input panel and click [Help Topics] or [Tutorial].

Problems with Disk and Drive

Unable to read/write to the hard disk

- Your drive or file may not have been properly set.
- Check if there is sufficient space on the hard disk.
- Check that the account with which you are logged on has read and write permissions.
- Your hard disk content may be corrupted. Contact your technical support office.

To check an internal hard disk error

- Disconnect all peripheral devices, including the external display, and check a disk error. (→ [page 162](#))

<CF-F9/CF-S9 Series>

Cannot boot from internal CD/DVD drive

- Check to make sure that the bootable disc is set properly.
- Start up the Setup Utility, and confirm the following settings.
 - [Optical Drive] is set to [Enabled] in the [Advanced] menu. (→ [page 151](#))
 - [Optical Drive Power] is set to [On] in the [Main] menu. (→ [page 150](#))
 - [CD/DVD Drive] is the first device shown in [the boot order] in the [Boot] menu. (→ [page 154](#))
- When an external CD/DVD drive is connected, you cannot boot from the internal CD/DVD drive.



<CF-F9/CF-S9 Series>

Cannot play back TV programs recorded on a commercial DVD recorder

- In order to play media other than DVD-RAM, they must be finalized using the DVD recorder.
- Check whether the DVD is supported in this computer. (→ [page 73](#))

<CF-F9/CF-S9 Series>

The CD/DVD drive indicator does not light/blink

- Check that the disc is inserted correctly.
 - The drive power may be turned off.
The drive power can be turned on with the following methods.
 - Slide the drive power/open switch and open the disc cover.
- Windows 7**
- Click  on the notification area, and confirm [On] in [Manual switching] of [The optical disc drive's power].
- Windows XP**
- Right-click  on the notification area, and click [On] in [Manual Switching].
- In the Setup Utility, is [Optical Drive Power] set to [Off]? (→ [page 150](#))
If this is set to off, unless Windows is running, it is not possible to turn on the drive.

<CF-F9/CF-S9 Series>

Disc playback and writing is not possible



- Make sure the inserted disc is a compatible media type. For more about compatible media types, see “Disc Information” (→ [page 73](#)).
- You may need to clean the disc.
 - Cleaning the disc (→ [page 69](#))
- Check whether the disc is distorted, damaged, or dirty.
- When inserting a disc, follow the procedure below. Make sure the disc is inserted securely.
 - ① Slide the drive power/open switch, and open the disc cover.
 - ② Slide the disc into the drive under the keyboard with the label side up.
 - ③ Press firmly on the center of the disc until you hear it click into place.

<CF-F9/CF-S9 Series>

When a disc is inserted, it is not played automatically

- Remove the disc and reinsert it.
 - If an AutoPlay CD does not start after the computer resumes from the sleep or hibernation, remove the disc from the drive, then reinsert the disc again after a 15 second wait.

Windows 7

- Follow the procedure below.
 - ① Click  (Start) - [Control Panel] - [Hardware and Sound] - [Play CDs or other media automatically].
 - ② Click right  of the item you want to automatically play and choose the action to play.
 - ③ Click [Save].

If the problem persists, refer to the disc's operating instructions or other sources to play the disc.

Windows XP

- In the CD/DVD drive properties, click [AutoPlay], and when [Take no action] is set under [Select an action to perform], select the items to be played automatically.

<CF-F9/CF-S9 Series>

If the CD/DVD drive vibrates excessively or is noisy

- Is the disc bent or labeled?
- Check to see if the disc is inserted correctly, and is in good condition.
- When writing to CD-R/RW using Roxio Creator LJB, you can minimize vibration while writing by using the writing speed at [8x] or less.

<CF-F9/CF-S9 Series>

The CD/DVD drive cannot be turned on or off

- After turning off the CD/DVD drive, did you try to turn it on again immediately?
After turning off, you must wait for about 20 seconds until it is possible to turn on (or open the disc cover).

Windows XP

- If the drive does not automatically power off after ejecting the disc, use [Manual Switching] to turn it off.

Windows 7

- During writing or reading of a disc, it is not possible to turn off using [Manual switching] of [The optical disc drive's power]. When WinDVD is running, the CD/DVD drive cannot be turned off by [Manual switching] in [The optical disc drive's power] of Power Plan Extension Utility.

Windows XP

- In the following cases, it is not possible to turn off using [Manual Switching] of the Optical Disc Drive Power-Saving Utility:
 - When WinDVD is running
 - During writing or reading of a disc
 - When the drive is being used by an application such as Roxio Creator LJB

<CF-F9/CF-S9 Series>

Cannot eject disc

- Check that the computer is turned on.
The drive power/open switch works only when the computer's power is on.
When [Optical Drive Power] is set to [Off] in the Setup Utility, it is not possible to open the disc cover unless Windows is running.
- Press the center of the disc cover to confirm that the disc cover is locked firmly.
The disc cover will only open if it is in the firmly locked position.
- To remove a disc when the computer is turned off, insert a pointed object (e.g., the bent-out tip of a paper clip, or the tip of a pencil or ballpoint pen) into the emergency hole on the bottom, and then move (→ [page 77](#)).

Problems with Sound

The sound is not heard

- Try changing the mute by pressing **Fn + F4** or **Fn + F5** / **Fn + F6**.
- With the following procedure, check that the Windows sound function is operating.
(If it is not operating, pressing **Fn + F5** or **Fn + F6** displays the pop-up icon shown on the right, but there is no sound.)







① Windows 7

Click  (Start) - [Computer] - [System properties] - [Device Manager].

Windows XP

Click [Start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].

② Double-click [Sound, video and game controllers] and check if or is displayed.

If  or  is displayed, click the driver for which  or  is shown, press **Del**, and click [OK] in the confirm deletion screen. Then restart the computer.

To change the volume

- Press **Fn + F5** (to lower the volume) or **Fn + F6** (to increase the volume).

<CF-C1 Series>

A clacking sound is heard while operating the screen with the pen (included)








- The built-in microphone is picking up the pen operation sounds.
Mute the microphone.

The audio is distorted

- During audio playback, operating a key with **Fn** may cause distortion of the sound. Stop playing and start again.






Windows 7

The sound function is not working.

- If the sound is not output by pressing **Fn + F4** or **Fn + F5** / **Fn + F6**, take the following steps to check if the Windows sound function is working.
 - ① Click  (Start) - [Computer] - [System properties] - [Device Manager].
 - ② Double-click [Sound, video and game controllers] and Check whether  or  is shown for the devices.
If is  or  shown: Click  or  drivers are displayed, please remove the driver.

