



GERMICIDAL ULTRAVIOLET LIQUID STORAGE SANITIZER



Model TM36-2



Model TM36



Optional 1" Bulkhead Fitting



Optional Surface Mount Bracket Kit



ATLANTIC ULTRAVIOLET CORPORATION® SINCE 1963

Manufacturers / Engineers / Sales / Service
Germicidal Ultraviolet - Equipment & Lamps

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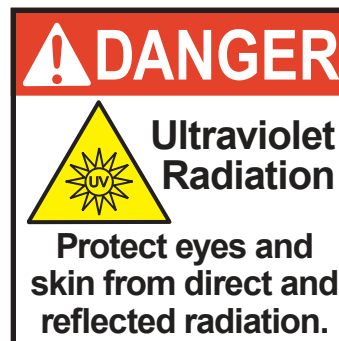
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Installation, Operation & Maintenance

Read and Follow All Safety Instructions.
Save These Instructions.



Owner's Manual

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These instructions generally describe the installation, operation and maintenance of the **Tank Master**™ Germicidal Ultraviolet Liquid Storage Sanitizer. Questions that are not specifically answerable by these instructions should be directed to the factory. Atlantic Ultraviolet Corporation® takes all possible precautions when packaging equipment to prevent damage. Carefully inspect and report all damages. Do not install damaged equipment. Follow all instructions on any labels or tags. Carefully inspect all packing materials before discarding to prevent the loss of accessories, mounting hardware, spare parts or instructions.


The information and recommendations contained in this publication are based upon data collected by the Atlantic Ultraviolet Corporation® and are believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. Specifications and information are subject to change without notice.





SAFETY WARNINGS


- All personnel should be alerted to the potential hazards indicated by the product safety labeling on this unit.
- The following conventions are used to indicate and classify precautions in this manual and on product safety labeling. Failure to observe precautions could result in injury to people or damage to property.

 This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.


 **DANGER** Danger indicates an **IMMINENTLY** hazardous situation, which, if not avoided, **WILL** result in death or serious injury.


 **CAUTION** Caution indicates a **POTENTIALLY** hazardous situation, which, if not avoided, **MAY** result in minor or moderate injury.


 **WARNING** Warning indicates a **POTENTIALLY** hazardous situation, which, if not avoided, **COULD** result in death or serious injury.


 **CAUTION** Caution used without the safety alert symbol indicates a potentially hazardous situation, which, if not avoided, may result in property damage.


 This symbol/pictorial is used to identify an **ELECTRICAL SHOCK** or **ELECTROCUTION** hazard.

 This symbol/pictorial is used to identify an **ULTRAVIOLET LIGHT** hazard.

 This symbol/pictorial is used to identify the need to wear approved ultraviolet blocking eyewear.










 This symbol/pictorial is used to identify the need to wear approved ultraviolet blocking face shield.

 This symbol/pictorial is used to identify the need to wear protective gloves.

 This symbol/pictorial is used to identify components which must not be disposed of in trash

SAFETY INSTRUCTIONS

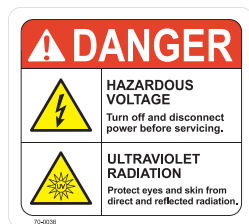
 **WARNING** To guard against injury, basic safety precautions should be observed, including the following:

1. Read and follow ALL safety instructions.
2.   **WARNING** Avoid exposure to direct or reflected germicidal ultraviolet rays. Germicidal ultraviolet rays are harmful to the eyes and skin.
3. Intended for indoor use only.
4. **Do not** alter design or construction.
5. **Do not** use this sanitizer for other than its intended purpose, as described in this manual. **DO NOT** use this sanitizer as a UV wand.
6. **Do not** use this sanitizer in occupied areas.
7.  **CAUTION** Germicidal ultraviolet rays may break down plastic, rubber or other non-metallic materials, can fade colors and can be damaging to plant life. Shield all plastic, rubber or other non-metallic parts, plant life, etc. which may be exposed to direct or reflected germicidal ultraviolet rays.
8. Do not remove any labels or devices.
9.   **WARNING** Do not operate without proper electrical ground.
10. Do not operate the sanitizer if the power cord and/or plug are damaged, or if any other damage to the sanitizer is visible or suspected.
11.   **WARNING** Plug the sanitizer only into an APPROVED GROUND FAULT CIRCUIT INTERRUPT (GFCI) RECEPTACLE.
12. Utility power supplied, to the sanitizer, **MUST** match power requirements listed on the sanitizer label.
13.   **WARNING** Always disconnect power to the sanitizer and unplug before performing any service or maintenance.
14. Read and follow all notices and warnings on the sanitizer.
15. **SAVE THESE INSTRUCTIONS.**

CAUTION

It is the user's responsibility to determine and validate the suitability of this equipment for use in the user's system or process. No warranty or representation is made by the manufacturer with respect to suitability or performance of this equipment or to the results that may be expected from its use. The user should periodically inspect, clean as necessary and confirm the presence and good legibility of the product safety labels. Contact the factory for replacement labels in the event that any of the labels are missing or illegible.

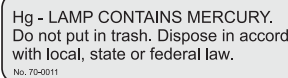
SAFETY LABELS & SIGNS



Danger Label: Hazardous Voltage and Ultraviolet Radiation (70-0036)



Warning Germicidal UV (70-0037)



Hg - Lamp Contains Mercury (70-0011)



Location of Danger Labels



8.5" x 11" UV Storage Tank Laminated Danger Sign (2-Sided w/ English & Spanish – 1 Supplied – 98-1832)

PRODUCT APPLICATION

CONSTRUCTION


The **Tank Master™** consists of:

- Power Supply Enclosure constructed of type 304 stainless steel that provides strength, durability and lasting value while protecting the **Surelite™** Electronic Ballast within.
- **CRYSTAL CLEAR™** Quartz Sleeve and a Genuine **STER-L-RAY®** Germicidal Ultraviolet Lamp that delivers ultraviolet energy in the specific wavelength of 254 nanometers (nm) which is highly effective against bacteria, virus, and mold spores.
- **Tank Master™** 1" MNPT fitting fabricated from 316 stainless steel.

