

Sky-Watcher S11205

Sky-Watcher Quattro 150P Imaging Newtonian User Manual

Model: S11205

1. INTRODUCTION TO YOUR SKY-WATCHER QUATTRO 150P

The Sky-Watcher Quattro 150P Imaging Newtonian is a high-performance optical tube designed for both advanced astrophotography and detailed visual astronomy. Its fast f/4 focal ratio allows for significantly shorter exposure times compared to slower systems, making it an excellent choice for capturing faint deep-sky objects. Constructed with precision-engineered components and featuring Sky-Watcher's proprietary optical coatings, this telescope delivers bright, clear, and detailed views of the cosmos.

Key Features:

- **150mm Aperture, 600mm Focal Length:** Provides excellent light gathering capability for observing and imaging.
- **Fast f/4 Focal Ratio:** Ideal for astrophotography, enabling quicker image acquisition.
- **Parabolic Borosilicate Mirrors with RAQ Coatings:** Ensures high reflectivity (94%) and superior image quality.
- **11:1 Dual-Speed 2-inch Crayford-Style Focuser:** Offers precise focusing for both visual and photographic applications.
- **Oversized Secondary Mirror:** Designed to provide greater illumination, especially beneficial for full-frame DSLR and CCD cameras.
- **Included Coma Corrector/Reducer:** Enhances image quality by correcting optical aberrations common in fast Newtonian systems.

2. PACKAGE CONTENTS

Before beginning assembly, please verify that all components listed below are present in your package. If any items are missing or damaged, contact your Sky-Watcher dealer immediately.

- Sky-Watcher Quattro 150P Optical Tube Assembly
- 6x30 Finderscope with Bracket
- Tube Rings (2)
- V-Style Dovetail Plate
- 22mm 70-degree 1.25" Eyepiece
- 1.25" Eyepiece Adapter
- 2" Eyepiece Adapter
- Coma Corrector/Reducer



Figure 2.1: All components of the Sky-Watcher Quattro 150P Imaging Newtonian, including the optical tube, finderscope, tube rings, dovetail plate, eyepiece, and coma corrector.

3. ASSEMBLY AND INITIAL SETUP

Follow these steps to safely assemble your telescope. It is recommended to perform initial assembly indoors in a well-lit area.

3.1 Unpacking

Carefully remove all components from their packaging. Keep all packaging materials for future storage or transport.

3.2 Attaching Tube Rings and Dovetail Plate

Secure the two tube rings around the optical tube. Ensure the focuser is positioned conveniently for access. Attach the V-style dovetail plate to the bottom of the tube rings using the provided screws. This plate will connect the telescope to your equatorial or altazimuth mount (mount sold separately).



Figure 3.1: The Sky-Watcher Quattro 150P optical tube with tube rings and focuser assembly.

3.3 Installing the Finderscope

Slide the 6x30 finderscope into its bracket. Secure the bracket onto the designated mounting base on the telescope tube. Tighten the retaining screw to hold it firmly in place. The finderscope will need to be aligned with the main telescope later.

3.4 Inserting Eyepieces and Coma Corrector

For astrophotography, insert the coma corrector/reducer into the 2-inch focuser drawtube. For visual use, you can insert the 22mm 70-degree 1.25" eyepiece directly into the 1.25" adapter, then into the 2-inch focuser, or use a 2-inch eyepiece directly in the 2-inch focuser. Secure the eyepiece or coma corrector with the focuser's thumbscrews.

3.5 Mounting the Telescope

Attach the assembled optical tube to your compatible equatorial or altazimuth mount by sliding the dovetail plate into the mount's saddle. Ensure it is securely locked before releasing your grip on the telescope.

4. OPERATING INSTRUCTIONS

This section provides guidance on using your Quattro 150P for both visual observation and astrophotography.

4.1 Focusing

The 11:1 dual-speed Crayford focuser allows for precise adjustments. Use the larger knob for coarse focusing and the smaller knob for fine adjustments to achieve sharp images. For astrophotography, a Bahtinov mask or electronic focuser may be used for critical focus.



Figure 4.1: The dual-speed Crayford focuser on the Quattro 150P, designed for precise adjustments.

