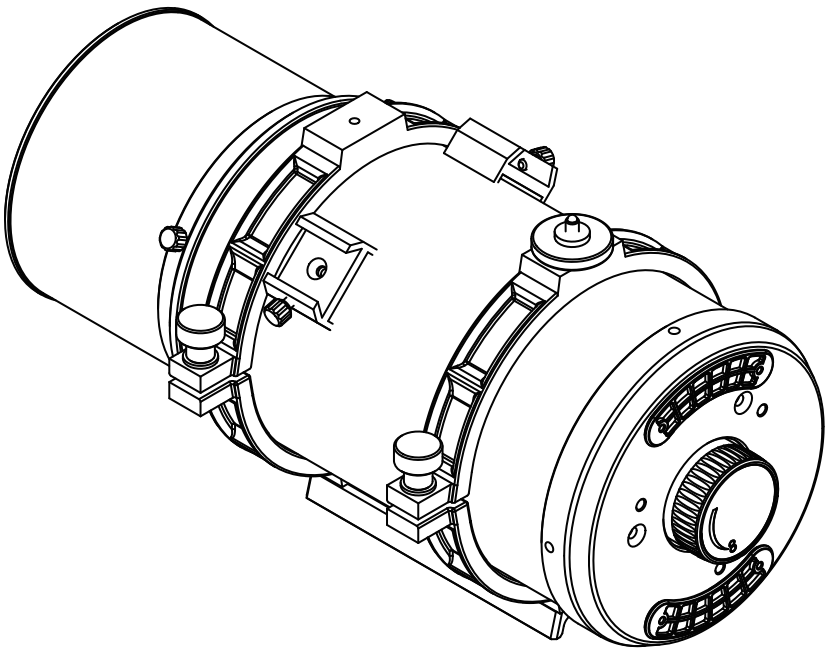
INSTRUCTION MANUAL

HAC125 DX



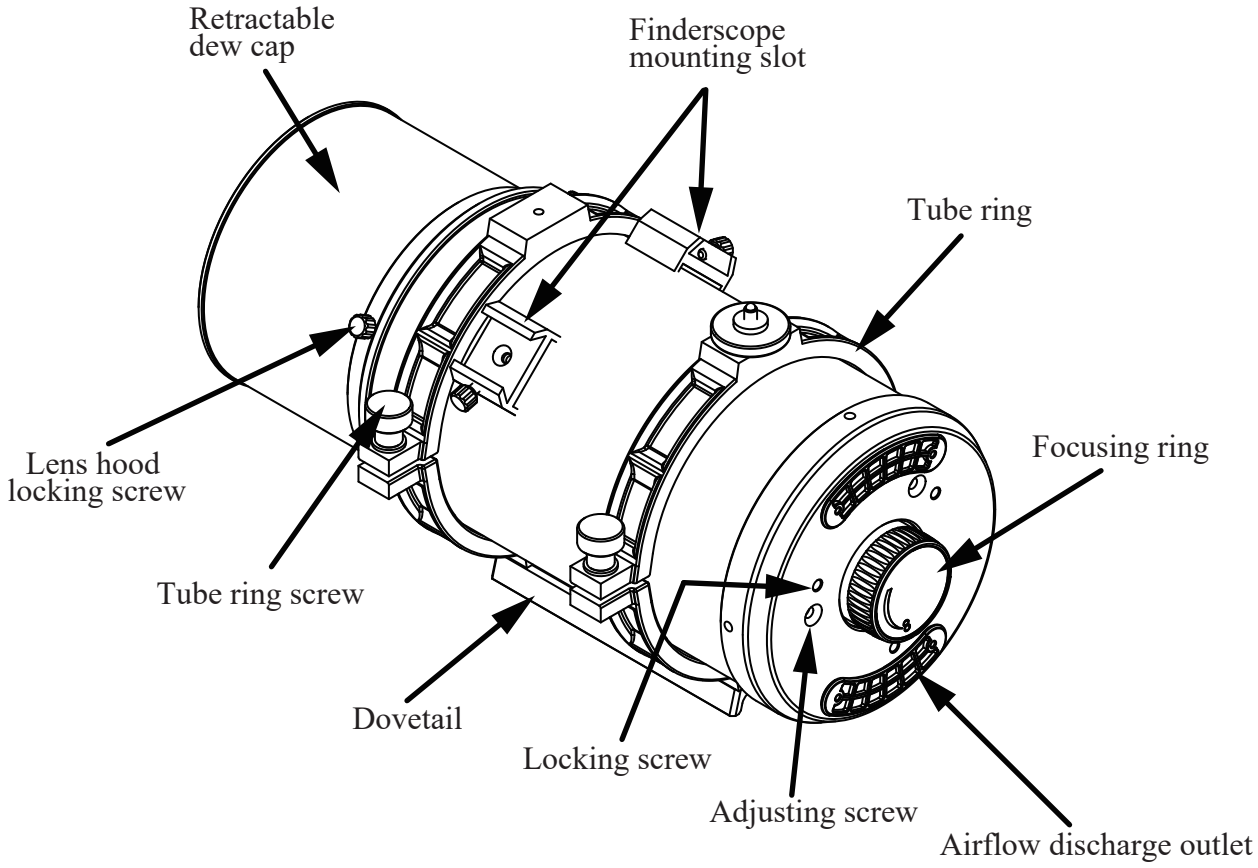
202411V1

HAC125 DX

Honders Advanced Catadioptric type photographic

New concept HAC125 DX F/D=2

A traveler's deep space digital eye on the sky, made to be fast and wide!



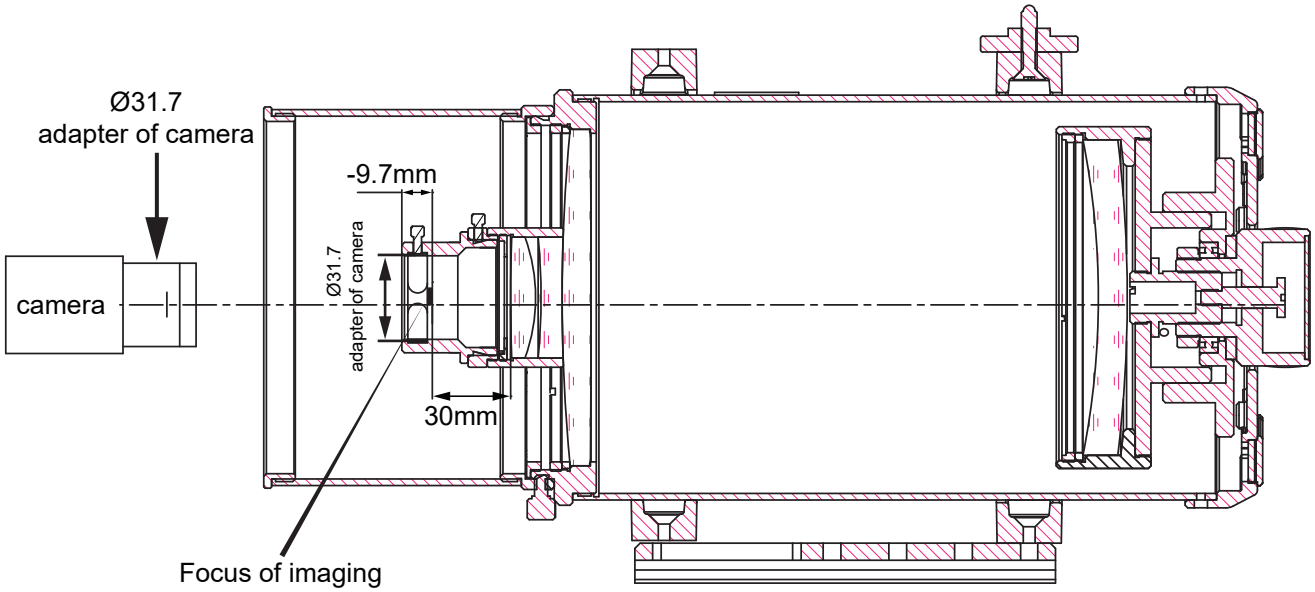
Specifications:

Optical system: Honders Advanced Catadioptric type photographic optics
D=125mm, F=250mm, F/D=2
Field of view: pinpoint image diameter>16mm or >3.7°
Telescope weight: 3.83kg
Telescope length: 398mm
Telescope diameter: 160mm
Central obstruction: 53mm(42.5% of aperture diameter)
Focusing stroke: 9mm

Camera Installation:

Note: The camera sensor is aligned with the back focus of HAC125 DX.

