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PENTAX®

ZX-10

OPERATING MANUAL



Congratulations on your purchase of this camera and welcome to the exciting world of Pentax autofocus photography! This compact and light weight camera is an autofocus SLR camera that offers higher levels of sophistication and performance. Incorporating a broad range of advanced technologies and highly accurate automation, this camera will perform superbly for the most exacting photographer.

The major features of this camera are:

- Multi (3-point) autofocus system
- Smart picture mode
- Automatic on/off flash function with the built-in flash popped up







The camera explaining in this operating manual features the panorama function and data function.

Read this instruction manual carefully to get a full explanation of operations before use.



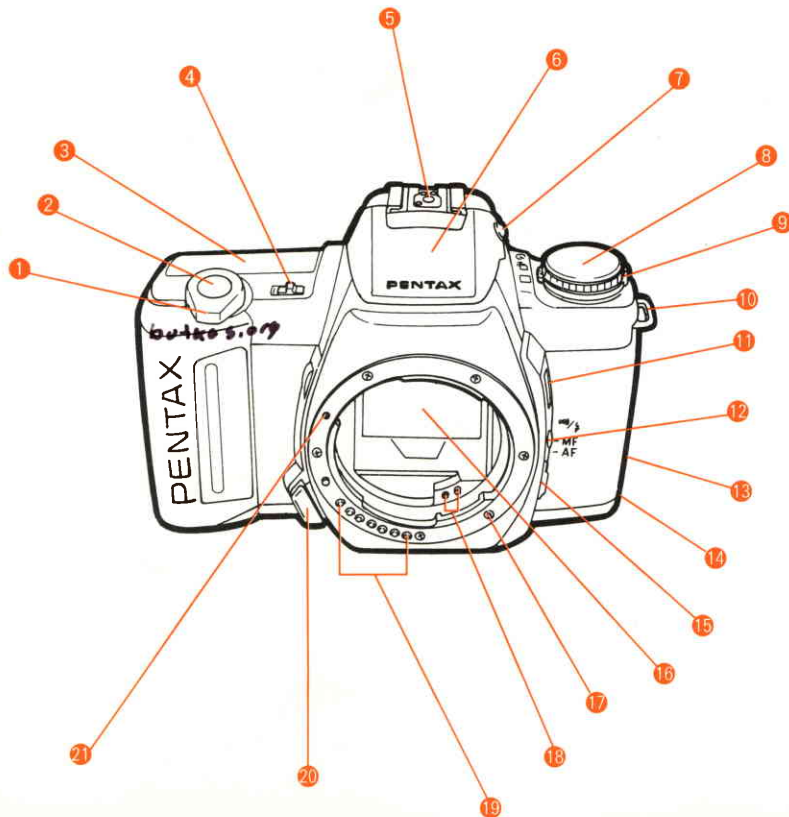
The names of the camera's working parts are listed on the front and back flaps in this operating manual. Keep the flaps unfolded for quick reference while reading this manual.

Icon indicators used in this manual

Operation direction	
Automatic operation	
Attention	
Lamp blinking	
Correct	
Incorrect	

Lenses and accessories produced by other manufacturers are not made to our precise specifications and therefore may cause difficulties with, or actual damage to, your Pentax camera. We do not assume any responsibility or liability for difficulties resulting from the use of lenses and accessories made by other manufacturers.

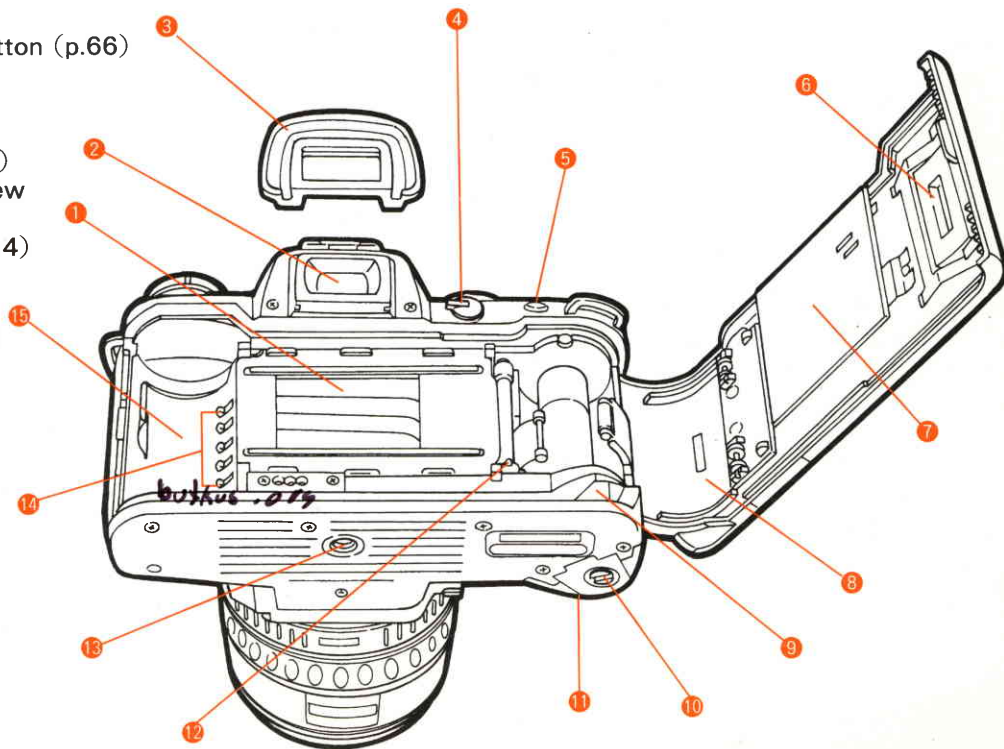
NAMES OF WORKING PARTS I



- 1 Select switch
- 2 Shutter release button
- 3 LCD panel (p.6)
- 4 Main switch (p.20)
- 5 Hot shoe (p.75)
- 6 Built-in flash (p.37)
- 7 Flash pop-up button (p.37)
- 8 Mode dial
- 9 Drive mode switch (p.44)
- 10 Strap lug (p.13)
- 11 Release socket (p.65)
- 12 Multi-function button (p.40,42,67)
- 13 Back cover release lever (p.22)
- 14 Mid-roll rewind button (p.26)
- 15 Focus mode switch (p.34,46)
- 16 Mirror
- 17 AF coupler
- 18 Power supply contacts
- 19 Lens information contacts
- 20 Lens lock button (p.19)
- 21 Lens mount index (p.18)

NAMES OF WORKING PARTS II

- 1 Shutter curtain
- 2 Viewfinder eyepiece
- 3 Eyecup FH (p.45)
- 4 Panorama lever (p.50)
- 5 Exposure compensation button (p.66)
- 6 Film information window
- 7 Pressure plate
- 8 Back cover
- 9 Film leader end mark (p.23)
- 10 Battery chamber cover screw (p.14)
- 11 Battery chamber cover (p.14)
- 12 Sprocket (p.23)
- 13 Tripod socket
- 14 DX-information pins (p.23)
- 15 Film chamber



FOR SAFE USE OF YOUR CAMERA

Although we have carefully designed this camera for safe operation, please be sure to follow precautions given on 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 electronic 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 an electric shock.
- Wrapping the strap around your neck is dangerous. Make sure that small children do not get the strap caught around their neck.
- Do not look directly at the sun through the camera, as viewing the sun for may damage your eyes, and/or parts of the camera.
- Be sure to store batteries 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 batteries from the camera immediately if they become hot or begin to smoke. Be careful not burn yourself during removal.

Your Pentax camera is a high-precision mechanism. Handle it with great care.

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 solid objects. If the camera suffers a 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 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 sub-freezing 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 the humidity and temperature are very high, such as in a car.
- Do not store the camera in a closet with mothballs or in an area where chemicals are handled. Store it in a place with good dry air circulation to prevent the growth of fungus.

