

Instruction Manual

omegon



Omegon[®] AZ-3 mount

English version 1.2015 Rev A

The Omegon® AZ-3 Mount

Congratulations on the purchase of the new Omegon® AZ-3 Mount. This mount is designed to carry small refractors and catadioptric telescopes.

1. Included parts. The mount includes the tripod with an accessory tray and the alt-azimuth head. See below.

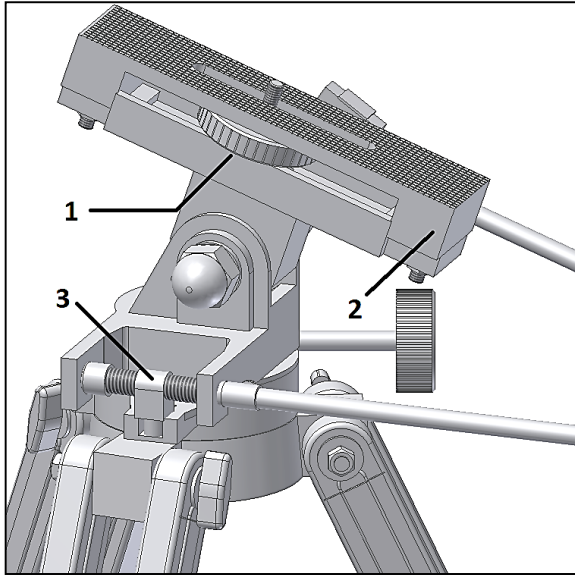


Figure 1. Mount-head part description.

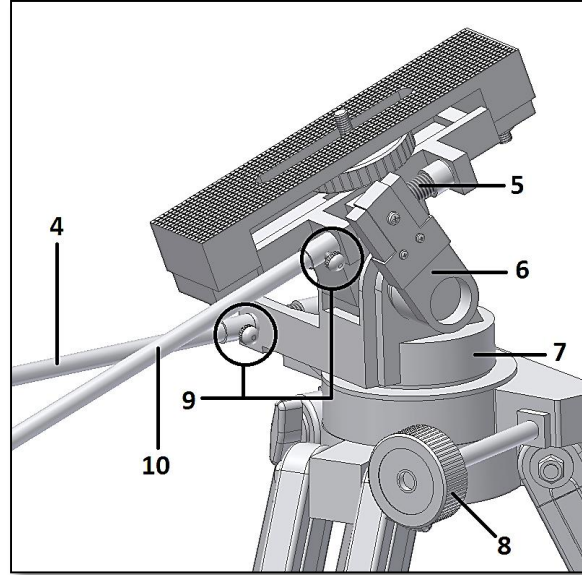


Figure 2. Mount-head part description (cont.).

1.1. Knowing your mount.

- 1- Telescope fixing knob;
- 2- Telescope platform;
- 3- Azimuth fine movements shaft;
- 4- Azimuth handle;
- 5- Altitude fine movements shaft;

- 6- Altitude axis;
- 7- Azimuth axis;
- 8- Azimuth fixing knob;
- 9- Handle thumbscrews;
- 10- Altitude handle;

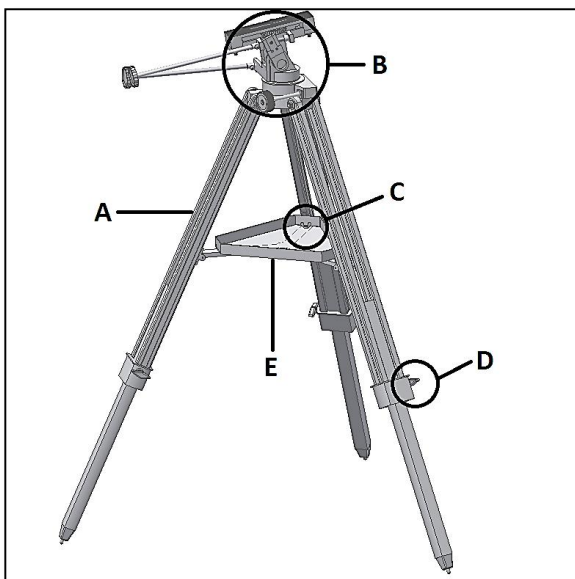


Figure 3. Tripod main parts.

