



GUS[®]

Disinfection Soak Stations For Transvaginal/Transrectal Ultrasound Probes & Endoscopes

REF:

**G10-U2-EU
G10VP-EU
G10VPL-EU
G10ENT-EU
G14-U2-AC-EU
G14-U3-EU
G14KA-EU
G14KAL-EU
G14ENT-3-EU**

Operator's Manual



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Principle of Operation

The GUS System allows Ultrasound Probes and/or Scopes to be immersed in a high-level disinfectant solution. The Probe and/or Scope is suspended in the soaking container, preventing damage to the sensitive tip.

The system is designed to remove fumes from:

- Glutaraldehyde,
- *Ortho*-phthaldehyde (OPA),
- Hydrogen Peroxide,
- Peracetic Acid.

For the use of alternative high level disinfectants, please contact your local representative.

One of the containers is used for clean rinse water. This ensures that when the Probe or Scope is removed from the unit for the final rinse, no high-level disinfectant will drip or off-gas.

The unit's blower and carbon-filtration system removes fumes from high-level disinfectant solutions. Blowers draw the fumes through the carbon filter where they are effectively neutralized and clean air is returned to the room. No ductwork or external venting is required. The G10 series has two blowers; the G14 series has three blowers.

Safety Precautions

Signal Word

The following signal words are used throughout this manual:

WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices or potential equipment damage.

NOTE: Indicates additional helpful information.

Warning Symbols: The meanings of the labels and symbols that appear on the packaging and/or the system are as follows:



Dangerous electrical voltage



Protective Grounding

NOTE: Do not use the system for any purpose other than its intended use.

The GUS System is not intended for the storage of probes, moisture on the probes can promote growth of bacteria.

Disconnect the power before replacing the filter or when servicing the unit.

Refer to the MSDS of the high-level disinfectant that you are using for additional safety precautions.

NEVER place the probe into a dry tube. Make sure that the tip of your TOE probe is straight before inserting. Use a fluid motion when inserting the probe to prevent it from sticking in the tube.

Setting up your GUS

Upon Delivery

Match all items in the package with those on the list of components given below. Inspect each item for damage. If any components are missing or damaged or if you have any questions, do not use the system; immediately contact your local representative.

GUS Components

GUS Items	G10-U2-EU	G10ENT-EU	G10VP-EU	G10VPL-EU	G14-U2-AC-EU	G14-U3-EU	G14ENT-3-EU	G14KA-EU	G14KAL-EU
30.5 cm Soak/Rinse Containers with Caps.			2		2			3	
43.2 cm Soak/Rinse Containers with Caps				2					3
48.3 cm Tubes		2					3		
61 cm Tubes	2				2	3			
Keys for Safety Door	2	2	2	2	2	2	2	2	2
Philips Screwdriver	1	1	1	1	1	1	1	1	1
Warning Card			1	1	1			1	1
Filter Installed In Unit.	1	1	1	1	1	1	1	1	1
Power Cord	1	1	1	1	1	1	1	1	1
Operator's Manual	1	1	1	1	1	1	1	1	1
Warranty Card & Customer Survey	1	1	1	1	1	1	1	1	1
Wall anchors	2	2	2	4	3	3	3	3	5
High Level Disinfection Labels	1	1	1	1	2	2	2	2	2
Red Pen	1	1	1	1	1	1	1	1	1
Shelf Adaptors	2	2			2	2	2		
Spring Clips	2	2			2	2	2		
Test Strip Clip	1	1			1	1	1		
Stoppers	2	2			2	3	3		
Foam Pad	1	1	1	1	1	1	1	1	1
Funnel		1					1		
Cleaning Brush		1					1		
Tong					1				

Wall Mounting Installation Instructions

NOTE: THESE UNITS MUST BE WALL MOUNTED

1. You will need the following items before attempting to install this unit:
✓ Measuring tape ✓ Level ✓ Pencil or pen
2. Location selection:
 - There must be a minimum of 10 cm of clearance on the left side of the unit to allow for access to the On/Off switch and fuses, and 10.2 cm of clearance beneath the unit.
3. Measure up from the floor to the top of the unit approx. 139 cm (recommended) or to the comfort level of the operator.
4. At that point,

For the G10 Series: using a level, draw a line approximately 21 cm long. Mark two points on this line 20.3 cm apart.

For the G14 Series: using a level, draw a line approximately 35.5 cm long. Mark two points on this line 33 cm apart, and a control mark 16.5 cm in from either of the outer marks.

5. Using the enclosed Phillips screwdriver, press the tip of the wall anchor through these two points and turn clockwise until the anchor is flush with the wall.
6. Screw the two supplied Philips screws into the anchors. Back off the screws approximately 0.4 cm from the wall and align the unit mounting holes over the screws and tighten the screws. (CAUTION: Do not over-tighten the screws.)
7. For masonry walls use a suitable lead or plastic shield and bolt. These shields are not supplied.
8. Insert empty soak and rinse containers in unit. For the G14 series, place the rinse container in the middle. Apply the supplied labels as appropriate.
9. Display the Warning Card on the wall in a visible location directly above or beside the unit.

