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back to my "Orphancameras" manuals /flash and light meter site

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The large manuals are split only for easy download size.

Nikon

[[]]

INSTRUCTION MANUAL





Getting Started

Thank you for purchasing this Nikon FM3A camera. Please read this instruction manual carefully for complete details on getting the most from your Nikon FM3A.

Your new Nikon FM3A features a Manual Exposure mode for total control of exposure, as well as a semi-automatic Aperture-Priority Exposure mode. Aperture Priority mode lets you adjust the aperture for the desired depth of field while the shutter speed is automatically adjusted accordingly. The FM3A incorporates a special hybrid shutter mechanism that offers the advantages of a mechanical focal plane shutter for use during manual operation, as well as an electronically controlled focal plane shutter for use during Aperture-Priority Auto Exposure operation. Even when the FM3A's battery power is fully exhausted, all shutter speeds remain functional in Manual Exposure mode.

The FM3A features a maximum shutter speed of 1/4000 sec., a flash sync speed of 1/250, multiple exposure control, interchangeable focusing screens, and the ability to use the MD-12 Motor Drive for high speed sequence photography. The Nikon FM3A's flash system offers TTL control in both Manual Exposure mode and Aperture-Priority Auto Exposure mode, and includes a flash compensation button that provides a natural looking flash result.

We hope you enjoy using your new Nikon FM3A camera, and would like to thank you for choosing Nikon.

Symbols used in this manual



Indicates items in boxes that contain important matters to be noticed first.



Indicates items to be checked, such as requirements and restrictions.



Indicates pages for reference.

...

Indicates supplementary descriptions.

Notice

■ Take trial shots

Take a few test shots before shooting important events like weddings or graduations.

■ Have Nikon spot-check your camera regularly

Nikon recommends that you have your camera serviced by an authorized dealer or service center at least once every two years.

■ Using your camera correctly

The Nikon FM3a's performance has been optimized for use with Nikon brand accessories. Accessories made by other manufacturers may not meet Nikon's criteria for specifications, and nonconforming accessories could damage the FM3a's components. Nikon cannot guarantee the FM3a's performance when it is used with other than Nikon brand accessories.

■ Supplied accessories



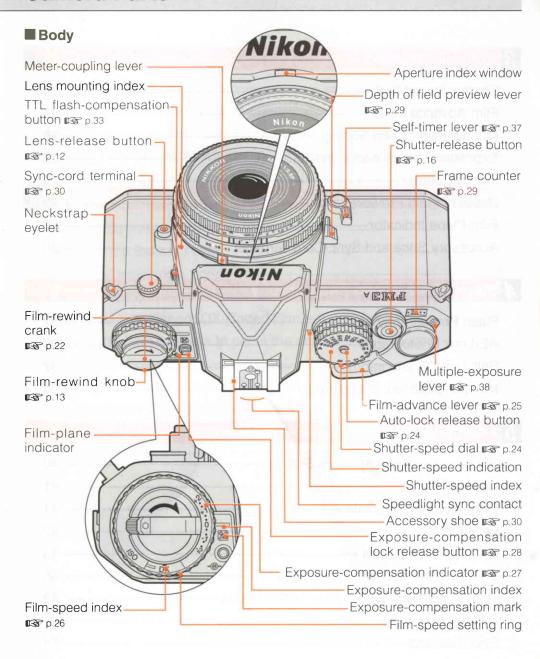
When using a tripod with a lens of such large diameter that the lens touches the tripod, insert the tripod mat between the camera and tripod.

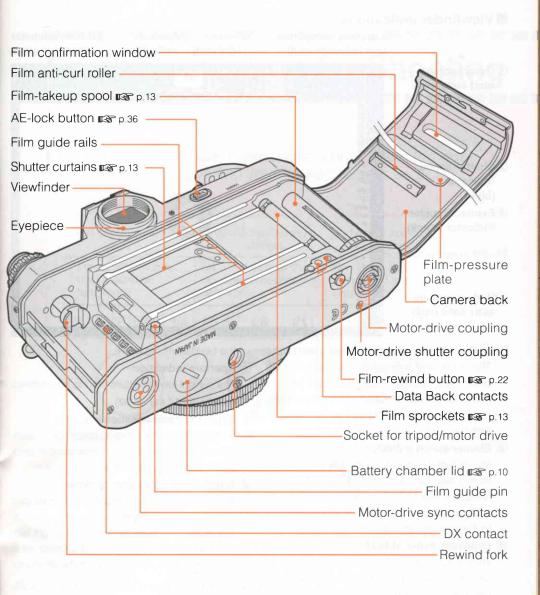
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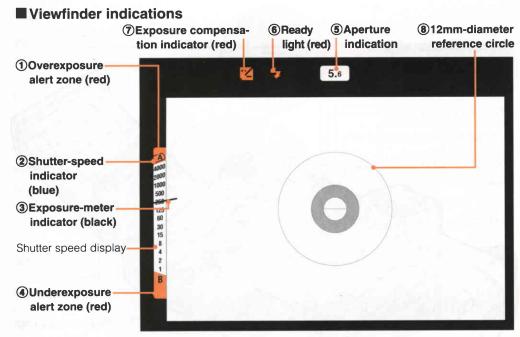
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Camera Parts