Problems with Peripherals

Your peripheral does not work

- Check that the drivers are installed for the connected devices.
 - ① **Windows 7**
Click  (Start) - [Computer] - [System properties] - [Device Manager].
Windows XP
Click [Start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].
 - ② Check whether  or  is shown for the devices.
If  or  is shown:
Try removing and inserting the device once more. If the problem persists, restart the computer.
- Check the peripheral manufacturer's homepage or other sources to see if a driver update is available.
- After installing the driver, be sure to restart the computer.

- Depending on the device connected, the computer may not recognize when the device is connected or disconnected, or the device may not operate properly.

Use the following procedure:

① **Windows 7**

Click  (Start) - [Computer] - [System properties] - [Device Manager].

Windows XP

Click [Start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].

- ② Select the applied device, and 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.)

- When operation resumes from the **Windows 7** sleep/ **Windows XP** standby or hibernation, devices such as an external mouse, modem or PC Cards may not function properly. In such cases, restart your computer.
- If it still does not work after checking the above items, consult the peripheral manufacturer.

An error occurs while installing the driver

- Check that the driver is supported by the operating system. If you use an incompatible driver, malfunction may occur.
- Set the [Execute-Disable Bit Capability] to [Disabled] in the [Advanced] menu of the Setup Utility. If the error is not resolved, it is possible that the driver being used is not compatible with the Data execution prevention function. For a driver, consult the peripheral manufacturer.

The device will not operate properly if a different mouse driver is installed

- 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.
- If not using the Touch Pad, and using an external mouse only, set [Touch Pad] to [Disabled] in the [Main] menu of the Setup Utility. (→ [page 150](#)) And uninstall the mouse driver that is installed on this computer.

A PC Card does not work

- Confirm that the card conforms to the PC Card Standard.
- Make sure the card is properly inserted (→ [page 87](#)).
- Some PC Cards may not be recognized correctly. In this case, set [Setting] to [Compatible] in the [Advanced] menu of the Setup Utility. If the problem persists, set [Setting] to [Standard] in the [Advanced] menu of the Setup Utility and contact your technical support office.
- Check that the proper port settings have been made.

① **Windows 7**

Click  (Start) - [Computer] - [System properties] - [Device Manager].

Windows XP

Click [Start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].

② Double-click [PCMCIA adapters], and double-click the relevant device.

In [Resources], if [Conflicting device list] shows [No conflicts], there is no conflict.

- Read the instructions supplied with the PC Card, or consult the PC Card manufacturer.
- Check that you are using a driver supported by the operating system.

You do not know the available RAM module

- Refer to “Expanding Memory” (→ [page 93](#)).

Microsoft Windows Logo Authentication is not obtained

- If “This driver is not digitally signed!” message is displayed, the driver you attempt to install may not have obtained Microsoft Windows Logo Authentication. Consult the peripheral manufacturer.

To check if the additional RAM module has been installed successfully

- If the installation is successful, the main memory and total RAM module size appears in the [Information] menu of the Setup Utility (→ [page 149](#)).
- If the RAM module is not confirmed:
 - Turn the computer off and reinsert the RAM module.
 - Confirm the recommended specifications.Regarding the RAM module, refer to “Expanding Memory” (→ [page 93](#)).

The address map for IRQ, I/O port address, etc. is unclear

- You can check with the following procedure.

① Windows 7

Click  (Start) - [Computer] - [System properties] - [Device Manager].

Windows XP

Click [start] - [Control Panel] - [Performance and Maintenance] - [System] - [Hardware] - [Device Manager].

② Click [View] - [Resources by type].

Windows XP A device connected to a PC Card does not operate correctly (e.g. unstable video images when writing videos to a DV camera using IEEE1394 PC Card)

- This may occur because of performance degradation as a result of the CPU power-saving function. Execute the following operations after logging on to Windows as an administrator.
 - ① Input [c:\util\cpupower\setup.exe] in [Start] - [Run], and then click [OK].
Follow the on-screen instructions.
 - ② Click [start] - [All Programs] - [Panasonic] - [CPU Idle Setting].
 - ③ Click [Performance], click [OK] and then click [Yes].
The computer will be restarted automatically.
 - If these phenomena occur even with the above settings, click [start] - [Control Panel] - [Performance and Maintenance] - [Power Options] - [Power Schemes], click [Always On] from [Power schemes], and click [OK].
 - These operations will be helpful in easing the performance losses resulting from CPU power-saving functions, but will not be effective against the phenomena resulting from other causes. (e.g., noise generated during periods of exceptionally high load on the CPU, such as during video playback)
 - When these operations are performed, the battery running time will be reduced to some extent. We thus recommend that when these phenomena do not occur, you should select [Battery (Windows XP Standard)] in [CPU Idle Setting], and return [Power schemes] in [Power Options] to [Panasonic Power Management].
As a result of the LAN communications speed being extremely low, or a wireless LAN connection being lost, if the CPU power-saving setting is set, then when the LAN or whatever is not used, it is recommended to return to the above settings.

Problems with Fingerprint Reader (Only for model with Fingerprint Reader)

Sensor does not work

- Exported passport can help you if you need to replace the sensor.
 - Log on to Windows as an Administrator.
You can always access the computer by using your Windows log on password. In convenient mode, any user can access the computer by using your Windows log on password.
 - To access [File Safe], [Personal Safe]
[File Safe] can be always accessed by using the [File Safe] backup password. [Personal Safe] can be always accessed by using the [Personal Safe] backup password.
 - Other functions
Replace/Repair the sensor, then follow the instructions in section “Replacing sensor.” (→ [page 179](#)).

Some limited functions (e.g. deleting passport) are available without a functional sensor. In case of deleted operation, it is necessary to cancel the fingerprint verification operation to get to the password dialog.

User cannot use enrolled finger. (e.g. injury)

- It is strongly recommended to enroll at least two fingers to avoid this problem. If you enrolled multiple fingers, simply use other finger. If you only enrolled one finger that can be used, we recommend to use the [Manage Fingerprints] wizard and enroll additional fingerprints. If none of your enrolled fingers can be used, follow this procedure:
 - ① Log on to Windows as an Administrator.

You can always access the computer by using your Windows log on password. In convenient mode, any user can access the computer by using your Windows log on password.
 - ② Update the enrolled fingerprints.


