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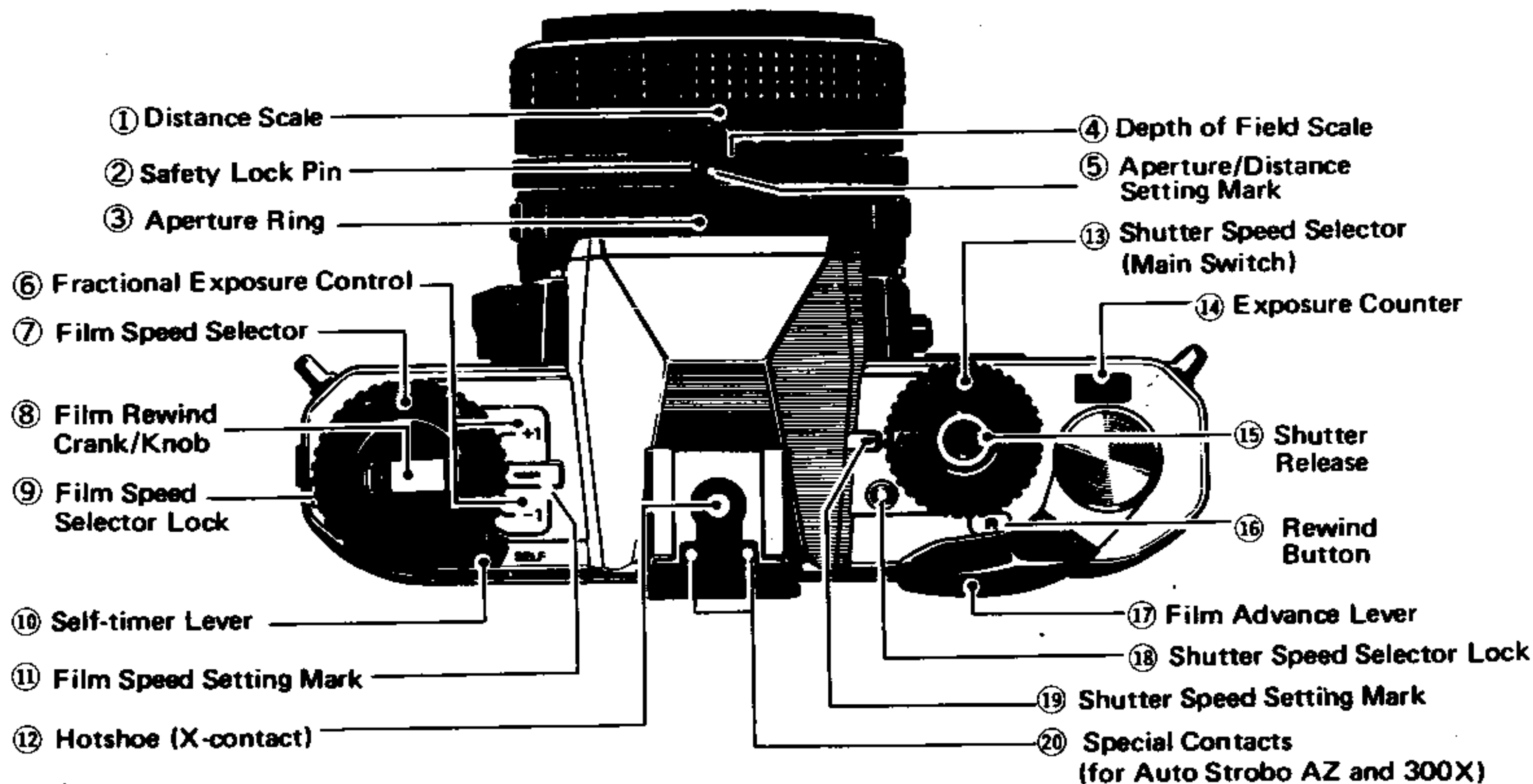
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SPECIAL FEATURES

- ①** — This compact, lightweight, aperture-preferred AE camera has a built-in microcomputer, product of the latest in electronic engineering, to insure high-precision automatic exposure in candlelight to sunlight.
- ②** — Five LED shutter-speed indicators in the viewfinder let you set exposure in an instant so that you won't miss those once-in-a-lifetime shots. Three-way (split-image, microprism, ground-glass screen) focusing lets you focus any type of subject quickly and sharply.
- ③** — Soft-touch electromagnetic shutter release permits even the first-time user to shoot without camera shake; Auto Winder X (optional accessory) lets you shoot continuously at 2 fps; unique, high-precision electronically controlled self-timer emits a penetrating beep-beep to keep you alert until the shutter trips.
- ④** — A wide assortment of "system accessories" including the unique Fujica Auto Strobo 300X (G. No. 30), Fujica Auto Strobo AZ (G. No. 17), and Fujica Photo Recorder for printing data on the film, expands your picture-taking scope well beyond present horizons.
- ⑤** — Fujica X "short turn" (65°) lens mount permits quick lens changing and accepts the entire line of new X-Fujinon interchangeable lenses from wideangle to telephoto as well as other lenses to take full advantage of the SLR system.

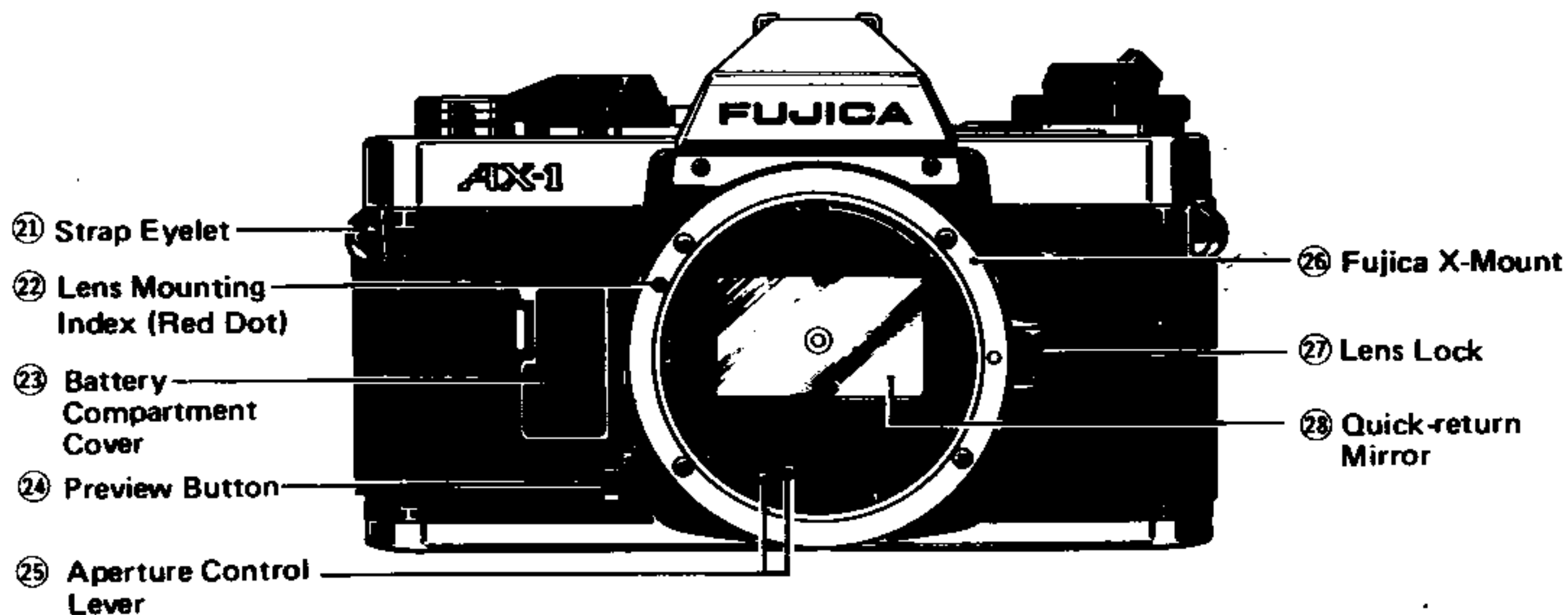
NAMES OF PARTS

23P11A-1 1A1114

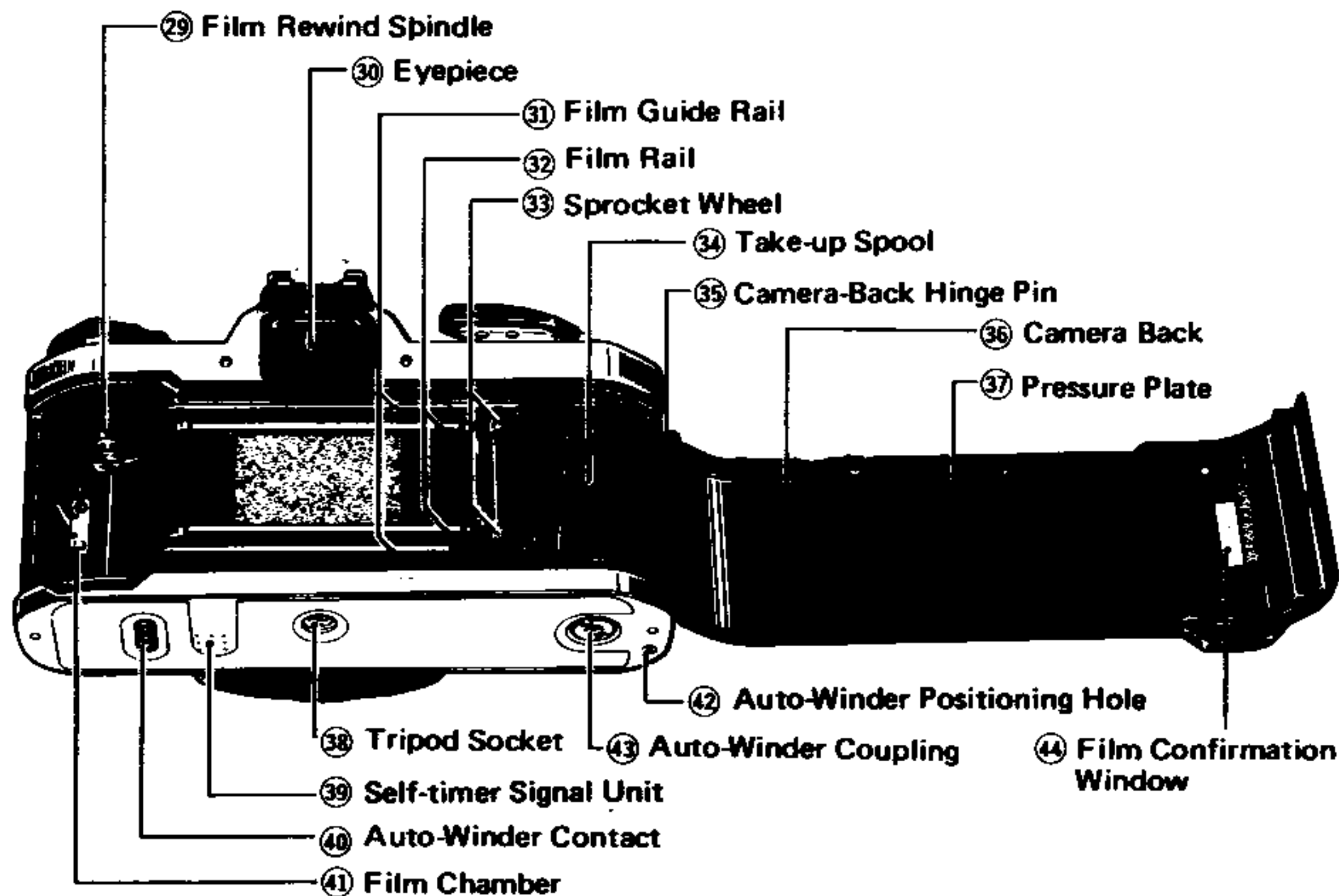


* Be sure to keep this page open while consulting this manual.

NAMES OF PARTS



NAMES OF PARTS



Getting ready to take pictures

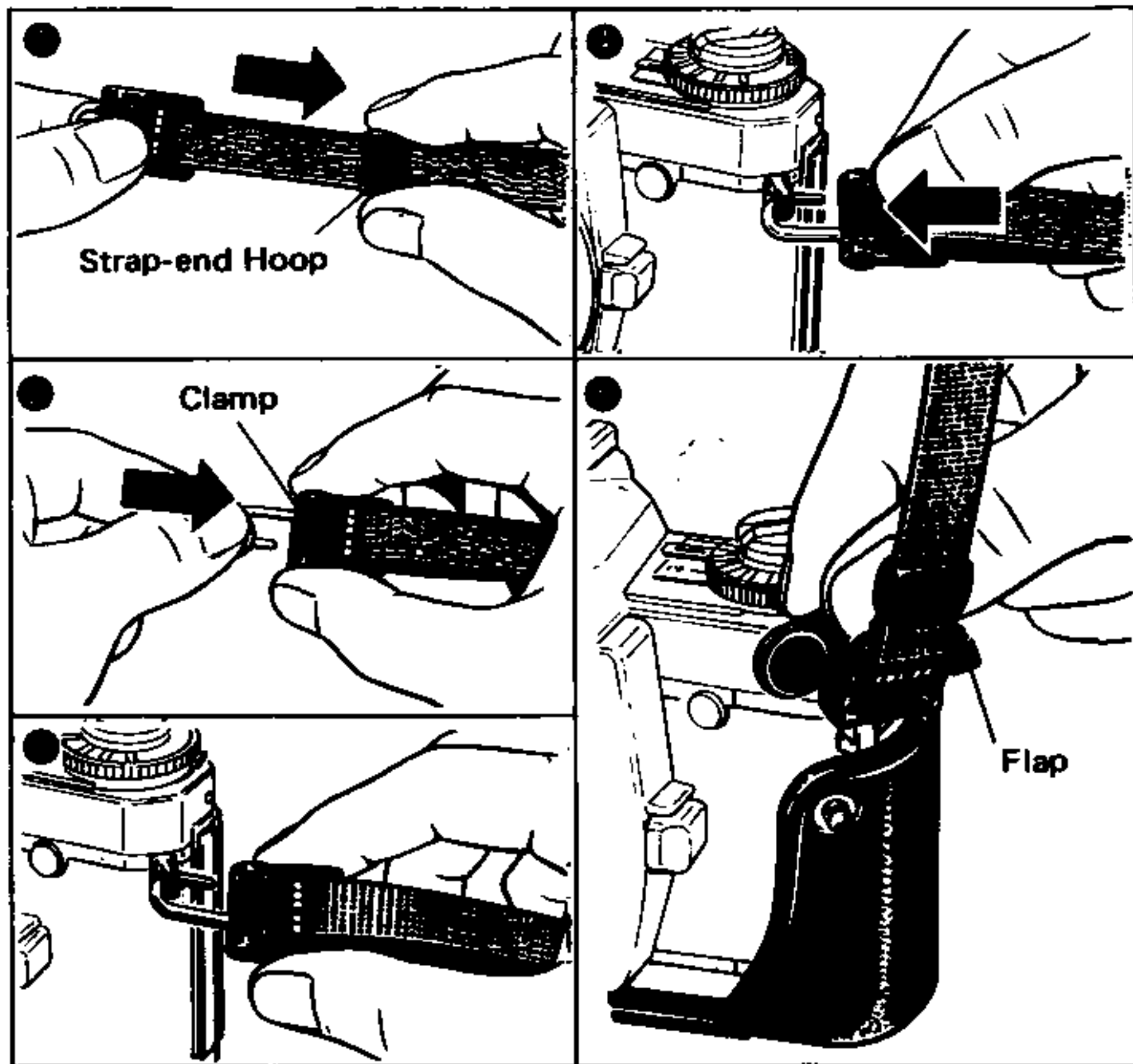
1. ATTACHING THE STRAP AND PUTTING THE CAMERA IN ITS CASE

Attaching the strap

- Slide back the strap-end hoop as shown.
- Hold the clamp between your fingers as shown and pull out the metal clip.
(The clamp may be tight when it's new. If you find it difficult to pull out the clip, open the clamp with your fingers and pull it out.)
- Hook the clip to the camera's Strap Eyelet and push the clamp forward to lock the clip.
- slide back the strap-end hoop tightly against the clamp.

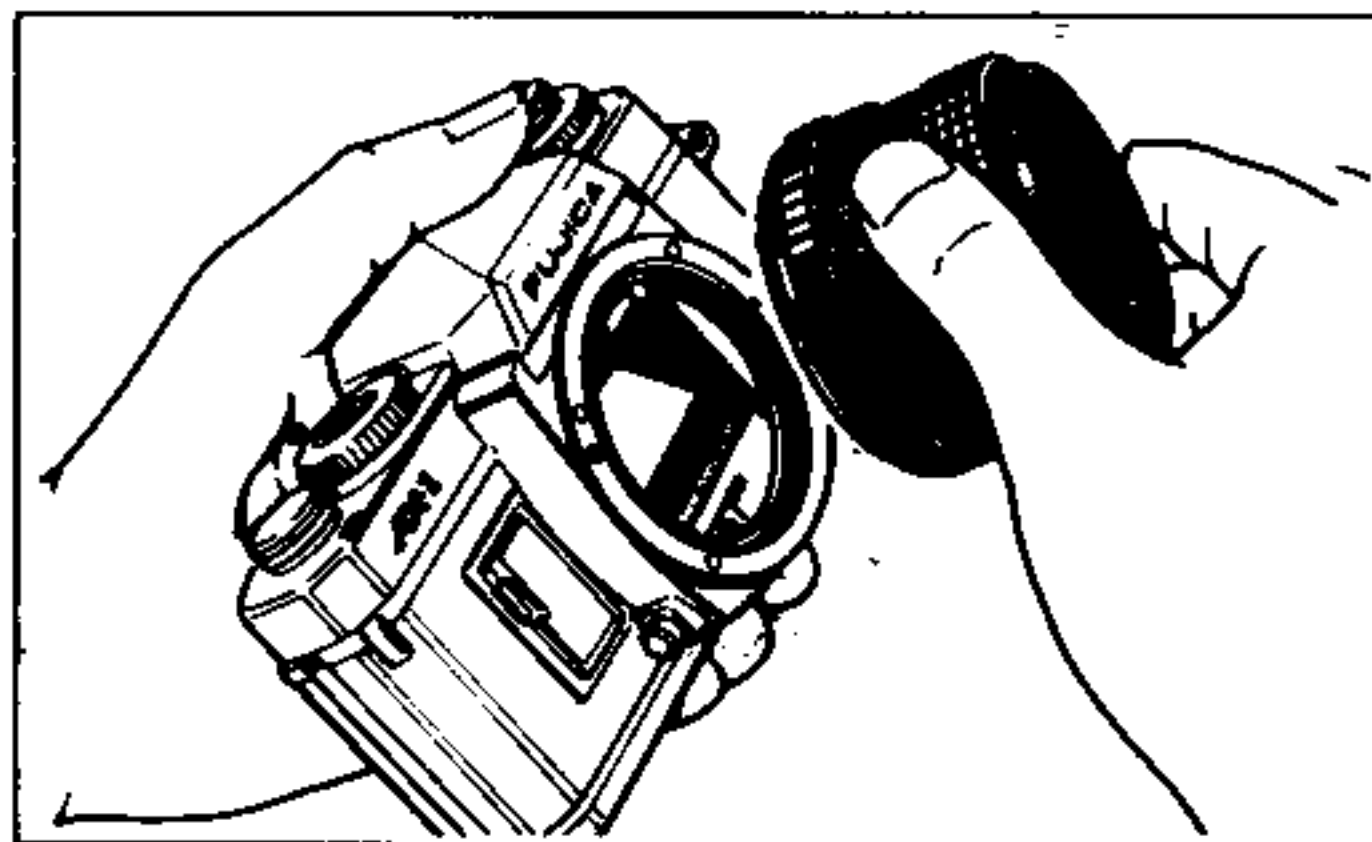
Putting the camera in its case

- Put the camera in its case and secure the case to the strap with the flaps provided on both sides of the case by closing the snaps. Next, put on the case cover.
- To take the camera out of its case, repeat (5) in reverse.



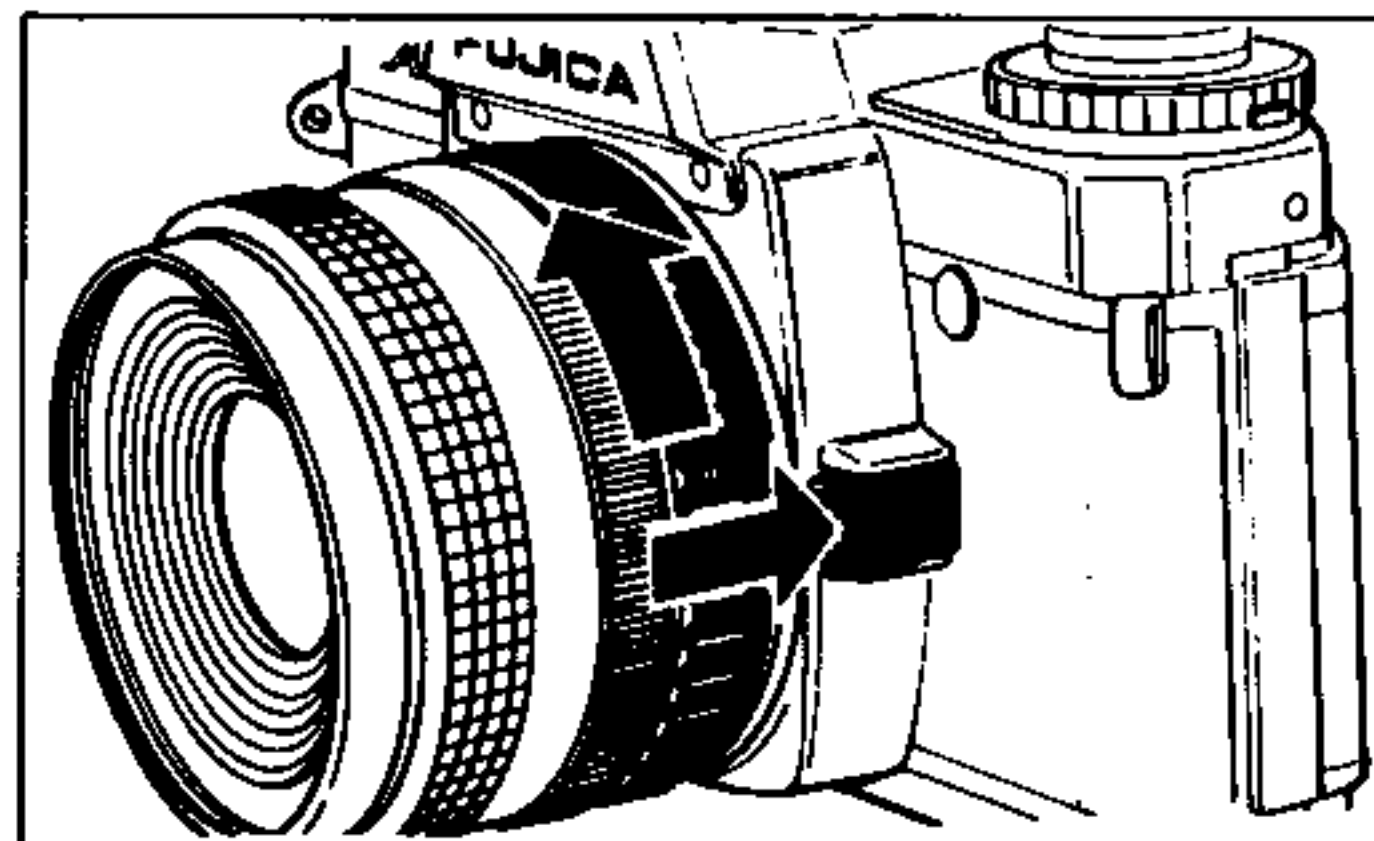
2. MOUNTING AND DISMOUNTING THE LENS

Mounting



Position the red dot on the lens rear opposite the red dot on the Lens Mount, then push the Lens in and turn it 65° to the right (clockwise). It will lock into position with a click.

Dismounting



While pressing in the Lens Lock toward the camera body, turn the Lens to the left (counter-clockwise) as far as it will go, then pull it out toward the front.

Using the Rubber Lens Hood

When shooting against the light, fit the accessory Rubber Lens Hood on to the lens to prevent flare and ghost caused by the light falling directly on the lens surface.

Choosing the Right Battery

You can use any one of the following batteries but be sure to use a new battery.

6-volt silver oxide battery (4SR44).

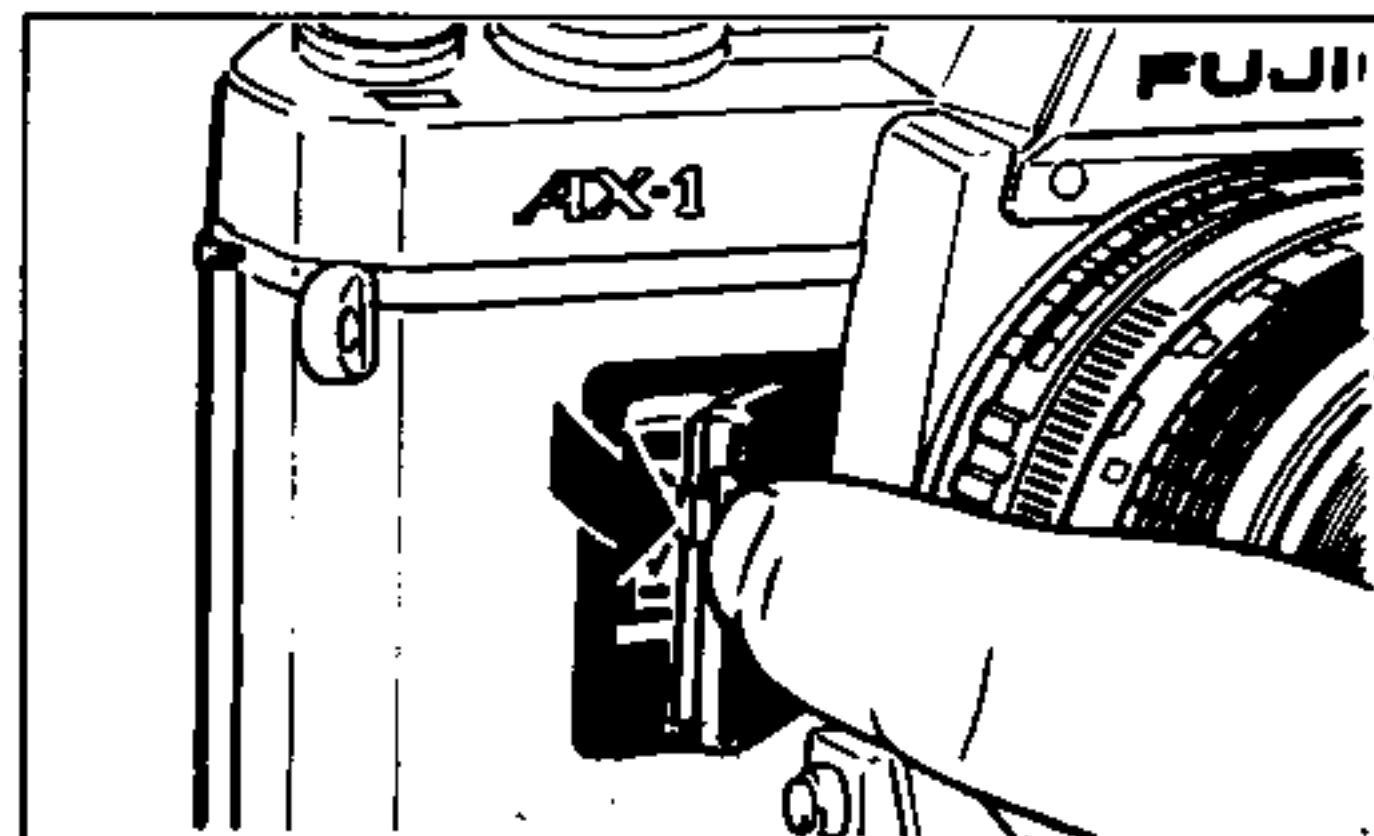
6-volt alkaline manganese battery (4LR44).

6-volt lithium battery.

- **Special precautions for the use of batteries in cold weather**

- Generally, the battery performance will decrease rapidly at temperatures below 0°C. If you are shooting in sub-zero weather, it is always best to use a new battery. If the temperature is extremely low, it is advisable to keep a spare battery on hand and use the camera battery and this spare battery in turns while warming them up with your body heat.
- Silver oxide batteries are well suited for shooting in cold weather. They are also recommended for taking a large number of pictures.

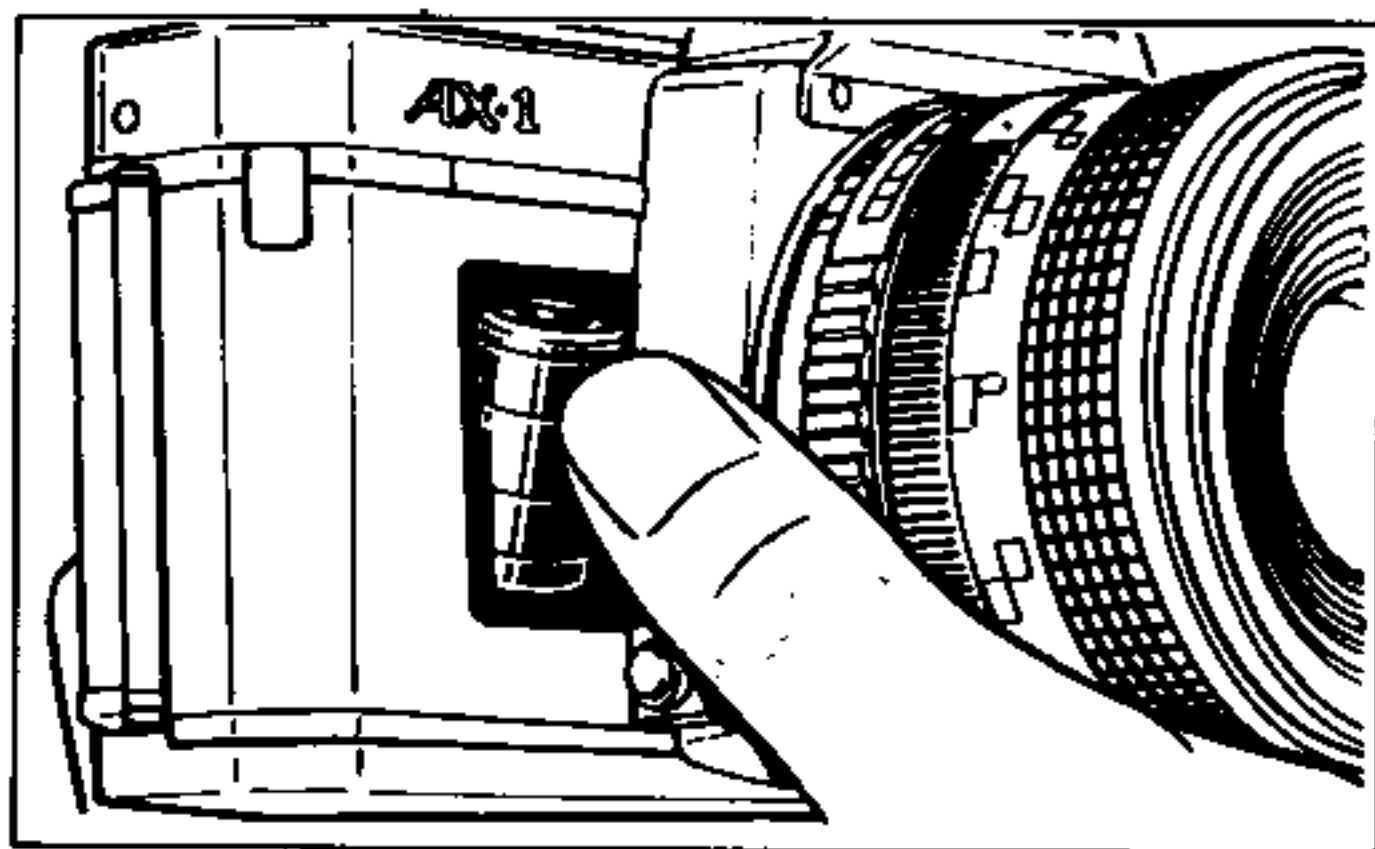
Loading the Battery



- Remove the Battery Compartment Cover by pushing the Cover Lock in toward the Lens with your fingernail and lifting it up.

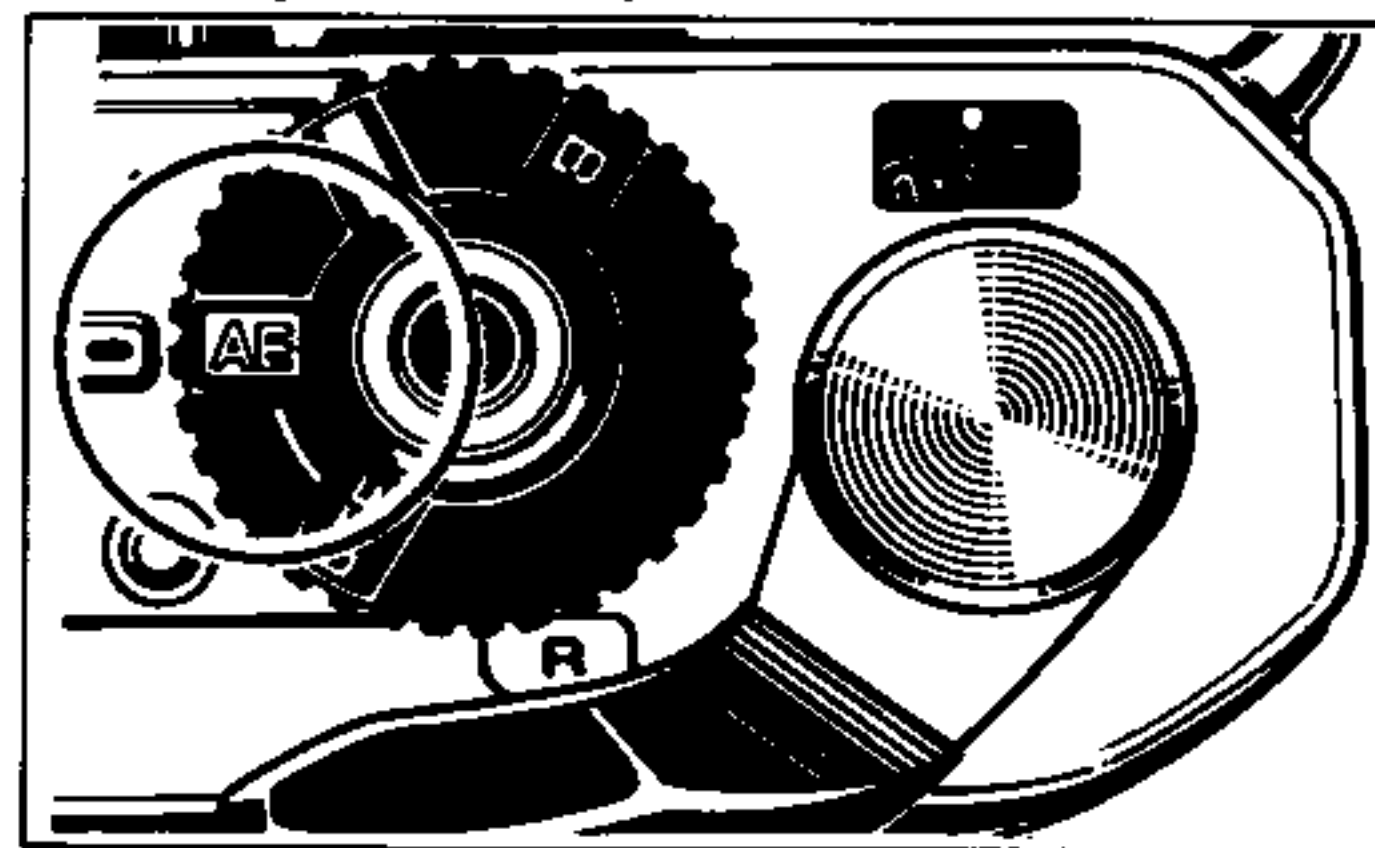
- Notes:
1. One new silver-oxide battery and lithium battery will normally last about 8 months, and one new alkaline-manganese battery about 6 months.
 2. Before loading, wipe both ends of the battery clean with a dry piece of cloth.
 3. If you are not taking pictures for a long while, remove the battery before putting the camera away.

