

Cat 91 WIFD

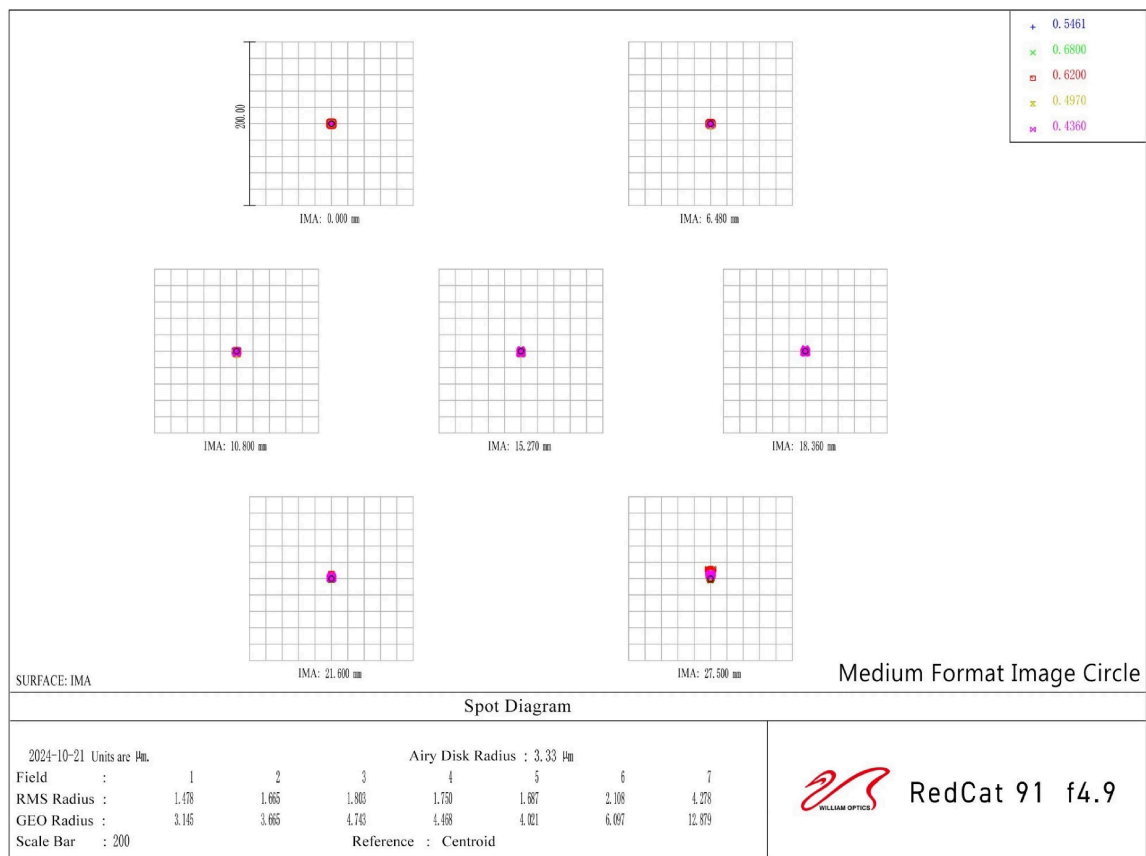
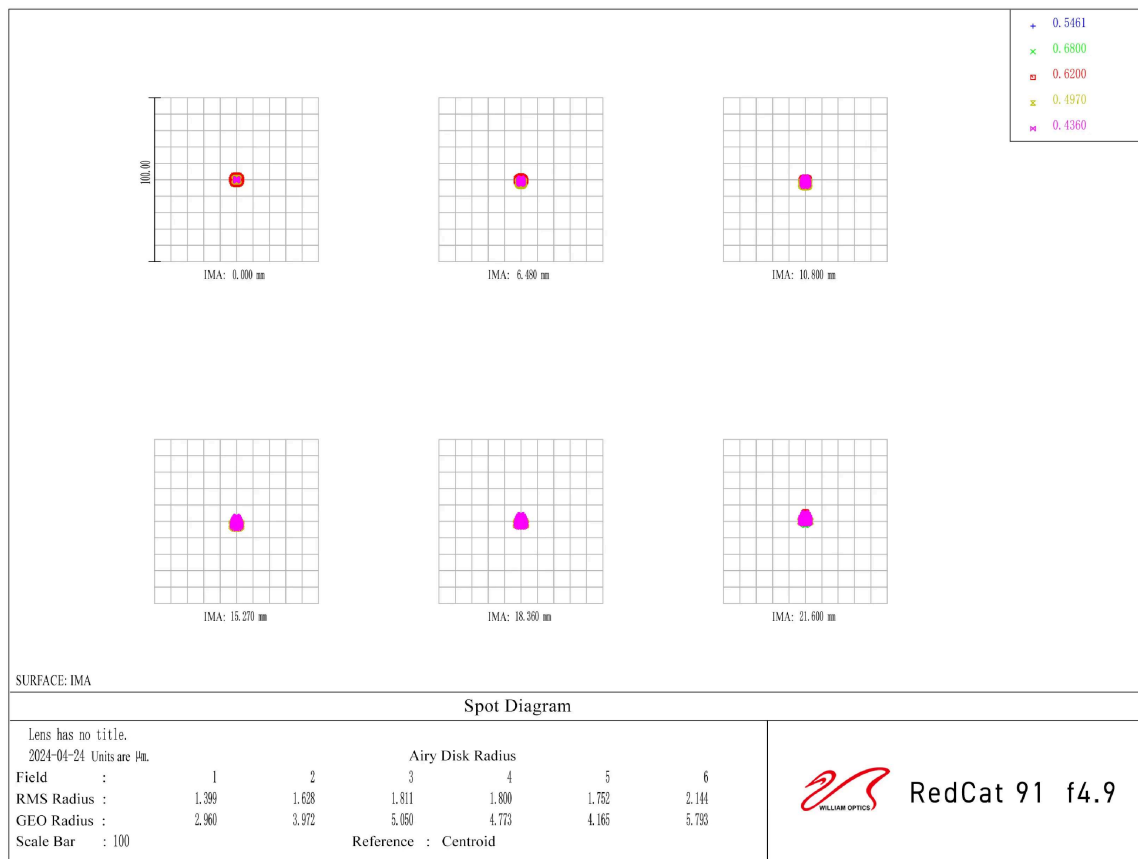
Jan 12, 2025 by W0 Team



