

ATTENTION

The following actions must be taken to prevent possible damage to the system or components.

Please read through the document completely before starting any repairs.

**Refer to the proper sections in the service manual for complete removal/
replacement procedures**

Note: 10 black o-rings are included with a valve. Only place o-rings in ports “A” and “C”. The Black ink valve also gets an o-ring in the “L” port. Make sure they are fully seated and centered in the port.

- The rotary valves attached to the current pump *must* be in the “home” position **before** removing them. This is done by initializing the infusion pump, which occurs during every startup. Reboot the InkCenter from the Maintenance Tab to reinitialize the infusion pump. Alternately you can perform a Machine Shutdown and cycle power instead of rebooting.
- If the system is hanging up during startup due to an error and valve initialization does not occur, then the pump must be initialized manually. Please call RIS service at 858-779-9148.
- Once initialized, remove the valves from the infusion pump to verify that they are in the home position prior to removing the current infusion pump. The home position on the valve and drive post is in the horizontal position as shown:



- Once you verify the valves are in the home position, you can remove the current infusion pump and replace it with the new one. Verify the drive shafts for the valves in the new pump are in the home position before mounting the valves onto the pump body.
- **NOTE:** Place a new (**white**) o-ring in the syringe port of the new valve if one is not in place. (Remove the syringe to access the port at the bottom of the valve – then run syringe calibration)

VALVE REPLACEMENT CHECK LIST

Infusion Pump Valve Removal/Replacement

- Verify the Valve is in home position prior to replacement
- Note any ink leaks from the back of valve and if it has contaminated the infusion pump circuit boards
- Remove one line on the valve at a time and place onto new valve
 - The front of the valves has letters on them as do the tubing lines. Use them to verify their proper placement.
 - Ensure you do not mix up any of the tubing
- Only replace damaged fittings on the ink lines with supplied brown fittings *if necessary* (tubing is damaged; missing parts).
- Only put new o-rings in ports “A” and “C” (of each color valve – Cyan, Magenta and Yellow). The Black valve gets an additional O-ring in port “L”
- Make sure the O-ring is fully seated and centered in the valve port prior to inserting the connector
- The additional O-rings can be used if a connector leaks or kept by the technician for future use
- Make sure the syringe is finger tight to the valve. Use the top metal part of the syringe to tighten. Do not tighten by the glass cylinder
- If replacing the infusion pump, do not over tighten the 4 nuts securing it.

After replacing a valve:

- Run **Syringe Calibration** procedure
 - Navigate to Tech Pane Tab
 - Select the Tests button in the lower right
 - Follow on screen instructions
- Ensure all fittings on the rotary valves are finger tight (4 valves, 10 fittings each)
- Prime ink lines
 - From Ink Center Tab, select one of the ink droplets
 - Select prime all inks
 - Select Priming complete when procedure is completed.
 - Touch any gray part of the screen to return to Ink Center tab.
- Verify all ink lines are full
- If all ink lines do not prime or stay full, continue to next step, and then call support to prime the lines individually
- Run **Syringe Leak Test** procedure and note any issues
- Call 858-779-9148 option 3 for assistance!