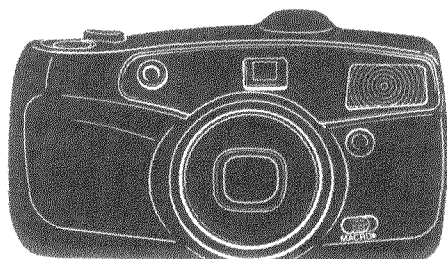




RIVA ZOOM 70EX FREEDOM ZOOM 70EX

INSTRUCTION MANUAL



Congratulations on your purchase of this Minolta camera. This manual gives you short explanations for each function, plus all the information you'll need to understand and operate this camera properly.

To begin taking pictures in the easiest way possible, read **Getting Started**. Later, when you're ready to learn how to use the camera's other buttons and functions to improve your pictures, move along to **Advanced Operation**.

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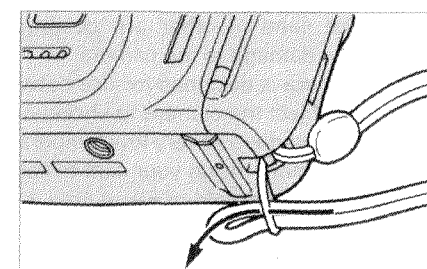
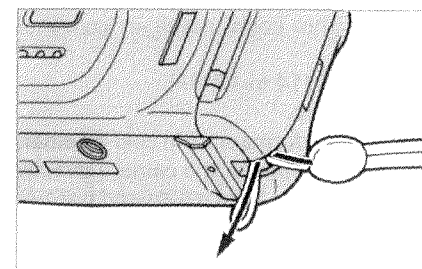


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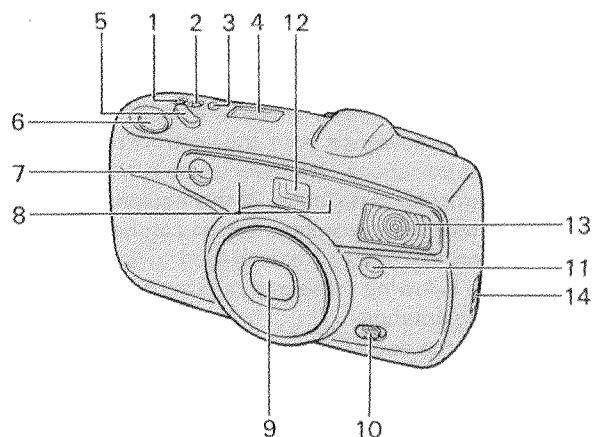
Printed in Japan
9222-2415-11
(P9709-H611)

ATTACHING THE STRAP

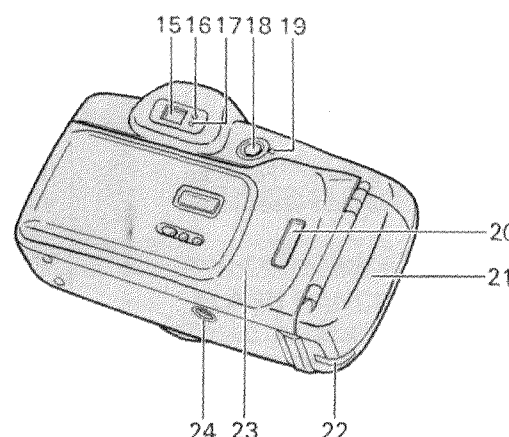
Attach the strap as shown.



NAMES OF PARTS



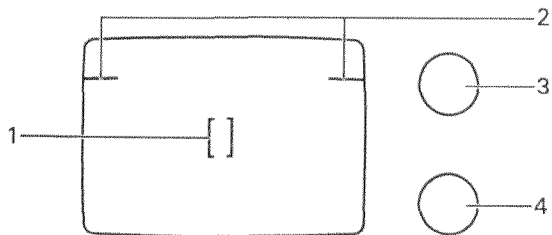
1. Self-timer button
2. Landscape/red-eye-reduction button
3. Flash-mode button
4. Data panel



5. Zoom control
6. Shutter-release button
7. Meter-cell window*
8. Autofocus windows*
9. Lens*
10. Macro control
11. Red-eye-reduction/self-timer lamp
12. Viewfinder window*
13. Flash
14. Back-cover release
15. Viewfinder eyepiece
16. Focus lamp
17. Flash lamp
18. Power button
19. Manual-rewind button
20. Film window
21. Battery cover
22. Strap eyelet
23. Back cover
24. Tripod socket

* Do not touch

VIEWFINDER



1. Focus frame

Camera focuses on the subjects within this frame.

