



PO BOX 6354, KINGMAN, AZ 86402-6354

PH: (928) 692-8903 - WEB: www.ThousandOaksOptical.com

H-ALPHA PROMINENCE FILTER SYSTEM

IMPORTANT: INSTRUCTIONS MUST BE READ BEFORE USE!

Both the ERF (Energy Rejection Filter) and HAU (H-Alpha Unit) **MUST** be properly attached to telescope before pointing telescope at the sun. You cannot safely look at the sun with the ERF or HAU separately. Looking at the sun without proper filters can damage your eye in a fraction of a second. The ERF also protects the HAU and telescope optics from excessive solar radiation.

FINDER

Looking at the sun without a proper solar filter can damage your eye in a fraction of a second. If you do not have a solar filter for the finder, keep it covered.

MOUNTING THE ERF AND HAU

The aluminum cell with the ERF simply fits over and around the front of the telescope tube. The off-axis version should be mounted with the filter at or near the 12 O'clock position.

The HAU slides into telescope back or star diagonal. Any 1 ¼" eyepiece can be used, however, we recommend starting each observing session with low magnification, then increasing magnification as desired and as "seeing" conditions allow.

OBSERVING

For optimum performance, the system should be used at f/10 and above. The ERF is sized and mounted in a mask designed for each brand and aperture of telescope to increase the effective focal ratio. A Barlow lens can be used if necessary to increase the focal ratio further. A Barlow lens may be necessary to reach focus on telescopes with limited focuser travel since the HAU extends focus approximately three inches.

With eyepiece removed, watch the H-Alpha filter while turning the thumbscrew in both directions. If the thumbscrew is completely unscrewed from the body, simply screw back in using care not to "cross thread." Start observation with filter straight (center of travel). Tilting the filter holder "tunes" the filter to the correct bandpass.

Start with low power and center sun in eyepiece. If no prominence is seen after focusing, slowly turn thumbscrew in either direction. With higher magnification, this procedure should be done on portions of the limb. Activity varies greatly from day to day and even hour to hour. With careful observation, changes can be seen within minutes. An observing cloth is very helpful for blocking ambient light at the eyepiece.

Our system is designed for maximum transmission to allow observation of faint prominence detail not seen with other brands. This also helps with image brightness when using higher magnifications. If the image seems too bright when using low magnification, color or ND filters can be used at the eyepiece if desired.

CARE AND MAINTENANCE

Clean and care for as you would any telescope optic.

IMPORTANT POINTS TO REMEMBER

- Check filters for possible damage before each use.
- Allow telescope and filters to equalize to outside temperature. (At least 15 minutes)
- Direct sunlight may warm the tube assembly enough to cause internal heat currents that can degrade image quality. Cover tube assembly with a light-colored cloth.
- Point telescope away from sun before attaching and removing filters.
- Do not leave telescope unattended where children or inexperienced adults could point it at the sun without the filters properly attached.
- If possible, do not view over pavement or buildings. Viewing over vegetated areas or water will help avoid surface heat currents. In most cases, "seeing" will be better during morning hours.

WARRANTY

The complete H-Alpha system is warranted for two years against defects in material and workmanship. The warranty does not cover accidental damage, abuse or damage to the H-Alpha filter if telescope is pointed at the sun without the ERF attached. Do not remove the H-Alpha filter from the HAU assembly. The filter is specially sealed to keep out air and moisture. Removing the filter from the holder will break the seal and void warranty.