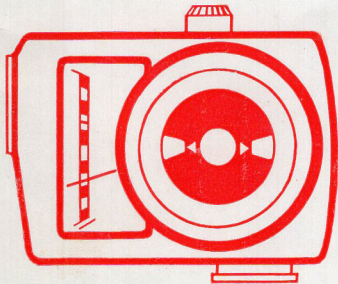
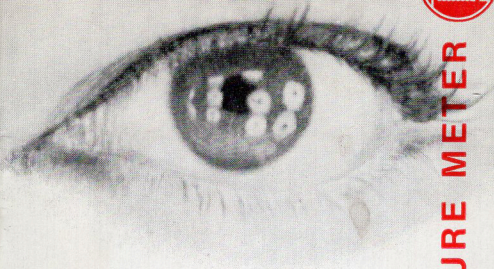
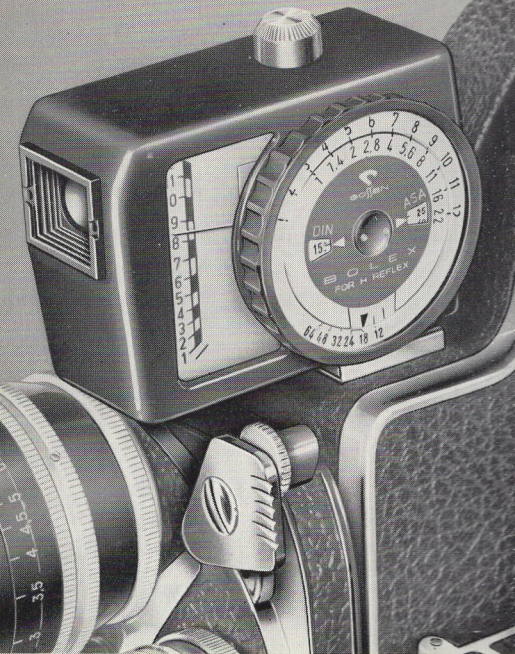


INSTRUCTIONS FOR USE



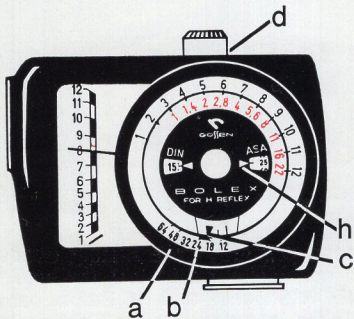
BOLEX EXPOSURE METER



**The BOLEX exposure meter
has been designed
and manufactured
by GOSSEN to PAILLARD'S
specification.**

Intended primarily as a filming accessory it is especially calibrated for use with BOLEX H16 Reflex and H8 Reflex cameras and takes into account the light deflected into the reflex viewfinder.

If adjustment is made to the sensitivity rating, the Bolex exposure meter can be used with other cameras — in particular Bolex H16 and H8 non-reflex models. (See page 14).



Preliminary settings

The dials of the Bolex exposure meter are controlled by a single ring (a) which is equipped with a safety lock to eliminate all risk of settings being accidentally moved.

Film sensitivities

Pull ring (a) towards you and turn it right or left until the filming speed scale is away from the zone of guide marks (c).

Slacken the tension on the ring and you will find it moves freely within a distance of approximately one quarter of the dial circumference. Only within this area will the ring, when pulled out, engage the sensitivity dial. Outside this area, the ring automatically locks.

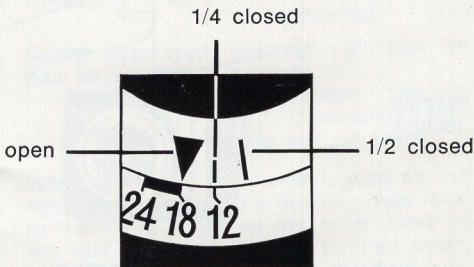
In the area where the ring turns freely, pull it towards you and turn it until the number corresponding to the sensitivity of your film appears opposite the guide mark (h) in either the DIN or the ASA window. Slacken tension on the ring (a) and, making sure it does not move the sensitivity

dial, turn it until the filming speed scale is again near the zone of guide marks (c) when the ring will slip into place in the locking device.

