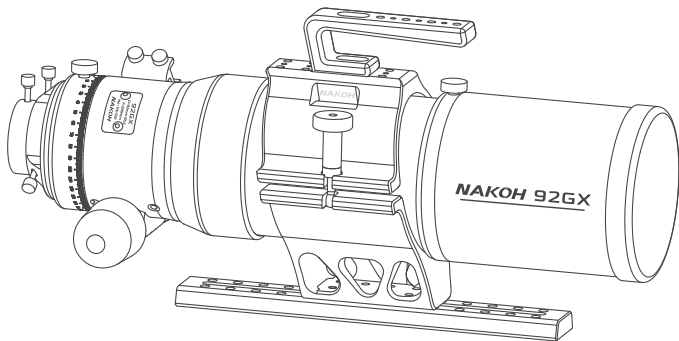


NAKOH

NAKOH 92GX 望遠鏡取扱説明書 NAKOH 92GX Instruction Manual



NAKOH 92GX 望遠鏡をお買い上げいただき、誠にありがとうございます。
本製品の性能を十分に発揮させるために、天体望遠鏡をご使用になる前に、
本取扱説明書およびその他の機器や付属品の取扱説明書をよくお読みください。

Thank you for purchasing the NAKOH 92GX. To get the most out of your telescope, please read this manual and all accessory manuals carefully.

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Safety Precautions

⊘ WARNING

- Never point this telescope at or near the Sun. Viewing the Sun through this instrument, even for a moment, can cause immediate and permanent eye damage.



⚠ CAUTION

- Before use, ensure all components are securely fastened to prevent the telescope from falling or being damaged.
- Do not use or store the product in damp, high-temperature, or dusty environments.
- Do not disassemble the optical components or mechanical structure yourself, as this may affect performance and void the warranty.
- During transport, store the telescope properly to avoid severe shock or vibration.



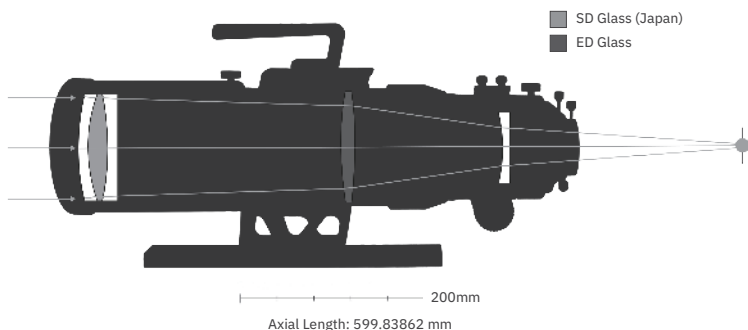
Use by Children Requires Strict Supervision!

This product is not a toy. Children must always be under adult supervision when using this product. Ensure children understand and follow all safety rules, especially the warning against looking at the Sun.

Product Introduction

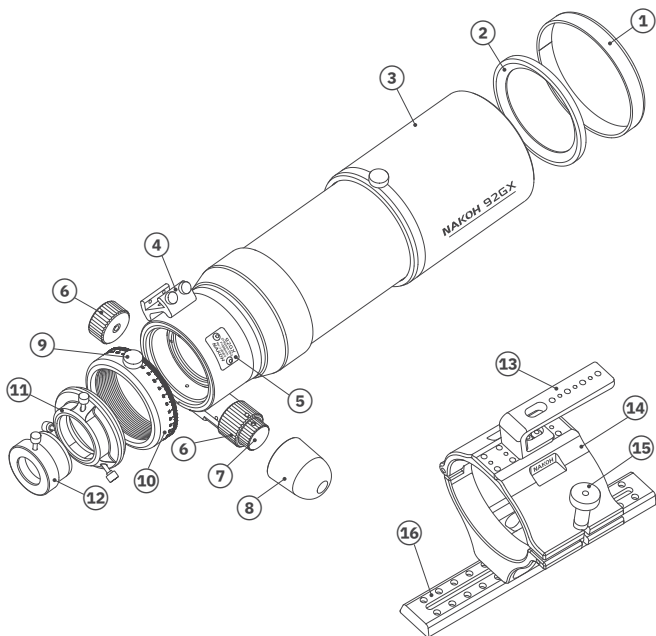
The NAKOH 92GX is a versatile astrograph for both visual observation and astrophotography. Featuring a quintuplet Petzval design, it incorporates one Japan-made SD glass and one ED glass. By precisely utilizing the anomalous dispersion characteristics of these two glass materials, it significantly reduces refractive index differences across wavelengths, effectively suppressing chromatic aberration (such as purple&green fringing) for high-contrast images with pure colors and sharp stars.

