WARNING — COPYING PROHIBITED

This manual is protected by Federal Copyright Law, which provides for damages of up to USD $20000, as well as criminal fines and imprisonment, for unauthorized copying.
The SYSTEM 1E® Liquid Chemical Sterilant Processing System is intended for the liquid chemical sterilization of manually cleaned immersible, reusable, critical and semi-critical heat-sensitive medical devices, including endoscopes and their accessories. Devices processed in the SYSTEM 1E Liquid Chemical Sterilant Processing System have been chemically sterilized using S40® Sterilant Concentrate, a peracetic acid liquid chemical sterilant, and rinsed with extensively treated potable water.

IMPORTANT: S40 Sterilant Concentrate is a single-use chemistry labeled exclusively for use in the SYSTEM 1E® Processor.

A listing of the WARNINGS and CAUTIONS to be observed when installing and testing this equipment can be found in SECTION 1 of this manual. Do not begin installing the equipment until you have read and become familiar with all this information.

Any alteration of this equipment not authorized or performed by STERIS or STERIS-trained service personnel will void the warranty. Alteration of equipment could adversely affect liquid chemical sterilization efficacy. Contact STERIS for pricing and availability of installation services in your region.

Upon completion of installation of the SYSTEM 1E Processor and completion of the check out of water pressure, temperature, quality, and drain requirements, contact STERIS Field Service at 800-333-8828 to schedule your installation check out.

A thorough preventive maintenance program is essential to safe and proper equipment operation. Comprehensive instructions for preventive maintenance can be found in the Maintenance Manual, P764333-674 (available from STERIS).

Only STERIS or STERIS-trained service personnel should attempt to perform maintenance on the SYSTEM 1E Liquid Chemical Sterilant Processing System to avoid personal injury, improper equipment performance, invalidation of the equipment warranty, or other costly damage.

Customers are encouraged to contact STERIS concerning our annual maintenance agreements. Under the terms of these agreements, preventive maintenance, adjustments, and replacement of worn parts are provided on a scheduled basis to help assure optimal equipment performance and help minimize untimely or costly schedule interruptions. STERIS factory-trained technicians provide these services, as well as on-site installation, training, and expert repair services. Contact STERIS for details.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>LISTING OF WARNINGS</td>
<td>1-1</td>
</tr>
<tr>
<td>2.</td>
<td>ENVIRONMENTAL, SPACE, AND WEIGHT REQUIREMENTS</td>
<td>2-1</td>
</tr>
<tr>
<td>3.</td>
<td>SITE SELECTION</td>
<td>3-1</td>
</tr>
<tr>
<td>4.</td>
<td>UTILITIES</td>
<td>4-1</td>
</tr>
<tr>
<td></td>
<td>» Part 1: Electrical Requirements</td>
<td>4-1</td>
</tr>
<tr>
<td></td>
<td>» Part 2: Water Requirements</td>
<td>4-1</td>
</tr>
<tr>
<td></td>
<td>» Part 3: Water Pressure, Temperature, and Quality Check Out</td>
<td>4-2</td>
</tr>
<tr>
<td></td>
<td>» Part 4: Drain Requirements</td>
<td>4-3</td>
</tr>
<tr>
<td>5.</td>
<td>INSTALLATION</td>
<td>5-1</td>
</tr>
<tr>
<td></td>
<td>Workstation Cart</td>
<td>5-2</td>
</tr>
<tr>
<td></td>
<td>UV System Above Processor Mount</td>
<td>5-4</td>
</tr>
<tr>
<td></td>
<td>UV System Below Processor Mount</td>
<td>5-6</td>
</tr>
<tr>
<td></td>
<td>Water Flow Diagram</td>
<td>5-8</td>
</tr>
<tr>
<td></td>
<td>Electrical Wiring Diagram</td>
<td>5-9</td>
</tr>
</tbody>
</table>
LISTING OF WARNINGS

Throughout this manual, WARNING statements have been included to alert the installer to important information regarding safety and liquid chemical sterilization efficacy.

Do not begin installing the equipment until you have read and become familiar with all this information.

WARNINGS:

⚠️ Do not use the SYSTEM 1E Processor until it has been properly installed and its electro/mechanical performance is verified.

⚠️ The SYSTEM 1E Processor is not intended for operation in explosion-endangered areas.

⚠️ Danger: Risk of explosion if used in the presence of flammable substances.

⚠️ The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

⚠️ The SYSTEM 1E Processor may be used only in hospital-grade rooms when it is installed according to the applicable specification (VDE 0107, Class 1 Group C NFPA Rating).