← About CE marking
 CE stands for Conformité Européenne. This marking guarantees that the product meets all applicable EC regulations.



1 Overexposure/underexposure alert zone

This is the alert zone, which indicates that the shutter speed is out of range and will result in over/under exposure. Change the aperture setting and/or shutter speed so that the exposure meter indicator does not fall into this zone.

② Shutter-speed indicator

Moves synchronously as you turn the shutterspeed dial. For example, if you set the shutter-speed dial to "A," the shutter-speed indicator points to "A." In Manual mode, it points to the selected shutter speed.

3 Exposure-meter indicator

With a light press of the shutter-release button, power is supplied to the exposure meter and the indicator (needle) swings according to the brightness of the subject and the aperture setting, and indicates the correct shutter speed. When the shutter-speed dial is on "B,"

the needle will not move.

5 Aperture indication

The current lens aperture setting is indicated.

- ② Exposure-compensation indicator

Lights if you perform exposure compensation. (Remember to return the exposure compensation dial to "0" after shooting.)

8 12mm-diameter reference circle

The exposure meter of this camera employs a center-weighted metering system. You can obtain proper exposure by metering the light with the main portion of your subject located within the center 12mm-diameter circle in the viewfinder.

Note: The background of the shutter speed display in the viewfinder is shown white in this manual to clearly show the shutter speeds and indicators, but it is actually transparent and you can see the picture.

www.orphancameras.com

Basic Operations for Shooting

 In aperture-priority auto exposure shooting, select the aperture setting appropriate to your desired result. (property page 12)

Full aperture settings	Intermediate aperture settings For a distant view that requires precedence of definition			Narrow aperture settings For sharp focus of both foreground and background	
For an out-of-focus background or foreground					
f/1.4 f/2 f/2.8 f/4	f/5.6	f/8	f/11	f/16	f/22
	0				

In manual exposure shooting, you can freeze a moving subject by using a high shutter speed, or you can accentuate the flow of water by using a low shutter speed.
 With skillful use of shutter speed and aperture, you can ob-

tain the desired effect in your photographs. (resp. 20)

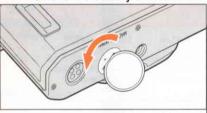
Installing Batteries

Tips

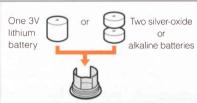
Three types of batteries can be used with this camera.

- 1) One 3V lithium battery (CR-1/3N type)
- 2) Two 1.55V silver-oxide batteries (SR44 type)
- 3) Two 1.5V alkaline batteries (LR44 type)
- ... Use new batteries of the same type when you use two batteries.

1 Remove the battery chamber lid.

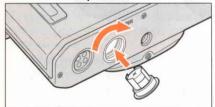


 Use a coin or equivalent to unscrew the lid counterclockwise. 2 Install the battery (batteries).



Make sure that the pole faces upward.

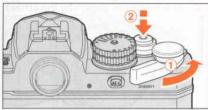
3 Return the battery chamber lid to its closed position.



Checking the Battery Power

Check the battery power after installing a new battery (or new batteries) before starting shootings.

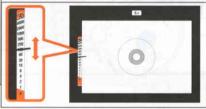
Pull out the film-advance lever 1 and lightly press the shutter-release button 2



Pressing the shutter-release button lightly and stopping it halfway is called a "Light press."

The power is turned on and the exposure meter is activated when you pull the film-advance lever out to the standoff position and lightly press the shutter-release button

Check that the exposure-meter needle moves in the viewfinder.



When battery power is sufficient, the indicator keeps moving for approx. 16 sec. after you take your finger off the shutter-release button.



