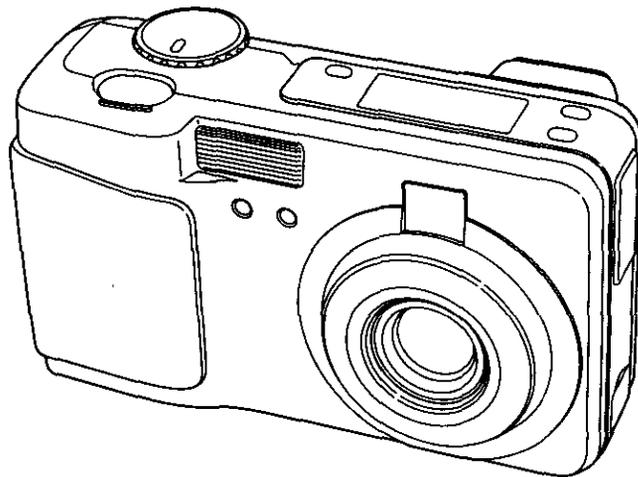# Panasonic®

Digital Camera

Model No. PV-DC2090/PV-DC2590

Operating Instructions

⟪⟫ PalmCam®

(PV-DC2590 shown)

For assistance, 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.

Things You Should Know

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 _____

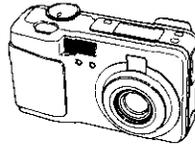**Dealer Address** _____

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.

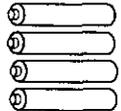1pc. Digital Camera
(PV-DC2090/DC2590)

(PV-DC2590 shown)

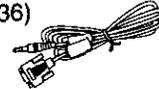1 pc. 8 MB CompactFlash Card
(LSFA0009, or LSFA0011)

4pcs. AA Alkaline Battery
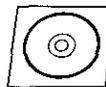(LSSB0003)

1pc. Video Cable
(LSJA0238)

1pc. PC Connection Cable for Windows
(LSJA0236)

1pc. Hand Strap
(LSFC0010)

1 pc. CD-ROM of Driver Software for Windows 95/98 and Macintosh /
Adobe PhotoDeluxe
(LSFT0163)

1 pc. Compact Modem Card
(Only for PV-DC2590)
(PV-CFM10(LSFA0010)/
LSJA0244)
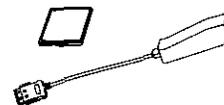
1pc. Ferrite Core
(Only for PV-DC2590)
(LSLP0059)

Microsoft, Windows, and Windows 95/98 are registered trademarks of Microsoft in the United States and other countries.
Macintosh is a registered trademark of Apple Computer Incorporated.
Adobe, the Adobe logo & PhotoDeluxe are trademarks of Adobe Systems Inc.
CompactFlash is a trademark of SanDisk Corporation.
All product/brand names are trademarks or registered trademarks of the respective holders.

2

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 and clip-on ferrite core mounted over the user provided modular cable in accordance with instruction herein. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate.

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.

3

Important Safety Instructions for Digital Camera with Compact Modem Card

1. Read and understand all instructions.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the card slot before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water, for example, near bathtub, wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. This product should never be placed near a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.
7. Do not allow anything to rest on the special cable. Do not locate this product where the cable will be abused by personal walking on it.
8. Do not insert any other cables to the product except the assignment. Do not use this cable for any other products. This cable is only for the exclusive use. It may cause serious damage to the product.
9. Never push objects of any kind into this product through cabinet as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.
10. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the appliance is subsequently used.
11. Unplug this product from the card slot and refer servicing to qualified service personnel under following conditions:
    A. If liquid has been spilled into the product.
    B. If the product has been exposed to rain or water.
    C. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment or other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
    D. If the product has been dropped or the cabinet has been damaged.
    E. If the product exhibits a distinct change in performance.
12. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.
13. Do not use the telephone to report a gas leak in the vicinity of the leak.
14. The telecommunication cord which is used for this modem should be minimum 26AWG.
15. These accessory modem card and modular cable models are intended only for use in and with listed Information Technology Equipment where the host machine includes instructions for the installation of accessories by the operator.

1. This equipment complies with Part 68 of the FCC rules. On the back side of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the Telephone Company.
   Guarantee's Name :ˈ FUJITSU MEDIA DEVICES LIMITED
   Serial number :   The date of manufacture is printed on the side of the card.
2. USOC Jack, RJ11C is suited to this equipment.
3. An FCC compliant telephone cord and modular plug is provided with this equipment. This equipment is designed to be connected to the telephone network or premises wiring using a compatible modular jack which is Part 68 compliant. See installation instructions for details.
4. The REN is used to determine the quantity of devices, which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed five(5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local Telephone Company.
5. If the terminal equipment PV-CFM10 causes harm to the telephone network, the Telephone Company will notify you in advance that temporary discontinuance of service may be required. But if advance notice isn't practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a compliant with the FCC if you believe it is necessary.
6. The Telephone Company may make changes in it's facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens the Telephone Company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.
7. If trouble is experienced with this equipment PV-CFM10 for repair or warranty information, please contact Panasonic. If the equipment is causing harm to the telephone network, the Telephone Company may request that you disconnect the equipment until the problem is resolved.
8. This equipment cannot be used on public coin phone service provided by the Telephone Company. Connection to party line service is subject to state tariffs. (Contact the state public utility commission, public service commission or corporation commission for Information.)
9. The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electric device, including fax machines, to send any message unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission, the date and time it is sent and an identification of the business or other entity, or other individual sending the message and the telephone number of the sending machine or such business, other entity, or individual (refer to page 76).
10. According to the FCC's electrical safety advisory, we recommend that you may install an AC surge arrestor in the AC outlet to which this equipment is connected. Telephone companies report that electrical surges, typically lighting transients, are very destructive to customer terminal equipment connected to AC power sources and that this is a major nationwide problem.

5

Table of Contents

6

For Your Information

This operating Instruction book is designed for use with models **PV-DC2090** and **PV-DC2590**.

The **PV-DC2590** is the model used for illustrative purposes.

Features may vary, so please read carefully.

Types of Differences

	PV-DC2090	PV-DC2590
B/W Full Feature Indicator Panel	No	Yes
REC MODE Button	No	Yes
SELF TIMER Button	No	Yes
FLASH Button	No	Yes
Compact Modem Card	Not Included	Included

Declaration of Conformity
Model Number :　　PV-DC2090/PV-DC2590/PV-CFM10/LSJA0244 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.

Index of Controls

POWER Switch (PLAY•OFF•REC•MANUAL REC)
Rotate the POWER switch to REC, MANUAL REC or PLAY.
See pages 16, 18, 19, 22~26, 28~30, 32~38, 41~43, 48, 54, 61, 74, 78.

SHTR (SHUTTER) Button
See pages 19, 20, 25, 26, 35, 37~41, 74, 78.

FLASH Emitter
See page 30.

SELF TIMER Lamp
See page 35.

Light Sensor
see page 30.

Lens
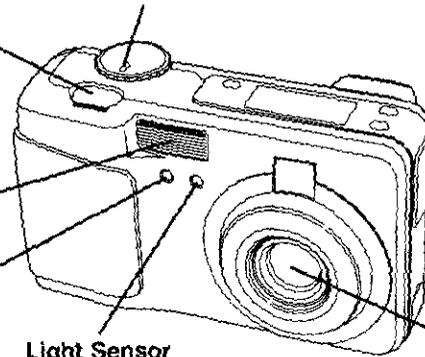
Rear View

DISPLAY Button
See pages 20, 75.

MENU Button
See pages 16, 18, 19, 22~26, 29, 30, 32~38, 41~43, 61, 74, 78.

Optical Viewfinder
See page 20.

STAND BY Button
See page 22.

LED Lamp
See pages 18~20, 22~26, 29, 30, 32~38, 43, 61, 74, 78.

Strap Attachment Ring
See page 15.

CompactFlash Card Slot
See pages 16, 44, 58.

LCD Viewfinder
See pages 11~13, 19.

▲ / TELE Button
See pages 16, 18, 19, 22, 23, 25, 27, 29, 30, 32~40, 42, 43, 61, 74, 75, 78.

▶ / + Button
See pages 16, 18, 19, 22~26, 29, 30, 32~43, 61, 74, 75, 78.

◀ / - Button
See pages 16, 19, 22~26, 29, 30, 32~36, 38, 41, 74, 75.

▼ / WIDE Button
See pages 16, 18, 19, 22, 23, 25, 27, 29, 30, 32~40, 42, 43, 61, 74, 75, 78.

Rear View

* : PV-DC2590 Only

SELF TIMER Button *
See page 35.

FLASH Button *
See page 31.

B/W Full Feature Indicator Panel *
See pages 10, 19, 31, 35.

VIDEO OUT
Terminal
See page 28.

REC MODE Button *
See page 19.

SERIAL
Terminal
See page 48, 54.

DC IN Terminal
See page 15.

(PV-DC2590 shown)

Bottom View

CARD EJECT
Switch
See page 17.

Tripod Receptacle
Used when securing
the camera to a tripod

Battery
Compartment
See page 14.

9

Index of Controls

B/W Full Feature Indicator Panel (PV-DC2590 Only)

Battery Indication See page 11.

B/W Mode Indication See page 34.

Modem Indication See pages 58, 61, 74.

Flash Mode Indication See page 30.

Time Lapse Indication See page 37.

Recording Mode Indication See page 21.

Self Timer Indication See page 35.

Card Slot Indication See page 16.

Remaining Indication See page 11.
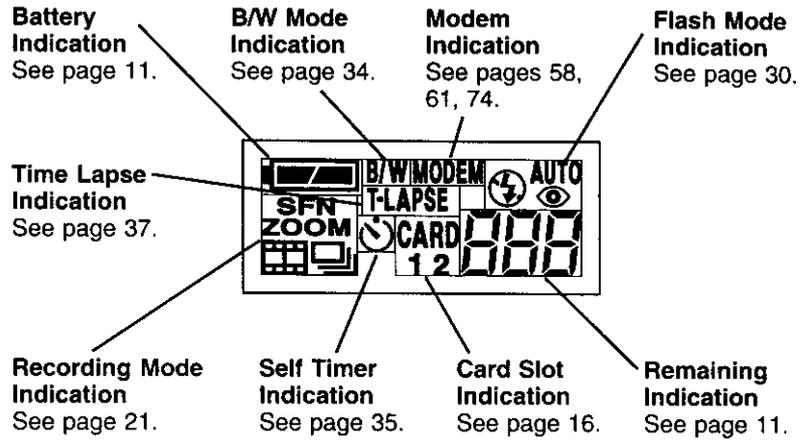
Compact Modem Card (Included with PV-DC2590)

Compact Modem Card See page 58.

Modem Cable See page 58.

10
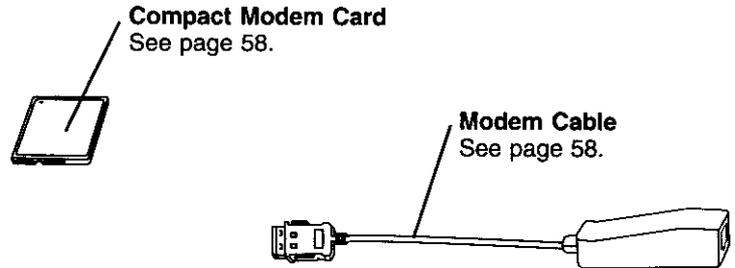
The indication displayed on the LCD screen will tell you the operation status of the Digital Camera.

REC OSD

White Balance Mode
(See page 32)
AUTO : No Indication
OUTDOOR : ▓
INDOOR : ▓

Focus Mode
(See page 29)
AUTO : No Indication
ZONE : ▲ ▣ ▨

Light Metering Mode
(See page 33)
AUTO : No Indication
SPOT : ▣

Self-Timer Mode
(See page 35)

Flash Mode
(See pages 30, 31)
AUTO : No Indication
ON : ▣
RED EYE : ▓
OFF : ▣

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.

B/W Mode
(see page 34)

Selected Card Slot
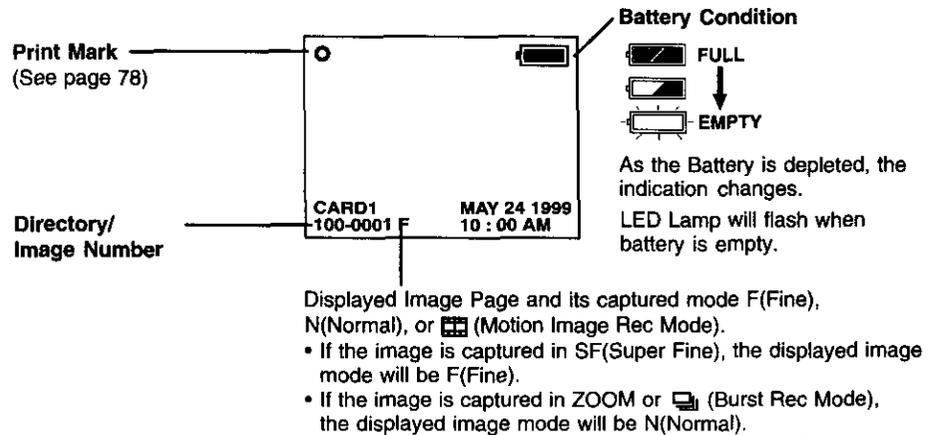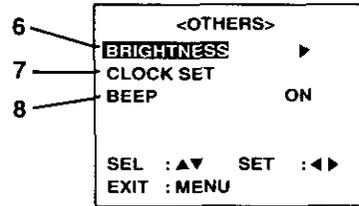
Date/Time Indication

Image Pages left In memory

Recording Mode :
SF(Super Fine), F(Fine), N(Normal), ZOOM(Zoom), ▤ (Motion Image Rec Mode), ▥ (Burst Rec Mode).

LIGHT

CARD1 MAY 24 1999
10 F 10 : 00 AM

PLAY OSD

Print Mark
(See page 78)

Battery Condition
▣ FULL
▣
↓
▣ EMPTY

As the Battery is depleted, the indication changes.
LED Lamp will flash when battery is empty.

Directory/ Image Number

CARD1 MAY 24 1999
100-0001 F 10 : 00 AM

Displayed Image Page and its captured mode F(Fine), N(Normal), or ▤ (Motion Image Rec Mode).
• If the image is captured in SF(Super Fine), the displayed image mode will be F(Fine).
• If the image is captured in ZOOM or ▥ (Burst Rec Mode), the displayed image mode will be N(Normal).

11

LCD Monitor Indication

< REC Mode>

1
2
3
4
5
```
        <REC MENU>
REC MODE     ◄ N ►
CARD SLOT      NO. 1
FLASH          AUTO
SELF TIMER     OFF
OTHERS

SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

6
7
8
```
        <OTHERS>
BRIGHTNESS           ►
CLOCK SET
BEEP             ON



SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

< MANUAL REC Mode>

9
```
      <MANUAL REC 1/3>
REC MODE     ◄ N ►
CARD SLOT      NO. 1
FLASH          AUTO
SELF TIMER     OFF
IRIS
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

10
11
12
13
14
```
      <MANUAL REC 2/3>
FOCUS        ◄ AUTO ►
WHITE BALANCE  AUTO
LIGHT METER    AUTO
B/W            OFF
TIME LAPSE     OFF
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

15
```
      <MANUAL REC 3/3>
REMOTE ACCESS        ►
OTHERS



SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```
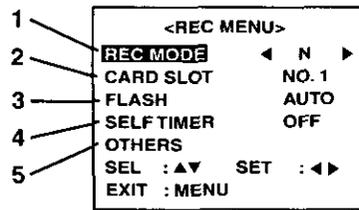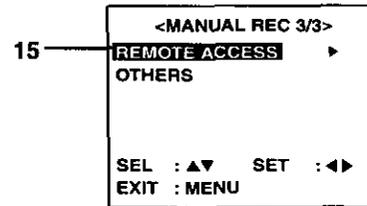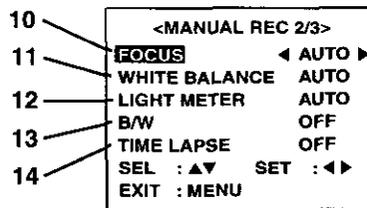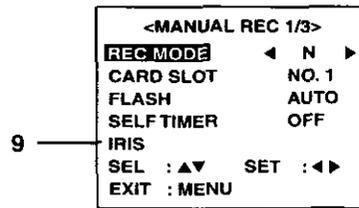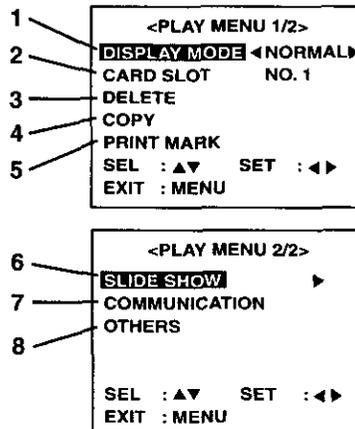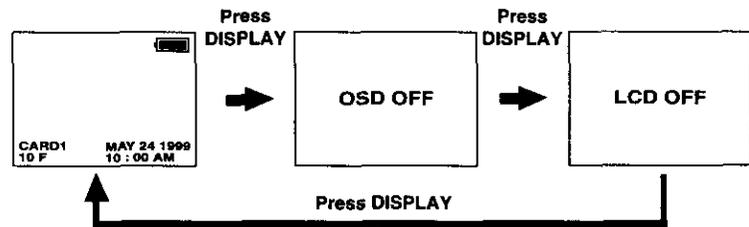
1. **REC MODE** (See Page 21)
   To change one of the 6 recording modes.
2. **CARD SLOT** (See Page 16)
   To change card slot NO.1 or NO.2.
   • When the 2 pieces of CF card are not inserted, this item can not be selected.
3. **FLASH** (See Pages 30, 31)
   To change one of the 4 flash modes.
4. **SELF TIMER** (See Page 35)
   To set Self Timer.
5. **OTHERS**
   To select other menu.
6. **BRIGHTNESS** (See Page 23)
   To adjust LCD Viewfinder brightness.
7. **CLOCK SET** (See Page 18)
   To set clock.
8. **BEEP** (See Page 22)
   To set beep on/off when capturing images.
9. **IRIS** (See Page 36)
   To adjust Iris manually.
10. **FOCUS** (See Page 29)
    To select one of the 4 focus modes.
11. **WHITE BALANCE** (See Page 32)
    To change one of the 3 White Balance modes.
12. **LIGHT METERING** (See Page 33)
    To change AUTO or SPOT.
13. **B/W** (See Page 34)
    To capture Black/White images.
14. **TIME LAPSE** (See Page 37)
    To set time lapse recording.
15. **REMOTE ACCESS** (See Page 61)
    To operate camera from PC.
    • When the Compact Modem Card is not inserted, this item can not be selected.

Playback Menu

```
          <PLAY MENU 1/2>
1
2         DISPLAY MODE ◄NORMAL►
          CARD SLOT      NO. 1
3         DELETE
4         COPY
          PRINT MARK
5         SEL  : ▲▼    SET  : ◄►
          EXIT : MENU
```

