Cleaning and Disinfecting Guidelines for Zebra TC5X-HC Products

The TC52-HC Touch Computer builds on the highly successful TC51-HC, adding a new platform and new capabilities to deliver the ultimate device for today’s healthcare workers. You get the ultimate user experience — the simplicity of Android with all the features your staff needs to provide the highest quality of patient care during every shift.

**Introduction**

The TC5X-HC is engineered to excel in healthcare work environments and is especially optimized for clinical collaboration — all in a housing created with the industry’s most resilient medical-grade plastics. These products are designed to withstand repeated cleaning and disinfecting.

Just as with other devices that are used by clinicians in healthcare environments, the TC5X-HC should be cleaned and disinfected to reduce the risk of spreading healthcare associated infections (HAIs) and micro-organisms.

This document provides guidelines to use when cleaning or disinfecting the TC5X-HC to protect the Zebra product and optimize its performance. Included below is a list of cleaning agents that are approved by Zebra for use on the TC5X-HC device.

It is important to follow the cleaning and disinfecting product manufacturer directions regarding how to use their product to attain the efficacy indicated.
Cleaning and Disinfecting Guidelines

- Turn off and/or disconnect the device from AC/DC power.
- To avoid damage to the device or accessory, use only approved Cleaning & Disinfecting agents specified for the TC5X-HC.
- Follow the Manufacturer’s directions on the approved Cleaning & Disinfecting agent for how to use their product properly and safely.
- Use pre-moistened wipes or dampen a soft sterile cloth (not wet) with the approved agent. Never spray or pour chemical agents directly onto the device.
- Use a moistened cotton-tipped applicator to reach tight areas. Be sure to remove any lint left over by the applicator.
- Do not allow liquid to pool.
- Allow the device to air dry, dry with a soft lint-free cloth or towelette before use. Ensure electrical contacts are fully dry before reapplying power.

Approved Cleaning and Disinfectant Agents for Zebra’s TC5X-HC devices

There are numerous cleaning agents used in the healthcare industry, some of which contain ingredients that are harmful to the TC5X-HC devices. Therefore, it is important to use only Zebra-approved cleaning and disinfecting agents for the TC5X-HC from the list below.

Note: any solution percentages specified in the list below should be adhered to and not exceeded.

Warning: The combining of chemical agents may be hazardous both to the user as well as to the device and is not approved. Always follow the safety instructions provided by the manufacturer of the approved cleaning agent, along with the Zebra cleaning guidelines, for safe handling and use.

Special Precaution for Bleach-based Disinfectants

| 3% Hydrogen Peroxide and 97% Water solution | Medipal Alcohol Wipes |
| 10% Bleach (Sodium Hypochlorite 0.55%) and 90% Water Solution | Metrex CaviWipes |
| 91% Isopropyl Alcohol and 9% Water Solution | Metrex CaviWipes1 |
| Azowipe | PDI Easy Screen® Cleaning Wipe |
| Brulin BruTab 6S Tablets* | PDI Sani-Cloth AF3 Germicidal Disposable Wipe |
| Clinell Universal Sanitizing Wipes | PDI Sani-Cloth Bleach Germicidal Disposable Wipe |
| Clorox Dispatch Hospital Cleaner Disinfectant Towels with Bleach * | PDI Sani-Cloth HB Sani-Germicidal Disposable Wipe |
| Clorox Formula 409 Glass and Surface Cleaner | PDI Sani-Cloth Plus Germicidal Disposable Cloth |
| Clorox Healthcare Bleach Germicidal Wipes * | PDI Super Sani-Cloth Germicidal Wipe |
| Clorox Healthcare Hydrogen Peroxide Wipes | Progressive Products Wipes Plus |
| Clorox Healthcare Multi-Surface Quat Alcohol Wipes | Sani Professional Disinfecting Multi-Surface Wipes |
| Diversey D10 Concentrate Detergent Sanitizer | Sani-Hands® Instant Hand Sanitizing Wipes |
| Diversey Dimension 256 Neutral Disinfectant Cleaner | SC Johnson Windex Original Glass Cleaner with Ammonia-D |
| Diversey Oxivir Tb Wipes | Spartan Hepacide Quat II |
| Diversey Virex II 256 One-Step Disinfectant Cleaner | Sterets Alcowipe |
| Metrex CaviCide | Steris Coverage Plus Germicidal Surface Wipes |
| Metrex CaviCide1 | Veridien Viraguard |

