



GUS[®]

***Model G14TC-3
Disinfection Soak Station
for Transesophageal
Ultrasound Probes***

Operator's Manual



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Principle of Operation

The GUS System (see Figure 1 below) allows transesophageal (TEE) ultrasound probes to be immersed in a high-level disinfectant solution. The unit's blower and carbon-filtration system removes fumes from high-level disinfectant solutions at the source while the probe is soaking, preventing them from accumulating in the reprocessing area.

The system is designed to remove fumes from:

- glutaraldehyde
- *ortho*-phthaldehyde (OPA)
- other high-level disinfectants

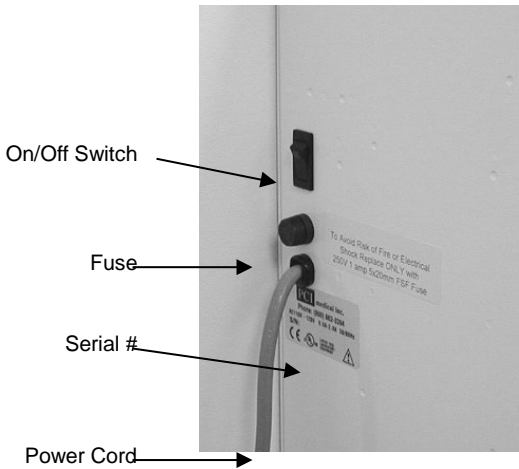


Figure 1. Left Side Panel

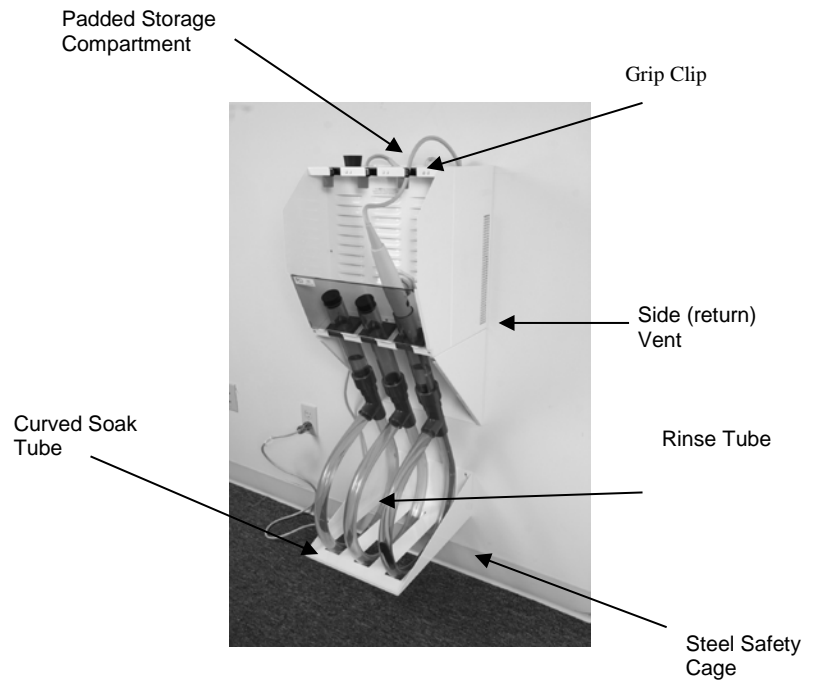


Figure 2. GUS Model G14TC-3 Disinfection Soak Station with three tubes

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

Safety

- Disconnect the system's power supply before removing the filter.
- The system's soak tubes must be tested for leakage prior to use.
- Refer to your probe manufacturer's reprocessing instructions. It is essential that the probe be pre-cleaned and leakage tested (if required by your probe manufacturer) before being placed into the GUS system.
- Refer to the MSDS of the high-level disinfectant that you are using for additional safety precautions.

Environmental Conditions

- For indoor use only.
- Altitude up to 2,000 meters.
- Temperature range: 5°C to 40°C.
- Maximum relative humidity: 80% for temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C.
- Main supply voltage fluctuations not to exceed +/- 10% of the nominal voltage.
- Insulation over voltage category II.

Ventilation Requirements

There must be a minimum of 4" clearance on both sides of the unit to allow clearance for the treated air to vent.