Precautions for proper care

- Never touch the shutter curtain or mirror with your finger or any other object.
- Use a blower and lens brush to remove dust accumulated on the lens or viewfinder.
- Never use solvents such as paint thinner, alcohol or benzene to clean the camera.
- Electrical problems may often be caused by water, dirt or dust at points of electrical contact. Also check for battery leakage, traces of dirt or grease, or corrosion due to salinity or gas. If you cannot correct the problems, have your camera inspected at a Pentax service center. Repairs of this nature are not covered under the terms of the warranty and charges may be assessed.

Other precautions

- The temperature range at which this camera functions properly is 50°C to -10°C (122°F to 14°F).
- A camera which has been submerged in water usually cannot be repaired. If such an accident should occur, it is advisable to contact a Pentax Service Center immediately.
- 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.
- Repairs deemed necessary due to usage of this product in an industrial or commercial application may not be covered under the terms of the Pentax warranty.
- The PENTAX warranty provides only for the repair of defects in materials or workmanship. Damage of any kind cannot be repaired at no charge under the terms of the warranty. If the difficulty is caused as a direct result of the product being used in conditions as outlined in the "Precautions for Your Camera" section or any other operation contrary to the instructions outlined in this manual, charges will be assessed and a repair quotation will be provided.

PRECAUTIONS FOR BATTERY

- Use two 3V lithium batteries (CR2 type).
- Misuse of the battery can cause hazards such as leakage, overheating, explosion, etc. The battery should be inserted with the "+" and "-" sides facing correctly.
- 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.
- If the built-in flash is used continuously, the battery may become warm, but it does not mean that the battery is faulty; it is one of the battery's characteristics.
- Replace the batteries at the same time. Do not mix battery brands, type or an old battery with a new one. It may cause explosion or overheating.



Focusing

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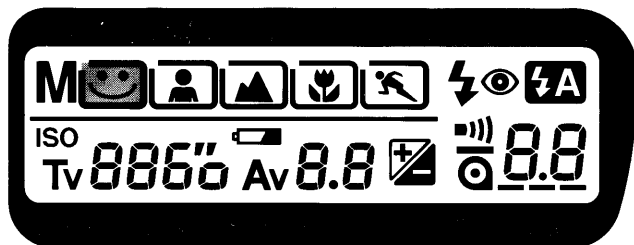
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LCD PANEL INDICATION



All indications will not actually appear simultaneously as shown.

M : Metered Manual Mode (p.62)

: Green Operation Mode (p.53)

: Portrait Program Mode (p.54)

: Landscape Program Mode (p.55)

: Close-up Program Mode (p.56)

: Action Program Mode (p.57)

: Flash information (p.37,39)

: Red-eye reduction flash indication (p.40)

: Automatic flash function information (p.42)

ISO : Manual-set film speed (p.71)

Tv 886 : Shutter speed

: Battery exhaustion warning (p.17)

Av 8.8 : Aperture value

: Exposure compensation (p.66)

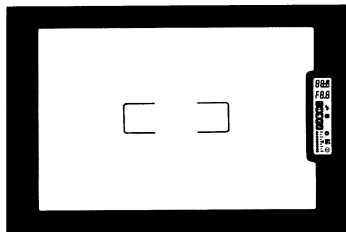
: Audible PCV signal (p.67)













: Film status information (p.24,25)

8.8 : Exposure counter (p.24) and Exposure compensation value (p.66)

LCD (Liquid-Crystal Display)

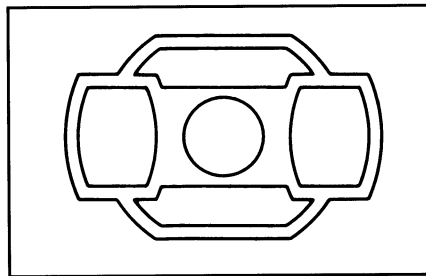
When the LCD is exposed to high temperatures over approximately 60°C, it may blacken, but when the temperature normalizes, it should return to normal.



-  : 3-point AF frame (p.35)
-  : Shutter speed
-  : Aperture value
-  : Green Operation Mode (p.53)
-  : Portrait Operation Mode (p.54)
-  : Landscape Program Mode (p.55)
-  : Close-up Program Mode (p.56)
-  : Action Program Mode (p.57)
-  : Flash status information (p.37,39)
-  : In-Focus indicator (p.35)
-  : Exposure compensation (p.66)
-  : Bar graph (p.62,66)

MULTI (6)-SEGMENT METERING

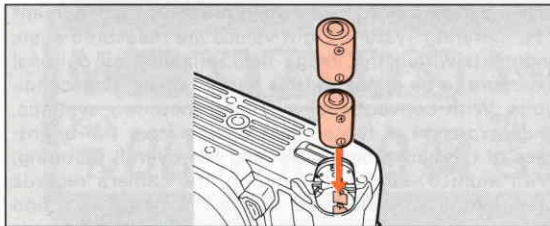
This camera incorporates high-precision six-segment TTL metering system. Light values are measured in six segments within the image field, enabling an optional exposure to be made under a variety of lighting conditions. With conventional averaged metering systems, underexposure of the subject results from the brightness of the background affecting the overall metering. With multi(6)-segment metering, the camera records the brightness in six zones within the image field and will properly expose the subject. The multi (6)-segment metering system also calculates exposure values for a scene to automatically compensate for high-contrast and other difficult lighting conditions. Even a beginner can achieve results with ease.



- When the format is switched to panorama, the viewfinder switches to the horizontal panorama format frame. For details on panorama format picture taking,

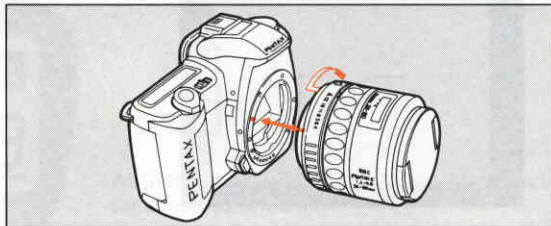
EASY TO USE (For beginners)

1. Loading the batteries



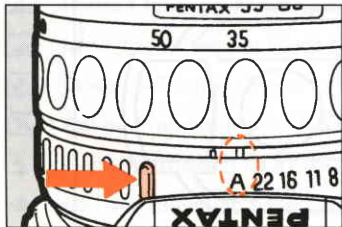
Open the battery chamber cover by using a coin. Load two batteries (**CR2** type) according to the markings (+, -) on the battery chamber cover. (See page 14.)

2. Attaching the lens



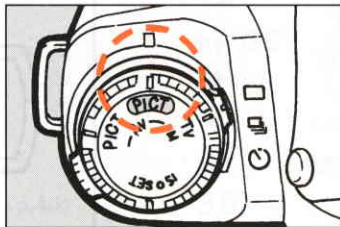
Align the red indexes on the lens and camera. Turn the lens to the right until it seats with a click. (See page 18.)

3. Positioning the aperture ring



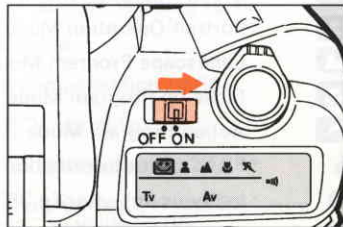
While holding down the aperture-A-lock button, turn the lens aperture ring to the [**A**] position. (See page 27.)

4. Setting the mode dial



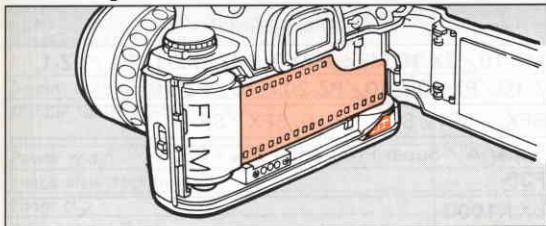
Set the mode dial to [**PICT**]. (See page 28.). The Smart Picture Mode will be set.