NOTE: Use of removable power cords not supplied by CIVCO Medical Solutions may affect the safety and performance of this device.

Using High Level Disinfectants with your GUS



CAUTION:

The tip of your Ultrasound Probe and/or Scope is extremely delicate. Failure to follow these steps may result in expensive Probe or Scope damage. The connection between the strain relief and the Probe or Scope may **NOT BE WATERTIGHT**. Do not fill the container above this connection. Refer to Probe and/or Scope manufacturer's instructions.

For G10VP-EU, G10VPL-EU, G14KA-EU & G14KAL-EU ONLY

Step 1: Marking the Cable

It is **VERY IMPORTANT** to mark the cable of **EACH** Probe to be disinfected. This will allow you to easily place the Probe into the container without it touching the bottom.

1. Place the Probe gently into the empty container until it touches the bottom.
2. Insert the cable between the front and back grip clips by depressing the tab.
3. With the tab depressed, slide the cable up 1.5 cm.
4. Mark the cable with an indelible red pen just **above** the front grip clip (pen included). **Figure 1.**
5. Remove Probe by releasing the tab and continue the mark around cable.

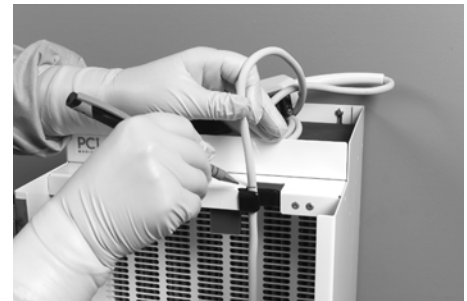


Figure 1.

Step 2: Placing Probe in Container

1. Hold the cable with your left hand thumbnail just above the red mark and with Probe in right hand. **Figure 2.**
2. Gently place the Probe into the container keeping red mark above the grip clip. **Figure 3.**
3. Depress blue tab and place cable between the grip clip with the mark just above the tab. Release tab and close door. **Figure 4.**



Figure 2.

Practice this two or three times before you put the disinfectant into the container. This is really easier than it sounds and will insure the safety of your Probe.



Figure 4



Figure 3

Step 3: Filling the Containers –For ALL Units

1. Plug the power cord into the power inlet module, and plug the unit into a proper wall outlet. Switch the unit on using the ON/OFF switch located on left side of unit. The **green** indicator will light when the unit is operating
2. The G10 Series has two containers: **one for disinfectant and one for rinse water**. The G14 Series has three containers: **two for disinfectant and one for rinse water**. The rinse water container should be in the middle.
3. Some disinfectants require activation before use. Pour the disinfectant into the soaking containers. **DO NOT** fill above the lower shoulder of the container. *Figure 5*
4. To prevent evaporation of disinfectant, **always** replace the screw caps/stoppers on the containers after removing the Probes or Scopes.

NOTE: Always replace the screw caps on the containers before turning the station OFF.

NOTE: Your GUS system should be left running as long as there are chemicals inside the containers.

5. Use an appropriate test strip to test the efficacy of the disinfectant. Follow test strip manufacturer's Instructions For Use.
6. Fill the remaining container with clean rinse water for the preliminary rinse. You **MUST** have one container for rinse water. This ensures that when the Probe or Scope is removed from the unit for the final rinse, no high level disinfectant will drip or off-gas.



Figure 5

Step 4: Ready for Use - For ALL Units

Disconnect the cable from the ultrasound machine, the electrical connector may be placed on top of the GUS unit in the padded compartment.



CAUTION

It is very important to follow the Probe or Scope manufacturers' instructions for cleaning, disinfecting and rinsing your specific Probe or Scope. The following is a guide only.

NOTE: Use of removable power cords not supplied by CIVCO Medical Solutions may affect the safety and performance of this device.

NOTE: Follow your facility's instructions for Personal Protective Equipment during cleaning and disinfecting.

1. Remove any sheath or condom, wipe off gel.
2. Follow Probe or Scope manufacturer's instructions on how to pre-clean Probe or Scope properly
3. Wash or wipe Probe or Scope with enzymatic cleaner prior to disinfection.

Disinfection:

For G10VP-EU, G10VPL-EU, G14KA-EU & G14KAL-EU – ONLY

1. Place the Probe or Scope gently into the soak container using the grip clips (**See Step 2 - 4**), close and lock the door.
2. Soaking time is dependent on your facility's infection control guidelines and the high-level disinfectant Instructions For Use.