To be able to fully use Protector Suite, you need to have usable enrolled fingerprints. Enter the [Manage Fingerprints] wizard.

 - If you do not use backup password, you can still enter using the Windows password.
 - If you use backup password, you can enter using the backup password.
 - If you do not use backup password, there is no other way to add a different fingerprint. In this case we recommend either to wait until your finger is usable again (e.g. the injury heals), or to delete the passport (Use [Delete user data] wizard) and then reenroll new fingerprints.

Please note that in the latter case all your stored secret data (passwords, [File Safe] encryption keys [Personal Safe] data) will be lost. To perform the delete operation it is necessary to cancel the fingerprint verification operation to get to the password dialog, then enter your Windows log on password.
 - To access [File Safe], [Personal Safe]

If you did not perform the procedure in step ② or it did not work, you can still access [File Safe] by using the [File Safe] backup password, [Personal Safe] by using the [Personal Safe] backup password.

TPM failure

- If you use fingerprint authentication with TPM (Trusted Platform Module) and TPM is broken, erased or disabled, the [Multifactor] will not work anymore. If you do not use the [Multifactor] backup password, refer to “Starting Over” (→ [page 115](#)). Otherwise, if you use backup password, you can follow these steps:
 - ① Click **Windows 7**  (Start)/ **Windows XP** [start] - [All Programs] - [Protector Suite] - [Control Center].
 - ② Click [Identity] - [Multifactor].
 - ③ Set the method of authentication except for “fingerprint + TPM *.*”.

Replacing sensor

- If you need to replace a non-functioning fingerprint reader, follow this procedure.

Enrollment to the hard disk:

If enrollment to hard disk is used, “Protector Suite” has not stored any data on the device and therefore has no problem to continue after you replaced the sensor. However, in case you use the Power-on security (Preboot Authentication), you may need to use the [Manage Fingerprints] wizard to update the related data.


Enrollment to the device:

If the fingerprint has been enrolled to the device, a new passport will be required. Follow the procedure in the section “Starting Over” (→ [page 115](#)).

Protector Suite reinstallation

- Uninstall Protector Suite (→ [page 114](#)) before reinstalling it. After uninstallation, reinstall Protector Suite (→ [page 108](#)).
- During Protector Suite uninstallation, you can select whether to delete the Protector Suite Data - including passports.
- To use password data or “Password Bank” data after reinstalling Protector Suite, select [Leave Protector Suite *.* data for later use]. After the new installation, you will be able to use your data again.
- If you select [Remove all Protector Suite *.* data], you need to enroll fingerprint data again after reinstalling Protector Suite. In case of changing the Enrollment mode, reinstalling Protector Suite is necessary.

Lost [File Safe] backup password

- It is necessary to change the backup password for [File Safe], refer to the Protector Suite Help menu.
- Click [Windows 7](#)  (Start)/ [Windows XP](#) [start] - [All Programs] - [Protector Suite] - [Control Center] - [Help] - [Help].

Accessing [File Safe] after Protector Suite uninstallation

- [File Safe] data can be accessed only using Protector Suite. If you accidentally uninstalled Protector Suite, you have to reinstall it. If passport data was not removed during uninstallation, everything will work automatically including [File Safe]. If the passport data was removed during uninstallation the [File Safe] will recognize that the installation was changed and will offer to use the backup password, instead.




Accessing [File Safe] after computer crash

- If you have an exported passport, import it now so you can access [File Safe] directly using fingerprints. Otherwise you can access [File Safe] using the [File Safe] backup password: [File Safe] will recognize that the installation was changed and will offer to use the backup password, instead.

Removing data from the reader

- When enrollment to the device is used, passport data is stored to the device. To remove it, go to the [Delete user data] passport wizard and delete existing passports.

“Lift Finger” is displayed during operation

- You can temporarily disable the fingerprint sensor with the following procedure.
 - ① **Windows 7** Click  on the notification area and then right-click the “Fingerprint software” icon .
 - ② Select [Don't Use Sensor].
- The icon turns gray.
- To enable the fingerprint sensor, proceed as follows.
 - ① Right-click the “Fingerprint software” icon .
 - ② Select [Use Sensor].

Problems with General Network

Unable to connect to a network

- Check that the network you are using ([Modem], [LAN], [Wireless LAN], [Wireless WAN] or [Bluetooth]) is set to [Enabled] in the [Advanced] menu of the Setup Utility (→ [page 151](#)).
- Restart the computer.
- 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.
- If the hub unit link lamp does not light up, one of the following problems may have occurred.
 - A problem or failure in the hub unit
 - Incorrect cable type or incorrect connection
 - A break in the cable
- Right-click the Wireless Switch Utility icon (→ [page 134](#)). If [Wireless LAN OFF] has been checked, click [Wireless LAN ON]. If only one wireless function is equipped, this menu is not displayed. The power is turned on with the wireless switch only.

Cannot check the computer's MAC address

- Check the computer's MAC address using the following procedure:
 - ① Check that the LAN or wireless LAN is not disabled in the Setup Utility or the Device Manager.

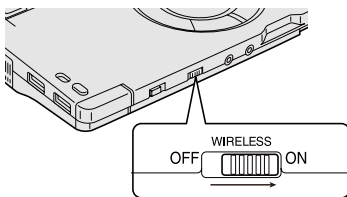
- ② Click **Windows 7** (Start)/ **Windows XP** [start] - [All Programs] - [Accessories] - [Command Prompt].
- ③ **Windows 7** Input [getmac /fo list /v], and press **Enter**.
 - Insert a space between “fo” and “list”, and between “list” and “/v”.
- Windows XP** Input [ipconfig /all], and press **Enter**.
- ④ Wireless LAN's MAC address:
Make a note of the 12-digit string of alphanumeric characters displayed on the wireless LAN's “Physical Address” line.
LAN's MAC address:
Make a note of the 12-digit string of alphanumeric characters displayed on the LAN's “Physical Address” line.
- ⑤ Enter “exit”, and press **Enter**.

Problems with Wireless LAN (only for models with wireless LAN)

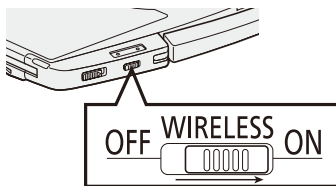
Access point is not detected

- Shorten the distance between the computer and the access point, and try the detection again.
- Confirm the following settings:
 - [Wireless LAN] in the [Advanced] menu of the Setup Utility
Confirm that [Wireless LAN] is set to [Enabled]. (→ [page 151](#))
 - Wireless LAN power supply
Slide the wireless switch to the right (ON).

