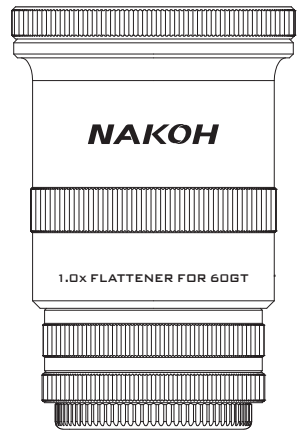
NAKOH

www.nakoh.co.jp

NAKOH

60GT Specific 1.0x Flattener

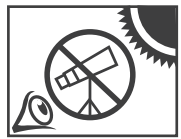
Instruction Manual



Thank you for purchasing the NAKOH 60GT 1.0x Flattener.
Please read this manual carefully and refer to it before use.

⚠ Safety Precautions
(Read Before Use)

WARNING



- Never use this flattener for direct solar observation, as it may cause permanent eye damage.

CAUTION

- Before use, ensure all components are securely fastened to prevent the flattener 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.
- Strictly adhere to the 55mm back focus requirement, as this is critical for achieving optimal image quality. Any deviation may result in distorted edge star points, failure to achieve focus, and other issues. Precisely calculate the total length of the camera, filter wheel, and all adapters.

⚠

Use by Children Requires Strict Supervision!

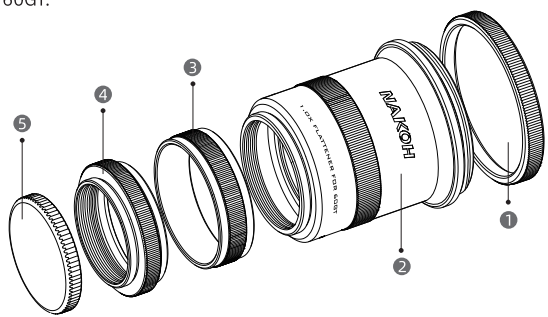
This product is not a toy. Children must always be under adult supervision when using this product. Ensure children understand and follow all safety rules, especially the warning against looking at the Sun.

Product Introduction

This high-performance 1x flattener is specifically designed for the NAKOH 60GT.

Its core function is to accurately correct field curvature, ensuring that stars appear as uniformly sharp points from the center to the edges of the frame when used with an astronomical camera or DSLR camera. It reduces issues such as distorted or elongated stars at the field edges.

Featuring a triplet optical design, this flattener maintains the 60GT' s native focal length (360mm) and focal ratio (f/6) while delivering an optimized flat field for full-frame cameras. It is an essential accessory for unlocking the full imaging potential of the 60GT.

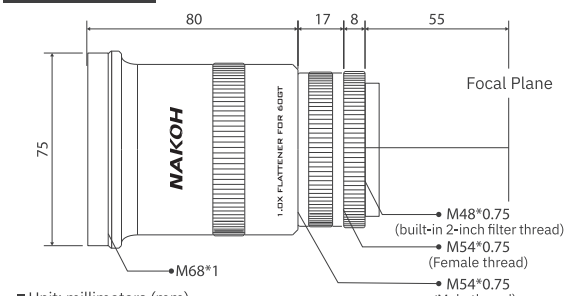


1. Front Cap: Protects against dust and physical damage to the lens.
2. 60GT 1.0x Flattener Body
3. M54 Adapte
4. M54 to M48 Adapter: built-in 2-inch filter thread
5. Rear Cap: Protects against dust and physical damage to the lens.

Specifications

Model	60GT Specific 1.0x Flattener
Dimensions WxDxH	112*75*75mm
Magnification	1.0x
Optical Design	Triplet
Effective focal ratio	F6
Image Circle	ϕ44mm
Back Focus	55mm
Connection Threads	Telescope Side: M68 * 1 、 Camera Side: M48 * 0.75、M54*0.75
Weight	≈0.53kg
Standard Accessories	1.0x Flattener * 1、Front & Rear Caps * 2、 Instruction Manual * 1、Warranty Card * 1

Dimensions



■ Unit: millimeters (mm)

