

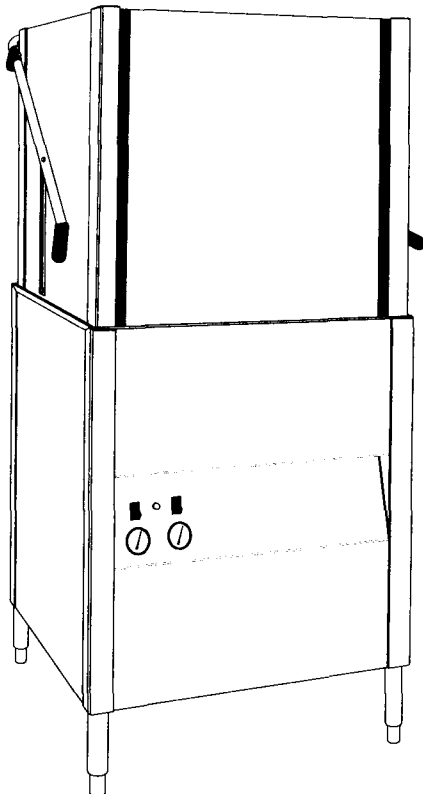
# Champion®

The Dishwashing Machine Specialists

*This manual supersedes PIN 112426, April, 1997. Destroy previous edition.*

*For machines beginning with  
serial no. 89519 and above*

## Technical Manual



### International Door Dishwasher

Model

**I-DHM3**

**High Temperature  
with Built-in Booster**

**Machine Serial No.**

**February, 1998**

**Manual P/N 112426 Rev.A**

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# Revision History

Revision Date	Revised Pages	Serial Number Effectivity	Comments
1/30/98	All	89519	Issue of manual and replacement parts lists

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# INTRODUCTION

Welcome to **Champion...**  
and thank you for allowing us to take care of your  
dishwashing needs.

This manual covers the international door-type dishwasher. Model I-DH. Your machine was completely assembled, inspected, and thoroughly tested at our factory before it was shipped to your installation site.

This manual contains:

- Installation Instructions
- Operation Instructions
- Maintenance Instructions
- Replacement Parts Lists
- Electrical Schematics

All information, illustrations and specifications contained in this manual are based upon the latest product information available at the time of publication. **Champion** constantly improves its products and reserves the right to make changes at any time or to change specifications or design without notice and without incurring any obligation.

For your protection, factory authorized parts should always be used for repairs.

Replacement parts may be ordered directly from your **Champion** authorized parts distributor or authorized service agency. When ordering parts, please supply the model number, serial number, voltage, and phase of your machine, the part number, part descriptions and quantity.

## Model Number

The I-DH is a high temperature (180°F/82°C) sanitizing dishwasher with booster.

### Standard Equipment includes:

- Manual tank fill
- Built-in (40°F/23°C rise) electric or steam booster heater.
- Field convertible for corner operation
- Electric tank heat (3 KW)
- Balanced door lift system
- Automatic start on close of doors
- Low-water tank heat protection
- 1HP drip-proof pump motor
- Door safety switch
- Splash-proof control console
- Interchangeable upper & lower spray arms
- Stainless steel front and side panels
- Detergent/chemical connection provisions
- Fill solenoid valve
- 3/4" line strainer
- Common utility connections
- Two dish racks (peg and flat bottom)

### Options

Electric booster with (70°F/39°C temperature rise) heater for (110°F/43°C) hot water supply.

Pressure reducing valve, (PRV) 3/4" - P/N 107550

Water pressure gauge (0-60 PSI) - P/N 100135

### Electrical Power Requirements

Voltage	Booster Rise	Machine Full Load Amps	Power Requirement (125% Service Factor)
220/60/1	40°F/23°C	56A	70A
220/50/1	40°F/23°C	56A	70A
220/60/3	40°F/23°C	32A	40A
220/50/3	40°F/23°C	32A	40A
380/60/3	40°F/23°C	19A	24A
380/50/3	40°F/23°C	19A	24A
220/60/1	N/A	—	—
220/50/1	N/A	—	—
220/60/3	70°F/39°C	41A	52A
220/50/3	70°F/39°C	41A	52A
380/60/3	70°F/39°C	24A	30A
380/50/3	70°F/39°C	24A	30A

# INSTALLATION

## Unpack the dishwasher



### CAUTION:

*Care should be taken when lifting the machine to prevent damage.*



### NOTE:

*The installation of your machine must meet all applicable health and safety codes.*

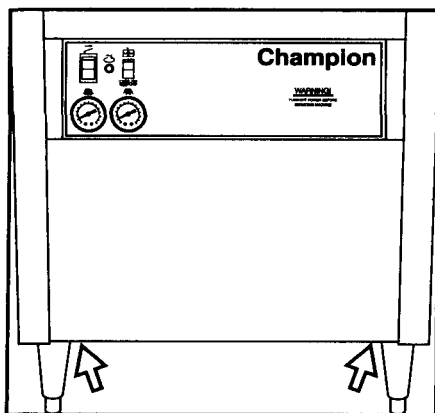
1. Immediately after unpacking the machine, inspect for any shipping damage. If damage is found, save the packing material and contact the carrier immediately.
2. Remove the dishwasher from the skid. Move the machine to its permanent location.

### NOTE:



Refer to: *To change from Straight-through Operation to Corner Operation* on the next page if your machine will be placed for corner operation.

3. Level the machine (if required) by placing a level on the top of the machine and adjusting the feet. Level the machine front-to-back and side-to-side.
4. Remove the dishracks from the interior of the machine.
5. Refer to Fig. 1. Remove (2) screws that hold the front panel. Remove the front panel in preparation for service connections.

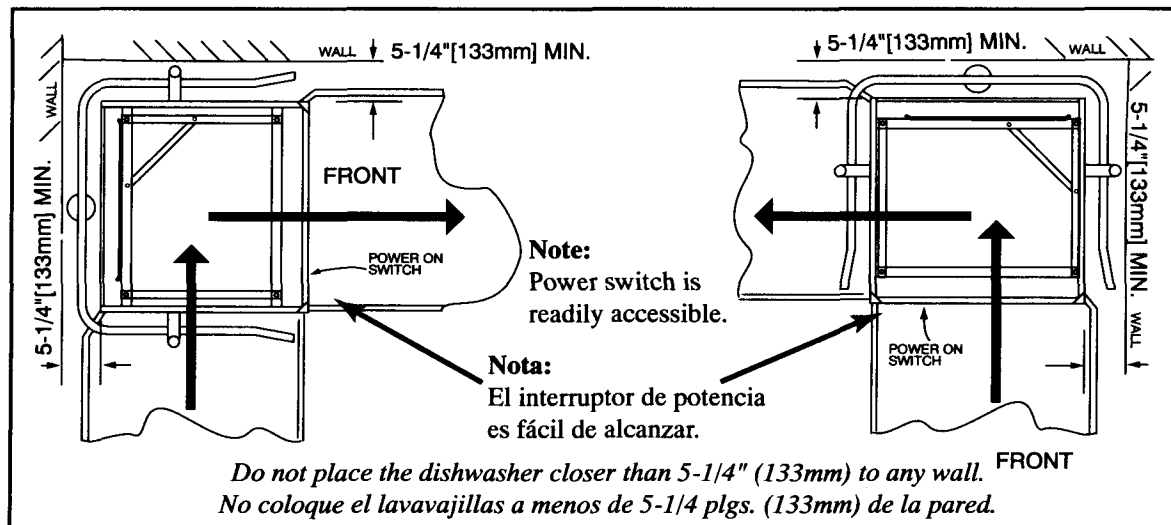


**Figure 1**  
**Remove Front Panel**

## To Change from Straight-through Operation to Corner Operation

The I-DH dishwasher is shipped from the factory for straight-through operation. The following instructions explain how to change the dishwasher for corner operation. Refer to Fig. 2

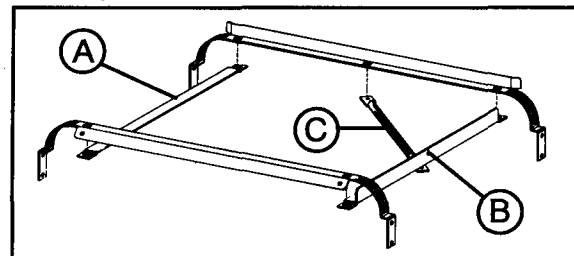
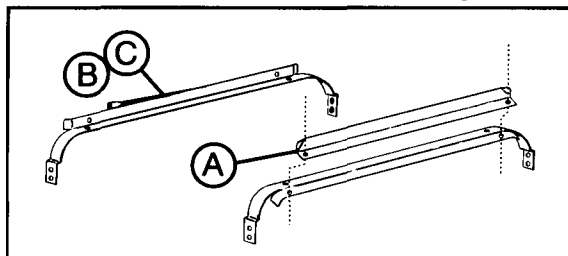
1. Place the dishwasher so that operator controls are readily accessible.
2. Minimum clearance from any wall is 5-1/4" (133mm).



- Refer to Fig. 3a-3b and perform the steps below.
1. Remove the front rack guide (A). Discard the square spacers.
  2. Move front rack guide (A) to the left side of the rack tracks. (See Fig. 3b) Use existing hardware.
  3. Unbolt the track (B) and rack support rod (C).
  4. Remove and save the two remaining fasteners from rear track.
  5. Bolt (B) and (C) as shown in Fig. 3b.

**Figure3**

### Change the Track Assembly





## INSTALLATION (Cont)

### Electrical Connections



#### **Warning:**

*Electrical and grounding connections must comply with all applicable Electrical Codes.*

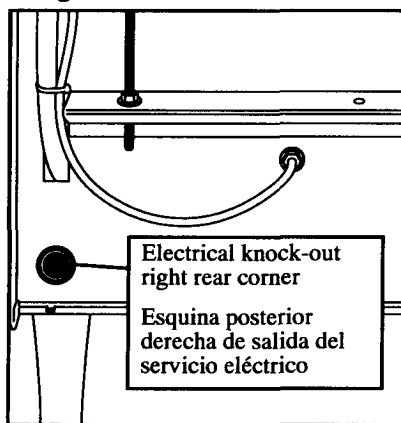


#### **Warning:**

*When working on the dishwasher, disconnect the electric service and place a tag at the disconnect switch to indicate work is being done on that circuit.*

1. A qualified electrician must compare the electrical power supply with the machine electrical specifications before connecting to the incoming service through a fused disconnect switch.

Refer to Fig. 4

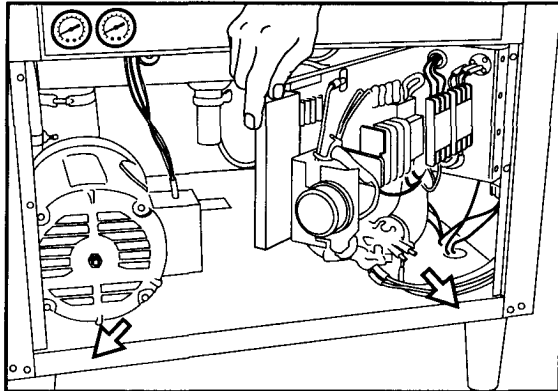


**Figure 4**  
**Electrical Connection Location**

2. A knock-out is provided at the lower right rear corner for the electrical service connection. A fused disconnect switch or circuit breaker (supplied by others) is required to protect the power supply circuit.

## Electrical Connections (Cont.)

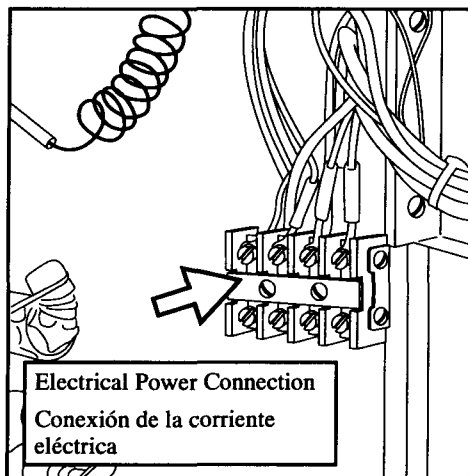
Refer to Fig. 5



**Figure 5**  
**Hinged Control Panel**

3. Remove (2) lower screws from the front panel of the machine to expose the electrical controls. Remove (2) screws on the control panel support. Swing the hinged control panel forward.

Refer to Fig. 6



**Figure 6**  
**Main Terminal Block**

4. Three phase or single phase incoming power wiring connections are made at the bottom of the machine's main terminal block. The main terminal block is located on the side of the front right post of the dishwasher.

## INSTALLATION (Cont.)

### Plumbing Connections



#### NOTE:

*Plumbing connections must comply with all applicable sanitary and plumbing codes.*

### Water Connections

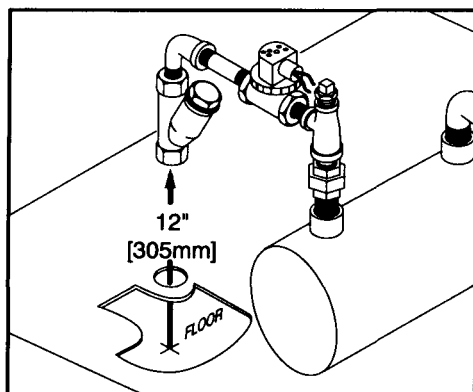
1. The I-DH dishwasher requires a single, hot water supply. The following minimum water temperatures are recommended:

**I-DH with built-in 40° rise electric booster**  
(Minimum 140°F/60°C)  
(Min./Max. flow pressure 20-22 PSI/138 kPa)

**I-DH with built-in 70° rise electric booster**  
(Minimum 110°F/43°C)  
(Min./Max. flow pressure 20-22 PSI/138 kPa)

2. Install a pressure reducing valve, (PRV), in the water supply line if flow pressure exceeds 20-22PSI/138-151.8kPa.
3. The hot water connection to all I-DH dishwashers is 3/4" NPT. The connection is made from underneath the dishwasher up to the hot water solenoid valve located on the left side of the booster tank.

Refer to Fig. 7



**Figure 7**  
**Hot Water Connection**

3/4" NPT

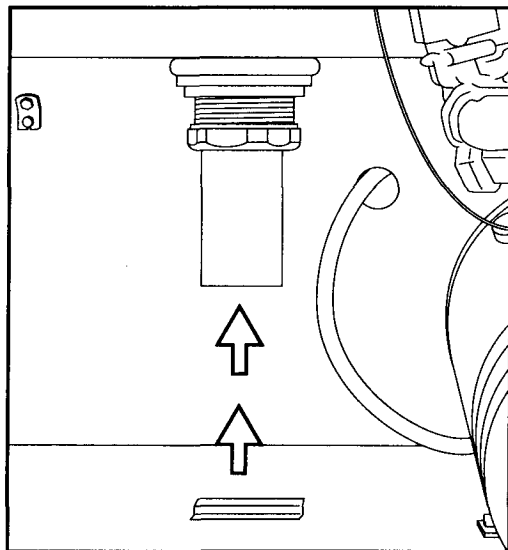
## Water Connections (Cont.)

