

Herschel Wedge Solar Prism 2" ♦



The **New Baader Planetarium 2"** Herschel *Safety* Wedge Solar Prism offers the finest white-light solar views obtainable. The Herschel wedge prism provides safe full-aperture solar views without any image degradation. Views are noticeably superior in resolution and contrast to even the very finest and most expensive glass objective solar filters and films. The amount of Sunspot detail and surface granulation will surprise even the most experienced solar observer. The solar disc is set against a jet-black sky, like observing the full moon at night! A further benefit is the true unfiltered nature of the spectrum passed by the filter. Unlike all objective solar filters, the Baader Herschel Wedge does not selectively filter any of the visual wavelengths. This provides a true white-light view, and permits the use of additional eyepiece filters to selectively study any bands desired, without the compounding effects of a pre-filter.

The Baader Safety Herschel Wedge is the finest solar wedge we have ever used. Utilizing a precision 2" **Zeiss** wedge prism and proprietary Baader design, the Baader Safety Herschel Wedge maximizes image contrast and sharpness. The large first-surface Zeiss prism also permits full-disc photography and imaging with no vignetting. As supplied, a special precision polished Baader ND=3.0 filter is permanently pre-installed in the wedge (it **MUST** be present for any and all visual observation). Three additional precision 2" neutral density filters are included, to use with eyepieces or 2" reducers, to permit further dimming of the image to the observer's taste.

New Our latest version incorporates an innovative Light Trap developed by Baader Planetarium. This development takes the Herschel Wedge into the 21st Century, by rendering the output energy cool and diffused! In all other herschel designs, the waste energy is simply deflected out of the rear face of the prism by an angled mirror. Though quite safe in typical use, the user still had to be aware not to place any object into this output beam (and to prevent any casual onlooker from carelessly staring up into the beam). Thanks to Baader Planetarium, this concern has now been completely removed. In place of the typical output mirror is a special coated multi-layered perforated steel screen. The bright light and heat energy are harmlessly diffused. Even after prolonged observations through large refractors, the light trap remains cool. You can even place a hand below the output and no heat can be felt (also, no tempting or hazardous bright output for careless eyes to see).

Please Note: The Herschel Wedge is *only* recommended for use with refracting telescopes, **NOT** Schmidt-Cassegrain, Maksutov, or any other Reflecting Telescopes. This is a professional-quality white light (not H-Alpha) solar filtration system, whose basic design has existed for almost

as long as the telescope itself. Like glass or mylar film objective solar filters, it is completely safe if used properly and common sense precautions always observed.

- **Baader Herschel Wedge Solar Prism 2"**, (#HERSCH)

Herschel Wedge Accessories: Polarizing Filters

A particularly handy attribute of the Herschel Wedge is its partial polarizing effect on the solar image. This permits a very convenient means of variably adjusting the image brightness, simply by using a polarizing filter between the Herschel and Eyepiece. The filter/eyepiece combo can then be rotated, and the image is variably dimmed. We find this very useful, to easily find the optimum brightness for maximum contrast at any magnification.

We sell two sizes of Polarizing filters for use with the Herschel. The 1¼" version can be threaded onto an eyepiece directly. The 2" can, of course, be attached to a 2" eyepiece. For the ultimate in convenience, we recommend the 2" Polarizer attached to a [T2-15](#) (2"/1¼" reducer). This allows you to conveniently switch between 1¼" eyepieces without removing the filter.

