

CELESTRON 93669 Nebula Filter for Origin Owner's Manual

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PARTS LIST

- Nebula Filter
- Spectral Transmission Graph
- Plastic Case

The Nebula Filter for Origin allows you to take spectacular images of nebulae from heavily light polluted locations. This filter transmits the key emission wavelengths at 656nm (H- α), 486nm (H- β), and 496nm/ 501nm (OIII) while blocking all other wavelengths of light. The filter blocks the "bad" light from light pollution, allowing only the "good" light from nebulae to pass through. You'll notice the most dramatic improvement under light polluted skies, but you'll also see some improvement in contrast under dark skies, as the filter also blocks natural skyglow.

We don't recommend using the Nebula Filter for imaging broadband emission objects such as stars, star clusters, and galaxies. These objects emit light at a range of wavelengths throughout the visual spectrum. The Nebula Filter will block too much light to be useful in most situations. Origin's fast f/2.2 optical system means that light rays approach the focal plane at steeper angles than they do with other telescope designs. We designed the Nebula Filter for Origin with this in mind. Unlike other filters with narrower FWHM bandwidths, this filter achieves maximum light transmission at the desired wavelengths.

Celestron Quality Assurance carefully tested this filter at the factory to measure its spectral transmission. You'll find the test results for your specific filter included in this package.

INSTALLING THE FILTER IN ORIGIN

The Nebula Filter replaces the clear filter that is pre-installed in Origin's filter drawer. Replacing one filter with another that has the same thickness maintains optical performance, as no extra glass is introduced into Origin's fast (f/2.2) optical system.

WARNING: When removing and installing filters, avoid touching optical surfaces or you may leave fingerprints. Handle the filters by their cells only.

- 1. Remove Origin's lens shade to access the filter drawer. If you are unsure how to do this, consult the Origin instruction manual.
- 2. Remove the filter drawer from Origin by grasping the drawer's handle and gently pulling it until it releases from the magnets that secure it in place. Origin's clear filter will be installed in the drawer.



- 3. Carefully grasp the edge of the clear filter's cell and rotate it counterclockwise. Completely unthread and remove the clear filter from the drawer. Store the clear filter in the case included with the Nebula Filter when not in use.
- 4. Install the Nebula Filter by fully threading its cell clockwise into Origin's filter drawer. Refer to the picture below for the proper orientation of the filter in the drawer. If it is threaded into the wrong side of the drawer, the drawer will not seat properly inside Origin.



- 5. Place the filter drawer back into Origin. Reinstall the lens shade. The NebulaFilter is now ready to use.

 After you have installed the Nebula Filter, you'll need to refocus Origin. Youcan do this with a single tap in the Origin app or using the Origin PC software.
 - If you wish to remove the Nebula Filter from Origin (to image a star cluster orgalaxy, for example), be sure to reinstall the clear filter (and refocus). If youdo not reinstall the clear filter, Origin's optical performance will be somewhatdegraded.

CARE AND CLEANING OF THE FILTER

Avoid touching the optical surfaces of the filter. Handle the filter by its cell only. Keep the filter in its plastic case when not in use. If the filter remains installed in Origin, keep the dust cover on. If needed, remove dust with a blower bulb or an optical cleaning brush. If the filter must be cleaned, apply a few drops of optical cleaning solution to an optical grade tissue. Gently wipe one small area at a time. Do not rub. Use a new tissue and solution for each wipe.

Filter Glass	Schott B270
Glass Thickness	2.0mm
Filter Diameter	25mm
Clear Aperture	24mm
Coatings	Dichroic multi-bandpass and multi-layer antireflection coatings
Filter Cell	Aluminum, black anodized
Filter Threads	M28.5 x 0.6
Height of cell	6mm total (4mm shoulder height, 2mm thread height)

This product is designed and intended for use by those 14 years of age and older.



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Documents / Resources



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93669 Nebula Filter for Origin, 93669, 93669 Filter for Origin, Nebula Filter for Origin, Nebula Filter, Origin Filter

References

- Celestron Telescopes, Telescope Accessories, Outdoor and Scientific Products
- <u>Calestron</u>
- Marranty | Celestron

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