⚠️ The UV System is a non-user serviceable component of the SYSTEM 1E Processor. All installation, maintenance work, and service must be carried out by STERIS or STERIS-trained service personnel only. Use only STERIS approved replacement lamps, quartz sleeves, and sensor.

⚠️ Do not shorten the water inlet hoses downstream of the water pressure regulator on the Pre-Filter Assembly.

⚠️ Do not adjust the preset (50 psig / 345 kPa) water pressure regulator on the A1563 Pre-Filter Assembly, doing so may cause a higher flow rate than intended and result in inadequate rinse water processing.

⚠️ Never disconnect, damage or modify the UV System wiring or cables, doing so may cause inaccurate performance monitoring, poor operation or injury.

⚠️ Connect the SYSTEM 1E Processor to hospital grade receptacle only following national and local codes (GFCI, RCBO, etc.).

⚠️ Do not position equipment so that it is difficult to disconnect the plugs from the duplex receptacle.

⚠️ The performance of the SYSTEM 1E Processor has been validated and optimized with components defined by STERIS in the Operator Manual for the SYSTEM 1E Processor. Use of pre-filters that do not meet STERIS’s specifications and have not been validated by STERIS can lead to premature failure of the MaxPure Filter inside the processor. STERIS’s warranty will not apply to damage or early life failure of the MaxPure Filter resulting from the use of pre-filters that do not meet STERIS’s specifications. DO NOT USE components that do not meet STERIS’s specifications and have not been validated by STERIS.

⚠️ To avoid accumulated concentration of peracetic acid vapor, use S40 Sterilant Concentrate in a well ventilated room or area.
ENVIRONMENTAL, SPACE, AND WEIGHT REQUIREMENTS

Environmental Requirements:
- Room Temperature: 60 - 90°F (16 - 32°C)
- Humidity: 10 - 90% relative, non-condensing
- Ventilation: Recommend conformance to AAMI ST58: Chemical Sterilization and High-Level Disinfection in Healthcare Facilities

Classification:
- Protection against electric shock: Class 1

⚠️ WARNING: To avoid accumulated concentration of peracetic acid vapor, use S40 Sterilant Concentrate in a well ventilated room or area.

Space and Weight Requirements:

**SYSTEM 1E Processor**
- Width: 40” (102 cm)
- Depth: 24” (61 cm)
- Height: 38” (97 cm) (includes overhead clearance)
- Weight: 140 lbs (64 kg)
- Operating Weight: 165 lbs (75 kg)

**Workstation Cart (A1900/A1965)**
- Width: 36.5” (93 cm)
- Depth: 31” (79 cm)
- Height: 36.4” (92 cm)
- Weight: 185 lbs (83.9 kg)
**Pre-Filter Assembly (A1563)**

**NOTE:** For installations where the UV System is positioned higher than the Pre-Filter Assembly, an optional Ball Valve (A1585) may be installed as shown to prevent the backflow of water from the UV System when changing the A and B Pre-Filters.

- **Width:** 20" (51 cm)
- **Depth:** 6" (15 cm)
- **Height:** 23" (58 cm) (includes 4" (10 cm) for filter removal)
- **Weight:** 18.5 lbs (8.4 kg)
- **Operating Weight:** 23 lbs (10.4 kg)

**Pre-Filter A**
- **Filter Rating:** 2.5 micron absolute
- **Flow Rate:** 14.5 gpm/psid

**Pre-Filter B**
- **Filter Rating:** 0.1 micron nominal
- **Flow Rate:** >1.0 gpm/psid

**WARNING:** The performance of the SYSTEM 1E Processor has been validated and optimized with components defined by STERIS in the Operator Manual for the SYSTEM 1E Processor. Use of pre-filters that do not meet STERIS's specifications and have not been validated by STERIS can lead to premature failure of the MaxPure Filter inside the processor. STERIS's warranty will not apply to damage or early life failure of the MaxPure Filter resulting from the use of pre-filters that do not meet STERIS's specifications. DO NOT USE components that do not meet STERIS's specifications and have not been validated by STERIS.

