

TABLE OF CONTENTS

Section	Paragraph	Title	Page No.	Grid
1		GENERAL INFORMATION	1-1	A-5
	1-1	APPLICATION AND DESIGN	1-1	A-5
2		OPERATING INSTRUCTIONS	2-1	A-12
	2-1	GENERAL	2-1	A-12
	2-2	BEFORE OPERATING THIS EQUIPMENT	2-1	A-12
	2-3	OPERATING THE EQUIPMENT	2-1	A-12
3		INSPECTION AND PREVENTIVE MAINTENANCE	3-1	A-14
	3-1	GENERAL	3-1	A-14
	3-2	PERFORMANCE VERIFICATION	3-1	A-14
	3-3	PREVENTIVE MAINTENANCE	3-2	B-1
4		TROUBLESHOOTING	4-1	B-4
	4-1	HELPFUL HINTS	4-1	B-4
	4-2	THE TROUBLESHOOTING CHART — EXPLANATION OF ITS CONTENTS	4-1	B-4
		TABLE 4-1. TROUBLESHOOTING CHART	4-2	B-5
5		COMPONENT ADJUSTMENT, REPAIR OR REPLACEMENT	5-1	B-12
	5-1	GENERAL	5-1	B-12
	5-2	WASH WATER PUMP SEAL REPLACEMENT	5-1	B-12
	5-3	SOLENOID VALVES	5-1	B-12
	5-4	WATER-TEMPERATURE BOOSTER	5-1	B-12
	5-5	THERMOSTATS	5-2	B-13
	5-6	STEAM TRAP — Steam-coil Heater	5-3	B-14
	5-7	ANGLE VALVE — Steam-coil Heater	5-3	B-14
	5-8	GATE VALVE — Drain Assembly	5-4	C-1
	5-9	BALL VALVE — Rinse and Fill Piping	5-4	C-1
	5-10	VACUUM BREAKER — Rinse and Fill Piping	5-4	C-1
	5-11	PRESSURE REDUCING VALVE — Steam Booster Piping	5-4	C-1
	5-12	REMOVAL AND REPLACEMENT OF ELECTRIC HEATING ELEMENT	5-4	C-1
6		ILLUSTRATED PARTS BREAKDOWN	6-1	C-4

HOSPITAL UTENSIL WASHER

(7/83)

P-756098-091

This document is intended for the exclusive use of AMSCO and its customers. Reproduction in whole or in part is prohibited.

©AMSCO — 1979-1983

Printed in U.S.A.

Rev. 7/83

ILLUSTRATIONS

Fig. No.	Title	Page No.	Grid
2-1	OPERATION (Freestanding Unit Shown)	2-2	A-13
3-1	PERFORMANCE VERIFICATION AND MAINTENANCE (Freestanding Unit Shown)	3-1	A-14
4-1	ELECTRIC SCHEMATIC (For Units Shipped After 1974)	4-5	B-8
4-2	ELECTRIC WIRING DIAGRAM	4-6	B-9
4-3	ELECTRIC SCHEMATIC (For Units Shipped Before 1974)	4-7	B-10
5-1	BOOSTER ASSEMBLY	5-2	B-13
5-2	THERMOSTAT ADJUSTMENT	5-2	B-13
5-3	TESTING THERMOSTATS	5-2	B-13
5-4	THERMOSTAT SWITCH REPLACEMENT	5-3	B-14
5-5	HEATING ELEMENT INSTALLATION	5-4	C-1
6-1	HOOD AND BASE ASSEMBLY (For Freestanding Model)	6-2	C-5
6-2	HOOD AND BASE ASSEMBLY (For Thru-wall Mounting Model)	6-4	C-7
6-3	DOOR LEVER INSTALLATION (For Freestanding Model Only)	6-6	C-9
6-4	CONTROL PANEL	6-8	C-11
6-5	UPPER REVOLVING WASH ASSEMBLY	6-10	C-13
6-6	LOWER REVOLVING WASH AND RINSE ASSEMBLIES	6-12	D-1
6-7	WASH SYSTEM	6-14	D-3
6-8	MOTOR AND PUMP ASSEMBLY	6-16	D-5
6-9	DRAIN ASSEMBLY	6-18	D-7
6-10	RINSE AND FILL PIPING	6-20	D-9
6-11	STEAM-COIL HEATER	6-22	D-11
6-12	STEAM-BOOSTER PIPING	6-24	D-13
6-13	DOOR LOCK AND SAFETY SWITCH INSTALLATION	6-26	E-1

SAFETY PRECAUTIONS

The following are equipment (CAUTIONS) safety precautions to be observed when operating or servicing this Sterilizer. The page or pages on which they appear in the text of this manual are indicated by the number in the lower right-hand corner of the precaution.

CAUTION: Do not operate pump, open Washer Steam-supply valve, or position Heater switch to ON without water in the tank. 2-1, 3-1, 5-2

CAUTION: Allow thermostatic traps to cool to room temperature before removing cover. Since there is nothing to limit expansion, the diaphragm may rupture or fatigue if trap is opened while hot. 5-3

SECTION 1

GENERAL INFORMATION

1-1. APPLICATION AND DESIGN

The product literature included in this section contains factual data relating to the principal descriptive and identifying characteristics of particulars for Hospital Utensil Washers. The literature is informational rather than instructional. It provides and conveys, textually and illustratively, a general concept of the equipment, its purpose, capabilities, limitations, and technical specifications.

APPLICATION

Automatically washes and rinses hospital utensils . . . bedpans, urinals, handbasins, emesis basins, trays, etc.

TYPE AND SIZE

The washer may be either free standing or for thru-wall mounting. It is designed to accommodate 20-inch (508-mm) square loading racks with a maximum load height of 16 inches (406 mm). Chamber loading height is 36 inches (914 mm) at midpoint of leg adjustment.

DESIGN AND CONSTRUCTION

General. Structural members, base and cabinet are stainless steel. AMSCO furnishes all components necessary to obtain a complete working unit, ready for (but not including) installation and connection to the building utility service lines. Washer piping complies with applicable plumbing codes.

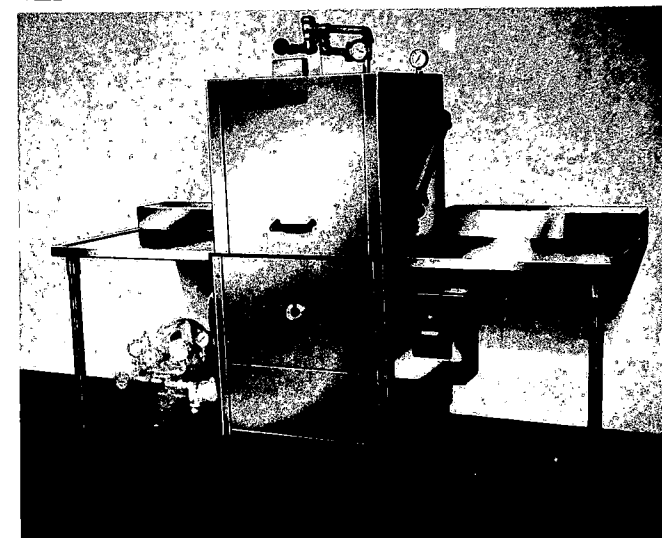
Chamber. Vertically raised doors, one at each side of chamber, provide for pass-thru operation. The doors will not open if washer is operating. When fully raised, the doors will remain in this position without operator attention to allow access for loading/unloading and for servicing and cleaning spray pipes and nozzles, refuse screens and wash-water tank. The chamber doors on the freestanding model are operated simultaneously from either side of the washer by a spring-balanced lever with two low-heat-conducting knobs. A service access door (with low-heat-conducting handle and a latch to hold door fully open) is also provided at the front of this model.



AMSCO

MODEL HUW

- Free Standing • Thru-wall Mounted

TECH
DATA

Freestanding Model with Optional Load/Unload Tables

Typical only — some details may vary.

THE SELECTIONS CHECKED BELOW
APPLY TO THIS EQUIPMENT

Installation

- ☐ Free Standing
☐ Thru-wall
☐ Left-to-Right Workflow
☐ Right-to-Left Workflow

Option

- ☐ Vent Connection

Accessories

- ☐ Table for Mounting to Left Side of Washer
☐ Table for Mounting to Right Side of Washer
☐ Racks (see separate product literature)

Item No. _____

Location(s) _____

Hospital Utensil Washer

The chamber doors on the model for thru-wall mounting are spring balanced. Each door is operated independently of the other and has a low-heat-conducting handle. Stainless-steel framing and trim panels are included for the unloading end of the thru-wall model. This model may be arranged for left-to-right or right-to-left workflow, as specified.

Tracks to accept a loading rack extend the full width of the chamber. For faster ventilation, the washer is available with an optional 6-inch (152-mm) diameter cuff at the top of the chamber, ready for connection to the building vent system.

Wash-water Tank has 25-gallon (95-liter) capacity. Four removable, perforated, stainless-steel screens are placed over the tank to catch refuse from soiled utensils. The tank has an overflow standpipe; also a water-level indicator. Handvalves for filling and draining the tank and a vacuum breaker for supply-line sanitary protection are installed in the tank piping.

Recirculating Wash-water Spray System consists of stainless-steel, upper and lower, hydraulically rotated spray pipes. Hand-removable, stainless-steel end caps on the spray pipes facilitate their cleaning.

A centrifugal pump circulates water between the tank and spray system. The pump has a capacity of 180 gpm (681 liters per minute) at 20-foot (6096 mm) head pressure. It is powered by a NEMA-approved motor with grease-

packed ball bearings, magnetic starter, and overload protection.

Noncirculating Rinse-water Spray System is independent of recirculating wash-water system. It provides protection against residual contamination from soil-laden wash water. The load is rinsed with fresh tap water from stationary spray nozzles above and hydraulically rotated spray pipes below the work area. The lower spray pipes have hand-removable, stainless-steel end caps to facilitate cleaning.

Automatic Control. All components used in the control unit are listed by Underwriters Laboratories, Incorporated. The control unit includes • **AUTOMATIC-MANUAL** selector switch • **AUTOMATIC START** button • **WASH-RINSE** selector switch (for manual operation) • **HEATER** switch and light • automatic cycle pilot light. A cycle is started by filling the wash-water tank, positioning **HEATER** switch to **ON** and **AUTOMATIC-MANUAL** selector to **AUTOMATIC** and pressing **AUTOMATIC START** button. No further attention is required until the pilot light goes out indicating that the following cycle is completed.

- Load is washed with recirculating detergent water at 160-170 F (71-77 C) for 60 seconds.
- Load is rinsed (sanitized) for 15 seconds with hot tap water heated to 180-190 F (82-88 C).

Total cycle time is less than 1½ minutes. Controls may be manually

operated if extended washing and rinsing times are desired.

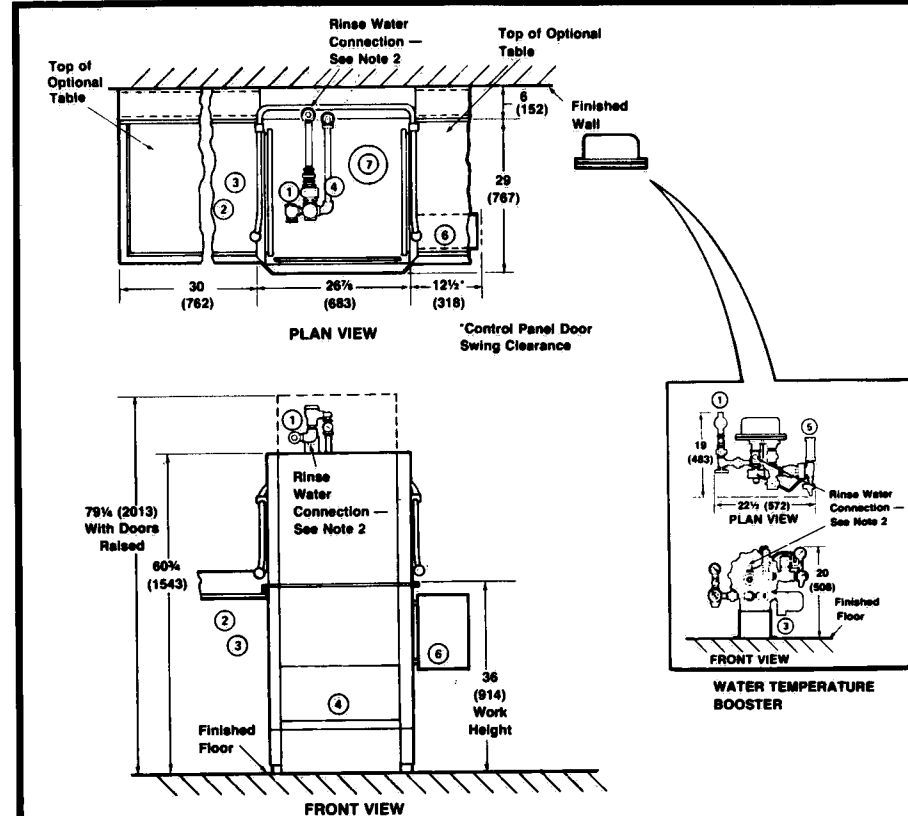
Heating Systems. The wash-water heating system is steam powered and automatically maintains the wash water at 160-170 F (71-77 C).

A rinse-water-temperature booster raises 140 F (60 C) tap water to 180-190 F (82-88 C) and thermostatically maintains it at that temperature during the rinsing phase. The booster is steam powered and furnished complete, ready for installation adjacent to the washer. It includes a safety valve; water-temperature and pressure gauges; water-pressure reducing valve; silencer; and steam-pressure gauge, trap and strainer. (Interconnecting wiring and piping between booster and washer is by others.)

ACCESSORIES

The washer may be provided with one or more of the following accessories, if specified:

- **racks**, choice of types: (1) flatware; (2) utensil; and (3) tray ... see separate product literature for details.
- **tables** for connection to the right and/or left side of washer to aid loading and unloading. Each table is 32 inches wide x 30 inches long x 36 inches high (813x762x914 mm). Table frame is tubular stainless steel with height-adjustable, stainless-steel feet.



