

Sky-Watcher S11720

Sky-Watcher Flextube 250 Dobsonian Telescope User Manual

Model: S11720

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1. INTRODUCTION

The Sky-Watcher Flextube 250 Dobsonian Telescope (Model S11720) is a 10-inch collapsible large aperture reflector telescope designed for ease of use and portability. This manual provides essential information for setting up, operating, and maintaining your telescope to ensure optimal viewing experiences.

Key features of your Sky-Watcher Flextube 250 Dobsonian include:

- **Large Aperture:** Provides bright, bold viewing experiences.
- **Innovative Collapsible Design:** Unique strut system allows the optical tube to collapse for easy transport and storage while maintaining collimation.
- **Proprietary Tension Control Handles:** Patented handles enable accurate movement for precise slewing and aiming.
- **High Reflectivity Mirrors:** Fully multi-coated borosilicate primary and secondary mirrors with 94%+ reflectivity deliver exceptional views.
- **Teflon Bearings:** Proprietary Teflon bearings ensure smooth azimuth movement.
- **Complete Accessory Package:** Includes a 2-inch Crayford-style focuser with a 1.25-inch adapter, two super wide-angle eyepieces (25mm and 10mm), and an 8x50 right-angle finderscope.
- **Sturdy and Lightweight:** Weighs approximately 40 pounds when fully assembled, making it manageable for transport.

2. SETUP AND ASSEMBLY

Your Sky-Watcher Flextube Dobsonian telescope is designed for straightforward assembly. It arrives in two main sections: the optical tube assembly (OTA) and the Dobsonian base.



Figure 2.1: The telescope separates into two sections (optical tube and base) for easy transport and storage.

2.1 Unpacking and Initial Inspection

Carefully unpack all components from the shipping boxes. Verify that all parts listed in the "What's in the Box" section (Section 6) are present and undamaged. If any parts are missing or damaged, contact Sky-Watcher customer support immediately.

2.2 Assembling the Dobsonian Base

The Dobsonian base typically requires minimal assembly. Follow the included diagram for connecting the side panels, ground board, and front board. Ensure all screws are tightened securely but do not overtighten.

2.3 Mounting the Optical Tube

Once the base is assembled, carefully lift the optical tube assembly (OTA) and place it onto the Dobsonian base's altitude bearings. The tension control handles should align with the corresponding slots on the base.

Secure the OTA using the provided locking mechanisms or tension handles.



Figure 2.2: The Sky-Watcher Flextube 250 Dobsonian Telescope fully assembled.

2.4 Attaching Accessories

Attach the finderscope to its bracket on the optical tube. Insert the desired eyepiece into the focuser. The telescope comes with a 2-inch Crayford-style focuser and a 1.25-inch adapter, allowing the use of both 2-inch and 1.25-inch eyepieces.



Figure 2.3: Included accessories: two eyepieces, a 2-inch to 1.25-inch adapter, and an 8x50 right-angle finderscope.





Figure 2.4: The convenient eyepiece tray keeps your accessories organized.

3. OPERATING YOUR TELESCOPE

3.1 Collapsing and Extending the Optical Tube

The Flextube design allows for easy collapsing and extension. To collapse, loosen the chrome locking screws on the three steel struts and gently push the upper optical tube section down until it rests securely. To extend, pull the upper section up until the struts lock into their preset indentations. This design helps

maintain collimation between uses.

3.2 Focusing

Your telescope is equipped with a 2-inch Crayford-style focuser. To achieve a sharp image, rotate the focusing knobs until the celestial object appears clear. The smooth action of the focuser, enhanced by all-metal bearings, allows for precise adjustments.

