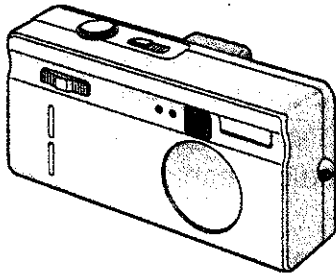


Panasonic



Digital Camera
Operating Instructions
Model No. DMC-F7A



Before use, please read these instructions completely.

MultiMediaCard™

LEICA
DC VARIO-ELMARIT

VQT9769

Dear Customer,

We would like to take this opportunity to thank you for purchasing this Panasonic Digital Camera. Please read these Operating Instructions carefully and keep them handy for future reference.

Information for Your Safety

WARNING

TO REDUCE THE RISK OF FIRE OR SHOCK HAZARD AND ANNOYING INTERFERENCE, USE ONLY THE RECOMMENDED ACCESSORIES AND DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE. DO NOT REMOVE THE COVER (OR BACK); THERE ARE NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

- Please note that the actual controls and components, menu items, etc. of your Digital Camera may look somewhat different from those shown in the illustrations in these Operating Instructions.
- SD Logo is a trademark.
- Other names, company names, and product names printed in these instructions are trademarks or registered trademarks of the companies concerned.
- During use, the camera becomes warm, but it is not a malfunction.

IF THE POWER CORD OF THIS EQUIPMENT IS DAMAGED, IT MUST BE REPLACED WITH AN ELECTRICALLY APPROVED POWER CORD.

Carefully observe copyright laws. Recording of pre-recorded tapes or discs or other published or broadcast material for purposes other than your own private use may infringe copyright laws. Even for the purpose of private use, recording of certain material may be restricted.

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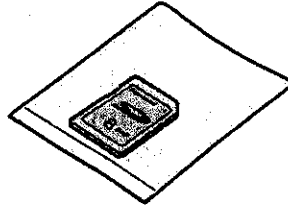
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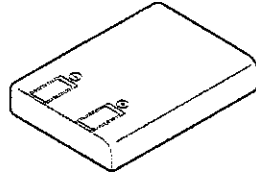
Standard Accessories

Before using your camera, check the contents.

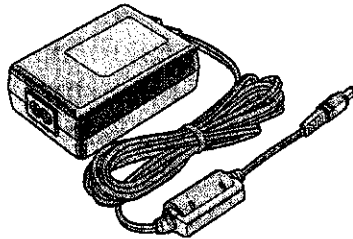
- 1 SD Memory Card (8MB)
RP-SD008



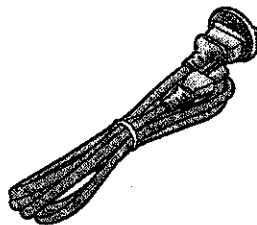
- 2 Battery Pack
CGA-S101E



- 3 AC Adaptor
DE-879E



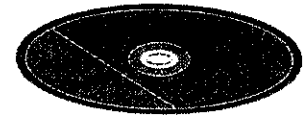
- 4 AC Mains Lead
K2CJ2DA00002



- 5 USB Connection Kit

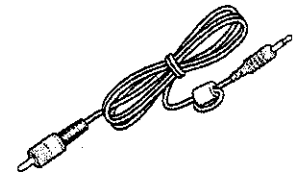


- USB Connection Cable
K1HA05CD0001

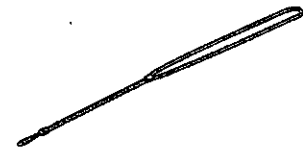


- CD-ROM

- 6 Video Cable
VJA1153



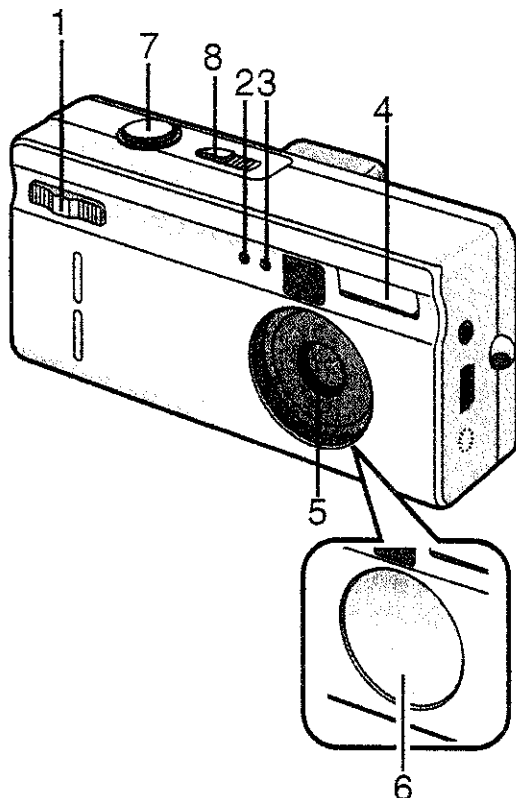
- 7 Strap
VFC3801



Names of the Components

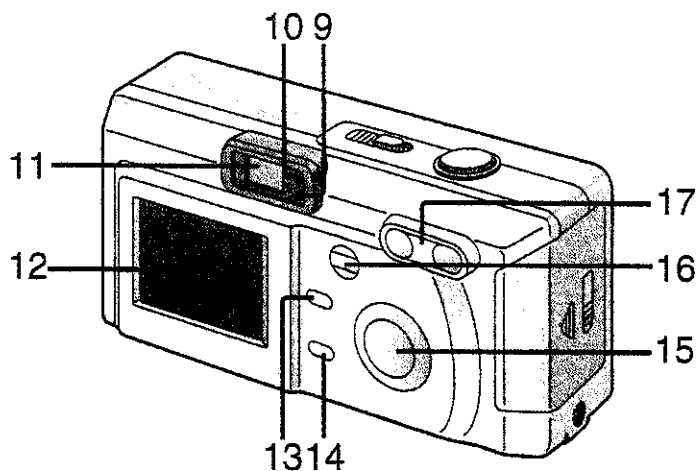
[Front View]

- 1 REC/Power Switch
- 2 Self-timer Indicator (P31)
- 3 Flash Sensor (P30)
- 4 Flash
- 5 Lens
- 6 Lens Cover
- 7 Shutter Button (P21)
- 8 Playback/Power Switch (P16, P42)



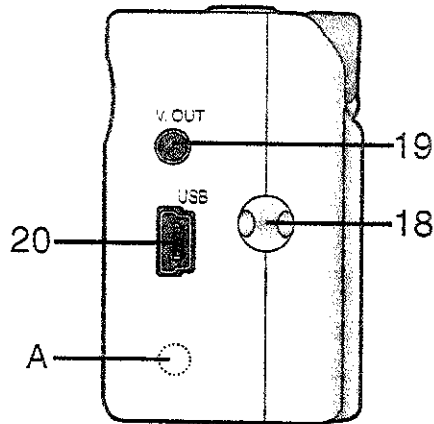
[Back View]

- 9 Flash Indicator (P20)
- 10 Status Indicator (P15, P20)
- 11 Optical Finder
- 12 LCD Monitor (P8)
- 13 MENU Button (P22)
- 14 Delete Button (P48)
- 15 Cursor (▲/▼/◀/▶) Buttons
- 16 DISPLAY Button (P19)
- 17 Zoom Button (P27, P44)



[Left View]

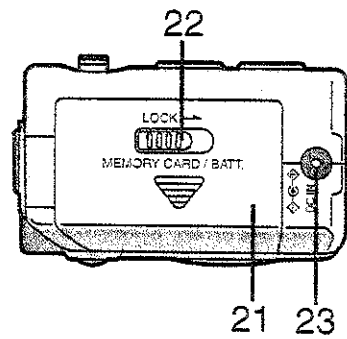
- 18 Strap Eyelet (P17)
- 19 Video. OUT Socket (P62)
- 20 USB Socket (5pin) (P64)



A: SERIAL Socket
(For Service only)

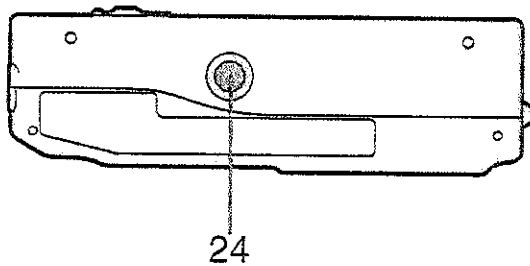
[Right View]

- 21 Memory Card/Battery Door (P11, P14)
- 22 Lock Lever
- 23 DC IN Socket (P12)

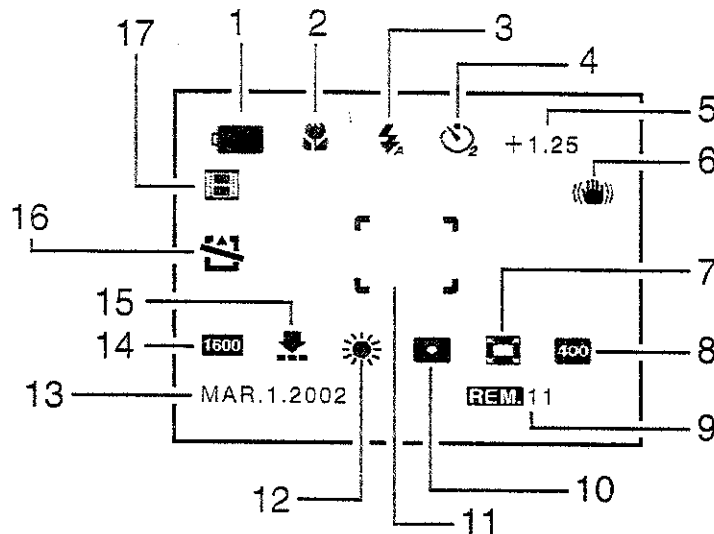


[Bottom View]

- 24 Tripod Receptacle (P18)



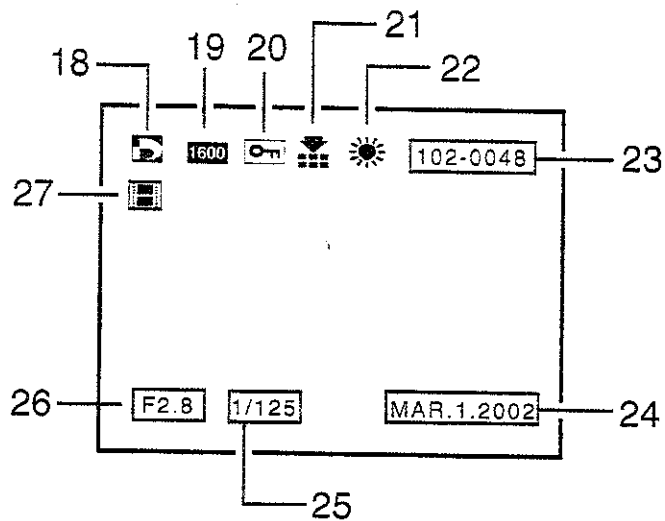
LCD Monitor Display



[In recording]

- 1 Battery indicator (P12)
(When using AC adaptor, this is not displayed)
- 2 Focus mode (P40)
- 3 Flash mode (P29)
- 4 Self-timer mode (P31)
- 5 Exposure compensation (P34)
- 6 Camera jiggle alert (P20)
- 7 Digital zoom (P28)
- 8 ISO sensitivity (P39)
- 9 Frame remain
- 10 Spot mode (P36)
- 11 Spot area indication
- 12 White balance mode (P37)
- 13 Current date (P23)
- 14 Picture size (P32)
- 15 Quality (data compression ratio) (P33)

- 16 Memory card indication (P14)
- 17 Motion image/Burst mode (P26, P41)



[In playback]

18 DPOF setting indication (P50)

19 Picture size (P32)

20 Protected image (P53)

21 Quality (compression ratio) (P33)

22 White balance mode (P37)

23 Folder/File number

- When the number of pictures is more than 1000, the number 999 is displayed.

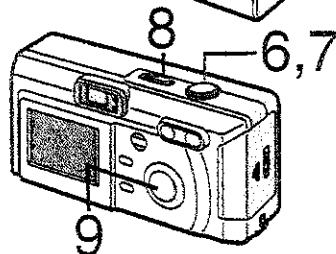
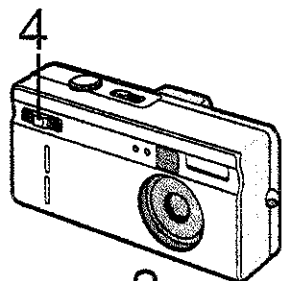
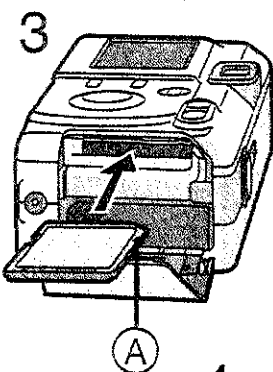
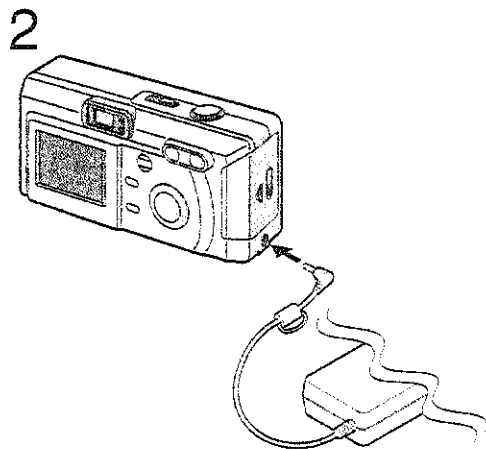
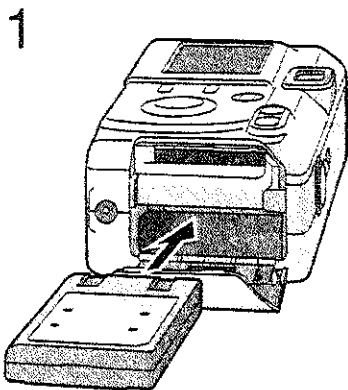
24 Recorded date

25 Shutter speed indication

26 F number indication

27 Motion image playback mode (P47)

Quick Guide



Prepare following items.

- Camera
- Battery
- Memory card
- AC adaptor

Check that the power switch is set to [OFF].

- 1 Insert the battery into the camera. (P11)
- 2 Connect the AC adaptor to the camera, in order to charge the battery. (P12)
- 3 Insert the memory card into the camera. (P14)
Ⓐ: Connection terminal on the back side of the card.
- 4 Set the REC/power switch to [ON]. (P16)
- 5 Set the date. (P23)
- 6 Press the shutter button halfway to set the focus. (P21)
- 7 Press the shutter button fully to take a picture. (P21)

[Playback]

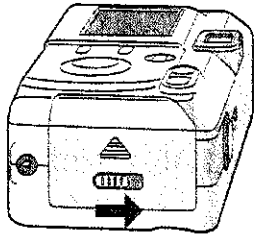
- 8 Set the playback[▶]/power switch to [ON]. (P42)
- 9 Press ◀/▶ to play back a picture you want to view.

Inserting the Battery

[Preparation]

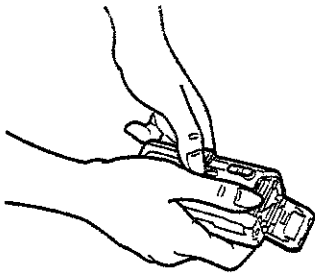
- Set the power switch to [OFF].

1



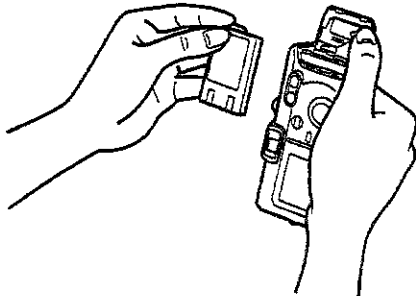
- 1 Slide the lock lever.

2



- 2 Open the battery door and the inside door.