3. LOADING AND CHECKING THE BATTERY



- Insert the battery, plus (+) and minus (—) ends correctly, as shown in the Battery Compartment.
- The battery will load easier if you insert the minus (—) end first.
- To unload, press down and pull out the plus (+) end of the battery with your fingernail.
- Replace the Battery Compartment Cover by sliding in the inner edge and pressing the cover down.

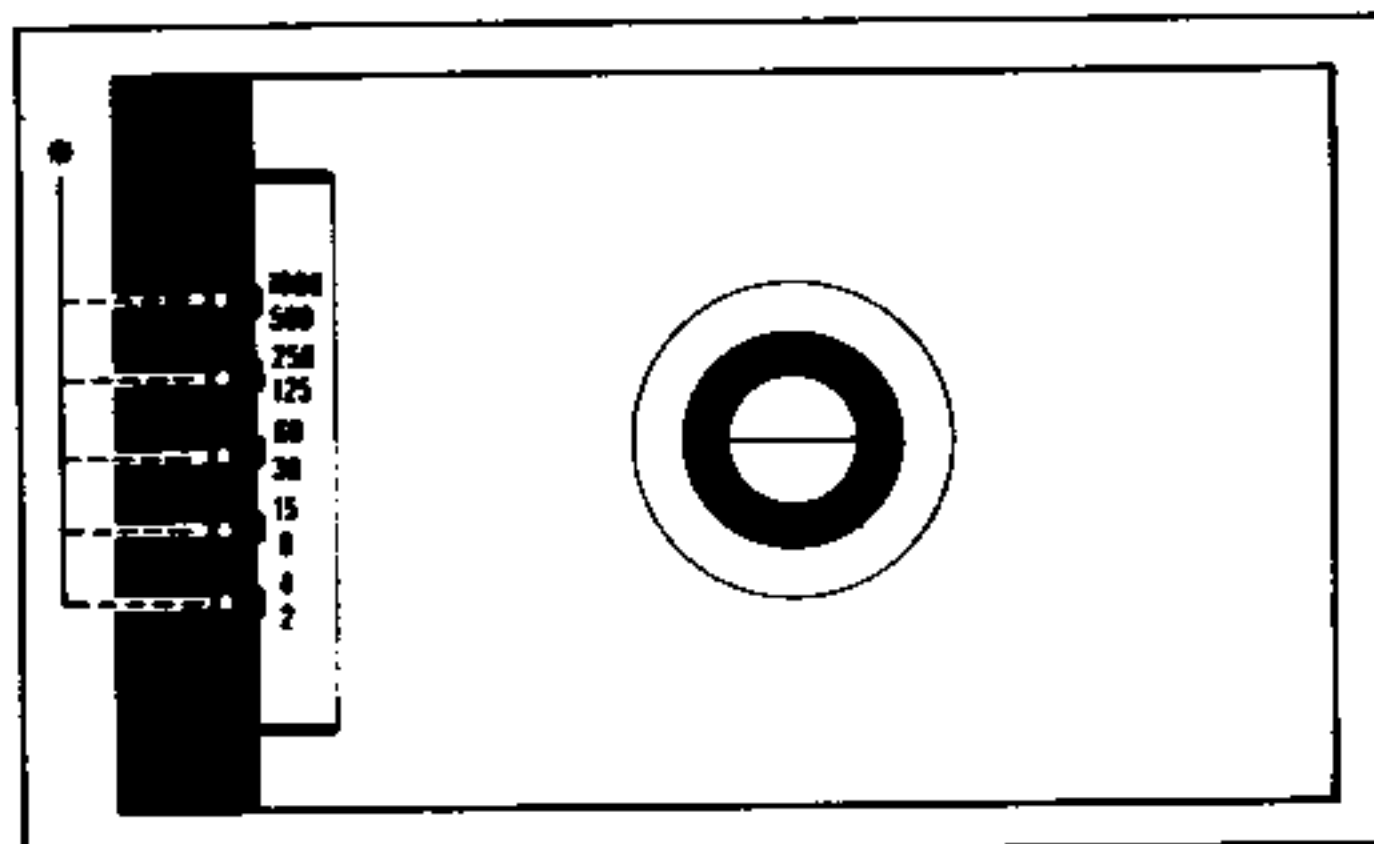
Checking the Battery



Make it a habit to check the battery before you start taking pictures. You won't get properly exposed pictures if the battery is worn out because your Fujica AX-1's shutter is electronically operated regardless of the exposure mode employed.

- Set the Shutter Speed Selector to AE.
- While looking through the Viewfinder, press the Shutter Release halfway down.

3. LOADING AND CHECKING THE BATTERY



- If any one of the shutter-speed-indicator LEDs in the Viewfinder left side blinks slowly (about 4 times a second), it means that the battery is worn out and must be replaced with a new one. No LED will turn on, if the battery is completely exhausted.

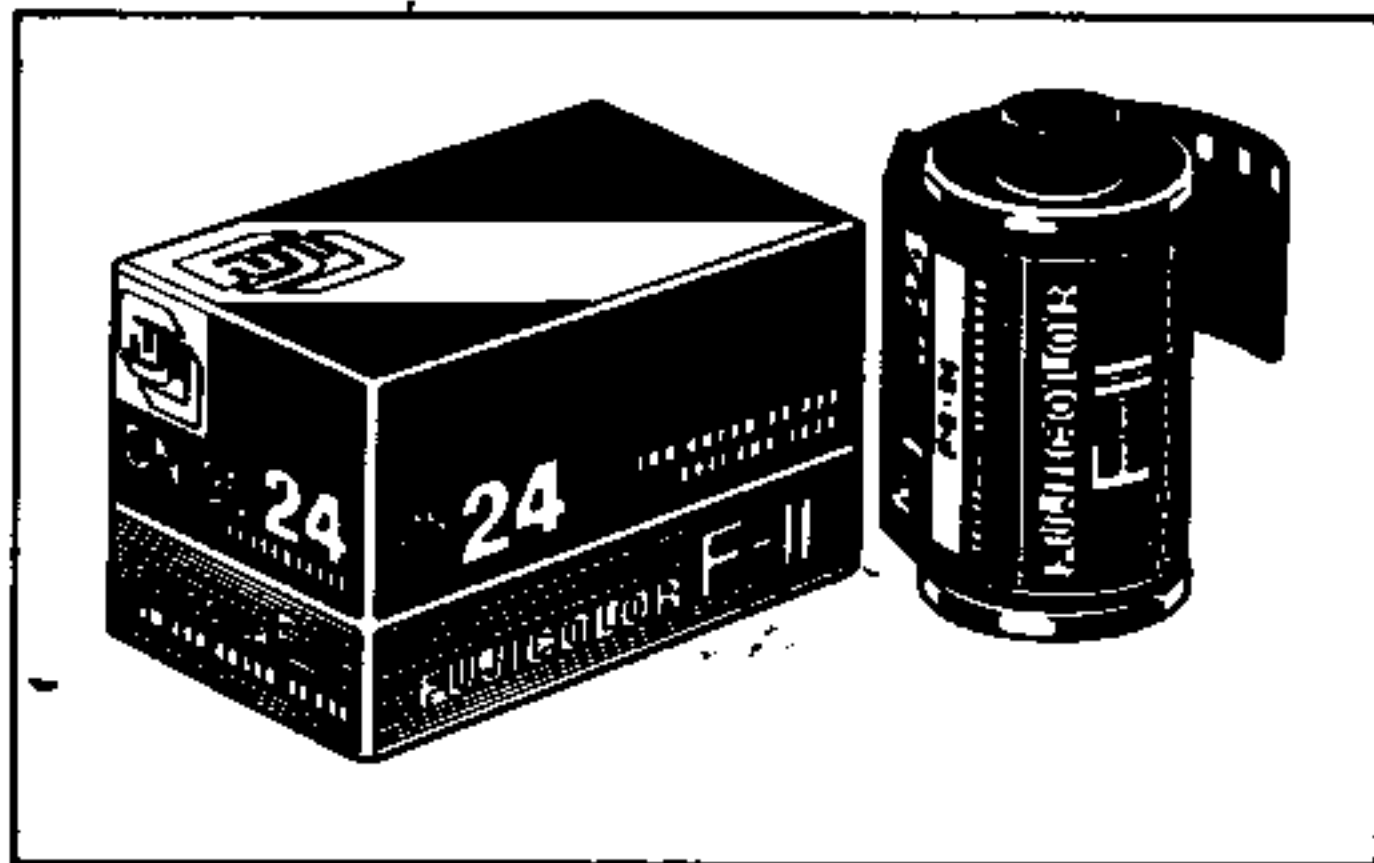
- Notes:
1. If only an LED on the top or bottom side blinks quickly (about 8 times a second), this is a warning for over- or underexposure. In this case, the LED will stop blinking if you change the aperture setting to obtain correct exposure (see page 22).
 2. If you are taking your camera on a vacation trip, be sure to bring a spare battery along.
 3. When shooting in cold weather, check the battery frequently because low temperature will dampen battery performance.

Power Switch

The Shutter Speed Selector on your Fujica AX-1 also serves as the camera's power switch. To prevent unnecessary battery drain, be sure to turn it off each time you finish taking pictures.

4. LOADING THE FILM

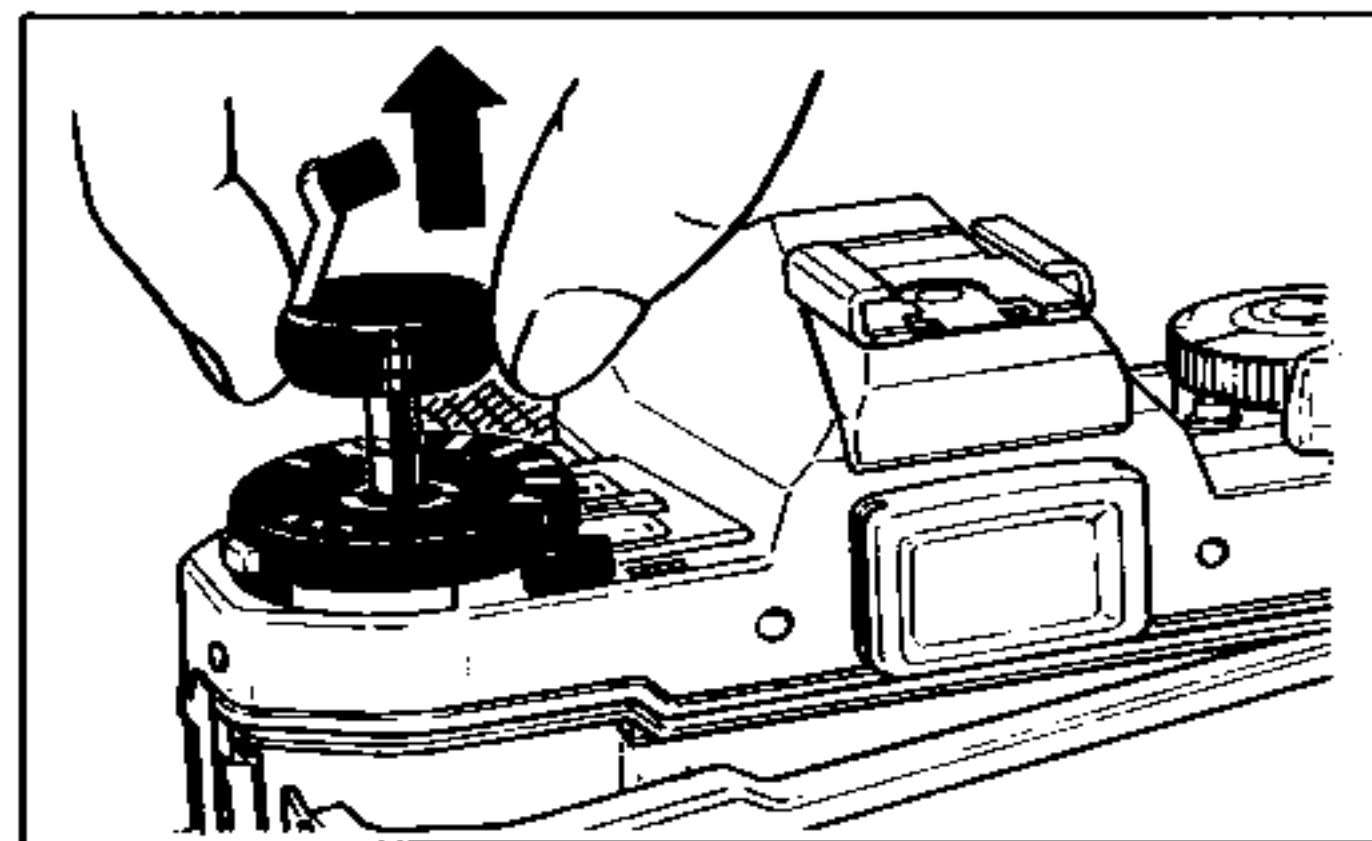
Film format



Use cartridge-packed 35mm roll film (135 type)

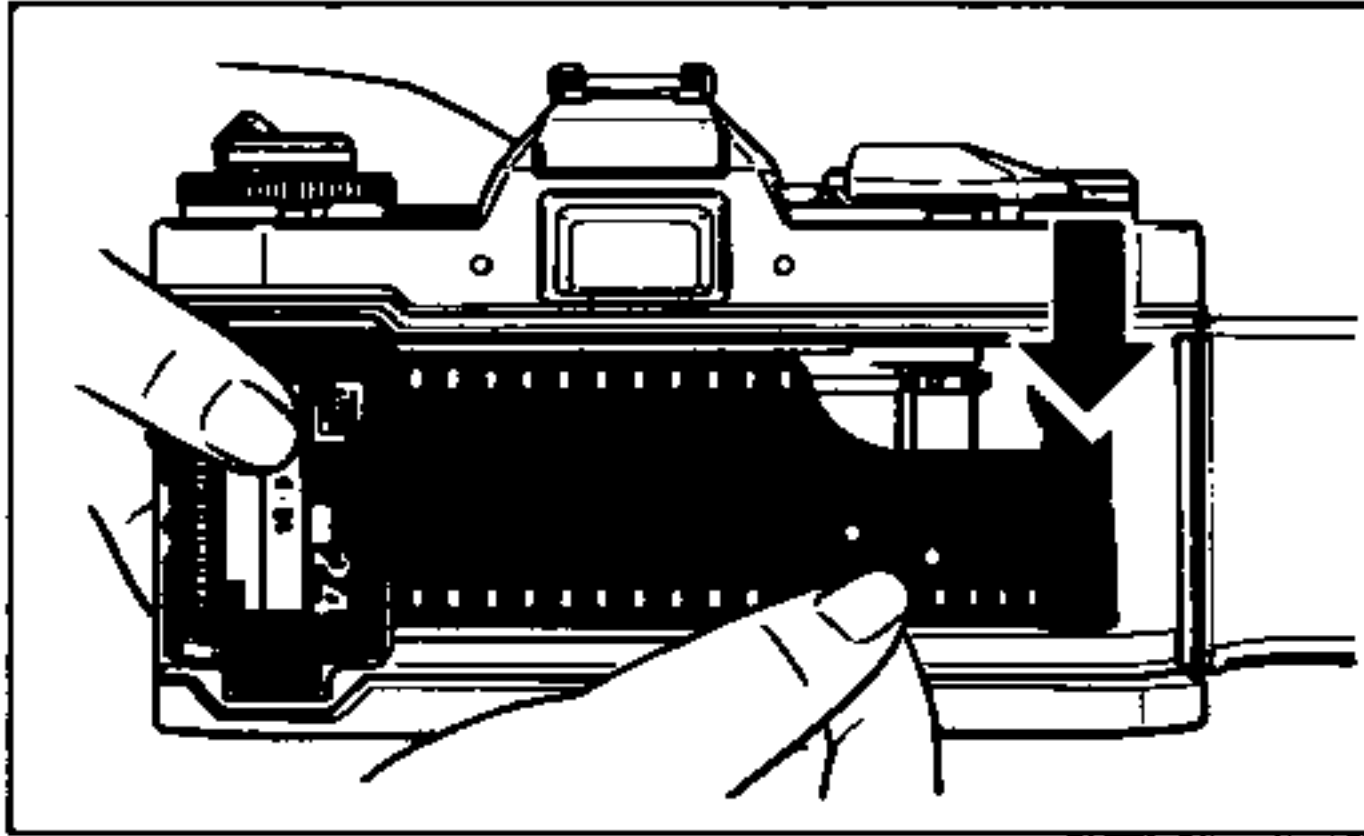
- Always load and unload film in subdued light.

Loading

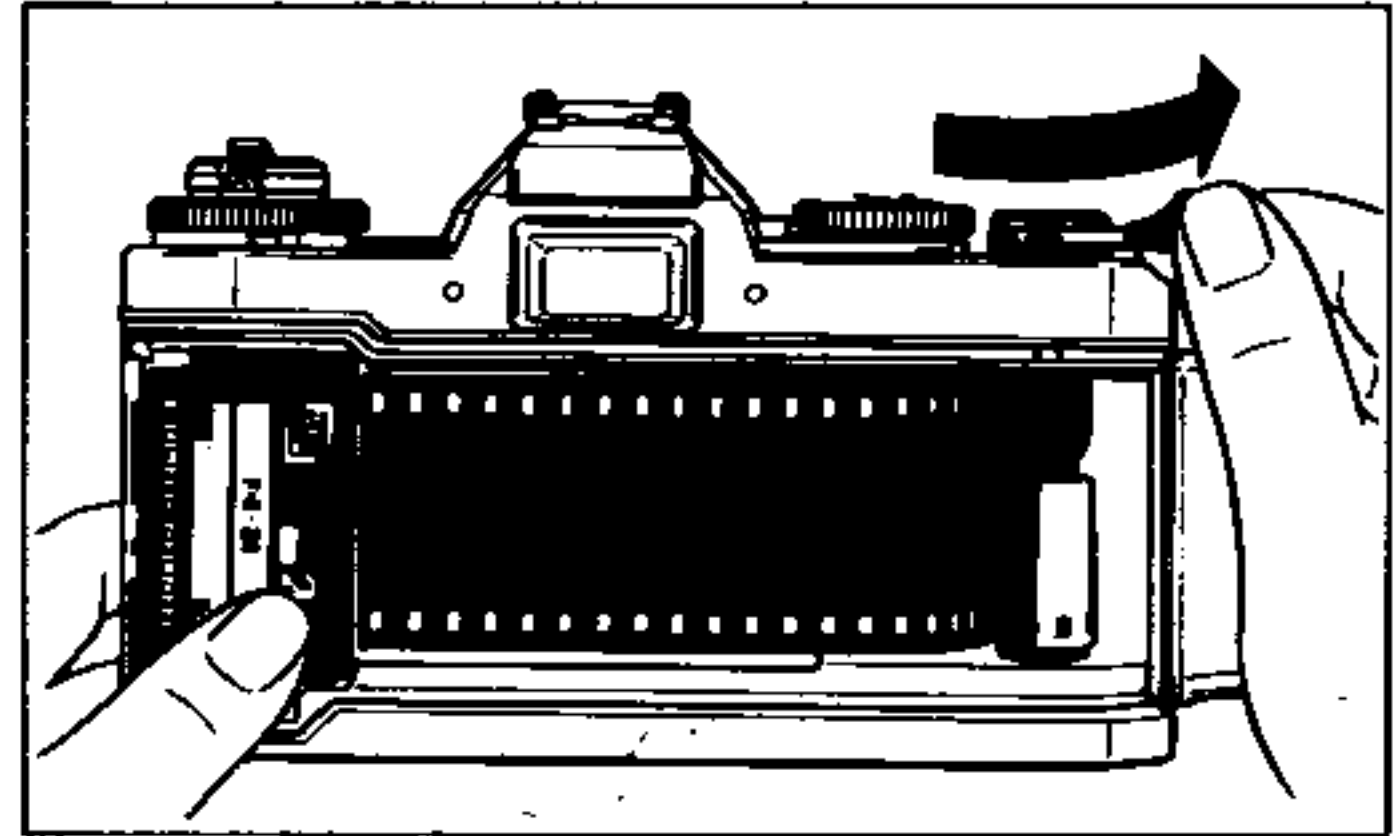


- Open the Camera Back by pulling the Film Rewind Knob all the way out. (It will not open unless the knob is fully pulled out.)
- Drop the film cartridge into the Film Chamber with the spool head (protruding portion of the cartridge) pointing to the camera bottom, then push the Film Rewind Knob down to its original position.

4. LOADING THE FILM

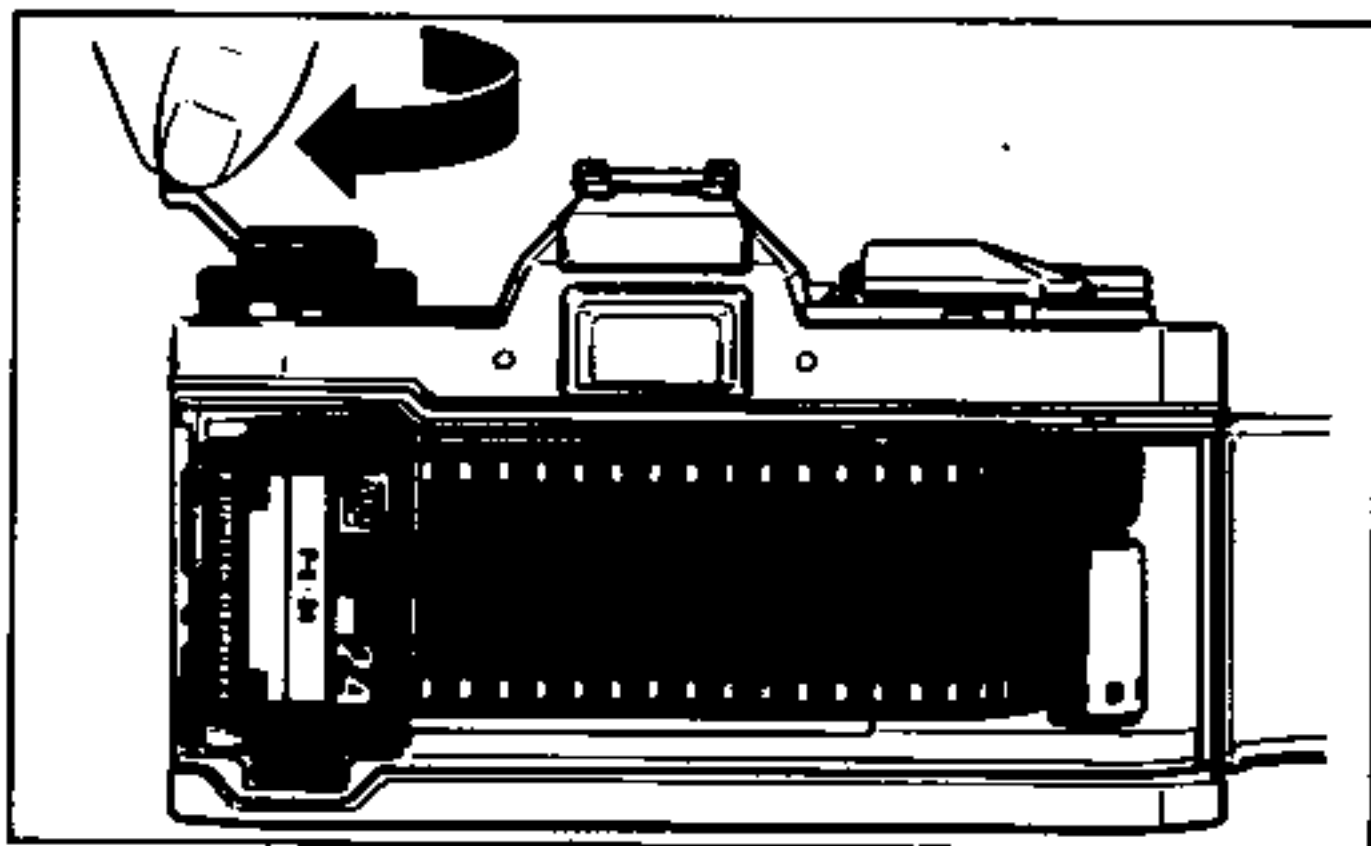


- ➊ Pull out the film tip and insert it deeply into the slot of the Take-up Spool, but make sure it doesn't go through the spool hub.

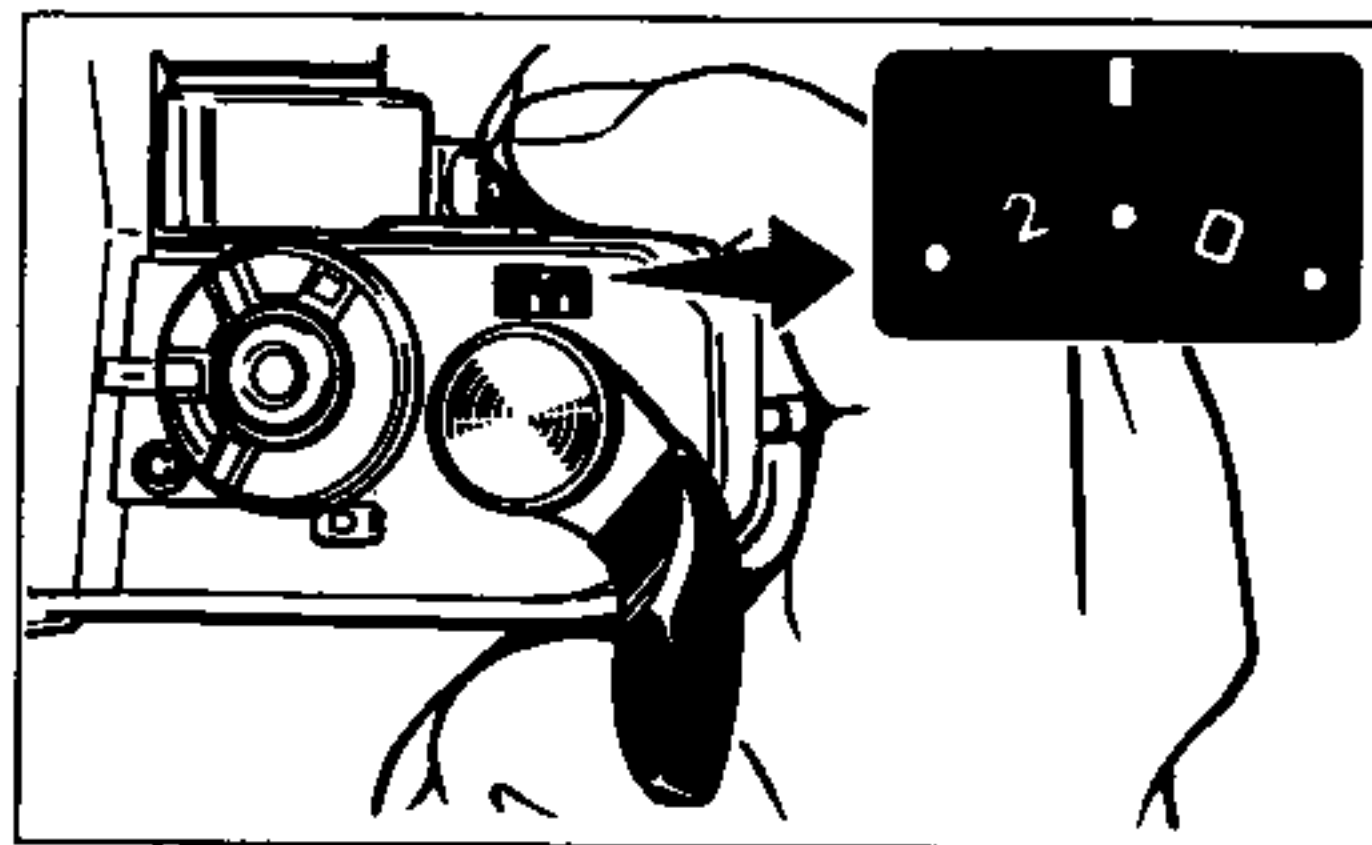


- ➋ Wind the film with a stroke or two of the Film Advance Lever and make sure the Sprocket Teeth catch the film perforations.

4. LOADING THE FILM

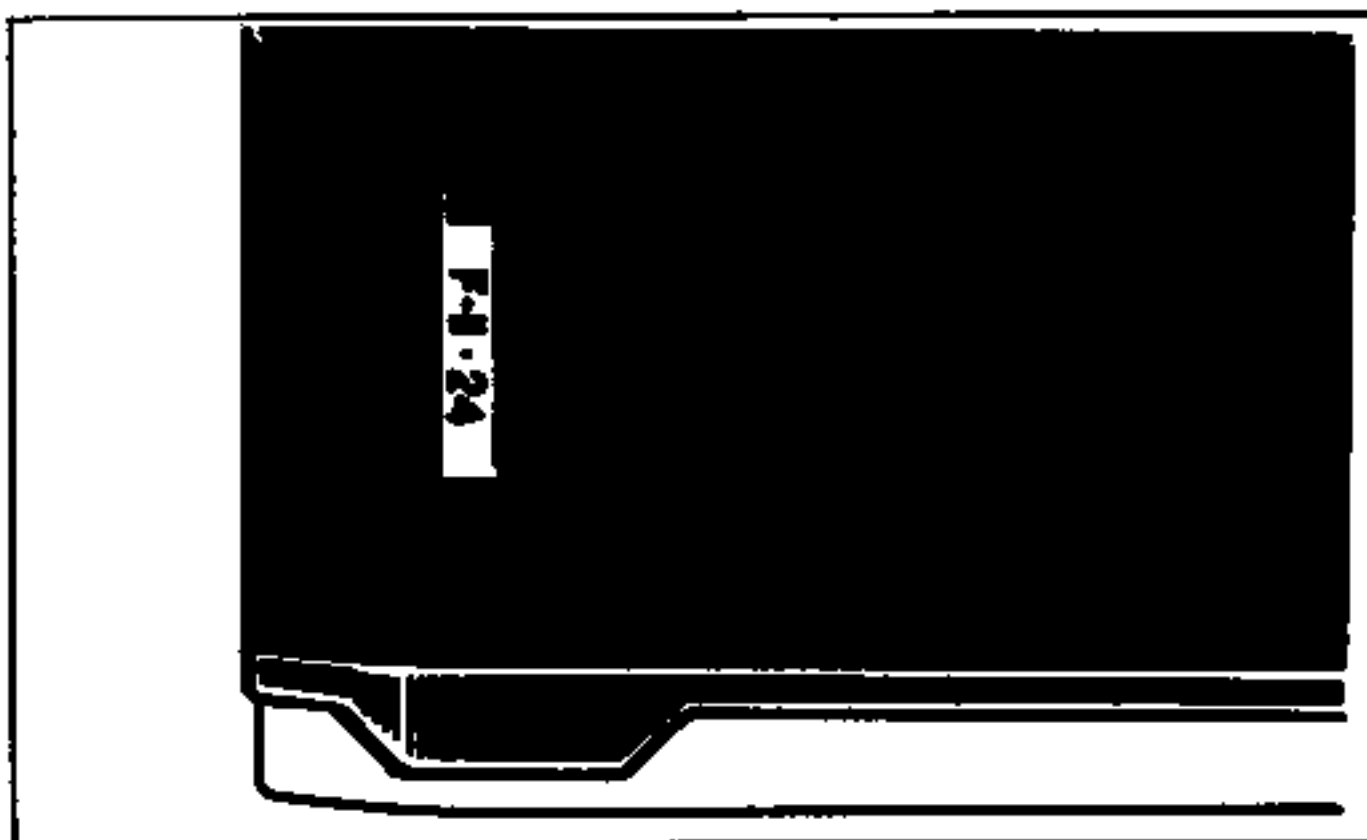


- Erect the Film Rewind Crank and turn it in the direction of the arrow to take up any slack in the film, make sure the film is properly positioned between the guide rails, then close the Camera Back.



- While watching the Exposure Counter, wind the film with the Film Advance Lever and press down the Shutter Release. Repeat until the second white dot from the letter "S" (first white dot from the red "0") appears in the center of the Exposure Counter. The film has now been positioned for the first shot.
- The film is advancing properly if the Film Rewind Knob turns while the Film Advance Lever is winding.
- The white dots between the numbers in the Exposure Counter represent odd numbers.

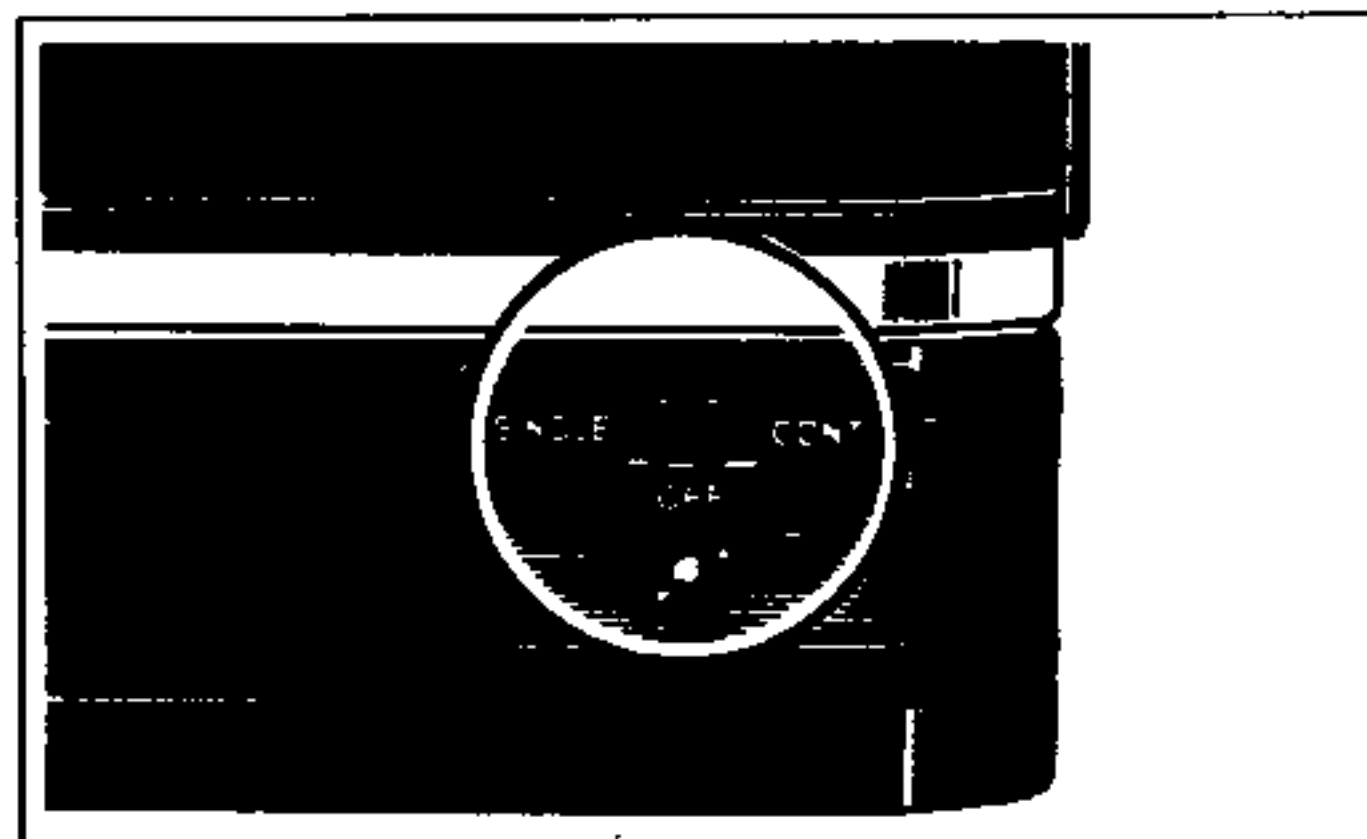
4. LOADING THE FILM



● Film identification

The Film Confirmation Window in the camera back will tell you at a glance whether there is film in the camera or not. If you have Fuji film in your camera, it will also tell you the film type and the number of exposures it will yield.

