

Panasonic®

Digital Camera

Operating Instructions

Model No. **PV-DC3010**



ipalm™
DIGITAL CAMERA



For assistance, please call : 1-800-272-7033.

Before attempting to connect, operate or adjust this product, please read these instructions thoroughly, and keep them for future reference.

LSQT0461A

Things You Should Know

Attach your purchase receipt here

Thank you and congratulations

on your purchase of this state of the art Panasonic Digital Camera. This product has been manufactured and tested to Panasonic's highest standards to give you the best in performance and reliability. Save this operating instruction manual as an operating and information guide.

Date of Purchase _____

Dealer Purchased From _____

Dealer Address _____

Dealer Phone No. _____

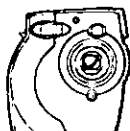
Model No. _____

Serial No. _____

Unpack your Digital Camera

Please confirm that the following items are packed in the Digital Camera box. They are provided to help you use or set up your Digital Camera.

1pc. Digital Camera



1 pc. 32 MB SD Memory Card (LSFA0021)



1pc. AC Adaptor (PV-SAC10D)



4pcs. AA Ni-MH (nickel Metal-hydride) Battery (HHR-3UPA4SA1)



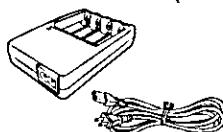
1pc. A/V Cable (LSJA0320)



1pc. USB Cable (LSJA0319)



1pc. Ni-MH Quick Charger (DE-286FB) with AC Cable (LSJA0378)



• For Charger operating instructions, please see the separate manual.

1pc. Neck Strap (LSFC0014)



1 pc. CD-ROM of Driver Software for Windows 98/Windows Me/Windows 2000 and Macintosh; Twain Driver for Windows 98/Windows Me/Windows 2000 and Macintosh; QuickTime™ Software for Windows 95/Windows 98/Windows NT/Windows 2000 and Macintosh; ArcSoft® Software for Windows 95/Windows 98/Windows Me/Windows NT/Windows 2000 and Macintosh (LSFT0270)



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Microsoft and Windows are registered trademarks of Microsoft in the United States and other countries.

Macintosh, iMac, iBook, PowerBook, Power Macintosh, Power Mac, and Mac are trademarks or registered trademarks of Apple Computer, Inc.

QuickTime and the QuickTime logo are trademarks used under license.

ArcSoft is a trademark of ArcSoft, Inc.

All product/brand names are trademarks or registered trademarks of the respective holders.



CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Safety Precautions

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

FCC Warning:

To assure continued FCC compliance, use only the provided shielded interface cable with ferrite cores when connecting digital camera to computer in accordance with instruction herein. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate.

Declaration of Conformity

Model Number : **PV-DC3010**
Trade Name : **Panasonic**
Responsibility Party : **Matsushita Electric Corporation of America**
Address : **One Panasonic Way Secaucus New Jersey 07094**
Telephone Number : **1-800-211-PANA (7262)**

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

Precautions

USE & LOCATION

- **TO AVOID SHOCK HAZARD ...** Your Digital Camera and power supply should not be exposed to rain or moisture. Do not connect the power supply or operate your Digital Camera if it gets wet. Your Digital Camera has been designed for outdoor use, however it is not designed to sustain direct exposure to water, rain, sleet, snow, sand, dust, or a direct splashing from a pool or even a cup of coffee. This action could permanently damage the internal parts of your Digital Camera. Do not attempt to disassemble this unit. There are no user serviceable parts inside. Unplug your Digital Camera from the power supply and have it serviced.
- **DO NOT AIM YOUR DIGITAL CAMERA AT THE SUN OR OTHER BRIGHT OBJECTS.**
- **DO NOT EXPOSE YOUR DIGITAL CAMERA TO EXTENDED HIGH TEMPERATURE ...** Such as, in direct sunlight, inside a closed car, next to a heater, etc... This action could permanently damage the internal parts of your Digital Camera.
- **AVOID SUDDEN CHANGES IN TEMPERATURE ...** If the unit is suddenly moved from a cold place to a warm place, moisture may form inside the unit.
- **DO NOT LEAVE YOUR DIGITAL CAMERA OR THE POWER SUPPLY TURNED ON WHEN NOT IN USE.**
- **STORAGE OF YOUR DIGITAL CAMERA ...** Store and handle your Digital Camera in a manner that will not subject it to unnecessary movement (avoid shaking and striking). Your Digital Camera contains a sensitive pick-up device which could be damaged by improper handling or storage.

CARE

- **TO CLEAN YOUR DIGITAL CAMERA ...** Do not use strong or abrasive detergents when cleaning your Digital Camera body.
- **TO PROTECT THE LENS ...** Do not touch the surface of the lens with your hand. Use a commercial Digital Camera lens solution and lens paper when cleaning the lens. Improper cleaning can scratch the lens coating.
- **TO PROTECT THE FINISH OF YOUR DIGITAL CAMERA ...** Before handling your Digital Camera, make sure your hands and face are free from any chemical products, such as suntan lotion, as it may damage the finish.

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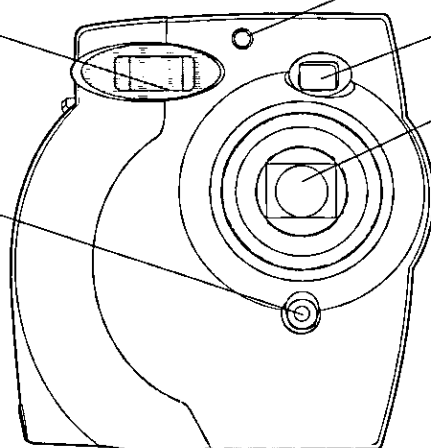
Front View

FLASH Emitter

See page 31.

Self-Timer Indicator

See page 34.



Light Sensor

See page 31.

Optical Viewfinder

See page 19.

Lens

Rear View

VOL ▲ Button

See pages 25, 26.

Select ▲ Button

See pages 15, 16.

ZOOM REC

REVIEW Button

See page 23.

- Button

See pages 24, 25, 27, 35, 37.

Select ◀ Button

See pages 15, 16.

ZOOM WIDE Button

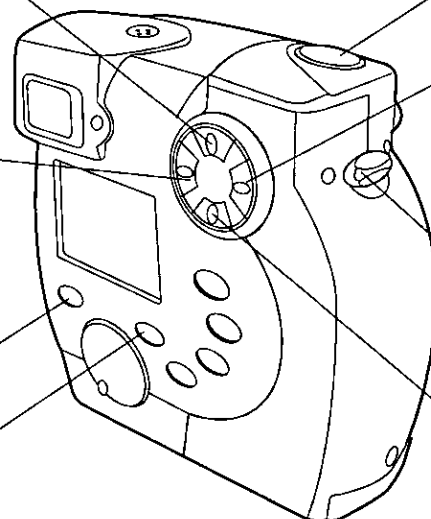
See pages 18, 20, 21.

DISPLAY Button

See pages 11, 19.

DELETE Button

See pages 37, 38, 39.



SHUTTER Button

See pages 18~21, 26~28, 34, 36~39.

+ Button

See pages 24, 25, 35, 37.

Select ▶ Button

See pages 15, 16.

ZOOM TELE Button

See pages 18, 20, 21.

Strap Holder

See page 13.

VOL ▼ Button

See pages 25, 26.

Select ▼ Button

See pages 15, 16.

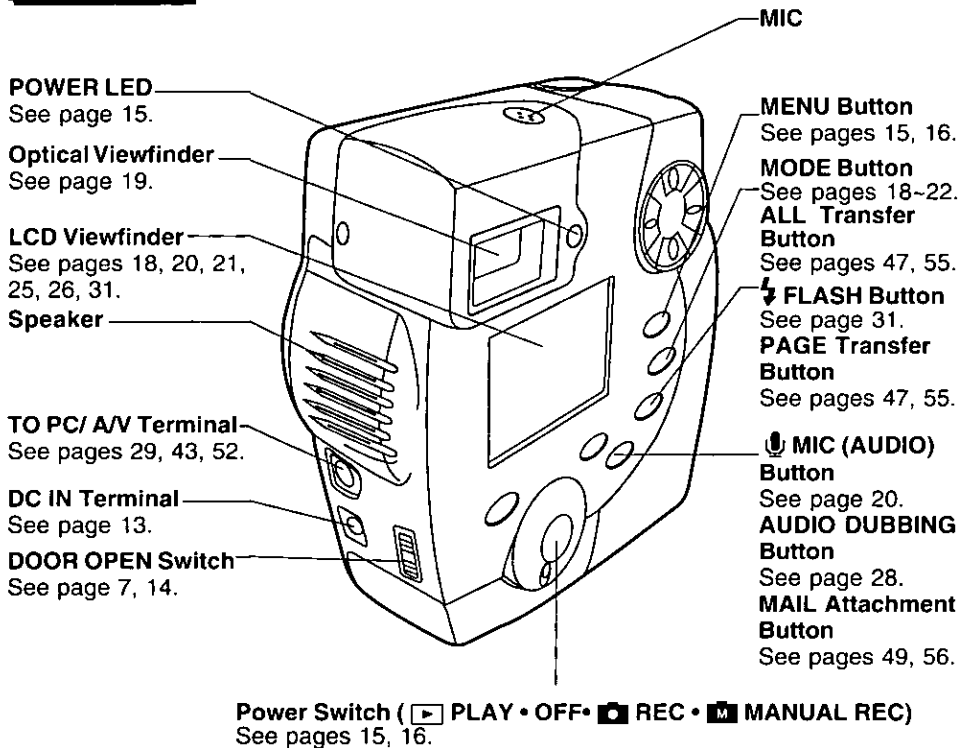
REC REVIEW

Button

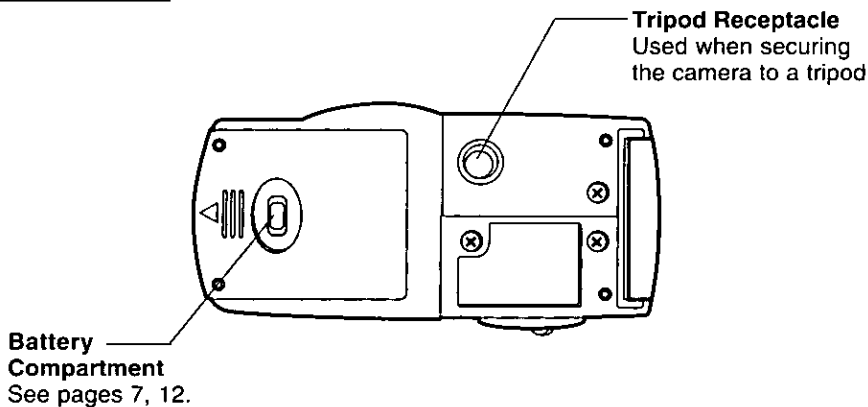
See page 23.

Index of Controls

Rear View



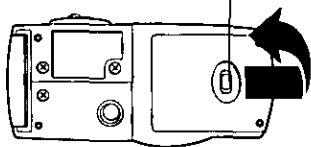
Bottom View



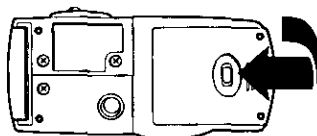
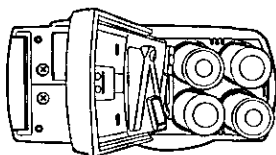
Loading the Batteries

[Bottom View]

Lock Button



Slide all the way to the end.



Note

- When loading or unloading Batteries, be sure to slide the Battery Compartment lid all the way to the end before opening. If the lid is not slid to the end, Battery Loading and Unloading may be impossible.

- 1 While pressing the Lock Button, slide the Battery Compartment lid in the direction of the arrow and swing it open.
- 2 Install four Batteries.
 - Be sure to use Ni-MH or Alkaline Batteries. Never use manganese batteries.
 - Make sure that the positive (+) and (-) ends of the batteries are facing the correct direction.
 - Instead of the supplied Ni-MH batteries, you can also use AA type Ni-Cd (high density type) or Alkaline batteries available on the market.
- 3 Swing the Battery Compartment lid down and slide it shut.

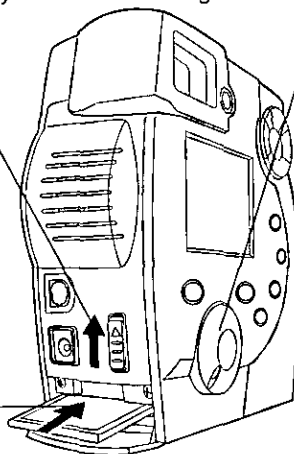
WARNING! Do not dispose of Battery in fire, put in backwards, disassemble, or short circuit; otherwise it may leak or burst, causing possible personal injury.

Inserting the Memory Card*

- *Memory Card : MultiMediaCard or SD Memory Card
- The captured images will be stored on this Memory Card.
- Be sure to insert the Memory Card before using the camera.

- 2 Slide the DOOR OPEN Switch to open the cover. Insert the Memory Card, upper surface side up, into the card slot as shown by arrow.

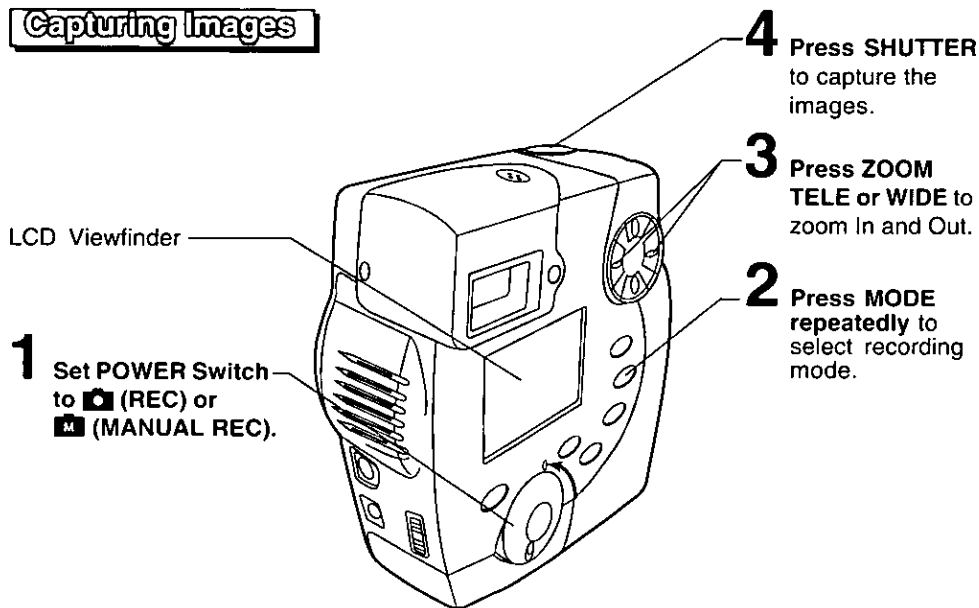
- 3 Push the card fully into Memory Card Slot.



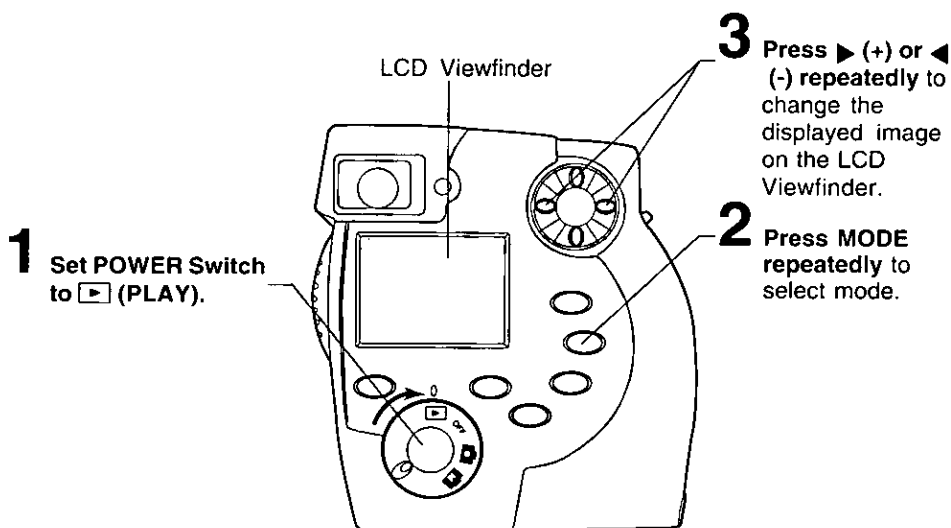
- 1 Set POWER Switch to OFF before inserting the Memory card.

Quick Guide

Capturing Images



Playing Back Captured Images






On Screen Display (OSD)

The indication displayed on the LCD screen will tell you the operation status of the Digital Camera.

REC OSD

Flash Mode

(See page 31.)
AUTO : No Indication
ON : 
RED EYE : 
OFF : 


Iris Mode

(See page 35.)
-1.5, -1.0, -0.5, 0 (No Indication), +0.5, +1.0, +1.5



Slow Shutter

Displayed if Slow Shutter is set to ON in the MENU screen. (See pages 18~20.)

