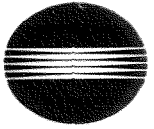
E OWNER'S MANUAL

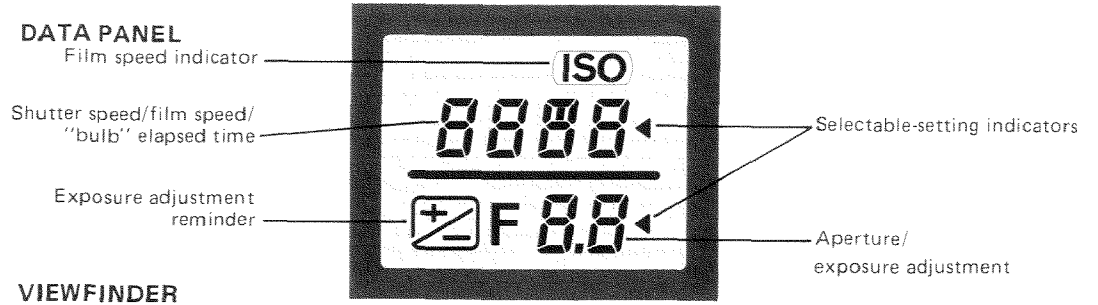


MINOLTA

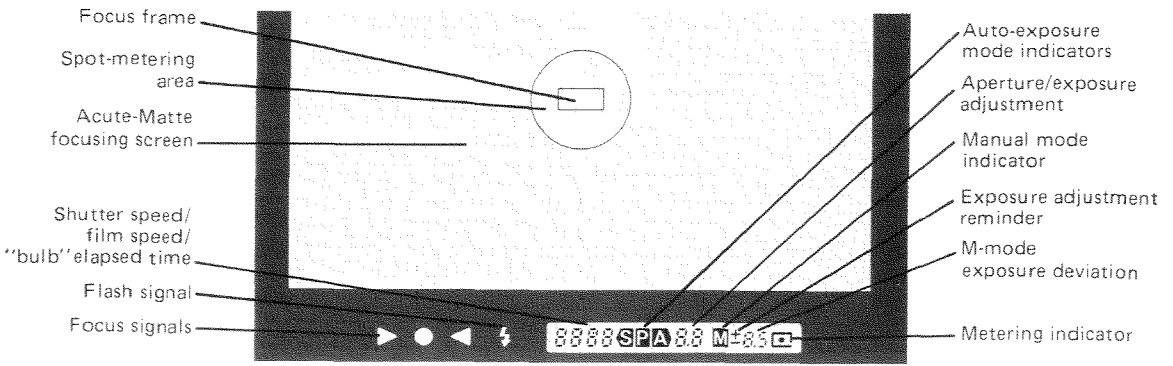
MAXXUM

9000

DATA PANEL

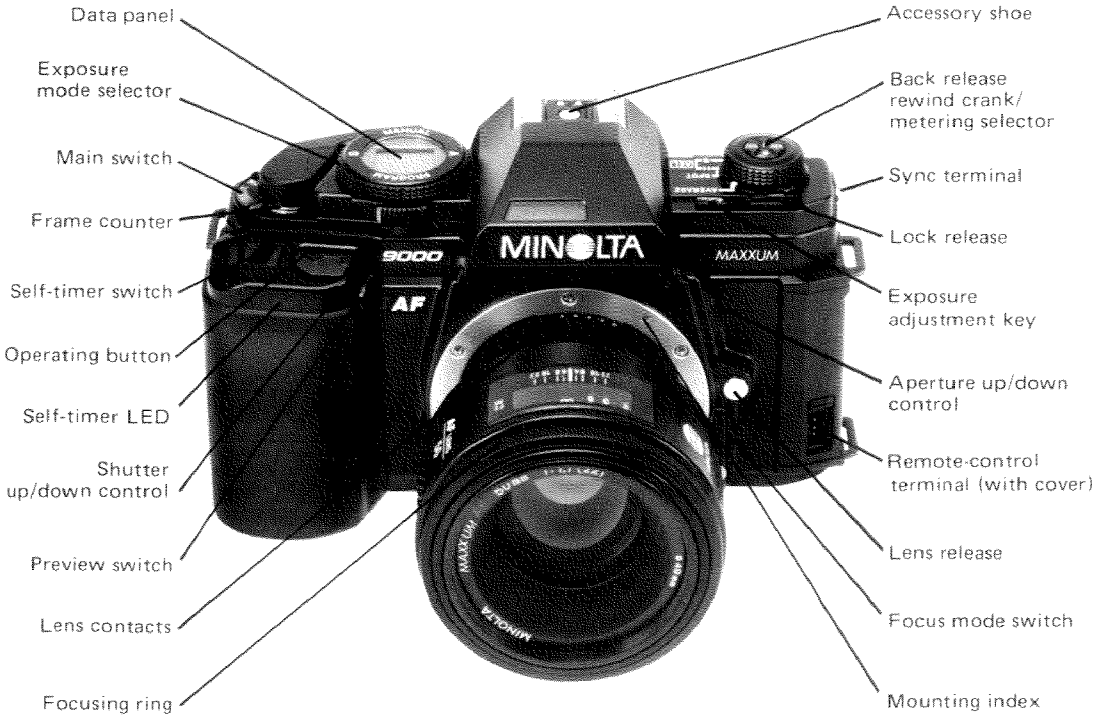


VIEWFINDER



* While all possible displays are shown together here, only applicable displays appear during operation.

NAMES OF PARTS



The MAXXUM 9000 is designed to help you develop your full creative potential. It incorporates sophisticated electronics for unmatched performance and versatility.

Among the MAXXUM 9000's major features are: continuous autofocusing that responds instantly while the operating button is touched; built-in spot metering to handle difficult lighting as well as center-weighted metering for general photography; program mode with auto multi-program selection that sets an AE program to match the focal length in use; aperture- or shutter-priority AE and metered-manual modes for creative control; a top shutter speed of 1/4000 sec. and maximum flash X-sync speed of 1/250 sec.; and both TTL flash metering and depth-of-field preview are possible in all exposure modes.

Advanced MAXXUM system accessories include: the Motor Drive MD-90; the MAXXUM Flash 2800AF and 4000AF; the Program Back 90 and Super 90; and the MAXXUM AF lens system that covers focal lengths from 24mm wideangle to 300mm telephoto and includes five lightweight macro/zooms. These and other accessories are described at the back this manual.

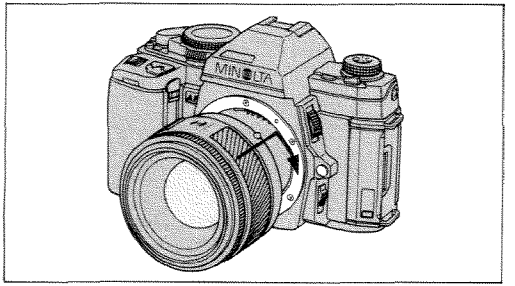
Before using your new camera, carefully read this manual. As you do, attach the lens, load batteries, switch on power, and learn about the camera's parts and features. Then load it with film and proceed to actual picture-taking. Be sure to follow the instructions, and keep this manual handy for further reference. This way you can get better pictures and take full advantage of the advanced features built into your MAXXUM 9000.

