INSTRUCTION MANUAL

Orion AZ-4 Micro-Motion Altazimuth Mount

#5781

ORION TELESCOPES & BINOCULARS

Providing Exceptional Consumer Optical Products Since 1975

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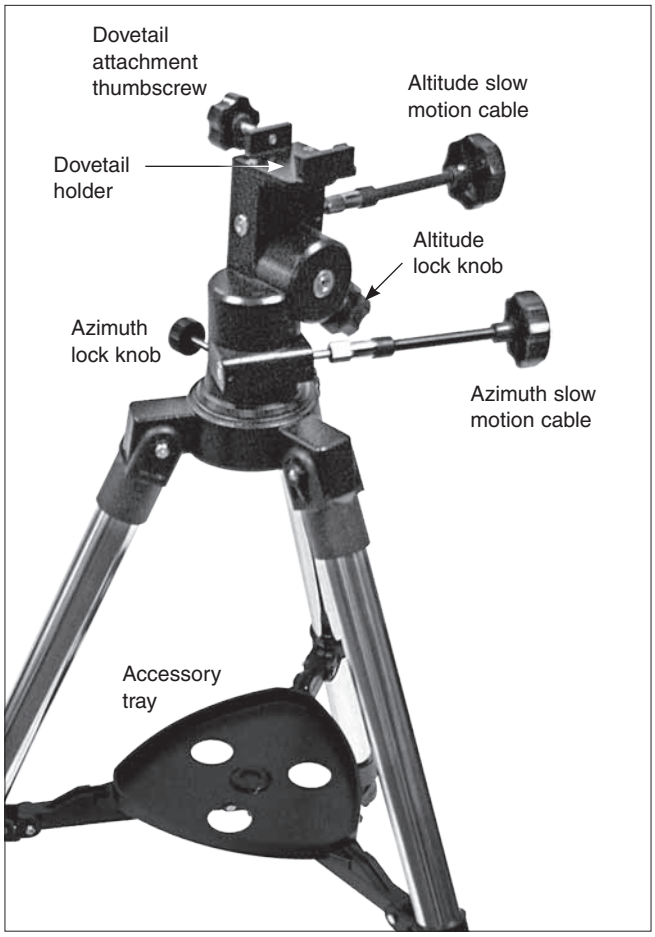

Figure 1.

Figure 2.

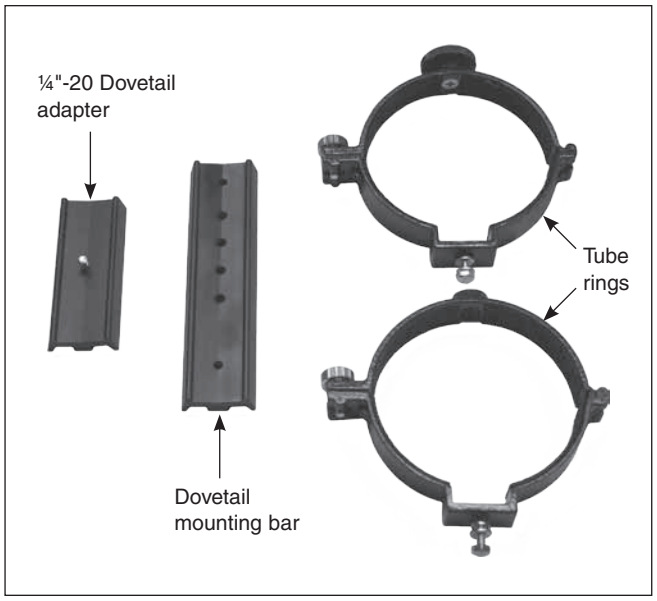

Figure 3.

Congratulations on your purchase of a quality Orion product. Your AZ-4 Micro-Motion Altazimuth Mount is a sturdy and versatile mount for small telescopes, spotting scopes, and binoculars. The simple design makes setting up and using the mount very easy. Teflon bearing surfaces for both axes of motion insure smooth telescope pointing, even when making very small, precise positional adjustments. Great for exploring scenic daytime vistas or scanning the night skies, you'll find yourself observing more and fussing with equipment less when using the AZ-4.

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

Parts List

AZ-4 Tripod and Head Assembly

Accessory tray

Altitude slow motion cable (short)

Azimuth slow motion cable (long)

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.

