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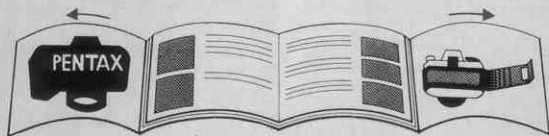
# PENTAX<sup>®</sup>

## SF7



Welcome to the fantastic world of Pentax autofocus SLR photography!

This camera is a high-precision 35mm SLR camera incorporating such advanced technological features as auto focusing, auto exposure, auto film winding/rewinding and a built-in Retractable TTL-Auto Flash (RTF). Please read this operating manual carefully for a full explanation of the camera's functions and operations before you start using it.

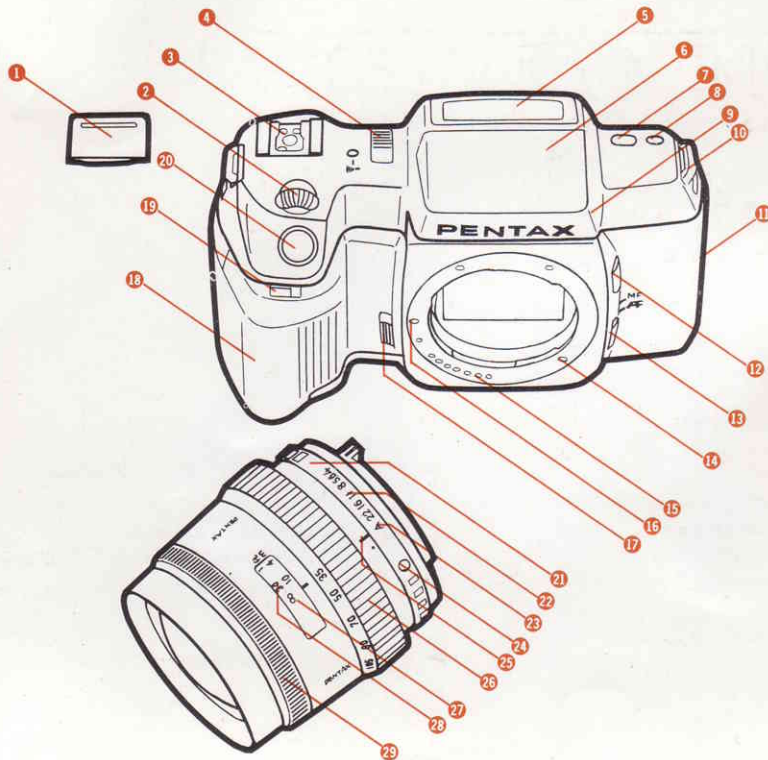


The names of the camera's working parts are listed in the nomenclature sections on the front and back flaps of this manual, so please keep the flaps unfolded for quick reference while you read this manual.

We sincerely hope you will enjoy taking memorable, high-quality pictures with this remarkable camera for many years to come.



# NOMENCLATURE



- 1 Hot-shoe cover
- 2 Select dial
- 3 Hot shoe
- 4 Main switch
- 5 LCD panel
- 6 Built-in flash (RTF)
- 7 Mode button
- 8 Drive/Self-timer button
- 9 Flash-pop-up switch
- 10 Strap lug
- 11 Back-cover-release lever
- 12 Release socket F
- 13 Focus-mode switch
- 14 AF coupler
- 15 Lens-information contacts
- 16 Mount index
- 17 Lens-lock-release lever
- 18 Grip
- 19 Self-timer lamp
- 20 Shutter-release button
- 21 Aperture ring
- 22 Aperture scale
- 23 Aperture-A index
- 24 Aperture-A-lock button
- 25 Distance/Aperture index
- 26 Zoom ring
- 27 Distance-scale window
- 28 Distance scale
- 29 Focusing ring



2000

Indicates a manually-selected shutter speed. "2000" means 1/2000 second and "1" means one second.



Warns that the battery level is running low.

36

Indicates an exposure frame number from "1" to "36".



Tells you to use the select dial.

AUTO

Indicates the lens aperture ring is set at [A] (auto).



Indicates the aperture ring is set at an f-number other than [A].



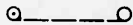
Indicates the condition of RTF.

P R O G .

Indicates the Programmed AE mode is selected.

A U T O

Indicates the Aperture-Priority AE mode is selected.



Indicates the condition of the film.

AF

Indicates the auto-focus mode is selected.

MF

Indicates the manual-focus mode is selected.



Indicates the self-timer mode is selected.



Indicates the consecutive film-advance mode is selected.



Indicates the single film-advance mode is selected.

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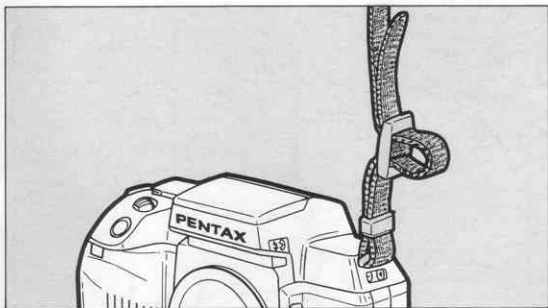
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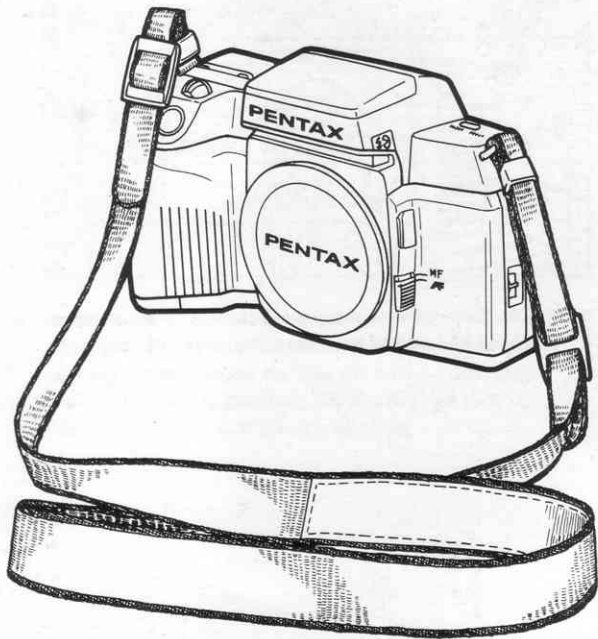
## PRESHOOTING PREPARATION

