

Our experts review the latest kit

FIRST LIGHT

Askar V apo modular telescope kit

A refined refractor with swapable lenses that offers remarkable flexibility

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VITAL STATS

- **Price** £1,798
- **Optics** Triplet apo refractor
- **Aperture** 60mm and 80mm
- **Focal length** 360mm or 500mm
- **Focuser** Dual-speed Crayford with 360° rotator
- **Extras** Reducer, flattener and extender, tube rings and dovetail
- **Weight** 2.86kg or 3.5kg, depending on lens used
- **Supplier** First Light Optics
- **Email** questions@firstlightoptics.com
- **www** [firstlightoptics.com](http://www.firstlightoptics.com)

It's rare to see modular astrographs on the market, so we were curious about the latest addition to the Askar family: the Askar V modular telescope, an optical tube assembly (OTA) with interchangeable lenses. This standard kit offers us both a 60mm ('V60') and an 80mm ('V80') triplet refractor option, plus the opportunity to change between these two focal lengths during a single imaging session.

The Askar V comes with a field flattener, focal-length extender and reducer, each designed for both the V60 and V80 components. This means access to six focal lengths across the combinations. Alone the V60 plus reducer has a focal length of 270mm at a fast f/4.5, which with the extender attached increases to 446mm. The 80mm with reducer has a focal length of 384mm, but with the extender added this increases to 600mm.

We received the entire kit in a smart foam carry case. Unzipping revealed snug, well-padded

compartments for each accessory, with the 80mm lens fitted to the OTA. Our first impressions could not have been better: the build and quality of each element was flawless, and as we inspected each part we noted details that set the Askar V apart from many counterparts. For example, the dust caps were all metal while the lens caps screwed rather than slid on to the lenses. There was also a beautifully machined cover for the fine-focus adjustment knob and even a dust blower for the lenses.

Changing between the lenses couldn't have been simpler: the V80 and V60 screwed onto the main tube. Even better, the flattener, reducer and extender came with the correct spacing for both objectives annotated, so to switch these between the V60 and the V80 we simply had to twist until we hit the correct marker.

Starting with the V60 attached, we headed outside. First, we left the visual back on and did a quick test to check the star field. Despite the wide field, the stars ▶



Optical accessories

Separate flattener, reducer and extenders are provided with the Askar V as standard, with spacings provided for both objective lenses. This means six different focal lengths are available when the reducer or the extender is attached to either objective, while the flattener improves field curvature for each.



SCALE

Tube ring and dovetail

The Askar V comes ready fitted with a wide, robust tube ring that is easy to unclamp from the OTA as needed. A long dovetail bar is provided, which will fit standard equatorial mounts without issue. However, this can also be unscrewed and the shorter foot used to give additional mounting options.



Carry handle and mounting points

Dual-speed focuser

High-precision focusing is key to getting the most from our astrophotos and the Askar V's fine focus helps achieve this. Both focus knobs are beautifully machined and provide a firm but fluid movement with no slack. Meanwhile, the integrated field rotator makes it easy to manage camera orientation throughout an imaging session.

Attached to the tube ring is a handle for safe and secure carrying of the OTA. This doubles as a mounting point for a guidescope – an essential part of many astrophotographers' kit. An additional mounting point to the side of the OTA is supplied for a guide camera or finderscope.



FIRST LIGHT

Carry case

A padded carry case houses the main OTA plus all the standard accessories, making the Askar V easy to transport. Each element is securely housed and Askar has even allowed room for an electronic autofocuser (EAF) – there's a removeable foam section should you wish to add this accessory to your kit.



