

# AMSCO Maintenance Manual

LABORATORY GLASSWARE WASHER  
Sparkle I Series  
Electrically or Steam Powered

(9/79)

P-757396-091



**AMSCO  
SERVICE**

Division of American Sterilizer Company

A-1

Sparkle I Glassware Washers

## TABLE OF CONTENTS

Section	Paragraph	Page No.	Frame
1	GENERAL INFORMATION .....	1-1	A-4
2	OPERATING INSTRUCTIONS .....	2-1	A-14
	2-1 GENERAL .....	2-1	A-14
	2-2 PREPARATION .....	2-1	A-14
	2-3 OPERATION .....	2-2	B-1
	2-4 SHUTDOWN .....	2-2	B-1
3	INSPECTION AND MAINTENANCE .....	3-1	B-2
	3-1 GENERAL .....	3-1	B-2
	3-2 PERFORMANCE VERIFICATION .....	3-1	B-2
	3-3 PREVENTIVE MAINTENANCE .....	3-2	B-3
	3-4 TROUBLESHOOTING .....	3-3	B-4
	TABLE 3-1. TROUBLESHOOTING CHART .....	3-3	B-4
4	COMPONENT REPAIR AND REPLACEMENT .....	4-1	B-14
	4-1 GENERAL .....	4-1	B-14
	4-2 WASH WATER PUMP .....	4-1	B-14
	4-3 SOLENOID VALVES .....	4-1	B-14
	4-4 THERMOSTAT, STEAM-HEATED UNITS .....	4-2	C-1
	4-5 THERMOSTAT, ELECTRICALLY HEATED UNITS .....	4-3	C-2
	4-6 BOOSTER, STEAM HEATED (OPTIONAL) .....	4-4	C-3
	4-7 FIELD CONVERSIONS .....	4-4	C-3
	TABLE 4-1. EAGLE TIMER CONNECTION .....	4-4	C-3
5	ILLUSTRATED PARTS BREAKDOWN .....	5-1	C-4

Service Bulletin  
Number

Rev. 11/74

A-2

## LIST OF ILLUSTRATIONS

Fig. No.		Page No.	Frame
2-1	CONTROL PANEL	2-1	A-14
2-2	VALVE LOCATIONS	2-2	B-1
3-1	ELECTRICAL SCHEMATIC, Sparkle I Without Optional Rinse Pump	3-7/3-8	B-9
3-2	ELECTRICAL SCHEMATIC, Sparkle I With Optional Rinse Pump	3-9/3-10	B-11
4-1	PUMP CUTAWAY	4-1	B-14
4-2	THERMOSTATIC RECALIBRATION, Steam-heated Units	4-2	C-1
4-3	THERMOSTAT SWITCH REPLACEMENT, Steam-heated Units	4-3	C-2
4-4	THERMOSTAT RECALIBRATION, Electrically Heated Units	4-3	C-2
4-5	(OPTIONAL) BOOSTER ASSEMBLY, Steam-heated	4-4	C-3
4-6	EAGLE TIMER MOUNTING	4-5	C-3
5-1	MAIN ASSEMBLY	5-2	C-5
5-2	CONTROL PANELS, Front and Inner	5-4	C-7
5-3	WASH SPRAY AND DRAIN ASSEMBLIES	5-6	C-9
5-4	RINSE SPRAY ASSEMBLY	5-8	C-11
5-5	HEATING SYSTEMS, Wash Water	5-10	C-13

Service Bulletin Number						
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Rev. 9/79

## SECTION 1

## GENERAL INFORMATION

The TECH DATA sheets included in this section contain information relating to the principal characteristics of Sparkle I Glassware Washers. These sheets illustrate and describe the general concept of the equipment, its purpose, capabilities, limitations, and technical specifications.

Service Bulletin Number						
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AMSCO

## APPLICATION

AMSCO Sparkle I Series Washers automatically wash and rinse a wide range of glassware and a variety of utensils.

## MODEL AND SIZE

The Washer may be either single-door or double-door (for pass-thru operation). The chamber door(s) raises (raise) vertically to save space. Inside chamber clearance dimensions are 16½" wide x 20" high x 16½" deep (410x508x410mm) ... loading height is 36" (914mm) 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.

**Processing Chamber** interior includes an integral wash tank which holds approximately 13 gallons (49 liters). The top of the tank is covered with removable filtering screens. The pump strainer, at the bottom of the tank, has perforations smaller than the openings of the rotary spray nozzles; it reduces the chance of nozzles becoming plugged. A stainless-steel overflow device conducts excess water to drain. Inside the base cabinet is a lever-type valve for draining the tank. The chamber also includes marine light and tracks for materials-handling equipment.

**Chamber Door** (both doors if a pass-thru model) features a double-strength, black-tinted glass window for observation of articles as they are being cleaned; a low-heat conducting handle; also counterbalanced mounting.

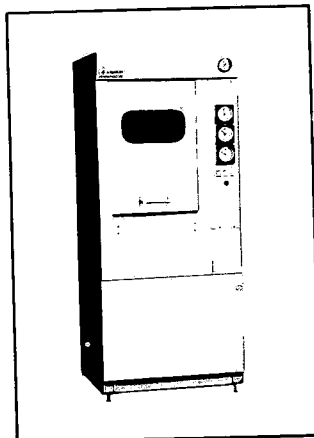
SPARKLE I SERIES  
Laboratory Model

- single door • double door

TECH  
DATA

The processing cycle will not start unless the door is closed. If door should be opened during a cycle, operation of the unit will cease immediately and each timer will automatically return to position set prior to starting the cycle. Since only the START button must be actuated upon closing the door, correct cycle conditions are ensured.

**Structural Members** are welded to and supported by the base. The base also supports the pump (or pumps), piping, valves, and temperature control. Convenient access to these components is through a full-size, hinged, service access door which serves as the front of the base cabinet. A rack is provided inside the service access door for storing instructional material. The base has leveling screws.



Typical only — some details may vary.

THE SELECTIONS CHECKED BELOW  
APPLY TO THIS EQUIPMENT

## Model

- ☐ Single Door  
☐ Double Door (pass-thru)

## Wash Water Tank Heating

- ☐ Steam (closed coil) ☐ Electric

## Voltage

- ☐ 120 Volts, Single Phase  
☐ 230 Volts, Single Phase  
☐ 200 Volts, Three Phase  
☐ 230 Volts, Three Phase  
☐ 460 Volts, Three Phase

## Mounting

- ☐ Free Standing  
☐ For Recessing (Single-door model)  
☐ For Recessing thru Barrier Wall (Only double-door model)

## Options

- ☐ Stainless-steel Impeller for Wash-water pump  
☐ Water-temperature Booster (see separate product literature)  
☐ Materials Handling Accessories (see separate product literature)

## Purified Water Rinse System With

- ☐ Integral Stainless-steel Pump  
☐ Integral Stainless-steel Pump and Remote 20 gal (76 liter) Storage Tank

Item No. \_\_\_\_\_

Location(s) \_\_\_\_\_

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

**Recirculating Wash-Rinse Water Spray System** consists of stainless-steel, upper and lower, hydraulically rotated spray arms mounted in nickel-bronze manifolds. The spray arms have high-velocity, machined ports or nozzles to provide full and efficient water coverage of the load. Hand-removable, stainless-steel end caps on the spray arms facilitate their cleaning.

A centrifugal pump circulates water between the tank and spray system. Interconnecting piping is stainless steel to enhance Washer durability.

The pump has a capacity of 150 gpm (568 liters/minute). It is powered by a 2-hp motor with NEMA drip-proof frame, grease-packed ball bearings, magnetic starter, and overload protection. The pump includes a mechanical seal, nickel-bronze impeller (type 316 stainless-steel impeller optional), and fine-mesh strainer to protect the suction side. The strainer has an area four times greater than suction intake to protect pump from soil particles and is removable for cleaning.

**Noncirculating Rinse Water Spray System** is independent of recirculating wash water system. It provides protection against residual contamination from soil-laden wash water. Rinse water is forcefully sprayed onto the load and is then conducted into the wash tank to overflow and skim the wash water. Included is a stationary spray manifold above the load and a hydraulically rotated spray manifold below. Parts of this system in contact with the rinse water are stainless steel.

**Optional Equipment for Purified Water.** Where the Purified Water supply pressure is less than 25 psig (1.76 kg/cm<sup>2</sup>), the Washer will require an optional, stainless-steel pump which includes a close-coupled, 1/2-hp drive motor.

If the purified water supply is less than 15 gallons per minute (57 liters/minute), the Washer will require the optional pump described above and an optional 20-gallon (76-liter) tank which comes ready for wall mounting adjacent to the Washer.

**Tank Heating System** automatically maintains temperature of the recirculating wash water. The temperature is factory set at 160 F (71 C), but it may be adjusted. There is a choice of either a steam- or electrically-powered system.

The steam-powered heating system includes a stainless-steel steam coil. The electrically-powered system includes renewable, stainless-steel-sheathed, immersion, 5-kw heaters with low water protection having manual reset.

An optional water-temperature booster (either steam- or electrically-powered) is available to preheat supply water if the temperature is less than recommended . . . 140 to 180 F (60 to 82 C). Ask for separate product literature.

#### AUTOMATIC CONTROL

The main operating control panel is at eye level adjacent to the Washer door. The unloading end of the double-door Washer also includes three cycle-phase indicator lights.

Adjustable timers are provided for the wash, fresh hot water rinse, and purified water rinse phases. Each timer automatically resets upon completion of its phase. After filling the tank and actuating the heater switch at the beginning of the day, all that is required to start the cycle is to select the wash and rinse times then press the "START" button. No further attention

is required until a signal light goes out indicating completion of the following cycle sequence:

- Load is washed with recirculating detergent water maintained at 160 F (71 C).
- Load is rinsed with fresh, hot tap water.
- Load is rinsed a second time with Purified Water (if available) or again with hot tap water at supply line temperature.

**Controls** include "FILL," "HEAT" and "LIGHT" push buttons (that glow when actuated); "START" button; wash timer (0 to 10 minutes); fresh hot water rinse timer (0 to 5 minutes); purified water rinse timer (0 to 2 1/2 minutes); and cycle-phase indicating lights that are integral with timers. A water-temperature gauge is in full view above the panel.

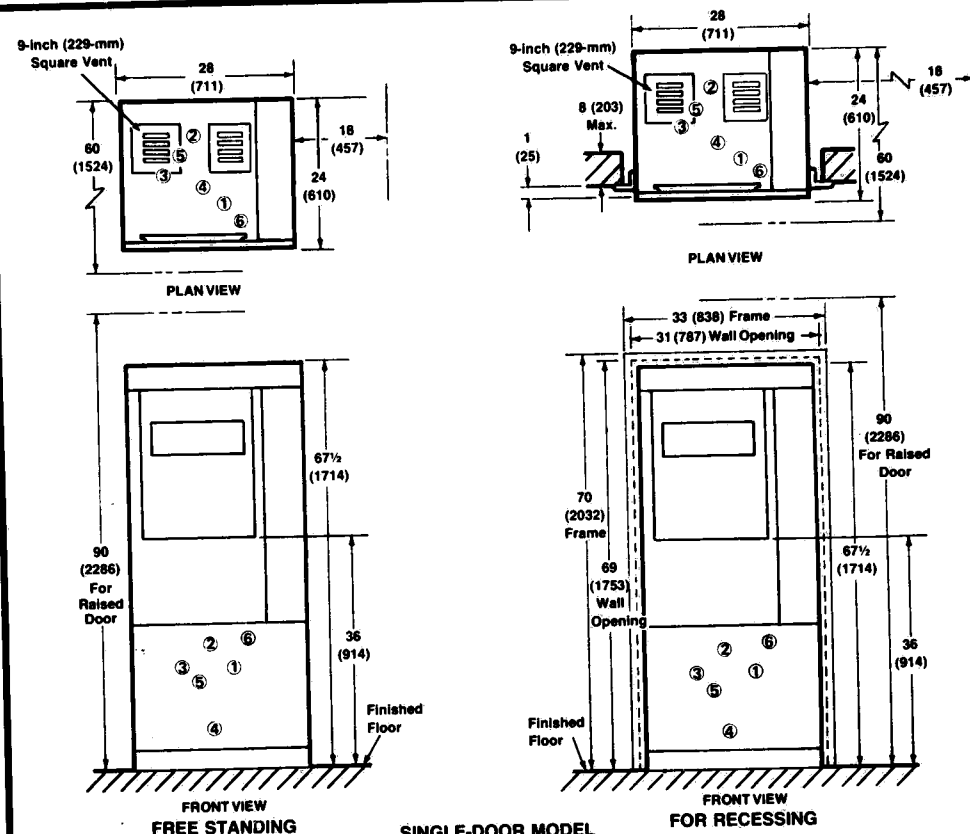
**Service compartment** encloses the control components, fuses, relays and pump-motor starter. The compartment has a removable cover.

