



WILLIAM OPTICS

FLUOROSTAR 91

MANUAL



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Warning

Never aim your telescope or finder scope at the Sun without proper Solar filters installed on the front of the telescope. Doing so for even a moment may permanently damage your vision. Proper Solar filters consist of filters made by reputable manufacturers, designed to fit tightly over the front of the dew shield. Solar eyepiece filters are not considered safe, and should not be used. With proper front mounted Solar filters, the telescope will not be harmed by viewing the Sun.

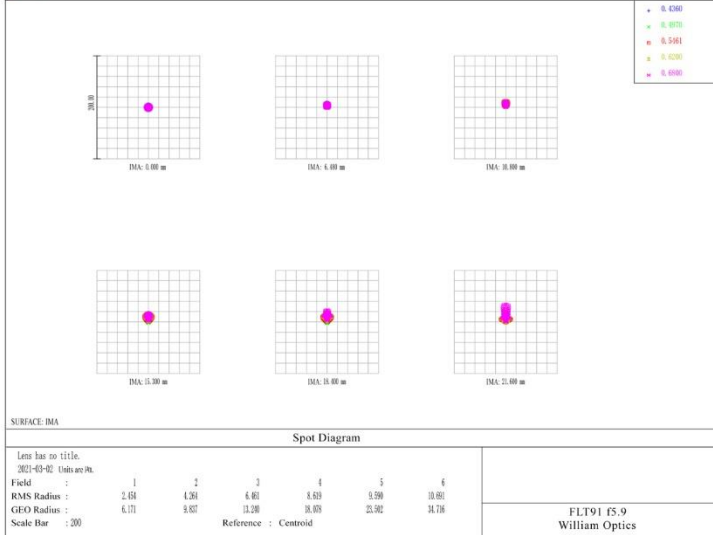




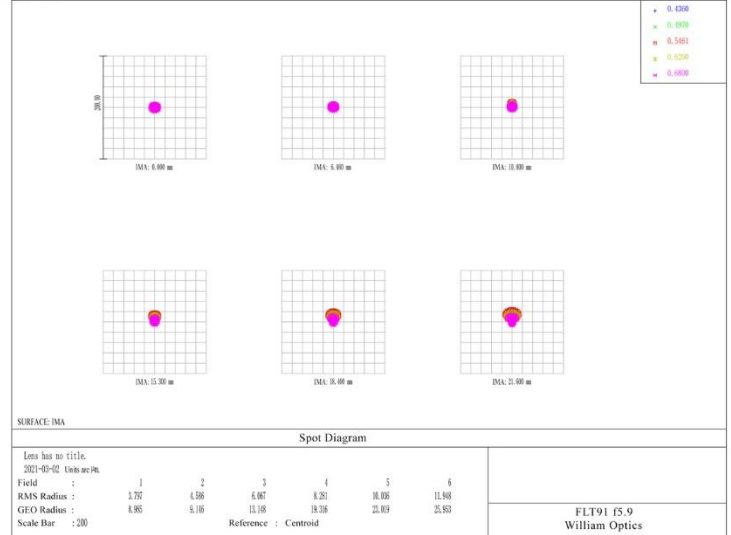
- **Focal Length** : 540mm
- **Diameter** : 91mm
- **Aperture** : f/5.9
- **Focuser** : 3.3" R&P Focuser
- **Image Circle** : >43mm
- **Retracted Length** : 441mm
- **Extended Length** : 510mm
- **Dew Shield Circumference** : 383mm
- **Dew Shield Diameter** : ϕ 122mm
- **Weight** : 9.18lbs / 4.165kg (OTA only)
12.29lbs / 5.575kg (OTA with ring, dovetail and saddle)

Spot Diagram

FLT91 + 0.8x Flat (P-FLAT6AIII-M92)

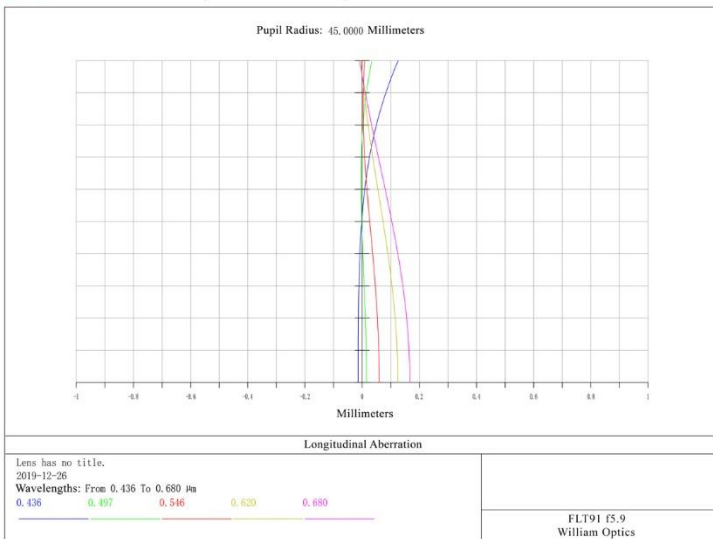


FLT91 + 1x Flat (P-FLAT68III)

