



SHARPSTAR OPTICAL INSTRUMENT CO.,LTD

94EDPH

INSTRUCTION MANUAL

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Caution

Please do not observe the sun directly through this telescope, which may cause instant blindness. Please be well-prepared with special solar observation filters and necessary observation guides. It can also cause serious damage to your eyes if you look at the Sun through its finderscope. Please keep your children away from using telescope alone during the daytime.



WARNING!!

**DO NOT LOOK AT SUN THROUGH TELESCOPE.
IT WILL CAUSE IRREVERSIBLE DAMAGE TO YOUR EYE.**

Specification

Aperture: 94mm

Limiting magnitude: 11.62

Focal ratio: F5.5

Resolution: 1.28 arc-seconds

Objective lens type: Triplet air-spaced APO

(including two extra-low dispersion ED glass elements)

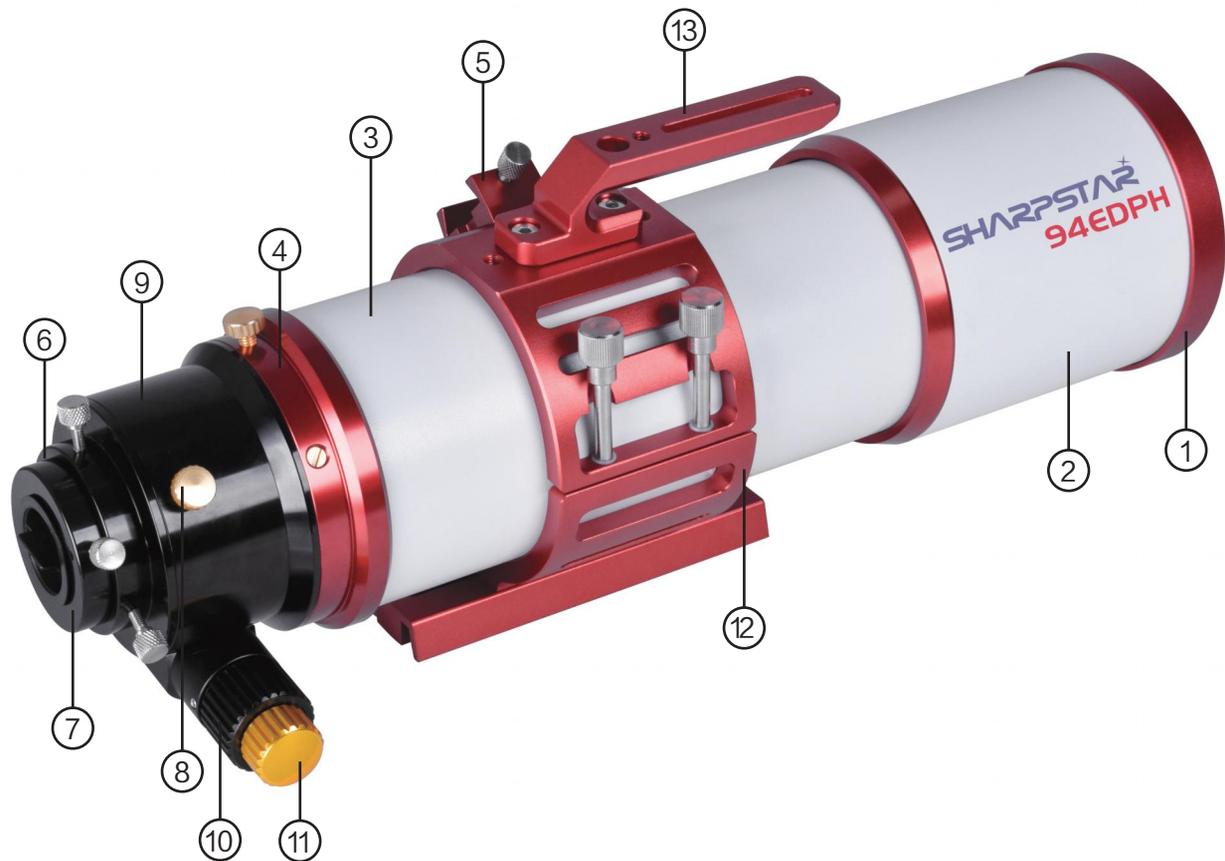