PRINCIPLE OF OPERATION

The **Tank Master™** design has been carefully conceived to provide germicidal ultraviolet exposure for both air and water disinfection in a multitude of applications—primarily in liquid storage tanks. The **Tank Master™** design allows for flexibility in placement and is best suited for applications where conventional air and water purification equipment is not a fit or is impractical to employ. The **Tank Master™** is often used as an additional method to control growth of bacteria, mold, and other microorganisms. The **Tank Master™** design allows easy adaption by employing a stainless steel 1" male pipe thread which seals the unit's lamp and quartz sleeve combination within a container or chamber to prevent fluid or air loss. (**NOTE: Maximum pressure not to exceed 5 psi.**)

LIMITATION OF USE

- Safety procedures should be implemented to prevent ultraviolet exposure of occupants to direct or reflected ultraviolet rays.
- **⚠ DANGER** Overexposure to germicidal ultraviolet rays will result in the irritation of the eyes and reddening of the skin.
-  Personal protection equipment is required when entering the irradiated space with the germicidal lamp(s) operating. Personal protection equipment includes skin and eye protection such as gloves, long sleeves with no gaps between cuff and gloves, and an ultraviolet blocking face shield.

UNPACKING

- Remove the **Tank Master™** from its shipping carton.
- Atlantic Ultraviolet Corporation® takes all possible precautions when packaging this unit to prevent damage. Carefully inspect the unit, power cord and plug for damage, report all damage immediately. Do not assemble or operate if there is any damage, visible or suspected.
- Germicidal lamps are packed separately, to ensure maximum protection for the lamp(s). Keep the lamp(s) aside until ready for installation.
- Carefully inspect all packing materials to prevent the loss of accessories, spare parts or instructions.
- Do not discard packing materials until unit is assembled, checked and confirmed.

Each Single-Lamp Tank Master™ Contains:

- (1) **STER-L-RAY®** Germicidal Ultraviolet Lamp
- (1) **CRYSTAL CLEAR™** Quartz Sleeve (COE – Closed One End)
- (1) **Tank Master™** 1" MNPT Fitting
- (1) Power Supply
- (1) Rubber Ball
- (2) Rubber O-Rings (Black)
- (1) Teflon® O-Ring (White)
- (1) **Promate™** Static Gland Nut
- (1) **Promate™** Laminated Danger Sign (98-1832)

Each Dual-Lamp Tank Master™ Contains:

- (2) **STER-L-RAY®** Germicidal Ultraviolet Lamps
- (2) **CRYSTAL CLEAR™** Quartz Sleeves (COE – Closed One End)
- (2) **Tank Master™** 1" MNPT Fittings
- (1) Power Supply
- (2) Rubber Balls
- (4) Rubber O-Rings (Black)
- (2) Teflon® O-Rings (White)
- (2) **Promate™** Static Gland Nuts
- (1) **Promate™** Laminated Danger Sign (98-1832)

INSTALLATION



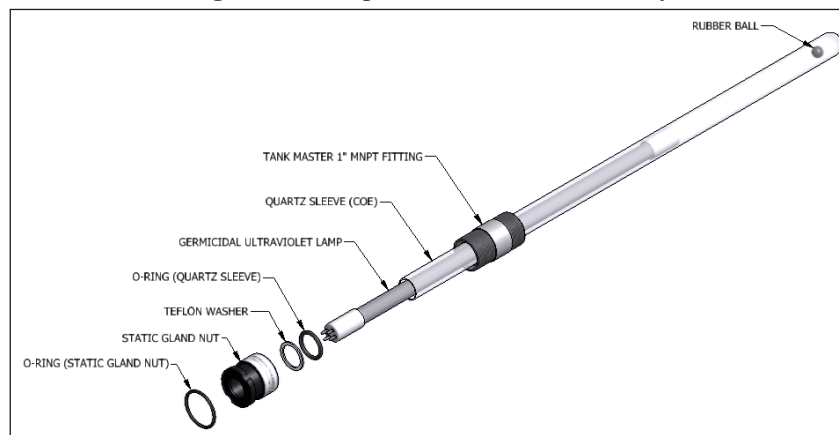
IN ORDER TO PERFORM THIS TASK, BE SURE TO WEAR THE FOLLOWING SAFETY EQUIPMENT: SAFETY GLASSES OR A FACE SHIELD, AS WELL AS GLOVES.

LOCATION

1. Unit should be installed indoors or in a shelter which will provide protection from the elements including moisture or dripping water.
2. Selected location should allow enough space for removal of the lamp & quartz sleeve from the **Tank Master™** fitting.
3. For **Tank Master™** Models TM36, TMHO36, TM36-2, TM48, TMHO48, TM48-2, TM64, TMHO64, and TM64-2, only vertical (downward) positions are allowable; all other models can be installed in the horizontal position.
4. **CAUTION** Lamp/Quartz Sleeve Assembly must be located in a position that will not allow UV Rays from the lamp to be exposed to anyone (personnel, livestock, etc.) whether direct or reflected.
5. **CAUTION** Location selected should not contain rubber, plastics, or non-metallic materials without shielding these items from exposure of the ultraviolet rays.
6. If a pressure location is selected, either in a water or air environment, the maximum recommended pressure rating on the Lamp Quartz assembly should **not be greater than 5 pounds per square inch.**
7. Location selected should have a minimum temperature of 40°F and a maximum temperature of 95°F.
8. **CAUTION** Plug the **Tank Master™** only into an approved ground fault circuit interrupt (GFCI) receptacle.

