

# Fiber Optic Laryngoscope Blades and Handles

## Fiber Optic Laryngoscope Blades

### Care and Maintenance

Welch Allyn laryngoscope blades are crafted from enduring stainless steel. To insure maximum life and performance the following instructions should be strictly adhered to. Miller, MacIntosh, and E-MacIntosh styles of fiber optic blades all have removable light pipes. This unique feature eliminates the expense of replacing the entire blade due to the fiber bundle deterioration that results from repeated exposure to disinfection and sterilization agents. Now the bundle can simply be replaced at a fraction of the cost of a new blade.

### Cleaning Procedure

Immediately after use, blades should be rinsed in clean tap water to remove any residue. The fiber optic light pipe should be removed from the blade following the procedure outlined in the Fiber Optic Light Pipe Replacement section. Both the light pipe and blade should then be gently scrubbed in soapy water, with a soft brush, to provide a thorough physical cleaning.

All Welch Allyn blades are compatible with enzymatic cleaners. Refer to manufacturer's instructions for recommended exposure times and solution strengths. After cleaning, thoroughly rinse the light pipe and blade, dry, and reassemble (see Fiber Optic Light Pipe Replacement section) prior to disinfection or sterilization.

**Note:** If germicidal solutions are required for cleaning, please contact Welch Allyn for compatibility.

**WARNING:** Ultrasonic cleaning is not recommended.

### Disinfection/Sterilization

(Minimum High Level Disinfection Required)

Contact Welch Allyn regarding the use of other cold soak solutions intended for disinfection or sterilization. For recommended exposure times and solution concentrations, refer to solution manufacturer's instructions.

Steam Autoclave is appropriate.

Ethylene Oxide is appropriate with gas concentrations of 10% - 100%.

### Fiber Optic Light Pipe Replacement

1. Remove locking screw by rotating counterclockwise with a standard screwdriver or coin.
2. Pull light pipe away from base of laryngoscope and slide distal end of pipe out of blade.
3. Position new pipe and replace locking screw.
4. Rotate locking screw clockwise until secure.

**Sterrad®System:** Welch Allyn laryngoscope blades are compatible with Sterrad hydrogen peroxide plasma system. However, only light pipes with recessed area where the light pipe exits the top of the green base are compatible. These may also be identified by black marking for model number and size on rear of blade.

## **Cold Soak**

### **Solutions:**

Welch Allyn laryngoscope blades and light pipes are compatible with 14 day (2.4 - 2.6%) glutaraldehyde solution.

**WARNING:** Do not use bleach (sodium hypochlorite), betadine, or peroxide solutions. Doing so may damage the instrument.

**Note:** Do not exceed temperature of 280oF (138oC) and pressure of 28 p.s.i. Always wrap laryngoscopes.

**WARNING:** "Flash" autoclaving and hot air sterilization should be avoided. These processes will damage the instrument.

**Note:** Do not exceed temperature of 131oF (55oC) and pressure of 8 p.s.i. Exposure time 2 - 4 hours. Aeration 12 - 16 hours at 120oF (49oC) following processing.

**Note:** Miller blades differ slightly from drawing.

## **Fiber Optic Laryngoscope Handle**

Battery handles consist of two sections: the main handle and the lamp holder cartridge assembly (see Figure). Prior to cleaning and disinfection, disassemble the handle following the procedure outlined in the Repair/Maintenance section. The main handle will withstand the same cold soak solutions and autoclave ranges outlined in the Laryngoscope Blades Section. However, the lamp holder cartridge assembly and batteries must be removed prior to disinfection/sterilization.

## **Cleaning Procedure**

### **Main Handle Section**

Remove the batteries and lamp cartridge as described in the Repair/Maintenance section. The main handle section may then be cleaned with a mild detergent and warm water solution. The main handle section may also be soaked in an enzymatic detergent following the manufacturer's instructions.

### **Lamp Cartridge**

The lamp cartridge may be wiped clean with a mild detergent and water solution. **DO NOT ALLOW SOLUTION TO ENTER INTO CARTRIDGE.**

Use of instrument in presence of intense magnetic fields should present no problems.

## **Disinfection/Sterilization**

### **Main Handle Section**

Remove batteries and lamp cartridge before subjecting handle to any of the following processes. After removing the batteries and lamp cartridge, the main handle can be soaked in a 14 day (2.4 - 2.6%) glutaraldehyde solution following manufacturer's instructions for exposure time and temperature.

Steam autoclave is appropriate. Do not exceed temperature of 280°F (138°C) and pressure of 28 psi. DO NOT FLASH AUTOCLAVE.

Ethylene Oxide is appropriate with gas concentrations of 10% - 100%. Do not exceed 131°F (55°C). Maximum 4 hours exposure time. Aerate 12-16 hours at 120° F (49°C) following process.

**WARNING:** Only trained personnel shall use a laryngoscope for intubation.

### **Lamp Cartridge**

Lamp cartridge can be wiped with cloth dampened with 70% isopropyl alcohol. DO NOT ALLOW SOLUTION TO ENTER INTO CARTRIDGE.

The lamp cartridge CANNOT be SOAKED OR AUTOCLAVED.

May be ethylene oxide sterilized (see above). Lamp should be left in.