

# Orion® Premium Linear BinoViewer for Telescopes

#52045



Congratulations on your purchase of the Orion Premium Linear BinoViewer. This innovative binoviewer will work on any telescope with a 1.25" focuser or accessory adapter, and does not require additional inward focus travel. Please review these instructions before using the BinoViewer for the first time. If you run into any problems, contact Orion Customer Support at 800-676-1343 or by email at [www.OrionTelescopes.com/contactus](http://www.OrionTelescopes.com/contactus).

**WARNING:** *Never look directly at the Sun through your telescope—even for an instant—without a professionally made solar filter that completely covers the front of the instrument, or permanent eye damage could result. Young children should use this telescope only with adult supervision.*

## Orion® Telescopes & Binoculars

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Customer Support: [www.OrionTelescopes.com/contactus](http://www.OrionTelescopes.com/contactus)

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## Installing and Using the Premium Linear BinoViewer

1. Remove the caps on the eyepiece collars (A) and barrel (F) before using the BinoViewer.
2. Attach the BinoViewer to the telescope.

*Before inserting the BinoViewer into the focuser, make sure any adapters or diagonal in the focuser drawtube are tightly in place. The BinoViewer weighs much more than an average eyepiece, therefore all connections must be extra secure to support it.*

### For Refractor or Cassegrain telescopes:

Install a diagonal. Your choice of diagonal will determine the image orientation you see; see the table below. Then insert the 1.25" barrel (F) of the BinoViewer into the diagonal and secure it tightly with the thumbscrew(s) on the diagonal.

For terrestrial viewing a normal, upright image is desired, so it is best to use the Orion Pentaprism 90° Diagonal (#52055), which is sold separately. For astronomical viewing, a correctly oriented image is not necessarily needed since there is no "right side up" in space. But if you're referring to a star chart when observing, it can be inconvenient or confusing if the image seen in the telescope is rotated or mirror-reversed. In that case, too, use of the Pentaprism diagonal may be beneficial.



Diagonal Type	Image
Non-inverting diagonal, such as Orion Pentaprism 90° Diagonal	“Normal” upright image
Mirror star diagonal	Upside down and non-reversed
“Correct-image” diagonal	Upside down and mirror reversed

### **For Newtonian Reflector telescopes:**

Insert barrel of the BinoViewer into the focuser or extension tube of Newtonian telescope directly. Once the eyepieces are installed, the image seen will be upright and non-reversed.

### **3. Installing Eyepieces**

Insert two identical 1.25" eyepieces (sold separately) into the left and right eyepiece holders of the BinoViewer (B). Then rotate the twist-tight collars (A) clockwise to secure the eyepieces in place.

### **4. Focusing**

1) Cover or close your right eye and look into the left eyepiece with your left eye. Adjust the focus of your telescope using the telescope's focusing knob until you get a sharp image. You can then lock the focuser on the telescope if desired.

2) Now close or cover your left eye and look into the right eyepiece with your right eye. Check if the image you see is clear and sharp. If it is, you can skip to step 5. If the image is blurry, rotate the BinoViewer's diopter focusing ring (C) – not the telescope's focuser – until the right image is sharp.

Now the image in both eyepieces should appear sharply focused. From here on, to adjust the focus while observing you should use the telescope's focusing knob(s).

### **5. Adjusting the Interpupillary Distance**

The two halves of the Premium Linear BinoViewer can be moved inward or outward (i.e., linearly) to accommodate the distance between your two eyes, or the “interpupillary distance.” While looking into the eyepieces with both eyes, grasp both sides of the BinoViewer housing (E) and push inward or pull outward until the two single images merge into one. Once you've done that, note the number on the IPD (interpupillary distance) scale (D), which ranges from 58mm to 74mm. Then you can quickly set it to the same IPD next time you use the BinoViewer.

### **Using Filters**

The Premium Linear BinoViewer's barrel (F) is threaded to accept Orion 1.25" filters. Simply thread the filter clockwise into the end of the barrel and re-focus. The BinoViewer's excellent lunar and planetary views can be further enhanced by color filters such as light blue, yellow, or red, and a Moon filter will block excessive glare.

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## Storage

Although your BinoViewer is durable, avoid prolonged, unnecessary exposure to the elements. Keep the BinoViewer in its waterproof case, with caps on when not in use. When bringing the BinoViewer indoors after using it, condensation could form on the unit, so it is recommended to leave the BinoViewer in a dry place with caps off and case open overnight to let it dry out completely. Store the BinoViewer indoors or in a dry garage; storage in a humid environment may result in mold growth on the optical surfaces that can destroy optical coatings. This is not covered by the warranty.

## Other Information about the Orion Premium Linear BinoViewer.

- The Premium Linear BinoViewer does not change the magnification provided by an eyepiece compared to its use without the BinoViewer.
- The Premium Linear BinoViewer has a zero backfocus requirement. Most binoviewers on the market require 100mm or more of backfocus, making them impossible to use with many telescopes, particularly Newtonian reflectors which typically have a short backfocus.
- The Orion Premium Linear BinoViewer has an integrated image-erecting lens system. This means that if used directly, or “straight through”, in a refractor or Cassegrain telescope without a diagonal, the image will appear “normal.”

## 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](http://www.OrionTelescopes.com/warranty).