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PENTAX®

zoom 105 Super

zoom 105 Super DATE

OPERATING MANUAL



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Welcome to the world of Pentax zoom compact photography! This compact, lightweight camera is a great companion to help you preserve memorable moments. A built-in 38 ~ 105 mm zoom lens allows great flexibility in shot framing. A variety of features, mostly automatic, make great pictures possible. The model with the date function makes it easy to remember when photos are shot.

- Please read this manual carefully before operating the camera to learn how to take consistently superior pictures.
- Pay particular attention to cautions and notes in this operating manual. Pictures and illustrations shown within may differ from the camera's actual appearance.
- Illustrations in this manual show the DATE model.

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

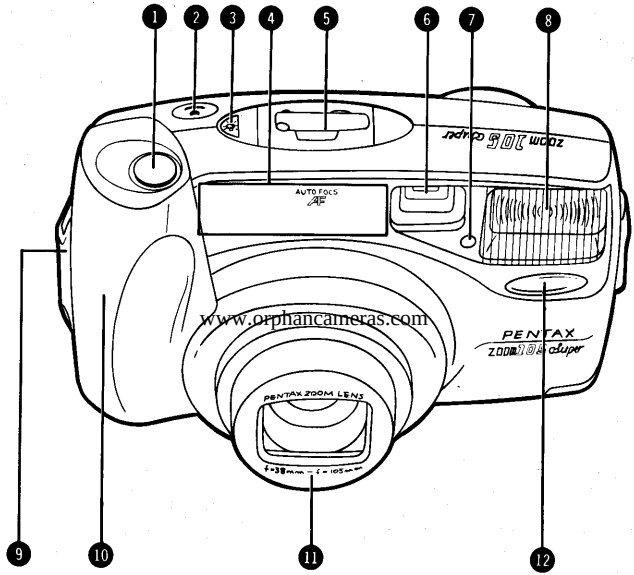
Icon indicators used in this manual:

Operation direction	←
Automatic operation	◀▪▪▪▪
Attention	◯
Lamp glowing	✳
Lamp flickering	✳
Correct	◯
Incorrect	✕



NAMES OF WORKING PARTS

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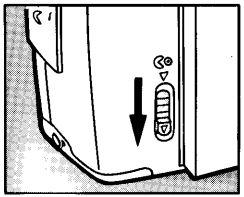
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1. Shutter release button
2. Macro button
3. Illumination button
4. Autofocus window
5. LCD panel
6. Viewfinder window
7. Light-sensor window
8. Built-in flash
9. Strap lug
10. Grip
11. Zoom lens
12. Self-timer lamp

OUTLINE OF BASIC OPERATIONS

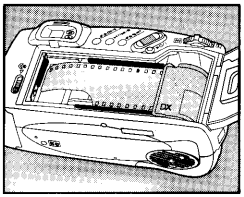
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1



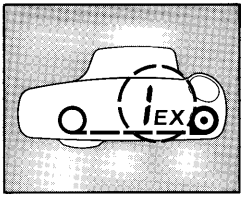
Open the back cover (see page 8).

2



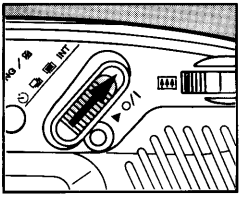
Load the film and close the back cover.

3



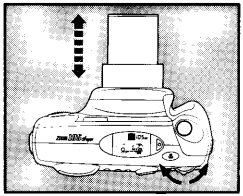
The film automatically advances to the first frame.

4



Switch on the power (see page 4).

5



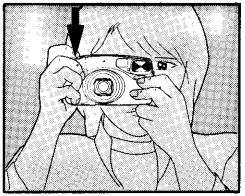
Frame your subject and operate the zooming lever to determine the composition (see page 6).

6



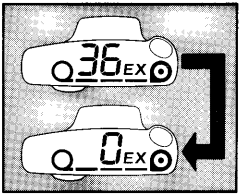
Focus your subject (see page 14)

7



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

8



When the film reaches its end, the camera automatically rewinds it (see page 18).

CAUTIONS

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- Shield the camera from salty air and water at the beach, splashing 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 thinner, alcohol or benzine 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 use an old battery together with a new one. Overheating or fire might result if you do.
- 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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3. How to hold the camera ..... ⑤
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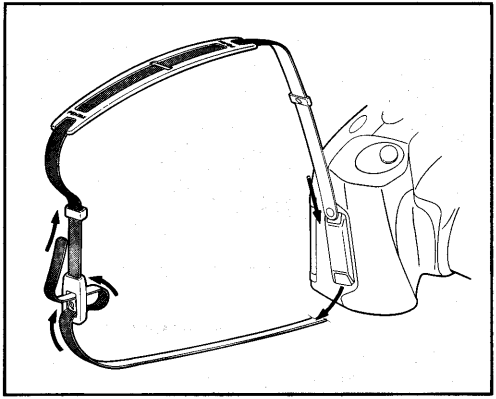
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LCD panel ..... Back foldout

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PREPARATIONS BEFORE TAKING PHOTOGRAPHS

You should be aware of certain fundamentals to make it easier to use this camera in the best way.

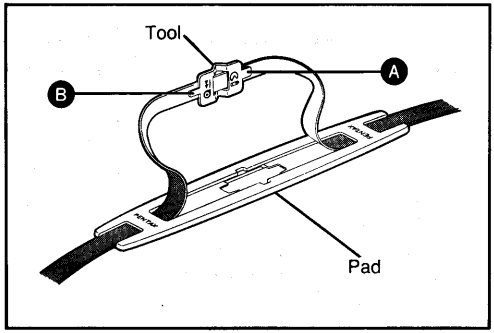
1. STRAP ATTACHMENT



Attach and adjust the camera strap as illustrated.
Use the tool's protrusion Ⓐ ( ) as a screwdriver to open the battery chamber cover. Use protrusion Ⓑ ( ) to press the film auxiliary rewind button (if you want to remove the film before the roll is completed).

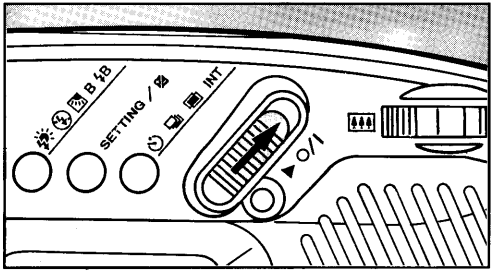
Note:

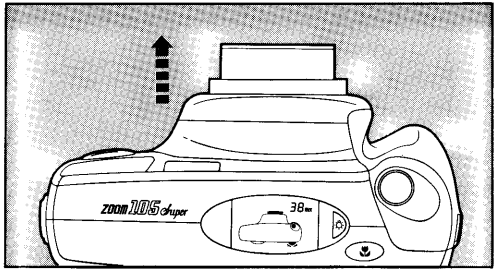
- Adjust the strap so that the camera is positioned above your waist to minimize camera sway when you walk.



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2. POWER SWITCH AND BATTERY CHECK





Power switch

To switch on, slide the power switch upward. The lens cover opens, and the LCD indications appear. The camera is now ready for setting and shooting. To switch off, slide the power switch upward again. Make sure to switch it off when the camera is not in use.

Caution:

The lens cover automatically opens when the power switch is turned on, and closes when the power switch is turned off. Never attempt to open the lens cover by hand.

Battery check

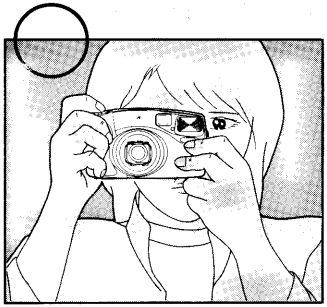
After power is switched on, the lens extends slightly and the lens protector opens. The camera is then ready to shoot.

