

STERO

Undercounter Dishwasher

MODELS:

SU-L ML-130239
SU-H ML-130238



Undercounter Glasswasher

MODELS:

SG-42 ML-130259
SG-36 ML-130260



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Installation, Operation and Care of SU SERIES DISHWASHERS

SAVE THESE INSTRUCTIONS



GENERAL

The Stero SU dishwashers are fully automatic, front-loading dishwashing machines. The machines are capable of doing 31-33 racks per hour.

All SU Series dishwashers shut down automatically 4 hours after last use to conserve energy.

All SU-H Series dishwashers include rinse assurance technology to insure proper hot water temperature during rinse.

Standard equipment includes electronic controls, drain pump, rinse pump, chemical pumps, fill hose, and drain hose.

MODEL DESCRIPTION

SU-L Fresh water rinse; low-temperature, chemical-sanitizing models for use with 6% sodium hypochlorite solution (bleach) as the sanitizing agent*. Note: If 8.40% bleach is to be used, contact your local service provider or your chemical supplier to change the sanitizer pump settings. (Charges may apply)

SU-H Fresh water rinse with a built-in 70°F rise booster heater. This allows an incoming water temperature of 110°F.

* Sanitizing agent must be used in accordance with the EPA-registered label use instructions.

Installation, Operation and Care of

SG GLASSWASHER

SAVE THESE INSTRUCTIONS



GENERAL

The Stero SG glasswasher is fully automatic and front-loading. The machine is capable of doing 34 racks per hour.

All SG glasswashers shut down automatically 4 hours after last use to conserve energy.

Standard equipment includes electronic controls, drain pump, rinse pump, chemical pumps, fill hose, and drain hose.

MODEL DESCRIPTION

SG Fresh water rinse; low-temperature, chemical-sanitizing models for use with 6% sodium hypochlorite solution (bleach) as the sanitizing agent*. Note: If 8.40% bleach is to be used, contact your local service provider or your chemical supplier to change the sanitizer pump settings. (Charges may apply)

* Sanitizing agent must be used in accordance with the EPA-registered label use instructions.

START-UP CHECKLIST

BEFORE POWER IS APPLIED

- 1. Check all utility service connections for tightness.
- 2. Check for any loose hardware, level machine, check for proper form fit of side panels and top control lid.
- 3. Check door closing operation.
- 4. Check free rotation of wash/rinse arms, remove any inside packing material.
- 5. Check all wash strainers in place (dishracks slide in freely).
- 6. Check proper routing of all chemical tubing out rear of machine to bottle (red – detergent, blue – rinse aid, white – sanitizer)

AFTER POWER IS APPLIED AND WATER TURNED ON

- 1. Verify correct supply voltage and phase to machine. Confirm with data plate.
- 2. Turn machine on, start warming up/fill cycle.
- 3. Wait for "Ready" status for both holding/booster tank and sump.
- 4. Check for leaks.
- 5. Verify proper water levels.

RUN CYCLE(S) AND CHECK THE FOLLOWING

- 1. Check for proper operation of keypad and display illumination.
- 2. Check operation of door interlock switch, and good seal of door gasket.
- 3. Check for proper pump motor operation and check for leaks.
- 4. Verify proper water flow out drain, during drain portion of cycle.
- 5. Verify proper operation of rinse pump (proper flow of water out final rinse arms).
- 6. Verify final rinse temperature.
- 7. Test bleach concentration, while running bleach rinse cycle (gold only) (50-100 ppm).

REINSTALL ANY PANELS REMOVED

INSTALLATION

UNPACKING

Immediately after unpacking the dishwasher, check for possible shipping damage. If this machine is found to be damaged, save packaging material and contact the carrier within 15 days of delivery.

LOCATION

Prior to installation, verify that the electrical supply agrees with the specifications on the machine data plate, which is located on the top of the door.

Steam generated from normal operation may escape from the door. Wood, laminates, veneers, etc. are unsuitable materials for use in areas exposed to dishwasher steam and detergents. Stainless steel or other moisture-resistant shields are recommended for surfaces adjacent to dishmachine sides and top.

LEVELING

The machine must be level to operate properly. Place the dishwasher in its operating location. Level the machine before any connections are made. Using a carpenter's level placed diagonally on the rack tracks, level the machine front to back and side to side by threading the adjustable feet in or out. After leveling the machine, cover the exposed threads of the adjustable feet with black rubber tubing supplied. (See separate instructions furnished with machine.)

WATER REQUIREMENTS

Proper water quality can improve ware washing performance by reducing spotting, enhancing effectiveness of labor and extending equipment life. Water conditions vary from one location to another. The recommended proper water treatment for effective and efficient use of this equipment will also vary depending on the local water conditions. Ask your municipal water supplier for details about your local water conditions prior to installation.

Recommended water hardness is 3 grains of hardness per gallon or less. Higher hardness may cause excessive formation of lime scale. Water hardness above 3 grains per gallon requires water treatment. Water treatment has been shown to reduce costs associated with machine cleaning, reduce deliming of the dishwasher, and reduce detergent usage in the dishwasher.

