Vixen

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Vixen

Instruction Manual for 7x50 Finder Scope II with Illuminated Reticle

Preface

Thank you for purchasing a Vixen 7X50 finder scope II with illuminated reticle.

- Use this manual in conjunction with your telescope manuals and the manuals of other related accessories.
- You may find descriptions of parts not supplied with this product. Those are indicated in this manual for explanatory purposes only.

⚠WARNING! **Never look directly at the sun through this finder scope. Permanent and irreversible eye damage may result.**

Checking Contents

The product contains the parts listed below. Check if all the items are included.

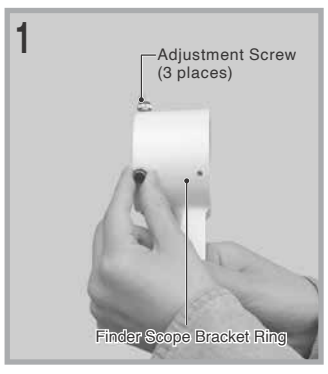
- 7X50 Finder scope II with illuminated reticle
- CR2032 battery (pre-installed for checking purposes)
- Instruction manual (this document)

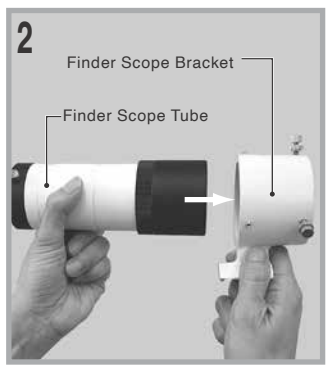
Specifications

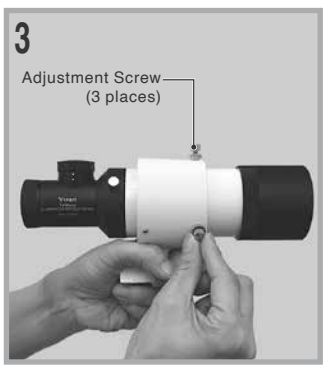
Model	7X50 Finder Scope II with Illuminated Reticle
Objective lens	50mm
Magnification	7X
Field of view	7 degrees
Built-in Reticle	Crosshairs reticle
Dark-field Illumination	Red LED
Battery	CR2032 battery x 1
Battery duration	About 48 hours (Brightest continuous illumination at 20 degrees C.)
Eyepiece Fit Size	31.7mm (Push-fit)
Dimensions	58mm dia. x 220mm long (Excluding protrusion)
Weight	467 g (Without battery)

Attaching the 7x50mm Finder Scope II with Illuminated Reticle to a 50mm Low-profile Finder Bracket (S)

The low-profile finder bracket is optional and sold separately. However, it may be included in the telescope as a standard accessory if you purchase a complete telescope package.





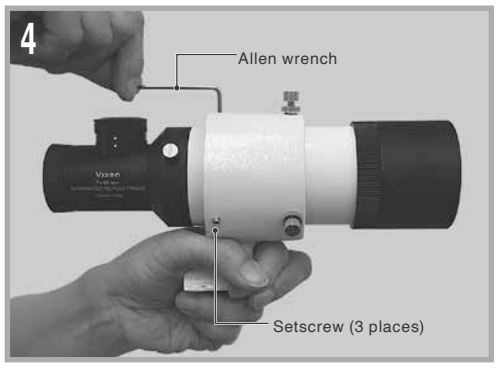


1 Loosen the three adjustment screws on the finder bracket ring as shown in Figure 1 so that the tip of the screws backs off entirely to allow passage of the finder scope tube. Also, loosen the three setscrews (grub screws) with the supplied 2mm Allen wrench.

2 After confirming the orientation of the finder bracket, put the finder scope tube through the bracket ring as shown in Figure 2.

