VMS+

Cleaning and Disinfection Guide

Ventripoint Diagnostics Ltd.

dot imaging for life

(USA) law restricts this device to sale by or on the order of a physician. Only trained medical personnel may use this device for its intended use.

Support

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Model

Ventripoint Medical System+ (Referred to as ‘VMS+’ throughout the manual).

Introduction

This document provides Cleaning and Disinfection instructions provided by the manufacturers of all the parts included on the VMS+.

It is important to follow the instructions in this document. Using cleaners and disinfectants not listed in this guide could result in damaging the components of the VMS+ and voiding warranty.

Turn off the VMS+ and disconnect the power cord from the wall outlet before performing any cleaning and disinfection of the VMS+.

This document includes the following sections:

Cart

The cart is a mobile computing workstation cart designed for safe use in general patient areas for clinical data entry and retrieval.

Read all Cautions, Warnings and Recommendations before you begin.

Cautions

Due to the proximity of electrical power and equipment, flammable cleaners should never be used on the cart.

Always keep the cables neatly organized and be sure to route the cables away from moving components with wire ties or cable clips.

Periodically inspect the power cord and the plus to ensure the plug is not bent and the cable is not frayed.

Warnings

Warning: Verify that your cart is powered off before plugging the power cord into a wall outlet.

Warning: Allow your cart to dry completely before plugging the power cord into the wall outlet.

Warning: When cleaning the cart wipe off the surface with a damp cloth and thoroughly dry.

Warning:	Never immerse the cart of its components in liquid or allow liquids to flow into the cart.

Warning:	Never use steel wool or other abrasive materials as these could damage the surface finish.

Warning:	Before using any cleaner on the cart, first test it on a small area to ensure that the surface is not harmed.

Warning:	These guidelines cannot guarantee infection control. The Institution's Infection Control Administrator should be consulted for cleaning procedures and processes.

Recommended cleaners and disinfectants

- Clean plastic components with diluted, non-abrasive solutions. Suggested cleaners are:
  - Water
  - Soap
  - Diluted bleach
  - Alcohol solutions
- Remove pen and dry erase marker stains with a soft cloth and 91% isopropyl alcohol
- Remove iodine stains with a soft cloth and any of the cleaners suggested above
- DO NOT use the following chemicals to clean your cart:
  - Acetone
  - Mineral spirits
  - Abrasive cleaners
  - Paint thinner
  - Any other harsh or toxic chemicals

Cleaning and disinfection

1. Remove the document protector by pulling up on the back corners. To refasten, press the nylon fastener into the hole in the work surface.

2. The work surface is fully removable to facilitate cleaning. Wipe clean using a soft cloth dampened with an approved cleaning solution.
3. Remove the back handle and clean using a soft cloth dampened with an approved cleaning solution.
4. Remove the rear bins by grabbing the outside edge of the bin and lifting. Wipe clean using a soft cloth dampened with an approved cleaning solution.
5. Wipe the keyboard tray and mouse tray with a soft cloth dampened with an approved cleaning solution.

Computer

The computer used in the VMS+ is a Tangent Medical Grade Computer and includes the following characteristics:

- UL60601 Certified. The computer is compliant with CDC guidelines for environmental infection control and isolation precautions.
- IP65 Easy to Sanitize. Sealed (dust tight, no ingress of dust) and protected (water jets from any angle). Can be sprayed and wiped clean.
- Antimicrobial. Prevents Surface contamination. Supports infection control initiatives.

Cautions

Do not have liquids seep into the internal areas of the computer. If liquid has seeped in, immediately disconnect the VMS+ from the power outlet and contact your Ventripoint Representative.

Having liquids seep in or inserting objects into the computer may result in electric shocks from taking and/or short circuiting the internal parts.

Do not cover or block the openings on the top and back sides of the computer. Inadequate ventilation may cause overheating thus reducing the life span of the computer.

Warnings

Warning: Do not spray cleaning agent on the chassis.

Warning: Do not place the computer in the presence of high moisture areas.

Warning: Do not place the computer in the presence of high moisture areas.

Warning: Do not place the computer near heat generating sources.

Warning: Do not place the computer where it will come in contact with fumes or steam.

Warning: Remember to keep the computer away from the presence of dust.

Warning: Do not cover or block the openings on the top and back sides of the computer. Inadequate ventilation may cause overheating thus reducing the life span of the computer.

Recommended cleaners and disinfectants

Warning: Do not use disinfectants that contain phenol.

Warning: Do not autoclave or clean the computer or its peripherals with strong aromatic, chlorinated, ketone, ether or Esther solvents, sharp tools or abrasives.

