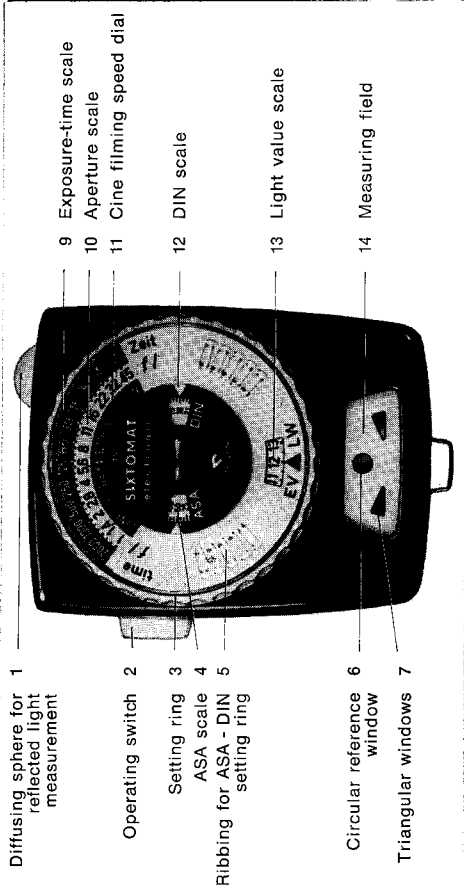
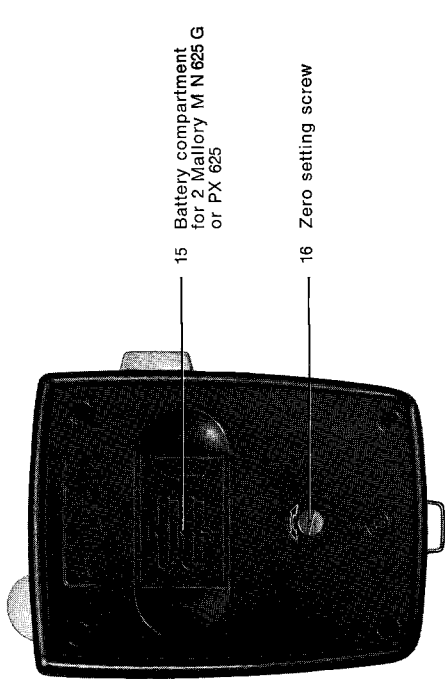


# SIXTOMAT electronic



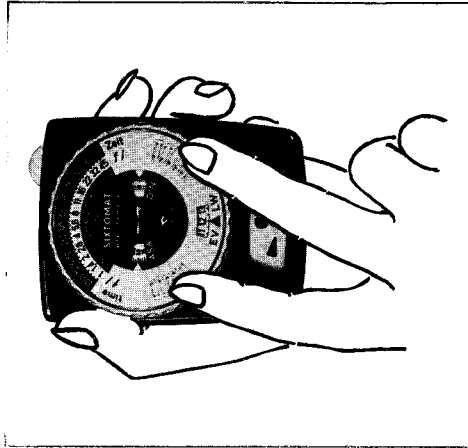
SIXTOMAT, SIXTINO and BISIX meters, also the SIXTICOLOR colour temperature meter and the LABOSIX enlarging exposure meter. Your SIXTOMAT electronic will solve all your exposure problems reliably and precisely.

**An introduction to the SIXTOMAT electronic exposure meter**  
Your SIXTOMAT electronic is a product of the house of GOSSEN; pioneers in exposure meter design and manufacturers of the world renowned LUNASIX, SIXTAR,

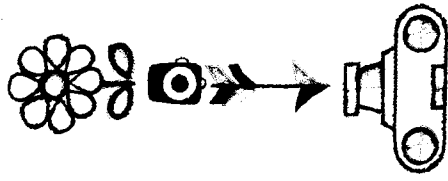


## Adjusting the meter for film sensitivity

To set the correct film sensitivity speed turn the film speed dial (5) by means of the moulded ribs until the required ASA or DIN number appears opposite the indicating marks in the appropriate window.



Push the diffusing disc (1) until it clicks into the central position exactly over the cell window. In this position your SIXTOMAT electronic is correctly adjusted for measuring the light which falls on to the subject. As shown by the arrow in the diagram, the meter is aimed from the subject position towards the camera.

