Introduction

Thank you for purchasing a Ricoh product. This manual explains the correct handling procedures and precautions for your camera. To ensure the best performance, please read the manual thoroughly before using the camera. Keep the manual handy for quick future reference.

Ricoh Co., Ltd.

Test Shots

Check that your camera is recording the images correctly by taking a number of test shots.

Copyright

Reproduction or alteration of copyrighted documents, magazines, music and other materials, other than for personal, home or similarly limited purposes, without the consent of the copyright holder is prohibited.

Exemption from Liability

Ricoh Co., Ltd. assumes no liability for failure to record or play back images caused by malfunction of this product.

Warranty

This product is manufactured to local specifications and the warranty is valid within the country of purchase. Should the product fail or malfunction while you are abroad, the manufacturer assumes no responsibility for servicing the product locally or bearing the expenditure incurred therefor.

Radio Interference

Operating this product in the vicinity of other electronic equipment may adversely affect the performance of both devices. In particular, operating the camera close to a radio or television may lead to interference. If interference occurs, follow the procedures below.
– Move the camera as far away as possible from the TV, radio or other device
– Reorient the TV or radio antenna.
– Plug the devices into separate electrical outlets.

How to Read the Operation Manuals

The following operation manuals are supplied with this camera. Refer to the appropriate manual for instructions relating to the required operation.

Open the package

Check the contents of the package. (p.2)

Basic operation

Digital Camera Operation Manual (this manual)

This manual explains how to operate the camera, from the preparations that are necessary before using the camera to instructions on how to use the various shooting functions and play back files.

Transfer images to PC (Supplied by CD-ROM)

Windows   RICOH Gate for Windows

This manual explains how to install the necessary software, how to connect the camera to the PC, and how to use RICOH Gate to transfer files between the camera and the PC.

Macintosh   RICOH Gate for Macintosh

This manual explains how to install the necessary software, how to connect the camera to the Macintosh, and how to use RICOH Gate to transfer files between the camera and the Macintosh.

Checking the Package Contents

Check that your digital camera comes complete with the following items. Read the warranty card and keep it in a safe place.

☐ Caplio RR10
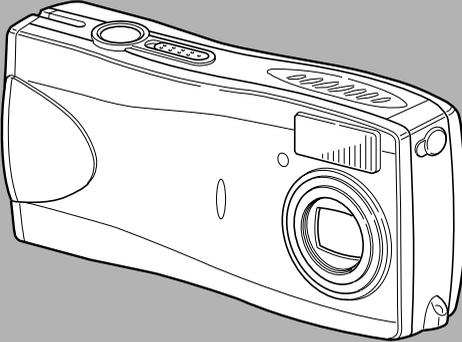
☐ RICOH BASE

☐ Arm
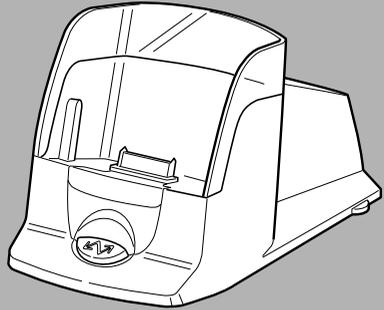
* Required when the camera is connected to a PC and is used as a PC camera

☐ AC adapter
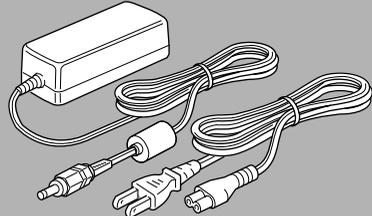
☐ AV cable
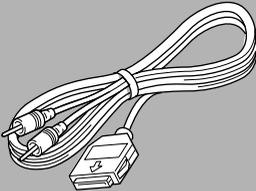
☐ USB cable
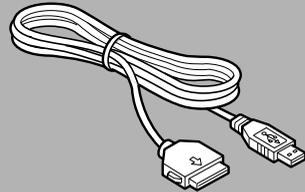
☐ Rechargeable battery

☐ AC adapter converter
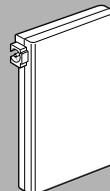
☐ SD memory card 8MB

☐ CD-ROM (software)
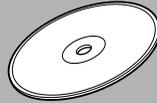
☐ Soft case

☐ Wrist strap
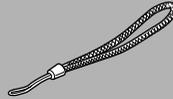
☐ Software Agreement
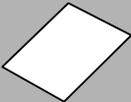
☐ Warranty card
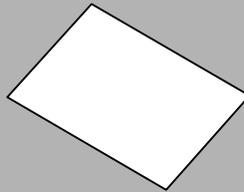
☐ Operation manuals

Contents

■ Meaning of Symbols

Important	This indicates points or restrictions relating to operation requiring your attention.
Note	This indicates a supplementary explanation of the operation concerned or points you should know.
Tips	This indicates information that it is useful to know when operating the camera.
▶	This indicates the reference page for the function or operation concerned.

Basic Operation/Quick Reference

This section explains basic operation of the camera. For more detailed information, refer to the reference page mentioned.

Getting Started

1 Battery
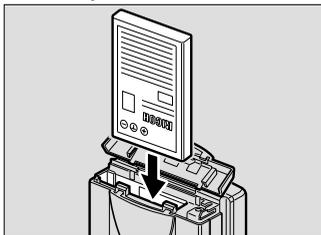
2 SD memory card

1 Load the battery. (p.21)

Slide open the battery cover and load the battery.

* Charge the battery before loading it in the camera. (p.22)

2 Insert a storage media. (p.26)

Slide the card cover switch to open the card cover and insert an SD memory card.

* When using a new SD memory card, be sure to format it first with the camera. (p.27)
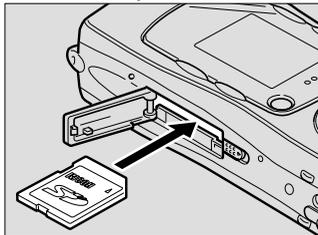
● Setting the Date and Time (p.34)

1 Set the mode dial to [SET UP].

2 Press the ▲ or ▼ button to select [DATE SETTING] and press the ▶ button.

```
SET UP              2/3
BEEP SOUND ▲ ON
POWER SAVE    OFF
SEQ.FILE NO.  ON
DATE SETTING       ▶
LANGUAGE   ▼ ENGLISH
             SELECT:⊙
```
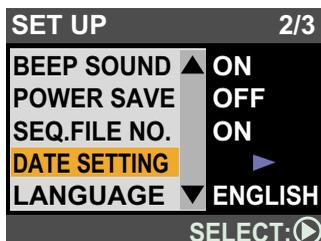
3 Press the ▲ , ▼ , ◀ and ▶ buttons to set the date and time.

Press the ◀ or ▶ button to highlight the item you wish to adjust, and press the ▲ or ▼ button to adjust the item.

```
SET DATE/TIME

  ▲
    2001 / 01 / 01
  ▼

    00 : 00

CANCEL:CANCEL  SEL.:ENTER
```
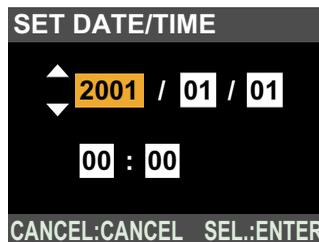
4 Press the ENTER button.

Shooting
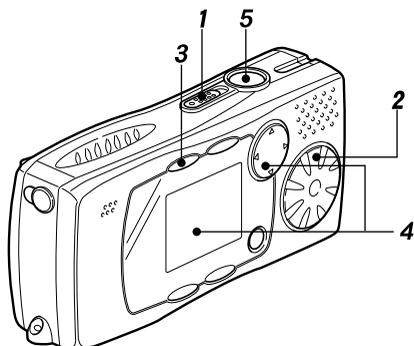
1 Turn on the camera. (p.30)
   Slide the power switch to turn on the camera.
2 Set the mode dial to [⬛]. (p.31)
3 Select the PIC (image quality) mode. (p.38)
   Press the PIC button to select the image quality mode.
4 Compose the picture. (p.38)
   Press the [♦] button to make the subject larger and the [♦] button to make the subject smaller.
5 Record the image. (p.36)
   Press the shutter release button halfway to lock the focus, and then press the shutter release button fully without releasing it.

●Using the Flash (p.50)

1 Set the mode dial to [⬛] or [目].
2 Press the ♭ button to select a flash mode.
   You can choose from four flash modes: Flash Off, Auto, Forced Flash and Slow Synchro.

3 Press the shutter release button to record the image.
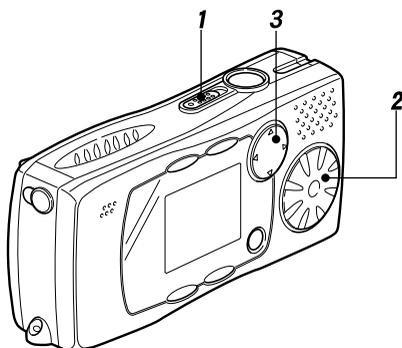
9

Playback

1 Turn on the camera. (p.30)
Slide the power switch to turn on the camera.
2 Set the mode dial to [▶]. (p.31)
3 Select a file. (p.70)
Press the ◀ button to display the previous file and the ▶ button to display the next file.

●Displaying Multiple Files (Thumbnail Display) (p.76)

1 Set the mode dial to [▶] and press the MENU button.
2 Press the ▶ button to select ⊞ and press the ENTER button.

3 Press the ▲ , ▼ , ◀ or ▶ button to change the file.
Press the ▲ button when the selected file is on the top row to display the previous nine files, and press the ▼ button when the selected file is on the bottom row to display the next nine files.

To return to single image display

Press the MENU button to display the menu and press the ENTER button.
The screen will return to single image display and the selected file will be displayed.

Erasing

DELETE ONE
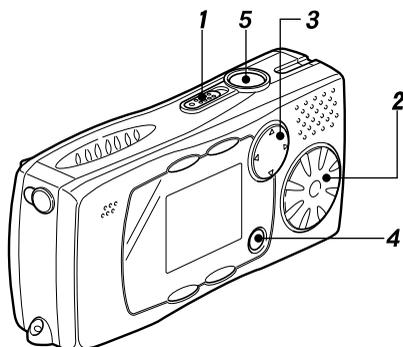
1 Turn on the camera. (p.30)
Slide the power switch to turn the camera on.

2 Set the mode dial to [▶]. (p.31)

3 Select the file you want to delete and press the MENU button. (p.93)
Press the ◀ button to display the previous file and the ▶ button to display the next file.

4 Check that the 🗑 symbol is highlighted and press the ENTER button. (p.93)

5 Press the shutter release button.

Names of Parts

■ Camera

Front

Shutter release button (p.36)

Power switch (p.30)

Flash sensor

Flash

Lens

Charging lamp (p.23)
(Blinks when connected to PC.)

Wrist strap eyelet (p.20)

Back

DIGITAL terminal cover switch (p.74)

DIGITAL terminal cover (p.74)

DIGITAL (AV/USB) terminal (p.74)

Card cover (p.26)

Card cover switch (p.26)

Reset switch (p.113)

Battery cover (p.21)

Power supply terminal (DC-input) cover (p.24)

Operating parts

$\frac{1}{2}$ button (p.51)

PIC button (p.38)

▲ ▼ ◄ ► button
/Zoom button ([▲] [♦]) (p.38)

Speaker (p.71)

Earphone terminal

Microphone

LCD monitor (p.32, p.36)

Mode dial (p.31)

Flash LED
Autofocus LED

MENU/ENTER button

CANCEL button

DISPLAY button

■ RICOH BASE

Camera setting parts

Remote control reception

START key

AV OUT / DIGITAL   DC IN5V

Power supply terminal (DC-input) (p.105)

DIGITAL (AV/USB) terminal (p.105)

■ Arm

(Required when the camera is connected to a PC)

■ AC adapter

AC-3
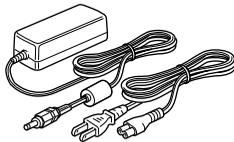
■ Rechargeable battery

DB-40

■ Remote control unit (optional)

DR-4

RELEASE

RICOH
DR-4

CANCEL

MENU
ENTER

FUNCTION   DISPLAY
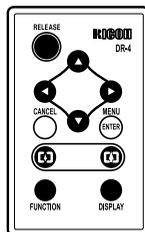
■ AC adapter converter

Power supply terminal
(DC-input)

13
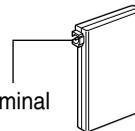
Safety Precautions

Warning Symbols

Various symbols are used throughout this instruction manual and on the product to prevent physical harm to you or other people and damage to property. The symbols and their meanings are explained below.

⚠ Danger	This symbol indicates matters that may lead to imminent risk of death or serious injury if ignored or incorrectly handled.
⚠ Warning	This symbol indicates matters that may lead to death or serious injury if ignored or incorrectly handled.
⚠ Caution	This symbol indicates matters that may lead to injury or physical damage if ignored or incorrectly handled.

Sample Warnings

❗	The ❗ symbol alerts you to actions that must be performed.

🚫	The ⃠ symbol alerts you to prohibited actions. The ⃠ symbol may be combined with other symbols to indicate that a specific action is prohibited. Examples ⃠ Do not touch ⃠ Do not disassemble

Observe the following precautions to ensure safe use of this equipment.

⚠ Danger	

	● Do not attempt to disassemble, repair or alter the equipment yourself. The high-voltage circuitry in the equipment poses significant electrical hazard.
	● Do not attempt to disassemble, alter or directly solder the battery.
	● Do not put the battery in a fire, attempt to heat it, use it in a high temperature environment such as next to a fire or inside a car, or abandon it. Do not put it into water or the sea or allow it to get wet.
	● Do not attempt to pierce the battery with a needle, hit it with a hammer, stand on it, drop it or subject it to severe impact.
	● Do not use batteries that are significantly damaged or deformed.

⚠ Warning	

	● Turn off the power immediately in the event of irregularity, such as the equipment emitting smoke or a strange smell. Remove the battery as soon as possible, being careful to avoid electric shocks or burns. If you are drawing power from a household electrical outlet, be sure to unplug the power cord from the outlet to avoid fire or electrical hazards. Discontinue use of the equipment immediately if it is malfunctioning. Contact the nearest service center at your earliest convenience.
	● Turn off the power immediately if any metallic object, water, liquid or other foreign object gets into the equipment. Remove the battery as soon as possible, being careful to avoid electric shocks or burns. If you are drawing power from a household electrical outlet, be sure to unplug the power cord from the outlet to avoid fire or electrical hazards. Discontinue use of the equipment immediately if it is malfunctioning. Contact the nearest service center at your earliest convenience.

⚠ Warning

❗	● Avoid any contact with the liquid crystal inside the LCD monitor, should the monitor be damaged. Follow the emergency measures below in the following circumstances.
	  • SKIN: If any of the liquid crystal gets on your skin, wipe it off and rinse the affected area thoroughly with water, then wash well with soap.
	  • EYES: If it gets in your eyes, wash your eyes with clean water for at least 15 minutes and seek medical advice immediately.
	  • INGESTION: If any of the liquid crystal is ingested, rinse the mouth out thoroughly with water. Have the victim drink a large amount of water and induce vomiting. Seek medical assistance immediately.

🚫	● Follow these precautions to prevent the batteries from leaking, overheating, igniting or exploding.
	  • Do not use batteries other than those specifically recommended for the equipment.
	  • Do not carry or store together with metal objects such as ballpoint pens, necklaces, coins, hairpins, etc.
	  • Do not put the battery into a microwave or high pressure container.
	  • If leakage of battery fluid or a strange odor, color change, etc. is noticed during use or during charging, remove the battery from the camera immediately and keep away from fire.

🚫	● Please observe the following in order to prevent fire, electrical shock or cracking due to the battery charging.
	  • Use only the indicated power supply voltage. Also avoid bunching wiring and extension cords.
	  • Do not damage, bundle or alter power cords. Also, do not place heavy objects on power cords, or strongly pull or bend power cords.
	  • Do not connect or disconnect the power plug with wet hands. Always grip the plug section when disconnecting a power cord.
	  • Do not wrap in cloth, etc., during use.

❗	● Keep the battery and SD memory card used in this equipment out of the reach of children to prevent accidental ingestion. Consumption is harmful to human beings. If swallowed, seek medical assistance immediately.
🚫	● Keep the equipment out of the reach of children. Children cannot understand and observe the items in "Safety Precautions" and "Precautions for use" and can thus cause an accident to occur.
✋	● Do not touch the internal components of the equipment if they become exposed as a result of being dropped or damaged. The high-voltage circuitry in the equipment could lead to an electric shock. Remove the battery as soon as possible, being careful to avoid electric shocks or burns. Take the equipment to your nearest dealer or service center if it is damaged.

⚠ Warning	
	● Do not use the equipment in the bathroom or shower as this could result in fire or electric shock.
	● Do not use the equipment near flammable gases, gasoline, benzine, thinner or similar substances to avoid the risk of explosion, fire or burns. ● Do not use the equipment in aircraft or other locations where usage is restricted or prohibited as this may lead to disasters or accidents.
	● Wipe off any dust that accumulates on the electrical plug as this may lead to fire. ● Use only the specified AC adapter (AC-3) in household electrical outlets. Other adapters pose the risk of fire, electric shock or injury.
	● To avoid the risk of fire, electric shock or injury, do not use the AC adapter with commercially available electronic transformers when traveling abroad.

Observe the following precautions to ensure safe use of this unit.

⚠ Caution

● Contact with fluid leaking from a battery can lead to burns. If part of your body comes in contact with a damaged battery, wash the area with water immediately. (Do not use soap.)
If a battery starts to leak, remove it immediately from the equipment and wipe the battery chamber thoroughly before replacing it with a new battery.

● Plug the power cords securely into the electrical outlets. Loose cords pose a fire hazard.

● Do not allow the camera to get wet. In addition, do not operate it with wet hands. Both pose the risk of electric shock.

● Do not fire the flash at drivers of vehicles, such as bicycles, cars and trains, as this may cause the driver to lose control and result in a traffic accident.

Safety Precautions for Accessories

Safety Precautions for the optional accessories, such as the remote control unit are contained in the instruction manual provided with each product and should be read thoroughly before operating the equipment.

Chapter 1

GETTING STARTED

Before Using the Camera

Attaching the Wrist Strap

Attach the wrist strap to the camera.

1 **Pass the end of the strap through the wrist strap eyelet on the camera.**

(Important)

• Do not swing the camera around by the strap.
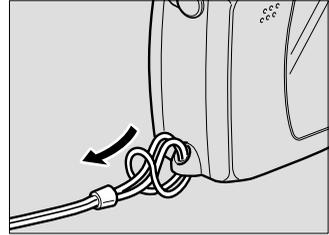
Powering the Camera

This section explains how to load and charge the battery and how to power the camera from a household electrical outlet

Loading the Battery

Load the rechargeable battery (DB-40) in the camera before operating.