Supply Ratings

G14TC-3: AC 110V-120V 0.5A - 2.0A 50/60Hz
Fuse: 1.0 Amp externally mounted

Warning Symbols

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



Hazardous area



Ground point

Signal Words

The following signal words are used throughout this manual:

<u>WARNING</u>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
<u>CAUTION</u>	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.
<u>NOTE</u>	Indicates additional helpful information

Quick Troubleshoot

If the GUS System is not running check the following:

1. Ensure that the unit is plugged into a live wall outlet.
2. Make sure the red On/Off switch, located on the left side of the system, is on. The switch should be illuminated when on.
3. In the event that the system is still not working, you will need to check the fuse, which is located next to the On/Off switch.
4. Disconnect the plug from wall outlet and remove the fuse. Check to see if the filament is damaged. If so, replace with a standard 1-amp fuse.
5. If the system is still not working, contact CIVCO Medical Solutions (800-445-6741).

CAUTION If your soak tube is leaking, do not use any high-level disinfectant in the tube. Call CIVCO Medical Solutions at 1-800-445-6741 immediately for a replacement tube.

Installation and Setup

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 CIVCO Medical Solutions.

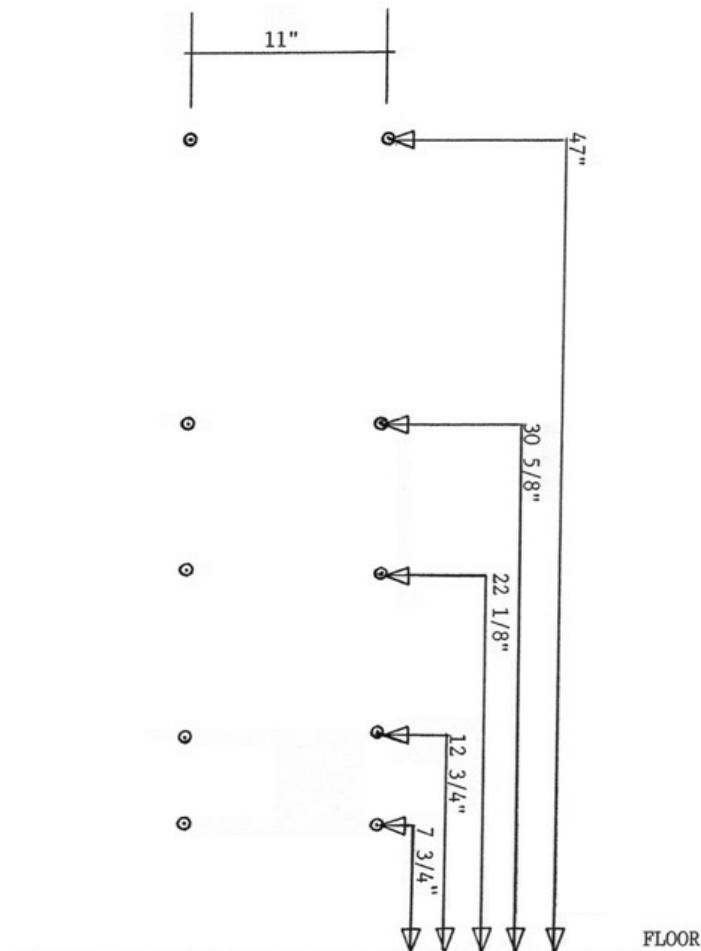
Component List

- 1 GUS Model G14TC-3 Disinfection Soak Station
- 3 Soak/rinse curved tubes with caps
- 1 Support bracket
- 1 Zinc plated steel safety cage
- 1 Acrylic front panel
- 1 Cleaning brush for tubes
- 10 Hollow wall anchors
- 1 Test strip clip
- 1 One **Glute-Out**® Caddy with 5 sample bottles of **Glute-Out** glycine based neutralizer and timer
- 1 Screwdriver & Red Pen
- 1 Filter installed in unit

Installation

CAUTION The unit is 14" wide and needs at least 4" of space on both sides

1. Establish general location of system ensuring 4" of space on both sides.
2. See below for hole locations for anchor bolts. Mark these on the wall.
3. For sheetrock walls, using a Phillips screwdriver press the tip of the wall anchor through these pencil marks and screw into the wall until anchor is flush with wall. (For masonry walls you will need to use a suitable lead or plastic shield with bolt. These are not supplied with the unit).



