

Ultrasound System

Cleaning, Disinfection & Sterilization Guide

[Advanced]



Ultrasound system
Cleaning, Disinfection & Sterilization Guide
[Advanced]

Thank you for the purchase of Mindray's products. To ensure safe and proper operation of the system, read the guide carefully. Keep this guide carefully after reading, so that you can check it whenever necessary.

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- All installation operations, expansions, changes, modifications and repairs of this product are conducted by Mindray authorized personnel;
- The electrical installation of the relevant room complies with the applicable national and local requirements and requirements of this guide;
- The product is used in accordance with the instructions for use.

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Important Information

Thank you for your expression of confidence in the Mindray brand name. Mindray is constantly working on the further development of all products. Please appreciate that changes to the scope of supply in form, equipment and technology are possible for this reason. Therefore, no claims may be deduced from the information, figures and descriptions in this guide.

This guide contains warnings regarding foreseeable potential dangers, but you shall always be alert to dangers other than those indicated as well. Mindray shall not be liable for damage or loss that results from negligence or from ignoring the precautions and operating instructions described in this guide.

If the administrator for this system is changed, be sure to hand over this guide to the new manager.



WARNING

The probe and accessories supplied with it are not delivered disinfected or sterilized. Cleaning and disinfection (or sterilization) in accordance with this guide before use are required. After disinfection or sterilization, residual chemicals must be completely removed. Otherwise, personal injury or damage to the probes or accessories may occur.

About this Guide

Please follow the descriptions in the guide to clean and disinfect (or sterilize) the probes, needle-guided brackets, entire machine and accessories manufactured by Mindray. The guide is intended to provide information about cleaning and disinfecting (or sterilizing) the ultrasound system effectively, and also about protecting the ultrasound system from damages caused by incorrect cleaning, disinfection or sterilization procedures.

Mindray has verified that the disinfectants and disinfection equipment described in this guide are compatible with the ultrasound system. All the verified disinfectants are listed in disinfectant list of this guide.

The disinfectants and sterilants described in the guide are recommended by Mindray. For details on effectiveness and clinical application of these disinfectants and sterilants, refer to the instructions of disinfectant and sterilant manufacturers.

The functions and accessories described in the guide may vary with the specific system you purchased.

Meaning of Signal Words

In this guide, the signal words  **DANGER**,  **WARNING**,  **CAUTION**, **NOTE** and **Tip** are used regarding safety and other important instructions. The signal words and their meanings are defined as follows. Please understand their meanings clearly before reading this guide.

Signal word	Meaning
 WARNING	Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury.
 CAUTION	Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.
NOTE	Indicates a potentially hazardous situation that, if not avoided, may result in property damage.

1 General information about cleaning, disinfection and sterilization

1.1 Safety Precautions

Follow the following precautions strictly to ensure the safety of the patient and the operator.

WARNING

- Do not subject the probe to shock. A defective probe may cause electric shock to the patient.
 - Do not disassemble the probe to avoid the possibility of electric shock.
 - Never immerse the probe connector into liquids such as water or disinfectant, for the connector is not waterproof. Immersion may cause electric shock or malfunction.
 - In normal diagnostic ultrasound mode, there is no danger of a normal-temperature burn; however, keeping the probe on the same region of the patient for a long time may cause such a burn.
-

CAUTION

- The probe is only for use with the specified ultrasonic diagnostic system. Please refer to the ultrasonic diagnostic system operation manual to select the proper probe.
 - A probe sheath must be installed over the probe throughout intra-cavity or intra-operative examination.
 - Damage to the probe may occur due to its contact with improper detergents or coupling gel. DO NOT dip the probe in the strong polar solution of ethanol, chloride of lime, ammonium chloride, acetone and formaldehyde. The probe should not make contact with solution or ultrasound gel containing oily medium such as mineral oil or lanoline.
 - Coupling gel must be used during ultrasonic examination. Please use the ultrasound gel compliant with the relevant local regulations. And manage the ultrasound gel properly to ensure that it does not become a source of infection.
 - Do not use the carrying case for storing the probe. If the carrying case is used for storage, it may become a source of infection.
 - The probe and accessories supplied with it are not delivered disinfected or sterilized. Cleaning and disinfection (or sterilization) in accordance with this guide before use are required.
-

- **Disposable components are packaged sterile and can be used once only. Do not use if integrity of packaging violated or if expiration date has passed. Please use the disposable components compliant with the relevant local regulations.**
 - **Use the disinfection or sterilization solution recommended in this guide only. Otherwise, Mindray will not be liable for damage caused by other solutions. If you have any questions, please contact Mindray Customer Service Department.**
-

NOTE:

- Read the following precautions to prevent the probe from malfunction:
 - Before connecting or disconnecting the probe, freeze the ultrasonic image or turn off the diagnostic ultrasound system.
 - Clean and disinfect (or sterilize) the probe before and after each examination.
 - To prevent the probe from being damaged, do not use it where it will be exposed to:
 - Locations exposed to direct sunlight
 - Locations subject to sudden changes in environmental temperature
 - Dust
 - Excessive vibration
 - Locations near heat generators
 - Cleaning cannot be replaced by sterilization. Probes and needle-guided brackets must be cleaned before sterilization.
 - Repeated disinfection will eventually damage the probe, please check the probe performance periodically.
 - Repeated disinfection will degrade the performance and safety of the needle-guided brackets.
-

1.2 Brief Introduction to Materials

1.2.1 Plastics

Plastic is material consisting of any of a wide range of synthetic or semi-synthetic organic compounds that are malleable and so can be molded into solid objects. It is made up of additives including synthetic resin, filler, plasticizer, stabilizer and pigment.

The plastic housing molded by injection molding process is anti-stamping, heat-resistant and stable in dimensions. However, some general engineering plastics (especially ABS) contain unsaturated double bonds. During the storage or application of these plastics, due to external factors such as illumination and oxidization, unsaturated double bonds will result in yellowing, degraded mechanical performance or even cracking.

Plastics in reusable medical devices manufactured by Mindray can be cleaned and disinfected (or sterilized) by using the recommended methods. For all plastics cannot withstand repeated actions of alcohols, do not disinfect or sterilize the plastic material in a way that is not recommended.

Plastic is mainly used in probe housings.

1.2.2 Stainless Steel

Stainless steel is corrosion resistant due to a natural passive layer which forms in the air. If this passive layer is destroyed by certain substances (solid, liquid or gaseous), there is no longer any corrosion resistance. The stainless steels may also corrode, particularly if they are in contact with blood or tissue residues.

Therefore make certain, not only for hygienic reasons, that organic remnants have been completely removed.

Stainless steel is mainly used in needle-guided brackets.

1.2.3 Silica Gel

Silica gel is excellent in thermo oxidative stability, weather resistance, and resistance to oxygen, ozone and ultraviolet radiation, for the backbone of silica gel consists of Si-O-Si bonds. However, polysiloxane has a helical structure and therefore has a good gas and vapor permeability.

The long-time immersion disinfection or sterilization may result in the inflation of polysiloxane. And the solution may permeate silica gel to damage the parts protected by silica gel. Therefore, disinfection should be performed in accordance with the immersion time specified by the disinfectant manufacturer.

Nevertheless, silica gel attracts dirt. Thus, make sure that organic residues are removed completely after cleaning and disinfection (or sterilization).

Silica gel is mainly used in sealant of acoustic lens and housing of probe.

1.2.4 Epoxy Glue

Epoxy glue, as one kind of thermosetting resins, has a good bonding effect on various interfaces, even in a high temperature of 110°C. It has resistance to ultraviolet radiation, erosion and weather.

The long-term immersion in peroxymonosulfuric acid, hydrogen peroxide, hypochlorite or glutaraldehyde may discolor epoxy glue slightly, but will not affect its performance.

Epoxy glue is mainly used in sealing of the probe housing.

1.2.5 Glass

Glass is mainly made up of various inorganic mineral substances, such as Zircon sand, borax and sodium carbonate. It also contains a little auxiliary materials. Its main ingredients are SiO₂ and other oxide. It has resistance to erosion.

Long-time immersion in disinfectant or sterilant solution will not affect its chemical properties.

Glass is mainly used in monitor and touch screen of the ultrasound system.

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2 Inspection Before and After Use

Brand new equipment should be unpacked and checked after delivery. If there is any transport damage, contact Mindray Customer Service Department immediately.

Every probe passes through an extensive cleaning and final check at the end of the manufacturing process. However, soiling is possible during transportation and storage. Therefore the probes must go through the complete cleaning and disinfection procedure before their first use.

Inspection before and after use must be performed as described below to ensure safe operation of the probe. If any abnormality is found, immediately stop using the probe and contact Mindray Customer Service Department or sales representative.

2.1 Appearance Inspection

Before and after each examination, confirm that there are no abnormalities of the probe surface or cable sheath, such as peeling, cracks, protruding parts, or looseness of the acoustic lens.



WARNING

Probe abnormalities may cause electric shock or injury to the patient. If any abnormality is found, immediately stop using the probe and contact Mindray Customer Service Department.

2.2 Performance Inspection

After turning ON the power switch of the ultrasonic diagnostic system, perform the following checks.

1. The acoustic lens of the probe must not generate abnormal heat while being used. The probe temperature should be checked by hand.
2. The image must be normal after the system is turned on.

2.3 Use of Probe Sheath

A probe sheath must be installed over the probe during examination. Probe sheaths are available for use with all clinical situations where infection is a concern.

A sterile probe sheath is suggested to be used during intra-cavity examination or intra-operative examination.

Use a commercially available probe sheath.

To order probe sheath, contact:

CIVCO Medical Instruments Co.

