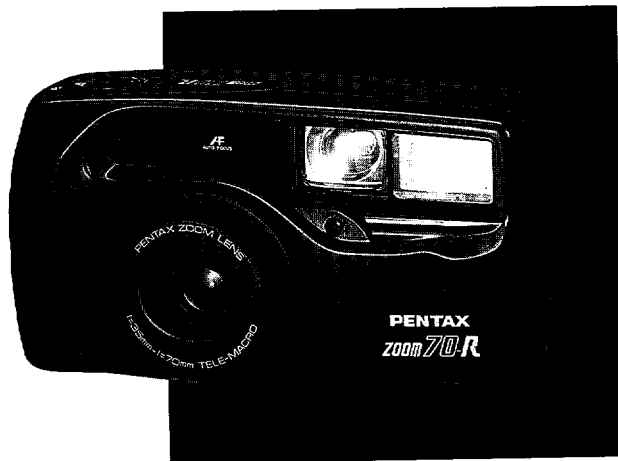


PENTAX®

ZOOM 70-R

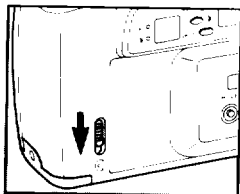
ZOOM 70-R DATE

OPERATING MANUAL



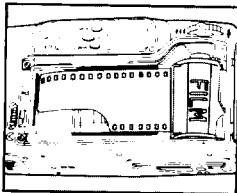
OUTLINE OF BASIC OPERATIONS

1



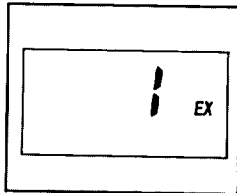
Open the back cover (see page 8).

2



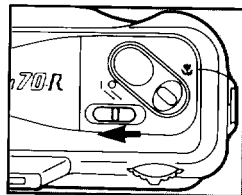
Load the film and close the back cover.

3



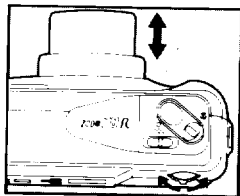
The film automatically advances to the first frame.

4



Set the main switch to (I) (see page 4).

5



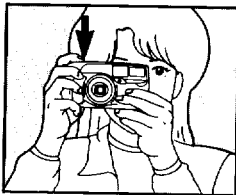
Frame your subject and operate the zooming lever to determine the composition (see page 6).

6



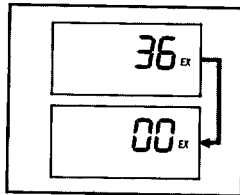
Focus your subject (see page 12).

7



Press the shutter release button. In dark conditions, the flash fires automatically.

8








When the film reaches its end, the camera automatically rewinds the film (see page 16).

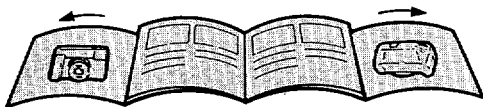
Welcome to the world of Pentax zoom compact photography! Your compact, lightweight camera is a great companion to preserve your favorite memories. Its built-in 35 – 70 mm zoom lens gives you the freedom to frame everything from breathtaking landscapes to family portraits, even detailed close-ups. Built-in auto flash helps you capture a subject in a dimly-lit night or an indoor scene with clarity, and functions as a fill-in flash for daylight flash-sync photography. Since most of the operations – including film speed setting, winding/rewinding, focus and exposure control – are automatic, you can take great pictures with little effort. The DATE model makes it easy to remember when you take pictures.

Please read this manual carefully before operating the camera to learn how to take consistently flawless pictures.

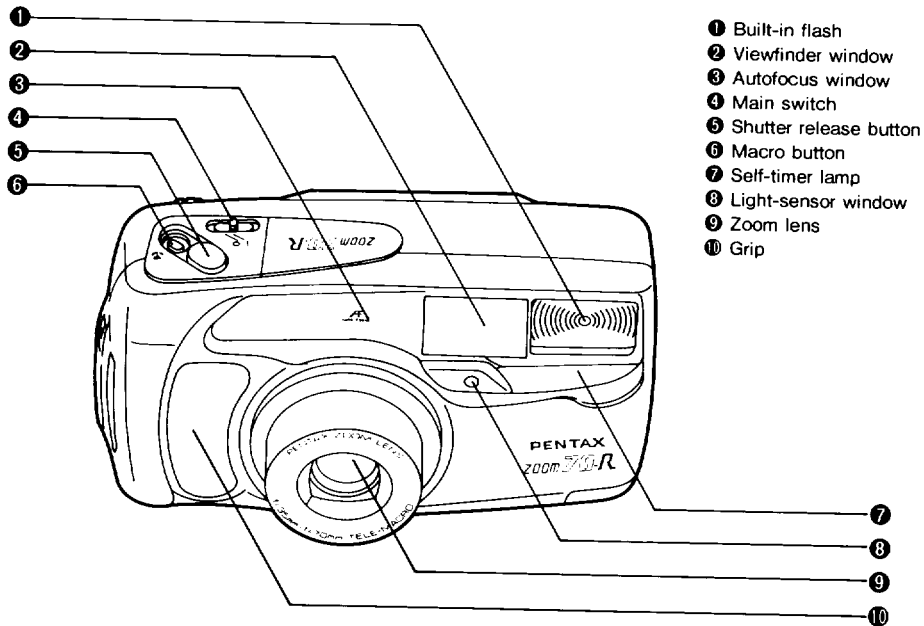
Names of the camera's working parts are listed on the front and back flaps of this manual. Keep the flaps unfolded for quick reference while you read.

Icon indicators used in this manual:

Operation direction	
Lamp glowing	
Lamp flickering	
Correct	
Incorrect	



NAMES OF WORKING PARTS



CAUTIONS

- Shield the camera from salty air and water at the beach, splashing liquid of any kind, and rain. If immersed in water, the camera will be rendered inoperable.
- If the camera is exposed to dirt, mud, sand, dust, moisture, toxic gas or salt water, the camera may be damaged or rendered inoperable.
- Avoid leaving the camera for extended periods where temperature and humidity are high, such as in a car.
- Never use solvents such as paint thinner, alcohol or benzene to clean the camera.
- Be careful not to drop or otherwise subject the camera to strong vibrations, shock or pressure.
- Do not apply force to the zoom lens; do not place the camera with the lens facing down.
- The electric circuitry inside the camera contains high voltage working parts. Never attempt to disassemble the camera.
- Keep the batteries out of the reach of children.
- Do not mix battery brands, types or old battery with new one. Otherwise overheating or fire might result.
- The misuse of batteries causes hazards such as leakage, heating, explosions, etc. Batteries should be inserted with the “+” or “-” sides facing correctly.
- To prevent explosion, never try to break up or recharge the batteries, or throw exhausted ones into fire.

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● Names of working parts	Flaps
● Introduction	Front foldout
● Outline of basic operations	Inside cover
CAUTIONS	①

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2. Main switch and battery check	④
3. How to hold the camera	⑤
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○ Flash mode/Red-eye reduction flash mode	㉑
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Troubleshooting	㉞
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Specifications	㊱

PRESHOOTING PREPARATIONS

Strap

Fit the strap on the camera as illustrated.

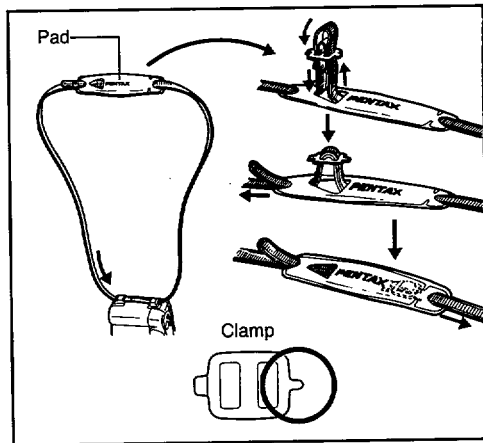
On the DATE model, use the clamp's protrusion to press the SELECT and ADJUST buttons.

