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KONICA

LIGHT METER

for the **KONICA FS**



KONICA LIGHT METER

The KONICA LIGHT METER is designed for use with the KONICA FS single lens reflex camera. It is a reflected light, battery-powered photocell exposure meter which clips on to the camera, with the shutter speed dial of the meter mechanically coupled to the shutter speed dial of the camera.

The photosensitive element of this light meter is a semi-conductor, cadmium sulphide (CdS), which is far more sensitive than the conventional selenium photocell. This permits the measurement of the light value of subjects too dark for selenium. Moreover, because the coverage angle of 40° approximates the picture angle of the standard lens, accurate determination of exposure settings can be made from picture-taking position.

GENERAL DESCRIPTION

Cross-Coupling System:

Mechanical coupling of shutter speed dials, direct reading of aperture setting for manual selection.

Measurement Principle:

Reflected light pick up by cadmium sulphide photocell, high and low LV ranges.

Sensitivity Range:

LV 2 (1 Sec. at f/2) through LV 17 (1/1000 Sec. at f/16) when using filmspeed ASA 100.

Coverage Angle:

40° diagonally across frame.

Photosensitive Element:

Cadmium sulphide (CdS) semi-conductor, 5.5×8.4mm.

Power Source:

1.3 volt mercury dry battery (Mallory 625 or 630, Toshiba TH-NC, or National MD).

Power Source Check:

Mercury battery can be checked by pressing battery check button and reading meter indication.

Filmspeed Range:

ASA 6 to ASA 3200 DIN 9 to DIN 37.

Shutterspeed Dial Settings:

B. 1 to 1/1000 Sec.

Aperture Scale Range:

f/1.4 through f/16.

CAUTIONS:

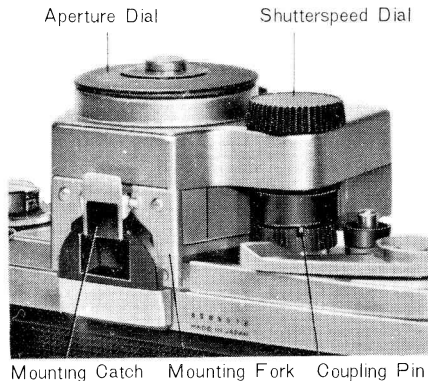
When not using the KONICA LIGHT METER, do not fail to turn selector switch to "OFF" position.

Do not to expose excessive humidity and heat (not more than 60° C).

Do not subject to vibration or shock.

When storing for any length of time, remove from leather carrying case, and place in dry wooden box with some desiccant. Avoid storing in metallic container.

MOUNTING THE LIGHT METER ON THE CAMERA

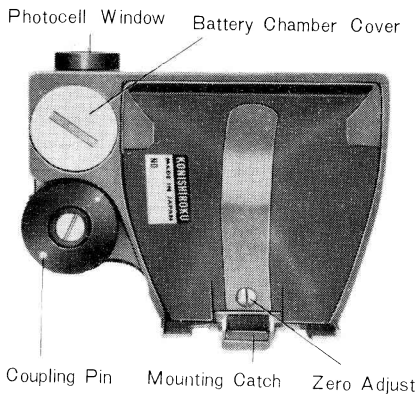


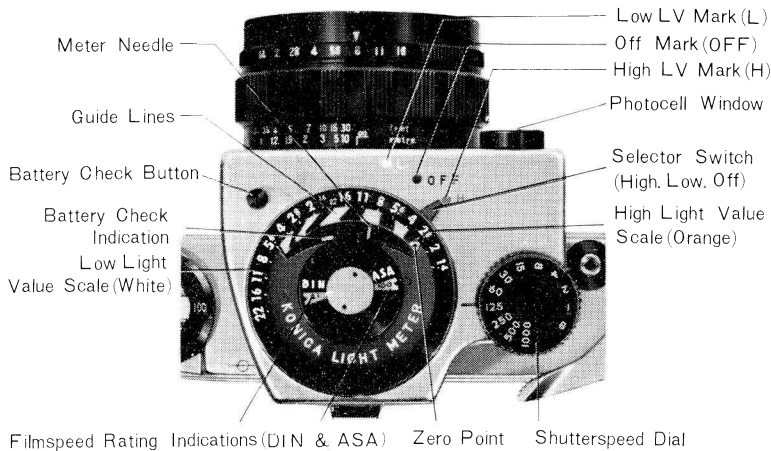
- (1) While keeping the mounting catch open, fit KONICA LIGHT METER over top of pentaprism housing so that the mounting fork slips squarely over the accessory mount below the eyepiece guard. Release mounting catch to permit it to hook on eyepiece guard.