102 First Street South, Kalona, IA 52247-9589 USA

Tel: 1-319-656-4447

E-mail: info@civco.com

<http://www.civco.com>

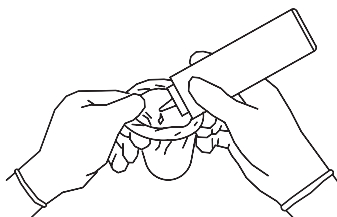
CAUTION

- A probe sheath should be used once only to prevent infection.
 - Use intact probe sheaths only.
 - The probe sheath contains natural rubber latex and talc that can cause allergic reactions to some individuals.
 - Use probe sheaths before the expiry date. Check if the probe sheath to be used is within the expiry period.
 - Do not use pre-lubricated condoms as a sheath. Lubricant may not be compatible with the probe material and damage may result.
-

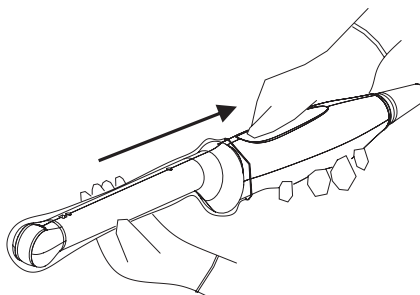
2.4 Wearing the Probe Sheath

The method of using a probe sheath is shown as follows (for reference only):

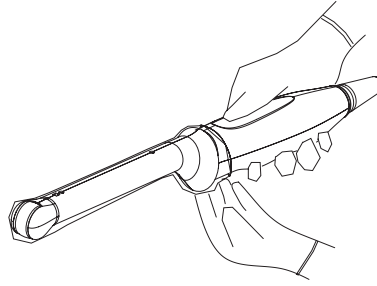
1. Apply an appropriate amount of coupling gel inside the sheath or on probe surface. Poor imaging may occur if no gel is applied.



2. Use proper sterile technique to insert the probe into a probe sheath. Pull probe sheath tightly over probe surface to remove wrinkles and air bubbles, and take care to avoid puncturing cover.



3. Secure the sheath with enclosed elastic bands.



4. Inspect the sheath to ensure there are no holes or tears.

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3

Cleaning, Disinfection and Sterilization for Non-TEE Probes

Before and after completing each examination, clean and disinfect (or sterilize) the probes as required. When biopsy procedures have been performed, be sure to sterilize the needle-guided bracket. Failure to do so may result in the probe and the needle-guided bracket becoming sources of infection. Please follow the instructions in the manual for cleaning.



WARNING

Never immerse the probe connector into liquids such as water or disinfectant, for the connector is not waterproof. Immersion may cause electric shock or malfunction.



CAUTION

- **No cleaning and disinfecting may result in the probe becoming a source of infection.**
 - **Please follow the disinfectant manufacturer's manual for performing cleaning and disinfection, including preparing sterile water and cleaning and disinfection time.**
-

NOTE:

- After the examination, wipe off the ultrasound gel thoroughly. Otherwise, the ultrasound gel may solidify and degrade the image quality of the probe.
 - DO NOT make the probe to become overheated (more than 55 °C) during cleaning and disinfections. High temperature may cause the probe to become deformed or damaged.
 - Observe the graph here carefully to immerse the probe. Only soak parts of the probe below the strain relief.
 - Repeated disinfection will eventually damage the probe, please check the probe performance periodically.
 - For details about probe types, refer to section Probes and Needle-guided Brackets Available in the operator's manuals of the ultrasound system.
 - For details about recommended disinfectants for probes, see "Appendix A Compatible Disinfectants".
-

3.1 Cleaning and Disinfection/Sterilization Overview

Cleaning and disinfection refer to two distinct processes. According to the Centers for Disease Control and Prevention (CDC) “Guideline for Disinfection and Sterilization in Healthcare Facilities” (2008):

- Cleaning is the removal of visible soil (e.g. organic and inorganic material) from objects and surfaces and normally is accomplished manually or mechanically using water with detergents or enzymatic products. Thorough cleaning is essential before high-level disinfection and sterilization because inorganic and organic material that remains on the surfaces of instruments interfere with the effectiveness of these processes.
- Disinfection describes a process that eliminates many or all pathogenic microorganisms, except bacterial spores.
 - Low-Level Disinfection: Destruction of most bacteria, some viruses, and some fungi. Low-level disinfection will not necessarily inactivate *Mycobacterium tuberculosis* or bacterial spores.
 - High-Level Disinfection (HLD): Destruction/removal of all microorganisms except bacterial spores.
- Sterilization describes a process that destroys or eliminates all forms of microbial life and is carried out in healthcare facilities by physical or chemical methods.

3.2 Selecting a Microbicidal Method

Probes can be divided into three categories based on their intended use. Some probes may fall into more than one category (e.g. probes use for biopsy procedures). When selecting a disinfectant, determine the required level of disinfection based on intended use and possibility of cross-contamination.

- Contacts intact skin: Probes that only come into contact with clean, intact skin are considered noncritical devices and require cleaning after every use. Cleaning may be followed by a low-level disinfectant spray or wipe.
- Contacts mucous membranes and non-intact skin: This category includes all endocavity probes - intravaginal, transrectal, and transesophageal (TEE) and probes use for biopsy procedures. These semi-critical probes must be cleaned with an appropriate cleaner after use followed by high-level disinfection.
- Contacts otherwise sterile tissue or body-space: These probes are considered critical and include all intraoperative probes. These probes must be cleaned with an appropriate cleaner after each use, followed by a sterilization process.

3.3 Cleaning

Please refer to the instructions in the manual and follow your hospital policy and procedures for cleaning.

Perform the following procedure:

1. Wear a pair of gloves to prevent infection.
2. Disconnect the probe from the system. If the sheath is used, take off the sheath and discard it.
3. Wipe off the ultrasound gel or other visible dirt on the surface of the probe by using a damp piece of disposable lint-free soft cloth or tissue.

4. Choose an appropriate cleaning agent including mild detergents, enzymatic cleaners and specially designed enzymatic sponges.
5. Immerse the probe fully in the cleaning fluid for at least 1 minute or according to manufacturer's instructions. Lightly mechanical clean the probe with a piece of lint-free soft cloth or soft sponge until no dirt is visible. When necessary, clean the seams or biopsy guide features by using disposable cotton swabs. Avoid using a brush to wash the lens because it may damage the probe.
6. Rinse the probe thoroughly by using a large amount of clean water (about 7.5 L/2 gallons) at room temperature for about 30 s to remove the residual dirt and cleaning solvent. Repeat the rinsing operation twice.
7. Dry the probe by wiping with a piece of disposable lint-free soft cloth or tissue.
Do not dry the probe by heating.
8. Inspect the probe. If visible dirt still exists, repeat the preceding steps to wash the probe until it is all clean.
9. Check whether the probe has defects such as peeling, rifts, bumps, cracks, or liquid spill. If such defects exist, the probe has reached the end of its service life. In this case, stop using it and contact the Mindray service department.

3.4 Disinfection

3.4.1 Low-level disinfection of a non-critical probe



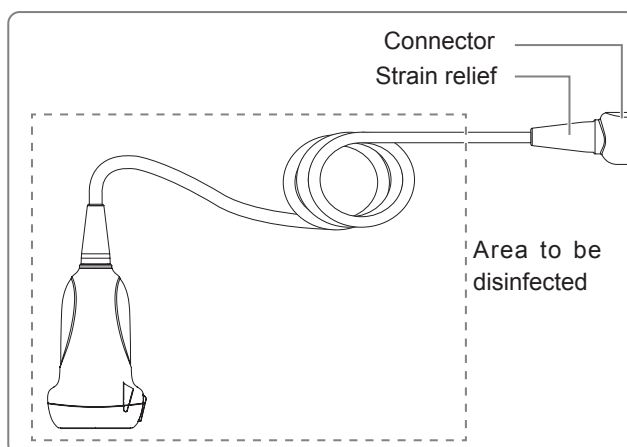
WARNING

Use protective eyewear when disinfecting the probe using sprays.

Perform the following procedure:

1. Wear a pair of gloves to prevent infection.
2. Clean the probe thoroughly in accordance with the cleaning procedure before disinfection.
3. Disinfect the probe by using an appropriate low-level disinfectant. Follow the disinfection agent manufacturer's instructions for preparation and use of the disinfectant.
 - Wipes: Wipe all the surface of the probe according to the wiping duration specified in the operator's manual provided by the manufacturer.
 - Spray: Spray the disinfectant directly on the surface of the probe or spray the disinfectant on a piece of disposable lint-free soft cloth and wipe the probe according to the wiping duration in the operator's manual provided by the manufacturer.

Observe the graph here carefully to perform disinfection. Do not spray the strain relief on the connector end or the connector.



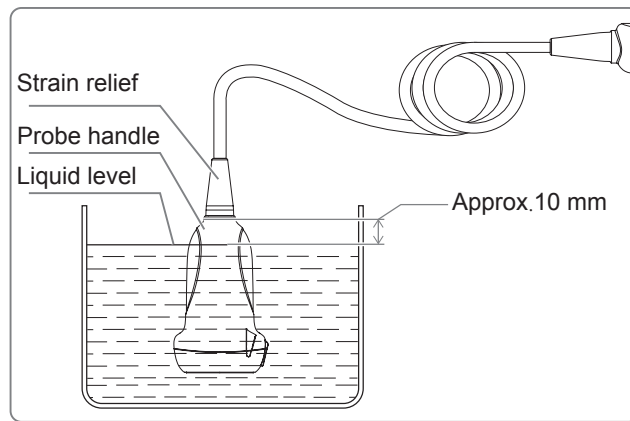
4. Wipe away the residual disinfectant on the probe by using a piece of lint-free soft cloth soaked with clean water. Wipe three times. Or rinse the probe thoroughly by using a large amount of clean water (about 7.5 L/2 gallons) at room temperature.
5. Dry the probe by wiping with a piece of disposable lint-free soft cloth. Do not dry the probe by heating.
6. Check whether the probe has defects such as peeling, rifts, bumps, cracks, or liquid spill. If such defects exist, the probe has reached the end of its service life. In this case, stop using it and contact the Mindray service department.
7. Store the probe in a cool, clean and dry environment. And repeat the cleaning and disinfection process before the next use.

3.4.2 High-level disinfection of a semi-critical probe

Perform the following procedure:

1. Wear a pair of gloves to prevent infection.
2. Clean the probe thoroughly in accordance with the cleaning procedure before disinfection.
3. Disinfect the probe by using an appropriate high-level disinfectant or system. For how to use a high-level disinfectant or system, see the operator's manual provided by the manufacturer. Prepare a disinfectant by using sterile distilled or softened water when necessary.
 - Soaking: Immerse the probe head in the disinfectant and shake the probe appropriately to remove any bubbles on the probe surface. For details about the probe immersion duration, see the operator's manual provided by the manufacturer.

Observe the graph here carefully to immerse the probe. Only soak parts of the probe below the strain relief.



