

About This Manual

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- all installation operations, expansions, changes, modifications and repairs of this product are conducted by SonoScape authorized personnel;
- the use or application of the product or the use of parts or accessories is approved by SonoScape;
- the electrical installation of the relevant room complies with the applicable national and local requirements;
- the product is used in accordance with the instructions for use.

Conventions

Signal words in this manual are defined as follows. Please understand their meanings clearly before reading this manual.

Signal Word	Meaning
	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a potentially hazardous situation which, if not avoided, may result in malfunction or damage of the system.
NOTE	Indicates precautions or recommendations that should be used in operating the system.
	Indicates a potentially biological hazardous situation which, if not avoided, may result in disease transmission.
Boldfaced Word	Indicates keys and controls located on the control panel, or on-screen objects such as menu items or keys.

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1. Safety



WARNING

Precautions must be considered in the use of any application. Otherwise, it may result in system damage or serious injury.

1.1 Safety Precautions

Read and understand all precautions in this manual before attempting to use the probe. Keep this manual with the probe at all times. Periodically review the procedures for operation and safety precautions.

1.1.1 Electrical Safety



WARNING

- Only qualified physicians or sonographers can perform ultrasound scanning on human subjects for medical diagnostic reasons.
- Any unauthorized personnel should not tamper with the probe.
- Do not operate this probe in an atmosphere containing flammable gases or liquids such as anesthetic gases, hydrogen, and ethanol, because there is danger of explosion.
- Do not use the probe at the same time with other equipment such as electric knife, high-frequency therapy equipment and defibrillator. Otherwise, there is a danger of electric shock.
- Do not use the probe other than those provided by the manufacturer. Otherwise, the ultrasound system cannot be performed, and an accident such as a fire may result in the worst case.

- Only use the accessories approved by the manufacturer.
- To avoid electrical shock and damage to the ultrasound system, power off and unplug the system from the AC power outlet before cleaning.

1.1.2 Mechanical Safety



WARNING

Do not knock or shake the probe.

1.1.3 Accessories Caring



WARNING

- Disconnect the probe from the system after freezing an image or powering off the system. Otherwise, the system or the probe could be damaged.
- Use the probe carefully. If any part of the transducer surface is scratched, immediately stop using the probe. Otherwise, there is a danger of electric shock.
- After disinfecting the accessories, chemicals must be washed out or gases must be discharged thoroughly from the accessories. Remaining residual chemicals or gases could not only result in damage to the accessories but also can be harmful to human bodies.
- Contact with natural rubber latex may cause a severe anaphylactic reaction in persons sensitive to the natural latex protein. The operator and patients must avoid contact with these items. Refer to package labeling to determine latex content and FDA's March 29, 1991 Medical Alert on latex products.

- Ensure you use a new and intact probe sheath on the probe during endocavitary exams. If the probe sheath is found broken, stop using it to avoid cross-contamination or infectious diseases.
- Do not use mineral oil, oil-based coupling agent, lotion or softening cleansing gel rather than the coupling gel approved or provided by the manufacturer. Such products may damage the probe and void the warranty.
- Use the legally marketed coupling gel in accordance with the relevant local regulations. Read and understand all precautions in the relevant manual of the coupling gel before using it.
- Prepare, use, store and dispose the cleaner, disinfectant and sterilant according to the instructions provided by manufacturers.

1.1.4 Biohazard Considerations



- Some disinfectants or sterilants are acid or alkaline, the operator should take cautions in preventing hands or clothing from being directly contact with them. Wash hands or eyes immediately if they are contaminated by the disinfectants or sterilants.
- Dispose of the cleaners, disinfectants or discard solutions in accordance with the local standards or regulations.

1.2 Acoustic Power Principle



WARNING

- Perform ultrasound procedures prudently under the guidance of the ALARA (as low as reasonably achievable) principle. Expose the patient to only the lowest practical transmit power levels in the shortest possible period to achieve a satisfactory diagnosis.
- Although the output power is automatically controlled for the selected applications, high TI values should be kept to a minimum or avoided in obstetric applications.
- You should be familiar with the performances and operations of the system, observe the ultrasound output parameters on the screen all the time.
- Do not continuously scan the same part of a patient or expose the patient to prolonged scanning. Doing so may harm the patient.
- Do not expose the fetus to prolonged scanning in the Doppler mode.

