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PENTAX®

IQZoom90MC

IQZoom90MC DATE

OPERATING MANUAL



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Congratulations on your purchase of the PENTAX IQ Zoom 90MC and welcome to the world of Pentax zoom compact photography! Your compact, light weight camera is a great companion to preserve your favorite memories. Its built-in 38-90mm lens gives you the freedom to frame everything from breathtaking landscapes to family portraits, even detailed close-ups. The built-in auto flash helps you capture subjects in dimly-lit places or photograph indoor scenes with clarity and brilliance. Also included are panorama/standard format mid-roll switching capability and a wireless remote control feature. Since most of the operation - including film loading, film speed setting, winding/rewinding, focus and exposure control - are automatic, you can take great pictures effortlessly.

- Please read this manual carefully before operating the camera to take consistently superior pictures.
- Pay special attention to the cautions and notes in this Operating Manual. Pictures and illustrations shown herein may differ from the camera's actual appearance.
- Illustrations in this operating manual are the DATE MODEL.

Icon indicators used in this manual

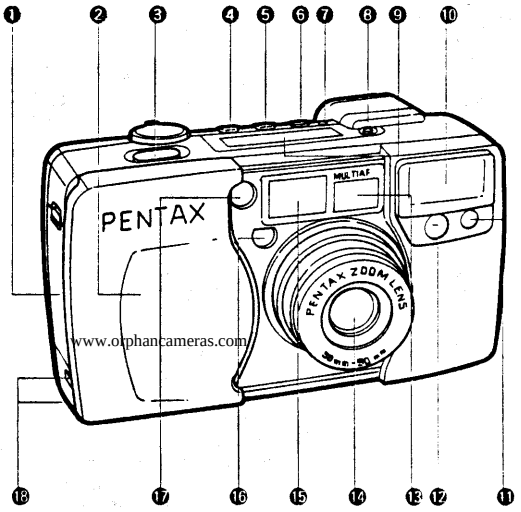
Operation direction	
Automatic operation	
Attention	
Lamp lighted	
Lamp blinking	
Correct	
Incorrect	

The name 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 reading the manual.



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NAMES OF WORKING PARTS

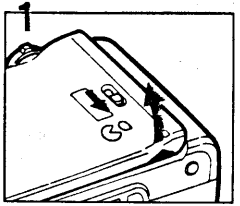


1. Battery chamber cover (p.43)
2. Protective front cover (p.8)
3. Shutter release button (p.9)
4. Drive button (p.23)
5. Red-eye reduction lamp button (p. 22)
6. Mode button (p. 22)
7. Mid-roll rewind button (p.21)
8. Date button (p.39, Date model only)
9. LCD panel (p.51)
10. Built-in flash
11. Remote control receiver (p.31)
12. Self-timer lamp (p.28)
13. Viewfinder window
14. Lens
15. Autofocus window
16. Spotbeam window (p.17)
17. Light sensor window
18. Strap lug (p.7)

OUTLINE OF BASIC OPERATIONS

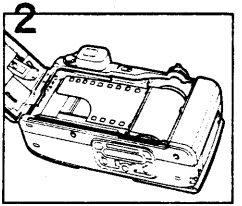
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1



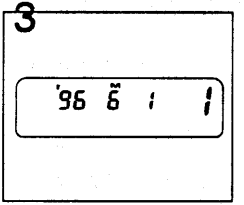
Open the back cover (see page 11).

2



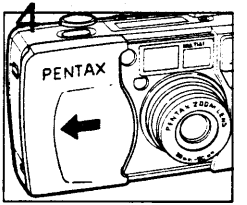
Load the film and close the back cover (see page 12).

3



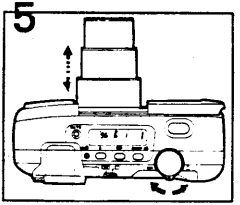
The film will automatically advance to the first frame (see page 13).

4



Switch on power (see page 8).

5



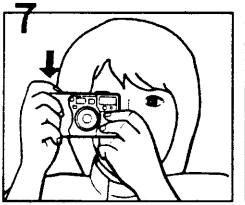
Frame your subject and operate the zoom lever to compose the shot (see page 10).

6



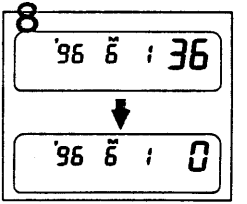
Focus on your subject (see page 17).

7



Depress the shutter release button. In dark conditions, the flash will discharge automatically (see page 19).

8



When the film is finished, the camera will automatically rewind it (see page 20).

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FOR SAFE USE OF YOUR CAMERA

Although we have carefully designed this camera for safe operation, please be sure to follow precautions given in this page.

⚠ WARNING This mark indicates precautions that if not followed, could result in serious injury to the operator.

⚠ CAUTION This mark indicates precautions that, if not followed, could result in minor or medium injury to the operator or damage to the equipment.

⚠ WARNING

- **The electric circuits inside the camera contain high voltage working parts. Never attempt to disassemble the camera yourself.**
- **Never touch internal parts of the camera if they become exposed from dropping the camera or for some other reason, as there is danger of electric shock.**
- **Be sure to store battery out of the reach of children. Seek medical assistance immediately if accidentally swallowed.**

⚠ CAUTION

- **Do not use the flash near anyone's eyes, as it may hurt them. Be particularly careful with the flash around infants.**
- **Never try to disassemble, short or recharge the battery. Also, do not dispose of the battery in fire, as it may explode.**
- **Remove the battery from the camera immediately if it becomes hot or begin to smoke. Be careful not to burn yourself during removal.**

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PRECAUTIONS FOR YOUR CAMERA

Precautions when taking pictures

- Do not use the camera where it may come in contact with rain, water or any other liquid, because the camera is not weather, water, or liquid resistant. Should the camera get wet from rain, splashing water, or any other liquid, wipe it off immediately with a dry soft cloth.
- Do not drop the camera or allow it to hit a solid object. If the camera suffers a severe shock or impact, take it to a Pentax service center for inspection.
- Be careful not to subject the camera to strong vibrations, shock or pressure. Use a cushion to protect the camera when carrying it in a motorcycle, car, boat, etc.
- Condensation on the interior or the exterior of the camera may be extremely harmful to the camera mechanism as it may cause rust. Furthermore, if the camera is taken from warm temperature to a subfreezing one or vice versa, the formation of icelets may cause damage. In such a case, put the camera into a case or plastic bag so that any changes in temperature difference is minimized. Do not remove it from the bag until temperature has stabilized.
- 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.

Precautions for storage

- Avoid leaving the camera for extended periods in places where temperature and humidity are high such as in a car.
- Do not store the camera in a closet with mothballs or in a case where chemicals are handled. Store it in a place with good air circulation to prevent fungus growth.

Precautions for proper care

- Use a blower and lens brush to remove dust accumulated on the lens or the viewfinder window.
- Never use solvents such as paint thinner, alcohol or benzene to clean the camera. To clean the external camera surfaces, - but not glass surfaces; using a dry or silicone-treated cloth is recommended.

