

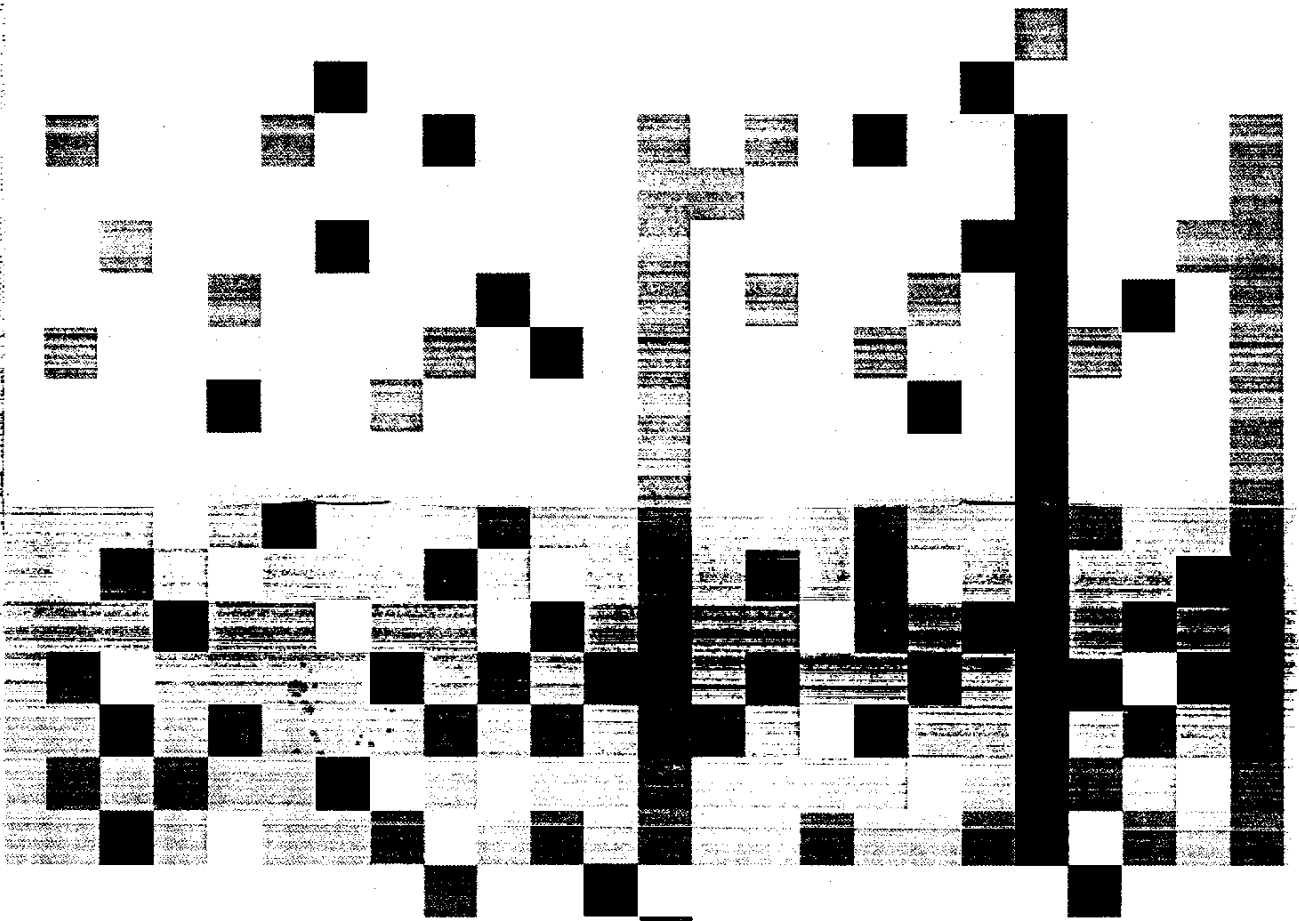


RDC-300Z
Digital Camera

Operation Manual

Before using your digital camera, read this manual carefully to understand the proper use of the camera. Please keep this manual handy for easy reference.

<NTSC>



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L203 2542

Introduction

Thank you for purchasing the Ricoh RDC-300Z Digital Camera. This manual contains instructions on the proper use of your camera as well as the necessary handling precautions. Read this manual thoroughly and carefully to understand the proper use of the camera.

Ricoh Co., Ltd

Testing the camera

Always test the camera by taking several sample pictures to confirm that the pictures are correctly recorded.

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About digital audio visual files

We regret that we cannot be responsible for files lost due to any malfunction of the camera.

About the warranty

This product is made to local specifications. Should it malfunction while you are abroad, we cannot be responsible for the cost or availability of service in other countries.

Radio-frequency interference

Using the digital camera near electric devices could inhibit the performance of both the camera and nearby devices. Interference is likely to occur when the camera is placed near a radio or television. If this condition occurs, perform the following procedures:

- Relocate the camera as far as possible from the interference source.
- Change the orientation of the radio or television antenna.
- Plug the camera into a different electrical outlet.

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Camera Description

Recording quickly

The recording can be performed in a simple operation by just determining the image composition while observing the LCD and pressing the Shutter Release Button. The images are recorded in the SmartMedia memory card.

Confirming an image right after recording

A recorded image can be confirmed with the LCD monitor right after recording by just switching to the playback mode.

Large number of pictures can be taken by switching the mode.

Three types of image quality modes can be set. These modes include the normal mode, the fine mode that sets the recording priority on image quality and the economy mode for recording large numbers of images. The mode can be switched according to the application.

Wide range shooting is possible by using the zoom lens.

Various images such as close-ups of the subject, insertion of backgrounds and a wide range of image composition can be shot using the 3X zoom lens.

Natural color images

The subject can be shot with a natural color under any lighting condition such as outside sunlight or inside room light by using the white balance function.

Close-up shooting is possible.

It is possible to approach a subject as close as a distance of approximately 1 cm^{*}. This type of close-up is called macro shooting and is appropriate for pictures of flowers or insects or other detailed subjects.

*1: When the lens is set to the wide angle ([A] side) position.

Monitoring on TV set

A recorded image can be played back on a TV set by connecting the accessory video connection cable. Dubbing to a video cassette tape and full-color printouts are also possible by connecting the camera to a video or a video printer.

Compact size for easy to carry

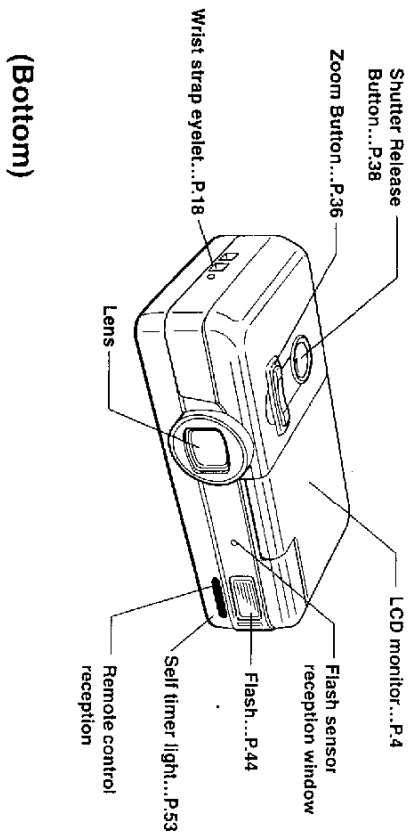
The compact size and light weight of the camera enable easy carrying. This camera has an optional Hard case making it easy to take it with you anywhere.

Images can be transferred to a computer.

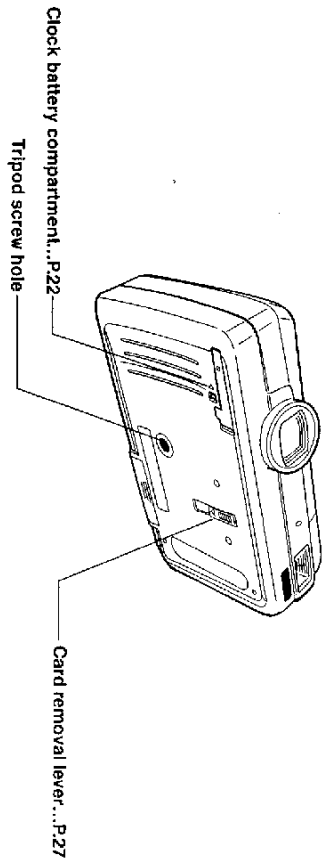
Images can be transferred to a computer by using the Ricoh PhotoStudio Lite software. The input image can be printed out by using a color printer and color copier.

Parts and Names

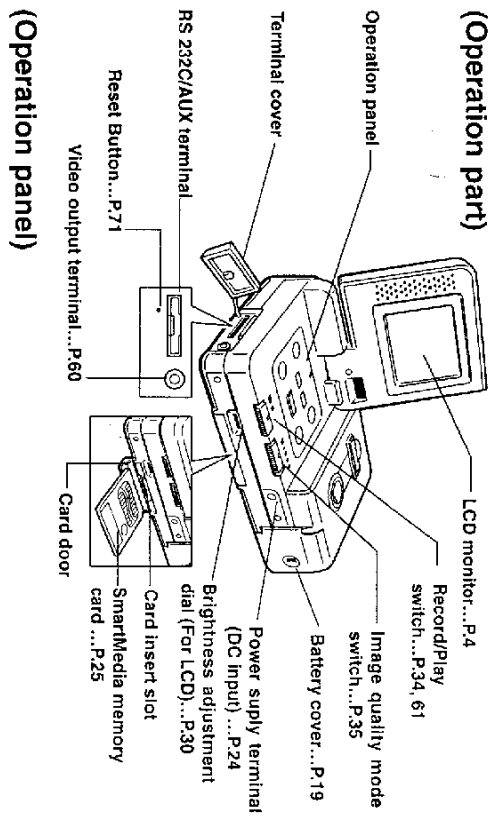
■ Camera main unit (Top)



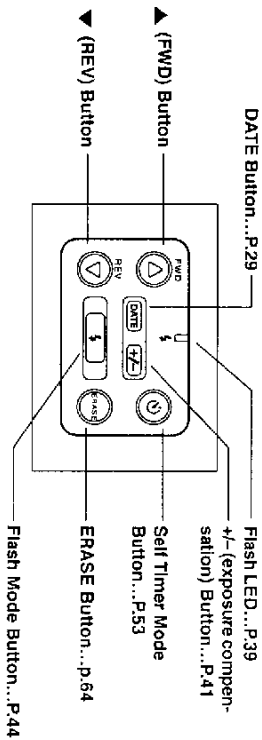
(Bottom)



(Operation part)

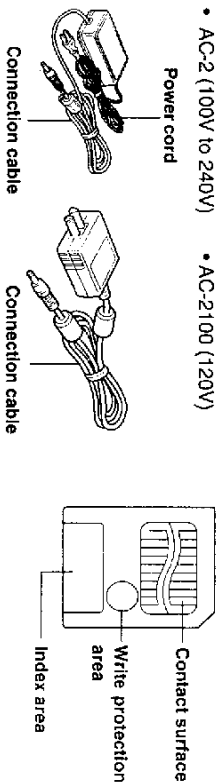


(Operation panel)



■ AC adapter (sold separately)

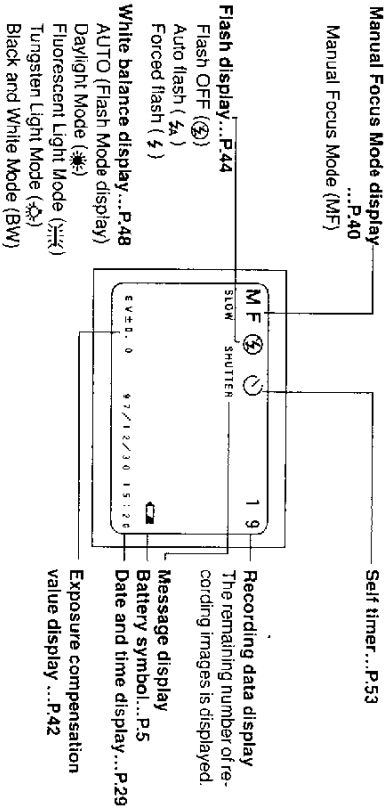
■ SmartMedia memory card



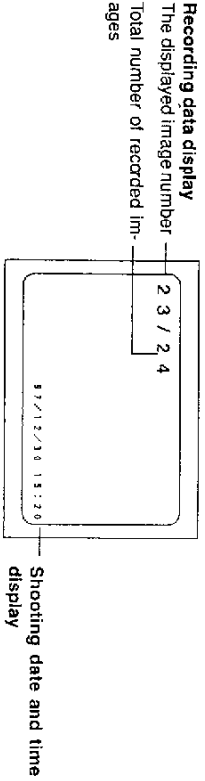
LCD Monitor Display

The camera status such as the battery condition, number of possible recordings, setting mode and other camera conditions are displayed as symbols and numbers on the LCD monitor.

Recording Display



Playback Display



- Note:**
- All data is displayed simultaneously in this figure. However, only the necessary data is displayed.
 - When the LCD monitor is opened, if no camera operations (button or switch operations) are performed for more than approximately two minutes when recording or five minutes when playing back, the "Auto Power OFF" mode is set to conserve energy and the display of the LCD monitor goes off. (The battery is only used slightly in this condition.) Supply the power again or press the Shutter Release Button longer than one second to turn the power on.
 - When the AC adapter is used, the "Auto Power Off" setting does not function.

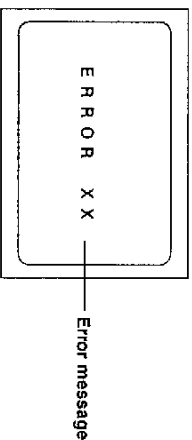
Alarm Display and Contents

When the following warning displays are displayed on the LCD monitor, verify the contents and perform the appropriate countermeasures.

Message	Condition	Description	Reference page
	Lights	This indicates that the batteries are depleted. Prepare new batteries.	P.19
CHECK DATE BATTERY	Flashes	If the message "CHECK DATE BATTERY" is displayed for approximately 3 seconds when the power is turned on, the clock battery is depleted or is not set. Replace or insert the batteries.	P.22

Error Display and Descriptions

When the following error display is indicated on the LCD monitor, verify the contents and perform the appropriate countermeasures.



Error message	Description	Reference page
ERROR RECORD	The record is lost or damaged. Record the image again because the data that was recorded at this time may not be played back correctly. If the error message is still displayed, turn on the power again or press the Reset Button.	P.34 P.71
ERROR ERASE	The erase operation was not performed correctly. Turn off the power by closing the LCD monitor, then turn it on again and take a test image. If the test image data is erased, the incorrectly erased data will also be erased at this time. If the error message is still displayed, press the Reset Button.	P.34 P.63 P.71
ERROR PLAY	The playback failed. Turn on the power again or press the Reset Button.	P.34 P.71
SYSTEM ERROR1 SYSTEM ERROR2 SYSTEM ERROR3	Turn on the power again. Otherwise, press the Reset Button.	P.34 P.71

* When problems cannot be solved even if the countermeasures described above are performed, please contact the store where you purchased the product or the local service office.

* When an error occurs, the power goes off if the Card door is opened. Close the door and then turn the power on again.

