TEMPSTAR

(380 VOLT, 50 HZ, 3 PHASE MODEL)

HOT WATER SANITIZING UPRIGHT DOOR DISHMACHINES

SERVICE MANUAL

Visit Jackson on the Internet at:
www.jacksonmsc.com

July 26, 2000 **P/N 7610-002-23-91**

MANUFACTURERS WARRANTY

ONE YEAR LIMITED PARTS & LABOR WARRANTY

ALL NEW JACKSON DISHWASHERS ARE WARRANTED TO THE ORIGINAL PURCHASER TO BE FREE FROM DEFECTS IN MATERIAL OR WORKMANSHIP, UNDER NORMAL USE AND OPERATION FOR A PERIOD OF (1) ONE YEAR FROM THE DATE OF PURCHASE, BUT IN NO EVENT TO EXCEED (18) EIGHTEEN MONTHS FROM THE DATE OF SHIPMENT FROM THE FACTORY.

Jackson MSC agrees under this warranty to repair or replace , at its discretion, any original part which fails under normal use due to faulty material or workmanship during the warranty period, providing the equipment has been unaltered, and has been properly installed, maintained and operated in accordance with the applicable factory instruction manual furnished with the machine and the failure is reported to the authorized service agency within the warranty period. This includes the use of factory specified genuine replacement parts, purchased directly from a Jackson authorized parts distributor or service agency. Use of generic replacement parts may create a hazard and void warranty certification.

The labor to repair or replace such failed part will be paid by Jackson MSC, within the continental United States, Hawaii and Canada, during the warranty period provided a Jackson MSC authorized service agency, or those having prior authorization from the factory, performs the service. Any repair work by persons other than a Jackson MSC authorized service agency is the sole responsibility of the customer. Labor coverage is limited to regular hourly rates, overtime premiums and emergency service charges will not be paid by Jackson MSC.

Accessory components not installed by the factory carry a (1) one year parts warranty only. Accessory components such as table limit switches, pressure regulators, pre rinse units, etc. that are shipped with the unit and installed at the site are included. Labor to repair or replace these components is not covered by Jackson MSC.

This warranty is void if failure is a direct result from shipping, handling, fire, water, accident, misuse, acts of god, attempted repair by unauthorized persons, improper installation, if serial number has been removed or altered, or if unit is used for purpose other than it was originally intended.

TRAVEL LIMITATIONS

Jackson MSC limits warranty travel time to (2) two hours and mileage to (100) one hundred miles. Jackson MSC will not pay for travel time and mileage that exceeds this, or any fees such as those for air or boat travel without prior authorization.

WARRANTY REGISTRATION CARD

The warranty registration card supplied with the machine must be returned to Jackson MSC within 30 days to validate the warranty.

REPLACEMENT PARTS WARRANTY

Jackson replacement parts are warranted for a period of 90 days from the date of installation or 180 days from the date of shipment from the factory, which ever occurs first.

PRODUCT CHANGES AND UPDATES

Jackson MSC reserves the right to make changes in design and specification of any equipment as engineering or necessity requires.

THIS IS THE ENTIRE AND ONLY WARRANTY OF JACKSON MSC. JACKSON'S LIABILITY ON ANY CLAIM OF ANY KIND, INCLUDING NEGLIGENCE, WITH RESPECT TO THE GOODS OR SERVICES COVERED HEREUNDER, SHALL IN NO CASE EXCEED THE PRICE OF THE GOODS OR SERVICES OR PART THEREOF WHICH GIVES RISE TO THE CLAIM.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING FOR FITNESS OR MERCHANTABILITY, THAT ARE NOT SET FORTH HEREIN, OR THAT EXTEND BEYOND THE DURATION HEREOF. UNDER NO CIRCUMSTANCES WILL JACKSON MSC BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR CONSEQUENTIAL, OR FOR THE DAMAGES IN THE NATURE OF PENALTIES, ARISING OUT OF THE USE OR INABILITY TO USE ANY OF ITS PRODUCTS.

ITEMS NOT COVERED

This warranty does not cover adjustments to timer cams or thermostats, cleaning wash arms or strainers, or replacement of wear items such as curtains, squeeze tubes, drain balls, door guides, or gaskets beyond 30 days from installation of unit. Also not covered are conditions caused by the use of incorrect (non commercial) grade detergents, excessive supply water temperature or pressure, or hard water conditions.

Jackson MSC

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SPECIFICATIONS of the TEMPSTAR

PERFORMANCE/CAPABILITIES

OPERATING CAPACITY (RACKS/HOUR)

RACKS PER HOUR	57
DISHES PER HOUR	1425
GLASSES PER HOUR	1425

OPERATING CYCLE (SECONDS)

WASH TIME	45
RINSE TIME	11
DWELL TIME	2
TOTAL CYCLE TIME	60

TANK CAPACITY (GALLONS)

WASH TANK (MINIMUM)	8.0
BOOSTER TANK	3.0

TANK CAPACITY (LITERS)

WASH TANK (MINIMUM)	30.3
BOOSTER TANK	11.4

WASH PUMP CAPACITY

GALLONS PER MINUTE	150
LITERS PER MINUTE	567.8

TEMPERATURES

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

ELECTRICAL REQUIREMENTS

WASH PUMP MOTOR HP	3/4

AMPERAGE LOADS (12 KW BOOSTER HEATER)

VOLTS	PHASE	AMPS
380	3	43.6

AMPERAGE LOADS (14 KW BOOSTER HEATER)

VOLTS	PHASE	AMPS
380	3	48.4

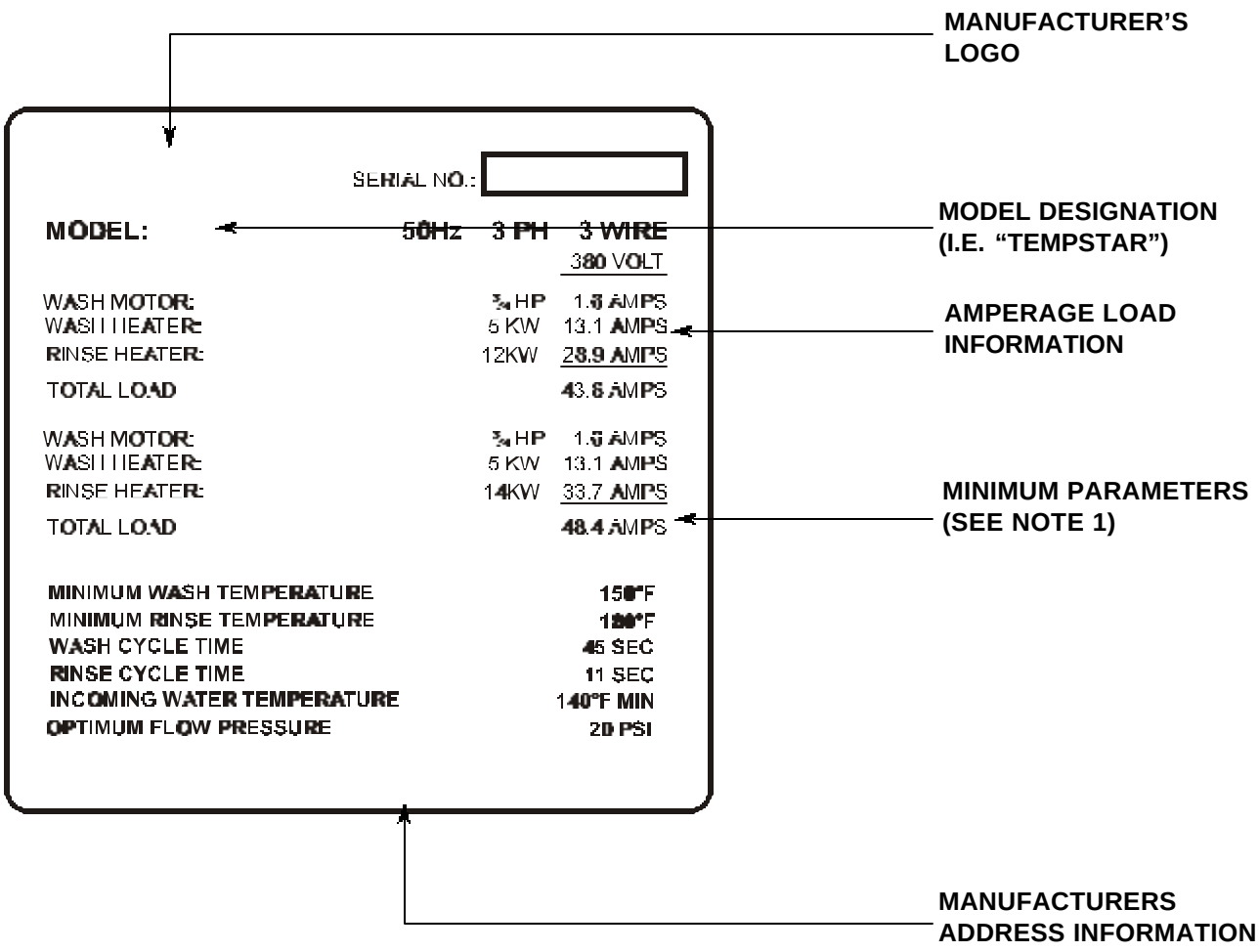
WATER REQUIREMENTS

INLET TEMPERATURE (12 KW)	140°F
INLET TEMPERATURE (14 KW)	110°F
INLET TEMPERATURE (12 KW)	60°C
INLET TEMPERATURE (14 KW)	43.3°C
GALLONS PER HOUR	52.0
LITERS PER HOUR	196.8
WATER LINE SIZE I.P.S. (Minimum)	3/4”
DRAIN LINE SIZE I.P.S. (Minimum)	1-1/2”
FLOW PRESSURE P.S.I. (Optimum)	20
FLOW PRESSURE (KG/SQ. CM) (Optimum)	1.41

FRAME DIMENSIONS

WIDTH	25 3/4”
	65.4 CM
DEPTH	25 1/4”
	64.1 CM
HEIGHT	56 3/4”
	144.1 CM
STANDARD TABLE HEIGHT	34”
	86.4 CM
MAXIMUM INSIDE CLEARANCE	17 1/4”
	43.8 CM

DETAIL of the TEMPSTAR DATA PLATE



The data plate is located (standing before the unit) on the right side front corner, directly under the tub lip. Under no circumstances should the data plate be removed from the unit. The data plate is essential in identifying the particular characteristics of your machine and is of great benefit to installers, operators, and maintenance personnel. It is recommended that, in the event the data plate is removed, you copy down the essential information on the final page in this manual for reference before installation. Do not use the above data plate to represent your dishmachine. The data plate above is a generic representation used only to show you where to locate information.

GENERAL NOTES SECTION

Before connecting, operating, or adjusting any of the dishmachines covered in this manual, please carefully read through the entire manual to familiarize yourself with the machine and its proper operation. This manual contains important operating, safety, and maintenance information concerning your dishmachine. You must follow the instructions and guidelines provided in this manual to ensure that your warranty remains in effect.

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

NOTES CONCERNING THE TEMPSTAR MODEL DATA PLATES:

NOTE 1: This area of the data plate denotes the minimum parameters that must be met in order for your dishmachine to operate at the designed level of efficiency. Not meeting the required parameters can result in substandard performance of the dishmachine. Do not refer to the data plate example in this manual for the parameters of your machine; instead, refer to the data plate affixed to the machine. Not every Tempstar model machine operates the same way. If you are unsure of whether or not you are meeting the required minimum parameters, contact your nearest Jackson authorized service agency.

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.

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 throroughly flushed prior to connecting it to any component of the dishmachine. It is necessary to remove all foreign debris from the water line that may potentially get trapped in the valves or cause an obstruction. Any valves that are fouled as a result of foreign matter left in the water line, and any expenses resulting from this fouling, are not the responsibility of the manufacturer.

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

WATER SUPPLY CONNECTION: Ensure that you have read the section entitled "PLUMBING THE DISHMACHINE" above before proceding. Install the water supply line (3/4" pipe size minimum) to the dishmachine line strainer using copper pipe. It is recommended that a water shut-off valve be installed in the water line between the main supply and the machine to allow access for service. The water supply line is to be capable of 25 PSI "flow" pressure at the recommended temperature indicated on the data plate.

In areas where the water pressure fluctuates or is greater than the recommended pressure, it is suggested that a water pressure regulator be installed. The Tempstar models covered in this manual come with water pressure regulators as standard equipment. Please notify Jackson immediately if this component is not present on your machine.

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 with the Tempstar model) be installed in the incoming water line. This prevents line hammer (hydraulic shock), induced by the solenoid valve as it operates, from causing damage to the equipment.

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

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

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

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

To install the incoming power lines, open the control box. This will require taking a phillipshead screwdriver and removing the four (4) screws on the front cover of the control box. Install 3/4" conduit into the pre-punched holes in the back of the control box. Route power wires and connect to power block and grounding lug. Install the service wires (L1, L2, and L3 (3 phase only)) to the appropriate terminals as they are marked on the terminal block. Install the grounding wire into the lug provided. Tighten the connections and perform the "pull test". The tightened wires should remain in place after giving the wires a moderate pull to see if they will come loose.

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.

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 occurences 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 accomodate 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 distibutor and water treatment specialist before there is a problem.

INSTALLATION CHECKLIST

CHECK OFF THE FOLLOWING ITEMS AS THEY ARE COMPLETED BEFORE PROCEEDING TO OPERATION OF DISHMACHINE.

- ____ Has the dishmachine been checked for concealed/hidden damage?
- ____ Has the dishmachine and the surrounding area been properly vented in accordance with all applicable codes?
- ____ Has the dishmachine been properly leveled?
- ____ Has the drain plumbing been installed with an air gap?
- ____ Has the service voltage been checked to ensure that it meets the electrical requirements listed on the dishmachine's data plate?
- ____ Has the dishmachine been properly grounded?
- ____ Has the dishmachine circuit breaker/service breaker been sized correctly, given the dishmachine's load, and has it been marked clearly and identified to all pertinent personnel?
- ____ Has the incoming water supply been flushed for debris?
- ____ Is the hot water supply at the minimum temperature as indicated on the dishmachine data plate?
- ____ Is the incoming water supply at 20 PSI?
- ____ Is the incoming water supply line at 3/4" minimum?

OPERATION INSTRUCTIONS

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

1. The pan strainer and pump suction strainer are in place and are clean.

2. The overflow tube and o-ring are installed.

3. That the wash and rinse arms are screwed securely into place and that their endcaps are tight. The wash and rinse arms should rotate freely.

POWER UP: To energize the unit, turn on the power at the service breaker. The voltage should have been previously verified as being correct. If not, the voltage will have to be verified.

FILLING THE WASH TUB: Ensure that the delime switch is in the NORMAL position, and place the power switch into the ON position. The Tempstar should fill automatically and shut off when the appropriate level is reached (just below the pan strainer). Verify that the drain stopper is preventing the wash tub water from leaking excessively. There may be some slight leakage from the drain hole. Verify that there are no other leaks on the unit before proceeding any further. The wash tub must be completely filled before operating the wash pump to prevent damage to the component. Once the wash tub is filled, the unit is ready for operation.

WARE PREPERATION: 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 dishmchine 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 PREPERATION: 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 may be necessary to run the machine through 3 cycles to ensure that all of the cold water is out of the system and to verify that the unit is operating correctly. To cycle the machine, ensure that the power is on and that the tub has filled to the correct level. Lift the doors and the cycle light will illuminate. When the light goes out, close the doors, the unit will start, run through the cycle, and shut off automatically. Repeat this two more times. The unit should now be ready to proceed with the washing of ware.

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

OPERATIONAL INSPECTION: Based upon usage, the pan strainer may become clogged with soil and debris as the workday progresses. Operators should reguarly 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 doors. When the unit completes the cycle, turn the power switch to the OFF position and open the doors. Remove and clean the pan strainer. Remove the drain stopper from the tub and allow the tub to drain (NOTE: the wash tank water will be hot so caution is advised). Once the wash tub is drained, remove the pump suction strainer. Remove soil and debris from the strainer and set to the side. Unscrew the wash and rinse arms from their manifolds. Remove the endcaps and flush the arms with water. Use a brush to clean out the inside of the arms. If the nozzles appear to be clogged, use a toothpick to remove the obstruction. Wipe the inside of the unit out, removing all soil and scraps. Reassembly 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 drain stopper and strainers and close the doors.

