Installing the System

This section contains detailed instructions for installing a new RIS InkCenter™ refill system.

3.1 System Specifications

3.1.1 Dimensions

- 36" (92cm) wide x 30" (77 cm) deep x 57" (145 cm) tall [chamber door closed]

3.1.2 Weight

- The system weighs approximately 600 pounds (275 kg) when empty. Full weights vary substantially depending on the amount of fluids and other supplies loaded into the cabinet drawers.

3.1.3 Input Power

- The InkCenter™ refill system is configured for the voltage requirements of the installation locality that was specified at the time of order. Please refer to the equipment label for the input power configuration of your system.

3.2 Inspecting the System

In order to ensure that no damage has occurred during shipment, visual inspect the following internal components of the system.

T<small>ASK</small>

1.   Remove the upper hood and set aside.

2.   Press in on all tester connectors to ensure that they are fully seated.

3.   Verify that the four ink line connections at the back of the vacuum chamber are snug. They should only be finger-tight. Do not use tools to tighten.

4.   Verify that the three fittings in the HP45 station manifold are snug. They should only be finger-tight. Do not use tools to tighten.

5.   Lift up on the vacuum pump to verify that it is securely attached to the machine and visually check to make sure the front of the pump is not in contact with the edge of the frame. Some pumps have a removable power cable; make sure it's securely attached. Make sure the power switch on the vacuum pump is in the "1" (ON) position.

6.   Scan over all visible electrical and plumbing components to see if anything is obviously out of place, disconnected, or otherwise damaged.

3.3 Powering Up the System

Once the installation location has been selected and verified to meet the criteria described in section 3, proceed with setting up the equipment as follows.

TASK

1.   Roll the equipment into the desired location, leaving some room for now to allow for access to the back of the machine, if necessary during subsequent install steps.

2.   Verify that the power switch on the back of the machine is in the **OFF** position (**O** indicator pushed in). Attach the power cord to the outlet on the back of the machine and attach the other end to the power outlet.

3.   If available, plug an Ethernet cable into the port at the back of the machine.

4.   Power on the machine by toggling the position of the power switch on the back of the machine (**|** indicator pushed in).

3.4 Setting Up the Network

The following procedure only applies if an Ethernet connection was made during the power up process in section 6.

TASK

1. Verify that the green network activity light is illuminated on the back of the touch screen at the network port (the network cable with the white connector; the cable with the red connector should be to the left)

2. The system will automatically select an IP address once a valid connection is made.

3. Mark the lab port ID (if applicable) on the label provided at the back of the machine by the RJ-45 connection.

4. If no green light is detected, please try to validate with the local manager that the ethernet connection is live, and call RIS Tech Support at 858-779-9148, opt. 3 for assistance.

3.5 Loading Supplies

Prior to proceeding with loading the supplies, try to have the lab manager or lead operator present to observe the steps.

3.5.1 Ink

The most important consideration when placing ink into the system is to be certain to put the correct ink into the correct location. The bottles are marked with their color and a two digit ID number on the side as well as the bottom. Each Ink drawer has a label along its top edge with the appropriate ink color and two digit ID number called out beside each position within the drawer to indicate which bottle belongs in that position. **Before inserting a bottle, be sure that the color and ID number on the bottle match the adjacent numbers on the drawer.**

TASK

1. Unpack the ink bottles and place one of each type of ink bottle upside-down into position in the upper half of the appropriate slot of the appropriate Ink drawer. Double-check that the bottle's bottom label information matches the adjacent drawer label information and, upon confirmation, press the bottle down firmly to engage the housing below.

    Step Result: **Note:** Not all ink slots will need to have a bottle installed. Some ink slots are reserved for future expansion.

Figure 3.1: Installing ink supply bottles

2. Place any additional spare ink bottles in the lower half of the Ink drawer, being careful to keep the correct bottles sorted into the appropriate drawer, by color.

Figure 3.2: Stocking replacement ink supply bottles

3.5.2 Waste Container Kit

A removable 2-gallon waste container is located in the Maintenance drawer to allow for easy collection and removal of the waste fluid generated during operation. The waste container kit should be included with the starter kit consumables.

