# <u>Manual</u>

# Ca-K Module for LS130MT-Telescopes

Congratulations and thank you on your purchase of a Lunt Solar Systems instrument! The Lunt Solar Systems are a new generation of solar viewing instruments utilizing the most current technologies to provide the highest quality contrast and resolution in their class.

#### **Warning**

There are inherent dangers when looking at the Sun thru any instrument. Please note the safety instructions in the manual of your LS130MT telescope.

Warning: Do not remove any filter module from the LS130MT telescope while it is pointed at the sun!

#### Handling and Cleaning

Please also note the relevant instructions in the manual of your LS130MT telescope. These also apply to the Ca-K module.

#### The Ca-K Module for LS130MT Telescopes

This module was designed especially for the LS130MT telescope. The Lunt Solar Systems LS130TCaK module is manufactured with the highest of optical tolerances in order to provide sharp high contrast images of the sun in Ca-K wavelength. The module contains a glass prism which has been polished to exact standards. The back surface of the prism 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 Ca-K line up into the trimming filter assembly that also holds the eyepiece. This filter assembly contains trimming and UV/IR safety filters that work in tandem with the glass prism. These filters allow for safe viewing thru the instrument as delivered.

### Please note:

The Ca-K module contains a fully integrated heat trap. The heat is directed by the prism to the rear end of the module. At the rear of the module you will note a red disc. This disc serves to absorb the heat. The fins act to pull cooler air thru the rear part of the system as the heat sink heat up.

Note :The red disc with the heat sink at the rear end of the module will become very hot during use. Avoid contact.

Never place anything over the rear of the module that will prevent the flow of air around the heat sink.

Do not remove the heat sink.

Do not place the module back into a case until the heat sink has cooled.

The Ca-K module contains no user serviceable parts and should NEVER be disassembled. Doing so will void all warrantees, could damage the precision glass prism, and maybe render the instrument dangerous for further use.

Never place a filter in the front nose tube of the module. The module 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.

The Ca-K module is designed only for use with a LS130MT Solar Telescope.

The Ca-K wavelength is at the edge of the visible light spectrum for human eyes, so for many people visual observing is difficult. However, all details could be captured photographically. Therefore the Ca-K Module is optimized primarily for imaging.

## Installation and use of the Ca-K module

The Calcium-K (Ca-K) module is an upgrade for the normal LS130MT solar telescope. Simply convert the LS130MT as described in the telescope manual under "For night sky observing without H-alpha unit".

**Please note:** For the LS130MT/B3400 is the conversion kit 0551696 or a new 2" Feather-Touch focuser needed! Only LS130MT/B1200 and LS130MT/B1800 can be converted directly without further accessories.

After converting the telescope, you can simply insert this Ca-K module into the focuser of the LS130MT instead of a star-diagonal, and then insert an eyepiece or a camera into the Ca-K module. Now you can point the telescope to the sun and start observing the sun in the Ca-K wavelength. There are no further filters required.





#### What is delivered with the system?

- Ca-K module designed only for LS130MT telescope
- Instruction manual

Lunt-Solar-Systems - Exclusive European Distributor
Bresser GmbH
Gutenbergstrasse 2, D-46414 Rhede, Germany
Phone: +49 (0) 2872 – 80 740
E-Mail: info@bresser.de
www.bresser.de