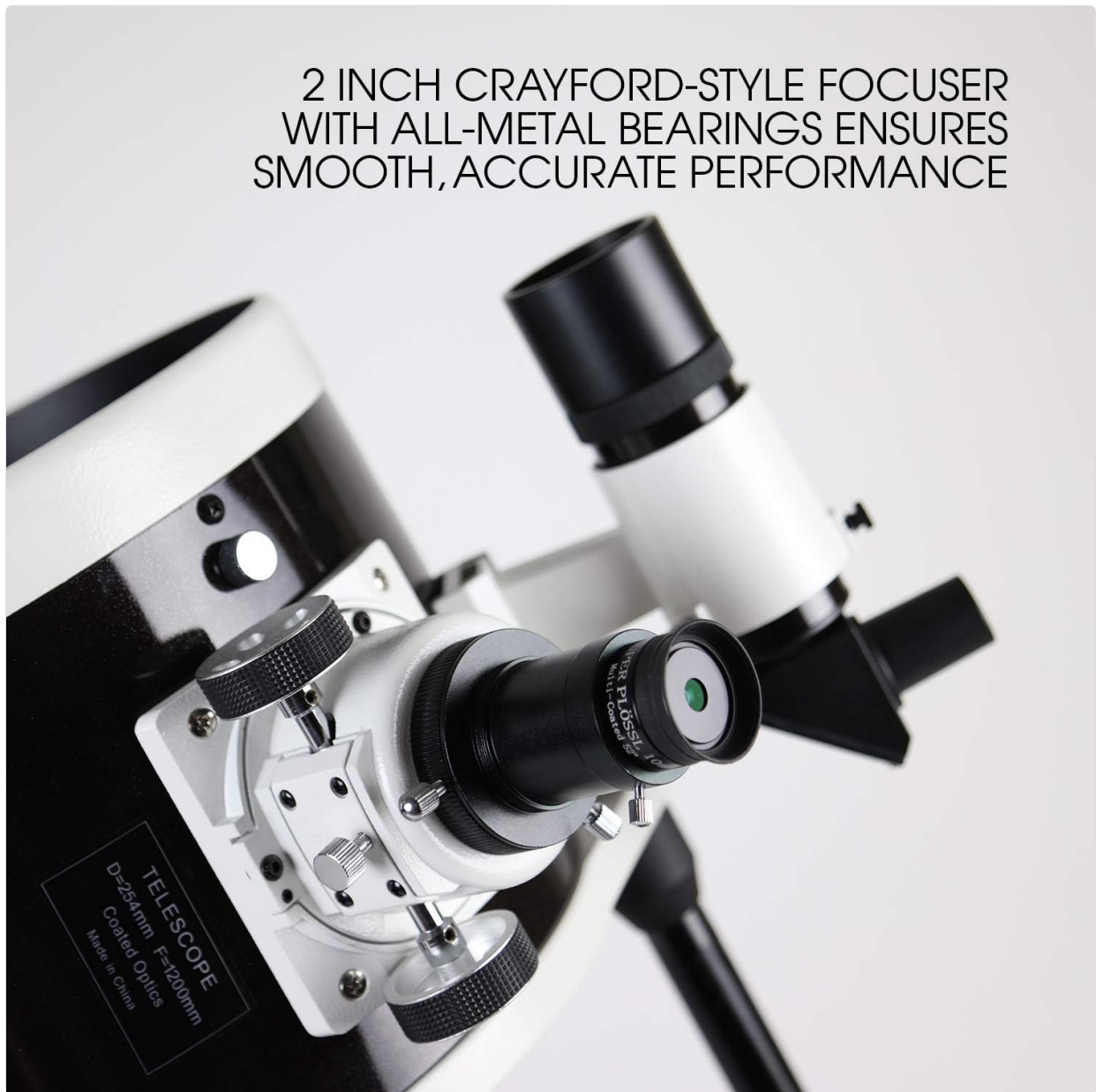


Figure 3.1: The 2-inch Crayford-style focuser ensures smooth and accurate performance.

3.3 Aiming and Tracking

The Dobsonian mount provides intuitive alt-azimuth movement. Use the proprietary tension control handles to guide the telescope smoothly across the sky. The Teflon bearings ensure fluid motion in azimuth (horizontal) and altitude (vertical) directions, allowing you to easily track celestial objects as they move.



Figure 3.2: Patented tension control handles provide solid control for precise slewing and aiming.