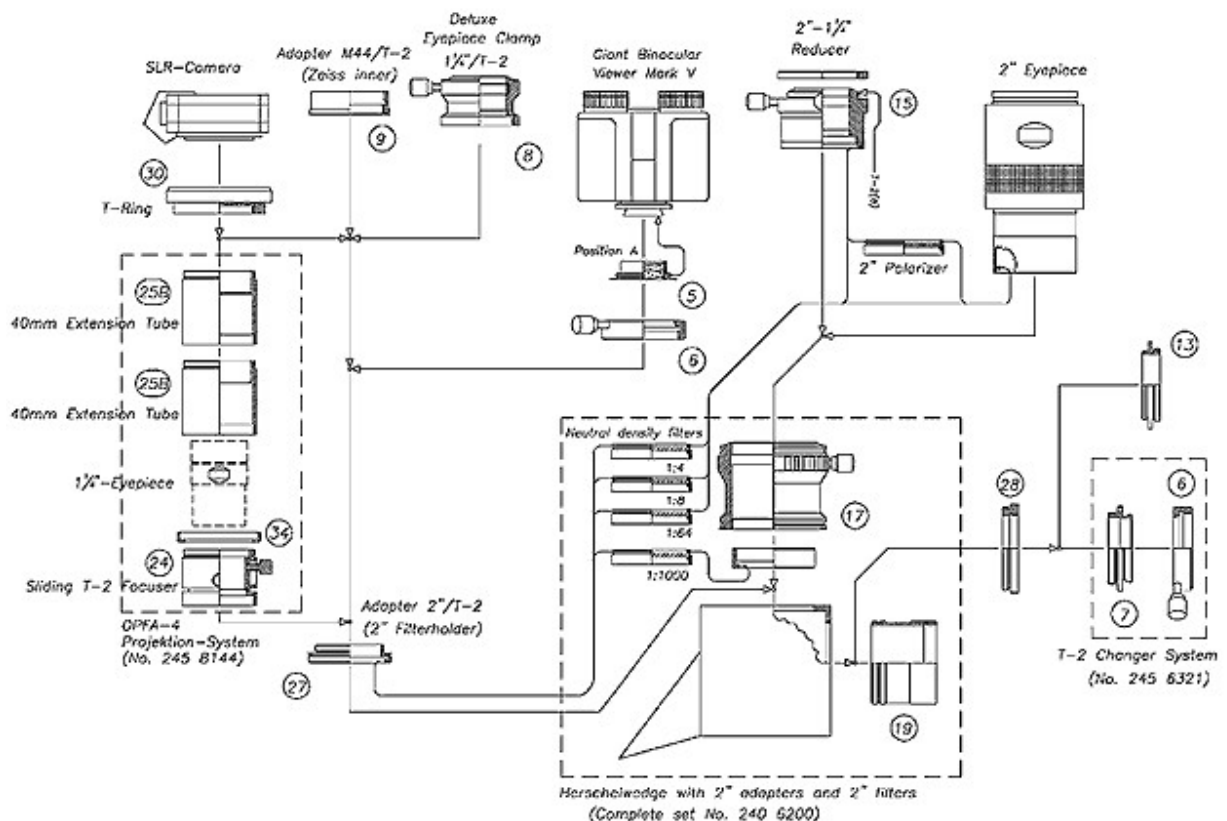
- **Baader Polarizing Filter, 1¼"** (#FPOL-1)

- **Baader Polarizing Filter, 2"** (#FPOL-2)



Herschel Wedge Information

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Herschel Wedge and Astro T-2 System Schematic

(click on image for larger version)

The above schematic shows layouts possible with the Baader Herschel Solar Wedge. Please note, removal of the ND=3 (1000:1) filter cell is not recommended.

*** Please read the following important Safety Information ***

Baader Planetarium Safety Herschel Wedge, Safety Precautions

A Herschel Wedge Solar Prism is a professional tool for the serious Amateur, and delivers the absolute finest true white light high-resolution and high-contrast views possible from your telescope. The first surface uncoated reflective design results in a pure white light view, with no selective filtration, permitting you to see solar detail in the natural color or to permit further selective filtration in any wavelength desired. The Baader Planetarium Herschel Wedge Solar Prism is, in our opinion, the finest ever produced, using a Zeiss prism and other proprietary

features to reduce scattered light to an absolute minimum. The solar disk will be seen against a jet-black background with granulation, spot detail and fine contrasts that you never imagined.

As with any solar viewing system (including glass or mylar objective solar filters), the Herschel Wedge Solar Prism requires responsible handling. Herschel wedge prisms have been used by professionals and amateurs for many years, and are quite safe if some care and precautions are always observed. Be sure to read and understand all precautions before placing the prism into use. If you have any questions or doubts, please contact the manufacturer - **Baader Planetarium** (www.baader-planetarium.de). Safety warnings are also listed on the Warning Plate found on the side of the prism. Please do not remove this plate.

