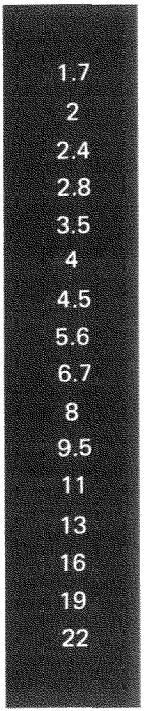
APERTURE AND SHUTTER-SPEED SETTINGS



Aperture settings

Table at left shows aperture settings that are displayed in each mode with the 50mm f/1.7 lens. Numbers such as 6.7 and 9.5 are half-stop settings between whole f-stops. Thus, for example, the half-stop setting between f/8 and f/11 is f/9.5.

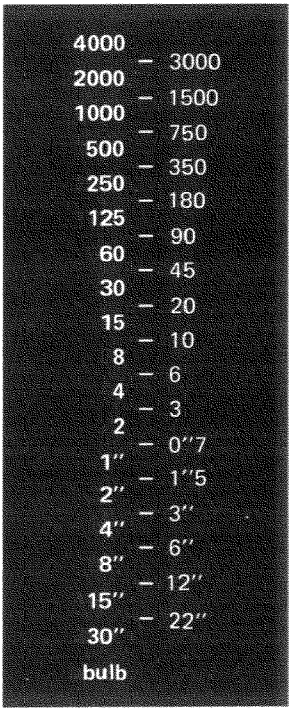
Shutter-speed settings

Table at right shows shutter-speed settings that are displayed in P and A modes. In M and S modes, only the speeds in full stops can be set. Numbers such as 750 and 350 are the half-stop indications between the standard shutter speeds. Thus, for example, the half-stop indication between 1/1000 sec. and 1/500 sec. is 1/750 sec.

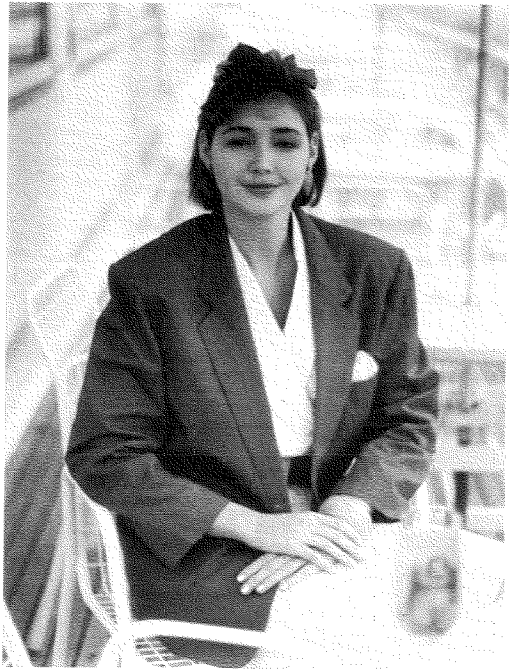
Indications for speeds from 1/4000 sec. to 1 sec. are: 4000 = 1/4000 sec., 2000 = 1/2000 sec., etc. Speeds from 0.7 sec. to 30 sec. are indicated: 0″7 = 0.7 sec., 1″ = 1 sec., etc.

NOTE

"Bulb" setting should be used only in M mode.



DEPTH OF FIELD



A. Large aperture

B. Small aperture

When a lens is focused on a subject, there is a certain range behind and in front of the subject that appears sharp. This range is called "depth of field", and one way to control it is to adjust the aperture. The photos show how depth of field varies with the aperture selected: **A.** Large apertures (e.g., f/1.7) yield a shallow field of sharp focus, rendering the background and foreground unsharp; **B.** Small apertures (e. g., f/22) yield greater depth of field with more of the scene in focus. Refer to depth-of-field scale on the lens to determine approximate depth of field. To check more closely, use preview switch on camera body.

At a given aperture and focal length, depth of field also varies with subject distance: When the lens is focused on a close subject, depth of field is less; when focused on a distant subject, depth of field is greater.

Preview switch

The preview switch can be used in all exposure modes to close down and lock the lens' aperture. This enables you to determine whether depth of field is sufficient. The switch is hinged and folds up against the handgrip when not in use. **To use:**

1. Focus on main subject.
2. In A or M mode, set desired aperture. In P or S mode, meter scene in the usual way.
3. With film advanced, press preview switch partway down and release it. Lens aperture will now be locked at the setting displayed in the data panel. Also, "F" blinks in data panel while preview switch is used.
4. Look through the viewfinder to determine depth of field. When lens is closed down, autofocusing does not operate and it is not possible to adjust aperture setting. Also, image in viewfinder may appear dark, but this has no effect on exposure.
5. To cancel preview operation: Press preview switch all the way down and release it. Aperture setting can now be adjusted by using the up/down controls. Preview operation is cancelled automatically if shutter is released with lens stopped down.

FUNDAMENTALS OF EXPOSURE CONTROL

To obtain correct exposure for the subject's brightness and film being used, the aperture (size of the lens opening) and shutter speed (length of time the shutter is open) must be controlled.

As indicated by the aperture diagram next to each f-number in the diagram, large f-numbers (e.g., f/16 and f/11) represent small apertures, and small f-numbers (e.g., f/2 and f/1.4) represent large apertures. Each standard f-number setting (e.g., f/8) lets in twice as much light as the next larger one (f/11) and half as much as the next smaller one (f/5.6). This difference in exposure between standard f-numbers is called one "stop".

Shutter speeds are expressed in seconds or in fractions of a second as the reciprocal of numbers shown on the shutter speed display. Each standard shutter speed (e.g., 1/60 sec.) allows light to strike the film twice as long as the next faster one (1/125). This exposure difference between standard shutter speeds is also called one "stop".

Total exposure on the film is determined by the combination of aperture and speed. Using the next smaller f-number (i.e., giving one stop more exposure) will balance using the next faster shutter speed (i.e., giving one stop less exposure), and so on. A great range of combinations (f/5.6 at 1/30, f/4 at 1/60, f/2.8 at 1/125 etc.) will thus yield the same total exposure.

The diagonal lines correspond to exposure values (EV); all of the aperture/shutter-speed combinations indicated by a given line will produce the same exposure. At a particular film speed, the EV increases by one each time the subject brightness doubles, and thus the exposure required will decrease by one stop. On the other hand, when the EV is one unit lower (i.e., when subject is only half as bright), exposure must be increased one stop.)

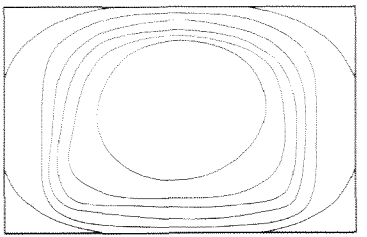
The film-speed-coupled metering system measures the brightness of the subject and computes the EV needed for proper exposure. This EV is used for setting aperture and shutter speed.