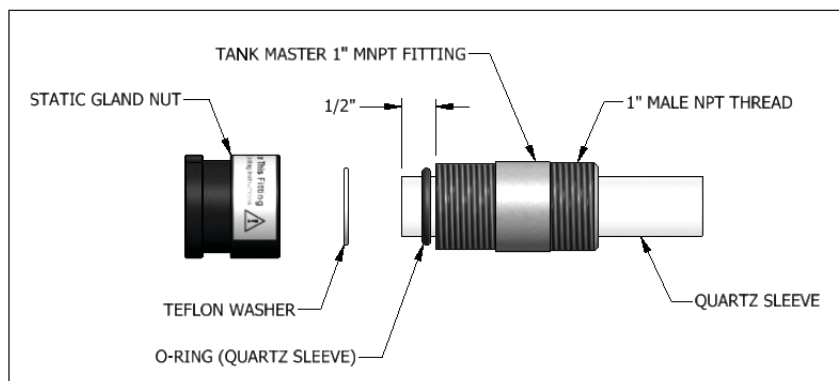
MOUNTING THE ASSEMBLY

Figure 1 – Lamp / Quartz Sleeve Assembly



1. The unit's lamp/quartz sleeve assembly is held in position by the **Tank Master™** Fitting (See **Figure 2** Below). One end of this fitting has a 1" Male NPT Thread which will allow you to thread the fitting into any secure 1" Female NPT Thread. The fitting selected must be capable of supporting the total assembly weight. If a complete seal between the **Tank Master™** fitting and the selected fitting is required, we recommend using Teflon® Pipe Tape on installation (not supplied).

Figure 2 – Tank Master™ Fitting



2. Thread **Tank Master™** 1" MNPT Fitting into the fitting selected for installation. A pipe wrench may be used to tighten the fitting to ensure a leak free installation. Following are two examples of the most common installations. (See **Figures 3 and 4** on **Page 6**)

Figure 3 – Bulkhead Installation

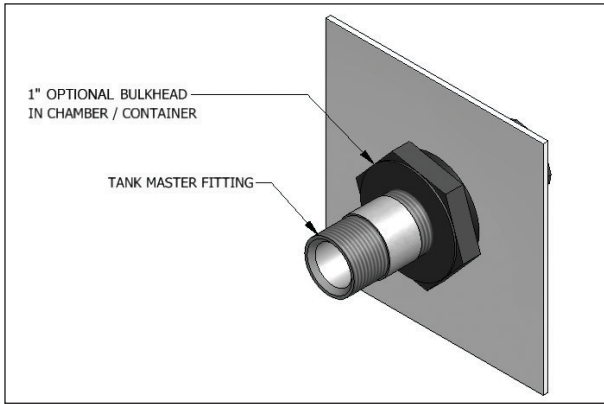
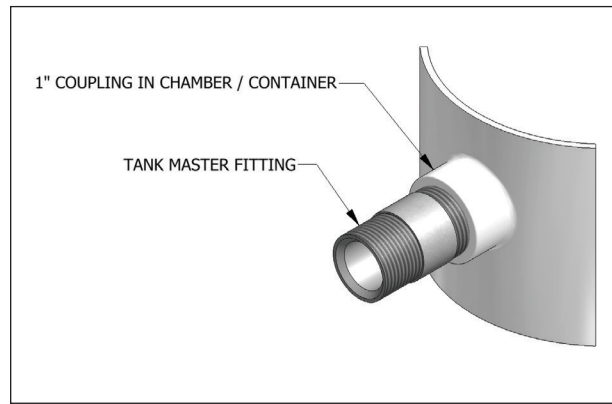


Figure 4 – Coupling Installation

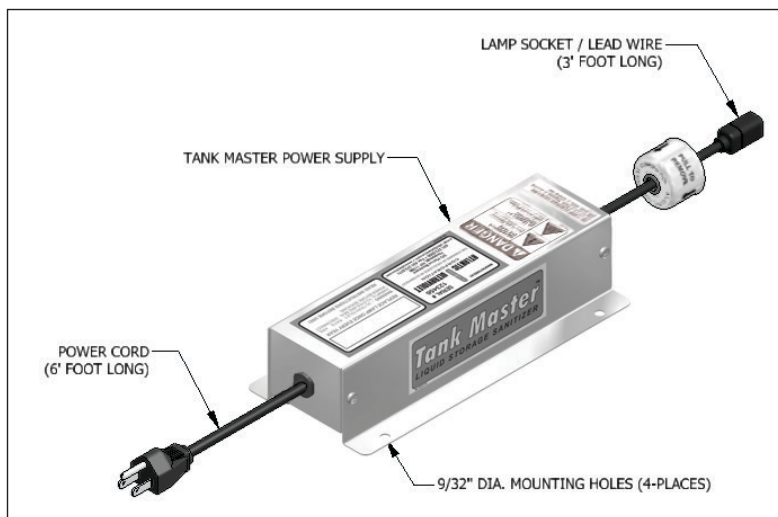


CAUTION Lamp(s) and Quartz Sleeve(s) are easily damaged. Exercise care when handling.

3. Carefully insert the quartz sleeve into the fitting. Avoid striking quartz sleeve with **Tank Master™** fitting or other components involved with the installation. The quartz sleeve should protrude out of the end of the **Tank Master™** Fitting by approximately 1/2" (See **Figure 2** on **Page 5**).
4. Once the **Tank Master™** fitting is secure, Install the O-Ring on the end of the quartz sleeve approximately 3/8" to 1/2" from end of the quartz sleeve opening.
5. Install the Teflon® Washer on the end of the quartz sleeve so it rests next to the O-Ring.
6. While holding the quartz sleeve, install the Static Gland Nut onto the **Tank Master™** Fitting. Holding the quartz sleeve in place to ensure an approximate distance of 1/2" is often best achieved by using your finger inserted into the end of the quartz sleeve to maintain this distance. Once all components are in the proper location, tighten the Static Gland Nut firmly **by hand only**.