**UV System (above processor mount)**

- **UV light chamber mounted vertically**
  - **Width:** 16" (40.6 cm)
  - **Depth:** 6" (15.2 cm)
  - **Height:** 32" (81.3 cm)
  - **Weight:** 18 lbs (8.2 kg)
  - **Operating Weight:** 22 lbs (10 kg)

- **UV light chamber mounted horizontally**
  - **Width:** 34" (86.4 cm)
  - **Depth:** 6" (15.2 cm)
  - **Height:** 21.5" (54.61 cm)
  - **Weight:** 18 lbs (8.2 kg)
  - **Operating Weight:** 22 lbs (10 kg)
Workstation Cart, Processor, UV System, and Pre-Filter Assembly

Width of Workstation Cart, UV System, and Pre-Filter: 49” (125 cm)
Depth: 31” (79 cm)
Height: 74.4” (189 cm)
Operating Weight: 386 lbs (175 kg)
387 lbs (175 kg) with Ball Valve (optional)

UV System (under processor mount)

UV Light Chamber
Width: 34” (86.4 cm)
Depth: 6” (15.2 cm)
Height: 8” (20.32 cm)
Weight: 18 lbs (8.2 kg)
Operating Weight: 22 lbs (10 kg)

UV System Electrical Ballast
Width: 6.5” (16.5 cm)
Depth: 4” (10.2 cm)
Height: 13.5” (34.3 cm)
Weight: 3 lbs (1.4 kg)
» Site Selection: Workstation Cart
(A1965 Cart Shown)

WARNING: The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...
When choosing a location for the workstation cart, take into account equipment usage, traffic flow, and utilities. Review these factors and then determine the optimum location for your workstation cart installation.

**IMPORTANT:** THE SYSTEM 1E PROCESSOR IS NOT TO BE INSTALLED OR USED WITHIN FIVE (5) FT (1.5 M) OF THE PATIENT ENVIRONMENT.

**SPACE REQUIREMENTS:**

1. The workstation cart (A1965 / A1900) including the Processor, UV System, and Pre-Filter Assembly requires a total area of 49 in. (125 cm) wide by 74.4 in. (189 cm) high by 31 in. (79 cm) deep.

   **NOTE:** The workstation cart (A1900 / A1965) is specially designed to support the total operating weight of the Processor, UV System, and Pre-Filter Assembly.

   **NOTE:** These instructions pertain only to STERIS workstation carts A1900 and A1965. If using a non-STERIS workstation cart be sure to check the space and weight requirements of the SYSTEM 1E Processor and of its accessories.

   **NOTE:** The use of workstation cart A1900 requires a UV Light Retrofit Mounting Kit, A1582, which includes hardware and a drill bit.

   **NOTE:** Adequate space for UV lamp replacement is 30 in. (76 cm). If adequate space is not available the UV System mounting brackets allow for easy removal of the UV Light Chamber for lamp replacement.

2. Workstation cart, SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within four (4) ft (1.2 m) of a 0.5 in. (1.27 cm) I.D. minimum water inlet.

   **NOTE:** Back flow (back siphonage) prevention not provided by STERIS, to be provided by facility. Consult local plumbing codes and back flow preventer manufacturer for installing and draining a back flow preventer properly. This manual does not address installations that require back flow prevention.

3. Workstation cart, SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within five (5) ft (1.5 m) of standard sink drain or code approved non-back pressuring drain.

   **NOTE:** The SYSTEM 1E Processor must be placed at least 12 in. (30.5 cm) away from any open sink.

   **NOTE:** There are no special requirements for venting the drain.

4. Workstation cart, SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within five (5) ft (1.5 m) of a 20A, 115VAC hospital-grade GFCI protected duplex receptacle.

5. A minimum height of 38 in. (97 cm) measured from the top of the cart surface must be available and maintained to ensure proper overhead clearance of the SYSTEM 1E Processor for service purposes.

**WARNING:**
- Danger: Risk of explosion if used in the presence of flammable substances.
- The SYSTEM 1E Processor may be used only in hospital-grade rooms when it is installed according to the applicable specification (VDE 0107, Class 1 Group C NFPA Rating).
- Connect the SYSTEM 1E Processor to hospital grade receptacle only following national and local codes (GFCI, RCBO, etc.).
- The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.
- The UV System is a non-user serviceable component of the SYSTEM 1E Processor. All installation, maintenance work, and service must be carried out by STERIS or STERIS-trained service personnel only. Use only STERIS approved replacement lamps, quartz sleeves, and sensor.
- Do not position equipment so that it is difficult to disconnect the plugs from the duplex receptacle.
» Site Selection: UV System Above Processor Mount

WARNING: The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...
When choosing a location for the installation and use of the SYSTEM 1E Processor and of its accessories, take into account equipment usage, traffic flow, and utilities. Review these factors and then determine the optimum location for your installation.

**IMPORTANT:** THE SYSTEM 1E PROCESSOR IS NOT TO BE INSTALLED OR USED WITHIN FIVE (5) FT (1.5 M) OF THE PATIENT ENVIRONMENT.

**SPACE REQUIREMENTS:**

1. SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within four (4) ft (1.2 m) of a 0.5 in. (1.27 cm) I.D. minimum water inlet.

