



Life Systems, Inc.

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Endoscope Repair: Flexible, Rigid, Camera Heads and Power
New and Refurbished Endoscopy Equipment: GI and Surgical
ERBE Surgical Systems: Electrosurgery, Helix Hydro-Jet™

Disinfecting / Decontaminating Endoscopes **Prior to Shipping for Repair**

The official position of Life Systems, Inc. is dictated by OSHA rules of compliance in this matter. It states:

In compliance with OSHA blood-borne pathogen regulations and other applicable federal, state and local regulations, medical equipment that comes into contact with potentially infectious material MUST be decontaminated before being sent in for repair.

Therefore, **ALL** endoscopes being sent to Life Systems, Inc. for any reason (repair, condition investigation, etc.) **MUST** be cleaned and high-level disinfected prior to shipment. Flexible endoscopes that the water-tight integrity has been maintained (no 'leaks') should be subjected to standard reprocessing procedures described within the owner's manual.

Following these reprocessing procedures provides safe handling by additional hospital staff, freight carriers as well as our receiving and repair service personnel.

It is recognized that under certain circumstances (i.e. 'leak' found), standard reprocessing procedures could further damage the compromised piece of equipment. Immersing an endoscope with leaks into reprocessing solutions (detergent and / or liquid germicides) may lead to further fluid invasion resulting in potentially more damage.

The following pages outline how Life Systems, Inc. requires that these compromised flexible endoscopes with confirmed 'leaks' (via leak test) be disinfected prior to shipment for repair.

Things to remember for this:

- Always use a water-tight cap that is appropriate for the make / model of the endoscope.
- Always perform a leak test according to the instructions supplied with leak tester or the owner's manual for your endoscope.
- Use only legally marketed liquid chemical germicides / high-level disinfectants and sterilants that are identified by the owner's manual as being compatible with the endoscope.

It is crucial to provide an endoscope with **positive pressure during all phases** of the reprocessing cycle to prevent further damage. Pressurizing the endoscope will help to prevent fluid from entering the endoscope.

Decontamination of Endoscopes for Repair

Step One – Manual Pre-Cleaning of Endoscope:

This step is to be performed in the examination room immediately after the procedure is completed. (This pre-cleaning step should be performed prior to the step that a leak would be identified.)

- A. **Wipe Insertion Tube** using gauze or soft cloth saturated with enzymatic detergent. Remove all biological debris from the insertion tube and control section.
- B. **Aspirate Enzymatic Detergent** through the entire biopsy / suction channel system with **ONLY** the scope distal tip submersed in the solution. Alternate suctioning of air and detergent to create agitation.
- C. **Purge Air & Water Channels** by setting lever on water bottle to “drain” position, turn air pump “on” to highest pressure setting and use air/water valve to expel fluid and/or debris from air and water channels.
- D. **Purge Any Special Feature Channels** such as water jet, exposed elevator, etc.
- E. **Detach Removable Components** and soak in detergent solution.

Step Two – Leak Testing

- A. Leak test per manufacturer’s instructions. If a leak is detected, you **MUST** keep positive pressure in the endoscope throughout the process. Failure to do this could result in fluid invasion of the scope.

Step Three – Cleaning

Procedural scopes and instruments should be cleaned as thoroughly as possible.

- A. ALL areas of the suction / instrument channel system need to be brushed until visibly clean. This includes the insertion tube, channel inlet, control body, suction valve housing, light guide cable and suction port / connector.
- B. Aspirate rinse water through ALL channels to flush out any loosened or remaining debris. Remove all detachable components (air/water valve, suction valve, inlet seals, etc.) and soak them in the enzymatic detergent mixture. Rinse and dry components.

Step Four – Option 1 – Sterilization with Ethylene Oxide Gas

Recommended method if a leak is discovered. Please follow the ETO sterilization process instructions provided in the owner's manual. To ensure proper disinfecting, the instrument should be as dry as possible prior to exposure to ETO gas. To aid in drying of surfaces, you may use an alcohol rinse through **all** channels with **zero** confirmed leaks followed by forced air.

Step Four – Option 2 – Liquid Chemical Germicide

Note: To avoid major fluid invasion, a leak tester needs to be utilized throughout the process to maintain internal pressure of the endoscope.

- A. Fill a basin with disinfectant solution; follow manufacturer's recommendation for temperature and concentration. Use a basin that is large and deep enough to fully immerse the endoscope.
- B. Prior to immersing, attach the leak tester connector and pressurize the endoscope. If using an MU, insert the leak tester connector into the output socket of the maintenance unit or the light source and turn the unit or light source ON and then set the airflow regulator switch to "HIGH" or "3".
- C. Next, connect the leak tester's connector cap to the vent connector of the water resistant cap.
- D. You may now immerse the endoscope into the basin of disinfectant solution.
- E. Perform High-Level Disinfection according to the instructions provided in the endoscope's reprocessing manual. Minimize unnecessary flexing of the insertion tube and universal / umbilical cord during reprocessing.

If you have any questions, please contact Life Systems, Inc. - Repair Department at:
(888) LIFE-SYS or (636) 787-2100.