MOUNTING THE POWER SUPPLY

Figure 5 – Power Supply Section



1. The power supply of the **Tank Master™** should be located within a 3' foot distance from the end of the lamp in the Quartz Sleeve Assembly to easily allow the lamp socket to be removed from the lamp end.
2. Connection to a Power Outlet should also be within a 6' foot distance from Power Supply Section to allow for the power to be easily disconnected for servicing and replacement of the Lamp and Quartz Sleeve Assembly.
3. The Power Supply Section should be secured in place using the (4) 9/32" Diameter Mounting Holes located on each of the corners using hardware not supplied with the unit (See **Figure 6** and **Table 1** on **Page 7** to determine the correct mounting for each Model).

DIMENSIONAL DATA

Figure 6 – Dimensional Data

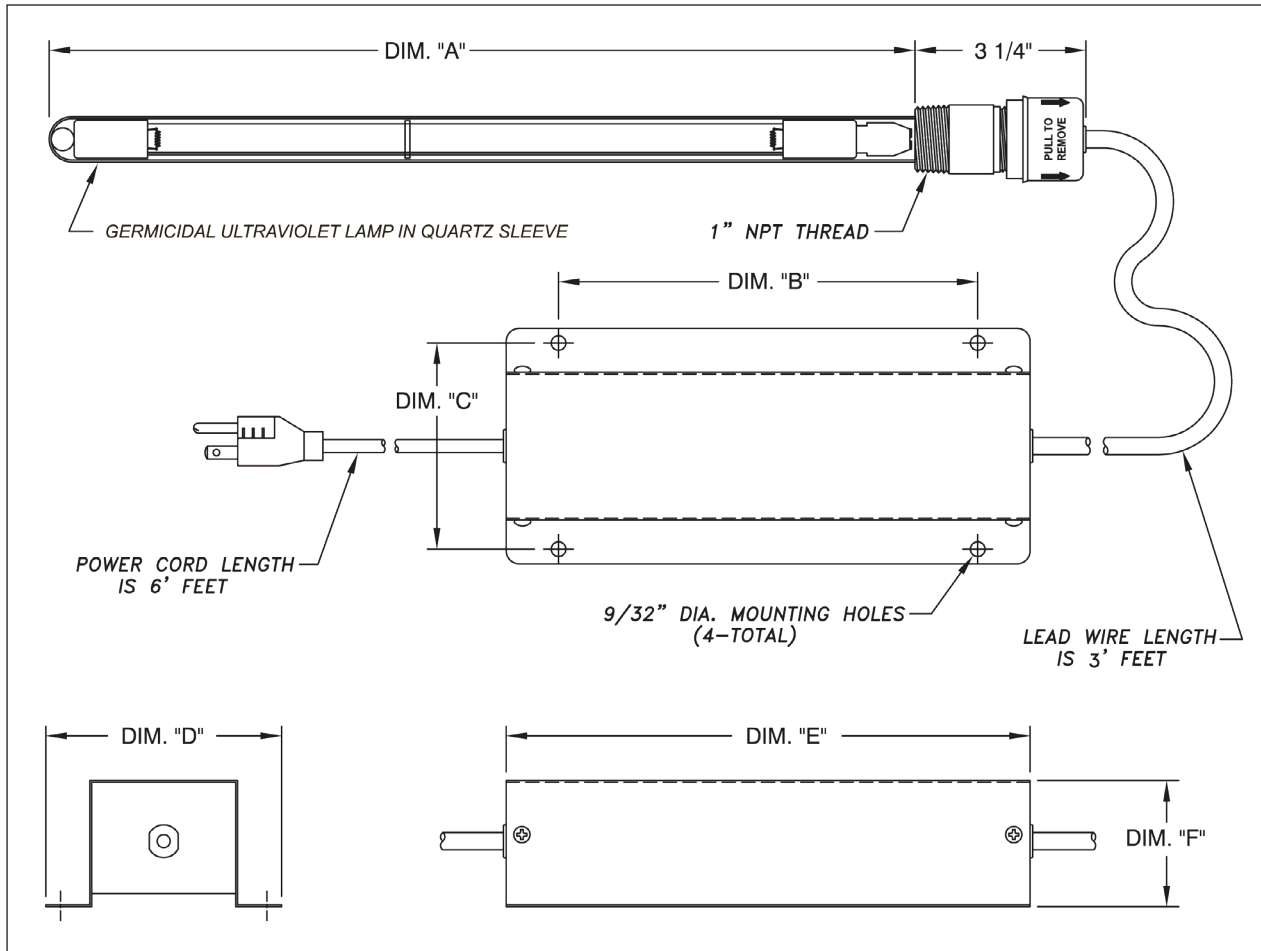


Table 1

| Model | Lamp QTY | DIM. "A" | DIM. "B" | DIM. "C" | DIM "D" | DIM "E" | DIM "F" |
|--------|----------|-----------|----------|----------|----------|---------|---------|
| TM13 | 1 | 9-7/8" | 8" | 3-15/16" | 4-1/2" | 10" | 2-3/8" |
| TM13-2 | 2 | 9-7/8" | 14" | 5" | 5-13/16" | 16" | 2-3/4" |
| TM16 | 1 | 12-7/8" | 8" | 3-15/16" | 4-1/2" | 10" | 2-3/8" |
| TM16-2 | 2 | 12-7/8" | 14" | 5" | 5-13/16" | 16" | 2-3/4" |
| TM22 | 1 | 18-3/4" | 8" | 3-15/16" | 4-1/2" | 10" | 2-3/8" |
| TMHO22 | 1 | 18-3/4" | 14" | 5" | 5-9/16" | 16" | 2-3/8" |
| TM24 | 1 | 22-3/4" | 8" | 3-15/16" | 4-1/2" | 10" | 2-3/8" |
| TMHO24 | 1 | 22-3/4" | 14" | 5" | 5-9/16" | 16" | 2-3/8" |
| TM36 | 1 | 34-3/4" | 8" | 3-15/16" | 4-1/2" | 16" | 2-3/8" |
| TMHO36 | 1 | 34-3/4" | 14" | 5" | 5-9/16" | 16" | 2-3/8" |
| TM36-2 | 2 | 34-3/4" | 14" | 5" | 5-13/16" | 16" | 2-3/4" |
| TM48 | 1 | 46-11/16" | 8" | 3-15/16" | 4-1/2" | 10" | 2-3/8" |
| TMHO48 | 1 | 46-11/16" | 14" | 5" | 5-9/16" | 16" | 2-3/8" |
| TM48-2 | 2 | 46-11/16" | 14" | 5" | 5-13/16" | 16" | 2-3/4" |
| TM64 | 1 | 62-11/16" | 14" | 5" | 5-13/16" | 16" | 2-3/4" |
| TMHO64 | 1 | 62-11/16" | 14" | 5" | 5-25/32" | 16" | 2-3/4" |