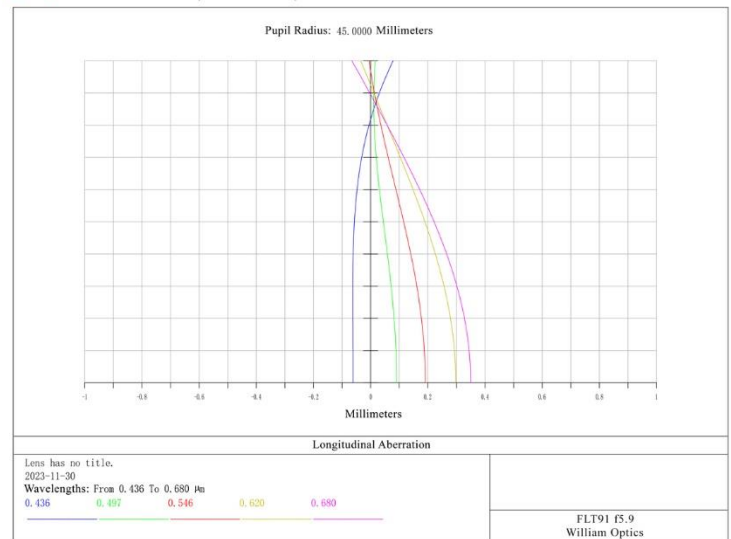


Longitudinal Aberration

FLT91 + 0.8x Flat (P-FLAT6AIII-M92)



FLT91 + 1x Flat (P-FLAT68III)



NOTE:

We are using a new lens cell design that includes FP53 glass in the WO triplet series (GT and FLT series). This design is perfect for temperature compensation to better prevent pinched optics, that can occur in cold weather conditions.

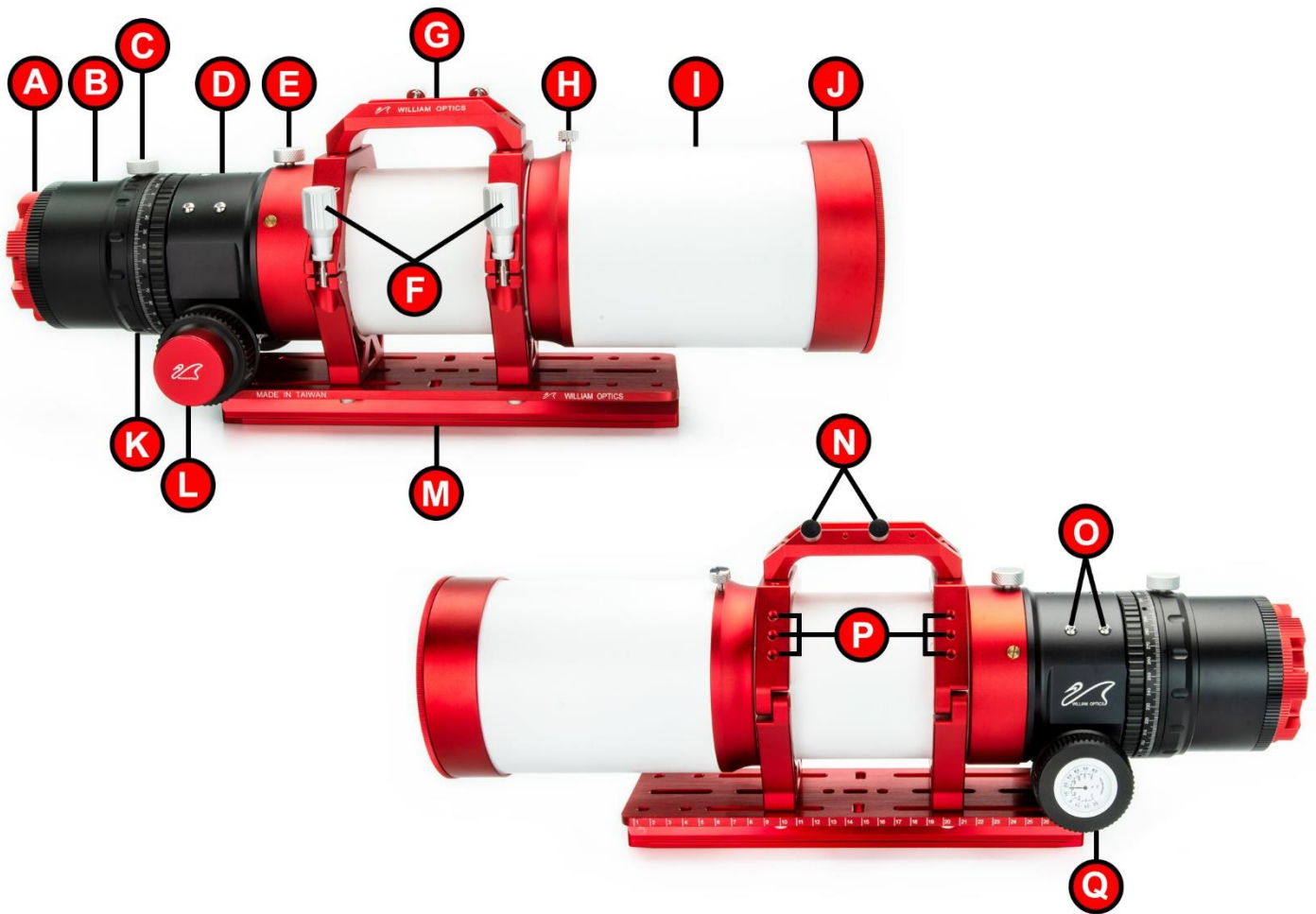
Before storing your telescope, you must leave it uncovered, with the tube opened for enough time to allow it to adjust to the room temperature. You must make sure the telescope is completely dry of any dew or moisture before it can be safely stored.