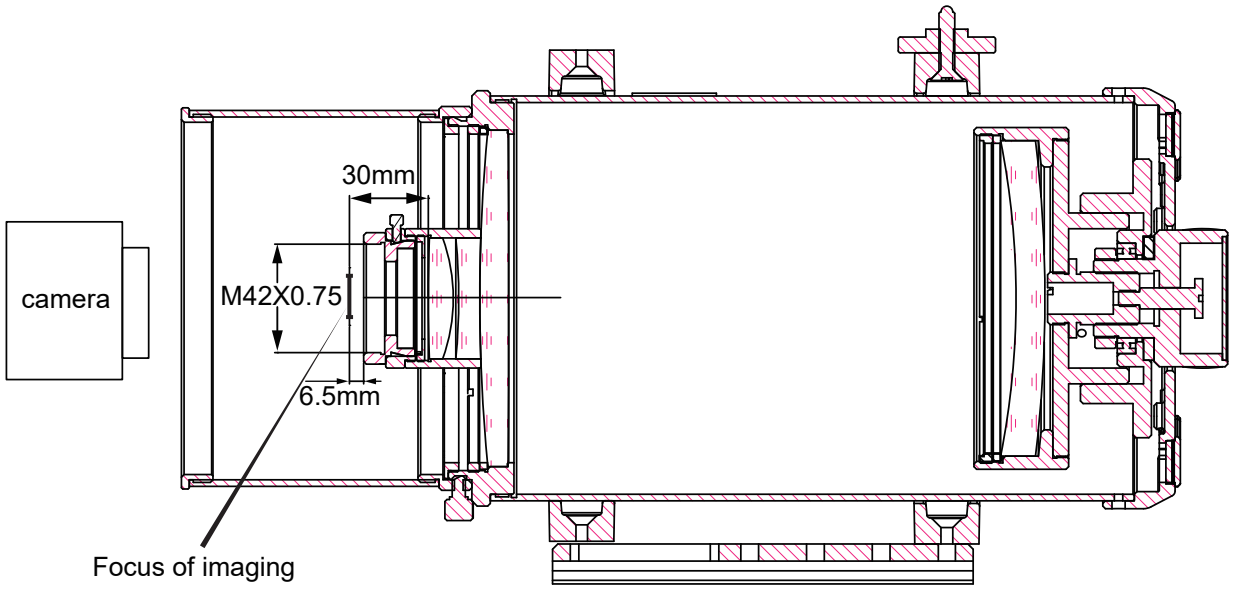
1. Ø31.7 adapter of camera:

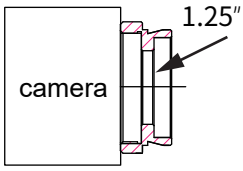


Insert the camera into the adapter of HAC125 DX and tighten the locking screw .And try to keep the COSMOS Camera in the focal plane of the HAC125 DX.

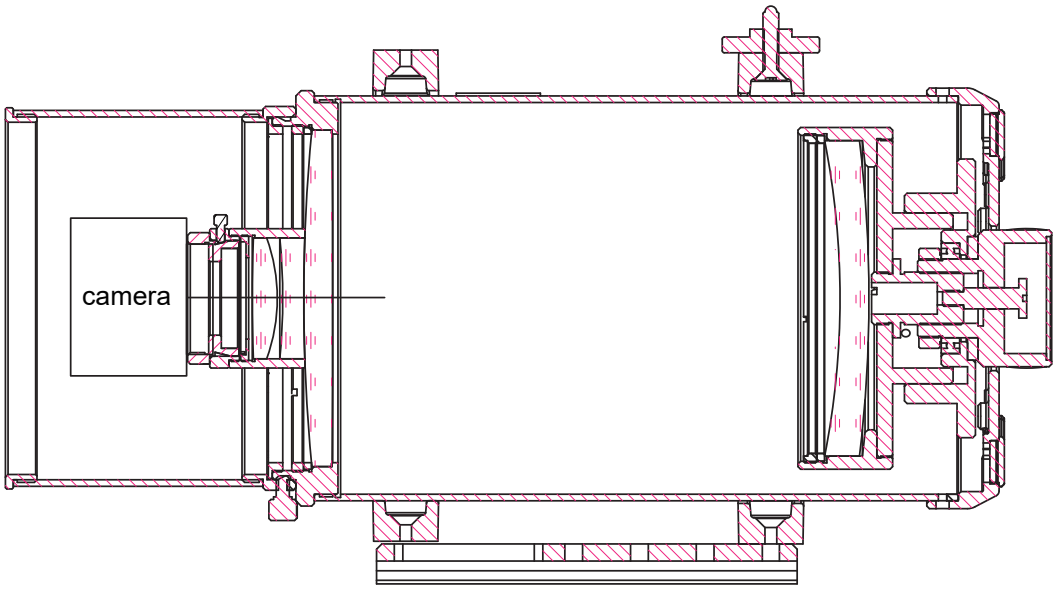
2. M42X0.75 adapter of camera:

The external thread size of the Camera is M42X0.75， And the back focal length of the camera is 6.5mm.