NOTICE High iron levels in the water supply can cause staining and may require an iron filter. High chloride levels in the water supply can cause pitting and may require a chloride removal system. Contact your local water treatment professional for proper water treatment.

Sediment may require a particulate filter. Dissolved solids may require water treatment such as a water softener, reverse osmosis system, etc. Contact your local water treatment professional for proper water treatment.

If an inspection of the dishwasher or booster heater reveals lime buildup after the equipment has been in service, water treatment is recommended. If a water softener is already in place, ensure there is a sufficient level of salt.

A water hammer arrestor (meeting ASSE-1010 Standard or equivalent) should be installed (supplied by others) in the common water supply line at the service connection.

INSTALLATION *(continued)*

The plumber connecting this machine is responsible for making certain that water lines are THOROUGHLY FLUSHED OUT BEFORE connecting to the dishwasher. This “flush-out” is necessary to remove all foreign matter, such as chips (resulting from cutting or threading of pipes) pipe joint compound from the lines; or, if soldered fittings are used, bits of solder or cuttings from the tubing. Debris, if not removed, may lodge in the dishwasher’s plumbing components and render them inoperative. Manual valves or solenoid valves fouled by foreign matter and any expenses resulting from this fouling are NOT the responsibility of the manufacturer and associated repair costs are not covered under warranty.

Water supply requirements are as follows:

Model	Description
SU-L	120°F Minimum
SU-H	110°F Minimum
SG	120°F Minimum

Required flowing water pressure to the dishmachine is 15-65 PSIG. If pressures higher than 65 PSIG are present, a pressure regulating valve must be installed in the water line to the dishmachine (by others). If flowing pressure is less than 15 psi, improper machine operation may result. The dishmachines are equipped with a pumped rinse system; therefore, a water pressure gauge is not required and is not supplied with the machine.

NOTICE The water pressure regulator must have a relief bypass. Failure to use the proper type of pressure regulator may result in damage to the unit.

A manual shutoff valve (not supplied) should be installed upstream of the fill hose to accommodate servicing the machine.

It is recommended that a line strainer (not supplied) be installed in the supply line between the manual shutoff valve (not supplied) and the connection point on the machine. Make plumbing connections with ½" minimum copper piping OD (¾" recommended), with a ¾" male garden hose fitting (not supplied). See installation diagram,s, pages 12-14.

PLUMBING CONNECTIONS

WARNING Plumbing connections must comply with applicable sanitary, safety, and plumbing codes.

Drain

A drain hose, 5/8" inside diameter and 6' long, is provided. This should be securely plumbed into a drain. Use care not to kink hose. See installation diagrams, pages 12-14. Drain must have a minimum flow capacity of 5 gallons per minute.

INSTALLATION *(continued)*

ELECTRICAL CONNECTION

⚠ WARNING Electrical and grounding connections must comply with the applicable portions of the National Electrical Code and/or other local electrical codes.

⚠ WARNING Disconnect the electrical power to the machine and follow lockout/tagout procedures.

ELECTRICAL DATA

Complied in accordance with the National Electrical Code NFPA-70, latest addition.

NOTICE For supply connections, use copper wire only rated at 90°C minimum.

Model	Volts/Hertz/Phase	Minimum Supply Circuit Conductor Ampacity	Maximum Protective Device Ampacity
SU-L	120/60/1	20	20
SU-H	120/208-240 (3W)/60/1*	40	40
SG	120/60/1	20	20

* The (3W) systems require three power wires that include a current carrying neutral. An additional fourth wire must be provided for machine ground.

Refer to the data plate on the door handle of the machine and the electrical label on the back side of the lower front panel for proper selection.

CONNECTION METHOD

1. Remove the lower front panel by removing the two screws at the bottom of the panel (*Figure 1*).
2. Open door of dishwasher and remove the two left screws and the top right screw (*Figure 2*). Pull top of unit forward approximately 1" and remove the left side panel.

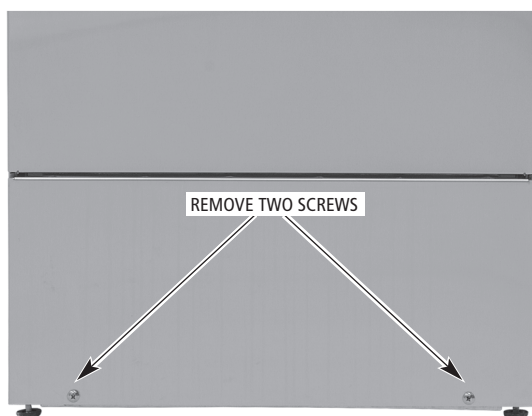


Figure 1



Figure 2

INSTALLATION *(continued)*

3. A hole for 1" trade size conduit is supplied at the lower right in the back of the machine (*Figure 3*). If necessary due to space requirements, remove the knockout and use a 45° fitting.