   **NOTE:** Back flow (back siphonage) prevention not provided by STERIS, to be provided by facility. Consult local plumbing codes and back flow preventer manufacturer for installing and draining a back flow preventer properly. This manual does not address installations that require back flow prevention.

2. SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within five (5) ft (1.5 m) of standard sink drain or code approved non-back pressuring drain.

   **NOTE:** The SYSTEM 1E Processor must be placed at least 12 in. (30.5 cm) away from any open sink.

   **NOTE:** There are no special requirements for venting the drain.

3. SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within five (5) ft (1.5 m) of a 20A, 115VAC hospital-grade GFCI protected duplex receptacle.

4. A hard surface counter or permanently mounted shelf that can safely support up to 200 lb (90 kg) with a minimum width of 40 in. (102 cm), minimum depth of 24 in. (61 cm), and a minimum height of 38 in. (97 cm) measured from the top of the counter/shelf surface to ensure proper overhead clearance is required for the SYSTEM 1E Processor.

5. A 15 in. (38 cm) wide by 34 in. (86.4 cm) high wall space is needed within the six (6) ft (1.8 m) hose length of the Processor for the UV System.

   **NOTE:** Adequate space for UV lamp replacement is 30 in. (76 cm). If adequate space is not available the UV System mounting brackets allow for easy removal of the UV Light Chamber for lamp replacement.

6. A minimum height of 22 in. (56 cm) measured from the top of the counter surface is required to ensure proper overhead clearance of the UV System Electrical Ballast when the Processor lid is in an open position.

7. A 20 in. (51 cm) wide by 23 in. (58 cm) high by 6 in. (15 cm) deep area is needed within the six (6) ft (1.8 m) hose length of the Processor for the Pre-Filter Assembly. If the optional Ball Valve (A1585) is installed on the Pre-Filter Assembly, this area will have to be 23 in (58 cm) wide.

**WARNING:** Danger: Risk of explosion if used in the presence of flammable substances.

**WARNING:** The SYSTEM 1E Processor may be used only in hospital-grade rooms when it is installed according to the applicable specification (VDE 0107, Class 1 Group C NFPA Rating).

**WARNING:** Connect the SYSTEM 1E Processor to hospital grade receptacle only following national and local codes (GFCI, RCBO, etc.).

**WARNING:** The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

**WARNING:** The UV System is a non-user serviceable component of the SYSTEM 1E Processor. All installation, maintenance work, and service must be carried out by STERIS or STERIS-trained service personnel only. Use only STERIS approved replacement lamps, quartz sleeves, and sensor.

**WARNING:** Do not position equipment so that it is difficult to disconnect the plugs from the duplex receptacle.
» Site Selection: UV System Below Processor Mount

WARNING: The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...
When choosing a location for the installation and use of the SYSTEM 1E Processor and of its accessories, take into account equipment usage, traffic flow, and utilities. Review these factors and then determine the optimum location for your installation.

IMPORTANT: THE SYSTEM 1E PROCESSOR IS NOT TO BE INSTALLED OR USED WITHIN FIVE (5) FT (1.5 M) OF THE PATIENT ENVIRONMENT.

SPACE REQUIREMENTS:

1. SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within four (4) ft (1.2 m) of a 0.5 in. (1.27 cm) I.D. minimum water inlet.

   NOTE: Back flow (back siphonage) prevention not provided by STERIS, to be provided by facility. Consult local plumbing codes and back flow preventer manufacturer for installing and drain- ing a back flow preventer properly. This manual does not address installations that require back flow prevention.

2. SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within five (5) ft (1.5 m) of standard sink drain or code approved non-back pressuring drain.

   NOTE: The SYSTEM 1E Processor must be placed at least 12 in. (30.5 cm) away from any open sink.

   NOTE: There are no special requirements for venting the drain.

3. SYSTEM 1E Processor, UV System, and Pre-Filter Assembly must be within five (5) ft (1.5 m) of a 20A, 115VAC hospital-grade GFCI protected duplex receptacle.

4. A hard surface counter or permanently mounted shelf that can safely support up to 200 lb (90 kg) with a minimum width of 40 in. (102 cm), minimum depth of 24 in. (61 cm), and a minimum height of 38 in. (97 cm) measured from the top of the counter/shelf surface to ensure proper overhead clearance is required for the SYSTEM 1E Processor.

5. A 20 in. (51 cm) wide by 23 in. (58 cm) high by 6 in. (15 cm) deep area is needed within the six (6) ft (1.8 m) hose length of the Processor for the Pre-Filter Assembly. If the optional Ball Valve (A1585) is installed on the Pre-Filter Assembly, this area will have to be 23 in (58 cm) wide.