#### MOUNTING

The Washer is available as a cabinet-enclosed, freestanding unit or for recessing. Units may be recessed either completely (single-door models) or through a barrier wall (double-door models). Stainless-steel wall flange and trim panels are included for a model mounted through a barrier wall (front flange is fixed; rear frame adjustable).

#### MATERIALS HANDLING ACCESSORIES

See separate product literature for details.



**DIMENSIONS ARE INCHES (MILLIMETERS) — DRAWING IS NOT TO SCALE**  
(SEE NEXT PAGE FOR NOTES)

#### OPERATING REQUIREMENTS

- ① **STEAM** — 3/4 NPT; 20 to 80 psig (1.41 to 5.63 kg/cm<sup>2</sup>); Not required if electric tank heaters are selected.
- ② **STEAM RETURN** — 1/2 NPT; Not required if electric tank heaters are selected.
- ③ **HOT WATER** — 3/4 NPT; 140 to 180 F (60 to 82 C); 20 to 50 psig (1.41 to 3.52 kg/cm<sup>2</sup>); Connect to Water-temperature Booster if furnished, see Note 2.
- ④ **PURIFIED WATER** (Distilled or Deionized) — 3/4 IPS (or equivalent), 25 psig (1.76 kg/cm<sup>2</sup>) minimum; see Note 3.
- ⑤ **DRAIN** — 1 1/2 NPT
- ⑥ **TERMINAL BOX:**

#### Steam-heated Units —

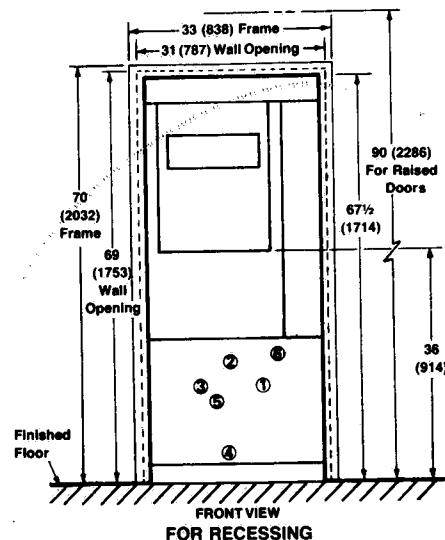
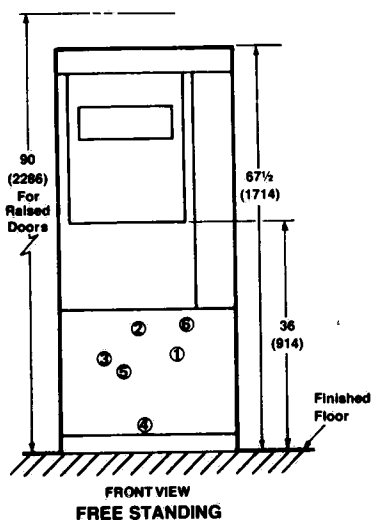
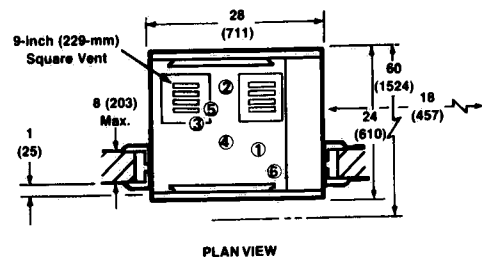
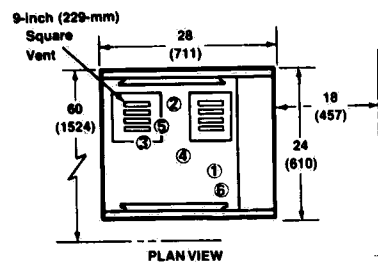
120 V, 25 A, 1 Phase, 60 Hz;  
230 V, 15 A, 1 Phase, 60 Hz;  
200 V, 10 A, 3 Phase, 60 Hz;  
230 V, 10 A, 3 Phase, 60 Hz; or  
460 V, 5 A, 3 Phase, 60 Hz.

#### Electrically Heated Units —

120 V, 65 A, 1 Phase, 60 Hz;  
230 V, 35 A, 1 Phase, 60 Hz;  
200 V, 20 A, 3 Phase, 60 Hz;  
230 V, 20 A, 3 Phase, 60 Hz; or  
460 V, 10 A, 3 Phase, 60 Hz.

(Listed amperage includes pumps and heaters. See note 2 if electric Water-temperature Booster is selected.)

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



DOUBLE-DOOR MODEL

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

(SEE PREVIOUS PAGE FOR OPERATING REQUIREMENTS)

#### NOTES

1. Pipe sizes shown indicate utility service terminals. Building service lines to and from the equipment should be increased one pipe size to ensure optimum equipment performance.
2. See separate product literature if water-temperature booster is specified. Interconnecting piping between Washer and booster is not by AMSCO.
3. If wall-mounted Storage Tank is required for the Washer, request separate roughing-in prints from your local AMSCO Regional Office as there would be special installation requirements.
4. A floor drain should be provided in the vicinity of the Washer.
5. Consumption Rates (Approx.): Water — 20 gpm (76 liters/minute) at 26 psig (1.83 kg/cm<sup>2</sup>). Steam — 150 lbs/hr (68 kg/hr) using 180 F (82 C) hot water, 350 lbs/hr (159 kg/hr) using 140 F (60 C) hot water. Purified Water — 6 gal/cycle (23 liters/cycle), 12 gpm (46 liters/minute).
6. Sensible Heat Loss: Approx. 6,000 BTU/HR.

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



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MATERIALS HANDLING ACCESSORIES  
For SPARKLE Series  
Laboratory Glassware & General Purpose Washers

TECH  
DATA

SD-158R2  
(4/77)

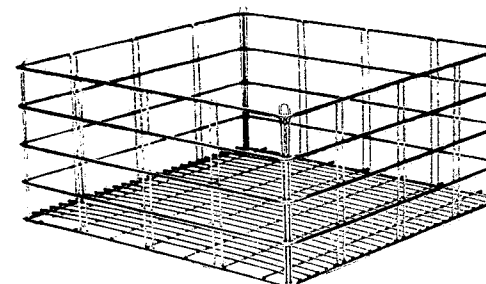
NOTE: See Last Page For Selections.

#### LOADING RACKS

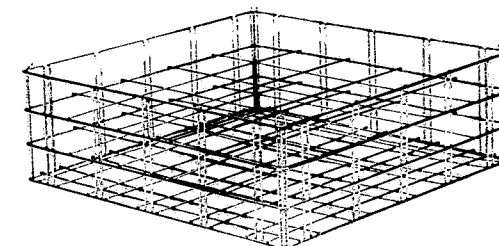
These specialized racks help you move glassware and utensils from work station to work station by conveyor or mobile cart. And they expedite processing of such materials through a SPARKLE Series Washer. With these racks, large volumes of glassware and utensils are easily processed with minimum handling.

Each rack features an open-frame design that assures maximum load exposure to the wash and rinse sprays and hastens drainage. The sides, bottoms and spacers are reinforced, welded, stainless-steel wire rod. The racks are electropolished.

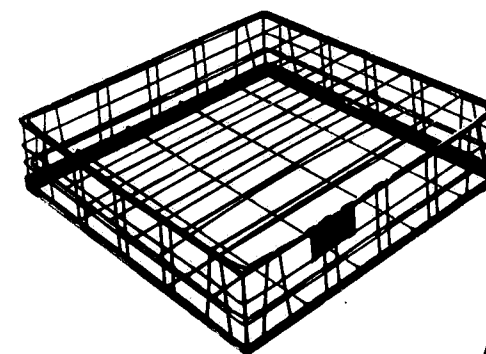
Horizontal frame pieces are braced and, where feasible, racks have corners with formed posts for easy stacking. Flatware, tray and utensil racks are reinforced around the bottom with stainless-steel bar stock. Racks are approximately 16x16" (Sparkle I), 20x20" (Sparkle II); height varies with their application design. There are many models to choose from, as follows.



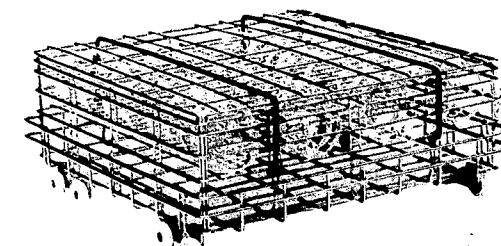
**General Purpose Rack** — Accommodates beakers, jars, utensils, and other glass containers. They will also hold test tube baskets.



**Compartment Rack** — Accommodates AMSCO Square-Pak flasks, Erlenmeyer flasks and various small cylinders. A Sparkle I rack has 25 compartments (especially suited for 125- and 250-ml Erlenmeyer flasks). Sparkle II racks are available with 9, 25 or 36 compartments. The 9-compartment rack can be effectively used with a matching spindle manifold to provide spindle washing of flask interiors ... see Dolliers.



**Tray Rack** (Sparkle II only) — Accommodates nine shallow trays. Spacers separate and hold trays upright.

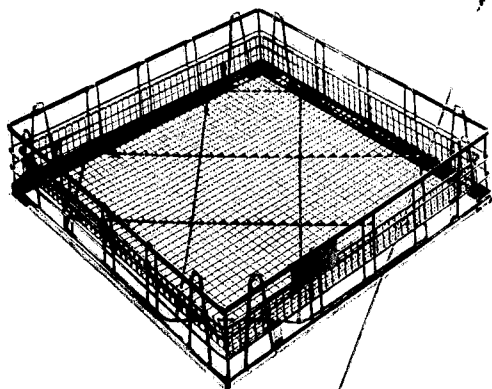


**Petri Dish Rack** (Shown on Sparkle II General Purpose Dolly) — Especially designed for washing 100-ml dishes (15 mm maximum height of Petri Dish). Each rack includes a hold-down cover and straps. A Sparkle I rack holds 36 dishes; Sparkle II, 64.

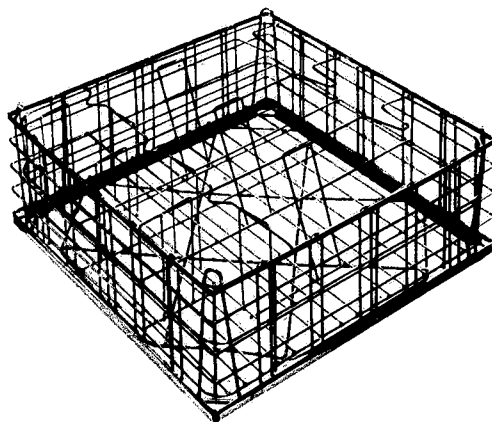
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Because of American Sterilizer Company's continuing program of research and development, all specifications and descriptions are subject to change without notice.

