

Sky-Watcher S11520

Sky-Watcher Skymax 127mm Maksutov-Cassegrain Telescope User Manual

Brand: Sky-Watcher | Model: S11520

INTRODUCTION

The Sky-Watcher Skymax 127mm Maksutov-Cassegrain telescope is designed to provide sharp, high-contrast views, making it ideal for planetary observation and lunar viewing. This compact optical tube offers a large visual aperture and a long focal length, which contributes to increased magnification and detailed observations. Its design incorporates a meniscus-shaped corrector plate, ensuring a flat visual plane across the entire field of view.

Equipped with a borosilicate primary mirror featuring an aluminum coating and a quartz overcoat, the Skymax 127mm achieves 94% reflectivity for crisp, clear images. The corrector plate utilizes proprietary Metallic High-Transmission Coatings (MHTC) to enhance optical performance. This telescope is also suitable for astrophotography, particularly for capturing planetary, lunar, or solar (with appropriate solar filter) details due to its long focal length.

COMPONENTS

Your Sky-Watcher Skymax 127mm Maksutov-Cassegrain telescope package includes the following components:

- Skymax 127mm Maksutov-Cassegrain Optical Tube
- 28mm 2-inch Eyepiece
- 2-inch 90-degree Star Diagonal
- 6x30 Straight-Through Finderscope



Image: The Sky-Watcher Skymax 127mm optical tube assembly, showing the main telescope body and the attached finderscope.



Image: The telescope with the 2-inch 90-degree star diagonal and 28mm eyepiece attached, mounted on an equatorial telescope mount.



Image: A close-up view of the front of the telescope, highlighting the large objective lens.



Image: The rear section of the telescope, illustrating the focuser mechanism and various connection points.

SETUP

Proper setup is crucial for optimal performance and stability of your telescope.

1. **Mounting the Optical Tube:** The Skymax 127mm features a Vixen-style dovetail bar, an industry standard for astronomy mounts. Securely attach the optical tube to a compatible equatorial or alt-azimuth mount. Ensure the mount is stable and capable of supporting the telescope's weight (approximately 12.22 pounds). The telescope also includes a 1/4-20 tripod thread under the dovetail bar for mounting to most photographic tripods.
2. **Attaching the Finderscope:** Slide the 6x30 straight-through finderscope into its bracket on the optical tube and tighten the retaining screws.
3. **Installing the Diagonal and Eyepiece:** Insert the 2-inch 90-degree star diagonal into the focuser of the telescope. Secure it with the thumbscrew. Then, insert the 28mm eyepiece into the diagonal and tighten its thumbscrew.
4. **Balancing (for Equatorial Mounts):** If using an equatorial mount, balance the telescope by adjusting its position on the mount and the counterweights. This ensures smooth tracking and prevents strain on the mount's motors.



Image: The Skymax 127mm telescope shown mounted on an equatorial tripod, emphasizing that a stable tripod or mount is required for operation.

Using your Skymax 127mm telescope for observation involves a few key steps to achieve clear and detailed views.

1. **Cool-down Time:** Allow the telescope to acclimate to the ambient outdoor temperature for at least 30 minutes before observing. This prevents image distortion caused by temperature differences within the optical tube.
2. **Aligning the Finderscope:** Before observing, align your finderscope with the main telescope. Point the main telescope at a distant, stationary object (e.g., a streetlight during the day). Look through the finderscope and adjust its alignment screws until the object is centered in both the finderscope and the main telescope's eyepiece.
3. **Locating Objects:** Use the finderscope to locate your desired celestial object. Once the object is centered in the finderscope, it should appear within the field of view of your main telescope's eyepiece.
4. **Focusing:** Use the focuser knob to bring the image into sharp focus. Turn the knob slowly until the stars appear as pinpoint dots or planetary details become clear.
5. **Observing:** The Skymax 127mm excels at planetary and lunar observation due to its long focal length and high contrast. For extended viewing, consider using a tracking mount to compensate for Earth's rotation.

MAINTENANCE

Proper care and maintenance will ensure the longevity and optimal performance of your telescope.

- **Cleaning Optics:** Dust on the objective lens or corrector plate is normal and rarely affects performance. If cleaning is necessary, use a soft brush to remove loose dust, followed by a specialized optical cleaning solution and a clean microfiber cloth. Avoid touching optical surfaces with bare hands.
- **Protecting from Moisture:** Store the telescope in a dry environment. If dew forms on the optics during observation, allow it to evaporate naturally or use a dew shield/heater.
- **Storage:** When not in use, store the telescope in its original packaging or a padded case to protect it from dust and physical damage. Keep dust caps on the front and rear openings.
- **Collimation:** While Maksutov-Cassegrains are generally robust and hold collimation well, occasional checks may be beneficial. Refer to advanced guides for collimation procedures if you suspect misalignment.

TROUBLESHOOTING

Here are some common issues and their potential solutions:

- **Blurry Images:**
 - Ensure the focuser is adjusted correctly.
 - Allow sufficient cool-down time for the telescope to reach ambient temperature.
 - Check for atmospheric turbulence (poor "seeing" conditions).
- **Difficulty Finding Objects:**
 - Verify that the finderscope is properly aligned with the main telescope.
 - Start with the lowest magnification eyepiece (largest focal length) for a wider field of view.
- **Image Appears Dim:**
 - Ensure no dust caps are left on the objective lens or diagonal.
 - Observe from a dark-sky location away from light pollution.
- **Image Shakes or Vibrates:**
 - Ensure the mount and tripod are stable and securely set up.
 - Avoid touching the telescope during observation.

- Check if the mount is properly balanced.

SPECIFICATIONS

Feature	Detail
Model Name	Sky-Watcher Maksutov-Cassegrain 127mm
Optical Tube Length	127 Millimeters
Objective Lens Diameter	127 Millimeters
Item Model Number	S11520
Product Dimensions	28 x 10 x 10 inches (71.12 x 25.4 x 25.4 cm)
Item Weight	12.22 pounds (5.54 kg)
Finderscope	Reflex (6x30 Straight-Through included)
Eye Piece Lens Description	Barlow (28mm 2-inch eyepiece included)
Manufacturer	Sky-Watcher
Country of Origin	China

WARRANTY AND SUPPORT

For information regarding warranty coverage, technical support, or service inquiries for your Sky-Watcher Skymax 127mm Maksutov-Cassegrain telescope, please refer to the official Sky-Watcher website or contact their customer service department directly. Keep your purchase receipt as proof of purchase for any warranty claims.

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question