



*Your partner in marking and coding*

# Cartridge Maintenance

# Initial Use

- The cartridge should remain in its vacuum-sealed pouch until it is installed.
- After removing it from the pouch, use the cartridge within 2 weeks.
- Never shake the cartridge because shaking allows air into the cartridge causing nozzle blockage.
- Once removed from the pouch, keep the cartridge capped with its clip when not in use.
- Before inserting the cartridge into the controller, gently wipe the printhead to remove any ink on the orifice plate.
- Use a dry lint-free wipe.

# Storage

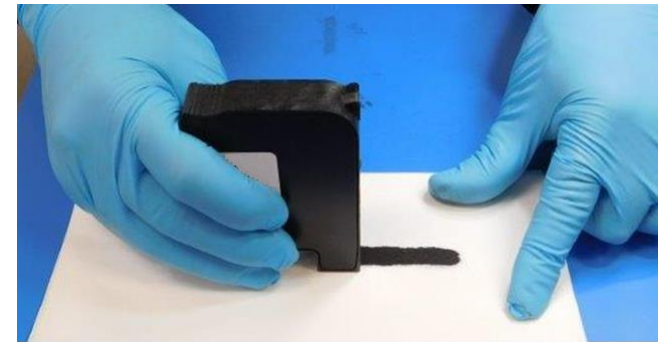
- Use the correct type of cartridge clip to cap the print cartridge. For the best results, use the cartridge clip provided with the print cartridge.
- Do not use cartridge clips from other types of print cartridges. Use of the wrong capping material may impact image quality.
- To minimize the build-up of this ink on the clip, wipe the printhead prior to capping.

# Wiping Techniques

- The recommended technique for wiping is shown here.
- Initial wipe is characterized by a combination of absorbent material, slow speed, and proper applied pressure. This combination provides enough capillary draw along the nozzles to wick ink from them.
- In later wipes, the wiping material should be dry, absorbent, lint-free, and non-reactive with the ink. For intensive cartridge recovery, the wiping material may be wetted with a generous amount of isopropyl or ethyl alcohol (95%).



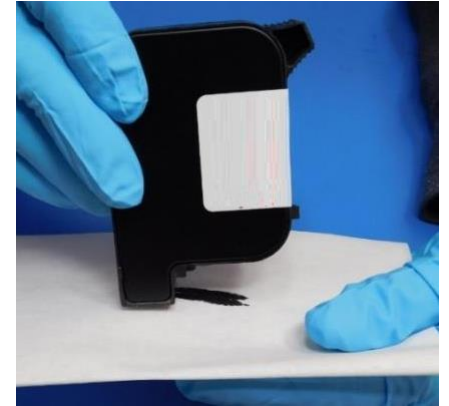
Initial wipe



Later wipe

# Standard Dry Wiping

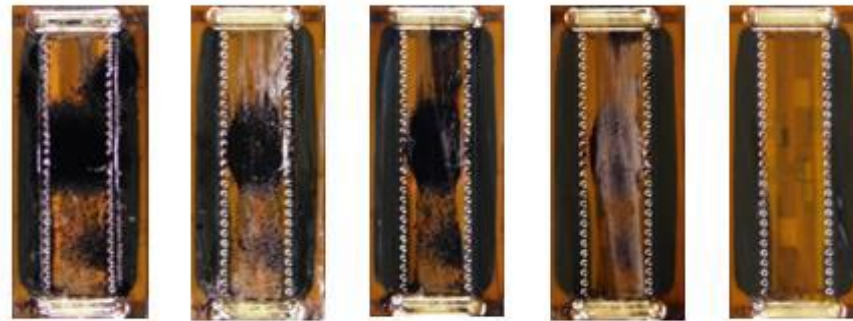
- When wiping, hold the cartridge with the nozzles down and pull from either sides of the cartridge. As the ink is slowly wiped across the orifice plate, it will soften hardened deposits of ink and debris. Wiping the orifice plate too slowly causes ink to wick out of the nozzles and streak across the orifice plate.
- Wiping too fast bounces the orifice plate over the surface and won't remove the debris. It may also incorporate air bubbles.
- It is better to repeat the process several times with constant speed and force than to wipe too fast or press too hard.
- Pressing too hard will scratch the orifice and may break the fragile drop ejectors.



