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INSTRUCTIONS
for
WESTON
Master II
CINÉ EXPOSURE
METER
•
Model 736

WESTON ELECTRICAL INSTRUMENT CORP.
NEWARK 5, NEW JERSEY, U.S.A.

INSTRUCTIONS

for

WESTON

Master II **CINÉ**

EXPOSURE METER

Model 736

HOW TO USE YOUR WESTON CINE EXPOSURE METER

1. ADJUST FOR TYPE OF CAMERA . . .

For purpose of simplification all cine cameras have been divided into two groups. Types "A" and "B"—according to the angle of shutter opening. Look through the listing below, and determine in which group your camera is listed:

TYPE "A" CAMERAS

Agfa Model B
Anso Model B
Bolex H-8, H-16, L-8
De Vry
Eastman Kodak (all)
Fujino (all 70's and 121)
Maurer Professional

TYPE "B" CAMERAS

Fujino 153
Fujino Gold 70
Fujino 71
Fujino 121
Keystone A-3, A-7
Keystone (other Models)
Keystone K8 (872650 and above)
Simplex Warner B
Stewart Warner 532 A
Stewart Warner Hollywood Sept

Press the dial release "R" (fig. 1) and move segment "S" until the correct type of your camera A or B appears in the opening "T".

2. SET FOR FILM SPEED . . .

Determine the Weston Film Rating of the film with which your camera is loaded, from the Weston Film Rating Booklet packed with your meter. Hold the middle dial stationary and rotate the top dial until this value appears in the window "W".

3. SET FOR CAMERA SPEED . . .

Rotate both the top and middle dials as one, until the index "T" directly below the window "W" is opposite the figure representing the frames per second at which your camera is to be operated.

When the above settings have been made, you are ready to measure the scene to be photographed. You do not have to change any of these settings until you use a different type camera, a different type of film or a different camera speed.



Figure 2

HIGH LIGHT SCALE . . .

On the rear of the meter a hinged bottle will be found. The light sensitive photo cell is behind the bottle. When the bottle is closed, the scale range is 0-26. Keep the bottle closed if the light is 16 or higher.

LOW LIGHT SCALE . . .

When the light reading is less than 16, open the bottle, the scale will then read in brightness units of 0-17. To open the bottle, simply slide the open latch on the bottle open against the case until the latch engages in the socket.

4. AIM THE METER

Hold the meter any way natural to you, but be sure you do not obstruct the cell opening with your hand, or with the neck cord, as this will result in incorrect brightness readings.

When measuring the relative brightness of the scene to be photographed an overall reading taken from the Camera Position will usually be satisfactory. AIM THE METER AT THE SCENE OR SUBJECT, and sight across the top of the case. Do not measure sky, as this will result in an inflated reading.

Close-up and Brightness Range Methods are discussed on pages 6 through 9.

5. READ THE SCALE

Note the pointer deflection on the scale. If it is below 16 with the baffle closed (see Fig. 3) open the baffle, and swing it over against the back of the case. You will now note that the low range scale has moved into position, permitting readings of from 0-17. The low range scale is for dim light, and the high range scale for normal light, from 0-26.

6. SET YOUR CAMERA

After you have obtained a reading of the relative brightness of the scene, look along the outer scale of the exposure control dial until you locate the corresponding reading. Directly opposite you will find the correct aperture setting for your camera. For example: Assuming a film rating of 24—Brightness reading 18—the f /stop would be f /11. See illustration page 5.

7. TAKE THE PICTURE



Set the Meter



Make a Light Reading



Read the Scale

THE CLOSE-UP METHOD

The Close-Up Method is so named because the meter is held close to the object of principal interest in the scene to be photographed. With this method only one object is measured, therefore the film will be exposed particularly for this object. It is used where there is but one object of principal interest, the rest of the scene being background, and of no importance.

Take Close-Up Reading . . .

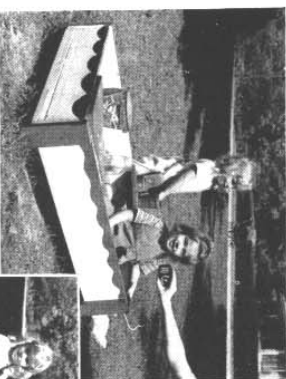
Take a close-up reading of the object of principal interest. Hold the meter close to the object . . . about as far away as the object's smallest dimension. The meter may be held closer than this distance but not farther away.

