

# 151PHQ

## ■ 使用说明书

## ■ User's Manual

### 警告 WARNING!!

请勿通过本望远镜直接观察太阳，这样做可能导致瞬间失明，请购买专用太阳观测滤镜或滤膜，来获得最安全的观测指导。

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

欢迎使用ASKAR 151PHQ  
www.sharpstar-optics.com

### 规格

有效口径：151mm

焦距：1057mm

焦比：f/7

物镜类型：四片式全分离APO（包括两片ED玻璃）

成像圈：60mm

**调焦筒缩进状态下后端最长连接长度：**

拍摄模式：从M48端面算起78mm

观测模式：从1.25英寸端面算起119mm

**全长：**

观测模式：遮光罩缩进930.3mm 遮光罩拉出1117.8mm

拍摄模式：遮光罩缩进976.8mm 遮光罩拉出1164.3mm

OTA 重量：11.6kg

总重（包含抱箍和鸠尾板）：13.7kg

末端接口：

M86×1-M68×1

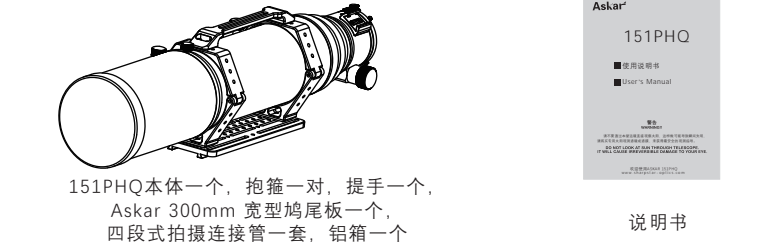
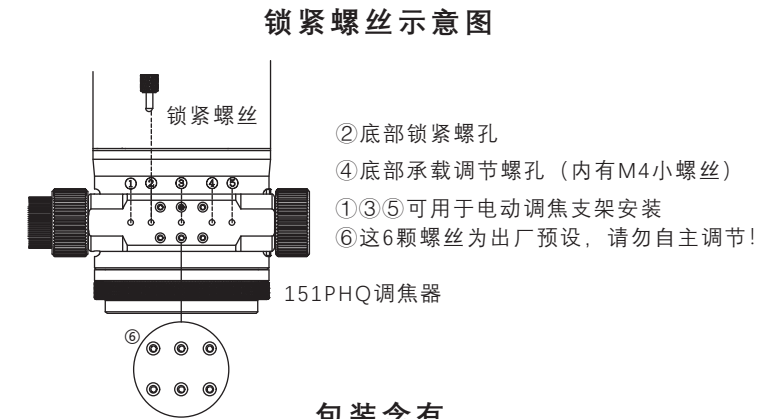
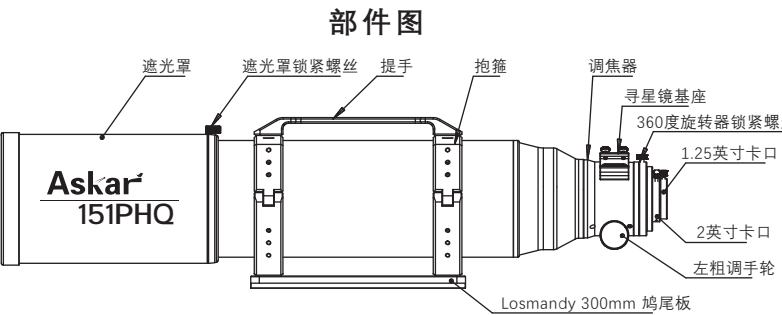
M68×1-M54×0.75

M54×0.75-M54×0.75

M54×0.75-M48×0.75（内置M48×0.75滤镜螺纹）

四段式拍摄连接管末端接口：M48×0.75

标配：151PHQ本体一个，抱箍一对，提手一个，Askar 300mm宽型鸠尾板一个，四段式拍摄连接管一套，铝箱一个，说明书一份



### English

### Instructions for use

151PHQ is a long-focal-ratio, flatfield astrograph newly launched after 130PHQ and also the biggest refractor of Sharpstar products till now. Instead of buying extra flatteners, calculating the backfocus of the flattener, or making a tedious connection to match the distance, astrophotographers can simply equip it with any possible imaging devices, make the target stay at the focus, and then the whole optical system is perfect for imaging.

151PHQ has a focal ratio of f/7 and a focal length of 1057mm. The aperture is 151mm, which is the largest of Askar refractors so far. The quadruplet lens with two ED glasses offers excellent control of chromatic and other aberrations. With its self-flattening design, 151PHQ offers strong advantages in the astronomical shooting. It supports a medium frame 60mm image circle, has a fine spot diagram with tiny distortion of the peripheral stars, and its central RMS radius is less than 2 microns.