2. Close-framing guides

When your subject is closer than 0.9m (2.9 ft.) at 35mm or 1.3m (4.3 ft.) at 70mm, the picture should be composed within this frame.

3. Focus lamp:

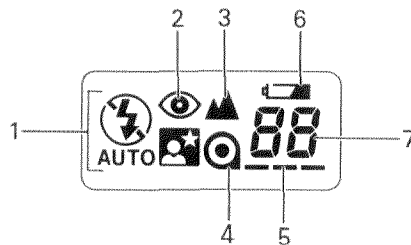
Glowing: Focus is locked.
Blinking: Subject is too close.

4. Flash lamp

Glowing: Flash will fire with next picture.

Blinking slowly: Camera-shake warning.
Blinking quickly: Flash is charging.

DATA PANEL



1. Flash-mode indicator

: Auto-switchover flash

: Manual fill-flash

: Flash cancel

: Night-portrait flash

2. Red-eye-reduction indicator

3. Landscape indicator

4. Film-cartridge mark

5. Film-transport signals

6. Low-battery symbol

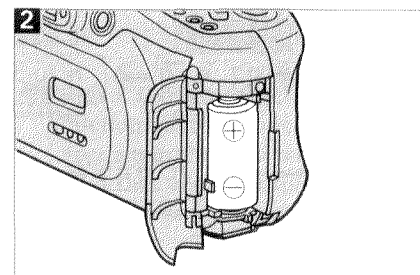
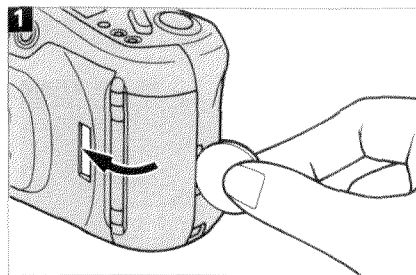
7. Frame counter

INSERTING BATTERY

Your camera uses a 3-volt lithium battery (CR123A/DL123A) that supplies power for all camera operations.

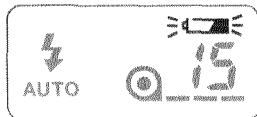
BATTERY CAUTIONS

- Read and follow all warnings and instructions supplied by the battery manufacturer.
- Keep batteries away from children.
- Do not attempt to disassemble, recharge, short out, or subject batteries to high temperatures or fire.



1 Use a coin to open the battery cover.

2 Insert the battery as shown on the inside of the battery chamber and snap the cover closed.

LOW-BATTERY SYMBOL

If the blinking low-battery symbol appears in the data panel with the other indicators, you can still use the camera, but the battery will have to be replaced soon.



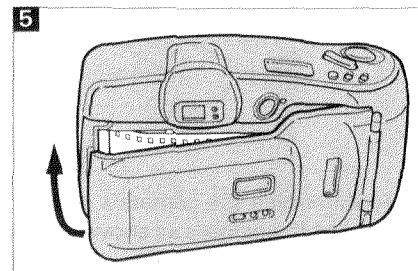
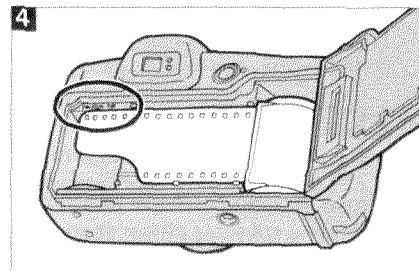
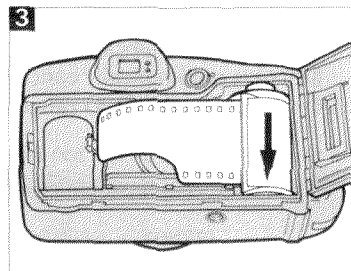
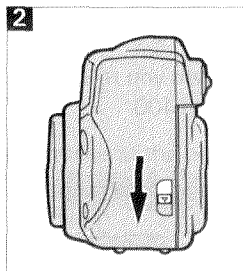
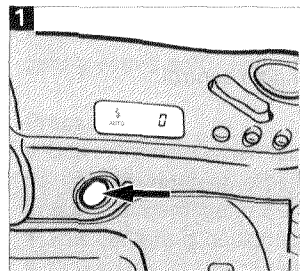
If the blinking low-battery symbol appears alone, replace the battery.