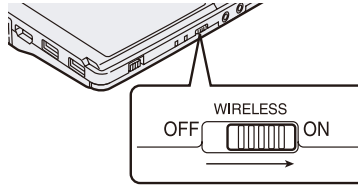
<CF-C1 Series>



<CF-F9 Series>



<CF-S9 Series>





- This computer uses channels 1 through 11^{*3} when using IEEE802.11b/g. Check the channel being used by the access point.
- If there are more than one wireless function equipped, right-click the Wireless Switch Utility icon (→ [page 134](#)) and confirm that [Wireless LAN ON] has been checked.

^{*3} 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.




Cannot communicate with the access point

- Using the following procedure, confirm whether the computer's protocol settings are correct (only when using TCP/IP).

Windows 7

- ① Click  or  on the notification area, and click [Open Network and Sharing Center].
- ② Click [Change adapter settings].
- ③ Right-click [Wireless Network Connection] and click [Properties].
 - A standard user needs to enter an administrator password.
- ④ Click [Internet Protocol Version 4 (TCP/IPv4)] and click [Properties].
- ⑤ Confirm the protocol settings such as IP address, and do the settings properly again.

Windows XP

- ① When  is displayed on the notification area:
Right-click , and click [Open Network Connections].
When  is not displayed on the notification area:
Click [start] - [Control Panel] - [Network and Internet Connections] - [Network Connections].
- ② Right-click [Wireless Network Connection], and click [Properties] - [General] - [Internet Protocol (TCP/IP)] - [Properties].

Confirm the protocol settings, such as IP address, and do the settings properly again.

- 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 (→ [page 180](#)) and register it according to the operating instructions of the access point.

The communications speed is low

- Communication speed may decrease if, aside from the access point to which this computer is connected, there is another access point nearby using the same channel or a similar channel. Change the channel on the connection access point, and check to see if the speed recovers. Confirm method for changing channels using the access point manual.
- The communications speed may be reduced for the following reasons. Shorten the distance between the computer and the access point.
 - IEEE802.11g or IEEE802.11b may be affected by a microwave oven or similar, reducing the communications speed while the microwave oven is in operation.
 - **Windows XP**
IEEE802.11a is more susceptible to interference than IEEE802.11g or IEEE802.11b, and therefore the communications speed may be reduced if there is a wall between the computer and the access point or if the computer is further away.

- When using a wireless LAN in an environment that combines both IEEE802.11g and IEEE802.11b, communication speed when using IEEE802.11g may decrease.
- If you use a best-effort type service for internet connection, the communication speed may become slower than the nominal speed depending on the operating conditions.
- **Windows XP**
Using the CPU Idle Setting to set to [Performance] may improve this problem.
See “A device connected to a PC Card does not operate correctly” (→ [page 177](#)).

Communications with access point are cut off

- Shorten the distance between the computer and the access point, and try the detection again.
- If there are multiple access points aside from the access point to which this computer is connected, confirm that different channels have been set for each access point.
- **Windows XP**
Using the CPU Idle Setting to set to [Performance] may improve this problem.
See “A device connected to a PC Card does not operate correctly” (→ [page 177](#)).


Cannot set wireless LAN to [Enabled] or [Disabled]

- It may become impossible to set the wireless LAN to [Enabled] or [Disabled] if these settings are changed repeatedly on the [Network Connections] screen. In this case, restart the computer.
- Press **F9** in the Setup Utility. This will restore the Setup Utility's settings to their default values (except the password settings).

Windows XP



is not displayed (or has disappeared)

- To display , perform the following procedure.
 - ① Click [start] - [Control Panel] - [Network and Internet Connections] - [Network Connections].
 - ② Right-click [Wireless Network Connection], and click [Properties].
- Add a check mark for [Show icon in notification area when connected], and then click [OK].

If the hardware installed in this computer is not operating properly, you can use the PC-Diagnostic Utility to determine whether or not there is a problem.

If the utility discovers a problem in the hardware, contact your technical support office.

Hardware that can be checked using the PC-Diagnostic Utility

Hardware below can be checked using this utility. (Software cannot be checked.)

- CPU
- Memory
- Hard Disk
- CD/DVD Drive*¹
- Video Controller
- Sound*²
- Modem*³
- LAN
- Bluetooth*⁴
- Wireless LAN*⁵
- Wireless WAN*⁶
- USB
- PC Card Controller
- SD Card Controller
- Smart Card*⁷
- Keyboard
- Touch Pad
- Touchscreen*⁸

*¹ Only when a port replicator with CD/DVD drive is connected. (CF-C1 Series)

*² When the PC-Diagnostics Utility is running a loud beep will sound, so do not use headphones as this time. Note that a loud beep will also sound when headphones are not used. (The beep will not sound if mute is using Windows.)

*³ Only for model with internal modem

*⁴ Only for model with Bluetooth

*⁵ Only for model with wireless LAN

*⁶ Only for model with wireless WAN

*⁷ Only for model with Smart Card

*⁸ Only for model with touchscreen (The display icon is displayed as “Touch Screen” for the model with digitizer as well.)

- When the video diagnostic check is running, the display may flicker heavily or be distorted. When the audio diagnostic check is running, sounds such as a loud beep may be generated from the speaker. These are not malfunctions.

Regarding the PC-Diagnostic Utility

NOTE

- Only for the hard disk, keyboard and touch pad, you can select standard diagnostic check or extended diagnostic check.
When the PC-Diagnostic Utility starts up, it will run the standard diagnostic check.
- We recommend that you use the touch pad for operations. When not using the touch pad, you can operate using the internal keyboard instead. Note, however, that the touch pad and internal keyboard may not function temporarily during diagnostic check. If this happens, wait for a moment before operating them.

Operations	Touch pad operations	Internal keyboard operations
Select icon	Place the cursor above the icon	Press Space , and then press → ← ↑ ↓ (<input type="checkbox"/> (close) cannot be selected)
Click the icon	Tap or click (right click cannot be used)	Press Space above the icon
Complete the PC-Diagnostics Utility and then restart the computer	Click <input type="checkbox"/> (close)	Press Ctrl + Alt + Del

- If the touch pad does not operate properly, press **Ctrl** + **Alt** + **Del** to restart the computer, or press the power switch to turn the power off, and then restart the PC-Diagnostic Utility.