FREESTANDING MODEL
(See next page for thru-wall model.)
DIMENSIONS ARE INCHES (MILLIMETERS) — DRAWING IS NOT TO SCALE

OPERATING REQUIREMENTS

- 1 **HOT WATER** — ½ NPT; 140 F (60 C); 20 to 50 psig (1.4 to 3.5 kg per sq cm) — At Washer and Booster
- 2 **STEAM** — ¾ NPT; 10 to 30 psig (0.7 to 2.1 kg per sq cm)
- 3 **STEAM RETURN** — ½ NPT
- 4 **DRAIN** — 2 NPT
- 5 **STEAM** — 1 NPT; 10 to 30 psig (0.7 to 2.1 kg per sq cm)
- 6 **ELECTRIC** — 120 Volt, 15.2 Amp, 200 Volt, 9 Amp or 230 Volt, 7.6 Amp, 60 Hz, Single Phase; or 200 Volt, 4.1 Amp or 230 Volt, 3.7 Amp, 60 Hz, 3 phase, For Washer and Water Temperature Booster.
- 7 **OPTIONAL VENT CONNECTION** — 100 CFM (2.83 cubic meters per minute) at ¼-inch (6.4 mm) SP

CHECK LOCAL CODES

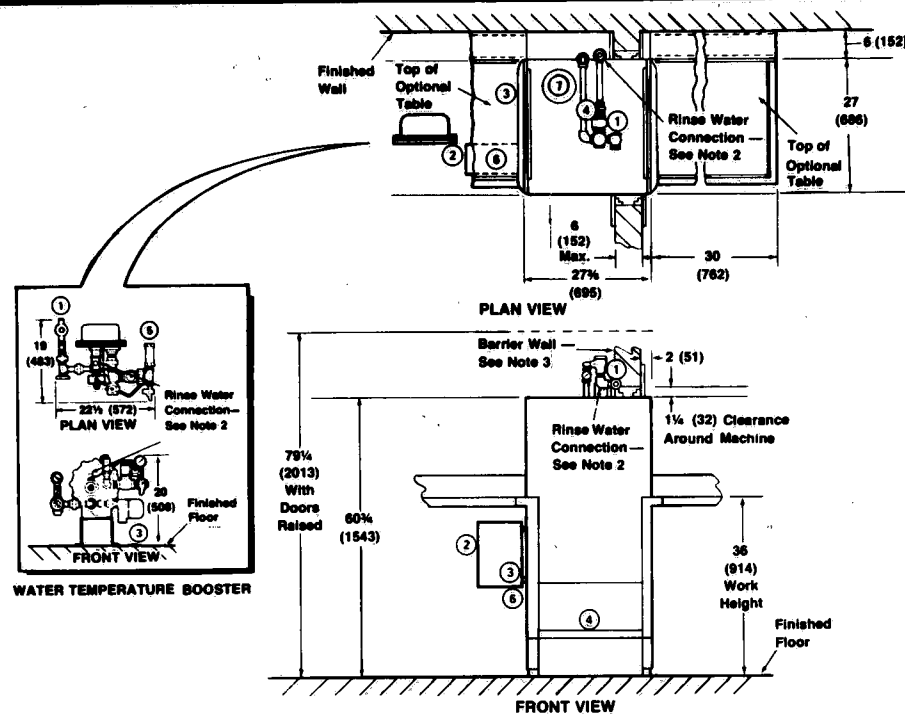
NOTES

1. Clearances shown do not include space for loading and unloading the equipment.
2. Rinse-water temperature booster may be installed adjacent to or in the vicinity of the washer. Interconnecting wiring and piping between booster outlet and rinse-water connection on Washer is to be by others.
3. Pipe sizes listed indicate terminal outlets only. Building steam- and water-supply lines to and from the equipment should be increased one pipe size to ensure optimum equipment performance.
4. Approximate weight — 700 lbs (318 kg)
5. Heat Loss — 20,000 BTU/hr at 70 F (21 C)

UTILITIES CONSUMPTIONS:

- Steam — 60 lbs/hr (27 kg/hr)
- Water — 90 gph (341 liters/hr) at 70% usage for pre- and final rinse. Pump flow rate is 12 gpm (45 liters/min)

This print is for guidance when planning space and utility services. Actual installation prints may be obtained from any AMSCO office or representative.



(See previous page for freestanding model)

DIMENSIONS ARE INCHES (MILLIMETERS) — DRAWING IS NOT TO SCALE

OPERATING REQUIREMENTS

- ① **HOT WATER** — ½ NPT; 140 F (60 C); 20 to 50 psig (1.4 to 3.5 kg per sq cm) — At Washer and Booster
- ② **STEAM** — ¾ NPT; 10 to 30 psig (0.7 to 2.1 kg per sq cm)
- ③ **STEAM RETURN** — ½ NPT
- ④ **DRAIN** — 2 NPT
- ⑤ **STEAM** — 1 NPT; 10 to 30 psig (0.7 to 2.1 kg per sq cm)
- ⑥ **ELECTRIC** — 120 Volt, 15.2 Amp, 200 Volt, 9 Amp or 230 Volt, 7.6 Amp, 60 Hz, Single Phase; or 200 Volt, 4.1 Amp or 230 Volt, 3.7 Amp, 60 Hz, 3 Phase, For Washer and Water Temperature Booster
- ⑦ **OPTIONAL VENT CONNECTION** — 100 CFM (2.83 cubic meters per minute) at ¼-inch (6.4 mm) SP

... CHECK LOCAL CODES ...

This print is for guidance when planning space and utility services. Actual installation prints may be obtained from any AMSCO office or representative.

NOTES

1. Clearances shown do not include space for loading and unloading the equipment.
2. Rinse-water temperature booster may be installed adjacent to or in the vicinity of the washer. Interconnecting wiring and piping between booster outlet and rinse-water connection on washer is to be by others.
3. Barrier-wall framing for left-to-right pass-thru operation is shown; location of framing, control box, steam supply and return connections, and optional vent for right-to-left operation would be reversed — dimensions are identical.
4. Pipe sizes listed indicate terminal outlets only. Building steam- and water-supply lines to and from the equipment should be increased one pipe size to ensure optimum equipment performance.
5. Approximate weight — 700 lbs (318 kg)
6. Heat Loss — 20,000 BTU/hr at 70 F (21 C)

UTILITIES CONSUMPTIONS:

- Steam — 60 lbs/hr (27 kg/hr)
- Water — 90 gph (341 liters/hr) at 70% usage for pre- and final rinse. Pump flow rate is 12 gpm (45 liters/min)



AMSCO

LOADING RACKS
for Utensil Washers

TECH
DATA

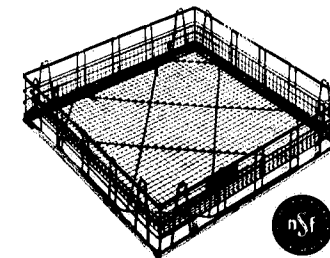
SD-116R
(6/76)

APPLICATION

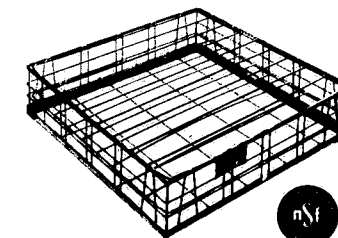
These specialized loading racks are for moving materials from work station to work station by conveyor or mobile cart and to contain them while they are processed through AMSCO Utensil Washers, including Sparkle II Series. (See separate product literature.)

TYPES AVAILABLE

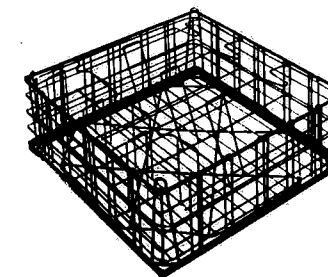
- **Flatware rack** with a single compartment and mesh liner to prevent items from slipping through the open framework.
- **Tray rack** accommodates nine shallow trays. Spacers separate and hold the trays upright.
- **Utensil rack** with three sets of spacers ... each set holds one bedpan and one urinal, or one handbasin and one emesis basin upright ... allows efficient drainage.



Flatware Rack



Tray Rack



Utensil Rack
Typical only — some details may vary.

DESIGN AND CONSTRUCTION

Dimensions. Racks are 19-3/4 inches (502mm) square. The flatware and tray racks are 4-1/2 inches (114mm) high; the utensil rack 7 inches (178mm) high.

Open Framework assures maximum load exposure to wash and rinse sprays and hastens draining of the utensils. The flatware and tray racks are approved by *National Sanitation Foundation Testing Laboratory*.

MATERIAL SPECIFICATIONS

Racks. The sides, bottoms and spacers are welded, stainless-steel wire rod, reinforced around the bottom with stainless-steel bar stock. Horizontal frame pieces are braced ... the flatware and utensil racks have corners with formed posts for easy stacking of the racks. All racks have an electropolished finish.

WORKMANSHIP

The racks are free of sharp edges, weld burnishes, burrs, and other imperfections that might affect their safety, serviceability and appearance.

Because of American Sterilizer Company's continuing program of research and development, all specifications and descriptions are subject to change without notice.

Printed in U.S.A.

THE SELECTIONS CHECKED BELOW
APPLY TO THIS EQUIPMENT

Types of Racks

- ☐ Flatware
Qty: _____
- ☐ Tray
Qty: _____
- ☐ Utensil
Qty: _____

Item No. _____
Location(s) _____

THIS PAGE
INTENTIONALLY LEFT
BLANK

SECTION 2

OPERATING INSTRUCTIONS

CAUTION: Do not operate pump, open Washer Steam-supply valve, or position Heater switch to ON without water in the tank.

2-1. GENERAL

The following instructions are intended to guide servicemen: (1) when instructing operators in techniques that will ensure optimum equipment performance; and (2) when verifying the validity of operator complaints. If the Washer is not operating properly, refer to Section 5, TROUBLESHOOTING. For capabilities of the equipment, refer to Section 1, GENERAL INFORMATION.

Figure 2-1 shows the Washer controls and operating components in their approximate locations.

2-2. BEFORE OPERATING THIS EQUIPMENT

1. Be sure tank is empty and clean. If flushing or draining is required, open the Tank Drain valve. Close the valve after tank has been drained if flushing is not required.
2. Be sure that the wash- and rinse-spray pipes, nozzles, and refuse screens are clean (Par. 3-3).
3. Install refuse screens in Washer, and be sure that spray pipes and nozzles are in place. Close the doors.
4. Open building water and steam supply valves.
5. Open the Water-supply valve. Close the Tank Drain valve when flushing has been completed. When tank is filled (water level appears in center of sight glass), close Water-supply valve.
6. Pour at least 8 ounces of *Sparkle-jet* Detergent over the refuse screens.
7. Be sure WASH-RINSE Selector switch is at center (neutral) position; then position the Washer building-supply disconnect switch (Circuit Breaker) at ON.

8. Open the Steam-supply valve, and position Heater switch at ON. Heat Light will come on.

9. The Washer is now ready for operation.

2-3. OPERATING THE EQUIPMENT

1. Be sure that you have followed instructions in Paragraph 2-2.

2. Remove gross soil from utensils to be cleaned and place them in proper racks. Arrange utensils so that all surfaces will receive full spray coverage.

3. Position loaded rack in center of Washer and close doors.

NOTE: Do not position AUTOMATIC-MANUAL Selector switch to MANUAL during an automatic cycle.

4. Position AUTOMATIC-MANUAL Selector switch at AUTOMATIC or MANUAL and follow the applicable procedure.

a. Automatic Operation — Push Automatic Start button. The cycle will then start and continue automatically to completion. Cycle sequence is as follows:

- Power light comes on. Load is washed with recirculating detergent water at 160-170 F for 60 seconds.

- Load is rinsed for 15 seconds with hot tap water heated to 180-190 F.

- The Power light goes off, indicating that cycle is completed.

b. Manual Operation —

• Position WASH-RINSE selector switch at WASH.

• Time the wash period for at least 60 seconds.

• At the end of wash period, position and hold WASH-RINSE selector switch at spring-loaded RINSE position for at least 15 seconds.

• At end of rinse period, cycle is completed.

5. When cycle is finished, open doors and remove rack from Washer.

6. Maintain wash-tank detergent solution at proper strength to ensure best cleaning results. Add one ounce

or more of *Sparkle-jet* Detergent over the screen after every two cycles. For best results, clean the refuse screens and change the wash water after each hour of operation.

At the end of each work day

1. Position Heater switch at OFF. Heat Light goes off.

2. Close the Steam-supply valve.

3. Position the Washer building-supply disconnect switch (Circuit Breaker) at OFF.

4. Open the Tank Drain valve.

5. Clean Washer. see Daily Preventive Maintenance instructions, Paragraph 3-3.

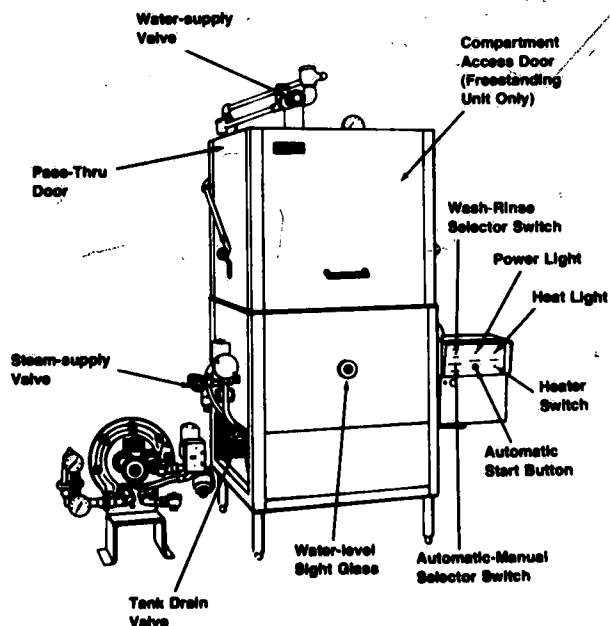


Figure 2-1. Operation (Freestanding Unit Shown).

SECTION 3

INSPECTION AND PREVENTIVE MAINTENANCE

CAUTION: Do not operate pump, open Washer Steam-supply valve, or position Heater switch to ON without water in the tank.

3-1. GENERAL

Inspection and Preventive Maintenance described in Paragraphs 3-2 and 3-3 should be performed periodically. Frequency, unless otherwise indicated, is determined by usage of equipment. Should a problem occur with Washer, refer to Section 4, TROUBLE-SHOOTING.

3-2. PERFORMANCE VERIFICATION (Fig. 3-1)

1. Check installation requirements against specifications in Section 1. Be sure ventilation is adequate for proper operation and maintenance.

NOTE: The pipe sizes shown on the specifications are of the terminal outlets. Building lines to and from the equipment should be increased one pipe size to ensure optimum performance.

2. Inspect Washer exterior for damage or misaligned parts.

3. Open and close the doors several times, to check for free operation.

4. Inspect Washer interior for damage or misaligned parts and for overall cleanliness.

5. Manually spin the revolving wash arms to be sure that they rotate freely. Be sure that the ports and slots are clean.

6. Check that all refuse screens are in proper position, resting on the angle supports above the tank.

7. Be sure tank is empty and clean. If flushing or draining is required open the Tank Drain valve. Close the valve after tank has been drained if flushing is not required.