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Other precautions

- The temperature range at which this camera functions properly is 50°C to -10 °C (122°F to 14°F).
- 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 prepared for an important photographic session, it is recommended that you have the camera inspected or test shoot with it.
- The PENTAX warranty is provided only for the repair of defects in materials or workmanship. Damage of any kind cannot be repaired at no charge under the term of the warranty. If the difficulty is caused as a direct result of the product being used in conditions contrary to the instructions outlined in the manual, charges will be assessed or a repair quotation will be provided.

LCD (Liquid-crystal display)

- When the LCD is exposed to high temperatures over about 60 °C, it may blacken, but when the temperature normalizes, it will return to normal.
- The LCD may also slow down in response to lower temperatures, but this is a normal characteristic of an LCD.
- Use one 3V lithium battery, type CR-2 or the equivalent.
- Misuse of a battery can cause hazards such as leakage, overheating, explosions, etc. The battery should be inserted with the "+" and "−" sides facing correctly.
- Never try to disassemble, short or recharge the battery. Also do not dispose of the battery in a fire, as it may exploded.
- Battery performance may be temporarily hindered in low temperatures, but will recover in normal temperatures.
- Keep a spare battery on hand for replacement convenience when shooting outdoors or while traveling.
- When the camera is being carried in a bag or pocket, make sure the protective front cover is closed. Otherwise, battery power may be wasted if the shutter release button is accidentally pushed.

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I have no connection with any camera company

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PRACTICAL SHOOTING GUIDE



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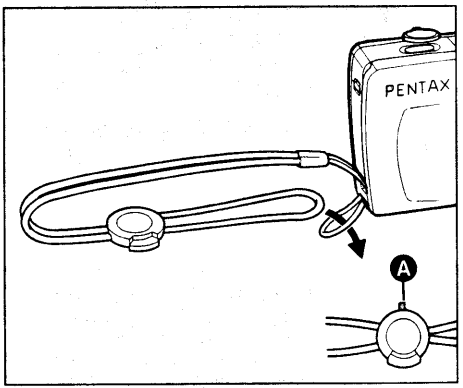
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PREPARATIONS BEFORE TAKING PHOTOGRAPHS

For optimum performance you should familiarize yourself with certain fundamentals before taking any photographs.

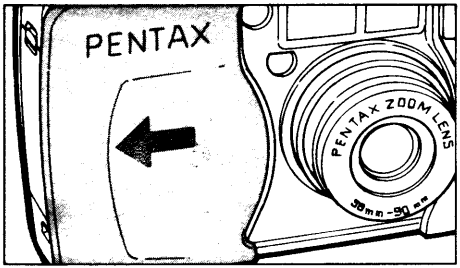


Fit the strap on the camera as illustrated.

- Use the illustrated part Ⓐ for pushing the mid-roll rewind button to rewind a film before exposing all the frames.

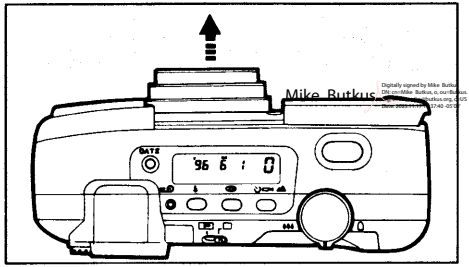
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2 MAIN SWITCH (Protective front cover)



Main switch (Protective front cover)
To switch on, open the protective front cover until it clicks. The lens extends slightly. The camera is now ready to shoot. To switch off, close the protective front cover.

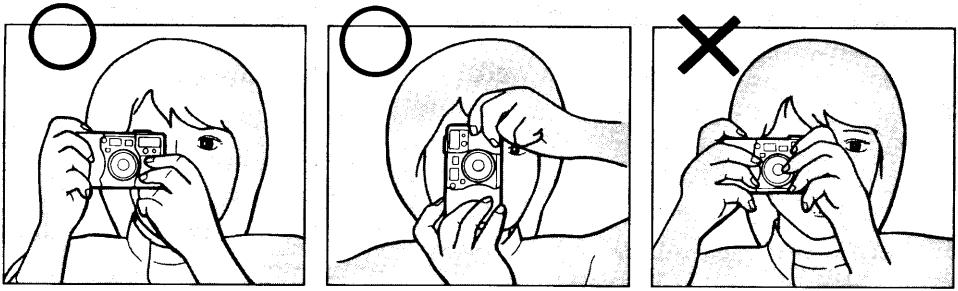
- When not in use, make sure that the protective front cover is closed.
- If the camera is ON and left unused for over 3 minutes, the lens automatically retracts to the shortest focal length.



- See page 43 when the battery exhaustion symbol ( ) appears on the LCD panel.
- Use one lithium battery (type CR-2 or the equivalent). The battery is used by both the camera and the data function on the DATE model to keep constant track of time. After the battery is replaced, correct the time. The date and the number of frames are memorized and unchanged even if the battery is replaced.

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HOW TO HOLD THE CAMERA



Keep the camera as still as possible, and gently depress the shutter release button. (If too much force is applied, the camera is likely to shake, and the picture will be blurred.) Try to brace your elbows against a stable, stationary object such as a wall.

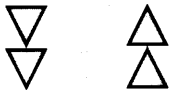
Notes:

- Do not hold the zoom lens because it moves back and forth while in operation.
- Make sure not to obstruct the autofocus window, lens, light sensor window or the built-in flash with your fingers, hair or other object.
- When using the flash with the camera positioned vertically, hold the camera so that the flash is above the lens.

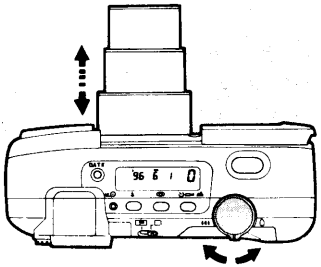
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4 OPERATING 38-90mm ZOOM LENS









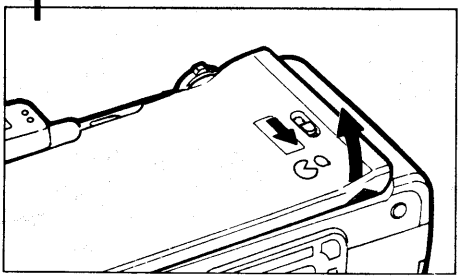
When you move the zoom lever to the right (♦), the lens moves towards the 90mm setting and frames the subject more closely. When you move the zoom lever to the left (♦♦♦), the lens moves towards the wide-angle 38mm setting. When the lens zooms to the desired setting, release the zoom lever and depress the shutter release button fully to take pictures.

- Do not apply force to the zoom lens as doing so causes damage to the camera.
- The shutter cannot be released while the lens is zooming.

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TAKING PHOTOGRAPHS

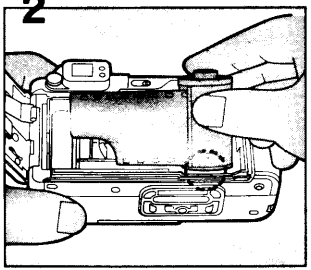
After reading this instruction manual you should be familiar with the functions available on the camera, and you will be ready to insert the film.