4. A manual shut-off valve (supplied by others) should be installed in the supply line in order to service the machine.
5. A pressure reducing valve, (PRV), (supplied by others) should be installed in the water supply line.
6. A pressure gauge (supplied by others) should be installed in the water supply line on the machine side of the PRV.

## Drain Connections

1. The model I-DH is a GRAVITY DRAIN machine equipped with a 1-1/2" O.D. hose connection point.
2. Drain height for model I-DH must not exceed 11" (280mm) above floor level.
3. The drain connection is made to the dishwasher from underneath the machine through an access hole in the machine base.

Refer to Fig. 8



**Figure 8**  
**Drain Connection**  
**1-1/2" O.D.**

## INSTALLATION (Cont.)

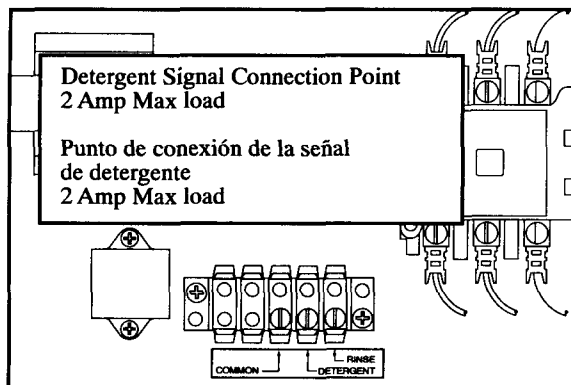
### Chemical Connections

#### NOTE:

*Consult a qualified chemical supplier for your chemical needs.*

1. An electrical detergent signal connection point for detergent dispensing equipment is provided on the control voltage terminal block located in the top left corner of the hinged control panel.

Refer to Fig. 9



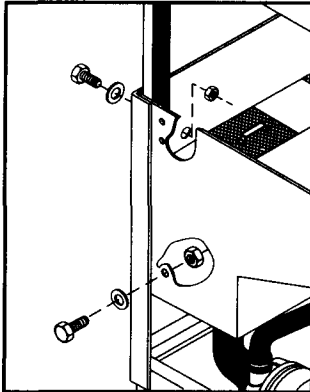
**Figure 9**  
**Detergent Signal Connection Point**

2. The detergent signal is limited to a maximum load of 2 Amps. Signal voltage is 120VAC.

## Chemical Connections (Cont.)

3. A 1/2" detergent probe injection point is provided at the rear and left side of the dishwasher.

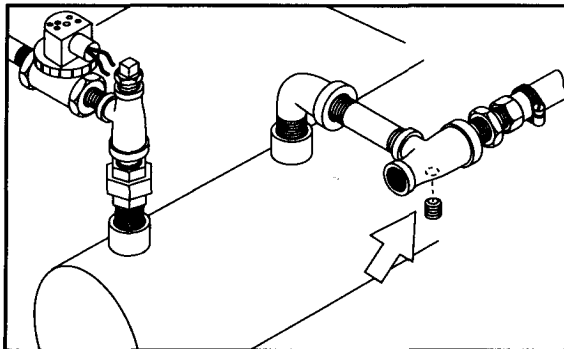
Refer to Fig. 10



**Figure 10**  
**Detergent Probe Injection Point**  
**1/2" Plug**

4. A 1/8" NPT rinse aid injection point is provided in the final rinse manifold of the booster piping. The manifold is located on the right side of the booster assembly. It can be accessed from the front of the dishwasher.

Refer to Fig. 11



**Figure 11**  
**Rinse Aid Injection Point**  
**1/8" NPT**

## INITIAL START-UP

### Complete the installation

After plumbing and electrical connections are made, follow the steps below to complete the installation of your dishwasher.

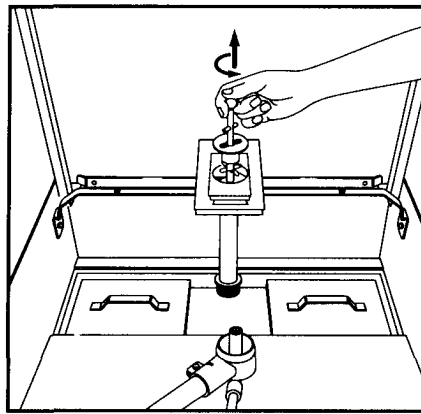
1. Remove the white protective covering from the exterior of the machine.
2. Remove any foreign material from inside the machine.
3. Make sure dishwasher power switch is off.
4. Turn main water supply on.
5. Turn main power on at the main power service disconnect switch.

### Fill the dishwasher with water

Follow the steps below to fill your machine for the first time and each time the machine is completely drained.

1

Install scrap screens. Make sure rubber stopper is secure on the drain-overflow assembly. Make sure the drain-overflow seats securely in the tank bottom.



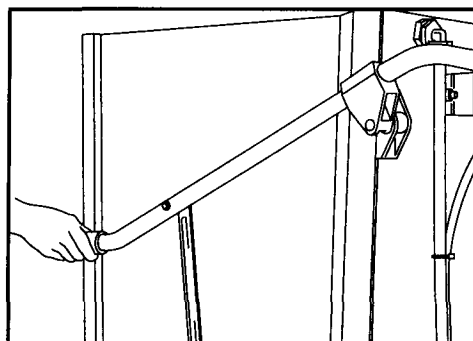
2

Make sure all doors are fully closed.



#### **Warning:**

*During the fill operation, water will spray from the dishwasher if the doors are open.*



**MAKE SURE DOORS ARE FULLY CLOSED.**

## Fill the dishwasher with water (Cont.)

3

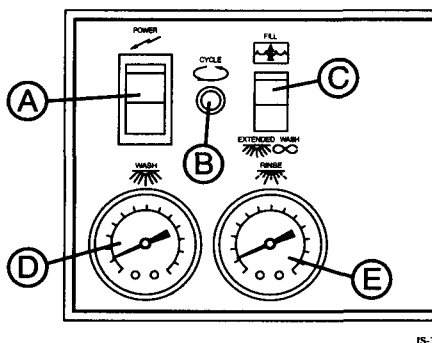
The controls are located on the front of the dishwasher.

A- On/Off power switch

B- In cycle light

C- Fill/Extended wash switch  
D-Wash water temperature gauge

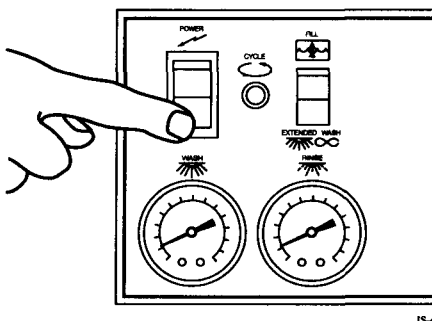
E- Final rinse water temperature gauge



4

THE POWER SWITCH IS OFF DURING INITIAL FILL.

Push the On/Off power switch down to the OFF position. The red indicator light in the center of the power switch is not illuminated when the switch is off.



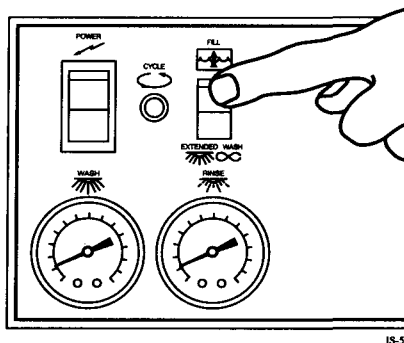
5

Push and hold the Fill/Extended wash switch UP to the FILL position to fill the dishwasher with water.



### NOTE:

*The initial fill primes the booster tank assembly. The booster tank is full when you hear water enter the wash tank of the dishwasher.*



Continue to hold the switch UP until water begins to drain out the overflow. Tank is full. Release the Fill/Extended wash switch.



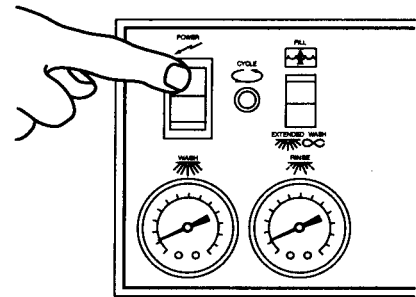
## INITIAL START-UP (Cont.)

### Check wash and final rinse water temperatures

**6**

Push the On/Off power switch "Up" to the on position. The red indicator light in the switch will come on.

The wash tank and booster tank heaters will begin to heat the water in the dishwasher.

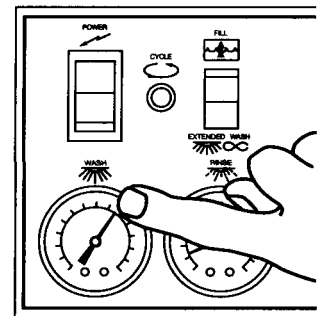


IS-6

**7**

Wait approximately 10 minutes for the wash tank water to reach operating temperature.

Check the wash water temperature gauge located on right side of the control cabinet to be sure it indicates the proper temperature.



IS-7

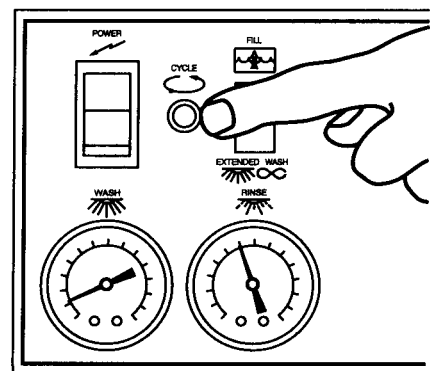
**8**

Open and then fully close the dishwasher doors. The dishwasher will begin a wash cycle automatically.

Note that the amber colored cycle lamp is lit during the automatic dishwasher cycle.

Opening the doors anytime during the cycle will stop the dishwasher.

Closing the doors will resume the automatic cycle where it left off.



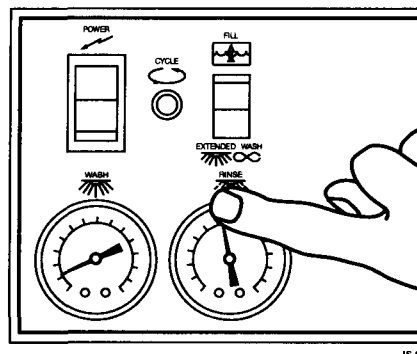
IS-8

## Check the wash and final rinse water temperatures (Cont.)

9

The final rinse water temperature should be a minimum of 180°F/82°C during the final rinse cycle. The optimum final rinse temperature is 180-195°F/82-91°C.

Check the final rinse water temperature gauge located on left side of the control cabinet



## Check the Extended Wash operation

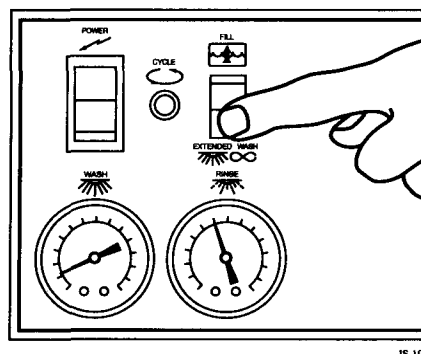
The extended wash switch holds the dishwasher in a continuous wash mode for cleaning heavily soiled ware.

10

Open and then fully close the dishwasher doors. The dishwasher will begin a wash cycle automatically.

Push the Fill/Extended wash switch "Down" to the extended wash position.

The dishwasher will remain in a continuous wash mode until the switch is flipped back to the center position.



### NOTE:

*The extended wash switch may also be used during deliming operations.*

*Consult a qualified chemical supplier for detailed instructions and procedures.*

## INITIAL START-UP (Cont.)

### Complete the initial start-up

Check all the plumbing for leaks. Also, check the drain plumbing for leaks and be sure that the drain will handle the drain water flow from the dishwasher.

After the drain and the plumbing connections are checked, turn off the power to the dishwasher.

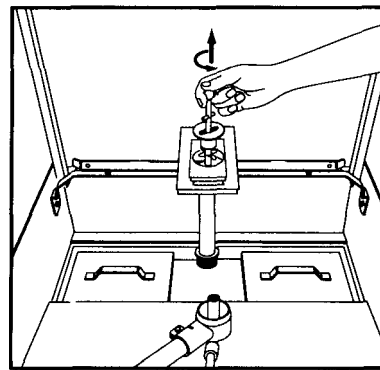
### Drain the dishwasher

**11**

Turn off power at the dishwasher. Drain the dishwasher by pulling the handle of the drain-overflow assembly straight up.

Be sure that the drain-overflow rubber stopper is secure on the drain-overflow assembly pipe.

Check that the building drain handles the water flow exiting the dishwasher drain.



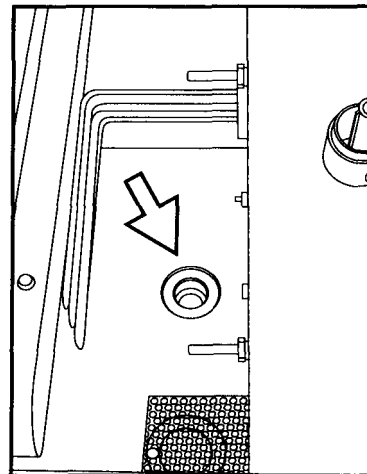
PS-11

**12**

Remove the scrap screens and check the drain located in the bottom of the dishwasher wash tank. Clean the interior of the wash tank of any foreign material.

Leave the doors open to air dry the interior of the dishwasher.

The initial start-up is complete.



IS-12

# OPERATION

Refer to the Initial Start-up section. Steps 1-5, on pages 16-20, to place your dishwasher into service. To operate your dishwasher, perform the action in the left hand column; check the result in right hand column.