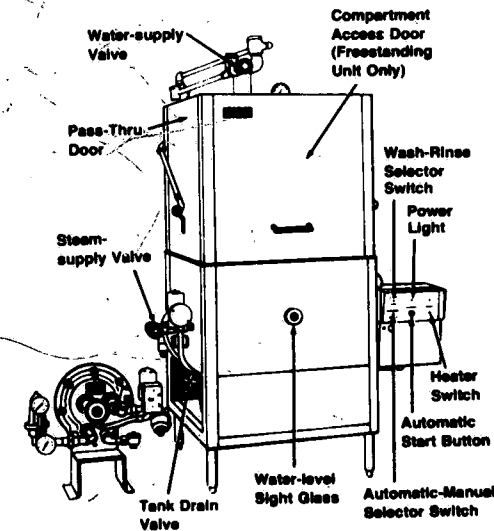


Figure 3-1. PERFORMANCE VERIFICATION AND MAINTENANCE (Freestanding Unit Shown).

8. Open building water and steam supply valves.

9. Open the Water-supply valve. Close the Tank Drain valve when flushing has been completed. When tank is filled (water level appears in center of sight glass), close valve.

10. Be sure WASH-RINSE Selector switch is at center (neutral) position; then position the Washer building-supply disconnect switch (Circuit Breaker) at ON.

11. Open Steam-supply valve and position Heater switch to ON. Heat Light should come on.

12. Be sure chamber doors are closed.

13. Run several automatic and then several manual test cycles. Follow the applicable procedures to verify Washer performance.

a. Manual Operation —

- Position AUTOMATIC-MANUAL Selector switch to MANUAL.
- Position WASH-RINSE Selector switch at WASH.
- Time the wash period for at least 60 seconds.
- At end of wash period, position and hold WASH-RINSE spring-loaded selector switch at RINSE for at least 15 seconds.
- At end of rinse period, cycle is completed.

NOTE: Do not position AUTOMATIC-MANUAL Selector switch to MANUAL during an automatic cycle.

b. Automatic Operation — Position AUTOMATIC-MANUAL Selector switch to AUTOMATIC, and push Automatic Start button. The cycle will then start and continue automatically to completion. During the cycle check the following:

- Check plumbing assemblies. Be sure there are no leaks.
- Be sure pump rotation matches direction of arrow on pump housing. If rotation is incorrect, make necessary corrections in 3-phase wiring at building disconnect switch (Circuit Breaker).
- Observe wash- and rinse-water temperature readings (Wash, 160 to 170 F; Rinse, 180 to 190 F.) After they have stabilized, adjust thermostat settings, if required.
- Be sure instrumentation is operating properly.
- Check water-temperature booster installation against specifications in Section 1. Also, be sure rinse water pressure is sufficient (20 psig minimum) and at correct temperature (180-190 F). Check pressure by gauge in rinse-water piping. Observe pressure throughout a rinse cycle.

NOTE: Water to booster must be maintained at 140 F, minimum. If it is not, booster will be unable to produce 180 F water during sustained usage. Also booster should be installed as close to Washer as possible to prevent a temperature drop. The piping between the booster and Washer should be insulated.

The automatic cycle sequence is as follows:

- Power Light comes on. Water at 160 to 170 F is circulated between the wash tank and wash-spray system for 60 seconds.
 - Chamber and rack are rinsed for 15 seconds with hot tap water heated to 180 to 190 F.
 - The Power Light goes off, indicating that cycle is completed.
14. Position Heater switch at OFF. Heat Light goes off.
15. Close the Steam-supply valve.
16. Position the Washer building-supply disconnect switch (Circuit Breaker) at OFF.
17. Open the Tank Drain valve.

3.3 PREVENTIVE MAINTENANCE (Fig. 3-1)

Daily

NOTE: In addition to the following procedure, proper daily preventive maintenance should also include a check of the temperature readings. Then, if necessary, the temperature settings should be adjusted for the proper temperatures to ensure optimum cleaning results. If usage dictates, the Washer should be cleaned more often than prescribed.

1. Be sure the Washer building-supply disconnect switch (Circuit Breaker) is at OFF.
2. Open chamber pass-thru doors and, if applicable, compartment access door. Leave doors open during shutdown to permit airing of chamber interior.
3. Remove soil from work table(s), if furnished.
4. Remove refuse screens from chamber. Clean screens and then store them outside of chamber until preparing for next operation.

5. Inspect the spray nozzles. If plugged ... carefully clean the nozzle openings with a 3/32" diameter wire. Remove end caps. Operate the Washer as follows to rinse soil from spray pipes:

- Be sure tank is drained. If necessary, open Tank Drain valve to drain tank.
- Close the Tank Drain valve.
- Open the building water supply valve.
- Open the Water-supply valve. When tank is filled (water level appears in center of sight glass), close valve.
- Be sure WASH-RINSE Selector switch is at center (neutral) position; then position the Washer building-supply disconnect switch (Circuit Breaker) at ON.
- Position AUTOMATIC-MANUAL Selector switch to AUTOMATIC.

NOTE: Do not position AUTOMATIC-MANUAL Selector switch to MANUAL during an automatic cycle.

- Push Automatic Start button.
- When Power Light goes off, position the Washer building-supply disconnect switch (Circuit Breaker) at OFF.
- Close the building water supply valve.
- Open the Tank Drain valve.

Replace the end caps. To remove hard-water deposits, soak the nozzles in a solution of *AMSCO Descaler* (1 cup to 1 quart of hot water). Do not pound on spray pipes or nozzles to loosen scale.

NOTE: Descaler will saturate at 18% solution. If granules remain, add more hot water to the solution to dissolve them. Follow directions on the container.

6. If necessary, remove hard-water deposits by performing the following procedure:
 - Be sure tank is drained. If necessary, open Tank Drain valve to drain tank.
 - Close the Tank Drain valve.

• Open the building water and steam supply valves.

• Open the Water-supply valve. When tank is filled (water level appears in center of sight glass), close valve.

• Pour two cups of *AMSCO Descaler* into tank.

• Be sure WASH-RINSE Selector switch is at center (neutral) position; then position the Washer building-supply disconnect switch (Circuit Breaker) at ON.

• Open the Steam-supply valve, and position Heater switch at ON.

• Position AUTOMATIC-MANUAL Selector switch to AUTOMATIC.

• Push Automatic Start button.

• To allow solution to circulate, run several cycles by pushing the Automatic Start button after Pilot Light goes out at completion of each cycle.

• Position Heater switch at OFF.

• Close the Steam-supply valve.

• Close the building water and steam supply valves.

• Position the Washer building-supply disconnect switch (Circuit Breaker) at OFF.

• Open the Tank Drain valve.

Do not use abrasive cleaning compounds, wire brushes or steel wool on Washer surfaces.

7. Flush the entire system by operating the Washer as follows:

- Open the building water supply valve.
- Be sure tank is drained, then close the Tank Drain valve.
- Open the Water-supply valve. When tank is filled (water level appears in center of sight glass), close valve.

• Be sure WASH-RINSE Selector switch is at center (neutral) position; then position the Washer building-supply disconnect switch (Circuit Breaker) at ON.

• Position AUTOMATIC-MANUAL Selector switch at AUTOMATIC.

• Push Automatic Start button.

• When Power Light goes off, push Automatic start button. Run cycle a total of three times.

• When Power Light goes off after the third cycle, position the Washer building-supply disconnect switch (Circuit Breaker) at OFF.

• Close the building water supply valve.

• Open the Tank Drain valve.

Weekly

1. Inspect control instruments and lights for malfunction or breakage ... repair or replace, as necessary.

2. Remove the knurled retaining screw, lift the lower spray pipes from the rotary hub and remove the end caps from the wash-spray pipes. Thoroughly clean pipe interiors with a solution of *AMSCO Descaler* (1 cup to 1 quart of water); use the brush provided. Replace end

caps, spray pipe and retaining screw. Repeat this procedure for the upper wash-spray pipes.

3. Clean the Washer exterior with *AMSCO STAINLESS STEEL CLEANER & POLISH*; use *AMSCO PRY Cleaner* to remove stubborn stains.

NOTE: When using *AMSCO STAINLESS STEEL CLEANER & POLISH* or *AMSCO PRY Cleaner*, rub in a back-and-forth motion (in the same direction as the surface grain). Do not rub with a rotary or circular motion. Do not use either cleaner on painted surfaces. Follow directions on the container.

Monthly

1. Check the Tank Drain valve for leakage ... when Tank Drain valve is closed, be sure water level in tank does not drop over two inches per hour.

2. Check and clean stem on float switch.

3. Clean accumulated scale and coating off heating elements using the same descaler solution prescribed in Step 2 of Weekly Preventive Maintenance.

Semi-Annually

Lubricate pump motor with general-purpose, ball-bearing grease. Take care to prevent lubrication from getting into motor windings. Do not over-lubricate.

SECTION 4

TROUBLESHOOTING

4-1. HELPFUL HINTS

1. Use procedures in Section 2 to verify trouble symptoms.

2. After a symptom has been verified, refer to paragraph 4-2 and Table 4-1.

3. Use Electric Schematic (Fig. 4-1) and Electric Wiring Diagram (Fig. 4-2) as aids in locating and understanding operation of Washer.

4. Refer to Section 5, COMPONENT ADJUSTMENT, REPAIR AND REPLACEMENT.

4-2. THE TROUBLESHOOTING CHART — EXPLANATION OF ITS CONTENTS

COLUMN HEADING	EXPLANATION
PROBLEM	Select the problem you think is most appropriate to the particular trouble symptom. The examples are presented in cycle sequence.
CORRECTION	This column lists the specific components that should be checked to isolate and correct the one causing the malfunction. Check them in order given.
WHERE TO FIND ITEMS IN MANUAL	Where applicable, the particular paragraph (P) or illustration (F) in which a given component may be found is provided in this area. The index number after a figure number denotes the specific component.

TABLE 4-1. TROUBLESHOOTING CHART

PROBLEM	CORRECTION	WHERE TO FIND ITEMS IN MANUAL
1. Washer will not operate	a. Check electrical service to Washer; restore, if necessary b. Make certain each door is so closed that safety switch makes contact; repair or replace safety switch if necessary c. Check timer, start switch and other electrical components for proper operation; tighten loose wires or replace faulty items, as necessary d. Be sure wash water pump is operational; refer to item 3.	F6-13, 8 F6-4
2. Pumped spray pressure is insufficient	a. Make certain tank is filling properly; refer to item 7. b. Clean refuse screens, spray pipes and nozzles c. Be sure wash water pump is operational; refer to item 3. d. Be sure tank drain valve is closed; if it leaks, repair or replace it	P3-3 F2-1; F6-9, 10; P5-8
3. Pump will not operate	a. Check electrical service to Washer; restore, if necessary b. Check starter overload switch in control panel; reset, if necessary c. Clean intake and discharge on pump d. Be sure pump rotation is correct; reverse 3-phase wiring connections if necessary e. Check motor running currents for overload; correct, if necessary. Replace overload relay or relay heater if relay repeatedly trips while motor is consuming normal current. f. Check impeller; replace, if worn; realign if not keyed to shaft g. Check pump motor; repair or replace, as necessary h. Check pump seals and castings for leaks; repair or replace, as necessary	F6-4, 14 F6-8, 2 & 9 F4-1, F4-2, F6-8 F6-4; F6-8 F6-8, 6 F6-8, 1 F6-8

TABLE 4-1. (CONTINUED)

PROBLEM	CORRECTION	WHERE TO FIND ITEMS IN MANUAL
4. Low or no final rinse pressure	a. Fully open building water supply valve b. Check building hot water flow pressure (should be 40 psig minimum at Booster connection) c. Clean spray pipes and nozzles d. Clean supply line and booster pressure-reducing-valve strainers e. Check operation of rinse-water solenoid valve and vacuum breaker; clean, repair, as necessary	F6-12, 27 P3-3 F6-12, 28, 30; P5-11 P5-3; P5-10; F6-10, 23 & 21
5. Final rinse water is not at recommended temperature	a. Check building hot water temperature and flow pressure (should be 140 F, 40 psig minimum at booster) b. Clean steam line strainer c. Check thermostat (should be set at 180 F); adjust, repair or replace, as necessary d. Check operation of booster steam solenoid valve and condensate trap; clean, repair or replace, as necessary e. Insulate piping, if necessary	F6-12, 9 F6-12, 13; P5-5 F6-12; 22 & 16, P5-3 F6-12; F6-10
6. Wash water is not at recommended temperature	a. Be sure steam supply valve is fully open and that building pressure is 20 psig minimum b. Check thermostat (should be set between 160 and 170 F); adjust, repair or replace, as necessary c. Clean steam-supply-line strainer d. Check operation of steam solenoid valve and condensate trap; clean, repair or replace, as necessary e. Calibrate thermometer; if necessary, replace it f. Check operation of Heater switch; repair or replace as necessary g. Clean steam coils, if necessary	F6-11, 13; P5-5 F6-11, 14 F6-11, 11 & 1; P5-3; P5-6 F6-1, 15 or F6-2, 16 F6-4, 7 F6-11, 7

TABLE 4-1. (CONTINUED)

PROBLEM	CORRECTION	WHERE TO FIND ITEMS IN MANUAL
7. Tank does not fill or maintain level	<p>a. Be sure valve in building water line to Washer is fully open</p> <p>b. Be sure Tank drain valve is closed; if valve leaks, repair or replace it</p> <p>c. Check for and repair leaks in the tank or overflow system</p> <p>d. Clean hot-water supply line strainer</p>	<p>P5-8; F2-1; F6-9, 10</p> <p>F6-9</p>
8. Poor washing results	<p>a. Be sure gross soil is removed from items prior to loading racks</p> <p>b. Be sure items are properly positioned in racks and that racks are not overloaded</p> <p>c. Check wash and rinse temperatures; correct, if necessary</p> <p>d. Be sure detergent solution is maintained at proper strength and that a suitable detergent is used</p> <p>e. Clean the wash and rinse spray nozzles. Be sure they are properly positioned.</p>	<p>P2-3</p> <p>P2-3</p> <p>F6-1, 15 or F6-2, 16; F6-10, 3</p> <p>P2-3</p> <p>P3-3</p>
9. Excess moisture on utensils following cycle	<p>a. Reduce excessive humidity in vicinity of Washer</p> <p>b. Check proper operation of vent if installed</p> <p>c. Be sure final rinse water temperature is 180 F; refer to Item 5.</p>	

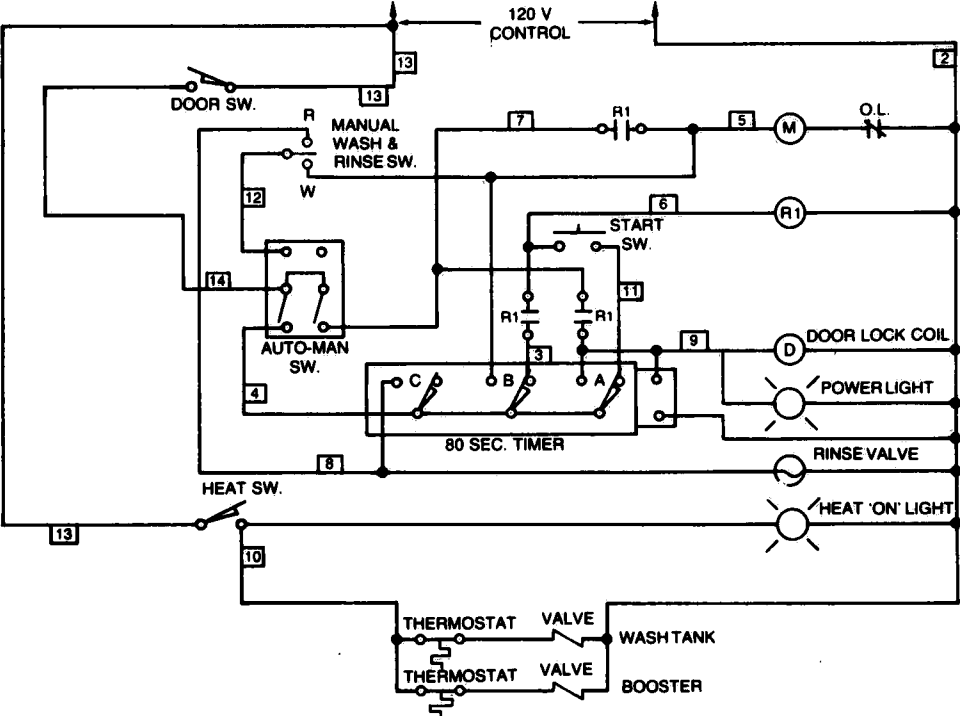


Figure 4-1. ELECTRIC SCHEMATIC (For Units Shipped After 1974).

