

HOW TO USE YOUR LEICAMETER

A Special WESTON MODEL 650

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IMPORTANT

Keep the glass window over the cell opening clean.

During dry cold weather the glass on the instrument is likely to become electrified by contact with the hands or clothing. This attracts the pointer and gives erroneous readings, but the charge on the glass can be easily eliminated by breathing upon it.

ZERO SETTING OF INSTRUMENT POINTER

When no light reaches the "electric eye" in the back of the Meter the instrument pointer should rest directly over the zero position on the scale.

If this is not the case, and there is no electrostatic charge on the glass (see paragraph above), then the pointer can be readily set to its zero position by slightly turning the zero corrector located on the right side of the meter directly below the meter scale.

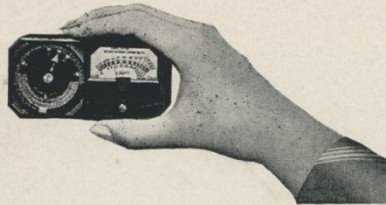
When making this correction place the meter back downward on some opaque object, as a card or a book so as to exclude all light from the photoelectric cell, and hold it at an angle of about 45°.

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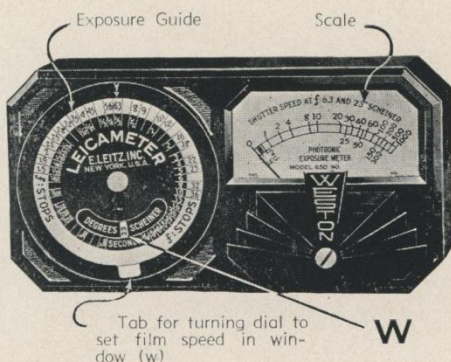
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THE CORRECT WAY TO HOLD YOUR LEICAMETER



When aiming the meter direct it slightly downward so as to include less sky and more foreground. No direct sunlight should be permitted to reach the lens glass from any angle. If necessary, shade the meter lens as you would a camera lens. Otherwise an erroneous shutter speed reading will be obtained. The meter measures all light within an angle of 30° above and below the direct line of sight (also 30° each side) which is the angle corresponding to 5 minutes on a watch.

OPERATING PARTS of Your LEICAMETER



THE SCALE

For Super Pan film and on aperture of f:6.3 when the meter is aimed at the scene the pointer indicates the shutter speed to use. Shutter markings correspond with those on the Leica, for example, 100 should be read 1/100 sec.

EXPOSURE GUIDE

This rotating guide provides a simple and quick means of translating the meter indications into other combinations of aperture and shutter speed and for the various types of films.

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HOW TO USE YOUR LEICAMETER

Many LEICA owners, for the sake of convenience, use Super Pan film and the same aperture for most of their pictures—varying the shutter speed to suit the scene. For owners who follow this practise the meter directly indicates the proper shutter setting for an aperture of f:6.3. However the speed of the film (23 deg. Scheiner for Super Pan) must be set in the window "W" by turning the tab as shown on page 2.

For example, if you are taking a picture in daylight and are using Super Pan film and an aperture of f:6.3, then the meter reading indicated while aiming at the scene, say 1/60 sec., will be the shutter setting for your camera to give properly exposed negatives.

In this manner the meter is direct reading when using any of the following combinations of film and aperture.

FILM SPEED DEGREES SCHEINER	APERTURE
25°	f:8.
23	f:6.3
22°	f:5.6
20°	f:4.5
19°	f:4.
18°	f:3.5

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USE OF THE METER FOR ANY FILM OR APERTURE

The Exposure Guide is adjustable for any kind of film, therefore, when loading your camera always see that your Leicameter is set for the speed of the particular film you are using. This is a very simple setting and should not be changed until you use another kind of film.

Select the speed of your film from the table on page 6.

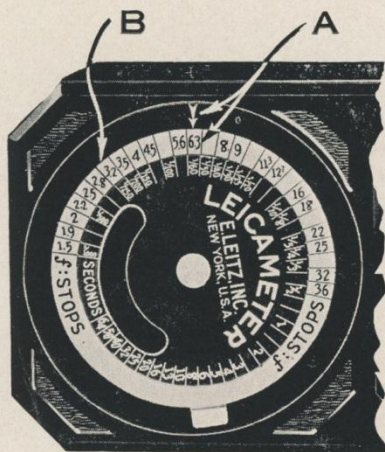


Fig. 1

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When photographing scenes, for example where depth of focus is desired or scenes having fast action, combinations of aperture and film speed may be required other than those for which the meter indicates directly. In such cases the exposure guide is used to immediately convert the meter reading into correct aperture and shutter speed for any kind of film.