Action	Result
1. Push the On/Off power switch "UP" to the ON position.	1. The indicator light in the center of the power switch illuminates. The wash tank heater and the booster tank heater begin to heat.
2. Wait approximately 10 minutes for the wash tank heater to heat the water. Then, check the reading on the wash water temperature gauge.	2. The wash water temperature gauge should indicate a minimum of 150°F/66°C.
3. Prescrap and load the ware into the dishrack.	3. Ware should be placed edgewise in the peg rack. Cups and bowls should be placed upside down in the flat rack. Silverware should be spread evenly in a single layer in the flat rack.
4. Open the doors. Insert a dishrack of soiled ware. Fully close the doors.  Opening the doors anytime during the automatic cycle stops the dishwasher. Closing the doors will resume the cycle where it left off.	4. Amber cycle light illuminates as the dishwasher begins a 60 second automatic cycle. The cycle times are listed below:  Wash = 48 seconds Dwell = 2 seconds Final rinse = 10 seconds
5. Check the final rinse temperature gauge reading during the 10 second final rinse cycle.	5. The final rinse temperature gauge should indicate a minimum of 180°F/82°C. The optimum final rinse temperature range is between 180-195°F/82-90°C.
6. Check the incoming water pressure during the 10 second final rinse cycle. A water pressure gauge (supplied by others) should be installed on the incoming water supply.	6. The water pressure gauge should indicate a flowing pressure of 20-22 PSI/138-151.8 kPa. A pressure reducing valve (PRV) is required if flow pressure exceeds 20-22 PSI/138-151.8 kPa
7. The 60 second automatic cycle ends.	7. The amber cycle light goes out.
8. Open the doors. Remove the clean rack. Insert another rack of soiled ware. Fully close the doors.	8. The 60 second automatic cycle begins again.
9. Turn power OFF at the dishwasher. Remove the drain-overflow assembly. Clean the scrap screens. Clean the dishwasher after each meal period or every two hours of operation.	9. Dishwasher wash tank drains completely. Periodic cleaning reduces detergent consumption and improves washing results.

# MAINTENANCE

Cleaning your machine is the best maintenance that you can provide. Components that are not regularly flushed and cleaned do not perform well.

The following schedules are the minimum requirements necessary for the proper performance of your machine. Intervals should be shortened whenever your machine is faced with abnormal working conditions, hard water, or multiple shift operations.

## CLEANING SCHEDULE

### Every 2 Hours or After Each Meal Period

1. Drain the dishwasher.
2. Flush interior with fresh water.
3. Clean scrap screens and pump intake screen.
4. Clean spray arm nozzles.

### Every 8 Hours or at the End of the Day

1. Drain the machine.
2. Flush interior with fresh water.
3. Clean scrap screens and pump intake screen.
4. Clean spray arms.
5. Thoroughly clean the exterior of machine.

**DO NOT HOSE DOWN WITH WATER.**

6. Reassemble the machine.
7. Leave doors open to aid in drying.



### CAUTION:

*Do not leave water in wash tank overnight.*

## DELIMING SCHEDULE

Your dishwasher should be delimed regularly to prevent buildup of mineral deposits.



### NOTE:

*Consult your chemical supplier for an appropriate deliming solution and proper procedures.*

# TROUBLESHOOTING

Perform the seven checks listed below in the event that your dishwasher does not operate as expected.

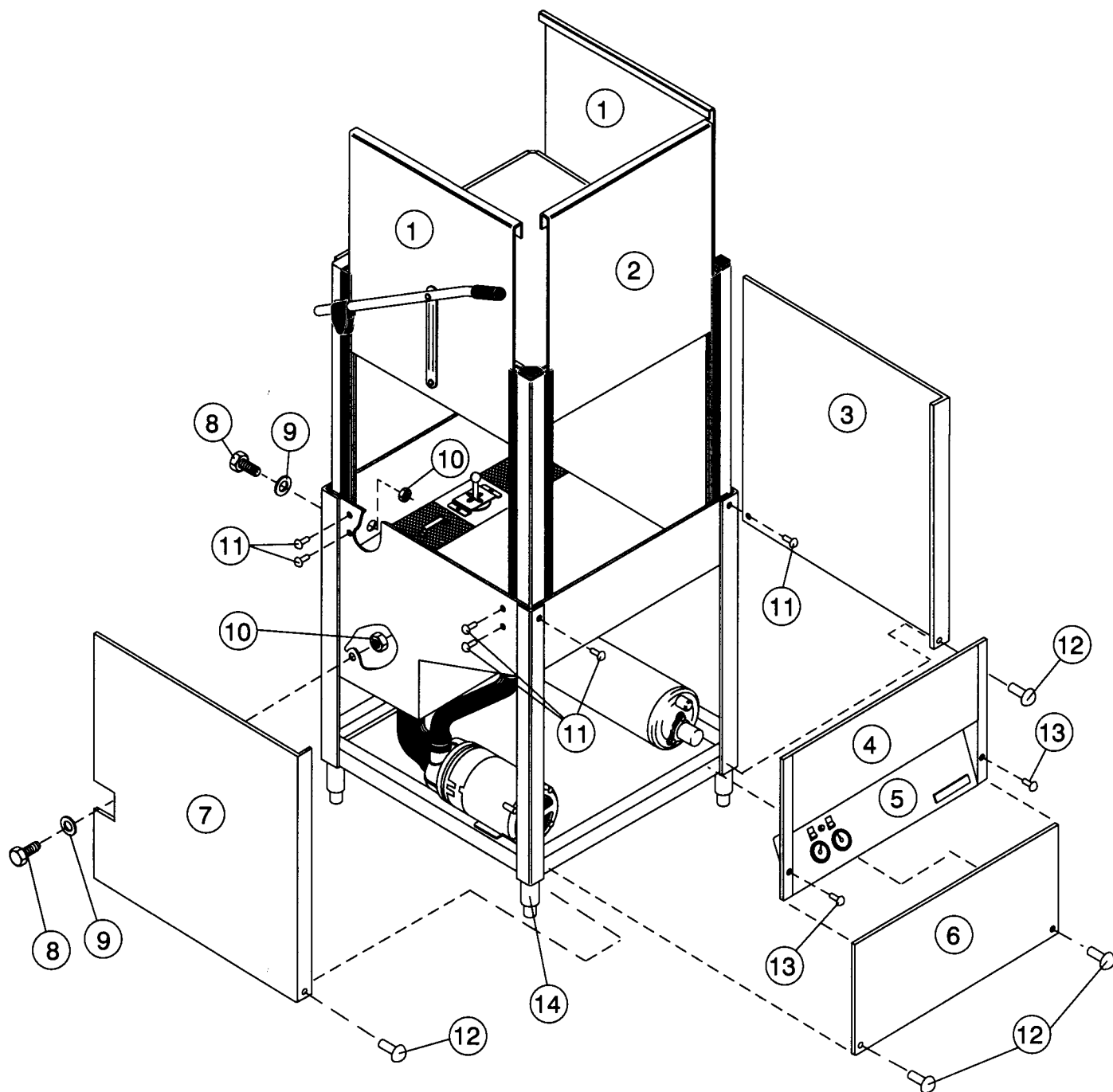
1. All switches are **ON**
2. Drain-overflow assembly is in place and seated
3. Wash and rinse nozzles are clean
4. Wash and rinse pipe assemblies are installed correctly
5. Scrap screens are properly positioned
6. Thermostat(s) are properly adjusted
7. Detergent and rinse additive dispensers are adequately filled.

If a problem still exists, use the following table for troubleshooting.

CONDITION	CAUSE	SOLUTION
Machine will not start	Doors not closed	Make sure doors are fully closed
	Door safety switch faulty	Contact your service agency
	Start switch faulty	Contact your service agency
	Main switch off	Check disconnect at main panel
	Overload protector tripped	Reset overload in Control Box
Machine washes constantly	Fill/Extended wash switch in extended wash position	Push Fill/Extended wash switch to the center position
Low or no water	Main water supply is turned off	Turn on house water supply
	Drain-overflow assembly is not in place and seated	Place and seat drain-overflow
	Machine doors not fully closed	Close doors securely
	Faulty fill valve	Contact your service agency
	Machine not filled initially	Hold fill switch UP to fill
	Clogged strainer in fill valve	Clean or replace
Continuous water filling	Stuck or defective fill switch	Contact your service agency
	Fill valve will not close	Clean or replace
	Drain-overflow not in place	Install drain-overflow assembly
Wash motor not running	Overload protector tripped	Reset overload in Control Box
	Defective motor	Contact your service agency
Wash tank water temperature is low when in use	Incoming water temperature at machine too low	Raise temperature to: 110-140°F/43-60°C
	Defective thermometer	Check or replace
	Defective thermostat	Check for proper setting or replace
	Defective heater element	Check or replace
	Defective solenoid valve	Check or replace
	Heater elements have soil/lime buildup	Clean and delime

## TROUBLESHOOTING (Cont.)

CONDITION	CAUSE	SOLUTION
Insufficient pumped spray pressure	Clogged pump intake screen	Clean
	Clogged spray pipe	Clean
	Scrap screen full	Must be kept clean and in place
	Low water level in tank	Check drain-overflow assembly
	Pump motor rotation incorrect	Reverse connection between L1 and L2 in Control Cabinet
	Defective pump seal	Contact Service Agent
Insufficient final rinse or no final rinse	Faulty pressure reducing valve	Clean or replace
	Improper setting on pressure reducing valve	Set flow pressure at 20-22 PSI/ 138-1518kPa
	Clogged rinse nozzle and/or pipe	Clean
	Improper water line size	Have installer change to proper size
	Clogged strainer in fill valve	Clean or replace
Low final rinse temperature	Low incoming water temperature	Check the booster - be sure the thermostat is set to maintain 180°F/82°C temperature Check valve to be sure it is clean and operating
	Defective thermometer	Check for proper setting or replace
Poor washing results	Detergent dispenser not operating properly	Contact detergent supplier
	Insufficient detergents	Contact detergent supplier
	Wash water temperature too low	See condition " <b>Wash Tank Water Temperature</b> " above
	Wash arm clogged	Clean
	Improperly scraped dishes	Check scraping procedures
	Ware being improperly placed in rack	Use proper racks Do not overload racks
	Improperly cleaned equipment	Unclog wash sprays and rinse nozzles to maintain proper pressure and flow conditions Overflows must be open Keep wash water as clean as possible
	Heater elements have soil/lime buildup	Clean and delime