Hospital Utensil Washers

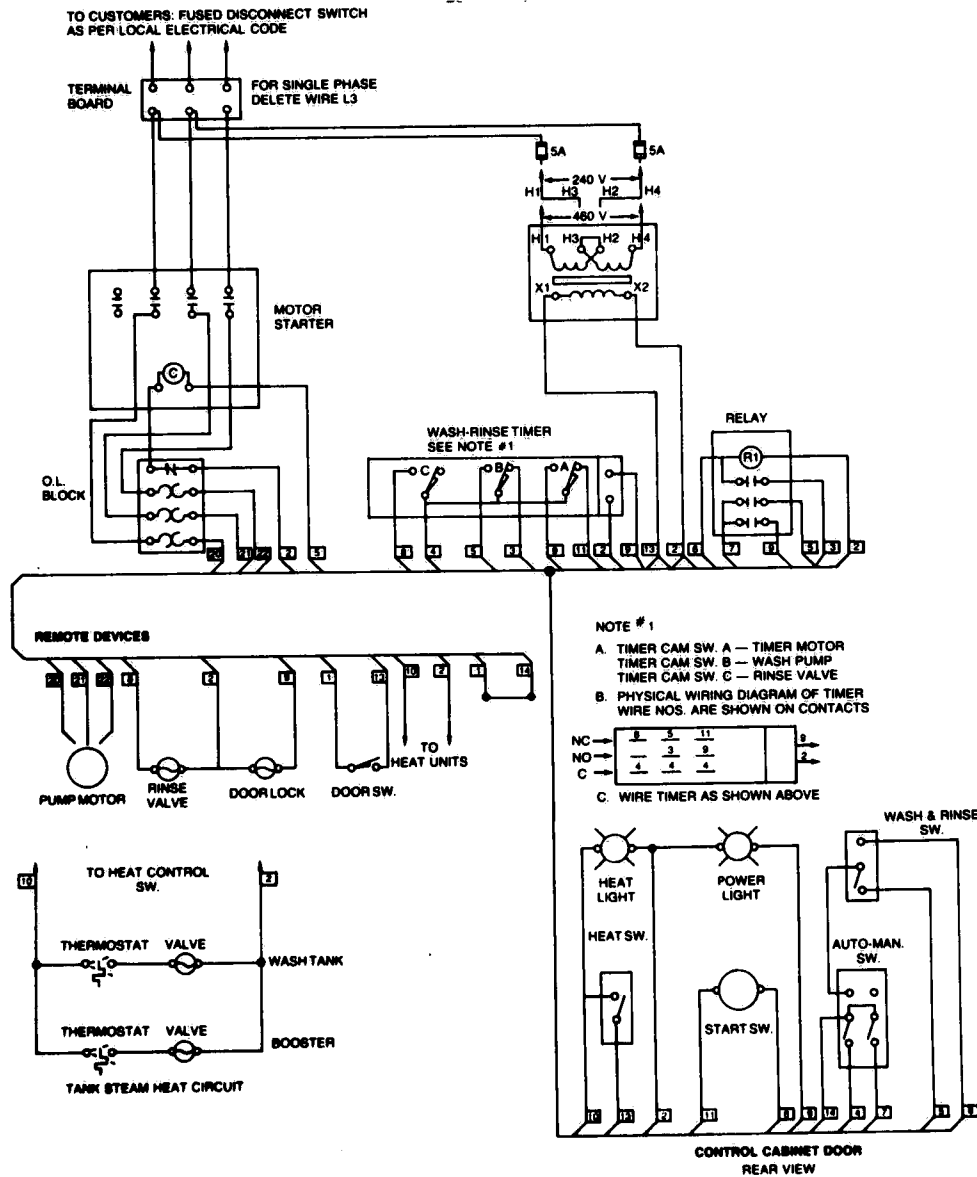


Figure 4-2. ELECTRIC WIRING DIAGRAM.

Hospital Utensil Washers

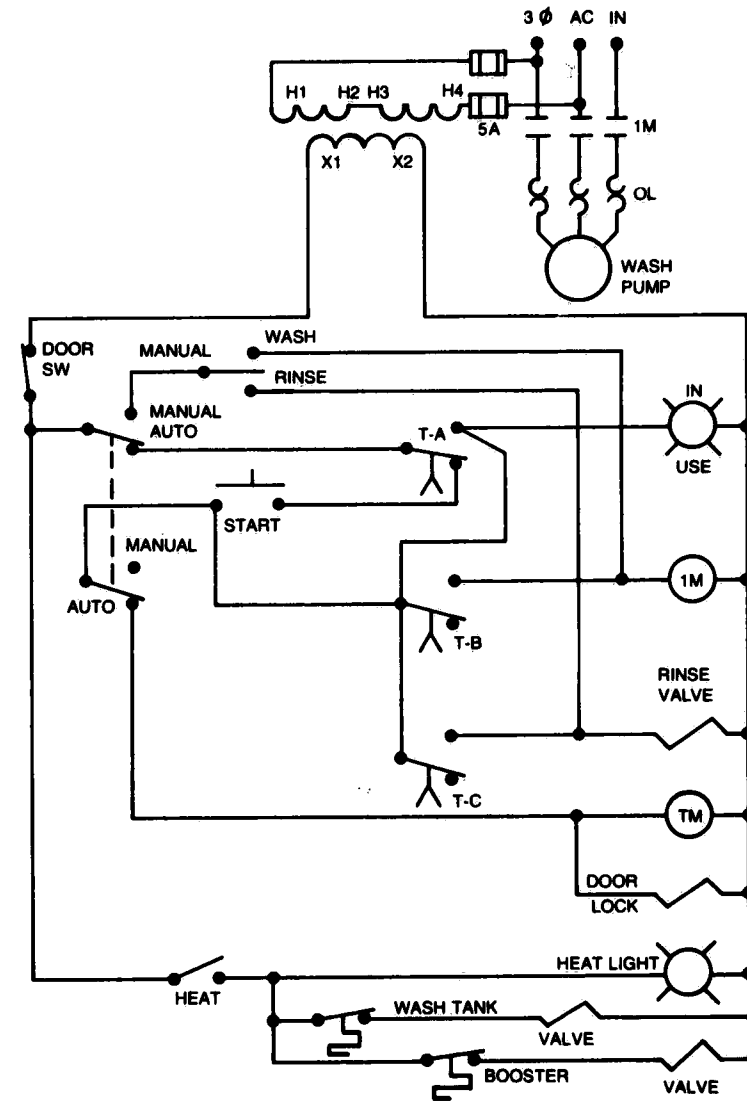


Figure 4-3. ELECTRICAL SCHEMATIC (For Units Shipped Before 1974).

THIS PAGE
INTENTIONALLY LEFT
BLANK

SECTION 5

COMPONENT ADJUSTMENT, REPAIR AND REPLACEMENT

5-1. GENERAL

This section contains instructions for the adjustment, disassembly, repair and replacement of certain components.

5.2 WASH WATER PUMP SEAL REPLACEMENT

1. Remove cover from end of pump.
2. Remove impeller shaft bolt, and withdraw the impeller and sleeve assembly.

NOTE: Using a wheel puller will aid this disassembly.

3. Remove the impeller "O" ring, and discard. Lightly oil the shaft, and withdraw the seal.
4. Clean the shaft and the seal cavity within the pump casing. Be sure the tapered cavity is smooth and free of dirt.
5. Examine the shaft for pitting or corrosion. If not perfectly smooth, refinish before replacing seal.

NOTE: Shaft seal may leak if shaft is not smooth.

6. Lightly oil the shaft, pump cavity wall, and the rubber ring on the outside of the seal. Install the seal, making sure that it is fully seated in the cavity, and square with shaft.
7. Install a new "O" ring on the shaft.
8. Replace the impeller and sleeve assembly with its key.
9. Replace the fiberwasher, lockwasher, and bolt.

NOTE: The seal will be compressed to its proper working dimension when the bolt is tightened. No other adjustment is necessary.

10. Replace the cover, using a mastic sealer to prevent leakage.

5-3. SOLENOID VALVES

Testing

1. Energize solenoid coil. A metallic "click" signifies solenoid operation. Absence of the "click" indicates loss of power, defective coil or improper connection. Proceed as follows to correct:

a. Open conduit box and check voltage across coil leads. Voltage must be at least 85 percent of nameplate rating. Look for loose or broken lead wires or incomplete splice connections.

b. Check solenoid coil for open circuit or ground.

2. If coil is operative, energize and deenergize coil. Observe valve operation for proper opening and closing. Sluggish operation indicates need for cleaning. If necessary, disassemble valve, inspect and clean internal components. If any internal component is worn or pitted, replace the defective component or replace the entire valve.

5.4 WATER-TEMPERATURE BOOSTER

Coil Cleaning and Inspection (Fig. 5-1)

1. Shut off electrical power, water and steam to booster.
2. Remove nuts which secure base plate and casing.
3. Remove casing from base plate. Be careful not to damage gasket.
4. Clean and inspect exterior of steam coils; replace coil manifold assembly, if necessary.
5. Reassemble parts in reverse order.

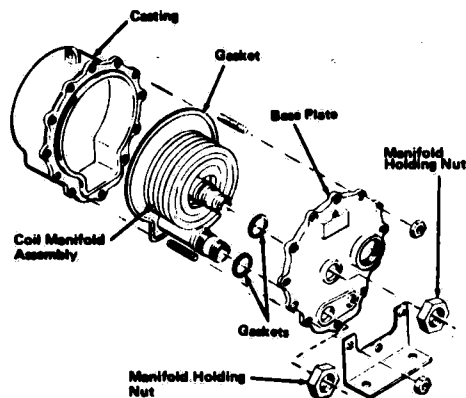


Figure 5-1. BOOSTER ASSEMBLY.

Disassembly (Fig. 5-1)

1. Shut off electrical power, water and steam to booster.
2. Disconnect coil assembly piping at base plate.
3. Remove nuts which secure base plate and casing.
4. Remove casing from base plate. Be careful not to damage gasket.
5. Remove manifold holding nuts. Coil assembly may now be removed from base plate.
6. Reassemble parts in reverse order. Be sure gaskets between manifold collars and base plate are replaced.

5-5. THERMOSTATS**Adjustment (Figs. 5-2 and 5-3)**

1. Remove cap from cover on stem and using a screwdriver, turn stem fully clockwise.

CAUTION: Do not operate pump, open Washer Steam-supply valve, or position Heater switch to ON without water in the tank.

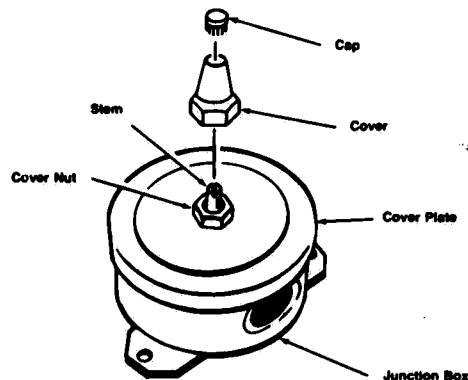


Figure 5-2. THERMOSTAT ADJUSTMENT.

2. Open the building water and steam supply valves.
3. Close the Tank Drain valve.

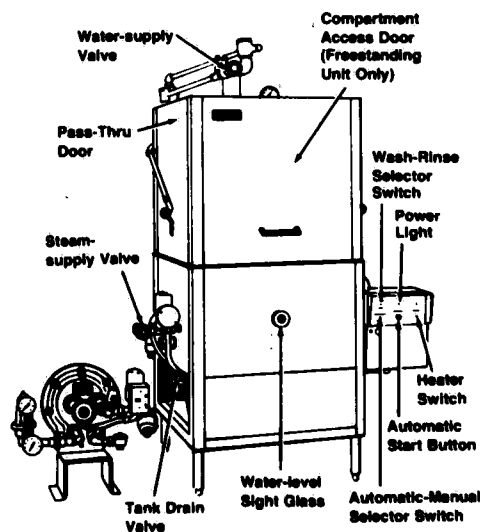


Figure 5-3. TESTING THERMOSTATS (Freestanding Unit Shown).

4. Open the Water-supply valve. When tank is filled (water level appears in center of sight glass), close valve.

5. Be sure WASH-RINSE Selector switch is at center (neutral) position; then position the Washer building-supply disconnect switch (Circuit Breaker) at ON.

6. Open Steam-supply valve and position Heater switch to ON.

7. Position AUTOMATIC-MANUAL Selector switch to MANUAL.

8. Depending on thermostat being adjusted, position WASH-RINSE Selector switch to start unit.

9. When water reaches desired temperature (wash, 160-170 F, rinse, 180-190 F), turn stem counterclockwise until applicable solenoid valve is deenergized; then turn stem clockwise just enough for solenoid to be energized.

