### **GE** Healthcare



# Transportation & Storage

# **Transportation & Storage**



#### Follow these guidelines to protect your transducer:

Always clean and disinfect any transducer before transporting between sites or sending via freight carrier.

If a carrying case is provided with your transducer, always use the carrying case to transport the transducer from one site to another. The original shipping carton may also be used for transporting from site to site as long as the transducer has been cleaned and disinfected.



**Warning:** Placing a dirty or contaminated transducer in a carrying case or shipping carton will contaminate the foam insert.

- Do not use cloth or plastic bags to transport transducers. This may result in damage to the transducer.
- If possible, use a rigid container with a lid and that secures the system connector in place so as not to damage the transducer head or lens.

For TEE transducers - do not coil the flexible shaft too tightly. Coil should be 30 cm (1 foot) or greater in diameter.

# Daily and long-term storage

#### Follow these guidelines to protect your transducer:

Always store transducers in the transducer holders on the side of your system or on a securely mounted wall rack when you are not using them.

- Make sure the transducer holders are clean before storing transducers.
- Avoid storing transducers in areas of temperature extremes or in direct sunlight.
- When storing transducers, use the cable-management clips to secure the transducer cable.

For TEE transducers, be sure the distal tip is straight and protected before storing the transducer. Never store a TEE transducer in the carrying case, except to transport it.



You can also download the complete Ultrasound Probe Cleaning & Disinfection Manual from the GE Healthcare Support Documentation Library:

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**Probe Care Quick Cards** 

# General Handling



# **General Handling**



#### **Handling GE Healthcare Transducers**

- Avoid dropping, impact, or abrasion to transducers. Careless handling can result in damaged acoustic lens, piezoelectric element breakage, cracked housings, and cable or system connector damage.
- Never use transducers with cracked or damaged housings, shaft, acoustic lens, strain relief or cable assemblies as these issues may increase cross-contamination risks and compromise electrical safety features of the transducer.
- Avoid excessive twisting, pulling, pinching or kinking of transducer cable assemblies. When transporting transducers, maintain control of cables and system connectors. Use protective accessories if possible.
- Prevent introduction of foreign objects or moisture in the system connector assembly. Do not apply excessive force on any component of the system connector.



Warning: Do not allow prolonged exposure to excessive moisture or immersion of transducers in any liquid above the recommended level as stated in the user manual for your system. Do not soak transducers in any liquid for longer than the recommended period according to the chemical manufacturer instructions for use.

- Avoid rapid and extreme temperature changes, as well as lengthy exposure to direct sunlight or a strong ultraviolet light source.
- Use caution when applying coupling gel to the acoustic lens of a transducer. Any hard or abrasive materials coming in contact with the acoustic lens may damage the transducer and reduce image quality.



Warning: Do not use abrasive paper products when cleaning or wiping a GE Ultrasound probe. The use of abrasive wipes can damage the soft lens (acoustic window).

**Important Notices:** Only use cleaning, disinfectant or gel products that are materially compatible with GE Healthcare transducers. GE Healthcare warranties and service contracts do not cover, and GE Healthcare is not responsible for, damage caused by cleaning, disinfectant or gel products that are not materially compatible with GE Healthcare transducers. Transducers with evidence of improper care and handling, abuse or tampering are not covered under your product warranty or service contract. All transducers are subject to evaluation by GE Healthcare Ultrasound Service.



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# **Probe Care Quick Cards**

# Pre-Scan Checklist

# **Pre-Scan Checklist**



#### **Prior to use instructions**

#### Before use, inspect the following areas of the transducer:

- Acoustic lens or cap: check for cuts, tears, gouging, abrasion, swelling, bubbling, delamination or discoloration.
- 2 Transducer body (shaft, handle, & nose-piece): inspect for cracks, abrasions, or evidence of impact.
- 3 Strain relief and cable assembly: check for cracks, cuts, tears, abrasion, kinking or crushing.
- 4 Cable assembly: check for discoloration or inflexibility of the transducer cable or strain-relief.
- 5 System connector: check for foreign objects, broken latches, or bent pins and shielding.



Transesophageal transducers (TEE): inspect the flexible portion for tears, bite holes, rips, or discoloration.



#### Warning: Cross-contamination

Transducers with cracks, abrasions or tears may harbor dangerous contaminants or may tear protective sheaths used with the ultrasound transducers. Do not use transducers with any signs of damage.



#### Warning: Electrical leakage

Non-hazardous voltage is present during normal transducer use. GE Healthcare recommends regular electrical safety leakage testing to help ensure operator and equipment safety.



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# **Probe Care Quick Cards**

# Cleaning & Disinfection

# **Cleaning & Disinfection**

#### **Point of Use Guidelines**

After each use, remove protective sheath from the probe and gently remove all coupling gel from the probe by wiping with soft, low-lint cloth.

Wipe the probe with a cloth saturated with one of the detergents or one of the approved wipes from the strain relief to the lens. Wipe the cable with a low-lint cloth dampened with potable water to remove chemical residue. Manual cleaning is required to ensure the probes are cleaned to the extent necessary for further processing. Choose the most appropriate method, either the wipe or enzymatic detergent soak.



**Warning: Do not** use a twisting motion or abrasive paper products when wiping the probe as this may damage the soft lens.