AUTO POWER OFF

To save power, your camera automatically turns off if it is not operated for more than three minutes.

LOADING FILM

You should only use DX-coded, 35mm film with ISO ratings 25 to 3200.



- 1** Turn on the camera and make sure 0 is displayed in the data panel.
- 2** Open the back cover by sliding down the back-cover release.
- 3** Place the film cartridge, bottom first, into the film chamber as shown.

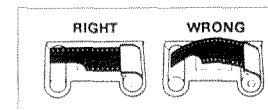
Always load your film in the shade or away from direct sunlight.
Polaroid instant 35mm films cannot be used.

- 4** Lay the film flat between the guide rails and extend the film to the "FILM TIP" mark.

If the film extends too far, gently push the excess back into the cartridge.

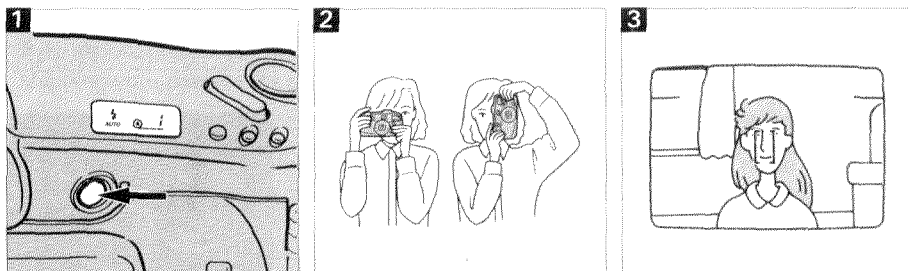
- 5** Snap the back cover closed.

The film automatically advances to the first frame and 1 appears in the data panel.

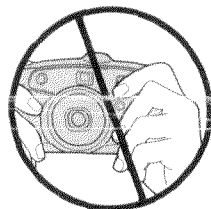


If 0 blinks in the data panel, the film was incorrectly loaded. Open the back cover and re-load the film.

BASIC OPERATION

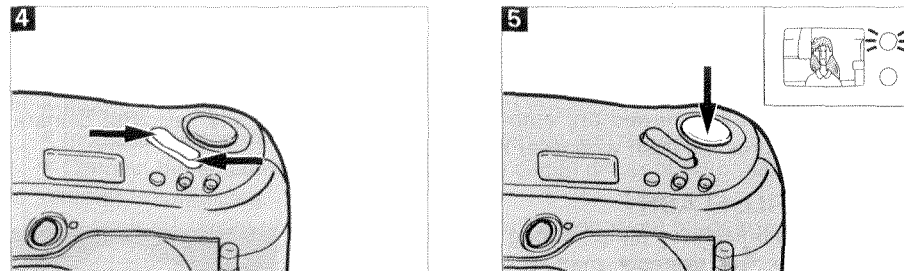
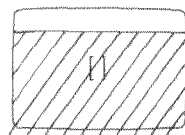


- 1 Press the power button to turn on the camera.
- 2 Hold the camera steady and make sure your fingers are not covering the flash. If you are taking a vertically-framed picture, turn the camera so the flash is on top.
- 3 Center the focus frame on your subject.

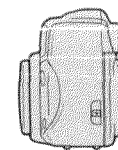


Make sure that you are at least 0.60m (2.0 ft.) from your subject. The focus lamp blinks when you are too close to the subject; however, if you are closer than 0.4m (1.3 ft.), the focus lamp will glow, but the picture will not be in focus.