For G10ENT-EU, G14ENT-3-EU, G10-U2-EU, G14-U2-AC-EU, G14-U3-EU – ONLY

1. Place the scope into the soaking tube.
2. Align the light source cable with the top of the spring clip, push back on the blue plastic tab and slide the cable into the cushioned cable holder. The rest of the light source can now be coiled and placed in the padded compartment on top of the unit. You may also place the end of the light source into the black plastic holder located on the side of the unit.
3. When testing the efficacy of your disinfectant, use the test strip clip provided with your station to hold the test strip. Slowly lower the test strip into the disinfectant.

NOTE: **When not in use, place small black stoppers in the tubes or caps on the soak containers to prevent evaporation.**

Rinsing:

1. The **initial** rinse is done in the rinse container inside the GUS unit. This is an important step to prevent drips and off-gassing when moving the Probe or Scope to the sink. After disinfection is complete, unlock door, push back on the blue tab and lift the Probe or Scope up, shake it gently to remove large drops of disinfectant. Then place it directly into the rinse container while keeping your thumb on the red mark above the tab.
2. Rinse the disinfectant off the Probe or Scope by **GENTLY** swirling it around in the rinse container. The Probe or Scope can now be removed, wiped with a paper towel, and given the final rinses in the sink or trays according to the disinfectant manufacturer's instruction.
3. Empty the rinse container in the GUS system, flush and then refill with fresh water.
4. For cleaning containers see 'Cleaning' section.

System Maintenance

Repair and Modification

Do not modify or repair the unit without reviewing with your local representative; contact your local representative to purchase replacement filters and parts.

Before attempting to perform routine maintenance on the unit, thoroughly review and understand this manual for complete familiarization with the unit and its operation. See 'Cleaning' section.

Disposing of Used High Level Disinfectants

In some areas, it is illegal to dispose of used disinfectants without first deactivating them. Deactivation also protects the user from exposure to splashes and spills.

CIVCO Medical Solutions manufactures **Glute-Out**®, a glycine-based neutralizer (part # **NG-QT**) which comes in a convenient single-use bottle. **Glute-Out** is specifically for use with **glutaraldehyde and OPA** based disinfectants.

CIVCO Medical Solutions also manufactures **Oxid Out**®, a sodium-carbonate-based neutralizer (part # **NO-QT**) which comes in a convenient single-use bottle. **Oxid Out** is specifically for use with **hydrogen-peroxide** based disinfectants. Contact your local representative to purchase neutralizer.

Changing the Filters

GUS has a patented filter that, in normal everyday use will have a six-month life. For facilities that have infrequent use, please call your local representative to set up an appropriate change schedule. Filters must be changed at least once a year.

WARNING

Put cap on the container containing your disinfectant. Turn the main power OFF and disconnect the power cord from the electrical outlet.

1. Remove the foam pad from the top compartment.
2. Remove the top plate located in the top compartment by turning the captive screws counterclockwise.
3. Remove the old filter by inserting fingers into the finger holes and pulling up. Filter may be snug but should slide up with steady pressure.
4. Use a moistened soft cloth with a mild detergent and wipe down the whole front of the machine. Also, wipe inside the machine behind the air intake panel. Dry all surfaces.

5. Replace with a new filter, making sure the airflow arrows are pointing to the rear of the machine.
6. Put the used filter into a plastic bag and dispose of it with other non-hazardous waste.
7. Replace the top plate and tighten the captive screws by turning clockwise. Replace the foam pad, plug unit back in, and turn on the machine.

Cleaning



CAUTION

Turn the main power OFF and disconnect the power cord from the electrical outlet.

Remove and thoroughly rinse all containers in which disinfectant is held, even if all disinfectant has been previously neutralized. Disinfectant residues can be hazardous.

The containers cannot be sterilized by autoclaving. Doing so will damage them.

DAILY CLEANING:

1. Remove the rinse water container, empty and wash both the container and cap.
2. Use a moistened soft cloth with mild detergent and wipe down the area around the containers.
3. Wipe off any drips around the disinfectant container and cap and below the shelf.
4. Do not spray cleaning liquids on the intake area of the machine as this will damage the filter.
5. After drying the areas, replace the rinse water container.

Refer to **Changing the Filters** section for additional cleaning steps when changing the filter.

CLEANING THE GUS CONTAINERS:

- The containers that are supplied with the GUS Disinfection Soak Stations can be cleaned by the following methods: In an instrument washer/disinfector with a thermal *or*
- Manually cleaning with soap and water. **Use the cleaning brush provided for ENT tubes.** Rinse containers afterwards.

The water/rinse container should be cleaned at least daily or in accordance with your facility's guidelines. The container used for the disinfectant can be cleaned before refilling with fresh disinfectant.

Most customers replace the containers at least once a year, particularly when using OPA because of its propensity to stain. These are available from your local representative.

IMPORTANT: Thoroughly clean and rinse out the soak container. With the unit turned on, put the clean soaking container back into place and refill it with fresh high-level disinfectant.