- (2) Turn the shutter speed dial, either to the right or to the left, until coupling pin catches on camera shutter speed dial, and both dials turn together.

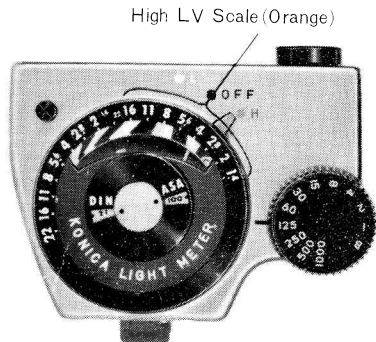
**TO REMOVE
FROM CAMERA**

Open the mounting catch, and lift the light meter upward and away from the camera.





HOW TO USE FOR PICTURE-TAKING



Aperture setting $f/4$ is indicated

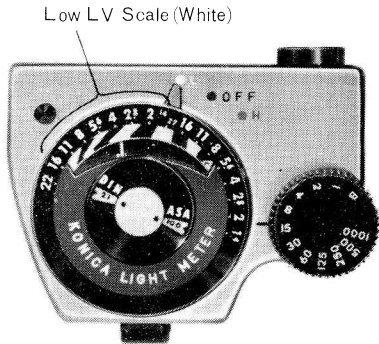
- Set filmspeed on your **KONICA LIGHT METER**

Turn the aperture dial until the speed rating of the film you are using appears in the opening of the filmspeed rating indication (either DIN or ASA).

- When subject is brightly lit

When the subject is brightly illuminated (in bright sunlight or under good artificial lighting) turn selector switch to $\approx H_2$ (high LV position). Choose your shutter speed, depending generally on your subject, and set the shutter speed dial accordingly. Point your camera toward the subject. The light reflected by the subject will strike the photocell, and cause a deflection of the meter needle. Because selector switch is at $\approx H_2$ position, read orange-colored, high LV scale to obtain aperture setting (f/value). Set your camera aperture control to this value. If, because brightness of subject is insufficient, the meter needle is not deflected onto the orange-colored, high LV scale, turn shutter speed dial to slower speed.

**WHEN NOT USING KONICA LIGHT METER, ALWAYS
TURN SELECTOR SWITCH TO $\approx \text{OFF}$ POSITION.**



Aperture setting $f/2.8$ is indicated

■ When subject is dimly lit

When illumination is not bright (indoors, away from window, or under poor artificial lighting) turn selector switch to 'L' (low LV position). Set shutter-speed at speed suitable for the subject. Point

camera toward subject, and read white, low LV scale to obtain aperture value. If the meter needle stays on the high LV scale, and does not move over onto the white, low LV scale, turn shutter speed dial to slower speed setting.

If the meter needle is deflected all the way across the scale, the subject is too bright for low LV range ($\approx L_2$ position). Turn selector switch to $\approx H_2$, and use orange-colored, high LV scale.

■ **When aperture is pre-set at some desired value**

If, for any reason, you wish to take a picture at a given aperture setting, first adjust aperture control to desired value, then turn selector switch to either $\approx H_{\approx}$ or $\approx L_{\approx}$ position. Point camera toward your subject, then by turning the shutter speed dial bring the high or low LV scale (depending on position of the selector switch) graduation indicating the aperture value you have selected on your camera into alignment, through the guide line, with the meter needle. You will then automatically obtain the correct shutter speed for the aperture size you have chosen beforehand.

