



Warewashing Systems

INSTALLATION, OPERATION, AND SERVICE MANUAL



TEMPSTAR® SERIES DOOR-TYPE DISHMACHINES

TempStar® HH Manual • 07610-002-23-32-AC

TEMPSTAR® HH

MANUFACTURER'S WARRANTY

ONE YEAR LIMITED PARTS AND 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 DATE OF PURCHASE, BUT IN NO EVENT TO EXCEED (18) EIGHTEEN MONTHS FROM DATE OF SHIPMENT FROM THE FACTORY.

Jackson WWS 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 and failure is reported to an 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 WWS, within the continental United States, Hawaii, and Canada, during the warranty period provided a Jackson WWS authorized service agency, or those having prior authorization from the factory, performs the service. Any repair work by persons other than a Jackson WWS 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 WWS.

Accessory components not installed by the factory carry a (1) one year parts warranty only. Accessory components such as table limit switches, 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 WWS.

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 a purpose other than originally intended.

TRAVEL LIMITATIONS

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

WARRANTY REGISTRATION

To register your product, go to www.jacksonwws.com or call 1-888-800-5672. Failure to register your product will void the warranty.

REPLACEMENT PARTS WARRANTY

Jackson replacement parts are warranted for a period of (90) ninety days from date of installation or (180) one-hundred-eighty days from the date of shipment from the factory, whichever occurs first.

PRODUCT CHANGES AND UPDATES

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

THIS IS THE ENTIRE AND ONLY WARRANTY OF JACKSON WWS. 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 WWS BE LIABLE FOR ANY LOSS OR DAMAGE, DIRECT OR CONSEQUENTIAL, OR FOR 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 CLEANING OR DELIMING OF THE UNIT OR ANY COMPONENT SUCH AS, BUT NOT LIMITED TO, WASH ARMS, RINSE ARMS, OR STRAINERS AT ANYTIME. NOR DOES IT COVER ADJUSTMENTS SUCH AS, BUT NOT LIMITED TO, TIMER CAMS, THERMOSTATS, OR DOORS BEYOND (30) THIRTY DAYS FROM THE DATE OF INSTALLATION. IN ADDITION, THE WARRANTY WILL ONLY COVER REPLACEMENT WEAR ITEMS SUCH AS CURTAINS, DRAIN BALLS, DOOR GUIDES, OR GASKETS DURING THE FIRST (30) THIRTY DAYS AFTER INSTALLATION. ALSO, NOT COVERED ARE CONDITIONS CAUSED BY THE USE OF INCORRECT (NON-COMMERICAL) GRADE DETERGENTS, INCORRECT WATER TEMPERATURE OR PRESSURE, OR HARD WATER CONDITIONS.

REVISION HISTORY

Revision Letter	Revision Date	Made by	Applicable ECN	Details
F	6-1-04	MAW	N/A	Change to new layout.
G	1-5-05	MAW	N/A	Corrected amerate ratings, changed to thermostat bracket 05700-011-81-64, changed thermostat 05930-121-71-29 to thermostat kit 06401-140-00-32, updated drawing for false panel installation, and added SDI override instructions.
H	1-17-06	MAW	7609	Added universal timer, parts, and schematics.
I	7-6-06	MAW	7713, 7571, 7493, 7553, 7411, 7422, 7231	Updated specification & dimension pages. Updated drain quench assembly. Replaced door switch 05930-003-02-20 with 05930-003-05-84. Added false panel kit numbers, door component kits. Replaced ball stop components. Replaced thermostat 05930-121-71-29 with 05930-510-03-79. Added the wash & rinse thermometer decals.
J	9-14-07	MAW		Obsoleted I/O manual, added warranty & repair centers. Listed minimum cycle times. Added Top-mount Control Box: dimensions, hood weldment, control box, and schematics. Corrected the rinse tank cover number, updated the cantilever support bracket and reed switch numbers.
K	10-8-08	ARL	7990	Added hi-limit thermostat setpoint instructions.
L	1-10-13	RLC	8252	Updated schematic and control box to reflect rotary switch.
M	3-7-13	RLC	QOF NDB-219	Updated Jackson logo and company name.
N	3-24-14	MHH		Updated warranty page. Removed "Stop" page. Converted manual from Quark to InDesign.
O	4-16-14	MHH	8291	Changed pgs. 22, 25, 28, and 31.
P	6-4-14	MHH	8287	New P/N for bearing on rinse arm assembly, pg. 41.
Q	10-28-14	KAP	8298	Updated pgs. 4, 5, and 23 to accommodate new door and new Cantilever Arm.
R	12-1-14	KAP	N/A	Updated assembly numbers on pg. 31.
S	4-6-15	KAP	N/A	Inserted note pertaining to corner installation pg. 6.
T	4-7-15	KAP	8329	Added Tempstar HH, NB 208-230 V, 60 Hz, 1-phase on pg. 54.
U	6-11-15	KAP	N/A	Added Tempstar HH LT and Tempstar HH Ventless components. Updated solid state schematics on pgs. 60 and 61. Added NB/LT Schematic on page 69. Updated 208-230 V, 60 Hz on page 65. Updated Plumbing Assemblies pg. 46
V	6-25-15	KAP	N/A	Updated schematics on pgs. 64 and 66.
-	7-13-15	KAP	N/A	Added Ventless heater ratings on pg. 2.
-	9-18-15	KAP	N/A	Updated Rinse Heater Ratings for 208 V/60 Hz.
W	10-7-15	KAP	N/A	Added HH ventless booster tank assembly on pg. 42.
-	10-13-15	KAP	N/A	Updated P/N for solenoid valve on pg. 46 Changed P/N from 04820-002-01-32 to 04820-002-01-56.
X	11-9-15	JH	N/A	Corrected P/N for item 40 on pg. 37.

REVISION HISTORY

Revision Letter	Revision Date	Made by	Applicable ECN	Details
Y	11-23-15	JH	QOF-386	Replaced Plumbing Booster Inlet diagram, pg. 54.
Z	1-8-16	JH	N/A	Updated schematic on pg. 70.
AA	1-11-16	JH	QOF-386 N/A N/A	Changed item 12 on pg. 39 to 05700-003-07-76. Added 05700-004-23-78, 05700-004-23-79, and 05700-004-23-80 to view (pg. 35) and parts list (pg. 36). Corrected Typical Electrical Circuits for TempStar HH Ventless.
AB	5-7-17	JH	N/A	Removed views that showed pressure regulator in certain locations. Added the pressure regulator as an option. Added exploded view and parts list for Motor & Pump Assembly. Changed name of delime switch throughout from NORMAL/DELIME to AUTO/MANUAL. Added instructions on rinse arm maintenance to the Maintenance section. Added dimensions for the corner table notch to the Table Dimensions page. Added a Plumbing Options page. Added the dispenser connections decal for the 460 V machine. Added instructional pictures where appropriate. Added external device wiring instructions as an Addendum. Added instructions for programming new exhaust fan timer. Updated schematics. Updated to new manual format. Audited and corrected all P/Ns in the manual.
AC	9-9-17	JH	8541 8543	Added the TempStar HH-E and associated parts and assemblies. Moved door switch from the Tub Assembly page to the Hood Assembly page. Added door switch bracket assembly to the Hood Assembly page. Updated schematics on pgs. 76 and 77.

The logo for Jackson Warewashing Systems, featuring the word "Jackson" in a bold, italicized, sans-serif font. The letters are white with a blue outline, set against a blue rectangular background with rounded corners and a slight 3D effect.

Warewashing Systems

TempStar® HH

Door-type dishmachine; electrically-heated, high-temp, hot-water sanitizing, with booster heater.

TempStar® HH-E

Door-type dishmachine; ENERGY STAR® qualified, electrically-heated, high-temp, hot-water sanitizing, with booster heater.

TempStar® HH NB

Door-type dishmachine; electrically-heated, high-temp, hot-water sanitizing, no rinse booster.

TempStar® HH LT

Door-type dishmachine; ENERGY STAR® qualified, electrically-heated, low-temp, chemical sanitizing.

TempStar® HH with Ventless and Energy Recovery

Door-type dishmachine; electrically-heated, high-temp, hot-water sanitizing, with booster heater and ventless heat recovery system.

TempStar® HH S

Door-type dishmachine; steam-heated, high-temp, hot-water sanitizing.

The manufacturer 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 open when you call so that our staff can refer you, if necessary, to the proper page. Technical support is not available on holidays.

Contact technical support toll free at 1-888-800-5672.

Technical support is available for service personnel only.

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SYMBOLS



- risk of injury to personnel.



- risk of damage to equipment.



- risk of electrical shock.



- caustic chemicals.



- reference data plate.



- lockout electrical power.

NOTICE - important note.

ABBREVIATIONS & ACRONYMS

ANSI - American National Standards Institute

CFM - Cubic Feet per Minute

GHT - Garden Hose Thread

GPH - Gallons per Hour

GPM - Gallons per Minute

GPG - Grains per Gallon

HP - Horse Power

Hz - Hertz

ID - Inside Diameter

kW - Kilowatts

NFPA - National Fire Protection Association

NPT - National Pipe Thread

P/N - Part Number

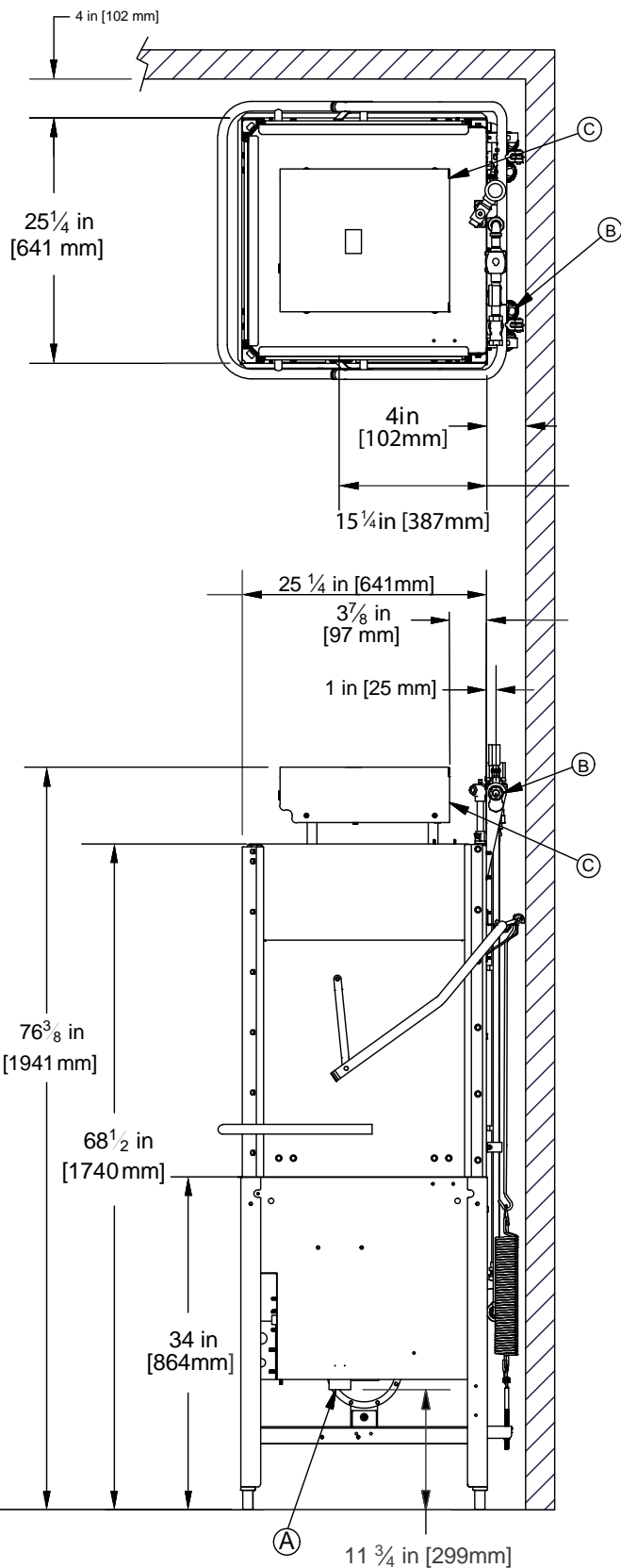
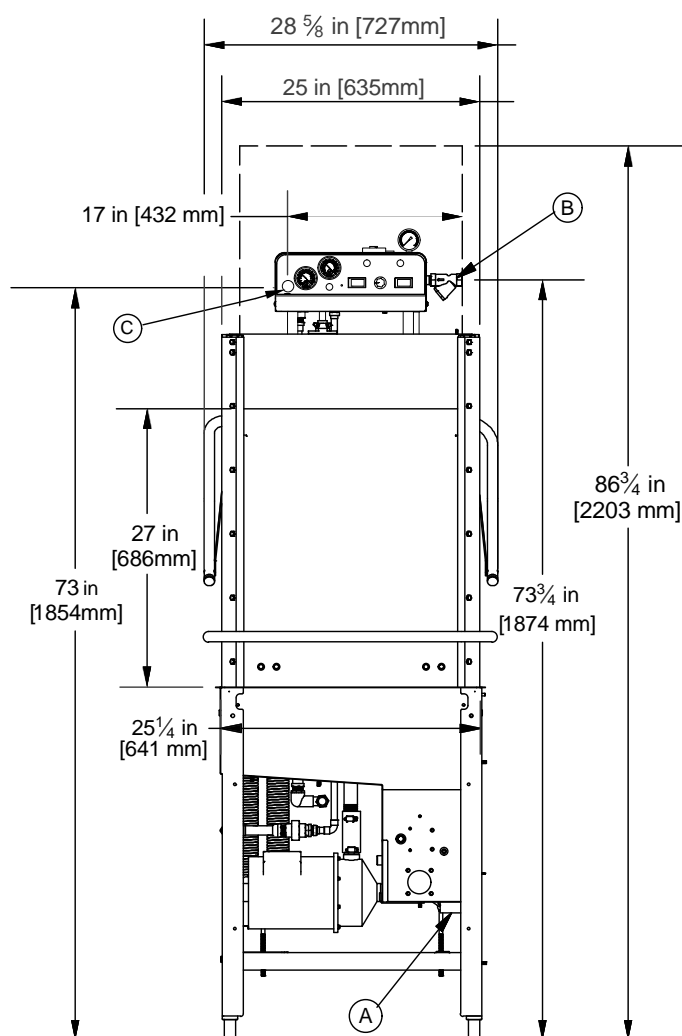
PSI - Pounds per Square Inch

V - Volts

LEGEND

- A - Drain 1 1/2" NPT
- B - Water Inlet 3/4" NPT
- C - Electrical Connection

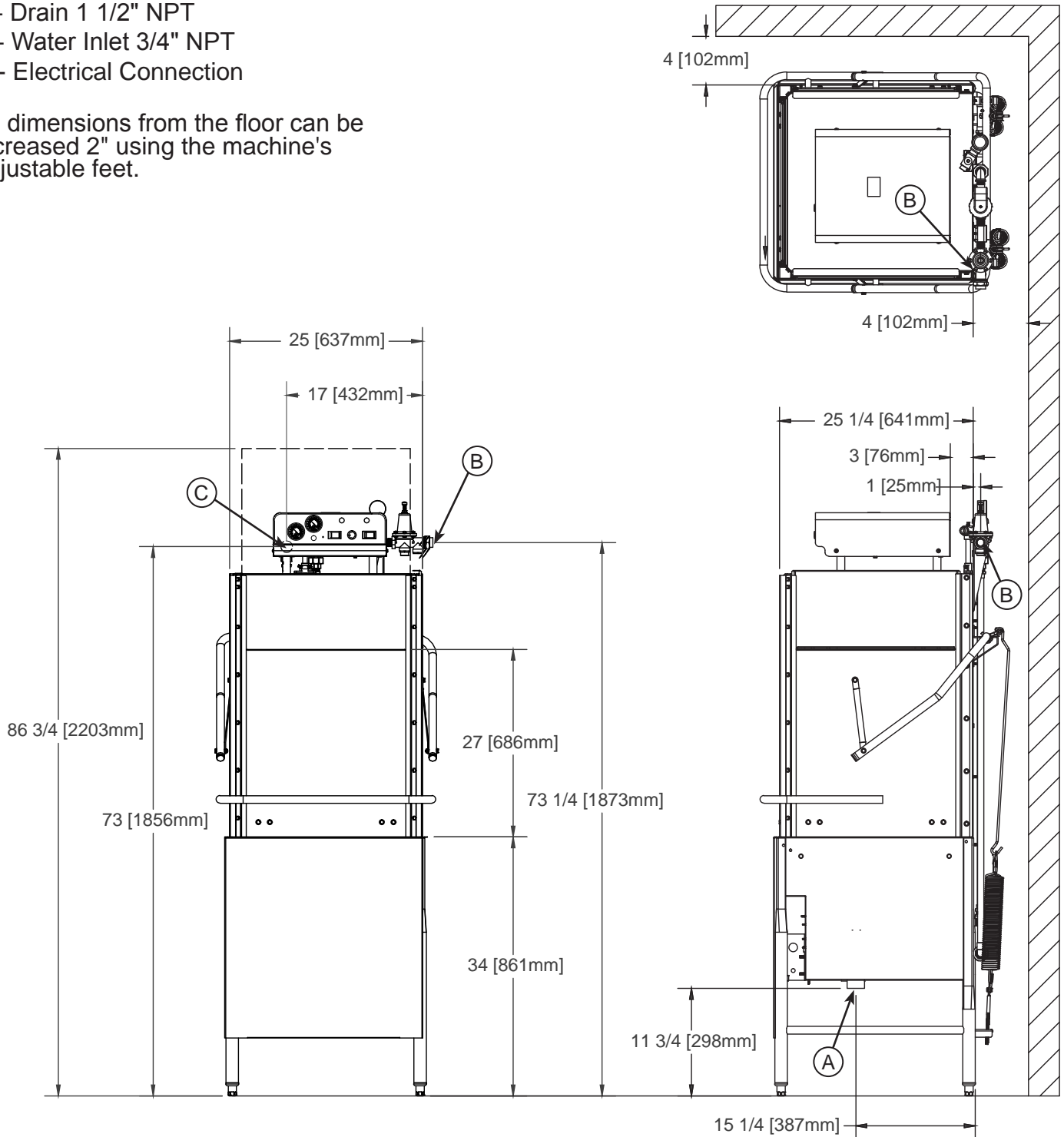
All dimensions from the floor can be increased 2" using the machine's adjustable feet.



LEGEND

- A - Drain 1 1/2" NPT
- B - Water Inlet 3/4" NPT
- C - Electrical Connection

All dimensions from the floor can be increased 2" using the machine's adjustable feet.



