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Celestron C8 SCT OTA - CGE

AUD
\$2,499.00

Product Images



Short Description

- 8" Schmidt-Cassegrain optical tube assembly (OTA)
- Features Celestron's premium patented StarBright XLT optical coatings
- 2032 mm focal length (f/10)
- Fastar compatible
- Tube constructed of durable and lightweight aluminum
- Includes: 25mm eyepiece (81x), 6x30 optical finderscope, star diagonal, 1.25" visual back, CGEM style dovetail bar

NOTE: The recommended solar filter for this scope for solar observing is the Astrozap Glass Solar Filter (Product No. 124451)

Description

The Celestron C8-A is the direct (but much improved) descendent of Celestron's revolutionary C8 that transformed the hobby of astronomy when it was unveiled in 1970. This rugged aluminum optical tube is only 17 inches long and weighs just 13 pounds, making it easy to transport and set up. But the views are much more impressive than what you'd expect from such a compact instrument. The tube offers 2032 mm of focal length and a focal ratio of f/10, with the added versatility of Fastar (see below).

It is equipped with Celestron's patented StarBright® XLT optical coatings, which visibly increase contrast and light transmission for brighter deep space images and shorter exposure times. With StarBright XLT, you'll be able to discern subtle details while viewing the Moon and planets as well as faint galaxies and nebulae.

The Celestron C8-A can be mounted on a multitude of computerized telescope mounts thanks to its CGEM style dovetail bar. This iconic optical tube provides the best balance of portability, handling ease, light gathering ability and price ever offered to the amateur astronomer.

Fastar Technology

In 1997, CCDs were making a name for themselves in the astrophotography world, quickly supplanting traditional film photography thanks to their speed and convenience. This was the year that Celestron joined forces with the Santa Barbara Instruments Group (SBIG) to produce Fastar, a revolutionary add-on to Celestron's hugely popular Schmidt-Cassegrain (SCT) optical system.

With Fastar, the SCT's secondary mirror can be removed and replaced with a field-flattening lens assembly (sold separately by third party manufacturers) so that a CCD camera can be used in the front of the telescope at the f/2 focus of the instrument's primary mirror. The potential of the Fastar system is staggering: exposures are 25 times shorter than if the camera was placed at the instrument's native f/10 focus. Imagers can capture galaxies and nebulae with exposures of just 30 seconds.

StarBright XLT coatings

StarBright XLT is Celestron's revolutionary optical coating system. It consistently outperforms all other coatings in the commercial telescope market. There are three major components that make up our StarBright XLT high-transmission optical system design:

- Unique enhanced multi-layer mirror coatings made from precise layers of aluminum, SiO₂ (quartz), TiO₂ (titanium dioxide), and SiO₂ (silicon dioxide). Reflectivity is fairly flat across the spectrum, optimizing it for both imaging and visual observing.
- Multi-layer anti-reflective coatings made from precise layers of MgF₂ (magnesium fluoride) and HfO₂ (hafnium dioxide). Hafnium—a rare element that costs nearly \$2,000 per kilogram—gives us a wider band pass than the titanium used in competing coatings.
- High-transmission water white glass is used instead of soda lime glass for the corrector lens. Water white glass transmits about 90.5% of light without anti-reflective coatings; that's 3.5% better than uncoated soda lime glass. When water white glass is used in conjunction with StarBright XLT's anti-reflective coatings, the average transmission reaches an astonishing 97.4.

These three components make StarBright XLT one of the finest coatings available.

OPTICAL TUBE INFO:

Specifications

| | |
|---|---------------------|
| Optical Design | Schmidt-Cassegrain |
| Aperture | 203.2mm (8") |
| Focal Length | 2032mm (80") |
| Focal Ratio | f/10 |
| Focal Length of Eyepiece 1 | 25mm (0.98") |
| Magnification of Eyepiece 1 | 81x |
| Finderscope | 6x30 |
| Star Diagonal | 1.25" Star Diagonal |
| Optical Tube | Aluminum |
| Highest Useful Magnification | 480x |
| Lowest Useful Magnification | 29x |
| Limiting Stellar Magnitude | 14 |
| Resolution (Rayleigh) | 0.69 arc seconds |
| Resolution (Dawes) | 0.57 arc seconds |
| Light Gathering Power (Compared to human eye) | 843x |
| Secondary Mirror Obstruction | 64mm (2.5") |
| Secondary Mirror Obstruction by Diameter | 31% |
| Secondary Mirror Obstruction by Area | 9.77% |
| Optical Coatings | StarBright XLT |
| Optical Tube Length | 432mm (17") |
| Optical Tube Diameter | 238mm (9.37") |
| Optical Tube Weight | 12.5 lbs (5.67 kg) |
| Dovetail | CGE Dovetail Bar |