6. A 34 in. (86.4 cm) wide by 6 in. (15.2 cm) high by 6 in. (15.2 cm) deep area is needed within the six (6) ft (1.8 m) hose length of the Processor for the UV Light Chamber.

   NOTE: Adequate space for UV lamp replacement is 30 in. (76 cm). If adequate space is not available the UV System mounting brackets allow for easy removal of the UV Light Chamber for lamp replacement.

7. A 6.5 in. (16.5 cm) wide by 13.5 in. (34.3 cm) high by 4 in. (10.2 cm) deep area is needed within 36 in. (91 cm) of the UV Light Chamber to connect the UV System Electrical Ballast.

WARNING: Danger: Risk of explosion if used in the presence of flammable substances.

WARNING: The SYSTEM 1E Processor may be used only in hospital-grade rooms when it is installed according to the applicable specification (VDE 0107, Class 1 Group C NFPA Rating).

WARNING: Connect the SYSTEM 1E Processor to hospital grade receptacle only following national and local codes (GFCI, RCBO, etc.).

WARNING: The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

WARNING: The UV System is a non-user serviceable component of the SYSTEM 1E Processor. All installation, maintenance work, and service must be carried out by STERIS or STERIS-trained service personnel only. Use only STERIS approved replacement lamps, quartz sleeves, and sensor.

WARNING: Do not position equipment so that it is difficult to disconnect the plugs from the duplex receptacle.
**Part 1:**
Electrical Requirements

**WARNING:** Connect the SYSTEM 1E Processor to hospital-grade receptacle only following national and local codes (GFCI, RCBO, etc.).

<table>
<thead>
<tr>
<th><strong>Voltage</strong></th>
<th><strong>Current</strong></th>
<th><strong>Connector</strong></th>
<th><strong>Service</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>115 VAC 60 Hz</td>
<td>15 A</td>
<td>115 VAC 60 Hz hospital-grade</td>
<td>20 A, 115 VAC dedicated circuit, terminated in a 20 A hospital-grade GFCI (Ground Fault Circuit Interrupter) duplex receptacle.</td>
</tr>
<tr>
<td>115 VAC 60 Hz</td>
<td>1.6 A Max. Current</td>
<td>115 VAC 60 Hz standard grade</td>
<td></td>
</tr>
</tbody>
</table>

The SYSTEM 1E Processor requires a potable water source with the following specifications:

**Part 2:**
Water Requirements*

**WARNING:** The performance of the SYSTEM 1E Processor has been validated and optimized with components defined by STERIS in the Operator Manual for the SYSTEM 1E Processor. Use of pre-filters that do not meet STERIS’s specifications and have not been validated by STERIS can lead to premature failure of the MaxPure Filter inside the processor. STERIS’s warranty will not apply to damage or early life failure of the MaxPure Filter resulting from the use of pre-filters that do not meet STERIS’s specifications. DO NOT USE components that do not meet STERIS’s specifications and have not been validated by STERIS.

<table>
<thead>
<tr>
<th><strong>ENTIRE SYSTEM</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pressure:</strong> Minimum 40 psig (276 kPa)</td>
</tr>
<tr>
<td><strong>Flow Rate:</strong> Minimum 2.5 gpm (9.5 Lpm)</td>
</tr>
<tr>
<td><strong>Temperature:</strong> 109 - 140°F (43 - 60°C)</td>
</tr>
<tr>
<td><strong>Connection:</strong> 0.75 in. (1.9 cm) male hose connection</td>
</tr>
<tr>
<td><strong>Quality:</strong> Potable water, ≤ 140 ppm hardness as CaCO₃, transmittance ≥ 75% at 254 nm (minimum) ≥ 81% at 254 nm (preferred)</td>
</tr>
<tr>
<td><strong>Drain:</strong> 1.25 in. (3.18 cm) I.D. (minimum) non-back pressuring drain</td>
</tr>
<tr>
<td><strong>Supply Line:</strong> 0.5 in. (1.27 cm) I.D. minimum / 0.75 in. (1.9 cm) optimum</td>
</tr>
<tr>
<td><strong>NOTE:</strong> Back flow (back siphonage) prevention by facility (check local codes)</td>
</tr>
<tr>
<td><strong>Water Usage:</strong> Approximately 8.7 gal (33 L) per processing cycle</td>
</tr>
</tbody>
</table>

**NOTE:** Three critical factors in both a successful installation and in running successful processing cycles are water inlet temperature, water inlet pressure, and water quality.

An inlet water shut-off valve should be installed before the water pre-filter assembly. The valve should be located for easy access and visibility. The installation kit for the SYSTEM 1E Processor includes hoses and hose connectors to connect from the shut-off valve to the pre-filter assembly, pre-filter assembly to UV Light Chamber, and UV Light Chamber to the Processor.

