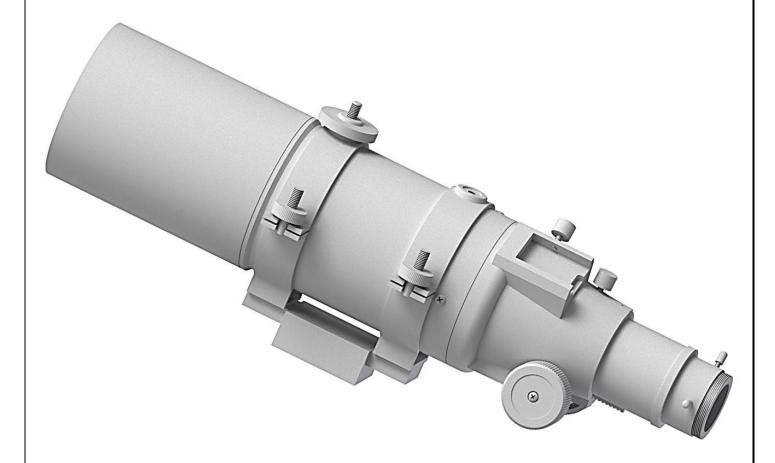
## **Instruction Manual**





Omegon® 80/400 OTA (Optical Tube)

English version 1.2015 Rev A

## The Omegon® 80/400 OTA

Congratulations on the purchase of the new Omegon® 80/400. This telescope will give you hours of fun, with its all optical glass lens and light gathering capability, it is the ideal companion to start in the world of amateur astronomy. With this telescope you will be able to see the craters on the Moon, star clusters, some nebulae, the Jupiter disc features and its Galilean moons and the rings of Saturn.

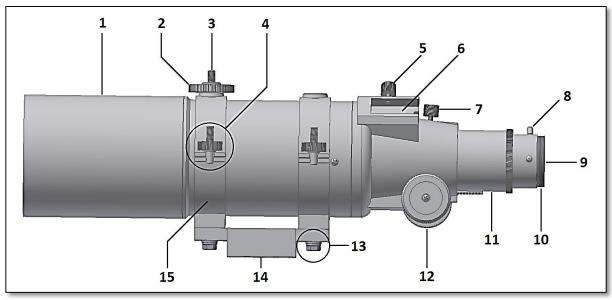


Figure 1. Part description.

**1. Included parts.** Besides the telescope tube we have included a pair of tube rings (#15), and a tripod base (#14) – see below;

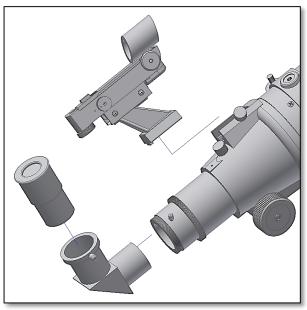
## 1.1. Knowing your telescope.

- 1- Dew Shield/Aperture;
- 2- Camera thread counter-nut;
- 3- Camera thread ¼"-20;
- 4- Locking nut;
- 5- Finderscope locking thumbscrew;
- 6- Finderscope base;
- 7- Focuser break thumbscrew;

- 8- Eyepiece thumbscrew (2x);
- 9- Eyepiece tube;
- 10- T-Thread for camera connection;
- 11- Focuser tube;
- 12- Focuser adjustment wheel;
- 13- Optical ring fixing screw and nuts;
- 14- Tripod base (threaded 1/4"-20);
- 15- Tube ring.

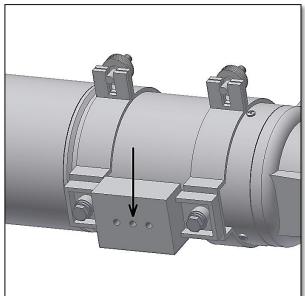
## 2. Getting Started.

It is very simple to get started. Here is how the telescope works. The telescope aperture (#1) should point to the object being observed. The light comes through the aperture lens into the back and to the eyepiece tube (#9). It is then brought to the eyepiece. To observe just look through the eyepiece. At the focuser one can use the supplied accessories. Different accessory combinations give different results, such as different image magnifications or correct images, for example. All this will be explained in detail on the next pages.

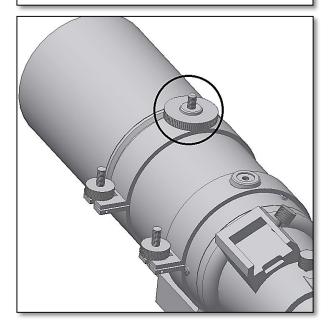


**2.1.** The telescope is compatible with 1.25" accessories. For visual use we recommend using a 1.25" diagonal/prism and an eyepiece (not included).

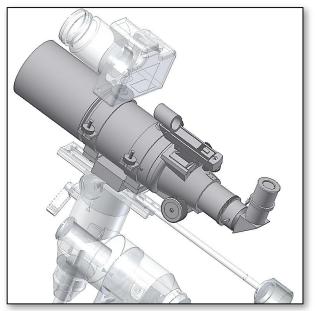
It is also helpful to use a finderscope. We recommend a red-dot finderscope (not included) as they are simple and easy to use. To find out about different magnifications just divide the telescope's focal length by the eyepiece's focal length. A 25mm eyepiece will provide a magnification of 16x (400mm divided by 25mm= 16x);



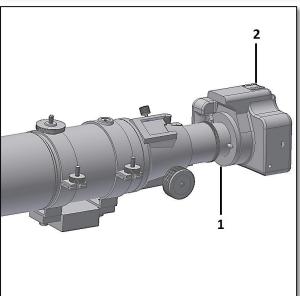
**2.2.** The tripod base (#14 – Figure 1) has 3 ¼"-20 threaded female nuts. These are compatible with standard tripod fittings. This means you can use the telescope with a photographic tripod, which is especially interesting for terrestrial view (bird-watching or long distance terrestrial observation).



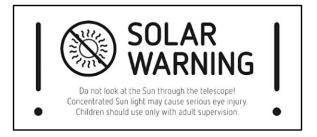
2.3. The camera thread ¼"-20 (#3 – Figure 1) allows you to use a piggy-backed camera (DSLR or compact). Piggy-back astrophotography is a very simple and effective way to make spectacular wide-field photography.



**2.4.** The telescope can also be used on a telescope mount (German equatorial mount – not included) for deep-sky long exposure photography, or for astronomy observations. It also provides a very solid and stable platform for visual observation. We recommend using a motorized German equatorial, such as the Omegon® EQ-300 mount and Omegon® DUO drive system to easily start in the world of astrophotography.



2.5. The focuser is threaded to accept T-thread accessories (#10 – Figure 1) such as a camera T-ring (#1 – Figure 6). This way you can use the telescope as a powerful tele-objective with a DSLR camera (#2 – Figure 6). Manual focus is required as the camera's auto-focus will not be available.



**3.** Accessories (not included). For visual observation a telescope 1.25" eyepiece is required. For easy use we suggest using a 1.25" diagonal/prism mirror (Figure 2). A finderscope is a highly recommended and necessary item to point the telescope at an object.

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