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Celestron StarSense Explorer 8" Dobsonian (Model 22470)

Celestron StarSense Explorer 8-inch Dobsonian Telescope

USER MANUAL

Model: StarSense Explorer 8" Dobsonian (Model 22470)

INTRODUCTION

The Celestron StarSense Explorer 8-inch Dobsonian Telescope is an innovative instrument designed to make stargazing accessible and enjoyable for beginners and experienced astronomers alike. This app-enabled telescope utilizes your smartphone to analyze star patterns overhead, accurately pinpointing the telescope's position and guiding you to celestial objects with ease. Its 203mm Newtonian reflector with XLT coatings delivers sharp, vivid views of the Moon, planets, and deep-sky objects.



The Celestron StarSense Explorer 8-inch Dobsonian Telescope, showcasing its main components including the optical tube, Dobsonian base, eyepiece, and smartphone dock.

WHAT'S INCLUDED

Your Celestron StarSense Explorer 8-inch Dobsonian package includes the following components:

- Optical tube
- Dobsonian Base
- 25mm eyepiece
- 2" Crayford focuser
- StarPointer™ red-dot finderscope
- StarSense Explorer dock
- StarSense Explorer unlock code
- Eyepiece rack
- Collimation cap
- Celestron Starry Night Basic Edition Software (digital download)

EVERYTHING YOU NEED FOR ASTRONOMY

- StarSense Explorer 8" Dobsonian telescope and base
- StarSense smartphone dock
- StarPointer™ red-dot finderscope
- 25mm Omni Plössl eyepiece and more!



A visual representation of all the components included with your StarSense Explorer 8-inch Dobsonian Telescope.

SETUP

Follow these steps to assemble and prepare your telescope for observation:

1. **Assemble the Dobsonian Base:** Carefully follow the instructions provided in the separate assembly guide for the Dobsonian base. Ensure all screws are tightened securely for stability.
2. **Mount the Optical Tube:** Place the optical tube onto the Dobsonian base. The tube should fit snugly into the cradle. Secure it using the provided knobs or clamps, ensuring it is balanced and stable.
3. **Attach the StarPointer Red-Dot Finderscope:** Slide the finderscope into its mounting bracket on the optical tube and tighten the retaining screw.
4. **Install the StarSense Explorer Dock:** Attach the smartphone dock to the designated mounting point on the telescope. Ensure it is firmly secured.
5. **Insert the Eyepiece:** Insert the 25mm eyepiece into the focuser. If necessary, use the appropriate adapter for the 2-inch focuser.
6. **Download and Launch the StarSense Explorer App:** Download the Celestron StarSense Explorer app from your smartphone's app store. Launch the app and enter the unlock code provided with your telescope.
7. **Initial App Alignment:** Follow the in-app instructions to perform the initial alignment. This involves centering a bright star in the eyepiece and then in the app's view to calibrate the system.

PERFECT FOR BEGINNERS

EASY AS 1-2-3

1 DOCK
YOUR SMARTPHONE

2 LAUNCH
THE STARSense
EXPLORER APP

3 OBSERVE
PLANETS, NEBULAE,
GALAXIES AND MORE!



The StarSense Explorer app simplifies the process of finding celestial objects into three easy steps: dock your smartphone, launch the app, and observe.

OPERATING THE STARSense EXPLORER TELESCOPE

Once your telescope is set up and the StarSense Explorer app is aligned, you are ready to begin your celestial journey:

- 1. Select an Object:** Use the StarSense Explorer app to browse the night sky. You can select from a list of recommended objects for the current time and location, or search for specific planets, stars, or deep-sky objects.
- 2. Follow the Arrows:** The app will display on-screen arrows guiding you to move the telescope. Gently push or pull the optical tube to follow these arrows until the target is centered in the app's bullseye.
- 3. Observe:** Once the bullseye turns green, the object should be visible in your telescope's eyepiece. Adjust the focuser for a sharp image.
- 4. Manual Tracking:** As celestial objects move across the sky due to Earth's rotation, you will need to periodically make small adjustments to the telescope's position to keep the object in view. The app will continue to provide guidance.

FOLLOW ^{THE} ARROWS

TO CENTER YOUR
TARGET IN THE
EYEPIECE



SMARTPHONE NOT INCLUDED

The StarSense Explorer app provides intuitive on-screen arrows to guide you in centering your desired celestial target within the telescope's eyepiece.



50"



19"

The StarSense Explorer app generates a curated list of the best objects to observe based on your exact time and location, making it easy to decide what to view.