1.2.1 Biological Safety

Diagnostic ultrasound is recognized as being safe, but the possibility of biological effects exists when using it in high exposure levels and long exposure times. Thus ultrasound should be used in a prudent manner to provide medical benefit to the patient.

1.2.2 ALARA

It is required to practice ALARA when using ultrasound energy. Practicing ALARA ensures that the total energy level is controlled below a low enough level at which bioeffects are not generated while diagnostic information is being accumulated. The total energy is controlled by output intensity and total radiation time. The output intensity necessary for exams differs depending on the patient and the clinical case.

Not all exams can be performed with an extremely low level of acoustic energy. Controlling the acoustic level at an extremely low level leads to low-quality images or insufficient Doppler signals, adversely affecting the reliability of the diagnosis. However, increasing the acoustic power more than necessary does not always contribute to an increase in quality of information required for diagnosis, rather increasing the risk of generating bioeffects.

The operator must take responsibility for the safety of patients and utilize ultrasound deliberately. Deliberate use of ultrasound means that output power of ultrasound must be selected based on ALARA. Additional information regarding the concept of ALARA and the possible bioeffects of Ultrasound is available in a document from the AIUM (American Institute of Ultrasound Medicine) title “Medical Ultrasound Safety”.

1.2.3 Mechanical and Thermal Indices

The display of the ultrasound system consists of two parts: Thermal Index (TI) and Mechanical Index (MI).

■ MI/TI Explanation

In October 1987, the American Institute of Ultrasound in Medicine (AIUM) ratified a report prepared by its Bioeffects Committee (Bioeffects Considerations for the Safety of Diagnostic Ultrasound, J Ultrasound Med., Sept. 1988: Vol. 7, No. 9 Supplement), sometimes referred to as the StoweReport, which reviewed available data on possible effects of ultrasound exposure. Another report “Bioeffects and Safety of Diagnostic Ultrasound” dated January 28, 1993, provides more current information.

Mechanical Index (MI)

Mechanical bioeffects are threshold phenomena that occur when a certain level of output is exceeded. The threshold level varies, however, with the type of tissue. The potential mechanical bioeffects varies with peak pressure and ultrasound frequency. The MI accounts for these two factors. The higher the MI value, the greater the likelihood of mechanical bioeffects occurring. There is no specific MI value that means that a mechanical effect is actually occurring. The MI should be used as a guide for implementing the ALARA principle.

Thermal Index (TI)

The TI value informs the operator about the conditions that might lead to an increase in temperature at the surface of the body, within the body tissue, or at the point of focus of the ultrasound beam on bone. That is, the TI value informs the operator about the potential temperature rise in body tissue. It is an estimate of temperature increase in body tissue with specific properties. The actual amount of any temperature rise is influenced by factors such as tissue type, vascularity, mode of operation and others. The TI value should be used as a guide for implementing the ALARA principle.

Depending on the exam and type of tissue involved, TI could be one of three types:

- Soft Tissue Thermal Index (TIS) is used when imaging soft tissue only, it provides an estimate of potential temperature rise in soft tissue.
- Bone Thermal Index (TIB) is used when bone is near the focus of the image as in the third trimester, it provides an estimate of potential temperature rise in the bone or adjacent soft tissue.
- Cranial Bone Thermal Index (TIC) is used when bone is near the skin surface as in transcranial exam, it provides an estimate of potential temperature rise in the bone or adjacent soft tissue.

■ MI/TI Display

TI and MI values are displayed in real time on the screen. The operator should observe these index values during exams and ensure that exposure time and output values are maintained at the minimum amounts needed for effective diagnosis.

The MI and TI precision is 0.1.

1.2.4 Transducer Surface Temperature Limits

For probes intended for internal applications, e.g. the intracavitary or transesophageal probes, the surface temperature of the probe may be changed by adjusting the system parameters.

The maximum surface temperature of the intracavitary probe is 43° C. To protect the patient against the harm of excessive temperature, the probe stops working automatically when its temperature reaches the limit. The surface temperature of the probe displays on the screen.