Running the Diagnostic Check

Run this utility using the default settings in the Setup Utility.

If the Setup Utility or other settings will not allow hardware to be executed, the hardware icon will be displayed in gray.

- 1 Connect the AC adaptor, and turn on the wireless switch (→ page 133).**
During the diagnostic check, do not remove the AC adaptor, or attach any peripheral devices.
- 2 Turn on or restart the computer, and press **F2** or **Del** while [Panasonic] boot screen is displayed.**
The Setup Utility starts up.
 - If the password is requested, enter the Supervisor Password.
 - If you are using the computer after changing the settings from the status at the time of purchase, we recommend that you make a note of the settings that are changed.
- 3 Press **F9**.**
At the confirmation message, select [Yes] and press **Enter**.

4 <CF-F9/CF-S9 Series>

Select the [Main] menu, then select [Optical Drive Power] and press **Enter**.

5 <CF-F9/CF-S9 Series>





Select [On] and press **Enter**.

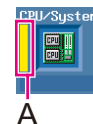
6 Press **F10**.

At the confirmation message, select [Yes] and press **Enter**.
The computer will restart.


7 While [Panasonic] boot screen is displayed, press and hold **Ctrl + F7** until “Please Wait” appears at the bottom of the display.

When the PC-Diagnostic Utility starts up, it will automatically begin the diagnostic check for all hardware components.


- If the password is requested, enter the password.
- The touch pad and the internal keyboard may not be used when each hardware checking is running. While checking, blue and yellow colors are displayed on the left side of the hardware icon (A).
- By clicking the icon, you can execute the following operations:
 -  : Start the diagnostic check from the beginning
 -  : Stop the diagnostic check (You cannot restart the check partway through by clicking )
 -  : Display help (click the screen or press **Space** to return to the original diagnostic check screen)
- You can check the status of the diagnostic check by the display color on the left side of the hardware icon (A).
 - Aqua: Not running diagnostic check
 - Alternating blue and yellow: Currently running diagnostic check. The interval of the alternating colors differs depending on the type of diagnostic check currently running.
During memory diagnostic check, the display may freeze for a long period of time. Wait until the process is complete.
 - Green: No problems discovered
 - Red: Problems discovered



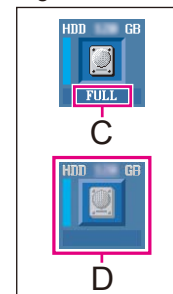
NOTE

- Using the following procedure, you can run a diagnostic check on a specified hardware component, or run an extended diagnostic check on the hard disk, keyboard and touch pad (You do not need to perform the extended diagnostic check for the keyboard and touch pad in normal use.). The extended diagnostic check on the hard disk is more detailed, and so requires a longer period of time to run.
 - ① Click  to stop the diagnostic check.



- ② Click the icon for the hardware that is not to be checked, so that the icon is displayed in gray (B). When running a check on the memory or the hard disk, clicking the icon once will turn on the extended diagnostic check (“FULL” (C) will be displayed below the icon); click again, and the icon will be displayed in gray (D).
- ③ Click  to start the diagnostic check.

e.g. hard disk



8 When all the hardware has been checked, confirm the diagnostic check results.

If the display is red and the message “Check Result TEST FAILED” is displayed, you can assume that there is a problem with the computer’s hardware. Confirm which hardware component is displayed as red, and contact your technical support office.

If the display is green and the message “Check Result TEST PASSED” is displayed, the computer’s hardware is operating normally. Continue using the computer as it is. If the computer still does not operate properly, reinstall the software (⇒ *Operating Instructions* “Reinstalling Software”).

NOTE

- If you run a memory diagnostic check after installing a new RAM module (sold separately) and the message “Check Result TEST FAILED” is displayed:
Remove the additional RAM module and run the diagnostic check again. If the message “Check Result TEST FAILED” is still displayed, you can assume that there is a problem with the internal RAM module.

9 After the diagnostic check is complete, click (close), or press **Ctrl + Alt + Del** to restart the computer.


Windows 7

[Backup and Restore Center] and [System Recovery Options] allow you create a backup of the entire hard disk data, which can be used to recover from hardware failure.

Panasonic Corporation will bear no responsibility for any damage suffered (including loss of data) as a result of the use of this function.

Creating a Backup of the Hard Disk Data

To create a backup of the entire hard disk to another storage media (e.g., external hard disk): Follow the steps below.

- ① Click  (Start) - [Control Panel] - [Back up your computer].
- ② Click [Create a system image].
- ③ Select a location for backup and click [next].
Follow the on-screen instructions.


NOTE

- Connect the AC adaptor and do not remove it until backup is complete.

Restoring the Hard Disk Data

NOTE

- This function does not work when you turn on the computer for the first time or just after you reinstall Windows. Start and shut down Windows 7, and then you can use the function.
- When you forget the administrator account password or you need to restore the recovery partition, use Product Recovery DVD-ROM Windows 7.
- Connect the AC adaptor and do not remove it until restoration is complete.
- If Windows does not start up, run [System Recovery Options] and then click [System Image Recovery] (→ [page 189](#)).

- 1** Click  (Start) - [Control Panel] - [Back up your computer].
- 2** Click [Recover system settings or your computer].
- 3** Click [Advanced recovery methods].
- 4** Click [Use a system image you created earlier to recover your computer].
 - A standard user needs to enter an administrator password.

5 If you backup your files, click [Back up now].

- If you do not backup your files, click [Skip].

6 Click [Restart].

- The computer will restart.
If [Enter Password] is displayed during the following procedure, input the Supervisor Password or the User Password.

7 Click [Next].

Do not specify keyboard layouts other than the one already selected.

8 If [Windows cannot find a system image on this computer] appears, connect to this unit the storage media (e.g. external hard disk) on which the system image has been backed up, and then click [Retry].

9 Click [Next].

Follow the on-screen instructions.