Fold out the front and back covers of this manual for easy reference to names of parts.

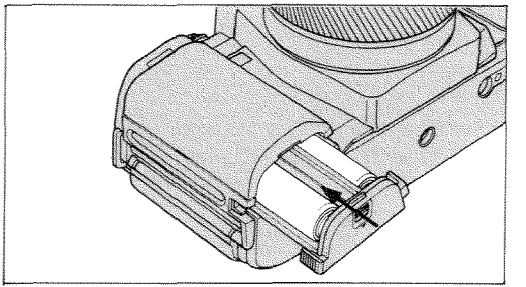
TABLE OF CONTENTS

Summary of operation 2
Attaching lens 8
Batteries and power 10
Main switch 13
Operating button 13
Loading film 15
Setting film speed 19
Rewinding film 21
Autofocusing 22
  Using focus hold 23
Manual focusing 24
Program mode 26
  Using program shift 28
Aperture-priority mode 30
Shutter-priority mode 32
Metered-manual mode 34
  "Bulb" operation 36
Aperture and shutter settings 37
Depth-of-field 38
  Using preview switch 39
Fundamentals of exposure control 40
Center-weighted metering 42
  Using auto-exposure lock 43
Spot metering 44
  Midtone readings 45
  Shadow readings 46
  Highlight readings 47
Exposure adjustment 48
Accessory shoe and sync terminal 51
Self-timer operation and
  tripod mounting 52
Multiple exposures 54
Eyepiece adjustment and
  eyepiece shutter 55
Other focusing methods 56
Accessories 58
Technical details 68
Care and storage 70
Attaching strap and case 72

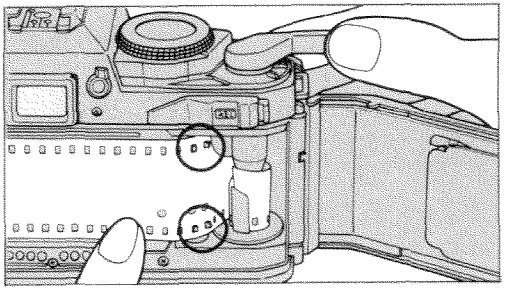
SUMMARY OF OPERATIONS



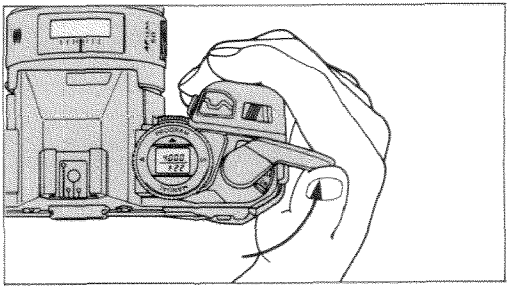
1. Attach lens. Remove body cap and lens caps, align mounting indexes, insert lens into mount, and twist lens clockwise to lock it onto mount (p. 8).



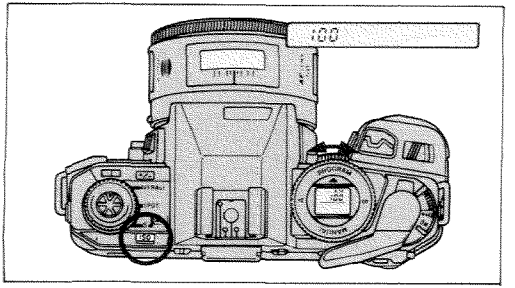
2. Install batteries. Two AA-size batteries are required. Alkaline-manganese, nickel-cadmium, or carbon-zinc batteries can be used (p. 10).



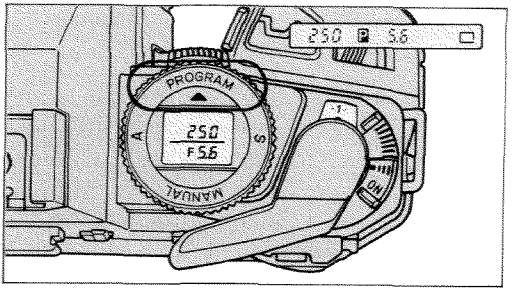
3. Load film. With main switch on, place cartridge in film chamber. After threading leader into take-up spool, advance film to take up slack. Then close back cover (p. 15).



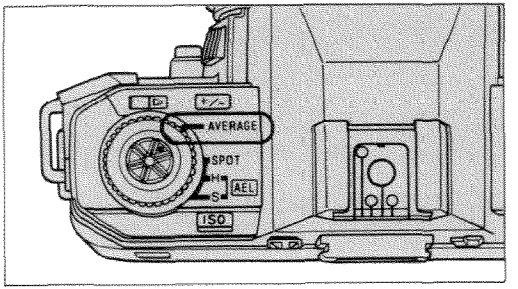
4. Advance film to first frame. Shutter is set at 1/4000 until "1" appears in frame counter. When film is loaded and advancing properly, center of rewind crank rotates counterclockwise during advance stroke (p. 16).



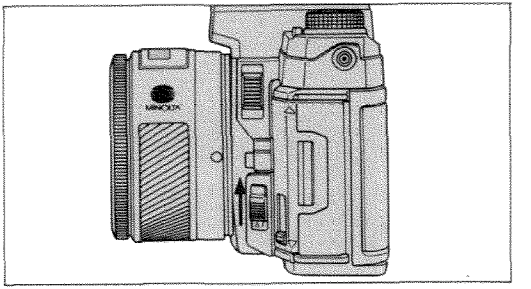
5. Set film speed. Speed for DX-coded films is set automatically. To set film speed for non-DX films, move shutter up/down control while pressing "ISO" key (p. 19).



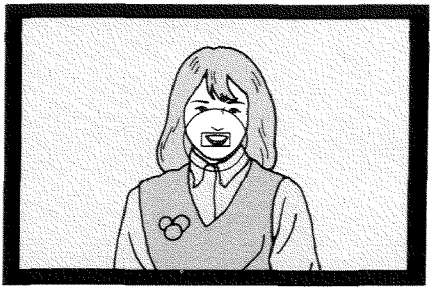
6. Set exposure mode. For general photography, program mode with automatic multi-program selection can be set by rotating exposure mode selector to "PROGRAM" (p. 26).



