

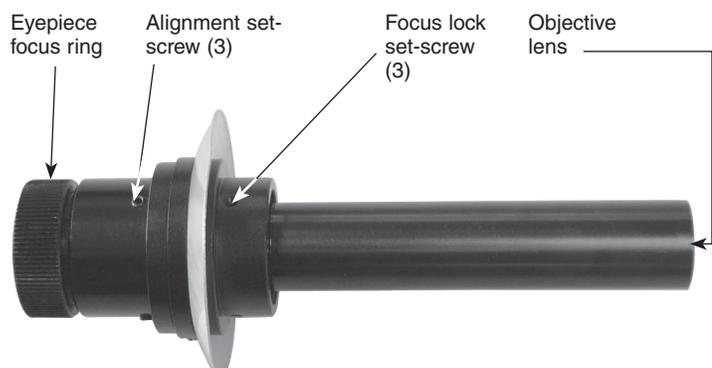
# Addendum: AstroView Mount Polar Axis Finder Scope

The polar axis finder scope described in the AstroView EQ mount instruction manual has been upgraded for your convenience. Please disregard step 9 on page 4, as well as the sections describing “The Polar Axis Finder Scope” and “Using the Polar Axis Finder” on pages 6-8 of the AstroView EQ mount instruction manual as they are no longer applicable. This addendum to the AstroView mount instruction manual will help you properly use the upgraded polar axis finder scope.

## The Polar Axis Finder Scope

The AstroView mount comes with a polar axis finder scope (Figure 1) housed inside the right ascension axis of the mount. When properly aligned and used, it makes accurate polar alignment quick and easy to do. Remove the caps from both sides of the AstroView mount’s right ascension axis to view through the polar axis finder scope.

## Alignment of the Polar Axis Finder Scope



**Figure 1.** The polar axis finder scope.

1. Move the tripod so the telescope tube and right ascension axis point roughly at Polaris. If you cannot see Polaris directly from your observing site, consult a compass and rotate the tripod so the telescope points north.
2. Look through the polar finder at a distant object (during the day) and center it in the crosshairs. You may need to adjust the latitude adjustment L-bolts and the tripod position to do this.
3. Rotate the mount 180° about the R.A. axis. It may be convenient to remove the counterweights and optical tube before doing this.
4. Look through the polar finder again. Is the object being viewed still centered on the crosshairs? If it is, then no further adjustment is necessary. If not, then look through the polar finder while rotating the mount about the R.A. axis. You will notice that the object you have previously centered moves in a circular path. Use the three alignment set-screws on the polar axis finder (Figure 1) to redirect the crosshairs of the polar finder to the apparent center of this circular path. You will need a 1.5mm hex key (not included) to adjust the three alignment set-screws.
5. Repeat this procedure until the position that the crosshairs point to does not rotate off-center when the mount is rotated in R.A.

The polar axis finder scope is now ready to be used. When not in use, replace the plastic protective cover to prevent the polar finder from getting bumped.

## Using the Polar Axis Finder Scope

The reticle of the AstroView mount’s polar axis finder scope has a tiny star map printed on it that makes precise polar alignment quick and easy. To align the mount using the polar axis finder scope, follow these instructions:

1. Move the tripod so the telescope tube and right ascension axis point roughly at Polaris. If you cannot see Polaris directly from your observing site, consult a compass and rotate the tripod so the telescope points north.
2. Remove the cap on the front opening of the equatorial mount. Focus the polar finder by rotating the eyepiece focus ring. Now, sight Polaris in the polar axis finder scope. If you have followed the approximate polar alignment procedure (found on page 6 Of the AstroView EQ mount instruction manual) accurately, Polaris will probably be within the field of view. If not, move the tripod left-to-right, and adjust the latitude up-and down until Polaris is somewhere within the field of view of the polar axis finder scope.
3. Note the constellation Cassiopeia and the Big Dipper in the reticle of the polar axis finder scope. They do not appear in scale, but they indicate the general positions of Cassiopeia and the Big Dipper relative to the north celestial pole (which is indicated by the cross at the center of the reticle). Rotate the reticle so the constellations depicted match their current orientation in the sky when viewed with the naked eye. To do this, release the R.A. lock lever and rotate the main telescope around the R.A. axis until the reticle is oriented with sky. For larger optical tubes, you may need to remove the tube from the mount to prevent it from bumping into the mount. Once the reticle is correctly oriented,



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use the right ascension lock lever to secure the mount's position.

4. Now use the azimuth adjustment knobs and the latitude adjustment L-bolts (see Figure 5 of the AstroView mount instruction manual) on the mount to position the star Polaris inside the tiny circle marked "Polaris" on the finder's reticle. You must first loosen the knob underneath the equatorial mount on the center support shaft to use the azimuth adjustment knobs. Once Polaris is properly positioned within the reticle, you are precisely polar aligned. Retighten the knob underneath the equatorial mount.

If you do not have a clear view of Polaris from your observing site, you will not be able to use the polar-axis finder to precisely polar align the telescope.

***Note: From this point on in your observing session, you should not make any further adjustments in the azimuth or the latitude of the mount, nor should you move the tripod. Doing so will undo the polar alignment. The telescope should be moved only about its right ascension and declination axes.***

### **Additional Note Regarding Focusing the Polar Axis Finder Scope**

The polar axis finder scope is normally focused by simple rotation of the eyepiece focus ring. However, if after adjusting the focus ring you find that the image of the reticle is sharp, but the stars are out of focus, then you must adjust the focus of the polar axis finder's objective lens. To do this, first remove the polar axis finder from the mount. Look through the polar axis finder at a star (at night) or distant object at least 1/4 mile away (during daylight). Use the eyepiece focus ring to bring the reticle into sharp focus. Now, use a 1.5mm hex key (not included) to carefully loosen the three focus lock set-screws (Figure 1) by a few turns each and thread the entire objective end of the finder inward or outward until images appear sharp. Carefully re-tighten the focus lock set-screws. Once the polar axis finder's objective lens is focused, it should not need to be adjusted again.