

Flow Cell, Siliconized, 4000

If you have not read the **General Plumbing Instructions (11781)** for replacing plumbing parts on the KinExA® please do so now before continuing.

The following **Parts and/or Tools** are required to complete this installation:

[1] *Flow Cell, Siliconized, 4000* (392170)

[1] *15 in-oz Torque Wrench* (024140)

[1] *1/4" Deep Socket* (015902)

[1] *Dielectric Grease* (231362)

- Replace the *Flow Cell* (392170) by opening the *Reflector Mount* and removing the old *Flow Cell* from the *Retaining Clip*. Once the *Flow Cell* is free, the *Clear Entry Line* can be gently pulled down out of the conduit (in the top of the *Optics Housing Frame*) to reveal the *Union*. Remove the *Clear Entry Line* from the *Union* and discard the *Ferrule* but keep the *Extra Short Nut*, which will be reused.
- Open the *Plumbing Panel* and remove the *Black Exit Line* from the *Pressure Transducer*. Discard the *Ferrule* but keep the *Black Nut* to be reused. The old *Flow Cell* should now be completely unattached and can be removed from the *Instrument*.
- Thoroughly clean the *Grooved Lens*, the new *Flow Cell*, and the *Reflector Mount* with *Denatured Alcohol* and *Kimwipes*.

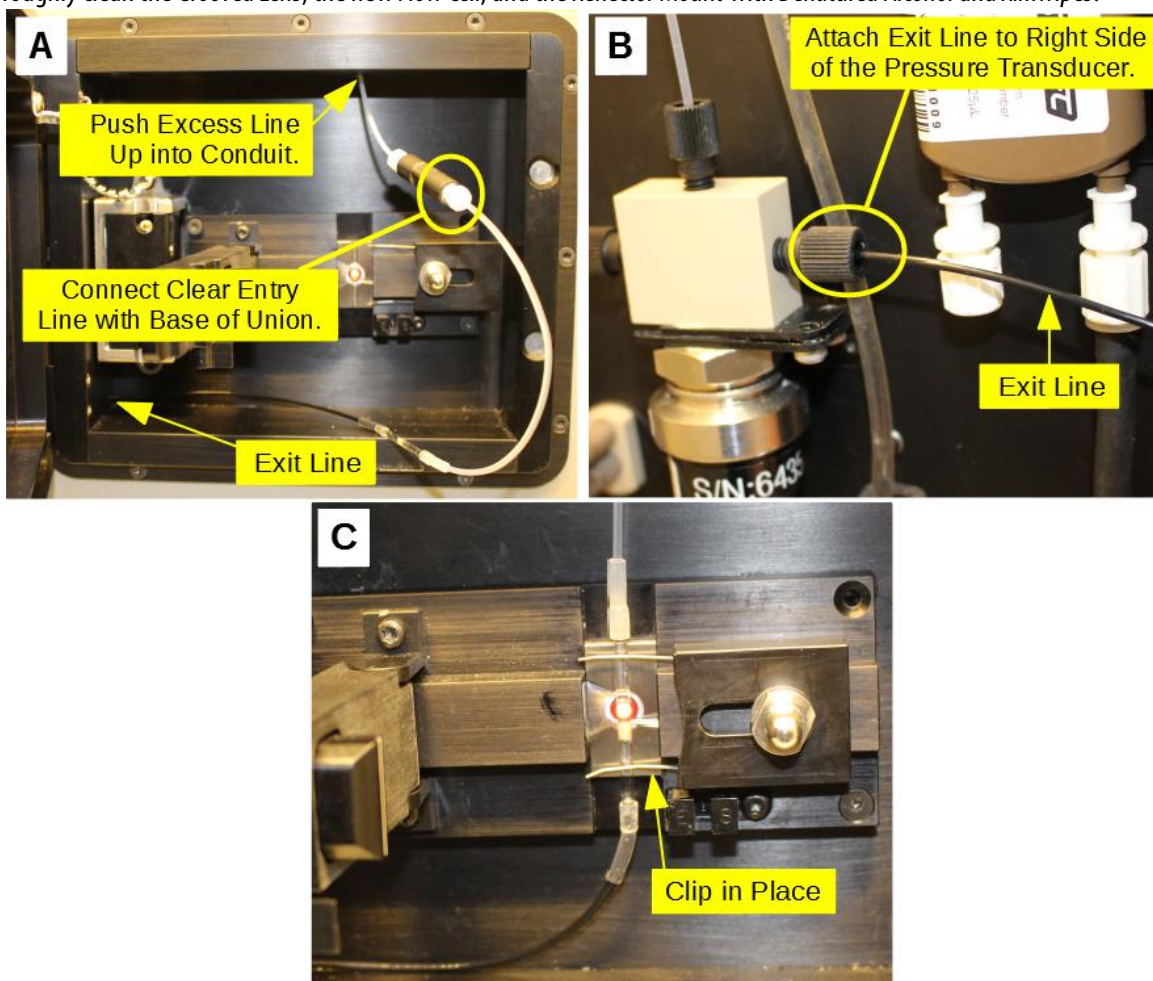


Figure 1: Routing diagram for the Flow Cell.

Note: For guidance on the orientation of the *Ferrules*, see Figures 2 & 3 below.