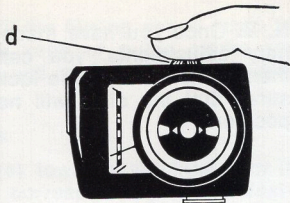
Filming speeds

Pull the ring (a) towards you and turn it until the mark corresponding to the desired filming speed is opposite one of the guide marks indicating the different positions of the variable shutter (see illustration opposite). If your camera has no variable shutter, simply use the mark « open shutter » (black triangle).

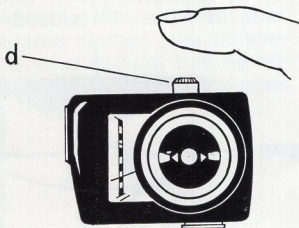
N. B. Once you have made these preliminary adjustments, you can forget about them while filming : the locking device ensures that the dials will not move out of position.



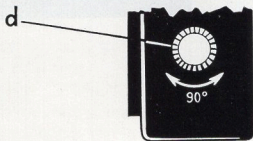
Reading



Needle
locked



Continuous
reading



Light reading

To take a light reading, press button (d).

Button depressed Normal reading position ; the needle is free as long as the button is down.

Button released The needle is locked at the reading.

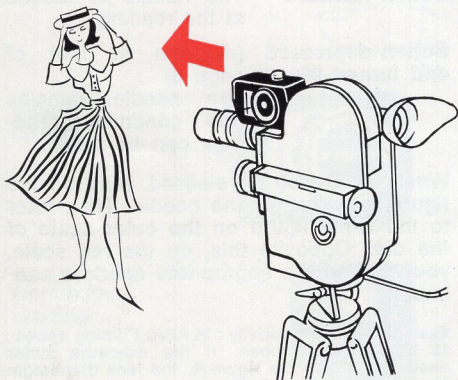
Button depressed and turned 90° (diagram at foot of page 6)
The needle remains free ; continuous readings can be taken.

When the button is released, read off the figure indicated by the needle. Then refer to the same figure on the outer scale of the dial. Opposite this, on the red scale, you will find the appropriate aperture setting.

Example : Film sensitivity : 25 ASA. Filming speed : 18 f.p.s. Shutter open. If the exposure meter needle is set on the figure 8, the lens diaphragm should be set at f/5.6 (See diagram page 2).

Reflected light readings

Readings are taken from the camera position by pointing the exposure meter towards the subject, thus measuring the light reflected by the subject into the camera lens.



The very narrow acceptance angle of the Bolex exposure meter makes it especially suitable for this method of measurement. In fact, this method should be used in the majority of cases.

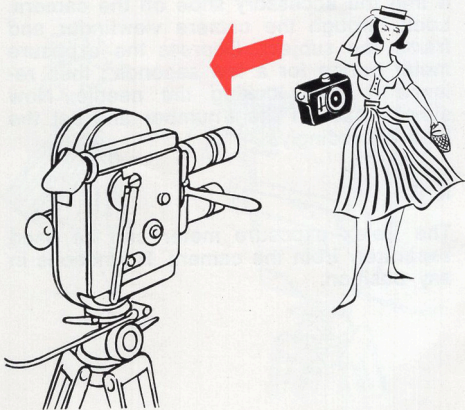
Correct positioning of the exposure meter with respect to the camera lens — vital for accurate readings — is ensured by fitting it into the accessory shoe on the camera. Look through the camera viewfinder and frame the subject. Depress the exposure meter button for a few seconds ; then release it, thus locking the needle. Now simply read off the f/number and set the lens accordingly.

N. B.

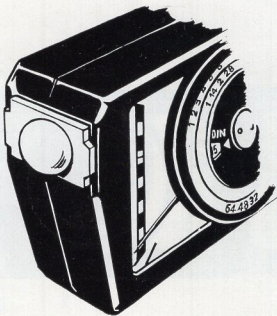
The Bolex exposure meter can be used separately from the camera. It functions in any position.

Incident light readings

Readings are taken from the subject position by pointing the exposure meter towards the camera, thus measuring the light falling on the subject.



When using the incident light method, fix the white dome — which serves as a light diffuser — in front of the exposure meter. The incident method can only be used when most of the available light is falling parallel to the direction in which the exposure meter is aimed. The extremely narrow acceptance angle — the outstanding feature of the Bolex exposure meter — prevents side lighting from being taken into account, even when the diffuser is in position.

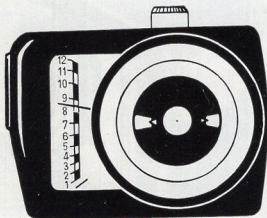


Checking the battery

The Bolex exposure meter is powered by a long-life battery which should be checked occasionally however.

