Vixen®

Instruction Manual for
ED80Sf 鏡筒ユニット取扱説明書

REFRACTORS



PREFACE

Thank you very much for your purchase of a Vixen astronomical telescope.
This manual applies to ED80Sf telescopes. You may occasionally find descriptions in the text not relevant to your particular model.
Read instructions for your mount along with this manual if you purchased the telescope as a complete package.

⚠WARNING!

Never look directly at the sun with the telescope or its finder or guide 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 a fire.
⃠Do not use the product while moving or walking, injuries could result from a collision with objects or from stumbling or falling.
⃠Keep small caps, plastic bags, or plastic packing materials away from children. These may cause a danger of swallowing or suffocation.
⃠Do not use the product in a wet environment and do not handle with wet hands.

HANDLING AND STORAGE

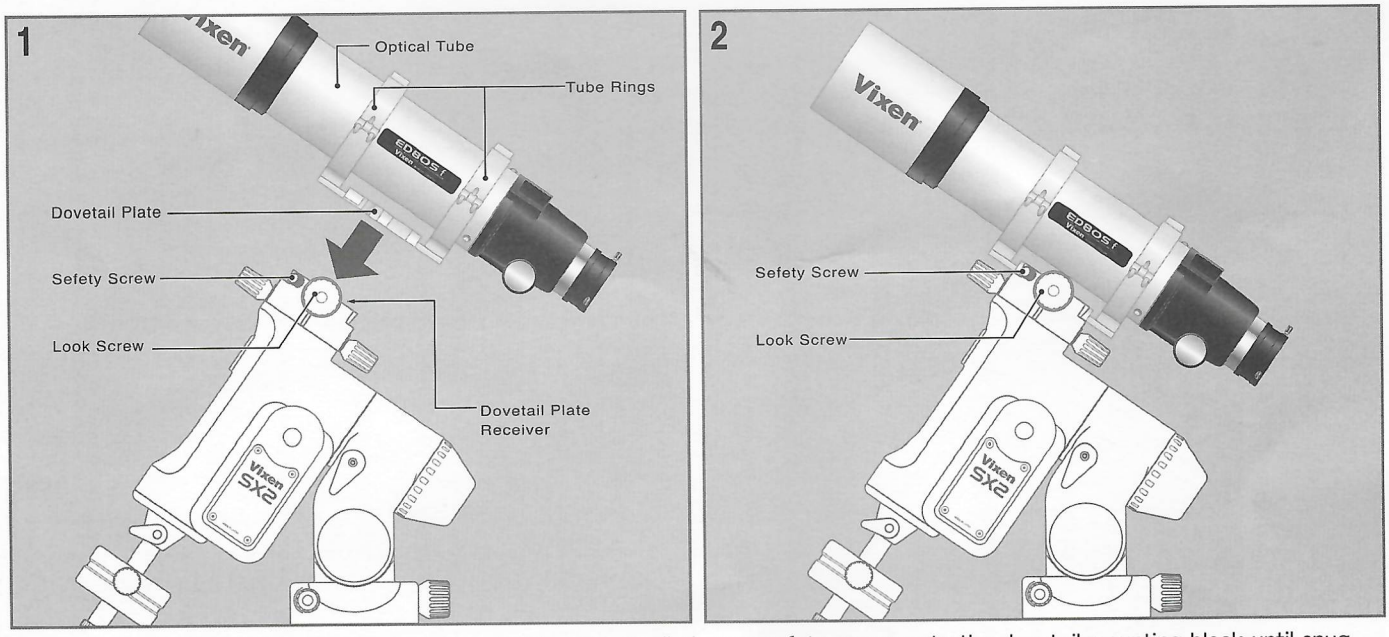
- Do not leave the product inside a car in bright sunshine, or in other hot places. Keep any strong heat sources away from the product.
- When cleaning, do not use solvents such as paint thinner or similar products.
- Do not expose the product to rain, water, dirt or sand.
- Avoid touching any lens or mirror surfaces directly with your hands. In case a lens or mirror becomes dirty with fingerprints or general smears, gently wipe it using a commercially available lens cleaner and a lens cleaning paper or cloth, or consult your local Vixen dealer.
- Blow off dust on lenses using a commercially available blower brush. Do not use compressed air.
- For storage, keep the product in a dry place and do not expose to direct sunlight.