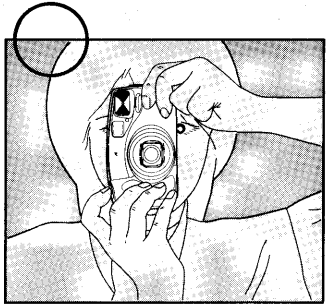
Notes:

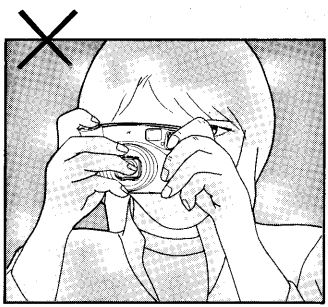
- When the camera is left unused with the power on for over 3 minutes, its power automatically switches off.
- If you have a DATE model, do not remove the batteries until they are exhausted, since they are used by the date function to keep constant track of time.
- Refer to page 41 for directions on battery insertion.

3. HOW TO HOLD THE CAMERA

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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 in a vertical position, 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:

- Keep your fingers and hair away from the lens, autofocus window, sensor window, flash, etc.

4. OPERATING 38 ~ 105 mm ZOOM LENS

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105 mm

85 mm

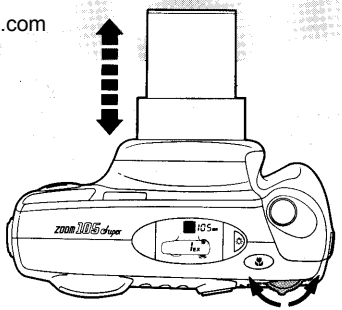
70 mm

55 mm



46 mm

38 mm



When you press the zooming lever to the right (▲), the lens moves towards the 105 mm telephoto setting. When you press to the left (▲▲▲), the lens moves towards the wide-angle 38 mm setting.

Step Zoom and Continuous Zoom

When you press the zooming lever lightly, the lens zooms to and stops at an adjacent step among 6 successive zoom settings: 38, 46, 55, 70, 85, and 105 mm. This is the Step Zoom function. When you press the lever further, the lens zooms quickly and continuously to any desired zoom setting from 38mm ~ 105mm, until you release the lever. This is the Continuous Zoom function.

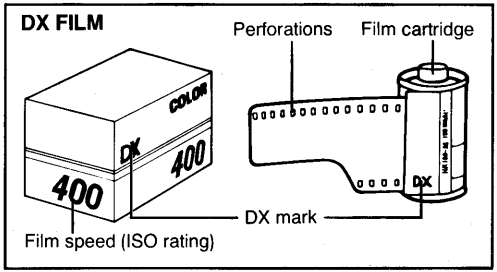
Note:

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

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TAKING PHOTOGRAPHS

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



Automatic film speed setting

This camera is designed to use DX-coded films with ISO ratings from 25 to 3200. When such film is loaded, the camera automatically adjusts to the film's speed.

Notes:

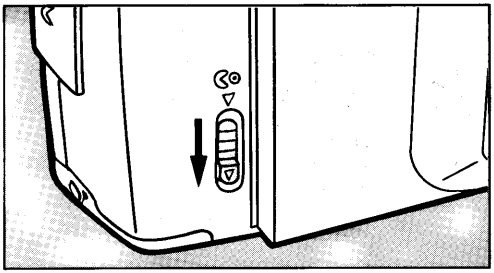
- When buying DX film, make sure the package bears the "DX" mark.
- If non-DX film is loaded, the film speed will be set automatically to ISO 25, regardless of the film's actual speed.
- Use high-speed film with an ISO rating of 1000 ~ 3200 for shooting indoors or in dimly lit conditions.

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2. FILM LOADING

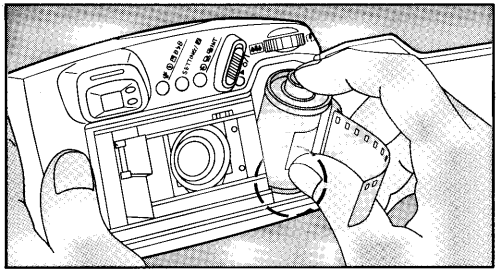
First, make sure that the power is off.

1



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

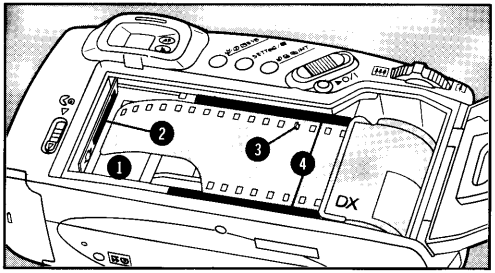
2



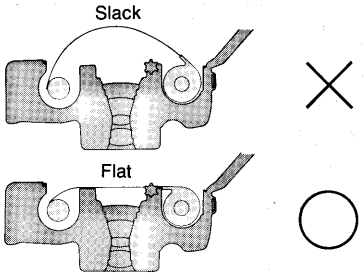
2 Place the film cartridge in the film chamber, fitting its flat side on the top of the rewind shaft.

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3



3 Pull the film leader out far enough from the cartridge to reach the take-up spool ❶. Align the film's tip with the film leader end mark ❷.

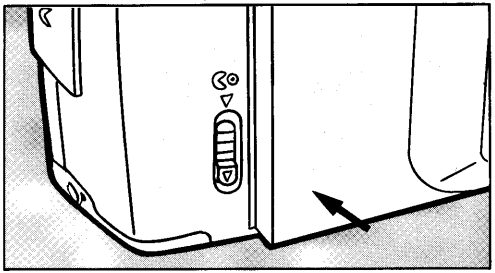


Notes:

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

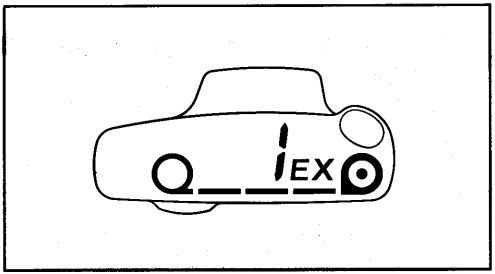
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4



4 Close the back cover. The film automatically advances to the first frame.

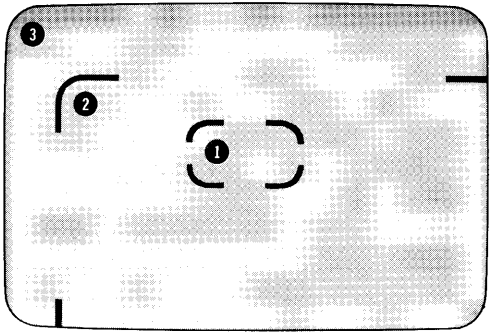
5



5 When " 1 " appears in the exposure counter on the LCD panel, the film automatically stops winding. If " 1 " does not appear on the LCD panel, the film is not properly loaded. Reload the film.

Notes:

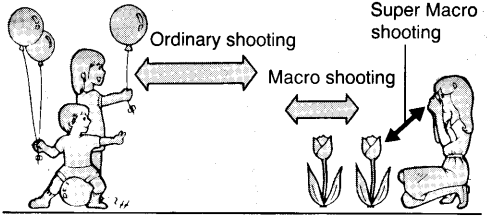
- Even if no film is loaded, the motor operates for a second or two after the back cover is closed.
- The exposure counter remains visible even when the power is off.



❶ **Autofocus frame**
Position the whole "〔 〕" at the subject of focus.

❷ **Macro frame**
When taking a Macro picture, compose the picture within this frame.

❸ **Picture area**
When taking a normal picture, compose the picture within this.



