

Vixen®

Instruction Manual for VMC95L·VMC110L

CATADIOPTRIC



PREFACE

Thank you very much for your purchase of a Vixen astronomical telescope.

This manual applies to VMC95L and VMC110L telescopes. You may occasionally find descriptions in the text not relevant to your particular model.

Read instructions for a mounting of telescope along with this manual when 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.

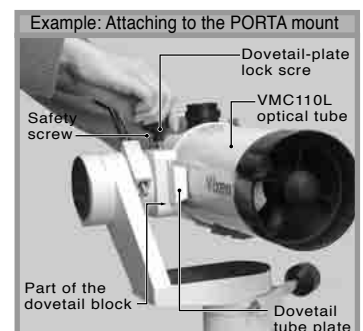
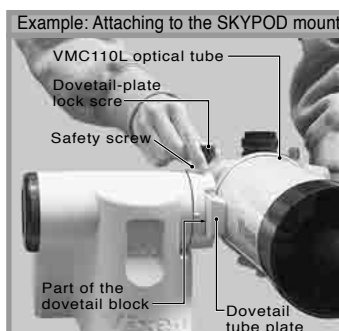
Attaching the Telescope to your Mount (VMC110L shown here.)

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. Slide the dovetail-mounted scope into the dovetail mounting block of the mount and tighten the dovetail lock screw (centered on the notch) onto the dovetail tube plate until snug.

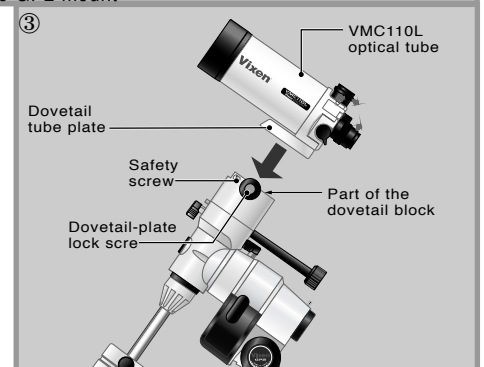
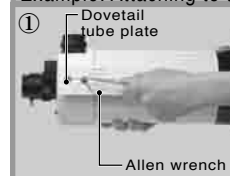
First tighten the dovetail lock screw, and then tighten the small chrome safety screw onto the dovetail mounting block until snug.

Change the position of the dovetail tube plate on the VMC95L or VMC110L optical tube with the supplied Allen wrench if you attach it onto a Vixen mount other than the SKYPOD and PORTA.

1. Remove the dovetail tube plate from the optical tube.
2. Attach the dovetail tube plate to the bottom of the optical tube as shown in the figure.
3. 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. Slide the dovetail-mounted scope into the dovetail mounting block of the mount and tighten the dovetail lock screw (centered on the notch) onto the dovetail tube plate until snug.



Example: Attaching to the GP2 mount



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

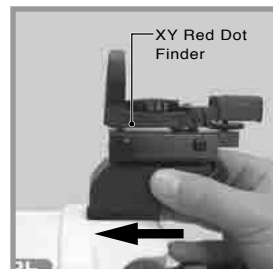
For the novice telescope user it is difficult to locate a selected object in the field of view at high magnification. Using a finder scope will make this easier.

Attaching the Finder Scope

Loosen the chrome finder bracket lock screw on the telescope.

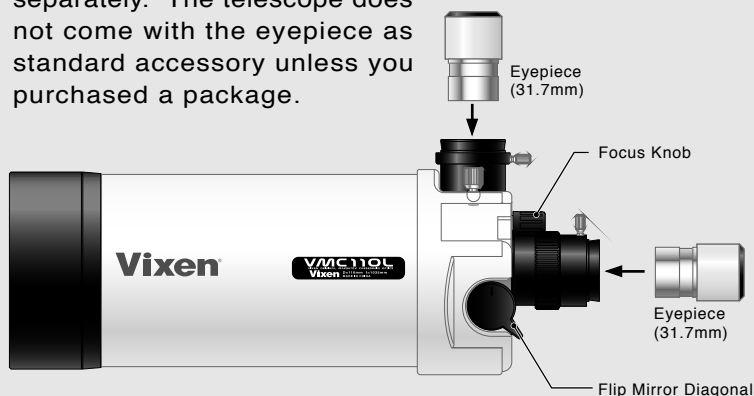


Attach the finder scope as shown in the figure. Tighten the finder bracket lock screw securely.