1 Check that the camera is turned off and slide the battery cover open.

▶ *See "Turning the Camera On and Off" (p.30).*

(Important)

• Be sure to charge the battery before using it for the first time. (The battery is not charged at the time it leaves the factory.) *See "Charging the Battery" (p.22).*
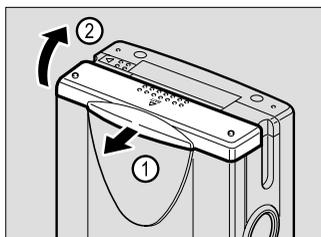
2 Load the battery and close the battery cover.

Make sure that the battery cover is closed securely.

(Important)

• Keep metal objects, such as needles, away from the battery contact surfaces and electrical connections. Electrostatic damage could result.
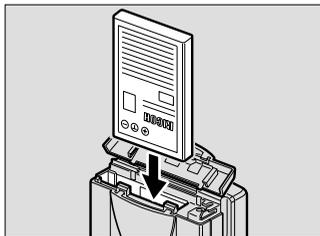
● **Shooting and playback guidelines**
The table below shows the approximate recording and playback times as measured under the following conditions.
[Measuring conditions]
Shooting :Shooting continuously in a recording mode with the power turned on (at intervals of 30 seconds, without turning off the camera between shots, with the flash fired for 50% of the shots, at a temperature of 20°C)
Playback :The camera is left turned on in a playback mode at a temperature of 20C°

Battery	Approx. recording time	Approx. playback time
Rechargeable battery DB-40	50 min.	80 min.

> **Tips** **How to Extend the Recording and Playback Times**
>
> Keep the following points in mind when operating the camera.
> • The values indicated above tend to decrease depending on the temperature in which the camera is used. In a cold environment, warming the battery in your hands, for example, could increase the number of images you can record.
> • Frequent use of the flash, zoom function and LCD monitor will contribute to running down of the battery. Keep their use to a minimum.

■ Precautions for Use

• When purchasing a spare battery, be sure to buy only the specified type.
  ▷ *See "Optional Accessories" (p.117).*
• Wipe the contacts of the battery and camera with a soft dry cloth.
• When used continuously for a long period, the battery may become hot. Allow to cool before removing.
• If you do not intend to use the camera for a long period, discharge the battery completely before removing it, and store it in a cool place. Charge it fully before using it again.

Charging the Battery

Before using the camera for the first time or when charging the battery, follow the procedure below to fully charge the battery.

1 Set the battery in the camera.
  ▷ *See "Loading the Battery" (p.21).*

2 Attach the connection cable of the AC adapter to the RICOH BASE.

3 Insert the power plug into the electrical outlet.

〈 Note 〉

• If you are using the camera for a long period and there is an electrical outlet nearby, use the AC adapter. *See "Using the AC Adapter" (p.24).*

• When powering the camera solely by the battery, you are recommended to keep a spare battery with you.

• If the battery symbol (⊂⊐) is displayed on the LCD monitor, it indicates that the battery is running low. Charge the battery. *See "Charging the Battery" (p.22).*

4 **Place the camera on the RICOH BASE.**

Charging will start. The charging lamp on the camera lights during charging and goes off when charging is finished. Charging takes approximately 3hours at room temperature.
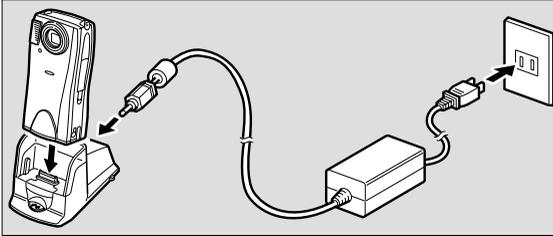
■ **Precautions for use**

• Use only the Ricoh rechargeable battery (DB-40).
• Use the RICOH BASE when charging the battery.
• Do not use the RICOH BASE to charge batteries other than the DB-40 rechargeable battery.
• Charge the battery in a well-ventilated place with an ambient temperature of 10-40 degrees.
• When the battery reaches the end of its service life, the working time becomes shorter even when it is correctly charged. Replace with a new battery.
• The battery will feel warm when charging is finished but this is not a malfunction.
• Remove the power plug from the electrical outlet if you do not intend to use the camera for a long period. If left plugged in, it may result in fire.

⟨Note⟩

• You can use the high speed battery charger. (Charging time: Approx. 2 hours at room temperature.) *See "Optional Accessories" (p.117).*

Using the AC Adapter

When using the camera for a long period to shoot or playback images, connect the AC adapter and power the camera from a household electrical outlet.

About the AC adapter

Be sure to read the safety precautions before use.

1 **Check that the camera is turned off and slide the battery cover open.**

➡ *See "Turning the Camera On and Off" (p.30).*

2 **Open the power supply terminal (DC-input) cover, set the AC adapter converter and then close the battery cover.**
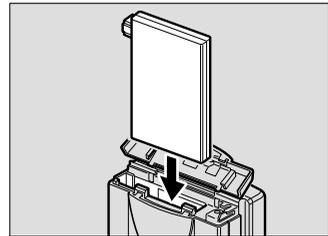
3 **Connect the AC adapter connection cable to the power supply terminal (DC-input) of the AC adapter converter.**

4 **Insert the power plug into the electrical outlet.**
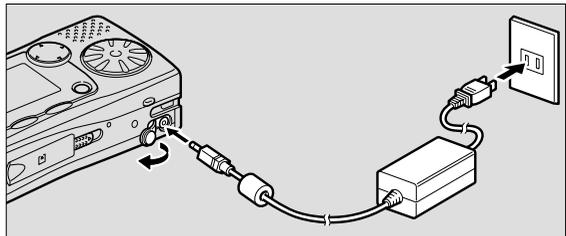
Important

• Insert the power plug and connection cable securely. If the plug or cable works loose during recording, the data may be lost or damaged.

• If you turn off the camera or disconnect the AC adapter while operating the camera (recording, playback, deleting, etc.), the data may be lost or damaged.

• If you do not intend to use the camera for a long period, disconnect the AC adapter from the camera and the electrical outlet.

• If you set the AC adapter converter, the power supply terminal (DC-input) cannot be closed.

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Storage Media

This camera records image files on an SD memory card.

■ Precautions for use

- Never insert or remove the card while the camera is turned on.
- Do not bend the card, subject it to strong force or impact, or drop it.
- Avoid using or storing the card in an environment where there is likely to be static electricity or electrical interference.
- Avoid using or storing the card in places that are subject to high temperature and humidity, in dusty places, or in an environment where corrosive substances are present.
- Do not allow dust or foreign matter to get inside the card cover.
- To avoid possible hazards, keep the card away from flames and do not dispose of it in fire.
- The card has a limited service life. If used for a long period, it may fail to record new files.

■ Data

- Data recorded on an SD memory card may be lost by incorrect handling by the user or a third party, by subjecting the card to static electricity or electrical interference, or by malfunction or repair of the camera. Ricoh Co., Ltd. assumes no liability for damages resulting from the loss of recorded data.
- Do not remove the battery, turn off the camera, or connect the AC adapter while data is being recorded on the card. The data stored on the card could be lost or damaged.
- You are advised to copy important data onto another media, such as a CD-R/RW or hard disk.

About the Memory Card

You are recommended to use an SD memory card. If you are using an MMC (Multi-Media Card), the following points should be noted.
- You cannot record motion pictures.
- The processing speed is slow.
* On account of the above limitations, we cannot guarantee operation of MMC.
* Please note you cannot use some manufacturers' MMCs.

Note

- SD memory cards with a capacity of up to 64MB can be used on this camera.

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Tips **To protect important data**

- To avoid accidental recording or deleting of data, set the write-protect switch to [LOCK]. Release the lock to record or delete data.

Write-protect switch

- Keep the metal terminal parts of the memory card clean.
- If the card becomes damaged, it may result in loss of data.

.

Inserting the SD Memory Card

Turn the camera off before inserting the SD memory card.

■ Inserting the card

1 **Check that the camera is turned off.**
   ▶ *See "Turning the Camera On and Off" (p.30).*

2 **Slide the card cover switch in the direction shown by the arrow and open the card cover.**
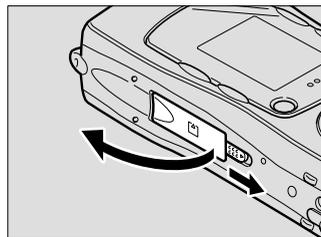
3 **Insert the card with the label facing toward you.**

26
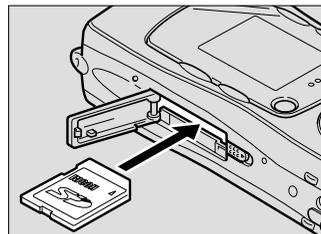
■ Removing the card

1 **Check that the camera is turned off.**
   ▶ *See "Turning the Camera On and Off" (p.30).*

2 **Slide the card cover switch to open the card cover. Push the card in and then pull it out.**
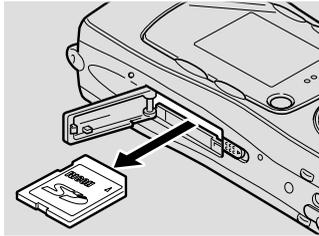
The card eject function is activated by pushing the card in. Keep the card horizontal when pulling it out.

Formatting an SD Memory Card

Format an SD memory card.
Before using a new SD memory card or an SD memory card that has been used on another device (such as a PC), format the card with the camera first.

■ Operation Map
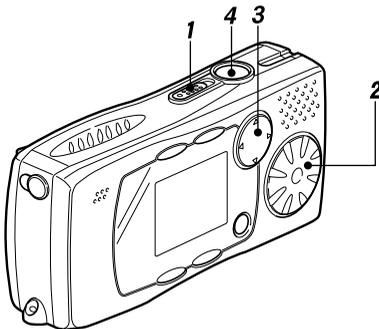
SETUP mode
SET UP

1 **Slide the power switch toward POWER and turn the camera on.**
   ▶ *See "Turning the Camera On and Off" (p.30).*

2 **Set the mode dial to [SET UP].**

⚠ Important

• Formatting will delete all the files recorded on the card (including protected files).

• Some SD memory cards formatted with other devices cannot be used.

27

3 Press the ▲ or ▼ button to select [FORMAT] and press the ▶ button.

SET UP	1/3
FORMAT	▶
KEEP SETTING	▶
DIGITAL ZOOM	OFF
LCD CONFIRM.	1SEC.
AUTO OFF ▼	1MIN.
	SELECT:⊙

4 Press the shutter release button.

⚠ **FORMAT**
MEMORY CARD

CANCEL:CANCEL START:RELEASE
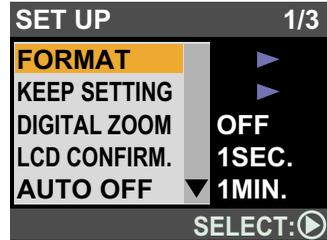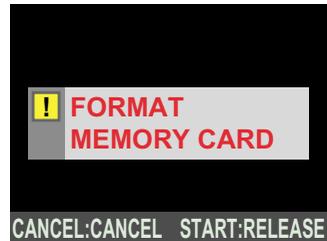
The [FORMATTING] message will be displayed. When formatting is completed, the screen will return to the SET UP menu.

Chapter 2

MASTERING BASIC OPERATION

Turning the Camera On and Off

Follow the procedure below to turn the camera on and off.

1 Slide the power switch in the direction shown by the arrow (toward POWER).

The camera will turn on.
To turn the camera off, slide the power switch toward POWER again.
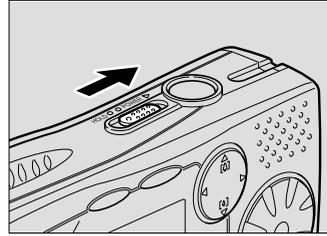
Tips **Auto Power Off**

The auto power off function will be activated and the monitor and camera will be turned off automatically to conserve the battery if the camera is left with no buttons operated for the preset time. To resume use, turn the power on again.

▶ *See "Changing the Auto Power Off Setting" (p.98).*

Tips **HOLD Switch**

If you slide the power switch toward HOLD, all button operations will be disabled. Use the function to avoid misuse of the buttons during playing back music.

▶ *See "Playing Music" (p.91).*
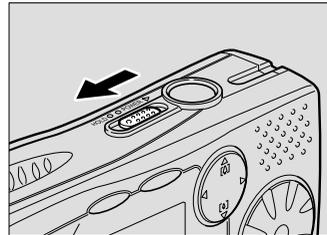
Using the Mode Dial

The camera offers a number of modes for recording and playback. The mode dial is used to select the desired mode.

Mode dial	Mode name	Description
SET UP	Setup mode	This mode is used for changing and confirming the camera settings.
▶	Play mode	This mode is used for playing recorded files.
◻	Still Picture mode	This mode is used for normal shooting.
🖹	Text mode	This mode is used for recording text. Colour is eliminated and the picture is recorded in 2 values, black and white.
📑	Continuous Shooting mode	Pictures are recorded continuously while the shutter release button is pressed.
🎥	Motion Picture mode	This mode is used for recording motion pictures with sound.
🎤	Voice Memo mode	This mode is used for recording voice memos.
MUSIC	Music mode	This mode is used for playing music.

1 Turn the mode dial and set it to the desired mode.

The screen displayed on the LCD monitor varies depending on the mode. Refer to the following pages for operating instructions.

- **SET UP** (Setup) (p.96)
- ▶ (Play) (p.70)
- ◻ (Still picture) (p.43)
- 🖹 (Text) (p.45)
- 📑 (Continuous shooting) (p.46)
- 🎥 (Motion picture) (p.47)
- 🎤 (Voice memo) (p.48)
- **MUSIC** (Music) (p.90)

Explanation of the Data Displays

The LCD monitor displays symbols and figures showing the status of the camera, such as the battery level, the number of recordable images, and the mode setting.

■ Recording Mode Display

Remaining number of pictures   Recording time   Remaining recording time

Zoom indication bar   Date and time   Message

	LCD monitor
Type of file	☐ 🎤 ≣ 🔲 📹 🎵
Size/No. of pixels	1600 • 1280 • 640 • 320
Image quality/ Compression rate	F • N • E • NC
Flash mode	(lit) (blinking)
Exposure compensation	EV-2.0 ~ EV+2.0
White balance	☀ ☁ ⛅ 💡
Macro mode	🌷
Focus	MF
ISO sensitivity	ISO200 • ISO400
Red-eye reduction	👁
Time exposure	L1 • L2 • L4
Battery symbol	▭ ▭*
Brightness control	◗ -2 ~ ◗ +2

* When the low battery icon (▭) is displayed, change or charge the battery.
▶ *See "Loading the Battery" (p.21) and "Charging the Battery" (p.22).*

■ Play Mode Display

File no./Total no. of files

5/26
100-0005
N 1600

2001/07/15 11:25

Date and Time

Playback time

Folder name/File name

8/26
00:00 100-0005
320

START:RELEASE

2001/07/15 11:25

Indicator   Message
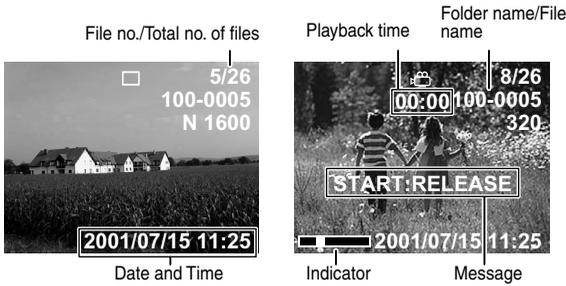
	LCD monitor
Type of file	□ 🎤 🗐 🗗 🎬 🎵
Size/No. of pixels	1600 • 1280 • 640 • 320
Protect mode	🔒
Battery symbol	▭ ▭*

* When the low battery icon (▭) is displayed, change or charge the battery.
  ▶ *See "Loading the Battery" (p.21) and "Charging the Battery" (p.22).*

Tips **LCD Monitor Display Function**
The data display changes to show the recording mode, PIC mode, recordable picture count, etc. each time the DISPLAY button is pressed.

● **Recording mode (Still picture mode)**

Detailed data display   Simple display   No display

25
N 1600

2001/07/15 11:25

➡

25

➡
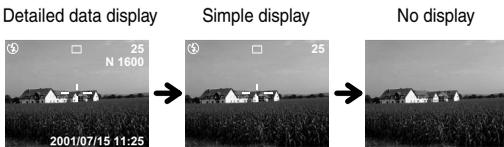
• The detailed data display and simple display show 🎤 , 🎬 and the recording time in voice memo mode and motion picture mode.

Before You Start Recording

This section explains how to make the various camera settings, such as setting the date and time, adjusting the focus and capturing the subject.

Setting the Date and Time

Follow the procedure below to set the date and time. You will need to adjust these settings when you first use the camera and when you wish to change the preset date and time.

1 Set the mode dial to [SETUP].

2 Press the ▲ or ▼ button to select [DATE SETTING] and press the ▶ button.

```
SET UP                    2/3
BEEP SOUND  ▲  ON
POWER SAVE     OFF
SEQ.FILE NO.   ON
DATE SETTING   ▶
LANGUAGE    ▼  ENGLISH
                  SELECT: ◉
```

3 Press the ◀ or ▶ button to highlight the item you wish to adjust and press the ▲ or ▼ button to change the digit.

```
SET DATE/TIME

  ▲
  2001  /  01  /  01
  ▼
         00  :  00

CANCEL:CANCEL   SEL.:ENTER
```
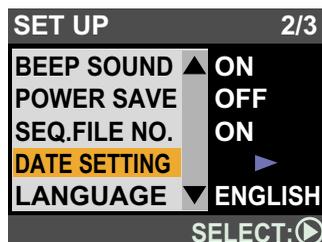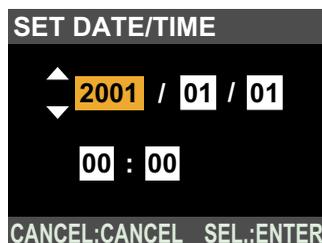
4 Press the ENTER button.

Tips **How to verify the date and time**
The preset date and time are displayed on the LCD monitor in recording mode.
▶ *See "LCD Monitor Display Function" (p.33).*

How to Hold the Camera

Unintentional movement of the camera during shooting will result in blurred images. To keep the camera steady, hold the camera correctly. Be particularly careful to keep the camera steady when taking telephoto zoom shots.

