

Orion® SkyView™ AZ Altazimuth Mount

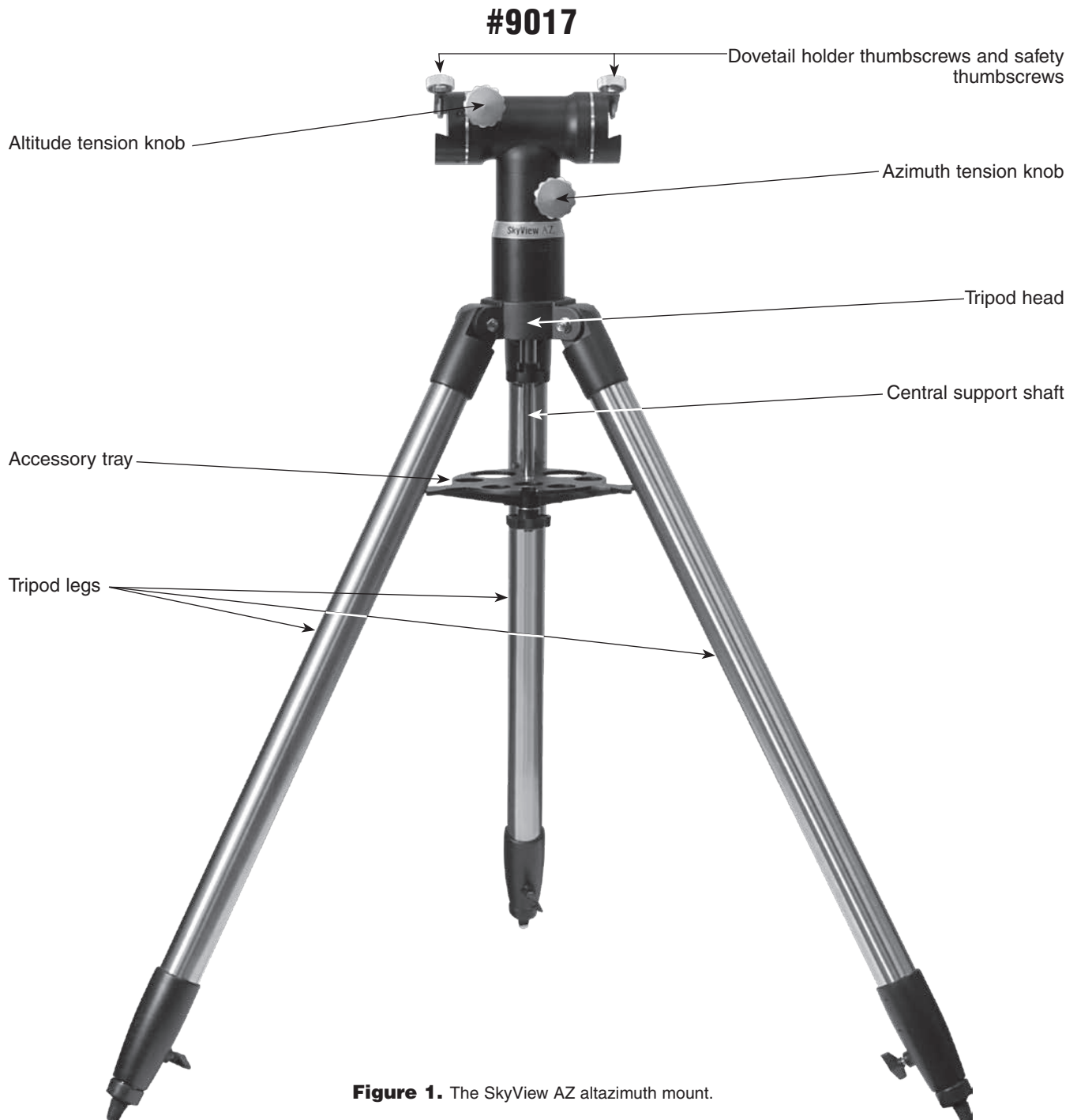


Figure 1. The SkyView AZ altazimuth mount.

Congratulations on your purchase of a quality Orion product. Your SkyView AZ Altazimuth Mount is a sturdy observing platform that allows you to mount and view through up to two telescopes. This extremely versatile mount is an excellent addition to any amateur astronomers' arsenal.

