INSTRUCTION MANUAL

Orion® 3" Field Flattener for EON 115 & 130 f/7 Triplet Refractors

#8671

ORION
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Customer Support:
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IN 560 Rev. A 10/15

This large-format field flattener, designed for photography with the Orion EON 115mm and 130mm f/7 triplet refractors, flattens the focal plane for astro-imaging without affecting the focal length of the telescope. When imaging with a CCD or DSLR camera, the far edges of the field of view will appear sharper when using the field flattener with your EON telescope.

Connection to Telescope

The 3" Field Flattener threads directly onto the 3" dual-speed Crayford focuser of the Orion EON 115 and 130 f/7 triplet refractors, for a rock-solid connection. The Field Flattener has M92x1.0 male threads, which mate with the female threads on the focuser. First remove the accessory collar from the focuser by turning the knurled ring counterclockwise, as shown in **Figure 1**. Then screw the flattener into the focuser.

The optimal backfocus distance (distance from the rear flange of the flattener, excluding the M48 thread, to the camera sensor) is 51.5mm. However the flattener is known to provide sharp images at up to 5mm either side of this distance.

Connection to a DSLR Camera

The 3" Field Flattener features M48x0.75 threads on the camera side, wider than the typical T-mount (M42), to minimize vignetting and provide better illumination of full-frame camera sensors. Thus, for DSLRs you will need an M48 DSLR adapter – a wider version of the standard T-ring.

Connection to a CCD Camera

Most CCD cameras require less backfocus than a DSLR camera. That means you will need to add spacing as needed to fill the 51.5mm of required distance to the Field Flattener. M48 (2") spacers are available from third party vendors.

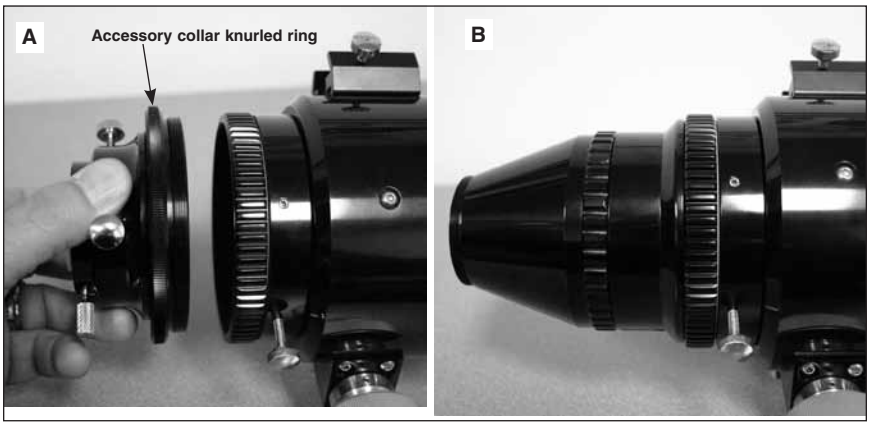

Figure 1. To install the field flattener, **A)** remove the accessory collar as shown, then **B)** thread on the field flattener until tight.

Specifications

Optics	2-element, fully-multicoated
Backfocus length (optimal)	51.5mm
Threads, telescope side	92x1.0mm, male
Threads, camera side	48x0.75mm, male
Mechanical length when attached	88.8mm
Focal reduction	None (1x)
Weight	17.9 oz (507g)

One-Year Limited Warranty

This Orion product 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. Proof of purchase (such as a copy of the original receipt) is required. This warranty is only valid in the country of purchase.

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. It is not intended to remove or restrict your other legal rights under applicable local consumer law; your state or national statutory consumer rights governing the sale of consumer goods remain fully applicable.

For further warranty information, please visit **www.OrionTelescopes.com/warranty.**

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