- When the shutter-speed dial is set to the "B" position, the exposure meter is not activated. Be sure to set the dial to another position.
- If the exposure-meter needle stops moving while the camera is being used, set the shutter-speed dial to the "B" position first and then change to another position.
 Make sure that the exposure-meter needle is moving.
- If you load non-DX-coded film with the film-speed index set to DX, or if no film is loaded, the exposure-compensation indicator and the ready light blink alternately as a warning. (ISF p.15)

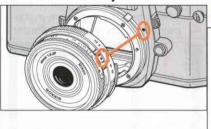
■ Reference for battery replacement

- Replace the battery (or batteries) at the earliest opportunity if the exposure-meter needle moves only when you hold the shutter-release button pressed and then falls down at once when you release it.
- 2) Replace the battery (or batteries) **immediately** if the shutter curtains do not open and the mirror stays at the upper position disabling film advance or if there is no change in the viewfinder indications when you press the shutter-release button with the shutter-speed dial set to the "A" position.
 - ... In this case, set the dial to a position other than the "A" position to restore the original state.

Attaching/Detaching a Lens

■ Attaching a lens

Align the mounting index on the lens with the mounting index of the camera body.

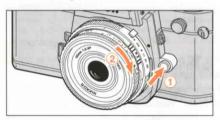


Insert and twist the lens counterclockwise (as shown by the arrow).



... Twist the lens slowly until it clicks into place.

■ Detaching the lens



Press and hold the lens-release button 1 and twist the lens clockwise 2, (as shown by the arrow) to detach.



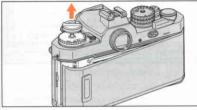
- Use an Ai-type lens with this camera. There are some non-Ai-type lenses that can be used with this camera. See page 42 for lens compatibility.
- Avoid direct sunlight when attaching/detaching a lens.
- When attaching a lens, take care not to press the lens release button.
- When you leave the camera unattended without a lens attached, be sure to attach
 the supplied body cap (page 3), or the optional body cap BF-1A. (The BF-1 body
 cap for previous models can also be attached.)

Loading Film

Tips

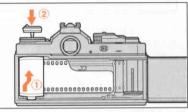
When you use DX-coded film, the camera automatically detects the film speed and makes the appropriate setting.

Open the camera back.

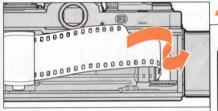


When you lift the film-rewind knob, the camera back will open.

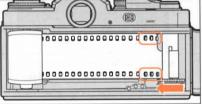
Insert a roll of film (1) and push the rewind knob (2) back down.



Insert the film leader into one of the slots of the film-takeup spool.



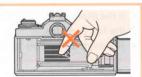
Fit the film sprocket holes of the film onto the spool's sprockets.



Slowly rotate the film-takeup spool inward with your thumb, making sure the latch is in the slot such that the film sprocket holes of the film are meshed with the sprockets.

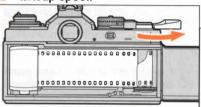
Caution when loading/unloading film

The shutter curtains are very thin. When loading/unloading film, be careful not to touch the shutter curtains with your fingers or the film leader.

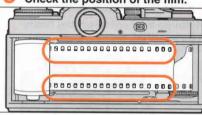


Loading Film (Continued)

Advance the film on the filmtakeup spool.

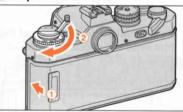


To advance the film on the film-takeup spool, pull out the film-advance lever to the standoff position and wind it slowly. 6 Check the position of the film.



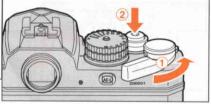
••• Make sure that the film sprocket holes are perfectly meshed with the film sprockets and that the film is correctly set between the film guide rails.

Close the camera back and take up the film slack.



- ... 1 Slowly close the door of the camera back until it snaps shut into the camera body.
- 2 Pull out the film-rewind crank and rotate it in the direction of the arrow until it stops to take up the slack inside the film cartridge.

8 Make a few blank exposures.



- Wind the film-advance lever 1 and press the shutter-release button 2 until the frame counter indicates frame 1.
- Adjust the shutter-speed dial to a high speed other than "A,"



- If the film-rewind knob fails to rotate when you wind the film-advance lever, reload the film cartridge.
- · Repeat making blank exposures until the frame counter indicates frame 1.

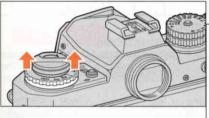
Setting the Film Speed (DX-Coded Film)

Tips

When using DX-coded film, set the film-speed index to DX. When using non-DX-coded film, set the film speed manually. See page 26.