10. Replace cap on thermostat.

11. Position Heater switch at OFF.

12. Close the steam-supply valve.

13. Position the Washer building-supply disconnect switch (Circuit Breaker) at OFF.

14. Close building water and steam supply valves.

15. Open the Tank Drain valve.

Switch Replacement (Figs. 5-2 and 5-4)

1. Be sure electric power to unit is shut off.
2. Unscrew cover from stem and remove coverplate.

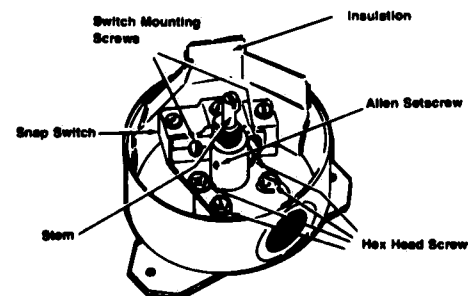


Figure 5-4. THERMOSTAT SWITCH REPLACEMENT.

3. Disconnect wires.

4. Remove 4 hex head cap screws from body of thermostat.

5. Remove Allen setscrew from stem and lift out plate with switch.

6. Replace switch.

7. Reassemble thermostat in reverse order.

8. Adjust thermostat.

5-6. STEAM TRAP — Steam-coil Heater (Fig. 6-11)

CAUTION: Allow thermostatic traps to cool to room temperature before removing cover. Since there is nothing to limit expansion, the diaphragm may rupture or fatigue if trap is opened while hot.

1. Unscrew and remove the cap and diaphragm assembly. Use a hex socket wrench to unscrew and remove seat.

2. Wipe the parts clean, taking care to avoid damaging the diaphragm, seat and pointed diaphragm stem. A very fine grade of sandpaper may be used cautiously to smooth mating surfaces of the seat and stem.

3. Wipe out the bowl taking care that loose material does not enter the piping.

4. Test diaphragm for flexibility. Examine solder joints for cracks or leaks; dip diaphragm in boiling water and look for a noticeable expansion. An element in good condition will be difficult to stretch by hand and will return to its original condition quickly when released.

5. Reassemble steam trap in reverse order of disassembly. Install a new diaphragm assembly if required. Make certain that all pipe fittings are tight after assembly.

5-7. ANGLE VALVE — Steam-coil Heater (Fig. 6-11)**Cleaning and Inspection**

1. Disconnect valve from extension rod and coupling by removing roll pin.

2. Remove packing nut, gland, and bonnet nut. Back stem out of valve body threads; remove bonnet and packing.

3. Remove disc holder assembly from valve body; replace disc.

4. Examine valve seat for scratches, nicks or excessive wear; remove and replace if necessary. Clean and inspect all components; replace as necessary.

5. Reassemble valve in reverse order of disassembly. Make sure disc holder assembly swivels freely on stem. Install new packing, forcing it into place with the packing gland. Tighten bonnet and packing nuts only enough to prevent leakage; excessive tightening will make valve hard to operate.

5-8. GATE VALVE — Drain Assembly (Fig. 6-9)

If tank of nonoperating Washer leaks more than 2 inches per hour when Tank Drain valve is closed, the internal parts of the valve are worn. Replace the valve.

5-9. BALL VALVE — Rinse and Fill Piping (Fig. 6-10)

If the tank of nonoperating Washer continues to fill with water when Water-supply valve is closed, the internal parts of the valve are worn. Replace the stem assembly if the seat is not worn. If the seat is worn, replace the entire valve.

5-10. VACUUM BREAKER — Rinse and Fill Piping (Fig. 6-10)

If the vacuum breaker leaks, replace the disc. If the seat is worn, replace the entire vacuum breaker.

5-11. PRESSURE REDUCING VALVE — Steam Booster Piping (Fig. 6-12)

A leaking pressure reducing valve will cause loss of steam pressure to the booster. If the valve is leaking or inoperative, replace the entire valve.

5-12. REMOVAL AND REPLACEMENT OF ELECTRIC HEATING ELEMENT (Refer to Fig. 5-5 and Fig. 6-17)

Removal Procedure:

1. Turn off electrical power to unit and shut off water supply.

2. Drain tank by opening tank drain valve.

3. Disconnect wiring from control end of heating element.

4. Unscrew the locknut from the heating element, which is on the inside of the tank, and withdraw element from the tank.

5. If spacer washers and locknut are to be reused, they must be thoroughly cleaned. All sealing surfaces must be free of dirt, oil, grease and moisture.

6. Thoroughly clean the heating element hole in the tank and the area around the hole. Clean both the outside and the inside of tank.

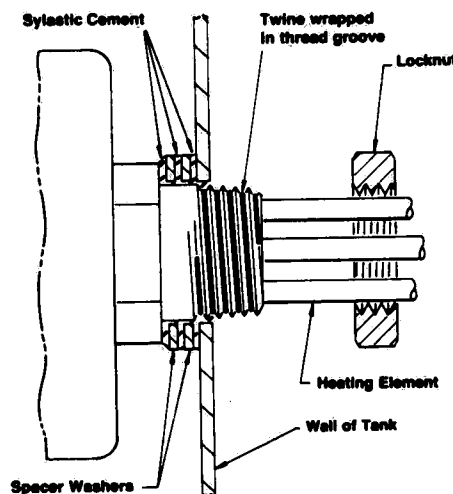


Figure 5-5. HEATING ELEMENT INSTALLATION.

Replacement Procedure:

1. When installing a replacement element, make sure it is of the same voltage and wattage as the original element.
2. Apply Sylastic primer, per accompanying instructions, to all surfaces which are to be coated with Sylastic cement. Prime all component sealing surfaces and also outside of tank around heating element hole.

3. Coat sealing surface shoulder of heating element with Sylastic cement and assemble the first spacer washer to element embedding it in the cement.

4. Coat the exposed face of the first spacer washer, installed in previous step, with Sylastic cement.

5. Assemble the second spacer washer to the element embedding it in the cement of the first washer.

6. Coat the exposed face of the second washer with Sylastic cement.

7. Wrap the twine into the thread groove on the heating element. Hold twine in groove with a coat of Sylastic cement.

8. Carefully insert the prepared heating element into the hole in the tank.

9. Install locknut. Check position of element, tighten locknut to secure heating element to tank.

10. Reconnect wiring to control end of heating element.

NOTE: Do not fill the tank until the Sylastic cement has cured. Thorough curing requires 24 hours.

THIS PAGE
INTENTIONALLY LEFT
BLANK

SECTION 6

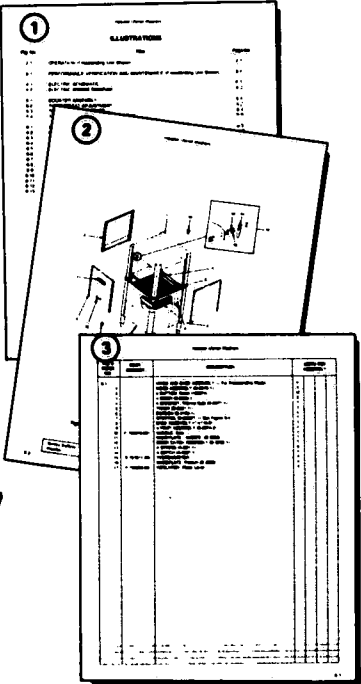
ILLUSTRATED PARTS BREAKDOWN

The following pages contain an illustrated breakdown of selected parts for Hospital Utensil Washer. To order any replacement part, use part number or complete description (including number in parenthesis) provided on subsequent parts lists. Numbers, descriptions and quantities of parts listed are those required for a single Washer. Each indentation in the description represents the assembly level (see example below). The UNITS PER ASSEMBLY is specific for given top assembly. Include on your order the model, unit and serial numbers of the equipment. Also, where applicable, include component manufacturer and nameplate data.

The illustrations do not carry index numbers to components which have little or no replacement frequency, nor to commercial hardware. Such are illustrated, however, merely to aid in various assembly and disassembly procedures covered in this manual. Such parts should either be ordered from AMSCO (by description), or procured locally as the situation dictates. When ordering by description include figure and index number of assembly on which the part is located.

How to use the illustrated parts breakdown

- 1 Determine function and application of part required. Turn to the List of Illustrations and select most appropriate title. Note illustration page number.
- 2 Turn to page indicated and locate desired part on illustration.
- 3 From illustration, obtain index number assigned to part desired. Refer to accompanying description for specific information regarding the part.



TYPICAL INDENTATION EXAMPLE

No indentation —
part of top
assembly

HOOD AND BASE ASSEMBLY — For Freestanding Model
HOOD ASSEMBLY (D-6078-1)
• BUTTON, Nylon (102374)
• DOOR (B-2698-1)

One Indentation —
(1st subassembly)
Part of above item
with no indentation

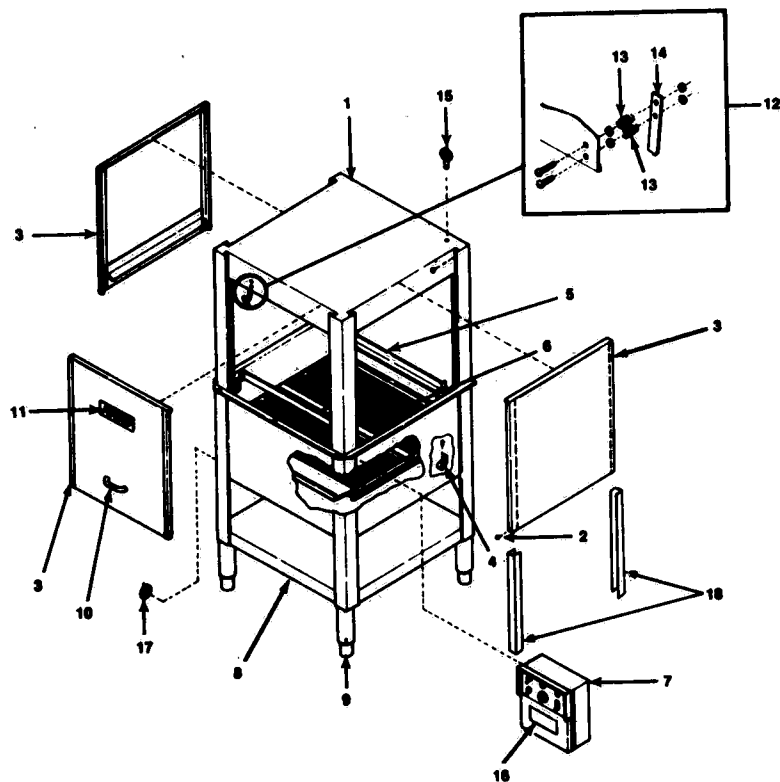


Figure 6-1. HOOD AND BASE ASSEMBLY (For Freestanding Model).

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY
6-1-		HOOD AND BASE ASSEMBLY — For Freestanding Model	*
1		HOOD ASSEMBLY (D-6078-1)	1
2	P-764315-294	• BUTTON, Nylon (102374)	12
3		• DOOR (B-2898-1)	3
4		• BRACKET, Thermo Bulb (B-2877-1)	1
5		TRACK (B-2881-1)	1
6		SCREEN (B-3158-1)	4
7		CONTROL CABINET — See Figure 6-4	1
8		BASE ASSEMBLY (C-4718-2)	1
9		• FOOT ASSEMBLY (B-2074-2)	4
10	P-764317-706	HANDLE, Door (Replacement Kit)	1
11		NAMEPLATE, "AMSCO" (B-3365)	1
12		DOOR CATCH ASSEMBLY (B-3256-1)	1
13		• SPRING (A-331-1)	2
14		• CATCH (A-4087-1)	1
15	P-754738-091	THERMOMETER	1
16		NAMEPLATE, Product (B-3358)	1
17	P-758299-091	INDICATOR, Water Level	1
18		WEAR STRIP, 3/8 x 5/8 U (A301, 105) for Door 400735	2

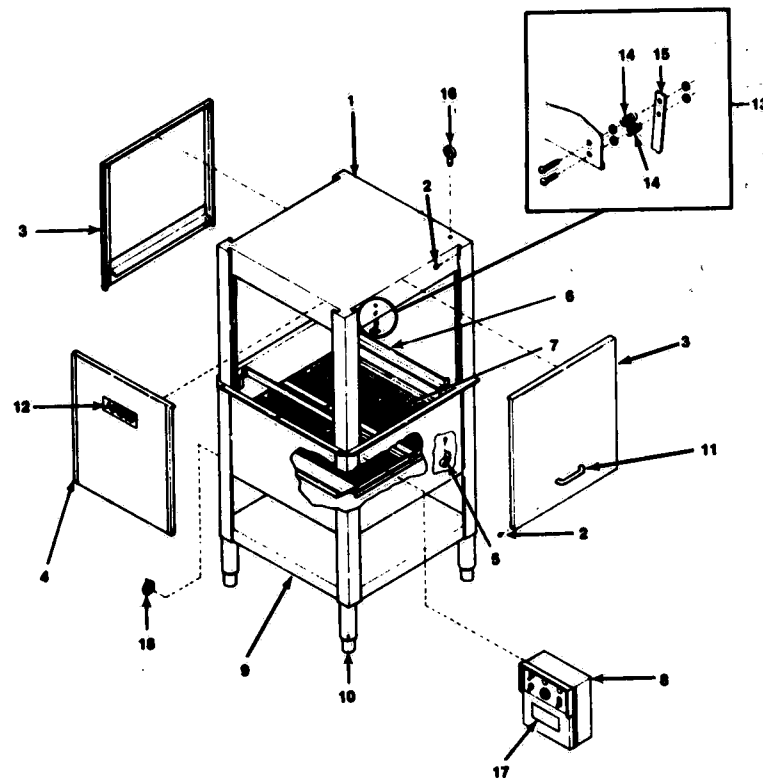


Figure 6-2. HOOD AND BASE ASSEMBLY (For Thru-wall Mounting Model).