SETTING UP THE TELESCOPE

Refer to your mount instructions along with this manual.

Attaching the Telescope Tube to the Mount (SX2 mount and ED80Sf optical tube shown here.)

1. Loosen both the dovetail plate lock screw and safety screw until the tips of these screws no longer extended into the inner part of the dovetail block.
2. Slide the dovetail mounted scope into the dovetail mounting block as shown in the figure. Tighten the dovetail lock screw (centered on the notch) onto the dovetail tube plate until snug.



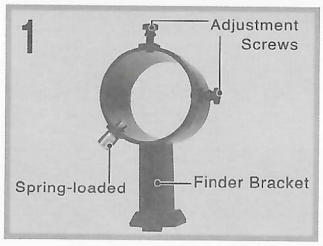
First tighten the dovetail lock screw, and then tighten the small chrome safety screw onto the dovetail mounting block until snug.

Necessity of the Finder Scope

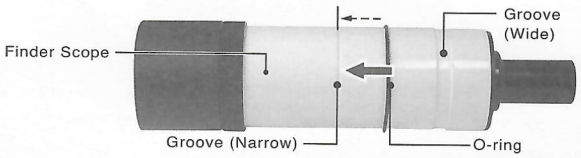
For the novice telescope user it is difficult to locate a selected object in the field of view at high magnification.
Using a finder scope will make this easier.
Be sure to align the finder scope with the telescope before you start observing.

Attaching the Finder Scope

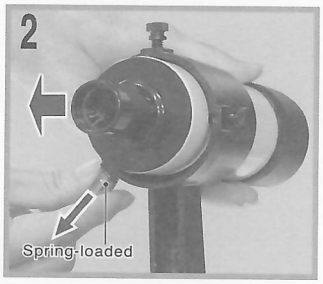
1. Back out the adjustment screw on the finder bracket to allow passage of the finder scope. (Make sure the adjustment screws do not fall off the bracket.)



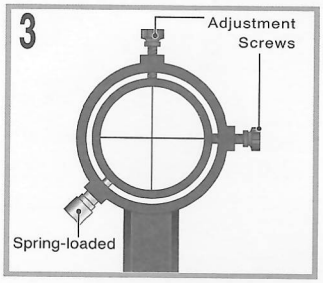
Side the rubber O-ring onto the eyepiece end of the finder. There are two grooves on the finder tube. Position the O-ring on the narrow groove at the middle of the finder tube.



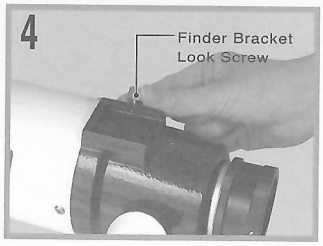
2. Pull up the spring-loaded stud on the bracket ring and pull it so that the finder tube slides into the bracket ring from its eyepiece end.
Release the spring-loaded stud at the position that the wide groove on the finder tube is underneath the stud.



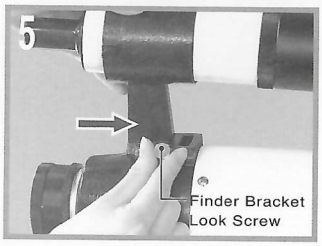
3. Tighten the two adjustment screws so that the finder scope is aligned as shown in the figure.