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## 1. FASTENING CAMERA STRAP



Fasten the camera strap as illustrated. It is recommended to adjust the length of the strap so that the camera is positioned above your waist to prevent the camera from swinging while you walk.

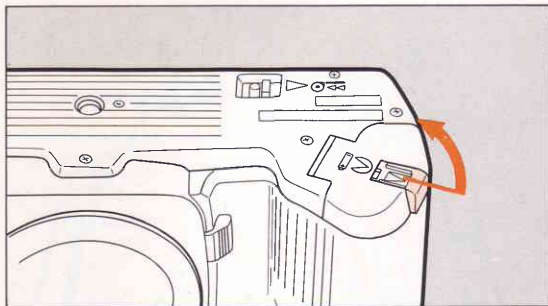




## 2. POSITIONING BATTERY

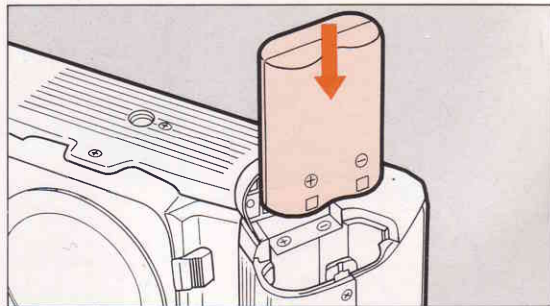
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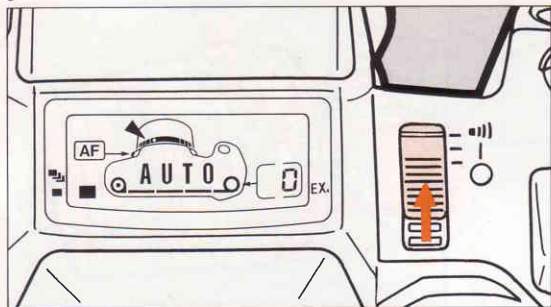
1. Pull the battery chamber cover release lever in the direction indicated by [ ► ] to open the battery chamber cover.

2



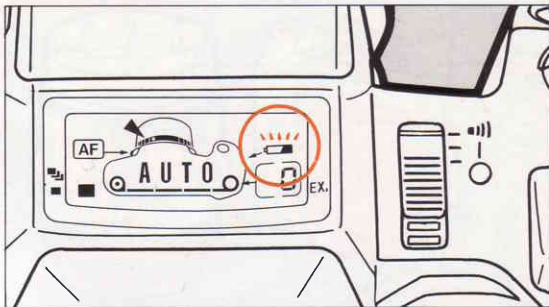
2. Position the battery with its metal contact facing down, then close the back cover by reversing step 1.

**Note:** This camera operates on a battery, so be sure to insert one "2CR5" lithium battery as designated before you start operating it.





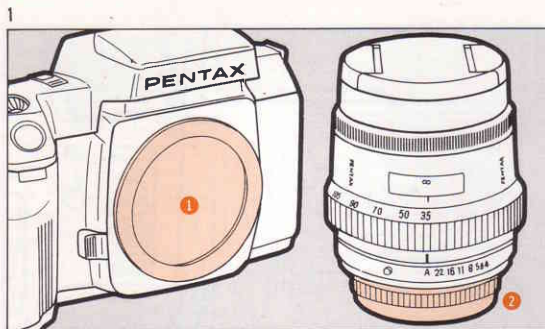
3. Set the main switch to [AF] and confirm that the auto-exposure mark [AUTO] appears in the LCD panel.

**Note:** Even if the battery is inserted upside-down, the indications appear in the LCD panel, but the shutter cannot be released.

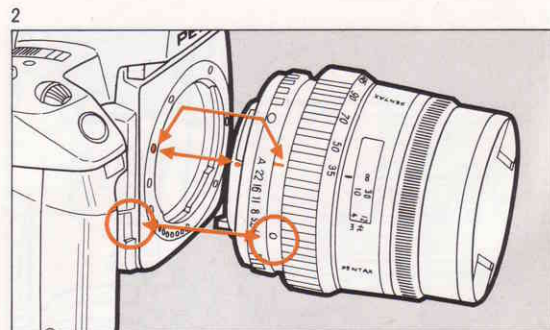


**Note: Warning for low battery level**

When the battery level becomes low, the low battery warning [  ] comes on, and the battery should be changed as soon as possible. The shutter will lock up shortly after the [  ] starts blinking.



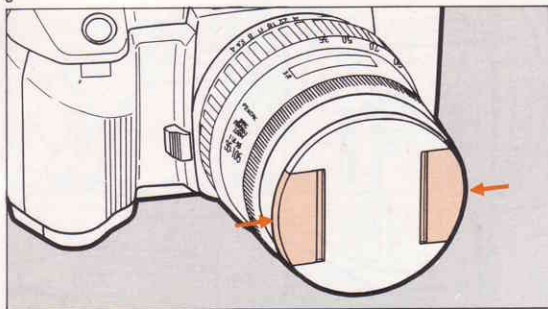
1. Remove the body-mount cap ❶ and the rear lens cap ❷.