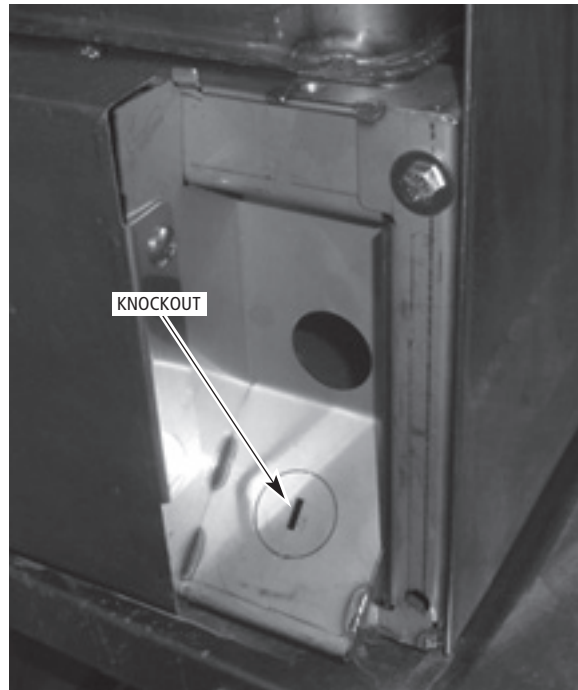


Figure 3

4. Install 1" trade size conduit and fitting. Leave at least four feet of electrical line between wall connection and machine. This allows machine to be pulled away from the wall for cleaning and/or servicing.
5. Feed wires thru base of unit to front of unit. At least 24" and not more than 28" of the required wire size must extend from the end of the conduit fitting.
6. Make electrical connections according to wiring diagram supplied with the machine and secure wires to the machine service connection. Keep excess wire in the base of the unit to a minimum.
7. Replace the left side panel, top of unit, and lower front panel. Re-install the three screws located behind the door and the two screws at the bottom of the front panel.

INSTALLATION *(continued)*

DETERGENT AND RINSE AID

Use only commercial-grade detergents recommended by your chemical professional. Do not use detergents formulated for residential dishwashers.

SU UNDERCOUNTER ONLY:

The detergent and rinse aid pump "ON" times are factory-set. If adjustments are required, contact your local service provider or your chemical supplier.

Place the detergent and rinse aid containers (which are obtained from an independent supplier) in a location where the delivery tubes will reach them.

Remove the detergent bottle cap and put the *red* delivery tube in the detergent container.

Remove the rinse aid bottle cap and place the *blue* delivery tube in the rinse aid container.

Be sure to push the delivery tube standpipes completely to the bottom of each container. Check to make sure there are no obstructions or kinks in the delivery tubes.

SG GLASSWASHER ONLY:

Place the detergent and rinse aid containers (which are obtained from an independent supplier) under the glasswasher (or nearby for shorter version).

Remove the detergent bottle cap and put the *red* delivery tube in the detergent container by snapping the bottle connector onto the container.

Remove the rinse aid bottle cap and place the *blue* delivery tube in the rinse aid container by snapping the bottle connector onto the container.

Be sure to push the delivery tubes completely to the bottom of each container. Check to make sure there are no obstructions or kinks in the delivery tubes.

CHEMICAL SANITIZER

NOTICE Items such as pewter, aluminum and silver will be attacked by sodium hypochlorite (bleach). Therefore, chemical-sanitizing dishwashers should not be used to wash such items.

The chemical sanitizer pump is factory-set for use with 6% sodium hypochlorite solution.

On SU-L & SG models, place a 1-gallon bottle of 6% or 8.40% sodium hypochlorite solution (bleach) in a suitable location no higher than 10 inches off the floor. Do not pre-mix sanitizing solution with water or any other liquid.

WARNING Never premix a wetting agent with the sanitizing solution. Mixing may cause hazardous gas to form.

Remove the sanitizer bottle cap and place the *white* delivery tube in the sanitizer container. Be sure to push the delivery tube standpipe completely to the bottom of the container. Check to make sure there are no obstructions or kinks in the delivery tube.

Frequently check your sanitizer bottle to make sure there is a sufficient chemical supply.

INSTALLATION *(continued)*

CHECKING SANITIZER CONCENTRATION

Verify there is sufficient chemical supply in the sanitizer bottle and that the delivery tube standpipe is inserted completely to the bottom of the chemical container. Place a glass rack, with glasses, in the machine.

Press the WASH key to run a cycle. At the end of the cycle, open the door.

Follow the directions precisely that are on the litmus paper vial and test the water on the surface of the bottom of the glasses. Concentration should be 50 p.p.m. minimum to 100 p.p.m. maximum.

If reading is incorrect, contact your chemical provider for adjustments.