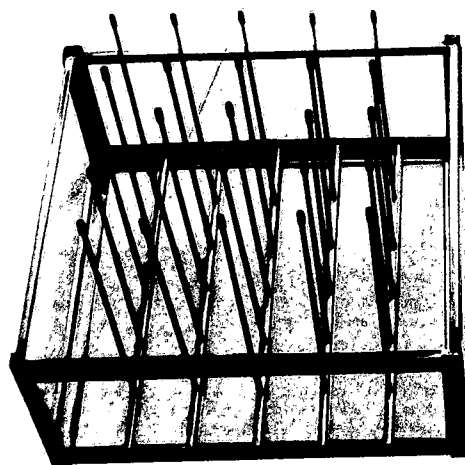
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**Flatware Rack** (only for Sparkle II) — Accommodates various articles of flatware. Mesh liner prevents items from slipping through open framework.

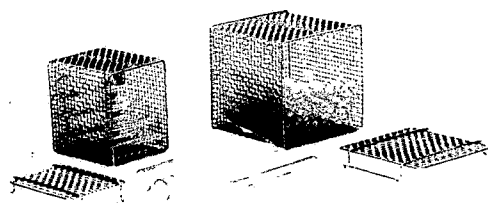


**Utensil Rack** (only for Sparkle II) — Accommodates three bedpans and three urinals or three handbasins and three emesis basins.



**Spindle Rack** (only for Sparkle I) — Accommodates large Erlenmeyer flasks, bottles, graduated cylinders, funnels, and volumetric flasks on 25, ten-inch-high, plastic-tipped spindles.

#### TEST TUBE BASKETS AND COVERS



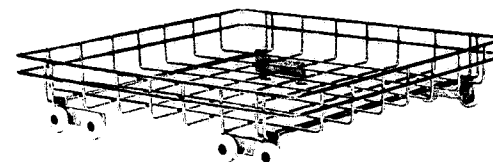
These single-compartment baskets and covers are ideal for processing standard test tubes, vials, small bottles, and similar glassware. Each basket is constructed of interwoven, stainless-steel wires welded to stainless-steel-wire rods at the top and bottom. Snap-on covers, similarly constructed, are also available. Both the baskets and covers are electropolished.

Baskets are available either 4x5x5" or 6x6x6". The baskets may be placed in either a General Purpose Rack or dolly (dolly only for Sparkle II).

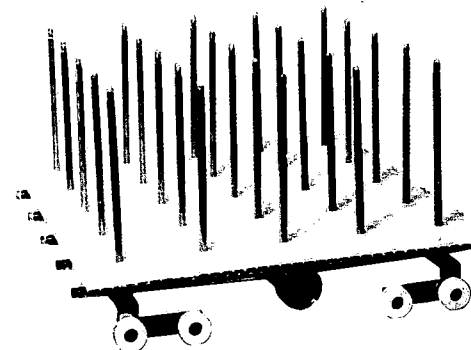
#### DOLLIES (For Sparkle II)

Sparkle II materials handling dollies ease Washer loading and unloading. The dollies are simply wheeled into and out of the washing chamber... thereby eliminating strenuous lifting. Each stainless-steel-manifold or rack-type dolly is of the same high quality as previously specified for the loading racks. Each is mounted on eight quiet-operating, nylon wheels that are highly corrosion resistant.

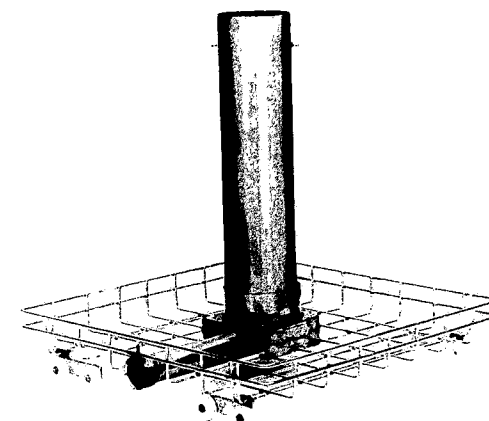
Manifold dollies are especially designed to positively align with the coupler/diverter on Sparkle II Laboratory Washers. This dual-purpose device diverts cleansing waters through plastic-covered spindles to simultaneously wash glassware inside and out. The manifolds present minimum obstruction to wash and rinse sprays; manifold pipes have plugged openings for easy clean-out.



**General Purpose Dolly** — For use with any of the previously specified loading racks or test tube baskets. Simplifies Washer loading without added expense for specialized rack-type dollies.



**Manifold Dolly** — Accommodates miscellaneous narrow-neck flasks, bottles, graduated cylinders, and volumetric flasks. Dollies are available with 9, 16, 25, 64, or 144 spindles. The 9-spindle dolly is for use with a matching compartment rack... see **LOADING RACKS**. All other manifold-type dollies have a plastic "egg-crate" bottom that prevents glassware from striking the manifold pipes.

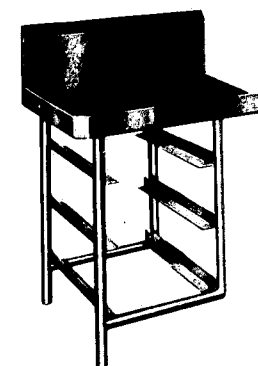


**Pipet Dolly** — Available with flooded or pressure spray system. A flooded system includes hold-down screen; the pressure system, a holder insert. Pipet holder is easily removed from dolly for loading. Extra holders are available if preloading is desired.

#### LOAD/UNLOAD TABLES

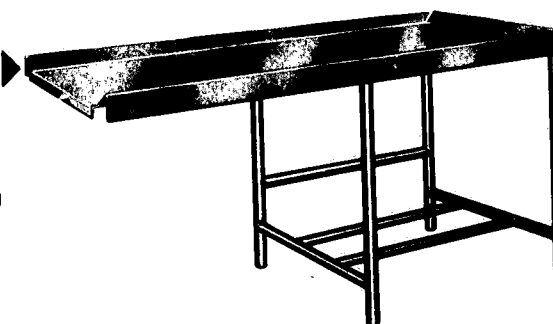
Attached to a double-door Washer, these Tables aid pass-thru operations. With these tables, racks of glassware and utensils are at a convenient 36" work height from which they are simply pushed or wheeled into and through the Washer.

Tabletop is reinforced stainless steel. Raised (beveled) edges and a slight pitch toward Washer prevent residual water from spilling onto the floor. Framework is firmly braced with tubular stainless steel. Table rests on stainless-steel, height-adjustable feet. Sparkle II tables over 3' long feature rack storage beneath the tabletop. Sparkle I tables are 45" long at loading end; 39" long at unloading end. Sparkle II tables are available in a variety of lengths... see **SELECTIONS**. Table widths match those of the Washers.



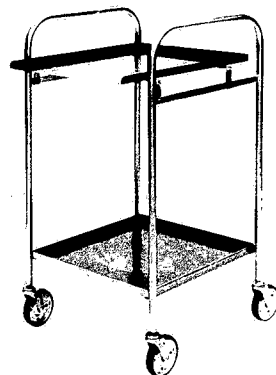
Sparkle II

Sparkle I



## TRANSFER CARRIAGES

A Sparkle Series Transfer Carriage is a convenient way to load, unload and transport racks of glassware and utensils processed in Sparkle Series Washers. Carriage features rugged, tubular stainless-steel construction. Finish is polished. You will get many years of use from these carriages. And yet they will retain their clean appearance, durability and smooth functioning. The top shelf is approximately 36" high, and is adjustable for positive alignment with the Washer track assembly. The frame is supported on bearing-mounted, swivel casters with synthetic rubber tires. A Sparkle II carriage includes a pin-lock for securing materials handling dollies. Both carriages include a full-length, full-width, lower shelf.



### THE SELECTIONS CHECKED BELOW APPLY TO THIS EQUIPMENT

#### SPARKLE I

##### Racks (16x16")

- ☐ General Purpose  
☐ 25-Compartment  
☐ 25-Spindle  
☐ Petri Dish (Holds 36 100-ml dishes)

Qty: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

##### Test Tube Basket and Cover

- ☐ Basket (4x5x5")  
☐ Cover (4x5")  
☐ Basket (6x6x6")  
☐ Cover (6x6")

Qty: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

##### Load/Unload Table

- ☐ One Each End  
 \* (Double-door Models Only)

Qty: \_\_\_\_\_

##### Transfer Carriage

- ☐ With 16x25" Loading Shelf

Qty: \_\_\_\_\_

#### SPARKLE II

##### Racks (20x20")

- ☐ General Purpose  
☐ 25-Compartment  
☐ 36-Compartment  
☐ 9-Compartment†  
☐ Flatware (4" Deep)  
☐ Utensil  
☐ Tray  
☐ Petri Dish (holds 64 100-ml dishes)

Qty: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

##### Test Tube Baskets and Covers

- ☐ 4x5x5" Basket  
☐ 4x5" Cover  
☐ 6x6x6" Basket  
☐ 6x6" Cover

Qty: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

##### Dollies (20x20")

- ☐ General Purpose (for use with previous Racks and Baskets)  
☐ 9-Spindle Manifold\*†  
☐ 16-Spindle Manifold\*  
☐ 25-Spindle Manifold\*  
☐ 64-Spindle Manifold\*  
☐ 144-Spindle Manifold\*  
☐ Pipet Manifold Header and Holder (Flooded System)\*  
☐ Pipet Manifold Header and Holder (Pressure System)\*  
☐ Extra Pipet Holder (fits both Flooded and Pressure Systems)\*  
☐ Extra Holder Insert for Pressure System\*

Qty: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

† These items can be used simultaneously to provide spindle washing of flask interiors.

\* Laboratory Model Only

##### Load/Unload Tables

##### RH LH

- ☐ 3 ft. long  
☐ 4 ft. long  
☐ 5 ft. long  
☐ 6 ft. long  
☐ 7 ft. long  
☐ 8 ft. long

Qty: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

##### Transfer Carriage

- ☐ With 20x25" Loading Shelf

Qty: \_\_\_\_\_

## SECTION 2

### OPERATING INSTRUCTIONS

#### 2.1. GENERAL

The following instructions are intended to guide servicemen when (1) instructing operators in techniques that will ensure optimum equipment performance; and (2) verifying the validity of operator complaints. If the Washer is not operating properly refer to Paragraph 3-4, TROUBLE-SHOOTING. For capabilities of the equipment, refer to Section 1, GENERAL INFORMATION.

#### 2.2. PREPARATION (STARTUP)

1. Turn main disconnect switch (building supply) ON ... if either of the indicating lights (FILL or HEAT) should glow, press the (lighted) button to turn it OFF (Fig. 2-1).

2. Raise chamber door and check the following to be sure that the:

- Wash Arms and lower Rinse Arm rotate freely;
- Wash and Rinse Nozzle ports and slots are clean;
- Wash Tank has been drained and flushed; and
- Refuse Screens are clean and in place.

3. Open lower access door and close CHAMBER-DRAIN valve (Fig. 2-2).

4. Open HOT-WATER SUPPLY valve and (optional) PURIFIED WATER RINSE valve ... close access door.

5. Lower chamber door and press FILL button to fill the tank. (Fill light will glow; tank will receive water through the rinse-spray piping.)

