

- 1 Ball heads to support the microtome when not in operating position
- 2 Valve control lever for CO₂ feed to the knife cooling attachment
- 3 Swing-out knife cooler
- 4 Valve control lever for CO₂ feed to the freezing stage

- 5 Lower drill holes for attaching the waste tray (13)
- 5 Scale for adjusting cutting thickness
- 7 Rear stop for the knife movement controlling the cutting thickness
- 8 Handle for moving the knife holder
- 9 Insulated bearings to accommodate the knife
- 10 Locking lever for the final separation of the sections from the object block
- 11 Freezing stage
- 12 Front stop for knife movement
- 13 Waste tray (in top position)

Leitz

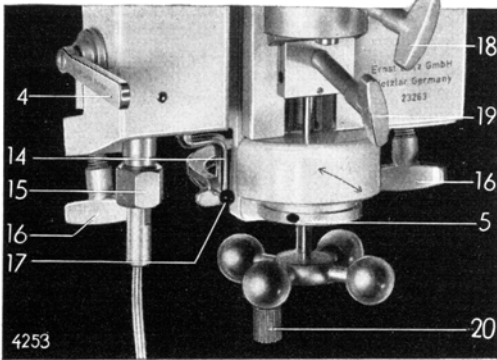
Brief Directions for Operating the Large Freezing Microtome No. 1310

Fit the Microtome No. 1310 to the edge of a table top and secure by tightening the two strong clamping screws (16).

Before tightening the coupling nut of the CO₂ metal tube (15) on the socket of the microtome, swing the knife holder to its rear position (50 microns) to prevent the feed lever from being damaged by the spanner. Use washers in the connection and tighten coupling nut sufficiently.

Adjust movable stop (7) for the required cutting thickness (between 2.5 and 50 microns).

To limit the knife movement use the movable front stop (12) so that cutting can be stopped before the knife has completely traversed the object block. By this procedure and subsequent further short advance of the knife holder, after the lateral lever (10) has been turned, single sections can be spread on the knife before their ultimate complete separation from the block.



- 4 Valve control lever for CO₂ feed to the freezing stage
- 5 Drill holes for using waste tray (13) in a low position
- 14 Specimen feed lever for automatic object advance
- 15 Coupling nut for CO₂ metal tube
- 16 Clamping screws for fitting microtome to table top
- 17 Pawl for disengaging automatic specimen feed
- 18 Clamping screw for the interchangeable object stage
- 19 Locking screw for lateral movement of the object stage
- 20 Hand-wheel for vertical adjustment of the object stage

The object is automatically raised with the return of the knife holder after every cutting stroke. The automatic feed is disengaged in the top position. To turn back the micrometer spindle, release the pawl from the gear wheel by pulling back the knob (17). The lower end position of the micrometer spindle is indicated by a firm stop while an arrow shows the direction of movement of the spindle.

When attaching a freezing stage make sure that the lateral guiding pin on the stem of the stage fits into the groove inside the stage support. Tighten clamping screw (18) to secure the stage. All other types of stage are similarly attached.

The freezing stages are made with an adjustable milled ring to close or open the lateral openings for rapid freezing action with CO₂ flow upwards or for ordinary freezing stage technique with lateral CO₂ outlets respectively.

The swing-out knife cooler is connected to a separate CO₂ valve control lever (2).

To change the cutting angle of the knife, which is a 9.5 cm wedge-shaped type, loosen the clamping screws and adjust the movable cylinder bearings (9) according to requirements.

The waste tray (13) fits the microtome immediately under the object stage or, in its lower position, above the hand-wheel (5).

To retain the smooth operating motion of the knife holder apply from time to time a few drops of oil to its ball-bearings. Only high-grade acid-free light oil (of the sewing machine type) should be used. The slides of the object sledge should occasionally be covered with a film of vaseline.

When not clamped to a table top the microtome should rest on the 3 lateral ball heads specially provided for the purpose.

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