5. Turning on the power



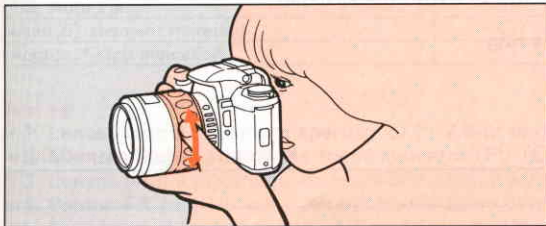
Slide the main switch to [**ON**]. (See page 20.)

6. Loading film



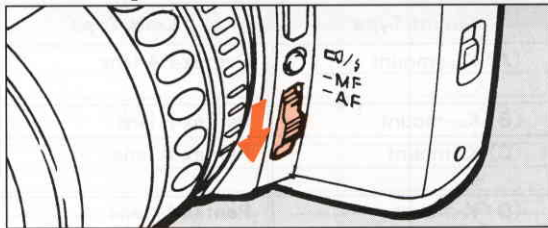
Open the back cover, insert a roll of film, align the end of the film leader with the red mark, and close the back cover. The film should advance to the first frame automatically. (See page 22.)

8. Composing the scene with the zoom ring



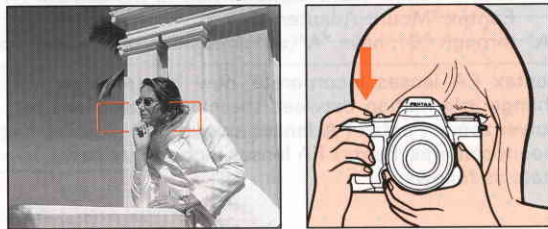
While looking through the viewfinder, turn the zoom ring to the right or left until you obtain the desired composition. (See page 30.)

7. Selecting the Autofocus Mode



Set the focus mode switch to [AF]. (See page 34.)

9. Focus on the subject and shoot



Focus [☐] on the subject. Depress the shutter release button fully to take a photo. (See page 35.)

CAMERAS AND LENS MOUNTS

Lens Mount and Camera Body Compatibility Chart

Mount Type	Lens Type	Camera Model
(A) K_{AF2} -mount	Pentax-FA lens	MZ-10/ZX-10, MZ-5/ZX-5, Z-1 _P /PZ-1 _P , Z-1/PZ-1, Z-10/PZ-10, Z-20/PZ-20, Z-70/PZ-70
(B) K_{AF} -mount	Pentax-F lens	SFX _N /SF1 _N , SF7/SF10, SFX/SF-1
(C) K_A mount	Pentax-A lens	Super-A/Super Program, P30 _N /P3 _N , P30 _T
(D) K-mount	Pentax-M lens and Pentax lens	LX, K1000
(E) Screw mount	SMC TAKUMAR lens	ESII, SP

(A) through (D): basic K-mount (bayonet) lenses.

(A) and (B): autofocus lenses.

(C) through (E): non-AF (manual-focus) lenses.

(E): A screw mount lens can be fitted to the camera (A) through (D) with the optional Pentax "Mount Adapter K".

(A) through (C): have "A"(auto) position on the lens aperture ring.

Pentax FA lenses incorporate new contacts to exchange information between the camera and lens for power zoom. Pentax FA lenses operate on existing K-mount cameras. Pentax FA lenses incorporate new contacts as follows:

- Power supply contacts
- AF coupler
- Lens-information contacts

K-Mount Lens Compatibility

K_{AF2} -mount lens <ul style="list-style-type: none"> • Power supply contacts • AF coupler • Lens information contacts 	K_{AF} -mount lens <ul style="list-style-type: none"> • AF coupler • Lens-information contacts 	K_A -mount lens <ul style="list-style-type: none"> • Lens-information contacts 	K-mount lens
--	--	---	--------------

Function	Lens [Mount type]	FA lens [K _{AF2}]	F lens [K _{AF}]	A lens [K _A]	M lens [K]	S lens [Screw]
Autofocus (Lens only)		○	○	×	×	×
(Lens with AF Adapter 1.7X)		-	-	○ * 1	○ * 1	×
3-point autofocus		○	○	×	×	×
Manual focus (with FI) * 2		○ * 3	○ * 3	○ * 3	○ * 3	×
(with Matte field)		○	○	○	○	○
Power zoom		○ * 4	×	×	×	×
Image size tracking		×	×	×	×	×
Zoom clip		×	×	×	×	×
Auto zoom effect		×	×	×	×	×
Picture Mode		○ * 5	○ * 5	○	×	×
Smart Picture Mode		○	○	×	×	×
Aperture-Priority AE		○	○	○	○	○
Shutter-Priority AE		○ * 5	○ * 5	○	×	×
Manual Exposure		○	○	○	○	○
Programmed TTL Auto Flash		○	○	○	×	×
TTL Auto Flash		○	○	○	○	○
Multi(6)-segment metering		○	○	○	×	×
Approx. f-stop indication		○	○	×	×	×

Notes:

- * 1. Lenses with a maximum aperture of f/2.8 or larger. (See AF Adapter operating manual.)
- * 2. Manual focusing using the focus indicator (FI) (◇) in the viewfinder.
- * 3. Lenses with a maximum aperture of f/5.6 or larger.
- * 4. Pentax-FA zoom lenses with the power zoom contacts only
- * 5. Exception of Pentax-F and FA Soft 85mm/f2.8.
- * 6. Green Operation Mode only
- * 7. The center-weighted metering

HOW TO USE THIS OPERATING MANUAL

This manual is organized into the following sections, allowing you to optimize the use of the camera:




I. BASIC OPERATION

(PREPARATION) Page 13 - 26



III. ADVANCED OPERATIONS

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II. BASIC OPERATION

(SHOOTING) Page 27 - 42



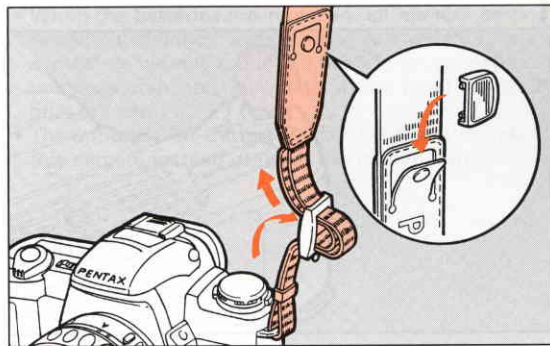
IV. OTHER INFORMATION

Page 88 - 96

- If you want to begin taking pictures with this new camera as soon as possible, read section I and II, **"BASIC OPERATION (PREPARATION)"** and **"BASIC OPERATION (SHOOTING)."**

These sections introduce only the basic functions of this camera. More detailed information can be found in section III and section IV.

I . BASIC OPERATION (PREPARATION)

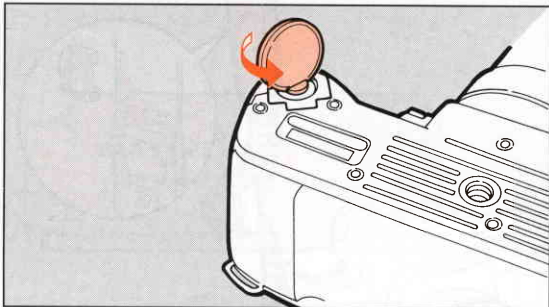


Fit the strap on the camera as illustrated.

- There is a pocket on the strap so you can store the finder cap, release socket cover, hot shoe cover or any other small accessory as illustrated.

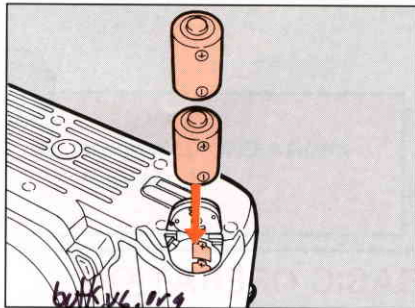
(2) LOADING THE BATTERIES

1



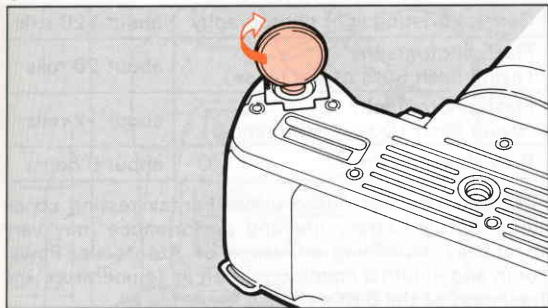
1. Open the battery chamber cover by using a coin, etc. as shown in the illustration.