Specification

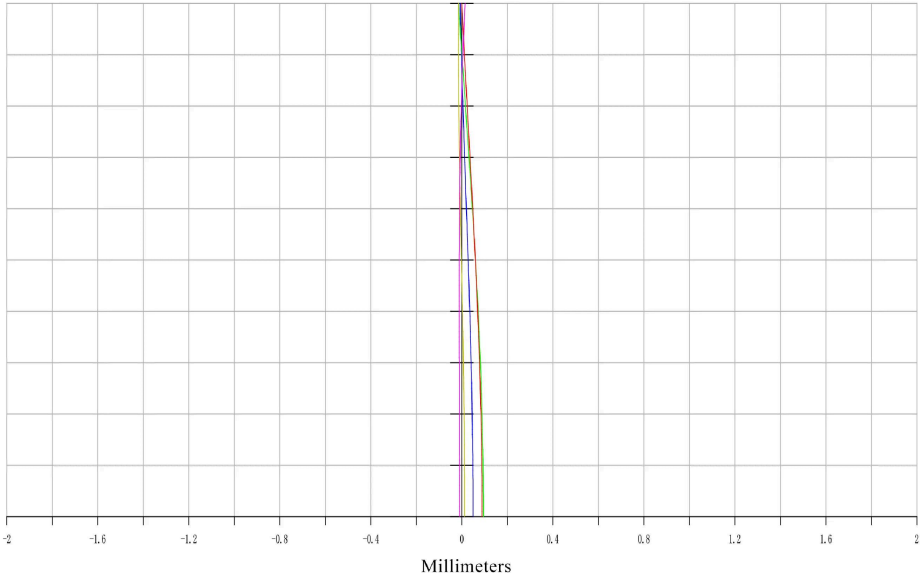
Lens Type	5 Elements Advanced Petzval Design
Focal Length	448 mm
Diameter	91 mm
Aperture	f/4.9
Image circle	55 mm
Focuser	WIFD R&P Focuser (Compatible with EAF)
Adapter Included	Tilt Adjuster / Rotator / M63 → M54 Adapter / M63 → M48 Adapter
Optional Flatteners	No Flatteners Required
T-rings Supported	Canon EF, RF Nikon F, Z Sony E Pentax K MFT (M4/3) FUJI X
Camera Format	Medium Format (needs additional adapter) / Full Frame / APS-C / M43
Tube Length	556 mm
OTA Weight	4.72 kg / 10.41 lbs
Total Weight	6.3 kg / 13.89 lbs