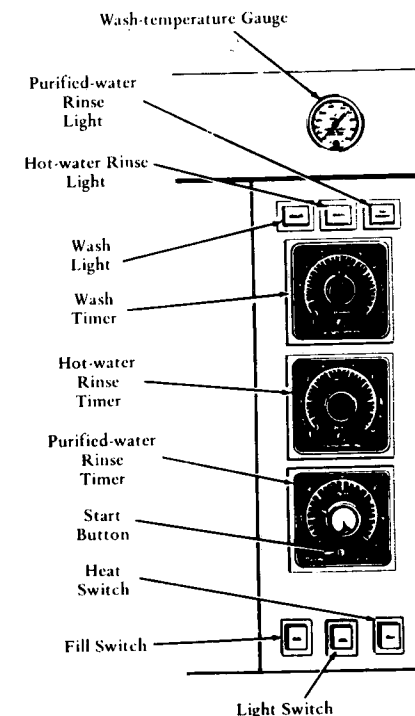


Figure 2-1. CONTROL PANEL

6. Allow tank to fill for approximately one minute; then press the FILL button again to stop water supply ... FILL light will go OFF.

7. If a steam-powered model, open the STEAM SUPPLY valve ... it's located behind the access door.

Service Bulletin Number									
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13. Set the timers for an average cycle: wash, 3 minutes; hot water rinse, 1-minute; and (optional) purified water, 15 seconds. Push the START button.

a. Be sure that all instrumentation is operating properly.

b. Open the lower access door and check the plumbing assembly. Be sure there is no evidence of leaks.

c. Observe the rinse water flow pressure; adjust the pressure reducing valve, if necessary.

14. If a booster is used, check its installation. Be sure the rinse water flow pressure to the Washer is sufficient (20 psig minimum) and that its temperature is correct (180 F). If necessary, check pressure by installing a gauge in the Washer rinse water piping. Observe the pressure during a rinse cycle.

**NOTE:** Water to the booster must be maintained at a minimum of 140 F. If it is not, the booster will be unable to furnish 180 F water during sustained usage. This also applies to minimum steam pressure, if applicable.

3.3. PREVENTIVE MAINTENANCE

Daily

1. Open door(s). Leave door(s) open during shutdown to permit airing of Washer interior.

2. Remove refuse screens from Washer. Clean screens and then store them outside of Washer until preparing for next operation.

3. Inspect the spray nozzles. If plugged, carefully clean the nozzle openings. Remove the wash spray end caps and turn Washer on briefly to rinse soil from spray pipes. Replace the end caps. To remove hard-water deposits, soak the rinse spray 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 granules. Follow directions on the container.

4. Rinse the tank and Washer interiors with clean water. If necessary, remove hard-water deposits by filling the tank with fresh water, adding two cups of AMSCO *descaler* and operating the machine through several cycles to allow the solution to circulate. Do not use abrasive cleaning compounds, wire brushes or steel wool on Washer surfaces. When the interior is clean, drain the tank and flush it well with clean water.

Weekly

1. Remove the knurled retaining screw, lift the lower spray pipes from the rotary hub and the end caps from the wash-spray pipes. Thoroughly clean the inside of the pipes with a solution of AMSCO *descaler* (1 cup to 1 quart of water); use the brush provided. Replace end caps, spray pipes, and retaining screw. Remove the upper wash spray pipes and repeat the above cleaning procedure.

As Necessary

1. Shut off the incoming water (also steam if applicable). Disassemble and check the supply line strainers; clean them if necessary. Also, remove and clean the pressure reducing valve strainer.

2. Check the solenoid valves. Disassemble and clean the valves if operation is sluggish or if there is excessive leakage.

3. Lubricate the pump motor after every 1000 operating hours. Use a general-purpose, ball-bearing grease. Do not allow lubricant to get into motor windings.

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

Service Bulletin Number						
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**CAUTION:** 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 containers.

3.4. TROUBLESHOOTING

1. Use the operating procedures presented in Section 2 to verify any trouble symptoms.

2. After the symptom has been verified, refer to Table 3-1. From the table, select the example that is most appropriate to your problem. Follow the recommended correction.

3. Use the electrical schematics (Figs. 3-1 and 3-2) as aids in locating and understanding operation of the Washer.

4. Also, if necessary, refer to Section 4, COMPONENT REPAIR AND REPLACEMENT.

TABLE 3-1. TROUBLESHOOTING CHART

PROBLEM	CORRECTION
1. Washer will not operate	a. Check electrical service to Washer; restore, if necessary b. Make certain that door(s) is completely lowered and that safety switch makes contact; repair or replace, as necessary c. Electrically Heated Units - make certain water in tank is at proper level; fill, if necessary. Be sure low-water cutoff switch is operable d. Be sure wash water pump is operational, refer to step 2 e. Check timers, start switch and other electrical components; tighten loose wires or replace faulty items, as necessary
2. Wash or rinse (if applicable) water pump will not operate	a. Check electrical service to Washer; restore, if necessary b. Check starter overload switch located on inner control panel; reset, if necessary c. Check fuse(s) located on inner control panel; replace, if necessary d. Prime pump e. Check pump motor; repair or replace, as necessary

Service Bulletin Number						
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TABLE 3-1. (Continued)

PROBLEM	CORRECTION
3. Cycle starts but all phases are not completed	<ul style="list-style-type: none"> <li>a. Check starter overload switch(es) located on inner control panel; reset, if necessary</li> <li>b. Set timers to 0 and then reset for desired times; replace faulty timers</li> <li>c. 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</li> </ul>
4. Wash water spray is weak or sporadic	<ul style="list-style-type: none"> <li>a. Make certain water in tank is at proper level; fill, if necessary, and be sure drain valve is fully closed</li> <li>b. Clean spray pipes and nozzles</li> <li>c. If operated on 3-phase service, be sure pump rotation is correct; reverse L1 and L3 connections, if necessary</li> <li>d. 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</li> <li>e. Clean pump suction strainer</li> <li>f. Check impeller; replace, if worn; realign if not keyed to shaft</li> <li>g. Check pump seals and castings for leaks; repair or replace, as necessary</li> </ul>
5. Rinse water pressure is insufficient	<ul style="list-style-type: none"> <li>a. Check building hot water supply pressure; be sure it is between 20 and 50 psig</li> <li>b. Clean spray pipes and nozzles</li> <li>c. Clean supply line and pressure reducing valve strainers</li> <li>d. Check operation of rinse water solenoid valve and vacuum breaker; clean, repair or replace, as necessary</li> </ul>

Service Bulletin  
Number

TABLE 3-1. (Continued)

PROBLEM	CORRECTION
6. Wash water temperature is not correct	<p>Steam-heated Units:</p> <ul style="list-style-type: none"> <li>a. Be sure steam supply valve is fully open and that building supply pressure is 20 psig minimum</li> <li>b. Check thermostat; adjust, repair or replace, as necessary</li> <li>c. Clean steam supply line strainer</li> <li>d. Check operation of steam solenoid valve and condensate trap; clean, repair or replace, as necessary</li> </ul> <p>Electrically Heated Units:</p> <ul style="list-style-type: none"> <li>a. Make certain water in tank is at proper level; fill, if necessary; be sure drain valve is fully closed</li> <li>b. Check thermostat; adjust, repair or replace, as necessary</li> <li>c. Check low water cutoff switch; reset, repair or replace, as necessary</li> <li>d. Check heat contactor; repair or replace, as necessary</li> <li>e. Check heater operation; repair or replace, as necessary</li> </ul>
7. Wash water in tank is not maintained at the proper level	<ul style="list-style-type: none"> <li>a. Check drain valve; repair or replace, as necessary. Be sure it is fully closed</li> <li>b. Check for and repair any leaks in the tank or overflow system</li> <li>c. Clean spray nozzles</li> <li>d. Determine if extended idle time between cycles has contributed to evaporation of heated water</li> </ul>

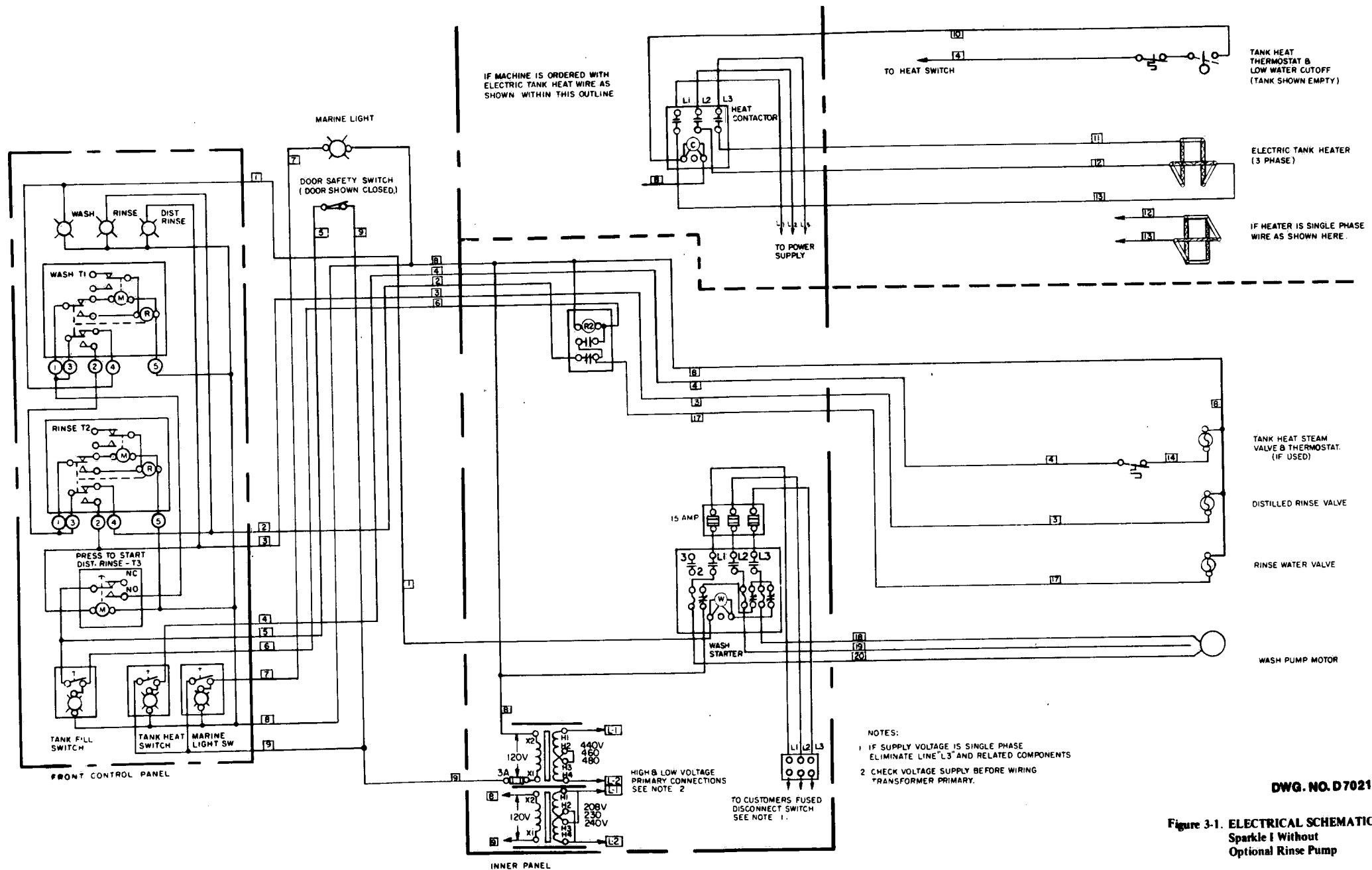
Service Bulletin  
Number

TABLE 3-1. (Continued)