Installation and Usage Guide

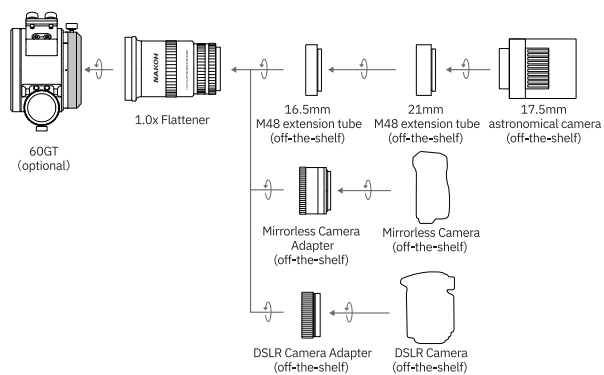
● Installation and Usage Guide

1. Ensure all components are complete.
2. For initial installation, perform in daylight or well-lit conditions.

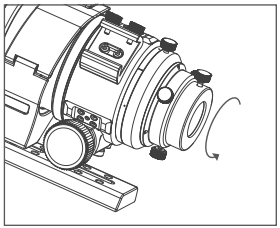
● Step 1: Determine the Back Focus

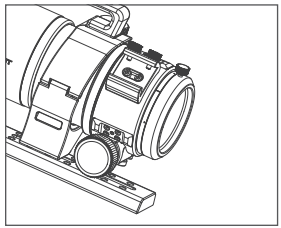
This is a critical step. The total distance from the camera sensor to the flattener's mounting flange should be precisely 55mm.

※Example Configuration:
55mm Back Focus = 16.5mm M48 extension tube + 21mm M48 extension tube + astronomical camera (with 17.5mm flange distance).
Standard or third-party adapters of different lengths may be used to achieve the exact 55mm back focus requirement.

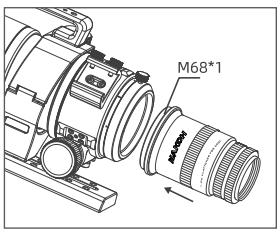


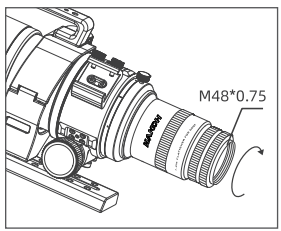
● Step 2: Connect to the Telescope





① Rotate the rear interface of the NAKOH 60GT focuser counter-clockwise to remove it.

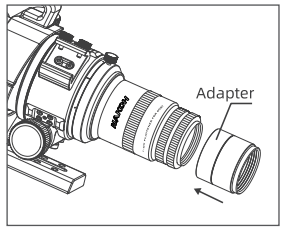


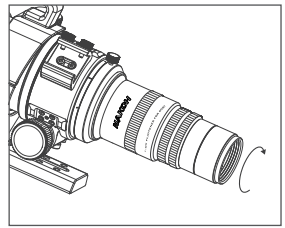


② Remove both silver metal end caps from the 1.0x flattener. Align the flattener with the telescope's focuser rear interface, and gently rotate it clockwise to secure it in place.

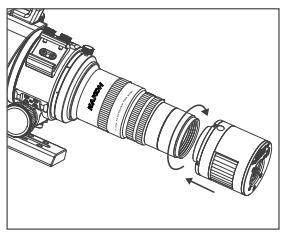
● Step 3: Connect the Camera

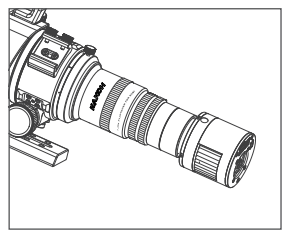
Select the required astronomical accessories and configure appropriate camera adapters according to the 55mm back focus specification.





③ Choose suitable adapters, connect, and tighten by rotating clockwise.





④ Attach the astronomical camera and tighten by rotating clockwise.

⑤ Fully tighten all connections to complete the assembly.

● Step 4: Imaging and Verification

1. Aim the telescope at a bright star and achieve precise focus.
2. Inspect star shapes at the image center and all four corners. If corner stars appear elongated or distorted, first verify that the back focus is accurately set to 55mm.

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