In this case, do not leave shutter speed dial at intermediate positions. Move to click stop position, and make fine adjustments by means of aperture control.

SPECIAL WAYS OF USING YOUR KONICA LIGHT METER

The KONICA LIGHT METER functions on reflected light to indicate correct settings for optimum exposure. Consequently, in common with all meters of this type, there may be situations in which simple measurement of brightness from the picture-taking position will not give satisfactory results. Extraneous lights and reflections may cause distortion of measured values. In the cases described below, use special procedures.

Scenery with big amounts of bright sky. The bright sky will cause the meter to indicate higher light value than that appropriate for the foreground and main subject-matter. In such cases, measure brightness of the subject at close range, or point your camera toward the foreground to eliminate most of the sky, choosing some reference spot midway between your feet and the horizon or skyline.

When photographing people against bright background (reverse lighting) or when brightly lit subject is

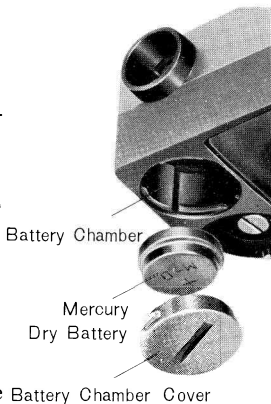
photographed against dark background. Measure brightness of subject at close range (the closer the better) to minimize the effects of the background. If brightness measurement is done from picture-taking position you will obtain under- or overexposed negatives.

When performing copying work. See that subject and photocell window are squarely face to face. If subject is a white sheet of paper, the correct value will be indicated. If subject is dark (or black portions predominate), cover with white paper when determining exposure.

When using color film. The normally bright portions of the subject matter should be used as the standard for light value measurement. In the case of color photography, the contrast between bright and dark portions (color balance) of the subject is as important as correct overall exposure. The ideal ratio for good color balance is 1 : 4 for dark versus light portions.

■ POWER SOURCE CHECK

When you press the battery check button, the meter needle should move and point to the battery check indication. If deflection of the meter needle is below this mark, the mercury dry battery powering the KONICA LIGHT METER should be replaced. Mercury dry batteries are not prone to self-discharge, while their potential remains fairly constant until the end of service life. Sudden drop of voltage at end of capacity is a characteristic of this type of battery.



MERCURY DRY BATTERY REPLACEMENT

To change battery, use coin to turn counterclockwise the battery chamber cover on underside of the light meter. A slight twist will unlock cover for easy removal. Replacement batteries are standard mercury cells available on the market (1.3 volt, Mallory 625 or 630, Toshiba TH-NC, or National MD). Place the positive (+) side of the battery on the inside of the cover. Insert battery and cover in the battery chamber, and twist to the right to secure.

ZERO ADJUSTMENT

If, when the selector switch is at "OFF" position, the meter needle does not indicate "0", correction can be made by turning the zero adjust screw on the underside of the light meter. Use a small screwdriver, turning gently right or left until needle is zeroed in.

SEKONIC STANDARD REFLECTOR BOARD

This standard reflector board is of neutral coloration, and is designed to reflect 18% of the light impinging upon it. Since under any lighting condition it will reflect only 18% of the light to which it is exposed, it serves as a standard, the equivalent of the average reflecting property of all photographic subjects, or the mean of the light and dark portions when contrasts are present.

To use this standard reflector, place it parallel to the main surface of the subject, under the same lighting conditions, and measure its brightness from a distance of 10 cm. Use the value obtained for adjusting the exposure settings of your camera. The use of this neutral standard board is particularly helpful when working in color.

ON CADMIUM SULPHIDE (CdS)

Cadmium Sulphide is a semi-conductive compound which changes its resistance in proportion to the brightness of the light it receives. It differs from the selenium photocell which generates electricity when excited by light, and therefore requires no outside source of power. The more sensitive CdS element uses a battery as the prime source of power, and the changes in resistance, caused by varying intensity of light, are indicated by the meter. The CdS cell is unaffected by heat and humidity, and is several hundred times more sensitive to light than the selenium cell.