



## CLEANING AND STERILIZING INSTRUCTIONS

Greenwald Catalog Items:

- BT81 – Bi-Terminal Handle Cord
- C9300 – Active Laparoscopy Cord
- M22 – Storz 27050 Series Resectoscope Cord
- M23 – Olympus Pre-OES and OES Series Resectoscope Cord
- M24 – Storz 27040 Series Resectoscope Cord
- M25 – ACMI Classic Series Resectoscope Cord
- P66C – Active Machine Cord / Endoscopic Handle

1. Clean cord, bushings, and plugs with surgical cleanser and warm water. Pay particular attention to recessed areas in the instrument plug/bushing assembly.
2. Rinse thoroughly.
3. Inspect cord insulation, instrument plug bushing, and machine plug bushing for cracks, holes, burns, nicks, voids, etc. (Do not use cords which show any damage or deterioration.)
4. Sterilize by ethylene oxide (EtO), steam autoclaving, or soaking in a sterilizing solution. (EtO is preferred method to obtain maximum product life.) If cold soaked, double rinse with agitation. Product must be thoroughly dried prior to use. See attached specific instructions for the sterilization method chosen.
5. Connect cord to instrument and electro-surgical unit by grasping the connector bushings and fully seating conductive plugs. Remove by grasping plug bushings (never remove by pulling on insulated cable).

**Caution:** Federal (U.S.A.) Law restricts this device to sale/use by or on the order of a physician.

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**Greenwald Surgical Company, Inc. (A Division of Grace Manufacturing, Inc.)**

Manufacturers of Urological and Electro-surgical Instruments and Accessories

614 SR 247 • Russellville, Arkansas 72802 • (479) 968-5455

Toll Free: 1-866-968-6665



**RECOMMENDED STERILIZATION PARAMETERS for  
EO Sterilization in a Health Care Facility**

Unless otherwise stated, our products are **not sterile** and must be thoroughly cleaned and sterilized prior to each use.

Parameters for EO Sterilization Cycles					
Process	Concentration	Exposure time at 37°C (99°F)	Exposure time at 38°C (100°F)	Exposure time at 55°C (130°F)	Relative Humidity
100% EO	880 mg/L	4 hrs	-	1 hr	50% to 80%
	740 mg/L	-	4 hrs, 30 min	1 hr	80%
	735 mg/L	4 hrs	-	1 hr	50% to 80%
	725 mg/L	3 hrs	-	1 hr	30% to 80%
EO-HCFC	600mg/L	-	6 hrs	2 hrs, 10 min	30% to 70%
	570 to 620 mg/L	-	5 hrs	2 hrs	≥30%
EO-carbon dioxide	360 to 390 mg/L	-	7 hrs, 30 min	3 hrs	≥30%
	450 mg/L	-	7 hrs, 30 min	3 hrs	30% to 80%

Always make sure the product is in good condition and perfect working order before reusing it.

Sterilization equipment manufacturer’s recommendations must be followed. Health care facility protocol should be adhered to.

**Since Greenwald Surgical Co., Inc. (a division of Grace Manufacturing, Inc.) is not familiar with individual hospital procedures, cleaning methods, bio-burden levels, and other conditions, Grace Manufacturing, Inc. assumes no responsibility for sterilization of product even if the general above guidelines are followed.**

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**RECOMMENDED STERILIZATION PARAMETERS for  
Gravity-Displacement Steam Sterilization in a Health Care Facility**

Unless otherwise stated, our products are **not sterile** and must be thoroughly cleaned and sterilized prior to each use.

Do not exceed a temperature of 138°C (280°F).

<b>Parameters for Gravity-Displacement Steam Sterilization Cycles</b>			
<b>Item</b>	<b>Exposure time at 121°C (250°F)</b>	<b>Exposure time at 132°C (270°F)</b>	<b>Drying Time</b>
<b>Wrapped Instruments</b>	<b>30 minutes</b>	<b>15 minutes</b>	<b>15 to 30 minutes</b>
<b>Unwrapped nonporous items</b>	-	<b>3 minutes</b>	<b>0 to 1 minute</b>
<b>Unwrapped nonporous items in mixed load</b>	-	<b>10 minutes</b>	<b>0 to 1 minute</b>

It is important that the longest drying cycle possible is employed to prevent build up of moisture inside the instrument. If the cycle of your autoclave allows a 30 minute drying time, we recommend using it.

Always make sure the product is in good condition and perfect working order before reusing it.

Sterilization equipment manufacturer’s recommendations must be followed. Health care facility protocol should be adhered to.

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**RECOMMENDED STERILIZATION PARAMETERS for  
Dynamic Air Removal (Prevacuum) Steam Sterilization in a Health Care Facility**

Unless otherwise stated, our products are **not sterile** and must be thoroughly cleaned and sterilized prior to each use.

Do not exceed a temperature of 138°C (280°F).

<b>Parameters for Dynamic Air Removal Steam Sterilization Cycles</b>			
<b>Item</b>	<b>Exposure time at 132°C (270°F)</b>	<b>Exposure time at 135°C (275°F)</b>	<b>Drying Time</b>
<b>Wrapped Instruments</b>	<b>4 minutes</b>	<b>-</b>	<b>20 to 30 minutes</b>
<b>Unwrapped nonporous items</b>	<b>3 minutes</b>	<b>3 minutes</b>	<b>N/A</b>
<b>Unwrapped nonporous items in mixed load</b>	<b>4 minutes</b>	<b>3 minutes</b>	<b>N/A</b>

It is important that the longest drying cycle possible is employed to prevent build up of moisture inside the instrument. If the cycle of your autoclave allows a 30-minute drying time, we recommend using it.

Always make sure the product is in good condition and perfect working order before reusing it.

Sterilization equipment manufacturer’s recommendations must be followed. Health care facility protocol should be adhered to.

**Since Greenwald Surgical Co., Inc. (a division of Grace Manufacturing, Inc.) is not familiar with individual hospital procedures, cleaning methods, bio-burden levels, and other conditions, Grace Manufacturing, Inc. assumes no responsibility for sterilization of product even if the general above guidelines are followed.**

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**RECOMMENDED STERILIZATION PARAMETERS for  
Liquid Chemical Steam Sterilization in a Health Care Facility**

Unless otherwise stated, our products are **not sterile** and must be thoroughly cleaned and sterilized prior to each use.

Do not exceed a temperature of 138°C (280°F).

Parameters for Liquid Chemical Sterilization Cycles			
Formulation	Exposure time at 20°C (68°F)	Exposure time at 25°C (77°F)	Exposure time at 50°C to 55.5°C (122°F to 132°F)
2% to 3.5% glutaraldehyde	-	<b>10 hours</b>	-
7.5% hydrogen peroxide	<b>6 hours</b>	-	-
0.2% peracetic acid	-	-	<b>12 minutes</b>
It cannot be assumed that all 2% to 3.5% glutaraldehyde formulations are sterilants. The efficacy of glutaraldehyde sterilants depends on the active ingredients, the inactive ingredients, and the pH. Check the product label to confirm the parameters.			

Always make sure the product is completely dry before reusing it.

Always make sure the product is in good condition and perfect working order before reusing it.

Liquid chemical sterilization manufacturer’s recommendations must be followed. Health care facility protocol should be adhered to.

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