```
          <PLAY MENU 2/2>
6
          SLIDE SHOW         ►
7         COMMUNICATION
          OTHERS
8


          SEL  : ▲▼    SET  : ◄►
          EXIT : MENU
```

1. **DISPLAY MODE**
   (See Pages 24, 25, 26, 27)
   Select playback mode.

2. **CARD SLOT** (See Page 16)
   To select card slot.

3. **DELETE** (See Pages 38, 39, 40)
   Delete image from CF card.

4. **COPY** (See Pages 41, 42)
   Copy image to other CF card.

5. **PRINT MARK** (See Page 78)
   To set print mark.

6. **SLIDE SHOW** (See Page 43)
   Playback images as slide show.

7. **COMMUNICATION** (See Pages 74, 75)
   To send images to a PC or FAX machine.

8. **OTHERS**
   To select other menu.

On Screen Display Order

```
                    Press                    Press
                    DISPLAY                  DISPLAY
    [        ▬▬  ]           [            ]           [            ]
                    ➡️        OSD OFF       ➡️        LCD OFF
    CARD1  MAY 24 1999
    10 F   10 : 00 AM
                         Press DISPLAY
```
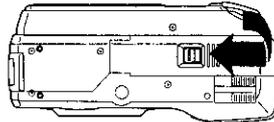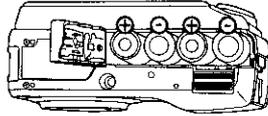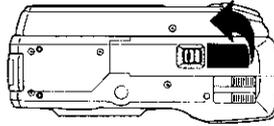
Note:
• Pressing MENU with LCD OFF turns LCD ON and displays the menu.
  However, after selecting the settings and exiting the menu, the LCD will stay ON.

Power Supply

Loading the Alkaline Batteries

Bottom View

1 While pressing the Lock button, slide the Battery Compartment lid in the direction of the arrow and swing it open.

2 Install four Alkaline Batteries.
- Be sure to use 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 in fire, put in backwards, disassemble, or short circuit; otherwise battery may leak or burst, causing possible personal injury.

Battery Notes

Safety precautions:
- Do not mix old and new batteries.
- Do not mix alkaline with manganese batteries.
- Do not get the AA alkaline 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.

Note:
- Instead of the supplied Alkaline batteries, you can also use AA type Ni-Cd (high density type) or nickel-hydride 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.
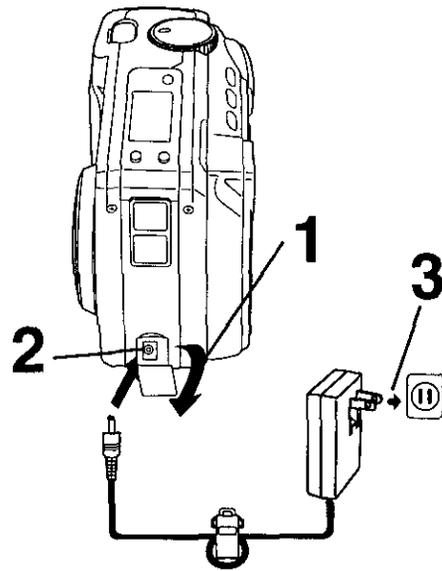
Operation Time

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

* Conditions :
- Using the Panasonic Alkaline batteries.
- Capturing an image every 30 seconds.
- Using Flash once for every other capture.
- Recording mode is Fine.
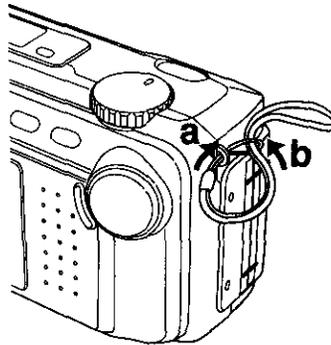
14

AC Adaptor (Optional)

1 Pull up the Jack Cover.

2 Connect DC OUT on the AC Adaptor to DC IN on the Digital Camera.

3 Plug the AC Adaptor into an AC outlet.

Note:
• While not in use, unplug the AC Adaptor from the AC outlet.

Attaching the Hand Strap

Thread the Hand Strap through the Strap Attachment Ring as shown.

15

CompactFlash Card

Inserting the CompactFlash Card

- The captured images will be stored on this CompactFlash Card.
- Be sure to insert the CompactFlash Card before using the camera.
- You can insert a total of two CompactFlash cards into the camera, one in each slot.
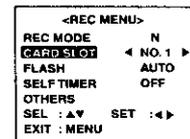
CARD SLOT 1
CARD SLOT 2

1, 2, 6

3

4   5
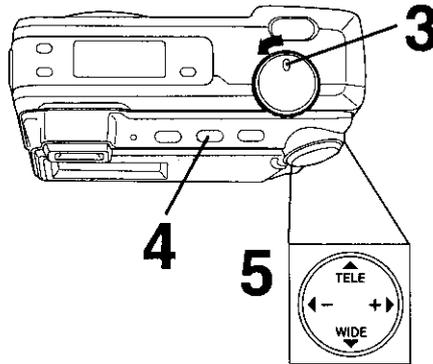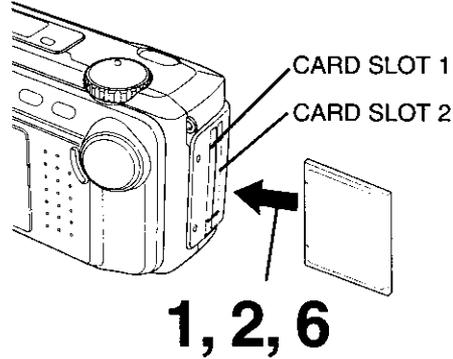
1 Set POWER OFF before inserting the CompactFlash card.
Insert the CompactFlash Card into the Card Slot NO.1 or NO.2 in the direction of the arrow mark and so that the arrow mark side of the card faces the front (lens side) of the Digital Camera.

**2** Push the card fully into CompactFlash Card Slot.

3 Set POWER to REC.

4 Press MENU to display REC MENU.

5 Press ▲ or ▼ to select CARD SLOT and **press ◄ or ►** to select card slot NO. 1 or NO. 2 if you inserted the CF Card into both slots.

```
        <REC MENU>
REC MODE         N
CARD SLOT      ◄ NO. 1 ►
FLASH            AUTO
SELF TIMER       OFF
OTHERS
SEL : ▲▼    SET : ◄►
EXIT : MENU
```

- If a CF card is inserted in either of the card slots, that particular slot will automatically be selected. All buttons are inoperable while NO.1 or NO.2 is flashing on the menu screen.

16
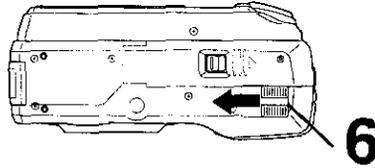
Removing the CompactFlash Card.

6 Set **POWER OFF** before removing the CompactFlash card.
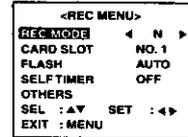Slide the **CARD EJECT Switch**, so the Card pops out. (Be careful not to drop the card.)

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.

• 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.
• When the card does not eject after pressing the CARD EJECT Switch, push the card fully into the slot again and then press the CARD EJECT Switch firmly.
• "NO CF CARD" will appear on the LCD Viewfinder and the LED Lamp will flash when the CompactFlash Card is not inserted.
• "CF CARD ERROR" will appear on the LCD Viewfinder and the LED Lamp will flash if the CompactFlash Card is defective.
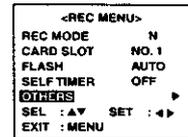
Setting the Clock
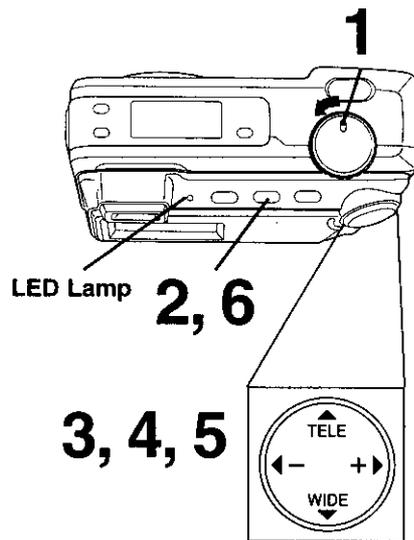
LED Lamp **2, 6**

3, 4, 5

1 Set POWER to REC.
• The LED Lamp lights up.

2 Press MENU to display REC MENU.

```
        <REC MENU>
REC MODE       ◄  N  ►
CARD SLOT      NO. 1
FLASH          AUTO
SELF TIMER     OFF
OTHERS
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

3 Press ▲ or ▼ to select OTHERS and press ▶. Then, **press ▼** to select CLOCK SET.

```
        <REC MENU>
REC MODE       N
CARD SLOT      NO. 1
FLASH          AUTO
SELF TIMER     OFF
OTHERS                ►
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

```
        <OTHERS>
BRIGHTNESS
CLOCK SET             ►
BEEP            ON

SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

4 Press ▶ for CLOCK SET menu.

```
     <CLOCK SET>

12 : 00 AM  MAY. 24 1999



SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```
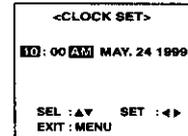
5 Press or hold down ▲ or ▼ to select hour, then press ▶ to set.
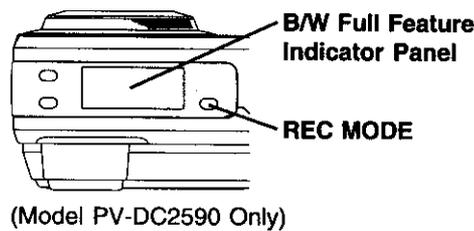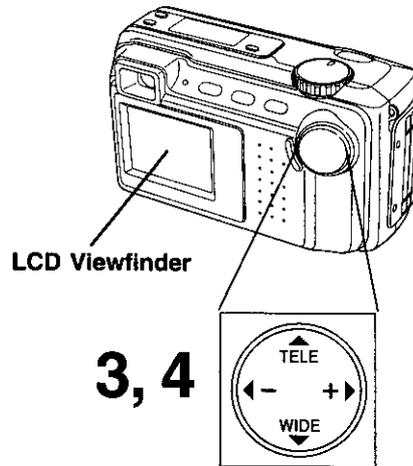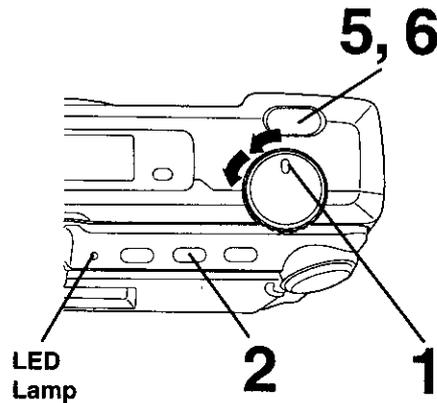
Repeat for minute, month, day and year.

• Double check all items before exiting the menu.

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

Note:
• To make corrections, repeat steps 2-5.
• The clock will continue to operate about 8 hours after the battery has been removed. If you need to set clock again, repeat steps above.

Using LCD Viewfinder

5, 6

LED Lamp

2　**1**

LCD Viewfinder

3, 4

```
    ▲
   TELE
◄ –    + ►
   WIDE
    ▼
```

1 Set POWER to REC or MANUAL REC.
• The LED Lamp lights up.

2 Press MENU to display REC MENU.

<REC Mode>　　　　<MANUAL REC Mode>

<REC MENU>	
REC MODE	◄ N ►
CARD SLOT	NO. 1
FLASH	AUTO
SELF TIMER	OFF
OTHERS	
SEL :▲▼	SET :◄►
EXIT :MENU	

<MANUAL REC 1/3>	
REC MODE	◄ N ►
CARD SLOT	NO. 1
FLASH	AUTO
SELF TIMER	OFF
IRIS	
SEL :▲▼	SET :◄►
EXIT :MENU	

3 Press ◄ or ► to select REC MODE and select recording modes (see page 21), **press MENU** to exit.

4 Press ▲ (Tele) or ▼ (Wide) to zoom In and Out.
• Zoom magnification level is up to x3.
• There is no zoom indication on the LCD Viewfinder.

5 Press SHTR down halfway to lock Auto Focus.
• Beep sounds twice (see page 22).

6 Press SHTR down the rest of the way to actually capture the image.
• Beep sounds once (see page 22).
• While the Digital Camera processes the image, the LED Lamp will flash and then the captured image will be displayed on the LCD Viewfinder for a few seconds.

B/W Full Feature Indicator Panel

REC MODE

(Model PV-DC2590 Only)

For model PV-DC2590,

■ Do step 1 above.

■ Then, **press REC MODE** repeatedly to select recording mode.
• Selected mode will be changed on the B/W Full Feature Indicator Panel (see page 10).

■ Now, do step 4 above.

19

Capturing Images

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.

LED Lamp
2 1 1

Optical Viewfinder

1

TELE
◄ –   + ►
WIDE
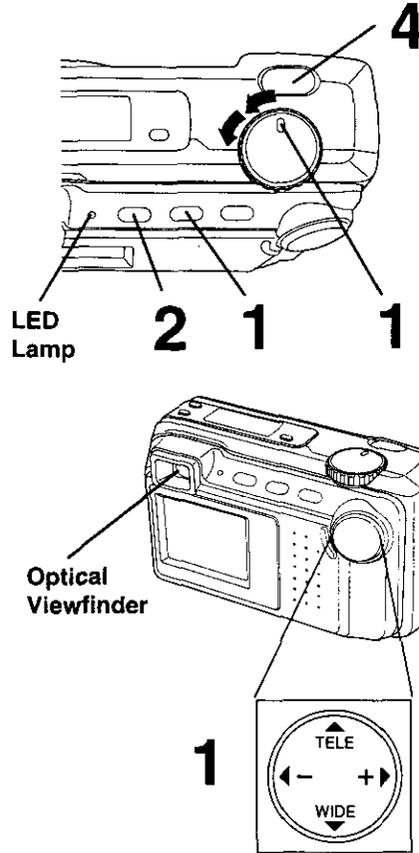
1 Repeat steps 1 to 3 on page 19.

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.
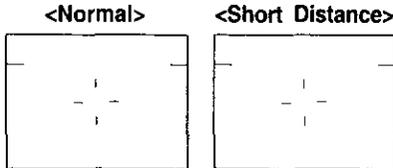
<Normal>   <Short Distance>

4 Press SHTR to capture the image.
 • LED Lamp will flash while the Digital Camera processes the image.
 You may capture another image as soon as 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 LED Lamp will flash. To capture other images, you will first need to delete some images from memory. (see page 38)
 • 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.

20

Recording Mode

Recording Mode

SF : **Super Fine Mode**
Select this mode when you want the highest quality resolution with the lowest compression (i.e. for printing).

F : **Fine Mode**
Select this mode when you want a high resolution (i.e. for printing or for archiving an image).

N : **Normal Mode**
Select this mode when you want a lower resolution image (i.e. for e-mailing or posting on the Internet).

ZOOM: **Zoom Mode**
Using ZOOM mode magnifies the image to twice its normal size.

⊞ : **Motion Image Rec Mode**
Capture an image every 0.1 sec/ frame to create a 4 sec. mini movie.
• The LED Lamp will flash while processing a motion image.

⊒ : **Burst Rec Mode**
Capture image every 0.5 sec./ frame up to 16 frames while shutter button is pressed.
• If the remaining page number is less than 16, you will only be able to capture up to the number of images remaining in memory.

Image Resolution and Capacity

REC Mode	Image Resolution	Capacity (w/Supplied 8MB CF Card)
SF	1,280 x 960	Approx. 15 images
F	1,280 x 960	Approx. 30 images
N	640 x 480	Approx. 100 images
ZOOM	640 x 480	Approx. 100 images
⊞	320 x 240	Approx. 6 images
⊒	640 x 480	Approx. 100 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 taken may differ depending on the subject. After capturing an image, the number may not decrease or may decrease by two.
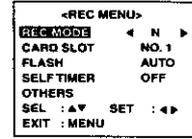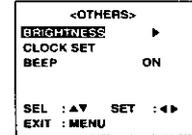
21

Capturing Images

Beep

Set to ON to beep when capturing an image.
To cancel the beep, set to OFF.
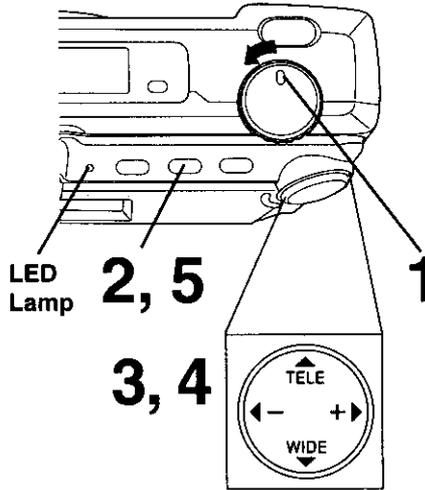
LED
Lamp **2, 5**

3, 4

1
Set POWER to REC.
• The LED Lamp lights up.

2 Press MENU to display REC MENU.

```
<REC MENU>
REC MODE      ◄  N  ►
CARD SLOT        NO. 1
FLASH            AUTO
SELF TIMER       OFF
OTHERS
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

3 Press ▲ or ▼ to select OTHERS, and press ► to display OTHERS menu.

```
<OTHERS>
BRIGHTNESS       ►
CLOCK SET
BEEP            ON

SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

4 Press ▲ or ▼ to select BEEP and press ◄ or ► to select ON or OFF.

```
<OTHERS>
BRIGHTNESS
CLOCK SET
BEEP         ◄ ON  ►

SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

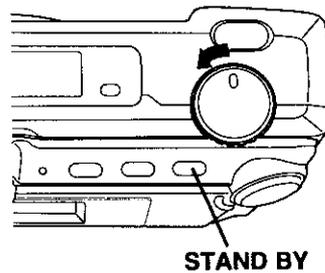**5** Press MENU twice to exit.

Digital Camera will beep:
• Once when you capture an image
• Twice when you press the shutter button half way to adjust the focus.

Stand By

Press STAND BY, lens will not shorten and power will turn off. If no operation is performed for one minute while POWER is ON, the Camera will go to Stand By mode. To resume Power ON, **press STAND BY.**

STAND BY

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.

LED Lamp

2, 6

3, 4, 5

TELE
◀ − + ▶
WIDE
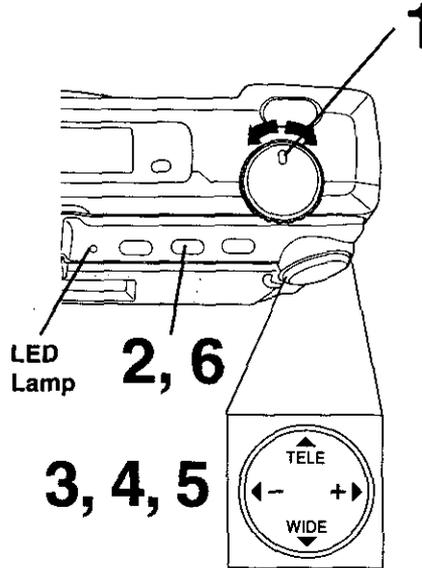
1 **Set POWER to REC or PLAY.**
• The LED Lamp lights up.