| TM64-2 | 2 | 62-11/16" | 14" | 5" | 5-13/16" | 16" | 2-3/4" |

All specifications, dimensional data, etc. are approximate and subject to change without notice.

LAMP INSTALLATION

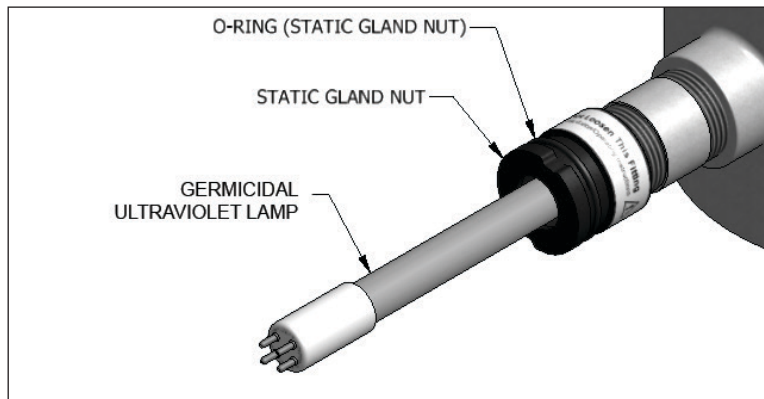


IN ORDER TO PERFORM THIS TASK, BE SURE TO WEAR THE FOLLOWING SAFETY EQUIPMENT: SAFETY GLASSES OR A FACE SHIELD, AS WELL AS GLOVES.

CAUTION Germicidal lamp(s) are easily damaged. Exercise care when handling lamps

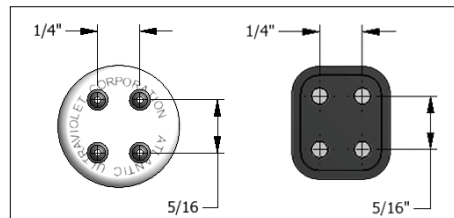
1. Insert the Rubber Ball into the opening of the static gland nut, so it is positioned on the bottom of the quartz sleeve.
2. Install O-Ring onto the Static Gland Nut.
3. Carefully insert the non pin end of the Germicidal Lamp into the opening on the end of the static gland nut. To ensure that the lamp does not damage the end of the quartz sleeve within the static gland nut, be sure to keep the lamp straight while inserting (**DO NOT** angle the lamp). Stop when approximately 2" of the lamp is still protruding from the end of the static gland nut (See **Figure 7**).

Figure 7 – Lamp Installation



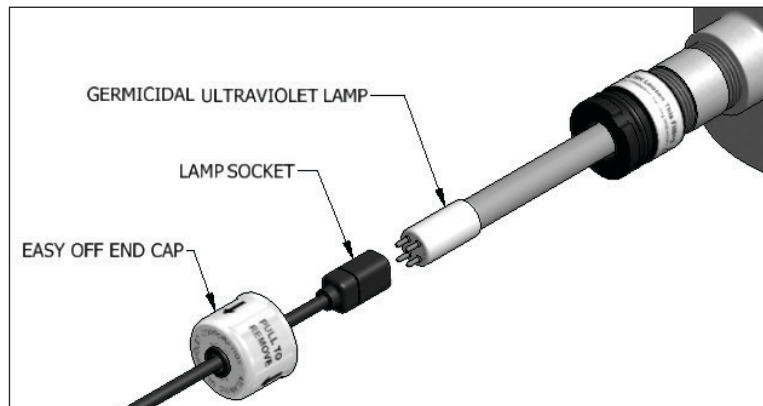
4. Carefully examine the Lamp Socket and Lamp Base configuration to ensure that the lamp is connected correctly.

Figure 8 – Lamp Base/Lamp Socket



5. Hold Lamp by end, correctly lining up the Lamp Socket with the Lamp and insert the lamp socket onto the lamp.
6. Slide the lamp gently into the quartz sleeve.
7. Slide the **EASY-OFF™** End Cap onto the Static Gland Nut.

Figure 9 – Lamp Connection



TECHNICAL ASSISTANCE

Atlantic Ultraviolet Corporation® maintains a qualified team of application specialists that can provide technical assistance which may be required during the use of this equipment. For any questions, concerns, or technical assistance, regarding this unit or any of our other products, contact our application specialists. Contact options can be found in the “**User Assistance**” section at the back of this manual (**Page 12**).

