

# **Sanitize for Safety**

Cleaning and disinfecting guidelines for Zebra healthcare mobile computers and tablets

Disinfecting your Zebra devices can help prevent the spread of pathogens. Make it part of your safety routine to protect yourself and others. While Zebra healthcare mobile computers and tablets are engineered with the industry's most resilient medical-grade plastics, the guidelines in this document must be followed to properly disinfect devices and protect the housing plastics from damage.





# What's included...

Use this document to find the best practices and guidelines for disinfecting your Zebra healthcare mobile computers and tablets



Cleaning dos and don'ts



Approved cleaning and disinfecting agents



Step-by-step instructions

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UV-C disinfecting



# Cleaning and Disinfecting Dos and Don'ts

Keep your Zebra healthcare mobile computers, tablets and cradles in good working order with regular and comprehensive cleaning and disinfecting from everyday use. Deep cleaning maintenance is recommended on a monthly basis.

# **Disinfect all parts of your device**

### Don't forget cradles, cords, and chargers

## **Don'ts**

- Never spray or pour chemical agents directly onto the device.
- Do not allow liquid to pool.

## Do's

- Disconnect the device from AC/DC power—do not clean while charging.
- Use only approved cleaning and disinfecting agents as specified on page 3.
- Follow the manufacturer's directions on the cleaning and disinfecting agent for how to properly and safely use their product.
- Take special precaution with bleach-based disinfectants as outlined on the sidebar on this page.
- Use pre-moistened wipes or dampen a soft sterile cloth (not wet) with the approved agent.
- Use a moistened cotton-tipped applicator to reach tight areas. Be sure to remove any lint left over by the applicator.
- Allow the device to air dry, or dry with a soft lint-free cloth or towelette before use. Be sure to remove any lint left over by the applicator.
- Ensure electrical contacts are fully dry before reapplying power.



#### Warning

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

#### Special precautions for bleach-based disinfectants

- Dilute 5.5% bleach (sodium hypochlorite) solution with water at a 10:1 ratio. If using another bleach concentration, dilute proportionally.
- 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 Zebra healthcare mobile computers.
- If the contacts are exposed to bleach, it is important to completely remove it using only water or isopropyl alcohol solution.

#### Approved cleanser active ingredients

**100% of the active ingredients in any cleaner must consist of one or some combination of the following:** isopropyl alcohol, bleach/sodium hypochlorite (see important note below), hydrogen peroxide, ammonium chloride or mild dish soap.

**IMPORTANT:** Use pre-moistened wipes and do not allow liquid cleaner to pool.

Due to the powerful oxidizing nature of sodium hypochlorite, the metal surfaces on the device are prone to oxidation (corrosion) when exposed to this chemical in the liquid form (including wipes). In the event that these type of disinfectants come in contact with metal on the device, prompt removal with an alcohol-dampened cloth or cotton swab after the cleaning step is critical.

# Refer to page 3 for a full list of approved cleaning and disinfecting agents.

#### **Harmful ingredients**

The following chemicals are known to damage the plastics on the device and should not come in contact with the

**device:** acetone, ketones, ethers, aromatic and chlorinated hydrocarbons, aqueous or alcoholic alkaline solutions, ethanolamine, toluene, trichloroethylene, benzene, carbolic acid and TB-lysoform.



# Approved cleaning and disinfectant agents for Zebra healthcare mobile computers and tablets

The use of non-approved cleaning or disinfecting agents on Zebra healthcare mobile computers may result in damage to the product and may void the warranty. All approved cleaning and disinfecting agents are listed in the following table.

Cleaning and disinfecting agents in red: do not use on ET40-HC/ET45-HC healthcare tablets. Cleaning and disinfecting agents in blue: do not use on cradles.