2 **Press MENU to display MENU.**

           <REC Mode>   <PLAY Mode>

```
<REC MENU>              <PLAY MENU 1/2>
REC MODE   ◀ N ▶        DISPLAY MODE ◀NORMAL▶
CARD SLOT    NO. 1      CARD SLOT    NO. 1
FLASH        AUTO       DELETE
SELF TIMER   OFF        COPY
OTHERS                  PRINT MARK
SEL  :▲▼   SET  :◀▶     SEL  :▲▼   SET  :◀▶
EXIT : MENU             EXIT : MENU
```

3 **Press ▲ or ▼ to select OTHERS and press ▶ to display OTHERS menu.**

```
<OTHERS>
BRIGHTNESS     ▶
CLOCK SET
BEEP          ON

SEL  :▲▼   SET  :◀▶
EXIT : MENU
```

4 **Press ▶ to display LCD BRIGHTNESS screen.**

```
<LCD BRIGHTNESS>

- □□□■□□□ +

SET :◀▶
EXIT : MENU
```

5 **Press ◀ (-) or ▶ (+) to change the brightness of the LCD Viewfinder; (+) for brighter, (-) for darker.**
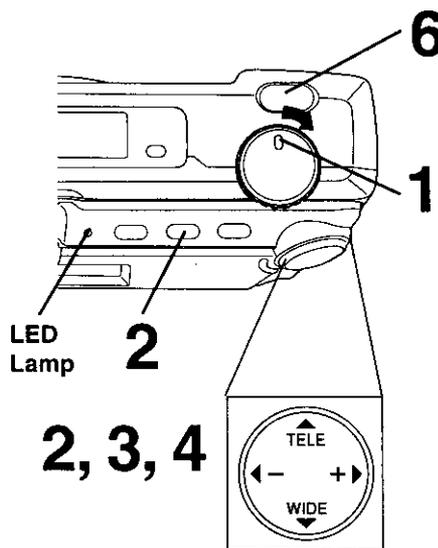
6 **Press MENU twice to exit.**

Note:
• The BRIGHT adjustment will be reset to the original setting when the Digital Camera is turned off and in Stand By mode.

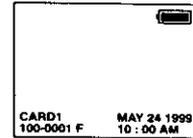Basic Operation

Playing Back Captured Images

LED Lamp **2**

2, 3, 4

Note:
- 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 MENU with LCD OFF turns LCD ON and displays the menu. However, after selecting settings and exiting the menu, the LCD will stay ON.

1 Set POWER to PLAY.

- The LED Lamp lights up.

2 Press MENU to display PLAY MENU and press ► to set display mode to NORMAL. Press MENU to exit.
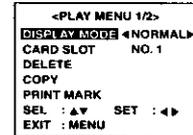
3 Press ► (+) or ◄ (-) repeatedly, [► (+) for ascending order, and ◄ (-) for descending order] to change the displayed image on the LCD View-finder.

- The image page number and recording mode are displayed at the bottom of the screen.
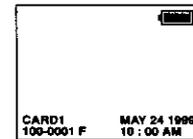
- If there are no images in memory, a blue back screen will be displayed.

4 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.

(Continued on next page)

24

Manual Playback (Continued)

When you capture an image in ⊞
(Motion Image Rec) mode (see page 21).

5 The following message will appear.

```
                         ▭
   PUSH SHTR
   TO AUTO PLAY


   CARD1         MAY 24 1999
   100-0001⊞       10 : 00 AM
```
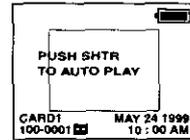
6 **Press SHTR** to start playback of motion image.

Zoom Playback
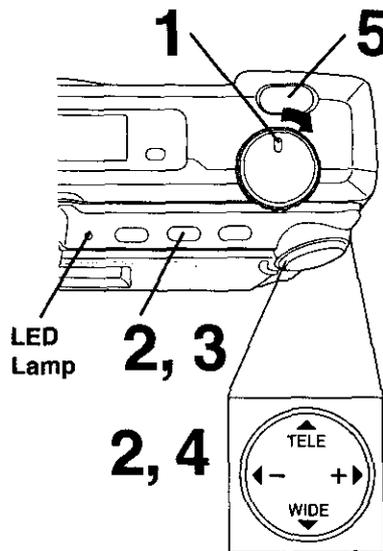
1 Set POWER to PLAY.
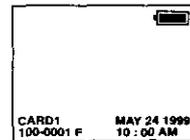
```
                         ▭




   CARD1         MAY 24 1999
   100-0001 F      10 : 00 AM
```

• The LED Lamp lights up.

2 **Press MENU** to display PLAY MENU and **press ▶** to set display mode to ZOOM.

```
         <PLAY MENU 1/2>
   DISPLAY MODE ◀ZOOM  ▶
   CARD SLOT      NO. 1
   DELETE
   COPY
   PRINT MARK
   SEL  : ▲▼    SET  : ◀▶
   EXIT : MENU
```
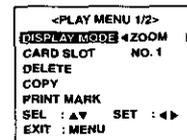
3 **Press MENU,** the center portion is zoomed X2.

4 **Press ▶, ◀, ▲, or ▼ repeatedly to change the zooming area.**

5 **Press SHTR** to restore the image to its normal size.

25

Playing Back Captured Images

Multi Playback

LED Lamp **2, 3**

2, 4, 5, 6

1 Set POWER to PLAY.


```
                        ⬛
CARD1        MAY 24 1999
100-0010 F   10 : 00 AM
```

• The LED Lamp lights up.

2 Press MENU to display PLAY MENU and press ▶ to set display mode to 🔳.

```
        <PLAY MENU 1/2>
DISPLAY MODE ◄ 🔳    ▶
CARD SLOT    NO. 1
DELETE
COPY
PRINT MARK
SEL  : ▲▼    SET  : ◄▶
EXIT : MENU
```

3 Press MENU. A Multi Image Playback screen will appear.

```
100
0002   0003   0004
0005   0006   0007
0008   0009   0010
SEL : ◄▶▲▼    SET:SHTR
```
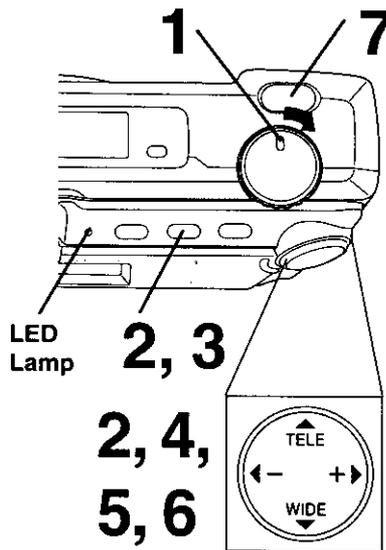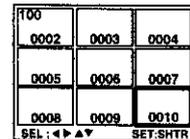
4 Press ▶ (+) repeatedly to scroll forward through Multi Image pages (each page contains 9 images).

```
100                  Press ▶  100
0002   0003   0004             0011   0012   0013
0005   0006   0007      ➡      0014   0015   0016
0008   0009   0010             0017   0018   0019
SEL : ◄▶▲▼  SET:SHTR           SEL : ◄▶▲▼  SET:SHTR
```
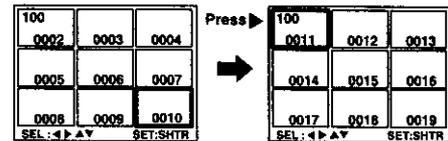
5 Press ◄ (-) to move back through the images on the page until the number of the image you want to select is highlighted.

```
100                  Press ◄  100
0002   0003   0004             0002   0003   0004
0005   0006   0007      ➡      0005   0006   0007
0008   0009   0010             0008   0009   0010
SEL : ◄▶▲▼  SET:SHTR           SEL : ◄▶▲▼  SET:SHTR
```
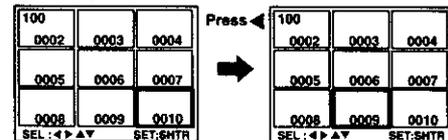
6 Press ▲ to display the preceding images and ▼ to display the next 9 images.

• When the first image on CARD1 is selected, press ▲ to select an image on CARD2 (if inserted).
When the last image on CARD1 is selected, press ▼ to select an image on CARD2 (if inserted).

7 Press SHTR to playback the image you selected, and to go back to Manual Playback.

Basic Operation

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

1 Connect the Digital Camera to your TV or VCR using the Video cable (supplied) as shown.

2 Turn on your TV and select its video input mode, or, turn on your VCR and select its line input mode. (Refer to your TV/VCR manual.)
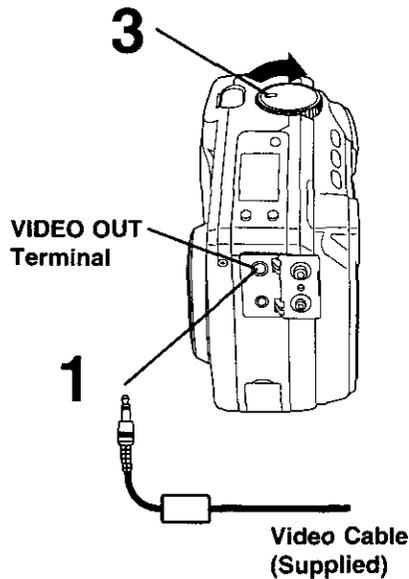
3 Set the Digital Camera POWER to PLAY. You may select playback as described on page 24 to page 27.
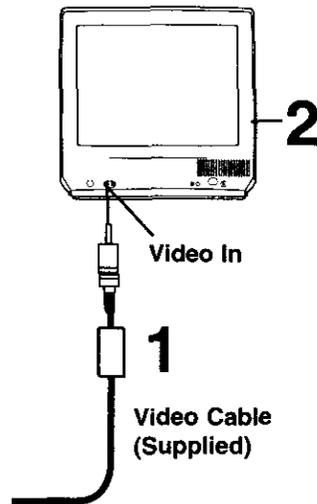• The LED Lamp lights up.

For transferring your images to your VCR.

4 Start a recording of the desired images. (Refer to your VCR manual.)

Note:
• For extended periods of use, it is recommended to use the AC Adaptor (optional) for a power source.

VIDEO OUT Terminal

Video Cable (Supplied)

<TV Monitor>

Video In

Video Cable (Supplied)

<VCR>

Video In

Video Cable (Supplied)

28
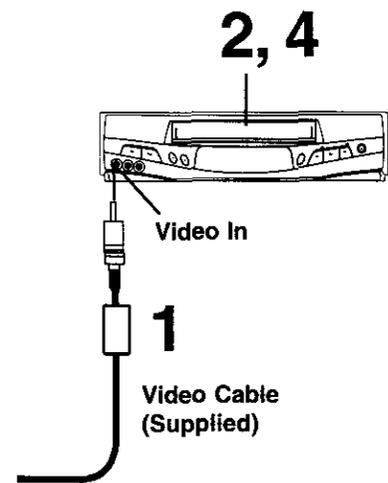
This camera enables you to capture almost any subject. However, you may need to change focus modes according to the distance from the subject or dark place.
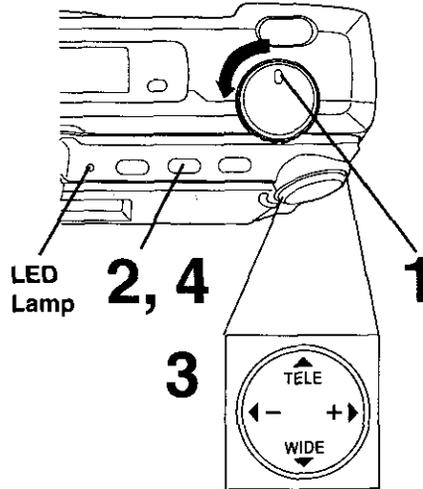
LED Lamp **2, 4**

3

TELE
← − + →
WIDE

1

1 **Set POWER to MANUAL REC.**
• The LED Lamp lights up.

2 **Press MENU** to display MANUAL REC menu.

```
<MANUAL REC 1/3>
REC MODE      ◄ N ►
CARD SLOT       NO. 1
FLASH           AUTO
SELF TIMER      OFF
IRIS
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```
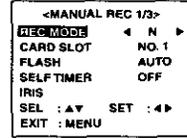
3 **Press ▲ or ▼** to select FOCUS and **press ◄ or ►** to select one of the four modes shown below.
• Default setting is AUTO.

```
<MANUAL REC 2/3>
FOCUS         ◄ AUTO ►
WHITE BALANCE   AUTO
LIGHT METER     AUTO
B/W             OFF
TIME LAPSE      OFF
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```
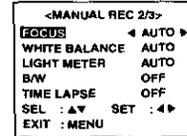
AUTO : Capture images within a range of 7.8 inches (20 cm) to infinity.

🌷 : **Close-up**
Focus will adjust around 7.8 inches (20 cm).

👤 : **Portrait**
Focus will adjust around 4.9 feet (1.5 m).

🏔 : **Landscape**
Infinity.

4 **Press MENU** to exit.
• Selected mode will appear on the LCD Viewfinder (see page 11).

Using the built-in Flash

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

LED Lamp **2, 4**

3

1

Note :
- The LED Lamp on the flash unit lights when flash is charged and ready.
- The effective range of the flash is roughly 7.8 inches (20 cm) to 9.8 feet (3 m). If you are using the flash in very bright areas, the image background may become dark.
- Never handle the flash unit if your hands are wet. This may result in electric shock or damage to the flash.
- 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.
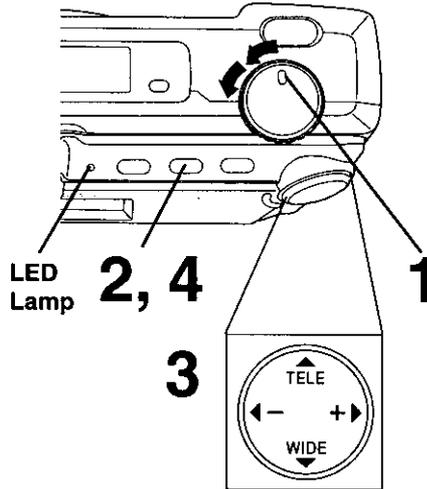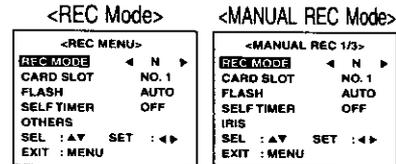- When the recording mode is set to ⊞ (Motion Image Rec) or 🖳 (Burst Rec), the flash mode will go to 🚱 (OFF).
- Do not cover the FLASH Emitter and Light Sensor with your finger or other object.

1 **Set POWER to REC or MANUAL REC.**
- The LED Lamp lights up.

2 **Press MENU to display REC MENU or MANUAL REC menu.**

<REC Mode>   <MANUAL REC Mode>

<REC MENU>	
REC MODE	◄ N ►
CARD SLOT	NO. 1
FLASH	AUTO
SELF TIMER	OFF
OTHERS	
SEL :▲▼ SET :◄►	
EXIT :MENU	

<MANUAL REC 1/3>	
REC MODE	◄ N ►
CARD SLOT	NO. 1
FLASH	AUTO
SELF TIMER	OFF
IRIS	
SEL :▲▼ SET :◄►	
EXIT :MENU	

3 **Press ▲ or ▼ to select FLASH and press ◄ or ► to select one of the four settings shown below.**

<REC MENU>	
REC MODE	N
CARD SLOT	NO. 1
FLASH	◄ AUTO ►
SELF TIMER	OFF
OTHERS	
SEL :▲▼ SET :◄►	
EXIT :MENU	
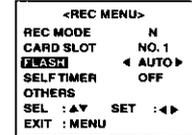
AUTO : The flash automatically lights depending on lighting conditions.

👁 : This setting reduces the red reflections in the eye when the flash lights. The flash will light twice, once before capturing and then once during capturing. (The flash will light whenever you capture an image.)

⚡ : The flash will light whenever you capture an image.

🚱 : The flash will not light even when you capture an image.

4 **Press MENU to exit.**
- Selected mode will appear on the LCD Viewfinder (see page 11).

4 (Flash) Button

B/W Full Feature
Indicator Panel

(Model PV-DC2590 Only)
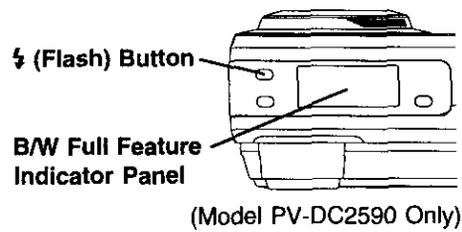
For model PV-DC2590,

■ Do step 1 on the left page.

■ Then, **press** 4 repeatedly to select flash mode.

• Selected mode will be changed on the B/W Full Feature Indicator Panel (see page 10).

The Flash will start charging and LCD Viewfinder will go OFF in the following conditions ;
  • POWER is set from OFF to REC and flash is in Flash mode.
  • POWER is set from PLAY to REC and flash is in Flash mode.
  • POWER is set to REC and Flash mode is changed from OFF to Flash mode.
  • During image capture, after flash has occurred.

31

White Balance

Auto White Balance automatically maintains optimum color balance in most lighting conditions.
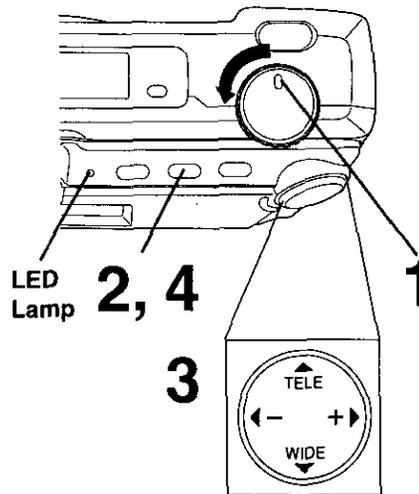
LED Lamp **2, 4**

3

1

```
      ▲
    TELE
( —    + )
    WIDE
      ▼
```

1 Set POWER to MANUAL REC.
• The LED Lamp lights up.

2 Press MENU to display MANUAL REC menu.

```
        <MANUAL REC 1/3>
  REC MODE      ◄ N ►
  CARD SLOT       NO. 1
  FLASH           AUTO
  SELF TIMER      OFF
  IRIS
  SEL  : ▲▼    SET  : ◄►
  EXIT : MENU
```
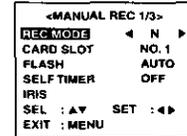
3 Press ▲ or ▼ to select WHITE BALANCE and press ◄ or ► to select one of the three settings shown below.
• Default setting is AUTO.

```
        <MANUAL REC 2/3>
  FOCUS           AUTO
  WHITE BALANCE ◄ AUTO ►
  LIGHT METER     AUTO
  B/W             OFF
  TIME LAPSE      OFF
  SEL  : ▲▼    SET  : ◄►
  EXIT : MENU
```
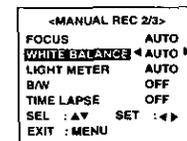
AUTO : Automatically maintains optimum color balance in most lighting conditions.

☼ : When shooting outdoors on a sunny day.

-☼- : When the source illumination is a halogen lamp.

4 Press MENU to exit.

• Selected mode will appear on the LCD Viewfinder (see page 11).