2



2. Load two 3V lithium batteries (CR2) or equivalent as shown in the illustration.

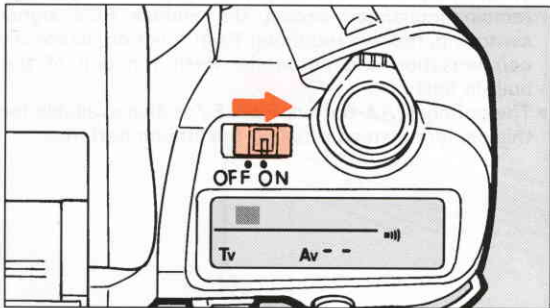
3



3. Turn the battery chamber cover screw in the direction of the arrow to lock it securely.

- When the batteries are replaced, all camera settings remain unchanged except the audible PCV signal switching, red-eye reduction flash function, exposure compensation and automatic flash function of the built-in flash.
- The optional "AA-Battery Pack F₆" is also available for this camera instead of using the lithium batteries.

4



4. Slide the main switch to the ON position and check that the LCD panel shows the information as shown above.

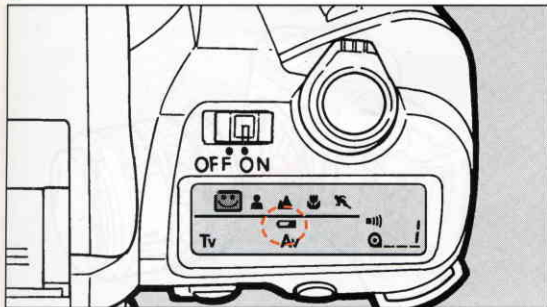
- The LCD display as shown above is given as an example and may be different if a lens is attached.

Battery Life (using 24-exposure film rolls)


General existing light photography	about 120 rolls
Flash photography (using flash 50% of the times)	about 20 rolls
Flash photography (using flash 100% of the times)	about 12 rolls
Bulb exposure time	about 8 hours


CR2 batteries were used under Pentax testing conditions. Actual battery life and performance may vary drastically depending on usage of Autofocus, Power zoom and external conditions such as temperature and freshness of the battery.

*



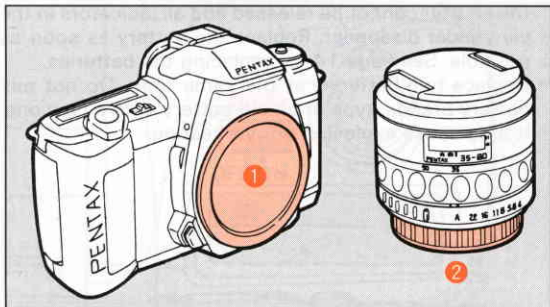
* Low Battery Warning

When the batteries are nearly exhausted, the battery symbol [] appears on the LCD panel to warn you. Replace the batteries as soon as possible. See page 14 for replacing the batteries.

- When the low battery warning [] starts blinking, the shutter cannot be released and all indicators in the viewfinder disappear. Replace the battery as soon as possible. See page 14 for replacing the batteries.
- Replace two batteries at the same time. Do not mix battery brands, type or an old battery with a new one. It may cause explosion or overheating.

(3) ATTACHING THE LENS

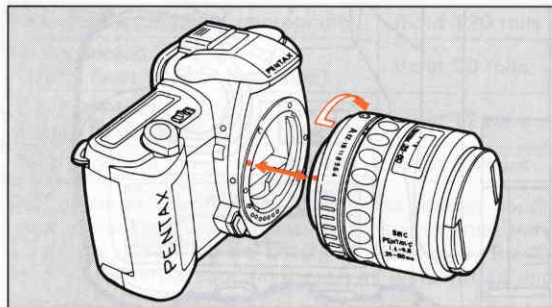
1



1. Remove the body mount cap ① and rear lens cap ② as shown in the illustration.

- The body mount cap is designed to protect the camera against scratches and dust at the factory. For storage, the optional accessory "Body Mount Cap K" is available.

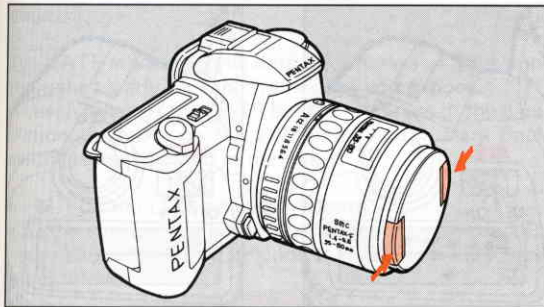
2



2. Align the red dots on the camera and lens mount, attach the lens to the camera body, and turn it fully to the right until you hear a click.

- Ensure that the camera's main switch is in the [OFF] position before attaching an FA zoom lens to prevent unexpected operation of the lens.

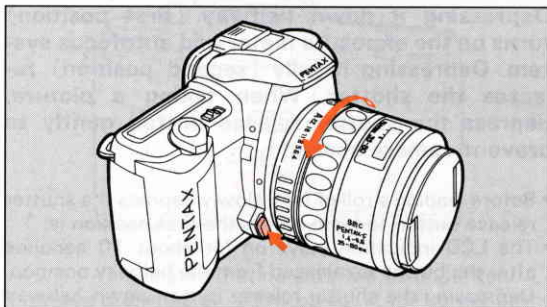
3



3. To remove the front lens cap, squeeze the tabs on both sides in the direction of the arrow.

- We assume no responsibility nor liability for damages resulting from the use of lenses made by other manufacturers.
- The camera body and lens mount incorporate lens information contacts and an AF coupler. Dirt, dust, or corrosion may cause damage to the electrical system. Clean the contacts with a soft, dry cloth.

*



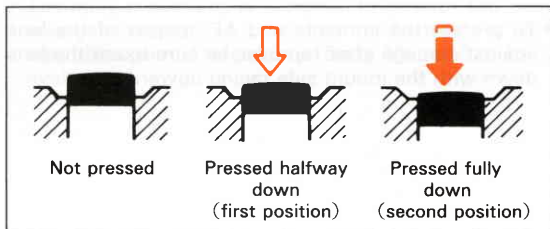
*** How to remove**

To remove the lens, turn it to the left while depressing the lens-lock-release button.

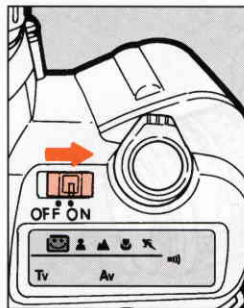
- To protect the contacts and AF coupler of the lens against damage after removal, be sure to set the lens down with the mount side facing upward.

The shutter release button has two positions. Depressing it down halfway (first position) turns on the exposure meter and autofocus system. Depressing it fully (second position) releases the shutter. When taking a picture, depress the shutter release button gently to prevent camera shake.

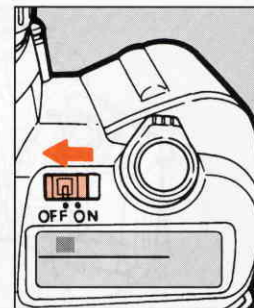
- Before loading a roll of film, slowly depress the shutter release button to learn where the first position is.
- The LCD indication stays on for about 10 seconds after the button is released from the halfway position. Depressing the shutter release button down halfway keeps the LCD indicator on.



1



2



1. The power is turned **ON** when the main switch is moved to the right.
2. The power is turned **OFF** when the main switch is moved to the left.

- When not in use, ensure that the main switch is set to the OFF position.

