Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

SVBONY SV165

Svbony SV165 30mm Guide Scope Instruction Manual

Model: SV165 (EUW9125A)

1. Introduction

The Svbony SV165 30mm Guide Scope is a compact and precise instrument designed for astrophotography. It features a helical focuser and a locking ring for accurate focusing of guide stars. This guide scope is compatible with various auto-guiding cameras, including models from ZWO and QHY, making it an essential tool for achieving long-exposure astrophotography with minimal star trailing.

Its lightweight and durable design ensures reliable performance without adding significant weight to your telescope setup.



Figure 1: Svbony SV165 30mm Guide Scope, a compact telescope designed for guiding during astrophotography.

2. Safety Information

- **Do not point the guide scope directly at the sun.**Doing so can cause severe eye damage or fire.
- Ensure the guide scope is securely mounted to prevent accidental drops or damage.
- Verify compatibility with your existing astronomical equipment before use.
- Keep out of reach of children.

3. Package Contents

Please check the package carefully to ensure all items are present and in good condition:

- 1 x 30mm Guide Scope
- 2 x Ring Brackets

- 1 x Dovetail Mounting Plate
- 2 x Nylon-tipped Screws
- 1 x Thumbscrews (set)
- 1 x Screw Tool
- 1 x Dust Cap
- 1 x Lens Cap



Figure 2: The Svbony SV165 Guide Scope and its included accessories, packaged in a brown box.

4. Product Features

- **Compact and Lightweight:** With a 30mm aperture and F4 focal ratio, the guide scope is small and weighs only 342g, minimizing added weight to your astrophotography setup.
- **Precise Helical Focuser:** Equipped with a helical focuser and a locking ring for fine and accurate focus adjustments, ensuring sharp guide stars.
- **Optimized Back Focus:** A 45mm back focus distance enhances focusing precision.
- **Fully Multi-Coated Optics (FMC):** Ultra-wideband multi-layer coatings provide sharp images and improve guiding accuracy.
- **Durable Construction:** Made from metal with nylon-tipped screws for longevity. An integrated brass compression ring prevents the guide camera from rotating.
- **Universal Compatibility:** The dovetail mounting bracket fits most astrophotography telescopes, and a universal 1/4-inch thread is located beneath the dovetail for versatile mounting options.