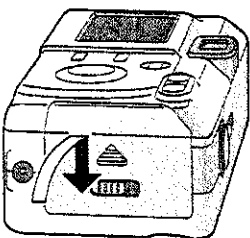
3



- 3 Insert the battery while pressing the inside door.

- Insert the battery with the arrow part upward and terminal part downward.

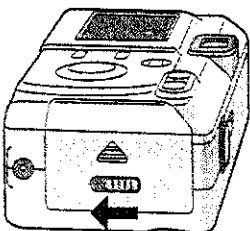
4



- 4 Close the battery door.

- 5 Lock lever on battery door.

5



- When the camera will not be used for a long time, remove the battery. (When inserting the battery again, set the date again)
- Before removing the battery from the camera, turn the camera off.
- The supplied battery is for exclusive use with this camera. Do not use it except with this camera.
- When turning the camera on, do not put in/out the DC input lead, the data stored in the card could be destroyed. And the file number is not memorized, so the picture with same file number is recorded in the another card.

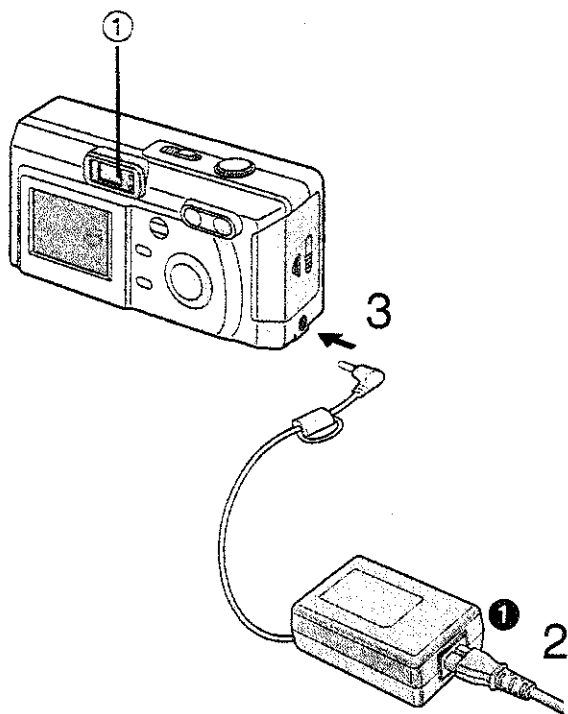
CAUTION

Danger of explosion if battery is incorrectly replaced.

Replace only with the same or equivalent type recommended by the manufacturer.

Dispose of used batteries according to the manufacturer's instructions.

Charging the Battery



[Preparation]

- Set the power switch to [OFF].

1 Insert the battery into the camera. (P11)

2 Connect the AC Mains Lead to the AC Adaptor and AC mains socket.

3 Connect the DC Input Lead to the camera.

- The AC Mains Lead does not fit entirely into the AC Adaptor socket. A gap will remain as shown ①.
- The green status indicator ① blinks and charging starts.
- During charging the battery, do not open the battery door.


THE SOCKET OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.


4 When the status indicator stops blinking, charging is complete.

- After charging is finished, remove the AC adaptor from the electrical outlet and then remove the connecting plug from the DC IN socket.


■ Battery indicator

The remaining battery power is displayed on the LCD monitor. (This is not displayed when using AC adaptor)

 : The battery power is sufficient

 : The remaining power is a little low

 : The remaining power is low

 : Replace or recharge the battery

- The status indicator also flashes. In this time, when pressing the shutter button halfway, alarm sound rings.

■ Charging time and available recording time
(when the supplied 8 MB SD Memory card is used)

Ⓐ	Ⓑ	Ⓒ
90min.	50min.(100)	60min.(120)

- Ⓐ Charging time
- Ⓑ Continuous recording time (recordable number) (If the LCD monitor is ON)
- Ⓒ Continuous recording time (recordable number) (If the LCD monitor is OFF)

■ Charging environment and charging error

- Charge the battery in a place with the temperature of 10 to 35 °C. (The battery is also the same temperature)
- When charging starts, the status indicator blinks at about 2 second intervals. If, after charging starts, the status indicator blinks quicker, it's a charging error. In this case, remove the AC adaptor from the electrical outlet, remove the battery and check if both room and battery temperature is too low or high and then charge it again. (It is not possible to cancel the error by only turning the camera off/on) If the problem persists, consult the dealer.

■ Charging the built-in battery for dating

The date/time setting can be memorized using the built-in battery. Charge it using the AC adaptor for 3 hours approximately. (When inserting the battery, even if the status indicator finishes blinking, keep charging the built-in battery)

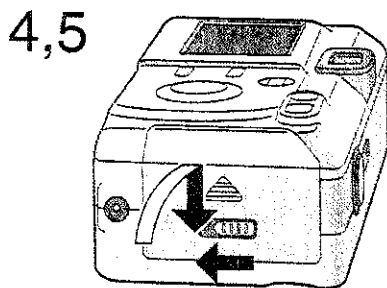
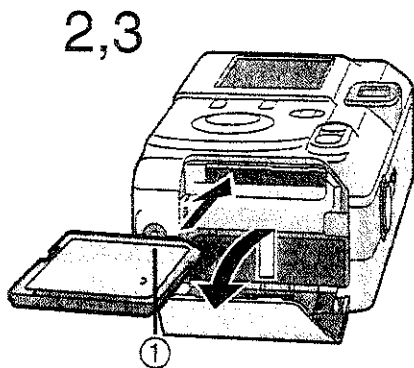
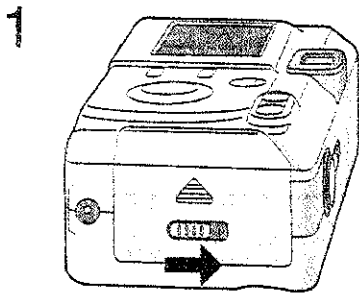
- After the charging, set the date/time. (P23)
- During the charging, do not open the battery door.

Connecting to an Electrical Outlet

If you use an AC adaptor and connect it to an electrical outlet, you can use the camera without worrying about the battery discharge. The connection method is the same as explained in [Charging the Battery]. (P12)

- During use, the camera becomes warm, but it is not a malfunction.

Inserting the Card



[Preparation]

- Set the power switch to [OFF].

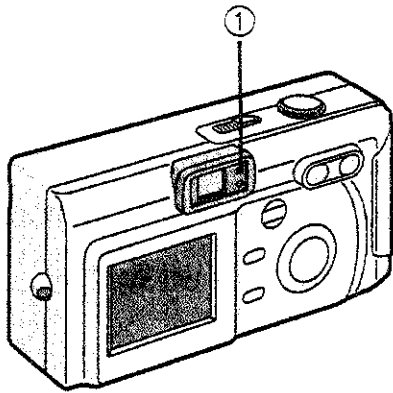
- 1 Slide the lock lever.
- 2 Open the memory card door.
- 3 Insert the card all the way in until it clicks.
 - Check the direction of the card.
- 4 Close the memory card door.
- 5 Put the lock lever back.

[Removing the card]

- 1 Press the card.
- 2 Pull the card out.

- Do not touch the connection terminal ① on the back side of the card.
- If the memory card door could not completely closed, after taking out the card, insert it again.
- If the card is not inserted, verify whether the direction of the card is correct.
- We recommend you to use the card manufactured by this company. (Use only the genuine card)
- Before removing the card from the camera, turn the camera off.

■ Access to the card



When you access to the card, the green status indicator ① lights.

When the status indicator lights, do not remove the battery. Besides, do not open the memory card door and do not pull the card out. The card and the card contents could be destroyed and the camera could not operate normally.

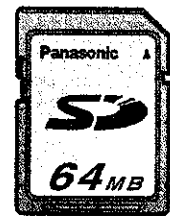
As the card contents could be damaged or erased because of the electrical noise, static electricity and camera and card defects, store the important data also in PC (P64) using the USB socket.

■ SD Memory card (supplied) and MultiMediaCard (optional)

The SD Memory card and MultiMediaCard are small, lightweight, removable external cards. The SD Memory card is equipped with a writing protection switch that can inhibit writing and formatting. (When the switch is moved towards the [LOCK] side, it is not possible to write or delete data on the card and format it, but after resetting, these functions become available)

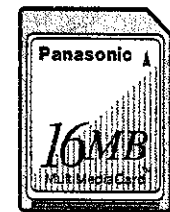
SD Memory card

- RP-SDH512(512MB)
- RP-SDH256(256MB)
- RP-SDH128(128MB)
- RP-SD064B (64MB)
- RP-SD032B (32MB)
- RP-SD016B (16MB)
- RP-SD008B (8MB)



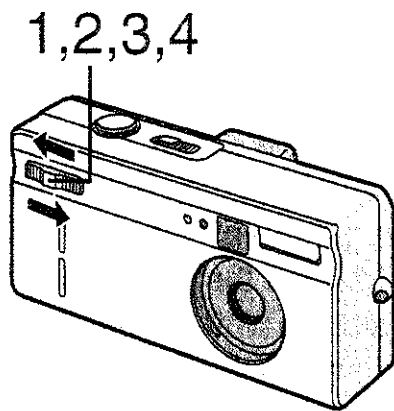
MultiMediaCard

- VW-MMC16 (16MB)
- VW-MMC8 (8MB)



- When using the MultiMediaCard, after recording motion images, the screen may appear grey, but this is not a malfunction.

Turning Power on/off

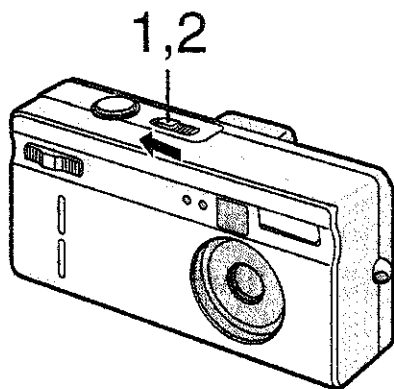


[In recording]
[Turning the power on]

- 1 Slide the REC/power switch to open the lens cover.
- 2 Furthermore, after sliding the switch and turning on, set the REC mode.
 - The status indicator will light.

[Turning the power off]

- 3 Slide back the REC/power switch and turn the power off.
- 4 Furthermore, after sliding back the switch, close the lens cover again.
 - Check that the lens is stored in completely and then close the lens cover.

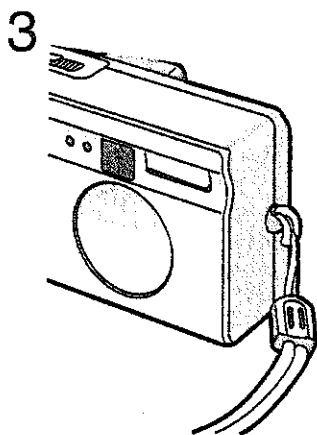
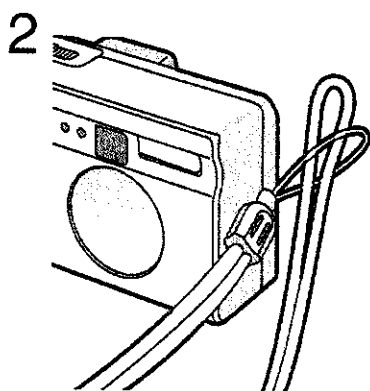
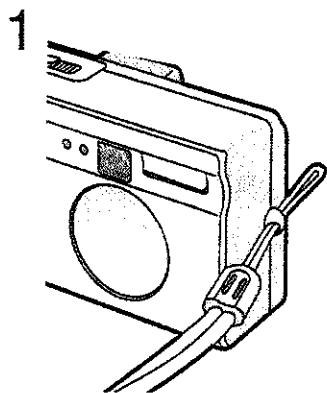


[In playback]

- 1 Slide the playback[▶]/power switch.
 - The playback icon will be displayed.
- 2 Slide back the playback[▶]/power switch, to turn the power off.

- When the REC mode is set, if you slide the playback[▶]/power switch, the setting will change to playback mode.
- When switching the power on/off, do not put in front of the lens any obstacle.

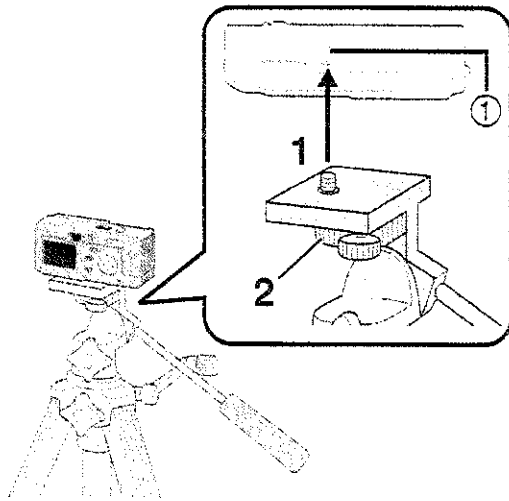
Attaching the Strap



- 1 Let the top of the strap pass through the strap eyelet.
- 2 Let the opposite side of the strap pass through its ring shaped part.
- 3 Pull the strap.

Using the Tripod

When using the tripod (optional), you can take pictures also with low shutter speed and zoom.

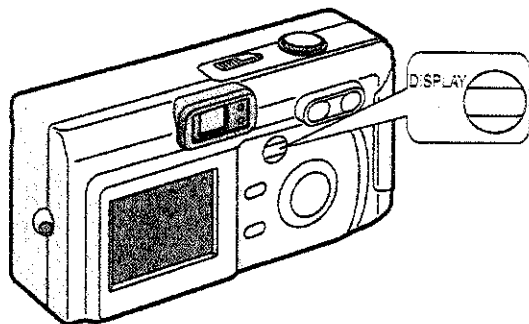


- 1 Match with the tripod receptacle ① of the camera.
- 2 Fix the tripod receptacle.

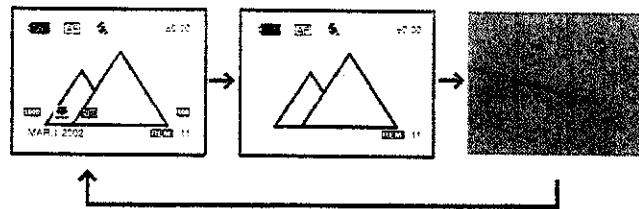
- Read carefully the tripod operating instructions.

Using the LCD Monitor

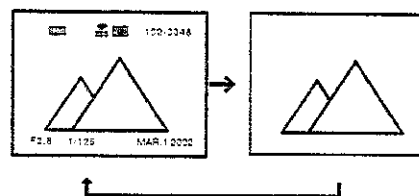
Every time you press the [DISPLAY] button, the display of the LCD monitor changes as shown below.



[In recording]

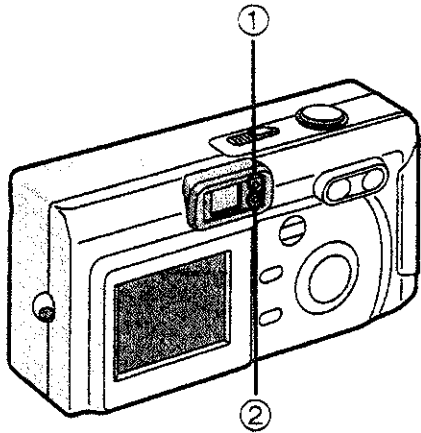


[In playback]



- Only in REC mode settings are kept, even if you turn the power off.
- When setting the digital zoom to [ON], the display of the LCD monitor is not set to off.
- When setting the auto review to [ON], it is available, even if the display of the LCD monitor is set to off. (After finishing the auto review, the display is returned to off)
- After recording, if you press the [REVIEW/SET] button, the review is displayed, even if the LCD monitor is set to off. (After finishing the review, the display is returned to off)

The Indicators



■ Status Indicator (Green) ①

[Blinking]

Warning indication

During recording the motion image

[Lighting]

When turning the power switch to [ON]

When accessing to the card


■ Flash Indicator (Red) ②

[Blinking]

When charging the flash (Blinking fast)

When setting the flash mode to forced off

and recording in dark places (Blinking slowly)

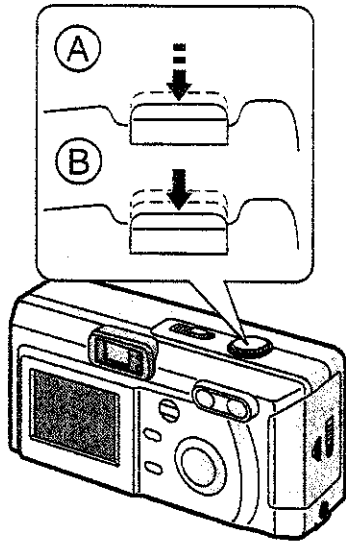
[] is displayed on the LCD monitor.

