AstroShop.com.au – technical tip sheet

Most people know about the famous Baader visual and photographic solar safety aperture films that can be cut to size and simply sticky taped in the inside of a telescope dew cap where a centre or off-axis capped hole is provided (eg. Sky-Watcher telescopes) However, for custom and / or budget requirements, the diagram below is a simple guide for those who wish to make their own safe solar aperture filter for a given telescope using this highly affordable, safety approved, white light material solar films. Depending on the physical dimension of the front of your telescope, you can easily calculate the rest to make a low-cost aperture filter to suit your needs as below.

1. Measure the front of your telescope across the centre from one side to the other.
2. Determine within this diameter, how wide you want the film to extend. (**smaller is often better for managing daytime atmospheric turbulence **)
3. Grab a large piece of cardboard... even the side of a big box cut out with a razor sharp knife. If you don't own a drawing compass to map out the circles needed to cut away (see **1,2 and 3**), use a dish or bowl closely matching the diameters you need to cut and mark them out with a pencil or pen.
4. Cut out the circle for the overall filter mount **(1)** with a Stanley knife or similar. Then cut our carefully the inside section **(3)** aperture hole where the Baader solar film will be placed.
5. Using a ruler edge from one end of the out diameter of **(1)** to the other, mark out some lines on either side where the flaps are to be cut all around this area then cut to the outside edge of **(2)** with scissors.
6. Place over the front of your telescope and fold down each flap then run some strong adhesive tape around the outside to ensure a firm and secure fit.
7. Mark out a circle of you Baader Astro Safety solar film to match the outside diameter of **(2)** the carefully cut with sharp scissors and tape this at all edges on the inside of your cap.

Cut lines with scissors just to the outside diameter to create flaps that can fold back over the front of the telescope. Run some strong masking tape around these folded down flaps of cardboard for a secure fit over the front of the telescope.

BAADER SOLAR SAFETY FILM

(3)
Aperture of solar film
This can be whatever practical aperture size you

5cm

(1)
5cm overlap

(2)
Outside diameter at front of telescope

5cm