

# SPOT™ IQ

## Microscope Training

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### Parfocality adjustment of camera to eyepieces and your camera

Setting your camera parfocal to your eyepieces will often eliminate the need to refocus your camera's image before each image capture, saving you time and frustration. The process takes only a few minutes to complete.

#### I Simplest Method:

Requires an optical adapter with parfocal adjustment.



**Step 1:** Adjust the distance between the eyepieces to match your eyes.

**Step 2:** Set the eyepiece diopters to "0", or... Optional Step 2: If you have a reticle in your eyepiece, adjust the eyepiece diopter so that the reticle comes into focus.



**Step 3:** Place a sample on the stage and focus this sample using the eyepiece that is:

- The eyepiece with the reticle
- The fixed eyepiece/eyetube if only one diopter adjustment provided
- The right eyepiece if both eyepieces have diopter adjustment

**Step 4:** Adjust the other eyepiece diopter until it comes into focus on the sample.

**Step 5:** Twist the parfocality adjustment on the optical adapter until the camera comes into focus. (Note: Parfocality locking screws may need to be loosened prior to adjustment and tightened after adjustment).

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#### II Moderate Method:

Requires diopter adjustment on both eyepieces and the absence of any reticle or photo mask in the eyepieces.

**Step 1:** Place a sample on the stage and focus it on the camera.

**Step 2:** Focus the right eyepiece diopter.

**Step 3:** Focus the left eyepiece diopter.

**Step 4:** Adjust the distance between the eyepieces to match your eyes.

## III Moderately Involved Method:

Requires a back focus adjustment on the camera.

**Step 1:** Adjust the distance between the eyepieces to match your eyes.



**Step 2:** Set the eyepiece diopters to “0”, or...  
Optional Step 2 : If you have a reticle in your eyepiece, adjust the eyepiece diopter so that the reticle comes into focus.



**Step 3:** Place a sample on the stage and focus this sample using the eyepiece that is:

- The eyepiece with the reticle
- The fixed eyepiece/eye-tube if only one diopter adjustment provided
- The right eyepiece if both eyepieces have diopter adjustment

**Step 4:** Adjust the other eyepiece diopter until it comes into focus on the sample.

**Step 5:** Adjust the back focus of the camera by loosening the C-mount locking screws and turning the C-mount ring in or out until camera comes into focus on the specimen. Tighten the C-Mount locking screws.



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“Parfocality adjustment of camera to eyepieces and your camera” written by Philip Merlo.  
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