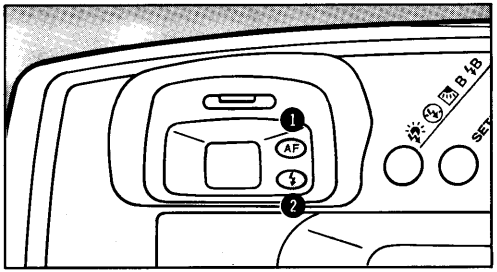
Shooting ranges

(effective camera-to-subject distance)

- Ordinary setting: ∞ (infinity) ~ 1.35 m (4.4 ft).
- Macro setting: 1.35 m (4.4 ft) ~ 0.75 m (2.5 ft).
- Super macro: 0.45 m (1.4 ft).

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4. GREEN/RED LAMPS



When you press the shutter release button halfway, the lamps ❶ (**AF**) and ❷ (ϟ) shown above glow or flicker.

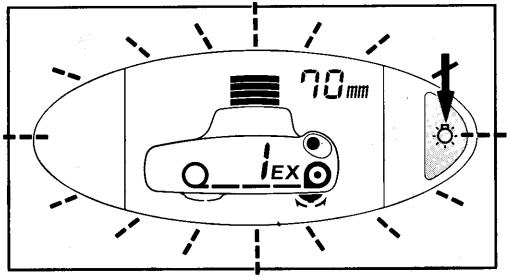
❶ **Green lamp (AF)**
When it glows, the subject is in focus. Or, with the focus lock function, focus and exposure are temporarily locked (refer to page 16).

❷ **Red lamp (ϟ)**
When it glows, flash is ready to fire. When it flickers, flash is being charged.

Note:

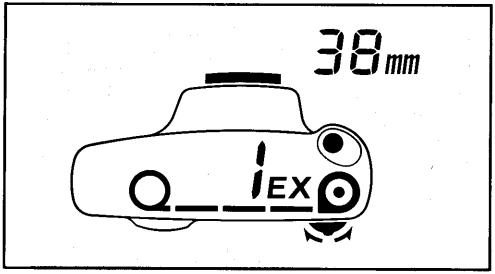
- If the green lamp (**AF**) flickers, the subject is too close. Adjust the camera-to-subject distance so that the green lamp (**AF**) glows, then release the shutter.

5. ILLUMINATION OF THE LCD PANEL



Press the illumination button (☼) to illuminate the LCD panel so that it may be seen in the dark. The illumination continues for approx. 8 seconds after the button is pressed. While the zooming lever and the mode, drive, SETTING, and shutter release buttons are being operated, the LCD panel illumination remains on even after 8 sec. passes.

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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.



Notes:

- If the LCD panel displays indications other than those above, switching the power off, then on again resets the LCD panel to appear as above.
- The shutter speed when the flash fires automatically is between approximately 1/40 sec. (wide-angle) and 1/60 sec. (telephoto).

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7. TAKING PICTURES

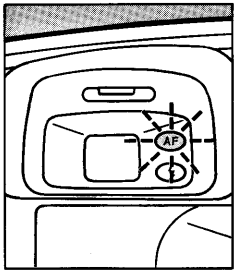
Shooting Distance: 1.35 meters (4.4 ft) ~ ∞ (infinity)

1

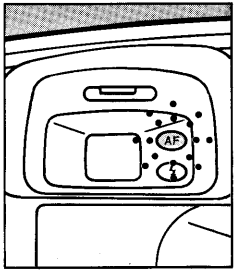


1 After zooming and composing your shot, position the autofocus frame ( ) on the subject.

2



3



2 Press the shutter release button halfway with your subject in focus. The green lamp (**AF**) should glow.

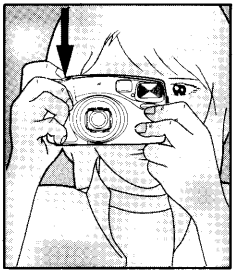
3 If the subject is closer than 1.35 meters (4.4 ft), the green lamp (**AF**) flickers and the shutter cannot be released.

Notes:

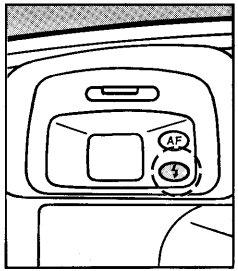
- If you wish to shift subject focus, release your finger from the shutter release button and repeat steps 1 and 2 above.
- When the subject is 20 ~ 30 cm (0.7 ~ 1 ft) from the camera, the green lamp (**AF**) may not flicker.

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4



*



4 Press the shutter release button all the way down. The shutter will be released, and the film will automatically advance 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 macro mark ( ) on the LCD panel also flickers to recommend use of macro settings.
- The shutter cannot be released while the lens is zooming.

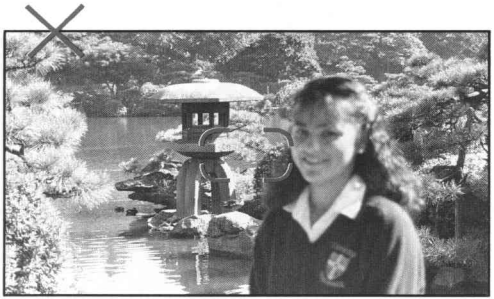
*** When taking pictures in the dark, the flash automatically fires.**

When the shutter release button is pressed lightly in dim lighting, the red lamp ( ) glows, indicating that flash is ready to fire. Make sure the red lamp ( ) glows continuously before shooting.

Flash-effective ranges (Nega-color film used)

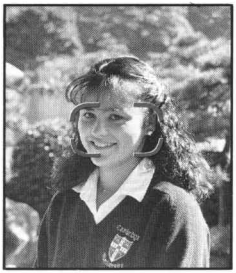
Lens ISO	100	200	400
38mm ( )	1.35 ~ 5 m	1.35 ~ 7 m	1.35 ~ 10 m
105mm ( )	1.35 ~ 3 m	1.35 ~ 4.2 m	1.35 ~ 6 m
Macro ( )	0.75 ~ 1.35m	0.75 ~ 1.35m	0.75 ~ 1.35 m
Super Macro (0.45m)	0.45 m	0.45 m	0.45 m

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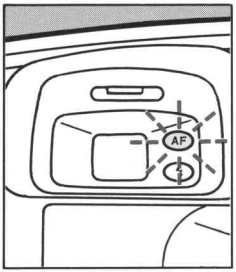


If you shoot without positioning the autofocus frame ( ) on the main subject of the picture as shown above, only the background will be in focus. When the main subject of your picture is off the autofocus frame in the center of the viewfinder, use the focus-lock technique.

1



2



1 First position the autofocus frame ( ) on the main subject.

2 As you press the shutter release button halfway, the green lamp (**AF**) glows, and focus and exposure are temporarily locked.

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3



3 While continuing to press the shutter release button halfway, re-aim the camera or recompose the picture, then fully depress the shutter release button.

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 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 at an equal distance from the lens.

Subjects which are hard to autofocus include:

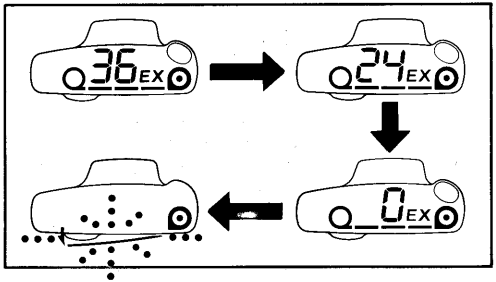
1. Black objects like hair, which don't reflect much light (and therefore don't reflect infrared autofocus beams).
2. Wire netting, latticework, iron exercise-bars, etc.
3. Flickering light sources such as neon signs, fluorescent lamps, TV images, sunlight coming through trees, etc., and subjects illuminated 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 surfaces, smoke, flame, fireworks, etc., which are formless.

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9. UNLOADING FILM

Be sure to remove the film from the camera in the shade.

