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Mamiya M645

CdS Prism Finder Instructions




Mamiya
CAMERA CO., LTD.

● Special Features

1. The CdS Prism Finder is an eye-level finder with a built-in CdS exposure meter for accurate exposure measurement.
2. It couples to the aperture when attached to the camera.
3. An exposure meter indicator needle is visible in the viewfinder to indicate correct exposure.

● Specifications

Viewfinder: Unreversed, laterally correct image; 0.74× magnification with standard 80mm lens at infinity; built-in hot shoe and equipped with an eyecup.

Metering System: Center-weight TTL full-aperture, zero-method via indicator needle.

Meter Coupling Range: (with f/1.9 lens and 100 ASA film)
EV2.85 — 17
(f/1.9, 1/2 sec. — f/11, 1/1000 sec.)
(with f/2.8 lens and 100 ASA film)
EV4 — 18
(f/2.8, 1/2 sec. — f/16, 1/1000 sec.)

Shutter Speed Range: 1/1000 — 1 sec.

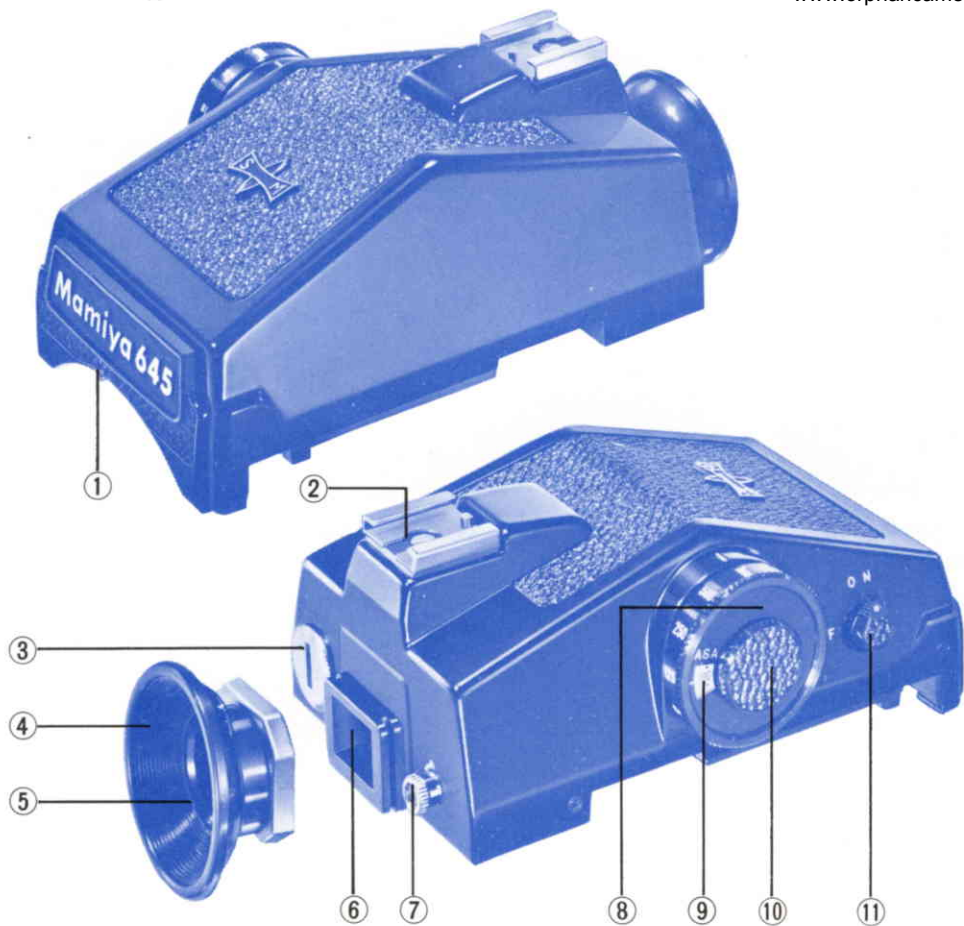
ASA Range: 25 — 6400

(Aperture coupling in the entire range)

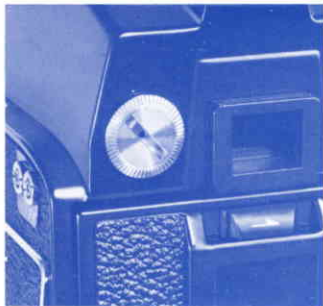
Power Source: One 1.5 V silver oxide battery

Names of Parts

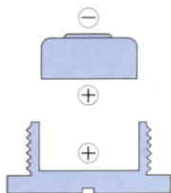
1. Aperture ring coupling pin
2. Hot-shoe
3. Battery chamber cover
4. Eyecup
5. Diopter correction lens retainer ring
6. Eyepiece
7. Finder release button
8. Shutter speed dial
9. ASA window
10. ASA dial
11. Power switch



● Inserting the Battery



This finder utilizes a 1.5V silver oxide battery (Eveready S-76, Mallory MS-76 or equivalent) as the power source.