3 Gently tighten the three adjustment screws equally to secure the finder scope in place.

Attaching the 7x50mm Finder Scope II with Illuminated Reticle to a 50mm Low-profile Finder Bracket (S)

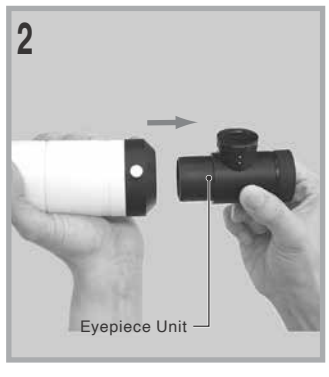


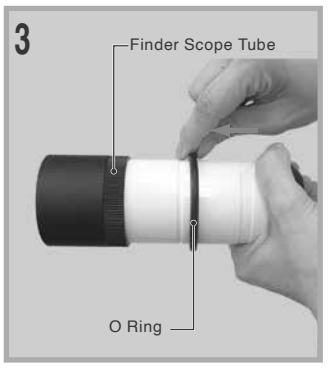
4 Gently tighten the three setscrews equally on the bracket ring with the 2mm Allen wrench.

5 Attach the finder scope bracket with the finder scope onto the telescope.

Attaching the 7x50mm Finder Scope II with Illuminated Reticle to a 50mm XY Finder Bracket II

The 50mm XY finder bracket is optional and sold separately. However, it may be included in the telescope as a standard accessory if you purchase a complete telescope package.



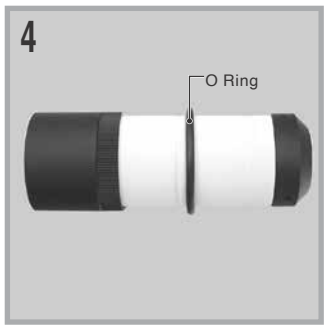


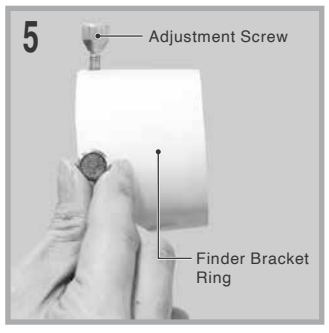
1 Loosen the fixing screw on the side of the finder scope tube holding the eyepiece unit to separate the eyepiece unit part.

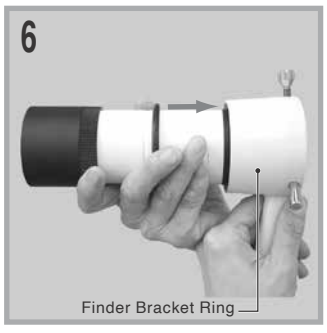
2 Take off the fixing screws and remove the eyepiece unit part from the finder scope tube.

3 Put the finder scope tube through the O-ring. Take the O-ring to the middle of the finder scope tube as shown in Figure 3.

Attaching the 7x50mm Finder Scope II with Illuminated Reticle to a 50mm XY Finder Bracket II







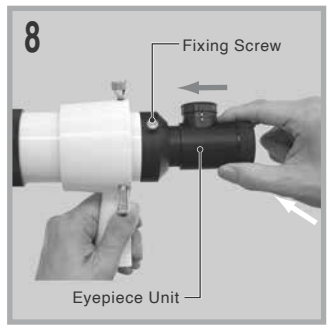
4 There are two grooves on the finder scope tube. Position the O-ring about 6mm short of the narrower groove on the finder scope tube. Straighten the O-ring if it is twisted.

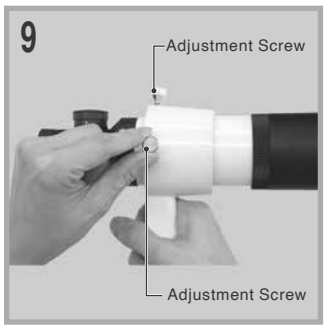
5 Loosen the two adjustment screws on the finder bracket ring so that the tip of the screws is completely moved back to allow passage of the finder scope tube. Do not touch the fixed stud on the lower side of the bracket ring as it is a spring-loaded adjuster.

6 Put the finder scope tube through the bracket ring from its eyepiece end as shown in Figure 6 until the O-ring touches the rim of the bracket ring.

Note) Be careful not to scratch it with the tip of the adjustment screws when you slide the finder scope tube into the bracket ring.

Attaching the 7x50mm Finder Scope II with Illuminated Reticle to a 50mm XY Finder Bracket II





7 Push the O-ring and the finder scope tube together into the bracket ring until the O-ring fits snugly. Confirm the finder scope tube is not pushed back by the rubber O-ring.

8 Put back the fixing screws and replace the eyepiece unit on the finder scope tube in place.

9 Tighten the two adjustment screws gradually so that the finder scope tube is securely set in the bracket ring. Mount the finder bracket equipped with the finder scope on your telescope.