Note :

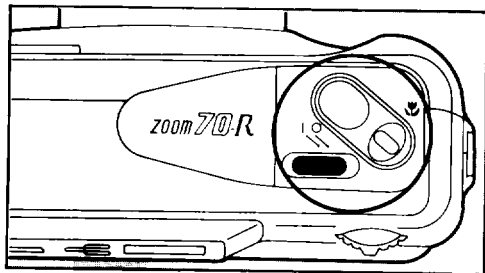
- Adjust the strap so that the camera is positioned above your waist to minimize camera sway when you walk.

Soft case (optional)

When putting the camera into the soft case, be sure to turn the main switch off (○).



2. MAIN SWITCH AND BATTERY CHECK



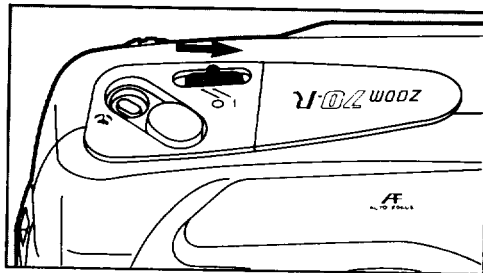
Main switch

On (I): The power is on, and the camera is ready for setting and shooting.

Off (O): The power is off, and the camera is not in use. When the camera is left unused for more than 3 minutes with the main switch on (I), the lens automatically returns to the 35 mm (wide-angle) position.

Caution :

The lens protector automatically opens when the main switch is on (I), and closes when the main switch is off (O). Never attempt to open the lens protector by hand.



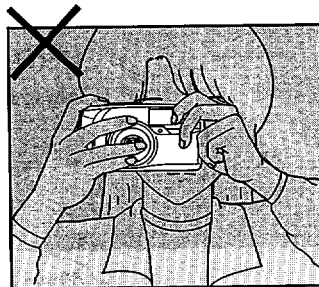
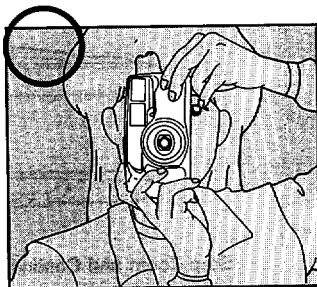
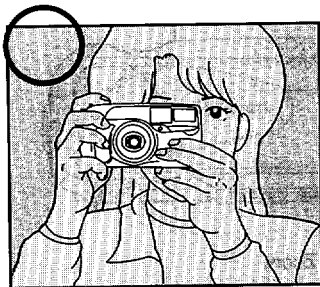
Battery check

After you turn the main switch on (I), the lens slightly extends and the lens protector opens. Then you can shoot.

Notes :

- If you have a DATE model, do not remove the batteries until they are exhausted, since they are used to keep constant track of time for the date function.
- Refer to page 33 for directions on battery insertion.

3. HOW TO HOLD THE CAMERA



When shooting, hold the camera securely with both hands. Keep the camera as still as possible, and gently press the shutter release button. (If pressed forcefully, the camera is likely to shake, and the picture will be blurred.) Try to brace your elbows against your body, or support yourself and the camera against a stable, stationary object, such as a wall.

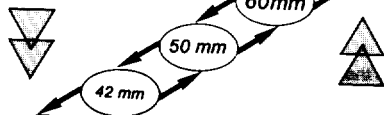
When using flash with the camera vertically positioned, hold the camera so that the flash is above the lens.

Caution :

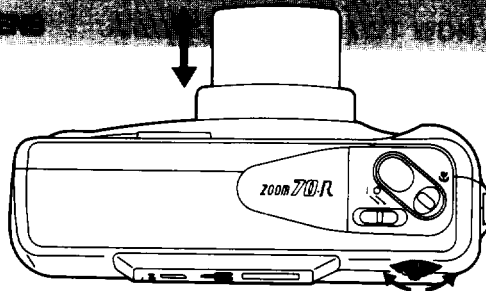
Do not hold the zoom lens because it moves back and forth when zooming.

Note :

- Do not place your fingers or hair on the lens, autofocus window, sensor window, flash, etc.



⑥



Step Zoom and Continuous Zoom

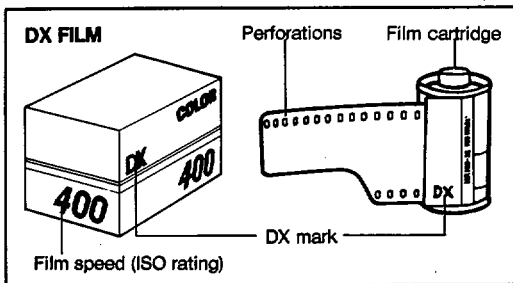
When you press the zooming lever lightly, the lens zooms to and stops at an adjacent step among 5 successive zoom settings: 35, 42, 50, 60 and 70mm. This is the Step Zoom function. When you press the lever further, the lens zooms quickly and continuously to any desired zoom setting from 35mm ~ 70mm, until you release the lever. This is the Continuous Zoom function.

Note:

- To stop at a next step using Step Zoom, return the zooming lever to the center position, then press it lightly again.

BASIC OPERATIONS

1. USABLE FILM



After reading this instruction manual to familiarize yourself with operations, you're ready to insert the film.

Notes:

- When buying DX film, make sure the package bears the "DX" mark.
- Non-DX film cannot be used.
- Use high-speed film with an ISO rating of 1000 or 1600 mainly for shooting indoors or in dimly-lit conditions.

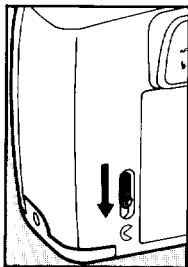
Automatic film speed setting

This camera is designed to use DX-coded films with ISO ratings from 50 to 1600. When such film is loaded, its film speed is automatically set in the camera.

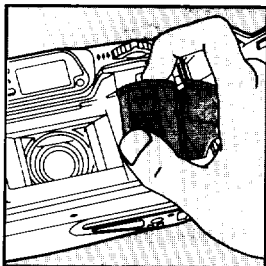
- The shutter may continue to release for a frame or two after the number of exposures indicated on the film canister has been shot, but the last frame may not be developed.

2. FILM LOADING First, switch off power by setting the main switch to (O)

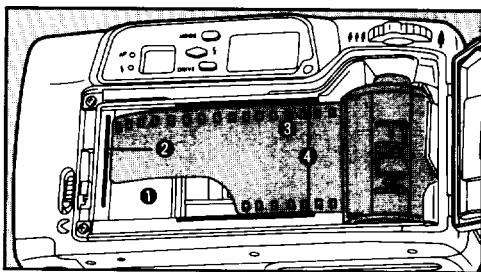
1



2



3



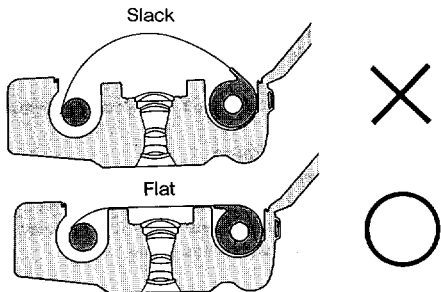
1 Slide the back cover release lever in the direction of the arrow as illustrated to open the back cover.

2 Place the film cartridge in the film chamber, fitting its flat side on the top of the rewind shaft.

3 Pull the film leader out far enough from the cartridge to reach the take-up spool 1. Align the tip with the film leader end mark 2.

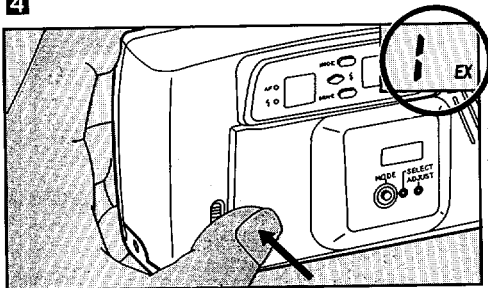
Notes:

- Make sure the film perforations properly engage the sprocket teeth 3.
- Make sure the film is properly placed between the guide rails 4.