4. Loosen the finder bracket lock thumbscrew on the telescope.



5. Attach the finder bracket as shown in the figure, tighten the finder bracket lock thumbscrew securely.



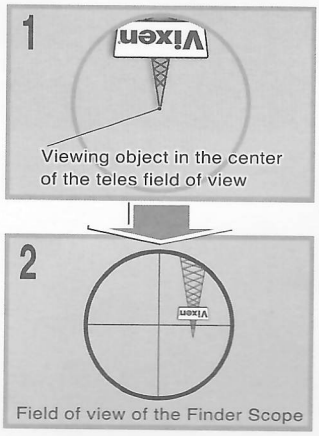
HOW TO ALIGN THE FINDER SCOPE

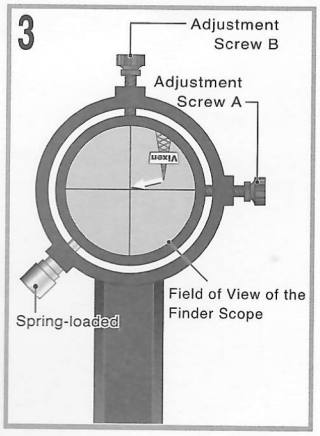
Be sure to align the finder scope with the telescope before you start observing.

1. Choose a conspicuous target in the distance and place the target in the center of the field of view of the telescope. (In the illustration, a distant tower is brought into the center of the field of view of the telescope.)

2. Next, look through the finder scope. You should probably find the same target somewhere within the finder's field of view. (The finder scope has crosshairs.)

3. Align the optical axis (field of view) of the finder scope with the optical axis (field of view) of the telescope. Adjust the finder scope by loosening or tightening the adjustment screws A and B until the target is in the same position, in the center of the crosshairs. (In the illustration, the top of the tower is in the center of the crosshairs.)

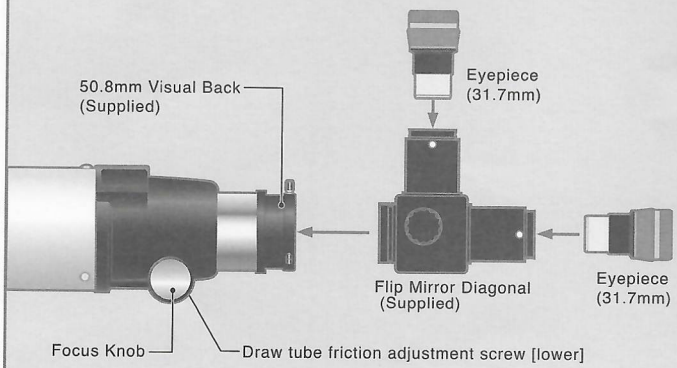




OPTIONAL ACCESSORY CHART

Visual Configuration

The telescope does not come with the eyepiece as standard accessory unless you purchased a package.



Magnification of the Telescope

When using an eyepiece with short focal length (small number in millimeters), the image will be dim and the range of sharp focus will be small.
The image will be harder to see so begin with an eyepiece with long focal length (low magnification).
Dividing the focal length of the telescope by the focal length of the eyepiece gives the magnification.

