

# TECHNICAL MANUAL

INSTALLATION MANUAL FOR EXPORT UNITS  
SERVICE MANUAL FOR DOMESTIC UNITS

FOR JACKSON MODELS:

*ELECTRIC HEATED*

**300X**

**300XLT**

**300XN**

*STEAM HEATED*

**300XS**









## 300XS

300X = Electrically heated, high temp, hot water sanitizing, with booster heater, door-type dishmachine  
300XLT = Electrically heated, low temp, chemical sanitizing, no rinse booster, door-type dishmachine  
300XN = Electrically heated, high temp, hot water sanitizing, no rinse booster, door-type dishmachine  
300XS = Steam heated, high temp, hot water sanitizing, door-type dishmachine

Model: \_\_\_\_\_

Serial No.: \_\_\_\_\_

Installation Date: \_\_\_\_\_

Service Rep. Name: \_\_\_\_\_

Phone No.: \_\_\_\_\_

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# **SECTION 1: SPECIFICATION INFORMATION**

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## SECTION 1: SPECIFICATION INFORMATION

### OPERATING CAPACITIES

#### OPERATING CAPACITY (PER HOUR):

<u>Model</u>	<u>Racks</u>	<u>Dishes</u>	<u>Glasses</u>
300X	57	1425	1425
300XN	57	1425	1425
300XLT	57	1425	1425

#### OPERATING CYCLE (SECONDS):

Wash Time	45 sec
Rinse Time	11 sec
Complete Cycle Time	58 sec

#### OPERATING TEMPERATURES (°F):

Wash Temperature (Minimum)	150°F
Wash Temperature (Minimum)	66°C
Rinse Temperature (Minimum)	180°F
Rinse Temperature (Minimum)	83°C

#### WATER REQUIREMENTS:

Inlet Temperature (300X/12KW Heater) (Minimum)	140°F
Inlet Temperature (300X/12KW Heater) (Minimum)	60°C
Inlet Temperature (300X/14KW Heater) (Minimum)	110°F
Inlet Temperature (300X/14KW Heater) (Minimum)	44°C
Inlet Temperature (300XN) (Minimum)	180°F
Inlet Temperature (300XN) (Minimum)	83°C
Inlet Temperature (300XLT) (Minimum)	110°F
Inlet Temperature (300XLT) (Minimum)	44°C
Gallons per Hour (Approximate)	52
Water Line Size	1/2" NPT
Drain Line Size	1-1/2" NPT
Flow Pressure PSI	20 ± 5
Wash Tank Capacity (Gallons)	8
Wash Tank Capacity (Liters)	30.3
Rinse Tank Capacity (Gallons)(300X Only)	3
Rinse Tank Capacity (Gallons)(300X Only)	11.4

#### STEAM REQUIREMENTS:

COIL SIZE	3/4"
STEAM FLOW PRESSURE (P.S.I.)	10-20
CONSUMPTION @ 15 P.S.I. (LBS/HR)	45

**NOTE: Always refer to the machine data plate for specific electrical and water requirements. The material provided on this page is for reference only and may be subject to change without notice.**

## SECTION 1: SPECIFICATION INFORMATION

### ELECTRICAL REQUIREMENTS

**NOTE: Typical Electrical Circuit is based upon (1) 125% of the full amperage load of the machine and (2) typical fixed-trip circuit breaker sizes as listed in the NEC 2002 Edition. Local codes may require more stringent protection than what is displayed here. Always verify with your electrical service contractor that your circuit protection is adequate and meets all applicable national and local codes. These numbers are provided in this manual simply for reference and may change without notice at any given time.**

#### 300X

<u>VOLTS</u>	<u>PH</u>	<u>HZ</u>	<u>RINSE HEATER RATINGS</u>	<u>TOTAL AMPS</u>	<u>TYPICAL ELECTRICAL CIRCUIT</u>
208	1	50	12 KW@240V	71	90 AMP
208	1	50	14 KW@240V	78	100 AMP
230	1	50	12 KW@240V	78	100 AMP
230	1	50	14 KW@240V	86	110 AMP

#### 300XLT

208	3	50	12 KW@240V	45	60 AMP
208	3	50	14 KW@240V	49	70 AMP
230	3	50	12 KW@240V	48	60 AMP
230	3	50	14 KW@240V	53	70 AMP
380	3	50	12 KW@380V	29	40 AMP
*380	3	50	14 KW@208V	34	45 AMP
415	3	50	12 KW@415V	26	35 AMP
415	3	50	14 KW@415V	29	40 AMP
440	3	50	12 KW@460V	21	30 AMP
440	3	50	14 KW@460V	25	35 AMP
208	1	60	12 KW@240V	69	90 AMP
208	1	60	14 KW@240V	76	100 AMP
230	1	60	12 KW@240V	76	100 AMP
230	1	60	14 KW@240V	84	110 AMP

<u>VOLTS</u>	<u>PH</u>	<u>HZ</u>	<u>RINSE HEATER RATINGS</u>	<u>TOTAL AMPS</u>	<u>TYPICAL ELECTRICAL CIRCUIT</u>
208	1	50	N/A	28	35 AMP
230	1	50	N/A	30	40 AMP
208	3	50	N/A	20	25 AMP
230	3	50	N/A	21	30 AMP
380	3	50	N/A	10	15 AMP
415	3	50	N/A	10	15 AMP
440	3	50	N/A	8	15 AMP
208	1	60	N/A	26	35 AMP
230	1	60	N/A	28	35 AMP
208	3	60	N/A	18	25 AMP
230	3	60	N/A	28	35 AMP
460	3	60	N/A	8	15 AMP

208	3	60	12 KW@240V	43	60 AMP
208	3	60	14 KW@240V	47	60 AMP
230	3	60	12 KW@240V	46	60 AMP
230	3	60	14 KW@240V	51	70 AMP
460	3	60	12 KW@480V	22	30 AMP
460	3	60	14 KW@480V	24	30 AMP

#### 300XS

<u>VOLTS</u>	<u>PH</u>	<u>HZ</u>	<u>RINSE HEATER RATINGS</u>	<u>TOTAL AMPS</u>	<u>TYPICAL ELECTRICAL CIRCUIT</u>
208	1	50	N/A	7	15 AMP
230	1	50	N/A	7	15 AMP
208	3	50	N/A	7	15 AMP
230	3	50	N/A	7	15 AMP
380	3	50	N/A	7	15 AMP
208	1	60	N/A	6	15 AMP
230	1	60	N/A	6	15 AMP
208	3	60	N/A	6	15 AMP
230	3	60	N/A	6	15 AMP
460	3	60	N/A	2	15 AMP

#### 300XN

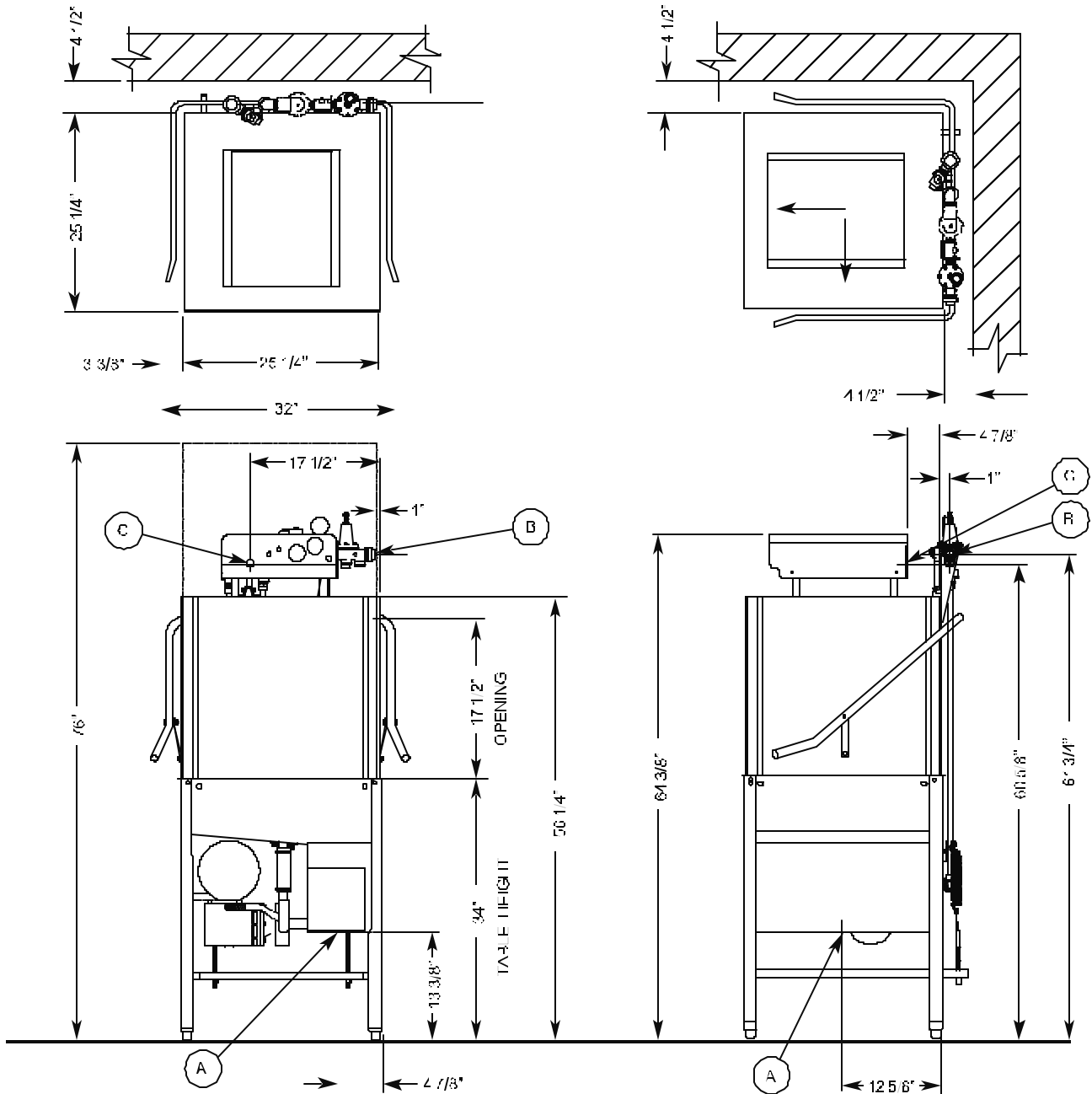
<u>VOLTS</u>	<u>PH</u>	<u>HZ</u>	<u>RINSE HEATER RATINGS</u>	<u>TOTAL AMPS</u>	<u>TYPICAL ELECTRICAL CIRCUIT</u>
208	1	50	N/A	28	35 AMP
230	1	50	N/A	30	40 AMP
208	3	50	N/A	20	25 AMP
230	3	50	N/A	21	30 AMP
380	3	50	N/A	10	15 AMP
415	3	50	N/A	10	15 AMP
440	3	50	N/A	8	15 AMP
208	1	60	N/A	26	35 AMP
230	1	60	N/A	28	35 AMP
208	3	60	N/A	18	25 AMP
230	3	60	N/A	28	35 AMP
460	3	60	N/A	8	15 AMP

\* This unit is wired in a wye configuration for the heaters.



# SECTION 1: SPECIFICATION INFORMATION

## 300X DIMENSIONS



### LEGEND:

A = Drain (1-1/2" NPT)

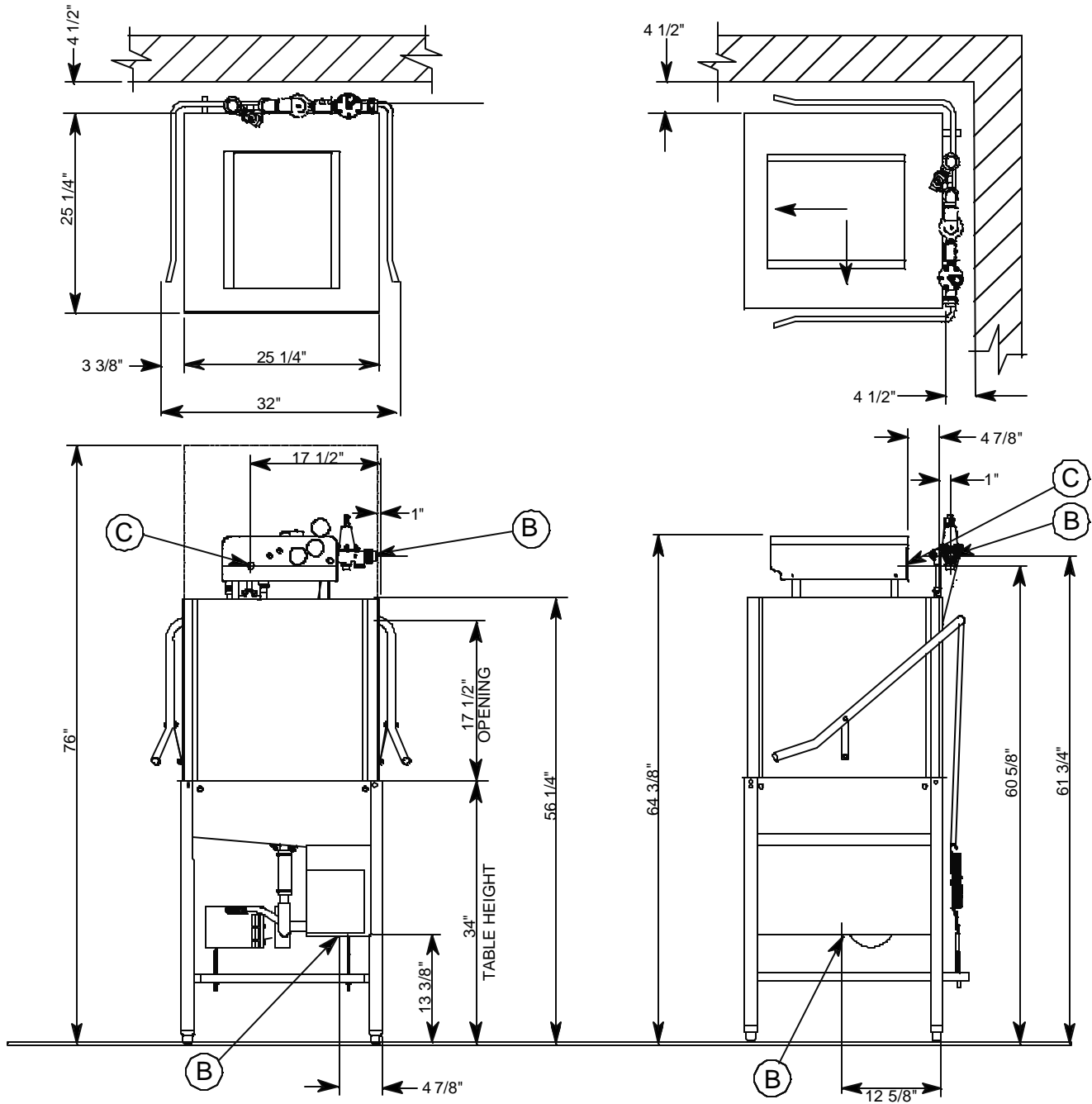
B = Water Inlet (1/2" NPT)

C = Electrical Connection

NOTE: All dimensions are in inches unless otherwise specified. All vertical dimensions are adjustable by +/- 1/2" (1.3 cm) due to the adjustable bullet feet.

# SECTION 1: SPECIFICATION INFORMATION

## 300XN & 300XLT DIMENSIONS



### LEGEND:

A = Drain (1-1/2" NPT)

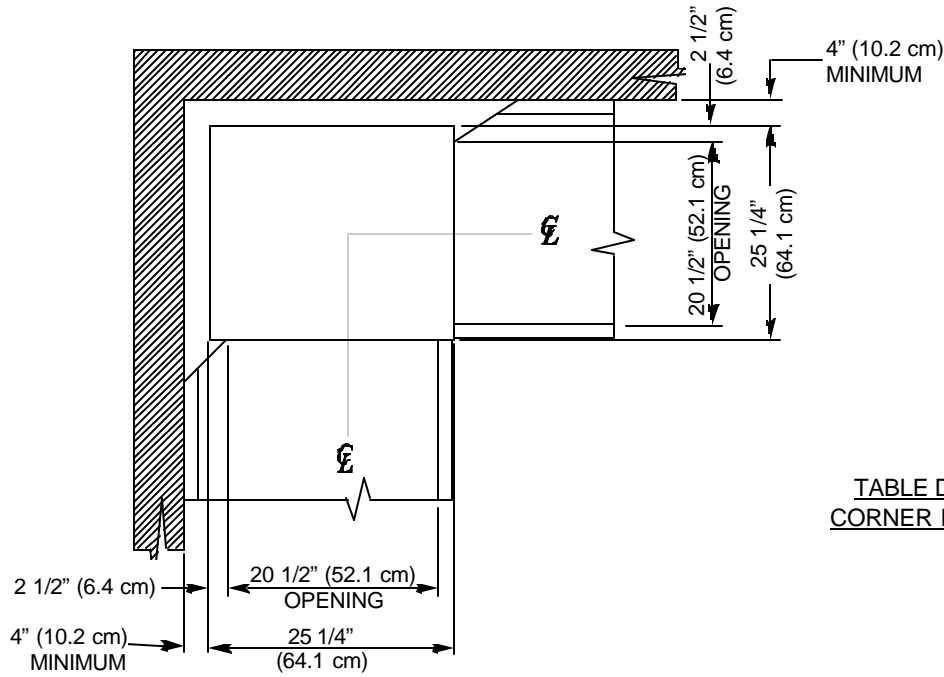
B = Water Inlet (1/2" NPT)

C = Electrical Connection

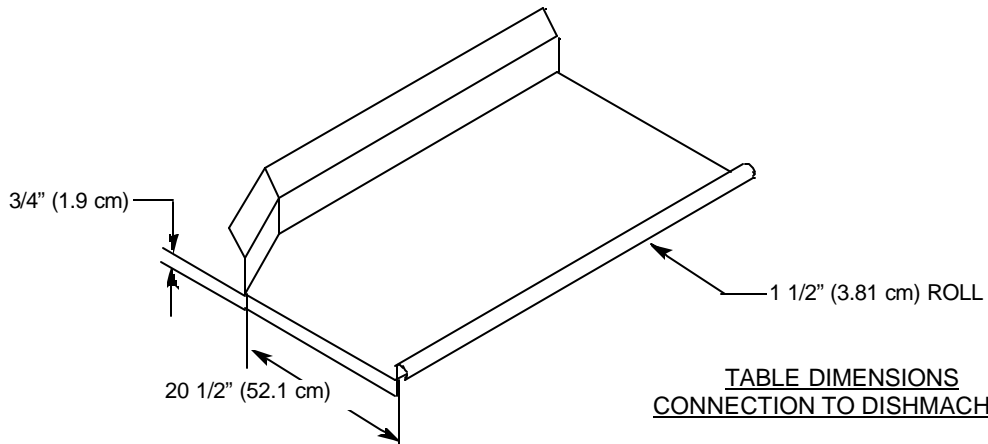
NOTE: All dimensions are in inches unless otherwise specified. All vertical dimensions are adjustable by +/- 1/2" (1.3 cm) due to the adjustable bullet feet.

# SECTION 1: SPECIFICATION INFORMATION

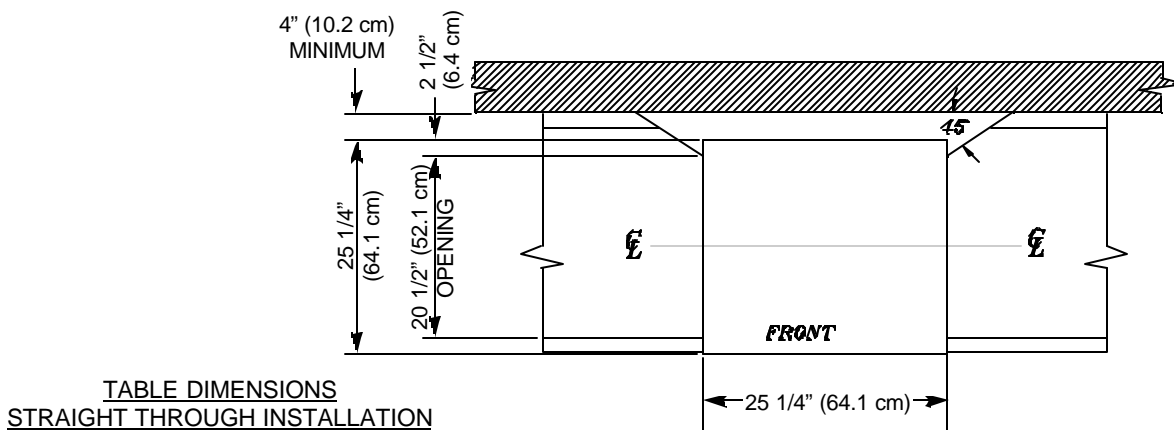
## TABLE DIMENSIONS



**TABLE DIMENSIONS  
CORNER INSTALLATION**



**TABLE DIMENSIONS  
CONNECTION TO DISHMACHINE**



**TABLE DIMENSIONS  
STRAIGHT THROUGH INSTALLATION**

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**SECTION 2:  
INSTALLATION/OPERATION  
INSTRUCTIONS**

## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

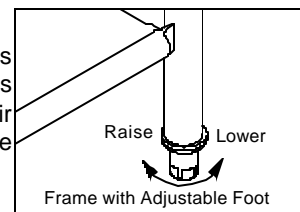
### INSTALLATION INSTRUCTIONS

**FOR SERVICE PERSONNEL:** Jackson MSC Inc. provides technical support for all of the dishmachines detailed in this manual. We strongly recommend that you refer to this manual before making a call to our technical support staff. Please have this manual with you when you call so that our staff can refer you, if necessary, to the proper page. Technical support is available from 8:00 a.m. to 5:00 p.m. (EST), Monday through Friday. Technical support is not available on holidays. Contact technical support toll-free at 1-888-800-5672. Please remember that technical support is available for service personnel only. Non-service personnel should refer to the list of provided service agencies in this manual for local service support.

**VISUAL INSPECTION:** Before installing the unit, check the container and machine for damage. A damaged container is an indicator that there may be some damage to the machine. If there is damage to both the container and machine, do not throw away the container. The dishmachine has been inspected and packed at the factory and is expected to arrive to you in new, undamaged condition. However, rough handling by carriers or others may result in there being damage to the unit while in transit. If such a situation occurs, do not return the unit to Jackson; instead, contact the carrier and ask them to send a representative to the site to inspect the damage to the unit and to complete an inspection report. You must contact the carrier within 48 hours of receiving the machine. Also, contact the dealer through which you purchased the unit.

**UNPACKING THE DISHMACHINE:** Once the machine has been removed from the container, ensure that there are no missing parts from the machine. This may not be obvious at first. If it is discovered that an item is missing, contact Jackson immediately to have the missing item shipped to you.

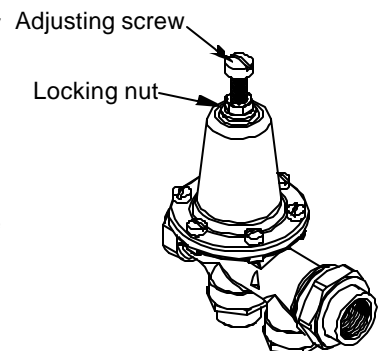
**LEVEL THE DISHMACHINE:** The dishmachine is designed to operate while being level. This is important to prevent any damage to the machine during operation and to ensure the best results when washing ware. The unit comes with adjustable bullet feet, which can be turned using a pair of channel locks or by hand if the unit can be raised safely. Ensure that the unit is level from side to side and from front to back before making any connections.



**PLUMBING THE DISHMACHINE:** All plumbing connections must comply with all applicable local, state, and national plumbing codes. The plumber is responsible for ensuring that the incoming water line is thoroughly flushed prior to connecting it to any component of the dishmachine. It is necessary to remove all foreign debris from the water line that may potentially get trapped in the valves or cause an obstruction. Any valves that are fouled as a result of foreign matter left in the water line, and any expenses resulting from this fouling, are not the responsibility of the manufacturer.

**CONNECTING THE DRAIN LINE:** The drain for the models covered in this manual are gravity discharge drains. All piping from the 1 1/2" FNPT connection on the waste accumulator must be pitched (1/4" per foot) to the floor or sink drain. All piping from the machine to the drain must be a minimum 1 1/2" NPT and shall not be reduced. There must also be an air gap between the machine drain line and the floor sink or drain. If a grease trap is required by code, it should have a flow capacity of 5 gallons per minute.

**WATER SUPPLY CONNECTION:** Ensure that you have read the section entitled "PLUMBING THE DISHMACHINE" above before proceeding. Install the water supply line (3/4" pipe size minimum) to the dishmachine line strainer using copper pipe. It is recommended that a water shut-off valve be installed in the water line between the main supply and the machine to allow access for service. The water supply line is to be capable of 20 ± 5 PSI "flow" pressure at the recommended temperature indicated on the data plate.



If the water level is too low or too high, check the incoming water pressure. It should be 20 ± 5 PSI. Too high of pressure results in too much water; too low of pressure results in too little water. To adjust the regulator, loosen the nut at the top, this will allow you to screw or unscrew the adjustment. With a screwdriver, turn the adjuster clockwise to increase pressure or counter clockwise to decrease it.

In areas where the water pressure fluctuates or is greater than the recommended pressure, it is recommended that a water pressure regulator be installed.

Do not confuse static pressure with flow pressure. Static pressure is the line pressure in a "no flow" condition (all valves and services are closed). Flow pressure is the pressure in the fill line when the fill valve is opened during the cycle.

## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### INSTALLATION INSTRUCTIONS (CONTINUED)

It is also recommended that a shock absorber (not supplied with the models covered in this manual) be installed in the incoming water line. This prevents line hammer (hydraulic shock), induced by the solenoid valve as it operates, from causing damage to the equipment.

**PLUMBING CHECK:** Slowly turn on the water supply to the machine after the incoming fill line and the drain line have been installed. Check for any leaks and repair as required. All leaks must be repaired prior to placing the machine in operation.

**STEAM LINE CONNECTION:** The 300XS is designed to use low pressure steam as a source of heat for wash tank water. The machine comes with lines by which the source steam needs to be connected. Connect all steam lines to the machine as all applicable codes provide. See machine data plate for information concerning steam flow pressure.

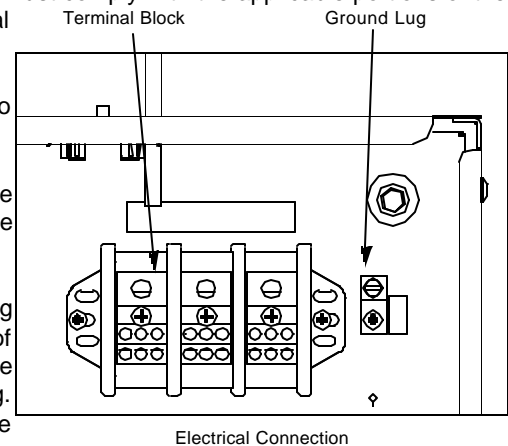
**CHEMICAL DISPENSING EQUIPMENT:** The 300XLT machine requires that a separate chemical feeder be connected to it to provide the required detergent and sanitizer. This feeder needs to be able to operate against a head of 25 PSI and provide 1.79 ml of a 10% Chlorine sanitizer per minute.