Hole Locations to Wall Mount System

4. Install lower tube cage first (See Figure 3)
5. Note that the lower safety cage has seven mounting holes.
6. Mark hole pattern on the wall using diagram on previous page. Insert anchors at the lower marks 14 1/8" off the floor. Insert screws into anchors, leaving approximately 1/8" showing.

7. Place the cage against the wall over the two screws and mark position of the remaining five screw holes.
8. Remove lower cage and install the remaining five anchors at the marked points.
9. Install screws in anchors and place cage over screws and tighten.
10. Install the support bracket (see Figure 4). Loosen the screws, slide the bracket over the screws and tighten.
11. Remove the screws from the top two anchors.



Figure 3. Safety Cage



Figure 4. Support Bracket



Figure 5. Install System

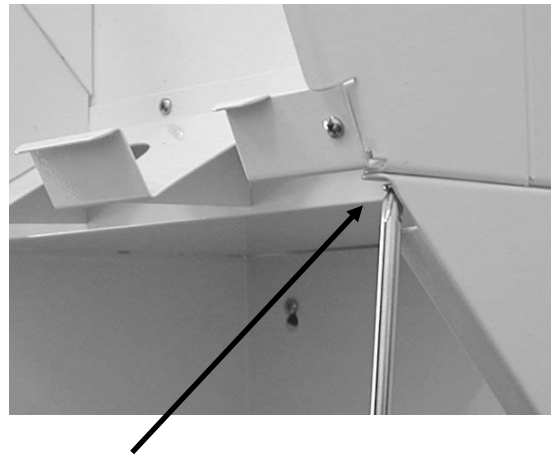


Figure 6. Location of Locking Machine Screw

12. Remove the two locking machine screws located under the front corners of the system (see location in Figure 6). Place the system over the support bracket (see Figure 6) and re-install the two locking machine screws.
13. Re-install the two top screws into the anchors.
14. Place the curved soak and rinse tubes into the rack and slide the clear plastic panel into the front of the system (see Figure 7).

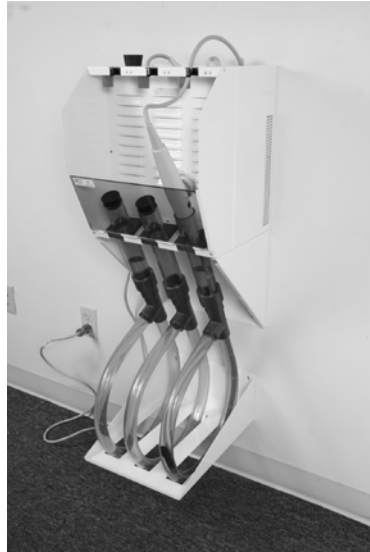


Figure 7. G14TC-3 Installed

Establishing Soaking Levels in Tubes

NOTE Prior to pouring any liquid into the tubes, fill with water and let sit overnight to test for any leakage that may have occurred due to damage during shipping. If leak is found, do not use system. Contact CIVCO Medical Solutions. Failure to do so will affect the warrantee on the tube.

1. TEE probes will displace liquid from the tube. As part of the set-up, establish the liquid level in the tubes and then mark the tube.
2. Pour water into one tube; fill just above the grey plastic fitting.
3. Insert your TEE probe into the tube.

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

4. Insert probe so that the handle rests on the top of the tube. Place the electrical connector into the top padded compartment.

5. With the probe fully inserted, the water level should be mid-way between the 100cm mark and the end of the strain relief. Add or subtract water as needed to achieve this level. (See Figure 8.)