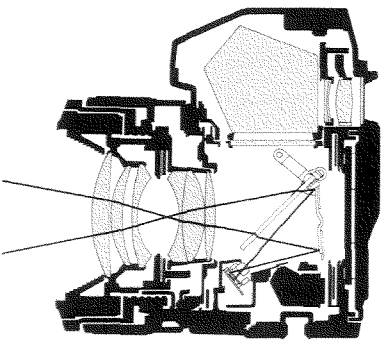
Dark
Subject brightness
Bright
More
Required exposure
Less
EV
-4
-2
0
2
4
6
8
10
12
14
16
18
20
Aperture
32
22
16
11
8
5.6
4
2.8
2
1.4
Smaller
Larger
30
15
8
4
2
1
Shutter speed (Sec.)
Slower
Faster

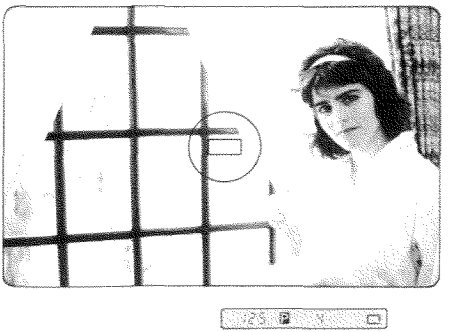
CENTER-WEIGHTED AVERAGE METERING

Center-weighted average metering should be considered the normal metering mode for most picture-taking situations. When the metering selector is set to "AVERAGE" position, exposure is based on an average of the various light values in the scene with additional emphasis (weight) given to the center area. This produces consistent, reliable results in most situations with a minimum of effort.

Center-weighted average-metering pattern







Use of AE lock

This control is used in P, A, or S auto-exposure (AE) mode to hold a meter reading for the main subject while you recompose and release the shutter. AE lock should be used when the main subject is not centered in the frame or when the brightness level between subject and background is very high, such as for backlit or spotlit subjects.

To use:

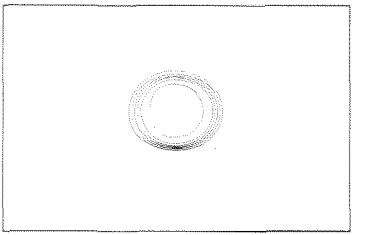
1. Shift camera's position so subject fills most of frame, For smaller subjects, you may need to move closer (or zoom in).
2. With meter on, press and hold AE Lock (marked AEL).
3. While keeping it pressed, recompose picture, focus, and release the shutter.

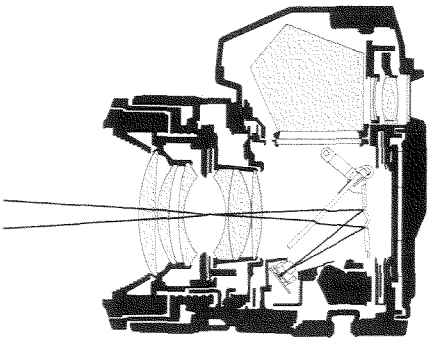
SPOT METERING

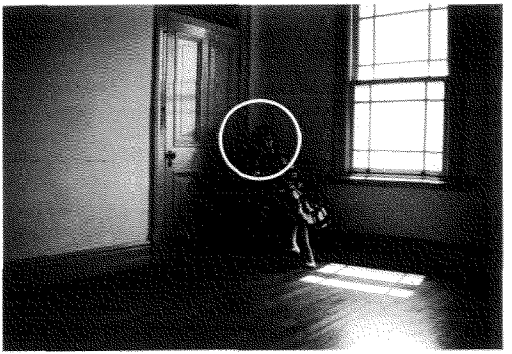
For most situations, center-weighted average metering is adequate. There are times, however, when the MAXXUM 9000's built-in spot meter should be used to obtain the results desired. Exposure readings based on a midtone value (at SPOT setting) can be used when lighting contrast is very high. When most of the tones in the picture are very light, highlight-based exposures (at H setting) can be made. Shadow-based exposures (at S setting) can be made when most of the scene is consists of darker tones.

When making highlight- or shadow-based exposures in P, A, or S mode, AEL button must be pressed while releasing shutter. If AEL button is not pressed, camera sets exposure to produce a midtone value, even if metering selector is at H or S setting.

Spot-metering pattern







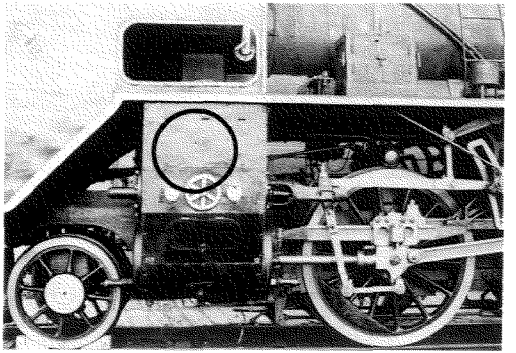
Midtone readings (SPOT setting)

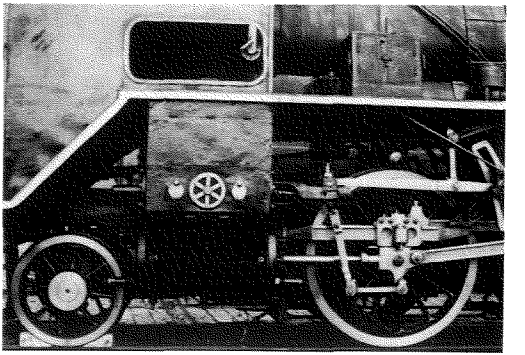
Midtone readings should be used to achieve optimum exposure of subjects with medium tones in high-contrast lighting, such as for backlit subjects with no fill lighting or spotlit subjects against dark backgrounds. When midtone readings are made, exposure is based on an averaged reading of the subject located in the spot-metering circle. This enables you to obtain correct exposure for the most important area in a photograph.

To use:

1. Set metering selector to "SPOT" position.
2. Position camera so that a midtone area fills spot-metering circle in viewfinder.
3. P, A, or S mode: Press and hold AEL button to lock the meter reading. While pressing AEL button, recompose photo and release shutter.

M mode: Adjust shutter and aperture so that exposure-deviation indicator shows "–0" or "+0". Then recompose photo and release shutter.





Shadow readings (S setting)

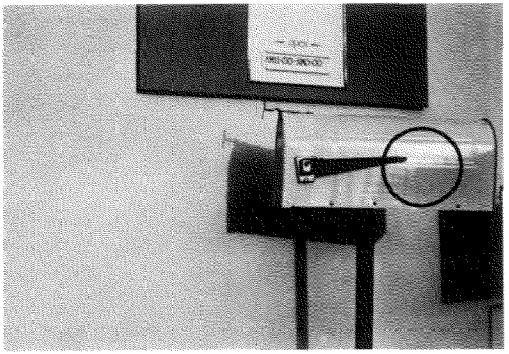
Shadow readings should be used when the most important or largest part of the photo consists of mostly darker tones. If a center-weighted reading (or spot midtone reading) is used, these areas will appear too light, over-exposed. When shadow readings are made, exposure is decreased to properly expose these areas. **To use:**

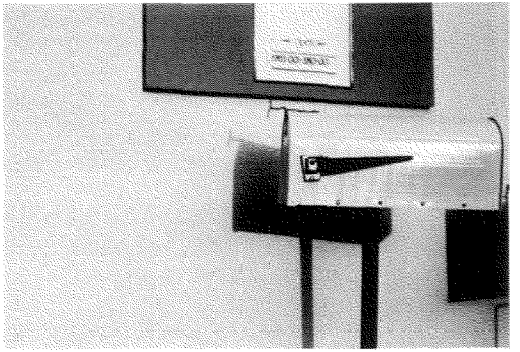
1. Set metering selector to "S" position.