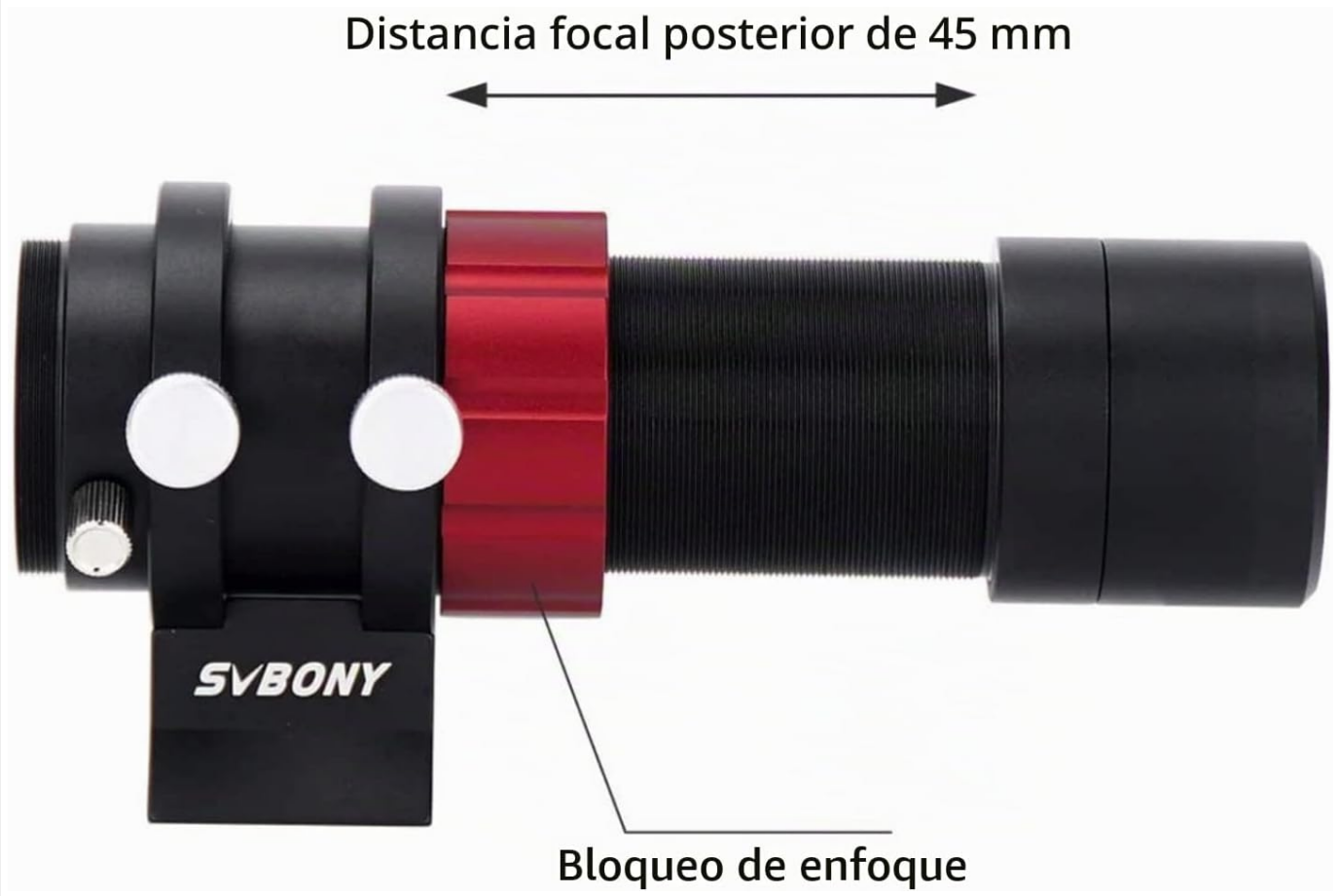


Figure 3: Close-up view of the Svbony SV165 Guide Scope, highlighting its helical focuser and focus lock mechanism.



Figure 4: The helical focuser of the SV165, designed for precise adjustments to achieve sharp focus.

5. Setup

5.1 Mounting the Guide Scope

1. Attach the two ring brackets to the guide scope body using the provided screws.

2. Secure the dovetail mounting plate to the bottom of the ring brackets.
3. Slide the dovetail mounting plate into the finder scope shoe or dovetail clamp on your main telescope. Tighten the thumbscrews to secure it in place.
4. Alternatively, use the 1/4-inch thread located beneath the dovetail to mount the guide scope onto a standard photographic tripod or other compatible mounting systems.



Figure 5: The Svbony SV165 Guide Scope shown mounted on a larger main telescope, ready for use.

5.2 Connecting the Auto-Guiding Camera

1. Remove the dust cap from the rear of the guide scope.
2. Insert your compatible auto-guiding camera (e.g., ZWO, QHY) into the rear opening of the guide scope.
3. Secure the camera using the nylon-tipped screws on the guide scope's rear cell. The brass compression ring will help hold the camera firmly without marring its barrel.
4. Connect the camera to your computer using the appropriate USB cable.



Figure 6: The rear of the Svbony SV165 Guide Scope, illustrating the M42*0.75 male thread for connecting an auto-guiding camera.

6. Operating Instructions

6.1 Focusing the Guide Scope

1. With your auto-guiding camera connected and powered on, point your main telescope and guide scope towards a bright star.
2. Open your auto-guiding software (e.g., PHD2, SharpCap) and begin a live view from the guide camera.
3. Adjust the helical focuser by rotating the red ring until the star appears as sharp and small as possible on your computer screen.
4. Once focus is achieved, tighten the locking ring on the helical focuser to prevent accidental movement.

