CGE Pro Mount (Without Tripod)

Item no: 91529

Tripod not included, ready to bolt on to your custom pier.

In addition to being fully computerized with a database of over 40,000 celestial objects, the New CGE Pro German Equatorial mount has been completely redesigned to offer numerous design advantages for the Astrophotographer:

**Increased Payload Capacity**
Able to hold our 14" SCT telescope more securely as well as larger optical tubes up to a maximum instrument capacity of 90 lbs (not including counterweights).

**All-Star Polar Alignment**
Choose any bright alignment star for a software assisted alignment of the mount's polar axis that will have you ready for imaging even if you can't see the North Star.

**No-Tool polar alignment**
Larger hand knobs for both Altitude and Azimuth adjustments.

**Meridian Tracking**
Extended tracking past the Meridian of up to 20 degrees of uninterrupted imaging through the best part of the sky.

**Faster slew speed**
Improved gearing and motors provide faster slew speeds than ever before with a maximum slew rate of over 5°/per second.

**Power Management**
Redesigned electronics deliver constant regulated power to the motors making them capable of driving the telescope even when not perfectly balanced. This allows the CGE Pro to have the payload capacity of that of much larger (and expensive) mounts without sacrificing smooth tracking motion and pointing accuracy across the entire sky.

**Accuracy**
The hallmark of any telescope mount is its ability to find, center and track celestial objects with the highest degree of accuracy.

**Pointing**
With just a standard hand control alignment, the CGE Pro has the ability to center a star in your eyepiece or CCD chip to within 5 arc minutes. Using NexStar's advanced pointing features such as Calibration Stars, Sync and Precise GoTo, further improves the pointing accuracy to as low as 1 arc minute in the desired region of the sky.

**Tracking**
With larger .75" pitch diameter worm gear and 6" pitch diameter worm wheel, precision made cut-steel gears in gearboxes, and seven slot-skewed armature motors, the CGE Pro delivers smooth +/- 5 arc second tracking accuracy typical unguided periodic error, which can be further reduced with PPEC.

**Mount Calibration**
Celestron's NexStar hand control has built-in compensation features essential for accurately placing small objects on the center of your CCD chip or high power eyepiece. Aligning on multiple Calibration Stars creates a model of the opto-mechanical inaccuracies inherent in all equatorial mounts. This model is stored within the hand control and is used to compensate for these inaccuracies, thus improving your pointing precision each time you slew your telescope.)
Mount Modeling
Celestron's NexStar hand control has built-in mount modeling features essential for accurately placing small objects on the center of your CCD chip or high power eyepiece. Aligning on multiple Calibration Stars creates a mathematical model of the opto-mechanical inaccuracies inherent in all equatorial mounts. This model is stored within the hand control and is used to compensate for these inaccuracies, thus improving your pointing precision each time you slew your telescope.

And of course, the CGE Pro is also fully T-Point compatible (available from Software Bisque) for ultra precise pointing across the entire sky.

In addition to these improvements, the Celestron line of German Equatorial mounts has long been recognized for features preferred by visual observers and astrophotographer alike. Among them include:

**Portability** - Set up and transportation of the CGE Pro telescopes is made easy by separating the mount into smaller, easy-to-carry components. Unlike fork arm mounted telescopes, the CGE's optical tubes can be quickly removed from their mounts making even the CGE Pro1400 easily assembled in minutes.

**Stability** - Recognized for superior stability, German Equatorial mounts place the center of gravity directly over the tripod or pier and can be easily polar aligned without the use of an optional equatorial wedge. This proven design reduces the "tuning fork" vibration that can be associated with undersized fork mounts.

**Balance** - CGE Pro Equatorial mounts can easily be balanced in both axes. Simply sliding the counterweight for Right Ascension and moving the optical tube along its dovetail mounting for Declination, accomplish balancing the weight of camera equipment and other visual accessories. This means that no additional weight needs to be added to balance the telescope when additional accessories are added.

**Clearance** - CGE Pro mounts support their tubes at a single contact point allowing the tube to move freely around its polar axis without making contact with the telescope's mount. Software features allow the user to set the mounts slew limits to guaranty safe motion. This is particularly useful when adding photographic and CCD instruments that extend from the rear of the telescopes.

All CGE mounted telescopes are compatible with Celestron's SkySync GPS accessory. Combine the GPS and built-in real time clock, and these telescopes will keep track and remember their exact location and time without having to enter the information into the hand control.

**Computerized Mount Features**

- Proven NexStar computer control technology
- 40,000 object database with over 100 user-definable objects and expanded information on over 200 objects
- New All-Star Polar Alignment routine for both Northern and Southern Hemispheres
- Software Features include: Database Filter Limits, Hibernate, five alignment methods and user-defined slew limits
- Custom Rate 9 feature allows you set maximum slew rate
- Tandem mode allows you to star align the mount even when positioned for tandem scope use
- 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 stars; solar systems; objects and asterisms
- Double line, 16-character Liquid Crystal Display Hand Control with backlit LED buttons for easy operation of
• 12 VDC Servo Motors with integrated optical encoders
• Drive Motors - High quality motors with seven slot skewed armature to minimize magnetic cogging for quiet operation and long life. Precision made cut-steel gears in gearbox for improved tracking precision
• Bearing and Shaft - Main shafts are made from 1.57" diameter steel tubing with .40” wall thickness with two preloaded 2.68” O.D. tapered roller bearings on each axes
• Precision worm drive system - .75" pitch dia. precision made steel worm preloaded with two .87" OD ball bearings to minimize run-out (a source of periodic error). 255 tooth 6" pitch dia. precision made worm wheel with enveloping brass teeth
• Spring loaded DEC worm to minimize backlash and for easy guiding
• 4 point RA and DEC clutch system for no-slip pointing precision
• Autoguide port, PC port and Auxiliary ports located on the electronic pier for long exposure astrophotography
• One 4.72" O.D. thrust bearing and one 4.13" O.D. thrust bearing on each axes provide a large thrust surface for additional stability
• Rugged 9-pin thread on motor cables
• Latitude range: 10° to 65° Northern or Southern Hemispheres
• 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)

Specifications

• EQ Mount Weight: 75 lbs (34 kg)
• Counterweight Bar: 5 lbs (2.27 kg)
• Weight of Counterweights: 1 x 22 lbs
• Weight (lbs): 154 lbs (70 kg)
• Payload Capacity: 90 lbs (41 kg)
• Motor Drive: DC Servo motors with encoders, both axes
• Slew Speeds: Nine slew speeds 5.5 deg/s, 2 deg/s, 0.5 deg/s, 64x, 16x, 8x, 4x, 1x, 0.5x
• Tracking Rates: Sidereal, Solar and Lunar
• Tracking Modes: EQ North and EQ South
• Alignment Procedures: 2-Star Align, Solar System Align, Last Alignment, Quick Align, 1-Star Align,
• Computer Hand Control: Double line, 16 character Liquid Crystal Display; 19 backlit LED buttons

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