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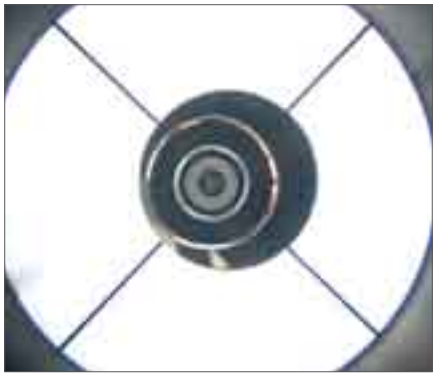
ASA
ASTRO SYSTEME AUSTRIA

INSTRUCTION MANUAL
ASA-Astrographs



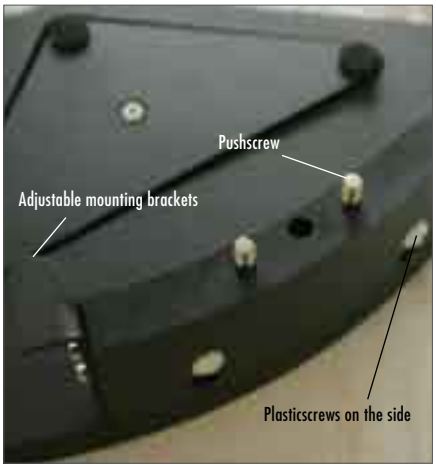
ASA-Astrographs will provide you with outstanding images. Basic requirement to accomplish such results is a perfect collimation of the system. Basically collimation is carried out like with a common Newton-Telescope.

Before starting up we recommend to remove the main mirror cell to familiarize with the function of the cell.

Remove the cover plate by opening the three self-locking screws.

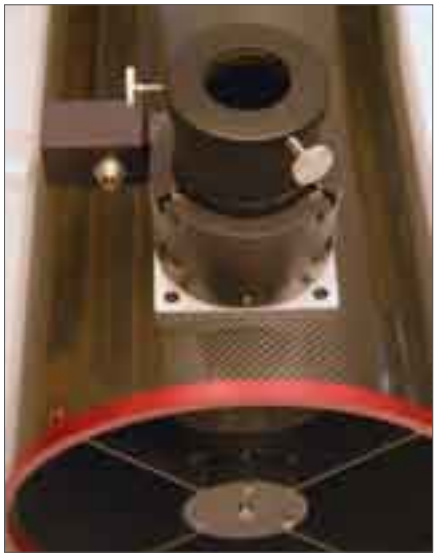
To take the cell with the mirror out of the tube you have to remove the three pull screws. After it you can take out the cell with the mirror.

The mirrors of the ASA-N Series 8" and 10" are glued to the cell. Please check if the three plastic-screws, which are pointing toward the mirror, currently do not touch the mirror.
Basically the space is adjusted by the factory. May be something has changed caused by shipment.
If the plastic screws are too close on the mirror this can cause stress to the mirror.

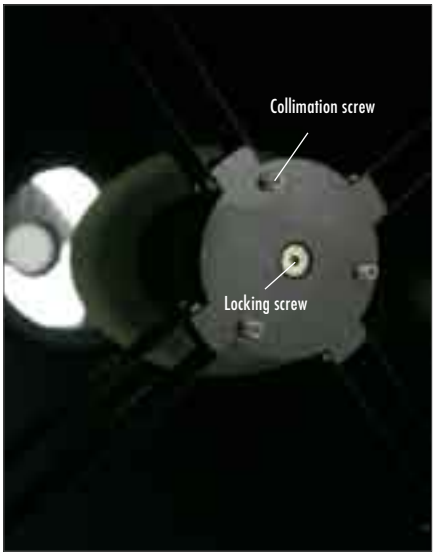


The mirrors of the ASA-N Series 12" and 16" are mounted on a 9-point floating cell. The mounting – brackets secure the mirror and should only touch the surface very gently. The 16" mirrors are secured with foam for shipment. Please remove the foam before starting up.

COLLIMATION



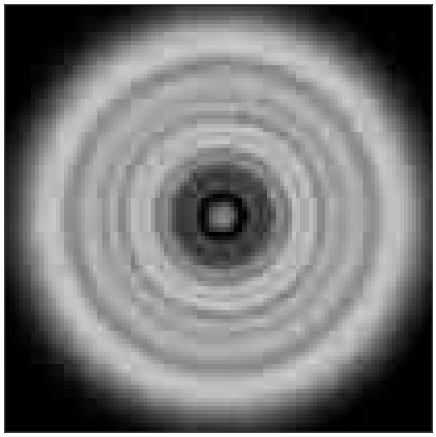
After you have mounted the mirror cell back into the tube you can start with collimation. Attach the provided 2" adapter on the ASA-OK3 to employ your collimation tools. One can easily and fast collimate with a common Laser-Collimator. Furthermore we recommend the Cats Eye Collimation tools (Telecat XL and Autocollimator XL).



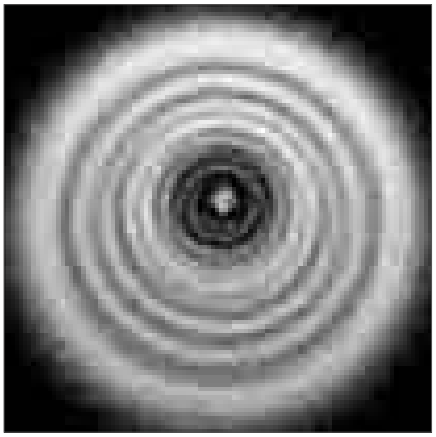
Before start up with collimation consider that the three collimation screws on the secondary mirror overlap approximately 5 mm. The secondary should be secured by fixing the locking screw.

Collimation of the main mirror has to be carried out with the Push and Pull screws. First of all open the Pull screws (counterclockwise) collimate with both Push screws beside left and right of the Pull screw. If you move the Push screw clockwise, you will move the mirror in direction off the focuser. If you move the Push screw counterclockwise, you will move the mirror in direction to the focuser.

Tips:
Regardless which collimation tools you are using – we recommend collimating at first the secondary mirror to the main mirror and then collimating the main mirror to the secondary. Check your collimation on the star!



Aligned



Misaligned

Perfect collimation can be done on a star out of focus. Select the highest magnification of your telescope. Focus the star and **center the star in the FOV.** Turn the star out of focus. You will see circles and a black shadow. Collimate as long as the all the shadow and the rings are centered.

IMPORTANT:
The offset of the shadow caused by coma is clearly visible the nearer one moves to focus. Thus it makes sense to judge the in and out of focus images short in front of the focus.