1.2. Tripod main parts. The mount includes the pre-assembled aluminium tripod, which is divided into the following parts.

- A- Tripod aluminium leg;
- B- Mount head;
- C- Ear thumbscrew;
- D- Leg extension fixing hand knob;
- E- Accessory tray;

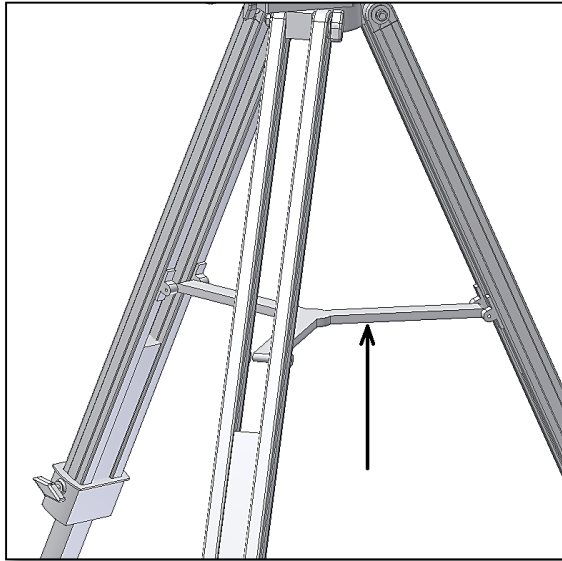


Figure 4. Setting up the central stand.

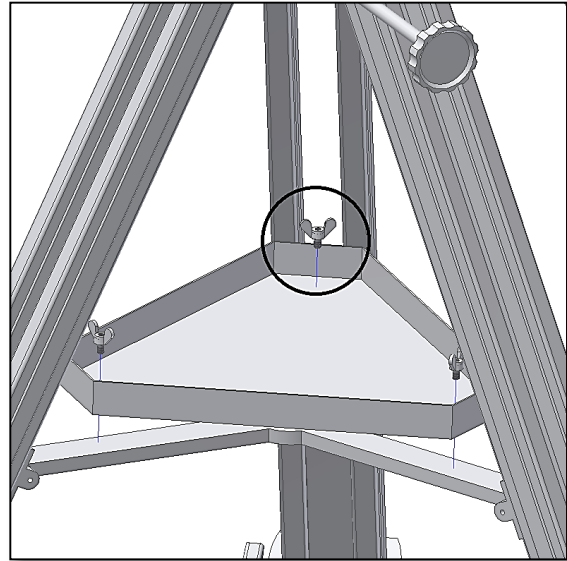


Figure 5. Place the accessory tray.

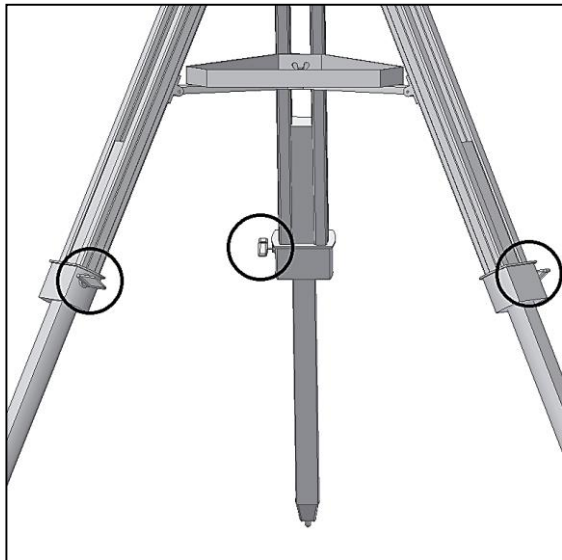


Figure 6. Adjust the mount height and fix it.

