



FOT86/ FOT106

2 ED APO Triplet Refractor



Design in Japan

Made in Taiwan

www.founderoptics.com



Contents:

Brand Story 1

Specification 2

What is in the Box..... 3

Usage..... 4

Telescope Accessories Chart 9

Brand Story

Founder Optics – FOT series is 2 ED APO Triplet refractor designed by famous optical designer in Japan, and made in Taiwan.

Founder Optics brand originated in Japan. The quality is acknowledged by Japanese market through many optics experts, astro photographers, and high end amateurs. With the leading edge of Japan optics knowledge and a series of verifications, Founder Optics become famous and known for the impressive performance.



Manufactured by a Taiwan famous telescope manufacturer who has over 45 years experience in producing optical products. As an expert, we achieved the highest quality control for every unit by a series of strict collimation tests and Ronchi tests on quality assurance. As well, with the half of century experience of high precision machining process and the assembly techniques, Founder Optics brings the consumer a product with more value with amazing performance. Every unit comes with a quality certification card and serial number to guarantee quality when shipped out of factory. By doing so, customers are assured confidence when buying with Founders Optics.

Founder Optics aims to bring users the best use experience. Whether you are taking a photo or observing with the naked eyes, you can see it's extremely bright, crystal clear and superb sharp. The image is close to zero aberration, zero distortion, and with the high contrast which give you the most realistic image to your eyes.

Besides, the dedicated field flattener with M42, and M48 adapter in the box provide a convenience for user according to the camera requirement.

Our goal is to optimize user experience and offer you the most stunning view by creating more product values with high quality and innovative design.

Specification

Model Name: FOT86

- Optical System: 2 ED APO Triplet
(Fully Separated Elements)
- Clear Aperture: 86mm
- Focal Length: 560mm
- Image Circle (with Field Flattener): ϕ 44mm
- Focuser: 2" Rack & Pinion Patented Focuser
(Twist Lock)
- Weight:
OTA 3.5kg/ with Tube Ring: 4.6kg
- Diameter of Main Tube: 90mm
- Tube Length:
Fully Retracted: 456mm
Fully Extended: 545mm