Do Not Cast a Shadow . . .

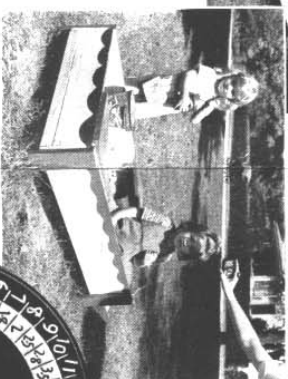
Do not cast a shadow of the meter or your hand on the object being measured. To do so would cause an erroneous reading. If necessary, hold the meter at an angle to the direction from which the light is coming.

Set Your Camera . . .

Note the light reading obtained. Locate this figure on the outside row of numbers on the exposure control dial . . . directly opposite you will find the correct f/stop setting.



Make a Close-Up Reading . . .



Do Not Cast a Shadow . . .



Set Your Camera . . .

THE BRIGHTNESS RANGE METHOD

The Brightness Range Method is so named because the brightness or light values are determined by measuring the lightest and darkest objects, and using the average of the two readings. Exposure is then balanced between the two extremes. This method is the most accurate known for either black-and-white or color photography.

Consider the Scene . . .

Let us consider an average scene. There are various objects in it reflecting different amounts of light. The dark objects reflect little light . . . the bright objects much light.

Make a Close-Up Reading . . .

Make a close-up reading of the darkest object in the scene, i.e., that object which yields the smallest light reading.

Make a Close-Up Reading . . .

Make a close-up reading of the brightest object in the scene, i.e., that object which yields the greatest light reading.

Set Your Camera . . .

Take the average value of the brightest and darkest close-up readings. For example: Assuming a film rating of 24; if the darkest object reading is 4, brightest object 22; $22 + 4 = 26$, $26 \div 2 = 13$, the correct f /stop would be $f/4.5$. See illustration page 7.



Consider the Scene . . .



Make a Close-Up Reading . . .



Make a Close-Up Reading . . .

COLOR PHOTOGRAPHY

Due to the fact that color film has far less latitude than black and white film, it is necessary that greater care be exercised in making measurements for color photography. For this reason the Brightness Range Method is recommended. REMEMBER IN COLOR PHOTOGRAPHY BLACK AND WHITE ARE NOT CONSIDERED COLORS.

A Scene for Color . . .

Here is a scene suited for color photography. The contrast range is low, flatly illuminated, and the object of interest is in full sunlight, where the color of the light is that for which the film is balanced.

Make a Close-Up Reading . . .

Make a close-up reading of the darkest color in the scene. Hold the meter at least as close to the object as its smallest dimension.

Make a Close-Up Reading . . .

Disregarding the white, make a close-up reading of the brightest color.

Do Not Cast a Shadow . . .

Be careful that neither the meter nor your body casts a shadow on the subject.

Set Your Camera . . .

Take the average of the darkest and brightest color readings, and use the *f*/*stop* directly opposite this figure.

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A Scene for Color . . .



Make a Close-Up Reading . . .



Make a Close-Up Reading . . .



Do Not Cast a Shadow . . .

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HINTS ON COLOR PHOTOGRAPHY

Time of Day . . .

If pictures are taken before 10 A.M. or after 3 P.M., a color correction filter should be used, and the exposure corrected accordingly.

Lighting . . .

Do not use a lighting set-up of extreme contrast when photographing in color. Color itself will provide ample contrast in the picture. Too great a lighting contrast results in a scene beyond the range of the film, making correct exposure for all objects impossible. Flat illumination is best for color.

Subjects in Shade . . .

Do not photograph shaded subjects in color. The shaded portions of the scene are lighted by reflected skylight, rather than sunlight. Skylight is bluer than sunlight, for which the film was balanced.