To extend the life of the probe lens, pat dry only.

#### Cleaning

Only one cleaning process is required - either wipes or soak

#### **Wipes**

- 1 Hold the probe at the proximal end near the strain relief cable. **Do not** suspend or hold the probe by the cable as this may damage the probe.
- 2 Dispense a cleaning wipe from the wipe canister.
- 3 Gently wipe the probe with a cleaning wipe from the cable strain relief to probe lens.
- 4 Turn the probe and continue wiping until the entire surface of the probe has been cleaned. Dispense fresh wipes as the wipe becomes soiled.
- 5 Wrap a clean wipe around a soft nylon bristle brush to access crevasses, such as biopsy notches, on the surface of the probe. *Do not* use the brush on lens
- 6 Inspect the probe for any remaining soil and, if necessary, repeat until the probe is clean.

#### **Detergent**

- Prepare the cleaning solution in accordance with the detergent manufacturer's instructions.
- 2 Immerse the probe in the cleaning solution up to the immersion line in the Ultrasound console's user manual. Ensure no air bubbles are trapped on the surface. Do not submerge probe beyond the indicated immersion line.
- 3 Brush with a clean, soft, nylon bristle brush from the base of the cable strain relief to the distal tip for at least the minimum contact time listed on the detergent manufacturer's label. Do not use the brush on lens.
- 4 Inspect the probe for any remaining soil and, if necessary, repeat until the probe is clean.
- 5 Rinse the probe under running warm potable water.
- 6 Thoroughly dry all surfaces of the probe using a soft, low-lint wipe or cloth.

#### **Disinfection**

#### Intermediate-Level (Wipe)

**Note:** Intermediate-level disinfectant wipes are not appropriate for disinfection of endocavity or TEE probes. These semi-critical probes require high-level disinfection.

- 1 Put on a new pair of gloves. Holding the probe near the strain relief, apply the wipe to the patient contacting lens. Wipe the probe lengthwise from the lens to the strain relief.
- 2 After the probe has been completely wiped, use a second wipe and starting at the probe lens begin wiping the probe in a rotating motion moving down towards the strain relief.
- 3 Ensure the wipe solution contacts recessed areas, seams, and ridges.
- 4 Once the probe has been completely wiped, use a third wipe and continue wiping the probe as needed to ensure the surface remains wet for the required exposure time. Use as many wipes as needed to ensure all surfaces remain wet for the minimum required contact time listed in the disinfectant manufacturer's instructions for use.



**Warning:** Failure to properly rinse probes with water following disinfection may cause skin irritation.

- 5 Thoroughly dry all surfaces of the probe.
- 6 Store the probe in a manner that will protect and keep the probe from being recontaminated.

#### **High-Level (Immersion Bath)**

**Note:** High-Level Disinfection is required for devices that contact intact mucous membranes or non-intact skin.

**Note:** Handles of semi-critical probes that are not submerged during High-Level Disinfection require Intermediate-Level Disinfection to avoid cross contamination

- 1 Ensure the probe has been disconnected from the console. Prepare the High-Level Disinfectant per the disinfectant manufacturer's instructions.
- 2 Immerse probe in the disinfectant up to the immersion line in the ultrasound console user's manual and ensure no air bubbles are trapped. The probe must remain submerged for the minimum contact time listed on the HLD label.
- 3 Thoroughly rinse the probe to remove residual disinfectant. Thoroughly dry all surfaces of the probe using a soft, low-lint or lint-free wipe or cloth.
- 4 Store the probe in a manner that will protect and keep the probe from being recontaminated. This may be accomplished by placing the probe in a storage cabinet with filtered air flow and/or by using a disposable storage cover placed over the probe.

# **Cleaning & Disinfection**

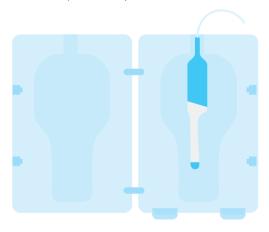
#### High level (automated system)

High level disinfection can also be performed by automated system such as trophon® and trophon2 for **standard and endocavitary probes**.

- 1 Upon completion of probe cleaning, carefully dry the probe with a clean, low-lint soft and dry cloth or wipe.
- 2 Visually inspect the probe to ensure the probe is visibly clean.
- 3 Follow the trophon instructions for probe placement and operation of the trophon system.
- Once the trophon High-Level Disinfection cycle is complete, don a new set of gloves and promptly remove the probe from the trophon machine.
- 5 Wipe the probe from the distal end to the proximal end with a clean, lint-free soft and dry cloth or wipe.

For TEE probes, you can use automated system such as TD100.

- 1 Upon completion of probe cleaning, carefully dry the probe by wiping with a clean, low-lint soft and dry cloth or wipe from the distal tip to the strain relief.
- 2 Follow the TD100 instructions for probe placement and operation of the TD100 system.
- 3 Once the TD100 High-Level Disinfection cycle is complete, don a new set of gloves and promptly remove the probe from the TD100 machine.
- Wipe the probe from the distal end to the proximal end with a clean, lint-free soft and dry cloth or wipe.





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### **GE** Healthcare

# **Probe Care Solutions**

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Any doubt about the level of performance of your probe?

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