Spot Diagram



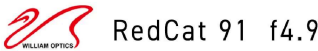
Longitudinal Aberration

Pupil Radius: 45.0000 Millimeters

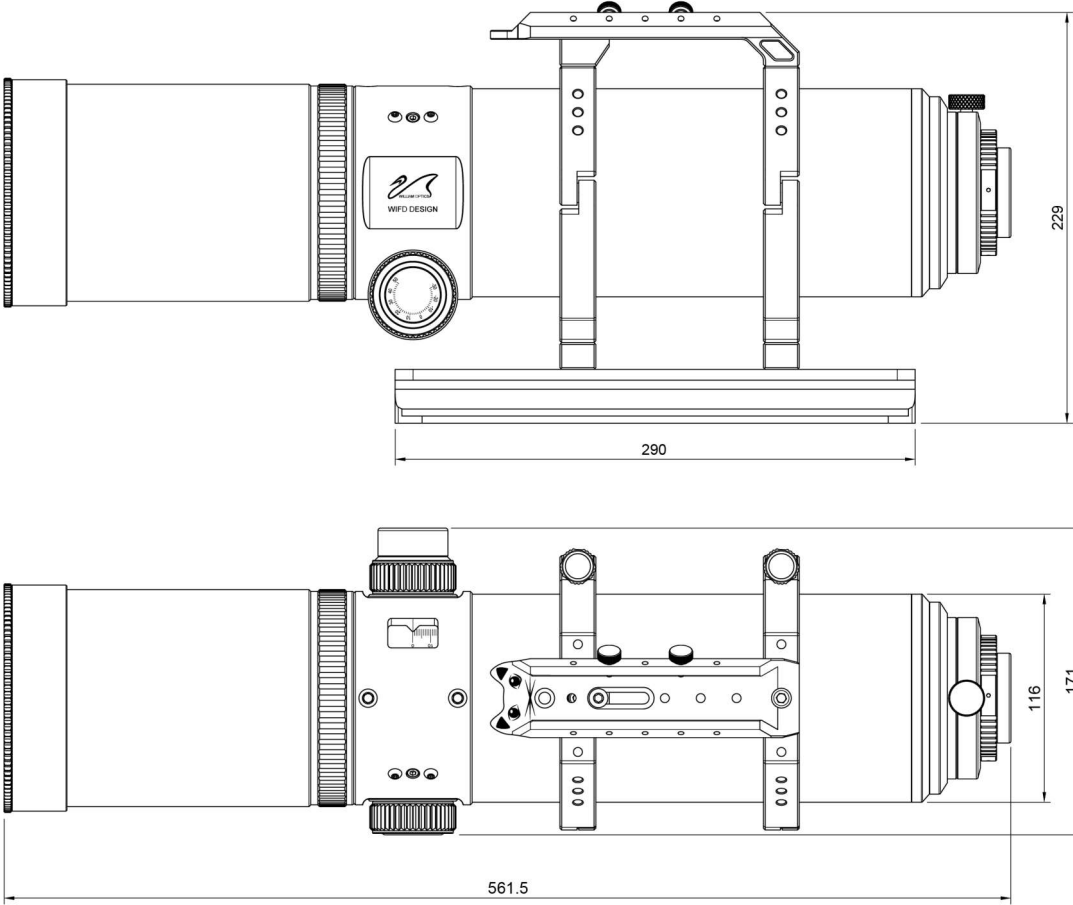


