

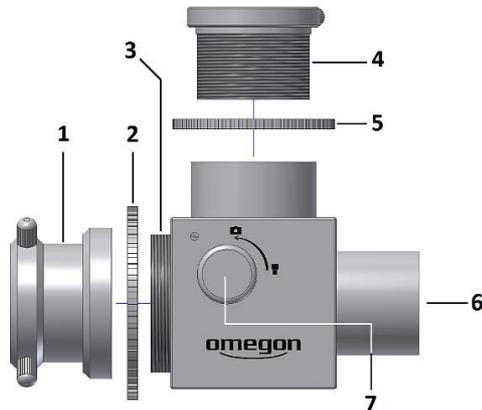


The Omegon® Syncrofocal Flip Mirror Finder

Congratulations on the purchase of the new Omegon® Syncrofocal Flip Mirror Finder. This device is designed to precisely centre planets, the Moon or even Deep Sky objects in a camera Frame. The spring-loaded mirror inside the device re-directs the light to the centring eyepiece or to the camera. This makes the tedious centring procedure very easy and fun.

1. What's included

1- 1.25" to T camera adapter;

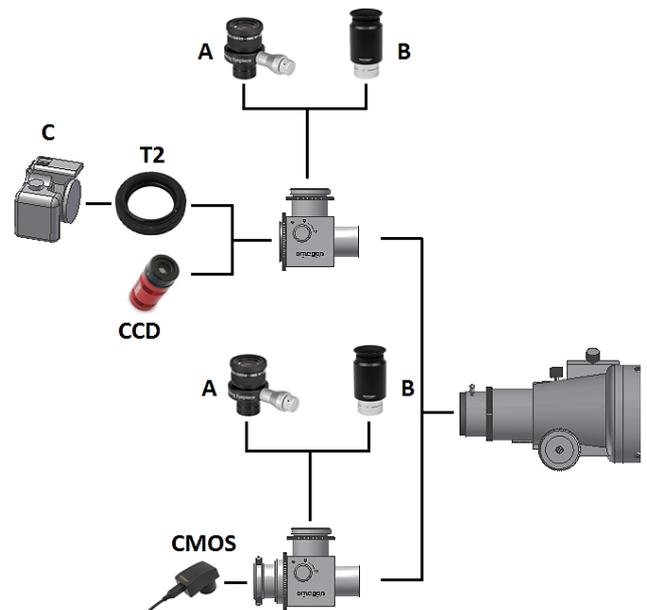


- 2- T-Ring;
- 3- T-threaded male camera ring;
- 4- 1.25" eyepiece adapter;
- 5- eyepiece back-focus locking ring;
- 6- 1.25" nosepiece adapter;
- 7- Spring-loaded thumbscrew

2. Getting Started. First get familiarized with the device. The mirror system moves up-and down by rotating the spring-loaded thumbscrew (#7). Rotating up (counter-clock-wise) the in-coming light from the telescope hits the camera sensor. Rotating down (clock-wise) the light is deviated to the centring eyepiece. The purpose of this accessory is to re-direct the light from the telescope to either the eyepiece or the camera without the need to refocus. Object centring becomes much easier. Cameras have usually a very small field of view when compared with a low-power eyepiece and only a tiny portion of the sky is captured on the sensor making objects centring very hard. **3. Before starting. 3.1. Choosing the centring eyepiece.** The centring eyepiece should be a low magnification eyepiece (40x up to 60x). A low power/magnification eyepiece provides a huge field of view for searching and centring objects. Most 1.25" eyepieces can be used. **3.2 Using the eyepiece.** Insert the eyepiece in the 1.25" eyepiece adapter (#4). This threaded adapter can rotate and adjust the eyepiece's distance to the device. Make sure to tighten the side thumbscrew so that the eyepiece is securely hold in place. Release the eyepiece back-focus locking ring (#5) to rotate the 1.25" eyepiece adapter (#4). Use it to lock the eyepiece into a certain position – see the parfocalization section. **3.3. Choosing the camera.** Deep-Sky or planetary cameras can be used. Slide a 1.25" camera in the 1.25" to T camera adapter (#1) and use the two thumbscrews to lock in position. If a T-Thread camera is being used, we recommend connecting the camera directly to the device's body (#3). Release and remove the 1.25" to T camera adapter (#1). This will

expose the T-thread male camera ring (#3). Simply thread the camera and use the T-Ring (#2) to lock the camera in the suitable position/angle. **4. Possible setup combinations.** The flip-mirror device can be use with a variety of eyepieces and cameras. Please look at the tree bellow for guidance.

- A – Reticule eyepiece
- B- low power eyepiece
- C – DSLR camera
- T2 – T Ring
- CCD – deep-sky camera
- CMOS – planetary camera



4. How to use the device. First it is needed to parfocalise the centring eyepiece with the camera's sensor. Parfocalisation means both the eyepiece and camera are at same focus so that when flipping the mirror up-down a sharp focused image is obtained for both. By rotating the spring-loaded thumbscrew (#7) the centred object in the eyepiece can be immediately seen in the centre of the camera sensor. **5.1. How to parfocalise the flip mirror?** We recommend the following procedures being executed during the day. Start by attaching the camera as described in 3.3. and the flip-mirror to the telescope. Point the telescope to a distant object (more than 1000m) and use the telescope's focuser so that a sharp image comes to focus in the camera sensor – make sure that the mirror is in the camera position  so it does not obstruct the incoming light from reaching the camera. Now it is time to adjust the eyepiece distance to the flip-mirror. Insert the eyepiece in the 1.25" eyepiece adapter (#4) as described in 3.2. do not use the telescope's focuser during this procedure! Just flip the mirror up-down. The image obtained in the eyepiece will be defocused. This is because both the camera and eyepiece are not parfocal. Release the eyepiece and slide it up and down until the image starts to be formed (focused). By doing so one understands if the eyepiece needs to move farther away from the flip-mirror or the exactly the opposite i.e. closer to it. Rotate the 1.25" eyepiece adapter (#4) as described in 3.2. and use the eyepiece back-focus ring to lock in position (turn clock-wise). You are now ready to start using the device!

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