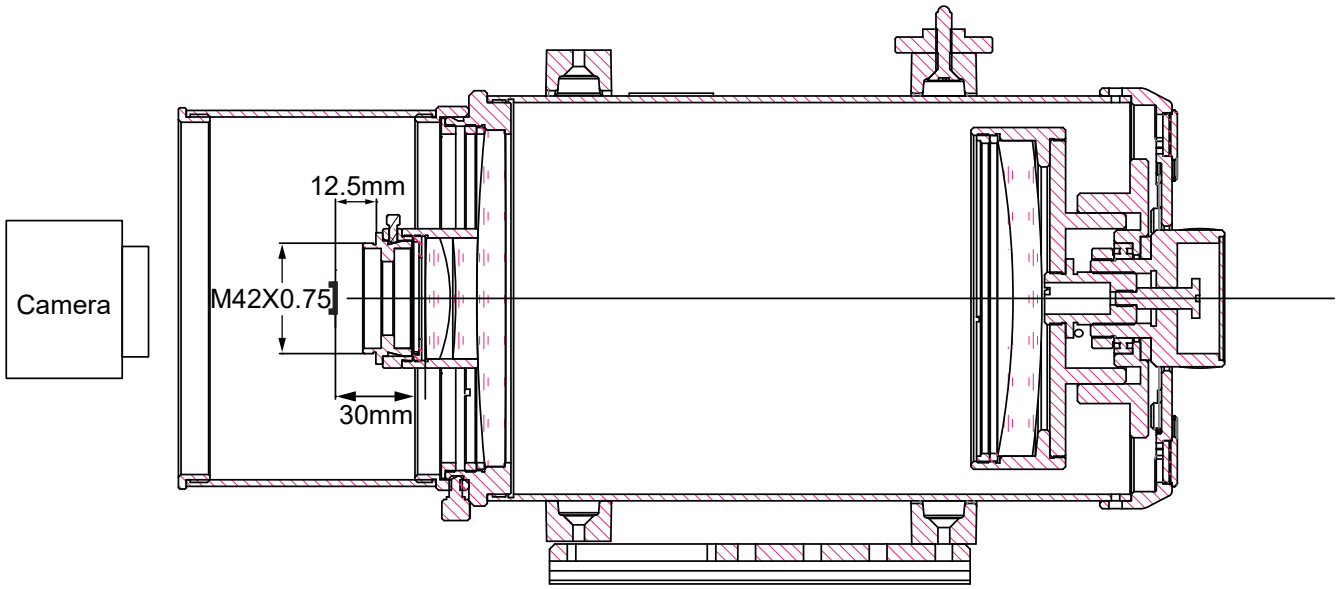


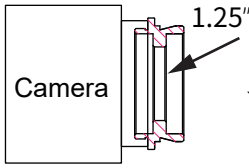
★ Remove the M42X0.75 adapter from HAC125 DX and install it on the camera



