

Orion® Color Eyepiece Filter Sets

#5514 Starter Set of 4 Filters, 1.25"

- #80A Medium Blue,
- #58 Green,
- #25 Red,
- #15 Deep Yellow

#5516 Expansion Set of 4 Filters, 1.25"

- #21 Orange,
- #47 Violet,
- #11 Light Yellow-Green,
- #82A Very Pale Blue

#5570 Advanced Set of 4 Filters, 1.25"

- #8 Light Yellow,
- #23A Light Red,
- #38A Deep Blue,
- #56 Light Green

#5593 Set of 4 Filters, 2"

- #80A Medium Blue,
- #58 Green,
- #25 Red,
- #15 Deep Yellow



Your new Orion® filters will enhance your visual and photographic observation of the Moon and planets, allowing you to see greater contrast between planetary details of differing colors. To use your Orion color filters, simply thread them into the barrel of your standard 1.25" or 2" eyepieces and use your eyepieces normally. You may also stack Orion filters by threading them into each other or use the filters photographically by threading them into eyepieces used in tele extenders and universal camera adapters.

How They Work

Planetary surface features and atmospheric phenomena reflect sunlight as contrasting colors which we see as "details" on the "disk" of a planet. An Orion eyepiece filter absorbs a specific color of reflected light: for example, red. Absorbing red will reveal detail of a contrasting color, like green, otherwise disguised by the proximity of the red. This lightening of similar colors and darkening of contrasting colors enhances the "detail" that you see. This is the way all Orion color filters function. Orion color filters do not actually increase the level of detail, they merely make it easier to see.

Filter Selection Guide

#80A Medium Blue Primarily for studying structures of planetary features in upper atmospheres of Jupiter and Saturn. Very popular for Jupiter's Great Red Spot or the festoons in Jupiter's belts. Reduces red, green and yellow wavelengths.

#58 Green Reduces red and blue wavelengths. Excellent for increasing contrast of Martian polar caps, low-flying Martian clouds and yellowish Martian dust storms. Great for studies of low-contrast blue and red Jovian features and for Venus and the Moon. Reduces chromatic aberration inherent in some refractors.

#25 Red Ideal for observation of the polar ice caps of Mars and features on the Martian surface. Also for the bluer clouds of Jupiter and Saturn. Darkens blue wavelengths.

#15 Deep Yellow Reduces blue wavelengths. Mainly for lunar viewing. Improves contrast and reduces irradiation between features of varying brightness. Also for penetrating the atmospheres of Mars, Jupiter or Saturn.

#21 Orange Brings out structure in Jupiter's belts and Saturn's bands. Allows intermediate probing of martian surface features; particularly increases contrast between martian maria and deserts. Especially good for smaller telescopes at higher powers. Reduces blue and green.

#47 Violet Reduces yellow and green wavelengths. Most useful for studies of Venus. Increases contrast of upper atmospheric clouds. Also useful in detecting clouds over Martian polar caps.

#11 Light Yellow-Green A good filter for enhancing both blue and red features on Jupiter and Saturn, and for showing some detail on Uranus and Neptune with larger scopes. Also useful on Mars.

#82A Very Pale Blue A subtle filter good for observing low-contrast details on Jupiter and Saturn at higher powers, without noticeably reducing brightness. A good filter for stacking with other colors.

#8 Light Yellow 83% Transmission. Enhances low-contrast detail on Venus. Enhances images of comet dust tails and heads. Enhances detail of the maria on Mars. Brings out orange and red features of Jupiter and Saturn. Brings out the surface detail on Uranus and Neptune in larger telescopes.



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#23A Light Red 25% Transmission. Sharpens edges of yellow dust clouds on Mars. Improves detail on lunar surface. Highlights the polar areas and blue clouds of Saturn and Jupiter. Corrects the blue coloration of Mylar solar filters, for a more natural appearance. Ideal for observing Mercury and Venus through evening skyglow. Enhances contrast on Mercury and Venus during daylight hours.

#38A Deep Blue 17% Transmission. Slightly improves view of lunar surface. Improves views of the Great Red Spot on Jupiter. Intensifies subtle details in the cloud belts of Saturn. Brings out dust storms on the surface of Mars. Good for enhancing very bright objects.

#56 Light Green 53% Transmission. Improves detail on lunar surface. Improves low-contrast details in the Jovian equatorial bands. Enhances cloud detail on Venus. Brings out contrast on the surface on Saturn. Greatly increases the contrast of the Martian polar ice caps.

The Importance of “Good Seeing”

It is important to realize that one of the most important factors affecting your viewing is “seeing” conditions. Even the largest observatory telescope will not perform at its best when Earth’s atmosphere is turbulent and unstable. If the stars appear to twinkle a lot, the seeing is probably not ideal. If star images are reasonably stable, the seeing is probably quite good.

Care of your color filters

To insure long life for your Orion color filters, avoid touching the glass. Use compressed air to blow off dust particles. If the glass surface should accumulate oily dirt, use lens cleaning fluid and tissue as instructed on their packages.

One-Year Limited Warranty

The Orion Color Eyepiece Filter Sets are 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. If the product is not registered, proof of purchase (such as a copy of the original invoice) 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: Customer Service Department, Orion Telescopes & Binoculars, 89 Hangar Way, Watsonville, CA 95076; (800) 676-1343.



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