OPTIONAL ACCESSORIES

- **Promate™ 1" NPT Bulkhead Fitting (See Figure 3 Page 6) (27-1452):** The **Tank Master™** static gland fitting requires an available 1" female NPT fitting to mount to the storage tank. If an appropriate fitting is not available, an optional 1" NPT bulkhead fitting is available. The optional bulkhead fitting has certain minimum dimensional requirements and may require modifications to the tank. Please contact us regarding your application
- **Promate™ Surface Mount Bracket Kit (25-8580A):** Unique bracket designed specifically for **Tank Master™** line enables installation in both air and tank applications. Contact us and discuss with our UV Application Specialists.
- **SENTINEL® Remote Lamp Indicator (35-4502A1 or 35-4502A2):** The **SENTINEL®** Remote Lamp Indicator monitors lamp operation of one or two lamp ultraviolet fixtures and is available with a 25, 50 or 100 foot cable. (Available for ALL **Tank Master™** units at the time of purchase, **SENTINEL™** output connector needs to be installed for easy plug-in and operation.)
- **Promate™ Safety Glasses (00-1299):** Safety eyewear **MUST** be used as general-purpose safety protection and for additional shielding from germicidal ultraviolet rays
- **Promate™ Face Shield (00-0126):** Lightweight visor with adjustable headgear provides eye and face protection from UV-C rays.
- **Additional Promate™ Laminated Danger Signs (98-1832):** Danger Sign (8-1/2" x 11") for use when **Tank Master™** is in operation, since the storage tank **MUST NOT** be opened. Power **MUST** be disconnected or turned off before performing any service. One (1) sign is included with this unit but additional signs may be purchased. **NOTE:** Signs have English on one side and Spanish on the other.

MAINTENANCE

⚠ WARNING Always disconnect power to the unit before performing any service or maintenance.

1. The **Tank Master™** is designed to operate with a minimal amount of maintenance. A regular cleaning cycle of the quartz sleeve should be established and carefully maintained based on inspection and experience. The frequency of the cleaning will vary with each application condition. It is recommended that the quartz sleeve be cleaned whenever deposits are observed.
2. The **STER-L-RAY®** Germicidal Ultraviolet Lamp(s) used in the **Tank Master™** have a manufacturer's rated life of 10,000 hours. Lamps may operate longer than their effective life, but the reduction in ultraviolet output will make it impractical to use past the manufacturer's rated life. For maximum effectiveness lamp replacement is recommended every 12 months of operation.
3. If your **Tank Master™** Model has (2) **STER-L-RAY®** Germicidal Ultraviolet Lamps, it is recommended that both lamps be replaced at the same time, unless replacement is due to failure or breakage.

BREAKAGE

⚠ CAUTION Broken Quartz is SHARP.



Wear protective glasses and gloves when handling broken ultraviolet lamps. In the event of breakage, **DO NOT** use a household vacuum cleaner to pick up fragments of the lamp. Sweep up debris into a plastic bag and dispose of properly.

DISPOSAL OF MERCURY ADDED LAMP(S)



Germicidal ultraviolet lamps, like standard fluorescent lamps contain small amounts of mercury. Mercury added lamps should not be placed in the trash. Dispose of properly. For further information regarding the disposal and recycling of lamps containing mercury, along with Federal and State requirements visit LampRecycle.org. For more information on **STER-L-RAY®** Germicidal Ultraviolet Lamps, visit AtlanticUltraviolet.com or Ultraviolet.com.

LAMP REPLACEMENT



IN ORDER TO PERFORM THIS TASK, BE SURE TO WEAR THE FOLLOWING SAFETY EQUIPMENT: SAFETY GLASSES OR A FACE SHIELD, AS WELL AS GLOVES.

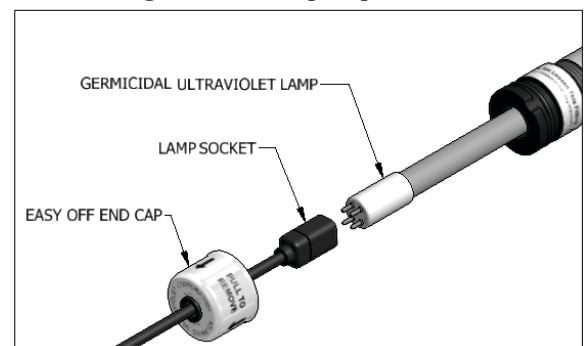
⚠ WARNING Disconnect power to water purifier.

1. Remove the **EASY-OFF™** End Cap from the Static Gland Nut and slide away from the end of the lamp/quartz sleeve assembly.
2. Carefully withdraw the lamp approximately 2 inches from the end of the assembly.
3. While holding the lamp end, remove the lamp socket from the lamp (See **Figure 10**).
4. Next, carefully slide the lamp out of the quartz sleeve. Be sure to withdraw the lamp straight out without angling until the lamp is completely clear of the quartz sleeve.
5. Reinstall new lamp in reverse order.

⚠ CAUTION Lamp and quartz sleeve are easily damaged. Exercise care when handling.

⚠ WARNING Germicidal ultraviolet rays are harmful to eyes and skin. Do not restore power to water purifier until lamp, lamp socket, and **EASY-OFF™** End Cap has been properly reinstalled.

Figure 10 – Lamp Replacement



QUARTZ SLEEVE CLEANING OR REPLACEMENT

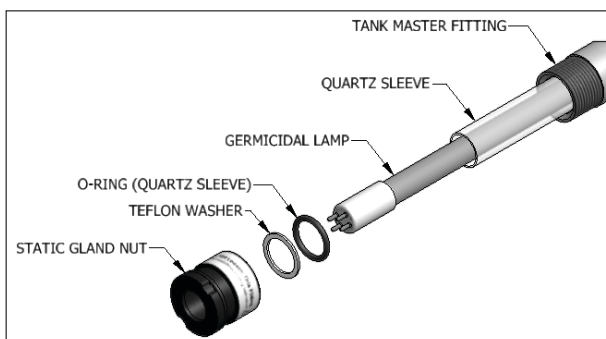


IN ORDER TO PERFORM THIS TASK, BE SURE TO WEAR THE FOLLOWING SAFETY EQUIPMENT: SAFETY GLASSES OR A FACE SHIELD, AS WELL AS GLOVES.