··· When the film-speed index is set to **DX**, the film speed is automatically set (ISO 25 to 5000).

Pull up the film-speed setting ring.



 $\stackrel{\textstyle \sim}{}$ Set the film speed to $\overline{\tt DX}$.

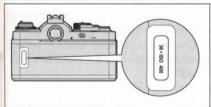


... Turn the ring in the direction of the arrow.



If you load non-DX-coded film with the film-speed index set to **DX**, or if no film is loaded, the exposure-compensation indicator and the ready light blink alternately as a warning.

Film confirmation window

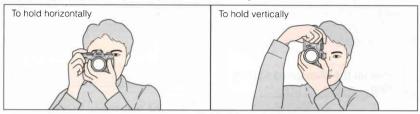


 You can check the film type, the number of frames, and the ISO film speed in the film confirmation window.

Holding the Camera (How to press the shutter-release button)

■ How to hold the camera

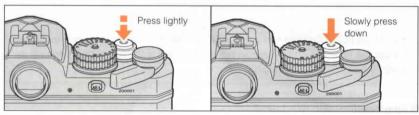
Grip the camera in your right hand and look through the viewfinder. Keep your left elbow propped against your body to keep the camera steady.



■ How to press the shutter-release button

The shutter-release button of this camera has a 2-step mechanism.

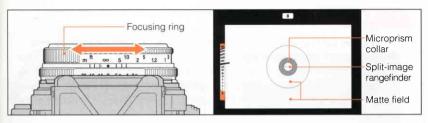
- Pull out the film-advance lever to the standoff position and press the shutter-release button lightly stopping about halfway. This operation is called a "**Light press**." The shutter is released when you press the shutter-release button completely down from the lightly-press position.
- With a "Light press," the exposure meter turns on, and the meter-on timer is activated. The timer on duration is for approx. 16 seconds from the time you remove your finger from the lightly-pressed shutter-release button, and it is also on for approx. 16 seconds after the shutter is released.





- Moving the camera while pressing the shutter-release button may cause "camera shake" and result in a blurred photograph. Choose a high shutter speed of faster than 1/(focal-length-of-lens) second for handheld shooting. Use a tripod and the AR-3 cable release to eliminate camera shake.
- Do not press the shutter-release button abruptly or sharply. Do a "Light press" with
 the bulb of your index finger, then squeeze to press the button slowly to the end to
 release the shutter. Pressing abruptly may cause camera shake.
- When the shutter-speed dial is set to "B," the exposure meter is not activated.

Focusing

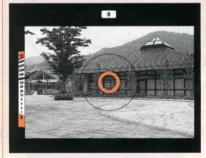


Look through the viewfinder and put the subject in focus by rotating the focusing ring of the lens.

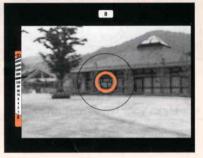
Tips

 To focus using the split-image rangefinder, turn the focusing ring of the lens until the upper and lower images coincide perfectly to form a single unbroken image.

Example: In focus



Example: Out of focus

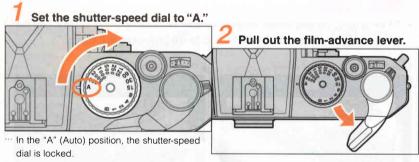


- To focus using the microprism grid or matte, turn the focusing ring so that the fuzzy image becomes sharp.
- · Get your main subject in focus.
 - ··· If you want to photograph a flower, focus on a stamen or pistil, and for an animal or person, focus on the eyes.

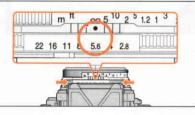
Shooting: Aperture-Priority Auto Exposure Mode

Tips

- The aperture setting lets you adjust the exposure and control the depth of field.
- If the subject of your picture extends into the distance and/or you want the entire subject to be sharp, choose a narrow aperture setting. If you want an out-offocus background and/or foreground, select a wide aperture i. e. f/2.8. If your subject has little or no depth of field, such as flat wall, choose an intermediate aperture setting.
- In Aperture-Priority Auto Exposure mode, you can make the aperture setting as desired, and the camera controls the shutter speed automatically.



3 Make your lens aperture setting.

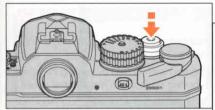


Compose your picture and focus.



 Place the main subject inside the 12mm-diameter circle in the center of the screen.

5 Lightly press the shutter-release button.



Check the shutter speed, observing the exposure-meter indication in the viewfinder.