TROUBLESHOOTING SECTION

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

Symptom	Possible Cause	Action
Dishmachine will not fill after the door is closed. Power "ON" light is illuminated.	Faulty rinse solenoid valve.	Repair or replace valve as required.
	Faulty door switch.	Verify the wiring of the switch; if correct, replace the switch.
	Fouled/faulty high level probe.	Clean probe if fouled. If clean and still not working, replace.
Dishmachine will not fill after the door is closed. Power "ON" light is not illuminated.	Service breaker tripped.	Reset. If the breaker trips again, contact an electrician to verify the amp draw of the machine.
	Machine not connected to power source.	Verify that the machine has been properly connected to the power source.
	Faulty power switch.	Verify the wiring of the switch; if correct, replace the switch.
Dishmachine will not run after the door is closed. Power "ON" light is illuminated and unit is filling.	Timer motor faulty.	Verify that the timer is rotating. If not, check to see that the motor is receiving power. If so, replace the motor and/or timer assembly.
	Wash motor faulty/damaged.	Verify that the wash motor is getting power. If so, replace the motor.
	Wash motor contactor faulty.	Check for continuity; if contacts are open, replace the contactor.

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Symptom	Possible Cause	Action
Dishmachine runs continuously in the wash cycle.	Machine is in Delime mode.	Flip NORMAL/DELIME switch to NORMAL mode.
	Timer motor faulty.	Verify that the timer is rotating. If not, check to see that the motor is receiving power. If so, replace the motor and/or timer assembly.
	Cam timer jammed by obstruction.	Remove obstruction.
Wash or rinse heater does not work.	Faulty heater element.	Check element for continuity; if open, replace the heater.
	Faulty heater contactor.	Replace the contactor.
	Misadjusted/faulty thermostat(s).	Verify operation and setting of thermostats, replace if necessary.
Dishmachine fills slowly and/or the rinse is week.	Clogged or obstructed rinse arms.	Remove and clean rinse arms.
	Low incoming water pressure.	Adjust the water pressure regulator to ensure that there is 20 PSI flow.
	Y-strainer is clogged.	Clean out Y-strainer.

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Symptom	Possible Cause	Action
Rinse water not reaching required temperature.	Faulty rinse heater.	Check element for continuity; if open, replace the heater.
	Misadjusted/faulty thermostat(s).	Verify operation and setting of thermostats, replace if necessary.
	Rinse thermometer is defective.	Replace thermometer.
Wash water not reaching required temperature.	Faulty wash heater.	Check element for continuity; if open, replace the heater.
	Misadjusted/faulty thermostat(s).	Verify operation and setting of thermostats, replace if necessary.
	Wash thermometer is defective.	Replace thermometer.
Doors will not close completely.	Improper spring tension.	Adjust spring tension as required by loosening (not removing) spring bolt nuts and adjusting the tension. Tighten nuts back when done.
	Obstruction in door channel.	Remove the obstruction.
	Doors are not square with frame.	Adjust the frame to accommodate the doors.

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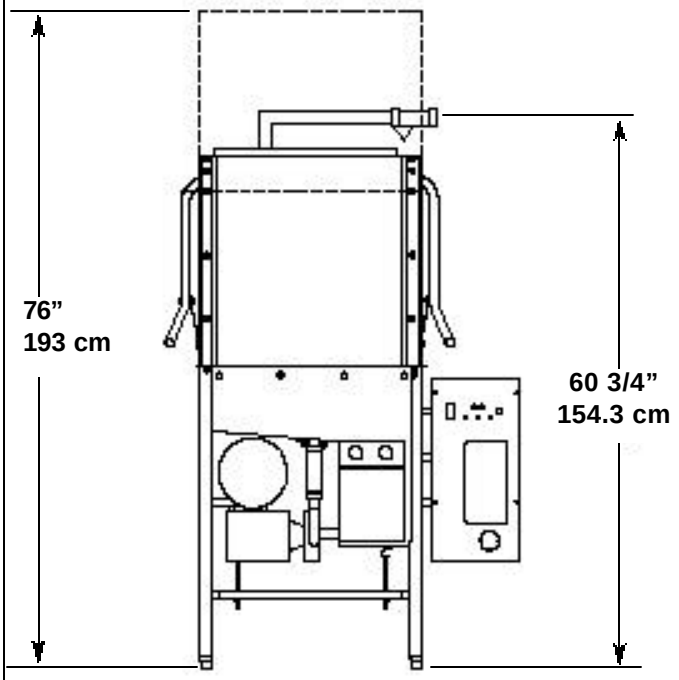
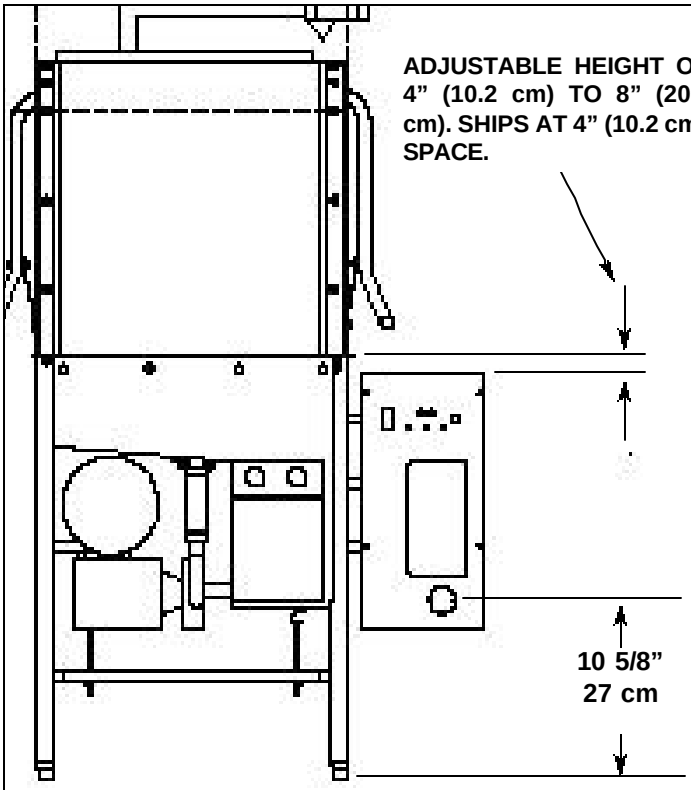
Symptom	Possible Cause	Action
Water leak at the wash pump.	Wash pump seal defective.	Replace the seal.
	Petcock or pump drain (if equipped) not shut/tight.	Close or tighten.
	Loose hoses (hoseclamps) on the wash pump.	Tighten hose clamps.
Will not rinse during autocycle.	Defective rinse solenoid.	Repair or replace the rinse solenoid as required.
	Faulty fill microswitch.	Replace microswitch.
	No water to machine.	Verify that there is water at 20 PSI connected to the machine.
Dishes are not coming clean	Machine temperatures are not up to the minimum requirements.	Verify that incoming water, rinse water, and wash water match the required temperatures as listed on the machine data plate.
	No detergent/too much detergent.	Adjust detergent concentration as required for the amount of water held by the machine.
	Solid dispenser cannister empty.	Replace cannister.

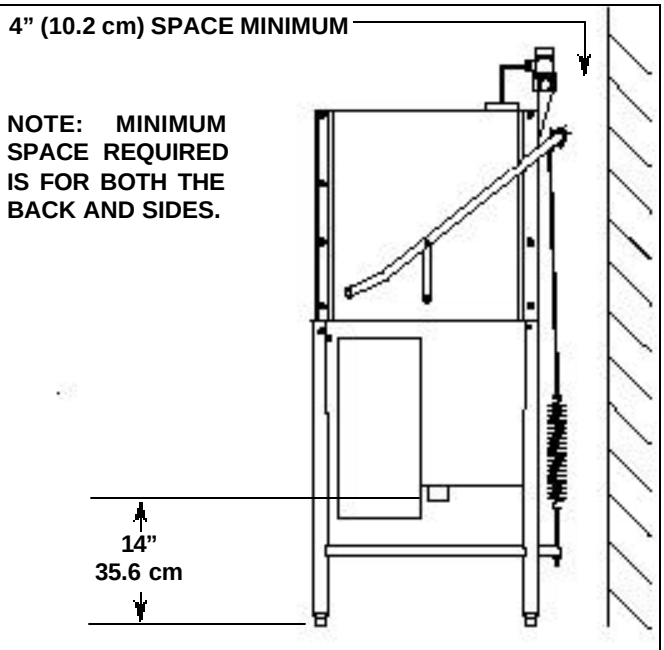
DIMENSIONS



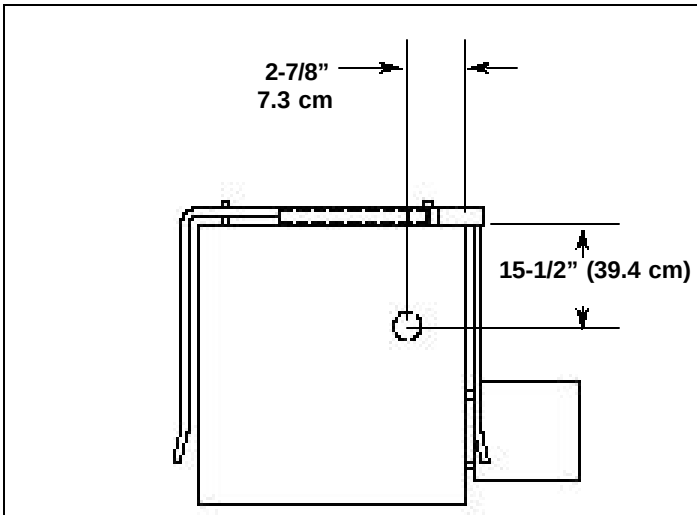
MAXMUM HEIGHT (CLEARANCE) NEEDED & HEIGHT TO 3/4” (1.9 cm) NPT WATER CONNECTION.



CONTROL BOX CONNECTION AND ADJUSTMENT.



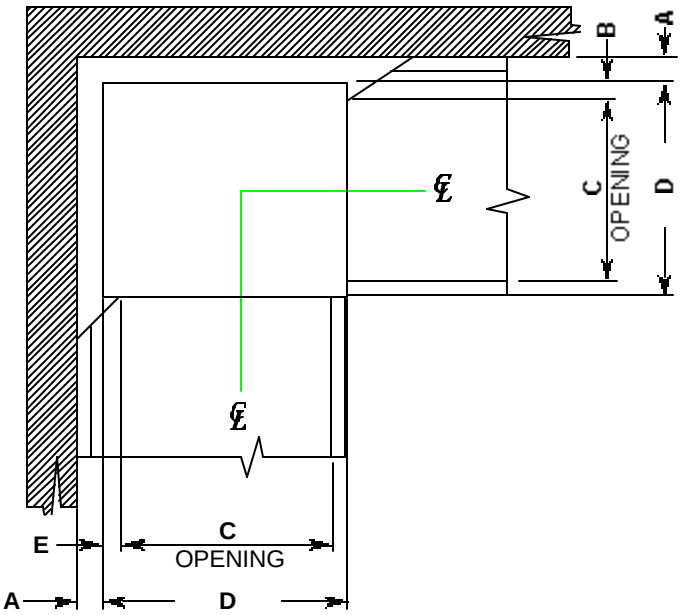
HEIGHT TO 1-1/2” (3.8 cm) I.P.S. DRAIN FITTING.



1-1/2” (3.8 cm) I.P.S. DRAIN FITTING LOCATION.

NOTE: ALL OF THE DIMENSIONS INDICATED HERE APPLY TO THE TEMPSTAR. THESE DIMENSIONS ARE REFERENCED HERE ONLY TO AID IN THE INSTALLATION OF THE UNIT.

TABLE DIMENSIONS



LETTER	DIM (IN)	DIM (CM)
A	4" (MIN.)	10.16 CM (MIN)
B	2-1/2"	6.35 CM
C	20-1/2"	52.07 CM
D	25-1/4"	64.14 CM
E	2-1/4"	10.16 CM
F	1-1/2"	3.81 CM
G	3/4"	1.91 CM

TABLE DIMENSIONS
CORNER INSTALLATION

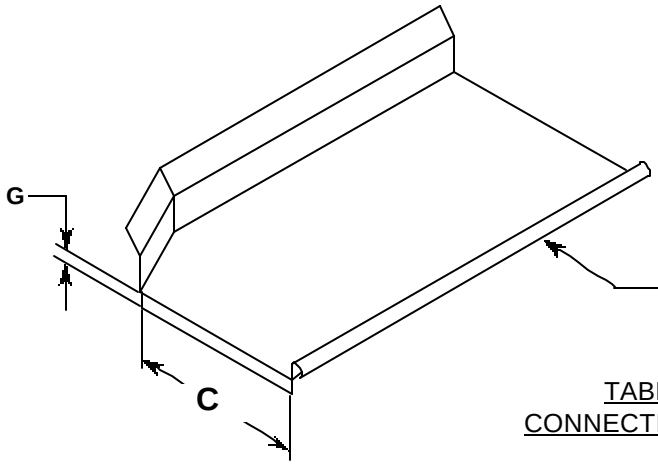


TABLE DIMENSIONS
CONNECTION TO DISHMACHINE

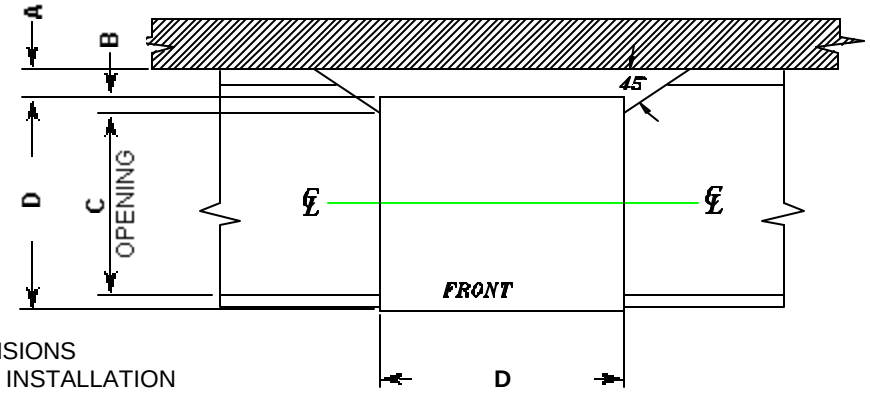
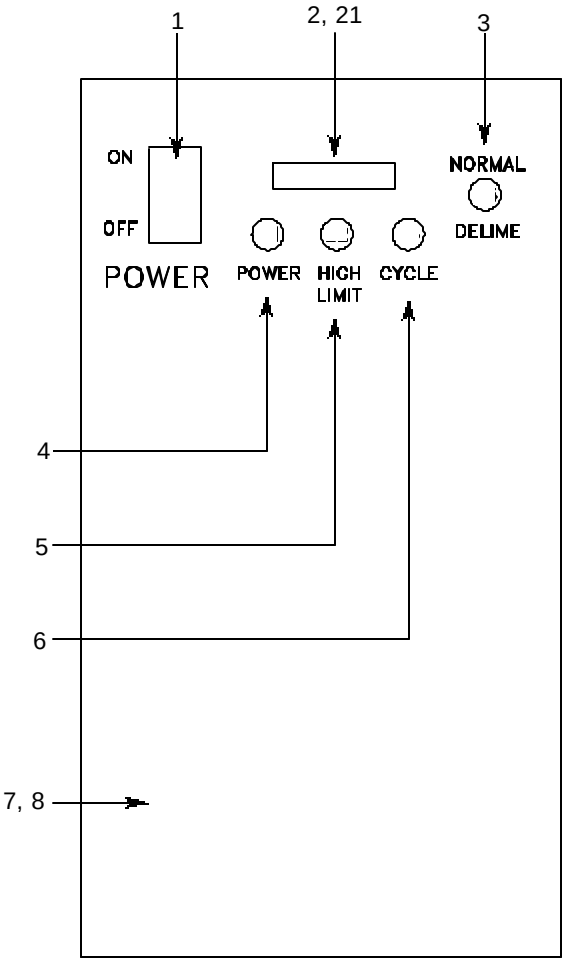
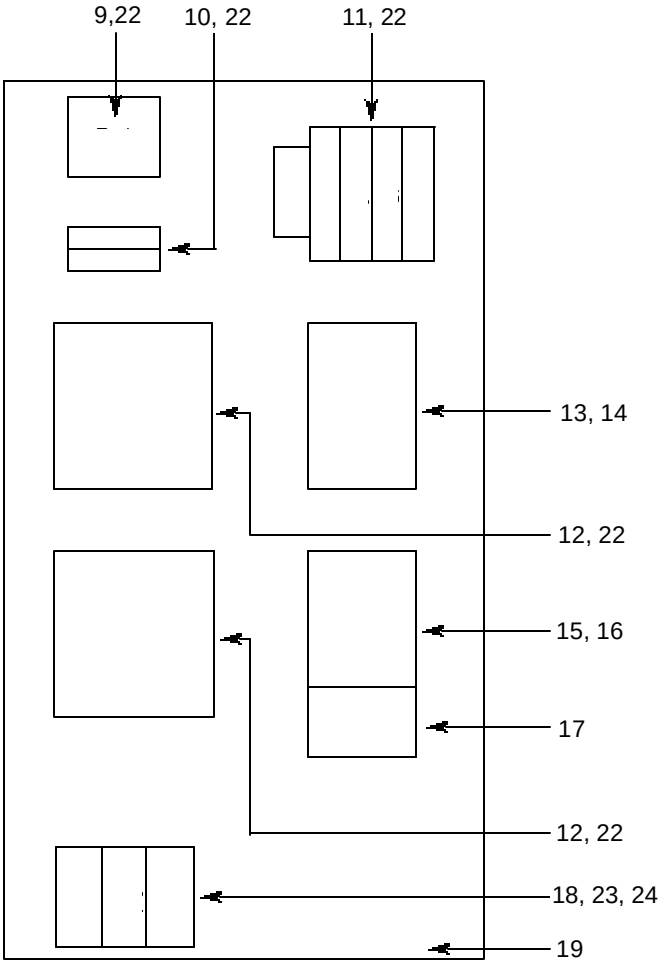