■ Start up System Recovery Options

- To perform from [Advanced Boot Options]
 - ① Turn on the computer, and when [Panasonic] boot screen disappears, press and hold **F8**.
 - If [Enter Password] is displayed during the following procedure, input the Supervisor Password or the User Password.
 - ② Release your finger when [Advanced Boot Options] is displayed.
 - ③ Press **↑** **↓** to select [Repair Your Computer] and press **Enter**.
[System Recovery Options] appears.
 - ④ Click [Next].
 - Do not specify keyboard layouts other than the one already selected.
 - ⑤ Select the user name registered on Windows.
 - ⑥ Input the password, then click [OK].
- To perform from the Product Recovery DVD-ROM Windows 7.
 - ① <CF-C1 Series>
Turn off the computer and connect CD-DVD drive or port replicator to the computer.
 - ② Turn on the computer, and press **F2** or **Del** while [Panasonic] boot screen is displayed.
 - The Setup Utility starts up.
 - If the password is requested, enter the Supervisor Password.
 - ③ Write down all of the contents of the Setup Utility and press **F9**.
 - At the confirmation message, select [Yes] and press **Enter**.

- ④ <CF-F9/CF-S9 Series>
Select the [Main] menu, then select [Optical Drive Power] and press **Enter**.
- ⑤ <CF-F9/CF-S9 Series>
Select [On] and press **Enter**.
- ⑥ Press **F10**.
 - At the confirmation message, select [Yes] and press **Enter**.
 - The computer will restart.
- ⑦ Press **F2** or **Del** while [Panasonic] boot screen is displayed.
 - The Setup Utility starts up.
 - If the password is requested, enter the Supervisor Password.
- ⑧ Set the Product Recovery DVD-ROM Windows 7 into the CD/DVD drive.
- ⑨ <CF-C1 Series>
Select the [Exit] menu, then select your CD/DVD drive in [Boot Override].
<CF-F9/CF-S9 Series>
Select the [Exit] menu, then select [MATSHITAXXXX] in [Boot Override].
- ⑩ Press **Enter**.
 - The computer will restart.
- ⑪ Click [Run "System Recovery Options"] and click [Next].
- ⑫ Click [Next].
 - Do not specify keyboard layouts other than the one already selected.
- ⑬ Follow the on-screen instructions.

When disposing the computer or transferring the ownership, erase all hard disk data in order to avoid data leakage. Even if you erase the data or initialize the hard disk using normal Windows commands, the data can be read with some special software. Use the hard disk data erase utility to erase the data completely.

Note that transferring of the ownership without uninstalling the commercial software will be a violation of the software's license agreement.

The hard disk data erase utility erases data using an overwriting method, but there is a possibility that due to malfunctions or other operational errors, data may not be completely erased. There are also specialized devices that may be able to read data that has been erased using this method. If you need to erase highly confidential data, we recommend that you contact a company that specializes in this process. Panasonic Corporation will bear no responsibility for losses or damages suffered as a result of the use of this utility.

NOTE

- This utility cannot erase data for specific partitions. However, the entire hard disk data including the data of the partition with recovery tools will be erased.

Preparation

- Prepare the following items:
 - The Product Recovery DVD-ROM (included)
<CF-C1 Series>
 - CD/DVD drive (optional: Refer to recent catalogs and other sources for information about the products available) or port replicator (optional: CF-VEBC11U)
- Connect the AC adaptor and do not remove it until hard disk data erase is complete.
- Remove all peripherals (<CF-C1 Series> except for the CD/DVD drive and port replicator).

1 <CF-C1 Series>

Turn off the computer and connect the CD/DVD drive or port replicator to the computer.

2 Turn on the computer, and press **F2** or **Del** while [Panasonic] boot screen is displayed.

The Setup Utility starts up.

- If the password is requested, enter the Supervisor Password.

3 Write down all of the contents of the Setup Utility and press **F9**.

At the confirmation message, select [Yes] and press **Enter**.

4 <CF-F9/CF-S9 Series>

Select the [Main] menu, then select [Optical Drive Power] and press **Enter**.

5 <CF-F9/CF-S9 Series>

Select [On] and press **Enter**.

6 Press **F10**.

At the confirmation message, select [Yes] and press **Enter**.
The computer will restart.

- 7** Press **F2** or **Del** while [Panasonic] boot screen is displayed.
The Setup Utility starts up.
 - If the password is requested, enter the Supervisor Password.
- 8** Set the Product Recovery DVD-ROM Windows 7 into the CD/DVD drive.
- 9** <CF-C1 Series>
Select the [Exit] menu, then select your CD/DVD drive in [Boot Override].
<CF-F9/CF-S9 Series>
Select the [Exit] menu, then select [MATSHITAXXXX] in [Boot Override].
- 10** Press **Enter**.
The computer restarts.
- 11** Click [Erase the whole data on the Hard Disk for security] and click [Next].
- 12** At the confirmation message, click [YES].
- 13** Click [Continue].
- 14** Click [Continue] again.
- 15** Click [YES].
Erasing the hard disk data starts.
- 16** After erasing is completed, remove the Product Recovery DVD-ROM and click [OK].

Error Message

Follow the instructions below when an error code or message appears. If the problem persists or if the error code/message displayed is not shown here, contact your technical support office.

Error Message	Solution
Bad System CMOS	An error has occurred in the memory of system settings. This occurs when the memory content is changed by an unexpected program operation, etc. <ul style="list-style-type: none">● Start the Setup Utility and return the settings to the default values, and then change the settings as necessary.● If the problem persists, the internal clock battery may need to be replaced. Contact your technical support office.
System CMOS Checksum Error	
Invalid Year. System date restored to 01/01/2010	The date and time settings are not correct. <ul style="list-style-type: none">● Start the Setup Utility and set the correct date and time.● If the problem persists, the internal clock battery may need to be replaced. Contact your technical support office.
Press <F2> to enter setup	<ul style="list-style-type: none">● Write down the error details and press F2 or Del to start the Setup Utility. Change the settings if necessary.

<Only for model with Intel® AMT>

Intel® AMT offers the operational management function and security function through network.