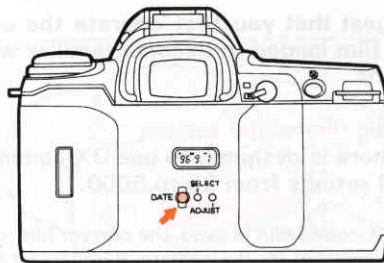
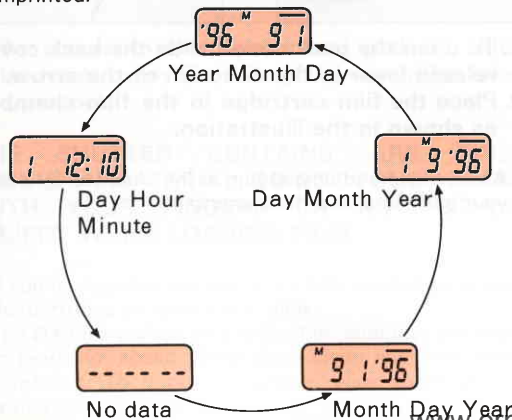
(6) USING THE DATA BACK

21

If you purchased the DATE model, read this section.

The DATE model records data information on your photographs clearly on each frame that you expose. At each press of the DATE button as shown in the illustration, the mode on the LCD panel of the Data Back switches as indicated in the chart.

- [M] on the LCD indicates "Month".
- As the shutter is released, the bar mark [-] in the display blinks for a few seconds that the data has been imprinted.



- [-- --] indicates that no data will be imprinted.
- If there is a white or yellow object in the corner of the picture where the data is imprinting, the data may be difficult to read. When composing your photograph, try to avoid brightly-colored subject in that corner.
- To adjust the data, see page 73.
- The dating unit automatically switches the imprint mode between the standard and panorama according to the format selected.
- The data back operates on a 3V lithium battery. If the data imprinted on the picture or the data displayed on the LCD panel become weak or invisible, the battery may need replacing. To replace the battery see page 72.
- See page 73 for more details.

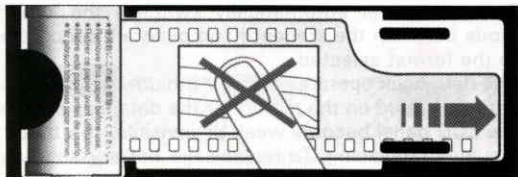
(7) FILM LOADING

We suggest that you first operate the camera with no film loaded to become familiar with its operations.

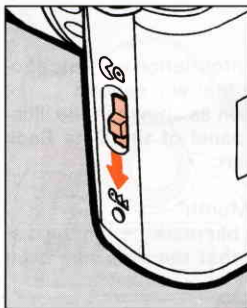
Automatic film speed setting

This camera is designed to use DX-coded films with ISO ratings from 25 to 5000.

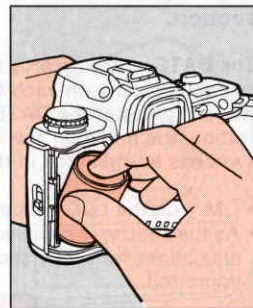
- When DX-coded film is used, the correct film speed is automatically set for the camera. If you use a non-DX coded film, you can set the film speed manually. See page 71.
- Before loading film for the first time after purchase, open the back cover and remove the protective card. **DO NOT TOUCH THE SHUTTER CURTAINS.**



1



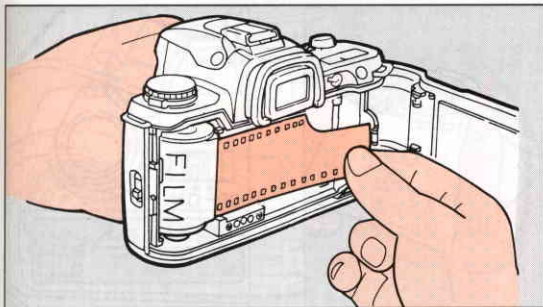
2



1. To open the back cover, slide the back cover release lever in the direction of the arrow.
2. Place the film cartridge in the film chamber as shown in the illustration.

- Always load and unload film in the shade or by using your body to shade the camera.

3

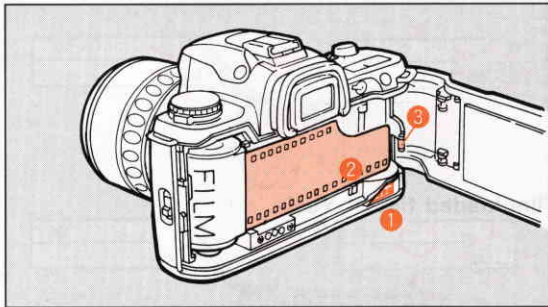


3. As shown in the illustration, pull the film leader out only far enough to reach the take-up spool.

THE SHUTTER CURTAINS ARE FINE-PRECISION MATERIAL. DO NOT TOUCH THEM WITH YOUR FINGERS OR ANY OTHER OBJECT WHILE LOADING FILM.

- If you have pulled out too much film, push it back into the cartridge to reduce the slack.
- The DX information pins in the film chamber are used to read film speed. Keep them clean and free from scratches. To remove smudges, wipe them gently with a soft, dry cloth.

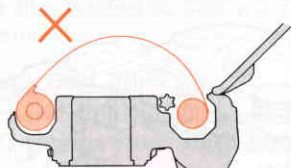
4



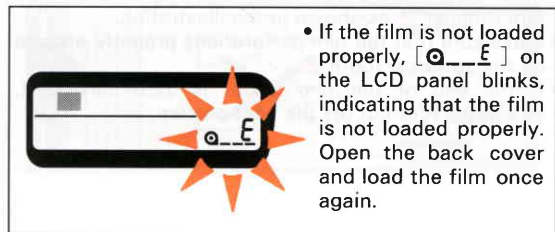
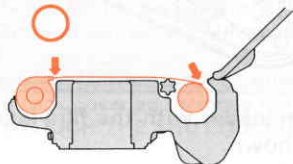
4. Align the film leader with the film leader end mark ① as shown.

- Make sure that the film leader is positioned under the film retainer ③ as shown in the illustration.
- Make sure that the film perforations properly engage on the sprocket tooth ②.
- If the end of the film leader is extremely bent, straighten it or cut off the bent portion.

Film loaded with slack **No!**

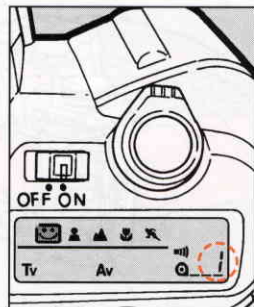
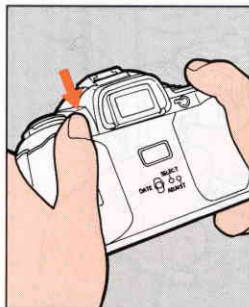


Film loaded flat **Yes!**



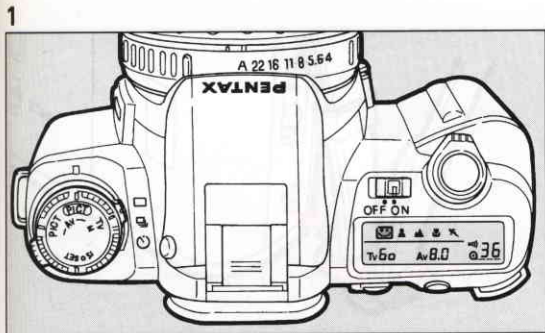
- If the film is not loaded properly, [E] on the LCD panel blinks, indicating that the film is not loaded properly. Open the back cover and load the film once again.

5



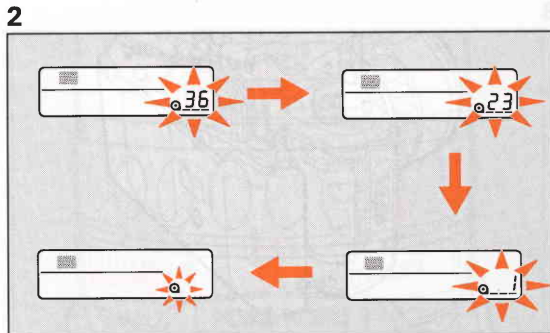
5. Close the back cover and set the main switch to [ON]. The film automatically advances to the first frame.

