

PASSPORT



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Service Bulletin

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Print Quality - Heads Operating With Dropouts or Deflections

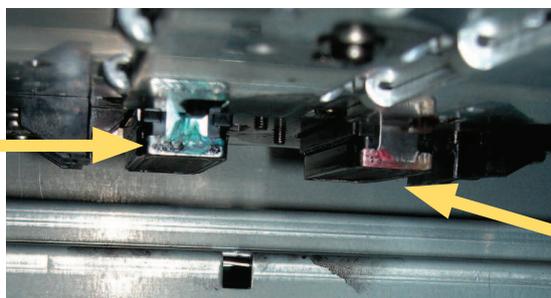
Print quality issues do not necessarily indicate a defective print head. Many times the problems can be resolved with proper preventative care. In situations where the customer is describing symptoms consistent with poor head output (banding, inconsistent color, random drops or lines on page, grainy output, etc) various cleaning methods can be utilized to return the print head to proper operating condition.

1. **Automated Cleaning** (head cleaning using the Cleaning button on the control panel) - The head cleaning function performs two primary tasks: First, the printer uses the wipers to wipe the surface of the heads. Then the cap tops raise and the pump activates in order to draw any contaminants out of the nozzles. This function may need to be performed more than once in order to completely remove contaminants.

A note about Medium and Powerful Cleans - Medium and Powerful Cleaning functions are available in the User Menu. Their actions are similar to the Normal Clean that is available on the Control Panel, except they act more aggressively (wipe more times and draw more ink through the caps). Medium and Powerful cleans are not typically recommended as they waste a lot more ink than the Normal clean, and tend to wear down components like pumps. If a user is using these cleaning functions, most likely another issue needs to be resolved.

2. **Manual Cleaning** - Power down the printer's Sub Power, then, while holding the Clean button, power back up. This puts the printer into a Maintenance Mode and provides two choices - Cleaning and Wiper Replace. Perform both functions, inspecting the heads, wipers, and cap tops for ink buildup and residue. Gently wipe away any contaminants on heads, wipers and caps. When cleaning the print heads, only clean the sleeve surrounding the head. Do not wipe the bottoms of the heads (nozzles). Use only Roland DGA approved cleaning solution for whichever printer you are servicing. Do not mix water based inks/solutions with solvent based inks/solution!

Remove residue from sleeves of print heads



Avoid damaging nozzles

3. **Clean/Replace Wipers or Cap tops** - When performing a clean, the printer relies on both the wipers and the caps for proper operation. Dirty or damaged wipers and caps cannot effectively clean print heads and therefore should be replaced.

4. **Inspect pumps and dampers** - Defective pumps and dampers will limit proper ink flow through head. Attach a syringe to the cap top ink line (black tube) and draw ink through the damper and head. The ability to siphon ink through the line will not only help determine that the damper is operating properly, but it will also possibly remove contaminants.

6. **Flush Heads with Cleaning Solution** - Typically this is accomplished by replacing the appropriate ink cartridge with a cleaning cartridge for that specific printer, then gently pulling cleaning solution through the ink lines, dampers, heads and caps with a syringe. Cleaning solution will help dissolve ink inside the head and nozzles.

6. **Check head rank** (new head installations) - Improper head ranks can cause poor head performance.

7. **Check head calibrations** (new head installations) - Poorly calibrated heads can cause poor head performance.

8. **Manual Cleaning of Head Nozzles** - Using a foam swab that has been soaked in the appropriate cleaning solution, gently apply pressure to the bottom of the heads (nozzles). This action forces cleaning solution into the nozzles from the bottom and in many instances can dislodge contaminants. Please note: This action should only be taken when all other attempts to repair head have been exhausted.

The print nozzles are very fragile and should be treated with extreme care.