TABLE DIMENSIONS
STRAIGHT THROUGH INSTALLATION

CONTROL BOX LAYOUT

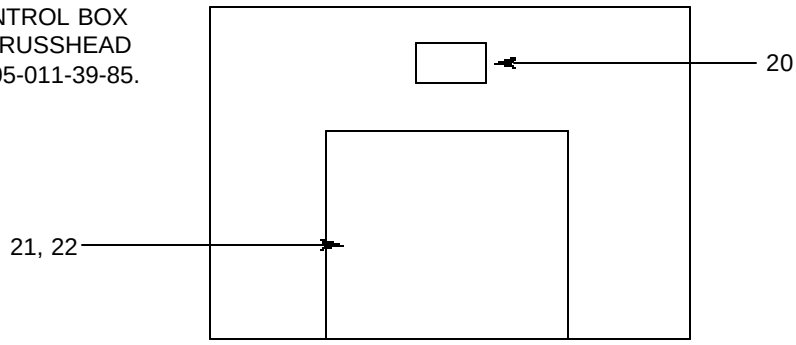


CONTROL BOX FRONT COVER



INNER CONTROL BOX LAYOUT

THE MOUNTING SCREWS FOR THE CONTROL BOX FRONT COVER (10-32 X 1/2" SLOTTED TRUSSHEAD SCREWS) MAY BE ORDERED USING 5305-011-39-85.



CONTROL BOX BOTTOM LAYOUT

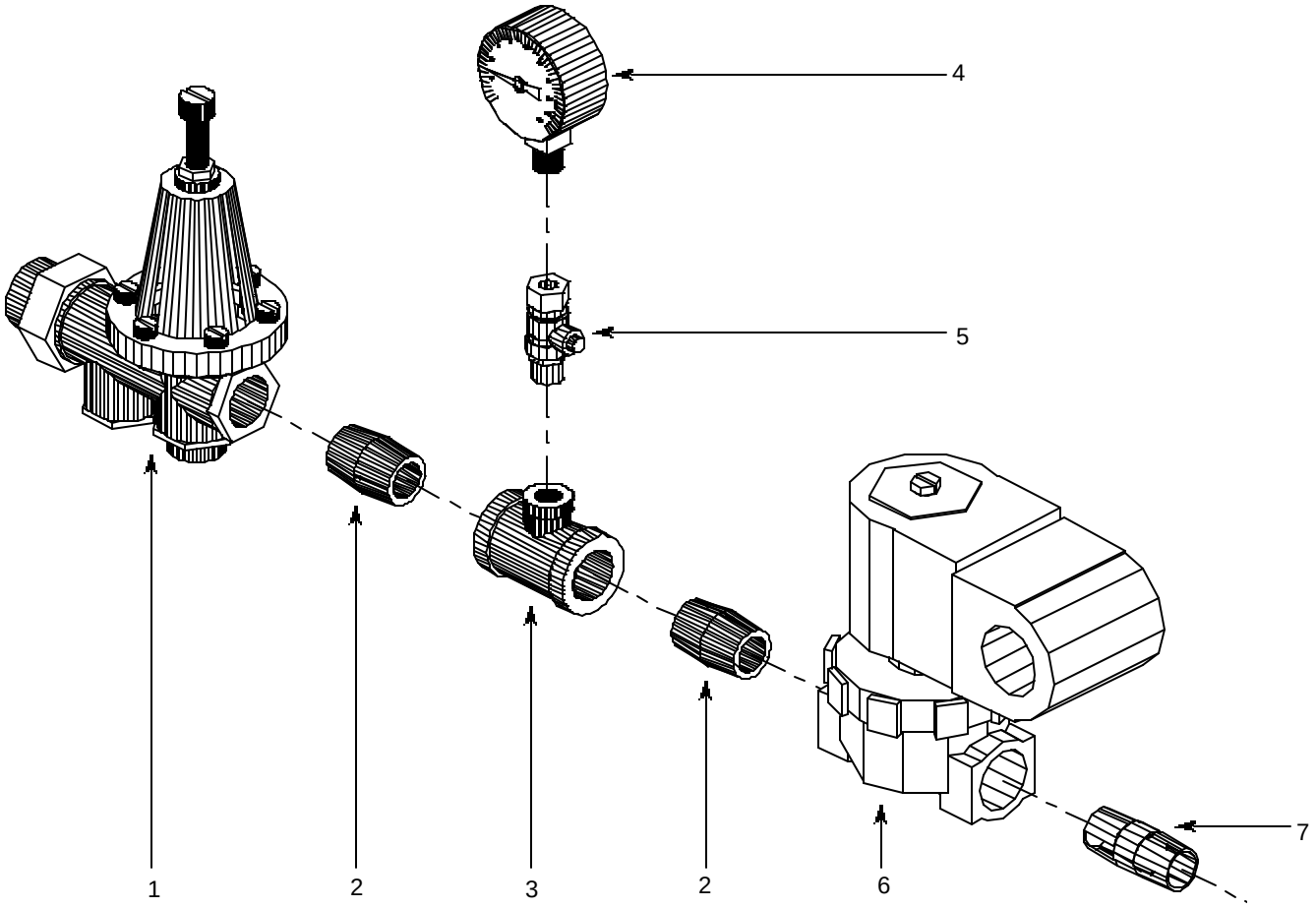
CONTROL BOX LAYOUT (CONTINUED)

ITEM	QTY	DESCRIPTION	MFG No.
1	1	Power Switch	5930-301-21-18
2	1	Cycle Counter	5990-111-47-42
3	1	Normal/Delime Switch	5930-301-46-00
4	1	Power Light	5945-504-06-18
5	1	High Limit Light	5945-504-07-18
6	1	Cycle Light	5945-504-08-18
7	1	Decal, Control Box Cover	9905-021-64-41
8	1	Control Box Cover Weldment	5700-031-91-45
9	1	Relay, Top Mount, Control	5945-111-47-51
10	1	Fuse Holder	5920-401-03-14
11	1	Timer, 220 Volt, 50 Hz	5945-306-14-00
12	2	Contactor, 220V, 4 Pole	5945-109-01-69
13	1	Liquid Level Control Board	6680-200-08-21
14	2	Screw, 6-32 x 5/8" Long	5305-011-39-85
15	1	Wash Motor Contactor	5945-002-14-78
16	3	Screw, 10-32 x 3/8" Panhead	5305-173-26-00
17	1	Motor Overload	5945-002-14-79
18	1	3 Pole Terminal Block	5940-011-48-27
19	1	Control Box Weldment	5700-041-47-55
20	1	Circuit Breaker, 2 Amp	5925-111-64-18
21	1	Control Transformer	5950-111-64-17
22	13	Screw, 6-32 x 3/8" Long	5305-171-02-00
23	3	Locknut, 10-24 with Nylon Insert	5310-373-01-00
24	1	Ground Lug	5940-200-76-00

ORDERING REPLACEMENT LEFT SIDE MOUNTING CONTROL BOXES:

In some rare instances, customers may request a Tempstar unit with the control box mounted on the left side as opposed to the normal right side. The components found in these control boxes are the same as found in the right side mounted box. However, two parts specifically need to be ordered from the items below if replacements are necessary for the left-handed control box option:

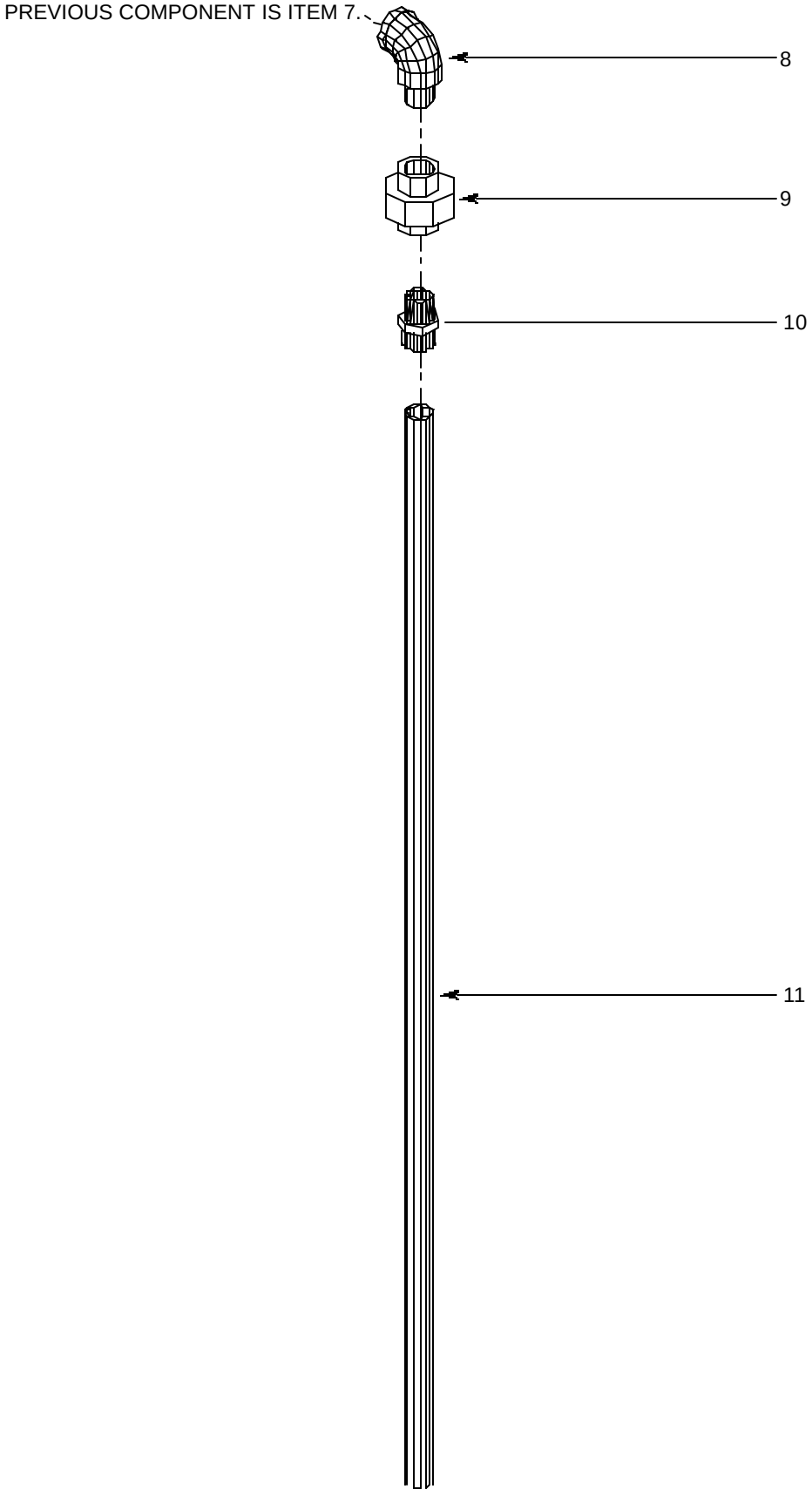
INCOMING PLUMBING ASSEMBLY



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

ITEM	QTY	DESCRIPTION	MFG No.
1	1	Water Pressure Regulator, 3/4" NPT	6685-011-58-22
2	2	Nipple, Close, 3/4" NPT	4730-207-34-00
3	1	Tee, Brass, 3/4" NPT x 3/4" NPT x 1/4" NPT	4730-211-04-00
4	1	Gauge, Pressure, 0-100 PSI	6685-111-88-34
5	1	Valve, Ball, 1/4" NPT	4810-011-72-67
6	1	Valve, Solenoid, 3/4" NPT	4810-100-03-18
7	1	Nipple, Brass, 3/4" NPT x 2" Long	4730-207-46-00

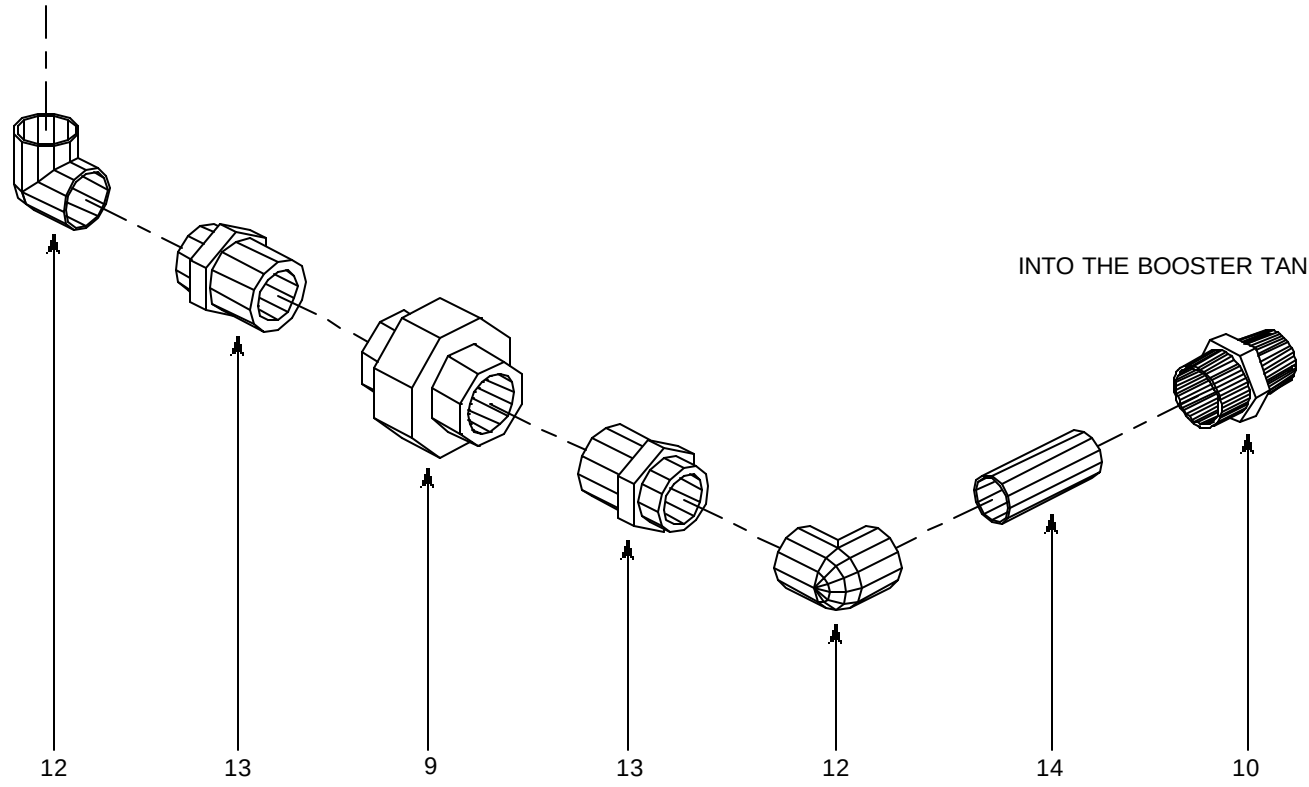
INCOMING PLUMBING ASSEMBLY (CONTINUED)