Supporting medium format (55mm) imaging, the 92GX's precision-engineered optical system delivers flat, clear images with round stars from center to edge — no additional flattener needed. It minimizes field curvature and edge distortion, providing a consistently excellent observing and imaging experience for both astrophotography and high-power visual use.



Specifications				
Optical Design	Aperture	Focal Length	Focal Ratio	Interface
Refractor	92mm	598mm	F6.5	31.7mm / 50.8mm

Name of Each Component



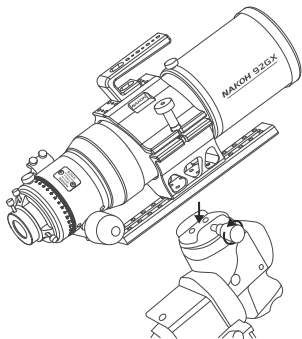
Name	
① Front Cap: Protects the objective lens from dust and damage	② Nameplate Ring: Displays logo, model, and specifications
③ Lens Hood: Blocks stray light to enhance image contrast	④ Finder Base: For mounting and securing the finder scope
⑤ Serial Number Plate: Displays unique product serial number	⑥ Coarse Adjustment Knob: For quickly focus, move, or find a focus position
⑦ Fine Adjustment Knob: For precise focus control	⑧ Focuser knob Cap: Protects the the focuser knob

名称	
⑨ Rotator Locking Screw: Locks the telescope's rotation angle	⑩ 360°Rotator: Allows image orientation adjustment with precise graduations
⑪ 2-Inch Interface: For connecting large-diameter eyepieces or accessories.	⑫ 1.25-Inch Interface: For connecting standard-sized eyepieces or accessories
⑬ Handle: 128mm length with multiple mounting holes	⑭ Tube Ring: Angled design for a secure hold of the lens tube
⑮ Tube Ring Locking Screw: Thumb screw for tool-free operation	
⑯ 300mm Dovetail Plate: Standard Vixen-style with multiple holes. Compatible with most equatorial mounts and alt-azimuth mounts	

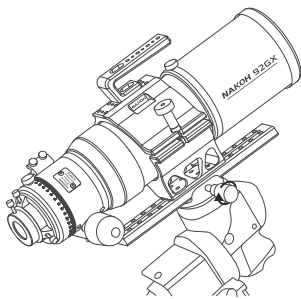
Dovetail Plate Installation

Please read these instructions alongside the user manual of your equatorial or alt-azimuth mount. Before use, always ensure the telescope is securely fastened.

The 92GX is equipped with a 300mm Vixen plate as standard, with a 300mm Losmandy plate also supplied for flexible mounting options. Its multi-hole design allows for flexible adjustment of the tube ring position to balance the telescope. It is compatible with most commercially available equatorial and alt-azimuth mounts.



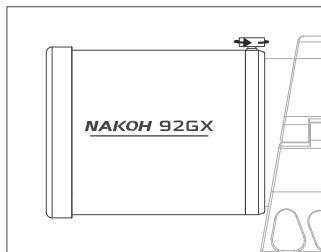
1. Loosen the locking screws on your equatorial or alt-azimuth mount.
2. Align the dovetail plate with the mounting slot.