2. Position camera so that shadow area fills spot-metering circle in viewfinder.

3. P, A, or S mode: Press and hold AEL button. Shutter/aperture settings for exposure of shadow area will now be displayed. While still pressing AEL button, recompose photo, and release shutter.

M mode: While pressing AEL button, adjust shutter and aperture for "−0" or "+0" exposure deviation. Recompose photo and release shutter.





Highlight readings (H setting)

Highlight readings should be used when the most important or largest part of the photo is white or very light-colored. If a center-weighted reading (or spot midtone reading) is used, these areas will appear too dark, under-exposed. When highlight readings are made, exposure is increased so that the lighter areas will be properly exposed. **To use:**

1. Set metering selector to "H" position.
2. Position camera so that a light area fills spot-metering circle in viewfinder.
3. P, A, or S mode: Press and hold AEL button. Shutter/aperture settings for exposure of light area will now be displayed. While still pressing AEL button, recompose photo, and release shutter.

M mode: While pressing AEL button, adjust shutter and aperture for "−0" or "+0" exposure deviation. Recompose photo and release shutter.

WHEN TO USE EXPOSURE ADJUSTMENT

When using center-weighted average metering, the following suggestions will help you decide whether to use exposure adjustment. Individual conditions and intentions will, of course, determine which exposure you choose.

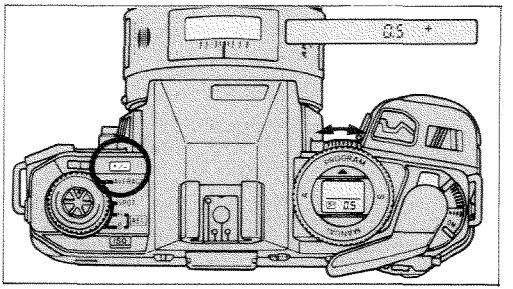
- When background is much brighter than main subject: Set exposure adjustment between +0.5 and +2.0 stops, depending on lighting conditions. Photos A and B were taken with strong backlighting and no fill-in illumination.
- When the main subject is much lighter than the background: Set exposure adjustment between −0.5 and −2.0 stops, depending on lighting conditions. Photos C and D shown main subject in bright sunlight against a dark background. This exposure adjustment can also be used for spotlit subjects, as at a circus or on a stage.
- For scenes where most of the tones are very light, such as snow-covered hillsides: An adjustment of +0.5 to +2.0 stops may be necessary. Similarly, an adjustment of −0.5 to −2.0 stops can be used when the overall scene is composed of mostly darker tones, as for a black cat against a dark background.
- Exposure adjustment can also be used to vary exposure in half-stops for a series of photographs of the same scene. This technique, "bracketing", is especially useful when you are not sure which exposure will look best, as when photographing a sunset.

A. Normal exposure

B. Exposure adjustment set at +2.0 stops.

C. Normal exposure

D. Exposure adjustment set at −2.0 stops.



Exposure adjustment

Exposure adjustment can be used to deliberately increase or decrease exposure from the normal metered value. Adjustment range is from +4 to −4 stops in half-stop increments. **To set:**

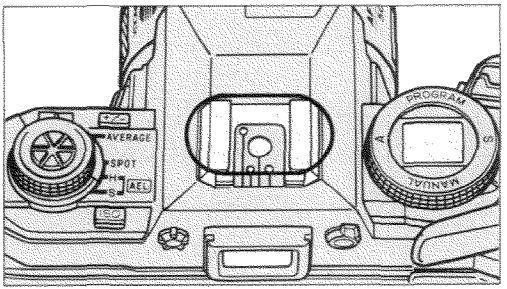
1. Press and hold exposure adjustment key (marked +/−).

2. Move shutter up/down control until desired value appears in data panel. Set minus (−) numbers to decrease exposure and plus (+) numbers to increase exposure.

- Whenever exposure adjustment is set in P, A, or S mode, the "+" or "−" mark appears in data panel and adjusted value blinks in the viewfinder display.
- In M mode when exposure adjustment is set, no indication appears in data panel. Exposure deviation indicated in viewfinder includes the value set, which can be checked at any time by pressing the exposure adjustment key.

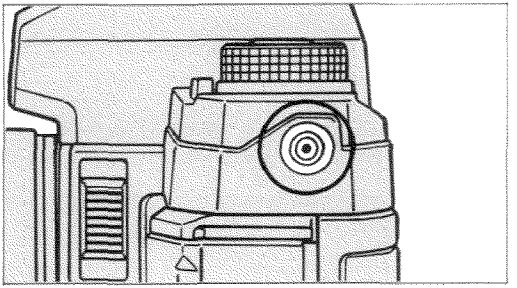
NOTE

- Reset exposure adjustment to "±0.0" after use.
- When using an R60 (red) filter, adjust exposure +1.0 stop.



Accessory shoe

When using a Minolta MAXXUM Flash 2800AF or 4000AF unit, X-sync is automatic and Minolta Direct Autoflash Metering (TTL off-the-film) operates in all modes. X-sync in P mode is set at 1/250, 1/125, or 1/60 sec. depending on light level; in A mode, X-sync is set at 1/250 sec., and any aperture can be selected; in S mode, any speed 1/250 sec. or slower can be selected and aperture is set automatically to f/5.6; in M mode, any speed 1/250 sec. or slower and any aperture can be set.

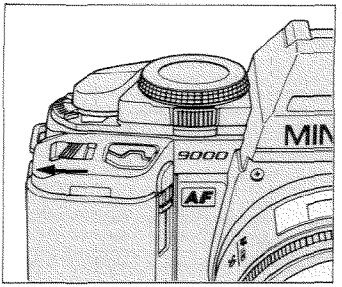


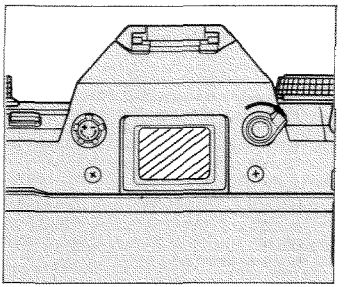
Sync terminal

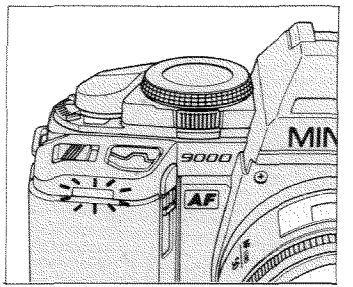
The sync terminal accepts PC-type sync cords from flash units that do not have a hot-shoe contact. Camera's X-sync speed must be set manually to any speed 1/250 sec. or slower. The camera's TTL flash metering does not operate with such units. To determine aperture setting for correct exposure, refer to flash owner's manual or use a flash meter.

Compared to portable electronic flashes, large studio-type units have capacitors which require more time to discharge at full power. Shutter speed should generally be set to 1/125 sec. or slower to assure full exposure when using these units.