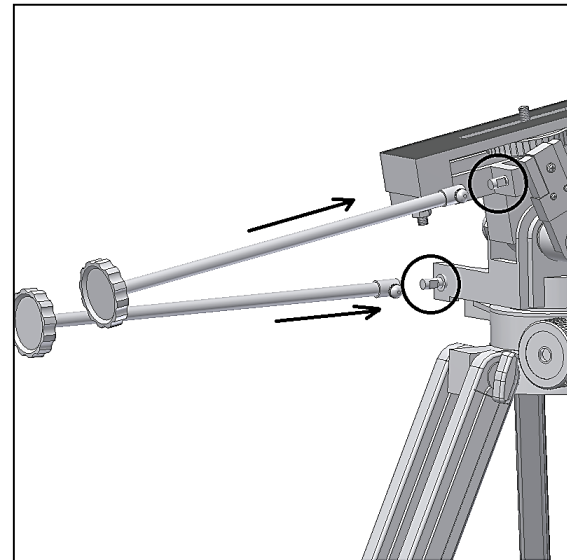


Figure 7. Place both axis handles.

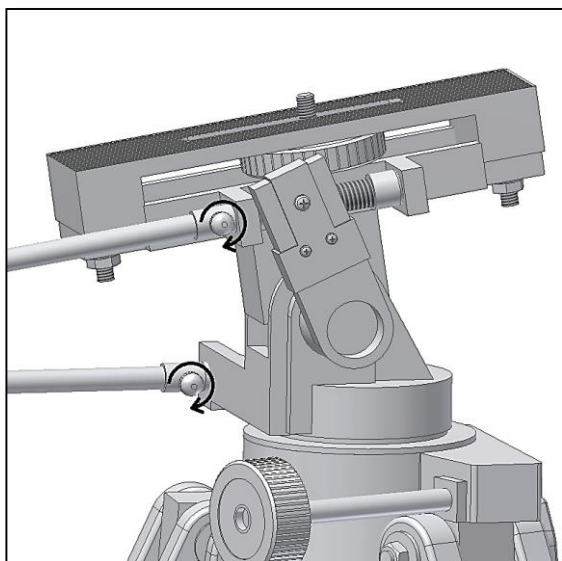


Figure 8. Tighten the two handle thumbscrews firmly.

2. Getting started. Please remove the AZ-3 mount from the supplied cardboard. Set the tripod as shown in figure 4 – set the 3-legged central stand horizontal. Next, place the supplied accessory tray and fasten it securely with the three ear thumbscrews (figure 4). Adjust the mount height by extending the tripod legs. Fix in place by tightening the three tripod fixing knobs (figure 5). Place the two handles in both the azimuth and altitude axis (figure 6). Fix the handles to the mount axis by tightening the two small thumbscrews as shown in figure 7.

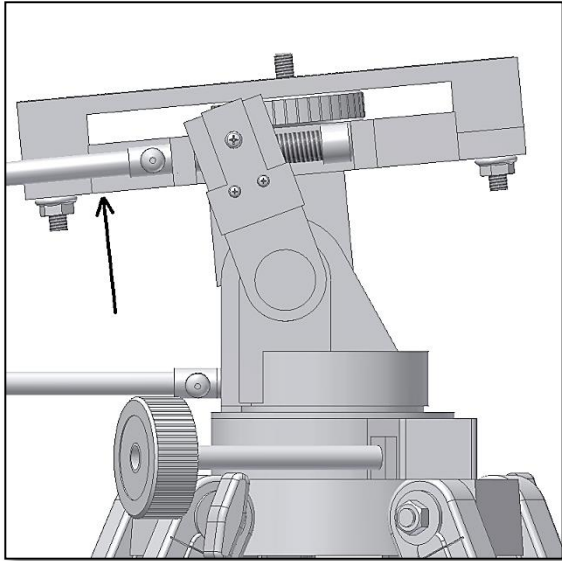


Figure 9. Altitude coarse adjustment.

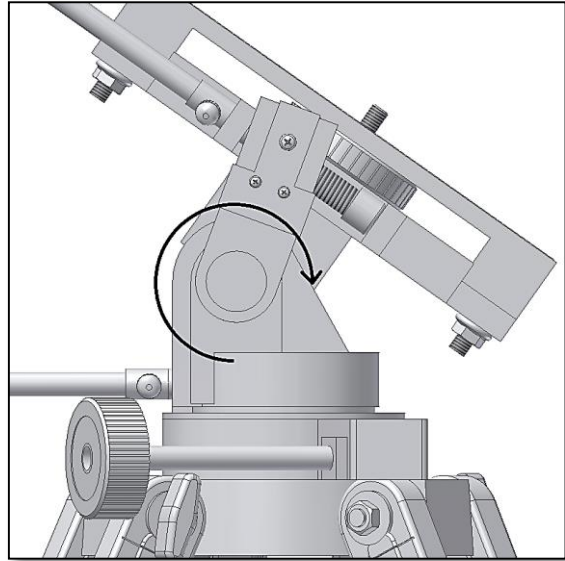


Figure 10. Altitude axis rotate.