Focus Mode

(See page 30.)
AUTO : No Indication
ZONE : 

White Balance Mode

(See page 32.)
AUTO : No Indication
OUTDOOR : 
INDOOR : 
WHITE SET : WS

Light Metering Mode


(See page 33.)
AUTO : No Indication
SPOT : 

Image Pages left in memory

PLAY OSD

Audio

Displayed when image with AUDIO is played. Not displayed when movie is played. (See page 25.)



DPOF Mark

(See page 57.)

Print Number

(See page 57.)

Directory/ Image Number

Displayed Image Page and its captured mode, TIFF(Tagged Image File Format), SF(Super Fine), F(Fine), N(Normal), or  (Motion Image Rec Mode).
• If the image is captured in 2X, 3X (Zoom), or  (Burst Rec Mode), the displayed image mode will be N(Normal).

2X Zoom area
(See page 22.)

Audio

Displayed when image with AUDIO is recorded. (See page 20.)

Self-Timer Mode
(See page 34.)

Focus Lock
(See pages 18, 20, 21.)

REC

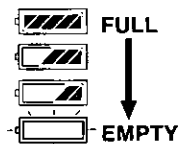
Displayed when image is recorded. (See page 18.)

Low Light Warning
"LIGHT" will appear when the light level is inadequate. In this case, more light should be provided or use flash to achieve better picture quality and color.

Date/Time Indication
(See page 17.)

3X Zoom area
(See page 22.)

Battery Condition



As the Battery is depleted, the indication changes.

LED Lamp will flash when battery is empty.

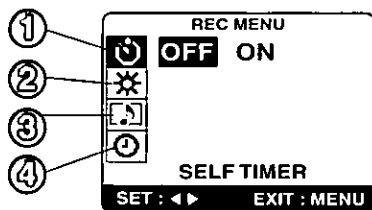
Note

- Depending on the Battery type, it may take a while for the correct indication to be displayed.

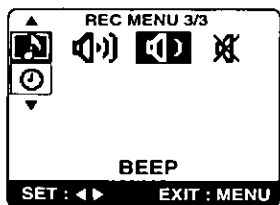
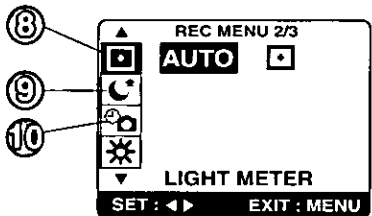
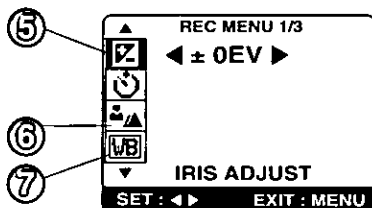
LCD Monitor Indication

Recording Menu

[REC Mode]



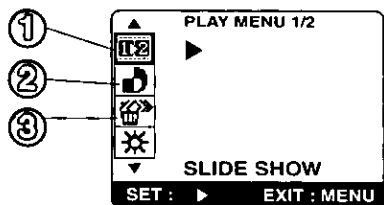
[MANUAL REC Mode]



- ① **🕒 SELF TIMER** (See page 34.)
To set Self Timer.
- ② **☀ LCD BRIGHTNESS** (See page 24.)
To adjust LCD Viewfinder brightness.
- ③ **[.] BEEP** (See page 23.)
To select beep mode.
- ④ **🕒 CLOCK SET** (See page 17.)
To set clock.
- ⑤ **☑ IRIS ADJUST** (See page 35.)
To adjust Iris manually.
- ⑥ **☯ FOCUS** (See page 30.)
To change to one of the 4 Focus modes.
- ⑦ **WB WHITE BALANCE** (See page 32.)
To change to one of the 4 White Balance modes.
- ⑧ **☑ LIGHT METER** (See page 33.)
To change to AUTO or SPOT.
- ⑨ **☾ SLOW SHUTTER** (See pages 18-20.)
To select slow shutter. By selecting "ON", you can capture more beautiful images in comparatively dark places.
- ⑩ **☀ TIME LAPSE** (See page 36.)
To set time lapse recording.


LCD Monitor Indication

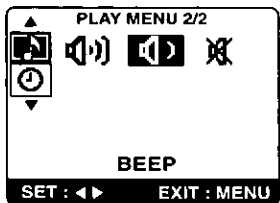
Playback Menu



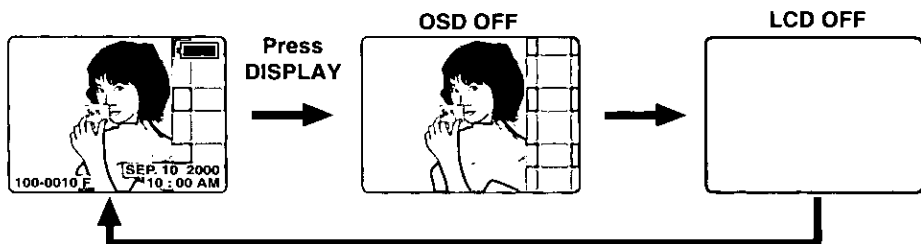
①  **SLIDE SHOW** (See page 40.)
Playback images as slide show.

②  **DPOF MARK** (See page 57.)
To set print mark.

③  **DELETE ALL** (See pages 38, 39.)
Delete all images from the Memory Card.



On Screen Display Order



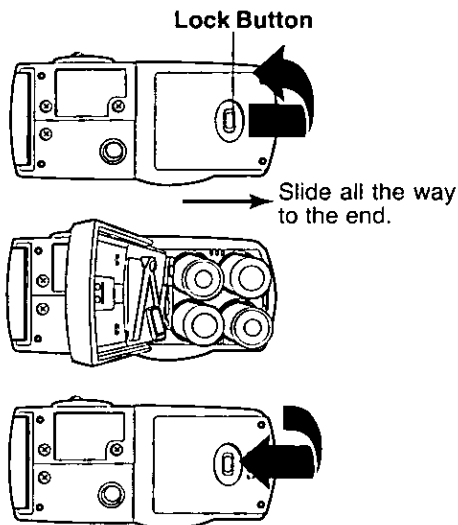
Note

- Pressing DISPLAY with LCD OFF turns LCD ON and displays the menu. However, after selecting the settings and exiting the menu, the LCD will stay ON.
- The DISPLAY button is not available during Multi Playback and Zoom Playback.

Power Supply

Loading the Batteries

[Bottom View]



Note

- When loading or unloading Batteries, be sure to slide the Battery Compartment lid all the way to the end before opening. If the lid is not slid to the end, Battery Loading and Unloading may be impossible.

- 1 While pressing the Lock Button, slide the Battery Compartment lid in the direction of the arrow and swing it open.
- 2 Install four Batteries.
 - Be sure to use Ni-MH or Alkaline Batteries. Never use manganese batteries.
 - Make sure that the positive (+) and (-) ends of the batteries are facing the correct direction.
- 3 Swing the Battery Compartment lid down and slide it shut.

WARNING! Do not dispose of Battery in fire, put in backwards, disassemble, or short circuit; otherwise it may leak or burst, causing possible personal injury.

Battery Notes

Safety precautions:

- Do not mix old and new batteries.
- Do not mix the different kinds of batteries.
- Do not get the batteries near, or dispose of in fire.
- Do not directly connect (short circuit) the positive (+) and negative (-) terminals.
- Never attempt to disassemble or reassemble the Battery.
- Do not drop or jar the Battery.
- Battery must be charged before first time use, or if the unit has not been used for a long time.
- Battery life is spent if the operating time is greatly diminished. Please replace battery.
- This battery was designed to be charged/ discharged approx. 500 times.
- Never use mixing chargeable and non-chargeable batteries.

Note

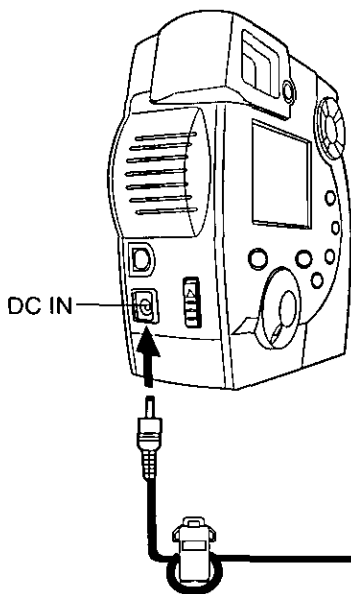
- Instead of the supplied Ni-MH batteries, you can also use AA type Ni-Cd (high density type) or Alkaline batteries available on the market.
- If you are not going to use the Digital Camera for an extended period of time, remove the batteries from the Digital Camera.

Operation Time

When using the supplied Panasonic Ni-MH batteries, you will have a maximum of about 160 images* (at an ambient temperature of 25° C).

- Conditions :
 - Using the Panasonic Ni-MH batteries.
 - Capturing an image every 30 seconds.
 - Using Flash once for every other capture.
 - Recording mode is Fine.

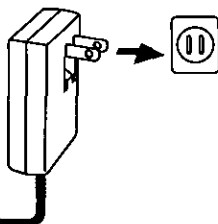
AC Adaptor



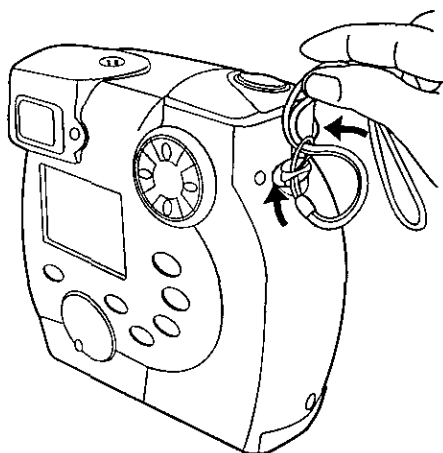
- 1** Connect DC OUT on the AC Adaptor to DC IN on the Digital Camera.
- 2** Plug the AC Adaptor into an AC outlet.

Note

- While not in use, unplug the AC Adaptor from the AC outlet.



Attaching the Neck Strap



- Thread the Neck Strap through the Strap Attachment Ring as shown.

Memory Card

Inserting the Memory Card*:

- *Memory Card : MultiMediaCard or SD Memory Card
- The captured images will be stored on this Memory Card.
- Be sure to insert the Memory Card before using the camera.

Below is a list of memory cards which can be used in this camera.

Memory Card	Capacity
SD Memory Card (LSFA0021) (supplied)	32 MB
MultiMediaCard (SanDisk brand)	8 MB, 16 MB, 32 MB, 64 MB
SD Memory Card (RP-SD008) (optional)	8 MB
SD Memory Card (RP-SD016) (optional)	16 MB
SD Memory Card (RP-SD032) (optional)	32 MB
SD Memory Card (RP-SD064) (optional)	64 MB

SD Memory Card write protection switch

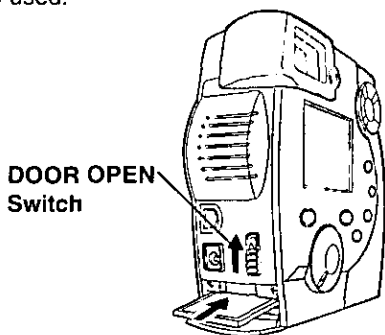


Write protection switch

Note

- It is recommended that the Memory Card be formatted in this camera the first time it is used.

A write protection switch is located on the SD Memory Card. Sliding the switch to the "LOCK" position prevents writing on or formatting the card.



Note

- Do not bend, drop, apply high pressure or subject the card to strong shocks.
- Do not store it in places with high temperature, high humidity, a lot of dust, or static electricity and strong electromagnetic waves.
- Keep the card's contacts free from dust, water or other foreign substances. Do not touch them with your fingers, etc.
- Do not disassemble or deform the card.
- Be sure to make a backup copy of important data.
- Make sure that you do not insert the card in the wrong direction.

- 1** Set **POWER OFF** before inserting the Memory card.
- 2** Slide the **DOOR OPEN** Switch to open the cover. Insert the Memory Card, upper surface side up, into the card slot as shown by arrow.
- 3** Push the card fully into Memory Card Slot.

Removing the Memory Card:

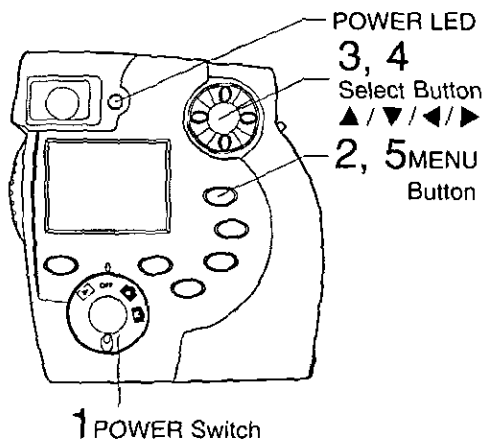
Set **POWER OFF** before removing the Memory card. Slide the **DOOR OPEN** Switch to open the cover. Push the Memory Card, so the Card pops out. (Be careful not to drop the card.)

- Do not, under any circumstances, eject the card immediately after pressing the Shutter Button (during recording of an image) or while deleting (when "PLEASE WAIT" is displayed). This could damage the format of the card and make it unusable.
- "NO MEMORY CARD" will appear on the LCD Viewfinder and the **POWER LED** Lamp will flash when the Memory Card is not inserted.
- "MEMORY CARD ERROR" will appear on the LCD Viewfinder and the **POWER LED** Lamp will flash if the Memory Card is defective.

Operating the MENU Screen

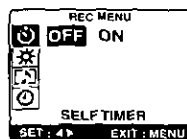
How to use the MENU screen

Please refer to pages 10~11 for explanation of each menu item.

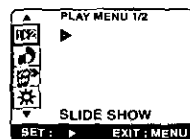


Example of Menu Screens

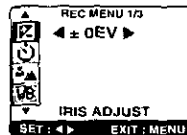
[REC mode]



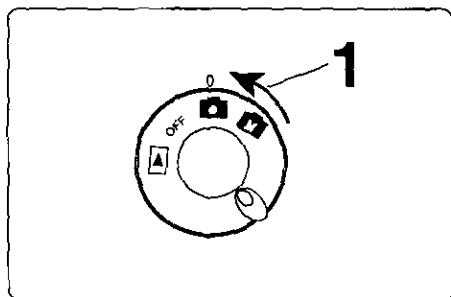
[PLAY mode]



[MANUAL REC mode]



When selecting AUTO REC mode

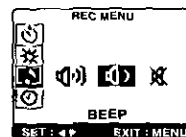


- 1 Set POWER Switch to (REC).
 - Turn the dial so that it clicks into position.
 - The POWER LED lamp lights up.

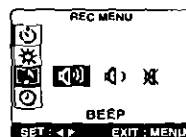
- 2 Press MENU to display MENU screen.



- 3 Press ▲ or ▼ to select the item.



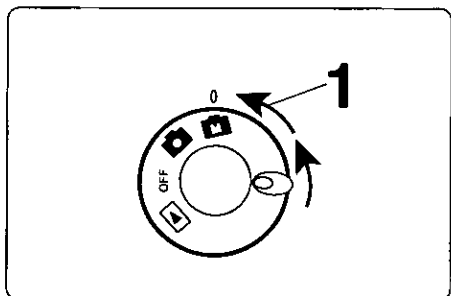
- 4 Press ◀ or ▶ to set it.



- 5 Press MENU to exit.

Operating the MENU Screen

When selecting MANUAL REC mode



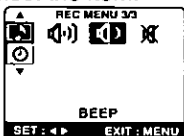
1 Set POWER Switch to **M** (MANUAL REC).

- Turn the dial so that it clicks into position.
- The POWER LED lamp lights up.

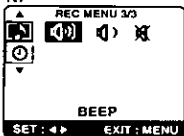
2 Press MENU to display MENU screen.



3 Press **▲** or **▼** to select the item.

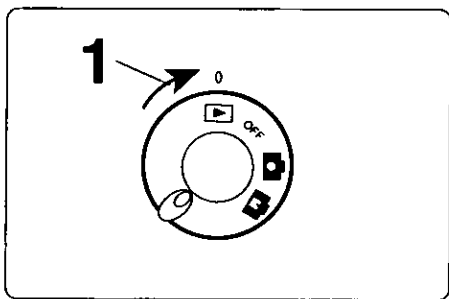


4 Press **◀** or **▶** to set it.



5 Press MENU to exit.

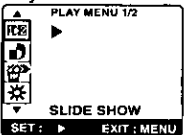
When selecting PLAY mode



1 Set POWER Switch to **P** (PLAY).

- Turn the dial so that it clicks into position.
- The POWER LED lamp lights up.

2 Press MENU to display MENU screen.



3 Press **▲** or **▼** to select the item.



4 Press **◀** or **▶** to set it.






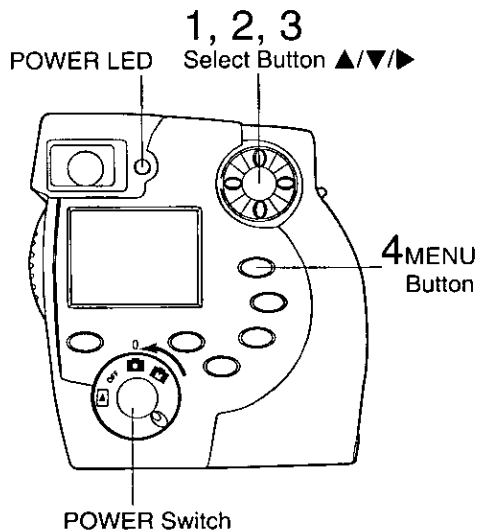
5 Press MENU to exit.

