

# TECHNICAL MANUAL

**INSTALLATION MANUAL FOR EXPORT UNITS  
SERVICE MANUAL FOR DOMESTIC UNITS**

**FOR JACKSON MODELS:**

**JP-24**

**JP-24F**

**JP-24B**

**JP-24BF**







---

## NOMENCLATURE FOR THE MODELS COVERED IN THIS MANUAL

---



### JP-24B

JP-24 = Undercounter, high temperature, hot water sanitizing, no booster tank.

JP-24F = Undercounter, high temperature, hot water sanitizing, no booster tank, with top and side panels.

JP-24B = Undercounter, high temperature, hot water sanitizing, with a booster tank.

JP-24BF = Undercounter, high temperature, hot water sanitizing, with a booster tank, with top and side panels.

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

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

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

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

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

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.

---

## TABLE OF CONTENTS

---

<u>SECTION</u>	<u>DESCRIPTION</u>	<u>PAGE</u>
<b>I.</b>	<b>SPECIFICATION INFORMATION</b>	
	Specifications JP-24/JP-24F	2
	Specifications JP-24B/JP-24BF	3
	Dimensions	4
<b>II.</b>	<b>INSTALLATION/OPERATION INSTRUCTIONS</b>	
	Installation Instructions	6
	Electrical Installation Instructions	7
	Operation Instructions	8
	Detergent Control	9
	Cycle Counter Retrofit Kit Instructions	10
<b>III.</b>	<b>PREVENTATIVE MAINTENANCE</b>	
	Preventative Maintenance	12
<b>IV.</b>	<b>TROUBLESHOOTING</b>	14
<b>V.</b>	<b>SERVICE PROCEDURES</b>	
	Rinse Solenoid Valve Repair Parts Kit	17
	Vacuum Breaker Repair Parts Kit	21
	Replacing the Pump Motor /Booster Tank Heater	23
	Replacing the Drain Valve	24
	Rinse Regulating Thermostat Replacement	25
<b>VI.</b>	<b>PARTS SECTION</b>	
	Gauge Panel Assembly	30
	Electrical Panel Assembly (JP-24/F 208-240 Volt, 50/60Hz)	31
	Electrical Panel Assembly (JP-24B/BF 208-240 Volt, 50/60Hz)	32
	Electrical Panel Assembly (JP-24B/BF 460 Volt, 60Hz)	32
	Gauge Panel Assembly (Used with the external mounted control panel assemblies)	34
	Electrical Panel Assembly (External & AMTRAK Option)	34
	Kick Plate Assembly	37
	Incoming Plumbing Assembly (JP-24/JP-24F)	38
	Incoming Plumbing Assemblies(JP-24B/JP-24BF)	39
	Rinse Stiffener/Rinse Hub Weldment	40
	Solenoid Valve Repair Kit/Vacuum Breaker Repair Kit/Water Pressure Regulator Kit (WPRK Option)	41
	Drain Valve Assembly	42
	Drain Plumbing Assembly	43
	Wash Motor to Wash Tub Assembly	44
	Rinse Tank & Components/Wash Heater Kit	45
	Door Assembly	46
	Miscellaneous Door Sub-Assemblies	47
	Rinse Arm & Wash Arm Assemblies	48
	Frame, Shroud, & Panel Components/Miscellaneous Parts	49
	Cycle Counter Retrofit Kit	50
<b>VII.</b>	<b>SCHEMATICS</b>	
	JP-24/JP-24F 208/230 V, 50/60 HZ, single phase	52
	JP-24B/JP-24BF 208/230 V, 50/60 HZ, single phase	53
	JP-24B/JP-24BF 460 V, 60 HZ, three phase	54

---

**SECTION 1:  
SPECIFICATION INFORMATION**

---

## SECTION 1: SPECIFICATION INFORMATION

### SPECIFICATIONS of the JP-24/JP-24F

#### PERFORMANCE/CAPABILITIES

##### OPERATING CAPACITY (RACKS/HOUR)

RACKS PER HOUR	30
DISHES PER HOUR	600
GLASSES PER HOUR	600

##### OPERATING CYCLE (SECONDS)

WASH TIME	82
DRAIN TIME	28
RINSE TIME	10
TOTAL CYCLE TIME (MINUTES)	2

##### 5 MINUTE TIMER OPERATING CYCLE (SECONDS)

WASH TIME	262
DRAIN TIME	28
RINSE TIME	10
TOTAL CYCLE TIME (MINUTES)	5

##### TANK CAPACITY (LITERS) (GALLONS)

WASH TANK	(21.5) 5.65
-----------	-------------

#### TEMPERATURES

WASH --- (MINIMUM)	(65.6°C) 150°F
RINSE --- (MINIMUM)	(82.2°C) 180°F

#### WATER REQUIREMENTS

INLET TEMPERATURE	(82.2°C) 180°F
GALLONS PER HOUR	(198.7L) 52.3
WATER LINE SIZE I.P.S. (Minimum)	(1.27 cm) 1/2"
DRAIN LINE SIZE I.P.S. (Minimum)	(3.81 cm) 1 1/2"
FLOW PRESSURE P.S.I.	20±5
FLOW, GALLONS PER MINUTE	(27L) 7.1

#### ELECTRICAL REQUIREMENTS

WASH MOTOR HP	3/4
---------------	-----

**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.**

##### JP-24/JP-24F:

	<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	900KW	12	15 AMP
	230	1	50	1100KW	12	15 AMP
	208	1	60	900KW	10	15 AMP
	230	1	60	1100KW	10	15 AMP

**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

### SPECIFICATIONS of the JP-24B/JP-24BF

#### PERFORMANCE/CAPABILITIES

##### OPERATING CAPACITY (RACKS/HOUR)

RACKS PER HOUR	30
DISHES PER HOUR	600
GLASSES PER HOUR	600

##### OPERATING CYCLE (SECONDS)

WASH TIME	82
DRAIN TIME	28
RINSE TIME	10
TOTAL CYCLE TIME (MINUTES)	2

##### 5 MINUTE TIMER OPERATING CYCLE (SECONDS)

WASH TIME	262
DRAIN TIME	28
RINSE TIME	10
TOTAL CYCLE TIME (MINUTES)	5

##### TANK CAPACITY (LITERS) (GALLONS)

WASH TANK	(21.5) 5.65
RINSE TANK	(11.4) 3

#### TEMPERATURES

WASH --- (MINIMUM)	(65.6°C) 150°F
RINSE --- (MINIMUM)	(82.2°C) 180°F

#### WATER REQUIREMENTS

INLET TEMPERATURE (40° Booster Heater)	(82.2°C) 140°F
INLET TEMPERATURE (70° Booster Heater)	(43.3°C) 110°F
GALLONS PER HOUR	(198.7L) 52.3
WATER LINE SIZE I.P.S. (Minimum)	(1.27 cm) 1/2"
DRAIN LINE SIZE I.P.S. (Minimum)	(3.81 cm) 1 1/2"
FLOW PRESSURE P.S.I.	20 ± 5
FLOW, GALLONS PER MINUTE	(27L) 7.1

#### ELECTRICAL REQUIREMENTS

WASH MOTOR HP 3/4

**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.**

VOLTS	PH	HZ	RINSE HEATER RATINGS	TOTAL AMPS	TYPICAL ELECTRICAL CIRCUIT
208	1	50	6.7KW	40	50 AMP
230	1	50	8.2KW	43	60 AMP
208	1	50	8.2KW	47	60 AMP
230	1	50	10KW	51	70 AMP
220	1	50	9.15KW	48	60 AMP
208	1	60	6.7KW	39	50 AMP
230	1	60	8.2KW	46	60 AMP
208	1	60	8.2KW	42	60 AMP
230	1	60	10KW	50	70 AMP
460	1	60	480/8.2KW	11	15 AMP
460	1	60	480/9.6KW	14	20 AMP

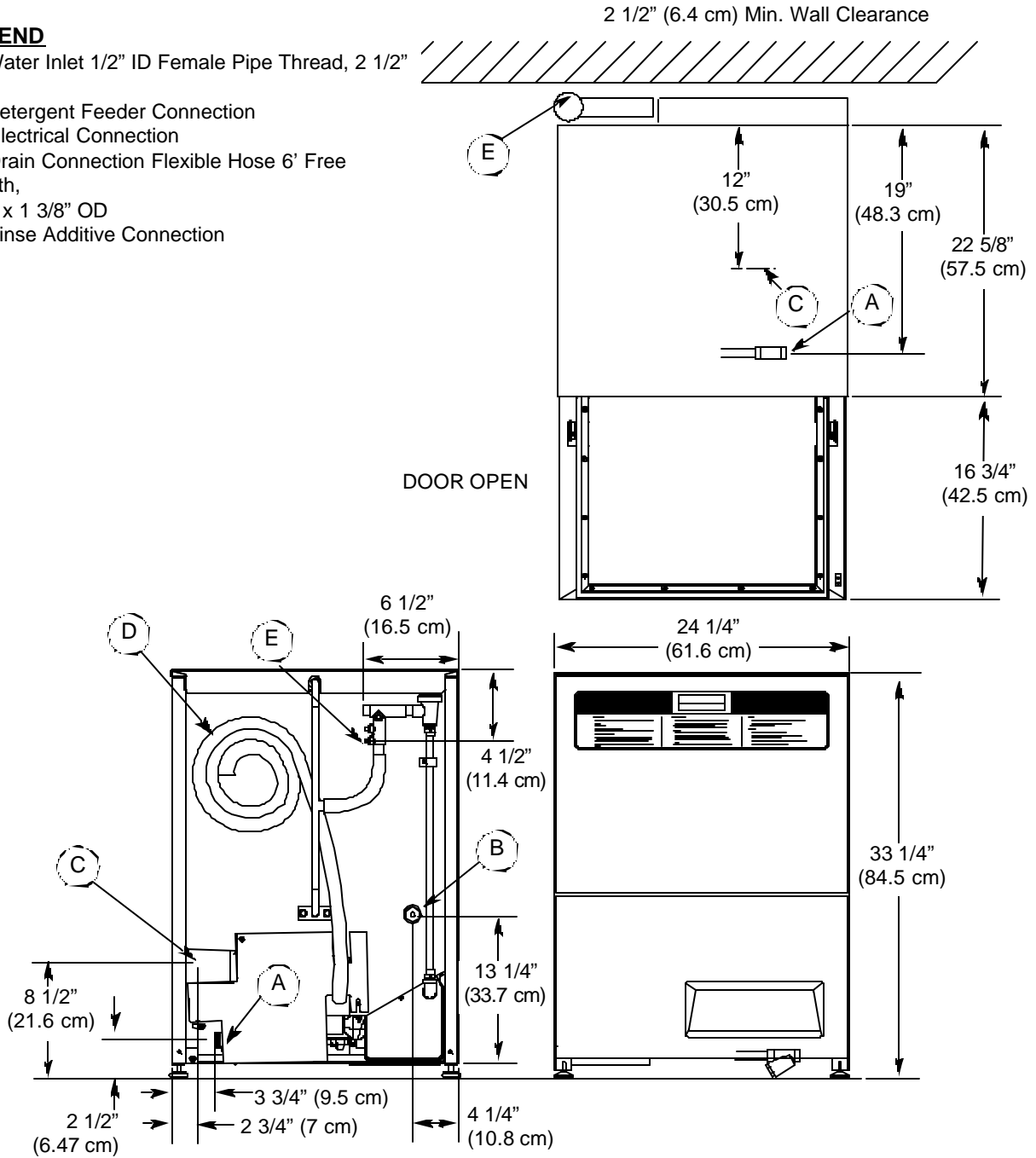
**NOTE: Always refer to the machine data plate for specific electrical and water requirements. The material provided on this page is for reference only and may be subject to change without notice.**

# SECTION 1: SPECIFICATION INFORMATION

## JP-24 DIMENSIONS

### LEGEND

- A - Water Inlet 1/2" ID Female Pipe Thread, 2 1/2" AFF
- B - Detergent Feeder Connection
- C - Electrical Connection
- D - Drain Connection Flexible Hose 6' Free Length, 1" ID x 1 3/8" OD
- E - Rinse Additive Connection



Height (minimum):	33 1/4" (84.5 cm)	Inside Clearance Height:	14 1/2" (36.8 cm)
Height (maximum):	34 1/4" (87 cm)	Inside Clearance Width:	20 1/4" (51.4 cm)
Width:	24" (60.9 cm)	Inside Clearance Depth:	21 1/4" (54 cm)
Depth:	22 5/8" (57.5 cm)	Door Open Depth:	39 1/2" (100.3 cm)
Wall Clearance (minimum):	2 1/2" (6.4 cm)		

\*All dimensions are for reference only and are subject to change without notice.

---

**SECTION 2:  
INSTALLATION/OPERATION  
INSTRUCTIONS**

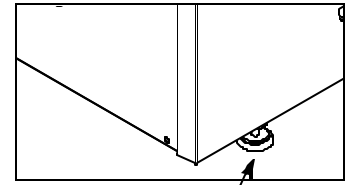
## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### INSTALLATION INSTRUCTIONS

**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.

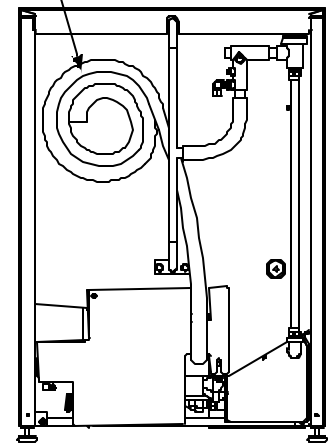


Adjustable Bullet Foot

**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 JP-24 series machines are a pumped (pressure) drain capable of pumping waste water to a height of 24 inches from the floor to the kitchen's drain system. The dishmachines are supplied with a 10 foot long hose that extends from the rear side of the machine. 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 12 gallons (45.6 Liters) per minute.

Drain Hose

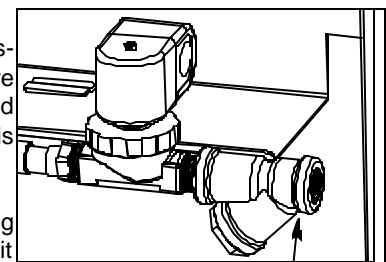


Back of Machine Showing Drain Hose

**WATER SUPPLY CONNECTION:** Ensure that you have read the section entitled "PLUMBING THE DISHMACHINE" above before proceeding. Install the water supply line (1/2" ID pipe size minimum) to the dishmachine line y-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  $20 \pm 5$  PSI "flow" pressure at the recommended temperature indicated on the data plate.

Do to areas where the water pressure fluctuates or is greater than the recommended pressure, it is recommended installing a water pressure regulator. 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.

It is also recommended that a shock absorber (not supplied) 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.



Incoming Plumbing Y-Strainer

**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.

## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### ELECTRICAL INSTALLATION INSTRUCTIONS

**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.

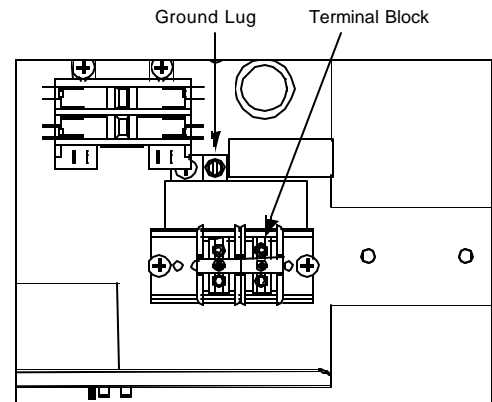
Disconnect electrical power supply and place a tag at the disconnect switch to indicate that you are working on the circuit.

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

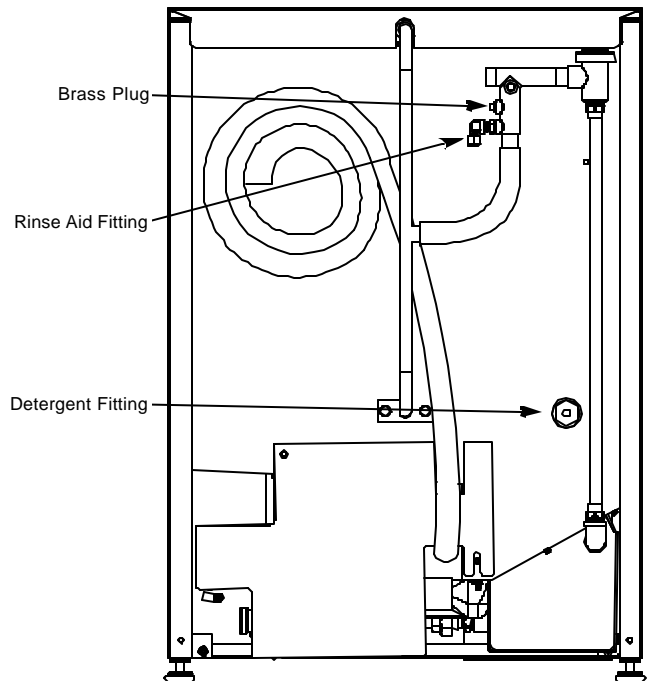
To install the incoming power lines, remove the kick panel. This will require taking a phillips head screwdriver and removing the two screws at the bottom of the kick panel; open the door slightly while carefully lifting the kick panel up and out of the way. Install 3/4" conduit into the pre-punched holes in the back of the control box. Route power wires and connect to power block and grounding lug. Install the service wires (L1 and L2) 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.

**CHEMICAL CONNECTIONS:** All chemical hookup locations are located on the back of the dishmachine. Please refer to the drawing at the right for the correct connection point.



Control Box Electrical Connection



Back of Unit Showing Chemical Connection Points

---

## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### OPERATION INSTRUCTIONS

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

1. The strainer is in place and is clean.
2. 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.

**FILLING THE WASH TUB:** For the initial fill, close the door and depress the ON/FILL-OFF/DRAIN rocker switch in the ON position. The machine will run a partial cycle and fill to the factory preset level. Open the door and verify that the water level is correct. Hereafter, the water level is controlled by the timer that has been preset at the factory. 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.

**NOTE:** This applies to units with integral booster heaters. Make sure the orange wires at the heater contactor are connected properly. They have been purposely disconnected at the factory to avoid damage to the heater element when there is no water in the booster heater.

The machine runs a complete cycle to drain and fill. If the machine is not allowed to drain, the water will build up inside the tub. After the initial fill, the rinse water for the current cycle will become the wash water for the next cycle.

**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 good ideas, 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. Open the door and the cycle light will illuminate.

When the light goes out, close the door, 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 door completely and slide the rack into the unit. Close the door and the unit will start automatically. Once the cycle is completed, open the door and remove the rack of clean ware. Replace with a rack of soiled ware and close the door. The process will then repeat itself.

**OPERATIONAL INSPECTION:** Based upon usage, the pan strainer may become clogged with soil and debris as the workday progresses. Operators should regularly inspect the pan 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 pan strainer at regular intervals or as required by work load.

**SHUTDOWN AND CLEANING:** At the end of the workday, close the door. Start a cycle, then place the ON/FILL - OFF/DRAIN SWITCH to the "OFF/DRAIN" position. The unit will automatically drain and turn off. Once the wash tub is drained, remove the pan 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 strainer and close the door.