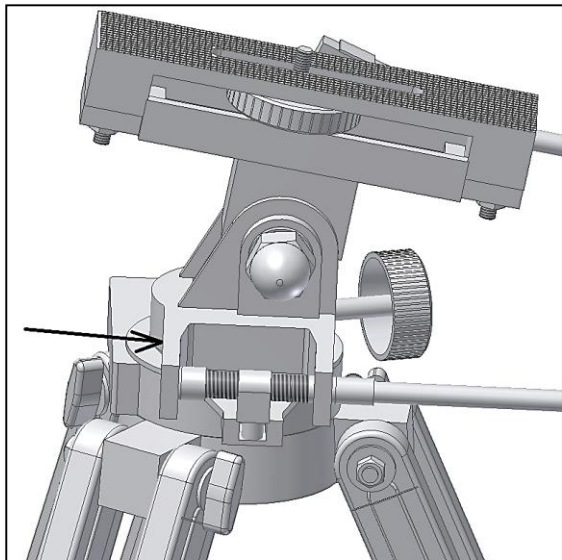


Figure 11. Azimuth coarse adjustment.

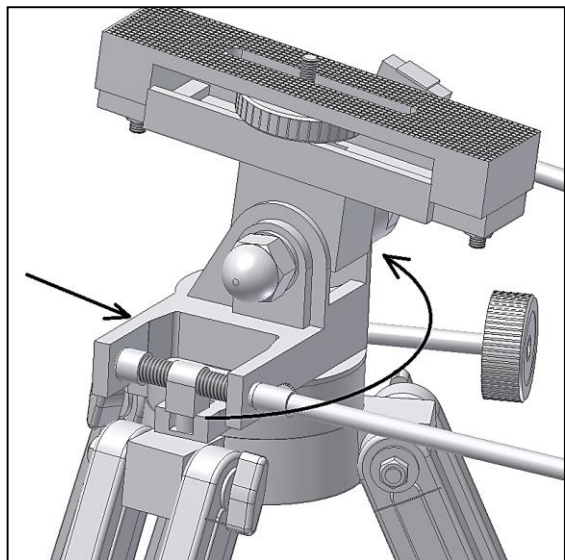


Figure 12. Azimuth axis rotate.

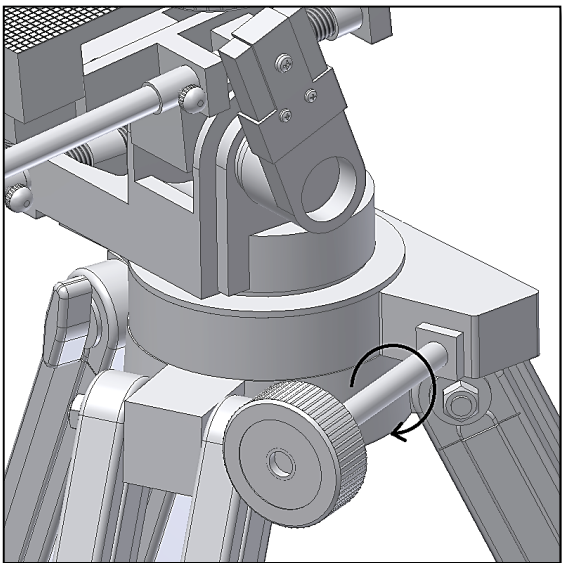


Figure 13. Use the azimuth brake to fix the mount's position.

2.1. Coarse adjustments. The mount moves in two axis; the altitude (up and down) and the azimuth axis (left and right). **Coarse adjustment:** Push the telescope platform up vertically (figure 9). You may need to apply some strength to move it. The mount will turn around the altitude axis (figure 10). This is called the altitude coarse adjustment movement. The azimuth coarse adjustment movement is done similarly. Apply some pressure to the mount as shown in figure 11. The mount will move along the azimuth axis (figure 12). **Azimuth brake.** Make sure that the azimuth brake is released when coarse adjusting the azimuth axis. Turn it to fix the mount on the azimuth axis.