II. Aligning the Finder Scope

How do you utilize a finder scope?

It will be hard for telescope users to locate a target object through a telescope's field of view at high magnification, especially as a field of view narrows. The use of a finder scope will make it easier.

First, you align the finder scope with the telescope before you start observation.

The finder scope on the finder scope bracket is not aligned to the sight of the telescope when you first installed the finder scope on the telescope. Frequent adjustments are not necessary once you finish the alignment correctly.

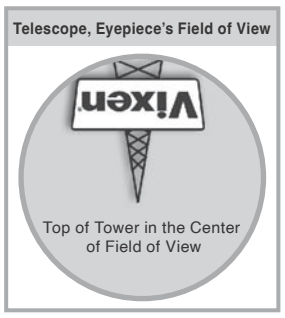
The 7x50 finder scope has built-in crosshairs as an aiming sight.
The crosshairs can be illuminated with red color to secure visibility in the dark.
As an example of following alignment procedures, we use the top of a tower at a distance as a target.

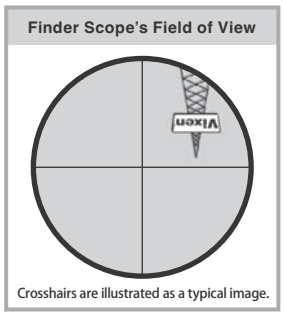
1.Choose a conspicuous target in the distance (over 200m away) and place that target in the center of a field of view of the telescope. The image in the telescope's field of view is usually upside down.

2 Next, look through the finder scope. You should probably find that target somewhere in the finder's field of view. In this illustration, a tower is seen in the upper right of the finder's field of view. The finder scope has crosshairs.

- If you do not focus on the crosshairs, bring it into focus by turning the eyepiece barrel.

- If you do not focus on the target (i.e., tower), bring it into focus by turning the objective lens cell (See section IV.).

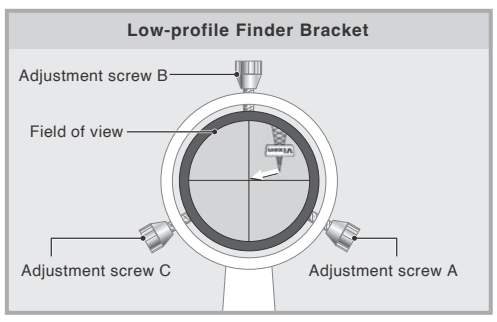




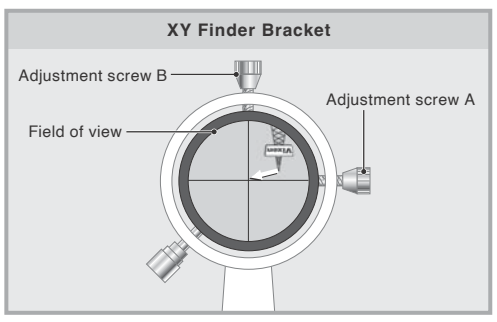
3 While looking through the finder scope, align its field of view with the telescope's field of view by loosening or tightening the adjustment screws on the finder bracket until the target comes close to the center of the field of view.

The trick is loosening one adjustment screw gradually will allow you to tighten the adjustment screw on the other side.

4 You are ready to use the finder scope. Let's try aiming at a different terrestrial target and see if the target in the field of view of the finder scope is seen in the telescope's field of view.



With the low-profile 50mm finder bracket, it looks as if the top of the tower moves toward the center of the crosshairs as you loosen the adjustment screw C and then tighten the adjustment screws A and B.



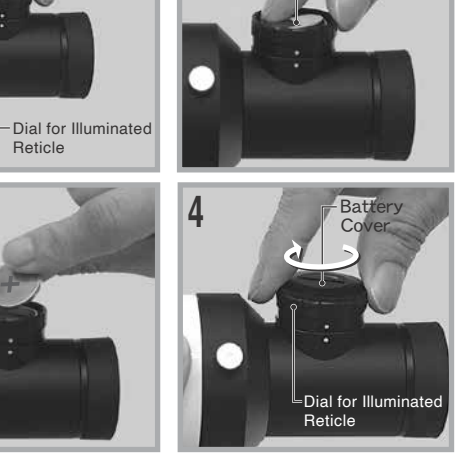
In the case of the 50mm XY finder bracket, the top of the tower moves toward the center of the crosshairs by loosening the adjustment screw A and then loosening the other adjustment screw B.