When installing the pre-filter assembly be sure to allow space for the supply line connections as well as an additional 4 in. (10 cm) clearance from the bottom of the pre-filter assembly to allow for filter changes. The pre-filter assembly includes a pressure regulator to reduce incoming water pressure to 50 psig (345 kPa).

Water quality varies by location. Water supplies with large particulate matter will cause a shorter life span of your “A” pre-filter.

In order to decrease clogging and prevent short pre-filter life span, it may be necessary to install a 20 in. (51 cm), 5.0 micron filter unit before the STERIS Pre-Filter assembly. This will remove larger water particles and extend the life of the STERIS pre-filters.

**...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...**

*Potable water should meet specifications identified in AAMI TIR 34: Water for the Reprocessing of Medical Devices. Failure to meet these specifications may result in cancelled cycles and require the installation of additional water treatment solutions by the health care facility.

Site Preparation and Installation Guide
Part 3: Water Pressure, Temperature, and Quality Check Out

WATER PRESSURE CHECKOUT

- Install water shut-off valve on inlet water line ahead of pre-filter assembly.
- Measure the water pressure from the water shut-off valve to the pre-filter assembly water inlet.
  
  **NOTE:** The pressure must read greater than 40 psig (276 kPa) but the preferred is 50 - 60 psig (345-414 kPa). If water pressure meets this specification, proceed to WATER TEMPERATURE CHECK OUT. If water does not meet this specification, proceed to LOW WATER PRESSURE or HIGH WATER PRESSURE below. **NOTE:** Water pressure near or at the lower limit of 40 psig can result in cancelled cycles caused by low pressure and fill time problems due to fluctuations in the facility pressure.
  
- **LOW WATER PRESSURE:** (<40 psig (276 kPa)): A water pump with a pressurized tank is needed to boost the water pressure.
- **HIGH WATER PRESSURE:** (>90 psig (620 kPa)): Adjust facility water pressure below maximum specification.

WATER TEMPERATURE CHECK OUT

- Allow inlet water to run for three minutes to reach maximum temperature.
- Measure the incoming water temperature after the pre-filter assembly. Temperature must be 109 - 140°F (43 - 60°C); 115 - 118°F (46 - 48°C) for optimum cycle times. If water temperature meets this specification, proceed to WATER QUALITY CHECK OUT. If water does not meet this specification, proceed to LOW WATER TEMPERATURE or HIGH WATER TEMPERATURE below. **NOTE:** Water temperatures near or at the specified limits can result in cancelled cycles caused by fluctuations in the facility water temperature.
  
- **LOW WATER TEMPERATURE:** If the water temperature is below 109°F (43°C), install a 10 - 15 gal. (45 - 68 L) fast recovery hot water heater. Supply hot water heater with hot water. Set water heater to 140 - 158°F (60 - 70°C). Run output of water heater into a quality anti-scall mixing valve. **NOTE:** Water heater and mixing valve must be installed prior to the pre-filter assembly. Call STERIS Field Service for recommendations.
  
- **HIGH WATER TEMPERATURE:** If the water temperature is above 140°F (60°C), a quality anti-scall mixing valve must be installed before the pre-filter assembly. Call STERIS Field Service for recommendations.

WATER QUALITY CHECK OUT

- Allow the water to run for three minutes to flush supply line of loose chemical deposits.
- Measure the water hardness to verify it is ≤ 140 ppm hardness measured as calcium carbonate (CaCO₃), transmittance ≥ 75% at 254 nm. This can be done internally with commercially available test kits or sent to an outside lab for verification. The STERIS Laboratory Services in St. Louis, MO, provides this service also. Call 800-345-0802, ext. 4755 or 4725. **NOTE:** Transmittance at or near the lower limit of 75% can result in cancelled cycles caused by fluctuations in the facility water quality.
  
- **WATER HARDNESS > 140 ppm or transmittance <75%:** A commercially available water conditioning system should be recommended by STERIS Laboratory Services in St. Louis, MO, and installed in the supply line.
  
- **WATER HARDNESS ≤ 140 ppm and transmittance ≥75%:** Processor will perform as expected.
To ensure proper drainage, the drain level must be lower than the counter top or workstation cart. The drain hose must slope downward and be free of kinks, loops, or hills.

The outlet of the drain hose must be above the drain water level or drain trap water level by six (6) in. (15 cm). The drain must be non-backpressuring, and if a connection is used, it must be non-restrictive. The preferred drain type is a 1.25 in. (3 cm) I.D. (minimum) standpipe.