32

According to the recording condition and purpose, set light metering to measure exposure time.
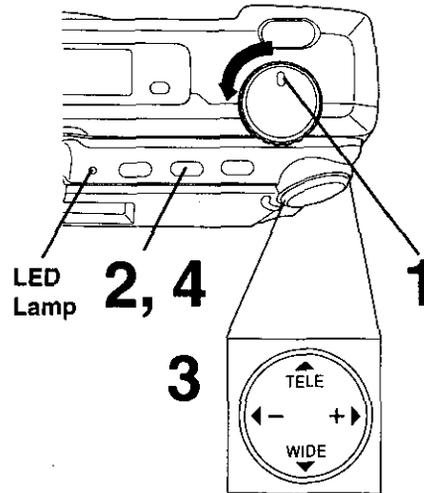
LED Lamp **2, 4**

3

1

1 Set POWER to MANUAL REC.
• The LED Lamp lights up.

2 Press MENU to display MANUAL REC menu.

```
<MANUAL REC 1/3>
REC MODE      ◄  N  ►
CARD SLOT     NO. 1
FLASH         AUTO
SELF TIMER    OFF
IRIS
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

3 Press ▲ or ▼ to select LIGHT METER and press ◄ or ► to select one of the two settings shown below.
• Default setting is AUTO.

```
<MANUAL REC 2/3>
FOCUS          AUTO
WHITE BALANCE  AUTO
LIGHT METER   ◄ AUTO ►
B/W            OFF
TIME LAPSE     OFF
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

AUTO : Ideal for normal capturing, the focus is set to the center portion of the finder and the entire image is metered.
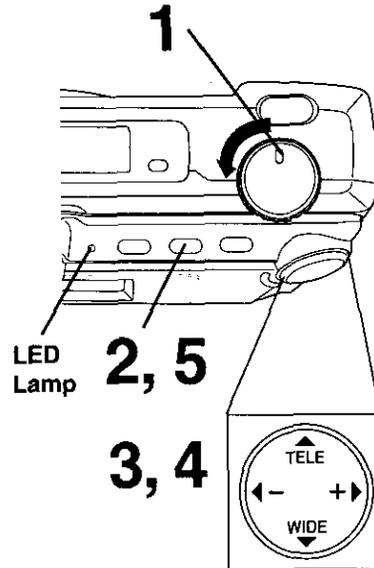
□ : A small sphere in the center portion of the finder is metered. This mode is useful for capturing back lit conditions, such as when the subject is brightly lit.

4 Press MENU to exit.
• Selected mode will appear on the LCD Viewfinder (see page 11).

Special Features

33

Capture B/W Images

You can also capture images in black and white using this mode.

LED Lamp

2, 5

3, 4

TELE
◄ − + ►
WIDE

1 Set POWER to MANUAL REC.
• The LED Lamp lights up.

2 Press MENU to display MANUAL REC menu.

```
<MANUAL REC 1/3>
REC MODE      ◄  N  ►
CARD SLOT      NO. 1
FLASH          AUTO
SELF TIMER     OFF
IRIS
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

3 Press ▲ or ▼ to select B/W.

```
<MANUAL REC 2/3>
FOCUS            AUTO
WHITE BALANCE    AUTO
LIGHT METER      AUTO
B/W           ◄ OFF ►
TIME LAPSE       OFF
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

4 Press ◄ or ► to select ON.

```
<MANUAL REC 2/3>
FOCUS            AUTO
WHITE BALANCE    AUTO
LIGHT METER      AUTO
B/W           ◄ ON ►
TIME LAPSE       OFF
SEL  : ▲▼   SET  : ◄►
EXIT : MENU
```

5 Press MENU to exit.

```
B/W

CARD1       MAY 24 1999
100-0001 F    10 : 00 AM
```
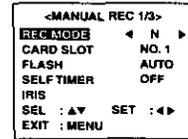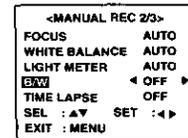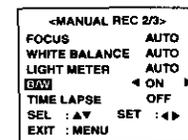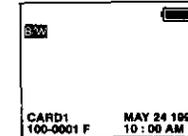
• B/W indication will be displayed on the LCD Viewfinder (see page 11) and B/W Full Feature Indicator Panel (PV-DC2590 only) (see page 10).

• To return to normal recording, select OFF in step 4.

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

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

5

1

LED Lamp **2, 4**

3

▲ TELE
◀ − + ▶
WIDE ▼

Self-Timer Indicator

1 Set POWER to REC or MANUAL REC.
• The LED Lamp lights up.

2 Press MENU to display REC MENU or MANUAL REC menu.

<REC Mode> <MANUAL REC Mode>

<REC MENU>			<MANUAL REC 1/3>		
REC MODE	◀ N ▶		REC MODE	◀ N ▶	
CARD SLOT	NO. 1		CARD SLOT	NO. 1	
FLASH	AUTO		FLASH	AUTO	
SELF TIMER	OFF		SELF TIMER	OFF	
OTHERS			IRIS		
SEL : ▲▼ SET : ◀▶			SEL : ▲▼ SET : ◀▶		
EXIT : MENU			EXIT : MENU		
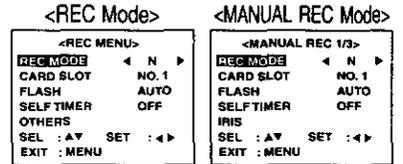
3 Press ▲ or ▼ to select SELF TIMER and press ◀ or ▶ to select ON.
This puts the camera in self-timer mode.
• After ON is selected and MENU is pressed, ᛔ mark will appear on the LCD Viewfinder (see page 11).

CARD1   MAY 24 1999
100-0001 F   10 : 00 AM
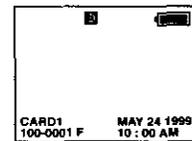
4 Press MENU to exit.

5 Press SHTR.
• The self-timer indicator lights. The indicator starts flashing rapidly after about 8 seconds and the image is captured about 2 seconds later.

B/W Full Feature Indicator Panel

ᛔ (Self-Timer) Button

(Model PV-DC2590 Only)
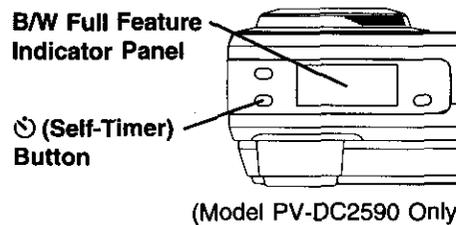
For model PV-DC2590,

■ Do step 1 above.

■ Then, **press** ᛔ to set self-timer recording mode.
• ᛔ will be displayed on the B/W Full Feature Indicator Panel (see page 10).

■ Now, do step 5 above.

Special Features

35

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.
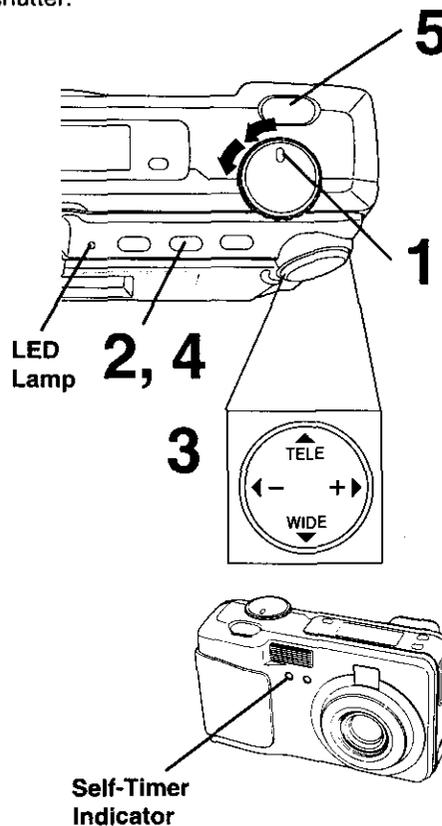

LED Lamp **2, 6**

3, 4, 5

1 **Set POWER to MANUAL REC.**
• The LED Lamp lights up.

2 **Press MENU** to display MANUAL REC menu.

```
<MANUAL REC 1/3>
REC MODE       ◄  N  ►
CARD SLOT        NO. 1
FLASH            AUTO
SELF TIMER       OFF
IRIS
SEL  : ▲▼    SET  : ◄►
EXIT : MENU
```
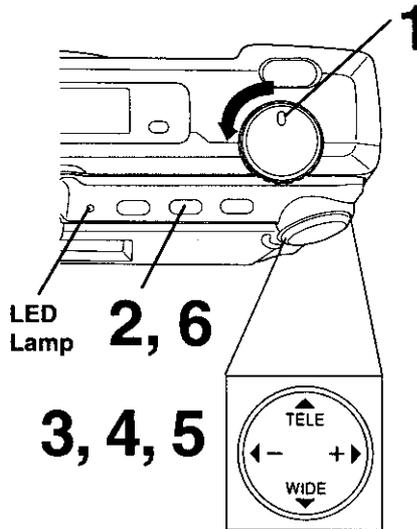
3 **Press ▲ or ▼** to select IRIS.

```
<MANUAL REC 1/3>
REC MODE         N
CARD SLOT       NO. 1
FLASH           AUTO
SELF TIMER      OFF
IRIS              ►
SEL  : ▲▼    SET  : ◄►
EXIT : MENU
```
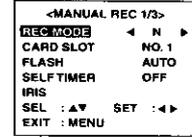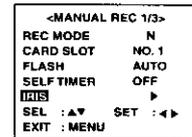
4 **Press ► to display IRIS screen.**

```
<IRIS>

-  □□□■□□□ +

SET  : ◄►
EXIT : MENU
```
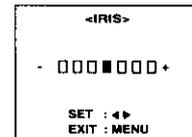
5 **Press ◄(-) or► (+)** to change the IRIS;
Press (+) to increase the brightness,
Press (-) to decrease the brightness.

6 **Press MENU to exit.**

Note:
• There are 7 brightness compensation levels ranging from -3 to +3.
• 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.

36

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

1 **Set POWER to MANUAL REC.**
• The LED Lamp lights up.

2 **Press MENU** to display MANUAL REC menu.

```
    <MANUAL REC 1/3>
REC MODE      ◄  N  ►
CARD SLOT       NO. 1
FLASH           AUTO
SELF-TIMER      OFF
IRIS
SEL  : ▲▼    SET  : ◄►
EXIT : MENU
```

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

```
    <MANUAL REC 2/3>
FOCUS           AUTO
WHITE BALANCE   AUTO
LIGHT METER     AUTO
B/W             OFF
TIME LAPSE    ◄ OFF ►
SEL  : ▲▼    SET  : ◄►
EXIT : MENU
```
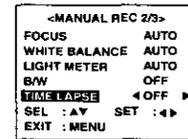
• Time Lapse feature is available with Super Fine (SF), Fine (F), Normal (N) and Zoom mode.
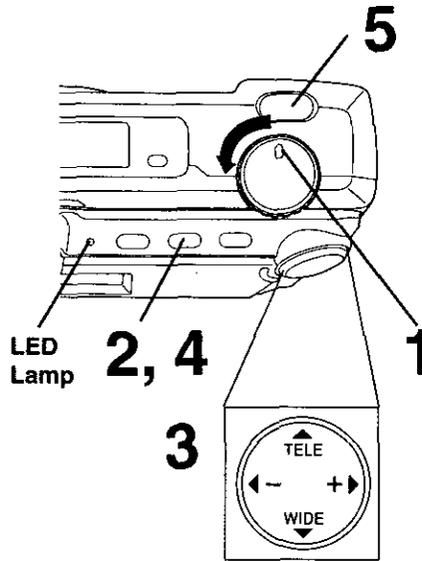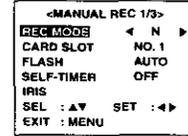If the REC mode is set to ▦ or ▭, please change REC mode (see page 21).

4 **Press MENU** to set time lapse mode.

```
TIME LAPSE MODE
PUSH SHTR TO START
PUSH MENU TO EXIT

CARD1
10 F
```
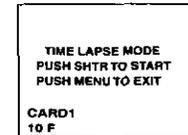
5 **Press SHTR** to start time lapse mode recording.

```
TIME LAPSE MODE

PUSH MENU TO EXIT

CARD1
10 F
```
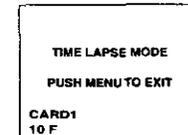
• LED Lamp will flash while the Digital Camera processes the image
• **Press MENU** to exit this mode.

LED
Lamp **2, 4**

5

1

3

```
    ▲
   TELE
◄ —   + ►
  WIDE
    ▼
```

Note :
• During time lapse recording (even during non-recording intervals), the battery may become depleted. Therefore, using an AC Adaptor (optional) is recommended.

Special Features

37

To Delete Specific Images

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

Warning: Once deleted, images cannot be restored.
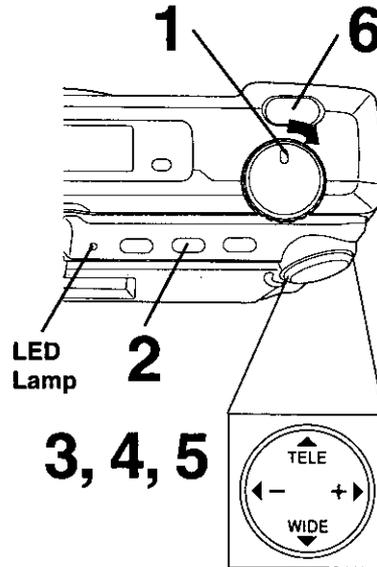
LED
Lamp

3, 4, 5

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

1 **Set POWER to PLAY.**
• The LED Lamp lights up.

2 **Press MENU** to display the PLAY MENU.

```
<PLAY MENU 1/2>
DISPLAY MODE ◄NORMAL►
CARD SLOT    NO. 1
DELETE
COPY
PRINT MARK
SEL  :▲▼   SET  :◄►
EXIT :MENU
```

3 **Press ▲ or ▼** to select DELETE and press ► to display DELETE menu.

```
<PLAY MENU 1/2>
DISPLAY MODE  NORMAL
CARD SLOT    NO. 1
DELETE        ►
COPY
PRINT MARK
SEL  :▲▼   SET  :◄►
EXIT :MENU
```
```
<DELETE>
DELETE PAGE   ►
DELETE ALL
FORMAT

SEL  :▲▼   SET  :◄►
EXIT :MENU
```
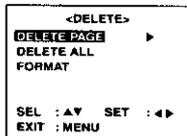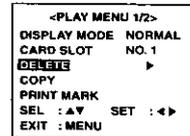
4 **Press ►** to display DELETE PAGE menu.

```
<DELETE PAGE>

SEL PAGE     :◄►
DELETE PAGE :SHTR
EXIT         :MENU
CARD1
100-0001 F
```

5 **Press ◄ or ►** to select the image page to be deleted.

6 **Press SHTR** to delete a image.
• Image page numbers are adjusted automatically as images are deleted.
• To delete other specific image pages, please repeat steps 5–6.
• **Press MENU** to exit.

38

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

Warning: Once deleted, images cannot be restored.

LED
Lamp **1**

1, 2, 3

TELE
+ −
WIDE

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

1 Repeat Steps 1 to 3 on page 38.

2 Press ▲ or ▼ to select DELETE ALL and **press ▶** to display DELETE ALL menu.

<DELETE ALL>
DELETE ALL IMAGES
OK?
NO
YES
SEL : ▲▼
ENTER : SHTR

3 Press ▲ or ▼ to select YES.

<DELETE ALL>
DELETE ALL IMAGES
OK?
NO
YES
SEL : ▲▼
ENTER : SHTR

• To exit this menu, press ▲ or ▼ to select NO and **press SHTR.**

4 Press SHTR to delete all image pages.

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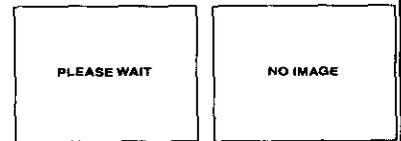
• "PLEASE WAIT" will be displayed on screen as all images are deleted from memory. Deletion is complete when "NO IMAGE" is displayed.

Special Features

Formatting CF Card

You can easily format your CF Card using this operation.

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

1, 2, 3 **4**

LED Lamp **1**

1, 2, 3

```
  ▲
 TELE
◄ –  + ►
 WIDE
  ▼
```

1 Repeat steps 1 to 3 on page 38.

2 Press ▲ or ▼ to select FORMAT and press ► to display FORMAT menu.

```
<FORMAT>
DELETE ALL DATA
     OK?

    NO
    YES

SEL   : ▲▼
ENTER : SHTR
```

3 Press ▲ or ▼ to select YES

```
<FORMAT>
DELETE ALL DATA
     OK?

    NO
    YES

SEL   : ▲▼
ENTER : SHTR
```
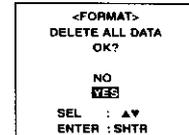
• To exit this menu, press ▲ or ▼ to select NO and press **SHTR.**

4 Press **SHTR** to format.

```
PLEASE WAIT        NO IMAGE
```
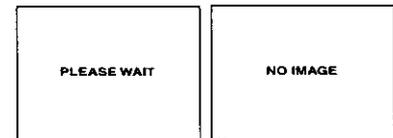
• "PLEASE WAIT" will be displayed on screen as the CF Card is formatting. Formatting is complete when "NO IMAGE" is displayed.
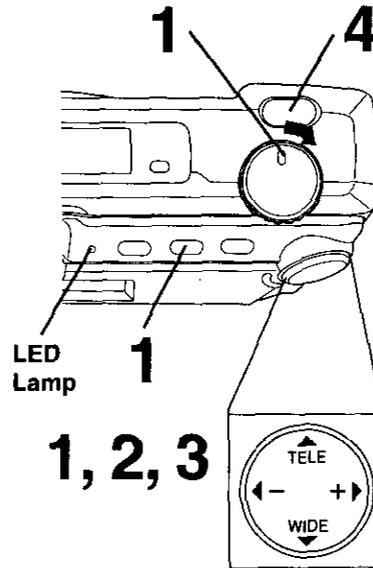
Important:
• While "PLEASE WAIT" is displayed, **do not turn off the Digital Camera or unplug the AC Adaptor (optional)** because this will cause irreversible damage to the memory, resulting in reduced image storage capacity.

You can copy images from CF card to CF card easily with this operation.

Note :
Be sure to insert a CF card into both slots.

1
LED
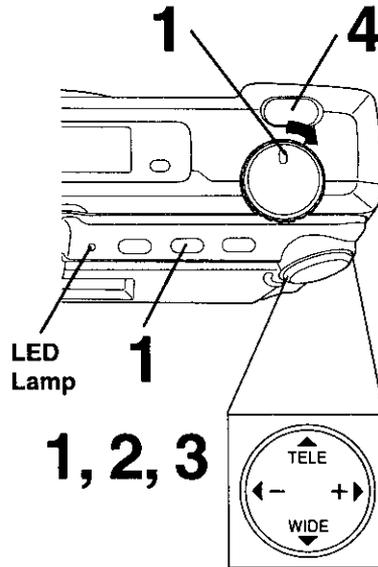Lamp

2, 3, 4

TELE
◄ − + ►
WIDE

Important:
• While "PLEASE WAIT" is displayed, **do not turn off the Digital Camera or unplug the AC Adaptor (optional)** because this will cause irreversible damage to the memory, resulting in reduced image storage capacity.
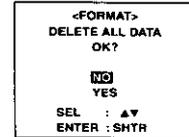
Note :
• If the memory capacity of the card that you want to copy to is not sufficient, the following message will appear.