Setting AMT configuration

- 1 Turn on the computer, and press F2 or Del while [Panasonic] boot screen is displayed.**
The Setup Utility starts up.
 - If the password is requested, enter the Supervisor Password.
- 2 If the Supervisor Password is not set, select the [Security] menu, then set Supervisor Password.**
- 3 Select the [Security] menu, and select [AMT Configuration], and press Enter.**
- 4 Select [Intel(R) AMT] and press Enter.**
- 5 Select [Enabled] and press Enter.**
- 6 Select [Intel(R) ME Setup Prompt] and press Enter.**
- 7 Select [Enabled] and press Enter.**
- 8 Press Esc.**
If you do not use the Supervisor Password, clear the Supervisor Password following steps.
 - ① Select [Set Supervisor Password], and press Enter.
 - ② Enter the Current Password, and press Enter.
 - ③ Press Enter when the [Create New Password] display is shown.
 - ④ Press Enter when the [Confirm New Password] display is shown.
- 9 Press F10.**
At the confirmation message, select [Yes] and press Enter.
The computer will restart.
The following procedures are example. It is different according to your environment. Contact your technical support office.
 - ① Press Ctrl + P when [Press <CTRL - P> to enter Intel(R) ME Setup] is shown after the [Panasonic] boot screen disappears.
 - ② Press 1.
 - ③ Enter "admin" in [Intel(R) ME Password], and press Enter.
 - ④ Enter the New Password in [Intel(R) ME New Password] to change the password, and press Enter.
At confirmation message, enter the password, and press Enter.
Write down new password to remember you password. The password has the limitation (→ [page 196](#)).

- ⑤ Select [Intel(R) ME General Settings] and press **Enter**.
- ⑥ Select [Activate Network Access] and press **Enter**.
- ⑦ Press **Y** on the [Caution] screen.
- ⑧ Select [Previous Menu] and press **Enter**.
- ⑨ Select [Intel(R) AMT Configuration] and press **Enter**.
- ⑩ Press **Enter**.
- ⑪ Select [SOL/IDER] and press **Enter**.
Change other settings as necessary.
- ⑫ Select [SOL] and press Enter and then set to [ENABLED] and press **Enter**.
- ⑬ Select [IDER] and press Enter and then set to [ENABLED] and press **Enter**.
- ⑭ Select [Previous Menu] and press **Enter**.
- ⑮ Select [KVM Configuration] and press **Enter**.
- ⑯ Select [KVM Feature Selection] and press **Enter** and set to [ENABLED].
- ⑰ Select [Previous Menu] and press **Enter**.
- ⑱ Select [Previous Menu] and press **Enter**.

NOTE

- You can use the following characters to set Intel(R) ME Password.
 - Minimum of 8 and maximum of 32 characters are used.
 - 1 or more numeric characters are included.
 - 1 or more special characters (example: "!" "\$") are included (only characters that can be displayed with the US keyboard).
 - Capital letters and small letters are mixed.
- When you are entering your password, the software recognizes the keyboard as a US keyboard. As a result, depending on the keyboard you are using, different characters (unintended characters) may be entered for certain keys.
The following table shows some examples.

When an unintended character is entered, we recommend that you make a memo of the key you pressed and the character that was entered.

Keyboard used	Difference examples					
UK	Intended character	“	£	~	#	@
	Entered character	@	#	!	\	“
German	Intended character	“	§	&	ß	Z
	Entered character	@	#	^	-	Y
French	Intended character	1	&	?	A	W
	Entered character	!	2	M	Q	Z
Italian	Intended character	“	£	&	/	(
	Entered character	@	#	^	&	*
Spanish	Intended character	“	&	/	¿	Ñ
	Entered character	@	^	&	+	:
Swedish	Intended character	“	¤	&	/	Å
	Entered character	@	\$	^	*	{
Belgian	Intended character	1	&	^	A	W
	Entered character	!	1	[Q	Z
Swiss-German	Intended character	+	&	?	!	Z
	Entered character	!	^	-	}	Y

10 Installing the driver.

① Windows 7

Click  (Start) and input “c:\util\drivers\amt\ME\setup.exe” in [Search programs and files] then press **Enter**.

Windows XP

Click [start] - [Run] and input “c:\util\drivers\amt\ME\setup.exe”, then click [OK].
Follow the on-screen instructions.

Release AMT configuration

- 1 Turn on the computer, and press F2 or Del while [Panasonic] boot screen is displayed.**
The Setup Utility starts up.
 - If the password is requested, enter the Supervisor Password.
- 2 If the Supervisor Password is not set, select the [Security] menu, then set Supervisor Password.**
- 3 Select the [Security] menu, and select [AMT Configuration], and press Enter.**
- 4 Select [Intel(R) AMT] and press Enter.**
- 5 Select [Disabled] and press Enter.**
- 6 Press Esc.**
- 7 Select the [Exit] menu, and select [Save Current Values], and press Enter.**
At the confirmation message, select [Yes] and press Enter.
- 8 Select the [Security] menu, and select [AMT Configuration], and press Enter.**
- 9 Select [Reset AMT Configuration] and press Enter.**
At the confirmation message, select [Yes] and press Enter.
- 10 Select [Yes] at the [Setup Confirmation] screen, and press Enter.**
The computer will restart.
 - If the password is requested, enter the Supervisor Password.
- 11 Press Y when the “Intel(R) ME unconfiguration in progress” message will appear.**
The computer will restart.
- 12 Turn off the computer.**

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.

NOTE

- This computer periodically records the management information of the hard disk, etc. The maximum data volume for each record is 1024 bytes.
This information is only used for estimating the cause when the hard disk goes down by any possibility. They are never sent to outside via network nor used for any other purpose except for the purpose described the above.
To disable the function, add the check mark for [Disable the automatic save function for management information history] in [Hard Disk Status] of PC Information Viewer, and click [OK].
 - **Windows 7** A standard user needs to enter an administrator password.
 - When you disable the function, information on how to use the hard disk of PC Information Popup (→ [page 200](#)) is not displayed.
- As long as it is activated, the PC Information Viewer will appear in front of all other screens.
- When you log on to Windows using a guest account (**Windows 7**) or when you are not an administrator (**Windows XP**), [Not Found] is displayed and some information is not displayed.
- **Windows 7** Depending on your network environment, it may take about 1 minute to start up PC Information Viewer.

■ Running PC Information Viewer

- ① Click **Windows 7** (Start) / **Windows XP** [start] - [All Programs] - [Panasonic] - [PC Information Viewer] - [PC Information Viewer].

Click 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 Click [Save].
 - To save the item that is displayed.
Click [Save only the information displayed] and click [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.
Click [Save all the information] and click [OK].
If automatic saving of the management information record has not been disabled, the records already recorded are also saved.
- ③ Select the folder, input the file name, and then click [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 + F7**.
- ③ When the message “The copy of the screen was saved...” is displayed, click [OK].



[pcinfo.bmp] file will be saved in **Windows 7** [Documents]/ **Windows XP** [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.)

- To display the extension of the file:

Windows 7 Click  (Start) - [Control Panel] - [Appearance and Personalization] - [Folder Options] - [View]. In [Advanced settings], remove check mark [Hide extensions for known file types].