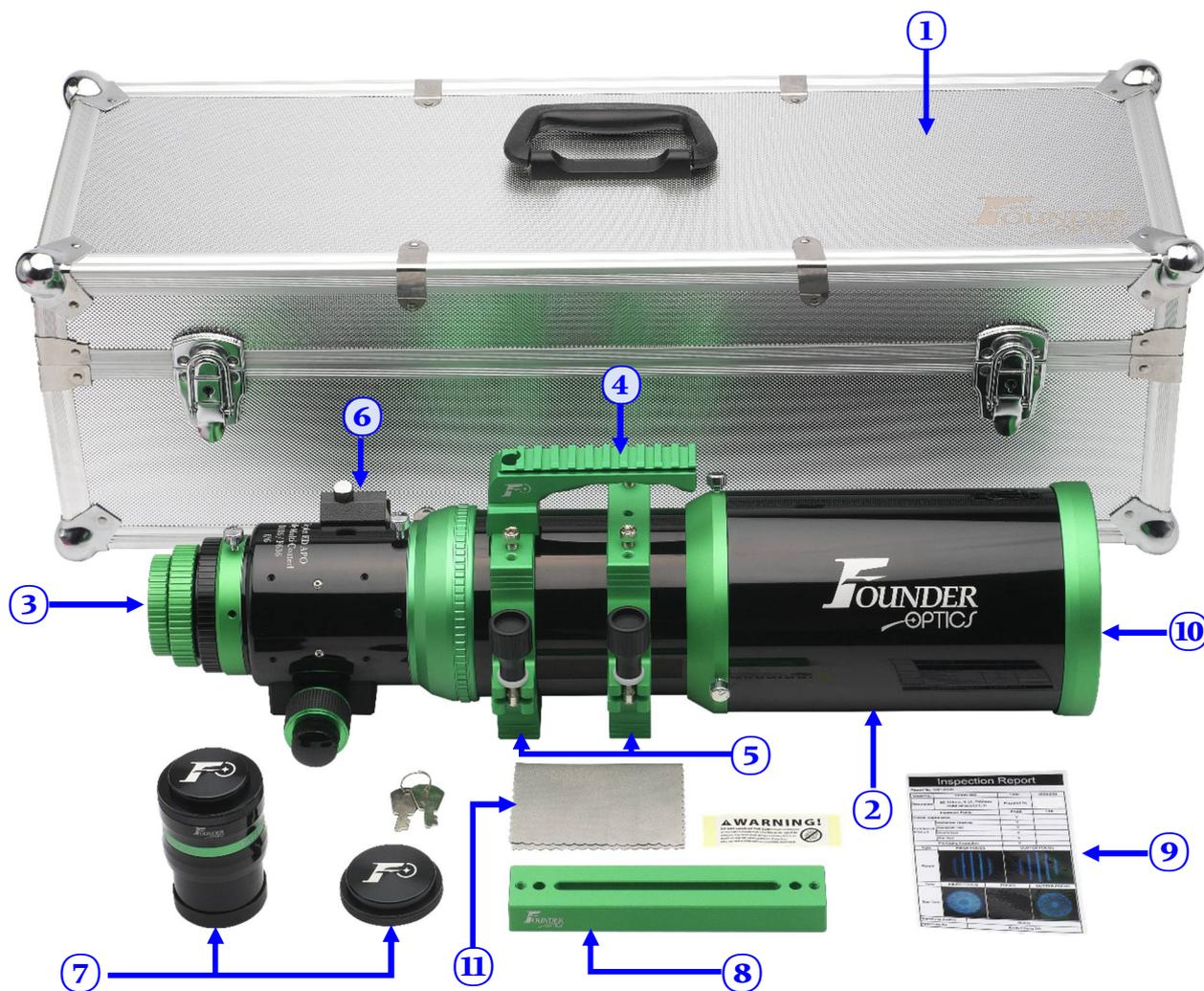
Model Name: FOT106

- Optical System: 2 ED APO Triplet
(Fully Separated Elements)
- Clear Aperture: 106mm
- Focal Length: 636mm
- Image Circle (with Field Flattener): ϕ 44mm
- Focuser: 2.7" Rack & Pinion Patented Focuser
(Twist Lock)
- Weight:
OTA: 5.5kg/ with Tube Ring: 6.7kg
- Diameter of Main Tube: 113mm
- Tube Length:
Fully Retracted: 557mm
Fully Extended: 650mm



What is in the Box

- 1) High Quality Aluminum Case with Key
- 2) FOT106/ FOT86 with Patent Rack & Pinion Focuser
- 3) 1.25"/ 2" Twist Lock Adapter
- 4) Crank Handle with 1pc 1/4"-20 Hexagon Screw
- 5) Tube Rings with 4pcs Dovetail Screws
- 6) Star Finder Shoe
- 7) Field Flattener (M42) with Exchangeable M48 Adapter
- 8) 7" Vixen Type Mount Dovetail
- 9) Quality Certification Card with Serial Number
- 10) Cleaning Cloth
- 11) Dust Caps (for Objective Lens)



Never look at the sun through your scope. Doing so can cause permanent damage to your eyes, including blindness. Always be sure your scope is properly held, secured, or stored

