Sky-Watcher P130N SW1430010002

Sky-Watcher StarQuest P130N Astronomical Telescope User Manual

Model: SW1430010002

1. Introduction

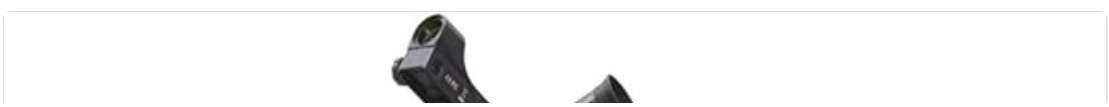
Thank you for purchasing the Sky-Watcher StarQuest P130N Astronomical Telescope. This reflector telescope features a large 130mm aperture, providing exceptionally bright and clear views of celestial objects without chromatic aberration. Equipped with an easy-to-use equatorial mount, it simplifies the tracking of stars and other astronomical bodies as they move across the night sky, making long observation sessions comfortable and enjoyable. This manual will guide you through the assembly, operation, and maintenance of your new telescope.

2. Safety Information

- **Never look directly at the Sun through the telescope or its finder scope without a professionally manufactured solar filter.** Doing so can cause immediate and irreversible eye damage, including blindness.
- Do not leave the telescope unattended in direct sunlight. The concentrated sunlight can cause damage to the telescope or ignite flammable materials.
- Handle all components with care to prevent damage.
- Keep the telescope away from moisture and extreme temperatures.

3. Product Overview

The Sky-Watcher StarQuest P130N telescope system consists of the optical tube, an equatorial mount, a sturdy tripod, and two eyepieces. Familiarize yourself with each component before assembly.

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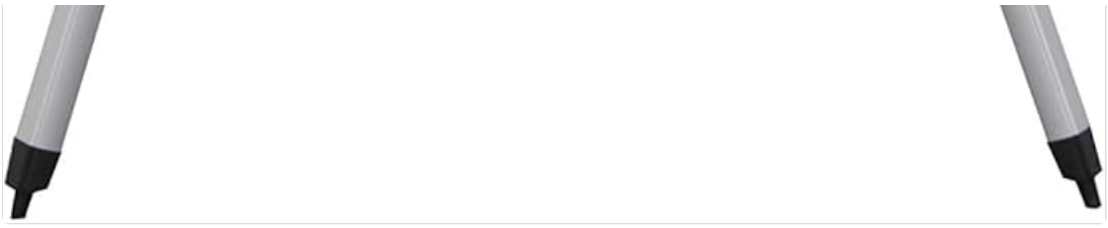

Figure 3.1: The Sky-Watcher StarQuest P130N Astronomical Telescope with its equatorial mount and tripod. This image shows the complete assembly of the telescope, highlighting its compact yet powerful design.

4. Setup

4.1 Assembly

1. Set up the tripod on a stable, level surface. Extend the tripod legs to your desired height and secure them.
2. Attach the equatorial mount to the tripod head. Ensure it is securely fastened.
3. Mount the optical tube onto the equatorial mount using the dovetail bar. Tighten the locking screws to secure the tube.
4. Attach the counterweight shaft and slide the counterweight onto the shaft. Adjust its position to balance the telescope.
5. Insert the desired eyepiece into the focuser.

Figure 4.1: Visual guide for easy telescope operation. This image illustrates the steps: 1) Pointing the mount north, 2) Aligning to your local latitude, 3) Moving the telescope to the desired direction, and 4) Using the fine adjustment handle for tracking. The equatorial mount simplifies star tracking.

4.2 Tripod Height Adjustment

The tripod features adjustable legs, allowing you to change the telescope's height for comfortable viewing. The height can be adjusted from approximately 69cm to 124cm.

Figure 4.2: The telescope tripod can be adjusted in height, ranging from a compact 69cm to an extended 124cm, providing flexibility for various viewing positions and users.

5. Operation

5.1 Observing Celestial Objects

The StarQuest P130N comes with two eyepieces: a 25mm eyepiece (26x magnification) for wide-field views and a 10mm eyepiece (65x magnification) for more detailed observations. Choose the eyepiece based on your viewing objective. The large 130mm aperture ensures bright and clear images, even at higher magnifications.

