

FIRST light

Sky-Watcher AZ-EQ5GT mount

Flexibility defines this multi-configuration, mid-range mount

WORDS: PAUL MONEY

VITAL STATS

- **Price** £999
- **Mount** AZ-EQ Go-To
- **Payload capacity** 15kg for EQ and 15kg plus 15kg for dual scope altaz mode
- **Controller** Synscan V4 handset with dual AZ/EQ firmware
- **Database** 42,900 objects
- **Tracking speed** Sidereal, solar and lunar
- **Power requirements** 12V DC 3A
- **Tripod** Pier tripod with adjustable legs
- **Weight** Mount 7.7kg, tripod 6.1kg
- **Ports** 2x snap camera, ST-4 autoguider, USB
- **Extras** Two 3.5kg counterweights, counterweight extension bar, second saddle
- **Supplier** Optical Vision
- **www**.opticalvision.co.uk
- **Tel** 01359 244200

Telescope mounts have traditionally been of two designs, the simple altaz or the German equatorial, where one axis is aligned with the polar axis of the Earth for extended periods of tracking. However, in the past few years we've seen a trend for mounts combining both into one multipurpose system, especially with the advent of computerised tracking. Sky-Watcher embraced this combined approach with the AZ-EQ6GT earlier this year, and have followed it with mid-range AZ-EQ5GT.

The AZ-EQ5GT is supplied with a pier tripod, SynScan V4 handset, power cable, dec. cable, two camera snap cables, a second Vixen-style saddle, two 3.5kg counterweights and a counterweight extension bar. The pier tripod attaches to the mount using a flexible extension that is collapsible and has extendible legs for extra height. The pier is hollow and saves on weight by having three slots cut into it, which we found useful for putting the handset in when it wasn't being used. A minor quibble is that, good as the pier tripod is, we did find it a little flexible on the rubber foot pads. This was mainly noticeable when we installed our heaviest telescope and counterweights, although the vibrations did quickly dampen down.

Unlike its larger cousin the AZ-EQ6GT, the AZ-EQ5GT has no in-built polarscope; nor is one

SKY SAYS...

Altaz mode is ideal for visual use, EQ for tracking accuracy or if you intend to do any imaging

supplied in the box. For most of our tests we used the mount without a polarscope, as by looking along the polar axis we were able to roughly polar align the mount well enough for visual use. An option on the handset allows for an improvement of polar alignment once an initial two- or three-star alignment routine has been performed and we found this greatly improved the performance of the mount in EQ mode.

The SynScan V4 handset is slightly larger than the V3 handset and its firmware can be flash updated, however unlike previous versions there is no power input on the handset so it does have to be connected to the mount when performing the upgrade. With 42,900 objects in its database there are plenty of targets to explore. Alternatively, with a suitable cable (sold separately) the mount can also be controlled either by computer or smart device.

Alignment options

In EQ mode we did find the accuracy better, especially when we performed a three-star alignment and in the SynScan menu added several extra stars to enhance the pointing and tracking accuracy. In altaz mode you can select either a 'brightest star' alignment where you choose an area of the sky for your first star alignment, or the two-star alignment where you can select a star from the offered list to begin alignment. The altaz mode

ONE TELESCOPE OR TWO?

Just like its big brother the AZ-EQ6GT, the AZ-EQ5GT gives you three mounts in one package depending on how you configure it. It can be set up as a typical equatorial mount so you can undertake long-exposure astrophotography; it also can also be configured as an altaz for simple viewing sessions, either with a single telescope or as a dual setup via the supplied second mounting saddle.

The second mounting saddle takes the place of the counterweights and is easy to

install. Note that in altaz configuration you should always attach the largest telescope to the main body of the mount and add the smaller one to the secondary saddle. This versatility can be useful for public stargazing events where two scopes can be mounted side by side to maximise viewing pleasure (not to mention viewing potential) without setting up two separate mounts for the job. Changing between the EQ and altaz configurations is relatively straightforward and takes just a few minutes.

See an interactive 360° model of this mount at www.skyatnightmagazine.com/AZ-EQ5GT



PORTS

The mount body comes with a range of ports and connectors plus the usual on-off power switch. On the underside of the body lies the hand controller port, a standard ST-4 autoguider port, two 'snap' camera ports for connecting and controlling cameras, and a USB interface.

HAND CONTROLLER

The SynScan V4 hand controller can be operated in either altaz or equatorial mode, which is selected on start up. It has a database of over 42,900 objects including the Messier, NGC and IC catalogues, variable stars, double stars, planets and named stars. The handset is flash upgradeable.