- CIDEX
- Control III Disinfectant Germicide
- Caviwipes
- Dispatch Disinfectant Cleaner CLH69101
- Puregreen 24 Disinfectant
- Alcohol
- Isopropyl (Isopropanol) alcohol
- Acetone
- LpH se
- Bleach
- Chloride
- Actichlor
- Betasept
- Mikrozid

- Viraguard
- Windex
- Incidin
- Virkon
- SDW 70C
- Trigene
- Antigone
- SporeClear
- MikroBac

Cleaning and disinfection

1. Wipe all surfaces of the computer with a dry clean cloth.
2. Prepare agent per manufacturer’s instructions or hospital protocol.

ECG cable and leadwires

The AccuSync cable and leadwire systems are used to convey electrocardiographic signals (ECGs) of a patient from the electrodes to the VMS+.

The leadwires are attached to the electrodes by means of a snap, grabber, or clip. The other end of the leadwire is connected to the yoke of the patient cable.

Cables and leadwires are designed to work as a system and will only function properly when used with a mating part from the same series.

Read all Cautions, Warnings and Recommendations before you begin to clean and disinfect the cart.

Cautions

This connector is to be used only for apparatus as described in the AAMI Standard for ECG connectors. Other uses may result in the hazardous connections of apparatus to patients.

Warnings

Warning: Do not submerge cables and leadwires for prolonged periods.

Warning: Do not use organic solvents.

Warning: Do not autoclave cables and leadwires.

Recommended cleaners and disinfectants

- Disinfect cables and leadwires with a solution such as 10% bleach and water solution, CIDEX or Lysol.
- Ethylene Oxide (EtO) may be used to sterilize cables and leadwires. Cables and leadwires meet AAMI EtO sterilization requirements.

Cleaning and disinfection

1. Clean the cable and leadwires by wiping with a cloth dampened with a solution of warm water and mild detergent of USP green soap tincture.
2. After cleaning, the cables and leadwires should be wiped with water and dried with a clean cloth.
3. Disinfect cables and leadwires by wiping with disinfectant.
4. After disinfecting, the cables and leadwires should be wiped with water and dried with a clean cloth.

Hand trigger

Cautions

Not for use in oxygen-rich or explosive atmospheres.

Do not spill liquid on hand trigger. If this happens, unplug immediately an wipe and shake to remove any droplets, then clean and allow to dry thoroughly before testing.

Do not expose to extreme heat.

Warnings

Warning: Avoid placing excessive tension on hand trigger.

Recommended cleaners and disinfectants

- Isopropyl alcohol
- Bleach solution (10:90 concentration of bleach to water)
- Germicidal detergent diluted per manufacturers instructions

Cleaning and disinfection

1. Unplug the hand trigger from the VMS+.
2. Use a damp (not wet) cloth with only non-aggressive cleaners to wipe the product surfaces.
3. Retest the unit after cleaning.

Keyboard

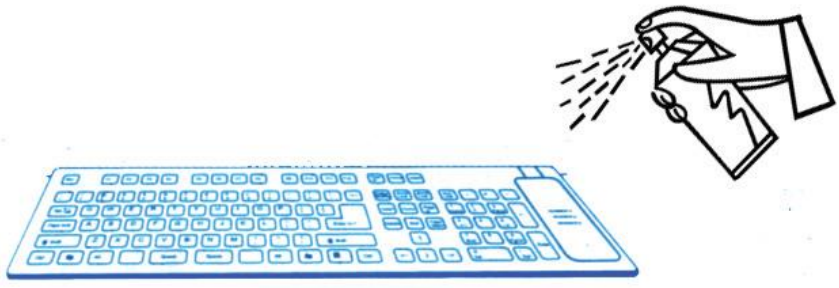
The keyboard contains an antimicrobial, fungistatic agent which protects the product and keeps it cleaner, greener and fresher by inhibiting the growth of microbial bacteria, mold, mildew and fungi on the surface.

Recommended cleaners and disinfectants

- Compatible with Hospital Disinfectants

Cleaning and disinfection

1. Use Hospital Grade Disinfectant Sprays (Best Practice!)



The SEAL SHIELD™ keyboard or mouse is designed to work with virtually all medical grade, commercial grade, antibacterial, antiviral and antifungal sprays to kill most known surface contaminants including SARS, Influenza, Staph and MRSA. Testing confirms that this is the most effective cleaning protocol for hospitals. Thoroughly spray all surface areas and between keys. Use as directed. Wipe away excess moisture prior to use. There is no need to unplug your keyboard or power down your computer.

2. Use Disinfectant Wipes.

Alcohol based disinfectant wipes are the fastest and easiest way to disinfect your SEAL SHIELD™ keyboard or mouse. Thoroughly wipe all surface area with disinfectant wipes. There is no need to unplug your keyboard or power down your computer.