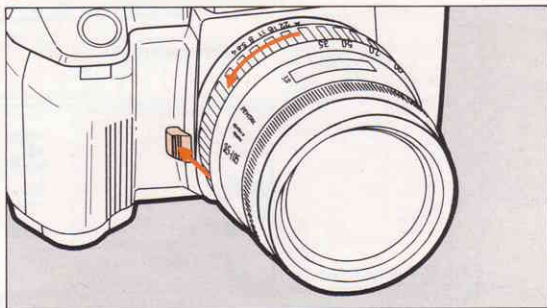
2. Align the red mount indexes of the camera and the lens, place the lens onto the camera's lens mount, then turn the lens clockwise until it locks with a click.

- The body-mount cap is designed to protect the camera from scratches and dust when it is shipped from the factory. For storing purposes, use the optional Body Mount Cap K.

3



3. Remove the front lens cap by pressing in the tabs on both sides.



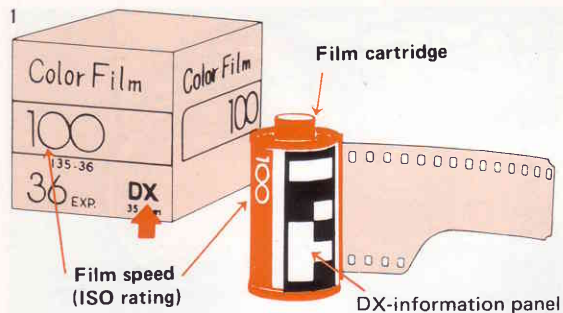
- ※ To disengage the lens, turn the lens counterclockwise while depressing the lens-lock release lever.

**Note:**

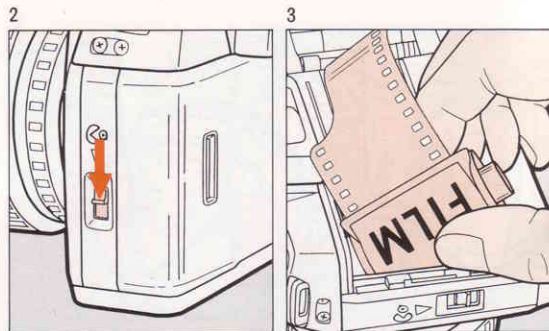
Do not damage or stain the lens information contacts or the AF coupler on the mount surfaces of the camera and the lens. If this occurs, wipe them gently with a clean dry cloth.

## 4. LOADING FILM

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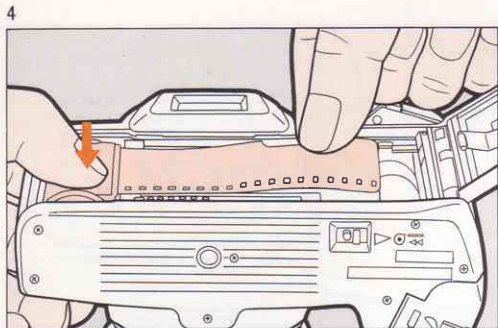


1. Use DX-coded film with an ISO speed between 25 and 5000.

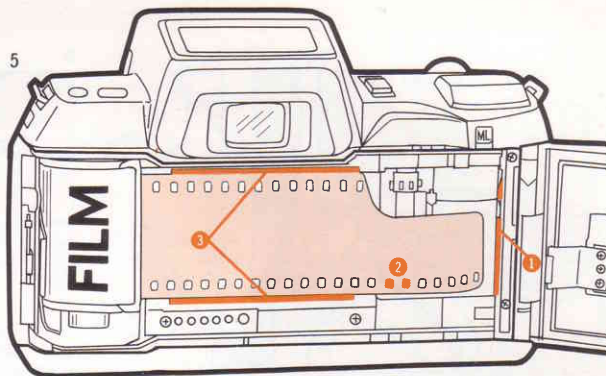


2. Push down the back-cover release lever to open the back cover.
3. Hold the film cartridge with its protruding side down and slide the upper end in first.

- The camera automatically sets the ISO film speed for DX-coded film.
- Non-DX-coded film is automatically set at ISO 100.



4. While holding the cartridge with your left hand, pull the film leader out.

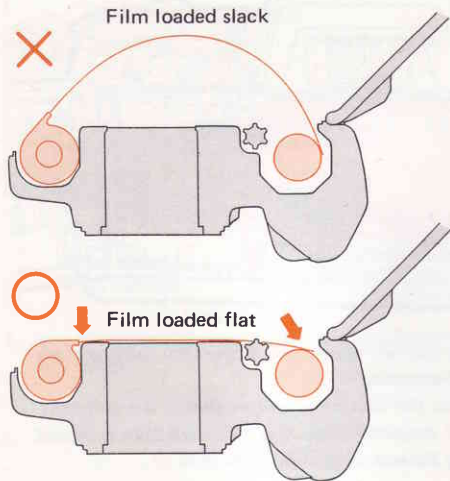


5. Position the film leader end at the film loading mark ①, as illustrated.

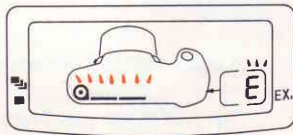
Make sure the film perforations engage the sprocket teeth ② properly. Also make sure the film is placed properly between the film guide rails ③.