Figure 4.

Assembly

Initial assembly of the mount is extremely easy as the mount is mostly pre-assembled at the factory. Unpack all of the parts and lay them out in your workspace before beginning.

1. Spread the tripod legs apart as far as they will go.
2. Place the accessory tray onto the three-sided leg spreader and align the tabs so that the center of the accessory tray registers with the leg spreader.
3. Rotate the accessory tray so that it firmly clicks into the three tabs on the leg spreader (**Figure 2**).

Connecting a Telescope

The AZ-4 mount was designed to be used with spotting scopes, binoculars and smaller telescopes. For best results, the telescope optical tube assembly should not weigh more than 4 lbs.

To connect a telescope, a dovetail mounting bar is required. Some telescopes have this bar directly attached to the tube.

Telescopes or spotting scopes with a ¼"-20 mounting block require a dovetail bar with a ¼"-20 stud built in. This accessory is available from Orion (#7388).

Binoculars require an L-bracket (available from Orion), in addition to the ¼"-20 dovetail mounting bar.

For telescopes that do not have a dovetail bar or ¼"-20 mounting block attached, you will need a set of tube rings to attach a dovetail bar (**Figure 3**). These accessories are available through Orion. Additionally, if your telescope has a ¼"-20 threaded mounting hole, Orion offers a dovetail "L-bracket" that will fit the dovetail receptacle of the AZ-4 and thread into this hole.

Once you have a dovetail mounting bar on your telescope tube, connecting the telescope to the mount is easy. First, unthread the knurled black plastic thumbscrew on the AZ-4's dovetail holder until the tip is flush with the interior wall of the dovetail holder. Then, insert the telescope's dovetail bar into the mount's dovetail holder, and tighten the thumbscrew firmly. The telescope and dovetail bar will be installed on the mount as shown in **Figure 4**.

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 AZ-4. In most cases, this should not cause any problems in actual usage but may be awkward or uncomfortable. Contact Orion Customer Service or visit our website (OrionTelescopes.com) for additional product information.

For best up-and-down motion, the telescope should be balanced front-to-back when positioned horizontally. You can balance the telescope by loosening the thumbscrew 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 arm's tensioning knob is not very tight, you have achieved good balance.

Using the AZ-4 Mount

The AZ-4 mounts allow motion of the telescope in two axes: altitude (up-and-down) and azimuth (left-to-right). Hence, the AZ-4 is an "altazimuth" mount. Loosen the altitude and azimuth lock knobs (see **Figure 1** for location), then push the telescope to the direction you want to look at. The mount will have enough tension to hold the telescope in place if it is reasonably balanced.

Slow Motion Control

After you have pointed the telescope at the direction or object you want, you can use the slow motion cables to make more precision movements. This is especially helpful when centering an object, or tracking a celestial object if you are using the mount for star gazing. Tighten the two lock knobs before using the slow motion control cables. If you need to make larger movements, loosen the lock knobs and reposition the telescope before tightening the knobs again.

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, turn the slow motion cables for both altitude and azimuth as needed to keep the object centered. Make sure the lock knobs are tightened before using the slow motion cables.

Tripod Height Adjustment

There is an extendable leg segment on each tripod leg to allow quick height adjustment. Simply loosen the leg extension lock screw (**Figure 5**) to allow the tripod leg to extend. Hold the mount and tripod while adjusting the leg height and tighten the lock screw when the desired height is set.

Care and Maintenance

If you give your AZ-4 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.

Figure 5.

For transport, you can remove the accessory tray and fold the tripod legs together. To protect your mount during transport, Orion offers optional soft padded carry cases.

Specifications

Mount:	Altazimuth
Material:	Composite materials, stainless steel tripod
Maximum load capacity:	Approximately 4 lbs.
Bearing surfaces:	Teflon washers
Assembled weight:	7 lbs.
Height range:	31-49"

One-Year Limited Warranty

This Orion product 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. Proof of purchase (such as a copy of the original receipt) is required. This warranty is only valid in the country of purchase.

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. It is not intended to remove or restrict your other legal rights under applicable local consumer law; your state or national statutory consumer rights governing the sale of consumer goods remain fully applicable.

For further warranty information, please visit **www.OrionTelescopes.com/warranty.**

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