PRIMING CHEMICAL PUMPS

When a chemical becomes empty, the priming operation starts automatically the next time the machine is turned on or a wash cycle is started. Note that the initial prime time for all pumps (Detergent, Rinse Agent, and Sanitizer) is 60 seconds. If the chemical is not sensed within 60 seconds, the add chemical indicator will flash. After the chemical is sensed, the indicator in the display turns off; and the pump continues to prime for 10 seconds to allow the chemicals to reach the machine. If all chemicals are empty, the sanitizer will prime first followed by detergent. Only one chemical pump will run at a time.

If chemicals are not sensed after three consecutive priming operations, the add chemical indicator will flash and priming is cancelled. The next time a wash cycle is started, the add chemical indicator will continue to flash. Verify that the chemical bottles are not empty and that the delivery tube standpipes are inserted completely to the bottom of the containers.

The priming operation can be reset by turning the dishwasher off, then back on.

If the chemical bottles are not empty and the delivery tube standpipes are inserted correctly, then the chemical sensor or pumps may have malfunctioned; contact your local chemical provider.

INSTALLATION (continued)

SU UNDERCOUNTER DISHWASHER INSTALLATION DIAGRAM

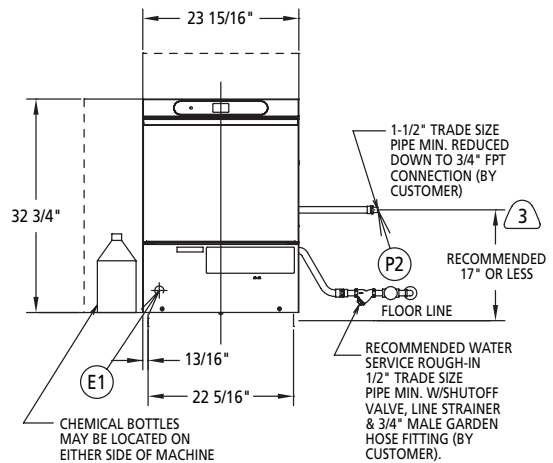
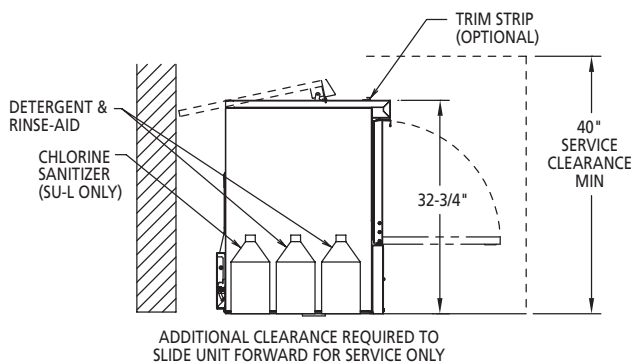
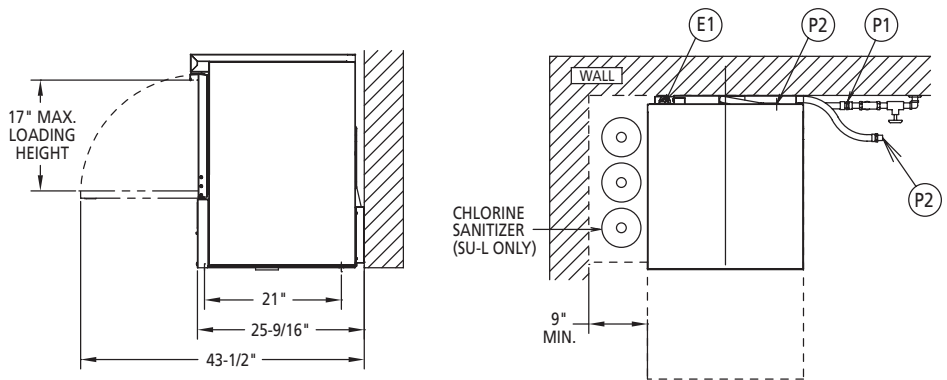
NOTICE

Required flowing water pressure to the dishmachine is 15-65 PSIG. If pressures higher than 65 PSIG are present, a pressure regulating valve must be installed in the water line to the dishmachine (by others).
 Pressure gauge not required on pumped rinse machines.

Important: Chemical containers should be placed no higher than 10" above floor.

If chemical containers are to be placed in cabinet adjacent to machine, a 1/2" dia. hole is required in the cabinet to run chemical supply line.

Use only 6% or 8.4% sodium hypochlorite (liquid bleach) as sanitizing chemical to insure proper operation of dishmachine (SU-L only).



NOTES:

1. All vertical machine dimensions taken from floor may be increased by 1".
2. Moist air escapes from the door. Use only moisture resistant materials adjacent to dishmachine sides and top.
3. A vent hood is not recommended above the undercounter dishmachine since it does not produce excessive vapors.

PLUMBING NOTES:

1. Water hammer arrestor (meeting ASSE-1010 Standard or equivalent) to be supplied (by others) in common water supply line at service connection.
2. Recommended water hardness to be 3 grains or less for best results.
3. If drain hose is looped above a sink, the loop must not exceed 38" AFF.