- Make sure the film is taut as illustrated. Take up any slack in the film by pushing it back into the cartridge.
- If the end of the film leader is extremely bent, straighten it or cut off the bent portion.

4

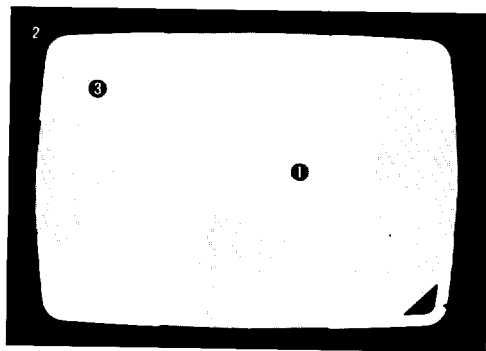


- 4** Close the back cover. The film automatically advances to the first frame.
- When "I" appears in the exposure center on the LCD panel, the film automatically stops winding. The indication as shown above appears.

Notes:

- If "I" does not appear on the LCD panel, the film is not properly loaded. Reload the film.
- After the shutter is released for each exposure, the film automatically advances to the next frame.

3. VIEWFINDER DISPLAYS AND SHOOTING RANGES



① Autofocus frame

Position this frame at the subject of focus.

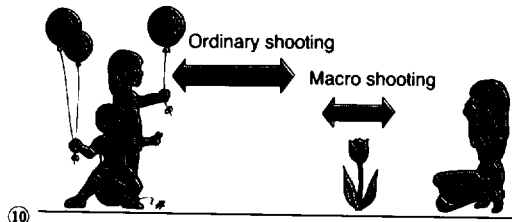
② Picture-area frame

This is the ordinary picture area. Compose the picture within this frame.

③ Parallax-correction frame

When taking a macro picture in which the subject is about 0.6 meters (2 ft) away, or an ordinary shot in which the subject is about one meter (3.3 ft) away, compose the picture within this frame.

Part of the lens front appears in the viewfinder when the lens is in its wide-angle position, but this won't appear on the film when the picture is taken.

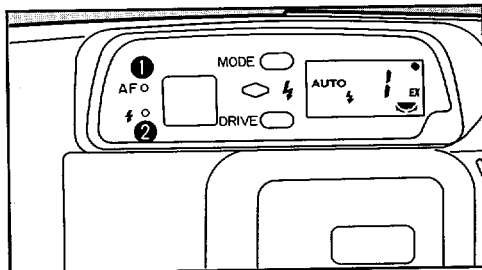


Shooting ranges

(effective camera-to-subject distance)

- The ordinary setting allows a shooting range from ∞ (infinity) to one meter (3.3 ft).
- The macro setting allows a shooting range from one meter (3.3 ft) to 0.6 meters (2 ft). No subject closer than 0.6 meters can be clearly photographed.

4. GREEN/RED LAMPS



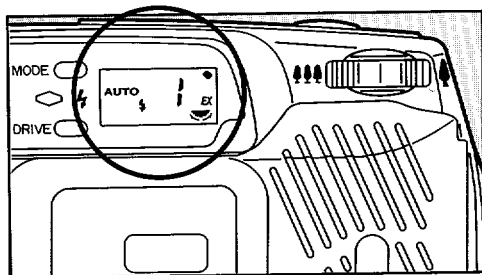
When you press the shutter release button half-way, the lamps ① and/or ② as shown above glow or flicker.

- ① **Green lamp:** When it glows, you can take a picture. When it flickers, you cannot.
- ② **Red lamp:** When it glows, flash is ready to fire. When it flickers, flash is being charged.

Note:

- If the green lamp flickers, the subject is too close. Adjust the camera-to-subject distance so that the green lamp glows, then release the shutter.

5. ORDINARY PHOTOGRAPHY



When the LCD panel is as shown above, the camera is in the Auto and Single-Frame Shooting modes. These modes are used for ordinary picture-taking situations. The flash fires automatically in dimly lit places.

Note:

- When the power is switched on, the Auto and Single-Frame modes are automatically engaged.

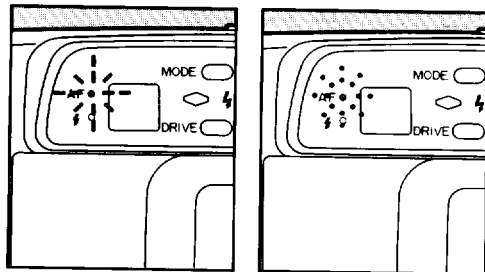
6. TAKING PICTURES

1



- 1 After zooming and composing your shot, position the autofocus frame (□) on the subject.

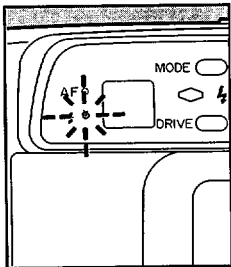
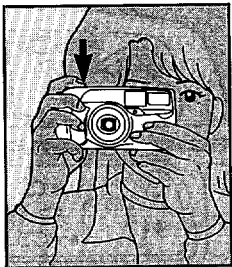
2



- 2 Press the shutter release button half-way with your subject in focus, and the green lamp glows. If the subject is closer than one meter (3.3 ft), the green lamp flickers and the shutter cannot be released. In this case, lengthen the camera-to-subject distance.

Note:

- If you wish to shift subject focus, release your finger from the shutter release button and press the shutter release button half-way again.

3

★

3 Press the shutter release button all the way down, and the shutter is released. Then, the film automatically advances to the next frame.

Notes:

- When the shutter is released, the self-timer lamp glows momentarily to indicate that a shot has been taken.
- When the green lamp flickers, the (⊙) marco mark on the LCD panel also flickers to recommend use of macro mode.
- The shutter cannot be released while the lens is zooming.

★ **When taking pictures in the dark, the flash automatically fires.**

When the shutter release button is lightly pressed in dark lighting, the red lamp glows, indicating that flash is ready to fire. A flickering red lamp means the flash is being charged.

Therefore, make sure the red lamp glows before shooting.

- Zoom 70-R/R-DATE is equipped with the red-eye reduction flash mode. See "Red-eye Reduction Flash Mode" on page 21.

Flash-effective ranges (Nega-color film used)

Lens ISO	50	100	400	1600
35mm (♣♣♣)	1~3.5 m	1~5 m	1~10 m	1~18m*
70mm (♣)	1~2.5 m	1~3.5 m	1~7 m	1~12m
Macro (⊙)	0.6~1 m	0.6~1 m	0.6~1 m	—

- ★ Because of high film speed, overexposure may occur at close range.

7. FOCUS-LOCK SHOOTING

NO!

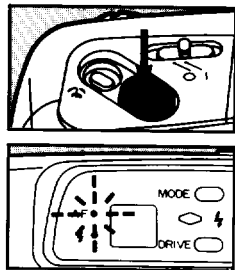


If you shoot without positioning the autofocus frame (□) on the main subject of the picture as shown above, only the background will be in focus. When the main subject of your picture is off the autofocus frame in the center of the viewfinder, use the focus-lock technique.

1



2



- 1 When taking a picture of two people, for example, first position the autofocus frame (□) on one of the two.
- 2 As you press the shutter release button half-way, the green lamp on the lefthand side of the viewfinder eye-piece glows, and focus and exposure are temporarily locked.

3



- 3 While continuing to press the shutter release button half-way, re-aim the camera or recompose the picture, then release the shutter.

Notes:

- You can cancel focus lock simply by taking your finger off the shutter release button.
- When in the Consecutive Shooting mode (📷), focus lock cannot be used.