PAT: 37 °C	PAT: Patient Threshold Temperature
TIP: <28 °C	TIP: Transducer Tip Temperature


1.2.5 Imaging Functions that Change Acoustic Output












The qualified operator may use the system controls to limit the ultrasound output and to adjust the quality of the images. The operator should observe the acoustic output display for possible effects.


There are three categories of system controls relative to output. They are controls that have direct effect on the output, controls that indirectly control output and controls that are receiver controls.

1.3 Safety Symbols

The following table is provided for your identification of important symbols located in labels on the ultrasound system.

Symbol	Meaning
	This product is provided with a CE marking in accordance with the regulations stated in Council Directive 93/42/EEC








Symbol	Meaning
	Type BF Applied Part
	Follow instructions for use
	Lock
	Unlock
IPX7	Degree of IP protection
	Manufacturer
	Date of manufacture
	Serial Number
	Fragile
	Keep dry
	Keep this way upward
	Maximum stacking limit of packages. Maximum of two layers allowed.









Symbol	Meaning
	This symbol indicates that waste electrical and electronic equipment must not be disposed of as unsorted municipal waste and must be collected separately. Please contact an authorized representative of the manufacturer for information concerning the decommissioning of your equipment.








2. Introduction









2.1 Intended Use









The probe is used in conjunction with the ultrasound system provided by the manufacturer. The intended applications of the probe vary with the probe model you selected.










No.	Probe	Type	Application	Illustration
1	L741	Linear Array	Nerve, Vascular, Small Parts, Musculo-skeletal	
2	L742	Linear Array	Nerve, Vascular, Small Parts, Musculo-skeletal	
3	L743	Linear Array	Nerve, Vascular, Small Parts, Musculo-skeletal	
4	L745	Linear Array	Nerve, Vascular, Small Parts, Musculo-skeletal	
5	L746	Linear Array	Nerve, Vascular, Small Parts, Musculo-skeletal	
6	L752	Linear Array	Nerve, Vascular, Small Parts, Musculo-skeletal	
7	10L1	Linear Array	Nerve, Vascular, Small Parts, Musculo-skeletal	








No.	Probe	Type	Application	Illustration
8	10I2	Linear Array	Nerve, Vascular, Small Parts, Musculo-skeletal, Surgery	
9	VL12-5	Linear Array	Small Parts, Breast, Vascular	
10	2P1	Phased Array	Cardiac, Trans-cranial, Abdominal	
11	5P1	Phased Array	Pediatric Cardiac	
12	5P2	Phased Array	Pediatric Cardiac	
13	C344	Curved Array	Abdominal, Gyn/OB, Fetal	
14	C351	Curved Array	Abdominal, OB, Gynecology, Urology	
15	C352	Curved Array	Abdominal, OB, Gynecology, Urology	









No.	Probe	Type	Application	Illustration
16	C353	Curved Array	Abdominal, Gyn/OB, Fetal	
17	C354	Curved Array	Abdominal, Gyn/OB, Fetal	
18	C362	Curved Array	Abdominal, OB, Gynecology, Urology	
19	C542	Curved Array	Abdominal, OB, Gynecology, Urology, Pediatrics	
20	C543	Curved Array	Abdominal, OB, Gynecology, Urology, Pediatrics	
21	VC6-2	Curved Array	Abdominal, OB, Gynecology	
22	VE9-5	Curved Array	Gynecology	
23	C312	Micro Curved Array	Abdominal, Cardiac, Urology	





No.	Probe	Type	Application	Illustration
24	C322	Micro Curved Array	Abdominal Puncture, Urology	
25	C611	Micro Curved Array	Abdominal, Cardiac, Urology, Pediatrics	
26	C612	Micro Curved Array	Abdominal, Cardiac, Pediatrics	
27	C613	Micro Curved Array	Pediatric Cardiac	
28	6V1	Micro Curved Array	Gynecology, OB	
29	6V3	Micro Curved Array	Gynecology, OB	
30	6V4	Micro Curved Array	Gynecology, OB	
31	6V5	Micro Curved Array	Gynecology, OB	