The telescope should always be stored in a dry location, with a consistent temperature.

FLUOROSTAR 91 PACKAGE CONTENTS



- A. Bahtinov Mask
- B. OTA
- C. 120mm Saddle Handle Bar
- D. Visual Extension Tube
- E. 2" RotoLock Visual Back Adapter
- F. Long Version Vixen-style Dovetail Plate
- G. Soft Carry Case



- A. 2" RotoLock Visual Back Adapter
- B. Visual Extension Tube
- C. Camera Angle Rotation Locking Screw
- D. Dual Speed 3.3" R&P Focuser
- E. Focuser Rotation Locking Screw
- F. Mounting Rings / Knobs
- G. 120mm Saddle Handle Bar
- H. Dew Shield Locking Screw
- I. Dew Shield

- J. Lens Cover with Bahtinov Mask
- K. Camera Angle Rotator
- L. 10:1 Ratio Fine Knob & Cap
- M. Long Version Vixen-style Dovetail
- N. Locking Screws on Saddle Handle Bar (M4)
- O. M4 Screw Holes
- P. M6 Screw Holes
- Q. Focuser Adjusting Knob with Thermometer

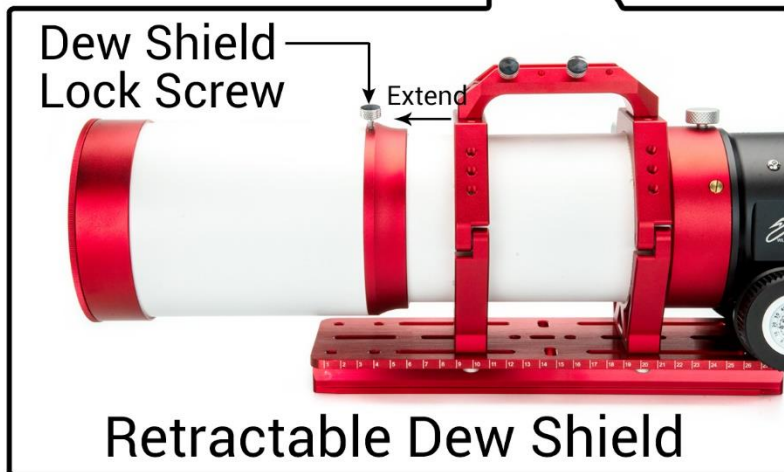
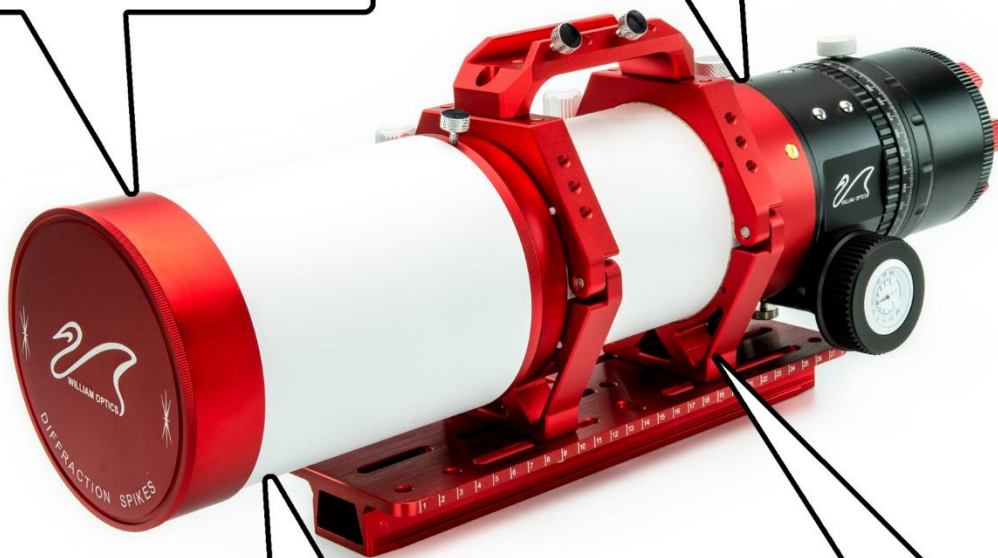
FLUOROSTAR 91 TELESCOPE DIAGRAM