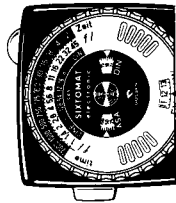


**Incident light measurement**

Push the diffusing sphere (1) to the left or right as far as it will go. Your meter is then ready for measuring light reflected from the subject. It is aimed directly at the subject as shown by the arrow in the diagram and 'reads' an average of the lighting intensity over an angle of approximately 30°, see also Page 9.



**Reflected light measurement**



## Measurement

Press the operating switch (2) on the left-hand side of the meter and bring the instrument into the measuring position. Then turn the calculator ring (3) until the circular reference window (6) is totally green. At this point the shutter speed and aperture scales are correctly set for the selection of a suitable exposure combination from the apertures and shutter speeds lying adjacent to each other on the aperture and time

scales. The triangular shaped windows (7) on either side of the circular measuring ring indicate in which direction the measuring ring must be turned. If the righthand triangle is totally or partly red then the ring must be turned clockwise; if the left window is totally or partly red then the ring must be turned anticlockwise until the circular field is totally green.

The battery is removed and the operating switch depressed. The measuring field should then be totally green. If not, the zeroing screw on the back of the meter (16) should be turned left or right until the field becomes completely green. The operation should be carried out carefully, making only one turn of the screw at a time.

## Checking the "Zero" position

## Batteries

The SIXTOMAT electronic is powered by two Mallory M N 625 G Mercury cells or their equivalent. The cells should be replaced if the movement of the colour patches in the triangular windows becomes sluggish. With normal use the batteries should be suitable for use for about two years. The design of the meter is such that variations in voltage of the cells during their useful life has little effect on exposure reading accuracy. When changing the batteries hold the meter so that the diffuser is upwards. Then remove the battery compartment lid (15) and after changing the batteries slide the lid back downwards until it is completely closed.

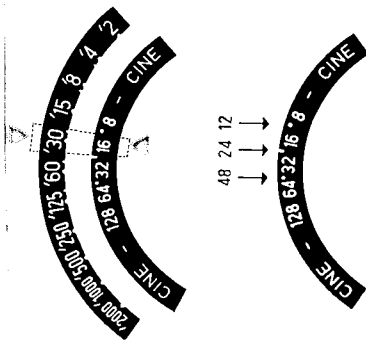
## Operating hints



.2, .4, .8 etc. are fractions of a second, i. e. they are equivalent to  $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$  secs. etc. The plain numbers 1, 2, 4 are full seconds. 1 m, 2 m, 4 m etc. indicate 1, 2, 4 etc. minutes. 1 h, 2 h indicate full hours.

### Cine exposures

Cine filming speeds and corresponding exposure times. Please note that the exposure time at 16 frames per second normal running speed is not always equivalent to  $\frac{1}{30}$  sec. If in doubt consult the camera instruction manual or the camera manufacturer.



## Reciprocity failure

the SIXTOMAT electronic reads all the light falling on the side of the subject facing the camera and takes no account of the colour or brightness of the subject.

If you cannot stand at the subject position to take an incident light reading, choose a position which receives the same light as the subject. In this case, do not aim the SIXTOMAT electronic at the camera, but in a direction parallel to the subject/camera line. Incident light readings are generally the easiest when the subject is evenly illuminated and will usually prove the most suitable for the majority of outdoor photographs. If you are receiving the same light as the subject, take the inci-

dent light reading in exactly the opposite direction to which you are taking the picture.

Photography in dim lighting conditions means abnormally long exposure times (Tripod!). This results in the Schwarzschild Effect (so called Reciprocity Failure) with all film types. The measured times must be extended if underexposure is to be avoided in this sort of shot. The degree of failure differs for each film type and it is for this reason that it is not taken into consideration on the scales of the SIXTOMAT electronic.

In addition, reciprocity failure causes changes of colour balance with colour

films which must be compensated for by using correction filters. Some types of sheet colour film have special data sheets giving recommendations for use with abnormally long exposures. In other cases, it is best to apply to the film manufacturer concerned for his latest recommendations.

Your SIXTOMAT electronic is an instrument of high precision, accurately and carefully made to give many years of good service. Depress the measuring switch only when taking actual measurements in order to conserve the batteries. If your SIXTOMAT electronic should for some reason fail to operate, send it immediately to the GOSSEN factory or to the GOSSEN agent in your country. A special case for the protection of your meter is available. Please ask your dealer for details.

SIXTOMAT electronic is made by:  
**GOSSEN GMBH**  
**D-8520 Erlangen, Postfach 1780**

## Final hints