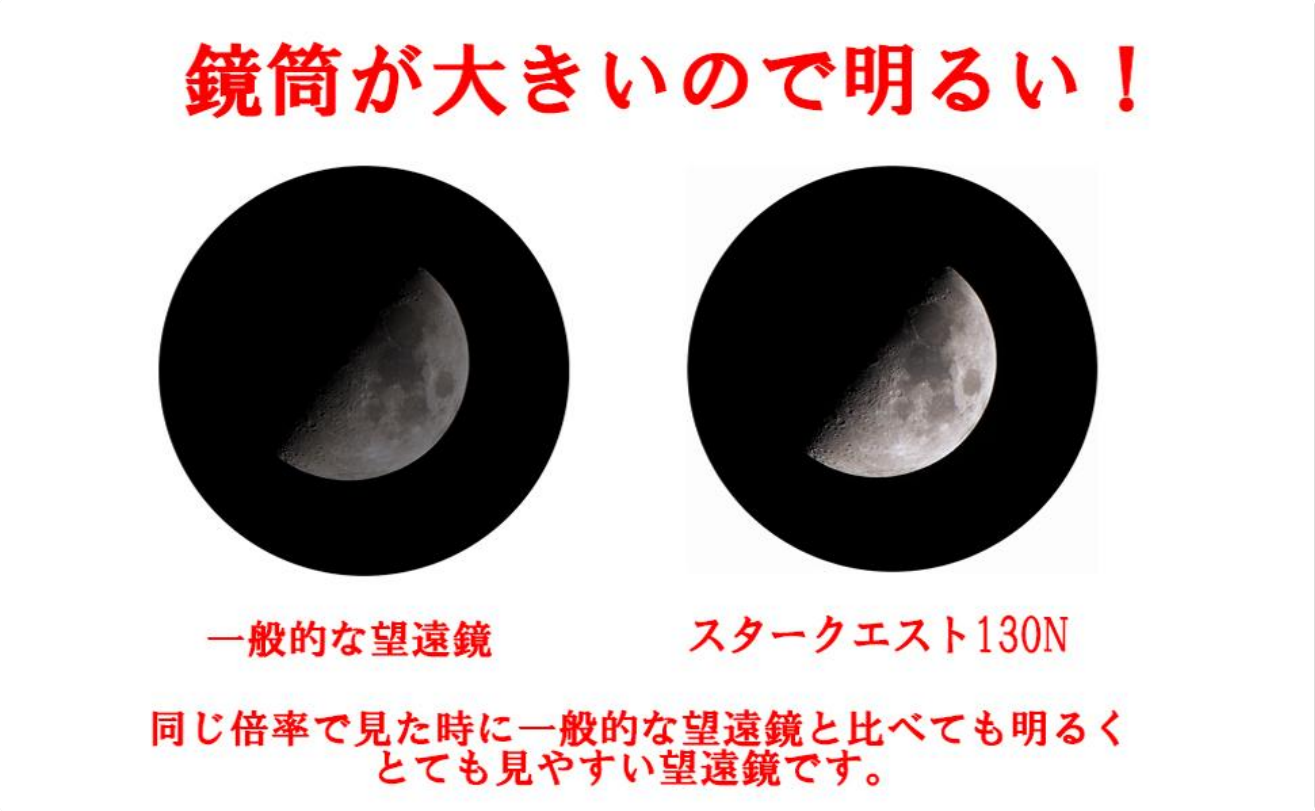

Figure 5.1: Comparison of moon observation clarity. The P130N telescope (right) provides a brighter and clearer view of the moon compared to a general telescope (left) at the same magnification, thanks to its large mirror tube.

5.2 Tracking Stars with the Equatorial Mount

The equatorial mount is designed to simplify tracking celestial objects. Once aligned with the celestial pole, you only need to adjust one axis (the Right Ascension axis) using the fine adjustment handle to follow the apparent motion of stars caused by Earth's rotation. This allows for extended observation of objects without them drifting out of the field of view.

Figure 5.2: The equatorial mount allows for easy tracking of stars. By moving only the fine adjustment handle, you can follow celestial objects as they move due to Earth's rotation, making long observations simple.

5.3 Versatile Observation

The Sky-Watcher StarQuest P130N is suitable for observing a variety of celestial and terrestrial objects. From detailed views of the Moon's craters and distant planets to general star observation and even terrestrial scenery, this telescope offers a wide range of viewing possibilities.

Figure 5.3: The telescope can be used in various scenes, including observing moon craters, general star observation, viewing planets, and even appreciating terrestrial scenery.

6. Maintenance

- **Cleaning Optics:** Use a soft, lint-free cloth and specialized optical cleaning solution. Gently wipe the lens or mirror surface. Avoid touching the optical surfaces with bare hands.
- **Cleaning Body:** Wipe the telescope body and mount with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the telescope in a dry, dust-free environment. Use dust caps for the optical tube and eyepieces when not in use.
- **Transportation:** When transporting, disassemble the telescope into its main components and pack them securely in their original packaging or a padded case to prevent damage.

7. Troubleshooting

Problem	Possible Cause	Solution
Image is blurry or out of focus.	Incorrect focus, atmospheric conditions, dirty optics.	Adjust the focuser slowly. Wait for stable atmospheric conditions. Clean the optics if necessary.
Cannot find objects.	Finder scope not aligned, incorrect mount alignment.	Align the finder scope with the main telescope. Ensure the equatorial mount is properly aligned to the celestial pole.

Problem	Possible Cause	Solution
Stars drift out of view quickly.	Equatorial mount not properly aligned or tracking not engaged.	Re-align the equatorial mount. Use the fine adjustment handle to track the object.
Image is dim.	Light pollution, small aperture for target, high magnification.	Observe from a darker location. Use a lower magnification eyepiece.

8. Specifications

Feature	Specification
Brand	Sky-Watcher
Model Name	SW1430010002 (P130N)
Optical Design	Reflector
Effective Aperture	130 mm
Focal Length	650 mm
Eyepieces Included	25mm (26x), 10mm (65x)
Light Gathering Power	345x
Limiting Magnitude	12.4
Mount Type	Equatorial Mount
Tripod Type	Lightweight Aluminum 2-section
Product Dimensions	70 x 30 x 40 cm
Product Weight	Approx. 8.4 kg (Telescope only), 12 kg (Packaged)
Color	White

9. Warranty and Support

This Sky-Watcher telescope is covered by a manufacturer's warranty against defects in materials and workmanship. Please refer to the warranty card included with your product for specific terms and conditions. For technical support, troubleshooting assistance, or warranty claims, please contact Sky-Watcher customer service through their official website or the retailer where you purchased the product. Keep your purchase receipt as proof of purchase.