ACCESSORY CHART

You may need an eyepiece sold separately. The telescope does not come with the eyepiece as standard accessory unless you purchased a package.



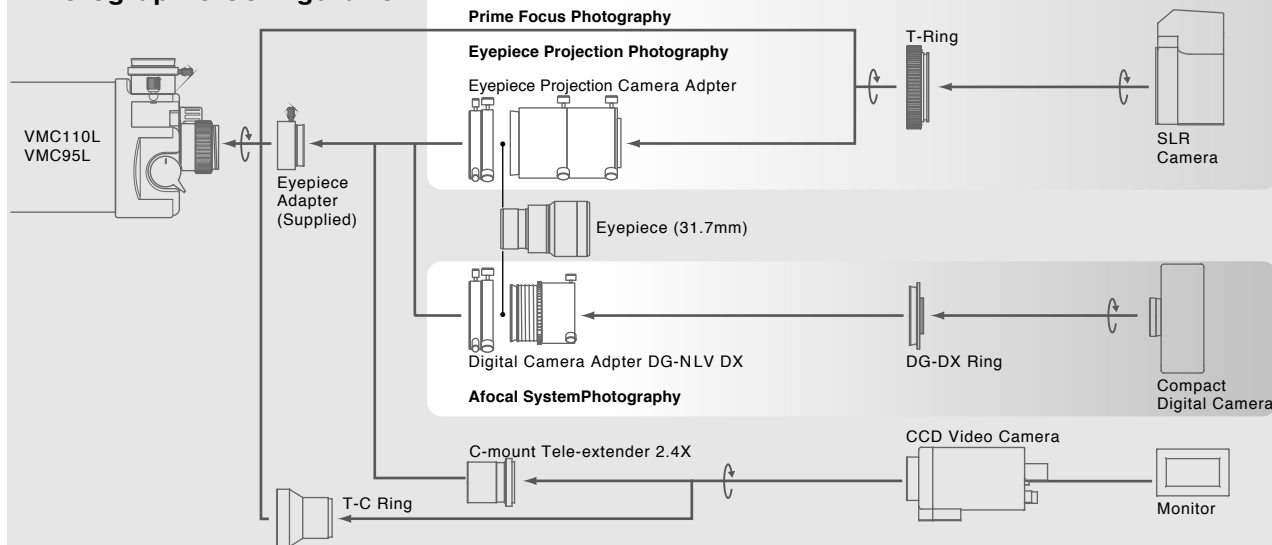
Magnification of the Telescope

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. Dividing the focal length of the telescope by the focal length of the eyepiece gives the magnification.

Example: Calculating the eyepiece magnification of a telescope with 1035mm focal length (VMC110L).

Eyepiece	Focal length of telescope	Focal length of eyepiece	Magnification
NPL20mm	1035mm	20mm	52x
NPV 9mm	1035mm	9mm	173x

Photographic Configuration



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

SPECIFICATIONS

The specifications are subject to change without notice.

Model	VMC95L	VMC110L
Optical Design	VMC (Vixen's original Maksutov-Cassegrain)	
Primary Mirror	Multi-coated precision spherical mirror	
Effective Aperture	95mm	110mm
Focal Length (Focal Ratio)	1,050mm (f/11.1)	1,035mm (f/9.4)
Resolving Power	1.22 arc. seconds	1.05 arc. seconds
Limiting Magnitude	11.7	12.0
Light Gathering Power	184x	247x
Finder	Dot Finder (No magnifying power)	
Dimensions	107mm OD x 350mm L	119mm OD x 360mm L
Weight	2.0 kgs (4.4lbs)	2.3 kgs (4.63 lbs)
Accessories	Allen wrench	

RE-COLLIMATION

Please contact a Vixen dealer in your area for repair if your Vixen telescope is out of collimation.