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
6-2-		HOOD AND BASE ASSEMBLY — For Thru-wall Mounting	*			
1		HOOD ASSEMBLY (D-6078-1)	1			
2	P-764315-294	• BUTTON, Nylon (102374)	12			
3		• DOOR (B-2698-1)	2			
4		• PANEL, Front	1			
5		• BRACKET, Thermo Bulb (B-2877-1)	1			
6		TRACK (B-2881-1)	1			
7		SCREEN (B-3158-1)	4			
8		CONTROL CABINET — See Figure 6-4	1			
9		BASE ASSEMBLY (C-4718-2)	1			
10		• FOOT ASSEMBLY (B-2074-2)	4			
11	P-784317-786	HANDLE, Door (Replacement Kit)	2			
12		NAMEPLATE, "AMSCO" (B-3365)	1			
13		DOOR CATCH ASSEMBLY (B-3256-1)	2			
14		• SPRING (A-331-1)	4			
15		• CATCH (A-4087-1)	2			
16	P-754738-091	THERMOMETER	1			
17		NAMEPLATE, Product (B-3358)	1			
18	P-758299-091	INDICATOR, Water Level	1			

6-8REV. 4/78

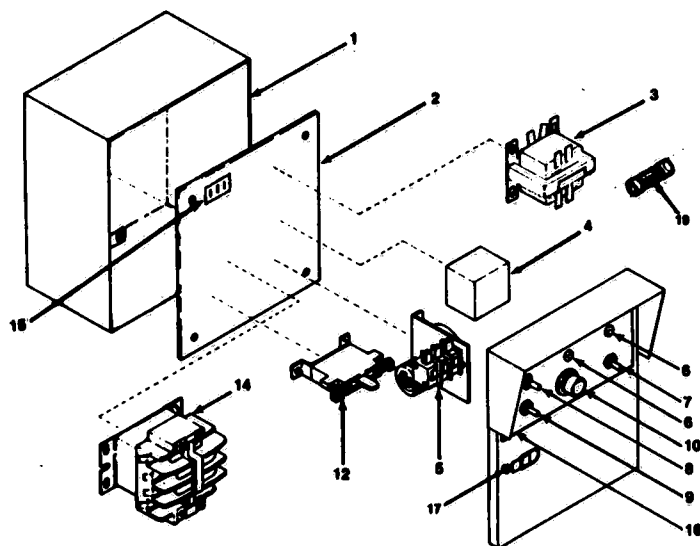


Figure 6-4. CONTROL PANEL.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY
6-4-		CONTROL PANEL	*
1		CABINET (D-5673-1)	1
2		PANEL, Inner (B-2845-1)	1
3	P-764315-216	TRANSFORMER — Impervitran	1
4	P-758741-091	RELAY, Instant Start — Kup 14A55	1
5	P-758737-002	TIMER — 80 Second	1
6	P-758736-004	LIGHT — Amber	2
7	P-758073-091	SWITCH, Heater	1
8	P-758071-091	SWITCH, Wash/Rinse	1
9	P-758072-091	SWITCH, Auto/Manual	1
10	P-758335-091	PUSH BUTTON ASSEMBLY	1
12	P-758987-001	HEATER, Overload — 3 Phase (Cat. #48DC38AA-4)	1 (†)
	P-758987-002	HEATER, Overload — Single Phase (Cat. #48DA18AA-4)	1 (†)
13		NOT USED	
14	P-758738-002	STARTER, Single Phase — 42DB25AF-001	1
	P-758738-001	STARTER, 3 Phase — 42DB25AF	1
15		BLOCK, Terminal — Curtis MA3	1
16		DECAL (A-3203)	1
17	P-758052-091	CLIP (NUT), Speed	2
18	P-758255-001	FUSE, 3 Amp (Not Shown)	1
19	P-764316-893	FUSE, Transformer Secondary Side	1
		†Note: For 3 phase, use 3 overload heaters. For single phase, use 1 heater. Specify heater number when ordering.	

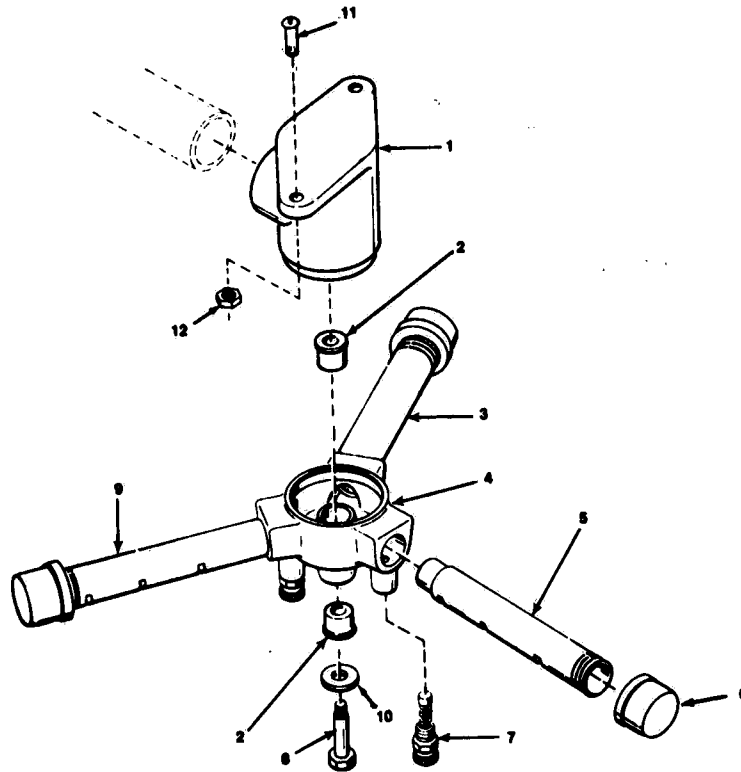


Figure 6-5. UPPER REVOLVING WASH ASSEMBLY.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY
6-5-	P-764315-437	UPPER REVOLVING WASH ASSEMBLY	*
1	P-758067-091	ADAPTER, Upper Rotary Wash	1
2	P-757867-003	BEARING	2
3	P-764315-440	PIPE, Spray (C-5259-3)	1
4	P-758069-091	MANIFOLD, Upper Rotary Wash	1
5	P-764315-439	PIPE, Spray (C-5259-2)	1
6	P-764315-441	CAP, Pipe, 3/4 NPT	3
7	P-764315-442	PIN, Manifold Lock Assembly (A-368-1)	1
8	P-756229-091	BOLT, Manifold Lock	1
9	P-764315-438	PIPE, Spray (C-5259-1)	1
10	P-764315-445	WASHER, Stainless-steel	1
11	P-21580-061	SCREW, Trusshead, Stainless-steel, 1/4-20 x 1	2
12	P-76239-061	NUT, Hex, 1/4-20	2

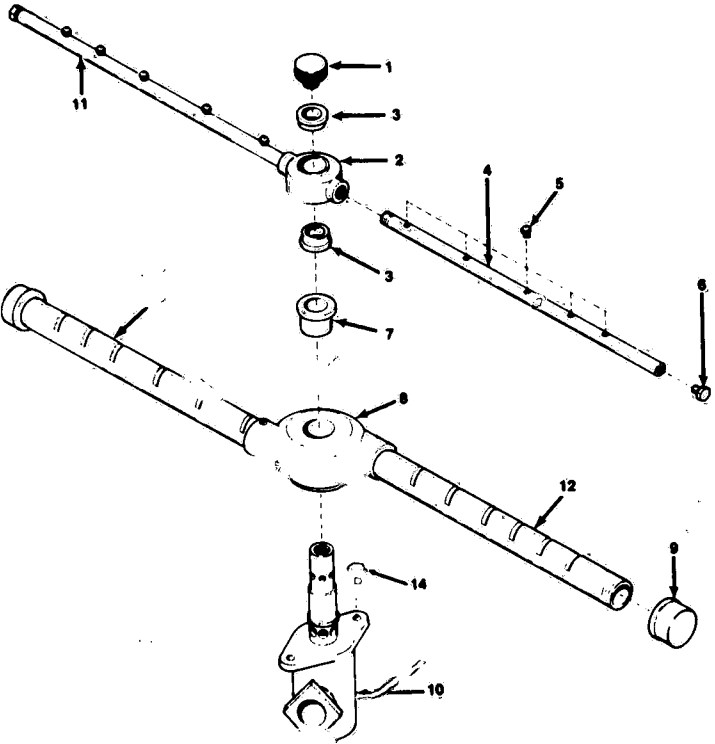


Figure 6-6. LOWER REVOLVING WASH AND RINSE ASSEMBLIES.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
			*			
6-6-	P-764315-446	LOWER REVOLVING WASH AND RINSE ASSEMBLIES	*			
	1 P-754477-002	KNOB, Knurled	1			
	2 P-764315-447	MANIFOLD, Revolving Rinse	1			
	3 P-757867-002	• BEARING	2			
	4 P-764315-448	ARM, Lower Rinse	1			
	5 P-150474-230	NOZZLE (A-3162-2)	10			
	6 P-752300-061	PLUG, Hex 1/8 NPT	2			
	7 P-757867-003	BEARING	1			
	8 P-764315-450	ROTARY MANIFOLD, Lower Wash (C-4324-1)	1			
	9 P-764315-441	CAP, Pipe 3/4 NPT	2			
	10 P-754473-091	ADAPTER, Lower Wash and Rinse	1			
	11 P-764315-449	ARM, Lower Rinse	1			
	12 P-764315-452	PIPE, Lower Wash Spray (C-4111-2)	1			
	13 P-764315-451	PIPE, Lower Wash Spray (C-4111-1)	1			
	14 P-764315-453	SCREW, Hex head, 1/4-20 x 1/2	2			

A vertical strip of 20 frames from a film. The frames show a person's legs and feet in various positions, likely during a dance or movement sequence. The person is wearing dark pants and light-colored shoes. The background is dark and indistinct. The frames are arranged in two columns of 10 each. The first frame shows the person's legs in a wide stance. The second frame shows the person's legs in a more compact position. The third frame shows the person's legs in a wide stance. The fourth frame shows the person's legs in a more compact position. The fifth frame shows the person's legs in a wide stance. The sixth frame shows the person's legs in a more compact position. The seventh frame shows the person's legs in a wide stance. The eighth frame shows the person's legs in a more compact position. The ninth frame shows the person's legs in a wide stance. The tenth frame shows the person's legs in a more compact position. The eleventh frame shows the person's legs in a wide stance. The twelfth frame shows the person's legs in a more compact position. The thirteenth frame shows the person's legs in a wide stance. The fourteenth frame shows the person's legs in a more compact position. The fifteenth frame shows the person's legs in a wide stance. The sixteenth frame shows the person's legs in a more compact position. The seventeenth frame shows the person's legs in a wide stance. The eighteenth frame shows the person's legs in a more compact position. The nineteenth frame shows the person's legs in a wide stance. The twentieth frame shows the person's legs in a more compact position.



D-3

A vertical strip of 20 frames from a film. The frames show a person's legs and feet in various positions, likely during a dance or movement sequence. The person is wearing dark pants and light-colored shoes. The background is dark and indistinct. The frames are arranged in two columns of 10 each. The first frame shows the person's legs in a wide stance. The second frame shows the person's legs in a more compact position. The third frame shows the person's legs in a wide stance. The fourth frame shows the person's legs in a more compact position. The fifth frame shows the person's legs in a wide stance. The sixth frame shows the person's legs in a more compact position. The seventh frame shows the person's legs in a wide stance. The eighth frame shows the person's legs in a more compact position. The ninth frame shows the person's legs in a wide stance. The tenth frame shows the person's legs in a more compact position. The eleventh frame shows the person's legs in a wide stance. The twelfth frame shows the person's legs in a more compact position. The thirteenth frame shows the person's legs in a wide stance. The fourteenth frame shows the person's legs in a more compact position. The fifteenth frame shows the person's legs in a wide stance. The sixteenth frame shows the person's legs in a more compact position. The seventeenth frame shows the person's legs in a wide stance. The eighteenth frame shows the person's legs in a more compact position. The nineteenth frame shows the person's legs in a wide stance. The twentieth frame shows the person's legs in a more compact position.

6

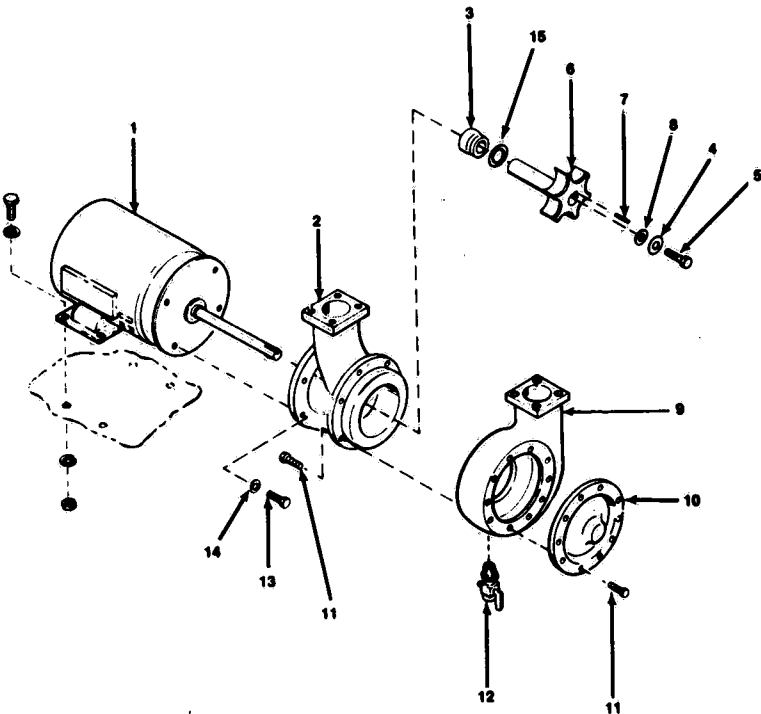


Figure 6-8. MOTOR AND PUMP ASSEMBLY.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
6-8-		MOTOR AND PUMP ASSEMBLY (D-756)	*			
1		MOTOR, 1 H.P. — Specify voltage & phase	1			
2		HOUSING, Pump Suction (14217-1)	1			
3	P-754735-091	SEAL	1			
4	P-757878-091	WASHER, Flat — 3/8	1			
5	P-764315-624	BOLT, Impeller — NC x 1 (100744)	1			
6	P-757879-091	IMPELLER — 3-3/4 (11969-P1)	1			
7	P-15346-091	KEY (102798)	1			
8	P-758044-091	GASKET, Fiber (Discharge)	1			
	P-758062-091	GASKET, Fiber (Inlet)	1			
9		HOUSING, Pump Discharge (13505)	1			
	P-758061-091	• GASKET, Flange (Discharge)	1			
10		PLATE, Impeller Access (12672-1)	1			
11		BOLT, Hex Head — 1/4 NC x 5/8 (100735)	16			
12		COCK, Drain (100045)	1			
13		BOLT, Hex Head — 3/8 NC x 1 (100744)	4			
14		WASHER, Star — 3/8 (102802)	4			
15	P-754736-091	"O" RING SEAL	1			



FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY		
6-9-		DRAIN ASSEMBLY	*		
1		PIPE, Overflow (B-3099-1)	1		
2	P-756214-091	GASKET	2		
3		FLANGE ASSEMBLY (A-4078-2)	1		
4		FLANGE ASSEMBLY (A-4078-3)	1		
5		ELL, 90° — 2 NPT (100159)	1		
6	P-37851-091	NIPPLE, Close — 2 NPT (100162)	1		
7		TEE — 2 NPT x 1-1/2 NPT x 1-1/2 NPT (100161)	1		
8	P-37852-091	NIPPLE, Close — 1-1/2 NPT (100149)	1		
9		ELL, 90° Street — 1-1/2 NPT (100028)	1		
10	P-756228-091	GATE VALE AND BONNET ASSEMBLY — 1-1/2 NPT	1		
11		STUD — 5/16 — 18 x 2 (A-470-1)	1		
12	P-758060-091	STRAINER, Drain	1		

