

ASTRO-PHYSICS

Installing the Heavy-Duty Azimuth Adjuster Upgrade Kit for 1200 Mounts (12AZKIT)

Kit contains: Azimuth adjuster assembly, 4 large washers

Mounts that can be upgraded: All 1200 mount models that we have produced.

This one-piece assembly makes azimuth adjustment easier and more accurate for precise polar alignment in your observatory or in the field. The heavy-duty construction and integrated one-piece design results in smooth control of the azimuth axis. Large left and right adjuster knobs are graduated for precise control of azimuth position angle. The small graduations are 1.3 arc minutes per graduation; long graduations are 6.5 arc minutes per graduation. The size of the knobs makes them easy to turn with very little torque required, even with the mount fully loaded.

The kit includes a set of hardened washers for the four Pier Adapter Knobs. With these washers, the Pier Adapter Knobs can hold the mount down tight on the Standard Pier Adapter (1200SPA) while still allowing the axis to be easily adjusted with your fingers. This will eliminate minor shifts in the axis when you are tweaking your azimuth adjustment.



The adjuster block installs easily on your Polar Fork Base Plate using the existing hole pattern and screws. First, remove the mount from your pier. Simply remove the two existing adjuster blocks and replace them with the new unit as shown below. Place the four washers underneath the Pier Adapter Knobs. The washers have a sharp edged side and a rounded edge side. Place them with the sharp edge of the washers facing up toward the knob and the rounded edge down onto the painted surface of the base plate. If you install the washers with the sharp edge down, it will bind into the paint and prevent smooth movement. If you do not have a permanent observatory, you may wish to mark the down side of each washer with a marker so that you can quickly identify which side faces down in the field. This takes only a few minutes, but will result in significantly easier setup time the next time out under the stars.

Tips for Adjusting the Azimuth – Standard Pier Adapter (1200SPA)

During the initial phase of adjusting, the 4 Pier Adapter Knobs should be hand tight only. This will allow easy movement of the azimuth axis. When you are close to the final position of the azimuth axis, using a hex key, lock down the **rear knob only**. The azimuth can still be moved with the adjusters, but it will now be solidly connected to the pier top. The two side and one front Pier Adapter Knobs should still be only hand tight. The weight of the mount and scope puts pressure on the front of the plate for a solid connection, so it is not necessary to lock them down fully with a hex key. With the rear locked down, you will still be able to move the axis easily for a final adjustment. All during this adjustment, it is advised to have the altitude axis fully tightened with a hex key.

Tips for Adjusting the Azimuth – Precision-Adjust Rotating Pier Adapter (1200RPA)

Fully tighten all 4 Pier Adapter Knobs. As you adjust the azimuth with the mount's Azimuth Adjuster Knobs, the mount and adapter top plate will rotate together. (*Remember to back off the opposite Adjuster Knob to the one you are using to rotate the mount.*) When aligned you must snug down the opposite Azimuth Adjuster Knob to the one you were adjusting to polar align. The two opposing Azimuth Adjuster Knobs are what will actually secure the mount's azimuth position when polar aligned. If you leave the adjuster loose, the mount could be knocked out of alignment.

Tips for Adjusting the Altitude

The mount's polar axis is held in place between the two side plates. It is secured by the two Polar Axis Pivot Screws on either side in the back and the two Altitude Locking Knobs located in the polar fork's altitude adjustment slots. The Polar Axis Pivot Screws should already be tight. It is possible for the mount to shift slightly when the Altitude Locking Knobs are fully tightened down after adjustment of the altitude angle. To prevent that, it is suggested that the initial altitude adjustment be done with the Altitude Locking Knobs just hand tight, and as you approach the final adjustment point, tighten the knobs a little further with a hex key after each movement. If you move the axis too high and overshoot the angle, it is better to loosen the two Locking Knobs a bit, bring the axis back down a very small amount and proceed back up starting with the Locking Knobs hand tight again. This way you are using the weight of the mount to insure a solid connection to the altitude adjuster. During the final "tweaking" adjustment phase, with the Altitude Locking Knobs relatively tight, screw the Tommy bar into one of the holes in the knob. This bar can then be used as a fine adjustment tool and is a good indication of the position of the axis. If you have misplaced your Tommy bar, you can order a new one (M12080) or simply insert an allen wrench into the threaded hole.