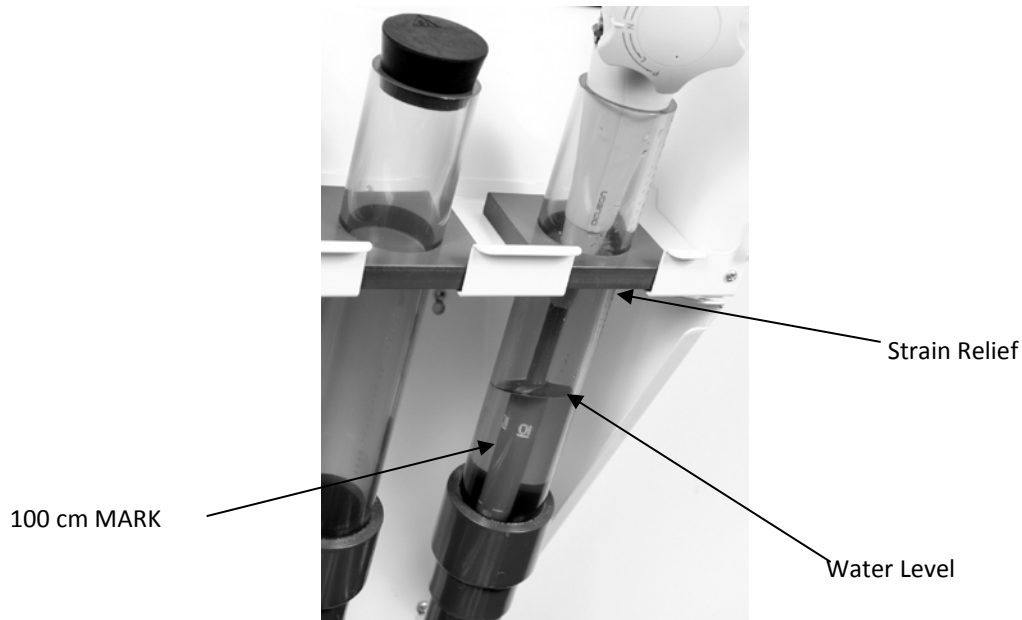


Figure 8. Establishing Maximum Fill Level

6. Remove the probe drawing it through a dry paper towel to prevent drips. The water level with the probe removed is the MAXIMUM FILL LEVEL for the tube. Using an indelible pen, mark this water level on all tubes. It is important not to fill above this mark.
7. Mark the other tube/tubes at the same level.

Filling the Soak and Rinse Tubes

CAUTION Make sure to turn the system ON before pouring high-level disinfectant into the soaking tube.

Leave the system running whenever it contains high-level disinfectant.

Keep the soaking tube covered as often as possible, to minimize evaporation of the disinfectant. Please note that the cover is not intended to be a tight-fitting cover.

Change the rinse water at least once per day or according to your normal infection control practices.

1. Turn on the power switch. Confirm that the red light in the power switch goes on.
2. Activate (if required) and slowly pour the high-level disinfectant into the soaking tube. This should be done with the tube in the rack so that any fumes are carried to the filter. Fill the tube until it reaches the MAXIMUM FILL LEVEL established.
3. When testing the efficacy of your disinfectant, attach a test strip to the clip on the test strip clip provided with your station. Slowly lower the test strip into the disinfectant.

Operation

Placing the TEE Probe in the GUS System

CAUTION All probes must be manually pre cleaned, tested for leakage (if applicable), and dried prior to being placed in the GUS system. Consult the probe manufacturer's instructions for the proper procedures.

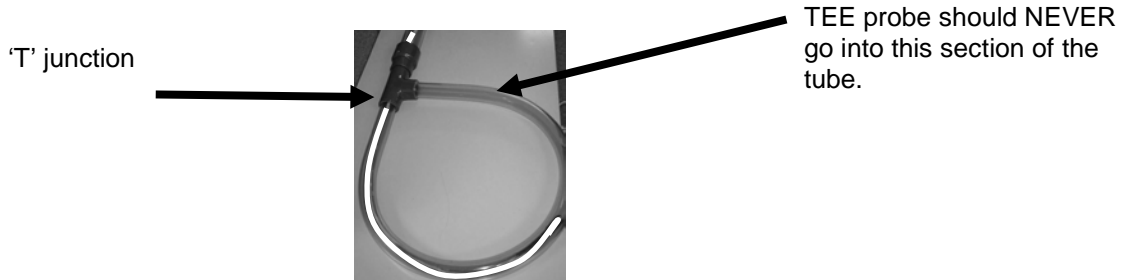
Wear appropriate personal protective equipment when working with disinfectant solution.

1. Confirm that the system is switched on and that the fan is running.
2. Remove the cap from the soak tube and, using a fluid motion, insert the probe into the soak tube.

CAUTION Ensure that the end of the probe is in a straight position. If it is not straight, the probe can become stuck in the T-junction. **DO NOT** force the probe into the tube.

It is **IMPORTANT** that you make sure the probe is inserted correctly into the tube as shown below (white line). Failure to do so will result in your TEE probe becoming stuck in the tube and possibly damaged.