1

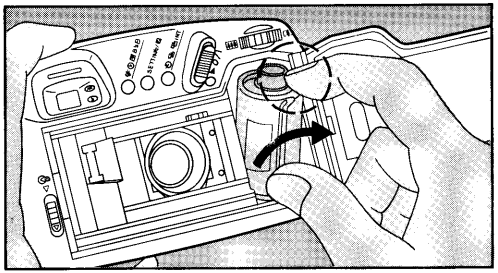


1 After you have exposed the last frame of the roll, film rewinds automatically. Then, the motor stops, and the back cover open mark ( ) flickers as shown to indicate end of rewind.

Notes:

- The shutter will be released for a frame or two after the assigned number of exposures have been shot, but the last frame may not be developed.
- During rewinding, the exposure counter counts frame numbers in reverse.

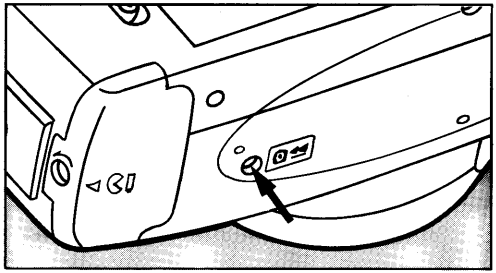
2



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

- 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.

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Rewinding the film in mid-roll

If you wish to unload the film before exposing all the frames, push the auxiliary rewind button with the protrusion ⓑ (⊙◀◀) (see page 3) of the strap's tool; film rewinding starts. When rewind is completed, the motor stops, and the back cover open mark (‹——) flickers, indicating the cover may be safely opened.

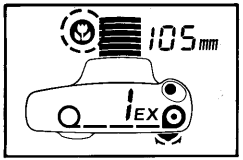
Caution:

Never open the back cover until rewinding is completed.

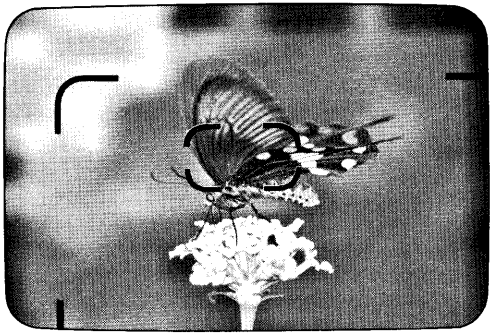
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TAKING BETTER PHOTOGRAPHS

There are a variety of ways to take the picture you want.



This is one of two modes used to take close-up pictures. Compose the shot within the macro frame.

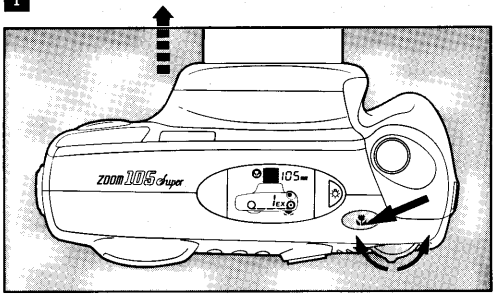


Note:

- When the autofocus frame ( ) is off-center of the picture area in macro photography, use the techniques described in "Focus-Lock Shooting" on pages 16 and 17.

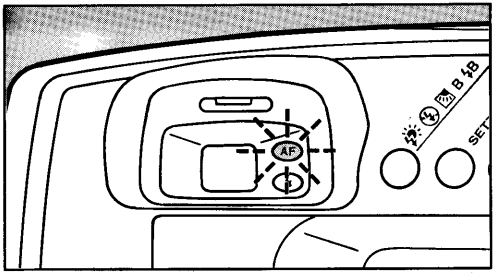
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1



1 Press the macro button ( ) to engage the Macro mode. " " appears on the LCD panel, and the lens moves forward. To cancel the Macro mode, just move the zooming lever to the left ( ) or right ( ).

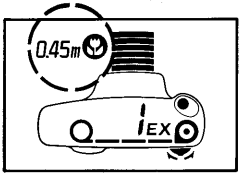
2

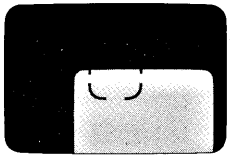


2 The macro shooting range is 0.75 ~ 1.35 meters (2.5 ~ 4.4 ft). Press the shutter release button halfway, make sure the green lamp (**AF**) glows, then release the shutter.

If the camera-to-subject distance is more than 1.35 meters (4.4 ft), the Macro mode will automatically shift to the 105 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.

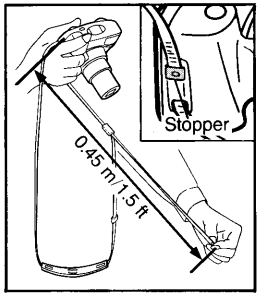
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Super Macro area

Slide the cover on the left of the camera downward, and press the Super Macro button. The lens moves forward, and the camera is set at the Super Macro mode. In this mode, the flash always fires.



Align the end of the strap with the subject as shown in the illustration to measure the distance (0.45 m/1.5 ft) from camera to subject at which proper focus is achieved in Super Macro mode. After one frame is shot in this mode, the ordinary shooting mode is automatically restored. To cancel the Super Macro mode without shooting, move the zooming lever to the left (♦♦♦) or right (♦).

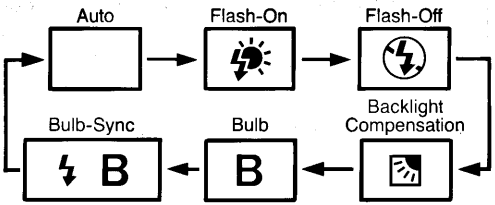
Notes:

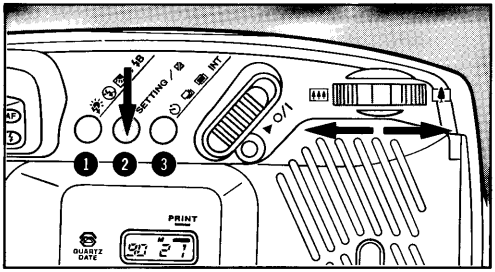
- In the Super Macro mode, the autofocus function does not work.
- Make sure to use nega-color (color print) film with ISO 100 ~ 400 for Super Macro shots.
- You can use the Super Macro mode together with the other shooting modes, but the exposure mode is not adjustable.
- The green lamp (**AF**) does not light in the Super Macro mode.

HOW TO SELECT MODES

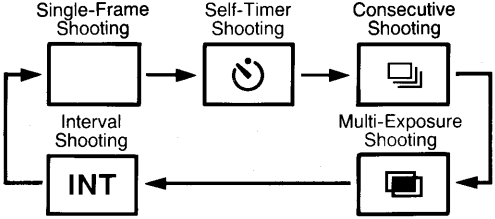
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To select an exposure mode, press the yellow mode button ❶.





To select a drive mode, press the blue drive button ❸.



Press buttons ❶ and/or ❸ in succession to set the required modes.

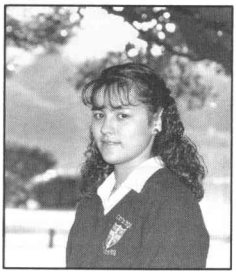
To finely adjust the settings of the Self-Timer Shooting, Bulb, Bulb-Sync, and Interval Shooting modes, move the zooming lever to the left (♦♦♦) or right (♦) while keeping the black SETTING button ❷ pressed.

To reset the timer of the Self-Timer Shooting, Bulb, Bulb-Sync, and Interval Shooting modes, slide the power switch upward; the mode is cancelled, and the power will not be switched off.

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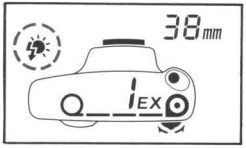
Without Daylight-Sync



With Daylight-Sync



Slow-Speed Sync



In this mode, the flash will always fire while the shutter speed changes according to the available light.