**ELECTRICAL POWER CONNECTION:** Electrical and grounding connections must comply with the applicable portions of the National Electrical Code ANSI/NFPA 70 (latest edition) and/or other electrical codes.

Disconnect electrical power supply and place a tag at the disconnect switch to indicate that you are working on the circuit.

The dishmachine data plate is located on the right side and to the front of the machine. Refer to the data plate for machine operating requirements, machine voltage, total amperage load and serial number.

To install the incoming power lines, open the control box. This will require taking a phillips head screwdriver and removing the one(1) screw on the front cover of the control box. Install 3/4" conduit into the pre-punched holes in the back of the control box. Route power wires and connect to power block and grounding lug. Install the service wires (L1, L2 & L3 (3 phase models only.)) to the appropriate terminals as they are marked on the terminal block. Install the grounding wire into the lug provided.

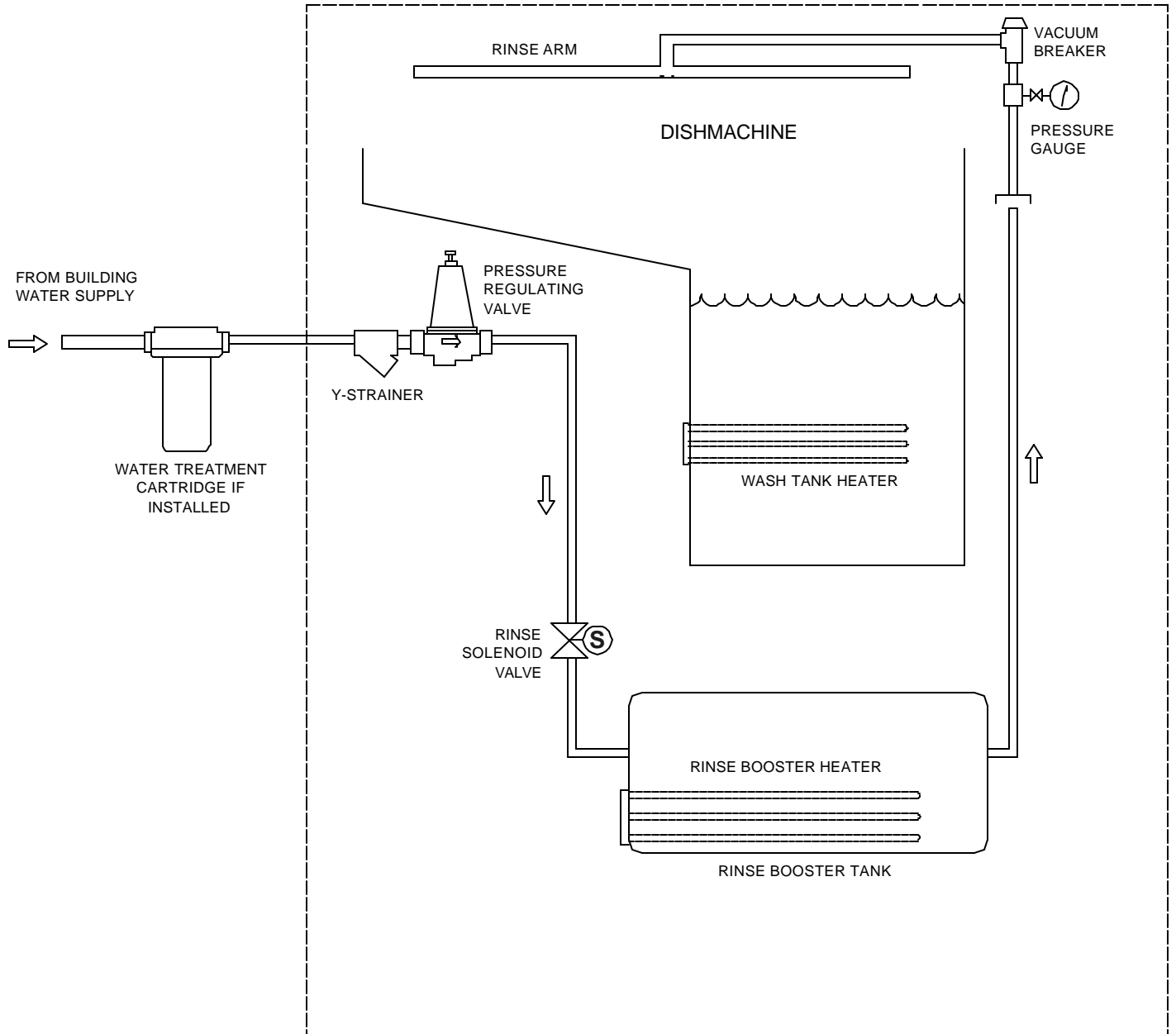


It is recommended that "DE-OX" or another similar anti-oxidation agent be used on all power connections.

**VOLTAGE CHECK:** Ensure that the power switch is in the OFF position and apply power to the dishmachine. Check the incoming power at the terminal block and ensure it corresponds to the voltage listed on the data plate. If not, contact a qualified service agency to examine the problem. Do not run the dishmachine if the voltage is too high or too low. Shut off the service breaker and mark it as being for the dishmachine. Advise all proper personnel of any problems and of the location of the service breaker. Replace the control box cover and tighten down the screws.

## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

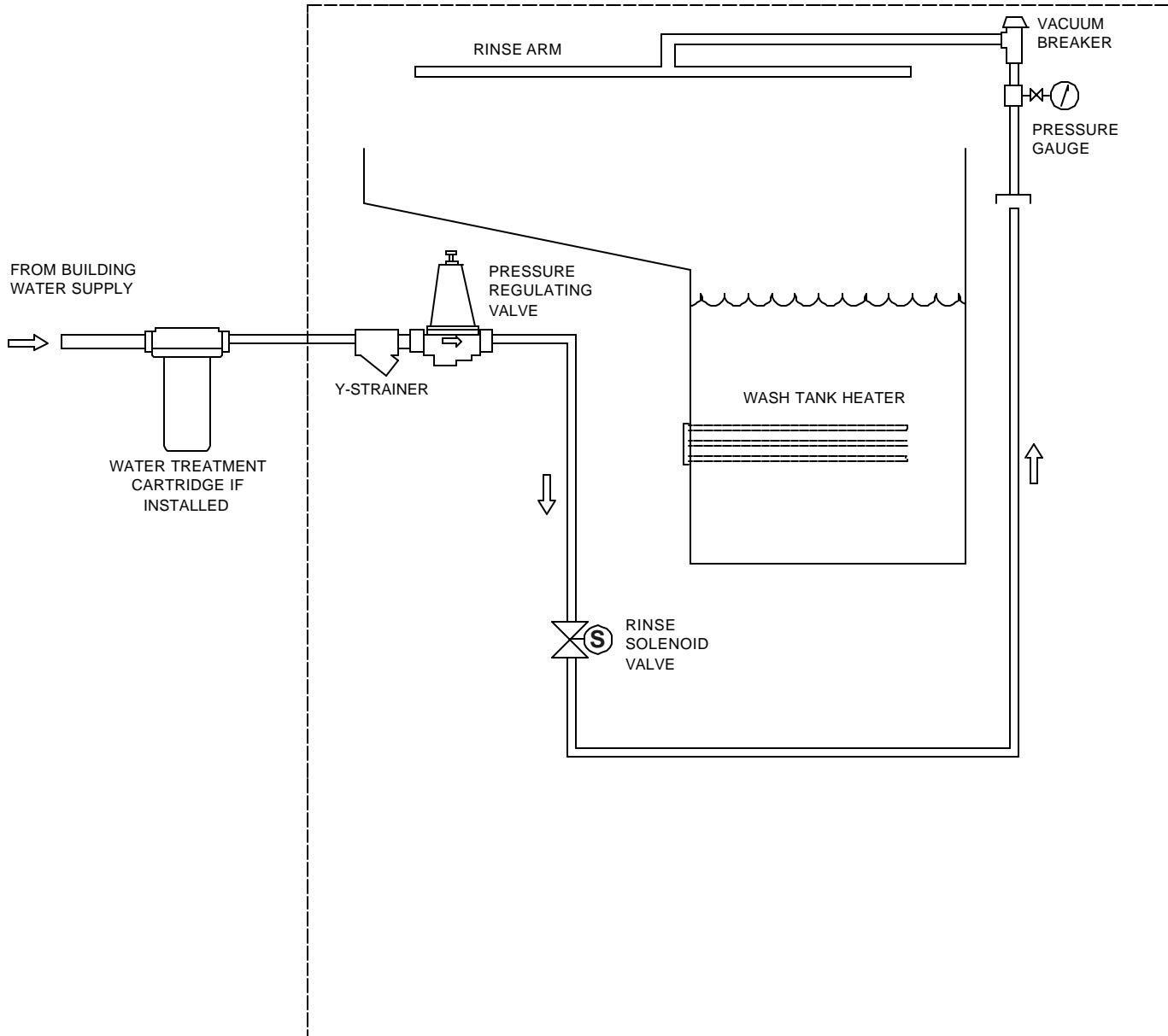
### 300X SYSTEM FLOW DIAGRAM



All items found within the dotted region are found within the footprint of the machine.

## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### 300XN/XLT SYSTEM FLOW DIAGRAM

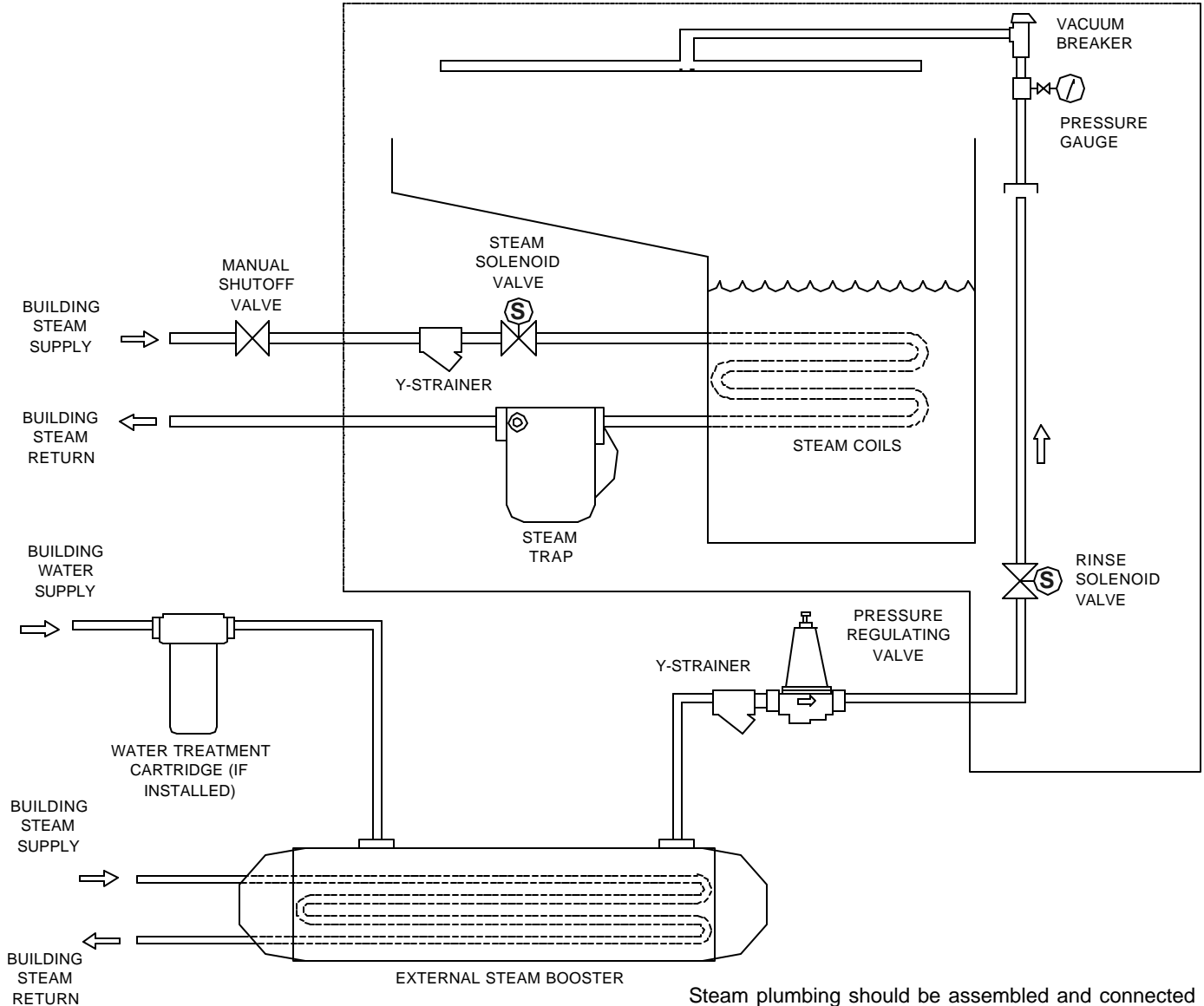




## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### 300XS SYSTEM FLOW DIAGRAM

All items found within the dotted region are found within the footprint of the machine.



Steam plumbing should be assembled and connected to the steam booster in accordance with the steam booster manufacturer's instructions and applicable codes.

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## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

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### DETERGENT CONTROL

Detergent usage and water hardness are two factors that contribute greatly to how efficiently your dishmachine will operate. Using detergent in the proper amount can become, in time, a source of substantial savings. A qualified water treatment specialist can tell you what is needed for maximum efficiency from your detergent, but you should still know some basics so you'll understand what they are talking about.

First, you must understand that hard water greatly effects the performance of the dishmachine. Water hardness is the amount of dissolved calcium and magnesium in the water supply. The more dissolved solids in the water, the greater the water hardness. Hard water works against detergent, thereby causing the amount of detergent required for washing to increase. As you use more detergent, your costs for operating the dishmachine will increase and the results will decrease. The solids in hard water also may build-up as a scale on wash and rinse heaters, decreasing their ability to heat water. Water temperature is important in removing soil and sanitizing dishes. If the water cannot get hot enough, your results may not be satisfactory. This is why Jackson recommends that if you have installed the machine in an area with hard water, that you also install some type of water treatment equipment to help remove the dissolved solids from the water before it gets to the dishmachine.

Second, hard water may have you adding drying agents to your operating cycle to prevent spotting, when the real problem is deposited solids on your ware. As the water evaporates off of the ware, the solids will be left behind to form the spotting and no amount of drying agent will prevent this. Again, using treated water will undoubtedly reduce the occurrences of this problem.

Third, treated water may not be suitable for use in other areas of your operation. For instance, coffee made with soft water may have an acid or bitter flavor. It may only be feasible to install a small treatment unit for the water going into the dishmachine itself. Discuss this option with your qualified water treatment specialist.

Even after the water hardness problems have been solved, there still must be proper training of dishmachine operators in how much detergent is to be used per cycle. Talk with your water treatment specialist and detergent vendor and come up with a complete training program for operators. Using too much detergent has as detrimental effects as using too little. The proper amount of detergent must be used for job. It is important to remember that certain menu items may require extra detergent by their nature and personnel need to be made aware of this. Experience in using the dishmachine under a variety of conditions, along with good training in the operation of the machine, can go a long way in ensuring your dishmachine operates as efficiently as possible.

Certain dishmachine models require that chemicals be provided for proper operation and sanitization. Some models even require the installation of third-party chemical feeders to introduce those chemicals to the machine. Jackson does not recommend or endorse any brand name of chemicals or chemical dispensing equipment. Contact your local chemical distributor for questions concerning these subjects.

Some dishmachines come equipped with integral solid detergent dispensers. These dispensers are designed to accommodate detergents in a certain sized container. If you have such a unit, remember to explain this to your chemical distributor upon first contacting them.

As explained before, water temperature is an important factor in ensuring that your dishmachine functions properly. The data plate located on each unit details what the minimum temperatures must be for either the incoming water supply, the wash tank and the rinse tank, depending on what model of dishmachine you have installed. These temperatures may also be followed by temperatures that Jackson recommends to ensure the highest performance from you dishmachine. However, if the minimum requirements are not met, the chances are your dishes will not be clean or sanitized. Remember, a dish can look clean, but it may not be sanitized. Instruct your dishmachine operators to observe the required temperatures and to report when they fall below the minimum allowed. A loss of temperature can indicate a much larger problem such as a failed heater or it could also indicate that the hot water heater for your operation is not up to capacity and a larger one may need to be installed.

There are several factors to consider when installing your dishmachine to ensure that you get the best possible results from it and that it operates at peak efficiency for many years. Discuss your concerns with your local chemical distributor and water treatment specialist before there is a problem.

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## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### OPERATION INSTRUCTIONS

**PREPARATION:** Before proceeding with the start-up of the unit, verify the following:

1. The pump intake, and wash tank strainers are in place and is clean.
2. The drain stopper is installed.
3. That the wash and rinse arms are screwed securely into place and that their endcaps are tight. The wash and rinse arms should rotate freely.

**POWER UP:** To energize the unit, turn on the power at the service breaker. The voltage should have been previously verified as being correct. If not, the voltage will have to be verified. Verify that the gas supply to the machine is on as well.

**FILLING THE WASH TUB:** Ensure that the delime switch is in the NORMAL position, and place the power switch into the ON position. The models covered in this manual should fill automatically and shut off when the appropriate level is reached (the gas burners should also automatically ignite as well). Verify that the drain stopper is preventing the wash tub water from pouring out excessively. There will probably be some slight leakage from the drain hole. Verify that there are no other leaks on the unit before proceeding any further. The wash tub must be completely filled before operating the wash pump to prevent damage to the component. Once the wash tub is filled, the unit is ready for operation.

The water level was set at the factory. If the water level is not at the level noted above, it will require adjustment. Check to ensure that the recommended water pressure is being supplied to the machine ( $20 \pm 5$  PSI). If the water pressure is correct then the fill valve will need adjustment.

**WARE PREPARATION:** Proper preparation of ware will help ensure good results and less re-washes. If not done properly, ware may not come out clean and the efficiency of the dishmachine will be reduced. It is important to remember that a dishmachine is not a garbage disposal and that simply throwing unscrapped dishes into the machine simply defeats the purpose altogether of washing the ware. Scraps should be removed from ware prior to being loaded into a rack.

Pre-rinsing and pre-soaking are recommended, especially for silverware and casserole dishes. Place cups and glasses upside down in racks so that they do not hold water during the cycle. The dishmachine is meant not only to clean, but to sanitize as well, to destroy all of the bacteria that could be harmful to human beings. In order to do this, ware must be properly prepared prior to being placed in the machine.

**DAILY MACHINE PREPARATION:** Refer to the section entitled "PREPARATION" at the top of this page and follow the instructions there. Afterwards, check that all of the chemical levels are correct and/or that there is plenty of detergent available for the expected workload.

**WARM-UP CYCLES:** For a typical daily start-up, it is recommended to run the machine through 3 cycles to ensure that all of the cold water is out of the system and to verify that the unit is operating correctly. To cycle the machine, ensure that the power is on and that the tub has filled to the correct level. Lift the doors and the cycle light will illuminate. When the light goes out, close the doors, the unit will start, run through the cycle, and shut off automatically. Repeat this two more times. The unit should now be ready to proceed with the washing of ware.

**WASHING A RACK OF WARE:** To wash a rack, open the doors completely (being careful for hot water that may drip from the doors) and slide the rack into the unit. Close the doors and the unit will start automatically. Once the cycle is completed, open the door (again watching for the dripping hot water) and remove the rack of clean ware. Replace with a rack of soiled ware and close the doors. The process will then repeat itself.

**OPERATIONAL INSPECTION:** Based upon usage, the wash tank strainer may become clogged with soil and debris as the work-day progresses. Operators should regularly inspect the wash tank strainer to ensure it has not become clogged. If the strainer does, it will reduce the washing capability of the machine. Instruct operators to clean out the wash tank strainer at regular intervals or as required by work load.

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## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### OPERATION INSTRUCTIONS (CONTINUED)

**SHUTDOWN AND CLEANING:** At the end of the workday, close the doors. When the unit completes the cycle, turn the power switch to the OFF position and open the doors. Manually remove the drain stopper from the tub and allow the tub to drain (NOTE: the wash tank water will be hot so caution is advised). Once the wash tub is drained, remove the wash tank strainer and the pump suction strainer. Remove soil and debris from the strainer and set to the side. Unscrew the wash and rinse arms from their manifolds. Remove the endcaps and flush the arms with water. Use a brush to clean out the inside of the arms. If the nozzles appear to be clogged, use a toothpick to remove the obstruction. Wipe the inside of the unit out, removing all soil and scraps. Reassemble the wash and rinse arms and replace them in the unit. The arms only need to be hand tight, do not use tools to tighten them down. Reinstall the strainers and close the doors.



***This equipment is not recommend for use with deionized water or other aggressive fluids. Use of deionized water or other aggressive fluids will result in corrosion and failure of materials and components. Use of deionized water or other aggressive fluids will void the manufacturer's warranty.***

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## **SECTION 3: PREVENTATIVE MAINTENANCE**

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## SECTION 3: PREVENTATIVE MAINTENANCE

### PREVENTATIVE MAINTENANCE

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The dishmachines covered in this manual are designed to operate with a minimum of interaction with the operator. However, this does not mean that some items will not wear out in time. Jackson highly recommends that any maintenance and repairs not specifically discussed in this manual should be performed by **QUALIFIED SERVICE PERSONNEL ONLY**. Performing maintenance on your dishmachine may void your warranty if it is still in effect, so if you have a question or concern, do not hesitate to contact one of the **QUALIFIED SERVICE AGENCIES** listed in the back of this manual.

There are many things that operators can do to prevent catastrophic damage to the dishmachine. One of the major causes of component failure has to do with prescraping procedures. A dishmachine is not a garbage disposal; any large pieces of material that are put into the machine shall remain in the machine until they are either broken up (after spreading out on your ware!) or physically removed. Strainers are installed to help catch debris, but they do no good if they are clogged. Have operators regularly inspect the pan strainers to ensure (1) that they are free of soil and debris and (2) they are laying flat in the tub.

When cleaning out strainers, do **NOT** beat them on waste cans. The strainers are made of metal and can be forgiving; but once severe damage is done, it is next to impossible for the strainer to work in the way it was designed to. Wipe out strainers with a rag and rinse under a faucet if necessary. For stubborn debris, a toothpick should be able to dislodge any obstructions from the perforations. Always ensure that strainers are placed back in the machine before operation and that they lay flat in the tub.

You may wish to also refer to the page entitled "Detergent Control" in order to learn more about how your water hardness will effect the performance of your machine. Hard water makes dishmachines work harder and decreases efficiency.

Again, it is important to remind operators that trying to perform corrective maintenance on the dishmachine could lead to larger problems or even cause harm to the operator. If a problem is discovered; secure the dishmachine using proper shut down procedures as listed in this manual and contact a **QUALIFIED SERVICE AGENCY** as listed in the back of this manual.

Some problems, however, may have nothing to do with the machine itself and no amount of preventative maintenance is going to help. A common problem has to do with temperatures being too low. Verify that the water temperatures coming to your dishmachine match the requirements listed on the machine data plate. There can be a variety of reasons why your water temperature could be too low and you should discuss it with a **QUALIFIED SERVICE AGENCY** to determine what can be done.

By following the operating and cleaning instructions in this manual, you should get the most efficient results from your machine. As a reminder, here are some steps to take to ensure that you are using the dishmachine the way it was designed to work:

1. Ensure that the water temperatures match those listed on the machine data plate.
2. Ensure that all strainers are in place before operating the machine.
3. Ensure that all wash and/or rinse arms are secure in the machine before operating.
4. Ensure that drains are closed/sealed before operating.
5. Remove as much soil from dishes by hand as possible before loading into racks.
6. Do not overfill racks.
7. Ensure that glasses are placed upside down in the rack.
8. Ensure that all chemicals being injected to machine have been verified as being at the correct concentrations.
9. Clean out the machine at the end of every workday as per the instructions in the manual.
10. Always contact a **QUALIFIED SERVICE AGENCY** whenever a serious problem arises.
11. Follow all safety procedures, whether listed in this manual or put forth by local, state or national codes/regulations.

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## **SECTION 4: TROUBLESHOOTING**

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## SECTION 4: TROUBLESHOOTING

### COMMON PROBLEMS



**WARNING:** Inspection, testing and repair of electrical equipment should only be performed by a qualified service technician. Many of the tests require that the unit have power to it and live electrical components be exposed. **USE EXTREME CAUTION WHEN TESTING THE MACHINE.**

**Problem: Dishmachine will not fill after the door is close. Power “ON” light is illuminated.**

1. Faulty rinse solenoid valve. Repair or replace valve as required.
2. Faulty door switch. Verify the wiring of the switch; if correct, replace the switch.
3. Fouled/faulty high level probe. Clean probe if fouled. If clean, and still not working, replace.

**Problem: Dishmachine will not fill after the door is closed. Power “ON” light is not illuminated.**

1. Service breaker tripped. Reset. If the breaker trips again, contact an electrician to verify the amp draw of the machine.
2. Machine not connected to power source. Verify that the machine has been properly connected to the power source.
3. Faulty power source. Verify the wiring of the switch; if correct, replace switch.

**Problem: Dishmachine will not run after the door is closed. Power “ON” light is illuminated and the unit is filling.**

1. Wash motor faulty/damaged. Verify that the wash motor is getting power. If so, replace the motor.
2. Wash motor contactor faulty. Check for continuity; if contacts are open, replace the contactor.

**Problem: Dishmachine runs continuously in the wash cycle.**

1. Machine is in Delime mode. Flip NORMAL/DELIME switch to NORMAL mode.

**Problem: Wash or rinse heater does not work.**

1. Faulty heater element. Check element for continuity; if open, replace the heater.
2. Faulty heater contactor. Replace the contactor.
3. Misadjusted/faulty thermostat(s). Verify operation and setting of thermostats, replace if necessary.

**Problem: Dishmachine fill slowly and/or the rinse is weak.**

1. Clogged or obstructed rinse arms. Remove and clean the rinse arms.
2. Low incoming water pressure. Adjust the water pressure regulator to ensure that there is 20 PSI flow.
3. Y-strainer is clogged. Clean out the Y-strainer.

**Problem: Rinse water not reaching required temperature.**

1. Faulty rinse heater. Check element for continuity; if open, replace heater.
2. Misadjusted/faulty thermostat(s). Verify operation and setting of thermostats, replace if necessary.
3. Rinse thermometer is defective. Replace thermometer.