- Wiping: Use a market disinfection wipe product or sterile disposable lint-free soft cloth wetted with disinfection spray and wipe all surfaces of the probe for a duration according to the manufacturer instructions.
- 4. Rinse the probe thoroughly by using a large amount of clean water (about 7.5 L/2 gallons) at room temperature for about 30 s to remove the residual disinfectant. Repeat the operation twice. Or follow the disinfectant manufacturer's instructions regarding rinsing.
- 5. Dry the probe by wiping with a piece of clean disposable lint-free soft cloth. Do not dry the probe by heating.
- 6. Check whether the probe has defects such as peeling, rifts, bumps, cracks, or liquid spill. If such defects exist, the probe has reached the end of its service life. In this case, stop using it and contact the Mindray service department.
- 7. Store the probe in a cool, clean and dry environment. And repeat the cleaning and disinfection process before the next use.

3.5 Sterilization of a critical probe

CAUTION:

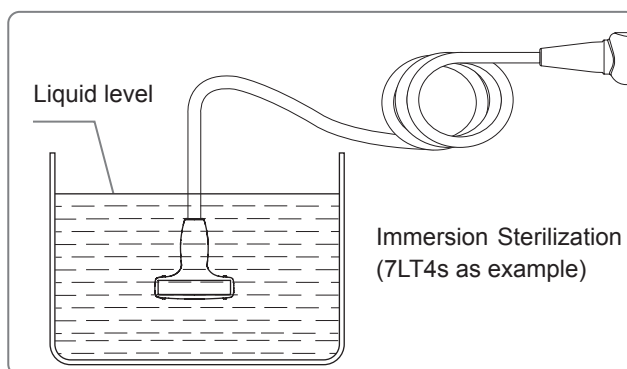
Repeated sterilization will eventually damage the probe, please check the probe's performance periodically.

For intra-operative probes, they have to be thoroughly cleaned and sterilized after completing each examination.

Perform the following procedure:

1. Wear a pair of gloves to prevent infection.
2. Clean the probe thoroughly in accordance with the cleaning procedure before sterilization.
3. Sterilize the probe by using an appropriate sterilant or system. For how to use a sterilant or system, see the operator's manual provided by the manufacturer. Prepare a sterilant by using sterile distilled or softened water when necessary.
4. Immerse the probe head in the sterilant and shake the probe appropriately to remove any bubbles on the probe surface.

For details about the probe immersion duration, see the operator's manual provided by the manufacturer.



5. Rinse the probe thoroughly by using a large amount of sterile distilled or softened water (about 7.5 L/2 gallons) at room temperature for about 30s to remove the residual disinfectant. Repeat the operation twice. Or follow the sterilant manufacturer's instructions regarding rinsing.
6. Dry the probe by wiping with a piece of sterile disposable lint-free soft cloth. Do not dry the probe by heating.
7. Check whether the probe has defects such as peeling, rifts, bumps, cracks, or liquid spill. If such defects exist, the probe has reached the end of its service life. In this case, stop using it and contact the Mindray service department.
8. Store the probe in a cool, clean and dry environment. And repeat the cleaning and disinfection process before the next use.

4 Cleaning and Disinfection of TEE Probe

This chapter contains cleaning and disinfection methods and precautions for TEE probes, including P7-3T, P7-3TE, P7-3TU, P7-3Ts and P8-3Ts.



WARNING

Never immerse the probe connector or handle into liquid such as water or disinfectant. Immersion may cause electrical shock or malfunction. Wiping the probe connector and handle with water-moistened cloth is allowed. Only the section from distal end to the 100cm marker (70cm for P8-3Ts) can be immersed in disinfectant solution.



CAUTION

- **Wear medical gloves during the disinfection to prevent infection.**
- **After disinfection, rinse the probe thoroughly with clean water to remove all chemical residues. Chemical residues on the probe may be harmful to the human body.**
- **Do not wipe the probe with solution containing methanol or ethanol. Otherwise, damage to the probe may occur.**
- **The efficacy of disinfectants and sterilizing solutions is not guaranteed by MINDRAY. Contact the manufacturers for information on the activity of the products.**

NOTE:

- **After the examination, wipe off the ultrasound gel thoroughly. Otherwise, the ultrasound gel may solidify and the image quality would be degraded.**
- **Do not permit the probe to become overheated (more than 55°C) during cleaning and disinfections. High temperature may cause the probe to become deformed or damaged.**

4.1 Cleaning TEE Probes

Only the following detergents are recommended by Mindray to clean the TEE transducers. For the biological effectiveness and the correct use of the detergents, see the information of the detergents' manufacturer.

4.1.1 Compatible Detergents

Detergent Name	Composition	Concentration
Aniosyme DD1	N,N-Didecyl-N-Methyl-Poly(oxyethyl)Ammonium Propionate	10-25%
	Sodium N-Lauryl B-Iminodipropionate	2.5-10%
	Ethoxylated Isotridecanol	2.5-10%
	Monopropylene Glycol	2.5-10%
	Ethane-1,2-Diol, Homopolymere	0-2.5%
	PolyHexamethylene Biguanide Hydrochloride	0-2.5%
Cidezyme/ Enzol	Proteolytic enzymes	< 5%
T-Spray	N-alkyl-(C12-18)-n-N-dimethyl-N-Benzyl-ammonium-chloride	/
	Alkyl-dimethyl-ethyl-benzyl-ammonium-chloride	/
T-Spray II	Alkyl-dimethyl-benzyl-ammonium-chloride;	/
	Octyl-decyl-dimethyl-ammonium-chloride;	/
	Diocetyl-dimethyl-ammonium-chloride;	/
	Didecyl-dimethyl-ammonium-chloride	/
Empower	Proteolytic enzymes	< 2%
Metrizyme	Proteolytic enzymes	< 2%
Neodisher MediClean forte	Trisodium ntrilotriacetate	5-10%
	2,2-Iminodiethanol diethanolamine	1-2%
Hycolin	Alkyldimethylbenzylammonium chloride / Tetrasodium EDTA/ Alcohol ethoxylate	1-10%
Prolystica 2x conc.	Ethanollamine, Protease, Ethoxylated alcohol, Polyalkylene glycol, Glycerine	/
Wip Anios Excel	Didecyldimethylammoniumchloride	<2.5%
	Amines, N-C12-14-Alkyltrimethylenedi	<2.5%
Wip Anios Premium	Didecyldimethylammoniumchloride	<2.5%
	Polyhexamethylene Biguanide Hydrochloride	<2.5%

4.1.2 Cleaning Procedure for TEE Probe

1. Clean the probe immediately after the probe is withdrawn from the patient's body. If the probe cannot be cleaned immediately, wipe the probe with water-moistened cloth and let the probe air dry. If residues dry on the probe, damage to the probe may occur. Wipe the probe handle gently with water-moistened cloth.
2. Flush the probe with clean water thoroughly for about 1 minute. Water used to flush the probe should be disposed after use.
3. Immerse the probe in enzymatic detergent. Follow the instructions provided by detergent manufacturer to dilute detergent. Soaking time should not be longer than that indicated by the detergent manufacture.
 - Follow local regulations to use enzymatic detergent. Mindray is not responsible for efficacy of chemicals or toxicity of residues.

- If the probe is not cleaned using enzymatic detergent before disinfection, there may be black residues on the probe or lip or tongue of the patient. To remove residues, wipe off residues with soft cloth dampened with alcohol. Do not use a brush, for it may damage the probe.
4. Flush the probe with clean water to remove residual solution for 1 minute. Water used to flush the probe should be disposed after use.
 5. Wipe off water on the probe using clean cloth or gauze after flushing the probe. Do not dry the probe by heating.

4.2 Disinfecting the TEE Probe

Only the following disinfectants are recommended by Mindray to disinfect the TEE probes. For the biological effectiveness and the correct use of the disinfectants, see the instructions provided by the disinfectants' manufacturer.

4.2.1 Compatible Disinfectants

Disinfectant Name	Manufacturer	Composition	Concentration
Cidex ADS	ASP J&J	Gluteraldehyde	2.55%
Cidex OPA	ASP J&J	Ortho-phthalaldehyde	0.55%
Gigasept AF	Schulke	Didecyldimethylammoniumchloride	15%
		Glycine, aminoalkyl derivs	6.9%
		Tridecylpolyethylenglycoether	15-30%
		N-(3-Aminopropyl)-N-dodecylpropane-1,3-diamine	< 5%
Gigasept FF (neu)	Schulke	Dimethoxytetrahydrofurane	3.2%
		Succindialdehyde	11.9%
		Ethanol	5-15%
		Methanol	5-10%
		Alkylpolyethylenglykcolpolypropylen glycol-ether, 2-ethanol, 3,6-dioxa-1-dodecanol, 3,6-dioxadodecan-1-ol, DEGHE, diethylene glycol monohexyl ether, hexyl carbitol	1-5%
Gigasept PAA concentrate	Schulke	Peracetic Acid	5%
		Hydrogen peroxide	10-20%
		Acetic Acid	10-20%
Korsolex extra	Bode Chemie	Gluteraldehyde	5-10%
Metricide	Metrex	Gluteraldehyde	2.60%
Metricide 28	Metrex	Gluteraldehyde	2.50%
Metricide Plus 30	Metrex	Gluteraldehyde	3.40%
Metricide OPA Plus	Metrex	Ortho-phthalaldehyde	0.60%

Disinfectant Name	Manufacturer	Composition	Concentration
NeoDisher Septo 3000	Dr.Weigert	Per 100gr:	4%
		15.2g glutardialdehyde	4%
		19.7g 1,6-dihydroxy-2,5-dioxahexan	4%
Nu-Cidex	ASP J&J	Peracetic Acid	0.30%
		Acetic Acid	0.60%
		Hydrogen peroxide	< 1.6%
Omnicide 14 N.S.	Coventry Chemicals	Gluteraldehyde	2.60%
Omnicide 28	Coventry Chemicals	Gluteraldehyde	2.50%
Perasafe	Dupont	Sodium Perborate	40-60%
Revital-Ox Resert XL HDL	Steris	Hydrogen Peroxide	1.4-2.3
		2-Fluroic Acid	≤ 2.50
Steranios 2%, 2% N.G., 2% E.C.S.	Laboratoires Anios	Gluteraldehyde	2.00%
TD100 & TD5	CS Medical	Gluteraldehyde	2.65%
Totacide 28	Coventry Chemicals	Gluteraldehyde	2.00%
Trigene Advance (incl. wipes) (1% solution)	Ethical Agents	C9-C11 alcohol ethoxylate	5-8%
		Isopropanol	2-5%
		Didecyl dimethyl ammonium chloride	2-5%
		Polymeric biguanide hydrochloride	1-2%
		Alkyl dimethylbenzylammonium chloride	0.5-1%
Tristel Trio Wipe System	Tristel	Propan-2-OL	1-10%
		Polymeric Biguanide Hydrochloride	< 1%
		5-Chloro-2-Isothiazol-3-one	< 1%
		2-Methyl-2H-Isothiazol-3-O	< 1%
		Chlorinedioxide Sodiumchlorite 100%	< 1%
Virkon	Dupont	Potassium peroxymonosulphate	< 50%
Wavicide 01	Medical Chemical Corp.	Gluteraldehyde	2.65%
Rapicide AP HLD *	Medivators	Peracetic Acid	5%
		Hydrogen Peroxide	22%
		Trisodium Phosphate	4.3%
		Surfactant	4%

NOTE:

The sign * denotes that the disinfectant is not applicable for P7-3T/P7-3Ts probe.