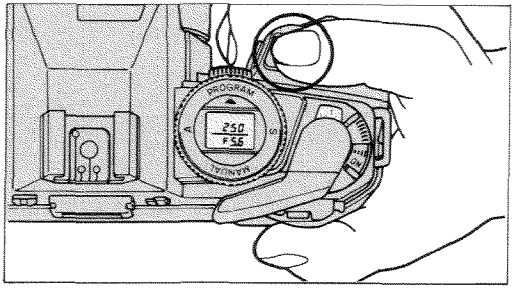
7. Set metering mode. For general photography, "AVERAGE" setting should be used. When lighting conditions require further control, use the camera's built-in spot metering for midtone (SPOT), highlight (H) , or shadow (S) readings (p. 42).



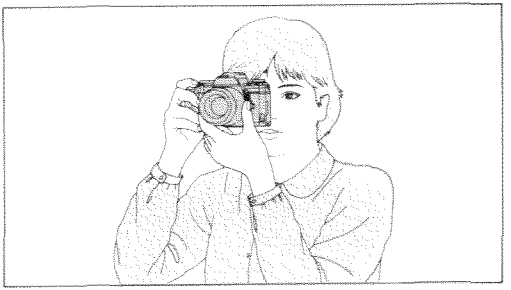
8. Set focus mode. For continuous autofocusing, slide focus mode switch to "AF" position. For manual focusing, set switch to "M" position (p. 22).



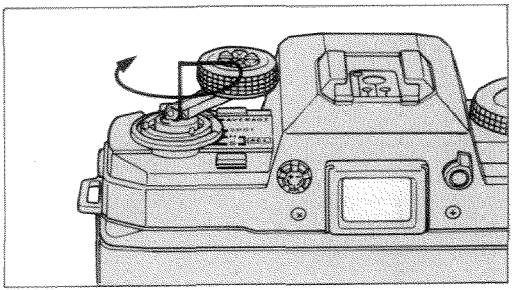
9. Focus camera. Center focus frame on subject and touch operating button to activate camera's continuous autofocus system. Camera continues to adjust focus as long as button is touched. To lock focus, press and hold operating button halfway down (p. 22).



10. Meter subject. Camera's meter is also switched on by touching operating button. Metering continues for ten seconds after finger is lifted from button, then switches off automatically. In auto-exposure modes (P, A, and S), AE lock can be used to hold exposure settings while you recompose photo (p. 13).

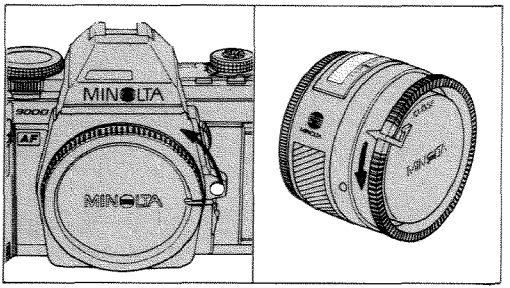


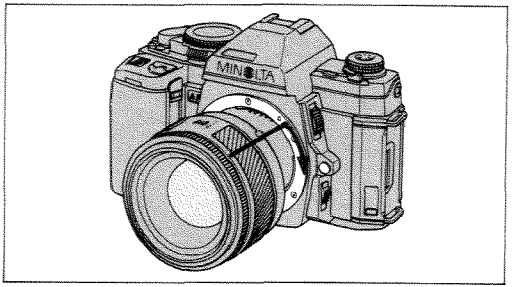
11. Release shutter. While holding camera as shown for horizontal or vertical photographs, press operating button all the way down using a smooth, steady stroke. After exposure, advance film to the next frame (p. 13).



12. Rewind film. At end of roll, press film release. Pull up metering selector, move it to the rewind-crank position, and rewind film into cartridge. Open back cover by sliding lock release while pulling up on rewind crank. Remove film (p. 21).

ATTACHING AND REMOVING LENS



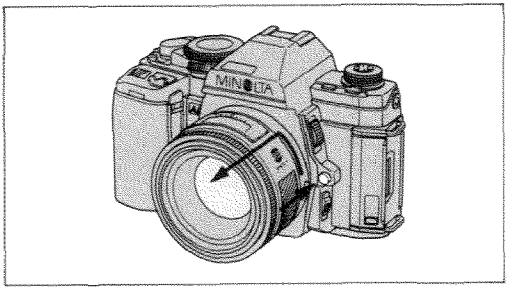


To attach:

1. Remove body cap and rear lens cap as shown.

2. Align mounting index (red bead) on lens barrel with mounting index (red dot) on lens mount.

3. Insert lens bayonet into mount and turn lens clockwise until it locks in place with a click.



To remove:

While pressing lens release, turn lens counterclockwise as far as it will go, then lift lens out of mount. When camera's meter is on and lens is removed, aperture display shows "- -".

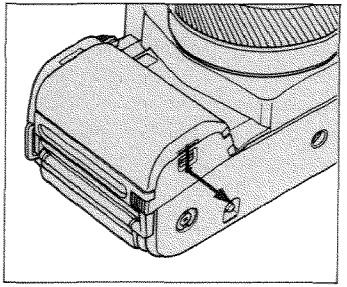
NOTE

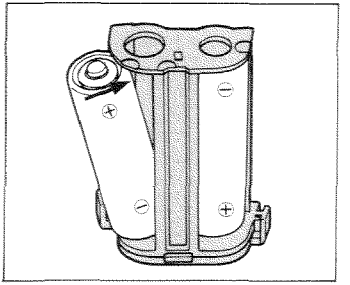
- When attaching or removing lenses, never touch anything inside the camera, especially the lens contacts or mirror.
- To protect lens contacts and lens elements, always attach body cap and lens caps whenever lens is not attached.

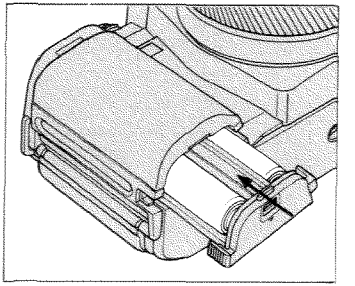
Care of glass surfaces

- Never touch lens elements or eyepiece with your fingers. If the lens becomes dirty, clean it gently with a lens brush. Only if necessary, moisten a sheet of lens tissue with one drop of lens-cleaning fluid. Then, starting at the center, use a circular motion to lightly wipe the glass surface.
- Never lift the mirror or touch its surface, as this may impair its alignment. Dust specks on the mirror's surface will not affect meter readings or picture quality; if they are annoying, have the camera cleaned at an authorized Minolta service facility.

BATTERIES AND POWER







The MAXXUM 9000 uses two AA-size batteries which supply power for autofocusing, metering, and shutter release. Either alkaline-manganese, nickel-cadmium, or carbon-zinc batteries can be used. **To load batteries:**

1. Set main switch to OFF, then remove battery holder by sliding release tab in direction shown and pulling holder out.

2. Place new batteries in holder with plus (+) and minus (—) ends as indicated.

3. Slide holder back into handgrip and press on base of holder to snap it into place.

NOTE

- To prevent damage from battery leakage or bursting, never mix batteries of different types, brands, or ages.
- If camera will not be used for more than two weeks, batteries should be removed.
- Used batteries should not be disposed of in fire.
- Keep batteries away from young children.