**Note:**

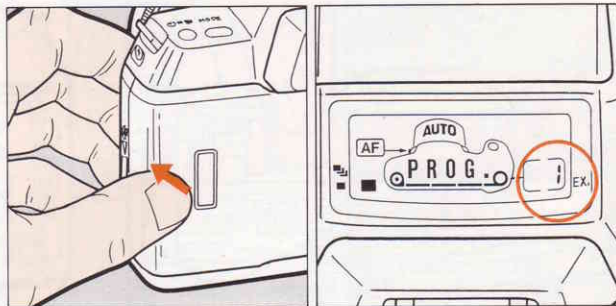
- The shutter curtains are made of a thin, delicate material to maintain extreme precision. Be careful not to touch them with your hand or the film end during film loading.
- The DX-information pins are contacts to read the film's ISO speed, so keep them free of dirt, dust and scratches.







- If the film is slack, push some of the film back into the cartridge to make it flat. If the film is sharply bent, straighten it out or cut off the bent portion.



6



6. Close the back cover, and the camera automatically advances the film to the first frame, indicating the exposure counter "1" in the LCD panel.

- \* Make sure the film-loaded mark [  \_\_\_\_\_  ] is displayed in the LCD panel.
- \* If the film-advance mark [  \_\_\_\_\_ ] and the error mark [  ] are flickering as shown, the film is not properly loaded. It must be reloaded.

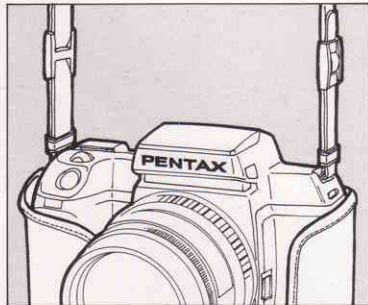
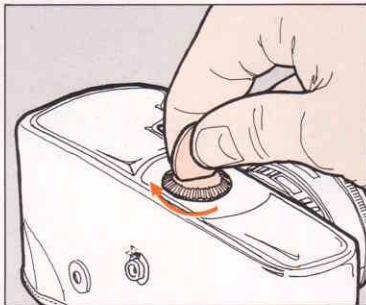


## 5. SOFT CASE

1



2



The soft case is available as an option, and consists of a front cover and a back cover.

1. Open up the front cover, and place the camera in the back cover.
2. Secure the camera in the back cover by tightening the fitting screw at the bottom with a coin.

The front cover is available in three sizes: S (Standard), M (Medium) and L (Large). For the lenses that can be contained in each front cover, refer to the table.

Front cover	Lenses
S	50mm f/1.4, Zoom 35—70mm or any other similar-sized lens
M	Zoom 28—80mm, Zoom 35—105mm or any other similar-sized lens
L	Macro 100mm, Zoom 70—210mm or any other similar-sized lens

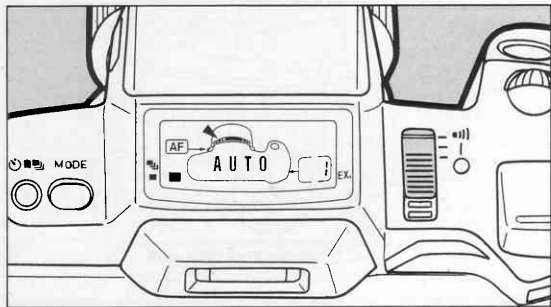
*Now you have completed preshooting preparations.*



## BASIC OPERATION

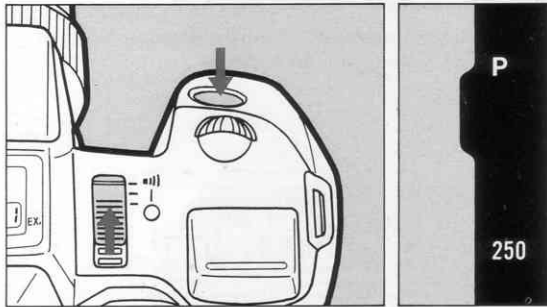
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## 1. OPERATING MAIN SWITCH



- [ON]**     **[●||]**: Signals correct focusing and self-timer operation with PCV tone.  
             **[ | ]**: Cancels PCV signals.
- [OFF]**     **[○]**: Be sure to set the main switch at this position when the camera is not in use.

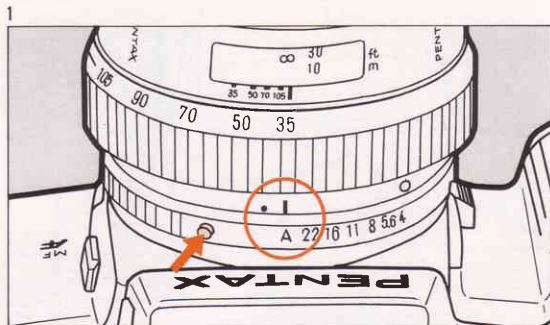
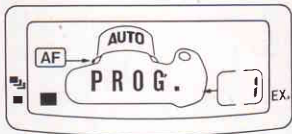
## 2. OPERATING SHUTTER-RELEASE BUTTON



1. Set the main switch at **[●||]**. While the shutter release button is pressed down lightly, information such as exposure settings is displayed in the viewfinder. Then, when the shutter release button is pressed all the way down, the shutter is released.
- \* If you remove your finger, the viewfinder display will go off after approximately 5 seconds.

### 3. SELECTING PROGRAMMED AE MODE

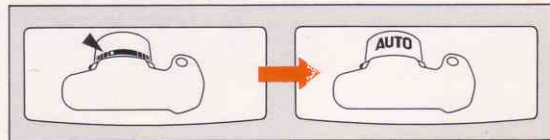
The Programmed AE mode automatically selects the best combination of aperture and shutter speed, so you can enjoy photography without difficulty.