In bright conditions (Daylight-Sync)

When the subject is backlit or when the subject is shadowed by trees, etc., use the Flash-On mode within the flash-effective range.

In dimly lit conditions (Slow-Speed Sync)

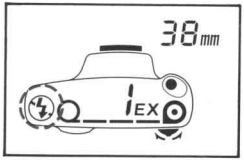
It's possible to expose both subject and background in a well-balanced way at shutter speeds down to approx. 1/3 sec. Since the shutter speed becomes slow, use a tripod to avoid camera shake. When shooting a moving subject indoors or in dimly lit conditions, switch to the Auto mode to avoid blurring of the subject.

Note:

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

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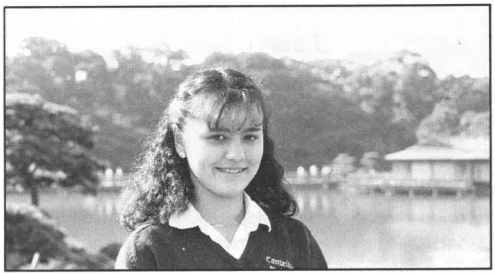


In this mode, the flash does not fire, and a picture is taken at shutter speeds down to approx. 1/3 sec. Use this in situations where flash photography is prohibited, such as in theaters, museums, etc., or when you want to capture the natural-looking ambience of softer light.

Notes:

- When shooting in darkness, the flash emission mark (\\\\//) warns against underexposure. Press the shutter release button halfway; the flash emission mark (\\\\//) on the LCD panel flickers to recommend use of the flash.
- When shooting in dimly lit places, the shutter speed gets slower, and camera shake is more likely to blur your shot, so use a tripod.

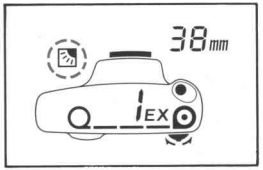
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With Backlight Compensation



Without Backlight Compensation



Portraits with a window, blue sky, or other bright background often are underexposed because of the effect of background illumination. In such cases, Backlight Compensation exposes the subject to better effect, achieving a better balance of light between the subject and the rest of the picture. Use this mode when flash does not reach the subject in daylight sync photography with the Flash-On mode.

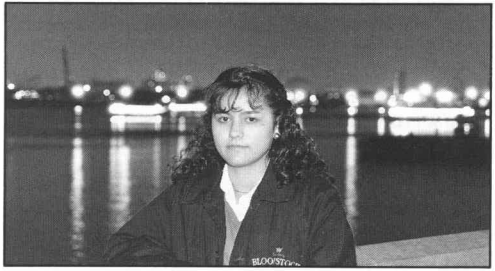
Notes:

- When using Backlight Compensation in a dimly lit place, the shutter speed will be slow. Use a tripod to prevent camera shake.
- When shooting in darkness, a photograph may be underexposed. In such cases, press the shutter release button halfway; the flash emission mark ( ) on the LCD panel flickers to recommend use of flash.

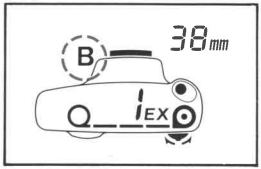
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Bulb mode, approx. 5 sec. (ISO 100)

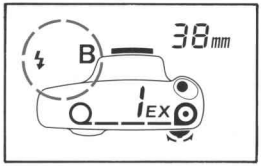


Bulb-Sync mode, approx. 7 sec. (ISO 100)



Bulb mode (B)

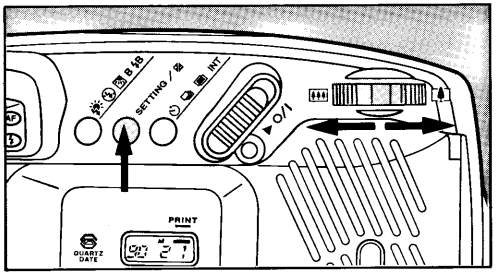
This mode is useful for long exposures required for shooting such things as fireworks and night scenes. The shutter remains open for as long as the shutter release button is held down (within the range of 0.5 sec. ~ 60 min.). When using this mode, you should avoid camera shake by using a tripod and optional cable switch F.

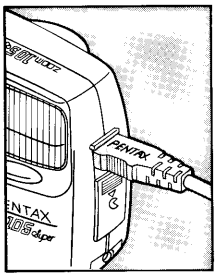


Bulb-Sync mode (ϟB)

This lets you use the flash in combination with the Bulb mode. It is useful for taking a well-lit portrait with a night scene in the background, for example.

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Cable switch F (optional)

Use this to prevent camera shake when shooting with the shutter open for extended times. Insert the switch into the release socket as shown. Also refer to the cable switch instructions.

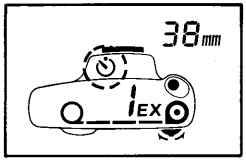
Bulb-Timer mode

In the Bulb or Bulb-Sync mode, a shutter speed between 1 and 60 sec. can be set. Press the zooming lever to the left (▲▲▲) or right (▲) while keeping the SETTING button depressed to set.

Notes:

- When shooting in the Bulb or Bulb-Sync mode, the shutter will stay open for a maximum of 60 minutes.
- Take 2 or 3 different exposures (for example, 1, 2, and 3 sec.), referring to the data in the example photos and the data accompanying the film.
- After the Bulb-Timer mode has been activated, it can be stopped at any time by sliding the power switch upward.
- "0″" displayed on the LCD panel in the Bulb-Timer mode means the camera is in the Bulb mode.
- The aperture is fully open in this mode.

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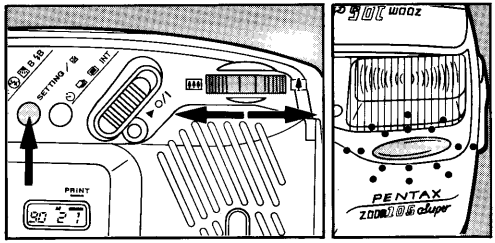


Use the self-timer when you wish to get yourself into the picture. The number of frames to be automatically shot can be set from 1 frame to 5 frames. Use of a tripod is recommended.

Notes:

- To cancel the Self-Timer Shooting mode at any time after it has been activated, slide the power switch upward.
- When using the flash, the charging time will be added to the normal interval between successive shots.
- Exposure is adjusted frame-by-frame, but focus remains fixed at the first shot.
- For a setting of 2 shots, the second follows the first by 5 sec. For a setting of 3, 4, or 5 shots, each shot follows the preceding one by 2 sec.

1 2

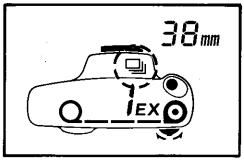


Shooting procedure:

1. While pressing the black SETTING button, move the zooming lever to set on the LCD panel the desired number of frames (from 1 to 5) to be shot.
2. Focus on a subject where the subject will appear, then depress the shutter release button. The shutter will be released in about 10 seconds. The self-timer lamp on the front of the camera starts flickering 3 seconds before the shutter is released.

CONSECUTIVE SHOOTING

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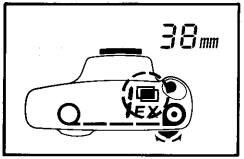
While the shutter release button is held down, a frame is shot every 1.3 sec. The camera focuses on the subject frame-by-frame during this operation, so the autofocus frame ( ) should be kept on the subject during shooting.

Note:

- When using the flash, shooting intervals become longer due to the flash recharging.

MULTI-EXPOSURE SHOOTING





This mode allows the photographer to expose multiple images on the same frame in a variety of imaginative ways.

