1.25" Orion® Jupiter Observation Filter

#5188

Congratulations on your purchase of an 1.25" Orion Jupiter Observation Filter! Below we offer some quick tips on using and getting the most from your purchase.

WARNING: NOT intended for solar observation.

Introduction

Jupiter is a great target in any telescope! Jupiter is the third brightest object in the night sky, only the Moon and Venus (depending on its phase) are ever brighter. After the Sun and the Moon, Jupiter is the most detailed object to observe in the sky. (*CAUTION:* Observe the sun only with the proper solar filters; the Jupiter Observation Filter is NOT a solar filter by itself!!!)

Jupiter provides an interesting object to observe in any telescope; but like all celestial objects, the bigger the telescope, the better the view you usually have of detail on Jupiter. Binoculars can usually show you the four brightest moons of Jupiter, but with a big telescope, say 10 inches in diameter or larger, you can sometimes spot detail or shape on the moons of Jupiter during periods of truly excellent "seeing." It usually takes a telescope of about 100 mm diameter to start seeing some of more subtle detail on Jupiter and at least an 8-inch to really start pushing the limits of what the eye alone can see on Jupiter.

So grab your telescope and take a look at Jupiter, there are amazing sights to be seen nearly every night that Jupiter is visible, and the Orion Jupiter Observation Filter will help you make the most of your observing sessions.

In the Box

Inside the shipping container you will find a foam-lined, plastic case. Inside will be the Orion Jupiter filter.

Quick Use Guide

The Orion Jupiter Observation Filter has a metal cell, the end of the cell is threaded to accept the matching threads on the inside barrel of every Orion 1.25" eyepiece. The threads match most other eyepieces as well.

To install the Orion Jupiter Observation Filter, simply remove the filter from its case and thread the filter into the bottom of a 1.25"eyepieces (also called an "ocular"). Insert the eyepiece into the telescope and focus on Jupiter.

Compared to viewing without the filter, you should notice an immediate increase in contrast of Jupiter's main equatorial belts (there are two prominent belts, one on each side of Jupiter's equator – they are the major features on Jupiter; they can fade or deepen in intensity with time) and Jupiter's famous "Great Red Spot" should also be more pronounced with this filter! Note, since Jupiter rotates very rapidly (just under 10 hours!) some evenings the Great Red Spot is visible and sometimes it is not. With this filter you can more easily watch the Great Red Spot move across the face of Jupiter.

Notes and Discussion

Keep the plastic case! Store the filter in the case between observing sessions in the case to keep it dust free. Dust is the enemy of contrast (the ability to discern detail) when you are trying to observe fine details on Jupiter.

Use an Orion cleaning kit (such as Orion part number 5832) or clean compressed air to keep the surface of your

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eyepieces and filters clean of dust and fingerprints for best results.

The Orion Jupiter Observation Filter works with any telescope, from a 50mm beginning refractor to a 36" yard scope and beyond! The details you see however will be better with larger telescopes. As important as the size of your telescope are the seeing conditions the night you view Jupiter. Astronomers call the steadiness or viewing quality, "astronomical seeing" or simply "seeing." Nights of good seeing show lots of detail and very still or steady images; nights of poor seeing show an object that seems to be "boiling" as you look through turbulent air.

Let your telescope "equilibrate" or adjust to the nighttime temperature for best results – you will be able to see Jupiter if you grab your telescope from your heated den and rush outside; but the details will be better if the telescope can reach the same temperature as the nighttime air. This can take an hour or longer, depending on the size of the telescope and the temperature difference.

Also, the collimation of your telescope has to be good if you want the best performance of any filter or eyepiece. Refractor owners can essentially ignore this requirement, since refractors hardly ever go "out of collimation." If you have a Newtonian design reflector, see our video on how to check and collimate your telescope: http://www.telescope.com/Video-Gallery/How-To/How-To-Collimate-an-Orion-Reflector-Telescope/pc/-1/c/190/sc/214/p/99861.uts

Unlike deep sky objects, you can observe Jupiter at any time it is above the horizon at night – the full moon won't disturb your view, unless the moon is very close to Jupiter in the sky (such close approaches between two objects in the night sky are called conjunctions). Jupiter can even be observed during the daytime if it is not too close to the sun; but surface detail will have very low contrast.

The Orion Jupiter Observing Filter can also be used on the moon.

For more tips on using your telescope go to Orion's Resource Center on our website: www.telescope.com (links on the bottom of the page).

One-Year Limited Warranty

The Orion 1.25" Jupiter Observation Filter is warranted against defects in materials or workmanship for a period of one year from the date of purchase. This warranty is for the benefit of the original retail purchaser only. During this warranty period Orion Telescopes & Binoculars will repair or replace, at Orion's option, any warranted instrument that proves to be defective, provided it is returned postage paid to: Orion Warranty Repair, 89 Hangar Way, Watsonville, CA 95076. Proof of purchase (such as a copy of the original receipt) is required.

This warranty does not apply if, in Orion's judgment, the instrument has been abused, mishandled, or modified, nor does it apply to normal wear and tear. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state. For further warranty service information, contact: Orion Customer Service (800) 676-1343; support@telescope.com.

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