CAUTION Quartz Sleeve is easily damaged. Exercise care when handling.

- WARNING** Disconnect power to water purifier.
- For Water Installations; Shut off water supply and drain chamber or container to eliminate leakage.
- For Air Installation; Shut off air supply and interrupt air flow to eliminate leakage.
- Remove the **EASY OFF™** End Cap from the Static Gland Nut and slide away from the assembly.
- Carefully withdraw the lamp approximately 2 inches from the end of the assembly.
- While holding the lamp end, remove the lamp socket from the lamp (**Figure 10 on Page 9**).
- Next, carefully slide the lamp out of the assembly. Be sure to withdraw the lamp straight out without angling until the lamp is completely clear of the quartz sleeve.
- While holding the quartz sleeve in place, unscrew the static gland nut from the unit.

Figure 11 – Quartz Sleeve Removal



- Carefully remove the quartz sleeve from the **Tank Master™** Fitting. Be careful not to angle the quartz sleeve until the entire quartz sleeve clears the fitting.
- Once the quartz sleeve is removed, clean with alcohol or a mild, non-abrasive detergent. Stubborn stains usually can be removed with a dilute hydrochloric acid. **Note:** Follow all manufacturer's instructions and precautions when handling chemicals.
- Reassemble in reverse order.
- Slowly restore water flow or air flow back into the chamber or container and inspect for leaks.

TROUBLESHOOTING

WARNING Always disconnect power to the unit before performing any service or maintenance.



Wear personal protection equipment; Gloves, long sleeve shirt with no gaps between cuffs and gloves and an ultraviolet blocking face shield **MUST** be worn to cover all exposed skin.

IMPORTANT: This unit is to be serviced **ONLY** by qualified and factory authorized personnel.

Table 2 – Troubleshooting

| Problem | Possible Cause | Corrective Action |
|--|--|--|
| STER-L-RAY® Germicidal Lamp not operating. | No electrical power. | Verify that the unit is connected to a live power source. |
| | Power connection, loose or disconnected. | Verify power connections are fully engaged. |
| | Lamp connection not properly seated to lamp. | Confirm connection between lamp and lampholder is tight, and that lamp is making full contact with lampholder. |
| | STER-L-RAY® Lamp Failed. | Swap suspect lamp, with known good lamp. If lamp still does not operate, replace lamp |
| Water / Air leaking from Tank Master™ Fitting | Quartz Sleeve sealing O-Ring(s) worn, damaged. | Shut down flow of water / air and remove static gland nut and replace sealing O-Ring |
| | Poor or loose connections of Gland Nut or Tank Master™ Fitting. | Tighten suspect connection or fitting, or shut down water / air flow and remove Tank Master™ , clean threads and re-apply Teflon® pipe tape and reinstall |

If the above measures fail to correct the problem(s), contact our application specialists. Contact options can be found on **page 12** in the "User Assistance" section of this manual.

TECHNICAL SPECIFICATIONS

Table 3 – Technical Specifications

| Model | Lamp No. | No. Lamps | Insertion Depth | Ultraviolet Output ① | Power Consumption ② |
|--------|------------|-----------|-----------------|----------------------|---------------------|
| TM13 | 05-1119-R | 1 | 9-7/8" | 2.7 Watts | 12.0 Watts |
| TM13-2 | 05-1119-R | 2 | 9-7/8" | 5.4 Watts | 24.0 Watts |
| TM16 | 05-1366-R | 1 | 12-7/8" | 4.0 Watts | 16.0 Watts |
| TM16-2 | 05-1366-R | 2 | 12-7/8" | 8.0 Watts | 32.0 Watts |
| TM22 | 05-1370-R | 1 | 18-3/4" | 7.3 Watts | 25.2 Watts |
| TMHO22 | 05-0331-R | 1 | 18-3/4" | 13 Watts | 48 Watts |
| TM24 | 05-0117-R | 1 | 22-3/4" | 8.5 Watts | 30.7 Watts |
| TMHO24 | 05-1157 | 1 | 22-3/4" | 18 Watts | 51 Watts |
| TM36 | 05-1382-R | 1 | 34-3/4" | 15.0 Watts | 49.2 Watts |
| TMHO36 | 05-0264-R | 1 | 34-3/4" | 28 Watts | 87 Watts |
| TM36-2 | 05-1382-R | 2 | 34-3/4" | 30.0 Watts | 98.4 Watts |
| TM48 | 05-0197-R | 1 | 46-11/16" | 21.0 Watts | 66.0 Watts |
| TMHO48 | 05-0977 | 1 | 46-11/16" | 39 Watts | 119 Watts |
| TM48-2 | 05-0197-R | 2 | 46-11/16" | 42.0 Watts | 132.0 Watts |
| TM64 | 05-1017A-R | 1 | 62-11/16" | 33.0 Watts | 94.0 Watts |
| TMHO64 | 05-0337-R | 1 | 62-11/16" | 54 Watts | 155 Watts |
| TM64-2 | 05-1017A-R | 2 | 62-11/16" | 66.0 Watts | 188.0 Watts |

① Ultraviolet Output at 254 nanometers at 100 hours and 80°F (approximate).

② Total power consumption including ballast loss.

- Intended for indoor use, as with any electrical assembly, protect from moisture.
- Not recommended for applications over 5 psi.
- Horizontal mount not recommended for models larger than TM36.
- 120v 50/60Hz, 220v 50/60Hz, 12v DC or 24v DC units are available. Specify when ordering.