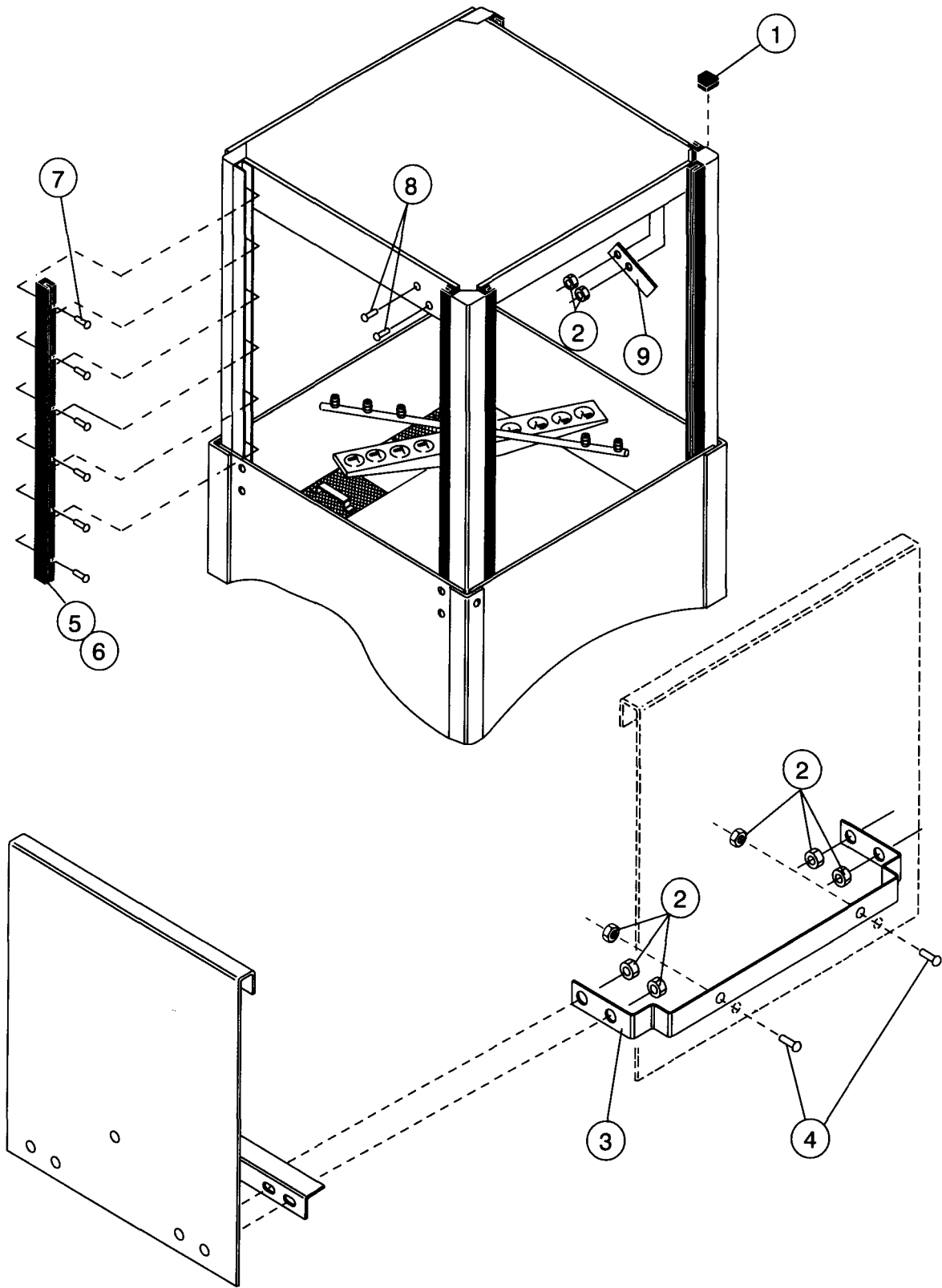


**Figure 12**  
**Doors and Panels**



## DOORS AND PANELS

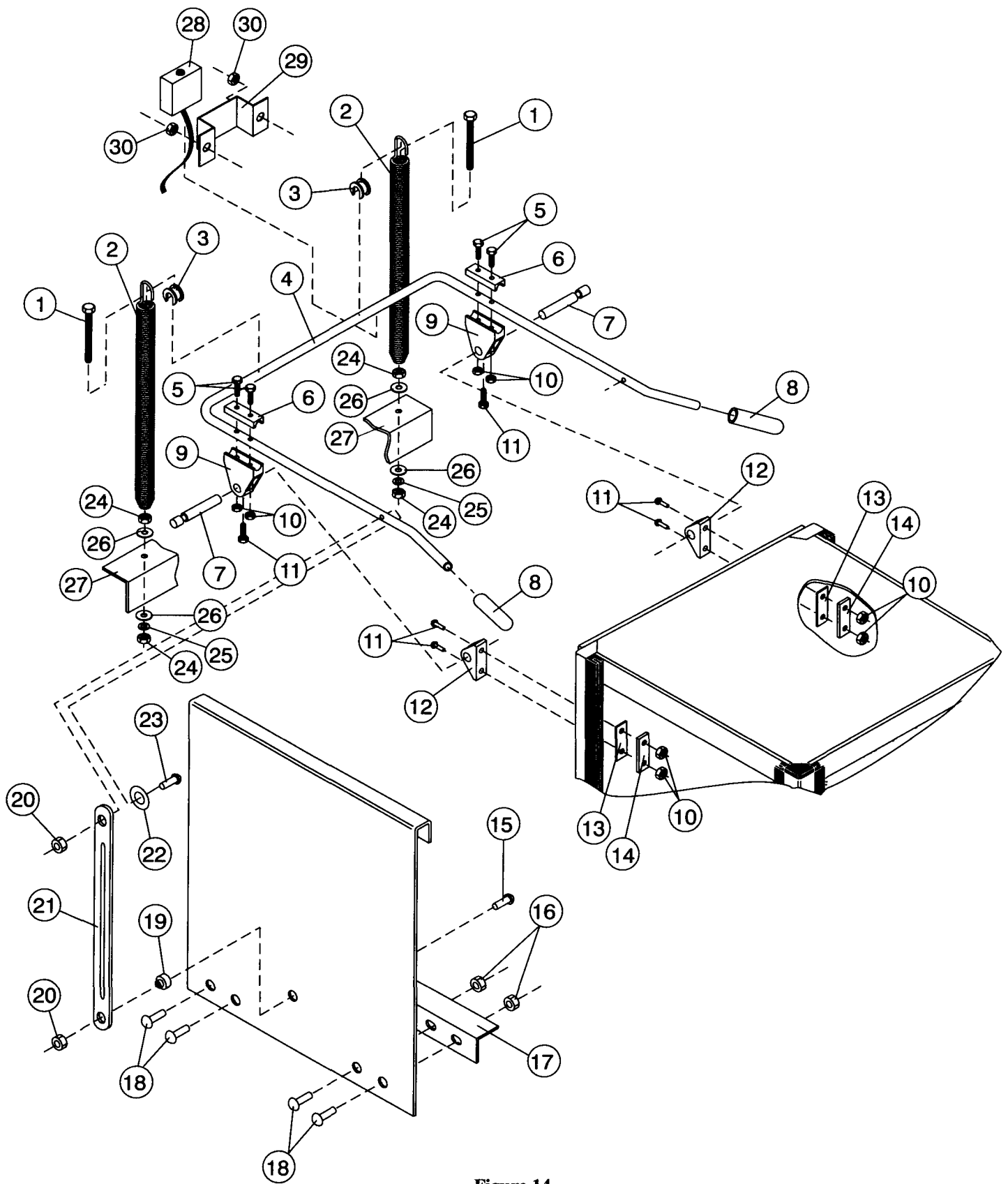
Fig 12 Item No	Part No	Part Description	Qty
1	0709405	DOOR, SIDE	2
2	0709402	FRONT DOOR, DOOR MACH	1
3	321929	RH PANEL NO CUT OUT	1
4	321933	PANEL INSTRUMENT	1
5	112389	DECAL, CONTROL PANEL	1
6	322074	PANEL, FRONT LOWER	1
7	321941	LH PANEL W/CUTOUT	1
8	108418	PLUG PLASTIC	2
9	109034	WASHER 13/16 X 1 13/16 FIBER	2
10	108417	NUT, PLASTIC	2
11	100779	SCREW, 1/4-20 X 5/8 TRUSS HEAD	6
12	0504822	SCREW, 8-32 X 1/2 PAN HEAD	4
13	100763	SCREW, 10-32 X 1 ROUND HEAD	2
14	0501873	FOOT, CAST GREY	4



**Figure 13 -  
Door Guides, Stops, and Lift Bracket**

## DOOR GUIDES, STOPS, AND LIFT BRACKET

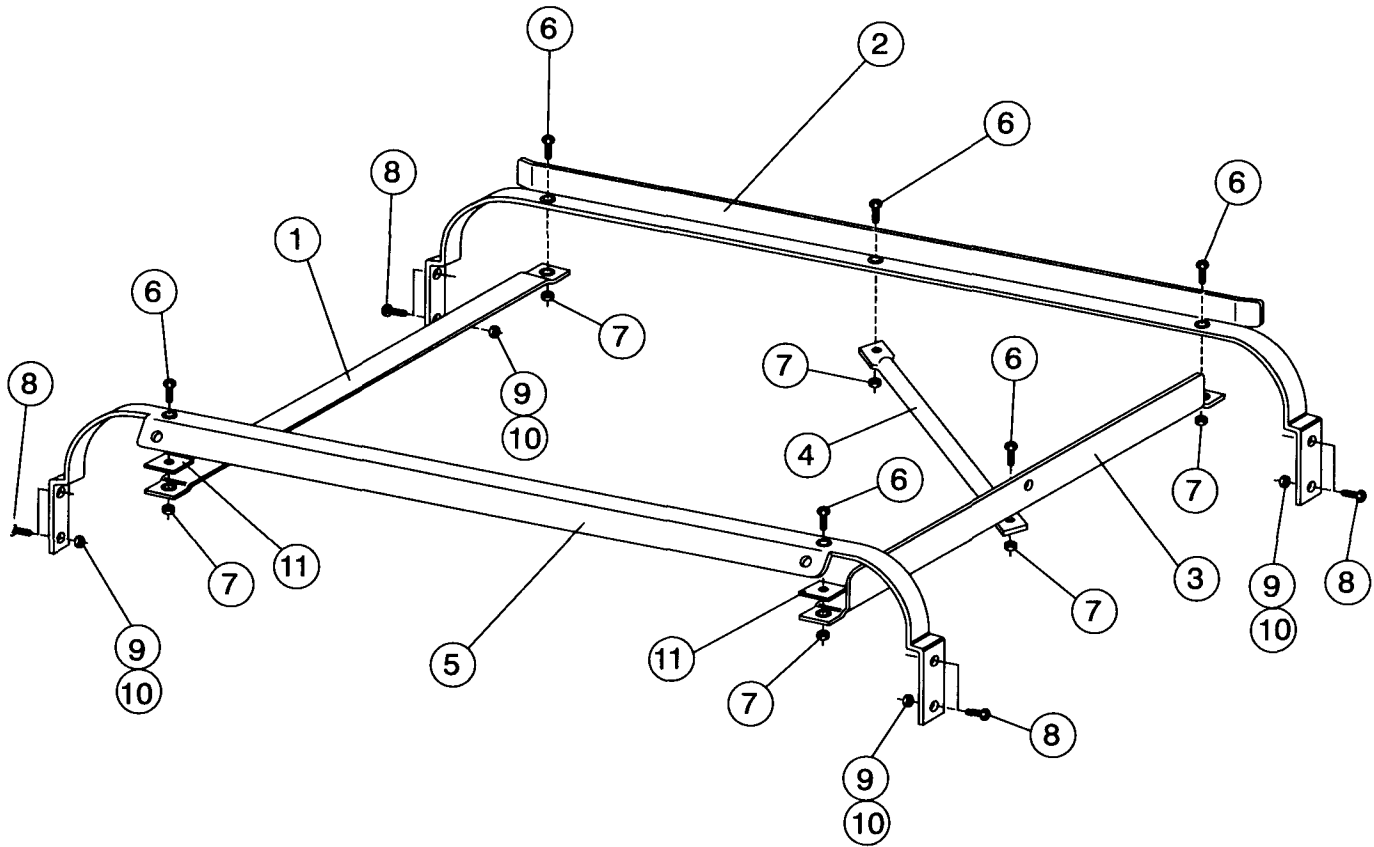
Fig 13 Item No	Part No	Part Description	Qty
1	108053	PLUG, CORNERPOST	2
2	107966	NUT, GRIP 10-32 W/INSERT	8
3	0309277	BRACKET, DOOR LIFT	1
4	100097	SCREW 10-32 X 1/2" TRUSS HEAD	2
5	108347	GUIDE, DOOR	6
6	108410	GASKET, DOOR GUIDE (26")	12
7	107970	SCREW 8-32 X 1 FILISTER	36
8	100007	SCREW 10-32 X 3/8 TRUSS HEAD	2
9	0307328	STOP, DOOR	2



**Figure 14 -  
Door Handle, Spring Assembly, and Safety Switch**

## DOOR HANDLE, SPRING ASSEMBLY, AND SAFETY SWITCH

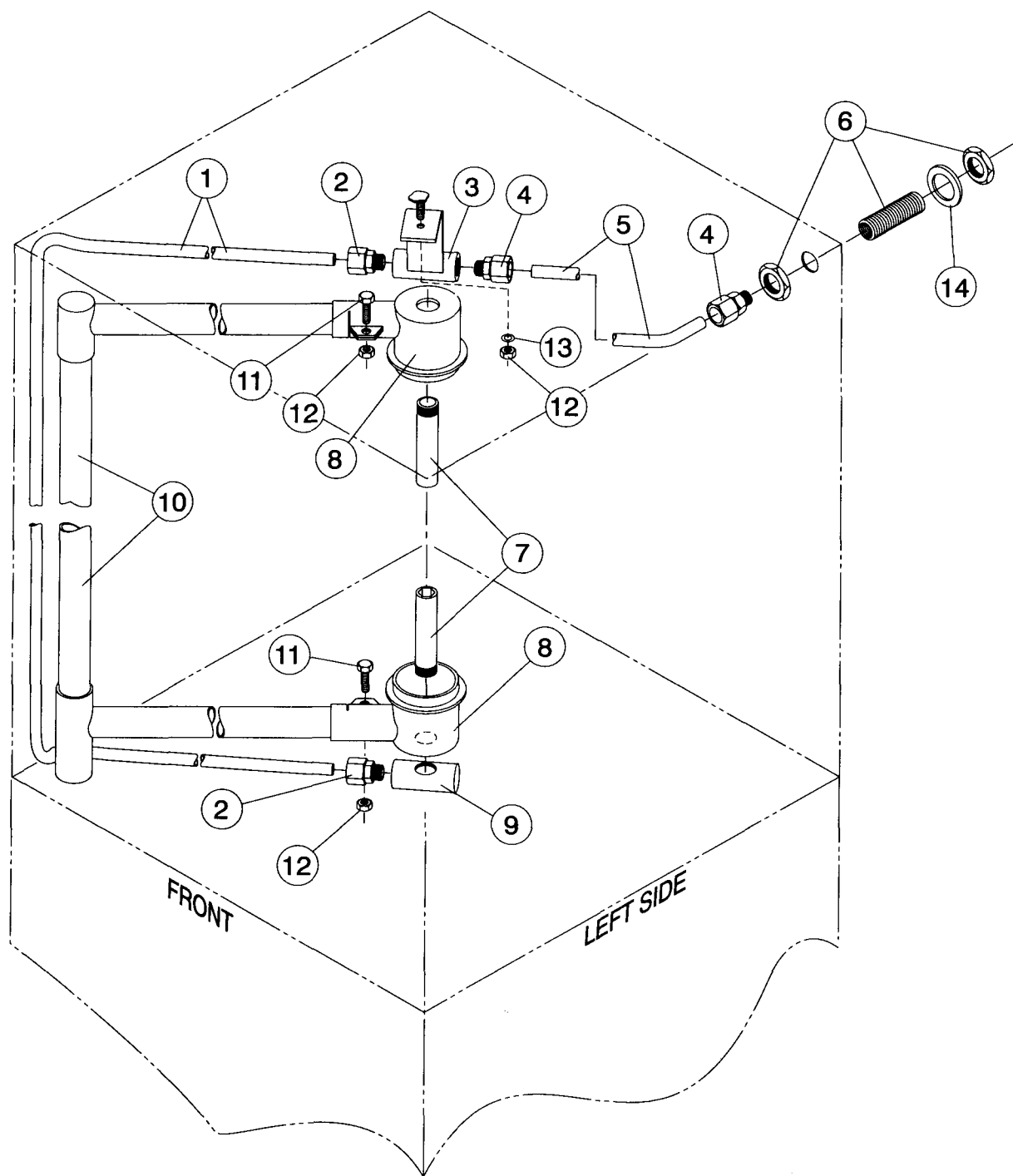
Fig 14 Item No	Part No	Part Description	Qty
1	0509168	BOLT 5/16-18 X 11 HEX HEAD	2
2	108066	SPRING, EXTENSION	2
3	107397	BLOCK, SPRING HOOK	2
4	0509166	DOOR HANDLE	1
5	107437	BOLT M6 X 45MM HEX HEAD	4
6	107396	BLOCK, UPPER PIVOT	2
7	107393	PIN, PIVOT	2
8	107962	HANDLE, GRIP	2
9	107395	BLOCK, LOWER PIVOT	2
10	107420	NUT, PLAIN M6	6
11	107436	SCREW M6 X 16MM FILISTER	8
12	107399	SUPPORT, PIVOT BLOCK	2
13	108368	GASKET, BACKING	2
14	304811	PLATE, BACKING	2
15	100740	BOLT 5/16-18 X 1 HEX HEAD	2
16	107966	NUT, GRIP 10-32 W/NYLON INSERT	8
17	322077	GUARD, SPLASH	2
18	100097	SCREW 10-32 X 1/2 TRUSSHEAD	8
19	0509264	BUSHING, SIDE DOOR	2
20	0509274	NUT, ACORN 5/16-18 SST	2
21	0309167	LIFT BAR, DOOR	2
22	102376	WASHER, FLAT	2
23	104002	BOLT 5/16-18 X 1-1/2	2
24	100154	NUT, PLAIN 5/16-18	4
25	106013	WASHER, LOCK 5/16 SPLIT	2
26	102376	WASHER 5/16 X 3/4 X 1/16	4
27	321927	SPRING ANCHOR BRACKET	1
28	0509199	SWITCH, DOOR SAFETY	1
29	0309451	BRACKET, SWITCH	1
30	107967	NUT, GRIP (1/4-20 with nylon insert)	2



**Figure 15 -  
Track Assembly**

## TRACK ASSEMBLY

Fig 15 Item No	Part No	Part Description	Qty
1	0309469	GUIDE, RIGHT HAND	1
2	0309472	TRACK, REAR	1
3	0309468	GUIDE, LEFT HAND	1
4	0309470	SUPPORT, RACK	1
5	0309471	TRACK, FRONT	1
6	106727	SCREW (10-32 X 5/8 FLAT HD)	6
7	107966	NUT, GRIP (10-32 W/NYLON INSERT)	6
8	100779	BOLT (1/4 -20 X 5/8 TRUSS HD)	8
9	106482	WASHER, LOCK	8
10	100003	NUT (1/4-20 HEX HD)	8
11	0309473	SPACER	2