1 Hold the camera steady with both hands with your elbows pressed lightly to your body.

Hold the camera steady with both hands, aim it at your subject and view the image on the LCD monitor.
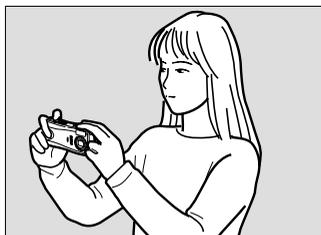
2 Press the shutter release button lightly with your fingertip.
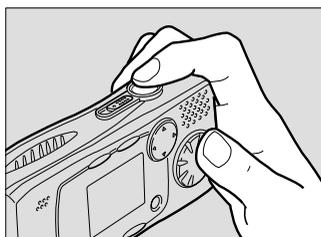
(Important)

• Removing your finger from the shutter release button and then pressing the button down fully in one step to take a picture could result in a blurred image.

■ Precautions for use

Be careful to keep your fingers and hair and the wrist strap away from the lens and flash sensor.

35

Adjusting the Focus

Follow the procedure below to check the position of the subject on the LCD monitor and adjust the focus.

■ LCD monitor
● Shooting scope
Position your subject in the middle of the LCD monitor.
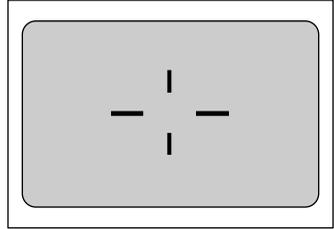
● Autofocus field
This is the field in the middle of the LCD monitor, as shown in the figure, within which the focus is automatically adjusted.
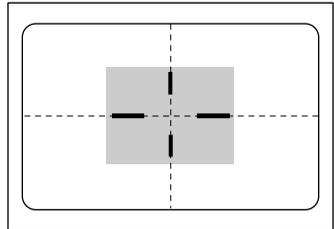
■ Shutter release button
The shutter release button works in a two-step action.

● Press halfway
When you press the shutter release button lightly (halfway), the autofocus function is triggered and the camera is focused on the subject.
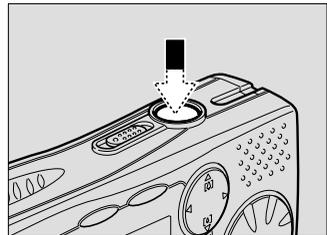
The autofocus LED (green) will light when the subject is in focus. The focus, exposure and white balance are locked at this point.

25
N 1600

2001/07/15 11:25

● **Press fully**

To record the image, press the shutter release button down fully from half-pressed without removing your finger.

■ Subjects on which it is difficult to focus

You may experience difficulty focusing on the following subjects.
- Objects with no contrast (such as the sky, white walls, and car hoods)
- Flat two-dimensional objects with only horizontal lines and no significant protrusions
- Fast-moving objects
- Low-brightness objects (in dark places)
- Strongly backlit objects and objects struck by strong reflected light
- Flickering objects such as fluorescent lights

When shooting subjects such as these, focus on another subject that is located at the same distance and activate the focus lock before aiming at the subject with that focus setting.

Changing the Size of the Subject (Zoom)

By pressing the zoom button, you can vary the size of the subject without changing the distance between yourself and the subject (equivalent to 38-76mm in 35mm camera format).

1 Press the [♠] button or the [♦] button.

The zoom indication bar will be displayed on the LCD monitor. Adjust the subject to the desired size.

Changing the PIC (Image Quality) Mode

The camera offers six image quality modes: 1600F, 1600N, 1600E, 1600NC, 1280N and 640N. Select the mode to suit your purpose.
• The default setting is 1600N.
• NC (non-compressed) mode is for recording data without compressing it.

1 Press the PIC button.

The PIC (image quality) mode changes each time the button is pressed.
When the PIC mode is set, the mode is saved when the camera is turned off.

● **Approximate file size by PIC mode**

Size (No. of pixels)	Image quality (Compression rate)			
	F (Fine)	**N** (Normal)	**E** (Economy)	**NC** (Non-compressed)
1600 × 1200	710KB	359KB	183KB	5.5MB
1280 × 960	—	307KB	—	—
680 × 480	—	82KB	—	—

Adjusting the Brightness of the LCD Monitor

Follow the procedure below to adjust the brightness of the LCD monitor when it is hard to see, such as in strong sunlight.

1 **Press the DISPLAY button for about 2 seconds.**

2 **Press the ◄ or ► button to adjust the brightness of the LCD monitor.**
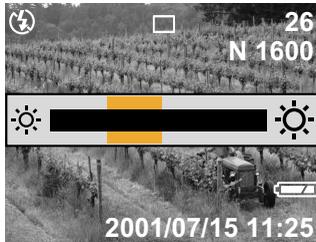
The screen will return to the normal display after about 2 seconds.

Note

⟨Note⟩

- The size (number of pixels) is displayed on the LCD monitor as 1600, 1280 or 640.

- If the size is 1280 or 640, the black frame will be displayed on the LCD monitor during recording and playback.

- The size of motion pictures is 320 × 240 pixels. It is displayed on the LCD monitor as 320.

- For the number of recordable images by PIC mode, see "Recording Capacities" (p.115).

2

MASTERING BASIC OPERATION

39
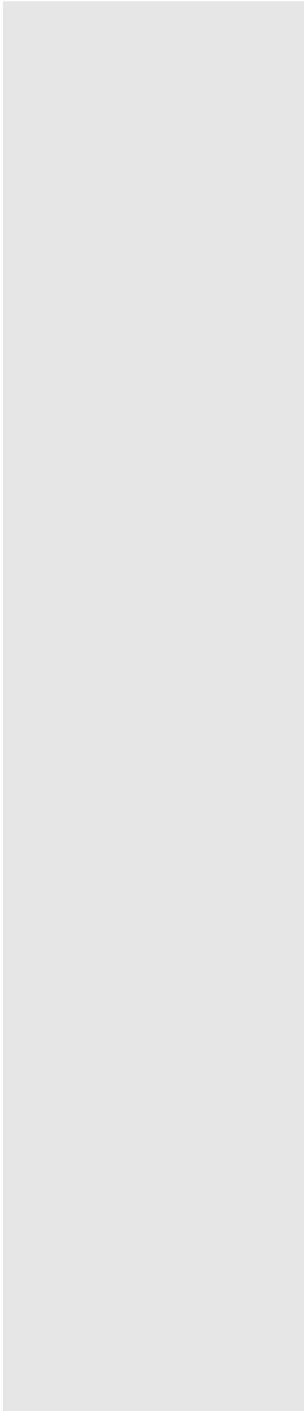
Chapter 3

SHOOTING

Basic Shooting

This section explains the general flow of shooting operation and provides basic shooting instructions.

Operation Flow

Basic shooting follows the steps below.

Turn the camera on

Slide the power switch to turn the camera on. (p.30)

Select the recording mode

Choose the shooting mode: ◻, ⬛, ⬚, ▥, 🎤. (p.43)

Select the PIC mode

Choose from six image quality modes: 1600F, 1600N, 1600E, 1600NC, 1280N and 640N. (p.38)

Check the position of the subject

Check the position of the subject on the LCD monitor. (p.36)

Select the size of the subject

Use the zoom button to decide the size of the subject. (p.38)

Record the image

Press the shutter release button to record the image.

Still Picture Mode

Use the still picture mode for normal shooting.

■ Operation Map
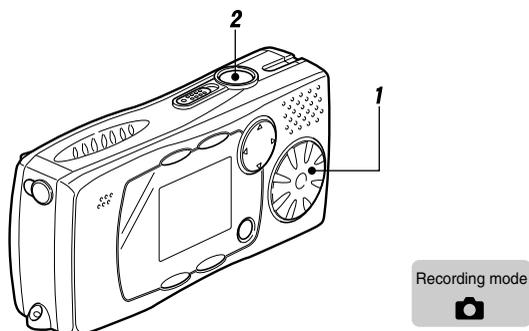
Recording mode
📷

1 Set the mode dial to [📷].

▶ *See "Changing the Size of the Subject (Zoom)" (p.38)*
See "Adjusting the Focus" (p.36)

2 Press the shutter release button.

The image will be displayed and recorded.

Important

• Do not slide the card cover switch to remove the SD memory card, or disconnect the AC adapter during recording.

• The autofocus LED or the flash LED blinks during recording. Wait until recording has finished before turning the mode dial to another setting or turning the camera off.

Note

• The auto power off function will be triggered if the camera is left turned on with no buttons operated for the preset time. When you

Note

• If the distance to the subject is less than about 40cm in Tele mode or 14cm in Wide mode, use macro mode. *See "Macro Mode" (p.55).*

• You can set the image display time as desired. *See "Changing the LCD Confirmation Time" (p.97).*

• You can record images with voice memo. *See "Images with Voice Memo" (p.57).*

require more time to compose a shot, disable the auto power off function. *See "Changing the Auto Power Off Setting" (p.98).*

• If you intend to use the camera for a long period, have a spare battery or AC adapter ready.

◄ **Tips**   **Focus Lock Shooting**
Usually the focus is set on the subject that appears in the autofocus field on the LCD monitor. If the subject is located outside the autofocus field, it may appear blurred in the resulting picture. At such times, use the focus lock.
1 Bring the subject on which you wish to focus into the autofocus field.

2 Press the shutter release button lightly. When the green autofocus LED lights, hold the shutter release button in that position.
The focus, exposure and white balance are locked at this point.
3 Decide the composition of the picture by moving the camera with the shutter release button held, and then press the shutter release button down fully.

Text Mode

Follow the procedure below to record text. The appropriate processing to record text is carried out and the text is recorded in two values only, black and white.

■ Operation Map
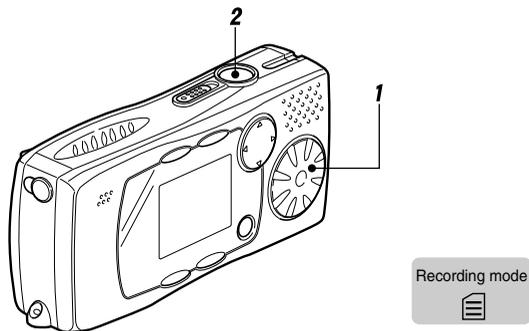
Recording mode
≣

1 Set the mode dial to [≣].

▶ *See "Changing the Size of the Subject (Zoom)" (p.38) . See "Adjusting the Focus" (p.36).*

2 Press the shutter release button.

25
1600

2001/07/15 11:25

The image will be displayed and recorded.

Important
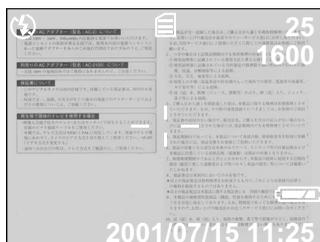
• It takes some time to record the image.

Note

• You can change the brightness when shooting. *See "Setting the Brightness Control" (p.65).*

• You can record text images with voice memo. *See "Images with Voice Memo" (p.57).*

Continuous Shooting Mode

Pictures are taken continuously while the shutter release button is pressed. This mode is useful for taking those not-to-be-missed shots.

■ Operation Map
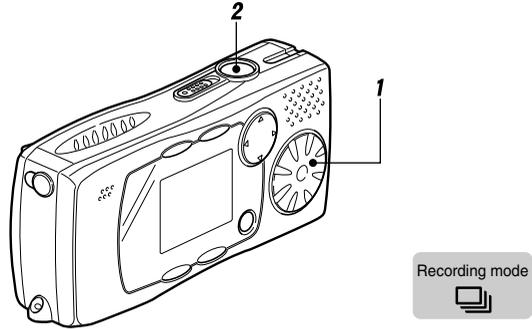
Recording mode
🗗

1 Set the mode dial to [🗗].

▶ *See "Changing the Size of the Subject (Zoom)" (p.38).*
See "Adjusting the Focus" (p.36).

2 Press the shutter release button.

Pictures are taken continuously while the shutter release button is pressed.
Picture-taking stops when the shutter release button is released.

Note

- The flash will not fire in Continuous Shooting mode.
- Non-compressed mode cannot be selected in Continuous Shooting mode.
- The focus, exposure and white balance are locked in the status at the time the shutter release button is pressed.
- When the file number reaches 9999, no more images can be recorded. Copy the recorded files onto another media before formatting the card, or insert a new SD memory card.

● **Maximum number of shots in Continuous Shooting mode**

The maximum number of shots that you can take in Continuous Shooting mode is as shown below according to the PIC mode.

Size (No. of pixels)	Image quality (Compression rate)		
	F (Fine)	N (Normal)	E (Economy)
1600×1200	Approx. 7	Approx. 14	Approx. 28
1280×960	—	Approx. 14	—
680×480	—	Approx. 56	—

• The above shows the maximum number of images that can be taken continuously at one time. The number varies depending on the available space in the storage media.

Motion Picture Mode

Follow the procedure below to take moving images. The possible recording time is displayed according to the remaining space in the recording destination. Sound is incorporated in the recording.

■ Operation Map

Microphone

Recording mode
🎬
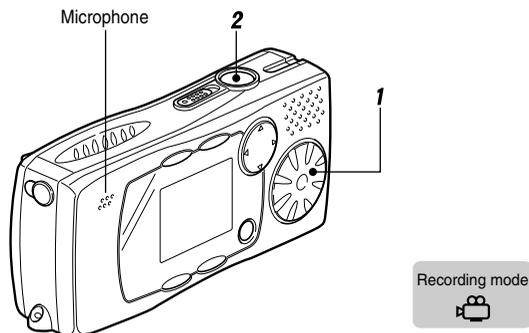
1 Set the mode dial to [🎬].

The recordable time will be displayed on the LCD monitor.

(Important)

• The microphone is located on the top left of the operating parts.

⟨Note⟩

• The size is 320×240 pixels.

• In the motion picture mode, the black frame is displayed on the LCD monitor.

• The zoom will not function during recording.

• The flash will not fire in Motion Picture mode.

• The focus, exposure and white balance are locked in the status at the time the shutter release button was pressed lightly.

2 Press the shutter release button.

10:12
00:00 **320**
START:RELEASE
2001/07/15 11:25

Shooting will start.
Press the shutter release button again to stop recording.

Voice Memo Mode

Follow the procedure below to record sound. The possible recording time is displayed according to the remaining space in the recording destination.

■ Operation Map

Microphone
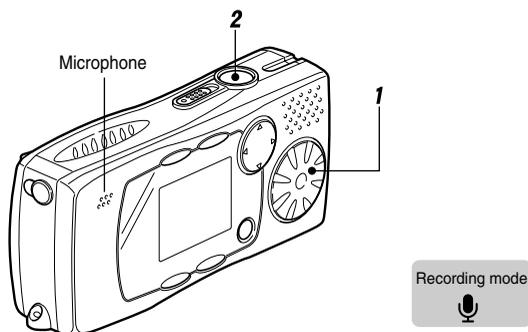
Recording mode
🎤

1 Set the mode dial to [🎤].

The possible recording time will be displayed on the LCD monitor.

2 **Press the shutter release button.**

```
              🎤      12:30
   00:00



   START:RELEASE
                     ⬛⬛
   2001/07/15 11:25
```
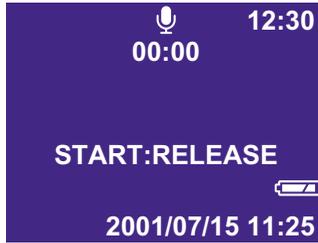
Recording will start. The 🎤 symbol blinks during
recording and the recording time is displayed.
Press the shutter release button again to stop
recording.

⟨Note⟩

• If the recording/recordable
  time exceeds 99min. 59sec.,
  the display on the LCD
  monitor changes to hours
  and minutes.
  Example: 100 minutes is
  displayed as [1:40].

3

SHOOTING

Shooting Functions

This section explains the various shooting functions. The functions that can be used vary depending on the recording mode. Refer to the table below.

Function	Still picture	Text	Continuous shooting	Motion picture	Voice memo
Flash mode	◯	◯	✕	✕	✕
Exposure compensation	◯	◯	◯	◯	✕
White balance	◯	✕	◯	◯	✕
Macro mode	◯	◯	◯	◯	✕
Image with voice memo	◯	✕	✕	✕	✕
Focus	◯	◯	◯	◯	✕
Date imprint	◯	◯	◯	✕	✕
ISO setting	◯	◯	◯	✕	✕
Red-eye reduction	◯	✕	✕	✕	✕
Time exposure	◯	✕	✕	✕	✕
Brightness control	✕	◯	✕	✕	✕
Digital zoom	◯	✕	✕	✕	✕

Flash Mode

This camera offers four flash modes. Choose the mode best suited to the shooting conditions.

Display	Mode	Description
⚡⃠	Flash Off	The flash will not fire under any circumstances.
No display	Auto	The flash fires automatically in low light and backlit conditions.
⚡ Lit	Forced Flash	The flash always fires regardless of the brightness.
⚡ Blinking	Slow Synchro	The flash fires and illuminates the subject while the slow shutter speed exposes the background. It prevents only the background appearing dark when the flash fires.

• The default setting is ⚡⃠ (Flash Off).

Effective Range of the Flash

When you record an image using the flash, the effective range of the flash is about 0.6-2.0m in Tele mode and 0.6-2.5m in Wide mode. If the light from the flash does not reach the subject, the subject will appear dark in the image.

1 Set the mode dial to [◻] or [🖹].

2 Press the ⚡ button to select the flash mode (⚡, Auto, (No display), ⚡ lit, ⚡ blinking).

The flash mode will change each time the button is pressed.

3 Press the shutter release button.

When the flash fires, the flash LED (red) will light when the shutter release button is pressed lightly. The flash LED blinks while the flash is being charged and the display disappears from the LCD monitor. Pictures cannot be taken at this time.

Important

• If you use the flash when taking a subject at close range (about 0.6m or less), the light from the flash may appear red. This also causes overexposure so the subject may appear white in the picture. At such times, select Flash Off mode.

• The shutter speed will automatically become slower in low light conditions. Hold the camera steady to avoid camera shake. Be particularly careful when using Tele mode ([▲]).

Note

• The flash will not fire in the following cases.

- When the recording mode is set to Continuous Shooting, Motion Picture or Voice Memo

- When the white balance is set to daylight, overcast, tungsten or fluorescent lighting

Note

• Enable the keep settings mode to save the flash mode setting. *See "Keep Settings" (p.96).*

• Shooting in red-eye reduction mode will reduce the phenomenon of red eyes in the resulting picture. *See "Red-eye Reduction Mode" (p.62).*

• If the LCD monitor appears dark when recording images using the flash, set the zoom to Wide. The focus may be hard to obtain in Tele mode.