Special and Custom Models Available – Contact Factory

REPLACEMENT PARTS

Table 4 – Replacement Parts

| Model | Lamp | No. Lamps | Quartz Sleeve | Model | Lamp | No. Lamps | Quartz Sleeve |
|--------|-----------|-----------|---------------|--------|------------|-----------|---------------|
| TM13 | 05-1119-R | 1 | 15-1274A1 | TM36 | 05-1382-R | 1 | 15-1275A1 |
| TM13-2 | 05-1119-R | 2 | 15-1274A1 | TMHO36 | 05-0264-R | 1 | 15-1275A1 |
| TM16 | 05-1366-R | 1 | 15-1274A2 | TM36-2 | 05-1382-R | 2 | 15-1275A1 |
| TM16-2 | 05-1366-R | 2 | 15-1274A2 | TM48 | 05-0197-R | 1 | 15-1275A2 |
| TM22 | 05-1370-R | 1 | 15-1274A3 | TMHO48 | 05-0977 | 1 | 15-1275A2 |
| TMHO22 | 05-0331-R | 1 | 15-1274A3 | TM48-2 | 05-0197-R | 2 | 15-1275A2 |
| TM24 | 05-0117-R | 1 | 15-1276A1 | TM64 | 05-1017A-R | 1 | 15-1275A3 |
| TMHO24 | 05-1157 | 1 | 15-1276A1 | TMHO64 | 05-0337-R | 1 | 15-1275A3 |
| | | | | TM64-2 | 05-1017A-R | 2 | 15-1275A3 |



WARNING

12 Volt and 24 Volt Direct Current (DC) Ballasts and Units

Many individuals regard ballasts and units powered by 12 volt and 24 volt Direct Current (DC) to be relatively benign from a safety standpoint. However, a DC ballast, in order to operate an ultraviolet discharge lamp, must produce an output as high as 600 volts. This voltage is high enough to produce a very serious or even lethal electric shock. **IT IS IMPERATIVE** that all DC ballasts and DC ultraviolet units be wired and grounded appropriately.

USER ASSISTANCE

Atlantic Ultraviolet Corporation® makes every effort to ensure that the **Tank Master™** Germicidal Ultraviolet Liquid Storage Sanitizer is a product of superior quality and workmanship. This manual describes the installation, operation and maintenance of the **Tank Master™** Germicidal Ultraviolet Liquid Storage Sanitizer.

Please read and become familiar with the contents of this manual before installing or using this unit. If after reading the manual you still have questions, or concerns, regarding the installation or use of this unit, contact our offices, weekdays between 8:30 am and 5:00 pm Eastern Time, at:

Atlantic Ultraviolet Corporation®
375 Marcus Boulevard
Hauppauge, New York, 11788
Tel: (631) 273-0500
Fax: (631) 273-0771
Email: Sales@AtlanticUV.com
Shop: AtlanticUltraviolet.com
Learn More: Ultraviolet.com

PATENT NOTICE

No attempt has been made to determine the patent status of applications illustrated or described in this publication. Inclusion in this publication of any design or method of use, which may be patented, is not to be construed as promoting or sanctioning unauthorized use.

WARRANTY & PRODUCT REGISTRATION

We warrant this product to the original owner to be free from defects in material and workmanship when installed in accordance with Atlantic Ultraviolet Corporation® specifications for a period of time as follows:

UV Water Purifier Chambers – Type 316 stainless steel chambers will have a Twelve (12) year Limited Warranty on the stainless steel chamber, from the date of original purchase while the Type 304 stainless steel chambers will have a Six (6) year Limited Warranty on the stainless steel chamber.

UV Air Disinfection Housing – Three (3) year Limited Warranty on the metal housing, from the date of original purchase.

Ballasts – Three (3) year Limited Warranty, from the date of original purchase.

UV Lamps, Monitoring Devices, Optional Accessories, and Other Parts – One (1) year Limited Warranty from the date of original purchase.

Within the warranty period we shall repair or replace such products, which are returned to us with shipping charges prepaid and which are determined by us to be defective. This warranty will not apply to any product, which has been subjected to misuse, negligence or accident; or misapplied; or modified; or repaired by unauthorized person; or improperly installed. Warranty will be null and void if any of the product's original labels are removed. This Limited warranty excludes the cost of labor.

The Buyer shall inspect the product promptly after receipt and shall notify us at our main office in writing of claims, including claims of breach of warranty, within thirty (30) days after the Buyer discovers or should have discovered the facts upon which the claim is based. Failure of the Buyer to give written notice of a claim within the time period shall be deemed to be a waiver of such claim.

The provisions of the above warranty are our sole obligation and exclude all other remedies or warranties, expressed or implied, including warranties of merchantability and fitness for a particular purpose, whether or not purposes or specifications are described herein. We further disclaim any responsibility whatsoever to the customer, or to any person for injury to person, damage to, or loss of property or value caused by any product which has been subjected to misuse, negligence, accident; or modified or repaired by unauthorized persons; or improperly installed.

Under no circumstances shall the Company be liable for any incidental, consequential or special damages; losses or expenses arising from the contract for this product, or in connection with the use of, or inability to use, our product for any purpose whatsoever.

Be sure to register your product and validate purchase within 30 days –registration is simple and will take less than 2 minutes to do.

NOTE – failure to register your purchase may jeopardize warranty.

Go to AtlanticUltraviolet.com and scroll down to the bottom of the page, under “Trust” click the “Warranty Registration Form”, complete and click “Submit”. Or click on “Warranty Registration PDF” to download the warranty registration card as a PDF, complete and mail to us at 375 Marcus Boulevard, Hauppauge, NY 11788, or simply fax to (631) 273-0771. If you prefer to register by phone, please call (631) 273-0500 and our customer service staff will be glad to assist you.

For your convenience, record the following information below. The model and serial number can be found on a label located on the **Tank Master™** Germicidal Ultraviolet Liquid Storage Sanitizer. Keep this manual, along with proof of purchase, handy when contacting our offices.

| | |
|-----------------|-------------|
| Purchased From: | Date: |
| Model: | Serial No.: |