

Focus Adjustment in the TVT-8

The focus must be set with the front panel mounted in place. If you set it with the panel removed, the sharpness often goes a bit soft when the panel is mounted in the case. Required tools are a #2 Phillips screwdriver and a 7/64" hex driver or hex key. For keeping the camera straight upright while focus is adjusted, you should have a focus jig as described below.

You need some film threaded up that has fine detail or grain that you can focus on. Use a portion that is about the middle of a section so it is not near a splice, and is flat.

Remove the camera cover with 3 screws. You need a #6-32 threaded rod or very long screw. This goes into the tapped hole on the left end of the camera bracket. You might want to make something like our custom hand-made fixture that attaches to behind two of the panel screws, which are re-tightened to the same torque as they will be when the fixture is later removed, with the #6-32 screw passing through it, with a #6-32 thumb screw to permit accurate focusing. The screw passing through an only slightly larger hole also permits the distance to be changed while maintaining the camera as being perpendicular to the light path.

To focus, you loosen by 1/8 turn the two screws (in elongated slots) that are holding the camera bracket to the panel. Adjust the camera's distance from the film and lens for best focus. Pre-load the long screw with a spring, or with finger pressure on the end of the screw, to give a positive effect while turning the thumbscrew. Re-tighten the two screws while verifying that the sharpness does not change.

Remove the long screw and fixture, and replace the two panel screws.

If the vertical centering is off, loosen by about 1/8 turn the two screws in slots that are attaching the lens mount to the panel. Shift the lens mount up and down to adjust.

If the horizontal centering is off, loosen by 1/8 turn the two screws holding the camera plate to the camera bracket. Shift the camera plate towards or away from the panel to adjust.

Replace the optical system cover and the three screws. Be sure that the connecting wires are not pinched by the screws or the edge of the cover, or blocking the light path.

Please refer to the picture on the next page for identification of the parts.

Thumbscrew
Focus Adjust

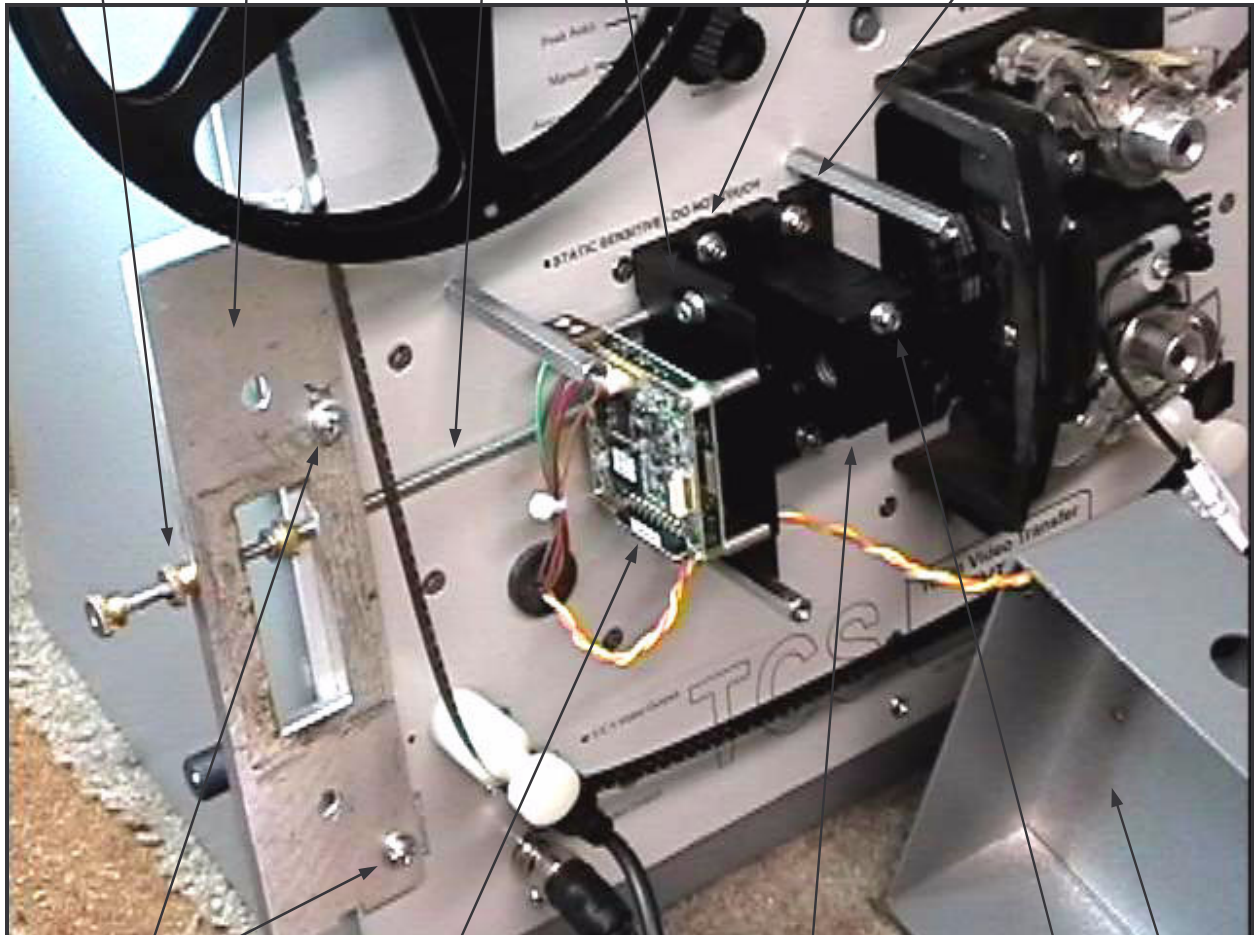
Focus Jig

#6-32 Threaded Rod

H Centering Lock (2)

Focus Lock (2)

V Centering Lock (2)



Attach Jig With 2 Panel Screws

Camera

Lens

Magnification Lock

Cover Removed