3.4 Using the Finderscope

The 8x50 right-angle finderscope helps you locate objects before viewing them through the main telescope. Align the finderscope with the main telescope during daylight hours by pointing the main telescope at a distant, stationary object and then adjusting the finderscope until the same object is centered in its crosshairs.

4. MAINTENANCE

4.1 Collimation (Mirror Alignment)

Collimation is the process of aligning the telescope's mirrors to ensure optimal image quality. While the Flextube design helps maintain collimation, occasional adjustments may be necessary, especially after transport or significant temperature changes. Refer to specialized guides or videos for detailed collimation procedures using a laser collimator or Cheshire eyepiece. The primary mirror is made of borosilicate glass with 94%+ reflectivity coatings of quartz, titanium, and silicon dioxide.

PARABOLIC BOROSILICATE PRIMARY MIRROR WITH 94%+ REFLECTIVITY COATINGS MADE OF QUARTZ, TITANIUM AND SILICON DIOXIDE



Figure 4.1: The parabolic borosilicate primary mirror features advanced reflective coatings.

4.2 Cleaning Optics

Dust and debris can accumulate on the mirrors and eyepieces. Use a soft brush or compressed air to remove loose particles. For stubborn smudges, use a specialized optical cleaning solution and a microfiber cloth designed for optics. Avoid touching optical surfaces with bare hands.

4.3 Storage

When not in use, store your telescope in a dry, dust-free environment. The collapsible design makes storage more convenient. Keep dust caps on the optical tube and eyepieces to protect them.

5. TROUBLESHOOTING

Problem	Possible Cause	Solution
Fuzzy or blurry images	Out of focus, poor collimation, atmospheric conditions, dirty optics.	Adjust focuser. Check and adjust collimation. Wait for stable atmospheric conditions. Clean optics if necessary.
Difficulty locating objects	Finderscope misalignment, unfamiliarity with sky.	Align finderscope with main telescope. Use star charts or astronomy apps. Start with bright, easy-to-find objects.
Stiff movement of telescope	Base components not properly assembled or lubricated.	Ensure all base components are correctly assembled. The Dobsonian mount uses Teflon bearings for smooth movement; avoid applying lubricants unless specifically recommended by the manufacturer.
Vignetting or dark edges in view	Incorrect eyepiece, misaligned optics, or light shield issues.	Ensure eyepiece is fully inserted. Check collimation. Consider a light shield for the open truss if observing in light-polluted areas.

6. SPECIFICATIONS

Feature	Detail
Model Number	S11720
Optical Tube Length	41 Inches (Extended)
Objective Lens Diameter	254 Millimeters (10-inch)
Eye Piece Lens Description	Plossl (25mm, 10mm included)
Telescope Mount Description	Altazimuth Mount (Dobsonian)
Product Dimensions (Assembled)	29.5"D x 20"W x 38"H
Item Weight (Assembled)	42 Pounds
Focus Type	Manual Focus (Crayford-style)
Finderscope	8x50 Right-Angle Correct Image (RACI)
Manufacturer	Sky-Watcher
Country of Origin	China

6.1 What's in the Box

- Sky-Watcher Flextube 250 Dobsonian Optical Tube Assembly

- Dobsonian Mount Base
- 8x50 RACI Finderscope
- 25mm Plossl Eyepiece (1.25")
- 10mm Plossl Eyepiece (1.25")
- 2-inch to 1.25-inch Eyepiece Adapter
- Eyepiece Tray
- Assembly Tools

7. WARRANTY AND SUPPORT

7.1 Product Warranty

For information regarding the product warranty, please refer to the documentation provided with your purchase or visit the official Sky-Watcher website. Protection plans may also be available for extended coverage.

- 2-Year Protection Plan (Optional)
- 3-Year Protection Plan (Optional)

7.2 Customer Support

If you encounter any issues or have questions about your Sky-Watcher Flextube 250 Dobsonian Telescope, please contact Sky-Watcher customer support. You can often find contact information on the manufacturer's website or through your retailer.

For additional resources, you may refer to the official user guide available online [Sky-Watcher Flextube 250 User Guide \(PDF\)](#)