**Problem: Wash water is not reaching required temperature.**

1. Faulty wash heater. Check element for continuity; if open, relace the heater.
2. Misadjusted/faulty thermostat(s). Verify operation and setting of thermostats, replace if necessary.
3. Wash thermometer is defective. Replace thermometer.



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## SECTION 4: TROUBLESHOOTING

### COMMON PROBLEMS



**WARNING:** Inspection, testing and repair of electrical equipment should only be performed by a qualified service technician. Many of the tests require that the unit have power to it and live electrical components be exposed. **USE EXTREME CAUTION WHEN TESTING THE MACHINE.**

**Problem: Doors will not close completely.**

1. Improper spring tension. Adjust spring tension as required by loosening (not removing) spring bolt nuts and adjusting the tension. Tighten nuts back when done.
2. Obstruction in door channel. Remove the obstruction.
3. Doors are not square with frame. Adjust the frame to accommodate the doors.

**Problem: Water leaks at the wash pump.**

1. Wash pump seal defective. Replace the seal.
2. Petcock or pump drain (if equipped) not shut/tight. Close or tighten.
3. Loose hoses (hose clamps) on the wash pump. Tighten the hose clamps.

**Problem: Will not rinse during autocycle.**

1. Defective rinse solenoid. Repair or replace the rinse solenoid as required.
2. No water to the machine. Verify that there is water at  $20 \pm 5$  PSI connected to the machine.

**Problem: Dishes are not coming clean.**

1. Machine temperatures are not up to the minimum requirements. Verify that incoming water, rinse water, and wash water match the required temperatures as listed on the machine data plate.
2. No detergent/too much detergent. Adjust detergent concentration as required for the amount of water held by the machine.
3. Solid dispenser canister is empty. Replace the canister.

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## **SECTION 5: SERVICE PROCEDURES**

## SECTION 5: SERVICE PROCEDURES

### RINSE SOLENOID VALVE REPAIR PARTS KIT

These dishmachines are equipped with electrical solenoid valves to allow for automatic fill and rinse. These valves are designed to specific tolerances and design aspects that must be met in order to function properly.

Jackson offers repair kits for replacing some of the wear items associated with solenoid valves which will allow you to save money in that replacement of these parts can take place *without* removing the solenoid valve from the plumbing assembly.

The instructions provided here are for maintenance personnel only. Unauthorized persons should not attempt any of the steps contained in these instructions.

**Warning: many of the instructions and steps within this document require the use of tools. Only authorized personnel should ever perform any maintenance procedure on the dishmachine!**

### PREPARATION

1. Power must be secured to the unit at the service breaker. Tag or lock out the service breaker to prevent accidental or unauthorized energizing of the machine.

2. Ensure that incoming water to the machine is secured either by use of a shut-off valve or disconnecting the incoming water line.

### TOOLS REQUIRED

The following tools will be needed to perform this maintenance evolution:

1. Small flathead screwdriver
2. Medium flathead screwdriver
2. Needle nose pliers
3. 5/16" nutdriver
4. Channel locks
5. 12" pipe wrench

### TIME REQUIRED

It is estimated that it will take (1) person twenty minutes to perform this task, not including all of the items indicated in the section entitled "PREPARATION".

### IMPORTANT NOTES

1. Read these instructions thoroughly before attempting this maintenance evolution. Become familiar with the parts and what actions need to be taken. This will save time in the long run!

2. The procedures demonstrated in this manual are shown being performed on an AJ-44C rack conveyor dishmachine. The actual maintenance steps, however, apply to any Parker style solenoid valve found on a Jackson dishmachine.

### STEPS

1. Remove the top screw with the 5/16" nutdriver. Remove the screw and the data plate and set to the side.



Removing the top screw

2. With the top screw and data plate removed, grasp the solenoid coil and gently pull up. The coil should slide up, allowing you to remove it from the valve bonnet. If you are wanting to replace the coil, continue on with Step 3. If you are wanting to replace some of the internal components of the valve, proceed to step 12.



Removing the coil

3. **NOTE:** Replacing the solenoid coil requires working with the wiring of your machine. It is important that all wiring maintenance be performed by qualified personnel. Always verify the wiring steps presented in this instruction with the schematic that shipped with the unit. A current schematic can also be found in the unit's installation manual. Before beginning any step that involves working with wiring, ensure that the steps located in the section entitled "Preparation" have been performed. Power must be secured to the machine at the service breaker. Failure to do so could result in severe injury to maintenance personnel.

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## SECTION 5: SERVICE PROCEDURES

### RINSE SOLENOID VALVE REPAIR PARTS KIT (CONTINUED)

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Prying open the coil wire cover

4. When replacing the coil, ensure that when removing the coil wire cover that care is taken not to damage the wires inside. Using the medium flathead screwdriver, gently use it to open the cover enough to where it could be pulled off.



Straightening the wires

5. Once the coil wire cover has been removed and set to the side, take the internal wires and pull them out straight.



Removing the wire nuts

6. Remove the wire nuts from the wires and separate them.



Loosening the conduit nut

7. Using a pair of channel locks, gently loosen the conduit retaining ring for the conduit nut. Once it is loosened, use your fingers to unscrew and remove it.

8. Pull the conduit away and discard the bad coil. Take the new coil and attach the conduit, reinstall & tighten the conduit nut, and pull the wires through so that you will be able to wire the valve back up.

9. Reconnect the wires from the conduit to the wires from the solenoid as they had been connected previously. Ensure that the wire nuts are on tight.

10. Slide the coil wire cover back on, taking care not to damage the wires.

11. If you are done performing maintenance on the valve, continue on to step 22. Otherwise, please go on to step 12.



Loosening the valve bonnet

12. To remove the valve bonnet, grasp it with the jaws of the pipe wrench and turn to the left. **Note:** on some models you may have to remove the valve in order to perform this and any further steps. Be careful not to damage the plumbing assembly. Only use the pipe wrench enough to where you can spin the valve bonnet off with your hand.

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## SECTION 5: SERVICE PROCEDURES

### RINSE SOLENOID VALVE REPAIR PARTS KIT (CONTINUED)

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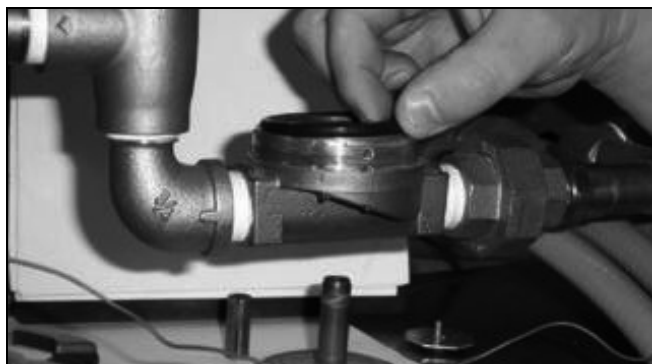
Removing the valve bonnet

13. Slowly remove the valve bonnet. **Note:** The spring for the plunger is located directly under the bonnet and may come free if you are not careful. Remove the plunger, spring and valve bonnet and place to the side.



Removing the diaphragm

17. Remove the diaphragm retainer and then the diaphragm itself. Many problems associated with a solenoid valve can be traced to a clogged pilot port in the diaphragm.



Removing the O-ring

14. Remove the O-ring and inspect it. If it has any tears or cuts or excessive flat spaces, it should be replaced.

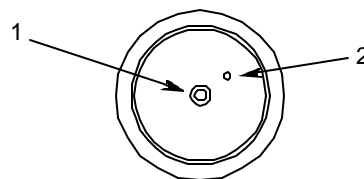
15. Examine the threads for the valve bonnet. Check them for scoring or signs of damage. Take a cloth and clean them out to remove any foreign particles that might get lodged in the threads and cause a leak. Severely damaged threads should not be repaired; instead it is recommended that the entire valve should be replaced. These instructions do not provide information on replacing the solenoid valve.

16. **Note:** Even though an O-ring may not appear damaged, it is a good idea to go ahead and replace it if you have a new one. This will help ensure that your valve remains leak-free in the future!



Pointing out the extension hole

18. As indicated in the photo above, the extension hole can become clogged. If it is difficult to clean out, you can use a heated straight pin to push through the hole. The center hole, the pilot port, must also be clear. If the diaphragm is torn or bent in any way, it must be replaced.



Diaphragm showing (1) pilot port and (2) extension hole

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## SECTION 5: SERVICE PROCEDURES

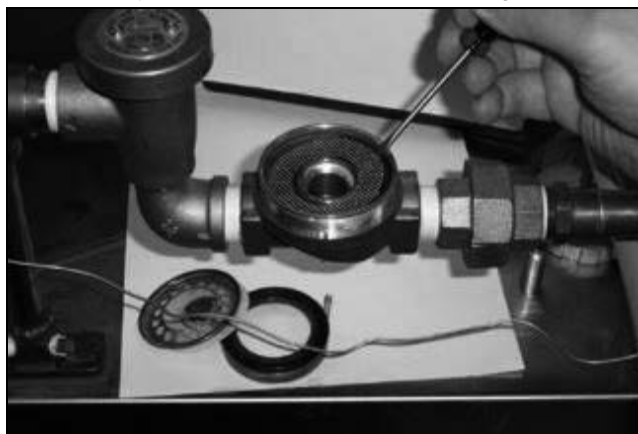
### RINSE SOLENOID VALVE REPAIR PARTS KIT (CONTINUED)

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Removing the screen retainer

19. Using the small flathead screwdriver, lift out the screen retainer. Verify that the holes in it are free of clogs and debris.



Removing the mesh strainer screen

20. Again using the small flathead screwdriver, carefully remove the mesh screen from inside the valve body. The screen should be taken and rinsed out to remove any debris fouling it.



View inside the solenoid valve body

21. With the mesh screen removed, look down into the valve and verify it is not clogged. Remove any foreign objects from the valve body that would obstruct flow.

22. Reassemble the valve, reversing the steps needed to take it apart. Replace defective replacement parts with new parts from ordered kits. Ensure that components are sufficiently tightened to prevent leakage.

### **AFTER MAINTENANCE ACTIONS**

Reconnect the incoming water (if disconnected) and turn on. Then restore power to the unit. Run the unit for at least 10 minutes to ensure there are no leaks. If any problems arise please contact Jackson.

### **SPECIAL PARTS**

#### Solenoid Valve Plunger Kit

Includes plunger and spring  
Part number 06401-003-07-40

#### Solenoid Valve Diaphragm Kit

Includes diaphragm and o-ring  
Part number 06401-003-07-41 (1/2" NPT)

#### Solenoid Valve 110 Volt Coil and Housing Kit

Part number 06401-003-07-43

#### Solenoid Valve 220 Volt Coil and Housing Kit

Part number 06401-003-07-44

#### Complete Solenoid Valve

Part number 04810-100-12-18 (1/2", 110 Volt)  
Part number 04810-100-09-18 (1/2", 220 Volt)

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## SECTION 5: SERVICE PROCEDURES

### VACUUM BREAKER REPAIR PARTS KIT

These dishmachines are equipped with vacuum breakers to serve as back-flow prevention devices. ASSE requirements specify what type of back-flow prevention is necessary on dishmachines. Vacuum breakers, unlike air gaps, have certain parts that have specific tolerances and design aspects that must be met in order to function properly.

Jackson offers repair kits for replacing some of the wear items associated with vacuum breakers which will allow you to save money in that replacement of these parts can take place *without* removing the vacuum breaker from the plumbing assembly.

The instructions provided here are for maintenance personnel only. Unauthorized persons should not attempt any of the steps contained in these instructions.

**Warning: many of the instructions and steps within this document require the use of tools. Only authorized personnel should ever perform any maintenance procedure on the dishmachine!**

### PREPARATION

1. Power must be secured to the unit at the service breaker. Tag or lock out the service breaker to prevent accidental or unauthorized energizing of the machine.

2. Ensure that incoming water to the machine is secured either by use of a shut-off valve or disconnecting the incoming water line.

### TOOLS REQUIRED

The following tools will be needed to perform this maintenance evolution:

1. Small flathead screwdriver
2. Needle nose pliers

### TIME REQUIRED

It is estimated that it will take (1) person twenty minutes to perform this task, not including all of the items indicated in the section entitled "PREPARATION".

### IMPORTANT NOTES

1. Read these instructions thoroughly before attempting this maintenance evolution. Become familiar with the parts and what actions need to be taken. This will save time in the long run!

### STEPS

1. **Note:** These instructions only apply to vacuum breakers (1/2" NPT and 3/4" NPT) as pictured below. The repair kits indicated in these instructions will only work on those style of back-flow preventers. If you have a machine with a different style of vacuum breaker, contact Jackson about replacement components.



Vacuum breaker

2. **Note:** Even though the photos in these instructions show a vacuum breaker that has been removed from the plumbing assembly, these maintenance steps could be performed with it installed so long as the requirements in the section entitled "PREPARATION" have been met.

3. Remove the top cap by gripping firmly and turning to the left. The cap should come off after a few turns.



Removing the cap

4. Set the cap to the side.

5. Using the needle nose pliers, gently lift out the plunger and set to the side. Examine the brass seating surface inside the vacuum breaker. The plunger is required to sit flat on this surface so it must be free of defects, imperfections and the like. If there is debris, remove it. If it is chipped or cracked then the vacuum breaker must be replaced. Failure to do so may result in the vacuum breaker not working according to its design and could result in damage to the dishmachine.

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## SECTION 5: SERVICE PROCEDURES

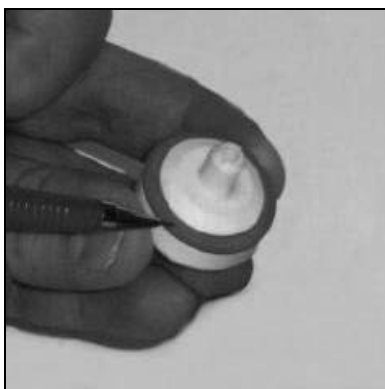
### VACUUM BREAKER REPAIR PARTS KIT (CONTINUED)

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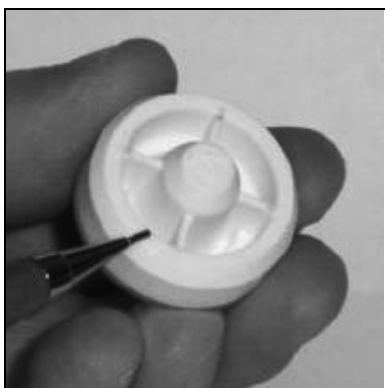


Removing the plunger

6. Your repair kit comes with a new plunger. Examine the old one and ensure that the mating surface is not damaged or cut. Also inspect the rubber seal on the top of the plunger to ensure it is in good condition and not torn.



Examining the seal ring on the plunger



Examining the plunger seating surface

7. If any of these conditions are present, replace the old plunger with the new one from your kit. Verify that the new plunger is also free from defects. If it is not, contact Jackson immediately.

8. The plunger should drop into the vacuum breaker and seat. Ensure it is not flipped upside down (the orange seal ring should be up towards the top of the vacuum breaker).

9. Pick up the cap and examine it. With a soft towel, remove any grit, grime or debris that may have gotten caught in the threads of both the cap retainer or the vacuum breaker body. There is an O-ring that should be present on the cap retainer as well. Regardless of the condition of the plunger, this O-ring should be replaced once the cap is removed. Using a small flathead screwdriver, remove the old O-ring.



Replacing the O-ring

10. With the new O-ring in place, screw the cap back on the vacuum breaker body. The cap needs to only be hand tight (snug).

### **AFTER MAINTENANCE ACTIONS**

1. Reconnect the incoming water (if disconnected) and turn on. Then restore power to the unit. Run the unit for at least 10 minutes to ensure there are no leaks. If any problems arise please contact Jackson.

### **SPECIAL PARTS**

Vacuum breaker repair kit:  
For 1/2" NPT order 06401-003-06-23

Complete Vacuum Breaker Assembly  
Part number 04820-003-06-13 (1/2")



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## SECTION 5: SERVICE PROCEDURES

### RINSE REGULATING THERMOSTAT REPLACEMENT

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Many dishmachines come with integral booster tanks to ensure proper temperature of the final rinse. Jackson has predominantly used two manufacturers of thermostats, EGO and Stemco. These instructions are for use with kit 06401-003-13-94, which is to replace an EGO rinse regulating thermostat with a Stemco brand.

Jackson offers all of the repair parts necessary for performing this task.

The instructions provided here are for maintenance personnel only. Unauthorized persons should not attempt any of the steps contained in these instructions.

**Warning: many of the instructions and steps within this document require the use of tools. Only authorized personnel should ever perform any maintenance procedure on the dishmachine!**

### PREPARATION

1. Power must be secured to the unit at the service breaker. Tag or lock out the service breaker to prevent accidental or unauthorized energizing of the machine.

2. Ensure that incoming water to the machine is secured either by use of a shut-off valve or disconnecting the incoming water line.

3. The unit must be drained completely with the drain stopper removed (if applicable).

4. Remove any and all access covers.

### TOOLS REQUIRED

The following tools may be needed to perform this maintenance evolution:

1. 3/8" Nutdriver
2. 7/16" Combination Wrench
3. Needlenose Pliers
4. Phillipshead Screwdriver
5. Flathead Screwdriver
6. Ratchet with 1/2" Socket

### TIME REQUIRED

It is estimated that it will take (1) person sixty minutes to perform this task, not including all of the items indicated in the section entitled "PREPARATION".

### IMPORTANT NOTES

1. Read these instructions thoroughly before attempting this maintenance task. Become familiar with the parts and what actions need to be taken. This will save time in the long run!

2. These instructions are shown using a Tempstar model dishmachine. However the steps provided should work for models such as the JP-24 as well.

### STEPS

1. Some models, such as the Tempstar pictured below, will require that the thermostat bracket removed from the heater. Using a ratchet, extension and 1/2" socket, remove the nuts and lock washer holding the bracket on.



Removing the thermostat bracket/heater nuts.



Removing the thermostat bracket.

2. With the thermostat and thermostat bracket safely out of the way, use a 7/16" combination wrench to loosen and then remove the imperial brass fitting holding the probe in.

3. Remove the wires from the old thermostat. It may be necessary to use the needlenose pliers to accomplish this.

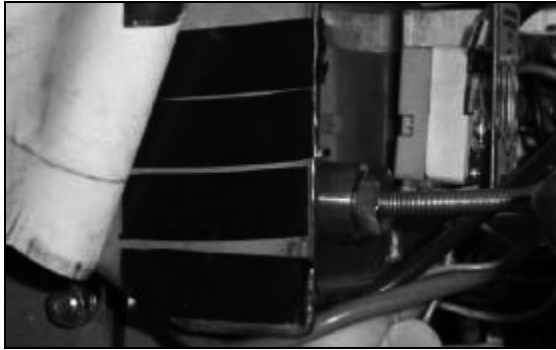
4. Remove the thermostat bracket mounting nuts with the 7/16" nutdriver.

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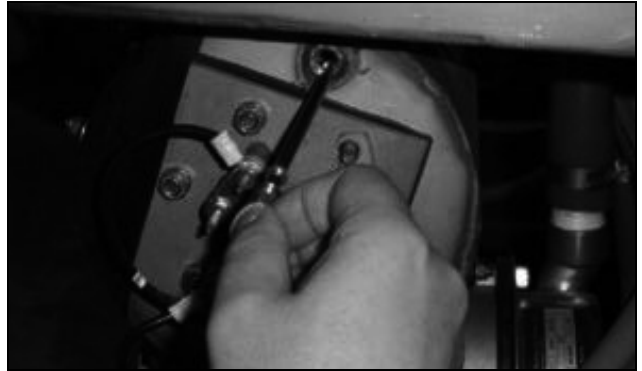
## SECTION 5: SERVICE PROCEDURES

### RINSE REGULATING THERMOSTAT REPLACEMENT

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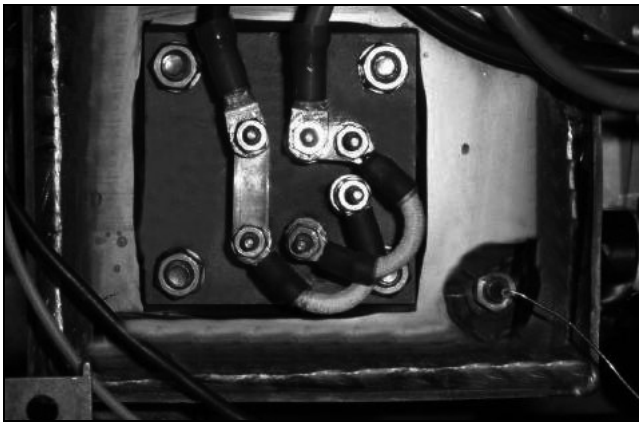


Location of the thermostat bracket (JP-24).

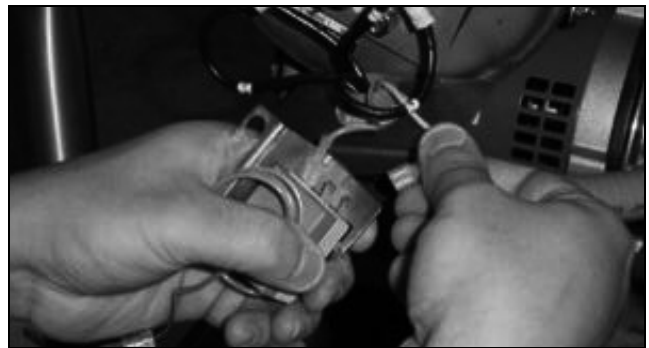


Pulling the thermostat probe and fitting from the well (Tempstar).

Remove the thermostat bracket mounting nuts with the 3/8" nutdriver.

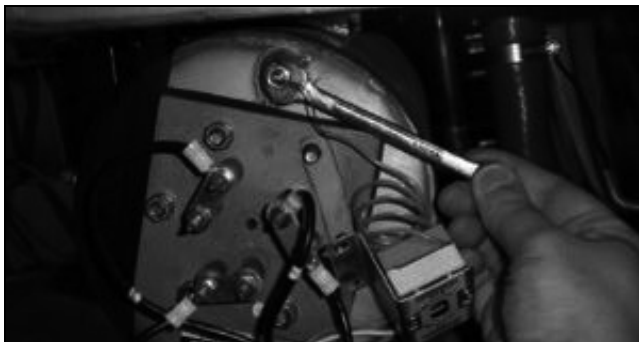


Location of the imperial brass fitting (JP-24).



Removing the wires from the thermostat.

5. Attach the jumper wires to the wires that you removed from the old thermostat.



Removing the imperial brass fitting (Tempstar).



Attaching the jumper wires.

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## SECTION 5: SERVICE PROCEDURES

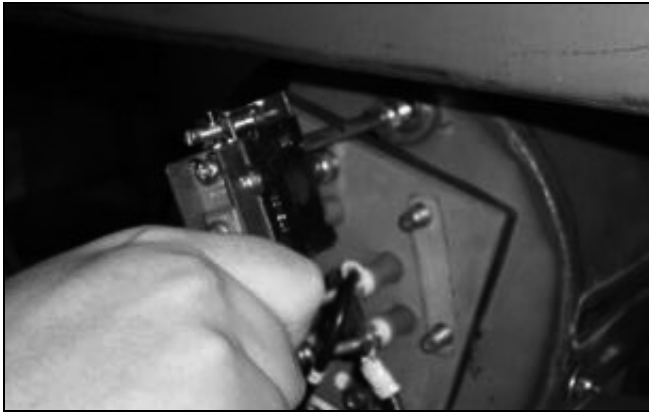
### RINSE REGULATING THERMOSTAT REPLACEMENT

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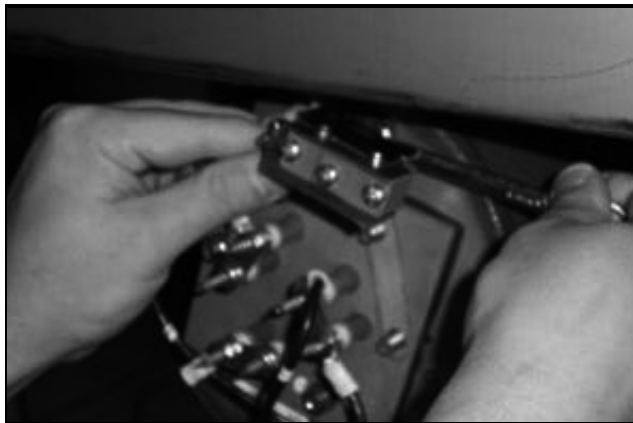
Sliding imperial fitting onto new thermostat.

6. Slide the new imperial brass fitting from your kit onto the new thermostat.



Putting the new thermostat in the well (Tempstar).

7. Insert the new thermostat/brass fitting combination into the well and tighten down the brass fitting by hand.



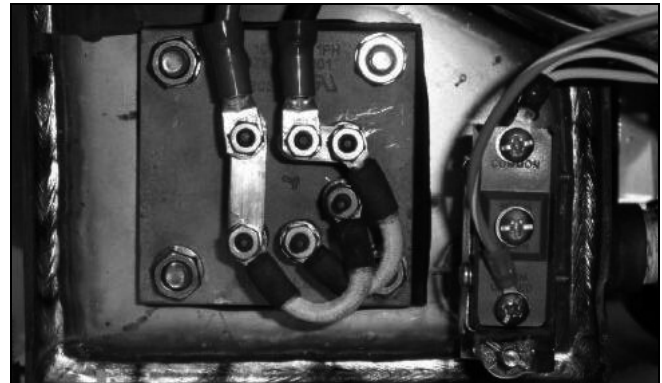
Tightening the brass fitting (Tempstar).

8. Use the 7/16" combination wrench to tighten down the brass fitting, while also positioning the new thermostat so that it does not hang over the heater.

9. Note: regardless of the unit this is being done to, the concept is to ensure that the thermostat cannot come into contact with the heater leads or interfere with the placement of any covers.



What the installed thermostat should look like (Tempstar).



What the installed thermostat should look like (JP-24B).



Removing the thermostat screws.

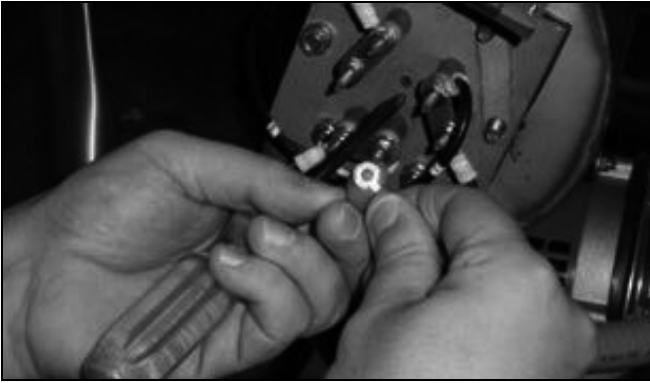
10. Use the phillipshead screwdriver to remove the attachment screws on the thermostat for the NORMALLY CLOSED and COMMON points.