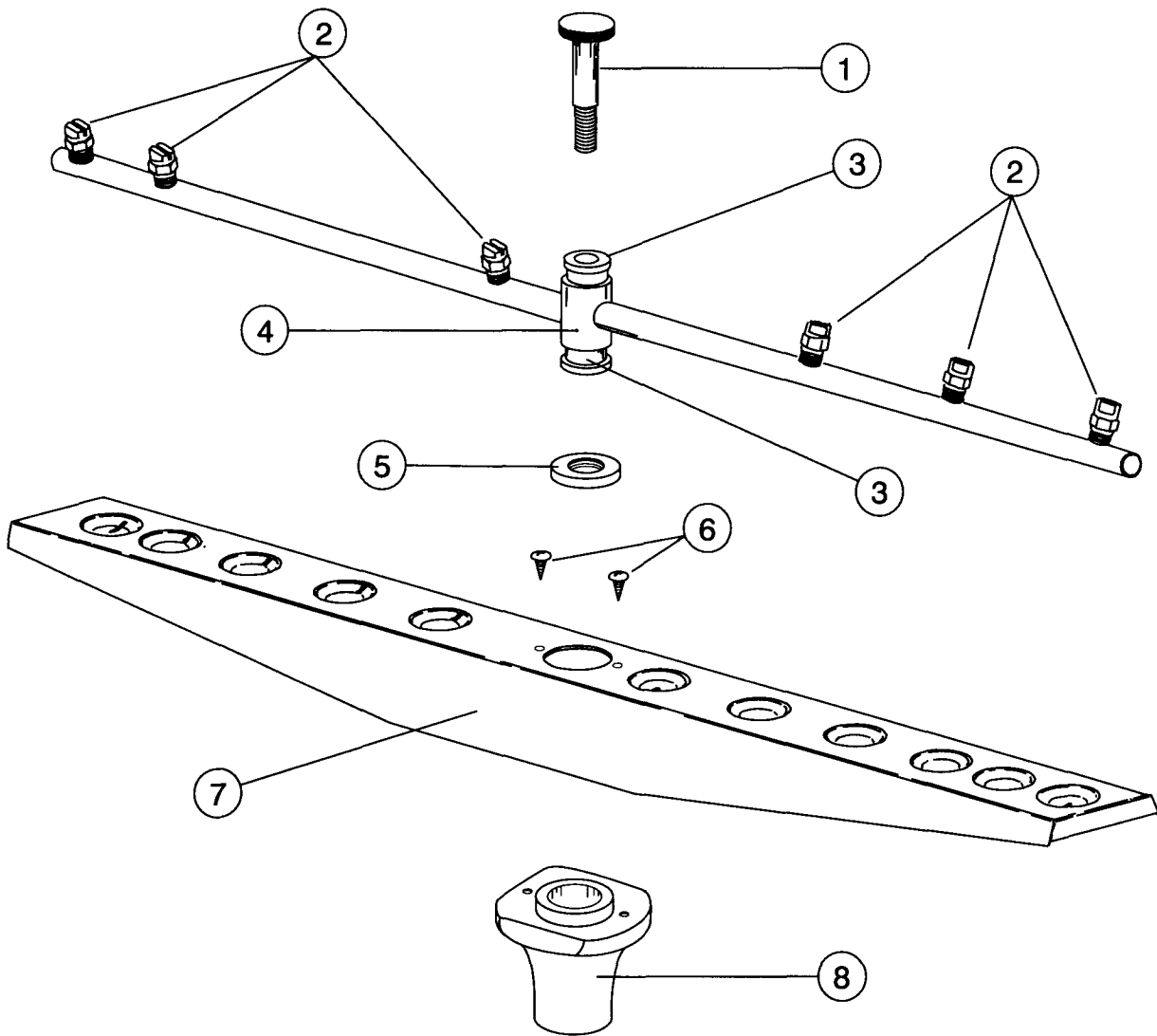


**Figure 16 -  
Wash/Rinse Spray Piping**



### WASH/RINSE SPRAY PIPING

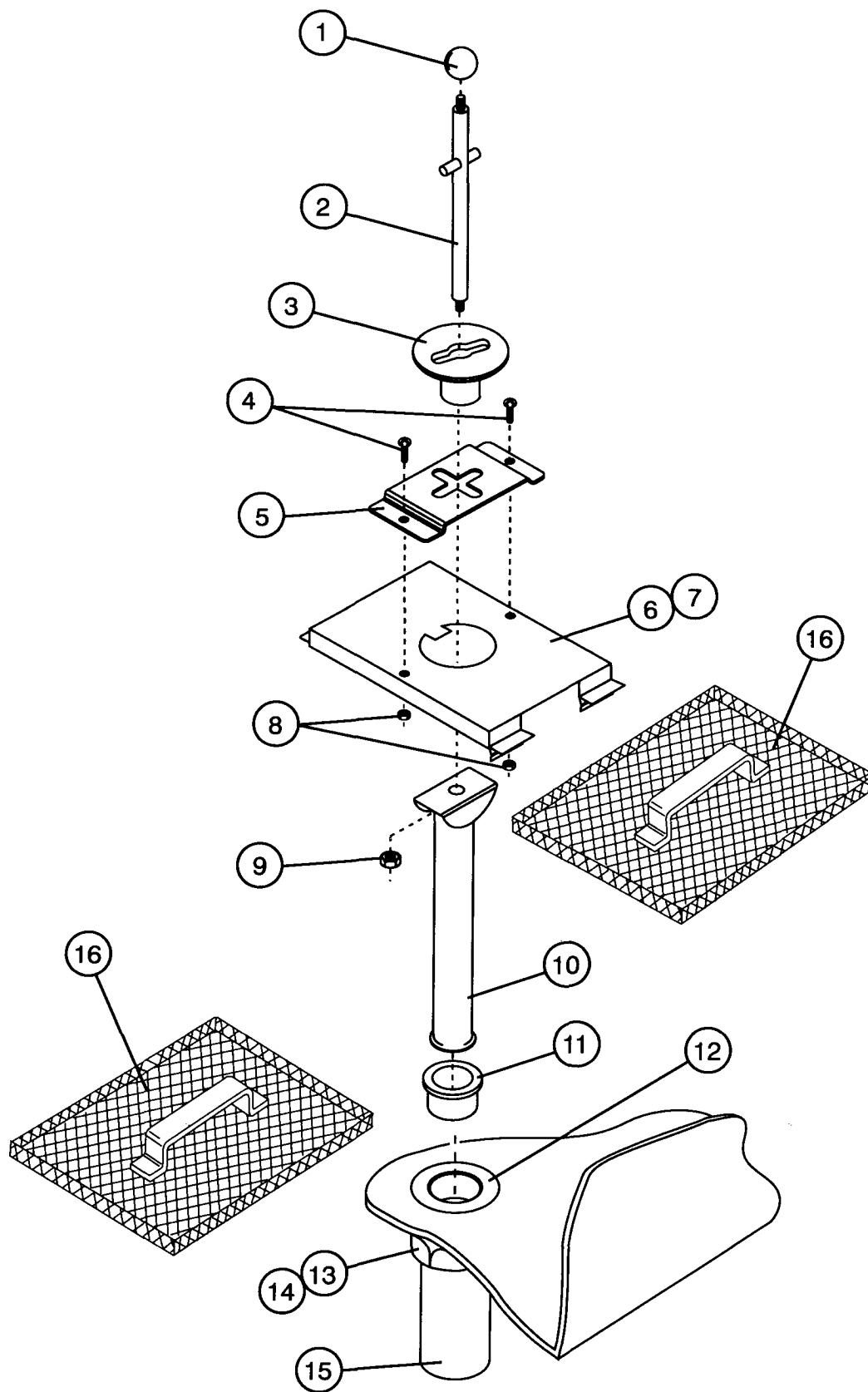
<b>Fig 16 Item No</b>	<b>Part No</b>	<b>Part Description</b>	<b>Qty</b>
1	0309444	RINSE TUBE	1
2	0509181	FITTING, STRAIGHT COMPRESSION	2
3	0509150	CONNECTOR, TOP RINSE	1
4	0509180	FITTING, STRAIGHT COMPRESSION	2
5	0309445	RINSE TUBE, TOP	1
6	0509179	FITTING, BULKHEAD 1/2"NPT	1
7	0507445	SPINDLE, WASH ARM	2
8	109864	SUPPORT, WASH ARM	2
9	0509178	CONNECTOR, BOTTOM RINSE	1
10	109781	STANDPIPE, WASH	1
11	100736	BOLT 1/4-20 X 3/4 HEX HEAD	2
12	107967	NUT, GRIP 1/4-20	1
13	106482	WASHER, SPLIT LOCK SST	2
14	0309350	WASHER	1



**Figure 17 -  
Wash/Rinse Spray Arm Assembly**

## WASH/RINSE SPRAY ARM ASSEMBLY

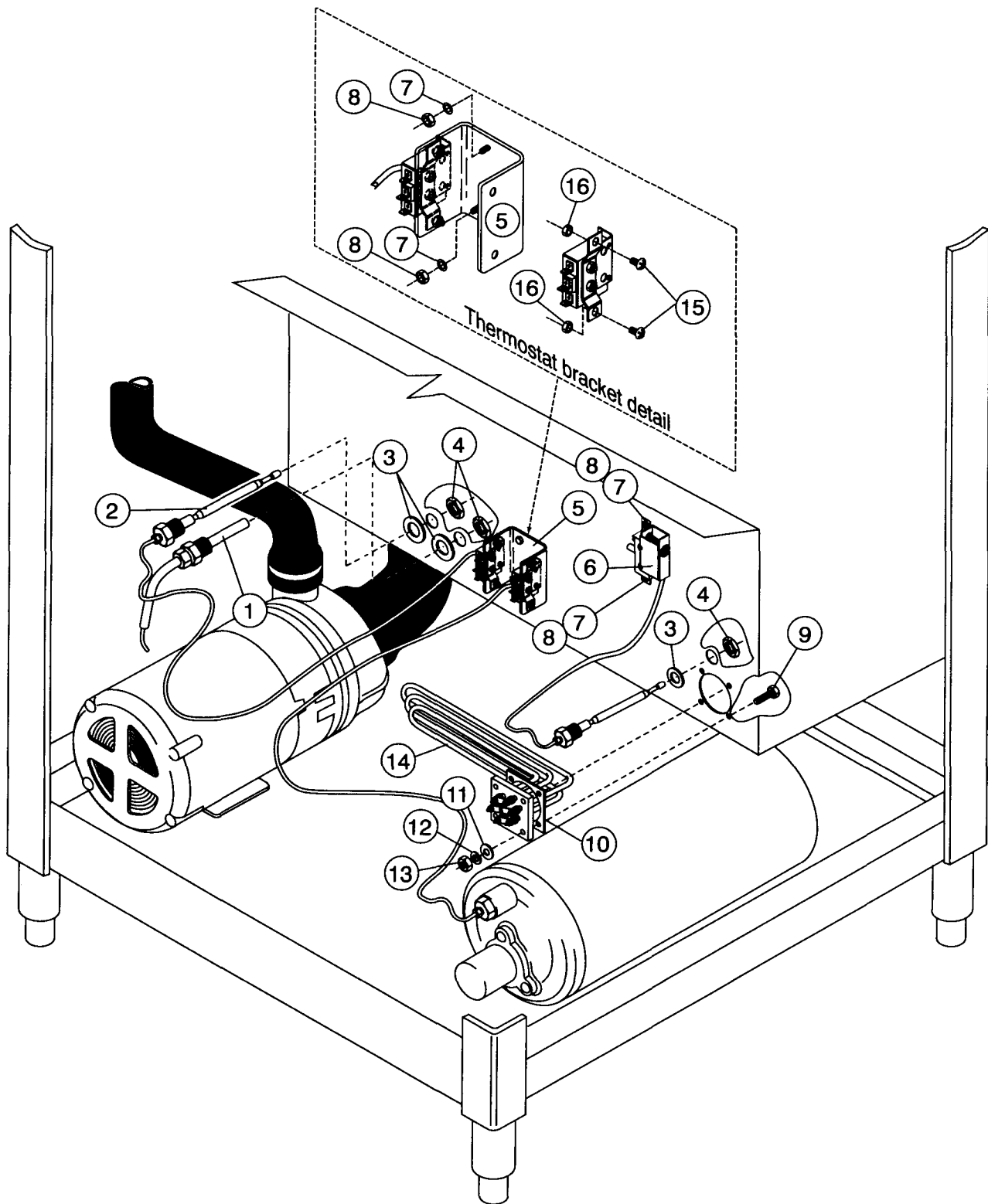
Fig 17 Item No	Part No	Part Description	Qty
1	0507443	SPINDLE, RINSE ARM	2
2	0508376	NOZZLE, RINSE ARM	12
3	112164	BEARING, RINSE ARM	4
4	0707453	RINSE ARM ASSY (Includes 2 & 3)	2
5	0507444	NUT, RINSE ARM	2
6	109835	SCREW (#8 X 1/2 PAN HD)	4
7	0707452-S	WASH ARM ASSY (Includes 6 & 8)	2
8	0507446	BEARINGWASH ARM	2
	0707450	RINSE ARM (Does not include items 2, 3 or 9)	
	0707456	WASH ARM (Does not include item 8)	



