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AE PRISM FINDER S

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INSTRUCTIONS

Printed in Japan
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The AE Prism Finder S has been specially designed for exclusive use with the Zenza Bronica SQ-A camera, and converts the SQ-A into a TTL (thru-the-lens) diaphragm-priority automatic exposure camera, powered by the battery in the camera body, when it is mounted in place of other finders.

A bright, distinct laterally-correct and upright image is viewed at the eye-level through the prism viewfinder, while the shutter speed can be checked prior to taking the picture by simply depressing the shutter release button lightly. Further, the AE Prism Finder S functions at manual mode as well as an individual exposure meter by sliding the switch.

To obtain best results from the AE Prism Finder S, may we suggest you to read this instruction manual carefully, as your pleasure in using the SQ-A camera with the AE Prism Finder S will be even greater if you thoroughly familiarize yourself with its operation before trying it for the first time.

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Specifications

Magnification	0.75x, with standard 80mm lens
Finder field	52.3 x 52.3mm (94 x 94%)
Eyeiece diopter	Standard magnifier -1.5 diopters; corrections from -4.5 to +1.5 diopters possible by exchanging magnifier
Exposure measuring	TTL (thru-the-lens) full aperture exposure measurements; full area average readings, with two silicon photocells
Shutter speed range	8 seconds to 1/500 second, in stageless steps on Auto, but in 13 settings on Manual and Off
Exposure measuring range	EV4-EV17 (ASA/ISO 100 film)
Film sensitivity range	ASA/ISO 25 to 3,200
Finder indications	Shutter speed setting as well as Over- and Under-exposure warning marks can be viewed by light-depression of shutter release button on camera body by red-colored LED display.
AUTO/MANUAL switch	Sliding switch type located at right hand side; AUTO - AE circuit automatically controls shutter speed setting (with an illuminated display indicating the shutter speed setting). MANUAL- AE circuit and body control circuit operate independently (with a flickering display indicating the shutter speed for correct exposure).

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Name of Parts



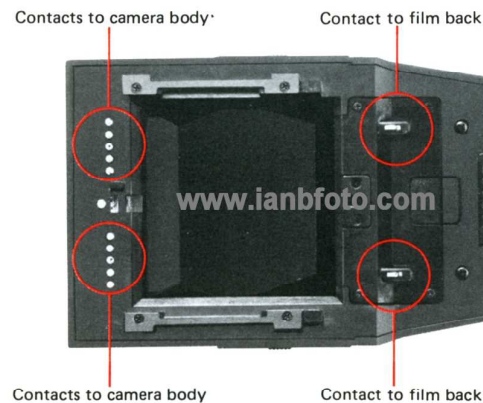
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Power source switch	On - The finder operates at either AUTO or MANUAL. OFF - Turns off the AE circuit of the finder, but camera can be operated by the shutter speed being set by the shutter speed dial regardless AUTO/MANUAL switch setting. No finder indications in those cases.
Dimensions	72mm wide x 134mm long x 61mm high, excluding rubber eyecup
Weight	380 grams

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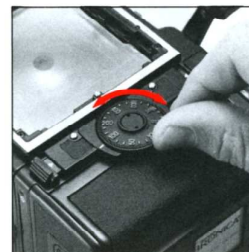


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1 Setting the Film Speed



The film sensitivity of the film loaded in the film back is set with the film speed dial on the film back. As illustrated, rotate the film speed dial with a slight lifting action.

Film Speed Dial Scale (The film speed scale is actually marked as in the center row.)

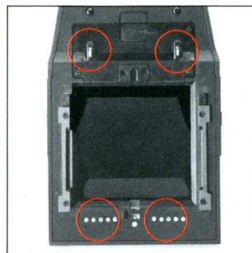
ASA/ISO	25	32	40	50	64	80	100	125	160	200	250	320	400	500	640	800	1000	1250	1600	2000	2500	3200
Scale	25	•	•	50	•	•	100	•	•	200	•	•	400	•	•	800	•	•	1600	•	•	3200
D I N	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36

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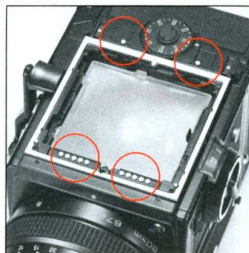
2 Attachment/Detachment of the AE Prism Finder S



A. To detach the finder or the finder cover on the camera body, simply depress the finder release button, while, at the same time, sliding the finder or the finder cover backwards where it can be taken off.