Hard-to-autofocus subjects

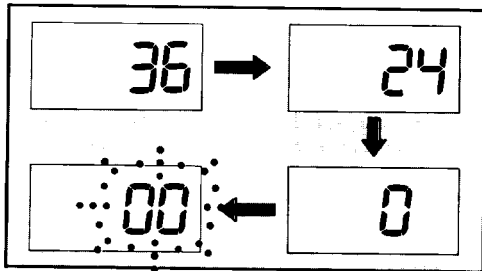
Like many other autofocus cameras, this camera's autofocus system is highly precise, but is not almighty, so it may not focus as you wish on certain subjects. In such cases, use the focus-lock technique on a subject which is both near the actual one and equidistant from the lens.

Subjects which are hard to autofocus include:

1. Black objects like hair, which don't reflect much light (and therefore don't reflect infrared autofocus beams).
2. Wire netting, latticework, iron exercise-bars, etc.
3. Flickering light sources such as neon signs, fluorescent lamps, TV images, sunlight coming through trees, etc., and subjects illuminated by these light sources.
4. Glossy and reflective surfaces like glass, mirrors, car bodies, etc.
5. Fast-moving objects, like trains in motion.
6. Water jets, water surface, smoke, frame, fireworks, etc., which have no distinct or consistent form, or a subject in mist.

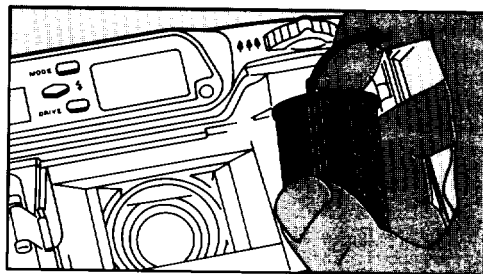
8. UNLOADING FILM (Be sure to remove the film from the camera in the shade.)

1



- 1** After you have exposed the last frame of the roll, film rewinds automatically. Then, the motor stops, and (00) flickers as shown to indicate end of rewind.

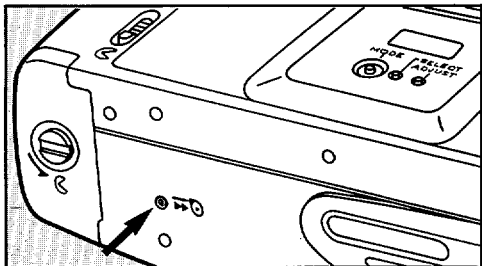
2



- 2** Open the back cover, and remove the cartridge from the chamber by pulling on its top with your fingertip as shown.

Notes:

- During rewinding, the exposure counter counts frame numbers in reverse.
- A 24-exposure film roll takes about 20 seconds to be rewound.
- The entire roll of film including the film leader is always rewound into the cartridge to avoid leakage of light onto any part of the film.

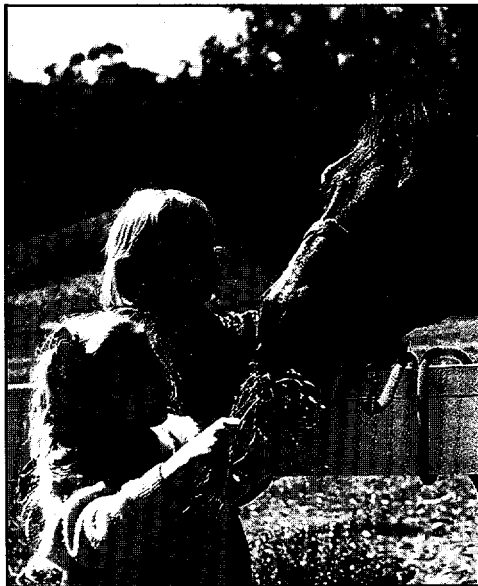


Rewinding the film in midroll

If you wish to unload the film before exposing all the frames, push the auxiliary rewind button with the protrusion of the strap's clamp; film rewinding starts. When rewinding is completed, the motor stops, and (00) flickers.

Caution:

Never open the back cover until rewinding is completed.



OPERATIONS OF MAJOR FUNCTIONS



This shooting mode is used to take close-up pictures. When the macro symbol (🔍) appears on the LCD panel, you can take macro pictures. When shooting a subject about 0.6 meters (2 ft) away, compose the shot within the parallax-correction frame.

TAKING MACRO PICTURES

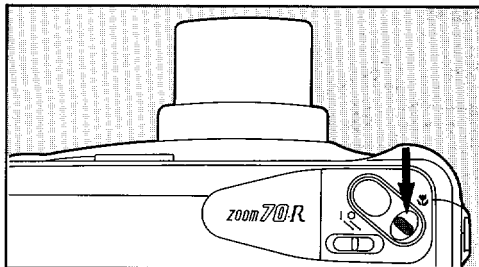






Notes:

- When the autofocus frame (📐) is off-center of the picture area in macro or close-range photography, use the techniques described in "Focus-lock shooting" on p. 14.
- When the subject is closer than 60 cm, the green lamp flickers. When the subject is even closer, at less than 30 cm (1 ft), the green lamp lights up.

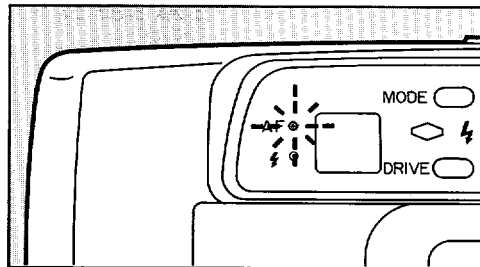
(Effective Range: 0.6 – 1 meter/2 – 3.3 ft.)

1



- 1 Press the macro button () to engage the Macro mode, and the lens moves forward. To cancel the Macro mode, just move the zooming lever to the left ( ) or right (). The ordinary shooting mode is then restored.

2

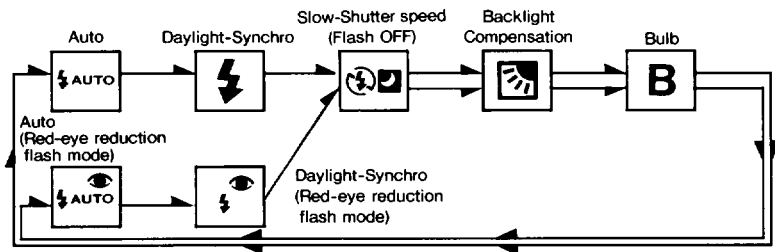



- 2 The macro shooting range is 0.6 ~ 1 meter (2 ~ 3.3 ft). Press the shutter release button halfway, make sure the green lamp (**AF**) glows, then release the shutter.

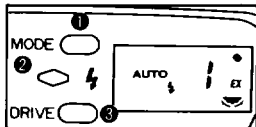
If the camera-to-subject distance is more than 1 meter (3.3 ft), the Macro mode will automatically shift to the 70 mm telephoto setting when the shutter release button is pressed halfway. Press the shutter release button all the way down to shoot. The Macro mode will be restored after the shot.

HOW TO SELECT MODES

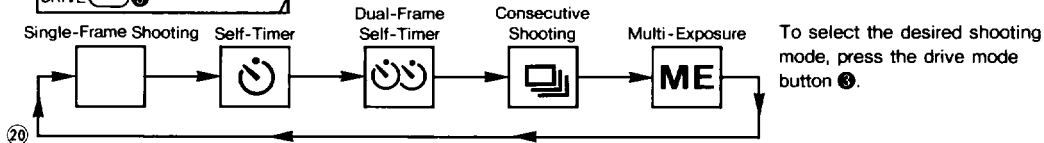
To select various exposure modes, press the **MODE** button ❶




- Pressing the red-eye reduction flash button () ❷ in the Auto or Daylight-Sync mode alternates the normal mode (indicated by black line) with the red-eye reduction flash mode (indicated by red line).