SELF-TIMER OPERATION







To use self-timer:

1. Slide self-timer switch away from operating button. Red mark will appear.

2. After focusing and metering for main subject, close eyepiece shutter.

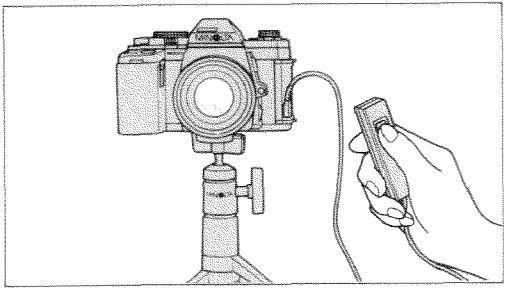
3. Press operating button all the way down. During the ten-second countdown to shutter release, the self-timer LED blinks slowly for 8 sec., then rapidly for 1 sec., and remains on for the last second. For simultaneous audible beeping, set main switch to ON ■)) position.

To cancel operation:

If you have started the self-timer and wish to cancel it before the shutter releases, slide self-timer switch toward operating button.

NOTE

After using self-timer, be sure to turn it off by sliding self-timer switch towards operating button.

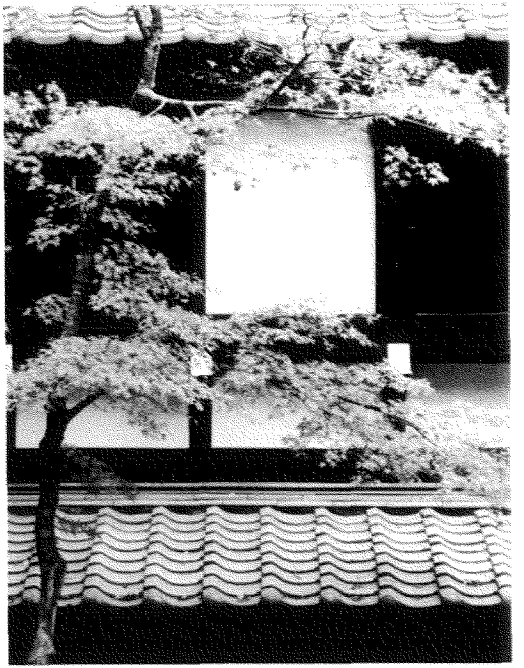


Tripod mounting

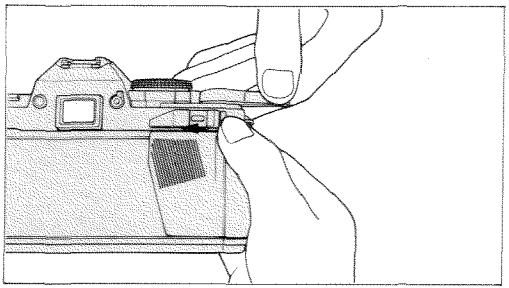
For maximum sharpness when exposure times are too long for hand-held photos, mount camera on a tripod using the socket on camera bottom. The optional Remote Cord RC-1000L or RC-1000S can be used to release the shutter without shaking camera.

NOTE

- Do not overtighten tripod screw when attaching the camera to tripod.
- Mounting screw should not be longer than 5.4mm (1/4 in.).



MULTIPLE EXPOSURES



The MAXXUM 9000's multiple-exposure button enables cocking the shutter without advancing the film. When multiple exposures are made, the frame number does not change until film is actually advanced. To use:

1. Make the first exposure in the usual way.

2. While pressing multiple-exposure button all the way in, operate film-advance lever to cock shutter for the next exposure.

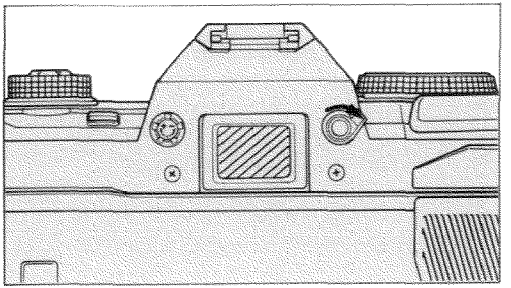
3. Repeat steps 1 and 2 to make additional exposures. After making the final exposure, release multiple-exposure button and operate film-advance lever. This will advance film to the next frame.

Determining exposure

The following suggestions can serve as basic starting points for determining correct exposure. However, subject matter, lighting conditions and your own intentions will all determine the final results.

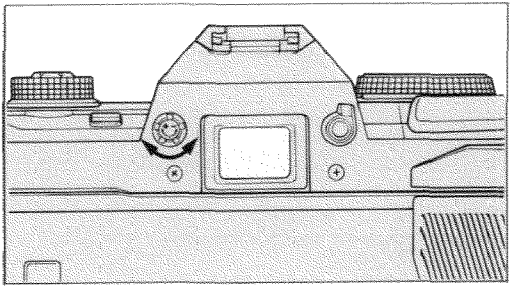
When making two exposures of evenly illuminated subjects that fill most of the frame, set exposure adjustment to −1.0. This will decrease exposure for each shot by one half and the cumulative exposure should be correct. For four exposures, set adjustment to −2.0, and so on.

For multiple exposures of subjects against a dark background which do not overlap each other, exposure adjustment is not usually required.



Eyepiece shutter

The MAXXUM 9000's eyepiece shutter should be closed whenever you are taking photographs with the eyepiece not shielded by your head, as in remote-control photography, self-timer operation, or during long exposures. This will prevent stray light from entering through the eyepiece and affecting the exposure.

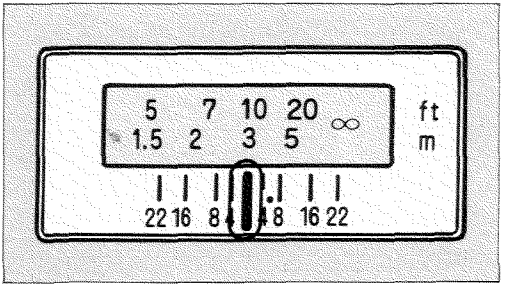


Eyepiece adjustment dial

This control enables near- or farsighted users to make dioptric adjustments to the eyepiece. Dioptric adjustment range is from −3 to +1 diopters.

To adjust: While looking through viewfinder, turn dial until focus frame appears sharpest. If additional correction is needed, a Minolta Eyepiece Corrector 1000 (p. 66) can be attached to the camera's eyepiece.

OTHER FOCUSING METHODS

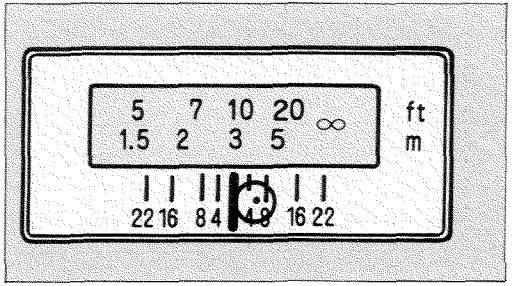


Distance scale

You may find in the following situations that it is easier to set focus manually for a specific distance:

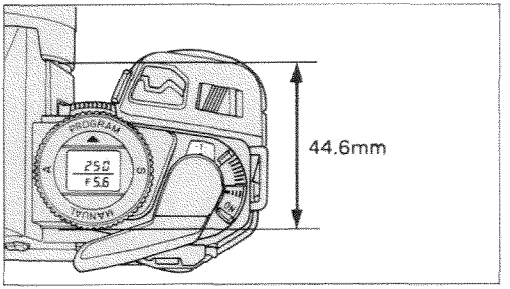
- When making long exposures where it is too dark to focus visually.
- When you want to prefocus the lens at a certain distance and release the shutter as the subject reaches that spot.

