

iOptron io3550

iOptron SkyGuider Pro Camera Mount User Manual

Model: io3550



INTRODUCTION

The iOptron SkyGuider Pro Camera Mount is a professional-grade device engineered for astrophotography enthusiasts. Its robust all-metal mechanical structure ensures stability and durability, capable of supporting camera/lens systems and lightweight telescopes up to 11 lbs (5kg). This mount is designed to provide precise tracking for long-exposure astrophotography, enabling the capture of stunning celestial images.

Key features include a detachable alt-azi base with fine latitude and azimuth adjusters for accurate polar alignment, an iOptron AccuAlign dark-field illuminated polar scope with adjustable illumination, and silent tracking for smooth camera motion. It offers four tracking speeds (1X, 1/2X, solar, and lunar) to accommodate various photographic needs, from capturing stars to simultaneous sky and landscape shots. The SkyGuider Pro is globally compatible, operating in both northern and southern hemispheres, and includes a quick slew (144X) for efficient camera framing. A built-in rechargeable battery provides up to 20 hours of operation at 20 degrees Celsius, complemented by an integrated ST-4 auto guiding port.



Figure 1: Front view of the iOptron SkyGuider Pro Camera Mount, showcasing its compact design.

PACKAGE CONTENTS

Verify that all components are present in your SkyGuider Pro package:

- SkyGuider Pro Camera Mount
- Detachable Alt-Azi Base

- AccuAlign Dark-Field Illuminated Polar Scope
- Counterweight Shaft
- Counterweight (3.3 lbs / 1.5 kg)
- DEC Mounting Bracket
- Vixen-style Dovetail Saddle
- USB Charging Cable



Figure 2: The SkyGuider Pro mount with its counterweight and shaft attached, ready for use on a tripod.

SETUP

Attaching to a Tripod

The SkyGuider Pro can be mounted on any sturdy photographic tripod with a 3/8" or 1/4" threaded post. Ensure the tripod is stable and level to provide a solid foundation for astrophotography. A heavy-duty tripod is recommended for optimal performance, especially with heavier camera setups.

Mounting Your Camera/Lens

Attach your camera and lens combination to the Vixen-style dovetail saddle. The mount supports a maximum payload of 11 lbs (5kg) when properly balanced. For heavier setups, utilize the counterweight and shaft to achieve balance, which is crucial for accurate tracking and reducing strain on the motor.



Figure 3: A camera with a telephoto lens mounted on the SkyGuider Pro, demonstrating a typical setup for astrophotography.

Polar Alignment

Accurate polar alignment is essential for successful astrophotography. The SkyGuider Pro features an integrated AccuAlign dark-field illuminated polar scope. Use the fine latitude and azimuth adjusters on the alt-azi base to precisely align the mount with the celestial pole. Mobile applications are available to assist in locating Polaris (Northern Hemisphere) or Sigma Octantis (Southern Hemisphere) within the polar scope's reticle based on your location, date, and time.



Figure 4: Side view of the SkyGuider Pro, highlighting its robust construction and the 'SkyGuider Pro' branding.

OPERATING THE SKYGUIDER PRO

Powering On/Off and Charging

To power on the SkyGuider Pro, locate the power switch. The built-in rechargeable battery provides up to 20 hours of continuous operation at 20 degrees Celsius. Recharge the battery using the provided USB charging cable. An external power supply can also be used to operate the mount and charge the battery simultaneously.

Tracking Speeds

The SkyGuider Pro offers four selectable tracking speeds:

- **1X (Sidereal Rate):** Ideal for tracking stars and deep-sky objects, ensuring pinpoint stars in long exposures.
- **1/2X (Half Sidereal Rate):** Suitable for capturing both the starry night sky and foreground landscapes simultaneously, minimizing star trails while keeping the landscape sharp.
- **Solar Rate:** For tracking the Sun (with appropriate solar filters).
- **Lunar Rate:** For tracking the Moon.

Auto Guiding

The mount is equipped with an ST-4 auto guiding port, allowing connection to an autoguider for enhanced tracking precision, especially during very long exposures or with high focal length optics.

Quick Slew

A 144X quick slew function is available for rapid adjustment of the camera's framing, allowing for efficient composition changes without affecting tracking accuracy.

MAINTENANCE

To ensure the longevity and optimal performance of your SkyGuider Pro, follow these maintenance guidelines:

- Keep the mount clean and free from dust and debris. Use a soft, dry cloth for cleaning.
- Avoid exposing the mount to extreme temperatures or moisture.
- Store the mount in a protective case when not in use to prevent physical damage.
- Regularly check all screws and fasteners to ensure they are secure. Do not overtighten.
- Charge the battery periodically if the mount is stored for extended periods to maintain battery health.