Tube length overall: 468mm

Main tube diameter: 118mm

Accessories: a pair of tube rings, a dovetail plate, a handle

Weight: 3.3KG

SHARPSTAR 94EDPH Telescope Parts



- ① Dust cap
- ② Dew shield
- ③ Main tube
- ④ 360° rotator
- ⑤ Finderscope bracket
- ⑥ 2" adapter
- ⑦ 1.25" adapter
- ⑧ Carrying capacity adjustment screw
- ⑨ 2.5" focuser
- ⑩ Coarse adjustment knob
- ⑪ Micro adjustment knob
- ⑫ Hollow tube ring
- ⑬ Multifunctional handle

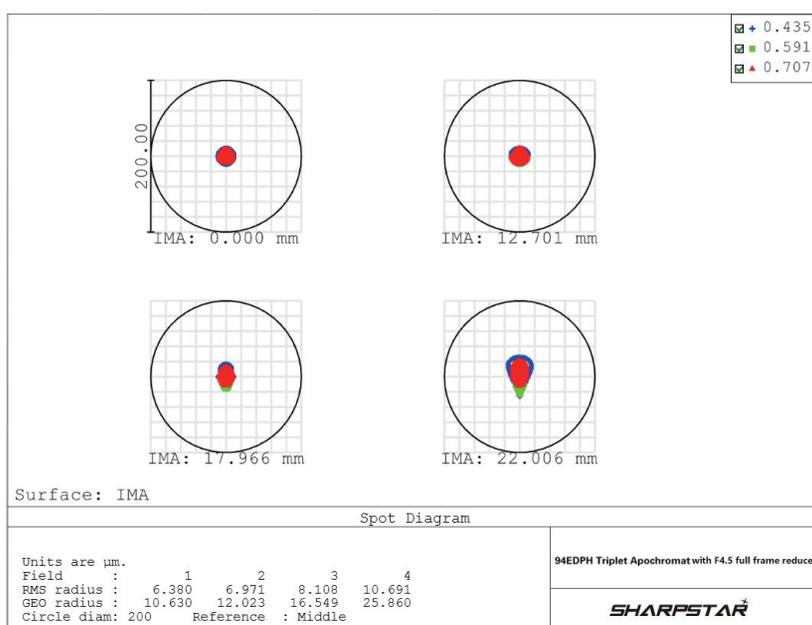
Included In The 94EDPH Box



- | | |
|---|---------|
| ① SHARPSTAR 94EDPH telescope tube | one |
| ② Tube ring | one |
| ③ Multifunctional handle | one |
| ④ Finderscope bracket | one |
| ⑤ Aluminum carrying case | one |
| ⑥ Shock-absorbing EPE foam protection | one set |
| ⑦ Instruction manual, Postcard, Warranty Card | one set |