The simple design makes setting up and using the SkyView AZ mount very easy. Both axes of motion feature large knurled tension adjustment knobs which provide smooth telescope pointing, even when making very small, precise positional adjustments. Great for daytime terrestrial or nighttime astronomical applications, you'll find yourself observing more and fussing with equipment less when using the SkyView AZ. Star-party attendees can utilize the SkyView AZ mount's dual dovetail holders to mount two telescopes at once for crowd-pleasing performance.

These instructions will help you set-up, properly use, and care for your mount. Please read them over thoroughly before getting started.

1. Parts List

Qty.	Description
1	Tripod
1	Accessory tray
1	Mount
1	Hex key (2mm)

2. Assembly

Carefully open all of the boxes in the shipping container. Make sure all the parts listed in the Parts List are present. Save the boxes and packaging material. In the unlikely event that you need to return the mount, you must use the original packaging.

Initially assembly of the mount should only take about 10-15 minutes. No tools are needed. Refer to Figure 1 during assembly.

1. Stand the tripod upright and spread the legs out as far as they will go. Keep the tripod legs at their shortest (fully retracted) length, for now; you can extend them to a more desirable length later, after the mount is fully assembled.
2. Place the base of the SkyView AZ mount onto the tripod head. The base of the mount will register with the tripod head.
3. Thread the central support shaft upwards into the mount until tight. This will secure the SkyView AZ mount head to the tripod.
4. Remove the knob and washer from the bottom of the center support shaft. Slide the tripod support tray up the bottom of the central support shaft until the three tray arms contact the legs of the tripod. The flat side of the accessory tray should be facing up. Make sure the "V" of each tray arm is against a tripod leg. Place the knob washer on the center support shaft against the tray, and follow it by threading the securing knob all the way up the center support shaft until it is tight against the tray. The tripod support tray provides additional stability for the tripod, and holds up to five 1.25" eyepieces and two 2" eyepieces.

Your SkyView AZ mount is now fully assembled, and should resemble Figure 1. All that is left is to connect your telescope(s) to the mount.

3. Connecting a Telescope

The SkyView AZ mount features two dovetail holders which allow two separate telescopes to be mounted. To connect a telescope, a dovetail mounting bar is required. Some telescopes have this dovetail bar directly attached to the telescope tube. For other telescopes, tube rings will be required to couple the dovetail bar to the tube. Dovetail mounting bars and tube rings are both available from Orion. Additionally, if your telescope has a 1/4"-20 threaded mounting hole, Orion offers a dovetail adapter that will thread into this hole (Figure 2).



Figure 2. Orion offers a variety of optional mounting bars, 1/4"-20 adaptors, and tube rings

Once you have a dovetail mounting bar on your telescope tube, connecting the telescope to the mount is exceptionally easy. First, unthread the knurled thumbscrew and smaller safety thumbscrew of the preferred dovetail holder until the tips are flush with the interior wall. Then, insert the telescope's dovetail mounting bar into the preferred dovetail holder, and tighten the two thumbscrews firmly.

Note: If you have a telescope with a dovetail mounting bar attached directly to the tube, or you are using the 1/4"-20 dovetail adapter, the finderscope may be oriented in an awkward position when connected to the SkyView AZ. In most cases, this should not cause any problems in actual usage. If you wish to orient the telescope differently, you will need to purchase optional accessories such as tube rings and a dovetail mounting bar so the tube can be rotated within the rings, or a 1/4"-20 dovetail L-adapter (Figure 2). It is likely you will also need to remove the mounting bar connected directly to the telescope tube.

Each dovetail holder of the SkyView AZ mount was designed to be used with telescope optical tube assemblies weighing up to 25 lbs. The mount may not provide adequate stability if the mounted telescope exceeds 25 lbs.

An innovative feature of the SkyView AZ mount is its capacity to support two telescopes at once. This feature can be extremely useful when observing a celestial object that offers pleasing wide-field and high-magnification views. For example, one could mount a wide-field, low-focal length telescope on one of the dovetail holders, and a narrow-field, long focal-length telescope on the other to yield both wide-angle and high-magnification views of the same object. This can be extremely useful when viewing with a large number of people.