SPECIFICATIONS

DIMENSIONS - SIDE-MOUNT CONTROL BOX

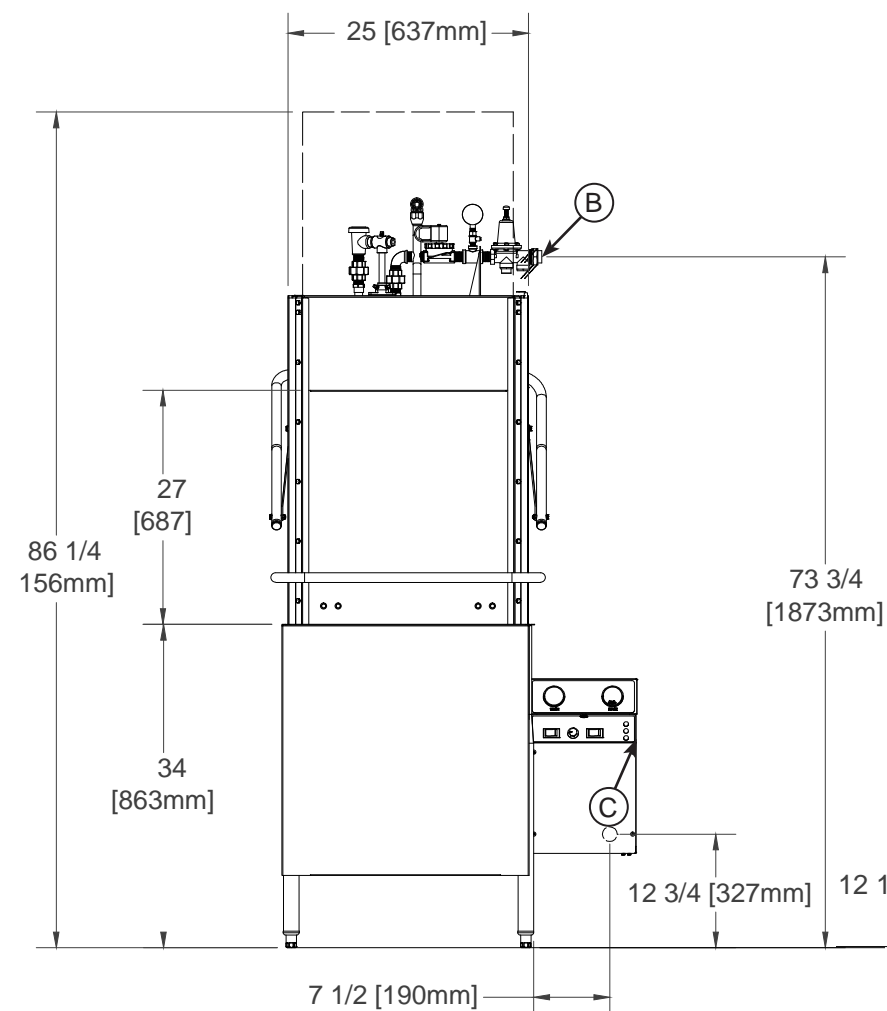
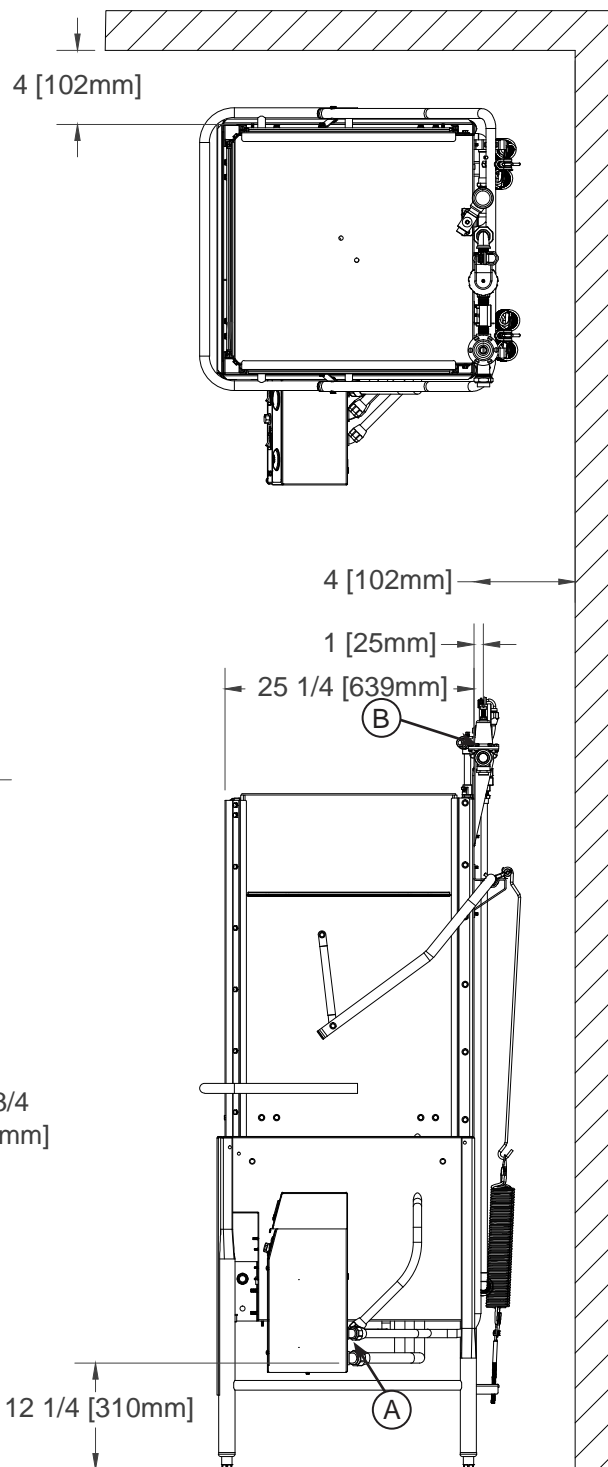
LEGEND

A - Drain 1 1/2" NPT

B - Water Inlet 3/4" NPT

C - Electrical Connection

All dimensions from the floor can be increased 2" using the machine's adjustable feet.



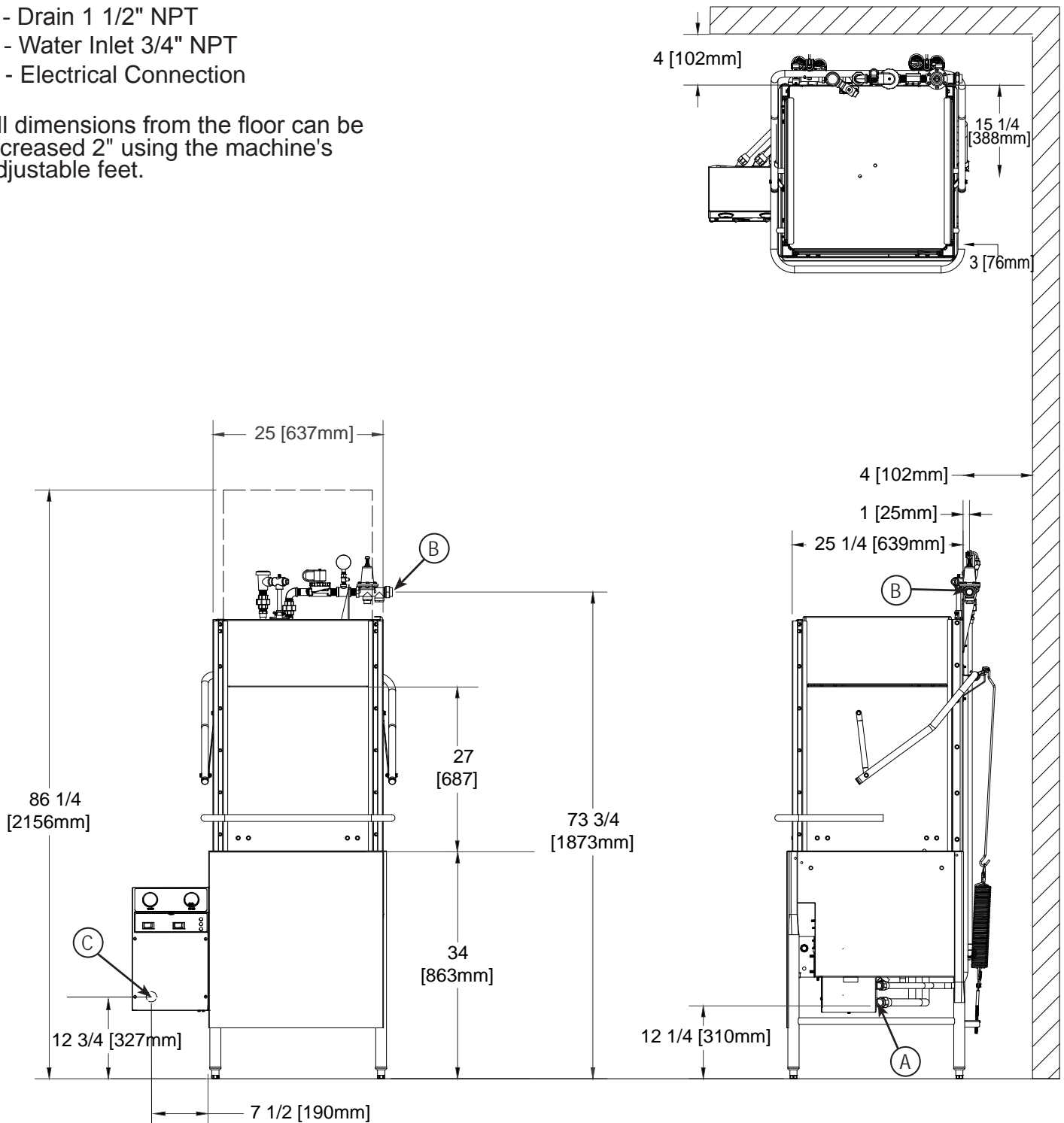
SPECIFICATIONS

DIMENSIONS - LEFT-SIDE CONTROL BOX

LEGEND

- A - Drain 1 1/2" NPT
- B - Water Inlet 3/4" NPT
- C - Electrical Connection

All dimensions from the floor can be increased 2" using the machine's adjustable feet.



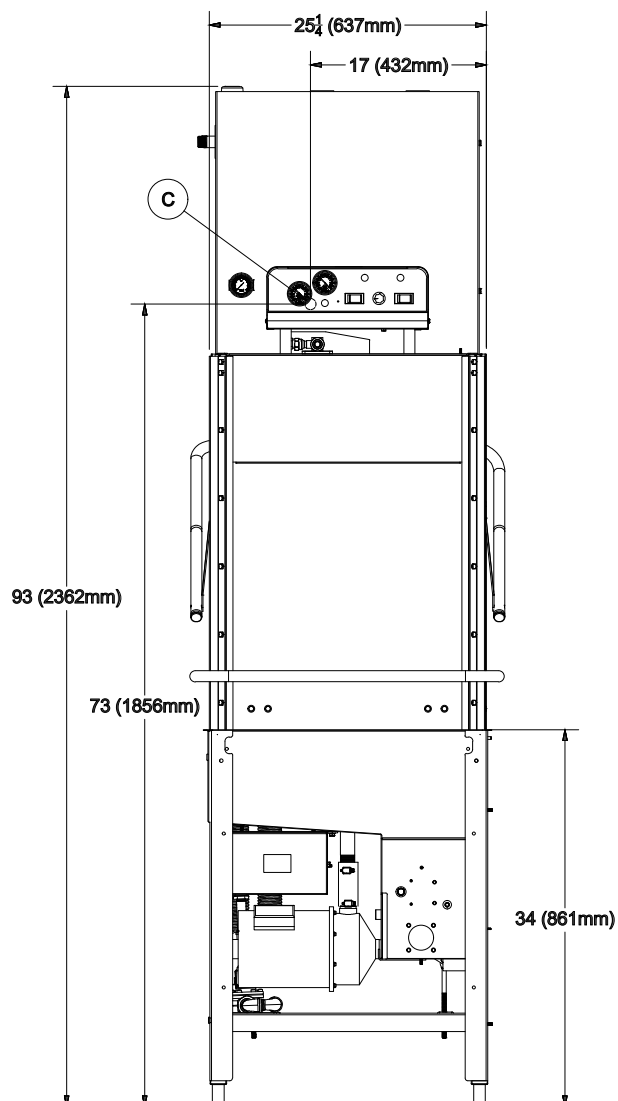
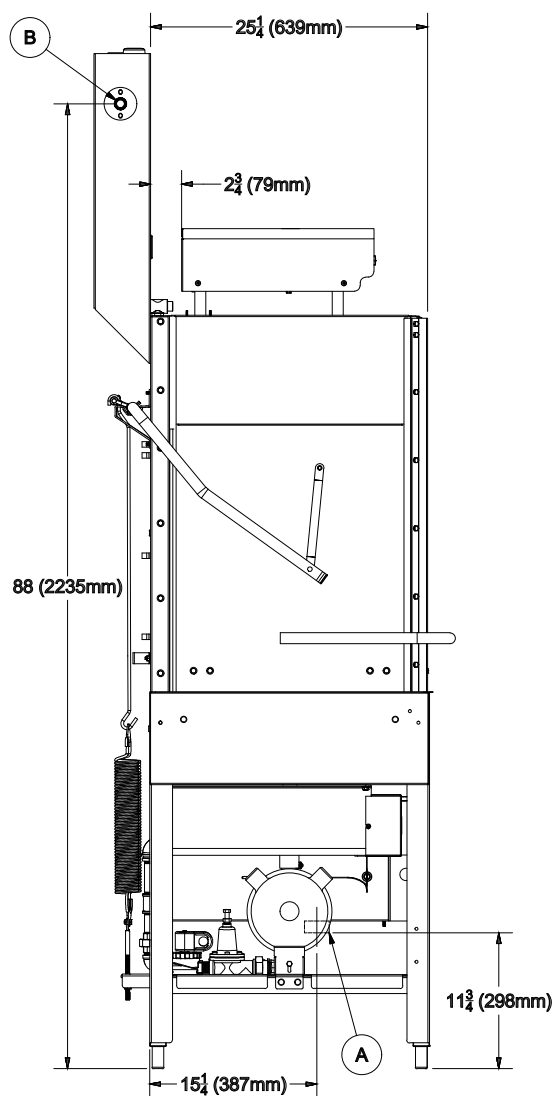
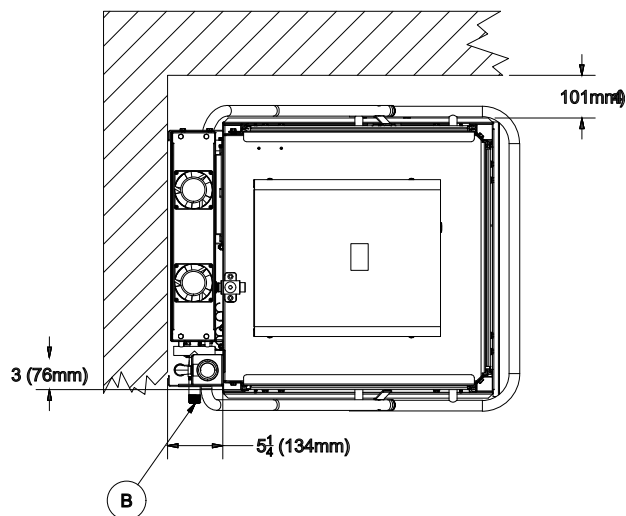
LEGEND

A - Drain 1 1/2" NPT

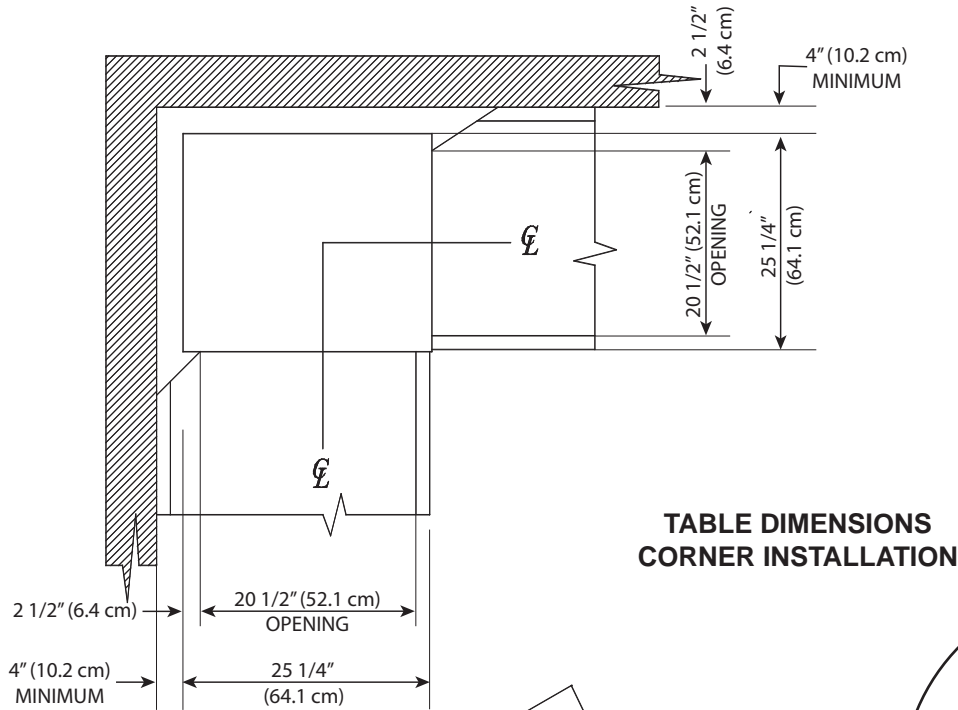
B - Water Inlet 3/4" NPT

C - Electrical Connection

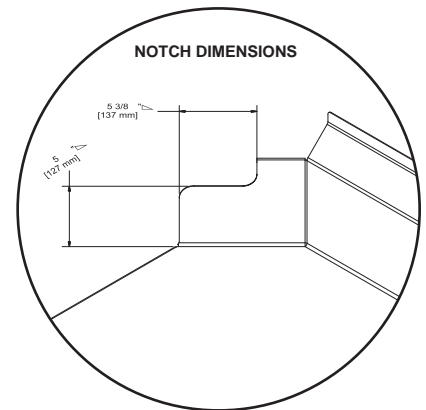
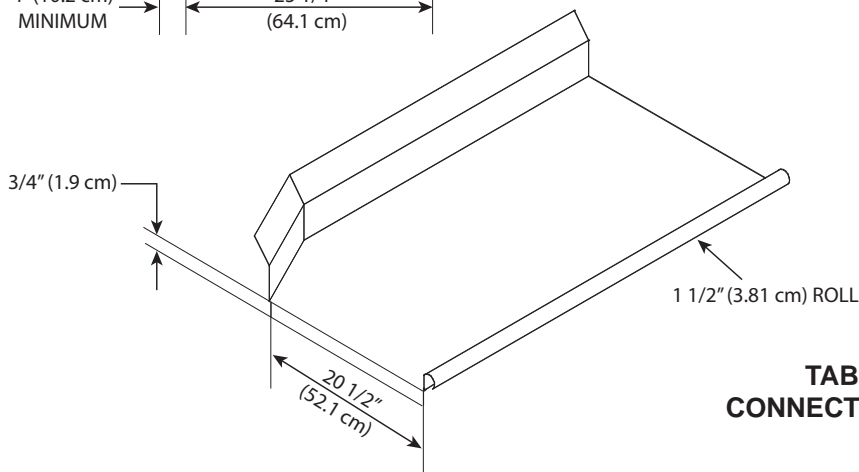
All dimensions from the floor can be increased 2" using the machine's adjustable feet.