**Figure 18 -  
Drain Assembly and Scrap Screens**

## DRAIN ASSEMBLY AND SCRAP SCREENS

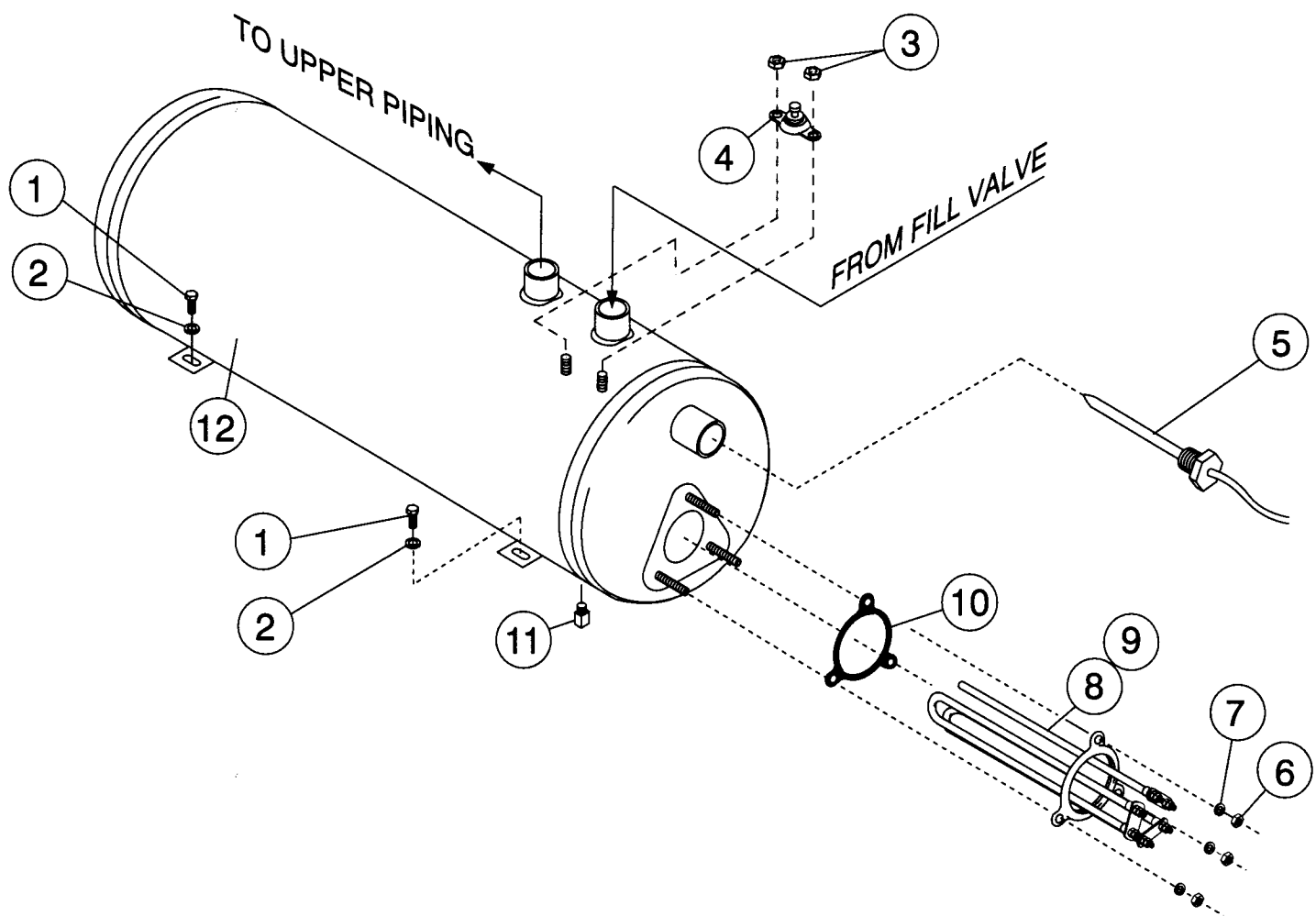
Fig 18 Item No	Part No	Part Description	Qty
1	112393	KNOB, DRAIN LIFT	1
2	112394	ROD ASSY, DRAIN LIFT	1
3	112392	GUIDE, DRAIN LIFT	1
4	100097	SCREW (10-32 X 1/2" TRUSS HD)	2
5	322159	RETAINER, OVERFLOW	1
6	321939	FILLER, DRAIN PLATE (retained by spring clip)	1
7	322120	FILLER, DRAIN PLATE (retained by stud and nut) (Not shown)	1
8	100194	NUT, GRIP (10-32 SST)	2
9	100141	NUT, GRIP (1/4-20 SST)	1
10	322006	TUBE, OVERFLOW	1
11	107680	SEAT RUBBER, OVERFLOW TUBE	1
12	205813	DRAIN BASKET, MODIFIED	1
13	112044	SLIP NUT	1
14	112045	WASHER/TAILPIECE	1
15	107473	TAILPIECE	1
16	305164	SCREEN, SCRAP	2



**Figure 19 -  
Wash Tank Heat and Thermostats**

## WASH TANK HEAT AND THERMOSTATS

Fig 19 Item No	Part No	Part Description	Qty
1	108391	THERMOMETER 4 FT	1
2	109069	THERMOSTAT W/CAP 110-220°F	1
3	201041	WASHER	3
4	201029	NUT, LOCK 1/2"	3
5	322076	DUAL THERMOSTAT BRACKET	1
6	110561	THERMOSTAT, FIXED HIGH LIMIT	1
7	106482	WASHER, LOCK 1/4 SPLIT SST	4
8	100003	NUT, PLAIN 1/4-20 SST	4
9	100740	BOLT 5/16-18 X 1 HEX HEAD	4
10	108345	GASKET 3X3X1/8 2"	1
11	102376	WASHER 5/16 X 3/4 X 1/16	8
12	106013	WASHER, LOCK 5/16 SPLIT	4
13	100154	NUT, PLAIN 5/16-18 SST	4
14	0509185	HEATER 3KW 208-240V/380-415V 1/3PH	1
15	100007	SCREW 10-32 X 3/8 TRUSS HEAD	4
16	107966	NUT, GRIP 10-32 W/NYLON INSERT	4
—	104889	PUTTY, SEALING (USED TO SEAL ITEMS 3 & 4)	A/R

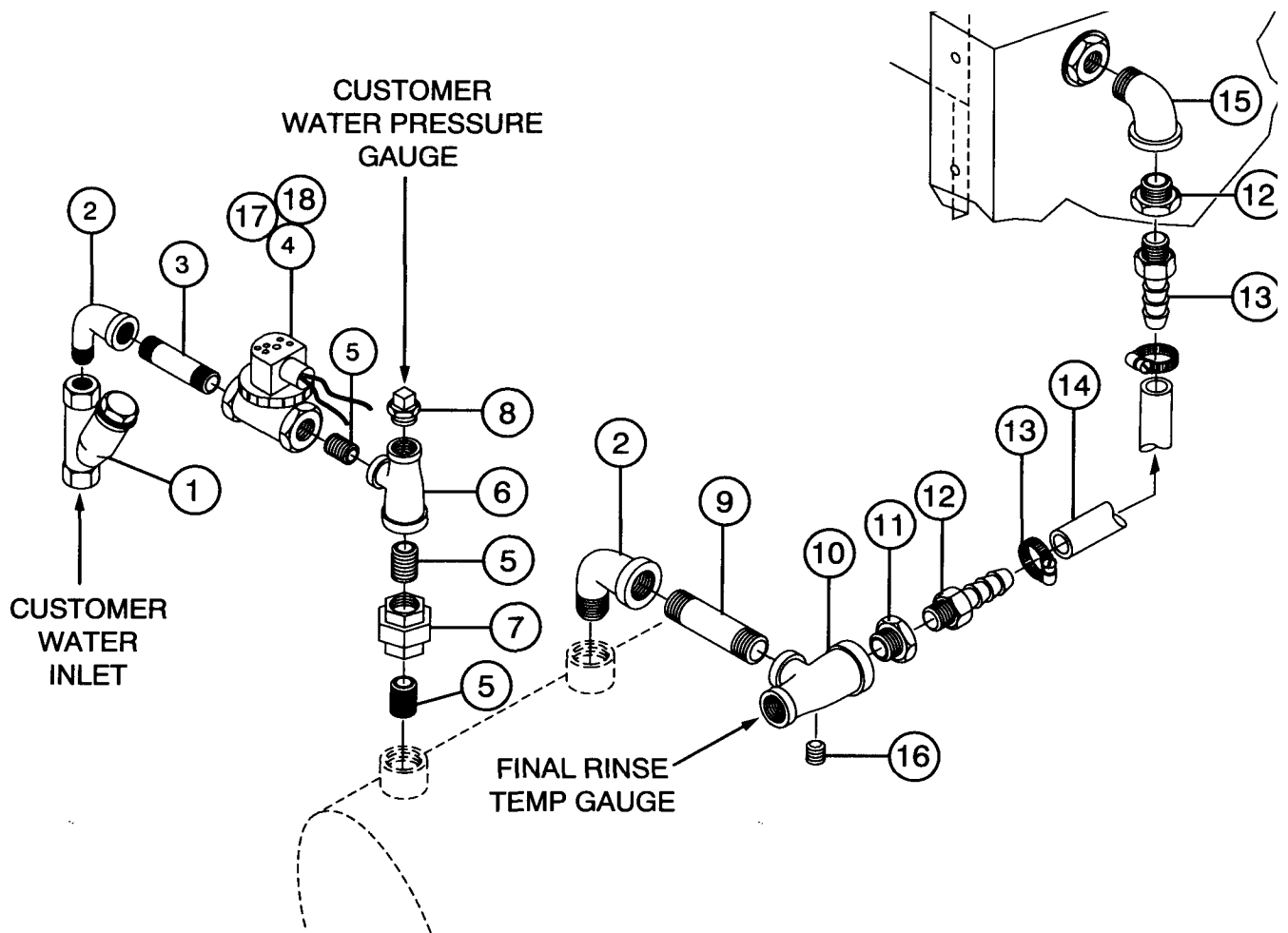


**Figure 20**  
**Electric Booster Assembly and Thermostats**



## ELECTRIC BOOSTER ASSEMBLY AND THERMOSTATS

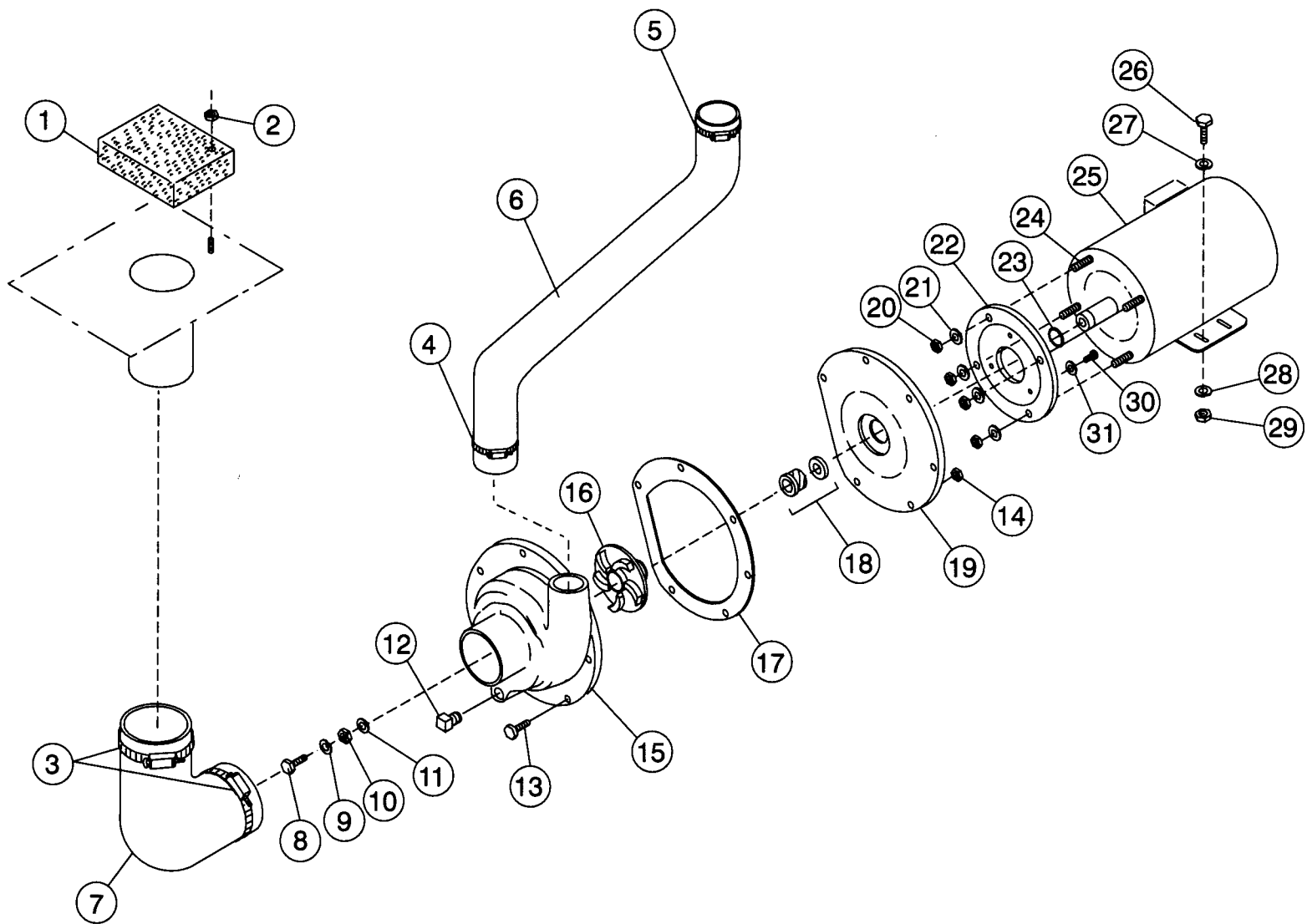
Fig 20 Item No	Part No	Part Description	Qty
1	100740	BOLT 5/16-18 X 1 HEX HEAD	2
2	102376	WASHER, FLAT 5/16 X 3/4 X 1/16	2
3	108954	NUT, GRIP 6-32 W/INSERT	2
4	110562	THERMOSTAT, HIGH LIMIT	1
	110563	COMPOUND, HEAT SINK	A/R
5	109069	THERMOSTAT, BOOSTER	1
6	100003	NUT, PLAIN 1/4-20 SST	3
7	106482	WASHER, LOCK 1/4 SPLIT	3
8	107909	HEATER 6KW 208-240V, (Wired delta) 40°Rise (1 & 3 phase)	1
	107909	HEATER 6KW 380-415V (Wired wye) 40°Rise (3 phase only)	1
9	111334	HEATER 12KW 208-240V, (Wired delta) 70°Rise (3 phase)	1
	111334	HEATER 12KW 380V-415V, (Wired wye) 70°Rise (3 phase)	1
10	109985	SEAL, ELECTRIC HEATER	1
11	100210	PLUG 1/8 SST	1
12	0509042	TANK, BOOSTER	1



