

[Manuals.plus](#) /

› [Sky-Watcher](#) /

› Sky-Watcher EvoStar 80 APO Doublet Refractor Instruction Manual

Sky-Watcher EvoStar 80 APO (S11100)

Sky-Watcher EvoStar 80 APO Doublet Refractor

INSTRUCTION MANUAL - MODEL S11100 / PROED 80 APO

Your guide to superior visual and photographic astronomy.

INTRODUCTION

The Sky-Watcher EvoStar 80 APO Doublet Refractor is engineered for astronomers seeking exceptional optical performance for both visual observation and astrophotography. This manual provides detailed instructions for the proper setup, operation, and maintenance of your telescope, ensuring a rewarding experience under the night sky.

Featuring a matched doublet objective lens with a synthetic fluorite element and proprietary Metallic High-Transmission Coatings (MHTC™), the EvoStar 80 APO minimizes chromatic aberration and delivers tack-sharp, high-contrast images. Its versatile design makes it suitable for both novice and experienced users.

WHAT'S IN THE BOX

Upon unpacking, please verify that all components listed below are present and in good condition:

- Optical Tube Assembly (OTA)
- Two 1.25-inch Eyepieces (LET 25mm and LET 5mm)
- 2-inch Dual-Speed Crayford-Style Focuser (integrated)
- Tube Rings (set of 2)
- V-Style Dovetail Bar
- 8x50 Right-Angle Correct Image (RACI) Finderscope with Bracket
- 2-inch Dielectric Diagonal
- 1.25-inch Focuser Adapter
- Foam-Lined Aluminum Hard Case



Image: The Sky-Watcher EvoStar 80 APO Doublet Refractor with included accessories.

SETUP AND ASSEMBLY

1. Mounting the Optical Tube

Carefully remove the optical tube from its case. Attach the tube rings to your compatible equatorial or alt-azimuth mount's dovetail saddle. Ensure the V-style dovetail bar on the telescope is securely seated in the mount's saddle and tightened. Proper balance is crucial for stable viewing.



Image: The EvoStar 80 APO optical tube mounted on a telescope tripod.

2. Attaching the Finderscope

Slide the 8x50 Right-Angle Correct Image (RACI) Finderscope into its bracket on the optical tube. Secure it with the

thumbscrew. The finderscope is essential for locating celestial objects before observing them through the main telescope.



Image: Detail of the finderscope attachment point.

3. Installing the Diagonal and Eyepiece

Insert the 2-inch Dielectric Diagonal into the focuser drawtube and secure it with the thumbscrew. For 1.25-inch eyepieces, insert the 1.25-inch focuser adapter into the diagonal first, then insert your chosen eyepiece (e.g., 25mm or 5mm LET) into the adapter and secure it. For 2-inch eyepieces, insert directly into the diagonal.



Image: The focuser assembly with diagonal and eyepiece ready for use.

4. Focuser Operation

The 2-inch dual-speed Crayford-style focuser allows for precise focusing. Use the larger knob for coarse adjustments and the smaller knob for fine-tuning, which provides a 10:1 reduction ratio. This fine adjustment is particularly useful for achieving critical focus during high-magnification visual observations or astrophotography.



Image: Detailed view of the dual-speed focuser mechanism.

OPERATING YOUR TELESCOPE

Aligning the Finderscope

Before observing, align your finderscope with the main telescope. Point the main telescope at a distant, stationary object (e.g., a street light or a distant tree during the day). Center the object in the main telescope's eyepiece. Then, adjust the finderscope's alignment screws until the same object is centered in its crosshairs. This ensures that whatever you see in the finderscope is also visible in the main telescope.

Observing Techniques

- **Visual Astronomy:** Start with the lowest magnification eyepiece (e.g., 25mm) for a wider field of view, making it easier to locate objects. Once the object is centered, you can switch to higher magnification eyepieces (e.g., 5mm) for more detailed views.
- **Astrophotography:** The EvoStar 80 APO is well-suited for astrophotography due to its excellent color correction. You will need an appropriate camera adapter (T-ring and T-adapter) to connect your DSLR or dedicated astronomy camera to the focuser. Precise focusing using the dual-speed focuser is critical for sharp astrophotographs.



Image: The Sky-Watcher EvoStar 80 APO ready for observation.

MAINTENANCE AND CARE

- **Optics Cleaning:** Dust on the objective lens or eyepieces should be removed with a soft brush or compressed air. For smudges or fingerprints, use a specialized optical cleaning solution and a microfiber cloth. Avoid touching optical surfaces directly.
- **Storage:** Always store your telescope in its foam-lined aluminum case when not in use to protect it from dust, moisture, and accidental damage. Store in a dry, temperature-stable environment.
- **Dew Prevention:** In humid conditions, dew can form on the objective lens. A dew shield (integrated) helps, but for prolonged observation, a heated dew strap may be necessary.



Image: The objective lens of the EvoStar 80 APO, showing its multi-coatings.

TROUBLESHOOTING

Problem	Possible Cause	Solution
Fuzzy or Out-of-Focus Images	Improper focus; atmospheric turbulence; dew on optics.	Use the fine focuser knob for precise focus. Wait for stable atmospheric conditions. Check for and remove dew.
Cannot Locate Objects	Finderscope not aligned; incorrect star chart usage.	Align the finderscope with the main telescope. Practice using star charts or planetarium apps.

Problem	Possible Cause	Solution
Vibrations or Shaking	Unstable mount; unbalanced telescope; windy conditions.	Ensure mount is on a stable surface. Balance the telescope on the mount. Observe on calm nights.
Chromatic Aberration (Color Fringing)	While minimal in APOs, extreme conditions or very bright objects can show slight fringing.	This telescope is designed to minimize CA. If persistent, ensure optics are clean and in good condition.

SPECIFICATIONS

Feature	Detail
Model Number	S11100
Optical Design	APO Doublet Refractor
Objective Lens Diameter	80 mm
Focuser	2-inch Dual-Speed Crayford (10:1 reduction)
Finderscope	8x50 Right-Angle Correct Image (RACI)
Included Eyepieces	1.25-inch LET 25mm, 1.25-inch LET 5mm
Included Diagonal	2-inch Dielectric
Mounting	Tube Rings and V-Style Dovetail Bar
Optical Tube Length	31.85 Inches
Item Weight	7.3 Pounds
Product Dimensions	41 x 12 x 15 inches (packaged)

WARRANTY AND SUPPORT

Sky-Watcher products are backed by a limited warranty against defects in materials and workmanship. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Sky-Watcher website. Keep your proof of purchase for warranty claims.

For technical support, troubleshooting assistance, or spare parts, please contact Sky-Watcher customer service. Contact information can typically be found on the manufacturer's website or in the product packaging.

Note: Proposition 65 Warning applies to this product.

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/B004Q78O5G>

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