Bahtinov Mask



Main Tube (with extension tube)



Dew Shield
Lock Screw

Extend

Retractable Dew Shield



Mounting Rings &
Vixen-style Plate

FLUOROSTAR 91 TELESCOPE DIAGRAM



Focuser Rotation Locking Screw



Camera Angle Rotation Locking Screw



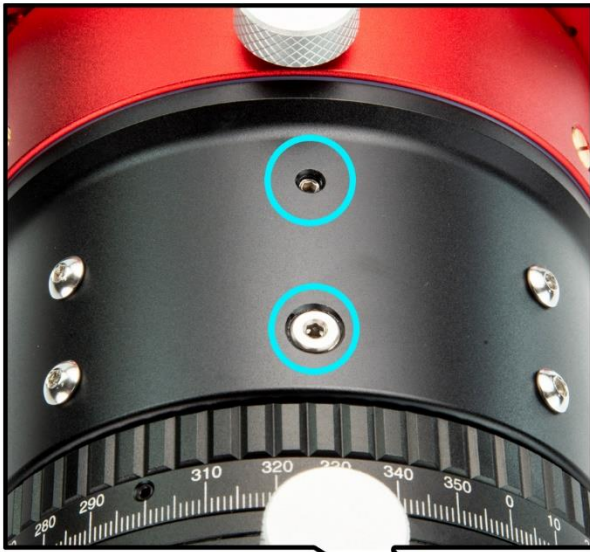
Focuser Lock Screw

Do not over tighten
(Release the lock when focusing)



2" RotoLock Visual Back Adapter

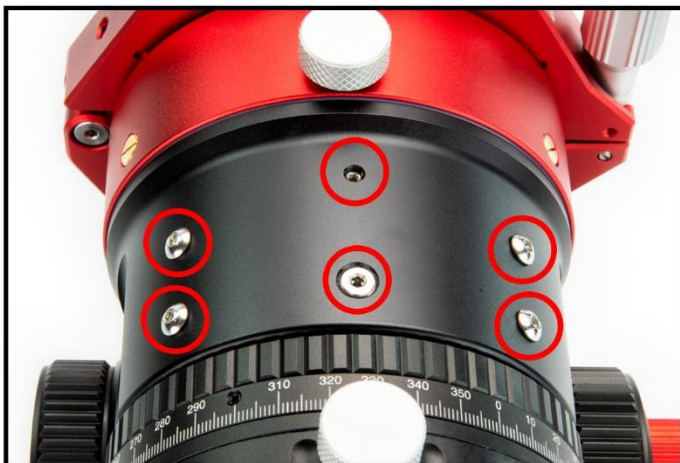
FLUOROSTAR 91 TELESCOPE DIAGRAM



Tension Screws



Vixen Style Bracket
Holder Screws for
Finder bracket
(remove both
screws before use)



Use 2.5mm Allen Key



10:1
Ratio Fine Knob

R & P GEAR SPACING SCREWS

- Adjustment Screws (3 mm Allen Key) - Pull Screw
- Adjustment Screws (2 mm Allen Key) - Push Screw
- Can be Removed to Attach the Electronic Motorized Device such as EAF (Please refer to the instructions on page 12)
- Tension Screw (Please refer to Note 2)
- Do Not Touch



IMPORTANT NOTE:

1. The focuser smoothness adjustment **ONLY** when necessary by progressively push & pull screws until you reach the desired smoothness.
2. When using the telescope with the motor, please ensure that the tension screw is not over-tightened. Over-tightening the tension screw may cause damage to the focuser.