To use scale: With focus mode set to M, estimate the distance to your subject, and turn focusing ring to align corresponding figure on distance scale with index line.



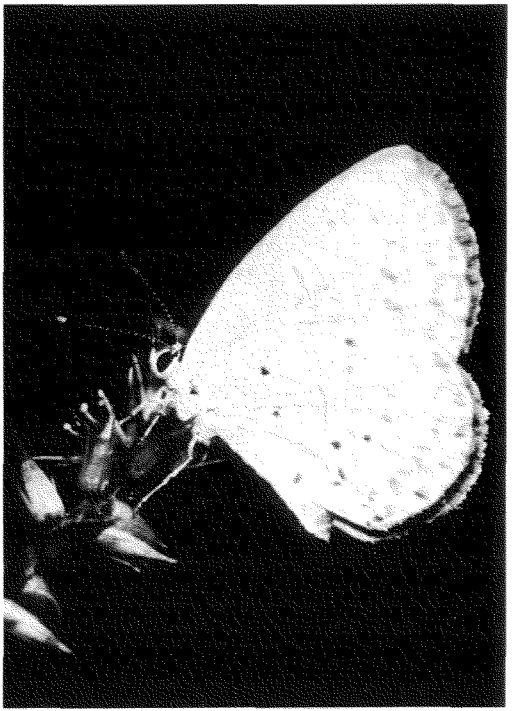
Infrared index

For proper focus when using infrared films, focus subject as usual and attach a filter, if desired. With focus mode switch at M, turn focusing ring until distance shown opposite the distance index aligns with the small red dot.



Film-to-lens-mount distance

This value is used when determining total film-to-subject distance, as when taking photographs at high magnifications. The distance between the film plane at the rear of the camera and the front surface of the lens mount is 44.6mm.

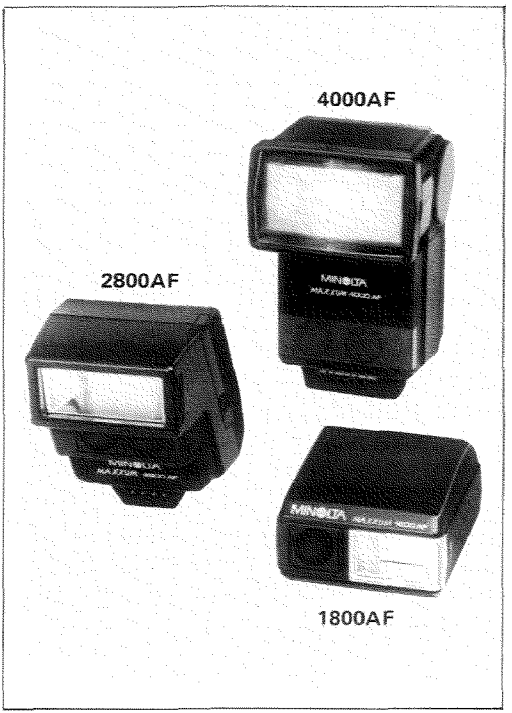


ACCESSORIES

MAXXUM Flash 1800AF: This ultra-compact unit is extremely easy to use; just switch it on and you are ready to shoot. It accepts a 6v lithium battery for shortest recycling, and AAA-size alkaline batteries can also be used. Guide Number is 18 in meters (59 in feet) with 35mm coverage.

MAXXUM Flash 2800AF: This intermediate unit provides increased flash power and has a Guide Number of 28 in meters (92 in feet) with 35mm coverage. Other features include high/low power settings and sufficient-exposure confirmation.

MAXXUM Flash 4000AF: This powerful unit has a Guide Number of 40 in meters (131 in feet) with 50mm coverage. An auto-zoom/bounce head enables efficient lighting control. The LCD panel shows power level, flash coverage, and flash ranges.



Macro Flash 1200AF Set

The Macro Flash 1200AF Set is specially designed for close-up and macro photography. Guide Number is 12 in meters (40 in feet). It attaches to most Minolta AF lenses and has four built-in lamps for easy focusing. Four flashtubes are set at right angles for complete lighting control. TTL off-the-film metering ensures proper exposure.

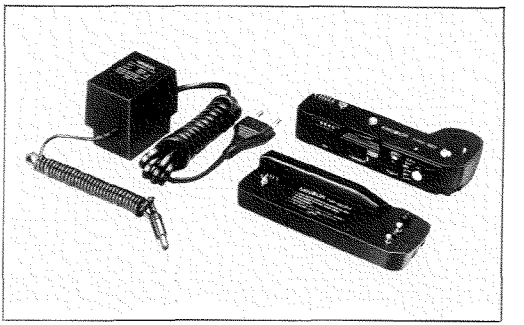
Guide numbers are based on ISO 100

Control Grip CG-1000 Set

The Control Grip CG-1000 attaches cordlessly to the MAXXUM 9000 and accepts either the MAXXUM Flash 4000AF or 2800AF. Its battery pack holds six AA-size batteries and delivers the additional power needed to reduce recycling time for sequential shooting. When two MAXXUM Flash or other compatible units are used, lighting-ratio control is automatic. Included in the CG-1000 set are an AF Illuminator AI-1000 and 16.5 ft. (5m) Extension Cable EC-1000.

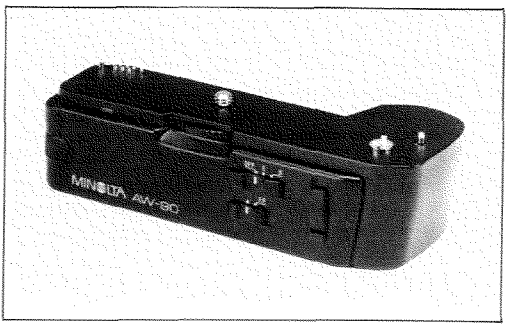
Motor Drive MD-90

The Motor Drive MD-90 has professional features including 5 frames-per-second film advance, single-frame advance, or focus-priority shutter release with continuous film advance. The MD-90 is powered by either of two battery packs (sold separately): the Battery Pack BP-90M uses 12 AA-size batteries; the Ni-Cd Battery Pack NP-90M has rechargeable nickel-cadmium batteries and comes with the Ni-Cd Charger NC-90M for quick recharging.



Auto Winder AW-90

The Auto Winder AW-90 is a more compact film winder for the Maxxum 9000. The AW-90 automatically advances film with either single-frame or continuous advance at up to two frames per second. The focus-priority setting can be selected assure that the subject is in focus before the shutter is released. The AW-90 uses 4 AA-size alkaline or rechargeable nickel-cadmium batteries.



Program Back 90 enables imprinting of time (with day), year/month/day in any of three orders, and consecutive or fixed numbers. It also features an intervalometer function and can be set to make timed long exposures.

Program Back Super 90 features 7 exposure modes, automatic bracketing of up to 9 frames, a fully programable intervalometer, data imprinting of the exposure settings, date, time, or consecutive/fixed numbers along the edge of the frame, and more.