Limited Warranty

CIVCO Medical Solutions warrants the GUS Disinfection Soak Station™ to be free of defects in materials and workmanship under normal use, for a period of one year from the date of delivery. This warranty does not include filters, acrylic, or disposal pump unless it can be determined that failure is due to defects in material or workmanship.

If the system is not working correctly or is defective, contact CIVCO Medical Solutions, and we will repair or replace the unit at our option during the warranty period.

CIVCO Medical Solutions assumes no liability for consequential damages of any kind as a result of the use or misuse of the system by the purchaser, the purchaser's employees, or any others.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, OBLIGATIONS OR OTHER LIABILITIES EXPRESSED OR IMPLIED, AND THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE ARISING FROM A COURSE OF DEALING OR USAGE ARE SPECIFICALLY EXCLUDED.

This warranty does not cover conditions and damages resulting from any of the following:

- Improper installation, delivery within the facility, or maintenance.
- Any repair, modification, alteration or adjustment not authorized by the manufacturer.
- Misuse, abuse, accidents or unreasonable use.
- Incorrect electric current, voltage or supply.
- Failure to follow proper procedures for use outlined in this manual.
- Consequential or incidental damages sustained by any person as a result of any breach of this warranty.

Some states do not allow the exclusion or limitation of consequential or incidental damages, so the above exclusion may not apply.

APPENDIX A: TROUBLESHOOTING

Quick Trouble Shoot

If your GUS is not running, check the following:

- 1) Ensure that the unit is plugged into a **live** wall outlet.
- 2) Make sure the **ON/OFF** switch (located on left side) is on.
- 3) In the event that the unit is still not working, check the fuses.
 - a) The fuses are located on the left side of the unit in the power inlet module.
 - b) **UNPLUG UNIT BEFORE REMOVING FUSE DRAWER.**
 - c) Squeeze the two tabs on the fuse drawer and pull outward to remove the fuses.
 - d) If a filament is damaged, replace it with a CIVCO Medical Solutions approved Type FSF 5 x 20 mm 1 amp 250VAC.
- 4) If the unit is still not working, please contact your local representative.



CAUTION

If your soak container or tube is leaking, do not use any high level disinfectant in it. Call your local distributor immediately for a replacement container or tube.

APPENDIX B: SITE REQUIREMENTS

Environmental Conditions

- For indoor use only.
- Altitude up to 2,000 meters.
- Temperature range: 5°C to 40°C.
- Main supply voltage fluctuations not to exceed +/- 10% of the nominal voltage.
- Insulation over voltage category II.
- Pollution degree 2.

Ventilation Requirements

There must be a minimum of 10.2 cm clearance beneath the unit to allow for the clearance of the soak/rinse containers and adequate airflow.

Supply Ratings

- G10 Series: AC 230/240V 0.5A 50/60Hz
- G14 Series: AC 230/240V 0.5A 50/60Hz
- Fuses: Two Type FSF 5 x 20mm 1 amp 250VAC

Warning Symbols

The meanings of the labels and symbols that appear on the packaging and/or the system are as follows:



Dangerous electrical voltage.



Hazardous area.



Protective Grounding.

Signal Word

The following signal words are used throughout this manual:

WARNING:

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices or potential equipment damage.

NOTE:

Indicates additional helpful information.

APPENDIX C: GUS PRODUCT SPECIFICATIONS

GUS Product Specifications

GUS Model	G10-U2-EU	G10ENT-EU	G10VPL-EU	G10VP-EU	G14KA-EU	G14-U2-AC-EU	G14-U3-EU	G14ENT-3-EU	G14KAL-EU
Number of Probes and/or Scopes soaked	1	1	1	1	2	2	2	2	2
Face Velocity (MPM)	13.7	13.7	13.7	13.7	15.2	15.2	15.2	15.2	15.2
Electrical (240V 50/60Hz)	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A
Space & Weight Requirements									
Width	28 cm	28 cm	28 cm	28 cm	40.6 cm	40.6 cm	40.6 cm	40.6 cm	40.6 cm
Depth	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm
Height (Installed)	150 cm	150 cm	150 cm	150 cm	150 cm	150 cm	150 cm	150 cm	150 cm
Weight (kg) (tubes empty)	11	11	11	11	13.7	13.7	13.7	13.7	13.7

UL Approval



USA and Canadian Standards Approved.

CE Mark Approval



CB Test Certificate reference E178331-A2-CB-1.

EN 61010-1:2010: Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements.

Electrical Equipment Designed for Use within Certain Voltage Limits Directive 2006/95/EC.

Electromagnetic Compatibility Directive 2004/108/EC.

