

**Vixen Co., Ltd.** 5-17-3 Higashitokorozawa, Tokorozawa, Saitama 359-0021, Japan  
 Phone +81-4-2944-4141(International)  
<http://www.vixen.co.jp> Fax +81-4-2944-9722(International)

## Preface

Thank you for your purchase of a Vixen 7X50 finder scope with illuminated reticle. Use this manual in conjunction with your telescope manual and the manuals relevant to this telescope accessory.

## Checking Contents

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

1. 7X50 Finder scope with illuminated reticle
2. CR2032 battery (pre-installed for checking purpose)
3. Instructions (this manual)

## Specifications

Model	70X50 finder scope with illuminated reticle
Objective lens	50mm
Magnification	7X
Field of view	7 degrees
Reticle	Crosshairs reticle
Illumination	Red LED
Battery	CR2032 battery
Battery duration	About 48 hours (Continuous bright illumination at 20 degrees C.)
Dimensions	58mm (2.28") in diameter and 216mm (8.5") in length
Weight	365 g (12.87 oz), without battery

## Safety Precautions

Be sure to read the manual carefully before using the product.

- Keep this manual nearby to find quick answers to questions.
- The safety precautions below are intended to prevent injuries to yourself and other persons, or damage to the equipment.

### ⚠ WARNING!

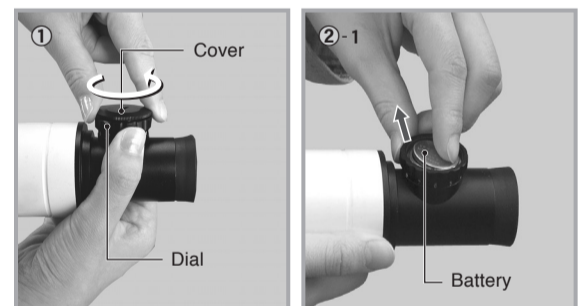
**Never look directly at the sun with your naked eyes or through your telescope and finder scope. Permanent and irreversible eye damage may result.**

### ⚠ Caution

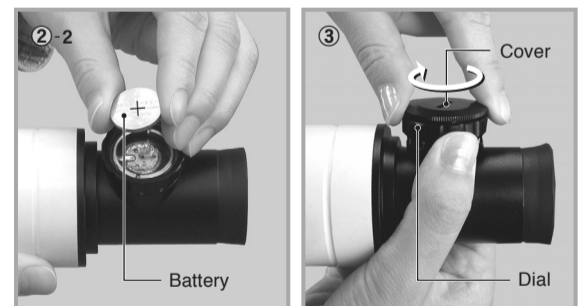
- Ⓞ Do not leave the optical tube uncapped in the daytime. Sunlight passing through the telescope or finder scope may cause fire.
- Ⓞ Do not use the product while travelling or walking as injuries may arise from stumbling, falling or collision with objects.
- Ⓞ Keep small caps, desiccants or plastic packing materials away from children. These may cause choking or suffocation.
- Ⓞ Do not use the product in a wet environment.

## Replacing the Battery

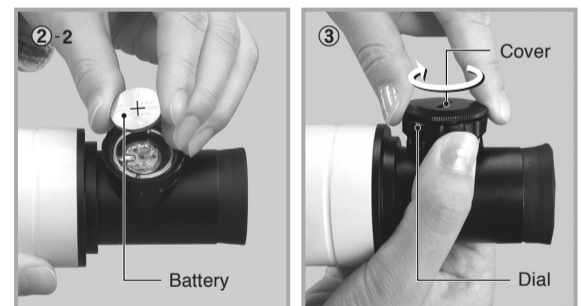
- ① Make sure that the power of the illuminated reticle on the finder scope is turned off. While holding the knurl of the brightness adjustment dial with your fingers, remove the top cover of the dial by turning it counterclockwise.



- ② Pressing the edge of the battery will push out the battery from the battery compartment. Remove the battery and replace it with a fresh one.

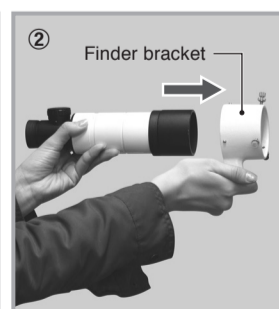
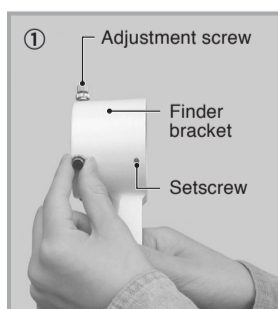


- ③ Replace the cover.