INCOMING PLUMBING ASSEMBLY (CONTINUED)

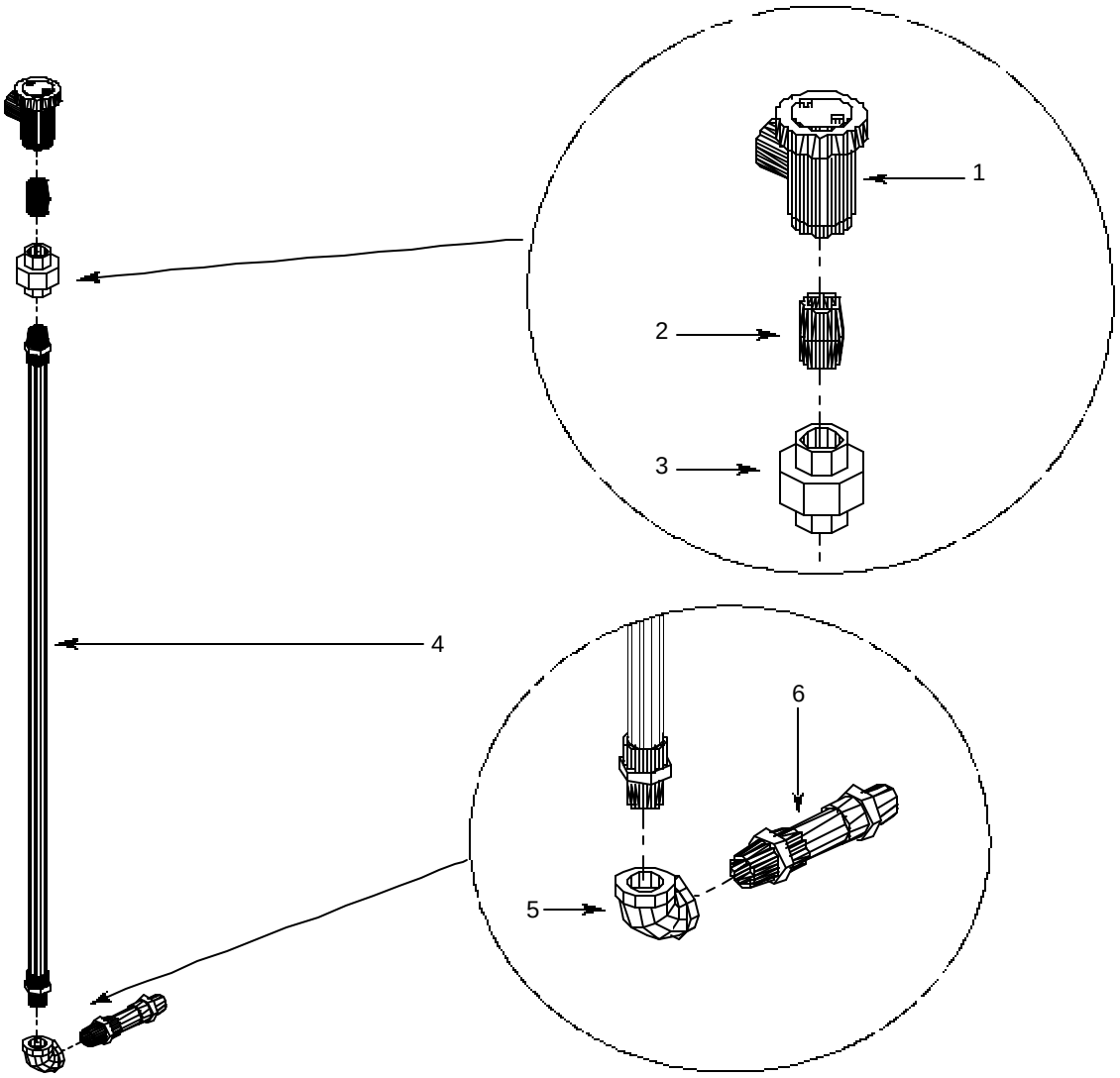
ITEM	QTY	DESCRIPTION	MFG No.
8	1	Elbow, 3/4" NPT, Brass, Street	4730-206-04-34
9	1	Union, 3/4" NPT, Brass	4730-212-05-00
10	1	Adapter, 3/4" Male	4730-401-11-01
11	1	Tube, Copper, 3/4" x 36-1/2" Long	5700-011-58-26

PREVIOUS COMPONENT IS ITEM 11.



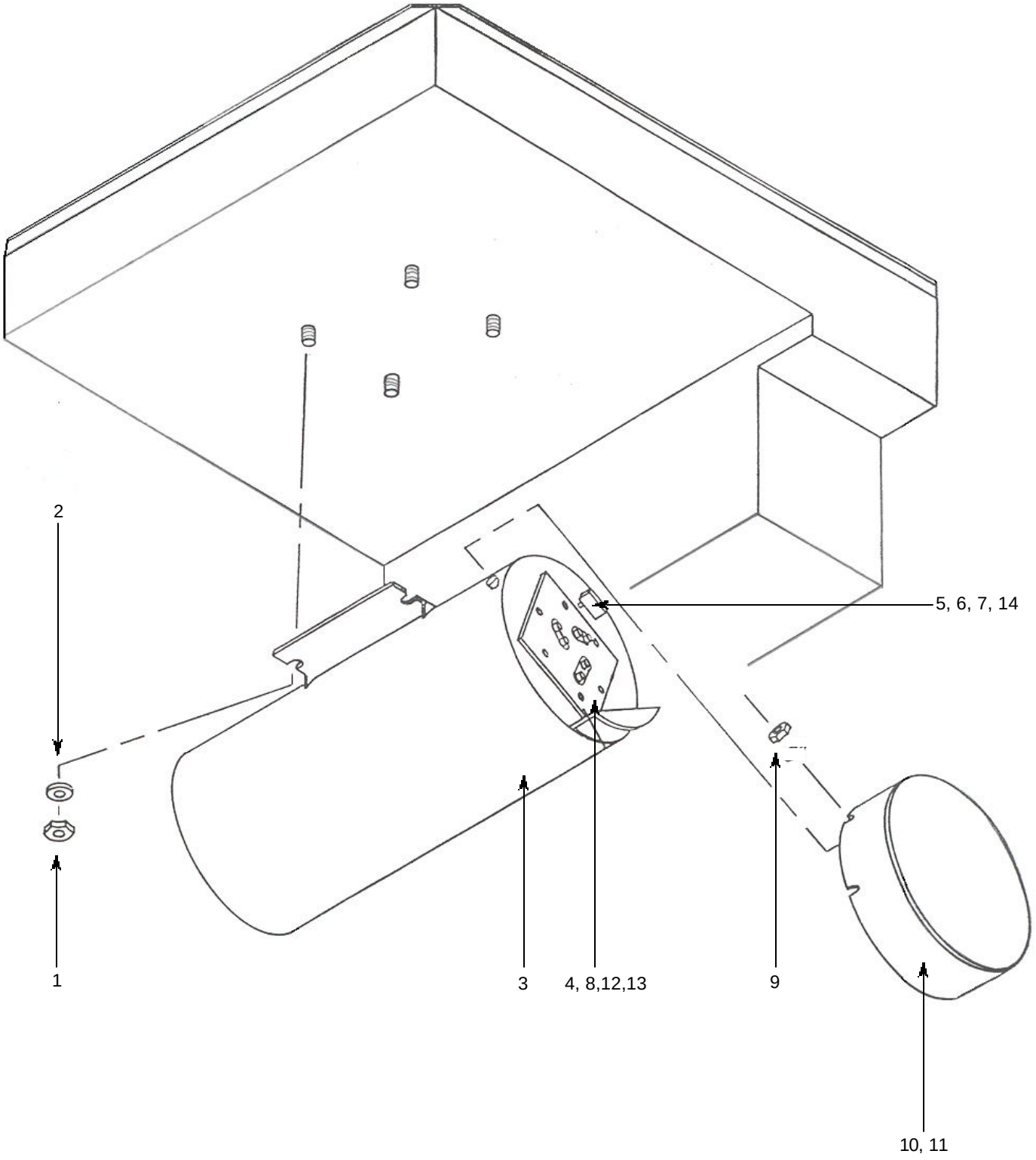
ITEM	QTY	DESCRIPTION	MFG No.
12	2	Elbow, 3/4" - 90 Degree, #707 Copper	4730-406-16-01
13	2	Adapter, 3/4", 604-2	4730-401-10-01
14	1	Tube, Copper, 3/4" x 3-3/4" Long	5700-011-58-28

OUTLET PLUMBING ASSEMBLY



ITEM	QTY	DESCRIPTION	MFG No.
1	1	Vacuum Breaker, 3/4" NPT	4820-300-08-00
2	1	Nipple, Brass, Close, 3/4" NPT	4730-207-34-00
3	1	Union, Brass, 3/4" NPT	4730-212-05-00
4	1	Tube, Copper with Adapters, 30-3/8" Long	5700-011-82-27
5	1	Elbow, Brass, Street, 3/4" NPT	4730-206-04-34
6	1	Tube, Copper with Adapters, 4-1/2" Long	5700-001-26-72

TEMPSTAR BOOSTER TANK ASSEMBLY



TEMPSTAR BOOSTER TANK ASSEMBLY/THERMOSTATS

ITEM	QTY	DESCRIPTION	MFG No.
1	4	Locknut, 1/4"-20 with Nylon Insert	5310-374-01-00
2	4	Washer, 1/4" ID, S/S, Flat	5311-174-01-00
3	1	Booster Tank Weldment	5700-001-22-02
4	1	Rinse Heater (See Rinse Heater Section)	N/A
5	1	Fitting, 1/4" Imperial Brass	5310-924-02-05
6	1	Thermostat Bracket	5700-011-73-72
7	1	Thermostat, Rinse	5930-121-71-29
8	6	Nut, Hex, 5/16"-18	5310-275-01-00
9	1	Locknut, 10-24 with Nylon Insert	5310-373-01-00
10	1	Decal, Warning - Disconnect Power	9905-100-75-93
11	1	Booster Tank Cover Weldment	5700-001-29-30
12	6	Lock Washer, 5/16", Split	5311-275-01-00
13	1	Gasket, Rinse Heater	5330-200-02-70
14	1	Decal, Thermostat Regulating	9905-011-84-31

This unit has a probe-direct sensing type thermostat with fixed set point and adjustable range for both wash and booster tank heat regulating. The same type thermostat is used as the high limit sensor for the wash tank heater. It operates a precision single double throw switch through a lever for close tolerance narrow differential switching capability. The unit has screw driver adjustment and front connect terminals and is mounted by 7/16"-24 thread, Loxit fitting for easy removability and serviceability.

The thermostat range is from 140°F (60°C) to 240°F (115.6°C) with a maximum bulb exposure temperature of 300°F (148.9°C). Unit is listed at 12.5 amps at 24/120 VAC.

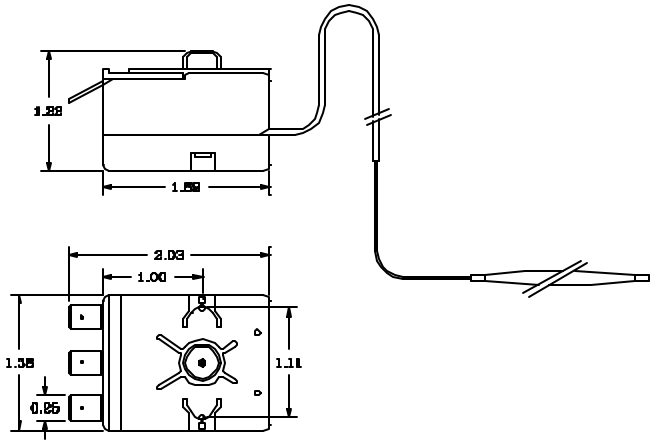
There are three (3) thermostats on the dishwasher. One monitors the wash tank temperature, the second monitors the rinse water temperature with the third protecting the heater element. Although all are identical in appearance there are different replacement part numbers depending on the function of the thermostat.

Calibration:

Wash Thermostat:
Set Point --155°F (68.3°C). Adjustable range.

Rinse Thermostat:
Set Point --195°F (90.6°C). Adjustable range

Hi-LImit Thermostat:
Fixed set point--210°F (98.9°C). non-adjustable



The hi-limit thermostat is used to protect the heater element in the event of a run away regulating thermostat or a dry fire situation. It is set for 210°F (98.9°C) with a fixed set point. **This part is not adjustable.**

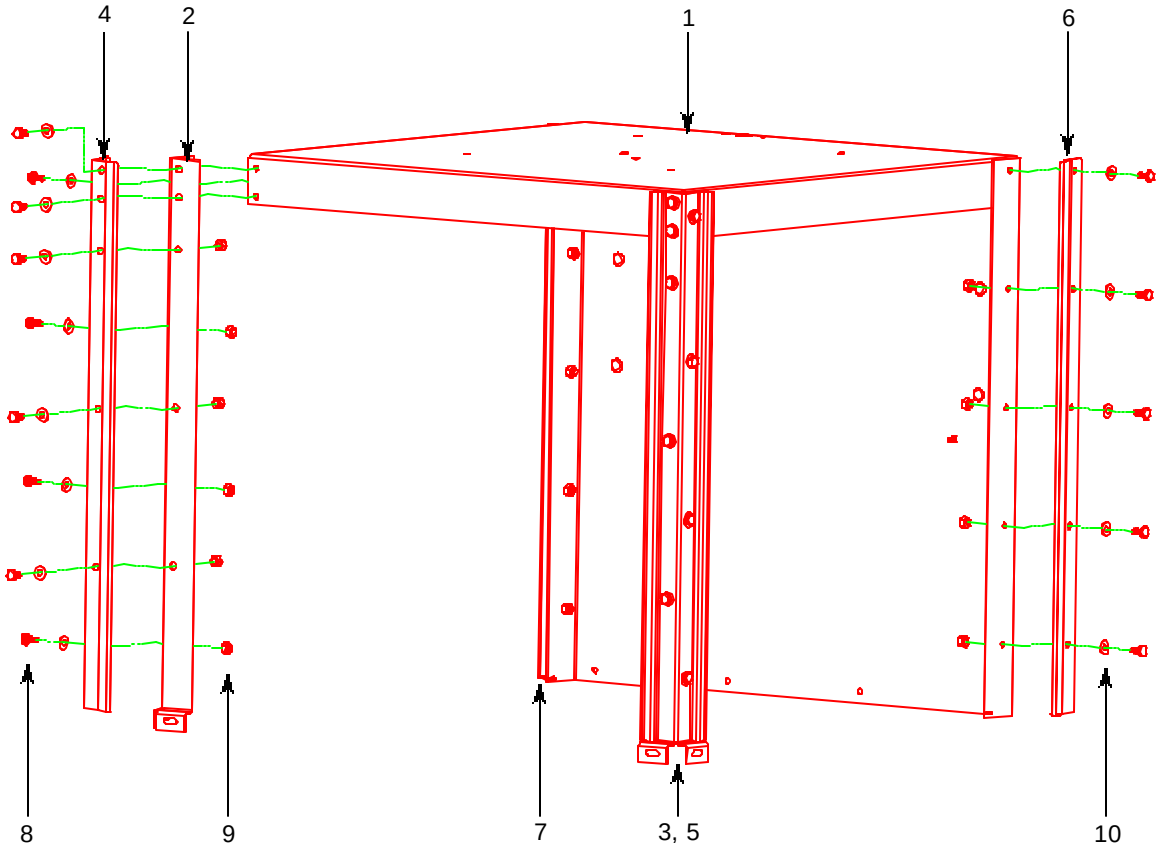
The wash tank regulating thermostat will maintain the correct wash water temperature to meet NSF requirements. These specify that the wash be no lower than 150°F (65.6°C). It is set at the factory to energize the tank heater at 155°F (68.3°C) and de-energze at 167°F (75°C).

The rinse tank regulating thermostat will maintain the correct rinse water temperature to meet NSF requirements. It is factory set to energize the rinse tank heater at 195°F (90.6°C) and de-energize at 200°F (93.3°C).