[Lighting]

When the flash firing (It lights when the shutter is pressed halfway)

The Shutter Button

(Pressing halfway/Pressing fully)



The shutter button is pressed in 2 steps:
[pressing halfway] and [pressing fully].

Pressing halfway (Press lightly) ①

- Focus and exposure are locked.

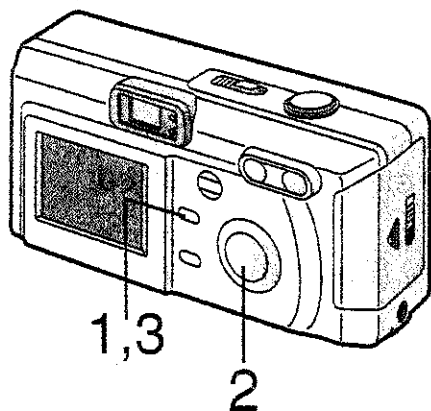
Pressing fully (Press all the way) ②

- The picture is captured in the card. In motion image mode, the recording starts.

- You can set the beep sound in menu. (P58)

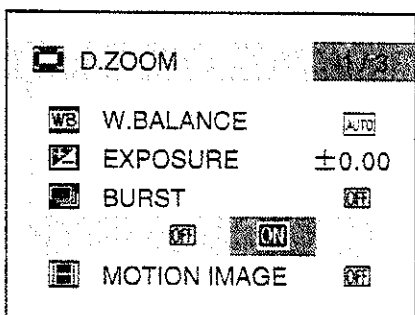
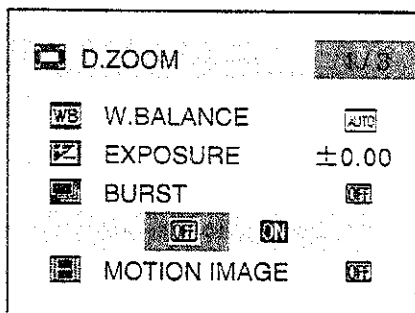
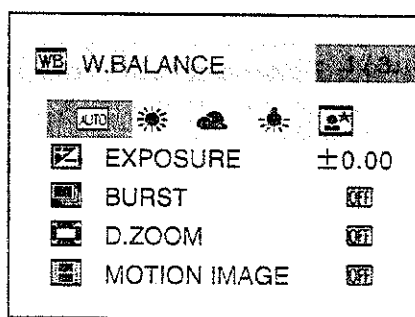
- When pressing the shutter button fully at a stroke, the camera is shaken or the focus is not adjusted.

Operating the Menu

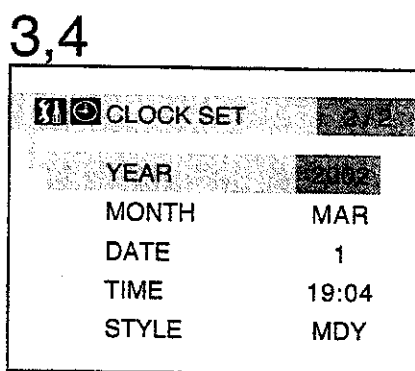
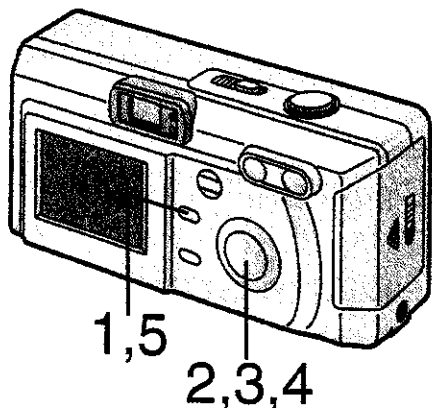


By operating the menu it is possible to set the settings of the REC or playback mode. Besides, it is possible to set the date and time, the beep sound, and any sort of settings. Follow these instructions looking at the LCD monitor.

- 1 Press the [MENU] button.
 - If you set to the REC mode, the REC menu is displayed; if you set to the playback mode [▶], the playback menu is displayed.
- 2 Press ▲/▼ to choose the item and press ◀/▶ to confirm this setting.
 - First, with step 2, if you press ▲ and then press ▶, you will access to the setup menu. (Pressing the menu button you will return back)
- 3 Press the [MENU] button.
 - The menu will disappear.



Setting the Date/Time (Clock Set)



It is possible to set the year from 2000 to 2049. The 24-hour system is used.

[Preparations]

- Charge the built-in battery for dating. (P12)
- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲(or ▼) to choose the [SETUP] and press ► to open the setup menu.
- 3 Press ▲(or ▼) to select [CLOCK SET].
- 4 Press ▲/▼/◀/▶ to set date and time.
- 5 Press the [MENU] button.
 - The menu will disappear.

Date/Time setting is memorized by the built-in battery.

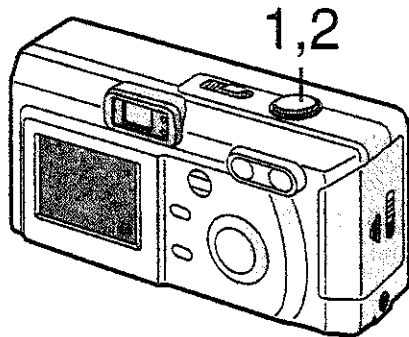
Charge the built-in battery by performing the following steps, because it is not charged at the moment of purchase.

- ❶ Insert the battery after turning the power off the camera.
- ❷ Connect the AC adaptor to the electrical outlet.
- ❸ Connect the DC cord to the camera.
- ❹ Allow battery to charge in the camera for approximately 3 hours. Do not use the camera during this time. The status indicator will disappear before the built-in battery is fully charged. Continue charging for the full 3 hours.
- ❺ After ❹, set the Date/Time.
 - Do not open the battery door during charging. It may cause a malfunction.
 - Do not leave the DC cord connected to the camera without connecting the AC adaptor to the electrical outlet. (The battery discharges and clock is reset)

Memorizing clock set

After the 3 hour charge is completed, if the the camera is left with no battery power and/ or the AC adaptor is not connected, the built-in battery will discharge after approximately 10 minutes, and you will need to re-set the clock. In this case, the message [PLEASE SET THE DATE/TIME] will appear. If this happens, please perform steps ❶ to ❹ again and then re-set the clock.

Taking Pictures



Only pressing the shutter button, the exposure (shutter speed and aperture value) will be automatically adjusted and the picture is taken.

[Preparations]

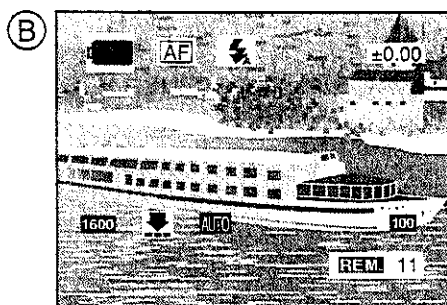
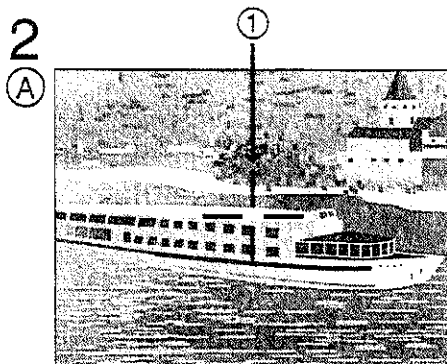
- Insert the card. (P14)
- Set the REC/power switch to [ON]. (P16)

1 Let the subject be centered in the AF target ① inside the optical finder ② and press the shutter button halfway. You can take pictures using the LCD monitor ③.

- Adjust the focus.

2 Press the shutter button fully to take the picture.

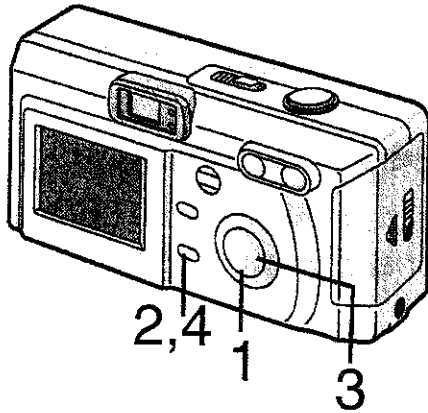
- After taking a picture, when the auto review (P57) is set to [ON], the picture is displayed on the LCD monitor for about 2 seconds.



- When power saving is set, if you do not operate the camera, it is automatically turned off. To operate the camera again, set the REC/power switch first to [OFF] and then to [ON], or press the shutter button halfway. (P59)

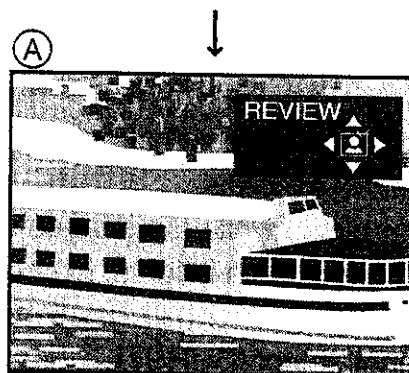
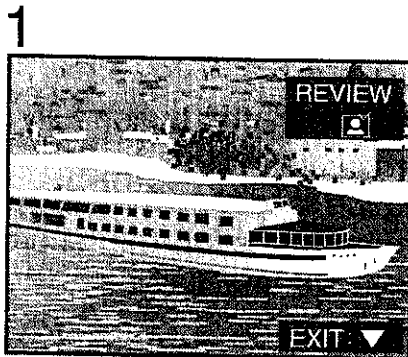
Checking the Last Picture (Review)

After taking a picture, when auto review (P57) is set to [ON], the captured picture is displayed on the LCD monitor for about 2 seconds, but you can also check the picture following the methods shown below.



1 After taking a picture, press the [REVIEW/SET] button.

- The last captured picture is displayed. Pressing ◀/▶, it is possible to select the picture to display. Pressing the zoom button (T), the captured picture is zoomed 2.5 times (A) and 4 times if you press once again. Pressing the zoom button (W), you will reduce it.



■ Erasing the captured picture during the review

2 Press the [] button.

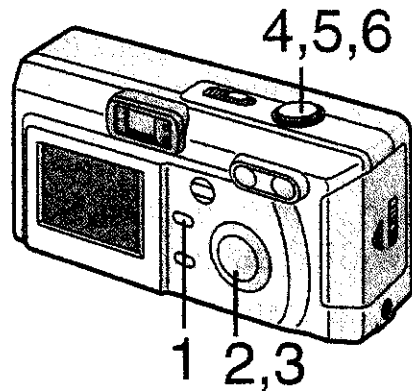
3 Press ◀/▶ to select [YES].

4 Press the [] button or the [REVIEW/SET] button.

- The picture is erased.
- Once erased pictures cannot be recovered.

- In motion image mode [], the index picture is reviewed.

Recording Motion Images



[Preparations]

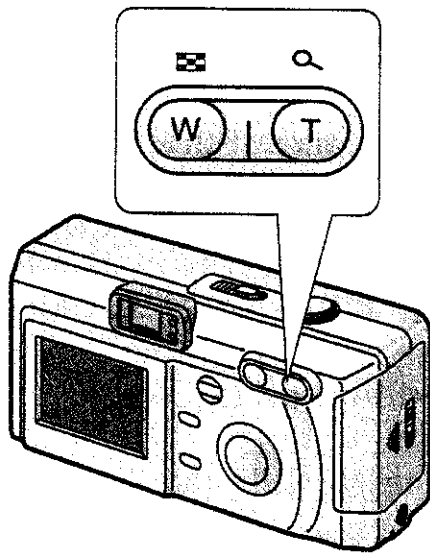
- Insert the card. (P14)
- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [MOTION IMAGE].
- 3 Press ◀/▶ to select [ON].
- 4 Center the subject on the LCD monitor and press the shutter button halfway.
 - Adjust the focus.
- 5 Pressing the shutter button fully, the recording starts.
 - During recording, the status indicator blinks.
 - Audio is not recorded.
 - Picture size is set at 320 × 240 pixels.
- 6 Pressing the shutter button fully again, recording stops.
 - If during the recording the memory of the card becomes full, the recording is stopped automatically.

■ Available settings in motion image mode

- Macro mode (P40)
- Unlimited recording
- Spot recording
- The remaining time displayed on the LCD monitor is the approximation.
- It is possible to record motion images maximum of 20 seconds.
- After recording motion images, the status indicator blinks while the images are recorded to the memory card, and after recording completion it lights. Do not operate during the recording.
- When setting [MOTION IMAGE] to [ON], you cannot select [BURST], [PICT.SIZE], [QUALITY] and [D.ZOOM].
- If using the MultiMediaCard, after recording motion images, the screen may appear grey, but this is not a malfunction.
- When recording is started, the auto focus and zoom are locked (with the first frame).

Using the Optical Zoom



With this function, you can make people and subjects closer and landscapes can be captured in wide angle, because they can be further zoomed by 2 times.

[Preparation]

- Set the REC/power switch to [ON]. (P16)

- 1 Aim the camera at the subject and adjust the size with the zoom button.

To make subjects closer (Tele):

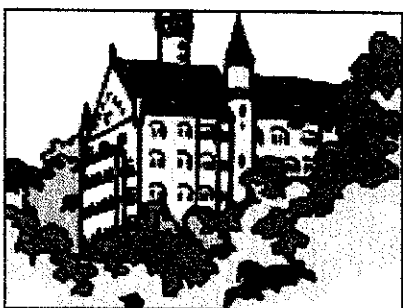
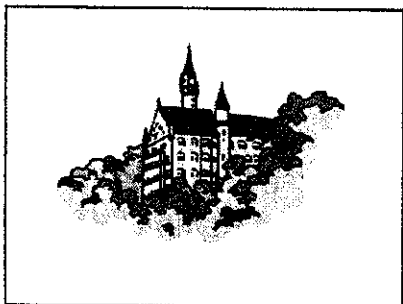
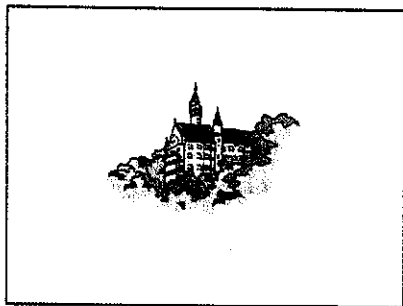
Press the zoom button (T).

To make subjects wider (Wide angle):

Press the zoom button (W).

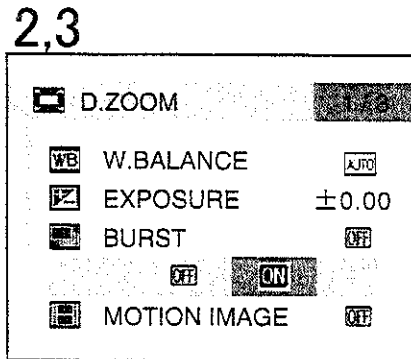
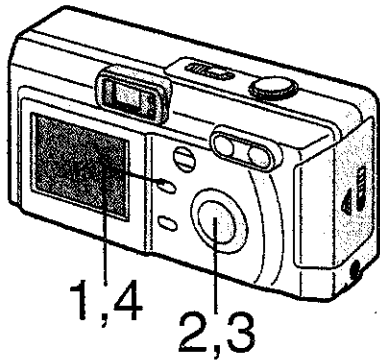
- 2 Take pictures.

- The recording method is the same as in [Taking Pictures]. (P24)



- The focus is adjusted at a distance of more than 10 cm. As regards Macro mode, read P40.