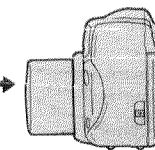
When your subject is closer than 0.9m (2.9 ft.) at 35mm or 1.3m (4.3 ft.) at 70mm, compose the picture within the close-framing guides.



- 4 Zoom the lens by pressing the right side of the zoom control to move towards telephoto and the left side for wide.



35mm



70mm



- 5 Press the shutter-release button partway down so that the focus lamp glows and then all-the-way down to take the picture. Always press the shutter-release button with a slow, steady squeeze--never a quick jab. The film automatically advances to the next frame.

FILM REWIND

AUTOMATIC REWIND



After you take the last picture on the roll of film, the camera automatically begins rewind and the frame counter counts down to 0.

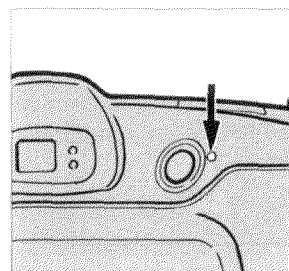
When 0 appears in the data panel and the film-cartridge mark blinks, open the back cover and remove the film.

CAUTION

If 0 doesn't appear in the data panel after the motor stops running, check the battery level, you may have to change the battery.

MANUAL REWIND

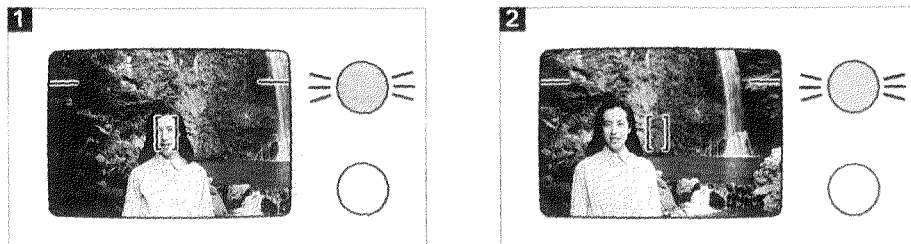
If you don't want to take the whole roll of pictures, you can begin film-rewind manually.



1. Turn the camera on and press the manual-rewind button using a pen or similar object.
2. When 0 and the blinking film-cartridge mark appear in the data panel, open the back and take out the film.

FOCUS HOLD

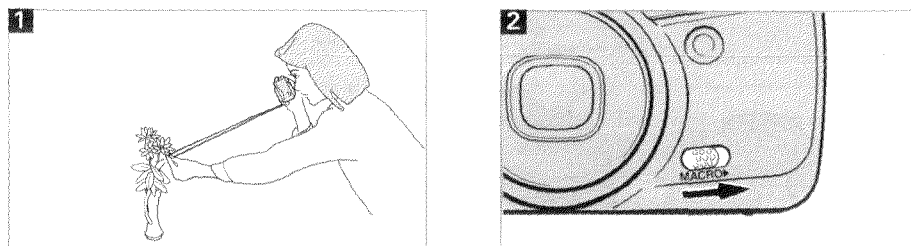
Hold focus on the subjects that you don't want in the center of the picture.



- 1 Center the focus frame on your subject, then press and hold the shutter-release button partway down so that the focus lamp glows. If your subject is behind glass, use focus hold on something of equal distance from the camera.
- 2 Without lifting your finger, recompose the frame and press the shutter-release button all-the-way down to take the picture.

MACRO: CLOSE-UP PHOTOGRAPHY

You can take pictures of subjects as close as 48cm (1.6 ft.) using macro.



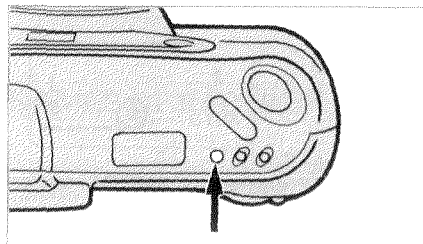
- 3 Compose the picture within the close-framing guides.
- 4 While holding the macro control, press the shutter-release button all-the-way down to take the picture.
If your subject is closer than the minimum subject distance, 48cm (1.6 ft.), the focus lamp will glow, but the subject will not be in focus.
The flash automatically fires.
Macro is automatically canceled when you release the macro control.
Only use film with ISO ranges 100 to 400.