Precautions:

1. NEVER remove the 1:1000 (D=3) neutral density filter. This filter is absolutely required for all visual use of the prism. The filter comes already pre-mounted from the factory at the front of the 2" eyepiece holder, and is permanently fixed into the holding cell. Important: Before each and every use, check to ensure that the filter is in place and securely mounted in the prism (also not loose, cracked, or broken).
2. The Baader Light Trap renders the output beam harmless to the touch or sight. Please ensure the light trap screen is in place before each use, and encourage onlookers not to poke at or insert any objects up into the output area. The energy from the prism still must first contact the screen, and a careless prodding finger can possibly be inserted into this narrow region where the beam still has enhanced intensity.
3. Never leave the telescope outside unattended during use (a requirement for any solar viewing with any solar filtration device).
4. Prior to using any long accessories (barlows, etc) please first check and ensure that they do not protrude so far as to contact the internal 1:1000 neutral density filter. This will prevent the possibility for damage to the filter.

General Use:

1. As supplied, the prism is ready for use. The 1:1000 filter (D=3) neutral density filter that comes permanently mounted in the prism is absolutely required for safe use.
2. Though not required for safe viewing, we also recommend adding one of the additional neutral density filters provided, onto your eyepiece or eyepiece reducer (never at the front input of the prism). This will reduce the intensity for best viewing and contrast.
3. A polarizing filter may also be used on the eyepiece to provide variable adjustment of brightness (the Herschel prism is partially polarizing). By rotating the eyepiece, you can easily adjust the intensity to your taste.
4. Only use the Herschel Solar Prism with refracting telescopes. Reflecting telescopes may be damaged by the concentrated energy at their secondary mirrors.
5. When using auxiliary optics (barlows, telecompressors, etc), always place them After the Herschel - Not Ahead of the Herschel. Any optic placed ahead of the Herschel would be exposed to unfiltered solar energy and may be damaged by the potential heat buildup.

last updated 04/17/04

◆ **Solar Continuum Filter** ◆



The new Baader Solar Continuum filter is designed to enhance the visibility of solar granulation and sunspot details. By transmitting a specific spectral region around 540nm, free of emission and absorption lines, the Solar Continuum filter is able to boost contrast and reduce the effects of atmospheric turbulence. With the Solar Continuum filter in place, images snap to focus, and granulation becomes regularly visible. Details at the limit of visibility become easier to hold, and image motion reduced.

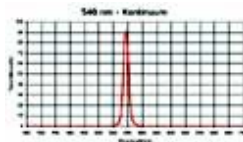
The Solar Continuum filter works well in all types of telescopes, for both visual and imaging. Users of SCTs and achromatic refractors will find it particularly beneficial, as it completely excludes the red and blue wavelengths, and centers on the peak visual wavelengths where the telescope optics are sharpest and free from chromatic aberrations. For digital imaging, we also recommend the Continuum filter be combined with our [UV/IR Cut Filter](#) (to completely cut the defocused far infrared wavelengths).

The Solar Continuum filter also makes the perfect star test filter. Its narrow bandpass and complete blockage of longer and shorter wavelengths make it superior to standard green colored filters for testing refractors at their center design wavelength (and peak visual wavelength). With this filter, more accurate appraisals of optical quality can be made, without the effects of spherochromatism or secondary color error. Due to the narrow 10nm bandpass, star testing through the Solar Continuum filter will require a bright test star.

As with all Baader Planetarium Filters, the Solar Continuum possesses all the trademark Baader filter qualities. Optical, Physical, and Mechanical quality are superb. For a summary of filter features, please see the [Filters](#) page.

Please Note: For safe use, the Solar Continuum filter **must** be used in conjunction with a primary solar filter (ie, Herschel Wedge Prism, or Baader AstroSolar Film). It must be placed After the primary filter, and cannot be used alone, or permanent eye and equipment damage will result.

Please click on the image below for a typical transmission curve:



[Solar Continuum Filter Transmission Curve](#)

- **Baader Solar Continuum Filter, 1 1/4"** (#FSOL-1)

- **Baader Solar Continuum Filter, 2"** (#FSOL-2)