

AE Prism Finder G Instructions

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AE PRISM FINDER G

INSTRUCTIONS

The AE Prism Finder G has been specially designed for exclusive use with the Zenza Bronica GS-1 single lens reflex camera and converts the GS-1 into a TTL (thru-the-lens) aperture-priority automatic exposure (AE) camera, powered by the battery in the camera main body, when it is mounted in place of other finders, with a bright, distinct, laterally-correct and upright image viewed at the eye-level through the prism viewfinder.

The shutter speed indication, etc., which is observed in the LED display outside and above the focusing screen area in the finder, is illuminated steadily in the case of automatic exposure operations and flashes on and off in the case of manual exposure operations. To obtain best results from the AE Prism Finder G, may we suggest that you read this instruction manual carefully, before you even touch the accessory, as your pleasure in using the accessory will be even greater if you thoroughly familiarize yourself with its operation first.

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Specifications

Magnification	0.87x, with standard 100mm lens
Finder field	52.3 x 64.9mm (94% x 94%)
Eyepiece diopter	Standard magnifier is -1.5 diopters; corrections from -4.5 to +2.5 diopters are possible by exchanging the magnifier.
Exposure measurement	TTL (thru-the-lens) full aperture exposure measurements; full area average readings, with two silicon photocells.
Shutter speed range	16 seconds to 1/500 second, with coupling in 1/8th steps on AUTO.
Exposure measurement range	EV2 - EV17 (ASA/ISO 100)
Film sensitivity range	ASA/ISO 3 to 6,400
Exposure compensation	± 3 steps, in 1/3rd increments.
Exposure control mode	Aperture-priority automatic exposure (AE) and manual.
Finder indications	5 digit 7 segment LEDs. Aperture-priority AE - Shutter speeds, with intermediate 1/2 stop speed also indicated between 1/2 to 1/500 sec. Manual - Preset shutter speed, as well as difference against proper exposure setting. Other indications - AE lock, shutter release warning and flash readylight which are indicated with LED dots; brightness of 7 segment indication is automatically switch becomes brighter for shutter speeds faster than 1 sec. and becomes darker for shutter speeds slower than 1 second.

AE lock

Dimensions

Weight

AE lock for 16 seconds.

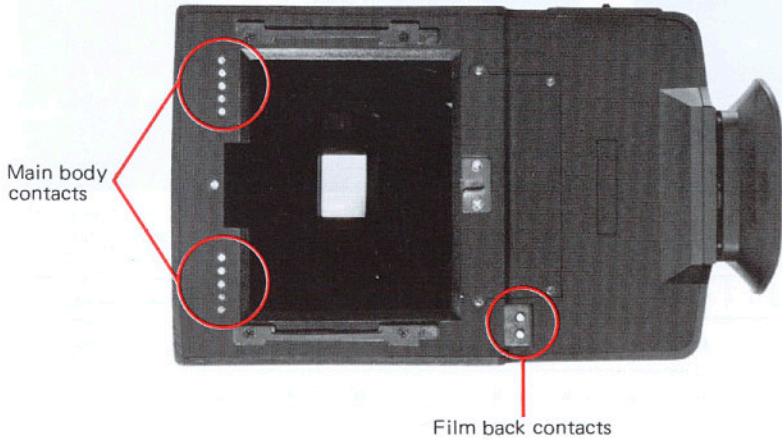
84mm wide x 134mm long x 58mm high (excluding rubber eyecup)

460 grams

The above specifications are subject to changes without prior notice when necessary for the purpose of improving performance.

Name of Parts





Main body contacts

Film back contacts

1 Setting the Film Speed



The film sensitivity of the film loaded in the film back is set with the ASA/ISO film speed dial on the film back. First, depress the lock button in the center of the film speed dial. Then, rotate the dial and set the required film speed to the index. The dial has click-stops at 1/3rd increments.