TABLE OF CONTENTS

Introduction	1
Camera Description	2
Parts and Names	4
LCD Monitor Display	6
Table of Contents	8
Basic Operation • Quick Reference	12
Safety Precautions	12

Chapter 1. Getting Started

Before Using the Camera	18
Confirming the package contents	18
Attaching the wrist strap	18
Supplying Power to the Camera	19
Inserting batteries	19
Inserting a Lithium Battery	22
Operation on AC Power	23
SmartMedia memory card	25
SmartMedia memory card	25
Loading the SmartMedia memory card	26
Format the SmartMedia memory card	27
Before You Begin Recording	29
Adjusting the date and time	29
Adjusting the LCD	30
Holding the camera	31

Chapter 2. Recording Basics

Basic Picture-taking	34
Picture-taking sequence	34
Turning on the power	34
Selecting the image quality	35
Determine the size of the subject (Zooming)	36
Viewing the LCD Monitor	37
Taking Pictures	38
Exposure compensation	41

Chapter 3. Picture-Taking Applications

Flash Mode	44
Selecting a Flash Mode	44
Flash Off Mode	45
Auto Flash Mode	46
Forced Flash Mode	47

Chapter 4. Picture Playback/Erasing

Setting the White Balance Mode	48
Selecting a White Balance Mode	48
Daylight Mode	49
Fluorescent Light Mode	50
Tungsten Light Mode	51
Black and White Mode	52
Special Functions	53
Using the Self Timer	53
Focus lock shooting	54
Macro Shooting (Close-up shooting)	55
Before Playback	58
Information displayed during playback	58
Connecting to a TV set	60
Image Playback	61
Operation Sequence	61
Image playback	61
Automatic playback	62
Image Erasing	63
Operation Sequence	63
Single-Image erasing	63
Erasing all Images	65

Chapter 5. Additional Information

Changing a Camera Setting	68
Setting the Auto Power-Off Mode	68
Setting the Power Saving Mode	69
Recording the setting contents	70
Returning the setting contents to the initial condition	71
System Configuration Figure	72
Accessories for RDC-300Z	74
Computer and DC Connections	75
Handling Precautions	76
Caring for Your Digital Camera	77
Troubleshooting	78
Using Your Digital Camera in Other Countries	82
Servicing	83
Specifications	85
Number of Recorded Images	87

Basic Operation • Quick Reference

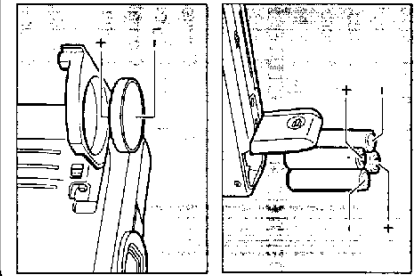
This section describes the basic operations. Refer to the reference pages for further details.

Preparations

Inserting the Batteries Page 19 to 24

1 Insert the batteries.

* When using the AC adapter, connect the AC adapter to the camera unit and then connect the adapter to the wall outlet. See page 23.



Setting the Date and Time Page 29 to 30

1 Open the LCD monitor.

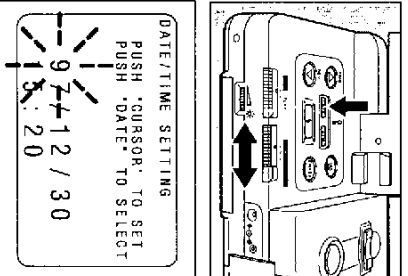
2 Set the datetime setting mode.
Press and hold the DATE Button for more than two seconds.

3 Change the numbers.
Press the ▲ Button or the ▼ Button to change the flashing numbers.

4 Change the position of the flashing number.
Each time the DATE Button is pressed, the numbers to be corrected change.

* Press the DATE Button repeatedly to select (in order) the year, month, date, hour and minute. When the selected date or time designation is flashing, press the ▲ Button or the ▼ Button to set the correct numbers.

5 Start the clock.
After setting the minutes, press the DATE Button again to start the clock.



Picture-Taking

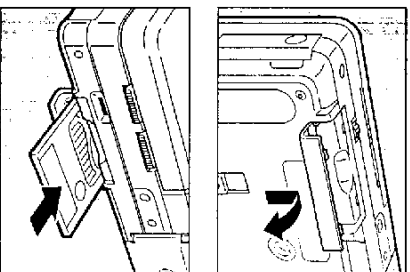
Loading the SmartMedia memory card Page 26 to 27

1 Make sure that the power is turned off.

Make sure that the LCD monitor is closed.

2 Open the Card door and insert the SmartMedia memory card.

* When using a new SmartMedia memory card, always format the SmartMedia memory card. → Page 27



Picture-Taking (Basic picture taking) Page 34 to 42

1 Turn on the power. The recording mode is set.

Open the LCD monitor and slide the RECORD/PLAY switch to the [REC] position.

2 Set the image quality mode.

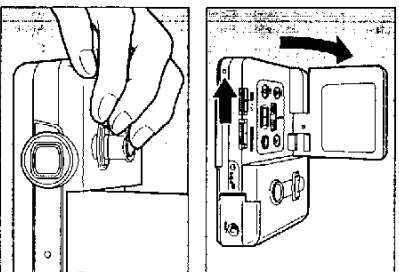
Slide the image quality mode switch and select the image quality mode (F, N or E).

3 Determine the size of the shooting subject.
Press the zoom button and determine the size of the shooting subject.

4 Start taking pictures.

Press the Shutter Release Button halfway down to set the focus.

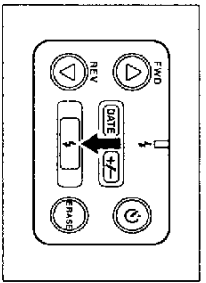
Next press the Shutter Release Button all the way down without releasing your finger from the Shutter Release Button to take a picture.



Erase

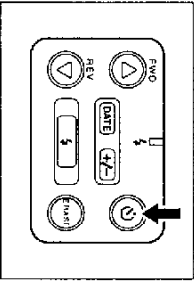
Erasing the Flash Mode Page 44 to 47

- 1 Turn on the power and set the recording mode.
Open the LCD monitor and slide the RECORD/PLAY switch to the [REC] position.
- 2 Change the flash mode.
Press the Flash Mode Button and select either the Flash Off Mode (⊗), Auto Flash Mode (⊕), or Forced-Flash Mode (⊙).
- 3 Take a picture.
Position the camera to frame the subject, and press the Shutter Release Button to take the picture.



Using the Self-Timer Page 53

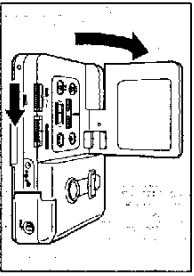
- 1 Turn on the power and set the recording mode.
Open the LCD monitor and slide the RECORD/PLAY switch to [REC].
- 2 Set the Self-Timer Mode.
Press the Self-Timer Mode Button and the self-timer (⊙) symbol will be displayed.
- 3 Take the picture.
Position the camera to frame the subject and press the Shutter Release Button to take the picture.
* The self-timer lamp lights and the shutter is released after approximately 10 seconds.



Playback

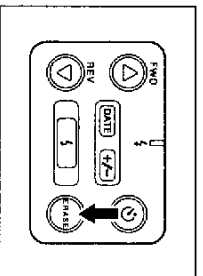
Playing Back an Image Page 61 to 62

- 1 Turn on the power and set the playback mode.
Open the LCD monitor and slide the RECORD/PLAY switch to [PLAY].
- 2 Select the image.
Press the ▲ and ▼ Buttons and select the image to playback.
* If the automatic play function is used, image playback can be performed in order at the set play interval. → Page 62



Erasing an Image Page 63 to 65

- 1 Turn on the power and set the playback mode.
Open the LCD monitor and slide the RECORD/PLAY switch to [PLAY].
- 2 Set the erase mode.
Press the ERASE Button.



- 3 Select the erase method.
Select either [ERASE] or [ERASE ALL] and press the Shutter Release Button.

* Refer to the section "Format of the Smart-Media memory card" on page 27 for further details of the format.

ERASE
CHOOSE WITH "CURSOR"
AND "RELEASE"
▶ ERASE
ERASE ALL
FORMAT CARD
EXIT

Erasing Single Image

- 1 Press the ▲ and ▼ Buttons and select the image to be erased. Press the Shutter Release Button. Repeat step 4 as desired.



Erasing All Images

- 1 Erase the Images.
Press the Shutter Release Button.



ERASE ALL
ERASE ALL IMAGES
ERASE → PUSH "RELEASE"
CANCEL → PUSH "ERASE"

Safety Precautions

Display

Various messages are displayed for this manual and product to enable you to use the product safely and prevent unexpected danger to people and damage to property.

⚠ Warning


This symbol indicates operations which may result in a serious injury or even death if this message is ignored and incorrect operation is performed.

⚠ Caution

This symbol indicates mishandling that may cause injury to the users as well as or damage to objects if this message is ignored.

Display Example





The  symbol indicates the contents of forced or other indicated operations.



Indicates a warning of a prohibited operation.
Specifically prohibited items are indicated in this warning.

● Display example

-  Meaning: Touch prohibited.
-  Meaning: Disassembly prohibited.

Observe the following precautions in order to use this equipment safely.

⚠ Warning



● Turn off the power immediately if a fire, strange smell or abnormal condition occurs. Remove the batteries carefully, being careful to avoid electrical shock or burning. Always remove the electrical plug from the wall outlet when the power is supplied from an electrical outlet. Fire or shock may result otherwise. Contact your nearest service office. Do not continue using this equipment when it is damaged or not operating correctly.



● Turn off the power immediately if foreign matter (metallic objects, water or fluid, etc.) enter the internal parts. Remove the batteries, being careful to avoid electrical shock or burning. Always remove the electrical plug from the wall outlet when the power is supplied from an electrical outlet. Fire or shock may result otherwise. Contact your nearest service office. Do not continue using this equipment when it is damaged or not operating correctly.



- When the LCD monitor is damaged, be careful not to touch the fluid inside the display. If any of the following conditions occur, perform the appropriate countermeasures immediately.
 - If liquid crystals contact the skin, wipe it off the skin and flush the affected area with plenty of water, then wash the area thoroughly with soap and water.
 - If any fluid gets in your eyes, rinse the eyes out with clean water for at least 15 minutes and contact a doctor immediately.
 - If someone drinks the fluid in the display, rinse out the mouth thoroughly with water and drink a large quantity of water and induce vomiting. Then, contact a doctor immediately.



- Observe the following precautions to prevent the batteries from leaking, exploding, catching fire or breaking.
 - Never use any type of batteries that are not specifically recommended for use with this camera.
 - Never dispose of the batteries in a fire, short-circuit the terminals, attempt to disassemble, heat, or recharge the batteries. (Only NiCd or nickel-metal-hydride (NiMH) batteries can be recharged.) Doing so may damage the batteries and cause a fire, injury or environmental contamination.
 - Do not use batteries incorrectly, such as batteries of a different type or name, batteries of a different manufacturer, or old batteries mixed with new batteries.
 - Be sure to maintain the correct polarity (positive [+] and negative [-] poles) when inserting the batteries.
 - Do not solder the batteries. This may damage the batteries and cause a fire, injury or environmental contamination.



- When using rechargeable batteries, do not mix them with other types of batteries or batteries in another charged condition.



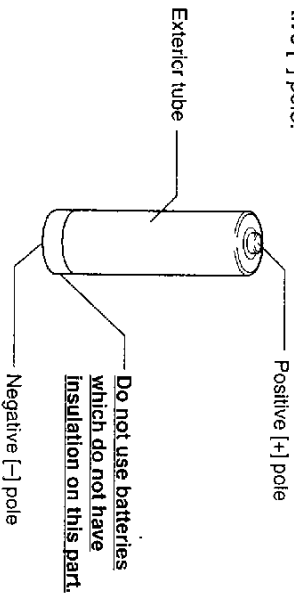
- Be especially careful to store the batteries used in this product in a location which is not accessible to infants or children, to prevent the batteries from being swallowed accidentally. Contact a doctor immediately if the batteries are swallowed accidentally. This may result in severe personal injury.

Warning



Do not use batteries which are in the following conditions as this may lead to leaking, heat generation, fires, explosions or short circuits.

- Do not use batteries which do not have insulation around the negative [-] pole.



- Do not use batteries of which the exterior tube is either broken or peeling off.



- Never leave this product within the reach of infants or children. This condition may cause an accident because infants and children cannot understand the contents described in the sections Safety Precautions and Usage Precautions.



- Do not touch the inside of the camera with your hand because it may be exposed to the internal components due to falling or other damage. The internal high-voltage circuits may cause an electrical shock. Remove the batteries right away, being careful to avoid electrical shock or burns. When the unit is damaged, contact the store where you purchased the product or the service office.



- Never attempt to disassemble, repair or modify the camera by yourself. There are internal high-voltage circuits which may cause severe electrical shock.



- Never use the camera in the bathtub or shower. This may cause fire or electrical shock.



- Do not use the unit near flammable gas, gasoline, benzene, thinner, etc. This may cause an explosion, fire or burns.
- Do not use the camera in an airplane or other location where usage is restricted. Using the camera in these locations may result in an accident.



- When dust accumulates on the electrical plug, wipe it off thoroughly. The dust may cause a fire.
- When using a household electrical outlet, always use the special AC adapter (product name: AC-2, AC-2100 (110V area only), optional). If a non-recommended AC adapter is used, this may cause fire, shock or other damage.



- During travel to foreign countries, do not connect the AC adapter to an electrical voltage transformer. This may cause fire, shock or other damage.

Observe the following precautions in order to use this unit safely.

Caution



● Fluid leaking from a battery can cause skin burns. If you touch a damaged battery, wash your hands with water immediately (do not use soap).
If fluid leaks from the batteries, wipe off the fluid and replace the batteries with new batteries.



● Make sure that the electrical plug is plugged securely into the wall.



● Do not get the camera wet. Do not touch the camera with wet hands. This may cause an electrical shock.



● Do not point the flash unit at the driver of a car, bicycle or train. This may cause an accident.



● To prevent fire and shock, do not use metal objects such as a tweezers to grasp the batteries. This may cause a short-circuit.

Special Products

● When using products that are optional, such as the Ricoh Remote Control Unit and AC adapter, read the section Safety Precautions in the operation manual for each product before operation.

Chapter 1. Getting Started

Before Using the Camera	18
Confirming the package contents	18
Attaching the wrist strap	18
Supplying Power to the Camera	19
Inserting batteries	19
Inserting a Lithium Battery	22
Operation on AC Power	23
SmartMedia memory card	25
SmartMedia memory card	25
Loading the SmartMedia memory card	26
Format the SmartMedia memory card	27
Before You Begin Recording	29
Adjusting the date and time	29
Adjusting the LCD	30
Holding the camera	31

Before Using the Camera

Confirming the package contents

Check the packaging to ensure you have received the following items. Read the warranty, then store it in a safe place.

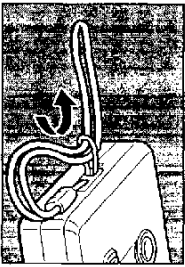
• Digital Camera (main unit)	1
• Video connection cable	1
• Soft Case	1
• AA Alkaline Batteries	4
• Clock battery	1
• SmartMedia memory card	1
• Wrist Strap	1
• Operation Manual (this document)	1
• Warranty card	1

Attaching the wrist strap

For security, always use the wrist strap when carrying the camera.

- 1 To attach the wrist strap, loop the leading end through the wrist strap eyelet of the camera.

Important — Avoid swinging the camera when carrying it.



Supplying Power to the Camera

The procedures for loading the batteries (alkaline batteries, lithium battery) are explained in this section. Electrical power supply by standard AC household current is also explained in this section.

Inserting batteries

Insert four AA alkaline batteries to begin using the camera. It is recommended to use the same type of batteries which are included in the package.

Note: The camera can also be powered by commercially available rechargeable nickel cadmium (NiCad) batteries or nickel-metal-hydride (NiMH) batteries. (It is recommended to use a high capacity type of battery for NiCad batteries.)

Warning



- Observe the following precautions to prevent the batteries from leaking, exploding, catching fire or breaking.
- Never use any type of batteries that are not specifically recommended for use with this camera.
- Never dispose of the batteries in a fire, short-circuit the terminals, attempt to disassemble, heat, or recharge the batteries. (Only NiCad or nickel-metal-hydride (NiMH) batteries can be recharged.) Doing so may damage the batteries and cause a fire, injury or environmental contamination.
- Do not use batteries incorrectly, such as batteries of a different type or name, batteries of a different manufacturer, or old batteries mixed with new batteries.
- Be sure to maintain the correct polarity (positive [+] and negative [-] poles) when inserting the batteries.
- Do not solder the batteries. This may damage the batteries and cause a fire, injury or environmental contamination.