4.2.2 Disinfection Procedure

1. Wear medical gloves to prevent infection.
2. Clean the probe before disinfecting it. For details, see “4.1.2 Cleaning Procedure for TEE Probe”.
3. Immerse the flexible shaft in the disinfectant. The probe handle may be wiped with the wet cloth.
 - For the soaking time and dilution of the disinfectant, refer to the instructions provided by the disinfectant manufacturer. If you have not follow the instructions, the coating of the probe will be damaged and thus the flexibility of the flexible shaft will be degraded.
 - Only the section from distal end to the 100 cm marker (70 cm for P8-3Ts) can be immersed in disinfectant solution.
 - Do not immerse the probe in the solution containing alcohol, bleach, ammonia chloride or hydrogen peroxide. The probe should not be processed using high-pressure steam sterilization method. And the probe should be protected from ethylene oxide.
4. Flush the probe with clean water for at least three times, each at least 1 minute and at most 5 minutes. Water used to flush the probe should be disposed after use.
5. Wipe off water from the probe with a clean and soft cloth. Store the probe in a dry place.

NOTE:

The lens may be discolored; the label on the probe may fade. These are not abnormalities.

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5

Cleaning and Sterilizing the Needle-guided Bracket

NOTE:

Disposable components are packaged sterile and are single-use only. Do not use if integrity of packaging is violated or if expiration date has passed. Please use the disposable components compliant with the relevant local regulations.

CAUTION:

- Needle-guided brackets whose name starts with NGB are reusable, and need thorough cleaning and sterilization before and after each biopsy.
 - Follow local regulations when selecting and using the disinfectant.
 - Repeated sterilization may degrade the safety and performance of the needle-guided bracket. Before use, please check whether the needle-guided bracket has defects such as deformation and rusting. If such defects exist, the bracket has reached the end of its service life. In this case, stop using it and contact the Mindray service department.
 - It is recommended to use immersion sterilization for plastic needle-guided brackets and high-pressure steam sterilization for metal needle-guided brackets.
 - For detailed operations about the cleaning solvent, sterilant and high-temperature steam sterilizer, see the respective operator's manuals provided by the manufacturer.
-

5.1 Cleaning

Perform the following procedure:

1. Wear a pair of gloves to prevent infection.
2. After use, immerse the needle-guided bracket in clean water immediately to prevent dirt from drying. Wipe the entire surface of the needle-guided bracket by using a piece of disposable lint-free soft cloth to remove coarse dirt.
3. Prepare a cleaning solvent (enzymatic or neutral pH detergent, e.g., liquinox, MetriZyme) by using clean water in accordance with the operator's manual provided by the manufacturer.
4. Detach all the detachable parts of the needle-guided bracket and immerse the needle-guided bracket and all its parts fully in the cleaning solvent for at least 1 minute or a period specified by the manufacturer.

5. Immerse the needle-guided bracket and all its parts fully in the cleaning solvent. Wipe and wash the surface and connecting parts of the needle-guided bracket gently by using a soft brush until no dirt is visible. Place the needle-guided bracket inside an ultrasonic cleaner and perform ultrasonic cleaning for 3–5 minutes.
6. Rinse the needle-guided bracket thoroughly by using a large amount of clean water (about 7.5 L/2 gallons) at room temperature for about 30 s to remove the residual dirt and cleaning solvent. Repeat the operation twice.
7. Wipe away the water on the needle-guided bracket by using a piece of disposable lint-free soft cloth.
8. Inspect the needle-guided bracket. If visible dirt still exists, repeat the preceding steps to wash the bracket until it is all clean.

5.2 Sterilization

5.2.1 Sterilization with a sterilant

Perform the following procedure:

1. Wear a pair of gloves to prevent infection.
2. Clean thoroughly in accordance with the cleaning procedure before sterilization.
3. Prepare a sterilant by using sterile distilled water when necessary.

Table 5-1 Recommended sterilization solution

Chemical name	Trade name	Procedures
Glutaraldehyde (2.4%)	Cidex Activated Dialdehyde Solution	Refer to the instructions provided by the solution manufacturer for details.

4. Immerse the needle-guided bracket fully in the sterilant and shake the bracket appropriately to remove any bubbles on the surface. Use a syringe to draw an appropriate amount of sterilant and inject the sterilant into the hole to remove the bubbles inside the hole if necessary.

For details about the immersion duration, see the operator's manual provided by the manufacturer.

5. After sterilization, wash the needle-guided bracket thoroughly by using a large amount of sterile distilled water (about 7.5 L/2 gallons) at room temperature for about 30 s to remove the residual sterilant. Repeat the operation twice.
6. Dry the needle-guided bracket by using a piece of sterile disposable lint-free soft cloth.
7. Store the needle-guided bracket in a cool, clean and dry environment.

5.2.2 High-pressure steam sterilization

Perform the following procedure:

1. Wear a pair of gloves to prevent infection.
2. Clean thoroughly in accordance with the cleaning procedure before sterilization.
3. Package the needle-guided bracket in accordance with the sterilization requirements of surgical instruments.

4. Place the packaged needle-guided bracket inside a high-temperature steam sterilizer and perform sterilization. The sterilization parameters are 121 °C and 30 minutes for a gravity displacement steam sterilizer and are 132 °C and 4 minutes for a dynamic-air-removal steam sterilizer.
5. Take out the sterilization package after sterilization and dry it in an oven at 60 °C for 20 minutes to 30 minutes.

Keep the sterilization package together with other sterilized surgical instruments in a sterile item storage area.

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6 Cleaning and Disinfection of Main Unit

6.1 Cleaning

WARNING

Before cleaning the main unit, be sure to turn off the power and disconnect the power cord from the outlet. If you clean the system while the power is “On”, it may result in electric shock. (Especially, TE7 series ultrasound system has passed puncture test and leakage current test, and thus can be cleaned on power-on status.)

CAUTION

Do not spill water or other liquid into the system while you perform the cleaning. Otherwise it may result in malfunction or electric shock.

NOTE:

- Do not use chemical solvents, or acid or alkaline solution to clean the main unit.
- Do not use hydrocarbon glass cleaner or cleaner for OA (Office Automation) equipment to clean the monitor. These substances may cause deterioration of the monitor.
- Use a soft brush to brush away dust attached to all visible sockets or interfaces (such as probe sockets, sockets or interfaces in the IO panel and power supply panel). Do not use a cloth and water.
- Keyboard on the control panel should be cleaned periodically, otherwise, keys may be blocked by dirt and buzzer dings, and thus keys don't work.

6.1.1 Cleaning the monitor

Perform the following steps to clean the display of ultrasound system (including display and touch screen of cart-based ultrasound system and display of hand-carried ultrasound system).

1. Power off and unplug the system.

TE7 series ultrasound system has passed puncture test and leakage current test, and thus can be cleaned on power-on status. In power-on status, tap  in the top-right corner of the screen and select  to lock the system for 10 seconds.

2. Wear medical gloves.

3. Clean the display surface with a soft dry cloth. Remaining stains should be wiped away using a cloth with a little neutral detergent or clean water and then leave the display to air dry.
4. Do not dry the display by heating.

6.1.2 Cleaning the Control Panel

Perform the following steps to clean the control panel.

1. Power off and unplug the system.
2. Wear medical gloves.
3. Wipe the surface of control panel (including keys, buttons and sliders) with dry and soft cloth. Or wipe off difficult-to-remove soils by using soft cloth dampened with a bit of mild soapy water, and wipe dry the surface with dry and soft cloth or air dry. If it is difficult to clean the operation panel, remove the encoder caps, and then clean it with mild soapy water.
4. Dry the control panel in the air. Do not dry the control panel by heating.

6.1.3 Cleaning the Cover

Perform the following steps to clean the cover.

1. Power off and unplug the system.
TE7 series ultrasound system has passed puncture test and leakage current test, and thus can be cleaned on power-on status. In power-on status, tap  in the top-right corner of the screen and select  to lock the system for 10 seconds.
2. Wear medical gloves.
3. Use a soft dry cloth to clean the system's cover. If the system is dirty, moisten the soft cloth with neutral soapy water, wipe away any stains.
4. Dry the cover in the air. Do not dry the cover by heating.

6.1.4 Cleaning other Parts

For details on cleaning other parts of the main unit, such as trackball and dust-proof cover, refer to the basic volume of ultrasound system operator's manual.

6.2 Disinfection



WARNING

- Before disinfecting the main unit, be sure to turn off the power and disconnect the power cord from the outlet. Disinfecting the main unit while the power is "On" may result in electric shock. (Especially, TE7 series ultrasound system has passed puncture test and leakage current test, and thus can be disinfected on power-on status.)
 - Use only Mindray approved disinfectants and methods listed in this section to disinfect the main unit. Warranty does not cover damage caused by unapproved substances or methods.
 - Do not mix disinfectants, as hazardous gases may result.
-

- **We make no claims regarding the efficacy of the listed chemicals or methods as a means for controlling infection. For the method to control infection, consult your hospital's infection control officer or epidemiologist.**

CAUTION

- **Never immerse any part of the main unit in liquids or allow liquid to enter the interior.**
- **Any contact of disinfectants with connectors or metal parts may cause corrosion.**
- **Do not pour or spray any liquid directly on the main unit or permit fluid to seep into connections or openings. If you spill liquid on the main unit, disconnect the power supply, dry the main unit, and contact your service personnel.**
- **Never use abrasive materials (such as steel wool or silver polish), or erosive cleaners (such as acetone or acetone-based cleaners).**
- **Dilute and use the disinfectants according to the manufacturer's instructions.**
- **Check the system after cleaning and disinfection. If there is any sign of damage, remove it from use.**

NOTE:

- Disinfectants listed in this section are used for disinfecting the housing of the main unit and the monitor only, not for disinfecting the probes.
- Wear medical gloves to prevent transfer of soils and infection.
- Follow local regulations when selecting and using the disinfectant.