To convert from the old style "bayonette" thermostats, you will need these kits:
Kit, Thermostat, High Limit with Bracket - 6401-021-83-86
Kit, Thermostat, Wash Tank with Bracket - 6401-021-83-90
Kit, Thermostat, Rinse Tank with Bracket - 6401-021-83-83

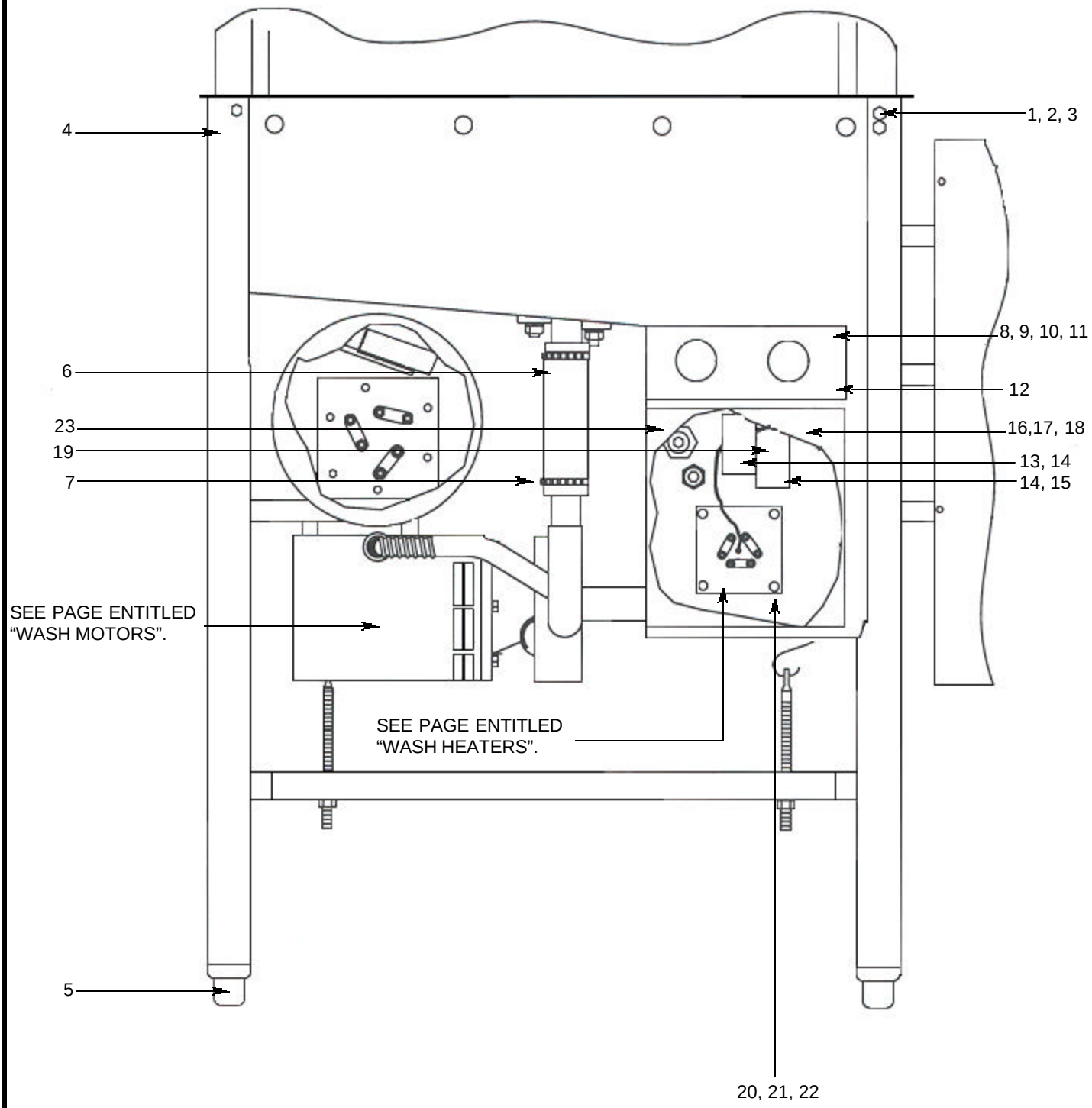
ITEM	QTY	DESCRIPTION	MFG No.
	1	Thermostat, High Limit	5930-121-71-36
	1	Thermostat, Wash tank	5930-121-67-72
	1	Thermostat, Booster Tank	5930-121-71-29

HOOD ASSEMBLY



ITEM	QTY	DESCRIPTION	MFG No.
1	1	Hood Weldment	5700-041-94-39
2	1	Left Front Hood Support	5700-021-33-18
3	1	Right Front Hood Support	5700-021-33-17
4	1	Double Door Guide, Front Left	5700-021-33-20
5	1	Double Door Guide, Front Right	5700-021-33-19
6	1	Guide, Right Rear	5700-021-84-70
7	1	Guide, Left Rear	5700-021-84-71
8	28	Screw, 1/4"-20 x 1/2" Long	5305-274-02-00
9	28	Locknut, 1/4"-20 with Nylon Insert	5310-374-01-00
10	28	Washer, 1/4"-20 ID, S/S, Flat	5311-174-01-00

TUB FRONT ASSEMBLY



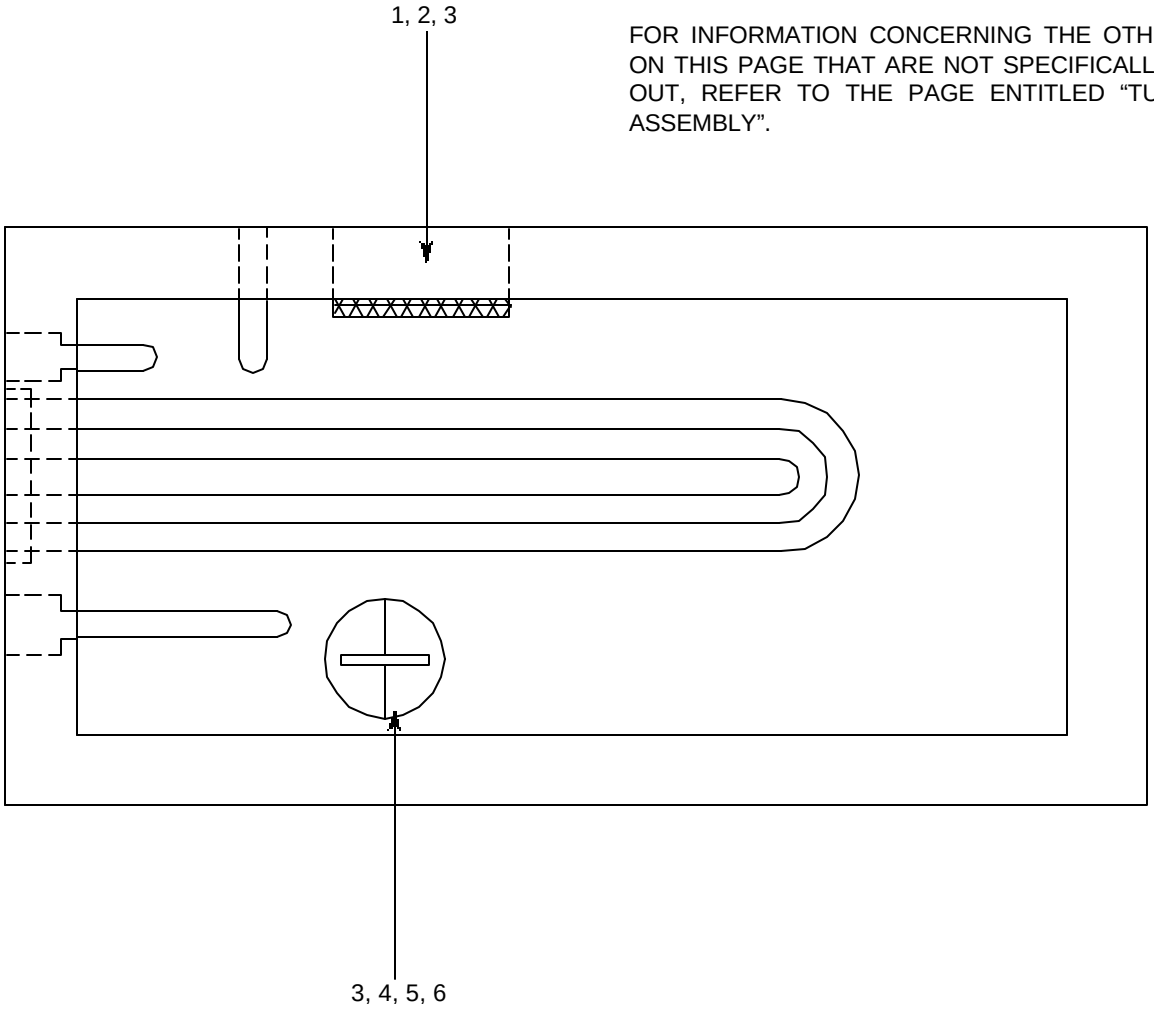
TUB FRONT ASSEMBLY (CONTINUED)

ITEM	QTY	DESCRIPTION	MFG No.
1	8	Screw, 1/4"-20 x 1/2" Long	5305-274-02-00
2	8	Locknut, 1/4"-20 with Nylon Insert	5310-374-02-00
3	8	Washer, 1/4"-20 ID, S/S, Flat	5311-174-01-00
4	1	Frame Weldment	5700-031-48-01
5	4	Bullet Foot	5340-108-01-03
6	1	Discharge Hose	5700-011-88-24
7	2	Hose Clamp	4730-719-01-37
8	1	Gauge Bracket	5700-011-48-08
9	1	Thermometer, Wash	6685-111-40-38
10	1	Thermometer, Rinse	6685-111-40-39
11	2	Locknut, 10-24 with Nylon Insert	5310-373-01-00
12	1	Decal, Gauge Bracket	9905-011-50-88
13	1	Thermostat, High Limit	5930-121-71-36
14	2	Thermostat Bracket	5700-011-73-72
15	1	Thermostat, Regulating	5930-121-67-72
16	1	Decal, High Limit	9905-011-84-32
17	1	Decal, Thermostat Regulating	9905-011-84-31
18	4	Locknut, 6-32 with Nylon Insert	5310-373-03-00
19	1	Fitting, 1/4" Imperial Brass	5310-924-02-05
20	1	Wash Heater Gasket	5330-200-02-70
21	4	Lockwasher, 5/16", S/S, Split	5311-275-01-00
22	4	Nut, Hex, 5/16"18, S/S	5310-275-01-00
23	1	Probe, High Water	6680-200-02-68

INNER TUB ASSEMBLY

THE TUB PAN STRAINER, WHICH IS NOT SHOWN ON THIS PAGE, MAY BE ORDERED USING PART NUMBER 5700-021-50-08.

FOR INFORMATION CONCERNING THE OTHER ITEMS ON THIS PAGE THAT ARE NOT SPECIFICALLY CALLED OUT, REFER TO THE PAGE ENTITLED “TUB FRONT ASSEMBLY”.



ITEM	QTY	DESCRIPTION	MFG No.
1	1	Suction Strainer Bracket	5700-001-22-24
2	1	Suction Strainer Weldment	5700-001-22-23
3	4	Locknut, 1/4"-20 with Nylon Insert	5310-374-01-00
4	1	Wash Overflow Weldment	5700-001-25-69
5	1	Wash Overflow Support	5700-001-27-55
6	1	O-Ring	5330-400-05-00

WASH HEATERS/RINSE HEATERS

The Tempstar 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	Wash Heater	40°F Rise Rinse Heater (12 KW)	70°F Rise Rinse Heater (14 KW)
Tempstar	380	50	3	4540-121-47-39	4540-121-63-66	4540-121-63-38

NOTE: A 12 KW heater is the normal heater installed in the Tempstar; a 14 KW heater is used for those applications that have lower temperature incoming water. As a rule, a 12 KW heater requires 140°F (60°C) incoming water temperature, while a 14 KW heater requires 110°F (43.3°C).

SOME NOTES CONCERNING SERVICING WASH AND RINSE TANK HEATERS ON THE TEMPSTAR MODELS:

The heaters installed in these units have certain torque requirements that should be adhered to whenever serviced. For reference, the following torgue seetings are used on the heaters at the factory:

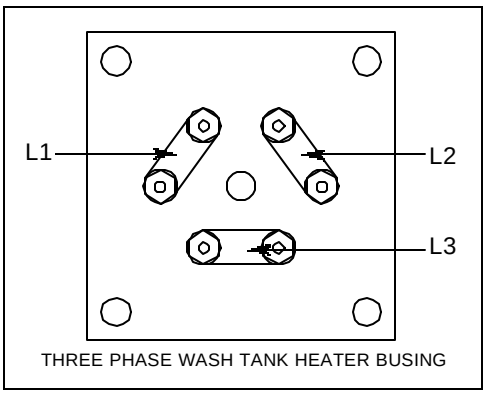
The hex nuts for securing the heater to the wash tank/rinse tank are torqued to 140 inch-pounds.

The nuts used to secure the bus bar wires to the heaters are torqued to 30 inch-pounds.

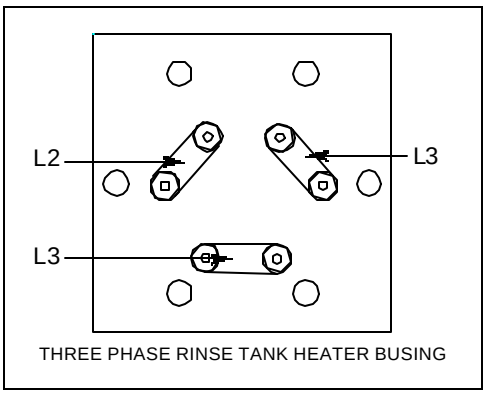
The copper bus bars may be ordered using the following part numbers:

Wash Heater: 5700-002-25-80

Rinse Heater: 5700-002-25-83

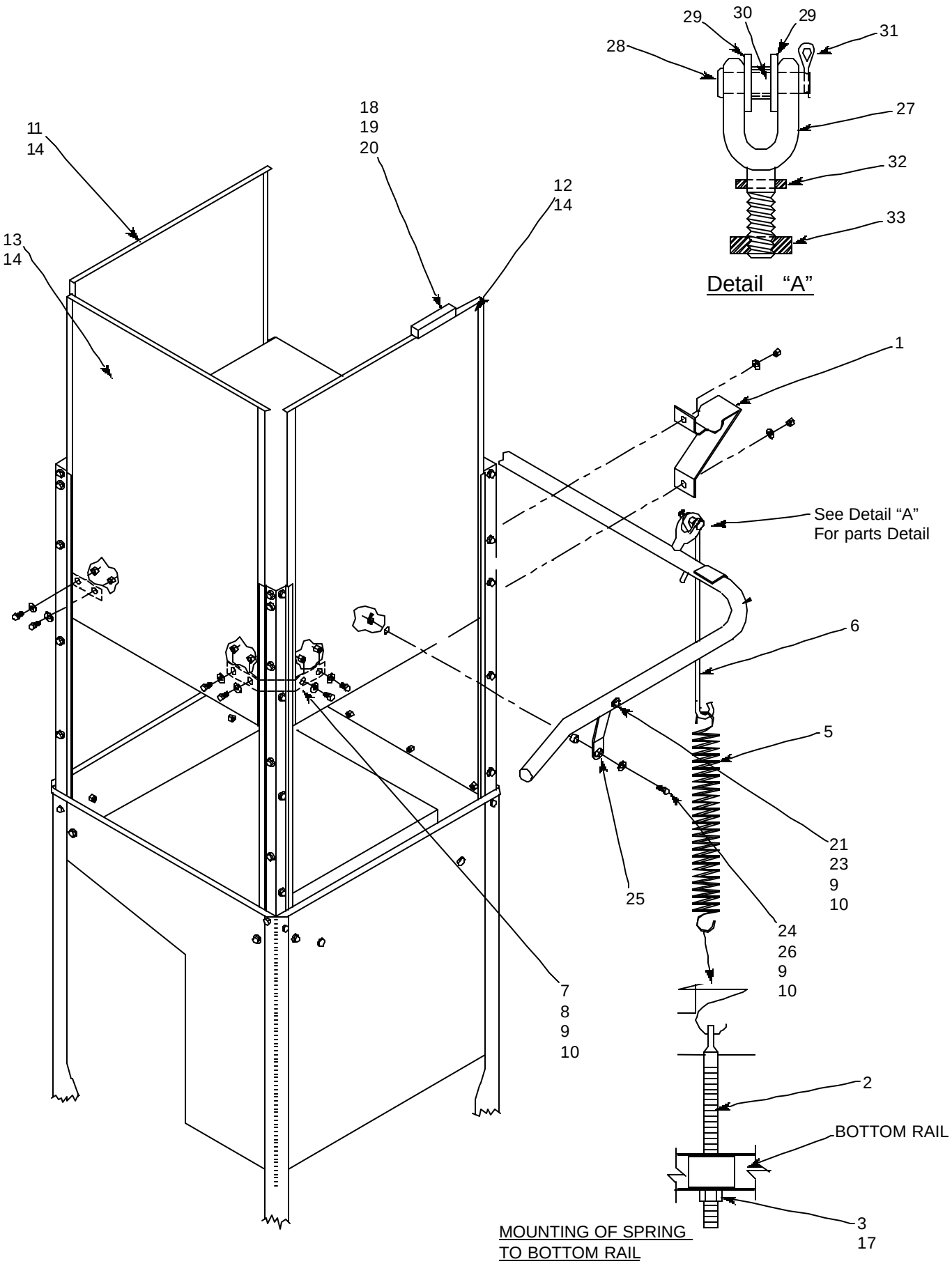


THREE PHASE WASH TANK HEATER BUSING



THREE PHASE RINSE TANK HEATER BUSING

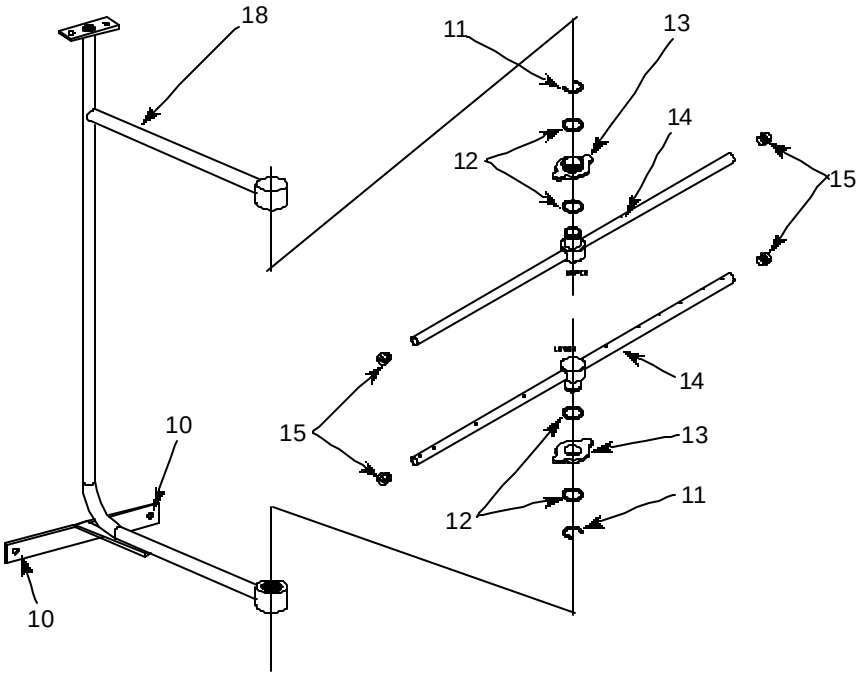
CANTILEVER ARM/DOOR ASSEMBLIES



CANTILEVER ARM/DOOR ASSEMBLIES (CONTINUED)

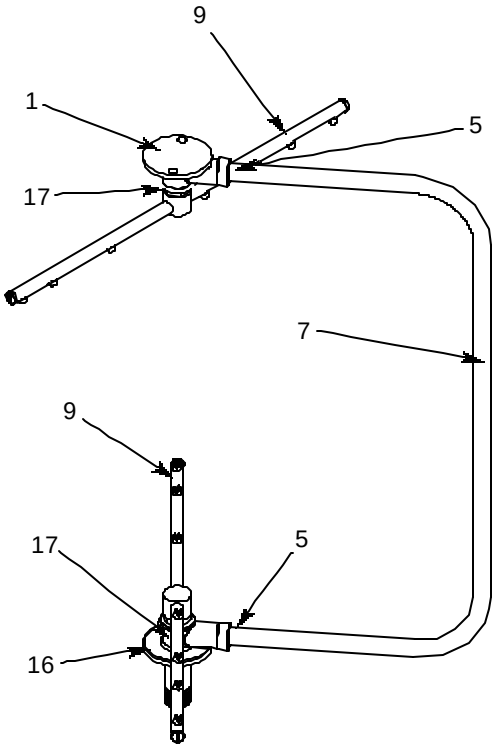
ITEM	QTY	DESCRIPTION	MFG No.
1	2	Bracket, Cantilever Support	5700-031-88-00
2	2	Bolt, Canlilever Hanger Eye 3/8"-16	5306-956-05-00
3	4	Nut, 3/8"-16 Stainless Steel	5310-276-01-00
4	2	Wear Button .50 Dia	5700-011-88-01
5	2	Spring	5340-109-02-00
6	2	Rod, Spring	5700-001-28-18
7	2	Bracket, Door, Connecting	5700-021-33-39
8	8	Screw, 1/4"-20 x 5/8" lg Stainless Steel	5305-274-24-00
9	12	Washer, 1/4" Stainless Steel	5311-174-01-00
10	12	Nut, 1/4"-20 Stainless Steel	5310-374-01-00
11	1	Door, Left Side (Complete Assembly)	5700-021-88-69
11A	1	Left Door Weldment with Studs	5700-002-13-69
12	1	Door, Right Side (Complete Assembly)	5700-021-88-70
12A	1	Door Only, Right Side	5700-021-88-37
13	1	Door, Front (Complete Assembly)	5700-021-88-71
13A	1	Door Only, Front	5700-021-88-36
14	6	Door, Guides	5700-111-33-59
15	1	Reed Switch Kit with Magnet	5930-111-51-69
15A	1	Switch, Reed, Only	5930-011-47-50
15B	1	Magnet, Reed Switch Only	5930-111-51-68
16	2	Nut, #8-32	5310-272-02-00
17	2	Washer, 3/8" Stainless Steel	5311-176-01-00
18	1	Door Switch Cover	5700-011-58-20
19	2	Lochwasher, #8	5311-272-03-00
20	2	Screw #8-32 x 3/4" lg Binder Head	5305-011-72-66
21	2	Sleeve, Cantilever Arm	5700-000-85-69
22	1	Cantilever Arm Assembly	5700-002-21-34
23	2	Screw 1/4"-20 x 1 1/2" lg stainless Steel	5305-274-23-00
24	2	Screw 1/4"-20 x 3/4" lg Stainless Steel	5305-274-04-00
25	2	Connector, Cantilever Arm	5700-011-90-99
26	2	Spacer, PB Bolt	5700-000-29-40
27	2	Yoke	5700-000-75-78
28	2	Clevis Pin	5315-700-05-00
29	4	Washer, Nylon	5311-369-03-00
30	2	Bushing	3120-100-03-00
31	2	Cotter Pin 3/32" x 3/4"	5315-207-01-00
32	2	Space Washer	5311-156-02-00
33	1	Nut, 3/8"-16 Stainless Steel	5310-256-04-00

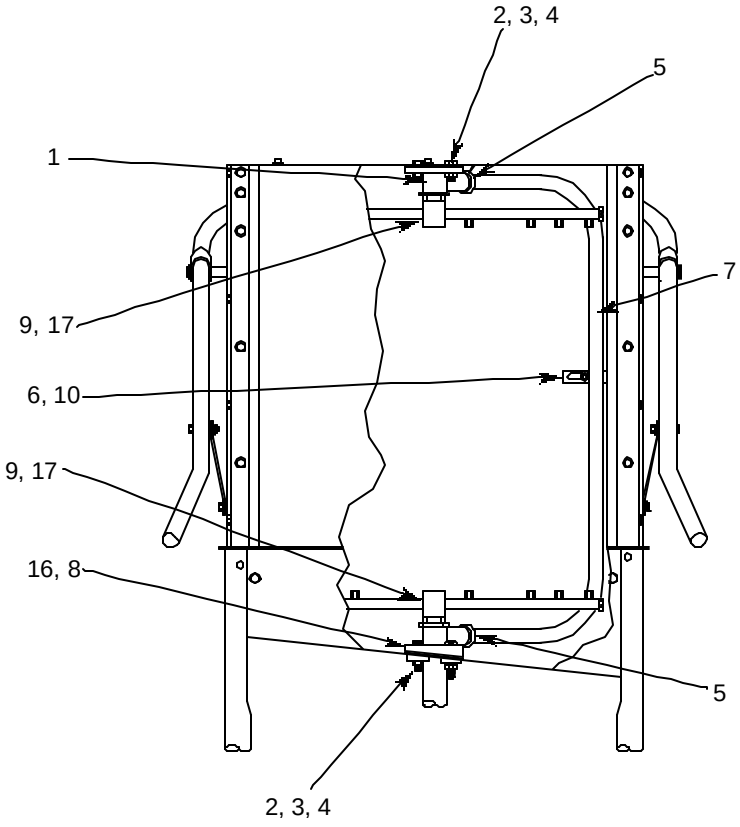
WASH & RINSE ARM/MANIFOLD ASSEMBLIES



DETAIL "A"

FINAL RINSE ARMS & MANIFOLD



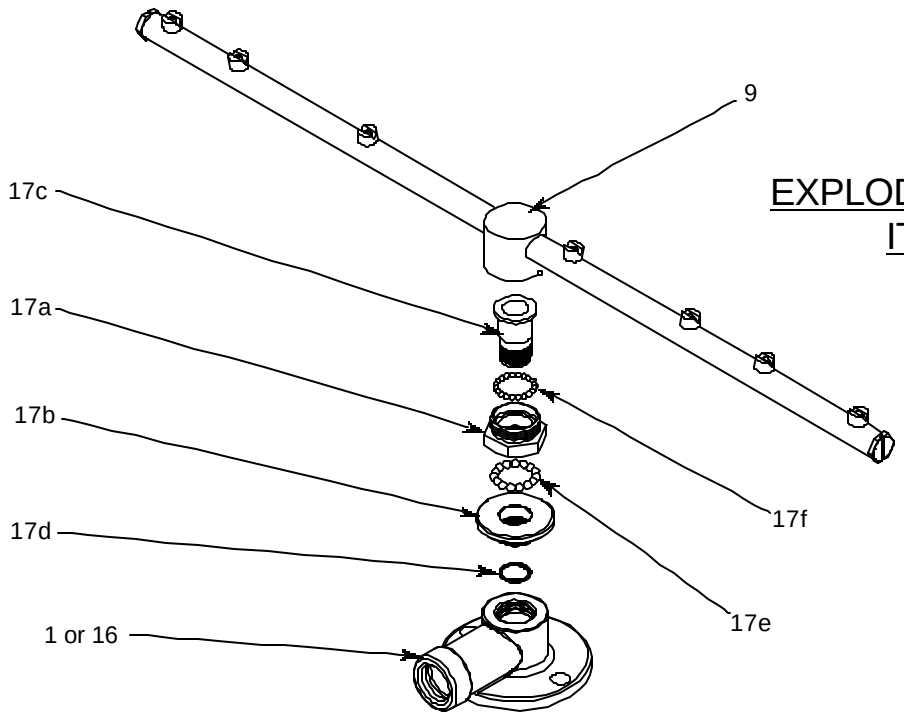


DETAIL "B"

WASH ARMS & MANIFOLD

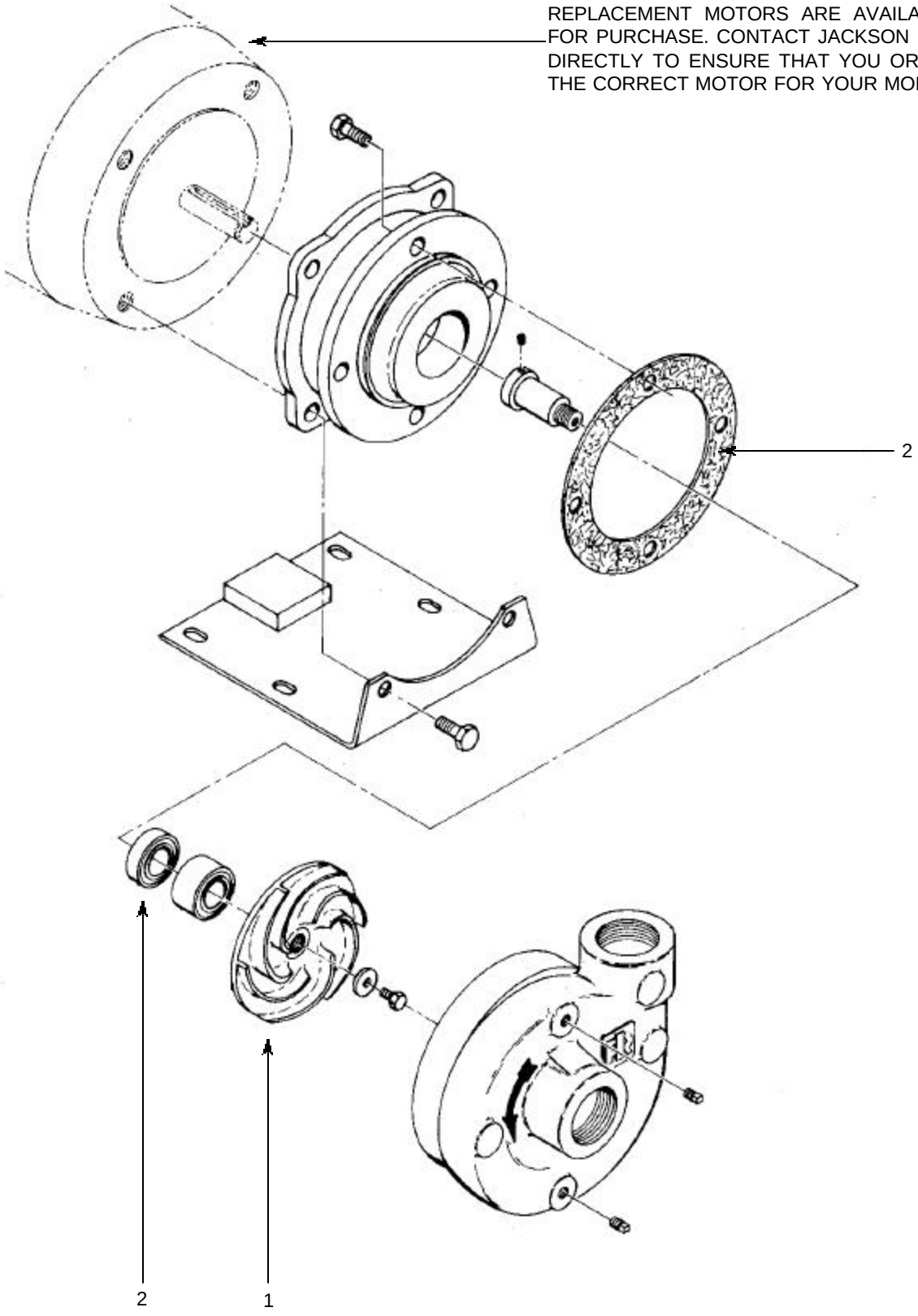
WASH & RINSE ARM/MANIFOLD ASSEMBLIES (CONTINUED)

ITEM	QTY	DESCRIPTION	MFG No.
1	1	Upper Manifold	5700-031-34-82
2	4	Nut, 3/8"-16 Stainless Steel	5310-276-01-00
3	4	Lockwasher 3/8	5311-276-01-00
4	4	Bolt, Hex 3/8-16 x 1 1/4" lg	5305-276-10-00
5	2	O Ring	5330-111-35-15
6	1	Positioning Bracket, Manifold Tube	5700-011-34-63
7	1	Tube, Wash Manifold	5700-131-15-07
8	2	Gasket, Manifold	5700-111-35-03
9	2	Wash Arm Assembly	5700-021-35-93
10	3	Nut, 1/4"-20 Stainless Steel	5310-374-01-00
11	2	Clip, Retaining, Rinse Head Bushing	5340-112-01-11
12	4	Rinse Arm Washer	5330-011-42-10
13	2	Bushing, Rinse Head	5700-021-33-84
14	2	Rinse Arm	5700-031-88-86
15	4	Plug, Rinse Arm, Stainless Steel	4730-111-60-41
16	1	Lower Wash Manifold	5700-031-46-00
17	2	Bearing Assembly	5700-021-35-97
17a	1	Hub Nut	5700-011-35-94
17b	1	Hub Bushing	5700-011-35-96
17c	1	Hub Spindle	5700-011-35-95
17d	1	Ring, Retainer	5340-011-37-81
17e	15	3/16" Stainless Steel Ball	3120-100-02-00
17f	20	1/8" Stainless Steel Ball	3120-011-37-82
18	1	Rinse Manifold Assembly	5700-021-47-61