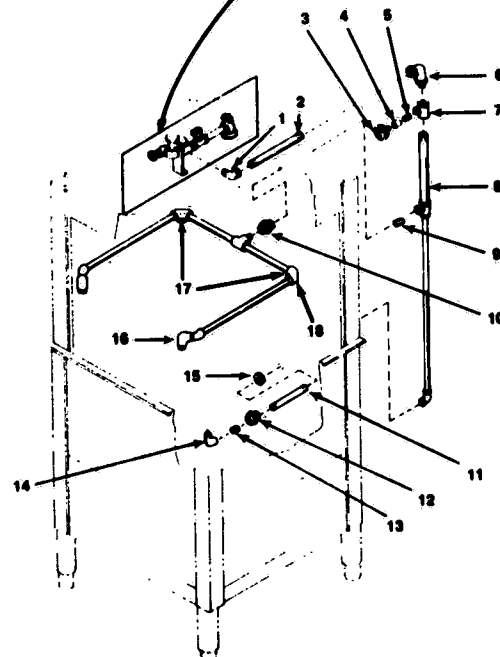
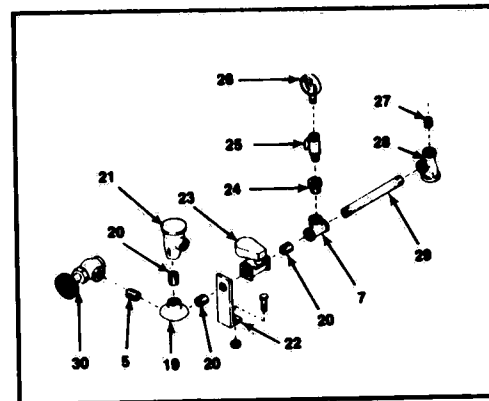


Figure 6-10. RINSE AND FILL PIPING.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
6-10-		RINSE AND FILL PIPING	*			
1	P-1636-091	ELL, 90° Street — Brass, 3/4 NPT (102442)	1			
2	P-29340-091	PIPE — Brass, 3/4 x 13-1/2 (102683)	1			
3	P-754739-091	THERMOMETER	1			
4	P-1313-091	COUPLING — Brass, 1/2 NPT (102412)	1			
5	P-29162-051	NIPPLE, Close — Brass, 1/2 NPT (100209)	2			
6		ELL, 90° Union — Brass, 3/4 NPT (100118)	1			
7	P-4923-051	TEE, Reducing — Brass, 3/4 x 3/4 x 1/2 NPT (102528)	2			
8		PIPING, Vertical Outside (B-2647-1)	1			
9	P-29162-091	NIPPLE, Butt — Brass, 1/2 NPT (100121)	1			
10	P-89990-091	UNION, Ground Joint — Brass, 1/2 NPT (102549)	1			
11		NIPPLE — Stainless Steel, 3/8 NPT x 11 (101350)	1			
12		UNION — Stainless Steel, 3/8 NPT (100029)	1			
13	P-48688-081	NIPPLE, Close — Stainless Steel, 3/8 NPT (102457)	1			
14		ELL, 90° Street — Stainless Steel, 3/8 NPT (102795)	1			
15		LOCKNUT — Stainless Steel, 3/8 NPSL (100120)	1			
16		UPPER RINSE ASSEMBLY (C-4508-1)	1			
17	P-757836-091	• NOZZLE	4			
18		• FITTING, Corner — Part 924	2			
19	P-1632-091	ELL, Side Outlet — 3/4 NPT (102797)	1			
20	P-29290-091	NIPPLE, Close — 3/4 NPT (100184)	3			
21	P-757835-091	BREAKER, Vacuum	1			
22	P-754740-091	• DISC ASSEMBLY (A100174) — Not Shown	1			
23	P-757888-091	BRACKET — Stainless Steel (A-511-17)	1			
	P-758713-091	VALVE, Solenoid	1			
		• SPARE PARTS KIT — Not Shown	A/R			
		• COIL — 110 V (A104869) — Not Shown	1			
		• COIL — 220 V (A104874) — Not Shown	1			
24	P-76053-042	BUSHING — Brass, 1/2 NPT x 1/4 NPT (102388)	1			
25	P-758058-091	COCK, Gauge	1			
26	P-750489-091	GAUGE	1			
27	P-3442-051	PLUG	1			
28		TEE, Reducing — Brass, 3/4 x 1/2 x 3/4 NPT (102525)	1			
29	P-29316-091	NIPPLE — 3/4 NPT x 7-1/2 (102666)	1			
30	P-758058-091	VALVE, Angle — Units Shipped Before 1/1/75	1			
	P-758984-001	VALVE, Straight — Units Shipped After 1/1/75	1			
		• HAND WHEEL (A104726) — Not Shown	1			
		• STEM AND DISC ASSEMBLY (A104789) — Not Shown	1			



REV. 3/80

6-23

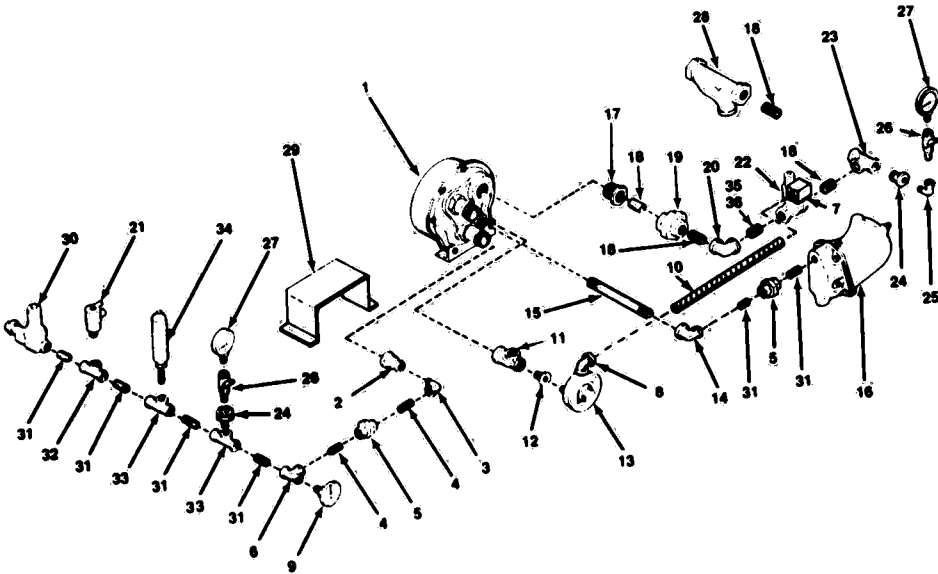


Figure 6-12. STEAM-BOOSTER PIPING.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
6-12-	1	P-758251-091	STEAM-BOOSTER PIPING	*		
			BOOSTER	1		
		P-758068-001	• KIT, Gasket Replacement	A/R		
	2		REDUCER — 1-1/4 NPT x 3/4 NPT (102399)	1		
	3	P-1636-091	ELBOW, 90° Street — 3/4 NPT (102444)	2		
	4	P-29296-091	NIPPLE — 3/4 NPT x 2-1/2	2		
	5	P-5269-091	UNION, Ground Joint — 3/4 NPT (100571)	2		
	6		TEE, Reducing — 3/4 NPT x 1/2 NPT x 3/4 NPT (102525)	1		
	7		BOX, Receptacle	1		
	8		ELBOW, 3/8 Sealight	2		
	9	P-754739-091	THERMOMETER — 1/2 NPT	1		
	10		CABLE, 3/8 Sealight	1		
	11		TEE, Reducing — 1-1/4 NPT x 1 NPT x 3/4 NPT (102537)	1		
	12		BUSHING, Reducing — 1 NPT x 1/2 NPT (102394)	1		
	13	P-758490-091	THERMOSWITCH, Fenwal #21103 — 1/2 NPT	1		
	14	P-1637-091	ELL, Reducing — 1 NPT x 3/4 NPT (102451)	1		
	15	P-29372-091	NIPPLE — 1 NPT x 6 (102771)	1		
	16	P-756221-091	TRAP, Steam — 3/4 NPT	1		
	17		BUSHING, Reducing — 2 NPT x 1 NPT (100981)	1		
	18	P-29380-091	NIPPLE, Close — 1 NPT (101000)	5		
	19		UNION, Ground Joint — 1 NPT (005283)	1		
	20		ELL, 90° — 1 NPT (102448)	1		
	21	P-758252-091	VALVE, Relief — 3/4 NPT, 125 PSI	1		
	22	P-758533-091	VALVE, Solenoid — 1 NPT	1		
	23		TEE, Reducing — 1 NPT x 1/2 NPT x 1 NPT (102532)	1		
	24	P-76053-091	BUSHING, Reducing — 1/2 NPT x 1/4 NPT (102388)	2		
	25		ELL, 90° Street — 1/4 NPT (101261)	1		
	26	P-758059-091	COCK, Gauge — 1/4 NPT	2		
	27	P-750489-091	GAUGE, Pressure — 0-60 PSI	2		
	28	P-758254-091	STRAINER — 1 NPT	1		
	29		SUPPORT (B-334-P2)	1		
	30	P-757834-091	VALVE, Pressure Reducing	1		
	31	P-29290-091	NIPPLE, Close — 3/4 NPT (100184)	6		
	32		TEE — 3/4 NPT	1		
	33		TEE, Reducing — 3/4 NPT x 3/4 NPT x 1/2 NPT (102526)	2		
	34	P-754487-091	SILENCER — 1/2 NPT	1		
	35		NIPPLE, Chase — 1/2 EMT	1		
	36		WASHER, 7/8 Tooth Lock	1		

NOTE: Each door of the Thru-wall Mounting Unit will have a door lock and safety switch.

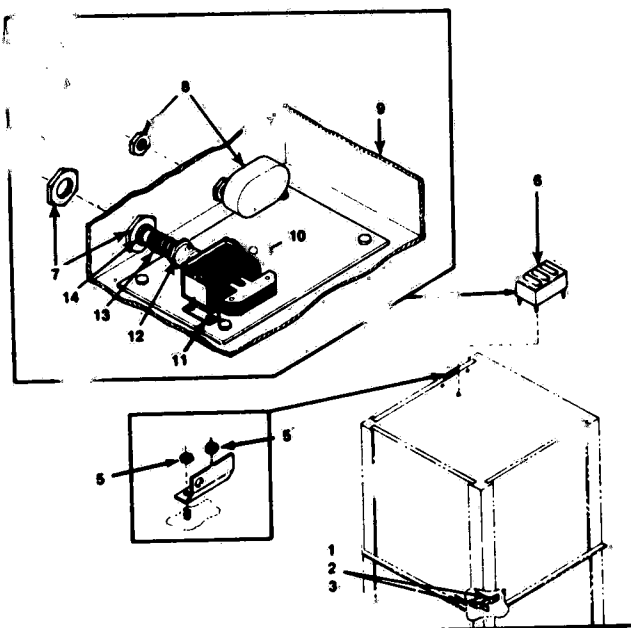


Figure 6-13. DOOR LOCK AND SAFETY SWITCH INSTALLATION (Freestanding Unit Shown).

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
6-13-		DOOR LOCK AND SAFETY SWITCH INSTALLATION —				
		For Freestanding Unit				
		DOOR LOCK AND SAFETY SWITCH INSTALLATION —				
		For Thru-wall Mounting Unit			*	
1		NUT, Top Lock Hex — 10-32	4			
2		SCREW, Truss Head — 10-32 x 3/8	4			
3		STOP, Door (A-300704)	2	4		
4		BRACKET (A-3944-1)	1	2		
5		NUT, Center Lock Hex — 1/4-20	6	12		
6		DOOR LOCK AND SAFETY SWITCH ASSEMBLY, R.H. (C-4541-2)	1	1		
7		• LOCKNUT — Brass, 3/8 NPSL (100120)	2	2		
8	P-756230-091	• SWITCH, Micro Safety	1	1		
9		• HOUSING, Door Lock — R.H. (C-4542-1)	1	1		
	P-756034-091	• COIL, Solenoid — Dormeyer	1	1		
		• BOLT, Round Head — 10-32 x 1/4	4	4		
	P-758255-091	• PLUNGER	1	1		
13	P-758323-091	• SPRING, Return (A-907-1)	1	1		
14	P-29013-043	• NIPPLE — 3/8 (100998)	1	1		
		DOOR LOCK AND SAFETY SWITCH ASSEMBLY, L.H. (C-4541-1) —				
		Not Shown		1		
		• LOCKNUT — Brass, 3/8 NPSL (100120)		2		
8	P-756230-091	• SWITCH, Micro Safety		1		
		• HOUSING, Door Lock — L.H. (C-4542-1) — Not Shown		1		
10	P-756034-091	• COIL, Solenoid — Dormeyer		1		
11		• BOLT, Round Head — 10-32 x 1/4		4		
12	P-758255-091	• PLUNGER		1		
13	P-758323-091	• SPRING, Return (A-907-1)		1		
14	P-29013-043	• NIPPLE — 3/8 (100998)		1		

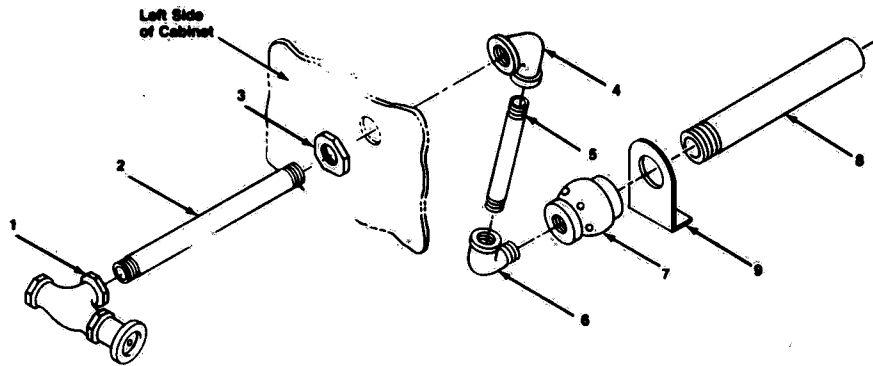


Figure 6-14. STEAM HEAT WITH STEAM INJECTOR.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY
6-14-		STEAM HEAT WITH STEAM INJECTOR	X
1		VALVE, Angle, 3/4" N.P.T. (172514)	1
2		NIPPLE, 3/4 x 6 RTOE (171252B)	1
3		LOCKNUT, 3/4 NPSL	1
4		ELBOW, Reduc, 3/4 x 1/2	1
5		NIPPLE, 1/2" (1757B)	1
6		ELBOW, Street	1
7		INJECTOR, J&J (081-P1)	1
8		NIPPLE, 1 x 9 TOE (171447B)	1
9		SUPPORT (1659-P1)	1