No.	Probe	Type	Application	Illustration
32	EC9-5	Micro Curved Array	Urology	
33	EC2	Micro Curved Array	Urology	
34	BCL 10-5	Micro Curved / Linear Array	Urology	
35	BCC9 -5	Micro Curved Array	Urology	
36	BCC9 -4	Micro Curved Array	Urology	
37	CWD 2.0	CW Pencil	Cardiac	
38	CWD 5.0	CW Pencil	Cardiac, Pediatrics	
39	PWD 2.0	PW Pencil	Trans-cranial	

No.	Probe	Type	Application	Illustration
40	3C-A	Curved Array	Abdominal (where the skin is intact), Gyn/OB	
41	4P-A	Phased Array	Cardiac	
42	S1-5	Phased Array	Abdominal, Cephalic, Cardiac	
43	2P2	Phased Array	Abdominal, Cephalic, Cardiac	
44	3P-A	Phased Array	Abdominal, Cephalic, Cardiac	
45	7P-B	Phased Array	Pediatric, Neonatal Cephalic, Cardiac (Pediatric)	
46	8P1	Phased Array	Pediatric, Neonatal Cephalic, Cardiac (Pediatric)	
47	6V1A	Curved Array	Trans-vaginal	
48	12C-ER	Curved Array	Trans-rectal, Trans-vaginal	

No.	Probe	Type	Application	Illustration
49	6CI-A	Curved Array	Abdominal	
50	6CT-A	Curved Array	Abdominal	
51	C1-6	Curved Array	Fetal, Abdominal, Other (Ob/GYN)	
52	18L-A	Linear Array	Small Organs (breast, thyroid, testes), Musculo-skeletal (Conventional & Superficial), Peripheral vessel	
53	9L-A	Linear Array	Small Organs, Musculo-skeletal (Conventional & Superficial), Peripheral vessel	
54	13L-A	Linear Array	Small Organs (breast, thyroid, testes), Musculo-skeletal (Conventional & Superficial), Peripheral vessel	
55	10L-I	Linear Array	Small Organs (breast, thyroid, testes), Musculo-skeletal (Conventional & Superficial), Peripheral vessel	

No.	Probe	Type	Application	Illustration
56	12LT-A	Linear Array	Abdominal	
57	CWD8.0	CW Pencil	Cardiac Adult, Cardiac Pediatric	
58	12L-A	Linear Array	Small Organs (breast, thyroid, testes), Musculo-skeletal (Conventional & Superficial), Peripheral vessel	
59	12LI-A	Linear Array	Abdominal	
60	6V2A	Curved Array	Trans-vaginal	
61	7P-A	Phased Array	Pediatric Cardiac, Trans-cranial	
62	6V7	Micro Curved Array	Uterus	
63	C1-6A	Curved Array	Abdominal, OB, Gynecology	

No.	Probe	Type	Application	Illustration
64	VC2-9	Curved Array	Abdominal, OB, Gynecology	
65	12L-B	Linear Array	Small Parts, Breast, Vascular	
66	ML3-18	Linear Array	Small Parts, Breast, Vascular	
67	6V3A	Micro Curved Array	Uterus	

2.2 Structure

Generally speaking, the probe consists of acoustic window, piezoelectric crystal, casing, cable, electric circuits and connector. L752 Probe is taken as an example in the following figure.

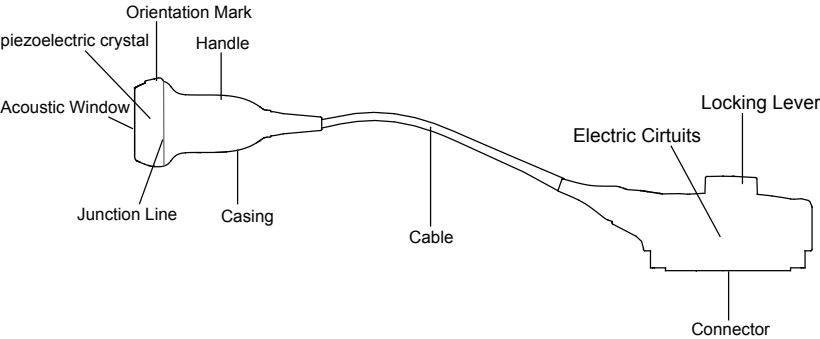


Figure 2-1 Probe Structure

3. Usage

3.1 Inspection

Inspect the probe before each use. In case the following damage is found, stop using the probe immediately.