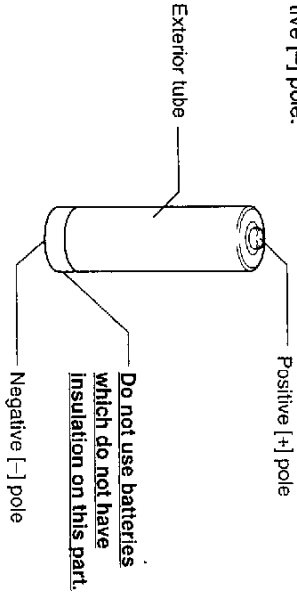
- When using rechargeable batteries, do not mix them with other types of batteries or batteries in another charged condition.



- Be especially careful to store the batteries used in this product in a location which is not accessible to infants or children, to prevent the batteries from being swallowed accidentally. Contact a doctor immediately if the batteries are swallowed accidentally. This may result in severe personal injury.

⚠ Warning

- Do not use batteries which are in the following conditions as this may lead to leaking, heat generation, fires, explosions or short circuits.
- Do not use batteries which do not have insulation around the negative [-] pole.



- Do not use batteries of which the exterior tube is either broken or peeling off.

⚠ Caution



- Fluid leaking from a battery can cause skin burns. If you touch a damaged battery, wash your hands with water immediately (do not use soap).
- If fluid leaks from the batteries, wipe off the fluid and replace the batteries with new batteries.

Rechargeable batteries

- Before using commercially available NiCad or NiMH batteries, read the safety precautions provided with each product thoroughly.

Important

- Use only specified AA-type batteries.
- Never use manganese batteries, lithium batteries or any other type of batteries that are not specifically recommended. Use of such batteries may damage the camera or LCD monitor.
- Some batteries may become hot after a long period of use. Remove the batteries after they have cooled off.
- Do not use batteries available in the market which are exclusively for a particular purpose (for example, those marked "CD player batteries") in this product.
- When purchasing batteries, carefully read the battery instructions and check that the batteries can be used for this product.

- After confirming that the LCD monitor is closed, slide the lever to open the battery cover.

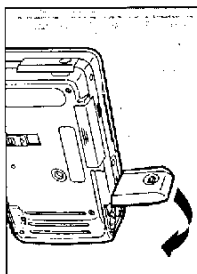
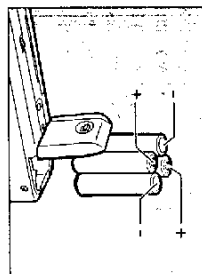
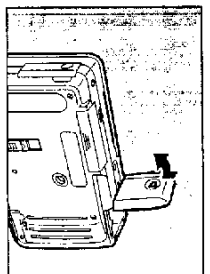
Note: See "Turning on the power" on page 34.

- Insert the batteries.

Important

- Carefully note the proper battery polarities (positive [+] poles and negative [-] poles).

- Close the battery cover.




- Recording and playback capacities

The following table shows the number of recordable images and the playback time available with AA alkaline batteries (at temperatures between 10°C and 30°C).
<These capacities are based on Ricoh's measurement standards.>

Type of battery	Number of recordable images	Standard playback time
AA alkaline batteries	Approximately 140 images	Approximately 2 hours

- The battery life varies according to flash usage and other variables.
- Results may vary according to the type and brand of battery.
- Results may vary according to the type of SmartMedia memory card that is used.

Note:

- Whenever you do not have access to an electrical outlet, always carry a spare set of batteries.
- The battery symbol () appears on the display panel to indicate that the batteries are weak or depleted. Prepare spare batteries.
- For rechargeable NiCad or NiMH batteries, the time between lighting of the battery symbol and complete depletion of the batteries is shorter than when alkaline batteries are used. The batteries run out quickly after the symbol lights.

Safety Precautions

- Do not use damaged batteries or batteries that are near the end of their service lives.
- Do not subject the batteries to strong impact.

Inserting a Lithium Battery

The lithium battery (CR2025) maintains the set date and time. Insert the lithium battery before starting to operate the camera.

⚠ Warning

- Observe the following precautions to prevent the batteries from leaking, exploding, catching fire or breaking.
- Never use any type of batteries that are not specifically recommended for use with this camera.
- Never dispose of the batteries in a fire, short-circuit the terminals, attempt to disassemble, heat, or recharge the batteries. (Only NiCad or nickel-metal-hydrate (NiMH) batteries can be recharged.) Doing so may damage the batteries and cause a fire, injury or environmental contamination.
- Be sure to maintain the correct polarity (positive [+] and negative [-] poles) when inserting the batteries.



- Be especially careful to store the batteries used in this product in a location which is not accessible to infants or children, to prevent the batteries from being swallowed accidentally. Contact a doctor immediately if the batteries are swallowed accidentally. This may result in severe personal injury.

⚠ Caution

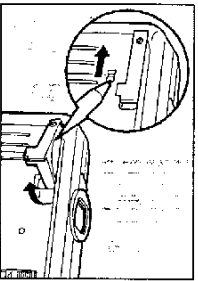


- To prevent fire and shock, do not use metal objects such as tweezers to grasp the batteries. This may cause a short-circuit.

- ➊ After confirming that the LCD monitor is closed, slide the lever with a ball point pen or similar item in the direction of the arrow.

Note: See "Turning on the power" on page 34.

- ➋ Pull out the battery holder.



- ➌ Insert the lithium battery in the battery holder so that the positive (+) pole surface is facing down.

Important

- Use the lithium battery (CR2025) that is installed in the camera. Do not use any other types of batteries that are not specifically recommended.
- Be sure to maintain the correct polarity (positive [+] poles and negative [-] poles) when inserting the batteries.

- ➍ Close the battery holder.

Note: If the message "CHECK DATE BATTERY" is displayed for approximately 3 seconds after the power is turned on, the battery is worn out. Replace the battery.

■ Safety Precautions

- The lithium battery (CR2025) maintains the set date and time. Battery life is approximately one year.
- To prevent imperfect contact, wipe off the batteries with a dry cloth before inserting them.
- Dispose of the batteries according to the local ordinances and regulations.

■ Operation on AC Power

If you intend to use your camera to record or playback over a long period of time, it is recommended to connect the camera to a household electrical outlet with the optional AC adapter.

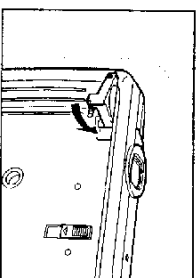
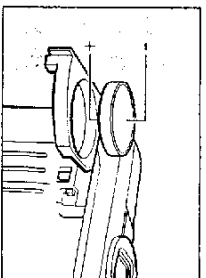
⚠ Warning



- When dust accumulates on the electrical plug, wipe it off thoroughly. The dust may cause a fire.
- When using a household electrical outlet, always use the special AC adapter (product name: AC-2, AC-2100 (110V area only), optional). If a non-recommended AC adapter is used, this may cause fire, shock or other damage.



- During travel to foreign countries, do not connect the AC adapter to an electrical voltage transformer. This may cause fire, shock or other damage.



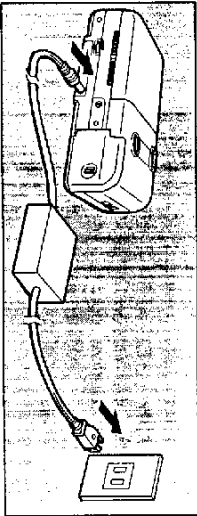
⚠ Caution



- Make sure that the electrical plug is plugged securely into the wall.

About the AC Adapter

Be sure to read the safety precautions in the manual supplied with the AC adapter.



1 Confirm that the LCD monitor is closed.

Note: See "Turning on the power" on page 34.

2 Connect the connection cable of the AC adapter to the power terminal (DC input) of the camera.

3 Insert the plug into an electrical outlet.

Note: When the AC adapter is used with the camera, it becomes the active power source, even when the batteries are installed in the camera.

Important

- Plug the power cord firmly into the power source and into the camera. If the power plug or connecting cable loosens during recording, data could be lost or damaged.
- When the AC adapter is connected to the camera, the power supply to the camera is temporarily interrupted during the change of the power source. If this occurs while the camera is in use such as during recording, playback or erasing, data can be damaged or lost. Therefore, always turn off the power of the camera before connecting the AC adapter.

SmartMedia memory card

This section explains the types and applications of the SmartMedia memory card.

SmartMedia memory card

The shot images are recorded in the SmartMedia memory card as data.

The following types can be used.

- Capacity: 2MB, 4MB, 8MB
- Voltage: 3.3V, 5V

Note:

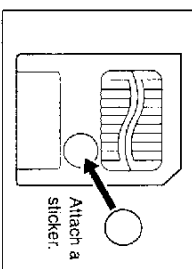
- There are various types of SmartMedia memory card. When a commercial product is used, always verify the manufacturer of the SmartMedia memory card.
- The SmartMedia memory card can be loaded directly in the PC slot of a computer if an optional PC card adapter is used.

■ Preventing recording errors

Attach the write protect sticker to the SmartMedia memory card to prevent erasing the recorded data by mistake. If the write protect sticker is attached, recording and erasing cannot be performed.

When performing recording and erasing, remove the write protect sticker.

Note: When the write protect sticker gets dirty, wipe it with a dry soft cloth.



■ Usage applications

- SmartMedia memory card
- Do not remove the SmartMedia memory card while images are being recorded or erased.
- Do not bend, apply strong force or shock, or drop the SmartMedia memory card.
- Do not use or store the SmartMedia memory card in an environment which is subject to static electricity or where electric noise is easily produced.
- Do not use or store the SmartMedia memory card in locations subject to high temperature or humidity, dust or corrosion.
- Be careful so dust or debris does not attach to the contact surface of the SmartMedia memory card. If the SmartMedia memory card gets dusty, wipe the dust off with a dry soft cloth.
- Be careful so dust or debris does not enter the card slot of the SmartMedia memory card.
- Do not place the SmartMedia memory card near a heat source or into a fire, because this is extremely dangerous.
- A SmartMedia memory card has a finite service life. If it is used for a long period of time, it may not be possible to record new images.

- **Data**
- The recorded data may be erased when the SmartMedia memory card is incorrectly used, the SmartMedia memory card is influenced by static electricity or electric noise, or the SmartMedia memory card malfunctions or needs repairs. Please note that Ricoh Company, Ltd. assumes no responsibility for problems resulting from data loss due to data erasure.
- Do not remove the batteries, turn off the power or connect the AC adapter while recording is performed in the SmartMedia memory card. This may damage the data in the SmartMedia memory card.
- It is recommended to copy all important data to another media such as a floppy disk or a hard disk.

Loading the SmartMedia memory card

Confirm that the power of the camera is turned off before loading the SmartMedia memory card.

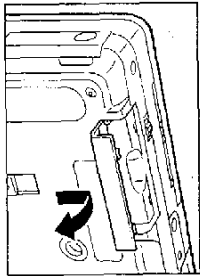
Important

- Do not load or remove the SmartMedia memory card while the power of the camera is turned on.

■ Loading the SmartMedia memory card

- 1 After confirming that the LCD monitor is closed, slide the Card door and open it.

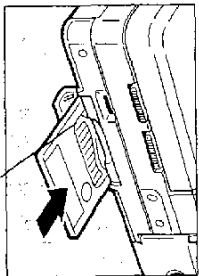
Note: See "Turning on the power" on page 34.



- 2 Insert the SmartMedia memory card in the card slot and close the Card door.
 - Position the SmartMedia memory card so the contact surface of the SmartMedia memory card faces up and insert it all the way into the slot.

Note:

- Do not mistake the insertion direction of the SmartMedia memory card. Do not insert the SmartMedia memory card at an angle.
- When the SmartMedia memory card is placed in the slot, if it is not inserted at the way or the insertion direction is incorrect, the message "NO CARD" is displayed. If the Card door is not closed securely, the message "CARD DOOR OPEN" is displayed.

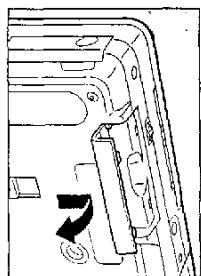


Contact surface

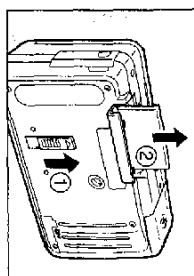
■ Removing the SmartMedia memory card

- 1 After confirming that the LCD monitor is closed, slide the Card door and open it.

Note: See "Turning on the power" on page 34.



- 2 Remove the SmartMedia memory card by operating the card removal lever as described below.
 - 1 Slide the lever in the direction of the arrow mark.
 - 2 Pull out the SmartMedia memory card in the correct direction and not at an angle.
- 3 Close the Card door.



Important

- Do not remove the SmartMedia memory card while data is being recorded or erased. The data recorded in the card may be damaged.
- Keep the SmartMedia memory card in an antistatic film case or other storage case after removing it from the camera.

Format the SmartMedia memory card

Before using a new SmartMedia memory card or a SmartMedia memory card which was used in another device such as a computer, it is necessary to format it in the camera.

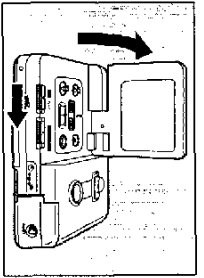
Important

- When the SmartMedia memory card is formatted, all the data recorded in the SmartMedia memory card is erased.
- Do not format the SmartMedia memory card in a computer.

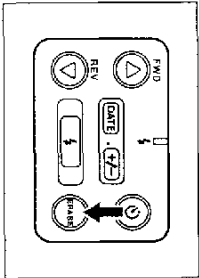
- 1 Load the SmartMedia memory card to be formatted.

Note: See "Loading the SmartMedia memory card" on page 26.

- Open the LCD monitor, and slide the RECORD/PLAY switch of the camera to [PLAY].



- Press the ERASE Button. The erase mode is set.

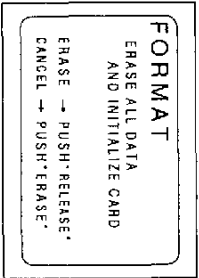
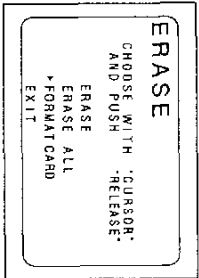


- Press the ▲ Button or ▼ Button to select "FORMAT CARD" and press the Shutter Release Button. The card format mode is set and a confirmation message is displayed.

Note: To cancel the format, select "EXIT" and press the Shutter Release Button.

- Press the Shutter Release Button. The SmartMedia memory card is formatted.

Note: To cancel the format, press the ERASE Button.



Before You Begin Recording

This section explains the initial camera adjustment and basic camera operations.

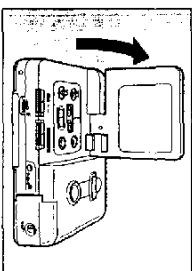
Adjusting the date and time

The camera records the date and time of every image that is recorded. You should set the correct date and time when you first begin using your camera, as well as when you travel to a different time zone.

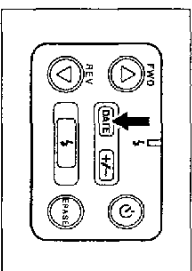
- Note:*
- Input the date and time in the following format: yymmdd
 - The camera uses a 24-hour clock, where 0:00 indicates midnight and 12:00 indicates noon.

- Open the LCD monitor.

Note: The Recording/Playback switch can be set to either [REC] or [PLAY].



- Press and hold the DATE Button for more than two seconds. The date setting mode is set.