Exposure Compensation

Normally, the camera will automatically adjust the exposure compensation for backlighting when the subject is in the middle of the shooting scope. If there is a significant difference in brightness between the background and the subject, however, the subject tends to be under- or over-exposed. Exposure compensation is useful in this situation. You can also use exposure compensation to produce intentionally under- or over-exposed pictures.

Exposure Compensation Range
±2.0EV (set in steps of 0.5EV)

Shooting against the Light
A very bright background will make the subject appear under-exposed. Set the exposure compensation level to a positive (+) value to adjust the exposure.

Shooting a White Subject
If you shoot a subject that is mainly white, the shot will be under-exposed overall, with people appearing dark and white objects appearing grey. Set the exposure compensation level to a positive (+) value to adjust the exposure.

Shooting a Black Subject
If you shoot a subject that is mainly black, the shot will be over-exposed overall, with people appearing white and black objects appearing grey. Set the exposure compensation level to a negative (-) value to adjust the exposure. Follow the same procedure when shooting a person under a spotlight.

1 Set the mode dial to [◻, ▤, ▣ or ◷] and press the MENU button.

Important

• If the subject is not centered in the shooting range when taking a picture against the light, the camera will not assume that the subject is in a backlit state. Exposure compensation is required in this situation.

2 **Check that ☒ has been selected and press the ENTER button.**

+/—   📷

☒ ☼ 🌷   **MENU**

3 **Press the ▲ or ▼ button to select the compensation level and press the ENTER button.**

+/—   📷

+ 1.0
+ 0.5
0.0
— 0.5
— 1.5

☒ ☼ 🌷   **MENU**

4 **Press the shutter release button.**

🚫   ☐   **25**
N 1600

Exposure Compensation value display
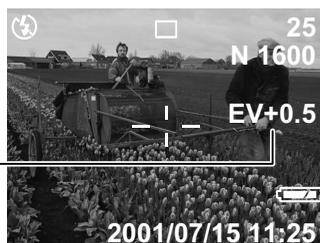
EV+0.5

2001/07/15 11:25

White Balance

The white balance mode adjusts the white balance so that you can capture your subject in its natural colours regardless of the light source. The auto mode will suffice in most situations. The auto mode automatically adjusts the white balance based on the white areas, ensuring that white is reproduced as white regardless of the light source. Consequently, a subject that lacks white areas or that is dominated by dark tones may not achieve an appropriate white balance. Change the white balance mode to shoot such subjects.

Display	Mode name	Description
No display	Auto	The camera automatically adjusts the white balance.
☀	Daylight	Use this mode outdoors when the white balance is difficult to achieve.
☁	Overcast	Use this mode in cloudy weather or in the shade when the white balance is difficult to achieve.
☀	Tungsten light	Use this mode to shoot subjects under tungsten light when the white balance is difficult to achieve.
〰	Fluorescent light	Use this mode to shoot subjects under fluorescent light when the white balance is difficult to achieve.

• The default setting is auto mode.

Subjects difficult to correct in auto mode

• Monochrome subjects
• Subjects lit by multiple light sources

1 Set the mode dial to [📷, ⊒ or 🎬] and press the MENU button.

2 Press the ▶ button to select 🔆 and press the ENTER button.

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3 Press the ▲ or ▼ button to select the white balance (auto, daylight, overcast, tungsten or fluorescent) and press the ENTER button.

```
WHITE BALANCE        📷
  AUTO
  DAYLIGHT
  OVERCAST
  TUNGSTEN
  FLORCNT.
🔆 ☀ ✿              MENU
```

4 Press the shutter release button.

```
🚫⚡ ☀       □      25
                 N 1600




        2001/07/15 11:25
```
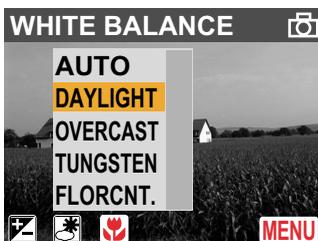
Note

• In auto mode, subjects lacking white areas may not achieve an appropriate white balance. When shooting such subjects, add a white object to the composition.

• The flash will not fire in daylight, overcast, tungsten and fluorescent light modes.

Macro Mode

Macro mode allows you to take close-up pictures of a subject. Use macro mode when the distance to the subject is less than about 40cm in Tele mode and 14cm in Wide mode.

1 Set the mode dial to [📷, 🎬, 🔁 or 📹] and press the MENU button.

Note

• Enable the keep settings mode to save the white balance setting. *See "Keep Settings" (p.96).*

Important

• Even with the same subject, the colours may vary due to the weather conditions and light source (tungsten or fluorescent lighting).

Note

• By using macro mode, you can record images at a distance of up to about 4cm from your subject.

2 Press the ▶ button to select ♥ and press the ENTER button.

MACRO MODE 🔲

🔺 🌡 ♥   **MENU**

3 Press the ▲ or ▼ button to select [ON] and press the ENTER button.

Note

• To cancel macro mode, select [OFF].

MACRO MODE 🔲

ON
OFF
🔺 🌡 ♥   **MENU**

4 Press the shutter release button.

Macro mode display ────

25
N 1600

T

W

2001/07/15 11:25
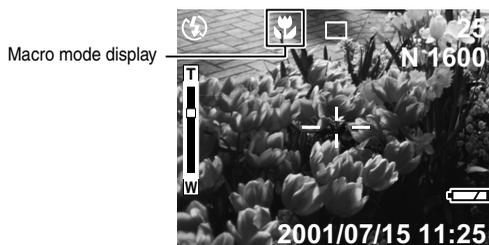
Important

• The focusing range is so small in macro mode that the focus can be lost if the camera is moved. Make sure that the camera is firmly positioned to keep it steady when shooting.

Images with Voice Memo

You can record 10 seconds of voice memo with still picture and text images. This mode enables you to add a comment to go with the image.

1 **Set the mode dial to [⬛] and press the MENU button.**

2 **Press the ▶ button to select MENU and press the ENTER button.**

MODE SETTING

3 **Press the ▲ or ▼ button to select [IMG. W/SOUND] and press the ▶ button.**
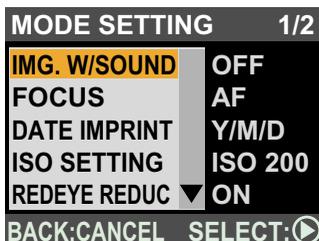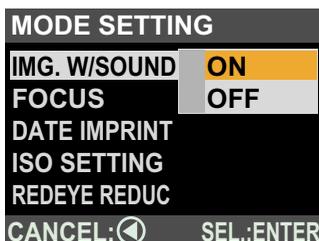
MODE SETTING	1/2
IMG. W/SOUND	**OFF**
FOCUS	**AF**
DATE IMPRINT	**Y/M/D**
ISO SETTING	**ISO 200**
REDEYE REDUC ▼	**ON**
BACK:CANCEL	SELECT:⊙

4 **Press the ▲ or ▼ button to select [ON] and press the ENTER button.**

MODE SETTING	
IMG. W/SOUND	**ON**
FOCUS	**OFF**
DATE IMPRINT	
ISO SETTING	
REDEYE REDUC	
CANCEL:◁	SEL.:ENTER

5 **Press the CANCEL button.**

6 **Press the shutter release button.**

After the image is displayed, you can record 10 seconds of voice memo. The 🎤 symbol blinks during voice memo recording.

Manual Focus

You can adjust the focus manually when the subject is not brought into focus by the autofocus mode.

1 **Set the mode dial to [📷, 🎬, 🔁 or 🎞] and press the MENU button.**

2 **Press the ▶ button to select MENU and press the ENTER button.**

<Note>

- The focus, exposure and white balance are locked in the status when the shutter release button was pressed lightly.
- Voice memo recording starts after the image has been recorded. At this time, check recording by blinking of the 🎤 symbol.
- Press the shutter release button again during recording to stop recording.

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3 Press the ▲ or ▼ button to select
[FOCUS] and press the ▶ button.

MODE SETTING	1/2
IMG. W/SOUND	OFF
FOCUS	AF
DATE IMPRINT	Y/M/D
ISO SETTING	ISO 200
REDEYE REDUC ▼	ON
BACK:CANCEL	SELECT:▶
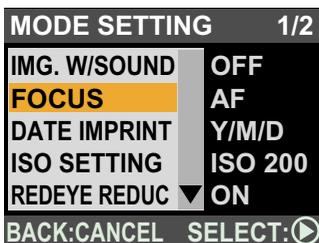
4 Press the ▲ or ▼ button to select [MF]
and press the ENTER button.

MODE SETTING	
IMG. W/SOUND	
FOCUS	AF
DATE IMPRINT	**MF**
ISO SETTING	
REDEYE REDUC	
CANCEL:◀	SEL.:ENTER

⟨Note⟩
• To cancel manual focus mode, select [AF]. (The mode will return to autofocus mode.)
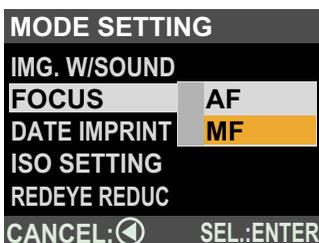
5 Press the CANCEL button.

6 Press the ◀ or ▶ button to bring the
subject into focus and press the shutter
release button.

⟨Note⟩
• Enable the keep settings mode to save the focus setting. *See "Keep Settings" (p.96).*

Manual focus display

⟨⟩   □ M_F   **25**
N 1600

◀FOCUS ADJUST▶ ▭
2001/07/15 11:25
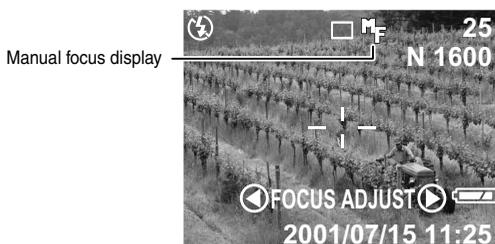
The focus adjustment indicator (◀ FOCUS
ADJUST ▶) will disappear about two seconds after
removing your finger from the ◀ • ▶ buttons.

Date Imprint Mode

Use this mode to record images imprinted with the date.

1 **Set the mode dial to [▢, ▤ or ▯] and press the MENU button.**

2 **Press the ▶ button to select ▣ and press the ENTER button.**

MODE SETTING ▢

▣ ☼ ♣ **MENU**

3 **Press the ▲ or ▼ button to select [DATE IMPRINT] and press the ▶ button.**

MODE SETTING	1/2
IMG. W/SOUND	OFF
FOCUS	AF
DATE IMPRINT	Y/M/D
ISO SETTING	ISO 200
REDEYE REDUC ▼	ON
BACK:CANCEL	SELECT:◉

<Note>

• To cancel date imprinting mode, select [OFF].
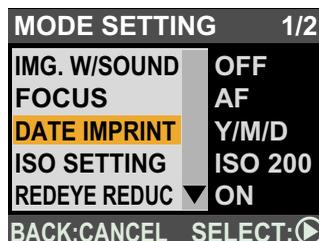
4 **Press the ▲ or ▼ button to select the display format and press the ENTER button.**

MODE SETTING	
IMG. W/SOUND	OFF
FOCUS	**Y/M/D**
DATE IMPRINT	D/M/Y
ISO SETTING	M/D/Y
REDEYE REDUC	D/TIME
CANCEL:◀	SEL.:ENTER
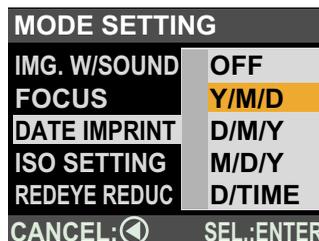
The display format will be as shown below in the case of 10:00am on 15 July 2001.

Y/M/D : 2001/07/15
D/M/Y : 15/07/2001
M/D/Y : 07/15/2001
D/TIME : 2001/07/15 10:00

5 Press the CANCEL button.

6 Press the shutter release button.

When date imprint mode is set, the colour of the date on the LCD monitor changes to orange.

ISO Setting

You can change the ISO sensitivity when recording images.

1 Set the mode dial to [∆, 圓 or 弖] and press the MENU button.

2 Press the ▶ button to select MENU and press the ENTER button.

MODE SETTING

3 Press the ▲ or ▼ button to select [ISO SETTING] and press the ▶ button.
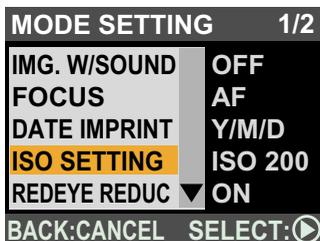
MODE SETTING	1/2
IMG. W/SOUND	OFF
FOCUS	AF
DATE IMPRINT	Y/M/D
ISO SETTING	ISO 200
REDEYE REDUC ▼	ON
BACK:CANCEL	SELECT:

3

SHOOTING

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4 Press the ▲ or ▼ button to select the ISO sensitivity (AUTO, ISO 200 or ISO 400) and press the ENTER button.
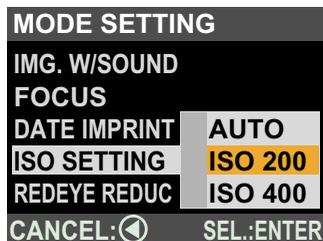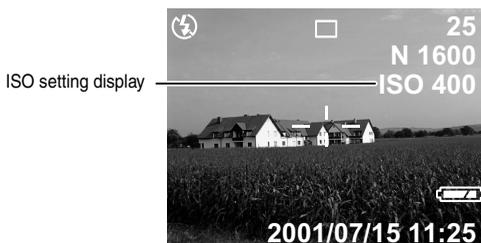
MODE SETTING	
IMG. W/SOUND	
FOCUS	
DATE IMPRINT	AUTO
ISO SETTING	ISO 200
REDEYE REDUC	ISO 400
CANCEL:◀	SEL.:ENTER

5 Press the CANCEL button.

6 Press the shutter release button.

ISO setting display ———— ISO 400

25
N 1600

2001/07/15 11:25

Red-eye Reduction Mode

If you use the flash to shoot a subject in a dark place, the eyes of the subject may appear red in the resulting picture. The red-eye reduction mode helps to reduce this phenomenon.
The flash fires several times before the shutter is released to lessen the red-eye phenomenon.

1 Set the mode dial to [📷] and press the MENU button.

2 Press the ▶ button to select 𝗠𝗘𝗡𝗨 and press the ENTER button.

MODE SETTING 📷

MENU

3 Press the ▲ or ▼ button to select [REDEYE REDUC] and press the ▶ button.
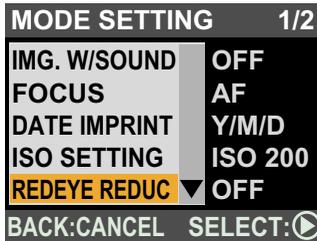
MODE SETTING	1/2
IMG. W/SOUND	OFF
FOCUS	AF
DATE IMPRINT	Y/M/D
ISO SETTING	ISO 200
REDEYE REDUC ▼	OFF
BACK:CANCEL	SELECT:▶

4 Press the ▲ or ▼ button to select [ON] and press the ENTER button.

MODE SETTING	
IMG. W/SOUND	
FOCUS	
DATE IMPRINT	
ISO SETTING	ON
REDEYE REDUC	OFF
CANCEL:◀	SEL.:ENTER
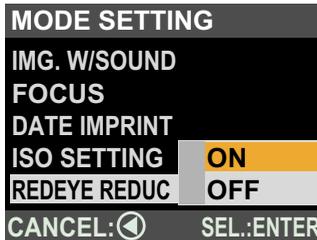
5 Press the CANCEL button.

- Enable the keep settings mode to save the red-eye reduction setting. *See "Keep Settings" (p.96)*.

- The red-eye reduction function cannot be used in flash off mode.

Important

- Make sure that the camera is kept steady, when shooting in time exposure mode.

6 Press the shutter release button.

Red-eye reduction display

```
2001/07/15 11:25
```

When you press the shutter release button, the pre-flash will fire several time in succession before the main flash fires and the shutter is released.

Important

- The shutter takes about 1 second to release after the shutter button is pressed. Hold the camera steady during this time.

Time Exposure Mode

You can change the exposure time (1sec, 2sec, 4sec) in time exposure mode. The shutter stays open for the set time, enabling you to take a trail, such as fireworks or moving cars in the dark.

1 Set the mode dial to [⚫] and press the MENU button.

2 Press the ▶ button to select MENU and press the ENTER button.

```
MODE SETTING

      🔲     📷      💐        MENU
```

3 Press the ▲ or ▼ button to select [TIME EXP.] and press the ▶ button.

MODE SETTING 2/2

TIME EXP.   ▲ OFF

BACK:CANCEL   SELECT:▶
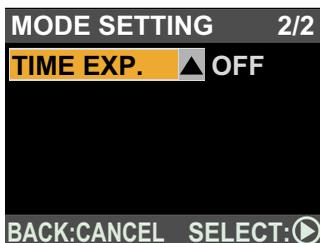
4 Press the ▲ or ▼ button to select the exposure time (OFF, 1 SEC., 2 SEC. or 4 SEC.) and press the ENTER button.

MODE SETTING

TIME EXP.   OFF
              1 SEC.
              2 SEC.
              4 SEC.

CANCEL:◀   SEL.:ENTER
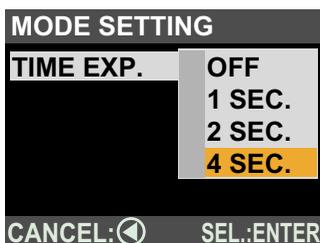
5 Press the CANCEL button.

6 Press the shutter release button.

Time exposure mode display

N 1600

L4

2001/07/15 11:25

Setting the Brightness Control

When using text mode, you can set the brightness in 5 stages to make the text easier to read.

1 Set the mode dial to [釘] and press the MENU button.

2 **Press the ▶ button to select MENU and press the ENTER button.**

MODE SETTING 📷

MENU

3 **Press the ▲ or ▼ button to select [BRIGHT CNTRL] and press the ▶ button.**

MODE SETTING

FOCUS	AF
DATE IMPRINT	Y/M/D
ISO SETTING	ISO 200
BRIGHT CNTRL ▼	0

BACK:CANCEL   SELECT:▶

• + : The text becomes darker.
  –: The text becomes lighter.
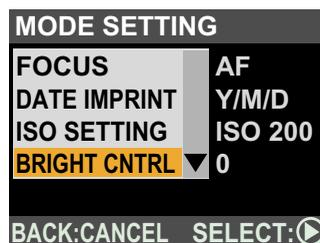
4 **Press the ▲ or ▼ button to select the brightness level and press the ENTER button.**

MODE SETTING

FOCUS	+ 2
DATE IMPRINT	+ 1
ISO SETTING	0
BRIGHT CNTRL	— 1
	— 2

CANCEL:◀   SEL.:ENTER

5 **Press the CANCEL button.**

66

6 **Press the shutter release button.**

Brightness control setting
display

25
1600

2001/07/15 11:25
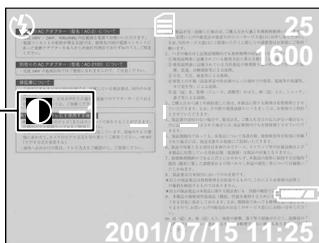
Digital Zoom

If you keep the [ ] button pressed when the zoom is at the maximum Tele position, the digital zoom will be triggered and the image will be magnified up to 2 times.