**Figure 21 -  
Fill Piping Assembly**

## FILL PIPING ASSEMBLY

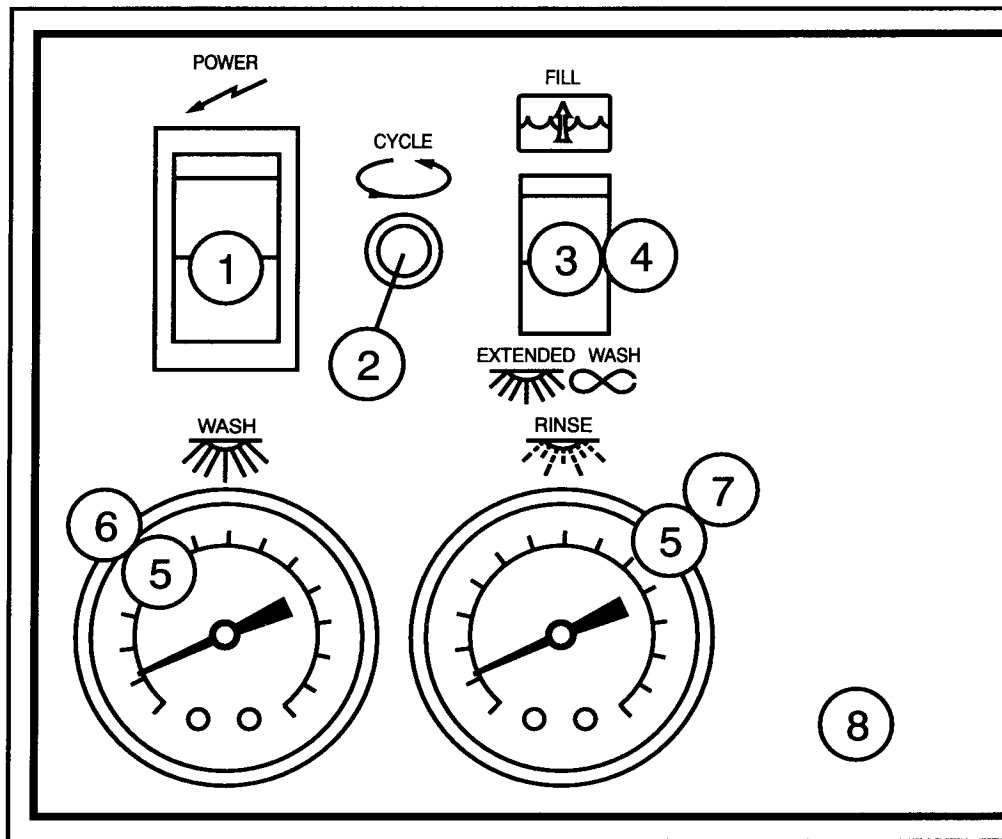
Fig 21 Item No	Part No	Part Description	Qty
1	110768	LINE STRAINER BRASS	1
2	102444	STREET ELL 3/4" NPT BRASS	2
3	102651	NIPPLE 3/4" x 2" BRASS	1
4	111437	VALVE 3/4" NPT HOT WATER	1
5	100184	NIPPLE 3/4" NPT	3
6	102525	TEE 3/4" X 1/2" X 3/4" BRASS	1
7	100571	UNION 3/4" NPT BRASS	1
8	102504	PLUG, 1/2" NPT BRASS	1
9	102489	NIPPLE, 3/4" NPT X 2-1/2" BRASS	1
10	0308728	TEE, MODIFIED 3/4" X 1/2" X 3/4" X 1/8" BRASS	1
11	100392	BUSHING REDUCER 3/4" X 1/2" BRASS	1
12	107419	BARB, HOSE 1/2 NPTX 1/2 HOSE	1
13	105994	CLAMP, HOSE	2
14	107417	HOSE, 1/2" ID	9ft
15	102438	ELBOW, STREET 1/2" NPTX 90° BRASS	1
16	101259	PLUG, 1/8" NPT, BRASS	1
17	108516	COIL, SOLENOID VALVE (120V)	1
18	109903	KIT, REPAIR, 3/4" SOLENOID VALVE	1



**Figure 22**  
**Pump Assembly**

## PUMP ASSEMBLY

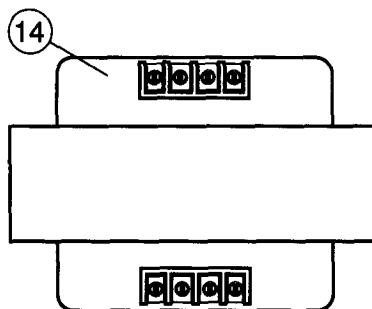
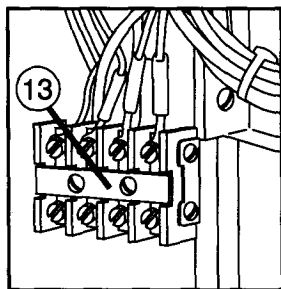
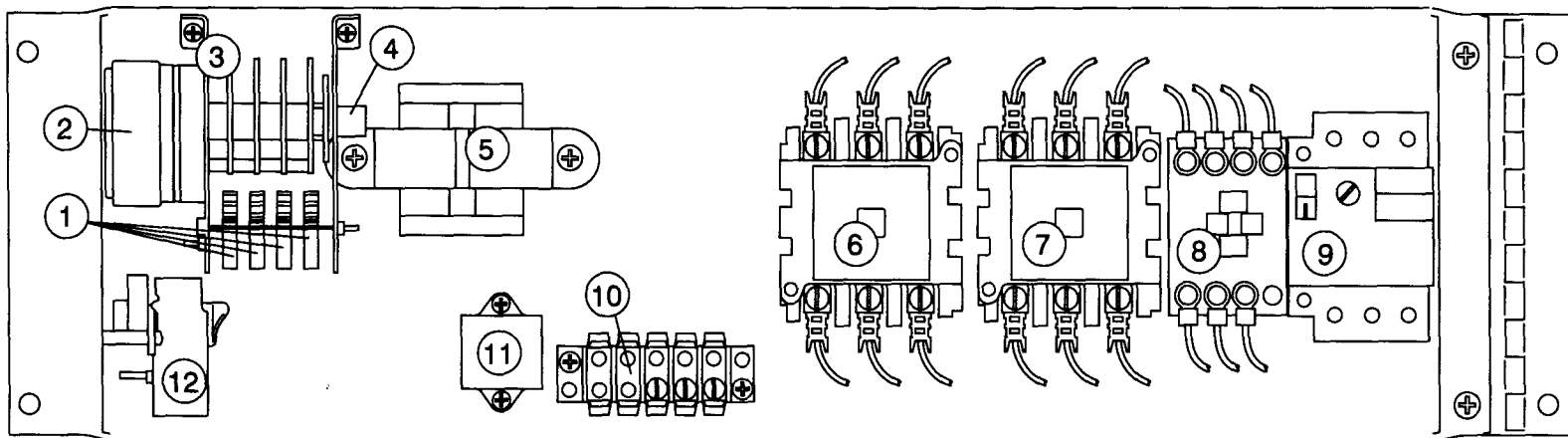
Fig 22 Item No	Part No	Part Description	Qty
1	308005	STRAINER	1
2	107966	NUT, GRIP 10-32 W/NYLON INSERT	1
3	104203	CLAMP, HOSE	2
4	104165	CLAMP, HOSE	1
5	107340	CLAMP, HOSE	1
6	112383	HOSE PUMP DISCHARGE	1
7	109562	HOSE, SUCTION	1
8	100734	BOLT 1/4-20 X 1/2" HEX HEAD	1
9	106482	WASHER, LOCK 1/4" SPLIT	1
10	110247	NUT, HEX JAM 7/16-20	1
11	110248	WASHER, FLAT	1
12	107463	PLUG 1/4"	1
13	107137	BOLT 10-32 X 7/8 HEX HEAD	11
14	100194	NUT, GRIP (10-32)	11
15	109651	VOLUTE	1
16	111143	IMPELLER	1
17	109653	GASKET, O-RING	1
18	111111	PUMP SEAL	1
19	109649	BACK PUMP HOUSING	1
20	107690	NUT, JAM 3/8-16	4
21	106407	WASHER, LOCK 3/8" SPLIT	4
22	204460	BACKING PLATE, MACHINED	1
23	109654	PUMP SLINGER WASHER	1
24	110734	STUD 3/8-16 X 1 3/8	4
25	0509174	MOTOR 14HP (220/380-415V/50-60/3)	1
	112163	MOTOR 14HP (220/380V/50-60/1)	1
26	100739	BOLT 5/16-18 X 3/4 HEX HEAD	4
27	102376	WASHER, FLAT 5/16	4
28	106013	WASHER, LOCK 5/16-18 SST	4
29	100142	NUT, GRIP 5/16-18	4
30	100754	SCREW, FLAT 10-32 X 1/2"	4
31	110270	WASHER, COUNTERSUNK SST	4
	109645	KIT, PUMP (INCLUDES 15,17,19)	1
—	0709191	PUMP/MOTOR ASSEMBLY Complete 14HP(220V/380-415V/50-60/3ph)	1
—	0709279	PUMP/MOTOR ASSEMBLY Complete 14HP(220V/380V/50-60/1ph)	1



**Figure 23 -  
Control Panel and Gauges**

## CONTROL PANEL AND GAUGES

Fig 23 Item No	Part No	Part Description	Qty
1	111980	CIRCUIT BREAKER, SWITCH, ON-OFF (5A)	1
2	112391	LITE, AMBER (IN-CYCLE)	1
3	0509228	SWITCH, ROCKER (FILL-EXTENDED WASH)	1
4	112521	SWITCH, MOMENTARY (OPTIONAL TIMED FILL ONLY)	1
5	108391	THERMOMETER, 4 FT	2
6	112086	OVERLAY, WASH 150°F	1
7	112090	OVERLAY, FINAL RINSE 180-195°F	1
8	112389	DECAL, CONTROL PANEL	1



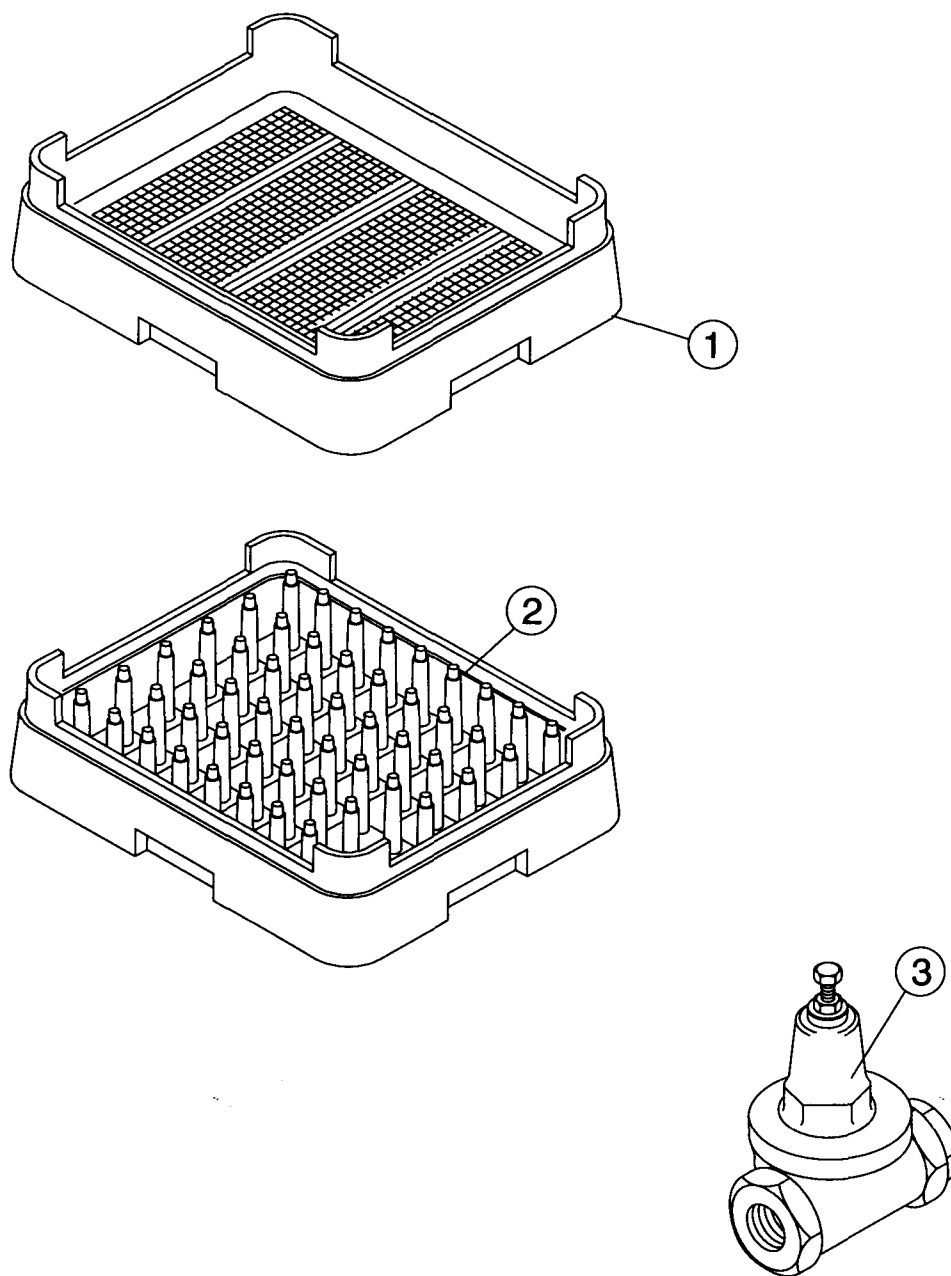
Main Power Transformer  
mounted on machine base