Think of it like driving a car and pressing the gas pedal while also pressing the brake simultaneously. Just as this action could harm your car's systems, over-tightening the tension screw could compromise the functionality of your telescope's focuser.

How to Connect the Flattener

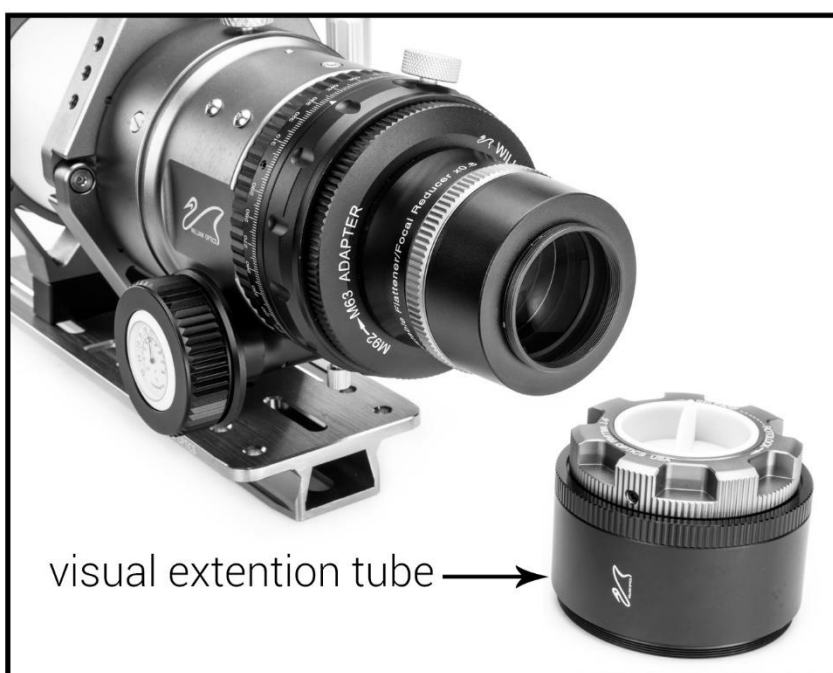


Step 1.

Remove the visual extension tube by unscrewing it from the focuser.

Step 2.

Connect the flattener to the focuser by screwing it on to the M92 thread.



How to Connect the FLAT68III

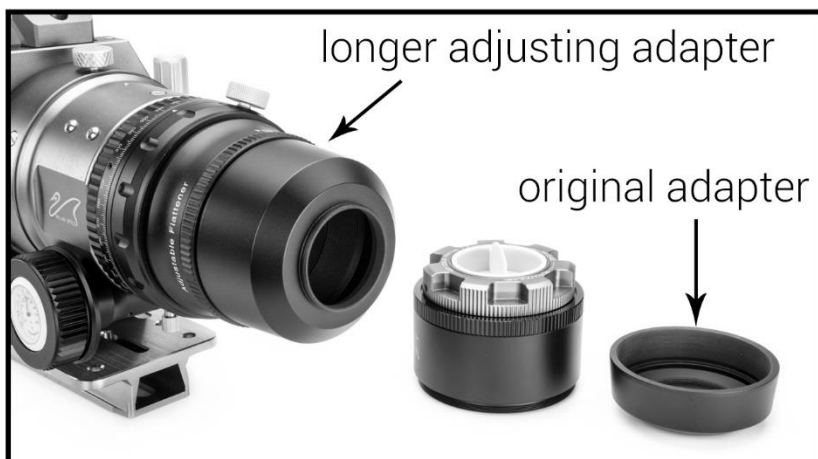


Step 1.

Remove the visual extension tube by unscrewing it from the focuser.

Step 2.

Connect the FLAT68III to the focuser by screwing it on to the M92 thread.



Step 3.

Remove the original shorter adjusting adapter from Flat68III and replace it with the longer one (optional, for FLT91 only).

How to Install EAF



Step 1.

Remove the top screw with 2mm Allen key.

Step 2.

Release two inner knob screws.



Step 3.

Remove the knob.

How to Install EAF



Step 4.

Align the screw holes.

Step 5.

Lock two set screws on shaft.



Step 6.

Tighten both bracket screws.

FLUOROSTAR 91 ACCESSORIES MAP

Visit W.O. webpage for details by Scanning the QR Code of the products

Focuser