1 **Set the mode dial to [SET UP].**

2 **Press the ▲ or ▼ button to select [DIGITAL ZOOM] and press the ▶ button.**

SET UP	1/3
FORMAT	▶
KEEP SETTING	▶
DIGITAL ZOOM	OFF
LCD CONFIRM.	1SEC.
AUTO OFF ▼	1MIN.
	SELECT:⊙

3 **Press the ▲ or ▼ button to select [ON] and press the ENTER button.**

SET UP	
FORMAT	
KEEP SETTING	
DIGITAL ZOOM	ON
LCD CONFIRM.	OFF
AUTO OFF	
CANCEL:◁	SEL.:ENTER
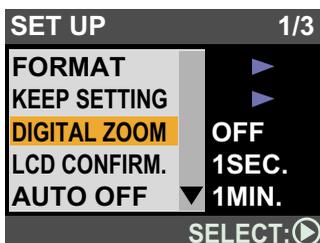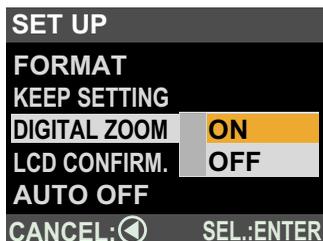
4 **Set the mode dial to [◖].**

⟨Note⟩

• To cancel the digital zoom, select [OFF].

3

SHOOTING

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5 **Press the ⬆ button and keep it pressed for more than 1 second to enable digital zoom mode. Decide the magnification.**

The orange area of the zoom indication bar is the scope of the digital zoom.
Press the ⬇ button to cancel the digital zoom.

6 **Press the shutter release button.**

Chapter 4

PLAYBACK/DELETING

Basic Playback

• If an unplayable file is encountered, the [UNMATCHED FILE] message will be displayed.

This section explains how to play back recorded files and how to play back files on a TV.

Playing Still Picture/Text/Continuous Files

This function enables you to play files recorded in ▣ (still picture), 🔲 (text) and 🔲 (continuous shooting) modes, and still picture and text files with voice memo.

■ Operation Map
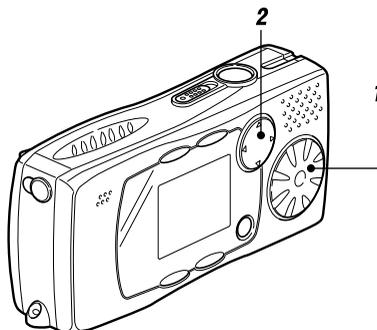
Play mode
▶

Note

• Files may take a while to play after the camera is turned on or the mode dial is set, depending on the capacity of the memory card.

1 Set the mode dial to [▶].

The most recently recorded file will be played back.

2 Press the ◀ or ▶ button to select the file to be played back.


```
                           5/26
                    100-0005
                        1600


                 2001/07/15 11:25
```

Press the ◀ button to display the previous file and the ▶ button to display the next file. If you keep the button pressed, the files will advance continuously.

● **Playing a still picture with voice memo**


```
[♪]          6/26
            100-0005
             1600

      START:RELEASE
                 ▭
      2001/07/15 11:25
```

To play back voice memo, press the shutter release button.
Playback of voice memo files ends automatically.

Playing a Voice Memo File

This function enables you to play back files recorded in ♀ (voice memo) mode.

■ Operation Map

Spreaker
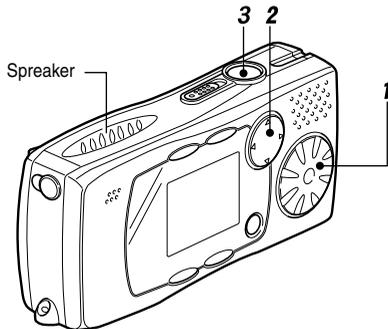
Play mode
▶

1 **Set the mode dial to [▶].**
The most recently recorded file will be displayed.

2 **Press the ◀ or ▶ button to select the voice memo file.**

〈Note〉

• Press the ▲ or ▼ button to display the volume indicator and then adjust the volume. *See "Playing a Voice Memo File" (p.71).*

- The speaker is located on the top side of the camera. Turn the camera to the optimum position for playback.

- If the sound from the speaker is not clear, you are recommended to use the stereo earphones (commercially available).

- When the recorded sound files exceed 99 min. 59 sec., the LCD monitor display switches to hours and minutes.
  Example: 100 min. will appear as [1:40].

3 Press the shutter release button.

```
                    🎤      7/26
                00:00 100-0005



                START:RELEASE
                              ▱
              ▭▭▭ 2001/07/15 11:30
```

The voice memo will be played back and the playback indicator and time elapsed will be displayed.
Playback of voice memo files ends automatically.
During playback, you can rewind the voice memo file with the ◀ button, and fast forward with the ▶ button.

● To suspend playback

To suspend playback, press the shutter release button during playback, and to resume playback, press the shutter release button again.
During suspension, press the ◀ button to display the previous file, and press the ▶ button to display the next file.

● To adjust the volume

```
                    🎤      7/26
                00:00 100-0005

         ◀▭▭▭▭▭▭▭▭▭▭▭  ◀))
                START:RELEASE
                              ▱
              ▭▭▭ 2001/07/15 11:30
```

Press the ▲ or ▼ button during playback to display the volume indicator. Press the ▲ or ▼ button to adjust the volume.

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Playing a Motion Picture File

This function enables you to display files recorded in 🎥 (motion picture) mode.

■ Operation Map
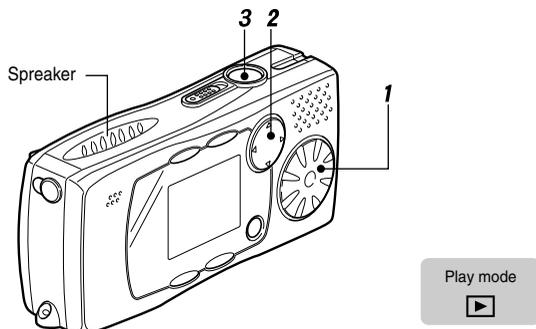
Spreaker

3 *2*

1

Play mode
▶

1 Set the mode dial to [▶].

The most recently recorded file will be played back.

2 Press the ◀ or ▶ button to select the motion picture file.

3 Press the shutter release button.

🎥 **8/26**
00:00 **100-0005**
320

START:RELEASE

2001/07/15 11:25
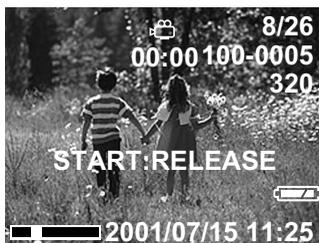
The motion picture file will be played back and the playback indicator and time elapsed will be displayed. Playback of motion picture files ends automatically.

● **To pause and resume playback**

To temporarily pause playback, press the shutter release button during playback, and to resume playback, press the shutter release button again.

● **Slow playback**

To play a file slowly, press the ▶ button during playback.

Note

• If the sound from the speaker is not clear, you are recommended to use the stereo earphones (commercially available).

Note

• Press the ▲ or ▼ button to display the volume indicator, and then adjust the volume. *See "Playing a Voice Memo File" (p.71).*

• In the motion picture mode, the black frame is displayed on the LCD monitor.

Note

• During pausing, press the ◀ button to display the previous file, and press the ▶ button to display the next file.

4

PLAYBACK/DELETING

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Playing Files on a TV

By connecting the camera to a TV by the AV cable supplied with the camera, you can play recorded files on the TV.

■ Connecting

AUDIO-IN (white)
VIDEO-IN (yellow)
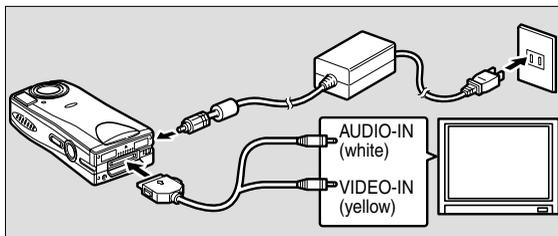
1 Check that the camera is turned off.
▶*See "Turning the Camera On and Off" (p.30).*

2 Slide the digital terminal cover switch on the camera to open the cover and connect the AV cable to the DIGITAL (AV/USB) terminal.

3 Connect the other end of the AV cable to the VIDEO-IN terminal and AUDIO-IN terminal of the TV.

4 Connect the AC adapter.
Power the camera from a household electrical outlet using the AC adapter when playing back files on a TV.
▶*See "Using the AC Adapter" (p.24).*

5 Play back the files.
Turn the camera on and set the mode dial to Play mode [▶].
▶*See "Playing Still Picture/Text/Continuous Files" (p.70).*
See "Playing a Voice Memo File" (p.71).
See "Playing a Motion Picture File" (p.73).

■ Disconnecting

1 Check that the camera is turned off.
▶*See "Turning the Camera On and Off" (p.30).*

2 **Press the sides of the connector and disconnect the cable.**
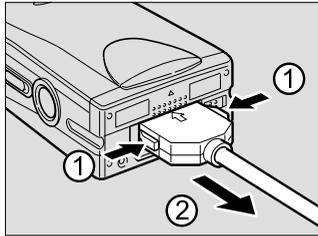
Note

• When you are overseas, you can view recorded images on a TV set with the other Video-out signal method (NTSC/PAL).

▶ *See "Changing the Video-out Signal Method" (p.102).*

When the camera is connected to a TV, the picture on the camera's LCD monitor is displayed as it is on the TV monitor.

The range displayed may vary depending on the type of TV monitor.

All the data may not be displayed depending on the size of the image.

Various Playback Functions

This section explains the various playback functions.

Thumbnail Display

This function enables you to display nine files at once for quick searching.

1 **Set the mode dial to [▶] and press the MENU button.**

2 **Press the ▶ button to select ▦ and press the ENTER button.**

THUMBNAIL

The screen will change to the thumbnail display.

3 **Press the ▲ • ▼ • ◄ • ▶ buttons to change the files displayed.**

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2001/07/15 11:25
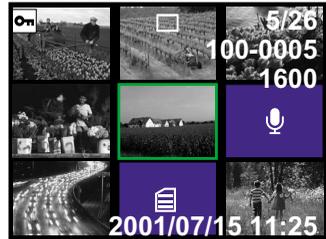
The file on which the focus is set is the selected file.

4 **Press the MENU button and then press the ENTER button.**

The screen will return to single image display. The selected file in thumbnail display will be displayed.

⟨Note⟩

• The screen indicators in thumbnail display are as shown below.

Indicator	Status
No mark	Still picture file
🎤	Voice memo file
🗎	Text file
🎥	Motion picture file
[♪]	Still picture file with voice memo
?	Unplayable file

Zoom Playback

This function enables you to enlarge a file lengthwise and heightwise and check for camera shake. Files can be magnified to approximately twice their size.

1 **Set the mode dial to [▶] and press the MENU button.**

2 **Press the ▶ button to select 🔍 and press the ENTER button.**

ZOOM PLAYBACK

🗑 ▦ 🔍 🔑 **MENU**

The screen will change to zoom display.

3 **Press the ▲ or ▼ button to change the magnification.**

END:CANCEL   MOVE:DISP

⟨Note⟩

• Still picture files, text files, and still picture files with voice memo can be played back in zoom mode.

4

PLAYBACK/DELETING

● **To move the display position**

If you want to display a different position, press the DISPLAY button and use the ▲ • ▼ • ◀ • ▶ buttons to change the position displayed.
Press the DISPLAY button again to return to the zoom playback screen.

BACK:DISPLAY

4 **Press the CANCEL button.**

The screen will return to the normal playback screen.

Protecting a File

This function enables you to protect important files from being deleted accidentally.

■ Protecting/Unprotecting a Single File

1 **Set the mode dial to [▶].**

2 **Press the ◀ or ▶ button to select the file you want to protect/unprotecting and press the MENU button.**

3 **Press the ▶ button to select ☷ and press the ENTER button.**

PROTECT

MENU

4 Press the ▲ or ▼ button to select [ONE FILE] and press the ENTER button.

PROTECT

ALL FILES
CANCEL ALL
ONE FILE

🗑 ▦ ⊕ ⚿   **MENU**

5 Press the ENTER button.

● **Protecting a file**

The protect setting will be enabled and the display will return to the protect screen. The ⚿ symbol will be displayed next to the protected file.

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CANCEL:CANCEL PROTECT:ENTER

● **Unprotecting a file**

If you press the ENTER button when a file has already been protected, it will be unprotected.

⚿   ☐ **5/26**
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CANCEL:CANCEL UNPROTECT:ENT

6 Press the CANCEL button.

The display will return to the playback screen.

■ Protecting/Unprotecting All Files

1 Set the mode dial to [▶] and press the MENU button.

2 Press the ▶ button to select 🔒 and press the ENTER button.

PROTECT

🗑 ▦ 🔍 🔒   **MENU**

3 Press the ▲ or ▼ button to select [ALL FILES] or [CANCEL ALL] and press the ENTER button.

PROTECT

ALL FILES
CANCEL ALL
ONE FILE

🗑 ▦ 🔍 🔒   **MENU**

4 Press the ENTER button.

● **In the case of [ALL FILES]**

🔒   ☐   **5/26**
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1600

☑ **PROTECT**
ALL FILES

CANCEL:CANCEL   **SEL.:ENTER**

All the files will be protected and the display will return to the protect screen.
The 🔒 symbol will be displayed next to all the protected files.

● **In the case of [CANCEL ALL]**

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✓ **CANCEL
ALL PROTECT**

CANCEL:CANCEL   SEL.:ENTER

All the files will be unprotected and the display will
return to the protect screen.

5 Press the CANCEL button.

The display will return to the playback screen.

Auto Playback

This function automatically plays all the files stored in the
storage media.

1 Set the mode dial to [▶] and press the MENU button.

2 Press the ▶ button to select MENU and press the ENTER button.

MODE SETTING

🗑 ▦ ⊕ ⊙ₘ   MENU

The playback menu will be displayed.

3 Press the ▲ or ▼ button to select [AUTO PLAY] and press the ▶ button.

```
MODE SETTING
AUTO PLAY      ▶
DPOF           ▶
DELETE ALL     ▶
VOICE MEMO     ▶

BACK:CANCEL   SELECT:▶
```
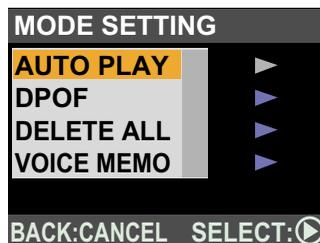
4 Press the ▲ or ▼ button to select the playback time (1 SEC., 3 SEC., 5 SEC., 10 SEC. or 30 SEC.) and press the ENTER button.

```
MODE SETTING
AUTO PLAY      1 SEC.
DPOF           3 SEC.
DELETE ALL     5 SEC.
VOICE MEMO     10 SEC.
               30 SEC.
CANCEL:◀      SEL.:ENTER
```
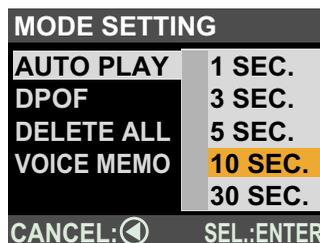
Auto playback will start for the preset time.

DPOF

This function enables you to set the number of prints or number of index prints when you want to have prints made of files on the memory card at a digital printing service. When you have made the necessary settings, submit your order to a digital camera printing service and the prints or indexes will be made according to the preset information.

* DPOF stands for Digital Print Order Format.

<Note>

• Leave space equivalent to 1 or 2 files on the memory card to make the DPOF settings.

• After making the print service settings, do not change any settings, such as record, delete, etc. If any changes are made, reset the print service.

1 Set the mode dial to [▶] and press the MENU button.

2 **Press the ▶ button to select MENU and press the ENTER button.**

MODE SETTING

🗑 ▦ 🔍 🔒 **MENU**

The playback menu will be displayed.

3 **Press the ▲ or ▼ button to select [DPOF] and press the ▶ button.**

MODE SETTING	
AUTO PLAY	►
DPOF	►
DELETE ALL	►
VOICE MEMO	►
BACK:CANCEL	SELECT:⊙
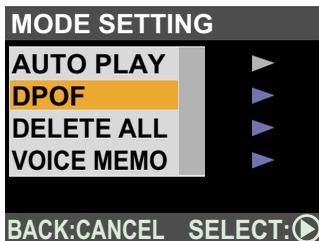
The DPOF menu will be displayed.

■ **Specifying the Number of Prints**

1 **Select [STND PRINTS] on the DPOF menu and press the ▶ button.**

DPOF	
STND PRINTS	►
INDEX PRINTS	0
CANCEL DPOF	►
CONFIRM	►
BACK:CANCEL	SELECT:⊙

4

PLAYBACK/DELETING

2 **Press the ▲ or ▼ button to select the setting [ALL or ONE FILE] and press the ENTER button.**

```
DPOF

STND PRINTS     ALL
INDEX PRINTS    ONE FILE
CANCEL DPOF
CONFIRM

CANCEL:◁         SEL.:ENTER
```
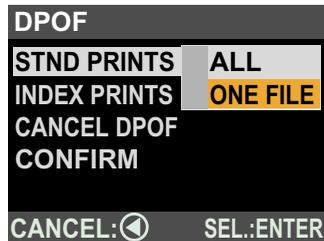
3 **Specify the number of prints.**

● **In the case of [ALL]**

Press the ▲ or ▼ button to specify the number of prints and press the ENTER button.

```
ALL IMAGES

          ▲
       3  PRINTS
          ▼

CANCEL:CANCEL  SEL.:ENTER
```
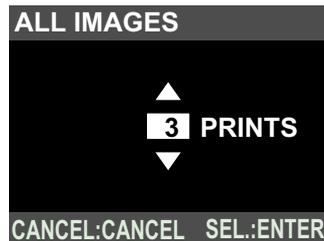
● **In the case of [ONE FILE]**

Press the ◀ or ▶ button to select the file for which you want to specify the number of prints and press the ENTER button.

```
STND PRINTS




BACK:CANCEL    SEL.:ENTER
```

Press the ▲ or ▼ button to specify the number of prints and press the ENTER button.