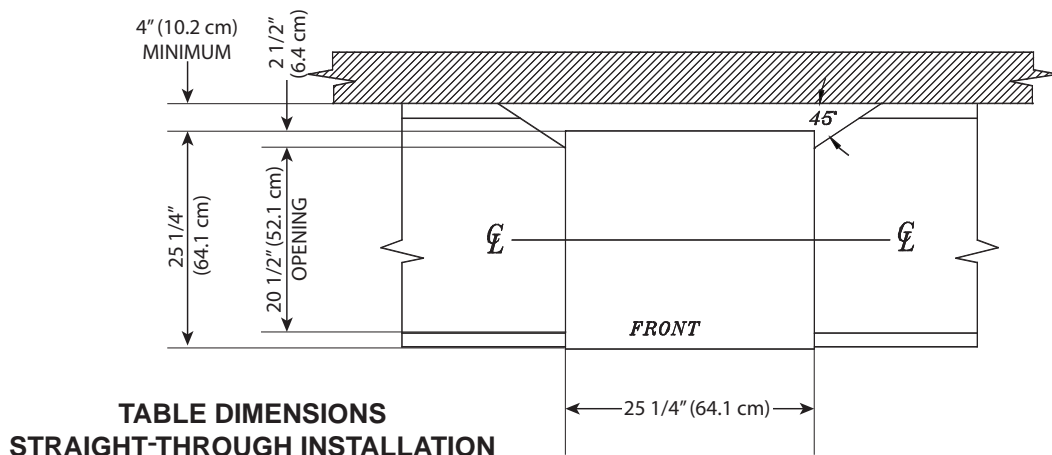
NOTICE Remove the front dress panel from the dishmachine if mounting the dishmachine in a corner installation with side tables. Corner installation will trap the panel, making it difficult to remove.



**TABLE DIMENSIONS
CORNER INSTALLATION**



**TABLE DIMENSIONS
CONNECTION TO DISH MACHINE**



**TABLE DIMENSIONS
STRAIGHT-THROUGH INSTALLATION**

SPECIFICATIONS

OPERATING PARAMETERS

OPERATING CAPACITY:

Normal Cycle

Racks per Hour	53
Dishes per Hour	1325
Glasses per Hour	1908

Medium Cycle

Racks per Hour	28
Dishes per Hour	700
Glasses per Hour	1008

Heavy Cycle

Racks per Hour	19
Dishes per Hour	475
Glasses per Hour	684

Extra-heavy Cycle

Racks per Hour	11
Dishes per Hour	275
Glasses per Hour	396

OPERATING CYCLES (SECONDS):

	Wash	Rinse	Dwell	Total
HH-E	40	10	10	60
Normal	45	15	2	62
Medium	103	15	2	120
Heavy	163	15	2	180
Extra-Heavy	283	15	2	300

Ventless:

Wash Time	45
Rinse Time	15
Dwell Time	2
Condensate Removal	30
Total	92

Tank Capacity:

Rinse Tank (gallons/liters)	3.0/11.4
Wash Tank (gallons/liters)	8.0/30.3

MOTOR HP:

Wash Motor HP	2.0
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WATER REQUIREMENTS:

TempStar HH & TempStar HH Ventless:

Wash Temperature (minimum) (°F/°C)	150/66
Rinse Temperature (minimum) (°F/°C)	180/83
Inlet Water Temperature:	
12 kW Rinse Heater (°F/°C)	140/60
14 kW Rinse Heater (°F/°C)	110/44
14 kW Ventless (°F)	40-70
14 kW Ventless (°C)	4.4-21
Flow Pressure (PSI)	20±5
Water Line Size (NPT)	3/4"
Drain Line Size (NPT)	1 1/2"

TempStar HH-E:

Wash Temperature (minimum) (°F/°C)	155/68
Rinse Temperature (minimum) (°F/°C)	180/83
Inlet Water Temperature (°F/°C)	110/44
Flow Pressure (PSI)	10
Water Line Size (NPT)	1/2"
Drain Line Size (NPT)	1 1/2"

TempStar HH NB/Tempstar HH S:

Wash Temperature (minimum) (°F/°C)	150/66
Rinse Temperature (minimum) (°F/°C)	180/83
Inlet Water Temperature (°F/°C)	180/83
Flow Pressure (PSI)	20±5
Water Line Size (NPT)	3/4"
Drain Line Size (NPT)	1 1/2"

TempStar HH LT:

Wash Temperature (minimum) (°F/°C)	120/49
Rinse Temperature (minimum) (°F/°C)	120/49
Inlet Water Temperature (°F/°C)	120/49
Flow Pressure (PSI)	20±5
Water Line Size (NPT)	3/4"
Drain Line Size (NPT)	1 1/2"

STEAM REQUIREMENTS:

Coil Size	3/4"
Steam Flow Pressure (PSI)	10-30
Consumption @ 15 PSI (lbs/hr)	45

NOTICE



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

SPECIFICATIONS

ELECTRICAL REQUIREMENTS

NOTICE Typical Electrical Circuit is based on:



1. 125% of the full amperage load of the machine.
2. Typical fixed-trip circuit breaker sizes as listed in the NEC (latest 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. Numbers in this manual are for reference and may change without notice.

TEMPSTAR HH & HH-E:

Volts	Phase	Freq	Rinse Heater Ratings	Total Amps	Typical Electrical Circuit
415	3	60 Hz	12 kW	28 A	35 A
415	3	60 Hz	14 kW	30 A	40 A
208	1	60 Hz	12 kW@240 V	75 A	100 A
208	1	60 Hz	14 kW@240 V	82 A	110 A
230	1	60 Hz	12 kW@240 V	81 A	110 A
230	1	60 Hz	14 kW@240 V	90 A	125 A
208	3	60 Hz	12 kW@240 V	48 A	60 A
208	3	60 Hz	14 kW@240 V	52 A	70 A
230	3	60 Hz	12 kW@240 V	52 A	70 A
230	3	60 Hz	14 kW@240 V	57 A	80 A
460	3	60 Hz	12 kW@480 V	24 A	30 A
460	3	60 Hz	14 kW@480 V	26 A	35 A

TEMPSTAR HH VENTLESS:

Volts	Phase	Freq	Rinse Heater Ratings	Total Amps	Typical Electrical Circuit
208	1	60 Hz	15.4 kW	87 A	110 A
230	1	60 Hz	15.4 kW	96 A	125 A
208	3	60 Hz	15.4 kW	55 A	70 A
230	3	60 Hz	15.4 kW	61 A	80 A
460	3	60 Hz	15.4 kW	28 A	35 A

TEMPSTAR HH NB & TEMPSTAR HH LT:

Volts	Phase	Freq	Rinse Heater Ratings	Total Amps	Typical Electrical Circuit
208	1	60 Hz	N/A	31 A	35 A
230	1	60 Hz	N/A	33 A	35 A
208	3	60 Hz	N/A	23 A	25 A
230	3	60 Hz	N/A	24 A	35 A
460	3	60 Hz	N/A	10 A	15 A

TEMPSTAR HH S:

Volts	Phase	Freq	Rinse Heater Ratings	Total Amps	Typical Electrical Circuit
208	1	60 Hz	N/A	12 A	15 A
230	1	60 Hz	N/A	12 A	15 A
208	3	60 Hz	N/A	12 A	15 A
230	3	60 Hz	N/A	12 A	15 A

INSPECTION

Do not throw away packaging if damage is evident!

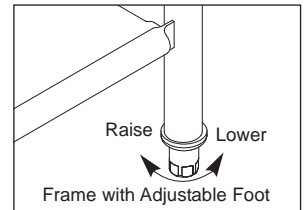
Before installing the unit, check the packaging and machine for damage. If the packaging is damaged, the machine might also be damaged. If there is damage to both packaging and machine, do not throw away the packaging. The dishmachine has been inspected and packed at the factory and is expected to arrive to you in new, undamaged condition. However, rough handling by carriers or others might result in damage to the unit while in transit. If so, do not return the unit to the manufacturer. Instead, contact the carrier and ask them to send a representative to the site to inspect the damage and complete an inspection report. You must contact the carrier and the dealer that sold you the unit within 48 hours of receiving the machine.

UNPACKING

While removing the machine from the container, ensure that there are no missing parts. If an item is missing, contact the manufacturer immediately.

LEVELING

The dishmachine must be level in its operating location to prevent damage to the machine during operation and to ensure the best results. The unit comes with four 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 front-to-back before making any connections.



PLUMBING

The plumber MUST flush the incoming water line!

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 before connecting it to any component of the dishmachine. It is very important to remove all foreign debris from the water line that might 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.

A water hardness test MUST be performed.

A water hardness test must be performed to determine if the HTS-11 (scale prevention and corrosion control) needs to be installed. If water hardness is higher than 5 GPG, the HTS-11 will need to be installed. Please contact the manufacturer to purchase the HTS-11.

STEAM LINE CONNECTION

The steam machines come with lines to connect the source steam. Connect all steam lines to the machine as all applicable codes provide. See machine data plate for information concerning steam flow pressure.

Click [here](#) for the Steam Booster manual.

WATER SUPPLY CONNECTION: WATER HARDNESS GREATER THAN 5 GPG

If water hardness tests at greater than 5 GPG, install the HTS-11 into the water line before the dishmachine's incoming water connection point using copper pipe. Observe proper inlet/outlet water directions. A water shut-off valve should be installed to allow access for service. Plumb from the HTS-11 outlet to the incoming water connection point using copper pipe (or order the flexible hose kit offered by the manufacturer).

WATER SUPPLY CONNECTION: WATER HARDNESS OF 5 GPG OR LESS

If water hardness tests at 5 GPG or less, install the water supply line to the dishmachine's incoming water connection point using copper pipe (or order the flexible hose kit offered by the manufacturer). A water shut-off valve should be installed to allow access for service.

PRESSURE REGULATOR

The manufacturer recommends the installation of a water pressure regulator in the incoming water line to ensure proper flowrate at all times and offers these devices as options. See the Plumbing Options page.

*Take care not to confuse
static pressure with
flow pressure.*

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.

SHOCK ABSORBER

The manufacturer also recommends the installation of a shock absorber in the incoming water line and offers these devices as options. This prevents line hammer/hydraulic shock—induced by the solenoid valve as it operates—from causing damage to the equipment. See the Plumbing Options page.

CONNECTING THE DRAIN LINE

The dishmachine's drain is a gravity-discharge drain. All piping from the 1 1/2" NPT connection on the wash tank must be pitched (1/4" per foot) to the floor or sink drain. All piping from the machine to the drain must be a minimum 1 1/2" NPT and must 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 GPM.

CHEMICAL CONNECTIONS

Chemical connections should be made by the chemical supplier.

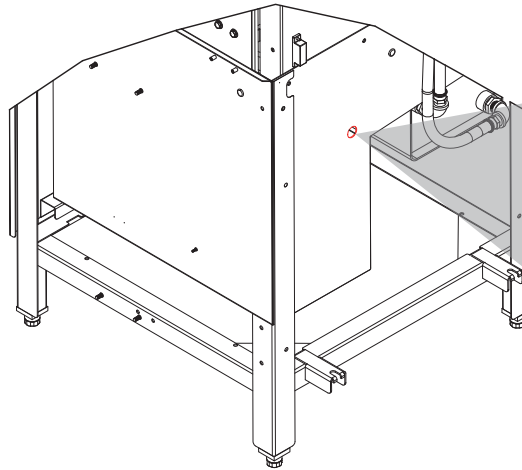
Using deionized water or other aggressive fluids will result in corrosion and failure of components and will void the warranty.



WARNING! Some of the chemicals used in dishwashing may cause chemical burns if they come in contact with skin. Wear protective gear when handling these chemicals. If any skin comes in contact with these chemicals, immediately follow the instructions provided with the chemicals for treatment.

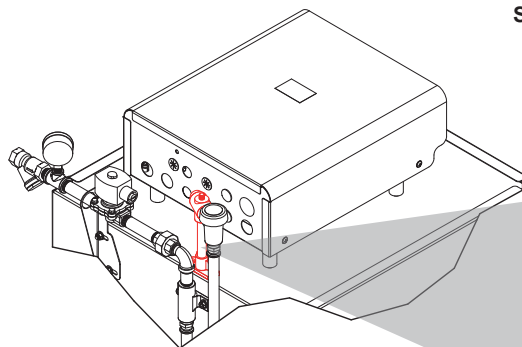
Detergent

Connect detergent by removing the bulkhead fitting on the back of the machine and replacing it with the appropriate dispensing equipment.



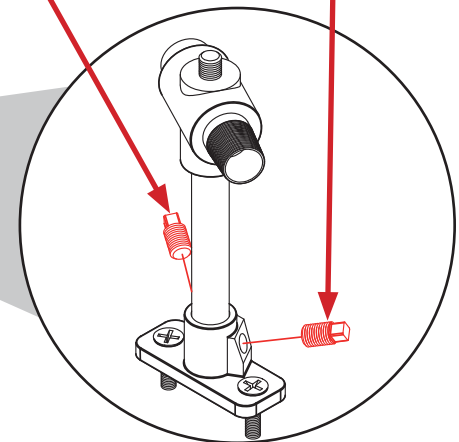
Rinse-aid and Sanitizer

Connect rinse-aid (and sanitizer, if an LT unit) by removing the brass plug at the base of the rinse injector and replacing it with the appropriate dispensing equipment.



Sanitizer (LT Only)

Rinse-aid



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 before operating the machine.

INSTALLATION

INSTRUCTIONS

ELECTRICAL POWER CONNECTIONS

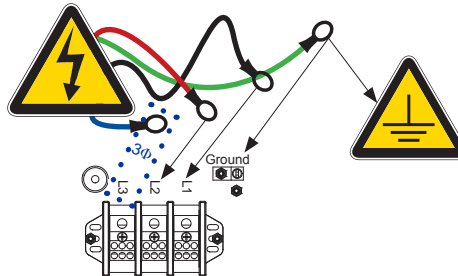


Disconnect electrical power supplies and lockout/tagout in accordance with appropriate procedures and codes at the disconnect switch.

Electrical and grounding conductors must comply with the applicable portions of the National Electric Code ANSI/NFPA 70 (latest edition) and/or other electrical codes.

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

1. Open the control box by using a phillips screwdriver to remove the four screws on the front cover of the control box.
2. Install 3/4" conduit into the pre-punched holes in the back of the control box.
3. Route power wires and connect to power block and grounding lug.
4. Install the service wires (L3 for 3-Phase only) to the appropriate terminals as they are marked on the terminal block.



NOTICE

Imbalanced wild leg goes to L3.

5. Install the grounding wire into the lug provided.
6. Tighten the connections.

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

CAUTION! Improperly connecting external devices can cause damage to the machine and/or electrical infrastructure! See Addendum for a wiring guide.



VOLTAGE CHECK



Ensure that the power button is in the off position and apply power to dishmachine. Check the incoming power at the terminal block and ensure it corresponds with the voltage listed on the data plate. If not, contact a qualified service agency to examine the problem. Do not run dishmachine if voltage is too high or too low. Shut off the service breaker and advise all proper personnel of the location of the breaker and any problems. Replace the control box cover and tighten-down the screws.

SURROUNDING AREA

This is a commercial dishmachine and reaches temperatures that can exceed those generated by a residential machine. Surrounding countertops, cabinets, flooring material, and subfloor material must be designed and/or selected with these higher temperatures in mind.

NOTICE Any damage to surrounding area caused by heat/moisture to materials that are not recommended for higher temperatures will not be covered under warranty or by the manufacturer.

TEMPERATURE SETPOINTS

The temperature setpoints on this unit have been set at the factory. They should only be adjusted by an authorized service agent.

Due to shipping constraints, the Ventless/Energy Recovery assembly is not mounted by the manufacturer. These instructions show how to mount the Ventless/Energy Recovery assembly onto the Ventless machine.

TOOLS REQUIRED:

- 7/16" Wrench
- 9/16" Wrench
- Adjustable Wrench

Ventless/Energy Recovery Unit



Base Unit



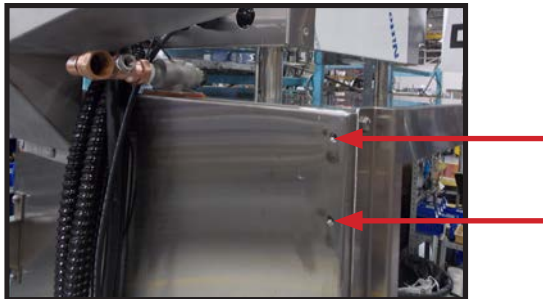
Fully-assembled Unit



NOTICE The Ventless/Energy Recovery assembly is packaged with the machine but not mounted.

INSTRUCTIONS:

- 1 Locate and remove the four 1/4-20 bolts using a 7/16 wrench. These are located in the top-left and right corner of the unit.



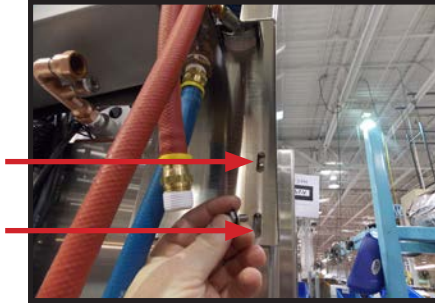
- 2 Lift the Ventless/Energy Recovery unit up and over the lower air inlet, then align and slide unit onto the lower air inlet. Upper unit should slide inside the lower air inlet at the seam.



Ventless/Energy Recovery Unit

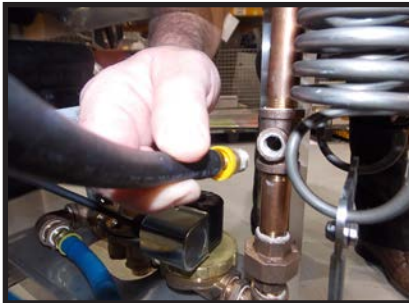
Lower Air Inlet Seam

- 3** Reinstall the four 1/4-20 bolts that were removed in step 1 with a 7/16 wrench. They insert into the machine on the right and left corners.



- 4** Connect pressure gauge with a 9/16 wrench. Connect the two hoses using an adjustable wrench. The hoses are cut-to-length and will only reach their intended connection point.

A. Connect the Gauge



C. PRV Inlet from Coil



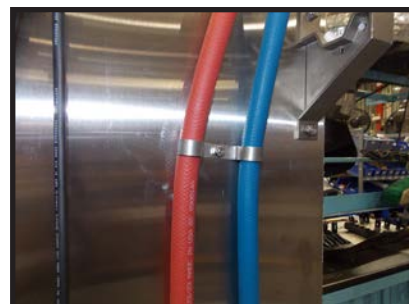
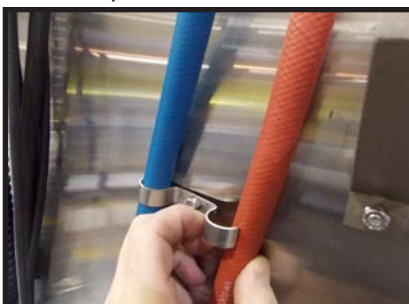
B. Final Rinse Inlet



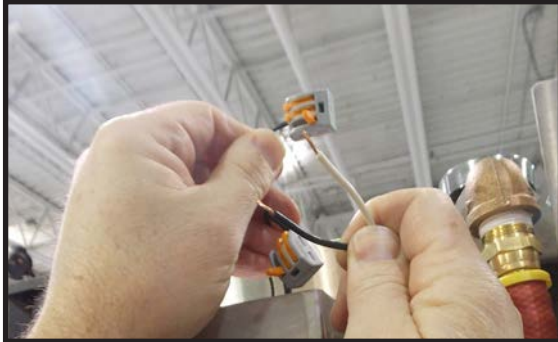
D. Booster Outlet



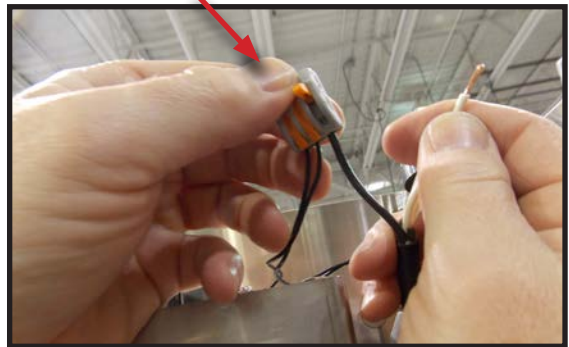
- 5** Before moving to the next step, tidy up the hoses by sliding them under the clamps. You might need to loosen the nut to accomplish this.