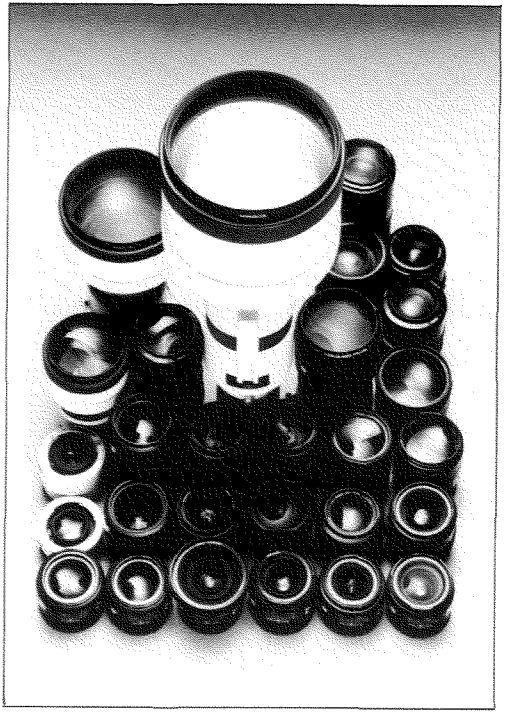
100-Exposure Back EB-90 has a drop-in film magazine that holds 100 exposures of 35mm film. In addition, the EB-90 has all of the functions of the Program Back Super 90. The Film Loader FL-90 is used to load film into the film cartridges.

MAXXUM AF Lenses

A wide range of MAXXUM AF lenses is available for your MAXXUM 9000. These can be purchased separately from your photo dealer.

The MAXXUM AF lens system now features focal lengths from 16mm fisheye to 600mm apochromat telephoto. Included are nine macro/zooms covering focal lengths from 24mm to 300mm. Among these outstanding zoom lenses are the ultra-compact 35-70mm and 100-200mm zooms, which enable photographing landscapes or portraits with equal ease.

All MAXXUM AF lenses attach to the camera in the same way as explained earlier in this manual. When using program mode, the camera instantly selects one of three exposure programs based on the lens focal length in use. This is called as Auto Multi-Program Selection (AMPS).



User-changeable Focusing Screens

Besides the MAXXUM 9000's standard focusing screen, four additional Acute-Matte screens are available. Tweezers are supplied with each screen, enabling quick, simple replacement by users.

Focusing Screen 90

Type G: Standard screen, focus frame and spot-metering circle centered on matte field; for general photography

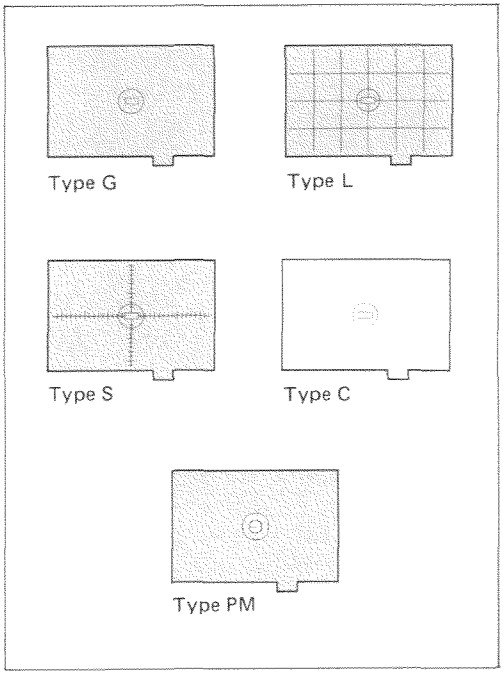
Type L: Grid, focus frame, and spot-metering circle on matte field; for general and architectural photography

Type S: Vertical and horizontal scales, focus frame, and spot-metering circle on matte field; for macro-, micro-, and astrophotography

Type C: Focus frame and spot-metering circle on clear field

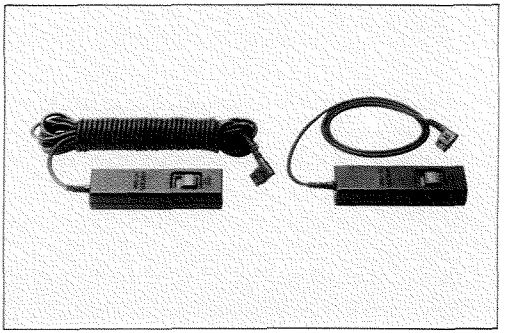
Focusing Screen 70

Type PM: Split-image/microprism/matte-field; autofocus zone along split-image, spot-metering area same diameter as microprism circle



Wireless Controller IR-1N Set

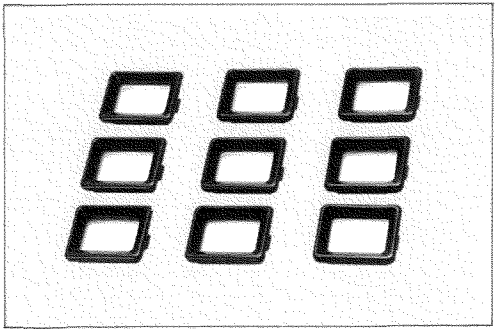
The Wireless Controller IR-1N Set permits cordless, remote-control photography from up to approx. 200 ft. (60 meters) away. For maximum versatility, the Motor Drive MD-90 can be attached to the camera for shooting remote-controlled sequences. Separate receivers can be used for controlling up to three cameras.



Remote Cord RC-1000L and RC-1000S

A remote cord should be used for long exposures (at "bulb" setting) or anytime you want to release the shutter without shaking the camera. Autofocusing and metering are both activated by partially pressing the release button. Pressing and sliding the release button locks the shutter open for long exposures.

RC-1000L is 16.5 ft. (5m) long; RC-1000S is approx. 20 in. (50cm) long.



Eyepiece Corrector 1000

In addition to the MAXXUM 9000's built-in eyepiece adjustment, nine eyepiece correction lenses are also available for further adjustment of the eyepiece. These can be purchased separately and range from −4 to +3 diopters. Correctors snap into the camera's eyepiece frame.

Minolta Polarizing (Circular) Filter

To reduce or eliminate reflections from glass, water, or other non-metallic surfaces, Minolta's Polarizing (Circular) Filter should be used. If a regular polarizing filter is used, metering may not be accurate. (Light from regular polarizing filters is not fully transmitted by the MAXXUM 9000's semi-silvered main mirror.)

Filters

Autofocusing can be used with these Minolta filters:
L37 (UV), Y52 (yellow), GO (green), O56 (orange), R60 (red), 1B (SKYLIGHT), A12 (85), B12 (80B), ND4X, Minolta Portrayer, and Polaring (Circular).

Other filters

When using filters other than those listed, autofocusing may not be accurate. In this case, focus manually with the filter attached, or autofocus and then attach filter.

Other Minolta system accessories

The following Minolta System accessories can be used with the Minolta 9000:
Angle Finder V_N, Magnifier V_N, Cable OC, Cable EX, Cable CD, Triple Connector TC-1000, Off-Camera Shoe, filters, Wireless Controller IR-1N Set with optional Connecting Cord IR-1 (C).

Minolta Autoflash units

All Minolta Auto Electroflash units can be used on the MAXXUM 9000; however, autofocusing and certain other features will not operate.