4.2 Visual Observation

Insert your desired eyepiece into the focuser. Point the telescope at a celestial object and use the finderscope to center it. Then, look through the main eyepiece and adjust the focuser until the image is sharp. The 22mm 70-degree eyepiece provides a wide field of view for general observation.

4.3 Astrophotography with the Quattro 150P

The f/4 focal ratio makes this telescope excellent for deep-sky astrophotography. Attach your DSLR or CCD camera to the focuser, typically with the included coma corrector/reducer and a T-ring (sold separately) specific to your camera. Ensure proper back focus for optimal image quality. The oversized secondary mirror provides good illumination for larger camera sensors.

4.4 Collimation

Collimation (alignment of the mirrors) is critical for Newtonian telescopes, especially fast ones like the Quattro 150P, to achieve sharp images. It should be checked regularly, especially after transport or significant temperature changes. Use a collimation cap, laser collimator, or Cheshire eyepiece (not included) to align the primary and secondary mirrors. Refer to online resources or specialized guides for detailed collimation procedures.

5. CARE AND MAINTENANCE

Proper care will ensure the longevity and optimal performance of your telescope.

5.1 Cleaning Optics

The mirrors of your telescope are delicate. Avoid touching them directly. Dust can be removed with a soft camel hair brush or a can of compressed air (use short bursts, hold can upright). For stubborn smudges or fingerprints, use specialized optical cleaning fluid and lens tissue. Apply fluid to the tissue, not directly to the mirror. Clean gently from the center outwards in a circular motion. Only clean when absolutely necessary.



Figure 5.1: The primary mirror end of the Quattro 150P, illustrating the area requiring careful optical cleaning.

5.2 Storage

When not in use, store the telescope in a dry, dust-free environment. Keep the dust caps on both ends of the optical tube to prevent dust accumulation and protect the optics. Avoid storing in areas with extreme temperature fluctuations or high humidity.

5.3 General Care

Regularly check all screws and bolts for tightness, especially those on the tube rings and focuser. Avoid exposing the telescope to direct sunlight without proper solar filters, as this can cause severe eye damage or damage to the telescope.

6. TROUBLESHOOTING

This section addresses common issues you might encounter and provides potential solutions.

Problem	Possible Cause	Solution
Image is blurry or out of focus.	Incorrect focuser position; poor collimation; atmospheric conditions.	Adjust focuser slowly; check and adjust collimation; wait for stable atmospheric conditions.
Stars appear elongated or comet-shaped.	Poor collimation; field rotation (for astrophotography without tracking); incorrect back focus.	Recollimate the telescope; ensure accurate polar alignment of your mount; verify correct back focus with coma corrector.
No image visible through eyepiece.	Dust caps still on; finderscope not aligned; object not centered.	Remove all dust caps; align finderscope with main telescope; use finderscope to center object.

Problem	Possible Cause	Solution
Focuser slips or does not hold position.	Focuser tension screws are loose.	Tighten the focuser tension screws (usually located on the underside of the focuser body).

7. TECHNICAL SPECIFICATIONS

Detailed specifications for the Sky-Watcher Quattro 150P Imaging Newtonian.

Feature	Specification
Model Name	Quattro 150P Imaging Newtonian
Item Model Number	S11205
Optical Design	Newtonian Reflector
Aperture	150 mm (6 inches)
Focal Length	600 mm
Focal Ratio	f/4
Mirror Type	Parabolic Borosilicate with RAQ Coatings (94% reflectivity)
Focuser	11:1 Dual-Speed 2-inch Crayford-Style
Finderscope	6x30 Reflex
Included Eyepiece	22mm 70-degree 1.25" Ultra-Wide
Optical Tube Length	22 Inches
Item Weight	17.56 pounds
Product Dimensions	22 x 7.25 x 7.25 inches (D x W x H)
Compatible Devices	DSLR Cameras, CCD Cameras, Smartphones (with adapter)

8. WARRANTY AND CUSTOMER SUPPORT

Sky-Watcher products are manufactured to high quality standards. For specific warranty details, please refer to the warranty card included with your product or visit the official Sky-Watcher website. In case of technical issues, missing parts, or questions regarding the operation of your Quattro 150P, please contact your authorized Sky-Watcher dealer or Sky-Watcher customer support directly. Provide your model number (S11205) and a detailed description of the issue for efficient assistance.

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