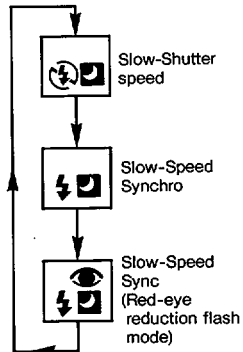



- For normal use, set the Auto and Single-Frame modes as shown at left.
- When the main switch is turned on, the Auto and Single-Frame modes are automatically engaged.

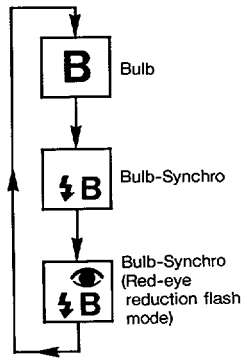


To select the desired shooting mode, press the drive mode button ❸.

- In the Slow Shutter speed mode, if the red-eye reduction flash button [] ② is pressed, the desired mode is set as shown on the right.



- In the Bulb mode, if the red-eye reduction flash button [] ② is pressed, the desired flash mode is set as shown on the right.



- In the Slow Shutter speed, Slow speed sync, Bulb or Bulb-synchro mode, if the mode button ① is pressed, the mode changes as in the normal mode.
- In the Slow Speed Sync and red-eye reduction flash modes or Bulb-synchro and red-eye reduction flash modes, if the mode button ① is pressed, the mode changes as in the red-eye reduction flash mode.

Red-eye Reduction Flash Mode

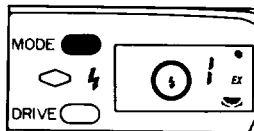
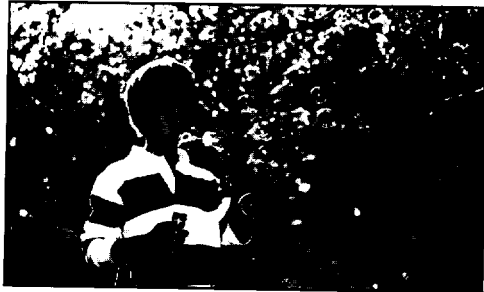
With the Red-eye reduction flash mode, the flash fires two consecutive times. The first flash fires just before the shutter is released (low-power output) which causes the irises of the eye to close down (contract). Then the second flash fires (normal flash output), which reduces the possibilities of the red-eye effect significantly.

DAYLIGHT-SYNCHRO SHOOTING

Without Daylight-Sync



With Daylight-Sync

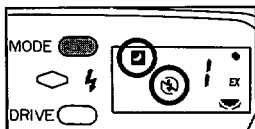


In portrait photography, the subject is often darkened in the picture because the exposure is automatically set for a bright background. This happens when the subject is backlit, when there is a window behind the subject, or when the subject is shadowed by trees, etc. In such cases, use the Daylight-Synchro Shooting mode within the appropriate flash-effective range so that the subject and background are shot in beautifully balanced lighting.

Note:

- Make sure you're within the flash-effective distance range and that the flash (red) lamp glows before shooting.


TAKING A PICTURE AT SLOW SHUTTER SPEED

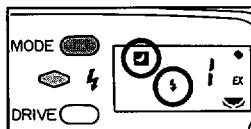


**Slow Shutter Speed
(Flash OFF)**

In this mode, the flash does not fire, and a picture is taken at a slower shutter speed. Use this in situations where flash photography is prohibited, such as in theaters, museums, etc. Furthermore, this mode is also useful when you wish to take a soft-lighted picture with natural atmosphere.


Notes:

- When shooting in darkness, another indicator helps avoid underexposure. Press the shutter release button half-way; the Flash-On mode mark () on the LCD panel flickers to recommend use of the flash.
- When shooting in darkness, the shutter speed gets slower, and camera shake is more likely to blur your shot, so use a tripod.



**Slow-Speed Synchro
Shooting**



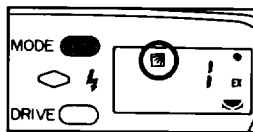
If the red-eye reduction flash button () is pressed in the Slow Shutter Speed mode, the Slow-Speed Sync flash mode is set. It's possible to expose both subject and background in a balanced way as shown in the photo.

BACKLIGHT COMPENSATION

With Backlight Compensation




Without Backlight Compensation



Portraits with a window, blue sky, or other bright background often result in underexposure because the exposure is automatically set for

the background. Backlight Compensation makes good use of natural lighting to improve the balance of light between the subject and the rest of the picture. Also use this mode to shoot scenery.

Notes:

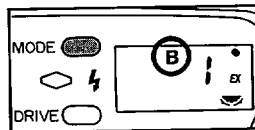
- When using Backlight Compensation in a dimly-lit place, the shutter speed may be so slow that you should use a tripod to prevent camera shake.
- When shooting in darkness, a photograph will be underexposed. In such cases, press the shutter release button half-way; the Flash-On mode mark () on the LCD panel flickers to recommend use of flash.

USING BULB AND BULB-SYNCHRO




Bulb mode, approx. 3 sec. (ISO100)

Bulb mode (B)

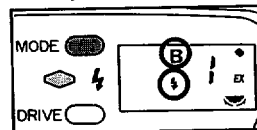


This mode is useful for long exposures required for shooting such things as fireworks and night scenes. The shutter remains open as long as

the shutter release button is held down (but within the range of 0.5 – 8 sec). When using this mode, the camera should be mounted on a tripod.

If the red-eye reduction flash button () is pressed in the Bulb mode, Bulb-synchro mode is set.

Bulb-Synchro mode (B)

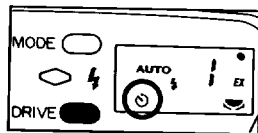


This lets you use the flash in addition to the Bulb mode, so you can take a portrait with a night scene in the background, for example.

Note:

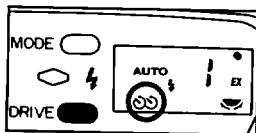
- The shutter stays open for a maximum of 8 seconds, even if you continue to press the shutter release button.

SELF-TIMER SHOOTING



Self-Timer

Use the self-timer when you wish to get yourself into the picture. Use of a tripod is recommended.

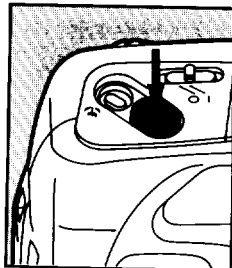


Dual-Frame Self-Timer

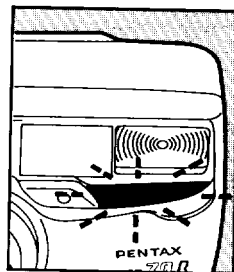
In this mode, you can take two self-timer pictures in quick succession. Press the shutter release button.

The first frame will be exposed after approx. 10 seconds, then the second frame will be exposed approx. 5 seconds after the first. Note that focus for both shots is fixed in the first frame.

1




2

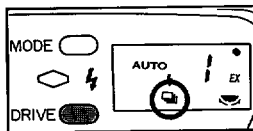


- 1 Focus on the subject first, and then depress the shutter release button. The shutter will be released in about 10 seconds.
- 2 When the Self-Timer is working, the Self-Timer mark (⊖) flickers on the LCD panel, and the Self-Timer lamp glows. The lamp starts blinking 3 seconds before the shutter is released.


CONSECUTIVE SHOOTING

Notes on Self-Timer and Dual-Frame Self-Timer:

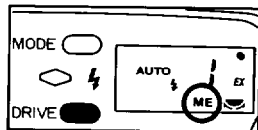
- To cancel the self-timer after it has been started, press the drive button.
- When used in combination with the Bulb (**B**), Bulb-Sync (**⚡B**) or Bulb-Sync with Red-eye reduction flash mode (**⚡B**), the shutter stays open for about 1/2 seconds.
- When using flash with the Self-Timer or Dual-Frame Self-Timer mode, make sure the flash is charged (the red lamp glows) before operating either timer feature. When the battery mark () appears on the LCD panel, the camera may not operate. Replace the batteries (see page 33).



In this mode, keep pressing the shutter release button for consecutive shooting. Moving subjects such as a running person, etc., can be shot.