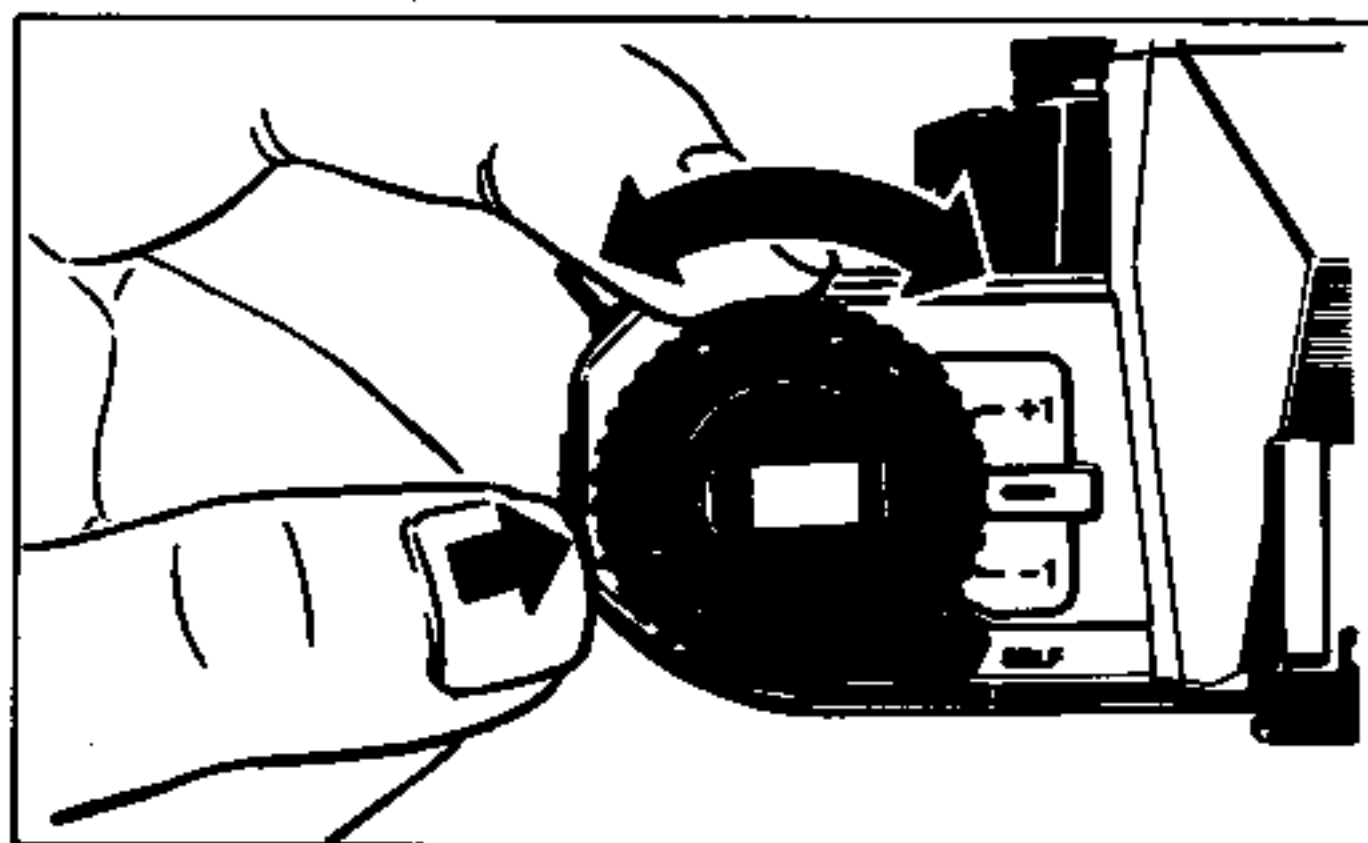
Loading Film with the Fujica Auto Winder X Attached



The procedure is the same as that described in ① to ⑤. To wind the film, close the Camera Back, switch the auto winder switch to SINGLE or CONT. and press down the Shutter Release.

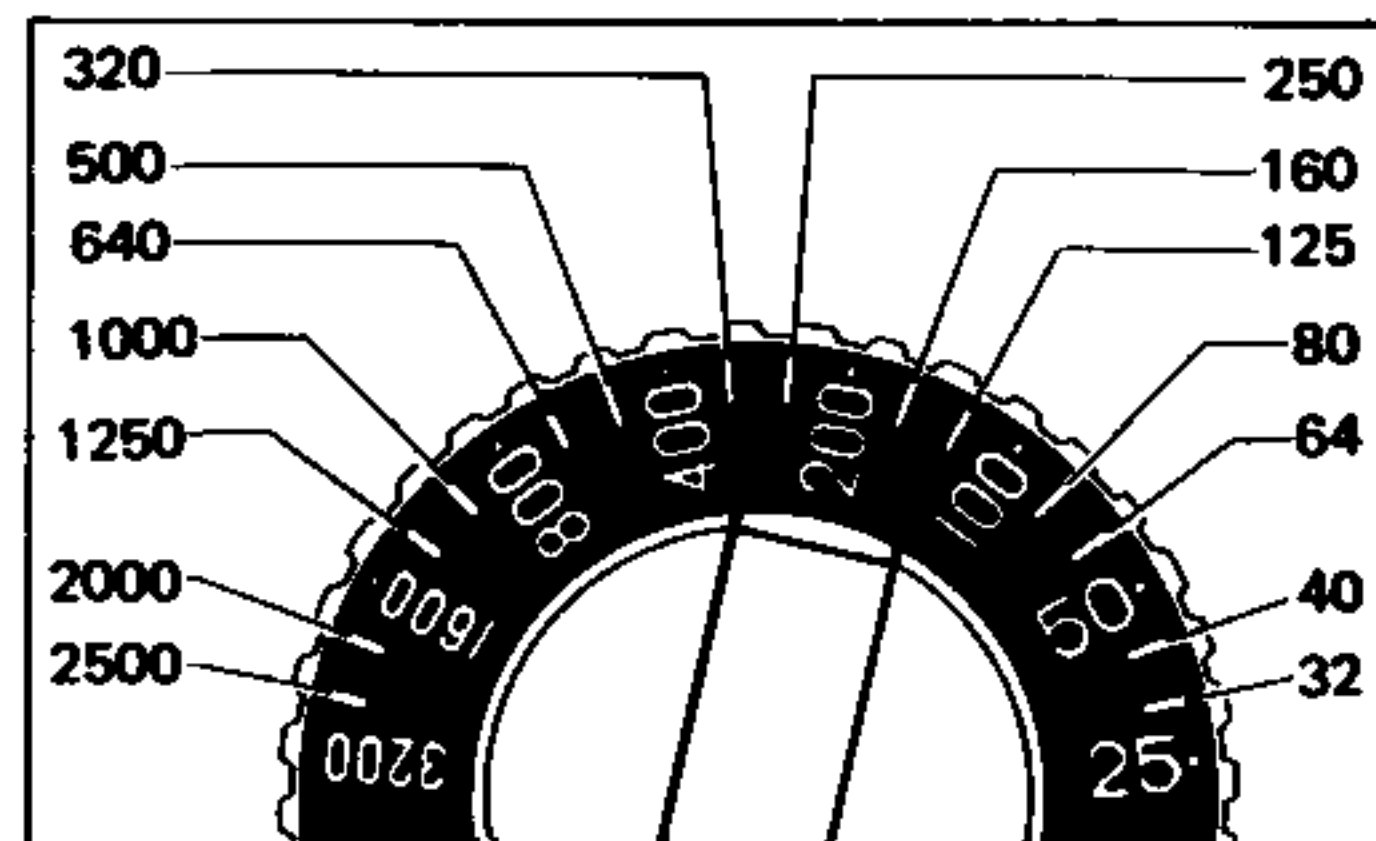
- If the film does not advance, turn off the auto winder and switch it once again to SINGLE or CONT.
- For further information read the Auto Winder instruction manual.

5. SETTING THE FILM SPEED SELECTOR



After loading the film, be sure to set the Film Speed Selector because your pictures will not be properly exposed if it is not set for the speed of the film loaded in the camera. The speed of the film you are using is printed on the film box.

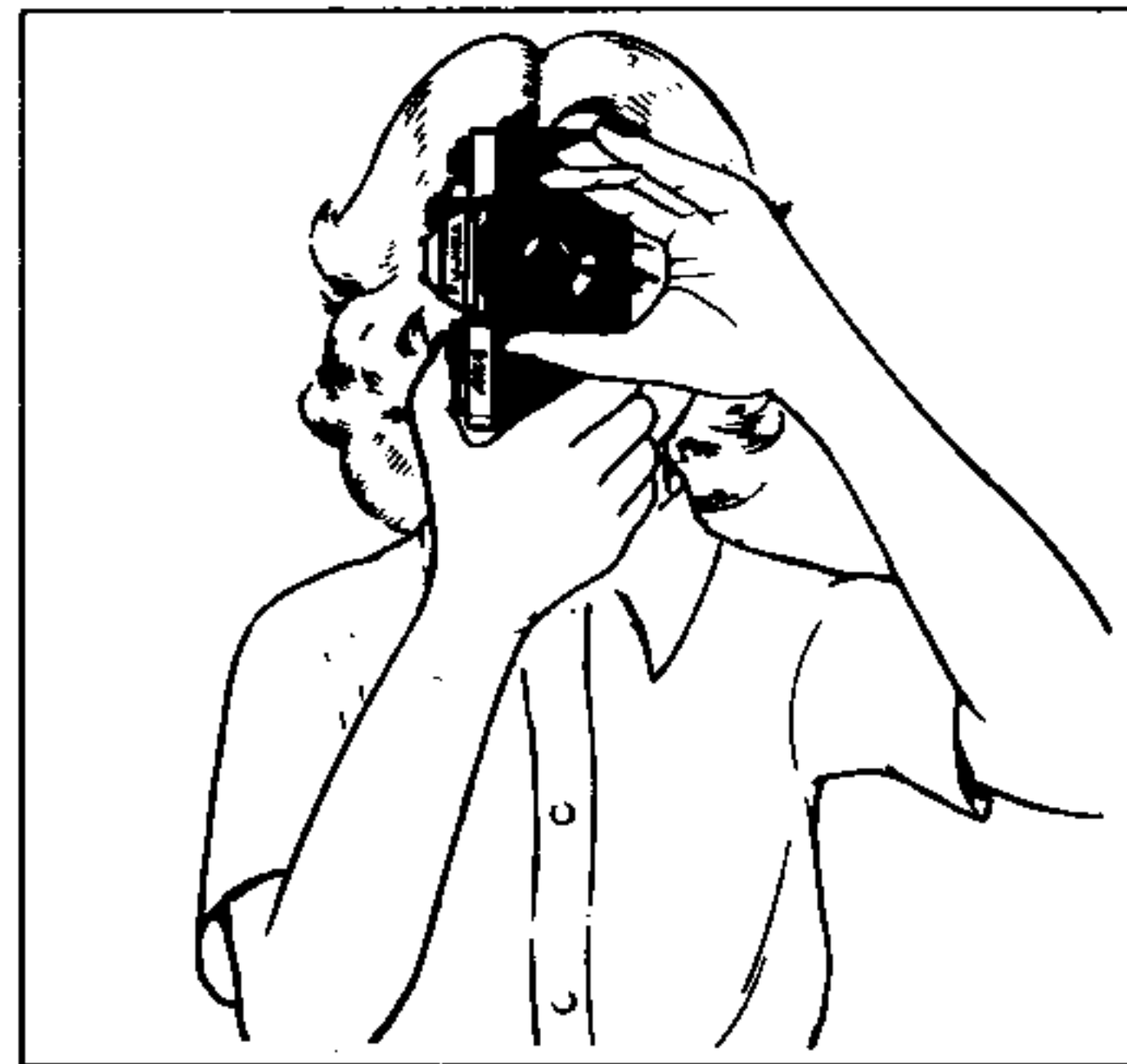
- While pressing in the Film Speed Selector Lock (a white button at the side of the Film Speed Selector), turn the selector dial and set it for the speed of the film you are using, that is, if you are using an ASA 100 film, set the number 100 opposite the Film Speed Setting Mark.
- The marks labeled +1 and -1 on each side of the Film Speed Setting mark are used for making exposure compensation. Be sure to use the center mark for setting the Film Speed Selector.



- The lines etched between the numbers on the Film Speed Selector represent the ASA speeds shown in the illustration above.
- The corresponding ASA and DIN film speeds are as follows:

ASA	25	32	40	50	64	80	100	200	250	320	400	800
DIN	15	16	17	18	19	20	21	24	25	26	27	30

6. AIMING THE CAMERA



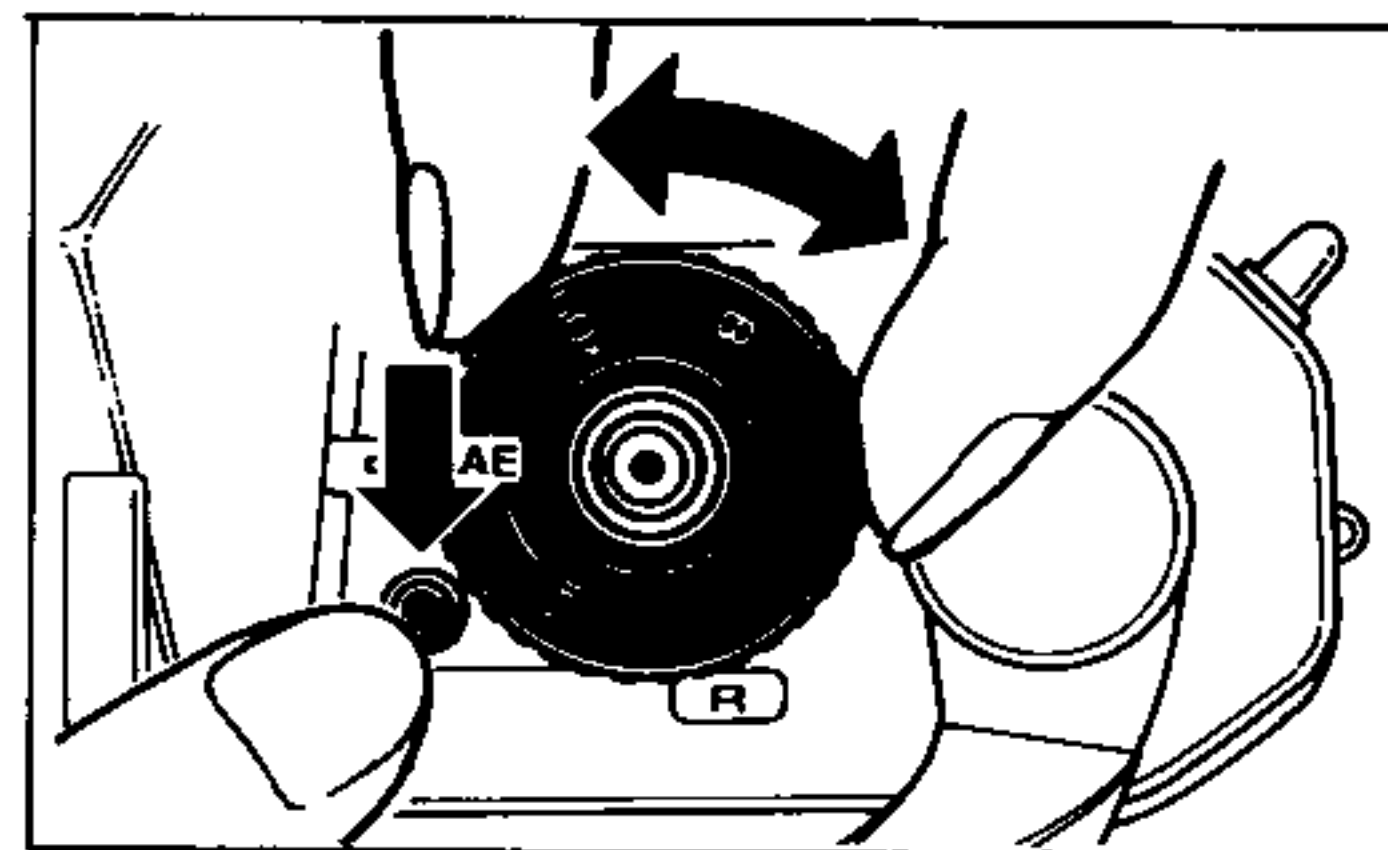
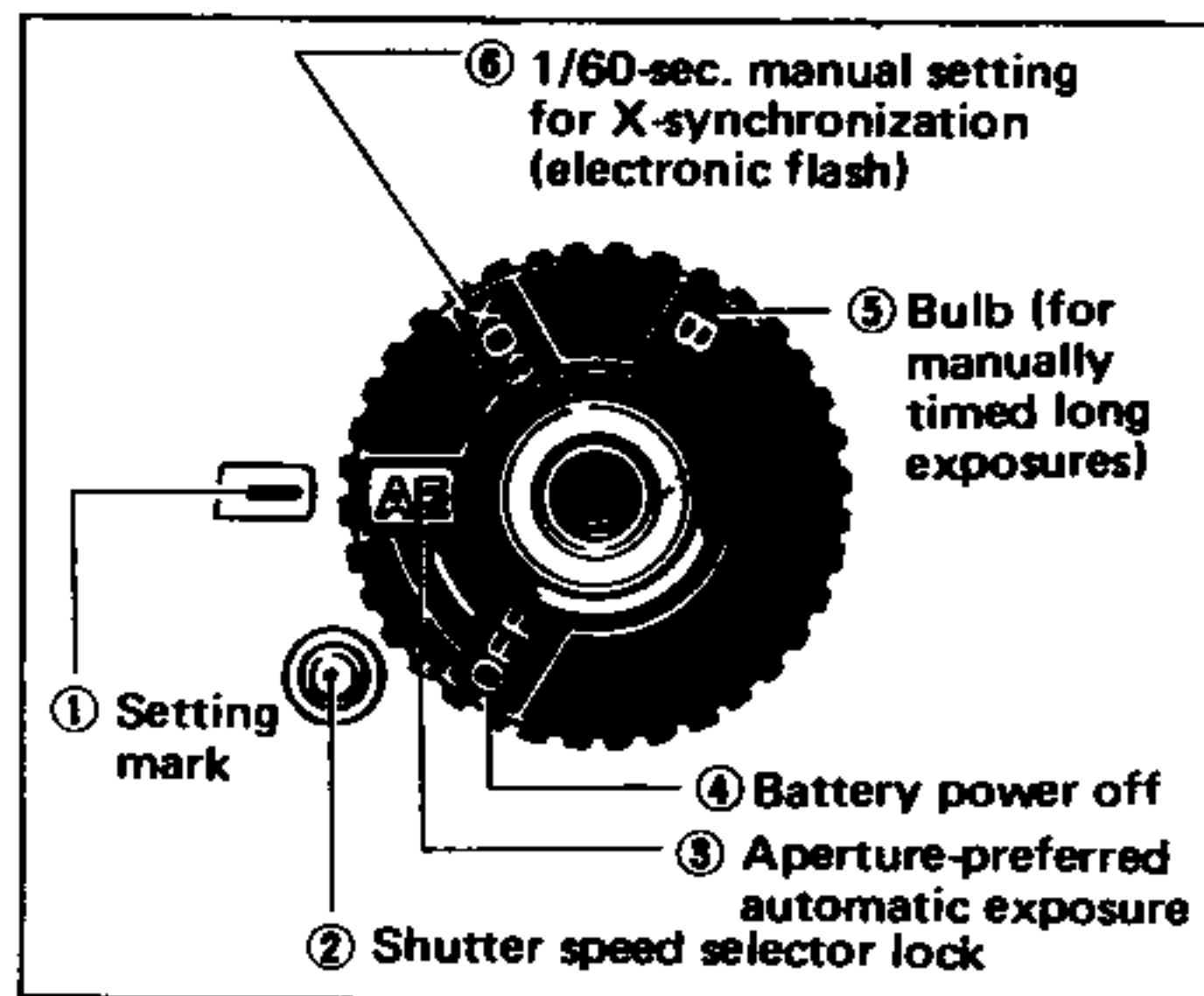
- Hold the camera with your left hand as shown, press the left elbow against the side of your chest, relax your right hand and press the Shutter Release gently down.

- When shooting with the camera held vertically, try to keep it extra steady because it will be less stable in that position.
- The film is advanced with the right thumb and the Shutter Release is depressed with the right forefinger.

Taking automatic exposure pictures

I. SHUTTER SPEED SELECTOR SETTINGS

Your Fujica AX-1 is an aperture-preferred automatic exposure camera. You just set the aperture and the camera will take care of the shutter speed. Even the first-time beginner can take perfectly exposed pictures with it every time.



- Notes: 1. To switch from AE to 60X or B, turn the Shutter Speed Selector while pressing in the Shutter Speed Selector Lock. (You cannot turn it unless the Lock is in depressed position).
2. Remember, your Fujica AX-1 has a built-in "exposure memory" (AE lock), that is, the shutter speed obtained by depressing

the Shutter Release halfway down will remain locked and the LED indicator in the Viewfinder will not change position unless you take your finger off the Shutter Release even if there are changes in subject brightness and aperture value (see paragraph entitled "AE lock" on page 28).

Using the B (Bulb) setting

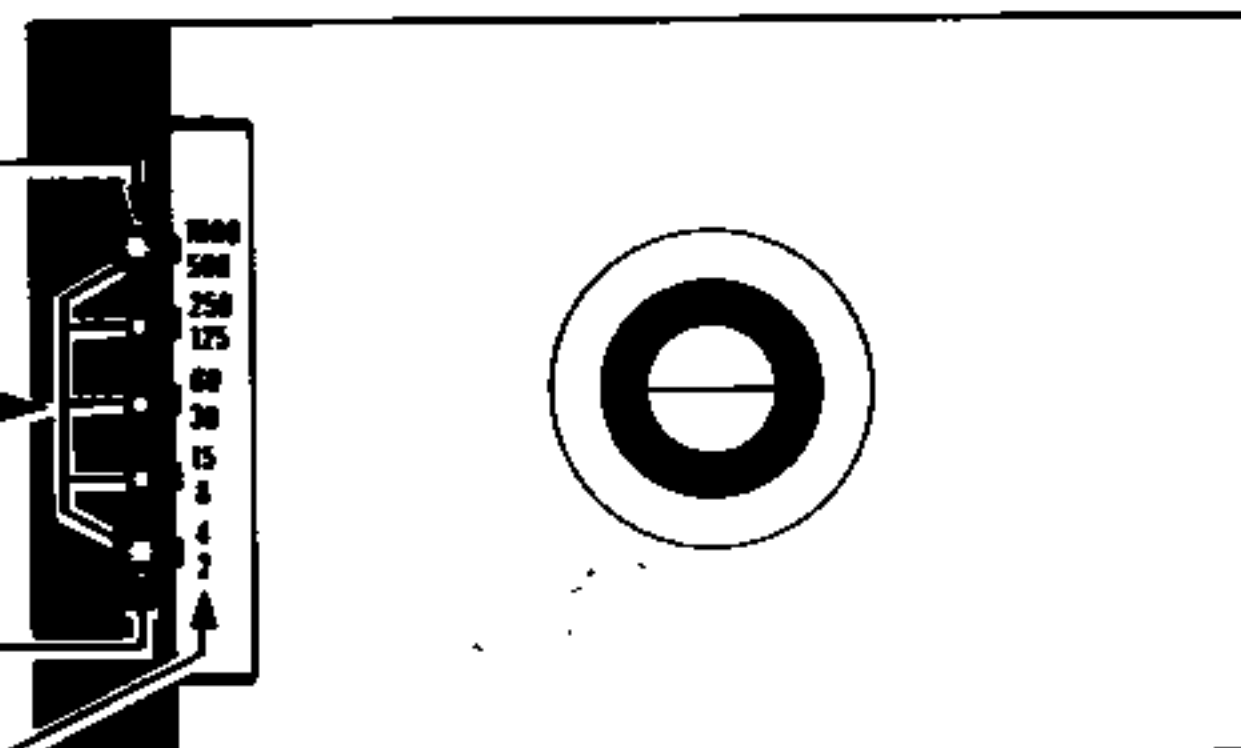
To take pictures requiring long exposures of 1-second or more, set the Shutter Speed Selector to "B". The shutter will remain open for as long as the Shutter Release is held depressed so that you can trip the shutter when you want to.

2. Viewfinder Information

The information provided in the Viewfinder of your AX-1 is as follows:

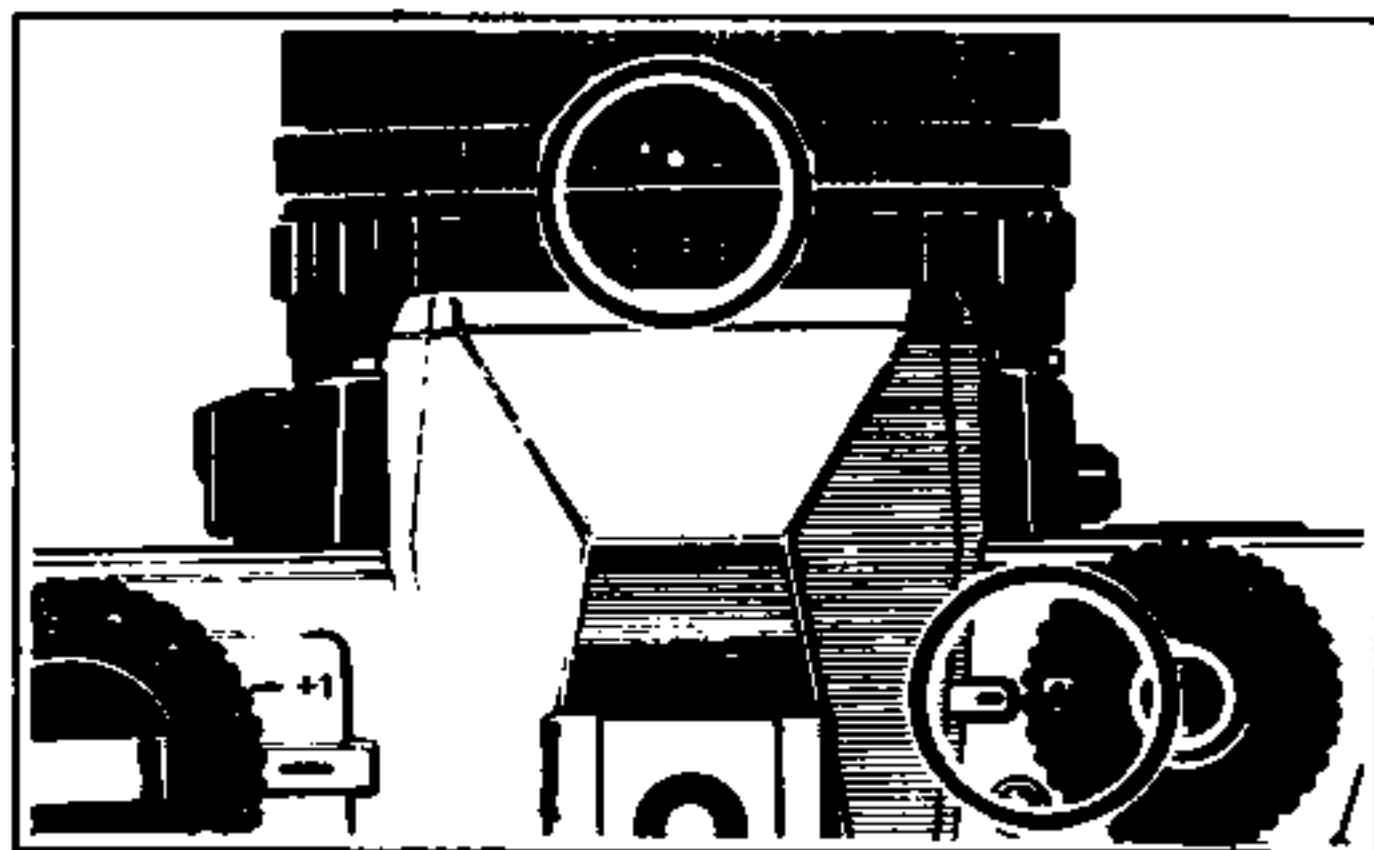
- ① Overexposure warning (LED blinks 8X/sec.)
- ② Battery condition signal (LED blinks 4X/sec. if battery needs replacement)
- ③ Under ... Underexposure warning (LED blinks 8X/sec.)

- ④ 1000] ... 1/1000 or 1/500 sec.
- 500] ... 1/250 or 1/125 sec.
- 250] ... 1/250 or 1/125 sec.
- 125] ... 1/250 or 1/125 sec.
- 60] ... 1/60 or 1/30 sec.
- 30] ... 1/60 or 1/30 sec.
- 15] ... 1/15 or 1/8 sec.
- 8] ... 1/15 or 1/8 sec.
- 4] ... 1/4 or 1/2 sec.
- 2] ... 1/4 or 1/2 sec.



Note: Your Fujica AX-1 uses a fully automatic electronic shutter. The shutter speed indicated in the viewfinder represents an approximate value.

3. PROCEDURE FOR TAKING AUTOMATIC EXPOSURE PICTURES

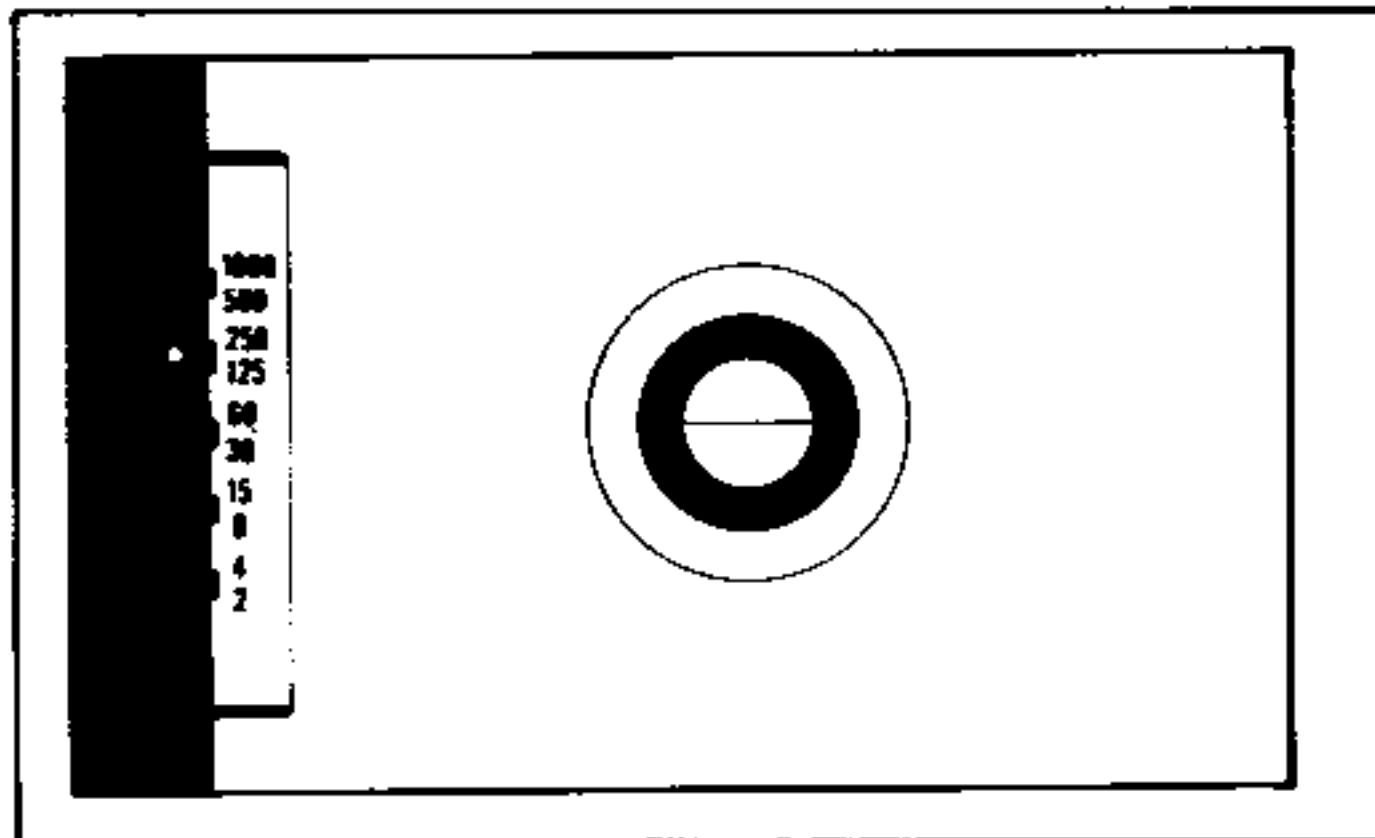


- Set the Shutter Speed Selector to AE.
- Use any aperture you want; that is, if your camera lens is an X-Fujinon 1:2.2 55 mm, set the Aperture Ring to any one of the f-numbers from F2.2 to 16.

- Look through the Viewfinder and press the Shutter Release halfway down. An LED will turn on to show you the meter-selected shutter speed that will combine with the aperture you selected to provide correct exposure.

For example, if the aperture you selected is F5.6 and the camera-selected shutter speed is 1/125-sec., the LED opposite the paired numbers 250 } will turn on.
125 }

3. PROCEDURE FOR TAKING AUTOMATIC EXPOSURE PICTURES



Note: The shutter speed numbers are paired. In the case shown here, the coupled shutter speed can be either 1/250 or 1/125 second.