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

ASA/ISO	3 4 5 6 8 10 12 16 20 25 32 40 50 64 80 100 125 160 200 250 320 400 500 640 800 1000 1250 1600 2000 2500 3200 4000 5000 6400
Scale	3 · · 6 · · 12 · · 25 · · 50 · · 100 · · 200 · · 400 · · 800 · · 1600 · · 3200 · · 6400
DIN	6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39

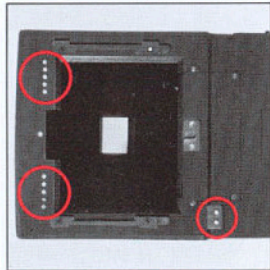
2 Attachment and Detachment of the AE Prism Finder G



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 G, first, wipe the contacts on both the camera body and the finder, with a soft cloth, to obtain optimum contact.



3 Battery Checking

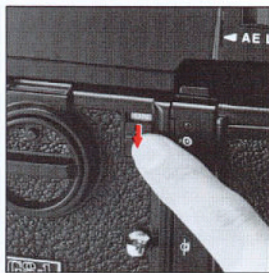


C. To attach the AE Prism Finder G, simply align the front end of the finder with the finder frame (the shiny rectangular frame on top), as illustrated.

Then, gently lower the finder and, when well seated, slide forward until it locks into place.



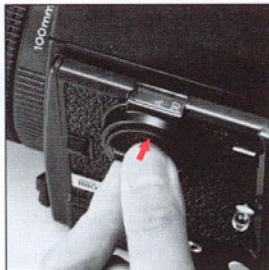
D. To detach the AE Prism Finder G, refer to the instruction in A.



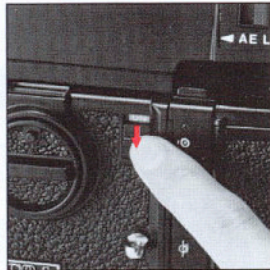
First, push the main switch on the main body down (ON). Then, stroke the shutter release button halfway. If the battery is inserted correctly and there is sufficient battery power for operations, the LED display in the finder will light up steadily or flicker as the case may be. (See page 8 of the instructions for the Zenza Bronica GS-1).

4 Automatic Exposure Operations

The shutter speed is controlled in 1/8th steps, from 16 seconds to 1/500 second, when the AE Prism Finder G is set for aperture-priority automatic exposure (AE) operations.



A. To set the AE Prism Finder G for aperture-priority AE operations, set the shutter speed dial to "A". First, press the shutter speed dial lock button and rotate the shutter speed dial, at the same time, to set "A" in the shutter speed scale window.

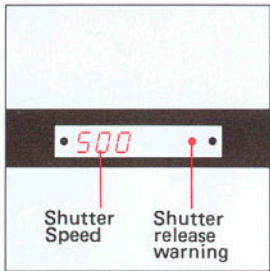


B. Push the main switch on the camera main body down (ON).



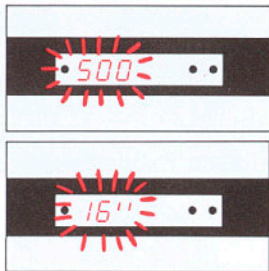
C. Next, rotate the aperture ring and set the required F/number opposite the white index dot. The aperture ring has click-stops at the numbered settings, as well as intermediate 1/2 stop settings.

* The aperture ring cannot be used between click-stops for AE operations.

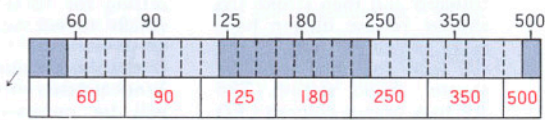
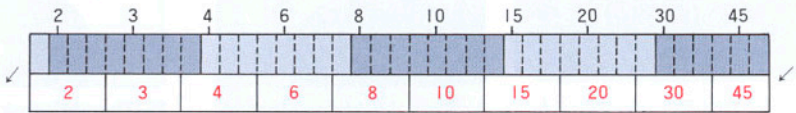
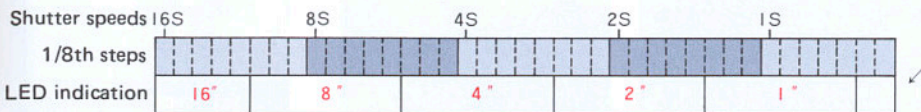


D. To check the shutter speed setting, stroke the shutter release button half-ways and it will be indicated in the LED display in the finder, in 3 digits of 7 segments. The shutter speed will be indicated in 1/2 settings (between 1/500 to 1/2 sec.), too.