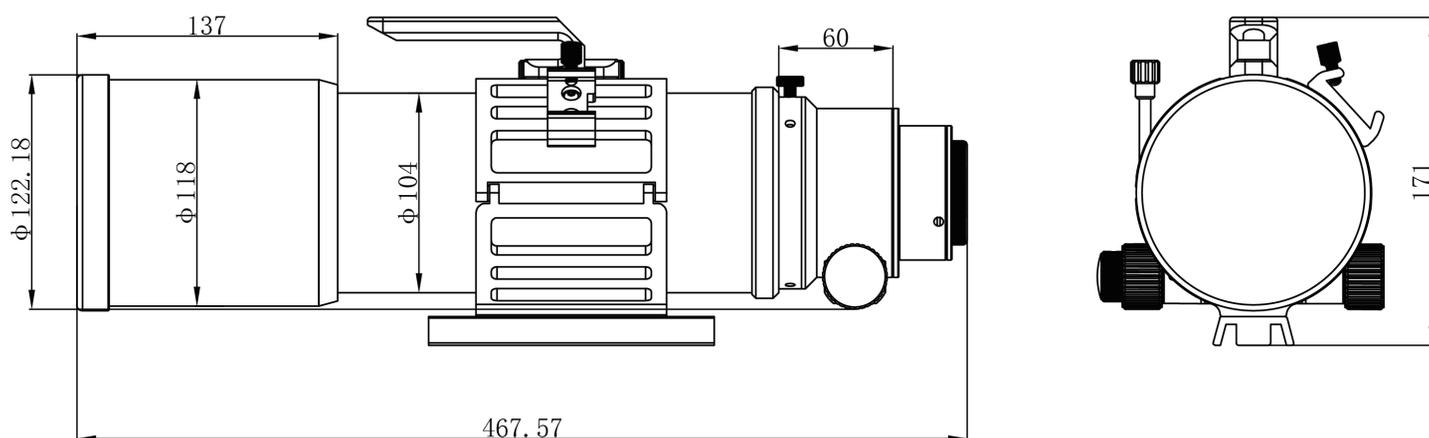
Description

Brand new SHARPSTAR 94EDPH is the third model in the EDPH series. The 94EDPH is a 94mm apochromatic f/5.5 refractor with a focal length of 517mm. It adopts triplet air-spaced optical design, including two extra-low dispersion (ED) glass elements, which offers superior contrast and sharpness as well as virtually no detectable chromatic aberration. In the mechanical design, 94EDPH is extraordinarily elegant, portable and of high-quality. The 94EDPH has so much to offer on your way exploring the universe. It performs well whether for visual observation and astrophotography. 94EDPH were also specially equipped with the F4.5 focal reducer, which supports full-frame images, bringing more possibilities for deep-sky imaging. 94EDPH is definitely an ideal choice if you are still looking for a fast and full featured travel APO refractor.



Spot diagram

Mechanical Structure Diagram



Using Steps

94EDPH is a high-precision optical instrument, so do not operate under high-temperature and high-humidity conditions for quite a long time, for fear of causing irreversible damage to its performance and service life.

●Connecting steps of the tube

1. Carefully take out the 94EDPH main tube and the attached tube ring, dovetail plate, finderscope bracket and the locking screw at the focuser bottom.
2. Install the finderscope bracket.
3. Place the main tube into the tube rings, then lock in the tube rings.
4. Put the dovetail plate right into the dovetail slot of equatorial mount or theodolite(both are not included).

Note: This dovetail plate we provided can match up with most purchasable equatorial instrument' s narrow-type dovetail slot. Refer to Figure 1 for the connection.



Figure 1

●Use before

Please carefully check if all the accessories are thoroughly and safely attached to the main body and make sure the tube firmly sits onto the slot.

94EDPH for visual observation

1. Take off the front dust cap, then adjust to extend the lens hood for avoiding stray light.
2. Slightly loosen the 2" screw on the focuser and built in a 2" diagonal or a prism(not included), then inserting the 2" or 1.25" eyepiece(not included). So far, The imaging system is basically done.
3. Use a finderscope for help or directly angle to the object that you' d like to observe. First rotate the coarse adjustment knob to focus the target gradually clear(Figure 2) and then moderately rotate the golden fine focus knob until the image is sharp(Figure 3).



