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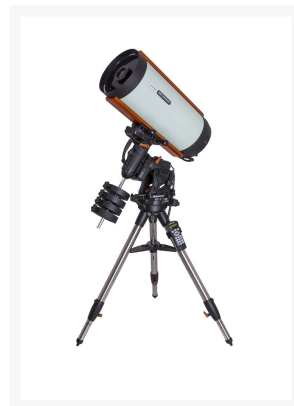
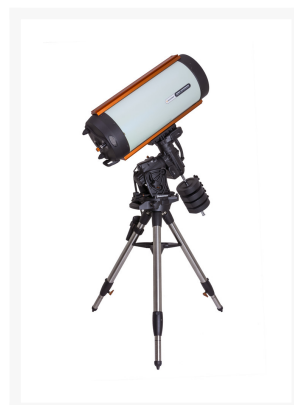
Opening Hours
10am-5:30pm Mon-Fri
9am-2pm Sat

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Celestron CGX Equatorial 1100 Rowe-Ackermann Schmidt Astrograph (RASA) Telescope

AUD
\$9,499.00

Product Images



Short Description

- 11" RASA optical tube assembly
- CGX computerized equatorial mount

Description

Capturing impressive deep-sky astroimages is easier than ever with Celestron's new Rowe-Ackermann Schmidt Astrograph, the perfect companion to today's top DSLR or astronomical CCD cameras. This fast, wide-field f/2.2 system offers two huge advantages over traditional f/10 astroimaging: better apparent tracking and shorter exposures. That means you'll create better-looking astroimages in a fraction of the time, even without the use of an autoguider.

The Rowe-Ackermann Schmidt Astrograph builds on the legacy of Celestron's Schmidt Camera, which allowed astrophotographers to produce images on film in the 1970s.

Today, with CCD sensor sizes as large as film—or larger—the Schmidt Astrograph offers a 43.3mm optimized image circle to capture pinpoint stars on the largest imaging chips. (Note: We previously published 70mm which is actually the aperture of the last lens in the telescope. The optical design has not changed). Combine this large image circle with a focal length of just 620 mm and you have an instrument suitable for wide-field imaging, creating huge mosaics of the night sky, surveying, and even comet hunting.

Optical Performance

The Rowe-Ackermann Schmidt Astrograph features newly designed optics with 4-element rare-earth glass for images free of false color and aberrations like coma and field curvature. The optical quality and spot size across the entire image circle is unprecedented for an astrograph in this price range—or even that of a much more expensive instrument. The design also provides minimal vignetting.

Advanced Features

Advanced features like a custom engineered linear brass focuser bearing and FeatherTouch Micro Focus Knob allow you to make the fine adjustments you need to capture the perfect shot. Meanwhile, a 12V MagLev fan reduces cooldown time and provides optimal airflow through the dust filtered optical tube.

Engineered as a complete astroimaging system, every component of the Rowe-Ackermann Schmidt Astrograph is optimized for peak performance with DSLR and astronomical CCD cameras. Down to the thickness of the glass used in the included fully-multicoated optical window or an optional imaging filter, every component of the system has been taken into careful consideration to work together seamlessly.

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.

Rowe-Ackermann Schmidt Astrograph Features

- Ultra-fast, 11-inch f/2.2 optical design with rare-earth glass for images free of false color, coma, and field curvature. Cuts imaging time by more than half
- Expansive 43.3 optimized image circle maintains pinpoint stars to the far corners of even the largest astroimaging sensors, while the usable field extends even further to 52 mm for larger format sensors.

- Custom engineered linear brass focuser bearing reduces image shift, while dual-speed 10:1 FeatherTouch Micro Focus Knob provides the most precise focusing
- Quiet, high-output 12V MagLev fan reduces cooldown time and blocks dust
- Common camera adapters (T-thread and M48) included for easy attachment to popular CCD and DSLR cameras

CGX Mount and Tripod Features

- All-new design. Sturdier and more rigid with quicker dampening time
- Increased load capacity to 55 lbs.
- Improved motors provide more torque, better slewing and tracking under heavy loads
- Heavy Duty belt-drive system minimizes backlash while providing smooth motor operation under heavy loads



Smoother Belt-Drive System

- Spring-loaded brass worm wheel and stainless steel worm gear reduce friction and provide optimum gear mesh
- Internal cabling for worry-free remote operation. Power input and accessory ports remain stationary while the mount slews to avoid snags
- Internal hard stops for both axes prevents cable tension and tripod strike