See the following table for the scope of the indication for the proper exposure.



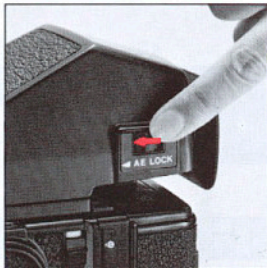
E. When the proper exposure setting is beyond the range of shutter speeds coupling for AE exposure operations, "500" will flicker at 4Hz when there is overexposure greater than 1/500 second and "16'' will flicker when there is underexposure greater than 16 seconds. In such cases, rotate the aperture ring until the required shutter speed is displayed.



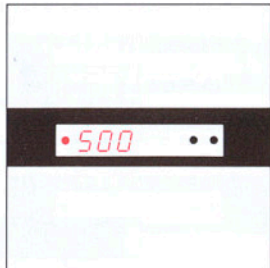
The above indications are automatically switched in brightness and become brighter at faster speeds than 1 second and become darker at slower speeds than 1 second.

5 AE Lock Operations

The shutter speed can be locked, in aperture-priority AE operations, when it is necessary to overexpose or underexpose for creative purposes. Or, for AE operations with the mirror locked up, first, set the AE lock, then lock the mirror up and, finally, press the shutter release button.

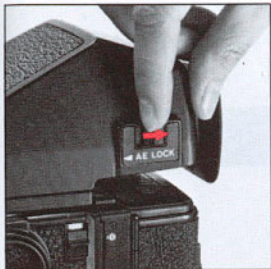


A. Slide the AE lock button, on the AE Prism Finder G, forward and then stroke the shutter release button half-ways, which will activate the AE lock and memorize the shutter speed setting. The AE lock orange-colored LED will also light up on the left end of the LED display in the finder.



* The AE lock will hold the memorized shutter speed setting for 16 seconds after which it will automatically go OFF.

If the shutter release button is not pressed in this time, it will be necessary to take another reading and activate the AE lock.



B. Upon completing AE lock operations, reverse the AE lock button.

Or, push the main switch up (OFF), when it is required to release the AE lock before the 16 second holding period is over.

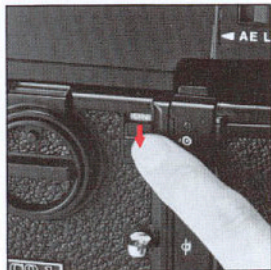
6 Manual Exposure

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

- 1) For using a predetermined shutter speed.
- 2) For flash photography.
- 3) For time and bulb exposures.
- 4) For special effect shots.
- 5) For use as an exposure meter.

Manual exposure operations are possible in the aperture-priority mode or the shutter speed-priority mode.

7 Aperture-Priority Manual Exposure

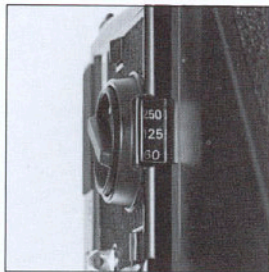


A. Push the main switch on the camera main body down (ON).



B. Rotate the aperture ring and set the required F/number to the white dot index. The ring should be set to the numbered settings and intermediate 1/2 stop settings, which have click stops.

* The aperture ring should not be set between click-stops, when using the AE Prism Finder G.

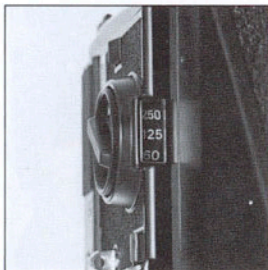


C. Set the shutter speed dial on the main body to any setting, excluding "A". First, press the shutter speed dial lock button and, then, turn the shutter speed dial at the same time to the required setting. All settings, except "A", have click-stops and do not require pressing the lock button for setting.