Longitudinal Aberration

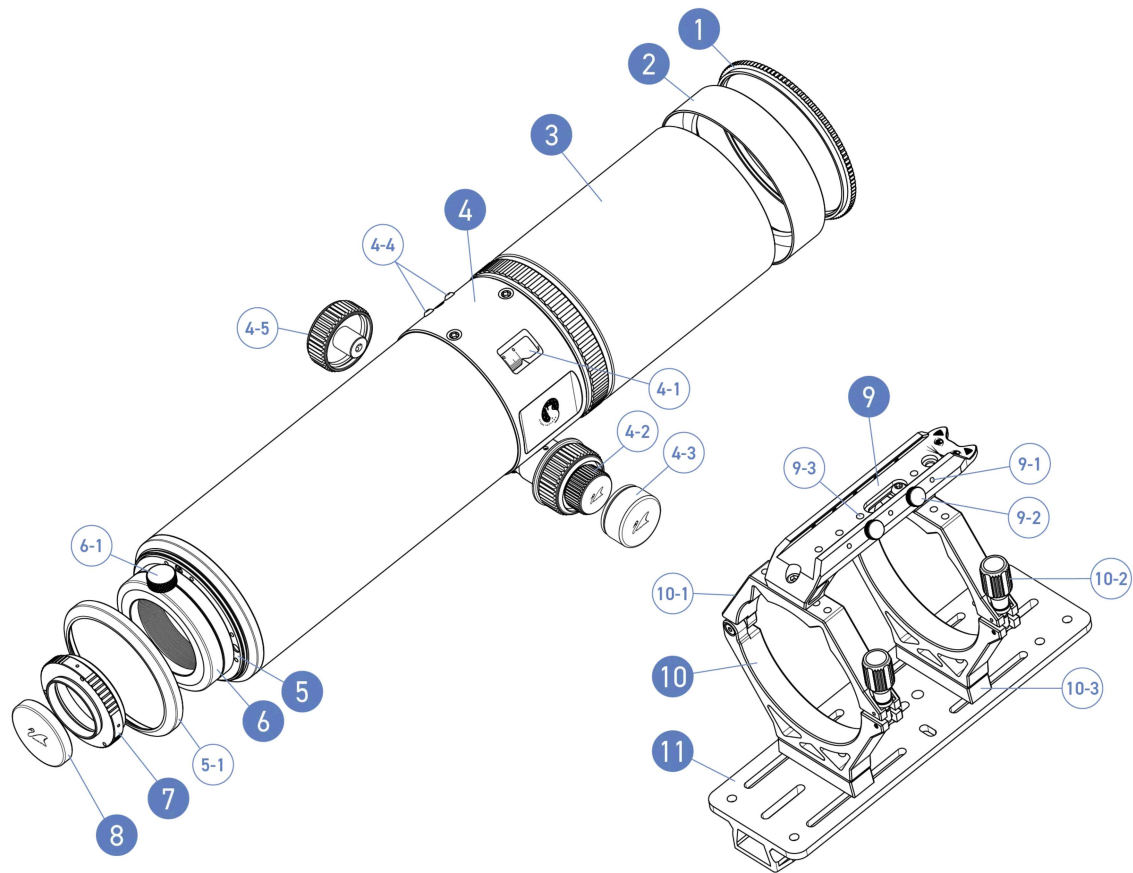
2024-06-26
Wavelengths: From 0.436 To 0.680 μm
0.546 0.680 0.620 0.497 0.436