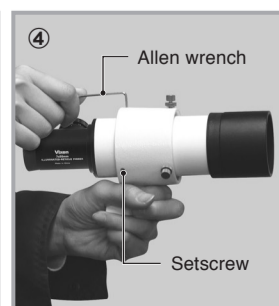
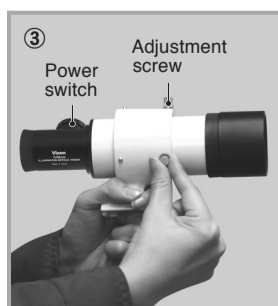
## I-(1) Setting up the Finder Scope with low-profile 50mm Finder Bracket

- ① Loosen the three adjustment screws on the finder bracket ring as shown in the figure so that the tip of the screws are completely moved back to allow passage of the finder scope tube. Also, loosen the three setscrews with the supplied 2mm Allen wrench.



- ② After determining the correct direction of the finder bracket, pass the finder scope tube through the bracket ring as shown in the figure.

- ③ Tighten the three adjustment screws equally to secure the finder scope in place. Make sure that the brightness adjustment dial is conveniently positioned.



- ④ Tighten the three setscrews on the bracket ring with the 2mm Allen wrench equally.

- ⑤ Mount the finder scope unit equipped with the finder bracket on your telescope.

Note: A former short-legged 50mm finder bracket with smaller inside diameter does not allow the 7x50 finder scope to pass through. If this is the case, follow the instructions below.

- ⑥ Loosen the adjustment screws and setscrews on the finder bracket ring in the same way as shown in 1).

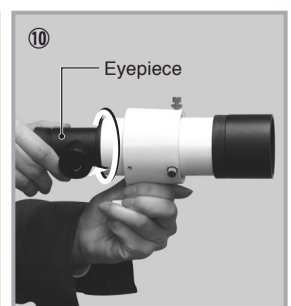
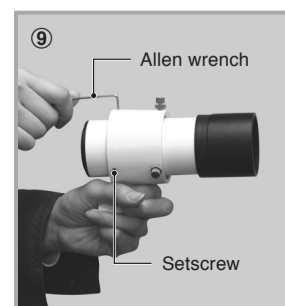
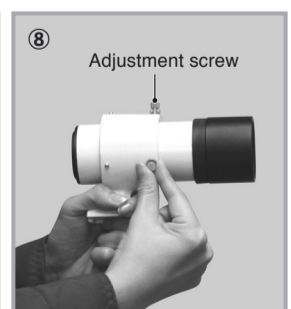
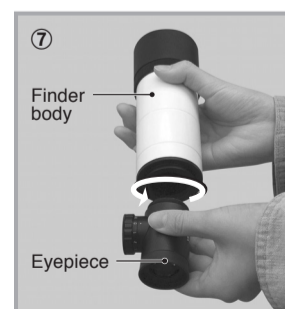
- ⑦ Remove part of the eyepiece assembly unit from the finder scope tube by turning it counterclockwise as shown in the figure 7.

- ⑧ Slide the finder scope tube into the bracket ring as shown in the figure. Tighten the three adjustment screws equally to secure the finder scope.

- ⑨ Tighten the three setscrews on the bracket ring with the 2mm Allen wrench equally and securely.

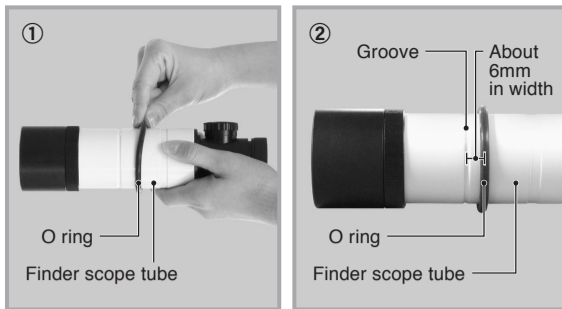
- ⑩ Replace the eyepiece assembly. Attach it to the finder scope tube tightly by turning it clockwise.