D. Stroke the shutter release button halfway, and the shutter speed set will flicker on the LED display in the finder, together with a two digit number to its right. The 2 digits are illuminated steadily and indicate the difference from the proper exposure, in 1/2 stop increments, up to ± 3 stops. When the difference is more than ± 3 stops, 3 or -3 will be displayed flickering.

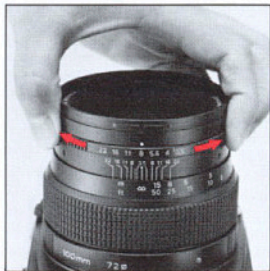
8 Shutter Speed-Priority Manual Exposure



E. When over(+) or under (-) is displayed in the finder, rotate the shutter speed dial until "0" is displayed.

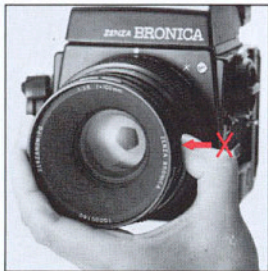
A. Set the required shutter speed setting, by rotating the shutter speed dial on the camera main body.

B. Exposure measurement by stroking the shutter release button halfway is the same as in the case of aperture-priority manual exposure operations.



C. Rotate the aperture ring and display "0" in the finder, in the same manner as for aperture-priority manual exposures.

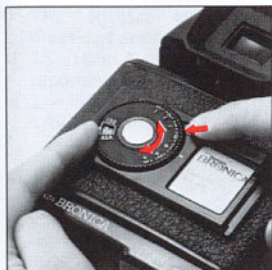
* Use the aperture ring on click-stops only, which means that 1/2 stops can be used but 1/4 stops cannot be used.



* Do not press the depth of field preview lever during exposure measurement, when using the AE Prism Finder G for both aperture-priority and shutter speed-priority manual exposure operations, since the shot will be over-exposed by the difference between the indicated setting and the full aperture.

Exposure compensation of the indicated exposure setting is possible, up to 3 steps in both plus (over) and minus (under) directions, in 1/3rd increments, by simply utilizing the exposure compensation dial on the Film Back GS.

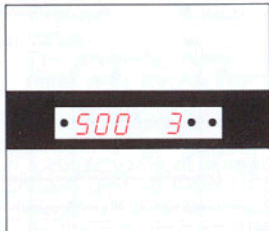
When exposure compensation is not required, simply set the exposure compensation dial to "0", at which position the dial will be locked.



A. To set the required compensation, slide the exposure compensation dial lock button, in the direction indicated by the arrow, and, at the same time, rotate the exposure compensation dial, as required.

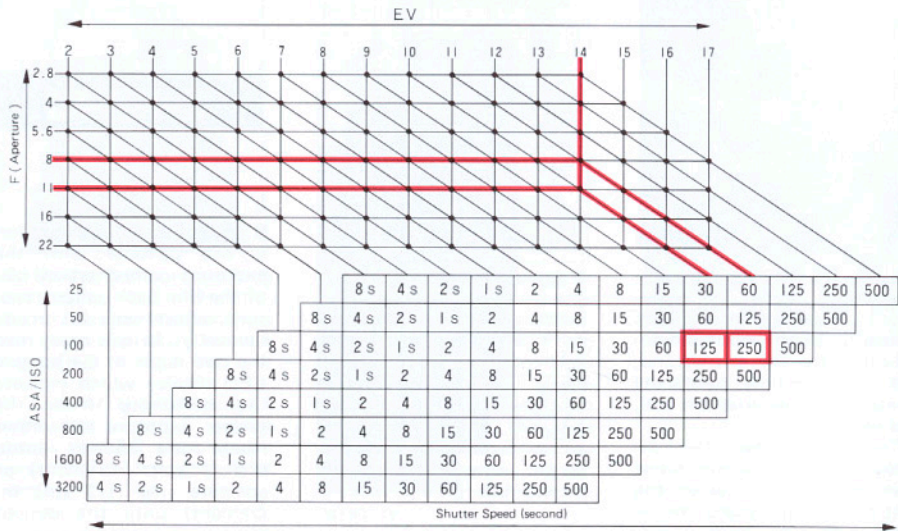
The table shows the exposure compensation range which is possible when the ASA/ISO film speed dial is set at the low or high sensitivity end.