Do not photograph people or animals at close range.

- 1 To determine the camera's close-focusing distance, extend the camera strap in front of the camera as shown. Do not photograph any subjects closer than this.
- 2 Slide and hold the macro control in the direction shown.
The lens automatically zooms to 70mm.

FLASH

FLASH-MODE BUTTON



Pressing the flash-mode button changes the flash modes in the order shown.

	Flash Mode	When to Use
	Auto-Switchover Flash	In all situations, except those listed below
	Manual Fill-Flash	When there are strong shadows on your subject's face.
	Flash Cancel	With twilight scenes and inside museums
	Night-Portrait Flash	When your subject is placed in front of a night scene

The indicator of the flash mode selected appears in the data panel.
Flash modes remain selected after you take the picture.

AUTO-SWITCHOVER FLASH

When the camera is turned on, auto-switchover flash is initially set. The camera automatically fires the flash whenever necessary.

MANUAL FILL-FLASH

Use manual fill-flash to “fill-in” strong shadows on your subject’s face. For example, manual fill-flash should be used when your subject is wearing a hat under bright sunlight. The flash will fire every time you take a picture.



FLASH CANCEL

When you’re photographing twilight scenes or distant subjects, cancel the flash.



When the flash lamp blinks slowly shutter speeds will be slow, so to avoid taking blurry pictures use a tripod.

NIGHT-PORTRAIT FLASH

When posing someone in front of a night scene, use night-portrait flash. This provides balanced exposure between your subject and the background.



Shutter speeds are slow in this mode. Please use a tripod and warn your subjects to remain still.

POINTS TO REMEMBER WHEN TAKING FLASH PICTURES:

1. FLASH LAMP

When the flash lamp blinks quickly, the flash is charging. Wait until it glows steadily and then take the picture. The flash takes approximately 6 seconds to charge.

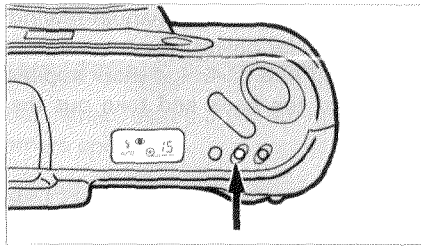
2. FLASH RANGE


Make sure your subject is positioned within the flash range.

Flash Range		
	ISO 100	ISO 400
35mm	0.6m to 4.6m (2.0ft. to 15.1ft.)	0.6m to 9.2m (2.0ft. to 30.2ft.)
70mm	0.6m to 2.7m (2.0ft. to 8.9ft.)	0.6m to 5.4m (2.0ft. to 17.7ft.)

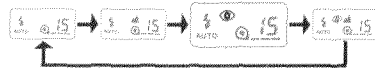
RED-EYE REDUCTION

Reduce red-eye in flash pictures of people by using red-eye reduction.

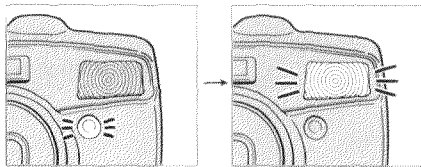


Press the landscape/red-eye-reduction button until  appears in the data panel.

This button also selects landscape mode. To use landscape mode, see the next section.



Warn the people you are photographing that the red-eye-reduction lamp will blink three times before the flash fires.

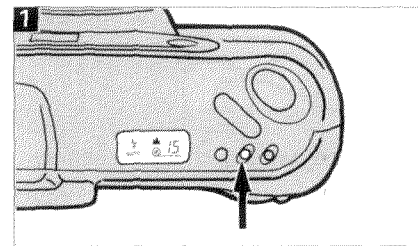
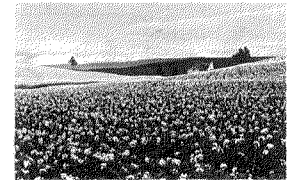



When you press the shutter-release button all-the-way down, the red-eye-reduction lamp blinks, then the main flash fires with the shutter release.

Red-eye-reduction mode remains selected until you cancel it. To cancel, press the landscape/red-eye-reduction button until the indicator disappears from the data panel.