Using the Digital Zoom



Using the digital zoom, it is possible to magnify a subject to 2 times if the picture size is 800 × 600, and 2.5 times if the picture size is 600 × 480.

[Preparation]

- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [D. ZOOM].
- 3 Press ◀/▶ to set to [ON].
- 4 Press the [MENU] button.
 - The menu will disappear.

- The zoom adjustment and recording method are the same as in [Using the Optical Zoom]. (P27)

- If the picture size is 1600 × 1200, it is not possible to change the zoom magnification ratio.
- In motion image mode [MOTION IMAGE], you cannot use the digital zoom.
- When setting the [D. ZOOM] to [ON], if setting [MOTION IMAGE] to [ON], digital zoom menu remains [ON]. However, it does not work. When setting [MOTION IMAGE] to [OFF], digital zoom returns to selected operation.
- The digital zoom is available only when the LCD monitor is set to on.
- Using the digital zoom, the picture quality becomes deteriorated.

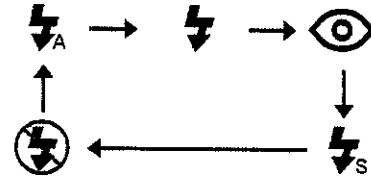
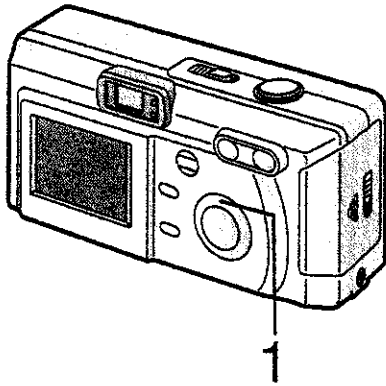
Taking Pictures with the Built-in Flash

[Preparation]

- Set the REC/power switch to [ON]. (P16)

1 Press [].

- Every time you press it, the available settings will appear as shown below.



 : AUTO

The flash fires automatically according to the recording situation.

 : Forced ON


The flash is forced to fire.

You will use it when a subject is backlighted.

 : AUTO/Red-eye reduction

The flash fires automatically according to the recording situation and simultaneously it reduces the red-eye phenomenon (when a subject's eyes appear red in flash light).

Use it when a subject is recorded in dark places.

 : Slow synchro

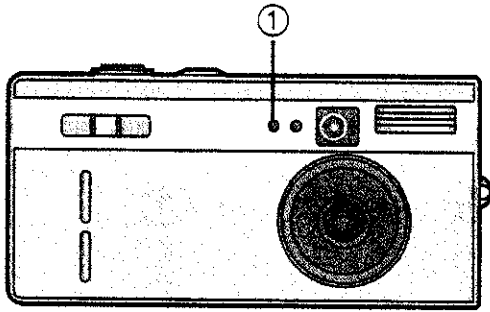
When you take a picture with a dark background landscape, it makes the flash fire and the shutter speed be slow, so that the dark background landscape will become bright.

 : Forced OFF

Even being in dark places, the flash does not light.





Set it when you take pictures in places where flash is forbidden.

Taking Pictures with the Built-in Flash (Continued)



2 Take a picture.

The recording method is the same as in [Taking Pictures]. (P24)

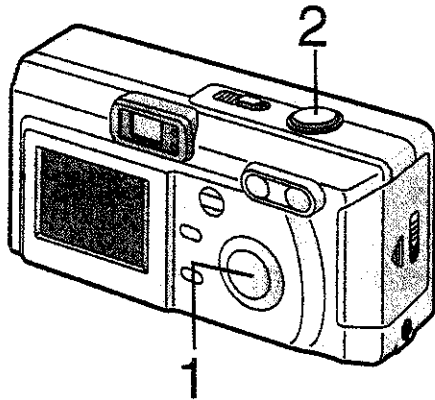
- The available flash range is about 10 cm to 4.5 m at a maximum wide angle and about 20 cm to 3.5 m at a maximum telephoto setting.
- Do not cover the flash sensor ① with your fingers or other items. Otherwise, brightness cannot be perceived.
- In motion image [] or burst [] mode, the flash mode is set to Forced OFF [].
- During flash charging it is possible to press the shutter button.
- When the remaining power becomes low, the flash mode set to Forced OFF [] and the flash indicator blinks.


Taking Pictures with the Self-timer

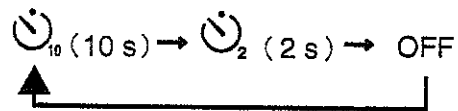
When you set the self-timer, the picture is automatically taken after 10 seconds (or 2 seconds).


[Preparation]


- Set the REC/power switch to [ON]. (P16)



- 1 Press the [] button.
 - Every time you press it, what is displayed changes as shown below.





 : Self-timer set to 10 seconds

 : Self-timer set to 2 seconds

When these indicators are not displayed, self-timer setting is cancelled.

- 2 Press the shutter button fully.
 - The self-timer indicator blinks and the shutter is activated after 10 seconds (or 2 seconds).
 - Before taking a picture, if you press the shutter button fully again, the self-timer setting is cancelled.

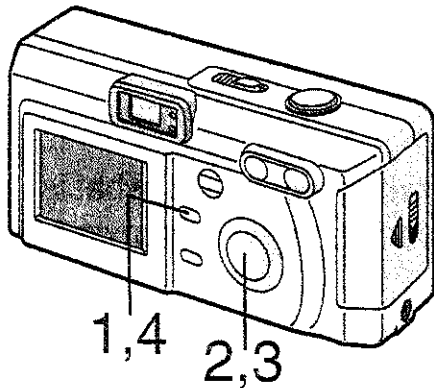
- In motion image mode [], the self-timer is not available.
- In burst mode [], the self-timer setting covers only the first picture.

Changing the Picture Size

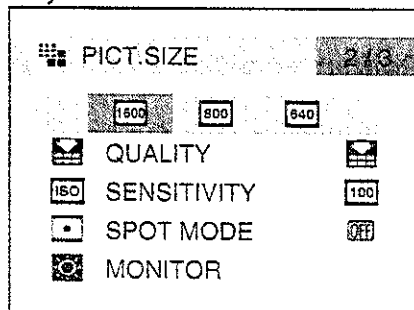
You can choose among 3 kinds of picture size settings.

[Preparation]

- Set the REC/power switch to [ON]. (P16)



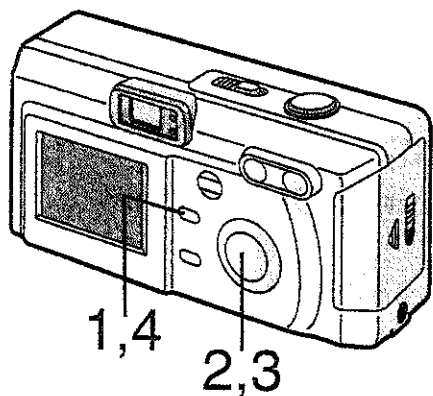
2,3



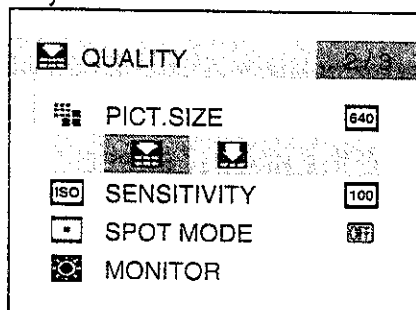
- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [PICT. SIZE].
- 3 Press ◀/▶ to set the picture size.
 - **1600**: 1600 x 1200 pixels
 - **800**: 800 x 600 pixels
 - **640**: 640 x 480 pixels
- 4 Press the [MENU] button.
 - The menu will disappear.

- In motion image mode [MOVIE], it is fixed to 320 x 240 pixels.
- If you set the pictures size to small, the memory card can record more pictures. Moreover, as the data volume is small, you can easily attach the picture to an e-mail or use it in a web site.
- If you set the picture size to large, it is possible to print clearer sheets.

Changing the Quality (Data Compression Ratio)



2,3



(a)	(b)	
	📄	📄
1600 x 1200	8	12
800 x 600	24	44
640 x 480	41	66

You can choose among 2 kinds of quality levels (Data Compression Ratio).

[Preparation]

- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [QUALITY].
- 3 Press ◀/▶ to select the quality (Data Compression Ratio).

- 📄 : Fine (Low compression)
It gives priority to picture quality and record high quality pictures.

- 📄 : Standard
(Standard compression)
It gives priority to the number of recordable pictures and record standard quality pictures.

Quality and number of recordable pictures

(a) Picture size, (b) Quality) (With the supplied 8MB SD memory card)

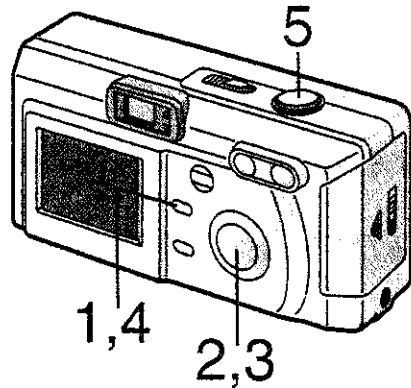
- 4 Press the [MENU] button.

- The menu will disappear.

- In motion image mode [📹], quality cannot be modified.
- It could happen that picture are like a mosaic depending on the scene characteristics.
- The number of recordable pictures corresponds to the capacity of the supplied 8MB SD Memory card. (If you mix fine quality and standard quality, the number of recordable pictures changes)
- Remaining frame which is displayed on the LCD monitor may not correspond with recorded frames. However, this is not a malfunction.

Compensating the Exposure

If there is a difference between the subject and background brightness, since you cannot set the correct exposure, you can compensate it.



[Preparation]

- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [EXPOSURE].
- 3 Press ◀/▶ to set the exposure compensation.

- You can compensate from -2.00 to +2.00 with 0.25 step.

(Exposure value is the amount of light given to the CCD by the aperture value and the shutter speed.

±0.00: the exposure capacity with the aperture value F1.0 and the shutter speed 1 second

When the aperture value or shutter speed rises, EV1, EV2, EV3... rise too.)

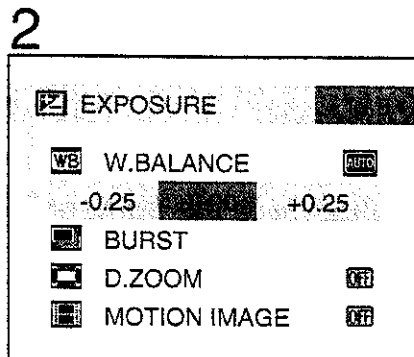
- The compensation state is not reflected on the LCD monitor.

- 4 Press the [MENU] button.

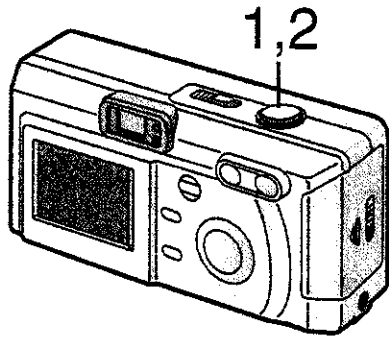
- The menu will disappear.

- 5 Take a picture.

- The recording method is the same as in [Taking Pictures]. (P24)



Using the AF/AE Lock



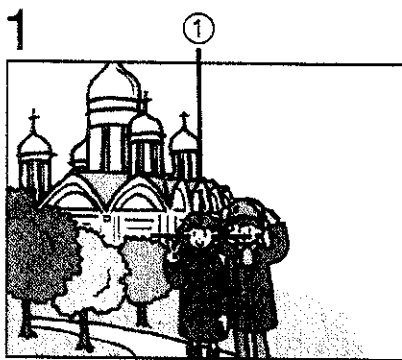
If the subject is out of the AF target and you press the shutter button, the subject's focus is not adjusted. After locking focus and exposure (AF/AE lock), you can take a clear picture with adjusted focus.

AF: Auto focus

AE: Auto exposure

[Preparation]

- Set the REC/power switch to [ON]. (P16)



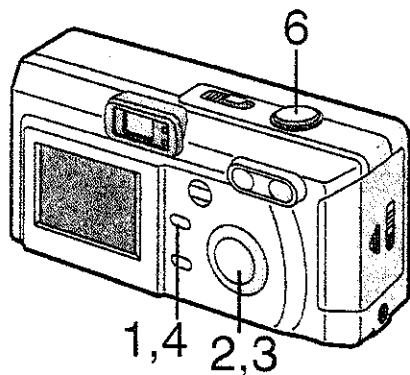
- 1 Centre the subject in the AF target ① inside the optical finder and keep the shutter button pressed halfway (AF/AE lock) to set it.

- 2 Move the camera keeping the chosen composition and press the shutter button all the way.

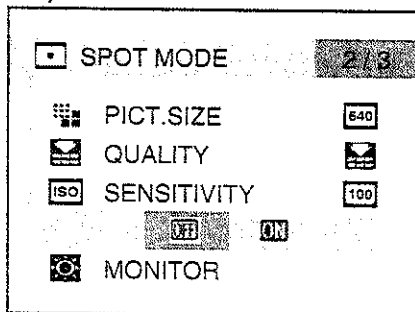


- Before pressing the shutter button, you can set the AF/AE lock any time you want.

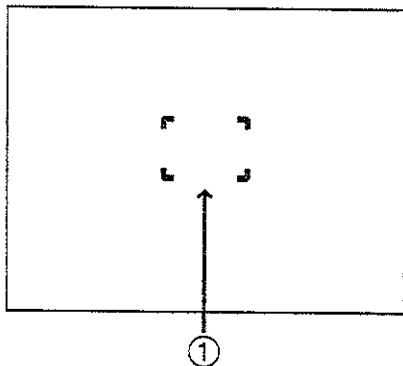
Using the Spot AF



2,3



5



Set the metering mode using the spot area that is displayed on the LCD monitor. When [SPOT MODE] is set to [OFF], evaluation metering is set.

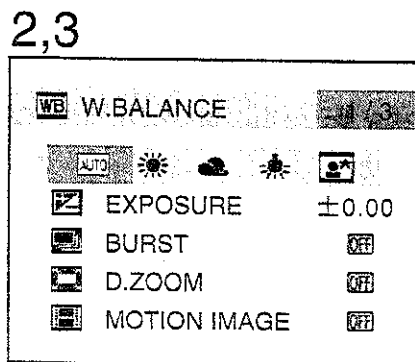
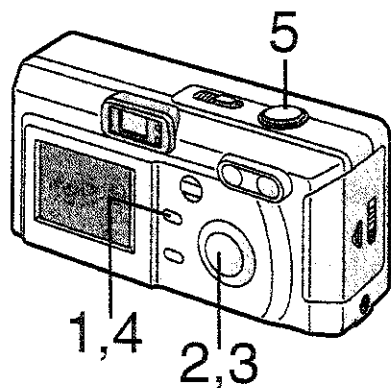
[Preparation]

- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [SPOT MODE].
- 3 Press ◀/▶ to set to [ON].
- 4 Press the [MENU] button.
 - The menu will disappear.
- 5 Centre the subject in the spot area ①.
- 6 Take a picture.
 - The recording method is the same as in [Taking Pictures]. (P24)

- When taking pictures with spot AF mode, it is recommended to use the LCD monitor.

Setting the White Balance



With the auto white balance you can automatically adjust the natural color tone, but in some particular situations, depending on light and environment conditions, you cannot do it and you have to adjust the white balance manually.