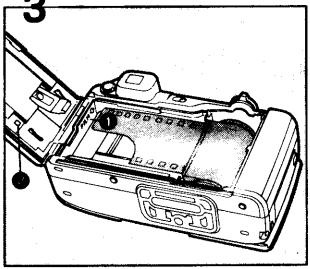


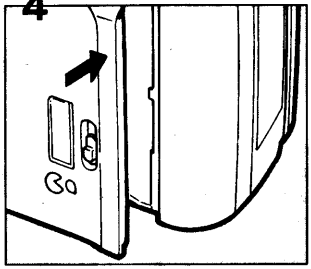
1 Slide the back cover release lever down and pull the back to open the back cover as illustrated.

- Ensure the front cover is closed before inserting the film.
- Always load and unload a film in the shade or by using your body to shade the camera.

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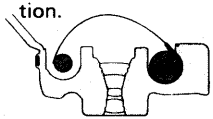
2 Place the film cartridge in the film chamber by fitting its flat side on the top of the rewind shaft first and then slide the top end into the camera.

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

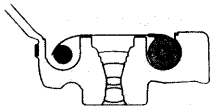
4 After the back cover is closed, the film automatically advances to the first frame.

Notes:

- Ensure the film is placed properly between the film guides.
- If there is dirt on the film detector ●, film cannot be wound properly.
- Ensure the film is taut as illustrated on the illustration. 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.

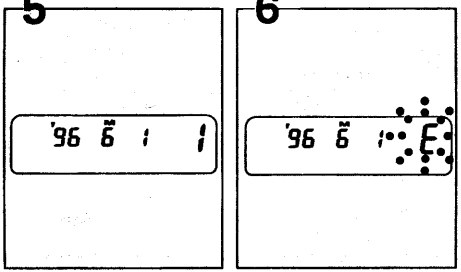


× Slack No !



○ Flat Yes !

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5 When "1" appears in the exposure counter on the LCD panel, the film automatically stops winding. The indication appears as shown above.

6 If (E) blinks on the LCD panel, it means the film is not properly loaded. Reload the film.

- The exposure counter indication will remain on even if the protective front cover is closed.

Automatic film speed setting

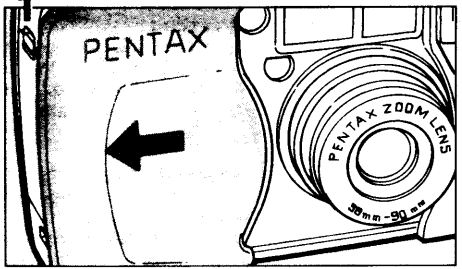
This camera is designed to use DX-coded films with ISO rating from 25 to 3200. When any of these films are loaded, the proper film speed is automatically set for the camera.

Notes:

- Non-DX coded films cannot be used. If Non-DX coded film is used, the film speed is automatically set to ISO 25.
- A film with ISO 400 film speed is recommended to get less image blur and to cover more photographic situations.
- Use high-speed films with ISO 800 or higher mainly for shooting indoors or in dimly-lit conditions.

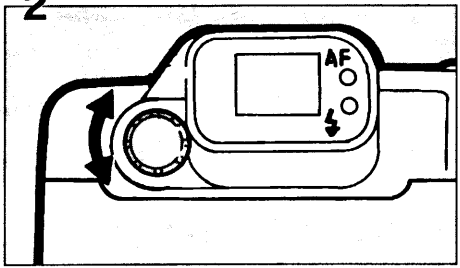
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DIOPTER ADJUSTMENT



1 Open the protective front cover.

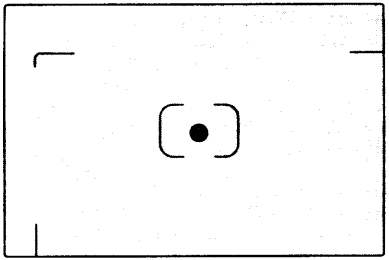
- Be sure to adjust the diopter before use.



2 Aim the camera toward a bright subject. While looking through the viewfinder, rotate the diopter adjustment dial to the right or left until the AF frame appears in the sharpest focus.

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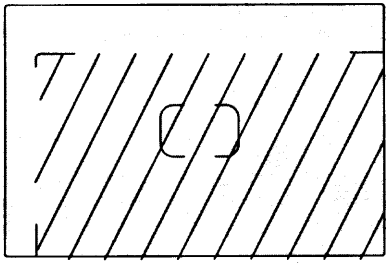
VIEWFINDER DISPLAYS



When the autofocus frame in the viewfinder is not clearly seen, adjust the diopter by moving the diopter adjustment dial.

❶ Autofocus frame
Focus on the subject with this frame.

Closer than 1m

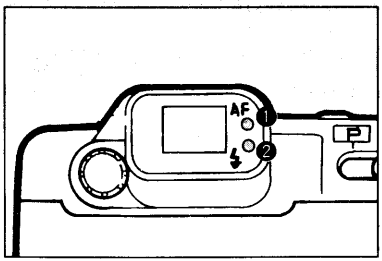


Close distance compensation frame

- When the camera-to-subject-distance is closer than 1m, compose the scene within this frame.
- Regular size color prints may cut off what appear on the extreme edge of the film frame. Compose your picture with a margin of safety at the edge.

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4 LAMP INDICATIONS [Shooting distance: 0.65 (2.1ft) - ∞ (infinity)]



When you depress the shutter release button halfway down, the lamp ❶ and/or ❷ lights up or blinks as shown above.

❶ Green lamp (Focus status) :
When the subject is in focus, it will light up to indicate that you can take the picture; when the subject is not in focus, it will blink, indicating that you cannot take the picture because the camera-to-subject distance is too close or is a hard-to-autofocus subject.

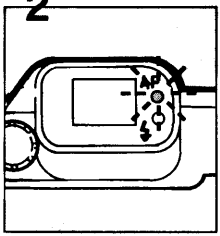
❷ Red lamp (Flash status) :
When the flash is ready to discharge, it will light up. When the flash is being charged, it will blink.

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1



2



This camera uses the five-point AF system to focus the subject. Even if the subject is slightly off the center of the AF frame, the subject will easily be brought into focus.

1 Composing the scene
After zooming the lens and composing your scene, focus on the subject with the autofocus frame

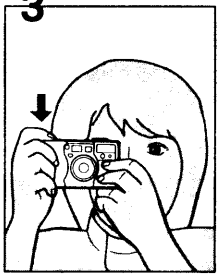
2 Checking the lamp indication
Depress the shutter release button halfway down. When the subject is in focus, the green lamp will light up.

Shooting ranges (effective camera-to-subject distance)

- The standard format and panorama format allow a shooting range from 0.65m (2.1 ft) to ∞ (infinity).