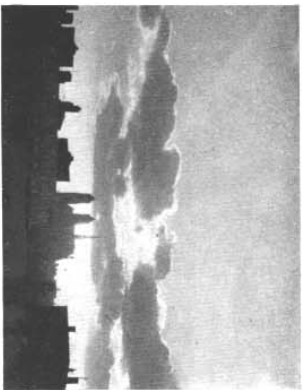
Face Tones . . .

In close-ups or portraits, usually the brightest color is the face. Since that is usually the most important color anyway, an excellent way of exposing close-ups or portraits in color is to measure the highlight on the face.

Substitute the Hand . . .

The palm of the hand makes an excellent substitute for a person's face. Orient the palm of the hand so it is in the same plane as the face, take a reading, and set your camera to the *f*/stop opposite this reading.

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Time of Day . . .



Subjects in the Shade . . .



Face Tones . . .



Substitute the Hand . . .

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GENERAL INFORMATION

Panoramizing

Panoramizing over areas where there is a wide variation of brightness, requires considerable care. For best results it is advisable to take separate readings of the bright and dark areas. Then when actually taking the pictures, change the camera f/stop as indicated by the meter for each set of different conditions.

For Still Cameras

A ciné camera is essentially a still camera which takes a number of still pictures in rapid succession with a definite exposure for each frame.

1. The ciné meter can therefore be used with still cameras as well as ciné types.
2. Set the Film Speed Rating.
3. Consider the following relationships:

TYPE "A"		TYPE "B"	
Frames Per Second	Effective Shutter Speed	Frames Per Second	Effective Shutter Speed
6	1/10	6	1/20
8	1/15	8	1/25
12	1/25	12	1/40
16	1/30	16	1/50
24	1/50	24	1/75
32	1/60	32	1/100
48	1/80	48	1/150
64	1/120	64	1/200
96	1/200	96	1/300

4. Choose the shutter speed desired from the table above and set the index to the corresponding value for frames per second.
 5. Opposite the light value obtained from the scene will be found the correct f/stop for the chosen speed.
- For example: If a shutter speed of 1/100th of a second is to be used, the meter is set for type "B" camera and the index set to 32 frames per second. If a speed of 1/120th of a second is desired, set the meter for type "A" camera and the index to 64 frames per second.

GENERAL INFORMATION

Care of the Exposure Meter

Your new exposure meter is rugged and well made. But like a fine watch, which it resembles in many ways, normal care should be given.

If your meter has been damaged, pack it carefully WITHOUT cases, booklets, etc., and return to:

Repair Service Division,
WESTON ELECTRICAL INSTRUMENT CORP.,
Newark 5, New Jersey, U. S. A.

or through your regular photographic dealer. Prompt attention is paid to all damaged meters. Charges are nominal, depending upon the amount of work needed.

Do Not Overheat Meter

Normal or even abnormal summer temperatures will not harm the meter. But do not store in a hot place such as on a radiator or in the glove compartment of a car.

Do Not Drop Meter

Like a watch, the jeweled bearings and exactly shaped pivots may be damaged by a fall.

Do Not Submerge Meter

Your meter is moisture proofed, that is, water vapor in the air will not harm it. However, it is not waterproofed, so don't drop it in the lake.



GENERAL INFORMATION

Zero Corrector . . .

When no light reaches the photoelectric cell, the instrument pointer should rest directly over the zero position on the scale.

If the pointer does not rest over the zero position, place a card over the cell, and turn the zero corrector, located on the back of the meter, until this is accomplished.

Use of Filters . . .

Exposure must be increased when a Filter is used. A simple way to compensate for this: Divide the Film Speed Rating of the film in use, by the Filter Factor. Set the resultant Film Speed number on the Exposure Guide Dial. For example: If Film Speed Rating is 100, Filter Factor 2, then Film Speed to use would be 50. ($100 \div 2 = 50$)

Weston Film Speeds . . .

Weston exposure meters are calibrated in terms of the Weston system of film speed determination. For over 15 years Weston has rendered this important service to the photographer. Film samples are obtained from normal sources, in the same manner as you obtain your film. Speeds are determined accurately and impartially in the Weston Sensitometric Laboratories, and in the field. Film Speeds by WESTON are an important part of Exposure by WESTON.