* Not for use on cradles

The use of non-approved cleaning or disinfecting agents on the Zebra TC5X-HC may result in damage to the product, and may void the warranty.
1. TC5X Healthcare Grill Cleaning Instructions

   Procedure
   - Using a hard bristle brush, aggressively scrub the top and bottom audio grills of the TC5x device for 10-20 seconds
   - For the most thorough and complete audio grill cleaning, use the following technique:
     - Prepare a cleaning solution comprised of dish soap (Dawn, Palmolive) and water.
     - Using a hard-bristled brush, dip the brush into the cleaning solution and proceed to scrub the top and bottom audio grills of the TC5X.
       - Vigorously scrub the audio grills while changing the angle of attack of the bristles. The intent of the scrubbing is to remove the debris from the audio grill slots. Be sure to scrub the entire grill. Do no neglect the extreme left and right audio slots.
     - Scrub each grill (top and bottom) for approximately 30 seconds. A soapy lather on top of the grills is expected.
     - Using clean water, rinse both the top and bottom grills to remove soap.
       - Hold the device upright to allow water to run off the device, away from the display.
       - Apply a small amount of water to the cleaned grill area using a squeeze bottle or a clean wet brush.
     - Using a dry paper towel, wipe the device down to remove any water still on the device.
     - If possible, use canned air to remove excess moisture from the grills. Be sure to blow the moisture out of the device in a direction pointing away from the display.
       - If canned air is not available, allow the device to air dry naturally. Audio quality will be impacted if the grills are wet but will return to normal once the grills have completely dried.

2. Scanner Exit Window

   - Wipe the scanner exit window with a lens tissue or other material suitable for cleaning optical materials such as eyeglasses.

3. Charging Contacts

   - Dip the cotton portion of a cotton-tipped applicator in isopropyl alcohol.
   - Gently rub the cotton portion of the cotton-tipped applicator back and forth across the connector contacts of the Zebra device.
   - Using a dry cotton-tipped applicator, rub across the connector contacts of the Zebra device back and forth several times.
   - Carefully inspect and remove any cotton or other residue that remains on the connector.
   - Allow the isopropyl alcohol to air dry, or dry with a soft lint-free cloth or towelette. Ensure electrical contacts are fully dry before reapplying power.

Special Precaution for Hand Sanitizers

Some hand sanitizers contain ingredients that can be harmful to the device. Hands should be completely dry before handling the device and cradles to prevent damage.

Additional Periodic Deep Cleaning Maintenance

Keep your Zebra TC5X-HC device and cradle in good working order with regular and comprehensive cleaning to remove the natural build-up of dirt that occurs with everyday use. Deep cleaning maintenance is recommended on a monthly basis.

Bleach-based cleaners are not approved for use on cradles. Bleach products are known to corrode metals very quickly. Avoid allowing any bleach-based cleaner to touch the electrical contacts on the TC5X-HC. If the contacts are exposed to bleach, it is important to completely remove it using only water or isopropyl alcohol solution.
4. Cradles and Battery Chargers

- Remove the power cable from the cradle or charger.
- Dip a cotton-tipped applicator in isopropyl alcohol.
- Gently rub the moistened cotton-tipped applicator along the pins of the connector. Slowly move the applicator back and forth from one side of the connector to the other.
- Rub all sides of the connector with the cotton-tipped applicator.
- Spray compressed air in the connector area by pointing the tube/nozzle about 1/2 inch (12.7 mm) away from the surface (Caution: When using compressed air, follow the product manufacturer’s directions for safe usage).
- If grease or other types of debris are found on other areas of the cradle, use a lint free cloth and isopropyl alcohol or a pre-moistened alcohol wipe to remove.
- Inspect and remove any residue (e.g., cotton, cloth, etc.) that may have attached to the connector during the cleaning process.
- Allow the isopropyl alcohol to air dry, or dry with a soft lint-free cloth or towelette. Ensure electrical contacts are fully dry before reapplying power.