MAINTENANCE

Proper maintenance ensures the longevity and optimal performance of your telescope:

- **Cleaning Optics:** Dust on the primary mirror or eyepiece can degrade image quality. Use a soft, clean camel hair brush or a can of compressed air (held upright) to gently remove loose dust. For stubborn spots, use specialized optical cleaning fluid and lens tissue. Avoid touching optical surfaces with your fingers.
- **Collimation:** The mirrors in your Newtonian reflector may occasionally need alignment (collimation) to ensure the best image quality. This process involves adjusting the primary and secondary mirrors. Refer to the detailed collimation instructions in the full manual or online resources. A collimation cap is included to assist with this process.
- **Storage:** When not in use, store your telescope in a dry, dust-free environment. Keep all lens caps

and covers on to protect the optics from dust and moisture.

TROUBLESHOOTING

If you encounter issues with your telescope, consider the following common problems and solutions:

- **Blurry Views:**
 - Adjust the focuser knob slowly until the image is sharp.
 - Check if the eyepiece is fully inserted and secured.
 - Verify that the telescope's mirrors are properly collimated.
 - Allow the telescope to acclimate to the ambient outdoor temperature for 30 minutes or more to reduce thermal currents inside the tube.
- **Difficulty Finding Objects with StarSense App:**
 - Ensure your smartphone is securely docked and properly aligned with the telescope.
 - Perform the StarSense app alignment procedure again, ensuring you accurately center the bright star.
 - Check your phone's location services and ensure they are enabled for the StarSense Explorer app.
 - Ensure you are observing from an area with a clear view of the sky, free from obstructions like trees or buildings.
- **No Image in Eyepiece:**
 - Confirm that the lens caps are removed from both ends of the optical tube.
 - Ensure the eyepiece is correctly inserted into the focuser.
 - If using the StarPointer finderscope, ensure it is turned on and its battery is functional.

SPECIFICATIONS

Feature	Specification
Product Dimensions	49 x 18.5 x 19 inches (49"D x 18.5"W x 19"H)
Item Weight	43.4 pounds
Model Number	22470
Batteries	1 Lithium Metal battery required (included)
Brand	Celestron
Model Name	StarSense Explorer 8" Dobsonian
Eyepiece Lens Description	25mm eyepiece
Objective Lens Diameter	203 Millimeters
Telescope Mount Description	Altazimuth Dobsonian base
Focus Type	Manual Focus
Power Source	Manual Operation Without External Power Source

Feature	Specification
Finderscope	StarPointer™ red dot finderscope



POWER TANK GLOW 5000
SOLD SEPARATELY.
SMARTPHONE NOT INCLUDED.

The physical dimensions of the Celestron StarSense Explorer 8-inch Dobsonian Telescope.

WARRANTY AND SUPPORT

Your Celestron StarSense Explorer 8-inch Dobsonian Telescope comes with a 2-Year US Warranty, providing peace of mind regarding your investment. Celestron is committed to customer satisfaction and offers unlimited support from their team of US-based experts. For technical assistance, warranty claims, or general inquiries, please visit the official Celestron website or contact their customer service department directly.

For additional resources, including detailed manuals, software updates, and frequently asked questions, please refer to the Celestron support page online.

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Related Documents - StarSense Explorer 8" Dobsonian (Model 22470)

	<p>Celestron StarSense Explorer Dobsonian Telescopes: Instruction Manual Comprehensive instruction manual for Celestron StarSense Explorer Dobsonian telescopes (8", 10", 12"). Learn about assembly, operation, collimation, maintenance, and specifications.</p>
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[Celestron StarSense Explorer DX 102AZ Quick Setup Guide](#)

A comprehensive guide to setting up and using the Celestron StarSense Explorer DX 102AZ telescope, including tripod assembly, attaching components, aligning the finderscope, and using the StarSense Explorer app.



[Celestron StarSense Explorer: Aligning Your Telescope and Using the App](#)

A comprehensive guide to setting up your Celestron StarSense Explorer telescope and smartphone, detailing how to align your phone with the telescope and utilize the StarSense Explorer app for celestial navigation.



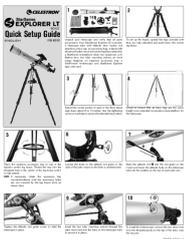
[Celestron StarSense Explorer LT 114AZ Quick Setup Guide](#)

A comprehensive guide to setting up and using your Celestron StarSense Explorer LT 114AZ telescope, including assembly instructions, alignment procedures, and app integration.



[Celestron StarSense Explorer LT 114AZ Quick Setup Guide](#)

A comprehensive guide to setting up and using the Celestron StarSense Explorer LT 114AZ telescope, including assembly, alignment, and first night out instructions.



[Celestron StarSense Explorer LT 80AZ Quick Setup Guide](#)

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.