---

## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

### 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.

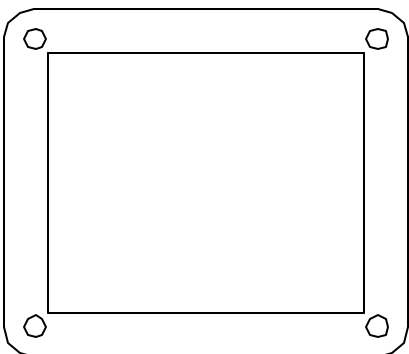
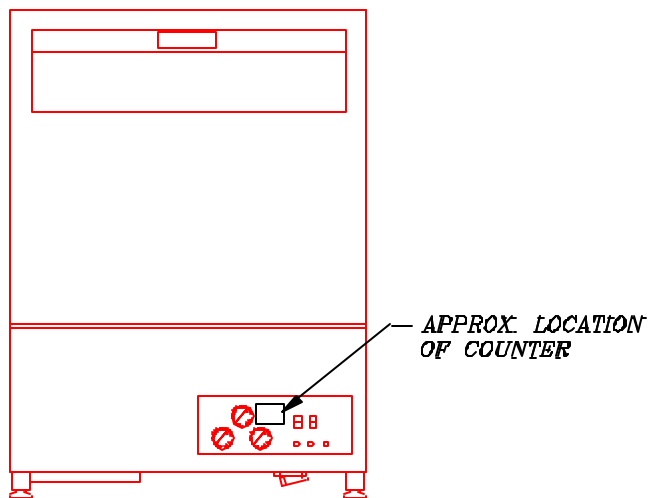
---

## SECTION 2: INSTALLATION/OPERATION INSTRUCTIONS

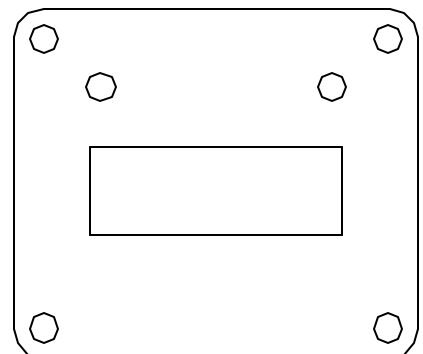
### CYCLE COUNTER RETROFIT KIT INSTRUCTIONS

1. Locate the template on the front of the plastic control panel in the approximate location as shown in the diagram below.
2. Use a 3/32" diameter drill bit to drill the four mounting holes through the plastic control panel.
3. Mount the template to the front of the control panel using the screws and locknuts provided.
4. Using the template as a guide, cut the 1-3/8" x 1-1/8" cutout (the inside of the template) from the plastic control panel. Use a Dremel tool (or similar) or drill multiple holes along the edge of the template in order to cut away the cutout.
5. Remove the template from the control panel.
6. Assemble the counter (with mounting plate) to the control panel using the four screws and locknuts provided.
7. One lead wire from the counter is connected together with the blue wires from the fill solenoid valve and the rinse/fill light (using the existing wire nut that connects these two wires together).
8. The other lead wire from the counter is connected together with the red wires from the fill solenoid valve and the rinse/fill light (using the existing wire nut that connects these two wires together).
9. The counter should increment each time the fill solenoid valve is turned on.

JP-24



Template, Cycle Counter Mount



Cycle Counter Mount

---

## **SECTION 3: PREVENTATIVE MAINTENANCE**

---

## SECTION 3: PREVENTATIVE MAINTENANCE

### PREVENTATIVE MAINTENANCE

---

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.

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 prescrapping 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**.

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.

---

## **SECTION 4: TROUBLESHOOTING**

---

## SECTION 4: TROUBLESHOOTING SECTION

### COMMON PROBLEMS

**WARNING:** Inspection, testing and repair of electrical equipment should be performed only by qualified service personnel. Certain procedures in this section require electrical tests or measurements while power is applied to the machine. **Exercise extreme caution at all times.** If test points are not easily accessible, disconnect power, attach test equipment and reapply power to test. When replacing electrical parts, disconnect power at source circuit breaker.

**Problem: Water overflow from bottom of door.**

1. Clogged drain. Remove obstruction.
2. Machine not level. Level machine, or increase height to the front.
3. Excessive inlet pressure. Install pressure reducing valve, or adjust if one is present. Ensure flow is  $20 \pm 5$  PSI.
4. Detergent foaming. Reduce detergent quantity.

**Problem: Wash motor doesn't operate on manual wash.**

1. Loose or broken wires. Reconnect or replace wires in motor.
2. Defective manual wash switch. Replace.
3. Defective motor starting relay. Replace.

**Problem: Motor operates on manual wash but not on automatic.**

1. Defective timer. Replace timer.
2. Defective circuit in manual wash switch. Replace switch.

**Problem: No water comes through the rinse arms when the "ON/FILL" switch is depressed.**

1. Water not turned on. Turn water on.
2. Defective solenoid valve. Replace solenoid valve.
3. Probes are dirty or coated. Clean probes.
4. Defective water level control. Replace.

**Problem: Little or no water coming through the rinse assemblies.**

1. Limed up rinse heads or piping. Delime rinse heads.
2. Low water pressure. Increase pipe size to machine. Adjust pressure regulator.

**Problem: Rinse water runs continuously with breaker turned off.**

1. Defective plunger in solenoid valve. Replace.
2. Defective diaphragm in solenoid valve. Replace diaphragm.

**Problem: Rinse doesn't operate on automatic during timed cycle (but does operate in auto/fill operation).**

1. Timer defective. Replace timer.

**Problem: Rinse water runs continuously with power applied to machine, but when circuit breaker to machine is turned off, water stops.**

1. Defective water level control. Replace.
2. Probes are dirty or coated. Clean probes.

**Problem: Wash temperature not at required reading on thermometer.**

1. Defective thermometer. Replace.
2. Defective thermostat. Adjust thermostat. Replace thermostat.
3. Rinse heater defective. Replace heater element.
4. Water level protection control device. Replace.

---

## SECTION 4: TROUBLESHOOTING SECTION

### COMMON PROBLEMS

**WARNING:** Inspection, testing and repair of electrical equipment should be performed only by qualified service personnel. Certain procedures in this section require electrical tests or measurements while power is applied to the machine. **Exercise extreme caution at all times.** If test points are not easily accessible, disconnect power, attach test equipment and reapply power to test. When replacing electrical parts, disconnect power at source circuit breaker.

**Problem: Rinse water not at required temperature range.**

1. Thermometer is defective. Replace.
2. Thermostat is defective. Adjust the thermostat. Replace if necessary.

**Problem: Machine doesn't drain when "OFF/DRAIN" switch is pressed.**

1. Drain solenoid clogged. Remove obstruction.
2. Defective "OFF/DRAIN" switch. Replace.
3. Defective motor or motor start relay. Replace.
4. Defective drain solenoid. Replace.
5. Defective timer. Replace.

**Problem: No indication of pressure.**

1. Water turned off. Turn water on.
2. 1/4" test cock ball valve is closed. Open the ball valve.

---

# **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

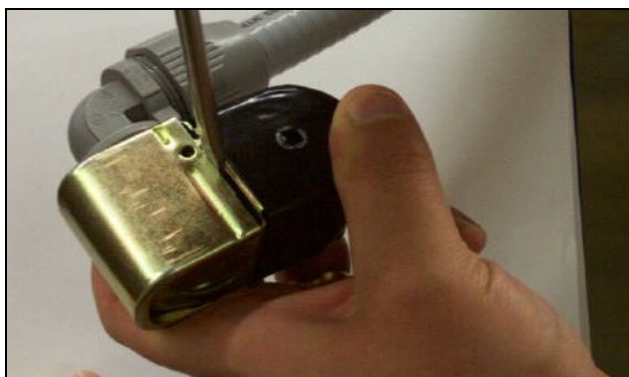
3. **NOTE:** Replacing the solenoid coil requires working with the wiring of your machine. It is important that all wiring maintenance be performed by qualified personnel. Always verify the wiring steps presented in this instruction with the schematic that shipped with the unit. A current schematic can 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.

---

## SECTION 5: SERVICE PROCEDURES

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

---



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.

---

## SECTION 5: SERVICE PROCEDURES

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

---



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.

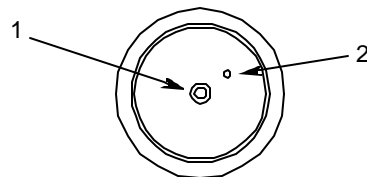
15. Examine the threads for the valve bonnet. Check them for scoring or signs of damage. Take a cloth and clean them out to remove any foreign particles that might get lodged in the threads and cause a leak. Severely damaged threads should not be repaired; instead it is recommended that the entire valve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

---

## SECTION 5: SERVICE PROCEDURES

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

---



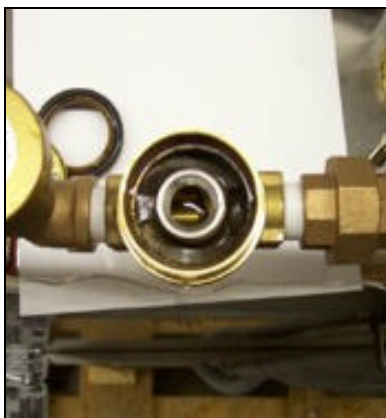
Removing the screen retainer

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)

---

## 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.

---

## SECTION 5: SERVICE PROCEDURES

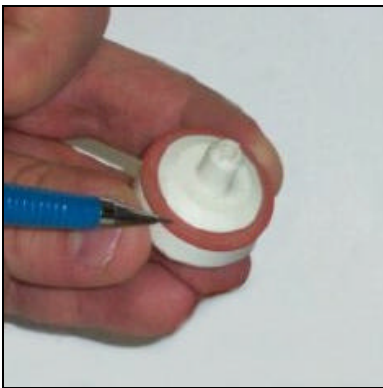
### VACUUM BREAKER REPAIR PARTS KIT (CONTINUED)

---



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

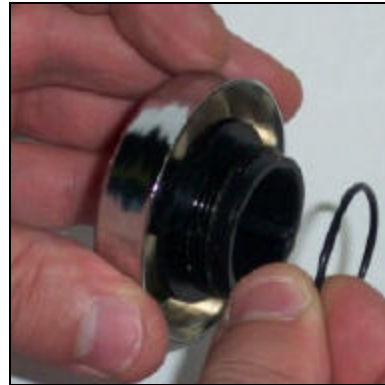


Examining the plunger seating surface

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")

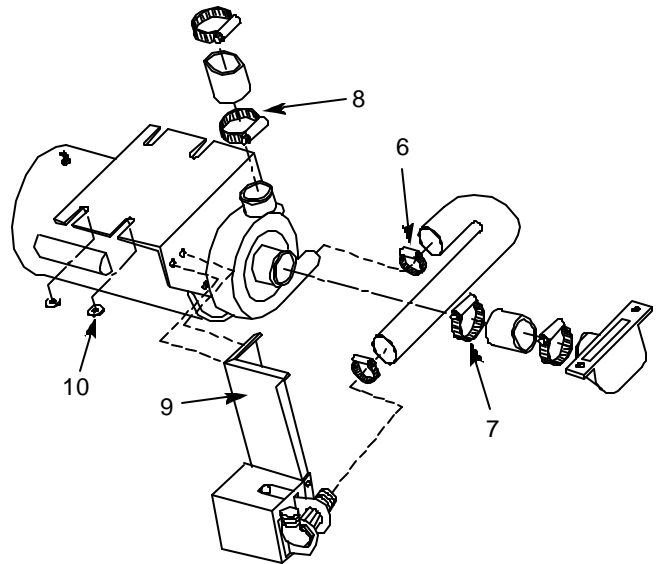
## SECTION 5: SERVICE PROCEDURES

### REPLACING THE PUMP MOTOR/REPLACING THE HEATER

#### REPLACING THE PUMP MOTOR

The following list of tools will be needed to complete this procedure. 5/16" nutdriver, phillips screwdriver, 7/16" socket and ratchet, and 7/16" wrench.

1. Disconnect the electrical power to the dishwasher at the main circuit breaker box when servicing. Place a tag on the circuit box indicating the circuit is being repaired.
2. Disconnect power and conduit from dishmachine terminal block.
3. Turn off the water supply and disconnect the water supply line.
4. Disconnect the dishmachine drain hose from the kitchen's drain. Drain the machine of any water at this time.
5. Move the machine out and lay machine onto its back.
6. Use a 5/16" nutdriver to loosen the hose clamp and remove the pump hose to the drain valve.
7. Use a 5/16" nutdriver to loosen the hose clamp and remove the pump hose from the suction casting.
8. Use a 5/16" nutdriver to loosen the hose clamp and remove the pump hose from the discharge hub casting.
9. Use a 7/16" socket and ratchet, and a 7/16" wrench to remove the drain valve mounting bracket from the motor bracket.
10. Use a 7/16" socket and ratchet to remove the pump motor assembly by loosening the (4) locknuts securing the motor mounting bracket. NOTE: The motor mounting bracket is slotted to allow for easy removal and installation. Remove (2) of the locknuts on one side and slide the assembly toward that side and remove. Once the assembly is removed, disconnect the wire leads from the motor wiring box.
11. Install replacement motor in reverse order of above.

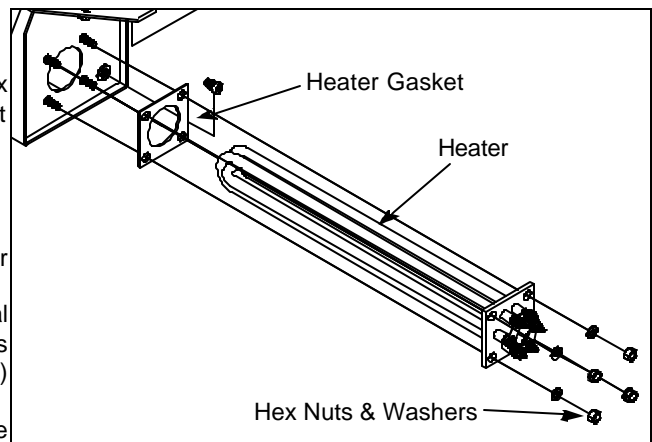


Replacing the Pump Motor

#### REPLACING THE BOOSTER TANK HEATER

The following list of tools will be needed to complete this procedure: phillips screwdriver and 1/2" socket and ratchet.

1. Disconnect the electrical power to the dishwasher at the main circuit breaker box when servicing. Place a tag on the circuit box indicating the circuit is being repaired.
2. Use the phillips screwdriver to remove the two screws from the bottom of the kick panel.
3. Disconnect power and conduit from dishmachine terminal block.
4. Turn off the water supply to the dishmachine.
5. **VERY IMPORTANT:** Disconnect wire lead (orange/white) from heater contactor coil. Note: Wire is tagged in electrical panel.
6. Drain water from booster tank.
7. Remove the wires from the heater.
8. Use a 1/2" socket and ratchet to remove the (4) 5/16-18 hex nuts and lock washers. Remove the heater and heater gasket from booster tank.
8. Install the replacement heater and gasket, the tighten firmly.
9. Connect wire leads to heater and tighten firmly.
10. Turn on water supply and power to dishmachine.
11. Place cycle switch in AUTO position and depress power switch to ON/FILL position.
12. **VERY IMPORTANT:** Run the dishmachine through several complete cycles and check water level in wash sump. If there is water in the wash sump, reconnect the wire lead (orange/white) previously removed from the heater contactor coil.
13. Run the dishwasher through several cycles and check to see that rinse and wash temperatures are correct.



Replacing the Heater

---

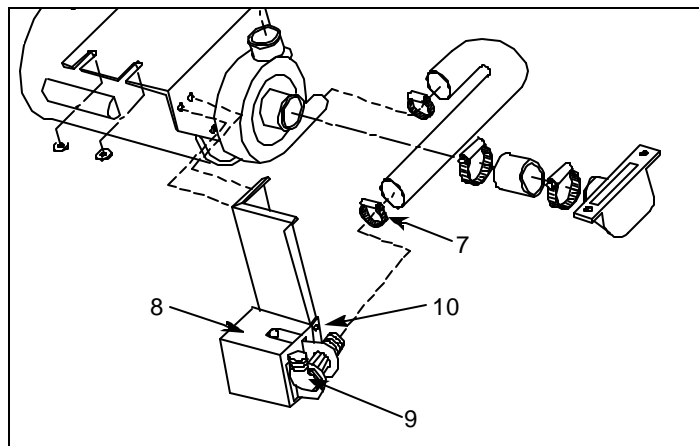
## SECTION 5: SERVICE PROCEDURES

### REPLACING THE DRAIN VALVE

#### REPLACING THE DRAIN VALVE

The following list of tools will be needed to complete this procedure. 5/16" nutdriver, flat screwdriver, phillips screwdriver, and 7/16" socket and ratchet.

1. Disconnect the electrical power to the dishwasher at the main circuit breaker box when servicing. Place a tag on the circuit box indicating the circuit is being repaired.
2. Disconnect the power and conduit from dishmachine terminal block.
3. Turn off the water supply to the dishmachine.
4. Move the dishmachine away from the wall for servicing.
5. Use a 7/16" socket and ratchet to remove the lower enclosure panel at rear of machine.
6. Drain the dishmachine. Siphon out the water or remove inlet hose to drain valve and drain into pan. The dishmachine may be drained by opening the petcock on the pump housing or by removing the wash thermometer bulb from the lower wash tank.
7. Use a 5/16" nutdriver to loosen the hose clamp and remove the inlet hose to the drain valve from the pump motor.
8. Use a phillips screwdriver to remove the cover from the valve. Use a flat screwdriver to disconnect the lead wires and ground to the drain valve.
9. Use a 5/16" nutdriver to loosen the hose clamp and remove the discharge hose from the drain valve.
10. Use a phillips screwdriver to remove the screws attaching the drain valve to the mounting plate.
11. Reverse the procedures to install the new valve. **INSURE GROUND WIRE LEAD IS CONNECTED PROPERLY TO TERMINAL ON THE MOTOR.**



Replacing the Drain Valve

---

## SECTION 5: SERVICE PROCEDURES

### RINSE REGULATING THERMOSTAT REPLACEMENT

---

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.

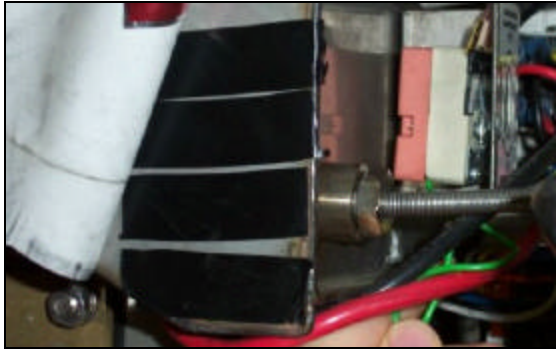
4. Remove the thermostat bracket mounting nuts with the 7/16" nutdriver.

---

## SECTION 5: SERVICE PROCEDURES

### RINSE REGULATING THERMOSTAT REPLACEMENT

---

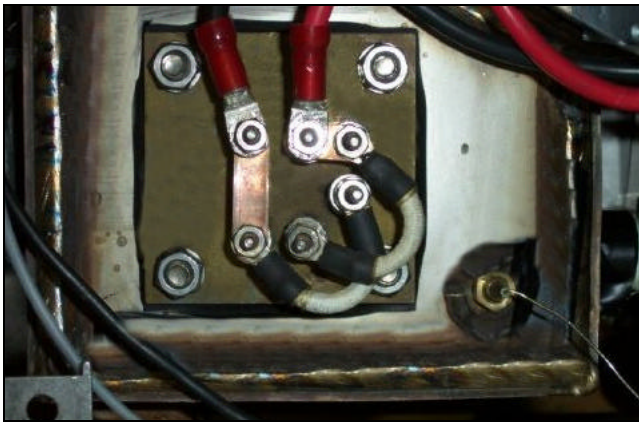


Location of the thermostat bracket (JP-24).

