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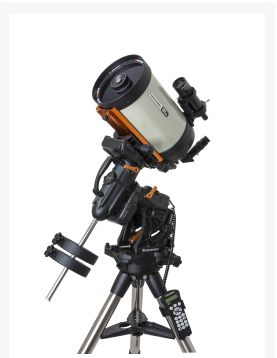
Celestron CGX Equatorial 800 HD Telescope

AUD $7,549.00

Product Images



Short Description

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Description

CGX 800 HD combines Celestron's all-new state of the art CGX computerized equatorial mount with its acclaimed EdgeHD optical system. With 8 inches of aperture and our premium StarBright XLT coatings, the CGX 800 HD gives you over 800 times the light gathering power than the unaided eye and is the lightest and most portable telescope in its class.

See the Universe in HD

EdgeHD is an aplanatic, flat field Schmidt-Cassegrain telescope that produces aberration-free images across a wide visual and photographic field of view. The optical system was designed to reduce more than just off-axis star coma; it also provides an astrograph-quality flat focal plane all the way to the edge of the field of view.

True Astrograph Quality
Many optical designs that advertise themselves as "astrographs" actually only produce pinpoint stars across a curved focal plane. While this may be acceptable for some visual observing, stars will appear out of focus at the edge when used with the flat chip sensor of a digital camera. EdgeHD optics produce a focal plane more than three-times flatter than a standard Schmidt-Cassegrain telescope and dramatically flatter than competing coma-free designs. This guarantees you visibly sharp stars across some of the largest CCD chips available today. Learn more about EdgeHD technology.

Improved Performance
Superior edge performance not only creates rounder, more pleasing stars, but actually improves the resolution and limiting magnitude when compared to telescopes of equal aperture. With Celestron’s StarBright XLT optical coatings on every surface, EdgeHD optics gives you maximum light throughput across the widest visual and photographic spectrum.

Mechanical Features
In addition to EdgeHD’s optimized optical design, the telescope tube has been redesigned to make sure you get the most from your optics each and every night.

- **Mirror clutches** - Flexible tension clutches hold the mirror in place and reduce image shift when taking long exposure astro-images. Once focused, the flexible rods allow the mirror to be held in place without putting any force or pressure on the mirror assembly, keeping the image centered in the eyepiece (or on the sensor).
- **Tube vents** - Cooling vents located on the rear cell allow hot air to be released from behind the primary mirror. Each vent has an integrated 50-mesh filter guaranteed to let warm air out without letting dust in.
- **Fastar versatility** - EdgeHD is the most versatile imaging telescope available today. At its native f/10, you can achieve the image scale necessary to capture the smallest of deep sky objects. Add the optional reducer lens—custom-designed for your size EdgeHD tube—and you can increase your field of view without sacrificing optical performance. A Barlow gives you added power for high-resolution planetary, lunar and solar imaging. All EdgeHD optical tubes are Fastar-compatible, allowing the secondary mirror to be removed and replaced with a third party lens accessory for ultra-fast f/2 wide field imaging.

Individually Tested
Every EdgeHD that ships has been tested not only for the surface quality of each optical component, but also with a camera and artificial star to ensure the imaging system meets our rigid quality assurance. This “final acceptance test” confirms the EdgeHD will perform in the field and deliver high-quality astroimages.

CGX Mount

Celestron’s workhorse CGEM mount lineup has been the German Equatorial backbone for telescopes ranging from 6 to 11 inches of aperture. Since that time, many more astro-imagers and planetarium controlled setups have emerged as backyard telescope technology has evolved. Celestron’s engineering team applied their years of experience designing German Equatorial mounts to the all-new CGX EQ, a culmination of all the advancements made to our technologies, value, and ease-of-use.

The new CGX was designed to better support your telescope for both visual and astro-imaging pursuits. Key design goals included a lower profile EQ head, which provides a more compact and therefore more stable setup; a better drive system; remote operation-friendly with home and limit optical sensors; easier polar alignment adjustments; and better cable management. In

addition to that, we’ve made mechanical and ergonomic improvements throughout to make the mount sturdier, easier to use, and transport. The CGX is our new Equatorial backbone to support a wide range of telescopes.

Additional Information

Specifications	**OPTICAL TUBE INFO:**	
	Optical Design	EdgeHD
	Aperture	203.2mm (8")
	Focal Length	2032mm (80")
	Focal Ratio	f/10
	Focal Length of Eyepiece 1	25mm (.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
	MOUNT INFO:	
	Mount Type	Computerized Equatorial
	Instrument load capacity	55 lbs (25 kg)
	Height adjustment range (includes mount and tripod)	1200.15mm - 1968.5mm (47.25" - 77.5")
	Tripod Leg Diameter	50.8mm (2") Steel tripod with graduated markings on lower section
	Latitude adjustment range	3° - 65°
	Mount Head Weight	44 lbs (20 kg)
	Accessory Tray	Yes
	Tripod Weight	19.2 lbs (8.7 kg)
	Weight of Counterweights	2 x 11 lbs
	Slew Speeds	9 slew speeds - max speed 4°/second
	Tracking Rates	Sidereal, Solar and Lunar
	Tracking Modes	EQ North & EQ South
	GPS	N/A
	Dovetail Compatibility	Dual saddle plates (Vixen and CGE saddle)
	Number of Auxiliary ports	2 Aux ports (Hand Control can use either Aux port)
	Autoguide port	Yes
	USB Port	Yes, input for Mount and Hand Control
	Power Requirements	12V DC, 4 amps
	Motor Drive	DC servo motors
	Alignment Procedures	2-Star Align, 1-Star Align, Solar System Align, Last Alignment, Quick Align
	Periodic Error Correction	Yes
	Computerized Hand Control	2 line x 18 character backlit Liquid Crystal Display, 19 LED backlit buttons, USB 2.0 port for PC connection
	NexStar+ Database	40,000+ objects, 100 user defined programmable objects. Enhanced information on over 200 objects
	Software	PWI Telescope Control Software, Celestron's Starry Night Special Edition Software, SkyPortal App
	Total Kit Weight	99.2 lbs (45 kg)
	Included Items	CGX Equatorial Head | CGX Tripod | Accessory Tray | 2 x 11 lbs counterweights | NexStar+ Hand Control | 8mm Allen Wrench | 12V DC Power Cable | Hand Control Holster