WARNING

Electrical and grounding connections must comply with the applicable portions of the National Electrical Code and/or other local electrical codes.

Plumbing connections must comply with applicable sanitary, safety and plumbing codes. Drain and fill line configurations vary, some methods are shown on this drawing.

CAUTION: CERTAIN MATERIALS, INCLUDING SILVER, ALUMINUM AND PEWTER ARE ATTACKED BY SODIUM HYPOCHLORITE (LIQUID BLEACH) IN THE CHEMICAL SANITIZING DISHWASHER MODE OF OPERATION. WATER HARDNESS MUST BE CONTROLLED TO 4-6 GRAINS FOR BEST RESULTS.

CONNECTION INFORMATION
(AFF = ABOVE FINISHED FLOOR)

LEGEND

- E1 ELECTRICAL CONNECTION: 1-3/8" DIA. HOLE FOR 1" TRADE SIZE CONDUIT; 4-5/8" AFF
- P1 SINGLE FILL AND RINSE CONNECTION: 3/4" FEMALE GARDEN HOSE FITTING ON 6' LONG HOSE SUPPLIED WITH MACHINE;
- P2 DRAIN CONNECTION: 5/8" BARB FITTING WITH 6' LONG HOSE SUPPLIED WITH MACHINE.

WARNING

Do not premix other chemicals and sodium hypochlorite (liquid bleach).
 Mixing may cause hazardous gas to form (SU-L only).

MODEL	VOLTS/HERTZ/PHASE	RATED AMPS	MIN SUPPLY CKT CONDUCTOR AMPACITY	MAX PROTECTIVE DEVICE
SU-H	120/208-240(3W)/60/1*	30.5	40	40
SU-L	120/60/1	13.4	20	20

NOTE: FOR SUPPLY CONNECTIONS, USE COPPER WIRE ONLY RATED AT 90°C MINIMUM
 ACCESSORY CORD KIT AVAILABLE FOR ALL MODELS.

* THIS SYSTEM REQUIRES THREE POWER WIRES WHICH INCLUDES A CURRENT CARRYING NEUTRAL, AN ADDITIONAL FOURTH WIRE MUST BE PROVIDED FOR A MACHINE GROUND.

SHIPPING WEIGHTS		
MODEL	NET WEIGHT	DOMESTIC SHIPPING WEIGHT
SU-H	150 lbs.	170 lbs.
SU-L	150 lbs.	170 lbs.

OVERALL DIMENSIONS: 32-1/2" H x 23-15/16" W x 25-9/16" D

INSTALLATION *(continued)*

SG UNDERCOUNTER GLASSWASHER INSTALLATION DIAGRAM

INSTALLATION *(continued)*

SG UNDERCOUNTER GLASSWASHER INSTALLATION DIAGRAM

PARAMETERS MENU TABLE

Parameter Name	Description	Possible Values	Default Value
Detergent Pump	Enables or disables the detergent pump.	Disabled or Enabled	Enabled
Rinse Aid Pump	Enables or disables the rinse aid pump.	Disabled or Enabled	Enabled
Wash Cycle	Sets the cycle duration.	Light, Normal, or Heavy	Normal
Low Temp Alarms (SU-H Model Only)	Enables or disables a visual alert on the display that indicates that the Final Rinse water temperature is below the required minimum of 180°F (82°C). When enabled, a message will display notifying the user of this condition after three consecutive cycles do not reach the required final rinse temperature. However, machine operation will not change and ware will continue to wash as expected. After the temperature increases past the minimum, the message stops. When disabled, there will be no extra message indicating a low temperature event; however, the temperature display will still show the current Final Rinse water temperature.	Disabled or Enabled	Disabled
Delime	Enables or disables the alert to delime option.	Disabled or Enabled	Enabled
Temperature Units	Sets the display units to either Fahrenheit or Celcius.	Fahrenheit or Celsius	Fahrenheit
Add Chemical Alert	Enables or disables an audible alert if chemical is not being detected.	Disabled, Visual, or Audio and Visual	Audio and Visual
End Cycle Audio Alert	Enables or disables an audible alert at the end of a cycle.	Disabled or Enabled	Disabled
Language	Sets the language on the display to either English or French.	English (US) or French (Canada)	English (US)
Exit Menu	Press ENT to exit the Parameters Menu and return to the Manager Menu. Any settings that were changed are saved.		

OPERATION

NOTICE Items such as pewter, aluminum and silver will be attacked by sodium hypochlorite (bleach). Therefore, chemical-sanitizing dishwashers should not be used to wash such items.

If your dishwasher is a chemical-sanitizing model, frequently check the sanitizer bottle to make sure there is a sufficient chemical supply.

BEFORE FIRST USE

This machine must be cleaned after installation and before being put into operation. (See Cleaning.)