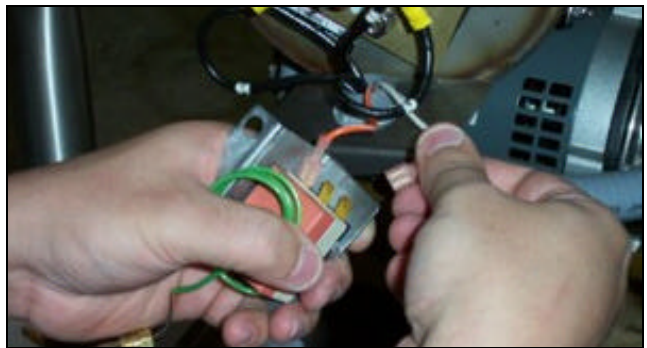


Pulling the thermostat probe and fitting from the well (Tempstar).

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



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

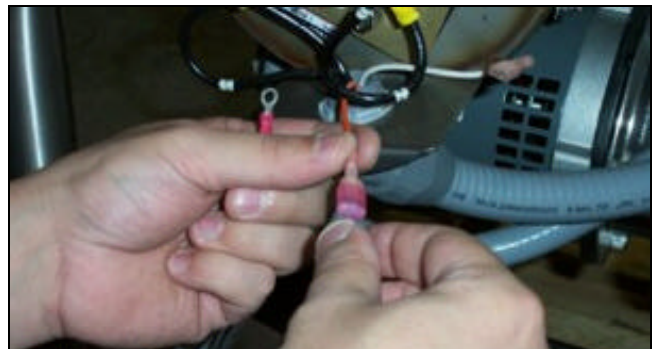


Removing the wires from the thermostat.

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.

---

## SECTION 5: SERVICE PROCEDURES

### RINSE REGULATING THERMOSTAT REPLACEMENT

---



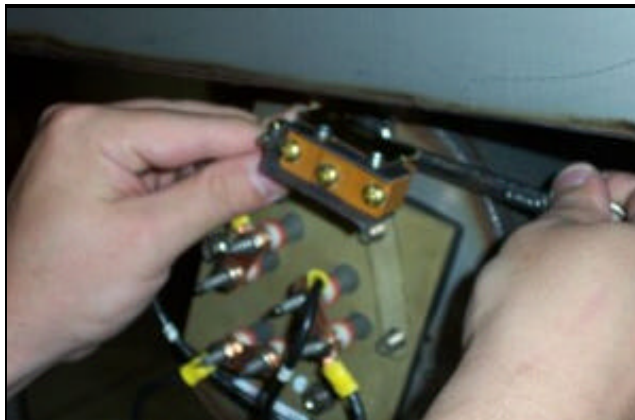
Sliding imperial fitting onto new thermostat.

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



Putting the new thermostat in the well (Tempstar).

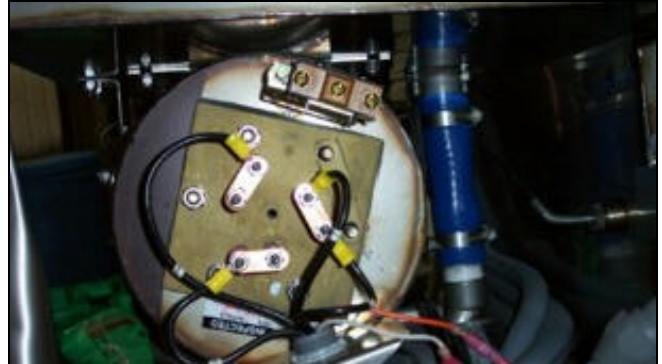
7. Insert the new thermostat/brass fitting combination into the well and tighten down the brass fitting by hand.



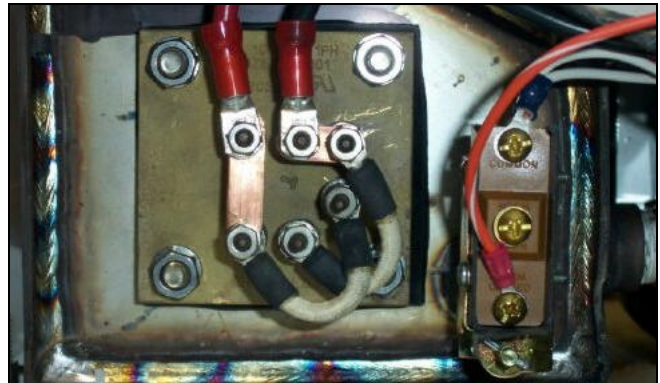
Tightening the brass fitting (Tempstar).

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.

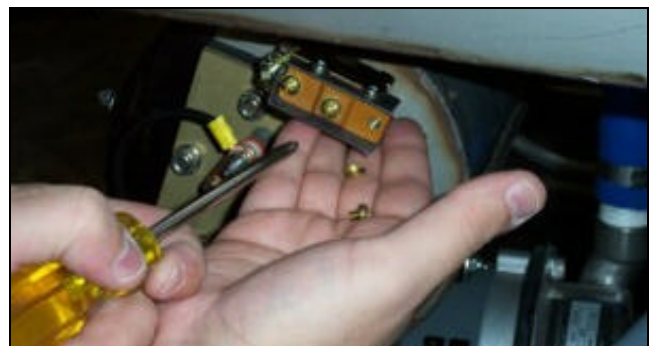
9. Note: regardless of the unit this is being done to, the concept is to ensure that the thermostat cannot come into contact with the heater leads or interfere with the placement of any covers.



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.

---

## SECTION 5: SERVICE PROCEDURES

### RINSE REGULATING THERMOSTAT REPLACEMENT

---



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.

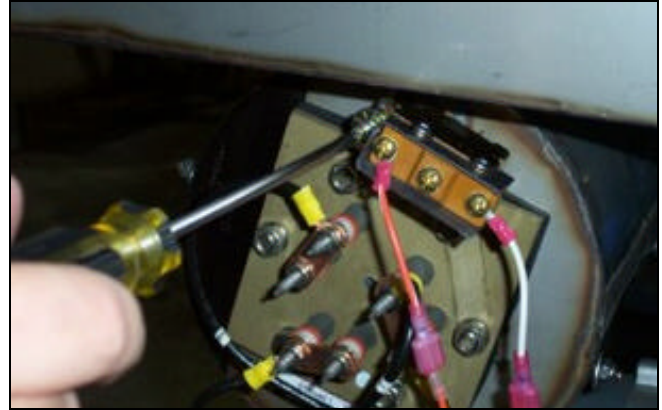
12. Once both wires are attached, ensure that there is no excess hanging out where it could become pinched by any cover or such.

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\\*](#)

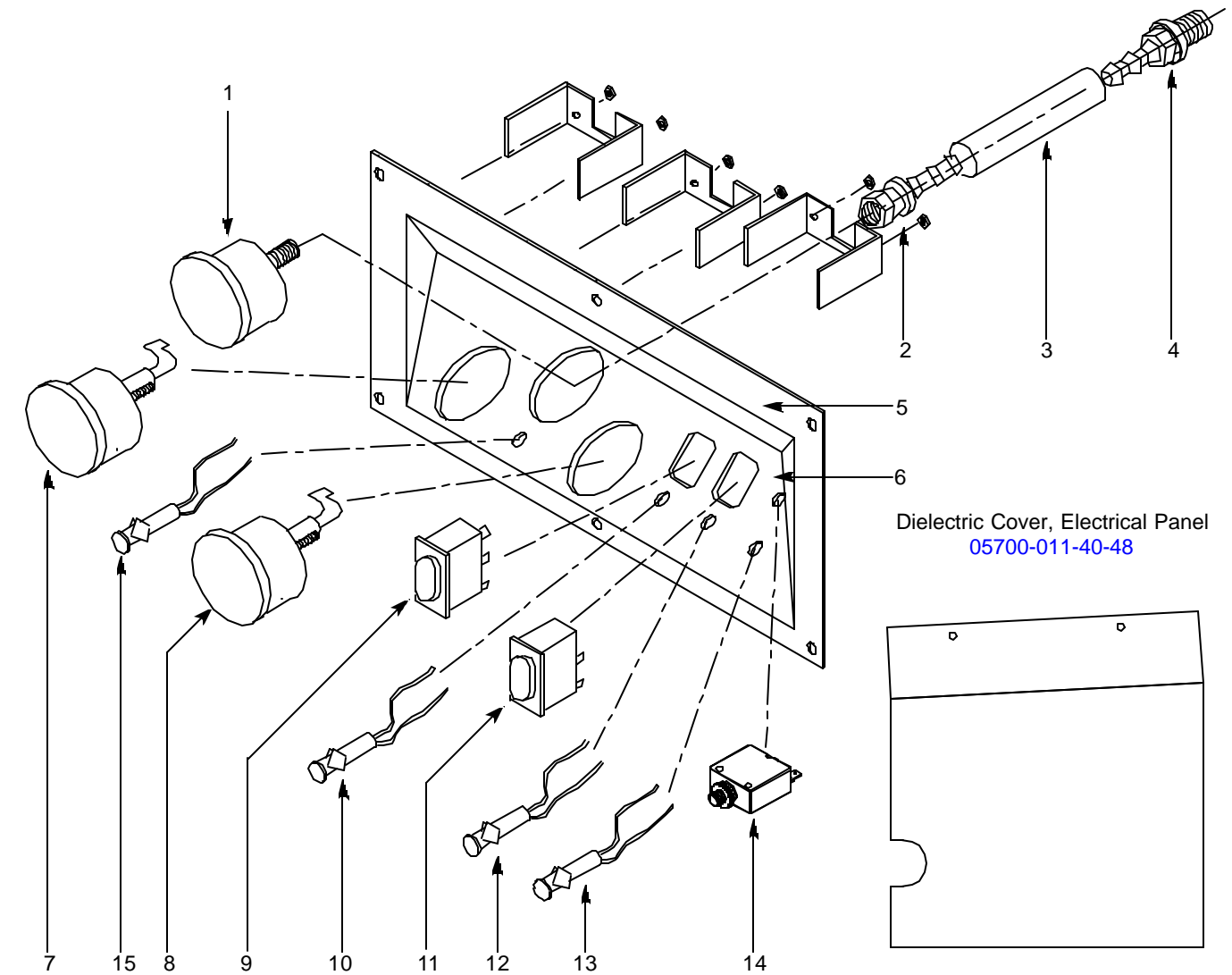
\*The kit contains a thermostat, imperial brass fitting, jumper wires and instructions.

---

# **SECTION 6: PARTS SECTION**

## SECTION 6: PARTS SECTION

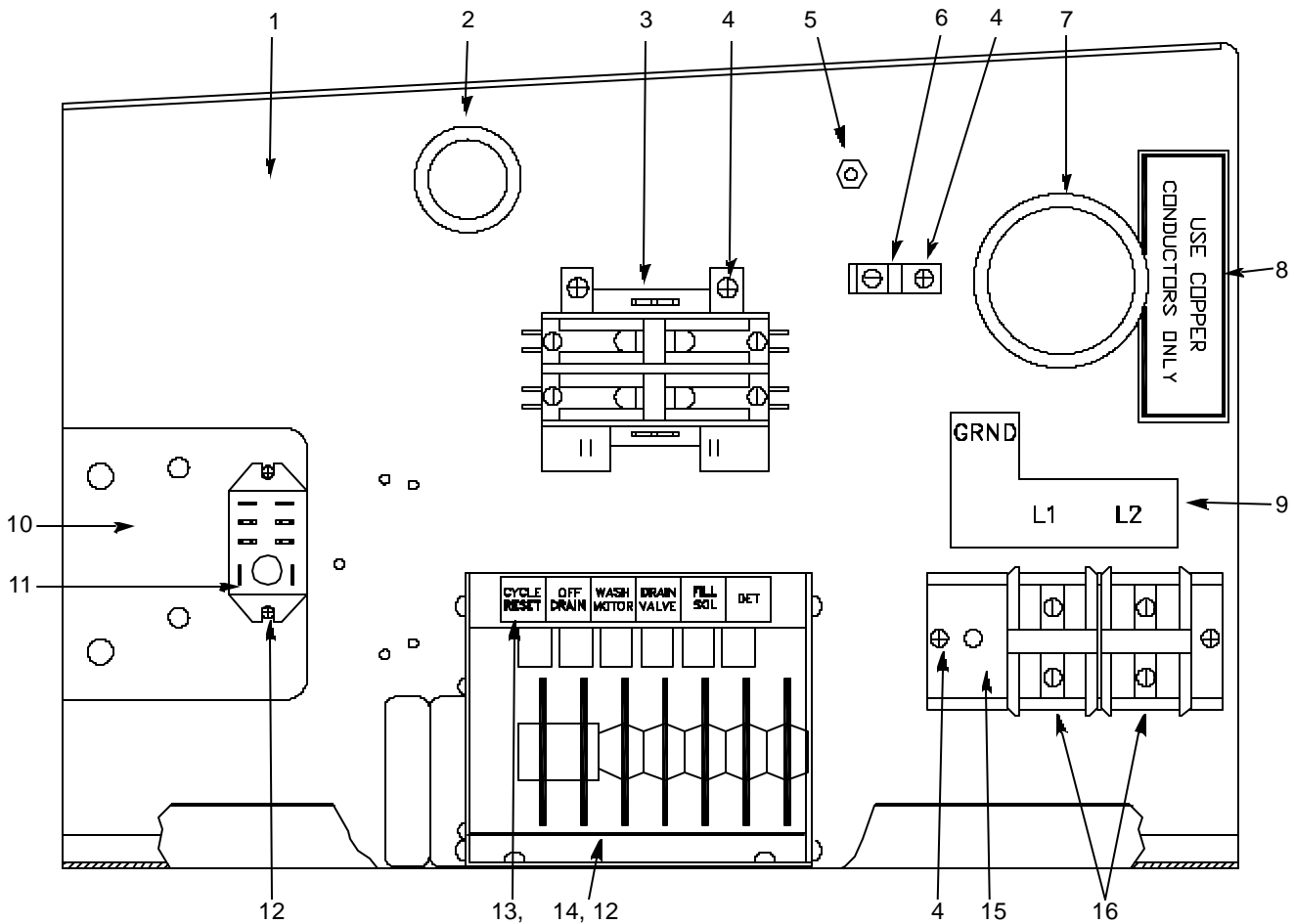
### GAUGE PANEL ASSEMBLY



Dielectric Cover, Electrical Panel  
05700-011-40-48

ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Gauge, 0-100 PSI w/Green Zone	06680-011-86-42
2	1	Fitting, 1/4" BARB x 1/4" FNPT Swivel	04730-011-95-42
3	1	Hose, 5/16" x 12"	05700-011-86-45
4	1	Fitting, 1/4" BARB x 1/4" MNPT Swivel	04730-011-95-41
5	1	Control Panel (208-240 Volt)	09330-041-41-94
5	1	Control Panel (460 Volt)	09330-041-85-00
6	1	Decal, Control Panel	09905-031-40-55
7	1	Thermometer, 96" Wash	06685-111-68-49
8	1	Thermometer, 48" Rinse	06685-111-68-48
9	1	Switch, ON/FILL & OFF/DRAIN	05930-301-49-55
10	1	Light, Red	05945-111-44-45
11	1	Switch, Delime	05930-011-49-00
12	1	Light, Amber	05945-111-44-44
13	1	Light, Green	05945-111-44-43
14	1	Breaker, 2A Circuit (460 Volt unit only)	05925-111-64-18
15	1	Light, Red (460 Volt unit only)	05945-111-44-45

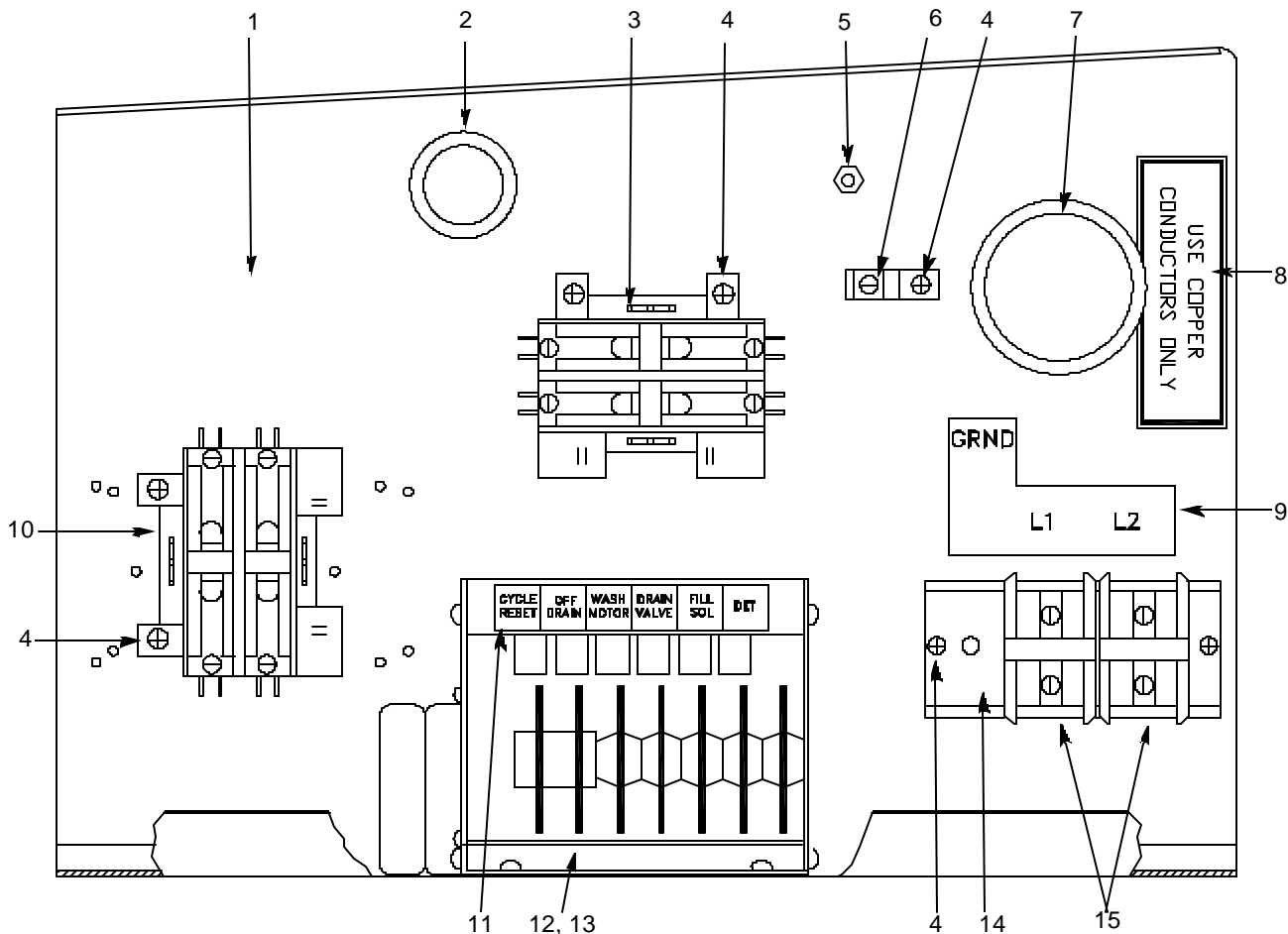
**SECTION 6: PARTS SECTION**  
**ELECTRICAL PANEL ASSEMBLY (JP-24/F 208-240 VOLT)**



ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Electrical Control Panel Weldment	05700-011-41-79
2	1	Bushing, Snap	05975-210-03-00
3	1	Contactora, Motor	05945-002-74-20
4	8	Screw, 10-32 x 3/8" Phillips Truss Round Head	05305-173-12-00
5	1	Locknut, 10-24 S/S Hex with Nylon Insert	05310-373-01-00
6	1	Wire Lug	05940-200-76-00
7	1	Grommet, 1 1/8" Heyco	05975-210-08-00
8	1	Decal, Copper Conductors	09905-011-47-35
9	1	Decal, Ground, L1, L2	09905-101-40-82
10	1	Bracket, Relay Mounting	05700-002-37-85
11	1	Relay, 220-240 Volt	05945-111-89-75
12	4	Screw, 6-32 x 3/8" Sems with External Tooth Lockwasher	05305-002-25-91
13	1	Decal, Timer	09905-011-40-70
14	1	Timer, 60 HZ	05945-121-41-60
14	1	Timer, 50 HZ	05945-002-13-34
14	1	Timer, 5 Minute	05945-121-44-89
15	1	Track, Terminal 3 5/16"	05700-000-43-60
16	2	Block, Snap-in Terminal	05940-500-02-19
17	4	Locknut, 1/4"-20 S/S Hex with Nylon Insert (not shown)	05310-374-01-00

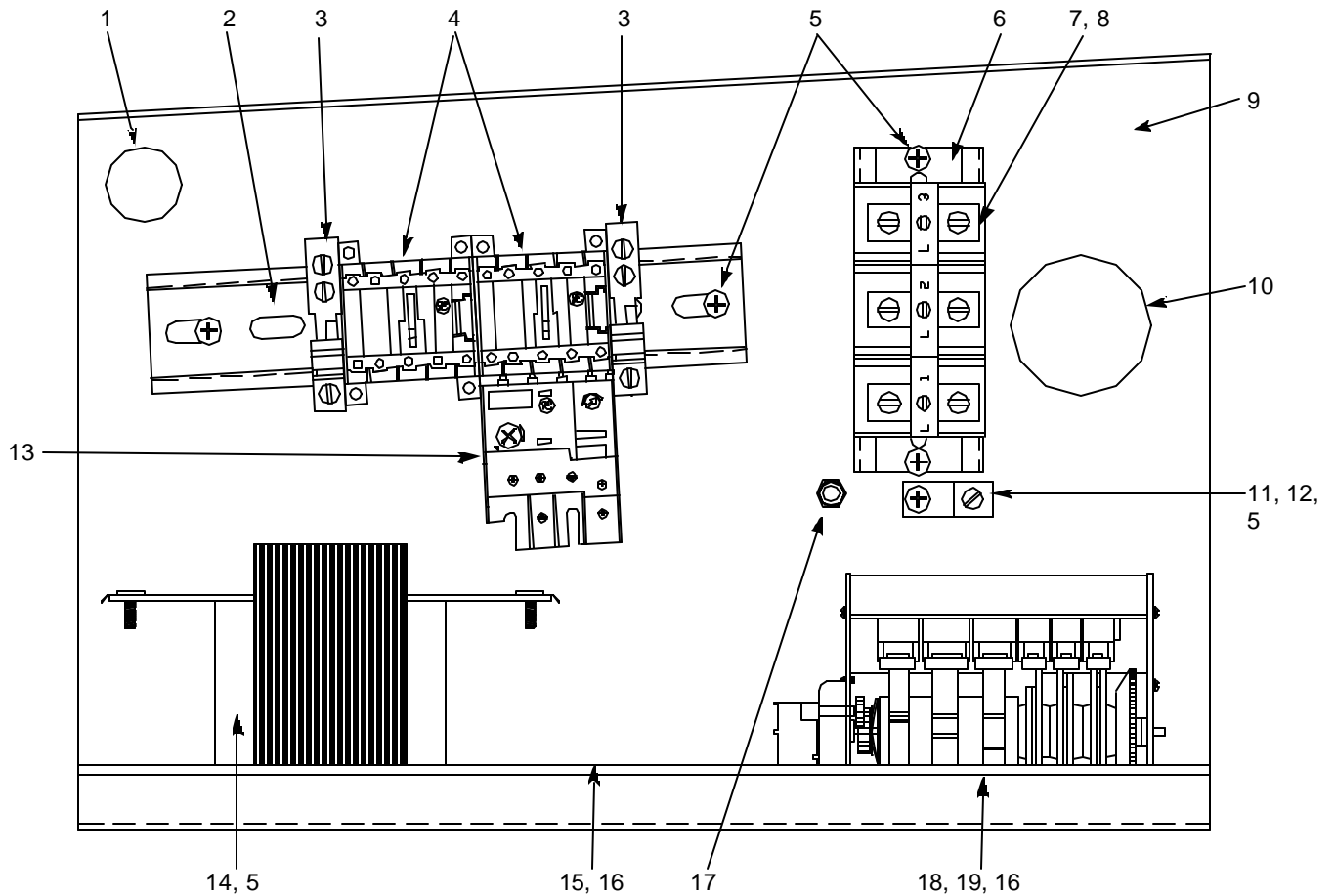
## SECTION 6: PARTS SECTION

### ELECTRICAL PANEL ASSEMBLY (JP-24B/BF 208-240 VOLT)



ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Electrical Control Panel Weldment	05700-011-41-79
2	1	Bushing, Snap	05975-210-03-00
3	1	Contactora, Motor	05945-002-74-20
4	9	Screw, 10-32 x 3/8" Phillips Truss Round Head	05305-173-12-00
5	1	Locknut, 10-24 S/S Hex with Nylon Insert	05310-373-01-00
6	1	Wire Lug	05940-200-76-00
7	1	Grommet, 1 1/8" Heyco	05975-210-08-00
8	1	Decal, Copper Conductors	09905-011-47-35
9	1	Decal, Ground, L1, L2	09905-101-40-82
10	1	Contactora, Heater	05945-002-74-20
11	1	Decal, Timer	09905-011-40-70
12	1	Timer, 60 HZ	05945-121-41-60
12	1	Timer, 50 HZ	05945-002-13-34
12	1	Timer, 5 Minute	05945-121-44-89
13	2	Screw, 6-32 x 3/8" Sems with External Tooth Lockwasher	05305-002-25-91
14	1	Track, Terminal 3 5/16"	05700-000-43-60
15	2	Block, Snap-in Terminal	05940-500-02-19
16	4	Locknut, 1/4"-20 S/S Hex with Nylon Insert (not shown)	05310-374-01-00

**SECTION 6: PARTS SECTION**  
**ELECTRICAL PANEL ASSEMBLY (JP-24B/BF 460 VOLT)**

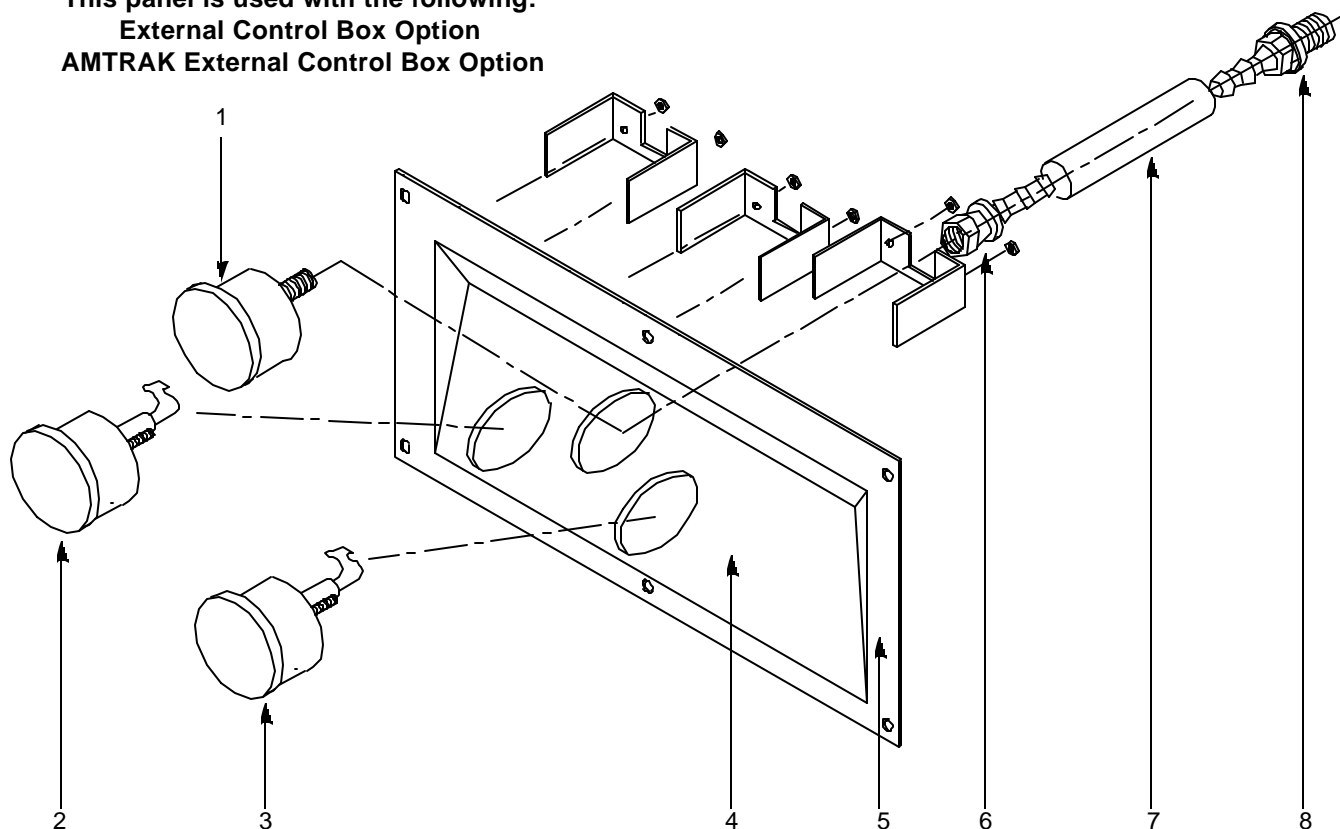


ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Bushing, Snap	05975-210-03-00
2	1	Track, Terminal 6 7/8"	05700-021-62-91
3	2	End Clamp	05940-111-60-30
4	2	Contacteur, Mini	05945-111-60-07
5	9	Screw, 10-32 x 3/8" Phillips Truss Round Head	05305-173-12-00
6	1	Track, Terminal 3 3/4"	05700-011-62-89
7	1	Decal, L1, L2, L3	09905-101-12-66
8	3	Block, Snap-in Terminal	05940-500-02-19
9	1	Electrical Control Panel Weldment	05700-031-62-94
10	1	Grommet, 1 1/8" Heyco	05975-210-08-00
11	1	Wire Lug	05940-200-76-00
12	1	Ground Decal	09905-011-41-82
13	1	Overload, Contactor	05945-111-60-08
14	1	ACME Transformer, 480 to 120 Volt	05950-011-50-70
15	1	Terminal Board, 1/4 QC	05940-021-94-85
16	2	Screw, 6-32 x 3/8" Sems with External Tooth Lockwasher	05305-002-25-91
17	1	Locknut, 10-24 S/S Hex with Nylon Insert	05310-373-01-00
18	1	Timer, 6 Cam	05945-121-44-69
19	1	Decal, Timer	09905-011-40-70
20	4	Locknut, 1/4"-20 S/S Hex with Nylon Insert (not shown)	05310-374-01-00

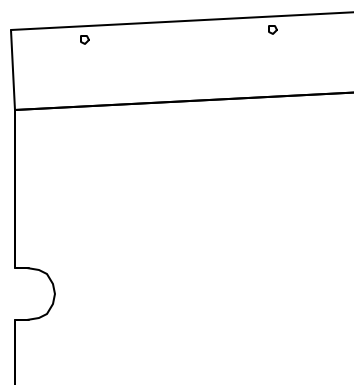
## SECTION 6: PARTS SECTION

### GAUGE PANEL ASSEMBLY

This panel is used with the following:  
**External Control Box Option**  
**AMTRAK External Control Box Option**



Dielectric Cover, Electrical Panel  
[05700-011-40-48](#)

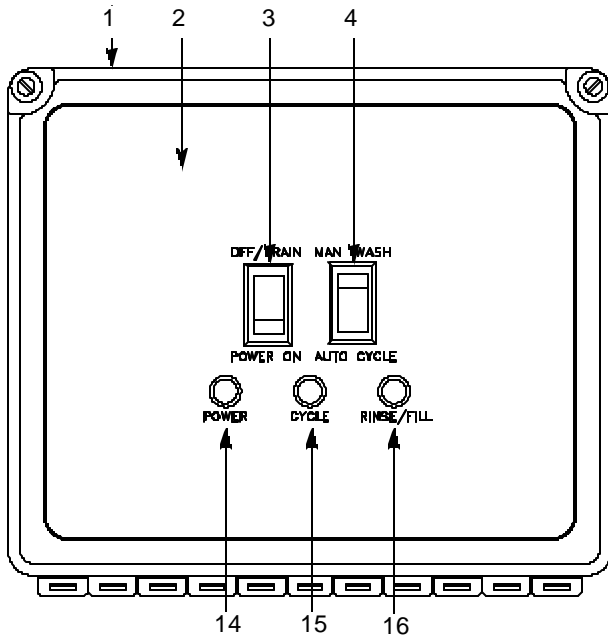


ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Gauge, 0-100 PSI with Green Zone	<a href="#">06680-011-86-42</a>
2	1	Thermometer, 96" Wash	<a href="#">06685-111-68-49</a>
3	1	Thermometer, 48" Rinse	<a href="#">06685-111-68-48</a>
4	1	Control Panel, Remote JP-24	<a href="#">09330-041-73-91</a>
5	1	Decal, JP-24 External Control Panel	<a href="#">09905-031-73-94</a>
6	1	Fitting, 1/4" BARB x 1/4" FNPT Swivel	<a href="#">04730-011-95-42</a>
7	1	Hose, 5/16" x 12"	<a href="#">05700-011-86-45</a>
8	1	Fitting, 1/4" BARB x 1/4" MNPT Swivel	<a href="#">04730-011-95-41</a>

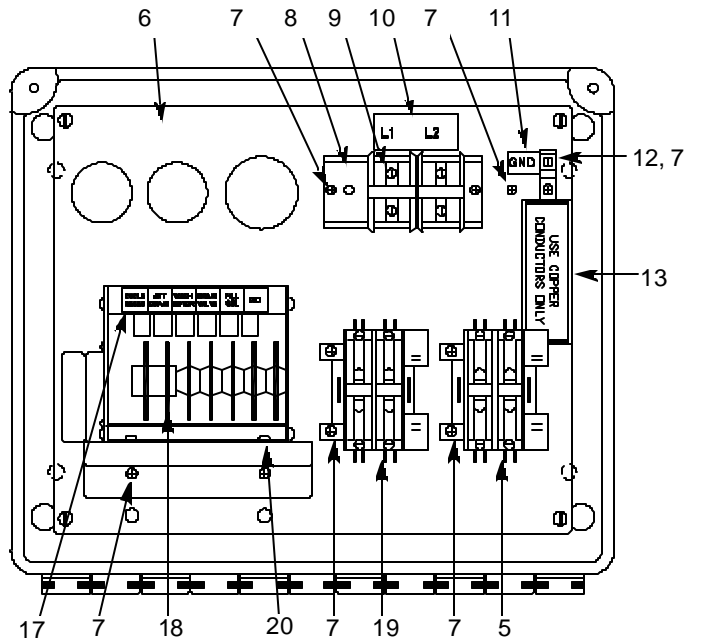
## SECTION 6: PARTS SECTION

### ELECTRICAL PANEL ASSEMBLY (EXTERNAL OPTION & AMTRAK OPTION)

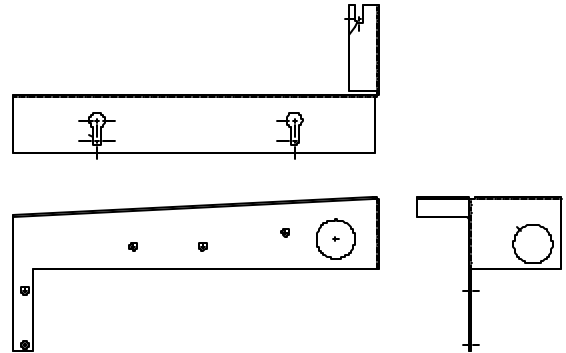
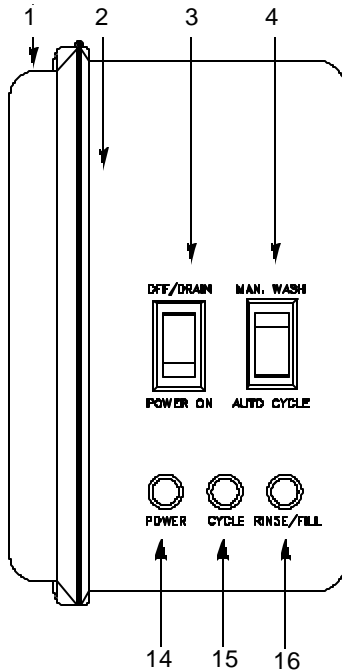
**FRONT VIEW EXTERNAL OPTION**



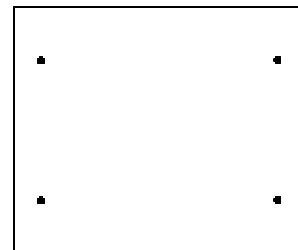
**INSIDE VIEW of AMTRAK & EXTERNAL OPTIONS**



**RIGHT SIDE VIEW AMTRAK OPTION**



Electrical Component Mounting Bracket  
05700-031-84-85



Control Box Mounting Panel  
(Amtrak Option Only)  
05700-001-99-38

---

## SECTION 6: PARTS SECTION

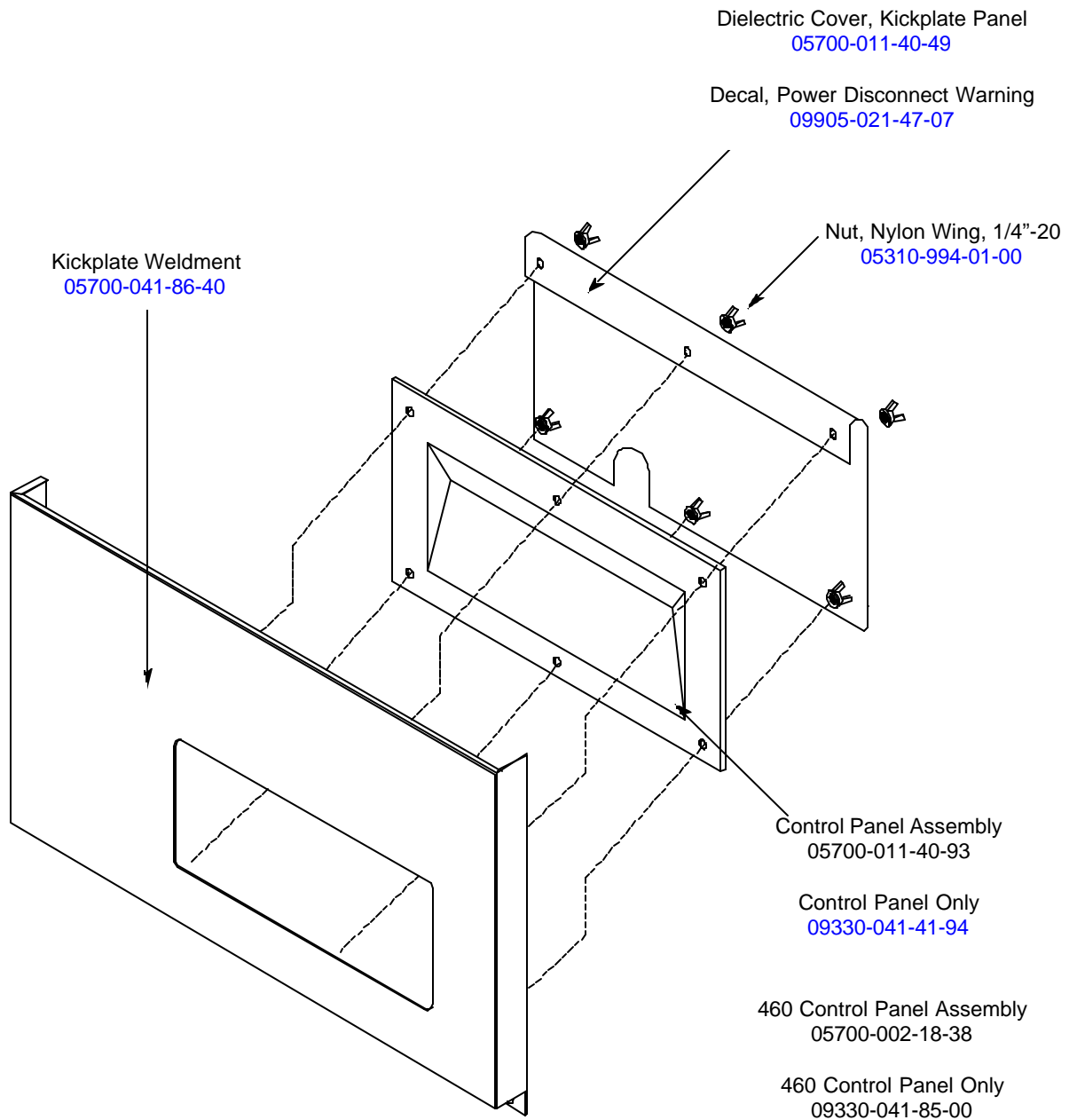
### ELECTRICAL PANEL ASSEMBLY (EXTERNAL OPTION & AMTRAK OPTION) (CONTINUED)

ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Control Box, JP-24 External Machined	05700-031-73-01
1	1	Control Box, Amtrak 24 Remote	05700-031-93-17
2	1	Decal, External Control Box	09905-031-84-87
2	1	Decal, Amtrak Control Box	09905-031-84-87
3	1	Switch, ON/FILL & OFF/DRAIN	05930-301-49-55
4	1	Switch, Delime	05930-011-49-00
5	1	Contactora, Motor	05945-002-74-20
6	1	Panel, Inner Control Box	05700-031-91-51
7	9	Screw, 10-32 x 3/8" Phillips Truss Round Head	05305-173-12-00
8	1	Track, Terminal 3 5/16"	05700-000-43-60
9	2	Block, Snap-in Terminal	05940-500-02-19
10	1	Decal, Ground, L1, L2	09905-101-40-82
11	1	Decal, Ground	09905-011-86-86
12	1	Wire Lug	05940-200-76-00
13	1	Decal, Copper Conductors	09905-011-47-35
14	1	Light, Red	05945-111-44-45
15	1	Light, Amber	05945-111-44-44
16	1	Light, Green	05945-111-44-43
17	1	Decal, Timer	09905-011-40-70
18	1	Timer, 60 HZ	05945-121-41-60
	1	Timer, 50 HZ	05945-002-13-34
	1	Timer, 5 Minute	05945-121-44-89
19	1	Contactora, Heater	05945-002-74-20
20	2	Screw, 6-32 x 3/8" Phillips Round Head	05305-171-02-00

---

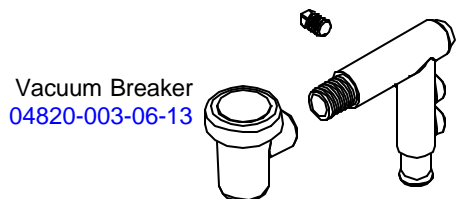
## SECTION 6: PARTS SECTION

### KICK PLATE ASSEMBLY

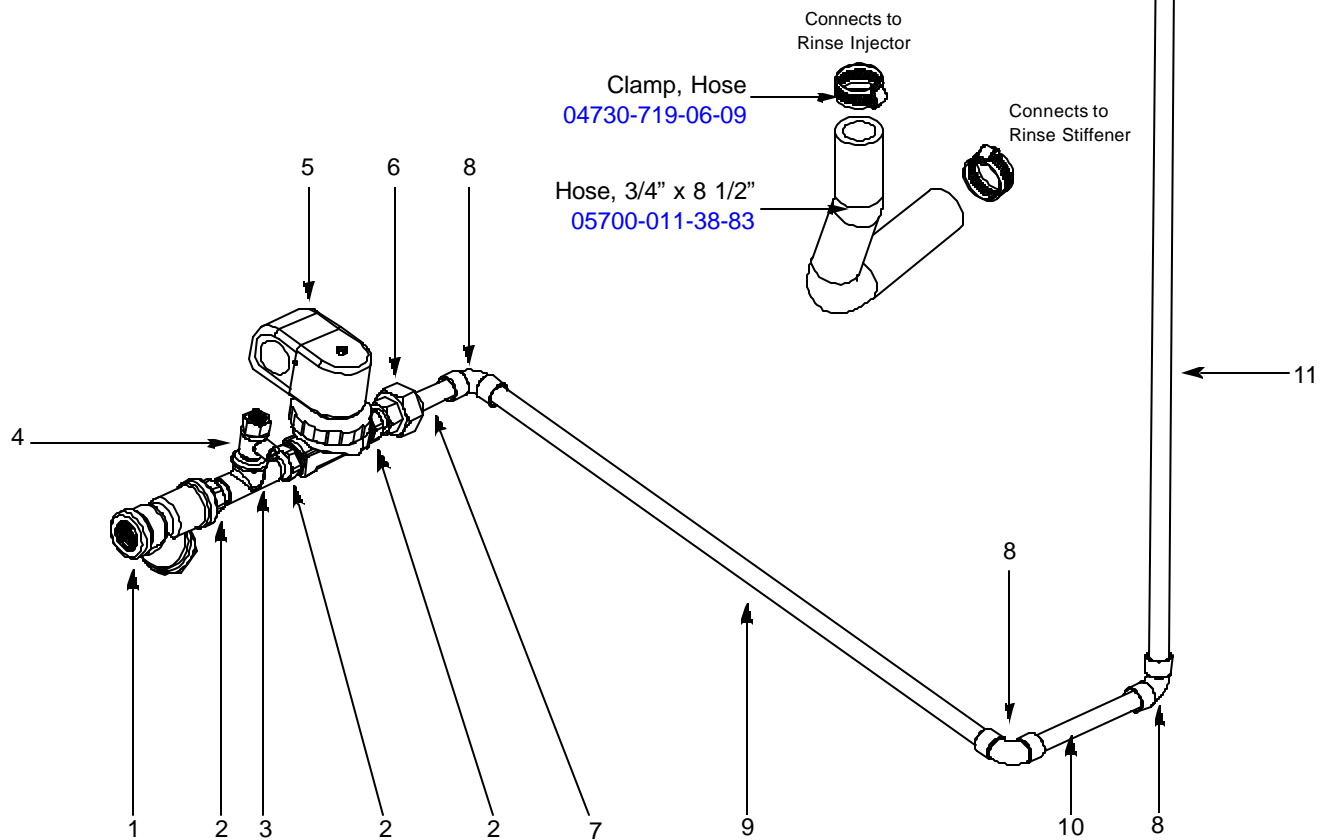


**SECTION 6: PARTS SECTION**  
**INCOMING PLUMBING ASSEMBLY (JP-24/JP-24F)**

**Vacuum Breaker Assembly**



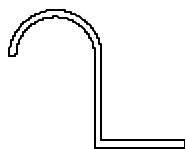
Plug, 1/4" Brass  
 3 per machine  
 4730-209-01-00



ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Y-Strainer, 1/2"	04730-217-01-10
2	3	Adapter, 1/2" Ftg. x Male	04730-011-59-53
3	1	Tee, 1/2" C x 1/2" C x 1/4" Female	04730-411-25-01
4	1	Ball Valve, Test Cock 1/4"	04810-011-72-67
5	1	Valve, Solenoid 1/2", 115 volt	04810-100-12-18
6	1	Union, 1/2" C to C	04730-412-05-01
7	1	Copper Tube, 1/2" x 2"	05700-001-04-66
8	3	Elbow, 1/2", 90° C to C	04730-406-01-01
9	1	Copper Tube, 1/2" x 19 1/2"	05700-011-59-84
10	1	Copper Tube, 1/2" x 4 1/2"	05700-011-59-83
11	1	Copper Tube, 1/2" x 25 1/2"	05700-011-59-85
12	1	Adapter, 1/2" Ftg. x Male	04730-401-03-01

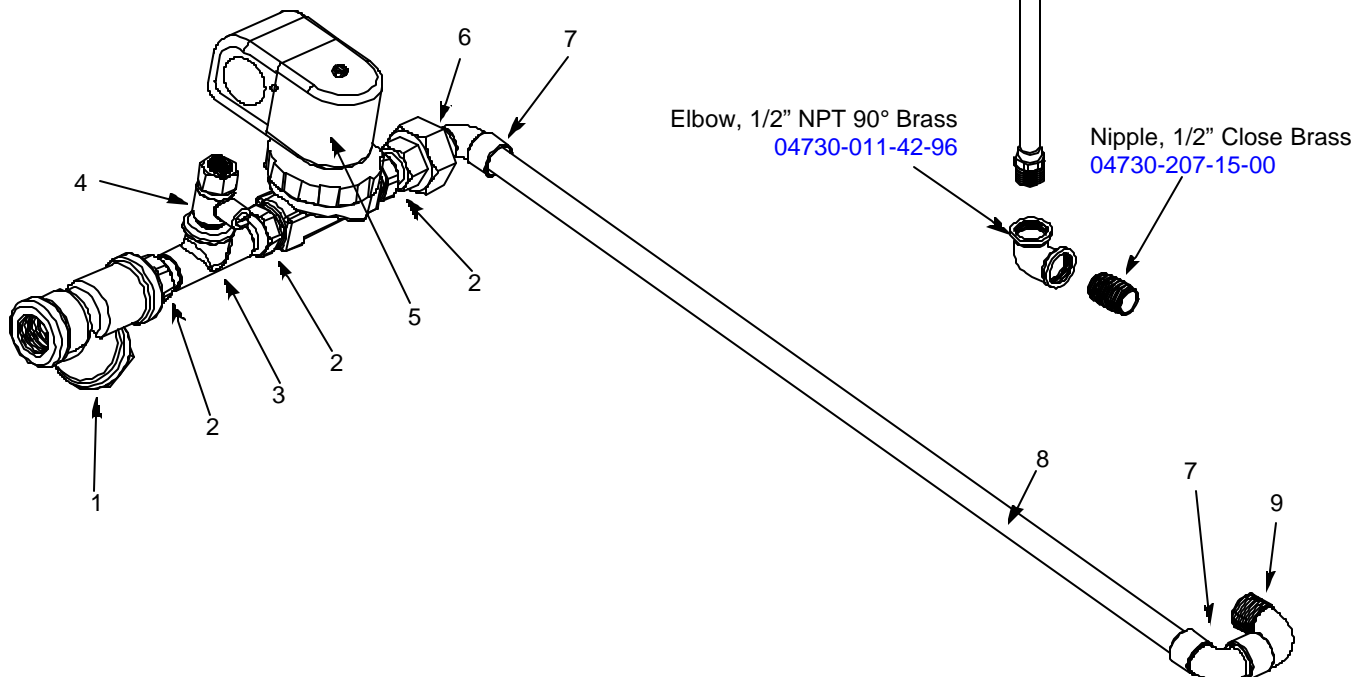
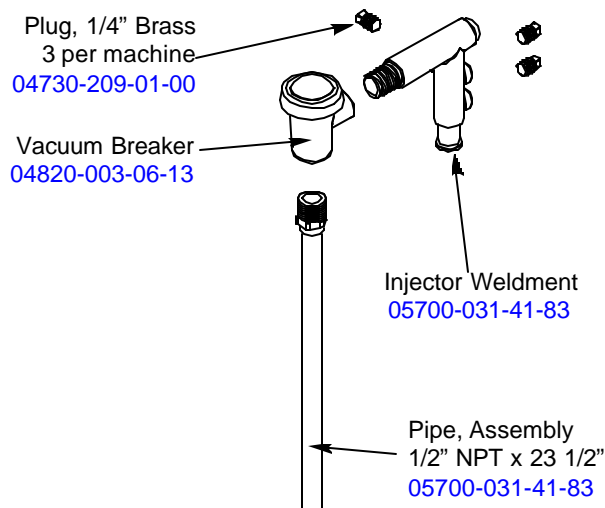
## SECTION 6: PARTS SECTION

### INCOMING PLUMBING ASSEMBLIES (JP-24B/JP-24BF)



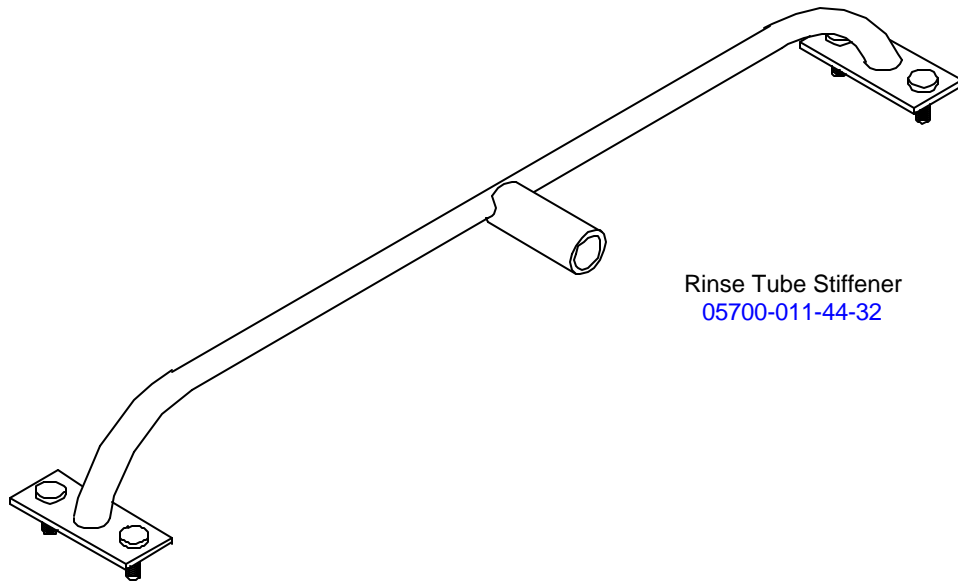
Pipe Clamp  
05700-011-38-62

Secured with:  
Locknut, 1/4"-20 S/S  
Hex with Nylon Insert  
05310-374-01-00

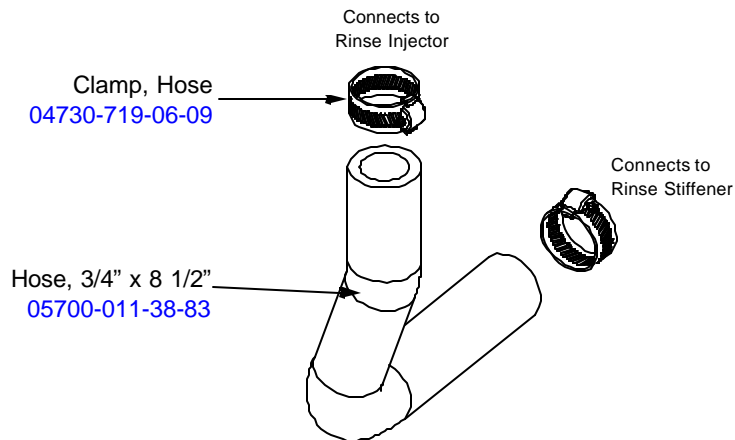


ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Y-Strainer, 1/2"	04730-217-01-10
2	3	Adapter, 1/2" Ftg. x Male	04730-011-59-53
3	1	Tee, 1/2 x 1/2 x 1/4	04730-411-25-01
4	1	Ball Valve, Test Cock 1/4"	04810-011-72-67
5	1	Valve, Solenoid 1/2" 220 volt	04810-100-09-18
6	1	Union, 1/2" C to C	04730-412-05-01
7	2	Elbow, 1/2" C to Ftg.	04730-406-31-01
8	1	Copper Tube, 1/2" x 18 1/2"	05700-011-44-34
9	1	Elbow, 1/2", 90° C to MSPS	04730-406-32-01