EXPLODED VIEW OF ITEM 17

WASH PUMP EXPLODED VIEW



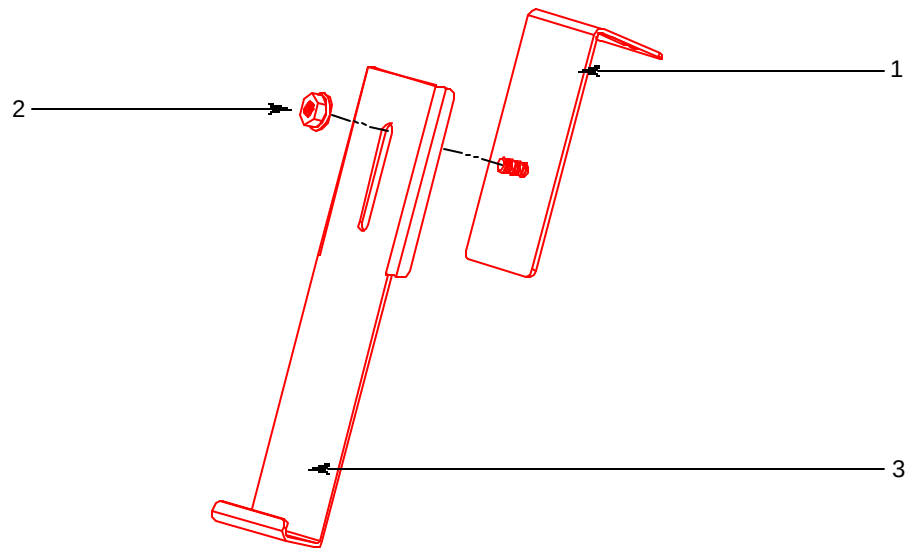
WASH PUMP EXPLODED VIEW (CONTINUED)/WASH MOTORS

ITEM	QTY	DESCRIPTION	MFG No.
1	1	Impeller	5700-002-01-08
2	1	Casing Gasket	5330-002-00-31
3	1	Mechanical Seal	5330-002-06-21

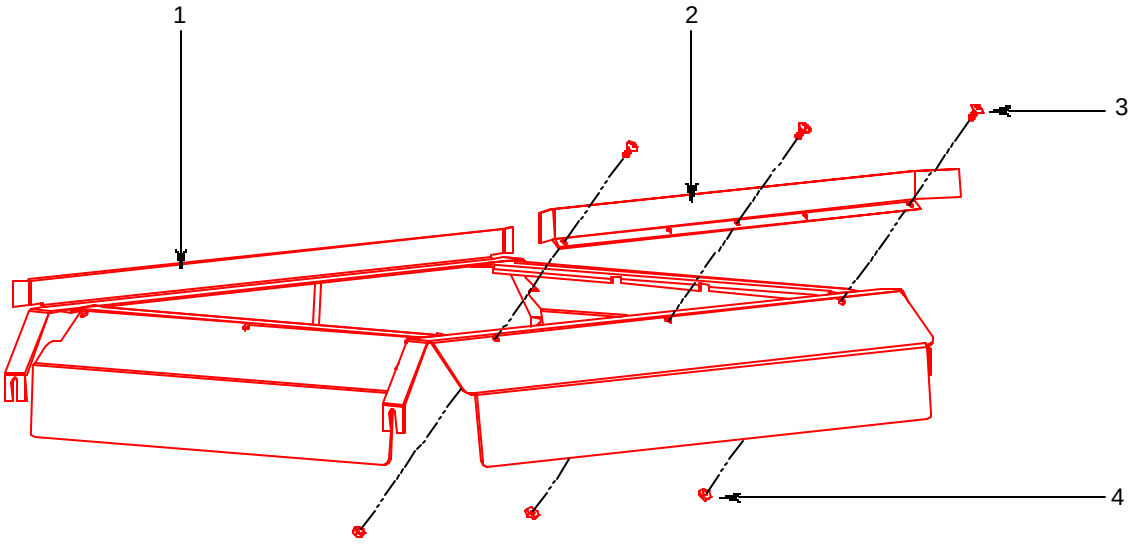
Model	**Volts**	**Hz**	**Phase**	**Wash Motor Assembly**
Tempstar	380	50	3	6105-121-64-21

Important note: When servicing a wash motor, it is important to refer to the wiring schematic found on the motor, to ensure that the motor is wired correctly. Different manufacturers of motors may not use the same wire color codes and therefore, your new motor, which may have been built by someone different than who built your original motor, may not connect using the same wires. Always refer to the wiring diagrams on the motor you are installing. If the motor you are installing-has had the schematic removed, contact Jackson MSC immediately for technical support.

WASH MOTOR HANGER/TRACK ASSEMBLIES



ITEM	QTY	DESCRIPTION	MFG No.
1	1	Pump Support Main Bracket Weldment	5700-021-66-47
2	1	Nut, 1/4"-20, Serrated Hex	5310-011-66-49
3	1	Pump Support Adjustable Bracket	5700-002-00-48



ITEM	QTY	DESCRIPTION	MFG No.
1	1	Rack Weldment	5700-002-01-01
2	1	Rack Guide	5700-001-28-19
3	3	Screw, 10-24 x 1/2" Long	5305-173-18-00
4	3	Locknut, 10-24 with Nylon Insert	5310-373-01-00

LEFT SIDE MOUNTED CONTROL BOX/ORDERING REPLACEMENT WIRE

ORDERING REPLACEMENT LEFT SIDE MOUNTING CONTROL BOXES

In some rare instances, customers may request a Tempstar unit with the control box mounted on the left side of the unit as opposed to the normal right side. The components found in these control boxes are the same as found in any other control box of a comparable model. However, two parts specifically need to be ordered from the items below if replacements are necessary for the left-handed control box option:

Left-Handed Control Box Weldment - 5700-041-89-53
Left-Handed Control Box Cover - 5700-031-91-45

ORDERING REPLACEMENT WIRE FOR YOUR DISHMACHINE

Jackson dishmachines have several color and gauges of wire used in them and it may become necessary to replace these wires. Wire may be ordered from Jackson MSC Inc., but please note that it is only available in feet. Ensure that you order the correct color and guage.

BLACK WIRE:

6 Gauge	6145-002-15-91
8 Gauge	6145-104-43-00
10 Gauge	6145-104-16-00
12 Gauge	6145-112-01-00
14 Gauge	6145-104-09-00
18 Gauge	6145-104-01-97
18 Gauge with Orange Stripes	6145-011-35-66
18 Gauge with White Stripes	6145-011-35-65
18 Gauge with Yellow Stripes	6145-011-35-64

BLUE WIRE:

6 Gauge	6145-002-15-93
8 Gauge	6145-104-44-00
10 Gauge	6145-104-42-00
14 Gauge	6145-104-04-00
18 Gauge	6145-104-35-00
18 Gauge with Black Stripes	6145-011-46-35
18 Gauge with Red Stripes	6145-011-46-37
18 Gauge with White Stripes	6145-011-46-36
18 Gauge with Yellow Stripes	6145-011-46-38
20 Gauge	6145-104-06-97
20 Gauge with Black Stripes	6145-104-17-97
20 Gauge with White Stripes	6145-104-13-97

GREEN WIRE:

8 Gauge	6145-002-15-94
14 Gauge	6145-104-03-00
18 Gauge	6145-104-32-00
18 Gauge with Yellow Stripes	6145-001-44-96
20 Gauge	6145-104-05-97
20 Gauge with Black Stripes	6145-011-59-57
20 Gauge with Yellow Stripes	6145-104-11-97

GREY WIRE:

18 Gauge	6145-104-36-00
18 Gauge with Black Stripes	6145-011-81-71
18 Gauge with Blue Stripes	6145-011-81-72
18 Gauge with Red Stripes	6145-011-46-41
18 Gauge with White Stripes	6145-011-35-60
18 Gauge with Yellow Stripes	6145-011-46-42
20 Gauge	6145-104-03-97

RED WIRE:

6 Gauge	6145-002-15-92
8 Gauge	6145-104-45-00
10 Gauge	6145-104-08-00
14 Gauge	6145-104-05-00
18 Gauge	6145-104-37-00
18 Gauge with Black Stripes	6145-011-59-56
18 Gauge with Blue Stripes	6145-011-81-74
18 Gauge with White Stripes	6145-011-81-73
18 Gauge with Yellow Stripes	6145-011-81-75
20 Gauge	6145-104-02-97

WHITE WIRE:

10 Gauge	6145-104-19-00
14 Gauge	6145-104-10-00
18 Gauge	6145-104-39-00
18 Gauge with Black Stripes	6145-011-35-70
18 Gauge with Blue Stripes	6145-011-46-40
18 Gauge with Green Stripes	6145-011-35-69
18 Gauge with Grey Stripes	6145-002-20-18
18 Gauge with Red Stripes	6145-011-35-67
18 Gauge with Yellow Stripes	6145-011-35-68
20 Gauge	6145-104-04-97
20 Gauge with Orange & Yellow Stripes	6145-104-16-97
20 Gauge with Yellow Stripes	6145-104-15-97

YELLOW WIRE:

18 Gauge	6145-104-33-00
18 Gauge with Black Stripes	6145-011-81-68
18 Gauge with Blue Stripes	6145-011-81-70
18 Gauge with Red Stripes	6145-011-81-69
20 Gauge	6145-104-07-97

ORDERING REPLACEMENT WIRE (CONTINUED)/CONDUIT & FITTINGS

MISCELLANEOUS WIRE:

Brown (18 Gauge)	6145-104-20-00
Brown (20 Gauge)	6145-104-08-97
Orange (18 Gauge)	6145-104-34-00
Orange with Black Stripes (18 Gauge)	6145-011-35-62
Orange with Blue Stripes (18 Gauge)	6145-011-46-39
Orange with White Stripes (18 Gauge)	6145-011-35-63
Orange with Yellow Stripes (18 Gauge)	6145-011-35-61
Orange (20 Gauge)	6145-104-10-97
Pink (18 Gauge)	6145-011-82-69
Purple (18 Gauge)	6145-104-31-00
Violet (20 Gauge)	6145-104-09-97
Plug, GFI	6145-001-97-90
Cable, 16 Gauge, 3 Wire Romex	6145-001-98-29
Cord, Hubble Plug MC	6145-011-47-23
Cord, S-J	6145-011-49-02
Cord, Power	6145-011-70-28
Cord, 115V Power	6145-309-02-00
Cord, 125V Power, 96 " Long	6145-309-04-00

CONDUIT AND RELATED FITTINGS

Jackson dishmachines come with a wide variety of conduit and fittings for use in routing the wires of the machine. The list below provides for most of stock of such items. When ordering, remember that Jackson does not offer pre-cut sections of conduit for your machine, instead it is sold by the foot. Please take into account in slack that will be necessary once installing the new conduit to ensure that it fits correctly. It is recommended that you order at least 6" more conduit than you require to ensure that you have enough for trimming.

CONDUIT:

Conduit, 1/2", Liquidtite	5975-101-25-00
Conduit, 1/2", Non-Metallic	5975-111-46-57
Conduit, 1/2", PVC	5975-105-04-00
Conduit, 1/2", Sealtite	5975-105-01-00
Conduit, 1/2", Xtraflex	5975-105-06-44
Conduit, 3/8", Liquidtite	5975-105-02-00
Conduit, 3/4", Cole-Flex	5975-105-05-00
Conduit, 3/4", Liquidtite	5975-105-03-00
Conduit, 3/4", Non-Metallic	5975-011-47-71
Conduit, 3/4" Xtraflex	5975-105-07-44
Conduit, 1", Carlon	5975-011-68-42

CONDUIT FITTINGS:

Elbow, Cole-Flex, 1/2", 90 Degree	5975-205-40-00
Elbow, Xtraflex, 1/2", 90 Degree	5975-205-44-44
Elbow, Xtraflex, 3/4", 90 Degree	5975-205-45-44
Fitting, 1/2" Straight	5975-011-45-13
Fitting, 1/2", Straight, Zinc Plated	5975-111-89-89
Fitting, 1/2", 45 Degree	5975-011-45-23
Fitting, 1/2", 45 Degree, Zinc Plated	5975-111-89-86
Fitting, 1/2", 90 Degree	5975-011-45-14
Fitting, 1/2", 90 Degree, Zinc Plated	5975-111-89-88
Fitting, 3/4", Straight	5975-011-47-72
Fitting, 3/4", 45 Degree	5975-011-47-74
Fitting, 3/4", 90 Degree	5975-011-47-73
Fitting, 1", Straight	5975-011-70-75
Fitting, 1", 90 Degree	5975-011-68-43
Fitting, Cole-Flex, 1/2" Straight	5975-205-03-00
Fitting, Cole-Flex, 3/4" Straight	5975-205-41-00
Fitting, Cole-Flex, 3/4", 90 Degree	5975-204-42-00
Fitting, Liquidtite, .231 ID/.394 OD	5975-011-49-03
Fitting, Liquidtite, .25 ID/.546 OD	5975-011-65-51
Fitting, Liquidtite, .27 ID/.48 OD	5975-011-59-50
Fitting, Liquidtite, 1/2", 90 Degree	5975-111-01-00
Fitting, Liquidtite, 3/8", Straight	5975-205-03-82
Fitting, Liquidtite, 3/8", 90 Degree	5975-205-02-82
Fitting, Liquidtite, 3/4", Straight	5975-205-15-02
Fitting, Liquidtite, 3/4", 45 Degree	5975-205-01-82
Fitting, Liquidtite, 3/4", 90 Degree	5975-205-07-82
Fitting, Xtraflex, 1/2", Straight	5975-205-47-44
Fitting, Xtraflex, 3/4", Straight	5975-205-46-44
Nut, 1-1/4"	5975-011-42-54

ORDERING REPLACEMENT FASTENERS

Dishmachines come with a variety of fasteners used to hold them together. On the following pages will be comprehensive list of all of the fasteners you may order. Jackson reserves the right to require minimum quantities to be ordered.