Size Diagram



Parts



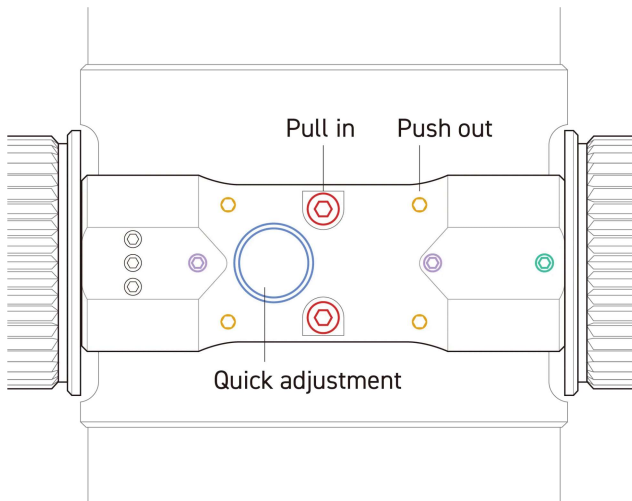
- | | |
|--|--|
| <div>1</div> Front Bahtinov Mask Cover | <div>9</div> Handle Bar with Mini Vixen-style Mounting Base (HCRC-L) |
| <div>2</div> Lens Cover with Bahtinov Mask
How to focus with the Bahtinov Mask ? | <div>9-1</div> M4 Screw Holes For Locking Screws |
| <div>3</div> Dew Shield | <div>9-2</div> Mounting Base Locking Screws (M4) |
| <div>4</div> WIFD Focuser
How to adjust Focuser Tension? | <div>9-3</div> M6 Screw Holes |
| <div>4-1</div> Focus ruler scale Window | <div>10</div> Mounting Ring |
| <div>4-2</div> Two Speed 1:10 Ratio Fine Knob | <div>10-1</div> M6 Screw Holes for Finder Bracket |
| <div>4-3</div> Fine Knob Protecting Cover | <div>10-2</div> Mounting Ring Knob |
| <div>4-4</div> M4 Screw Holes for Finder Bracket | <div>10-3</div> 20mm Riser Blocks |
| <div>4-5</div> Focuser Knob with Temperature Gauge (Can be removed to attach EAF. How to install EAF?) | <div>11</div> Vixen-style Dovetail Plate (PV-LII) |
| <div>5</div> Sensor Tilt Adjuster How to adjust Tilt Adapter? | |
| <div>5-1</div> Tilt Adjuster Protecting Cover | |
| <div>6</div> Camera Angle Rotator (CAA) | |
| <div>6-1</div> CAA Locking Knob | |
| <div>7</div> M63 → M48 Adapter with M48 Filter Thread
How to install a Filter?
(M63 → M54 Adapter interchangeable) | |
| <div>8</div> M48 (M54) Rear Dust Cap | |

Operation Guide

Focuser Tension Adjustment

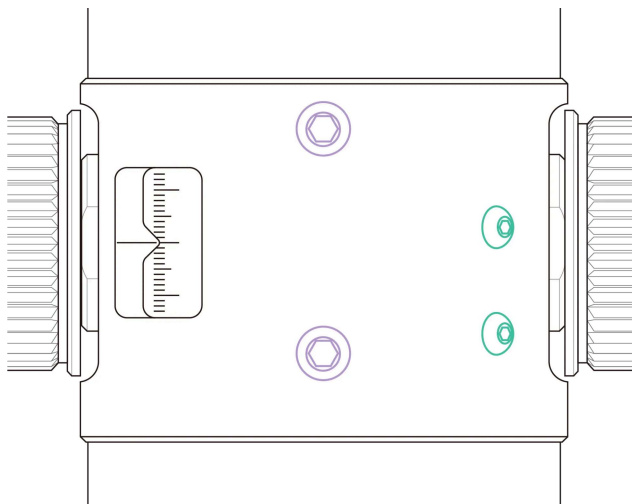
There's two side to build WIFD focuser tension:

BUTTON / Rack & Pinion Gear



- Quick tension adjustment knob
- Smoothness adjustment
 - Pull in (3mm Hex)
- Smoothness adjustment
 - Push out (2mm Hex)
- Can be removed to attach the electronic devices such as EAF ([refer to Installing EAF](#)) or be used as a spare.
- Please Don't Touch

TOP / Focuser Draw Tube



- Focuser Draw Tube Tension Screws
Please Don't Touch
- Guider/Finder bracket mounting screws
(2.5mm Hex)

⚠ The focuser smoothness adjustment **ONLY** when necessary by progressively push & pull screws until you reach the desired smoothness.

⚠ When using the telescope with the motor, be sure not to over-tighten the tension screw, as this could damage the focuser. Consider it like driving a car while pressing both the gas and brake pedals simultaneously. Just as this could harm your car's systems, over-tightening the tension screw can compromise your telescope's focuser functionality.

Sensor Tilt Adjustment

Where is the tilt adjuster?



1. Remove the rotator knob.

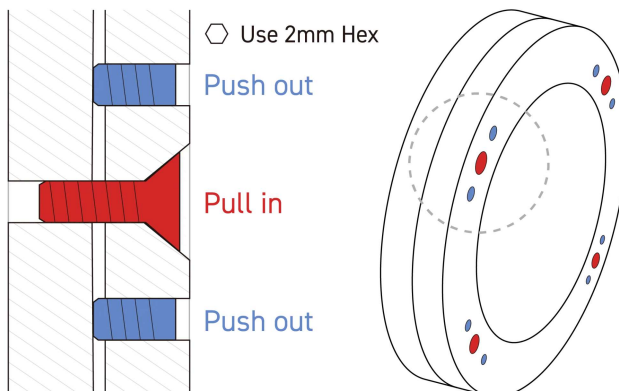


2. Remove the ring cover.



3. The tilt adapter is inside.

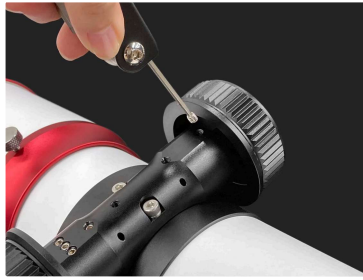
Adjusting Instruction



Installing EAF



1. Turn the telescope over and remove the Tension screw.



2. Remove the top cover screw near the temperature gauge with 2mm Allen key.



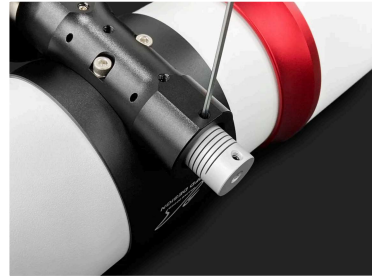
3. Release (don't remove) two inner knob screws.



4. Remove the temperature gauge knob.



5. Find the flat side on the shaft and turn it to face the hole.



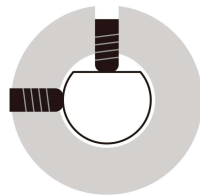
6. Put the 5-6mm Flexible coupling on the shaft and lock the two inner screws.



7. Put the EAF body on and lock the two inner screws.

On Step 6 & 7:

Please make sure one of the screws is lock on the flat side



8. Align the screw holes.



9. Lock the four M4 bracket screws.



Installing Filter

Only applies to the M48 camera adapter (There are no filter threads on the M54 adapter, filter wheel is used instead)



1. Lock the Rotator



2. Take off the M48 adapter



3. Lock the filter (male thread)
inside the M48 adapter (female thread)

- It is recommended to apply some lubricating oil on the threads first to avoid being permanently tightened.



4. Put the adapter back

Accessories Map



[Camera Adapter](#)



[UniGuide 32mm f/3.75](#)



[STC Filter](#)



[Red dot finder Kit](#)



[Losmandy-style Dovetail Plate](#)