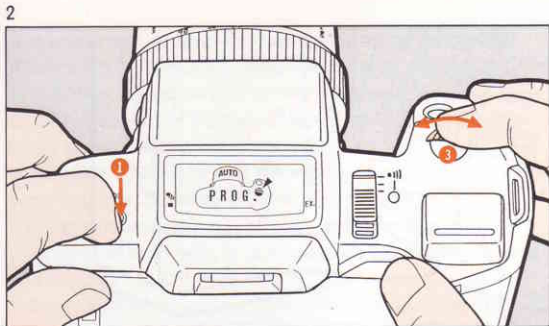


1. Set the lens aperture ring at the **[A]** position while pressing down the aperture-auto lock button.

\* The aperture ring is locked at the [A] position.

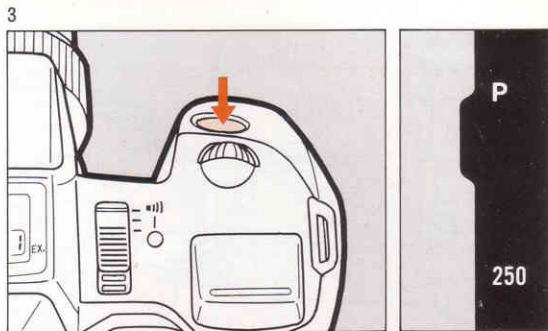
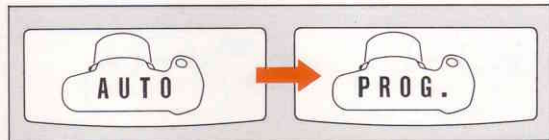
- *Note how the indication changes.*






2. Turn the select dial ③ in either direction while pressing down the mode button ① until the mark [PROG] appears in the LCD panel.

\* If the select dial is held down, the mode can be changed more rapidly.

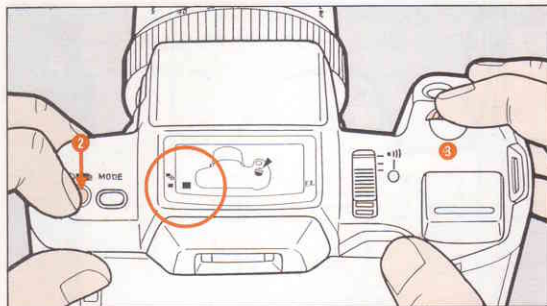


3. Lightly press the shutter release button while looking into the viewfinder to confirm the mark [P] and the shutter speed appearing in the viewfinder display.

\* If a green shutter speed indication between 2000 and 60 (1/2000 sec. to 1/60 sec.) comes on, you can start shooting. When "30" or "LT" glows or flickers in the viewfinder, the selected shutter speed is slow enough to cause camera shake. The use of a flash or a tripod is recommended.

\* When the mark [  ] blinks, use the built-in RTF (see page 24).

#### 4. SELECTING SINGLE FILM ADVANCE MODE



Turn the select dial while pressing down the drive button until the mark [■] appears in the LCD panel.

##### [■] Single film-advance mode:

You can take a single picture every time the shutter release button is pressed.

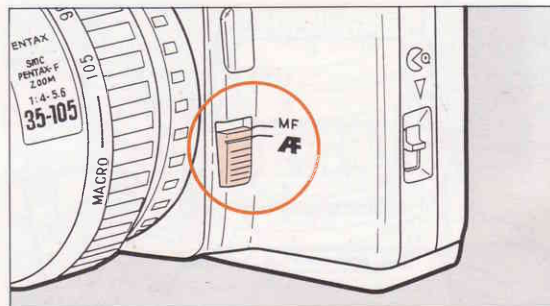
##### [] Consecutive film-advance mode:

You can keep taking pictures consecutively as long as the shutter release button is held down.

##### [] Self-timer mode:

A self-timer is activated when the shutter release button is pressed and a picture is taken automatically after approximately 12 seconds.

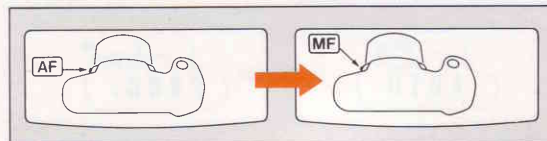
#### 5. SELECTING FOCUS MODE



Set the focus-mode switch to the auto-focus position indicated by a red [**AF**] mark.

[AF] : The camera automatically sets the correct focus by adjusting the lens.

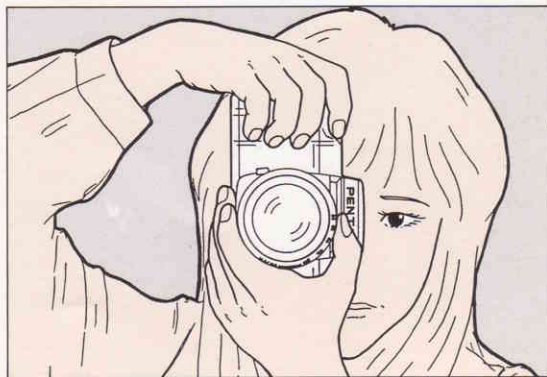
[MF] : Focusing is manually adjusted by turning the focusing ring (see page 40).