- Check that [] and [] are displayed on the LCD panel.
- The film counter indication advances one each time the shutter is released.

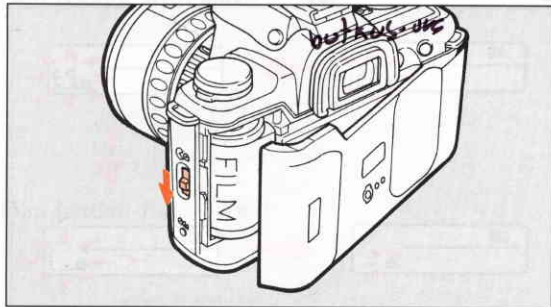


1. The film automatically rewinds at the end of the roll.

- During rewinding, [----] blinks on the LCD panel, indicating that the film is being rewound, the exposure counter counts frame numbers in reverse.
- Never open the back cover until the whole film roll is completely rewound.
- When removing the film from the camera, protect it from exposure to direct sun light.



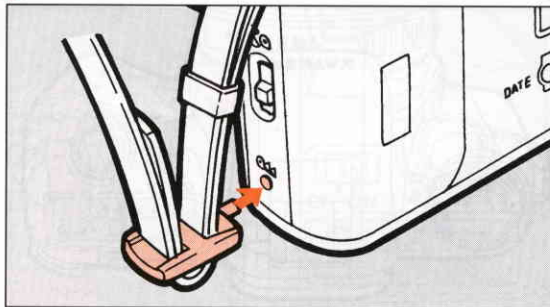
2. When the film is fully rewound, only [1] blinks on the LCD panel.



3. Open the back cover and remove the film.

- A roll of 24-exposure film takes about 13 seconds to rewind.
- Before opening the back cover, check that [] is blinking.
- The shutter may be released a frame or more after the specified number of frames have been used as indicated by the number of frames on the film cartridge. However, those extra frames may be lost in processing. When you take important pictures, rewind the film when the film reaches the number of frames indicated on the film cartridge.

*



* Rewinding a film in mid-roll

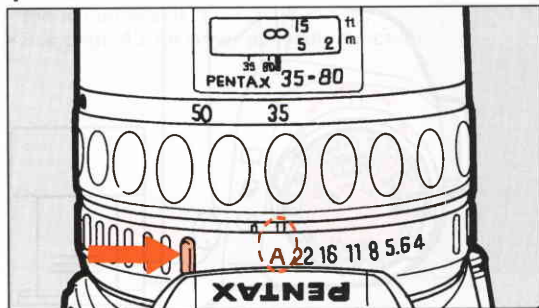
If you wish to unload the film before exposing all the frames, use this function.

Set the main switch to the ON position, and then depress the mid-roll rewind button by using the protruding part of the strap clamp.

- Do not depress the button with an object having a sharp tip.
- Before opening the back cover, check that [] is blinking.

II. BASIC OPERATION (SHOOTING)

1



Purpose

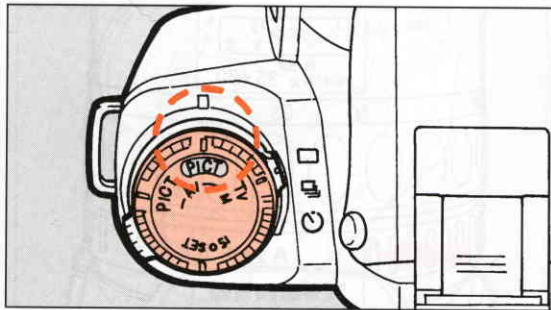
This Smart Picture Mode allows you to take pictures by simply depressing the shutter release button. In this mode, the camera automatically analyzes the camera-to-subject distance and the magnification of the image in the viewfinder, and it then selects one of 5 picture modes according to the requirement of the scene. See page 52 for the Picture Modes.

How to set


1. Turn the lens aperture ring to the [A] position as shown in the illustration.

- To move the lens aperture ring to the [A] position, turn the aperture ring while holding down the aperture-A lock button on the lens. The lens aperture ring can be released from the [A] position in the same manner.

2

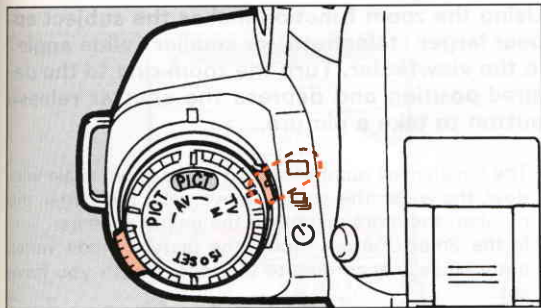


2. Set the mode dial to the [**PICT**] position.

- The selected picture mode is displayed in the viewfinder. [] is displayed on the LCD panel to indicate that the Smart Picture Mode is set.
- The Smart Picture Mode operates only when an FA or F lens is attached. The Green Operation Mode operates only with an A-lens attached.
- See page 60 to 65 for any other exposure mode.

(2) SETTING THE SINGLE-FRAME DRIVE MODE

29



Set the drive mode switch to the [□] position.

- One picture is taken each time the shutter release button is depressed.
- See page 43 for other available function.

(3) USING ZOOM LENSES



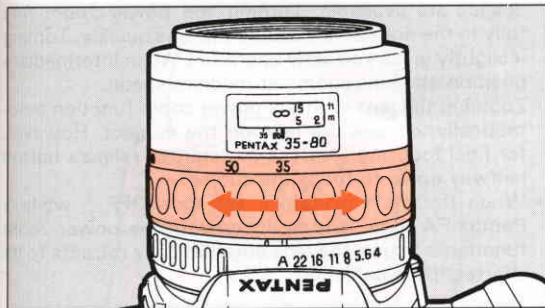
Telephoto



Wide angle

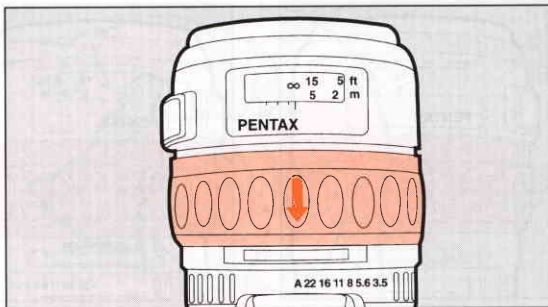
Using the zoom function makes the subject appear larger (telephoto) or smaller (wide angle) in the viewfinder. Turn the zoom ring to the desired position and depress the shutter release button to take a picture.

- The smaller the number shown in the zoom scale window, the wider the angle. Conversely, the larger the number, the more magnified the image appears.
- In the Smart Picture Mode, the picture mode varies automatically according to the focal length you have set.



Turning the zoom ring to the right makes the subject appear larger (telephoto) and turning it to the left makes the subject appear smaller (wide angle).

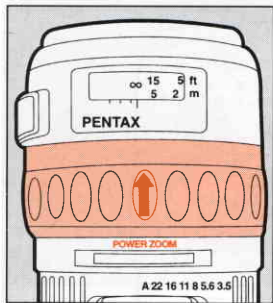
*



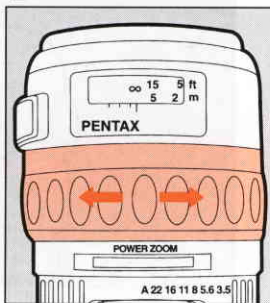
*** Using the manual zoom function with an FA zoom lens attached**

Pull the power zoom ring toward the camera body until the words [POWER ZOOM] are hidden.

1



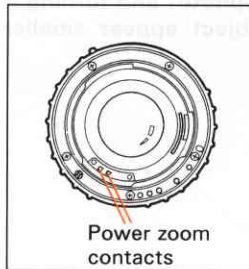
2



Using the Power Zoom Function

1. Push the power zoom ring forward until the words [POWER ZOOM] appear beneath the power zoom ring.
2. Turning the power zoom ring to the right makes the subject larger (telephoto) and turning it to the left makes the subject smaller (wide angle). To stop zooming, release the power zoom ring.

