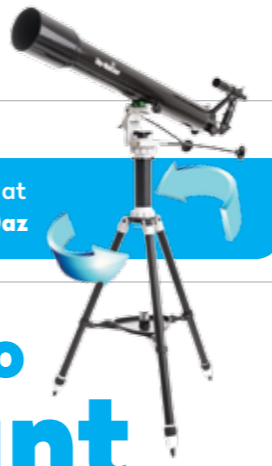


FIRST LIGHT

See an interactive 360° model of this scope at www.skyatnightmagazine.com/evostar90az



Sky-Watcher Evostar-90 AZ Pronto telescope and mount

A complete package with everything you need to start stargazing

WORDS: PAUL MONEY

VITAL STATS

- **Price** £259
- **Aperture** 90mm (3.5 inches)
- **Focal length** 900mm (f/10)
- **Optics** Two-element, air-spaced objective lens
- **Focuser** Single speed rack and pinion
- **Mount** AZ Pronto
- **Tripod** Adjustable legs (78.5-150cm)
- **Extras** 6x30 finder, 25mm and 10mm 1.25-inch eyepieces, 90° 1.25-inch erect-image diagonal, tripod extension tube
- **Weight** 6.25kg (tube 2.4kg, mount and tripod 3.85kg)
- **Supplier** Optical Vision
- **www.opticalvision.co.uk**
- **Tel** 01359 244200

SKY SAYS...

There was no colour fringing noticeable on stars; Altair in Aquila appeared pin sharp across almost the entire view

Entry-level telescopes often get bad press but, given the chance, they can surprise in terms of what they are able to reveal in the night sky. The Sky-Watcher Evostar-90 AZ Pronto is one such instrument. It consists of an achromatic refractor and Sky-Watcher's newest altaz mount, the AZ Pronto.

The refractor has a 90mm (3.5-inch) front lens with two elements to help keep colour fringing to a minimum, although this optical arrangement is not sufficient to eliminate it completely. Its focal length is 900mm, giving it a focal ratio of f/10 – enough light grasp to provide reasonable views of a range of targets, from the denizens of the deep sky to the planets and the Moon.

An erect-image diagonal is supplied, so as a bonus you could also use the telescope for terrestrial viewing too. Two eyepieces are provided, 25mm and 10mm, which give magnifications of 36x and 90x with this scope. A 6x30 straight-through finderscope completes the optical setup, and it gives reasonable views of bright stars, allowing you to navigate the night sky and home in on deep-sky targets through star hopping.

The AZ Pronto mount and tripod system is well made and easy to use. When the locking clamps on each axis are loosened slightly, the mount can be moved manually, and there are smooth slow-motion controls for both axes to help you fine tune onto targets. The slow-motion controls can also be

attached at two different points on each axis, which may prove useful if you ever wanted to replace the supplied refractor with a reflector.

The tripod has an adjustable height range of 78.5-150cm, gives enough support and is reasonably sturdy, without suffering too much from vibration. We also found the supplied tripod tube extension to be a particularly useful inclusion. When viewing targets close to the zenith a refractor's focuser can end up quite low down, but with the extension in place, you don't have to bend down quite so far.

Eagle vision

Aiming at Altair in Aquila, we examined the field of view using the 25mm eyepiece. Altair was nice and crisp at the centre and remained so for around 70 per cent of the view, beyond which some colour fringing and distortion crept in – though the view was acceptable enough.

We then took a tour of some late summer favourites, including the Dumbbell Nebula (M27 in Vulpecula), the Ring Nebula (M57 in Lyra), and globular cluster M13 in Hercules, examining them all with both supplied eyepieces. The wide field of view of the 25mm eyepiece delivered a quite small but still distinctive view of M57 and showed M13 as a hazy glow, whilst the 10mm eyepiece gave a hint of stars scattered across the globular. Turning roughly northeastwards, we homed in on the galaxy pair of ▶

LIGHTWEIGHT AND STRAIGHTFORWARD

A telescope will see a lot of use if it is easy to operate and can be set up without a lot of fuss. The Evostar-90 AZ fits the bill for both: we found it easy to assemble and, at a combined weight of 6.25kg, light enough to lift as a single unit. The mount head and tripod weigh 3.85kg together, the refractor 2.4kg. The scope attaches to the mount head via a Vixen-style mounting bar and is firmly held in place with a single knob, which can be quickly released for ease of transport. This makes it ideal as a grab and go setup to catch breaks in the clouds or take to remote observing sites to view special events or just enjoy darker skies.