CONTROLS



Figure 4









OPERATION *(continued)*

OPERATING THE STERO DISHWASHER & GLASSWASHER

Do This	Display Shows	Remarks
Press ON.	Model number.	Dishwasher performs self-check. This takes 5 seconds.
	FILL and fill icon lit; sump temperature displayed when machine is filling. WARMING UP and warming up icon are displayed when booster is pre-heating. This preheat could take up to 15 minutes.	Dishwasher fills with water. When filled, pump turns on for 10 seconds. If door is opened during fill cycle, fill will stop. After door is closed, the process continues where it stopped.
	During fill, sump temperature is displayed.	When filled, machine will maintain an idle state. Heat is maintained in both sump and/or booster.
Open door; slide rack of dishes into dishwasher. Close door.	READY lit and sump temperature displayed.	Detergent will be added automatically during wash cycle. Rinse Aid and Sanitizer will be added automatically during rinse cycle. (NOTE: Sanitizer only used on SU-L & SG models.)
Press WASH.	WASH and wash icon lit; sump temperature displayed during wash cycle. RINSE and rinse icon lit; rinse temperature displayed during rinse cycle.	Machine initiates a wash and rinse cycle. If door is opened during wash, rinse, or drain cycle, cycle will continue at point where door was opened upon closing door. If POWER is pressed during cycle, machine will drain and shut down.
When cycle is complete, reload machine for next wash/rinse cycle; or, if not in use, machine will maintain idle mode.	READY lit and sump temperature displayed.	Machine will drain and shut down if the four hour idle shutdown time is reached.
At the end of the day, press POWER.	DRAIN and SHUTDOWN IN PROGRESS are displayed; then the display shuts down.	When POWER key is pressed, machine will drain and shut down.

OPERATION *(continued)*

DIAGNOSTIC/ERROR MESSAGES

Error	Display		Description
Door Open	Door Open		Displayed when the door of the machine is opened.
Low Rinse Temperature	LOW RINSE TEMP		After two consecutive low temperatures, if problem occurs on the third consecutive cycle, the error will display. The machine will continue to run cycles.
Low Rinse Temperature (10 In A Row)	LOW RINSE TEMP Check Water Input		If the Low Rinse Temperature error occurs for 10 consecutive cycles, the error will change. The machine will continue to run cycles.
Wash Thermistor Error	WASH TEMP SENSOR Service Required (Service Phone Number) OPEN or SHORT		Error displayed if wash temperature probe is out of range. The machine will continue to run cycles.
Booster Thermistor Error	BOOSTER TEMP SENSOR Service Required (Service Phone Number) OPEN or SHORT		Error displayed if booster temperature probe is out of range. The machine will continue to run cycles. (SU-H model only.)
Final Rinse Thermistor Error	RINSE TEMP SENSOR Service Required (Service Phone Number) OPEN or SHORT		Error displayed if final rinse temperature probe is out of range. The machine will continue to run cycles.
Low Water In Booster (Time Out Within Any Cycle)	FILL ERROR Service Required (Service Phone Number)		Error displayed if the unit times out before the unit is completely filled. The machine will not operate and will only allow power down.
Drain Error	DRAIN ERROR Service Required (Service Phone Number)		Error displayed if the water level in the unit will not come up. The machine will not operate and will only allow power down.
Sump Level Error	SUMP LEVEL SENSOR Service Required (Service Phone Number) OPEN or SHORT		Error displayed if sump pressure switch is out of range. The machine will not operate and will only allow power down.
Booster Level Error	BOOSTER LEVEL SENSOR Service Required (Service Phone Number) OPEN or SHORT		Error displayed if booster pressure switch is out of range. The machine will not operate and will only allow power down.

OPERATION *(continued)*

WASH/RINSE CYCLE TIMES

SU-L

Wash	85 Seconds
Drain	18 Seconds Max
Rinse	12 Seconds

SU-H

Wash	85 Seconds*
Drain	18 Seconds Max
Rinse	12 Seconds
Dwell	5 Seconds

SG

Wash	85 Seconds
Drain	18 Seconds Max
Rinse	10 Seconds

* Maximum wash time may vary, depending on operation voltage and incoming water temperature for 70°F rise on SU-H machines.

PREPARATION

Make sure the coarse (*Figure 5*) and fine (*Figure 6*) strainers are in place and free of debris. Ensure that the coarse strainer is installed with the handle towards the front of the machine. Check both wash arms and rinse arms to make sure they spin freely and are not clogged.