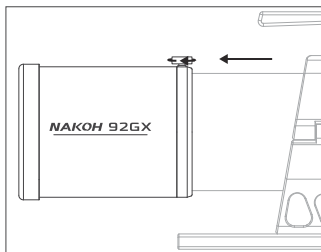
3. Securely tighten the locking screws on the mount to prevent the telescope from slipping.
4. Be sure to consult the user manual of your mounts together.

Dew Shield Instructions

The 92GX is equipped with a retractable dew shield. When fully extended, it effectively blocks stray light, with a total tube length of approximately 588 mm. When retracted for easier storage and portability, the tube length shortens to 502 mm, balancing performance and convenience.



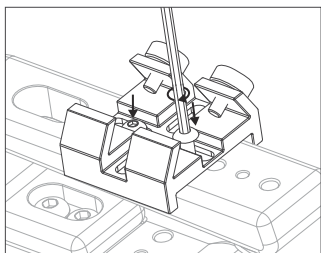
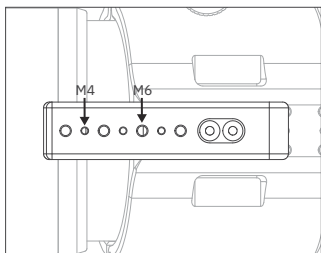
1. Loosen the thumb screw on the top of the dew shield.



2. Adjust the dew shield to your desired position based on actual usage, then tighten the thumb screw to secure it in place.

Handle Installation

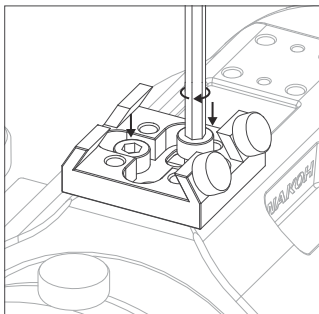
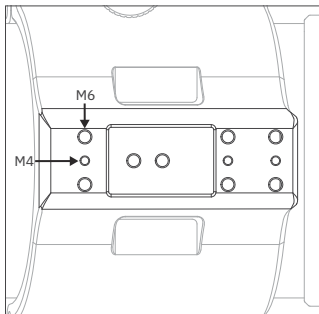
The 92GX handle features M4 & M6 threaded holes for attaching the finder base, dovetail plate, and other astronomical equipment.



Secure accessories using M4 or M6 screws as required.

Tube Ring Top Installation

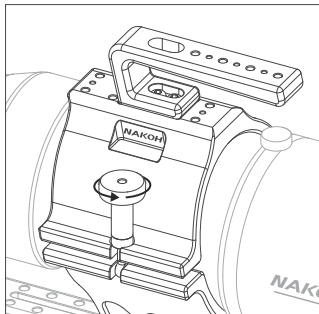
The top of the 92GX tube ring features multiple M4 and M6 threaded holes. After removing the handle, accessories such as a finder base or guide scope can be attached, allowing flexible equipment configurations to suit various shooting needs.



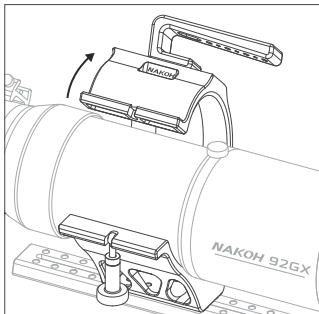
Secure accessories using M4 or M6 screws as required.

Tube Ring Installation

The 92GX tube ring employs a clamshell design. An enlarged thumb screw is provided for ease of use.



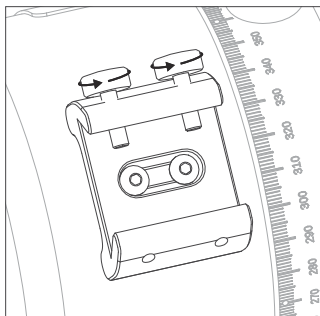
1. Loosen the thumb screw on the side of the tube ring.



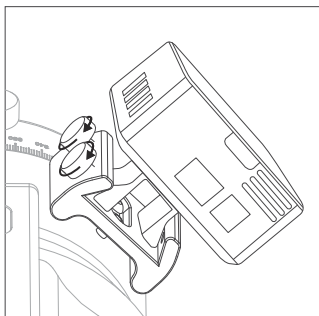
2. Once the screw is loosened, adjust the position of the lens tube as needed for your setup.