Note

- While REC is sufficient for normal recording, select MANUAL REC when you want to make more precise settings.
- The MANUAL REC and PLAY menus consist of multiple pages. Press **▼** or **▲** repeatedly to scroll to the next or previous menu page.

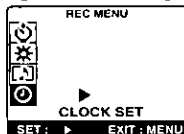
Before you begin

Set the POWER Switch to  (REC),  (MANUAL REC) or  (PLAY). (See pages 15, 16.) Press MENU to display the MENU screen.

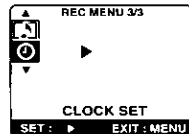


- 1 Press ▲ or ▼ to select  CLOCK SET in the MENU screen.

[REC mode]



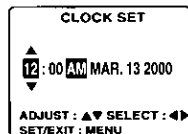
[MANUAL REC mode]



[PLAY mode]



- 2 Press ▶ to display CLOCK SET menu.



- 3 Press or hold down ▲ or ▼ to select hour, then press ▶ to set.
 - Repeat for minute, month, day and year.
 - Double check all items before exiting the menu.

- 4 Press MENU twice to exit.
Clock starts when menu is exited.

Note

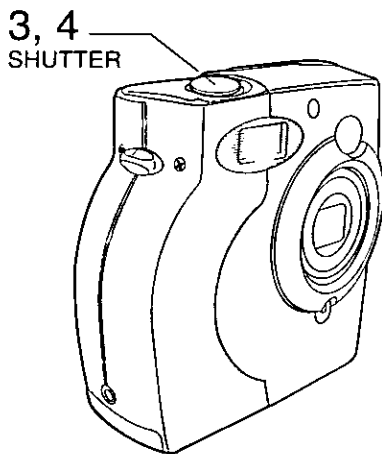
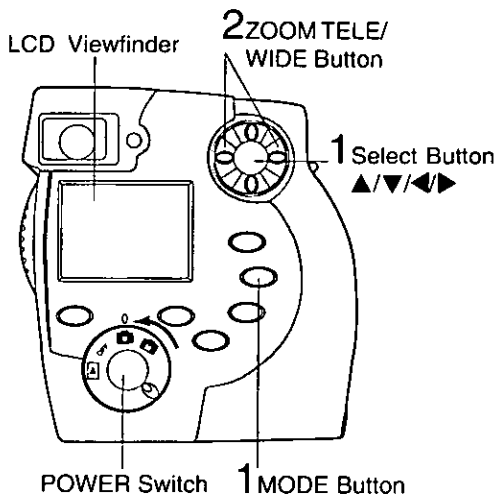
- To make corrections, repeat steps 1~3.
- The clock will continue to operate about 8 hours after the battery has been removed. If you need to set clock again, repeat these steps.

Capturing Images

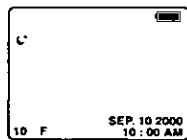
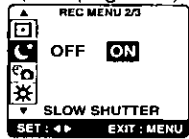
Using LCD Viewfinder

Before you begin

Set the POWER Switch to (REC) or (MANUAL REC).
(See pages 15, 16.)



- 1 Press **MODE** repeatedly to select recording mode (TIFF, SF, F, N, 2X, 3X (ZOOM)). (See page 22.)
 - If you want to use **SLOW SHUTTER**: In Manual Rec mode, press MENU to display the MENU screen, and then press ▲ or ▼ to select SLOW SHUTTER. Press ◀ or ▶ to select ON. (Manual Rec only). (See page 10.)



- 2 Press **ZOOM TELE** or **WIDE** to zoom In and Out.
 - Zoom magnification level is up to 2X.
- 3 Press **SHUTTER** down halfway to lock Auto Focus.
 - “●” mark is displayed on the screen.
 - Beep sounds twice. (See page 23.)
- 4 Press **SHUTTER** down the rest of the way to actually capture the image.
 - Shutter sounds once. (See page 23.)
 - While the Digital Camera processes the image, REC will flash on the LCD Viewfinder and the captured image will be displayed on the LCD Viewfinder for a few seconds. Images cannot be captured while REC flashes.

Note

- The next image cannot be captured until the previously captured image is no longer displayed on the LCD Viewfinder.
- Power shuts off if there is no activity over 1 minute with Battery as a power source to conserve power. Press SHUTTER to turn power back on.
- Do not subject unit to a strong impact during record or playback. Unit may not function normally.

Using Optical Viewfinder

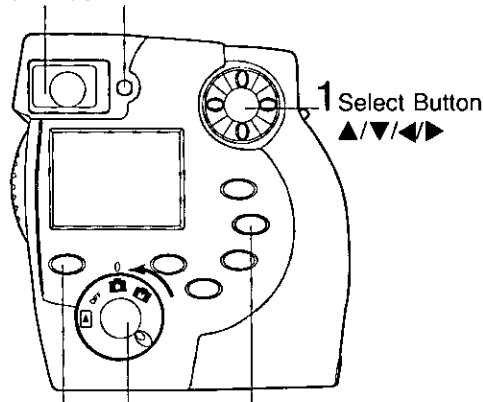
In addition to using the LCD Viewfinder, you can also use the Optical Viewfinder to frame and capture images.

Using the Optical Viewfinder will prolong battery life.

Before you begin

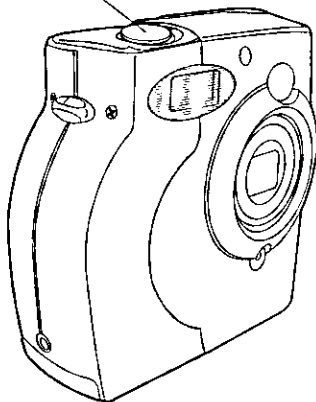
Set the **POWER Switch** to **REC** or **M (MANUAL REC)**.
(See pages 15, 16.)

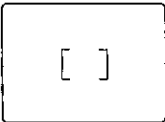
Optical Viewfinder POWER LED



2 DISPLAY Button POWER Switch 1 MODE Button

4 SHUTTER



- 1 Press MODE repeatedly** to select recording mode (TIFF, SF, F, N, (2X, 3X (ZOOM))). (See page 22.)
 - If you want to use **SLOW SHUTTER**: In Manual Rec mode, press MENU to display the MENU screen, and then press ▲ or ▼ to select **SLOW SHUTTER**. Press ◀ or ▶ to select ON. (Manual Rec only). (See page 10.)
- 2 Press DISPLAY twice** to turn off the LCD Viewfinder.
 - If you press MENU, the LCD Viewfinder will automatically turn on.
- 3 Frame the image you want to capture** within the recording area guide marks on the Optical Viewfinder.
 - When 2X, 3X (ZOOM) is selected, use the LCD Viewfinder to confirm the image.
- 4 Press SHUTTER** to capture the image.
 - **POWER LED Lamp** will flash while the Digital Camera processes the image.
 - You may capture another image as soon as **POWER LED Lamp** stops flashing.

Notes for LCD and Optical Viewfinder use:



- The number of image pages left in the selected mode is displayed on the LCD Viewfinder. When no memory remains, 0 and **POWER LED Lamp** will flash. To capture other images, you will first need to delete some images from memory. (See page 37.)
- The Digital Camera is focused automatically.
- Avoid covering the lens with your fingers when capturing images.
- Do not subject the LCD Viewfinder to pressure or shock.
- Hold the Digital Camera as steady as possible when capturing an image.
- The active LCD Viewfinder image will have a slightly degraded appearance when compared to a captured or transferred image. This is normal.

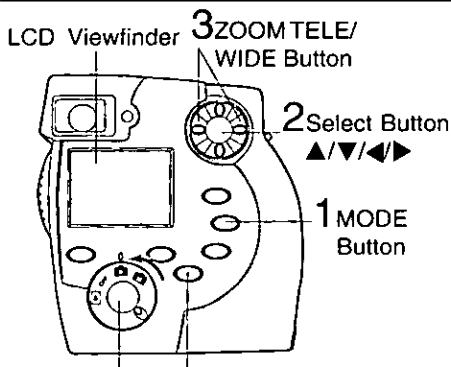
Capturing Images

Capturing Images (AUDIO ON)

You can record audio for 5 seconds with a still image. The still image and audio can then be played back in the PLAY mode. (See page 25.)

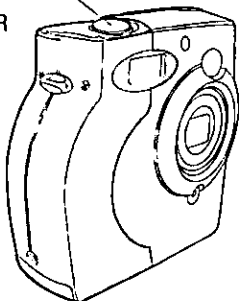
Before you begin

Set the POWER Switch to  (REC) or  (MANUAL REC). (See pages 15, 16.)



POWER Switch 2  AUDIO Button


4, 5
SHUTTER











Note

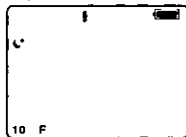
- The next image cannot be captured until the previously captured image is no longer displayed on the LCD Viewfinder.
- Power shuts off if there is no activity over 1 minute with Battery as a power source to conserve power. Press SHUTTER to turn power back on.
- Do not subject unit to a strong impact during record or playback. Unit may not function normally.
- AUDIO ON settings returns to off mode each time an image is captured. Repeat these steps each time AUDIO ON is used.

1 Press **MODE** repeatedly to select recording mode (SF, F, N, 2X, 3X (ZOOM)). (See page 22.)

- If you select TIFF or  mode, you cannot record audio.

2 Press  to capture the image with audio.


- When  is pressed, the  mark is displayed on the screen.
- If you want to use SLOW SHUTTER: In Manual Rec mode, press MENU to display the MENU screen, and then press  or  to select  SLOW SHUTTER. Press  or  to select ON. (Manual Rec only). (See page 10.)




3 Press **ZOOM TELE** or **WIDE** to zoom In and Out.

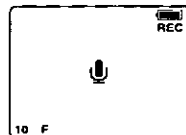
- Zoom magnification level is up to 2X.

4 Press **SHUTTER** down halfway to lock Auto Focus.

-  mark is displayed on the screen.
- Beep sounds twice. (See page 23.)



5 Press **SHUTTER** down the rest of the way to actually capture the image.

- Shutter sounds once. (See page 23.)
- You can record the audio for 5 seconds by pressing the SHUTTER button. While "REC" and  mark is flashing, you can record the audio.





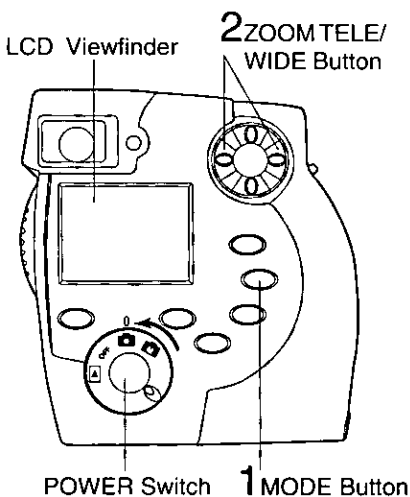
- While the Digital Camera processes the image, REC will flash on the LCD Viewfinder and the captured image will be displayed on the LCD Viewfinder for a few seconds. Images cannot be captured while REC flashes.

Motion Image Rec Mode, Burst Rec Mode

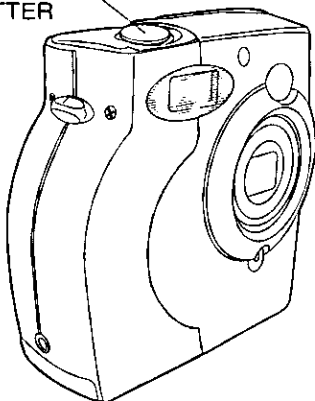
You can select  Motion Image capture or  Burst Image capture as the REC MODE.



Before you begin

Set the POWER Switch to  (REC) or  (MANUAL REC).
(See pages 15, 16.)



3, 4
SHUTTER



- 1 Press **MODE** repeatedly to select Motion () or Burst () recording mode.
- 2 Press **ZOOM TELE** or **WIDE** to zoom In and Out.
 - Zoom magnification level is up to 2X.
- 3 Press **SHUTTER** down halfway to lock Auto Focus.
 - "●" mark is displayed on the screen.
 - Beep sounds twice. (See page 23.)
- 4 Hold down the **SHUTTER** button the rest of the way to actually capture the image.




REC MODE

- A Motion Image with audio can be captured for 12 seconds when SHUTTER is pressed.

REC MODE

- A burst of up to 3 images with no audio (one frame every 1 second) can be captured while SHUTTER is pressed.
- While the Digital Camera processes the image, REC will flash on the LCD Viewfinder and the captured image will be displayed on the LCD Viewfinder for a few seconds.

Note

- If you select , you cannot record audio.
- The next image cannot be captured until the previously captured image is no longer displayed on the LCD Viewfinder.
- Power shuts off if there is no activity over 1 minute with Battery as a power source to conserve power. Press SHUTTER to turn power back on.

Capturing Images

Recording Mode





- TIFF*** : **Tagged Image File Format**
(No compression)
Select for highest quality resolution with no compression.
- SF** : **Super Fine Mode (with audio)**
(Low compression)
Select for higher quality resolution with lowest compression (e.g., for printing).
- F** : **Fine Mode (with audio)**
(High compression)
Select for high resolution (e.g., for printing or archiving an image).
- N** : **Normal Mode (with audio)**
Select for lower resolution (e.g., for e-mail or posting on the Internet).
- ZOOM** : **Zoom Mode (with audio)**
Use to magnify image to twice or three times its normal size.
Image size at 2X Zoom is 1 024 x 768 and 3X Zoom is 640 x 480.
-  : **Motion Image Rec Mode (with audio)**
Create a short motion picture (one frame captured 0.1 seconds) for 12 seconds when SHUTTER is pressed.
 - REC will flash on the LCD Viewfinder while processing a motion image.
-  : **Burst Rec Mode**
Capture burst of up to 3 images (one image every 1 second) while SHUTTER is held down.
 - If the number of remaining pages is less than 3, only the number of images equal to the remaining memory will be captured.

Image Resolution and Capacity



REC Mode	Image Resolution	Capacity (w/Supplied 32 MB SD Memory Card)
TIFF	2 048 x 1 536	3 image
SF	2 048 x 1 536	Approx. 29 images
F	2 048 x 1 536	Approx. 57 images
N	1 024 x 768	Approx. 145 images
2X ZOOM	1 024 x 768	Approx. 145 images
3X ZOOM	640 x 480	Approx. 315 images
	320 x 240	12 seconds x Approx. 19 sets
	1 024 x 768	Approx. 172 images

- The number of images given for each mode applies when all images are taken in same mode.
- You can change recording modes at any time before capturing an image.
- The number of images that can be captured may differ depending on the subject. After capturing an image, the number may not decrease, or it may decrease by two. This is normal.

TIFF* (RGB)

- TIFF can only be selected in MANUAL REC mode.
- TIFF (RGB) images may not be viewable on all computers.
- It takes approx. 3 minutes to save image data to the Memory Card.

Note

- During  (Motion Image Rec mode) and  (Burst Rec mode), SELF TIMER and FLASH go to OFF and cannot be altered.

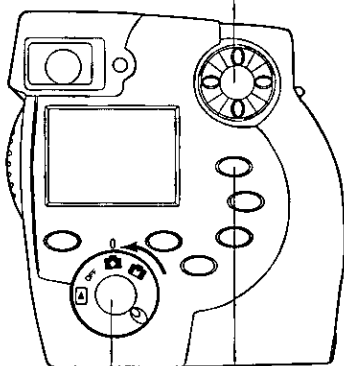
Beep

Set Digital Camera to beep (low or high volume), when an image is captured, or set to OFF.

Before you begin

Set the POWER Switch to (REC), (MANUAL REC) or (PLAY). (See pages 15, 16.) Press MENU to display the MENU screen.

1 Select Button
▲/▼/◀/▶



POWER Switch 2 MENU Button

Note

- You can select BEEP mode in the REC, MANUAL REC and PLAY mode.
- To change settings, repeat these steps.

Rec Review

When in REC or MANUAL REC mode, you can confirm the last captured image by holding the ▼ button down.

Note

- After capture, if POWER is switched to OFF or PLAY, the image cannot be viewed.

Zoom Rec Review

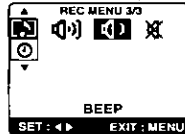
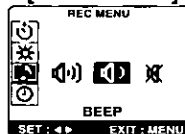
When in REC or MANUAL REC mode, you can confirm the last captured image at 2X zoom by holding ▲ button down.

Note

- After capture, if POWER is switched to OFF or PLAY, the image cannot be viewed.

1 Press ▲ or ▼ to select BEEP and press ◀ or ▶ to select one of the three settings below.

[REC mode] [MANUAL REC mode]



[PLAY mode]



- : Select to turn OFF the beep sound.
- : Select to hear a low beep sound.
- : Select to hear a loud beep sound.

