

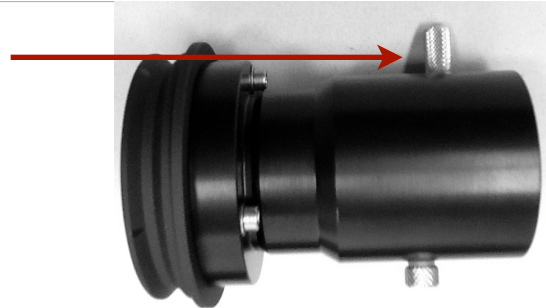


Installation notes: microscope collimator

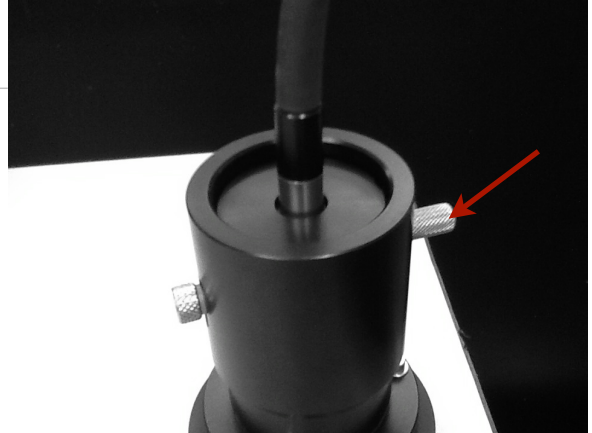
1. Carefully unpack the collimator, avoiding contact with the surfaces of the lenses.



2. Loosen the longer thumb screw on the collimator.

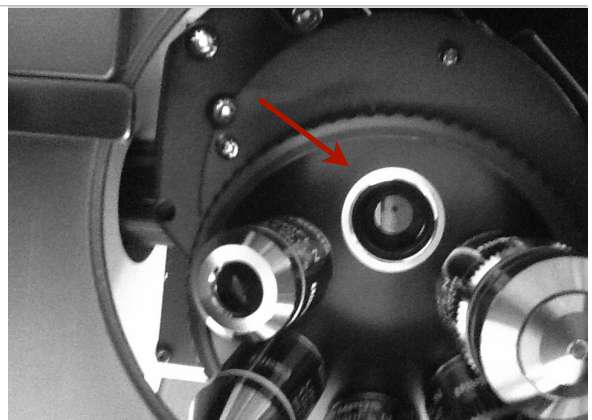


3. Insert the LLG (or optical fiber) into the collimator and tighten the thumb screw securing the light guide in place.



4. Remove an objective from the microscope or remove the protective cover from an empty objective position.

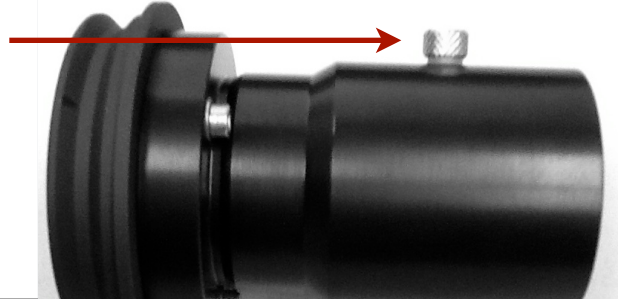
Cover the empty hole by using a business card or other small piece of paper.



5. Secure the collimator to the back of the microscope using the appropriate set screw provided by the microscope manufacturer.



6. Loosen the shorter thumb screw.

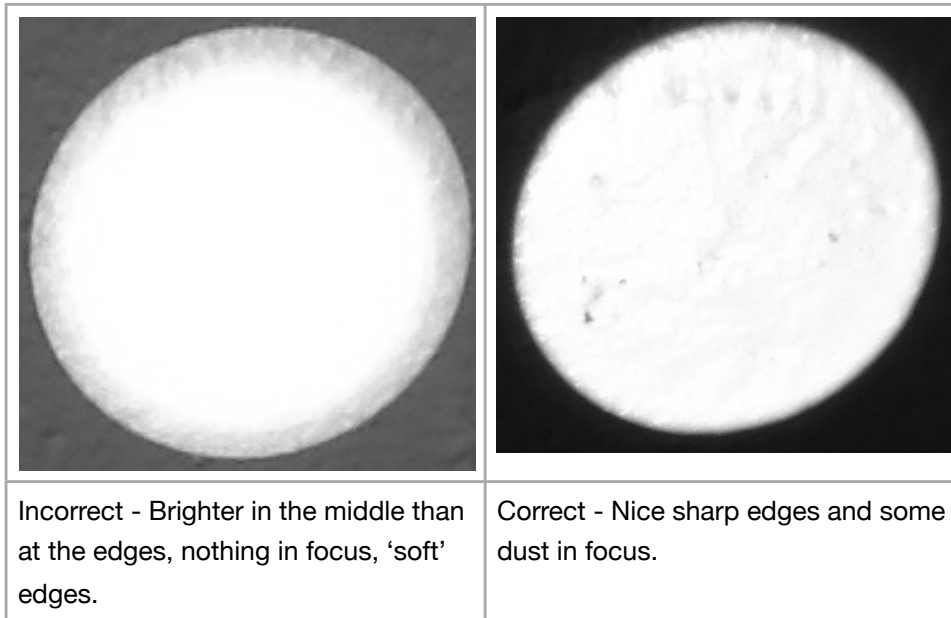


7. Focus the collimated beam on the business card or other paper at the back aperture of the objective.*

Finally, tighten the thumb screw to secure the relative positions of the first and second lens in the collimator.

*Alternatively, the proper setting can be determined by estimating the distance from the microscope dovetail to the back focal plane of the objective. Once this distance is estimated, turn the light engine "on" to emit light. Then focus the collimator at the estimated distance on a wall or other flat surface by moving the shorter thumb screw forward and back. (There may be dust on the optics that can actually be used to optimize the focus). Once focus is reached tighten the thumb screw used for adjusting the optics.

*NOTE: Below are images that demonstrate proper and improper alignment of the collimator:



*NOTE: Asymmetry of the illuminated area may occur if either the condenser diaphragm or aperture or a misaligned filter cube is obscuring the optical path. Make sure each of these optical elements is completely out of the optical path of the scope during the alignment of the collimator and that the filter cube, if used, is seated properly.