

Cleaning and disinfection/sterilization of TRIOS 5 system

TRIOS 5 scanner has a new design:

- new closed scan tip with scratch-free sapphire glass provides a microbial barrier:



- single-use ultra-thin sleeves minimize the risk of cross-contamination:



The instructions below are excerpts from the TRIOS Safety & Setup Guides which apply to TRIOS 5 scanners. The latest versions can be found in the scanner box and on the [Partner Portal](#).

Please note: The cleaning and disinfection guidelines stated in the TRIOS Safety & Setup Guide must be followed in circumstances where TRIOS ownership is transferred either temporarily or permanently between sites (scanner loan, conversion from demo to sales unit, etc.).

1. General Hygiene recommendations

To maintain a clean work environment and the safety of the patient, wear clean examination gloves when:

- Handling the scanner tip - changing the tip, setting the tip for upper/lower scans or handling the mirror.
- Handling the protection tip.
- Handling the color calibration kit.
- Applying TRIOS for scanning patients.
- Touching the TRIOS system.

Always clean and disinfect the scanner unit and its optical window before attaching the protection tip. Do not allow patient contact with the protection tip.

In order to avoid cross contamination between patients before each use you must:

- apply a newly sterilized TRIOS scanner tip to the TRIOS scanner;
- apply a new TRIOS scanner sleeve to cover the TRIOS scanner;
- clean and disinfect or sterilize relevant parts of the TRIOS system;
- clean and disinfect the TRIOS scanner before attaching the TRIOS protection tip;
- do not allow patient contact with the TRIOS protection tip;
- dispose the TRIOS scanner sleeve.

In order to avoid cross contamination between patients and maximal electrical safety the scanner tip must be mounted when the scanner is inserted into the patient's mouth or when the scanner comes in contact with the patient in any way. Mounting of the scanner tip is required for the intended function of the scanner.

Before each patient, make sure any PC connected to the system and its peripherals are cleaned and disinfected. It is recommended to use medical-grade peripherals (e.g. keyboards and mice) that can be cleaned and disinfected easily.

2. TRIOS Sleeve

It is recommended to use the TRIOS Sleeve to cover the TRIOS scanner during patient examination.

The TRIOS Sleeve must only be used once to avoid cross-contamination.

3. Cleaning and disinfecting TRIOS Scanner body and mirror housing

Step 1. Cleaning

Wearing gloves, remove TRIOS Sleeve and TRIOS scanner tip from TRIOS scanner body.

Wipe the scanner body and mirror housing with any cleaning/disinfectant wipes containing Isopropanol (17.2%) and Ammonium Chloride (for example, CaviWipes).

While still wet from the CaviWipe, use a dry soft bristled brush to clean around the gasket area (where the TRIOS scanner body and mirror housing connect).

Wipe the surface of the TRIOS scanner body and mirror housing with a second wipe.

Step 2. Disinfection

Take third wipe and wet the scanner body and mirror housing for minimum of 120 seconds.

120 seconds is the minimal time for the solution in the wipes to be in contact with the surface to kill the bacteria. It can be longer, but not less.

Once done, place the protection tip on the scanner.

4. Cleaning and disinfecting TRIOS Pod

Step 1. Cleaning

Wearing gloves, remove the rubber insert from the pod (holder) by pressing down on the middle using a thumb and gripping the outer edge with the index finger:



Using the cleaning/disinfectant wipes containing Isopropanol (17.2%) and Ammonium Chloride (for example, CaviWipes), clean the surface of the top rubber insert to remove any gross contaminants.

With second wipe clean the surface of the metal holder to remove any gross contaminants.

Step 2. Disinfection

With third wipe wet the surface of the rubber insert for minimum 120 seconds to disinfect.

With fourth wipe wet the surface of the metal part for minimum 120 seconds to disinfect.

120 seconds is the minimal time for the solution in the wipes to be in contact with the surface to kill the bacteria. It can be longer, but not less.

Allow both parts to dry and assemble them back together.

5. Cleaning and sterilizing the scanner tip

Step 1. Cleaning

Wearing gloves, clean the TRIOS scanner tip manually using detergent diluted according to manufacturer's instructions. Apply the detergent directly on a soft bristled brush. Wash the TRIOS scanner tip under running lukewarm (30-40 °C) utility water.

Inspect the window of the TRIOS scanner tip after cleaning. If the window appears with stains, smudged or with a milky haze, repeat this step.

Rinse with lukewarm (30-40 °C) tap water.

Dry the TRIOS scanner tip carefully with a nonwoven swab (for example, Abena non-woven swabs).

Step 2. Sterilization

Put the TRIOS scanner tip in a sterilization pouch. The pouch should be sealed. Use either a self-adhesive or heat-sealed pouch.

Sterilize the pouched TRIOS scanner tip in a Dynamic-Air-Removal Steam Sterilizer (Class B autoclave) with one of the two programs depending on your region:

- **In the US:** Autoclave the TRIOS scanner tip at 132 °C (269.6 °F) with a cycle of 4 minutes exposure time and 30 minutes dry time.

- **In the EU:** Autoclave the TRIOS scanner tip at 134 °C (273.2 °F) with a cycle of 3 minutes exposure time and 30 minutes dry time.

A class B Vacuum autoclave according to EN 13060 is required for sterilization of the TRIOS scanner tip.

The TRIOS scanner tip can be re-sterilized up to 100 times and must be disposed afterwards.

New TRIOS scanner tips must be cleaned and sterilized before using them for the first time.

6. Cleaning, disinfecting and sterilizing protection tip

Protection tip should be cleaned and sterilized with the same cleaning/disinfectant wipes containing Isopropanol (17.2%) and Ammonium Chloride (for example, CaviWipes).

It should not be autoclaved.

No fluids should go inside the protection.

7. Cleaning of Batteries, Battery Charger and Other Parts of the System

For general cleaning, apply a mild detergent to a soft, damp cloth.

"A mild detergent" is a non-enzymatic pH neutral detergent (for example, Intercept).

Do not spray directly onto any parts of the system, as the liquid solution can accumulate at the seals and leak into the TRIOS scanner, cords or pod.

8. Optical maintenance

In case of smudges or stains on the TRIOS scanner tip window or the TRIOS scanner window, follow these steps for optimal scan quality:

1. Take a damp non-woven swab and gently rub it on the inside and outside of the TRIOS scanner tip window as well as on the window on the mirror housing.
2. Use a dry non-woven swab to dry the windows.

As a soft non-woven swab, for example, Abena non-woven swabs can be used.

Do not use acetone, IPA, alcohol, or any oxidizing solutions to clean the TRIOS scanner tip window or the TRIOS scanner window.

For any additional questions refer to Safety and Setup Guide on the [Partner Portal](#) or [contact 3Shape Support](#).