STND PRINTS

▲

3 **PRINTS**

▼

CANCEL:CANCEL   SEL.:ENTER

4 Press the CANCEL button.

The display will return to the Playback menu. Press the CANCEL button to exit the operation.

■ Specifying the Number of Index Prints

All the files in the folder can be printed in reduced size. This is called an index prints. Index prints are useful for checking all the files in a folder at one glance or for specifying the number of prints.

1 Select [INDEX PRINTS] on the DPOF menu and press the ► button.

DPOF

STND PRINTS	►
INDEX PRINTS	0
CANCEL DPOF	►
CONFIRM	►

BACK:CANCEL   SELECT:⊙
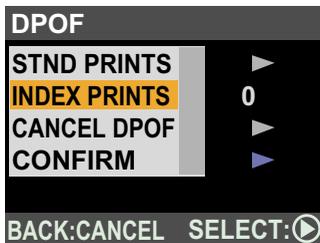
2 Press the ▲ or ▼ button to specify the number of index prints and press the ENTER button.
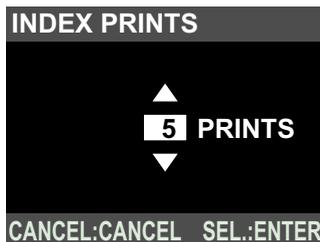
INDEX PRINTS

▲

5 **PRINTS**

▼

CANCEL:CANCEL   SEL.:ENTER

3 Press the CANCEL button.

The screen will return to the Playback menu. Press the CANCEL button to exit the operation.

■ Canceling the DPOF Settings

This function enables you to cancel the DPOF settings, such as the number of prints and number of indexes.

1 Select [CANCEL DPOF] on the DPOF menu and press the ▶ button.

DPOF	
STND PRINTS	►
INDEX PRINTS	**0**
CANCEL DPOF	►
CONFIRM	►
BACK:CANCEL	SELECT:⊙

2 Select [STND] or [INDEX] and press the ENTER button.
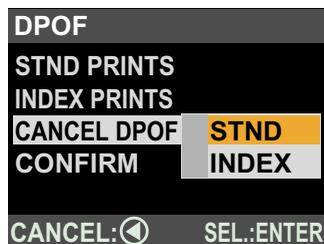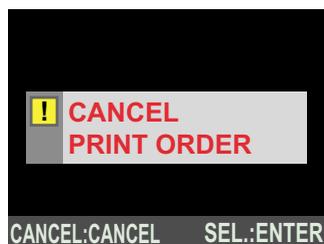
DPOF	
STND PRINTS	
INDEX PRINTS	
CANCEL DPOF	**STND**
CONFIRM	**INDEX**
CANCEL:◁	SEL.:ENTER

3 Press the ENTER button.

! **CANCEL**	
PRINT ORDER	
CANCEL:CANCEL	SEL.:ENTER

4 Press the CANCEL button.

The screen will return to the Playback menu. Press the CANCEL button to exit the operation.

■ Confirming the DPOF Settings

This function enables you to confirm the settings, such as the number of prints and number of index prints.

1 Select [CONFIRM] on the DPOF menu and press the ▶ button.

> **DPOF**
>
> **STND PRINTS**   **▶**
> **INDEX PRINTS**   **0**
> **CANCEL DPOF**   **▶**
> **CONFIRM**   **▶**
>
> **BACK:CANCEL**   **SELECT:⦿**
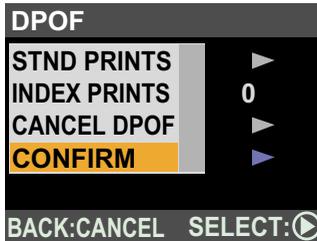
2 After confirming the settings, press the CANCEL button.
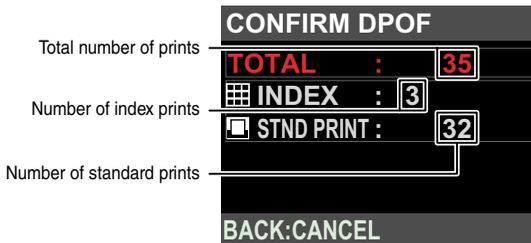
Total number of prints —
Number of index prints —
Number of standard prints —

> **CONFIRM DPOF**
>
> **TOTAL**   **:   35**
> **⊞ INDEX**   **:   3**
> **▢ STND PRINT :   32**
>
> **BACK:CANCEL**

3 Press the CANCEL button.

The screen will return to the Playback menu. Press the CANCEL button to exit the operation.

Voice Memo

This function enables you to add approximately 10 seconds of voice memo to a still picture file.

1 Set the mode dial to [▶].

2 Press the ◀ or ▶ button to select the file to which you want to add a voice memo and press the MENU button.

4

PLAYBACK/DELETING

⟨Note⟩

• If a file with voice memo is selected, the voice memo will be overwritten.

3 **Press the ▶ button to select MENU and press the ENTER button.**

MODE SETTING

🗑 ▦ 🔍 🔒 **MENU**

The Playback menu will be displayed.

4 **Press the ▲ or ▼ button to select [VOICE MEMO] and press the ▶ button.**

MODE SETTING

AUTO PLAY ▶
DPOF ▶
DELETE ALL ▶
VOICE MEMO ▶

BACK:CANCEL **SELECT:◉**

● **If a voice memo has already been recorded**

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⚠ **OVERWRITE VOICE MEMO:**
PRESS RELEASE BUTTON

CANCEL:CANCEL **SEL.:RELEASE**
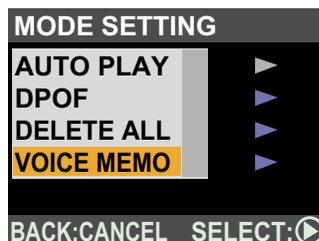
If a voice memo has already been recorded, a message will be displayed. If you want to overwrite the voice memo, press the shutter release button and record the voice memo.
Press the CANCEL button to cancel recording.

5 Press the shutter release button.

```
[On]            [▢]        5/26
                         100-0005
                            1600
☑ RECORD VOICE MEMO:
  PRESS RELEASE BUTTON

CANCEL:CANCEL    SEL.:RELEASE
```
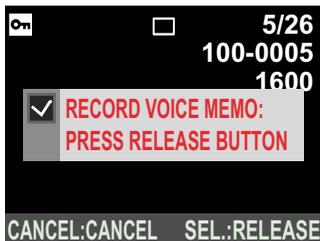
Recording will start. When recording is finished, the display will return to the playback screen.

〈Note〉

• Press the shutter release button again during recording to stop recording.

PLAYBACK/DELETING

Playing Music

This function enables you to use the camera as an MP3 player for playing music data.
* MP3 stands for MPEG-1 AudioLayer3 and is an international sound compression standard. Data can be compressed into approx. one-tenth of the original volume.

• By uploading MP3 files from the PC to the camera using RICOH Gate, you can play MP3 files on the camera.
Refer to "RICOH Gate for Windows", "RICOH Gate for Macintosh" manual on the supplied CD-ROM.

Important

• The bit rate that can be played back on this camera is 96kbps.

• The data with variable bit rate cannot be played back.

• The sampling rate is 44.1KHz.

• Music data cannot be played through the speaker on the camera. Use the stereo earphones (commercially available).

• If the SD memory card contains unplayable music data, the track in question will be omitted when the music data is played.

• Use a PC to delete unplayable music data.

● **Connecting the Stereo Earphones**
Connect commercially available stereo earphones to the earphone terminal on the side of the camera.
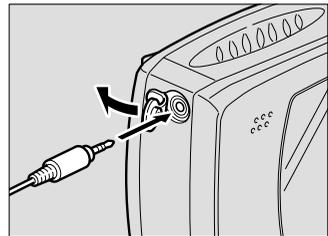
Note

• You can also use headphones available on the market with this camera (stereo mini-jack ø3.5mm).

• When the rechargeable battery (DB-40) is fully charged, continuous playback time is about 120 minutes. The time may vary depending on the environment in which the camera is used.

● **Screen Display when Playing Music**

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• You can switch between displaying the [Total playback time] and [Remaining playback time] by pressing the PIC button when the music is stopped.

• If there are any unplayable MP3 files, the playback time displayed may differ from actual playback time.

Playing Music

1 Set the mode dial to [MUSIC].

2 Press the shutter release button.

The music will be played. The autofocus LED is lit while the music is playing.

● **Pause**

If you press the shutter release button during playback, playback will be suspended and the track will return to the beginning.
You can switch to the previous or next track by pressing the ◀ • ▶ buttons.

● **Restart**

Press the shutter release button again to restart playback.

● **Changing tracks during playback**

Press the ◀ button to return to the beginning of the track being played.
Press the ▶ button to switch to the next track.

● **Repeat**

You can select a track or tracks to be played repeatedly. The repeat function changes as follows each time the MENU button is pressed in Pause status.
No display : Repeat function is disabled

⤸ : Selected track is repeated

⟳ : All tracks are repeated

• The LCD monitor is turned off during playback.

• To avoid misuse of buttons, you can disable all the button operations. *See "HOLD Switch" (p.30).*

Deleting the Music Data

This function enables you to delete the music data stored in the
SD memory card.

1 **Set the mode dial to [SETUP].**

2 **Press the ▲ or ▼ button to select [MP3: DELETE] and press the ▶ button.**

```
SET UP                    3/3
VIDEO OUT   ▲ NTSC
MP3:DELETE             ▶
OPTIONS                ▶


                    SELECT:▶
```

3 **Press the shutter release button.**

```
      ! MP3:
        DELETE ALL?

CANCEL:CANCEL   SEL.:RELEASE
```
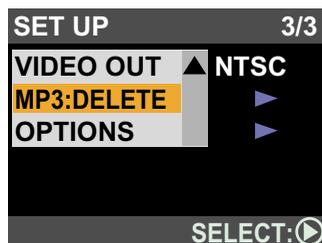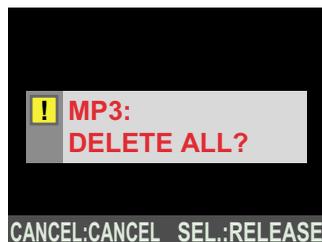
The music data will be deleted and the screen will
return to the SETUP menu.

**You may not use the SOFTWARE PRODUCT for
real-time broadcasting (terrestrial, satellite, cable
or other media) or broadcasting via Internet or
other networks, including but not limited to
intranets, etc., or in pay-audio or audio-on-demand
applications.**

Deleting Files

This function enables you to delete recorded files. You can delete a selected file or you can delete all the files in the folder.

<Note>

- Depending on the capacity of the memory card and the type of file, it may take a short time to delete a file.
- Protected files cannot be deleted. Unprotect the file before deleting it. *See "Protecting a File" (p.78)*

Deleting a Single File

This function enables you to delete a selected file.

1 Set the mode dial to [▶].

2 Press the ◀ or ▶ button to select the file you want to delete and press the MENU button.

3 Check that 🗑 has been selected and press the ENTER button.

4 Press the shutter release button.

The file will be deleted and the display will return to the Playback screen.

Important

- Once deleted, files cannot be restored. Check the contents of a file carefully before deleting it.

• You can delete all files or music data by formatting the SD memory card. *See "Formatting an SD Memory Card" (p.27).*

Deleting All Files

This function enables you to delete all the files except for the music data.

1 **Set the mode dial to [▶].**

2 **Press the ▶ button to select MENU and press the ENTER button.**

MODE SETTING

🗑 ▦ ⊕ 🔑 **MENU**

The Playback menu will be displayed.

3 **Press the ▲ or ▼ button to select [DELETE ALL] and press the ▶ button.**

MODE SETTING
AUTO PLAY	►
DPOF	►
DELETE ALL	►
VOICE MEMO	►

BACK:CANCEL   SELECT:▶

4 **Press the shutter release button.**

⚠ **DELETE FILES EXCEPT PROTECTED FILES**

CANCEL:CANCEL   SEL.:ENTER
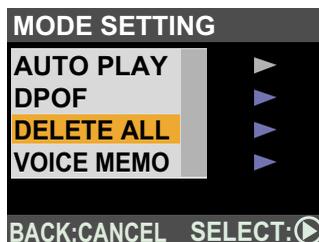
All the files will be deleted and the display will return to the Playback screen.

Chapter 5

CAMERA SETTINGS AND OTHER FUNCTIONS

Changing the Camera Settings

This section explains how to change the camera settings, such as the auto power off, beep sound and image confirmation time.

Keep Settings

This keep settings mode is for saving the camera settings after the camera is turned off. The following settings can be saved.

- Flash (p.50)
- Exposure compensation (p.52)
- Focus (p.58)
- ISO setting (p.61)
- Brightness control (p.65)
- White balance (p.54)
- Images with voice memo (p.57)
- Date imprint (p.60)
- Time exposure (p.64)

1 Set the mode dial to [SETUP].

2 Press the ▲ or ▼ button to select [KEEP SETTING] and press the ▶ button.

```
SET UP              1/3
FORMAT              ▶
KEEP SETTING        ▶
DIGITAL ZOOM        OFF
LCD CONFIRM.        1SEC.
AUTO OFF        ▼   1MIN.
                SELECT:▶
```
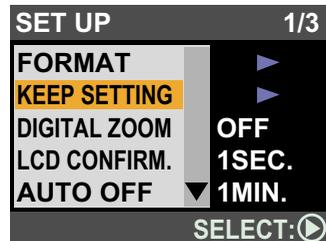
3 Press the ▲ or ▼ button to select the setting you want to save and press the ▶ button.

```
KEEP SETTING        1/2
FLASH               OFF
WHITE BALANCE       OFF
+/—                 OFF
IMG. W/SOUND        OFF
FOCUS               OFF
BACK:CANCEL    SELECT:▶
```

4 Press the ▲ or ▼ button to select [ON] and press the ENTER button.

```
KEEP SETTING

FLASH           ON
WHITE BALANCE   OFF
+/—
IMG. W/SOUND
FOCUS
CANCEL: ◁       SEL.:ENTER
```
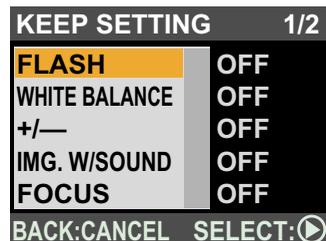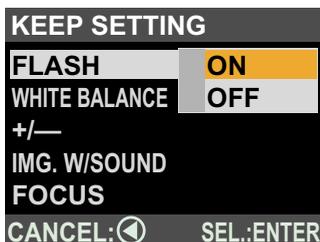
The conditions are as follows.
[ON] : Keep settings mode is enabled
[OFF] : Keep settings mode is cancelled

5 Press the CANCEL button to exit the operation.

Changing the LCD Confirmation Time

When you press the shutter release button to take a still picture, the image is displayed on the LCD monitor. You can select the image confirmation time from the following: zero (0 sec.), 1 sec., 2 sec., 3 sec. or 5 sec.

1 Set the mode dial to [SETUP].

2 Press the ▲ or ▼ button to select [LCD CONFIRM.] and press the ▶ button.

```
SET UP              1/3

FORMAT              ▶
KEEP SETTING        ▶
DIGITAL ZOOM        OFF
LCD CONFIRM.        1SEC.
AUTO OFF         ▼  1MIN.
                 SELECT: ▷
```
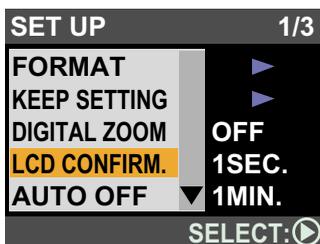
- Images are not displayed when the image confirmation time is set to zero.
- The image is displayed until recording is finished regardless of the preset image confirmation time in the case of text images, still pictures with voice memo, and when NC mode is set.

3 **Press the ▲ or ▼ button to select the image confirmation time (ZERO, 1 SEC., 2 SEC., 3 SEC. or 5 SEC.) and press the ENTER button.**

SET UP	
FORMAT	**ZERO**
KEEP SETTING	**1SEC.**
DIGITAL ZOOM	**2SEC.**
LCD CONFIRM.	**3SEC.**
AUTO OFF	**5SEC.**
CANCEL:◀	SEL.:ENTER
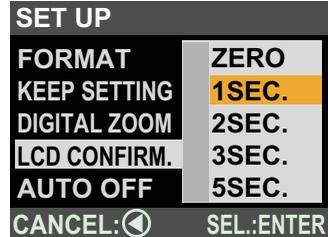
Changing the Auto Power Off Setting

The camera will turn off automatically in Record and Play modes to conserve the battery if no operation is performed (no buttons are pressed) for the preset length of time. You can select the time until the auto power off is activated from Off, 1 min., 3 min. or 5 min. (The default setting is 5 min. in Record/ Play mode.)

1 **Set the mode dial to [SETUP].**

2 **Press the ▲ or ▼ button to select [AUTO OFF] and press the ▶ button.**

SET UP	1/3
FORMAT	▶
KEEP SETTING	▶
DIGITAL ZOOM	**OFF**
LCD CONFIRM.	**1SEC.**
AUTO OFF ▼	**1MIN.**
	SELECT:▷
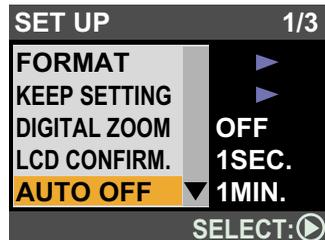
3 **Press the ▲ or ▼ button to select the time (OFF, 1 MIN., 3 MIN., or 5 MIN.) and press the ENTER button.**

SET UP	
FORMAT	
KEEP SETTING	**OFF**
DIGITAL ZOOM	1 MIN.
LCD CONFIRM.	3 MIN.
AUTO OFF	5 MIN.
CANCEL:◀	SEL.:ENTER
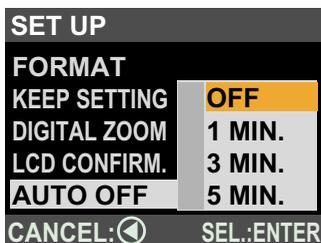
Changing the Beep Sound Setting

The camera beeps to alert you when it records an image. You can change the setting depending on whether you want the beep to sound or not.