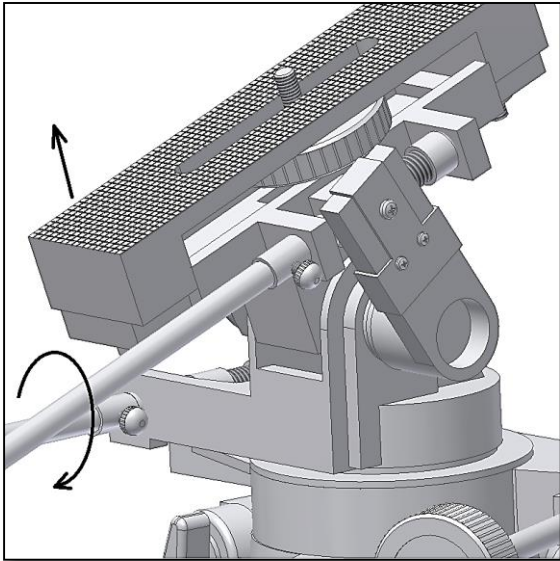


Figure 14. Precision adjustment for the altitude axis.

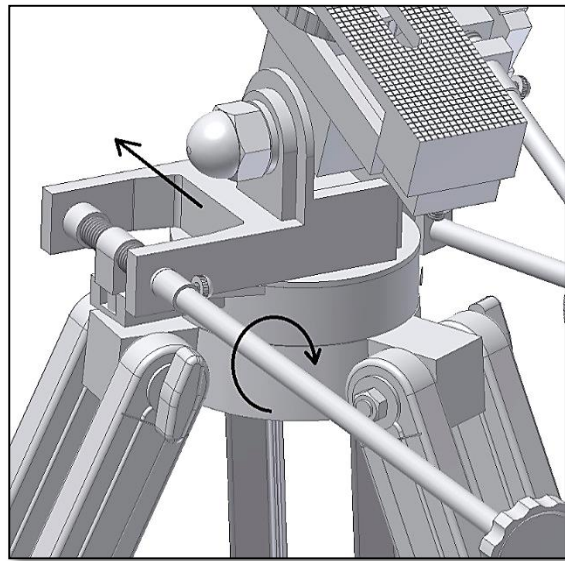


Figure 15. Precision adjustment for the azimuth axis.

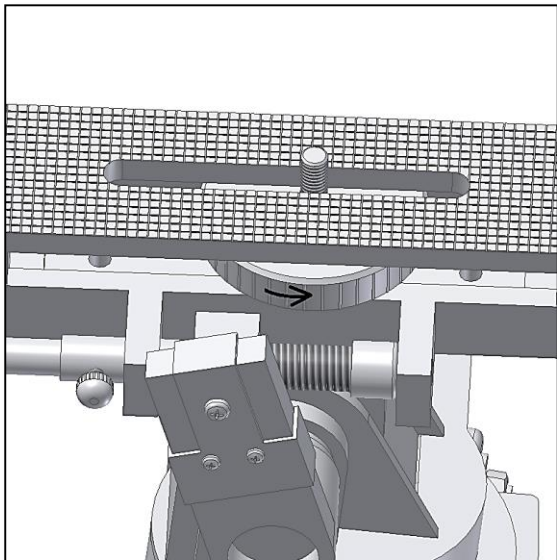


Figure 16. Use the fixing knob to fix the telescope.

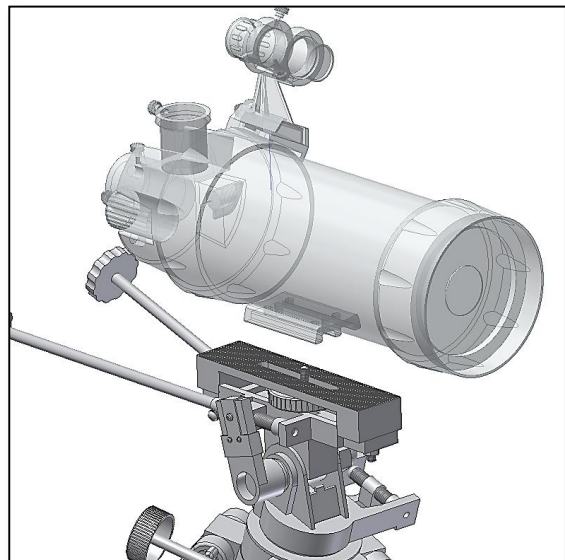


Figure 17. Telescope must be threaded $\frac{1}{4}$ "-20.