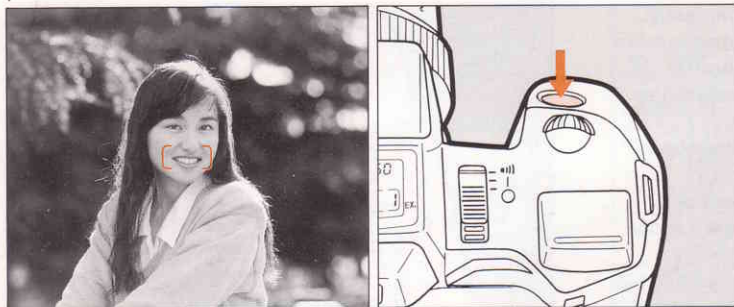
## 6. HOLDING CAMERA & PREVENTING CAMERA SHAKE

It is important to hold the camera firmly and properly.

- When taking a picture, hold your breath and press down the shutter release button gently with your fingertip. (Pressing down the shutter release button forcefully can cause camera shake.)
- Stabilize your body and camera by using some object, such as a tree, building or table.
- When photographing with a slow shutter speed or a super telephoto lens, it is recommended to use a tripod and an optional Cable Switch F.
- Especially when using a super telephoto lens with a tripod, use of a tripod heavier than the total weight of camera and lens is an effective means to minimize camera shake.



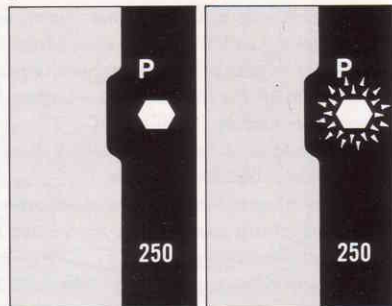
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1. Position the subject in the auto-focus frame in the viewfinder and lightly press the shutter release button.



2



2. When the subject is captured in focus, a green in-focus signal [  ] comes on in the viewfinder and a PCV tone confirms it audibly.

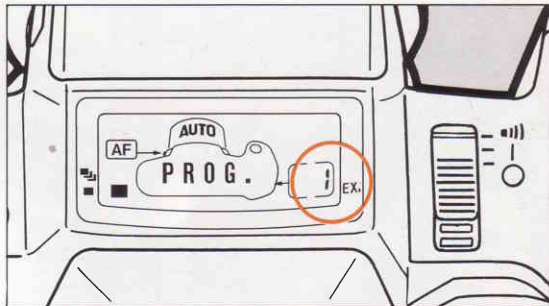
✱ If the in-focus signal [  ] blinks, the subject is too close or is difficult to focus on (see page 42).

**Note:**

- The shutter can be released only when the subject is in focus.
- Once the subject is captured in focus, focusing is locked. In order to take a different subject, remove the finger from the shutter release button, then press it down again.



3. The shutter is released by pressing the shutter release button all the way down.



- ※ The figure indicated in [EX.] is the exposure number. It increases by one each time the shutter is released.



## 8. USING FOCUS-LOCK FUNCTION

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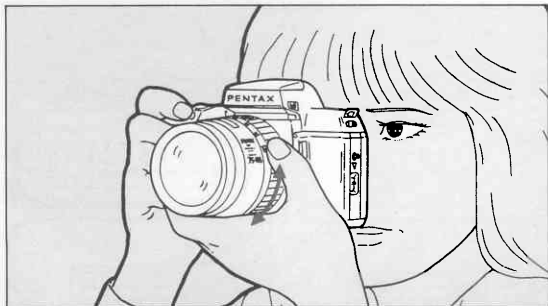


When you wish to position the subject away from the auto-focus frame [ ] for your image composition, use the following procedures to lock the focus.

1. If you take a picture with the auto-focus frame positioned away from the subject, the focus is automatically set on the background (see photograph).
2. Aim the auto-focus frame at the subject, press the shutter release button lightly and keep the green in-focus signal on by holding it at that position. (This makes the camera memorize the correct focus.)
3. Move the camera back to the original composition while holding the shutter release button at the same position, then press it all the way down to take a picture.

- As long as you hold the shutter release button half-way down and the green in-focus signal is on, the focus remains locked. When you remove your finger, it is unlocked. This procedure can be repeated any number of times.

## 9. USING ZOOM LENS



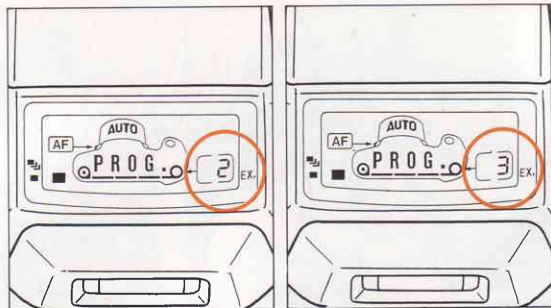
When the zoom ring is rotated, an image becomes larger or smaller, so you can find the image size you like best.

- \* Smaller figures on the zoom ring indicate wide-angle settings to cover more image area while larger figures are telephoto settings to take larger images of distant subjects.





Press the shutter-release button gently to release the shutter. The film is automatically transported to the next frame.



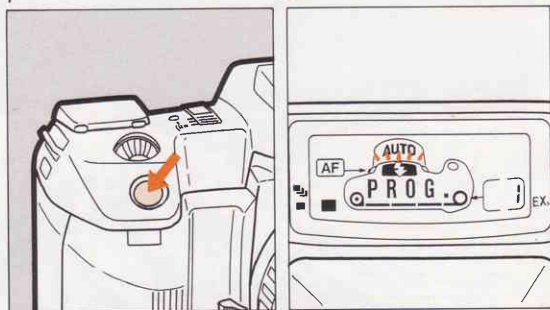


## (1) Using the Programmed Auto Flash mode

In low light or backlit situations, the camera's Programmed Auto Flash mode automatically selects the best combination of shutter speed and aperture according to lighting conditions, making flash photography accurate and easy. Lenses with focal lengths between 35mm and 210mm (with the exception of macro lenses) can be used in this mode.