- Cracks on the probe handle.
- Cracks on the transducer surface.
- Scratches on the transducer surface (acoustic window surface).
- Swell of the acoustic window material.
- Cracks or wear on the probe cable.
- Cracks on the probe connector or any other kinds of visible damage.
- Deformed pins or broken pins exist inside the probe connectors.

3.2 Sheath

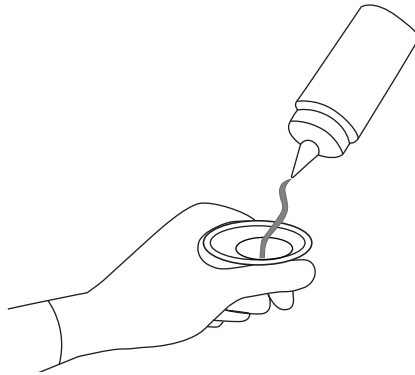


WARNING

- Always use a probe sheath for endocavitary exams, and when scanning an open wound or an area where the skin is not intact.
- Always wear medical sterile gloves when using the probe.

Perform the steps as follows:

1. Unfold the probe sheath.
2. Apply an appropriate amount of coupling gel to the inside of the sheath and onto the face of the probe.



3. Hold the probe and unroll the sheath onto the probe.
4. Pull the probe sheath tightly over the face of the probe to remove wrinkles.
5. Secure the sheath to the probe with the adhesive tapes or elastic bands provided.



After the exam, remove the sheath from the probe, and dispose of the sheath in accordance with the local laws and regulations.

3.3 Probe Connection



WARNING Disconnect the probe from the system after freezing an image or powering off the system. Otherwise, the system or the probe could be damaged.

Perform the steps as follows:

1. Power on the ultrasound system, press the **Exam** key or the **Freeze** key.
2. Rotate the locking lever 90° anticlockwise to the  position.
3. Insert the probe connector into the probe port firmly.
4. Rotate the locking lever 90° clockwise to the  position, and lock it securely.

NOTE:

For pencil probe, only connect the corresponding connector to the port located on the front panel of the system.

3.4 Patient Exam

Perform the steps as follows:


1. Connect the probe to the ultrasound system.
2. Press the **Exam** key to enter the application mode screen, you can select the desired probe and exam type.
3. You can begin the patient exam after the system automatically enters the main screen.

NOTE:

- You should check the probe orientation mark before the scan. Ensure orientations of the probe and the first element on the image are consistent.
- CWD2.0, CWD5.0, CWD8.0 probes are only available in the CW mode.
- PWD2.0 probe is only available in the PW mode.

3.5 Probe Disconnection

Perform the steps as follows:

1. Rotate the locking lever 90° anticlockwise to the  position, and then pull the probe connector out directly.
2. Clean, disinfect or sterilize the probe. For details, refer to Chapter 4 Maintenance.

NOTE:

For pencil probe, pull the probe connector out directly.

4. Maintenance

To maintain the safety and functionality of the probe, you should perform a periodical maintenance.

4.1 Cleaning



WARNING

- To avoid probe damages, do not bump the probe on hard surfaces during the cleaning.
- To avoid the electric shock, disconnect the probe from the ultrasound system before the cleaning.
- To avoid the potential disease transmission, you should wear medical sterile gloves and protective goggle during the cleaning.

You should clean the probe after each use.

Perform the following steps to clean the probe.

1. Disconnect the probe from the ultrasound system, and remove the probe sheath and the biopsy bracket from the probe.
2. Use a lint-free soft cloth dampened with mild soapy water to wipe the probe.
 - If the probe carries blood, body fluid or dried stains, you should wipe it with enzymatic cleaner.
 - If there are stains on surface or grooves of the probe, you should use a brush dampened with portable water to remove them.
3. Rinse the probe with the fresh running water to remove the residual cleaner completely.
4. Dry the probe with a lint-free soft dry cloth.