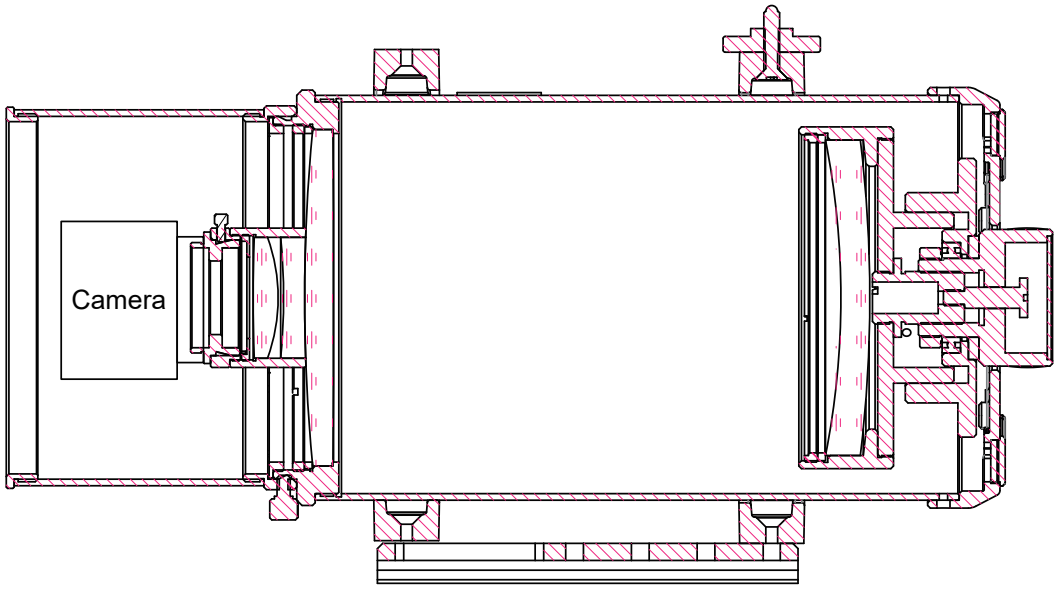
Inser the camera to the adapter of HAC125 DX and tighten the locking screw

The internal thread size of the camera adapter is M42X0.75, The back focal length of the camera is 12.5mm.





★ Install the M42X0.75 adepter （with 12.5mm back focal length） on the camera

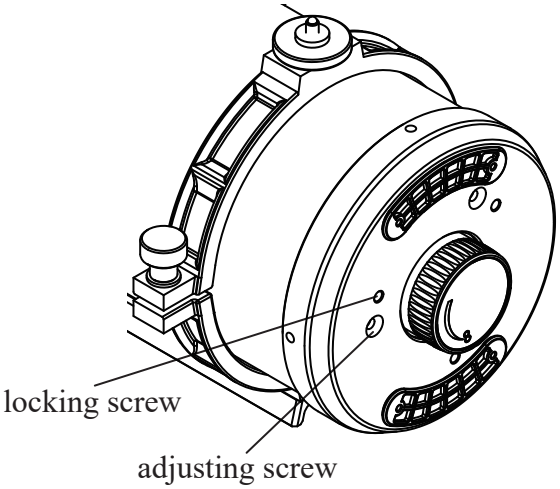


Inser the camera into the adapter of HAC125 DX and tighten the locking screw

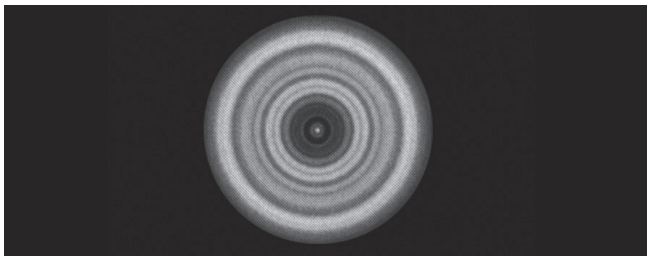
Collimation:

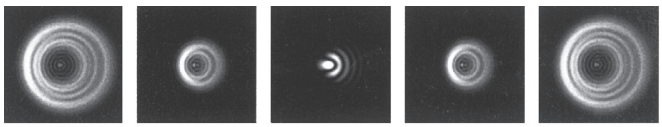
The HAC125 DX optics are factory aligned, and should not normally need collimation adjustments. However, if desired, you can rotate the focus adjuster to adjust

1. Point the HAC125 DX at a bright star and focus the camera. Center the star in the camera's field of view.
2. Inspect the defocused star diffraction pattern. When collimated, the pattern should look like a concentric doughnut. If the pattern is concentric, no adjustment is necessary. If the "donut hole" is not centered within the pattern, then some adjustment is needed.
3. There are three pairs of collimation screws. Each pair works together as a push-pull tilt adjustment. adjust the collimation by loosening and tightening one of the pairs of collimation screws. Always loosen one of the screws first, then tighten the other one. Adjust one pair of screws at a time.