2 Press MENU to exit.

Digital Camera will beep:

- When BEEP is set to LOW or HIGH, camera will beep as follows.
Once when you press MODE, MENU, or FLASH Buttons, etc.
Once when an item is selected in Menu.
- Twice when you press SHUTTER half way to adjust focus.
- After SHUTTER is pressed, a shutter sound is audible when an image is captured.

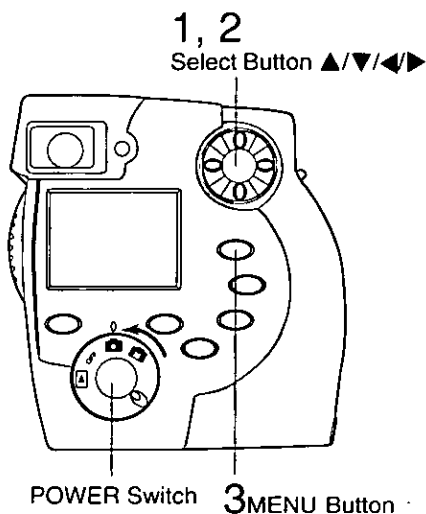


Adjusting LCD Viewfinder Brightness

You may want to brighten or darken the LCD (Liquid Crystal Display) Viewfinder for easier viewing. This adjustment will not affect the captured image brightness.

Before you begin

Set the POWER Switch to (REC), (MANUAL REC) or (PLAY). (See pages 15, 16.) Press MENU to display the MENU screen.



- 1 Press ▲ or ▼ to select LCD BRIGHTNESS in the MENU screen.

[REC mode] [MANUAL REC mode]



[PLAY mode]



- 2 Press ◀ (-) or ▶ (+) to change the brightness of the LCD Viewfinder; (+) for brighter, (-) for darker.

- 3 Press MENU to exit.

Note

- The original BRIGHTNESS will be restored when the Digital Camera is turned off.
- The brightness level set in this menu is not related to the brightness of the captured image.

Playing Back Captured Images

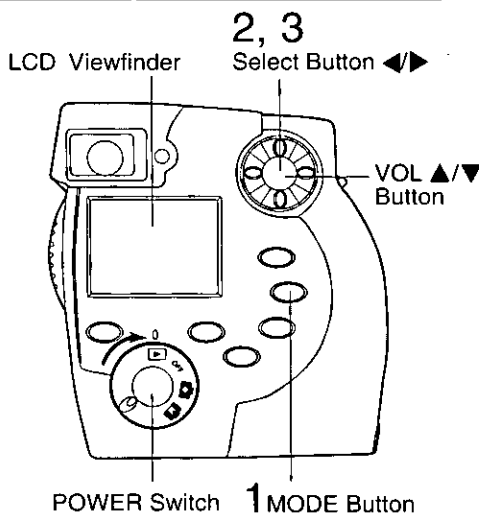
Manual Playback

You can playback recorded images on the LCD Viewfinder.

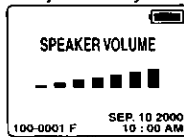
- For images recorded with audio, a [] is displayed on the screen and audio is played back when SHUTTER is pressed.

Before you begin

Set the POWER Switch to [] (PLAY). (See page 16.)



Note

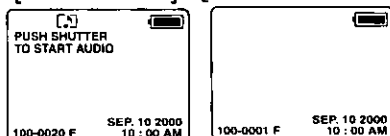
- A Still image with audio will be played. The audio volume can be adjusted by pressing VOL ▲/▼.
- 
- SPEAKER VOLUME
- 100-0001 F SEP. 10 2000 10 : 00 AM
- Turn off the LCD monitor when not in use by pressing the DISPLAY twice. To turn the monitor back on, press the DISPLAY again.
 - Pressing DISPLAY with LCD OFF turns LCD ON and displays the menu. However, after selecting settings and exiting the menu, the LCD will stay ON.
 - Power shuts off if there is no activity over 2 minutes with Battery as a power source to conserve power. Press SHUTTER to turn POWER back.

1 Press **MODE** repeatedly to set display mode to normal screen.

2 Press **▶ (+)** or **◀ (-)** repeatedly, [**▶ (+)** for ascending order, and **◀ (-)** for descending order] to change the displayed image on the LCD Viewfinder.

- The image page number and recording mode are displayed at the bottom of the screen.

[With AUDIO] [Without AUDIO]




- If there are no images in memory, a blue back screen will be displayed.
- The image with audio is played back when SHUTTER is pressed.

3 Hold down **▶ (+)** or **◀ (-)**, [**▶ (+)** for ascending order, and **◀ (-)** for descending order] to change the displayed image on the LCD Viewfinder by fast page advance.

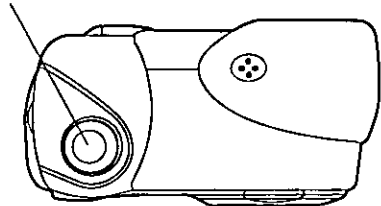
- Page number is changed continuously while **▶ (+)** or **◀ (-)** is held down.
- Selected page is displayed when button is released.

Playing Back Captured Images

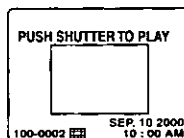
Motion Image Playback

When an image captured in  Motion Image Rec mode (see page 22) is displayed, a message like the one at right appears.

1 SHUTTER



- To adjust volume, press VOL ▲/▼.




- 1 Press **SHUTTER** to start playback of Motion image.
- 2 While Motion Image data is being read, "NOW LOADING" is displayed on the LCD Viewfinder.



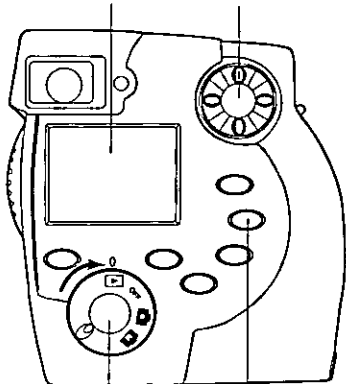
Multi Playback

If you select Multi Playback in the PLAY MODE, you will be able to see Thumbnail images on the LCD Viewfinder (each Thumbnail page will contain 9 images).

Before you begin

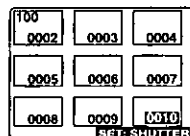
Set the POWER Switch to  (PLAY). (See page 16.)

LCD Viewfinder 2 Select Button ►



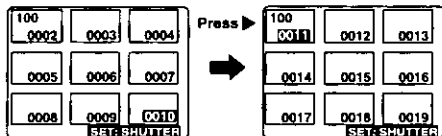
POWER Switch 1 MODE Button

- 1 Press **MODE** repeatedly to display the Multi Playback screen.



- When many images are stored in the Memory Card, it may take a while for the Multi Image screen to playback.

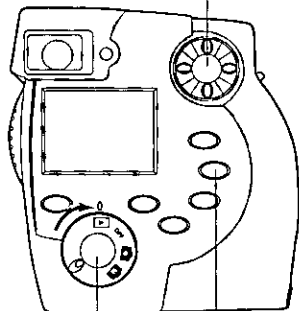
- 2 Press **► (+)** repeatedly to scroll forward through Multi Image pages (each page contains 9 images).
 - All images will be displayed as still images.



Playing Back Captured Images

3, 4, B, C

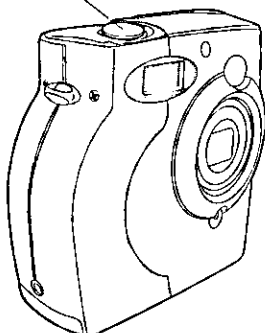
Select Button ▲/▼/◀/▶



POWER Switch

A, C, E
MODE Button

5, D SHUTTER

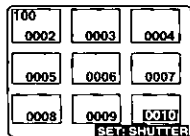


Zoom Playback

Before you begin

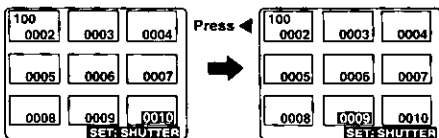
Set the POWER Switch to (PLAY). (See page 16.)

A Press MODE to display the Multi Playback screen.

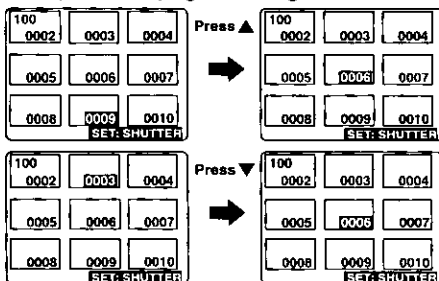


B Press ▲, ▼, ◀, or ▶ repeatedly to select the image to display.

3 Press ◀ (-) to move back through the images on the page until the number of the desired image is highlighted.

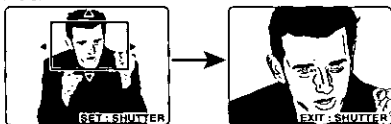


4 Press ▲ or ▼ to go directly to the next or previous page of images.



5 Press SHUTTER to playback the selected image, and to return to Manual Playback.

C Press MODE again to set display to Zoom, and then press ▲, ▼, ◀, or ▶ repeatedly to change the zooming area.



D Press SHUTTER to zoom in on the selected area.
• Press SHUTTER again to go back to the previous screen.

E Press MODE to go back to the normal screen.


Note

- The zooming area cannot be selected for (Motion Image Rec) (QVGA).

Audio Dubbing

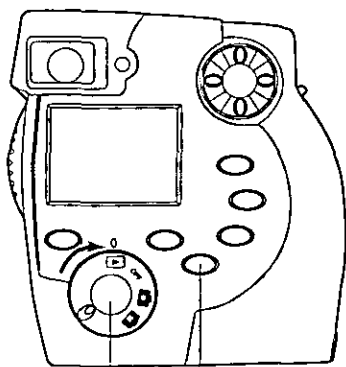
You can record audio for 5 seconds only onto a previously captured image.

Note

- This feature is not available if the selected image was captured in  (Motion Image Rec) or TIFF mode.

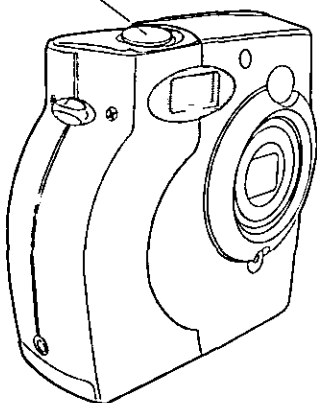
Before you begin


Set the POWER Switch to  (PLAY). (See page 16.)

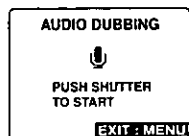


POWER Switch 1  AUDIO Button


2 SHUTTER



- 1 Press  to display the AUDIO DUBBING menu.

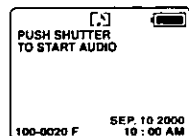


- 2 Press SHUTTER to start AUDIO DUBBING.



- REC and  mark will flash on the LCD Viewfinder.

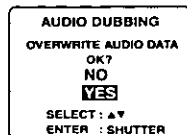


- To playback the recorded audio, press SHUTTER.



Caution

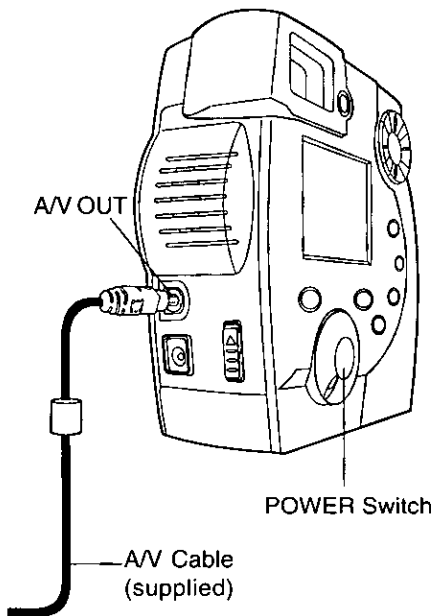
- If the selected image has audio data, the following message appears. Press  or  to select YES if you want to replace the audio.



Note

- Audio dubbing may decrease image capture capacity.
- This feature may not work if Memory Card has little memory remaining.

Viewing Images on Your TV Screen and Transferring Your Images (VCR)

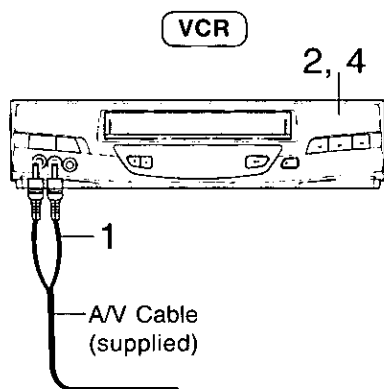
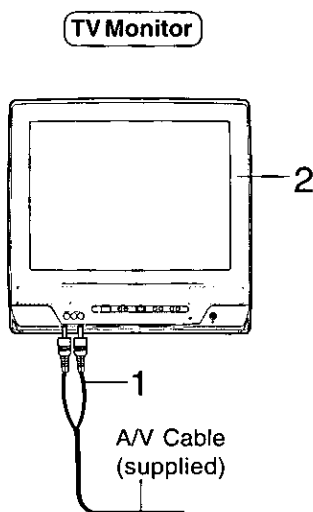


- 1** Connect the Digital Camera to your TV or VCR using the A/V Cable (supplied) as shown.
- 2** Turn on your TV and select its video input mode. If using a VCR, set it to LINE input. (See TV/VCR manual.)
- 3** Set the Digital Camera POWER to PLAY. To view playback on a TV Monitor, perform playback as described on pages 25-27.
 - The POWER LED Lamp lights up.
- 4** If using a VCR, you can record the desired images. (See VCR manual.)

Note

- For extended periods of use, it is recommended to use the AC Adaptor (supplied) as a power source.
- On screen displays will not appear on the TV monitor.
- You can view REC or MANUAL REC mode, however picture quality is best in PLAY mode.

Basic Operation



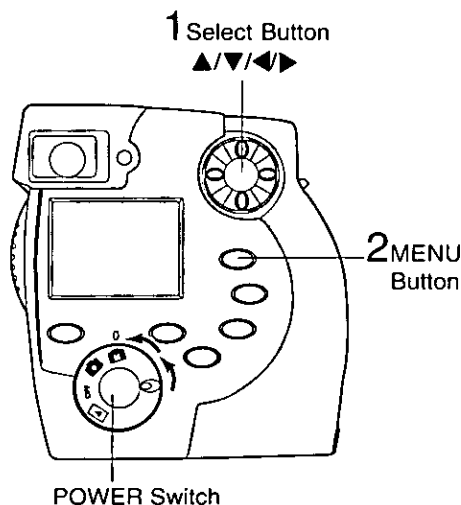
Connect the A/V OUT Terminal on the Camera and the AUDIO IN/VIDEO IN on the VCR or TV using the A/V Cable (supplied).

Focus

This camera enables you to capture almost any subject. However, you may need to change focus modes according to the distance from the subject or dark place.

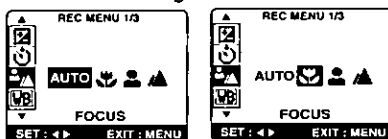
Before you begin

Set the **POWER Switch** to **M** (**MANUAL REC**). (See page 16.)
Press **MENU** to display the **MENU** screen.



- 1 Press **▲** or **▼** to select **FOCUS** and press **◀** or **▶** to select one of the four modes shown below.

• Default setting is **AUTO**.



AUTO : Capture images within a range of 4.7 inches (12 cm) to infinity.



Close-up

Focus will adjust around 4.7 inches (12 cm).



Portrait

Focus will adjust around 4.9 feet (1.5 m).



Landscape

Infinity.

- 2 Press **MENU** to exit.

• Selected mode will appear on the LCD Viewfinder. (See page 9.)

Note

- When the Camera is set to **POWER OFF**, the Focus setting will be stored in Camera memory. When the Camera is set to **POWER ON**, the Focus setting will default to the previous setting.

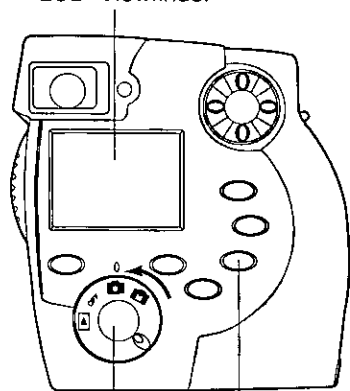
Using the built-in Flash

This camera includes a built-in Flash which can be used to capture images in dimly lit conditions.

Before you begin

Set the POWER Switch to **REC** or **M** (MANUAL REC). (See pages 15, 16.)

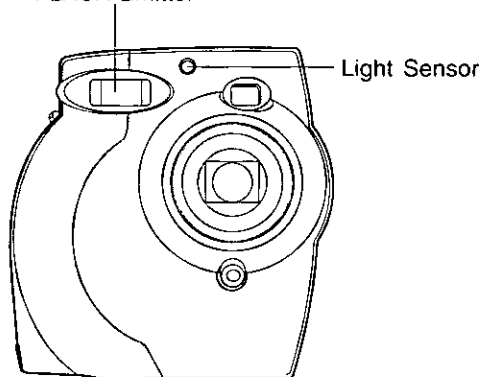
LCD Viewfinder




POWER Switch

1  FLASH Button

FLASH Emitter






Light Sensor

1 Press  (FLASH) repeatedly to select flash mode.




The mode that is selected will be displayed on the LCD Viewfinder.