1. Remove the battery chamber cover by rotating it counter-clockwise with the aid of a coin.

2. The underside of the battery chamber cover bears a + mark. Be sure to have the + marks of battery and chamber cover face each other as the battery is inserted. Then securely retighten battery chamber cover.

★Wipe battery with a soft cloth before inserting into battery chamber, as a soiled battery may fail to make, or maintain, proper contact.

There are four electrical contacts on the upper, rear plane of the camera body and on the bottom plane of the finder. Oil or fingerprints on the contacts will result in faulty power conduction.

Always completely wipe off oil or dust with a clean cloth before attaching the finder.

★When the finder is not used for a long period of time, remove the battery and store it in a cool, dry place.

★Never throw used batteries into a fire, or attempt to charge a battery.

Method of Use

Prior to attaching the finder to the camera, confirm that the white dot on the finder release button is pointing upward.

If the white dot on the button is aligned with the white dot on the finder, by depressing the button and removing your finger from it, the white dot on the button will automatically point upward. In this condition, the button cannot be depressed; consequently, the finder will not be accidentally detached from the camera.



1. Place the rear part of the finder on the camera body while holding the front part of the finder slightly upward. Slide the rear part forward until it stops and gently lower the front part of the finder onto the camera body then firmly depress the finder downward. It will then lock into place.

Precaution:

Do not leave both white dots aligned by turning the button while the finder is attached to the camera. The finder may become detached when the button is occasionally depressed, possibly causing damage.

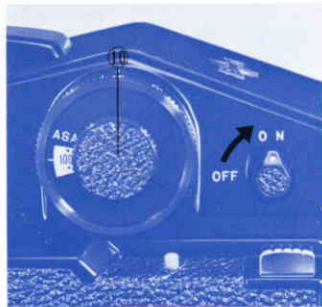
If you depress the button to point the white dot upward while the finder is attached to the camera, be sure to depress the finder against the camera body; otherwise the finder will not be locked into place.

★ **Always set the AM Lever of the lens to "A", otherwise correct exposure cannot be obtained. For the same reason, do not touch the depth-of-field preview lever of the M645 1000S whenever making an exposure measurement.**



2. Turn the lens aperture ring to the left or right where the coupling pin (1) is located, whereby the aperture ring and the exposure meter coupler (A) are automatically connected.

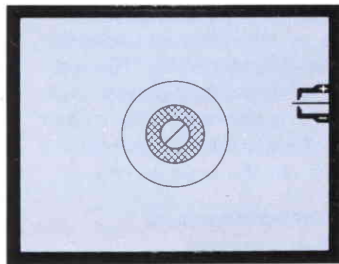
★ Always confirm the connection. If the coupling pin cannot be connected, use a small stick to push the pin toward the coupler.



3. Set the meter of the CdS Prism Finder to the correct ASA. To do so, pull out and rotate the ASA dial (10) so that the appropriate ASA number appears in the window, aligned with the index mark.

4. Turn the exposure meter switch to ON.

ASA	DIN
6400	(39)
(5000)	• (38)
(4000)	• (37)
3200	(36)
(2500)	• (35)
(2000)	• (34)
1600	(33)
(1250)	• (32)
(1000)	• (31)
800	(30)
(650)	• (29)
(500)	• (28)
400	(27)
(320)	• (26)
(250)	• (25)
200	(24)
(160)	• (23)
(125)	• (22)
100	(21)
(80)	• (20)
(64)	• (19)
50	(18)
(40)	• (17)
(32)	• (16)
25	(15)



5. Set the shutter speed dial on the camera body to the desired speed, **and then set the shutter speed dial of the CdS Prism Finder to the same speed.**

(Examples of recommended shutter speeds to use with 100 ASA film would be 1/250, or 1/125 sec. outdoors on a sunny day, 1/125 or 1/60 sec. outdoors on a cloudy day, and 1/30 sec. when working indoors.)

6. To set the correct exposure, rotate the aperture ring until the

exposure meter indicator needle visible in the viewfinder is centered between the two brackets visible on the right-hand side of the focusing screen.

If the indicator needle cannot be centered even after rotating the aperture ring as far as it will go, the exposure must be adjusted by rotating the CdS Prism Finder shutter speed dial. If the indicator needle is too high, set the shutter speed dial to a shorter ("faster") speed; if too low, set to a longer ("slower") speed. After adjusting the shutter speed dial of the CdS Prism Finder, if the indicator needle is slightly off-center, make final adjustments with the aperture ring.

7. Whenever changing the setting of the shutter speed dial of the CdS Prism Finder to adjust

for exposure, do not forget to set the shutter speed dial of the camera body to the same setting.

After the above steps have been completed (centering of the indicator needle), exposure setting should be correct, and the picture may be taken.