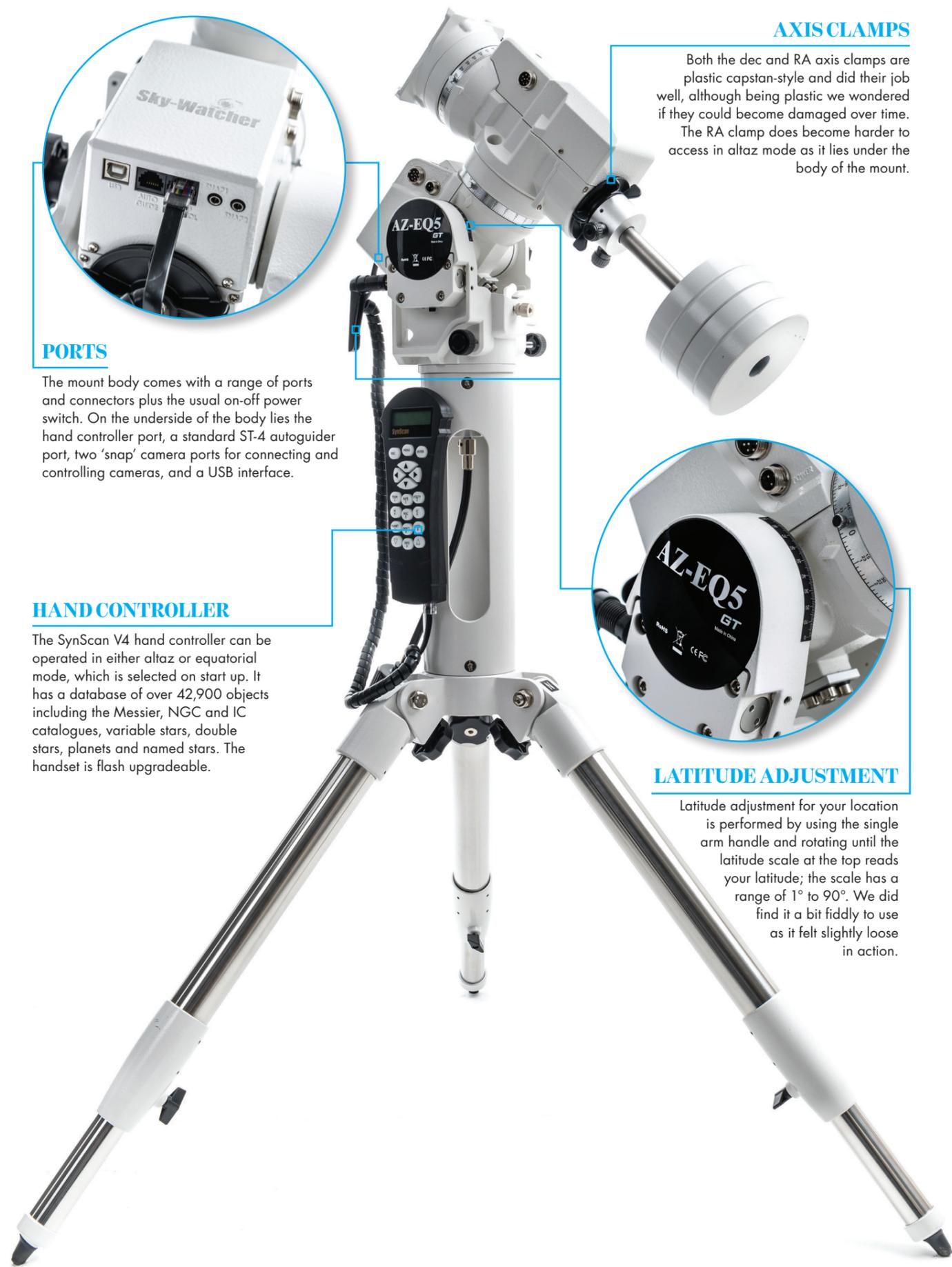
AXIS CLAMPS

Both the dec and RA axis clamps are plastic capstan-style and did their job well, although being plastic we wondered if they could become damaged over time. The RA clamp does become harder to access in altaz mode as it lies under the body of the mount.



LATITUDE ADJUSTMENT

Latitude adjustment for your location is performed by using the single arm handle and rotating until the latitude scale at the top reads your latitude; the scale has a range of 1° to 90°. We did find it a bit fiddly to use as it felt slightly loose in action.



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PIER/TRIPOD

This is a new tripod for Sky-Watcher mounts. It is extremely portable in that the legs can be folded up back alongside the pier, making it quite compact for transportation. The pier saves weight with cut-away slots, which we found useful as a place to put the handset when not in use.



SKY SAYS...

Now add these:

1. Polarscope
2. 17Ah power tank
3. GPS mouse



Globular cluster M13 and galaxy NGC 6207, imaged with the mount in EQ mode



M27, the Dumbbell Nebula in Vulpecula, also imaged with the mount in EQ mode

► is ideal for visual use, EQ if you need tracking accuracy or intend to do any imaging.

For our night sky tests we used an Equinox 80ED refractor with 2-inch 26mm and 9mm eyepieces, and a SkyMax 180 Pro Maksutov with a 1.25-inch 26mm and 9mm eyepieces. We were able to track the bright star Regulus in Leo for over half an hour using a 9mm eyepiece in our Equinox 80ED with only slight deviation from the centre of the view, and our pointing accuracy tests worked well in both the equatorial and altaz modes. We took tours of the sky in both modes by selecting a range of objects – including stars, Messier and NGC objects, and the planets above the horizon at the time of review – and checked how well they were centred.

In EQ mode the mount can support 15kg of equipment: that's 15kg of telescope for purely visual use or 15kg including the camera, autoguider and other kit for astrophotography. Swapping to altaz mode the mount can take up to two 15kg scopes on each saddle, making it ideal for use at public events. Overall the mount performed well regardless of the configuration we used; Sky-Watcher has yet again come up with a useful addition to its family of mounts. **S**

VERDICT	
ASSEMBLY	★★★★★
BUILD & DESIGN	★★★★★
EASE OF USE	★★★★★
GO-TO ACCURACY	★★★★★
STABILITY	★★★★★
OVERALL	★★★★★