Battery check

To check battery condition: Set main switch to ON position, then touch or slightly press operating button. If LCDs start blinking, battery power is getting low and fresh batteries should be installed.

Low-power indications

Fresh batteries should be installed in any of the following cases:

- When LCDs in viewfinder or on camera body blink.
- If shutter will not release or if shutter speed and aperture are not displayed when operating button is touched.
- When autofocus will not operate or its operation is extremely slow.

Cold-weather operation

Performance of batteries tends to decrease as they become colder. Before using the camera in cold weather, make sure fresh batteries are loaded. A spare set should be carried in a warm pocket, in case you need to change batteries while shooting. Battery capacity will be restored as their temperature rises.

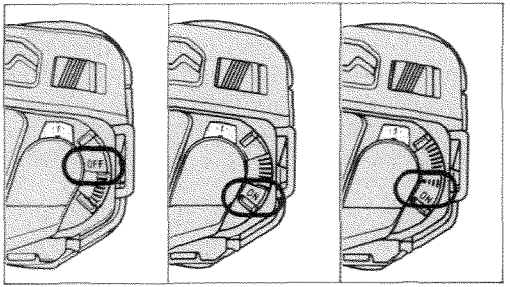
For prolonged cold-weather use at approx. 0°C (32°F) or lower, use of AA-size nickel-cadmium batteries is recommended.

Memory storage

The following settings are stored in the camera's memory as long as fresh batteries are installed in the camera: exposure adjustment, film speed, and manual expousre settings.

Whenever the battery holder is removed and reinserted: exposure adjustment is set to +/−0.0, film speed is set to either the ISO setting for DX-coded film in use or ISO 100 for non-DX films, and manual exposure settings are reset to 1/250 sec. and f/5.6.

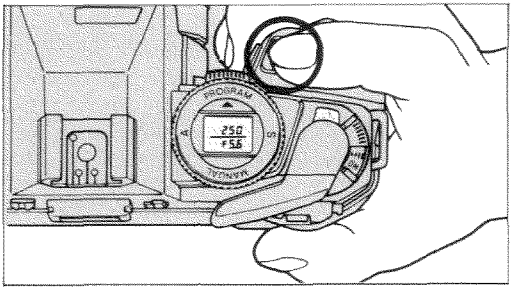
MAIN SWITCH



The main switch should be set to OFF position when camera is not in use. This will prevent battery drain or accidental release of the shutter. To operate camera, move main switch to ON or ON))) position.

At ON))) position, the camera gives audible beeps when subject is brought into focus (with focus hold engaged) and during self-timer operation.

OPERATING BUTTON



The MAXXUM 9000's operating button is used to release the shutter and features a touch-sensitive switch for activating the meter and autofocus systems. To conserve battery power, the operating button functions only when main switch is set to ON or ON))).

Meter activation

To activate the meter, touch the operating button. In low light, the LCD panel in the viewfinder is automatically illuminated. For easier operation of other controls, meter remains on for 10 seconds after lifting your finger from button.

Autofocusing

The camera's autofocus system is activated whenever the operating button is touched. The camera will continuously adjust focus on the subject in the focus frame as long as your finger remains on the operating button. To hold focus, press operating button halfway, recompose photo, and release shutter.

For a detailed explanation of how to use the autofocus system, refer to pages 22 to 25.

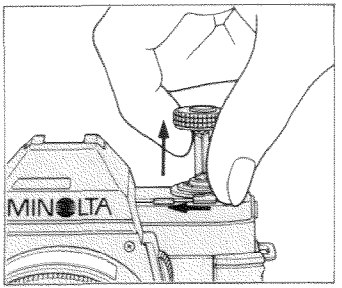
Shutter release

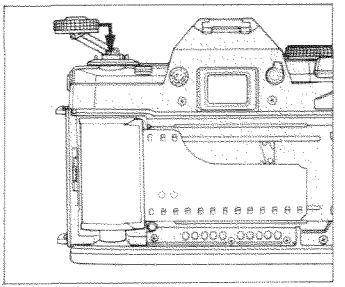
After focusing, release shutter by pressing operating button all the way down in a smooth, steady stroke. Never use a quick jab, which may shake the camera and result in blurred pictures.

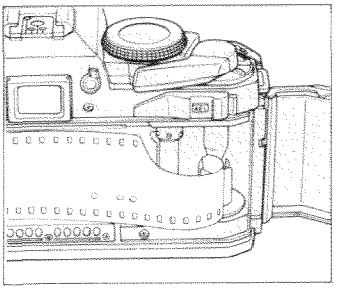
NOTE

- If operating button becomes dirty or oily, set main switch to OFF and wipe button with a clean, dry cloth.
- When proper contact is not possible (e.g., when fingers are very dry or when wearing gloves), slightly press button to activate metering and autofocusing.
- Continuous autofocusing is not possible when wearing gloves, since camera's touch switch cannot be activated.

FILM LOADING





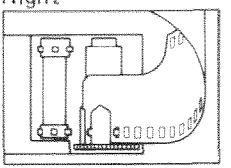


1. Switch camera on. Then open back cover by pulling up on back release while sliding lock release to the right.

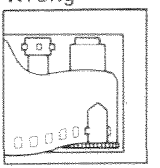
2. After placing film cartridge in film chamber, push back release all the way in. (If release will not go all the way in, move release to its rewind-crank position and rotate it slightly to the right or left; see p. 21.)

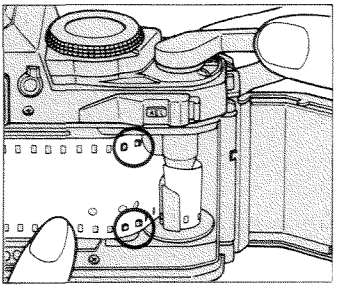
3. Slide tip of film leader into a slot in the take-up spool. Make sure film does not protrude from another slot. Also check that a tooth on the take-up spool aligns with a hole in edge of film.

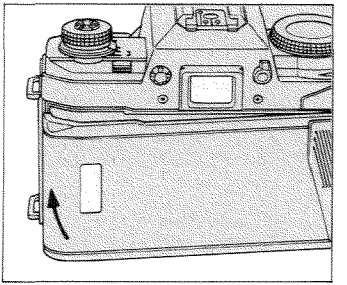
Right

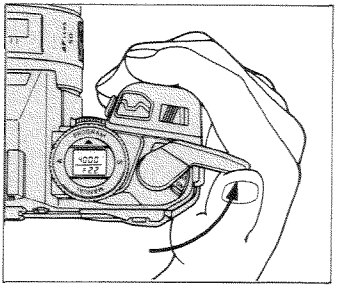


Wrong









4. While holding film against sprocket with your left hand, release shutter and operate film advance lever until film is wound firmly around take-up spool. Make sure that teeth in sprocket engage holes in both edges of film, and that slack in film is taken up.