Finder Base Installation

The 92GX finder base is 35mm in length. Beyond mounting a finder scope, it serves as a multi-function expansion platform for connecting various devices.

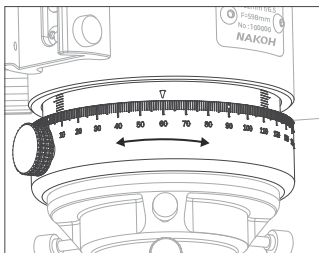
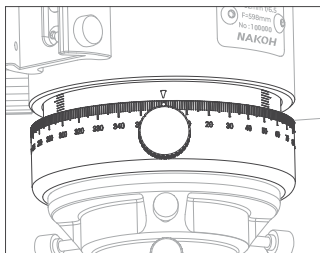


1. Loosen the two fixing screws on the finder base.



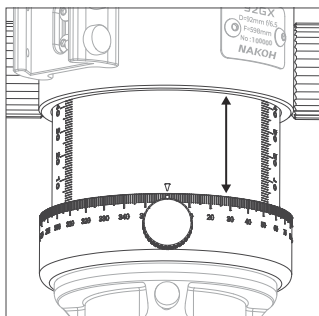
2. Attach the desired accessory to the base. After installation, securely tighten all fixing screws to ensure stability during use.

360° Rotator Usage

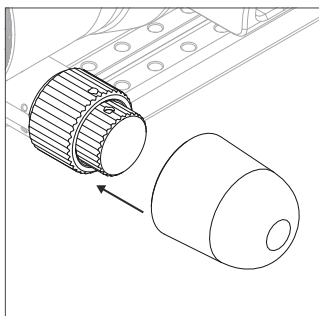


The rotator features fine graduations from 0° to 360°, with an engraved arrow indicator for precise angular positioning.

Focuser and Knob Usage

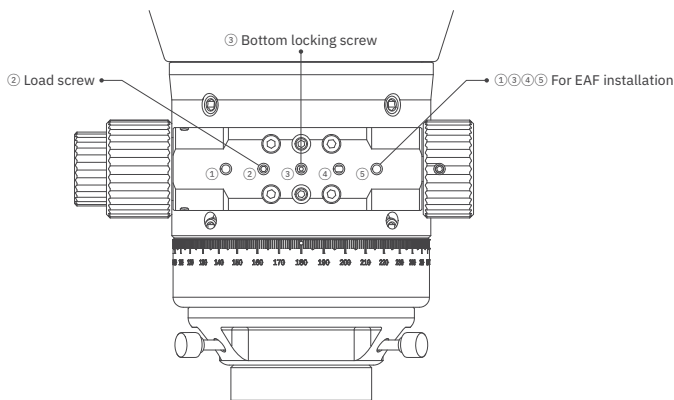


The 92GX focuser provides 43mm travel length, with scales engraved on both sides for intuitive operation.



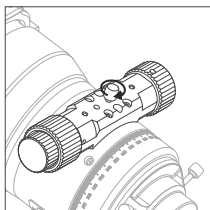
The focuser knob is equipped with a dedicated protective cap. When screwed on, it effectively prevents damage to the knob caused by bumps or impacts during transport and storage.

Focuser Bottom Screw Usage

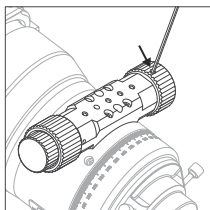


EAF Connection

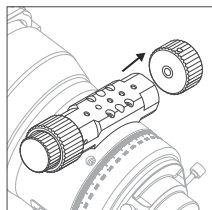
Please read this section alongside the manual of your EAF. All connecting parts used during installation are standard accessories provided with the EAF itself.