Different types of ultrasound systems (such as cart-based, hand-carried and touch screen) vary in materials of cover, display and control panel, and thus their resistance to disinfectants are different. Therefore, different ultrasound systems are compatible with different disinfectants.

Only TE7 series ultrasound system supports disinfection of the main unit cover and monitor.

6.2.1 Compatible disinfectants

The following table lists disinfectants compatible with the main unit of TE7 series ultrasound system.

Manufacturer	Trade name	Type
Advanced Ultrasound Solutions Inc.	SONO™ ULTRASOUND WIPES	Wipe
Parker laboratories Inc	Protex™ Disinfectant Spray	Spray
PDI Inc.	Sani-Cloth® Plus germicidal disposable cloth	Wipe
Bode Chemie Gmbh	Mikrobac Tissues	Wipe
GAMA Healthcare Ltd.	Clinell universal wipes	Wipe
PDI Inc.	Sani-Cloth® AF3	Wipe
Diversey	VIREX II 256	Solution
Diversey	VIREX TB	Solution
Schulke	Schulke mikrozid® Sensitive Wipes	Wipe

Manufacturer	Trade name	Type
/	0.5% sodium hypochlorite	Solution
/	75% alcohol	Solution

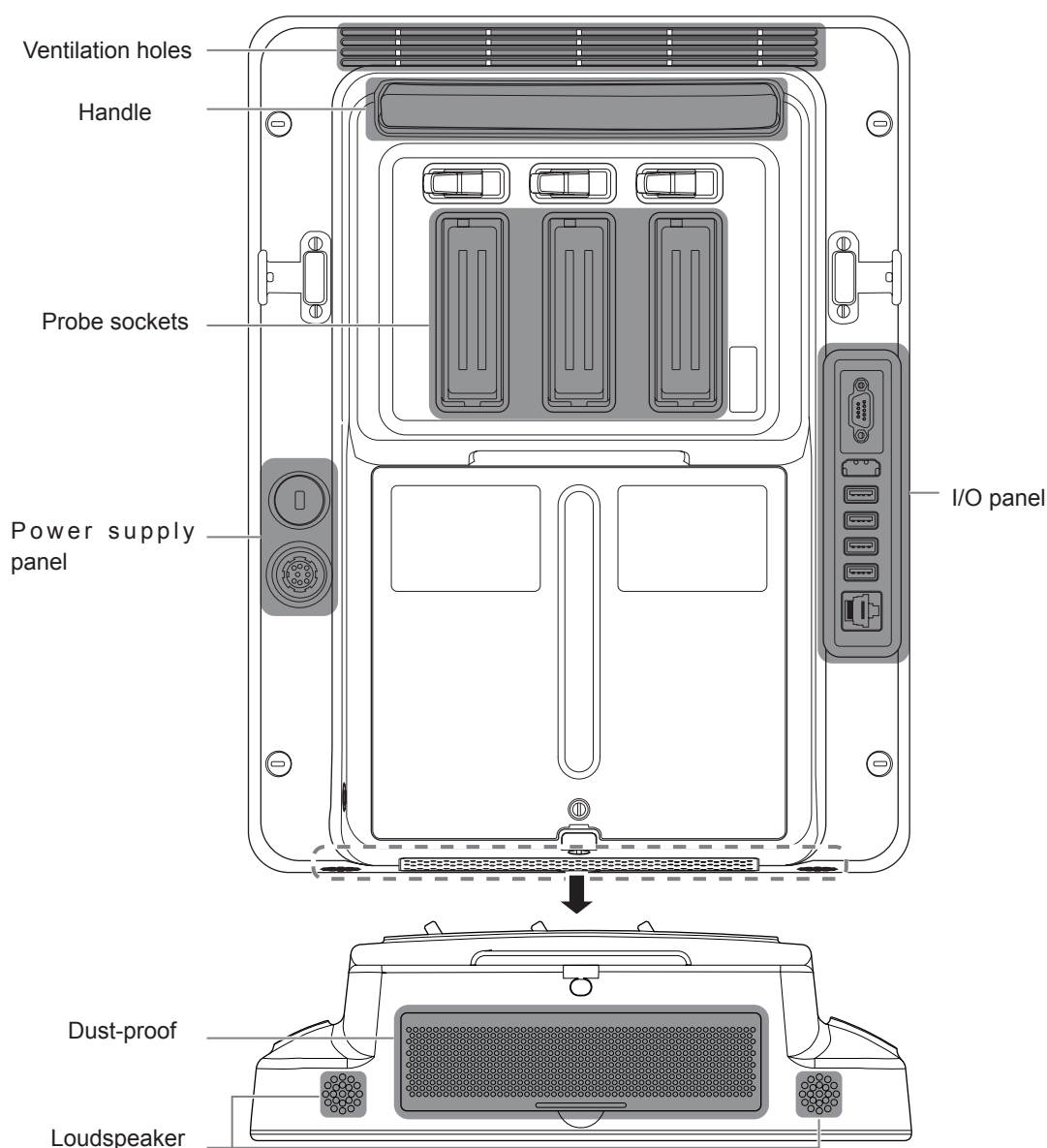
6.2.2 Disinfection procedure

Perform the following steps to disinfect the main unit cover and monitor of TE7 series ultrasound system.

After cleaning, disinfect the main unit as follows.

1. Wear medical gloves to prevent infection.
2. Disinfect the main unit with disinfectant wipe or solution. Follow the disinfectant manufacturer's recommended contact time and method.

Do not disinfect handle, or any visible sockets or interfaces (such as probe sockets, ventilation holes, dust-proof cover, loudspeaker, sockets or interfaces in the IO panel and power supply panel). See the following figure.



3. Remove any residue with a water-moistened soft cloth on the main unit.

4. Wipe off water on the main unit using clean cloth or gauze. Do not dry the main unit by heating.

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7 Cleaning Other Accessories

7.1 Cleaning the Holders

Perform the following steps to clean probe holders and coupling gel holders.

1. Use dry soft cloth to wipe off the dust attached to inside, outside or gap of probe holder or gel holder. As to small intra-cavity probe holder or its gap, use the soft brush to brush the dust or stain.
2. Remained stain attached to inside, outside of holder should be washed out by cloth with a little soapy water and then air-dry after take it out.
3. Gel warmer: Take the gel warmer out after pull out the power supply cable, use dry soft cloth to wipe off the dust attached to inside and outside, then brush the dust in the gel warmer or brush the stain with a little soap water and air-dry at last.

7.2 Cleaning the ECG Cables

Perform the following steps to clean ECG cable.

1. Wipe the ECG cable with a cotton ball or soft cloth dampened with clean water.
2. After cleaning, wipe dry the cable with a cloth.
3. Place the cable in shady and cool place to dry it. Do not dry the cable by heating.

7.3 Cleaning the Peripherals

Do the cleaning maintenance according to your actual peripheral configuration; items which are not configured can be skipped.

Color and B/W video printer

First wipe off dust or stain attached to the cover of printer with soft dry cloth, then clean the inside of printer. Be sure to do the cleaning maintenance according to the operation manual if necessary.

Graph/text printer

First wipe off dust or stain attached to the cover of printer with soft dry cloth, then clean the inside of printer. Be sure to do the cleaning maintenance according to the operation manual if necessary.

Footswitch

Use soft dry cloth with a little mild soap water to wipe off the dust or stain attached to the pedals or cable of foot switch.

Barcode reader

First use soft dry cloth to wipe off dust attached to glass panel of the reader, then the dust or strain attached to cable and bracket. Refer to barcode reader operator's manual for details.

Appendix A Compatible Disinfectants

NOTE:

The content in the disinfectant list is written based on ultrasound systems manufactured by Mindray. The versions of the ultrasound systems will be updated, and the disinfectant list may be not updated in time. Therefore, if the desired information cannot be found in this list, contact Mindray customer service department or sales representative.

A.1 Wipes

Probe		a1	a2	a3	a4	a5	a6	a7	a8	a9	a10	a11	a12	a13
Convex	C5-1s/C5-1E/C5-1U/C5-1/C5-2/C5-2s/ C5-2E/C6-2E/C6-2/C6-2s/C6-2P	√	√	√	√	√	√	√	√	√	√	√	√	√
	C6-2Gs/C6-2GE/C6-2GU	√	√	√	√	√	√	√	√	√	√	√	√	√
	C7-3E/C11-3E/C11-3s/C11-3U/C11-3/C1 /3C1s/3C1P/6C2/6C2P/6C2s/35C20EA/ 35C50EA/35C50EB/35C50P/65C15EAV/ 65C15EA	√	√	√	√	√	√	√	√	√	√	√	√	√
	3C5/3C5s/3C5A/3C5P	√	√	√	√	√	√	√	√	√	√	√	√	√
	SC5-1U/SC5-1E	√	√		√	√	√	√	√	√	√	√	√	
	SC6-1U/SC6-1E/SC6-1s/SC5-1NE/ SC5-1N/SC5-1Ns	√	√	√	√	√	√	√	√	√	√	√	√	√
	65EC10EA/65EC10EB/65EC10EC			√			√	√	√	√				
	65EC10ED	√		√	√	√	√	√	√	√			√	√

a1: CLEANISEPT® WIPES
a2: mikroqid® AF Wipes Jumbo
a3: PROTEX™ DISINFECTANT Wipes
a4: Sani-Cloth® Plus
a5: SONO™ ULTRASOUND WIPES
a6: Tristel Surface Wipes
a7: Tristel Pre-Clean Wipes
a8: Tristel Sporidical Wipes
a9: Tristel Rinse Wipes
a10: Clinell Universal Wipes
a11: mikroqid® Sensitive Wipes
a12: Wip'Anios premium
a13: ultrasound probe cleaning wipes
a14: Sono Ultrasound Wipes
a15: Sani-Cloth AF3 (gray)
a16: Protex Ultra Wipes
a17: Sani-Cloth HB
a18: CaviWipes
a19: Dispatch Towels
a20: Accel TB Wipes
a21: CaviWipes 1
a22: Tuffie 5
a23: Sani-Cloth Active
a24: Septiwipes
a25: Mikorbac Tissues
a26: Tuffie 5
a27: Sani-Cloth Germicidal
a28: Sani-Cloth HB

