

INSTRUCTION MANUAL

Orion® U-Mount

#51865

**Orion® U-Mount and Paragon
Plus XHD Package**

#22115



#22115 (shown)



Corporate Offices: 89 Hangar Way, Watsonville CA 95076 - USA
Toll Free USA & Canada: (800) 447-1001
International: +1(831) 763-7000
Customer Support: support@telescope.com

Copyright © 2022 Orion Telescopes & Binoculars. All Rights Reserved. No part of this product instruction or any of its contents may be reproduced, copied, modified or adapted, without the prior written consent of Orion Telescopes & Binoculars.

Congratulations on your purchase of a quality Orion product. Your Orion U-Mount is a sturdy, yet highly portable observing platform for small telescopes, spotting scopes, and binoculars. The simple design makes setting up and using the mount very easy. Ultra low friction 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 Orion U-Mount!

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

1. Parts List

U-Mount

3/8"-16 to 1/4"-20 sleeve insert

Paragon Plus Tripod (in package #22115 only)

Instruction manual



Figure 1. The U-Mount installed on top of the Paragon Plus XHD tripod.

2. Assembly

The Orion U-mount is mostly assembled out of the box, and requires very little setup. If you only purchased the U-Mount head, then it is ready to install on top of a sturdy photo tripod. Look on the bottom of the U-mount where it will attach to the tripod, and you'll find a 3/8-16" threaded hole, with a 1/4"-20 threaded sleeve insert installed in that hole. Depending on your tripod, you may need to remove this threaded insert using a flat

head screwdriver. The U-Mount is designed to fit on any photo tripod, including those that use the larger 3/8"-16 studs. If your tripod has a 1/4"-20" post, refer to the instruction below referencing the installation on the Paragon Plus XHD mount

NOTE: Do NOT use the U-mount in conjunction with a photo head on top of your tripod. It is designed to attach directly to the tripod elevator shaft and REPLACE the tripod head (figure 1), not sit on top of the head. Attaching the U-Mount on top of a tripod head may lead to instability.

Installing the U-Mount onto the Paragon Plus XHD tripod

Simply remove the tripod head from your Paragon Plus tripod to reveal the 1/4"-20 tripod stud. To do this, raise the elevator shaft and look underneath the head. You'll find two small allen screws spaced 180 degrees apart, facing upward. You may need to pull the rubber gasket away from the tripod head to gain access to these two screws. Use a 2mm allen wrench to loosen these two screws (**figure 2**). They do not need to be removed completely. Tighten down the left/right tension knob on the head and rotate the entire head counter-clockwise to completely remove it from the elevator shaft (**figure 3**). The two allen screws must be loosened first in order for the head to be unscrewed.

Figure 4 and **figure 5** show installation of the threaded sleeve insert on top of the 1/4"-20 tripod stud. Please install this threaded insert on the tripod first, before attaching the U-mount on top, in order to verify a secure connection. Once the tripod has the sleeve insert installed, remove the pier section of the U-mount by loosening the large azimuth tension hand knob (**figure 1**) and slipping



Figure 2. Loosen the two allen screws in order to remove the Paragon Head from the elevator shaft.



Figure 3. The head has been removed, revealing a 1/4"-20 threaded post.

the pier section of the U-mount by loosening the large azimuth tension hand knob (**figure 1**) and slipping

the pier off of the U-Mount. Thread the pier section directly to the top of your tripod (**figure 6**). Finally, slide the U-Mount into the pier section and snug down on the Azimuth tension knob to secure it in place.



Figure 4. Thread the 3/8"-20 sleeve onto the 1/4"-20 post.



Figure 5. The 3/8"-20 sleeve installed.



Figure 6. Thread the U-mount pier onto the top of the elevator shaft and tighten until snug.

3. Attaching equipment to the U-Mount

The top the U-Mount accepts a Vixen dovetail rail, and we also include a 1/4"-20" adapter in order to attach any camera, spotting scope, or other device that is designed to fit on a standard photo tripod. To use the Vixen dovetail cradle, loosen the two dovetail locking knobs (**figure 1**), and take the 1/4"-20 plate out of the cradle. Slide the telescope or binocular that has a vixen dovetail rail attached into the cradle, and tighten down the dovetail locking knobs, verifying the rail is secure in the dovetail cradle before letting go of the optical tube. Slide forward and backwards to find a good balance point.

NOTE: in order to insert a long dovetail rail, you may need to remove the two safety stop socket head cap screws on each end of the dovetail cradle (**figure 1**). These screws are only there in order to prevent the 1/4"-20 or other short dovetail bar from sliding out and falling to

the floor in case the dovetail locking knobs are loosened. They can be removed and the mount used as normal, just be careful not to loosen the dovetail cradle without first holding onto the equipment bolted in.

To use the 1/4"-20 adapter with any camera/spotter/binocular that accepts 1/4"20 threaded studs, first flip the 1/4"-20 adapter upside down and remove one of the two 1/4"-20 studs from the adapter (**figure 7**). You may use both screws IF your device has two threaded 1/4"20 sockets spaced apart front to back for a more secure connection, but typically, most devices only use one thread. Thread the adapter onto the bottom of your device and tighten it down, then slide the device into the dovetail cradle and tighten down with the locking knobs.

The U-Mount and Paragon Plus tripod have a total weight capacity of 25 lbs. If you are using the U-mount on a stronger tripod, the weight capacity of the head alone is up to 50 lbs depending on tube dimensions, but please be careful that the tripod you use can also handle this amount of weight.



Figure 7. The bottom of the 1/4"-20 adapter plate, showing two 1/4"-20 screws. Remove one for normal use.

4. Use

The U-Mount is extremely easy to use. Adjust the vertical tension knobs on the side walls, and the horizontal tension knob on the vertical pier near the bottom of the U-Mount head. Your equipment is always balanced since it sits in the center of gravity, no matter where the optics are pointed in the sky. Refer to the instructions included in the Paragon Plus Tripod box for details on how to adjust the tripod legs.

5. Care and Maintenance

If you give your U-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.

6. Specifications

Mount:	Altazimuth fork U-mount
Material:	Machined aluminum, black anodized throughout
Maximum load capacity:	Approximately 25 lbs with Paragon Plus tripod
Maximum tube diameter:	Approximately 11.25 wide
Bearing surfaces:	Ultra low friction surfaces
Axis tensioning:	Via large metal thumb knobs
Telescope connection:	Via dovetail rail or ¼"-20 adapter
Assembled weight:	11 lbs (U-Mount head only), 19 lbs (with Paragon Plus Tripod)
Assembled height:	34" (retracted) to 68.5" (extended) with Paragon Plus Tripod

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.



Corporate Offices: 89 Hangar Way, Watsonville CA 95076 - USA
Toll Free USA & Canada: (800) 447-1001
International: +1(831) 763-7000
Customer Support: support@telescope.com

Copyright © 2022 Orion Telescopes & Binoculars. All Rights Reserved. No part of this product instruction or any of its contents may be reproduced, copied, modified or adapted, without the prior written consent of Orion Telescopes & Binoculars.