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Collimation RC-Telescope

The best way to collimate a RC-Telescope is to use a real star or an artificial star which is a good solution as You don't face problems with seing influences

1.)
Center the star and increase the magnification up to around 100x There must not be to much movement in the air

2.)
Defocus the star so that You can clearly see the central shadow of the secondary. If the shadow is perfectly centered , there is no need for a collimation. If the shadow is not centered perfectly or the unsharp star is not perfectly round, You have to proceed the following way:

3.)
If the telescope has been disassembled please check the position of the focuser with a laser and the center marking on the secondary mirror. Use the adjustment screws on the backside of the RC tube which are positioned closest to the focuser. That is a rough collimation. The fine tuning is being made with the focuser attached and with the secondary mirror

4.)
Check the unsharp star – a helping hand by someone else might be useful- The helper should move his hand in front of the tube towardsthe secondary- You will see the shadow on the stars image. Try to bring the central shadow to the same position as the decollimated stars shadow.
Now You found the orinetation of the decollimation.

5.)
Start with the collimation with the screw that is closest to the decollimated area. Move the screw only a little and check what happens. Then use the other screws to bring the central shadow covering the center of the defocused star

6.)
If You can see the improvement, increasethe magnification up to 150x to 200x and redo the collimation until You received the best image

Now You are ready
Have fun and clear skies

Your Teleskop-Service Team