LANDSCAPE PHOTOGRAPHY

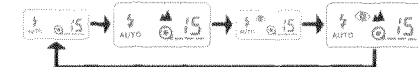
Landscape mode sets focus to infinity. This is especially useful when photographing distant subjects through a window.



1 Press the landscape/red-eye-reduction button once so that  appears in the data panel.

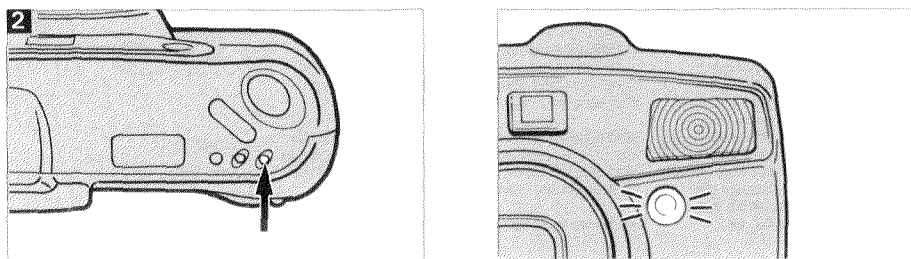
2 If you are taking pictures of twilight or night scenes, cancel the flash and use a tripod.

After you take the picture, landscape mode will be automatically canceled and if   was selected, red-eye-reduction mode will be restored.



SELF-TIMER

You can include yourself in the picture by selecting self-timer.



CARING FOR YOUR CAMERA

Cleaning

- If the lens becomes dirty, clean it gently with a lens brush. If necessary, moisten a sheet of lens tissue with one drop of lens-cleaning fluid and gently wipe the lens. Never touch the lens surface with your fingers.
- Never use alcohol or chemical solvents on the camera body. If it is dirty, wipe it gently with a soft, clean, dry cloth.

Precautions

- Use extra care when taking pictures at the beach. Do not let the camera get wet and do not let sand or other grit get into the camera. This could result in costly or irreparable damage to the camera.
- This camera is designed for use between -10 and 40°C (14 to 104°F).
- Never subject the camera to shock, high heat, or humidity.
- Using the camera at very low temperatures impairs its performance. In cold weather, carry the camera inside your coat to keep it warm. Do not transfer the camera directly from an extremely cold to warm area, since condensation may form inside and prevent normal operation.
- This camera contains high-voltage circuits. Do not attempt to disassemble or repair it yourself.

Storage

- When not in use, keep the camera in a cool, dry place away from dust and chemicals. For extended storage we recommend that you place the camera in an airtight container with a drying agent such as silica gel.
- Do not store your camera in the glove compartment or other places in motor vehicles where it may be subjected to high temperatures.

Questions and Service

- If you have questions about your camera, contact your local camera dealer. For more information write to the Minolta distributor or subsidiary in your area (addresses listed at the back of this manual).
- To assure prompt service, please contact an authorized Minolta Service Center before shipping your camera for repairs.

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the Radio Interference Regulations of the Canadian Department of Communications.

1 Set up the picture.

2 Press the self-timer button. The picture is taken 10 seconds later.

The focus lamp glows and the self-timer lamp on front of the camera blinks to show that the self-timer is operating.

To cancel the self-timer before the picture is taken, turn off the camera.

To use focus hold with self timer, press the self-timer button and quickly recompose the picture before the shutter release.

TECHNICAL DETAILS

Lens: 35-70mm f/3.8-7.2 power zoom lens; 4 elements in 4 groups; max. magnification: 1/5.8X (for subjects at 0.48m with 70mm lens)

Metering Range(ISO 100): 35mm: EV3.9 to EV15; 70mm: EV5.7 to EV17; in flash-cancel and night-portrait modes, shutter speed is set to 1 sec.

Battery Performance: Approximately 15 rolls (based on Minolta's standard test method using 24 exposure film with flash 50% of exposures)

Viewfinder

Magnification: 35mm: 0.42x; 70mm: 0.74x

Image Area: 85% coverage (for subject at 3m/9.8 ft.)

Dimensions: 134(W) x 72.5(H) x 48.5mm(D)* (5-1/4 x 2-7/8 x 1-7/8 in.)

