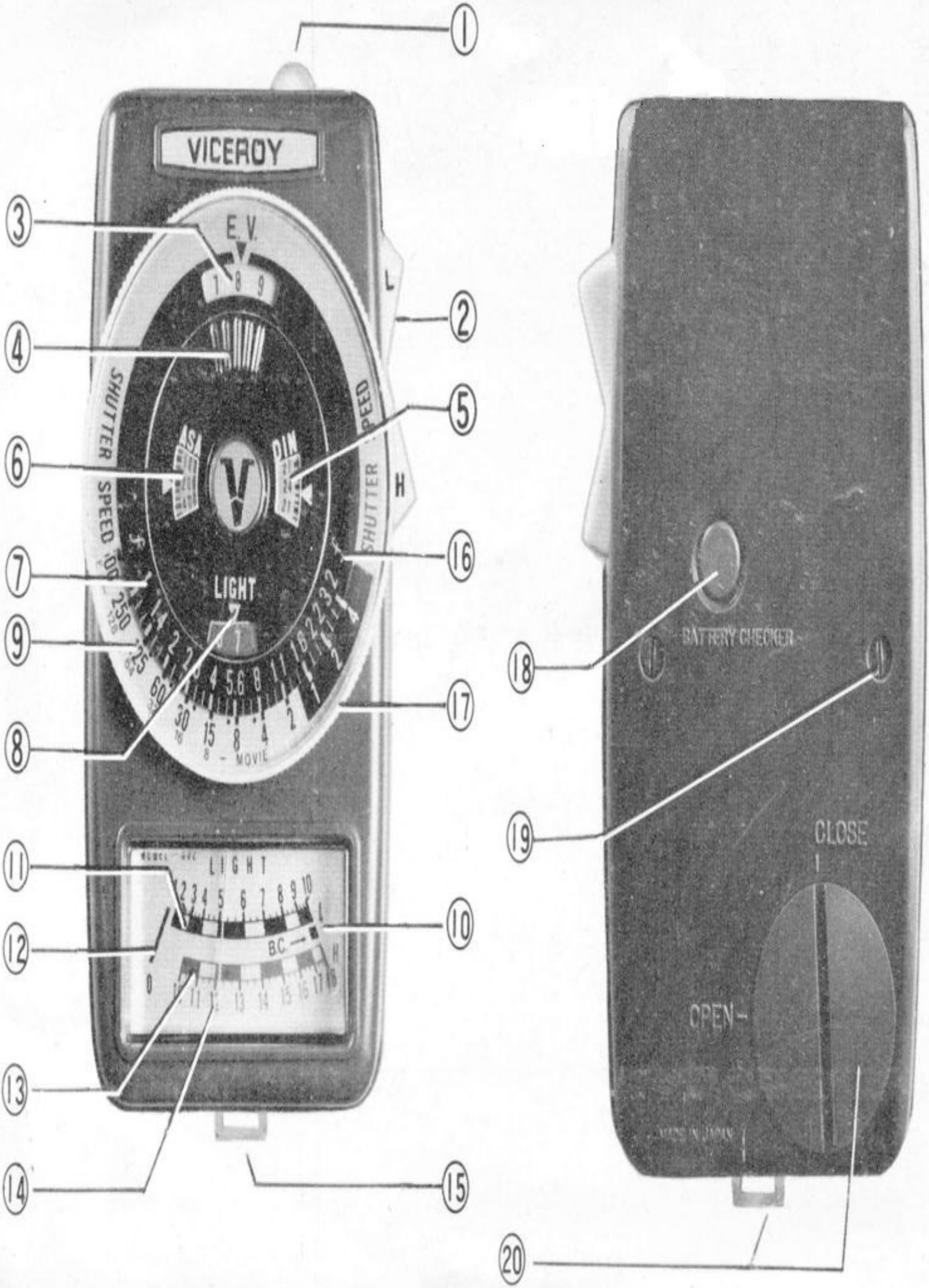
VICEROY

CdS EXPOSURE METER

MODEL 80


VICEROY
E.V.
1 8 9
L
H
SHUTTER SPEED
DIM
LIGHT
BATTERY CHECKER
CLOSE
OPEN
LIGHT
B.C.
MADE IN JAPAN
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1) Diffuser sphere for Incident Light Measurement
2) HIGH/LOW switch
3) EV window
4) ASA/DIN setting marker
5) ASA index window
6) DIN index window
7) F-stops
8) Light index window
9) Shutter speeds
10) Checking mark for Battery Test
11) Low light range scale
12) Zero index
13) High light range index
14) Pointer
15) Bracket
16) F-stop dial
17) Shutter speed dial
18) Battery Checker button
19) Case setting screw
20) Battery compartment cap

HOW TO USE "VICEROY" EXPOSURE METER MODEL 80

1) Turn the ASA/DIN setting marker until the index number of the film loaded in your camera appears in the ASA/DIN index window. (Slide the diffuser sphere over the light acceptance for Incident Light Measurement only).
2) Aim the meter at the subject. (Stand close to the subject and point the meter toward the camera for Incident Light Measurement only).
3) Press the 'H' switch (high range). If the meter reading is less than 10, press the 'L' switch (low range) and read the number indicated on the appropriate scale (black or red). *Serious under or over exposure will result, if the wrong scale is read.*
4) Turn the shutter speed dial (outer dial) until the light index number appears in the light window. Then you can select the desired reading from a combination of shutter speeds and F-stops.
5) If your camera is calibrated in the EV-LVS scale, read the number in the EV window only.
6) For movie, read only the F-stop corresponding to the number of frames per second.