TROUBLESHOOTING

Problem	Solution
Tracking is not accurate / Stars are trailing	Ensure precise polar alignment. Verify the tripod is stable and level. Check that the camera/lens payload is balanced and within the 11 lbs (5kg) limit. Confirm the correct tracking speed is selected.
Mount is not rotating or moving	Check the battery charge level. Ensure the power switch is in the ON position. Verify that no physical obstructions are preventing movement. If using an external power source, ensure it is providing sufficient power.

Problem	Solution
Battery not charging or holding charge	Ensure you are using the correct USB charging cable and a reliable power source. Try a different USB cable, as some cables may be faulty. If the issue persists, contact iOptron support.
Polar scope reticle is blurry or misaligned	Adjust the eyepiece focus on the polar scope. If the reticle appears misaligned with the RA axis, refer to advanced user guides or iOptron support for collimation procedures.

SPECIFICATIONS

Feature	Detail
Model Number	io3550
Product Dimensions (D x W x H)	3.74" x 4.53" x 5.24" (9.5 cm x 11.5 cm x 13.3 cm)
Item Weight	10.14 pounds (4.6 kg)
Maximum Payload Capacity	11 lbs (5 kg)
Latitude Adjustment Range	-30° to 65°
Azimuth Adjustment Range	+/-5°
Battery Life	Up to 20 hours (at 20°C)
Tracking Speeds	1X (Sidereal), 1/2X (Half Sidereal), Solar, Lunar
Auto Guiding Port	ST-4 compatible
First Available Date	May 9, 2017



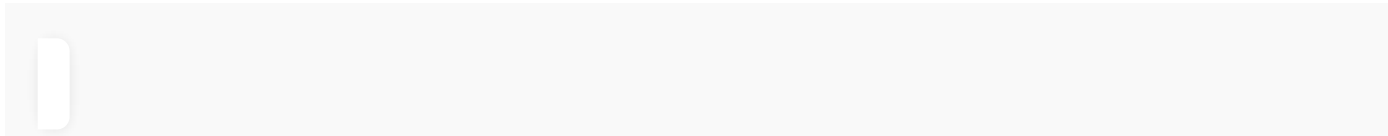
Figure 5: Dimensional drawing of the SkyGuider Pro, indicating its compact size.

WARRANTY AND SUPPORT





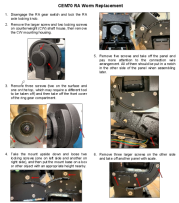

iOptron products are covered by a limited warranty. For specific warranty terms, conditions, and duration, please refer to the warranty card included with your product or visit the official iOptron website. Keep your proof of purchase for warranty claims.

For technical assistance, troubleshooting beyond this manual, or to inquire about repairs and replacement parts, please contact iOptron customer support directly. Their official website typically provides contact information, FAQs, and additional resources.

iOptron Official Website: www.ioptron.com



Related Documents - io3550

	<p>Move Shoot Move Quick Polar Finder Installation Guide for Skywatcher Star Adventurer and iOptron Skyguider Pro</p> <p>Detailed installation instructions for the Move Shoot Move Quick Polar Finder, designed for Skywatcher Star Adventurer and iOptron Skyguider Pro astronomical mounts. Learn how to attach the laser pointer and adapter.</p>
	<p>iOptron GEM45 German Equatorial Mount: Comprehensive Instruction Manual</p> <p>This instruction manual provides detailed guidance for the iOptron GEM45 German Equatorial Mount, covering assembly, setup, operation, and maintenance for astrophotography and visual observation. Learn about features like iPolar, iGuider, and the Go2Nova 8407+ hand controller.</p>
	<p>iOptron SkyHunter™ Portable EQ/AZ GOTO System Instruction Manual</p> <p>This instruction manual provides comprehensive guidance for setting up, operating, and maintaining the iOptron SkyHunter™ Portable EQ/AZ GOTO System, a lightweight and versatile telescope mount for astrophotography and observation.</p>
	<p>iOptron HAE16C Hybrid Strain Wave AA/EQ Dual Mount Instruction Manual</p> <p>Comprehensive instruction manual for the iOptron HAE16C Hybrid Strain Wave AA/EQ Dual Mount, detailing setup, operation, and maintenance for astronomical observation.</p>
	<p>CEM70 RA Worm Replacement Guide iOptron</p> <p>Detailed, step-by-step instructions for replacing the Right Ascension (RA) worm gear assembly on the iOptron CEM70 telescope mount. This guide covers disassembly, component replacement, and reassembly, with emphasis on proper alignment and wire management.</p>
	<p>iOptron GEM28 German Equatorial GoTo Mount Quick Start Guide</p> <p>A quick start guide for the iOptron GEM28 German Equatorial GoTo Mount, covering package contents, setup, and basic operation. Includes instructions for tripod setup, mount attachment, latitude adjustment, counterweight installation, telescope mounting, payload balancing, cable connections, and polar alignment.</p>