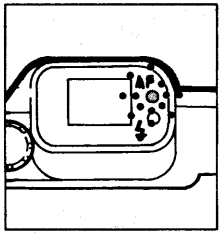
Focus aid illuminator
In low light situations and/or hard-to-autofocus subjects, the focus aid illuminator automatically emits a striped pattern to assist the autofocus system when the shutter release button is depressed halfway down.

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3 Shooting
Depress the shutter release button fully, and the shutter will be released.

Notes:
- If you wish to focus on another subject, lift your finger from the shutter release button and depress the shutter button halfway down again.
- The shutter cannot be released while the lens is zooming.

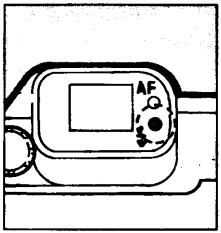


- The green lamp blinks when the camera is not able to obtain proper focus for one of the following reasons.

❶ The subject is too close.
❷ The subject is difficult to autofocus. See page 34.

- You can release the shutter even it the green lamp is blinking. But the picture will not be focused properly.
- If the autofocus window is dirty, the autofocus may not function properly.

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Automatic Flash Emission
When taking pictures in low light, the flash will automatically discharge. When the shutter release button is depressed halfway down in low light, the red lamp will light up, indicating the flash is ready to discharge. If the red lamp blinks, this indicates that the built-in flash is being charged and the shutter cannot be released. Therefore, make sure that the red lamp is lit continuously before taking pictures.

Flash effective ranges (Color negative film used)

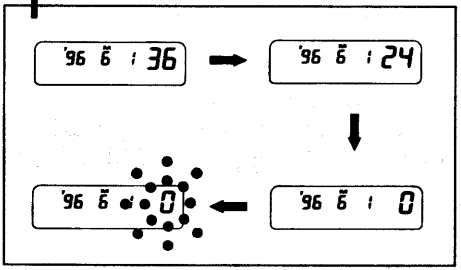
Lens \ ISO	100	200	400
38mm (♦♦♦)	0.65~4.2m (2.1-13.8ft)	0.65~6.0m (2.1-19.7ft)	0.65~8.5m (2.1-27.9ft)
90mm (♦)	0.65~2.0m (2.1-6.6ft)	0.65~2.8m (2.1-9.2)	0.65~4.0m (2.1-13.1ft)

See page 45 when any other ISO films are loaded.

Red-eye
Shooting portraits with the flash may result in "red-eye", an effect where the subject's eyes appear red in the print. This camera incorporates a red-eye reduction function which lights up the self-timer lamp for approx. 1 second before the flash is discharged. For setting the red-eye reduction function, see page page 22.

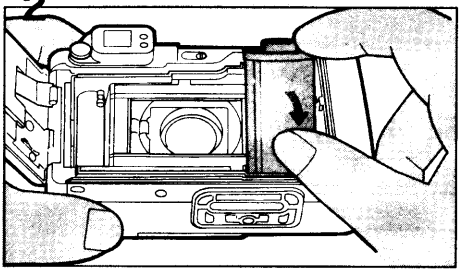
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6 UNLOADING FILM



1 Rewinding the film
After you have exposed the last frame of the roll, the lens retracts and the film rewinds automatically. Then, the motor stops, and (0) blinks as shown to indicate that the film has been rewound.

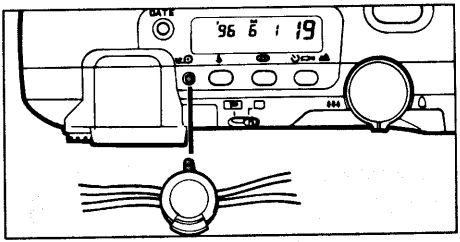
- A 24-exposure roll of film takes about 20 seconds to be rewound.
- During rewinding, the exposure counter counts frame numbers in reverse.
- The entire roll of film including the film leader is always rewound into the cartridge.



2 Unloading film
To unload the film, open the back cover, and remove the cartridge from the chamber.

Notes:
- The shutter may be released a frame or two even after the specified number of frames have been used up. If this occurs, these extra frames may be lost in the processing.
- Never open the back cover until the whole film roll is rewound.
- Remove the film from the camera in the shade or by using your body to shade the camera.

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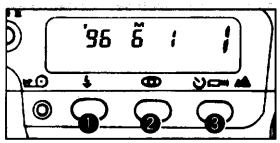
Rewinding a film in mid-roll

If you wish to unload a film before exposing all the frames, push the mid-roll rewind button with the protrusion part of the strap ; the lens retracts and then film rewinding starts. When rewind is completed, the motor stops, and (0) blinks, indicating that the back cover may be opened safely.

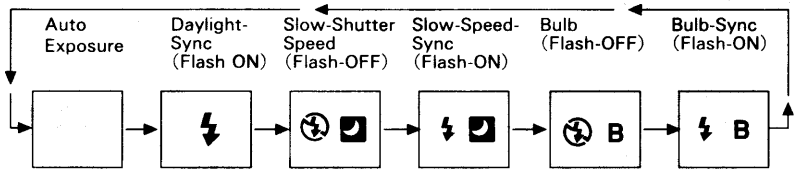
- Do not depress the button with an object having a sharp tip.

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TAKING BETTER PHOTOGRAPHS



To set various exposure modes, depress the mode button ❶.



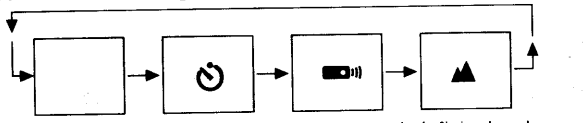
- For normal use, set the Auto Exposure Mode.
- The camera is automatically re-set to the Auto Exposure Mode when the protective front cover is closed.

Red-Eye Reduction Lamp

To reduce the red-eye phenomenon in the picture, depress the red-eye reduction lamp button (👁) ❷. With this mode, the self-timer lamp lights up for approx. 1 second just before the main flash is discharged to reduce the appearance of the red-eye effect. To cancel this mode, depress the red-eye reduction lamp button again.

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To set various shooting modes, depress the drive button ❸.



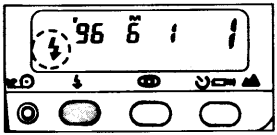
- For normal use, set the Single-Frame Shooting Mode.
- In the Self-Timer Shooting and/or the Remote Control Shooting Mode, if the button ❸ is depressed after the shutter is released, the Single-Frame Shooting Mode is returned.

What is the red-eye phenomenon in flash photography

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 the electronic flash in the retina. It can be reduced when the surrounding of the subjects are brightened, or shooting distance is shortened or by employing the red-eye reduction flash feature.

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DAYLIGHT-SYNC SHOOTING



Depress the mode button until (ϟ) appears on the LCD panel.

In this mode, the flash will discharge in both dark and bright conditions. When a portrait is taken with the subject in a backlight situation, the front of the subject may be cast in shadow. In such a case, use the Daylight-Sync Shooting Mode (Flash-ON mode) within the flash-effective range to take pictures. This will ensure that a picture is well exposed without any shadow. When you wish to discharge the flash, use this mode. In this mode, the flash will always discharge.