4.2 Disinfection and Sterilization

**WARNING**

- Use the liquid disinfectant/sterilant that meets the local laws and regulations.
- If you use the recommended disinfectant/sterilant, ensure its level and the probe soak period meets the requirements. Otherwise, the probe could be damaged and your warranty might be void. If you have other use or needs, ensure the level of the make-up disinfectant/sterilant and the probe soak period are suitable for the intended clinical application.
- Do not use the expired disinfectant/sterilant.
- Store the probe in a sterile environment, and mention its expiry date before use.
- Do not disinfect or sterilize the probe through autoclaving or contact with ethylene oxide.
- Do not use thermal disinfection/sterilization. Temperatures higher than 66° C (150° F) will damage the probe.
- Not allow any disinfectant/sterilant to be air-dried on the probe.
- After being contaminated by pathogenic bacterium that is hard to kill, such as cryptosporidium or prion virus, the probe and its accessories should be destroyed by melting or burning when necessary because they cannot be completely disinfected or sterilized.

4.2.1 Disinfection Levels

To choose an appropriate disinfectant, you first must determine the required level of disinfection, based on the probe applications.

Table 4-1 Disinfection Levels

Classification	Definition	Level of Disinfection	Application
Critical	A device that enters normally sterile tissue or the vascular system.	Sterilization	Intraoperative, biopsy use or blood contacting probe
Semi-critical	A device that comes into contact with intact mucous membranes and does not ordinarily penetrate sterile tissue.	High	Endocavitary probe
Noncritical	Devices that do not ordinarily touch the patient or touch only intact skin.	Medium or low	Body surface probe

4.2.2 Soak Requirements

Do not immerse the probe beyond its junction line.

NOTE:

Disinfectants listed in this manual are recommended because of their chemical compatibility with product materials, not their biological effectiveness. For the biological effectiveness of a disinfectant, refer to the guidelines and recommendations of the disinfectant manufacturer, Association for Practitioners in Infection Control, U.S. Food and Drug Administration, and U.S. Centers for Disease Control.

4.2.3 Body Surface Probe Disinfection

You should disinfect the surface probe after each use.

Perform the steps as follows:

1. Clean the probe.
For details, refer to Section 4.1 Cleaning.
2. Perform the medium-level disinfection to the surface probe as shown in Table 4-2 until the recommended disinfection period expires.
3. Rinse the probe with the fresh running water to remove the residual disinfectant completely.
4. Dry the probe with a lint-free soft dry cloth.

Table 4-2 Recommended Method for Medium-level Disinfection

Disinfectant	Manufacturer	Active Ingredient	Level for Active Ingredient	Contact Type	Contact Period
70% Isopropyl alcohol	ALL	70% Isopropyl alcohol	70%	Spray/ Wipe	<10 minutes
T-spray II	Pharm. Inc.	Quat. Ammonia	/	Spray/ Wipe	<10 minutes
T-spray	Pharm. Inc.	Quat. Ammonia	/	Spray/ Wipe	<10 minutes

4.2.4 Endocavitary Probe Disinfection

You should disinfect the endocavitary probe before and after each use.

Perform the steps as follows:

1. Clean the probe.
For details, refer to Section 4.1 Cleaning.
2. Perform the high-level disinfection to the endocavitary probe as

shown in Table 4-3 until the recommended soak period expires.

3. Rinse the probe with the running sterile water to remove the residual disinfectant completely.
4. Dry the probe with a lint-free soft dry cloth.

Table 4-3 Recommended Method for High-level Disinfection

Disinfectant	Manufacturer	Active Ingredient	Level for Active Ingredient	Contact Type	Contact Period
Cidex™ Activated Dialdehyde Solution	J&J	Glutaraldehyde	2.4%	Soak	45-50 minutes
Resert XL HLD	STERIS	H ₂ O ₂	2.0%	Soak	8 minutes
Tristel Duo for Ultrasound	Tristel	Chlorine dioxide	0.02%	Wipe	0.5 minutes
Tristel Sporicidal Wipe* (* part of the Tristel Trio Wipes System)	Tristel	Chlorine dioxide	0.02%	Wipe	0.5 minutes

4.2.5 Sterilization

You should sterilize the intraoperative, biopsy use or blood contacting probe after each use.