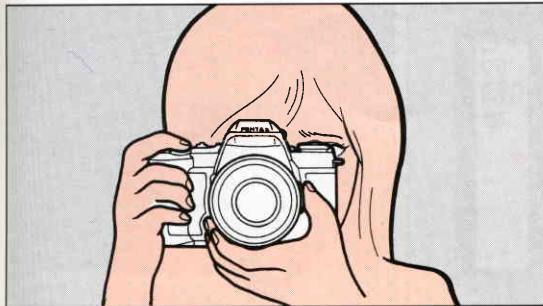
- If a power zoom lens is attached, three zooming speeds are available. Turning the power zoom ring fully to the right or left zooms the lens quickly. Turning it slightly gives you slow operation. At an intermediate position, the lens zooms at medium speed.
- Zooming the lens with the power zoom function automatically focuses the lens on the subject. However, for final focusing, depress the shutter release button halfway down to focus the subject.
- When the main switch is set to [OFF] while a Pentax-FA zoom lens equipped with the power zoom function is in use, the lens automatically retracts to its shortest physical length.



An FA zoom lens without the power supply contacts are shown in the illustration does not have the power zoom function (ie: FA 28-70 zoom f/4 AL lens).

(4) HOLDING THE CAMERA

Camera held horizontally

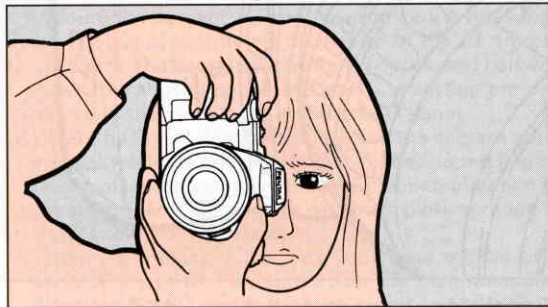


For best results, be sure to hold the camera correctly as shown in the illustrations.

Hold the camera firmly, with your left hand supporting the camera and lens as shown in the illustrations.

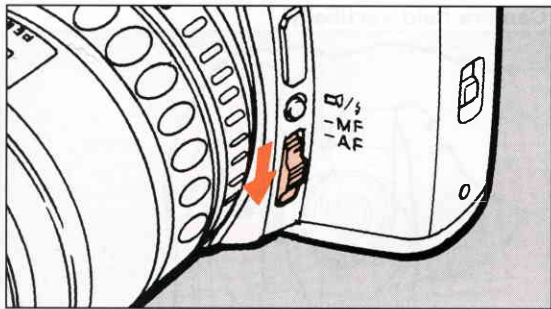
While taking a picture, hold your breath and gently depress the shutter release button. Sudden force on the shutter release button will cause camera shake, making the picture blurred.

Camera held vertically



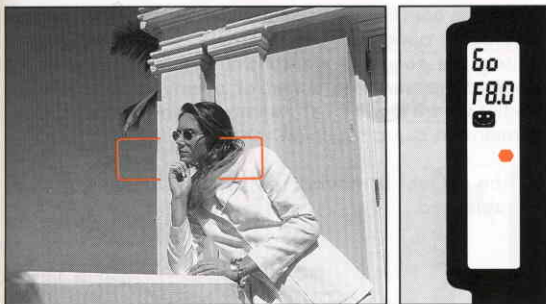
- To reduce camera shake, support your body or the camera on a solid object - a table, tree, or a wall for instance.
- When using an ultra-telephoto lens, a tripod that is heavier than the total weight of the camera and lens is recommended to avoid camera shake.
- Although there are individual differences among photographers, in general the shutter speed for a hand held camera is the inverse of the focal length. For example, $1/50$ of second when the focal length is 50mm, and $1/100$ of second when it is 100mm. A tripod should be used for shutter speeds slower than this.

(5) SELECTING THE AUTOFOCUS MODE






Set the focus mode switch to [AF].

- For autofocus operation, set the focus mode switch to [AF].
When you depress the shutter release button halfway down, the lens automatically focuses.
- See page 46 for manual focusing.



Set the focus mode switch to [AF].

1. Focus on the subject with the AF frame [] indicated in red in the photograph. When the shutter release button is depressed halfway down, the lens automatically focuses.
2. When the subject is in focus, the focus indicator [] lights up and an audible PCV beeping signal is emitted.

- As this camera incorporates the 3-point autofocus system, the subject will be focused properly even if the subject is slightly off the center of the AF frame.
- When the shutter release button is depressed halfway down, the shutter speed and aperture setting are displayed in the viewfinder and the LCD panel.
- When the Smart Picture Mode is set, the camera automatically selects one of 5 picture modes depending on the focal length you have set and the magnification of the image. The icon of the selected picture mode is displayed in the viewfinder.
- When [] blinks in the viewfinder and on the LCD panel, the use of the built-in flash is recommended. For more details on the built-in flash, see page 37.
- The audible PCV signal can be turned OFF. See details on page 67.
- During autofocus operation, the focusing ring should not be obstructed with your fingers, hands, or any other object.

The focus indicator [] blinks when the camera is not able to obtain proper focus for one of the following reasons.

1. The subject is too close. Adjust the camera-to-subject distance.
2. The subject is difficult to autofocus. See "HARD-TO-AUTOFOCUS" subject on page 49.

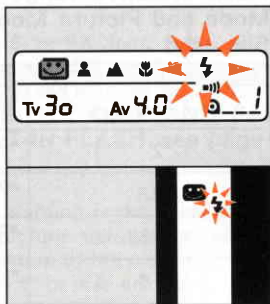
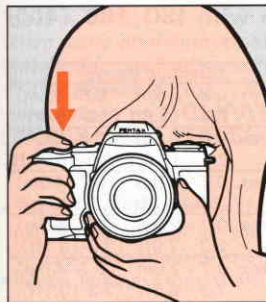
3. To release the shutter, gently depress the shutter release button fully.

- The shutter cannot be released if the subject is out of focus.
- Depress the shutter release button halfway down. While [O] is on, the camera-to-subject distance is fixed (focus lock). To refocus on another subject, lift your finger off the shutter release button.
- When using the SMC Pentax-F Soft 85mm f/2.8 lens, set the aperture between f/2.8 and f/4.5. See page 49 for more details.


Predictive Autofocus Mode


When the camera senses subject movement during the autofocus operation, the camera will automatically switch the focus mode to the predictive autofocus mode to measure the speed of a moving subject, and predict where it will be at the moment of shutter release to maintain sharp focus on the subject.

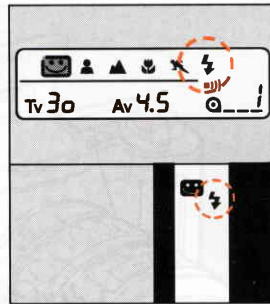
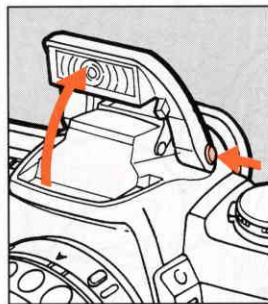
- If the subject is moving too fast, the shutter may not be released.




The Flash-Recommended Indicator

If the built-in flash is recommended, the flash-recommended indicator [] starts blinking in the viewfinder and on the LCD panel when the shutter release button is depressed halfway down.



- In the Smart Picture Mode, Picture Mode and the Aperture-Priority AE Mode, the flash-recommended indicator [] blinks when you attempt to photograph a subject in low light, or in a backlit situation. In the Shutter-Priority AE Mode and Metered Manual Mode, the flash-recommended indicator blinks only when attempting to photograph a subject in a backlit situation.

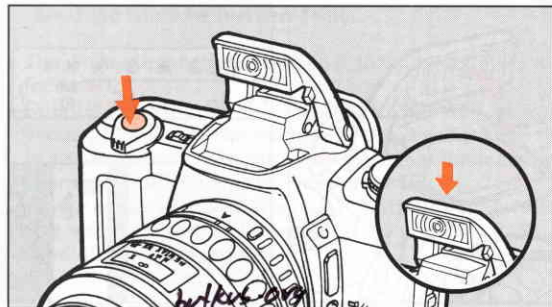


Using the built-in flash

If [ A] is displayed on the LCD panel, it indicates that the automatic flash function is set. Delete it from the LCD panel. See page 42 for more details.