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## SECTION 5: SERVICE PROCEDURES

### RINSE REGULATING THERMOSTAT REPLACEMENT

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Fitting the jumper into the mounting cup.

11. Attach the ring ends of the jumpers to the cups/screws removed from the thermostat and attach them. The white jumper is to be connected to COMMON. The orange and white jumper is to be connected to NORMALLY CLOSED. Refer to your machine schematic if you have any questions regarding this.



Securing jumpers to the thermostat.

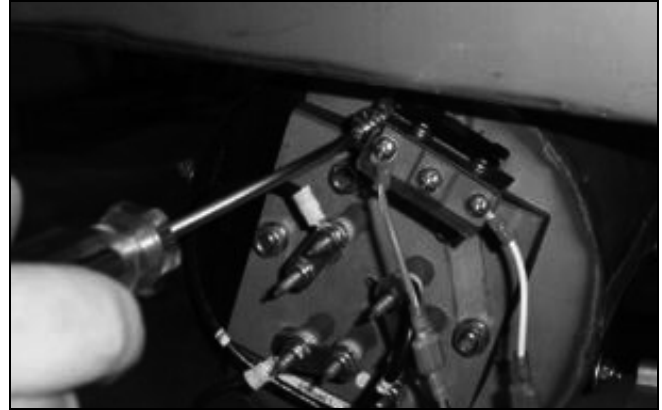
12. Once both wires are attached, ensure that there is no excess hanging out where it could become pinched by any cover or such.

13. Replace the heater nuts (if removed) and torque down as required per the technical manual. Different models may have different torque specifications. Contact Jackson Technical Service if there are any questions regarding this.

### **AFTER MAINTENANCE ACTIONS**

Once the new thermostat is installed, it will be necessary to ensure that it operates at the required and appropriate ranges. The new thermostat has an adjustment that can be turned using a small flathead screwdriver. Several cycles will

need to be run on the unit while observing the final rinse temperature. The thermostat needs to cycle so that the final rinse water meets the indicated minimums on the machine data plate for every cycle.



Calibrating the new thermostat.

### **SPECIAL NOTES**

Work performed on Jackson dishmachines by unauthorized or unqualified personnel may void the warranty. Before beginning this or any other maintenance evolution on a unit under warranty, you should contact a certified Jackson technician or Jackson Technical Service. You can find a list of qualified service agencies in the back of your unit's installation manual.

### **SPECIAL PARTS**

Thermostat Replacement Kit: 06401-003-13-94\*

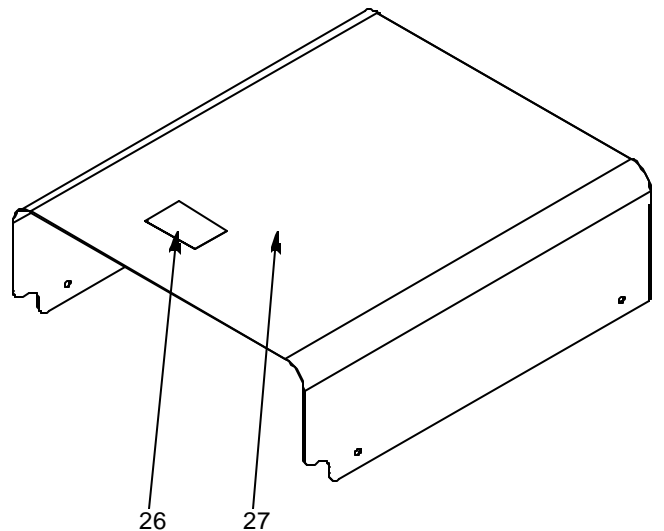
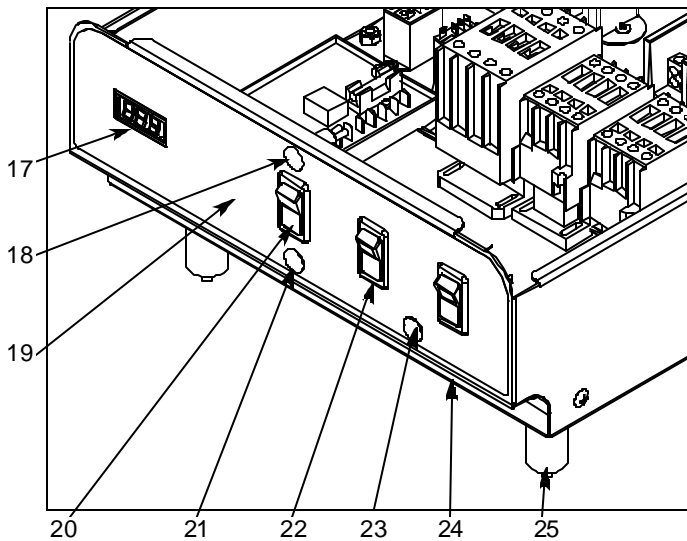
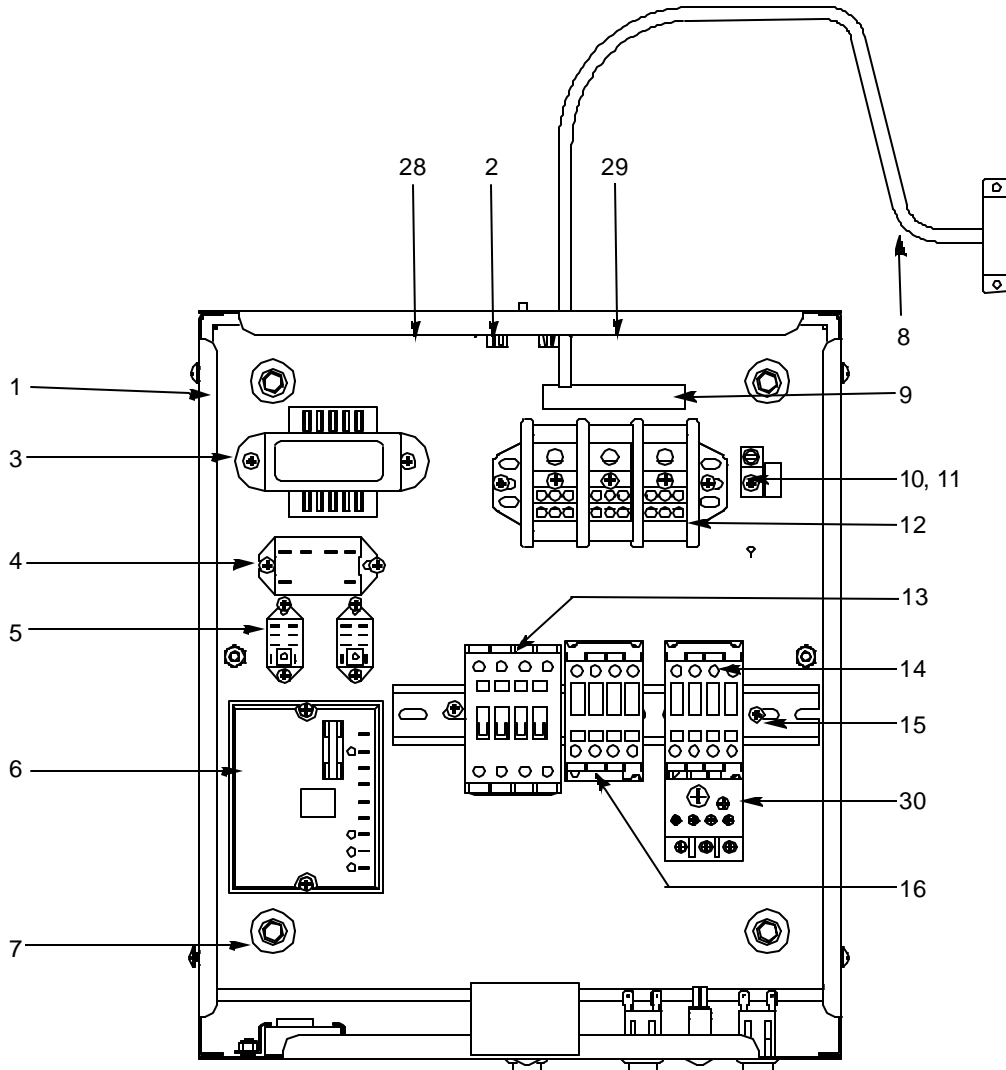
\*The kit contains a thermostat, imperial brass fitting, jumper wires and instructions.

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## **SECTION 6: PARTS SECTION**

# SECTION 6: PARTS SECTION

## CONTROL BOX ASSEMBLY



**SECTION 6: PARTS SECTION**  
**CONTROL BOX ASSEMBLY (CONTINUED)**

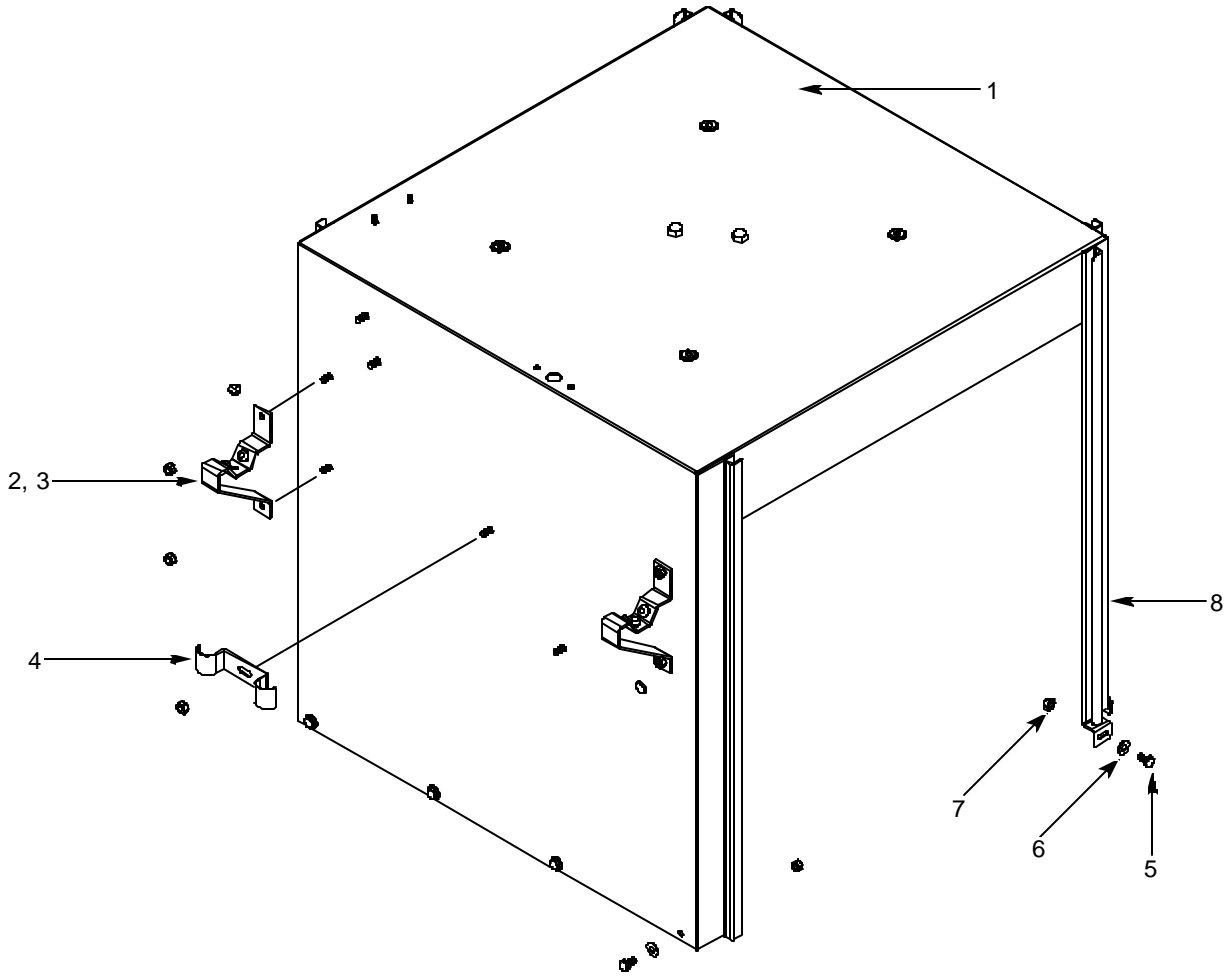
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Control Box Weldment	05700-002-57-70
2	1	Fuse Holder	05920-401-03-14
3	1	Transformer	05950-400-01-35
4	1	Relay	05945-301-07-40
5	2	Relay, 24V, 10A	05945-002-63-02
6	1	Timer	05945-307-07-93
7	1	Inner Panel	05700-002-57-35
8	1	Switch, Magnetic Reed	05930-002-36-80
9	1	Decal, L1, L2, L3	09905-101-12-66
10	1	Ground Lug	05940-200-76-00
11	1	Decal, Ground	09905-011-86-86
12	1	Terminal Block	05940-011-48-27
13	1	Contactor (not used on 300XN/XLT/XS)	05945-109-01-09
14	1	Relay	05945-109-02-09
15	1	Din Rail, 9	05700-001-26-97
16	1	Relay (not used on 300XN/XLT/XS)	05945-109-03-09
17	1	Digital Display	06685-400-04-00
18	1	Light, Yellow	05945-504-02-90
19	1	Decal, Control Box	09905-002-57-40
20	1	Switch, Manual	05930-002-63-06
21	1	Light, Blue	05945-504-05-90
22	1	Switch, Cycle	05930-002-63-05
23	1	Light, White	05945-504-03-90
24	1	Switch, Power	05930-002-63-04
25	4	Leg, Control Box	05700-002-33-05
*	4	Screw, 1/4"-20 x 2 3/4" Hex Head Cap	05305-274-13-00
*	4	Washer, 1/4"-20 ID S/S	05311-174-01-00
*	4	Locknut, 1/4"-20 S/S Hex with Nylon Insert	05310-374-01-00
26	1	Decal, Warning-Disconnect Power	09905-100-75-93
27	1	Cover, Top Mount Control Box	05700-002-23-03
*	4	Screw, 10-32 x 3/8" Phillips Truss Head	05305-173-12-00
28	1	Decal, Copper Conductors	09905-011-47-35
29	1	Decal, Line Voltage	09905-107-02-12
30	1	Overload (460 Volt Units Only)	05945-304-02-09

Associated Hardware:

Locknut, 10-24 S/S Hex with Nylon Insert	05310-373-01-00
Screw, 10 x 18-8 x 1" S/S Phillips Pan Head	05305-002-63-46
Screw, 10 x 18-8 x 3/8" S/S Phillips Pan Head	05305-002-63-47
Screw, 6 x 18-8 x 3/8" S/S Phillips Pan Head	05305-002-63-49
Screw, 6-32 x 3/8" Phillips Truss Head	05305-171-07-00

## SECTION 6: PARTS SECTION

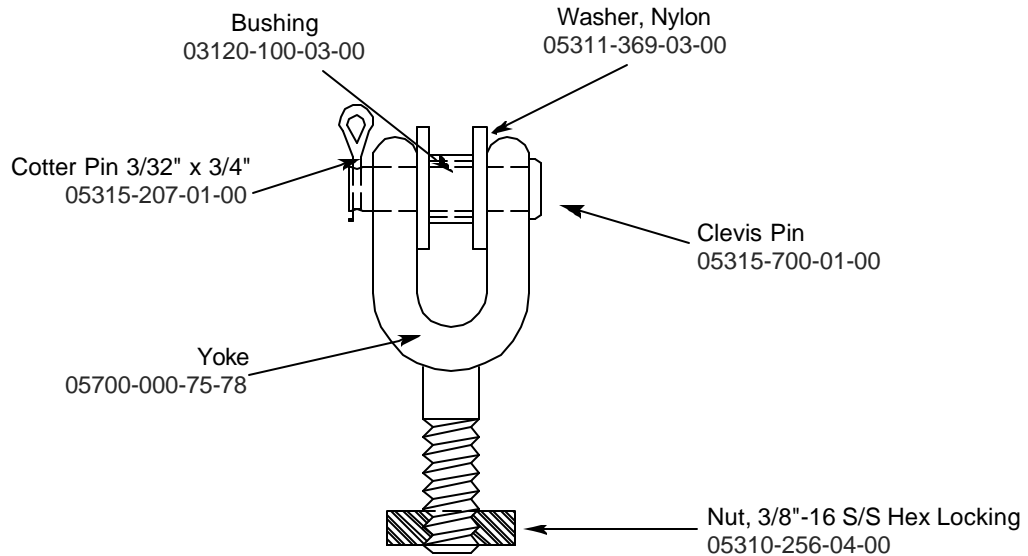
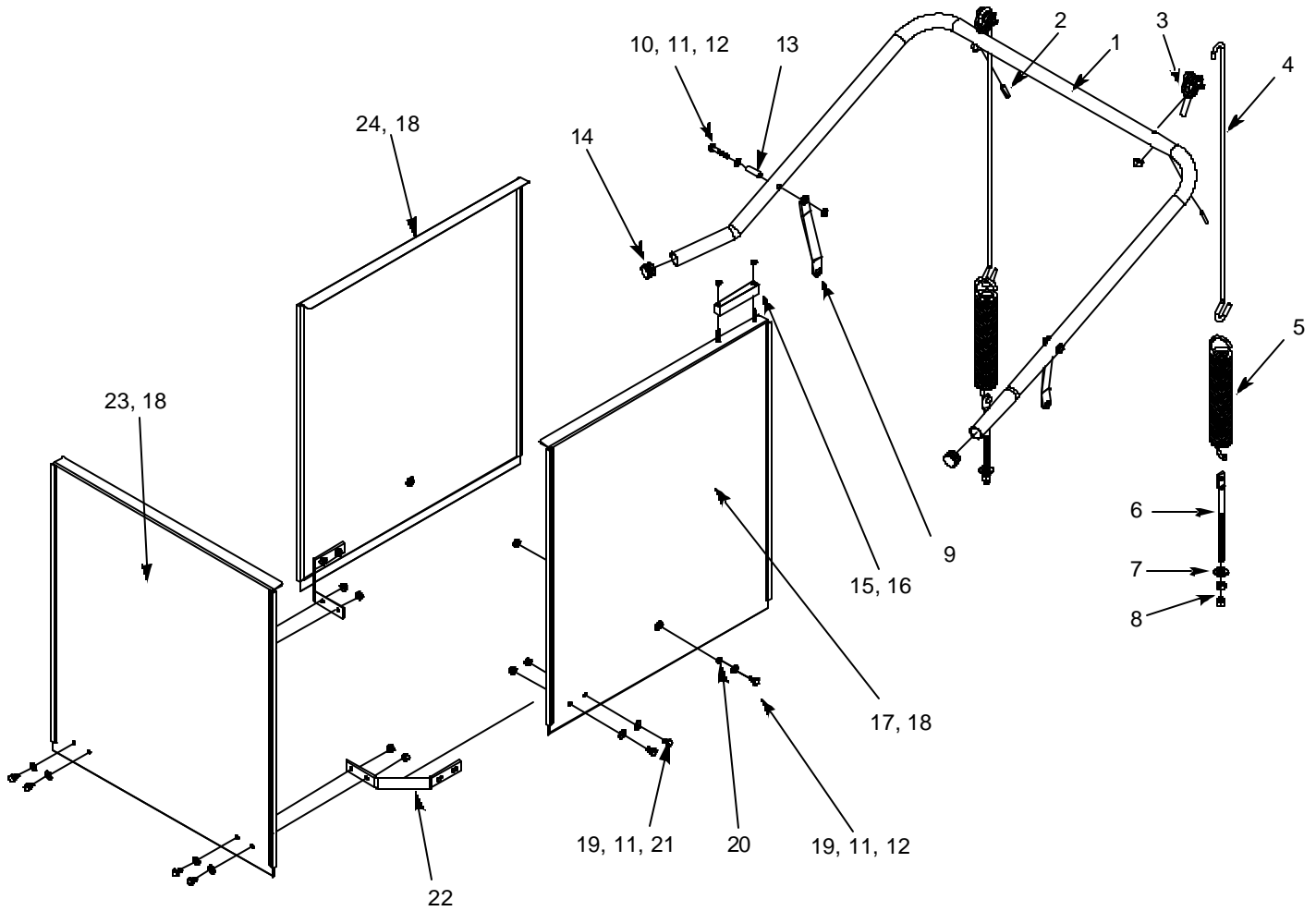
### HOOD ASSEMBLY



ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Hood, Single Piece Weldment	05700-002-58-08
2	2	Bracket, Cantilever Support	05700-031-88-00
3	6	Wear Button .50 Dia.	05700-011-88-01
4	1	Clamp, Double	05700-002-23-89
5	8	Bolt, 1/4"-20 x 1/2" S/S Hex Head	05305-274-02-00
6	8	Washer, 1/4" I.D. S/S	05311-174-01-00
7	14	Locknut, 1/4"-20 S/S Hex with Nylon Insert	05310-374-01-00
8	2	Support, Hood Bolted On	05700-002-72-89



**SECTION 6: PARTS SECTION**  
**CANTILEVER ARM/DOOR ASSEMBLIES**



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**SECTION 6: PARTS SECTION**  
**CANTILEVER ARM/DOOR ASSEMBLIES (CONTINUED)**

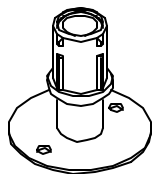
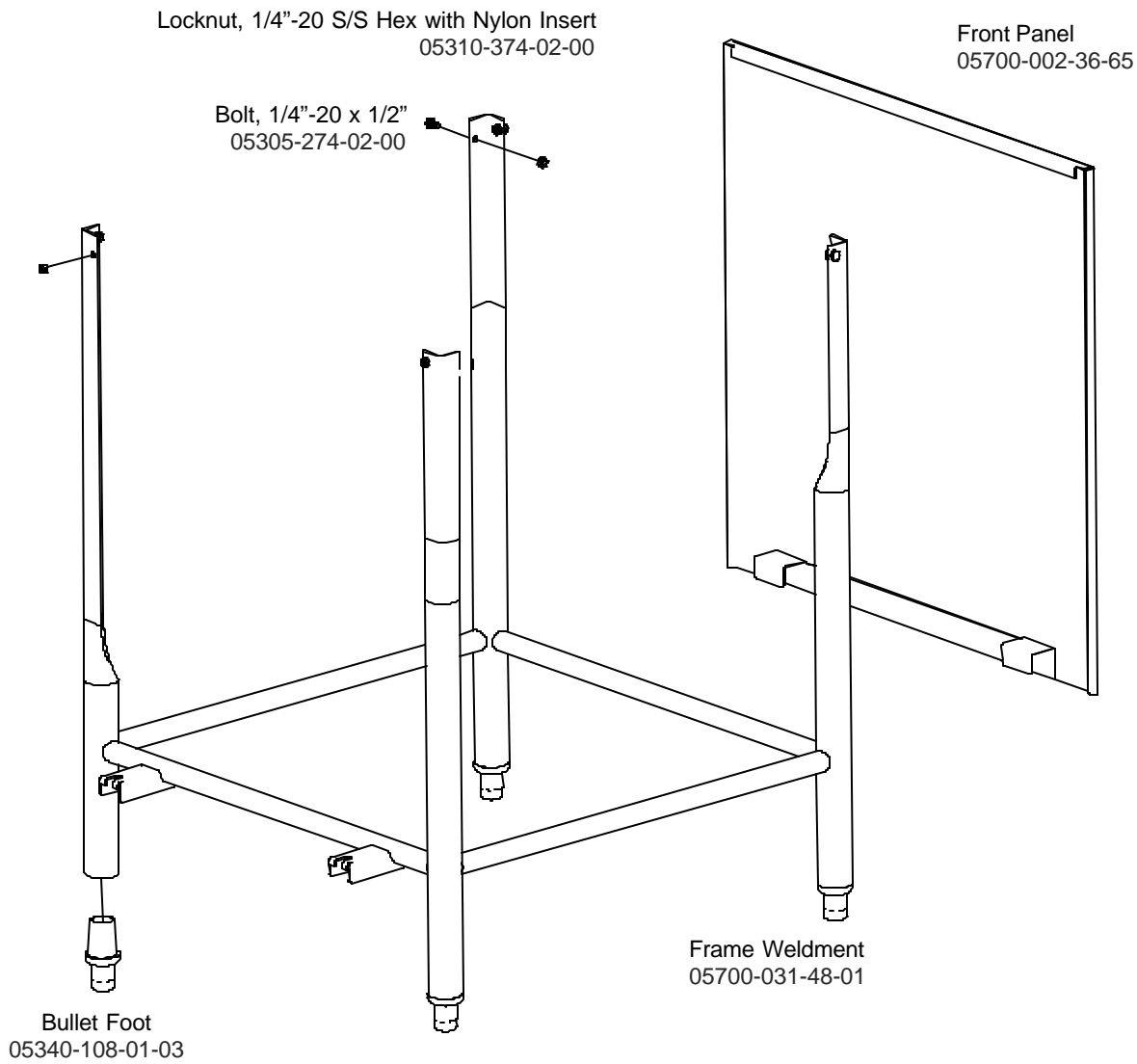
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<b>ITEM</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>Mfg. No.</b>
1	1	Cantilever Arm	05700-031-50-67
2	2	Spring Pin, 1/4" x 1 1/8"	05315-407-06-00
3	2	Yoke Assembly	05700-000-75-77
4	2	Rod, Spring	05700-002-29-38
5	2	Spring	05340-109-02-00
6	2	Bolt, Cantilever Hanger Eye 3/8"-16	05306-956-05-00
7	2	Washer, 3/8" ID x 7/8" OD S/S	05311-176-02-00
8	4	Nut, 3/8"-16 S/S Hex	05310-276-01-00
9	2	Connector, Cantilever Arm	05700-011-90-99
10	2	Screw, 1/4"-20 x 1 1/2" Long S/S	05305-274-23-00
11	4	Washer, 1/4" Stainless Steel	05311-174-01-00
12	4	Locknut, 1/4"-20 S/S Hex with Nylon Insert Low Profile	05310-374-02-00
13	2	Sleeve, Cantilever Arm	05700-000-85-69
14	2	Plug, Cantilever Arm	05340-011-35-00
15	1	Magnet, Reed Switch	05930-111-51-68
16	2	Locknut, 8-32 S/S Hex with Nylon Insert	05310-272-02-00
17	1	Door, Right Side (Complete Assembly)	05700-002-30-88
17A	1	Right Door Weldment with Studs	05700-002-29-85
18	6	Door, Guides	05700-111-33-59
19	2	Screw, 1/4"-20 x 1/2" Long S/S	05305-274-02-00
20	2	Spacer, PB Bolt	05700-000-29-40
21	4	Locknut, 1/4"-20 S/S Hex with Nylon Insert	05310-374-01-00
22	2	Door Connector Bracket	05700-021-33-39
23	1	Door, Front (Complete Assembly)	05700-002-30-89
23A	1	Door Only, Front	05700-002-29-83
24	1	Door, Left Side (Complete Assembly)	05700-002-30-87
24A	1	Door Only, Left Side	05700-002-29-86