PROBLEM	CORRECTION
8. Rinse water is not the proper temperature	<ul style="list-style-type: none"> <li>a. Check building hot water supply temperature (should be 140 F if a booster is used, 180 F if booster is not used); correct, if necessary</li> <li>b. If a booster is used, check the following as applicable:               <ul style="list-style-type: none"> <li>1) Check building electrical and/or steam supplies (should be 20 to 80 psig); correct, if necessary. Be sure control switch is on</li> <li>2) Clean steam supply line strainer</li> <li>3) Check thermostat; adjust, repair or replace, as necessary</li> <li>4) Check operation of steam solenoid valve and condensate trap, clean, repair or replace, as necessary</li> <li>5) Check electrical contactor and elements; repair or replace, as necessary. Reset low-water cutoff switch, if necessary</li> </ul> </li> </ul>
9. Items are not clean or are spotted at end of cycle	<ul style="list-style-type: none"> <li>a. Be sure gross soil is removed from items prior to loading racks</li> <li>b. Be sure items are properly positioned in racks and that racks are not overloaded</li> <li>c. Check wash and rinse temperatures; correct, if necessary</li> <li>d. Be sure detergent solution is being maintained at proper strength</li> <li>e. Clean wash and rinse spray nozzles. Be sure they are properly positioned</li> <li>f. Check wash water; increase change frequency, if necessary</li> <li>g. If applicable, check the optional purified water rinse system; repair or replace any defective items. Be sure the pump is operable and that it actuates when the Washer rinse timer energizes the rinse solenoid valve</li> </ul>

Service Bulletin Number						
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# Sparkle I Glassware Washers

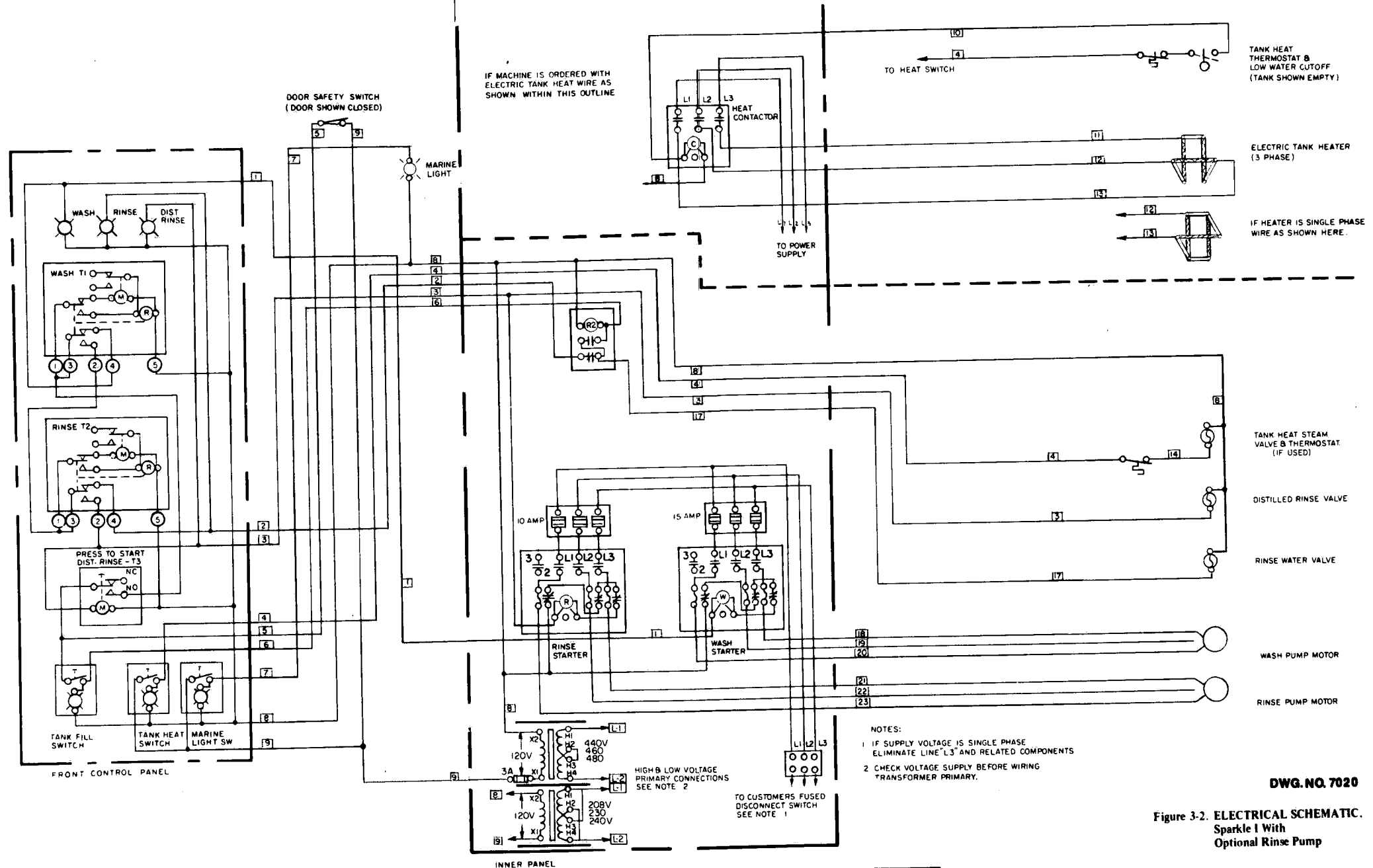


DWG. NO. D7021

Figure 3-1. ELECTRICAL SCHEMATIC.  
Sparkle I Without  
Optional Rinse Pump

3-7/ 3-8

# Sparkle I Glassware Washers



DWG. NO. 7020

Figure 3-2. ELECTRICAL SCHEMATIC.  
Sparkle I With  
Optional Rinse Pump

3-9 / 3-10

## SECTION 4

## COMPONENT REPAIR AND REPLACEMENT

**WARNING: BE SURE TO PRESS THE POWER SWITCH OFF AND ALLOW THE WASHER TO COOL BEFORE STARTING ANY OF THE FOLLOWING PROCEDURES.**

## 4.1. GENERAL

This section includes instructions for the adjustment, disassembly, repair, and replacement of selected components.

## 4.2. WASH WATER PUMP

## Seal Replacement (Fig. 4-1)

1. Remove the access plate from the end of the pump housing.
2. Remove the bolt holding the impeller on the motor shaft. Remove the impeller and sleeve assembly.
3. Remove the impeller "O" ring. Lightly oil the shaft to facilitate seal withdrawal. Remove the seal.
4. Clean the shaft and the seal cavity within the pump casing before installing a new seal. Be sure the cavity tapered surface is smooth and free of dirt.
5. Examine the shaft. If pitted or corroded, have it refinished before replacing the seal.

**CAUTION: A seal installed on a pitted or corroded shaft may not eliminate a leak.**

6. Lightly oil the shaft, the pump cavity wall and the rubber ring on the outside of the seal. Install the seal. Be sure it is fully seated in the cavity and that it is square with the shaft.

7. Install a new "O" ring on the shaft. Install the impeller and sleeve assembly; be sure it is

properly keyed. Start and tighten the impeller bolt.

**NOTE:** The seal will simultaneously be compressed to the proper working height when the impeller bolt is tightened. No other adjustment is necessary.

8. Replace the access plate. Use a mastic sealer to prevent leakage.

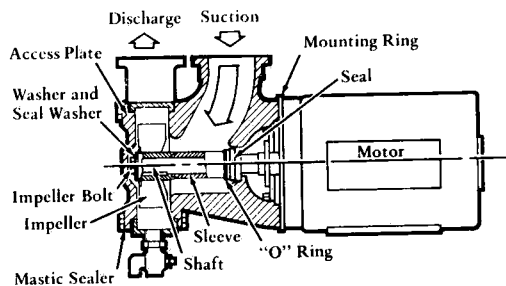


Figure 4-1. PUMP CUTAWAY

## 4.3. SOLENOID VALVES

## Testing

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

- a. Check voltage across the coil leads. The voltage must be at least 85 percent of nameplate rating. Look for loose or blown fuses and broken lead wires or splice connections.

- b. Check solenoid coil for open circuit or ground; replace, if necessary.

Service Bulletin Number						
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2. Energize and deenergize the coil. Observe valve operation for proper opening and closing. Disassemble the valve, inspect and clean the internal components or replace the valve, as necessary. Check valve pressure; be sure it is within the range specified on the nameplate.

#### 4.4. THERMOSTAT-STEAM-HEATED UNITS

##### Recalibration (Fig. 4-2)

1. Allow the wash water to reach the approximate operating temperature; then shut off electrical power to the Washer.

2. Set the thermostat temperature selector knob to the corresponding thermometer reading.

3. Loosen set screw and remove the temperature selector knob. Remove the nut, dial and cover plate from the junction box.

4. Disconnect the incoming leads at the snap switch. Connect an ohmmeter across the switch connections.

5. Hold the adjusting screw locknut to prevent it from turning. Turn the adjusting screw counter clockwise until the switch opens (as indicated on the ohmmeter) to increase the temperature setting. Turn the adjusting screw clockwise until the switch closes to decrease the temperature setting.

**CAUTION:** Do not move the selector stem. Do not turn the adjusting screw in or out further than necessary to accomplish desired setting.

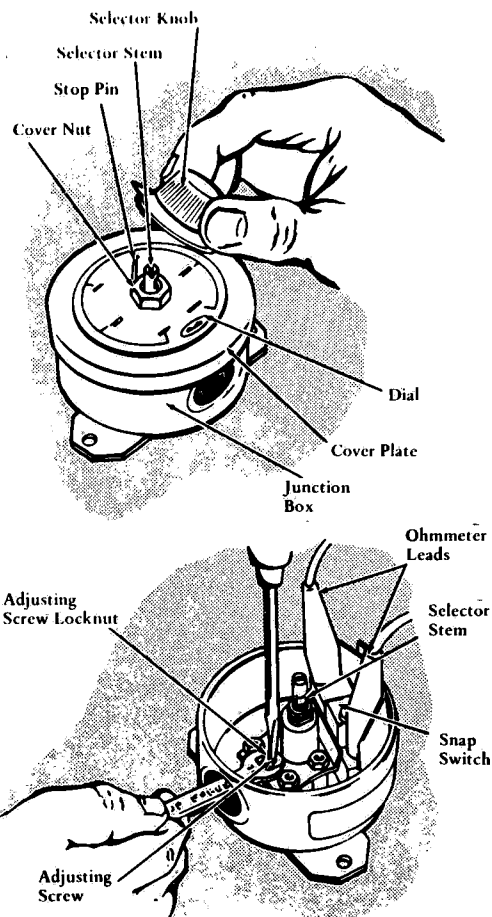


Figure 4-2. THERMOSTAT RECALIBRATION, Steam-heated Units

##### Switch Replacement (Fig. 4-3)

1. Shut off electrical power to the Washer.

2. Loosen set screw and remove the temperature selector knob. Remove the nut, dial and cover plate from the junction box. Do not move the temperature adjusting screw or selector stem.

3. Disconnect the incoming leads at the snap switch.

4. Remove the screws which secure the switch to its mounting bracket. Remove the switch.

5. Replace the switch. Be sure the insulation is properly positioned behind the switch. Secure the switch with the screws previously removed.

6. Connect the incoming leads to the switch terminals. Replace the parts removed in step 2. Be sure the stop pin on the cover plate is opposite the adjusting screw and that the knob set screw is on the flat part of the stem.