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GUS[®]

消毒浸泡站 用于经阴道/经直肠 的超声探头和内窥镜

(中国注册备案名称：医用清洗器)

编号：

G10-U2-EU
G10VP-EU
G10VPL-EU
G10ENT-EU

G14-U2-AC-EU
G14-U3-EU
G14KA-EU
G14KAL-EU
G14ENT-3-EU

操作手册



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在美国印刷。

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操作原理

GUS 系统用于将超声波探头和/或内窥镜浸入高效的消毒剂溶液中。探头和/或内窥镜悬吊在浸泡容器中，防止灵敏的尖头受损。

该系统设计去除以下消毒剂的烟气：

- 戊二醛、
- 邻苯二甲醛 (OPA)、
- 过氧化氢，
- 过乙酸。

如需使用其他高效消毒剂，请与当地代表联系。

其中一个容器用于盛装清洁的冲洗水。这可确保从设备上取下探头或内窥镜进行最终冲洗时，不会有高效消毒剂滴落或释放出气体。

该设备的鼓风机和碳过滤系统可去除高效消毒剂溶液中的烟气。鼓风机吸入烟气穿过碳过滤器，在这里对烟气进行有效地中和，之后，清洁的空气返回房间。不需要管道系统或外部通风。G10 系列配置有两个鼓风机；G14 系列则配置有三个鼓风机。

安全防范措施

警示语

本手册中使用以下警示语：

警告： 表示潜在的危險情况，如果不加避免，可能导致死亡或重伤。



警告

表示潜在的危險情况，如果不加避免，可能导致轻微或中度伤害。其也可用于警告不安全的做法或潜在的设备损坏。

注释： 表示其他有用信息。

警告符号： 包装和/或系统上出现的标签和符号的含义如下：



危险电压



保护接地

注释： 本系统仅可用于既定用途。

GUS 系统不得用于储存探头，探头上的水分可能导致细菌滋生。

更换过滤器或检修设备前，请断开电源。

请参考您使用的高效消毒剂的 **MSDS**，了解更多安全防范措施。

切勿将探头放入干燥的导管中。插入前，确保 **TOE** 探头的尖头笔直。插入探头时，动作流畅，防止探头卡在导管中。

设置 GUS

交货时

对照下面的组件清单，检查包装中的所有物品。检查每个物品是否损坏。如果任何组件丢失或损坏，或您有任何问题，请勿使用该系统，并立即与当地代表联系。

GUS 组件

GUS 物品	G10-U2-EU	G10ENT-EU	G10VP-EU	G10VPL-EU	G14-U2-AC-EU	G14-U3-EU	G14ENT-3-EU	G14KA-EU	G14KAL-EU
30.5 cm 浸泡/冲洗容器，带端盖			2		2			3	
43.2 cm 浸泡/冲洗容器，带端盖				2					3
48.3 cm 导管		2					3		
61 cm 导管	2				2	3			
安全门钥匙	2	2	2	2	2	2	2	2	2
十字头螺丝刀	1	1	1	1	1	1	1	1	1
警告卡			1	1	1			1	1
设备中安装的过滤器。	1	1	1	1	1	1	1	1	1
电源线	1	1	1	1	1	1	1	1	1
操作手册	1	1	1	1	1	1	1	1	1
保修卡和客户调查	1	1	1	1	1	1	1	1	1
墙壁固定器	2	2	2	4	3	3	3	3	5
高效消毒标签	1	1	1	1	2	2	2	2	2
红笔	1	1	1	1	1	1	1	1	1
搁板适配器	2	2			2	2	2		
弹簧夹	2	2			2	2	2		
试纸夹	1	1			1	1	1		
塞子	2	2			2	3	3		
泡沫垫	1	1	1	1	1	1	1	1	1
漏斗		1					1		
清洁刷		1					1		
钳子					1				

壁挂安装说明

注释： 这些设备必须安装在墙壁上

1. 在尝试安装此设备之前，您需要以下物品：
✓卷尺✓水平仪✓铅笔或钢笔
2. 位置选择：
 - 设备左侧必须至少有 10 cm 的间隙，以便接近 On/Off 开关和保险丝，且设备下方必须有 10.2 cm 的间隙。
3. 从地板到设备顶部进行测量，大约 139 cm（推荐）或操作员感到舒适的高度。
4. 在这一点上，

对于 G10 系列：使用水平仪，绘制一条长约 21 cm 的线。在这条线上，标记两个相距 20.3 cm 的点。

对于 G14 系列：使用水平仪，绘制一条长约 35.5 cm 的线。在这条线上，标记两个相距 33 cm 的点，并在距离任一外部标记 16.5 cm 处，标记一个控制标记。

5. 使用随附的十字螺丝刀，将墙壁固定器的顶端压过这两个点，然后，顺时针转动，直到固定器与墙壁齐平。
6. 将随附的两个十字头螺钉拧入固定器。螺钉从墙壁退后约 0.4 cm，将设备的安装孔与螺钉对准，并拧紧螺钉。（注意：请勿过度拧紧螺钉。）
7. 对于砖石墙，使用合适的铅制或塑料挡板和螺栓。没有提供此类挡板。
8. 在设备中，插入空的浸泡和冲洗容器。对于 G14 系列，将冲洗容器放在中间。适当贴上随附的标签。
9. 将警告卡张贴在设备正上方或旁边的明显位置。