Mechanical Hard Stops

- Internal optical sensors on both axes for simple and safe remote operation



Home and Limit Sensors

- Home sensors allow the mount to always start in the index position regardless of orientation before a power reset
- Limit sensors automatically shut off slewing or tracking before reaching the hard stop fail safe
- Brand new control software developed in conjunction with PlaneWave Instruments for professional level control operation and imaging
- Software includes multi-point mount modeling for extremely precise pointing accuracy and many more additional features for remote astroimaging
- Wider tripod stance for improved stability
- Adjustable EQ head position to optimize center of gravity over the tripod and fully utilize the increased 3°-65° latitude range
- Dual-fit CG-5/Vixen and CGE/Losmandy dovetail saddle



Dual Dovetail Saddle

Improved tripod includes:

- 2" steel legs with height index marks for quick leveling
- "Jack of all trays" can hold three 1.25" eyepieces, two 2" eyepieces, your smartphone, or other accessories
- +20° of additional tracking past the meridian on either side
- Tripod legs can be collapsed with accessory tray installed for faster setup and transport



Tripod

Improved ergonomics:

- Two handles for easy pickup and transport



Ergonomic Carry Handles

- All-new ergonomically designed dovetail clamping knobs
- Innovative and improved polar alignment adjustment system



Polar Alignment Adjustment

- All-new ergonomic latitude adjuster for smooth and easy adjustment under full loads
- Optional add-on polar axis finderscope

Electronics

- All-new NexStar+ hand control with USB port
- Two AUX accessory ports to support wireless/WiFi alignment and operation with StarSense AutoAlign and SkyPortal WiFi Module accessories (sold separately)
- USB 2.0 port, used to connect directly to PC with included software
- Autoguider port
- PPEC ready
- Threaded 12VDC power input barrel connector
- Internal Real Time Clock (keeps time and site information saved)

Specifications

OPTICAL TUBE INFO:	
Optical Design	Rowe-Ackermann Schmidt Astrograph
Aperture	279mm (11")
Focal Length	620mm (24.4")
Focal Ratio	f/2.2
Central obstruction diameter	114mm (4.48") (41% of aperture diameter)
Light Gathering Power (Compared to human eye)	1588x
Resolution (Rayleigh)	0.49 arc seconds
Resolution (Dawes)	0.42 arc seconds
Image Circle	43.3mm (1.7") Ø, 4.9"
Useable field	52mm (2.04") Ø - 4.8" only minimal performance loss at edge of FOV
Wavelength range	400 - 780 nm
Spot size	< 4.4 µm RMS across FOV
Optical Coatings	StarBright XLT
Off-axis Illumination	83% at 23mm (.92") off-axis
Optical Window	68mm (2.67") Ø
Back focus with included camera adapter	55mm (2.16")
Back focus from top of threaded collar	72.8mm (2.86")
Optical Tube	Aluminum
Optical Tube Length	838.2mm (33")
Optical Tube Diameter	330.2mm (13")
Finder	FeatherTouch microfocus, coarse and fine focus
Finder scope	Not included
Optical Tube Weight	43 lbs (19.5 kg)
Other Features	Ventilation fan, dual dovetail mounting bars, mirror support clutches
Included items	42mm (1.65") T-thread camera adapter, 48mm (1.89") camera adapter, fan battery pack
Dovetail	CGX 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")
Tripped 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
Tripped Weight	19.2 lbs (8.7 kg)
Weight of Counterweights	4 x 11 lbs
Slow Speeds	9 slow 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)
Autoguider 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, 3-Star Align, Solar System Align, Lost Alignment, Quick Align
Periodic Error Correction	Yes
Computer Hand Control	2 line x 18-character backlit Liquid Crystal Display, 19 LED backlit buttons, USB 2.0 port for PC connection
NeoStar+ Database	40,000+ objects, 100 user defined programmable objects, Enhanced information on over 200 objects
Software	PHL Telescope Control Software, Celestron's Starry Night Special Edition Software, SkyPortal App
Total Kit Weight	150.2 lbs (68 kg)
Included Items	CGX Equatorial Head CGX Tripod Accessory Tray 2 x 11 lbs counterweights NeoStar+ Hand Control 8mm Aiken Vixen 12V DC Power Cable Hand Control Holder