Quick-change lenses



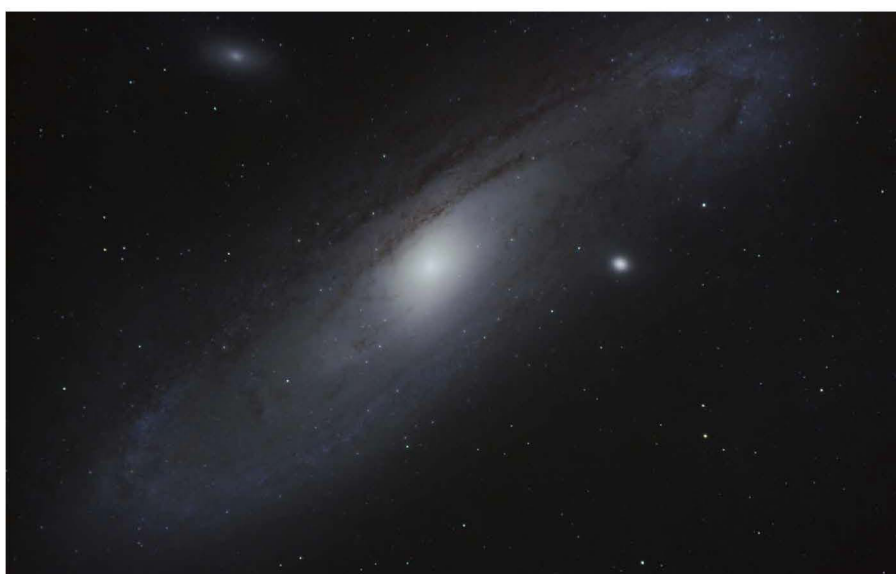
The Askar V is a novel design that comes with two objective lenses as standard. First is the V60, a 60mm-aperture, triplet air-spaced apo refractor providing a 360mm focal length at f/6. Next, the V80 is an 80mm refractor with 500mm of focal length at f/6.25. Both focal lengths are popular for a number of deep-sky imaging targets. The 80mm is an excellent option for shooting large nebulae such as Orion or capturing lunar images. The 60mm will provide the perfect field of view for widefield glimpses of the Cygnus region or comfortably fitting Andromeda in a single frame.

Switching between the V60 and V80 is very simple and can even be done when the OTA is on a mount, easily allowing us to enjoy two different fields of view during a single imaging session, without the hassle of changing telescopes. A visual back also comes supplied, meaning that eyepieces can also be used for some visual astronomy should you want a change of scene.

► A satisfying widefield of the Veil Nebula, using the 60mm V60 lens. Ha and OIII 90' each with a Starlight Xpress H694 camera on board



▼ Switching to the V80 lens and fitting the entire Andromeda Galaxy in the view. Canon 600D, ISO 800, 30" frames, 90' total



► appeared round from edge to edge. We slewed over to the Moon and resolved some pleasing details on the lunar surface. Popping our full-frame DSLR on, we took a few snaps to stack later.

Shoot, swap, shoot

Curious to see how the V80 performed, we swapped the lens and added the extender. Firing off a few frames, the field was extremely flat. Swapping the extender for the flattener was easy: we simply twisted to meet the 80mm marker on its tube and added it between our DSLR and the focuser. It was only when we paired the V80 with the reducer that we noted star bloating in the outer third of the image, although the stars stayed round.

Once we paired the V60 with the reducer we had more noticeable curvature; swapping for our crop sensor variant reduced this. Putting the flattener on, we added our monochrome astro camera and slewed to the Veil Nebula for a night of imaging. Post-processing revealed no noticeable vignette, even for full-frame images. We preferred using the V60 or the V80 with the flattener added, as that's where the Askar V performed best. However, the provided reducer and extenders did offer a fantastic level of flexibility for the price point – a crop sensor over a

full-frame camera is better, if adding the reducer onto the V60 for an extra-wide field of view.

Overall, the Askar V is a great imaging refractor for both amateur and experienced astrophotographers. We did wonder whether the modular design would be gimmicky, but were consistently impressed with the well-considered build and design of every accessory. We could switch objective lenses at a whim, add and remove accessories with little fuss, and felt that each element served a purpose. The ability to access focal lengths from 270mm to 600mm with minimal effort affords a lot of flexibility from a single carry case.

This is an exceptional telescope considering the price point and will delight astrophotographers both experienced and new. One to fully take advantage of during winter nebulae season. 📷

VERDICT

Build & design	★★★★★
Ease of use	★★★★★
Features	★★★★★
Imaging quality	★★★★☆
Optics	★★★★☆
OVERALL	★★★★☆

▲ Adding the included reducer, the V80 lens delivered detailed views of the Moon's disc. Canon 6D, ISO 200, 168x 1/4000s

KIT TO ADD

1. Lynx Astro 30cm dew heater strap
2. Askar 32mm guidescope
3. ZWO ASI533MM Pro USB 3.0 cooled monochrome camera