| 0.5-3.0% Hydrogen Peroxide solution                                 | Diversey Virex II 256 One-Step<br>Disinfectant Cleaner | Progressive Products Wipes Plus                            |
|---|--|--|
| 10:1 Diluted 5.5% Sodium<br>Hypochlorite solution                   | Hydrogen Peroxide 0.5-3% Solution                      | Purell Wipes   |
| 70-91% Isopropyl Alcohol solution                                   | Isopropyl Alcohol 70% Solution                         | Sani Professional Disinfecting<br>Multi-Surface Wipes      |
| 409 Glass Cleaner   | Medipal Alcohol Wipes                                  | Sani-Hands® Instant Hand<br>Sanitizing Wipes               |
| Azowipe   | Metrex CaviCide  | SC Johnson Windex Original<br>Glass Cleaner with Ammonia-D |
| Brulin BruTab 6S Tablets  | Metrex CaviCide1                                       | Spartan Hepacide Quat II                                   |
| Clinell Universal Sanitizing Wipes                                  | Metrex CaviWipes                                       | Sterets Alcowipe   |
| Clorox Dispatch Hospital Cleaner<br>Disinfectant Towels with Bleach | Metrex CaviWipes1                                      | Steris Coverage Plus Germicidal<br>Surface Wipes           |
| Clorox Formula 409 Glass<br>and Surface Cleaner                     | Mild Dish Soap   | Veridien Viraguard   |
| Clorox Healthcare Bleach<br>Germicidal Wipes                        | PDI Easy Screen® Cleaning Wipe                         | Windex Blue  |
| Clorox Healthcare Hydrogen<br>Peroxide Wipes                        | PDI Sani-Cloth AF3 Germicidal<br>Disposable Wipe       |  |
| Clorox Healthcare Multi-Surface<br>Quat Alcohol Wipes               | PDI Sani-Cloth Bleach Germicidal<br>Disposable Wipe    |  |
| Diversey D10 Concentrate<br>Detergent Sanitizer                     | PDI Sani-Cloth HB Sani-Germicidal<br>Disposable Wipe   |  |
| Diversey Dimension 256 Neutral<br>Disinfectant Cleaner              | PDI Sani-Cloth Plus Germicidal<br>Disposable Cloth     |  |
| Diversey Oxivir Tb Wipes  | PDI Super Sani-Cloth Germicidal Wipe                   |  |

#### Note:

Any solution percentages specified in the above list should be adhered to and not exceeded. Cleaning agents listed are not for cleaning/disinfecting Zebra non-healthcare products. If you are interested in using a disinfectant that is not on the above list, please contact Zebra to determine acceptability.



# **Step-by-Step Cleaning Instructions**

## **Cleaning Upper and Lower Audio Grills**

- Apply a couple drops of isopropyl alcohol (70% or 91% solution) to audio grill area.
- Using a soft fine bristle brush gently brush the grill in a side to side motion to sweep debris out of the openings.
- Allow to air dry.

### **Cleaning Scanner Exit Window**

• For devices with scan engines, wipe the scanner exit window with a lens tissue or other material suitable for cleaning optical materials, such as eyeglasses.

## **Cleaning 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.

## **Cleaning 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.
- 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.

The TC21-HC/TC26-HC and HC20/HC50 have one additional crucial step: Insert the USB-C plug before cleaning to avoid damage to the USB-C port.





# **UV-C Disinfecting**

- Zebra Technologies has completed extensive testing to confirm the durability and performance of mobile computers and tablets when performing disinfecting by UV-C exposure.
- UV-C disinfection appliances may be used to disinfect mobile computers and tablets after the devices have been cleaned, complementing or reducing the use of chemical germicidal/disinfectant wipes and solutions.
- UV-C is only effective on surfaces exposed to the light. Chemical disinfecting is recommended for areas not exposed to the UV-C light.
- When utilized on devices with light colors, many UV-C solutions may result in the fading of plastic housings over time. Fading may include the yellowing of white plastics, lightening of other colors over time. Note this change is purely cosmetic and does not affect the durability of the housing materials.
- Alternatively, choosing a UV-C disinfection system that does not discolor or fade plastics may be desirable. Example: Seal Shield ElectroClave system works for both mobile computers and tablets.
- Zebra's warranty and service policies do not cover replacement of housing due to discoloration from exposure to UV-C.

#### NOTE

Zebra does not claim that these processes will annihilate (abridged language) COVID-19 but are effective cleaning and/or disinfecting measures for bacteria and virus (including COVID-19) residue per CDC/EPA recommendations.

For more information on Zebra's healthcare mobile computers and tablets, please visit: www.zebra.com/healthcare-mobile-computers



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