Checking Battery

Wein MRB625 1.35V Zinc-Air Battery

Under normal condition the mercury battery (Mallory RM-625 or equivalent) supplied with the meter has a life of $1\frac{1}{2}$ to 2 years. Check the condition of the battery from time to time as follows:

Press the Battery Checker Button on the back of the case without, however, touching the HIGH/LOW switch. If the battery is good, the pointer will rest on the B.C. ▪ mark. But if the pointer stops short of the B.C. mark, battery strength is insufficient to reach the correct measurement and must be replaced To replace the battery, turn the battery compartment cap on the back of the case to OPEN. Insert a fresh cell with the plus (+) mark facing outward and check it as described above.

Zero Point Adjustment

Occasionally your meter may need adjustment. When checking the pointer zero control, the battery must be taken out of its compartment. The pointer should then come to rest on the zero index line at the extreme left. If not, remove the bottom of the case and set the pointer to the zero mark by turning the zero Adjustment Control Screw either clockwise or counter-clockwise.

Reflected Light Measurement

This is the most common method of measuring the light reflected from a subject to the camera position. In this case exposure is controlled not only by the intensity of illumination but also by the color and brightness of the subject itself. This meter will give you the average exposure for the overall light received. The basic methods to be followed are:

Camera Position Method

1) Point the meter to the subject from the camera position.
2) Press the 'H' button (if the needle does not reach 10 on the H scale, press the L button) and read the number indicated.

This method can be used for photographing scenery. The normal scene has no excessive brightness or darkness. The meter schould be held 15 to 20 feet in front of the camera position, avoiding direct lighting from the sky which is far brighter than appears to the naked eye.

Close-up Method

This method is recommended for isolated parts a scene or for portraits. The reading should be taken very close to the subject (about one foot). For contrasts, it is preferable to calculate the exposure by using the measurements for both the light and the shadowy portions.

Example lighter portion --- 15
shadowy portion --- 7

$$\frac{15+7}{2}=11$$

Thus the proper exposure would be 11. In practice, however, with black and white film better results will be achieved if proper care is taken of the details of darker areas because of the film tendency. Consequently, it is advisable to watch the dark areas and expose more rather than too little.

Substitute Method

You will often encounter subjects which it is physically impossible to approach – subjects across a river, animals in a cage, etc.–

1) Choose a suitable substitute around you, preferably approximating the color and brightness of the subject.
2) Take a close-up measurement of the substitute parallel to the imaginary line between the subject and the camera.

In the event you cannot find a substitute nearby, your hand may serve the purpose.

Incident light measurement

This method is used to measure only light falling on a subject and is also useful when it is difficult to obtain an accurate measurement of reflected light. The exposure is determined by the average intensity of the light and has no bearing on the color or brightness of the subject itself.

1) Slide diffuser over the CdS window.
2) Point the meter to the camera position while standing by the subject.

Incident light measurement is more reliable for movies, indoor photography, copy work, studio work and for any contrasty scenes which are intensely bright and dark.

Advance measurement

You will come across various events in which normal measurements are impossible to take. In such a case it is advisable to set the exposure of your camera by taking advance measurements from the subject or a substitute. Of course, either the reflected light or incident light measurement as already described may be used.

Color films

In color films, the most accurate exposure is required because the latitude of color film is so small compared with the black and white. Thus, the absolute accuracy of your Model 80 will prove to be a great aid in taking color pictures.

There are tow serious difficulties in using color films: one is the small latitude and the other is that under different light conditions pictures of the same scene will appear in different tones.

The reason for this is that color conditions depend on the color temperature of the illumination. In general, blue light shows high color temperature while red light shows low temperature. If the film is exposed under different light conditions, Color negatives can be corrected to reproduce the true colors by using correcting filters in the printing.

On the other hand, Reversal color film is more critical. Deviations from the correct exposure will result in transparencies that cannot be adjusted because they are used as color slides.
Do not mix daylight and artificial light. The addition of artificial light brings about color distortion that cannot be corrected. For beautiful pictures, avoid contrasty scenes if possible. The difference between the readings for dark and light should not exceed 2 steps at the most.

Maintenance

The Model 80 is a high precision instrument and should be handled with care. Avoid sudden shock and extreme moisture to prolong the life of your meter.
No other maintenance is needed save an occasional Battery replacement and Zero point adjustment. These are discribed on page 2 to enable you to check the proper functioning of your meter.
The Model 80 has been manufactured with extreme care. It has undergone strict inspections at our factory as well as those stipulated by the J.C.I.I. (Japan Camara Inspection Institute). However, if it should fail to operate satisfactorily, please forward it to any franchised dealer or to our factory together with the reference number inscribed on the inner case of the meter movement.

Specifications

Type	For both Incident and Reflected light	
Switch	High/Low switch	
Measuring range (at ASA 100)	Low range	EV 1 - 10
	High range	EV 10 - 18
Film speed scale	ASA	6 - 12,000
	DIN	9 - 42
Lens aperture (f-stop)	f	1 - 32
Exposure time (shutter speed)		8m - 1/8,000 sec.
Movie scale		8 - 128fps.
Light value scale	EV	−3 - +20
Acceptance angle		50°
Color response	Peaked at	6,200 A.
Photo cell	Cadmium sulphide	
Battery	Mercury cell, RM-625 or equivalent	
Dimensions	4'01" x 2'36" x 1'29" inch.	
Weight	3½ oz. (100 grms.)	

Wein MRB625 1.35V Zinc-Air Battery

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