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Shooting procedure (for double exposure)

1. Press the blue drive button, so the multi-exposure mark (▣) appears on the LCD panel.
2. Press the shutter release button to shoot an initial exposure. The film will not advance. The film advance mark (Q___) flickers on the LCD panel to indicate that Multi-Exposure Shooting is in progress.
3. Recompose the frame, and press the shutter release button to shoot the second exposure. (After the second shot, the film will automatically advance, and Single-Frame Shooting mode will be restored).

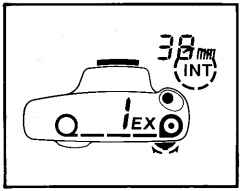
To expose more than twice:

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

Notes:

- Too many multiple exposures on a frame tend to overexpose it, so it is recommended that you expose a frame just twice.
- When using Multi-Exposure, you can usually obtain best results with dark backgrounds, such as those in night scenes.
- During the process described in step 3 above, the date will be imprinted on the frame. If you have the date model, set to the imprinting mode.

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For automatic shooting in this mode, set the time to elapse until shooting starts, the timed interval between shots, and the number of pictures to be taken.

Time settings:

" 10s " — 10 seconds
" 60m " — 60 minutes
" 12 h " — 12 hours

Adjustable time to elapse before shooting starts:

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, and 50 minutes; 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 12 hours. (At a setting of 0 min., shots will be taken beginning 3 sec. after the shutter is released).

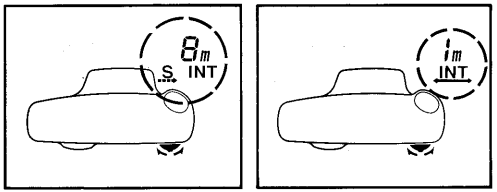
Adjustable shooting intervals:

10, 20, 30, 40, and 50 sec; 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 20, 30, 40, and 50 minutes; 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12 and 24 hours.

Number of photos to be taken:

0 to 36 frames. When the indication is at 0 frame, shooting continues to the end of the film.

1 2



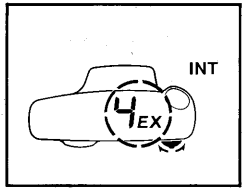
Method for setting interval shooting adjustments:

1 To set the time to elapse before shooting starts, push the zooming lever to the left (♦♦♦) or right (♦) while depressing the black SETTING button until the desired time appears on the LCD panel.

2 To set the shooting interval, push the zooming lever to the left (♦♦♦) or right (♦) while depressing the black SETTING button again until the desired time appears on the LCD panel.

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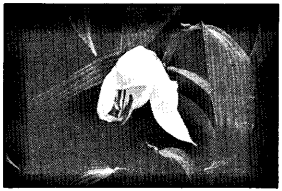
3

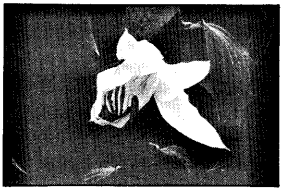


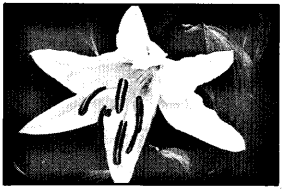
3 To set the number of photos to be taken, push the zooming lever to the left (♦♦♦) or right (♦) while depressing the black SETTING button once again. (If 0 is selected, shooting continues to the end of the film.) Release the button. Interval shooting adjustments will be complete.

Note:

- Every time the black SETTING button is pressed, the numeric indication on the LCD panel switches in the following order: The time to elapse before shooting starts, the shooting interval, and the number of photos to be taken.







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Starting interval shooting

After the shutter release button is pressed, interval shooting starts. Focusing is fixed at the first exposure. The self-timer lamp flashes 3 sec. before the shutter is released. The interval mark (**INT**) on the LCD panel flickers while this mode is in operation.

Notes:

- Use a tripod for interval shooting.
- The green (**AF**) and red (ϟ) lamps to the side of the viewfinder will light up momentarily only when interval shooting is to begin.
- To cancel this mode, slide the power switch upward.
- The minimum shooting interval time varies according to the Exposure mode to be used as follows;
  (A)Auto or Flash ON: 20sec.
  (B)Flash OFF or Backlight compensation: 10sec.
  (C)Bulb: Shutter speed + 8sec.
  (D)Bulb-Sync: Shutter speed + 15sec.
- When combining these modes with Bulb or Bulb-Sync, press the black SETTING button to set the Bulb Timer. To set the interval time, press the black SETTING button again.
- If you run out of film before the preset number of exposures have been taken, interval shooting will end; the film will automatically rewind.
- Once all interval shooting adjustments have been set, they will be held in memory until the film is replaced. To start interval shooting anew, set each setting again.
- When replacement film is loaded in the camera, interval shooting reverts to the following default values: Time elapsed before shooting starts — 0 min (actually approx. 3 sec.); shooting interval — 1 min.; number of pictures — 0 (shoots to the end of the film).
- If film is not loaded while the interval shooting mark is activated, and the number of exposures is set to 0, the camera goes through the motions of taking five shots before stopping if the shutter release button is pressed.

COMBINATION CHART OF EXPOSURE AND SHOOTING SYSTEMS

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SHOOTING SYSTEM	EXPOSURE SYSTEM (Auto)				B	ϟB
(Single-Frame)	◎	○	○	○	○	○
⏲	○	○	○	○	△	△
▣	○	○	○	○	□	□
▣	○	○	○	○	○	○
INT	○	○	○	○	△	△

◎ : Ordinary.

○ : Combination possible. As shown in the table above, exposure and shooting settings can be used in various combinations.

△ : Combination possible. The shutter is released at a shutter speed of approx. 0.5 sec. when the Bulb-Timer is not used (at " 0^{s} " setting).

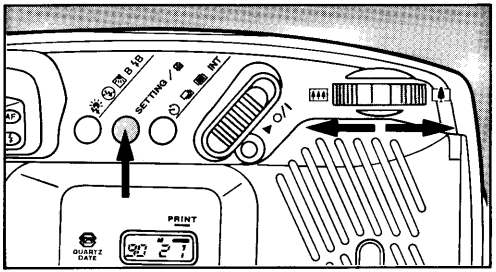
□ : Combination possible, when the Bulb-Timer is used.

Note:

- When the power is switched off automatically, the focal length and the combination of exposure and shooting systems is held in memory for approx. 30 minutes. So if the power is switched back on within 30 minutes, the combination active right before the power was switched off will be restored automatically.

EXPOSURE COMPENSATION

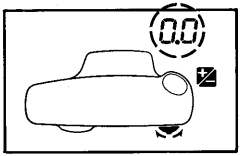
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Exposure compensation is an adjustment to brighten or darken the whole picture when shot in high-contrast lighting conditions. Use the " " position for situations with bright backgrounds, or the " " position for situations where the central subject is too brightly lit from the front. This compensation can be used in combination with various exposure settings.

Notes:

- Exposure compensation does not work in the Bulb, Bulb-Sync or Bulb-Timer mode.
- To confirm the compensation value, depress the black SETTING button for approx. 3 seconds.



Setting exposure compensation:

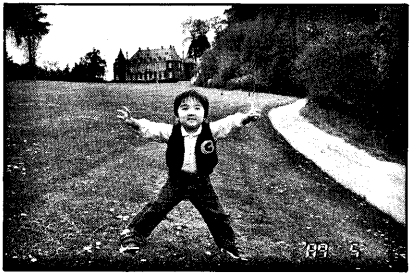
To set the compensation value, do so in the Auto/Single-Frame Shooting, mode. If the black SETTING button is depressed for approx. 3 sec. or more, the exposure compensation mark ( ) will be indicated. Exposure compensation is possible in the range from +3EV to −3EV in gradations of 0.5EV. While the black SETTING button is depressed, move the zooming lever left ( ) or right ( ) to obtain the desired compensation value.
The exposure compensation mark, either " " or " " appears on the LCD panel, indicating that exposure compensation is activated.