- The camera focuses on the subject frame by frame in this mode, so make sure to keep the autofocus frame () on the subject.
- When using the flash in this mode, consecutive shooting is possible only after the flash is charged (the red lamp glows) following each exposure.

MULTI-EXPOSURE



This mode allows you to multiexpose on the same frame.

1. Activate the Multi-Exposure mark (**ME**) on the LCD panel.
2. Press the shutter release button to shoot an initial exposure. The film will not advance, and the normal Single-Frame Exposure mode will be restored.
3. Recompose the frame, and press the shutter release button to shoot the second exposure. (After the second shot, the film will automatically advance to the next frame.)

To expose more than twice:

Activate the Multi-Exposure mark before pressing the shutter release button for the second exposure. After the last exposure, the film will wind to the next frame.

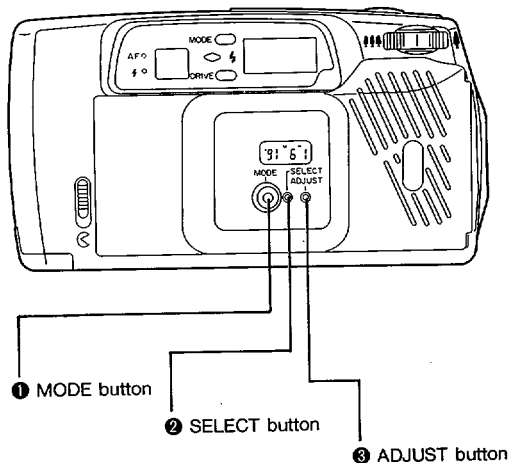
Notes:

- If you have a DATE model, the time and date will also be multi-exposed, so set the data mode to no data (-----) after the first shot.
- Repeated multiple exposures tend to overexpose a frame, so it's recommended that you expose a frame just twice or so at most.
- When using Multi-Exposure, you can usually get best results with dimly-lit backgrounds, such as those in night scenes.

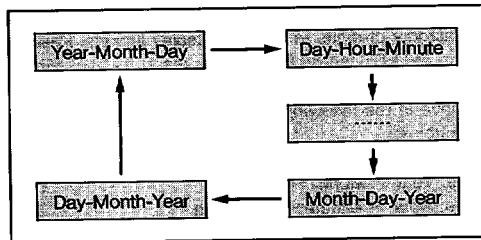
DATE MODEL

If you purchased the DATE model, read this section.

The DATE model records dates up to the year 2019 on pictures.



SETTING DATA



Switching the mode

Each time you press the MODE button ❶ with your fingernail, the mode in the LCD panel switches in succession from "Year-Month-Day" to "Day-Hour-Minute" to "-----" to "Month-Day-Year" to "Day-Month-Year". Stop pressing the button when the desired mode appears in the panel. "-----" indicates no data are imprinted.

Notes:

- "M" on the LCD panel indicates "Month".
- Use the strap clamp's pin-shaped protrusion to press the SELECT ❷ and ADJUST ❸ buttons.

Correcting the data

- Each time you press the SELECT button ②, a different category of digits in the LCD display flickers. Press the SELECT button ② until you reach the flickering digit(s) which you wish to change. The digit(s) will move in the following order as you press the SELECT button ②.

Date: Year → Month → Day

Time: Hour → Minute → :(Second)

- Press the ADJUST button ③ to change digits of the specified category you chose with the SELECT button ②. Digits increase by one each time you press the ADJUST button ③. If you keep it depressed, the digit will advance continuously after a second or two.
- Date and time are indicated as follows:

Year = 87 – 19 (1987 – 2019)

Month = 1 – 12

Day = 1 – 31

Hour = 0 – 23

Minute = 00 – 59

Adjusting “Year-Month-Day”

1. Make the digit(s) to be changed corresponding to day, month, or year flicker by pressing the SELECT button ②.
2. Press the ADJUST button ③ to adjust the digit(s).
3. Press the SELECT button ② again to set the digit(s) you’ve changed and stop the flickering.

Adjusting “Hour-Minute-: (Second)”

1. Make the digit(s) to be changed corresponding to hour or minute flicker by pressing the SELECT button ②. The flickering “:” allows precise fine-tuning of the internal clock to the beginning of a specified minute.
2. Press the ADJUST button ③ to adjust the digit(s).
3. To adjust the time to the beginning of a minute, press the ADJUST button ③ while “:” is flickering, then release it in synch with a time signal.
4. Press the SELECT button ② again to set digits you’ve changed and stop the flickering.

OPERATIONAL PRECAUTIONS

When shooting

- The data (Year-Month-Day or Day-Hour-Minute) is recorded on film as in the picture on the right. The data on the LCD panel is imprinted on each frame you expose.
- If the corner of the picture where the data is imprinted has a white or yellow object, the data will be difficult to see. When composing, try to avoid a brightly-colored subject in that corner.
- "Year-Month-Day" and "Day-Hour-Minute" cannot both be imprinted at the same time.
- As you release the shutter, the bar mark (—) on the LCD panel flickers for a few seconds, indicating the data has been imprinted.

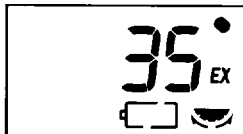


The date in the picture above is simulated.



Power source of the data-imprinting section


The data imprinting section is powered by the same batteries as the camera's main unit. When the batteries are replaced, the date and time may change. So, after replacing the batteries, make sure to confirm the date and time before use.

BATTERY EXHAUSTION WARNING



- Keep spare batteries on hand for convenience when shooting outdoors or while travelling.

When the batteries are nearly exhausted, the battery mark () appears on the LCD panel to warn you. Replace the batteries as soon as possible. When () starts flickering, no operations can be performed.

The battery mark () appears during operation of the shutter release button or zooming lever.


Battery life (using 24-exposure film rolls):

Ordinary picture taking mode, 50% of shooting employs flash	Approx. 30 rolls
--	------------------

(The CR-123A batteries were used based on our own test conditions. Actual battery life/performance may vary drastically depending on either usage of Auto-Focus, Power Zoom and Flash and external conditions such as temperature and freshness.



Notes on replacing the batteries:

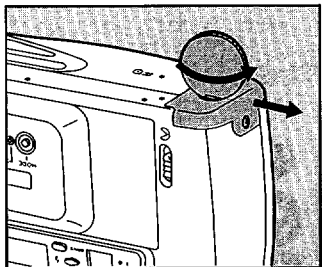
- Make sure there is no film loaded. Switch off power by setting the main switch to () before replacing the batteries.
- If the batteries are replaced with film already loaded, the camera enters the starting mode. It will assume the film has been just loaded and will advance several frames.
- Batteries power both the camera's main unit and the data-imprinting section. After replacement, confirm that the data on the LCD panel is correct.

Refer to page 30 for data correction.

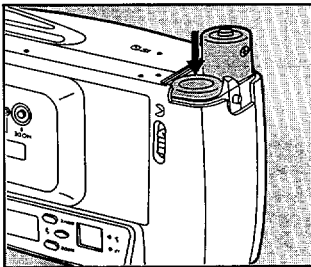
Refer to page 33 for battery replacement.

REPLACING BATTERIES Use two 3 V lithium batteries (CR-123A or DL-123A)

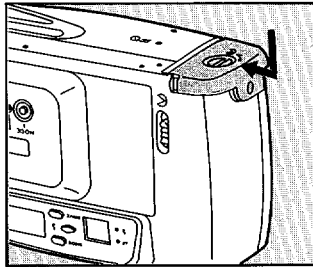
1



2



3



- 1** Using a coin, etc., rotate the cover lock on the battery chamber cover counterclockwise to open the cover.
- 2** Align the batteries with the "+" and "-" indications and insert two lithium batteries.

- 3** As illustrated, slide the battery chamber cover in the direction of the arrow while pressing down to close. Rotate the cover lock clockwise to fasten it securely.