B. Before attaching the AE Prism Finder S, first, wipe the contacts on both the camera body and the finder, with a soft cloth, to obtain optimum contact.



C. To attach the AE Prism Finder S, simply align the front end of the finder with the finder frame (the shiny square frame on top), as illustrated. Then, gently lower the finder and, when well-seated, slide forward until it locks into place.

D. The shutter dial circuit in the camera body is automatically switched off, when the AE Prism Finder S is set at AUTO for automatic exposure operations, upon attachment of the AE Prism Finder S. Therefore, the shutter speed dial on the body can be set to any speed, as it will have no effect on the exposure setting.

E. To detach the AE Prism Finder S, simply follow instructions in "A".

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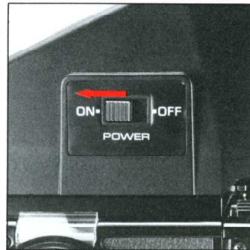
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3 Battery Checking

Simply depress the battery check button on the camera body and a battery check red-colored LED will light up in the central front area of the AE Prism Finder S, if the battery is loaded properly in the camera and if there is sufficient power for operations. (See "Loading the Battery" and "Battery Checking" of the camera instruction manual.)

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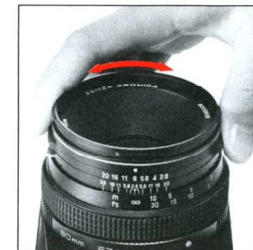
4 Automatic Exposure Operations



A. Turn the power source switch to "ON" by sliding it forward.

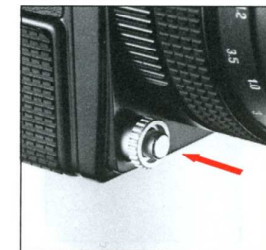


B. Turn the AUTO/MANUAL switch to AUTO by sliding it forward.



C. Rotate the aperture ring of the attached lens and set the required F/ number opposite the white index dot.

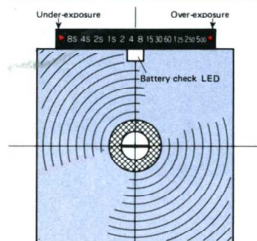
*Intermediate aperture settings are not possible, when the AE Prism Finder S is attached.



D. For shutter speed confirmation, depress the shutter release button lightly. The correct shutter speed will be displayed along the top of screen area by LED illumination.

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5 Manual Exposure Operations

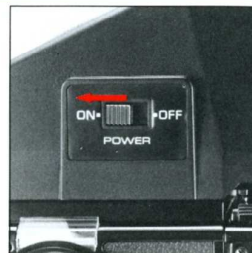


As the red-colored triangular mark indicates under- or over-exposure, rotate the aperture ring until a suitable shutter speed is displayed by LED illumination along the top of screen area.

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The AE Prism Finder S can be used for manual exposure operations, in the following cases:—

- For using a predetermined shutter speed setting.
- For flash photography.
- For time exposures.
- For special effect shots.
- For using as an individual exposure meter.
- For mirror lock-up photography.



A. Turn the power source switch to "ON" by sliding it forward.

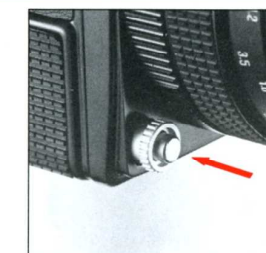


B. Turn the AUTO/MANUAL switch to MANUAL by sliding it backward.



C. Rotate the aperture ring of the attached lens and set the required F/ number opposite the white index dot.

*Intermediate aperture settings are not possible, when the AE Prism Finder S is attached.