Figure 16. Telescope is ready to use.

2.2. Fine Adjustments. The azimuth and altitude handles are used to make small precision adjustments in both axis – please check figure 14 and 15. Rotating the handles clockwise makes the mount turn clockwise on both axis. **Telescope placement.** A small telescope tube can be used with the AZ-3 mount. Short catadioptrics or a refractor can be used. The telescope must have a $\frac{1}{4}$ "-20 female thread on its base. The telescope fixing knob is used to fix the telescope on the telescope platform. Rotate the knob clockwise to tighten firmly.

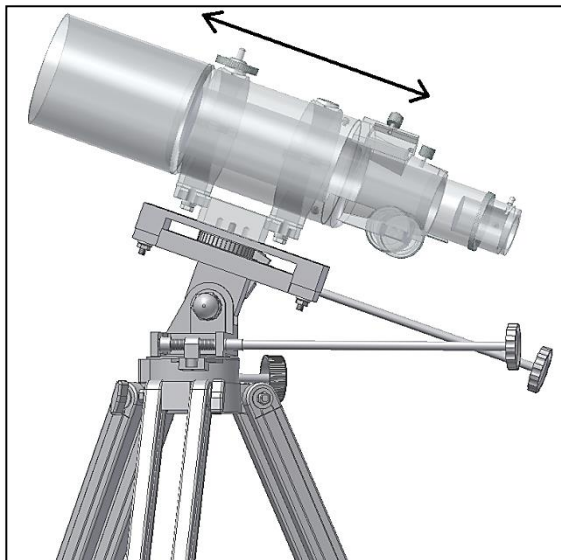


Figure 17. Balancing the telescope.

2.3. Balance. It is important to balance the telescope on the telescope platform. Balancing prevents the telescope from tilting along the altitude axis (figure 17). An unbalanced telescope also causes undesired wearing on the mount and makes it harder to coarse adjust the telescope.

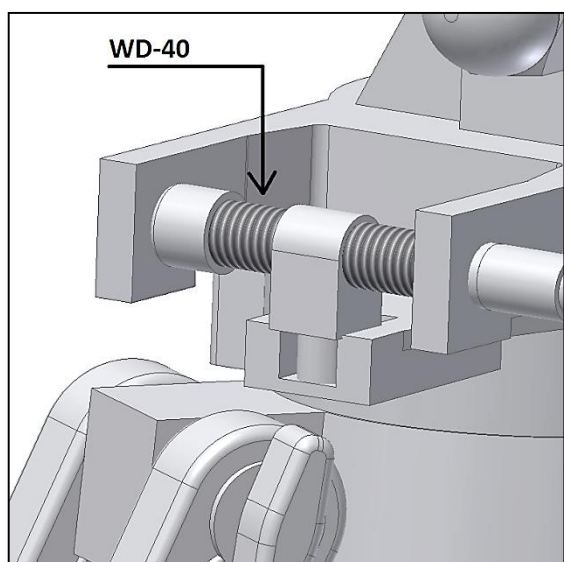
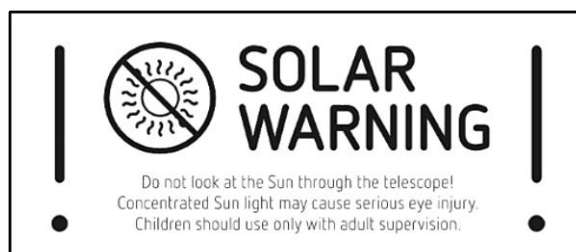


Figure 18. Maintenance.

3. Maintenance. Your AZ-3 mount is now ready to use. Lubrication might be needed after some use. We recommend using one or two drops of WD40 professional liquid grease on both axis' worm wheels. Please wipe off any dust, that might be present, with a soft cloth (do not use paper), before applying the grease.



4. Annotations