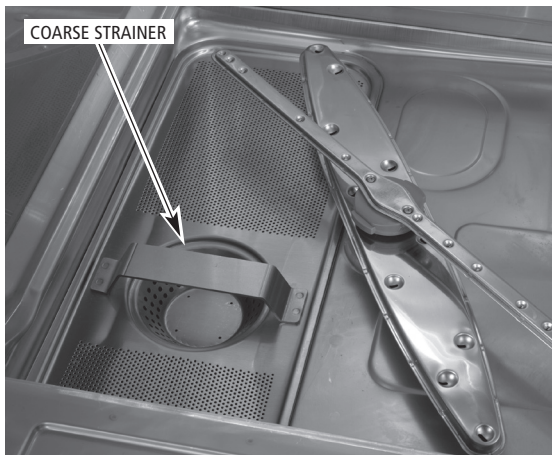


Figure 5



Figure 6

Dishes must be scraped and/or rinsed to remove food particles and other debris. Never use steel wool on ware to be loaded into the dishwasher. Place dishes in a rack. Do not stack dishes on top of each other as water must have free access to all sides of every dish. Stand plates edgewise in a peg-type rack (*Figure 7*). Cups, glasses and bowls should lay upside down in an open or compartment-type rack (*Figure 7*). Silverware and other small pieces should lay loosely on the bottom of a flat-bottom rack. Do not allow foreign objects to enter the unit, especially metallic contaminants such as staples and paper clips.

Check to see if any detergent, rinse aid or sanitizer chemicals need to be replenished. Use only commercial-type detergents, as prescribed by your chemical professional.

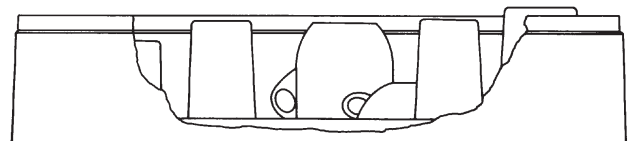
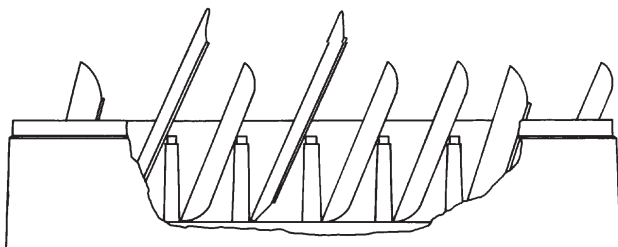


Figure 7

CLEANING

This machine must be cleaned at least once each working day. Use only products formulated to be safe on stainless steel.

1. Press **POWER**. The machine will drain. When the display is no longer lit, open the door and remove any debris from the bottom of the tank. Do not allow food soil to accumulate on the tank bottom.
2. Remove the lower rinse arm by unscrewing the thumb nut (*Figure 8*). Remove the lower wash arm by pulling the arm off the shaft. Remove the upper rinse and wash arms in the same manner. Remove the coarse and fine strainers (see *Figures 5 and 6*). Thoroughly clean these items in a sink. Remove debris from wash/rinse arm nozzles.
3. With a damp cloth, wipe the interior of the machine. **DO NOT** use steel wool. Wipe the exterior of the machine. Remove any remaining debris with a mild cleanser formulated for stainless steel and a soft cloth or brush.
4. Replace the fine and coarse strainers. Reinstall the lower wash arm by pushing it down on the shaft. Place the lower rinse arm on the shaft and securely tighten the thumb nut. Spin arms to make sure they spin freely. Repeat this procedure with the upper wash and rinse arms.
5. Use a soft, damp cloth or sponge and mild cleanser to clean the control keypad and display. **DO NOT** use abrasive or harsh cleaners or scouring pads.
6. Leave the door ajar overnight to allow the interior to air out and dry. The door design allows for the door to remain partially open and can be used to vent the machine at the end of the day.

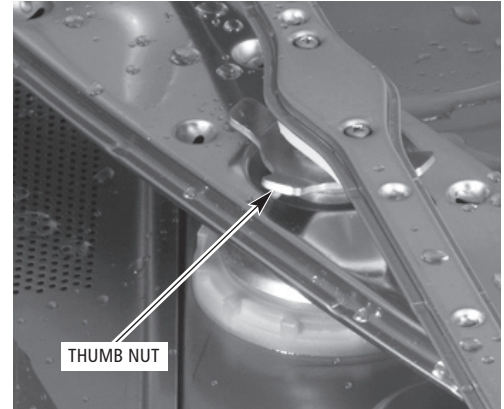


Figure 8

DO'S AND DON'TS FOR YOUR NEW STERO DISHWASHER

DO assure proper water hardness.

DO prescrape dishes thoroughly.

DO use only detergents recommended by your chemical professional.

DO, at the end of the day, thoroughly clean the machine, rinse and dry. (Leave door open.)

DO use only products formulated to be safe on stainless steel.

DO NOT use detergents formulated for residential dishwashers.

DO NOT allow food soil to accumulate on the tank bottom.

DO NOT exceed chemical manufacturer's recommended concentrations for detergent, sanitizer, rinse aid or lime scale remover.

DO NOT use steel wool to clean ware or warewasher surface.

DO NOT allow foreign objects to enter the unit, especially metallic contaminants.

MAINTENANCE

Maintenance and regular care is important to maintain optimal results with your Stero warewasher.

DELIMING

⚠ WARNING Deliming solution, rinse agents or any other kind of acid must not come in contact with bleach or rinse solution containing bleach used in chemical-sanitizing machines. Mixing may cause hazardous gas to form. This entire procedure must be followed step by step for safe and satisfactory results.