D. For shutter speed confirmation, depress shutter release button lightly. The correct shutter speed will be displayed along the top of screen area by flickering LED.

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6 Pointers on Picture-Taking



E. Then, transfer the flicker-displayed shutter speed to the shutter speed dial on the camera body.

- * Use the camera on a solid tripod or otherwise steady it, if the displayed shutter speed is a slow one, i.e., 1/30 second or slower.
- * The displayed setting is a very close approximation of the actual shutter speed.
- * Cover the finder with a black cloth to prevent light entering through the eyepiece, when not looking through the finder during auto-exposure operations.
- * Battery consumption is very great when auto-exposure operations are made with the lens covered by its cap or under extremely dark conditions.
- * Save battery power, by turning the power source switch OFF between shots or when not using the camera.
- * Use the AE Prism Finder S on Manual for flash photography, since there are dangers of very slow shutter speeds on auto-exposure which could result in over-exposures.
- * Use the AE Prism Finder S on Manual for mirror lock-up photography.

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7 Exposure Compensation



Exposure compensation of the indicated exposure setting is possible by utilizing ASA/ISO film speed dial on film back.

A. To compensate toward over-exposure, rotate the ASA/ISO film speed dial to clockwise direction. If, with ASA/ISO 100 film, compensation by 1 EV is required, set ASA/ISO film speed dial at 50 to the index. EV can be changed by 1/3 EV at click stops on ASA/ISO film speed dial.



B. To compensate toward under-exposure, rotate the ASA/ISO film speed dial to anti-clockwise direction. If, with ASA/ISO 100 film, compensation by 1 EV is required, set ASA/ISO film speed dial at 200 to the index. EV can be changed by 1/3 EV at click stops on ASA/ISO film speed dial.

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- * Since the AE Prism Finder S has been designed for exclusive use with SQ-A camera, the finder will not function with SQ camera.
- * The following table shows the shutter functions and finder indications in relation to the power source switch as well as the AUTO/MANUAL switch.
- * Always confirm that the shutter operation is completed, i.e., look for the shutter signal LED-flash in the finder of its

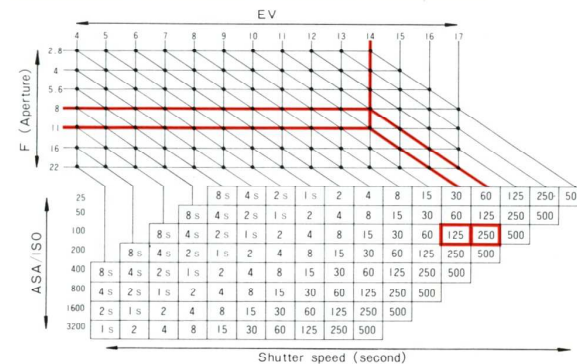
central front. Wait for this signal, especially at slow shutter speeds, before turning the film winding crank, otherwise subsequent one frame will not be exposed normally.

- * Do not press the depth of field preview lever when using the AE Prism Finder S either on AUTO or MANUAL, since the shot will be over-exposed by the difference between the selected aperture and full aperture.

AUTO/MANUAL switch		AUTO	MANUAL
Power source switch			
ON	Shutter	Automatic control	Shutter speed operates by shutter speed dial on camera body.
	Finder indication	LED illumination	Flickering LED
OFF	Shutter	Shutter speed operates by shutter speed dial on camera body.	
	Finder indication	No indication	No indication

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8 Relationship Between Shutter Speed, Aperture and Exposure



- The shutter speed indications are read:
1S — 8S: 1 second to 8 seconds
2 — 500: 1/2 second to 1/500 second