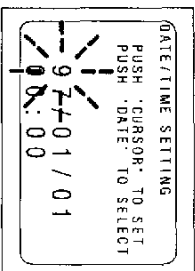
- Press the ▲ Button or the ▼ Button to change the flashing numbers.

To advance the number

Press the ▲ Button. Press and hold the button to fast-forward the numbers.

To reverse the number

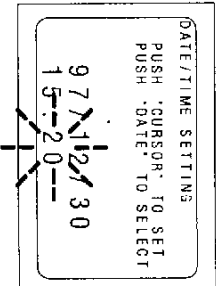
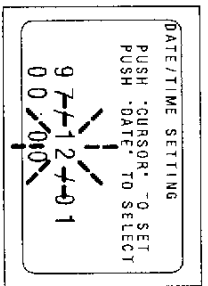
Press the ▼ Button. Press and hold the button to reverse the numbers rapidly.



- Press the **DATE Button** so the item to be corrected starts flashing.
Repeat operation procedures 3 and 4 to correct the necessary items.

Note: Every time the DATE Button is pressed, the year, month, day, hour and minute flashes in order.

- After setting the minutes, press the **DATE Button again**.
The clock starts and the LCD monitor display re-turns.



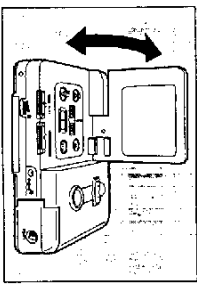
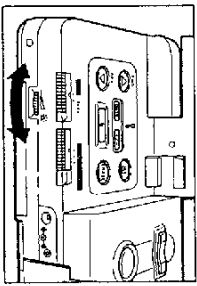
Adjusting the LCD

This section explains how to adjust the brightness and angle of the LCD monitor.

- Turn the brightness adjustment dial to the right and left to adjust the appropriate brightness.

The brightness increases when turning the brightness adjustment dial to the right. It decreases when turning the brightness adjustment dial to the left.

- Move the LCD to the front and rear to obtain the optimal angle.
The LCD monitor can be adjusted between 60° and 140°.



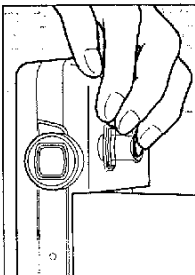
Holding the camera

Unintentional movement of the camera during shooting will result in blurred pictures. For best results, hold the camera steady when pressing the Shutter Release Button. Be especially careful not to shoot a blurred picture when zooming.

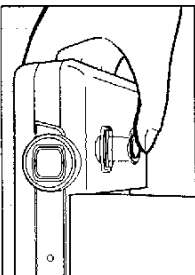
- Hold the camera securely with both hands and hold your elbows lightly against your side. Position the camera towards the subject and look at the LCD monitor.

- Place your fingers lightly on the Shutter Release Button.

- When holding the camera in a high position: _____



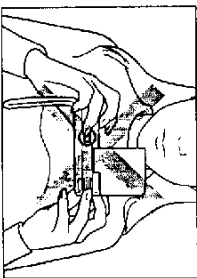
- When holding the camera in a low position: _____



Important
• If you hold your finger too far from the Shutter Release Button and press the button too fast, the camera may shake and a blurred picture may result.

Note: Holding the camera vertically will result in the subject being displayed sideways.

Be sure to keep your fingers or the wrist strap away from the camera lens and flash window.



Chapter 2. Recording Basics

Basic Picture-taking	34
Picture-taking sequence	34
Turning on the power	34
Selecting the image quality	35
Determine the size of the subject (Zooming)	36
Viewing the LCD Monitor	37
Taking Pictures	38
Exposure compensation	41

Basic Picture-taking

This chapter explains the basic operations and other information needed to record images.

Picture-taking sequence

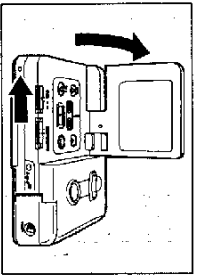
The basic operation procedures are performed as follows.

- Load the SmartMedia. → Page 25
- Turn on the power:
 - Open the monitor and then slide the Recording/Playback switch to the [REC] side. → Page 34.
- Selecting the image quality mode.
 - Select the desired image quality of either F, N or E. → Page 35.
- Determine the size of the subject.
 - Operate the zoom button and select the size of the subject. → Page 36
- Confirm the image size in the LCD monitor.
 - Look at the LCD monitor and confirm the size of the object. → Page 37
- Take the picture.
 - Press the Shutter Releases Button to record the images. → Page 38.

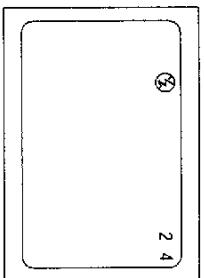
Turning on the power

The power is turned on by opening the LCD monitor. (Approximately 60°)

- Open the LCD monitor and slide the RECORD/PLAY switch to the [REC] side. The lens cover opens and the power is turned on.



- Note:**
- When the power is turned on, the recorded data display and the flash mode setting are displayed on the monitor in approximately three seconds.
 - When the LCD monitor is closed, the power turns off and the lens cover closes.



Tips: Auto Power-Off Function
When the LCD monitor is opened, if no camera operation (button or switch operations) are performed for more than approximately two minutes for recording and five minutes for playing, the "Auto Power Off" mode is set to conserve energy and the display of the LCD monitor goes off. The battery is only used, slightly, in this condition. Supply the power again or press the Shutter Releases Button, longer than one second, to turn the power on. The Auto Power-Off setting can be canceled. See "Setting the Auto Power-Off Mode" on page 68 for further details.
* The "Auto Power Off" function does not operate when the AC adapter is used.

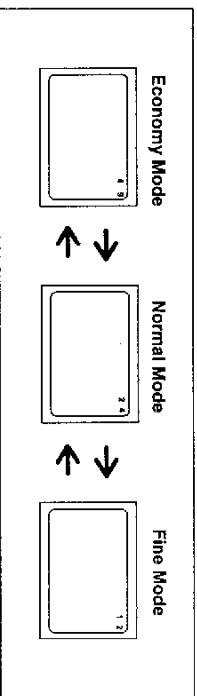
Note: When the Power-Off Memory operates, the setting contents of the FLASH MODE, WHITE BALANCE MODE, AUTO POWER-OFF MODE, POWER SAVING MODE and AUTOMATIC PLAYBACK are saved at the values that were set just before the power was turned off. See "Recording the setting contents" on page 70 for further details.

Selecting the image quality

This digital camera uses compression and decompression methods that allow a large amount of information to be recorded. N (Normal) mode is standard. F (Fine) mode gives priority to picture quality and E (Economy) mode gives priority to the number of images that can be recorded. You can select the desired image quality for each image that is recorded. The number of pixels is set to the VGA resolution (640 (H) x 480 (V)).

Mode display on the monitor

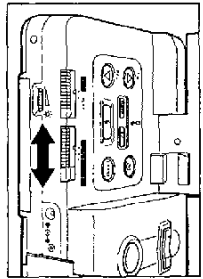
Slide the image quality mode switch and set the mode.



* If the image quality mode is switched, the number of recording images changes.

■ Selecting the Image quality

- 1 Slide the image quality mode switch and select the image quality mode (F, N and E). The number of images that can be recorded is displayed in the recording data display on the LCD monitor.



● Standard Data

Image Quality Mode	Data Size/Image
F Mode	Approx. 160 KB/image
N Mode	Approx. 80 KB/image
E Mode	Approx. 40 KB/image

Note: The following chart indicates the maximum number of images that can be recorded when the image quality mode is switched.

Image Quality Mode	Number of Recorded Images
F Mode	Approx. 12 images
N Mode	Approx. 24 images
E Mode	Approx. 49 images

* With 2MB SmartMedia memory card.

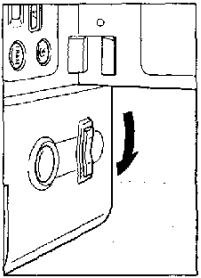
See "Number of recording images" on page 87 for further details of the possible number of recording images classified by the smart media capacity and the image quality mode.

Determine the size of the subject (Zooming)

If the zoom button is operated, the size of the subject in the LCD monitor can be changed without changing the distance to the subject. (45 to 135 mm, equivalent to a 35 mm camera)

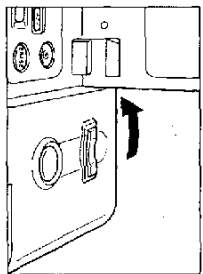
■ Enlarging the subject.

- 1 Press the Zoom Button to the [▲] side. The subject is enlarged. This condition is called "Tele-photo".



■ Reducing the subject.

- 1 Press the Zoom Button to the [▼] side. The subject is reduced. This setting is called the "wide angle" setting. In the initial setting the camera is set to the wide angle setting.



Viewing the LCD Monitor

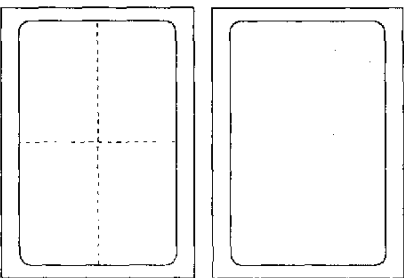
Look at the LCD monitor and frame the subject.

● Shooting range frame

Place the subject to be shot in the LCD monitor.

● Auto focus range

The focusing is performed in this range. This range is located in the center of the LCD monitor as shown in the figure.



Note: The range in the LCD monitor above is indicated using dotted lines and the area in the shadow for the explanation in the figure. These dotted lines and area in the shadow are not actually displayed on the LCD monitor.

Taking Pictures

This section explains the basic operations and other information needed to record images.

Note: See "Holding the Camera" on page 31.

1 Look through the LCD monitor and position the camera to compose the image.

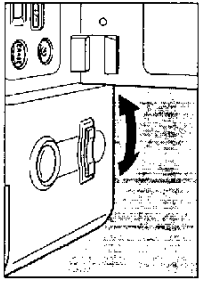
Set the Zoom Button to the wide angle ([Z]) side to take pictures of subjects at distances shorter than approximately 20 cm (7.9 inch).

Note: See "Macro Shooting" on page 55.



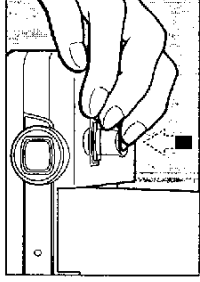
2 Press the Zoom Button and set the size of the subject.

Note: Refer to "Determine the size of the subject" ("Zooming") on page 36 and "Viewing the LCD monitor" on page 37.



3 Press the Shutter Releases Button halfway down with your finger tip.

The Shutter Releases Button has two pressing levels. When the button is pressed halfway down, the auto focus function operates and the focusing is performed. The focus, exposure and white balance are fixed at this point. While the autofocus is performed, position the camera securely for shooting so the picture is not blurred.



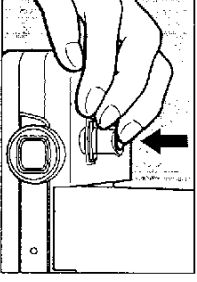
• Displayed message

It is recommended to take pictures in the S Mode or use the flash when the message "SLOW SHUTTER" is displayed because the picture may blur easily.

Note: See "S Mode" on page 41, "Flash Mode" on page 44.

4 Without releasing your finger, press the Shutter Releases Button all the way down.

The self-timer lamp and flash lamp light during image recording to indicate that an image is recorded. The message "NOW RECORDING" is displayed on the LCD monitor. If the image is recorded, the remaining number of images that can be recorded is displayed on the LCD monitor.



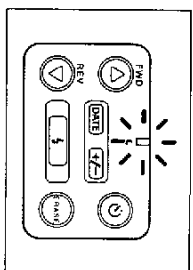
Important

- Do not turn off the power of the camera by closing the LCD monitor or performing other operations.
- If the power is turned off while the recording is performed, the image is not recorded.

• When Forced Flash or Auto Flash is set:

When taking a flash photo in dark locations, the flash LED lights when the Shutter Releases Button is pressed halfway down.

Note: The Flash LED flashes when the flash is charging. A picture cannot be taken at this time.



■ Cancellation of Pre-recorded image

The image is displayed on the LCD monitor if the Shutter Release Button is pressed all the way and the shutter is released. If you don't like the image, you can cancel it before it is recorded to the SmartMedia memory card.

1 Press the ERASE Button while the image is displayed.

The image is not recorded to the SmartMedia memory card.



The picture image that was taken is displayed if the Shutter Release Button is pressed all the way and released.

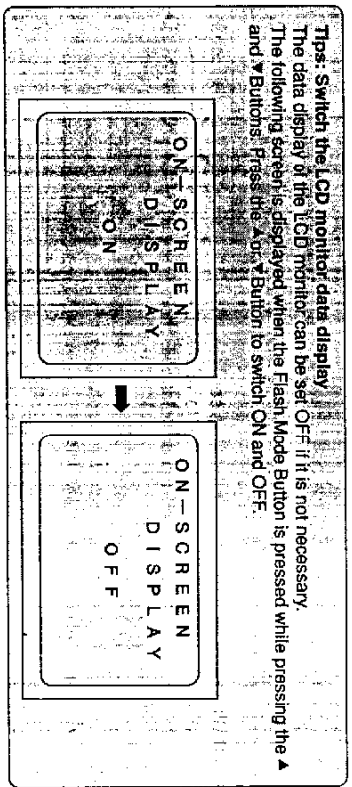
Important

- Once "NOW RECORDING" is displayed on the LCD monitor, the pre-recorded image cannot be cancelled.

■ Tips: When the camera is not used for a long period of time:

When the power is supplied, if no camera operation (button or switch operations) are performed for more than approximately two minutes for recording or five minutes for playing, the Auto Power OFF Mode is set and the display of the LCD monitor becomes dark. Set the Auto Power-Off function off if a certain amount of time is required until a picture can be taken. Prepare a spare set of batteries because the batteries may be worn out if they are used for a long period of time. Connect the optional AC adapter to use the camera when power is supplied from a household electrical outlet.

Note: See "Setting the Auto Power-Off Mode" on page 65.



Tip: Switch the LCD monitor data display. The data display of the LCD monitor can be set OFF if it is not necessary. The following screen is displayed when the Flash Mode Button is pressed while pressing the ▲ and ▼ Buttons. Press the ▲ or ▼ Button to switch ON and OFF.

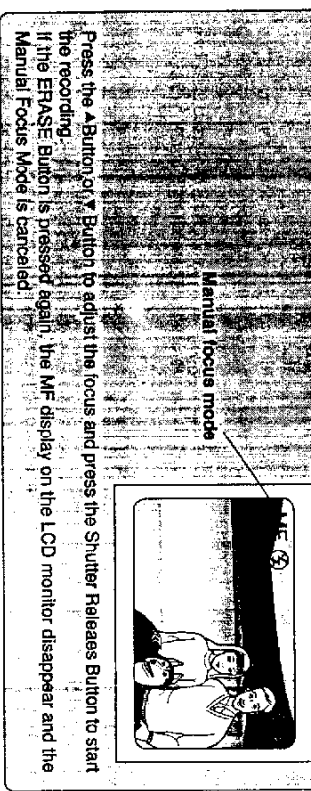
Subjects which are difficult to focus

- The following subjects may be difficult to focus.
 - Subjects have no contrast such as the sky, white walls and car hoods.
 - Subjects which have only horizontal stripes but no indentations.
 - Subjects that move rapidly.
 - Subjects with low brightness (dark location).
 - Subjects in a bright backlight condition or which have reflected light.
 - Subjects which flicker such as fluorescent light.
- When shooting these kinds of subjects, focus on another subject one time which has a same distance from the camera, fix the focus and then shoot the pictures.

Note: Refer to "Focus lock shooting" on page 54.

Manual Focus shooting

The focus is performed manually in this method. Press the ERASE Button to display the MF on the LCD monitor.



