

Lunt Solar CaK Wedge for the LS152T Manual

Safety Precautions:

The Lunt Solar CaK Wedge is manufactured with the highest of optical tolerances in order to provide sharp high contrast images of Calcium on the Sun.

The Lunt Solar CaK Wedge contains a glass prism which has been polished to exact standards. The back surface of the wedge has been coated with a hard dielectric multilayer coating in order to remove any back ghosting from the system. The front has been coated with a hard dielectric multilayer coating that reflects the CaK line up into the eyepiece filter assembly while also passing harmful IR radiation thru to the heat sink.

Note: The heat sink will become very hot during use. Avoid contact.

Those who are familiar with the tolerances required for the manufacture of the etalon internal to Lunt Solar's H-alpha products will appreciate just how precise the first surface prism is. This surface reflects the CaK (393nm) wavelength into the trimming filter assembly. The trimming filters are also precision polished on all surfaces.

The Lunt Solar CaK Wedge contains no user serviceable parts and should NEVER be disassembled. Doing so will void all warranties, could certainly damage the precision glass prism, and may render the instrument dangerous for further use.

The Lunt Solar CaK Wedge is an Optical instrument, and like all optical instruments it needs to be handled accordingly. The instrument should be stored in a dry environment to prevent moisture build up on the glass surfaces. The instrument should never be subjected to sudden shock from being dropped or mishandled.

As with ALL Solar Instruments you should inspect the system prior to use for damage to the optics. Never use a Solar Filter that indicates any sign of damage. If you are unsure, return the instrument to the dealer or manufacturer for evaluation.

As with ALL Solar Instruments you should NEVER leave the system un-attended. Although you may have familiarity to the workings of the system, others do not. Interchanging of parts from a curious bystander could potentially cause harm to them and yourself. Solar Filters only provide 100% safe viewing when used correctly.

The Lunt Solar CaK Solar Prism has a pre-installed trimming and UV/IR safety filters that work in tandem with the Long Wave Pass glass prism. These filters allow for safe viewing thru the instrument as delivered.

Never place a filter in the front nose tube of the Lunt Solar CaK Wedge. The Wedge accepts 100% of the Sun's spectrum thru the nose of the instrument this includes ALL Infra-Red (heat). Placing an accessory in this light path may cause irreversible heat damage to the accessory including cracking or breaking.

When putting accessories onto an eyepiece (ie: barlow), make sure they do not contact the internal filter at the base of the eyepiece holder.

Damage to the internal filter will require a return visit to the factory for repair.

The Lunt Solar CaK Wedge should ONLY be used on Refracting Telescopes. Do not use the Lunt Wedge on mirror based systems. Mirror based systems can be severely damaged due to the concentrated heat load to the secondary mirror. In addition, the Lunt Solar CaK Wedge may overheat due to the heat captured by these typically large aperture systems.

General Information:

Thank you for reading and understanding the Safety Precautions...

The Lunt Solar CaK Wedge provides superior views of the Sun at a wavelength of 393nm.

The Lunt Solar CaK Wedge is designed to replace the standard diagonal at the rear end of your refracting telescope. Unlike front mounted filters the Wedge transmits a safe level of narrow spectrum light providing high contrast views.

The Lunt Solar CaK Wedge contains a fully integrated heat trap. The heat is allowed to pass thru the prism and is directed to the rear end of the Wedge. At the rear of the Wedge you will note a red disk. This disk serves to absorb the heat and prevent internal reflection of the residual light. The fins act to pull cooler air thru the rear part of the system as the heat sink heat up. This convection will keep the heat sink from getting too hot.

- Never place anything over the rear of the Wedge that will prevent the flow of air around the heat sink.
- The heat sink is designed to accept the heat load of the system and may get very hot. Do NOT touch the heat sink. Do NOT place the Wedge back into its case until the heat sink has cooled.
- Do NOT remove the heat sink. The heat focused to that area may burn if the heat sink is removed.

To Use:

Provided:

- One Lunt Solar CaK Wedge
- One Crayford style focuser
- One adapter for the LS152T
- One 2" to 1.25" eyepiece reducer
- One re-enforced case with fitted foam insert

The LS152T is a modular telescope that can be used in various configurations allowing for views in Hydrogen-alpha, Calcium-k, White Light, and Night time observing.

The LS152T is delivered with the Hydrogen-alpha module assembled into the rear of the OTA. This module is recognized as the red housing with the pressure tune assembly attached. The Hydrogen-alpha module can be removed by loosening the three aluminum thumb screws between the module and the rear of the OTA.

Warning: *Do not remove any module from the rear of the LS152T while it is pointed at the Sun. Doing so will expose the user to the full focused beam of the Sun thru the telescope.*

The Hydrogen-alpha module is heavy. Make sure you have a firm grip on the module before loosening the thumb screws. Once the screws are loosened, the Hydrogen-alpha module will slip back and out of the OTA assembly.

The adapter plate/focuser assembly can now be inserted into the rear of the LS152T OTA. Hand tighten the 3 thumbscrews.

Place the Lunt Solar CaK Wedge into the rear end of the refracting telescope prior to pointing it at the Sun. This will prevent the focused rays thru the refractor burning you or your clothes while trying to install the instrument.

Point the Telescope at the Sun and align.

The Lunt Solar CaK Wedge is ready to accept any eyepiece or additional accessories at the eyepiece end.

When imaging the Sun thru the Lunt Solar CaK Wedge you must attach an eyepiece barrel to the imaging device. Do NOT attempt to remove the eyepiece holder.

Warning: Never place any accessory in the "nose" of the Lunt Solar CaK Wedge assembly. The focused rays are very hot and may cause damage.

Questions and comments can be directed to sales@luntsolarsystems.com