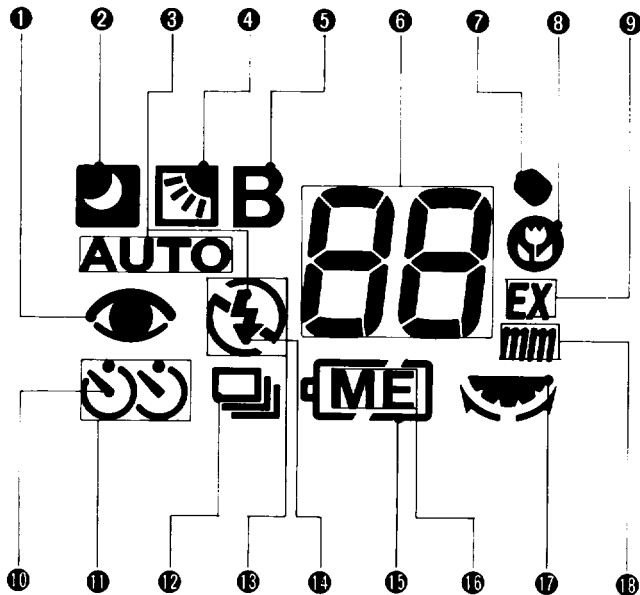
Caution:

Replace all batteries at the same time. Do not mix battery brands, types or old battery with new one. It may cause explosion or overheating.

Note:

- When the batteries are incorrectly installed, (E0) will flicker on the LCD panel to warn you. Insert the batteries correctly.

LCD PANEL All Indications will not actually appear simultaneously as shown.



- ❶ Red-eye Reduction Flash mode
- ❷ Slow Shutter Speed
- ❸ Flash Auto mode
- ❹ Backlight Compensation mode
- ❺ Bulb mode
- ❻ Exposure Counter/Focal Length
- ❼ Shutter Button
- ❽ Macro mode
- ❾ EX (Film counter)
- ❿ Self-Timer mode
- ⓫ Dual-Frame Self-Timer mode
- ⓬ Consecutive Film-Advance mode
- ⓭ Flash OFF
- ⓮ Flash ON
- ⓯ Battery Exhaustion warning
- ⓰ Multi-Exposure shooting mode
- ⓱ Zooming lever
- ⓲ Millimeter (focal length)

LCD (Liquid-crystal display)

- When the LCD is exposed to a high temperature of about 60°C, it may blacken, but when the temperature falls, it will return to normal.
- The LCD may also slow down in response to lower temperatures, but this is an LCD characteristic, not a defect.

TAKING CARE OF YOUR CAMERA

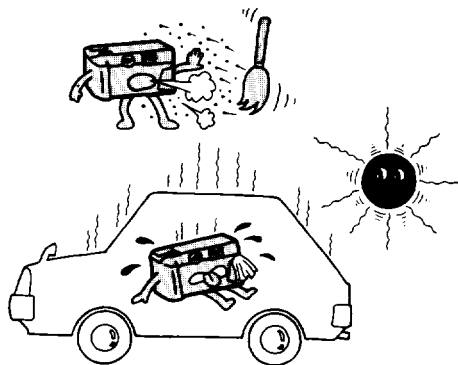
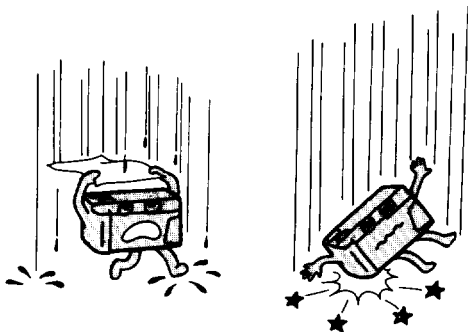
Your Pentax camera is a sophisticated, precision instrument built to give long-lasting, reliable service. It will serve you well if you handle and care for it properly.

- Avoid storing the camera in a wardrobe where a mothball is put among the clothes or in a laboratory containing chemicals that can cause serious damage to it. Keep it in a cool, dry, well-ventilated place.

- Be careful not to subject it to strong vibrations, shock or pressure.

Use a cushion to protect the camera when carried in a motorcycle, car, boat, etc.

- Use a blower and lens brush to remove dust accumulated on the lens or viewfinder.
- Avoid leaving the camera for extended periods in conditions of high temperature and humidity, such as in a car.



- If the camera is brought into a warm room from the cold outdoors, condensation may occur in the interior and on the exterior of the camera. In such a case, put the camera into a case or plastic bag so its change in temperature is as gradual as possible. After the temperature difference is minimized, take it out of the bag.
 - The temperature range in which the camera functions properly is 50°C to -10°C (122°F to 14°F).
 - Don't use solvents such as paint thinner, alcohol or benzene to clean the camera.
 - Dirt, mud, sand, dust, moisture, toxic gas, salt water, etc., penetrating inside the camera may damage it or make it inoperable. If the camera should fail for such reasons, it may not be repaired free of charge, even within the period of warranty. When the camera is subjected to rain or moisture, wipe it off, let it dry, and immediately send it to a Pentax service center for examination.
 - Electrical problems may often be caused by dirt or dust at points of electrical contact. Also check for battery leakage, traces of dirt or grease, or corrosion due to salinity or gas. If you cannot rectify the problem, have your camera inspected at a Pentax service center.
 - Regular size color prints may cut off what appears on the extreme edges of the film frame. Compose your picture with a margin of safety at the edges.
 - Once immersed into water, the camera may be rendered inoperable. In such a case, contact our service center.
 - To maintain optimum performance, it is recommended that the camera be inspected every one or two years. If the camera has not been used for an extended period, or is being readied for an important shoot (photography), it is recommended that you inspect the camera or test shoot with it.
 - Repairs made necessary due to usage of this product in an industrial application may not be covered under the terms of the Pentax warranty.
- Red eye phenomenon in flash shooting:**
When a picture is taken using a flash, a subject's eyes may appear red in the print. This phenomenon is caused by the reflection of electronic flash in the retina. It can be reduced when the surroundings of the subject are brightened, or shooting distance is shortened with the lens set at the wide-angle position.

TROUBLESHOOTING

What appears troublesome might be easily remedied. Here are some problems and their remedies.

1. The shutter cannot be released.

- Is the main switch turned off (O)? If so, turn it on (I). (See page 4.)
- Are the batteries exhausted or are they loaded? Replace them or insert new batteries. (See page 33.)
- Is your subject out of the focusing range? Shoot in the range of one meter to infinity for ordinary photography. (See pages 10 and 12.)
- Are you operating the zooming lever? If so, release your fingers from the zooming lever, then shoot. (See page 13.)
- Is (OO) flickering on the LCD panel? If so, the film is finished. Replace it with a new roll. (See page 16.)

2. My printed pictures don't look very clear.

- Did you position the autofocus frame (□) on your subject? (See pages 12 and 14.)
- Did you press the shutter release button gently while taking care not to obstruct the autofocus window with your fingers or hair? (See page 5.)

3. Zoom lens does not move.

- Are you continually pressing the shutter release button? If so, the zoom lens cannot operate. Take your finger off the shutter release button.

4. The zoom lens returned to the 35 mm position automatically.

- Did you leave the camera with the main switch on (I) and not operate it for over three minutes? If so, the camera retracted the lens to the 35 mm position to protect it. (See page 4.)

5. The flash-on mark ($\frac{1}{2}$) is flickering on the LCD panel.

- Did you just use the Slow Shutter Speed or the Backlight Compensation mode in a dark place? This is a warning against underexposure. You cannot take a good picture while this mark is flickering. (See pages 23 and 24.)

6. (E0) is flickering on the LCD panel.

- Did you insert the batteries upside down? Reinsert the batteries correctly. (See page 33.)

Do you know about film?

What is ISO?

ISO describes the sensitivity of film to light. The greater a film's ISO rating, the more sensitive it is. Usually, color negative film of ISO 100, 200 or 400 is used.