[Preparation]

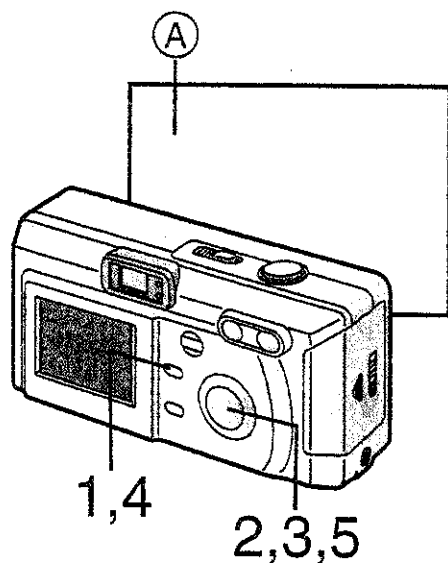
- Set the REC/power switch to [ON]. (P16)


- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [W.BALANCE].
- 3 Press ◀/▶ to select the mode.
 - AUTO: if the auto white balance is set
 - ☀ (Daylight): for recording outdoors on a bright day
 - ☁ (Cloudy): for recording under cloudy and shady sky
 - ⚡ (Halogen): for recording under halogen lamp
 - 🌃 (Night scene): for taking a picture in a night scene
 - 🏠 (White set): for manual setting (Read the following page where the manual setting is explained in detail)
- 4 Press the [MENU] button.
 - The menu will disappear.
- 5 Take a picture.
 - The recording method is the same as in [Taking Pictures]. (P24)

- When setting the white balance mode to Night scene [🌃], the flash mode is automatically set to Slow synchro. And it is possible to set the flash mode to only Forced OFF or Slow synchro.


Setting the White Balance (Continued)

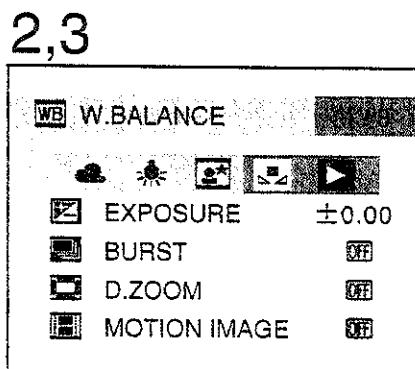
Here the white set mode of white balance is explained.



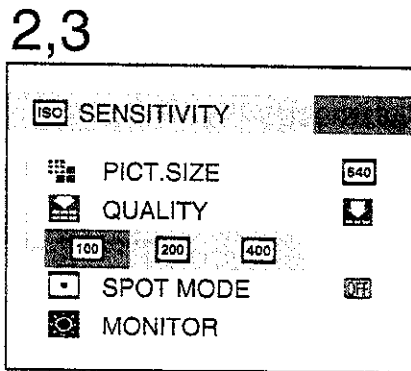
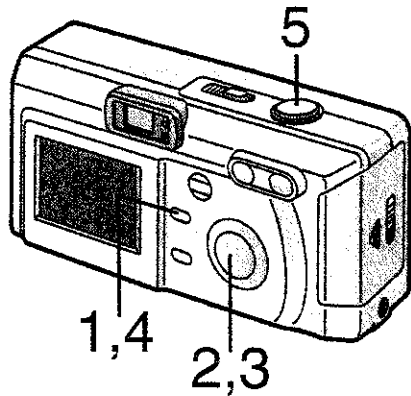
- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [W.BALANCE].
- 3 Press ◀/▶ to set to white set [].
- 4 Press the [MENU] button.
 - The menu will disappear.

Only when setting the white balance again

- 5 Aim the camera at a white paper **A** or similar objects so that it completely fills the frame to white on the screen and press ▶ until the [] indicator is displayed.
 - White balance is set.



Setting ISO Sensitivity



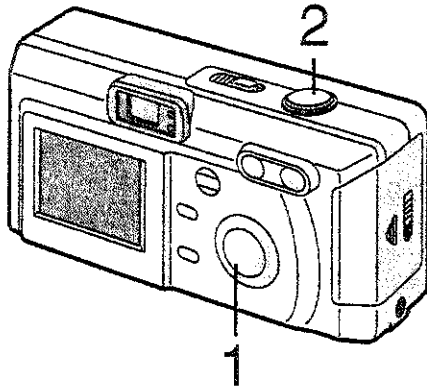
ISO sensitivity is a value that corresponds to the sensitivity to light. The higher it is, the better the camera performances are in dark places.

[Preparation]

- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [SENSITIVITY].
- 3 Press ◀/▶ to select the sensitivity.
 - **100**:ISO100
 - **200**:ISO200
 - **400**:ISO400
- 4 Press the [MENU] button.
 - The menu will disappear.
- 5 Take a picture.
 - The recording method is the same as in [Taking Pictures]. (P24)

Taking Pictures with Macro Mode/ Unlimited Recording



If the camera lens is at a distance from 10 cm to 100 cm from the subject or unlimited distance, set macro mode [🌸] or unlimited recording [▲].

[Preparation]

- Set the REC/power switch to [ON]. (P16)

1 Press the [🌸] button.

- Every time you press it, what is displayed changes as shown below.

- [🌸] Macro mode
- [▲] Unlimited recording mode
- [AF] Auto focus

AF (T/W) 50cm ∞

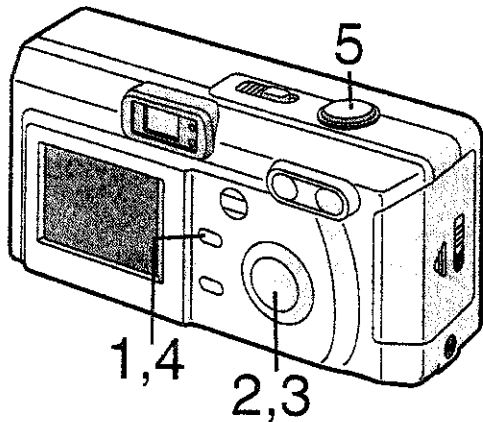
🌸 (T/W) 20cm 100cm
10cm

2 Take a picture.

- The recording method is the same as in [Taking Pictures]. (P24)

- In motion image mode [📹], it is also possible to set macro mode or unlimited recording mode.

Taking Pictures with Burst Mode

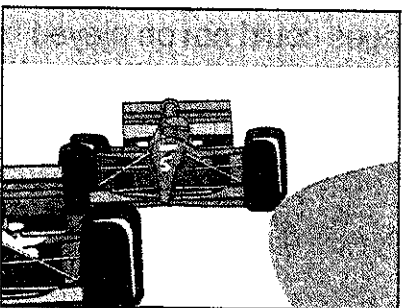
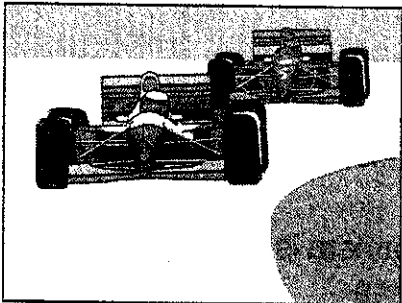
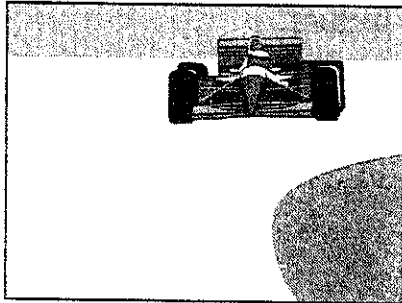


Pressing continuously the shutter button, it is possible to record in burst mode. (4 frames/second maximum of 5 frames)

[Preparation]

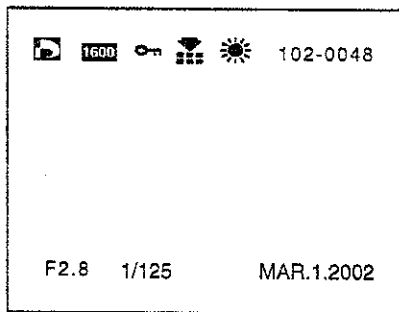
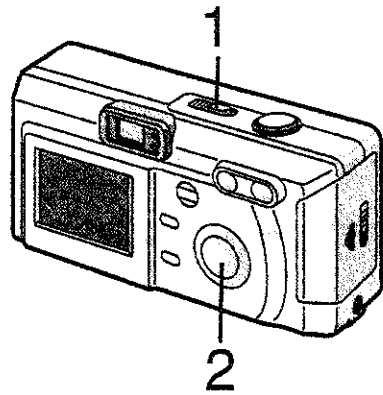
- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [BURST].
- 3 Press ◀/▶ to set to [ON].
- 4 Press the [MENU] button.
 - The menu will disappear.
- 5 Press the shutter button halfway to lock the focus, and then press it fully to take pictures in sequence.



- The flash mode is set to Forced OFF [☹].
- In motion image mode [📹], the burst mode cannot be used.
- Only the first picture recorded is displayed on the LCD monitor.
- Since the picture size in the burst mode is smaller than the single picture mode, the picture quality may be deteriorated.

Playing Back Still Pictures



1 Slide the playback [▶]/power switch.

- The last recorded picture is played back.

2 Press ◀ to play back the previous picture.
Press ▶ to play back the following picture.

- Every time you press, the previous (following) picture is played back.
- The picture following to the last one is the first picture.

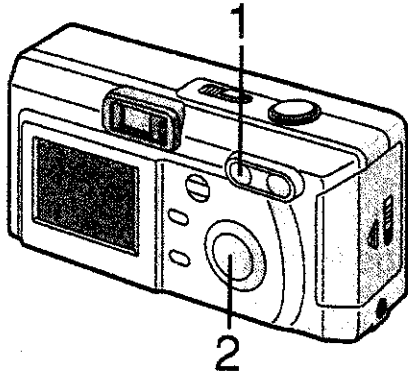
- This camera is based on the DCF standards (Design rule for Camera File system) which were established by the Japan Electronic Industry Technology Association (JEITA).
- The file format that can be played back with this camera is JPEG. (There are also pictures that cannot be played back in JPEG format)
- When playing back still pictures that have been recorded with other equipments, the quality of images may be deteriorated and images could not be played back.

9 Images Multi Playback

It is possible to display 9 images at once.

[Preparation]

Set the playback [▶]/power switch to [ON].



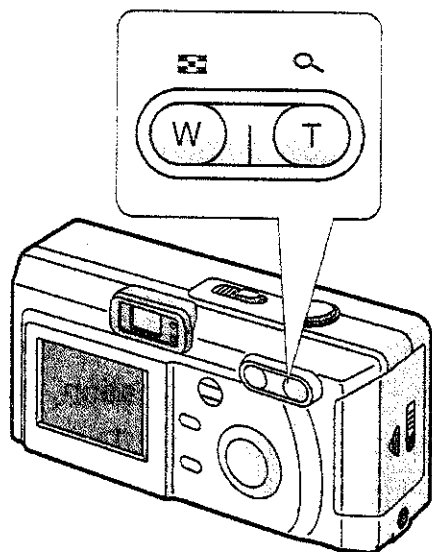
- 1 During playback, press the zoom (W) button [W].
 - Multi playback (9 frames) starts.
- 2 Press ▲/▼/◀/▶ to select images.
 - To return the normal indication, press the zoom (T) button [Q]. The selected image displays.

Using the Playback Zoom

During playback it is possible to enlarge pictures.

[Preparation]

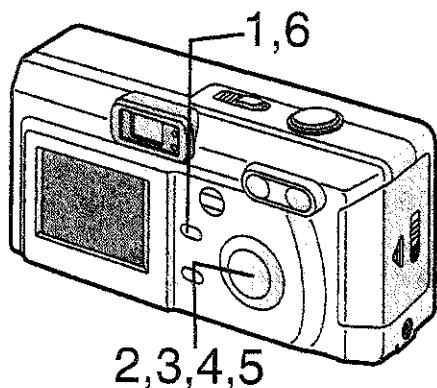
- Set the playback [▶]/power switch to [ON].



- 1 During playback, press the zoom (T) button [🔍].
 - To enlarge further more, press the zoom (T) button [🔍] again.
 - To reduce the picture, press the zoom (W) button [📐].
 - Use ▲/▼/◀/▶ to change the area to be enlarged.

- In motion image playback, it is not possible to magnify.
- The more the zoom magnification increases, the more the picture quality deteriorates.
- The playback zoom could not operate if pictures have been recorded with other equipments.

Editing the Recorded Pictures



It is possible to add special effects to the recorded pictures such as black and white, sepia and nega effect, and to insert the date into the pictures.

[Preparation]

- Set the playback [▶]/ power switch to [ON].

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [EDIT] and then press ▶.
- 3 Press ◀/▶ to select the picture and then press ▼.
- 4 Press ◀/▶ to select among [B/W], [SEPIA], [NEGA] and [DATE], and then press ▼.

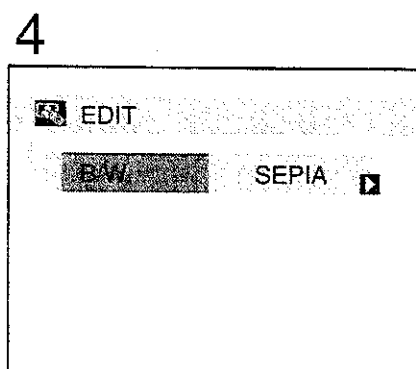
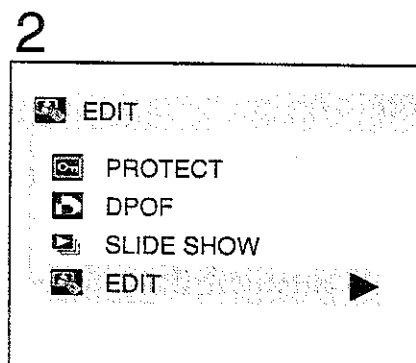
- [B/W]: the colored picture is changed into a black and white picture.
- [SEPIA]: the sepia color produces the effect of old black and white pictures.
- [NEGA]: the effect of negative or positive film is produced.
- [DATE]: date is added. (See the next page)

- 5 Press ▲/▼ to select [SAVE AS] or [SAVE], and then press ▶.

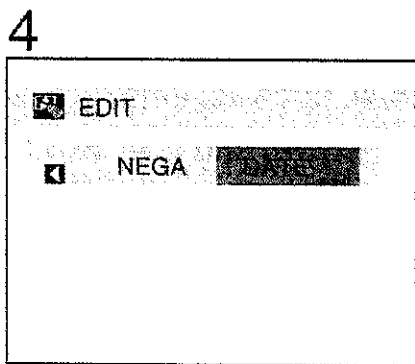
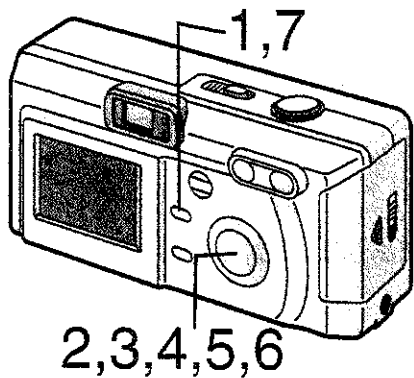
- When the remaining capacity of the memory card is small, it is not possible to select [SAVE AS].

- 6 Press the [MENU] button twice.
 - The menu will disappear.

- In motion image [] playback, it is not possible to edit.



Adding the Date



It is possible to provide the played back pictures with date.

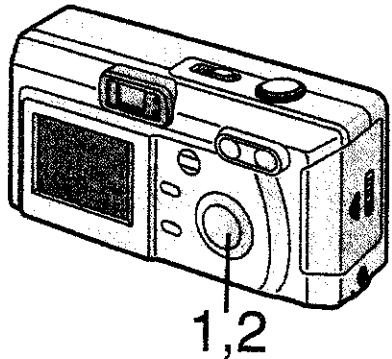
[Preparation]

- Set the playback [▶] / power switch to [ON].

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [EDIT] and then press ▶.
- 3 Press ◀/▶ to select the picture and then press ▼.
- 4 Press ◀/▶ to select [DATE] and then press ▼.
- 5 Press ◀/▶ to select the picture direction and then press ▼.
 - Each time you press ◀/▶, the direction will change.
- 6 Press ▲/▼ to select [SAVE AS] or [SAVE], and then press ▶.
- 7 Press the [MENU] button twice.
 - The menu will disappear.

- In motion image [] playback, it is not possible to add the date.
- When the remaining capacity of the memory card is small, it is not possible to select [SAVE AS].

