

Operating instructions

omegon



Omegon® Brightsky Large Binoculars

22x70 - 45° & 90°

26x82 - 45° & 90°

30x100 - 45° & 90°

Version 9.2019, art. no. 61488, 61489, 61490, 61491, 61492, 61493

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The Omegon® Brightsky large binoculars

Thank you very much for purchasing these high-quality "Brightsky large binoculars from Omegon". Please read through these instructions carefully so that you can make full use of the binoculars. The safety-related instructions related to these large binoculars are also described here and must be followed. The three sizes of these binoculars, with lens diameters of 70, 82 and 100mm, are each available in two variants:

- 45° angled viewing
- 90° angled viewing.



45°

90°

Operating elements:

- 1- Eyepieces
- 2- Clamping ring for eyepieces
- 3- Individual eyepiece focusing
- 4- Adjustment of interpupillar distance
- 5- Tripod adapter



Lens shade

When nature-watching by day and star-gazing by night, sunlight from the side (stray light at night) is reduced when the lens shade is extended, thus significantly increasing the contrast.



Carry handle

There is a groove in the middle of the handle which runs along the entire length of the handle. This groove helps with alignment and direction finding. In addition, it is possible to mount an optional finderscope, an illuminated dot finder or an optical finder with crosshairs, with the aid of two M5 screws.



Tripod connection

There is a $\frac{3}{8}$ " thread in the centre of the tripod connection flange which is reduced to a $\frac{1}{4}$ " thread, in other words photo standard, with a small threaded adapter. This threaded adapter can simply be screwed out if necessary. Many quick-release plates have a spring-loaded pin. This engages in one of the two other holes and prevents the binoculars twisting on the tilt head.



Ultra flat field eyepieces

The scope of delivery includes two 18mm, 65°, ultra flat field eyepieces (1) with 1.25" plug-type adapter, in other words the standard diameter for astronomical eyepieces that can also be used here. The field of view of the eyepieces of 65° makes extremely comfortable viewing possible.

These eyepieces have the following degrees of magnification

- 70mm Brightsky – 22x magnification
- 82mm Brightsky – 26x magnification
- 100mm Brightsky – 30x magnification



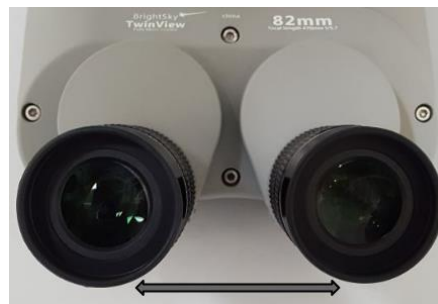
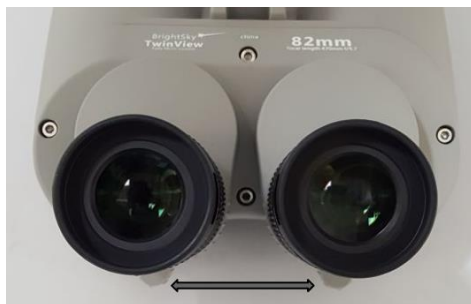
The eyepieces are focussed separately as is usual with large binoculars and double refractors. First, remove the two light-covered protective caps which protect the eyepiece shaft from dust.

Remove the eyepieces from the packaging and insert these as far as they will go into the respective eyepiece shaft. The first ring (2), which faces the eyepieces, is used for securing and clamping the individual eyepiece. The two eyepieces are then focussed using the rings no. (3).



A pin sharp image must be able to be seen with both eyes. Dioptre adjustment is not necessary here since this takes place anyway through individual focusing.

Now "interpupillar distance" must be set. This means that the distance between the two eyepieces must be adjusted until you perceive one large image with both eyes. To do this, grasp the eccentric knobs (4) on the left and right with both hands and use your thumbs to swivel the eyepieces apart or push them together until a round image appears for both eyes.



Astronomical use

We recommend the use of a sturdy tripod with video tilt head or fork mount. This guarantees a wobble-free, steady image and simple alignment to the required area of the sky.

The eyepieces included in the scope of supply are equipped with the 1.25" filter threads as usually used in amateur astronomy. You can enhance your viewing experience by using astronomical light pollution or nebula filters.

You can also use all the 1.25" eyepieces customary in amateur astronomy rather than the eyepieces included in the scope of supply if you wish. This makes a large number of different magnifications and fields of view possible for different observation targets. We recommend eyepieces with focal lengths of between 3mm minimum and 40mm maximum.

Maintenance and care

Generally speaking, these binoculars are maintenance-free. A "very sparingly" used drop of oil or silicone grease will certainly not harm the threaded holes. Lubricants must never be used on the lens shades.

If the lenses or eyepieces should become soiled at any time, please use a soft optics brush such as the one included in the optional Omegon cleaning set #5551, and brush the loose dust particles from the optical surface by squeezing the blower to create an air flow. Then use isopropanol (alcohol from the chemist) and a soft, lint-free paper cloth to carefully clean the optical elements. If you are not sure, our support team will be happy to help.

If the binoculars should become wet through water splashes, they must be dried with care immediately.

The Brightsky large binoculars must not be subjected to any hard impact in order to avoid damage.

Data sheet

| Model | 22x70 – 45° (#61488) 22x70 – 90° (#61489) | 26x82 – 45° (#61490) 26x82 – 90° (#61491) | 30x100 – 45° (#61492) 30x100 – 90° (#61493) |
|-----------------------------------|--|--|--|
| Front lens diameter | 70mm | 82mm | 100mm |
| Focal length | 400mm | 470mm | 550mm |
| Aperture ratio | f/5.7 | f/5.7 | f/5.5 |
| Adjustable interpupillar distance | 54 – 78mm | 54 – 78mm | 56 – 83mm |
| Length | 39cm | 45cm | 51cm |
| Width | 21.5cm | 22cm | 26.5cm |
| Height | 18.5cm | 19cm | 20cm |
| Weight | 3.9kg | 4.6kg | 6.8kg |
| Type of build | Porro prisms | | |
| Lens coating | Fully, multiple | | |
| Focussing system | Single focussing, helical | | |
| Tripod connection thread | 1/4" & 3/8" | | |
| Eyepiece seat | 1.25", spring-mounted rings | | |
| Colour | Grey | | |
| Housing material | Magnesium | | |
| Splash-proof | Yes | | |
| Resistant to pressurised water | Yes | | |
| Inert gas charge | Yes, nitrogen | | |
| Handle | Yes | | |
| Lens cover | Yes, can be screwed in place | | |
| Dew cap, stray light protection | Yes, extendable | | |

| When the eyepieces included are used | | | |
|--------------------------------------|-------|-------|-------|
| Magnification | 22x | 26x | 30x |
| Exit pupil | 3.2mm | 3.2mm | 3.3mm |
| True field of view | 3.3° | 2.5° | 2.1° |
| Field of view at 1,000 m | 57m | 40m | 35m |
| Close focus limit | 13m | 18m | 32m |
| Light intensity | 10 | 10 | 11 |
| Twilight factor | 39 | 46 | 55 |

| Eyepieces included: | |
|---------------------------------|------------------------------|
| Number | 2 |
| Focal length | 18mm |
| Own field of view | 65° |
| Eye distance | 25mm |
| Connection | 1.25" sleeve |
| Filter thread | Yes – 1.25" |
| Lens coating | Fully, multiple |
| Eyepieces for spectacle wearers | Yes |
| Eyepiece cups | Folding |
| Eyepiece cover | Yes, can be clipped in place |
| Designation | Ultra flat field FMC |