- ⑪ Mount the finder scope unit equipped with the finder bracket on your telescope.

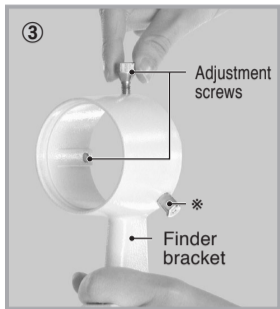


## I-(2) Setting up the Finder Scope with 50mm XY Finder Bracket

- Slide the rubber O ring onto the eyepiece end of the finder scope as shown in the figure.
- There are two grooves on the finder scope tube. Position the O ring about 6mm short of the narrow groove at the middle of the finder scope tube. Straighten the O ring if it is twisted.



- Loosen the two adjustment screws on the finder bracket ring as shown in the figure so that the tip of the screws are completely moved back to allow passage of the finder scope tube.

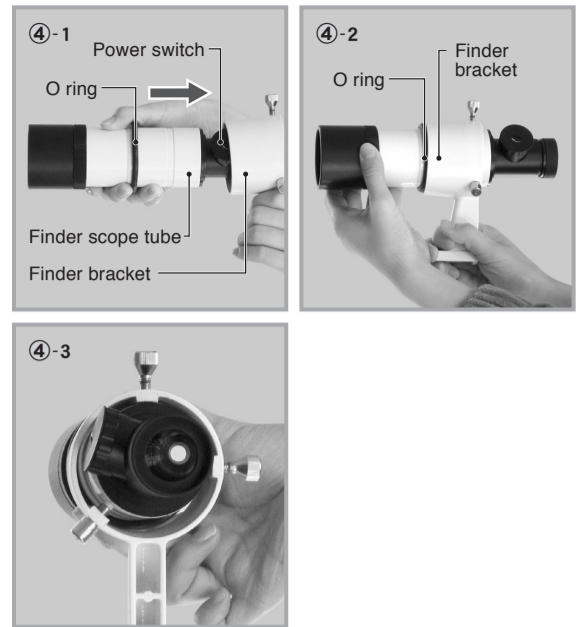


\* Do not touch the fixed stud on the bracket ring as it is a spring-loaded adjuster.

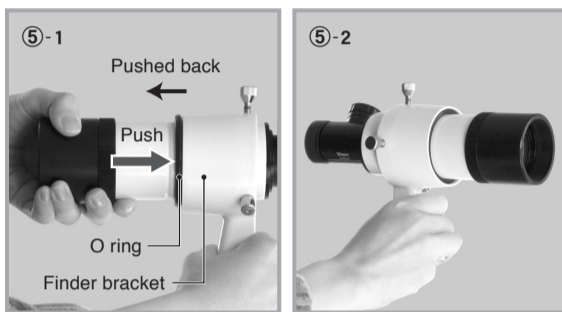
- Slide the finder scope tube into the bracket ring from its eyepiece end as shown in the figure 4-1 until the O ring touches the rim of the bracket ring.

**Note1:**  
Make sure that the brightness adjustment dial is positioned conveniently before you slide the finder scope tube into the bracket ring.

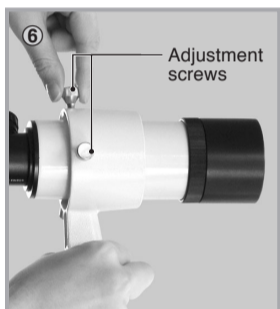
**Note2:**  
Take care not to scratch with the tip of the adjustment screws when you slide the finder scope tube into the bracket ring.



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



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



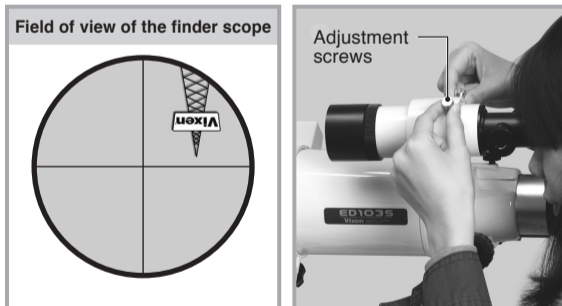
## II. Aligning the Finder Scope

It is very difficult for the telescope user to locate a target object through the telescope's field of view at high magnification, especially as the field of view narrows. The use of a finder scope will make it much easier. Be sure to align the finder scope with the telescope's field of view before you start observing.