Note:

- Make sure you're within the flash-effective range even when you use the built- in flash as a fill-in flash in daylight. See page 19.



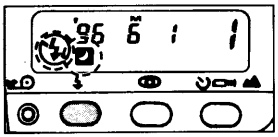
Without Daylight-Sync



With Daylight-Sync

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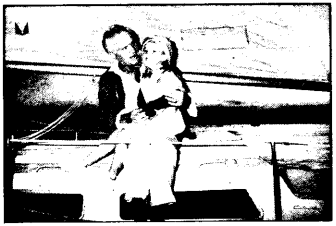
TAKING PICTURES AT A SLOW SHUTTER SPEED



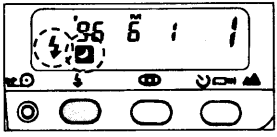
Slow Shutter Speed (Flash-OFF)

Depress the mode button until (⊛ ◪) appears on the LCD panel.

In this mode, the flash does not discharge, and a picture is taken at a slow shutter speed up to approx. 2 seconds. Use it in places where flash photography is prohibited, such as in theaters and museums. Furthermore, this mode is also useful for a natural existing light effect in low ambient photography.



With Slow-Speed-Sync



Slow-Speed-Sync Shooting (Flash-On)

Depress the mode button until (ϟ ◪) appears on the LCD panel.

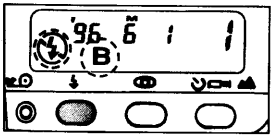
In this mode, it is possible to photograph subjects and background in a balanced way (as shown in the photo) by using the built-in flash to properly expose the foreground subject and a slow-speed to expose the low light background.

Notes:

- When shooting in low light, the shutter speed gets slower, and camera shake is likely to blur your picture. Use of a tripod is recommended.
- Make sure you are within the flash- effective range even when you use the built-in flash as a fill-in flash in daylight. See page 19.

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BULB SHOOTING



Bulb Mode
(B)

Depress the mode button until (B) appears on the LCD panel.

This mode is useful for long exposures required for shooting fireworks and night scenes, for example.

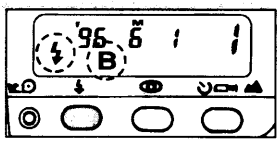
- When using this mode, the camera should be mounted on a tripod so that the camera will be steady.



Bulb Mode, approx. 3 sec. (ISO 400)

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BULB-SYNC SHOOTING



Bulb-Sync Mode
(ϟB)

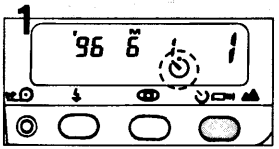
Depress the mode button until (ϟ B) appears on the LCD panel.

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

- Make sure you're within the flash effective range even when the Bulb-Sync Mode in use. See page 19.
- Use of a tripod is recommended.
- The shutter remains open up to 5 minutes as long as the shutter release button is held down.

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SELF-TIMER PHOTOGRAPHY



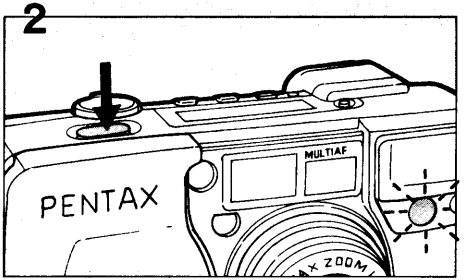
Self-Timer
Use the self-timer if you wish to get in the picture.

1 Depress the drive button until (⏲) appears on the LCD panel.

2 Assure that the subject is within the AF frame in the viewfinder. Depress the shutter release button fully.

The shutter will be released in about 10 seconds. When the self-timer is working, the Self-Timer symbol (⏲) blinks on the LCD panel, and the Self-Timer lamp blinks 3 seconds before the shutter is released, letting you know when to smile.

How to cancel
To cancel the self-timer at any time after its been activated, depress anyone of the buttons next to the LCD panel.



Notes on self-timer shooting
- Use of a tripod is recommended.
- If you are standing directly in front of the camera when starting the Self-Timer, the camera will be focused on you, not the main subjects. Be sure that you are behind, or next to the camera when starting the Self-Timer.
- When you want to use the flash with the self-timer, ensure that the red lamp is lit indicating the flash has been charged before operating the self-timer.

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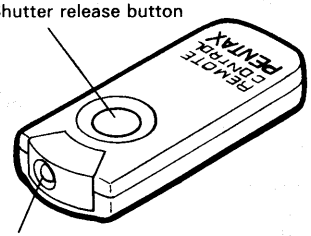
USING WIRELESS REMOTE CONTROL (OPTION)

If you have purchased the optional wireless remote control, read this section.

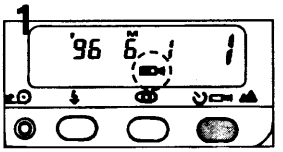
The wireless remote control allows you to trip the shutter at a distance. The shutter will be released in 3 seconds after the shutter release button on the remote control is depressed.

- Use a tripod when shooting with the wireless remote control.
- When the remote control is used to take pictures, the Self-Timer Shooting Mode and the Infinity-Landscape Mode cannot be used.
- Use the remote control to take pictures in the Bulb Mode to avoid camera shake. While the remote control's shutter release button is held down, the shutter remains open up to a max. of 5 minutes.

Name of parts



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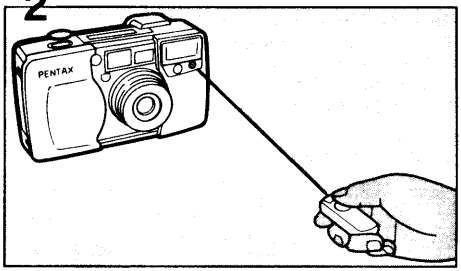


Remote Control Shooting Mode

1 Depress the camera's drive button each time until ( ) symbol appears on the LCD panel.

- Even while the camera is set to the "Remote Control Shooting Mode" the shutter release button on the camera can be used to take a picture in the normal "Auto Exposure Mode."
- When the camera is set in the Remote Control Shooting Mode and left unused for 10 minutes, the lens automatically retracts to the shortest focal length.

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2 Compose the scene and frame the subject with the AF frame.

Aim the remote control transmitter towards the remote control receiver on the camera, and then depress the shutter release button on the remote control fully to release the shutter.

- The self-timer lamp blinks rapidly for 3 seconds and then the shutter is released.
- Focus cannot be locked when the remote control is in use. The subject framed in the AF frame will be in focus when the remote control's shutter release button is depressed.

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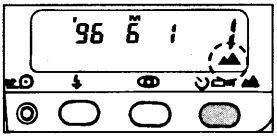
Operating Distance of the Wireless Remote Control from the camera's front: within approx. 5m(16.5ft) straight in front of the camera

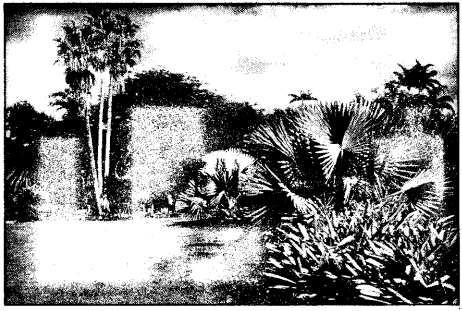
- The remote control may not work in a backlight situation. In this case, use the camera's shutter release button in the Self-Timer Mode to take pictures.
- The remote control does not work while the flash is being charged.

