

Celestron 22102

Celestron ExploraScope 80AZ Refractor Telescope Instruction Manual

Model: 22102

INTRODUCTION

The Celestron ExploraScope 80AZ is a refractor telescope designed for both celestial and terrestrial observations. Its manual alt-azimuth mount provides intuitive navigation of the night sky, making it suitable for beginners. This manual provides essential information for setting up, operating, and maintaining your telescope to ensure optimal performance and longevity.

WHAT'S IN THE BOX

Upon unpacking, verify that all components are present:

- Telescope Tube
- Adjustable Height Tripod
- Accessory Tray
- Lens Cap
- 90° Erect Image Diagonal
- StarPointer Finderscope
- 20 mm Eyepiece
- 4 mm Eyepiece
- 3x Barlow Lens
- TheSkyX - First Light Edition DVD-Rom (Software)

SETUP

Follow these steps to assemble your Celestron ExploraScope 80AZ telescope:

1. **Tripod Assembly:** Extend the tripod legs to the desired height and secure them. Attach the accessory tray to the center brace of the tripod.
2. **Mounting the Telescope Tube:** Place the telescope tube onto the alt-azimuth mount, aligning the mounting screws with the holes on the tube. Secure the tube firmly.
3. **Attaching the Finderscope:** Slide the StarPointer finderscope into its bracket on the telescope tube and tighten the retaining screw.
4. **Inserting the Diagonal:** Insert the 90° erect image diagonal into the focuser. Tighten the thumbscrew

on the focuser to hold it in place.

5. **Inserting an Eyepiece:** Insert the desired eyepiece (e.g., 20mm for lower magnification) into the diagonal. Tighten the thumbscrew on the diagonal to secure it.
6. **Barlow Lens (Optional):** For increased magnification, insert the 3x Barlow lens into the diagonal before inserting an eyepiece.



The Celestron ExploraScope 80AZ Refractor Telescope fully assembled on its adjustable tripod, ready for observation.



A close-up view of the focuser, where the eyepiece and diagonal are inserted, along with the StarPointer finderscope.

Visual Setup Guide

Your browser does not support the video tag.

This video provides a visual guide to setting up and using a Celestron ExploraScope telescope, demonstrating key features and accessories for observing celestial objects.

OPERATING THE TELESCOPE

The ExploraScope 80AZ features a manual alt-azimuth mount with a panning handle and clutch for smooth and accurate pointing. This allows you to move the telescope up/down and left/right to track objects.

Using the StarPointer Finderscope

The StarPointer red dot finderscope helps you quickly locate objects in the sky. Look through the finderscope and align the red dot with your target. Once aligned, the object should be visible in your telescope's eyepiece.



A close-up of the StarPointer red dot finderscope, used for aiming the telescope at celestial objects.

Changing Magnification

Your telescope comes with two eyepieces (20mm and 4mm) and a 3x Barlow lens. The 20mm eyepiece provides lower magnification and a wider field of view, ideal for locating objects. The 4mm eyepiece offers higher magnification for detailed views. The 3x Barlow lens triples the magnification of any eyepiece it's used with.



The 4mm and 20mm eyepieces, along with the 3x Barlow lens, which are included with the telescope.

Daytime Observations

Thanks to the 90° erect image diagonal, your ExploraScope 80AZ can also be used for daytime observations of birds, wildlife, and distant landscapes. The erect image diagonal ensures that images are correctly oriented (not inverted or reversed).



The Celestron ExploraScope 80AZ Refractor Telescope, suitable for both astronomical and terrestrial viewing.

MAINTENANCE

Proper care will extend the life and performance of your telescope:

- **Cleaning Optics:** Use a soft, lint-free cloth and specialized optical cleaning fluid. Avoid touching optical surfaces with bare hands.
- **Storage:** Store the telescope in a dry, dust-free environment. Keep lens caps on when not in use to protect the optics.
- **Mechanical Parts:** Periodically check all screws and knobs for tightness. Do not overtighten.

TROUBLESHOOTING

If you encounter issues, consider the following:

- **Blurred Images:** Ensure the focuser is properly adjusted. Check if the eyepiece is securely seated. Atmospheric conditions can also affect image clarity.
- **Cannot Find Objects:** Verify that the finderscope is aligned with the main telescope. Start with the lowest magnification eyepiece (20mm) to locate objects.
- **Image is Upside Down/Reversed:** For astronomical viewing, this is normal. For terrestrial viewing, ensure the erect image diagonal is correctly installed.

SPECIFICATIONS

Feature	Detail
Model Name	ExploraScope 80AZ
Item Model Number	22102
Telescope Type	Refractor
Objective Lens Diameter	80 Millimeters
Telescope Mount Description	Altazimuth Mount
Focus Type	Manual Focus
Finderscope	StarPointer™ red dot finderscope
Item Weight	7 pounds
Product Dimensions	36 x 52 x 32 inches







WARRANTY INFORMATION

For detailed warranty information, please refer to the documentation included with your product or visit the official Celestron website. Warranty terms typically cover manufacturing defects for a specified period from the date of purchase.

SUPPORT

For additional assistance, technical support, or to explore more Celestron products, please visit the official Celestron website or contact their customer service department. You can also find resources and community forums for astronomy enthusiasts.

Visit the [Celestron Store on Amazon](#) for more products and information.

	<p>Celestron EclipSmart Travel Solar Scope 50mm Refractor Telescope Instruction Manual</p> <p>This instruction manual provides detailed guidance on assembling, using, and safely observing the Sun with the Celestron EclipSmart Travel Solar Scope 50mm Refractor Telescope. It covers parts identification, assembly steps, focusing, solar warnings, and information on solar phenomena like eclipses and sunspots.</p>
	<p>Celestron PowerSeeker 127EQ Quick Setup Guide</p> <p>A comprehensive quick setup guide for the Celestron PowerSeeker 127EQ telescope, covering assembly, alignment, and first observations.</p>
	<p>Celestron Advanced VX Instruction Manual</p> <p>This instruction manual provides comprehensive guidance for the Celestron Advanced VX telescope mount and its associated optical tube assemblies, covering assembly, setup, operation, features, and safety precautions for astronomical observation.</p>
	<p>Celestron StarSense Explorer LT 80AZ Quick Setup Guide</p> <p>Learn how to quickly set up your Celestron StarSense Explorer LT 80AZ telescope with this easy-to-follow guide. Includes assembly instructions and app activation.</p>
	<p>Celestron Inspire 90AZ Refractor Telescope Instruction Manual</p> <p>Instruction manual for the Celestron Inspire 90AZ refractor telescope, covering setup, assembly, operation, imaging tips, and warranty information.</p>
	<p>Celestron StarSense Explorer DX 102AZ Quick Setup Guide</p> <p>A comprehensive guide to setting up and using the Celestron StarSense Explorer DX 102AZ telescope, including assembly instructions, finder scope alignment, smartphone attachment, and app activation.</p>