**SECTION 6: PARTS SECTION**  
**RINSE STIFFENER/RINSE HUB WELDMENT**



Rinse Tube Stiffener  
05700-011-44-32

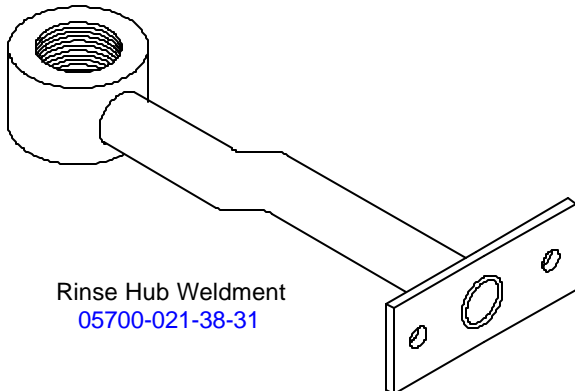


Clamp, Hose  
04730-719-06-09

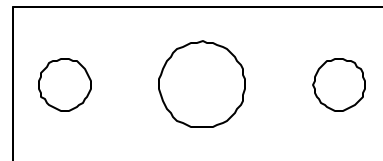
Hose, 3/4" x 8 1/2"  
05700-011-38-83

Connects to  
Rinse Injector

Connects to  
Rinse Stiffener



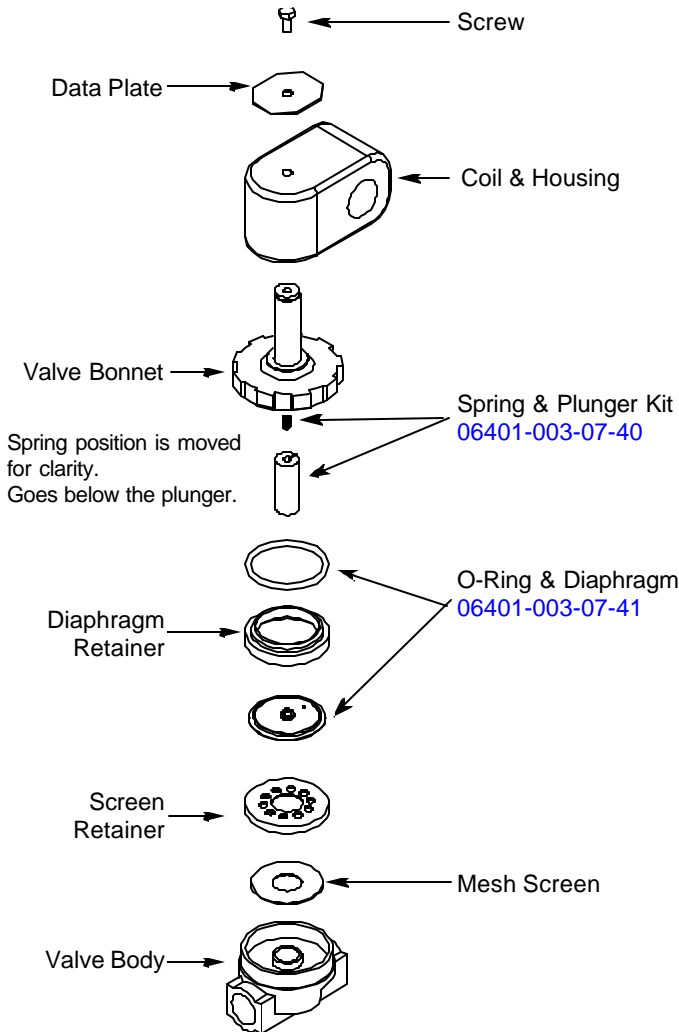
Rinse Hub Weldment  
05700-021-38-31



Vellumoid Rinse Gasket  
05330-111-42-81

## SECTION 6: PARTS SECTION

### RINSE SOLENOID VALVE & VACUUM BREAKER REPAIR PARTS KITS/WATER PRESSURE REGULATOR KIT OPTION

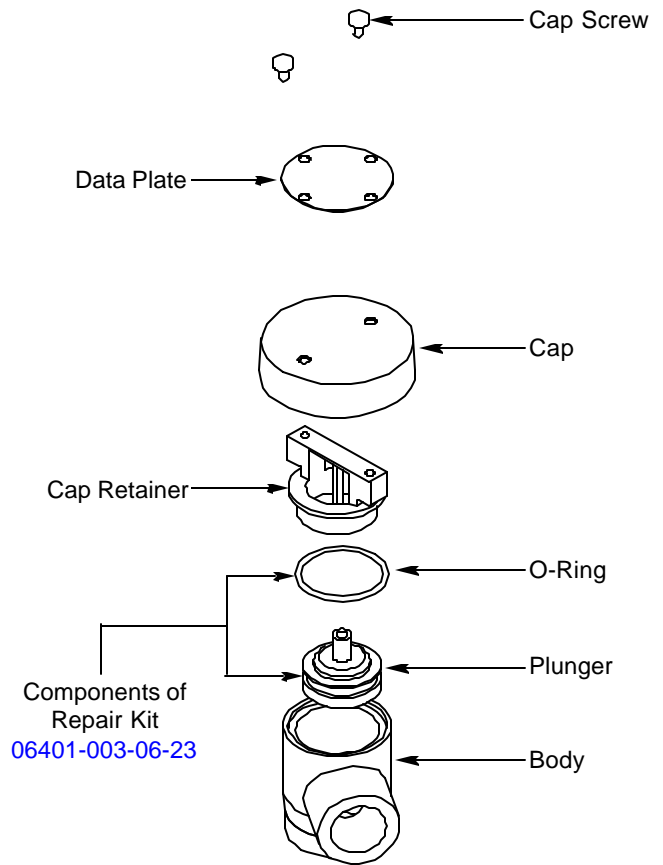


**Complete 110 Volt Solenoid Valve Assembly, 1/2"**  
04810-100-12-18

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

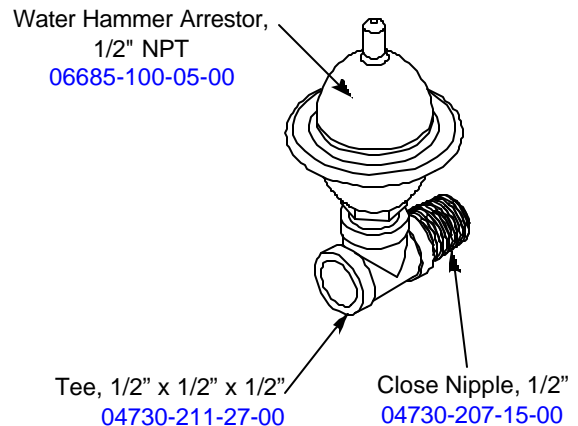
**Complete 220 Volt Solenoid Valve Assembly, 1/2"**  
04810-100-09-18

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



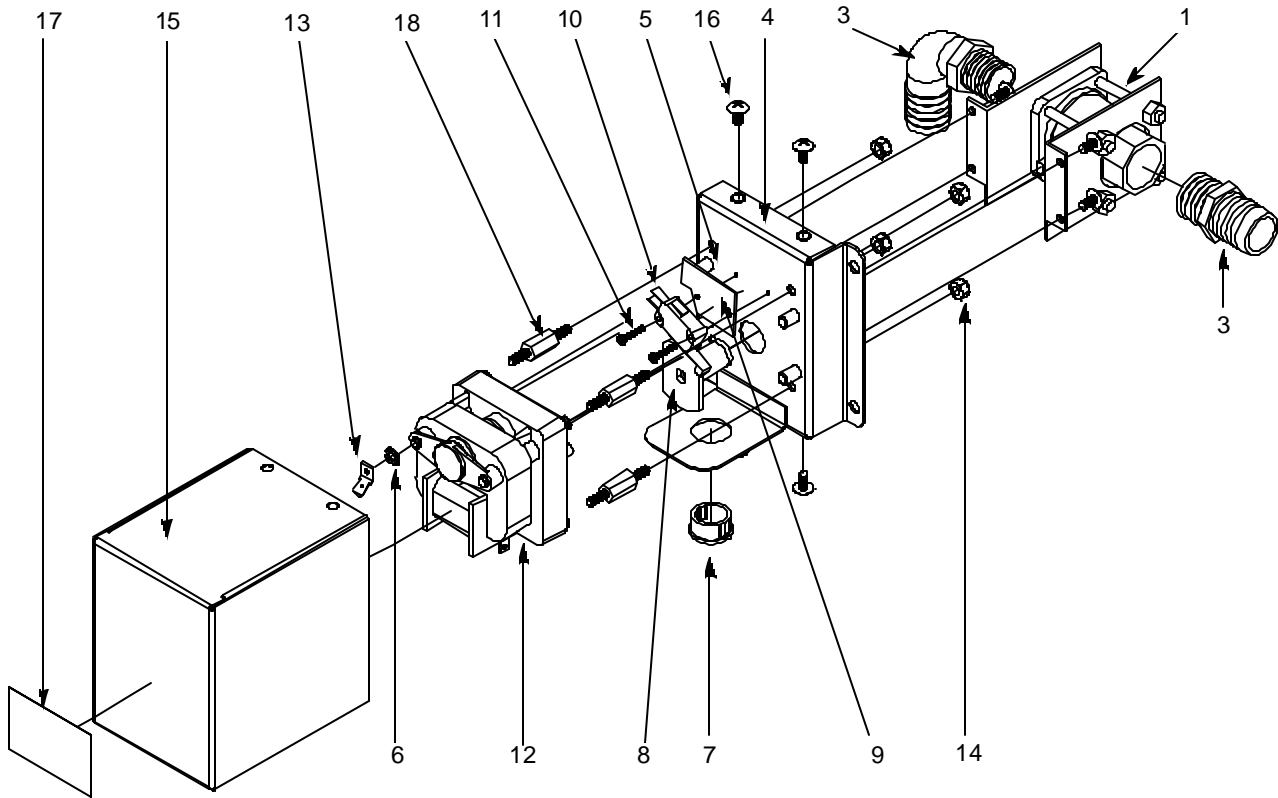
**Complete Vacuum Breaker Assembly, 1/2" NPT**  
04820-003-06-13

**Complete WPRK Assembly**  
05700-002-64-67



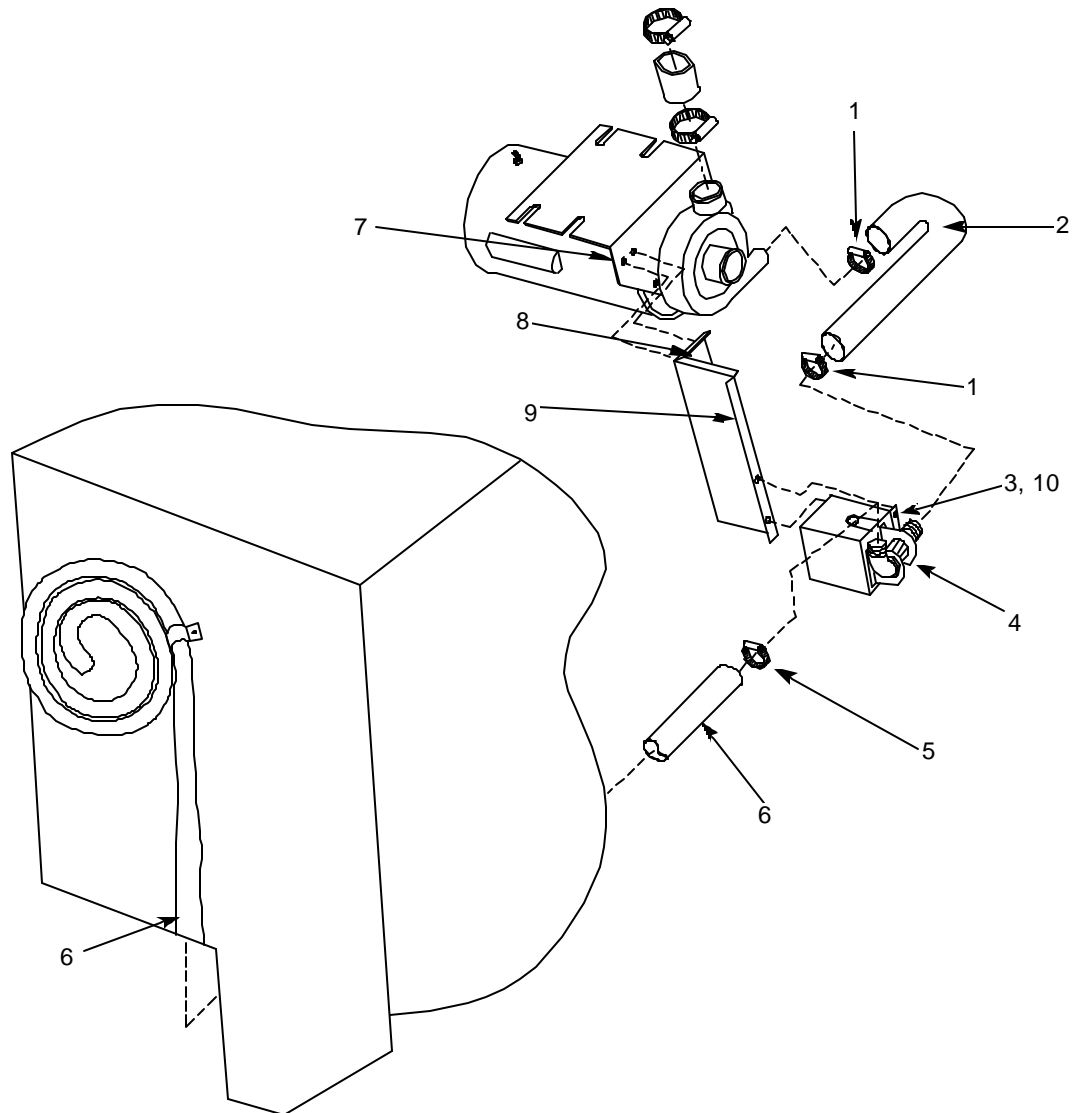
## SECTION 6: PARTS SECTION

### DRAIN VALVE ASSEMBLY



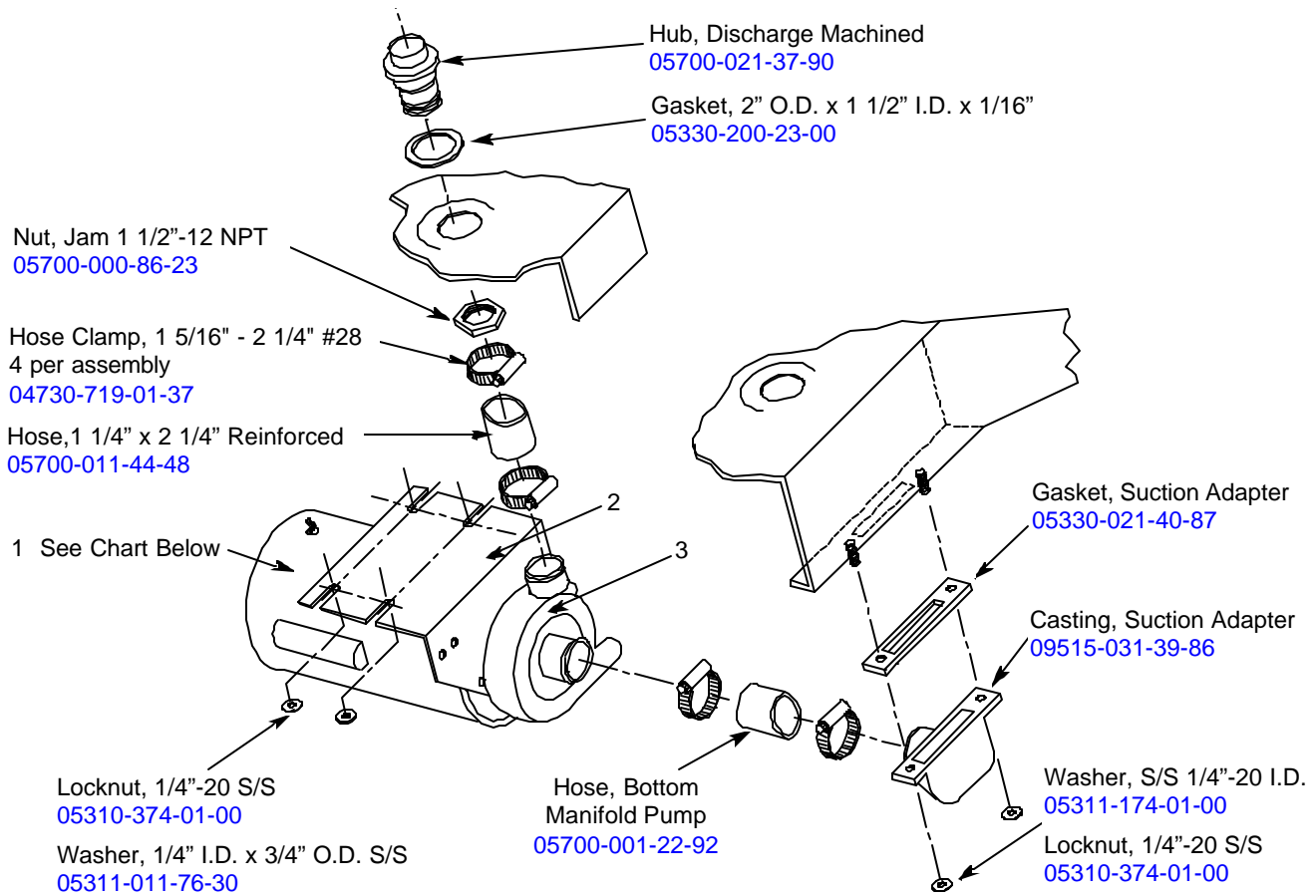
ITEM	QTY	DESCRIPTION	Mfg. No.
	1	Diverter Valve Assembly, 115 Volt	06401-012-23-21
	1	Diverter Valve Assembly, 220 Volt	06401-022-23-21
1	1	Valve, With Brackets	05700-002-23-28
2	1	Hosebarb, 1" x 3/4" NPT Polypropylene	04730-011-65-86
3	1	Hosebarb, 90° 1" x 3/4" NPT	04730-011-65-87
4	1	Plate, Motor Mounting Weldment	05700-031-96-02
5	4	Tricnut, 10-32 AK Fastener, S/S	05340-111-58-10
6	1	Lockwasher, #10 External Tooth	05311-273-02-00
7	1	Grommet, Heyco	05975-210-03-00
8	1	Cam Weldment	05700-011-65-78
9	1	Plate, Dielectric	05700-011-65-80
10	1	Switch, Micro	05930-011-65-81
11	2	Screw, 4-40 x 5/8"	05305-011-49-70
12	1	Motor, Chemical Feeder Pump 14 RPM 115 Volt	04320-111-35-13
12	1	Motor, Chemical Feeder Pump 14 RPM 220 Volt	04320-011-79-34
13	1	Terminal, Ground Spade	05940-011-75-70
14	4	Locknut, 10-32 S/S Hex with Nylon Insert	05310-373-02-00
15	1	FW-Valve, Cover	05700-031-65-70
16	4	Screw, 10-32 x 3/8" Truss Head	05305-173-12-00
17	1	Decal, Warning-Disconnect Power	09905-100-75-93
18	4	Screw, Mounting	05305-011-93-30

**SECTION 6: PARTS SECTION**  
**DRAIN PLUMBING ASSEMBLY**



ITEM	QTY	DESCRIPTION	Mfg. No.
1	3	Clamp, 3/16" to 1 1/2"	04730-719-06-09
2	1	Hose, Formed Drain	04720-121-40-36
3	2	Bolt, 10-32 x 1/2" Slotted Truss Head	05305-173-04-00
4	1	Diverter Valve Assembly, 115 Volt	06401-012-23-21
4	1	Diverter Valve Assembly, 220 Volt	06401-022-23-21
5	1	Clamp, 11/16" to 1 1/4"	04730-002-18-40
6	1	Hose, 1" I.D. x 10 Feet Long	05700-011-39-72
7	2	Locknut, 1/4"-20 S/S Hex with Nylon Insert	05310-374-01-00
8	2	Bolt, 1/4"-20 x 1/2" Long	05305-274-02-00
9	1	Bracket, Valve Mounting with Tricnuts	05700-021-66-37
10	2	Washer, #10 External Tooth Star	05311-273-02-00

**SECTION 6: PARTS SECTION**  
**WASH MOTOR TO WASH TUB ASSEMBLY**



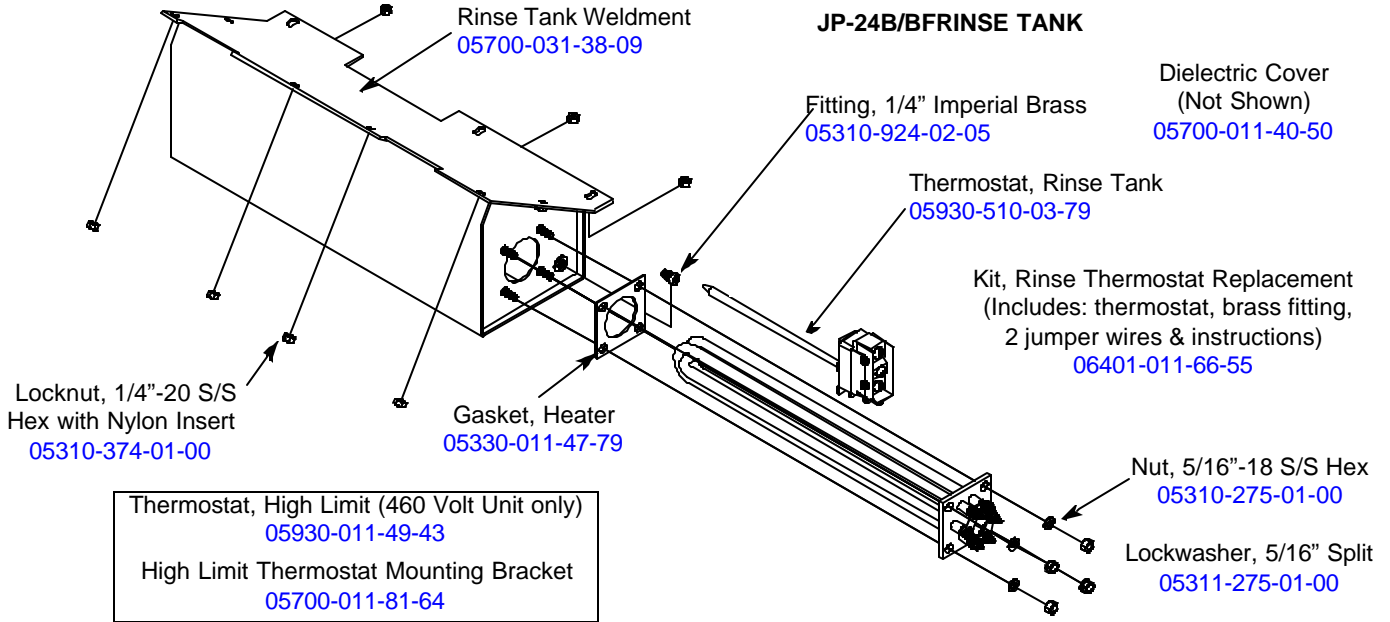
ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Motor, Wash, 115/230 V, 60 HZ, Complete Motor, Only	06105-131-50-93 06105-021-44-03
1	1	Motor, Wash, 115/230 V, 50 HZ, Complete Motor, Only	06105-002-14-93 06105-003-19-78
1	1	Motor, Wash, 460 V, 60 HZ, Complete Motor, Only	06105-121-60-06 06105-002-64-03
2	1	Pump Mounting Bracket	05700-002-42-85
3	1	Pump Casing, Iron	05930-021-44-07

The following items are not shown and are the same for each motor assembly.