AUTO (No indication) :

The flash automatically lights depending on lighting conditions.

-  : The flash will light whenever you capture an image (flash twice).
-  : This setting reduces the red reflections in the eye when the flash lights. The flash will light three times, once before capturing and then twice during capturing.
-  : The flash will not light even when you capture an image.

Note

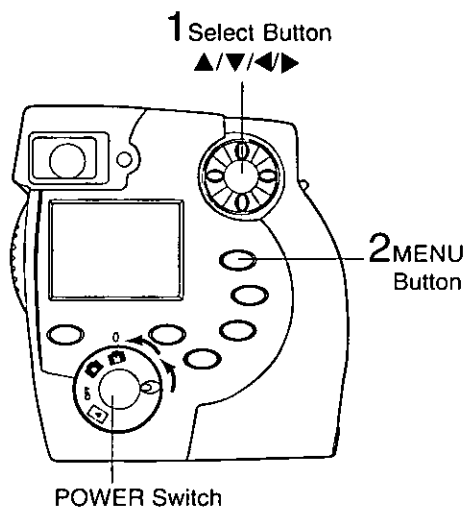
- The effective range of the flash is roughly 7.8 inches (20 cm) to 8.2 feet (2.5 m). If you are using the flash in very bright areas, the image background may become dark.
- Do not use the flash close to a person's face as it may be harmful to the eyes. Especially when capturing images of infants or small children, keep at least 3.3 feet (1 m) away.
- When the recording mode is set to  (Motion Image Rec) or  (Burst Rec), the flash mode will go to  (OFF).
- Do not cover the FLASH Emitter and Light Sensor with your finger or other object.
- When the Camera is set to POWER OFF, the built-in flash setting will be stored in Camera memory. When the Camera is set to POWER ON, the built-in flash setting will default to the previous setting.

White Balance

During normal use, Auto White Balance automatically maintains optimum color balance. If this is not the case, set manually.

Before you begin

Set the **POWER Switch** to **M (MANUAL REC)**. (See page 16.)
Press **MENU** to display the MENU screen.





- 1 Press **▲** or **▼** to select **WB WHITE BALANCE** and press **◀** or **▶** to select one of the four settings shown below.
 - Default setting is **AUTO**.



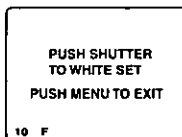
AUTO (No indication) :

Automatically maintains optimum color balance in most lighting conditions.

-  : When shooting outdoors on a sunny day.
-  : When the source illumination is a halogen lamp.

WS (SET) : Manually sets the color balance to a fixed position based on the current lighting environment.

- Aim the camera at white object (important: white object must fill entire LCD viewfinder).
- Press **SHUTTER** button.



- 2 Press **MENU** to exit.

- Selected mode will appear on the LCD Viewfinder. (See page 9.)

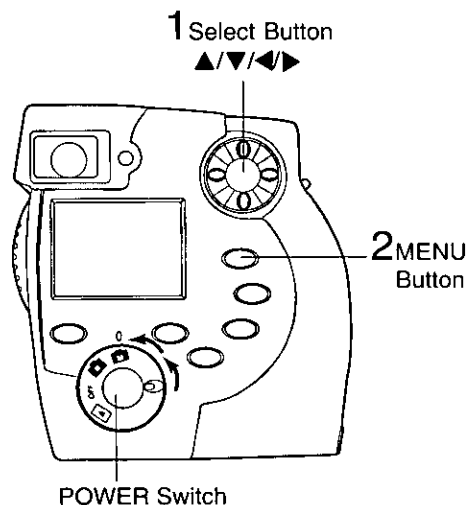
Note

- When the Camera is set to **POWER OFF**, the white balance setting will be stored in Camera memory. When the Camera is set to **POWER ON**, the white balance setting will default to the previous setting.

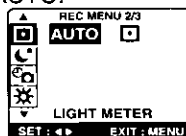
According to the recording condition and purpose, set light metering to measure exposure time.

Before you begin

Set the **POWER Switch** to **M** (MANUAL REC). (See page 16.)
Press **MENU** to display the MENU screen.



- 1 Press ▲ or ▼ to select LIGHT METER and press ◀ or ▶ to select one of the two settings shown below.
 - Default setting is AUTO.



AUTO (No indication) :

Ideal for normal capturing, the focus is set to the center portion of the finder and the entire image is metered.

- : A small sphere in the center portion of the finder is metered. This mode is useful for capturing back lit conditions, such as when the subject is brightly lit.

2 Press MENU to exit.

- Selected mode will appear on the LCD Viewfinder. (See page 9.)

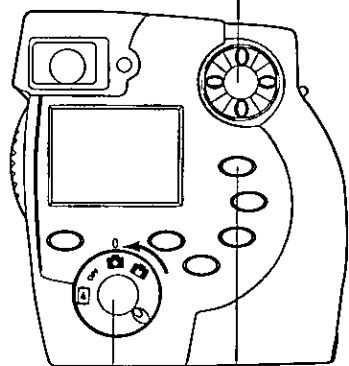
Self Timer Recording

The Self-Timer allows you to capture an image about 10 seconds after pressing the shutter.

Before you begin

Set the POWER Switch to (REC) or (MANUAL REC). (See pages 15, 16.) Press MENU to display the MENU screen.

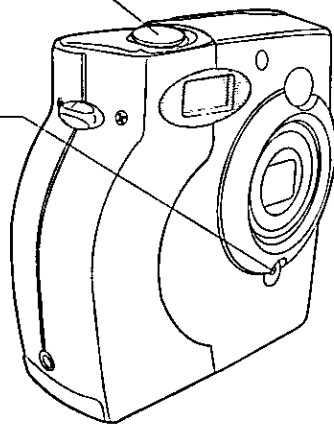
1 Select Button



POWER Switch 2 MENU Button

3 SHUTTER

Self-Timer Indicator

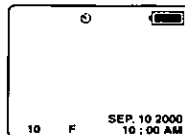


- 1 Press or to select SELF TIMER and press or to select ON. This puts the camera in self-timer mode.

[REC Mode] [MANUAL REC Mode]



- After ON is selected and MENU is pressed, mark will appear on the LCD Viewfinder. (See page 9.)



- 2 Press MENU to exit this menu mode.

- 3 Press SHUTTER.

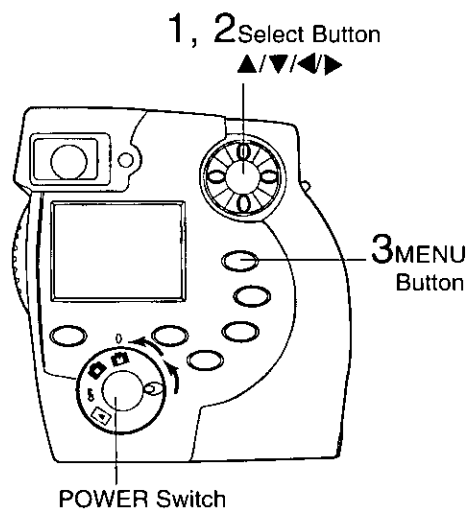
- The Self-Timer Indicator lights up. The indicator starts flashing rapidly after about 8 seconds and the image is captured about 2 seconds later.
- The Self-Timer setting returns to OFF mode each time an image is captured. Repeat these steps each time Self-Timer is used.

Adjusting the Iris Manually

Normally, the camera adjusts the exposure automatically. However, when the background is extremely bright, or when the subject is backlit, you can compensate by adjusting the Iris manually.

Before you begin

Set the POWER Switch to **M** (MANUAL REC). (See page 16.)
Press MENU to display the MENU screen.



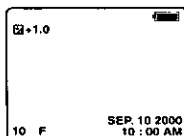
- 1 Press ▲ or ▼ to select **IRIS**.



- 2 Press ◀ (-) or ▶ (+) to change the IRIS;
Press (+) to increase the brightness.
Press (-) to decrease the brightness.



- 3 Press MENU to exit.
 - The current setting appears in the left side of the screen.



Note

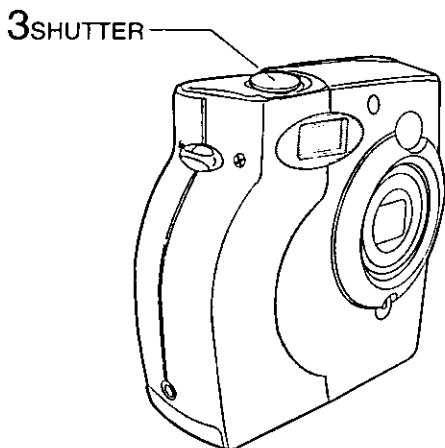
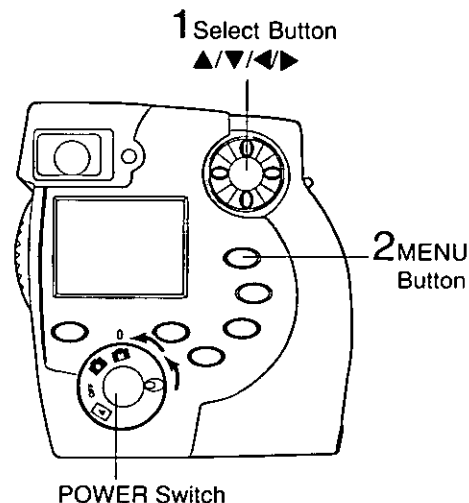
- There are 7 brightness compensation levels ranging from -1.5 EV to +1.5 EV.
- A blue sky may appear somewhat whiter when the brightness is increased.
- The brightness cannot be adequately compensated for in extreme backlight conditions.
- The original exposure is automatically restored when the power is turned off.
- When the Camera is set to POWER OFF, the iris setting will be stored in Camera memory. When the Camera is set to POWER ON, the iris setting will default to the previous setting.

Time Lapse Recording

Time Lapse enables you to set the camera to automatically capture an image from once every minute to once every 24 hours.



Before you begin

Set the **POWER Switch** to **M** (**MANUAL REC**). (See page 16.)
Press **MENU** to display the **MENU** screen.

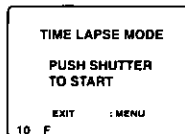


- 1 Press **▲** or **▼** to select **TIME LAPSE** and press **◀** or **▶** to select time interval.
You can select a capture rate of approx. 1MIN, 5MIN, 10MIN, 30MIN, 1HOUR, 6HOUR, 12HOUR, or 24HOUR.



- Time Lapse feature is available with Super Fine (SF), Fine (F), Normal (N) and 2X, 3X (Zoom) mode.
If the REC mode is set to TIFF,  or  mode, change REC mode. (See page 22.)

- 2 Press **MENU** to set time lapse mode.



- 3 Press **SHUTTER** to start time lapse mode recording.

- **POWER LED** will flash while image is being processed.
- Press **MENU** to exit this mode.

Note

- During time lapse recording (even during non-recording intervals), the battery may become depleted. Therefore, using an AC Adaptor (supplied) is recommended.
- During time lapse, the **ZOOM** area is not displayed.

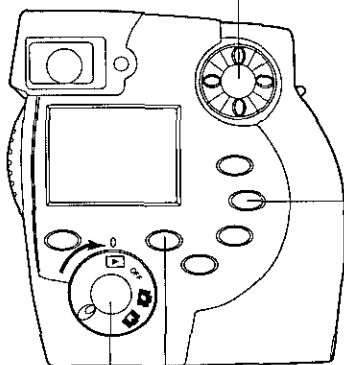
To Delete Specific Images

Warning: Once deleted, images cannot be restored.

Before you begin

Set the **POWER Switch** to **▶ (PLAY)**.
(See page 16.)

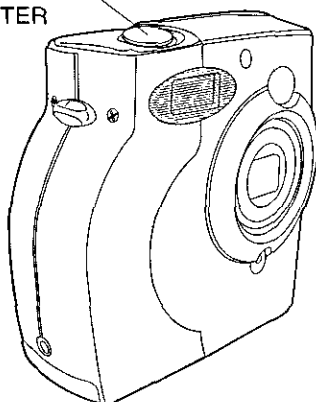
1, **B** Select Button



A MODE Button

POWER Switch 2, **A, C**
DELETE Button

3, **B**
SHUTTER

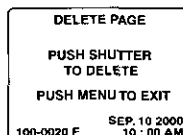


Page Delete

You can delete unwanted images and increase the remaining image memory.

1 Press **▶ (+)** or **◀ (-)** repeatedly to change the displayed image on the LCD Viewfinder, and select the image you want to delete.

2 Press **DELETE** to display **DELETE PAGE** screen.



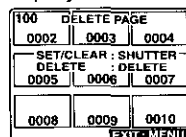
3 Press **SHUTTER** to delete an image.

- Image page numbers are adjusted automatically as images are deleted.
- To delete other specific image pages, please repeat steps 1~3.

Multi Delete

You can delete selected images on the Multi Playback screen from memory easily with this operation.

A Press **MODE** repeatedly to display the Multi Playback screen, and then press **DELETE** to display the Multi Delete screen.



B Press **▲, ▼, ◀ or ▶** to select the image you want to delete (up to 100 images), then press **SHUTTER** to set the selection.

- The file number of the selected image is displayed in red.
- Press **MENU** to exit this menu.
- To cancel a selection, select the image and press **SHUTTER** again.

C Press **DELETE** to delete the selected images.

- "COMPLETED" is displayed on the LCD Viewfinder.

Important:


- While deleting images, **do not turn off the Digital Camera or unplug the AC Adaptor (supplied)** because this will cause irreversible damage to the memory, resulting in reduced image storage capacity.

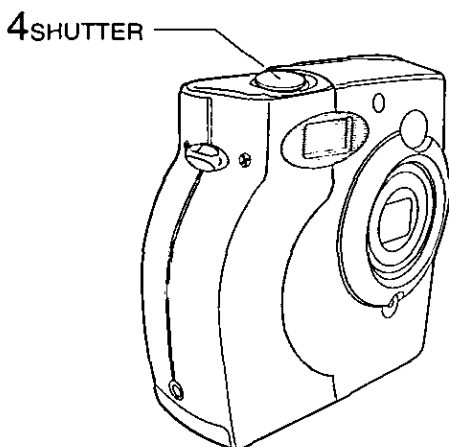
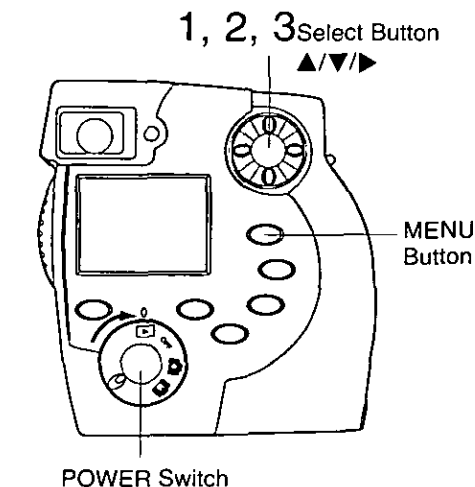
To Delete All Images


You can delete all images from memory easily with this operation.

Warning: Once deleted, images cannot be restored.

Before you begin

Set the **POWER Switch** to  (PLAY).
(See page 16.) Press **MENU** to display the MENU screen.



- 1 Press ▲ or ▼ to select  **DELETE ALL** and press ▶ to select **DELETE ALL**.



- 2 Press ▲ or ▼ to select **DELETE**.



- 3 Press ▶ to display **DELETE ALL** menu and press ▲ or ▼ to select **YES**.



- To exit this menu, press ▲ or ▼ to select **NO**.

- 4 Press **SHUTTER** to delete all image pages.

- "PLEASE WAIT" will be displayed on screen as all images are deleted from memory. Deletion is complete when "NO IMAGE" is displayed.

Important:

- While "PLEASE WAIT" is displayed, **do not turn off the Digital Camera or unplug the AC Adaptor (supplied)** because this will cause irreversible damage to the memory, resulting in reduced image storage capacity.

Formatting Memory Card

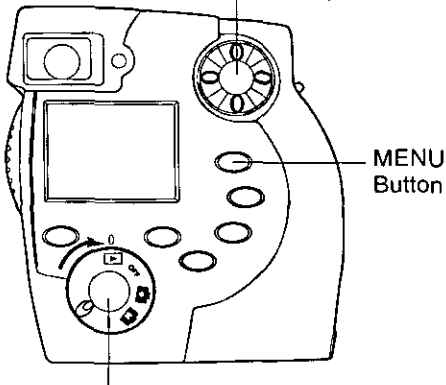
You can easily format your Memory Card using this operation.

Warning: Once formatted, all of your data will be deleted and cannot be restored.

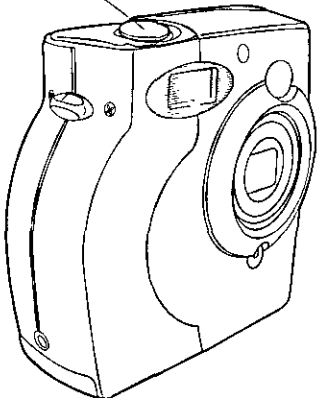
Before you begin


Set the POWER Switch to  (PLAY). (See page 16.) Press MENU to display the MENU screen.