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## SECTION 6: PARTS SECTION

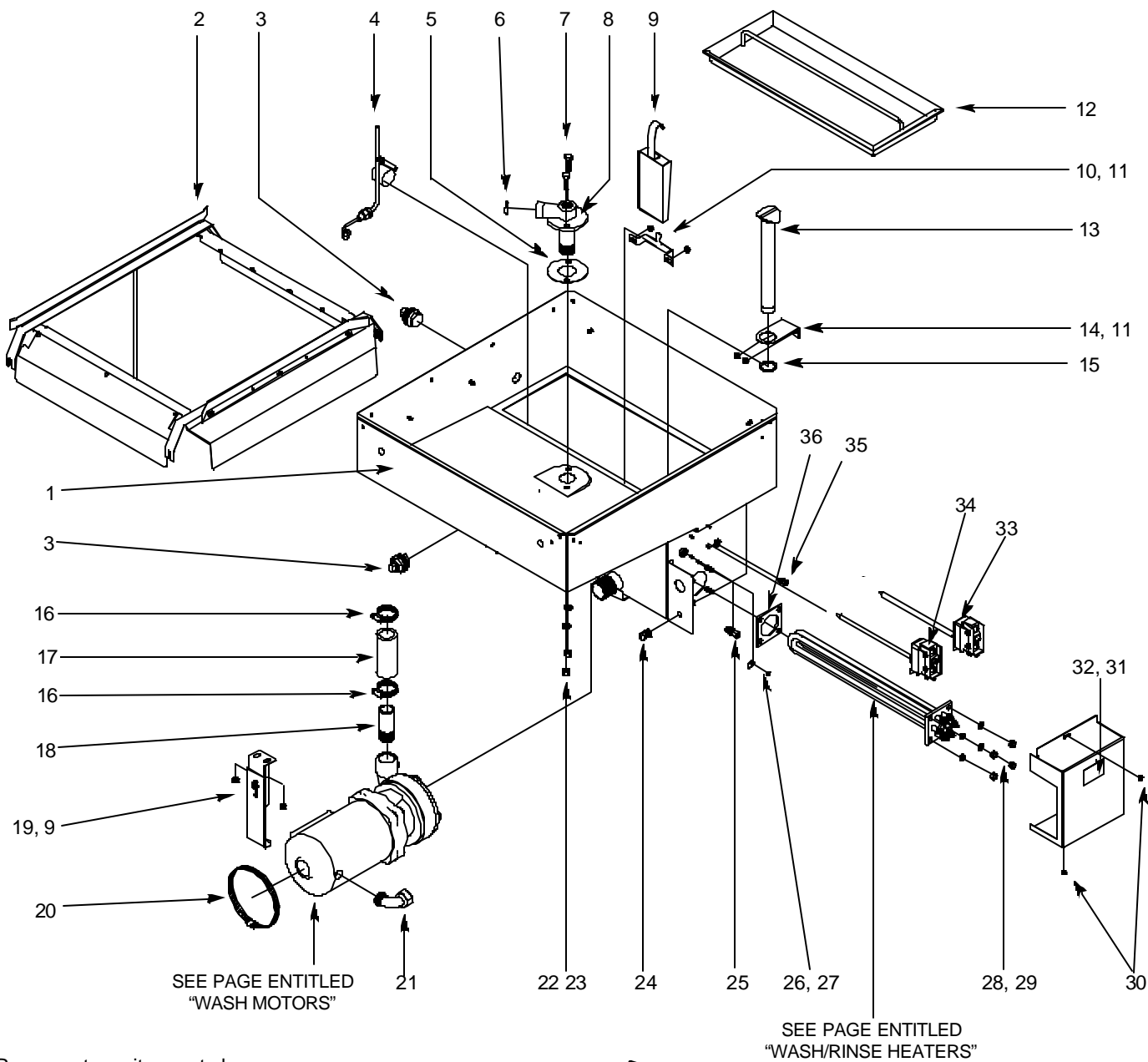
### FRAME ASSEMBLY



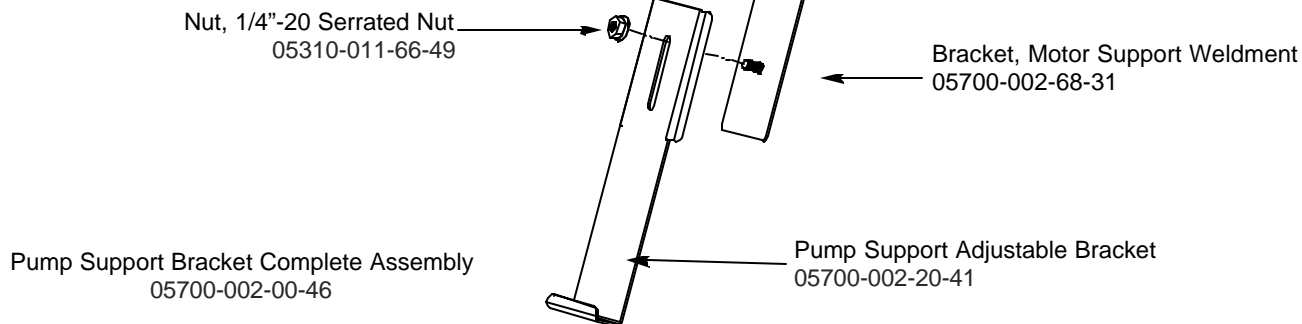
Flanged Bullet Foot  
05340-002-34-86

# SECTION 6: PARTS SECTION

## TUB ASSEMBLY



\* Represents an item not shown.



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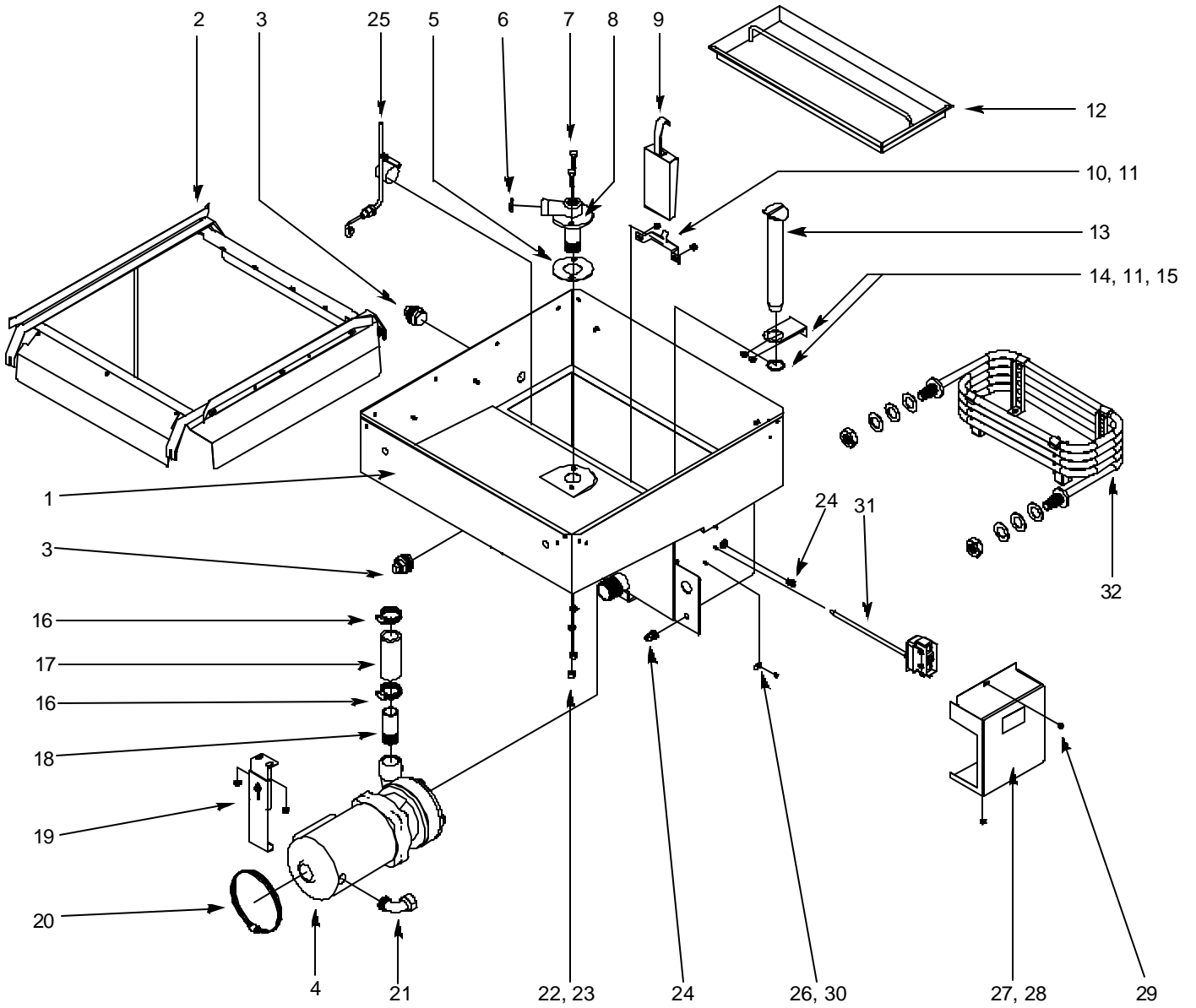
## SECTION 6: PARTS SECTION

### TUB ASSEMBLY (CONTINUED)

ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Tub Weldment	05700-002-59-18
2	1	Rack Assembly	05700-002-01-00
	1	Rack Guide	05700-001-28-19
3	2	Bulk Head Plug	04730-609-05-00
4	1	Switch, Dual Float	06680-002-68-63
5	1	Gasket	05700-111-35-03
6	1	O-ring	05330-400-05-00
7	4	Bolt, Hex 3/8"-16 x 1 1/4" Long	05305-276-10-00
8	1	Lower Wash Manifold Weldment	05700-031-46-00
9	1	Suction Strain Weldment	05700-001-22-23
10	1	Suction Strain Bracket	05700-001-22-24
11	8	Locknut, 1/4"-20 with Nylon Insert	05310-374-02-00
12	1	Strainer Weldment	05700-021-50-07
13	1	Wash Overflow Weldment	05700-001-25-69
14	1	Overflow Support Bracket	05700-001-27-55
15	1	O-Ring	05330-400-05-00
16	2	Clamp, Hose 1 5/16" to 2 1/4"	04730-719-01-37
17	1	Discharge Hose	05700-011-88-24
18	1	Nipple	05700-021-34-84
19	1	Pump Support Bracket Assembly	05700-002-00-46
20	1	Clamp, Hose 5 5/8" to 6"	04730-011-34-90
21	1	Connector, 1/2" 90°	05975-111-01-00
22	4	Nut, 3/8"-16 S/S Hex	05310-276-01-00
23	4	Lockwasher 3/8"	05311-276-01-00
24	1	Fitting, Olflex	05975-205-43-00
25	1	Union, 1/4"	05700-001-16-52
26	1	Clamp, 1/8" Nylon	05975-601-10-15
27	1	Locknut, 6-32 with Nylon Insert	05310-373-03-00
28	4	Lockwasher, 5/16", S/S, Split	05311-275-01-00
29	4	Nut, Hex, 5/16"-18, S/S	05310-275-01-00
30	4	Locknut, 10-24 with Nylon Insert	05310-373-01-00
31	1	Cover, Wash Heater	05700-031-47-57
32	1	Decal, Warning-Disconnect Power	09905-100-75-93
33	1	Kit, Thermostat, Regulating	06401-003-18-28
34	1	Thermostat, High Limit	05930-121-71-36
35	1	Fitting, 1/4" Imperial Brass	05310-924-02-05
36	1	Wash Heater Gasket	05330-011-47-79

## SECTION 6: PARTS SECTION

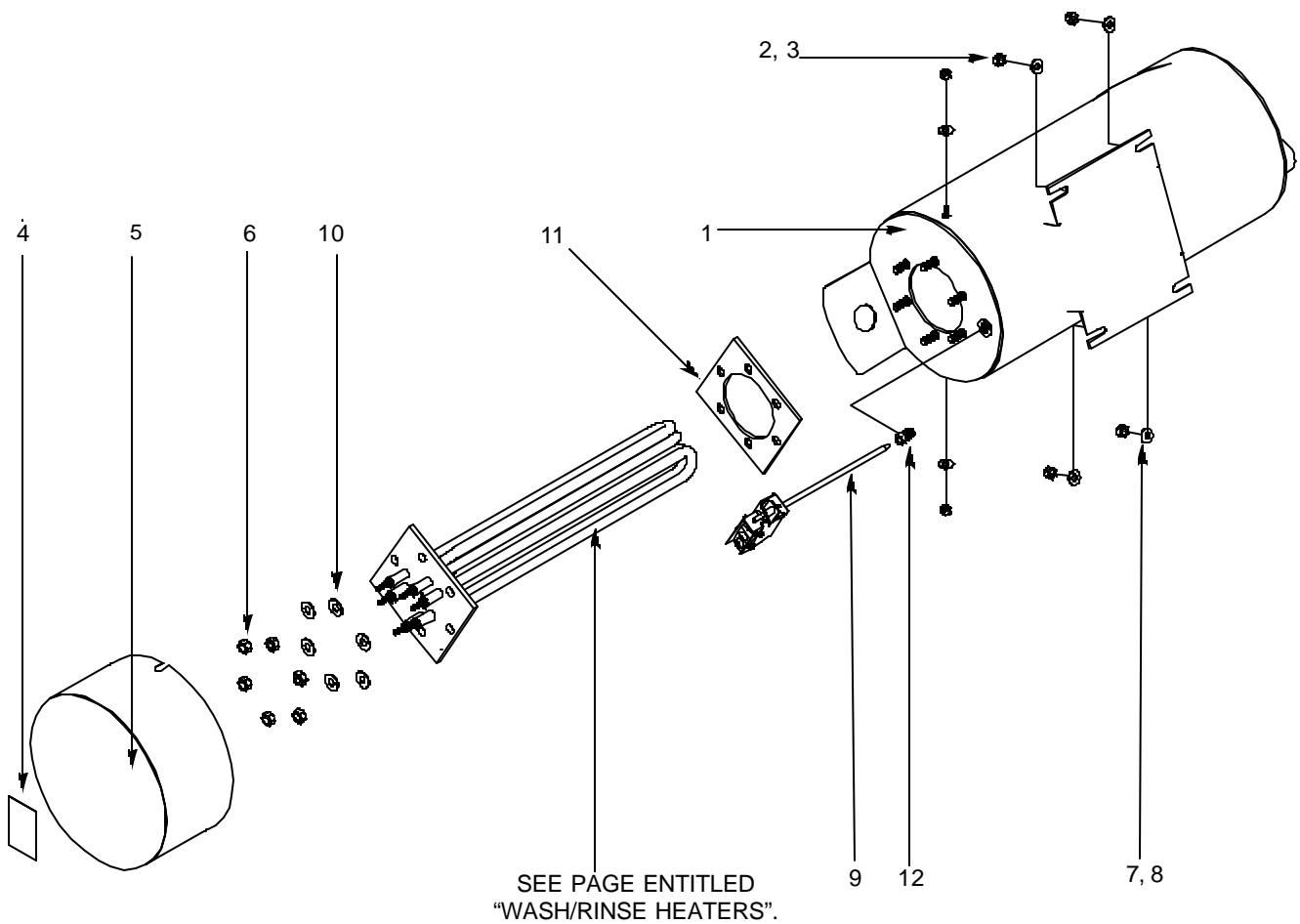
### STEAM TUB ASSEMBLY



**SECTION 6: PARTS SECTION**  
**STEAM TUB ASSEMBLY (CONTINUED)**

<b>ITEM</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>Mfg. No.</b>
1	1	Tub Weldment	05700-002-79-58
2	1	Rack Assembly	05700-002-01-00
	1	Rack Guide	05700-001-28-19
3	2	Bulk Head Plug	04730-609-05-00
4	1	See page entitled "Wash Motors"	N/A
5	1	Gasket	05700-111-35-03
6	1	O-ring	05330-400-05-00
7	4	Bolt, Hex 3/8"-16 x 1 1/4" Long	05305-276-10-00
8	1	Lower Wash Manifold Weldment	05700-031-46-00
9	1	Suction Strain Weldment	05700-001-22-23
10	1	Suction Strain Bracket	05700-001-22-24
11	8	Locknut, 1/4"-20 with Nylon Insert	05310-374-02-00
12	1	Strainer Weldment	05700-021-50-07
13	1	Wash Overflow Weldment	05700-001-25-69
14	1	Overflow Support Bracket	05700-001-27-55
15	1	O-Ring	05330-400-05-00
16	2	Clamp, Hose 1 5/16" to 2 1/4"	04730-719-01-37
17	1	Discharge Hose	05700-011-88-24
18	1	Nipple	05700-021-34-84
19	1	Pump Support Bracket Assembly	05700-002-00-46
20	1	Clamp, Hose 5 5/8" to 6"	04730-011-34-90
21	1	Connector, 1/2" 90°	05975-111-01-00
22	4	Nut, 3/8"-16 S/S Hex	05310-276-01-00
23	4	Lockwasher 3/8"	05311-276-01-00
24	1	Fitting, 1/4" Imperial Brass	05310-924-02-05
25	1	Switch, Dual Float	06680-002-68-63
26	1	Clamp, 1/8" Nylon	05975-601-10-15
27	1	Cover, Wash Heater	05700-031-47-57
28	1	Decal, Warning-Disconnect Power	09905-100-75-93
29	2	Locknut, 10-24 with Nylon Insert	05310-373-01-00
30	3	Locknut, 6-32 with Nylon Insert	05310-373-03-00
31	1	Kit, Thermostat, Regulating	06401-003-18-56
32	1	Steam Coil Assembly	05700-002-08-62

**SECTION 6: PARTS SECTION**  
**RINSE TANK ASSEMBLY (300X)**



ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Booster Tank Weldment	05700-001-22-02
2	2	Locknut, 10-24 with Nylon Insert	05310-373-01-00
3	2	Washer, #10 S/S Flat	05311-173-01-00
4	1	Decal, Warning - Disconnect Power	09905-100-75-93
5	1	Booster Tank Cover Weldment	05700-001-29-30
6	6	Nut, Hex, 5/16"-18	05310-275-01-00
7	4	Locknut, 1/4"-20 with Nylon Insert	05310-374-01-00
8	4	Washer, 1/4" ID, S/S, Flat	05311-174-01-00
9	1	Thermostat, Rinse	05930-510-03-79
	1	Kit, Thermostat Replacement	06401-003-13-94
		*The kit contains a thermostat, imperial brass fitting, jumper wires and instructions.	
10	6	Washer, 5/16" I.D.	05311-175-01-00
11	1	Gasket, Rinse Heater	05330-200-02-70
12	1	Fitting, 1/4" Imperial Brass	05310-924-02-05



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## SECTION 6: PARTS SECTION

### THERMOSTATS / WASH HEATERS / RINSE HEATERS

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To order the thermostats:  
 Thermostat, High Limit  
 Kit, Thermostat, Wash Tank

05930-011-49-43  
 06401-140-00-32

The 300X models covered in this manual come supplied with various heaters, depending on the characteristics of the machine. To ensure that you order the correct heater for the model you are servicing, please refer to the following table:

<u>Model</u>	<u>Volts</u>	<u>Hz</u>	<u>Phase</u>	<u>Wash Heater</u>	<u>40°F Rise Rinse Heater (12 KW)</u>	<u>70°F Rise Rinse Heater (14 KW)</u>
300X	208	50	1	04540-121-47-39	04540-121-47-40	04540-121-63-38
300X	208	50	3	04540-121-47-39	04540-121-47-40	04540-121-63-38
300X	208	60	1	04540-121-47-39	04540-121-47-40	04540-121-63-38
300X	208	60	3	04540-121-47-39	04540-121-47-40	04540-121-63-38
300X	230	50	1	04540-121-47-39	04540-121-47-40	04540-121-63-38
300X	230	50	3	04540-121-47-39	04540-121-47-40	04540-121-63-38
300X	230	60	1	04540-121-47-39	04540-121-47-40	04540-121-63-38
300X	230	60	3	04540-121-47-39	04540-121-47-40	04540-121-63-38
300X	380	50	3	04540-002-44-31	04540-002-44-32	04540-121-63-38
300X	415	50	3	04540-002-43-09	04540-002-43-10	04540-002-77-24
300X	440	50	3	04540-121-65-99	04540-100-01-15	04540-121-63-39
300X	460	60	3	04540-121-65-99	04540-100-01-15	04540-121-63-39
300XN/XLT	208	50	1	04540-121-47-39		
300XN/XLT	208	50	3	04540-121-47-39		
300XN/XLT	208	60	1	04540-121-47-39		
300XN/XLT	208	60	3	04540-121-47-39		
300XN/XLT	230	50	1	04540-121-47-39		
300XN/XLT	230	50	3	04540-121-47-39		
300XN/XLT	230	60	1	04540-121-47-39		
300XN/XLT	230	60	3	04540-121-47-39		
300XN/XLT	380	50	3	04540-002-44-31		
300XN/XLT	415	50	3	04540-002-43-09		
300XN/XLT	440	50	3	04540-121-65-99		
300XN/XLT	460	60	3	04540-121-65-99		

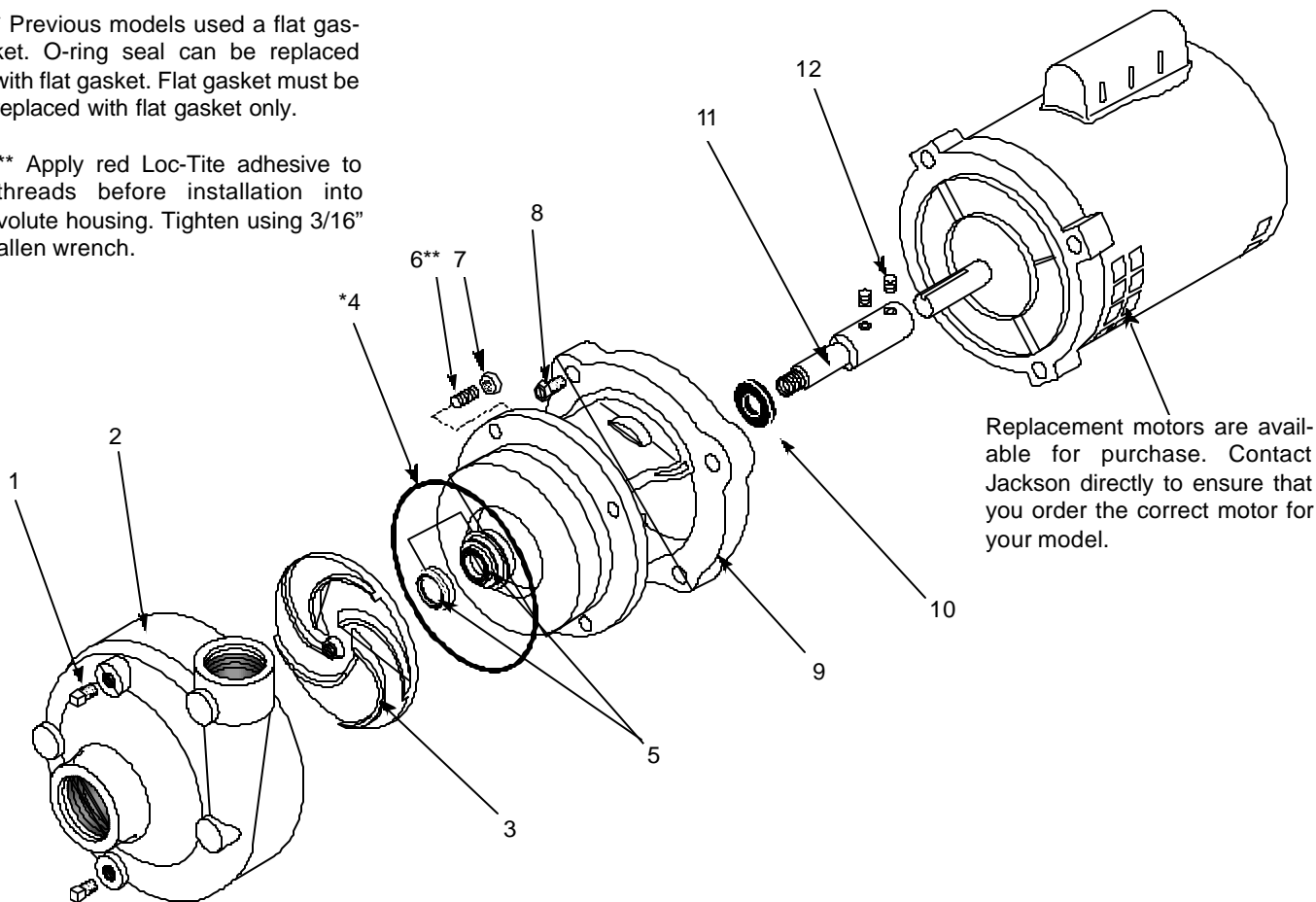
**NOTE:** THE 300XS is heated via steam coils and therefore has no electrical heaters.

## SECTION 6: PARTS SECTION

### WASH PUMP EXPLODED VIEW

\* Previous models used a flat gasket. O-ring seal can be replaced with flat gasket. Flat gasket must be replaced with flat gasket only.

\*\* Apply red Loc-Tite adhesive to threads before installation into volute housing. Tighten using 3/16" allen wrench.