注释： 使用非 CIVCO Medical Solutions 提供的可拆卸电源线可能影响该设备的安全性和性能。

在 GUS 中使用高效消毒剂



注意：

超声波探头和/或内窥镜的尖头极为精密。违反这些步骤可能导致昂贵的探头或内窥镜受损。应变消除装置和探头或内窥镜之间的连接可能不防水。请勿在此连接上方加注容器。请参考探头和/或内窥镜制造商的说明。

仅适用于 G10VP-EU、G10VPL-EU、G14KA-EU 和 G14KAL-EU

第 1 步：标记电缆

请务必标记每个待消毒探头的电缆，这至关重要。这样，您可以轻松地将探头放入容器中，而不会碰到底部。

1. 轻轻地将探头放入空容器中，直至触底。
2. 按下凸耳，将电缆插入前后夹钳之间。
3. 按下凸耳，将电缆向上滑动 1.5 cm。
4. 用不可擦除的红笔，在紧邻前夹钳上方（包括笔）的位置标记电缆。**图 1.**
5. 松开凸耳，取下探头，并在电缆周围继续标记。

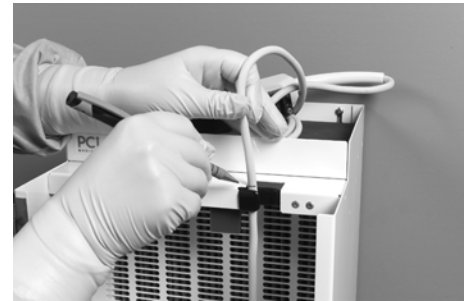


图 1

第 2 步：将探头放置在容器中

1. 在紧邻红色标记上方的位置，用左手拇指指甲握住电缆，右手拿着探头。**图 2.**
2. 轻轻地将探头放入容器中，红色标记保持在夹钳上方。**图 3.**
3. 按下蓝色凸耳，将电缆放在夹钳之间，标记就在凸耳上方。松开凸耳，并关门。**图 4.**



图 2

在容器加注消毒剂之前，练习二或三次。真正操作起来很容易，并将确保探头的安全。

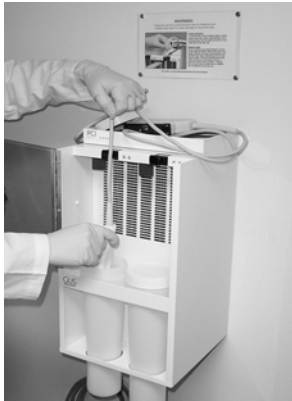


图4



图3

第3步：加注容器—适用于所有设备

1. 将电源线插入电源入口模块，并将设备插入适当的墙上插座。使用位于设备左侧的 ON/OFF 开关，开启设备。设备运行时，绿色指示灯将亮起
2. G10 系列有两个容器：分别用于消毒剂和冲洗水。
G14 系列有三个容器：两个用于消毒剂，一个用于冲洗水。冲洗水容器应该在中间。
3. 一些消毒剂在使用前需要活化。将消毒剂倒入浸泡容器中。**请勿**在容器的下部窄边上方加注。图5
4. 为防止消毒剂挥发，取出探头或内窥镜后，**务必**放回容器上的螺帽/塞子。

注释： 在关闭消毒站之前，务必在容器上放回螺帽。

注释： 只要容器内有化学品，GUS 系统即应保持运行。

5. 使用合适的试纸，测试消毒剂的效力。请遵循试纸制造商的使用说明。
6. 使用清洁的冲洗水填充剩余的容器，进行初步冲洗。必须有一个盛装冲洗水的容器。这可确保从设备上取下探头或内窥镜进行最终冲洗时，不会有高效消毒剂滴落或释放出气体。



图5

第4步：准备使用—适用于所有设备

将电缆从超声波机器上断开，电气连接器可放置在 GUS 设备顶部带衬垫的隔间。



注意 请遵循探头或内窥镜制造商有关清洁、消毒和冲洗特定探头或内窥镜的指示，这至关重要。以下内容仅供参考。

注释： 使用非 CIVCO Medical Solutions 提供的可拆卸电源线可能影响该设备的安全性和性能。

注释： 在清洁和消毒过程中，请遵循您所在机构的个人防护设备说明。

1. 取下任何护套或避孕套，擦掉凝胶。
2. 遵循探头或内窥镜制造商有关正确预清洁探头或内窥镜的说明
3. 消毒前，使用含酶清洁剂，清洁或擦拭探头或内窥镜。

消毒：

仅限 G10VP-EU、G10VPL-EU、G14KA-EU 和 G14KAL-EU

1. 使用夹钳，轻轻地将探头或窥视镜放入浸泡容器中（请参见步骤 2 - 4），关闭并锁上门。
2. 浸泡时间取决于您所在机构的感染控制指南和高效消毒剂使用说明。

仅限 **G10ENT-EU、G14ENT-3-EU、G10-U2-EU、G14-U2-AC-EU、G14-U3-EU**

1. 将内窥镜放入浸泡导管中。
2. 将光源电缆与弹簧夹的顶部对齐，推回蓝色塑料凸耳，并将电缆滑入带衬垫的电缆支架。现在，可以盘绕光源的其余部分，并放置在设备顶部带衬垫的隔间中。您也可以将光源的末端放入位于设备侧面的黑色塑料支架中。
3. 在测试消毒剂的效力时，请使用浸泡站提供的试纸夹，固定住试纸。缓慢地将试纸放入消毒剂中。