② Over and underexposure warning

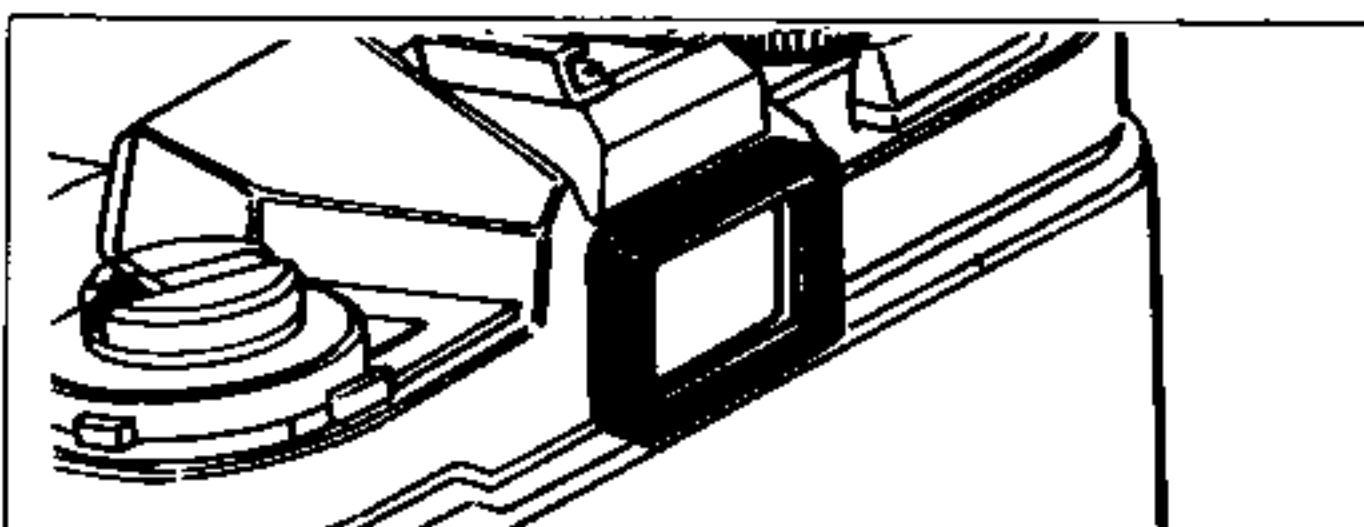
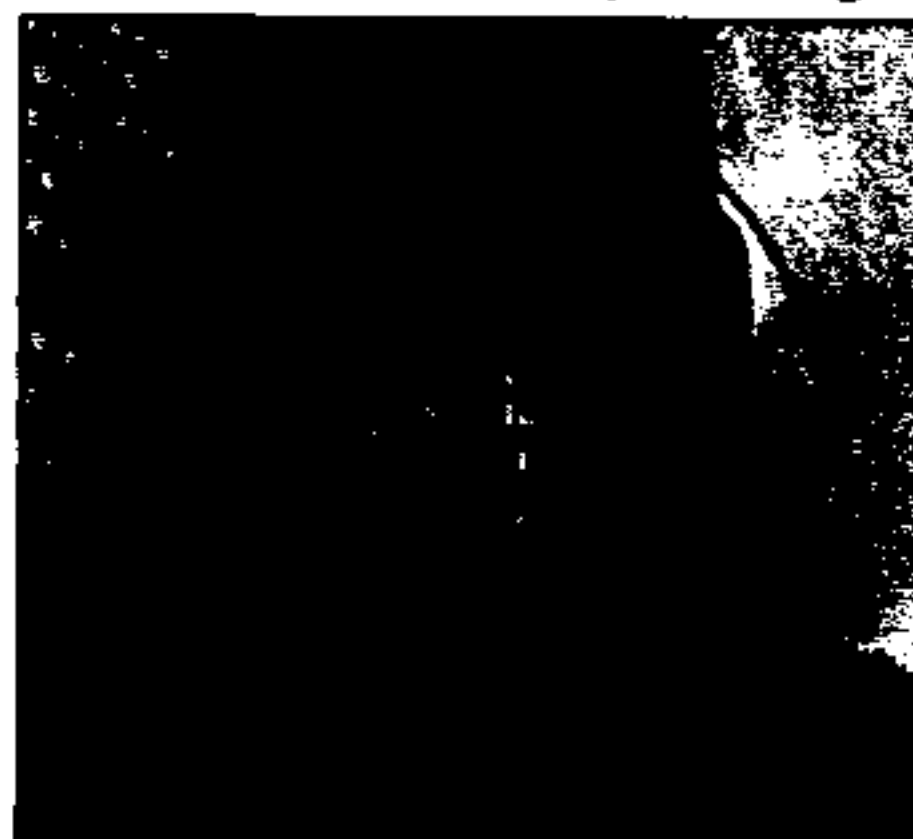
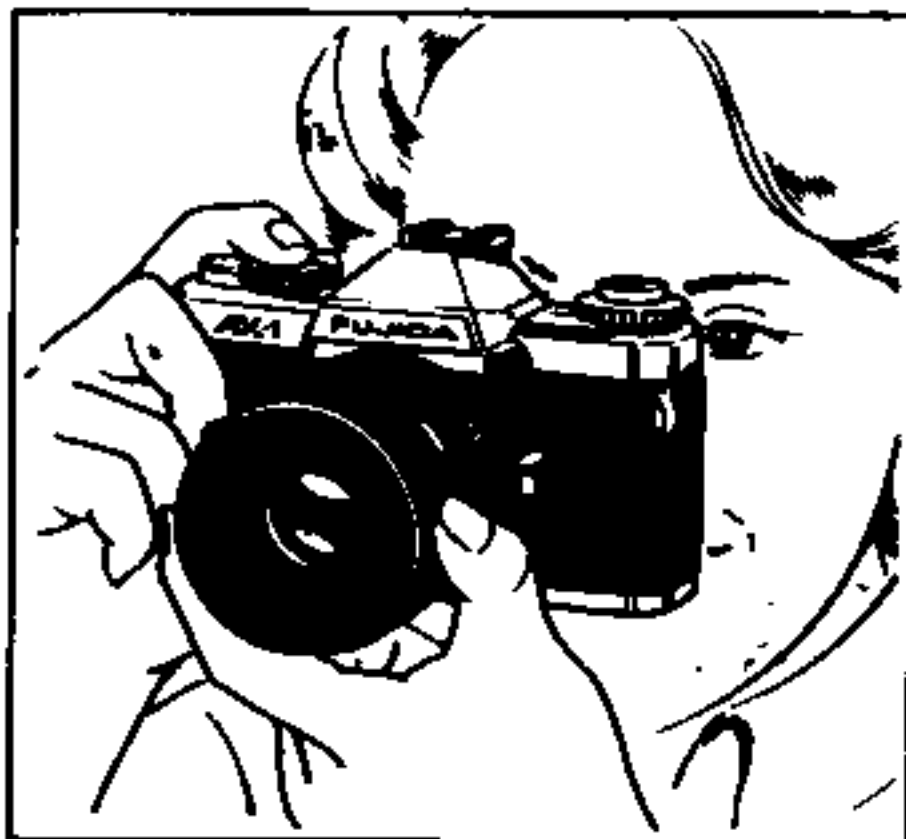
If the aperture you selected is not compatible with the camera's shutter speed range, that is, if it is too large and needs a shutter speed that is faster than 1/1000-sec., the red LED opposite the paired numbers $\left[\begin{smallmatrix} 1000 \\ 500 \end{smallmatrix} \right]$ will turn on and blink (8 times a second) to warn you that your picture will be overexposed; and if it is too small and needs a shutter speed that is slower than 1/2-sec., the red LED opposite the paired numbers $\frac{4}{2}$ will turn on and blink (also 8 times a second) to warn you that your picture will be underexposed.

● Guarding against camera shake

If you are taking a dimly-lit subject, the camera may provide a shutter speed that is slower than 1/30-sec. for the aperture you selected, in which case you will have to guard against camera shake by mounting the camera on a tripod or using something firm to support it such as a table or the top of a chair.

4. FOCUSING THE LENS

Focusing with the Split-image Center



- **Eyesight adjustment lens**
The far- or near-sighted can use an eyesight adjustment lens (+2, +0.5, -2.5, -4 diop., optional accessory). It will let you focus the lens without glasses.

In the center of the viewfinder of your Fujica AX-1, you will see a split-image spot, a microprism collar around it which, in turn, is surrounded by a ground-glass screen. Any one of them can be used for focusing the lens.

- Look through the Viewfinder, center the part of the subject on which you want to focus the lens in the split-image center and turn the Distance Ring.
- Your subject is in sharp focus when the upper and lower segments of the image in the split-image center fall in line. This method of focusing is best for taking pictures of subjects that are formed mainly of straight lines such as buildings towers, etc.

FOCUSING THE LENS

Focusing with the Microprism Collar

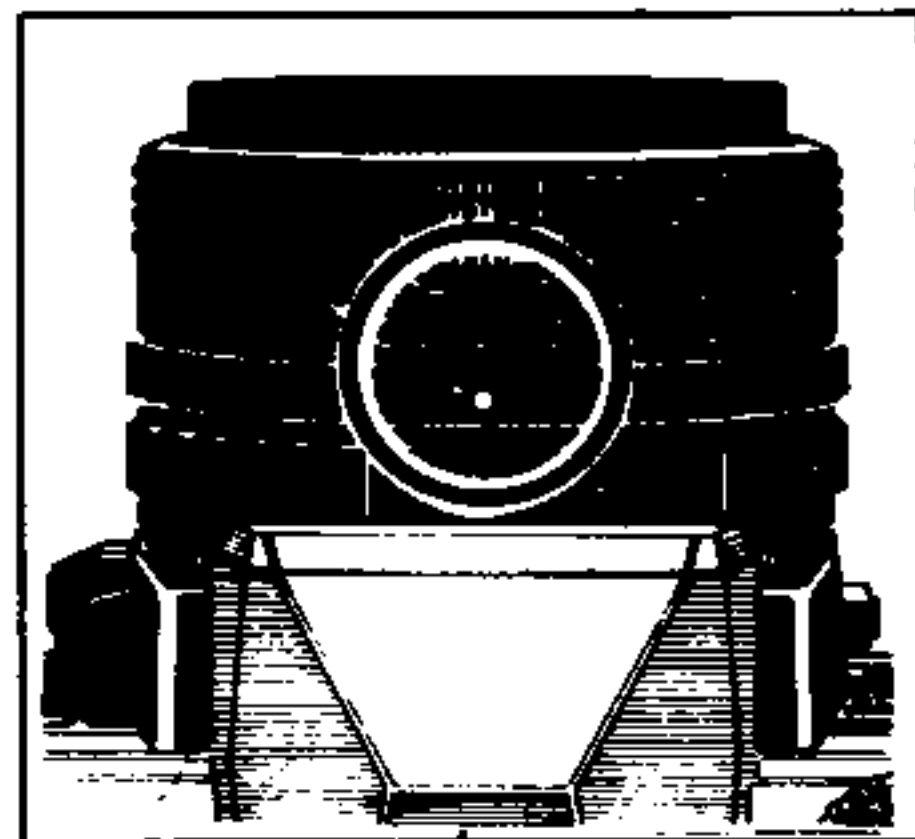


- Look at your subject through the microprism collar and turn the Distance Ring.
- Your subject is in sharp focus when it appears smooth and clear. This method of focusing is recommended for portrait work.

Focusing with the Ground-glass Screen

Look at your subject through the ground-glass screen and turn the Distance Ring. Your subject is in sharp focus when it appears sharp and clear. This method is recommended for focusing the lens quickly and for copying work.

Focusing by eye Estimation



Estimate the distance from camera to subject with your eye and set the Distance Ring to that distance (white numbers = meters, green numbers = feet).

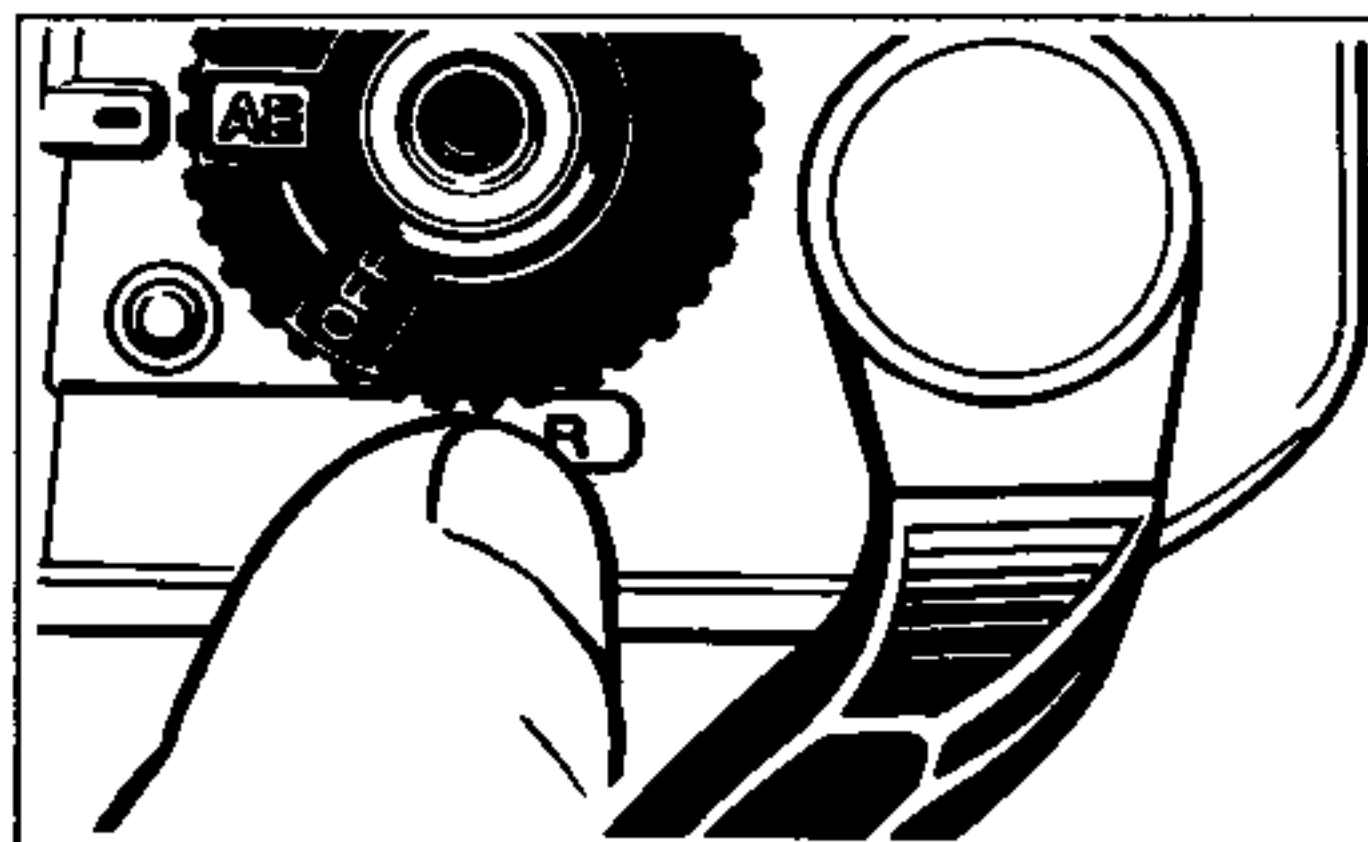
This method is best for taking quick snapshots. However, if you are using a large aperture or are taking close-ups, or if you are shooting with a telephoto lens, be sure to focus the lens precisely.

5. REWINDING THE FILM

After exposing a roll of film, wind it back into its cartridge and take it to your photofinisher as soon as possible.

- If you are at the end of a roll and the Film Advance Lever feels tight as you are winding it, do not force it. Just return it to its normal position and rewind the film into its cartridge.

Press in the Rewind Button

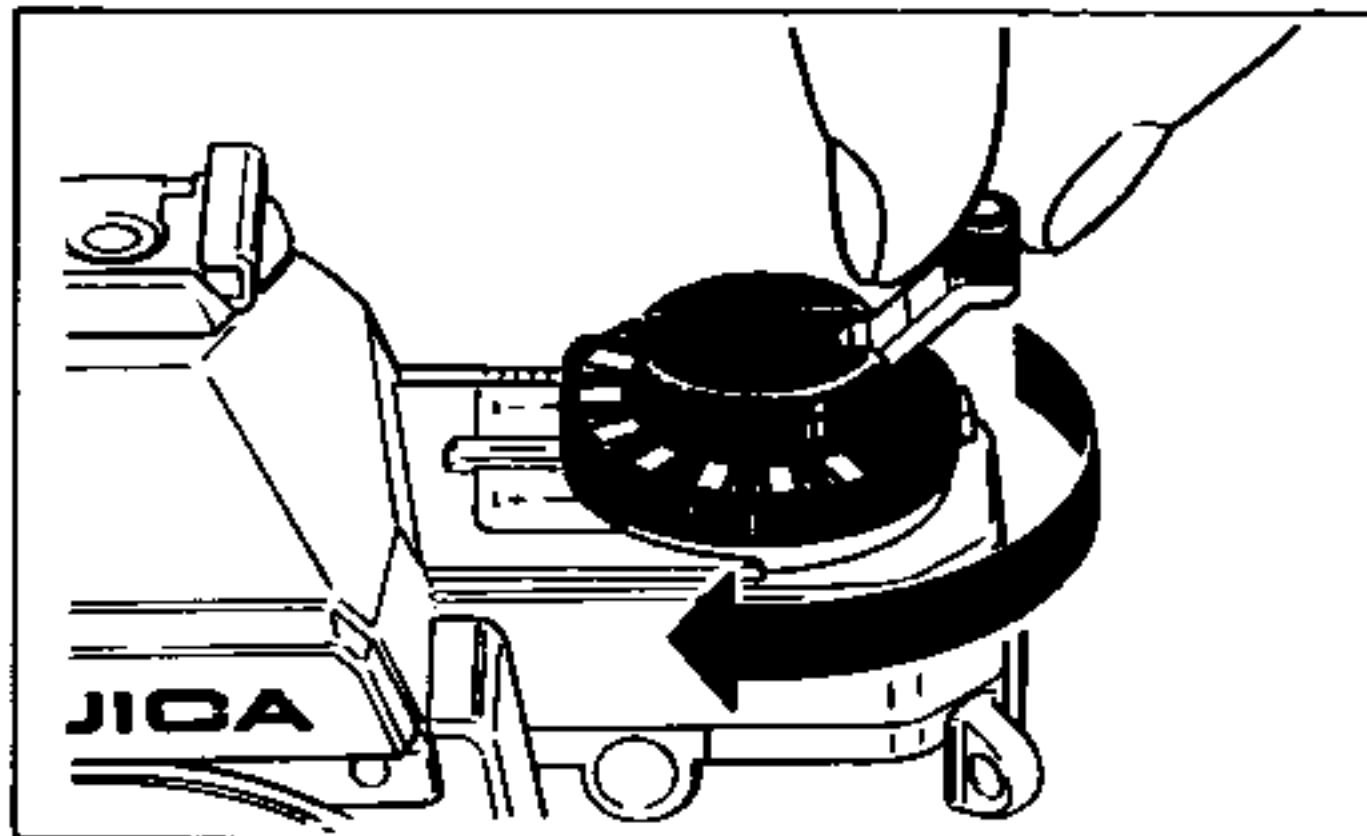


- Press in the Rewind Button (provided on the camera top.)

Note: Before pressing in the Rewind Button, pull out the Film Advance Lever by a stand-off angle of the lever, or the Rewind Button may disengage and the film may not be rewound.

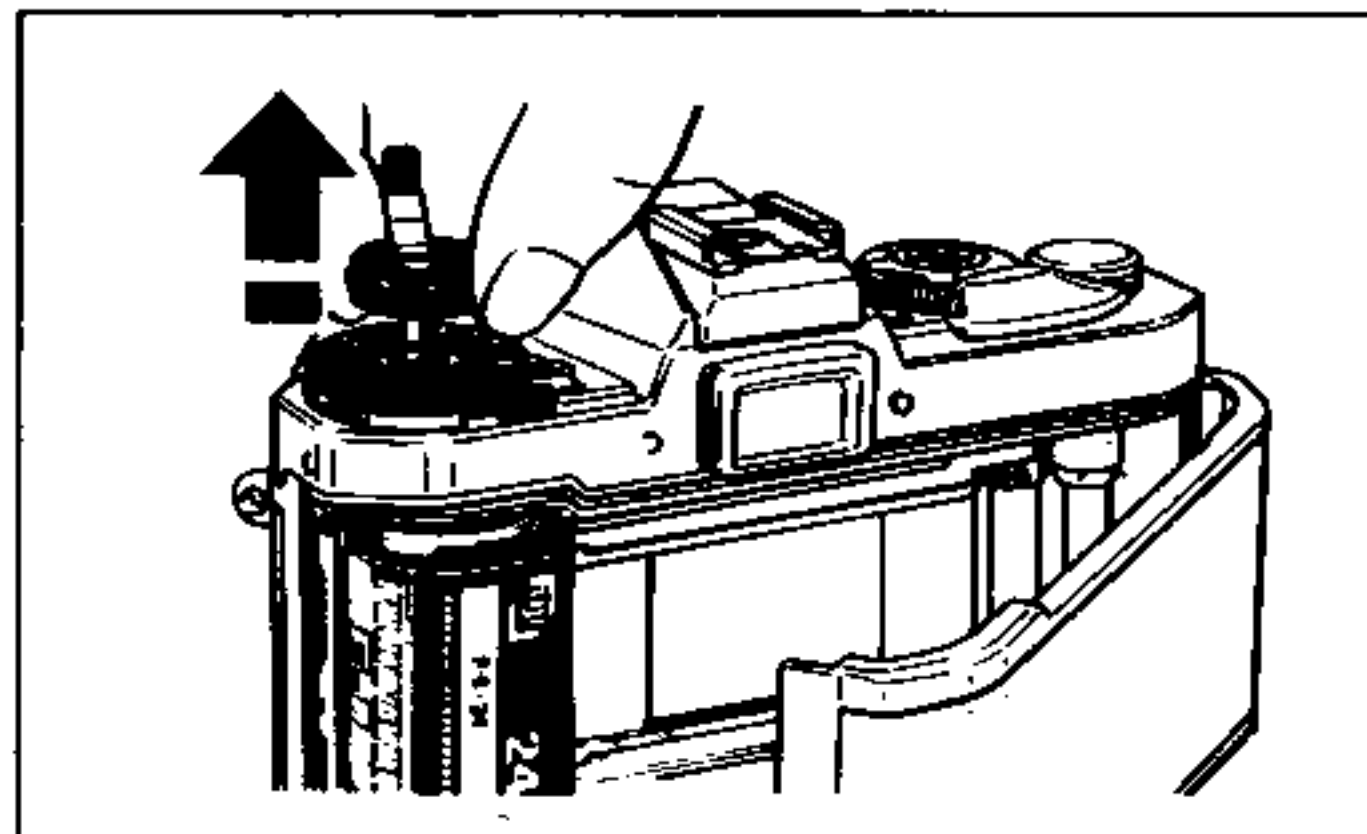
3. REWINDING THE FILM

Turn the Rewind Crank



- Erect the Rewind Crank and turn it in the direction of the arrow. You will feel a sudden release of tension when the film has been rewound into its cartridge.

Open the Camera Back



- Open the Camera Back by pulling the Rewind Knob all the way out and unload the film. (The Camera Back will not open unless the Rewind Knob is fully pulled out.)

- Be sure to open the Camera Back only after you have rewound the film back into its cartridge.

Camera functions

1. LIGHT METERING RANGE

The table shows your camera's light metering range with films of various speeds. Since the range at ASA 100 is from EV 2 – EV 19, the range with an F2.2 lens is from EV 3 1/3 (at F2.2, 1/2 sec.) to EV 18 (at F16, 1/1000-sec.). It applies to the camera's built-in exposure meter's measurements for aperture-preferred and stop-down automatic exposure.

• Fujica AX-1's light metering range

		ASA 25 ASA 50 ASA 100 ASA 200 ASA 400 ASA 800 ASA 1600 ASA 3200																	
F 値 \ EV 値		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1.4		1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000								
2			1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000							
2.8				1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000						
4					1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000					
5.6						1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000				
8							1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000			
11								1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000		
16									1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000	
22										1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500	1/1000
32											1/2	1/3	1/8	1/15	1/30	1/60	1/125	1/250	1/500

2. AE LOCK (EXPOSURE MEMORY)

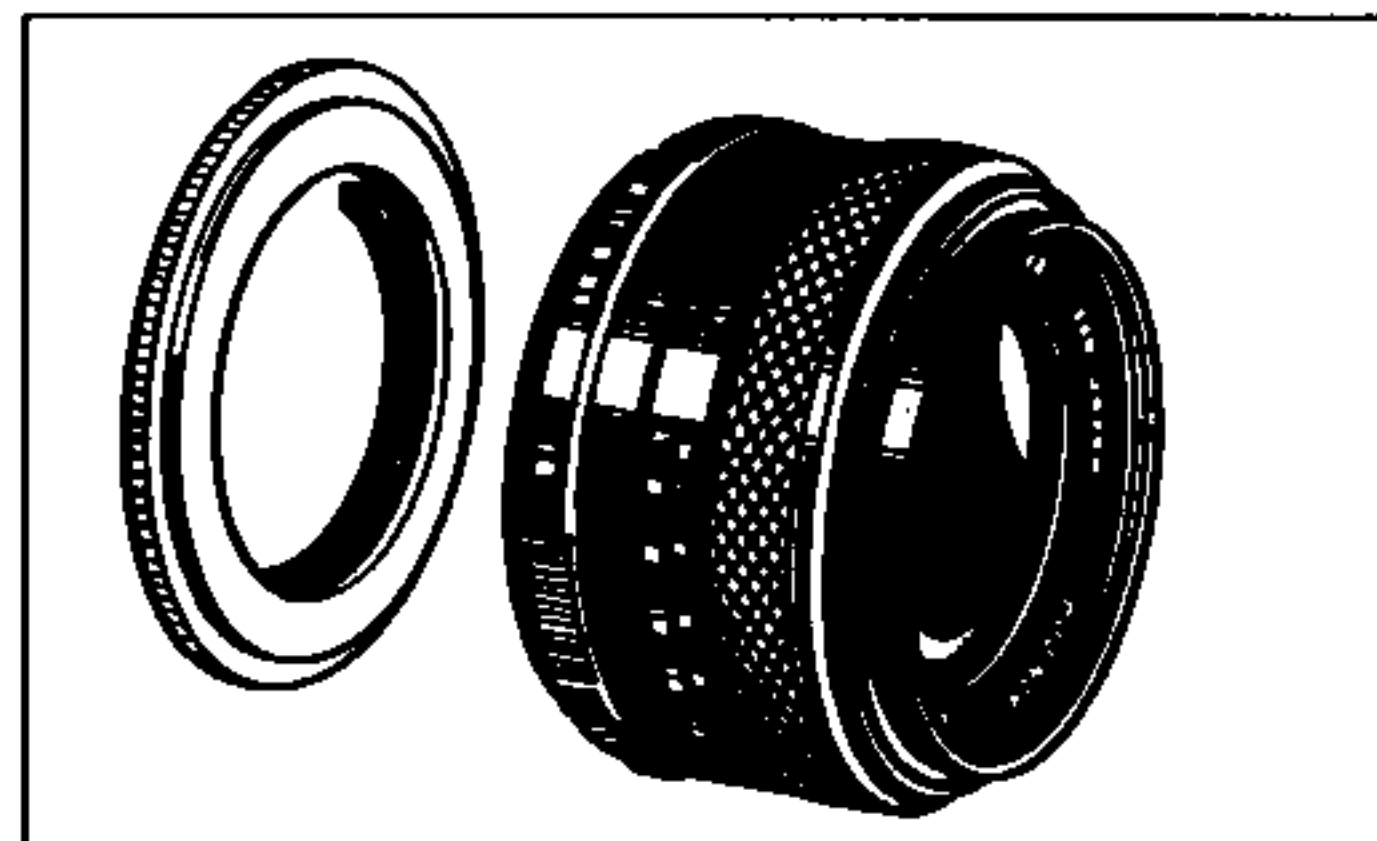
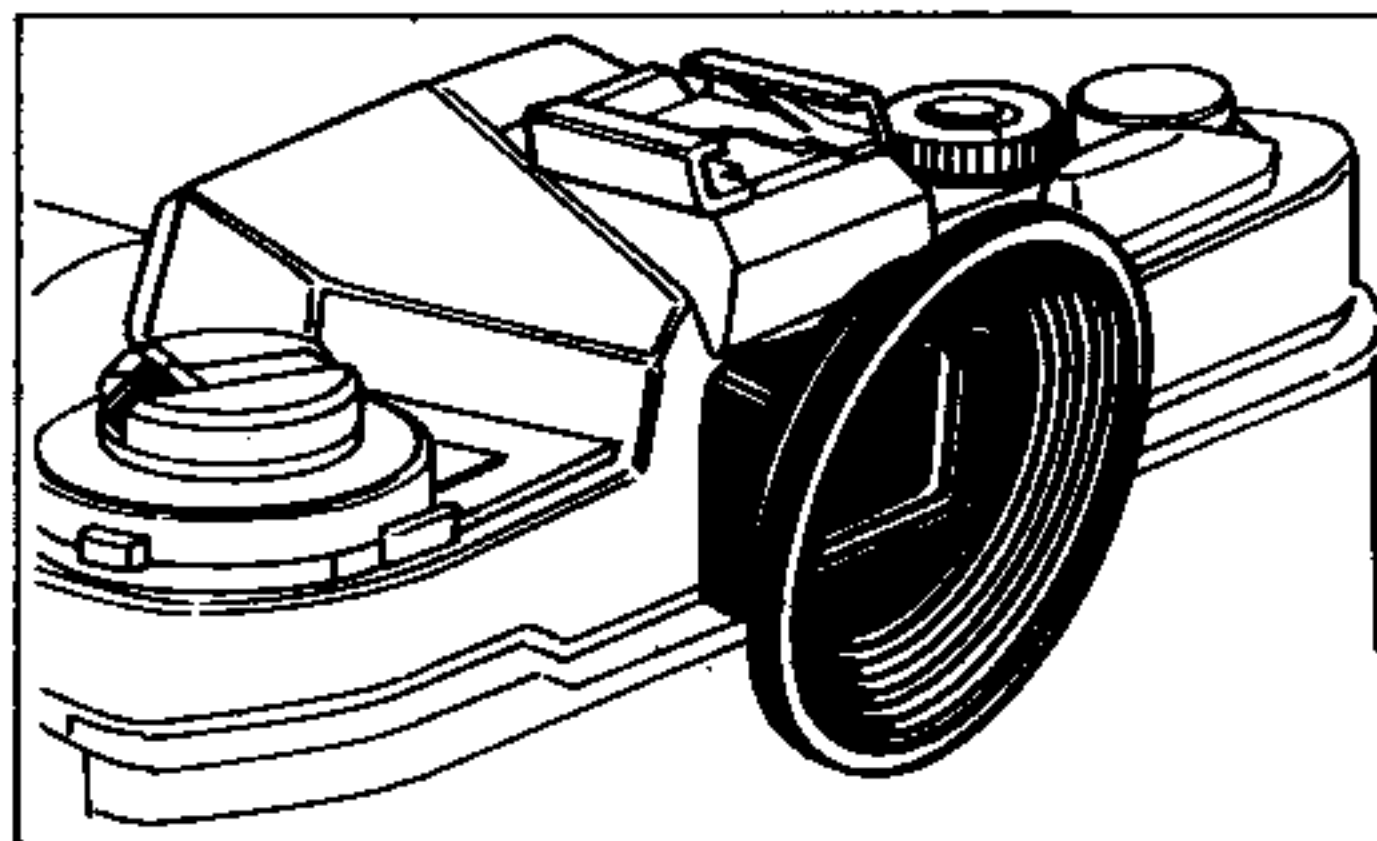
The exposure settings of your Fujica AX-1 can be locked with the AE lock.

- When the Shutter Release is pressed halfway down, the shutter speed (indicated by a red LED) coupled to the preset aperture to accommodate the brightness of the subject will remain locked until you take your finger off the Shutter Release. This is referred to as AE Lock (locking the AE or automatic exposure).
- The AE lock is useful for making automatic exposure compensation in backlighting situations. To compensate for backlit portraits, you just bring the camera up close to your subject, press the Shutter Release halfway down and hold it there, then step back and shoot. (Don't take your finger off the Shutter Release until you trip the shutter.)

Note: As long as the Shutter Release is pressed halfway down, the shutter speed indicating LED will not change position even if the Aperture Ring is turned. If you want to use a different aperture, take your finger off the Shutter Release, reset the Aperture Ring and check the shutter speed again through the Viewfinder.

3. STOPPED-DOWN AUTOMATIC EXPOSURE

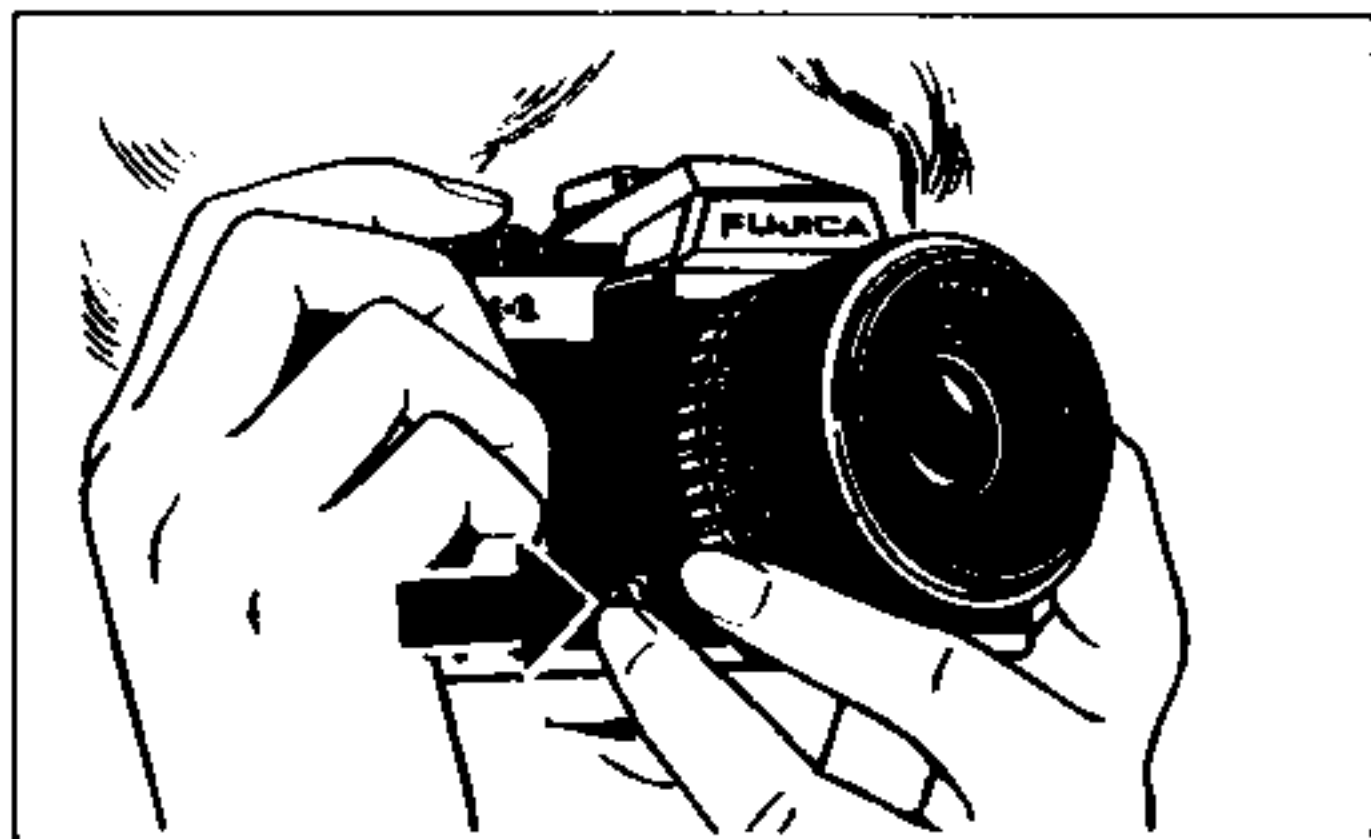
Shooting with a Praktica Screw Mount Fujinon Lens (Mounted with the Mount Adapter X-S)



You will have to use stopped-down automatic exposure when shooting with a Praktica screw-mount Fujinon lens (mounted with Mount Adapter X-S), an ultra-telephoto lens, through an automatic extension bellows, a microscope (with Microscope Adapter X) or a Macrocinecopy, or with the lens mounted in reverse (with Reverse Adapter X). And to prevent light from entering through the finder and fouling up your exposure setting, you will have to use the accessory eyecup or eyepiece cap.

- Set the Shutter Speed Selector to AE.
- Set the Aperture Ring to the desired value.

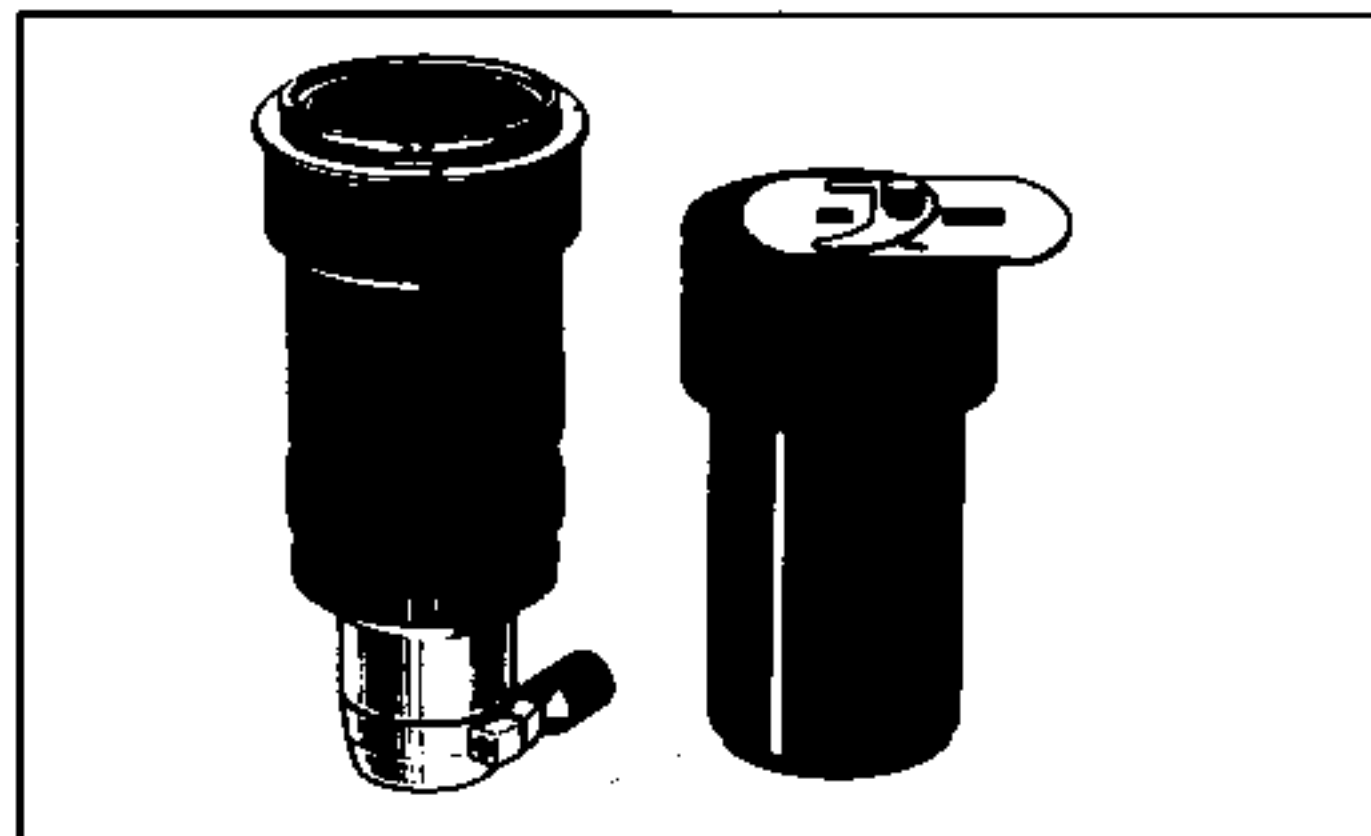
3. STOPPED-DOWN AUTOMATIC EXPOSURE



- ① Press in the Preview Button and, while holding it there, look through the Viewfinder and press the Shutter Release halfway down to make sure that neither the overexposure nor the underexposure warning signal is blinking.
- ② Take your picture by pressing the Shutter Release gently down.