5. After making sure film is taut, close back cover by pressing until it clicks shut.

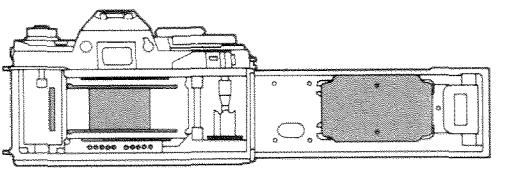
6. Release shutter and advance film until index in frame counter points to "1". During film advance, center of rewind crank will rotate counterclockwise when film is advancing properly. (If it does not rotate during film advance stroke, open back cover and repeat steps 3 to 6.)

NOTE

- Until film has been advanced to the first frame, only the camera's shutter release will operate. Film speed cannot be set until "1" appears in frame counter.
- Until film has been advanced to the first frame, shutter is set to 1/4000 and aperture to lens' minimum aperture.

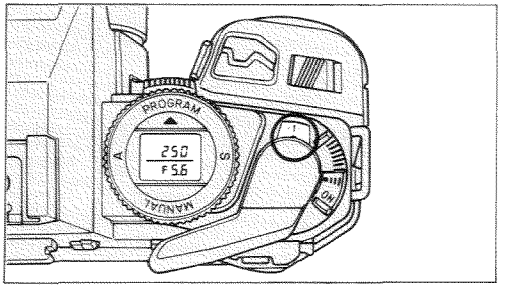
Film loading precautions

- Always load film in subdued light or at least shaded from direct sunlight.
- Before opening camera back, check if film is loaded by referring to film window. If film is loaded, check that it is completely rewound by rotating rewind crank clockwise until it turns freely.
- Do not touch any parts or areas shown in blue.



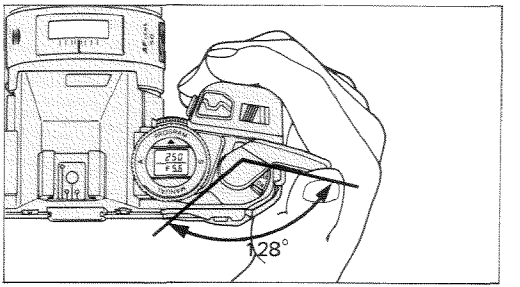
- Make sure films is taut before closing back cover.

Right Wrong



Frame counter

The frame number increases by one with each exposure. Common film lengths (12, 20, 24, and 36 exposures) are marked in red to signal that rolls with those numbers of exposures are almost finished. Film advance may stop before the number of exposures marked on the roll. Do not force the film-advance lever. When film advance is not possible with normal pressure, rewind film.

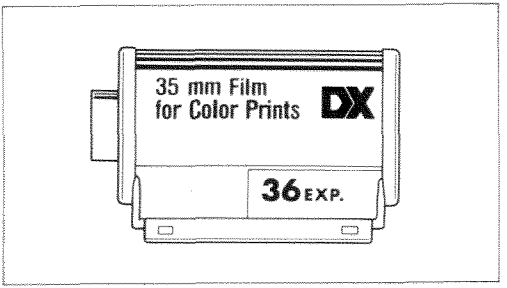


Film-advance lever

The film advance lever swings out away from the camera body so you can slip your right thumb behind it. After exposure, advance film by moving lever 128° in direction shown. This can be done in a single stroke or several short strokes.

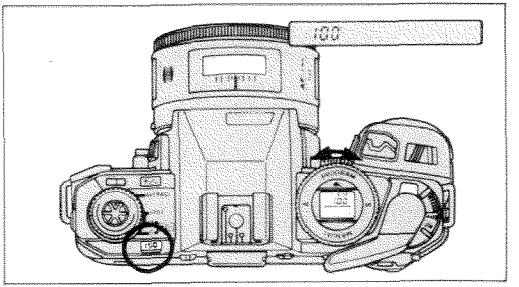
After film is advanced to the first frame, film-speed setting is automatically displayed in the data panel. If setting is the one you want, touch operating button. You are now ready to take pictures.

SETTING FILM SPEED



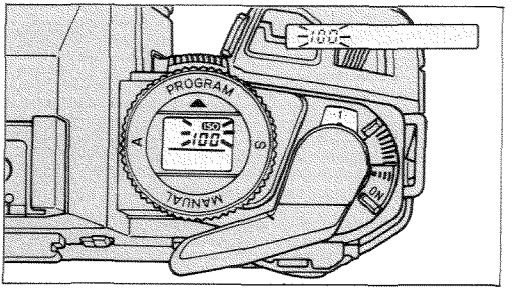
Automatic setting with DX-coded films

When DX-coded film is loaded, camera automatically displays the film's ISO rating after film is advanced to the first frame. To manually set film speed to a higher or lower rating, refer to the following section.



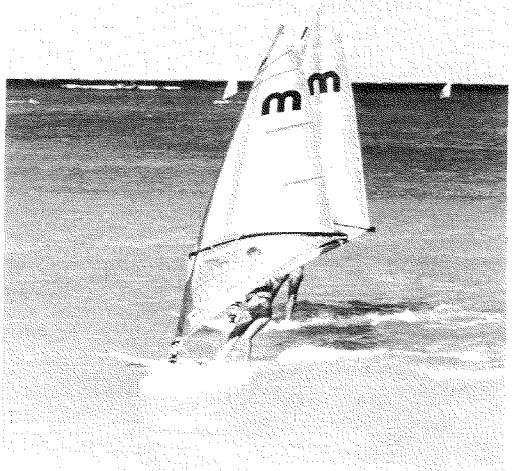
Manual setting of film speed

When non-DX film is loaded, film-speed setting from the previous roll is displayed. Film speed can be set manually by pressing film-speed key (marked ISO) and moving shutter up/down control to increase or decrease the displayed value. Each time control is moved, setting changes by 1/3 stop. After film speed is set, release ISO key and camera is ready to operate. Film-speed setting can be checked at any time by pressing ISO key.

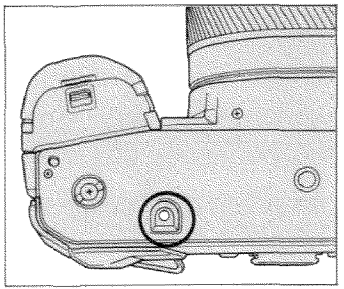


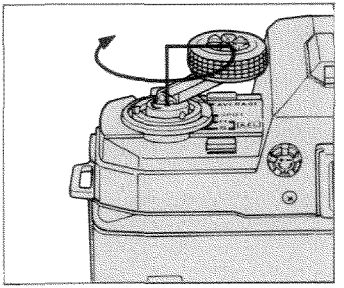
CAUTION

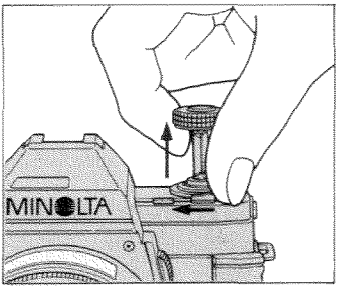
With non-DX films, anytime the battery holder is removed and reinserted, film-speed setting reset to "ISO 100" which blinks rapidly in the data panel, and shutter cannot be released. Before camera can be operated, desired film speed must be reset manually as explained earlier. For DX-coded films, if the displayed setting is correct, just touch the operating button and the camera can be operated.