TASK

1.   Assemble the waste container kit per the instructions included with the kit. The lab will store the extra storage bags, absorbant, and tie wraps.

3.5.3 Cleaning Fluid

Cleaning Fluid is supplied in 1 gallon jugs which are used to fill a 2-gallon capacity tank located in the Maintenance drawer.

TASK

1.   Open the Maintenance drawer & remove the cap from the cleaning fluid tank (rear-most tank).

2.   Pour Cleaning Fluid into the tank until the level reaches the Max Limit line marked on the tank.

   a   Warning: Do not refill the tank with water as this will damage the machine and the cartridges being processed.

3.   Replace the cap onto the cleaning fluid tank.

4.   One additional jug of spare cleaning fluid can be stored in the front section of the Maintenance drawer beneath the vacuum wand. Store additional bottles in a convenient location near the machine.

3.5.4 Wipes

TASK

1.   If it has not already been done, load a package of wipes into the dispensing canister that is built into the front of the machine. When loading a fresh roll or wipes into the canister, be sure to pull the first wipe from the center of the roll to prevent jamming.

2.   Store spare packages of wipes in a convenient location near the system.

3.5.5 Tester Paper

TASK

1.   Verify that the tester is loaded with paper by removing the tester cover. If the roll is very low or there is no paper, load a roll into the tester, following the instructions pasted on the front of the tester. For additional instructions see the operation manual.

2.   Store spare rolls of paper in the Supplies drawer or in a convenient location near the system.

3.5.6 Drill Bits

TASK

1.   Verify that a drill bit is installed at the drill station. If not, verify that the drill station is disabled by pulling the handle down and observing if the chuck is rotating. If active, disable the drill from the Admin screen or by logging out. Once the drill has been disabled, snap a drill bit into the drill station chuck.

2.   Store spare drill bits in the Supplies drawer.

3.5.7 Refill Adapters

TASK

1.   Open the Refill Adapters drawer and remove the packaging.

2.   Verify that the Refill Adapters are present and in good condition.

3.5.8 Test Adapters

TASK

1.   Open the Test Adapters drawer and remove the packaging.

2.   Verify that the Test Adapters are present and in good condition.

3.5.9 Cartridge Clips

TASK

1.   Store the clips in a convenient location near the system, organized by type.

3.6 Initializing the System

Before running the system for the first time, perform the following initialization procedures.

3.6.1 Initializing the Adapters

The first time a Refill Adapter is introduced to a machine, it must identify what type of adapter it is so that this information can be stored. This association is normally completed in the factory, however the installer should verify that this process has been completed during training to simplify the user experience with the new machine.

3.6.2 Testing the Drill

This functional test step is done during the initialization process because it requires the work surface to be installed, but subsequent steps require that it be removed. This helps to streamline the installation process.

TASK

1. Run an HP2 or HP3 black cartridge through the drill process. Verify that the shrouded drill bit assembly does not exhibit any excessive wobbling during operation and that the safety shroud fully extends to cover the drill bit after the drilling is complete.

2. Repeat the drilling process with an HP2 or HP3 color cartridge.

3.6.3 Priming the Ink Supply Lines

The ink lines which run from the reservoirs in the ink drawers up to the pumping system in the center of the machine need to be purged of air and filled with ink.

TASK

1. Remove the work surface from the system to gain access to the front of the infusion pump.

2. Verify that all of the fittings connected to the valve bodies are snug. They should be finger-tight. **Do not use tools to tighten.**

3. Press anywhere on the ink drawer graphic at the bottom of the Ink Center tab and then select individually each ink (one at a time) to be primed. Press **Prime Ink Lines** to start the automatic priming process. **If available, press Prime All Ink Lines to prime all the ink lines in one step.**

4. While the priming process is running, visually inspect the ink lines and verify that once each ink reaches the fitting at the valve bodies that it does not retreat back down the line with air appearing in the line adjacent to the fitting. If this happens, ensure that the fitting is tight and repeat the priming process.