6 Slowly depress the shutterrelease button all the way.



If the exposure meter indication is between 1/60 and 1/4000 second, squeeze to press the shutter-release button all the way.

Tips

- If the exposure-meter needle points in the 1 to 1/(focal-length of the lens) second range:
 - ··· Camera shake may occur because the shutter speed is low. Use a tripod or flash.
- If the exposure-meter needle points to the upper alert zone:
 - ··· Make a narrower aperture setting. If the indication is still in the alert zone, use an ND filter
- If the exposure-meter needle points to the lower alert zone:
 - ··· Select a wider aperture setting. If the indication is still in the alert zone, use flash photography.

Example: Aperture of f/2.8



Example: Aperture of f/16

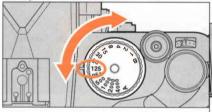


Shooting: Manual Exposure Mode

Tips

- In this mode, you can manually select both the shutter speed and the aperture setting as desired.
- By changing the combination of shutter speed and aperture setting, you can change the photo effect without changing the exposure.
- You can create various effects, like controlling the depth of field by varying the aperture setting or freezing the motion of a fast-moving subject with high shutter speed.
- When the battery power is completely exhausted or diminished in a cold place, all the electronic displays are disabled, but major mechanical systems, such as the shutter and aperture control, remain functional, enabling you to continue shooting.

Set the shutter-speed dial to a position other than "A."



To change the dial setting from "A," rotate the dial while holding the auto-lock release button pressed.

Pull out the film-advance lever.

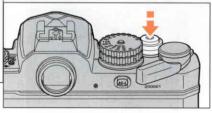


Compose your picture and focus.



" Place the main subject inside the 12mm-diameter circle in the center of the screen.

Lightly press the shutter-release button.



5 Align the shutter-speed indicator and the exposure-meter indicator.



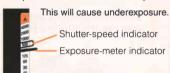
To align the two indicators, adjust the shutter speed dial and/or the aperture setting.

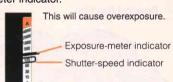
Slowly press the shutter-release button all the way.



Tips

 It is possible to perform exposure compensation by intentionally mismatching the shutter-speed indicator and the exposure-meter indicator.





- Reference for shutter speed selection:
 - ··· If you want to freeze the motion of a fast-moving subject, choose a shutter speed over 1/500.
 - ··· If you want to create a motion effect by blurring the subject, choose a shutter speed under 1/60.
 - ... If you want to accentuate the flow of the water, choose a shutter speed of under 1/15.
 - ... If you want to shoot fireworks or tracks of lights at night, choose B.

Example: Shutter speed of 1/15 with aperture of f/16



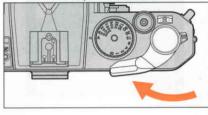
Example: Shutter speed of 1/500 with aperture of f/2.8



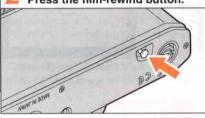
Rewinding the Film

When the end of the roll of film is reached, the film-advance lever will not advance further. Rewind the film.

Return the film-advance lever to its folded position.

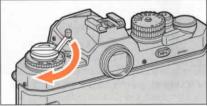


Press the film-rewind button.



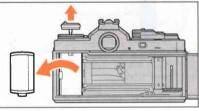
 Just press the button once. You don't have to hold it pressed.

3 Rewind the film.



- Pull out the film-rewind crank and turn it in the direction of the arrow.
- As you approach the end of film rewind, you will feel a slight resistance in the crank. Continue turning and stop when resistance to the crank is released and feels lighter.

Open the camera back and remove the film cartridge.



Pull up the film-rewind knob to open the camera back, and take out the film cartridge.



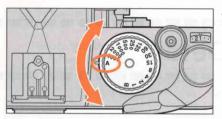
Do NOT open the camera back until you are sure rewinding is complete.

Controls in Detail

To use the camera skillfully, you need to understand its functions and features.

Shutter-Speed Dial	p. 24
Film-Advance Lever	p. 25
Manual Film-Speed Setting	p. 26
Exposure-Compensation Indicator	p. 27
Frame Counter	p. 29
Depth of Field Preview Lever	p. 29
Film-Plane Indicator	
Accessory Shoe and Sync-Cord Terminal	p. 30

Shutter-Speed Dial



 Depending on the conditions and your intention of shooting, align the shutterspeed index to the figures or marks on the shutter-speed dial. You may choose from among the following shooting modes:

■ A (Aperture-Priority Auto Exposure mode)

Once you make the aperture setting, the camera automatically selects the appropriate shutter speed (stepless control). This is the simplest shooting mode with this camera. (resp. 18)



Locking and releasing the shutter-speed dial:

Once you set the shutter-speed dial to "A," the dial is locked to prevent inadvertent changes.