III. Brightness of the Illuminated Reticle

The brightness of the illuminated reticle varies gradually as you turn the brightness adjustment dial. The dial will return to the "off" position as you continue turning the dial. Stop turning the dial to the brightness appropriate for your viewing.

Be sure to turn off the brightness adjustment dial if it is not in use.

The illumination reticle turns off when the dot mark on the side of the dial is aligned with the dot mark on the body.



IV. Focusing the Finder Scope

The finder scope is adjusted to focus on infinity at Vixen's factory before shipment. Because the ability for vision differs from individual persons, you may need to readjust the focus of the finder scope. Following is the procedure for readjustment.

1 Loosen the lock ring next to the objective lens cell.

2 While holding the lock ring, turn the objective lens cell to find a position where a distant view comes into focus.

3 Tighten the objective lens cell with the lock ring at that position. Do not loosen the objective lens cell too much, as it may detach from the finder scope.

If not focused on the crosshairs: While looking through the finder scope, pinch the rim of the finder scope's eyepiece to turn it to the left or right so that you focus on the crosshairs.

V. Replacing the Battery

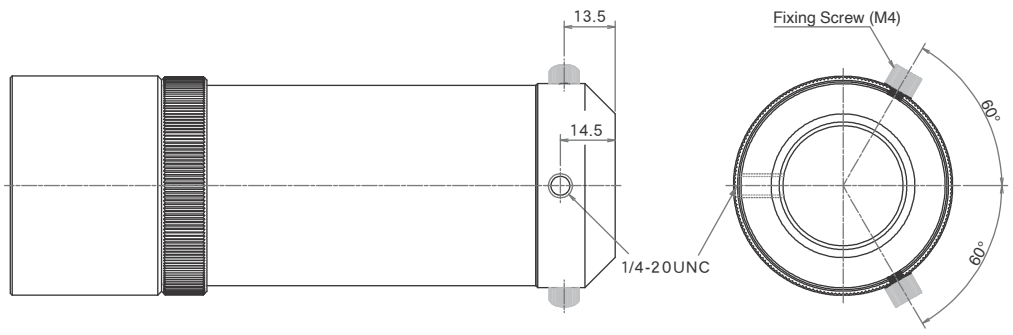
1 Make sure that the power of the illuminated reticle on the finder scope is in the off position. While holding the knurled part of the brightness adjustment dial with your fingers, remove the top cover of the dial by turning it counterclockwise.

2 Pressing the edge of the battery will push out the battery from the battery compartment.

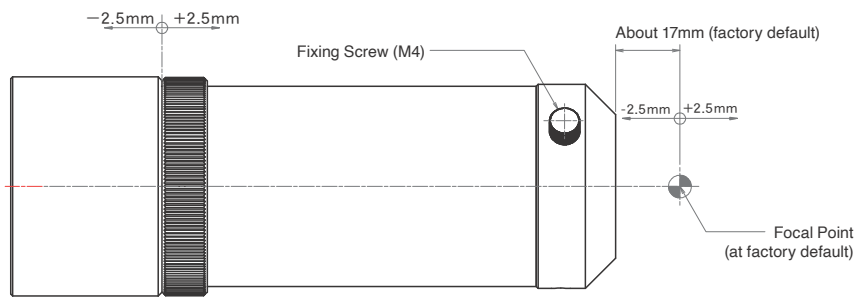
3 You can remove the battery to replace it with a fresh one. Face the side of the positive pole upward.

4 Replace the cover in place to finish the procedure.

VI. Dimensions (Eyepiece Unit Attachment Part)



Distance to the Point of Focus



This finder scope is usable as a guide scope by removing the eyepiece unit part and installing a commercially available mini CMOS guide camera instead.

You can attach the mini CMOS guide cameras with a 31.7mm nosepiece. The guide cameras require a flange back of approximately 17mm to focus. Check the instruction manuals for the guide camera used for detailed information. You can move the point of focus by shifting the objective lens cell back or forth.

Other eyepieces than the provided eyepiece unit are not usable.