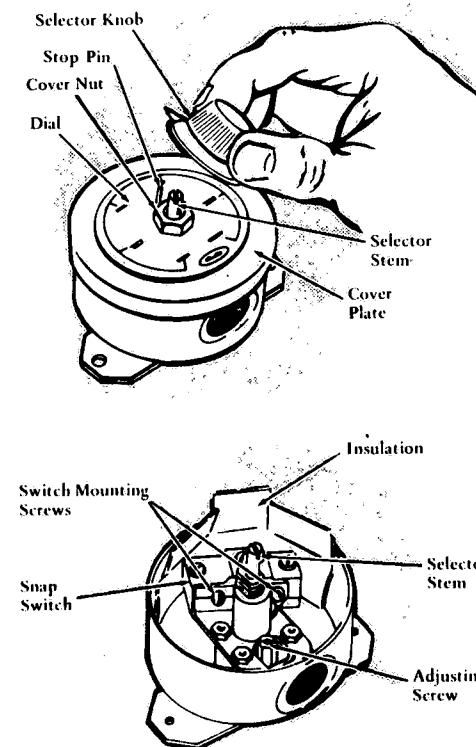


Figure 4-3. THERMOSTAT SWITCH REPLACEMENT, Steam-heated Units

#### 4-5. THERMOSTAT – ELECTRICALLY HEATED UNITS

##### Recalibration (Fig. 4-4)

1. Allow the wash water to reach the approximate operating temperature; then shut off electrical power to the Washer.

2. Turn the selector knob to the full ON position (200 F) if an increase in temperature is desired; to the OFF position if a decrease is desired.

3. Locate and hold the adjusting knob to prevent it from turning. Slowly rotate the selector knob until you hear a click of the thermostat switch.

**CAUTION:** Do not force the selector knob beyond its stop.

4. Compare the selector position temperature with that on the wash water thermometer; they should agree. Repeat the adjustment procedure, if necessary.

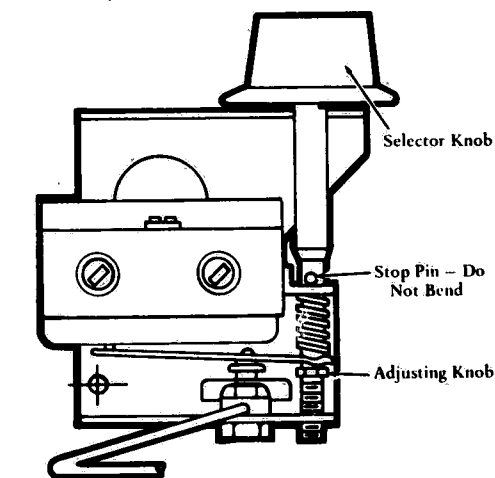


Figure 4-4. THERMOSTAT RECALIBRATION, Electrically Heated Units

Service Bulletin  
Number

Service Bulletin  
Number

### Coil Cleaning and Inspection (Fig. 4-5)

- 
- Diagram illustrating the components of a manifold assembly, including:
- Casing
  - Gasket
  - Base Plate
  - Manifold Holding Nut
  - Coil Manifold Assembly
  - Gaskets
  - Manifold Lock Rings
  - Manifold Holding Nut

4. Clean and inspect the exterior of the steam coils; replace the coil manifold assembly, if necessary.

- ### Disassembly (Fig. 4-5)

4. Remove the casing from the base plate. Be careful not to damage the gasket. Replacement kit P-758968-001 for gasket is available.

6. Reassemble the parts in reverse order. Be sure the gaskets between the manifold collars and the base plate are replaced. Replacement kit P-758968-001 for gaskets is available.

### Chamber Door Angle Spray Deflector Kit

The subject kit is available for use on older models, if water spraying out at the upper corners of the door opening is a problem. Installation instructions are furnished with each kit. The parts included in the kit are now standard on current production models.

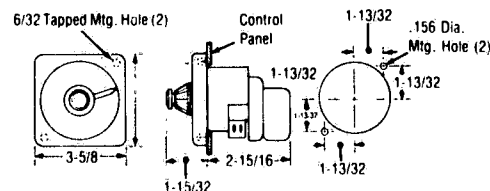
When converting from Bristol 6100 to Eagle Timers, identify the wires before disconnecting them from the Bristol Timer. Connect the wires to the terminals of the Eagle Timer according to Table 4-1.

Connect jumpers between terminals 10 and 22 and terminals 12 and 1 on the Eagle Timers.

**TABLE 4-1. EAGLE TIMER CONNECTION**

Remove Wire From Bristol Terminal	Connect Wire To Engine Terminal
1	7
2	8
3	5
4	6
5	3
6	4
7	9
8	2
9	10
10	1
11	12
12	
13	11

When replacing a General timer, Model #BJ 120007E, or a Hayden timer, Model #BN 4222-007, order part P-764315-020. This is an Eagle timer, catalog #191-06-A6. The Eagle timer fits into the existing opening, however, two mounting holes must be drilled as shown below.



**Figure 4-6. EAGLE TIMER MOUNTING.**

Service Bulletin Number						
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## ILLUSTRATED PARTS BREAKDOWN

The following pages contain an illustrated parts breakdown of selected washer components, identified as follows:

- |                                 |          |
|---------------------------------|----------|
| Main Assembly                   | Fig. 5-1 |
| Control Panels, Front and Inner | Fig. 5-2 |
| Wash Spray and Drain Assemblies | Fig. 5-3 |
| Rinse Spray Assembly            | Fig. 5-4 |
| Heating Systems, Wash Water     | Fig. 5-5 |

To order replacement parts, use the part numbers (where shown) and descriptions provided on the subsequent parts lists. Include on your order the model, unit and serial numbers of the Washer. Also, where applicable, include component manufacturer and nameplate data. Additional component part numbers, as they are assigned, will be added to the manual in future revisions.

Index numbers are not assigned to components considered to have little or no maintenance replacement frequency, nor to commercial hardware. Such are illustrated, however, merely to aid in the 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, from the illustration, the figure and index number of the assembly on which the part is located.

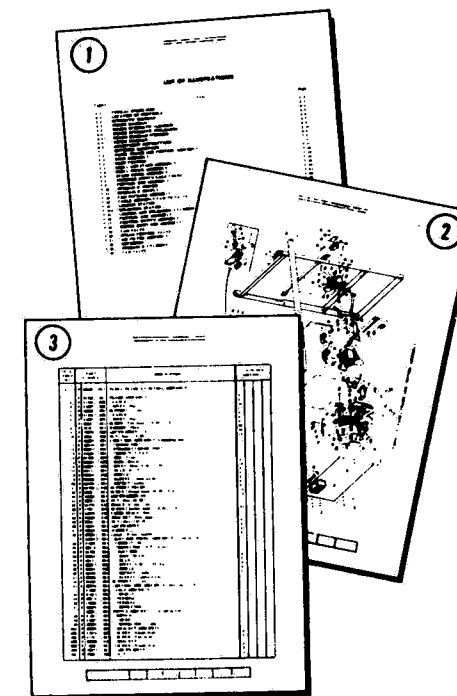
The numbers, descriptions and quantities of the parts listed on the subsequent pages are those required for a single Washer. The UNITS PER ASSEMBLY column, specific to a given assembly or subassembly, is indicated by an asterisk.

## HOW TO USE THE ILLUSTRATED PARTS BREAKDOWN

1. Determine the function and application of the part required. Turn to the List of Illustrations and select the most appropriate title. Note the illustration page number.

2. Turn to the page indicated, and locate the desired part on the illustration.

3. Refer to the accompanying description for specific information regarding the part.



Service Bulletin Number						
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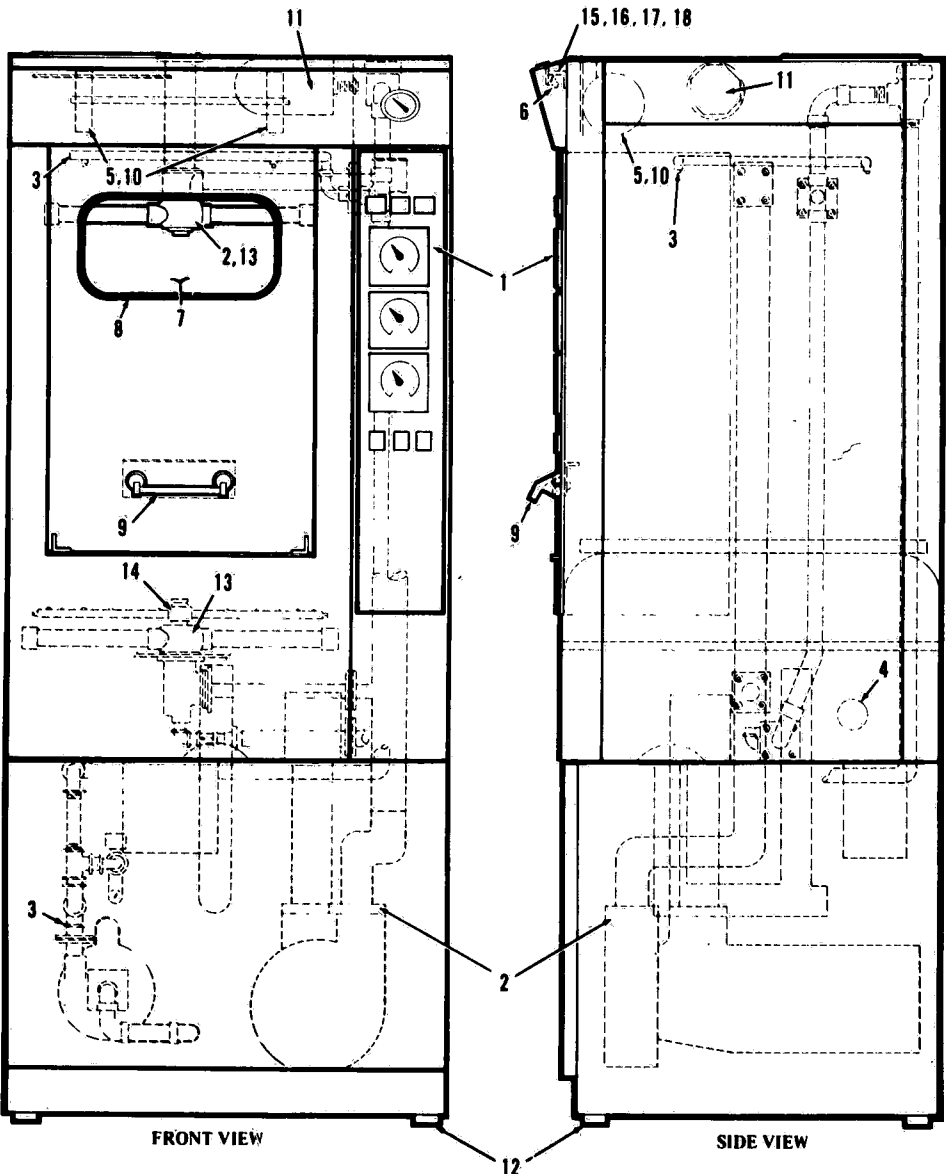


Figure 5-1. MAIN ASSEMBLY

Service Bulletin Number						
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FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
5-1-		MAIN ASSEMBLY, Single Door .....	*			
		MAIN ASSEMBLY, Double Door .....		*		
	1	CONTROL ASSEMBLIES, Front and inner (See Figure 5-2) .....	1	1		
	2	WASH SPRAY AND DRAIN ASSEMBLIES (See Figure 5-3) .....	1	1		
	3	RINSE SPRAY ASSEMBLY (See Figure 5-4) .....	1	1		
	4	HEAT ASSEMBLIES (See Figure 5-5) .....	1	1		
	5	NEGATOR ASSEMBLY, Door lift .....	1	2		
	6	P-754466-091 SWITCH, Door Safety .....	1	2		
	7	P-757845-001 GLASS, Window .....	1	2		
	8	P-757846-091 GASKET, Door Window .....	1	2		
	9	P-758070-091 HANDLE ASSEMBLY, Door - Vertical Lift .....	1	2		
	10	P-754458-091 SPRING, Negator .....	2	4		
	11	P-754457-091 LIGHTING ASSEMBLY, Marine .....	1	1		
	12	P-754456-091 CASTERS, Swivel Type .....	4	4		
	13	P-754479-091 MANIFOLD, Rotary .....	2	2		
	14	P-754475-091 MANIFOLD, Revolving Rinse .....	1	1		
	15	P-754455-091 PIN LOCK, Assembly .....	1	1		
	16	P-754459-091 SWITCH .....	1	1		
	17	P-754460-001 STRIKE, Steel .....	1	1		
	18	P-754461-001 CATCH, Magnetic .....	1	1		
IMPORTANT: USE THE ABOVE PART NUMBERS (IF SHOWN) OR THE DESCRIPTIONS WHEN ORDERING REPLACEMENT PARTS. INCLUDE ON YOUR ORDER, THE WASHER MODEL, UNIT AND SERIAL NUMBERS. WHERE APPLICABLE. ALSO INCLUDE COMPONENT MANUFACTURER AND NAMEPLATE DATA.						