NOT ENOUGH MEMORY
PUSH MENU TO EXIT

1 Set POWER to PLAY, press MENU to display PLAY MENU and select COPY.

```
<PLAY MENU 1/2>
DISPLAY MODE   NORMAL
CARD SLOT      NO. 1
DELETE
COPY              ►
PRINT MARK
SEL  : ▲▼   SET  : ◄ ►
EXIT : MENU
```

• If a CF card is not inserted into both slots, you cannot proceed.

2 Press ► to display COPY menu and select COPY PAGE.

```
<COPY>
COPY PAGE         ►
COPY ALL



SEL  : ▲▼   SET  : ◄ ►
EXIT : MENU
```
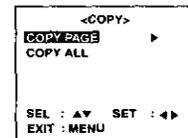
3 Press ► to display COPY PAGE menu.

```
<COPY PAGE>
CARD1 ➡ CARD2

SEL PAGE   : ◄ ►
COPY PAGE  : SHTR
EXIT       : MENU
CARD1
100-0001 F
```
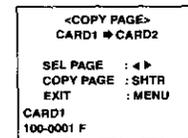
• The copy direction of card slot is selected automatically.

4 Press ◄ or ► to select image you want to copy and press SHTR to copy.

PLEASE WAIT

• "PLEASE WAIT" will be displayed on screen as the image is being copied.
• To copy other specific image pages, please repeat step 4.
• **Press MENU** to exit.

Special Features

To Copy All Images

You can copy all images from CF card to CF card easily with this operation.

NOTE:
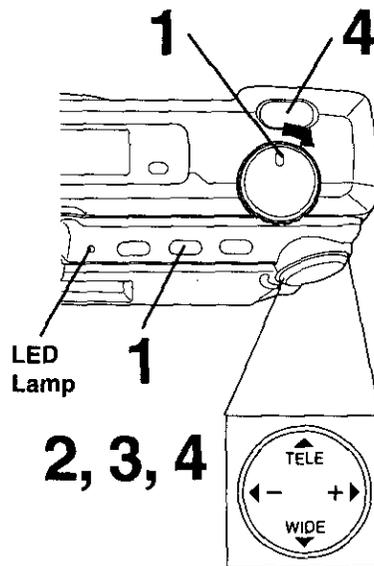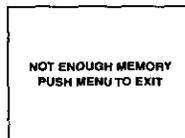Be sure to insert CF cards into both slots.
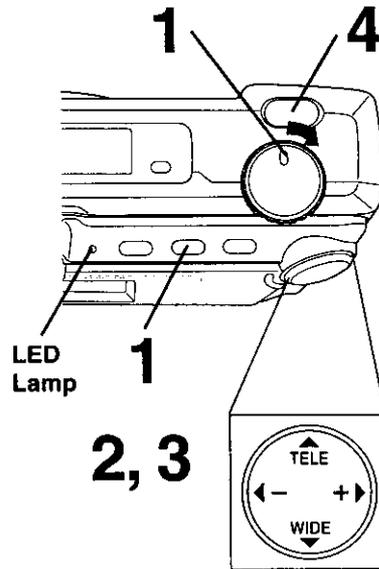
LED Lamp

1

2, 3

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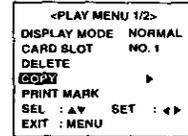• While "PLEASE WAIT" is displayed, **do not turn off the Digital Camera or unplug the AC Adaptor** because this will cause irreversible damage to the memory, resulting in reduced image storage capacity.

Note :
• If the memory capacity of the card that you want to copy to is not sufficient, the following message will appear.

```
NOT ENOUGH MEMORY
PUSH MENU TO EXIT
```

42

---

1 Set POWER to PLAY, press MENU to display PLAY MENU and select COPY.

```
<PLAY MENU 1/2>
DISPLAY MODE   NORMAL
CARD SLOT      NO. 1
DELETE
COPY          ▶
PRINT MARK
SEL  : ▲▼   SET  : ◀▶
EXIT : MENU
```
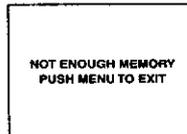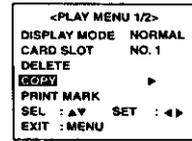
• The currently selected card slot will automatically be chosen as the copy from slot (see page 16).
• If a CF card is not inserted into both slots, you cannot proceed.

2 Press ▶ to display COPY menu and select COPY ALL.

```
<COPY>
COPY PAGE
COPY ALL      ▶

SEL : ▲▼   SET : ◀▶
EXIT : MENU
```
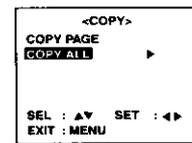
3 Press ▶ to display COPY ALL menu and press ▲ or ▼ to select YES.

```
<COPY ALL>
CARD1 ➡ CARD2
OK?
NO
YES
SEL   : ▲▼
ENTER : SHTR
```

• Select NO to return to the Normal Screen.
• The copy direction of card slot is selected automatically.

4 Press SHTR to copy.

```
PLEASE WAIT
```

• "PLEASE WAIT" will be displayed on screen as the image is being copied.

You can playback captured images as a
slide show.
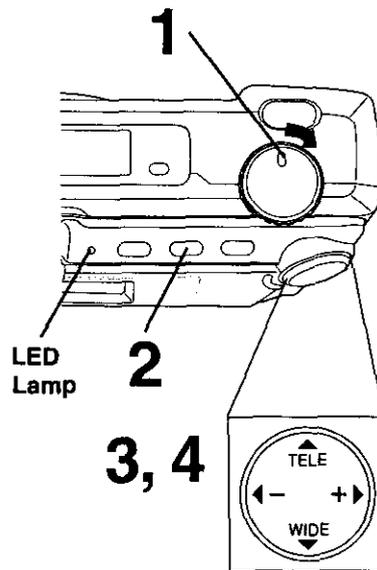
1 **Set POWER to PLAY.**

• The LED Lamp lights up.

2 **Press MENU** to display the PLAY
menu.

```
<PLAY MENU 1/2>
DISPLAY MODE  ◄NORMAL►
CARD SLOT      NO. 1
DELETE
COPY
PRINT MARK
SEL  : ▲▼     SET  : ◄►
EXIT : MENU
```
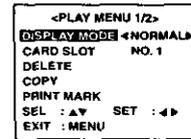
3 **Press ▲ or ▼** to select SLIDE SHOW.

```
<PLAY MENU 2/2>
SLIDE SHOW        ►
COMMUNICATION
OTHERS

SEL  : ▲▼     SET  : ◄►
EXIT : MENU
```
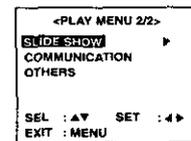
4 **Press ►** to start slide show.

```
SLIDE SHOW START
PUSH MENU TO EXIT
```

• **Press MENU** to exit this mode.

```
SLIDE SHOW STOP
```

LED
Lamp

1

2

3, 4

TELE
◄– +►
WIDE

43
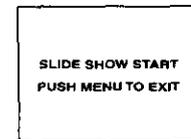
Inserting the PCMCIA Adaptor

If you are using a computer with a PCMCIA type II slot, you can insert the CompactFlash Card into a PCMCIA adaptor (not included).

1

2

3
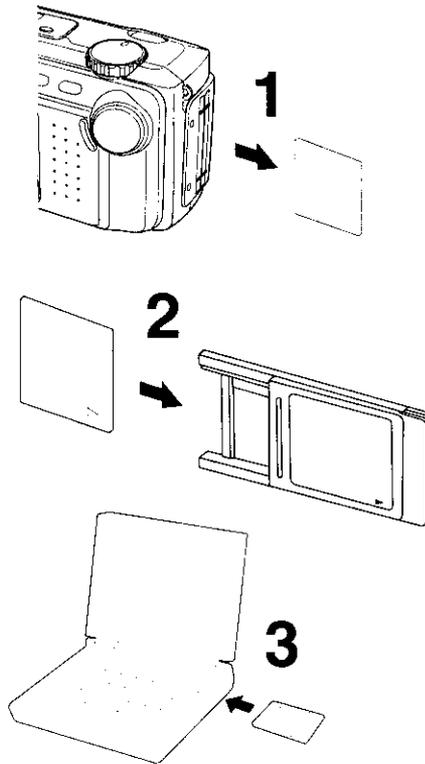
Inserting the CompactFlash Card

• The adaptor with the CompactFlash Card should be inserted when your computer is in the power on mode.

1 Remove the CompactFlash Card from the camera. (See page 17.)

2 Hold the CompactFlash Card so that the arrow side faces up and points toward the PCMCIA Adaptor. Securely insert the card into the PCMCIA Adaptor slot as far as it will go.

3 Hold the PCMCIA Adaptor so that the arrow side points toward the PCMCIA type II slot of your computer. Securely insert the PCMCIA Adaptor as far as it will go.

• Depending on the computer, it may be necessary to turn the PCMCIA Adaptor upside down in order to insert the card.

Removing the CompactFlash Card

4 Remove the PCMCIA Adaptor from the computer.

5 Pull the CompactFlash Card out of the PCMCIA adaptor.

Note :
Do not remove the PCMCIA Adaptor from the computer while the computer is working or while image data is being transferred between the CompactFlash Card and the computer (including operation such as opening and storing images), this will cause irreversible damage to the memory.

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

If Windows 95/98 Explorer is opened
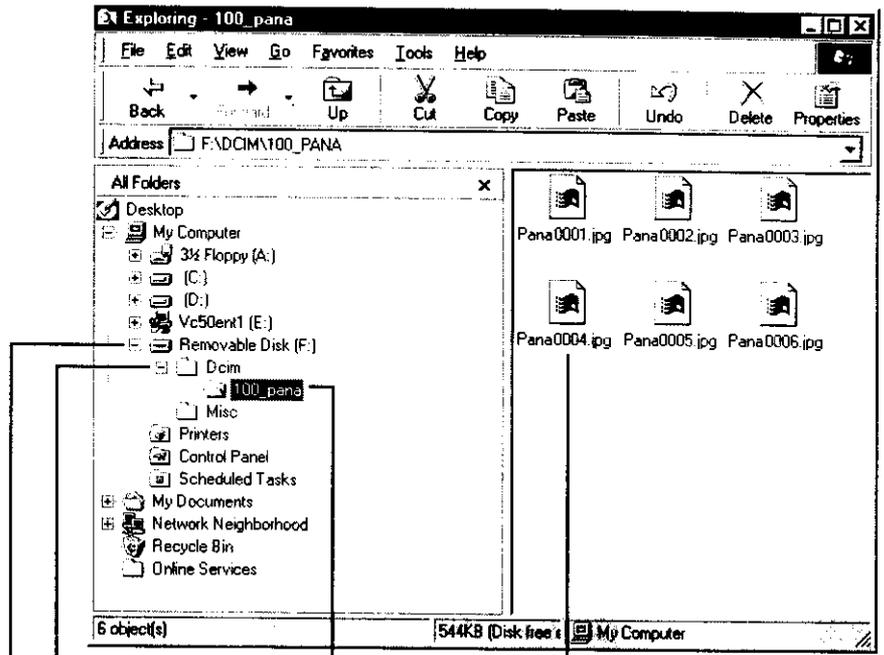
Sub Directory   Image Folder   Image is displayed
(DCim)   as a Panaxxxx.jpg file

Identified as
Removable Hard Disk

45

System Requirements:
- IBM PC/AT or compatible.
- Windows 95/Windows 98.
- 386SX CPU or higher. (486 recommended.)
- RAM: 16 MB on-board memory.
- 10 MB available hard disk space.
- 256 Color monitor or full color recommended (24bit per pixel or 16.7M color).
- CD-ROM drive (for installation).
- RS-232C serial port (D-Sub 9-pin). An adaptor is required for a D-Sub 25-pin.
- Mouse or other pointing device.

PalmCam Camera Driver Installation

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

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

3 Click the "Start" button and then click "Run".

Programs	▶
Documents	▶
Settings	▶
Find	▶
Help	
Run...	
Shut Down...	

Start
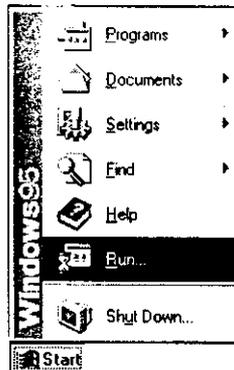
4 Type in **"d:\Panasonic\PalmCam\Setup.exe"** and then click OK.
Note: "d" Denotes the CD-ROM drive designation.

Run   **? X**

Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Open: d:\Panasonic\Palmcam\Setup.exe   ▼

[OK   ]   [Cancel]   [Browse...]
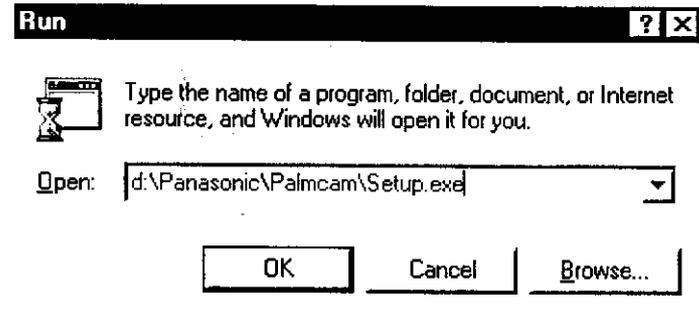
5 Follow the instructions as they appear on your PC screen.

46   **For assistance, call 1-800-272-7033.**

Transferring Your Images (Windows 95/98)

Twain Driver for Adobe® PhotoDeluxe™ Home Edition 3.0 Installation

• The Twain Driver, when installed, allows your camera to communicate directly with PhotoDeluxe Home Edition 3.0.

Note:

• Please install Adobe PhotoDeluxe Home Edition 3.0 before installing this driver.

• For information on Adobe PhotoDeluxe, please call 206-675-6120.

 Web Site : http://www.adobe.com/supportservice/custsupport/main.html

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

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

3 Click the "Start" button and then click "Run".
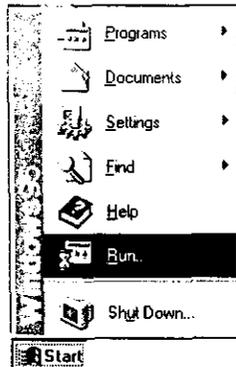
4 Type in "d:\Panasonic\Twain\Setup.exe" and click "OK".
Note: "d" Denotes the CD-ROM drive designation.
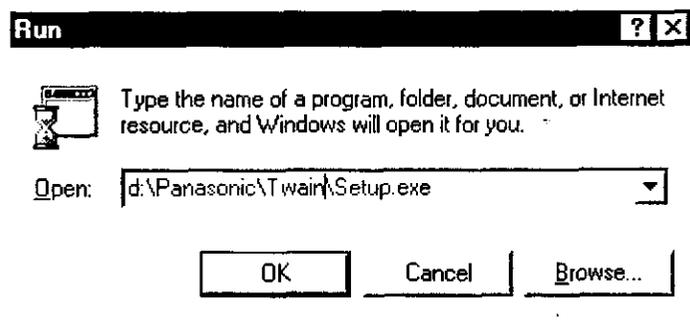
5 When installation is completed, start up PhotoDeluxe Home Edition 3.0 and refer to HELP file for the instructions on how to transmit images.

Adobe and PhotoDeluxe are trademarks of Adobe Systems Incorporated.

47

4

SERIAL
Terminal

1, 3

RS-232C
(D-Sub 9-pin)

PC Connecting
Cable for Windows
(Supplied)

2
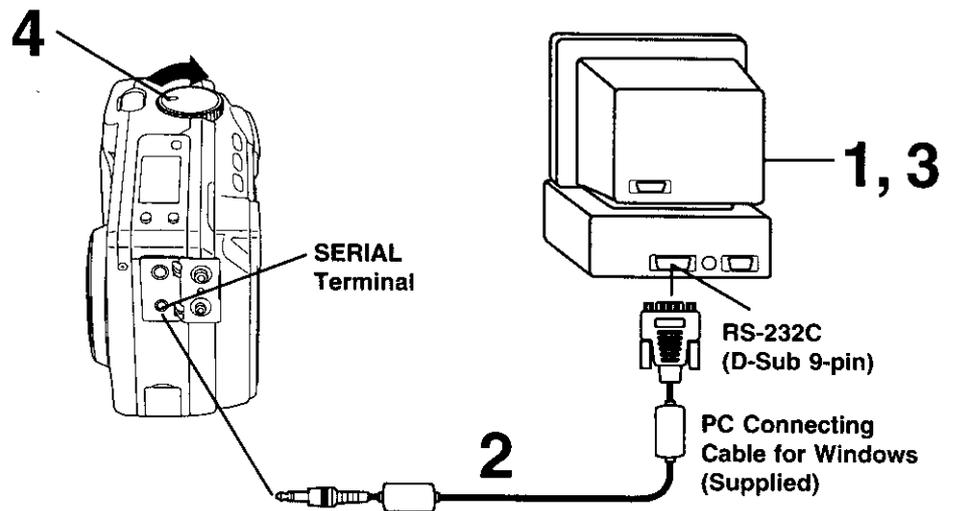
Connection

1 Turn off your PC.

2 Connect the Digital Camera to your PC (Windows) using the PC connecting cable (supplied).

3 Turn on your PC.

4 Set the Digital Camera POWER to PLAY.

• The LED Lamp lights up.

Note:

• For extended periods of use, it is recommended to use the AC Adaptor (Optional) as a power source.

• While the PC communicates with the Digital Camera, the Digital Camera cannot be operated.

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

Transferring Your Images (Windows 95/98)

Running the Application
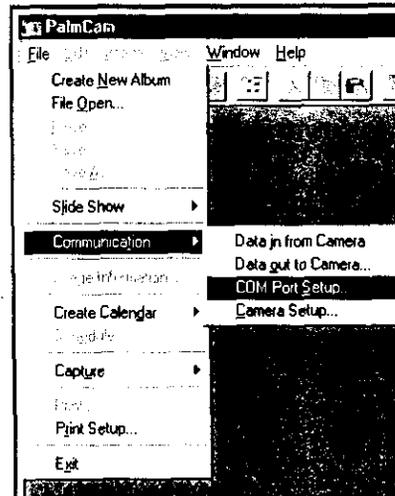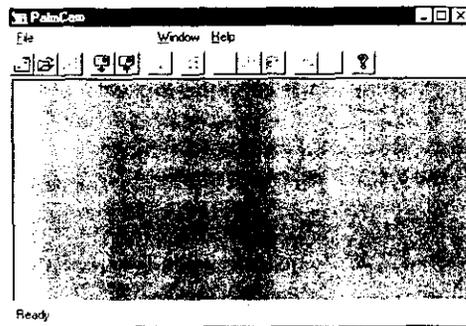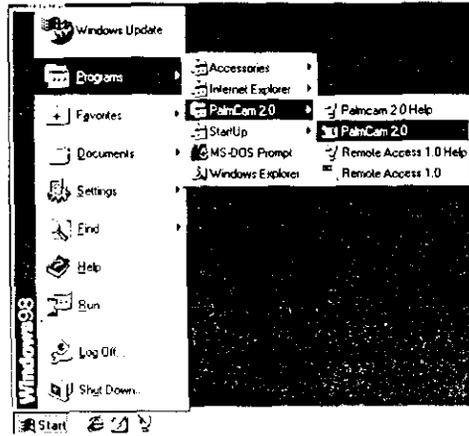
1 Select Programs/PalmCam 2.0/ PalmCam 2.0 from the START menu.

