Lamp Replacement and Alignment

The KinExA® light source is an LED Lamp (part #511100). The Lamp should not need replacement for several years. Lamp replacement is necessary when the Lamp no longer emits light, or when significant signal drift occurs, or flickering becomes noticeable. Proper Lamp alignment is necessary to provide optimal performance.

Lamp Replacement:

- Turn the *Lamp* off.
- Remove the [2] *Thumbscrews* and *Lamp Access Door*. Observe the [2] *Wires* leading to the LED *Lamp* in the *Lamp Housing*.
- Loosen (DO NOT REMOVE) the *Set Screw* on the *Lamp Housing* (see **Figure 1**) with the *1.5 mm Ball Driver* from the *KinExA Accessories Kit*. Grasp the *Lamp* and slide the *Lamp* from the *Housing*. Disconnect the electrical connection and remove the expired *Lamp* through the *Lamp Access Door* (**Figure 2**).
- Plug in the new *Lamp* and insert into the *Housing*.
  Note: Do not tighten the *Set Screw*.
- Align the *Lamp*.

Lamp Alignment:

- Turn the *Lamp* on.
- Look through the *Lamp Alignment Window* (located to the left of the *Excitation Filter*), and adjust the lamp focus back and forth until the excitation light going through the pinhole in the alignment window is maximized. In proper focus, the bright spot is the smallest in diameter, indicating that the majority of light is passing through the opening (**Figure 4**). Tighten the *Set Screw* with the *1.5 mm Ball Driver* to secure the *Lamp*.
- Use the *2.0 mm Ball Driver* from the *KinExA Accessories Kit* to manipulate the *Alignment Screws* located to the left of the circular *Lamp Housing* (**Figure 3**) until the least amount of light appears around the black pinhole (see **Figure 4**). The upper *Alignment Screw* provides horizontal alignment and the lower *Alignment Screw* provides vertical alignment.
- Use the *EZ Align Tool* to finish the alignment (see **HG257**).
- After proper alignment, replace the *Lamp Access Door* by securing the [2] *Thumbscrews*.

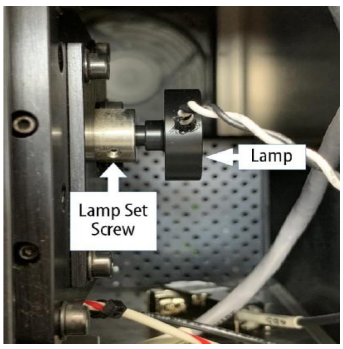

Figure 1. *Loosen the Set Screw and pull the old Lamp out.*

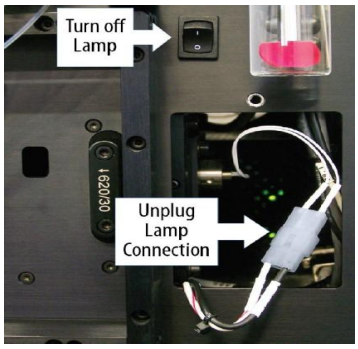

Figure 2*. Turn off the Lamp and unplug the Lamp Connectors.*

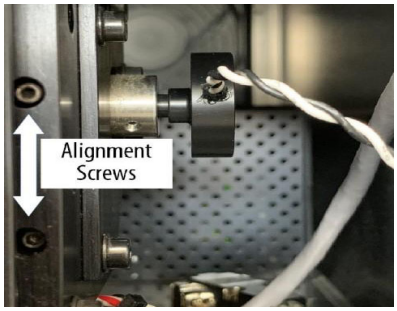

Figure 3. *Adjust the Screws and Lamp focus to maximize the signal.*

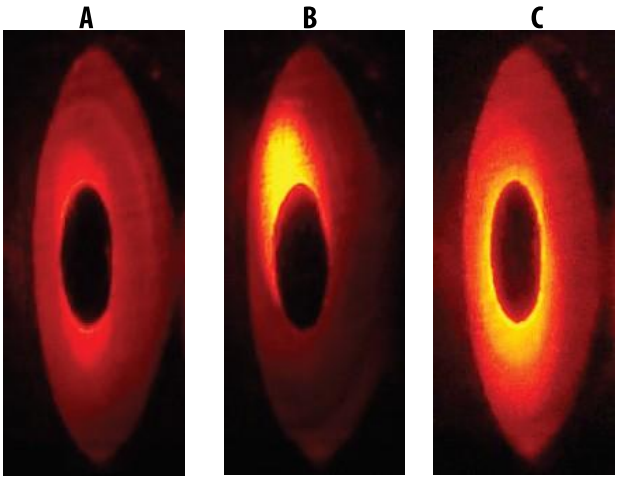

Figure 4. *Proper (**A**) and improper (**B,C**) Lamp alignment. Proper alignment (**A**) is apparent by a small diameter bright spot and the visible portion of the light being dim. Improper alignment can include a focus error, an alignment error or both. Improper focus (**B**) shows a large diameter bright spot. Improper alignment (**C**) has a small bright spot appearing above, below or on either side of the opening.*