DAYSTAR T-SCANNER

The T-Scanner is fabricated to the same standards of quality and safety as the world recognized DayStar ATM and UNIVERSITY model H-alpha systems. The T-Scanner requires no power input and is completely portable.

In operation, the T-Scanner takes advantage of the fact that all optical interference filters will shift towards the shorter wavelengths when tilted. Therefore, the filter is fabricated with the passband a few angstroms to the red side of the H-alpha line, i.e. 6565 A. When the control knob is turned, the filter is tilted and the passband (fringe) scans across the solar image showing H-alpha features.

The filter's 30mm (1.18") clear aperture allows full disk H-alpha feature and prominence observations when used with telescopes having focal lengths of 118" and less. Telescopes with longer focal lengths and resulting larger solar image diameter only need to be guided to the solar active area of interest.

When ordering your T-Scanner, request the front cover with the female t-thread.

The T-Scanner requires a nominal f/30 beam. This is accomplished with the Astro-Physics TELECENTRIC BARLOW SYSTEM as described below or with a DayStar red energy prefilter of an appropriate aperture to result in a nominal f30 beam. For instance, if the focal length is 1016mm (as in our 130mm f8 StarFire EDT), an f30 beam is achieved with a 1.3" aperture. (Actually DayStar provides 2" aperture masks for 4" refractors). The full aperture of the 130EDT can be used with our Telecentric Barlow System.

ADVANTAGES:
- Shows prominences and surface features of the sun
- Economical, high quality subangstrom Ha filter from Daystar
- No heating unit, no electrical power is required for the filter
- Does not need time to warm up
- Can be used visually and photographically

CONSIDERATIONS:
- Works best within a specific range of temperatures, this may limit viewing during cold months in northern climates
- Filter is fine-tuned by a tilting mechanism. If the filter is off band, parts of the image may appear out of the pass band

DAYSTAR UNIVERSITY AND ATM H-ALPHA SUB-ANGSTROM FILTERS

Two DayStar H-alpha solar filter series are available. The ATM and UNIVERSITY; both feature 32mm clear aperture.

The ATM model filters are fabricated with instrument quality components and will meet the needs of most amateur solar astronomers. They are designed primarily for visual disk feature observations and prominence photography. Passband tuning is accomplished by a built-in heater which requires 110V AC power.

The UNIVERSITY model filters are fabricated with the finest filtering components and meet the rigid imaging and photographic requirements of professional institutions.

When ordering the UNIVERSITY and ATM filters, specify the female T-thread end plates for both sides. Astro-Physics offers a custom 2" adapter that will allow use of 2" accessories.

As with the T-SCANNER model, the UNIVERSITY and ATM filter requires a nominal f/30 beam. This is accomplished with the Astro-Physics SOLAR SYSTEM as described below or with a DayStar red energy prefilter of an appropriate aperature to result in a nominal f30 beam. For instance, if the focal length is 1016mm (as in our 130mm f8 StarFire EDT), an f30 beam is achieved with a 1.3" aperature. (Actually DayStar provides 2" aperture masks for 4" refractors). Full aperture operation up to 130mm can be accomplished with our Telecentric Barlow system.

Recommendations from DayStar Filter Corporation: If your primary interest is bright prominence, but you also want to know what's happening on the disk, the 0.8 angstrom filter will do the job nicely.

The 0.7 angstrom bandwidth filter is a good intermediate choice. The red prominences stand out briskly against the dark sky and the disk features have good contrast. This filter is the most popular for general work and as a teaching aid.

The 0.6 angstrom bandwidth filter provides excellent contrast and is great for detailed studies of active regions. The prominences are quite visible and easily photographed. A good choice for educators.

The 0.5 angstrom bandwidth filter provides SUPERB disk feature contrast and used with telescopes having one arc-second resolution or better will provide visual and photographic results comparable to professional observatory quality. Prominences are subdued.

NOTE: The bandwidths indicated are maximum.

ADVANTAGES:
- Shows prominences and surface features of the sun
- Can be used visually and photographically
- Polar alignment is recommended but not critical.

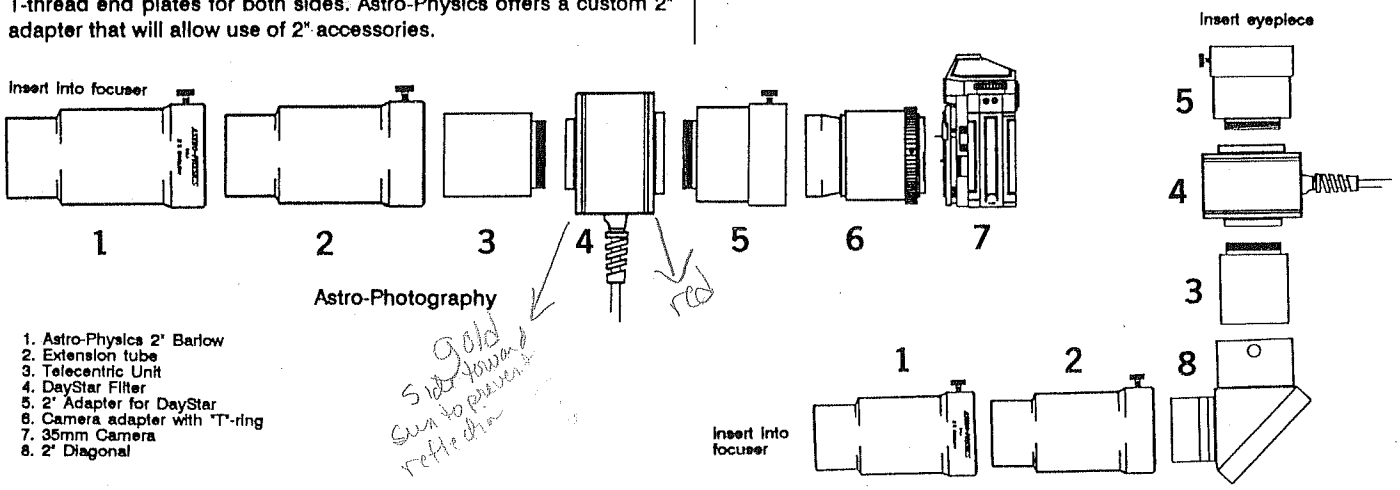
CONSIDERATIONS:
- Requires heating unit powered by AC power source
- Unit may take 1/2 hour to one hour to be on band (depending on temperature)
- More expensive than T-SCANNER

TELECENTRIC BARLOW SYSTEM TO USE WITH DAYSTAR H-ALPHA FILTERS

Normally, the required f30 beam is accomplished by stopping down the aperture of the scope. The Telecentric Barlow System will provide the longer f ratio using the full aperture of your 4" or 5" refractor. Six inch and larger scopes will be limited to 5" (130mm) to allow the full disk of the sun to be seen.

Components of Solar System:
1. 2" Barlow - The Astro-Physics barlow features four baffles machined into the barlow, flat black interior, and a brass locking ring. This versatile photo-visual accessory can also be used for daytime terrestrial viewing and nighttime astronomy.
2. Telecentric Unit - This optical component is used in conjunction with the 2x Barlow to increase the effective focal length and make the light rays nearly parallel for the Daystar Filter.
3. Extension tube with brass locking ring
4. Adapter for DayStar filter which enables use of 2" eyepieces.

Available for: All Astro-Physics refractors



1. Astro-Physics 2" Barlow
2. Extension tube
3. Telecentric Unit
4. DayStar Filter
5. 2" Adapter for DayStar
6. Camera adapter with "T"-ring
7. 35mm Camera
8. 2" Diagonal