REWINDING AND UNLOADING FILM







1. At the end of the roll, press rewind release on camera bottom.

2. Pull metering selector up and move it to its rewindcrank position. Wind film into its cartridge by rotating crank clockwise until it turns freely with no resistance.

3. Open back cover and remove film cartridge.

FOCUSING

Continuous autofocusing

1. Set focus mode switch to its AF (autofocus) position.

2. Center focus frame on subject.

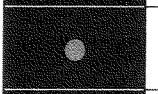
3. Rest finger on operating button. The camera will adjust focus continuously as long as operating button is touched. When subject comes into focus, the green focus signal in the viewfinder glows.

4. Release shutter by pressing operating button all the way down.

NOTE

- Shutter can be released at any time whether subject is in focus or not. Make sure subject is focused as desired before releasing shutter.
- If illumination is too low or if subject cannot be autofocused, both red focus signals will blink to indicate that manual focusing is necessary.

Focus signals during autofocusing

	Too close to subject
	In focus
	Focus manually on Acute-Matte screen

Focus hold: Center focus frame on subject, then press and hold operating button halfway down. When subject is in focus, the green focus signal glows and camera "beeps" (if at ON ◼)) position).

Focus is held as long as operating button is pressed halfway. Recompose photo with subject anywhere in frame and release shutter.

Manual focusing

1. Set focus mode switch to its M (manual) position.

2. Center focus frame on subject.

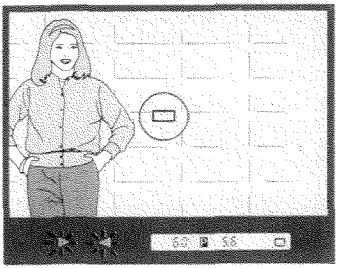
3. Touch operating button to activate focus signals.

4. Turn focusing ring in direction indicated by red focus signals in viewfinder. Green focus signal glows when subject is in focus and camera "beeps" (if at ON•ıl) position). When both red focus signals blink, subject must be focused visually on the Acute-Matte focusing screen. To do so, turn focusing ring until subject appears sharpest in the viewfinder.

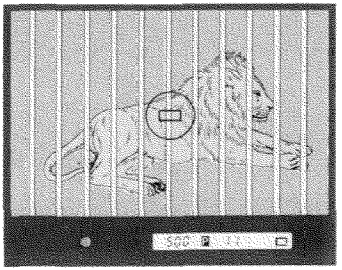
5. Release shutter by pressing operating button all the way down.

Focus signals during manual focusing

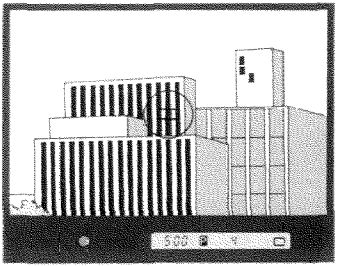
▶	Turn focusing ring to the right.
●	In focus
◀	Turn focusing ring to the left.
▶ ◀	Focus manually on Acute-Matte screen.



A



B



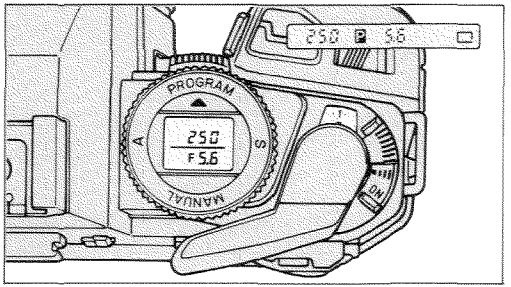
C

Autofocusing in special situations

In situations where red LEDs blink or the green LED glows but the subject does not appear sharp, additional care should be taken to assure accurate focus:

- If subject contrast is too low **(A)**, use focus-hold to lock focus on another subject at the same distance, then recompose photograph and release shutter.
- In cases where two subjects are at different distances within the focus frame **(B)** or where parallel lines interfere with autofocusing **(C)**, focus manually on Acute-Matte screen.
- When light is too low for the autofocus system to respond, a Minolta MAXXUM Flash can be used.
- For extremely bright subjects, use of a neutral-density filter is recommended.

PROGRAM MODE



Program (P) mode is ideal when you just want to compose and shoot. This mode features automatic multi-program selection (AMPS) which instantly matches the exposure program to the focal length in use. In this mode, both aperture and shutter speed are set automatically and displayed in the viewfinder and data panel.

To set mode: Rotate exposure mode selector to align "PROGRAM" with index on data panel.

Auto multi-program selection (AMPS)

In Program mode, one of three programs is automatically selected to match the lens focal length actually in use.

Shorter than 35mm:

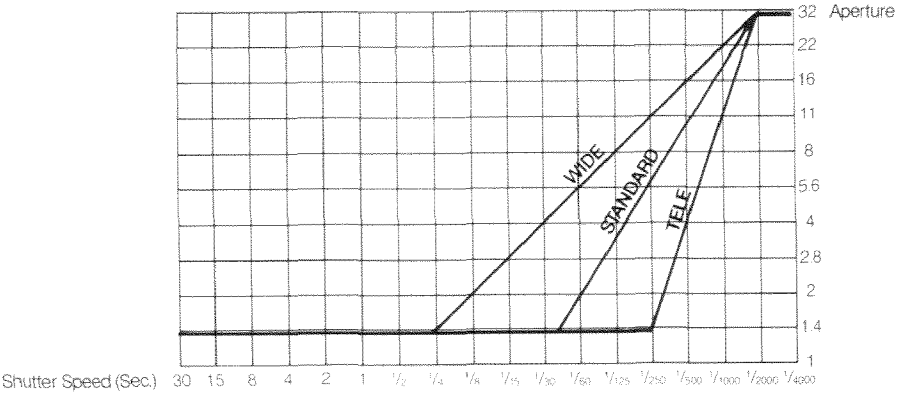
Wide program sets the smallest practical aperture for maximum depth of field.

35mm to 105mm:

Standard program is Minolta's faster-speed type that sets optimum shutter speeds and apertures.

Longer than 105mm:

Tele program sets faster shutter speeds to protect against blur from camera shake.



NOTE

- Program selection is automatic; it is not possible to manually select a specific program.
- With zoom lenses, the program automatically changes as you zoom from one range to the next. With the AF 28-135mm zoom, for example, as you zoom from 28mm to 135mm, the program changes from Wide through Standard to Tele.
- If light level is outside metering range, metering indicator in viewfinder blinks as a warning that exposure may not be correct.
- If both shutter speed and aperture displays blink, required aperture-shutter speed combination is not available.