For optimum up-and-down motion, each mounted telescope should be balanced front-to-back when positioned horizontally. You can balance the telescope by loosening the thumb screws slightly, and moving the dovetail bar slightly forward or back in the dovetail holder. If you are using tube rings, you can move the telescope tube forward or back in the tube rings. When the telescope doesn't move up-and-down by itself when the altitude tensioning knob is not very tight, you have achieved good balance. If balancing two telescopes of significantly different weight, it is more critical that the heavier telescope be well-balanced.

If the relative orientation of the SkyView AZ mount dovetail holders requires adjustment, the included 2mm hex key can be used. If you intend to align the dovetail holders so the mounted telescopes point to the same area, it is a good idea to have two telescopes mounted during the re-orientation process to ensure proper alignment. Alignment is best done during daylight hours.

Follow the instructions below to re-orient the dovetail holder:

1. Find the adjustable dovetail holder with four small dovetail holder adjustment set-screws (Figure 3).
2. Locate an object such as the top of a telephone pole or a street sign that is at least a quarter-mile away. Move the telescope mounted on the non-adjustable dovetail holder

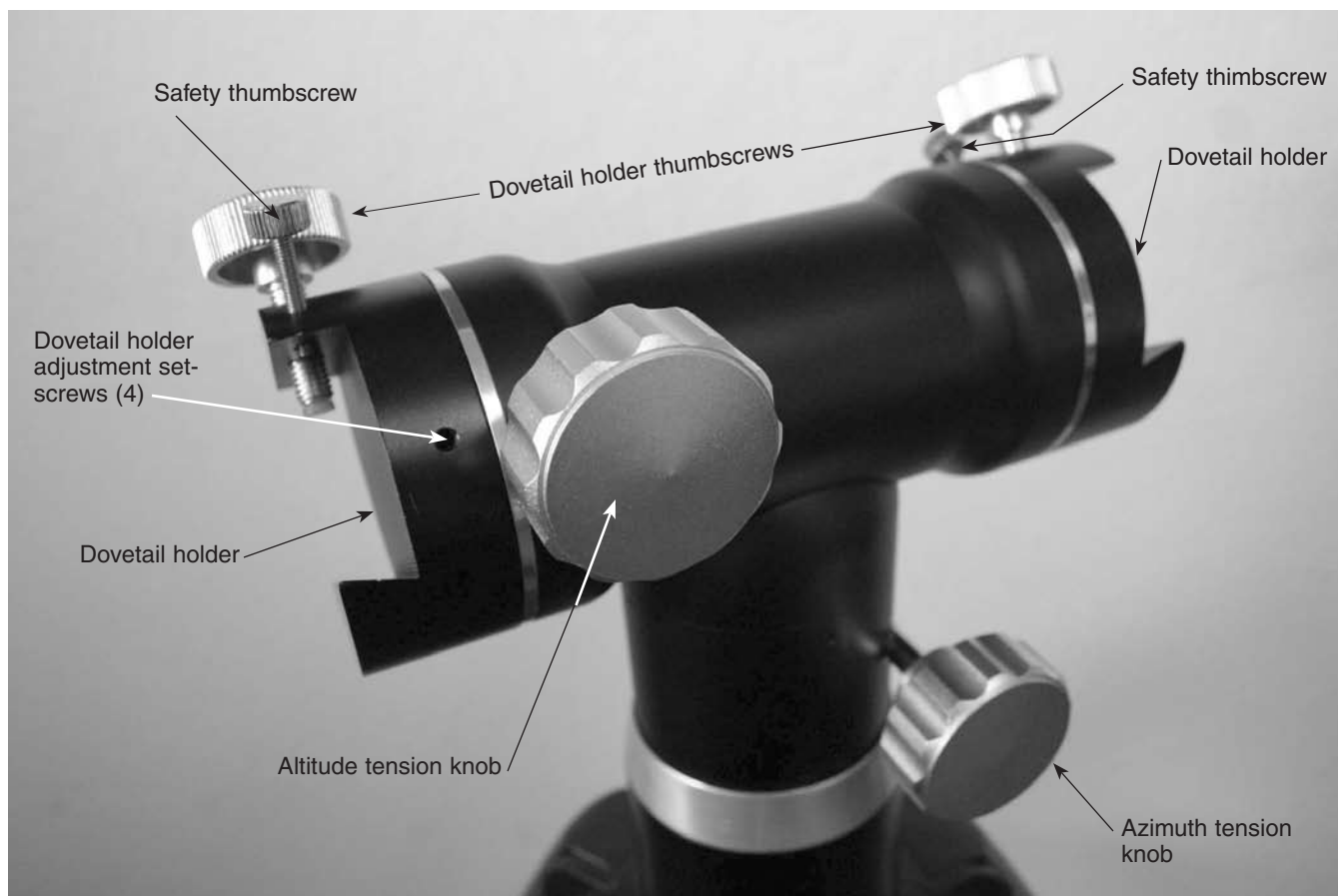


Figure 3. The SkyView AZ mount head.

so the target object appears in the center of the field of view when you look into the eyepiece.

