

Care and Maintenance of Reusable Fiber Optic Laryngoscope Blades



CLEAN BLADE IMMEDIATELY AFTER USE TO PREVENT RESIDUES FROM DRYING

Intended Use of Laryngoscope: Used for endotracheal tube intubation.

Care and Maintenance Document: These instructions apply to Cross Instruments' reusable fiber optic laryngoscope blades. The fiber optic laryngoscope blades must be processed prior to first use, and between each use, using any of the methods presented in this care and maintenance document:

- CLEANING + (A) COLD SOLUTION HIGH-LEVEL DISINFECTION
- CLEANING + (B) GRAVITY AUTOCLAVE STERILIZATION
- CLEANING + (C) PRE-VACUUM STEAM STERILIZATION
- CLEANING + (D) STERIS AMSCO V-PRO STERILIZATION
- CLEANING + (E) STERRAD STERILIZATION

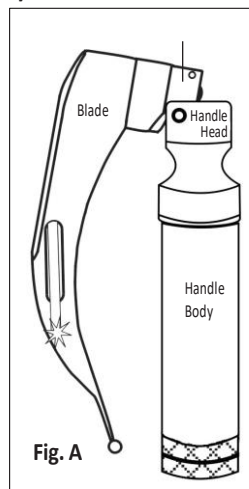
WARNINGS and CAUTIONS

- DO NOT USE THE FOLLOWING: Ultrasonic clean, dry heat sterilization or Potassium Hydroxide liquids.
- CHECK laryngoscope system functionality, and ensure blade is fully engaged on handle prior to use.
- DISCARD any component that shows evidence of damage or deterioration.

NOTE: The laryngoscope blade **MUST** be removed from the handle prior to cleaning, disinfection, and/or sterilization. To clean, disinfect or sterilize the handle, consult the *Care and Maintenance Instructions for Reusable Fiber Optic Laryngoscope Handles with Removable Lamp Cartridge*.

CLEANING THE BLADE PRIOR TO DISINFECTION / STERILIZATION

1. Remove laryngoscope blade from the handle head (Fig. A).
2. Rinse the blade under cool running tap water, until all visible soil is removed.
4. Immerse the blade in a presoak enzymatic cleaner solution, prepared according to manufacturer's instructions, for a minimum of two minutes.
5. After the presoak, scrub the blade using a soft bristled brush, and rinse with lukewarm running tap water for a minimum of one minute to remove any residues and visible soil.
6. Immerse the blade in an enzymatic detergent prepared according to manufacturer's instructions.
7. Scrub the blade thoroughly by using a soft bristle brush, and thoroughly rinse with cool running tap water to remove all residual detergent.
8. Dry the blade with lint-free clean cloth or filtered pressurized air.



Follow with **HIGH-LEVEL DISINFECTION** or **STERILIZATION** of blade.

(A) COLD SOLUTION HIGH-LEVEL DISINFECTION OF THE BLADE

1. Prepare Cidex® OPA or 2.4% Glutaraldehyde solution according to manufacturer's instructions.
2. Immerse the blade in the disinfectant.
3. Thoroughly rinse by immersing the blade in purified water.
4. Dry with a lint-free clean cloth or filtered pressurized air.

Follow with testing prior to use.

STERILIZATION OF THE BLADE

Use one of the following four sterilization methods to sterilize Cross Instruments' reusable fiber optic laryngoscope blades.

Steam Sterilization Insert blade in an appropriate autoclave pouch.

	(B) GRAVITY DISPLACEMENT STEAM	(C) PRE-VACUUM STEAM
Temperature	121° C (250° F)	132° C (270° F)
Cycle Time	30 Minutes	4 Minutes
Dry Time	15 Minutes	20 Minutes

(D) STERIS® AMSCO® V-PRO® STERILIZATION SYS.

- AmSCO® V-PRO® 1 Low Temperature System
- AmSCO® V-PRO® 1 Plus Low Temperature System
- AmSCO® V-PRO® maX Temperature System

STERRAD® STERILIZATION SYS.

- STERRAD® 100NX® System (Std and EXPRESS Cycle)
- STERRAD® NX® System (Std Cycle)
- STERRAD® 100S and 200 System (Short Cycle Outside US)
- STERRAD® 50 System

(E)

Follow with testing prior to use.