Probe		a1	a2	a3	a4	a5	a6	a7	a8	a9	a10	a11	a12	a13
Linear	L7-3/L7-3s/L7-3E/7L4/7L4s/7L4A/ 7L4P/7L4B/7L4Bs/7L4BP/7L5/7L5P/ 7L5s/7L6/7L6s/75L38EA/75L38EB/ 75L53EA/75L60EA/75L38P/10L4/ 10L4s	√	√	√	√	√	√	√	√	√	√	√	√	√
	65EL60EA/6LE7/6LE7s/6LE7P/6LE5V/ 6LE5Vs/6LE5VP/7LT4/7LT4s/7LT4P/7LT4E/ 50L60EAV/65L50HAV/75L50EAV/75LT38EA			√			√	√	√	√				
	L9-3U/L9-3E/L9-3s/L12-3/L12-3E/L13-3s/ L13-3/L12-4/L12-4s/L14-6N/L14-6Ns/ L14-6NP/L14-6NE/L14-6WE/L14-6Ws/ L14-6WU	√	√	√	√	√	√	√	√	√	√	√	√	√
	L11-3U/L14-3WU/L14-3WE/ L11-3VNs/L13-3Ns	√	√	√	√	√	√	√	√	√	√	√	√	√
	L11-4/L11-4s/L14-6/L14-6s/L14-6P/10L24EA	√	√	√	√	√	√	√	√	√	√	√	√	√
	LM14-6E/LM14-6s/LM16-4U	√	√	√	√	√	√	√	√	√	√	√	√	√
	L12-3RCs/L12-3VNs				√	√								
Phased	P4-2/P4-2s/P4-2E/P4-2NE/P4-2Ns/P10-4E/ P10-4s/P10-4U/2P2/2P2s/2P2P	√	√	√	√	√	√	√	√	√	√	√	√	√
	P7-3/P7-3s/P7-3E/P7-3U/P7-3P			√										
	P12-4/P12-4s					√								
	SP5-1U/SP5-1s/SP5-1E/SP5-1	√	√	√	√	√	√	√	√	√	√	√	√	√
	SP5-1Ns/SP5-1N	√	√	√	√	√	√	√	√	√	√	√	√	√
	LFP5-1s/LFP5-1U				√	√								
	P8-2s/P8-2	√	√	√	√	√	√	√	√	√	√	√	√	√
Endo-cavity	V11-3/V11-3BE/V11-3B/V11-3WE/V11-3Ws/ V11-3E/V11-3s	√		√	√	√	√	√	√	√			√	√
	V11-3HU/V11-3HE/V11-3Hs/V11-3H/V11-3HB/ V11-3HBs	√	√	√	√	√	√	√	√	√	√	√	√	√
	V10-4/V10-4s/V10-4B/V10-4Bs/V10-4BP/ V10-4P/6CV1/6CV1s/6CV1P	√		√	√	√	√	√	√	√			√	√

a1: CLEANISEPT® WIPES

a2: mikroqid® AF Wipes Jumbo

a3: PROTEX™ DISINFECTANT Wipes

a4: Sani-Cloth® Plus

a5: SONO™ ULTRASOUND WIPES

a6: Tristel Surface Wipes

a7: Tristel Pre-Clean Wipes

a8: Tristel Sporidical Wipes

a9: Tristel Rinse Wipes

a10: Clinell Universal Wipes

a11: mikroqid® Sensitive Wipes

a12: Wip'Anios premium

a13: ultrasound probe cleaning wipes

a14: Sono Ultrasound Wipes

a15: Sani-Cloth AF3 (gray)

a16: Protex Ultra Wipes

a17: Sani-Cloth HB

a18: CaviWipes

a19: Dispatch Towels

a20: Accel TB Wipes

a21: CaviWipes 1

a22: Tuffie 5

a23: Sani-Cloth Active

a24: Septiwipes

a25: Mikorbac Tissues

a26: Tuffie 5

a27: Sani-Cloth Germicidal

a28: Sani-Cloth HB

Probe		a1	a2	a3	a4	a5	a6	a7	a8	a9	a10	a11	a12	a13
Biplane	CB10-4/CB10-4P/CB10-4A/CB10-4E/ 6LB7/6LB7s/6LB7P/6LB7E/65EB10EA			√			√	√	√	√				
	ELC13-4U													

Probe		a4	a14	a15	a16	a17	a18	a19	a20
Convex	C4-1/C4-1U/C4-1s	√	√	√	√	√	√	√	√
	C9-3Ts						√		

Probe		a1	a2	a3	a4	a5	a6	a7	a8	a9	a10	a11	a12	a13	a18	a21	a22	a23
4D	D7-2/D7-2E/D7-2s/ SD8-1E/SD8-1s/D6-2/ D6-2P/D6-2B/D6-2EA	√	√	√	√	√	√	√	√	√	√	√	√	√				
	D8-2E/D8-2U											√			√	√	√	
	D8-4U				√							√			√	√	√	
	DE10-3/DE10-3E/DE10-3U DE10-3s											√			√	√	√	√
	DE11-3U/DE11-3P/ DE11-3s/DE11-3E/ DE11-3/DE11-3WE/ DE11-3Ws	√			√	√		√	√	√			√	√				
Linear	L14-5WU/L14-5WE/ L14-5Ws				√										√			

Probe		a1	a13	a18	a24	a25	a26	a27	a28
4D	DE10-3WU/DE10-3WE	√	√	√	√	√	√	√	√
Linear	LM15-6U/LM15-6E								√

a1: CLEANISEPT® WIPES
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a7: Tristel Pre-Clean Wipes
a8: Tristel Sporidical Wipes
a9: Tristel Rinse Wipes
a10: Clinell Universal Wipes
a11: mikroqid® Sensitive Wipes
a12: Wip'Anios premium
a13: ultrasound probe cleaning wipes
a14: Sono Ultrasound Wipes
a15: Sani-Cloth AF3 (gray)
a16: Protex Ultra Wipes
a17: Sani-Cloth HB
a18: CaviWipes
a19: Dispatch Towels
a20: Accel TB Wipes
a21: CaviWipes 1
a22: Tuffie 5
a23: Sani-Cloth Active
a24: Septiwipes
a25: Mikorbac Tissues
a26: Tuffie 5
a27: Sani-Cloth Germicidal
a28: Sani-Cloth HB

A.2 Sprays

Probe		b1	b2	b3	b4	b5	b6	b7	b8	b9	b10	b11	b12	b13
Convex	C5-1s/C5-1E/C5-1U/C5-1/C5-2/C5-2s/ C5-2E/C6-2E/C6-2/C6-2s/C6-2P	√	√	√		√		√	√					
	C6-2Gs/C6-2GE/C6-2GU	√	√	√		√		√	√					
	C7-3E/C11-3E/C11-3s/C11-3U/C11-3/ 3C1/3C1s/3C1P/6C2/6C2P/6C2s/ 35C20EA/35C50EA/35C50EB/35C50P/ 65C15EAV/65C15EA	√	√	√	√	√	√	√	√					
	3C5/3C5s/3C5A/3C5P	√	√	√	√	√	√	√	√					
	SC5-1U/SC5-1E	√		√				√						
	SC6-1U/SC6-1E/SC6-1s/SC5-1NE/ SC5-1N/SC5-1Ns	√	√	√		√		√	√					
	SC8-2U/SC8-2E/SC8-2s				√									
	65EC10EA/65EC10EB/65EC10EC		√		√	√	√	√						
	65EC10ED	√	√	√	√	√	√	√	√					
	C4-1/C4-1U/C4-1s		√							√				

b1: Oxivir™/MC Tb
b2: PI-SPRAY II
b3: Surfa'safe
b4: TRANSEPTIC
b5: PROTEX™ DISINFECTANT SPRAY
b6: Tristel Solo
b7: Tristel Duo
b8: IODOCLEAN
b9: Protex Spray
b10: CaviCide
b11: T-Spray
b12: Indican Form
b13: Transeptic Spray

Probe		b1	b2	b3	b4	b5	b6	b7	b8	b9	b10	b11	b12	b13
Linear	L7-3/L7-3s/L7-3E/7L4/7L4s/7L4A/ 7L4P/7L4B/7L4Bs/7L4BP/7L5/7L5P/ 7L5s/7L6/7L6s/75L38EA/75L38EB/ 75L53EA/75L60EA/75L38P/10L4/ 10L4s	√	√	√	√	√	√	√	√					
	65EL60EA/6LE7/6LE7s/6LE7P/ 6LE5V/6LE5Vs/6LE5VP/7LT4/7LT4s/ 7LT4P/7LT4E/50L60EAV/65L50HAV/ 75L50EAV/75LT38EA		√		√	√	√	√						
	L9-3U/L9-3E/L9-3s/L12-3/L12-3E/ L13-3s/L13-3/L12-4/L12-4s/L14-6N/ L14-6Ns/L14-6NP/L14-6NE/L14-6WE/ L14-6Ws/L14-6WU	√	√	√		√		√	√					
	L10-3E/L10-3s					√	√							
	L11-3U/L14-3WU/L14-3WE/ L11-3VNs/L13-3Ns	√	√	√		√		√	√					
	L11-4/L11-4s/L14-6/L14-6s/L14-6P/ 10L24EA	√	√	√		√		√	√					
	LM14-6E/LM14-6s/LM16-4U	√	√	√	√	√	√	√	√					
	L20-5U/L20-5s/L20-5E		√											
	L14-5WU/L14-5WE/L14-5Ws		√									√		
Phased	LM15-6U/LM15-6E		√		√							√		
	L13-3WE/L13-3WU							√						
	P4-2/P4-2s/P4-2E/P4-2NE/P4-2Ns/ P10-4E/P10-4s/P10-4U/2P2/2P2s/ 2P2P	√	√	√	√	√	√	√	√					
	P7-3/P7-3s/P7-3E/P7-3U/P7-3P		√		√	√	√							
	P12-4/P12-4s	√	√			√								
	SP5-1U/SP5-1s/SP5-1E/SP5-1	√	√	√		√	√	√	√					
	SP5-1Ns/SP5-1N	√	√	√		√		√	√					
	P8-2s/P8-2	√	√	√		√		√	√					

b1: Oxivir™/MC Tb
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b6: Tristel Solo
b7: Tristel Duo
b8: IODOCLEAN
b9: Protex Spray
b10: CaviCide
b11: T-Spray
b12: Indican Form
b13: Transeptic Spray

