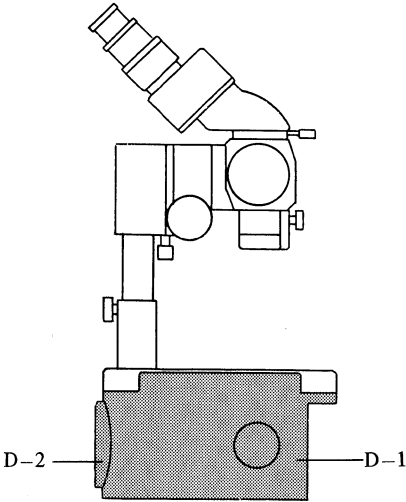


D. TRANS-ILLUMINATING STAND

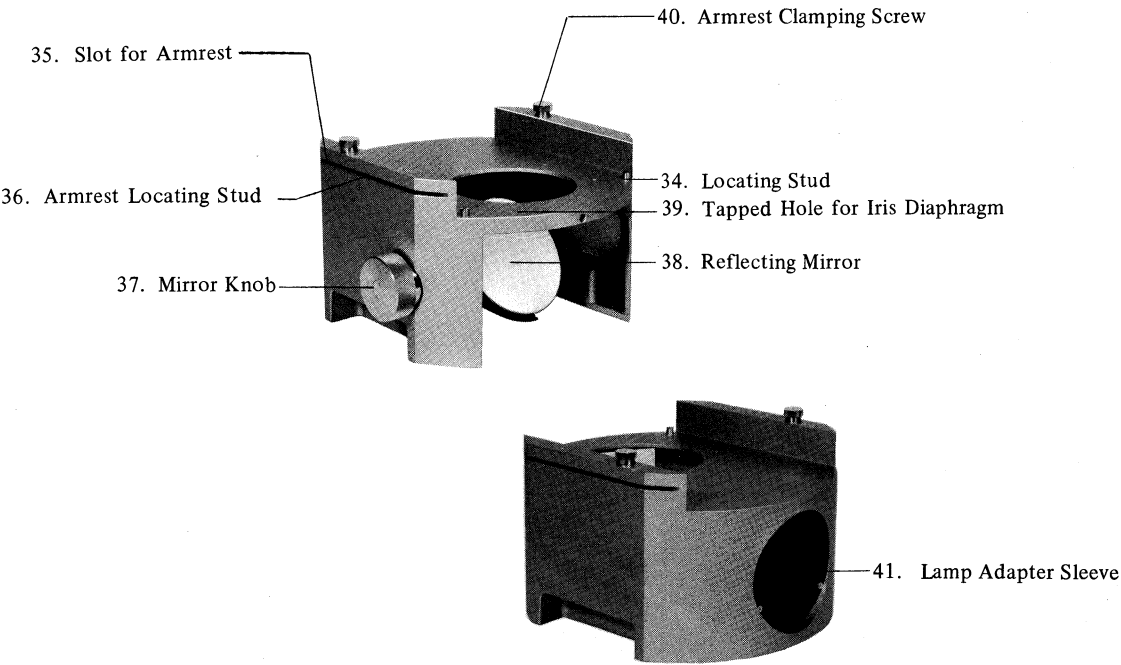


This device provides trans-illumination from below the specimen, when positioned under the stage. It comprises a sub-stage base (D-1), a light source (D-2), and a pair of armrests. An iris diaphragm is also available as a special accessory.