Use a finger as support if a solid working surface is not available.

# Intensive Recovery Methods

- If the image quality degrades and is not improved with routine wiping maintenance of the print cartridge, additional recovery methods may be required.
- Intensive recovery methods may restore print cartridges.
- When intensive recovery methods do not restore the print head, replace the cartridge.



The photo on the left shows the printhead before wiping, the middle photos show the printhead after successive dry wipes, and the photo on the right shows the printhead after an alcohol wipe.

# Wet Wiping

- Perform a standard wipe procedure, but first wet the lint-free wiping material with a generous amount of isopropyl or ethyl alcohol (95%), or acetone.
- Repeat the wet wipe until no visible signs of ink accumulation are visible on the orifice plate, and then finish with a dry standard wipe to remove any traces of alcohol from the cartridge, prior to printing.
- Do not shake the cartridge because shaking allows air into the cartridge causing nozzle blockage. To avoid air bubbles in the nozzles, wait 10 minutes after wiping and inserting the cartridge into the controller before print testing. This allows time for air bubbles to reabsorb into the ink.

# Priming (air removal) with Syringe

- Air can accumulate in the cartridge from dropping the print cartridge, vibration when not capped, or excessive thermal cycling while printing in a horizontal orientation (top print).
- Air in the cartridge is difficult to remove, but careful priming may help.
- To prime a print cartridge, a volume of ink is purged from the nozzles.
- Priming will require a syringe and a cartridge clip with a good seal for the printhead. Use a cartridge clip that is appropriate for the cartridge, such as the cartridge clip that can be provided with the print cartridge.



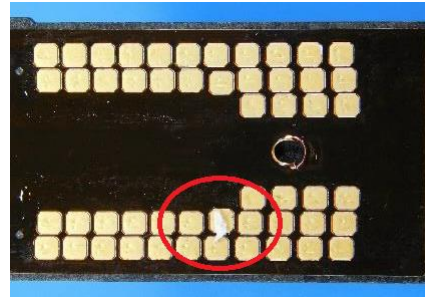
# Electrical and Interconnect Servicing

- If a cartridge test print shows unintended white spaces (missing nozzles) that are equally spaced or in a large block, this can indicate a debris or ink contamination problem on the electrical interconnect pads.
- Figure shows examples of a normal barcode segment (left), a bar code with equally spaced white lines with approximately 2mm spacing, indicating an open address (middle), and a bar code with a large missing block, indicating an open primitive (right).

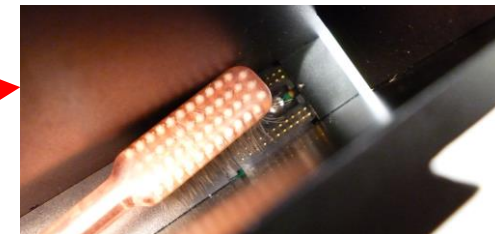


# Electrical and Interconnect Servicing

- Inspect the interconnect pad for debris or ink. Then apply a small amount of alcohol to a lint-free wipe and gently wipe the interconnect pads.



- Before inserting the cartridge back into the cartridge stall, inspect the pins in the cartridge stall for damage, debris, and accumulated ink. Clean the interior of the cartridge stall using a soft plastic bristled dental toothbrush wetted with alcohol.



# Electrical and Interconnect Servicing

After cleaning with the brush, dab the cartridge stall with a lint-free wipe. Allow the alcohol to dry completely before inserting the cartridge into the cartridge stall.