5. Follow the on-screen prompts to verify that the priming is completed.

3.7 Functional Testing

Before releasing a machine, a series of functional tests must be run to verify that no damage occurred during shipping at that everything is functioning properly.

3.7.1 HP 45 Fill

TASK

1. Run an HP45 or HP15 cartridge through a complete refill process.

2. During operation of the HP45 fill station, check for leaks or other problems.

3. When the fill is complete, verify that there is ink visible on the printhead from the fill process but that none has leaked down the sides. Also verify that the ink seal is properly seated in the manifold at the top of the station.

4. Wipe the cartridge and verify that wiping produces two solid "tracks".

5. Unless you are certain that the cartridge is good, ignore any failures at the test station.

3.7.2 Vacuum Chamber Color Fill

TASK

1. Using the same HP2 or HP3 color cartridge that was drilled in step 3.6.2, complete the remainder of the refill process.

2. Using Prep Station A for the prep process, look for fluid leaks from the station and/or adapter.

3. When the prep process finishes, take notice of how long the prep process took before removing the adapter. If the process took more than 4 minutes, re-run the cartridge and verify that the second run finishes more quickly.

4. When setting up at the fill station, be sure to select the low volume version of the cartridge regardless of the actual cartridge type being filled (HP22 for HP2 family and HP93 for the HP3 family)

5. During the fill process, pay close attention to the three color ink lines in the chamber. Check to be sure that the lines fill completely with ink and that there are very few, if any, bubbles that pass down the line.

6. Unless you are certain that the cartridge is good, ignore any overflows in the fill station or failures at the test station.

3.7.3 Vacuum Chamber Black Fill

TASK

1. Using the same HP2 or HP3 black cartridge that was drilled in step 3.6.2, complete the remainder of the refill process.

2. Using Prep Station B (if available) for the prep process, look for fluid leaks from the station and/or adapter.

3.   When the prep process finishes, take notice of how long the prep process took before removing the adapter. If the process took more than 4 minutes, re-run the cartridge and verify that the second run finishes more quickly.

4.   When setting up at the fill station, be sure to select the low volume version of the cartridge regardless of the actual cartridge type being filled (HP21 for HP2 family and HP92 for the HP3 family)

5.   During the fill process, pay close attention to the black ink line in the chamber. Check to be sure that the line fills completely with ink and that there are very few, if any, bubbles that pass down the line.

6.   Unless you are certain that the cartridge is good, ignore any overflows in the fill station or failures at the test station.

3.8 Final Checks

Before releasing a machine to a customer for normal operation, one last round of visual checks must be performed.

TASK

1. Open the Maintenance drawer and verify that the operation is smooth. Look for evidence of leaks or spills. Using a flashlight, look inside the machine for any leaks or spills in the plumbing or in the catch basin at the bottom of the machine.

2. Open each Ink drawer and verify that the operation is smooth. Check that the other Ink drawers are locked. Look for evidence of leaks or spills in each drawer. Repeat for all four ink drawers.

3. Examine the syringe pump. Look for any evidence of leaks or spills around and in the tray beneath the pump.

4. Look for any evidence of leaks or spills around the prep station(s).

5. Lift up on the drill fascia and verify that it is properly locked into position and does not move.

6. Lift up on the touchscreen fascia and verify that it is properly locked into position and does not move.

7. Examine the pogo pins on the tester interconnect board and verify that none are bent and all move smoothly.

8. Re-install the upper hood (7 bolts).

9. Reach behind the upper hood of the machine and verify that air flow can be felt blowing out of the vents in the hood.

10. Replace the work surface and secure it with both fasteners.

11. Move the machine into it's final position and lower the four leveling feet, as needed, to secure the machine in place.

12. Perform one final overall cosmetic inspection of the machine & wipe clean where necessary.

13. Log out of the machine by touching the Logout button in the middle of the main operator screen.

14. Connect the Canon resetter to the USB connection at the lower right side of the touch screen

15. Install dot labels and date labels into the label dispenser.

16. Complete the install checklist provided with the machine, and fax to RIS (858-876-1561)

at the end of the day.