NOTICE Do not allow the deliming agent to remain in the machine longer than recommended by the deliming agent manufacturer.

DELIME THE DISHWASHER ON A REGULAR BASIS AS REQUIRED. The regularity will depend on mineral content of the supply water. Deliming should be done when you can see clear signs of lime deposits (a white, chalky substance) on the inside walls and on the wash arms.

If deliming is necessary, a deliming agent (such as Lime-A-Way® or LSR®) should be used for best results. Contact your chemical provider for recommendations.

LUBRICATION

The pump motor has permanently sealed bearings and requires no lubrication.

TROUBLESHOOTING

This section outlines various symptoms and possible causes that may be encountered in the event of abnormal machine operation. If symptoms persist after possible causes have been checked, service may be required.

Symptom	Possible Causes
No machine operation (no display).	<ol style="list-style-type: none"> 1. Machine OFF – turn machine ON. 2. Blown fuse or circuit breaker off at power supply. 3. Cord not plugged in (corded models only)
No machine operation (with display).	<ol style="list-style-type: none"> 1. Display: "DOOR OPEN" – open and close door. If problem persists, contact your local service provider. 2. See "Machine will not fill or will not fill high enough".
Dishes not clean.	<ol style="list-style-type: none"> 1. Strainers clogged causing inadequate water supply to pump – clean according to instructions. (See CLEANING.) 2. Obstruction in wash arm(s) or wash arms will not turn – clean according to instructions. (See CLEANING.) 3. Wash and/or rinse arms will not turn – check that they spin freely. 4. Detergent dispenser may be clogged. 5. Soil quantity – scrape dishes before cycle. 6. Improper rack loading. (See PREPARATION.) 7. Low water – check water supply. 8. Water temperature too low – note wash temperature on display during WASH; should be above 120°F for chemical sanitizing machines and above 150°F for high temperature machines. 9. Incoming water supply turned off.
Spotting of silverware, glasses, or dishes.	<ol style="list-style-type: none"> 1. Improperly loaded racks. 2. Water temperature too low. 3. Improper type or concentration of detergent – contact your chemical representative. 4. Hard water – install a water softener; use a rinse agent. 5. Insufficient fill – check water supply.
Chemicals not feeding.	<ol style="list-style-type: none"> 1. Low on chemicals – check levels. 2. Air leak at feeder hose connections – check insertion of quick connect fittings and wire ties at tube to tube connections. 3. Tubes kinked – check for smooth bends.
Food soils remain in dishwasher.	Follow daily cleaning instructions. (See CLEANING.)
Appearance of rust in machine.	<ol style="list-style-type: none"> 1. Ensure steel wool is not used to clean machine. 2. May be due to high iron content in water supply.

TROUBLESHOOTING *(continued)*

Symptom	Possible Causes
Unexpected results on dishes.	<ol style="list-style-type: none"> 1. Etching – usually caused by any combination of high temperatures, soft water, soft glass, or high alkaline washing solutions. 2. Tarnishing – avoid washing silver, silver plates, and pewter in chemical sanitizing machines. 3. Pitting – stainless steel may pit with lengthy contact of foods containing salt, fruit juices, vinegar, etc. Wash immediately. 4. Black or gray marks – may have been rubbed with aluminum. 5. Brown stains – may be due to high iron content in water supply. 6. Chipping – improper loading or ware is too delicate. 7. Fading of china patterns – usually due to high water temperature and strong detergent. Check that china is dishwasher compatible. 8. Wooden ware damage – avoid washing in dishwasher. 9. Rust on cast iron – seasoning is lost in dishwasher. Avoid washing in dishwasher. 10. Plastic ware distortion – high temperatures. Check plastic ware's instructions.
Low temperature readings.	<ol style="list-style-type: none"> 1. Low water supply temperature – make sure it meets the recommended minimum temperature. 2. Rapid cycle use – if incoming water temperature is low and cycle use rate is high, the hot water supply may be insufficient to meet the demand. 3. Heavy ware load cools wash water – do not overload racks. 4. Booster heater or sump heater set low – contact your local service provider.
Machine will not fill or will not fill high enough.	<ol style="list-style-type: none"> 1. Low water pressure – check for clogged hose strainer; ensure the site water pressure meets minimum flow pressures. 2. No water flow – main water supply valves may not be working.
Machine fills too high or leaks from door.	<ol style="list-style-type: none"> 1. Machine not level. (see LEVELING.) 2. Fill solenoid valve leaking – power the dishwasher OFF; if water continues to flow into the machine, contact your local service provider.
Machine will not drain.	<ol style="list-style-type: none"> 1. Drain pipes restricted – check dishwasher drain line for kinks; ensure proper drain rate is allowed from plumbing. 2. Power machine OFF. Wait several seconds and then power back ON. Repeat this procedure twice if necessary. If problem persists, contact your local service provider.
Some water occasionally drips out of rinse arms (high temperature dishwashers only).	This is normal due to expansion of water being heated in the booster tank.