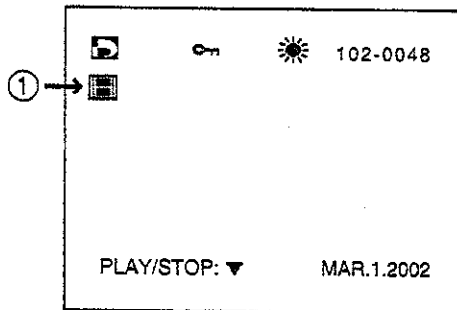
Playing Back Motion Images



[Preparation]

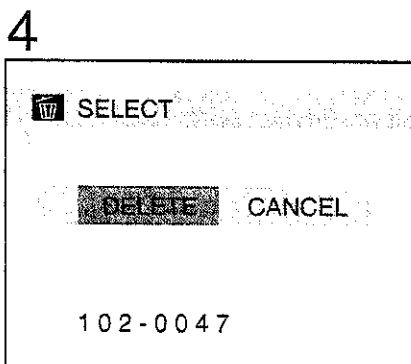
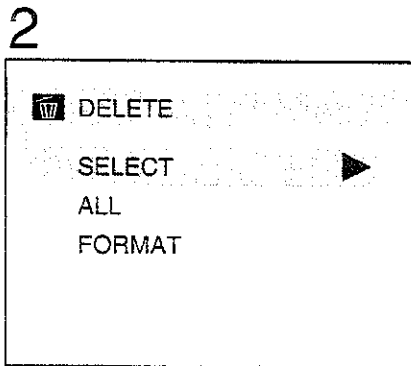
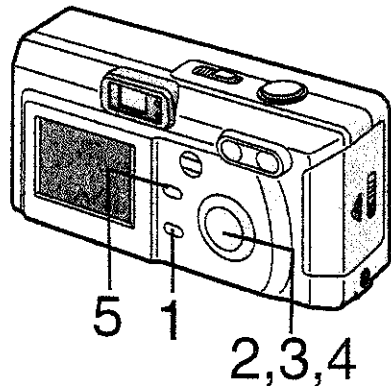
- Set the playback [▶] / power switch to [ON].

- 1 Press ◀/▶ to select the file with the motion image icon [📹] ①.
- 2 Press ▼ to playback the motion image.
 - Pressing ▼, motion image playback will stop.
 - When selecting other files, press ◀/▶.



- The file format that can be played back with this camera is QuickTime Motion JPEG.
- When playing back motion images that have been recorded with other equipment, some QuickTime Motion JPEG files cannot be played back.

Deleting Images



Images recorded on the card can be deleted.

Once deleted images cannot be recovered.

[Preparations]

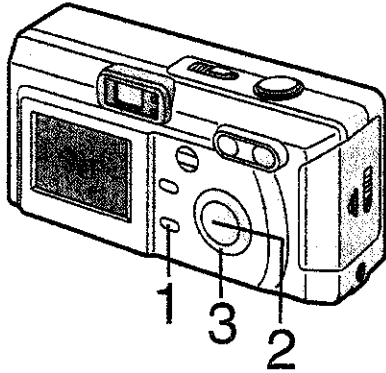
- Set the playback [▶]/power switch to [ON].
- When an image is protected, it cannot be deleted. Cancel the protect setting. (P53)

[Delete single image]


- 1 Press the [] button.
- 2 Press ▲/▼ to select [SELECT] and press ▶.
- 3 Press ◀/▶ to select the image to be deleted and press the [REVIEW/SET] button.
- 4 Press ◀/▶ to select [DELETE] and press the [REVIEW/SET] button.
 - The selected image is deleted.
- 5 Press the [MENU] button three times.
 - The deleting menu will disappear.

[Delete all images]

Once deleted images cannot be recovered.

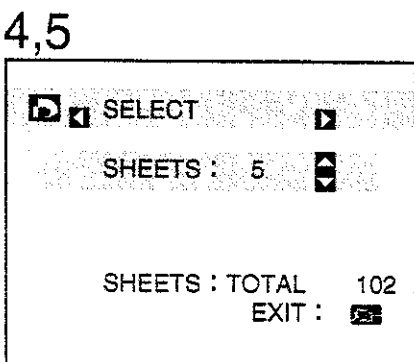
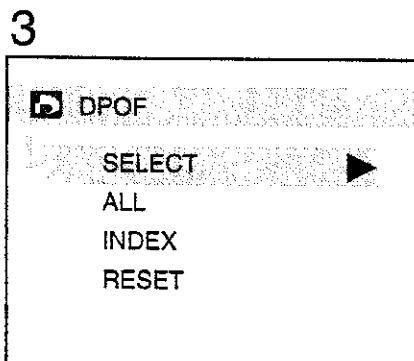
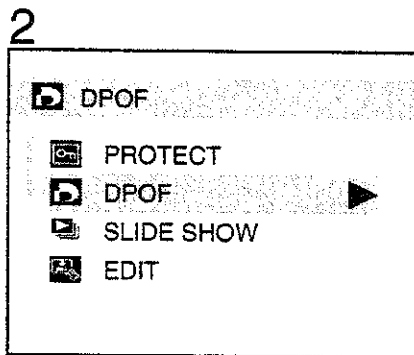
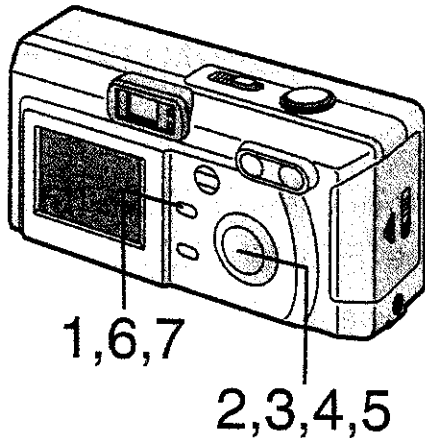


- 1 Press the [] button.
- 2 Press ▲/▼ to select [ALL] and press ►.
- 3 Press ◀/▶ to select [DELETE] and press the [REVIEW/SET] button.
 - All images are deleted.

- During deleting, do not take out the memory card or do not turn the power off.
- When displaying 9 images, delete the images by pressing the [] button after selecting a images with ◀/▶ and the [REVIEW/SET] button.



Writing the Print Information in the Card (DPOF Setting)



It is possible to write on the card information (DPOF data) about the images that you want to print and the number of sheets.

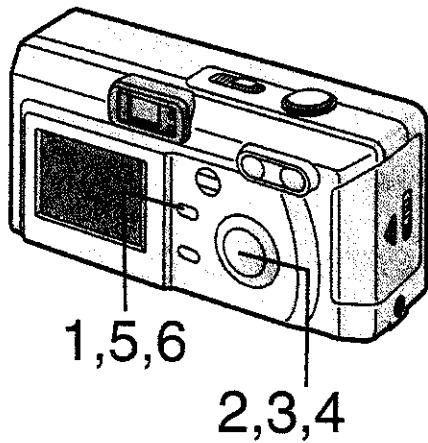
DPOF is an abbreviation of Digital Print Order Format. To use the DPOF corresponding system, you can add print information to the images on the memory card.

[Preparation]

- Set the playback [▶]/power switch to [ON].

[Single copy setting]

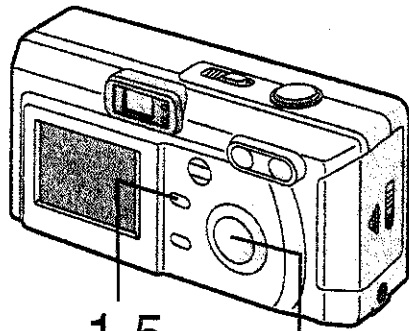
- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [DPOF] and then press ▶.
- 3 Press ▲/▼ to select [SELECT] and then press ▶.
- 4 Press ◀/▶ to select 1 image.
- 5 Press ▲/▼ to set the number of sheets to be printed.
 - The number of sheets can be set from 1 to 15.
- 6 Press the [MENU] button.
 - The DPOF setting is written on the card.
- 7 Press the [MENU] button twice.
 - The menu will disappear.



[All copy setting]

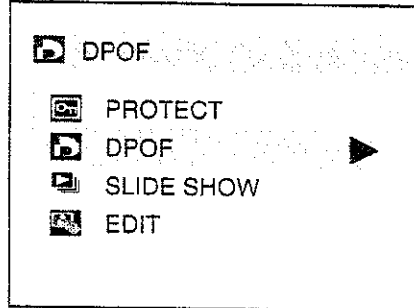
- 1 Press the [MENU] button.
 - 2 Press ▲/▼ to select [DPOF] and then press ►.
 - 3 Press ▲/▼ to select [ALL] and then press ►.
 - When DPOF data have been written, cancel all DPOF settings.
 - 4 Press ▲/▼ to set the number of sheets to be printed and then press ►.
 - The number of sheets can be set from 1 to 15.
 - 5 Press the [MENU] button.
 - The DPOF setting is written on the card.
 - 6 Press the [MENU] button twice.
 - The menu will disappear.
- When setting DPOF by this camera for images that have been set to slide show by other equipments, the slide show settings are overwritten by DPOF slide show (P54).

Writing the Print Information in the Card (DPOF Setting) (Continued)

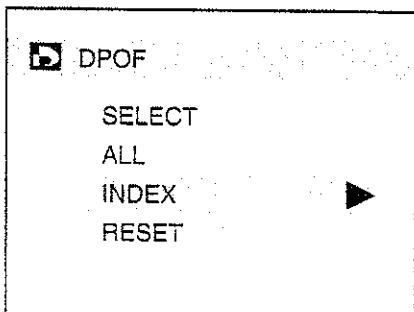
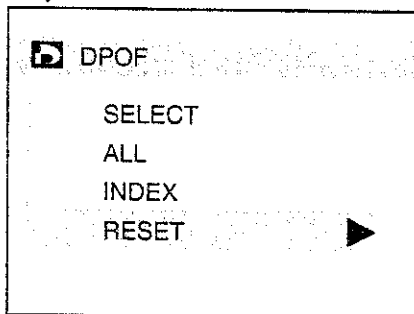


1,5
1,5,6 2,3,4
2,3,4

2, 2



3, 3



[To cancel all settings]

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [DPOF] and then press ►.
- 3 Press ▲/▼ to select [RESET] and then press ►.
- 4 Press ◀/▶ to select [RESET] and press the [REVIEW/SET] button.

- All DPOF settings are cancelled.

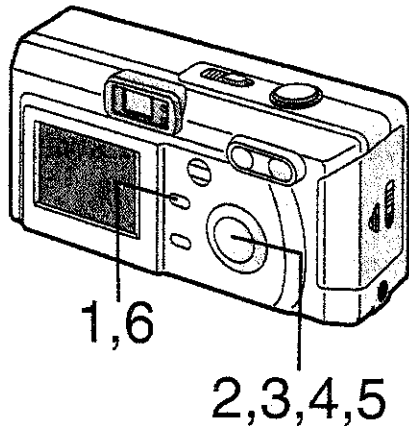
- 5 Press the [MENU] button 2 times.
 - The menu will disappear.

[Index setting]

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [DPOF] and then press ►.
- 3 Press ▲/▼ to select [INDEX] and then press ►.
- 4 Press ▲/▼ to set the number of sheets to be printed.
- 5 Press the [MENU] button.
 - All images are set.
- 6 Press the [MENU] button twice.
 - The menu will disappear.

Protecting Images on the Card

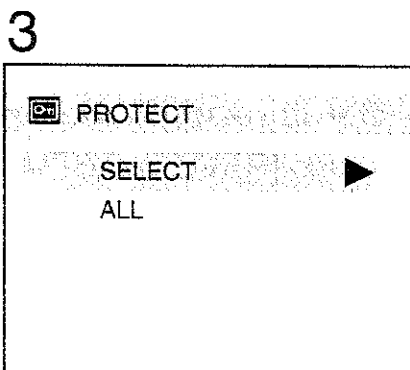
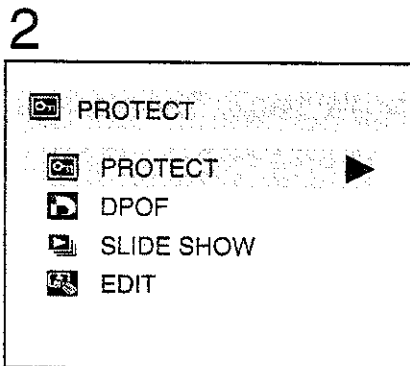
It is possible to protect the important images recorded on the card from accidental erasure.



[Preparation]

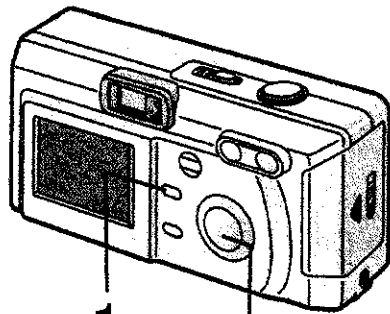
- Set the playback [▶]/power switch to [ON].

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [PROTECT] and then press ▶.
- 3 Press ▲/▼ to select [SELECT]/[ALL] and then press ▶.
- 4 Only when setting [SELECT], press ◀/▶ to select 1 image.
- 5 Press the [REVIEW/SET] button.
- 6 Press the [MENU] button three times.
 - The menu will disappear.



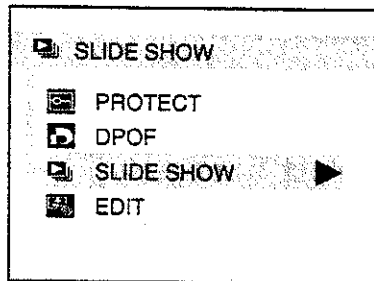
- Even if an image is protected, it will be erased in case of formatting.
- When trying to delete a protected file, these messages are displayed [PROTECTED] or [PROTECTED IMAGE LEFT]. But if you want to delete it, cancel the protect setting.
- The protect setting is effective only in this camera.

Playing Back with Slide Show (Automatic Playback)

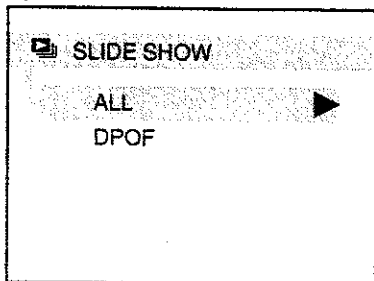


1
2,3,4,5

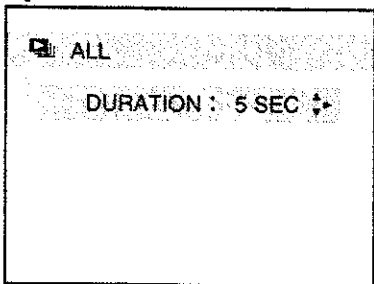
2



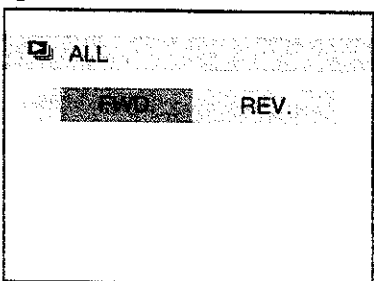
3



4



5



All pictures selected in the card can be played back one-by-one automatically.

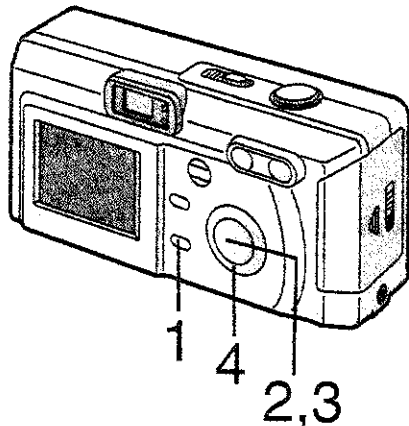
[Preparation]

- Set the playback [▶]/power switch to [ON].

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [SLIDE SHOW] and then press ▶.
- 3 Press ▲/▼ to select [ALL]/[DPOF] and then press ▶.
 - ALL: for playback of all pictures
 - DPOF: for playback of the DPOF set pictures
- 4 Press ▲/▼ to set [DURATION] and press ▶.
 - DURATION: it can be set from 1 to 10 seconds.
- 5 Press ◀/▶ to select [FWD.]/[REV.] and press the [REVIEW/SET] button.
 - The slide show starts.
 - Pressing the [MENU] button, it stops.