Iron Adapter	04730-002-42-84
Impeller	04320-021-44-02
Drain Cock	04730-002-43-21
Mechanical Seal	05330-011-44-06
Gasket, 4.75" x 4.09" x 1/16"	05330-111-59-90
Gasket, 4.75" x 4.09" x 1/64"	05330-002-42-86

## SECTION 6: PARTS SECTION

### RINSE TANK & COMPONENTS/STRIP HEATER KIT

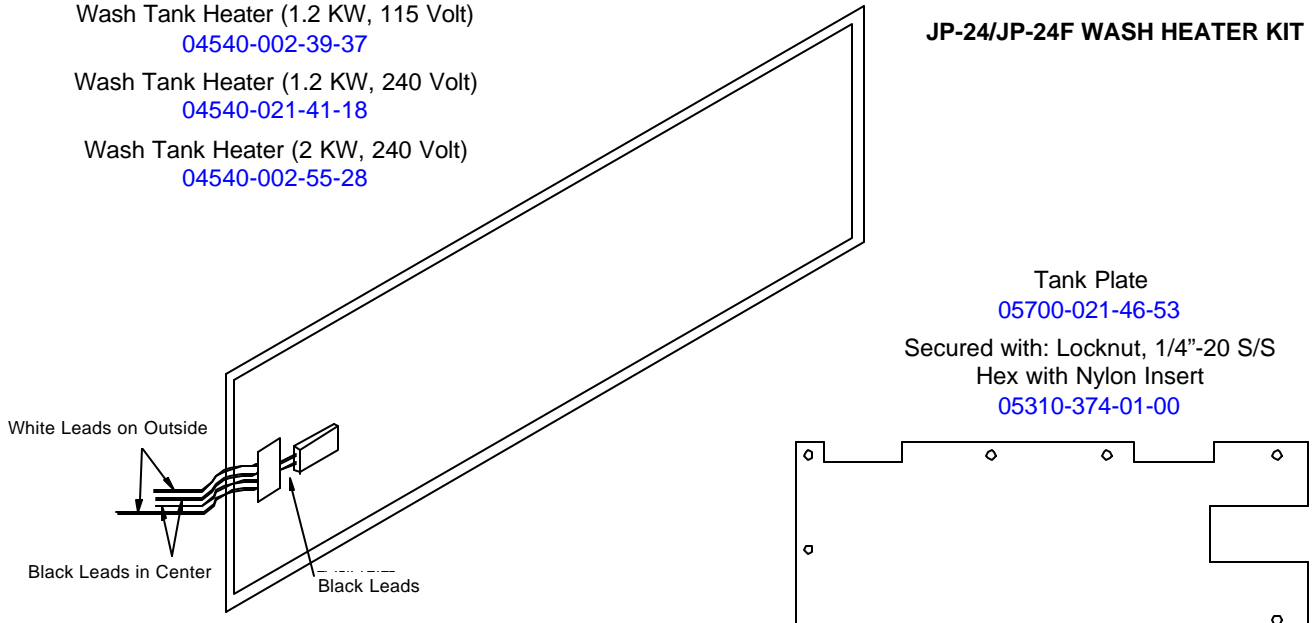


The JPX-300H/HC/HN models covered in this manual come supplied with various heaters, depending on the characteristics of the machine. To ensure that you order the correct heater for the model you are servicing, please refer to the following table:

Model	Volts	Hz	Phase	40°F Rise	70°F Rise
				Rinse Heater (8.2 KW)	Rinse Heater (10 KW)
JPX-300H	208	50	1	04540-111-43-21	04540-021-62-57
JPX-300H	230	50	1	04540-111-43-21	04540-021-62-57
JPX-300H	208	60	1	04540-111-43-21	04540-021-62-57
JPX-300H	230	60	1	04540-111-43-21	04540-021-62-57
JPX-300H	460	60	3	04540-111-51-46	04540-002-29-82

- Wash Tank Heater (1.2 KW, 115 Volt)  
04540-002-39-37
- Wash Tank Heater (1.2 KW, 240 Volt)  
04540-021-41-18
- Wash Tank Heater (2 KW, 240 Volt)  
04540-002-55-28

#### JP-24/JP-24F WASH HEATER KIT

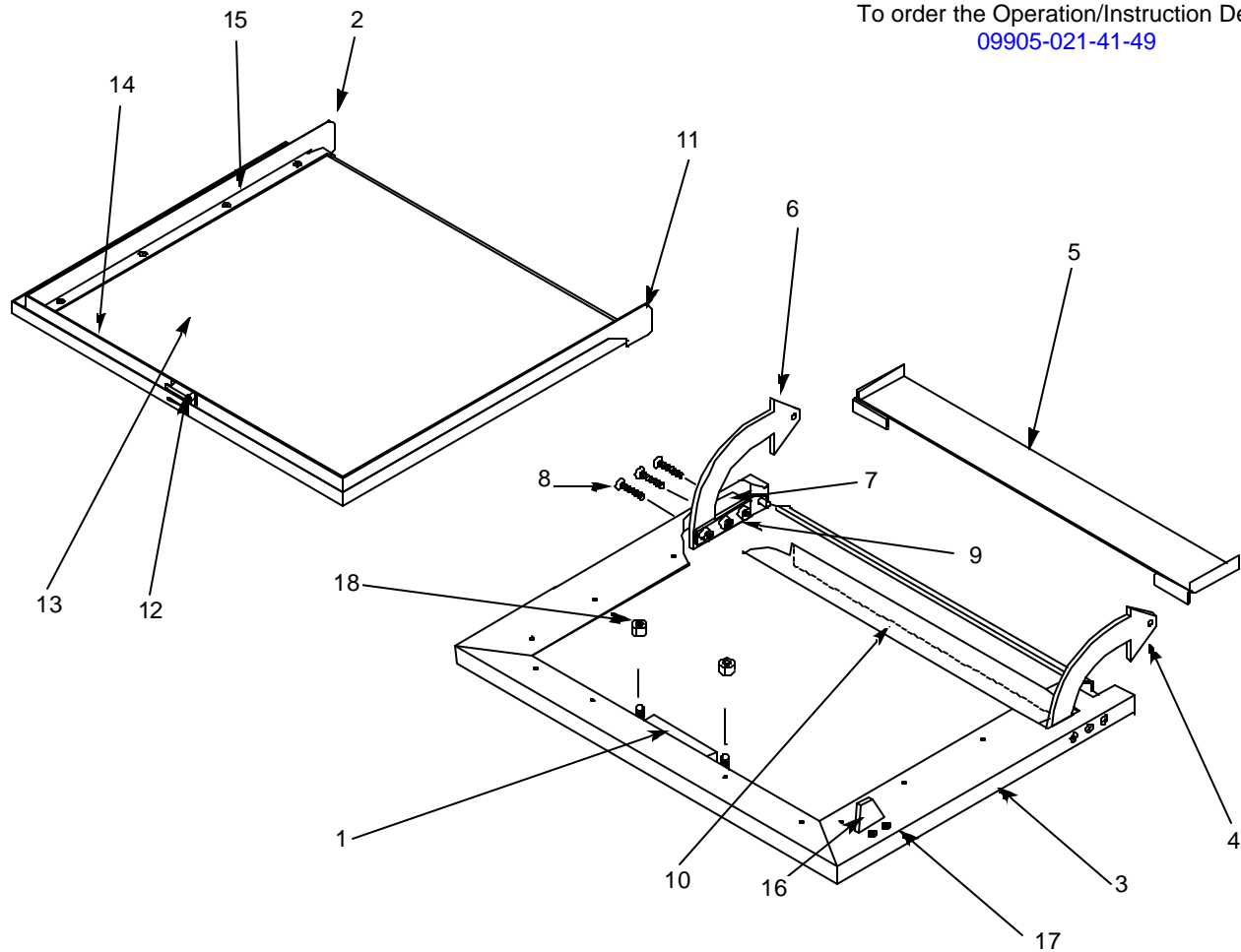


## SECTION 6: PARTS SECTION

### DOOR ASSEMBLY

Order this entire assembly using [05700-011-39-15](#)

To order the Operation/Instruction Decal  
[09905-021-41-49](#)

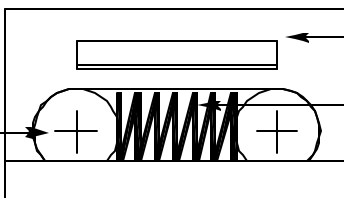


ITEM	QTY	DESCRIPTION	Mfg. No.
1	1	Door Handle, S/S	<a href="#">05340-011-60-25</a>
2	1	Seal Channel, Inner Door, Left	<a href="#">05700-031-32-89</a>
3	1	Kit, Outer Door with Tricnuts	<a href="#">06401-003-19-59</a>
4	1	Right Hinge Assembly Weldment	<a href="#">05700-021-38-75</a>
5	1	Spray Baffle	<a href="#">05700-031-37-56</a>
6	1	Left Hinge Assembly Weldment	<a href="#">05700-021-38-76</a>
7	2	Spacer, Hinge UHMW	<a href="#">05700-011-44-23</a>
8	6	Fastener, Screw, 1/4"-20 x 1-1/2" Long	<a href="#">05305-011-44-50</a>
9	2	Hinge Retaining Plate Assembly	<a href="#">05700-011-44-37</a>
10	1	Baffle, Door	<a href="#">05700-001-44-75</a>
11	1	Seal Channel, Inner Door, Right	<a href="#">05700-031-32-91</a>
12	1	Latch Assembly	<a href="#">05700-011-44-41</a>
13	1	Inner Door	<a href="#">05700-031-32-85</a>
14	1	Seal Channel, Inner Door, Top	<a href="#">05700-031-32-90</a>
15	12	Fastener, Screw, 10-32 Counter Sink, 1/2" Long	<a href="#">05305-011-44-51</a>
16	1	Striker, Door Switch	<a href="#">05700-011-44-24</a>
17	2	Fastener, Screw 10-32 x 1/2" Long	<a href="#">05305-011-44-52</a>
18	2	Locknut, 10-32, S/S Hex with Nylon Insert	<a href="#">05310-373-02-00</a>

**SECTION 6: PARTS SECTION**  
**MISCELLANEOUS DOOR SUB-ASSEMBLIES**

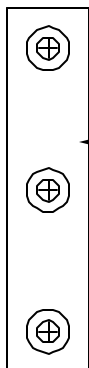
**Door Latch Assembly**  
 05700-011-44-41

Latch Roller  
 05700-011-44-38

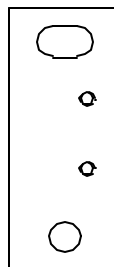


Door Latch Casting  
 05700-011-44-40

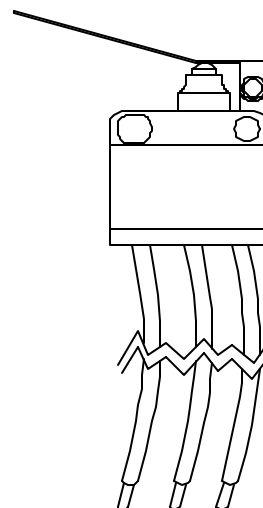
Latch Spring  
 05700-011-44-39



Hinge Retaining Plate  
 05700-011-44-37



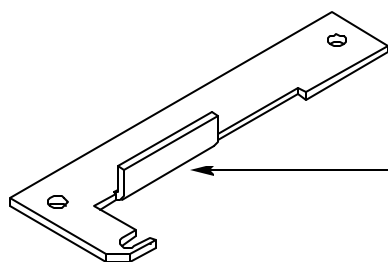
Switch Plate  
 05700-011-44-22



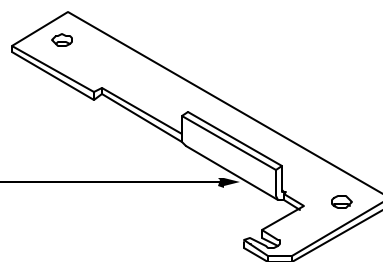
Door Switch  
 05930-303-38-00



Door Spring  
 05340-011-44-58

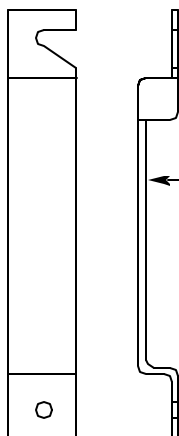


Stop, Left Hinge  
 05700-021-37-67

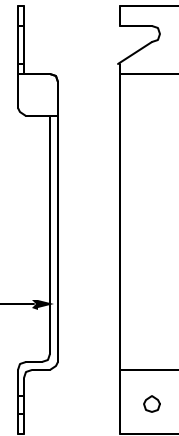


Stop, Right Hinge  
 05700-021-37-68

Hinge Components secured with:  
 Locknut, 1/4"-20 S/S Hex with Nylon Insert  
 05310-374-01-00

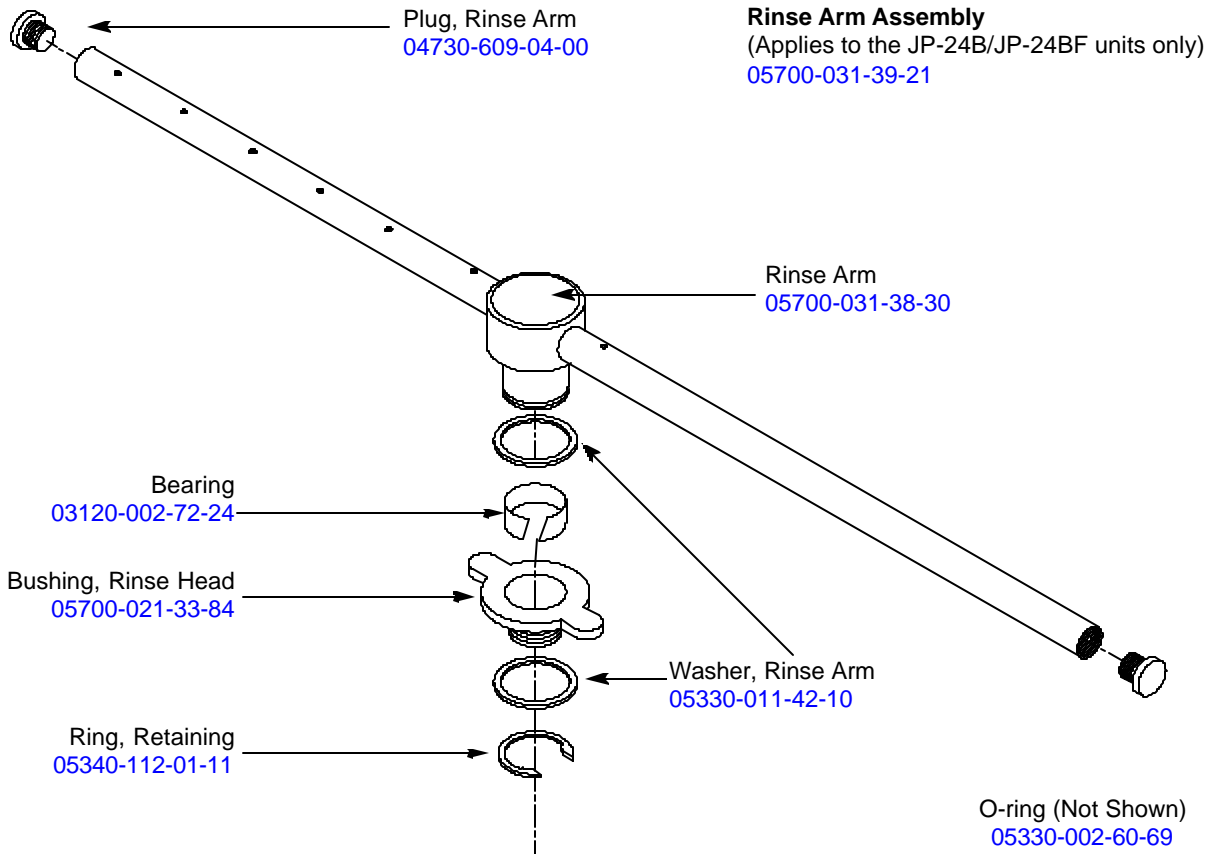


Cover, Left Hinge Weldment  
 05700-002-18-41

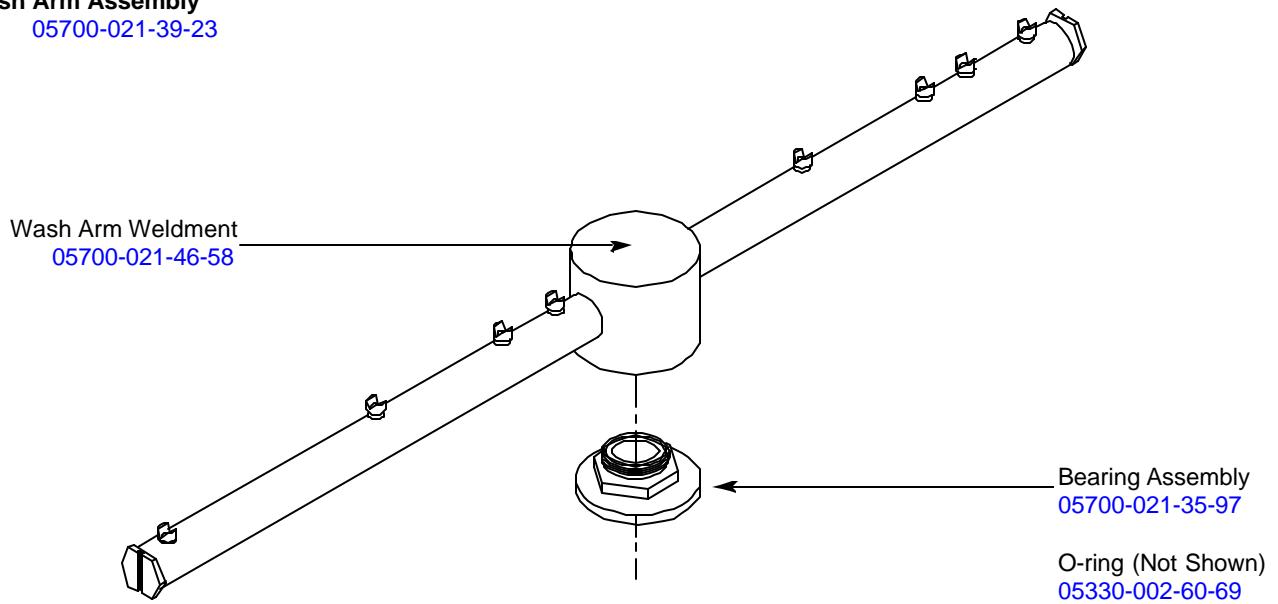


Cover, Right Hinge Weldment  
 05700-002-18-42

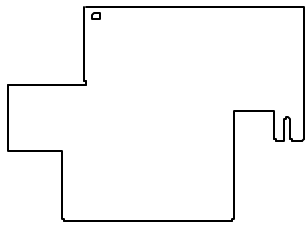
**SECTION 6: PARTS SECTION**  
**RINSE ARM & WASH ARM ASSEMBLIES**



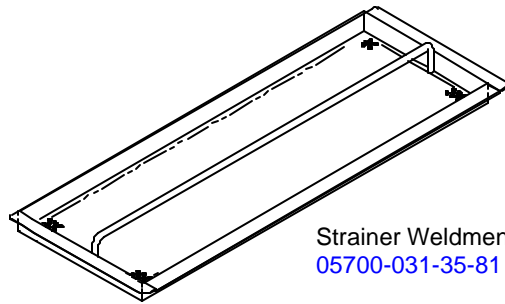
**Wash Arm Assembly**  
 05700-021-39-23