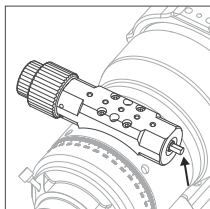
1. Flip the telescope over and unscrew the bottom locking screw.



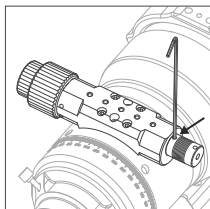
2. Using a 2mm allen wrench, loosen (do not remove) the coarse adjustment knob locking screw.



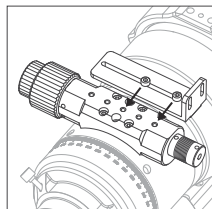
3. Remove the coarse adjustment knob.



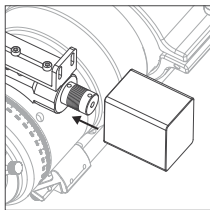
4. Rotate the adjustment knob on the opposite side until the shaft's flat surface is facing upward.



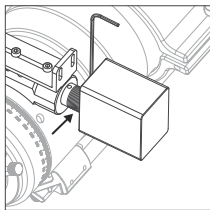
5. Select a 5-6mm flexible coupling (choose based on the connected device) and tighten its two set screws.



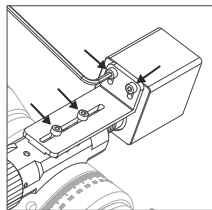
6. Install the EAF bracket, aligning its M4 fixing screw with the threaded hole indicated by the arrow.



7. Insert the EAF into the coupling.



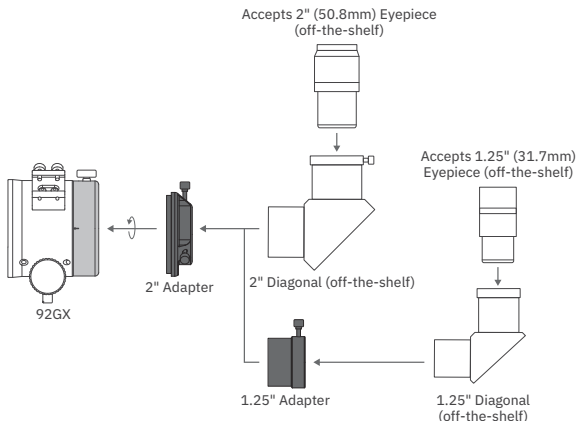
8. Tighten the EAF installation screw(s) to secure the unit.



9. Tighten the screw fixing the EAF to its bracket. Installation is now complete.

Visual Observing Setup

For visual observation, an eyepiece (off-the-shelf) is required. No image can be seen without an eyepiece. The magnification of the telescope is determined by the eyepiece used.



* To avoid back-focus problems caused by differing optical path lengths of various diagonal brands, universal 2-5cm extension tubes are recommended for use.

Magnification Formula

Magnification = Telescope Focal Length $\div$ Eyepiece Focal Length

Higher magnification reveals finer details but results in a narrower field of view and reduced image brightness. It is recommended to select an eyepiece with a suitable focal length for your observation target.

Example Calculation (using 4mm/15mm aperture eyepiece)

OTA	OTA focal length	4mm eyepiece focal length	15mm eyepiece focal length
92GX	598mm	$598 \div 4 \approx 150\times$	$598 \div 15 \approx 40\times$

Visual Observation Focusing

1. Install the diagonal and the low-power eyepiece. Use the coarse adjustment knob to locate the target.
2. Once the target is found, switch to a high-power eyepiece. Use the fine adjustment knob to achieve precise focus and observe the target.

Suggestions

- For first-time observations, start with a low-power eyepiece to easily locate the objects. Then, gradually switch to higher-power eyepieces for detailed observation.
- During nighttime observation, avoid applying strong force to the telescope to prevent vibrations that degrade observing quality.
- Choose an appropriate eyepiece focal length based on your observation target (e.g., Moon, planets, deep-sky objects).