Press the ▲ Button or ▼ Button to adjust the focus and press the Shutter Releases Button to start the recording. If the ERASE Button is pressed again, the MF display on the LCD monitor disappears and the Manual Focus Mode is canceled.

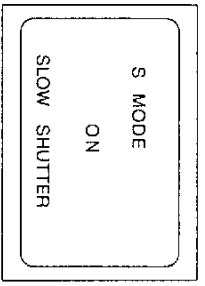
Important — The Manual Focus Mode cannot be set while the Exposure Compensation Mode is set. Cancel the Exposure Compensation Mode and then set the Manual Focus Mode.

S Mode

The S Mode increases the shutter speed when taking pictures in dark locations. This mode may reduce the blurring if it is used when taking pictures of moving objects or if the Shutter Releases Button is pressed halfway down and the message "SLOW SHUTTER" is displayed on the LCD monitor.

- 1 Confirm that the recording mode is set and while pressing the ▲ Button, press the DATE Button.
- 2 Press the ▲ or ▼ Button and ON will be displayed.

The S Mode will be set if the Shutter Releases Button is pressed or if the camera is not operated for approximately three seconds. The picture will be taken in the S Mode if the Shutter Releases Button is pressed.



Canceling the Mode

Perform the same operation described above to set the [OFF] mode.

Note

- Set the Power Off Memory (see page 69) to ON to maintain the S Mode setting.
- Even if the Shutter Releases Button is pressed halfway down and the message "SLOW SHUTTER" is displayed, the S Mode is switched and a picture can be taken.
- A certain amount of random noise may appear as fluctuations in the images taken in the S Mode.

Exposure compensation

Normally, if the subject is in the center of the shooting object the backlight compensation is performed automatically and the shooting can be performed. However, if there is a significant difference in brightness between the background and the subject or backlight condition, the subject may be underexposed (too dark) or overexposed (too light). In such cases, perform the exposure compensation. This function allows you to intentionally underexpose or overexpose an image.

- **Exposure compensation range**
± 2.0 EV (in 0.5 EV steps)
- **Shooting with backlighting**
When the background is bright, the subject is underexposed. In this case, adjust the exposure by increasing the value (positive (+) compensation).

Important — In backlit conditions, if the subject is not placed at the center of the shooting range, the camera cannot determine the backlit conditions. If this occurs, perform the exposure compensation.

● **Shooting white/bright images**

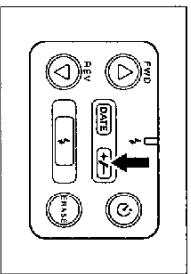
When shooting an image which has large white/bright area, the entire image is underexposed. The image of the subject is recorded as too dark and light-colored subjects are recorded as grayish. In this case, increase the value to the positive (+) side to compensate the exposure.

● **Shooting dark images**

When shooting an image that has large dark area, the entire image is overexposed. The image of the subject is recorded as too dark and dark-colored subjects are recorded as grayish. In this case, increase the value to the negative (-) side to compensate the exposure. Follow the same procedures as when shooting an image of a person under direct light.

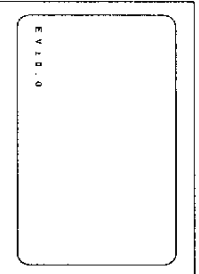
■ **Exposure compensation setting**

- ① Press the +/- Button to display the exposure compensation value on the LCD monitor.



- ② Press the ▲ or ▼ Button to set the compensation value to be set. After adjusting the value, take the picture.

Adjusting the exposure by 0.5 EV
Press the ▲ Button.



Reversing the adjustment value by 0.5 EV
Press the ▼ Button.

To cancel the setting
Press the +/- Button again.

Important

- About the exposure compensation
To confirm the effect of the exposure compensation on the recorded image, watch the image that appears on the screen after the picture is taken, or playback the screen.
- The manual focus adjustment cannot be performed while the Exposure Compensation Mode is set. After the manual focus adjustment is completed, set the exposure compensation.

Chapter 3. Picture-Taking Applications

Flash Mode	44
Selecting a Flash Mode	44
Flash Off Mode	45
Auto Flash Mode	46
Forced Flash Mode	47
Setting the White Balance Mode	48
Selecting a White Balance Mode	48
Daylight Mode	49
Fluorescent Light Mode	50
Tungsten Light Mode	51
Black and White Mode	52
Special Functions	53
Using the Self Timer	53
Focus lock shooting	54
Macro Shooting (Close-up shooting)	55

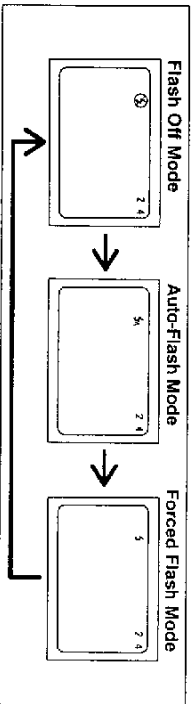
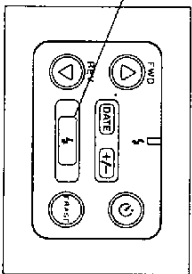
Flash Mode

This section explains how to change the Flash Mode. You can select the Flash Mode best suited to the lighting conditions.

Selecting a Flash Mode

Press the Flash Mode Button to select the desired mode.

Flash Mode Button:
Sets the Flash Mode.
The Flash Off Mode is set in the initial setting.



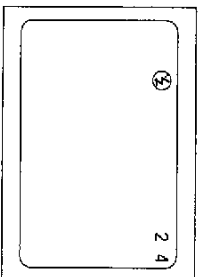
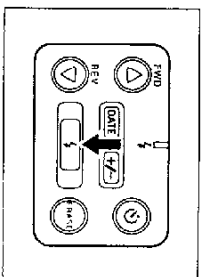
- Important**
- The Flash Mode cannot be changed when the White Balance Mode is set to the Daylight, Fluorescent light, Tungsten light and Black and White Modes (Flash Off Mode is set automatically). Change the Flash Mode after changing the White Balance Mode to AUTO.
 - The light from the flash appears red in the picture if the flash discharges on the subject at a short distance (approximately less than 0.6m). The subject is overexposed and the image becomes excessively white. Set the Flash Off Mode in this case.
 - Set the Power Off Memory ON to maintain the Flash Mode setting. → See "Recording the setting contents" on page 70.

Flash Off Mode

If this mode is used, the flash will not discharge even in dark locations. This feature is convenient when you wish to take a picture where flash photography is prohibited. It is also convenient for using the available room light when taking a picture.

- 1 Press the Flash Mode Button until the [Ⓣ] symbol appears on the LCD monitor.

- 2 Press the Shutter Release Button.
The camera will take a picture without the flash discharging.



- Important**
- In dim light, the camera's shutter speed is automatically reduced and the message "SLOW SHUTTER" is displayed. To prevent a blurred picture, hold the camera steadily or stabilize it with a tripod. Be careful to hold the camera steady so a blurred picture is not taken when the zoom function ([Z] side) is used.

Cancelling the Mode

Press the Flash Mode Button to cancel the mode.

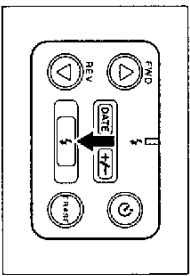
Auto Flash Mode

The flash discharges automatically when shooting in dark locations or in backlighting. Take the photo according to the lighting conditions.

1 Press the Flash Mode Button to display the 4A mark on the LCD monitor.

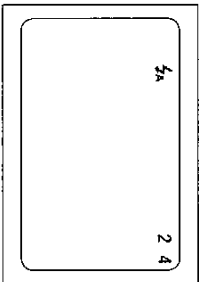
When the flash discharges when shooting in a dark location, press the Shutter Release Button halfway down and the Flash LED will light.

Note: The flash lamp flashes while the flash is recharging. A photo cannot be taken at this time.



2 Press the Shutter Release Button.

The flash will discharge automatically in dark locations or in backlighting.



Canceling the Mode

Press the Flash Mode Button to cancel the mode.

Flash Distance

The shooting range is approximately 0.6 to 3.0m if the auto flash is used to shoot a picture. If the flash light does not reach the subject, a dark underexposed image may result.

Important

- If the shooting distance to the subject is less than approximately 0.6m, the subject may be overexposed and appear excessively white. Set the Flash Off Mode when this occurs.

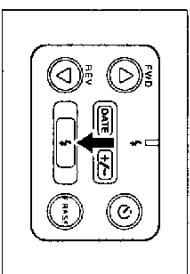
Forced Flash Mode

When taking photographs of people under strong light or with backlighting, dark shadows may appear on the faces in the image. This mode is used to soften shadows. The flash is discharged under all lighting conditions.

1 Press the Flash Mode Button until the [F] symbol appears on the LCD monitor.

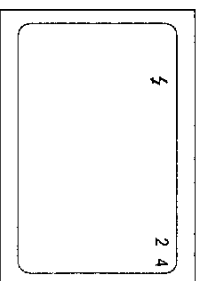
The flash lights when the Shutter Release Button is pressed halfway down.

Note: The Flash LED flashes while the flash unit is charging and a picture cannot be taken at this time.



2 Press the Shutter Release Button.

The camera will shoot a picture with the flash.



Canceling the Mode

Press the Flash Mode Button to cancel the mode.

Flash Distance

The recommended flash shooting range is approximately 0.6 to 3.0m if the flash is discharged in daylight ("daylight synchro photography"). If the flash does not reach the subject, a dark underexposed image may result. If the lens-to-subject distance is less than 25cm (10 in.), the reflected image may look washed-out.

Important

- If the shooting distance to the subject is less than approximately 0.6m, the subject may be overexposed and appear excessively white. Set the Flash Off Mode when this occurs. In this case, hold the camera securely or stabilize it with a tripod. Be careful to hold the camera securely so a blurred picture is not taken when the zoom function ([Z] side) is used.

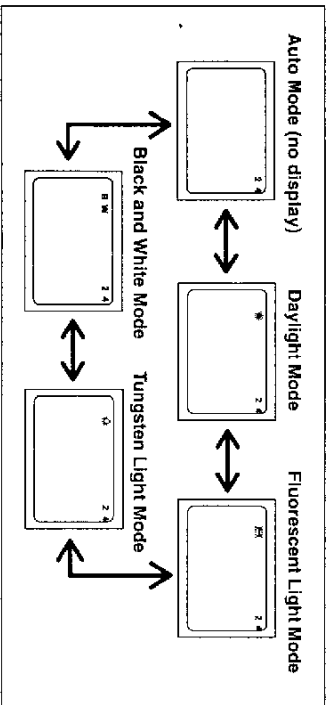
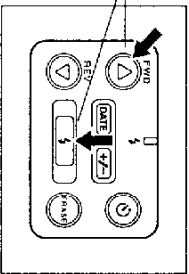
Setting the White Balance Mode

The White Balance Mode is a function that adjusts the white balance so shooting can be performed in natural colors even under a light source. Normally this function is set under the AUTO mode.

To shoot a subject with natural hues, the white balance is automatically adjusted with the white portion used as reference. As a result, the white balance sometimes cannot be correctly adjusted when there is a small white area in the subject. If this occurs, set the White Balance Mode to the Daylight Mode, Fluorescent Light Mode or Tungsten Light Mode and then take the picture.

Selecting a White Balance Mode

While pressing the **▲** Button, press the Flash Button and set the White Balance Mode. The Auto Mode is set in the initial setting.



Important

- Turn on the Power Off Memory to maintain the White Balance Mode setting. See "Recording the setting contents" on page 70.

Subjects that the Auto White Balance may not work properly

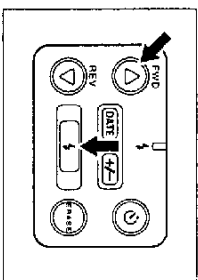
- Monotone subjects.
- Subjects with multiple light sources.

- Note:**
- In the AUTO Mode, the white balance may not be operate if there is an insufficient white area in the subject. In this case, move the camera to increase the white portion of the subject and then shoot the picture.
 - The White Balance Mode can be performed only when the Recording Mode is set. It cannot be set when the Playback Mode is set.

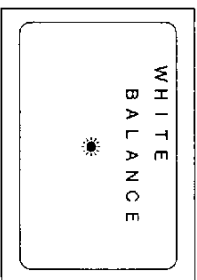
Daylight Mode

This Daylight Mode is used when shooting a picture outdoors and the auto white balance does not work properly.

- 1 Press the Flash Button while pressing the **▲** Button. The white balance setting mode is set.



- 2 Press **▲** or **▼** Button to display the **☀** symbol. To set the Daylight Mode, either press the Shutter Release Button or else perform no operation for three seconds.



Important

- The Flash Off Mode is set when the Daylight Mode is set. At this time, the Flash Mode cannot be switched even if the Flash Button is pressed.
- The color tone varies even for shooting the same subject depending on weather conditions such as sunny or cloudy lighting.

Canceling the Mode

Press the Flash Mode Button while pressing the **▲** Button to select the AUTO Mode.

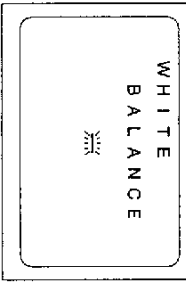
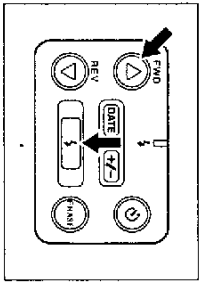
Fluorescent Light Mode

The Fluorescent Light Mode is used when shooting a picture under fluorescent lighting and the auto white balance does not work properly.

- 1 Press the Flash Button while pressing the ▲ Button.
The white balance setting mode is set.

- 2 Press the ▲ or ▼ Button to display the ☼ symbol.

To set the Fluorescent Light Mode, either press the Shutter Release Button or else perform no operation for three seconds.



- Important**
- The Flash Off Mode is set when the Fluorescent Light Mode is set. At this time, the Flash Mode cannot be switched even if the Flash Button is pressed.
 - The color tone varies even for shooting the same subject depending on the type of the fluorescent light source.

Canceling the Mode

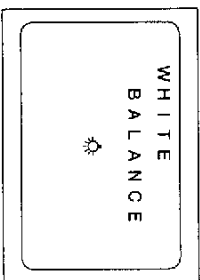
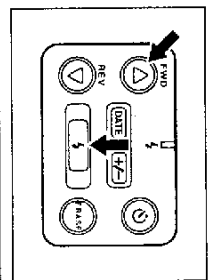
Press the Flash Mode Button while pressing the ▲ Button to select the AUTO Mode.

Tungsten Light Mode

The Tungsten Light Mode is used when shooting a picture under incandescent lighting and the auto white balance does not work properly.

- 1 Press the Flash Button while pressing the ▲ Button.
The white balance setting mode is set.

- 2 Press ▲ or ▼ Button to display the ⚡ symbol.
- To set the Tungsten Light Mode, either press the Shutter Release Button or else perform no operation for three seconds.



- Important**
- The Flash Off Mode is set when the Tungsten Light Mode is set. At this time, the Flash Mode cannot be switched on even if the Flash Button is pressed.
 - The color tone varies even when shooting the same subject depending on the type of the incandescent light source.

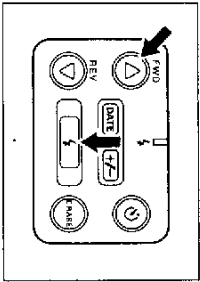
Canceling the Mode

Press the Flash Mode Button while pressing the ▲ Button to select the AUTO Mode.

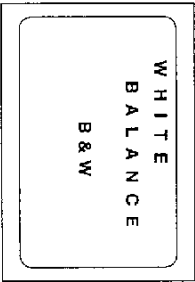
Black and White Mode

This mode is used when shooting monochrome pictures. The images are recorded monochrome.

- 1 Press the Flash Button while pressing the ▲ Button.
The white balance setting mode is set.



- 2 Press the ▲ Button or ▼ Button to display the B&W.
To set the Black and White Mode, either press the Shutter Release Button or else perform no operation for three seconds.