**SECTION 6: PARTS SECTION**  
**FRAME & PANEL COMPONENTS/MISCELLANEOUS PARTS**



Back Panel  
 05700-031-44-33

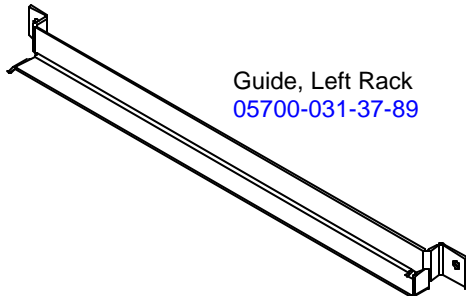


Strainer Weldment  
 05700-031-35-81

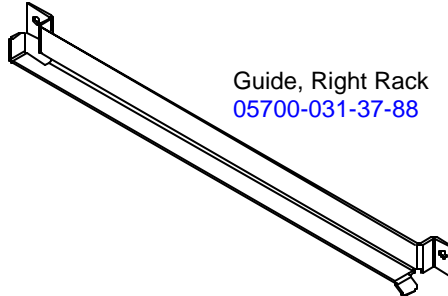


Strainer Spacer  
 05700-021-35-83

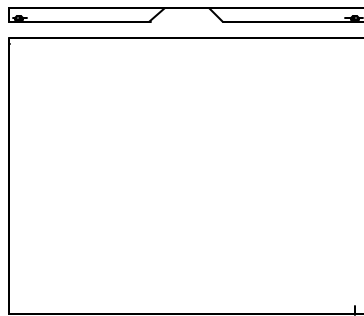
Attaches with:  
 Nut, Nylon Wing, 1/4"-20  
 05310-994-01-00



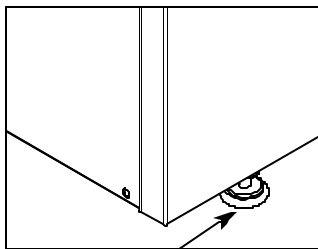
Guide, Left Rack  
 05700-031-37-89



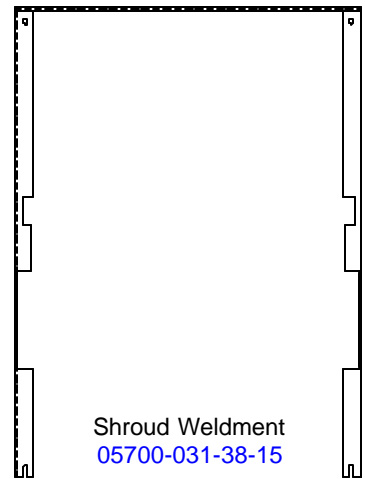
Guide, Right Rack  
 05700-031-37-88



Top Panel  
 05700-041-38-38



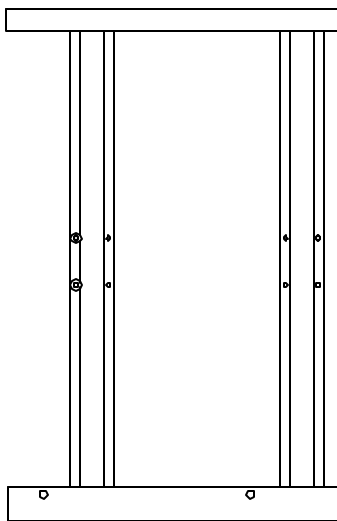
The swivel feet used on the frames may be ordered using  
 05340-108-02-00



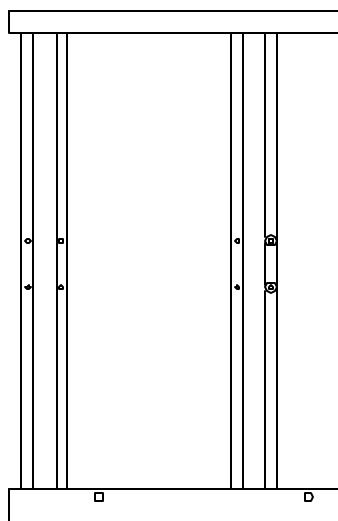
Shroud Weldment  
 05700-031-38-15

Secured with 10-32 x 1/2"  
 Long Screws  
 05305-173-04-00

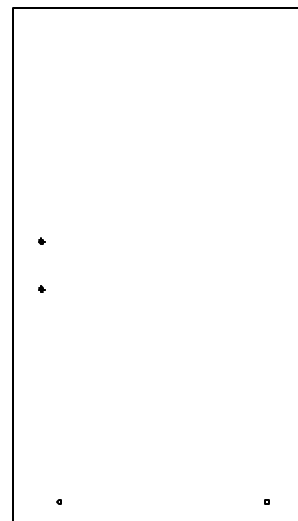
The dress panels are secured with 10-32 x 1/2" Truss Head Screws, 05305-011-39-36



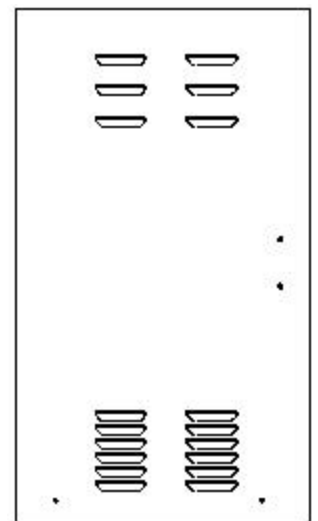
Right Frame Weldment  
 05700-011-73-86



Left Frame Weldment  
 05700-011-73-85



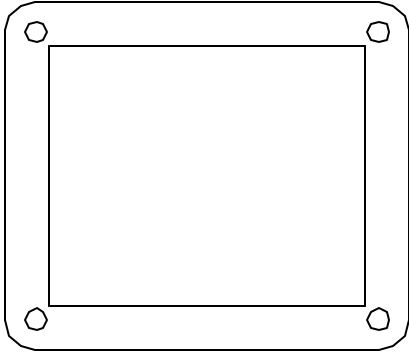
Left Dress Panel  
 05700-041-38-37



Right Dress Panel  
 05700-041-38-08

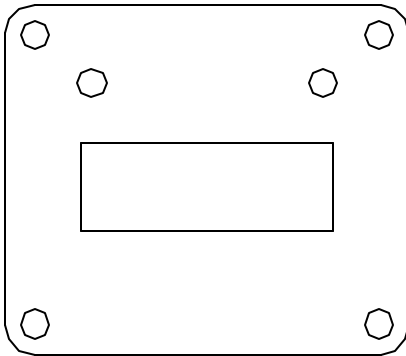
## SECTION 6: PARTS SECTION

### CYCLE COUNTER RETROFIT KIT

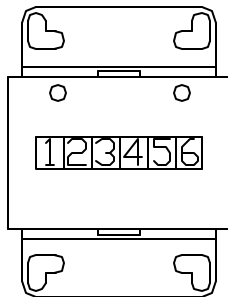


Template, Cycle Counter Mount  
05700-002-94-37

To order the complete Cycle Counter Retrofit Kit with hardware, use part number 06401-002-95-14.



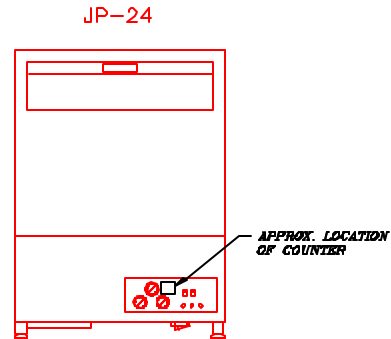
Cycle Counter Mount  
05700-002-94-36



Cycle Counter, 240V  
05990-111-47-42

#### Instructions for Adding Cycle Counter to JP-24 Undercounter Dish Machine

1. Locate the template on the front of the plastic control panel in the approximate location as shown in the diagram below.
2. Use a 3/32" diameter drill bit to drill the four mounting holes through the plastic control panel.
3. Mount the template to the front of the control panel using the screws and locknuts provided.
4. Using the template as a guide, cut the 1-3/8" x 1-1/8" cutout (the inside of the template) from the plastic control panel. Use a Dremel tool (or similar) or drill multiple holes along the edge of the template in order to cut away the cutout.
5. Remove the template from the control panel.
6. Assemble the counter (with mounting plate) to the control panel using the four screws and locknuts provided.
7. One lead wire from the counter is connected together with the blue wires from the fill solenoid valve and the rinse/fill light (using the existing wire nut that connects these two wires together).
8. The other lead wire from the counter is connected together with the red wires from the fill solenoid valve and the rinse/fill light (using the existing wire nut that connects these two wires together).
9. The counter should increment each time the fill solenoid valve is turned on.



Instruction Sheet  
05700-002-95-15

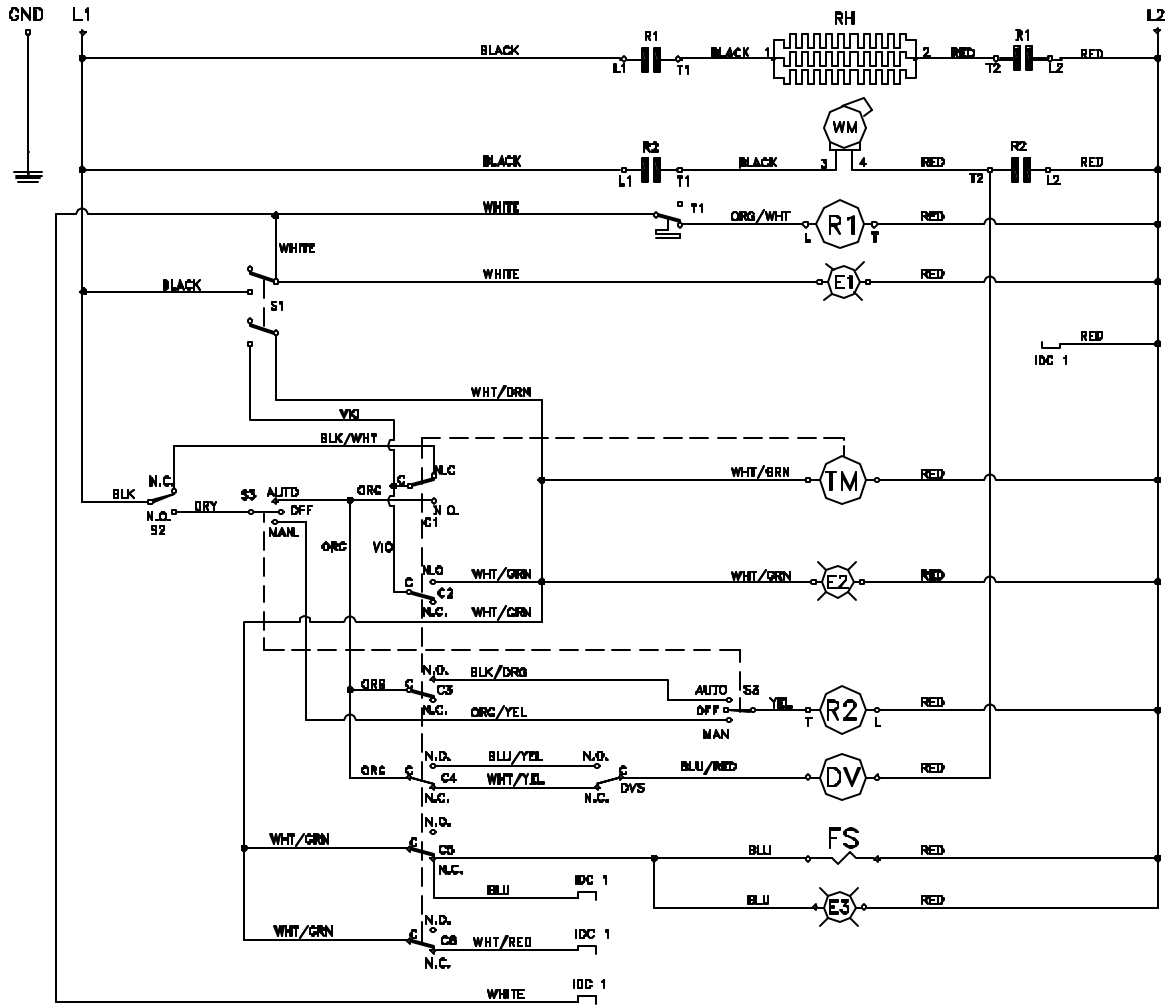
---

# **SECTION 7: ELECTRICAL SCHEMATICS**



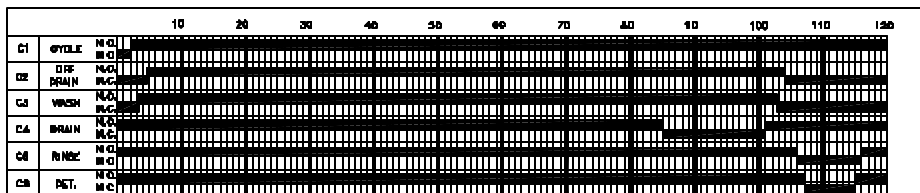
# SECTION 7: ELECTRICAL SCHEMATICS

## JP-24B/JP-24BF 208-230 VOLT - 50/60 HERTZ - SINGLE PHASE



- |  |                         |  |                       |  |                         |  |                                |
|--|-------------------------|--|-----------------------|--|-------------------------|--|--------------------------------|
|  | RINSE TANK HEATER       |  | POWER ON LIGHT        |  | CYCLE/RESET MICROSWITCH |  | ON/FILL-OFF/DRAIN SWITCH       |
|  | WASH PUMP MOTOR         |  | CYCLE LIGHT           |  | OFF/DRAIN MICROSWITCH   |  | DOOR SWITCH                    |
|  | TIMER MOTOR             |  | RINSE/FILL LIGHT      |  | WASH MICROSWITCH        |  | AUTO/OFF/MAN,WASH-DRAIN SWITCH |
|  | DRAIN VALVE             |  | RINSE HEATER CONTACTS |  | DRAIN MICROSWITCH       |  | FILL SOLENOID                  |
|  | WASH RELAY COIL         |  | WASH RELAY CONTACTS   |  | FILL MICROSWITCH        |  | RINSE HEATER THERMOSTAT        |
|  | RINSE HEATER RELAY COIL |  |                       |  | DETERGENT MICROSWITCH   |  |                                |
|  |                         |  |                       |  | DRAIN VALVE SWITCH      |  |                                |

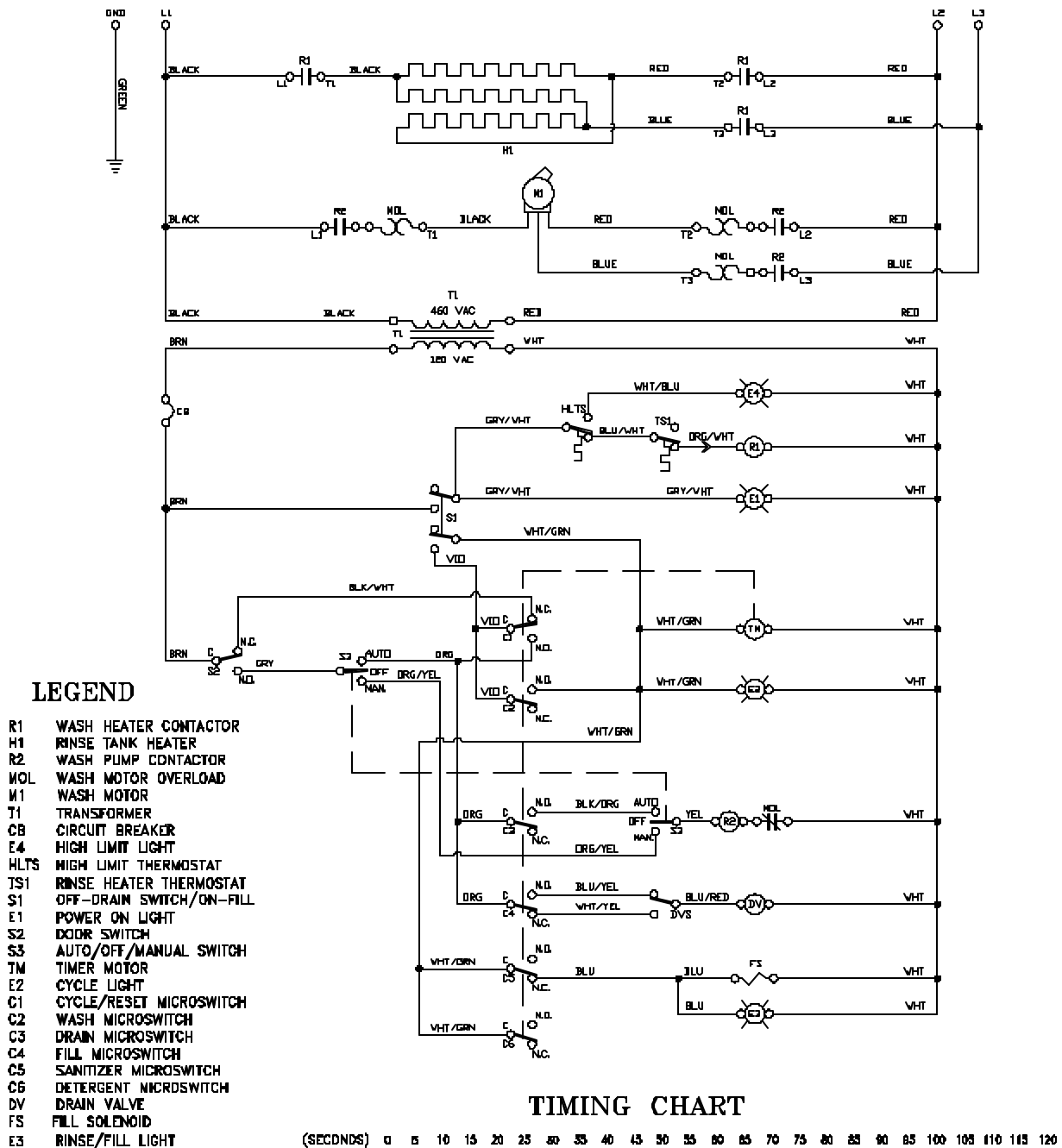
### TIMING CHART



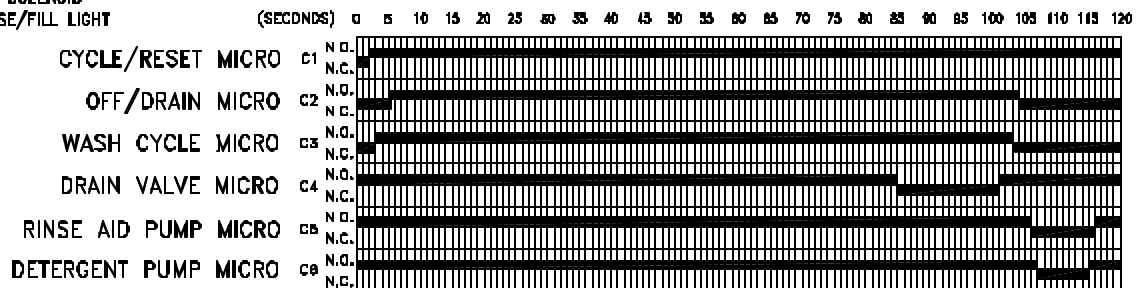
09905-131-42-75D

## SECTION 7: ELECTRICAL SCHEMATICS

### JP-24B/JP-24BF 460 VOLT - 60 HERTZ - THREE PHASE



**TIMING CHART**



9905-002-31-93