Mouse

The mouse contains an antimicrobial, fungistatic agent which protects the product and keeps it cleaner, greener and fresher by inhibiting the growth of microbial bacteria, mold, mildew and fungi on the surface.

Recommended cleaners and disinfectants

- Compatible with Hospital Disinfectants

Cleaning and disinfection

Your SEAL SHIELD™ Washable Keyboard or mouse is the first defense in infection control. Following the suggested cleaning protocols can help reduce the risk of infection.

1. Use Hospital Grade Disinfectant Sprays (Best Practice!)

   The SEAL SHIELD™ keyboard or mouse is designed to work with virtually all medical grade, commercial grade, antibacterial, antiviral and antifungal sprays to kill most known surface contaminants including SARS, Influenza, Staph and MRSA. Testing confirms that this is the most effective cleaning protocol for hospitals. Thoroughly spray all surface areas and between keys. Use as directed. Wipe away excess moisture prior to use. There is no need to unplug your keyboard or power down your computer.

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Tracking arm

Extend the tracking arm to the full length before cleaning.

Read all Cautions before cleaning.

Cautions

Be aware when extending the tracking arm to ensure that you do not pinch your fingers between the arm lengths.

Recommended cleaners and disinfectants

- Soap and water

Cleaning and disinfection

1. Dampen a soft cloth with soap and water (do not soak the cloth).
2. Wipe all surfaces of the tracking arm.
3. Allow to air dry.

Transducer sleeve, sensor and baton

The transducer sleeve, sensor and baton should be cleaned properly after each use. These items may be cleaned and disinfected where they are used.

Wash hands and wear gloves. If there is visible soil/contamination, assess risk of splashing and spraying of body fluids during cleaning process. Consider use of masks, eye protection, gown. Read all Cautions before cleaning.

Cautions

Do not pull on the sensor cable. Push back the sensor housing, with your thumb on the top of the sensor housing closest to the transducer distal end.

Recommended cleaners and disinfectants

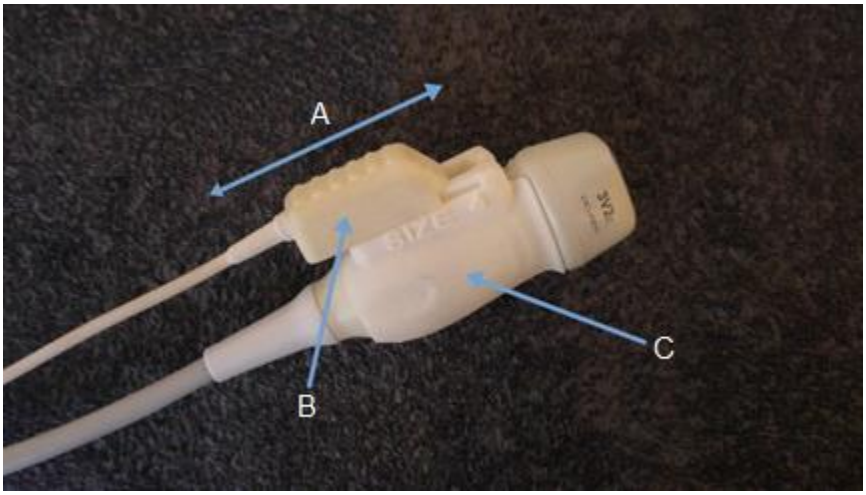
- Glutaraldehyde-based disinfectant
- Ten-percent bleach solution
- Isopropyl alcohol (70 %)
- You can also wipe the sensor cable with T-spray™

Cleaning and disinfection

1. Wipe the ultrasound transmission gel off the transducer sleeve and transducer sensor (if applicable).
2. Slide the transducer sensor off the transducer sleeve (this will require a small amount of force).
3. Remove the transducer sleeve from the transducer.
4. Wipe the entire surface of both the transducer sleeve and transducer sensor with one of the suggested cleaners.
5. Leave surface wet for the “contact time” of the cleaner chosen to ensure disinfection
6. Allow to air dry.
7. Repeat steps 4-6.

8. Repeat steps 4-7 for the transducer baton.

9. Remove Personal Protective Equipment.
10. Wash hands.
11. Visually inspect the transducer sleeve and transducer sensor for wear and tear i.e. discoloration, cracking, tearing on the surface. If there is visible damage to either part, dispose of the part.
12. Reinstall the transducer sleeve on the transducer.
13. Slide the transducer sensor forward, onto the transducer sleeve, until it is securely attached.



A = transducer sensor removal and mounting direction, B = transducer sensor, C = transducer sleeve.

