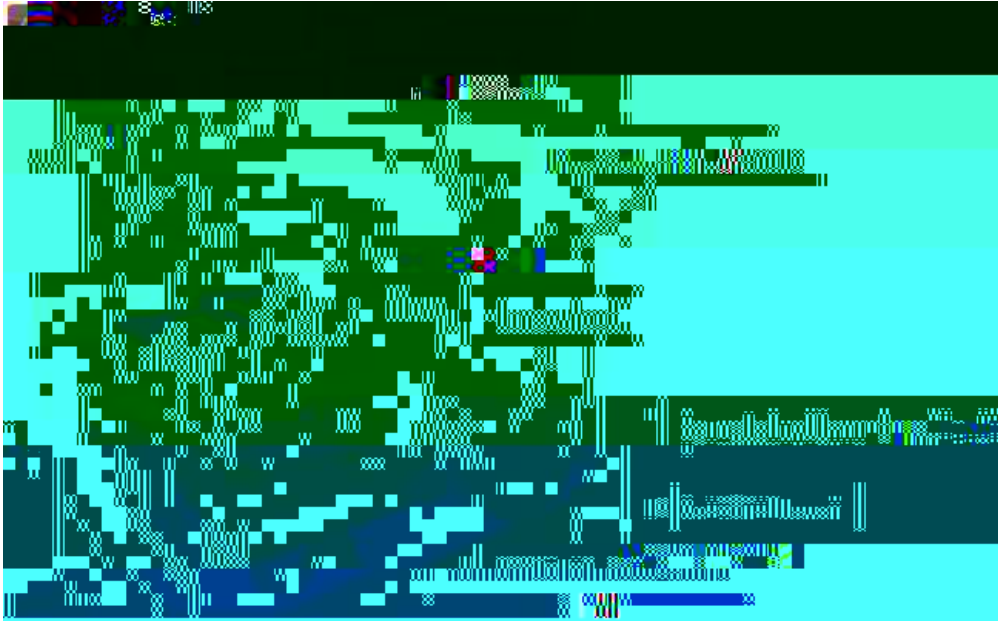


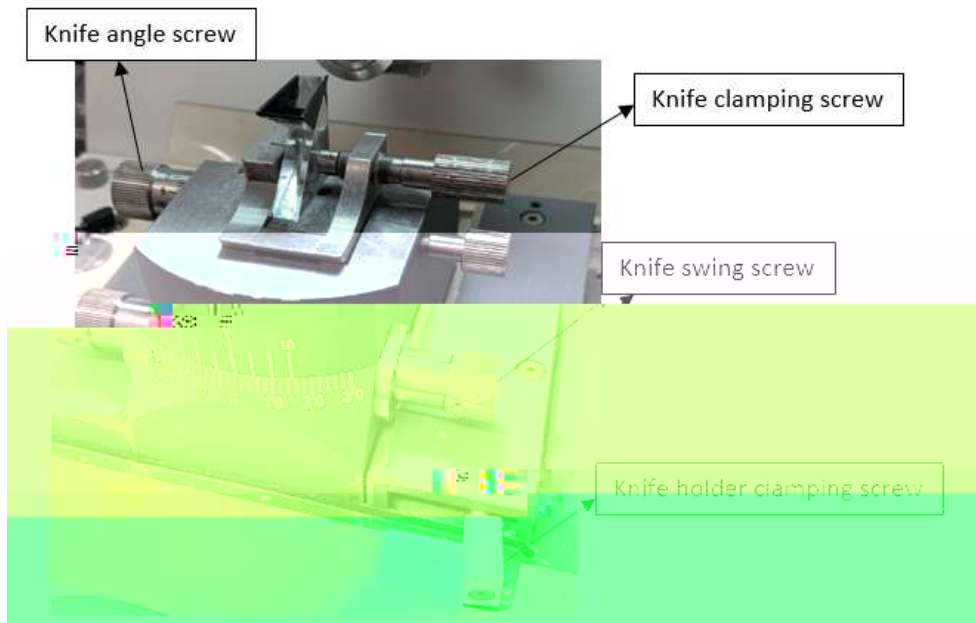
# Using Reichert-Jung Ultratome to cut semithin section and ultrathin section