Suppose you are photographing an action scene which should have a shutter speed of 1/250 sec. and you wish to determine the proper aperture. Note the pointer reading while aiming the meter at the scene—let us assume this reading is 1/60 sec. and you are using a film speed of 23 deg. Scheiner—then simply turn the top black dial of the exposure guide until this reading 1/60 points to the white arrow as shown at "A" in Fig. 1. Then by following around this top dial you will see that 1/250 sec. lies directly opposite f:3.2 as shown at "B" which is the proper aperture setting for your camera.

Referring again to Fig. 1 correct exposure will be obtained if you adjust your camera settings in accordance with any of the combinations of shutter speed and aperture which lie directly opposite each other on the top black dial and the middle white dial. For example, if depth of focus is desired Fig. 1 indicates the following camera settings, 1/30 at f:9, 1/20 at f:11.3, 1/8 at f:18, etc. If the scene contains action, Fig. 1 indicates settings of 1/150 at f:4, 1/200 at f:3.5, 1/250 at f:3.2, etc. This means that for pictures requiring depth of focus you can select the desired aperture and directly opposite will be the proper shutter speed to use, and, on the other hand, if the scene contains action, you can select your shutter speed and directly opposite will be the proper aperture to use.

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APPROXIMATE SPEED OF FILMS

Only the more popular films used in the United States are listed here. The figures are given in the Scheiner system and are sufficiently close for practical use.

These film speeds combine the characteristics of both the film and the electric eye and should be used with your Leicameter irrespective of the Scheiner ratings given by the film manufacturer

	Degrees Scheiner	
	Daylight	*Tungsten Light (Mazda)
Agfa Fine Grain Plenachrome	21	17
Agfa Superpan	23	21
Dufaycolor	18	
DuPont Infra-D	18	
" Reg. Pan	20	18
" Superior Pan (Anti-hal.)	23	21
" Micropan	15	14
Eastman Panchromatic	21	18
" Panatomic	21	19
" Super X	24	22
" Supersensitive Pan. (Gray Base)	23	21
Gevaert Superchrome Express Ortho	21	17
Mimosa Extrema Orthochromatic	22	17
Perutz Persenso Ortho	23	21
" Anti-hal.	18	14
Selo Orthochromatic	18	14

*Including Photoflood Lamps.

FILTER DATA

f:32 f:25 When a filter is used in front of a lens the exposure must be increased.
 f:22 f:18 A 2x filter requires twice the normal exposure, a 3x filter three times the exposure and a 4x filter, four times the exposure, etc.
 f:16 f:12.7
 f:11.3 f:9
 f:8 f:6.3
 f:5.6 f:4.5
 f:4 f:3.2
 f:2.8 f:2.2
 f:2
 f:1.5

In the table at the left, each succeeding f number gives double the normal exposure of the preceding f number and two numbers below gives four times the exposure. For example, if the meter indicates the use of stop f:32 then for a 2x filter the next number below, f:22 gives twice the exposure and two numbers below, f:16 gives four times the exposure. For a 3x filter, increase the aperture a little less than for a 4x filter.

The following filter factors are for Daylight only. Filter factors vary with the type of film used and while the values given are approximate they will be found close enough for practical use.

Film	LEICA FILTERS				WRATTEN FILTERS			
	0	1	2	3	K1	K2	A	XI
Agfa Plenachrome	1.8	3	4	6	2	2.5	....
Agfa Super Pan	1.3	1.8	2.5	3	1.5	2	4	2
DuPont Superior ..	1.1	1.2	1.6	2	1.9	2	8.5	3
Eastman SS. Pan.	1.1	1.2	1.5	2	1.8	2	3	2
Gevaert Express	2.2	3.2	5	....	3	4	....
Mimosa Extrema	.5	2	2.7	....	2	3	....
Perutz Persenso	1.2	1.7	2.3	....	2	3	....

Infra-D to be used only with..... A F 70 88
 DuPont Infra-D Factors..... 64 64 64 90

Only the yellow filters should be used with ortho films. All other filters require pan. films. Leica green panchromatic filter for:—

Agfa Super Pan	3 X
DuPont Superior	3 X
Eastman SS. Pan.	2.5X
Leica U. V Protection Filter	2 X