Battery life on the Remote Control
About 30,000 commands can be issued. If the battery is exhausted, please have it replaced at your local Pentax Service center (there is a charge for this service).

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INFINITY-LANDSCAPE SHOOTING





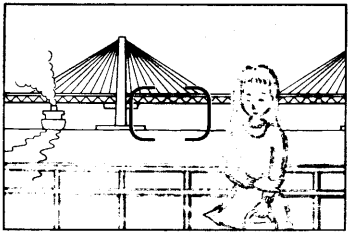
When you wish to take a sharp picture of a distant landscape or a distant subject through a window, the Infinity-Landscape Mode allows you to capture distant scenery with clarity.

Depress the drive button until (▲) appears on the LCD panel.

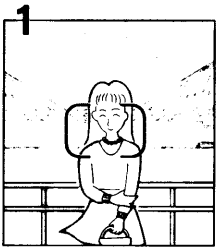
- After the picture is taken, this mode is canceled.
- The flash will not be discharged in the Auto Exposure Mode, even in low-light situations.

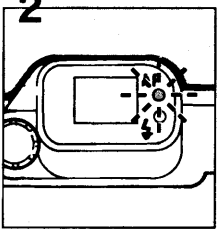
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FOCUS-LOCK SHOOTING



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

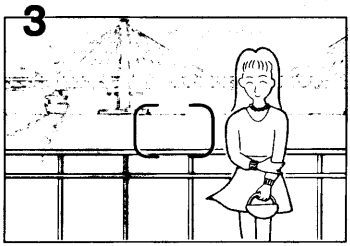




1 Focus on the subject with the autofocus frame ([ ]).

2 When the shutter release button is depressed halfway down, the green lamp lights up and the exposure and focus are temporarily locked.

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3 While depressing the shutter release button halfway, re-aim the camera or recompose the picture, then release the shutter.

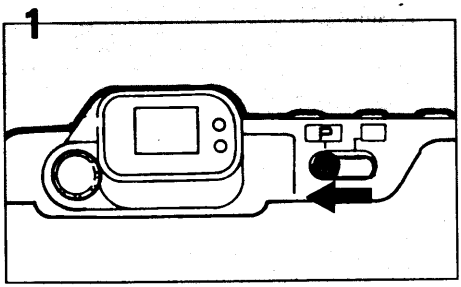
Note:
- You can release focus lock simply by lifting your finger from the shutter release button.

The autofocus system is highly precise, but not perfect. Some subjects may not focus as you wish. In such a case, use the focus-lock technique on a subject near the actual one and equidistant from the lens. Situations that may fool autofocus system include:

a) Extremely low-contrast subjects such as a white wall or blue sky in the autofocus frame.
b) Subjects which don't reflect much light in the autofocus frame.
c) Subjects which are moving too fast.
d) Subjects with horizontal lines or with finely complex or detailed pattern in the autofocus frame.
e) Multiple subjects in foreground of the autofocus frame.
f) Subjects positioned against reflected light or strong backlight or with extremely bright background.

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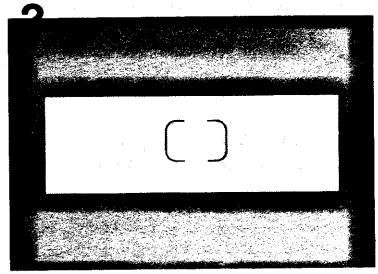
TAKING PANORAMA FORMAT PICTURE



You can switch between the panorama format and standard format picture taking mode in the middle of the roll by moving the panorama switch. The panorama format picture allows horizontally positioned dynamic pictures to be taken (approx. 13x36mm on film).

1 Switching to the panorama format picture.
Move the panorama switch to (P) to select the panorama format mode.

- When the picture frame is switched to panorama, the viewfinder switches to the horizontal panorama format frame.



2 Taking a panorama format picture.
Compose the scene within the panorama format frame, and then fully depress the shutter release button to take a panorama format picture.

- When the camera-to-subject distance is less than 1m, the panorama format photography is not recommended due to a substantial difference between what you see through the viewfinder verses the image you will obtain on the finished photograph.

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The mark " — " indicates the position where the data and time are imprinted.

The DATE MODEL allows you to record DATE information in the panorama mode in a similar manner to the standard picture taking mode. See "DATE MODEL" on page 39 for details. The dating unit automatically switches the DATE position between the standard and panorama according to the format mode selected.

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NOTES ON THE DEVELOPMENT OF PANORAMA FORMAT PICTURES

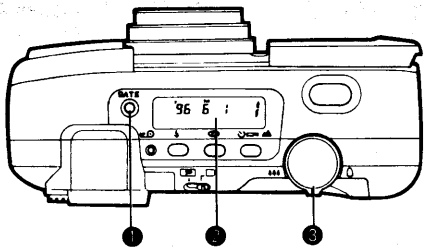
- **With panorama format pictures, only the middle area of the frame is exposed. The number of exposures available in the panorama format is equivalent to that of the standard photo size.**



- When developing the film, if you have taken only panorama format pictures on the entire roll of film, tell the clerk at the processing lab to develop the film with only the panorama format. If there are both panorama and standard format photographs on the film, ask the clerk to develop the film with both standard and panorama format.
- The development of panorama format pictures is a more time-consuming and expensive process than that of standard pictures. Please consult the processing lab for more details.
- Panorama format processing facilities differ depending on the area and requirements. Your local film processor or camera dealers will advise you on all the options to you.
- When the panorama format picture is printed with a standard size format, the black cropped areas will appear on the top and bottom of the picture.

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DATE MODEL

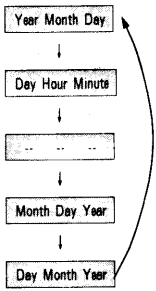


If you purchased the DATE model, read this section.

The DATE model records dates up to the year 2030 on pictures.

Switching the Mode

Press the DATE button ❶ with your finger, the mode on the LCD panel switches as shown in the chart.



Notes:

- The data on the LCD panel will be imprinted on the film.
- "-- -- --" indicates no data will be imprinted.
- "M" on the LCD panel indicates "Month".

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Correcting the date
Switch the power on by opening the protective front cover.

1. **Keep depressing the DATE button ❶ for 3 seconds, the " Year " digits and (🚗) will blink.**
2. **Each time the DATE button ❶ is depressed, the blinking digits change in the following manner :**

   Year - Month - Day - Hours - Minutes

   Stop depressing the button when desired digits appear.
3. **Move the Zoom lever ❸ to the right or left, when you wish to change the blinking digits. The digits increase by one each time the lever moves to the right and the digits decrease by one each time the lever moves to the left. Holding the zoom lever for about one second will change the digits continuously.**
4. **After the data has been adjusted, depress the DATE button ❶ each time until blinking stops.**

- The blinking "minutes" allows precise fine-tuning of the internal clock to the beginning of a specified minute. To do so, when the "minutes digits" are blinking, depress the DATE button ❶ in synch with a time signal.
- If you release the shutter while the blinking data is being corrected, the data cannot be imprinted.