1 **Set the mode dial to [SETUP].**

2 **Press the ▲ or ▼ button to select [BEEP SOUND] and press the ▶ button.**

SET UP		2/3
BEEP SOUND ▲	ON	
POWER SAVE	OFF	
SEQ.FILE NO.	ON	
DATE SETTING	▶	
LANGUAGE ▼	ENGLISH	
		SELECT:⦿

3 **Press the ▲ or ▼ button to select [ON] or [OFF] and press the ENTER button.**

SET UP	
BEEP SOUND	**ON**
POWER SAVE	OFF
SEQ.FILE NO.	
DATE SETTING	
LANGUAGE	
CANCEL:◀	SEL.:ENTER

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CAMERA SETTINGS AND

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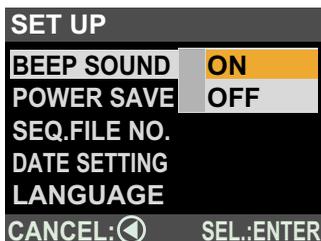
Changing the Power Saving Mode

This function enables you to reduce the power consumed by the LCD monitor and increase the life of the battery.

1 **Set the mode dial to [SETUP].**

2 **Press the ▲ or ▼ button to select [POWER SAVE] and press the ▶ button.**

```
SET UP                  2/3
BEEP SOUND  ▲ ON
POWER SAVE     OFF
SEQ.FILE NO.   ON
DATE SETTING   ▶
LANGUAGE    ▼ ENGLISH
                SELECT:▶
```

3 **Press the ▲ or ▼ button to select [ON] or [OFF] and press the ENTER button.**

```
SET UP
BEEP SOUND
POWER SAVE    ON
SEQ.FILE NO.  OFF
DATE SETTING
LANGUAGE
CANCEL:◀      SEL.:ENTER
```
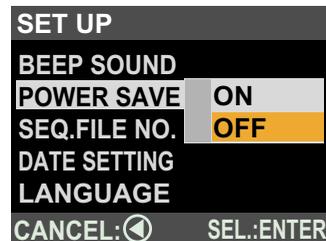
Changing the File Numbering System

This function enables you to set whether sequential numbers are automatically assigned to files.

● **When sequential numbering is ON**
Files are assigned the names R0010001 – R9999999.
The camera remembers the last file name assigned and even when a new memory card is inserted, numbers are assigned in sequence to subsequent files.
If the card contains a number that is larger than the last file name remembered by the camera, however, the numbers will be assigned from the last number on the card.
• Sequential file names will be assigned even when a different memory card is inserted. There is no duplication of file names.

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- The file names on one memory card may not be continuous in some cases.
- To return the sequential numbering to the default setting, initialize the settings (p.103) and insert a memory card with no images on it.

● **When sequential numbering is OFF**

Files are assigned the names RIMG0001 – RIMG9999.
When a new memory card is inserted, file names are assigned in sequence from RIMG0001. When a memory card on which files have been recorded is inserted, the consecutive numbers on the card will be assigned.
- File names are assigned from RIMG0001 for each memory card.
- When the file names reach RIMG9999, [FILE NUMBER OVER] is displayed and no more images can be recorded.

1 **Set the mode dial to [SET UP].**

2 **Press the ▲ or ▼ button to select [SEQ. FILE NO.] and press the ▶ button.**

SET UP		2/3
BEEP SOUND ▲	ON	
POWER SAVE	OFF	
SEQ.FILE NO.	ON	
DATE SETTING	▶	
LANGUAGE ▼	ENGLISH	
	SELECT:⏺	

3 **Press the ▲ or ▼ button to select [ON] or [OFF] and press the ENTER button.**

SET UP	
BEEP SOUND	
POWER SAVE	
SEQ.FILE NO.	ON
DATE SETTING	OFF
LANGUAGE	
CANCEL:◀	SEL.:ENTER
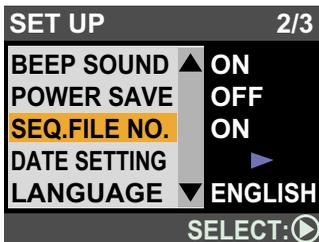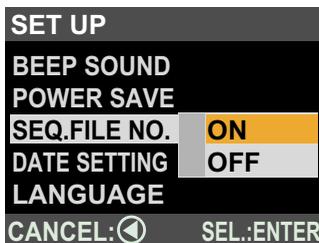
Changing the Display Language

This function enables you to set the language in which the information is displayed on the LCD monitor.

⟨Note⟩
- It is useful to leave sequential numbering set to [ON] when setting the digital print service or storing images on a PC as there is no duplication of file names.

⟨Note⟩
- If you select [OFF], file names will be assigned in order from RIMG0001.

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CAMERA SETTINGS AND

1 Set the mode dial to [SETUP].

2 Press the ▲ or ▼ button to select [LANGUAGE] and press the ▶ button.

SET UP	2/3
BEEP SOUND ▲	ON
POWER SAVE	OFF
SEQ.FILE NO.	ON
DATE SETTING	▶
LANGUAGE ▼	ENGLISH
	SELECT:◉

3 Press the ▲ or ▼ button to select the display language and press the ENTER button.

SET UP	
BEEP SOUND	
POWER SAVE	JAPANESE
SEQ.FILE NO.	ENGLISH
DATE SETTING	FRENCH
LANGUAGE	GERMAN
CANCEL:◉	SEL.:ENTER

Changing the Video-out Signal Method

If you wish to play recorded files on a TV when you are abroad, change the Video-out Signal Method according to the video system used in the country where you are.

▣ *See "Troubleshooting" (p.108).*

1 Set the mode dial to [SETUP].

2 **Press the ▲ or ▼ button to select [VIDEO OUT] and press the ▶ button.**

```
SET UP                3/3
VIDEO OUT  ▲ NTSC
MP3:DELETE     ▶
OPTIONS        ▶


            SELECT:▶
```
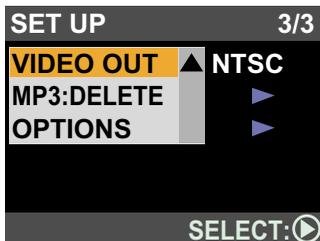
3 **Press the ▲ or ▼ button to select [NTSC] or [PAL] and press the ENTER button.**

```
SET UP
VIDEO OUT  ▲ NTSC
MP3:DELETE   PAL
OPTIONS


CANCEL:◀     SEL.:ENTER
```

Initializing the Settings

This function enables you to reset all the settings and return them to the status when the camera left the factory.

1 **Set the mode dial to [SETUP].**

2 **Press the ▲ or ▼ button to select [OPTIONS] and press the ▶ button.**
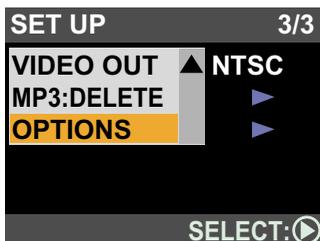
```
SET UP                3/3
VIDEO OUT  ▲ NTSC
MP3:DELETE     ▶
OPTIONS        ▶


            SELECT:▶
```

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CAMERA SETTINGS AND

- Data recorded on the SD memory card will not be deleted.

3 Press the ENTER button.

SET UP
VIDEO OUT
MP3:DELETE
OPTIONS   **RESET**

CANCEL:◁   **SEL.:ENTER**

4 Press the ENTER button.

! **CLEAR ALL SETTINGS**

CANCEL:CANCEL   NEXT:ENTER

5 Press the shutter release button.

!! **RESET?**

CANCEL:CANCEL   START:RELEASE

All the settings will be cleared and returned to their factory default settings.

Using the Remote Control

The DR-4 remote control unit (optional) can be used to play back and delete recorded files. The following settings are required.

Important

• The remote control reception is located on the front of the RICOH BASE. Operate the remote control unit by aiming it at the receptor.

• You cannot record the images with the remote control unit.

■ Connecting

AUDIO-IN (white)

VIDEO-IN (yellow)

Remote control reception

START key
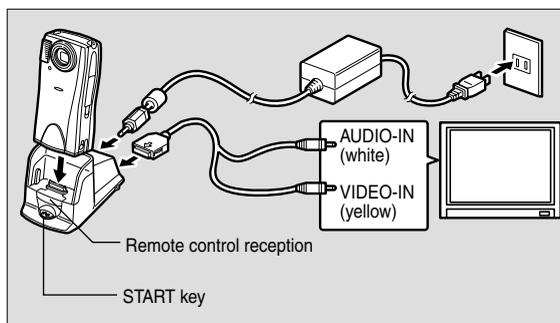
1 Check that the camera is turned off.
➡ *See "Turning the Camera On and Off" (p.30)*

2 Connect the AV cable to the DIGITAL (AV/USB) terminal on the RICOH BASE.

3 Connect the other end of the AV cable to the VIDEO-IN terminal and AUDIO-IN terminal on the TV.

4 Connect the AC adapter.
When playing back files on a TV, supply power from a household electrical outlet using the AC adapter. *See "Using the AC Adapter" (p.24)*.

5 Place the camera on the RICOH BASE and press the START key on the RICOH BASE.

6 Play back files.

Note

• Refer to the manual supplied with the remote control unit for instructions on how to change the battery, clean the unit, etc.

Important

• Do not place the camera on the RICOH BASE with the AC adapter converter still attached.

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CAMERA SETTINGS AND

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● **Correspondence**

The buttons on the remote control unit can be operated in the same way as the buttons on the camera.
Correspondence of the remote control unit buttons with those on the camera is as shown below.

Camera	Remote control unit
▲ button	△ button
▼ button	▽ button
▶ button	▷ button
◀ button	◁ button
MENU/ENTER button	MENU/ENTER button
CANCEL button	CANCEL button
DISPLAY button	DISPLAY button
Shutter release button	RELEASE button

■ Disconnecting

1 **Press the sides of the connector and disconnect the cable.**

Appendix

Troubleshooting

Refer to the problems and remedies listed below before submitting the camera for repairs. If the problem persists, contact your nearest Ricoh Service Center.

■ Power Source

Problem	Cause	Remedy	Page
Power will not turn on	Battery is not loaded or is exhausted	Load or charge battery.	p.21 p.22
	AC adapter not connected correctly	Connect correctly.	p.24
Power cuts out	Camera was left unoperated so auto power off function was activated	Turn power on again.	p.30
	Battery is exhausted	Charge battery or use AC adapter.	p.22 p.24
Battery will not charge	End of battery service life	Replace with new battery.	p.21
Battery runs down quickly	Camera used in extremely high or low temperature location	—	—
	Camera operated in low light conditions requiring frequent use of flash	—	—

■ Recording

Problem	Cause	Remedy	Page
Shutter release button pressed but no image recorded	Battery is not loaded or is exhausted	Load or charge battery, or use AC adapter.	p.21 p.22 p.24
	Power is not turned on or mode dial is not set to recording mode	Turn power on and set mode dial to recording mode.	p.30 p.31
	Shutter release button not pressed down fully	Press shutter release button down fully.	p.37
	SD memory card not formatted	Format card.	p.27
	No space on SD memory card	Delete unwanted files or insert a new card.	p.26 p.93
	End of SD memory card service life	Insert a new card.	p.26
	Flash is charging	Wait until flash LED stops blinking.	p.50

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Problem	Cause	Remedy	Page
Shutter release button pressed but no image recorded	SD memory card write-protect is set to [LOCK]	Release lock (write-protect).	p.26
	SD memory card contact surface is dirty	Clean contact surface with soft dry cloth.	—
Cannot confirm shot image	Image confirmation time is too short	Set longer image confirmation time.	p.97
No image on LCD monitor	Power is not turned on or LCD monitor is too dark	Turn camera on or adjust brightness of LCD monitor.	p.30 p.39
	Video system is set to PAL and AV cable is connected	Set video system to NTSC or disconnect AV cable.	p.74 p.102
Autofocus is on but picture is not in focus	Lens is dirty	Clean lens with soft dry cloth.	—
	Subject is not in centre of autofocus field	Use focus lock.	p.44
	Subject is difficult to focus on	Use focus lock or switch to manual focus.	p.44 p.58
Flash will not fire or will not charge	Recording mode is set to 🏃 (continuous shooting), 🎬 (motion picture) or 🎤 (voice memo).	Switch recording mode to 📷 (still picture) or 📄 (text).	p.43 p.45
	Flash is set to (⚡) (Flash Off) mode	Cancel Flash Off mode with ⚡ button.	p.50
	White balance is set to mode other than auto	Set white balance to auto mode.	p.54
	Battery is exhausted	Charge battery or use AC adapter.	p.22 p.24
Image is dark even with flash	Subject further than approx. 2.0m away in Tele or approx. 2.5m away in Wide	Move closer to subject.	p.55
Image is too bright	Subject is too close	Set Flash Off mode with ⚡ button.	p.50
	Picture is overexposed	Use exposure compensation function. Cancel time exposure mode.	p.52 p.64
	Brightness of LCD monitor needs adjusting	Adjust brightness of LCD monitor.	p.39
Image is too dark	Shot in low light with flash set to (⚡) (Flash Off) mode	Cancel Flash Off mode with ⚡ button.	p.50
Image is too dark	Picture is underexposed	Use exposure compensation function. Set to time exposure.	p.52 p.64
	Brightness of LCD monitor needs adjusting	Adjust brightness of LCD monitor.	p.39

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Problem	Cause	Remedy	Page
Image colours not natural	Shooting conditions difficult for white balance in auto mode	Place a white object near subject, use flash or set white balance to mode other than auto.	p.54
Date and other recording data not displayed	Screen display function is set to off	Press DISPLAY button to switch screen display mode.	p.33
Brightness of LCD monitor changes during AF operation	Brightness of autofocus field and surrounding area are different, or picture shot in dark place	Not a malfunction.	—
Vertical lines appear on image	Known as smudge phenomenon. Occurs when recording bright subject	Not a malfunction.	—

■ Playback/Deleting

Problem	Cause	Remedy	Page
Cannot play back image or playback screen will not appear	Mode dial not set to ▶ (Play)	Set mode dial to ▶ (Play).	p.70
	SD memory card not inserted or does not contain any files	Insert SD memory card that contains recorded images.	p.26
	SD memory card not formatted with this camera	Insert card that has been formatted and has recorded images with this camera.	p.27
	SD memory card contains incorrectly recorded files	Insert card containing files that have been correctly recorded.	p.26
	Files on SD memory card in format not supported by camera	Check the file format.	p.70
	AV cable not properly connected	Connect the cable properly.	p.74
	Source of interference, such as electric motor, is nearby	Move camera away from source of interference.	—
	SD memory card contact surface is dirty	Clean with soft dry cloth.	—
Cannot play back or playback screen will not appear	Problem with SD memory card	Try different card. If no problem, it is not a camera malfunction. Do not use card that may have problem.	p.27 p.70
Image disappears	Battery is exhausted	Charge battery or use AC adapter.	p.22 p.24
	Camera was left unoperated so auto power off function was activated	Turn camera on again.	p.30

Problem	Cause	Remedy	Page
Cannot delete file	File is protected	Cancel protect setting.	p.78
	SD memory card write-protect is set to [LOCK]	Cancel [LOCK] (write-protect).	p.26
Cannot format SD memory card	SD memory card write-protect is set to [LOCK]	Cancel [LOCK] (write-protect).	p.26
Remote control unit (optional) does not work	AV cable is not connected	Connect AV cable correctly.	p.105
	Obstruction between remote control reception on RICOH BASE and remote control transmitter	Remove obstruction. (Reception is on front of RICOH BASE).	—
	Remote control transmitter or reception is dirty	Clean with soft dry cloth.	—
	Lithium battery in remote control unit is exhausted	Replace with new lithium battery (CR2025).	—
Cannot playback MP3 files	The files that cannot be played back on this camera were uploaded	The bit rate that can be played back on this camera is 96 kbps and the sampling rate is 44.1 kHz.	p.90
	The files were uploaded from the PC to the SD memory card in other way than using the RICOH Gate	Upload MP3 files from the PC to the camera using RICOH Gate.	p.90

■ Miscellaneous

Problem	Cause	Remedy	Page
SD memory card will not go in slot	Card incorrectly oriented	Insert card correctly.	p.26
Camera will not operate when buttons are pressed	Battery exhausted	Charge battery or use AC adapter.	p.22 p.24
	Camera malfunction	• Turn power off and then on again and set mode dial to ⬛ (still picture) or 🗐 (text). • If problem persists, reset by removing battery from camera and loading again, then turn camera on and operate.	p.30 p.31 p.113
Date and time are wrong	Date setting is incorrect	Set correct date.	p.34
Set date and time disappeared	Battery removed	Date is reset if battery is removed for more than 20 days. Reset date.	p.34
Set mode changed	Keep settings mode not enabled	Enable Keep Settings mode.	p.96
Auto power off function does not work	Auto power off setting disabled	Enable auto power off function.	p.98
Beep does not sound	Beep disabled	Enable beep sound.	p.99
No image on TV screen	Incorrect video system setting	Set correct system.	p.102
	TV in/out switch is incorrectly set	Check that TV in/out switch is set correctly.	—

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Error Messages

If an error message is displayed on the LCD monitor, follow the procedures below.

Message	Remedy
NO CARD	No card has been inserted. Insert card.
FORMAT CARD	Card not formatted. Format card.
CARD ERROR	Format card again. If error message is still displayed, there is problem with card. Use another card.
CARD PROTECTED	Card write-protect is set on [LOCK]. Release lock.
INSUFFICIENT MEMORY	Voice memo file cannot be recorded. Delete unwanted files or format card to ensure sufficient memory space.
	Number of index prints or image prints has exceeded limit. Select some images and set number to zero.
CANNOT RECORD MOVIE	Motion picture file cannot be recorded on this card. Use SD memory card.
FILE PROTECTED	File is protected. Unprotect card before deleting.
UNMATCHED FILE	Unplayable file selected.
FILE NUMBER OVER	File number limit exceeded. Delete unwanted files or use another card.

Note

• If the error message persists even after the above procedure is followed, press the Reset switch (p.12) with the tip of a propelling pencil or similar object. If the problem is still not eliminated, contact your nearest Ricoh Service Center or the shop where the camera was purchased.

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Using Your Camera in Other Countries

Ricoh AC-3 AC adapter (optional)

- The adapter can be used in regions where the voltage ranges from 100 V to 240 V and the frequency is 50Hz/60Hz.
- Some countries use electrical outlets which have different shapes. Inquire at your travel agent about the necessary plug adapter for the country of your destination before you leave.

Using a Local TV Receiver for Playing Pictures

- You can play back images taken with this camera on a TV reciever (or monitor) equipped with an video input terminal. Use the AV interface cable supplied.
- This camera supports both NTSC and PAL television systems. Switch the camera's video system to meet the local environment.
- If you plan to take the camera abroad with you, check the local television system beforehand.

Recording Capacities

The table below gives the approximate number of recordable images by SD memory card capacity and PIC mode.