What is DX-coded film?

DX coding informs the camera of a film's ISO sensitivity, so the camera can self-adjust to the film's speed. Almost all negative-color film is DX-coded.

WARRANTY POLICY

All Pentax cameras purchased through authorized bona fide photographic distribution channels are guaranteed against defects of material or workmanship for a period of twelve months from date of purchase. Service will be rendered, and defective parts will be replaced without cost to you within that period, provided the equipment does not show evidence of impact, sand or liquid damage, mishandling, tampering, battery or chemical corrosion, operation contrary to operating instructions, or modification by an unauthorized repair shop. The manufacturer or its authorized representatives shall not be liable for any repair or alterations except those made with its written consent and shall not be liable for damages from delay or loss of use or from other indirect or consequential damages of any kind, whether caused by defective material or workmanship or otherwise; and it is expressly agreed that the liability of the manufacturer or its representatives under all guarantees or warranties, whether expressed or implied, is strictly limited to the replacement of parts as hereinbefore provided. No refunds will be made on repairs performed by non-authorized Pentax service facilities.

Procedure During 12-month Warranty Period

Any Pentax which proves defective during the 12-month warranty period should be returned to the dealer from whom you purchased the equipment or to the manufacturer. If there is no representative of the manufacturer in your country, send the equipment to the manufacturer, with postage prepaid. In this case, it will take a considerable length of time before the equipment can be returned to you owing to the complicated customs procedures required. If the equipment is covered by warranty, repairs will be made and parts replaced free of charge, and the equipment will be returned to you upon completion of servicing. If the equipment is not covered by warranty, regular charges of the manufacturer or of its representatives will apply. Shipping charges are to be borne by the owner. If your Pentax was purchased outside of the country where you wish to have it serviced during the warranty period, regular handling and servicing fees may be charged by the manufacturer's representatives in that country. Notwithstanding this, your Pentax returned to the

manufacturer will be serviced free of charge according to this procedure and warranty policy. In any case, however, shipping charges and customs clearance fees are to be borne by the sender. To prove the date of your purchase when required, please keep the receipts or bills covering the purchase of your equipment for at least a year. Before sending your equipment for servicing, please make sure that you are sending it to the manufacturer's authorized representatives or their approved repair shops, unless you are sending it directly to the manufacturer. Always obtain a quotation for the service charge, and only after you accept the quoted service charge, instruct the service station to proceed with the servicing.

This warranty policy does not apply to Pentax products purchased in the U.S.A., U.K., or Canada. The local warranty policies available from Pentax distributors in those countries supersede this warranty policy.

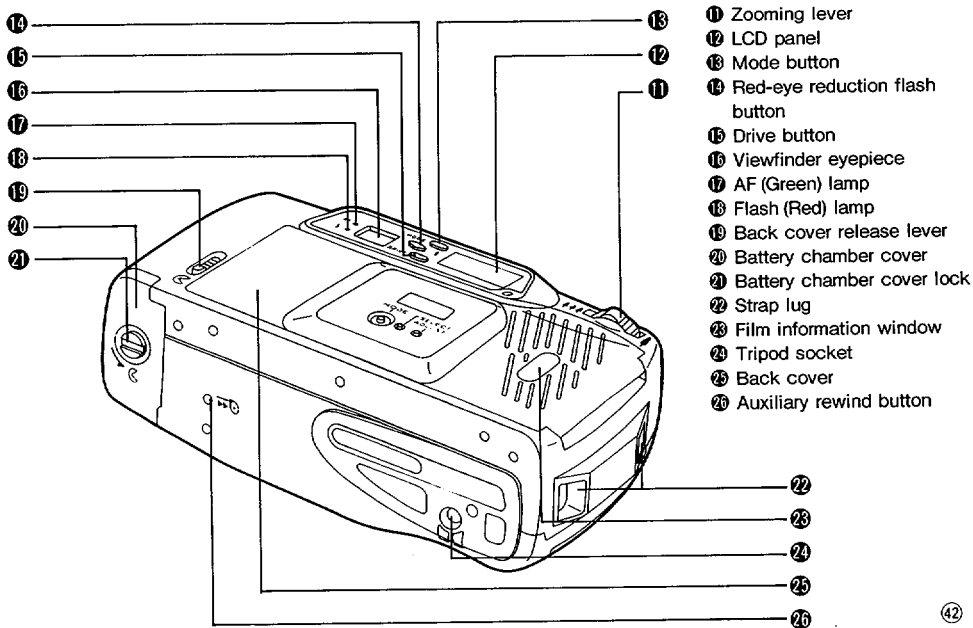


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Pentax Handelsgesellschaft mbH. Julius-Vosseler-Strasse, 104, 2000 Hamburg 54, GERMANY
Pentax U.K. Limited. Pentax House, South Hill Avenue, South Harrow, Middlesex HA2 0LT, U.K.
Pentax France Z.I. Argenteuil, 12, rue Ambroise Croizat, 95106 Argenteuil, FRANCE
Pentax Benelux (for Netherlands) Spinveld 25, 4815 HR Breda, NETHERLANDS
(for Belgium & Luxemburg) Weiveldlaan 3-5, 1930 Zaventem, BELGIUM
Pentax (Schweiz) AG Industriestrasse 2, 8305 Dietlikon, SWITZERLAND
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Pentax Canada Inc. 3131 Universal Drive, Mississauga, Ontario L4X 2E5, CANADA
Asahi Optical Brasileira Ind. e Com. Ltda. Rua Estados Unidos, 1053, São Paulo, BRAZIL

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NAMES OF WORKING PARTS



SPECIFICATION

SPECIFICATIONS ARE SUBJECT TO CHANGE AT ANY TIME WITHOUT NOTIFICATION OR ANY OBLIGATION ON THE PART OF THE MANUFACTURER.

Type:

35 mm fully automatic leaf-shutter camera with built-in zoom lens and auto flash.

Film:

Auto film speed setting with 35 mm perforated DX-coded film with ISO rating from 50 to 1600. 24 x 36 mm format.

Lens:

Pentax power zoom 35 – 70 mm f/3.5 – 6.7, 7 elements in 6 groups. Two type zooming system: continuous zoom and step zoom.

Focusing system:

Pentax infrared active auto focusing. Range: 1 m (3.3 ft) – infinity; 0.6 m (2 ft) – 1 m (3.3 ft) in MACRO.

Exposure control:

Programmed auto-exposure control. Range: EV 9 – 16.5 in WIDE, EV11 – 16.5 in TELE and MACRO at Auto mode (ISO 100). +1.5 EV exposure compensation provided.

Viewfinder:

Zoom finder with albedo-bright frame. Magnification: approx. 0.49X (WIDE) – 0.90X (TELE).

Shutter:

Programmed AE between-the-lens shutter with speeds approx. 1/5 sec. – 1/250 sec. and Bulb (1/2 – 8 sec.). Multiple exposure function provided.

Self-timer:

10 second delay self-timer with LED indication. Dual-frame self-timer mode provided.

Flash:

Built-in zoom flash. Recycle time: approx. 3 sec. with fresh lithium batteries. Red-eye reduction flash mode.

Film loading/winding:

Auto film-loading. Two auto film-winding modes; single frame mode and consecutive mode (1.2 sec./frame).

Film rewinding:

Auto start at end of roll. Auto stop upon completion of rewinding. Rewinding in mid-roll provided.

Power source:

Two 3V lithium batteries (CR-123A or DL-123A)

Battery life:

Approx. 125 rolls of 24-exposure film without flash.

Size & weight:

144 (W) x 77 (H) x 48.5 (D) mm (5.7" x 3" x 1.9").
395 grams (13.9 oz.) without battery.

DATE model

Imprinting mode:

"Year, Month and Day", "Day, Hour and Minute" or blank.

Size & weight:

144 (W) x 77 (H) x 50.5 (D) mm (5.7" x 3" x 2"),
405 grams (14.3 oz.) without battery.

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