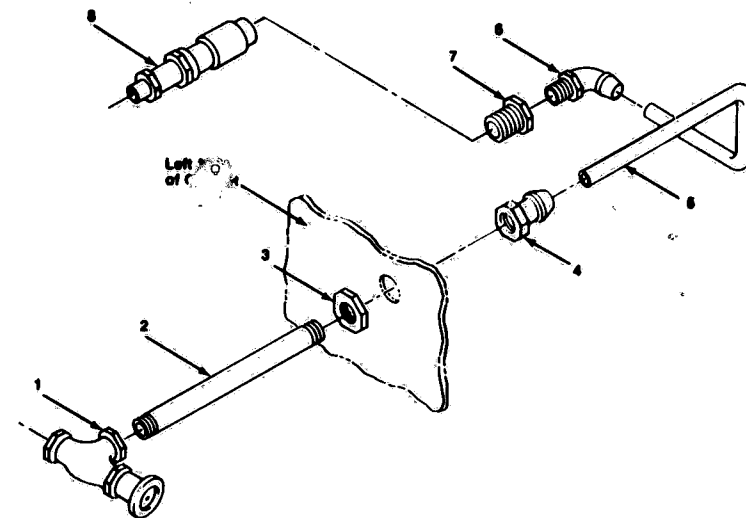


Figure 6-15. STEAM HEAT WITH THERMOTON.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY
6-15-		STEAM HEAT WITH THERMOTON	X
1		VALVE, Angle, 3/4" N.P.T. (172514)	1
2		NIPPLE, 3/4 x 6 RTOE (171252B)	1
3		LOCKNUT, 3/4 NPSL	1
4		ADAPTER, 1/2 O.D.T. x 3/4" N.P.T., Hays 9010	1
5		TUBE, 1/2 I.D. x 12 Lg.	1
6		ELBOW, 1/2 Tube x 1/2 N.P.T. Male (Hays 9060)	1
7		BUSHING, Hex 3/4 N.P.T. x 1/2 N.P.T.	1
8		THERMOTON, 3/4 N.P.T., Sarco SH-6B, (W/SST Silencer) (A-1133-G1)	1

Hospital Utensil Washers

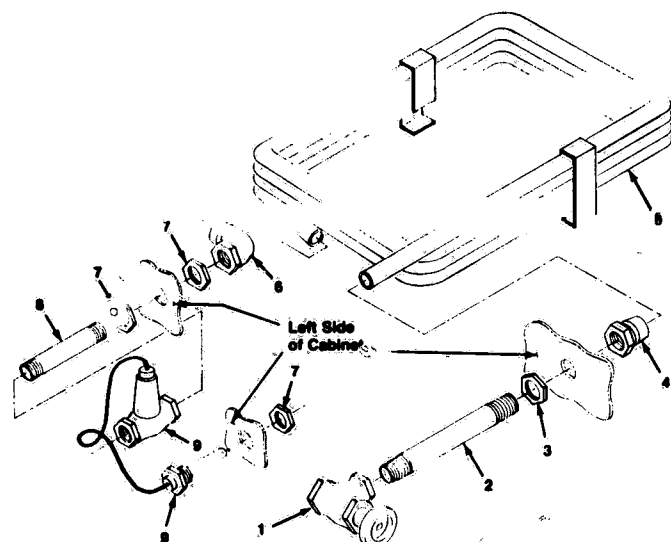


Figure 6-16. STEAM HEAT - CLOSED COIL WITH LESLIE THERMOSTAT.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY
6-16-		STEAM HEAT -- CLOSED COIL WITH LESLIE THERMOSTAT	X
1		VALVE, Angle, 3/4 N.P.T. (172514)	1
2		NIPPLE, 3/4 N.P.T. x 6 RTOE (171252B)	1
3		LOCK NUT, 3/4 N.P.S.L.	1
4		FITTING, 1/2 Tube to 3/4 N.P.T.	1
5		COIL	1
6		ELL, 1/2 Tube to 1/2 N.P.T.	1
7		LOCKNUT, 1/2 N.P.S.L.	3
8		NIPPLE, 1/2 N.P.T. x 3-1/2 RTOE (170947B)	1
9		THERMOSTAT, 1/2 N.P.T. (Leslie MC-2)	1

Hospital Utensil Washers

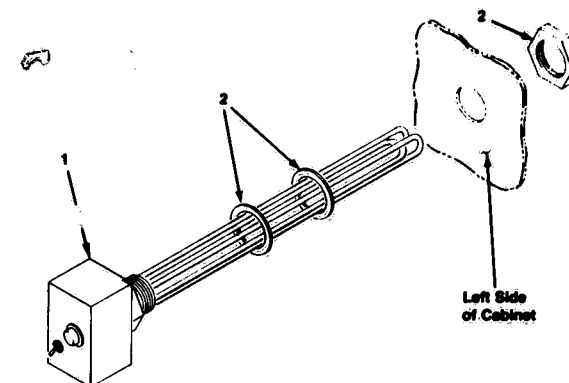


Figure 6-17. ELECTRIC HEAT

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY
6-17-		ELECTRIC HEAT	X
1		HEATER, Immersion, Controlled, Electrotherm Cat. No. HA-5021, 5 KW, 208 Volt, 60 Hz, Three Phase	A/R
	P-757988-006	HEATER, Immersion, Controlled, Electrotherm Cat. No. 52B-1015-9, 5 KW, 208 Volt, 60 Hz, Three Phase	A/R
		HEATER, Immersion, Controlled, Electrotherm Cat. No. 52B-1015-7, 5 KW, 240 Volt, 60 Hz, Three Phase	A/R
		HEATER, Immersion, Controlled, Electrotherm Cat. No. 52B-1015-10, 5 KW, 480 Volt, 60 Hz, Three Phase	A/R
	P-757988-004	HEATER, Immersion, Controlled, Electrotherm Cat. No. 52F-1015-19, 7.5 KW, 208 Volt, 60 Hz, Three Phase	A/R
	P-757988-005	HEATER, Immersion, Controlled, Electrotherm Cat. No. 52-1015-17, 7.5 KW, 240 Volt, 60 Hz, Three Phase	A/R
	P-757988-006	HEATER, Immersion, Controlled, Electrotherm Cat. No. 52B-1015-20, 7.5 KW, 480 Volt, 60 Hz, Three Phase	A/R
	P-762056-001	HEATER, Immersion, Controlled, Electrotherm Cat. No. 52F-1004-12, 10 KW, 208 Volt, 60 Hz, Three Phase	A/R
2	W-764315-314	*KIT, Heater Installation and Instructions for Sparkle II and HUW Unit	
	P-764315-312	• WASHER, Spacer	6
	P-764315-313	• TWINE, 8 Ft. Length	1
	P-413091-001	• PRIMER, Sylastic	1
	P-413653-000	• INSTRUCTIONS, Primer	1
	P-431178-001	• CEMENT, Sylastic (Tube)	4
	P-764315-185	• LOCK	1
*See paragraph 5-12 for further instructions.			

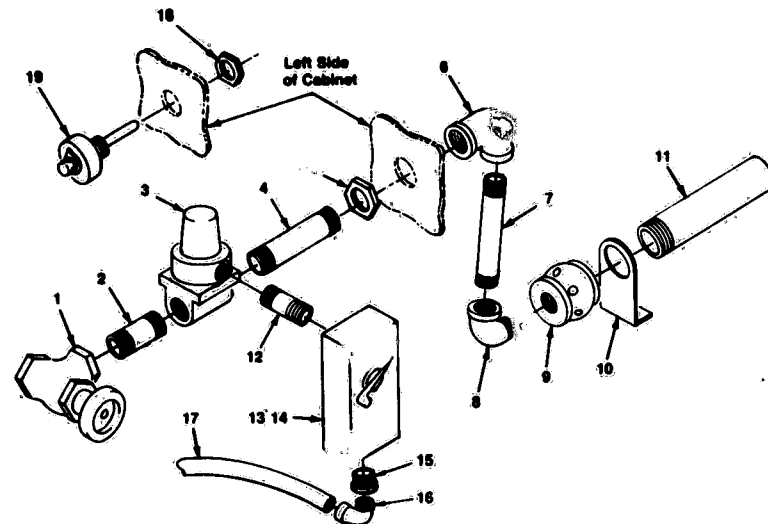


Figure 6-18. STEAM HEAT WITH INJECTOR AND ELECTRIC THERMOSTAT.

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
6-18-		STEAM HEAT WITH INJECTOR AND ELECTRIC THERMOSTAT	X			
1		VALVE, Angle, 3/4 N.P.T. (172514)	1			
2		NIPPLE, Close, 3/4 N.P.T. (171051B)	1			
3		VALVE, Solenoid, 3/4 N.P.T. (ASCO S222B95)	1			
4		NIPPLE, 3/4 x 1-3/4, RTOE (171242B)	1			
5		LOCKNUT, 3/4 NPSL	1			
6		ELBOW, Reducing, 3/4 N.P.T. x 1/2 N.P.T.	1			
7		NIPPLE, 1/2 x 2 (170757B)	1			
8		ELL, Street, 1/2 N.P.T.	1			
9		INJECTOR (Jarecki, Pat. No. 1096) (B-1081-P1)	1			
10		SUPPORT (A-1659-P1)	1			
11		NIPPLE, 1 N.P.T. x 9, TOE (171447B)	1			
12		NIPPLE, Close, 1/2 N.P.T. (1751A)	1			
13		BOX (Slater No. B-23)	1			
14		SWITCH (Arrow-Hart No. 7981)	1			
15		CONNECTOR, Liquid-Tite (160401)	1			
16		ELL, Liquid-Tite, 3/8 (160402)	1			
17		CONDUIT, Liquid-Tite, 3/8 x 12	1			
18		LOCKNUT, 1/2 NPSL	1			
19		THERMOSWITCH (Fenwal No. 21103)	1			

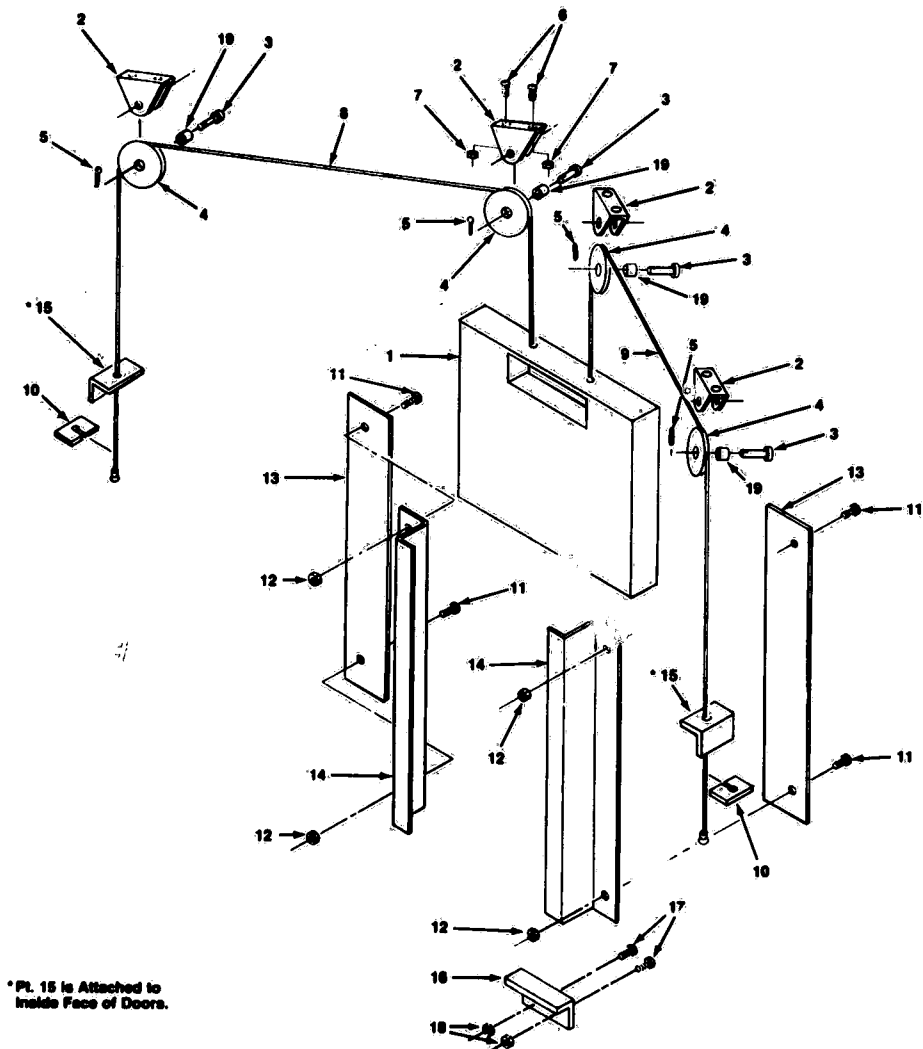


Figure 6-19. COUNTERWEIGHT INSTALLATION.

* Pt. 15 is Attached to Inside Face of Doors.

Hospital Utensil Washers

FIG & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
6-19-		COUNTERWEIGHT INSTALLATION (C-4754)	X			
1		COUNTERWEIGHT ASSEMBLY (B3601)	1			
2		BRACKET, Pulley (A217-1)	4			
3		STUD, Pulley (A216-1)	4			
4		PULLEY (A450-1)	4			
5		PIN, Cotter, .087 Dia. x 1/2 Lg.	4			
6		SCREW, Truss Hd., 5/16-18 (A104755)	8			
7		NUT, Hex, 5/16-18 (A100142)	8			
8	P-764315-170	CABLE, 1/8 Dia. x 51 In.	1			
9	P-764315-171	CABLE, 1/8 Dia. x 41 In.	1			
10		CABLE CONN. ASSEMBLY (A924-1)	2			
		• CABLE, Anchor (A569)	2			
11		SCREW, Truss Hd., 10-32 x 1/2 (A100097)	8			
12		NUT, 10-32 (A100194)	8			
13		PLATE, Wear Strip, 16 Ga. x 2 x 24-1/2, 304 SS	2			
14		GUIDE, Counterweight (A2938-2)	2			
15		ANGLE (A-1078-4)	2			
16		ANGLE, Stop, 11 Ga., 1 x 1 x 6'	1			
17		SCREW, Truss Hd., 1/4-20 x 3/8 (A100778)	2			
18		NUT, Hex, 1/4-20 (A100141)	2			
19		BUSHING, Pulley (4450)	4			



**AMSCO
SERVICE**

HOSPITAL UTENSIL WASHER

P-756098-002

(7/83)

1 of 1