··· To move the dial to another position, rotate the dial while holding down the auto-lock release button at the center of the dial

■1 to 1/4000 second (Manual mode)

In Manual mode, you can set both the shutter speed and aperture manually to create various creative photographic effects. (P2 p.20)

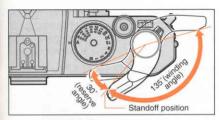
■B (Bulb mode)

In this mode, the shutter stays open as long as the shutter-release button is depressed. Use this function when shooting scenes that require extended exposure (e.g., night time stars, etc.). For very long exposures, use a tripod, and instead of holding the shutter-release button down with your finger, you can lock the shutter release open by using the AR-3 cable release (sold separately), to take steady, long-exposure shots without worrying about "camera shake."



- You cannot use intermediate positions between shutter-speed dial clicks.
- In B (Bulb) mode, the shutter operation is performed mechanically (not electronically). However, a very small amount of battery power may be drained. Therefore, we recommend you remove the battery to save the battery power when you plan to take many pictures using B mode.

Film-Advance Lever



 The film-advance lever also provides a lock function for the shutter-release button.

Tips

Power on/off:

- ··· When you pull the film-advance lever to the standoff position and lightly press the shutter-release button, the exposure-meter turns on and the exposure indication appears in the viewfinder.
- ··· When you are not using the camera, keep the film-advance lever set to its home position to prevent the shutter from being inadvertently released.
- To advance the film, pull the film-advance lever out to the standoff position, then wind the lever until it stops. This operation advances the film by a single frame, and enables the next shutter release.
- The lever stops advancing when the film roll reaches the end. In this case, rewind the film. Do not forcibly advance the lever further or you might damage the film or the camera.



In rare cases the film-advance lever meets strong resistance. If so, the film may have been advanced unevenly. Do not advance it forcibly. Rewind the film.

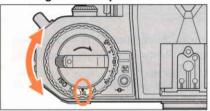
Manual Film-Speed Setting

Tips

Set the film speed manually in the following cases:

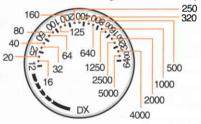
- 1) When using non-DX-coded film.
- 2) To intentionally change the light sensitivity of DX-coded film in order to obtain special effects when developing.
- ... The film speed can be set manually in the range of ISO 12 to 6400.

■ Setting the film speed



 Pull and rotate the film-speed setting ring and set it to the film speed of the film in use.

■ Details on readings of the film-speed index



 The corresponding film speeds for the dots between numbers on the film speed index are indicated in the illustration.

Exposure-Compensation Indicator

If there is an extreme difference in brightness between the main subject and the background (e.g., a person surrounded by heavy shadows), it may be difficult to get the correct exposure. In this case, or when you want to achieve a certain effect, exposure compensation is recommended.

Example: Before compensation



Without exposure compensation, the face is underexposed.

Example: After compensation (compensated toward the + side)



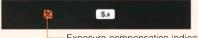
 With exposure compensation, you get sufficient brightness on the face.

Tips

- A highly reflective or whitish (bright) subject may cause underexposure. In this case, adjust exposure compensation toward the + side. Likewise, when shooting a dark subject with little reflection that might cause overexposure, compensate toward the - side.
 - ··· If it is hard to decide on the level of compensation, it is best to take the same shot several times with different exposures.



When exposure compensation is active, the exposure-compensation indicator papears at the top of the viewfinder.



Exposure-compensation indicator

Remember to return the exposure-compensation indicator to the "0" after shooting.

Exposure-Compensation Indicator (Continued)

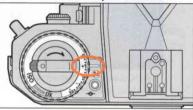
■ Exposure compensation using the exposure-compensation indicator

It is possible to adjust ±2 EV in units of 1/3 EV.

While holding down the exposure-compensation lock release button 1, rotate the film-speed setting ring 2.



Set the compensation index to the desired compensation value.



 Confirm the ring is firmly set down and locked in a clicked position.



When you set the film speed to ISO 12, compensation to the + side is disabled (the setting ring may rotate, but the speed remains at ISO 12). When the film speed is set to ISO 6400, compensation to the - side is disabled. (The setting ring will not rotate further.)