If you have difficulty getting your TEE probe inserted correctly into the tube, please call CIVCO Medical Solutions immediately for replacement tubes. In the event that the probe becomes stuck, **DO NOT** force the probe out. Call CIVCO immediately for further instructions – 1-800-445-6741 / 1-319-248-6757.



3. The handle of the probe should now rest on top of the soak tube. Place the electrical connector into the top compartment. You may wish to use the cushioned spring clip to keep the electrical cord out of the way.
4. Soak the TEE probe for the time recommended by the disinfectant manufacturer.

Removing and Rinsing the Probes

CAUTION Typically a sterile rinse is not required for TEE probes; however, refer to your probe manual for specific instructions.

1. Prior to removing the TEE probe, place a damp paper towel or sterile cloth in your gloved hand. Nitrile gloves are the preferred gloves for working with high-level disinfectants.
2. Gripping the probe firmly, draw it through your glove until you reach the flexible end part of the probe.

3. Transfer the tip of the probe over to the rinse tube and insert the probe up to the handle. Use a continuous motion when inserting the probe into the rinse tube. Peel off the glove, trapping the cloth inside, and discard.
4. The initial rinse is done in the rinse tube inside the GUS unit. This is an important step to prevent drips and off-gassing when moving the probe to the sink.
5. Remove the probe from the rinse tube and follow your probe's instruction manual for final rinsing and storage procedures.
6. Empty the rinse tube, flush and then refill with fresh water.

Optional Storage Tube

An optional storage tube is available for storing your transesophageal probe after disinfection procedures. The tube has an open slot running $\frac{1}{2}$ down the front for easy insertion and removal of your scope. The base of the tube is open to aid in drying of the probe.

To install, position the tube on the wall next to the GUS system. Holding the tube in correct position, mark the wall for the anchor bolts. Using $\frac{3}{8}$ " drill bit, drill through these marks and install the anchor bolts. Refer to Figure 9.



Figure 9. AC-TCRK Storage Unit

System Maintenance

Disposal of Used Disinfectant

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

The tubes cannot be sterilized by autoclaving. Doing so will damage the tubes.

Disposing of used high-level disinfectant places users at risk of exposure to fumes. Such a risk arises from carrying a full tube of disinfectant to the sink, tipping and pouring into the sink. This creates the highest levels of disinfectant fumes and an increased potential for spills.

CIVCO Medical Solutions strongly recommends the use of a deactivating agent when disposing of used high-level disinfectants. This eliminates the danger of fumes, splashes and spills. **Glute-Out glycine** based neutralizer (part #610-1099) from CIVCO Medical Solutions comes in a convenient single use bottle. Please see insert with the sample for more information.

With unit running, open the bottle of neutralizer and **slowly** pour the contents into the containers of high-level disinfectants. After five minutes the disinfectant is deactivated and it is then safe to dispose of down the sink/drain.

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 us to set up an appropriate change schedule. Call CIVCO Medical Solutions at 1-800-445-6741 to purchase additional filters.



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

1. Turn the main power switch **OFF** and disconnect the power cord from the electrical outlet.
2. Remove foam pad from top compartment.
3. Remove the top plate located in the top compartment by turning the captive screws counterclockwise.
4. Remove the old filter by inserting fingers into the finger holes and pulling up on the strap located on top of the filter.
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. This does not need to be red tagged.
7. Replace the top plate and tighten the captive screws by turning clockwise. Replace the foam pad.

Cleaning the System

NOTE Do not wipe surfaces with hard or abrasive materials. Doing so will scratch the surfaces.

1. Turn the power switch OFF and disconnect the power cord from the wall-mains outlet.
2. To clean the acrylic tubes use the cleaning brush provided with your system and a mild detergent. Do not use solvents.
3. To clean metal surfaces: Use a clean, lint-free cloth moistened with a mild detergent solution and water. Wipe off any drips around the tubes and below the shelf.
4. Do not spray cleaning liquids on the intake area of the machine as this will damage the filter.
5. Make sure that the unit is completely dry before use.

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.



Specifications and Technical Data

Model	G14TC-3
Number of probes soaked	2
Face Velocity (FPM)	45
Electrical (115V 50/60Hz)	.5A
Space & Weight Requirements:	
Width	22"
Depth	16"
Height	59"
Weight (lbs.)	55

Registration Card

Please complete and return the attached Warranty Card to CIVCO Medical Solutions. Call 1-800-445-6741 to purchase additional filters.