Service Bulletin Number						
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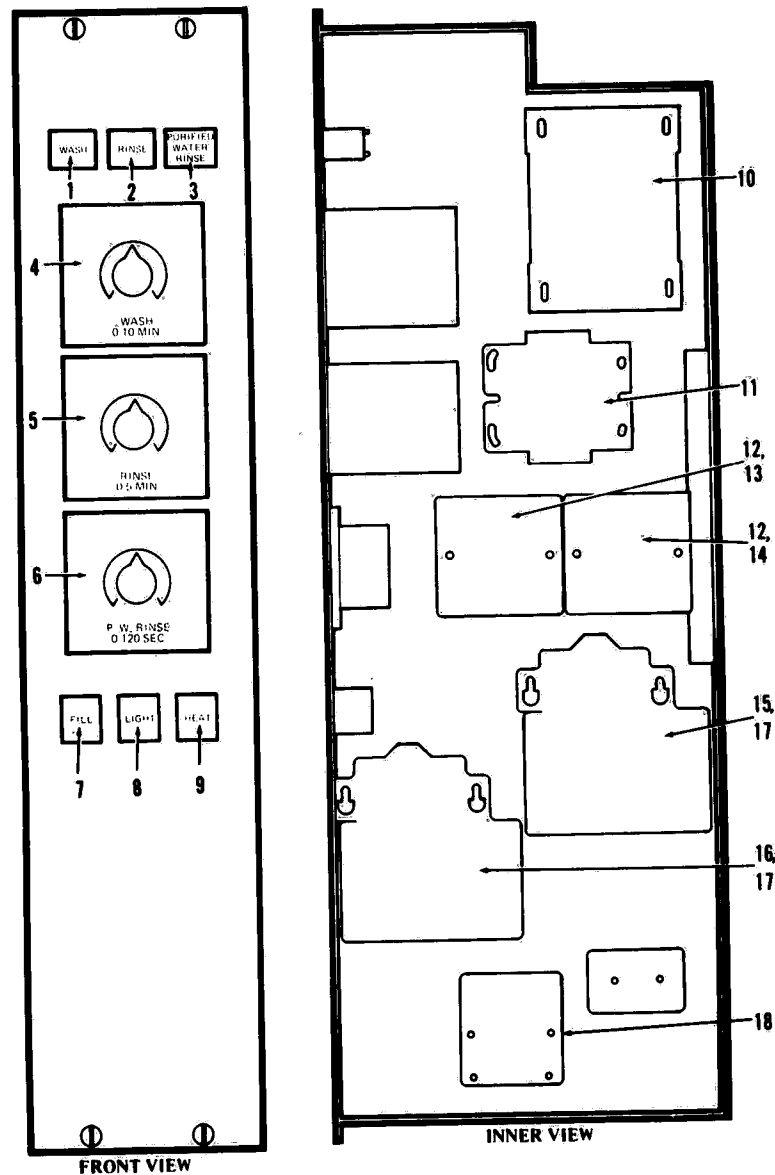


Figure 5-2. CONTROL ASSEMBLIES

Service Bulletin  
Number

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
			*	*	*	*
5-2-		CONTROL ASSEMBLIES, Front and inner — Steam heat	*	*	*	*
		CONTROL ASSEMBLIES, Front and inner — Steam heat, Rinse pump				
		CONTROL ASSEMBLIES, Front and inner — Electric heat				
		CONTROL ASSEMBLIES, Front and inner — Electric heat, Rinse pump				
	1	P-757847-091 LAMP, Indicator (WASH)	1	1	1	1
	2	P-757848-091 LAMP, Indicator (RINSE)	1	1	1	1
	3	P-757849-091 LAMP, Indicator (PURIFIED WATER RINSE)	1	1	1	1
	4	P-757883-091 TIMER, 10 Minute Haydon Wash — 120 volt (Units Shipped Before 6/15/74)	1	1	1	1
		P-758945-001 TIMER, 30 Minute Eagle Wash — 120 volt (Units Shipped After 6/15/74)	1	1	1	1
		P-758946-001 TIMER, 10 Minute Eagle Wash — 120 volt (Units Shipped After 6/15/74)	1	1	1	1
	5	P-754453-091 TIMER, 5 Minute Haydon Rinse — 120 volt (Units Shipped Before 6/15/74)	1	1	1	1
		P-758947-001 TIMER, 5 Minute Eagle Rinse — 120 volt (Units Shipped After 6/15/74)	1	1	1	1
	6	P-754454-091 TIMER, 120 Second Haydon P.W. Rinse — 120 volt (Units Shipped Before 6/15/74)	1	1	1	1
		P-758948-001 TIMER, 150 Second Eagle P.W. Rinse — 120 volt (Units Shipped After 6/15/74)	1	1	1	1
	7	P-757853-091 SWITCH (FILL)	1	1	1	1
	8	P-757854-091 SWITCH (LIGHT)	1	1	1	1
	9	P-757855-091 SWITCH (HEAT)	1	1	1	1
	10	P-757856-091 TRANSFORMER (CONTROL)	1	1	1	1
	11	P-757857-091 CONTACTOR, Heat	1	2	1	2
	12	P-757858-091 BLOCK, Fuse	A/R	A/R	A/R	A/R
	13	P-757859-091 FUSE, Wash pump (15 amps)	A/R	A/R	A/R	A/R
	14	P-757860-091 FUSE, Rinse pump (10 amps)	1	1	1	1
	15	P-758991-001 MAGNETIC STARTER, Motor (Single Phase)	1	1	1	1
	16	P-758991-001 MAGNETIC STARTER, Motor (Three Phase)	A/R	A/R	A/R	A/R
	17	P-757863-001 HEATER, Wash Pump Overload (1/60/208-240) — 2 hp	A/R	A/R	A/R	A/R
		P-757863-002 HEATER, Rinse Pump Overload (1/60/208-240) — ½ hp	A/R	A/R	A/R	A/R
		P-757864-001 HEATER, Wash Pump Overload (3/60/208-240) — 2 hp	A/R	A/R	A/R	A/R
		P-757864-002 HEATER, Rinse Pump Overload (3/60/208-240) — ½ hp	A/R	A/R	A/R	A/R
	18	P-757865-091 HEATER, Wash Pump Overload (3/60/480) — 2 hp	1	1	1	1
		P-757866-091 RELAY				
NOTE: Before you connect Eagle Timers see Table 4-1.						
IMPORTANT: USE THE ABOVE PART NUMBER WHEN ORDERING REPLACEMENT PARTS. INCLUDE ON YOUR ORDER, THE WASHER MODEL, UNIT AND SERIAL NUMBERS, WHERE APPLICABLE. ALSO INCLUDE COMPONENT MANUFACTURER AND NAMEPLATE DATA.						

Service Bulletin  
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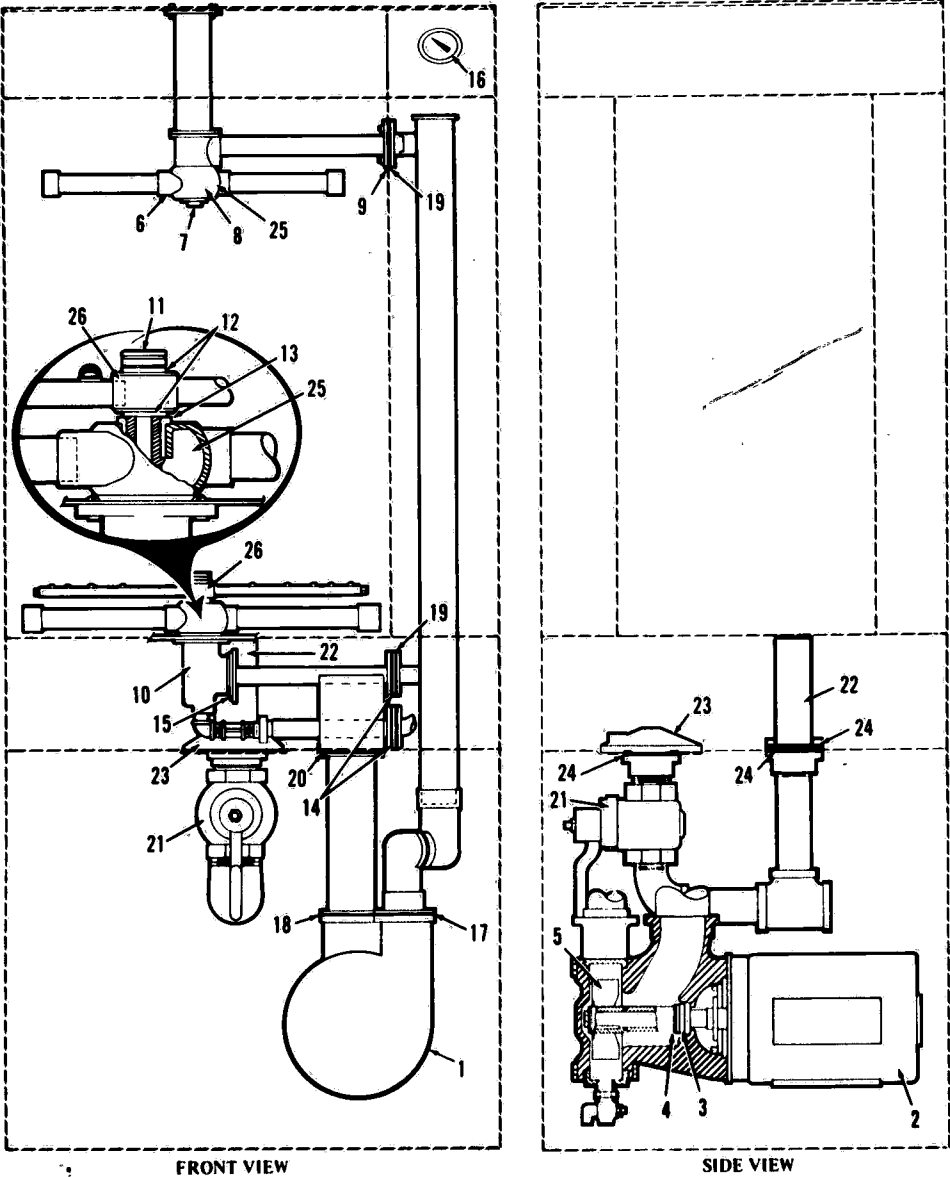


Figure 5-3. WASH SPRAY AND DRAIN ASSEMBLIES

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FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
5-3-		WASH SPRAY AND DRAIN ASSEMBLIES				
1		PUMP ASSEMBLY, Wash	1			
2	P-757876-091	• MOTOR AND PUMP	1			
3	P-754735-091	• SEAL	1			
4	P-757878-091	• WASHER, Seal	1			
5	P-757879-091	• IMPELLER	1			
6		WASH ASSEMBLY, Upper	1			
7	P-757881-091	• KNOB, Knurled	1			
8	P-757867-003	• BEARING, Flange	1			
9	P-757869-091	• GASKET, 2-1/2 x 2-1/2 x 1/8", 1-3/8" ID	1			
10		WASH AND RINSE ASSEMBLY, Lower	1			
11	P-754477-001	• KNOB, Knurled	1			
12	P-757867-001	• BEARING	2			
13	P-757867-002	• BEARING	1			
14	P-757869-091	• GASKET, 2-1/2 x 2-1/2 x 1/8", 1-3/8" ID	2			
15	P-757870-091	• GASKET, 2 x 2 x 1/8"	1			
16	P-758903-091	THERMOMETER 8' Capillary	1			
17	P-756213-091	GASKET, 3 1/2 x 3 1/2 x 1/8", 2 5/8" ID	1			
18	P-757841-091	GASKET, 4 x 4 x 1/16", 2-5/8" ID	1			
19	P-757869-091	GASKET, 2-1/2 x 2-1/2 x 1/8", 1-3/8" ID	2			
20	P-757842-091	GASKET, 3-1/2 x 3-1/2 x 1/16", 2" ID	1			
21	P-758963-001	VALVE, Drain (1-1/2 NPT)	1			
		• PLUG	1			
22		OVERFLOW ASSEMBLY	1			
23	P-757843-091	STRAINER, Drain	1			
24	P-757875-091	GASKET, 3 x 3 x 1/16", 1-3/4" Hole	1			
25	P-754474-091	MANIFOLD, Rotary	1			
26	P-754475-091	MANIFOLD, Revolving Rinse	1			
IMPORTANT: USE THE ABOVE PART NUMBERS (IF SHOWN) OR THE DESCRIPTIONS WHEN ORDERING REPLACEMENT PARTS. INCLUDE ON YOUR ORDER, THE WASHER MODEL, UNIT AND SERIAL NUMBERS. WHERE APPLICABLE, ALSO INCLUDE COMPONENT MANUFACTURER AND NAMEPLATE DATA.						