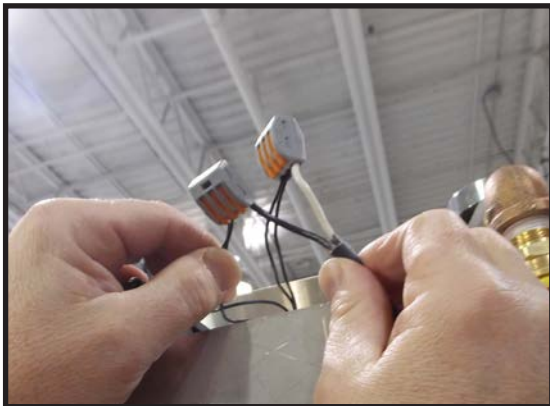
- 6 Locate the wire connectors at the top of the unit and connect the white and black wires from the base unit.



Slide wire into the hole and push the lever down.



- 7 Tidy up the wires and lock them in place with the P-Clamp on top of the unit.



P-Clamp



- 8 You now have a fully-assembled unit.



1. Apply power (120, 208, or 240 VAC) to the A1 & A2 terminals.

Timer Wiring with Correct Wire Colors



2. Hold down the SET and ADJ buttons for at least three seconds.
3. Repeatedly press the ADJ button until the letter E appears on the left-hand side.
4. Press the SET button.
5. Press the ADJ button until the letters M S appear.
6. Press the SET button.
7. Press the ADJ button to adjust the first digit to 2.
8. Press the SET button.
9. Press the ADJ button to adjust the second digit to 3.
10. Press the SET button.
11. Press the ADJ button to adjust the third digit to 0.
12. Press the SET button.
13. Press the ADJ button so there is an arrow facing downward.
14. Press the SET button.

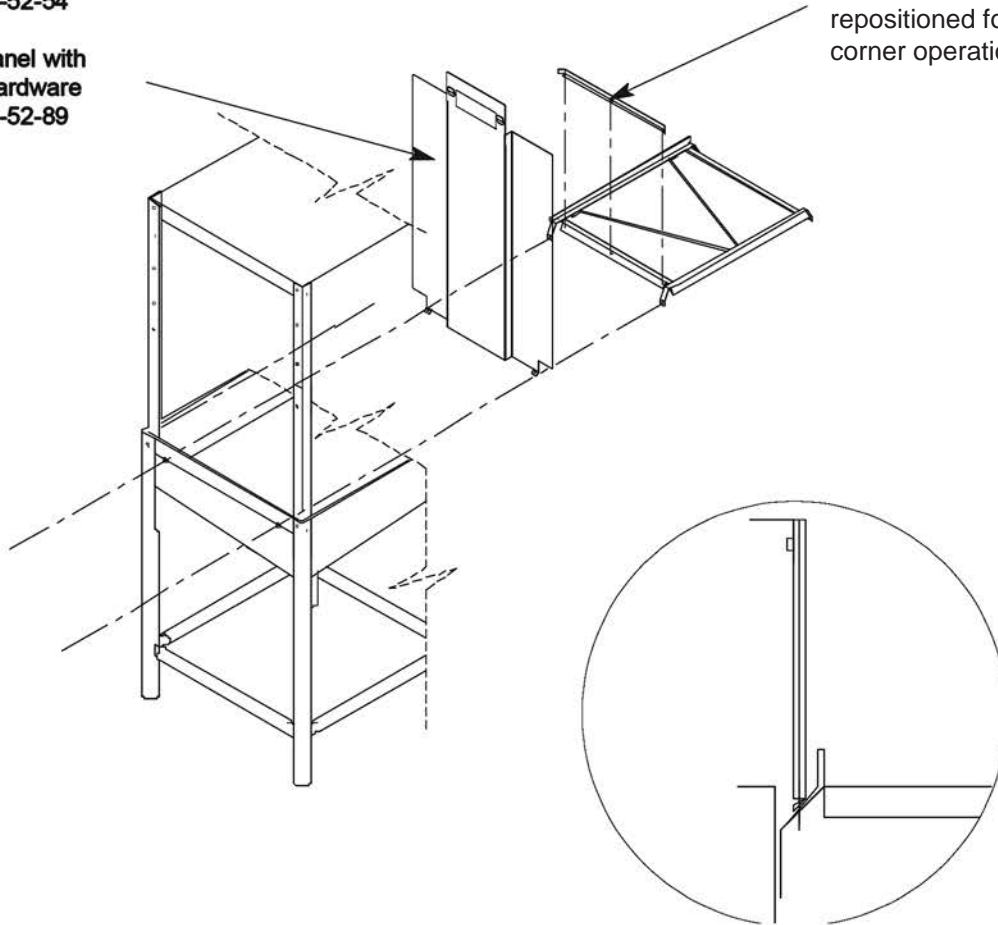
STEP	ACTION	RESULT
1.	Apply power (120, 208, or 240 VAC) to the A1 & A2 terminals.	Idle state.
2.	Make control signal connection at B1. No control signal is applied.	Remains in idle state.
3.	Apply control signal (logic high).	Relay closes (ports 15-18).
4.	Remove control signal (logic low).	Relay remains closed for 2.5 minutes.

NOTICE In Step 4, if control signal is reapplied while the relay is still closed, Step 3 will restart.

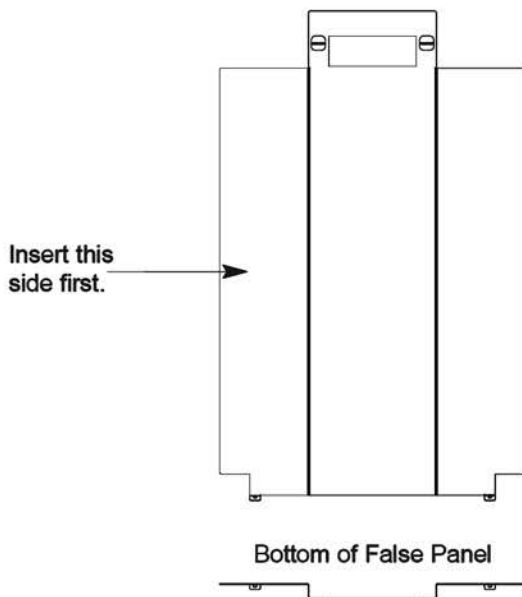
False Panel
05700-002-52-54

Kit, False Panel with
Mounting Hardware
05700-002-52-89

Rack rail removed and
repositioned for a
corner operation.



False Panel Positioned in Unit



1. Remove the rack assembly from the dishmachine.
2. The false panel will mount inside of the dishmachine.
3. Position the panel in the dishmachine on the side to be closed.
4. Hold the panel against the side of the dishmachine and push upward.
5. The panel will clip in at the top, inside of the unit.
6. The holes in the false panel will line-up with the rack assembly holes.
7. Reinstall the screws for the rack assembly which will secure the false panel to the unit.
8. Reassemble the rack track in an "L" shape for a corner operation.

PREPARATION Before operating the unit, verify the following:

1. The tank is clean and free of debris.
2. The wash arms, rinse arms, sump strainer, and scrap screen are all installed correctly.
3. The standpipe is installed.



Wash & Rinse Arms, Scrap Screen



Sump Strainer



Standpipe

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 mode switch is in the "AUTO" position, and place the power switch into the "ON" position. The machine will fill automatically and shut-off when the appropriate level is reached (just below the scrap screen). 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 PREPARATION Proper preparation of ware will help ensure good results and fewer re-washes. If not prepared properly, ware might not come out clean and the efficiency of the dishmachine will be reduced. Putting unscrapped dishes into the machine affects its performance, so scraps should always be removed from ware before 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 they don't hold water during the cycle. The dishmachine sanitizes as well as cleans. To do this, ware must be properly prepared before being placed in the machine.

DAILY MACHINE PREPARATION Refer to the "Preparation" section and follow the instructions there. Afterward, ensure that chemicals are supplied to the machine. If not, contact your chemical supplier.

WARM-UP CYCLES

For the first operation of each day, it might be necessary to run the machine through three 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 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 (avoiding hot water that might drip from the door) and slide the rack into the unit.

Close the door and the unit will start automatically. Once the cycle is complete, 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 door. The process will repeat itself.

OPERATIONAL INSPECTION

Based upon usage, the scrap screen might become clogged with soil and debris as the workday progresses. Operators should regularly inspect the scrap screen to ensure it has not become clogged. If clogged, it will reduce the washing capability of the machine. Instruct operators to clean-out the scrap screen at regular intervals or as required by workload.

SHUTDOWN & CLEANING

1. Turn machine off by flipping the "Power On/Power Off" switch to "OFF."



2. Open the door and allow steam/heat to escape.
3. Remove the standpipe and allow the tub to drain.



WARNING! Wash tank water will be hot!

SHUTDOWN & CLEANING

4. Remove the sump strainer and scrap screen.



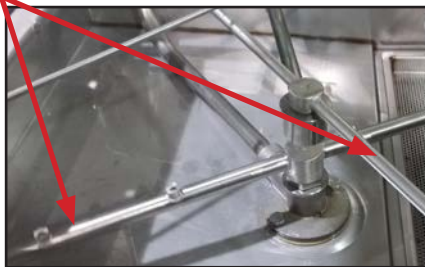
5. Use a hand-scraper to scrape foodsoil into a trash basket.



6. Rinse with pre-rinse hose and replace.



7. Remove all wash and rinse arms.



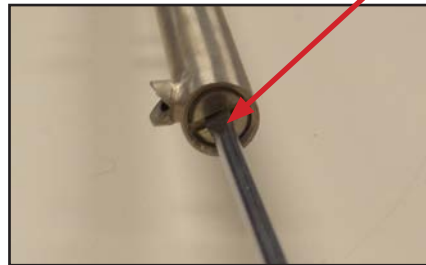
8. Remove the end-caps from the arms.



9. Clean nozzles with a brush.

**SHUTDOWN &
CLEANING**

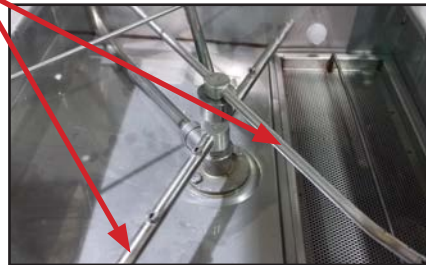
10. Use a small wire or toothpick to remove remaining debris or lime deposits from the nozzles.
11. Flush the arms with water.
12. Replace end-caps and ensure they have been tightened.



13. Spray or wipe out interior of the machine.



14. Replace wash and rinse arms.



15. Ensure sump strainer and scrap screen are clean and securely in place.



16. Use stainless steel polish to clean and protect outside of dishmachine.

**DETERGENT
CONTROL**

Detergent usage and water hardness are two factors that contribute greatly to how efficiently this dishmachine will operate. Using detergent in the proper amount can become a source of substantial savings. A qualified water treatment specialist can determine what is needed for maximum efficiency from the detergent.

1. Hard water greatly affects the performance of the dishmachine, causing the amount of detergent required for washing to increase. If the machine is installed in an area with hard water, the manufacturer recommends the installation of water treatment equipment.
2. Deposited solids from hard water can cause spotting that will not be removed with a drying agent. Treated water will reduce this occurrence.
3. Treated water might not be suitable for use in other areas of operation and it might be necessary to install a water treatment unit for the water going to the dishmachine only. Discuss this option with a qualified water treatment specialist.
4. Dishmachine operators should be properly trained on how much detergent is to be used per cycle. Meet with a water treatment specialist and detergent vendor to discuss a complete training program for operators.
5. These dishmachines require that chemicals be provided for proper operation and sanitization and require the installation of third-party chemical feeders to introduce these chemicals to the machine. Contact a chemical supplier with any questions.
6. Water temperature is an important factor in ensuring that the dishmachine functions properly. The machine's data plate details what the minimum temperatures must be for the incoming water supply, the wash tank, and the rinse tank. If minimum requirements are not met, there is a possibility that dishes will not be clean or sanitized.
7. Instruct dishmachine operators to observe the required temperatures and to report when they fall below the minimum allowed. A loss of temperature can indicate a larger problem.

DETIMING To delime the machine, follow the steps below. The tank capacities of the machine can be found in the Specifications section of this manual.

1. Remove rinse arms and place in sink with deliming solution.
2. Disconnect or turn off chemical feeder pumps.
3. Add deliming solution per chemical supplier's instructions.
4. Close the door and turn the machine on in "MANUAL" mode.
5. Run the machine for the length of time recommended by the chemical supplier.
6. Flip the mode switch to "AUTO" to shut the unit off.
7. Open the door and step away for five minutes.
8. Inspect the inside of the machine. If the machine is not delimed, run again.
9. When clean, drain and re-fill the machine.
10. Run two cycles in "AUTO" to remove residual deliming solution.
11. Drain and re-fill the machine.
12. Flush rinse arms with water and replace.



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

**PREVENTATIVE
MAINTENANCE**

The manufacturer highly recommends that any maintenance and repairs not specifically discussed in this manual be performed only by qualified service personnel. Performing maintenance on your dishmachine may void your warranty, lead to larger problems, or even cause harm to the operator.

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. There can be a variety of reasons why your water temperature could be too low.
2. Ensure that all strainers are clean and securely in place before operating the machine. When cleaning out strainers, do NOT beat them on waste cans. Wipe-out strainers with a rag and rinse under a faucet if necessary. Use a toothpick to dislodge any stubborn debris.
3. Ensure that all wash and rinse arms are secure in the machine before operating.
4. Ensure that the standpipe is seated in the sump 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 into machine have been verified at the correct concentrations.
9. Clean-out the machine at the end of every workday per the Shutdown and Cleaning section of this manual.
10. Follow all safety procedures, whether listed in this manual or put forth by local, state, or national codes/regulations.

MAINTENANCE

BEARING REPLACEMENT



Disconnect electrical power supplies and lockout/tagout in accordance with appropriate procedures and codes at the disconnect switch.

06401-004-33-51 RINSE ARM BEARING KIT

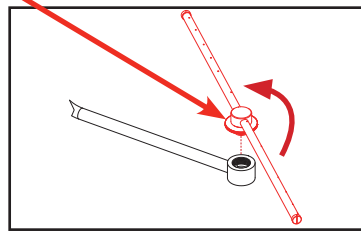
- 1 Bearing
03120-004-12-13
- 1 Retaining Clip
05340-112-01-11
- 2 Washers
05330-011-42-10

TOOLS REQUIRED

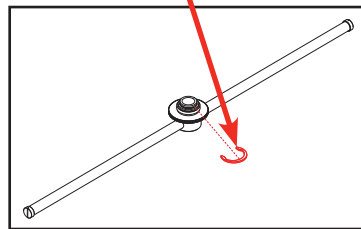
- Flathead Screwdriver

RINSE ARM MAINTENANCE

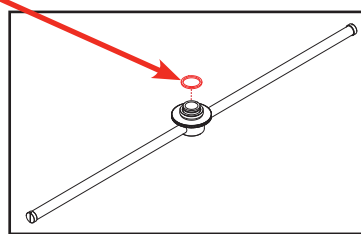
1. Unscrew the rinse arm from the manifold.



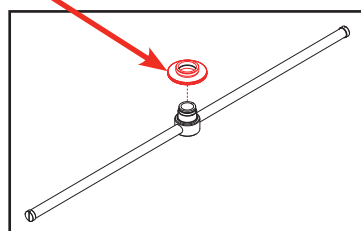
2. Take the retaining clip off with a flathead screwdriver.



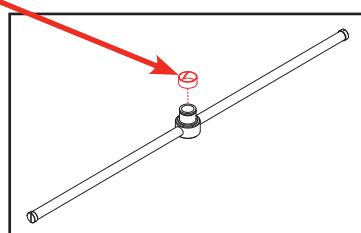
3. Remove the first washer.



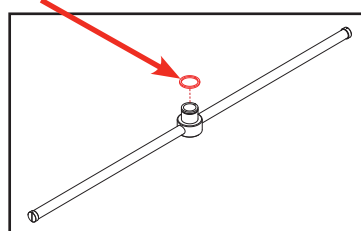
4. Remove the rinse head bushing.



5. Remove the bearing.



6. Remove the second washer.



BEARING REPLACEMENT

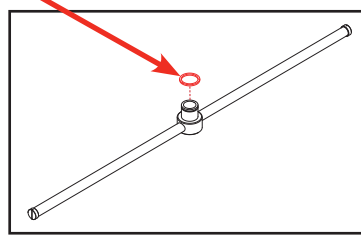
One of the washers from the kit is used in this step.

The bearing from the kit is used in this step.

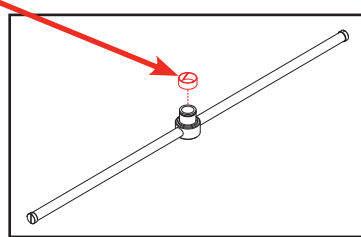
One of the washers from the kit is used in this step.

The retaining clip from the kit is used in this step.

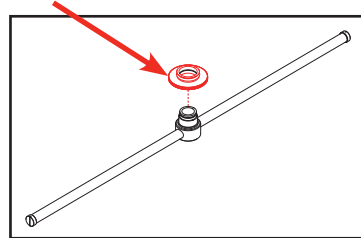
- Place one of the washers from the kit on the rinse arm.



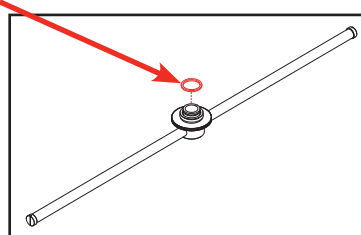
- Put the bearing from the kit on top of the washer.



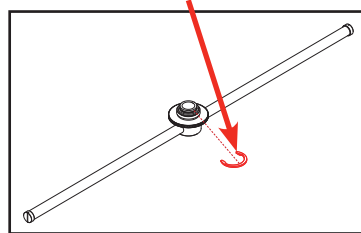
- Place the rinse head bushing back on the rinse arm.



- Put the other washer from the kit on top of the rinse head bushing.



- Push the retaining clip from the kit into place.



- Screw the rinse arm back on the manifold.