360PX and 132PX: FDC (flash distance check) signal does not function; all other functions are the same.

280PX: FDC signal does not function; "Lo" power setting cannot be used.

Macro 80PX: FDC signal does not function; illumination lamps go out when operating button is touched.

X-series units: TTL metering and FDC signal do not function.

IMPORTANT NOTICE

The MAXXUM System is designed and produced to offer innovative functions and performance through the combination of MAXXUM camera bodies, MAXXUM AF lenses, MAXXUM flash units and other accessories distributed by Minolta.

We thus caution users that the attachment or use of incompatible lenses, flashes and accessories may result in unsatisfactory performance or damage to the MAXXUM camera or its system accessories. Any such damage or failure of performance would not qualify as a defect in workmanship or materials covered by the Minolta product warranty. If you have any questions as to whether a particular lens, flash or accessory is compatible with the MAXXUM camera, we urge you to contact Minolta.

For optimum performance throughout the life of the MAXXUM camera and its accessories and to obtain the benefits of future MAXXUM system products, we recommend use only of lenses, flashes and other accessories manufactured by Minolta for the MAXXUM camera.

TECHNICAL DETAILS

Type: 35mm single-lens reflex camera with autofocus and multi-mode exposure control

Film format: 24 x 36mm

Lens mount: Minolta "A"-type bayonet, self-lubricating stainless steel

Autofocus system: Minolta TTL phase-detection type; working range: EV 2 to 19 at ISO 100; LED focus signals in viewfinder for both manual and automatic focusing

Shutter: Electronically controlled vertical-traverse focal-plane type

Shutter-speed range: In P and A modes: stepless 1/4000 to 30 sec.; in M and S modes: 1/4000 to 30 sec. in full-stop settings; "bulb" operates in M mode

Metering systems: TTL center-weighted averaging by compound silicon photocell at bottom of mirror box, or spot metering for midtone, highlight, or shadow using center portion of same SPC; spot-measurement area: 5.5mm circle in center of focusing screen, approx. 2.7% of film frame; center-weighted averaging range: EV 1 to 20 with ISO 100 and 50mm f/1.4 lens (e.g. 1 sec. at f/1.4 to 1/4000 sec. at f/16)

Film speed settings: ISO 6 to 6400 in third-stop increments; automatic film speed setting for DX-coded films can also be set manually: manual setting for non-DX films also possible

Exposure modes: Program AE with automatic multi-program selection of wide, standard, or tele program and program-shift capability; aperture-priority AE; shutter-priority AE; metered-manual exposure

Flash exposure modes: Direct (TTL) autoflash metering by same SPC; in all modes for ISO speeds 12-1000; program AE: automatic setting of X-sync to 1/250 sec. (above EV 13 at ISO 100), 1/125 (EV 12-13), or 1/60 (below EV 12); aperture-priority AE: X-sync set to 1/250 sec.; shutter-priority AE and metered manual: 1/250 or slower speeds usable, speed automatically reset to 1/250 sec. for manually set speeds above 1/250 sec.

AE lock: Works in P, A, and S modes; used in all exposure modes for highlight- and

shadow-based spot metering; used for slow-shutter sync with dedicated flash

Exposure adjustment: −4 to +4 EV in half-stop settings

Viewfinder: Eye-level fixed pentaprism type with built-in eyepiece correction adjustable from −3 to +1 diopters; field of view: 94% of film-frame area; magnification: 0.81X with 50mm lens at infinity

Data displays:

Top panel: LCDs indicate shutter speed, aperture, film speed, exposure adjustment, "bulb" elapsed time,

Viewfinder: LCDs indicate exposure mode, metering mode, shutter speed, aperture, film speed, exposure adjustment, and exposure deviation in metered-manual mode.

Operating button: Touch Switch activates metering and continuous autofocusing; meter stays on for 10 sec. after finger is lifted from button; pressing halfway holds focus; pressing all the way releases shutter

Film transport: Manual film advance: Film-advance lever has 30° offset angle with 128° movement in single or multiple strokes

Film rewind: Manual by rewind crank

Frame counter: Additive type; camera set to 1/4000 sec. and lens' minimum aperture until "1" appears in frame counter

Mirror: Semi-silvered swing-back type; secondary mirror for metering and autofocusing

Audible signals: With main switch at ON position, camera "beeps" when using focus hold, focusing manually, and during self-timer operation

Self-timer: Electronic with 10-second delay; operation indicated by blinking LED and audible "beeps"; cancellable

Power: Two AA-size 1.5v alkaline-manganese, carbon-zinc, or 1.2v rechargeable nickel-cadmium batteries

Preview switch: Used for checking depth of field; operates in all four exposure modes; pressing partway down stops down and locks lens diaphragm at aperture setting shown in data panel and finder; when used, "F" blinks in data panel.

Multiple-exposure button: Enables making more than one exposure on a single frame; when pushed all the way in, shutter can be recocked without advancing film; frame counter does not advance during use.

Others: Sync terminal, eyepiece shutter, remote-control terminal, film window, user-changeable focusing screen

Dimensions: 2-7/8 x 3-5/8 x 5-1/2 in. (53 x 92 x 139mm)

Weight: 22-3/4 oz. (645g) without batteries and lens

Specifications subject to change without notice

CARE AND STORAGE

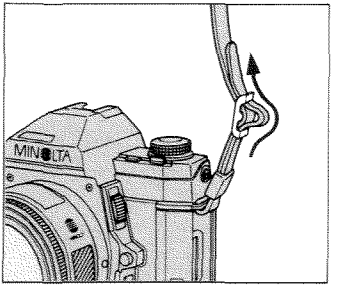
- Always keep your camera in its case with the lens capped when not in use, or with a body cap on when a lens is not attached.
- No part of the camera should be forced at any time.
- Never subject your camera to shock, high heat, high humidity, water, or harmful chemicals. Be particularly careful not to leave it in the glove compartment or other places in motor vehicles where it may be subjected to high temperatures.
- Never lubricate any part of the camera body or lens.
- Never touch the shutter curtains or the front inside parts of the body or clean them with compressed air. Doing so may impair their alignment and movement.
- External camera surfaces and lens barrel--but not glass surfaces--can be cleaned by wiping with a dry or silicone-treated cloth.
- Never touch lens or eyepiece surfaces with your fingers. Whisk away loose matter with a blower brush. To remove stubborn spots, use a sheet of photographic lens tissue. If neces-

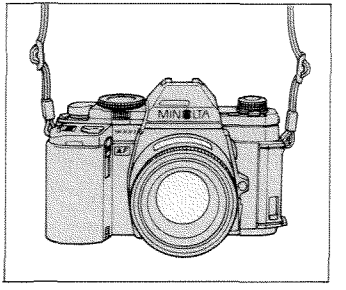
sary, tissue may be moistened with one drop of lens-cleaning fluid. Never drop fluid directly on glass surfaces.