Program shift

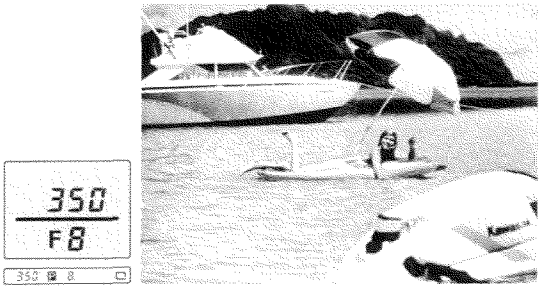
While remaining in Program mode, program shift can be used to temporarily select alternative aperture-shutter speed settings. Shifting the program does not change total exposure; it only changes the combination of settings used for achieving the same exposure. For example, if the program is shifted to use a faster shutter speed, the camera will automatically set a larger aperture to balance it and maintain the same relative exposure.

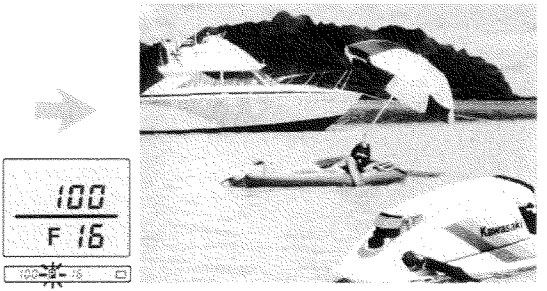
Using program shift

To shift the program, move the shutter or aperture up/down control until the desired shutter or aperture setting appears in the viewfinder and data panel. Settings change in half-stop increments, and "P" in the viewfinder blinks to indicate when program shift is in use. Before exposure, shifted settings are held for ten seconds after lifting finger from operating button. After exposure, program shift is cancelled as soon as finger is lifted from operating button.

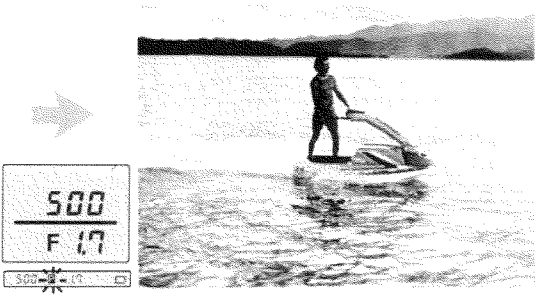
NOTE

- To make several exposures using program shift, keep finger on operating button between exposures.
- When using zoom lenses, it is best to shift program after zooming. When zooming from 70mm to 210mm, for example, program changes from Standard to Tele, and the shifted settings will also change.

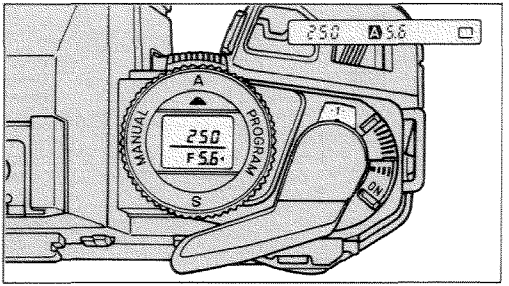

350
F8


100
F 16

125
F 3.5


500
F 1.7

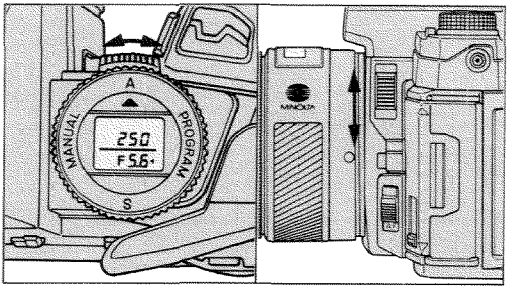
APERTURE-PRIORITY (A) MODE



To set mode: Rotate exposure mode selector to align "A" with index on data panel. A small pointer appears next to the aperture setting to indicate that it can be set manually.

To set aperture: Move either aperture or shutter up/down control until desired aperture is shown in data panel and viewfinder. Each time you move an up/down control, aperture will change by 1/2 stop. Aperture changes rapidly when control is held in either direction.

Any available aperture from the range indicated on the front of the lens can be set.

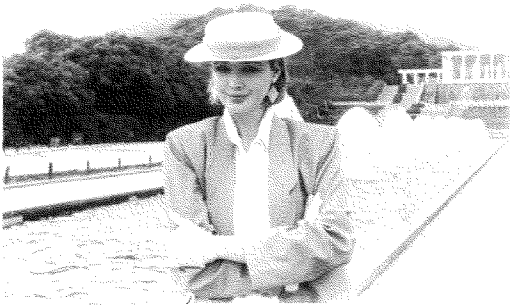


The AF 50mm/1.7 lens, for example, is marked 1:1.7 (22) indicating a range of f/1.7 to f/22.

NOTE

- Shutter speed display blinks when the speed required is outside the coupled range. If "4000" blinks, set smaller apertures until blinking stops. If "30"" blinks, set a larger aperture until blinking stops.
- If light level is outside metering range, metering indicator in viewfinder blinks as a warning that exposure may not be correct.

A. Large aperture



B. Small aperture

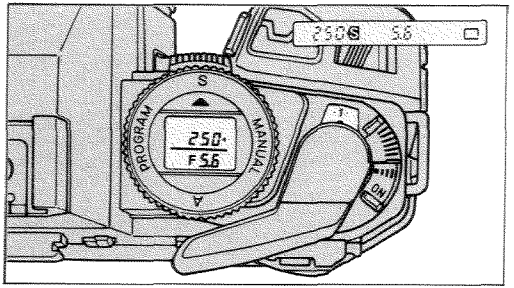
Creative aperture control

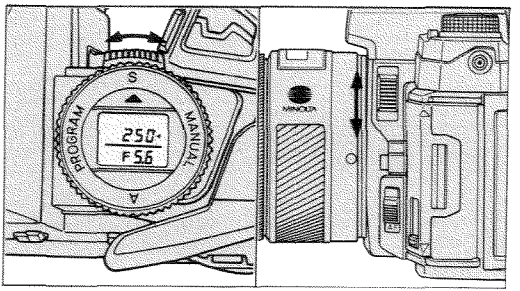
In A mode, you select the aperture and the camera automatically sets the shutter speed required for proper exposure. This mode should be used when you want to control the range of sharpness (i.e., depth of field) in a photograph, as for making a large part of the scene sharply focused or emphasizing a subject against an out-of-focus background.

A. Large apertures (i.e., small f-numbers such as f/2 or f/3.5) yield a shallow field of sharp focus. **B.** Small apertures (i.e., large f-numbers such as f/11 or f/16)) give greater depth of field.

