## Skylabs Mirror Spotting Template and Center Spots Quick Guide

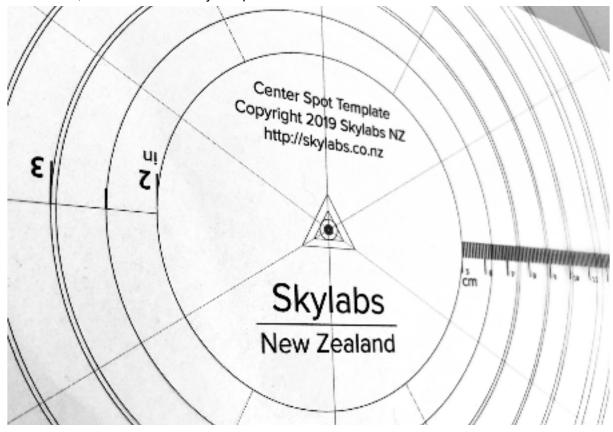
Accurate Collimation tool for Newtonian Telescopes

The collimation (alignment) of the mirrors of the telescopes is extremely important for visual observation. In the case of really fast telescopes (focal ratio < 5) and astrophotography, the collimation becomes critical.

The Skylabs Mirror Spotting Template and Center Spots will help you to align the optical axes of your Newtonian telescope. In addition to those items, you also need a laser collimator and/or a Skylabs Cheshire Eyepiece if you want a really good image quality.



**Important note**: Single beam laser collimators are relatively affordable and easy to use. Unfortunately, they can not help to correct the off-axis position of the secondary mirror or ensure the collimation of the surfaces of both mirrors. While the laser collimator really helps to speed up the process, in order to ensure the perfect collimation between the two mirrors, a Cheshire is always required.



The mirror spotting template and center spots are required for those mirrors without a center spot. Select the right size of your spot and template. Request the small triangle for 1.25" Cheshire eyepiece or the big one for 2" Cheshire. Obviously, if you have a 2" focuser a 2" Cheshire eyepiece is highly recommended.

## Setting up the center spot

If you don't have a spot in the center of the main mirror from your Newtonian telescope, follow these steps:

- 1. Remove the main mirror from your Newtonian telescope.
- 2. If the surface of the mirror is dirty, consider following these instructions to clean the mirror. <a href="https://www.youtube.com/watch?v=0GUh2ldsVJs">https://www.youtube.com/watch?v=0GUh2ldsVJs</a>
- 3. Place the center triangle shape of the template over one of the stickers (triangle center spots) aligning both shapes.
- 4. Use a small piece of transparent sticky take and place it over the center of the template. Press the sticky tape over the three holes available in the center of the template. This will hold the center spot perfectly aligned with the template.
- 5. Remove the paper from the back of the center spot.
- 6. Place the template over the mirror from your Newtonian telescope aligning the circle of the size of the mirror with the edge of the mirror.
- 7. Once the template is perfectly aligned, press the center of the template in order to stick the spot in the center of the mirror. If the size of the mirror is large, you may need some help.
- 8. Finally, remove the transparent sticky tape from the template carefully.
- 9. Use a microfiber cloth to remove any potential air bubble captured between the center spot and the mirror.
- 10. Return the mirror back to the telescope and align each corner of the center spot with the collimation screws. This way, it will be easier to evaluate which screw you need to use when collimating the primary mirror.
- 11. Be careful when tightening the clips, they are used for locking the mirror but they shouldn't pinch it.