

Orion® Oxygen III Filter

#5581 1.25" model

#5582 2" model

The Orion Oxygen III (OIII) filter is an extremely narrowband filter that transmits a less-than 15nm wavelength region of the visual spectrum. This region corresponds with the two doubly-ionized oxygen lines (at 496nm and 501nm) produced by certain types of nebulae. When the OIII filter is threaded onto an eyepiece and used to visually observe one of these nebulae, the image contrast will be greatly increased. You'll be able to observe details you would not normally see!

Since the OIII filter rejects all visible light without a wavelength between 490nm and 505nm, it should be used only to view OIII emission nebulae, such as the Veil Nebula and the Helix Nebula. Other objects will literally disappear when the filter is employed.

Using the OIII Filter

To use the OIII filter you will need to thread it onto a 1.25" (#5581) or 2" (#5582) eyepiece that can accept threaded filters. Any Orion eyepiece will work. Simply thread the filter onto the eyepiece



barrel until it is finger tight. Then place the eyepiece into the telescope and bring it into focus.

It is recommended to find and center the OIII emission nebula in your eyepiece before adding the filter. The filter will dim stars so greatly that it will be hard to locate the nebula otherwise.

Be aware that the filter imparts a green tint to objects being viewed through it. This occurs because the filter only transmits light with a wavelength between 490nm to 505nm, which corresponds to the color green. Since color cannot generally be seen in nebulae anyway, the bit of added green tint will not detract from the view.

Storage and Cleaning

When not in use, the OIII filter should be kept in its plastic case. Given proper care and storage, the filter will last a lifetime.

Any quality optical lens cleaning tissue and optical lens cleaning fluid specifically designed for multi-coated optics can be used to clean the glass surfaces of your filter. Never use regular glass cleaner or cleaning fluid designed for eyeglasses.

Before cleaning with fluid and tissue, blow any loose particles off the surfaces of the filter with a blower bulb or compressed air. Then apply some cleaning fluid to a tissue, never directly on the optics. Wipe the lens gently in a circular motion, then remove any excess fluid with a fresh tissue. Oily fingerprints and smudges may be removed using this method. Use caution; rubbing too hard may cause scratches.