1, 2, 3 Select Button
▲/▼/▶



4 SHUTTER



- 1 Press ▲ or ▼ to select  DELETE ALL and press ▶ to select FORMAT.



- 2 Press ▲ or ▼ to select FORMAT.



- 3 Press ▶ to display FORMAT menu and press ▲ or ▼ to select YES.



- To exit this menu, press ▲ or ▼ to select NO.

- 4 Press SHUTTER to format.

- "PLEASE WAIT" will be displayed on screen as all images are deleted from memory. Deletion is complete when "NO IMAGE" is displayed.

Important:

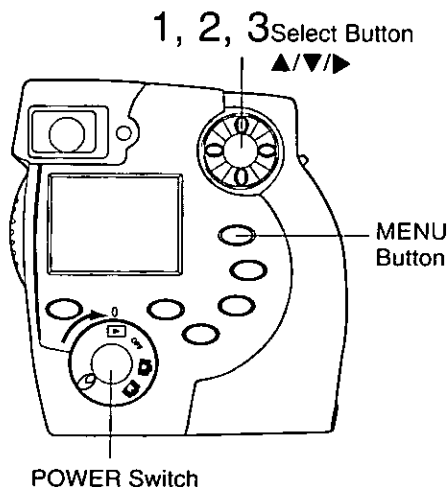
- While "PLEASE WAIT" is displayed, do not turn off the Digital Camera or unplug the AC Adaptor (supplied) because this will cause irreversible damage to the memory, resulting in reduced image storage capacity.

Slide Show

You can playback captured images as a slide show.


Before you begin

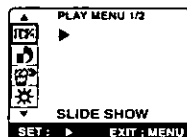
Set the POWER Switch to  (PLAY). (See page 16.) Press MENU to display the MENU screen.



Important:

- While SLIDE SHOW is proceeding, do not turn off the Digital Camera or unplug the AC Adaptor (supplied) because this will cause irreversible damage to the memory, resulting in reduced image storage capacity.

- 1 Press ▲ or ▼ to select  SLIDE SHOW.

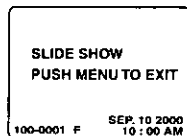


- 2 Press ▶ to display the next screen.

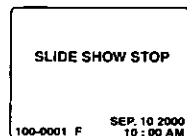


- ALL : SLIDE SHOW starts for all images.
- DPOF: SLIDE SHOW starts for the image pages that were stamped with the DPOF mark. (See page 57).

- 3 Press ▲ or ▼ to select ALL or DPOF and press ▶ to start slide show.



- Press MENU to exit this mode.



Transferring Your Images (Windows)

System Requirements:

- IBM PC/AT or compatible
- Windows 98, Windows Me, Windows 2000 preinstalled PC with USB port
- 15 MB available hard disk space for Drivers and QuickTime
- 315 MB available hard disk space for ArcSoft
- 32 MB or more of RAM (64 MB recommended)
- 256 Color monitor or full color recommended (24 bits per pixel or 16.7 million colors)
- CD-ROM drive (for installation)
- Mouse or other pointing device

Driver Installation

Note

- Please perform installation without the Digital Camera connected to the PC.
- It is necessary to restart the computer once the USB Driver is installed. If you have unsaved files, etc., save/close them before installing the USB Driver.

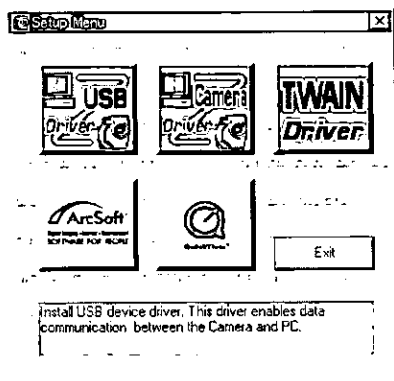
1 Turn on the PC (Personal Computer) and start up Windows.






2 Insert supplied Software CD-ROM into the CD-ROM drive.

3 Select and click the icon you want to install.

Note

- If a window does not appear automatically, click the "Start" button on your desktop and then click "Run". When the Run box is open, type in "D:\Instmenu.exe" where "D:" is the drive letter of your CD; then click "OK".
- Exit from all applications and disable any virus-protection applications.



- | | | |
|---------------------|---------|--|
| ipalm USB Driver | : Click |  |
| ipalm Camera Driver | : Click |  |
| Twain Driver | : Click |  |
| ArcSoft® | : Click |  |
| QuickTime* | : Click |  |

For information about the Application Software, see page 42.

4 Follow the instructions as they appear on your PC screen.

5 Click on "Exit" and restart the computer when installation is finished.

* Confirmation of QuickTime performance under Windows Me environment is performed. Please visit the Apple website for more on QuickTime.

Apple QuickTime : <http://www.apple.com/support/>

Transferring Your Images (Windows)

Twain Driver for ArcSoft® applications Installation

- The Twain Driver, when installed, allows your camera to communicate directly with ArcSoft applications.

Note

- For information on ArcSoft applications:
TEL: 1-510-440-9901
FAX: 1-510-440-1270
Web Site : <http://www.arcsoft.com>
E-mail: support@arcsoft.com

QuickTime Installation

- QuickTime, when installed, allows your Digital Camera to transfer Motion Image Recording files to your PC.

Note

- For information on Apple QuickTime, visit their website at :
<http://www.apple.com/support/>

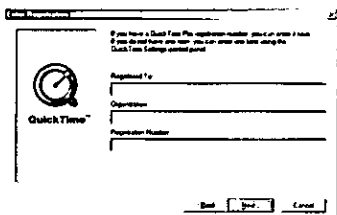
ipalm Camera Driver

- In order to run ipalm Camera Driver, it is necessary to first install QuickTime. Select "Full" on the Choose Installation Type Window.
- When you uninstall and then install the ipalm Camera Driver again, please do so after exiting ipalm monitor on the Desktop Taskbar.
- SCAN DISK, DEFRAGMENTER and other system tools will not run when "ipalm Monitor" is running. Therefore, please exit "ipalm monitor" (on the Desktop Taskbar) before running SCAN DISK, etc.

How to exit "ipalm monitor"

Right-click on the "ipalm monitor" on the Desktop Taskbar and then click "Exit".

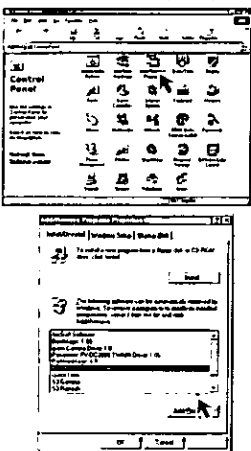
Before Installing QuickTime



During QuickTime installation, the screen below is displayed. When completing user registration, it is not necessary to enter a [Registration Number].

Uninstalling the Application Software

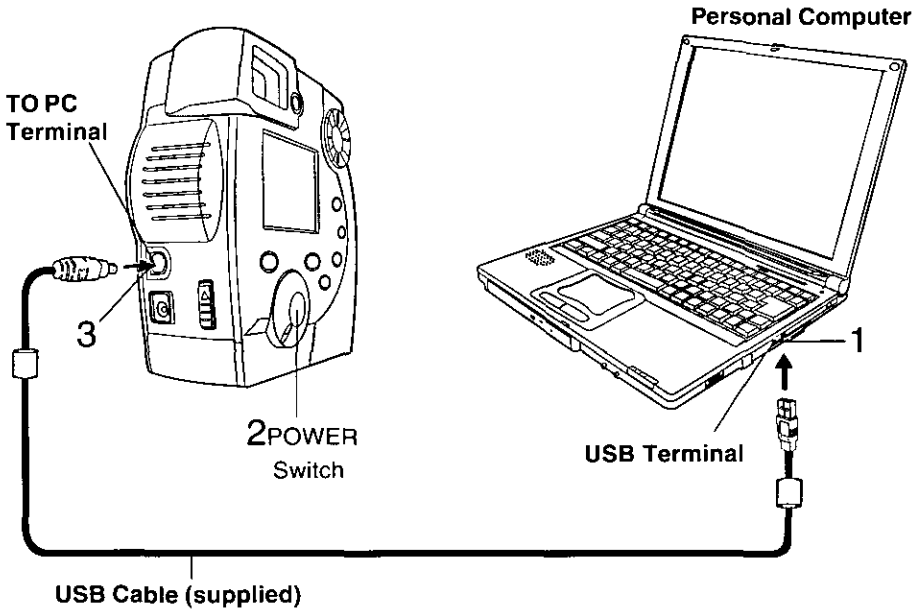
[This screen is an example (Windows 98)]



- 1 Left click on "Start", "Settings", and "Control Panel".
- 2 Double left -click on "Add/Remove Programs" in the "Control Panel".
- 3 Select and click the Application Software you want to uninstall. And left click on "Add/Remove...".
- 4 Follow the instructions as they appear on your PC screen.

Transferring Your Images (Windows)

*Data transfer using USB cable is applicable only for Microsoft® Windows® 98, Windows® Me or Windows® 2000 preinstalled PC with USB port, iMac®, iBook®, Power Macintosh® G3 with USB port or Power Mac™ G4 and Mac OS version 8.6, 9.0, 9.0.4.



Connection

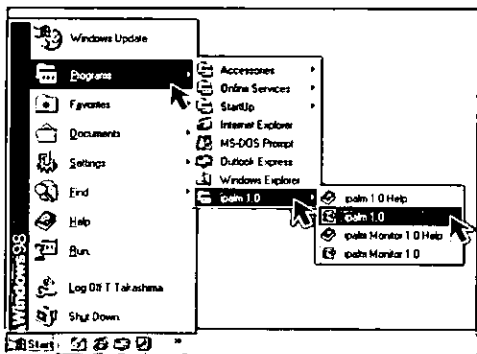
- 1 Turn on your PC.
- 2 Set the POWER Switch to PLAY on the Digital Camera.
- 3 Connect the Digital Camera to your PC (Windows) using the USB Cable (supplied).

Note

- For extended periods of use, it is recommended to use the AC Adaptor (supplied) as a power source.
- Once the USB driver is installed, the Digital Camera can be connected even after the PC has been started. The USB Cable (supplied) must be connected as described in the above steps.

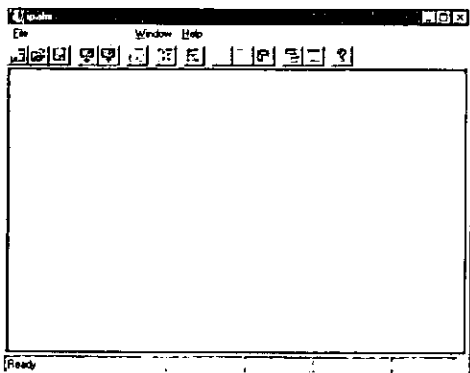
Transferring Your Images (Windows)

Running the Application



1 Select Programs/ipalm 1.0/ipalm 1.0 from the START menu.

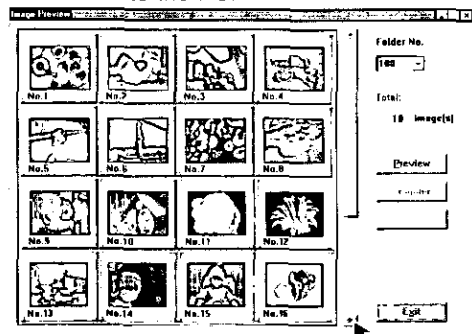
2 The ipalm Driver will open.




Transferring Your Images (Windows)

Data In from Camera

Selected Camera image file will be transferred to the PC.



1 Repeat steps 1 and 2 on page 44 to run the ipalm 1.0 driver.

2 Click  on the Toolbar or select [Communication] from the [File] menu, and then select [Data in from Camera] to establish a link between the Camera and PC.

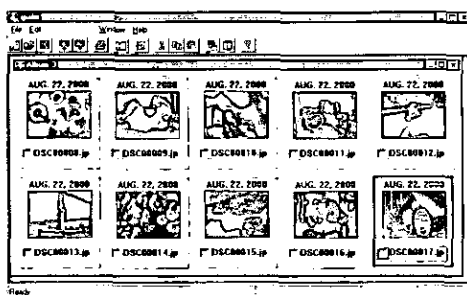
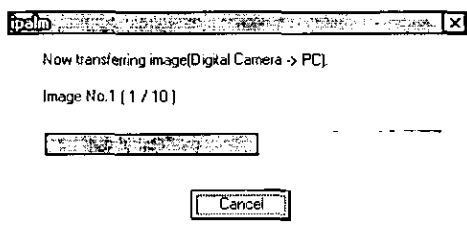
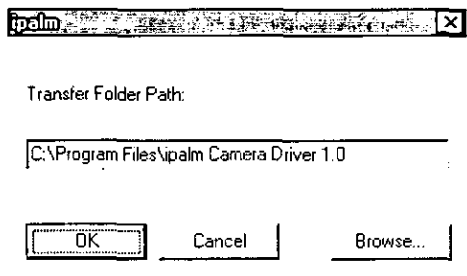
- The Image Preview List dialog box will appear.

3 Click [Preview] to display the first 16 Thumbnail images. Slide the scrollbar down to display the next images.

4 Select the desired Thumbnail images and then click [Transfer].

5 The Folder Select dialog box will appear. Select the folder you want the pictures to be transferred and saved and click [OK].

6 The Transfer Folder Path dialog box will appear. If the path and folder you selected is correct, click [OK]. Otherwise enter the desired path and folder name and click [OK]. [Now transferring image... (Digital Camera -> PC) will appear.



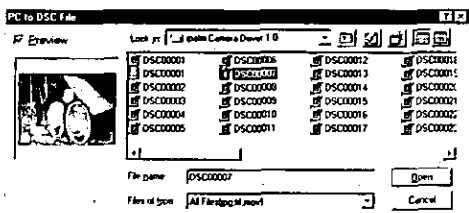
Note


- The images transferred from the Camera will automatically be saved as file name [DSC xxx. JPG], [DSC xxx. MOV] and [DSC xxx. TIF] (xxx indicates the number).
- The images transferred from the Camera will be automatically displayed on the album file.

Transferring Your Images (Windows)

Data out to Camera

You can transfer modified or pre-recorded image files from the PC to the Camera.



- 1 Repeat steps 1 and 2 on page 44 to run the software.
- 2 Select  from the Toolbar or Select [Communication] from the [File] menu, and then select [Data out to Camera] to transfer images from the PC to the Camera.
 - The File select dialog box will appear.
- 3 Select the drive and directory where the desired image is stored.
- 4 Select the desired file name from the file name list box, or type the file name in the file name text box.
- 5 Click [OK] to transfer the selected image to the camera. [Now transferring image... (PC -> Digital Camera)] will appear and the image transfer status will appear.

Note

- JPEG, TIFF, and QuickTime Movie image formats can be transferred from the PC to the Camera.

Transferring Your Images (Windows)

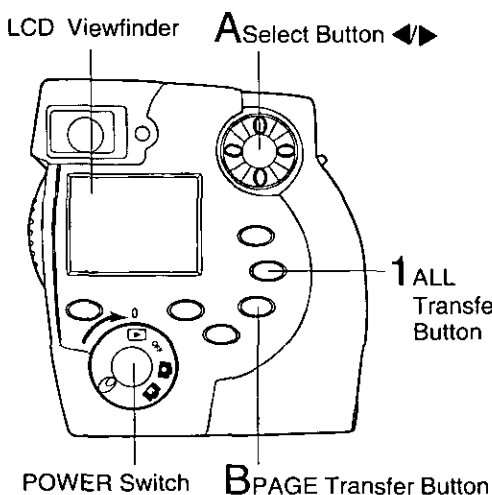
One Touch Transfer (ALL/PAGE)

The selected image can easily be transferred to the PC by pressing the ALL or PAGE buttons.

Before you begin

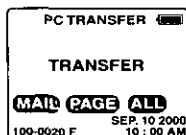
Set the POWER Switch to  (PLAY).
(See page 16.)

Connect the PC to the Camera using the USB Cable. "PC TRANSFER" appears on the LCD screen.



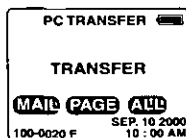
[To transfer all images on the Memory Card to the PC]

- 1 Press **ALL Transfer** to transfer all images on Memory Card to the PC.
 - A screen like the one below appears on the LCD screen. All images are transferred and made to an Album.