2 PalmCam Driver will open.

Note :
The commands in the COM Port Setup menu are used to change the COM Port or Baudrate. The application will communicate with the Camera using the selected COM Port.

1 Select [Communication] from the [File], and then select [COM Port Setup...].

2 Select the Serial Port to connect with the Camera.
  • The default setting is COM1.
  • If you press "AUTO SETUP", the Port to which the Camera is connected is detected and selected automatically.

3 Select the Baud rate.
  • The default setting is 38400bps.
  • Depending on the PC being used, some baud rates may not be available. Please refer to your PC manual.

Port Setup

┌COM Port────	┌Baudrate────
⦿ COM1	○ 9600
○ COM2	○ 19200
○ COM3	⦿ 38400
○ COM4	○ 57600
Auto Setup	○ 115200

| OK | Cancel |

Data in from Camera

Selected Camera image file will be
transferred to the PC.

Transfer Path

Transfer Directory Path

C:\Program Files\PalmCam 2.0|

| OK | Cancel | Browse... |

PalmCam

Now transferring image(Digital Camera -> PC).
Image No.1 [1 / 10]

43%

Cancel

1 Repeat steps 1 and 2 on page 49 to run the software.

2 Select ⊞ 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 [OK]**.

5 After you **click [OK]** from the Transfer Path dialog box the image will transfer over to the specified directory.
[Now transferring the image... (Digital Camera -> PC)] will appear.

Note :
• The images transferred from the Camera will automatically be saved as file name [DSC xxx. JPG] (xxx indicates the number).
• The images transferred from the Camera will be automatically displayed on the album file.

50

Transferring Your Images (Windows 95/98)

Data out to Camera

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

1 Repeat steps 1 and 2 on page 49 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 the image... (PC -> Digital Camera)] will appear and the image transfer status will appear.

Note :
• Only JPEG format image files can be transferred to the Camera. Image size can be up to 1280 x 960 pixels. Image files not meeting this requirement must be changed in order to be transferred to the Camera.

51

Transferring Your Images (Macintosh)

System Requirements:
- System 7.1 or later.
- System 8 or later (for Remote Access).
- 68040 CPU or higher, or Power Macintosh.
- 16 MB of RAM.
- 10MB available hard disk space.
- 256 Color monitor or full color recommended (24bit per pixel or 16.7M color).
- CD-ROM drive (for installation).
- Modem port or printer port (RS-422).
- Mouse or other pointing device.

PalmCam Camera Driver Installation

1 Turn on the Macintosh.

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

3 Double click the "Panasonic Folder".

4 Read the "Read Me" file.

5 Drag the "PalmCam 2.0 Folder" where you want to copy.

Adobe and PhotoDeluxe are trademarks of Adobe Systems Incorporated.

52

Plug-in Driver for Adobe® PhotoDeluxe™ 2.0 Installation

• The Plug-in Driver, when installed, allows your camera to communicate directly with PhotoDeluxe 2.0.

Note:

• Please install Adobe PhotoDeluxe 2.0 before installing this driver.

• For information on Adobe PhotoDeluxe, please call 206-675-6120
Web Site : http://www.adobe.com/supportservice/custsupport/main.html

1 Turn on the Macintosh.

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

3 Double click the CD-ROM icon.

4 Drag the "Pdc2590.8bam" file to the "Plug-ins" folder of PhotoDeluxe.
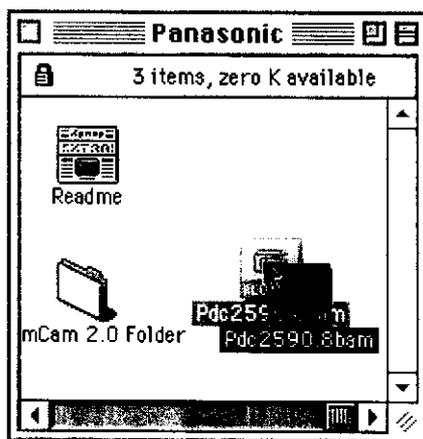
5 When installation is completed, start up PhotoDeluxe 2.0 and refer to HELP file for the instructions on how to transmit images.

Adobe and PhotoDeluxe are trademarks of Adobe Systems Incorporated.

Transferring Your Images (Macintosh)

Modem
port or
printer port

4

1,3

SERIAL
Terminal

2

PC Connecting
Cable for Windows
(Supplied)

Macintosh
Adaptor Cable
(Optional)
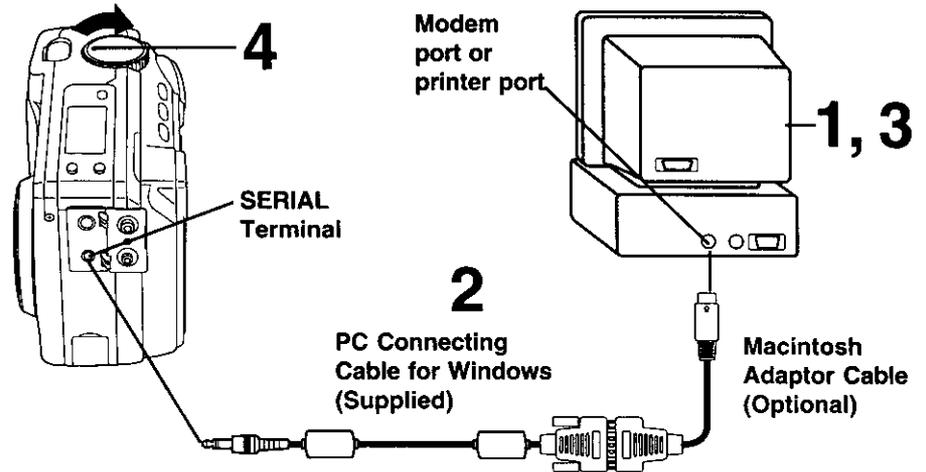
Connection

1 Turn off your PC (Macintosh).

2 Connect the Digital Camera to your PC (Macintosh) using the PC connecting cable (supplied) and PC Connecting Cable Adaptor for Macintosh (Optional).

3 Turn on your PC (Macintosh).

4 Set the Digital Camera POWER to switch to PLAY.
• The LED Lamp lights up.

Note:
• For extended periods of use, it is recommended to use the AC Adaptor as a power source.
• While the PC communicates with the Digital Camera, the Digital Camera cannot be operated.

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

Running the Application

1 Double click the PalmCam icon.

PalmCam

2 PalmCam Driver will open.
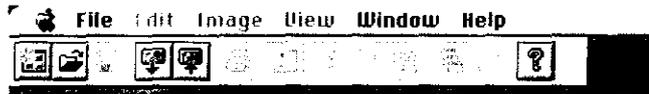
⌘ File Edit Image View **Window** Help

Note :
The commands in the COM Port Setup menu are used to change the COM Port or Baud Rate. The application will communicate with the Camera using the selected COM Port.

1 Select [Communication] from the [File], and then select [COM Port Setup...].

2 Select the Serial Port to connect with the Camera.
  • The default setting is Modem Port.
  • If you press "Auto Setup", the Port to which the Camera is connected is detected and selected automatically.

3 Select the Baud rate with the Camera.
  • The default setting is 57600bps.
  • Depending on the PC being used, some baud rates may not be available. Please refer to your PC manual.

⌘ **File** Edit Image View **Window** Help

New Album	⌘N
Open...	⌘O
Close	⌘W
Save	⌘S
Save As...	
Slide Show	▶
Communication	▶	Data In from Camera... ⌘U
Image Information ⌘I	Data Out to Camera... ⌘D
Capture...	Com Port Setup... ⌘T
Page Setup...	Camera Setup...
Print...	⌘P
Quit	⌘Q

Comm Port Setup

Port:
○ Printer Port
● Modem Port
[Auto Setup]

Baud Rate:
○ 9600
○ 38400
● 57600
○ 115200

[Cancel]   [OK]
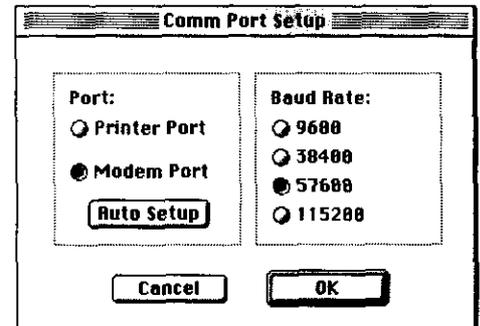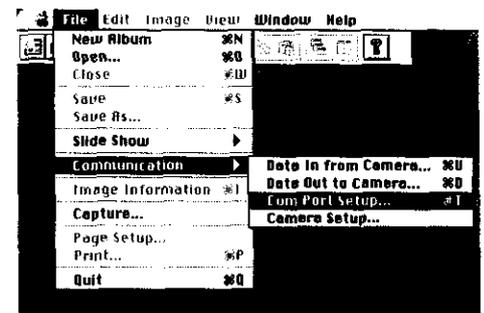
Transferring Your Images (Macintosh)

Data in from Camera

Selected Camera image file will be transferred to the PC.
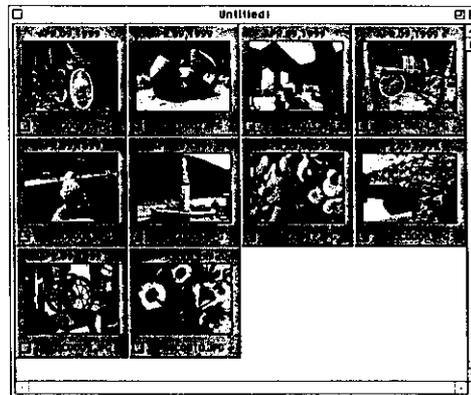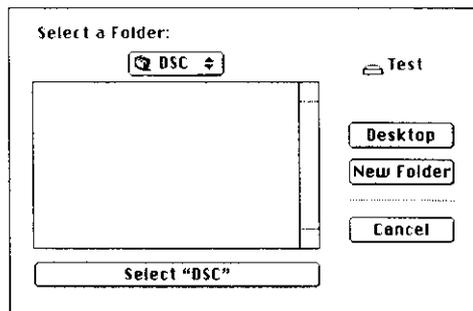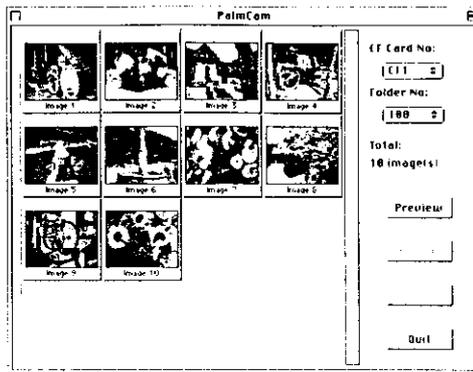
1 Repeat steps 1 and 2 on page 55 to run the software.

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 [OK].

5 After you click [OK] from the Transfer Path dialog box the image will transfer over to the specified directory. [Now transferring the image... (Digital Camera -> PC)] will appear.

Note :
• The images transferred from the Camera will be automatically saved as file name [DSC xxx. JPG] (xxx indicates the number) file name.
• The images transferred from the Camera will automatically be displayed as an album file.

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 55 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 the image... (PC -> Digital Camera)] will appear and the image transfer status will appear.

Note :
• Only JPEG format image files can be transferred to the Camera. Image size can be up to 1280 x 960 pixels. Image files not meeting this requirement must be changed in order to be transferred to the Camera.

57

Communication Function

Image file transfer via a regular telephone line using the Compact Modem Card.
Refer to Remote Access (pages 61~73) and Communication (pages 74, 75) for complete operating instructions.
Please also see the diagram on page 59 to view the Compact Modem functions.
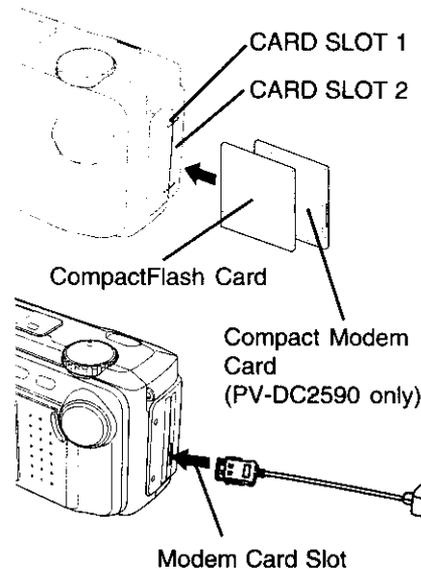
1 Set POWER OFF before inserting the CompactFlash card and modem card. Insert the CF Card and Compact Modem Card into the CompactFlash Card Slots in the direction of the arrow mark and so that the arrow mark side of the card faces the front (lens side) of the Digital Camera.

CARD SLOT 1
CARD SLOT 2

CompactFlash Card

Compact Modem Card
(PV-DC2590 only)

Modem Card Slot

2 Push the cards fully into the CompactFlash Card Slots.

3 Connect the Modem Cable into the Modem Card, and connect Modular Jack to the Modular Cord.

Modular Cord
(Sold separately)

Note :
Communication Function is only available in the USA.
This is not an e-mail function.

How to attach the Ferrite Core
Attachment to the modular cord to for FCC Standard observance.
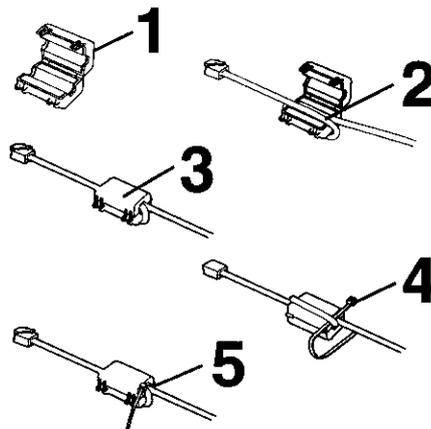
1 Open the catch of the Ferrite Core.

2 Wind the modular cable cord tightly around the opened Ferrite Core to make one complete loop as shown.

3 Close the Ferrite Core Housing.

4 Thread the cable tie through the hole in the Ferrite Core Housing.

5 Fasten the Ferrite Core Housing on the cable so that it does not move.

58

COMPACT MODEM FUNCTIONS

Transfer image files via regular telephone line using the Compact Modem Card

FAX

PC

INCLUDED
PALMCAM
COMMUNICATION
SOFTWARE *
· Must be installed
· Also available at
www.panasonic.com/palmcam

IMAGE FILE TRANSFER USING E-MAIL IS NOT AVAILABLE

PC

INCLUDED
PALMCAM
COMMUNICATION
SOFTWARE *
· Must be installed
· Also available at
www.panasonic.com/palmcam
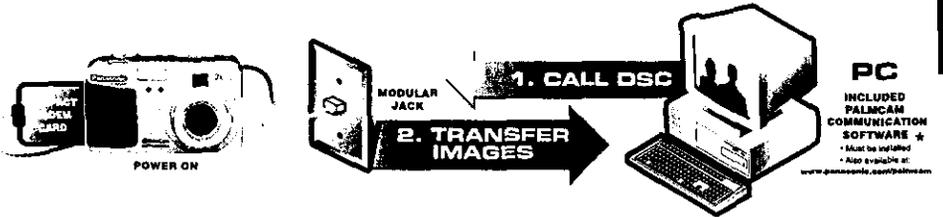
Note :
Communication Function is only available in the USA.
* **PalmCam Communication software must be installed.**
PalmCam Communication software also available at
www.panasonic.com/palmcam.

59

Communication Function

Notes for Modem Communication

- Depending on the area, the line situation may be poor making communication impossible.
- It is not possible to call from an extension line to another extension line.
  (However, it is possible to call from an extension line to an outside line. In this case, it may be impossible to make a normal call. If you cannot call normally, set the PC modem not to detect dial tone from the PC modem settings. To change the PC modem settings, refer to the PC modem operating instructions.)
  Also, when you call from an extension line to an outside line, please enter the extension transmit number to the settings of this application beforehand.
- When you communicate with the Camera using this application, it is recommended to use a direct outside line as much as possible.
- A multi-line phone that requires line number selection before calling cannot be used.
- While long distance calls usually require a "1" before the area code. With Windows, the "1" is added automatically, so please do not enter "1" before the number. (adding "1" may result in a wrong number.)
- It may not possible to call normally when the application for modem use is already running. In this case, exit the application and try to place the call again.
- Use this application to communicate with the Camera only.
- When you communicate with the Camera using this application, depending on the line situation, failure may occur during communication. In this case, please exit the communication and try again later.
- When you transfer Fine or Super Fine mode images, it may take long time, depending on the line situation. In this case, please exit the communication and try again later.
- If you are using a phone line with call waiting, and use this application to communicate with the Camera, incoming calls may cause disconnection during communication. In this case, please try again later.
- It is recommended that an AC Adaptor (optional) be used for communicating with the Camera using this application. If a battery is used, it may become depleted during communication.
- Insert the modular cable securely into the modular box until it clicks.
- Even when the cable is correctly connected, the connections inside the box may not have a good contact. If, even though there is no dial tone, the application dials, but connection with the Camera cannot be made, the cable in the box may loose contact. In this case, while firmly pressing the cable deep into the box, try calling again.
- It is not possible to communicate with the Camera with this application using a answering phone or voice mail line.
  If the telephone line connected with PC modem has an answering machine function and you use this application, set the call capacity on the answering machine to at least 7.

This function enables you to operate the
camera from great distances with the use of
a modem.
• Remote recording from the PC.
• Downloading selected images to the PC.
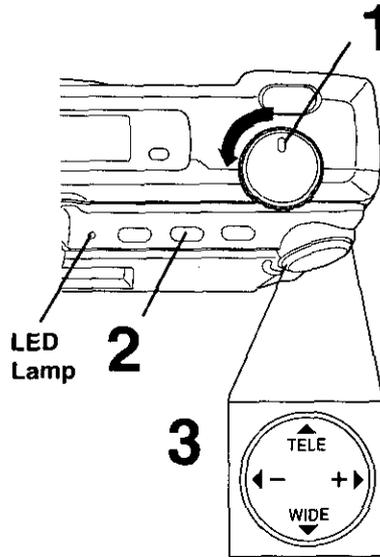
LED
Lamp

1 Set POWER to MANUAL REC.
• The LED Lamp lights up.

2 Press MENU to display MANUAL REC
menu.

```
      <MANUAL REC 1/3>
REC MODE      ◄  N  ►
CARD SLOT        NO. 1
FLASH            AUTO
SELF TIMER       OFF
IRIS
SEL  : ▲▼    SET  : ◄►
EXIT : MENU
```
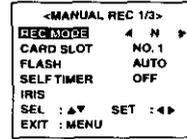
• When the recording mode is set to
ZOOM, ▦ (Motion Image Rec) or
🖺 (Burst Rec), the recording mode
will go to F (Fine) when connecting
the Modem Card.