Windows XP Click [Tools] - [Folder Options] - [View] from Explorer, and remove the check mark for [Hide extensions for known file types] under the [Advanced settings] section.

NOTE

- You can also save a copy of the screen to a file using the following procedure:
Click **Windows 7**  (Start)/ **Windows XP** [start] - [All 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 + F7**. This setting can be changed using the following procedure:
 - ① Log on to Windows as an administrator.
 - ② Click **Windows 7**  (Start)/ **Windows XP** [start] - [All Programs] - [Panasonic] - [PC Information Viewer].
 - ③ Right-click [Screen Copy], and then click [Properties] - [Shortcut].
 - ④ Move the cursor to [Shortcut key], press the key to be used for the shortcut, and then click [OK].
 - ⑤ **Windows 7** Click [Continue].
- Pictures are saved in 256 colors.
- When using an Extended Desktop:
A copy of the screen displayed on the primary device will be saved.

Using PC Information Popup, you can display information on how to use the hard disk.

Enable the automatic display function

When you log on to Windows for the first time, the screen to enable the automatic display function of PC Information Popup appears. Perform the following steps.

- ① Click [1 Notification From Panasonic].



- ② Click [Yes] on the confirmation screen.
The function is enabled and automatically inform you of the information on how to use the hard disk.
This function checks periodically if there is any information on how to use the hard disk.

NOTE

- The confirmation screen to enable the automatic display function also appears when you log on to Windows for the first time using the newly made user account.

Confirm the information on how to use the hard disk

Although this computer is designed to minimize the effects of vibration and shock, the internal hard disk is a precision instrument that is susceptible to damage. Strong vibration or shock to the hard disk may result in malfunctions such as data read errors. However, you can reduce the risk of hard disk deterioration or data loss by observing the precautions regarding the operating environment and handling.

When the automatic display function for the PC Information Popup is enabled, the small popup screen, [x Notifications About Hard Disk Usage] is displayed in the following cases.



Although the information of the hard disk is confirmed regularly, it is not always displayed at the same time as entering the corresponding state. Also, you cannot predict malfunctions of hard disk using this function.

- If the time before the computer enters hibernation is too short
- If the temperature in the usage environment is not appropriate
- If the computer was exposed to impacts/vibrations repeatedly
- If the hard disk has been powered on for 24 hours or more

When the small popup screen is displayed, follow the steps below to confirm the information on how to use the hard disk.

- ① Click [x Notifications About Hard Disk Usage].
- ② Confirm the detail.

NOTE

- To display information on how to use the hard disk, do not add a check mark for [Disable the automatic save function for management information history] in [Hard Disk Status] of PC Information Viewer.
If you add a check mark, a screen to enable the automatic display function will appear in the following cases.
 - When you click PC Information Popup icon
 - When you click [Hard Disk Usage] on [Notification settings - PC Information Popup]
If the screen is displayed, take the following steps.
 - ① Click [OK].
 - ② When the [Notification settings - PC Information Popup] screen is displayed, click [OK].
- Hard Disk Handling can be displayed with the following steps as well.
Click  (Start)/  [start] - [All Programs] - [Panasonic] - [On-Line Manuals] - [Hard Disk Handling].

■ Confirm information on how to use the hard disk

- ① Right-click PC Information Popup icon on the notification area and click [Check for information now].
- ② Click [x Notifications About Hard Disk Usage].

■ Change the settings



You can change the display conditions for information on how to use the hard disk, or disable the function to display information.



- ① Right-click PC Information Popup icon on the notification area and click [Notification settings...].
- ② Click [General] or [Hard Disk Usage] and make the necessary settings.

■ Status indication


PC information Popup is automatically started after a user is logged in. You can check information using the icons displayed on the notification area.

Normally,  is displayed.

 or  is displayed in the following cases.


- : When there is information on how to use the hard disk. (The icon changes according to the timing to display.)
When the small popup screen disappears after the screen appears and certain time passes.
- : When the check mark is added for [Disable the automatic save function for management information history] of PC Information Viewer. This indication only appears when [Hard Disk Usage] is enabled.

NOTE

- When the icon is not displayed, click **Windows 7**  (Start)/ **Windows XP** [start] - [All Programs] - [Panasonic] - [PC Information Viewer] - [PC Information Popup].

A computer virus propagates through infections from one computer to another. Some viruses are highly malicious, destroying computer data, or preventing the computer from starting up properly.

■ When “Check your computer security” is displayed

Click  (red icon) on the notification area and make the appropriate settings. The Windows **Windows 7** Action Center/**Windows XP** Security Center regularly gives you notice so that you can make the optimum settings. This is not an error message and you can use the computer. However, making appropriate measures is recommended to reduce the risk of virus and other attacks.

■ Use antivirus software (commercially available)

- Update virus definition files frequently, and conduct virus checks regularly.

■ Do not use disks or programs of unknown origin

- Run a virus check on new programs before executing them.

■ Use Windows Firewall

■ Update Windows

In an Internet-connected environment, execute the Windows Update, and use the latest Windows service pack or patch program to update Windows on your computer to its latest version. This update is also an effective measure for preventing viruses and other forms of computer attack.

NOTE

- Be sure to perform Windows Update after reinstallation.

- 1** Log on to Windows as an administrator.
- 2** Click **Windows 7**  (Start)/ **Windows XP** [start] - [All Programs] - [Windows Update].

Do not apply “Driver Updates” even if a message to update a driver appears. If a driver update is required, contact your technical support office.

Network Connections and Communications Software

Close the communications software before using the power saving function.

- If the power saving function (sleep or hibernation) is activated while communications software is used, the network connection may be interrupted, or the performance may be adversely affected. In this case, restart the computer.
- In a network environment:

Windows 7 Set [Never] for [Put the computer to sleep:] and [Hibernate after]. (→ page 60)

Windows XP Set the [System standby] and [System hibernates] settings to [Never].

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

Computrace[®] software

Computrace[®] software tracks your stolen computer.

- Computrace[®] software is not included in this computer.
- Refer to the following URL for Computrace[®] software for installation and available service regions. Note that this service is only available in certain regions.
<http://www.absolute.com/>

NOTE

- Consult Absolute Software Corp. before disposal.

About Windows-related files

The Windows files included in the Windows DVD-ROM are contained in the following folders:


Windows 7

c:\windows\support\migwiz, c:\windows\support\tools, c:\windows\support\logging

Windows XP

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

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