

**CGEM 800**



Celestron's CGEM-800 features our high-end 8" Schmidt Cassegrain OTA with XLT coatings mounted on our brand new CGEM mount.

The CGEM mount has a fresh, attractive, bold appearance and is capable of carrying Celestron's higher-end SCT optical tubes (up to 11") securely and vibration free which is ideal for both imaging and visual observing.

Ergonomic Design - CGEM was designed to be ergonomically friendly with large Altitude and Azimuth adjustment knobs for quick and easy polar alignment adjustment. The internal RA and DEC motor wiring provides a clean look and an easy and trouble free set up.

Innovation - The CGEM series has a new innovative Polar alignment procedure called All-Star (patent pending). All-Star allows users to choose any bright star, while the software calculates and assists with polar alignment. Another great feature of the CGEM, sure to please astroimagers, is the Permanent Periodic Error Correction (PEC) which will allow users to train out the worm gear periodic errors, while the mount retains the PEC recordings.

Performance - For objects near the Meridian (imaginary line passing from North to South), the CGEM will track well past the Meridian for uninterrupted imaging through the most ideal part of the sky. The CGEM mount has a robust database with over 40,000 objects, 400 user defined programmable objects and enhanced information on over 200 objects.

Celestron's CGEM mount is the perfect fit between the Advanced Series and CGE Series. Offering the portability of the Advanced Series and the precision of the CGE.

## **GENERAL DETAILS:**

- 8" Schmidt-Cassegrain telescope
- CGEM Computerized Equatorial Mount
- Schmidt-Cassegrain mechanism that moves the primary mirror to adjust focus is supported by two pre-loaded ball bearings, minimizing the "mirror flop" typical of bushing focus mechanisms
- Celestron's premium StarBright XLT coatings
- 6x30 finderscope to help accurately find objects
- Ultra Sturdy 2" steel tripod with Accessory Tray
- Star diagonal provides more comfortable viewing position when observing objects that are high in the sky
- 40,000 object database with 400 user-definable objects and expanded information on over 200 objects
- Proven NexStar computer control technology
- New "All-star" Polar alignment uses any bright star for a quick and accurate Polar alignment
- Software Features include: Mount Calibration, Database Filter Limits, Hibernate, five Alignment Procedures, and user-defined slew limits
- Flash upgradeable hand control software and motor control units for downloading product updates over the Internet
- Custom database lists of all the most famous deep-sky objects by name and catalog number; the most beautiful double, triple and quadruple stars; variable star; solar systems; objects and asterisms
- Permanent programmable periodic error correction (PEC) - corrects for periodic tracking errors inherent to all worm drives
- Steel worm gear and 90mm pitch diameter brass worm wheel
- Drive Motors - Low Cog DC Servo motor with integrated optical encoders offer smooth, quiet operation and long life. The motor armatures are skewed to minimize cogging which is required for low speed tracking.
- Internal Cable wiring for trouble-free setup and transportation
- Designated six-pin RJ-12 modular jack, ST-4 compatible guide port
- Autoguide port and auxiliary ports located on the electronic pier for long exposure astrophotography
- Double line, 16-character Liquid Crystal Display Hand Control with backlit LED buttons for easy operation of goto features
- RS-232 communication port on hand control to control the telescope via a personal computer

- Includes NexRemote telescope control software, for advanced control of your telescope via computer
- GPS Compatible with optional SkySync GPS Accessory (93969)

## TECNICAL SPECIFICATIONS:

**OPTICAL DESIGN:** 8" Schmidt-Cassegrain

**APERTURE:** 203.2 mm (8 in)

**FOCAL LENGTH:** 2032 mm (80 in)

**FOCAL RATIO:** 10

**FINDERSCOPE:** 6x30

**MOUNT:** Computerized Equatorial

**OPTICAL TUBE:** Aluminum

**OPTICAL COATINGS:** Starbright XLT Coating

**EYEPIECE 1:** 25 mm (0.98 in)

**MAGNIFICATION 1:** 81 x

**STAR DIAGONAL:** 1.25

**TRIPOD:** Adjustable, Stainless Steel

**CD ROM:** NexRemote control software with RS232 cable

**POWER SUPPLY:** Car battery adapter

**HIGHEST USEFUL MAGNIFICATION:** 480 x

**LOWEST USEFUL MAGNIFICATION:** 29.03 x

**LIMITING STELLAR MAGNITUDE:** 14

**EYEPIECE 1 FIELD OF VIEW:** 62 °

**LIGHT GATHERING POWER:** 843 x

**ANGULAR FIELD OF VIEW:** 0.62 °

**SECONDARY MIRROR OBSTRUCTION:** 2.7 in (68.58 mm)

**SECONDARY MIRROR OBSTRUCTION BY AREA:** 11.4 %

**SECONDARY MIRROR OBSTRUCTION BY DIAMETER:** 33.8 %

**RESOLUTION (RAYLEIGH):** 0.69 arcsec

**RESOLUTION (DAWES):** 0.57 arcsec

**GEAR:** Steel worm gear and 90mm pitch diameter brass worm wheel

**MOTOR DRIVE:** Low cog DC Servo motors with encoders, both axes

**COMPUTER HAND CONTROL:** Double line, 16 character Liquid Crystal Display; 19 fiber optic backlit LED buttons

**SLEW SPEEDS:** Nine slew speeds: 5 °/sec, 2 °/sec, 1 °/sec, 64x, 16x, 8x, 4x, 1x, .5x

**TRACKING RATES:** Sidereal, Solar and Lunar

**TRACKING MODES:** EQ North and EQ South

**ALIGNMENT PROCEDURES:** 2-Star Align, Quick Align, 1-Star Align, Last Alignment, Solar System Align

**SOFTWARE PRECISION:** 24bit, 0.08 calculation

**DATABASE:** 40,000+ objects, 400 user defined programmable objects. Enhanced information on over 200 objects

**POWER REQUIREMENTS:** 12 VDC 1.5 Amp

**GPS:** Optional CN16 Accessory

**COUNTERWEIGHTS:** 1 x 17 lb

**OPTICAL TUBE LENGTH:** 17 in (431.8 mm)

**TELESCOPE WEIGHT:** 88 lb (39.92 kg)

## MANUAL:

[CGEM Series Manual](#)

[CGEM Series Info Sheet](#)

To discover more and to find your local Celestron dealer please visit our [Dealer Page](#)

## Recommended Accessories



[2-inch XLT Diagonal \(SCT\)](#)

£0.00



[Luminos 31 mm Eyepiece](#)

£0.00



[X-Cel LX 12mm Eyepiece](#)

£0.00



[PowerTank 17ah](#)

£0.00



[SkySync GPS Accessory](#)

£0.00



Lens Shade For C6 & C8 Tubes

£0.00



NexImage 5 Solar System

Imager (5MP)

£0.00



X-Cel LX 2x Barlow Lens

£0.00