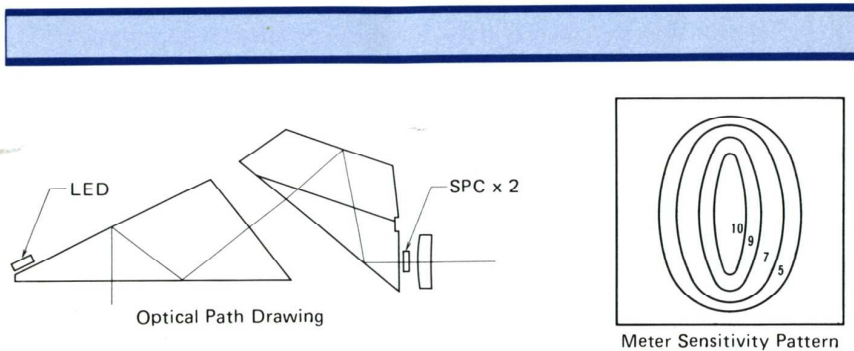
- How to use the Table:
If EV 14 is the correct exposure, with ASA/ISO 100 film, the shutter speed setting will be 1/250 sec., when F/8 is set to the

aperture ring. (See the thick red lines drawn on the table.)

If the aperture should be set to F/11, in the above case, it can be seen that the shutter speed setting will become 1/125 sec. A "brightness of EV 14" is the brightness outdoors on a bright sunny day.

- Exposure Measuring Range
The exposure measuring range with the AE Prism Finder S is EV4 to EV17 (with ASA/ISO 100 film). EV, or exposure value, is a combination of shutter speed and aperture (F/number), as determined by the film speed and the intensity of the light.

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Exposure Measuring Plane

Two silicon photocells (light receptor cells) are located in the position illustrated. Since they are attached parallel to each other, the meter sensitivity pattern is that shown to the right.

Exposure Measuring Sensitivity Pattern

Since the AE Prism Finder S has a full aperture exposure measuring system, it has the sensitivity pattern illustrated no matter what the aperture setting. In the above pattern, the numbers indicate the ratio of sensitivity for the zones. Thus, if the sensitivity of the innermost "10" zone is considered to be 100, the outermost "5" zone is 50%.

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10 Care and Storage

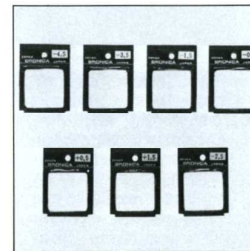
- Cleaning of the magnifier and prism should be restricted to blowing with the blower brush, after which lens cleaning tissue and liquid should be used to lightly wipe the surfaces.
Do not use silicon-coated cloth, as it will prove harmful to the coating.
- However, use the silicon-coated cloth, or a soft cloth, to clean the exterior of the accessory and never use solvents, such as lens cleaning liquid, alcohol or thinner, for this purpose.
- Do not leave the accessory for a long time in extremely hot locations, such as summer beach or car parked in the sun, as the accessory may be affected, leading to improper exposure measurements and even to damage.
Should the camera and accessory become

over-heated, under the above circumstances, let them return to the ambient temperature level before using them.

- Wipe and clean the accessory very carefully after using it in wet weather or at the seashore.
- If the accessory has been exposed to salty air (or water), wipe the exterior carefully with a well-wrung damp cloth (using fresh water). Then, dry with a soft, dry cloth. And, have the accessory inspected at the authorized repair station, if necessary.
- Store the accessory in a tin-lined container, with plenty of desiccant, such as silica gel, if it is not being used for some time. And, store in a cool, dry and well-ventilated (but not windy) location, free of naphthalene and/or camphor.

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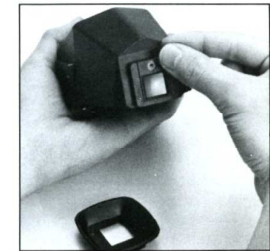
9 Exchanging the Magnifier



1) The standard magnifier supplied with the AE Prism Finder S has a power of -1.5 diopters. When found unsuitable, however, it can be exchanged for one of six optional magnifiers with powers of -4.5 , -3.5 , -2.5 , -0.5 , $+0.5$ and $+1.5$ diopters.



2) To exchange magnifier, first, detach the eyecup. Then, unscrew the set-screw on the magnifier frame and it will be possible to remove the magnifier together with the frame.



3) To attach the replacement magnifier, simply place the bottom edge of the frame into position and then screw in the setscrew at the top of the frame.

4) Finally, replace the eyecup.

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