D-1 Sub-Stage Base

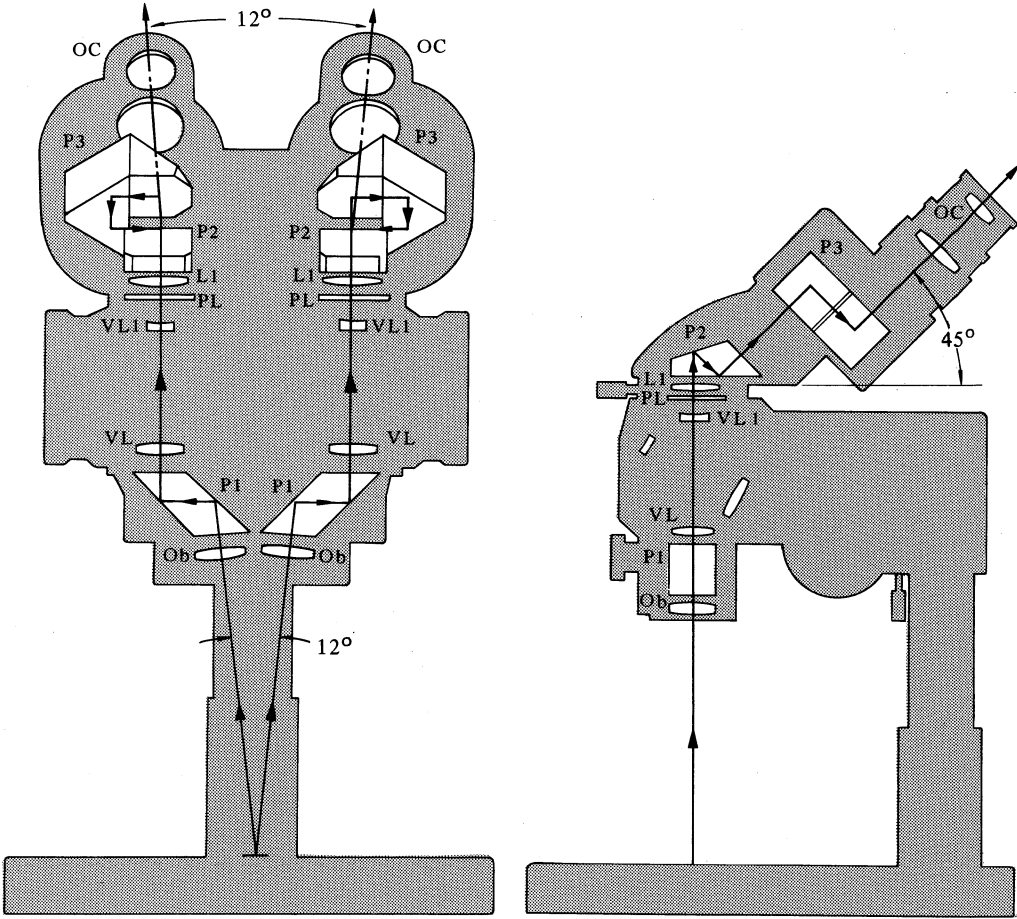
Inside the base is a reflecting mirror (38) and at the back a lamp adapter sleeve (41). Turn the mirror knob (37) as required to reflect natural or artificial light to the desired portion of the specimen. One side of the mirror is silvered and the other side is white. The silvered side is used for contrasty and intense lighting and the white side for soft lighting.

When placing the instrument on the sub-stage base, the locating studs (34) of the base are engaged in the locating holes under the stage. At the outer sides of the base are slots (35) into which the armrests are inserted and secured with the armrest clamping screws (40) provided.



A. OPTICAL SYSTEM

The optical system for Model X consists of paired objectives, magnification-varying tube lenses (hereinafter referred to as variables), and eyepieces, as shown below.



Light bundles from the specimen enter Prism P1 with an angle of visual axis of  $12^\circ$ , where they are turned parallel to each other, then proceed to the variable lens system (VL and VL1), the tube lens system (PL and L1) and to Prism P2. Then, still maintaining parallel position, they enter Porro-prisms at P3, at the last facet of which they again assume a  $12^\circ$  angle of visual axes, forming an image at the eyepiece exit pupil.

As described above, the variables are paired on parallel optical axes. Consequently five magnifications are attainable, i. e. two sets of normal and reverse positions plus a blank position. (See page 6.)

As to the trans-illumination system the sub-stage base contains a reflecting mirror and a 100V, 20W bulb. In addition, special accessories such as an iris diaphragm (for field adjustment) and an epi-illuminator are available.