注释： 在不使用时，将黑色小塞子放入浸泡容器的导管或盖子中，防止挥发。

冲洗：

1. **初次**冲洗在 GUS 设备内部的冲洗容器中进行。将探头或内窥镜移动到水槽时，这是防止滴落和排出气体的重要步骤。消毒完成后，打开门，推回蓝色凸耳，提起探头或内窥镜，并轻轻摇动，以去除大滴消毒剂。然后，将其直接放入冲洗容器中，同时，将拇指放在凸耳上方的红色标记上。
2. 在冲洗容器中，**轻轻**翻动，从探头或内窥镜上冲洗掉消毒剂。现在，可以取出探头或内窥镜，用纸巾擦拭，并根据消毒剂制造商的说明在水槽或托盘中进行最终冲洗。
3. 清空 GUS 系统中的冲洗容器，冲洗，然后再注入淡水。
4. 有关容器的清洁，请参见“清洁”部分。

系统维护

修理和改装

未经当地代表审查，请勿改装或修理本设备；如需购买替换用过滤器和零件，请与当地代表联系。

在尝试对设备进行日常维护之前，应彻底查看和理解本手册内容，以便完全熟悉本设备及其操作。请参见“*清洁*”章节。

处置用过的高效消毒剂

在某些地区，在没有灭活的情况下处置消毒剂属违法行为。灭活亦可保护用户免受飞溅和溢出的影响。

CIVCO Medical Solutions 生产 *Glute-Out*®，这是一种甘氨酸中和剂（零件号 NG-QT），盛装在便于使用的一次性瓶子中。*Glute-Out* 专用于戊二醛和基于 OPA 的消毒剂。

CIVCO Medical Solutions 亦生产 *Oxid Out*®，这是一种基于碳酸钠的中和剂（零件号 NO-QT），盛装在便于使用的一次性瓶子中。*Oxid Out* 专门用于基于过氧化氢的消毒剂。如需购买中和剂，请与您当地代表联系。

更换过滤器

GUS 配置有享有专利的过滤器，在每天使用情况下，可以使用六个月。对于不常使用的设施，请致电当地代表，制订适当的更换计划。过滤器必须至少每年更换一次。

警告 在装有消毒剂的容器上，盖上封盖。关闭主电源，并从电源插座上断开电源线。

1. 从顶部隔间中取出泡沫垫。
2. 逆时针转动紧固螺钉，取下位于顶部隔间的顶板。
3. 将手指插入指孔并向上拉，取下旧过滤器。过滤器可能很紧，但应在稳定的压力下向上滑动。
4. 使用蘸有中性清洁剂的润湿软布，擦拭机器的整个正面。此外，擦拭机器内部进气面板后面部位。擦干所有表面。
5. 更换上新过滤器，确保气流箭头指向机器后部。
6. 将用过的过滤器放入塑料袋中，与其他无害废物一起处置。

7. 放回顶板，并顺时针转动紧固螺钉。放回泡沫垫，插回设备，然后，开启机器。

清洁



注意

关闭主电源，并从电源插座上断开电源线。

清理并彻底冲洗装有消毒剂的所有容器，即使所有消毒剂先前已经中和。消毒剂残留物可能导致危险。

容器不能用高压灭菌法灭菌。这样做会导致容器受损。

每日清洁：

1. 取出冲洗水容器，清空并清洗容器和盖子。
2. 使用蘸有中性清洁剂的润湿软布，擦拭容器周围的区域。
3. 擦拭掉消毒剂容器和盖子周围以及搁板下方的滴液。
4. 请勿在机器的进气区域喷洒清洁剂，否则，会导致过滤器损坏。
5. 擦干这些区域后，放回冲洗水容器。

请参阅[更换过滤器](#)部分，了解更换过滤器时的其他清洁步骤。

清洁 GUS 容器:

- GUS 消毒浸泡站提供的容器可通过以下方法进行清洁：在具有上升的热气流的仪器清洗机/消毒器中清洁

或者

- 使用肥皂和水，用手进行清洗。使用 ENT 导管提供的清洁刷。然后，冲洗容器。

水/冲洗容器应至少每天清洗一次，或者根据您所在机构的指南进行清洗。用于消毒剂的容器可以在重新加注新鲜消毒剂之前进行清洁。

大多数顾客每年至少更换一次容器，尤其是在使用 OPA 时，其很容易染色。这些可从您当地的代表处获得。

重要提示：彻底清洗浸泡容器。开启本设备，并将清洁的浸泡容器放回原位，然后，重新注入新鲜的高效消毒剂。

有限担保

CIVCO Medical Solutions 保证，在正常使用下，GUS Disinfection Soak Station™ 自交付之日起一年内没有材料和工艺上的缺陷。本担保不包括过滤器、亚克力或处置泵，除非可以确定故障是由于材料或工艺缺陷造成的。

如果系统工作异常或有缺陷，请与 CIVCO Medical Solutions 联系，我们将在保修期内自行酌情修理或更换该设备。

对于因买方、买方员工或任何其他人员使用或误用系统而导致的任何类型的间接损害，CIVCO Medical Solutions 不承担任何责任。

本担保明确取代所有其他明示或暗示的担保、保证，义务或其他责任，且不存在超出此处描述的任何担保。明确排除在交易或使用过程中有关适销性和对特定用途适用性的保证。

本担保不包括以下任何情况导致的条件和损坏：

- 设施内安装、交付或维护不当。
- 未经制造商授权的任何修理、改装、改动或调整。
- 误用、滥用、事故或不合理使用。
- 电流、电压或电源不正确。
- 未遵循本手册中概括的正确使用程序。
- 任何人因违反本保证而遭受的间接或附带损害。

一些州不允许排除或限制间接或附带损害，因此上述排除条款可能不适用。

附录 A：故障检修

快速故障检修

如果 GUS 不能运行，请检查以下方面：

- 1) 确保设备已插入**带电**墙壁插座。
- 2) 确保 **ON/OFF** 开关（位于左侧）开启。
- 3) 如果设备仍然不工作，检查保险丝。
 - a) 保险丝位于设备左侧电源入口模块中。
 - b) **拆卸保险丝抽屉前，拔掉设备插头。**
 - c) 挤压保险丝抽屉上的两个凸耳，并向外拉动，以拆下保险丝。
 - d) 如果熔丝损坏，请更换为 CIVCO Medical Solutions 批准的 FSF 型 5 x 20 mm 1A 250VAC 产品。
- 4) 如果设备仍然无法工作，请与当地的代表联系。



注意

如果浸泡容器或导管泄漏，请勿在里面使用任何高效消毒剂。请立即致电当地经销商，要求更换容器或导管。

附录 B：现场要求

环境条件

- 仅供室内使用。
- 最高海拔 2000 米。
- 温度范围：5°C 至 40°C。
- 主电源电压波动不超过标称电压的 +/- 10%。
- 绝缘过电压二类。
- 污染程度 2。

通风要求

设备下方必须至少有 10.2 cm 的间隙，用于浸泡/冲洗容器的间隙和保证足够的气流。

电源额定值

- G10 系列： AC 230/240V 0.5A 50/60Hz
- G14 系列： AC 230/240V 0.5A 50/60Hz
- 保险丝： 两根 FSF 型 5 x 20mm 1A 250VAC

警告符号

包装和/或系统上出现的标签和符号的含义如下：



危险电压。



危险区域。



保护接地。

警示语

本手册中使用以下警示语：

警告： 表示潜在的危险情况，如果不加避免，可能导致死亡或重伤。



警告

表示潜在的危险情况，如果不加避免，可能导致轻微或中度伤害。其也可用于警告不安全的做法或潜在的设备损坏。

注释： 表示其他有用信息。

附录 C: GUS 产品规格

GUS 产品规格

GUS 型号	G10-U2-EU	G10ENT-EU	G10VPL-EU	G10VP-EU	G14KA-EU	G14-U2-AC-EU	G14-U3-EU	G14ENT-3-EU	G14KAL-EU
浸泡的探头和/或内窥镜数量	1	1	1	1	2	2	2	2	2
表面速度 (MPM)	13.7	13.7	13.7	13.7	15.2	15.2	15.2	15.2	15.2
电气数据 (240V 50/60Hz)	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A	0.5A
空间和重量要求									
宽度	28 cm	28 cm	28 cm	28 cm	40.6 cm	40.6 cm	40.6 cm	40.6 cm	40.6 cm
深度	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm	26.7 cm
高度 (安装后)	150 cm	150 cm	150 cm	150 cm	150 cm	150 cm	150 cm	150 cm	150 cm
重量 (kg) (空导管)	11	11	11	11	13.7	13.7	13.7	13.7	13.7

UL 批准



已通过美国和加拿大标准认证。

CE 标志批准



CB 测试证书编号 E178331-A2-CB-1。

EN 61010-1:2010: 测量、控制和实验室用电气设备的安全性要求—第 1 部分: 一般要求
设计在限定电压范围内使用的电气设备指令 2006/95/EC。

电磁兼容性指令 2004/108/EC。

欧盟代表



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