Note: Be sure to press in the Preview Button before you press the Shutter Release halfway down because your picture will not turn out properly exposed if you do it the other way around.

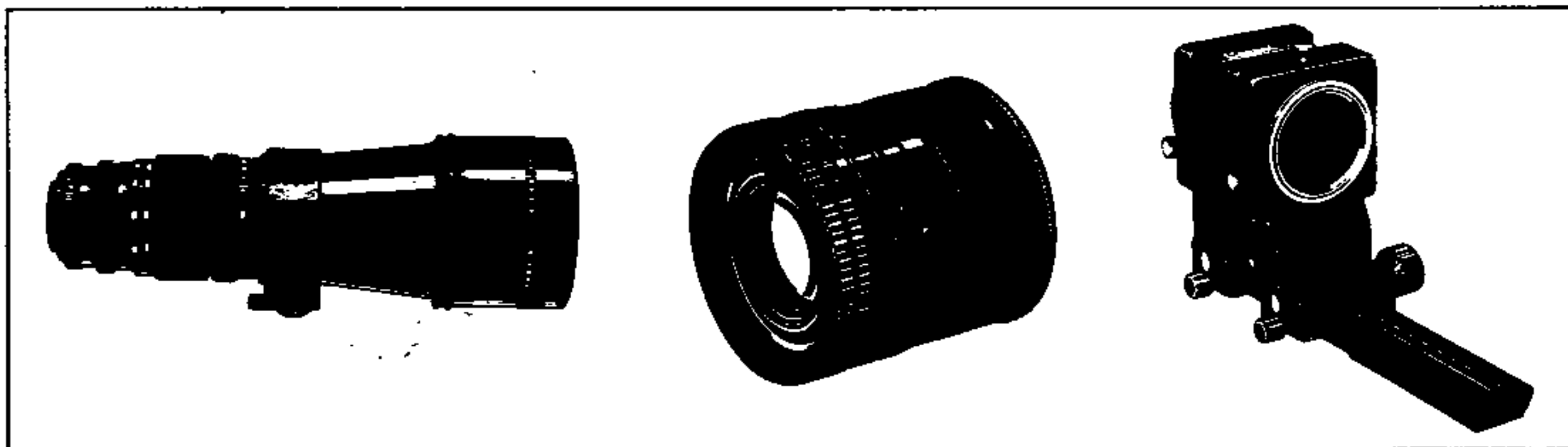
Shooting through a Microscope or Macroincopy



- Set the Shutter Speed Selector to AE.
- Look through the Viewfinder and press the Shutter Release halfway down to make sure that neither the overexposure nor the underexposure warning signal is blinking.
- Take your picture by pressing the Shutter Release gently down.

3. STOPPED-DOWN AUTOMATIC EXPOSURE

Shooting with an Ultra-telephoto Lens, with the Lens Mounted in Reverse, and through an Auto Extension Bellows



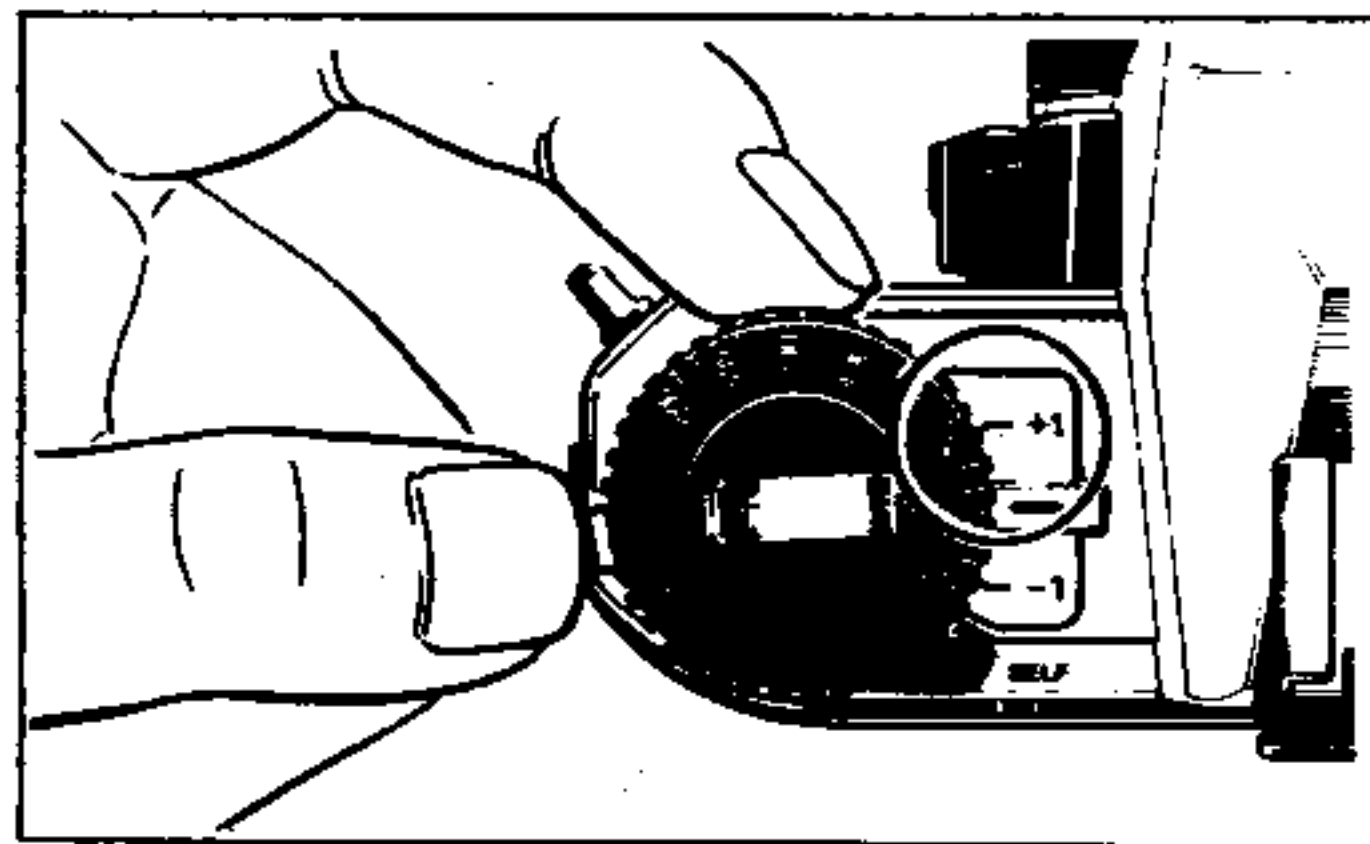
- Set the Shutter Speed Selector to AE.
- Set the Aperture Ring to the desired value.
- Look through the Viewfinder and press the Shutter Release halfway down to make sure that neither the overexposure nor the underexposure warning signal is blinking.
- Take your picture by pressing the Shutter Release gently down.

4. EXPOSURE COMPENSATION

Under normal conditions your pictures will be properly exposed without exposure compensation, but if you are shooting under special lighting conditions (against the light, etc.), or if you are taking intentional high key pictures (overexposed pictures) or intentional low key pictures (underexposed pictures), or if you are taking pictures under the conditions shown in the accompanying chart, exposure compensation is mandatory.

The procedures for making exposure compensation are as follows:

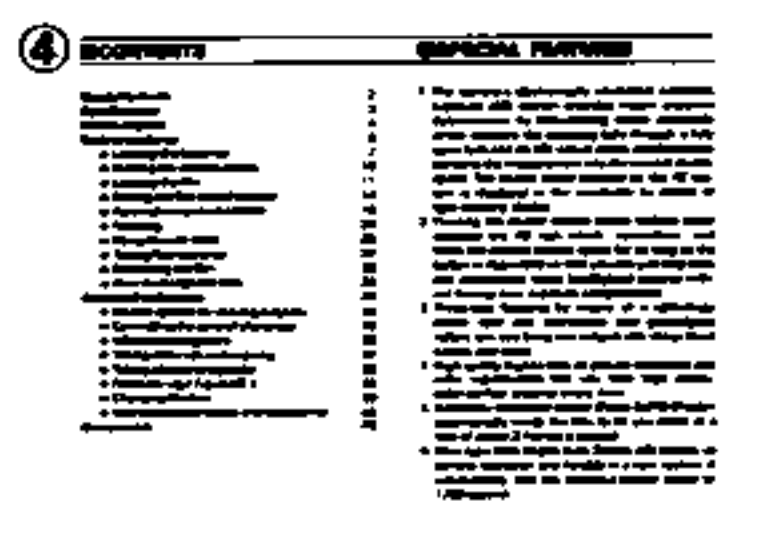
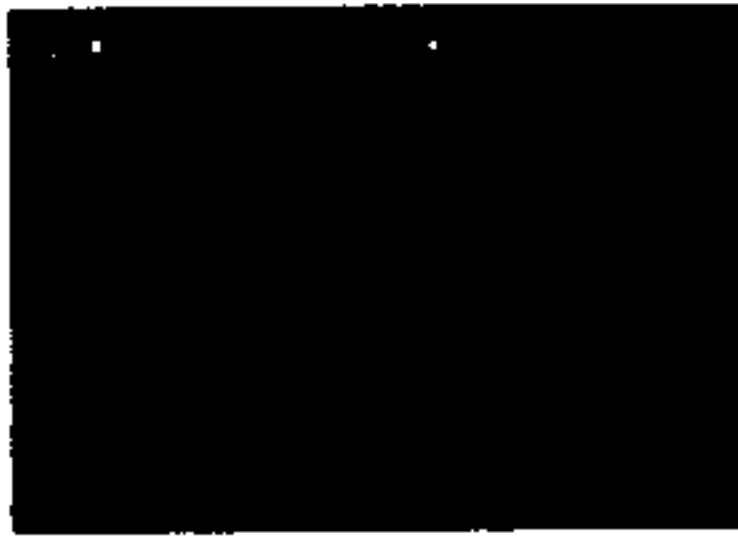
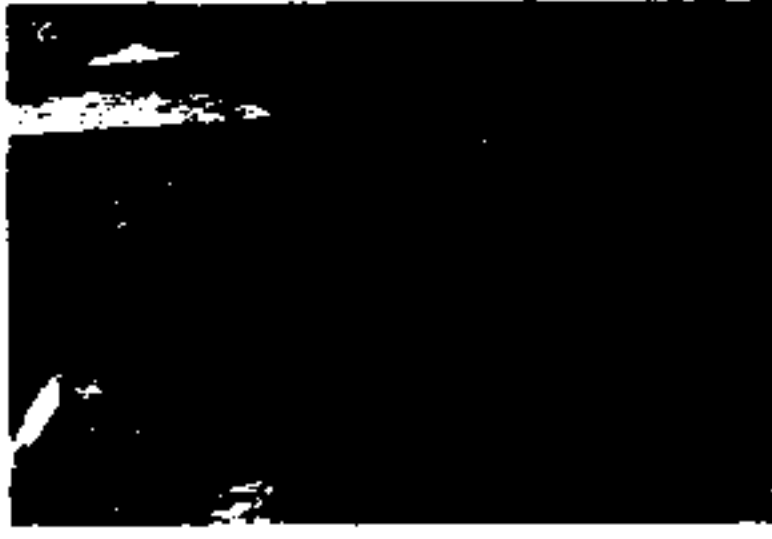
Exposure Compensation with the Fractional Exposure Control



Just press in the Film Speed Selector Lock, move the film speed setting to the mark labeled +1 or -1 and take your picture. (Be sure to move it back to its original position after making your exposure.)

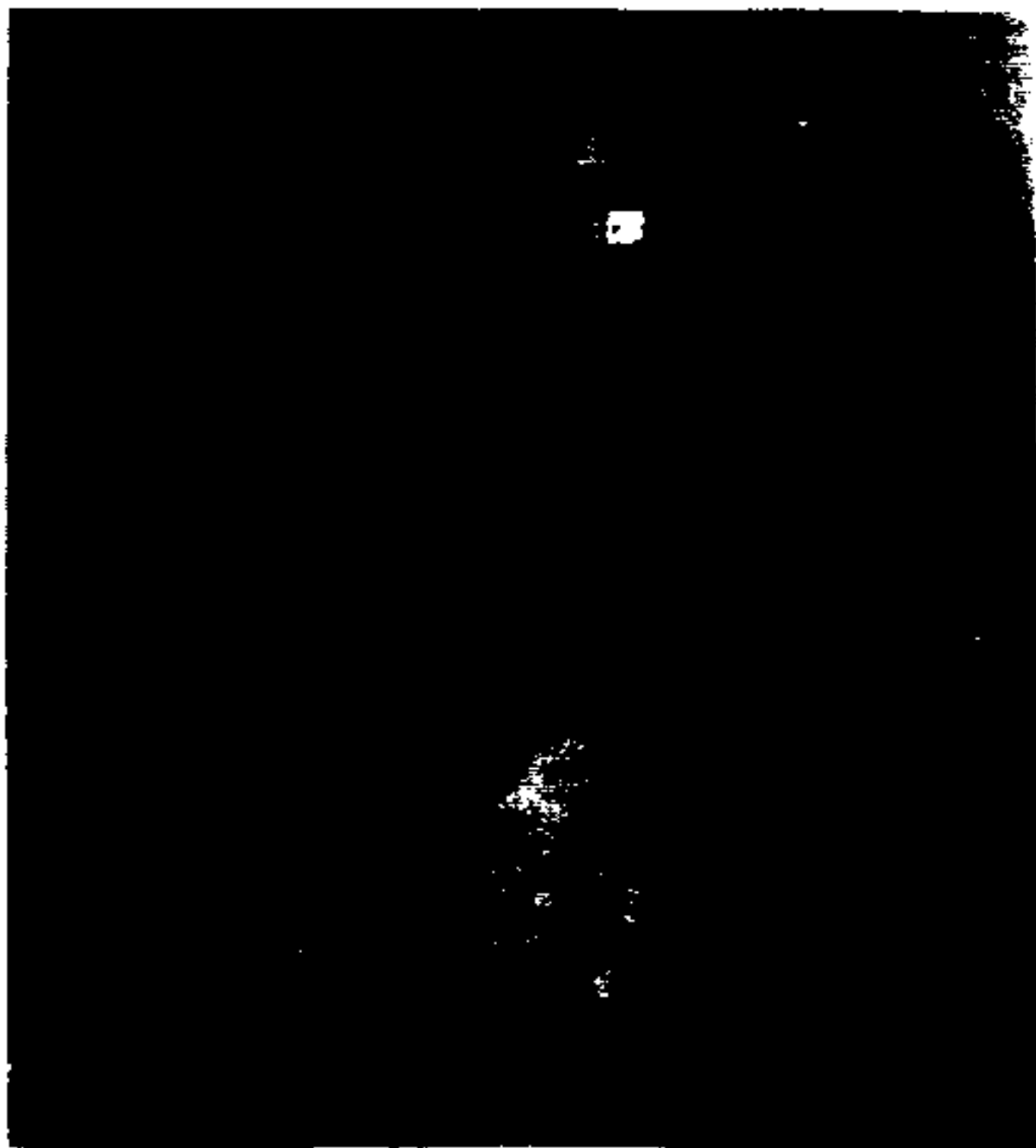
4. EXPOSURE COMPENSATION

Exposure Compensation Chart

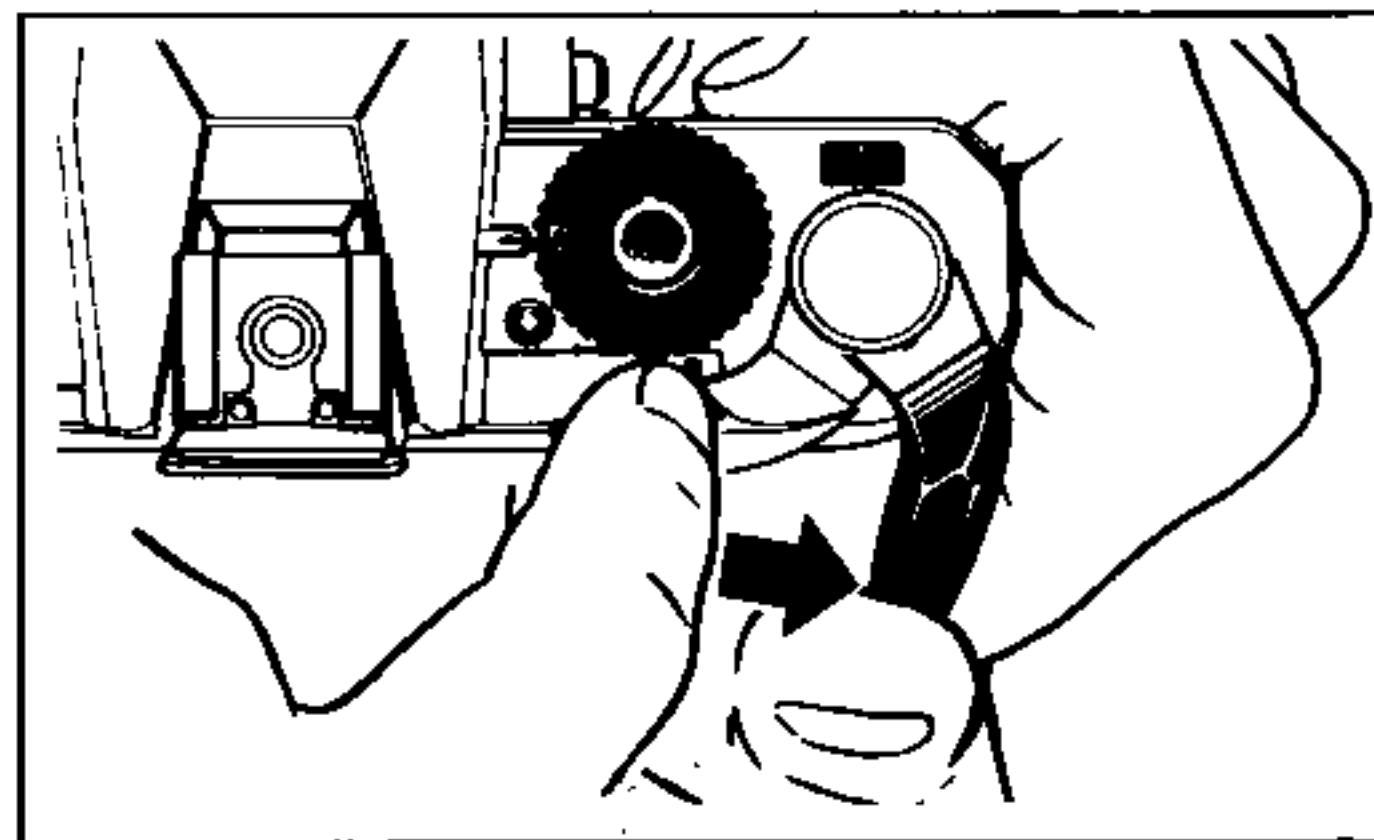
Subject	Backlighting portraits	Ski scenes, sky-predominant scenes and other scenes characterized by strong light and reflections.	Spotlighted subjects, especially when the background is dark
Exposure Compensation Required	+1 or +2	+1	-1 or -2
Sample Photo			
Subject	Copying of printed matter consisting of black letters on white paper	Copying of printed matter consisting of white letters on dark paper	Low reflectance subjects such as evergreen trees and dark-colored leaves
Exposure Compensation Required	+2	-1 or -2	-1
Sample Photo			

Note: Exposure compensation of +2 and -2 can be made by means of the Film Speed Selector. For example, if you are using an ASA 100 film and an amount of compensation required is +2, set the Film Speed Selector to ASA 25.

5. MULTIPLE EXPOSURE



Multiple exposure is used to create special picture effects by superimposing the same scene or another scene several times on the same frame. It is easy to do with your Fujica AX-1.



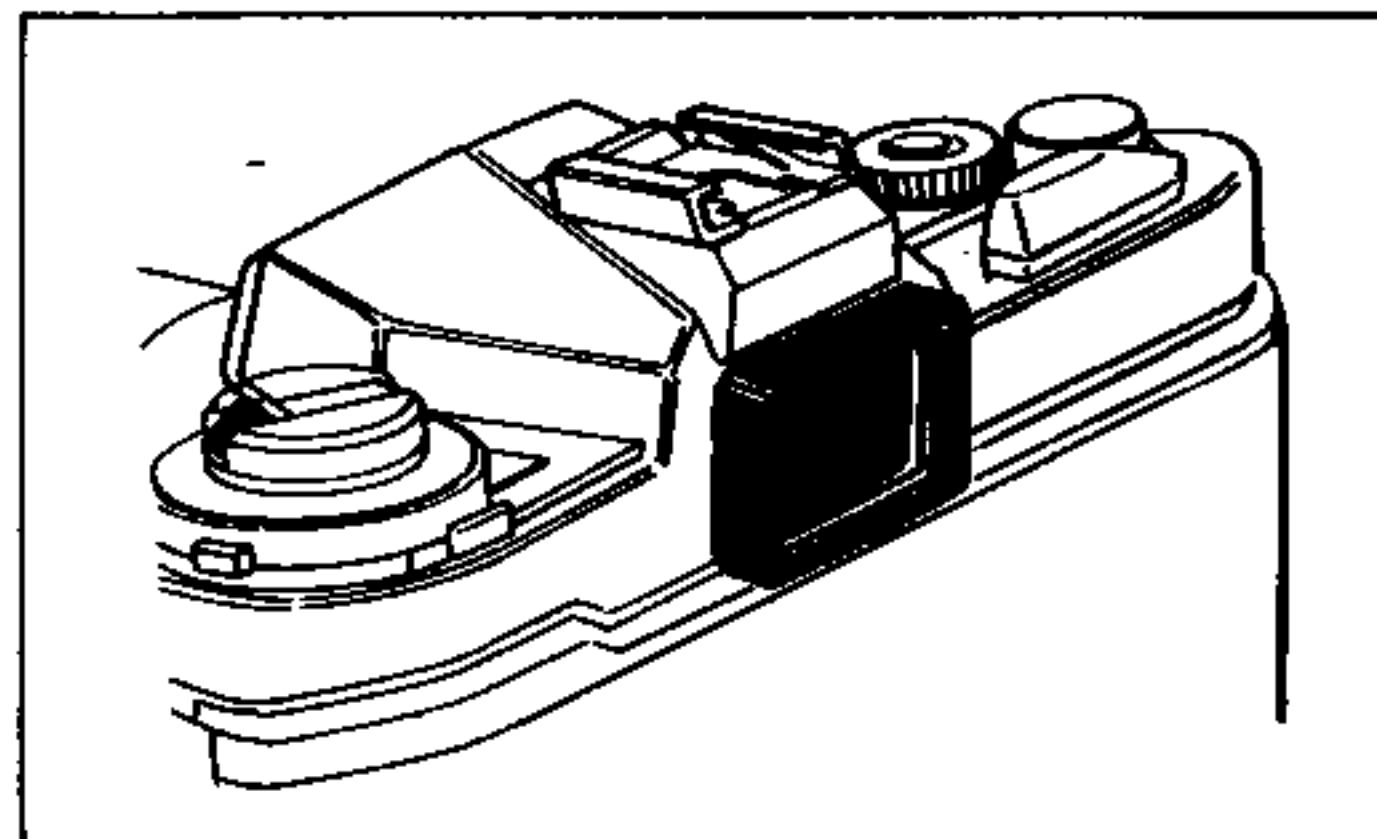
- ❶ If the film has been already wound, pull out the Film Advance Lever tip slightly (by a standoff angle of the lever) and take your first picture.
- ❷ With the lever tip in this position, press in the Rewind Button. Then wind the film with the Film Advance Lever. (The film will remain stationary, the shutter will cock and the Exposure Counter will remain where it is.)
- ❸ After winding the Film Advance Lever, take your second picture. You can repeat (2) and (3) as many times as you want.

Notes: 1. Multiple exposure is normally made by photographing the darker subjects-first.
2. It cannot be made with an Auto Winder X coupled to the camera.
3. For best results, use a tripod.

6. SELF-TIMER

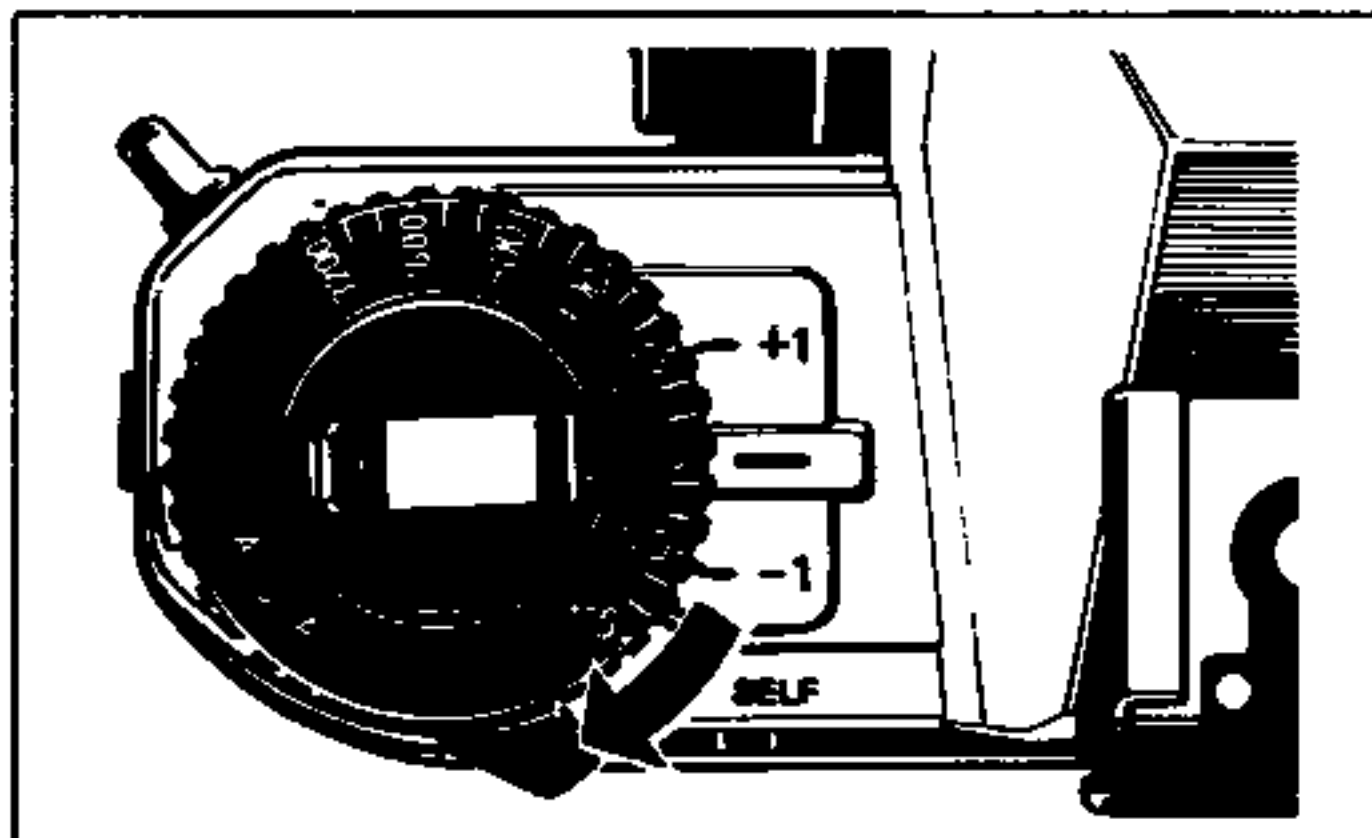
To take group pictures, family souvenir pictures, etc. with yourself included, use the Self-timer.

- Mount the camera on a tripod or some other firm support.
- Wind the film, focus the lens, and make the exposure settings.



- Fit the accessory eyepiece cap on to the Viewfinder Eyepiece to prevent extraneous light from entering it.

6. SELF-TIMER



- ➊ Push the Self-timer Lever toward the camera back as far as it will go.
- ➋ Press the Shutter Release gently down. You will hear a sharp beep-beep until the shutter trips 12 seconds later.



- Notes:
- 1. Be careful after you start the Self-timer because the shutter will trip the instant the Self-timer Lever is pushed back to its original position.
 - 2. You cannot turn off the Self-timer once it is activated.

7. CONTROLLING THE DEPTH OF FIELD

Depth of Field



To check the effects of the aperture you selected — how well the background has been blurred out or how deep the zone of sharpness is — look through the Viewfinder and stop down the Lens to the taking aperture by pressing in the Preview Button. The reason you can exercise such control is that when the Lens is focused on a point, there will be a zone of sharpness extending to the front and back of that point of sharpest focus which is known as the depth of field of a lens and which works as follows:

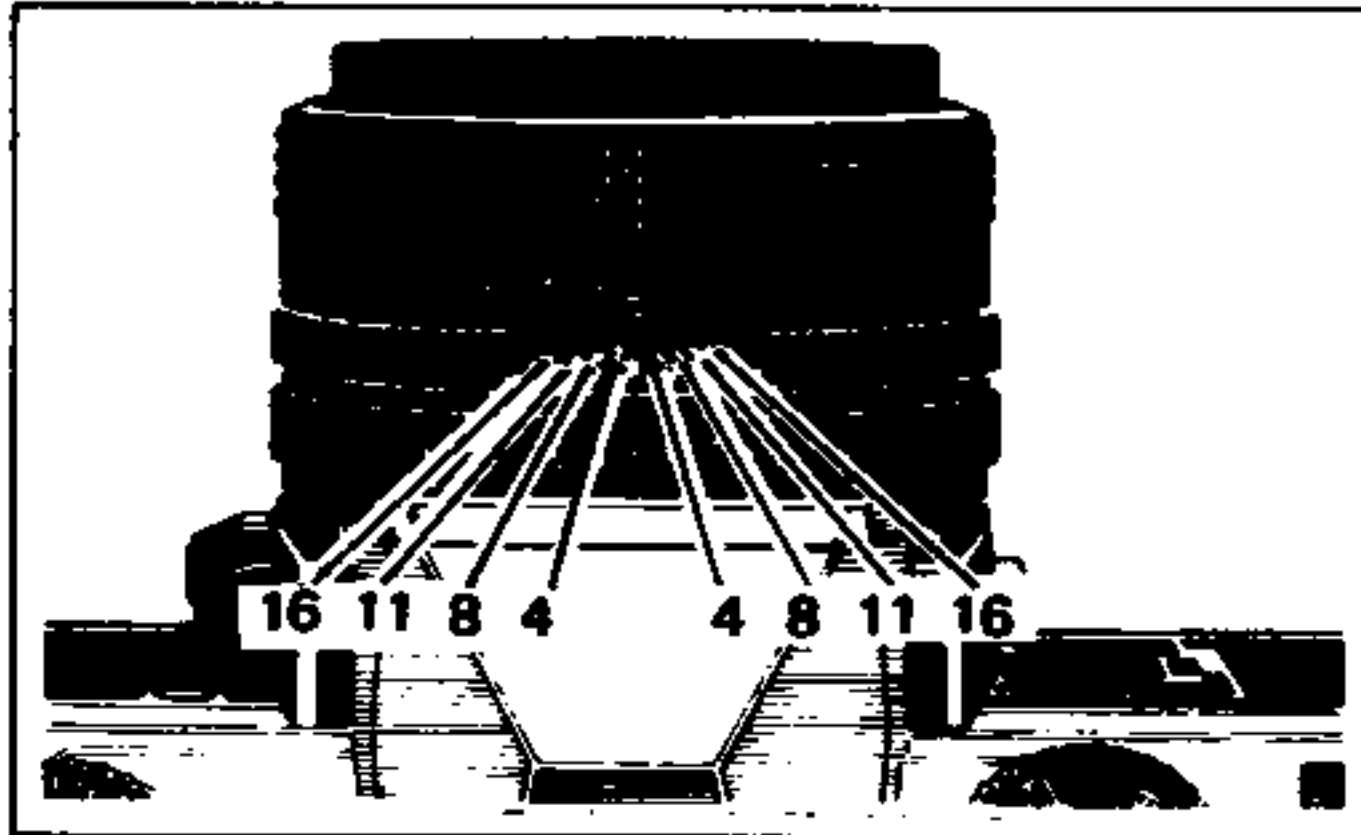
- The longer the lens focal length, the narrower the depth of field and vice versa.
- The smaller the aperture, the wider the depth of



field, and vice versa.

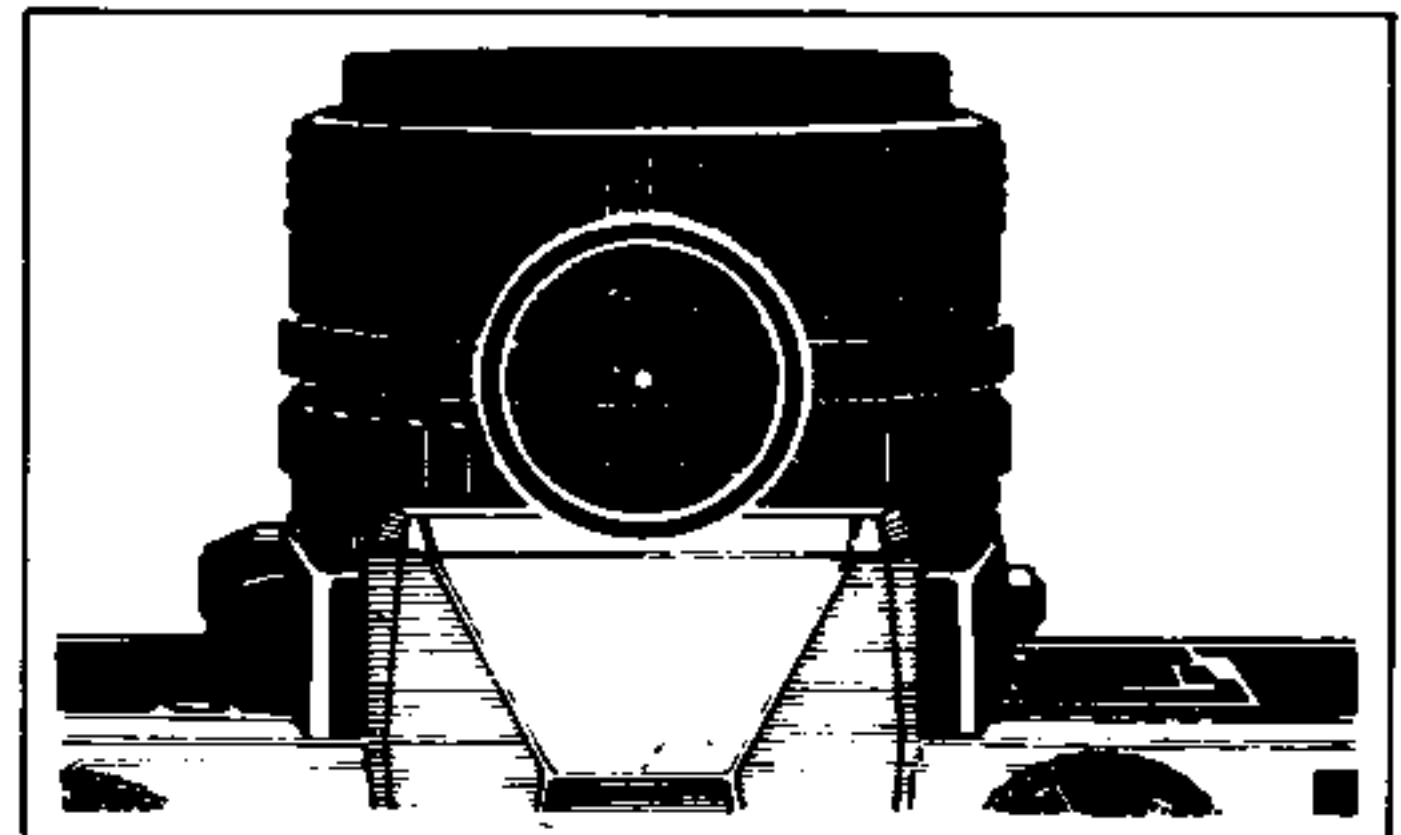
- The farther the point on which the lens is focused, the wider the depth of field, and vice versa.
- The zone of sharpness in front of the point of sharpest focus is narrower than the zone of sharpness behind it.
- You can take advantage of this characteristic of photographic lenses to use “selective focusing,” that is, to draw attention to your main subject by blurring out its surroundings or to make your pictures sharp all the way from foreground to background.