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Operational precautions
The data on the LCD panel is imprinted on each frame you expose.

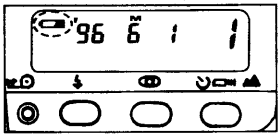
- "Year-Month-Day" and "Day - Hour - Minute" cannot be imprinted at the same time.
- As you release the shutter, the bar (—) mark on the display blinks for a few seconds, indicating the data has been imprinted.
- The dating unit automatically switches the imprint mode between the standard and panorama according to the format mode selected.
- If there is a white or yellow object in the corner of the picture where the data is imprinted, the data may be difficult to read. When composing your photographs, try to avoid brightly-colored subjects in that corner.



* The date in the picture above is simulated.

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BATTERY EXHAUSTION WARNING

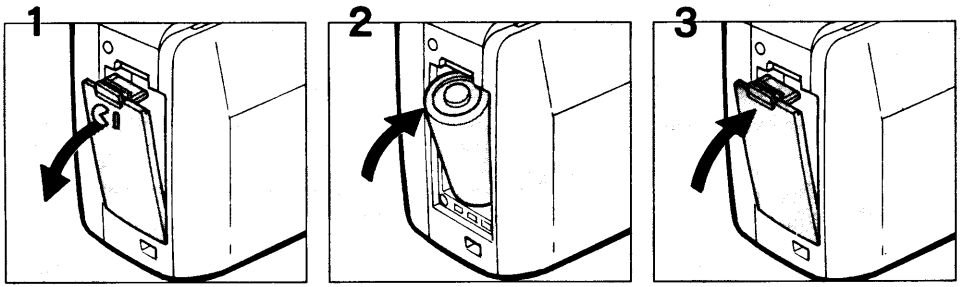


When the battery is nearly exhausted, the battery symbol (▭) appears on the LCD panel to warn you. Replace the battery as soon as possible. When (▭) starts blinking, no operations can be performed.

Battery life (using 24-exposure film rolls): Approx. 8 rolls using flash 50% of the time (using the CR-2 battery and under Pentax testing conditions). Actual battery life/performance may vary drastically depending on usage of Power Zoom, Flash and external conditions such as temperature and freshness of the battery.

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INSTALLING / REPLACING BATTERY Use one 3V lithium battery CR-2 or equivalent



Ensure that the protective front cover is closed before replacing the battery.

1 Open the battery chamber cover by using your finger as shown in the illustration.
2 Insert one lithium battery with the plus / minus (+ / −) sides matching the indications in the battery compartment.
3 Close the battery chamber cover. Ensure that the cover is locked with a click.

Notes on replacing the battery:

- The battery is used by both the camera body and the data function on the DATE model. After the battery is replaced or removed, the time is initialized to 0 00 and (-- -- --)bar marks appear on the LCD panel. See page 40 for correcting the time.
- The date and number of exposed frames are memorized and unchanged even if the battery is replaced.

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TROUBLESHOOTING

What appears troublesome may be easily remedied. Here are some problems that may occur and their remedies.

Symptoms	Causes and Remedies
1. The shutter cannot be released.	• Is the protective front cover closed? If so, open it. See page 8. • Is the battery exhausted? Replace it or insert new battery if it is exhausted. See page 43. • Is (▯) blinking on the LCD panel? If so, the film has been used up. Insert a new roll. See page 20.
2. My printed pictures don't look very clear.	• Did you position the autofocus frame on your subject? See page 17. • Did you obstruct the autofocus window with your fingers, hair or other object when you depress the shutter release button? See page 9. • Is the autofocus window dirty? Wipe it off. See page 18.
3. Lens retracted automatically.	• The lens retracts automatically if the camera is left unused for over 3 minutes. See page 8. • When the camera is ON and left unused for more than 10 minutes in the Remote Control shooting mode, the lens retracts automatically. See page 30.

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Symptoms	Causes and Remedies
4. The Remote Control does not operate.	• The operable distance of the Remote Control is approx. 5m from the front. See page 32. • The Remote Control may not operate in a backlit situation. See page 32. • The flash is being charged. Wait until it fully charges. See page 32. • Is the battery for the remote control exhausted? See page 32.
5. The flash discharges, though it is not dark.	• The flash discharges automatically in a backlit situation. See page 19. • Daylight-sync mode has been set. See page 24.
6. The (H), (U) or (A) mark is displayed on the LCD panel.	• If either mark disappears when the zoom lever is moved, the camera is ready for use. The camera may be defective if either mark appears often.

Flash effective ranges other than ISO 100, 200 or 400 (Color negative film used)

Lens \ ISO	25	50	800	1600	3200
38mm (♦♦♦)	0.65-2.1m (2.1-6.9ft)	0.65-3.0m (2.1-9.8ft)	0.85*-12.0m (2.8*-39.4ft)	1.2*-17.0m (3.9*-55.8ft)	1.7*-24.0m (5.6*-88.6ft)
90mm (♦)	0.65-1.0m (2.1-3.3ft)	0.65-1.4m (2.1-4.6ft)	0.65-5.7m (2.1-18.7ft)	0.65-8.0m (2.1-26.2ft)	0.8*-11.0m (2.6-36.1ft)

* With high speed film, overexposure may occur at close range due to the film's high sensitivity.

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SPECIFICATIONS

Type:	35mm fully automatic lens-shutter with built-in zoom lens and auto flash
Film:	Auto film speed setting with 35mm perforated DX-coded film with ISO rating from 25-3200 (1EV step). Non-DX coded films are automatically set to ISO25
Format:	24x36mm (Approx. 13x36 in panoramac format)
Film loading:	Auto film loading. Closing the back cover will automatically wind the film to first exposure.
Film winding:	Auto film-winding (single-frame)
Film rewinding:	Auto film rewinding at the end of roll. Auto stop upon completion of rewinding. Rewinding time: approx. 20 sec. with 24-exposure film. Rewinding in mid-roll provided.
Frame number:	Automatic readout of successive frame numbers in ascending order when shooting, and descending order when rewinding.
Lens:	Pentax power zoom 38-90mm f/4.5 -9.5 5 elements in 5 groups, Angle of view: 59° - 27°
Focusing system:	Pentax phase-matching passive five-point autofocus system. Autofocusing range: 0.65m (2.1 ft) - infinity, Maximum magnification: approx. 1/6.3×. Focus lock is provided. Infinity-landscape mode (focus is fixed to infinity), Focus aid illuminator light is automatically emitted in low light/ or hard-to-autofocus subject.
Zooming:	Electronic zoom
Shutter:	Programmed AE electronic shutter with speed approx.1/300 - 2 sec. Bulb: 1/2 sec.-5 min, Electromagnetic release.
Self-timer:	Electronic lamp indication. Approx.10 sec. Cancellation after activation is possible.
Viewfinder:	Standard/panorama switchable, Actual image zoom viewfinder, Viewfinder area: 83%, Magnification: 0.45X (38mm WIDE) - 0.93X(90mm TELE), Diopter adjustment: -3 to +1D, AF frame, Picture frame, Close distance compensation frame, Panorama format picture area, Green lamp lighting: in-focus signal, Green lamp blinking: When subject is too close and/or hard-to-autofocus subject, Red lamp lighting: Flash-ready status, Red lamp blinking: Flash being charged.