Depress button (d) and then depress the small button (e). If the needle does not reach the red line between the figures 8 and 9 on the scale (see diagram below), the battery must be replaced. To replace the battery, remove the battery compartment cap (f) with a coin. Fit the new battery (Mallory Type PX-13) with the base (marked with the sign +) towards the cap.

Finally, check the new battery as described above.



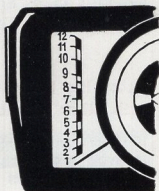
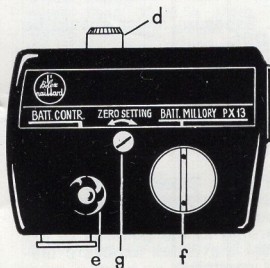
Zeroing the needle

The check enables you to ascertain whether the meter is functioning accurately.

- Remove the battery (see page 12)
- Press the button (d).

The needle should come to rest on the calibration mark below the figure 1 on the scale (see diagram below). If it does not, adjust the zero setting screw (g) on the back of the exposure meter.

The button (d) must be depressed during this operation to ensure that the needle is not locked.



Using the Bolex exposure meter with an H16 or H8 non-reflex camera

a) Correction of ASA sensitivity

Multiply the film sensitivity (expressed in ASA) given by the film manufacturer by 1.3 and set the figure obtained in the appropriate window of the exposure meter dial.

Example : 25 ASA film. Exposure meter should be set for : $25 \times 1.3 = 32 \text{ ASA}$ (approximately half way between 25 and 40 ASA).

b) Corrections of DIN sensitivity

Add 1 to the film sensitivity (expressed in DIN) given by the film manufacturer and set the figure obtained in the appropriate window of the exposure meter dial.

Example : 15 DIN film. Exposure meter should be set for : $15 + 1 = 16 \text{ DIN}$.

Using the Bolex exposure meter with other cine cameras or still cameras

If your cine camera is not a Bolex 'H' model, or is even a still camera, you only need to know the exposure times corresponding to the different filming speeds — according to the position of the variable shutter — to set the Bolex exposure meter correctly (see table opposite).

**Exposure times, in fractions of a second,
corresponding to the different settings of the
Bolex exposure meter**

Filming speed	Guide mark: shutter open	Guide mark: shutter 1/4 closed	Guide mark: shutter 1/2 closed
12 f.p.s.	1/40	1/55	1/95
18 f.p.s.	1/60	1/90	1/135
24 f.p.s.	1/80	1/110	1/190
32 f.p.s.	1/110	1/150	1/225
48 f.p.s.	1/160	1/220	1/380
64 f.p.s.	1/220	1/300	1/500

If the exposure times on your camera do not vary more than 15-20 % from those marked on the Bolex exposure meter, you can use it without any difficulty, the slight variation involved in film exposure is practically negligible.

ASA-DIN conversion table

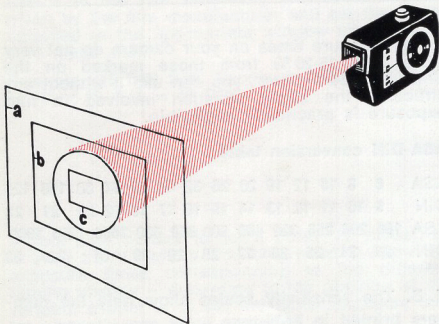
ASA	6	8	10	12	16	20	25	32	40	50	64	80	100	125
DIN	9	10	11	12	13	14	15	16	17	18	19	20	21	22
ASA	160	200	250	320	400	500	650	800	1000	1250	1600			
DIN	23	24	25	26	27	28	29	30	31	32	33			

N. B. The sensitivity scales show only the numbers printed in bold-type

Specification

- Photo-electric cell : cadmium sulphide photo resistance powered by a Mallory PX-13 battery
- Circular acceptance field (12° Angle, see diagram below)
- Measurement scale graduated for 12 readings
- Sensitivity scale : 6 to 1600 ASA
9 to 33 DIN
- Aperture scale : $f/1$ to $f/22$
- Filming speed scale : 12, 18, 24, 32, 48 and 64 f.p.s.

- a — Wide angle lens field
- b — Standard lens field
- c — Telephoto lens field



PAILLARD S.A.
Sainte-Croix (Switzerland)

ME 660/56a Anglais

Printed in Switzerland