Fiber Optic Laryngoscope systems must be tested after each reprocessing cycle and prior to use. To test:

1. Fully engage blade on compatible laryngoscope handle. If the light guide fails to light, check the batteries and lamp for correct placement. Replace with new batteries or lamp if needed.
2. If light guide fails to light following additional blade engagements, do not use laryngoscope.

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Care and Maintenance of Reusable Fiber Optic Laryngoscope Handles with Removable Lamp Cartridge



CLEAN HANDLE IMMEDIATELY AFTER USE TO PREVENT RESIDUES FROM DRYING

Intended Use: Used for endotracheal tube intubation.

Care and Maintenance Document: These instructions apply to Cross Instruments' reusable fiber optic laryngoscope handles with removable lamp cartridge. The fiber optic laryngoscope handles and lamp cartridges must be processed prior to first use, and between each use, using any of the methods presented in this care and maintenance document:

- CLEANING + (A) COLD SOLUTION HIGH-LEVEL DISINFECTION
- CLEANING + (B) GRAVITY AUTOCLAVE STERILIZATION
- CLEANING + (C) PRE-VACUUM STEAM STERILIZATION
- CLEANING + (D) STERIS AMSCO V-PRO STERILIZATION
- CLEANING + (E) STERRAD STERILIZATION

WARNINGS and CAUTIONS

- DO NOT USE THE FOLLOWING: Ultrasonic clean, dry heat sterilization or Potassium Hydroxide liquids.
- REMOVE LAMP CARTRIDGE AND BATTERIES BEFORE cleaning, high-level disinfecting, or sterilizing laryngoscope handles.
- CHECK laryngoscope system functionality, and ensure blade is fully engaged on handle prior to use.
- DISCARD any component that shows evidence of damage or deterioration.

NOTE: Batteries, battery cartridge, and the lamp cartridge **MUST** be removed prior to cleaning, disinfection, and/or sterilization of the laryngoscope handle. See instructions below for disinfection of the lamp cartridge.

HANDLE DISASSEMBLY

Battery Removal

To remove batteries, unscrew handle end cap and remove battery(ies) (Fig. A, B). Batteries in the Stubby Handle (Fig. A) sit in a battery cartridge, which is removable.

Follow with lamp cartridge removal.

Lamp Cartridge Removal

Allow the bulb time to cool. The bulb is permanently housed in the lamp cartridge. To remove lamp cartridge, unscrew handle head from the handle body and unscrew the lamp cartridge (Fig. C).

Follow with lamp cartridge disinfection.

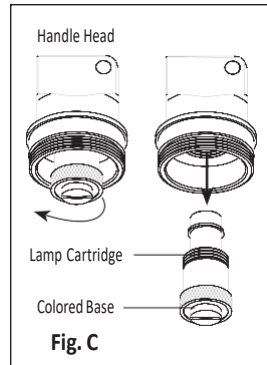
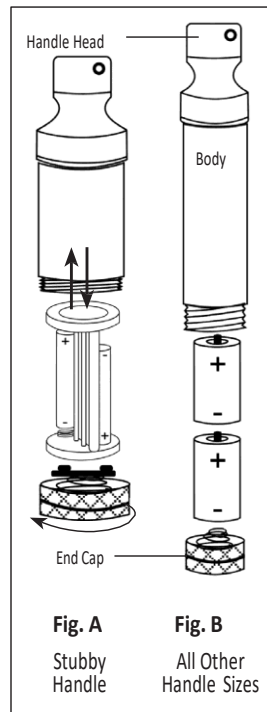
LAMP CARTRIDGE DISINFECTION

The lamp cartridge cannot use high-level disinfection or sterilization for preparation for reuse. Instead, it can be disinfected with an intermediate-level disinfection procedure.

First, select a suitable quaternary ammonium and isopropanol alcohol based germicidal wipe that is designed for intermediate level disinfection. Refer to the manufacturer's instructions. To disinfect:

- Following removal of the lamp cartridge (Fig. C), use a germicidal cloth to wipe the bulb to remove soil.
- With a second clean germicidal cloth, thoroughly wipe all surfaces of the lamp cartridge, ensuring it remains wet for two minutes. Use additional cloths as needed to keep the cartridge surface wet for the entire contact time.
- Allow the lamp cartridge to air dry completely.
- Set lamp cartridge aside for re-installation following disinfection of laryngoscope handle.