1. Push the flash pop-up button to activate the flash.

- The built-in flash starts charging automatically. When it is fully charged, [] appears on the LCD panel. When the shutter release button is depressed halfway down, [] also appears in the viewfinder.
- When the built-in flash is used, using a lens hood is NOT recommended as it may obstruct the path of the light coming from the flash, causing vignetting in the picture corners.



2. Depress the shutter release button fully, and the flash unit discharges. After using the flash, retract the built-in flash by pressing it down into the camera body.

- The shutter cannot be released until the flash is fully charged.
- If the built in flash is used continuously, the battery may become warm, but it does not mean the battery is faulty; it is one of the battery's characteristics.
- With the built-in flash popped-up, an external flash cannot be attached to the hot shoe. If you would like to use an external flash together with the built-in flash, see the flash connections on page 75.

Flash effective range for the Smart Picture Mode and Picture Mode with ISO 100 (400) film used


Maximum Lens Aperture	Effective Range
f/1.4	approx. 0.8 - 3.9m (0.8- 5.6m) 2.6 - 12.8ft (2.6-18.4ft)
f/2	approx. 0.8 - 3.3m (0.8- 5.6m) 2.6 - 10.8ft (2.6-15.7ft)
f/2.8	approx. 0.7 - 2.8m (0.7- 4.0m) 2.3 - 9.2ft (2.3-13.1ft)
f/3.5, f/4.7	approx. 0.7 - 2.4m (0.7- 4.0m) 2.3 - 7.9ft (2.3-13.1ft)
f/5.6	approx. 0.7 - 2.0m (0.7- 4.0m) 2.3 - 6.6ft (2.3-13.1ft)

The effective range of the flash depends on the maximum aperture of the lens is in use.

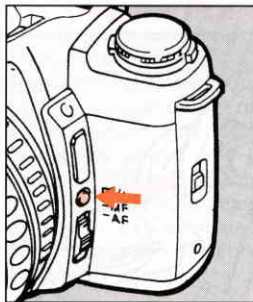
A lens with a maximum aperture of f/1.4 is marked as 1:1.4 on its barrel.

- This effective range table is only applicable when the exposure mode is set at the Smart Picture Mode or Picture Mode. When any other exposure mode is used, see page 69.
- The minimum effective range is always 0.7m (2.6ft) even if a lens with a maximum aperture f/2.8 or smaller is in use. When a subject is shot at a distance closer than 0.7m (2.6ft), the correct exposure cannot be obtained, and you will see vignetting in the picture corners.

Inappropriate lens warning when the built-in flash is used

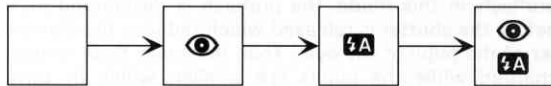
When using an inappropriate F- or FA- lens, [] will blink in the viewfinder and on the LCD panel when the shutter release button is depressed halfway down. For more details on **COMPATIBILITY OF F AND FA LENSES WITH THE BUILT-IN FLASH**, see page 70.

- Taking a picture while this warning is displayed may cause vignetting in the picture corners or semi-circular vignetting at the bottom of the picture.
- When lenses other than an F or FA are used, this warning will not appear.



Depress the multi-function button with the built-in flash popped up

At each press of the multi-function button, the flash mode on the LCD panel switches as shown in the chart.



Normal
(p.37)

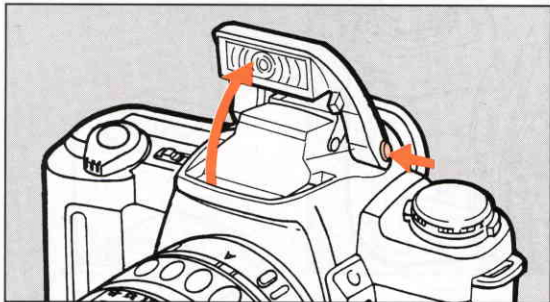
Red-eye reduction
(p.40)

Automatic flash
(p.42)

Red-eye reduction
+
Automatic flash

- When the built-in flash is retracted, depressing the multi-function button switches the audible PCV signal ON and OFF.

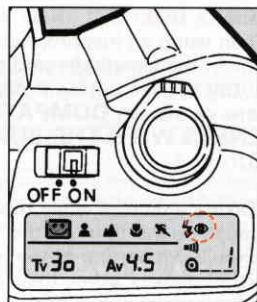
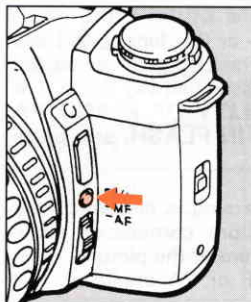
1



Red-eye Reduction Flash Function

This camera includes a red-eye reduction flash function, which reduces the red-eye phenomenon utilizing preflash. In this mode, the preflash is discharged just before the shutter is released which reduces the diameter of the pupil of the eye. Then the main flash is discharged while the pupils are smaller, which in turn reduce the red-eye effect.

2



How to set

1. Push the flash pop-up button to activate the flash.
2. Depress the multi-function button until [👁] appears on the LCD panel.

How to cancel

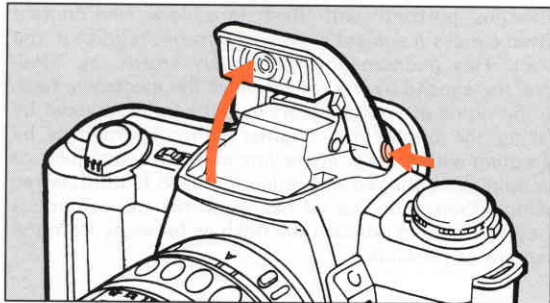
With the built-in flash popped up, depress the multi-function button until [👁] disappears on LCD panel.

- When the AF500FTZ is attached and the slave flash function is in use, the Red-eye reduction flash function cannot be used as the slave flash is discharged when the preflash of the built-in flash is discharged.
- When only a dedicated flash is in use and is discharged, the red-eye reduction display from the LCD panel is disregarded.

About Red-eye Phenomenon

Shooting portraits with flash in a dark environment often causes a subject's eyes to turn out reddish in the print. This phenomenon, commonly known as "Red-Eye", is caused by the reflection of the electronic flash in the retina of your subjects eye. It can be reduced by taking the photo in a brighter light condition or by shooting with a wider angle lens at a closer distance, or by employing the red-eye reduction flash feature. When using a Pentax dedicated flash unit off the camera, it may also help to position the flash as far away from the camera as possible.


1



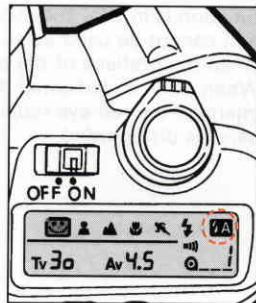
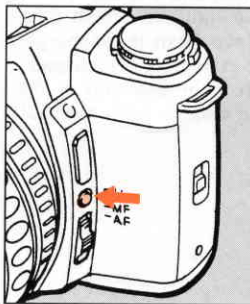
AUTOMATIC FLASH FUNCTION

This is a convenient built-in flash mode that the flash discharges only when it is necessary even if the flash is in the popped-up position.

How to set


1. Push the flash pop-up button to activate the flash.
2. Depress the multi-function button until  appears on the LCD panel.

2



- In the Smart Picture Mode and Picture Mode, the flash will only discharge when the subject is in a low light or backlit condition.
- Depress the multi-function button with the built-in flash in its popped up position. If the button is depressed with the built-in flash in its retracted position, the PCV audible beep mode will be switched on.

How to cancel

With the built-in flash in its popped up position, depress the multi-function button until  disappears on the LCD panel.