151PHQ comes with a telescopic lens hood, a high-quality CNC machined and painted tube, and attractive decorative parts. The 3.4" R&P focuser comes with M68/M54/M48 adapters (2"

filter thread adapter) , 360°rotator and a finder base. When used with the 3" 0.7 x flat field reducer, the telescope can reach a focal ratio of f/4.9 and a focal length of 740mm, effectively reducing exposure time. A standard 300mm Losmandy dovetail plate, together with a sturdy double tube ring, is perfectly suited for viewing and shooting.

### Specification

Aperture size:151mm

Focal length:1057mm

Focal ratio:f/7

Objective lens:Quadruplet air-spaced APO (including two ED glass)

Image circle:60mm

**Maximum accessory connection(with the focuser fully retreated)**

Imaging mode:78mm (from the base of M48×0.75 male thread)

Observational mode:119mm (from the end of 1.25" eyepiece holder)

**Total length:**

Observational mode:930.3mm (with the dew shield contracted)  
1117.8mm (with the dew shield fully stretched)

Imaging mode:976.8mm (with the dew shield contracted)

1164.3mm (with the dew shield fully stretched)

OTA Weight:11.6kg

Total Weight (Including tube ring&dovetail plate):13.7kg

Rear-end thread type:

M86×1-M68×1

M68×1-M54×0.75

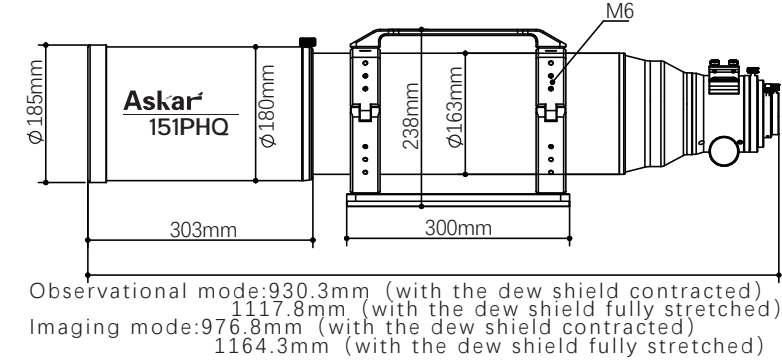
M54×0.75-M54×0.75

M54×0.75-M48×0.75 (built-in M48×0.75 filter thread)

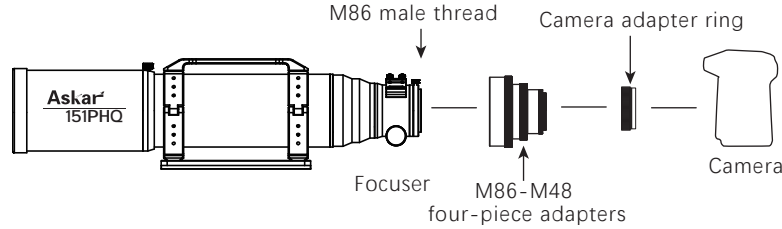
Four-piece photographic end adapter:M48×0.75

Standard package items:An 151PHQ OTA, a pair of tube rings, a handle, an Askar 300mm losmandy dovetail plate, a set of 4-piece photographic adapters, an aluminum box, a manual