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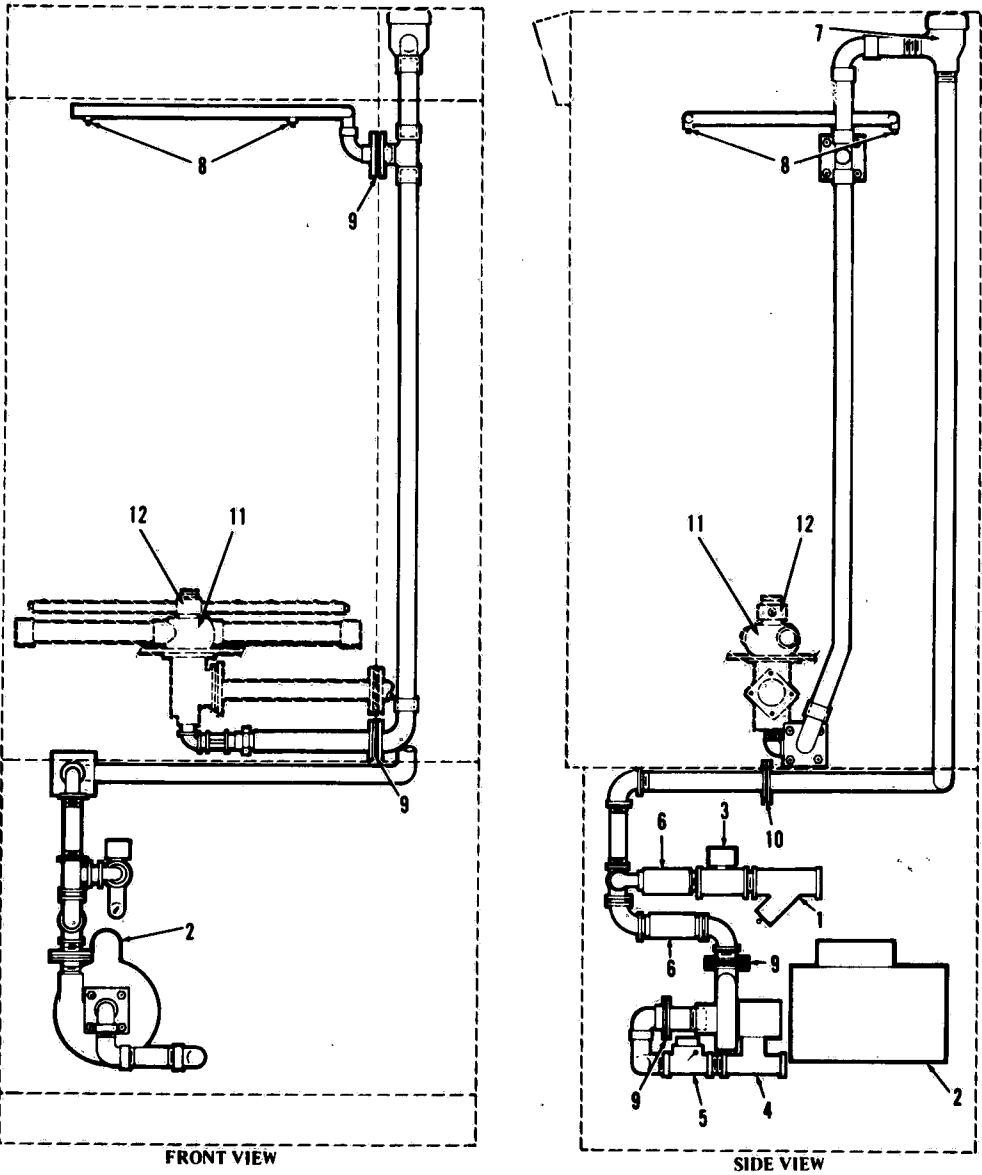
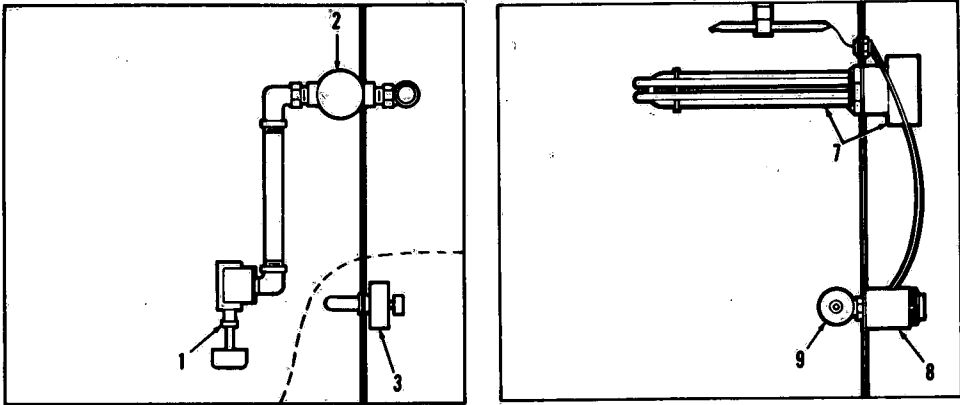


Figure 5-4. RINSE SPRAY ASSEMBLY

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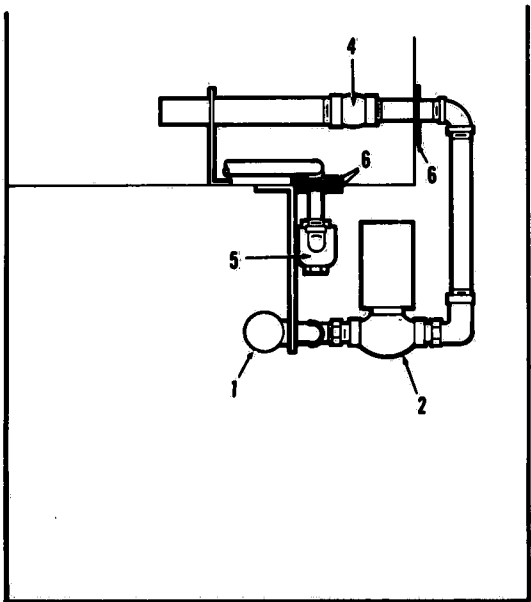
FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
5-4.		RINSE SPRAY ASSEMBLY with optional pump	*	*		
		RINSE SPRAY ASSEMBLY without optional pump				
	1	P-757832-091 STRAINER, Supply line, 3/4" (Hayes Straight Flow)	1	1		
		P-757994-003 STRAINER, Supply line, 3/4" (Thrush No. 80)	1	1		
		• SEAL	1			
	2	P-757887-091 PUMP & MOTOR (1/2 hp), Final Rinse	1	1		
		• KIT, Seal	1	1		
		P-761746-001 • KIT, Impeller Replacement	1	1		
	3	P-757833-091 VALVE, Solenoid - tap water rinse	1	1		
		P-758670-002 • COIL	1	1		
		P-758670-091 • REPAIR PARTS KIT	1	1		
	4	P-757888-091 VALVE, Solenoid - purified water rinse	1	1		
		P-758713-002 • COIL	1			
		P-758713-091 • REPAIR PARTS KIT	1			
	5	P-757889-091 VALVE, Check - tap water rinse	2	2		
	6	P-758967-001 VALVE, Check - purified water rinse	1	1		
	7	P-757835-091 BREAKER, Vacuum	1	1		
		P-758209-091 • REPAIR KIT	4	4		
8	P-754476-002	NOZZLE, Spray	6	6		
9	P-757869-091	GASKET, 2-1/2 x 2-1/2 x 1/8", 1-3/8" ID	1	1		
10	P-757869-091	GASKET, 2-1/2 x 2-1/2 x 1/8", 1-3/8" ID	1	1		
11	P-754474-091	MANIFOLD, Rotary	2	2		
12	P-754475-091	MANIFOLD, Revolving Rinse	1	1		
IMPORTANT: USE THE ABOVE PART NUMBERS (IF SHOWN) OR THE DESCRIPTIONS WHEN ORDERING REPLACEMENT PARTS. INCLUDE ON YOUR ORDER, THE WASHER MODEL, UNIT AND SERIAL NUMBERS, WHERE APPLICABLE. ALSO INCLUDE COMPONENT MANUFACTURER AND NAMEPLATE DATA.						

Service Bulletin Number									
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STEAM (Plan View)

ELECTRIC (Plan View)



STEAM (Front View)

Figure 5-5. HEATING SYSTEMS, Wash Water

Service Bulletin Number						
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FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSEMBLY			
			*	*		
5-5-		HEATING SYSTEM, Wash water - Steam Injector .....		*		
		HEATING SYSTEM, Wash water - Closed Steam Coil .....				
		HEATING SYSTEM, Wash water - Electric .....				
1	P-757837-091	VALVE, Angle .....	1	1		
2	P-757838-091	VALVE, Solenoid .....	1	1		
		• COIL .....	1	1		
	P-759450-001	• KIT, Repair (Includes Piston Assembly and Gasket) .....	1	1		
3	P-754691-091	THERMOSTAT, Steam .....	1	1		
4	P-757840-091	INJECTOR, Steam .....	1	1		
5	P-757882-091	TRAP, Steam .....	1	1		
	P-759519-001	• ELEMENT, Steam Trap .....	1	4		
6	P-757869-091	GASKET, 2-1/2 x 2-1/2 x 1/16", 1-3/8" ID .....			1	
7	P-757989-091	HEATER, Electric (5 kw) .....			1	
8	P-754693-091	THERMOSTAT, Electric .....			1	
9	P-756215-091	SWITCH, Water level .....				
IMPORTANT: USE THE ABOVE PART NUMBERS (IF SHOWN) OR THE DESCRIPTIONS WHEN ORDERING REPLACEMENT PARTS. INCLUDE ON YOUR ORDER, THE WASHER MODEL, UNIT AND SERIAL NUMBERS. WHERE APPLICABLE, ALSO INCLUDE COMPONENT MANUFACTURER AND NAMEPLATE DATA.						

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**AMSCO  
SERVICE**

**LABORATORY GLASSWARE WASHER  
SPARKLE I SERIES Electrically or Steam Powered  
P-757396-002**

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