FIRST light

See an interactive 360° model of this scope at **www.skyatnightmagazine.com/celestevo8**

Celestron NexStar Evolution 8

A revolutionary 8-inch Schmidt-Cassegrain packed with innovative features

WORDS: PAUL MONEY

VITAL STATS

- **Price** £1,799
- **Optics** Schmidt-Cassegrain
- **Aperture** 203.2mm (8 inches)
- **Focal length**: 2,032mm (f/10)
- **Mount** Computerised single fork arm altaz
- **Extras** NexStar+ hand controller, 40mm eyepiece, 13mm eyepiece, star diagonal, Celestron StarPointer red-dot finder
- **Weight** 18.4kg
- **Supplier** David Hinds
- **www.**celestron.uk.com
- **Tel** 01525 852696

CELESTRON X 4

Telescope innovation and improvement continues apace, nowhere more evidently than with the Celestron NexStar Evolution 8, an 8-inch Schmidt-Cassegrain telescope on a computerised single fork arm. This altaz mount sits on a stainless steel tripod and comes with a star diagonal, Celestron's StarPointer red-dot finderscope, 40mm and 13mm eyepieces, and a mains power cable.

The single fork arm mount has a useful carry handle, but it is within the mount's single arm that the innovation begins. For starters there is an integrated lithium-ion phosphate battery. With this charged up you don't need an external powerpack – a long overdue touch. The mount will also function with the power cable connected.

The other innovative aspect to be hidden inside the mount is a built-in Wi-Fi network. Using this, you can connect wirelessly with a smartphone or tablet to control the scope, although a hand controller is supplied, so tradition hasn't been thrown completely out of the window. Although you can buy add-ons that enable other popular mounts to be controlled by a smartphone or tablet, this is the first scope to have this capability on board.

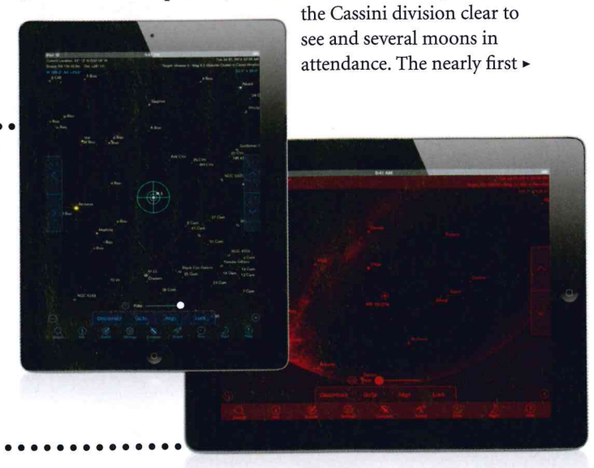
With all this hi-tech wizardry built in, assembly and basic set-up was straightforward. We switched the mount on, connected our tablet to the SkyQLink Wi-Fi using the free Celestron SkyPortal app (available for iOS and Android) and performed the star alignment routine. We aligned on each target with ease; most lay within the central 50 per cent of the view in the 40mm eyepiece. Accuracy was improved by aligning with the 13mm eyepiece; after doing this, most objects were in the centre of the 40mm eyepiece, and in the 13mm they were all within the inner 50 per cent.

Optical excellence

The optics are Fastar compatible, so the secondary mirror can be replaced with a Fastar/HyperStar unit onto which a CCD camera can be mounted. This speeds up the scope's focal ratio by a factor of five to f/2 – especially useful for deep-sky imaging.

Our tests on Vega in Lyra revealed the optics to be very good, the bright star being pin sharp 85 per cent out from the centre of the view, with only some very slight coma present. We picked out double star Albireo in Cygnus and enjoyed the golden and pale blue hues of its components in both 40mm and 13mm eyepieces. Moving across the sky to Iota Cassiopeiae, we could split the triple star nicely with the 13mm eyepiece.

Within the Solar System, Saturn looked splendid, with a band visible on the planet's disc, the Cassini division clear to see and several moons in attendance. The nearly first ▸



FEATURES FIT FOR THE DIGITAL AGE

By installing Celestron's free SkyPortal app, your smartphone or tablet becomes a simple interface for controlling the NexStar Evolution 8 using the app's SkySafari 4-powered planetarium. To connect, we selected the SkyQLink wireless network, opened the SkyPortal app and chose the 'telescope' option at the bottom of the screen. The app prompts you to align on three stars – which can be done without knowing the constellations. Using the onscreen directional arrows, point the telescope at each, centre it, fine align, then click 'Done'. That's it. There is also info on many objects and an option that connects to a home network instead of SkyQLink, enabling access to the internet while controlling the telescope.

SINGLE ARM FORK MOUNT

The single arm is sturdy and easily carries the telescope tube via its Vixen-style dovetail arrangement. It has a useful carry handle, an integrated Wi-Fi hotspot and a built-in battery to power the system for up to 10 hours. Connections include four aux ports, a power input, a USB charging port and a power switch.

SECONDARY EYEPIECE TRAY

Built into the mount base, this tray has three slots for 1.25-inch eyepieces. It is gently illuminated by a red LED built into the mount arm; the light is adjustable via the Celestron SkyPortal app or the hand controller.

AXIS ADJUSTMENTS

The NexStar Evolution 8 has large, easy to use manual clutches on both altitude and azimuth axes. That means if power fails or there is insufficient charge left in the battery, you can continue to use the telescope manually. The clutches' bright orange finish makes them easy to spot in the dark.

HAND CONTROLLER

The hand controller allows you to use the NexStar Evolution 8 without a smartphone or tablet – in case it runs out of battery for instance. The controller has a four-line, 18-character backlit display screen, easy to use buttons and contains a database of more than 40,000 objects.

SKY SAYS...

This scope makes astronomy even more accessible – especially to those in tune with the latest tech