- Choose a conspicuous target in the distance (over 200m away) and place the 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.

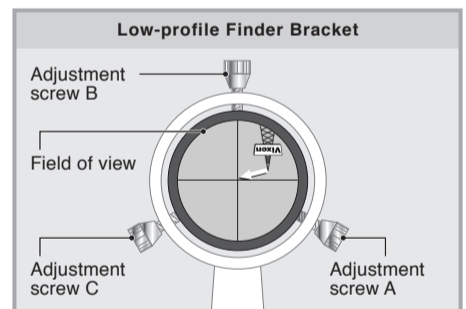


- Next, look through the finder scope. You should probably find the same target somewhere within the finder's field of view. In the illustration, the tower is seen in the upper right of the finder's field of view. The finder scope has cross hairs.

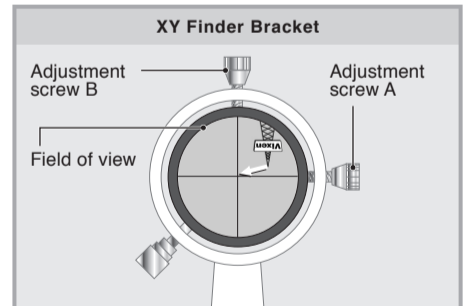


- While looking through the finder scope, align the field of view with the telescope's field of view by loosening or tightening the adjustment screws on the finder bracket so that the target comes close to the center of the field of view.

**Low-profile Finder Bracket**  
In the case of the low-profile 50mm finder bracket, the top of the tower can be moved toward the center of the cross hairs by loosening the adjustment screw C and then tightening the adjustment screws A and B.

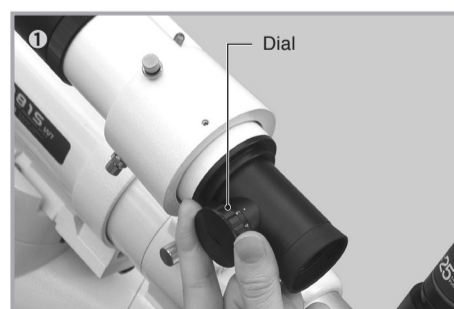


**XY Finder Bracket**  
In the case of the 50mm XY finder bracket, the top of the tower can be moved toward the center of the cross hairs by loosening the adjustment screw A and then loosening the adjustment screws B.



## III. Adjusting the Illuminated Reticle

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



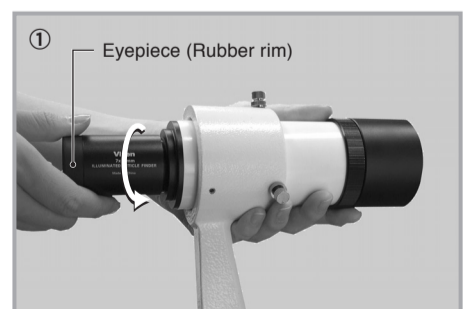
- Be sure to turn off the brightness adjustment dial if it is not in use. The illuminated reticle goes off when the dot mark on the side of the dial is aligned with the dot mark on the body.



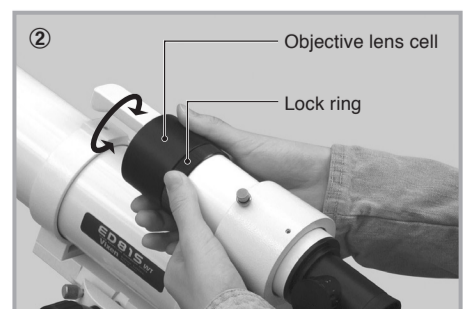
## IV. Focusing the Finder Scope

The finder scope is adjusted to focus at infinity at Vixen's factory before shipment. Because the ability of vision differs with individual persons, it is possible that you will need to readjust the focus of your 7x50 finder scope with illuminated reticle. Following is the procedure.

- While looking through the finder scope, turn the rim of the finder scope's eyepiece to left or right by hand to bring the crosshairs reticle into focus.



- While holding the lock ring next to the objective lens cell of the finder scope, turn the objective lens cell so that it loosens. Find a position of the objective lens cell that brings a distant view into focus. 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.