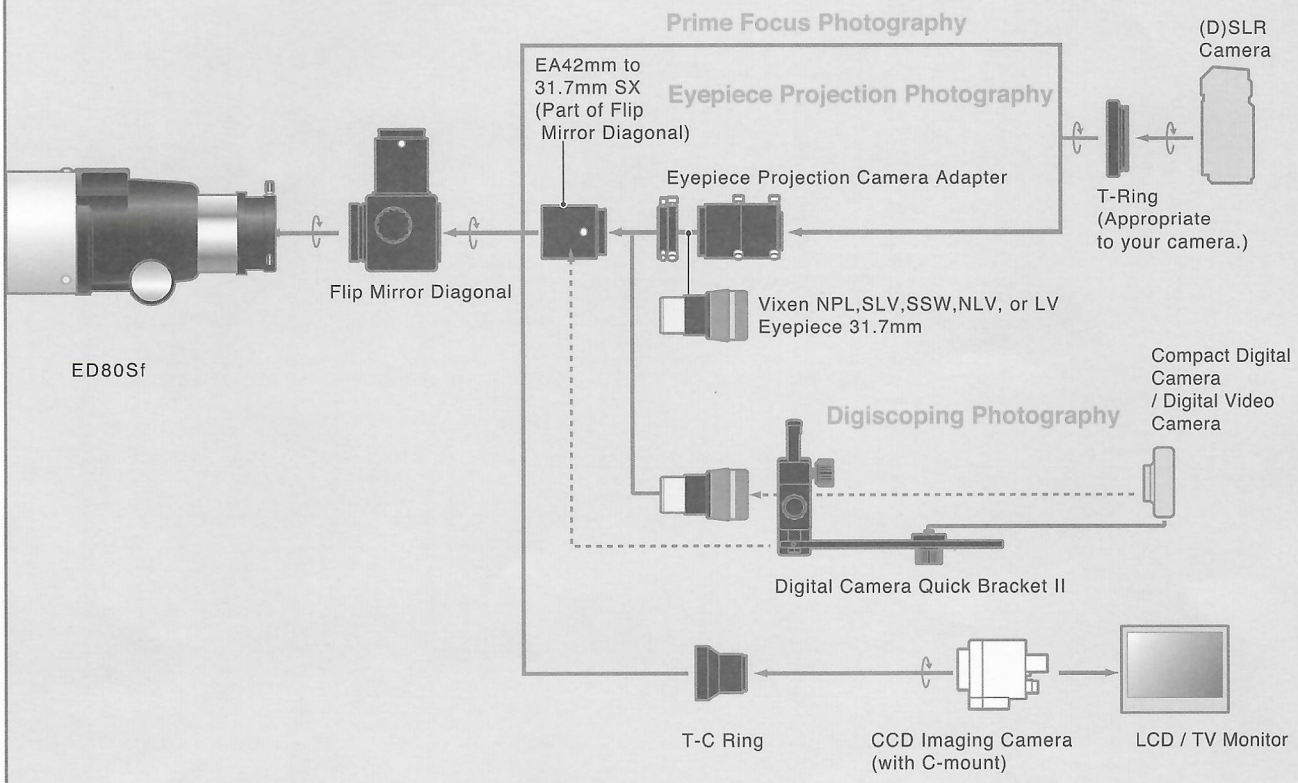
Focusing the Telescope

Look into the eyepiece. The image will likely be out of focus at first. Turn the focus knob slowly clockwise or counterclockwise to find a point where the image in the field of view of the eyepiece becomes sharpest.

OPTIONAL ACCESSORY CHART

Photographic Configuration

Some of the optional accessories shown in this chart will be needed if you take pictures with (D)SLR camera, compact digital camera or CCD video camera.



SPECIFICATIONS

The specifications are subject to change without notice.

Model	ED80Sf
Optical Design	SD Apochromatic Refractor / Multicoated
Effective Aperture	80mm
Focal Length (Focal Ratio)	600mm (f/7.5)
Resolving Power	1.45 arc. seconds
Limiting Magnitude	11,3
Light Gathering Power	131x
Finder Scope	9x50mm
Threads / Visual Back	56mm drow tube 50.8mm, 31.7mm push fit
Accessories	Flip Mirror Diagonal, Aluminum Carry Case Tube Rings and Dovetail Plate
Dimensions	100mm OD x 570mm L
Weight	3.4 kg (7.49 lb)

ABOUT THE CRAYFORD FOCUSER

The ED80Sf telescope has the Crayford focuser which uses friction for the focusing mechanism. Follow these instructions for its use.

Tighten the tension adjustment screw if the drawtube is loose.

Even with the tension knob fully tightened, it is possible, though not recommended, to rotate the focus knobs.

Drawing in the draw tube completely when you store the telescope.

Never apply the lubricant to the focuser.