

# Operating Instructions

**omegon**



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***Caution: always read these instructions and the safety notice before using the solar filter!***

***Omegon® Solar Lens Filter***

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## **Omegon Solar Filter®**

*Thank you for choosing a solar lens filter. This is a universal guide for all Omegon solar filters. You can, for example, observe the Sun in white light and see sunspots and flares. Please read the safety notice before use, as the solar filter must always be attached to the front of the lens and may never be installed in any other position.*



### **Safety notice**

**Caution, danger! Never look through your telescope without a solar filter, as this can lead to blindness! For observing safely, the solar filter must be installed in front of your optics' lens and be held securely in place.**

### **1 Before observation**

**1.1** Routine safety check: make sure that the solar filter is not damaged before use. Hold it to the light (not to the Sun!), or to a bright light source, such as a lamp. Before every use, check for holes, uncoated areas, or small cracks on the solar filter surface. Only use the solar filter if there is absolutely no evidence of damage. Note: a ripple on the surface of a foil filter is normal and not a defect.

**1.2** Storage: always handle the solar filter carefully and avoid touching the filter surface with your fingers. Be careful of scratches, for example from metal adapters or other hard or pointed objects. Therefore, always store the filter separately in a stable container, and not with other components.

### **2 Installation on a telescope or other optics**

**2.1** When setting up your telescope, remove the dust cap, but do not immediately point the tube at the Sun. Caution: never point at the Sun without a solar filter.

**2.2** With both hands, carefully attach the filter to the lens on the front of your telescope. Make sure that the filter is held securely in place, and cannot be blown away by a gust of wind.

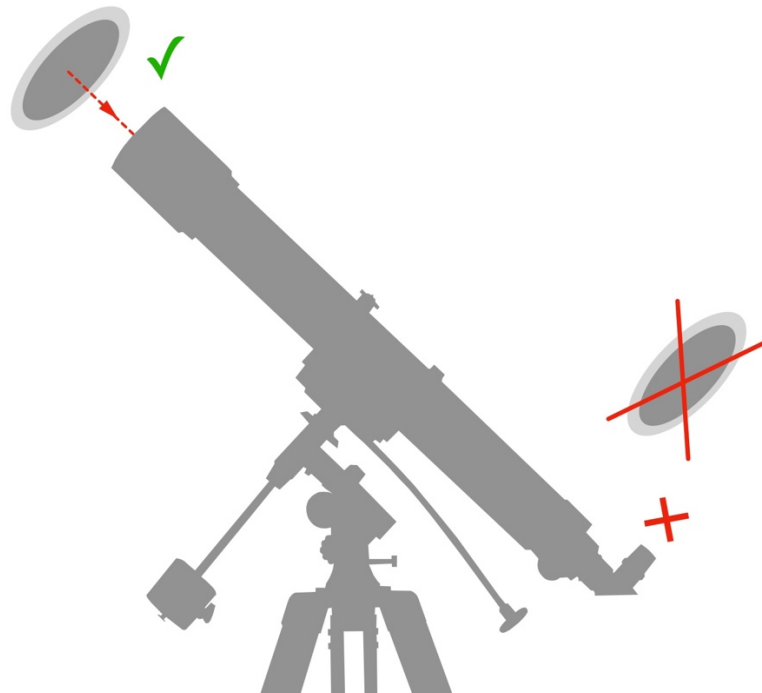


Figure 1: The solar filter is attached to the front of the lens.

### 2.3 Procedure if the solar filter does not fit exactly onto the tube.

For models that are attached over the outer wall of the tube: reduce the inner diameter of the filter by inserting an additional strip (e.g. a foam rubber strip) to the inside of the frame. If you have any difficulties with the accuracy of the fit, please contact one of our expert advisers.

2.4 Note: if you chose a filter that is too small, it will not cover the telescope's aperture and will leave a gap. In this case, do not use the filter.

2.5 If you have chosen a foil filter, you may see ripples on the surface. This is normal and does not affect the quality of the image.

## 3. Observation with a solar filter and telescope

3.1 Check once again that the solar filter is securely attached to the telescope lens.

3.2 Remove your finderscope.

3.3 Point your telescope at the Sun (without the finderscope) and insert an eyepiece with a short focal length.

3.4 Look at the shadow cast by your telescope, and move the tube in both axes until the shadow is small and circular. Now look through the eyepiece and centre the Sun that should now be visible in or near to the edge of the eyepiece. If you have difficulty finding the Sun, we offer special solar finders in our product range.



Figure 2: AST solar finder #57929



Figure 3: TeleVue solar finder #14700



Figure 4: Geoptik solar finder #44564

3.5 When you have finished observing, turn the telescope tube away from the Sun before removing the filter from the lens.

#### 4. Overview of safety instructions

4.1 Never look at the Sun with a telescope, binoculars or similar without a solar filter attached to the lens. Observing without a solar filter leads to immediate blindness.

4.2 Always attach the solar filter to the lens of your optics and make sure that it cannot be blown away by a gust of wind.

4.3 Never look through a finderscope without a solar filter attached to the finderscope lens. An unprotected glance through a finderscope leads to the immediate destruction of the retina. In addition, the concentrated light can cause severe burns if it reaches the skin. For safety, remove the finderscope from the telescope tube.

4.4 Check the solar filter for damage before every observation.

4.5 To avoid damage, keep the solar filter away from light and away from sharp objects.

4.6 This filter **is not** intended for use on an eyepiece.

4.7 For visual observation, only use solar filters with optical density ND of 5. Filters with lower optical density should not be used for visual observation.

4.8 If your eyes are very light sensitive, or if you have eye disease, check with your doctor before observing the Sun.

4.9 Never allow children to observe alone: observing the Sun should always be carried out in the presence of a trained adult.

4.10 After observing the Sun for a few minutes, take a short break before looking through the eyepiece again.



#### Safety notice

**Only a correctly attached and faultlessly-functioning solar filter can ensure that your observation of the Sun is safe.**