Using the Camera's Depth of Field Scale



All the interchangeable lenses of your Fujica AX-1 have a depth of field scale etched on the top of the lens barrel. If you are using an F1.6, 50mm lens and have set the Aperture Ring to F8 and the Distance Ring to 5m, everything approximately between 3.5 and 8.7 meters from the camera will turn out sharp (the distance between the two 8's on the depth of field scale.)

Note: The X-Fujinon Z 1:3.5-4.2/29-47mm DM and X-Fujinon Z 1:3.5-4.5/43-75mm DM lenses have a depth of field scale with colored lines, which work together with the colored numbers on the aperture ring. Read the instructions packed with the lens carefully.



To take infrared pictures with infrared film in your camera, the Lens is focused on a point slightly short of your subject. The procedure is as follows:

- Focus the lens on your subject.
- Check the distance given on the Distance Ring and move that distance opposite the Infrared Setting Mark. Next, put a red filter on the Lens and shoot. (The Infrared Setting Mark is the small red dot located next to the Lens Setting Mark.)
- Read the instruction sheet packed with your infrared film carefully because exposure is not determined by subject brightness.

9. TAKING FLASH PICTURES

Indoor, nighttime, and outdoor backlighting pictures are best taken with a flash.

To take automatic flash pictures with your Fujica AX-1, use either the Fujica Auto Strobo 300X or the Fujica Auto Strobo AZ. (Both are exclusive "system accessories" of your Fujica AX-1).

The Fujica Auto Strobo 300X is a large-capacity flash having a guide number of 30 and it has a sublight to assist you to take bounce-light pictures. By using this flash you can take perfect bounce-light pictures everytime, although this type of pictures are generally considered difficult to take with flash. In addition, it will automatically switch the camera's shutter speed to 1/60-sec. as soon as it is fully charged.

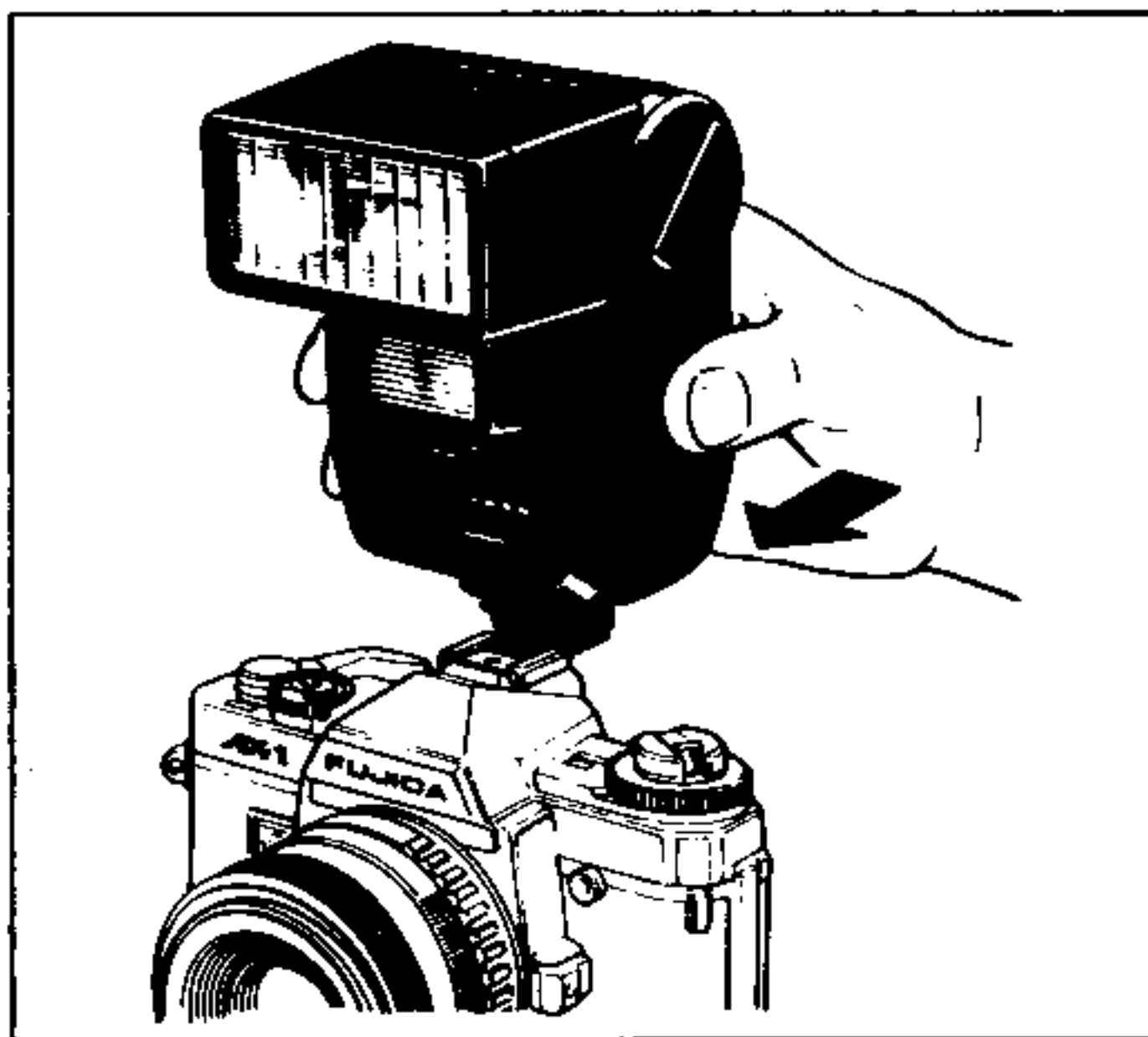
The Fujica Auto Strobo AZ has a guide number of 17 and it lets you take automatic flash pictures with

the entire range of apertures on your camera lens. This is a highly effective flash for taking pictures of groups of people because it interlocks with the camera's film speed selector and extends the shooting distance when the camera is loaded with high speed film. This flash will also automatically switch the camera's shutter speed to 1/60-sec. as soon as it is fully charged.

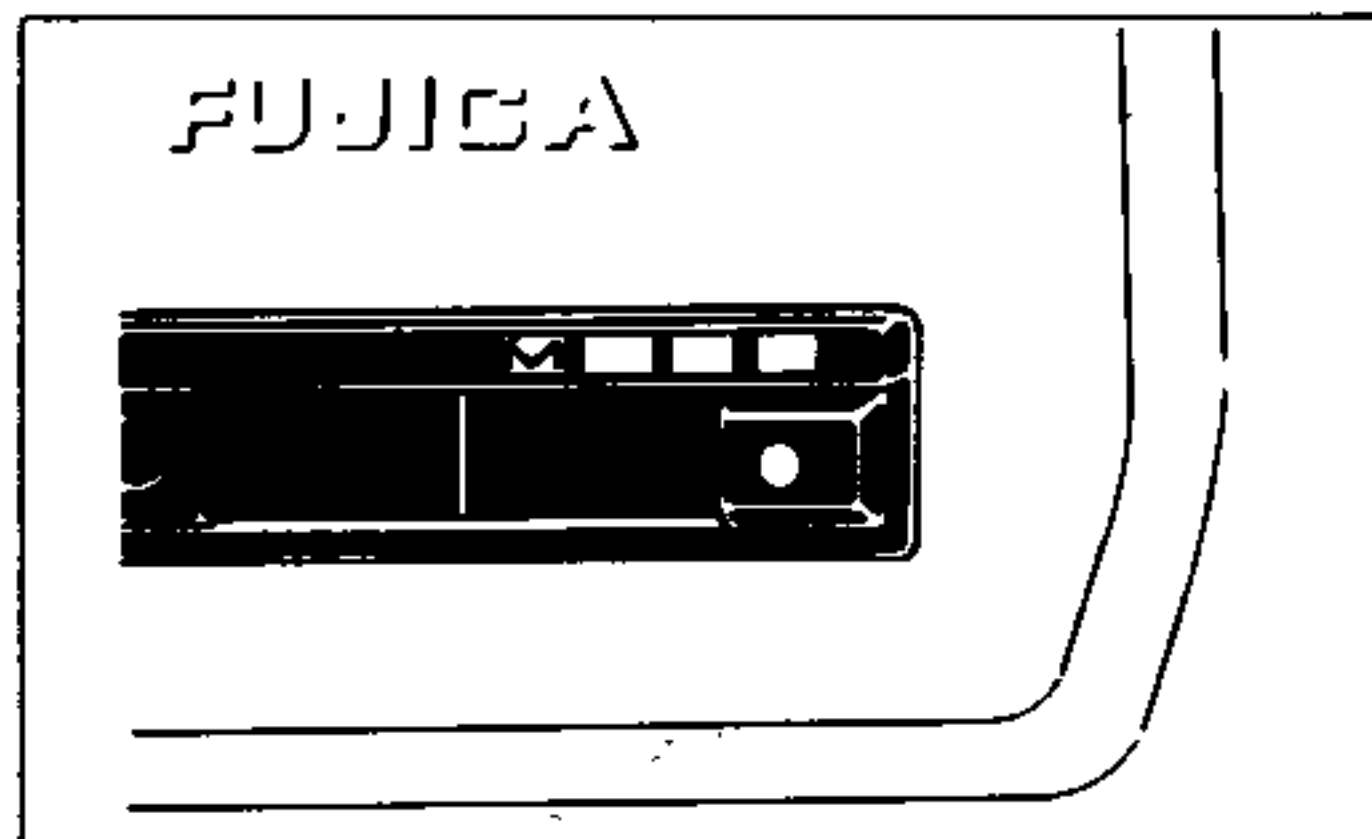
When the camera's Shutter Speed Selector is set to AE, both autoflash units will let you take automatic flash pictures as soon as they are fully charged. The camera is capable of non-flash automatic exposure until they are fully charged, so even if the shutter is released by mistake, you will get a correctly exposed picture. You can also take continuous flash pictures in combination with the Auto Winder X.

9. TAKING FLASH PICTURES

1. Taking Automatic Flash Pictures with the Fujica Auto Strobo 300X



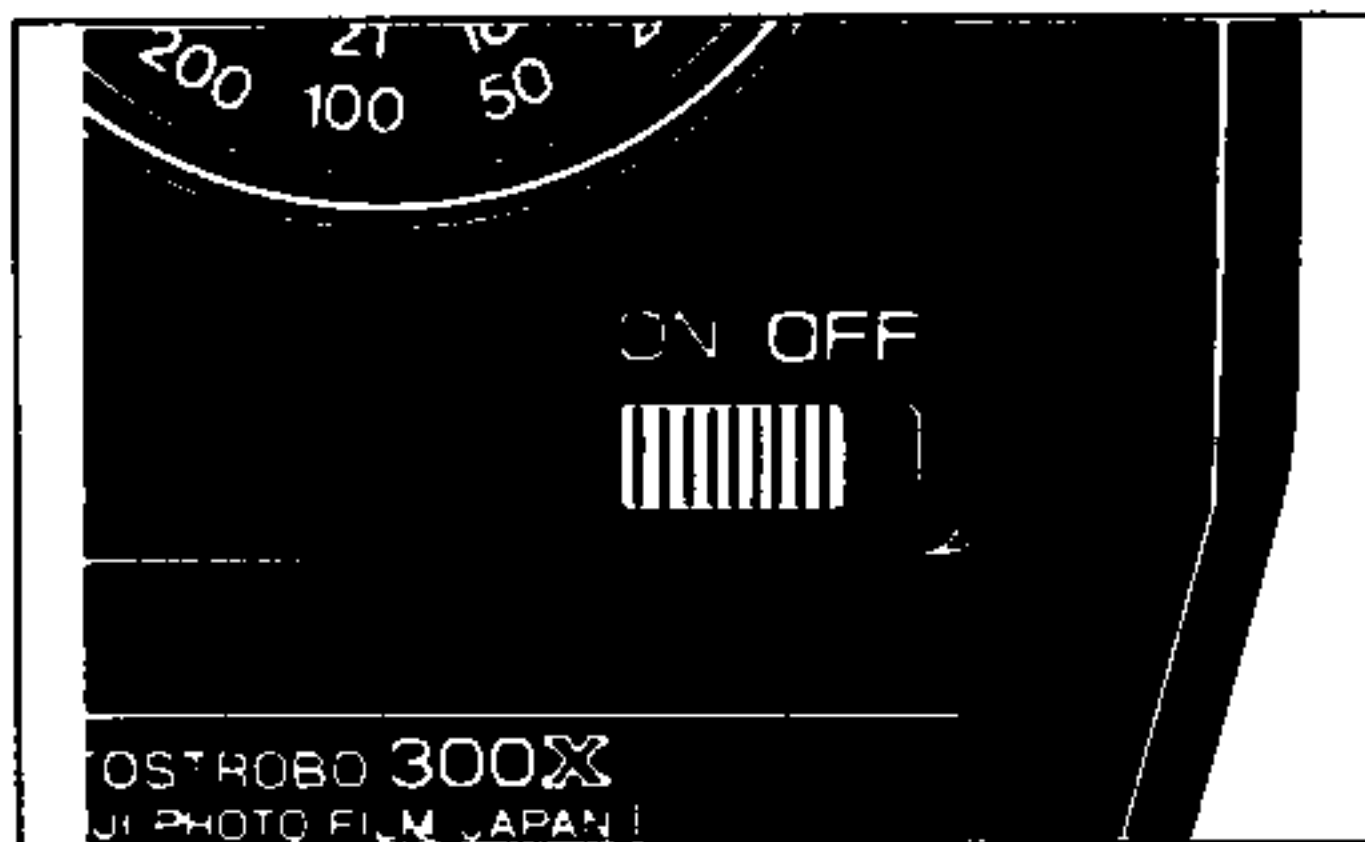
- Clip the strobo foot into the camera's accessory shoe.
- Set the camera's Shutter Speed Selector to AE.



- Set the Strobo's Distance Selector to either the yellow, green, or red mark. These marks represent the following shooting distances:

Yellow	 1	—	2.7 m (3.3 - 8.9 ft.)
Green	 1	—	5.3 m (3.3 - 17.5 ft.)
Red	 1.5	—	10.7 m (5 - 35.3 ft.)

1. *Chlorophyll a* (Chl *a*) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue and red regions of the visible spectrum.

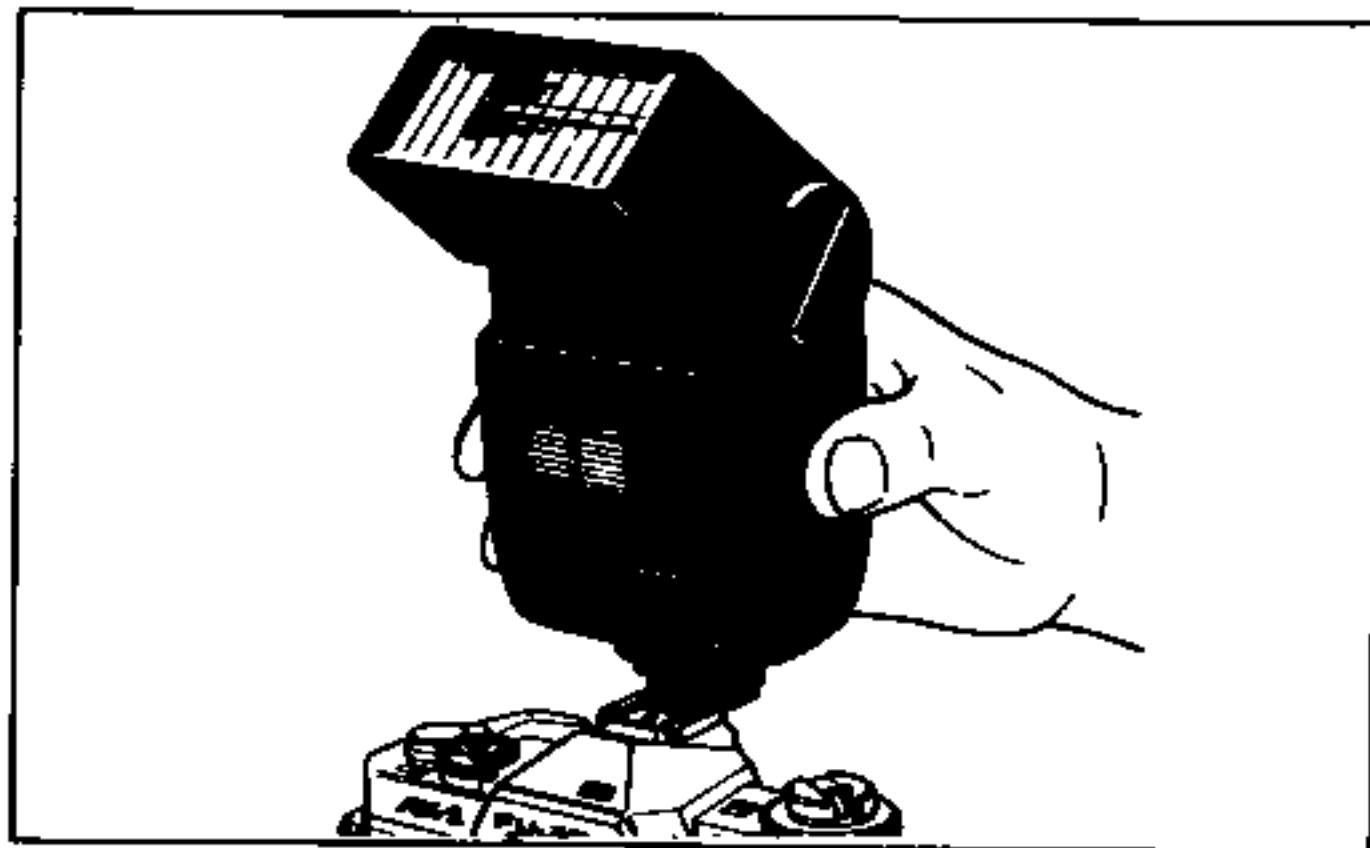


- Turn on the Strobe Switch.
- As soon as the flash is fully charged, the Strobe's Ready Lamp will turn on. The shutter speed indicator LED opposite $\left[\begin{smallmatrix} 60 \\ 30 \end{smallmatrix} \right]$ will also turn on in the viewfinder, if the Shutter Release is pressed halfway down.
- To take your picture, focus the lens, compose your subject, and press down the Shutter Release.

Note: If the Shutter Release is depressed all the way before the flash is fully charged, the shutter will be released in the aperture-preferred AE.

9. TAKING FLASH PICTURES

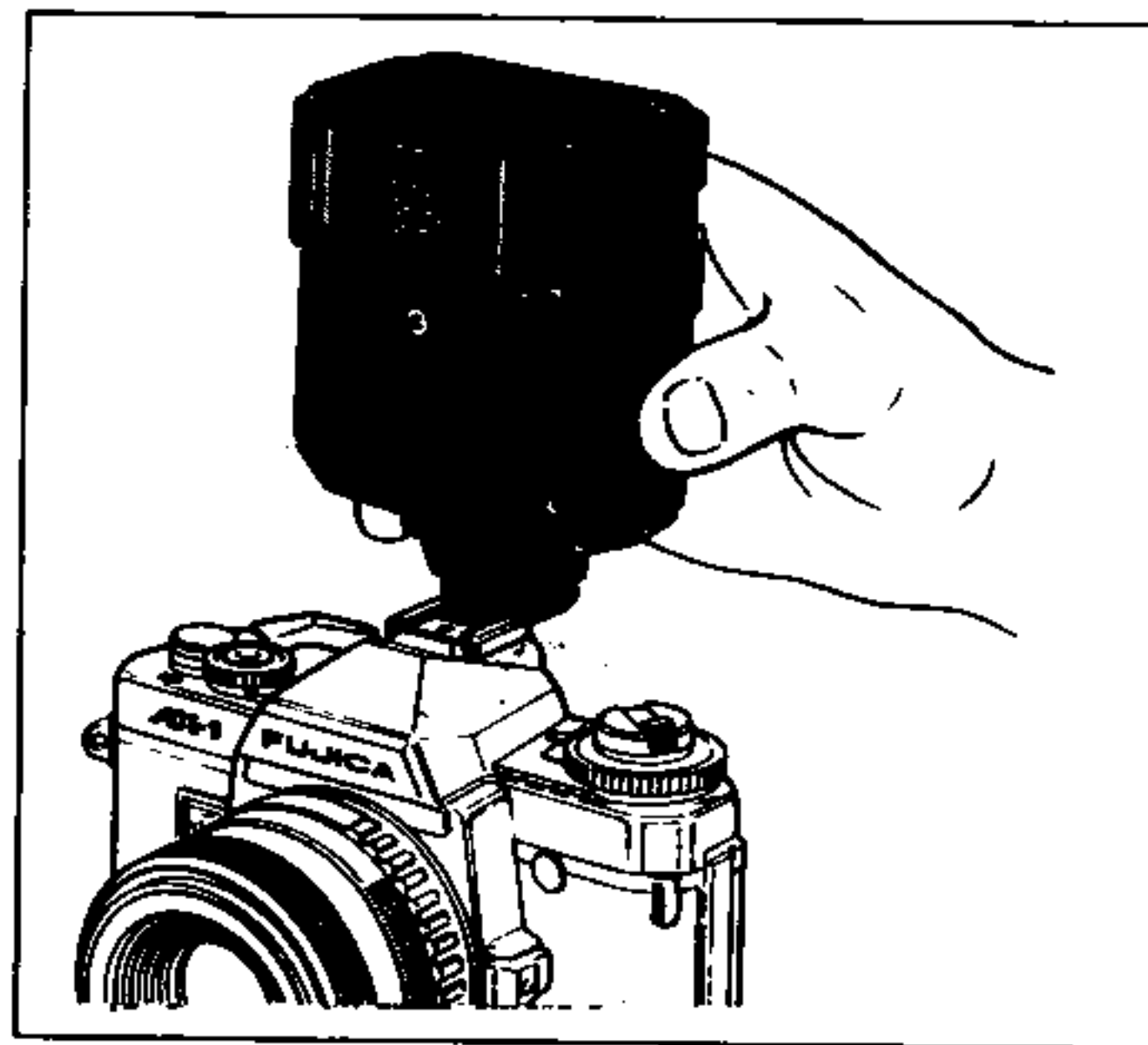
Using bounce light



If your subject is standing near a wall, you will get distracting shadows in your picture if you flash it from the front. The situation calls for using bounce light.

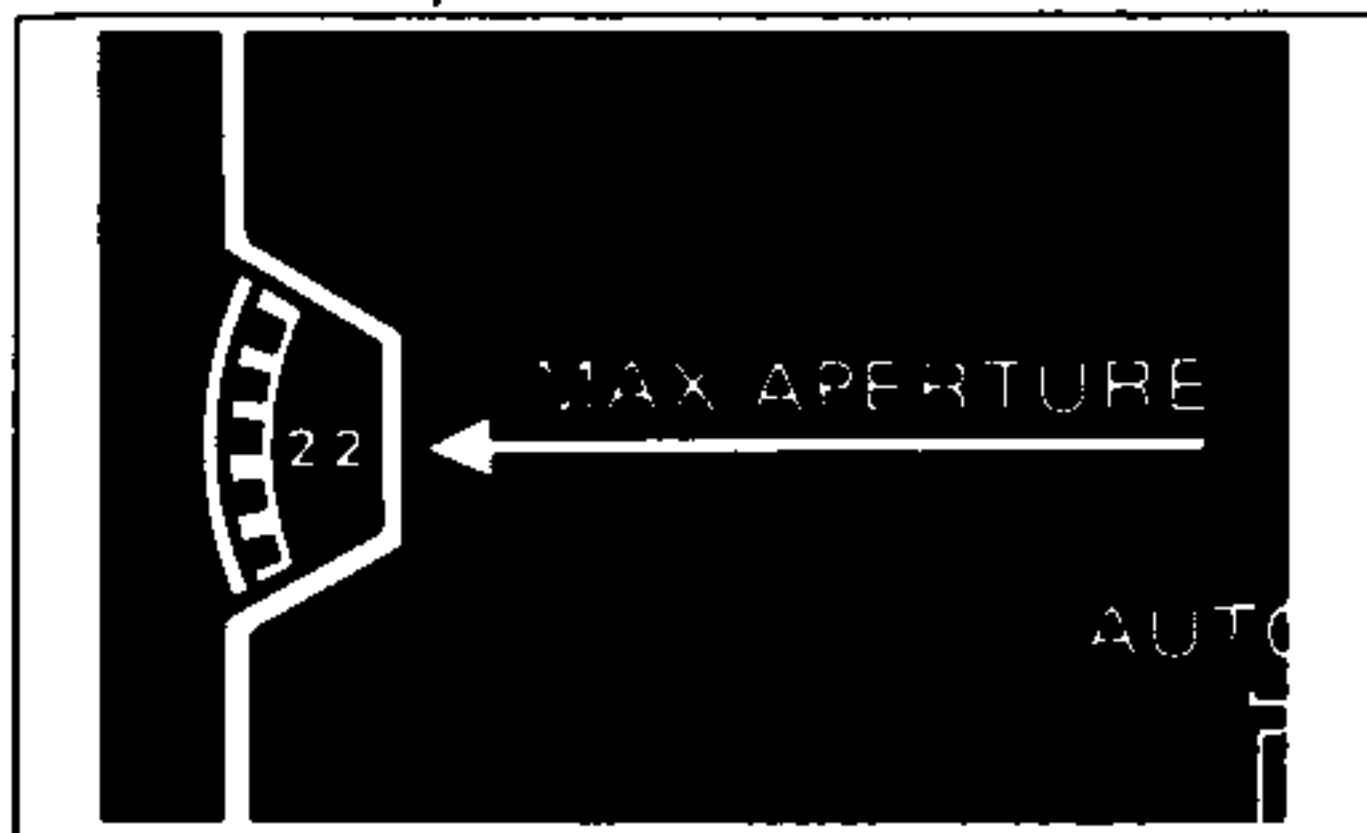
The Fujica Auto Strobo 300X has a head that will tilt 0 — 90°, and when tilted, it automatically converts into a twin flash having a main (G. No. 25) and a sub (G. No. 6) face to prevent your subject from becoming underexposed.

2. Taking Automatic Flash Pictures with the Fujica Auto Strobo AZ

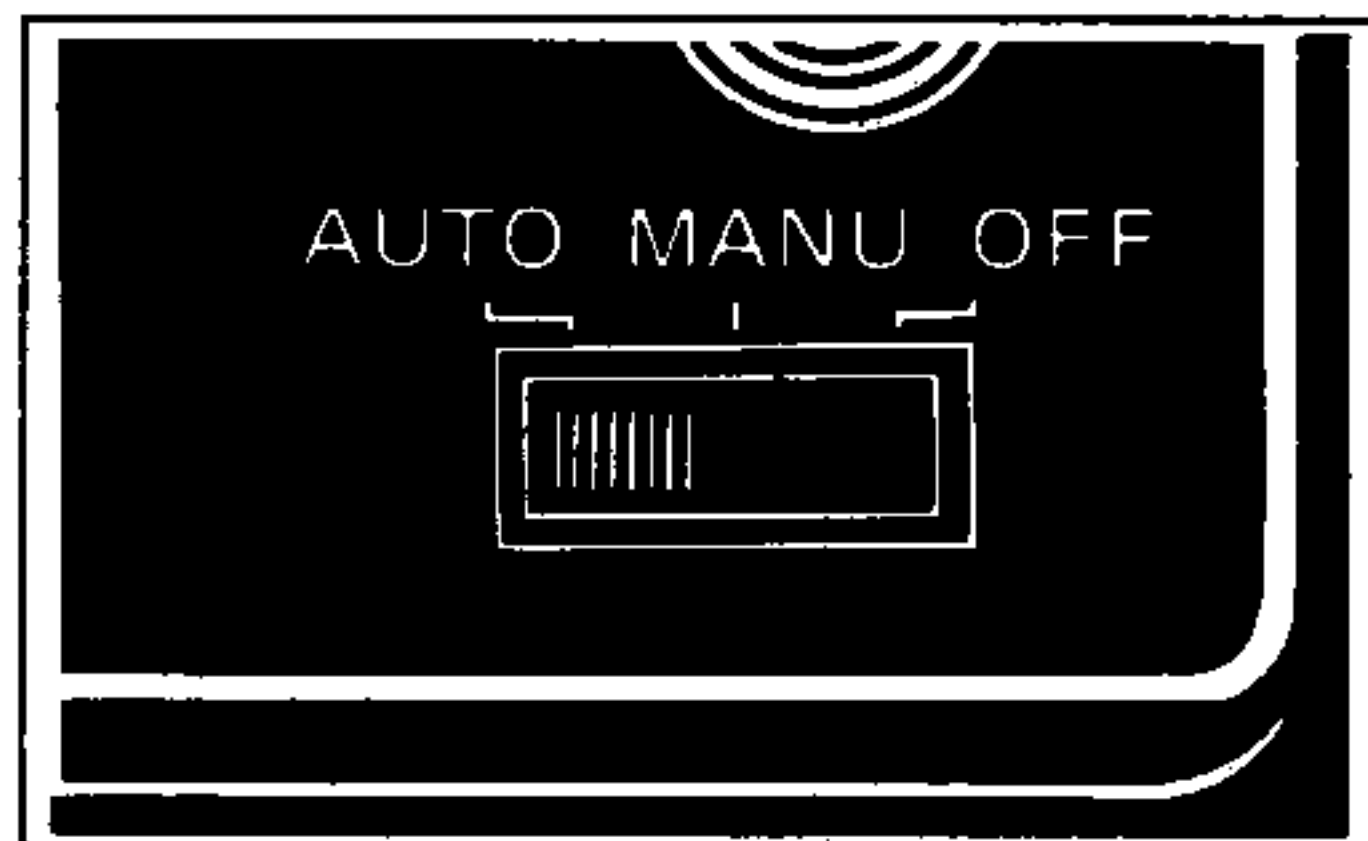


- Clip the strobo foot into the camera's accessory shoe.
- Set the Shutter Speed to AE or 60X.

9. TAKING FLASH PICTURES



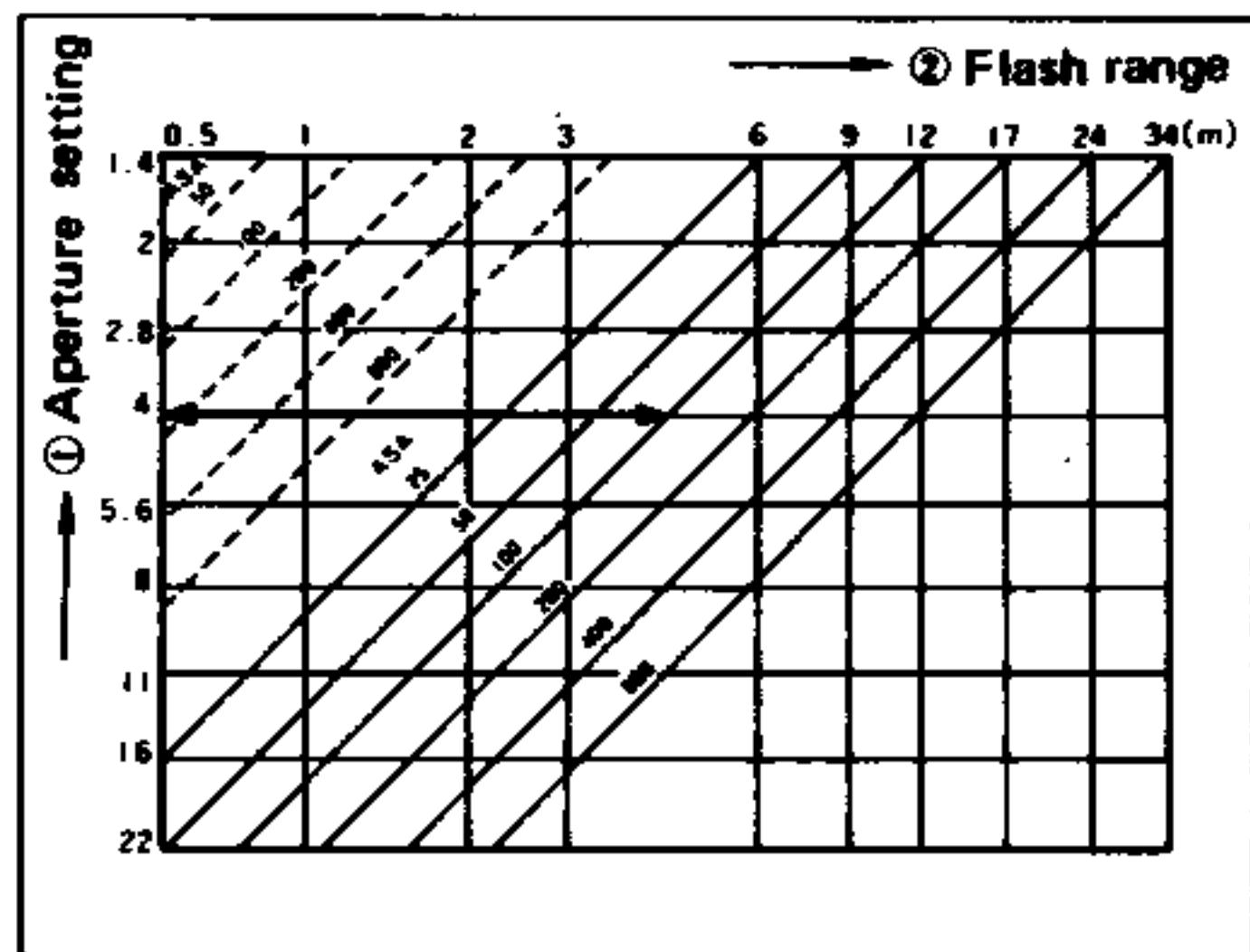
- Set the Strobe's F-number Dial to maximum aperture of the lens used.
(If you are using an X-Fujinon 1:2.2/55 mm Lens, set it to F2.2.)
- You can use any aperture you wish but the shooting distance will differ depending on the aperture and the speed of the film you are using.
(Use the accompanying chart as your guide for selecting the aperture).



- Switch the strobo switch to "AUTO" and shoot as soon as the Ready Lamp turns on.
- To take your picture, focus the lens, compose your subject, and press down the Shutter Release.

9. TAKING FLASH PICTURES

Automatic Flash Range Relative to Aperture and Film Speed



Note: The continuous diagonal lines on the right show the farthest shooting distances and the hyphenated lines on the left show the nearest shooting distances.

Example: ASA 100 film, F4 0.5 – 4 m
(1.7 - 13.2 ft.)

The nearest shooting distance for ASA 25 and 50 films is 0.5 meter at all apertures.

3. Taking Automatic Flash Pictures with Other Auto-Flash Units

Set the Shutter Speed Selector to 1/60 sec. (X-sync) and set the Aperture Ring to the specified value. The flash will do the rest to give you correctly exposed pictures. (For details, read the instructions packed with the flash you are using).