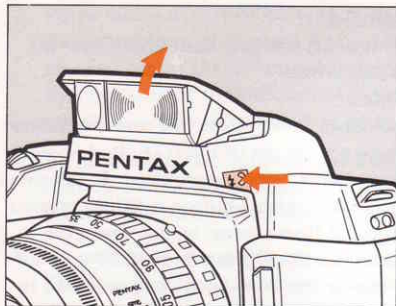
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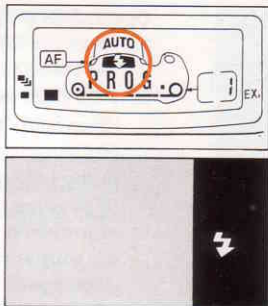
1. Set the camera to Programmed AE mode and lightly press the shutter release button.
- ✱ In low light and backlit situation, the flash marks both in the LCD panel [ ] and viewfinder [ ] will blink. (These are "flash recommendation signals" advising you to use the RTF.)

- ✱ The Programmed Auto Flash mode can also be used in the camera's Shutter-Priority AE mode (see page 36). In backlit situations, the flash marks [ ] and [ ] blink to recommend use of the RTF.

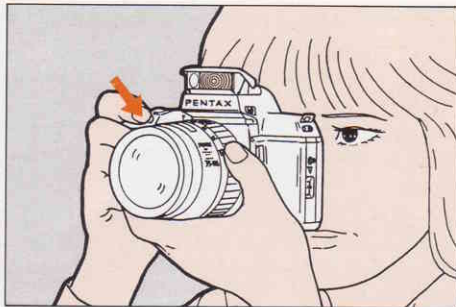
2






※



3



2. Remove your finger from the shutter release button. Push the yellow flash pop-up switch [  ] to expose the RTF above the pentaprism.

※ The RTF starts charging automatically. When charging is completed, the flash mark [  ] comes on in the LCD panel and also the flash mark [  ] lights up when the shutter release button is pressed lightly. (The flash recycle time is approximately 4 seconds.)

3. Press the shutter release button all the way down to take a picture.

**Note:**

- When shooting is finished, be sure to put the RTF back into the original storage position.
- While the RTF is in the pop-up position, a small amount of electric current is constantly supplied to recharge it. So, when not in use, be sure to keep it in the storage position to save the battery.

● **Effective flash range in Programmed Auto Flash mode**



Maximum aperture	Effective range
f/1.4 – 2.8	0.9m – 4.3mm
f/4	0.7m – 3m
f/5.6	0.7m – 2.1m

**Note:** The effective flash range (from the film plane to the subject) differs depending on the maximum aperture (the smallest f-number) of the lens in use.

**[Technical Tip] How to determine the maximum aperture**

If the marking on your lens reads “SMC PENTAX-F ZOOM 1:4–5.6 35–105,” for example, it has a maximum aperture of f/4 at the focal length of 35mm and f/5.6 at 105mm.

**Operational precautions**

1. While the RTF is being charged, keep your finger off the shutter release button.
2. **RTF flash warning**  
When using the lenses listed below, the camera's safety mechanism warns against use of the RTF; flash marks in the LCD panel [  ] and viewfinder [  ] begin to blink when the shutter release button is lightly pressed at the completion of flash charge. In this case, even if the shutter release button is pressed, the RTF will not discharge and the camera is automatically switched to the normal shooting mode.
  - Lenses with a focal length of less than 35mm.
  - Lenses with a focal length of over 210mm.
  - Macro lenses.

The purpose of this warning is to prevent vignetting at four corners of a picture due to lack of illumination or semicircular vignetting at the bottom of a picture due to the lens blocking the illumination path of the RTF. Since this mechanism is activated only in combination with F-series lenses (lenses with the marking of SMC PENTAX-F), no warning appears in combination with other lenses, so care is advised when using lenses other than F-series lenses.

3. When taking a photograph with both close and distant subjects in the same frame, selecting an aperture for the distant subject may cause overexposure of the closer subject (washed-out appearance) due to excessive illumination.
4. Do not use the flash in sunlight, as it might become ineffective. This also can happen when you take a picture at a distance of 1 metre with a lens of focal length of 35mm.
5. **To prevent "red-eye effect":**  
The so-called "red-eye effect" is a phenomenon in which the flash illumination reflects off the retina because the pupil opens up in darkness. It is impossible to prevent it but it can be minimized by lighting up the location (to close down the subject's pupils) or, in case of a zoom lens, by moving closer to the subject using a wide-angle setting.





**(2) Using a manual aperture setting:**

(Please read this section after you finish reading the "OPERATION OF MAJOR FUNCTIONS" section.)

When you wish to increase the depth of field, you can manually select a desired aperture. In order to select an aperture manually, the camera must be set in the Aperture-Priority AE mode (see page 38) or the Metered Manual mode (see page 40).

**Flash recommendation signals**

	Poor lighting	Backlighting
Aperture-Priority AE	○	○
Metered Manual	X	○

To calculate the effective RTF range with the selected aperture, the following formula can be used:

- Maximum distance:  $(\text{G.N.}) \div (\text{aperture})$
- Minimum distance:  $(\text{Maximum distance}) \div 5$   
(This formula cannot be used for a subject closer than 0.7 meters.)

If the subject distance is known beforehand, calculate the aperture based on that distance.