Usage

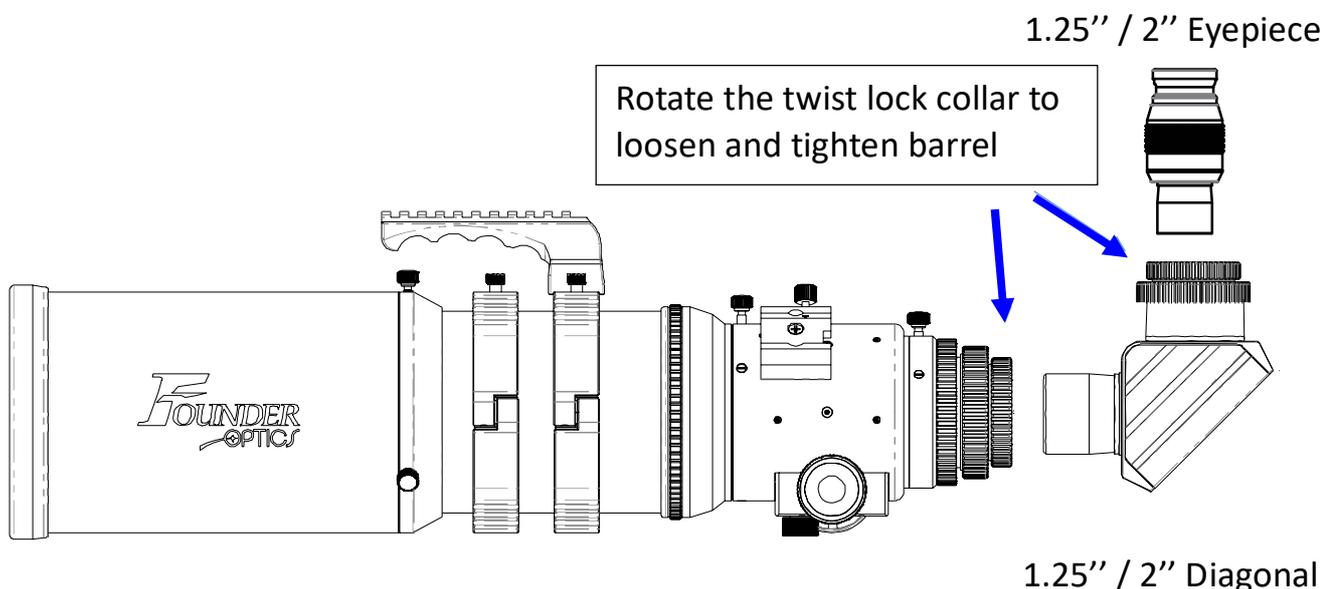
■ **How to know the magnification**

Focal length of the telescope/ Focal length of the ocular = Magnification

■ **Installations and Functions**

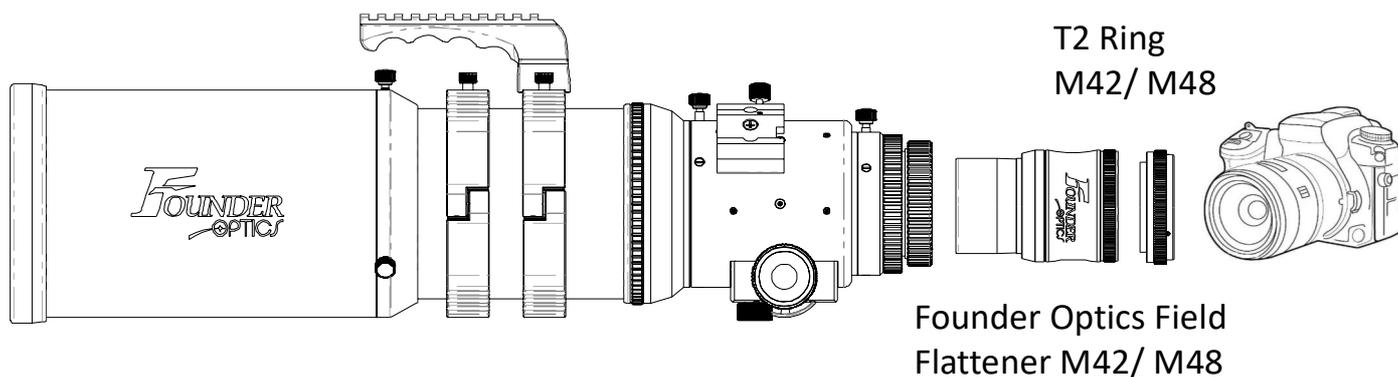
Observation System

FOT86/106 is suitable for observing nebula, star clusters, large galaxies and comets. It is recommended to use high-quality wide-angle eyepieces to get the best performance. Founder Optics has a series of 80-degree wide-angle eyepieces for you to choose.



Photography System

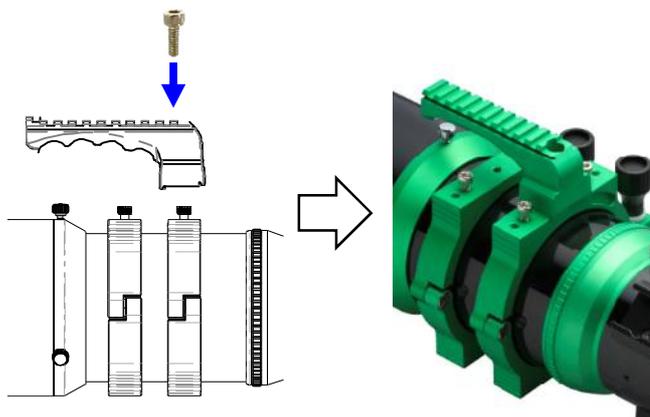
FOT86/106 is also very suitable for photography. The dedicated field flattener (M42) with Exchangeable M48 Adapter in the box provide a convenience for user according to their camera requirement. With field flattener, you will gain an amazing image ever.



Crank Handle Installation

FOT series came with a crank handle for easy carry.

Use attached screw 1/4"-20 Hexagon screw to fix the handle on the tube ring. Make sure it is fixed firmly.