ITEM	QTY	DESCRIPTION	Mfg. No.
1	2	Pipe Plug, 1/4" NPT, Brass	04730-209-01-00
2	1	Volute (only available as an assembly)	N/A
3	1	Impeller, Stainless	05700-002-06-19
4	1	O-ring, Housing Seal	N/A
4	1	Flat Gasket	05330-002-00-31
5	1	Pump Seal	05330-002-06-21
6	4	Stud, Socket Head 3/8"-16 x 1 1/2"	N/A
7	4	Nut, Hex, 3/8"-16 S/S	N/A
8	4	Cap Screw, 3/8"-16 x 1-1/4", S/S	N/A
9	1	Bracket, Motor to Pump	N/A
10	1	Slinger, Pump Shaft	N/A
11	1	Shaft Adapter/Connector	N/A
12	2	Allen Head Setscrew, 1/4"-20 x 1/4"	N/A

## SECTION 6: PARTS SECTION

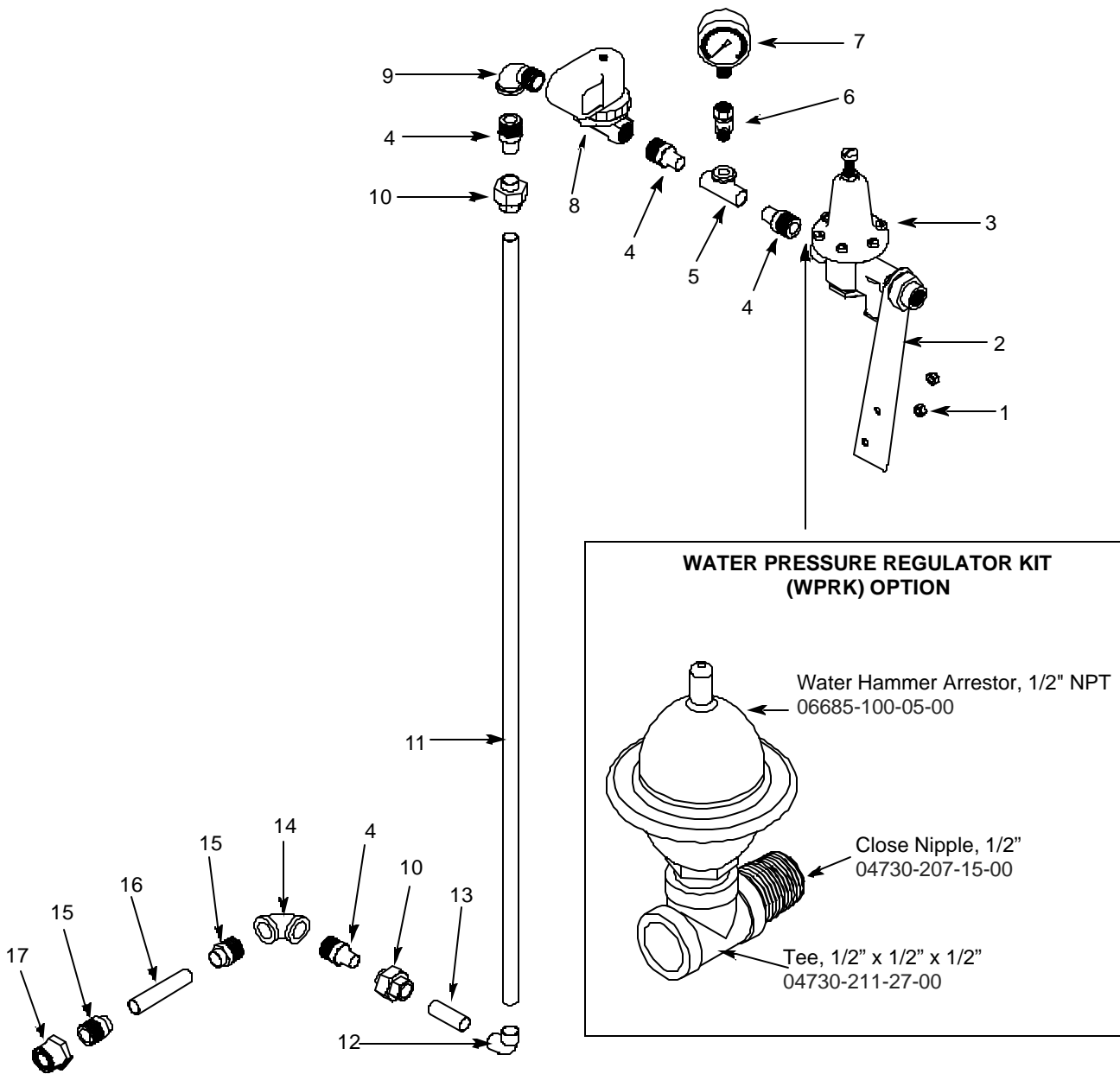
### WASH MOTORS

The 300X models covered in this manual come supplied with various wash motor assemblies (a wash motor assembly includes the wash motor and the pump end), depending on the characteristics of the machine. To ensure that you order the correct wash motor assembly for the model you are servicing, please refer to the following table:

<u>Model</u>	<u>Volts</u>	<u>Hz</u>	<u>Phase</u>	<u>Wash Motor Assembly</u>	<b>Important note:</b> When servicing a wash motor, it is important to refer to the wiring schematic found on the motor, to ensure that the motor is wired correctly. Different manufacturers of motors may not use the same wire color codes and therefore, your new motor, which may have been built by someone different than who built your original motor, may not connect using the same wires. Always refer to the wiring diagrams on the motor you are installing. If the motor you are installing has had the schematic removed, contact Jackson MSC immediately for technical support.
300X	208	50	1	06105-002-19-87	
300X	208	50	3	06105-002-19-87	
300X	208	60	1	06105-121-35-18	
300X	208	60	3	06105-121-35-18	
300X	230	50	1	06105-002-19-87	
300X	230	50	3	06105-002-19-87	
300X	230	60	1	06105-121-35-18	
300X	230	60	3	06105-121-35-18	
300X	380	50	3	06105-002-41-24	
300X	415	50	3	06105-002-41-24	
300X	440	50	3	06105-002-41-24	
300X	460	60	3	06105-121-64-21	
300XN	208	50	1	06105-002-19-87	
300XN	208	50	3	06105-002-19-87	
300XN	208	60	1	06105-121-35-18	
300XN	208	60	3	06105-121-35-18	
300XN	230	50	1	06105-002-19-87	
300XN	230	50	3	06105-002-19-87	
300XN	230	60	1	06105-121-35-18	
300XN	230	60	3	06105-121-35-18	
300XN	380	50	3	06105-002-41-24	
300XN	415	50	3	06105-002-41-24	
300XN	440	50	3	06105-002-41-24	
300XN	460	60	3	06105-121-64-21	
300XLT	208	50	1	06105-002-19-87	
300XLT	208	50	3	06105-002-19-87	
300XLT	208	60	1	06105-121-35-18	
300XLT	208	60	3	06105-121-35-18	
300XLT	230	50	1	06105-002-19-87	
300XLT	230	50	3	06105-002-19-87	
300XLT	230	60	1	06105-121-35-18	
300XLT	230	60	3	06105-121-35-18	
300XLT	380	50	3	06105-002-41-24	
300XLT	415	50	3	06105-002-41-24	
300XLT	440	50	3	06105-002-41-24	
300XLT	460	60	3	06105-121-64-21	
300XS	208	60	1	06105-121-35-18	
300XS	230	60	1	06105-121-35-18	
300XS	208	60	3	06105-121-35-18	
300XS	230	60	3	06105-121-35-18	
300XS	380	50	3	06105-002-41-24	
300XS	460	60	3	06105-121-64-21	

## SECTION 6: PARTS SECTION

### INCOMING PLUMBING



When servicing plumbing components, take care not to damage the threads of each individual item. Damaged threads can cause leaks and loss of pressure, which could adversely effect the performance of the 300X dishmachine. It is strongly recommended that teflon thread tape, used in conservative amounts, be applied to threads when joining components together. It is not advised to use thread sealing compounds, sometimes referred to as "pipe dope". Compounds can be ejected from the threads during the tightening process and become lodged in key components, thereby rendering them useless. Some of the components include the solenoid valve and the pressure gauge isolation ball valve.

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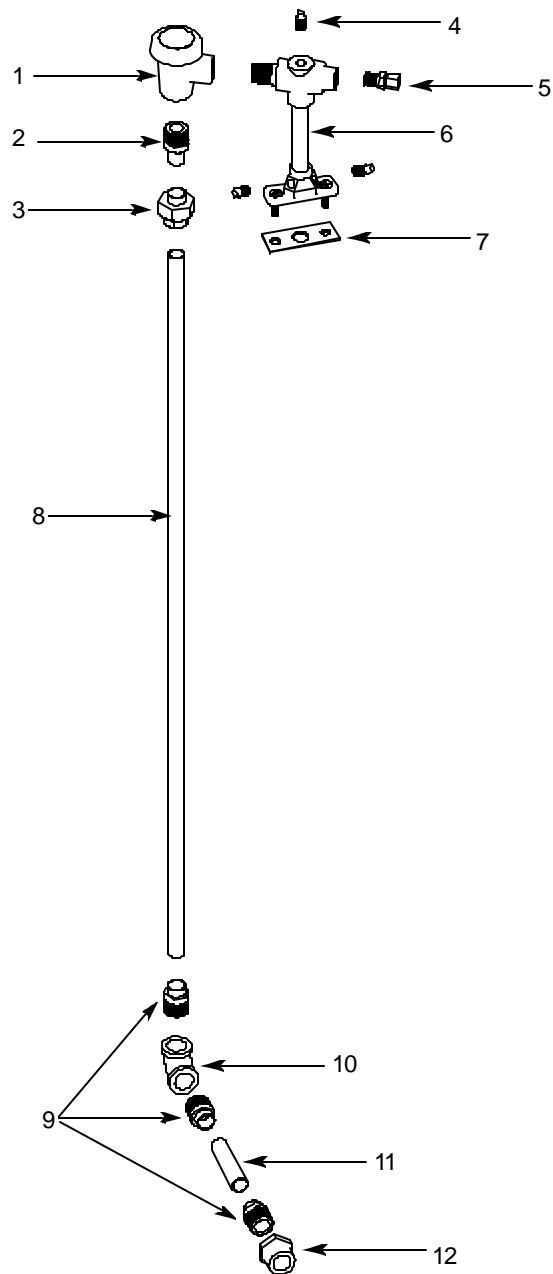
**SECTION 6: PARTS SECTION**  
**INCOMING PLUMBING (CONTINUED)**

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<b>ITEM</b>	<b>QTY</b>	<b>DESCRIPTION</b>	<b>Mfg. No.</b>
1	2	Locknut, 1/4"-20 with Nylon Insert	05310-374-01-00
2	1	Bracket, Plumbing Support	05700-002-64-28
3	1	Water Pressure Regulator, 1/2" NPT	04820-100-04-07
4	4	Adapter, 1/2" MNPT x 1/2" FTG	04730-011-59-53
5	1	Tee, Brass, 1/2" NPT x 1/2" NPT x 1/4" NPT	04730-411-25-01
6	1	Valve, Ball, 1/4" NPT	04810-011-72-67
7	1	Gauge, Pressure, 0-100 PSI	06685-111-88-34
8	1	Valve, Solenoid, 1/2" NPT 24V	04810-100-59-00
9	1	Elbow, 1/2" NPT, Brass, Street	04730-206-08-00
10	2	Union, 1/2" NPT, Brass	04730-412-05-01
11	1	Tube, Copper, 1/2" x 38 1/4" Long	05700-002-62-28
12	1	Elbow, 1/2" - 90°, CU to CU	04730-406-01-01
13	1	Tube, Copper, 1/2" x 1 3/4" Long	05700-002-62-29
14	1	Elbow, 1/2" NPT, 90°, Brass	04730-011-42-96
15	2	Adapter, 1/2" Male	04730-401-03-01
16	1	Tube, Copper, 1/2" x 3 1/8" Long	05700-002-21-30
17	1	Bushing, Hex 3/4"	04730-002-56-27

## SECTION 6: PARTS SECTION

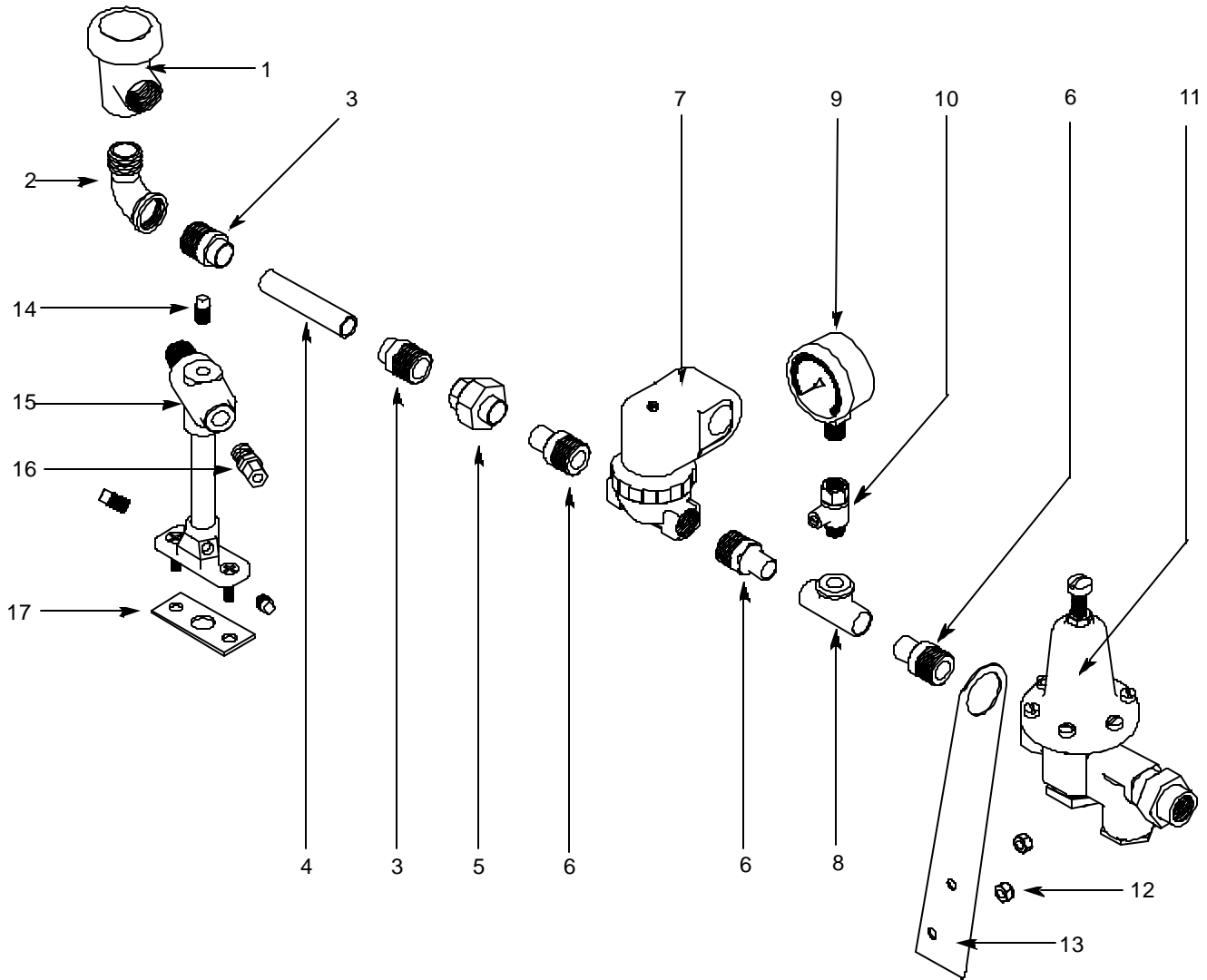
### OUTLET PLUMBING



ITEM	QTY	DESCRIPTION
1	1	Vacuum Breaker, 1/2"
2	1	Adapter, 1/2" MNPT x 1/2" FTG
3	1	Union, 1/2" NPT, Brass
4	3	Plug, 1/8" NPT
5	1	Union, 1/4"
6	1	Rinse Injector
7	1	Gasket, Rinse
8	1	Tube, Copper, 1/2" x 32 3/4" Long
9	3	Adapter, 1/2" Male
10	1	Elbow, 1/2" NPT, 90°, Brass
11	1	Tube, Copper, 1/2" x 2 3/4" Long
12	1	Bushing, Hex 3/4"

Mfg. No.
04820-003-06-13
04730-011-59-53
04730-412-05-01
04730-209-07-37
05700-001-16-52
05700-002-63-03
05330-111-42-81
05700-002-62-29
04730-401-03-01
04730-011-42-96
05700-002-62-29
04730-002-56-27

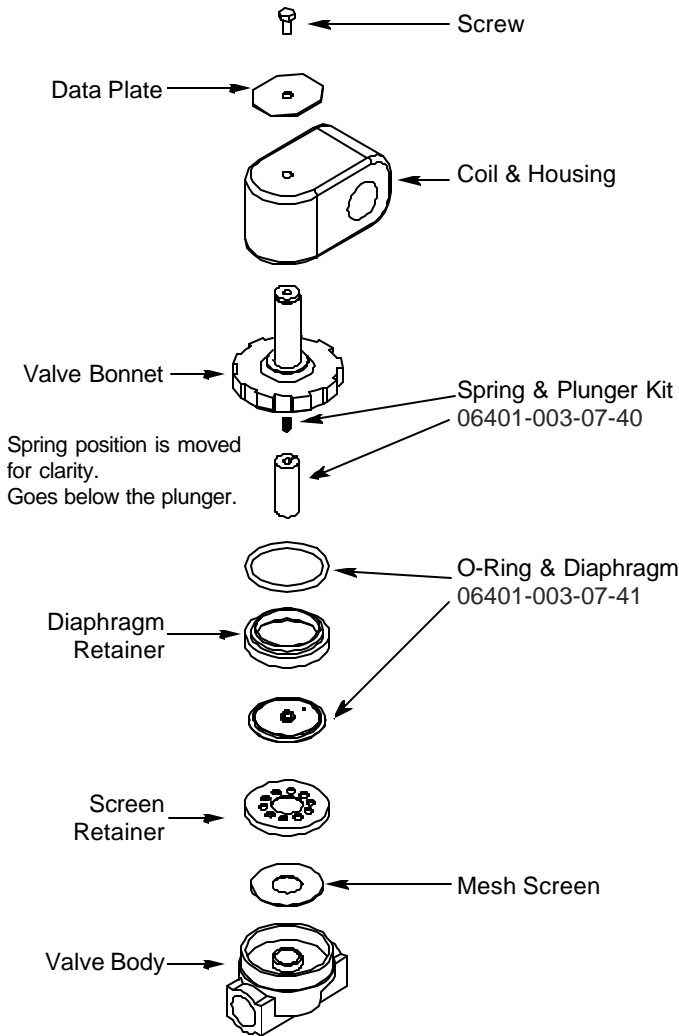
**SECTION 6: PARTS SECTION**  
**300XN & 300XS INCOMING PLUMBING ASSEMBLY**



LITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Vacuum Breaker, 1/2"	04820-003-06-13
2	1	Elbow, 1/2" NPT, Brass, Street	04730-206-08-00
3	2	Adapter, 1/2" Male	04730-401-03-01
4	1	Tube, Copper, 1/2" x 3" Long	05700-001-05-21
5	1	Union, 1/2" NPT, Brass	04730-412-05-01
6	1	Adapter, 1/2" MNPT x 1/2" FTG	04730-011-59-53
7	1	Valve, Solenoid, 1/2" NPT 24V	04810-100-59-00
8	1	Tee, Brass, 1/2" NPT x 1/2" NPT x 1/4" NPT	04730-411-25-01
9	1	Gauge, Pressure, 0-100 PSI	06685-111-88-34
10	1	Valve, Ball, 1/4" NPT	04810-011-72-67
11	1	Water Pressure Regulator, 1/2" NPT	04820-100-04-07
12	2	Locknut, 1/4"-20 with Nylon Insert	05310-374-01-00
13	1	Bracket, Plumbing Support	05700-002-64-28
14	3	Plug, 1/8" NPT	04730-209-07-37
16	1	Union, 1/4"	05700-001-16-52
15	1	Rinse Injector	05700-002-63-03
17	1	Gasket, Rinse	05330-111-42-81

## SECTION 6: PARTS SECTION

### RINSE SOLENOID VALVE & VACUUM BREAKER REPAIR PARTS KITS

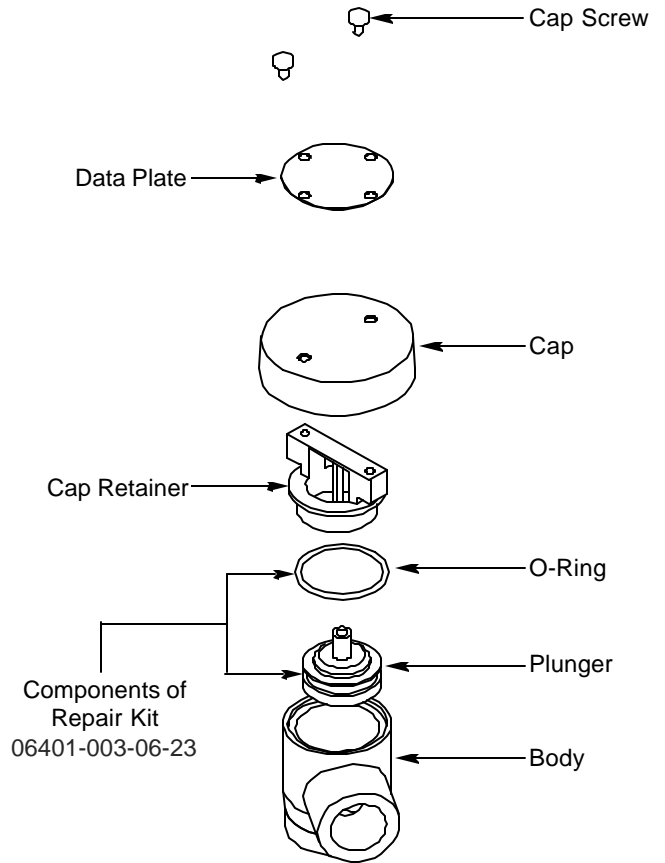


**Complete 110 Volt Solenoid Valve Assembly, 1/2"**  
04810-100-12-18

**Coil & Housing only, 1/2"**  
06401-003-07-43

**Complete 220 Volt Solenoid Valve Assembly, 1/2"**  
04810-100-09-18

**Coil & Housing only, 1/2"**  
06401-003-07-44

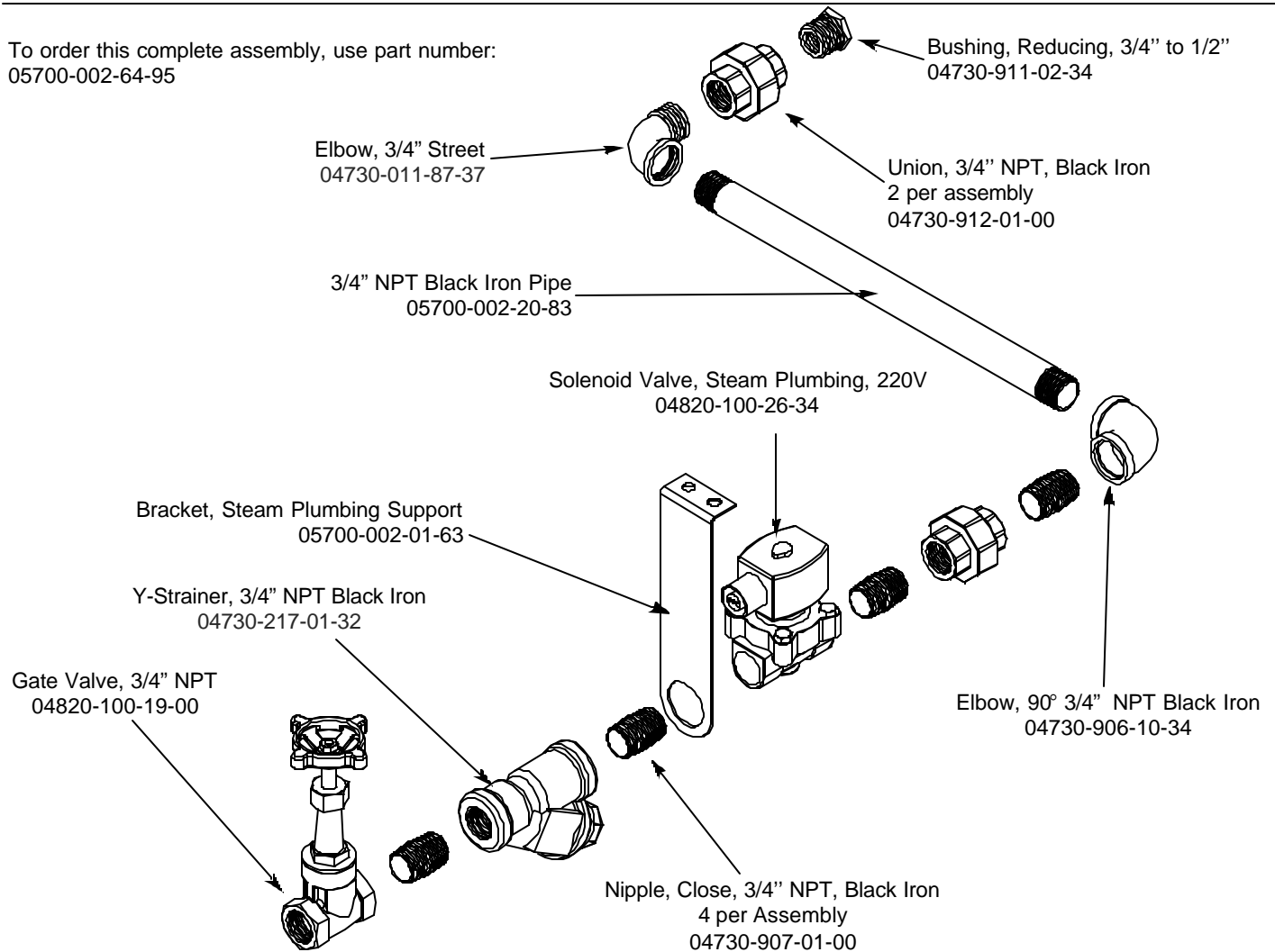
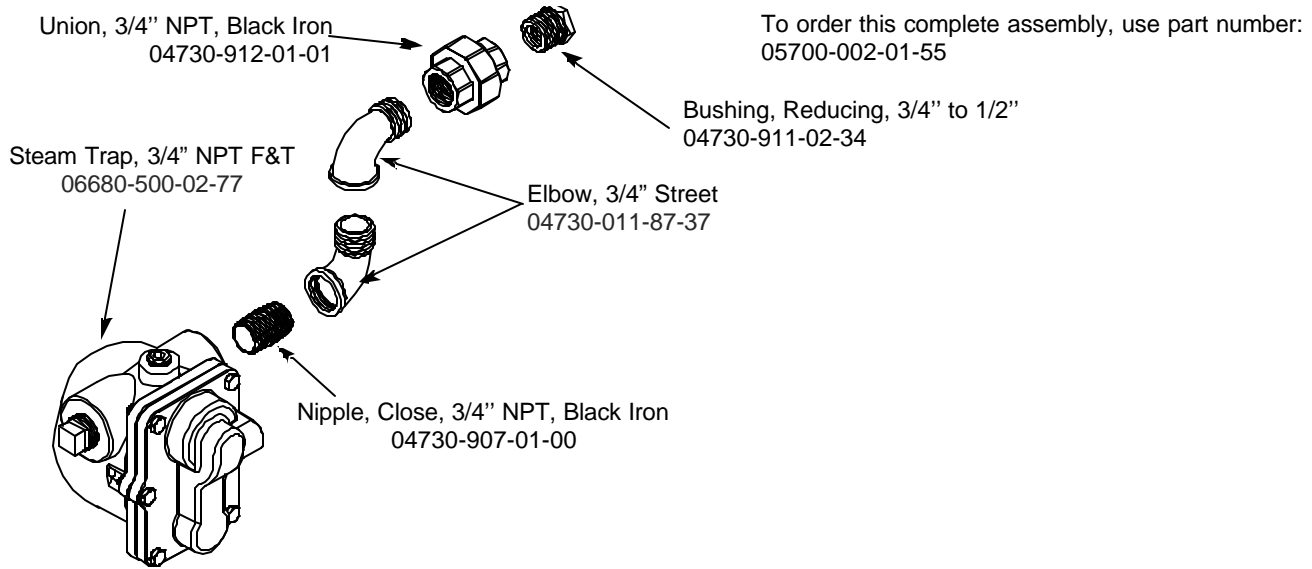