Compatible Disinfectants

Probe		b1	b2	b3	b4	b5	b6	b7	b8	b9	b10	b11	b12	b13
Endo-cavity	V11-3/V11-3BE/V11-3B/V11-3WE/ V11-3Ws/V11-3E/V11-3s	√	√	√	√	√	√	√	√					
	V11-3HU/V11-3HE/V11-3Hs/V11-3H/ V11-3HB/V11-3HBs	√	√	√		√		√	√					
	V10-4/V10-4s/V10-4B/V10-4Bs/ V10-4BP/V10-4P/6CV1/6CV1s/6CV1P	√	√	√	√	√	√	√	√					
Biplane	CB10-4/CB10-4P/CB10-4A/CB10-4E/ 6LB7/6LB7s/6LB7P/6LB7E/65EB10EA		√		√	√	√	√						
4D	D7-2/D7-2E/D7-2s/SD8-1E/SD8-1s/D6-2/ D6-2P/D6-2B/D6-2EA	√	√	√	√	√	√	√	√					
	D8-2E/D8-2U		√								√			
	D8-4U		√								√	√		
	DE10-3/DE10-3E/DE10-3U/DE10-3s		√								√	√		
	DE11-3U/DE11-3P/DE11-3s/DE11-3E/ DE11-3/DE11-3WE/DE11-3Ws	√		√				√	√					
	DE10-3WU/DE10-3WE		√									√	√	√

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b8: IODOCLEAN
b9: Protex Spray
b10: CaviCide
b11: T-Spray
b12: Indican Form
b13: Transeptic Spray

A.3 Solutions

Probe		c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12
Convex	C5-1s/C5-1E/C5-1U/C5-1/C5-2/ C5-2s/C5-2E/C6-2E/C6-2/C6-2s/C6-2P	√		√		√	√		√	√	√	√	√
	C6-2Gs/C6-2GE/C6-2GU	√		√	√	√	√		√	√	√	√	√
	C7-3E/C11-3E/C11-3s/C11-3U/ C11-3/3C1/3C1s/3C1P/6C2 /6C2P/6C2s/35C20EA/ 35C50EA/35C50EB/35C50P/ 65C15EAV/65C15EA	√	√	√	√	√	√		√	√	√	√	
	3C5/3C5s/3C5A/3C5P	√	√	√	√	√	√		√	√	√	√	√
	SC5-1U/SC5-1E	√											
	SC6-1U/SC6-1E/SC6-1s/SC5-1NE/ SC5-1N/SC5-1Ns	√		√		√	√		√			√	√
	SC8-2U/SC8-2E/SC8-2s	√		√									
	65EC10EA/65EC10EB/65EC10EC	√	√	√	√	√	√						
	65EC10ED	√	√			√	√	√	√	√	√	√	√

c1: CIDEX OPA
c2: Cidex Activated Dialdehyde Solution
c3: MetriZyme
c4: Minncare® Cold Sterilant
c5: Ster-Bac
c6: Triacid-N
c7: Revital-Ox™ Resert High Level Disinfectant
c8: ggigasept® PAA concentrate
c9: DESCOTON extra
c10: gigasept® FF(neu)
c11: ANIOXYDE 1000
c12: SALVANIOS pH10
c13: Metrisponge
c14: Liquinox
c15: Revital-OX Enzymatic Detergent
c16: Cavicide Liquid
c17: MetriZyme Liquid and MetriSponge
c18: Prolystica 2X Enzymatic
c19: Endozime and Endozime Sponge
c20: Metricide
c21: Metricide 28
c22: Metricide OPA Plus
c23: Cidex Plus
c24: Gigasept AF
c25: Osvan
c26: Neojodin
c27: Milton
c28: hibitane
c29: Sterihyde
c30: klenzyme
c31: Metricide 14
c32: Sekusept plus
c33: Wavicide-01

Probe		c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12
Linear	L7-3/L7-3s/L7-3E/7L4/7L4s/7L4A/7L4P/7L4B/7L4Bs/7L4BP/7L5/7L5P/7L5s/7L6/7L6s/75L38EA/75L38EB/75L53EA/75L60EA/75L38P/10L4/10L4s	√	√	√	√	√	√		√	√	√	√	
	65EL60EA/6LE7/6LE7s/6LE7P/6LE5V/6LE5Vs/6LE5VP/7LT4/7LT4s/7LT4P/7LT4E/50L60EAV/65L50HAV/75L50EAV/75LT38EA	√	√	√	√	√	√						
	L9-3U/L9-3E/L9-3s/L12-3/L12-3E/L13-3s/L13-3/L12-4/L12-4s/L14-6N/L14-6Ns/L14-6NP/L14-6NE/L14-6WE/L14-6Ws/L14-6WU	√		√		√	√		√	√	√	√	√
	L10-3E/L10-3s			√									
	L11-3U/L14-3WU/L14-3WE/L11-3VNs/L13-3Ns	√		√	√	√	√		√	√	√	√	√
	L11-4/L11-4s/L14-6/L14-6s/L14-6P/10L24EA	√		√		√	√		√			√	√
	L16-4HE/L16-4Hs/L16-4HU	√	√										
	LM14-6E/LM14-6s/LM16-4U	√	√	√	√	√	√		√	√	√	√	√
	L20-5U/L20-5s/L20-5E		√										
	L14-5WU/L14-5WE/L14-5Ws	√	√										
Phased	P4-2/P4-2s/P4-2E/P4-2NE/P4-2Ns/P10-4E/P10-4s/P10-4U/2P2/2P2s/2P2P	√	√	√	√	√	√		√	√	√	√	
	P7-3/P7-3s/P7-3E/P7-3U/P7-3P	√		√									
	P12-4/P12-4s	√	√	√	√	√	√						
	SP5-1U/SP5-1s/SP5-1E/SP5-1	√		√		√	√					√	√
	SP5-1Ns/SP5-1N	√		√		√	√		√	√	√	√	√
	P8-2s/P8-2	√		√	√	√	√		√	√	√	√	√

c1: CIDEX OPA
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c14: Liquinox
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c16: Cavicide Liquid
c17: MetriZyme Liquid and MetriSponge
c18: Polystica 2X Enzymatic
c19: Endozime and Endozime Sponge
c20: Metricide
c21: Metricide 28
c22: Metricide OPA Plus
c23: Cidex Plus
c24: Gigasept AF
c25: Osvan
c26: Neojodin
c27: Milton
c28: hibitane
c29: Sterihyde
c30: klenzyme
c31: Metricide 14
c32: Sekusept plus
c33: Wavicide-01

Probe		c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12
Endo-cavity	V11-3/V11-3BE/V11-3B/ V11-3WE/V11-3Ws/ V11-3E/V11-3s	√	√	√	√	√	√					√	√
	V11-3HU/V11-3HE/V11-3Hs/ V11-3H/V11-3HB/V11-3HBs	√		√	√	√	√		√	√	√	√	√
	V10-4/V10-4s/V10-4B/ V10-4Bs/V10-4BP/ V10-4P/6CV1/6CV1s/6CV1P	√	√			√	√	√	√	√	√	√	√
Pencil	CW2s/CW5s/CW5	√	√			√	√						
Biplane	CB10-4/CB10-4P/CB10-4A/CB10-4E/ 6LB7/6LB7s/6LB7P/6LB7E/65EB10EA	√	√	√	√	√	√						
	ELC13-4U	√											

Probe		c1	c2	c7	c13	c14	c15	c16	c17	c18	c19	c20	c21	c22
Convex	C4-1/C4-1U/C4-1s	√	√	√	√	√	√	√	√	√	√	√	√	√
	C9-3Ts	√		√				√				√	√	√
	LAP13-4Cs		√											

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c28: hibitane
c29: Sterihyde
c30: klenzyme
c31: Metricide 14
c32: Sekusept plus
c33: Wavicide-01

	Probe	c1	c2	c3	c4	c5	c6	c7	c8	c9	c10	c11	c12	c23	c24	c25	c26	c27	c28	c29
4D	4CD4/4CD4s/ D6-2E	√	√			√														
	D7-2/D7-2E/ D7-2s/SD8-1E/ SD8-1s/D6-2/ D6-2P/ D6-2B/D6-2EA	√	√	√	√	√	√					√	√							
	D6-2NE/DL14-3U	√														√	√	√	√	√
	D8-2E/D8-2U	√									√									
	D8-4U	√	√											√	√					
	DE10-3/DE10-3E/ DE10-3U/DE10-3s	√	√											√	√					
	DE11-3U/DE11-3P/ DE11-3s/DE11-3E/ DE11-3/ DE11-3WE/ DE11-3Ws	√			√				√	√		√	√							

	Probe	c1	c2	c5	c10	c22	c23	c24	c28	c30	c31	c32	c33
4D	DE10-3WU/DE10-3WE	√	√			√	√	√		√	√	√	√
Linear	LM15-6U/LM15-6E	√	√	√	√		√	√	√		√		√

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c20: Metricide
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c24: Gigasept AF
c25: Osvan
c26: Neojodin
c27: Milton
c28: hibitane
c29: Sterihyde
c30: klenzyme
c31: Metricide 14
c32: Sekusept plus
c33: Wavicide-01