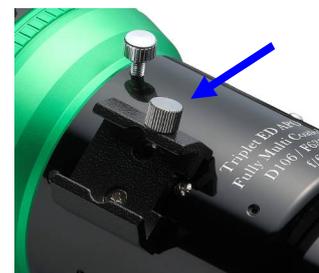


Picatinny rail (*MIL-STD-1913*) offers you an option for more optical scope attachment such as red dot finders, scope sights...etc as shown as left photo.

Star Finder Installation

FOT series comes with universal star finder shoe attached on focuser which allows you to attach finder scopes, reflect sights, guide scopes, finder brackets...etc.

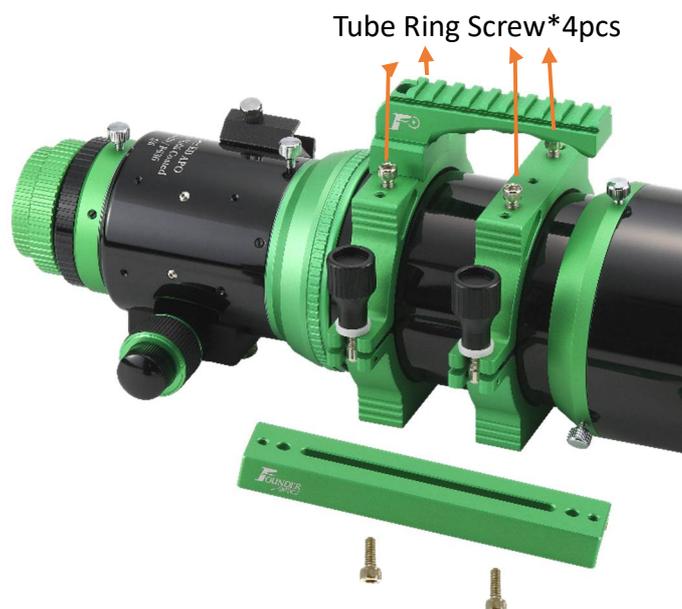
Turn the knob to fix and loosen the attachment.



Dovetail Installation

FOT series includes 7" Vixen Type Mount Dovetail and 4 screws in the box.

Remove the screws from upper of the tube rings, and then threads from the bottom of the tube rings. Set up your telescope on the mount.



Twist Lock / Adapter

FOT series features with 2" and 1.25" twist lock devices.

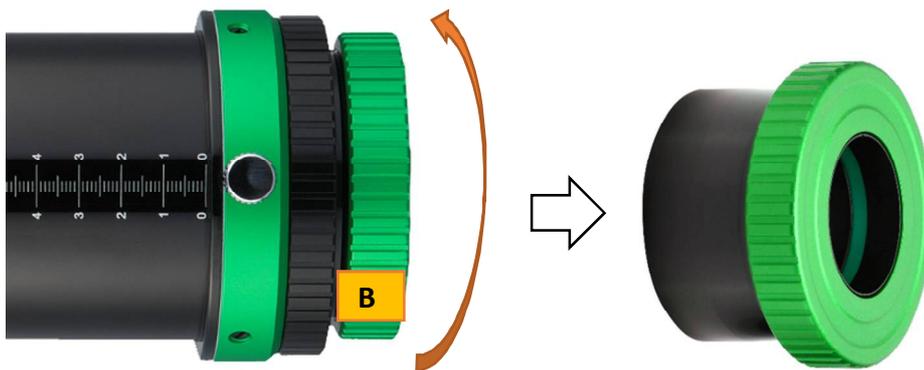
There is a special compressing design of twist locking to give you a good collimation and avoid missing screw in the dark night when change eyepiece or field flattener.

- Use 1.25" eyepiece:



Rotate the twist lock (A) counterclockwise, and then insert 1.25" eyepiece. Rotate clockwise to tighten it.

- Use 2" eyepiece/ field flattener:

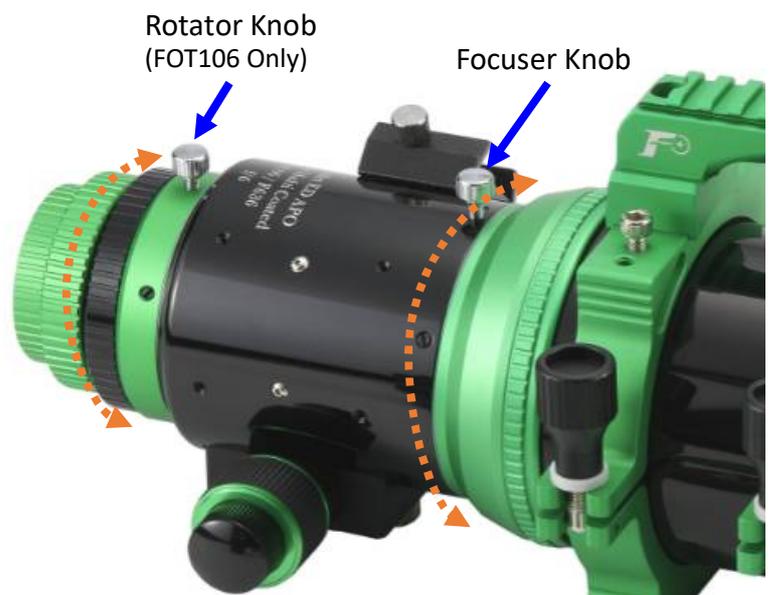


Rotate the twist lock (B) to take out the twist lock adapter (A), and insert 2" eyepiece or field flattener. Rotate clockwise to tighten it.

Focuser Rotated Function

Flexible rotated structure provides a convenience for user to have the best position to adjust focuser when observation and photography. The precision machining parts and assembly technique make a good collimation even rotate the focuser and rotator.

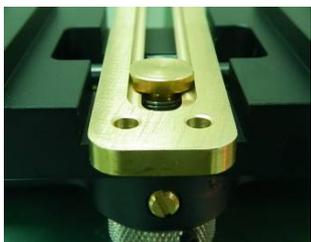
Loosen the rotator knob and focuser knob to rotate the focuser and rotator.



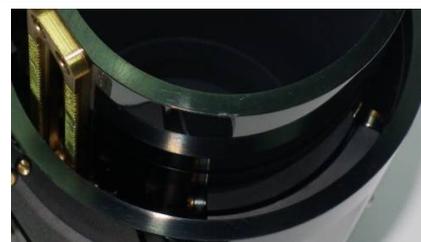
Focuser Adjustment & features

Patent design Rack & Pinion Focuser. This is design for heavy loading for more than 8kg to protect your camera and telescope.

Patented
#Taiwan1417570
#USA 8,693,092



The focus lock grabs the rack & pinion & drawtube in two directions. It makes focuser always paralleled the optics axis and eliminate focus shift while it's focused.



8pcs ball bearings, each 4pcs at 2 sides, between the drawtube and the focuser cover to make it work very smoothly when adjusting focuser.



Unique design with beautiful knurled knob



1:11 Dual Speed Focus
The smooth focus motion and fine focus wheel allow precision adjustment from critical focusing of eyepieces and cameras.

Longer Focus Travel Distance:

The travel distance of drawtube is 95mm from the lowest stop to the highest stop which will give a very good compatibility for eyepieces. This is enough travel for each eyepiece to come to focus, especially it's much more important when you use a lower magnification eyepiece used for finding an object and then go to a higher magnifications for more detail. The longer focuser travel distance is definitely give you the best user experience without extension tube needed.