**Complete Vacuum Breaker Assembly, 1/2" NPT**  
04820-003-06-13

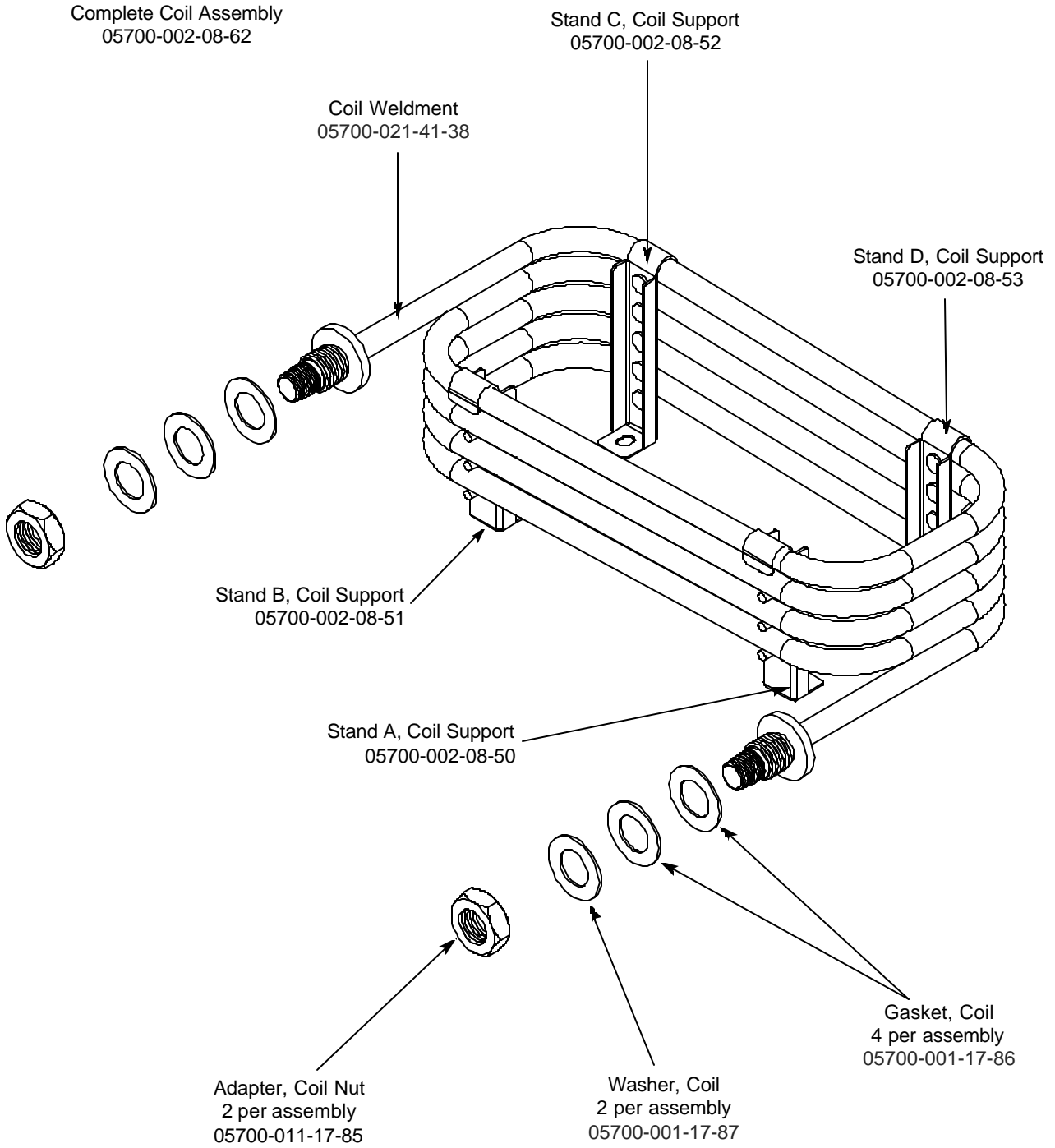


## SECTION 6: PARTS SECTION

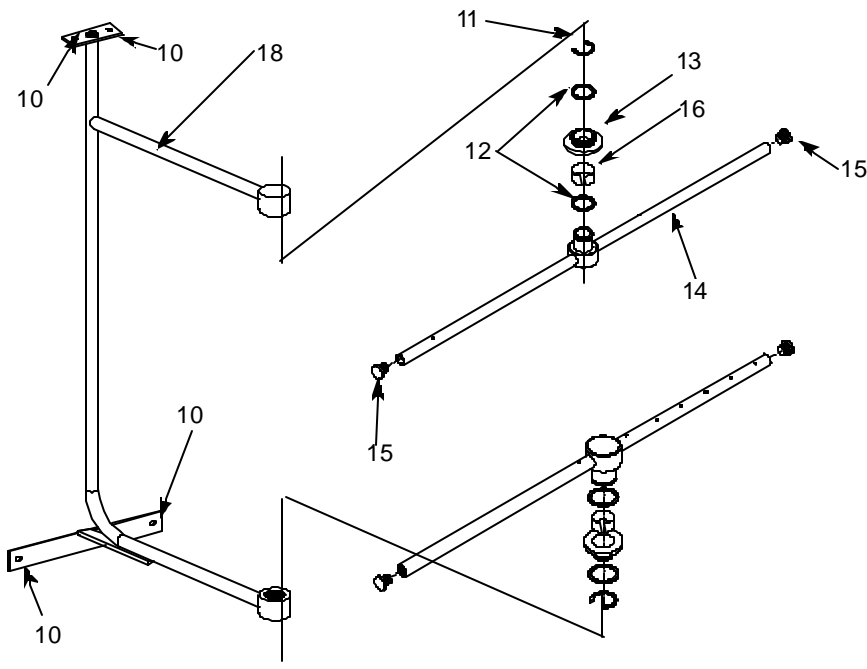
### 300XS INCOMING STEAM PLUMBING ASSEMBLIES



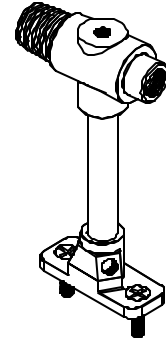
**SECTION 6: PARTS SECTION**  
**COIL ASSEMBLY (300XS)**



**SECTION 6: PARTS SECTION**  
**WASH & RINSE ARM/MANIFOLD ASSEMBLIES**

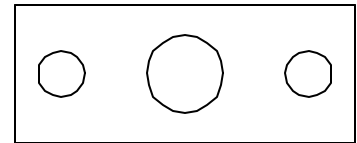


DETAIL "A"  
**FINAL RINSE ARMS & MANIFOLD**

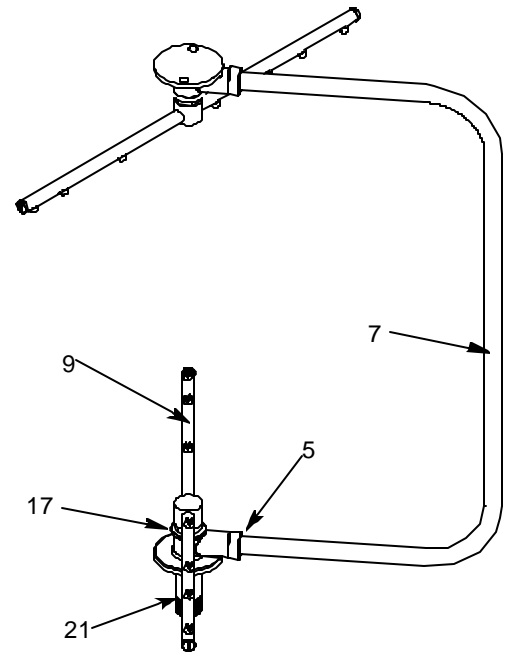
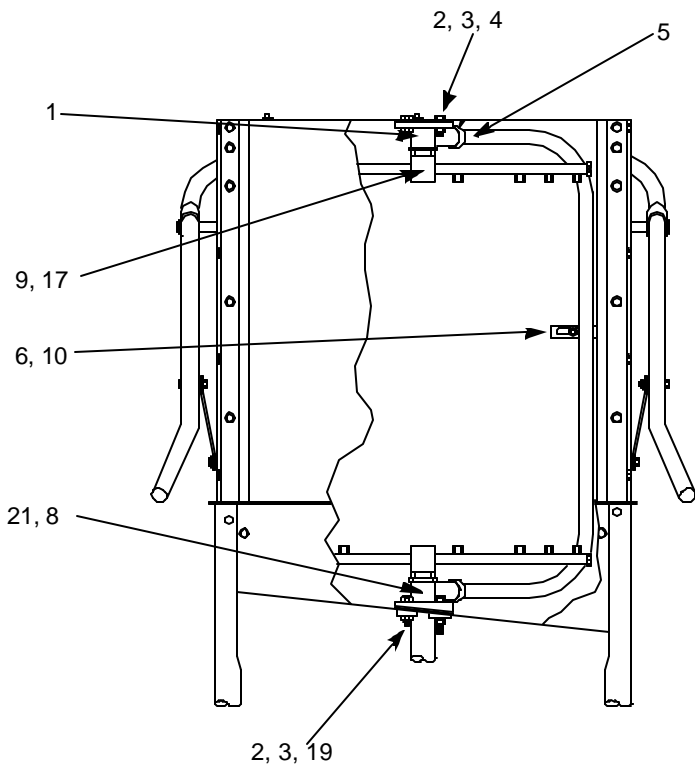


Rinse Injector Weldment  
 1 per machine  
 05700-002-63-03

Plug, 1/8" NPT, Brass  
 3 per Rinse Injector  
 04730-209-07-37



Rinse Injector Gasket  
 2 per machine  
 05330-111-42-81

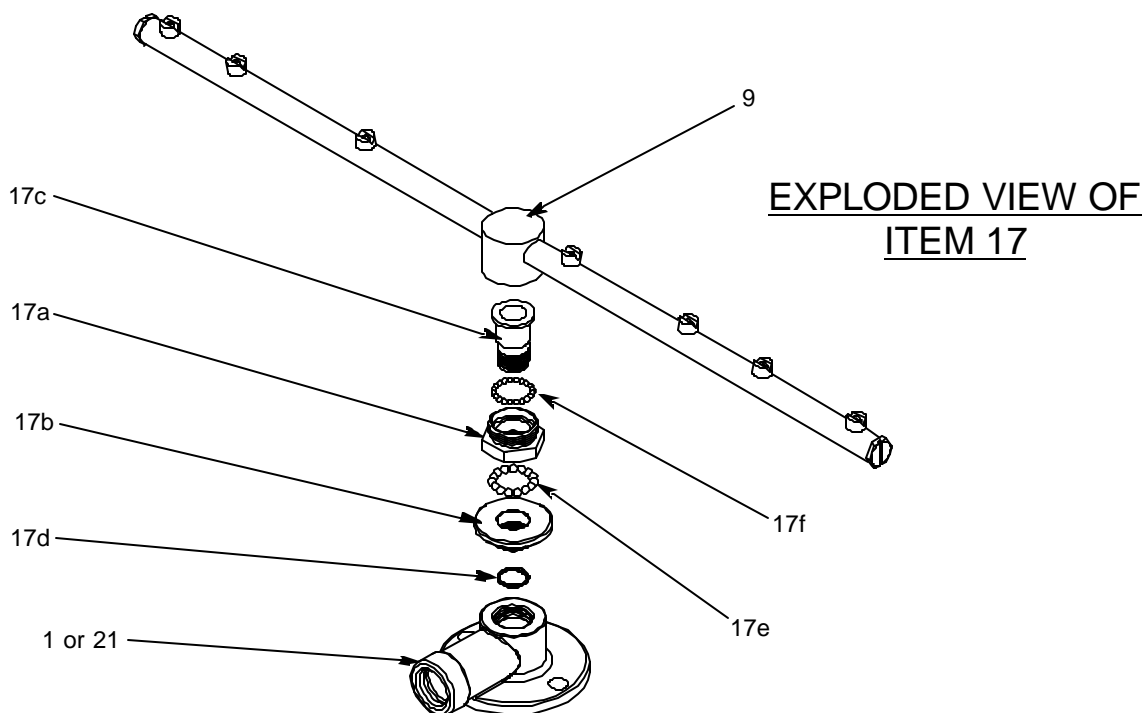


DETAIL "B"  
**WASH ARMS & MANIFOLD**

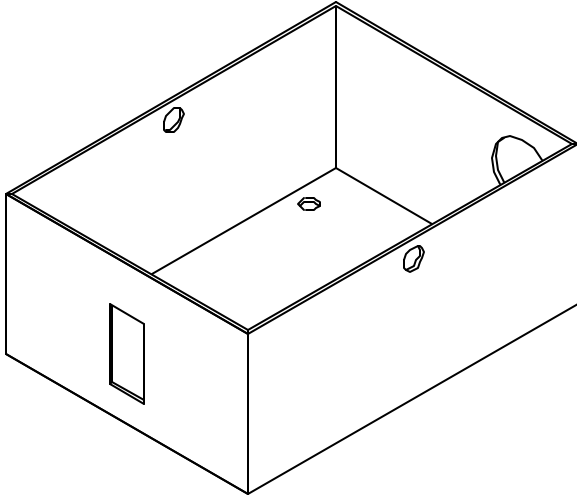
## SECTION 6: PARTS SECTION

### WASH & RINSE ARM/MANIFOLD ASSEMBLIES (CONTINUED)

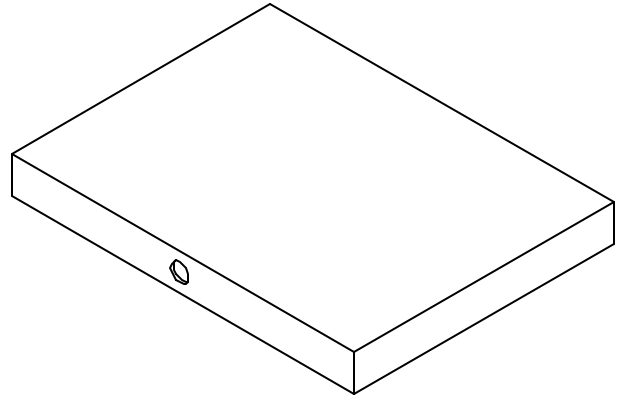
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Upper Manifold	05700-031-34-82
2	4	Nut, 3/8"-16 S/S Hex	05310-276-01-00
3	4	Lockwasher 3/8"	05311-276-01-00
4	4	Bolt, Hex 3/8"-16 x 7/8" Long	05306-011-36-95
5	2	O Ring	05330-111-35-15
6	1	Positioning Bracket, Manifold Tube	05700-011-34-63
7	1	Tube, Wash Manifold	05700-131-15-07
8	2	Gasket, Manifold	05700-111-35-03
9	2	Wash Arm	05700-021-35-93
10	5	Locknut, 1/4"-20 S/S Hex with Nylon Insert	05310-374-01-00
*	2	Rinse Arm Assembly	05700-002-58-09
11	1	Clip, Retaining, Rinse Head Bushing	05340-112-01-11
12	2	Rinse Arm Washer	05330-011-42-10
13	1	Bushing, Rinse Head	05700-021-33-84
14	1	Rinse Arm	05700-031-49-58
15	2	Plug, Rinse Arm, S/S	04730-609-04-00
16	1	Bearing, Rinse	03120-002-72-24
17	2	Bearing Assembly	05700-021-35-97
17a	1	Hub Nut	05700-011-35-94
17b	1	Hub Bushing	05700-011-35-96
17c	1	Hub Spindle	05700-011-35-95
17d	1	Ring, Retainer	05340-011-37-81
17e	15	3/16" Stainless Steel Ball	03120-100-02-00
17f	20	1/8" Stainless Steel Ball	03120-011-37-82
18	1	Rinse Manifold Weldment	05700-021-47-61
19	2	Bolt, Hex 3/8"-16 x 1 1/4" Long	05305-276-10-00
20*	2	O-Ring	05330-002-60-69
21	1	Lower Wash Manifold	05700-031-46-00



**SECTION 6: PARTS SECTION**  
**SAFETY DOOR INTERLOCK (SDI) OPTION**



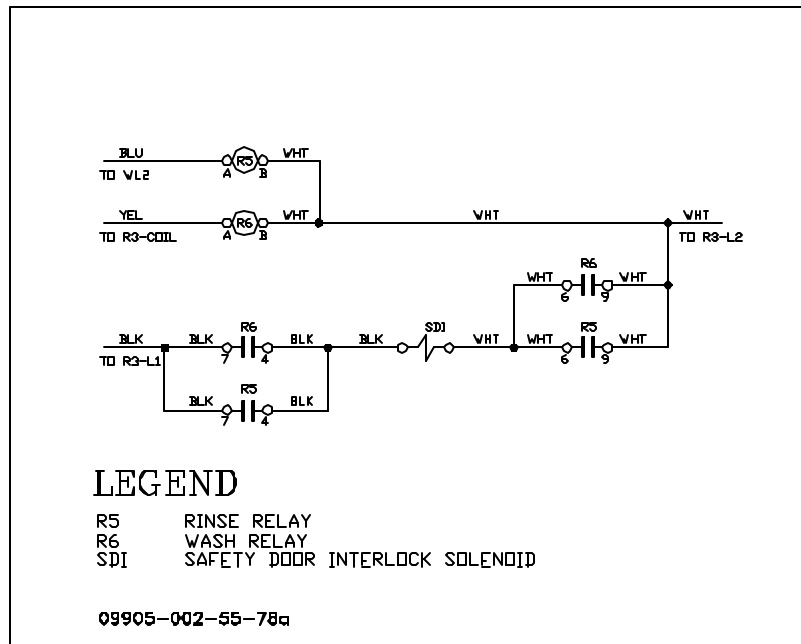
Safety Door Interlock Box Bottom  
 05700-001-21-26



Safety Door Interlock Box Cover  
 05700-001-21-27

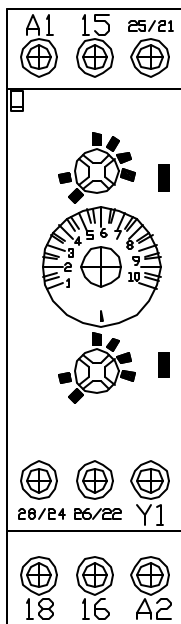
Other Safety Door Interlock (SDI) components (not shown):

- |   |                 |
|---|-----------------|
| Pipe Clamp (found on the side of the machine) | 05700-000-35-05 |
| Solenoid, Electrical Interlock Option         | 04810-100-61-33 |
| Relay   | 05945-111-47-51 |

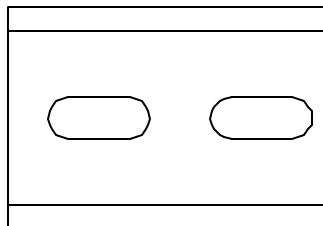


## SECTION 6: PARTS SECTION

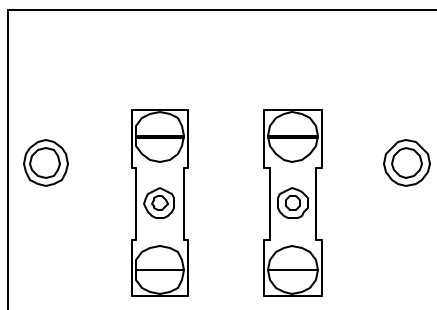
### EXHAUST FAN CONTROL OPTION



Delay Timer  
05945-011-65-44



2" Din Rail  
05700-002-36-09

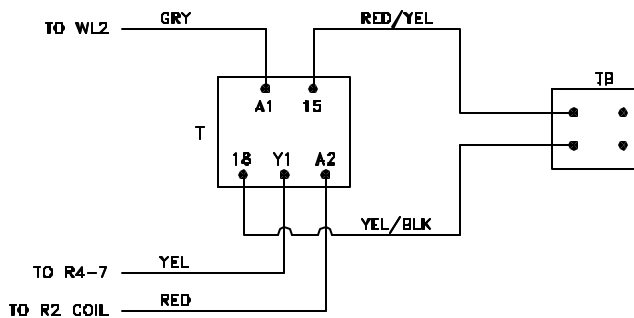


Terminal Board  
05940-011-84-41

## EXHAUST FAN HOOKUP

### LEGEND

T     TIMER  
TB    TERMINAL BOARD



9905-002-54-41 b

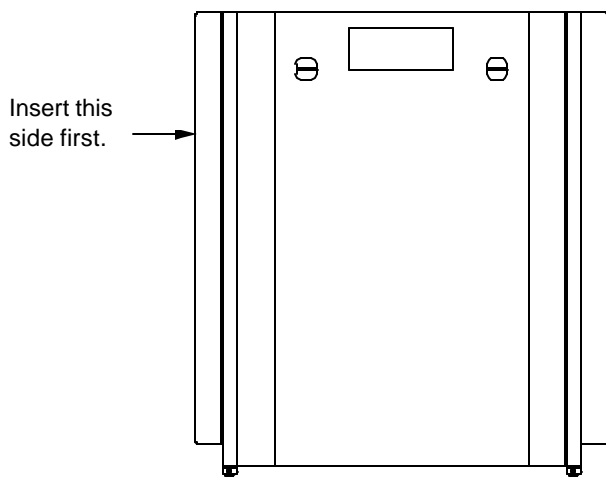
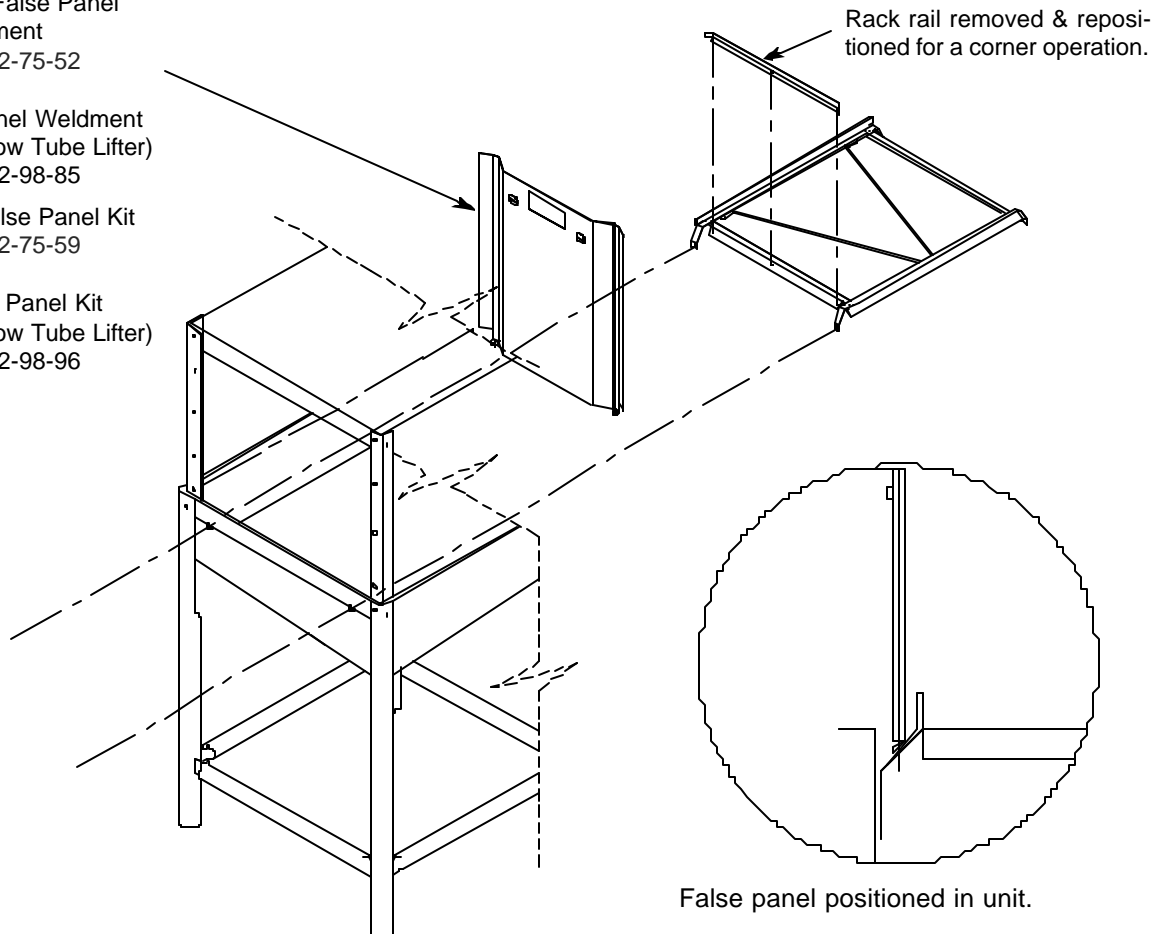
**FALSE PANEL INSTALLATION**

Left & Front False Panel  
Weldment  
05700-002-75-52

Right False Panel Weldment  
(Use with Overflow Tube Lifter)  
05700-002-98-85

Left & Front False Panel Kit  
05700-002-75-59

Right False Panel Kit  
(Use with Overflow Tube Lifter)  
05700-002-98-96

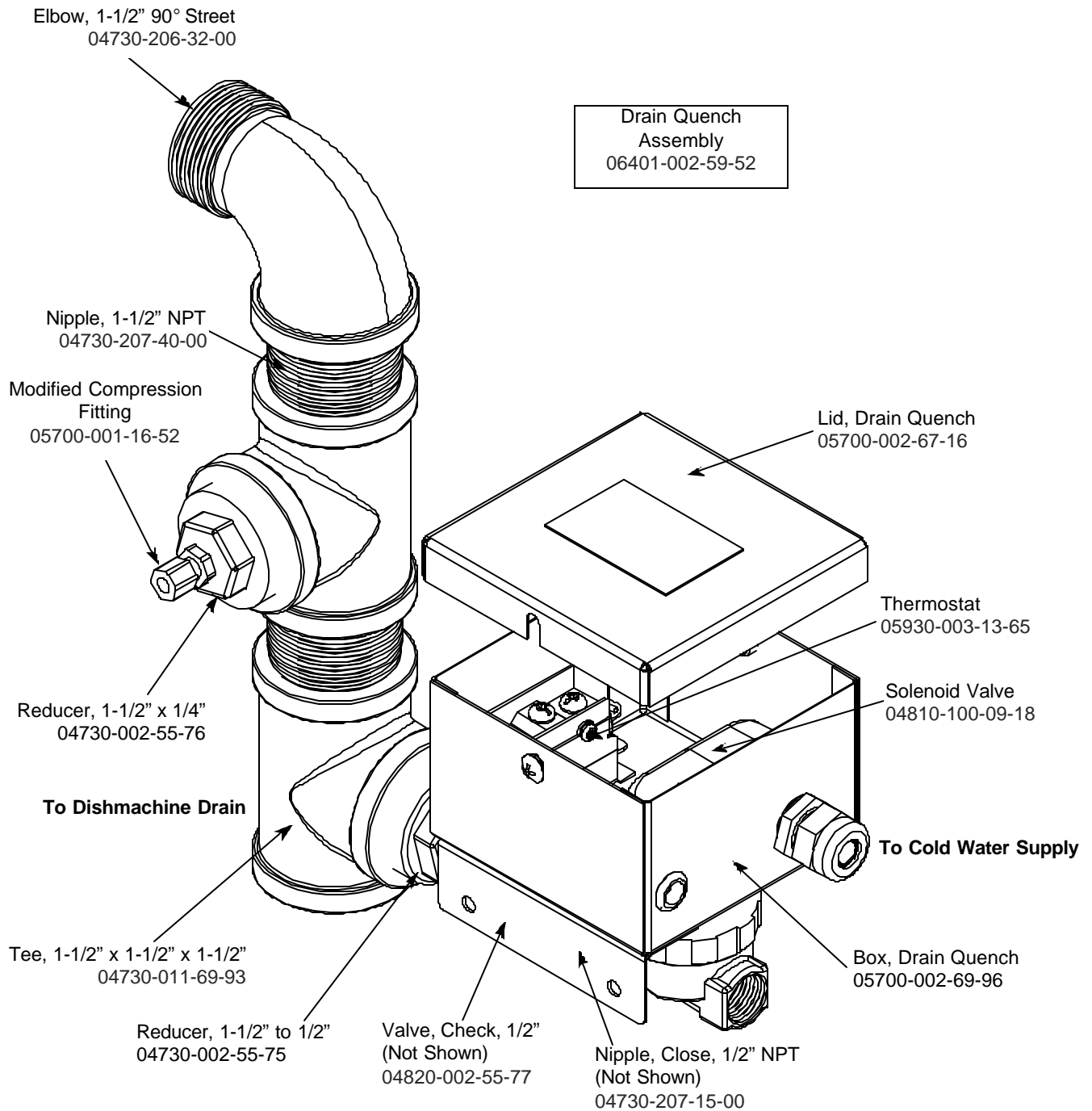


Bottom of side panel.