Figure 2

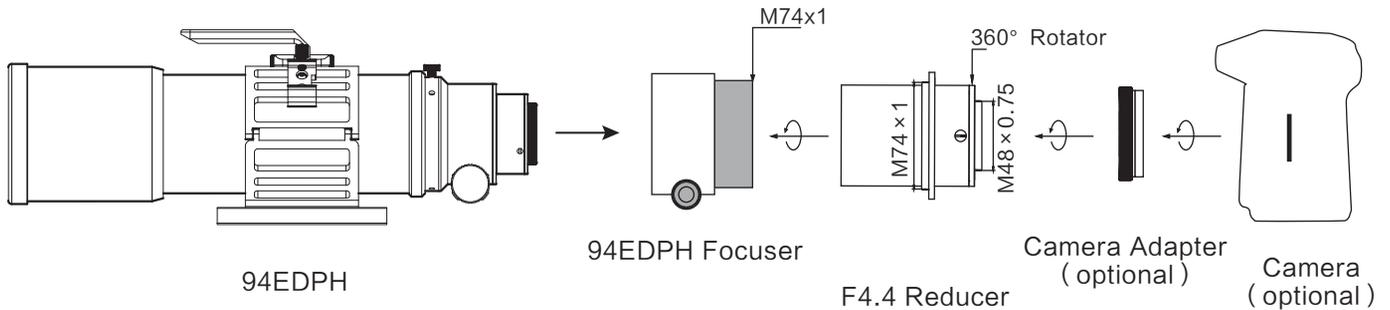


Figure 3

94EDPH for astrophotography

With specialized F4.4 focal reducer

The right attachment order: ① 94EDPH → ② 94EDPH focuser → ③ F4.4 specialized focal reducer → ④ T-adppter ring(not included) → ⑤ camera(not included)



●How to use finder bracket

The finder bracket is provided, it locates on the upper side of the tube ring for the purpose of connecting and fixing the finder. There are various types of finder for users to choose.

Due to its low magnification and wide field of view, users can more easily and quickly find the targets. Here are the using steps:

- ① Insert the dovetail of finder bracket right into the finder base, tighten it with screws.
- ② Adjust the finder and refractor tube until their optical axes are parallel. A simpler way is to aim at a certain ground object, calibrating until the targeted object sits as exactly at the center of your field of view as through the refractor tube.
- ③ You can first target the bright stars around a perspective subject with your finder. Because you have adjusted your finder optical axis paralleled to that of the tube, you can observe the goal star through the tube.

●How to use 360° rotator

We provide 2.5" focuser together with a high-quality 360° rotator, which is quite helpful for astrophotography.

This rotator comprises 3 adjusting screws and 1 tightening screw. Loose the tightening screw and then you can rotate the focuser.

The focuser rotates slowly and evenly because of damping phenomenon. Even the focuser bears certain resistance when working, the converter won't slip or misalign due to our reasonable design and exquisite craft.

Users can adjust each of 3 adjusting screws so the rotator can rotate more easily.

(Caution: the adjustment range of the screw is not large, so please handle them with much more care. Do not over-loosen the screws which may entail entire fall-off of the angle adjuster.)

We have already properly adjusted the rotator, so self-adjustment is not really recommended.

Cleaning And Maintenance

- ① Avoid direct sunlight, high temperature, impact or humidity.
- ② Please keep the telescope in an unheated, dry and dust-free place, completely away from acid, alkali and other possible corrosive chemicals.
- ③ Lenses are the essential part of a telescope, so pay special attention to them. This doesn't mean disassembling or cleaning the lenses without any professional instructions. Instead, use a camel hair brush or some brushes alike to gently whisk the surface of the lenses in one direction to remove the dust. And then tenderly dampen a piece of sterile surgical cotton wad or lens tissue with drops of mild lens-cleaning solution. Gently blot the lenses and use a dry piece of lens tissue to blot up any moisture. Remember, never use elbow grease to get out a stubborn stain. After that, use an air bulb to softly blow away the residues. Please do not blow across the lenses with your mouth.
- ④ Pay attention to the instant change of temperature: try to avoid directly getting the telescope from a chilly environment into a warm environment, which may cause condensation on the lenses.

After-sale service

Feel free to contact us(9:00-17:00 from Monday to Friday) if you have any questions on installation, operation or maintenance.

E-mail: support@sharpstar-optics. Come

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