FINDER & FOCUSER

The 6x30 straight-through finder is small; the view was acceptable for locating bright targets and star hopping, but a little difficult to use when locating high-up targets. The focuser is a basic rack and pinion design with a locking screw to provide additional tension.



EYEPIECES & STAR DIAGONAL

Two basic but useful eyepieces are supplied, 25mm and 10mm, providing magnifications of 36x and 90x. This is a good range for the light grasp of the Evostar-90 AZ, although a 2x Barlow lens would have been a welcome extra. The inclusion of an erect-image diagonal also allows terrestrial use.

AZ PRONTO MOUNT

The new AZ Pronto mount head has slow-motion controls on the altitude and azimuth axes, and was smooth and easy to operate. It is fitted with a 45mm dovetail bar and can carry a scope weighing up to 3kg. The slow-motion controls can be attached in two positions, suiting either a refractor or reflector.

TRIPOD & EXTENSION

The tripod has telescopic aluminium legs that can be extended and clamped in any position using the integral locks, and they provide a height range of 78.5cm to 150cm. The tripod extension pillar is useful for a refractor when a target is high in the sky, making the eyepiece quite low.

FIRST LIGHT

SKY SAYS...

Now add these:

1. Sky-Watcher 2x Barlow
2. Planetary & lunar filter set
3. Red LED torch

► M81 and M82 in Ursa Major, and both comfortably fitted into the field of view of the 25mm eyepiece. M82 appeared as a thin sliver, M81 as a subtle oval glow.

Over in the east we examined M45, the Pleiades in Taurus, and

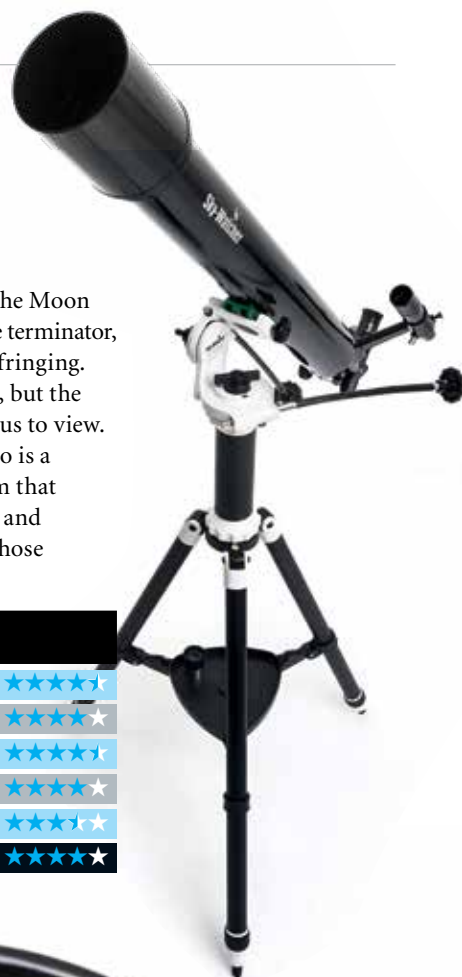
with the 25mm eyepiece it took on the guise of a sparkling scattering of diamonds – we counted 49 of its stars with ease. We even suspected that we could see the Merope Nebula, but sky conditions were not good enough to be sure. To push the optics we turned to the wonderful double star Albireo in Cygnus, revealing the contrasting golden yellow and sky blue of their separated components. We pushed the optics further still by using our own 2x Barlow lens with the 10mm eyepiece, and were able to split triple star Iota

Cassiopeiae into its three components. The Moon appeared crisp, with lots of detail along the terminator, although off axis there was some colour fringing. We also picked out Uranus and Neptune, but the brighter planets were not well placed for us to view.

The Sky-Watcher Evostar-90 AZ Pronto is a simple to assemble and easy to use system that should whet your astronomical appetite, and can also act as a grab and go system for those fleeting moments of clear sky. 📡

VERDICT

| | |
|------------------|-------|
| ASSEMBLY | ★★★★★ |
| BUILD AND DESIGN | ★★★★☆ |
| EASE OF USE | ★★★★★ |
| FEATURES | ★★★★☆ |
| OPTICS | ★★★★★ |
| OVERALL | ★★★★★ |



OPTICS

The scope has a 90mm, two-element, air-spaced objective lens and a focal length 900mm, giving a focal ratio of f/10. The two air-spaced elements help to reduce the effect of colour fringing on targets such as the Moon and bright stars. The dew shield also gave good protection to prevent the lens dewing up.