Important
• The Flash Off Mode is set when the Black and White Mode is set. At this time, the Flash Mode cannot be switched on even if the Flash Button is pressed.

Canceling the Mode

Press the Flash Mode Button while pressing the ▲ Button to select the AUTO Mode.

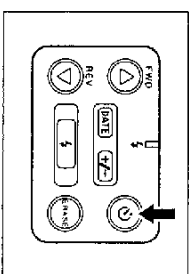
Special Functions

This camera has a variety of special functions operated by setting certain modes other than the basic shooting procedures.

Using the Self Timer

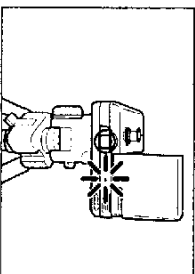
This function is convenient for taking a group shot that includes the photographer. Before using the self timer, place the camera securely on a steady support or a tripod.

- 1 Press the Self Timer Mode Button to display the ⓪ symbol on the LCD monitor.



- 2 Frame the subject and make sure that the camera is positioned securely. Press the Shutter Release Button.

The self timer light on the front of the camera lights and the self timer begins to count down. The shutter is released after approximately 10 seconds. The self timer light will flash for nearly two seconds before the shutter is released. The Self Timer Mode automatically ends once the shutter is released.



Note: The Self Timer Mode cannot be activated when the flash is recharging. Wait until recharging is completed before starting the self timer shooting.

Tips: About the remote control operation
Use this function with an optional Remote Control Unit when releasing the shutter in the distance or when the camera is set in a fixed position.

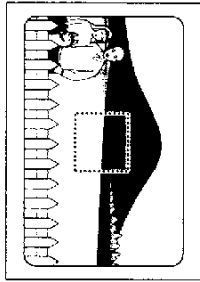
Focus lock shooting

The subject is focused in the auto focus range in the LCD monitor. If the subject to be focused does not conform to this condition, the subject may not be focused. Use this function to ensure that the desired subject is focused.

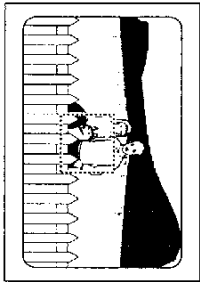
Note: See "LCD monitor" on page 37.

How to lock focus

When the subject to be focused is not in the auto focus range, the focus is or the background and the subject will be out of focus.



When items other than the subject to be focused fill the auto focus range, the towers are focused and the people are out of focus.

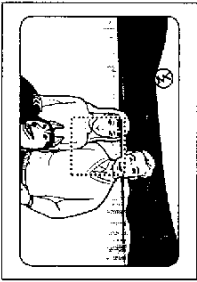


Shooting pictures

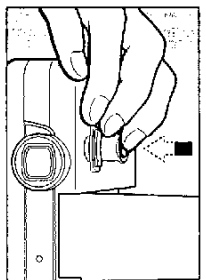
1 Press the zoom button and determine the size of the subject.



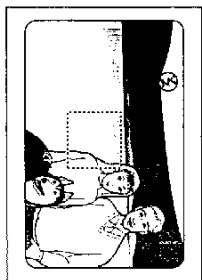
2 Set the auto focus range of the LCD monitor to the subject to be focused.



3 Press the Shutter Release Button halfway down. The focus is locked at this time.



4 Determine the composition of the picture by moving the camera without moving the finger and gently press the Shutter Release Button all the way down.

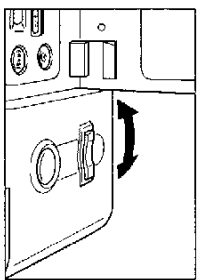


Note: It is also possible to shoot pictures while focusing manually (Manual Focus). See the "Tips: Manual Focus shooting" on page 40.

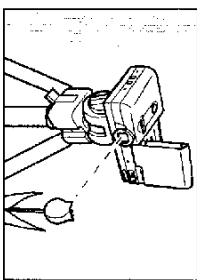
Macro Shooting (Close-up shooting)

Macro shooting is tight close-up photography. When the lens is set to the widest position, macro shooting can be performed automatically up to approximately 1 cm. When the lens is set to another position, the macro shooting can be performed automatically up to approximately 20 cm.

1 Press the Zoom Button.



2 Approach the subject and compose the picture. Press the Shutter Release Button halfway down to set the focus.



3 Gently press the Shutter Release Button all the way down and shoot the picture.

Important

- When the camera is repositioned, the subject may go out of focus because the accurate focus range for macro shooting is quite narrow. Position the camera on a stable surface or tripod before taking a tight close-up.

Tip: About the Shutter Release Button

The optional Remote Control Unit is useful for releasing the shutter when the camera is stabilized on a tripod or on any other support.

Chapter 4. Picture Playback/Erasing

Before Playback	58
Information displayed during playback	58
Connecting to a TV set	60
Image Playback	61
Operation Sequence	61
Automatic playback	62
Image Erasing	63
Operation Sequence	63
Single-image erasing	63
Erasing all images	65

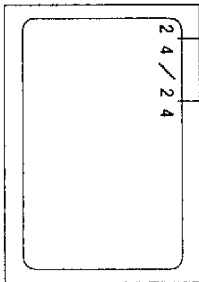
Before Playback

This section explains the preparation for the playback operations and the information about the playback images on the screen.

Information displayed during playback

The image number of the recorded image is displayed on the monitor for three seconds as shown in the following figure.

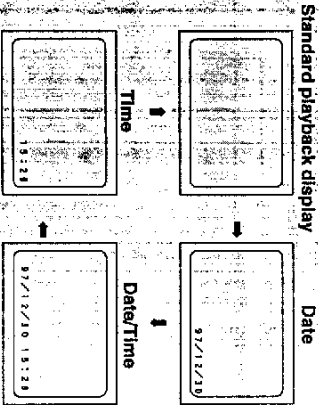
Image number of the displayed image
Total number of recorded images



The numbers displayed on the LCD monitor or TV when played back and the image names displayed on the computer may differ.

Note: The playback image is displayed as a picture condition which is taken while holding the camera horizontally. As a result, the subject which is taken while holding the camera vertically is displayed at a rotational angle of 90 degrees.

Tips: The monitor displays information about the recorded images including the date and time of recording. Press the DATE Button repeatedly to change the display in the following sequence:



The date and time setting mode is set if the DATE Button is pressed and held for more than two seconds. Refer to "Adjusting the date and time" on page 29 for the setting procedures.

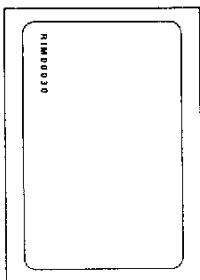
File Name Display

This function displays the file name of the recorded image. The file name is displayed as RIM00000 (RIM and a five-digit number) which is different than the frame number that is displayed when the Playback Mode is set.

- 1 Make sure that the Playback Mode is set and press the \blacktriangle or \blacktriangledown Button to display the image.
- 2 Press the \pm Button.
The file name of the displayed image is displayed.

To erase the display

Press the \pm Button one more time.



Note: When the file name is changed in the computer, the file name may not be displayed correctly in the camera.

Processing the Image Files in a Computer

When using Windows 95, the image file in the SmartMedia memory card may not be able to be deleted even if the Recycle Bin is empty. In this case, select the [Use one setting for all drives] function from the [Global] tab of the [Properties] dialog box delete the file after checking the [Do not remove files to the Recycle Bin. Remove files immediately on delete.] icon from the drive tab in which the SmartMedia memory card is inserted.

Important: Please be careful when the [Use one setting for all drives] button is selected from the [Global] tab, because the files on a hard disk or floppy disk cannot be recovered after they have been deleted because they are erased immediately.

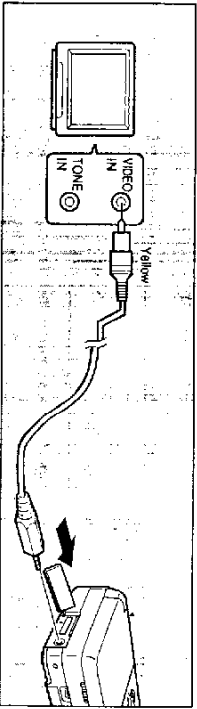
Note: Deletion can be performed by selecting the file to be deleted and pressing the [Shift] key and [Delete] key at the same time, or moving the file by the drag-and-drop operation to the garbage can while pressing the [Shift] key.

Connecting to a TV set

The recorded images can be played back on a TV set by connecting the Video cable to the camera and TV set.

Important

- Refer to the manual of the TV that will be connected to for more information.
- Do not pull the terminal cover with excessive force or lift up the camera by holding the terminal cover.



- 1 Make sure that the power to the camera and the TV Set is turned off.
- 2 Remove the terminal cover of the camera and connect the Video cable to the video output terminal.
- 3 Connect the opposite end of the Video cable to the VIDEO input terminal of the TV set.

Note:

- When the Video cable is connected to the main unit of the camera, no image is displayed on the LCD monitor.

Extended playback

For extended playback, we suggest you use the optional AC adapter which obtains its power from a household electrical outlet. See "Operation on AC Power" on page 23.

- Be sure to turn off the power to the camera before connecting the AC adapter.

Image Playback

This section explains the image playback procedures for recorded images.

Operation Sequence

The following is the basic explanation of the operation procedures.

Load the SmartMedia memory card.

Load the SmartMedia memory card. → Page 26.

Turn the power on.

Open the LCD monitor and slide the RECORD/PLAY switch of the camera to [PLAY].

Select the image.

Press the ▲ or ▼ Button to select the image to be played back. → Page 61.
The playback is also performed in the recording sequence in set intervals by using the automatic playback function. → Page 62.

Image playback

The recorded image can be played back by pressing the ▲ or ▼ Button.

- 1 Open the LCD monitor, and slide the RECORD/PLAY switch of the camera to [PLAY].
The monitor displays the image that was recorded most recently.

Note: Refer to "Information displayed during playback" on page 58 for more information.

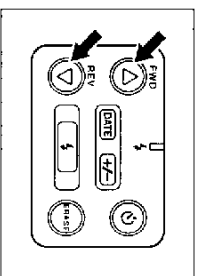
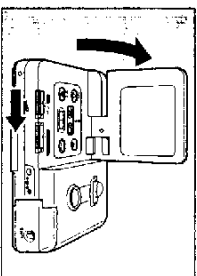
- 2 Press the ▲ or ▼ Button to select the image to be played back.

Selecting a forward image

Press the ▲ Button. If the button is held, the image is continuously advanced.

Selecting a reverse image

Press the ▼ Button. If the button is held, the image is continuously reversed.



Data playback by the camera

- The following data can be played back by the camera
- Image data shot by the digital camera RDC-300Z.
 - Image data transferred from the computer using Ricoh software compatible with the RDC-300Z.

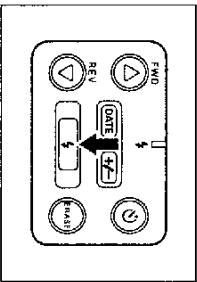
Note: The message "DATA UNABLE TO DISPLAY" is displayed for images that cannot be played back.

Automatic playback

The recorded images are played back in the recording sequence at set intervals. This is called an automatic playback function. The playback interval (time required to display images) can be set in the range from 0.5 to 30 seconds.

1 Press the Flash Button.

The Interval Time Setting Mode is set.

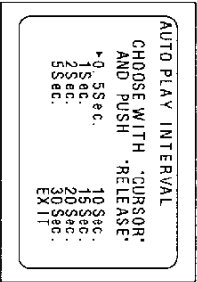


2 Press the ▲ or ▼ Button to select the playback interval.

The playback interval can be set in the range from 0.5 to 30 seconds.

To cancel the settings

Select [EXIT] and press the Shutter Release Button.



3 Press the Shutter Release Button.

The automatic playback interval is set and the recorded images are played back in sequence.

To stop the playback

Press the Shutter Release Button or Flash Button.

Important

- Set the Power Off Memory ON to maintain the settings of the automatic playback interval. See "Recording the selfing contents" on page 70.

Image Erasing

This section explains how to erase recorded images. There are three methods of erasing images: single-image erasing that erases a specified image, all-image erasing that erases all images at one time and the initialization operation that erases the images in the smart media used in the other equipment and formats it for use in this camera.

Note: The images in the card cannot be erased when the SmartMedia memory card is write protected. Remove the protection sticker before erasing images. See "Preventing recording errors" on page 25.

Operation Sequence

The following is the basic explanation of the operation procedures.

Load the SmartMedia memory card.

Load the SmartMedia memory card. → Page 26.

Turn the power on.

Open the LCD monitor and slide the Record/Playback switch of the camera to [PLAY]. Press the ERASE Button to set the Erase Mode.

Select the erase method.

Select the appropriate erase method to either erase a single image at one time, erase all the images at one time or formatting the SmartMedia memory card.

Select a Image.

Select an image to be erased when erasing a single image.

Erase the Image.

Erase the image.

See page 63 for information on single-image erasing.

See page 65 for information on all images erasing.

Format the SmartMedia memory card.

Format the SmartMedia memory card. See page 27 for the format procedures.

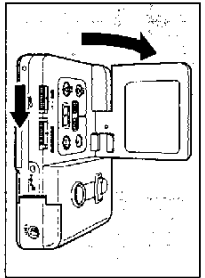
Single-image erasing

The following explains how to erase a specified image.

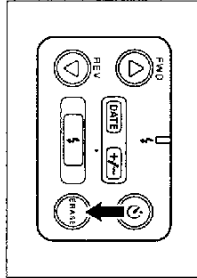
Important

- An erased image cannot be restored. Carefully confirm the contents of an image before erasing it.

- 1 Open the LCD monitor, and slide the RECORD/PLAY switch of the camera to [PLAY].



- 2 Press the ERASE Button.
The Erase Mode is set.



- 3 Press the ▲ or ▼ Button to select [ERASE] and press the Shutter Release Button.
The Single-Image Erase Mode is set.

Note: To stop erasing, select [EXIT] and press the Shutter Release Button.

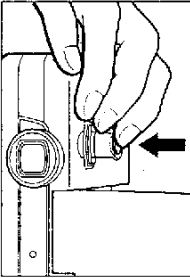
- 4 Press the ▲ or ▼ Button to select the image to be erased.

Note: To stop erasing, Press [ERASE] Button.



- 5 Press the Shutter Release Button.
The selected image is erased. Repeat steps 4 and 5 to erase another image.

Note: When an image is erased, the image numbers of the succeeding images decrease by one.



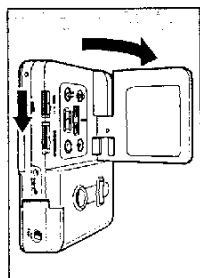
Canceling the Mode
Press the ERASE Button again.

Erasing all images

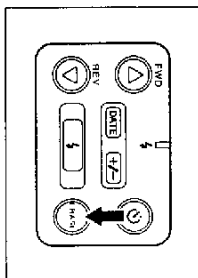
The following section explains how to erase all the images at one time.

Important Erased images cannot be restored. Carefully confirm the contents of images before erasing them.

- 1 Open the LCD monitor, and slide the RECORD/PLAY switch of the camera to [PLAY].

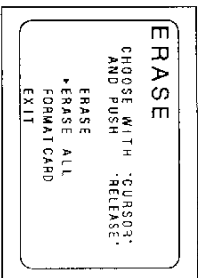


- 2 Press the ERASE Button.
The Erase Mode is set.



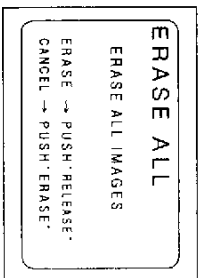
- 3 Press the ▲ or ▼ Button to select [ERASE ALL] and press the Shutter Release Button.
The All-Image Erase Mode is set.

Note: To stop erasing, select [EXIT] and press the Shutter Release Button.