CAUTION! Work performed on dishmachines by unauthorized or unqualified personnel may void the warranty. Before beginning this or any other maintenance on a unit under warranty, you should contact a qualified service agency.



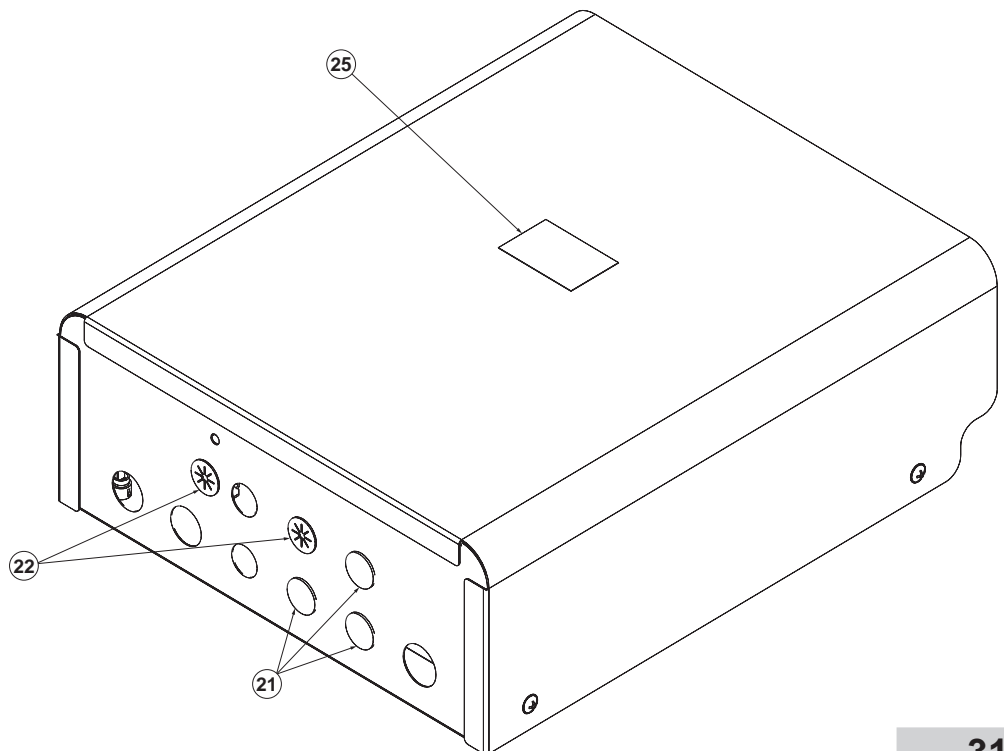
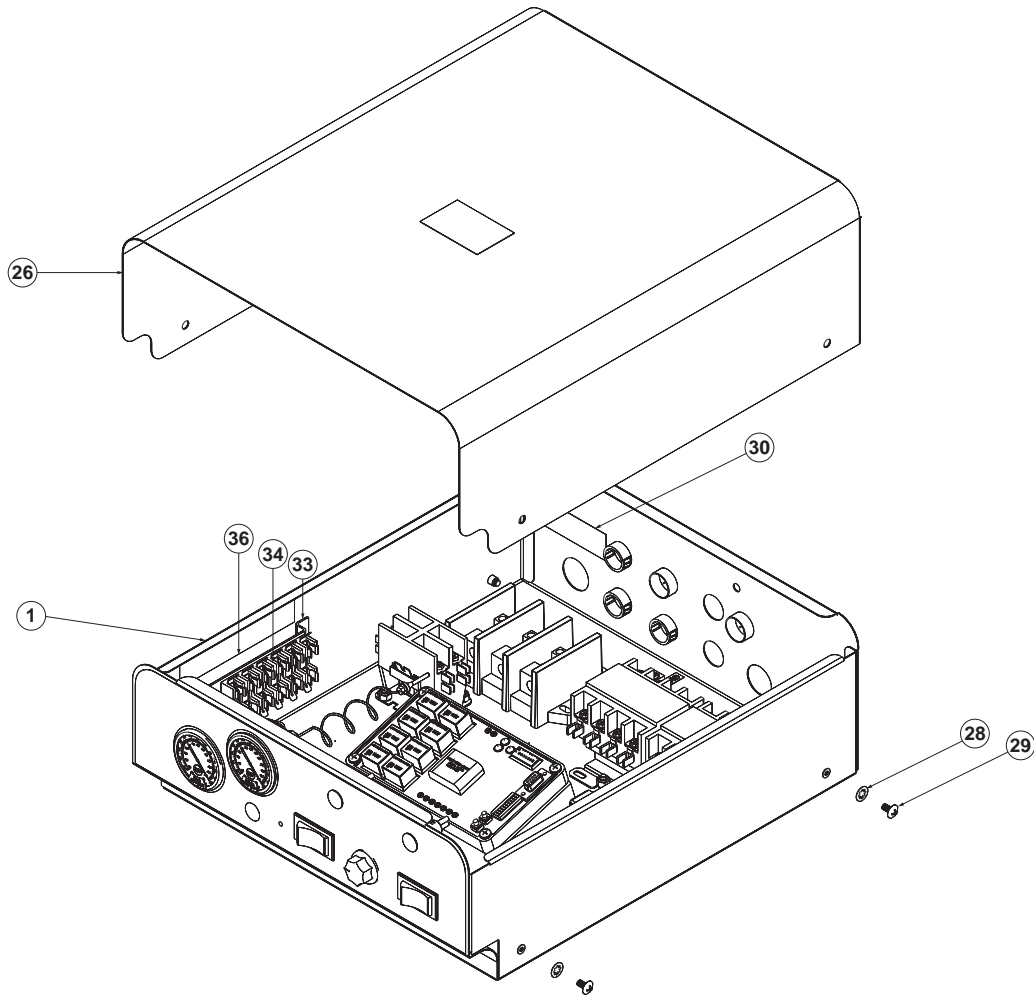
WARNING! Inspection, testing, and repair of electrical equipment should only be performed by a qualified service technician. Many of the tests require that the unit have power to it and live electrical components be exposed. USE EXTREME CAUTION WHEN TESTING THE MACHINE.

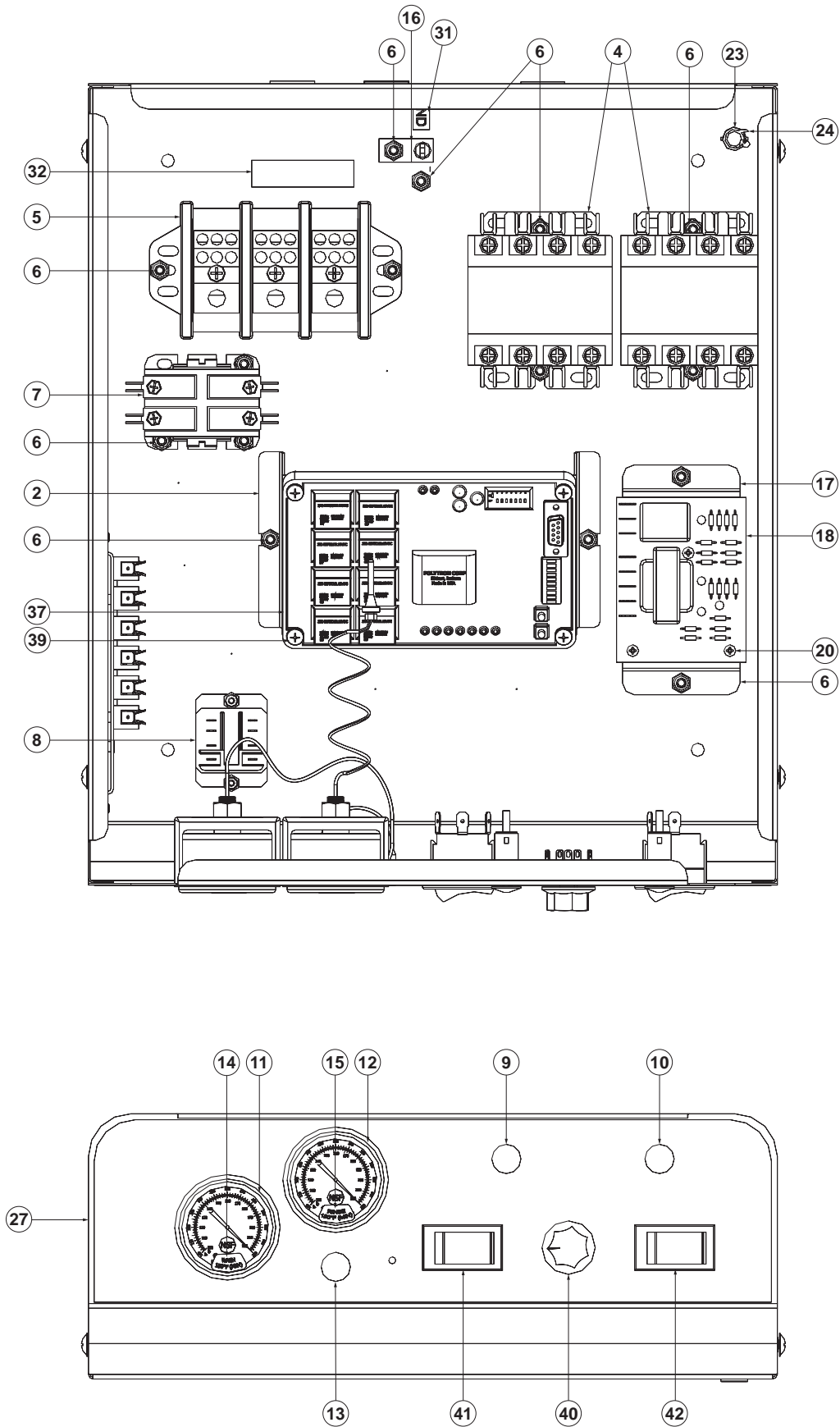
PROBLEM	POSSIBLE CAUSE	REMEDY
Dishmachine runs continuously in the wash cycle.	Machine is in manual (delime) mode. Wash cycle delay timer is faulty. Wash cycle delay timer settings are not correctly adjusted. Cam timer is faulty.	Change operation mode from MANUAL to AUTO position. During the wash cycle, the cam timer will move for the first 30 seconds of the wash cycle. The cycle delay timer will then cause the cam timer to stop in order to increase the length of the wash cycle. The red light on the delay timer is in control of the cam timer. If the red light is not turning on (only during cycles B, C, or D), replace the cycle timer. If the wash cycle delay timer and rotating cam timer are working correctly, the time cycles on the delay timer might be incorrectly adjusted. Adjust the delay potentiometer corresponding to the B, C, or D cycle. Rerun the appropriate cycle and see if the adjustment made any change in the length of the cycle. If not, replace the cycle delay timer. Confirm that the wash cycle delay timer is functioning correctly (see above). Confirm that the timer motor is receiving power. If it is, replace the motor and/or timer assembly. Make sure there are no obstructions which limit the rotation of the cam timer.
Dishmachine will not fill after the door is closed. Power "ON" light is illuminated.	Faulty rinse solenoid valve. Faulty door switch. Fouled/faulty high-level probe.	Repair or replace valve as required. Verify the wiring of the switch; if correct, replace the switch. Clean probe if fouled. If clean and not working, replace.
Dishmachine will not fill after the door is closed. Power "ON" light is not illuminated.	Service breaker tripped. Machine not connected to power source. Faulty power source.	Reset. If the breaker trips again, contact an electrician to verify the amp draw of the machine. Verify that the machine has been properly connected to the power source. Verify the wiring of the switch; if correct, replace switch.
Dishmachine will not fill after the door is closed. Power "ON" light is not illuminated.	Service breaker tripped. Machine not connected to power source. Faulty power source.	Reset. If the breaker trips again, contact an electrician to verify the amp draw of the machine. Verify that the machine has been properly connected to the power source. Verify the wiring of the switch; if correct, replace switch.
Wash or rinse heater does not work.	Faulty heater element. Faulty heater contactor. Mis-adjusted/faulty thermostat(s).	Check element for continuity; if open, replace the heater. Replace the contactor. Verify the operation and setting of thermostats; replace if necessary.



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

PROBLEM	POSSIBLE CAUSE	REMEDY
Dishmachine fills slowly and/or rinse is weak.	Clogged or obstructed rinse arms. Low incoming water pressure. Y-strainer is clogged.	Remove and clean the rinse arms. Adjust the water pressure regulator (not supplied) to ensure the flow pressure matches the data plate. Clean out the Y-strainer.
Rinse water is not reaching required temperature.	Faulty rinse heater. Mis-adjusted/faulty thermostat(s). Rinse thermometer is defective.	Check element for continuity; if open, replace heater. Verify operation and setting of thermostats; replace if necessary. Replace thermometer.
Wash water is not reaching required temperature.	Faulty wash heater. Mis-adjusted/faulty thermostat(s). Wash thermometer is defective.	Check element for continuity; if open, replace heater. Verify operation and setting of thermostats; replace if necessary. Replace thermometer.
Doors will not close completely.	Improper spring tension. Obstruction in door channel. Doors are not square with frame.	Adjust spring tension as required by loosening (not removing) spring bolt nuts and adjusting the tension. Tighten nuts back when done. Remove the obstruction. Adjust the frame to accommodate the doors.
Water leaks at the wash pump.	Wash pump seal defective. Petcock or pump drain (if equipped) not shut/tight. Loose hoses (hose clamps) on the wash pump.	Replace the seal. Close or tighten. Tighten the hose clamps.
Will not rinse during auto-cycle.	Defective rinse solenoid. Faulty fill microswitch. No water to the machine.	Repair or replace the rinse solenoid as required. Replace microswitch. Verify that the flow pressure matches the data plate.
Dishes are not coming clean.	Machine temperatures are not up to the minimum requirements. No detergent/too much detergent. Solid dispenser canister is empty.	Verify that incoming water, rinse water, and wash water match the required temperatures as listed on the machine data plate. Adjust detergent concentration as required for the amount of water held by the machine. Replace the canister.

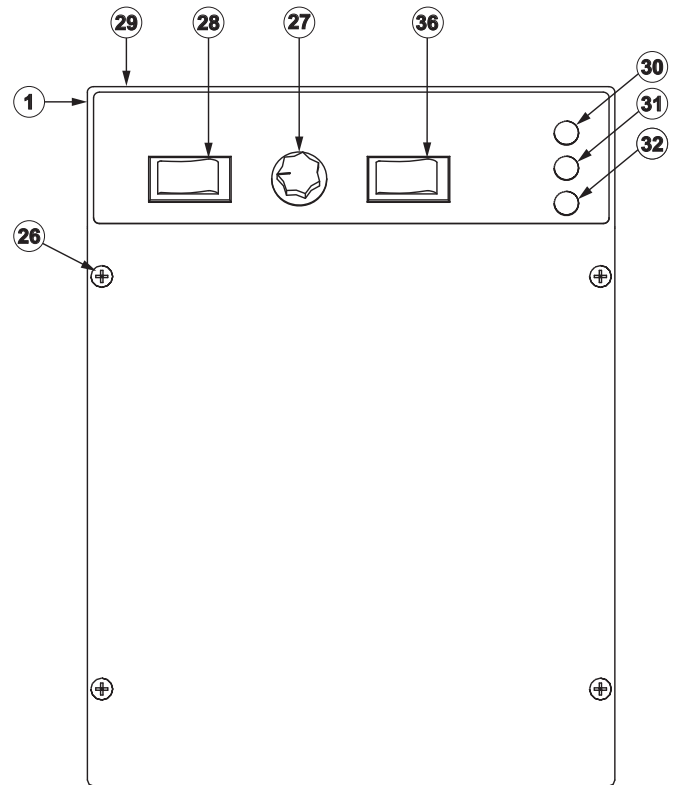
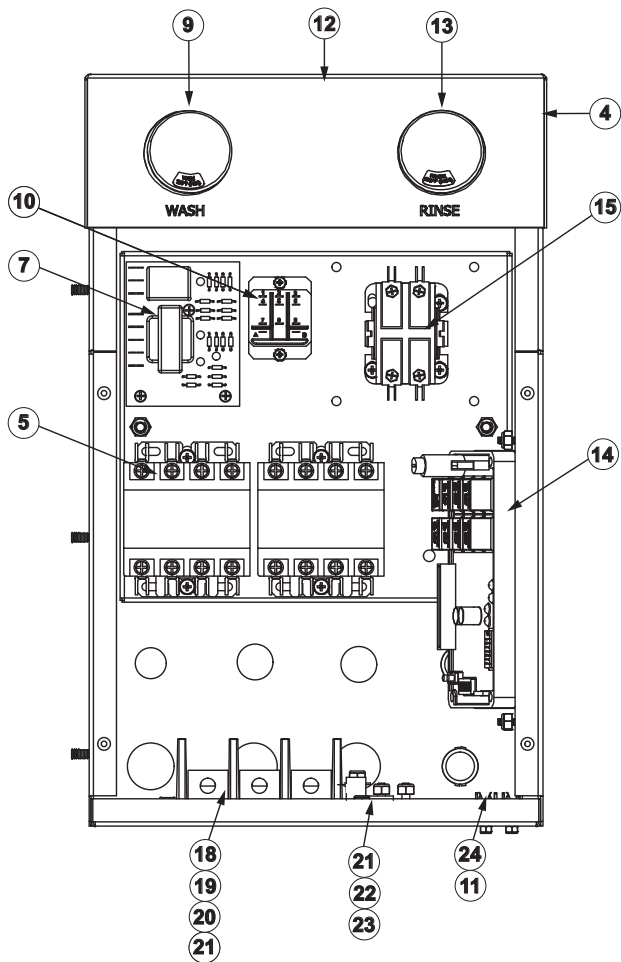
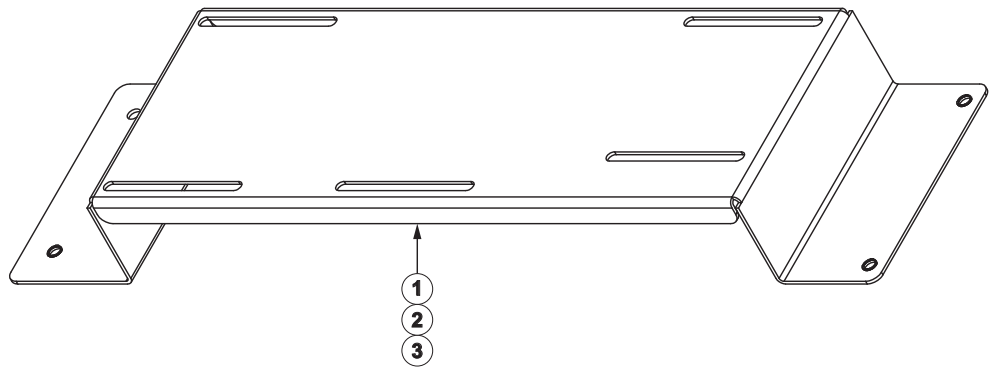




ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Control Box Weldment	05700-003-30-14
2	1	Timer Bracket	05700-003-02-08
3	2	Locknut, 6-32 (Not Shown)	05310-373-03-00
4*	2	Heater Contactor	05945-109-01-69
5	1	Terminal Block	05940-011-48-27
6	17	Locknut, 10-24	05310-373-01-00
7	1	Contactor, Wash Motor	05945-002-74-20
8	1	Relay	05945-111-47-74
	1	Relay (460 V, 3-Phase, 5-Wire Only)	05945-111-89-75
9	1	Light, Green	05945-111-44-43
10	1	Light, Red	05945-111-44-45
11	1	Temperature Gauge, Wash 96" Lead	06685-004-17-27
12	1	Temperature Gauge, Rinse 48" Lead	06685-111-68-48
13	1	Light, Yellow	05945-111-44-44
14	1	Decal, Wash 150 °F Min	09905-002-97-61
15	1	Decal, Rinse 180 °F Min	09905-002-97-62
16	1	Ground Lug	05940-200-76-00
17	1	Bracket, Liquid Level Control Board	05700-002-13-22
18	1	Liquid Level Control Board	06680-200-08-21
19	6	Tricnut, 6-32	05340-118-04-00
20	3	Screw, 6-32 x 5/8"	05305-011-39-85
21	3	Plug, 1/2"	05975-011-47-81
22	2	Grommet, 7/8" Split	05975-200-40-00
23	1	Bushing Snap	05975-210-05-00
24	1	Clamp, Hose .25 - .312	05975-002-61-43
25	1	Decal, Warning-Disconnect Power	09905-004-08-16
26	1	Cover, Top-mount Control Box	05700-002-23-03
27	1	Decal, Control Box	09905-003-97-36
28	4	Lockwasher, Int. Tooth #10	05311-273-03-00
29	4	Screw, 10-32 x 3/8"	05305-173-12-00
30	1	Decal, Copper Conductors	09905-011-47-35
31	1	Decal, Ground	09905-011-86-86
32	1	Decal, L1, L2, L3	09905-101-12-66
33	1	Bracket, Fuse Strip	05700-002-42-03

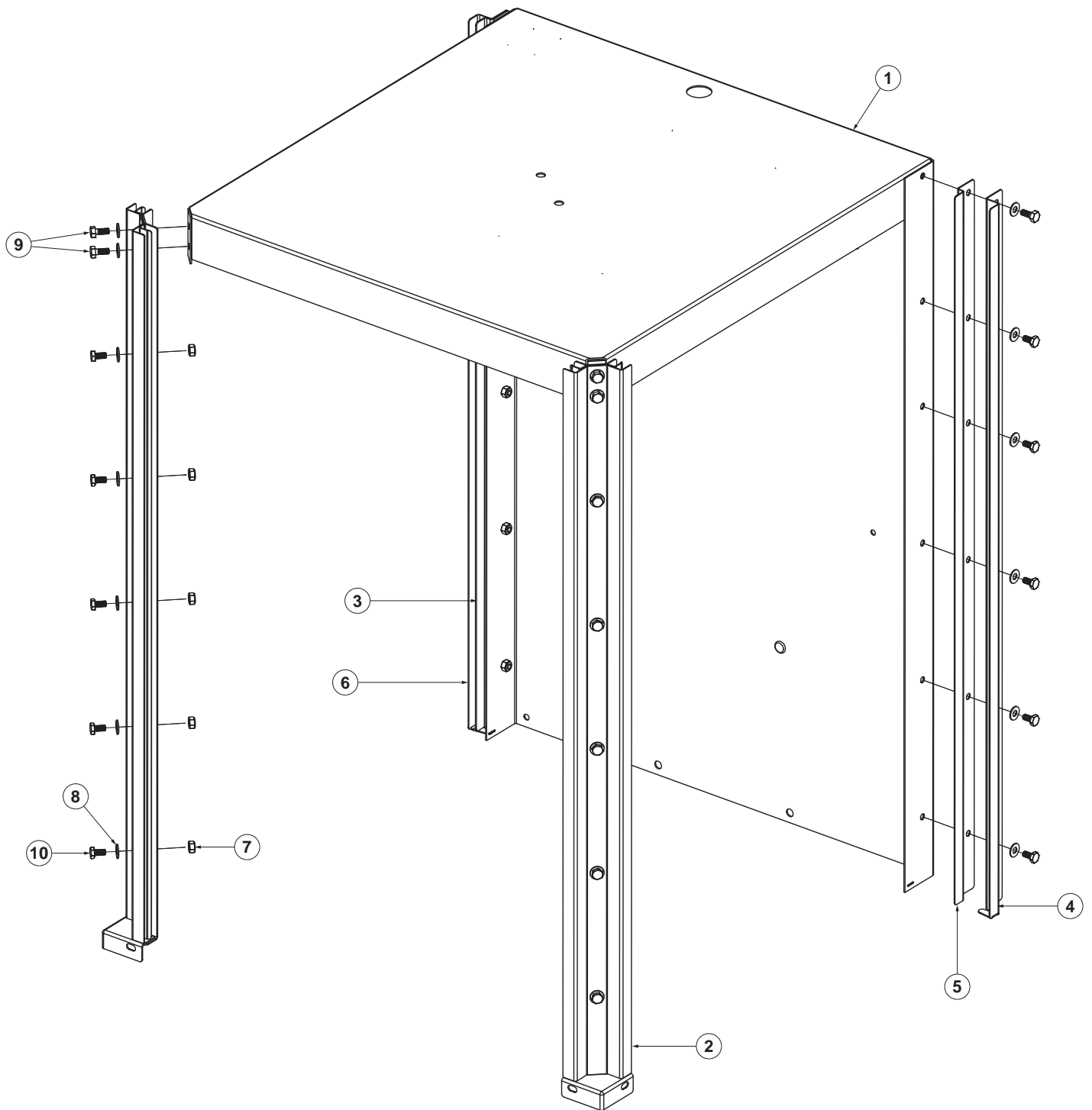
ITEM	QTY	DESCRIPTION	PART NUMBER
34	1	Fuse Holder, 6-Pole (Not Shown)	05920-002-42-13
35	2	Screw, 6-32 x 3/8" with Tooth Washer (Not Shown)	05305-002-25-91
36	1	Decal, Dispenser Connection (Not Shown)	09905-003-34-09
	1	Decal, Dispenser Connection (460 V Unit Only) (Not Shown)	09905-004-43-81
37	1	Timer, Universal	05945-003-75-23
38	4	Locknut, 10-32 (Not Shown)	05310-373-02-00
39	4	Screw 10-32 x 1" (Not Shown)	05305-002-19-42
40	1	Switch, Rotary Selector	05930-003-97-61
41	1	Switch, Operation	05930-301-53-00
42	1	Switch, Power	05930-011-49-55
43*	1	Overload, TK-ONLY (460 V Unit Only)	05945-002-65-02
44*	1	Motor Contactor, SC-03Y (460 V Unit Only)	05945-002-65-00
45*	1	Din Rail, 2 3/4" (460 V Unit Only)	05700-001-84-65

*For a 460 V Unit, replace item 4 with items 43, 44 & 45.



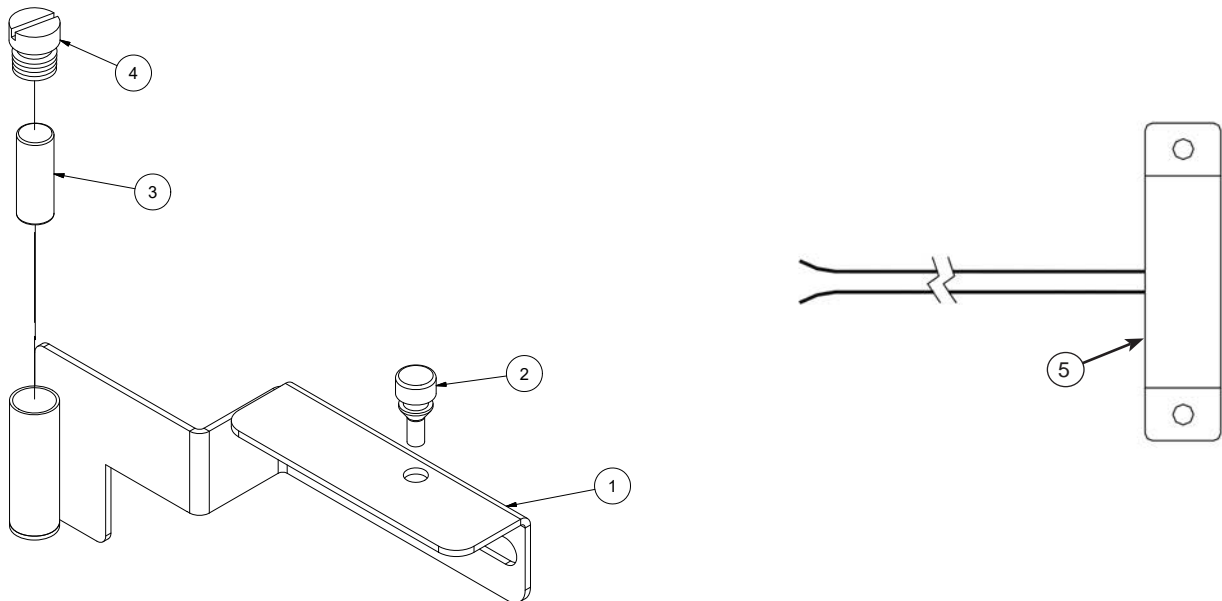
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Bracket, Electrical Box Mounting	05700-002-18-48
2	9	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
3	9	Washer, 1/4-20 ID	05311-174-01-00
4	1	Control Box Weldment, Right-hand	05700-002-06-48
	1	Control Box Weldment, Left-hand	05700-002-23-08
5	2	Contactor, 4-Pole, 220 V, 1-Phase No Booster, Steam Models, and LT	05945-109-01-69
	1		
6	4	Screw, 10-32 x 1/2"	05305-002-32-37
7	1	Liquid Level Control	06680-200-08-21
8	3	Screw, 6-32 x 5/8"	05305-011-39-85
9	1	Thermometer, 48 Lead, Wash	06685-111-68-48
9a	1	Decal, Wash 150 °F	09905-002-97-61
9b	1	Decal, 120 °F Wash/Rinse (Not Shown) (LT Only)	09905-002-82-46
10	1	Relay, 240 V, 50/60 Hz, Top-Mount	05945-002-47-74
11	8	Screw, 6-32 x 3/8" SEMS with Tooth Washer	05305-002-25-91
12	1	Decal, Control Box Gauge	09905-002-10-69
13	1	Thermometer, 96 Lead, Rinse	06685-111-68-49
13a	1	Decal, Rinse 180 °F	09905-002-97-62
13b	1	Decal, 120 °F Wash/Rinse (Not Shown) (LT Only)	09905-002-82-46
14	1	Timer, Universal	05945-003-75-23
15	1	Timer, Bracket	05700-002-98-21
15a	6	Holder, Keystone	05940-002-21-87
15b	1	Keying Plug	05940-003-11-66
15c	2	Connector	05940-003-11-65
16	1	Contactor, 2-Pole, 220 V, 20 A (208-230 V Unit Only)	05945-002-74-20
17	1	Timer, Cycle Delay (not used with Universal Timer or LT) (Not Shown)	05945-002-13-78
18	1	Terminal Block, 3-Pole	05940-011-48-27
19	1	Decal, L1, L2, L3	09905-101-12-66
20	1	Decal, Copper Conductors	09905-011-47-35
21	4	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
22	1	Wire Lug	05940-200-76-00
23	1	Decal, Ground	09905-011-86-86
24	1	Holder, Fuse	05920-401-03-14

ITEM	QTY	DESCRIPTION	PART NUMBER
25	1	Cover, Control Box Weldment	05700-002-06-51
		Cover, Control Box Weldment (Not Shown) (LT Only)	05700-004-22-50
26	4	Bolt, 10-32 x 1/2" Slotted Truss	05305-173-04-00
27	1	Switch, Rotary Selector (Not on LT)	05930-003-97-61
28	1	Switch, Operation	05930-301-53-00
29	1	Decal, Control Box Cover	09905-003-97-39
	1	Decal, Control Box Cover (Not Shown) (LT Only)	09905-004-22-33
30	1	Light, Red	05945-504-07-18
31	1	Light, Green Indicator	05945-504-08-18
32	1	Light, Amber	05945-504-06-18
33	1	Cover, Dielectric Control Panel (Not Shown)	05700-021-50-89
34	1	Contactor, 2-Pole, 220 V, 20 A (460 V Unit Only)	05945-002-65-00
35	1	Overload (460 V Unit Only)	05945-002-65-01
36	1	Switch, Power	05930-011-49-55

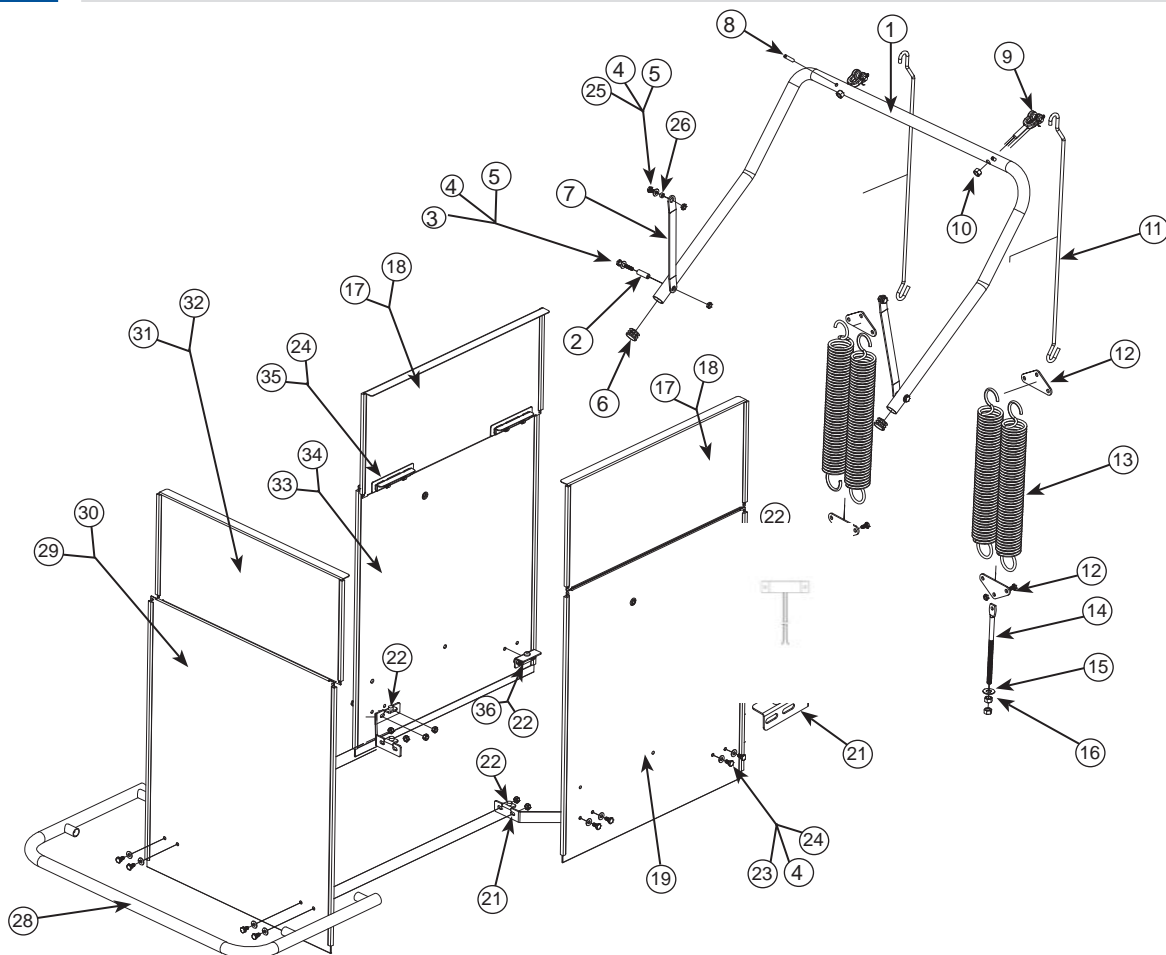


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Hood Weldment Hood Weldment, HH-E	05700-003-52-53 05700-004-49-92
2	2	Hood Support Assembly	05700-004-13-45
3	1	Left Back Inner Door Guide	05700-031-76-34
4	1	Right Back Outer Door Guide	05700-031-76-80
5	1	Right Back Inner Door Guide	05700-031-76-35
6	1	Left Back Outer Door Guide	05700-031-76-33
7	34	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
8	26	Washer, 1/4-20	05311-174-01-00
9	6	Screw, 1/4-20 x 5/8" Hex	05305-274-24-00
10	20	Bolt, 1/4-20 x 1/2"	05305-274-02-00

DOOR SWITCH AND BRACKET

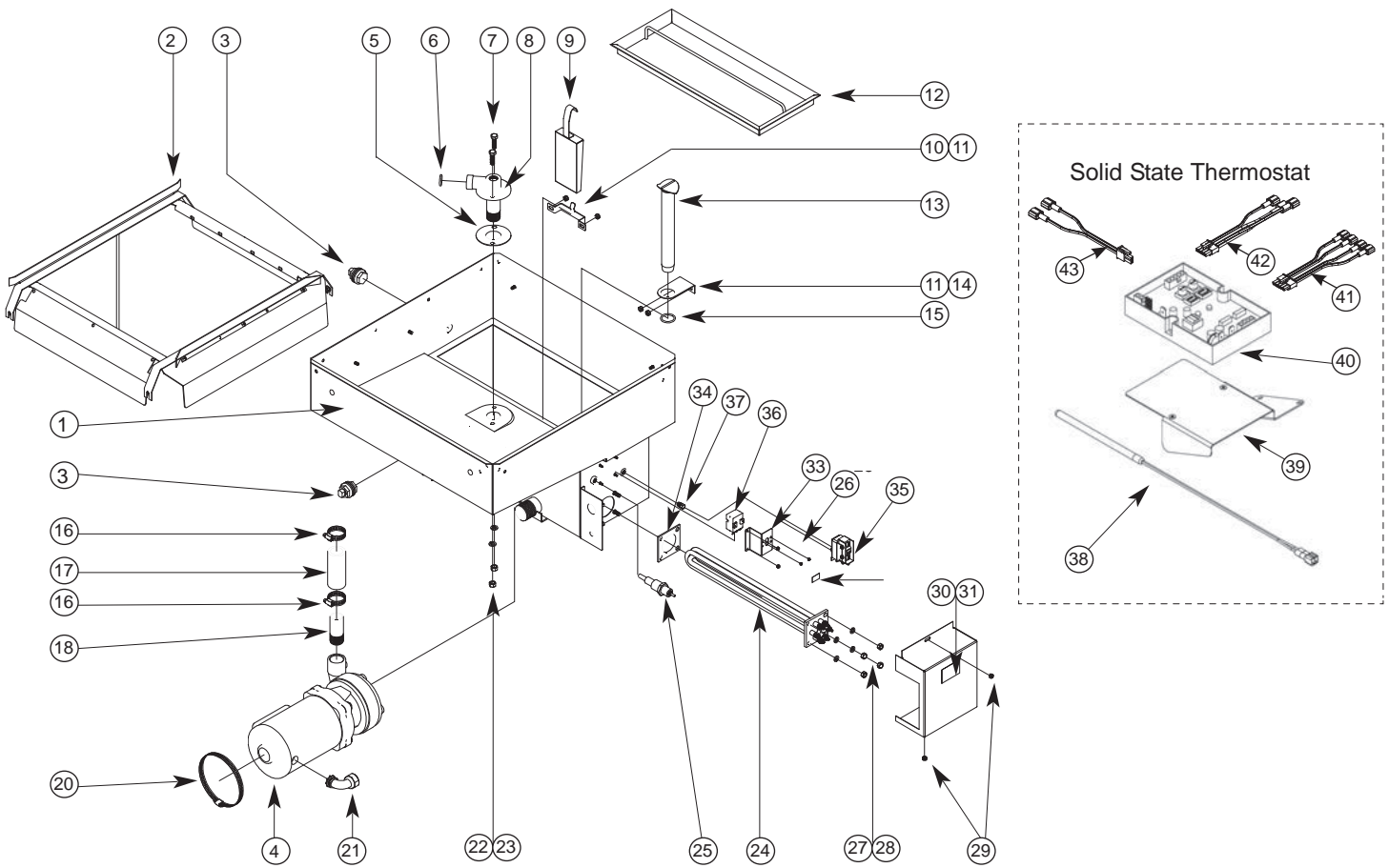


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Complete Assembly, Bracket, Magnet Mounting Bracket, Magnet Mounting	05700-004-48-16 05700-004-47-83
2	1	Bumper, Door	05700-004-14-25
3	1	Magnet, N50	05930-003-31-63
4	1	End-cap	05700-011-60-92
5	1	Magnetic Door Switch	05930-003-05-84