- Once exposure compensation is set, the compensated value will be held in memory until the film is replaced. To cancel exposure correction, reset the corrected value to ±0.

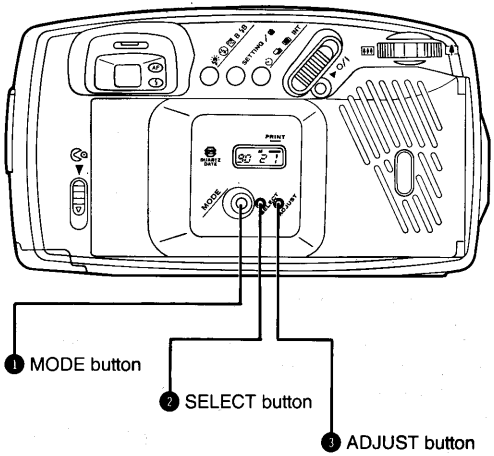
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DATE MODEL

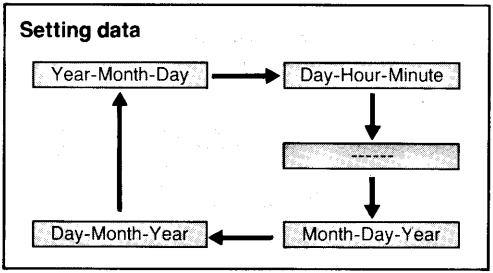
If you purchased the DATE model, read this section.
The DATE model records dates up to the year 2019 on pictures.



The date in the picture above is simulated.



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Switching the mode

Each time you press the MODE button ❶ with your fingernail, the data mode on the date indicator switches in succession as shown in the chart. Stop pressing the button when the desired data mode appears on the date indicator.

"------" indicates no data will be imprinted.

Notes:

- "M" on the date indicator indicates "Month".
- Use the strap tool's pin-shaped protrusion (⊙◀◀) (see page 3) to press the SELECT ❷ and ADJUST ❸ buttons.

Correcting the data

1. Each time you press the SELECT button ❷, a different category of digits on the date indicator flickers. Press the SELECT button ❷ until you reach the flickering digit(s) which you wish to change. The digit(s) will cycle in the following order as you press the SELECT button ❷.

   Date: Year → Month → Day
   Time: Hour → Minute → " : " (Second)

2. Press the ADJUST button ❸ to change digits within the specified category chosen. Digits increase by one each time you press the ADJUST button ❸. If you hold down the button, the digit will advance continuously after two or three seconds.
3. After the adjustment is made, press the SELECT button ❷. The bar mark (▬) appears on the date indicator, indicating that data imprinting choices are possible.

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Notes:

- When the flickering data on the date indicator is being corrected, it cannot be imprinted even if the shutter is released.
- Date and time are indicated as follows:

  Year = 87 ~ 19 (1987 ~ 2019)
  Month = 1 ~ 12
  Day = 1 ~ 31
  Hour = 0 ~ 23
  Minute = 00 ~ 59

- The flickering " : " allows precise fine-tuning of the internal clock to the beginning of a specified minute. To do so, press the ADJUST button ❸ while " : " is flickering, then release it in sync with a time-signal.

Date imprinting:

The (Year-Month-Day) or (Day-Hour-Minute) data is recorded on film as in the picture on the right. The data on the date indicator is imprinted on each frame you expose.

Notes:

- If the corner of the picture has a white or yellow object, the imprinted 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 date indicator flickers for a few seconds, indicating the data has been imprinted.

Power source of the data-imprinting section

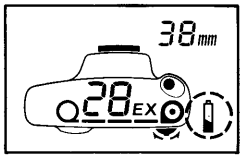
The data imprinting section is powered by the same batteries as the camera's main unit. When the batteries are replaced, the date and time may change. So, after replacing the batteries, make sure to confirm the date and time before use.

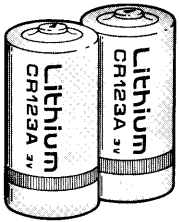
- Refer to page 38 for data correction.

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MAINTENANCE CONSIDERATIONS

Read this section to keep this camera working as weil as possible at all times.





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.

BATTERY EXHAUSTION WARNING

Precautions on batteries

- Battery performance may temporarily decrease in low temperatures, but it will recover in normal temperature.
- Keep spare batteries on hand for convenience when shooting outdoors or traveling.
- When the camera is in a bag, make sure the power switch is off. Otherwise, battery power may be wasted with the accidental push of the shutter release button.
- When the batteries are incorrectly installed, " E " will flicker on the LCD panel as a warning. Insert the batteries correctly.

Battery life (using 24-exposure film rolls):

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

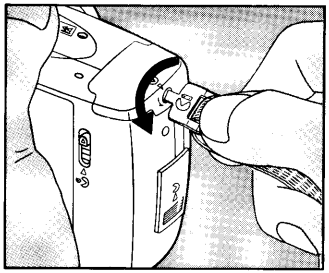
(The CR-123A batteries were used based on our own test conditions. Actual result may vary.)

REPLACING BATTERIES

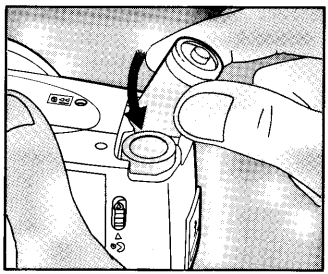
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Use two CR-123A or DL-123A 3 V lithium batteries.

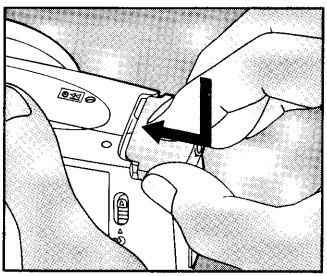
1



2



3



1 Using the screwdriver on the strap's tool, rotate the screw 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 screw clockwise to fasten it securely. (When the battery chamber cover is reinstalled, the zoom lens and motor operate for a few moments.)

Notes on replacing the batteries:

- Make sure there is no film loaded.
  If the batteries are replaced with film already loaded, the camera behaves as if just loaded. Film advances several frames, and the film counter will read " 1 ".
- Sometimes when the loaded film is at its end, no indication will appear on the exposure counter of the LCD panel, because the camera is unable to detect the film. In such cases, press the auxiliary rewind button before removing the film.

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TROUBLESHOOTING

For details, refer to respective pages.

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

1. The shutter cannot be released.

- Is the power switch turned off? If so, turn it on. (See page 4.)
- Are the batteries exhausted or are they loaded? Replace them or insert new batteries. (See page 41.)
- Is your subject out of the focusing range? Shoot in the range of 1.35 meters (4.4 ft) to ∞ (infinity) for ordinary photography. (See page 14.)
- Are you pressing the zooming lever? If so, release your fingers from the zooming lever, then shoot. (See page 6.)
- Is rewound film left inside? If so, replace it with a new roll. (See pages 18 and 8 ~ 10.)
- Is the camera set to the Interval Shooting mode? Cancel the Interval Shooting mode.

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

- Did you position the autofocus frame ( ) on your subject? (See page 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.)
- Are you shooting in a dark place using the Flash-On mode? As the shutter release speed is slow, you should avoid camera shake or subject movement. If slow-speed synchro is not necessary, shoot in the Auto mode. The flash fires at higher shutter speeds. (See pages 13 and 24.)

3. Zoom lens does not move.

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

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4. The zoom lens is restored automatically.

- Did you leave the camera with the power switch on and not operate it for over three minutes? If so, the camera switches off the power automatically and stores the lens in the lens cover to protect it. (See page 4.)

5. When the power is switched on, the zoom lens automatically extends itself.

- The camera holds in memory for approx. 30 minutes the settings before the power was automatically switched off. Therefore, switching the power back on within 30 minutes restores the previous shooting state automatically.