SCREWS:

Screw, 1/4”-20 x 1/4”, Set	5305-002-10-14
Screw, 1/4”-20 x 1/2”, Phillips Truss Head	5305-174-03-00
Screw, 1/4”-20 x 1/2”, Set Screw	5305-011-71-51
Screw, 1/4”-20 x 1/2”, Slotted Truss Head	5305-002-22-81
Screw, 1/4”-20 x 1/2”, Thumb	5305-011-38-62
Screw, 1/4”-20 x 1/2”, with Rubber Washer	5305-974-01-00
Screw, 1/4”-20 x 5/8”, 80 Deg CSink	5305-002-20-30
Screw, 1/4”-20 x 5/8”, Hex Head	5305-274-24-00
Screw, 1/4”-20 x 5/8”, Phillips Truss Head	5305-174-04-00
Screw, 1/4”-20 x 1-1/8”, Hex Head	5305-274-21-00
Screw, 1/4”-20 x 1-1/4”, Flat Head	5305-174-19-00
Screw, 1/4”-20 x 1-3/8”, Hex Head	5305-274-19-00
Screw, 1/4”-20 x 1-1/2”, Flat Head	5305-174-11-00
Screw, 1/4”-20 x 1-1/2”, Hex Head	5305-274-23-00
Screw, 1/4”-20 x 1-1/2”, Phillips Head	5305-011-44-50
Screw, 1/4”-20 x 1-1/2”, Slotted Truss Hd	5305-002-22-82
Screw, 1/4”-20 x 1-3/4”, Hex Head	5305-274-10-00
Screw, 1/4”-20 x 3-3/4”, Hex Head	5305-011-93-68
Screw, 5/16”-18 x 1/2”, Hex Head	5306-011-88-67
Screw, 5/16”-18 x 1-1/4”, Flat Head	5305-011-83-49
Screw, 3/8”-16 x 1”, Socket Head	5305-356-04-00
Screw, 3/8”-16 x 1-1/4”, Hex Head Plated	5305-256-04-00
Screw, 3/8”-16 x 2”, Cap	5305-011-74-98
Screw, 4-40 x 1/4”, Phillips Pan Head	5305-011-36-92
Screw, 4-40 x 3/8”, Phillips Truss Head	5305-011-59-70
Screw, 4-40 x 1/2” Phillips Pan Head	5305-011-38-19
Screw, 4-40 x 5/8” Phillips Truss Head	5305-011-49-70
Screw, 4-40 x 3/4”, Phillips Pan Head	5305-011-59-64
Screw, 4-40 x 1”, Slotted Pan Head	5305-179-01-00
Screw, 6-32 x 1/4”, Flat Head	5305-171-01-00
Screw, 6-32 x 1/4”, Round Head	5305-151-02-00
Screw, 6-32 x 1/2”, Phillips Head	5305-171-15-00
Screw, 6-32 x 1/2”, Phillips Truss Head	5305-011-39-34
Screw, 6-32 x 3/8”, Phillips Head	5305-171-02-00
Screw, 6-32 x 3/8”, Phillips Round Head	5305-171-07-00
Screw, 6-32 x 5/8”, Phillips Round Head	5305-011-39-85
Screw, 6-32 x 3/4”, Round Head	5305-171-03-00
Screw, 6-32 x 3/4”, Phillips Pan Head	5305-011-37-05
Screw, 6-32 x 7/8”, Phillips Round Head	5305-171-10-00
Screw, 8-32 x 1/4”, Phillips Pan Head	5305-172-09-00
Screw, 8-32 x 1/4”, Slotted Round Head	5305-172-01-00
Screw, 8-32 x 3/8”, Phillips Flat Head	5305-776-03-00
Screw, 8-32 x 3/8”, Phillips Flat Head	5305-011-37-07
Screw, 8-32 x 3/8”, Round Head	5305-172-02-00
Screw, 8-32 x 1/2”, Hex Head	5305-002-02-87
Screw, 8-32 x 1/2”, Phillips Flat Head	5305-011-37-06
Screw, 8-32 x 3/4”, Phillips Round Head	5305-172-06-00
Screw, 10-24 x 3/8”, Flat Head Undercut	5305-773-02-00
Screw, 10-24 x 3/8”, Phillips Truss Head	5305-173-03-00
Screw, 10-24 x 1/2”, Phillips Truss Head	5305-173-18-00
Screw, 10-24 x 1/2”, Set	5305-473-02-00
Screw, 10-24 x 5/8”, Hex Head	5305-011-40-89
Screw, 10-24 x 3/4”, Hex Head	5305-273-05-00
Screw, 10-24 x 2-1/4”, Hex Head	5305-011-38-10
Screw, 10-32 x 1/4”, Round Head	5305-173-01-00
Screw, 10-32 x 3/8”, Phillips Pan Head	5305-173-26-00
Screw, 10-32 x 3/8”, Phillips Truss Head	5305-173-12-00
Screw, 10-32 x 3/8”, Round Head, Slotted	5305-173-02-00
Screw, 10-32 x 1/2”, Phillips Flat Head	5305-011-44-51
Screw, 10-32 x 1/2”, Phillips Pan Head	5305-011-44-52
Screw, 10-32 x 1/2”, Phillips Truss Head	5305-011-39-36
Screw, 10-32 x 1/2”, Self Tapping	5305-011-62-69
Screw, 10-32 x 1/2”, Slotted Truss	5305-173-04-00
Screw, 10-32 x 5/8”, Fillister Head	5305-973-02-00
Screw, 10-32 x 3/4”, Shoulder, .25 Shoulder	5305-011-86-65
Screw, 10-32 x 3/4”, Phillips Truss Head	5305-011-62-17
Screw, 10-32 x 3/4”, Phillips Truss Head	5305-011-49-33
Screw, 10-32 x 7/8”, Fillister Head	5305-973-04-00
Screw, 10-32 x 7/8”, Hex Head	5305-279-01-00
Screw, 10-32 x 1”, Phillips Pan Head	5305-002-19-42
Screw, 10-32 x 1-1/8” Fillister Head	5305-973-03-00
Screw, 10-32 x 1-1/4”, Phillips Truss Head	5305-011-66-03
Screw, 10-32 x 1-1/4”, Socket Head	5305-356-16-00
Screw, 10-32 x 1-1/2”, Fillister Head	5305-973-01-00
Screw, 10-32 x 1-3/4”, Phillips Pan Head	5305-011-62-67
Screw, 10-32 x 1-3/4”, Self Tapping	5305-011-59-92

BOLTS:

Bolt, 1/4”-20 x 3/8”, Hex Head	5305-274-20-00
Bolt, 1/4”-20 x 1/2”, Hex Head	5305-274-02-00
Bolt, 1/4”-20 x 3/4”, Hex Head	5305-274-04-00
Bolt, 1/4”-20 x 7/8”, Hex Head	5305-274-05-00
Bolt, 1/4”-20 x 1”, Hex Head	5305-254-06-00
Bolt, 1/4”-20 x 1-1/4”, Hex Head	5305-274-22-00
Bolt, 1/4”-20 x 2”, Hex Head	5306-011-84-72
Bolt, 1/4”-20 x 2-1/4”, Hex Head	5305-011-30-50
Bolt, 1/4”-20 x 2-1/2”, Hex Head	5306-011-83-52
Bolt, 1/4”-20 x 2-3/4”, Hex Head	5306-011-46-62
Bolt, 1/4”-20 x 3-1/4”, Hex Head	5306-002-05-55
Bolt, 5/16”-18 x 5/8”, Hex Head	5305-275-09-00
Bolt, 5/16”-18 x 3/4”, Hex Head	5305-275-04-00
Bolt, 5/16”-18 x 1” , Hex Head	5305-275-06-00
Bolt, 5/16”-18 x 1-1/4”, Hex Head	5305-275-10-00
Bolt, 3/8”-16 x 3/4”, Hex Head	5306-011-71-60
Bolt, 3/8”-16 x 7/8”, Hex Head	5306-011-36-95
Bolt, 3/8”-16 x 1”, Hex Head	5305-276-03-00
Bolt, 3/8”-16 x 1”, Hex Head, Plated	5305-256-03-00
Bolt, 3/8”-16 x 1-1/4”, Hex Head	5305-276-10-00
Bolt, 3/8”-16 x 1-3/4”, Hex Head	5306-011-36-94
Bolt, 3/8”-16 x 2-1/4”, Hex Head	5306-011-95-12
Bolt, 3/8”-16 x 2-3/4”, U-Bolt	5306-011-51-34
Bolt, 3/8”-16 x 4”, Hex Head	5306-956-02-00
Bolt, 1/2”-13 x 1-3/4”	5305-011-71-94
Bolt, 10-24 x 3/8”, Hex Head	5306-011-63-29
Bolt, 10-32 x 3/8”	5306-011-62-45

ORDERING REPLACEMENT FASTENERS (CONTINUED)

LOCKWASHERS:

Lockwasher, 1/4", Split	5311-274-01-00
Lockwasher, 3/8", Split	5311-276-01-00
Lockwasher, 3/8", Split	5311-256-01-00
Lockwasher, 5/8"	5311-278-02-00
Lockwasher, 5/16", Split	5311-275-01-00
Lockwasher, 5/16", Split, Cad Plated	5311-255-01-00
Lockwasher, #4, External Tooth	5311-011-59-70
Lockwasher, #6 External Tooth	5311-271-02-00
Lockwasher, #8	5311-272-02-00
Lockwasher, #8, External Tooth	5311-272-01-00
Lockwasher, #8, Internal Tooth	5311-272-03-00
Lockwasher, #10, External Tooth	5311-273-02-00
Lockwasher, #10, Internal Tooth	5311-273-03-00
Lockwasher, #10, Split	5311-273-01-00

FLAT WASHERS:

Washer, Flat, Brass, 3/32" ID	5311-129-08-00
Washer, Flat, Brass, 1/4" ID	5311-129-09-00
Washer, 1/4" ID x 3/4" OD	5311-011-76-30
Washer, Flat, 5/16" ID	5311-175-01-00
Washer, Flat, Brass, 5/16", Cadplated	5311-156-01-00
Washer, Flat, S/S, 3/8" ID	5311-176-01-00
Washer, 3/8" ID x 9/16" OD	5311-011-71-49
Washer, 1/2" ID x 1" OD x 1/8" Thick	5311-011-71-48
Washer, 1/2" ID x 1-5/16" OD, Cadplated	5311-157-01-00
Washer, Nylon, .51" ID x .76" OD	5311-011-62-65
Washer, Flat, S/S, 11/16 " ID x 1/2" OD	5311-178-01-00
Washer, 7/8" ID x 1-1/2" OD	5311-011-35-37
Washer, Flat, 1/4" ID	5311-174-01-00
Washer, Flat, #10	5311-173-02-00

LOCKNUTS:

Locknut, 1/4"-20 with Nylon, High Profile	5310-374-01-00
Locknut, 1/4"-20 with Nylon, Low Profile	5310-374-02-00
Locknut, 5/16"-24 with Nylon, High Profile	5310-375-01-00
Locknut, 5/16"-24 with Nylon, Low Profile	5310-374-03-00
Locknut, 3/8"-16, with Nylon, High Profile	5310-011-72-55
Locknut, 3/8"-16, with Nylon, Low Profile	5310-376-02-00
Locknut, 4-40, with Nylon	5310-279-06-00
Locknut, 6-32, with Nylon	5310-373-03-00
Locknut, 10-24, with Nylon	5310-373-01-00
Locknut, 10-32, with Nylon	5310-373-02-00

HEX NUTS:

Nut, Hex, 1/4"-20	5310-274-01-00
Nut, Hex, 1/4"-20, Cad Plated	5310-254-01-00
Nut, Hex, 5/16"-18	5310-275-01-00
Nut, Hex, 5/16"-18, Cad Plated	5310-255-01-00
Nut, Hex, 3/8"-16	5310-276-02-00
Nut, Hex, 3/8"-16, Cad Plated	5310-256-02-00
Nut, Hex, 1/2"-13	5310-011-72-58
Nut, Hex, 6-32	5310-271-01-00
Nut, Hex, 8-32	5310-272-01-00
Nut, Hex, 10-24	5310-273-02-00
Nut, Hex, 10-32	5310-273-01-00

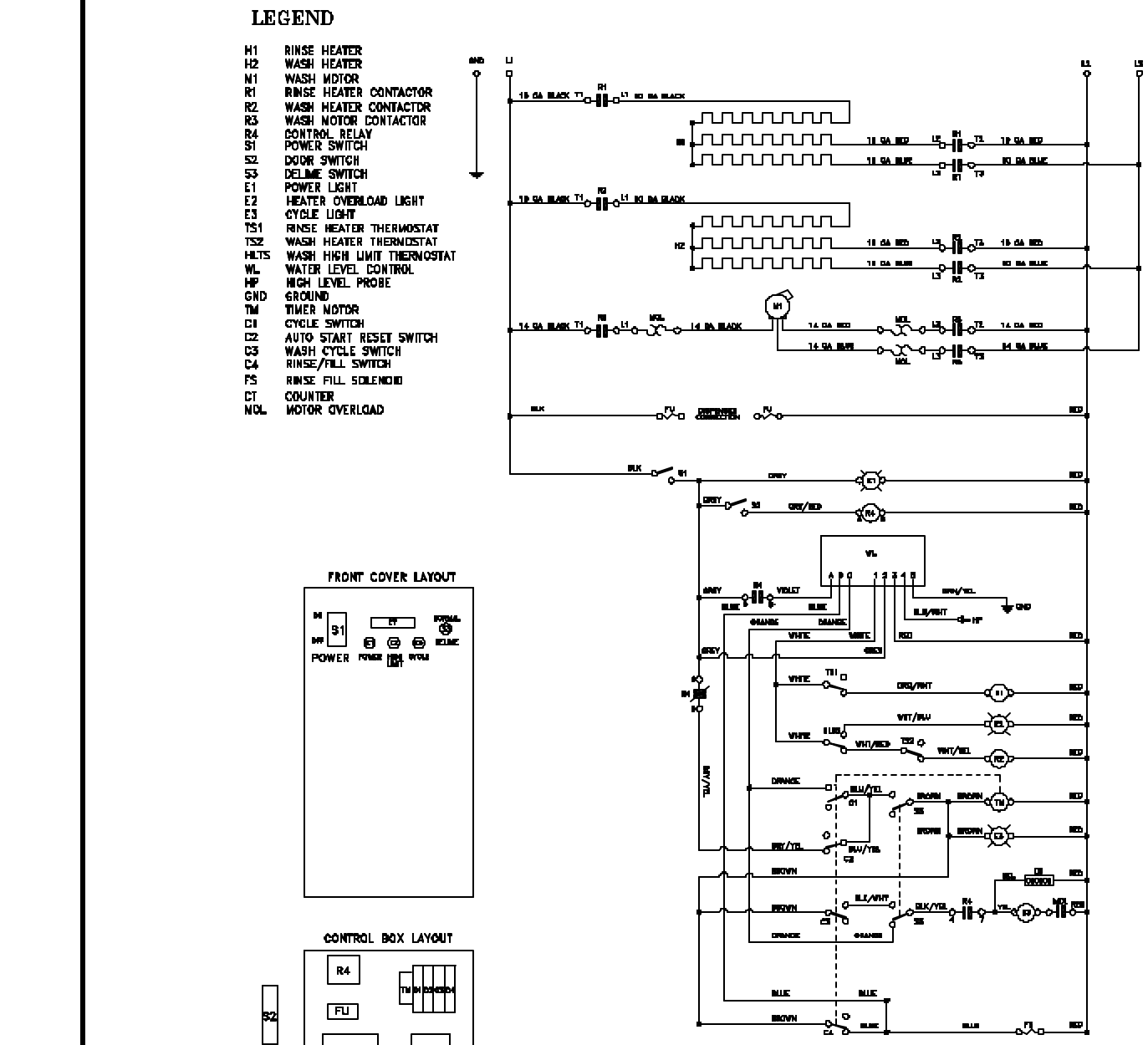
MISCELLANEOUS NUTS:

Nut, 1/4"-20, Acorn	5310-174-01-00
Nut, 1/4"-20, Hex, Serrated	5310-011-66-49
Nut, 1/4"-20, Wing, Nylon	5310-994-01-00
Nut, 5/16"-18, Keps	5310-955-01-00
Nut, 5/8"-18, Brass	5310-228-01-11
Nut, 6-32, Keps	5310-002-24-29
Nut, 10-24, Hex Cap	5310-173-01-00
Nut, 10-24, Wing, Nylon	5310-993-01-00

Tempstar
ELECTRICAL DIAGRAM
208 - 230 volt - 50/60 hertz - single/three phase

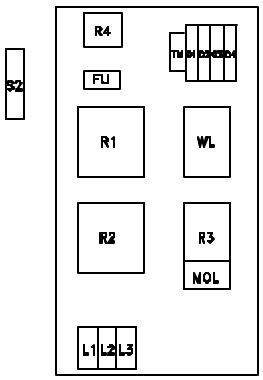
LEGEND

H1	RINSE HEATER
H2	WASH HEATER
M1	WASH MOTOR
R1	RINSE HEATER CONTACTOR
R2	WASH HEATER CONTACTOR
R3	WASH MOTOR CONTACTOR
R4	CONTROL RELAY
S1	POWER SWITCH
S2	DOOR SWITCH
S3	DELIME SWITCH
E1	POWER LIGHT
E2	HEATER OVERLOAD LIGHT
E3	CYCLE LIGHT
TS1	RINSE HEATER THERMOSTAT
TS2	WASH HEATER THERMOSTAT
HLTS	WASH HIGH LIMIT THERMOSTAT
WL	WATER LEVEL CONTROL
HP	HIGH LEVEL PROBE
GND	GROUND
TM	TIMER MOTOR
C1	CYCLE SWITCH
C2	AUTO START RESET SWITCH
C3	WASH CYCLE SWITCH
C4	RINSE/FILL SWITCH
FS	RINSE FILL SOLENOID
CT	COUNTER
MOL	MOTOR OVERLOAD



FRONT COVER LAYOUT

CONTROL BOX LAYOUT



IMPORTANT INFORMATION DATA SHEET

Model: _____

Serial No.: _____

Installation Date: _____

Service Rep. Name: _____

Phone No.: _____

Notes: _____