- Editing with the supplied software [SD Viewer for DSC] on the CD-ROM, you can playback in SD slide show with this camera. Read P69.


Formatting the Card



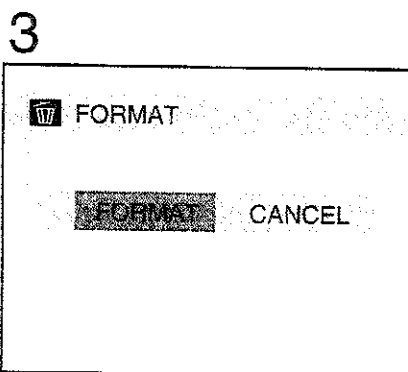
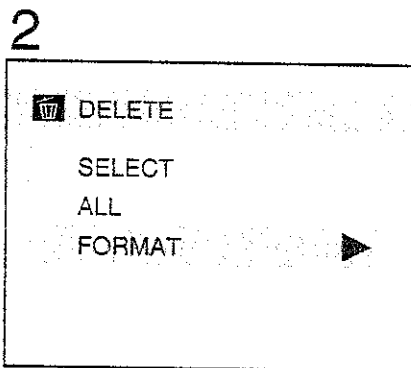
Usually, it is not necessary to format the card (initializing). Format the card when this message is displayed [MEMORY CARD ERROR].

[Preparation]

- Set the playback [▶]/power switch to [ON].

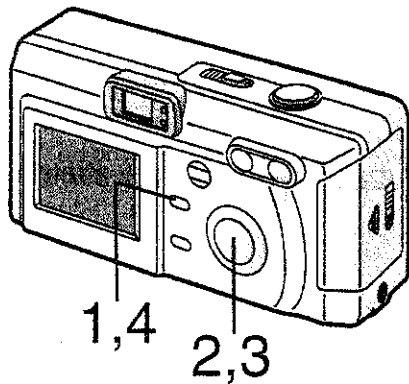
- 1 Press the [] button.
- 2 Press ▲/▼ to select [FORMAT] and then press ▶.
- 3 Press ◀/▶ to select [FORMAT].
- 4 Press the [REVIEW/SET] button.

- The card is formatted.
- After formatting, recorded images and any other data cannot be recovered.



- When the card is formatted by PC or other equipments, format the card on the camera again.
- During formatting, do not turn the power off. (Do not open the memory card/battery door)
- If the card cannot be formatted, consult the dealer.

Adjusting the LCD Monitor Brightness

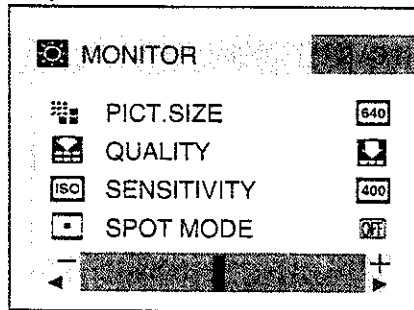


[Preparation]

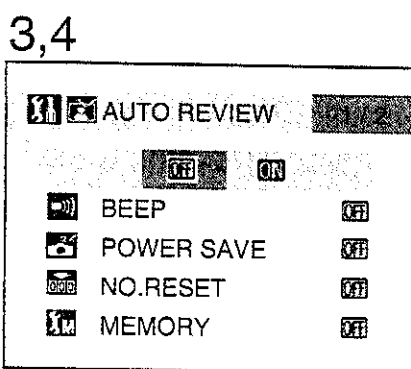
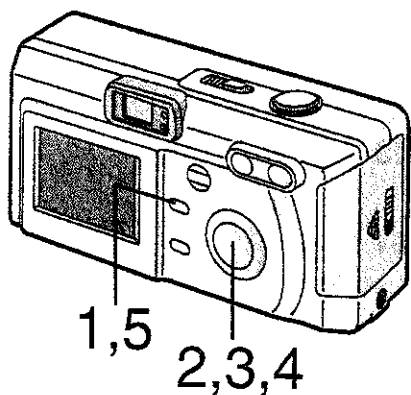
- Set the REC/power switch to [ON]. (P16)

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [MONITOR].
- 3 Press ◀/▶ to adjust the brightness.
- 4 Press the [MENU] button.
 - The menu will disappear.

2,3



Using the Auto Review



Recording with the auto review set to [ON], the recorded picture is automatically displayed on the LCD monitor for about 2 seconds.

[Preparation]

Set the REC/power switch to [ON].

- 1 Press the [MENU] button.
 - The setup menu will be displayed.
- 2 Press ▲/▼ to select [SETUP] and then press ►.
 - The setup menu will be displayed.
- 3 Press ▲/▼ to select [AUTO REVIEW].
- 4 Press ◀/▶ to select [ON].
- 5 Press the [MENU] button twice.
 - The menu will disappear.

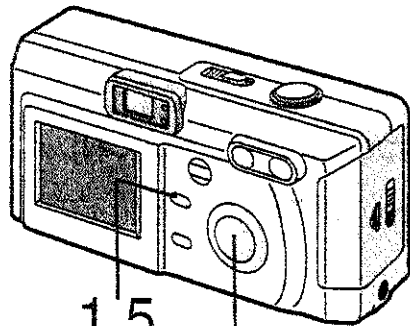
- In burst mode [📷], only the first recorded picture is displayed.
- Even if setting the auto review to [ON], it is not available in motion image mode [📹].

Setting up the Beep Sound

It is possible to set the electronic sound when the menu is operated.

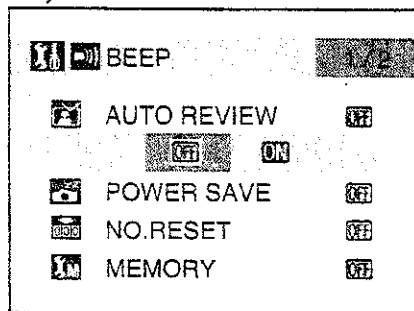
[Preparation]

Set the REC/power switch to [ON].



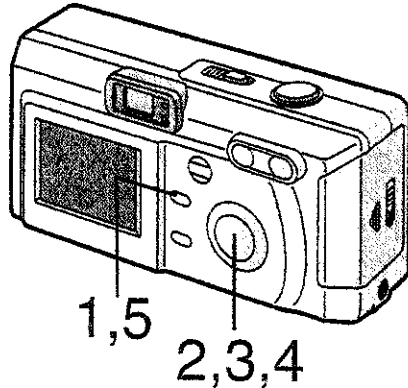
- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [SETUP] and then press ►.
 - The setup menu will be displayed.
- 3 Press ▲/▼ to select [BEEP].
- 4 Press ◀/▶ to select [ON].
- 5 Press the [MENU] button twice.
 - The menu will disappear.

3,4



Setting up the Power Save Mode

When setting this mode, the camera, if it is not operated for certain time, is automatically turned off.



[Preparation]

Set the REC/power switch to [ON].

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [SETUP] and then press ►.

- The setup menu will be displayed.

- 3 Press ▲/▼ to select [POWER SAVE].

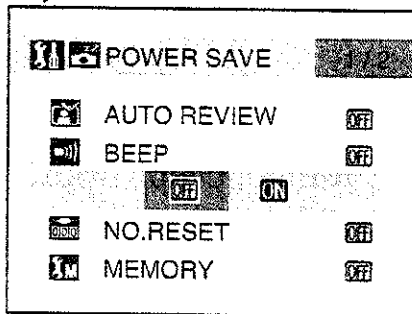
- 4 Press ◀/▶ to select [ON].

- When the camera is in REC mode and it is not operated for about 2 minutes, the power save mode is set and after still more about 8 minutes it is automatically turned off. Moreover, in playback mode, it is not operated for about 10 minutes, it is automatically turned off.
- If selecting [OFF], the power is not turned off automatically.

- 5 Press the [MENU] button twice.

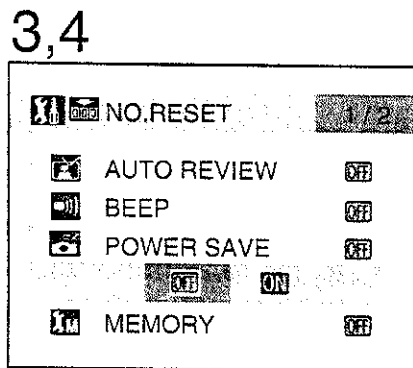
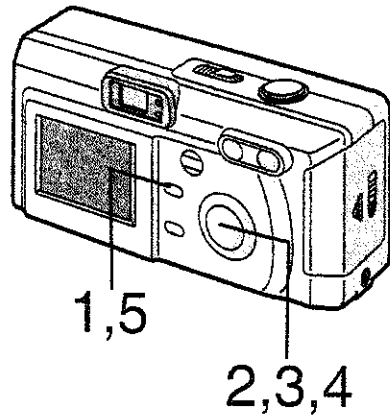
- The menu will disappear.

3,4



- If you want to cancel the power save mode, press the shutter button halfway or after setting the REC/power switch to [OFF] set it to [ON] again.
- Do not forget turning the power off in the power save mode.
- Using the AC adaptor, the power save mode is not available.

Resetting the File Number



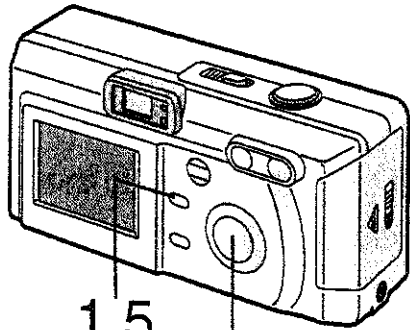
As the file numbers are recorded sequentially by the camera side, when you use some cards, it could happen that the file numbers on your cards are not in order. Use this function when you insert a new card and you want to start recording from the file number 0001.

[Preparation]

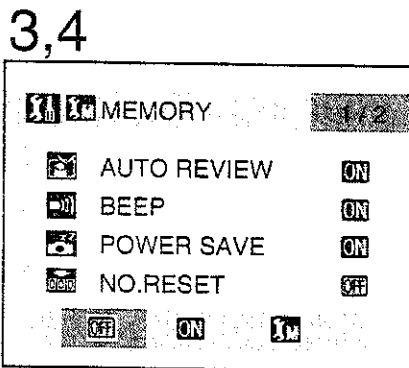
Set the REC/power switch to [ON].

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [SETUP] and then press ►.
 - The setup menu will be displayed.
- 3 Press ▲/▼ to select [NO.RESET].
- 4 Press ◀/▶ to select [ON].
- 5 Press the [MENU] button twice.
 - The menu will disappear.

Memorizing settings



1,5
2,3,4



If setting [MEMORY] to [ON], focus mode, flash mode and exposure compensation settings are memorized even after turning the power off.

[Preparation]

Set the REC/power switch to [ON].

- 1 Press the [MENU] button.
- 2 Press ▲/▼ to select [SETUP] and then press ►.
 - The setup menu will be displayed.
- 3 Press ▲/▼ to select [MEMORY].
- 4 Press ◀/▶ to select [ON].
- 5 Press the [MENU] button twice.
 - The menu will disappear.

- When setting to [OFF] and keeping on pressing ►, it is possible to reset the settings. (Only the clock setting cannot be reset)
- Even if setting [MEMORY] to [OFF], the menu settings remain memorized. (The exposure compensation setting is not memorized)

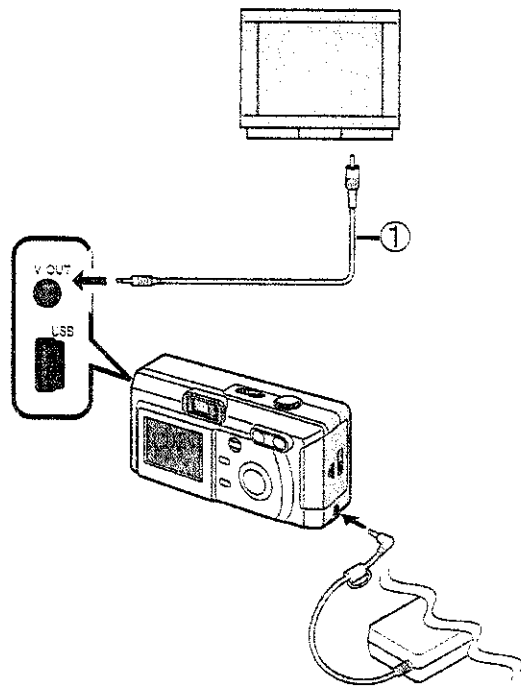


Playing Back Images with TV Monitor

Connecting the camera to a TV via the supplied video cable ①, it is possible to view and playback the recorded images.

[Preparation]

- Turn the camera and the TV off.



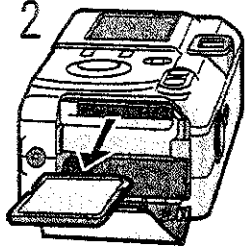
- 1 Connect the video cable to the V.OUT socket of the camera.
- 2 Connect the video cable to the video input sockets of the TV.
- 3 Turn the TV on and select external input.
- 4 Set the playback [▶]/power switch to [ON].

- The image is displayed on the TV.

- It is not possible to display images on a TV in REC mode.
- Do not use any other cables except the supplied one.
- Read the TV operating instructions too.

After Use

After using the camera and after following steps, it is recommended to insert it in the optional soft case, in order to preserve it.



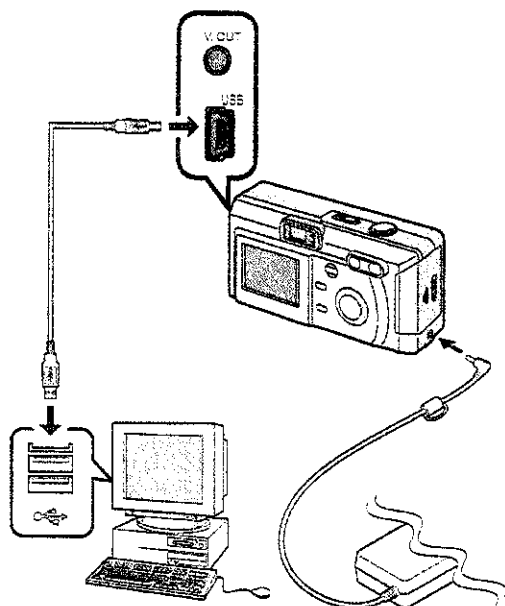
- 1 Set the power switch to [OFF]. (P16)
- 2 Remove the card. (P14)



Connecting to PC

[Preparation]

Only if using Windows, start the supplied CD from PC and install the USB driver.



- 1 Connect the camera to PC via the supplied USB cable.
- 2 After inserting the memory card into the camera, set the playback [▶]/power switch to [ON].

[Windows]

The drive is shown on the [My computer] folder.

- If it is the first time you connect the camera to PC, the required driver is installed automatically in order to let the camera be recognized by the Windows plug and play, then it is shown on the [My computer] folder.

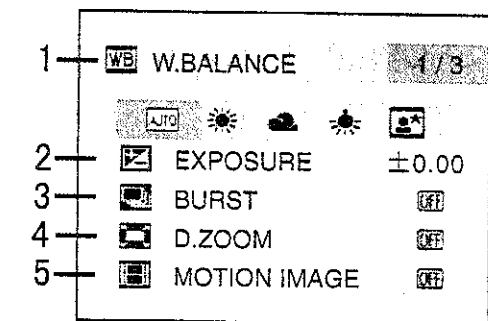
[Macintosh]

The drive is shown on the screen.