1. Loosen the rack assembly from the unit.
2. False panel will mount to the rack; inside the dishmachine.
3. Position panel in unit on side to be closed.
4. Hold panel against side of dishmachine and push up.
5. Panel will clip inside the unit under the edge of the hood.
6. Holes in false panel will line up with rack assembly holes.
7. Re-install screws for rack assembly which will secure false panel to unit.
8. Re-assemble the rack track in an "L" shape for a corner operation.

## SECTION 6: PARTS SECTION

### DRAIN QUENCH ASSEMBLY



From the existing drain, attach the two additional Tees using the 1-1/2" NPT Close Nipples. Tighten the Reducers into the Tees as shown above. Attach the Modified Compression Fitting into the 1-1/2" to 1/4" Reducer. Position the bulb of the thermostat so that it rests approximately 1/4" from the bottom of the Tee. Tighten the Modified Compression Fitting as required. Attach to the incoming cold water line. Use pipe dope or thread tape as required to prevent any leaks.

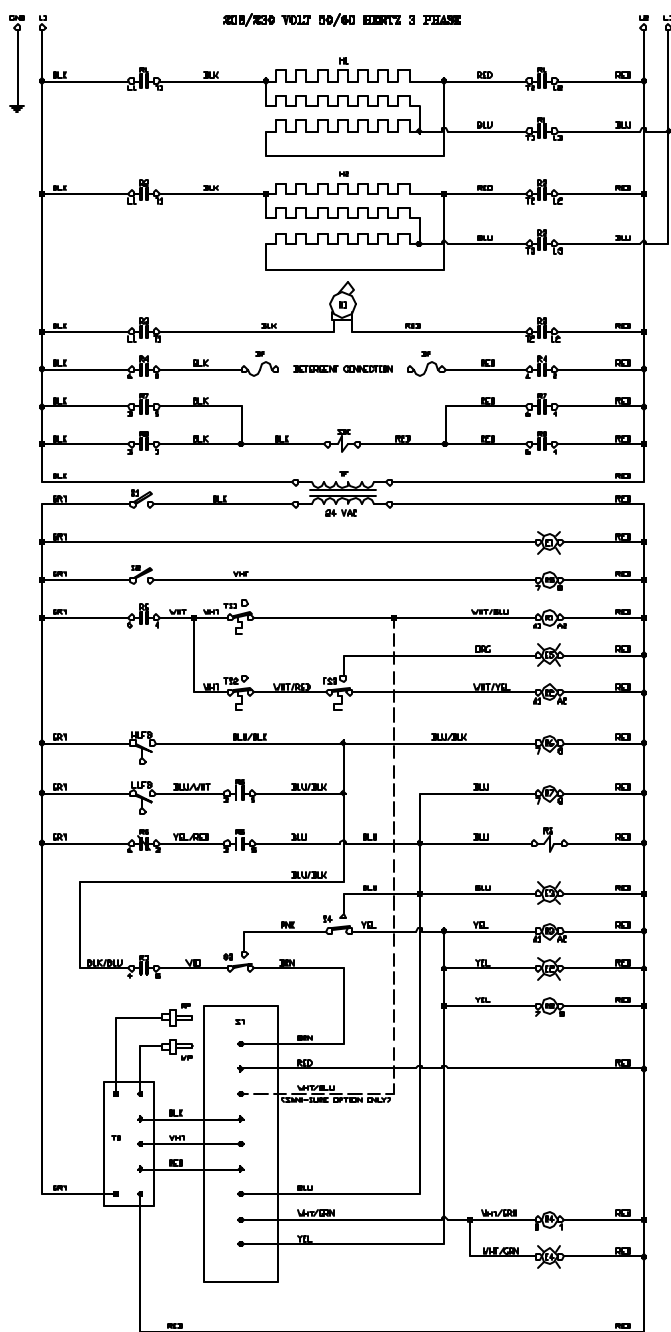
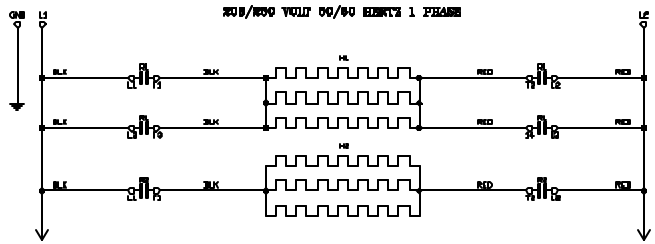


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# **SECTION 7: ELECTRICAL SCHEMATICS**

# SECTION 7: ELECTRICAL SCHEMATICS

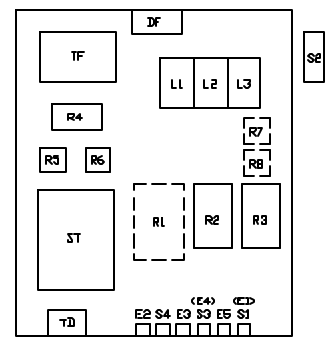
300X/300XN/300XLT 208-230 VOLT - 50/60 HERTZ - SINGLE & THREE PHASE



## LEGEND

- L1 L2 L3 POWER DISTRIBUTION BLOCK
- GND GROUND
- H1 RINSE HEATER (300X ONLY)
- H2 WASH HEATER
- M1 WASH MOTOR
- TF CONTROL TRANSFORMER
- TD TEMPERATURE DISPLAY
- RP RINSE TEMP PROBE (300X ONLY)
- VP WASH TEMP PROBE
- ST SOLID STATE TIMER
- HLF HIGH LEVEL FLOAT SWITCH
- LLF LOW LEVEL FLOAT SWITCH
- R1 RINSE HEATER CONTACTOR (300X ONLY)
- R2 WASH HEATER CONTACTOR
- R3 WASH MOTOR CONTACTOR
- R4 DETERGENT RELAY
- CR CONTROL RELAY
- R6 TANK FILL RELAY
- R7 SDD RELAY 1 (OPTIONAL)
- R8 SDD RELAY 2 (OPTIONAL)
- E1 POWER LIGHT - RED
- E2 WASH LIGHT - AMBER
- E3 RINSE/FILL LIGHT - BLUE
- E4 CYCLE LIGHT - GREEN
- E5 HEATER HI-LOTT LIGHT - CLEAR
- R5 RINSE/FILL SOLENOID
- DF DETERGENT FUSE
- SDD SAFETY DOOR INTERLOCK (OPTIONAL)
- S1 POWER SWITCH
- S2 DOOR SWITCH
- S3 AUTO/MANUAL SWITCH
- S4 MAN. WASH/MAN. RINSE SWITCH
- TS1 RINSE THERMOSTAT (300X ONLY)
- TS2 WASH THERMOSTAT
- TS3 WASH HEATER HI-LOTT THERMOSTAT

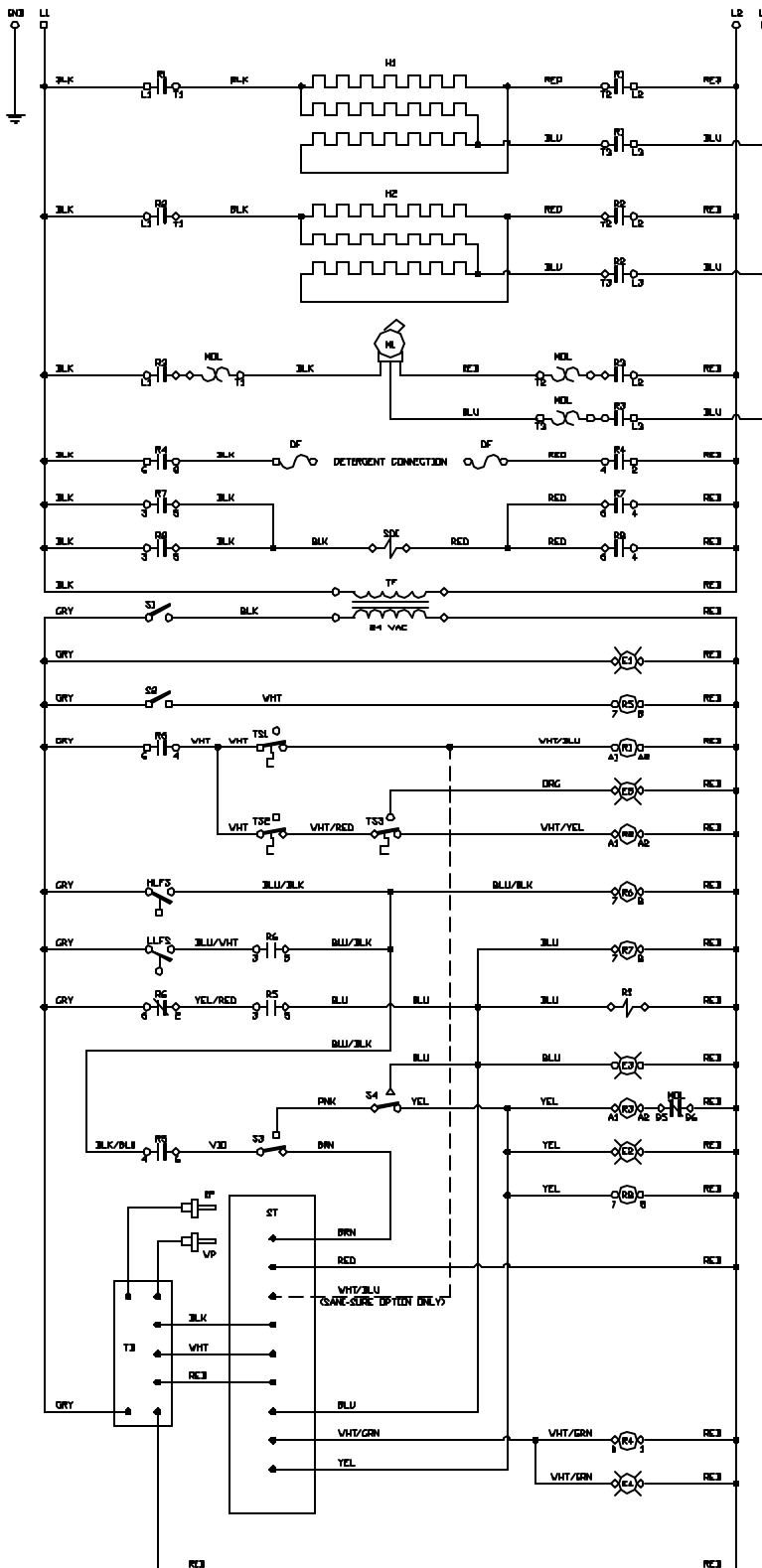
## COMPONENT LAYOUT



9004-100-05-70b

# SECTION 7: ELECTRICAL SCHEMATICS

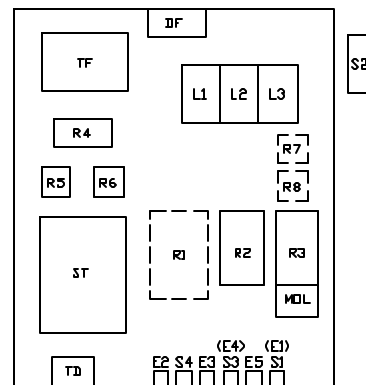
300X/300XN/300XLT 380-440-460 VOLT - 50/60 HERTZ - THREE PHASE



## LEGEND

- L1 L2 L3 POWER DISTRIBUTION BLOCK
- GN0 GROUND
- H1 RINSE HEATER (300X ONLY)
- H2 WASH HEATER
- M1 WASH MOTOR
- TF CONTROL TRANSFORMER
- TD TEMPERATURE DISPLAY
- RP RINSE TEMP PROBE (300X ONLY)
- VP WASH TEMP PROBE
- ST SOLID STATE TIMER
- HLFS HIGH LEVEL FLOAT SWITCH
- LLFS LOW LEVEL FLOAT SWITCH
- R1 RINSE HEATER CONTACTOR (300X ONLY)
- R2 WASH HEATER CONTACTOR
- R3 WASH MOTOR CONTACTOR
- R4 DETERGENT RELAY
- R5 CONTROL RELAY
- R6 TANK FILL RELAY
- R7 SDI RELAY 1 (OPTIONAL)
- R8 SDI RELAY 2 (OPTIONAL)
- E1 POWER LIGHT - RED
- E2 WASH LIGHT - AMBER
- E3 RINSE/FILL LIGHT - BLUE
- E4 CYCLE LIGHT - GREEN
- E5 HEATER HI-LIMIT LIGHT - CLEAR
- RS RINSE/FILL SOLENOID
- DF DETERGENT FUSE
- SDI SAFETY DOOR INTERLOCK (OPTIONAL)
- S1 POWER SWITCH
- S2 DOOR SWITCH
- S3 AUTO/MANUAL SWITCH
- S4 MAN. WASH/MAN. RINSE SWITCH
- TS1 RINSE THERMOSTAT (300X ONLY)
- TS2 WASH THERMOSTAT
- TS3 WASH HEATER HI-LIMIT THERMOSTAT
- MDL WASH MOTOR OVERLOAD

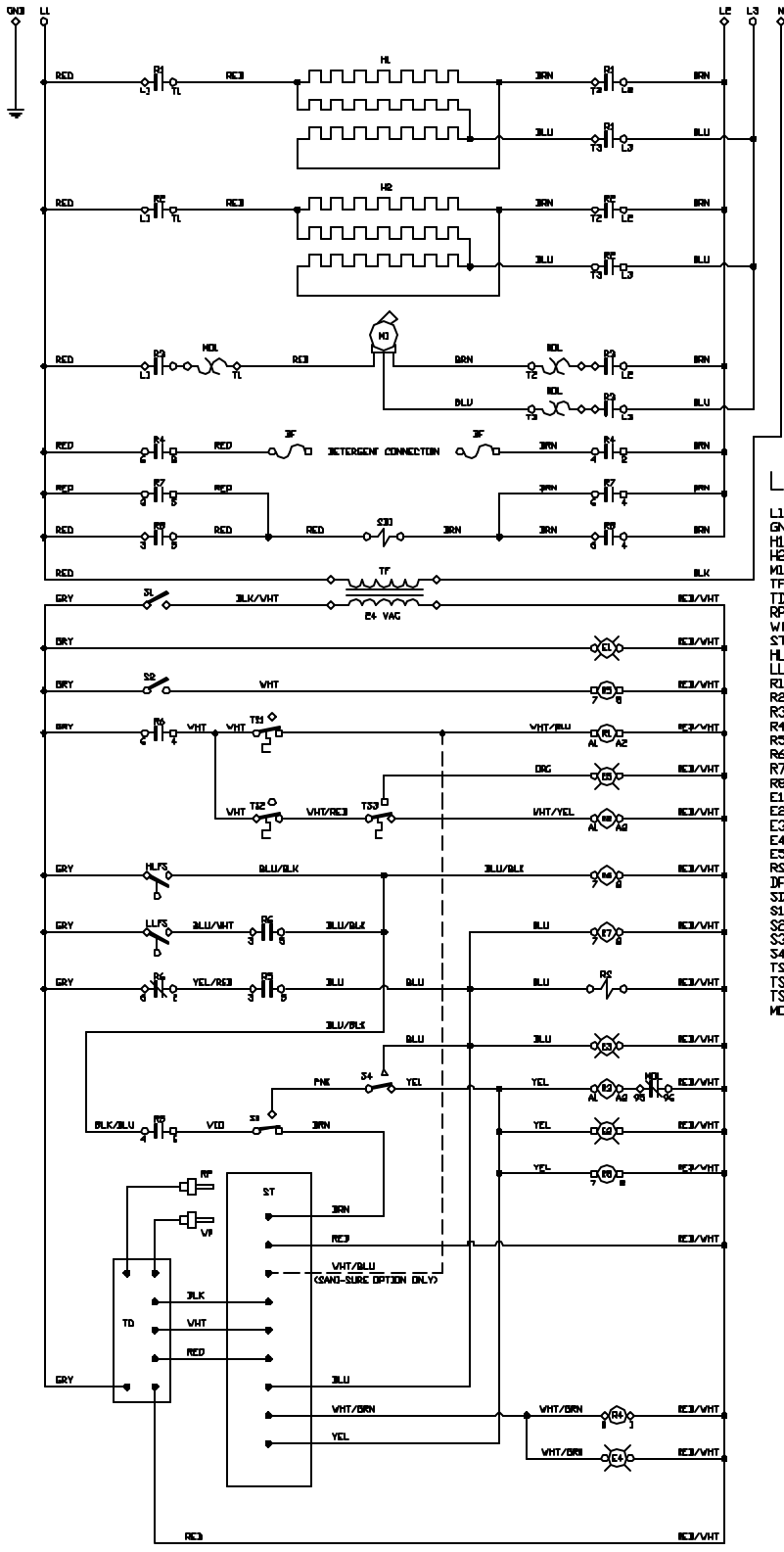
## COMPONENT LAYOUT



7785-002-73-006

# SECTION 7: ELECTRICAL SCHEMATICS

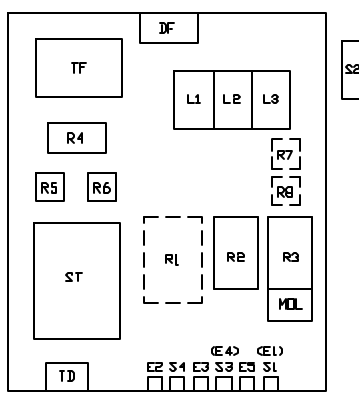
## 300X/300XN/300XLT 415 VOLT - 50/60 HERTZ - THREE PHASE



### LEGEND

- L1 L2 L3 POWER DISTRIBUTION BLOCK
- GND GROUND
- H1 RINSE HEATER (300X ONLY)
- H2 WASH HEATER
- M1 WASH MOTOR
- TF CONTROL TRANSFORMER
- TD TEMPERATURE DISPLAY
- RP RINSE TEMP PROBE (300X ONLY)
- ST WASH TEMP PROBE
- S1 SOLID STATE TIMER
- H1FS HIGH LEVEL FLOAT SWITCH
- L1FS LOW LEVEL FLOAT SWITCH
- R1 RINSE HEATER CONTACTOR (300X ONLY)
- R2 WASH HEATER CONTACTOR
- R3 WASH MOTOR CONTACTOR
- R4 DETERGENT RELAY
- R5 CONTROL RELAY
- R6 TANK FILL RELAY
- R7 SDI RELAY 1 (OPTIONAL)
- R8 SDI RELAY 2 (OPTIONAL)
- E1 POWER LIGHT - RED
- E2 WASH LIGHT - AMBER
- E3 RINSE/FILL LIGHT - BLUE
- E4 CYCLE LIGHT - GREEN
- E5 HEATER HI-LIMIT LIGHT - CLEAR
- RS RINSE/FILL SOLENOID
- IF DETERGENT FUSE
- SDI SAFETY DOOR INTERLOCK (OPTIONAL)
- S1 POWER SWITCH
- S2 DOOR SWITCH
- S3 AUTO/MANUAL SWITCH
- S4 MAIN WASH/MAN. RINSE SWITCH
- T1 RINSE THERMOSTAT (300X ONLY)
- TSP WASH THERMOSTAT
- TS3 WASH HEATER HI-LIMIT THERMOSTAT
- MOL WASH MOTOR OVERLOAD

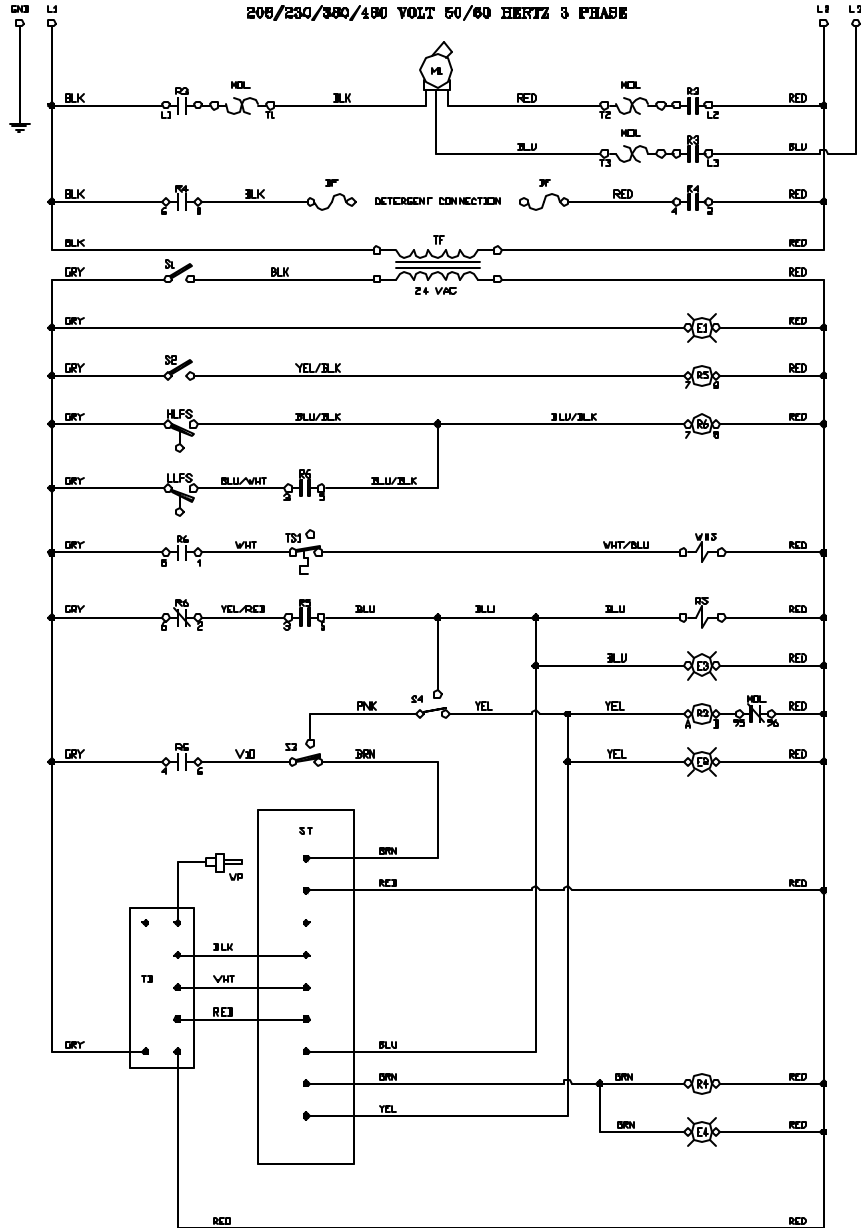
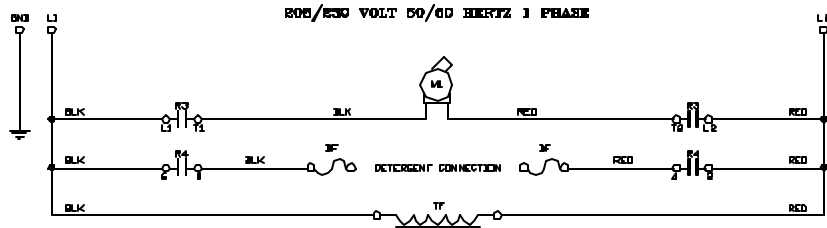
### COMPONENT LAYOUT



DDMS-102-04-05a

# SECTION 7: ELECTRICAL SCHEMATICS

300X/300XN/300XLT 208-230-380-460 VOLT - 50/60 HERTZ - SINGLE & THREE PHASE



## LEGEND

- L1 L2 L3 POWER DISTRIBUTION BLOCK
- GND GROUND
- M1 WASH MOTOR
- TF CONTROL TRANSFORMER
- TD TEMPERATURE DISPLAY
- VP WASH TEMP PROBE
- ST SOLID STATE TIMER
- HLFS HIGH LEVEL FLOAT SWITCH
- LLFS LOW LEVEL FLOAT SWITCH
- R3 WASH MOTOR CONTACTOR
- R4 DETERGENT RELAY
- R5 CONTROL RELAY
- R6 TANK FILL RELAY
- R7 POWER LIGHT - RED
- E1 WASH LIGHT - AMBER
- E2 RINSE/FILL LIGHT - BLUE
- E3 CYCLE LIGHT - GREEN
- E4 WASH HEAT SOLENOID
- VHS WASH HEAT SOLENOID
- RS RINSE/FILL SOLENOID
- IF DETERGENT FUSE
- S1 POWER SWITCH
- S2 DOOR SWITCH
- S3 AUTO/MANUAL SWITCH
- S4 MAN. WASH/MAN. RINSE SWITCH
- TS1 WASH THERMOSTAT
- MOL WASH MOTOR OVERLOAD (3-PH ONLY)

9911-002-65-73