Refer to page 38 for further information about controlling depth of field and using the preview switch.

SHUTTER-PRIORITY (S) MODE



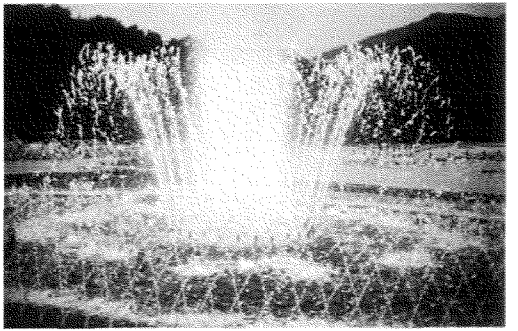


To set mode: Rotate exposure mode selector to align "S" with index on data panel. A small pointer appears next to the shutter speed setting to indicate that it can be set manually.

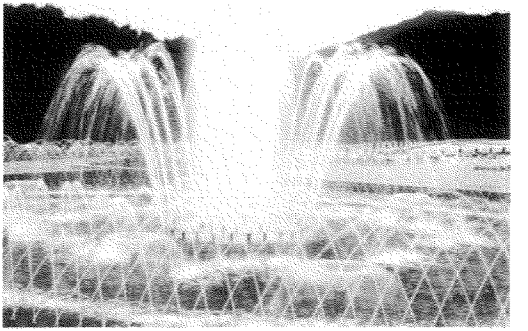
To set shutter speed: Move either shutter or aperture up/down controls until desired shutter speed is shown in data panel and viewfinder. Any available shutter speed from 1/4000 sec. to 30 seconds can be set. Each time you move an up/down control, shutter speed will change by one stop. Shutter speed changes rapidly when control is held in either direction.

NOTE

- In S mode, do not use "bulb" setting, which appears after the 30 sec. setting. "Bulb" should only be used in M mode.
- If lens' maximum aperture (e.g., f/1.7) blinks, set slower shutter speeds until blinking stops. If minimum aperture (e.g., f/22) blinks, set faster shutter speeds until blinking stops.
- If light level is outside metering range, metering indicator in viewfinder blinds as a warning that exposure may not be correct.



A. Fast shutter speed



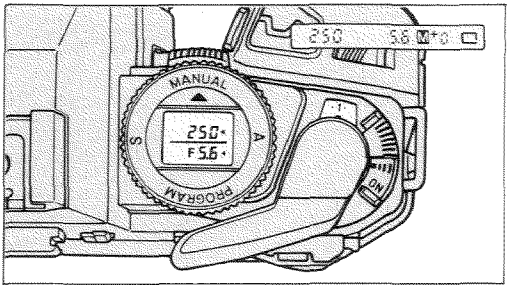
B. Slow shutter speed

Creative shutter-speed control

S mode is very useful when photographing moving subjects. You can set fast shutter speeds to render the subject sharp, or slow speeds to intentionally blur its movement. When using telephoto lenses, faster speeds can be set prevent image blur caused by camera movement. After setting the shutter speed, the camera automatically selects the aperture required for correct exposure.

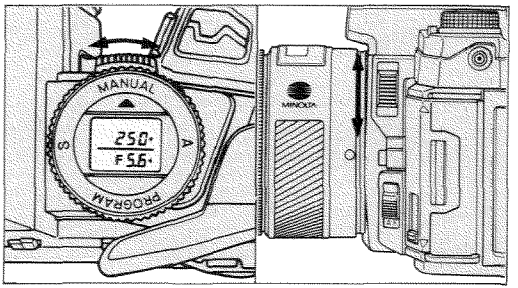
A. Fast shutter speeds, such as 1/500 to 1/4000 sec., can be used to "stop" action. **B.** Slow shutter speeds, such as 1/15 sec. or slower, can be used to blur subject movement.

METERED MANUAL (M) MODE



In M mode, you have full creative control of exposure. Exposure can be based on the camera's TTL meter, an external meter, or your own experience. Any available shutter speed and aperture can be set, with both settings displayed in the viewfinder and data panel.

To set mode: Rotate exposure mode selector to align "MANUAL" with index on data panel. Small pointers appear next to the shutter speed and aperture settings to show that both can be set manually.



To set aperture and shutter speed: Use aperture up/down control to set aperture in half stops and shutter up/down control to set shutter speed in full stops.

To adjust exposure: With meter on in M mode, the exposure-deviation indicator appears in viewfinder. For normal exposure based on the camera's TTL meter, adjust the up/down controls as indicated in viewfinder. *Some typical readouts are:*

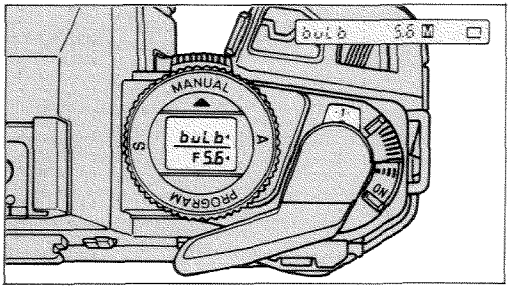
"–0" or "+0" indicates exposure is set within ±1/4 stop of normal exposure.

"+2" indicates exposure is set for two stops (i.e., four times) greater than required for a normal exposure.

"–1" indicates exposure is set for one stop (i.e., one half) less than required for normal exposure

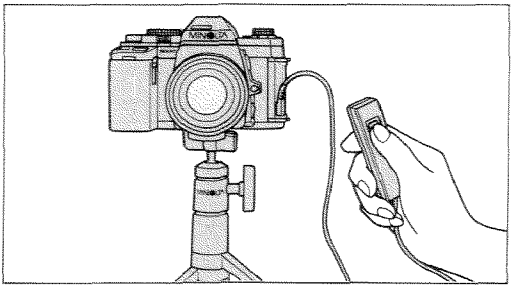
NOTE

- If light level is outside metering range, metering indicator in viewfinder blinks as a warning that exposure may not be correct.
- If exposure adjustment is set with camera in M mode, +/– mark will not appear in data panel; however, indication for normal exposure includes the set value. For example, if exposure would normally be 1/60 sec. at f/5.6, when exposure adjustment is set to +1.0, meter indicates normal exposure to be either 1/60 at f/4 or 1/30 at f/5.6.



Long exposures ("bulb" setting)

With camera in M mode, move shutter up/down control until "bulb" appears (after "30"") and set aperture as desired. Focus lens and release shutter. To avoid shaking the camera, mount it on a sturdy support such as a tripod and use the optional Remote Cord RC-1000S or RC-1000L to release the shutter. Shutter remains open as long as operating button is pressed. Elapsed exposure time (in seconds) is shown in the data panel. After 99 seconds, counter returns to "0" and continues counting.



NOTE

- Self-timer operation is not possible at "bulb" setting.
- The maximum exposure time depends on battery capacity: With fresh alkaline-manganese batteries, it will be approx. 8 hours.