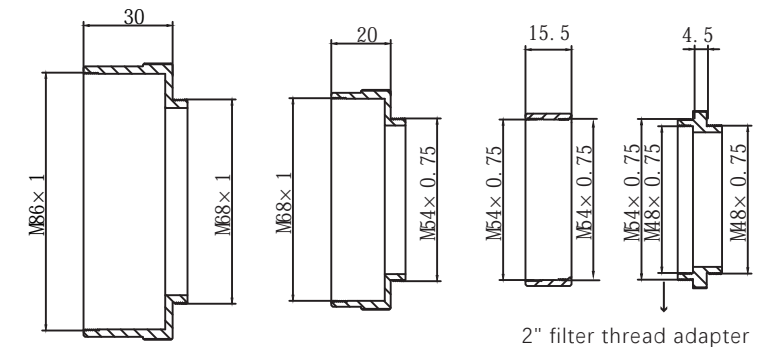
### Product Size Diagram



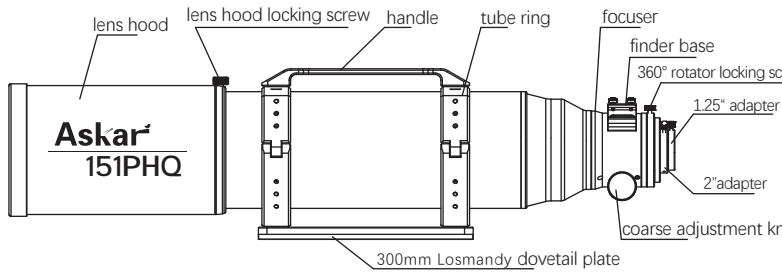
### Connection Diagram of Camera



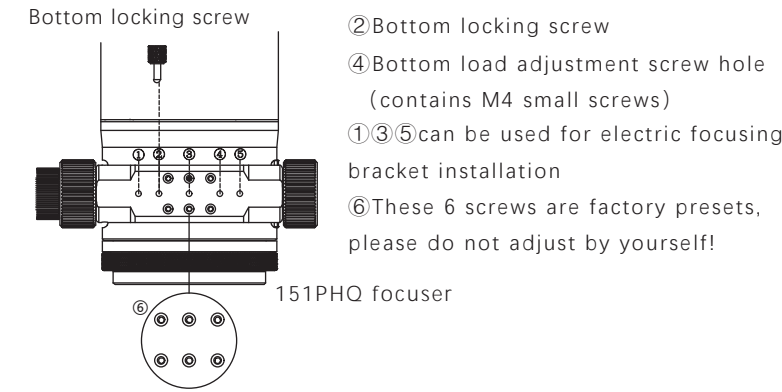
### 4-piece Photographic Adapter Diagram



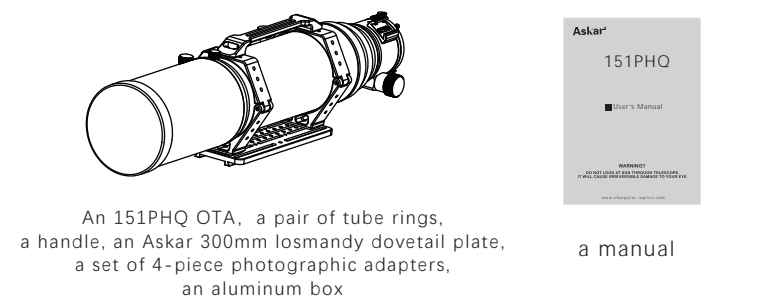
### Product Parts Diagram



### The Locking Screw Position Diagram



### Items in 151PHQ Packaging



### 中文版

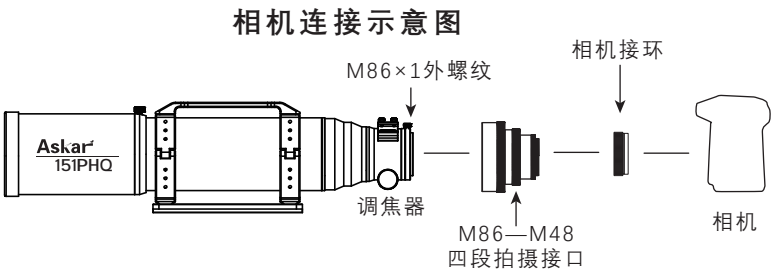
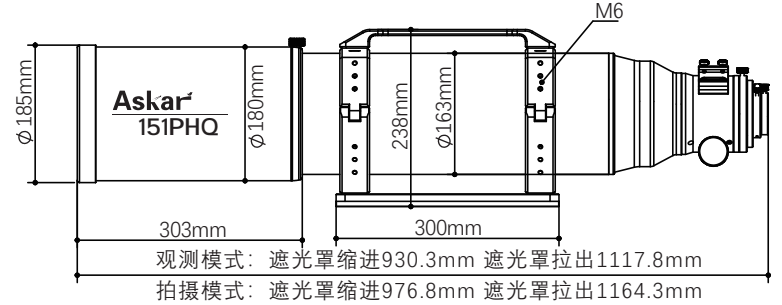
### 使用产品前请仔细阅读本使用说明书

151PHQ是继130PHQ之后新推出的长焦比、自平场摄星镜，也是目前为止锐星光学产品中口径最大的折射望远镜。天文摄影爱好者们无需为其购买另外的平场镜，也不需要计算平场镜的后载距或是进行繁琐的连接以达到匹配的距离，只要直接接上任意成像附件，合焦后就是最佳的拍摄状态。方便快捷，让您有更多时间投入到其他拍摄工作中。

151PHQ采用f/7焦比，焦距达到了1057mm，口径是目前锐星光学折射望远镜中最大的151mm。四片式光学镜片组合，其中两片为ED玻璃，有着非常好的色差及其他像差控制能力。由于采用自平场设计，151PHQ在天文拍摄中具有很强的优势。它支持中画幅60mm影像圈，点阵图细腻，周边星点变形极小，其中央RMS半径小于2微米。

151PHQ附有伸缩遮光罩，镜筒全部使用高质量CNC加工工艺以及喷涂涂装，装饰零件醒目美观。刚性3.4英寸调焦器，附有M68/M54/M48接环(内置2英寸滤镜螺纹接口)、360°旋转器以及寻星镜基座。搭配3英寸0.7×平场减焦镜使用时，望远镜的焦比可以达到f/4.9，焦距达到740mm，有效缩短曝光时间。标准Losmandy宽型300mm鸠尾板，配合美观的双抱箍，完全满足观测和拍摄的使用需求。

### 产品尺寸图



### 四段式拍摄连接管示意图