4. Other Flash Units

You'll have to find the correct aperture to use by dividing the flash guide number by the distance from flash to subject and set the Aperture Ring accordingly.

Example using an ASA 100 film (Fujicolor F-II)

Flash guide number (ASA 100, meters) 20

Flash to subject distance 5 m

Since $20 \div 5 = 4$, the correct aperture is F4.

Example using an ASA 400 film (Fujicolor 400). The guide number is double that of the ASA 100 film so $40 \div 5 = 8$ and the correct aperture is F8.

If your computation yields a number which falls between two f-numbers given on the Aperture Ring, set the Ring to the smaller of the two numbers (larger aperture).

X-Fujinon lens operation and mount adapters

1. CHANGING THE LENS

An advantage of the SLR camera is that it permits you to use many different kinds of lenses, and there are a wide variety of high performance X-Fujinon interchangeable lenses of outstanding color compatibility available to you for taking scenics, portraits, snapshots, etc.

① Classification	② Designation				③ Composition		④ Angle of view	⑤ Diaphragm		⑥ Minimum focusing distance		⑦ Weight (g)	⑧ Dimensions (mm)		⑨ Hood	⑩ Filter size (mm)
		① F number	② Focal length		③ Components	④ Elements		⑤ Aperture control	⑥ Minimum aperture	Meter	Feet		⑧ Maximum diameter	⑧ Overall length		
② Wide-angle	EBC SW	1:3.5	19mm	DM	8	11	95°	③ Fully automatic	16	0.25	0.8	265	75 #	51	③ Round screw-in	72 #
	EBC W	1:2.8	24mm	DM	8	9	84°	Fully automatic	16	0.25	0.8	195	62 #	46	③ Rectangular, fit-on	49 #
	EBC W	1:3.5	28mm	DM	5	5	74°	Fully automatic	16	0.3	1.0	160	62 #	41	Rectangular, fit-on	49 #
	EBC W	1:2.8	35mm	DM	6	7	63°	Fully automatic	16	0.35	1.2	190	62 #	46	Round, screw-in	49 #
③ Normal	EBC	1:1.2	50mm	DM	7	7	45°	Fully automatic	16	0.45	1.5	300	66 #	50	③ Round fit-on	55 #
		1:1.6	50mm	DM	6	6	48°	Fully automatic	16	0.6	2	170	62 #	37	Round, screw-in	49 #
	EBC	1:1.6	50mm	DM	6	6	48°	Fully automatic	16	0.6	2	170	62 #	37	Round, screw-in	49 #
		1:2.2	55mm		4	4	43°	Fully automatic	16	0.6	2	145	62 #	37	Round, screw-in	49 #
④ Tele-photo	EBC T	1:2.8	100mm	DM	4	5	24°	Fully automatic	22	1.0	3.3	245	62 #	62	Round, screw-in	49 #
	EBC T	1:2.5	135mm	DM	4	5	18°	Fully automatic	22	1.5	5	425	67 #	83	Round, screw-in	58 #
	EBC T	1:3.5	135mm	DM	4	4	18°	Fully automatic	22	1.5	5	290	62 #	79	Round, screw-in	49 #
	EBC T	1:4.5	200mm	DM	5	5	12°	Fully automatic	22	2.5	8.2	490	65 #	134	③ Built-in	49 #
	EBC T	1:4.5	400mm		4	5	6°	③ Manual	45	8	26	1990	101 #	291	Built-in	49 #
⑤ Zoom		1:3.5-1:4.2	29-47mm	DM	8	8	74-50°	Fully automatic	22	0.6	2	265	65 #	52	Round, fit-on	55 #
		1:3.5-1:4.5	43-75mm	DM	7	7	54-32°	Fully automatic	22	0.2	4	310	64 #	63	③ No hood	49 #
	EBC Z	1:4.5	75-150mm	DM	9	12	33-16°	Fully automatic	22	1.8	6	715	70 #	145	Built-in	62 #
	EBC Z	1:4.5	85-225mm	DM	9	12	11-28°	Fully automatic	22	1.6	5.2	720	71 #	155	Round, screw-in	55 #
⑥ Fish-eye	EBC F	1:2.8	16mm	DM	8	12	180°	Fully automatic	16	0.2	0.7	408	74 #	56	Built-in	③ 4 built-in filters
⑦ Macro	EBC M	1:3.5	55mm	DM	4	5	43°	Fully automatic	22	0.24	0.8	202	62 #	54	No hood	49 #

1. CHANGING THE LENS

28 mm



35 mm



55 mm



100 mm



135 mm



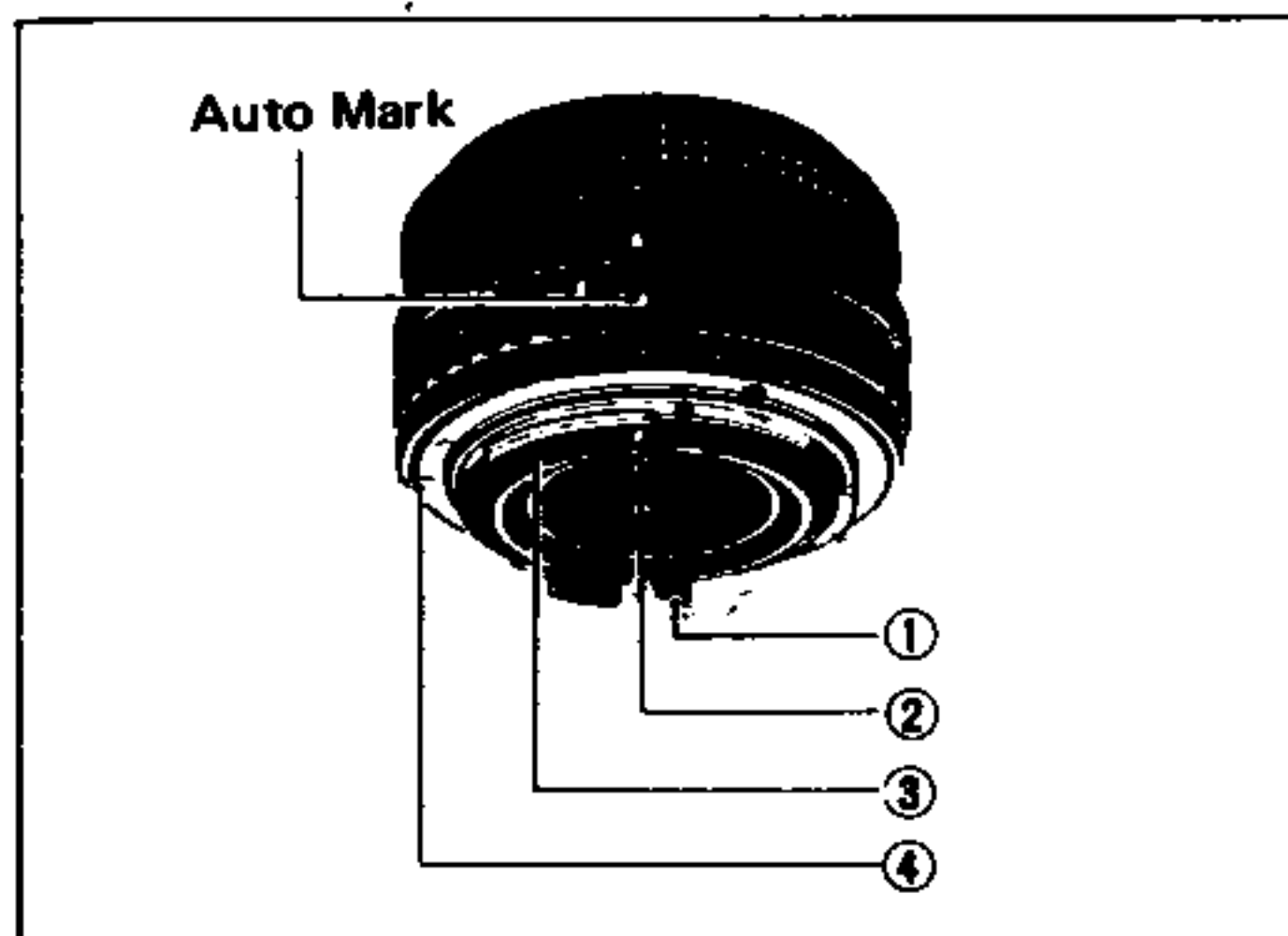
200 mm



2. TYPES OF X-FUJINON INTERCHANGEABLE LENSES

There are two types:

X-Fujinon DM Lenses (Lenses with an Auto Orange ♦ Mark on the Aperture Scale)



- ② **Full aperture signal pin**
(Having a special built-in resistor for full aperture, it signals the viewfinder indicator and auto strobo circuits in the camera body on contact with a pin in the body.)
- ③ **Aperture keying lug**
(It signals the f-number to the camera body, works at 6° intervals per step, and stops the aperture down to minimum when the camera is on auto.)
- ④ **Lens auto/manual groove**
(When a DM lens is mounted, it presses in the auto/manual pin in the camera body to activate the automatic aperture setting circuit, and when the lens is on manual, it activates the circuit for stopping the aperture down to the preset value.)

These are capable of full aperture metering and programmed, shutter-preferred, and aperture-preferred automatic exposure.

However, your Fujica AX-1 is provided only for full aperture metering and aperture-preferred AE and these lenses cannot be used with the aperture ring set to the orange ♦ mark.

- ① **Auto-diaphragm lug**
(Stops down the aperture to the preset value just before exposure by the operation of the Aperture Control Lever in the camera body.)

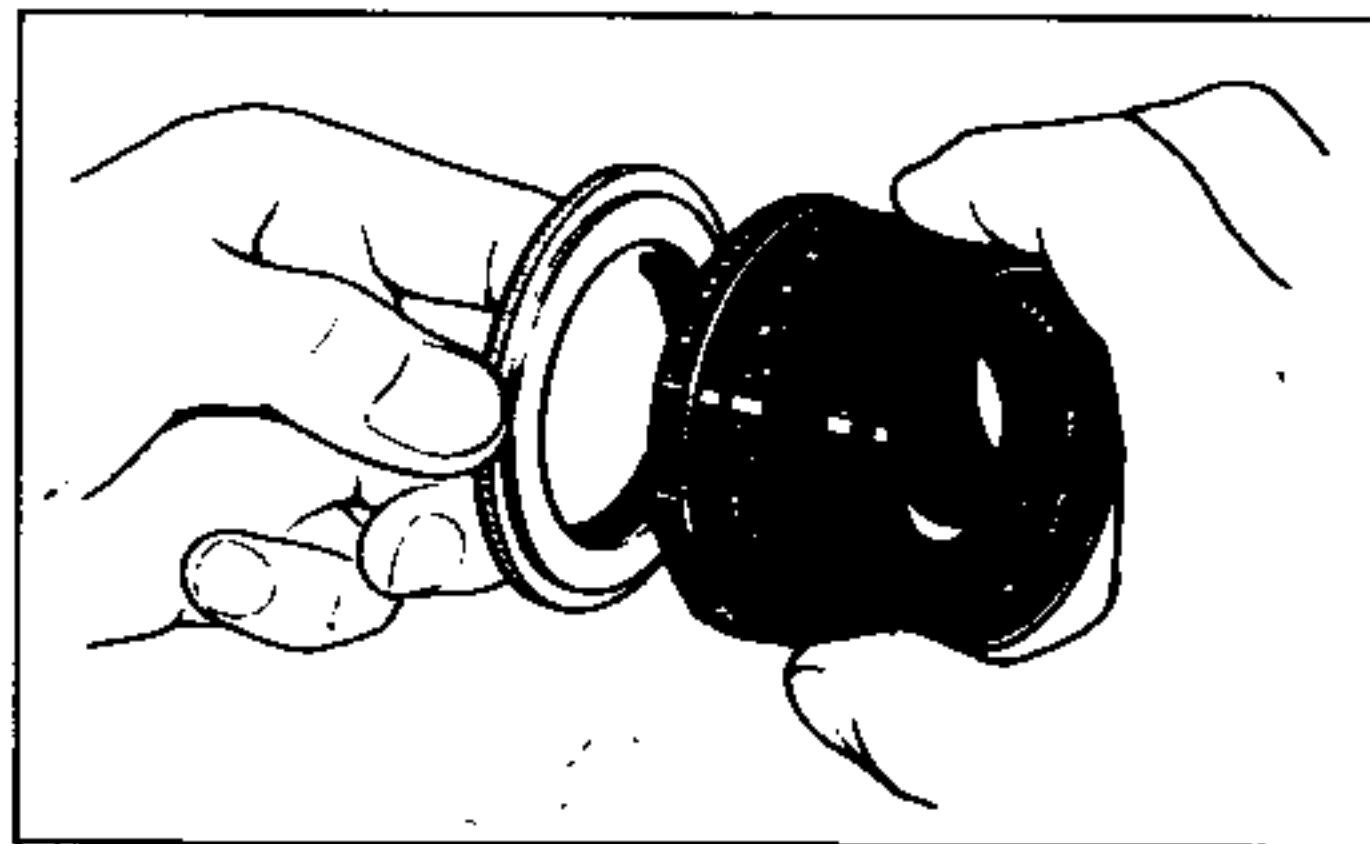
X-Fujinon Lenses (Lenses without the auto orange ♦ mark on the Aperture Ring or the 'DM' Designation on the Lens Name Ring.)

These can be used for full aperture metering and aperture-preferred automatic exposure but not for programmed and shutter-preferred automatic exposure. They are not provided with functions ② and ④ of the DM lenses.

5. USING PRAKTIKA SCREW-MOUNT FUJINON LENSES

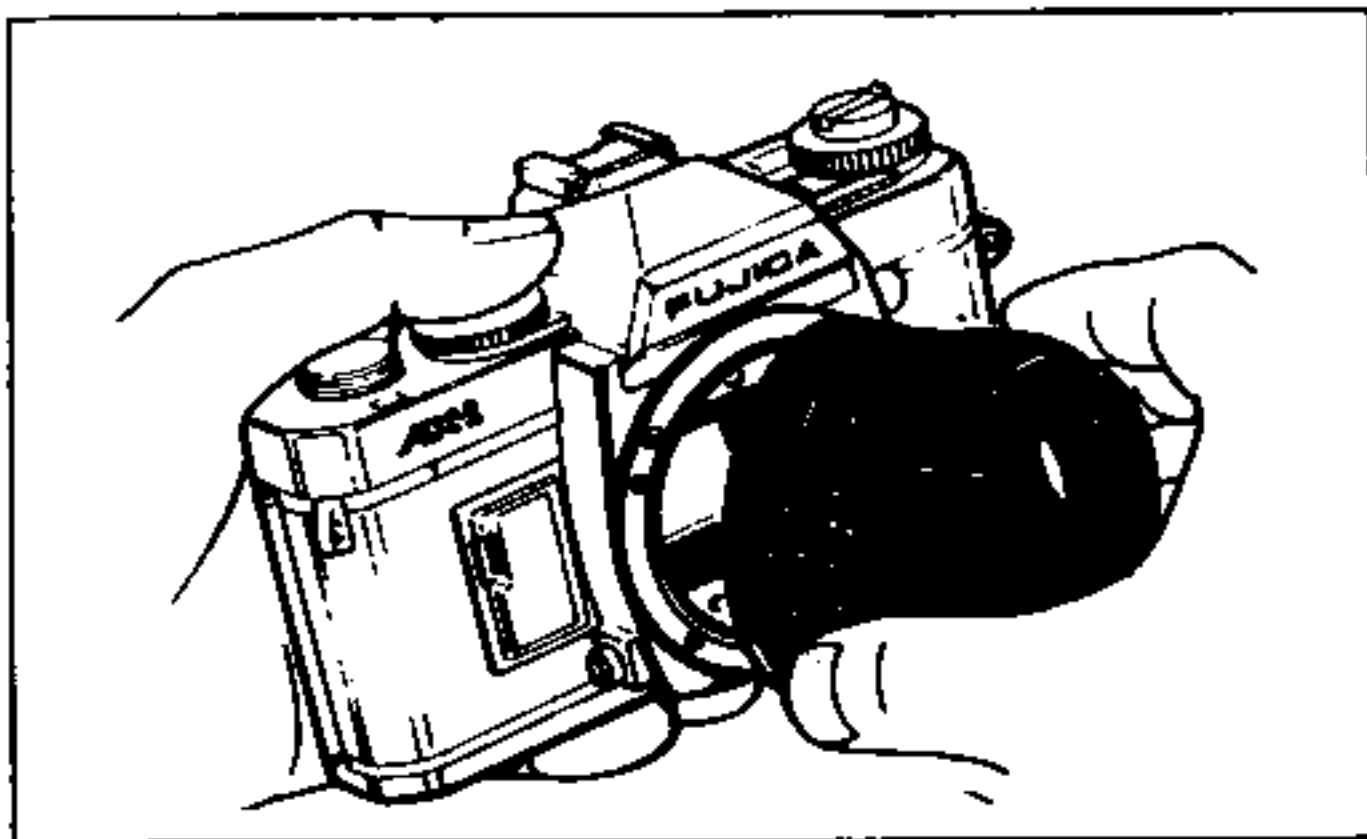
These lenses are mounted on your Fujica AX-1 with the Mount Adapter X-S (optional). The procedure for taking pictures is explained below. For details, read the instructions packed with the adapter.

Praktica Screw-mount Fujinon Lens with Mount Adapter X-S



- Screw the Mount Adapter X-S on the rear end of your lens.
- Place the red dot on the adapter's rear end against the red dot on the camera's Lens Mount and turn the lens 65° to the right (clockwise). It will lock into position with a click.

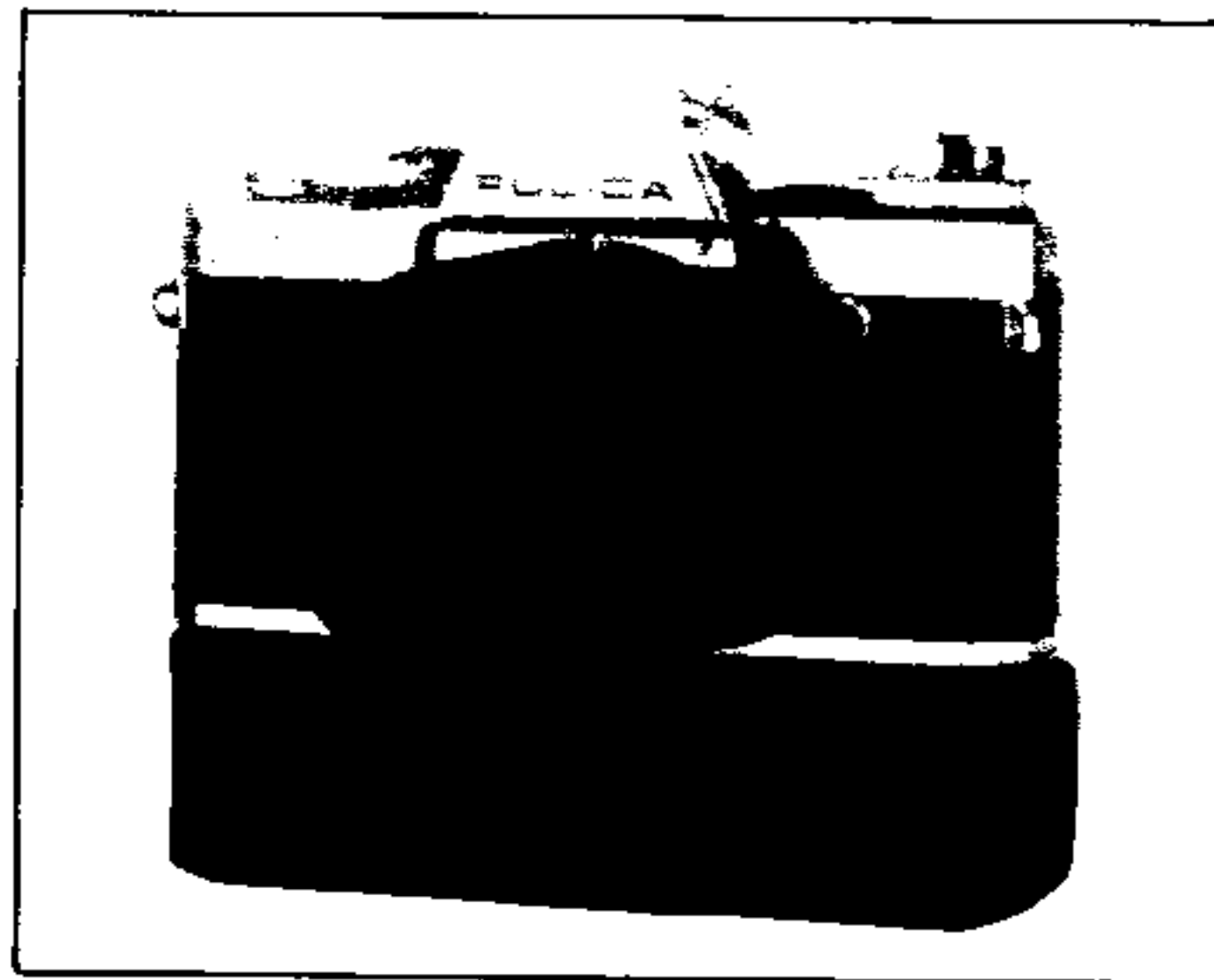
3. USING PRAKTICA SCREW-MOUNT FUJINON LENSES





Your Fujica AX-1 has a complete assortment of "system accessories" designed to expand the camera's scope and increase the fun of picture-taking.

FUJICA AUTO WINDER X

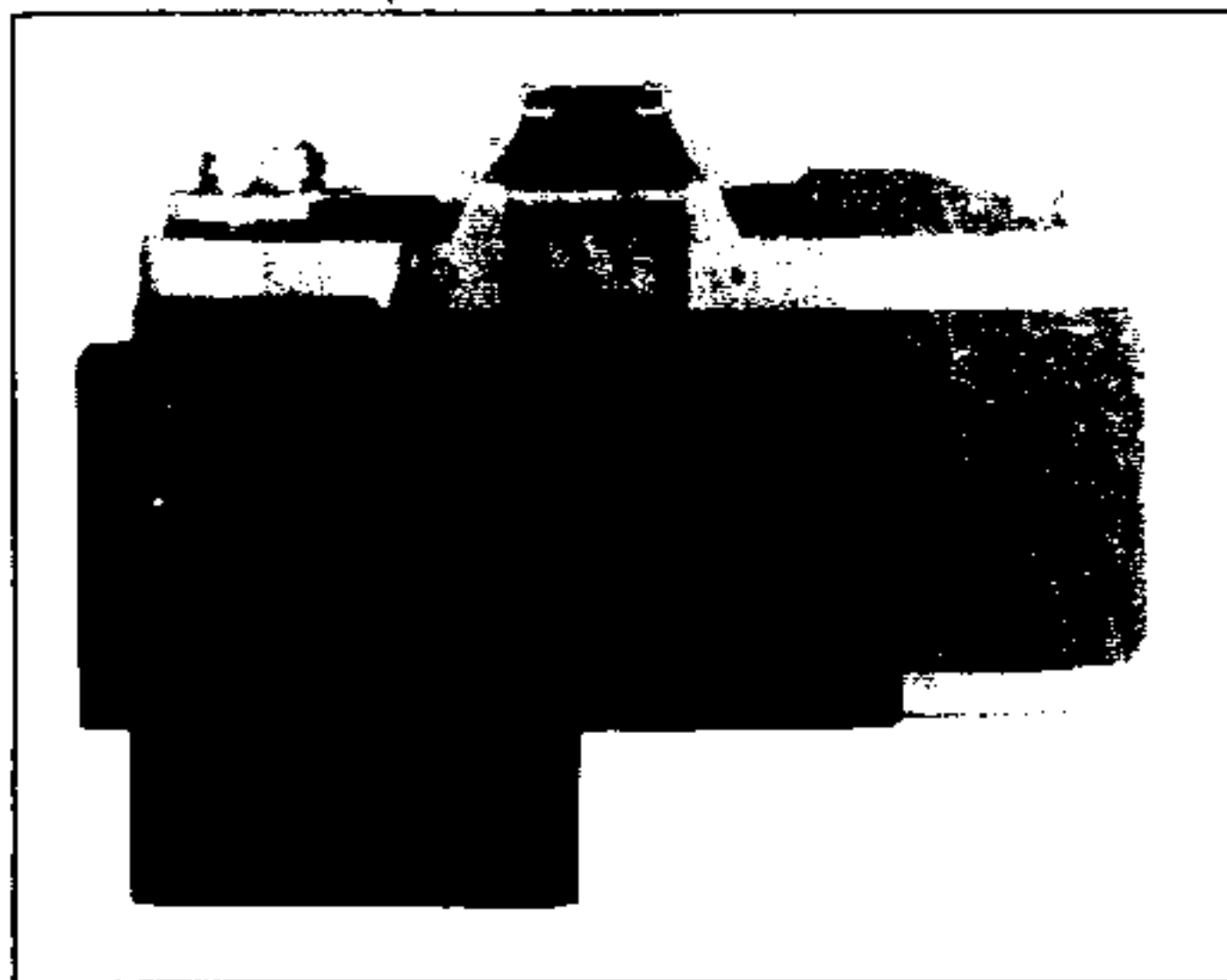


This compact, lightweight unit is attached to the bottom of your camera to wind the film automatically at a rate of two frames a second so that you can concentrate on your subject and won't miss those decisive moments that can easily be lost forever. It will advance the film continuously while the shutter release is depressed or one frame at a time each time the shutter is tripped. It operates on four penlight batteries and a red LED will turn on while the film is advancing.

SYSTEM ACCESSORIES

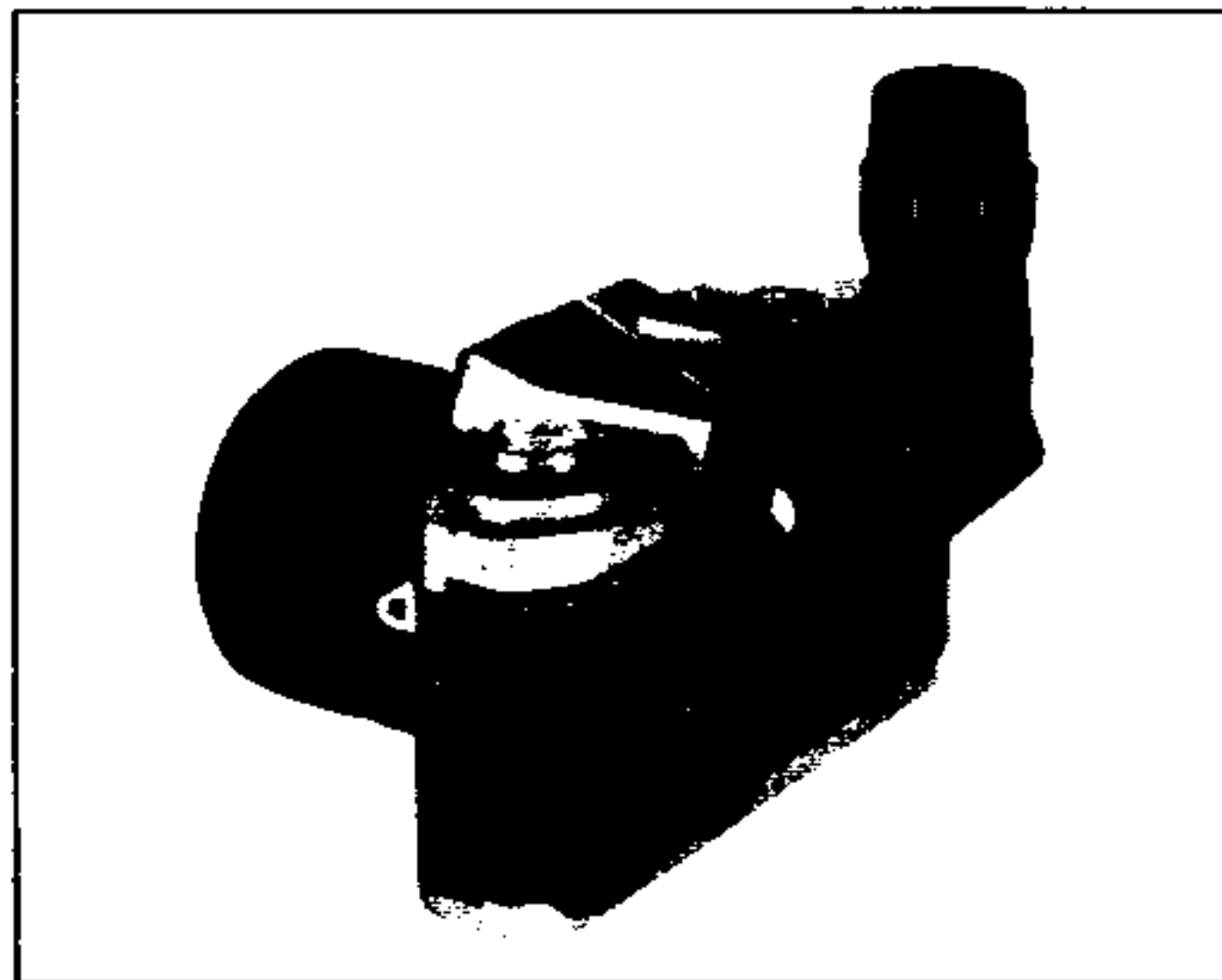
2-1203310-1012

FUJICA PHOTO RECORDER



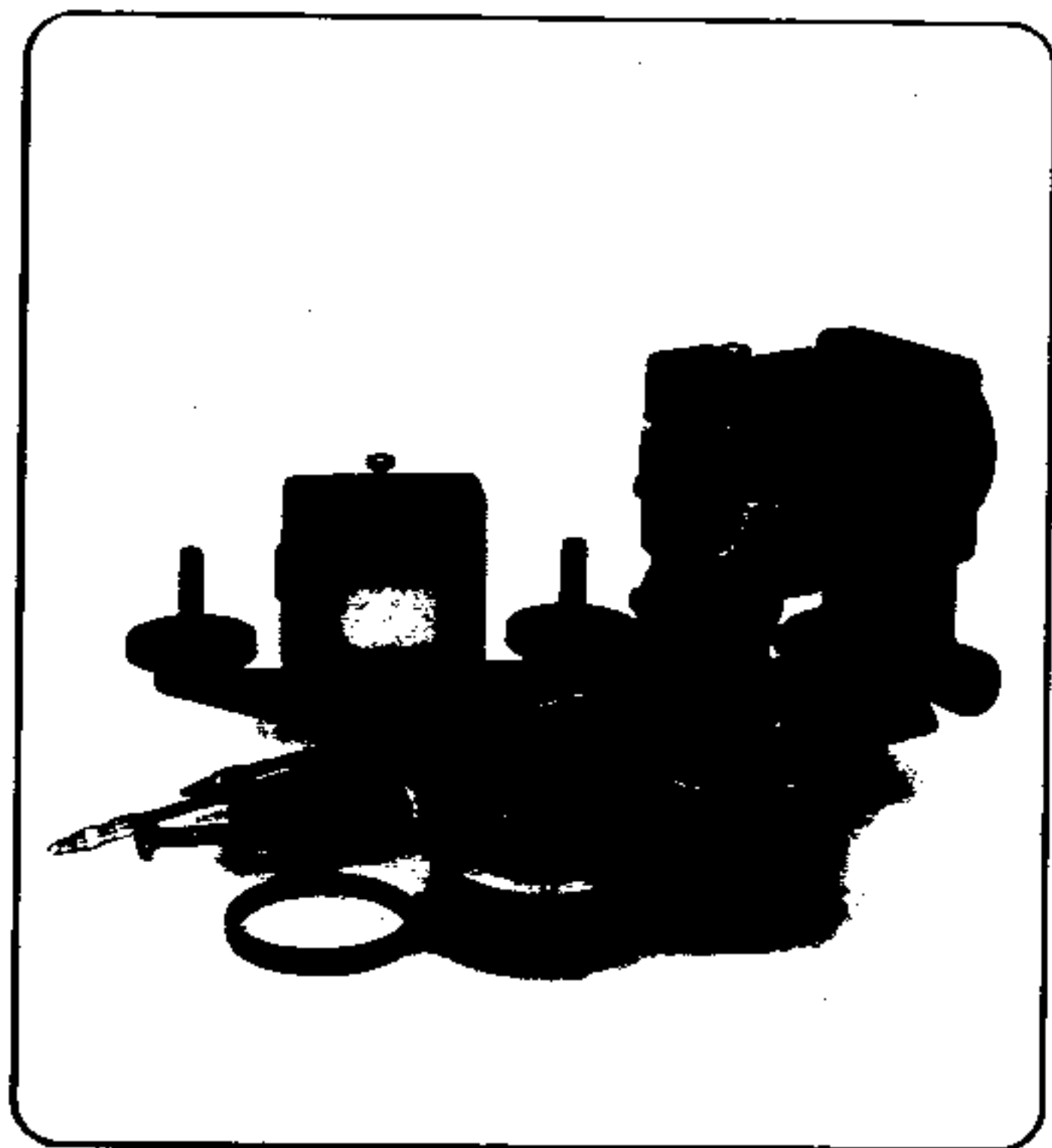
This data back is interchangeable with the Camera Back and is equipped with a hand-writing pen that is interlinked with a "light pen" for printing in data (up to about 30 letters) in the bottom left corner of the picture. The Camera Back can be easily detached by pushing down the hinge pin.

FUJICA RIGHTANGLE FINDER

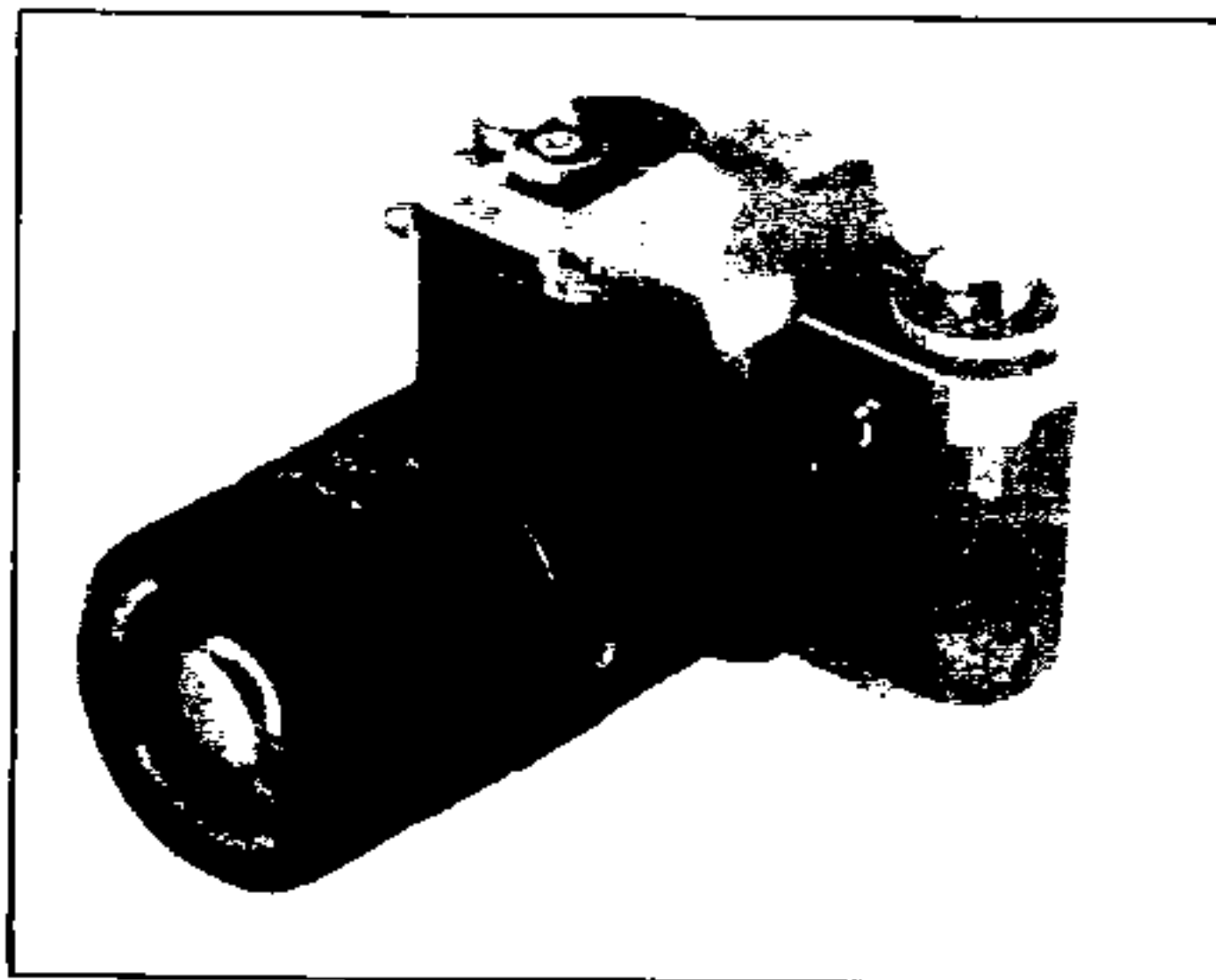


An accessory for simplifying viewing when the camera must be held low to the floor or when it is attached to a copying board. It is provided with an eyesight adjustment lens.