- $(\text{G.N.}) \div (\text{distance}) = (\text{aperture})$
- \* If the aperture calculated by this formula does not correspond to any f-number found on the aperture ring (for example, the aperture "3," which is between "4" and "2.8"), set the aperture to the smaller f-number ("2.8").

The RTF's guide number (G.N.) varies according to the ISO speed of the film in use, as indicated in the chart below.

ISO film speed	Guide number
ISO 25	G.N. 6
ISO 50	G.N. 8.5
ISO 100	G.N. 12
ISO 200	G.N. 17
ISO 400	G.N. 24

To use the RTF at aperture f/4 with ISO 100 film:

1. Set the lens aperture ring to f/4.
2. Calculate an effective flash range.  
 $12 (\text{G.N.}) \div 4 (\text{aperture}) = 3\text{m}$  (maximum distance)  
 $3\text{m} (\text{distance}) \div 5 = 0.6\text{m}$  (minimum distance)  
 $\rightarrow 0.7$  (actual minimum distance)

3. Therefore, the effective flash range is between 0.7 meters and 3 meters.

### Specifications of the RTF

(at ISO 100)

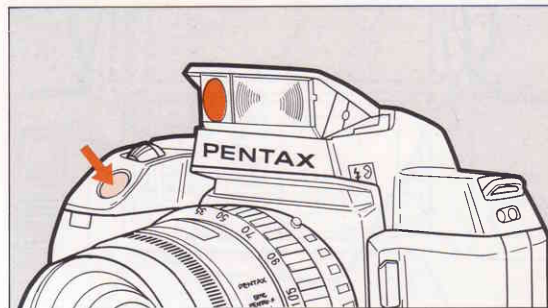
Guide number (G.N.): 12

Recycle time: Approx. 4 seconds

Usable film speed: ISO 25 — ISO 400

Effective flash range: Approx. 0.9m — 4.3m (at f/2.8)


Usable lenses: From 35mm to 210mm.  
35mm lenses usable at 1 meter or farther.  
Excluding macro lenses.



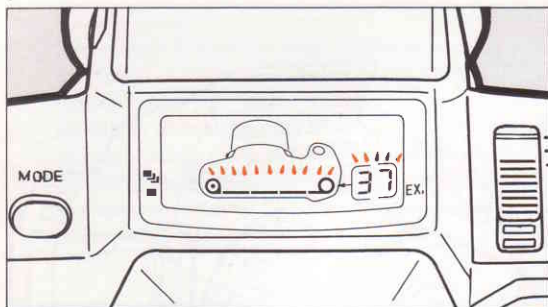
When the RTF is used in the dark, a red beam called the “AF spotbeam” is automatically projected to assist the camera’s auto-focus mechanism.

#### Note:

The spotbeam is activated only when the KAF mount lens or the AF adapter is mounted and the Focus mode switch is set at [AF].

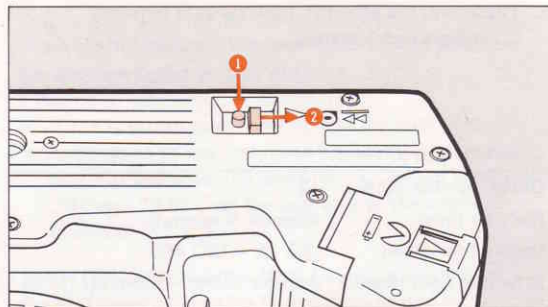
- The effective range of the AF spotbeam is approximately one to four meters. If you do not wish to use the RTF, put it back into the storage position after setting the focus on the subject using the focus-lock function.
- The AF spotbeam does not work in well-lit locations.
- If in-focus signal [  ] in the viewfinder is blinking, the camera is unable to focus on the subject.
- When an AF spotbeam of the AF400FTZ or AF240FT is used, the RTF’s spotbeam is inactivated.

1



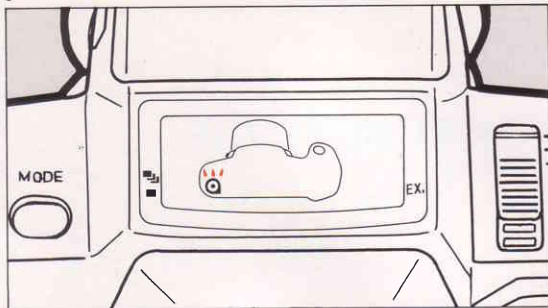
1. When the film is used up, the end-of-film mark [ —○ ] and the figure in the exposure counter [ EX. ] blink.

2



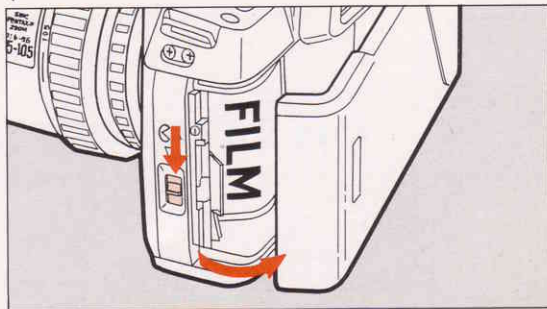
2. Push the rewind switch ① toward the mark [ ▶ ] until it click-stops while pressing down the rewind button ①, and the camera starts rewinding the film. (The figure in the exposure counter decreases as well.)

3



3. When rewind is completed, the film mark [Q] blinks and the figure in the exposure counter [EX.] goes off.

4



4. Open the back cover and take the film out.

- When you finish shooting, be sure to set the main switch to the "OFF" mark [O] to turn the power off.

*Now you have mastered the camera's basic operations.*