● Aperture Priority Method

1. When desiring to set the aperture first, set the aperture ring to the desired f/stop, and then adjust for exposure by rotating the shutter speed dial of the finder until the indicator needle is centered between the brackets.

2. Check the setting of the finder shutter speed dial, and **set the same setting on the shutter speed dial of the camera.**

★When adjusting for exposure with the CdS Prism Finder shutter speed dial, do not use any

intermediate positions, but always set the dial to a click-stop. If the indicator needle cannot be perfectly centered with the shutter speed dial at a click-stop position, make final adjustments with the aperture ring.

● Correct Exposure Measurement

★The TTL metering system of your CdS Prism Finder makes it unnecessary to consider such factors as the difference in angle of view of interchangeable lenses, filter factors, or exposure increase for macrophotography. (For accurate exposure measurement when taking close-ups, be sure to carefully read the instructions packed with the auto bellows, reverse ring, etc.)

★In macrophotography, the amount of light reaching the film

varies in accordance with the extension of the auto bellows, extension rings, etc. Consequently, for accurate results be sure to first focus on the subject before taking an exposure measurement.

★To prevent extraneous light from entering the eyepiece and influencing the exposure reading, keep your eye close to the eyecup when making an exposure measurement.

● Meter Coupling Range

The range of usable shutter speeds varies in accordance with the film speed (ASA). As the shutter speeds shown in the shaded area of the diagram below are beyond the range of the meter, the shutter speed dial is provided with a safety lock to prevent one from entering the non-usable zone. For example, it can be seen from the diagram that 1/8 sec. is in the non-usable zone when using film rated at 800 ASA (or higher); consequently, when the ASA dial of the CdS Finder is set to 800, the shutter speed dial cannot be set to 1/8 sec.

★To conserve battery power, keep the exposure meter switch set to OFF whenever the meter is not in use. Even when forgetting to set the switch to OFF, whenever the CdS Prism Finder

is removed from the camera, the exposure meter is automatically switched off because of the small safety switch built into the bottom of the finder.

Usable Shutter Speeds (unshaded area)

A S A	Shutter Speeds (sec.)										
	1	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{8}$	$\frac{1}{15}$	$\frac{1}{30}$	$\frac{1}{60}$	$\frac{1}{125}$	$\frac{1}{250}$	$\frac{1}{500}$	$\frac{1}{1000}$
25											
50											
100											
200											
400											
800											
1600											
3200											
6400											

Diopter Correction Lenses



(When - Diopter Lenses are used)



(When + Diopter Lenses are used)

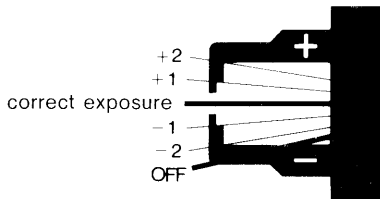
As an accessory, Mamiya offers diopter correction lenses which can be attached to the Prism Finders. Nearsighted and farsighted persons will find these accessories useful for obtaining accurate focus. Diopter Correction Lenses in six strengths are available, -3, -2, -1, +1, +2, and +3 diopters.

Merely unscrew (counterclockwise) the diopter correction lens retainer ring (5) from the eyecup, insert the necessary correction lens, where the lens direction must conform to those shown in the diagram, and replace the retainer ring. Then slide the eyecup on the eyepiece of the finder for easier focusing.

● Exposure Compensation under Special Photographic Conditions

When photographing under such special conditions as described below, it is necessary to somewhat compensate the exposure as required for conventional average-metering exposure meters.

The brackets visible in the viewfinder not only indicate correct exposure, but are also notched to indicate ± 2 f/stops (see diagram) to simplify exposure compensation for unusual lighting. When the exposure meter switch is set to OFF, the indicator needle rests at the bottom position.



● Compensation Hints

1. For strongly back-lit subjects outdoors, set the exposure to +1.
2. To photograph a person indoors, seated next to a window and strongly back-lit, set the exposure to +2.
3. When photographing interiors, to compensate for the bright interior lights, set the exposure to +1 or +2.
4. When copying white documents, set the exposure to +2. If a standard gray card is used to determine exposure, no correction is necessary.
5. When photographing a brightly lit subject against a dark background, such as a night club performer, set the exposure to -1 or -2.
6. Brightly lit night scenes, such as city streets, are usually rendered most naturally with the correct exposure.
7. When photographing extremely dark subjects (e.g. close-up of a black cat), set the exposure to -1.

Precaution:

When using Auto Extension Rings, first attach the extension rings to the lens; then mount the assembly on the camera body and finally connect the coupling pin.

(Note that the aperture ring coupler of the extension rings is rotatable the full 360°. If the coupler ring is rotated when the lens is not attached, the coupling pin will be fully pressed to the right end. Should pressing force be further applied, the coupling pin may be damaged. Exercise care!)