*QD model: 53mm (D) (2-1/16 in.)

Weight (without battery): 255g (9oz)

QD model: 265g (9-3/8oz)

Specifications are based on the latest information available at the time of printing and are subject to change without notice.

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

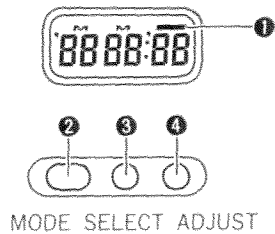
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FOR OWNERS OF THE QUARTZ DATA BACK MODEL

The data back enables you to record the date, in a choice of three year/month/day formats, or time (day/hour/minute) directly onto the film. It features a quartz clock and automatic calendar through the year 2019 and automatically controls the imprint exposure according to the camera's film-speed setting. With the camera held horizontally, the data is recorded onto the lower right portion of the picture; in the vertical format, imprinting occurs on the lower left portion of the picture.



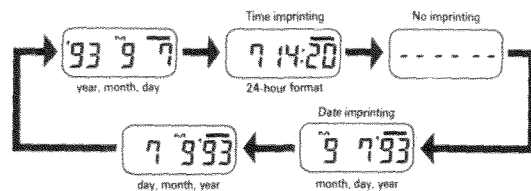
Names of Parts



- 1 Print indicator
- 2 MODE button
- 3 SELECT button
- 4 ADJUST button

Mode Selection

Use the MODE button to change the data display as shown.



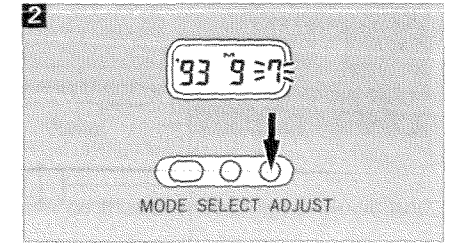
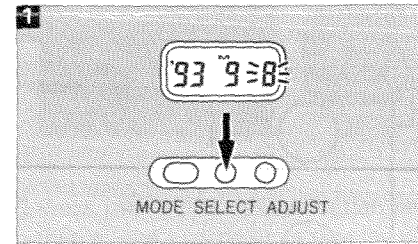
Data Imprinting

Press the MODE button to select the desired data type, then take the picture.

Following exposure, the print indicator blinks in the data panel for approximately two seconds to confirm imprinting.

- The imprinted data may be difficult to read if the subject area over which it is superimposed is bright or non-uniform.
- Legibility of the imprinted data may vary somewhat with film type.

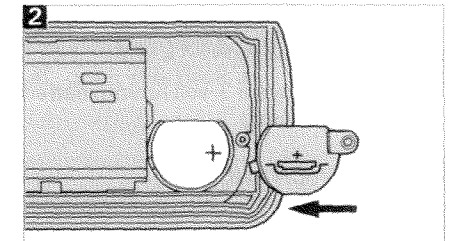
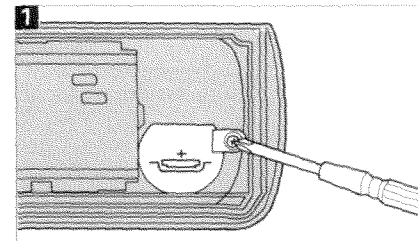
Setting Data



- 1 Use the SELECT button to move between different parts of the displayed data. With the date displayed, pressing the SELECT button in succession causes the settings for year, month, and then day to blink. In time mode, pressing the SELECT button successively causes the hour, minute, and then the colon to blink.
- 2 Press the ADJUST button to change the blinking display. In time mode, pressing the ADJUST button while the colon is blinking synchronizes the seconds counter to 00.

Battery Replacement

The quartz data back uses a 3V lithium battery (CR2025).



- 1 Open the camera back. Remove the screw from the battery cover using a small Phillips screwdriver.
- 2 Insert the new battery (+ side up). Replace the battery cover and attach with the screw. Following battery replacement, reset day and time.

Care and Storage

This unit is designed for use between 40 and 0°C (104 and 32°F). At temperatures above or below this range, LCD and imprinted date may become difficult to read. Even higher temperatures may cause the LCD to temporarily blacken.