Figure 24  
Control Cabinet



## CONTROL CABINET

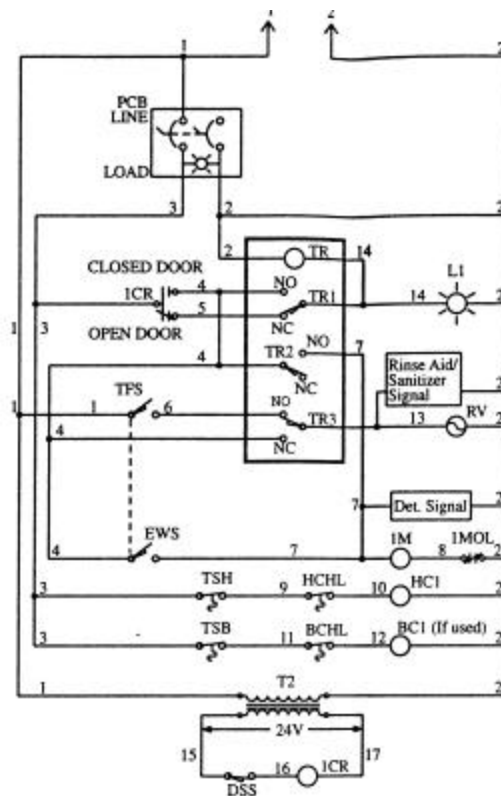
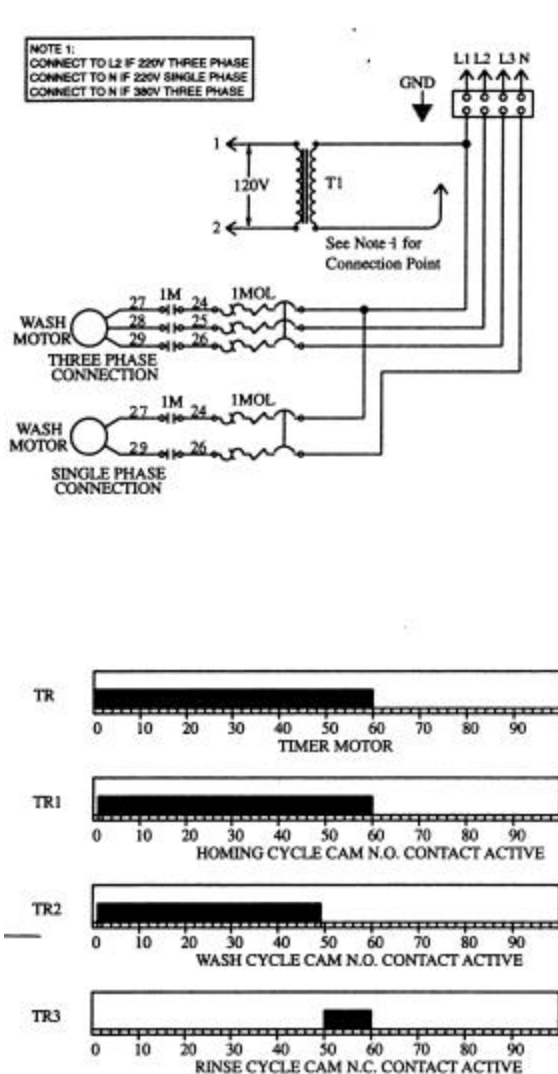
Fig 24 Item No	Part No	Part Description	Qty
1	0501379	Switch, timer	4
2	0508773	Motor, timer	1
3	0709632	Assembly, timer (includes Items 1, 2, 4)	1
4	0503701	Bearing, timer	1
5	111277	Transformer (120V : 24V)	1
6	111904	Contactor, booster heater (40A, 3 pole)	1
7	111904	Contactor, wash tank heater (40A, 3 pole)	1
8	111642	Contactor, 14 HP Wash motor (12A3 pole) (3 PH)	1
8	111641	Contactor, 14 HP Wash motor (25A3 pole) (1 PH)	1
9	112691	Overload, motor 14 HP Wash 220V/50-60/3PH	1
9	112691	Overload, motor 14 HP Wash 380-415/50-60/3PH	1
9	111630	Overload, motor 14 HP Wash 220V/50-60/1PH	1
10	107366	Board, terminal	1
11	111067	Relay (2PDT, 10A 24VAC coil)	1
12	0508469	Fill timer assembly (Optional Timed Fill Only)	1
13	0509527	Block, terminal (4 pole) (Main Power)	1
14	109064	Transformer (208-240/480V: 115VAC)	1
14	111464	Transformer (380-415V:115VAC)	1
	103309	Wire lug, ground (Not shown)	1



**Figure 25 -  
Dishracks and PRV**

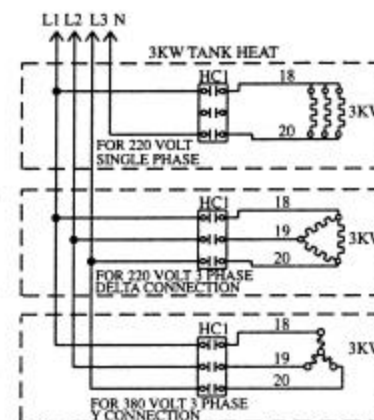
## DISHRACKS AND PRV

<b>Fig 25 Item No</b>	<b>Part No</b>	<b>Part Description</b>	<b>Qty</b>
1	101273	RACK, (FLAT BOTTOM)	1
2	101285	RACK, (PEG)	1
3	107550	PRESSURE REDUCING VALVE	1



EL CLIENTE DEBE SUMINISTRAR EL VOLTAJE/FASE/HZ NORMALES DEL INTERRUPTOR, SEGÚN SE ESPECIFICA EN CADA ORDEN. TODA ALIMENTACIÓN DE ENERGÍA QUE SE SUMINISTRE EN CADA PUNTO DE CONEXIÓN DEBE CUMPLIR CON TODAS LAS NORMAS DE ELECTRICIDAD LOCALES

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/HZ, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRICAL CODES.



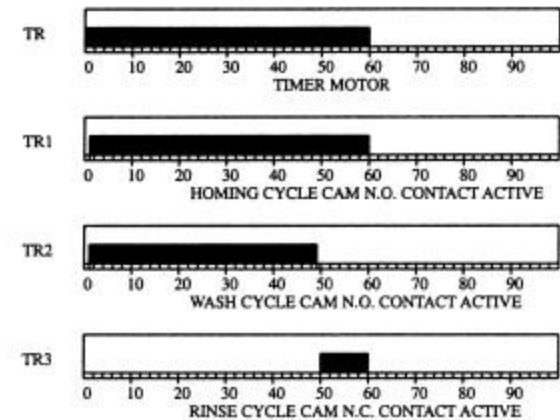
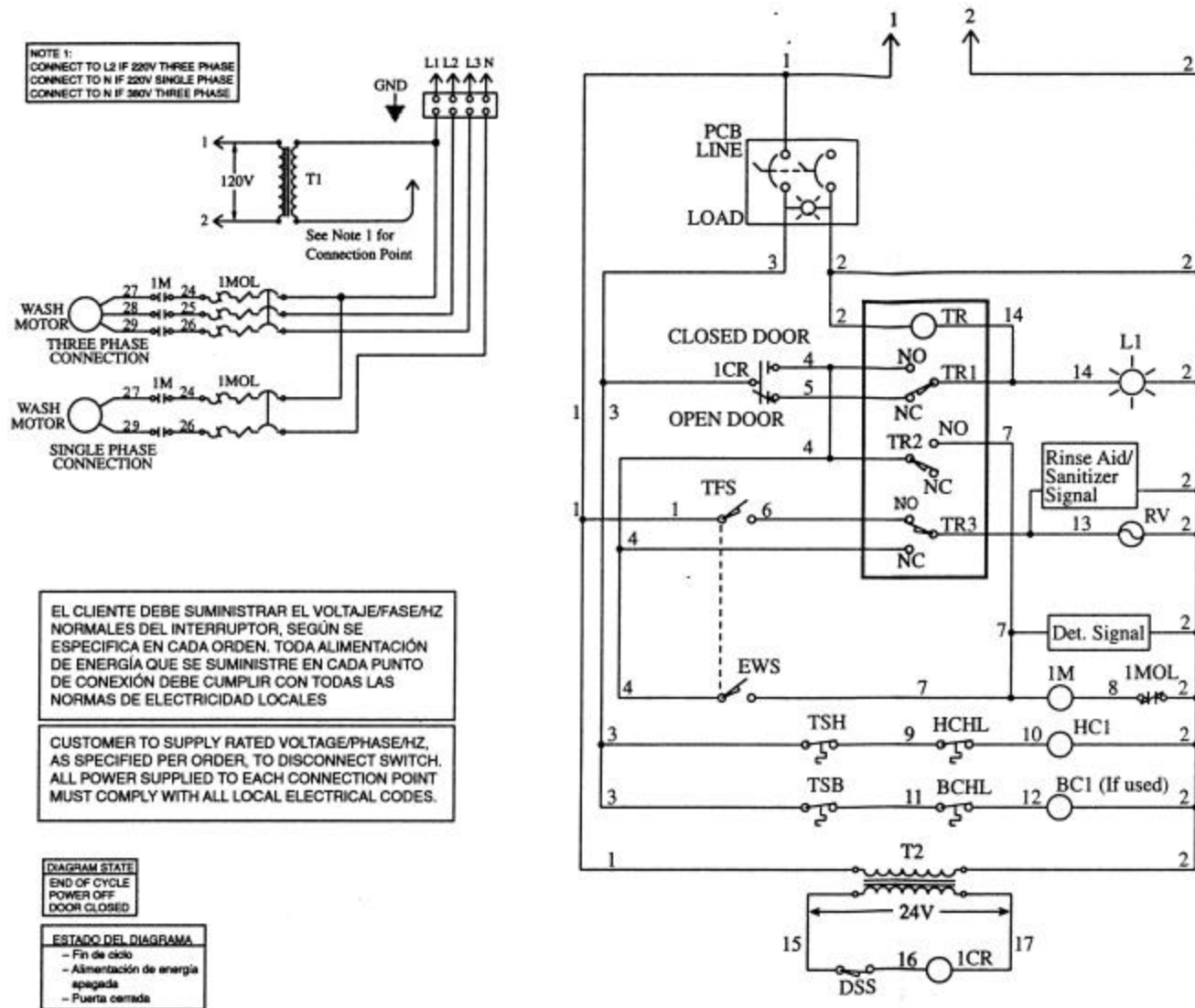
ICR	Door safety hold-in relay
IM	Wash motor contactor
IMOL	Wash motor overloads
BC1	Booster heat contactor
BCHL	Booster heat high limit (Snap disc)
DSS	Door safety switch
EWS	Extended wash switch
GND	Ground
HC1	Tank heat contactor
HCHL	Tank heat high limit (Snap disc)
L1	Cycle light
PCB	Power switch/Circuit breaker/Power On light
RV	Rinse valve
T1	Control transformer Line V: 120V
T2	Control transformer 120V: 24V
TFS	Tank Fill Switch
TR	Timer motor
TR1	Homing cycle cam
TR2	Wash cycle cam
TR3	Rinse cycle cam
TSB	Booster heat thermostat
TSH	Tank heat thermostat

DIAGRAM STATE  
END OF CYCLE  
POWER OFF  
DOOR CLOSED

ESTADO DEL DIAGRAMA  
- Fin de ciclo  
- Alimentación de energía  
apagada  
- Puerta cerrada

B701353

Figure 26 -  
Electrical Schematic (Electric Heat 1 & 3 Phase)



1CR	Door safety hold-in relay
1M	Wash motor contactor
1MOL	Wash motor overloads
BC1	Booster heat steam valve
BCHL	Booster heat high limit (Snap disc)
DSS	Door safety switch
EWS	Extended wash switch
GND	Ground
HC1	Tank heat steam valve
HCHL	Tank heat high limit (Snap disc)
L1	Cycle light
PCB	Power switch/Circuit breaker/Power On light
RV	Rinse valve
T1	Control transformer Line V: 120V
T2	Control transformer 120V: 24V
TFS	Tank Fill Switch
TR	Timer motor
TR1	Homing cycle cam
TR2	Wash cycle cam
TR3	Rinse cycle cam
TSB	Booster heat thermostat
TSH	Tank heat thermostat

Figure 27 -  
Electrical Schematic (Steam Heat 1 & 3 Phase)

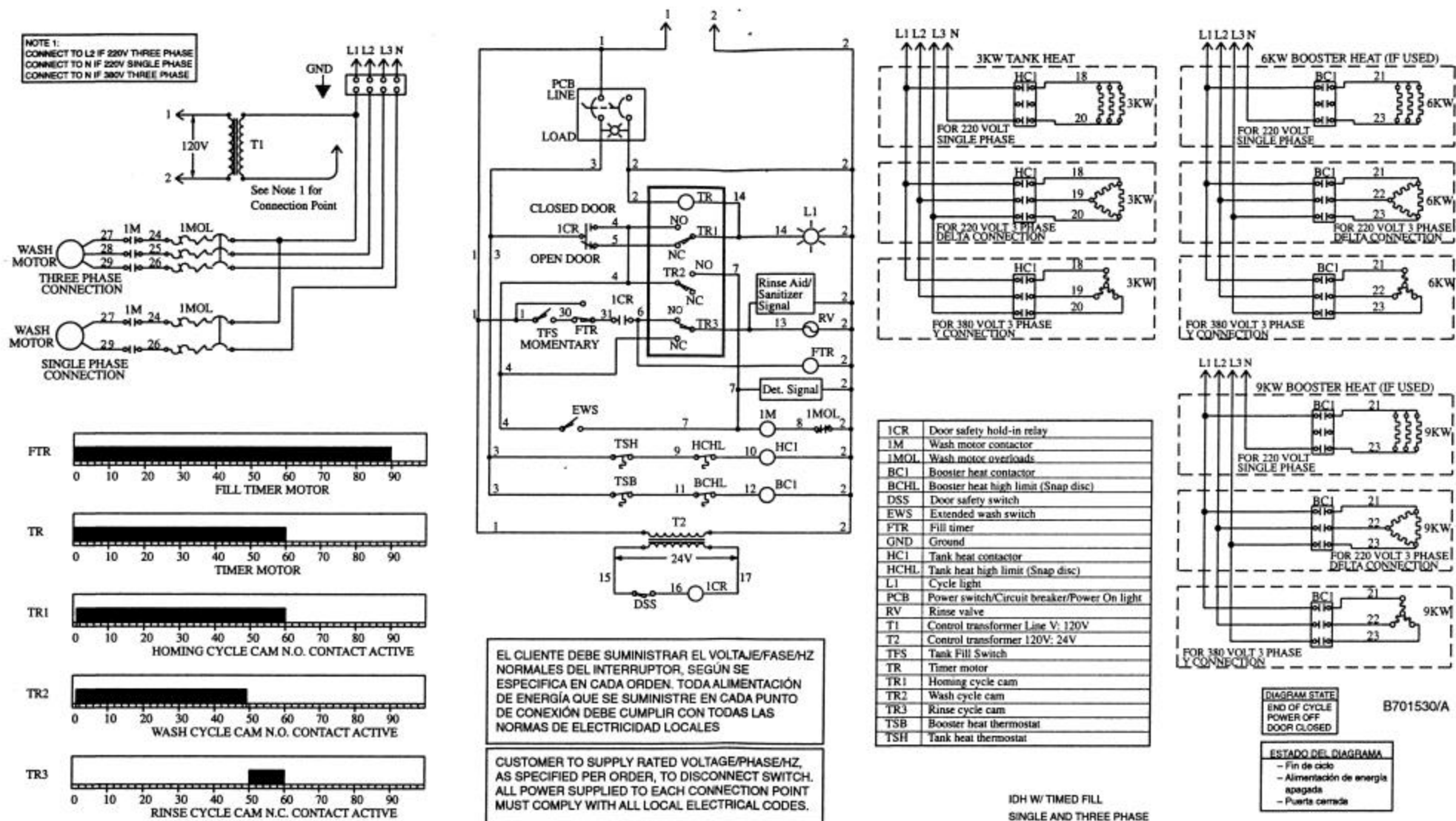


Figure 28 -  
Electrical Schematic (Optional Timed Fill) (1 & 3 Phase)