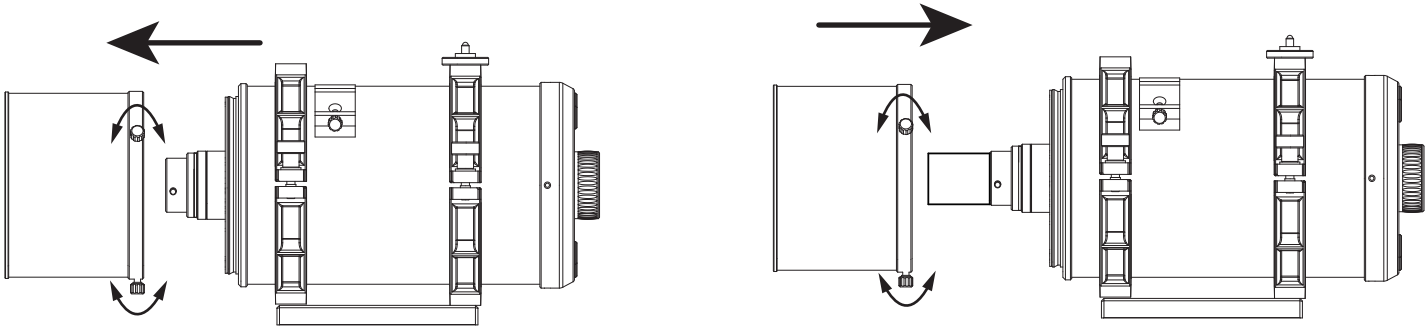
4. If the defocused star pattern is thin on one side, adjust the collimation screws so the star moves towards the thin side, then adjust the position of the HAC125 DX to re-center the star. Repeat this until the defocused star image is concentric.



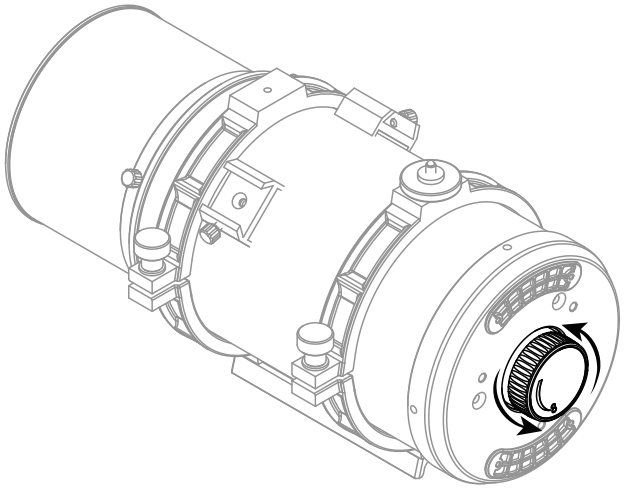


Others:

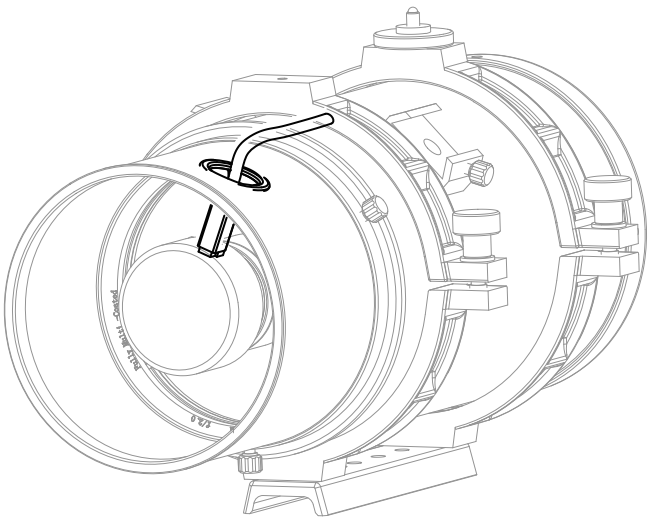
1. The lens hood is detachable， which is convienient for users to install the camera. remove 3 locking screws on the lens hood,take off the lens ,then assemble it after installing the camera.



2. HAC125 DX Focusing: Rotate the knob for focusing.



3. The camera cable can be threaded through the lens hood.



Caution!

NEVER USE YOUR TELESCOPE TO LOOK DIRECTLY AT THE SUN. PERMANENT EYE DAMAGE WILL RESULT. USE A PROPER SOLAR FILTER FOR VIEWING THE SUN. WHEN OBSERVING THE SUN, PLACE A DUST CAP OVER YOUR FINDERSCOPE TO PROTECT IT FROM EXPOSURE. NEVER USE AN EYEPIECE-TYPE SOLAR FILTER AND NEVER USE YOUR TELESCOPE TO PROJECT SUNLIGHT ONTO ANOTHER SURFACE, THE INTERNAL HEAT BUILD-UP WILL DAMAGE THE TELESCOPE OPTICAL ELEMENTS.