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Cantilever Arm	05700-004-14-29
2	2	Sleeve, Cantilever Arm	05700-000-85-69
3	2	Screw, 1/4-20 x 1 1/2" Hex	05305-274-23-00
4	4	Washer, 1/4" ID	05311-174-01-00
5	4	Locknut, 1/4-20 Low-profile with Nylon Insert	05310-374-02-00
6	4	Plug, Cantilever	05340-011-35-00
7	2	Connecting Link	05700-021-92-45
8	2	Spring Pin, 1/4" x 1 1/8"	05315-407-06-00
9	2	Yoke Assembly	05700-000-75-77
10	2	Nut, 3/8-16 Hex Locking	05310-256-04-00
11	2	Rod, Spring Connecting	05700-002-00-91
12	4	Plate, Spring Multiplier	05700-002-00-88
13	4	Spring, Cantilever Door	05340-111-35-22
14	4	Bolt, Cantilever Hanger Eye 3/8-16	05306-956-05-00
15	4	Washer, Impeller	05311-176-02-00

ITEM	QTY	DESCRIPTION	PART NUMBER
16	8	Nut, 3/8-16 Hex	05310-276-01-00
17	2	Door, Upper, Left and Right Assemblies (Not Shown)	05700-002-01-30
	2	Door, Upper, Left and Right Weldment	05700-002-29-59
18	4	Glide, Upper Door	05700-002-00-83
19	1	Door, Lower, Right Assembly (Not Shown)	05700-002-01-33
	1	Door, Lower, Right	05700-004-14-17
20	2	Glide, Lower Door	05700-002-23-64
21	1	Bracket, Magnet Mounting	See "Hood Assembly" page.
22	1	Magnetic Door Switch	See "Hood Assembly" page.
23	12	Screw, 1/4-20 x 5/8"	05305-274-24-00
24	12	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
25	2	Screw, 1/4-20 x 1/2" Hex	05305-274-02-00
26	2	Spacer, PB Bolt	05700-000-29-40
27	2	Bracket, Door Connector	05700-004-14-24
28	1	Handle, Front Door Weldment	05700-004-14-30
29	1	Door, Lower, Front Assembly (Not Shown)	05700-004-14-21
	1	Door, Lower, Front	05700-004-14-22
30	2	Glide, Upper Door	05700-002-23-64
31	1	Door, Upper Front Assembly (Not Shown)	05700-002-24-92
	1	Door, Upper, Front Weldment	05700-002-29-57
32	2	Glide, Upper Door	05700-002-00-83
33	1	Door, Lower, Left Assembly (Not Shown)	05700-002-01-32
	1	Door, Lower, Left Assembly (Door Lock) (Not Shown)	05700-004-24-22
	1	Door, Lower, Left	05700-004-14-20
	1	Door, Lower, Left (Door Lock) (Not Shown)	05700-004-24-23
	1	Door Interlock Bracket (Not Shown)	05700-004-23-17
34	2	Glide, Lower Door	05700-002-23-64
35	6	Door Stop Weldment	05700-002-29-60
36	1	Door Stop Kit	06401-003-08-69
37	2	Cantilever Arm Support Bracket (Not Shown)	09515-003-15-64
38	6	Wear Button (Not Shown)	05700-011-88-01



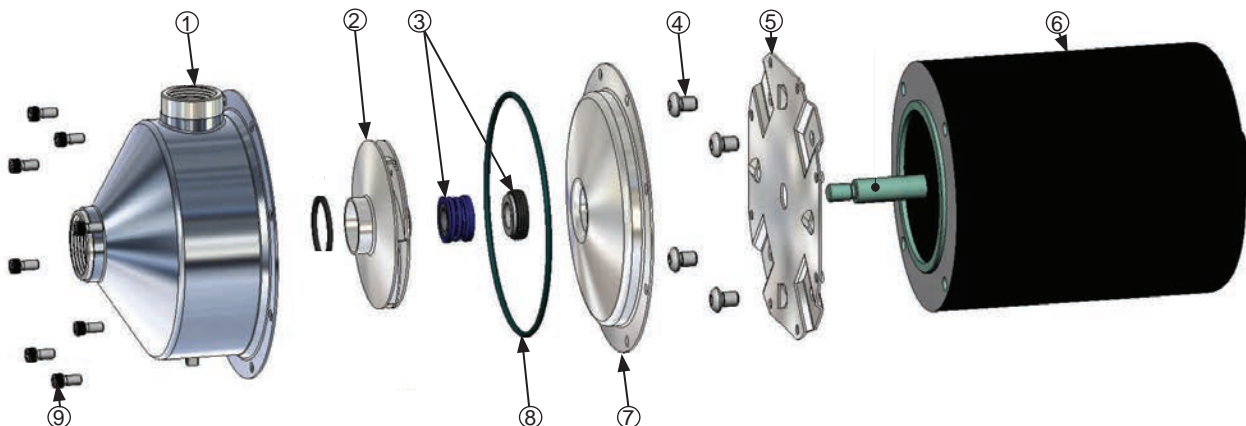
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Tub Weldment	05700-002-01-25
2	1	Rack Assembly	05700-002-01-00
3	2	Bulk Head Plug	04730-609-05-00
4	1	Motor Assembly	See "Motor & Pump Assembly" and "Motors & Heaters" page.
5	1	Gasket	05700-111-35-03
6	1	O-ring	05330-111-35-15
7	4	Bolt, Hex 3/8-16 x 1 1/4"	05305-276-10-00
8	1	Lower Wash Manifold Weldment	05700-031-46-00
9	1	Suction Strain Weldment	05700-002-16-13
10	1	Suction Strain Bracket	05700-002-18-28
11	8	Locknut, 1/4-20 with Nylon Insert	05310-374-02-00
12	1	Strainer Weldment	05700-003-07-76
13	1	Wash Overflow Weldment	05700-001-25-69
13a	1	Support, Ball Stop Lift	05700-002-91-55
13b	1	Ball Stop Lift	05700-003-07-50
13c	1	Shim, Overflow Support	05700-002-96-48
14	1	Overflow Support Bracket	05700-001-27-55
15	1	O-ring	05330-400-05-00
16	2	Clamp, Hose 1 5/16" to 2 1/4"	04730-719-01-37
17	1	Discharge Hose	05700-011-88-24
18	1	Nipple	05700-021-34-84
19		Item intentionally left blank.	
20	1	Clamp, Hose 5 5/8" to 6"	04730-011-34-90
21	1	Connector, 1/2"	05975-111-01-00
22	4	Nut, 3/8-16 Hex	05310-276-01-00
23	4	Lockwasher, 3/8"	05311-276-01-00
24	1	See "Motors & Heaters" page.	N/A
25	1	Probe, High Water	06680-200-02-68
26	5	Locknut, 6-32 with Nylon Insert	05310-373-03-00
27	4	Lockwasher, 5/16", Split	05311-275-01-00
28	4	Nut, Hex, 5/16-18	05310-275-01-00
29	4	Locknut, 10-24 with Nylon Insert	05310-373-01-00

ITEM	QTY	DESCRIPTION	PART NUMBER
30	1	Cover, Wash Heater	05700-031-47-57
31	1	Decal, Warning-Disconnect Power	09905-004-08-16
32	1	Decal, Hi-Limit	09905-011-84-32
33	1	Thermostat Bracket	05700-011-81-64
34	1	Wash Heater Gasket	05330-011-47-79
35	1	Thermostat, Regulating	05930-510-02-79
	1	Kit, Wash Thermostat Replacement (Thermostat, brass fitting, two jumper wires, and instructions)	06401-003-18-22
36	1	Thermostat, Hi-limit	05930-011-49-43
37	1	Fitting, 1/4" Imperial Brass	05310-924-02-05
38	1	Probe, Thermistor 4"	06680-004-17-26
39	1	Thermostat Mounting Bracket	05700-004-22-17
40	1	Thermostat, Elan Electric Dual	06685-004-17-27
41	1	Harness, 5-Connector	05700-004-23-78
42	1	Harness, 4-Connector	05700-004-23-79
43	1	Harness, 2-Connector	05700-004-23-80

Associated Hardware:

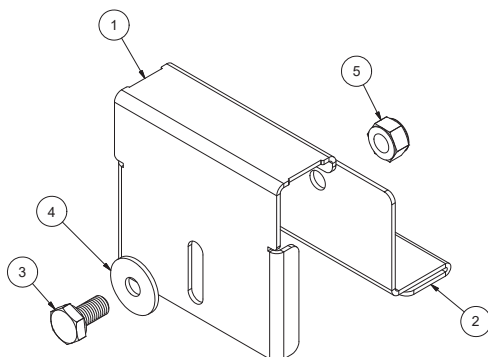
Lockwasher, #8 Internal Tooth	05311-272-03-00
Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
Screw, 8-32 x 3/4" Round Head	05305-172-06-00

Complete Motor and Pump Assembly
06105-002-01-29

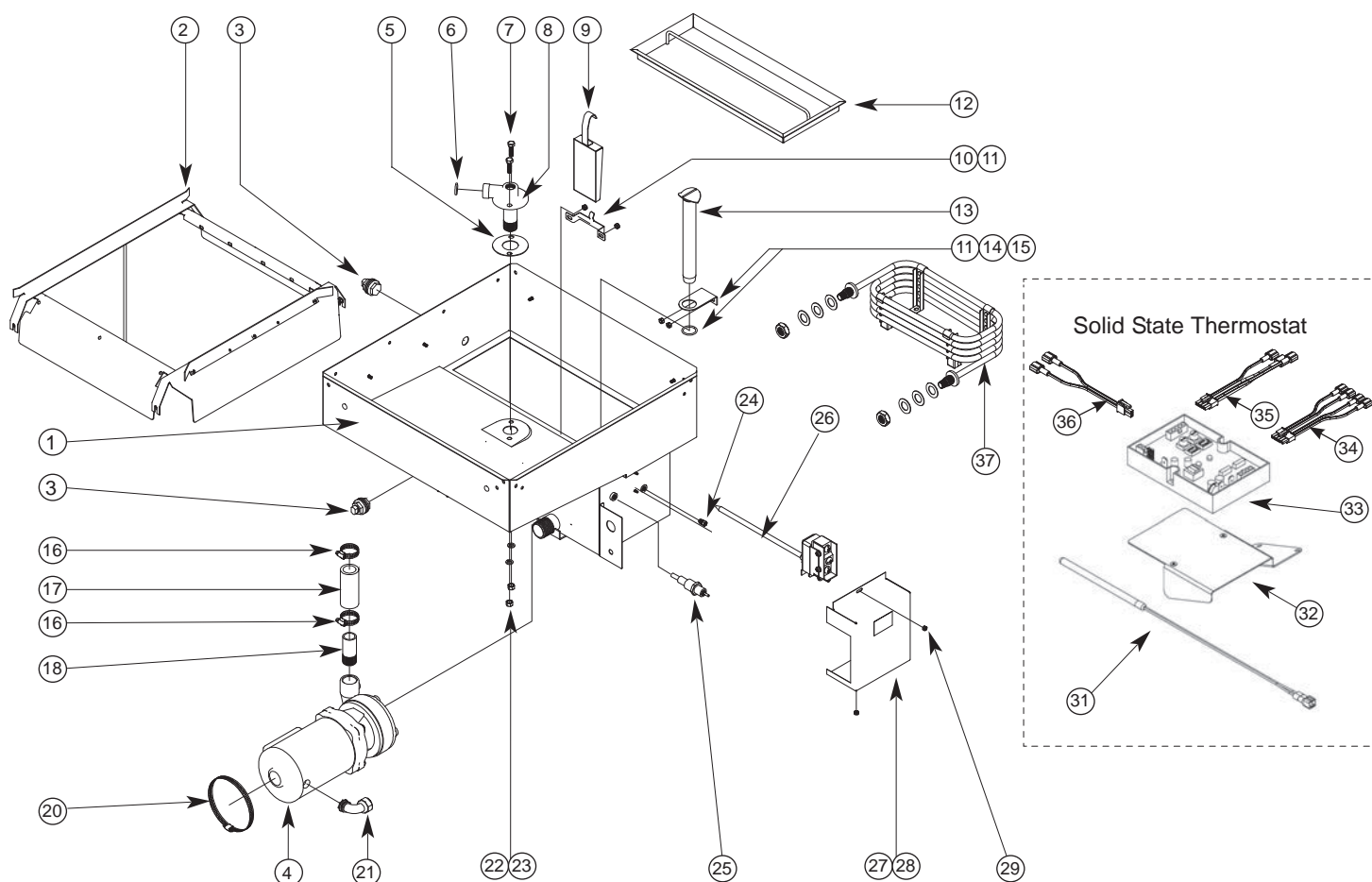


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Casing	05700-002-82-57
2	1	Impeller	05700-002-82-50
3	1	Mechanical Seal	05330-002-34-22
4	4	Motor Bolt	05700-002-82-55
5	1	Motor Adapter	05330-002-82-53
6	1	Motor	06105-002-82-60
7	1	Seal Plate	05700-002-82-52
8	1	Case O-ring	05330-002-34-23
9	8	Case Screws	05700-002-82-54

Complete Motor Mount Assembly
06105-004-13-10

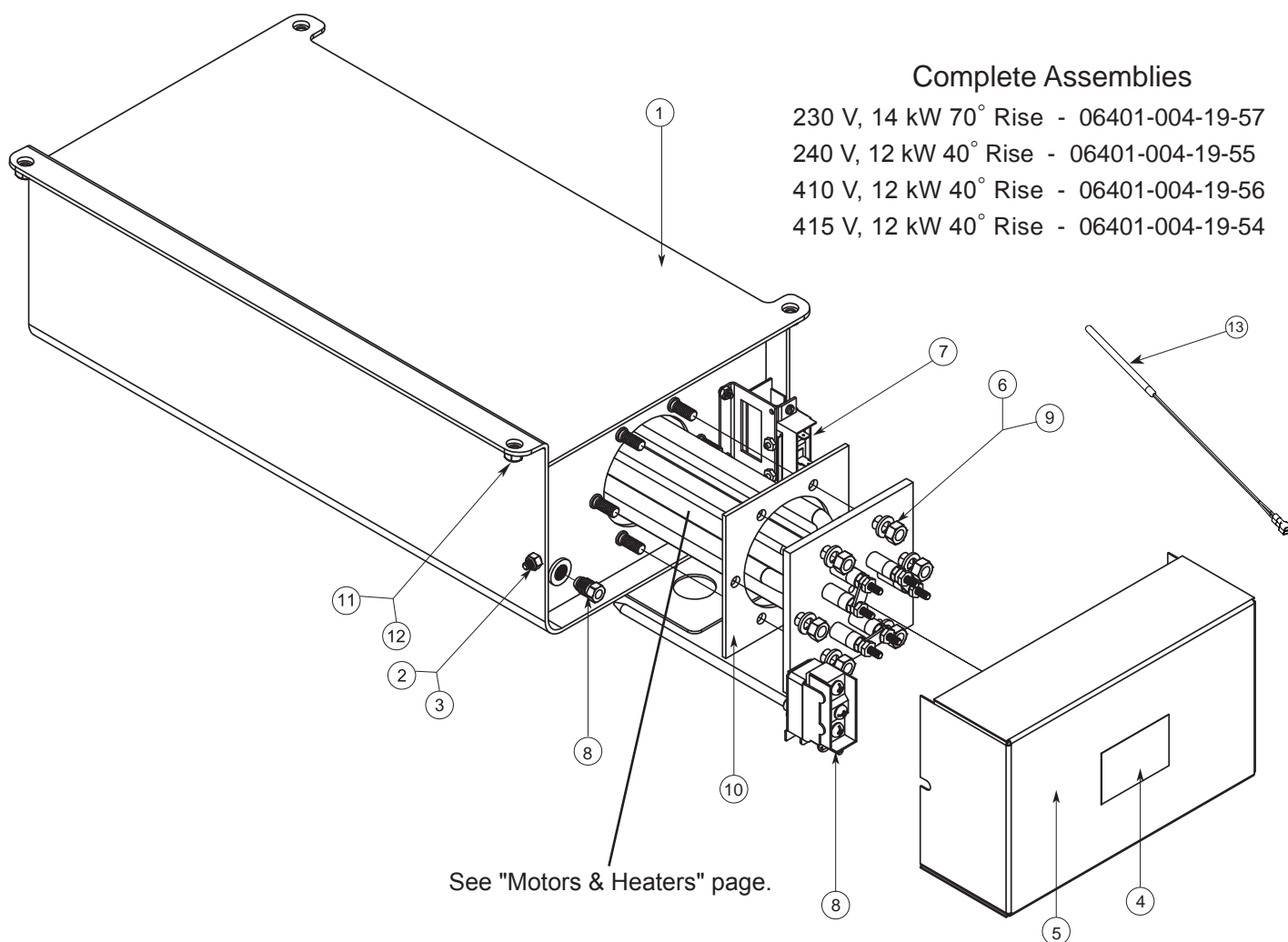


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Bracket, Motor Mount Outer	05700-004-13-08
2	1	Bracket, Motor Mount Inner	05700-004-13-07
3	1	Bolt, 1/4-20 x 1/2"	05305-274-02-00
4	1	Washer, 1/4" ID x 3/4" OD	05311-011-76-30
5	1	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00