3. Tighten the altitude and azimuth tensioning knobs.
4. Gently grasp the telescope mounted in the adjustable dovetail holder. Use the included 2mm hex key to loosen the four dovetail holder adjustment set screws by a few turns each while grasping the mounted telescope.
5. Reposition the telescope and dovetail holder up-and-down so it matches the orientation of the other mounted telescope, and tighten all four dovetail holder adjustment set-screws.
6. Look into the eyepiece of both telescopes to confirm proper alignment.

4. Using the SkyView AZ Mount

The SkyView AZ mount allows motion of the telescope in two axes: altitude (up-and-down) and azimuth (left-to-right). Hence, the SkyView AZ is an “altazimuth” mount. Simply move the telescope up-or-down and left-to-right with a gentle pushing or pulling motion to adjust position.

If the motion of one or both of the axes is too loose or too tight, you can adjust the tension by tightening or loosening the large knurled tension knobs (Figure 3). You should be able to adjust these knobs so that even the smallest motions of the mount are very smooth. If the motion on the altitude axis is not smooth no matter how the altitude tension knob is adjusted, then you will need to better balance the telescope front-to-back.

For heavier telescopes, we recommend extending the tripod legs in order to give the mount a wider stance; this will prevent the mount from becoming “tippy”.

Tracking Celestial Objects

Celestial objects appear to move slowly across the sky because of the rotation of the Earth on its polar axis. When you observe an object through your telescope, you’ll see it drift gradually across the field of view. To keep the object centered in the field, gently move the mounted telescope as needed with your hands. For these small, precise movements,

you may need to readjust one or both tensioning knobs. Keep in mind that objects will appear to move faster at higher magnifications, when the field of view is narrower.

5. Care and Maintenance

If you give your SkyView AZ mount reasonable care, it will last a lifetime. Store it in a clean, dry, dust-free place. Do not store the mount outdoors, although storage in a garage or shed is OK.

Your mount requires very little mechanical maintenance. The mount is constructed of aluminum and has a black anodized finish that is fairly scratch-resistant. If a scratch does appear, it will not harm the mount. Dust, dirt, or moisture on the mount should be wiped off with a soft cloth. If the mount needs more extensive cleaning, use a household surface cleaning fluid.

When transporting the mount to an observing location, we recommend removing accessory tray and folding the tripod legs together. For extra portability, you can also remove the SkyView AZ mount entirely from the tripod; simply unthread the central support shaft under the tripod head. To protect your mount during transport, Orion offers optional soft padded carry cases. Visit www.OrionTelescopes.com for details.

6. Specifications

Mount:	Altazimuth, dual-dovetail holder equipped
Material:	Black anodized aluminum
Maximum load capacity: <i>(per dovetail holder)</i>	Approximately 25lbs.
Axis tensioning:	Via knurled knobs
Telescope connection:	Requires Orion dovetail bar (Optional)
Tripod:	Steel legs, adjustable height, includes accessory tray
Assembled weight:	19 lbs. 8 oz.

One-Year Limited Warranty

This Orion SkyView AZ Dual-Altazimuth Mount is warranted against defects in materials or workmanship for a period of one year from the date of purchase. This warranty is for the benefit of the original retail purchaser only. During this warranty period Orion Telescopes & Binoculars will repair or replace, at Orion’s option, any warranted instrument that proves to be defective, provided it is returned postage paid to: Orion Warranty Repair, 89 Hangar Way, Watsonville, CA 95076. If the product is not registered, proof of purchase (such as a copy of the original invoice) is required.

This warranty does not apply if, in Orion’s judgment, the instrument has been abused, mishandled, or modified, nor does it apply to normal wear and tear. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. For further warranty service information, contact: Customer Service Department, Orion Telescopes & Binoculars, 89 Hangar Way, Watsonville, CA. 95076; (800)-676-1343.