Follow with laryngoscope handle disinfection.



CLEANING THE HANDLE PRIOR TO DISINFECTION / STERILIZATION

- Remove laryngoscope blade from the handle.
- Disassemble the handle and remove the lamp cartridge and batteries (Fig. A, B, C). Follow the separate lamp cartridge disinfection procedure.
- Rinse the disassembled handle body, head and end cap under cool running tap water, until all visible soil is removed.
- Immerse the handle body, head and end cap in a presoak enzymatic cleaner solution, prepared according to manufacturer's instructions, for a minimum of two minutes.
- After the presoak, scrub the handle body, head and end cap using a soft bristled brush, and rinse with lukewarm running tap water for a minimum of one minute to remove any residues and visible soil.
- Immerse the handle body, head and end cap in an enzymatic detergent prepared according to manufacturer's instructions.
- Scrub the handle body, head and end cap thoroughly by using a soft bristle brush, and thoroughly rinse with cool running tap water to remove all residual detergent.
- Dry the handle body, head and end cap with lint-free clean cloth or filtered pressurized air.
- Reassemble the handle body, head and end cap without batteries or lamp cartridge.

Follow with HIGH-LEVEL DISINFECTION or STERILIZATION of handle.

(A) COLD SOLUTION HIGH-LEVEL DISINFECTION OF THE HANDLE

- Prepare Cidex® OPA or 2.4% Glutaraldehyde solution according to manufacturer's instructions.
- Immerse the assembled handle body, head and end cap in the disinfectant.
- Thoroughly rinse by immersing the assembled handle in purified water. The handle may need to be disassembled to ensure thorough rinsing.
- Dry with a lint-free clean cloth or filtered pressurized air. The handle may need to be disassembled to ensure thorough drying.
- If necessary, reassemble the handle body, head and end cap.

Follow with testing prior to use.

STERILIZATION OF THE HANDLE

Use one of the following four sterilization methods to sterilize Cross Instruments' reusable fiber optic laryngoscope handles. **IMPORTANT: Prior to sterilization, batteries, battery cartridge and lamp cartridge must be removed.**

Steam Sterilization Insert assembled handle (without batteries, battery cartridge or lamp cartridge) in an appropriate autoclave pouch.

	(B) GRAVITY DISPLACEMENT STEAM	(C) PRE-VACUUM STEAM
Temperature	121° C (250° F)	132° C (270° F)
Cycle Time	30 Minutes	4 Minutes
Dry Time	15 Minutes	20 Minutes

(D) STERIS® AMSCO® V-PRO® STERILIZATION SYS.

- Amsco® V-PRO® 1 Low Temperature System
- Amsco® V-PRO® 1 Plus Low Temperature System
- Amsco® V-PRO® max Temperature System

Follow with battery and lamp cartridge installation.

(E) STERRAD® STERILIZATION SYS.

- STERRAD® 100NX® System (Std and EXPRESS Cycle)
- STERRAD® NX® System (Std Cycle)
- STERRAD® 100S and 200 System (Short Cycle Outside US)
- STERRAD® 50 System

BATTERY & LAMP CARTRIDGE INSTALLATION

Battery Installation

Following handle cleaning, disinfection or sterilization, remove end cap (Fig. A, B) and insert batteries (and battery cartridge if applicable). See Battery Type chart for accurate battery replacement.

HANDLE	BATTERY TYPE (QTY)
Medium	1.5V C Size (2)
Penlite	1.5V AA Size (2)
Stubby	1.5V AAA Size (3)

Lamp Cartridge Installation

Following handle cleaning, disinfection or sterilization, remove handle head (Fig. C) and insert lamp cartridge. See Lamp Type chart for accurate cartridge replacement.

LAMP TYPE	RE-ORDER #
LED	16-040

Follow with testing prior to use.

PRIOR TO USE

Laryngoscope handles must be tested after each reprocessing cycle and prior to use. To test:

- Fully engage compatible blade on laryngoscope handle. If the light guide fails to light, check the batteries and lamp for correct placement. Replace with new batteries or lamp if needed.
- If light guide fails to light following additional blade engagements, do not use laryngoscope.