**NOTE:** There are no special requirements for venting the drain.

**NOTE:** For multiple processor installations, a larger drain may be required.

**Unacceptable Drain Configuration**

- Drain hose forms a ‘U’ trap restricting flow
- Drain hose is not 6 inches above drain water level
- Drain hose has a loop restricting flow

**Acceptable Drain Configuration**

Upon completion of SYSTEM 1E Processor installation and check out of water pressure, temperature, quality, and drain requirements, contact STERIS Field Service at 800-333-8828 to schedule your installation check out.
WARNING: Danger: Risk of explosion if used in the presence of flammable substances.

WARNING: The SYSTEM 1E Processor may be used only in hospital-grade rooms when it is installed according to the applicable specification (VDE 0107, Class 1 Group C NFPA Rating).

WARNING: Connect the SYSTEM 1E Processor to hospital grade receptacle only following national and local codes (GFCI, RCBO, etc.).

WARNING: The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

WARNING: The UV System is a non-user serviceable component of the SYSTEM 1E Processor. All installation, maintenance work, and service must be carried out by STERIS or STERIS-trained service personnel only. Use only STERIS approved replacement lamps, quartz sleeves, and sensor.

WARNING: Do not shorten the water inlet hoses downstream of the water pressure regulator on the Pre-Filter Assembly.

WARNING: Do not adjust the preset (50 psig / 345 kPa) water pressure regulator on the A1563 Pre-Filter Assembly, doing so may cause a higher flow rate than intended and result in inadequate rinse water processing.

WARNING: Never disconnect, damage or modify the UV System wiring or cables, doing so may cause inaccurate performance monitoring, poor operation or injury.

WARNING: Do not position equipment so that it is difficult to disconnect the plugs from the duplex receptacle.

WARNING: To avoid accumulated concentration of peracetic acid vapor, use S40 Sterilant Concentrate in a well ventilated room or area.
WARNING: The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

The UV lamp power wire MUST be oriented 180° from the UV water ports and face away from the UV sensor.

...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...
HARDWARE:

**A1900/A1965 WORKSTATION CART - PRE-FILTER ASSEMBLY**
- QTY: 4 10-32 x 1/2" SS Machine Screw
- QTY: 4 #10 Flat Washer
- QTY: 4 #10 Lock Washer

**INSTALLATION STEPS:**
System components are recommended to be installed in the following order:

1. UV Light Chamber
2. UV System Electrical Ballast
3. Pre-Filter Assembly
4. SYSTEM 1E Processor
5. Hose Connections
6. Electrical Wiring

**INSTALLATION NOTES:**
- The use of workstation cart A1900 requires a UV Light Retrofit Mounting Kit, A1582, which includes hardware and a drill bit.
- If the power cords of the SYSTEM 1E Processor or the UV System are routed through a counter or shelf top, a two (2) in. (5 cm) diameter hole is required to allow passage of the plugs.
- Always unplug the UV System before service and installation.
- Never plug the UV System in without water in the UV Light Chamber.
- The UV lamp power wire MUST be oriented 180° from the UV water ports and face away from the UV sensor.
The UV lamp power wire MUST be oriented 180° from the UV water ports and face away from the UV sensor.

**WARNING:** The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...
HARDWARE:

**IMPORTANT**
DO NOT BEGIN INSTALLING THE EQUIPMENT UNTIL YOU HAVE READ AND BECOME FAMILIAR WITH ALL THE WARNINGS FOUND AT THE BEGINNING OF THIS SECTION REGARDING INSTALLATION.

Hardware not provided by STERIS

**A PRE-FILTER ASSEMBLY**
QTY: 4  #12 x 3/4" Sheet Metal Screw

**B UV LIGHT CHAMBER ABOVE PROCESSOR MOUNT**
NOTE: Assumes 5/8" wall board
NOTE: Pre-drill holes to shank diameter
QTY: 4  1/4" x 1" Tek Screw (Steel Stud Mounting)
or
QTY: 4  1/4" x 3" Lag Bolt (Wood Stud Mounting)

**B1 UV SYSTEM ELECTRICAL BALLAST ABOVE PROCESSOR MOUNT**
NOTE: Assumes 5/8" wall board
NOTE: Pre-drill holes to shank diameter
QTY: 2  1/4" x 1" Tek Screw (Steel Stud Mounting)
or
QTY: 2  1/4" x 3" Lag Bolt (Wood Stud Mounting)

**INSTALLATION STEPS:**
System components are recommended to be installed in the following order:

1. UV System (UV Light Chamber and Electrical Ballast)  
2. Pre-Filter Assembly  
3. SYSTEM 1E Processor  
4. Hose Connections  
5. Electrical Wiring

**INSTALLATION NOTES:**

- When wall studs cannot be used to mount the UV Light Chamber, use adequate blocking or strapping such as 5/8" S/S unistrut, toggle bolts or equivalent.
  