- 4 Press the Shutter Release Button.
The erasing message is displayed and all images are erased. After erasing is finished the message "No image recorded" is displayed.

Note: To stop erasing, press the ERASE Button.



Tips: Formatting the SmartMedia memory card
Always perform the format when using new SmartMedia memory card or SmartMedia memory card which was used in other equipment such as a computer. See "Format the SmartMedia memory card" on page 27 for further details.

Note: When there are a large number of recorded images stored in a high-capacity SmartMedia memory card, it may take some time to delete the specified images.

Chapter 5. Additional information

Changing a Camera Setting	68
Setting the Auto Power-Off Mode	68
Setting the Power Saving Mode	69
Recording the setting contents	70
Returning the setting contents to the initial condition ...	71
System Configuration Figure	72
Accessories for RDC-300Z	74
Computer and DC Connections	75
Handling Precautions	76
Caring for Your Digital Camera	77
Troubleshooting	78
Using Your Digital Camera in Other Countries	82
Service	83
Specifications	85
Number of Recorded Images	87

Changing a Camera Setting

This camera can change the settings such as "Auto Power-OFF", "Energy Saving" and "Power-Off Memory" according to the usage purpose.

Setting the Auto Power-Off Mode

If there is not camera operation (button or switch operation) after two minutes of recording or five minutes of playback, the auto power off function operates to save the electricity. Perform the following operations to cancel the Auto Power-OFF function.

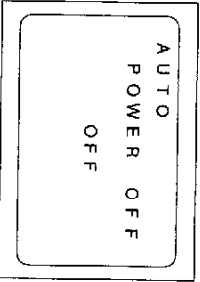
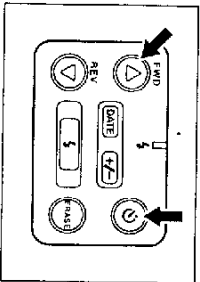
- 1 Press the **Self Timer Mode Button** while the **▲ Button** is pressed.

The Record/Playback switch can be set to either the [REC] or [PLAY] position. The Auto Power-OFF setting mode is set.

- 2 Press the **▲ or ▼ Button** to set the function OFF.

If the Shutter Release Button is pressed or three seconds pass without performing any operations, the Auto Power-OFF will be set off.

To reset the Auto Power-OFF
Repeat the above operation to set the Auto Power-OFF function on. The Auto Power-OFF function starts again.



- Important**
- In order to maintain the auto power off setting set the Power Off Memory to ON. See "Recording the setting contents" on page 70.

Note:

- If the LCD monitor display turned off by the Auto Power-OFF system, either perform, turn on the power again, slide the Record/Playback switch or press the Shutter Release Button for one second or more.
- The auto power off does not operate when the AC adapter (sold separately) is used.

Setting the Power Saving Mode

This function saves the battery power by adjusting the LCD monitor brightness. The operations vary depending on whether the Record Mode and Playback Mode are set.

Power Saving Mode	Record mode	Playback mode
OFF	Regular operation	Regular operation
ON	The LCD monitor is totally dark and if the Shutter Release Button is pressed lightly the normal LCD display returns. If the Shutter Release Button is pressed and released, the image is recorded and then the LCD will become dark again.	The LCD display is dimly lit and remains this way until the mode is set.

Perform the following operations when the Power Saving Mode is set.

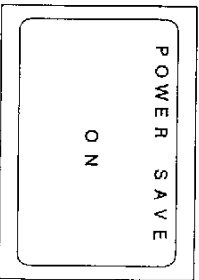
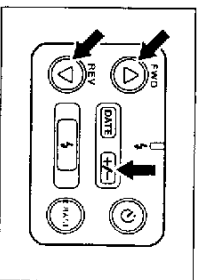
- 1 Press the **+/- Button** while pressing the **▲ and ▼ Buttons**.

The Record/Playback switch can slide to either [REC] or [PLAY]. The power saving setting mode is set.

- 2 Press the **▲ or ▼ Button** to select the Power Saving Mode.

If the Shutter Release Button is pressed or three seconds pass without any operation, the Power Saving Mode is set.

To cancel the setting
Repeat the operation described above to set the Power Saving Mode off. The power saving function is turned off.



- Important**
- The Power Saving Mode setting is automatically canceled when the power is turned off.
 - In order to maintain the Power Saving Mode setting, set the Power Off Memory to ON. See "Recording the setting contents" on page 70.
 - When the camera is used in an environment where the temperature is approximately 40°C or higher, the LCD monitor display may have a certain uneven quality. If this occurs, the condition will return to normal when the temperature decreases.

Note: Depending on the environment in which the camera is used, the Power Saving Mode can vary because in the number of recording files can be 1.2 times greater than usual and the playback time is approximately 2.5 hours.

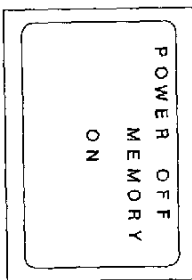
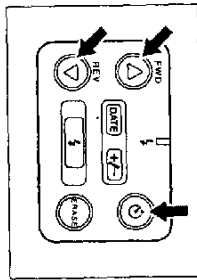
Recording the setting contents

The Power-Off Memory function maintains the setting contents when the power is turned off. If the power is turned off when the Power-Off Memory is set, the function contents of "S. Mode" (see page 41), "Flash Mode" (see page 44), "White Balance Mode" (see page 48), "Auto Power-Off" (see page 68), "Power Saving Mode" (see page 69), "Auto playback interval" (see page 62) are memorized and they are maintained when the power is turned on next time.

- 1 Press the **Self Timer Mode Button** while the **▲ and ▼ Buttons** are pressed.
The Record/Playback switch can be slid either [REC] or [PLAY].
The Power-Off Memory setting mode is set.

- 2 Press **▲ or ▼ Button to set ON**.
If the Shutter Release Button is pressed or approximately three seconds pass without any operation, the Power-Off Memory is set on.

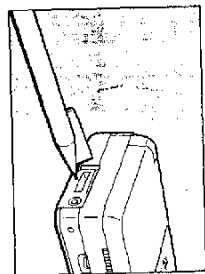
To cancel the setting
Repeat the above operation to set it off. The Power-Off Memory function is turned off.



Returning the setting contents to the initial condition

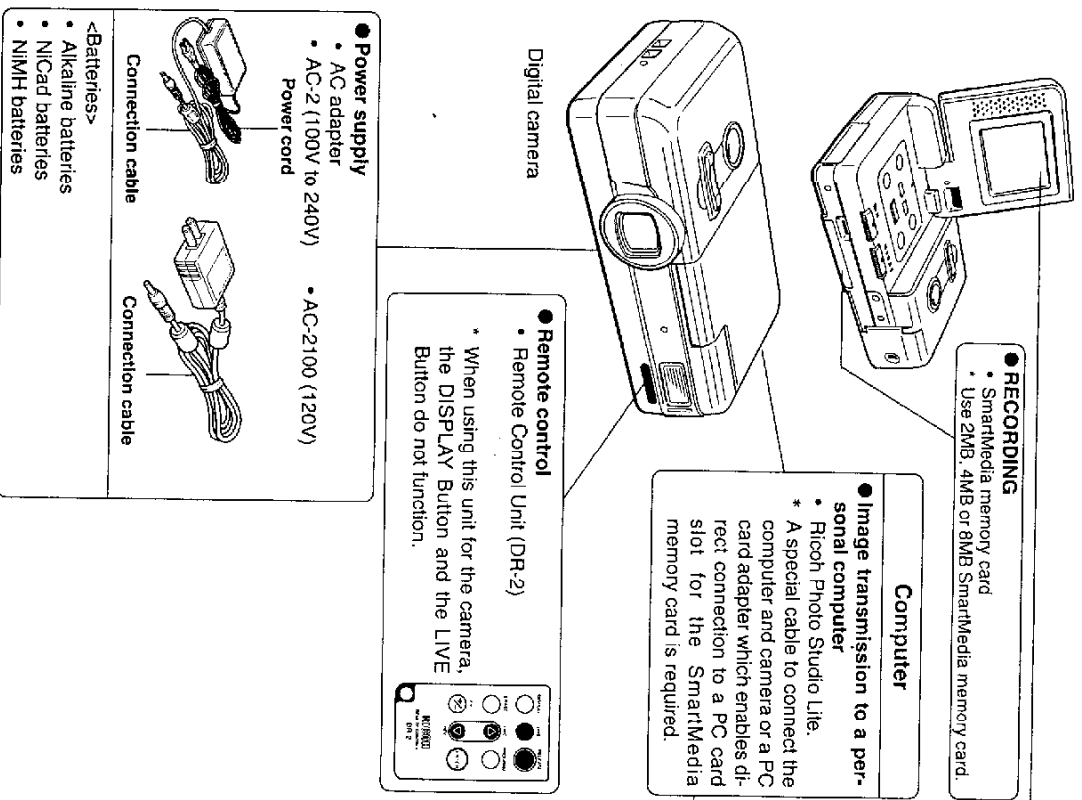
Reset all of the camera setting values including date setting.

- 1 Remove the terminal cover on the side of the camera and press the Reset Button with the tip of a sharp pencil or similar object.
The settings are reset when the batteries or Clock battery are installed. The recorded images are not erased even after a reset is performed.



Important
• Do not use a sharp object or material that breaks easily to press the button.

System Configuration Figure



RECORDING

- SmartMedia memory card
- Use 2MB, 4MB or 8MB SmartMedia memory card.

Computer

- Image transmission to a personal computer
- Ricoh Photo Studio Lite.
- * A special cable to connect the computer and camera or a PC card adapter which enables direct connection to a PC card slot for the SmartMedia memory card is required.

Remote control

- Remote Control Unit (DR-2)
- * When using this unit for the camera, the DISPLAY Button and the LIVE Button do not function.

Power supply

- AC adapter
- AC-2 (100V to 240V)
- AC-2100 (120V)

Power cord

Connection cable

Connection cable

<Batteries>

- Alkaline batteries
- NiCad batteries
- NiMH batteries

Playback

- LCD monitor
- TV set (Connects to the TV set with the Video cable that is included.)
- * A video printer can be connected to the camera for printing still pictures.

Output

- Color printer
- Color copier

Others

- Hard case (SC-3)

* See "Accessories for RDC-300Z" on page 74 for information on all Ricoh products mentioned above except for the Digital Camera.

Supplying power

Install common AA alkaline batteries and a Lithium battery (CR2025) for clock. Rechargeable NiCad batteries or NiMH batteries can also be used. The Ricoh AC adapter is recommended for extended use.

Recording

Recording is performed in the SmartMedia memory card. A total of 24 images (2MB) can be recorded in the standard mode.

Viewing

You can playback recorded images immediately on the LCD monitor. With the supplied Video cable, you can also connect the camera to a TV set to view them.

Image transmission to a personal computer

You can transmit your image to a personal computer using the utility software for the RDC-300Z. Use the special connection cable or the PC card adapter when transferring data.

Output

Once image data is sent to your personal computer, you can print the image with a color printer or color copier.

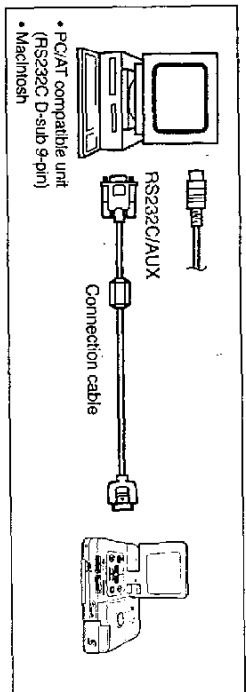
- * A special controller interface is required for a color copier.

Accessories for RDC-300Z

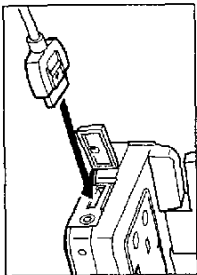
Item	Model	Remarks
AC Adapter	AC-2	For operating on household AC current. See p.23, "Operation on AC Power."
	AC-2100	
Hard Case	SC-3	Storage and carrying case for the camera and LCD Monitor.
Remote Control Unit	DR-2	For recording or playback by remote control. Features a programmed playback function (a presentation tool that enables you to program the sequence of pictures to be played back). This function is available only with this Remote Control Unit.
SmartMedia Memory Card	FS-4	This is a SmartMedia memory card. A maximum of approximately 99 images can be recorded on this card.
PC Card Adapter	FS-AS3	The PC Card Adapter is equipped with a slot which enables a SmartMedia memory card to be inserted directly into a computer.

The corporate names and brand names stated above are trademark or registered trademarks of their respective corporations.

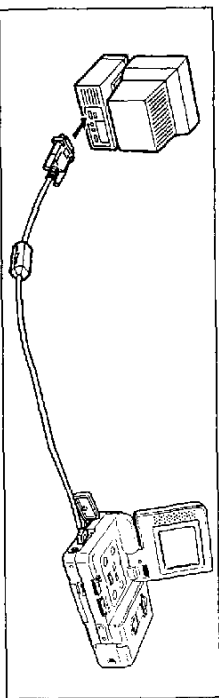
Computer and DC Connections



1. Open the side cover of the camera.
2. Insert the connection cable terminal to the RS232C/AUX terminal.



3. Connect the cable to the computer.



Handling Precautions

- This camera is not waterproof. Take great care to avoid water, rain or spilled drinks. If the camera gets wet, contact your local Ricoh service office.
- Never drop the camera or subject it to strong shock.
- To avoid overheating the system, do not continuously operate the built-in flash unit more than is necessary.
- Protect the camera from sand or dust, especially at the beach or in dusty environments (construction sites, etc.).
- Do not expose the camera to high temperatures or high humidity as for long periods of time such as in a closed car, beach, or bath.
- Turn off the camera before connecting it to the optional AC adapter.
- Sudden changes of temperature may cause condensation to form inside and outside the camera body and lens, resulting in malfunctions. If this occurs, place the camera into a bag or plastic bag temporarily to minimize any drastic change of temperature. Keep it in the bag until the temperature difference is minimized.
- If the LCD monitor is exposed to sunlight or other bright light, it may appear white and be difficult to observe.
- Some pixels which always lights or do not light may present in the LCD monitor. The brightness may have an unevenness due to the characteristics of the LCD. However, these are not malfunctions.
- Do not pull the terminal cover with excessive force or lift up the camera with it.
- Do not open the LCD monitor while holding the lens cover.
- Always close the LCD monitor when carrying the camera.

Condensation occurs when

- The camera is suddenly brought into a warm place from a cold place.
- The camera is used in a location subject to high humidity.
- The camera is used in a room right after it has heated up or was in a location subject to direct cool wind from an air conditioner.

Caring for Your Digital Camera

■ Camera Care

- Keep the lens of the camera clean, as stains or dirt on the lens may degrade the precision of the image quality.
 - Do not attempt to remove dust or smears on the lens with your fingers. Use a blower to blow the dust away, or wipe the surface gently with a soft cloth.
 - After using the camera at the beach or exposing it to a chemical environment, take special care to wipe off any dirt.
 - If the camera does not operate properly, contact Ricoh Service Office. The camera is equipped with a hazardous high-voltage circuit. Never attempt to repair the camera by yourself.
 - Keep the camera away from volatile liquids such as thinner, benzene and insecticide, as these chemicals may peel off the paint or damage the surface.
 - Do not scrub on the surface of the LCD monitor with a hard object because it is easy to be scratched or damaged.
 - Wipe off the surface of the LCD monitor gently with a moistened soft cloth with thinned detergent and wipe off the moisture with a dry cloth.
 - Remove the batteries and AC adapter from the camera before cleaning.
- ### ■ Safekeeping
- Do not store the camera in a closet with insect repellents, as these may damage the camera and cause a malfunction.

Troubleshooting

Before sending the unit for repairs, first refer to the following checklist for a possible solution to the problem. If you still cannot correct the problem, please contact the Ricoh service office.

