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## Sky-Watcher S21170

# Sky-Watcher SolarQuest Tracking Mount

Model: S21170 | Brand: Sky-Watcher

## 1. INTRODUCTION AND OVERVIEW

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The Sky-Watcher SolarQuest solar tracking mount is designed for safe and easy solar observation. Its lightweight and user-friendly design eliminates the need for complex alignment procedures. Featuring patented HelioFind solar finder technology and a built-in GPS, the SolarQuest automatically levels itself and calculates the precise azimuth and altitude of the Sun with a single button press. Once self-aligned, the mount accurately tracks the Sun for extended periods, making it ideal for observing sunspots, planetary transits, International Space Station transits, and solar eclipses when used with appropriate solar filters. It supports both white light and H-Alpha solar filters for detailed observation of the Sun's surface, including prominences, filaments, and solar flares. This mount is specifically designed for solar observation only.

## 2. WHAT'S IN THE BOX

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- SolarQuest Mount
- Tripod
- Eyepiece Tray

## 3. KEY FEATURES

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- **11-pound payload capacity:** Supports a variety of solar telescopes and accessories.
- **Alt-Az motorized tracking mount:** Provides smooth and accurate tracking for safe solar viewing.
- **V-style dovetail:** Ensures compatibility with a wide range of telescopes.
- **HelioFind auto alignment and tracking:** Patented technology for automatic leveling, GPS calculation, and Sun acquisition.
- **Built-in 8-way joystick:** Allows for precise centering of the Sun in the field of view.

## 4. SPECIFICATIONS

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Attribute	Value
Product Dimensions	36 x 36 x 59 inches
Item Weight	13.92 pounds
ASIN	B0BBJ66547
Item Model Number	S21170
Manufacturer	Sky-Watcher
Brand	Sky-Watcher
Telescope Mount Description	Altazimuth Mount
Focus Type	Manual Focus
Power Source	Solar Powered
Finderscope	Reflex
Compatible Devices	Camera, Smartphone

## 5. SETUP GUIDE

Setting up your Sky-Watcher SolarQuest mount is a straightforward process designed for quick deployment. Follow these steps to prepare your mount for solar observation:

- 1. Unpack and Position the Mount:** Carefully remove the SolarQuest mount from its packaging. Place the tripod on a stable, level surface outdoors with a clear view of the Sun.
- 2. Level the Tripod:** The mount features a built-in bubble level. Adjust the tripod legs until the bubble is centered, ensuring the mount is perfectly level for accurate tracking.
- 3. Attach Your Telescope:** Secure your solar-filtered telescope to the V-style dovetail clamp on the mount. Ensure it is firmly attached and balanced.
- 4. Connect Power:** Connect the power cable from your power source (e.g., a portable power tank) to the mount's power input.
- 5. Initial Aiming:** Point the telescope slightly to the left of the Sun's current position. The HelioFind system will scan clockwise to locate the Sun. This initial offset helps the system efficiently find the target.



Figure 1: The Sky-Watcher SolarQuest Tracking Mount fully assembled on its tripod, ready for use. This image shows the main body of the mount, the attached tripod legs, and the V-style dovetail clamp where a telescope would be mounted.



Figure 2: A side view of the SolarQuest mount, highlighting the HeliFind sensor on the front. This sensor is crucial for the mount's automatic solar alignment capabilities.

## 6. OPERATING INSTRUCTIONS

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Once the SolarQuest mount is set up and powered, operating it is simple:

1. **Power On:** Press the 'POWER' button on the mount's control panel. The mount will begin its self-leveling process.
2. **GPS Acquisition:** The mount will then acquire GPS satellite signals to determine its precise location on Earth. This information is used to calculate the Sun's exact azimuth and altitude for your current position.
3. **Automatic Sun Acquisition:** After acquiring GPS, the mount will automatically adjust its altitude and begin scanning in a clockwise direction to locate the Sun. Once the Sun is detected by the HeliFind sensor, the mount will center it and begin tracking.
4. **Fine-Tuning (Optional):** If minor adjustments are needed to perfectly center the Sun in your telescope's field of view, use the built-in 8-way joystick. This allows for precise manual control to achieve optimal viewing.

5. **Continuous Tracking:** The SolarQuest mount will continuously track the Sun, compensating for Earth's rotation, allowing for prolonged observation sessions without manual adjustments.



Figure 3: Close-up view of the SolarQuest mount's control panel, showing the 'POWER' button and the 8-way joystick for fine-tuning the telescope's position.



Figure 4: The SolarQuest mount with a telescope attached, viewed from the rear. This perspective illustrates the overall setup during operation.

## 7. MAINTENANCE

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Proper maintenance ensures the longevity and optimal performance of your SolarQuest mount:

- **Cleaning:** Use a soft, dry cloth to wipe down the exterior of the mount and tripod after each use. Avoid abrasive cleaners or solvents.
- **Storage:** Store the mount in a cool, dry place, away from direct sunlight and extreme temperatures. It is recommended to store it in its original packaging or a padded case to protect it from dust and physical damage.
- **Battery Care:** If using external power packs, ensure they are charged according to their manufacturer's instructions. Disconnect power when not in use.
- **Sensor Care:** Keep the HelioFind solar sensor clean and free of dust or smudges to ensure accurate Sun detection.

## 8. TROUBLESHOOTING

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If you encounter issues with your SolarQuest mount, refer to the following common problems and solutions:

- **Mount not leveling:** Ensure the tripod is on a stable surface and the bubble level is centered. Check for any obstructions preventing movement.
- **Sun not acquired:** Verify that the telescope is initially aimed slightly to the left of the Sun. Ensure the HelioFind sensor is clean and unobstructed. Check for clear line of sight to the Sun and GPS satellites.
- **No power:** Confirm the power cable is securely connected to both the mount and the power source. Check the power source for sufficient charge or proper function.
- **Inaccurate tracking:** Re-level the mount and perform the auto-alignment process again. Ensure no strong winds or vibrations are affecting the setup.

For persistent issues, please contact Sky-Watcher customer support.

## 9. WARRANTY AND SUPPORT

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The Sky-Watcher SolarQuest Tracking Mount comes with a standard manufacturer's warranty. For detailed information regarding warranty coverage, terms, and conditions, please refer to the warranty card included with your product or visit the official Sky-Watcher website. For technical support, service, or parts, please contact Sky-Watcher customer service directly.