A.4 Devices

Probe		d1	d2	d3
Convex	C5-1s/C5-1E/C5-1U/C5-1/C5-2/C5-2s/C5-2E/C6-2E/C6-2/C6-2s/C6-2P	√	√	
	C6-2Gs/C6-2GE/C6-2GU	√	√	
	C7-3E/C11-3E/C11-3s/C11-3U/C11-3/3C1/3C1s/3C1P/6C2/6C2P/6C2s/35C20EA/35C50EA/35C50EB/35C50P/65C15EAV/65C15EA	√	√	
	3C5/3C5s/3C5A/3C5P	√	√	
	SC5-1U/SC5-1E	√	√	
	SC6-1U/SC6-1E/SC6-1s/SC5-1NE/SC5-1N/SC5-1Ns	√	√	
	SC8-2U/SC8-2E/SC8-2s	√		
	65EC10EA/65EC10EB/65EC10EC	√	√	√
	65EC10ED	√	√	
Linear	C9-3Ts	√		
	L7-3/L7-3s/L7-3E/7L4/7L4s/7L4A/7L4P/7L4B/7L4Bs/7L4BP/7L5/7L5P/7L5s/7L6/7L6s/75L38EA/75L38EB/75L53EA/75L60EA/75L38P/10L4/10L4s	√	√	
	65EL60EA/6LE7/6LE7s/6LE7P/6LE5V/6LE5Vs/6LE5VP/7LT4/7LT4s/7LT4P/7LT4E/50L60EAV/65L50HAV/75L50EAV/75LT38EA	√	√	√
	L9-3U/L9-3E/L9-3s/L12-3/L12-3E/L13-3s/L13-3/L12-4/L12-4s/L14-6N/L14-6Ns/L14-6NP/L14-6NE/L14-6WE/L14-6Ws/L14-6WU	√	√	
	L10-3E/L10-3s	√		
	L11-3U/L14-3WU/L14-3WE/L11-3VNs/L13-3Ns	√	√	
	L11-4/L11-4s/L14-6/L14-6s/L14-6P/10L24EA	√	√	
	LM14-6E/LM14-6s/LM16-4U	√	√	
	L12-3RCs/L12-3VNs	√		
Phased	P4-2/P4-2s/P4-2E/P4-2NE/P4-2Ns/P10-4E/P10-4s/P10-4U/2P2/2P2s/2P2P	√	√	
	P7-3/P7-3s/P7-3E/P7-3U/P7-3P	√		
	P12-4/P12-4s	√		
	SP5-1U/SP5-1s/SP5-1E/SP5-1	√	√	
	SP5-1Ns/SP5-1N	√	√	
	P8-2s/P8-2	√	√	

d1: TrophonSonex-HL (Used with Trophon/Trophon2)
d2: Germitec Antigermix UV-C
d3: Vaporized Hydrogen Peroxide (Used with V-PRO Low Temperature Sterilization System)

Probe		d1	d2	d3
Endo-cavity	V11-3/V11-3BE/V11-3B/V11-3WE/V11-3Ws/V11-3E/V11-3s	√	√	√
	V11-3HU/V11-3HE/V11-3Hs/V11-3H/V11-3HB/V11-3HBs	√	√	
	V10-4/V10-4s/V10-4B/V10-4Bs/V10-4BP/V10-4P/6CV1/6CV1s/6CV1P	√	√	√
Biplane	CB10-4/CB10-4P/CB10-4A/CB10-4E/6LB7/6LB7s/6LB7P/6LB7E/65EB10EA	√	√	√
4D	D7-2/D7-2E/D7-2s/SD8-1E/SD8-1s/D6-2/D6-2P/D6-2B/D6-2EA	√		
	D6-2NE/DL14-3U	√		
	D8-2E/D8-2U	√		
	DE10-3/DE10-3E/DE10-3U/DE10-3s	√	√	
	DE11-3U/DE11-3P/DE11-3s/DE11-3E/DE11-3/DE11-3WE/DE11-3Ws	√		√
	DE10-3WU/DE10-3WE	√	√	

d1: TrophonSonex-HL (Used with Trophon/Trophon2)
d2: Germitec Antigermix UV-C
d3: Vaporized Hydrogen Peroxide (Used with V-PRO Low Temperature Sterilization System)

A.5 Powder

Probe		e1
4D	D8-2E/D8-2U	√
	D8-4U	√
	DE10-3/DE10-3E/DE10-3U/DE10-3s	√
	DE10-3WU/DE10-3WE	√

e1: Rely+On PeraSafe

Appendix B Composition

DISINFECTANT	COMPOSITION
TRISTEL SURFACE WIPES/ TRISTEL TRIO WIPES SYSTEM/ TRISTEL JET	chlorine dioxide
STER-BAC/PI-SPRAY II/ T-SPRAY II/MIKROZID® SENSITIVE WIPES/Clinell Universal Wipes	Quaternary Ammoniums
METRIZYME	Proteinase subtilisin
TRISTEL RINSE WIPES	deionized water
CIDEX OPA	0.55% Ortho-phthlaldehyde
DESCOTON EXTRA	glutaraldehyde
OXIVIR™/MC TB	0.5% hydrogen peroxide
TRISTEL SOLO	polyhexamethylbiguanide
TRISTEL PRE-CLEAN WIPES	enzymatic detergent
SANI-CLOTH® PLUS	n-Alkyl dimethyl benzyl ammonium chloride n-Alkyl ethylbenzyl ammonium chloride
CAVIWIPES	Isopropanol, Ethylene Glycol Monobutyl Ether
DISPATCH TOWELS: SODIUM HYDROXIDE, SODIUM METASILICATE, SODIUM HYPOCHLORITE ACCEL TB WIPES	Hydrogen peroxide
REVITAL-OX ENZYMATIC DETERGENT	Citric acid, Triethanolamine, Ethanolamine, Ethoxylated coconut oil alkyl amine, Subtilisins (proteolytic enzymes), Glycerine
LIQUINOX	enzymatic detergent
SONO™ ULTRASOUND WIPES	octyl decyl dimethyl ammonium chloride; dioctyl dimethyl ammonium chloride; didecyl dimethyl ammonium chloride; dimethyl benzyl ammonium chloride
MINNCARE® COLD STERILANT	22% Hydrogen Peroxide, 4.5% Peroxyacetic Acid
MIKROZID® AF WIPES JUMBO	25% ethanol; 35% propan-1-ol
CLEANISEPT® WIPES	0.25g didecyldimethylammoniumchloride 0.5g quaternary ammonium compounds □ benzyl-C12-16- alkyldimethyl-□ chlorides
WIP'ANIOS PREMIUM	didecyldimethylammonium chloride 1.4mg/g, polyhexamethylene biguanide hydrochloride 0.96mg/g

DISINFECTANT	COMPOSITION
Cidex Activated Dialdehyde Solution	glutaraldehyde
TRANSEPTIC	isopropyl alcohol, chlorhexidine gluconate
PROTEX SPRAY	Quaternary ammonium compounds di-C8-10-alkyldimethyl, chlorides Water
GIGASEPT® FF(NEU)	0.11g succindialdehyde; 0.3g dimethoxytetrahydrofuran; < 5% anionic surfactant; non-ionic surfactants; anti-corrosion compounds; fragrance
GIGASEPT® PAA CONCENTRATE	peracetic acid (5%); hydrogen peroxide: acetic acid; potassium hydroxide: corrosion inhibitor
PROTEX™ DISINFECTANT SPRAY/PROTEX™ DISINFECTANT WIPES	octyl decyl dimethyl ammonium chloride; dioctyl dimethyl ammonium chloride; didecyl dimethyl ammonium chloride; dimethyl benzyl ammonium chloride
TRIACID-N	N-Dodecylpropan-1,3-diamin; propan-2-ol; isotridecanol, ethoxylated; non-ionic detergent
SURFA'SAFE	didecyl dimethyl ammonium chloride 1.4mg/g, polyhexamethylene biguanide hydrochloride 0.96mg/g
REVITAL-OX™ RESERT HIGH LEVEL DISINFECTANT/ TROPHONSONEX-HL	hydrogen peroxide
ANIOXYDE 1000	3% Hydrogen Peroxide
SANI-CLOTH AF3	Quaternary ammonium chlorides
CIDEX	alkaline glutaraldehyde
METRICIDE OPA PLUS/ PROTEX ULTRA WIPES	Quaternary Ammoniums
METRIZYME LIQUID AND METRISPONGE	Proteinase subtilisin
PROLYSTICA 2X ENZYMATIC	Alcohols, C12-14-secondary, ethoxylated, Subtilisins (proteolytic enzymes), Glycerine
ENDOZIME AND ENDOZIME SPONGE	Subtilisins (proteolytic enzymes)
METRICIDE/METRICIDE 28	Glutaraldehyde
SANI-CLOTH ACTIVE	Quaternary Ammoniums

Appendix C

Number of Disinfection and Sterilization

To ensure the safety and performance of probes, the minimum number that one probe can be disinfected or sterilized is shown in the following table.

Disinfectant	Manufacturer	Number of tests
Sani-Cloth® Plus	PDI	5200
Surfa'safe	Anios Laboratoires	1560
Wip'Anio,premium	Anios Laboratoires	1560
IODOCLEAN	Anios Laboratoires	1560
SALVANIOS pH7	Anios Laboratoires	1560
SALVANIOS pH10	Anios Laboratoires	1560
ANIOXYDE 1000	Anios Laboratoires	5200
Oxivir ^{TM/MC} Tb	Diversey	2600
SONO TM ULTRASOUND WIPES	Advanced Ultrasound Solutions Inc.	5200
Protex TM Disinfectant Wipes	Parker laboratories Inc	5200
Protex TM Disinfectant Spray	Parker laboratories Inc	5200
TRANSEPTIC	Parker Laboratories Inc.	5200
CIDEX OPA	ASP	5200
Cidex Activated Glutaraldehyde Solution	ASP	1560
Ster-bac	Ecolab Inc.	5200
Minncare® Cold Sterilant	Minntech Corporation	2600
MetriZyme	Metrex	5200
CLEANISEPT® WIPES	DR.SCHUMACHER GMBH	10400
DESCOTON extra	DR. SCHUMACHER	1560
Triacid-N	ANTISEPTICA	5200
gigasept® FF(neu)	SCHÜLKE	1560
gigasept® PAA concentrate	SCHÜLKE	1560
Clinell Universal Wipes	GAMA HEALTHCARE	5200
PI-SPRAY II	PHARMACEUTICAL INNOV	2600
Tristel Surface Wipes	Tristel Solutions Limited	5200
Tristel Pre-Clean Wipes	Tristel Solutions Limited	5200

Disinfectant	Manufacturer	Number of tests
Tristel Trio Wipes System □ Including Sporicidal Wipes, Activator Foam□	Tristel Solutions Limited	5200
Tristel Rinse Wipes	Tristel Solutions Limited	5200
Tristel Solo	Tristel Solutions Limited	5200
Tristel Duo	Tristel Solutions Limited	5200
mikroqid [®] AF Wipes Jumbo	SCHÜLKE	1560
mikroqid [®] Sensitive Wipes	SCHÜLKE	1560
Trophon Sonex-HL □ used with Trophon EPR Ultrasound Probe Disinfector□	Nanosonics Limited	4000
ultrasound probe cleaning wipes	Nanosonics Limited	5200
Revital-Ox [™] Resert HLD	Steris	500
Tristel Jet	Tristel Solutions Limited	10400
V-PRO	Steris	300