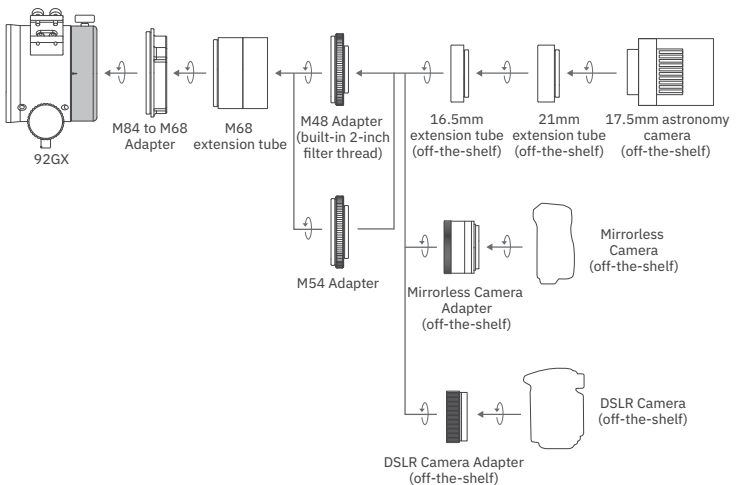
Precautions

- When using eyepieces, ensure they are clean and free of dust to avoid compromising observing quality.
- Avoid touching the optical surfaces of eyepieces with your fingers.
- After prolonged observation, eyepieces may dew up slightly. It is recommended to use a dew prevention device or wait for the lens temperature to stabilize before resuming observation.

Astrophotography Setup

Thanks to its quintuplet Petzval APO design, the 92GX delivers exceptional images with uniformly sharp stars without the need for a flattener or reducer.

The package includes a four-piece imaging adapter set, allowing flexible connection configurations based on actual shooting needs. Simply connect various imaging devices within the focusing range to start shooting.

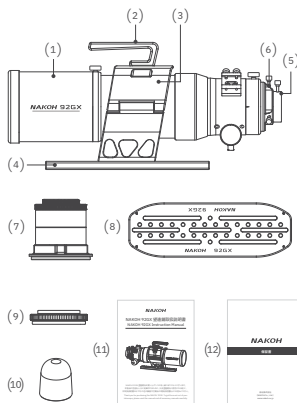


Specifications

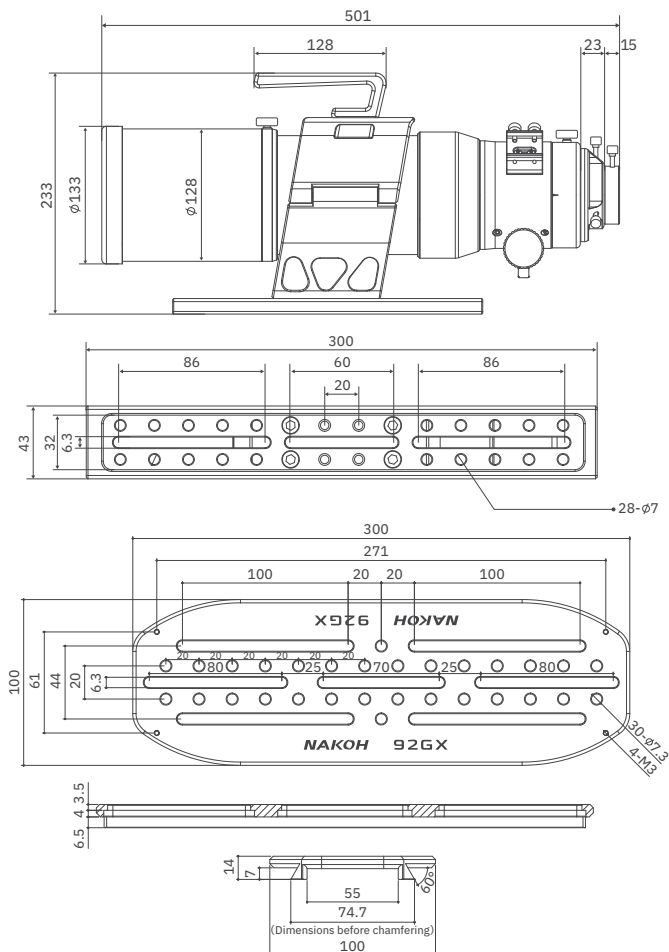
Parameters	
Aperture / Focal Length / Focal Ratio	92mm / 598mm / F6.5
Objective Lens	Quintuplet Petzval APO (incl. 1x SD Glass [made in Japan], 1x ED Glass)
Image Circle	φ55mm
Light Gathering Power	172x unaided eyes
Resolving Power / Limiting Magnitude	1.26 arc seconds / 11.57
Tube Length	Hood retracted: 502mm / Hood extended: 588mm
Weight	6.88kg
Rear-end Interface	31.7mm / 50.8mm(1.25-inch / 2-inch)、 M48(with built-in 2" filter thread)/M54 imaging adapter
Focusing Range	For visual use: 73mm-116mm / For imaging use: 37mm-80mm

