



GUIDE TO CLEANING AND DISINFECTING ZEBRA HEALTHCARE PRINTERS



Introduction

When using Zebra healthcare printers in healthcare environments, patient safety is of paramount importance.

Cleaning and **Disinfecting** the printer after each patient visit is essential to prevent the spread of infectious agents that cause disease and to keep the product functioning properly. Since repeated use of chemical cleaners can have an adverse effect on traditional amorphous plastics, Zebra has built its healthcare printers with rugged, UV resistant plastics designed and tested to withstand regular cleaning with all major hospital-cleaning agents, including UV-disinfection protocols, for the life of the printer. This document details how to safely clean the printer on a regular basis.

Cleaning is the removal of visible soil (e.g., organic and inorganic material) and biofilm from the product and normally accomplished manually using a dampened micro-denier microfiber wiper (eye wear lens cloth) and a scrubbing motion.

Disinfection describes a process that eliminates many or all pathogenic microorganisms on pre-cleaned surfaces. The efficacy of any disinfectant is diminished when soil is present.

Approved Cleaning Agent Ingredients

The cleaning agents used to disinfect and clean the printer must contain one of the active ingredients listed below:

- Alcohol - Isopropyl and Ethyl ($\leq 80\%$)
- Ammonium - Quaternary Ammonium Compounds
- Bleach - Sodium Hypochlorite
- Hydrogen Peroxide - Accelerated or Improved
- Phosphoric Acid
- Sodium Troclosene - Sodium Dichloroisocyanurate



Warning - It may be dangerous to combine some or all of the chemicals listed above. Read all warnings and follow the manufacturers directions provided on the packaging of each cleaning agent.

Approved Cleaning Products

Zebra recommends using pre-saturated wipes to avoid over saturating or “pooling” of cleaning agents on the printer. Never pour or spray cleaning agents directly on any surface of the product. Always use personal protection when using any cleaning agent.

Alcohols:

- Alcohol Prep Pads (PDI)
- CaviWipes™ (Metrex) - approval does not extend to CaviWipes1
- Super Sani-Cloth® (PDI)
- Sani-Cloth® Plus (PDI)
- Viraguard® Towelettes (Veridien)
- Windex® Blue (S.C. Johnson)

Hydrogen Peroxide/Acid:

- Clinical Surface Wipes (Clorox® Healthcare)
- Oxivir® TB Wipes (Diversey)
- Virox® AHP 5 RTU Wipes (Diversey)

Ammonium:

- MadaCide-FDW-Plus (Mada Medical)
- Sani-Cloth® HB (PDI)
- Super Sani-Cloth® (PDI)
- Formula 409® Glass and Surface Cleaner (Clorox)

Bleach:

- CaviWipes™ Bleach (Metrex)
- Dispatch® Disinfectant Towels (Clorox)
- Sani-Cloth® Bleach Wipes (PDI)



Caution - Cleaning agents that contain bleach can cause oxidation (corrosion) of metal components (including connectors on batteries and docking stations) resulting in permanent product damage.

Soap/Saline:

- Saline 10%
- Mild dish soap

Please contact Zebra Product Management for approval before using any unlisted product or cleaning agent.





Chemicals Known to Damage Plastics

The following chemicals can potentially damage the plastics on Zebra Healthcare printers and should not come in contact with plastic parts:

- Acetone
- Ammonia solutions
- Aqueous or alcoholic alkaline solutions
- Aromatic and chlorinated hydrocarbons
- Benzene
- Carboic acid
- Ethanolamine
- Ethers
- Ketones
- TB-lysoform
- Toluene
- Trichloroethylene



Note: Some common hand sanitizers used in the healthcare environment may contain some of the harmful chemicals listed above. Please dry your hands completely and use gloves before handling the printer to prevent inadvertent contamination and damage to the plastics.

This is not a comprehensive list of chemicals known to cause damage to Zebra products. Please contact Zebra Product Management for approval before using any unlisted substance.



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Regular Cleaning and Disinfecting

The following steps should be taken by healthcare workers in order to disinfect their product after each patient visit.

1. Cleaning the printer display

- a. Remove any dirt particles with a damp cloth.
- b. Wipe the display window using a pre-moistened wipe or dampen a soft cloth with an approved cleaning agent, taking care not to saturate the cloth.
- c. After cleaning, dry with a soft non-abrasive cloth to prevent streaking.
- d. Do not allow any abrasive material to touch the display.
- e. Do not pour or spray any cleaning agent directly onto the display window.
- f. Do not let liquid pool around or on the display window.

2. Cleaning the printer housing

- a. Use a pre-moistened wipe or dampen a soft cloth with an approved cleaning agent, taking care not to saturate the cloth.
- b. Gently wipe all plastic surfaces thoroughly.
- c. If necessary, use a cotton-tipped applicator to reach tight areas.
- d. Do not wrap the printer in the pre-moistened cloth.
- e. Do not pour or spray any cleaning agent directly onto the printer.

3. Cleaning the printer keypad

- a. Use a pre-moistened wipe or dampen a soft cloth with an approved cleaning agent, taking care not to saturate the cloth.
- b. Be sure to clean the printer keys, and if necessary in between the keys, using a cotton-tipped applicator.
- c. Do not pour or spray any cleaning agent directly onto the keypad.

4. Drying

- a. After cleaning, dry with a soft non-abrasive cloth and let air dry before use.
- b. Always change gloves before handling the printer to avoid re-contaminating the device.