  **NOTE:** California OSHPD requires that when installing UV Light System wall mounts, they must be mounted directly into studs.

- If the power cords of the SYSTEM 1E Processor or the UV System are routed through a counter or shelf top, a two (2) in. (5 cm) diameter hole is required to allow passage of the plugs.

- Adequate space for UV lamp replacement is 30 in. (76 cm). If adequate space is not available the UV System mounting brackets allow for easy removal of the UV Light Chamber for lamp replacement.

- The UV System standard mounting configuration is vertical. If mounting the UV System horizontally, the fan assembly must be removed from the side of the UV Light Chamber, the heat-sink removed from the fan cover, and then the fan assembly without heat sink secured to the end of the UV Light Chamber using the supplied horizontal fan mounting bracket.

- Always unplug the UV System before service and installation.

- Never plug the UV System in without water in the UV Light Chamber.

- The UV lamp power wire MUST be oriented 180° from the UV water ports and face away from the UV sensor.
WARNING: The UV System and the SYSTEM 1E Processor must be installed by qualified personnel and according to correct national and local electrical safety codes. Failure to do so can result in shock hazard that could endanger the health of the operator.

The UV lamp power wire MUST be oriented 180° from the UV water ports and face away from the UV sensor.

...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...
Hardware not provided by STERIS

**A. PRE-FILTER ASSEMBLY**
- QTY: 4  #12 x 3/4" Sheet Metal Screw

**B. UV LIGHT CHAMBER BELOW PROCESSOR MOUNT**
- QTY: 4  #12 x 1" SS Sheet Metal Screws
- QTY: 4  #12 SS Flat Washers
- QTY: 2  5" high "L" Bracket

**C. UV SYSTEM ELECTRICAL BALLAST BELOW PROCESSOR MOUNT**
- QTY: 2  1/4" x 1" SS Sheet Metal Screws
- QTY: 2  1/4" x 1" SS Flat Washers

**INSTALLATION STEPS:**
System components are recommended to be installed in the following order:

1. Pre-Filter Assembly **A**
2. UV System Electrical Ballast **C**
3. UV Light Chamber **B**
4. SYSTEM 1E Processor
5. Hose Connections
6. Electrical Wiring

**INSTALLATION NOTES:**
- If the power cords of the SYSTEM 1E Processor or the UV System are routed through a counter or shelf top, a two (2) in. (5 cm) diameter hole is required to allow passage of the plugs.
- Adequate space for UV lamp replacement is 30 in. (76 cm). If adequate space is not available the UV System mounting brackets allow for easy removal of the UV Light Chamber for lamp replacement.
- The UV System standard mounting configuration is vertical. If mounting the UV System horizontally, the fan assembly must be removed from the side of the UV Light Chamber, the heat-sink removed from the fan cover, and then the fan assembly without heat sink secured to the end of the UV Light Chamber using the supplied horizontal fan mounting bracket.
- Always unplug the UV System before service and installation.
- Never plug the UV System in without water in the UV Light Chamber.
- The UV lamp power wire **MUST** be oriented 180° from the UV water ports and face away from the UV sensor.
» Water Flow Diagram

⚠️ WARNING: Do not shorten the water inlet hoses downstream of the water pressure regulator on the Pre-Filter Assembly.

...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...
» Electrical Wiring Diagram

**WARNING:** Never disconnect, damage or modify the UV System wiring or cables, doing so may cause inaccurate performance monitoring, poor operation or injury.

...ALWAYS CHECK NATIONAL AND LOCAL CODES PRIOR TO INSTALLATION...
Protect your STERIS equipment with cost-effective extended services agreements

The best way to prevent costly downtime due to equipment malfunction is with regularly scheduled maintenance performed by qualified technicians trained in the latest technology. STERIS offers annual maintenance agreements to give your capital equipment planned maintenance that will help correct little problems before they become big ones. STERIS Engineering Service combines the precise maintenance program and factory-trained technicians to assure you of maximum productivity.

Our STERIS service technicians thoroughly inspect, clean, adjust and provide all necessary maintenance to keep your equipment performing according to factory specifications, all at an established economical rate that you can plan for.

We have more than 5,000 customers who are benefiting from STERIS maintenance agreements. Why not join them? Obtain complete details by calling 1-800-333-8828, or writing to:

STERIS Corporation
5960 Heisley Road
Mentor, OH 44060-1834 • USA
440-354-2600 • 800-548-4873