SYSTEM ACCESSORIES



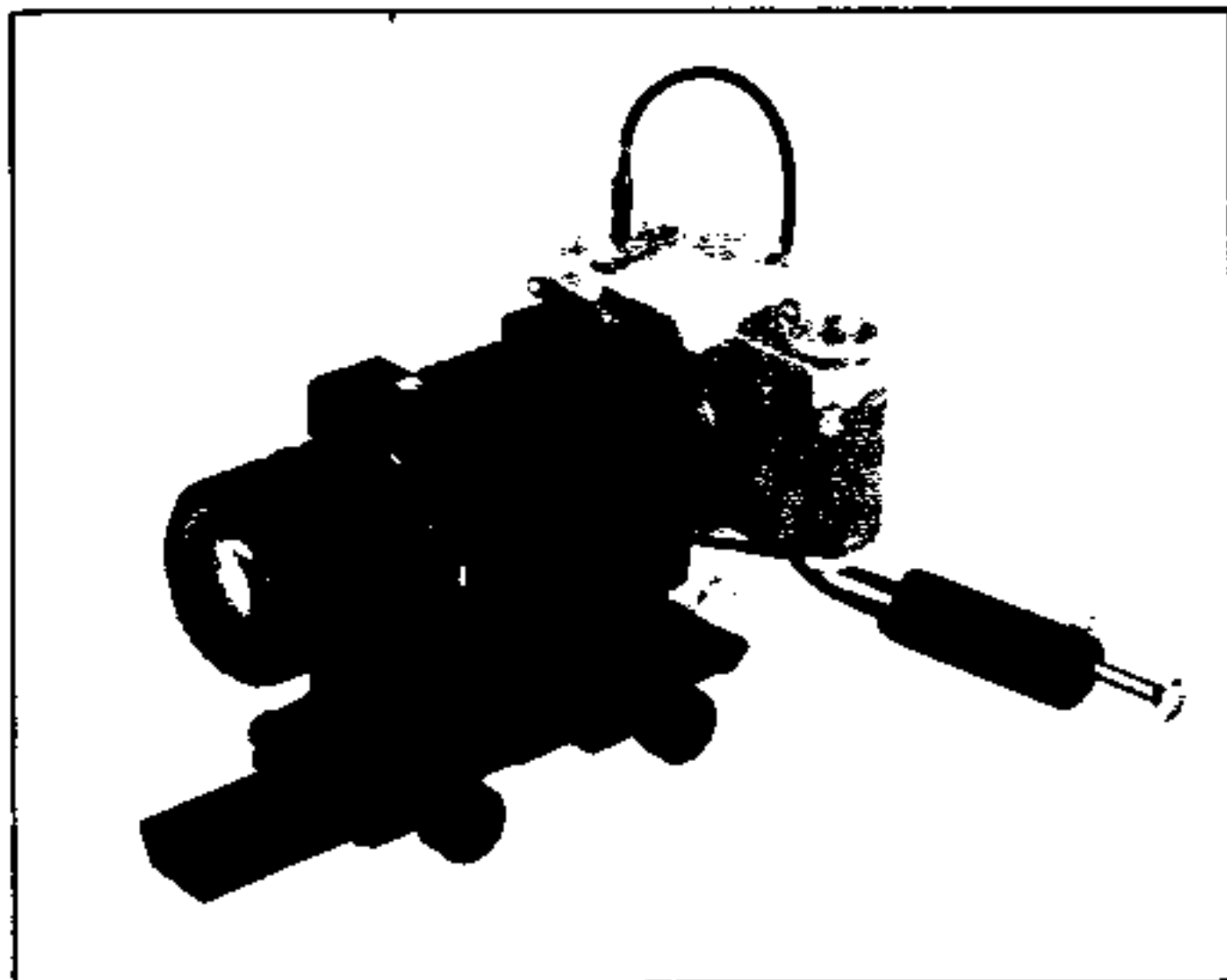
FUJICA AUTO EXTENSION TUBES X25/X50



They are used for taking ultra close-ups and have a tube length of 25mm and 50mm. Combined with a normal lens, the X25 unit provides 1/2-actual-size, and the X50 unit life size, pictures. Exposure setting is easy because it offers full aperture metering and automatic stop down.

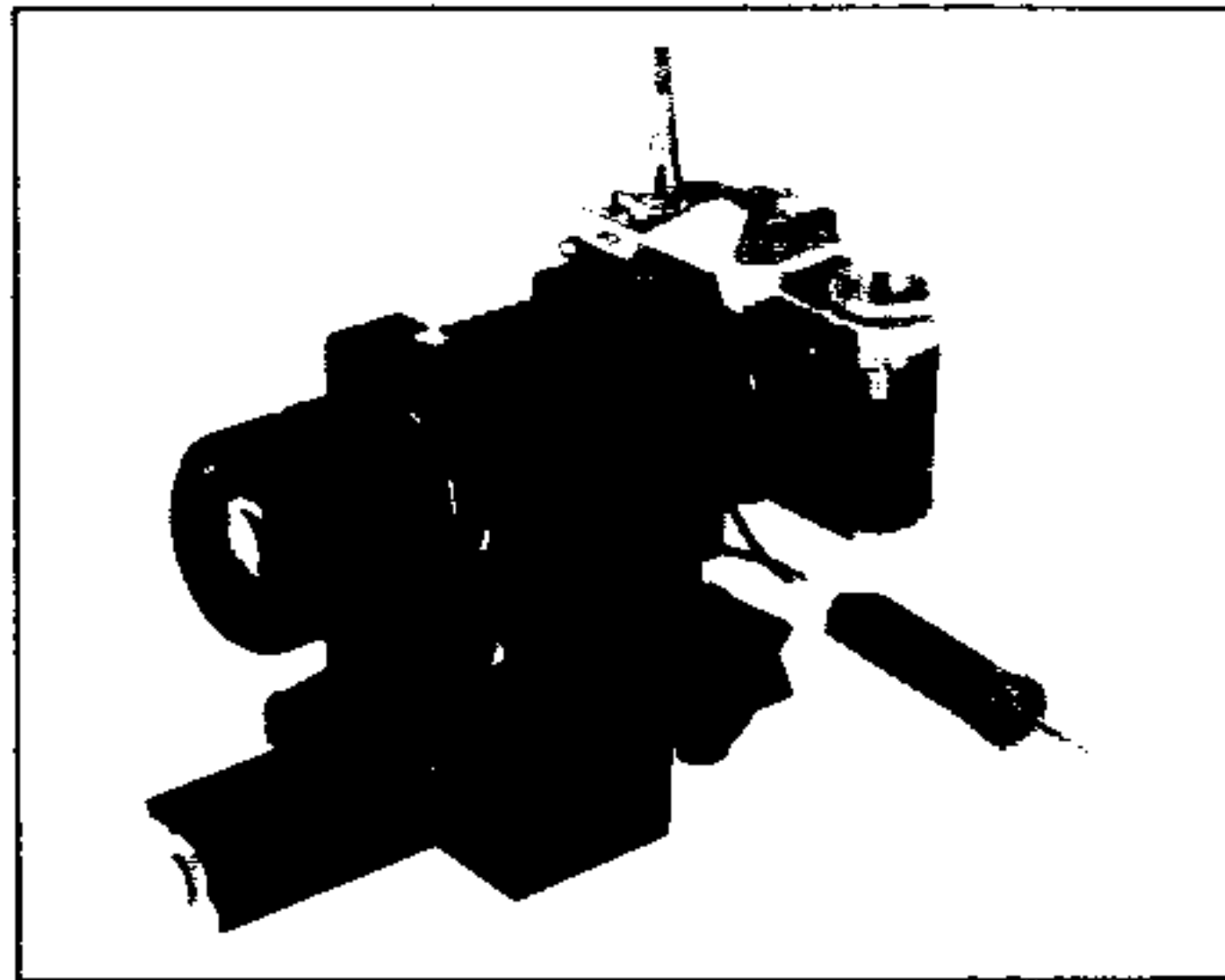
SYSTEM ACCESSORIES

FUJICA AUTO BELLOWS X



Designed for taking ultra-close-ups, it provides 1 – 3X magnification in combination with a 50mm normal lens. It is equipped with an automatic diaphragm to allow you to focus with the aperture wide open. Convenience accessories include a focusing rail and a slide copier.

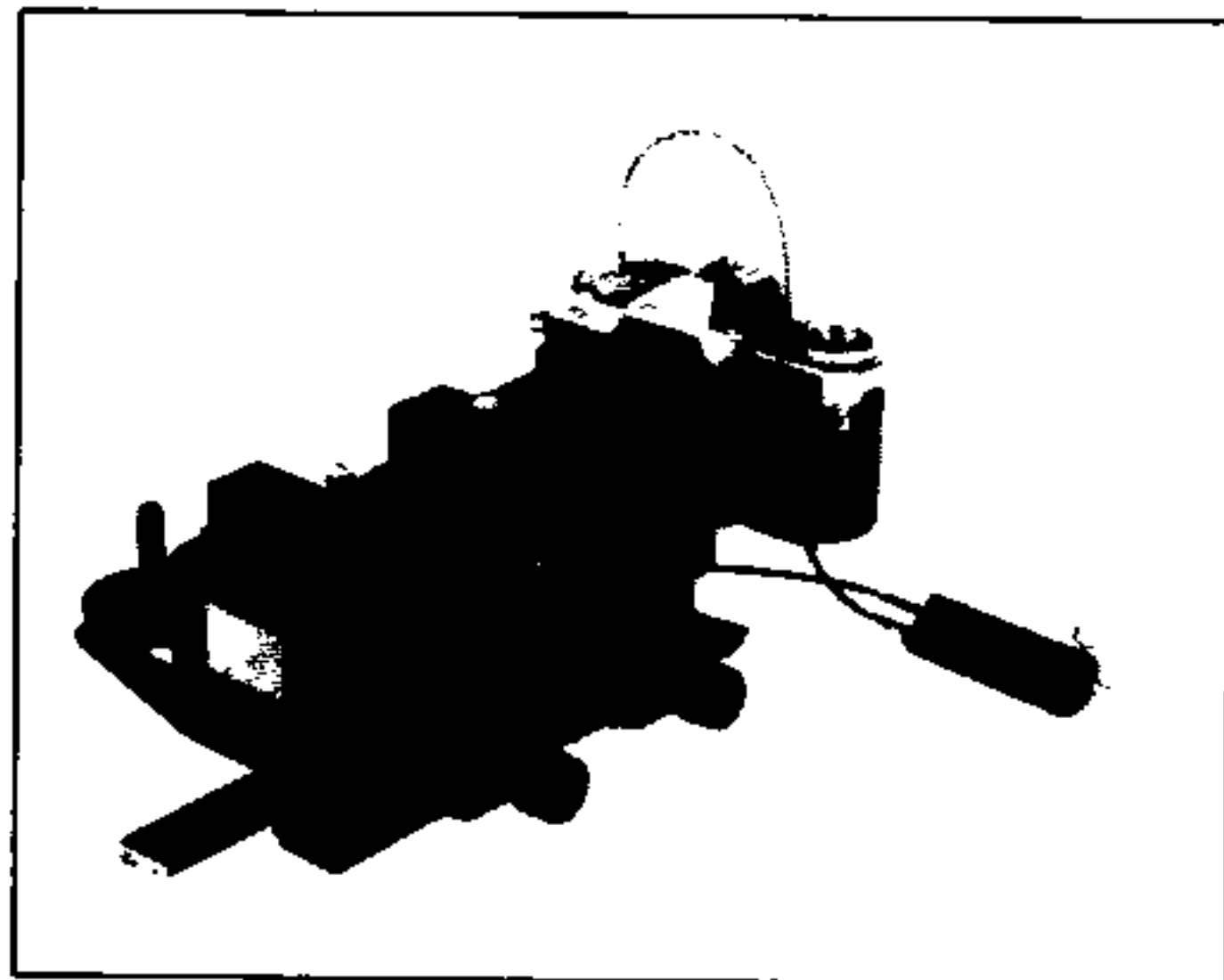
FUJICA FOCUSING RAIL X



This is used in combination with the Fujica Auto Bellows X to permit simple, accurate focusing.

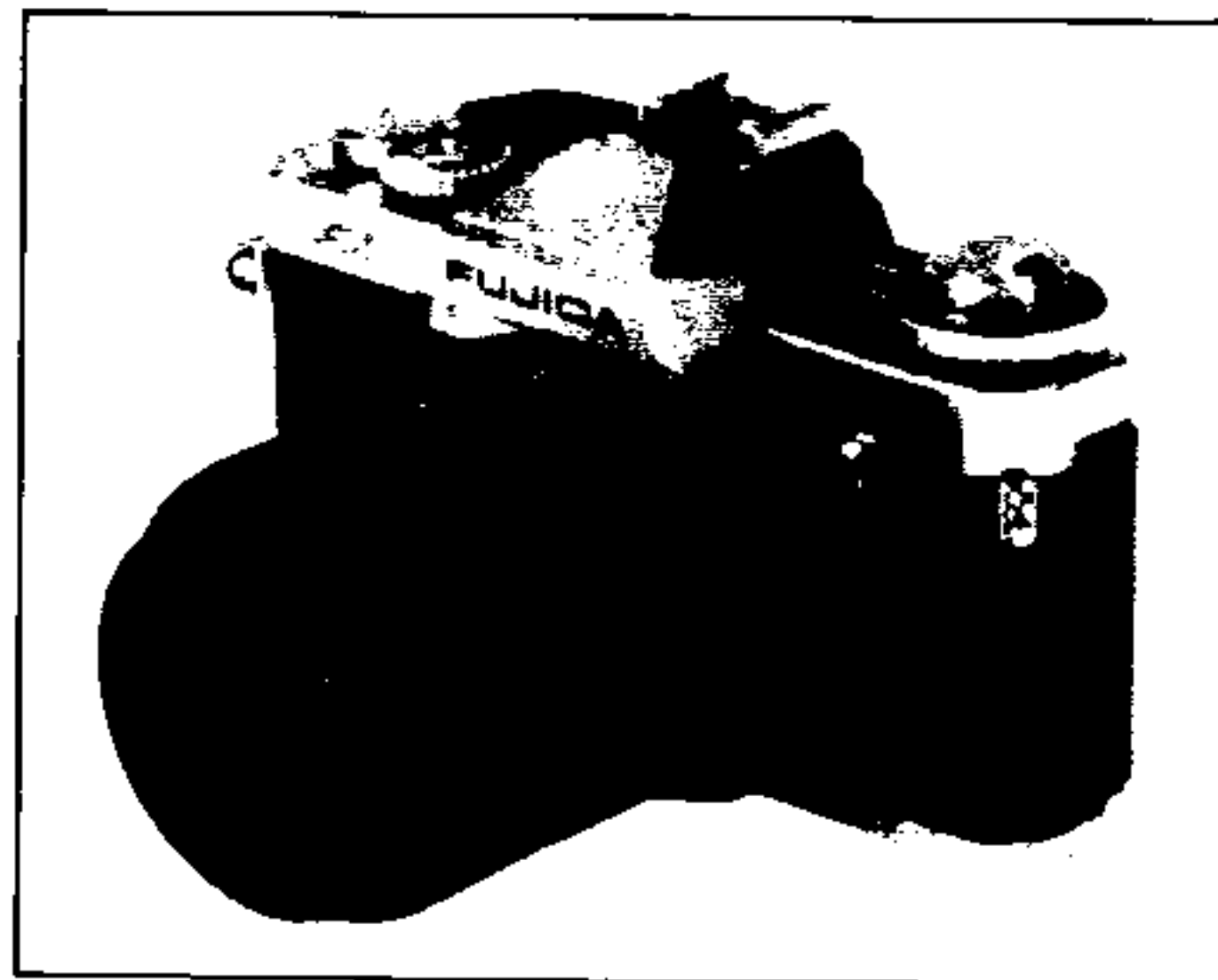
SYSTEM ACCESSORIES

FUJICA SLIDE COPIER X



Attached to the front end of the Fujica Focusing Rail X, this copier simplifies copying of color and black and white slides as well as roll-film pictures.

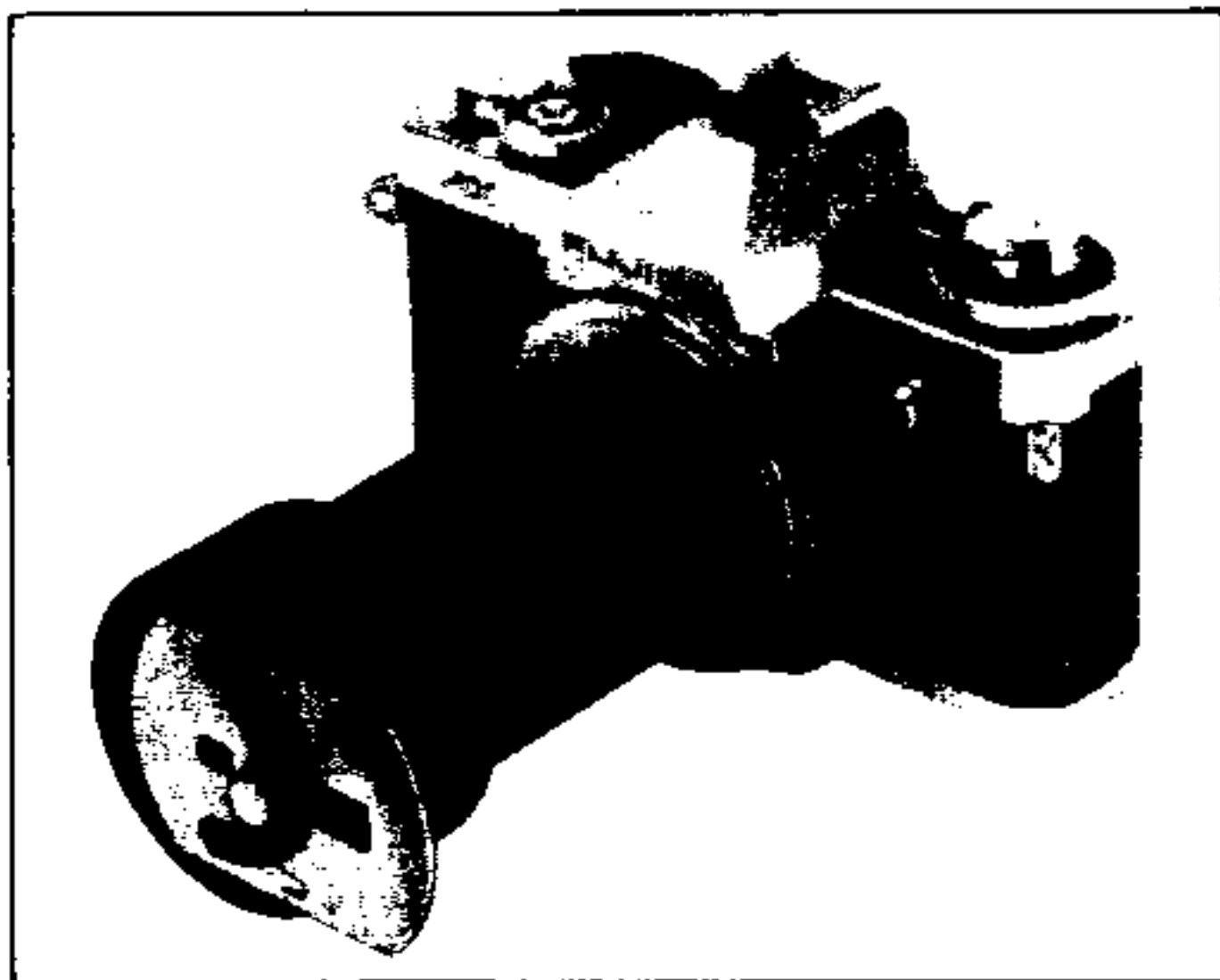
FUJICA CLOSE-UP LENS



Attached to a F1.6 50mm normal lens, it lets you take close-ups of subjects about 32 to 48cm away from the camera lens.

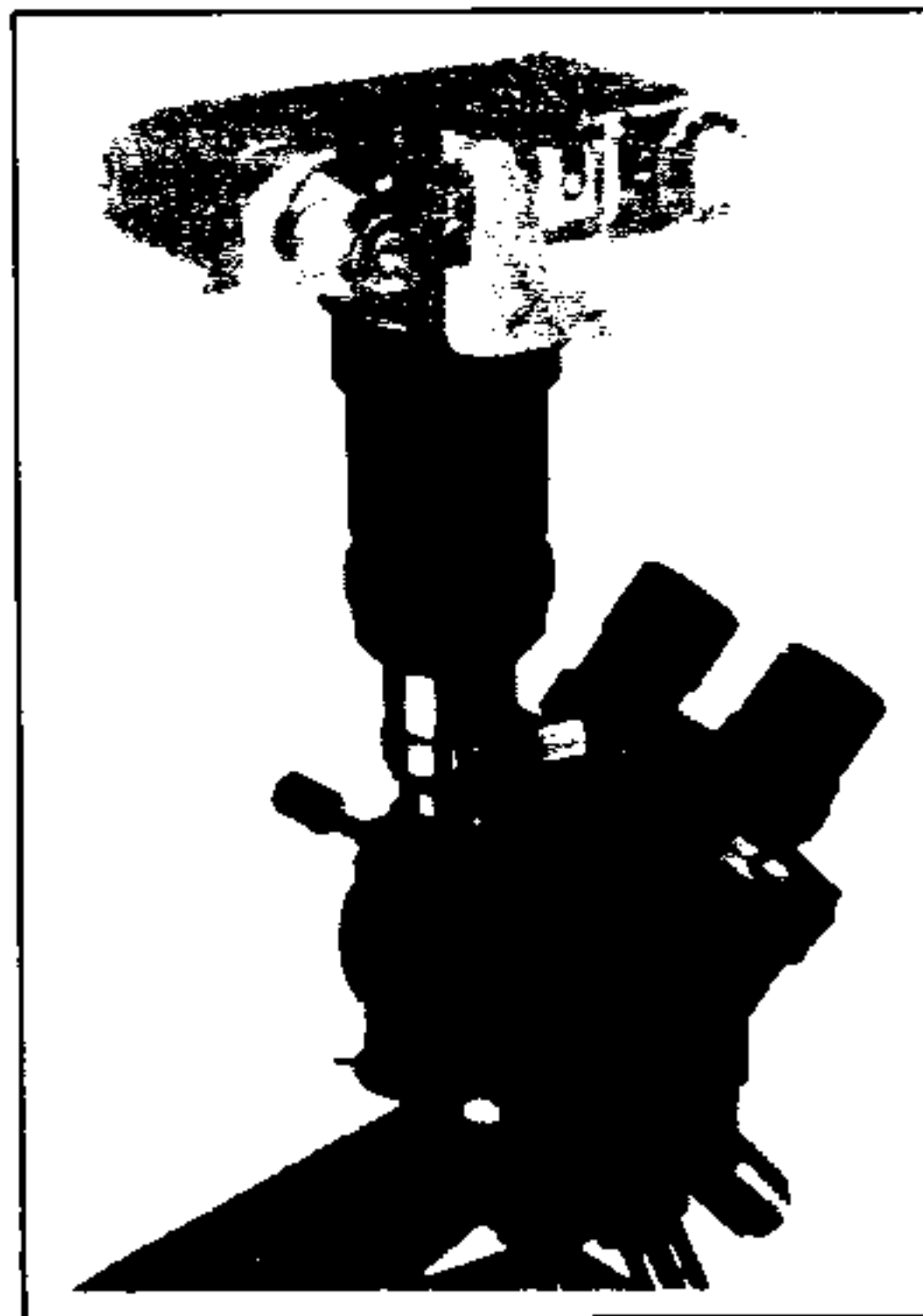
SYSTEM ACCESSORIES

FUJICA MACRO CINE COPY X



This accessory is used for copying pictures taken on 8 and 16mm films.

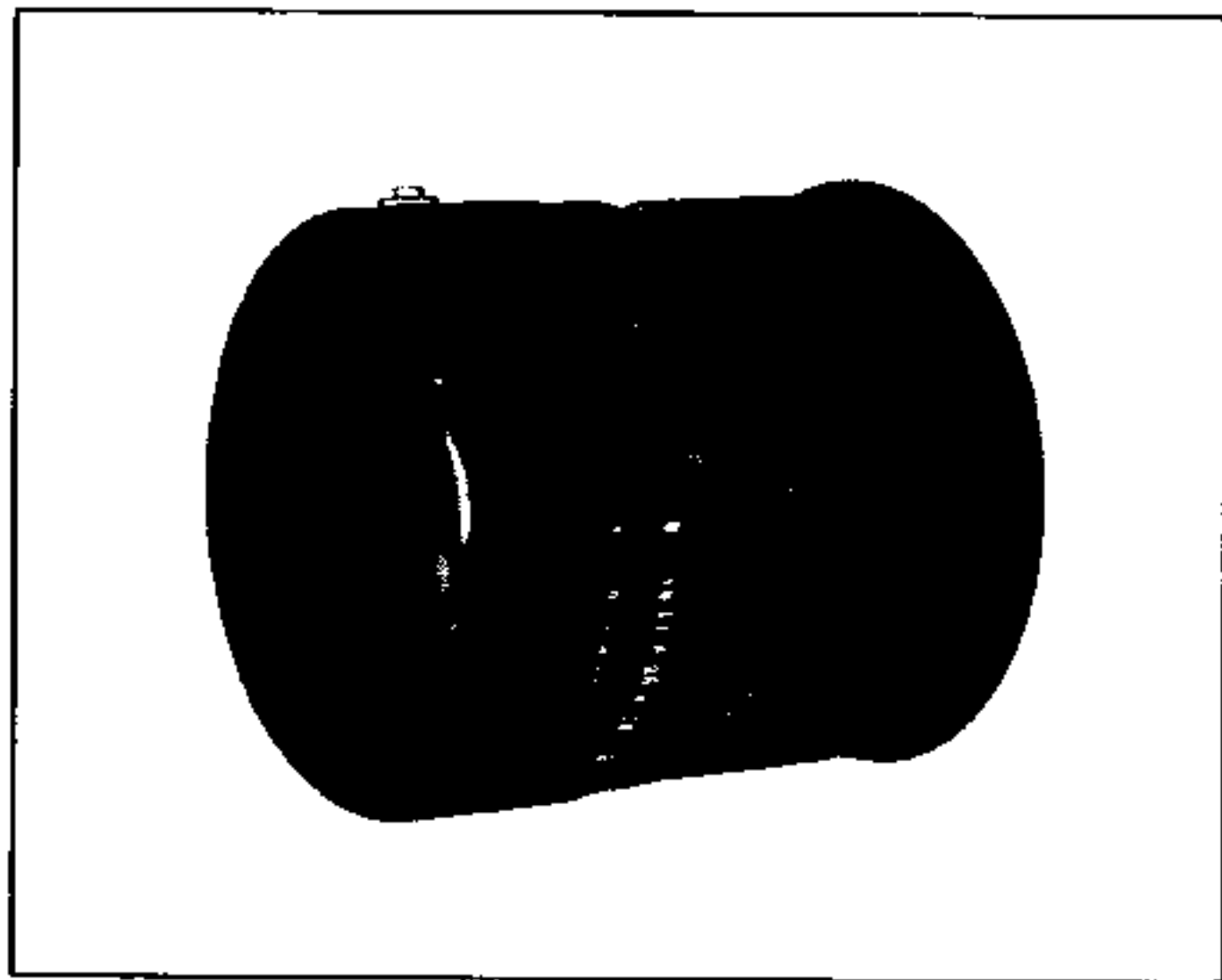
FUJICA MICROSCOPE ADAPTER X



This is used to couple the camera to a microscope to take photomicrographs.

SYSTEM ACCESSORIES

FUJICA REVERSE ADAPTER X



It lets you mount the lens in reverse to take close-ups. Larger-than-life close-ups will turn out sharper when the lens is mounted in reverse on an extension bellows with this adapter.

FUJICA TELECONVERTER 2X



Mounted between the lens and camera body, it will double the focal length of your lens to take telephoto pictures.

SYSTEM ACCESSORIES

FUJICA FILTERS (12 types)

Filter	Film type	Use
SKYLIGHT (1B)	Black and White, color	Reduces the blue-greenishness in landscape picture. Used also for lens protection.
UV	Black and white, color	Ultraviolet absorbing filter. Used also for lens protection.
SY48	Black and white	Yellow filter. For landscapes.
SO56	Black and white	Orange filter. For pictures of mountains and distant landscapes.
SR60	Black and white	Red filter. For strong contrast and infrared pictures.
ND-4X	Black and white, color	Gray filter. For reducing the light intensity.
LBA-12	Color	Color conversion filter for tungsten film.
LBB-12	Color	Color conversion filter for daylight film.
FL-W	Color	Light balancing filter for shooting in fluorescent light.
PL	Black and white, color	Removal of reflections.
CROSS-4	Black and white, color	For special effects. Contains a cross screen.
MULTI-5	Black and white, color	For special effects. Yields multiple images (5) on the same frame.

CAMERA CARE

- After you are through shooting, be sure to trip the shutter by pressing down the shutter release button.
- Periodically, dust off your camera and wipe it with clean, lintless cloth. Use an air blower to remove dust and film debris from the interior.
- Guard the lens and viewfinder against fingermarks and dust. Use an air blower to remove dust. Fingermarks are removed with Fuji Lens cleaning Fluid or Lens Cleaning Paper. Do not touch the mirror because it will damage easily.
- If you are shooting sea-side scenes, carry the camera in a vinyl bag and take it out only when you need it. After you return home, wipe off salt and sand with a piece of clean, lintless cloth.
- Take your camera to your service technician for checking about once every two years. It will give you better and longer service.
- Guard against dropping your camera on the floor and do not leave it in direct sunlight.
Aluminized pentaprism eye-level type.
- Normally, your camera does not need lubricating. It should never be oiled or taken apart except by a qualified service technician.
- If you are not using your camera for a long interval, take it out of its case, remove the battery, and store it away from moisture, heat, and dust. The best way to store it is to keep it in a lidded container together with some desiccant, such as silica gel.
- Keep a note of your camera and lens numbers so that you can trace them in case they go astray.
- On hot days, do not leave your camera in your car or in moist places except temporarily for a very short time.
- In freezing weather, keep it warm by putting it in its case and carrying it inside your windbreaker and take it out only when it is needed.

SPECIFICATIONS

Description	Automatic exposure 35mm SLR with focal plane shutter.
Exposure Modes	Aperture-preferred and flash automatic exposure, plus manual (1/60 sec.)
Picture Size	24 x 36 mm.
Interchangeable Lenses	X-Fujinon DM lenses; X-Fujinon lenses; Fujinon lenses (capable of automatic exposure when mounted with the Fujica Mount Adapter X-S).
Standard Lens	X-Fujinon 1:2.2 f=55 mm, 4-component, 4-element. EBC X-Fujinon 1:1.2 f=50 mm DM, 7-component, 7-element. EBC X-Fujinon 1:1.6 f=50 mm DM, 6-component, 6-element. X-Fujinon 1:1.6 f=50 mm DM, 6-component, 6-element. X-Fujinon Z 1:3.5 — 4.5 f=43 — 75 mm DM, 7-component, 7-element.
Lens Mount	Fujica X Mount (bayonet mount); 65° turn; 43.5 mm flange back.
Viewfinder	Aluminized pentaprism eye-level type.
Finder Field of View	92% vertically and horizontally.
Finder Magnification	0.93X (with 55 mm lens set to infinity).
Finder Dioptry	—1.0 diopters.
Focusing	Three-way (split-image, microprism, ground-glass screen).
Viewfinder Information	LED shutter speed indicators, over and underexposure warning, battery check signal.
Finder Information Reading	By pressing the shutter release halfway down to turn on the light metering circuit to read the LED indicators and signals in the viewfinder.
Finder Eyepiece Construction	Built for attaching rightangle finder, eyesight correction lenses, and eyecup.
Mirror	Coated, quick-return type.
Eyepiece Shutter	External, fit-in type.
Automatic Exposure Control	Three-magnet electronic circuit.
Light Metering	Silicon photocells, center-weighted averaging system.
Light Metering Range	ASA 100: EV2 — 19 (F1.4 1/2 sec. — F22 1/1000 sec.)
Film Speed Setting	ASA 25 — 3200, 1/3 step, provision for locking.
Exposure Compensation	±1 stop by means of camera's fractional exposure control (film speed selector).

SPECIFICATIONS

Exposure Memory (AE Lock)	Locking the exposure setting by pressing the shutter release halfway down and holding it there.
Depth of Field Preview	Pushbutton.
Shutter	Cloth focal plane; electronically controlled from 1/2 — 1/1000 sec. in 1/ steps (digital control); oilless metal.
Shutter Speed Selector Settings	AE, 60X, B, OFF.
Power Source	6V silver-oxide battery (4SR44), alkaline-manganese battery (4LR44) or lithium battery.
Battery Check Signal	Blinking of any one of the shutter-speed-indicator LEDs in the viewfinder (about 4 times a second).
Main Switch	The shutter speed selector serves as the main switch. It turns on when set to AE, 60X, or B and off when switched to OFF.
Shutter Release	Two-step electromagnetic release; first step activates light meter and viewfinder information circuit; second step completes exposure; provided with cable release socket.
Multiple Exposure	By winding the film while pressing in the film rewind button.
Self-timer	Electronically controlled; trips shutter in 12 seconds; audible signal (beep-beep-beep) keeps you alert until shutter trips.
Sync Contact	X-contact, 1/60-sec. hotshoe; special contacts for exclusive flashes.
Auto-flash System	Automatic flash exposure; automatic shutter speed setting with exclusive flashes.
Camera Back	Snaps open when the film rewind crank is pulled out; can be removed and replaced with a data back (Fujica Photo Recorder, optional) for printing data on the film.
Film Loading	Multiple-slit take-up spool for easy loading.
Film Advance	Single-stroke lever on camera top; provision for advancing film in small increments; 144° winding angle, 25° stand off.

Exposure Counter

Automatic reset, additive; counts backward during film rewind, remains still during multiple exposure

Film Rewind

Rewind button and crank; button automatically returns to normal position when crank is wound.

Dimensions

Body: 135 x 86 x 54 mm. (5.4 x 3.39 x 2.1 in).
With F2.2/55 mm lens: 135 x 86 x 87 mm. (5.4 x 3.39 x 3.43 in).

Weight

Body: 500 g. (17.5 oz.).
With F2.2/55 mm lens: 645 g. (22.6 oz.)

Included Accessories

Hard case, carrying strap, eye cup, lens front cap, viewfinder eyepiece cap. See list on page 45.

Interchangeable Lenses

Optional Accessories

Fujica Auto Winder X, Fujica Auto Strobo AZ, Fujica Auto Ströbo 300X, Fujica Photo Recorder, Fujica Mount Adapter X-S, Fujica Auto Extension Tube X25, Fujica Auto Extension Tube X50, Fujica Auto Bellows X, Fujica Slide copies X, Fujica Microscope Adapter X, Fujica Macrocinocopy X, Fujica Reverse Adapter X, Fujica Focusing Rail X, Fujica Rightangle Finder, Fujica Eyesight Correction Lenses, Fujica Eyecup, Fujica Teleconverter 2X, Fujica Reverse Adapter X, Fujica Focusing Rail X, Fujica Rightangle Finder, Fujica Eyesight Correction Lenses, Fujica Eyecup, Fujica Teleconverter 2X, Fujica Filters (12 types), Gadget Bags L & S.

Notice: Specifications are subject to change without notice.