6. The flash emission mark (⚡) is flickering on the LCD panel.

- Did you just use the Flash-Off or the Backlight Compensation modes in a dark place? This is a warning against underexposure. You cannot take a well-lit picture while this mark is flickering. (See pages 25 and 26.)

- The correct camera-to-subject distances when flash shooting is employed using films other than ISO 100, 200 or 400 are indicated in the table below.

Lens ISO	25	50	1000	1600	3200
38mm (🚶🚶🚶)	–	1.35 ~ 3.5m	1.35* ~ 15m	2* ~ 20m	3* ~ 22m
105mm (🚶)	–	1.35 ~ 2.1m	1.35 ~ 9.4m	1.35 ~ 12m	1.35* ~ 17m
Macro (🌷)	0.75 ~ 1.35m	0.75 ~ 1.35m	–	–	–
Super Macro (0.45 m 🌷)	–	–	–	–	–

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

—: Correct exposure cannot occur.

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Type:

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

Film:

35 mm perforated DX-coded film with ISO rating from 25 to 3200 (EV1 step).
24 x 36 mm format.

Film loading:

Auto film loading. Closing rear lid will automatically wind film to first exposure.

Film movement:

Auto winding: single-frame advance mode;
Consecutive Shooting mode (1.3 sec. interval between shots).
Auto rewinding starts at end of roll. Auto stop upon completion of rewinding.
With auxiliary rewind button, film roll can also be rewound in mid roll.

Frame number:

Automatic readout of successive frame numbers in ascending order when shooting, and descending order when rewinding.

Lens:

Pentax 38 to 105 mm, f/4 to f/7.8, power zoom lens (with Macro), 11 elements in 9 groups, angle 59° to 23.5°.

Focusing system:

Infrared active autofocusing with focus-lock.
Range: 1.35 m (4.4 ft) ~ ∞ (infinity); 0.75 m (2.5 ft) ~ 1.35 m (4.4 ft) in Macro; 0.45 m (1.5 ft) fixed in Super Macro.

Zooming:

2 modes: Continuous Zoom and Step Zoom

Shutter:

Programmed AE electronic shutter; approx. 1/250 to 1/3 sec.; Bulb (1/2 sec. to 60 min.); Bulb-Timer (1 to 60 sec.); electromagnetic release.

Self-timer:

Electronic red lamp indication. Approx. 10-sec. delay. Cancellation after activation is possible. Multi-frame self-timer can take up to 5 frames.

Viewfinder:

Actual image zoom viewfinder. 87% field-of-view ratio. Magnification 0.45X (38 mm position), 1.16X (105 mm position, 1.09X (Macro), 0.97X (Super Macro).

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Exposure:

Programmed auto-exposure, range (ISO100) in Auto mode: EV9 ~ EV16.5 (38 mm), EV11.5 ~ EV16.5 (105 mm and Macro). Flash On and Flash Off: EV6 ~ 16.5 (38 mm), EV8 ~ 16.5 (105 mm and Macro)

Exposure compensation: ±3EV (0.5EV steps)

Backlight compensation: +1.5EV compensation

Multi-exposure: Possible

Flash:

Built-in zoom flash. Automatic low-luminance firing in Auto mode.

Charging time — Approx. 3 sec. (using fresh lithium batteries at normal temperature).

Interval shooting:

Electronically controlled, started by pressing shutter release button.

Power source:

Two 3V lithium batteries (equivalent to CR123A).

Size and weight:

143.5 (W) x 82.5 (H) x 66.5 (D) mm (5.6" x 3.2" x 2.6"); 470 g (16.6 oz.) without batteries

Accessory: Strap

DATE model

Data mechanism:

Crystal quartz controlled; LCD with digital clock.

Imprinting mode:

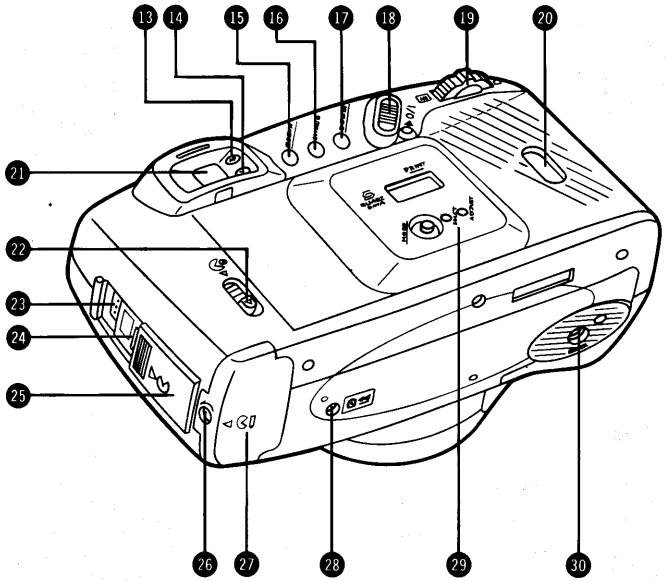
"Year, Month and Day", "Day, Hour and Minute" or blank.

Size & weight:

143.5 (W) x 82.5 (H) x 68.5 (D) mm (5.6" x 3.2" x 2.7"); 480 g (16.9 oz.) without batteries.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT ANY OBLIGATION ON THE PART OF THE MANUFACTURER.

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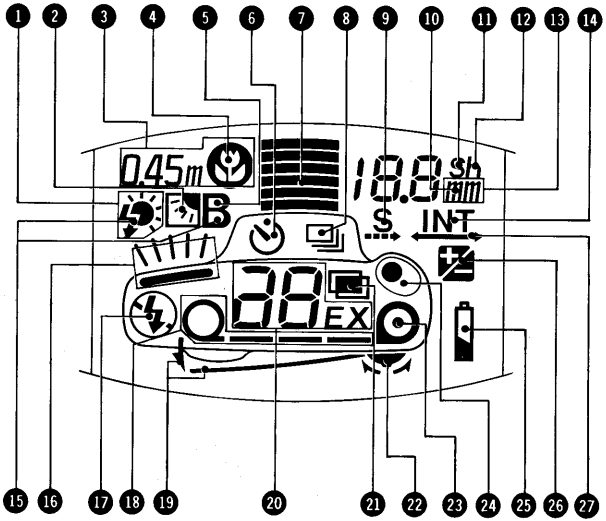


13 AF (green) lamp
14 Flash (red) lamp
15 Mode (yellow) button
16 SETTING (black) button
17 Drive (blue) button
18 Power switch (timer reset)
19 Zooming lever
20 Film information window
21 Viewfinder eyepiece
22 Back cover release lever
23 Release socket
24 Super Macro button
25 Sliding cover
26 Battery chamber cover fixing screw
27 Battery chamber cover
28 Auxiliary rewind button
29 Back cover
30 Tripod socket

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LCD PANEL

All indications will not actually appear simultaneously as shown.



1. Flash-On mode
2. Backlight Compensation mode
3. Super Macro mode
4. Macro mode
5. Bulb mode
6. Self-Timer Shooting mode
7. Zoom lens
8. Consecutive Shooting mode
9. Interval Shooting starting time setting
10. Minute
11. Second
12. Hour
13. Millimeter (focal length)
14. Interval Shooting mode
15. Bulb-Sync mode
16. Flash emission
17. Flash-Off mode
18. Frame advanced
19. Back cover open
20. Exposure counter
21. Multi-Exposure Shooting mode
22. Zooming lever
23. Film cartridge
24. Shutter release button
25. Battery exhaustion warning
26. Exposure Compensation mode
27. Interval Shooting time setting

Notes:

- At a high temperature of approx. 60°C, the LCD panel may blacken. It returns to normal when normal temperature is restored.
- At lower temperatures, the response speed of the LCD panel may be slower.
  This is an LCD characteristic, not a defect.