Compensation ASA/ISO	-3	-2	-1	0	+1	+2	+3
3					×	×	×
6						×	×
12							×
25							
50							
100							
200							
400							
800							
1600							
3200	×						
6400	×	×					

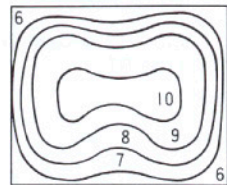
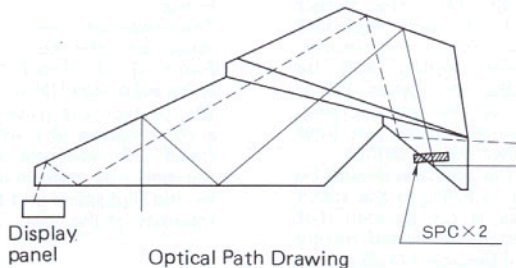


B. Exposure compensation is not possible with the exposure compensation dial of the film back, when exposure adjustments are made manually. In this case, read the two digits of the finder's LED display which indicate the difference from the proper exposure and either rotate the shutter speed dial (1 stop increment) or aperture ring (1/2 stop increment) until the desired exposure compensation is obtained. (17)

10 Relationship Between Shutter Speed, Aperture and Exposure



- The shutter speed indications are read:
1S–16S: 1 second to 16 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 G is EV2 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.



Meter Sensitivity Pattern

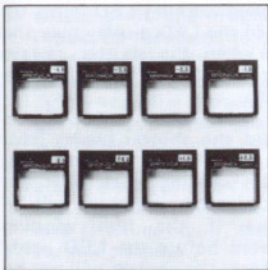
Exposure Measuring Plane

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.

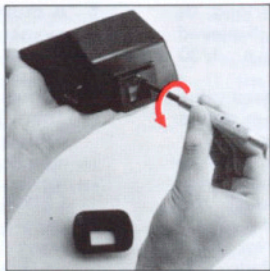
Exposure Measuring Sensitivity Pattern

Since the AE Prism Finder G 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 "6" zone is 60%.

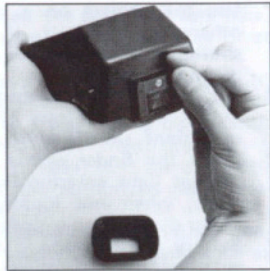
11 Exchanging the Magnifier



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



B. To exchange magnifier, first, detach the eyecup. Then, unscrew the setscrew on the magnifier frame and it will be possible to remove the magnifier together with the frame.



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

D. Finally, replace the eyecup.

12 Pointers on Picture-Taking

- * 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.
- * For the scope of the shutter speed value indicated, in the case of auto-exposure operations, see the table on page 11.
- * 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 main switch OFF between shots or when not using the camera.
- * Use the AE Prism Finder G on Manual for flash photography, as there is danger of overexposures when used in the auto-exposure mode.
- * A shutter release warning LED lights up momentarily in the LED display over the screen area, when the shutter release button is pressed, whether operations are manual or auto.
The LED signals that the exposure is completed and the shutter blades have closed. When using a slow shutter speed, rotate the film winding crank after the LED lights up; otherwise there will be under-exposure if the film winding crank is rotated before the LED lights up. Furthermore, the shutter will not be released on the following shot until the remaining time for the previous exposure has elapsed.
- * The first shot of AE operation with AE lock and the mirror locked-up is possible. However, the consecutive mirror locked-up shot can not be taken by AE. Therefore, when the continuous mirror lock-up operations are desired, turn to Manual mode.

13 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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