3 Press ▲ or ▼ to select REMOTE
ACCESS and press ►.

```
REMOTE ACCESS
PUSH MENU TO EXIT

CARD1
10 F
```

Note :
Before operating Remote Access,
• **Be sure to install PalmCam Camera**
  Driver (see pages 46, 52).
• Be sure to insert CF Card and Modem
  Card into the card slot.
• Make all connection on page 58.
• The Camera must be turned on.
• For extended period of use, it is
  recommended to use the AC Adaptor
  (optional) for a power source.

Special Features

61

Running the application

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

Note :

Before operating, please install PalmCam 2.0 Camera Driver.

1 Select Programs/PalmCam 2.0/Remote Access 1.0 from the Start.

2 When application runs correctly, the Remote Access dialog box will be displayed.
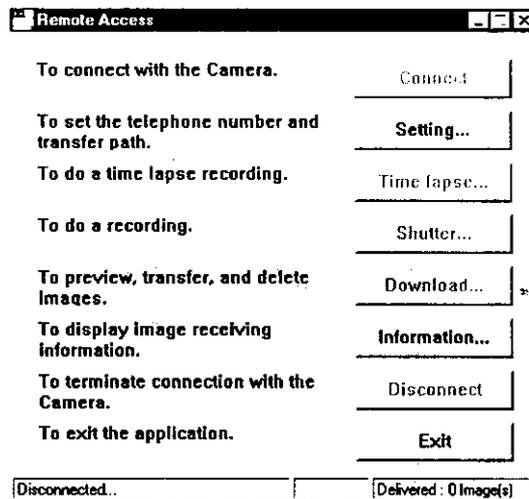
For assistance, call 1-800-272-7033.

Settings

You can set the telephone number for connection from PC to Camera, and specify the Transfer Path to save images transferred from the Camera.

1 Select [Setting...] from the Remote Access dialog box.

2 The setting dialog box will be displayed.

```
Setting                                    ☒
─Modem────────────────────────────
      [Standard 28800 bps Modem      ▼]

─Telephone number( PC -> Digital Camera )──
  Country:   [United States of America(1)   ▼]

  Area:   [     ]   Number:   [     ]

  OutSideLine:   [        ]

─Transfer Path──────────────────────
  [C:\Program Files\Palmcam 2.0]     Browse...

        [   OK   ]      [ Cancel ]
```
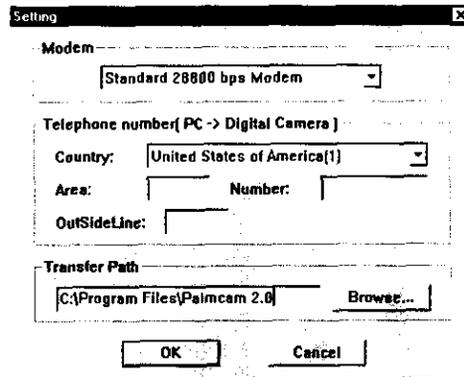
• Please set PC modem, Telephone number (PC -> Digital Camera), and Transfer Path.

Modem :
The modem names registered to the PC will be listed. Select the modem to be connected with the telephone line.
If an error is made in modem selection, connection with the camera will not be possible.
• Regarding modem entry, deletion, etc., please refer to the PC modem operating instructions, or Windows manual.

Telephone number (PC -> Digital Camera) :
To set the telephone number for connection from PC to camera -
Please set your country code, area code, and local prefix.

Transfer Path :
To specify the save location of the transferred image - Click the [Browse...] button, and set the transfer path of the image.

3 After setting is completed, **click [OK]** to exit the Setting dialog box.

Camera Connection

1 Select [Connect] from the Remote Access dialog box.
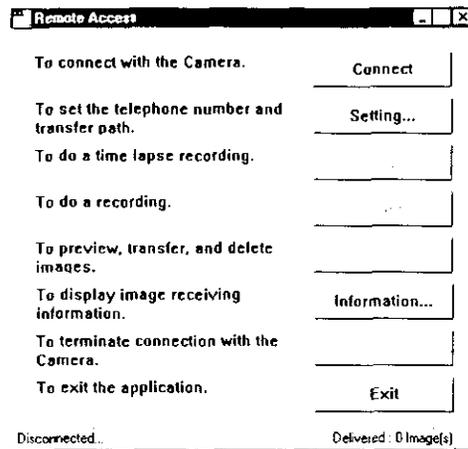
Remote Access	☐☒
To connect with the Camera.	Connect
To set the telephone number and transfer path.	Setting...
To do a time lapse recording.	
To do a recording.	
To preview, transfer, and delete images.	
To display image receiving information.	Information...
To terminate connection with the Camera.	
To exit the application.	Exit
Disconnected...	Delivered : 0 Image(s)

• You need to setup the PC's modem before running this application. For more details, please refer to the PC modem operating instructions.
If communication connection cannot be made correctly, please check for errors in modem setting method, modem select, telephone number etc.
Regarding PC modem setting method, please refer to the PC modem operating instructions. Regarding the PC modem select, telephone number setting, please use the values in the **Setting** dialog box.

2 If communication connection was made correctly, the Remote Access dialog box will change as follows.

Remote Access	☐☐☒
To connect with the Camera.	Connect
To set the telephone number and transfer path.	Setting...
To do a time lapse recording.	Time lapse...
To do a recording.	Shutter...
To preview, transfer, and delete images.	Download...
To display image receiving information.	Information...
To terminate connection with the Camera.	Disconnect
To exit the application.	Exit
Connected...	Delivered : 0 Image(s)

64
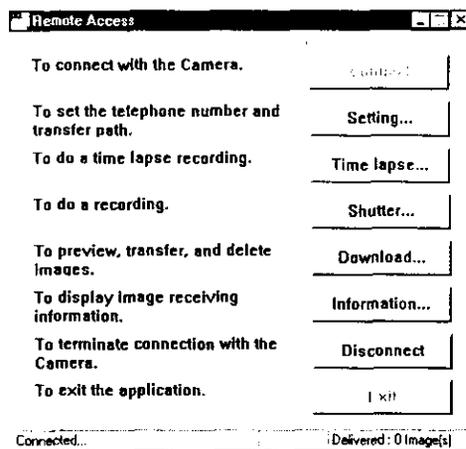
Time Lapse Recording

You can set the recording interval, image mode and clock for time lapse recording.

1 Select [Time Lapse...] from the Remote Access dialog box.

2 The time lapse dialog box will be displayed.
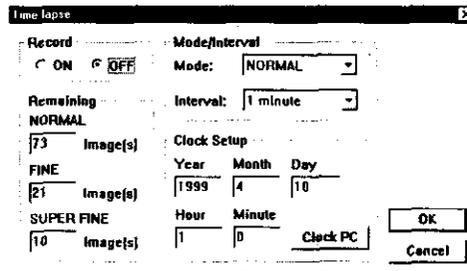
3 Set Record, Mode, Interval and Clock Setup.

Record :
Select [ON] for time lapse recording.
If you are not going to use or wish to exit time lapse recording, **select [OFF]**.

Interval :
To set the recording time interval. A length of 1 minute, 5 minutes, 10 minutes, 30 minutes, 1 hour, 6 hours, 12 hours and 24 hours can be set.

Mode :
Select the recording mode (see page 21).

Clock Setup :
To set the internal clock of the Camera. Move the cursor and type the date and time. **Click [Clock PC]** to set the Camera's clock to the PC's clock setting.

Remaining :
Displays the number of images which can be saved on the CF card.

4 After setting is completed, **click [OK]** to exit the Time Lapse dialog box.

- Changes made regarding the time lapse function take effect by clicking the [OK] button in the Time Lapse dialog box.
 If you select [Cancel], all settings are cancelled.
 When you wish to stop time lapse in progress, repeat step 1 and set Record to [OFF], then click [OK].

65

Remote Access (Windows 95/98)

Remote Recording

You can control the Camera's shutter from the PC to capture and record pictures.

1 Select [Shutter...] from the Remote Access dialog box.

2 The shutter dialog box will display the number of pages remaining in the CF card for each mode.

Shutter		☒
Status		
Mode :	NORMAL ▾	
Remaining		
NORMAL	73	Image(s)
FINE	21	Image(s)
SUPER FINE	10	Image(s)

OK	Cancel

3 Click [OK] to start recording.
Select [Cancel] to exit.
• Camera recording will start shortly after [OK] is selected.

4 The image captured by the camera is automatically transferred to the PC.

Remote Access

Now transferring image(Digital Camera -> PC).

Time remaining : 00 h 00 m 58 s

12%

Cancel

5 If you wish to continue camera recording, repeat operation from step 1.

66

Download

You can select the Camera image files to be transferred to the PC or you can select the Camera image files you want to delete.

1 Select [Download] from the Remote Access dialog box.

2 Image Preview dialog box will be displayed.

3 You can perform any one of the following 3 functions (for more details, refer to Help) ;

• Preview Images in the Camera.

• Transfer Images from the Camera.

• Delete Specific Image in the Camera.

4 Click [Exit] and the Image Preview dialog box disappears.

67

Remote Access (Macintosh)

Running the application

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

Note :
Before operating, please install PalmCam 2.0 Camera Driver.

1 Double click the "PalmCam Remote Access" icon.

2 When application runs correctly, the Remote Access dialog box will be displayed.
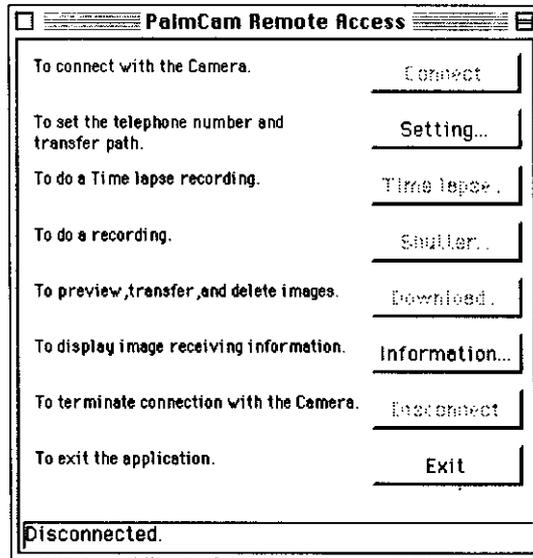
To connect with the Camera.	Connect
To set the telephone number and transfer path.	Setting...
To do a Time lapse recording.	Time lapse .
To do a recording.	Shutter..
To preview,transfer,and delete images.	Download .
To display image receiving information.	Information...
To terminate connection with the Camera.	Disconnect
To exit the application.	Exit

Disconnected.

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

Settings

You can set the telephone number for connection from PC to Camera, and specify the Transfer Path to save images transferred from the Camera.

1 Select [Setting...] from the Remote Access dialog box.

2 The setting dialog box will be displayed.

Telephone number:

[   ]

Transfer Path:

Test:Desktop Folder:DSC   [Browse...]

[Cancel] [OK]

• Please set Telephone number (PC -> Digital Camera), and Transfer Path.

Telephone number (PC -> Digital Camera) :
Set the telephone number for connection from PC to camera.
To insert a pause, type a " , " (comma) between the dial numbers.

Transfer Path :
Specify the save location of the transferred image. Click the [Browse...] button, and set the transfer path of the image.

3 After setting is completed, **click [OK]** to exit the Setting dialog box.

• If you click [Cancel], all settings are cancelled.

Special Features

Remote Access (Macintosh)

1 Select [Connect] from the Remote Access dialog box.

```
┌─────────────────────────────────────┐
│ □ ══════ PalmCam Remote Access ═══ ▣ │
│ ┌─────────────────────────────────┐ │
│ │ To connect with the Camera.     │ │
│ │                      [ Connect ] │ │
│ │ To set the telephone number and │ │
│ │ transfer path.       [ Setting...] │ │
│ │ To do a Time lapse recording.    │ │
│ │                      [ Time lapse.] │ │
│ │ To do a recording.   [ Shutter.. ] │ │
│ │                                 │ │
│ │ To preview,transfer,and delete images. │ │
│ │                      [ Download. ] │ │
│ │ To display image receiving information. │ │
│ │                      [ Information...] │ │
│ │ To terminate connection with the Camera. │ │
│ │                      [ Disconnect ] │ │
│ │ To exit the application.         │ │
│ │                      [ Exit ]    │ │
│ └─────────────────────────────────┘ │
│ │Disconnected.                     │ │
└─────────────────────────────────────┘
```

2 If communication connection was made correctly, the Remote Access dialog box will change as follows.

```
┌─────────────────────────────────────┐
│ ▣ ══════ PalmCam Remote Access ═══ ▣ │
│ ┌─────────────────────────────────┐ │
│ │ To connect with the Camera.     │ │
│ │                      [ Connect ] │ │
│ │ To set the telephone number and │ │
│ │ transfer path.       [ Setting...] │ │
│ │ To do a Time lapse recording.    │ │
│ │                      [ Time lapse...] │ │
│ │ To do a recording.   [ Shutter... ] │ │
│ │                                 │ │
│ │ To preview,transfer,and delete images. │ │
│ │                      [ Download... ] │ │
│ │ To display image receiving information. │ │
│ │                      [ Information...] │ │
│ │ To terminate connection with the Camera. │ │
│ │                      [ Disconnect ] │ │
│ │ To exit the application.         │ │
│ │                      [ Exit ]    │ │
│ └─────────────────────────────────┘ │
│ │Connected.                        │ │
└─────────────────────────────────────┘
```

- You need to setup the PC's modem before running this application. For more details, please refer to the PC modem operating instructions.
If communication connection cannot be made correctly, please check for errors in modem setting method, modem select, telephone number etc.
Regarding PC modem setting method, please refer to PC modem operating instructions. Regarding the telephone number setting, please use the values in the **Setting** dialog box.

70

Time Lapse Recording

You can set the recording interval, image mode and clock for time lapse recording.

1 Select [Time Lapse...] from the Remote Access dialog box.

2 The time lapse dialog box will be displayed.

```
Record              Mode/Interval

 O ON   ● OFF       Mode:    [ NORMAL   ♦ ]

                    Interval: [ 1  Minute  ♦ ]
Remaining

NORMAL              Clock Setup
 78   Image(s)       Year   Mont   Day
FINE
 23   Image(s)      [1999] [4   ] [12  ]
SUPER FINE           Hour   Minute
 11   Image(s)      [14  ] [8   ]  [Clock PC]

                              [ Cancel ]  [  OK  ]
```

3 Set Record, Interval, Mode and Clock Setup.

Record :
Select [ON] for time lapse recording.
If you are not going to use or wish to exit time lapse recording, **select [OFF]**.

Interval :
To set the recording time interval. A length of 1 minute, 5 minutes, 10 minutes, 30 minutes, 1 hour, 6 hours, 12 hours and 24 hours can be set.

Mode :
Select the recording mode (see page 21).

Clock Setup :
To set the internal clock of the Camera. Move the cursor and type the date and time. **Click [Clock PC]** to set the Camera's clock to the PC's clock setting.

Remaining :
Displays the number of images which can be saved on the CF card.

4 After setting is completed, **click [OK]** to exit the Time Lapse dialog box.

• Changes made regarding the time lapse function take effect by clicking the [OK] button in the Time Lapse dialog box.
If you select [Cancel], all settings are cancelled.
When you wish to stop time lapse in progress, repeat step 1 and set Record to [OFF], then click [OK].
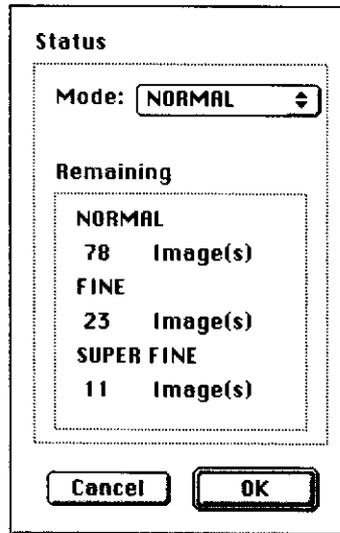
Special Features

71

Remote Access (Macintosh)

Remote Recording

You can control the camera's shutter from the PC to capture and record pictures.

1 Select [Shutter...] from the Remote Access dialog box.

2 The shutter dialog box will display the number of pages remaining in the CF card for each mode.

```
Status
┌──────────────────────────────┐
│ Mode: [ NORMAL        ▲▼]     │
│                              │
│ Remaining                    │
│ ┌──────────────────────────┐ │
│ │ NORMAL                   │ │
│ │   78    Image(s)         │ │
│ │ FINE                     │ │
│ │   23    Image(s)         │ │
│ │ SUPER FINE               │ │
│ │   11    Image(s)         │ │
│ └──────────────────────────┘ │
│                              │
│   [  Cancel  ]  [   OK   ]   │
└──────────────────────────────┘
```

3 Click [OK] to start recording. Select [Cancel] to exit.

• Camera recording will start shortly after [OK] is selected.

4 The image captured by the camera is automatically transferred to the PC.

```
┌────────────────────────────────────────┐
│ Now transferring Image(Digital Camera->PC). │
│                                          │
│ Time remaining:  00h00m35s        46%    │
│ ▮▮▮▮▮▮▮▮▮▮▯▯▯▯▯▯▯▯▯▯▯    [ Cancel ]       │
└────────────────────────────────────────┘
```
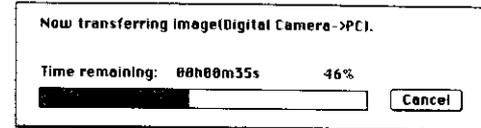
5 If you wish to continue camera recording, repeat operation from step 1.

Download

You can select the Camera image files to be transferred to the PC or you can select the Camera image files you want to delete.

1 **Select [Download]** from the Remote Access dialog box.

2 Image Preview dialog box will be displayed.
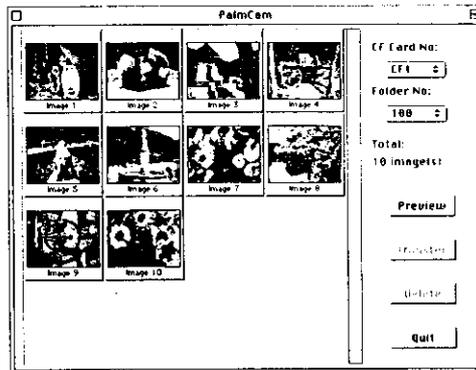
3 You can perform any one of the following 3 functions (for more details, refer to Help) ;

- Preview Images in the Camera.
- Transfer Images from the Camera.
- Delete Specific Image in the Camera.

4 **Click [Exit]** and the Image Preview dialog box disappears.

Communication

This function enables you to send images from the Camera to a PC or Fax machine in a remote location using a modem.