			8 MB	**32 MB**	**64 MB**
Still picture (No. of images)	1600×1200	F	8	38	79
		N	15	78	161
		E	31	156	322
		NC	1	5	10
	1280×980	N	18	93	192
	640×480	N	63	310	640
Text (No. of images)	1600×1200		63	310	640
	1280×980		63	310	640
Motion picture (min:sec)			0:37	2:53	5:54
Voice memo (min:sec)			4:51	23:13	47:44

Note

• Even with SD memory cards of the same memory capacity, the figures may vary slightly depending on type.

• The image quality (compression rate) is as follows:

F   : Fine
N   : Normal
E   : Economy
NC : No compression

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System Configuration

You can upload music data from a PC and use the camera as an audio player with the commercially available stereo earphohes.

Stereo earphones

Caplio RR10

Rechargeable battery

SD memory card

By using a PC card adapter (optional), you can transfer images directly to the PC.

AC adapter converter

AC adapter

AV cable

USB cable

AV cable

USB cable

RICOH BASE

AC adapter

You can play back recorded images on a TV/video.

You can transfer images to a PC using software, and make prints of the transferred images on a printer or colour printer.

Optional Accessories

Item	Model	Remarks
SD memory card	FM-32SD	Media for recording images.
	FM-64SD	
AC adapter	AC-3	For drawing power directly from a household electrical outlet.
PC card adapter	FM-SD53	Used to insert the SD memory card directly into the PC card slot.
Rechargeable battery	DB-40	Main camera battery.
Battery charger	BJ-2	High speed charger for the rechargeable battery.
Remote control unit	DR-4	For remote operation of the camera's playback function by using RICOH BASE.
RICOH BASE	BK-2	For connecting the camera to a PC/TV and charging the battery. • RICOH BASE • USB cable • AV cable

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Handling Precautions

● This camera is not waterproof. Keep away from water, rain, beverages, etc. If any liquid gets into the camera, consult your nearest Ricoh service office.
● Be careful not to drop the camera or subject it to impact.
● To avoid overheating, do not use the flash more than is necessary in continuous shots.
● Do not fire the flash close to one's eyes as this may cause impaired eyesight.
● Do not fire the flash at anyone driving a vehicle as this may cause a traffic accident.
● Exercise caution to prevent sand or dust from getting into the camera in environments such as beaches or work sites.
● Do not leave the camera for any length of time in particularly hot or humid places, such as in an automobile with the windows closed, at the beach or in a bathroom.
● Check that the camera is switched off before attaching the AC adapter converter or AC adapter.
● The LCD monitor may contain some pixels that always or never illuminate, and the brightness of some areas of the monitor may appear uneven. These are typical LCD performance characteristics and do not constitute malfunctions.
● Do not apply unreasonable force to the battery cover or card cover.
● Do not lift the camera by the terminal cover, battery cover, card cover.
● Be careful not to hit the lens unit or LCD monitor while carrying the camera.
● Extreme temperature differences may cause condensation to form inside the camera body and lens unit, reducing performance. To avoid this, place the camera in a plastic bag and let it slowly acclimatize to the new temperature before exposing it.

Potential Causes of Condensation

• Suddenly transporting the camera from a cold to a warm place
• Storing or using the camera in places subject to high humidity
• Bringing the camera into a recently heated room or leaving it directly in the path of an air conditioner

Care and Storage

■ Care

● Fingerprints or dirt on the lens will reduce the quality of the image, so take care not to get them dirty.

● Do not wipe dust or smears off the lens with your fingers. Use a lens blower, readily available at most photographic suppliers, to blow dust off, or a soft cloth and wipe lightly.

● Be sure to clean the lens after use at the beach or in the vicinity of chemicals.

● If the camera should malfunction, contact your nearest Ricoh service office. This product generates high voltages and disassembly is hazardous. Under no circumstances should you attempt to disassemble it yourself.

● Never use solvents, benzine, insecticides or other volatile substances on the equipment as this may cause deformation or flaking of the paint.

● Be careful not to let anything rub against the LCD monitor as they are easily scratched.

● To clean the LCD monitor, wipe gently with a soft cloth that has been moistened in diluted detergent and well wrung. Wipe off any moisture with a soft, dry cloth.

Precautions regarding care of your camera

(1) Make sure that the camera is turned off.
(2) Remove the battery and AC adapter before cleaning the camera.

■ Storage

To prevent possible failures, avoid storing the camera in places that are:

● hot and damp, or subject to sharp temperature or humidity changes

● sandy or dusty

● subject to strong vibration

● in contact with chemicals, such as insecticides, or rubber or PVC products, for an extended period of time

● Near sources of strong electromagnetism (such as monitors and transformer magnets).

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Specifications

Camera

■ General
- ● Video signal protocol   : NTSC/PAL
- ● Power source voltage   : Rechargeable lithium-ion battery 3.7 V
                                    AC adapter   5 V
- ● Dimensions (W × H × D)   : 116.7 × 53.8 × 29.5 mm (4.5" × 2.1" × 11.6")
                                    (excluding projections)
- ● Weight   : Approx. 172 g (6.0 oz) (excluding battery)
- ● Operating range – Temperature : 0°C to 40°C (32°F to 104°F)
- ● Operating range – Humidity   : 85 % or less
- ● Storage temperature range   : –20°C ~ 60°C (–4°F to 140°F)

■ Camera
- ● CCD   : Total 2,110,000 pixels (2,020,000 effective pixels)
- ● Lens   : Zoom lens F:2.8~3.8
  - • Focal length   : f : 5.9 ~ 11.8 mm
                                     (equivalent to 38 ~ 76 mm in 35 mm format)
  - • Minimum shooting range   : Approx. 14 cm (5.5") (at Wide),
                                     approx. 40 cm (15.7") (at Tele)
  - • Macro shooting range   : Approx. 4 ~ 14 cm (1.6" to 5.5") (at Wide)
  - • Digital zoom   : 2 ×
- ● Monitor
  - • Display size   : 1.5"
  - • Display type   : Backlight low-temperature polysilicon TFT color LCD
  - • No. of pixels   : Approx. 110,000 pixels
- ● White balance   : Auto/Preset (daylight, overcast, fluorescent light,
                                     tungsten light)

- ● Exposure Compensation
  - • Exposure metering system   : Center-weighted
  - • Exposure compensation   : Manual compensation ±2.0 EV (in 0.5 EV steps)
  - • Metering   : TTL CCD method
  - • Flash automatic exposure   : Yes (daylight synchro)
  - • Shutter speed   : 4, 2, 1 ~ 1/1000 seconds for still pictures
                                     1/30 ~1/4000 seconds for motion pictures
  - • ISO sensitivity   : ISO 100 equivalent (AUTO), ISO 200, ISO 400
- ● Distance Adjustment
  - • Autofocus method   : Normal shooting: TTL-CCD method;
                                     Macro: TTL-CCD method
  - • Autofocus range   : Wide: approx. 14 cm (5.5") ~ infinity
                                     Tele: approx. 40 cm (15.7") ~ infinity
                                     Macro: approx. 4 ~14 cm (1.6" to 5.5") (at Wide)
- ● Built-in Flash
  - • Type   : Auto
- ● Range   : Wide: approx. 0.6 ~ 2.5 m (1.8 ~ 7.6 ft);
                                     Tele: approx. 0.6 ~ 2.0 m (1.8 ~ 6.1 ft)

| | • Modes | : Flash off/Forced flash/Auto /Slow synchro/ Red-eye reduction |

■ Image Data Recording and Playback
● Image resolution
- Still picture : 1600×1200, 1280×960, 640×480 pixels
- Text : 1600×1200, 1280×960 pixels
- Motion picture : 320×240 pixels

● File format
- Still picture : Compressed: JPEG (Exif2.1); Non-Compressed: TIFF (RGB)
- Text : TIFF (G4 MMR system)
- Motion picture : AVI (Conforms to Open DML Motion JPEG format)
- Voice memo : WAV (PCM)

● Camera file system standard : DCF * DCF stands for "Design rule for Camera File system" standardized by JEITA

● Compression format : Conforms to JPEG baseline method

● File sizes
- 1600×1200 : F: approx. 710 KB, N: approx. 359 KB, E: approx. 183 KB, NC: approx. 5.5 MB
- 1280×960 : N: approx. 307 KB
- 640×480 : N: 82 KB

■ Music Data Recording Parts
● Compression system (audio) : MPEG-1, Layer 3 (MP3)

* MP3 stands for MPEG AudioLayer3 and is an international sound compression standard. Data can be compressed into approx. one-tenth of the original volume.

● Sampling rate : 44.1 kHz
● Bit rate : 96 kbps
● Codification system : Caplio RR10
● Transfer method : By USB for Caplio RR10 (using RICOH Gate)

⬡ Note

• By uploading MP3 files from the PC to the camera using RICOH Gate, you can play MP3 files on the camera.

(Important)

• The bit rate that can be played back on this camera is 96kbps.

• The data with variable bit rate cannot be played back.

• The sampling rate is 44.1 kHz.

■ Input/Output Terminal
● Power input : 5 V (AC adapter)
● Video output : 1.0 Vp-p (75 Ω)

■ Power Supply
● Main battery
- Type : Rechargeable lithium-ion battery
- Voltage : 3.7 V (1 battery)

■ Keep Date Setting : Approx. 20 days

■ Compatible Memory Cards for Recording and Playback
● Type of memory : SD memory card (8MB ~ 64MB)
  • Operating voltage : 3.3V

RICOH BASE
● Power supply voltage : AC adapter, 5V
● Dimensions (W × H × D) : 66 × 95 × 56mm (2.6" × 3.7" × 2.2")
● Weight : Approx. 73g (2.6 oz)
● Working temperature range : 0°C ~ 40°C (32°F to 104°F)
● Working humidity range : 85% or less
● Storage temperature range : -20°C ~ 60°C (-4°F to 140°F)

Rechargeable Battery (DB-40)
● Nominal voltage : 3.7V
● Nominal capacity : 900mAh
● Dimensions (W × H × D) : 35.2 × 53.0 × 7.0mm (1.4" × 2.1" × 0.3")
● Weight : Approx. 27g (0.9 oz)
● Operating temperature range : 0°C ~ 40°C (32°F to 104°F)

SD Memory Card 8 MB (FM-8SD)
● Interface : Interface that conforms to SD memory card standards
● Transfer clock : Max. 25MHz
● Power supply voltage : 2.7V ~ 3.6V
● Dimensions (W × H × D) : 24.0 × 32.0 × 2.1mm (0.9" × 1.2" × 0.1")
● Weight : Approx. 2.0g

AC Adapter (AC-3)
● Power supply : AC100V-240V
● Output : 5 V
● Power consumption : 16W (max)
● Dimensions (W × H × D) : 42.4 × 104.4 × 31.4mm (1.7" × 4.1" × 1.2")
● Weight : Approx. 160g
● Operating temperature range : 0°C ~ 40°C (32°F to 104°F)

About the Warranty and Servicing

1. This product 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 from which you purchased the camera or your nearest Ricoh service office. Please note that you will be not be reimbursed for the cost of bringing the camera to the Ricoh service office.

2. This warranty does not cover any damage resulting from:
   1. failure to follow the instructions in the instruction manual;
   2. repair, modification or overhaul not conducted by an authorized service center listed in the instruction manual;
   3. fire or natural disaster;
   4. improper storage, such as exposing the camera to high temperatures, humidity, or mothballs; storing it with a leaking battery; 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 other 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 be liable for all repair fees, including those incurred at an authorized service center.

4. You will be liable 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 overhaul and thorough inspection by special request of the customer will be charged to the customer, whether or not they are incurred during the warranty period.

6. This warranty only applies to the camera and not to the accessories, such as the case and strap, nor does it apply to the battery and other consumables provided.

7. Any consequential damages arising from failure of the camera, such as expenses incurred in 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 is also described in the warranty card provided with this camera.

9. Parts essential to the servicing of the camera (that is, components required to maintain the functions and quality of the camera) will be available for a period of seven years after the camera is discontinued. However, as some parts are kept for a longer period, do not hesitate to contact your distributor or nearest Ricoh service office even after the seven-year period.

10. Please note that if the camera is seriously damaged by 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.

- Before sending the camera in for repair, check the battery and read the instruction manual again to ensure proper operation.

- Some repairs require a significant amount of time to be completed.

- When sending the camera to a service center, 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 the service center.

- Before taking any important pictures (such as at weddings, on trips abroad, etc.), test the camera to check operation and ensure proper functioning. We recommend that you keep this manual and spare battery on hand.

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☀ White balance (p.54)
🖽 Macro mode (p.55)

⊞ 🌤 🖽 **MENU**

MENU

MODE SETTING	1/2
IMG. W/SOUND	**OFF**
FOCUS	**AF**
DATE IMPRINT	**Y/M/D**
ISO SETTING	**ISO 200**
REDEYE REDUC ▼	**ON**
BACK:CANCEL	**SELECT:**▶
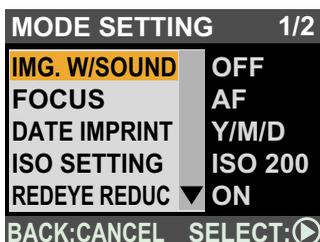
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FOCUS (p.58)
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MODE SETTING	2/2
TIME EXP. ▲	**OFF**
BACK:CANCEL	**SELECT:**▶

TIME EXP. (p.64)

MODE SETTING	
FOCUS	**AF**
DATE IMPRINT	**Y/M/D**
ISO SETTING	**ISO 200**
BRIGHT CNTRL ▼	**0**
BACK:CANCEL	**SELECT:**▶
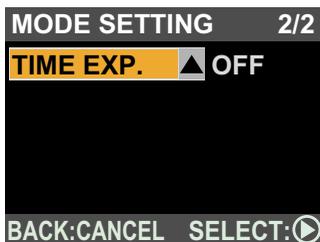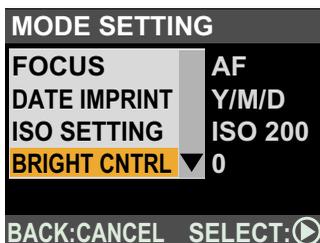
BRIGHT CNTRL (p.65)
(Text mode only)

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MODE SETTING

🗑 Delete single file (p.93)
⊞ Thumbnail (p.76)
🔍 Zoom playback (p.77)
🔒 Protect (p.78)

MODE SETTING

AUTO PLAY	►
DPOF	►
DELETE ALL	►
VOICE MEMO	►

BACK:CANCEL   SELECT:▶
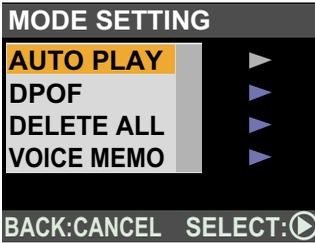
AUTO PLAY (p.81)
DPOF (p.82)
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■ SETUP Mode [SETUP]

SET UP   1/3

FORMAT	►
KEEP SETTING	►
DIGITAL ZOOM	OFF
LCD CONFIRM.	1SEC.
AUTO OFF ▼	1MIN.

SELECT:▶
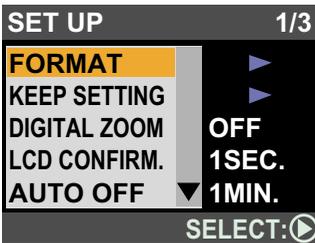
FORMAT (p.27)
KEEP SETTING (p.96)
DIGITAL ZOOM (p.67)
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SET UP   2/3

BEEP SOUND ▲	ON
POWER SAVE	OFF
SEQ.FILE NO.	ON
DATE SETTING	►
LANGUAGE ▼	ENGLISH

SELECT:▶

BEEP SOUND (p.99)
POWER SAVE (p.100)
SEQ. FILE NO. (p.100)
DATE SETTING (p.34)
LANGUAGE (p.101)

SET UP   3/3

VIDEO OUT ▲	NTSC
MP3:DELETE	►
OPTIONS	►

SELECT:▶
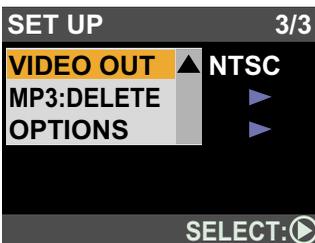
VIDEO OUT (p.102)
MP3:DELETE (p.92)
OPTIONS (p.103)

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Declaration of Conformity
"The Product complies with the requirements of the EMC Directive 89/336/EEC."

INFORMATION TO THE USER

USA FCC Part15 Class B

The 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, user, 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. In 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 to 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 a host computer in order to comply with FCC emission limits. (FCC 15.27)

An AC adapter with a ferrite core must be used for RF interference suppression.

COMPLIANCE INFORMATION STATEMENT

Product Name: DIGITAL CAMERA
Model Number: Caplio RR10
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
5 Dedrick Place, West Caldwell NJ, 07006 Tel.: 1-800-225-1899

Note to Users in Canada

Note: This Class B digital apparatus complies with Canadian ICES-003

Remarque Concernant les Utilisateurs au Canada

Avertissement: Cet appareil numerique de la classe B est conforme a la norme NMB-003 du Canada

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

Memo

Ricoh Service Offices

Ricoh company., Ltd.
3-2-3, Shin-yokohama
Kohoku-ku, Yokohama-shi 222-8530, Japan
http://www.ricoh.co.jp/r_dc

Ricoh Factory Service Center
3235 Sunrise Blvd.,
Suite2 Rancho Cordova,
CA 95742
http://www.ricohzone.com/

RICOH EUROPE B.V. (PMMC EUROPE)
Oberrather Straße 6,
D-40472 Düsseldolf,
Germany
http://www.ricohpmmc.com

RICOH UK LTD. (PMMC UK)
Ricoh House, 1 Plane Tree Crescent,
Feltham, Middlesex, TW13 7HG,
England

RICOH FRANCE S.A. (PMMC FRANCE)
383, Avenue du Général de Gaulle –
BP 307-931-13 Clamart Cédex,
France

RICOH ESPANA, S.A. (PMMC SPAIN)
Av. Litoral Mar, 12-14,
08005 Barcelona,
Spain

RICOH EUROPE B.V. (PMMC BENELUX)
Koolhovenlaan 35,
1119 NB Schiphol-Rijk,
The Netherlands

Ricoh Photo Products (Asia), Ltd.
Unit D, E & F
24/F., China Overseas Building
139 Hennessy Road, Wan Chai
Hong Kong

Ricoh Australia Pty. Ltd.
8 Rodborough Road
Frenchs Forrest, N.S.W. 2086
Australia
http://www.ricoh.com.au