Power Source Problems

Problem	Cause	Remedy
No power	The batteries are not positioned properly or are depleted. The AC adapter is not connected properly. The Card door is open.	Reposition the batteries correctly or replace with fresh batteries. Reconnect the AC adapter. After closing the Card door, turn on the power again.
Sudden loss of power	The Auto Power-Off function shuts down the camera after several minutes of inactivity. The batteries are depleted.	Press the Shutter Release Button more than one second or turn on the power again. Replace the old batteries with fresh batteries.
The batteries go dead quickly.	The batteries were subjected to excessively low or high temperatures. The built-in flash was used too many times because of dark conditions or other reasons.	— —

Shooting and Playback Problems

Problem	Cause	Remedy
The camera fails to record picture when Shutter Release Button is pressed.	The batteries are not inserted properly (incorrect polarity) or are dead. The power is off, or the Record/Playback switch is set to [PLAY]. Press the Shutter Release Button is pressed down halfway and stays in this position. The SmartMedia memory card is not inserted or it is inserted in an incorrect direction. The SmartMedia memory card is not formatted. The SmartMedia memory card has no free area. The SmartMedia memory card service life is finished. The Card door is open. The Self Timer Mode is selected.	Reposition the batteries correctly or replace with fresh batteries. Open the LCD monitor. Otherwise, slide the Record/Playback switch to [REC]. Press the Shutter Release Button all the way and release it. Load the SmartMedia memory card correctly. Format the SmartMedia memory card. Erase the unnecessary images or load a new SmartMedia memory card. Load a new SmartMedia memory card. Close the Card door securely. Press the Self Timer Mode Button to cancel the Self Timer Mode.

Problem	Cause	Remedy
The camera fails to record picture when Shutter Release Button is pressed.	The flash is recharging. The SmartMedia memory card contact surface is dirty. The lens is dirty.	Wait until the Flash LED stops flashing. Wipe off the surface area with a soft dry cloth to clean it. Clean the lens.
The focus is not correct in the Auto Focus Mode.	The subject is not in the middle of the shooting range frame. The subject is difficult to focus. The Flash Off Mode is set. The White Balance Mode is set to Daylight/Fluorescent/Tungsten Light Mode.	Set the focus lock and then take the picture. Use the focus lock or manual focus to take the picture. Press the Flash Mode Button to cancel the setting. Press the Flash Button while pressing the Δ Button and then to set the White Balance Mode to the Auto Mode.
The flash does not work or recharges.	The batteries are dead.	Replace with fresh batteries.
The flash discharged properly but the image is dark.	The distance to the subject exceeds approximately 3.0 meters.	Reduce the distance to the subject.
The picture is too bright.	The flash discharged when distance to subject was less than 60 cm. The image is overexposed.	Select the Flash Off Mode. Compensate the exposure with the +/- Button.
The image is too dark.	The brightness adjustment dial is not set correctly. The picture was taken in the Flash Off Mode under dark conditions. The image is underexposed.	Turn the brightness adjustment dial to right or left to adjust the brightness. Press the Flash Mode Button to cancel the setting. Compensate the exposure with the +/- Button.
The picture does not show natural colors.	The brightness adjustment dial is not set correctly.	Turn the brightness adjustment dial to the right or left to adjust the brightness.
The camera fails to display an image on the monitor.	The image conditions prevent the automatic white balance system from functioning properly. The Record/Playback switch is not set to [PLAY].	Include a white object in the subject, or use the flash or fixed white balance. Slide the Record/Playback switch to [PLAY].

		Remedy
The camera fails to playback the data or display an image on the monitor.	The SmartMedia memory card is not loaded or else a SmartMedia memory card which has not recorded images is loaded. Playback was performed on a SmartMedia memory card that was not formatted on this camera. Playback was performed on a SmartMedia memory card that did not record correctly. An image was recorded in a format that this camera cannot playback. The Card door is open. Video connection cable is not correctly connected to the video output terminal of the camera and the input terminal of the TV. A noise source such as a motor is close to the camera. The SmartMedia memory card contact surface is dirty.	Load a SmartMedia memory card which has recorded images. Load a SmartMedia memory card that was formatted and recorded on this camera. Load a SmartMedia memory card that has recorded images correctly. — Close the Card door securely. Place the camera where it is not close to a noise source. Wipe off the surface with a soft dry cloth to clean it.
The image does not playback clearly.	The SmartMedia memory card that is being used is malfunctioning. The batteries are dead.	Playback another recorded SmartMedia memory card and if it does not malfunction, the camera is operating normally. Do not use this card because this SmartMedia memory card may be malfunctioning. Replace the batteries with fresh batteries.
The image on the monitor has disappeared.	The Auto Power-Off system has activated. There is an obstruction in the path between the reception window of the camera and the Transmission window of the remote control unit. The reception window on the camera or the transmission window on the remote control unit is dirty. The lithium battery in the remote control unit is dead.	Close the LCD monitor to turn off the power and then turn on the power again or press the Shutter Release Button more than one second. Clear the path between the camera and the remote control unit. Clean both windows. Replace with the battery a fresh lithium battery (CR2032). There is not a malfunction.
The Remote Control Unit (optional) is malfunctioning.		
The monitor brightness changes during AF operation.	The auto focus range and surrounding area brightness are different or the shooting area is too dark.	This is not a malfunction.
The image has a vertical trail.	This condition occurs when a picture is taken of a well-lit subject. It is called a smear.	

Other Problems

		Remedy
The SmartMedia memory card cannot be inserted.	A non-recommended SmartMedia memory card is inserted.	Insert the recommended SmartMedia memory card.
The camera buttons and switches do not function.	The SmartMedia memory card insertion direction is incorrect. The batteries are dead.	Position the SmartMedia memory card in the correct direction. Replace the batteries with fresh batteries.
	The camera does not function properly.	Close the LCD monitor to turn off the power once and then set the camera to [REC] or [PLAY]; if the camera still fails to function properly, try the following. 1. Remove and reinstall all batteries in the camera. 2. Set the camera [REC] or [PLAY] again.
The date is incorrect.	The correct date and time have not been set.	Reset the time and date correctly.
The date display is turned off.	The service life of the clock batteries is finished. The camera setting contents returned (reset) to the initial setting values.	Load new batteries. Set the date again. Set the date again.
The camera fails to erase a file. Or the SmartMedia memory card cannot be formatted.	The Record/Playback switch is not set to [PLAY]. The power is turned off or else the auto power off operated.	Slide the Record/Playback switch to [PLAY]. Select the mode again.
The camera changes to a mode other than the one selected.	The batteries are removed.	Select the mode again.
The Auto Power-Off Mode does not work.	The Auto Power-Off Mode is set off. The AC adapter is being used. (The Auto Power-Off does not operate when the AC adapter is used.)	Confirm the Auto Power-Off Mode setting.

Using Your Digital Camera in Other Countries

Ricoh AC-2 AC adapter (optional)

- The AC-2 AC adapter adjusts automatically to voltages ranging from 100 to 240V AC and frequencies of 50 to 60 Hz.
- Some countries use electrical outlets which have different shapes. Before leaving on a trip, obtain the necessary plug adapter from a travel agent or electric store.

Ricoh AC-2100 AC adapter (optional)

- The AC-2100 AC adapter can only be used in locations where 120V AC is used.

About the warranty

- A wide range of power supplies can be used from 100V to 240V and 50 Hz or 60 Hz.
- In countries where the power connector type is different than the electrical plug equipped with the camera, be sure to check with the local service representative before using a conversion adapter.

Viewing the image on a TV set

- Make sure to check if the TV set operates in the NTSC format with a image input terminal.
- The included video connection cable is required.

• The NTSC format is used in the following countries.

American Samoa	Dominican Republic	Nicaragua
Barbados	El Salvador	Panama
Bermuda	Ecuador	Peru
Bolivia	Guam	Philippines
Canada	Guatemala	Puerto Rico
Chile	Haiti	Surinam
Columbia	Honduras	Taiwan
Costa Rica	Japan	Trinidad and Tobago
Cuba	Mexico	USA
Democratic People's Republic of Korea	Micronesia	Venezuela
	Myanmar	

Servicing

1. The Ricoh RDC-300Z camera is backed by a one-year limited warranty. During the warranty period, which starts from the date of purchase, any defective parts will be repaired free of charge. In the event of a camera malfunction, contact the dealer where you purchased the camera or contact the nearest Ricoh service office. Please note that you will be charged for the cost of shipping the camera from the Ricoh service office to your residence.
2. This warranty does not cover any damage resulting from:
 - ① Failure to follow the instructions in this instruction manual;
 - ② Repair, modification or overhaul not conducted by authorized service station specified in this instruction manual;
 - ③ Fires or natural disaster;
 - ④ Improper storage, such as exposing the camera to high temperatures, humidity, or insect repellents; storing it with leaking batteries; storing the camera in a dirty condition so that it becomes moldy; or otherwise insufficiently caring for the camera.
 - ⑤ Submergence; exposure to floods or spilled alcoholic or beverages; allowing sand or mud to enter the camera; exposure to physical shocks; or dropping of the camera.
3. After a full year has passed from the purchase date, you will become responsible for all repair fees, including those incurred at authorized service station.
4. You will be responsible for all repair fees, even within the warranty period, if the warranty card is not attached or if the distributor's name or the purchase date have been changed or are not indicated on the card.
5. Expenses for overhauls and thorough inspections as a result of the customer's special request will be charged to the customer, whether or not they occur during the warranty period.
6. This warranty only applies to the camera and not to the accessories such as the hard case and wrist strap, nor does it apply to the consumables provided, such as batteries.
7. Any consequential damage arising from the failure of this camera, such as expenses for taking pictures or loss of expected profit, will not be reimbursed whether they occur during the warranty period or not.
8. The above provisions refer to repairs offered free of charge, and do not limit your legal rights. The intention of the above provisions are also described in the warranty card provided with this camera.
9. Parts essential to the servicing of this camera - that is, components required to maintain the functions and quality of this camera - will be available for a period of seven years after the camera is discontinued. However, as some of those parts are kept for a longer period, do not hesitate to contact your distributor or the nearest Ricoh service representative even after the seven-year period.
10. Please note that, if the camera is seriously damaged from flooding, submergence, infiltration of sand or mud, violent shocks or dropping, the camera may not be repairable, and restoration to its original condition may be determined to be impossible.



Additional Information

- Note:**
- Before sending the camera in for repair, check the batteries and read this instruction manual again to ensure proper operation.
 - Some repairs require a significant amount of time to be completed. Please allow sufficient time for repairs.
 - When sending the camera to a service representative, please include a note which describes the defective part and the problem as precisely as possible.
 - Remove all accessories not related to the problem before sending the camera to a service representative.
 - Before taking any important pictures (such as at weddings, on trips abroad, etc.) test the camera to check its operation and ensure proper functioning. We recommend that you keep this manual and fresh batteries on hand.

Specifications

- **NTSC**
 - Video signal method : NTSC
 - Power requirement : 6V
 - Batteries : 5V
 - AC : 5V
- Dimensions (W × H × D)**
 - : 125.8 mm (W) × 36 mm (H) × 72.6 mm (D)
 - (excluding protruding parts)
 - Approx. 260g without batteries
- Weight**
 - : 0°C to 40°C
 - : less than 85%
 - : -20°C to 60°C
- Operating temperature range**
- Operating humidity range**
- Storage temperature range**
- **Camera**
 - CCD : 1/4" 350,000 pixels (effective 330,000 pixels) VGA, Progressive scan, Square Pixel, RGB filter
 - Lens : Zoom lens F: 3.8
 - **Focal length** : 15~15 mm (45 to 135 mm equivalent on a 35mm camera)
 - **Minimum shooting range** : Wide angle ([] side) approx. 1cm
Telescope ([] side) approx. 20cm
: 9 elements in 6 groups
 - **Composition** : 1.8 inch (36.9 mm (W) × 27.5 mm (H))
 - **Monitor Display** : TFT active matrix system
 - **Screen size** : 61,380 dots (279 (H) × 220 (V))
 - **Drive system** : Brightness adjustment dial is attached.
 - **Picture elements** : 4200 + 50K
 - **Brightness adjustment** : - 50K
 - **Color temperature** : 2800K to 8000K
 - **Standard setting** : Fluorescent light 4000K
Daylight 5100K
Tungsten light 3200K
 - **Automatic adjustment range** : EV6.3 to EV17
 - **Fixed adjustment range** : Centerweighted
: With automatic backlight control program
Manual exposure adjustment range ± 2.0EV (in 0.5 EV increments)
- Exposure adjustment**
 - **AE range** : TTL CCD method
 - **Light measuring system** : Equipped (with daylight synchro)
 - **EV memory system** : Still picture: 1/5 to 1/8000 (electronic shutter)
 - **Exposure measurement** : F 3.8 fixed
 - **Flash AE** : Equivalent to ISO 80
 - **Shutter speeds**
 - **Aperture**
 - **ISO sensitivity**



Distance adjustment

- AF method
- AF measurement distance range: 0.01 m to ∞ (wide angle), 0.20m to ∞ (other than wide angle)
- Focus lock

- Manual distance adjustment : In the manual focus mode, press the ▲ ▼ Buttons to operate.

Built-in flash

- Method
- Interval between flash
- Effective distance
- G no.
- Operating modes

: Automatic
: 5 sec. maximum
: 0.6 m to 3.0 m
: 10 (ISO100)
: OFF/ON/AUTO
The flash is turned off when the fixed White Balance Mode is set.

Image Data Recording

- Picture element
- File format
- Compression method
- Image size
- Economy mode
- Normal mode
- Fine mode

: 640 × 480 (VGA)
: JPEG (Exif: 1)
: Based on the JPEG base line method.
: Approx. 40KB/image
: Approx. 80KB/image
: Approx. 160KB/image

Input/Output:

- Power Input
- Video output
- RS-232C/AUX
- Body
- Tapped hole for tripod

: 5 V (AC adapter)
: 1.0 Vp-p (75Ω)
: Special
: 1/4-20 UNC
5.7 mm max. bolt length

Power Supply

- Batteries of main unit
- Battery types
- Voltage

: AA alkaline batteries
: AA NiMH batteries
: AA NiCad batteries
: 6 V (1.5V × 4 cells)

Clock battery

- Battery type
- Voltage
- Service life
- Auto Power-OFF System

: Lithium battery CR2025
: 3 V 160mAh
: Approx. 1 year
: Recording: Activates when the camera is not used for approx. 2 minutes.
Playback: Activates when the camera is not used for approx. 5 minutes.

Possible types of recording/playback memory cards

- Memory type
- Capacity
- Operation voltage

: SmartMedia memory card (NAND flash memory)
: 2MB, 4MB, 8MB
: 3.3V, 5V

Number of Recorded Images

The maximum number of recorded images for different capacity and recording modes of the SmartMedia memory card are shown below.

Type of SmartMedia memory card	Fine Mode	Normal Mode	Economy Mode
2MB	Approx. 12	Approx. 24	Approx. 49
4MB	Approx. 24	Approx. 49	Approx. 99
8MB	Approx. 49	Approx. 99	Approx. 199

INFORMATION TO THE USER

USA FCC Part 15 Class B

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help. (FCC 15.105B)

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. (FCC 15.21)

Properly shielded and grounded cables and connectors must be used for connection to host computer in order to meet FCC emission limits. (FCC 15.27)
AC adapter with ferrite core must be used for RF interference suppression.

COMPLIANCE INFORMATION STATEMENT

Product Name: Ricoh Digital Camera

Model Number: RDC-300Z

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

RICOH CORPORATION

475 Lillard Drive

Sparks, Nevada 89434

PHONE NUMBER:702-352-1600

FAX NUMBER:702-352-1615

CANADA Class B

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

IMPORTANT SAFETY INSTRUCTIONS-SAVE THESE INSTRUCTIONS DANGER-TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK CAREFULLY FOLLOW THESE INSTRUCTIONS.

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