1. Put a trimmed block into the sample holder and clamp it on



**5 Put a glass or diamond knife on the knife holder and securely tighten the knife by knife clamping lever:**

**6 Measure the knife angle is  $6^\circ$ . If not, adjust the knife angle to  $6^\circ$  by knife angle screw**



- 7 Bring the knife holder stage to within several millimeter of the block field in the specimen area by looking from the side of the ultramicrotome**
- 8 Look through the microtome microscope and inject water into the knife boat, adjust the water level until a mirror like area on the water surface can be seen behind the knife edge and the knife edge is completely wet**
- 9 Use the hand wheel (on the right side) to bring the specimen to the same level as the knife edge**
- 10 Carefully move the B! led into the edge by k**

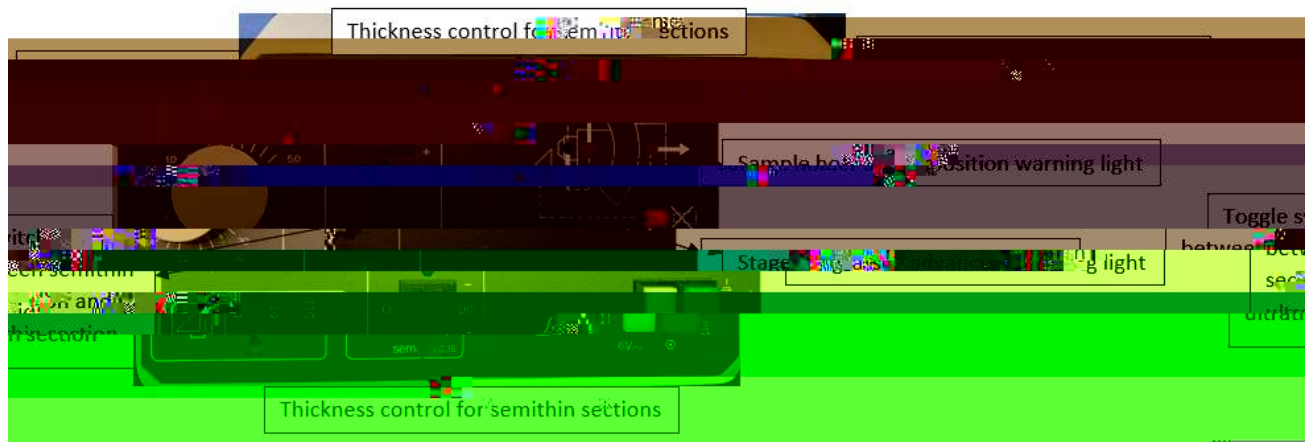
**2) Rotate the sample block by sample holder rotating screw until the bottom of the block face parallel to the knife edge**

**4) Tilt the sample block face up or down by the sample holder tilting screw to make the knife edge reflection on the top of the block face is equal to**

**12 Slowly move forward the knife (using knife coarse advance knob) until the knife edge reflection just disappears:**

**13 Set cutting window turn the hand wheel so the sample is on the forward cutting stroke. Lift the control lever (on the right side of the microtome). Turn the hand wheel until it stops. Then turn the tight feed hand wheel up or down until the top edge of the block face is just below the knife edge. Lower the control lever to its original position.**

**14 To cut semithin sections, set cutting speed at 2mm/sec by cutting speed knob, press down the toggle switch for semithin and ultrathin to select semithin section thickness control, select semithin section thickness (eg 0.5µm).**



**15 Depress the control lever; microtome will automatically start to cut. When the first complete section is cut, continue cutting 4-10 sections.**

**16 To begin cut ultrathin sections, retract the knife stage away from the block face, then move the knife stage laterally to a fresh sharp knife edge and reapproach the block face as in step 11. Make sure the water level in the knife is enough as described in step 8.**