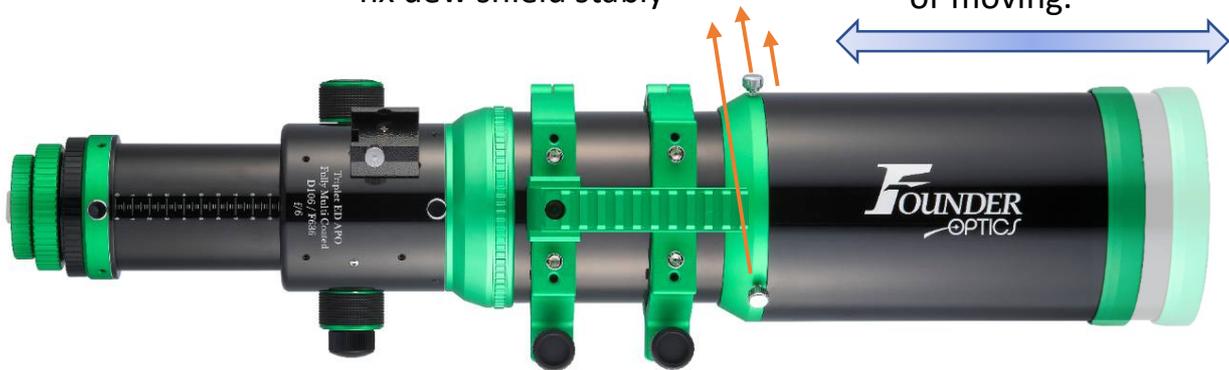


Stable Dew Shield fixing

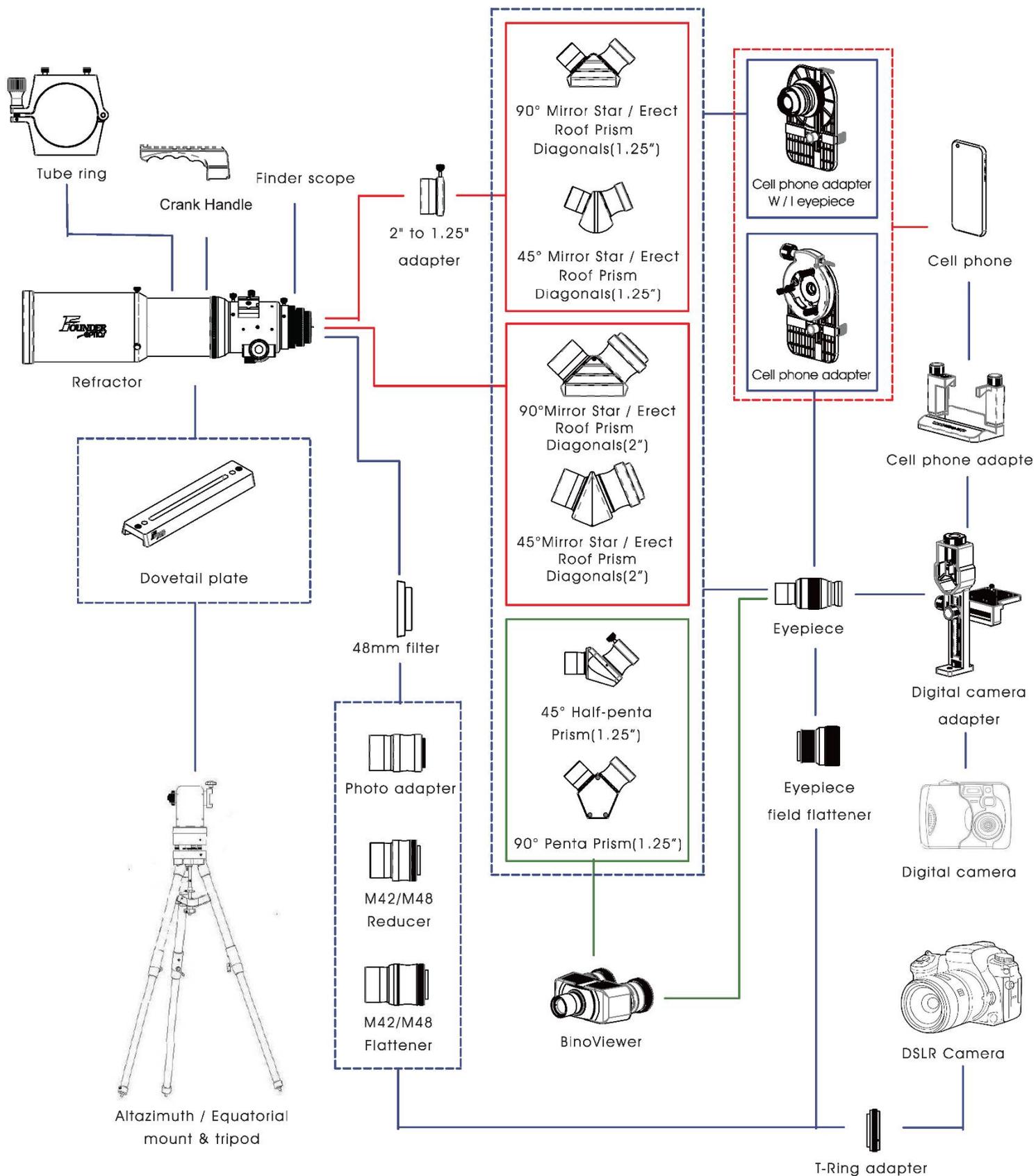
Smoothly slide the dew shield. Three fixing screws hold dew shield well to avoid the spinning or moving while shooting to make sure you can capture the best image. Also, three screws prevents the dew shield falling when carry telescope.

One fixing screw per 120 degrees. Total 3 screws to fix dew shield stably

Slide the dew shield and fix screw well to prevent any spinning or moving.



Telescope Accessories Chart





www.founderoptics.com

E mail: sales@founderoptics.com