Packaging List

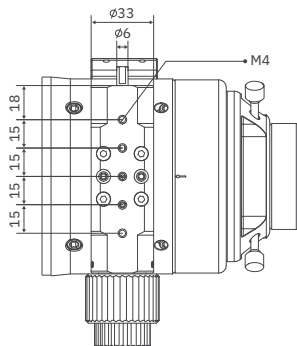
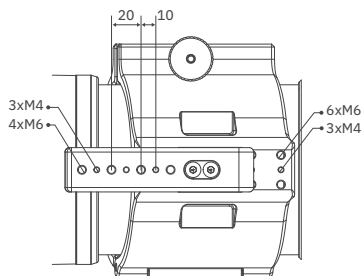
(1) 92GX	1
(2) Handle	1
(3) Tube Ring	1
(4) Dovetail Plate	1
(5) 1.25-inch Adapter	1
(6) 2-inch Adapter	1
(7) Four-piece imaging adapter set	1
(8) 300mm Losmandy-style dovetail plate	1
(9) M54 Adapter	1
(10) Focuser Knob Cap	1
(11) Instruction Manual (this book)	1
(12) Warranty Card	1



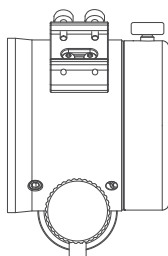
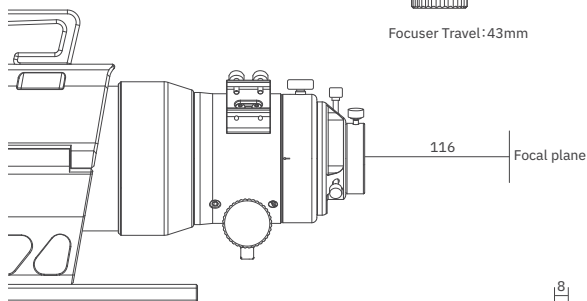
Product Specifications(unit : mm)



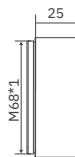
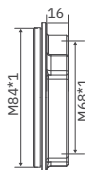
Product Specifications(unit : mm)



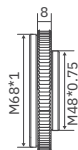
Focuser Travel: 43mm



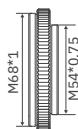
M84 to M68 Adapter



M68 extension tube



M48 Adapter
(built-in 2-inch
filter thread)



M54 Adapter

Warranty & Contact Information

Warranty Policy

This product is covered by a one-year limited warranty from the date of purchase.

The warranty does not cover accidental damage, misuse, or normal wear and tear.

Please refer to the warranty card included with the product for detailed terms and conditions.

Technical Support

For any inquiries or repair services, please contact the store of purchase or Nakoh's authorized dealer in your country.

- Company Name: NAKOH CO., LTD.
- Add: La Casa Ueshio 902, 4-5-8 Ueshio, Tennoji-ku,
Osaka 543-0002, Japan
- E-mail: support@nakoh.co.jp
- Official Website: www.nakoh.co.jp
- Telephone: +81-6-7892-2731
- FAX: +81-6-7897-9116