[To transfer a selected image on the Memory Card to the PC]

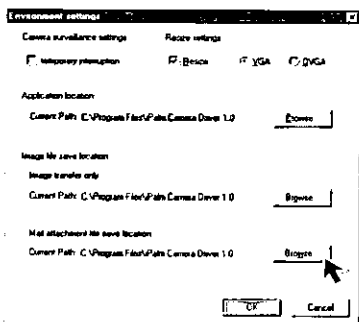
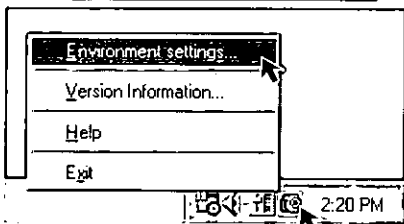
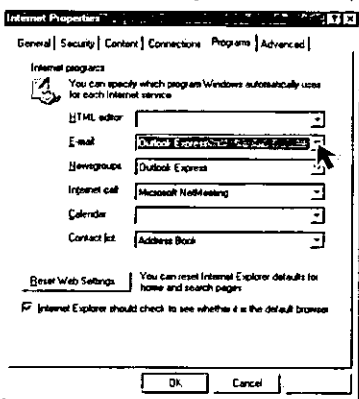
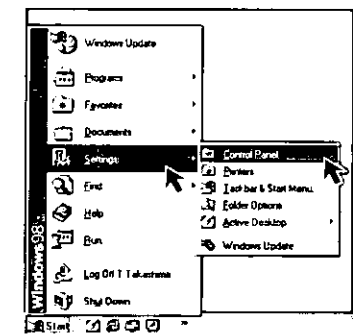
- A Press \blacktriangleleft or \blacktriangleright to select image to be transferred to the PC.
- B Press **PAGE Transfer** to transfer the image.
 - A screen like the one below appears on the LCD screen. The selected image is transferred. Still image with audio or motion image will be made into an Album.



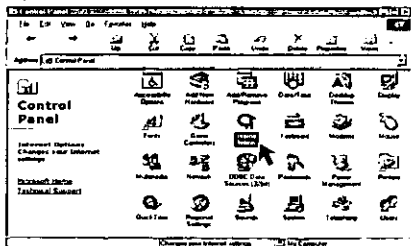
Special Features

Transferring Your Images (Windows)

To select the Mail Software




1 From the Taskbar, click "Start", select "Settings" click "Control Panel", and double-click "Internet Options".



2 Click the "Programs" tab and select the Mail software you are using from those displayed next to the "E-mail" item.

Note

- Depending on the MAPI compatible mail software version used, settings may not be able to be made normally. In this case, please follow your mail software instructions manual to perform MAPI settings.

3 Right-click on the  (ipalm Monitor) icon located at the Desktop Taskbar.

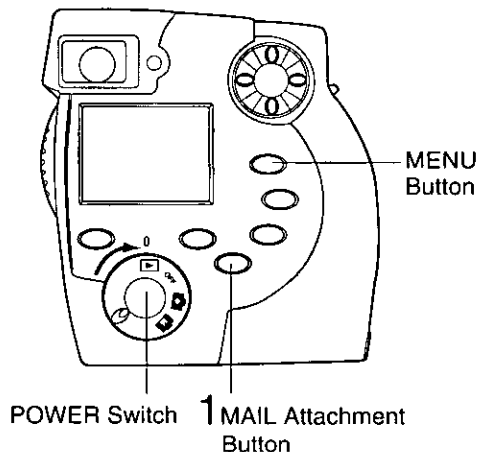
4 Select "Environment settings" from the Menu.

- To set the destination folder when a selected Camera image was transferred to the PC, set the "Image transfer only" item.
- To set the destination folder for a selected Camera image to be attached to the Mail software, set the "Mail attachment file save location" item.
- By pressing the "Browse..." button found in each item, you can alter the folder.

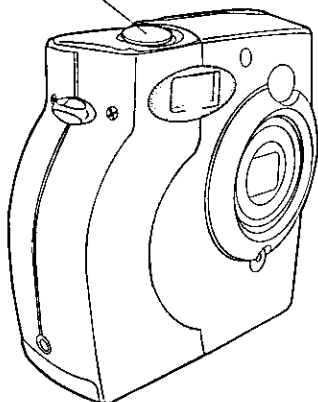
Transferring Your Images (Windows)

Easy Mail™

The selected image can easily be transferred to the PC by pressing the MAIL button.



2 SHUTTER

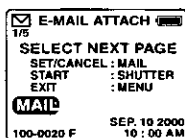


[To attach a selected image to your Mail software]

Note

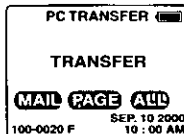
- The Mail software must support MAPI. Below are some Mail software which support MAPI:
Microsoft Outlook, Microsoft Outlook Express, Netscape Messenger, Eudora

- 1 Press MAIL Attachment** to display the image selection screen.
 - Select the image to be transferred.
 - If only still images are selected, up to 5 images can be selected at a time. Only 1 Motion image or image with audio can be selected. When in TIFF mode, a JPEG image will be attached.
 - Pressing MAIL again in the E-MAIL ATTACH screen will set the attachment.



- To remove this screen, **press MENU**.

- 2 Press SHUTTER** to transfer selected images to the PC where it is attached to the Mail software.



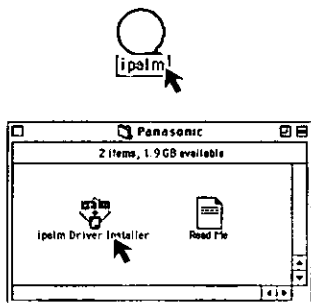
Transferring Your Images (Macintosh)

System Requirements:

- Mac OS 8.6, 9.0, 9.0.4
- iMac, iBook or Power Macintosh® G3 with USB port or Power Mac™ G4
- 64 MB or more of RAM
- 15 MB available hard disk space for Drivers and QuickTime
- 280 MB available hard disk space for ArcSoft
- 256 Color monitor or Full Color Monitor recommended (24 bits per pixel or 16.7 million colors)
- CD-ROM drive (for installation)
- USB Port
- Mouse or other pointing device

Restart your PC after installation of necessary software is completed.

ipalm Driver Installation



- 1** Turn on the Macintosh.
- 2** Insert the supplied Software CD-ROM into the CD-ROM Drive.
- 3** Double click the "ipalm" icon. Double click the "Panasonic" Folder.
- 4** Read the "Read Me" file.
- 5** Double click the "ipalm Driver Installer".

When the USB Driver is installed, the following changes will occur.

- The ipalm USB Driver is installed in the function expansion folder of the System folder.
- For Mac OS 8.6 users, if you encounter problems with USB manager 1.2 operation, install USB Mass Storage Support 1.3.5 or upgrade to USB manager version 1.4.1.
- If the "USBHIDUniversalModule" exists in the "Extensions" of the System Folder, turn "USBHIDUniversalModule" off.
- Inquire about Mac OS and Firmware updates at the Apple Computer Inc. web site (<http://www.apple.com/>).

The TWAIN Driver, when installed, allows your camera to communicate directly with ArcSoft applications.

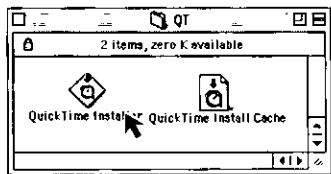
Transferring Your Images (Macintosh)

QuickTime Installation

- QuickTime, when installed, allows your Digital Camera to transfer Motion Image Recording files to your PC.
- Select "Full" on the Choose Installation Type Window.
- If QuickTime is preinstalled on your computer, but version 4.0 or higher is not fully installed, uninstall QuickTime, then perform installation from the included CD-ROM.

Note

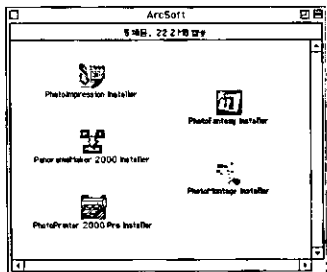
- For information on Apple QuickTime, visit their website at:
<http://www.apple.com/support/>



- 1 Turn on the Macintosh.
- 2 Insert the supplied Software CD-ROM into the CD-ROM Drive.
- 3 Double click the "ipalm" icon.
- 4 Double click the "QT" Folder and the "QuickTime Installer".
- 5 Follow the instructions as they appear on your Macintosh section screen.

ArcSoft applications Installation

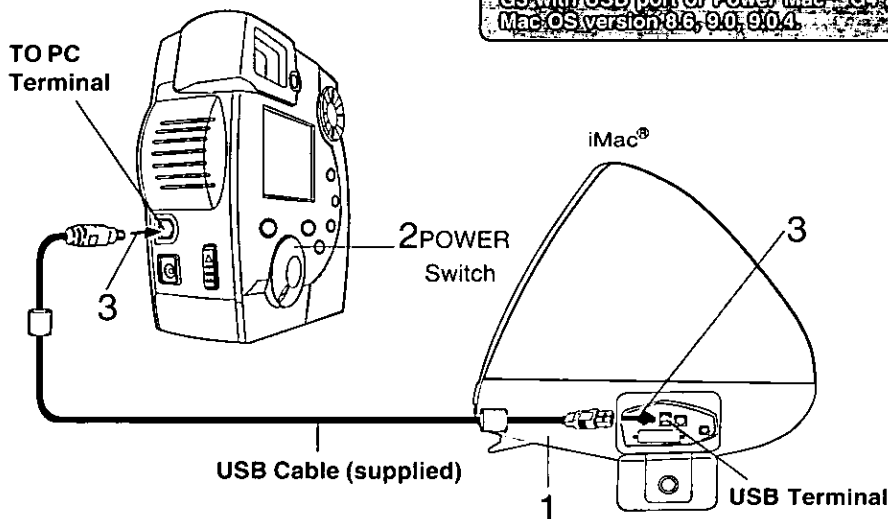
- For information on ArcSoft applications:
TEL:1-510-440-9901
FAX:1-510-440-1270
Web Site : <http://www.arcsoft.com>
E-mail: support@arcsoft.com



- 1 Turn on the Macintosh.
- 2 Insert the supplied Software CD-ROM into the CD-ROM Drive.
- 3 Double click the "ipalm" icon and the "ArcSoft" Folder.
- 4 Double click the "PhotoImpression Installer", "PhotoPrinter 2000 Pro Installer", "PanoramaMaker 2000 Installer", "PhotoFantasy Installer", and "PhotoMontage Installer".
- 5 Follow the instructions as they appear on your Macintosh section screen.

Transferring Your Images (Macintosh)

*Data transfer using USB cable is applicable only for Microsoft® Windows® 98, Windows Me, or Windows® 2000 (preinstalled) PC with USB port, iMac®, iBook®, Power Macintosh® G3 with USB port or Power Mac™ G4 and Mac OS version 8.6, 9.0, 9.0.4.



Connection

- 1** Turn on your PC.
- 2** Set POWER Switch to PLAY on the Digital Camera.
- 3** Connect the Digital Camera to your PC using the USB Cable (supplied).

Note

- For extended periods of use, it is recommended to use the AC Adaptor (supplied) as a power source.
- Once the USB driver is installed, the Digital Camera can be connected even after the PC has been started. The USB Cable (supplied) must be connected as described in the above steps.

Transferring Your Images (Macintosh)

Running the Application



ipalm Camera Driver

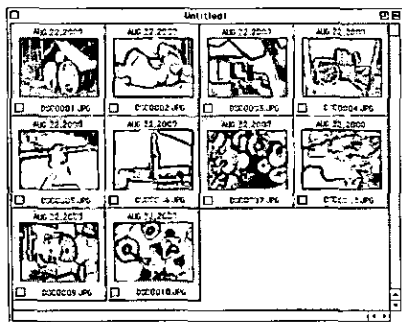
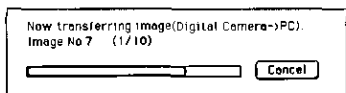
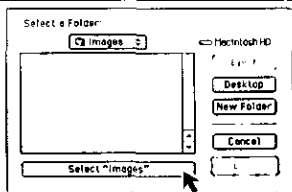
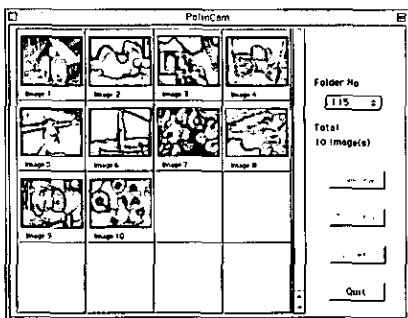
- 1 Double click the "ipalm 1.0 Folder" icon and the "ipalm Camera Driver" icon.
- 2 The ipalm Driver will open.


File Edit Image View Window Help



Data in from Camera

Selected Camera image file will be transferred to the PC.



- 1 Repeat steps 1 and 2 above to run the software.
- 2 Click  from the Toolbar or **Select [Communication]** from the **[File]** menu, and then **select [Data in from Camera]** to establish a link between the Camera and PC.
 - A preview Image List dialog box will appear.
- 3 Select the desired Thumbnail image from Preview Image List dialog box or Image transfer, and click **[Transfer]**.
- 4 A Transfer Path dialog box will appear. Select the directory path that you wish to transfer the image to and then click **[Select "xxx"]** (xxx indicates the Folder name).
- 5 The image will transfer over to the specified directory. [Now transferring image... (Digital Camera -> PC)] will appear.

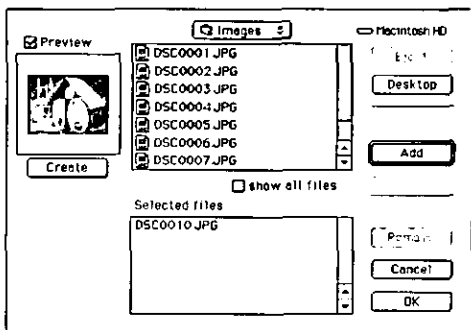
Note


- The images transferred from the Camera will be automatically saved as file name [DSC xxx. JPG], [DSCxxx. MOV] and [DSCxxx. TIF] (xxx indicates the number) file name.
- The images transferred from the Camera will automatically be displayed as an album file.

Transferring Your Images (Macintosh)

Data out to Camera

You can transfer modified or pre-recorded image files from the PC to the Camera.



- 1 Repeat steps 1 and 2 on page 53 to run the software.
- 2 Select  from the Toolbar or Select [Communication] from the [File] menu, and then select [Data out to Camera] to transfer images from the PC to the Camera.
 - The File select dialog box will appear.
- 3 Select the drive and directory where the desired image is stored.
- 4 Select the desired file name from the file name list box, or type the file name in the file name text box.
- 5 Click [OK] to transfer the selected image to the camera. [Now transferring image... (PC -> Digital Camera)] will appear and the image transfer status will appear.

Note

- JPEG, TIFF, and QuickTime Movie image formats can be transferred from the PC to the Camera.

Transferring Your Images (Macintosh)

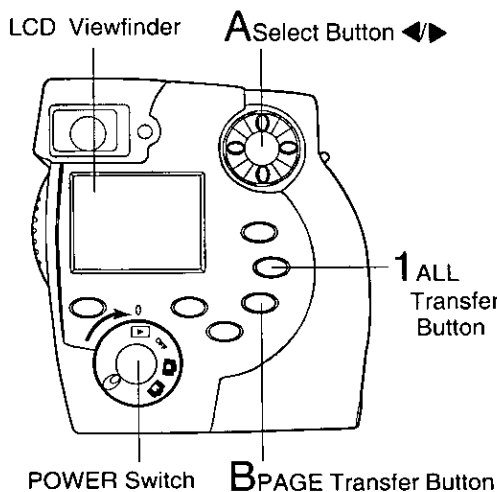
One Touch Transfer (ALL/PAGE)

The selected image can easily be transferred to the PC by pressing the ALL or PAGE buttons.

Before you begin

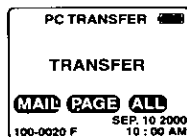
Set the POWER Switch to  (PLAY).
(See page 16.)

Connect the PC to the Camera using the USB Cable. "PC TRANSFER" appears on the LCD screen.



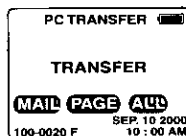
[To transfer all images on the Memory Card to the PC]

- 1 Press ALL Transfer** to transfer all images on Memory Card to the PC.
 - A screen like the one below appears on the LCD screen. All images are transferred and made to an Album.



[To transfer a selected image on the Memory Card to the PC]

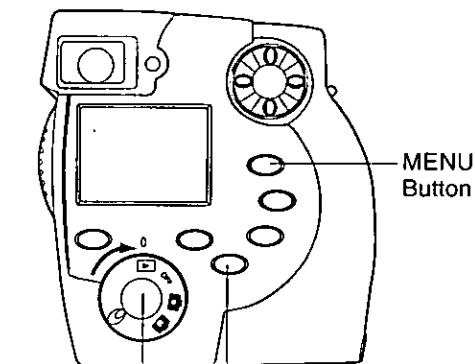
- A Press ◀ or ▶** to select image to be transferred to the PC.
- B Press PAGE Transfer** to transfer the image.
 - A screen like the one below appears on the LCD screen. The selected image is transferred. Still image with audio or motion image will be made into an Album.



Transferring Your Images (Macintosh)

Easy Mail™

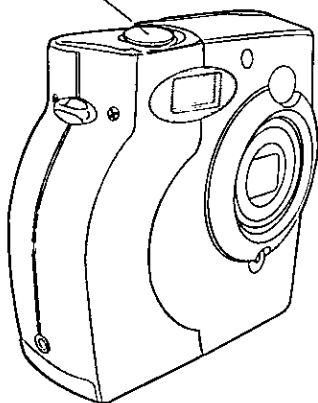
The selected image can easily be transferred to the PC by pressing the MAIL button.