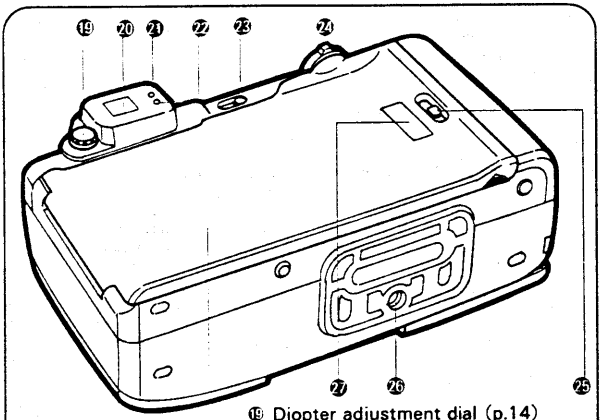
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Pages 48 -49 are Pentax warrany info. I did not scan

Exposure control:	Programmed auto-exposure control with multi metering system, Range: EV9 - EV17 at 38mm WIDE, EV12 - EV19 at 90mm TELE in Auto or Daylight-Sync mode (ISO 400), EV4 - EV17 at 38mm, WIDE EV5 -EV19 at 90mm in Slow-Shutter-Speed mode (ISO 400), Automatic exposure compensation in a backlit situation.
Flash:	Built-in flash with red-eye reduction mode, Automatic discharge in low lighting and backlighting situations in auto mode, Flash ON=Day-light Sync/Slow-Shutter-Speed Sync (up to 2 sec.), Flash-OFF Mode, Bulb-Sync 1/2 sec. - 5min.
Flash effective range:	0.65 - 8.5m (38mm WIDE), 0.65 - 4.0m (90mm TELE) (ISO 400 film used).
Flash recycling time:	Approx. 5 sec. under Pentax testing conditions.
Power source:	One 3V lithium battery (CR-2 or the equivalent)
Battery life:	Approx. 8 rolls of 24 exposure film when 50% of shooting uses flash (under Pentax testing conditions)
Battery exhaustion warning:	(▭) appears on the LCD panel, Shutter is locked when (▭) is blinking.
Size & Weight:	111.5(W) x 61.5(H) x 42(D)mm (4.4"x 2.4"x 1.7") 210 g(7.4oz) without battery
DATE MODEL	
Date mechanism:	Crystal quartz controlled; LCD with digital clock, auto calendar up to 2030. Possible to imprint both standard and panorama format frames.
Imprinting mode:	"Year, Month and Day", "Day, Hour and Minutes", "-- -- -- blank", "Month, Day and Year" or "Day, Month and Year".
Size & Weight:	111.5 (W) x 61.5(H) x 42(D)mm (4.4"x 2.4"x 1.7") 210g(7.4oz) without battery
REMOTE CONTROL	Infrared wireless remote control, 3-seconds delay shutter release, Effective range: Closer than 5m when projected from the camera's front.
Power source for Remote Control:	One lithium battery CR1620 (replaced by Pentax Service facility)
Size & weight for Remote Control:	22.0(W) x50.0(L) x9.5(D)mm (0.9" x2.0" x0.4"), 9g(0.3oz) including battery

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

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NAMES OF WORKING PARTS II



⑲ Diopter adjustment dial (p.14)
⑳ Viewfinder eyepiece
㉑ Green lamp (p.16)
㉒ Red lamp (p.16)
㉓ Panorama switch (p.36)
㉔ Zoom lever (p.10)
㉕ Back cover release lever (p.11)
㉖ Tripod socket
㉗ Film information window
㉘ Back cover (p.11)

FOR YOUR REFERENCE, KEEP THIS CARD WITH THE CAMERA.

PENTAX® IQZoom 90MC

DAYLIGHT FLASH ON	RED-EYE REDUCTION ON	SELF-TIMER ON (10 SEC.)
LOW LIGHT, FLASH OFF		REMOTE CONTROL 3 SEC. DELAY
LOW LIGHT, FLASH ON*		FOR SHARP PICTURE OF DISTANT SUBJECT THROUGH WINDOW
BULB FLASH OFF		
BULB FLASH ON		

BULB : LENS STAYS OPEN FOR AS LONG AS YOU PRESS THE SHUTTER RELEASE BUTTON

* CAMERA FLASHES AUTOMATICALLY WHEN NO ICONS APPEAR

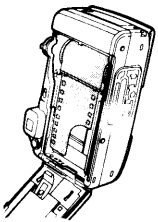
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PENTAX® IQZoom 90MC



3 SWITCH POWER ON

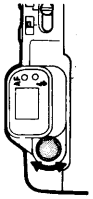


2 LOAD FILM AND CLOSE BACK COVER

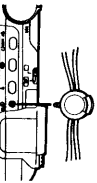


1 OPEN BACK COVER

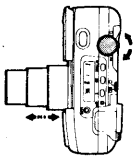
WHEN SUBJECT IN FINDER IS NOT CLEARLY SEEN, ROTATE DIAL TILL AF FRAME APPEARS SHARP.



HOW TO REWIND FILM IN MID. ROLL



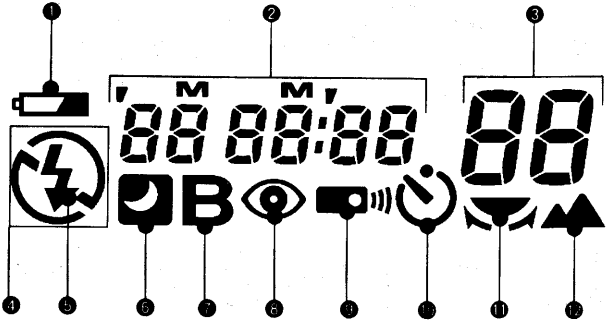
PUSH REWIND BUTTON.



4 OPERATE ZOOMING LEVER TO FRAME

LCD PANEL

All indications will not actually appear simultaneously as show



1. Battery Exhaustion Warning (p.42)
2. Data information (p.39)
3. Exposure counter (p.13)
4. Flash OFF (p.25, p.26)
5. Flash ON (p.24, p.25, p.27)
6. Slow-Speed-Shutter (p.25)
7. Bulb (p.26)
8. Red-eye Reduction feature (p.22)
9. Remote Control Shooting Mode (p.29)
10. Self-Timer (p.28)
11. Zoom lever (p.40)
12. Infinity-Landscape Mode (p.33)