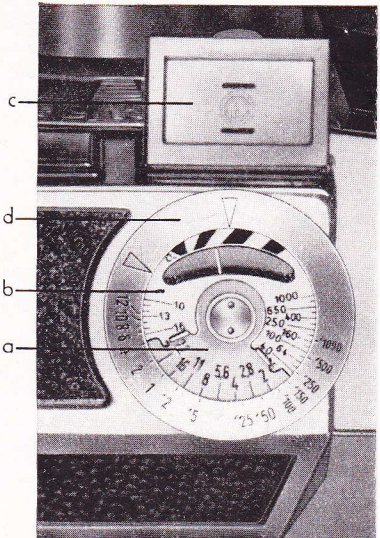
The Exposure Meter Insert

for the

EXAKTA *Varex*

The Exposure Meter Insert for the EXAKTA Varex is a combination of focusing system (prismatic finder) and photo-electric exposure meter, and additionally incorporates a direct vision optical viewfinder,

In use the focusing system does not differ in any way from that of the well known Penta Prism (known also as a prismatic finder). Regarding this you will find further details in the EXAKTA Varex instruction booklet, and also in other special literature. The exposure meter insert is fitted into the camera in a vertical position, and locks under slight pressure. Vertical or horizontal pictures are seen laterally and vertically correct on the focusing screen. Use of the rotating eyepiece is recommended for eliminating extraneous light, and a corrective spectacle type lens for those whose eyesight is weak or otherwise defective may be fitted. So too the distance meter can be employed in the exposure meter insert as a most valuable focusing aid. It works in accordance with the principle of the split image range finder, and is again of major importance for those with imperfect vision, or when lighting conditions are unfavourable.



Use of the photo-electric exposure meter (Metrawatt 2 M)

For normal use first remove the white incident light cover (see section: Incident light measurement). The rotating wedge shaped disc with the printed diaphragm numbers reading from 2 to 22 is set against the appropriate film speed. On the centre disc with the small indicator slot, you can read at the left side the DIN values, and on the right ASA values from 10 to 1000. For setting against the shorter indicator lines the extreme border on the left or right hand scale is employed.

The camera is then directed towards the subject to be photographed, and with the small front cell cover closed, the meter needle will show movement under reasonable light conditions. At this stage the exterior ring is turned so that the **black** triangle points to the black or white line facing the indicator. Now you can read off against the wedge shaped disc, the appropriate exposure time, either lens aperture against shutter speed or vice versa. Sometimes, the indicator lines showing shutter speed and lens aperture will not be in complete alignment. Should you be using monochrome or colour negative film then we recommend you to select the next longer exposure as indicated (Wider aperture or slower shutter speed). In the case of monochrome or reversal film similar working technique is recommended, but remembering that for extreme accuracy of exposure the lens may be used with the diaphragm set at a place between the actual engraved aperture numbers.

Under poor lighting conditions there may be no noticeable movement of the meter needle. In this case one employs the second measuring system. The small front cell window cover is opened and the exterior ring turned so that **red** triangle is opposite the appropriate black or white guide lines. Now shutter speed or diaphragm setting may be read off exactly as previously described.

Please ensure that the front cell window cover shut = black triangle,
the front cell window cover open = red triangle.

The exposure meter offers the choice of three methods of ascertaining exposure.

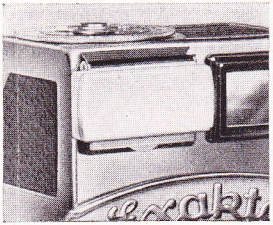
Reflected light (direct method)

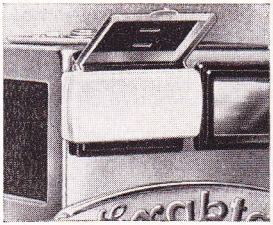
where the meter is pointed directly to the subject when the reading is that of the reflected light from the subject. This generally accepted method is useful for subjects at any distance from the meter, providing there are no excessive contrasts between principal subject, background, and surroundings. Please observe the following points when applicable.
When shooting normal landscape subjects do point the meter (or camera when attached) slightly down in order that the sky area does not give an artificially high reading, and if there is brilliant sun falling on the meter direct we suggest you shade the meter in the same manner as you would the lens. In doubtful or difficult lighting use whenever possible the meter at close distance to the subject. Should the camera be attached to a tripod simply remove the meter unit from the instrument, and take the reading at close range to the subject. Use of the incident light attachment (described below) may also best be undertaken by removal of the meter from the camera, especially when taking snow pictures or subjects against the light.

Close-up method

is recommended when there is high contrast on the main subject matter. Again the meter is removed from the camera and the exposure ascertained at close range against either the high light or shadow part of the subject. With monochrome films one generally exposes for the shadows, but with reversal colour films it is advisable to take an average reading based on highlights and shadow areas.

Incident light measurement





is also possible with the exposure meter insert fitted either to the camera or in certain circumstances removed as an individual unit. The small incident attachment is fitted in position over the front cell, the front cell plate being in the opened or closed position according to lighting conditions. The meter is then pointed directly towards the light source, and a reading taken in the normal manner. So it will be seen that this method can be extremely useful, when encountering "difficult" subject matter, i.e. landscapes with much sky, small light subjects against heavy dark background, or vice versa.

Setting the exposure meter

When using the meter on the first occasion, particularly when shooting with reversal colour film, we recommend you to make a series of trial exposures giving first the indicated exposure, and then repeating the exposures shown either side of the indicated reading. Results will show at a glance the most accurate interpretation of exposure for your particular camera, film and meter in use. For instance, the actual speed of the film in use may very according to the figures appearing on the manufacturers' cartons. Thus an accurate assessment having been obtained from the first test film, the DIN or ASA setting on the meter may in future be adjusted accordingly either way, i.e. for general overexposure, reset the speed rating to the next lower figure, underexposure to the next higher.

If $^1/_{50}$th at f 5.6 results in overexposure then expose $^1/_{100}$th at f 5.6 or $^1/_{50}$th at f 8.

If $^1/_{100}$th at f 8 is underexposed, then adjust to $^1/_{100}$th at f 5.6 or $^1/_{50}$th at f 8.

The actual photo-electric meter assembly is a complete unit in itself, and may easily be removed if required from the housing of the exposure meter insert.

Use of the optical direct vision finder can be of decided advantage under unfavourable lighting conditions, i.e. when using flash light for exposures in relatively dark surroundings. The viewfinder is designed for use with the standard lenses of 50 mm and 58 mm focal length respectively, and for distances from 2 metres to infinity.

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