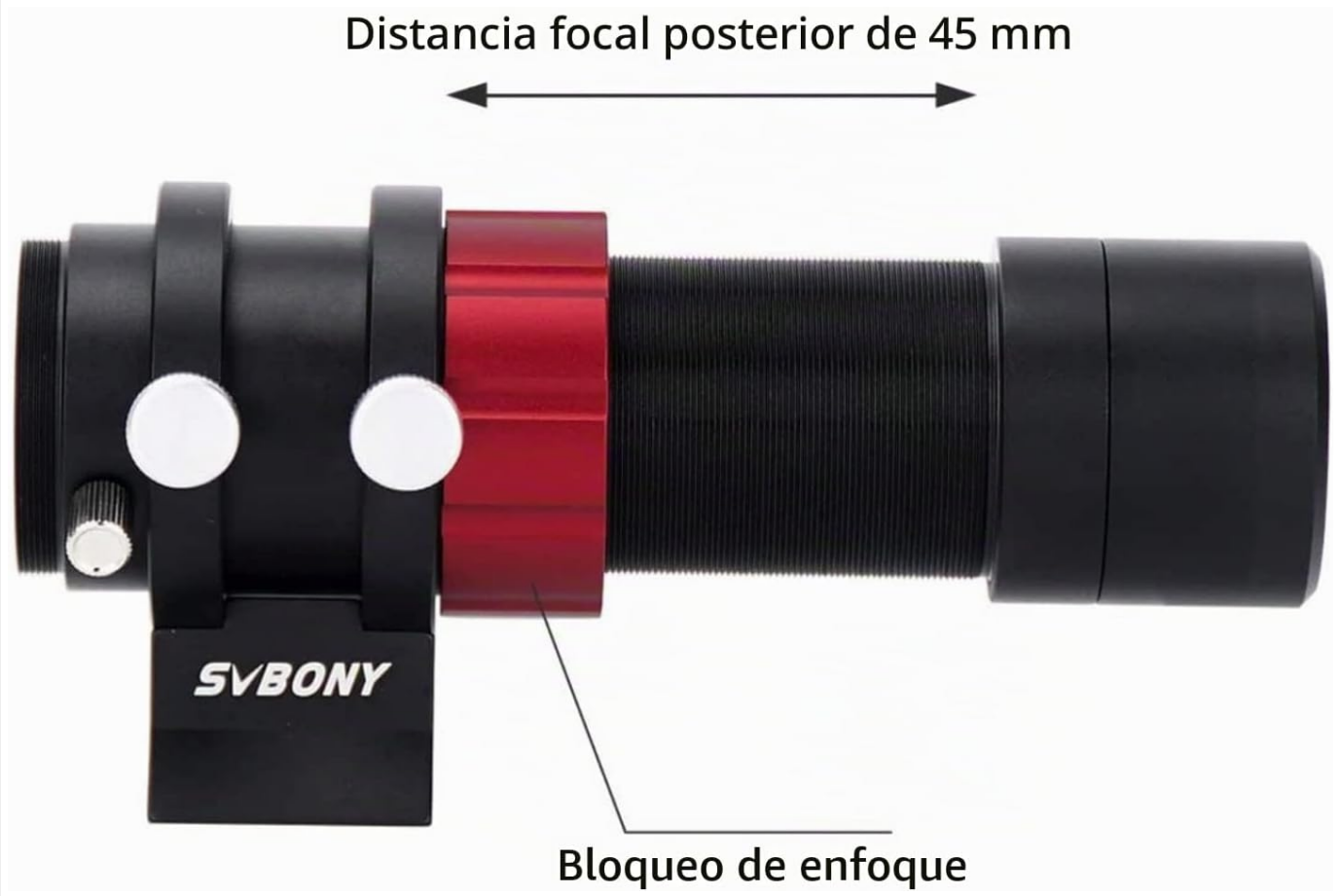


Figure 7: The helical focuser and its locking ring, crucial for maintaining precise focus during guiding sessions.

6.2 Auto-Guiding with Software

Refer to the specific instructions for your chosen auto-guiding software (e.g., PHD2, MetaGuide, MaxIm DL) for detailed steps on calibration, star selection, and guiding parameters. The Svbony SV165 provides the optical path for these software solutions to function effectively.

7. Maintenance

- **Cleaning the Lenses:** Use a soft, lint-free cloth specifically designed for optical surfaces. For stubborn smudges, use a small amount of optical cleaning fluid. Avoid touching the lens surfaces with bare hands.
- **Cleaning the Body:** Wipe the metal body with a clean, dry cloth. Avoid abrasive cleaners or solvents.
- **Storage:** When not in use, store the guide scope in a dry, dust-free environment. Use the provided dust caps for both ends of the scope to protect the optics.
- **Avoid Extreme Temperatures:** Do not expose the guide scope to extreme heat or cold, as this can affect its performance and longevity.

8. Troubleshooting

8.1 Difficulty Achieving Focus

- **Check Camera Insertion:** Ensure your auto-guiding camera is fully inserted into the guide scope and secured.
- **Adjust Helical Focuser:** Rotate the helical focuser through its full range to find the approximate focus point. Fine-tune from there.
- **Bright Star:** Start focusing on a very bright star to make it easier to see in the live view.

8.2 Guiding Errors or Poor Performance

- **Secure Mounting:** Ensure the guide scope and camera are firmly mounted and there is no flexure in the setup.
- **Software Calibration:** Recalibrate your auto-guiding software. Incorrect calibration is a common cause of guiding issues.
- **Star Brightness:** Ensure the guide star is bright enough for the camera to track reliably.
- **Cable Management:** Check that all cables are securely connected and not causing drag or snagging during tracking.

9. Specifications

Feature	Specification
Model Name	SV165
Aperture	30mm
Focal Length	120mm
Focal Ratio	F4
Back Focus	45mm
Lens Coating	FMC (Fully Multi-Coated)
Focuser Type	Helical with Locking Ring
Mounting	Dovetail Base, 1/4-inch Thread
Compatible Devices	ZWO, QHY, and similar auto-guiding cameras
Product Dimensions	112.2mm (length) x 77.95mm (height) x 41.9mm (width)
Weight	342g



Figure 8: Detailed dimensions of the Svbony SV165 Guide Scope, showing its compact size.

10. Warranty & Support

Svbony offers a **1-year warranty** for Svbony accessories, including this guide scope. Additionally, there is a**30-day no-reason return policy**.

Beyond the warranty period, maintenance services are still available, though buyers may be responsible for associated costs. For any inquiries or support, please contact Svbony directly through Amazon. Responses are typically provided within 12 hours.

For further assistance, please visit the official Svbony store on Amazon:Svbony Amazon Store

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

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

Open the live page

https://manuals.plus/asin/B08927JRBJ

More documents and user manuals: **https://manuals.plus/**