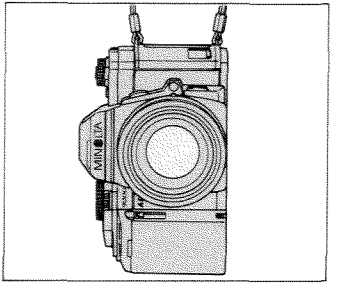
- It is recommended to have your camera cleaned once a year at an authorized Minolta service facility.
- When storing camera for more than two weeks, remove the batteries and keep it in a cool, dry place away from dust or chemicals, preferably in an airtight container with a drying agent such as silica gel.
- The operating range for the LCDs is from -20° to $+50^{\circ}$C (15° to 120°F). At temperatures outside this range, response time and contrast will change, making displays difficult to read. At very high temperatures, display may temporarily turn black. In either case, display should return to normal after a short period of time.
- The LCDs should last approximately ten years. When replacement is needed, contact your nearest authorized Minolta service facility.

Save camera box and packing material. When shipping your camera, carefully repack it in the box, insure adequately, and use a reliable delivery service.

Before shipping your camera for repairs, contact your nearest authorized Minolta service facility.



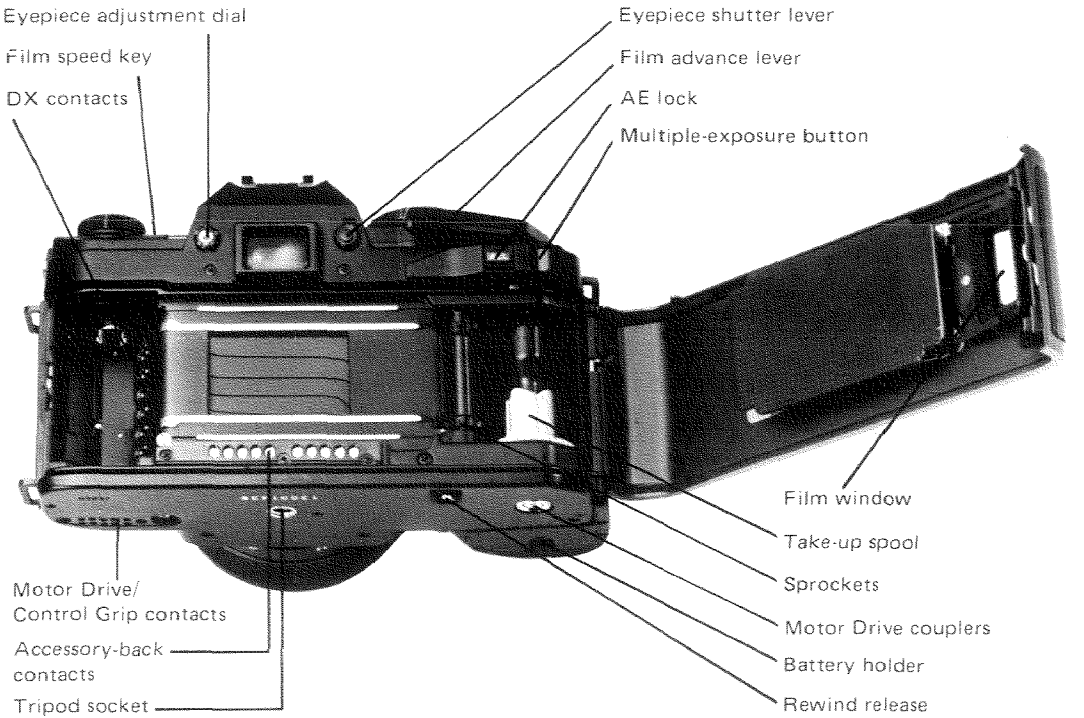


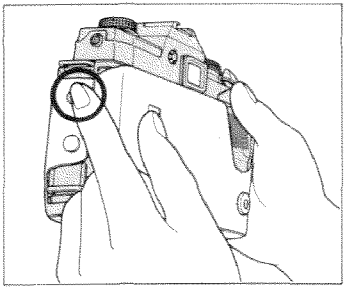


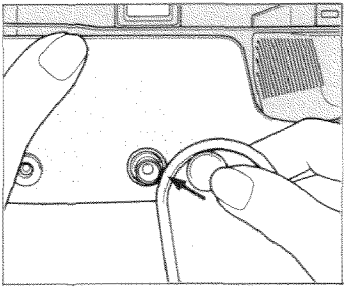
Attaching strap

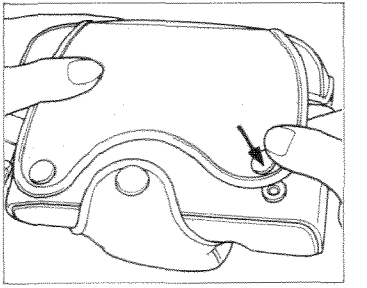
A neckstrap is included with the MAXXUM 9000. It can be attached in either of two ways as shown above

Minolta Camera Co., Ltd.	**30, 2-Chome, Azuchi-Machi, Higashi-Ku, Osaka 541, Japan**
Minolta Corporation	
Head Office	101 Williams Drive, Ramsey, New Jersey 07446, U.S.A.
Los Angeles Branch	3105 Lomita Boulevard, Torrance, CA 90505, U.S.A.
Chicago Branch	3000 Tollview Drive, Rolling Meadows, IL 60008, U.S.A.
Atlanta Branch	5904 Peachtree Corners East, Norcross, GA 30071, U.S.A.
Minolta Canada Inc.	
Head Office	369 Britannia Road East, Mississauga, Ontario L4Z 2H5, Canada
Montreal Branch	376 rue McArthur, St. Laurent, Quebec H4T 1X8, Canada
Vancouver Branch	105-3830 Jacombs Road, Richmond, B.C. V6V 1Y6, Canada
Minolta Camera Handelsgesellschaft m.b.H.	Kurt-Fischer-Strasse 50, D-2070 Ahrensburg, West Germany
Minolta France S.A.	357 bis, rue d'Estienne d'Orves, 92700 Colombes, France
Minolta (UK) Limited	1-3 Tanners Drive, Blakelands North, Milton Keynes, MK14 5BU, England
Minolta Austria Gesellschaft m.b.H.	Amalienstrasse 59-61, 1131 Wien, Austria
Minolta Camera Benelux B.V.	Zonnebaan 39, 3606 CH Maarssenbroek, P.B. 264, 3600 AG Maarssen, The Netherlands
Belgium Branch	Stenen Brug 115 – 117, 2200 Antwerpen, Belgium
Minolta (Schweiz) AG	Riedhof V, Riedstrasse 6, 8953 Dietikon-Zürich, Switzerland
Minolta Svenska AB	Brannkyrkagatan 64, Box 17074, S-10462 Stockholm 17, Sweden
Minolta Hong Kong Limited	Room 208, 2/F, Eastern Center, 1065 King's Road, Hong Kong
Minolta Singapore (Pte) Ltd.	10, Teban Gardens Crescent, Singapore 2260


Eyepiece adjustment dial
Film speed key
DX contacts
Eyepiece shutter lever
Film advance lever
AE lock
Multiple-exposure button
Film window
Take-up spool
Sprockets
Motor Drive couplers
Battery holder
Rewind release
Motor Drive/
Control Grip contacts
Accessory-back
contacts
Tripod socket





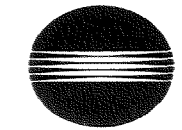


Putting camera in case

Various camera cases are available as optional accessories to the MAXXUM 9000.

To attach:

1. Attach lens cap.
2. With zoom lenses, adjust zoom ring until lens barrel is at its shortest position.
3. Insert camera in case as shown above.



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