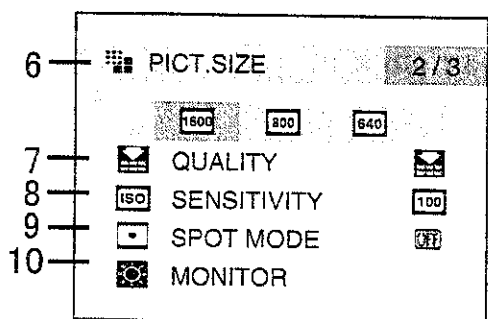
- When connecting to PC, for the power source, it is recommended to use the AC adaptor.
- For further information, read the supplied operating instructions for USB connection kit.
- When recording the motion image, the motion image file (MOV format) and the still picture file (JPEG format) are produced. The thumbnail of the motion image files cannot be displayed.
- When connecting the camera to PC via the supplied USB cable, the pictures can be displayed in the thumbnail format, but may not be displayed on the file format. In this case, open the files after copying them to PC.

The Menu Items

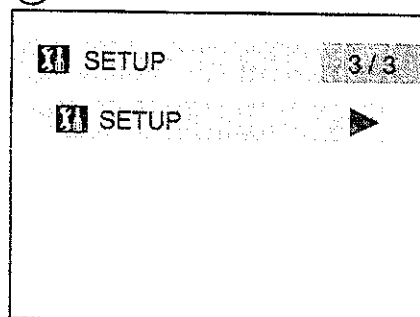
REC mode menu



- 1 W.BALANCE (P37)
- 2 EXPOSURE (P34)
- 3 BURST (P41)
- 4 D. ZOOM (P28)
- 5 MOTION IMAGE (P26)
- 6 PICT.SIZE (P32)
- 7 QUALITY (P33)
- 8 SENSITIVITY (P39)
- 9 SPOT MODE (P36)
- 10 MONITOR (P56)

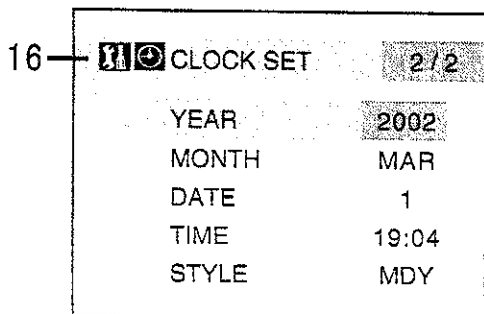
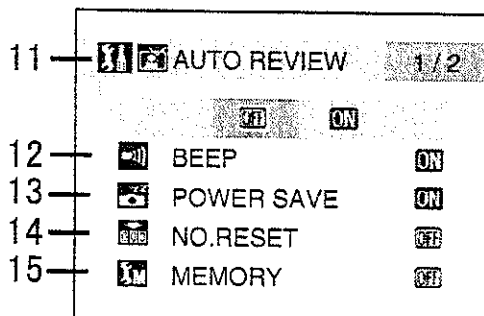


(A)



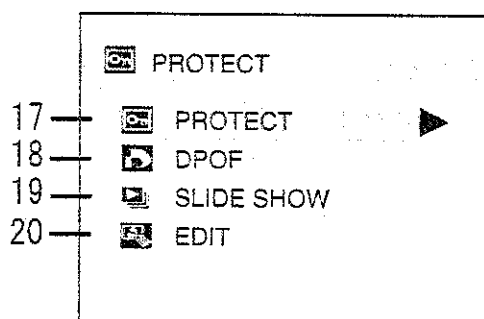
Setup menu (A)

- 11 AUTO REVIEW (P57)
- 12 BEEP (P58)
- 13 POWER SAVE (P59)
- 14 NO. RESET (P60)
- 15 MEMORY (P61)
- 16 CLOCK SET (P23)



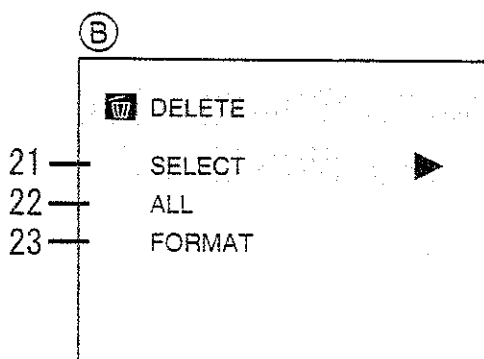
The Menu Items (Continued)

Playback mode menu



- 17 PROTECT (P53)
- 18 DPOF (P50)
- 19 SLIDE SHOW (P54)
- 20 EDIT (P45)

Deleting menu (B)



- 21 SELECT (P48)
- 22 ALL (P49)
- 23 FORMAT (P55)

Cautions for Use

■ Cautions for Use

In the event of abnormal operation (e.g. if the unit emits smoke or an unusual smell), immediately stop operating the unit and consult the Panasonic Customer Care Centre on 132600.

Keep the digital camera away from magnetized equipment (such as a microwave oven, TV, video game equipment, etc.).

- If you use the digital camera on or near a TV, images may be disturbed due to electromagnetic wave radiation.
- Do not use near a cell phone because doing so may cause noise to adversely affect the images.
- By strong magnetic fields created by speakers or large motors, recorded data may be damaged, or images may be distorted.
- Electromagnetic wave radiation generated by a microprocessor may adversely affect the digital camera, causing the disturbance of images.
- If the digital camera is affected by magnetically charged equipment and does not function properly, turn the camera off and detach the battery or AC adaptor and then connect the battery or AC adaptor again. Thereafter, turn the camera on.

Do not use the digital camera near radio transmitters or high-voltage lines.

- If you record near radio transmitters or high-voltage lines, recorded images may be adversely affected.

Do not spray insecticides or volatile chemicals onto the digital camera.

- If the digital camera is sprayed with such chemicals, the camera body

may be deformed and the surface finish may peel off.

- Do not keep rubber or plastic product in contact with the digital camera for a long period of time.

When you use the digital camera on a beach or similar place, do not let sand or fine dust get into the camera.

- Sand or dust may damage the digital camera or card. (Care should be taken when inserting and removing the card)

When you use your digital camera in a rainy or snowy day or on a beach, make sure that no water enters inside the digital camera.

- Water may cause the digital camera or card to malfunction. (Irreparable failure may occur)
- If sea water splashes onto the digital camera, wet a soft cloth with tap water, wring it well, and use it to wipe the camera body carefully. Then, wipe it again thoroughly with a soft dry cloth.

Do not use the digital camera for surveillance purpose or other business use.

- If you use the digital camera for a long period of time, the internal temperature increases and, consequently, this may cause malfunction.
- The digital camera is not intended for business use.

Do not use benzine, thinner or alcohol for cleaning the digital camera.

- The camera body may be deformed and the surface finish may peel off.
- Before cleaning the camera, detach the battery or pull out the AC adaptor from the electrical outlet.
- Wipe the digital camera with a soft dry cloth. To remove stubborn stains, wipe with a cloth that is soaked in a detergent diluted with water and afterward finish wiping with a dry cloth.
- For storing or transporting the digital camera, place it in a bag or case lined with soft pads so as to prevent the coating on the camera body from being worn.

After use, be sure to take the card out, and detach the battery or pull out the AC adaptor from the electrical outlet.

- If the battery is left on the digital camera for a long time, the voltage drops excessively, and the battery will not function even after it is recharged.

■ Optimal Use of the Battery

The battery is a rechargeable lithium ion battery. Its ability to generate power is based upon the chemical reaction that takes place inside it. This reaction is susceptible to the surrounding temperature and humidity, and, if the temperature is too high or too low, the operating time of the battery becomes shorter.

Be sure to detach the battery after use.

Be sure to detach the battery from the digital camera. (If it is left attached to the digital camera, a minute amount of current is consumed even when the digital camera power is off) If the battery is left attached to the digital camera for a long time, over

discharge takes place. The battery may become unusable after it is charged.

Dispose of an unusable battery.

- The battery has a limited life.
- Do not throw the battery into fire because it may cause an explosion.

Always keep the terminals of the battery clean.

Prevent the terminals from getting clogged with dirt, dust, or other substances.

If you drop the battery accidentally, check to see if the battery body and terminals are deformed. Attaching a deformed battery to the digital camera may damage the camera.

■ Condensation

When the condensation has taken place:

Turn the camera off and leave the digital camera in this condition for about 1 hour. When the camera becomes close to the ambient temperature, the fog disappears naturally.

■ Cautions for Storage

Before storing the digital camera, take the card out and detach the battery.

Store all the components in a dry place with a relatively stable temperature.

(Recommended temperature: 15 to 25 °C, Recommended humidity: 40 to 60 %)

Digital camera

- Wrap it with a soft cloth to prevent dust from getting into the camera.
- Do not leave the camera in places that expose it to high temperature.

Battery

- Extremely high or low temperatures will shorten the life of the battery.
- If the battery is kept in smoky or dusty places, the terminal may rust and cause malfunctions.
- **Do not allow the battery terminals to come in contact with metal objects (such as necklaces, hairpins, etc.). This can result in a short circuit or heat generation and, if you touch the battery in this condition, you may be badly burned.**
- Store the battery in a completely discharged state. To store the battery for a long period of time, we recommend you charge it once every year and store it again after you completely use up the charged capacity.

Card

- When the card is being read, do not remove the card, turn the camera off, or subject it to vibration or impact.
- Do not leave the card in places where there is high temperature or direct sunlight, or where electromagnetic waves or static electricity are easily generated.
- Do not bend or drop the card. The card or the recorded content may be damaged.
- After use, be sure to remove the card from the digital camera.
- Do not touch the terminals on the back of the card with your fingers. Do not allow dirt, dust or water to enter it.

■ LCD Monitor/Viewfinder

LCD monitor

- In a place with drastic temperature changes, condensation may form on the LCD monitor. Wipe it with soft dry cloth.

- If the digital camera is extremely cold when you turn the power on, the image on the LCD monitor is slightly darker than usual at first. However, as the internal temperature increases, it goes back to the normal brightness.

.....
Extremely high precision technology is employed to produce the LCD monitor screen featuring a total of approximately 110,000 pixels. The result is more than 99.99% effective pixels with a mere 0.01% of the pixels inactive or always lit. However, this is not a malfunction and does not affect the recorded picture.
.....

Viewfinder

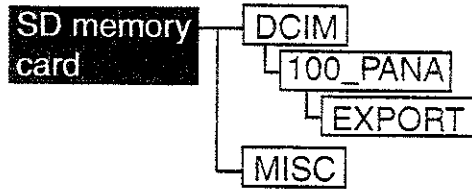
- Do not direct the viewfinder or lens to the sun. Internal components may be seriously damaged.

■ SD Slide Show

If setting the SD slide show with the [SD Viewer for DSC] which is in the supplied CD-ROM, when playing back, the message [SD SLIDE SHOW START] is displayed. Press the [MENU] button for normal playback and press the [REVIEW/SET] button to start the SD slide show.

■ Folder Composition

When the memory card where data are recorded is inserted into a PC, the folders shown below will be displayed.



- In the 100_PANA folder it is possible to record up to 999 images.
- In the MISC folder it is possible to record the files that have been set with DPOF settings.

Warning Indication

[NO MEMORY CARD]

Insert the memory card.

[WRITE PROTECTED]

Cancel the memory card lock.

[NO VALID IMAGE TO PLAY]

Carry out playback after recording or after inserting the memory card where there is the recorded image.

[MEMORY FULL]

Insert a new memory card or delete the useless data.

[MEMORY CARD ERROR]

Failed access to memory card.
Insert the card again.

[READ ERROR]

Data reading error.
Play it back again.

[WRITE ERROR]

Data writing error.
Take out the card, or turn the camera [ON] again after once turning it [OFF].
Or the card may be destroyed.

[PROTECTED]/

[PROTECTED IMAGE LEFT]

After cancelling the protect setting, you can delete or overwrite the image.

[NUMBER OF PRINT IS OVER]

You have exceeded the number of images that can be set at once, with multi deleting, protect and DPOF settings.

[CAN'T BE SET ON THIS PICTURE] / [CAN'T BE SET ON SOME PICTURES]

If the image is not based on the DCF standard, it is not possible to set the DPOF.

[MEMORY CARD ERROR FORMAT THIS CARD?]

The format of this card cannot be recognized by the camera. Format this again with the camera.

[PLEASE SET THE DATE/TIME]

Set the date.

Troubleshooting

1: The power does not turn on.

1-1: Are the battery and the AC adaptor correctly connected?
Check the connection.

1-2: Is the battery sufficiently charged? Use battery that has been sufficiently charged.

1-3: Is the REC/power switch slided fully?

2: As the power is turned on, it turns off immediately.

2-1: Is the battery charge insufficient to operate the camera? Charge the battery or replace it with charged one.

2-2: Has the condensation occurred? Carrying the digital camera from a cold place to a warm place, it could happen that the condensation form inside the camera. Wait until the condensation disappears.

3: The image cannot be recorded.

3-1: Is the memory card inside?

3-2: There is no capacity of the card. Before recording, delete some images.

3-3: Is the REC/power switch slided fully?

4: The image is not displayed on the LCD monitor.

4: Is the LCD monitor set to off?

5: The LCD monitor is too bright or dark.

5: Adjust the brightness of the LCD monitor.

6: The flash does not light.

6: The flash mode is set to forced OFF. Change the flash mode.

7: The image cannot be played back.

7-1: Is the memory card inside?

7-2: There are no images in the memory card.

7-3: Is the playback/power switch slided?

8: The settings are not memorized.

8: [MEMORY] may be set to [OFF].

9: The LCD monitor cannot be set to off.

9: [D.ZOOM] may be set to [ON].

10: The image is not displayed on the TV.

10-1: Is the camera correctly connected with the TV? Check it.

10-2: Set the TV to video input mode.

11: When connecting to PC, images cannot be transferred.

11: Is the camera correctly connected with PC? Check it.

Specifications

Digital Camera

information for your safety

Power Source:	DC 5 V
Power Consumption:	3.0 W (When recording with LCD Monitor to on) 2.5 W (When recording with LCD Monitor to off)
Effective number of pixels	2.0 M
Image sensor	1/2.7 inch CCD, pixel number 2,110,000 Primary color filter
Lens	Optical $\times 2$ zoom, $f=5.3 - 10.6$ mm (35 mm film camera conversion: 35 - 70 mm)/F2.8 - 4.0
Digital zoom	$\times 2$ (800 \times 600 pixels)/ $\times 2.5$ (640 \times 480 pixels)
Focus	Auto/Macro/ ∞
Recording range	Auto: 50 cm - ∞ , Macro: 10 - 100 cm
Shutter system	Electronic shutter + Mechanical shutter
Burst recording	4 frames/second, Max 5 frames
Motion image recording	320 \times 240, 20 seconds
ISO sensitivity	100/200/400
Shutter speed	2 - 1/2,000
White balance	AUTO/Daylight/Cloudy/Halogen/Night scene/ White set
Exposure (AE)	Program AE (P) Exposure compensation (0.25 EV Step, -2 - +2 EV)
Metering mode	Evaluation metering/Spot
LCD monitor	1.5 inch TFT LCD (60,000 pixels)
Optical finder	Real-image zoom finder
Flash	Built-in flash Recording range: (Wide) approx. 30 cm - 2.0 m (Tele) approx. 30 cm - 1.4 m AUTO, AUTO/Red-eye reduction, Slow synchro, Forced OFF
Recording media	SD Memory Card/MultiMediaCard
Recording size	1600 \times 1200, 800 \times 600, 640 \times 480, 320 \times 240 (Motion image mode)
Quality	Fine/Standard
Recording file format	
Still Picture	JPEG (Design rule for Camera File system), DPOF corresponding
Motion image	QuickTime Motion JPEG

Interface

Digital	USB
Analog video	PAL Composit
Terminal	
USB	5 pin Mini USB
Analog video/audio	ϕ 2.5 mm jack
DC IN	EIAJ type 2 jack
Dimensions (W × H × D)	104 × 50.9 × 31.6 mm (excluding the projection part)
Weight	150 g (excluding memory card and battery) 180 g (with memory card and battery)

AC adaptor**Panasonic DE-879E**

information for your safety

Input	110 V - 240 V ~ 50/60 Hz, 0.2 A
Output	5.3 V = 1 A

Battery pack (lithium-ion)**Panasonic CGA-S101E**

information for your safety

Voltage/capacity	3.6 V, 700 mAh
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