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- Attach the *Clear Entry Line* to the Base of the *Union* using the *Extra Short Nut* and the *1/16" Tan Ferrule* (included with the new *Flow Cell*). Torque the *Extra Short Nut* to **15 in-oz** using the *1/4" Deep Socket (015902)* and the *15 in-oz Torque Wrench (024140)*. Route the *Clear Entry Line* upwards through the hole (located on the top of the *Optics Housing Frame*), making sure the *Union* is hidden from view. (Figure 1, A)
- Slide the *Black Exit Line* through the *O-Ring* (located on the lower left side of the *Optics Housing Frame*) and connect it into the right side of the *Pressure Transducer* using a *1/16" White Ferrule* (included with the new *Flow Cell*) with the saved *Black Nut*. (Figure 1, B)
- Apply a thin film of *Dielectric Grease (231362)* onto the *Flow Cell* before securing it with the *Retainer Clip* and attaching the *Reflector Mount*. (Figure 1, C)
- Align the top of the filter, represented in green below, with the notch in the *Optics Housing* as shown in Figure 4.

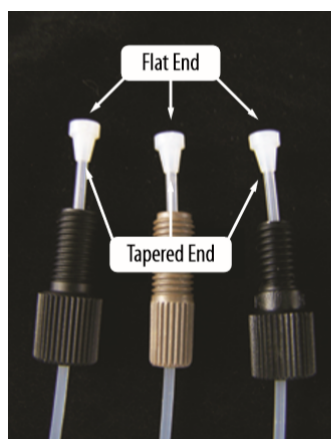


Figure 2: White Ferrule with tapered end facing the Nut.

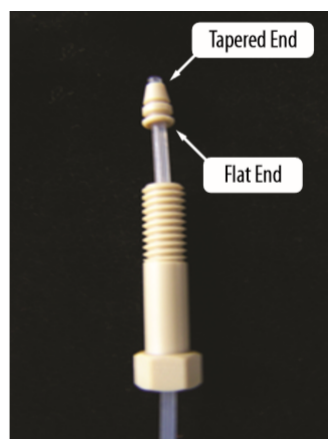


Figure 3: Tan Ferrule with tapered end away from Nut.

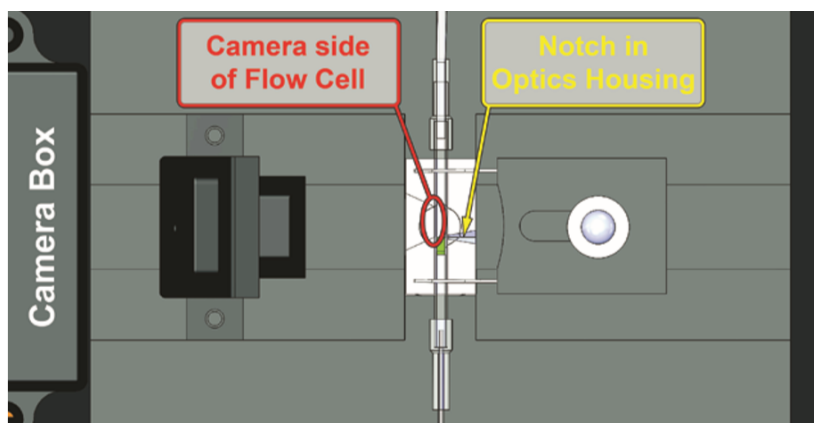


Figure 4: Proper alignment of the filter with the notch in the *Optics Housing*. Grease left on the camera side of the flow cell (red circle) can cause image to be blurry or cloudy. (Note: The filter is not green, the color helps to see the alignment in the illustration.)

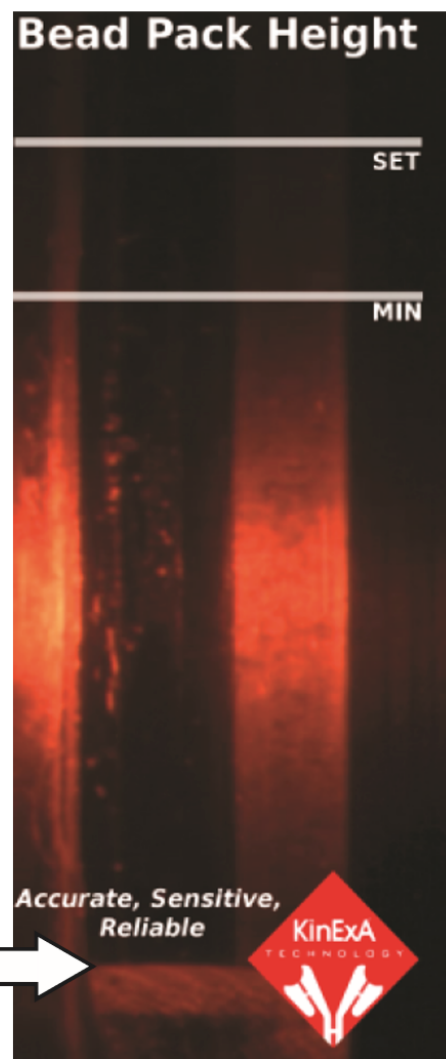


Figure 5: Camera image of a properly aligned *Flow Cell*.