8, 10

LED Lamp **9 2**

3, 4, 5,
6, 7, 9

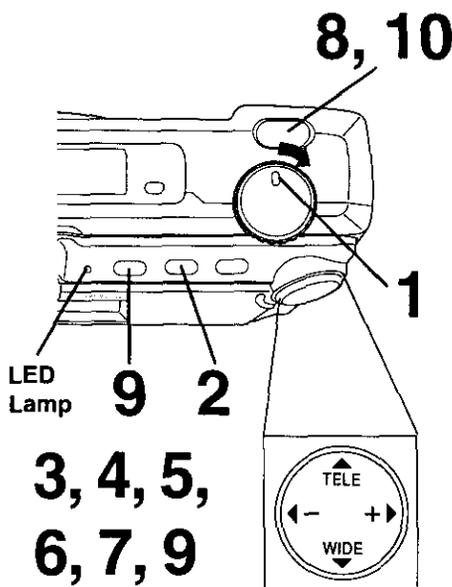TELE
◀ − + ▶
WIDE

Note :

Before operating Communication;
• **Be sure to install and run PalmCam Camera Driver. (see pages 46, 52).**
• Be sure to insert CF Card and Modem Card into the card slot.
• Make all connection on page 58.
• The PC must be turned on.
• For extended period of use, it is recommended to use the AC Adaptor (optional) for a power source.
• Please input your name and telephone number to comply with FCC regulations. (see page 76)

1 Set POWER to PLAY.
• The LED Lamp lights up.

2 Press MENU to display PLAY MENU.

```
<PLAY MENU 1/2>
DISPLAY MODE ◀NORMAL▶
CARD SLOT     NO. 1
DELETE
COPY
PRINT MARK
SEL  : ▲▼    SET  : ◀▶
EXIT : MENU
```

3 Press ▲ or ▼ to select COMMUNICA-TION and press ▶.

```
<PLAY MENU 2/2>
SLIDE SHOW
COMMUNICATION   ▶
OTHERS

SEL  : ▲▼    SET  : ◀▶
EXIT : MENU
```

• If the Compact Modem Card is not inserted, "COMMUNICATION" can not be selected.

4 Press ◀ or ▶ to select TONE, 10PPS, or 20PPS from LINE TYPE and press ▼.

```
<COMMUNICATION>
LINE TYPE    ◀TONE ▶
MODEM TYPE   V34
MODE         FAX
SEL PAGE

SEL  : ▲▼    SET  : ◀▶
EXIT : MENU
```

• If you have touch tone service, set to tone. If rotary or pulse service is used, set to 10PPS or 20PPS. Normally, 10PPS is selected.

74

5 **Press ◄ or ►** to select V34, V90, or K56 from MODEM and **press ▼**.

- Normally, V90 is selected. If your PC modem is 56K, set to 56K.
- This step is not necessary when sending image to a fax machine.

```
        <COMMUNICATION>
  LINE TYPE    ◄TONE  ►
  MODEM         V90
  MODE          FAX
  SEL PAGE

  SEL  : ▲▼   SET  : ◄►
  EXIT : MENU
```

6 **Press ◄ or ►** to select FAX or DATA from MODE and **press ▼**.

```
        <COMMUNICATION>
  LINE TYPE    ◄TONE  ►
  MODEM         V90
  MODE          FAX
  SEL PAGE

  SEL  : ▲▼   SET  : ◄►
  EXIT : MENU
```

- If you want to send an image to a fax machine, select FAX.
  If you want to send an image to a PC, select DATA.

7 **Press ►** to display SELECT PAGE and press **◄ or ►** to select image.

```
       <SELECT PAGE>

  SEL PAGE  : ◄►
  SET       : SHTR
  EXIT      : MENU

  CARD1
  100-0001 F
```

8 **Press SHTR** to display TELEPHONE NUMBER menu.

```
     <TELEPHONE NUMBER>
  MEMORY CALL
  NO MEMORY
  INPUT NUMBER

  SEL  : ▲▼   SET  : ◄►
  EXIT : MENU
```

9 **Press ▼** to select INPUT NUMBER and **press ►** to display INPUT NUMBER menu.
Press ▲ or ▼ to select a number and **press ►** to set.

- Repeat this step to set your telephone number.

```
      <INPUT NUMBER>
       SET NUMBER

  -

  SET MEMORY   : DISPLAY
  SEL  : ▲▼   SET  : ◄►
  CALL : SHTR EXIT : MENU
```

- After all settings are made, **press DISPLAY** to memorize the number. Once memorized, the telephone number will be displayed in MEMORY CALL in step 8.

10 **Press SHTR** to transfer the image.

- If you selected FAX in step 6, "DATA EXCHANGING" will appear.

```
  DATA EXCHANGING
```
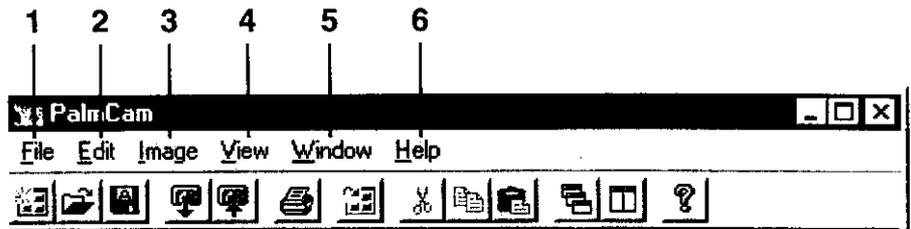If you selected DATA in step 6, this message will not appear.

```
  NOW CALLING
  0,0111201123333
```

```
  NOW TRANSFERRING
```

Special Features

PC Connection

1 2 3 4 5 6

🐚 PalmCam	_ □ X

File Edit Image View Window Help

1 File

Create New Album
To create an untitled album window which does not have any images.

File Open...
To open an existing image (BMP or JPEG), or album file.

Close
To close the active image or album window.

Save
To save the active image or album window.

Save As...
To save the active image file under a new file name while preserving the original file.

Slide Show

• **Start...**
To start the slide show.

• **Option...**
To make optional settings for the slide show.

Communication

• **Data in from Camera**
To transfer image files from the Camera to the PC.

• **Data out to Camera...**
To transfer modified or pre-recorded image files from the PC to the Camera.

• **COM Port Setup...**
To specify the port to which the Camera is connected and to set the Baud rate.

• **Clock Setup...**
To set the Camera Clock, telephone No. (Camera -> to PC) and Fax No.

Image Information
To display Image Information.

Create Calendar

• **Monthly Calendar**
To create monthly calendar.

• **Yearly Calendar**
To create yearly calendar.

Capture

• **Display Capture**
To capture whole image.

• **Window Capture**
To capture current active window.

Print...
To print current active image.

Print Setup...
To select the printer and printer options.

Exit
To quit the "PalmCam" application.

2 Edit

Add to Album...
To add images to a new or existing album file.

Cut
To remove the selected image from the active Album and place it on the Clipboard.

Copy
To copy the selected image from the active Album and place it on the Clipboard.

Paste
To paste the image on the Clipboard in the active Album.

Undo
To return the picture to the condition before the last executed operation.

3 Image

Image Adjustment...
To adjust the brightness, contrast, color saturation and contours of the image.

Rotate
• **Right**
  To rotate the image 90° clockwise.
• **Left**
  To rotate the image 90° counterclockwise.

Image Cutout
To cut out a part of an image and use it to make another file.

Image Size...
To enlarge or reduce the image to the designated size.

4 View
To select the desired size of the displayed image.

5 Window

Cascade
To arrange the image windows so that they overlap and their title bars are visible.

Tile
To arrange the image windows without overlapping so that you can see all image files at once.

Close All
To close all image files opened in the "PalmCam" application.

Toolbar On/Off
To display or hide the Tool Bar.

Statusbar On/Off
To display or hide the Status Bar.
Tool On/Off
To display or hide the Tool.

6 Help

Contents
To display the Help screen.

Version Information...
To display the Software version information. Clicking on this screen will hide the version information.

Note:
In some cases, different display contents and items apply for the Macintosh®.
For details on operation, click the Apple mark and refer to "Help".

Special Features

Using the Digital Photo Printer

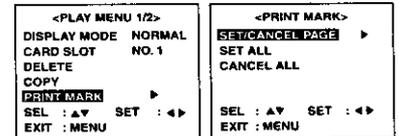Images can be selected for print out on a digital photo printer (sold separately).

LED Lamp **2, 5**

3, 4
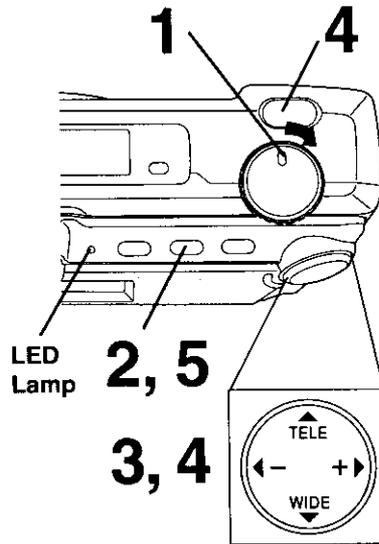
Stamp Print Marker

1 Set POWER to PLAY.
• The LED Lamp lights up.

2 Press MENU to display the PLAY MENU.

```
<PLAY MENU 1/2>
DISPLAY MODE  ◄NORMAL►
CARD SLOT       NO. 1
DELETE
COPY
PRINT MARK
SEL  : ▲▼    SET  : ◄►
EXIT : MENU
```

3 Press ▲ or ▼ to select PRINT MARK and press ► to display PRINT MARK menu.

```
<PLAY MENU 1/2>
DISPLAY MODE  NORMAL
CARD SLOT       NO. 1
DELETE
COPY
PRINT MARK        ►
SEL  : ▲▼    SET  : ◄►
EXIT : MENU
```
```
<PRINT MARK>
SET/CANCEL PAGE   ►
SET ALL
CANCEL ALL

SEL  : ▲▼    SET  : ◄►
EXIT : MENU
```

• Select "SET ALL" to mark all images. Select "CANCEL ALL" to cancel all image print marks.

4 Press ▲ or ▼ to select the image page you want to mark for printing and press SHTR to stamp print mark.
A " O " mark will appear on the image.

```
O   <PRINT MARK>
    SET/CANCEL PAGE

    SEL PAGE    : ◄►
    SET/CANCEL  : SHTR
    EXIT        : MENU
CARD1
100-0001 F
```
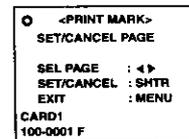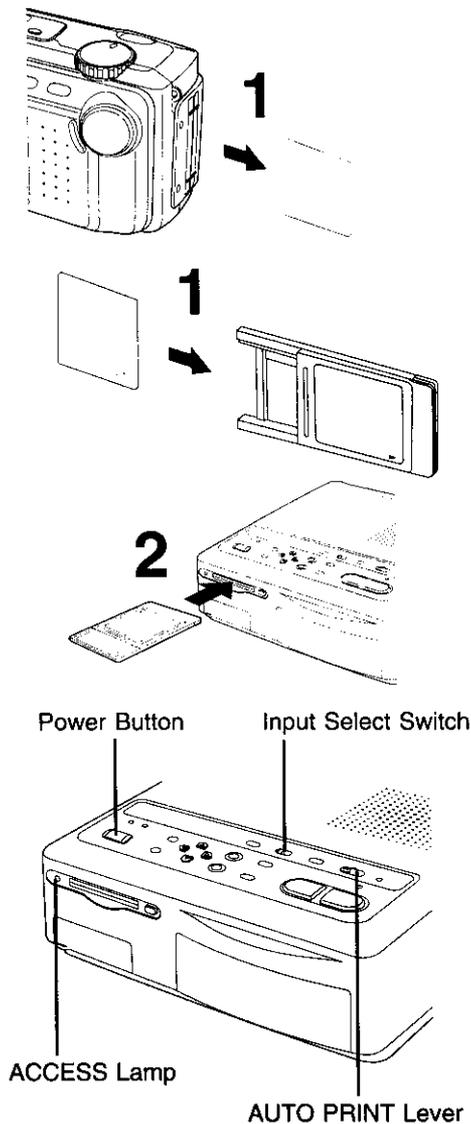
• Repeat step 4 to stamp other images.
• **Press SHTR again** to cancel print mark.

5 Press MENU to exit this menu.

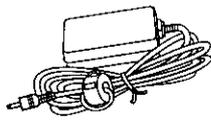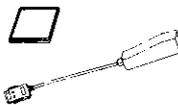This print mark is based on DPOF (Digital Print Order Format).

78

Printing on a Digital Photo Printer

1 Remove the CompactFlash Card containing the captured images from the camera and insert it into the PCMCIA Adaptor (see page 44).

2 Connect the PCMCIA Adaptor (included with printer) to the Digital Photo Printer*.

- *Requires a **Digital Photo Printer PV-PD2000** (sold separately).
- Insert the adaptor in the direction of the arrow and push the card fully into the printer.

3 Turn on the printer and set the INPUT SELECT (VIDEO/PC CARD) Switch to the PC CARD position.

- The Printer ACCESS Lamp will flash.

4 **Slide the AUTO PRINT Lever.**
Printing of print marked images begins.

- **Please refer to the printer's operating instructions for details on printing.**
- Moving the AUTO PRINT Lever during the reading of the CompactFlash Card (ACCESS Lamp is flashing) may prevent proper printing of the images. Wait until the ACCESS Lamp turns off before moving the AUTO PRINT Lever.

Power Button   Input Select Switch

ACCESS Lamp

AUTO PRINT Lever

Special Features

79

Digital Camera Accessory List

For ordering instructions, see the Accessory Order Form page.

Accessory #	Figure	Description	Price
PV-SAC10		AC Adaptor	$69.95
PV-CFM10*		Compact Modem Card	$299.95
PV-MCA10		Macintosh Adaptor Cable	$49.95
PV-H125		Digital Camera Bag	$29.95

* : For use in the USA only

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

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		5.00
		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

Street Address _____

City   State   Zip

Phone #:
Day   (   ) _____
Night   (   ) _____

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

81

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	Solution
No power	• Alkaline Battery is worn out. (p. 14) • Make sure polarities are aligned properly. (p. 14)
Power shuts off automatically.	• Alkaline Battery is worn out. (p. 14) • The camera will go to Stand By mode. Press STAND BY, or set the POWER to off and then set to REC or MANUAL REC. (p. 22)
Cannot capture the image.	• CompactFlash card is not inserted. (p. 16) • Make sure the POWER switch is set to REC or MANUAL REC. (p. 19) • No memory. Delete some images before capturing images. (p. 38)
No Picture on the LCD Viewfinder	• LCD Viewfinder is OFF. (p. 13) • The camera will go Stand By mode. Press STAND BY, or set the POWER to off and then set to REC or MANUAL REC. (p. 22)
B/W picture on the LCD Viewfinder	• The REC mode is set to B/W mode. (p. 34)
LCD Viewfinder image is too bright or dark.	• Make sure the LCD Viewfinder brightness setting is adjusted properly. (p. 23)
Indication or image on the LCD Viewfinder is not focused.	• Make sure the focus mode is properly set. (p. 29)
Flash will not light.	• The flash mode is set to ⊕ (OFF) mode. Change flash mode. (p. 30, 31)
Cannot playback.	• CompactFlash card is not inserted. (p. 16) • There are no images on the CF card. (p. 19 ~ 21) • Make sure the POWER switch is set to PLAY. (p. 24)
No picture on the TV (if connected).	• Make sure all necessary connections are correct and tight. (p. 28) • Make sure the TV is set to video input mode. (p. 28)
Can not transfer images on the PC Connection.	• Make sure all necessary connections are correct and tight. (p. 46~57) • Make sure the PalmCam Driver is installed. (p. 46, 52) • Make sure the Camera is in PLAY. (p. 24)

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

Specifications

CCD	1/2.7 inch (9.34 mm) 1,320,000 Pixels
Lens	f=5.2-15.6 mm (equivalent to a 34-102 mm lens on a 35 mm still camera.)/F2.8-4.7
Focus	Auto / Preset (Zone)
Focusing Area	7.9 inch (20cm)–∞ (approx)
Iris	F2.8/F8
Shutter Speed	1/4–1/750 sec.
White Balance	Auto/Indoor/Outdoor
LCD Viewfinder	1.8 inch (45.7 mm) TFT Color Liquid Crystal Display
Memory	CompactFlash (CF) Card (8 MB)
Image Size	1,280 × 960 pixels (Super Fine, Fine)
	640 × 480 pixels (Normal, Zoom, 🖵 mode)
	320 × 240 pixels (🎞 mode)
Image Storage (Supplied 8MB CF Card)	Approx. 15 images (Super Fine mode)
	Approx. 30 images (Fine mode)
	Approx. 100 images (Normal, Zoom, 🖵 mode)
	Approx. 6 images (🎞 mode)
Image Format	JPEG (Design Rule for Camera File System)
Digital Signal	Serial
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, 1.0A (Alkaline Battery)
	AC Adaptor (Optional)	Input: 120V AC 60Hz 9W
Operating Temperature	32 – 104 °F/0 – 40 °C	
Operating Humidity	10 % – 75 %	
Weight	Digital Camera	8.4 oz approx./280 g approx.
	AC Adaptor (Optional)	3.4 oz approx./112 g approx.
Dimensions	Digital Camera	4.63 (W) × 2.68 (H) × 2.07 (D) inch
		118 (W) × 68 (H) × 52 (D) mm
	AC Adaptor (Optional)	1.97 (W) × 2.83 (H) × 0.79 (D) inch
		50 (W) × 72 (H) × 20 (D) mm

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

For Your Information

83

Warranty

Panasonic Consumer Electronics Company, Division of Matsushita Electric Corporation of America	Panasonic Sales Company, Division of Matsushita Electric of Puerto Rico, Inc.
One Panasonic Way Secaucus, New Jersey 07094	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 this product with new or refurbished parts, 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
CAMCORDER	ONE (1) YEAR, EXCEPT CCD IMAGE SENSOR	NINETY (90) DAYS
DIGITAL CAMERA	CCD IMAGE SENSOR - SIX (6) MONTHS	NINETY (90) DAYS
VCR	ONE (1) YEAR	NINETY (90) DAYS
A/V MIXER	ONE (1) YEAR	NINETY (90) DAYS
MONITOR-VCR	ONE (1) YEAR, EXCEPT CRT CRT - TWO (2) YEARS	NINETY (90) DAYS CRT- NINETY (90) DAYS CUSTOMER PAYS ALL LABOR CHARGES AFTER 90 DAYS

Monitor-VCR In-home or carry-in Service: 22" (diagonal) CRT / LCD and Larger
Monitor-VCR Carry-in Service: 21" (diagonal) CRT / LCD and smaller

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.

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 Service Directory. Or call toll free 1-800-272-7033, 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 requires 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 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 TAPES) 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 Customer Satisfaction Center 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.

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

Service Center Directory

Product Repairs | *Centralized Factory Servicenter*

Panasonic Services Company

MAIL TO : 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 20201 Sherman Way Suite 102 Canoga Park, CA 91306 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	**MICHIGAN** 37048 Van Dyke Avenue Sterling Heights, MI 48312 **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 Chartiers Valley Shopping Center 1025 Washington Pike Bridgeville, PA 15017	**TENNESSEE** 919-8th Avenue South Nashville, TN 37203 **TEXAS** 7482 Harwin Drive Houston, TX 77036 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

As of October '97

For Your Information

Index

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

For Your Information