ATTACHING WEDGE TO TRIPOD

Your Ultima 9 1/4 and Ultima 11 telescopes have a clock drive built into the base to track the stars as they move across the sky from east to west. This drive is useless, however, unless the telescope’s axis of rotation is parallel to the Earth’s axis. The wedge, which comes standard with both telescopes, allows you to tilt the Ultima’s axis of rotation. This process is known as polar alignment and is described in the section by the same name. The wedge, like the tripod, is fully assembled and only needs to be attached to the tripod. To attach the wedge to the tripod:

1. Place the three slots on the wedge over three of the holes in the tripod head. The slots are 120° apart and must match either of the three sets of holes accordingly. The slots selected determine where the eyepiece is positioned relative to the tripod legs. Using one set positions the eyepiece over the tripod leg, while the second set positions the eyepiece between two legs. The latter arrangement is preferred if using a chair while observing.

2. Insert the three 5/16-18x1 hex head bolts and washers through the slotted holes in the wedge and into the tripod head.

3. Tighten the bolts until the wedge does not move from side-to-side. These can be loosened later for polar alignment.

![Diagram of wedge and tripod attachment](image-url)

**Figure 2-4**
Attaching the wedge to the tripod
ATTACHING THE TELESCOPE TO THE WEDGE

With the wedge in place on the tripod, you are ready to mount the telescope on the wedge. The telescope base fits directly onto the tilt plate of the wedge. Attaching the telescope to the wedge is the same for both the Ultima 9\(^{1/4}\) and the Ultima 11 telescopes. To do this:

1. Lay the telescope on its side and locate the three threaded holes in the bottom of the drive base.

2. Partially insert one of the three (3/8-16x1) bolts with the hand tightening knob (supplied in the bolt pack) into the hole that is opposite the rectangular portion of the drive base. The rectangular portion of the base slides between the side plates on the wedge and rest near the top of the tripod.

3. Pick the telescope up by the fork tines and position it above the wedge. Orient it so that the telescope is over the tripod with the base pointing toward the tilt plate as seen in figure 2-5.

4. Slide the bolt, which is threaded into the base, into the slot on the top of the tilt plate.

5. Tighten the bolt slightly so that the bottom of the drive base is flush with the tilt plate. Do not tighten it fully or you will not be able to slide the base so that the other two bolts can be inserted. (If you do not tighten the bolt at all, the drive base may be tilted slightly so that the remaining bolts will not go in straight.)

6. Move the base of the telescope until the two remaining holes in the drive base line up with the holes in the tilt plate.

7. Insert the two remaining bolts with knobs and tighten all three completely.

![Diagram](image)

*Figure 2-5*

With the hand tightening bolt installed in the base, slide the Ultima Telescope onto the tilt plate of the wedge.