

SKY-WATCHER EQ5 SynScan V3 mount

Paul Money puts the latest computerised Go-To mount to the test to see whether it can give a small telescope a new lease of life

SPECS

- ▶ **PRICE** £545
- ▶ **CONNECTOR** Vixen-style dovetail compatible
- ▶ **LOAD CAPACITY** up to 9kg
- ▶ **DATABASE** 13,740 objects
- ▶ **SLEW RATE** 0.5x to 800x
- ▶ **POINTING ACCURACY** up to 1 arcminute
- ▶ **POWER SUPPLY** 11 to 15V DC 2 amp tip positive (not included)
- ▶ **SUPPLIER** Optical Vision Ltd
- ▶ **TEL** 01359 244 200
- ▶ **WWW** opticalvision.co.uk

Once, if you wanted a computerised Go-To mount you had to resort to a backbreaking heavy setup, even if you had a small telescope and didn't need so much support. However, the wonders of Go-To are gradually trickling down to smaller and more portable mounts, like Sky-Watcher's new EQ5 mount. This is now equipped with a SynScan (also called SkyScan) computerised hand controller, which makes it easy to

set up and align, and gives greater accuracy while tracking.

After the relatively easy job of assembling the mount, hand controller, cables and sturdy tubular-legged tripod, the first impressions of the assembly were of reassuring stability. The SynScan-equipped EQ5 looks sleek, with the electronics housed in the section protecting the RA motor that looks a bit like a tight-fitting neck collar.

Initially we were a little

concerned that the cables connecting the drives to the main mount were a little stiff and might not have enough play, raising the possibility that they might become entwined or caught, but in practice we never had a problem. That was reassuring as it meant that no matter what object was chosen – be it on one side of the sky or the other – the cables never got entwined or caught in the mount. For instance, when your chosen object lies on the other ▶

DOUBLE-QUICK ALIGNMENT

The three-star alignment is a great feature of the Go-To facility. Every time we set up, it accurately placed the object we wanted in the field of view of our 25mm eyepiece. The more it was used, the easier it was to go straight to an object or star.

The alignment process could not be simpler, and even when one of the stars could not be chosen due to the horizon being obscured by a house or other large object, another star was suggested as an alternative.

Most of the time all of the suggested alignment stars can be used, although it will depend on your particular location and its surroundings.

In all, the alignment process works so well that you can be on a selected object and tracking it accurately within minutes. This gives you valuable time to actually make observations rather than struggling to find your object in the sky. This must be a worthwhile investment, especially in the sort of climate that might cloud over at any given minute.



Polar alignment

The optional polar alignment scope is well worth the extra money and substantially improves the Go-To and tracking ability of the system. However, even without the polar scope the mount can be roughly aligned with the pole – well enough for the three-star alignment to work – by sighting down the telescope tube.

Telescope connector

The Vixen-style dovetail head has become the de facto standard and allows a wide range of telescopes to be mounted easily on the mount. The locking knob holds the telescope firmly, without any slippage, and yet it was still easy to release the telescope when needed.



Tripod

Any mount is only as good as its support structure and this model comes complete with steel tubular legs and an accessory tray that firmly pushes the legs into a rigid position. Even large vibrations quickly dampened out, and despite the test taking place on a reasonably windy night, the mount remained relatively stable, even when accidentally knocked.

MORE OVER PAGE



The fast alignment process allows you to track an object in minutes



Mount

The EQ5 is a rugged and sturdy mount that is well machined for accuracy. It comes complete with counterweight, cables and high-precision stepper motors that provide a good platform for small- to medium-sized telescopes up to 9kg (19lb 8oz) in weight. The bubble level ensures the mount can be levelled ready for polar aligning.



Computerised handset

The handset proved very user-friendly with a variable brightness for the red display. The function buttons are large and soft to the touch. Many of the buttons had particular databases preset so you can access them quickly at the touch of a button.

► side of the mount, you can quickly move the telescope without getting the wires tangled up. The main electronics box to which the hand controller and cable attach is movable and it also attaches to any of the legs.

This is where the power supply is connected. The EQ5 doesn't come with a power supply included, and as the motor drives and SynScan computer are quite power hungry it is worth ensuring your supply meets the requirements: a voltage of 11 to 15V DC, and a current of 2 amps with a tip-positive plug.

Now we were ready to attach the optics – a 5-inch f/9.5 refractor equipped with a 25mm eyepiece and a 7x50 finder – via a standard

Vixen-style dovetail joint, and get testing.

On power-up, the hand controller has a clear LCD and shows the current version of the software it uses. This is updatable via the internet, allowing for changes and improvements to the databases and main software. You then get a warning about observing the Sun, before a prompt to input a few basic details like your latitude and longitude, date and time and so on. Once these are set you start the three-star alignment process. You'll find that a good knowledge of star names is useful at this point, as this is the only form of

identification used in the database. It is an interesting way to learn star names, but perhaps the Greek designations for the stars should also be included in the next update for those that don't know that Castor is also called Alpha (α) Geminorum.

The software chooses the stars to use for alignment but you can always override this – not everyone will have an uncluttered horizon. Once aligned, we found that virtually all the chosen stars and objects were within the field of view of the 25mm eyepiece, although some objects did come close to the field edge. Even using the one- and two-star alignment process, we were able to locate the intended object with the finderscope. If you want to make the setup really accurate, it's easy

to make sure the mount is level with the in-built bubble level and properly polar aligned with the optional polar finderscope.

Overall the EQ5 and the SynScan controller gave a new lease of life to our smaller scope. It is easy to carry and it allowed us to give friends and neighbours a quick tour of the delights of the night skies. Sky-Watcher also plans to release an upgrade kit for basic EQ5 mounts as well as the EQ3, so the forward march of the Go-To mounts continues. ☼

VERDICT

BUILD QUALITY	91%
EASE OF USE	92%
GO-TO ACCURACY	86%
STABILITY	91%
VALUE FOR MONEY	90%
OVERALL	90%