POWER Switch

1 MAIL Attachment Button

2 SHUTTER

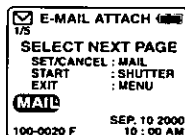


[To attach a selected image to your Mail software]

Note

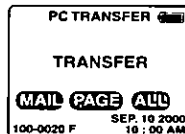
- Macintosh supports Eudora mail software only.

- 1 Press **MAIL Attachment** to display the image selection screen.
 - Select the image to be transferred.
 - If only still images are selected, up to 5 images can be selected at a time. Only 1 Motion image or image with audio can be selected. When in TIFF mode, a JPEG image will be attached.
 - Pressing **MAIL** again in the E-MAIL ATTACH screen will set the attachment.



- To remove this screen, **press MENU**.

- 2 Press **SHUTTER** to transfer selected images to the PC where it is attached to the Mail software.




Note

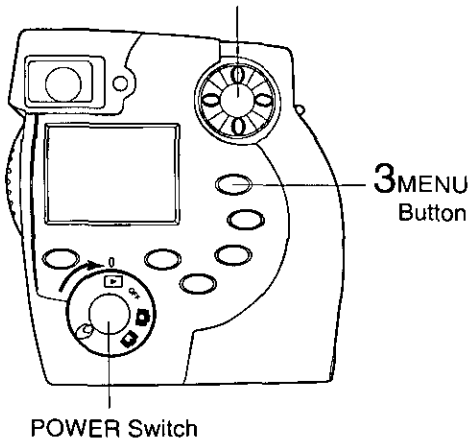
- The save to location of the image to be transferred is set in the [environment setting] of the ipalm camera driver [mail] menu. The following items can be set in this menu:
 - (1) Size setting. (2) Transfer screen save to folder selection.

Use this feature when using a print lab service or printer that supports the DPOF (Digital Print Order Format).

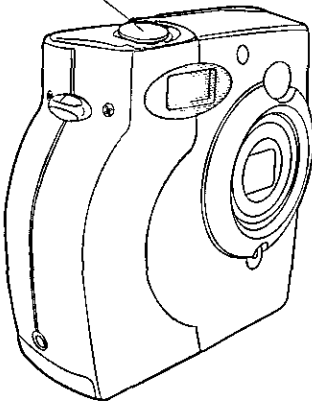
— Before you begin —

Set the **POWER Switch** to  (**PLAY**). (See page 16.) Press **MENU** to display the **MENU** screen.


1, 2 **Select Button**
▲▼◀▶



2 **SHUTTER**




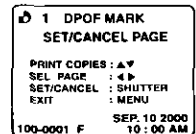
Stamp DPOF Mark

- 1 Press **▲** or **▼** to select  **DPOF MARK** and press **▶** to display **DPOF MARK** menu.



- Select "PAGE" to select image, "CANCEL" to cancel all image print marks, and "INDEX" to set or clear index print mark on all pages.

- 2 Press **◀** or **▶** to select the image page you want to mark for printing and press **SHUTTER** to stamp print mark. A  mark will appear on the image. Press **▲** or **▼** to select number of copies to print. (up to 99)



- Repeat step 2 to stamp other images.
- Press **SHUTTER** again to cancel print mark.

- 3 Press **MENU** to exit this menu.

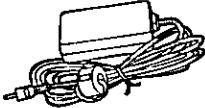
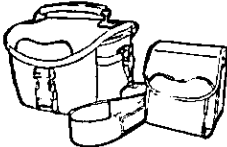




Special Features



Print mark is based on DPOF (Digital Print Order Format).

Digital Camera Accessories

For ordering instructions, see the Accessory Order Form page.

Accessory#	Figure	Description	Price
PV-SAC10		AC Adaptor	\$69.95
PV-H130		Carrying Case - Holds camera and all accessories	\$49.95
BN-SDABPU/1B		SD PC Card Adaptor (compatible with MultiMediaCard)	\$79.95
BN-SDCAPU/1B		SD USB Reader/Writer (compatible with MultiMediaCard)	\$79.95
RP-SD064		64 MB SD Memory Card	\$179.95
RP-SD032		32 MB SD Memory Card	\$119.95
RP-SD016		16 MB SD Memory Card	\$79.95
RP-SD008		8 MB SD Memory Card	Call For Pricing & Availability
HHR-3UPA/4B		Rechargeable Ni-MH Battery	Call For Pricing & Availability

Digital Camera Accessory Order Form

Please photocopy this form when placing an order.

1. Model # _____

2. Items Ordered

Accessory #	Description	Price Each	Quantity	Total Price
Subtotal				
Your State & Local Sales Tax				
Shipping & Handling				6.95
Total Enclosed				

3. Method of payment (check one)

- Check of Money Order enclosed (NO C.O.D.SHIPMENTS)
- VISA Credit Card # _____
- MasterCard Expiration Date _____
- Discover Customer Signature _____

Make Check or Money Order to: MATSUSHITA ACCESSORIES

(Please do not send cash)

4. Shipping information (UPS delivery requires complete street address)

Ship To:

Mr.

Mrs.

Ms. _____

First Last

Phone #:

Day () _____

Street Address _____

Night () _____

City State Zip

TO OBTAIN ANY OF OUR DIGITAL CAMERA ACCESSORIES YOU CAN DO ANY OF THE FOLLOWING:

VISIT YOUR LOCAL PANASONIC DEALER

OR

CALL PANASONIC'S ACCESSORY ORDER LINE AT 1-800-272-7033 [8:30 AM-8 PM M-F, EST]

OR


MAIL THIS ORDER TO: PANASONIC SERVICES COMPANY ACCESSORY ORDER OFFICE
20421 84th Avenue South Kent, WA. 98032

For Your Information





Before Requesting Service

If you have a problem with your Digital Camera, it may be something you can correct yourself.

Check the list below for symptoms and corrections.

Symptom	Possible Solution
No power	<ul style="list-style-type: none">• Battery is worn out. (p. 12)• Make sure polarities are aligned properly. (p. 12)
Power shuts off automatically.	<ul style="list-style-type: none">• Battery is worn out. (p. 12)• Auto shut off feature is on. Press SHUTTER, or set POWER Switch to off, and then set to REC or MANUAL REC. (pp. 15, 16)
Cannot capture the image.	<ul style="list-style-type: none">• Memory card is not inserted. (pp. 7, 14)• Make sure the POWER Switch is set to REC or MANUAL REC. (pp. 15, 16)• No memory. Delete some images before capturing images. (p. 37)
No Picture on the LCD Viewfinder	<ul style="list-style-type: none">• LCD Viewfinder is OFF. (p. 11)• Auto shut off feature is on. Press SHUTTER, or set POWER Switch to off, and then set to REC or MANUAL REC. (pp. 15, 16)
LCD Viewfinder image is too bright or dark.	<ul style="list-style-type: none">• Make sure the LCD Viewfinder brightness setting is adjusted properly. (p. 24)
Indication or image on the LCD Viewfinder is not focused.	<ul style="list-style-type: none">• Make sure the focus mode is properly set. (p. 30)
Flash will not light.	<ul style="list-style-type: none">• The flash mode is set to  (OFF). Change the flash mode. (p. 31)
Cannot playback.	<ul style="list-style-type: none">• Memory Card is not inserted. (pp. 7, 14)• There are no images on the Memory card. (pp. 18~21)• Set the POWER Switch to PLAY. (p. 16)
No picture on the TV (if connected).	<ul style="list-style-type: none">• Make sure all necessary connections are correct and tight. (p. 29)• Make sure the TV is set to video input mode. (p. 29)
Cannot transfer images on the PC Connection.	<ul style="list-style-type: none">• Make sure all necessary connections are correct and tight. (pp. 43, 52)• Make sure the ipalm Driver is installed. (pp. 41, 51)

Specifications

CCD	1/1.8 inch 3 340 k Pixels
Lens	f=6.5-13 mm (equivalent to a 32-64 mm lens on a 35 mm still camera.)/F2.9-4.0
Focus	Auto / Preset (Zone)
Focusing Area	4.7 inch (12cm)—∞ (approx)
Iris	F2.9-8
Shutter Speed	1/30-1/1000 seconds (Auto), 1/4-1/1000 seconds (Slow Shutter mode), 1/30-1/1000 seconds (Motion)
White Balance	Auto/Indoor/Outdoor/White Set
LCD Viewfinder	1.5 inch (38.1 mm) TFT Color Liquid Crystal Display
Flash	Built-in
Microphone	Built-in (Mono)
Speaker	Built-in (Mono)
Memory	MultiMediaCard/SD Memory Card
Image Size	2 048 × 1 536 pixels (TIFF, Super Fine, Fine mode) 1 024 × 768 pixels (Normal, 2X (Zoom),  mode) 640 × 480 pixels (3X (Zoom) mode) 320 × 240 pixels ( mode)
Image Storage	3 image (TIFF mode)
(Supplied 32 MB SD Memory Card)	Approx. 29 images (Super Fine mode) Approx. 57 images (Fine mode) Approx. 145 images (Normal, 2X (Zoom) mode) Approx. 315 images (3X (Zoom) mode) Approx. 172 images ( mode) 12 seconds × Approx. 19 sets ( mode)
Image Format	JPEG (Design Rule for Camera File System)/TIFF (RGB)
(Still Image With Audio)	JPEG, QuickTime
(Motion Image)	QuickTime
Digital Interface	USB
Video Signal	NTSC Composite
Power Supply	4 AA Alkaline Battery/4 AA Ni-Cd Battery /4 AA nickel-hydride Battery/AC Adaptor
Power Consumption	Digital Camera 6V DC, 0.7A AC Adaptor (supplied) Input : 120 V AC, 9W Output : 6 V DC
Operating Temperature	32 – 104 °F/0 – 40 °C
Operating Humidity	10 % – 75 %
Weight	Digital Camera 8.5 oz approx./240 g approx. AC Adaptor (supplied) 4.0 oz approx./112 g approx.
Dimensions	Digital Camera 3-11/16 (W) × 3-13/16 (H) × 1-5/8 (D) inch 92.8 (W) × 96 (H) × 40.3 (D) mm AC Adaptor (supplied) 1-15/16 (W) × 2/13/16 (H) × 13/16 (D) inch 50 (W) × 72 (H) × 20 (D) mm

Weight and dimensions shown are approximate.
Design and specifications are subject to change without notice.

Limited Warranty

Panasonic Consumer Electronics Company,
Division of Matsushita Electric Corporation
of America, One Panasonic Way
Secaucus, New Jersey 07094

Panasonic Sales Company,
Division of Matsushita Electric of Puerto Rico, Inc.
AVE. 65 de Infantería, Km. 9.5 San Gabriel
Industrial Park, Carolina, Puerto Rico 00985

PANASONIC/QUASAR Video Products Limited Warranty

Panasonic Consumer Electronics Company or Panasonic Sales Company (collectively referred to as "the Warrantor") will repair or replace this product with new or refurbished parts or equivalent product, free of charge, in the USA or Puerto Rico, in the event of a defect in materials or workmanship as follows (all time periods commence from the date of the original purchase):

PRODUCT	PARTS	LABOR	SERVICE	CONTACT NUMBER
CAMCORDER	ONE (1) YEAR, EXCEPT CCD IMAGE SENSOR CCD IMAGE SENSOR - SIX (6) MONTHS	NINETY (90) DAYS	Carry-In or Mail-In	1-800-211-PANA(7262)
		NINETY (90) DAYS		
DVD/VCR DECK	ONE (1) YEAR	NINETY (90) DAYS	Carry-In or Mail-In	1-800-211-PANA(7262)
DIGITAL STILL CAMERA	ONE (1) YEAR, EXCEPT CCD IMAGE SENSOR CCD IMAGE SENSOR - SIX (6) MONTHS	NINETY (90) DAYS	Carry-In or Mail-In	1-800-272-7033
		NINETY (90) DAYS		
AV MIXER	ONE (1) YEAR	NINETY (90) DAYS	Carry-In or Mail-In	1-800-211-PANA(7262)
TV/VCR, TV/DVD/VCR COMBINATION	ONE (1) YEAR, EXCEPT CRT CRT - TWO (2) YEARS	NINETY (90) DAYS	Carry-In: 21" CRT and Smaller In-Home or Carry-In: 22" CRT and Larger	1-800-211-PANA(7262)
		CRT - NINETY (90) DAYS		
TV/HDR COMBINATION	ONE (1) YEAR, EXCEPT CRT CRT - TWO (2) YEARS	NINETY (90) DAYS CRT - NINETY (90) DAYS	In-Home or Carry-In	1-888-843-9788

Batteries (if included) - New rechargeable batteries in exchange for defective rechargeable batteries for ten (10) days. Non-rechargeable batteries are not warranted.

Tape (if included) - New video cassette tape in exchange for a defective video cassette tape for five (5) days.

Memory cards (if included) - Exchange defective item for new one for ninety (90) days.

In-home, carry-in or mail-in service, as applicable, in the USA can be obtained during the warranty period by contacting a Panasonic Services Company (PASC) Factory Servicenter listed in the Servicenter Directory. Or call toll free contact number listed above, to locate an authorized PASC Servicenter. Carry-in or mail-in service in Puerto Rico can be obtained during the warranty period by calling the Panasonic Sales Company telephone number listed in the Servicenter Directory.

This warranty is extended only to the original purchaser. A purchase receipt or other proof of the date of the original purchase is required before warranty service is rendered.

This warranty only covers failures due to defects in materials and workmanship, which occur during normal use and does not cover normal maintenance, including, but not limited to, video and audio head cleaning. The warranty does not cover damage which occurs in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, modification, faulty installation, set-up adjustments, improper antenna, inadequate signal pickup, maladjustment of consumer controls, improper operation, power line surge, improper voltage supply, lightning damage, commercial use such as hotel, office, restaurant, or other business or rental use of the product, or service by anyone other than a PASC Factory Servicenter or a PASC authorized Servicenter, or damage that is attributable to acts of God.

LIMITS AND EXCLUSIONS

There are no express warranties except as listed above.

THE WARRANTOR SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGE TO RECORDING MEDIA) RESULTING FROM THE USE OF THIS PRODUCTS, OR ARISING OUT OF ANY BREACH OF THE WARRANTY. ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE.

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights, which vary, from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the Consumer Affairs Department at the Panasonic Consumer Electronics Company address above.

SERVICE CALLS WHICH DO NOT INVOLVE DEFECTIVE MATERIALS OR WORKMANSHIP AS DETERMINED BY THE WARRANTOR, IN ITS SOLE DISCRETION, ARE NOT COVERED. COSTS OF SUCH SERVICE CALLS ARE THE RESPONSIBILITY OF THE PURCHASER.

varvid 02/ 12/ 2001

For Product Information, Operating Assistance, Literature Request, Dealer Locations, and all Customer Service inquiries please contact:

1-800-272-7033, Monday-Friday 8:30am-8pm EST.

Web Site: <http://www.panasonic.com>

You can purchase parts, accessories or locate your nearest servicenter by visiting our Web Site.

Product Repairs

Centralized Factory Servicenter

MAIL TO : Panasonic Services Company
1705 N. Randall Road,
Elgin, IL 60123-7847
Attention: Digital Camera Repair

Please carefully pack and ship, prepaid and insured, to the Elgin centralized repair Factory Servicenter. While there will be added handling delays, you may bring your unit to one of the following locations who will then forward the unit to Elgin for repair.

Customer's in Puerto Rico, please ship or carry in to location below ("Service in Puerto Rico").

Factory Servicenter Locations

CALIFORNIA

6550 Katella Avenue
Cypress, CA 90630

800 Dubuque Avenue
S. San Francisco,
CA 94080

3878 Ruffin Road
Suite A
San Diego, CA 92123

COLORADO

1640 South Abilene
Street Suite D
Aurora, CO 80012

FLORIDA

3700 North 29th Avenue
Suite 102
Hollywood, FL 33020

GEORGIA

8655 Roswell Road
Suite 100
Atlanta, GA 30350

ILLINOIS

1703 North Randall Road
Elgin, IL 60123
(Pick-up / Drop-off only)

9060 Golf Road
Niles, IL 60714

MARYLAND

62 Mountain Road
Glen Burnie MD 21061

MASSACHUSETTS

60 Glacier Drive,
Suite G
Westwood, MA 02090

MINNESOTA

7850-12th Avenue South
Airport Business Center
Bloomington, MN 55425

OHIO

2236 Waycross Road
Civic Center Plaza
Forest Park, OH 45240

PENNSYLVANIA

2221 Cabot Blvd. West
Suite B
Langhorne, PA 19047

TEXAS

13615 Welch Road
Suite 101
Farmers Branch,
TX 75244

WASHINGTON

20425-84th Avenue
South
Kent, WA 98032

HAWAII

99-859 Iwaiwa Street
Aiea, Hawaii 96701
Phone (808) 488-1996
Fax (808) 486-4369

Service in Puerto Rico

Matsushita Electric of Puerto Rico, Inc. Panasonic Sales Company/ Factory Servicenter:
Ave. 65 de Infanteria. Km. 9.5 San Gabriel Industrial Park Carolina, Puerto Rico 00985
Phone (787) 750-4300 Fax (787) 768-2910

Accessory Purchases:

Customer Orders Only 1-800-272-7033

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