Perform the steps as follows:

1. Clean the probe.

For details, refer to Section 4.1 Cleaning.

2. Sterilize the probe as shown in Table 4-4 until the recommended soak period expires.
3. Rinse the probe with the running sterile water to remove the residual sterilant completely.
4. Dry the probe with a lint-free soft dry cloth.

Table 4-4 Recommended Method for Sterilization

Disinfectant	Manufacturer	Active Ingredient	Level of Active Ingredient	Contact Type	Contact Period
Cidex™ Activated Dialdehyde Solution	J&J	Glutaraldehyde	2.4%	Soak	10 hours

4.3 Probe Cable Disinfection and Sterilization



WARNING

- Do not immerse the probe connector or handle into disinfectant or sterilant.
- To avoid potential disease transmission, you should wear medical sterile gloves and protective goggle during the disinfection or serialization.
- Do not immerse the probe cable into alcohol or isopropyl alcohol at any concentration for a long period. Avoid any contact with iodine or phenols.

■ **Daily Disinfection**

Perform the steps as follows:

1. Use a lint-free soft cloth dampened with mild soapy water to

wipe the probe cable.

2. Perform the medium-level disinfection to the probe cable as shown in Table 4-5 until the recommended disinfection period expires.
3. Rinse the probe cable with the fresh running water to remove the residual disinfectant completely.
4. Dry the probe with a lint-free soft dry cloth. Recommended

Table 4-5 Method for Medium-level Disinfection

Disinfectant	Manufacturer	Active Ingredients	Level of Active Ingredients	Contact Type	Contact Period
T-spray II	Pharm. Inc.	Quat. Ammonia	/	Spray/ Wipe	<10 minutes
T-spray	Pharm. Inc.	Quat. Ammonia	/	Spray/ Wipe	<10 minutes

■ Sterilization

If the probe cable contacts with any blood or body fluid, you should sterilize it. For details, refer to the information about probe sterilization.

4.4 Storage and Transportation

Store and transport the probe to ensure the probe is in a good condition.

■ To transport the probe

1. Ensure the probe is cleaned and disinfected before the transportation.
2. Place the probe fully into the carrying case, and carefully wind the cable.
3. Ensure no parts of the probe left outside the carrying case before

the package.

4. Pack the carrying case with sponge, and place it in a carton.

■ To store the probe

The following items are recommended to be performed for the storage.

- Always store the probe in the probe holder or the specific package.
- Ensure the probe holder or the specific package is clean.
- Do not expose it in direct sunlight or environmental temperature of sudden changes.
- Store the probe alone to avoid any impact on the probe head.
- Carefully wind the probe cable.
- Dry the probe before the storage.

4.5 Disposal

You should dispose of the probe in accordance with the local laws or regulations.

4.6 Customer Service

Only the service personnel of or authorized by the manufacturer can service the ultrasound system. Any feedbacks or inquires concerning our product or service should be directed to the manufacturer.

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Appendix Specifications

Comply with	<p>IEC 60601-1, Medical electrical equipment Part 1: General requirements for basic safety and essential performance</p> <p>IEC 60601-2-37, Medical electrical equipment Part 2-37: Particular Requirements for the Basic Safety and Essential Performance of Ultrasonic Medical Diagnostic and Monitoring Equipment</p> <p>IEC 60601-1-2, Medical electrical equipment- Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests</p>	
Classifications	Type of protection against electric shock	Probe dependent, see the type of associated ultrasound system
	Degree of protection against electric shock	Probe dependent, see the degree of associated ultrasound system
	Degrees of protection against harmful liquid	Probe (from the acoustic window to the junction line) is IPX7
	According to the degree of safety of application	The equipment is not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide.

Environmental Requirement		Operations	Storage and Transportation
	Ambient Temperature	10° C~+40° C	-20° C~+55° C
	Relative Humidity	30%~75% (no condensation)	20%~90% (no condensation)
	Atmospheric Pressure	700hPa~1060hPa	700hPa~1060hPa