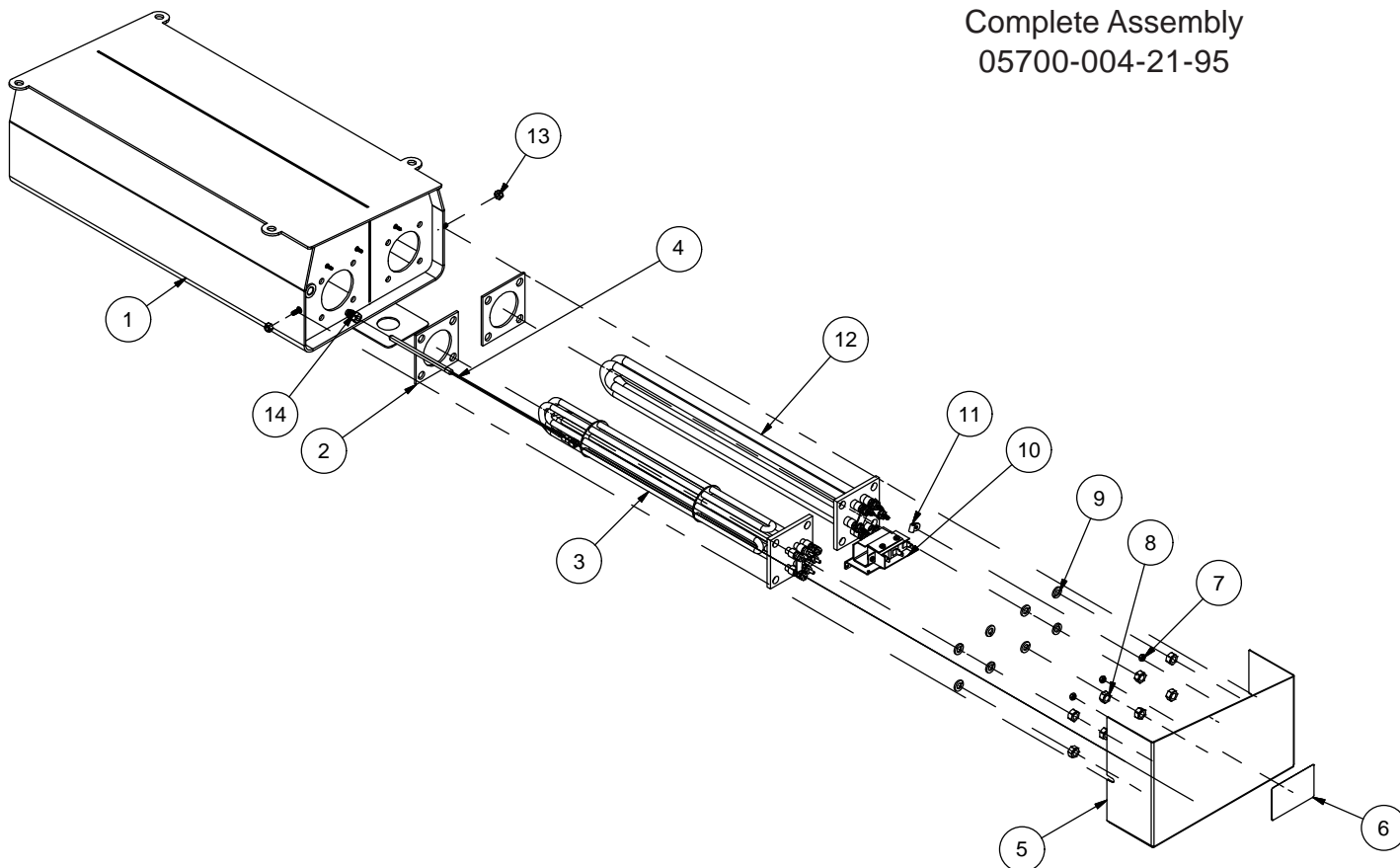
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Tub Weldment	05700-002-63-13
2	1	Rack Assembly	05700-002-01-00
3	2	Bulk Head Plug	04730-609-05-00
4	1	Motor Assembly	See "Motor & Pump Assembly" and "Motors & Heaters" page.
5	1	Gasket	05700-111-35-03
6	1	O-ring	05330-111-35-15
7	4	Bolt, Hex 3/8-16 x 1 1/4"	05305-276-10-00
8	1	Lower Wash Manifold Weldment	05700-031-46-00
9	1	Suction Strain Weldment	05700-002-16-13
10	1	Suction Strain Bracket	05700-002-18-28
11	8	Locknut, 1/4-20 with Nylon Insert	05310-374-02-00

ITEM	QTY	DESCRIPTION	PART NUMBER
12	1	Strainer Weldment	05700-003-07-76
13	1	Wash Overflow Weldment	05700-001-25-69
13a	1	Support, Ball Stop Lift	05700-002-91-55
13b	1	Ball Stop Lift	05700-003-07-50
13c	1	Shim, Overflow Support	05700-002-96-48
14	1	Overflow Support Bracket	05700-001-27-55
15	1	O-ring	05330-400-05-00
16	2	Clamp, Hose 1 5/16" to 2 1/4"	04730-719-01-37
17	1	Discharge Hose	05700-011-88-24
18	1	Nipple	05700-021-34-84
19		Item intentionally left blank.	N/A
20	1	Clamp, Hose 5 5/8" to 6"	04730-011-34-90
21	1	Connector, 1/2"	05975-111-01-00
22	4	Nut, 3/8-16 Hex	05310-276-01-00
23	4	Lockwasher, 3/8"	05311-276-01-00
24	1	Fitting, 1/4" Imperial Brass	05310-924-02-05
25	1	Probe, High Water	06680-200-02-68
26	1	Thermostat, Regulating	05930-510-02-79
	1	Kit, Wash Thermostat Replacement (Thermostat, brass fitting, two jumper wires, and instructions)	06401-003-18-67
27	1	Cover, Wash Heater	05700-031-47-57
28	1	Decal, Warning-Disconnect Power	09905-004-08-16
29	2	Locknut, 10-24 with Nylon Insert	05310-373-01-00
30	3	Locknut, 6-32 with Nylon Insert	05310-373-03-00
31	1	Probe, Thermistor 4"	06685-004-17-26
32	1	Thermostat Mounting Bracket	05700-004-22-17
33	1	Thermostat, Elan Electric Dual	06685-004-17-27
34	1	Harness, 5-Connector	05700-004-23-78
35	1	Harness, 4-Connector	05700-004-23-79
36	1	Harness, 2-Connector	05700-004-23-80
37	1	Steam Coil	See "Steam Coil Assembly" page.

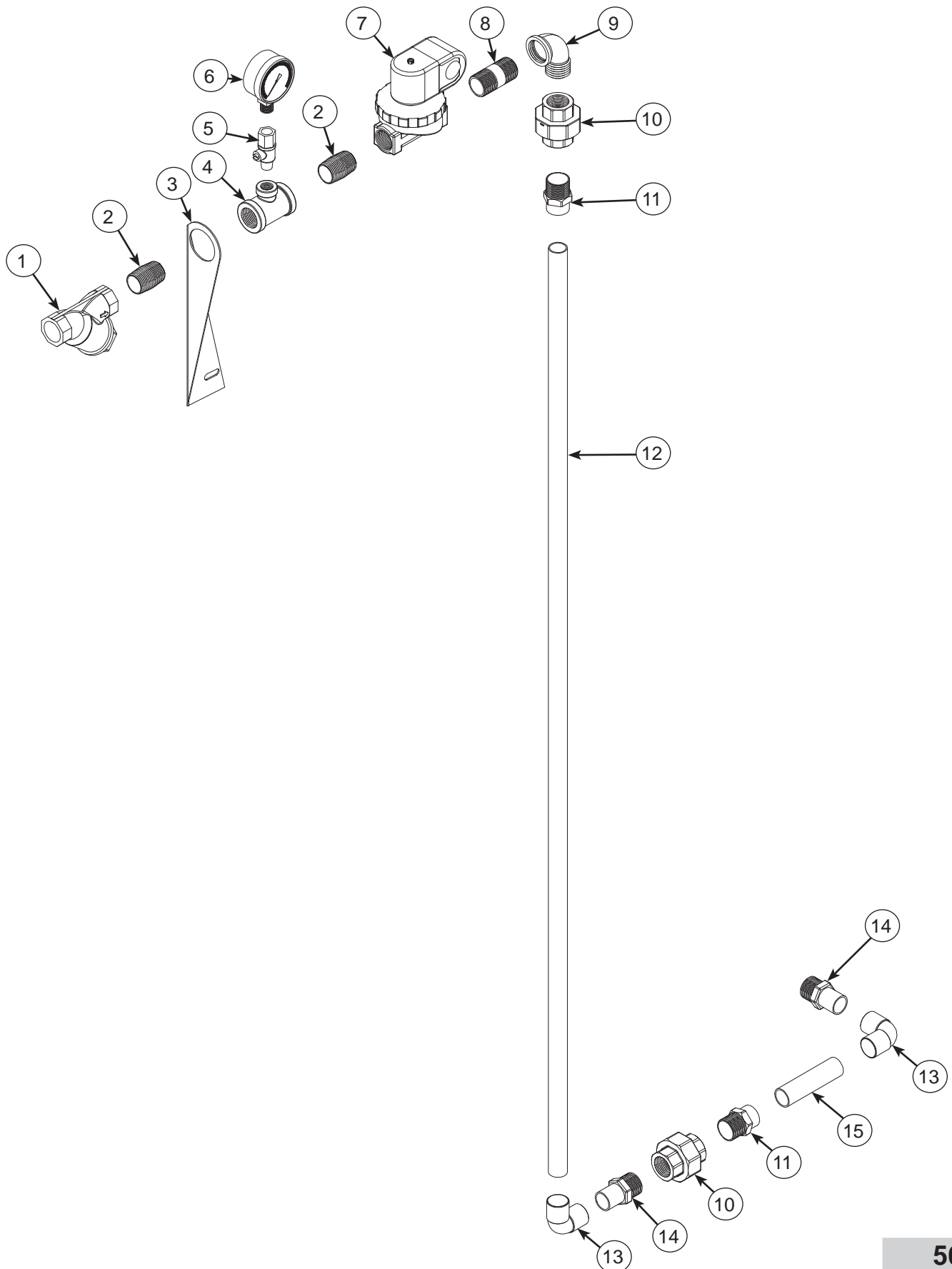


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Booster Tank Weldment	05700-002-10-19
2	2	Locknut, 10-24 with Nylon Insert	05310-373-01-00
3	2	Washer, #10 Flat	05311-173-01-00
4	1	Decal, Warning-Disconnect Power	09905-004-08-16
5	1	Booster Tank Cover Weldment	05700-002-16-51
6	6	Nut, Hex, 5/16-18	05310-275-01-00
7	1	Thermostat, Hi-Limit	05930-011-49-43
8	1	Thermostat, Regulating with Imperial Brass Fitting	06401-011-66-55
9	6	Lockwasher, 5/16", Split	05311-275-01-00
10	1	Gasket, Rinse Heater	05330-200-02-70
11	4	Locknut, 1/4-20 with Nylon Insert	05310-374-01-00
12	4	Washer, 1/4", Flat	05311-174-01-00
13	1	Probe, Thermistor 4"	06685-004-17-26

Complete Assembly
05700-004-21-95



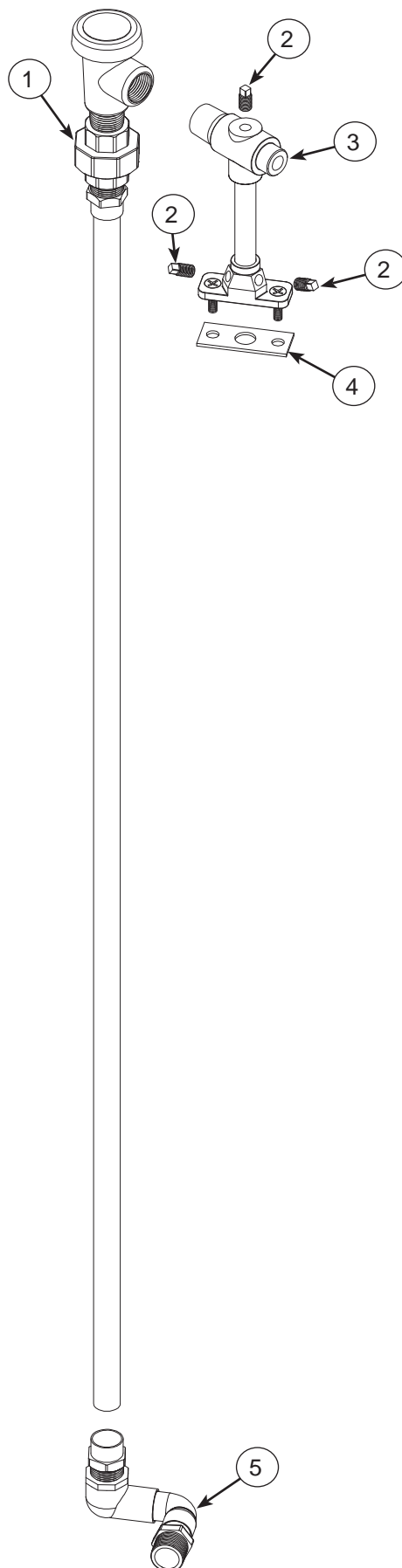
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Booster Tank Weldment - Ventless HH	05700-004-21-83
2	2	Gasket, Wash Heater	05330-011-47-79
3	1	Heater, 10 kW, 230 V	04540-021-62-57
4	1	Probe, Thermistor 4"	06685-004-17-26
5	1	Booster Tank Cover	05700-004-21-94
6	1	Decal, Warning-Disconnect Power	09905-004-08-16
7	3	Nut, Lock 6-32 Hex with Nylon Insert	05310-373-03-00
8	8	Nut, Hex 5/16-18	05310-275-01-00
9	8	Lockwasher, 5/16", Split	05311-275-01-00
10	1	Thermostat, Hi-Limit	05930-011-49-43
11	1	Clamp	05975-601-10-15
12	1	Heater, 5.45 kW, 240 V, Wash	04540-121-47-39
13	2	Nut, Lock 10-24 Hex with Nylon Insert	05310-373-01-00
14	1	Fitting, Brass Nut Sleeve Fitting	05310-924-02-05



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Y-strainer, 3/4" NPT Brass	04730-717-02-06
2	2	Nipple, 3/4" x 1 3/8" Closed Brass	04730-207-34-00
3	1	Bracket, Incoming Plumbing Support	05700-021-34-02
4	1	Tee, 3/4" x 3/4" x 1/4" Brass	06685-111-88-34
5	1	Valve, Ball Test Cock, Bronze	04810-011-72-67
6	1	Gauge, Pressure 1/4" BTM Connect	06685-111-88-34
7	1	Solenoid Valve, 3/4", 220 V	04810-100-03-18
8	1	Nipple, 3/4" x 2" NPT Brass	04730-207-46-00
9	1	Elbow, 3/4" Street Brass, 90-Degree	04730-206-04-34
10	2	Union, 3/4" Brass with O-ring	05700-002-63-79
11	2	Adapter, 3/4" Female	04730-401-11-01
12	1	Tube, Copper 3/4" x 48"	05700-011-87-89
13	2	Elbow, 3/4"	04730-406-16-01
14	2	Adapter, 3/4"	04730-401-10-01
15	1	Tube, Copper 1/2" x 3.25"	05700-002-25-06

NOTICE

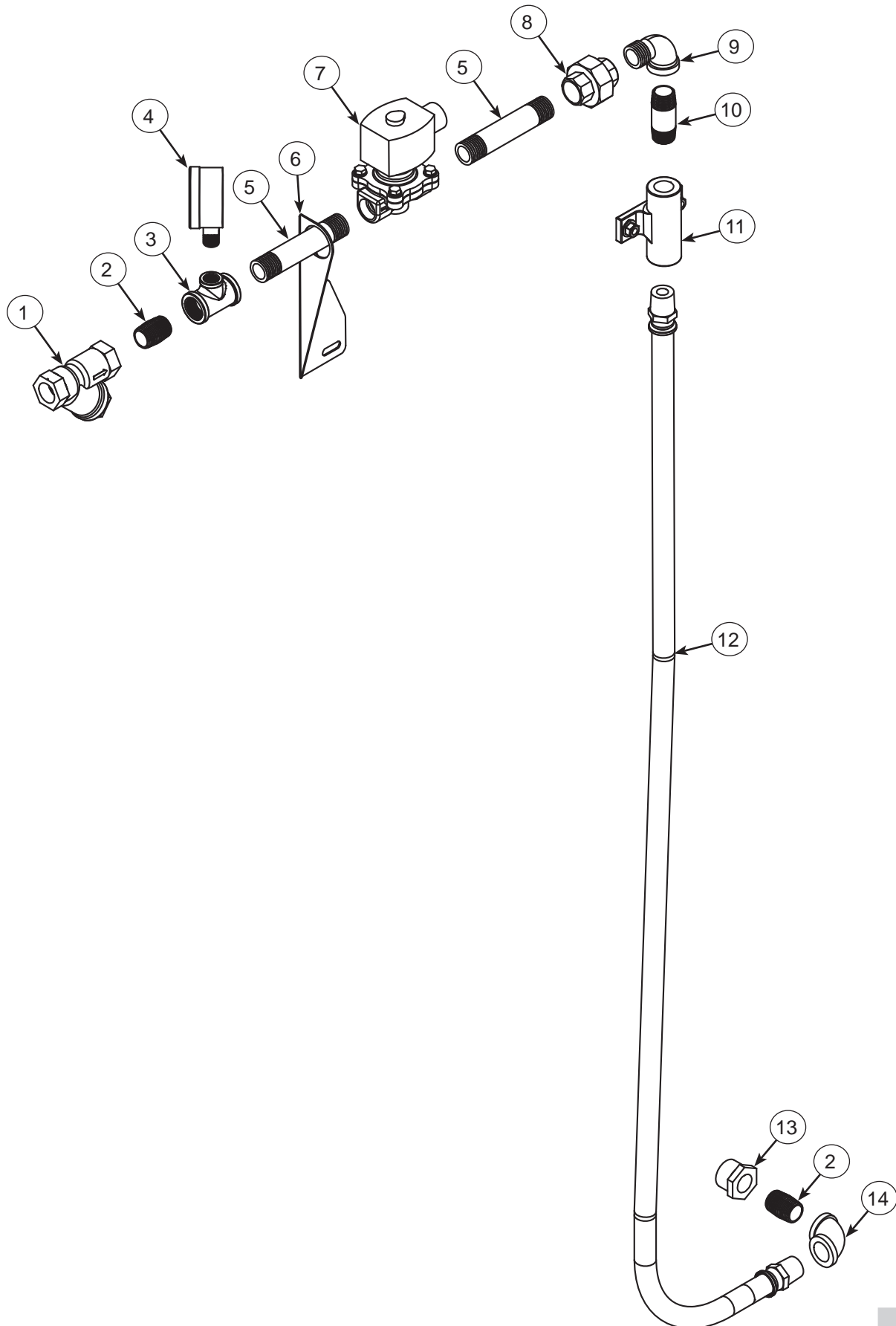
When servicing plumbing components, take care not to damage the threads of each individual item. Damaged threads can cause leaks and loss of pressure, which could adversely affect the performance of the dishmachine. It is strongly recommended that teflon thread tape, used in conservative amounts, be 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, rendering them useless.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Outlet Plumbing, Vacuum Breaker Assembly	05700-003-22-08
2	3	Plug, 1/8" Brass	04730-209-07-37
3	1	Rinse Injector Assembly	05700-021-47-65
4	1	Gasket, Rinse Plumbing	05330-111-42-81
5	1	Outlet Plumbing, Lower Elbow Assembly	05700-003-22-09

NOTICE

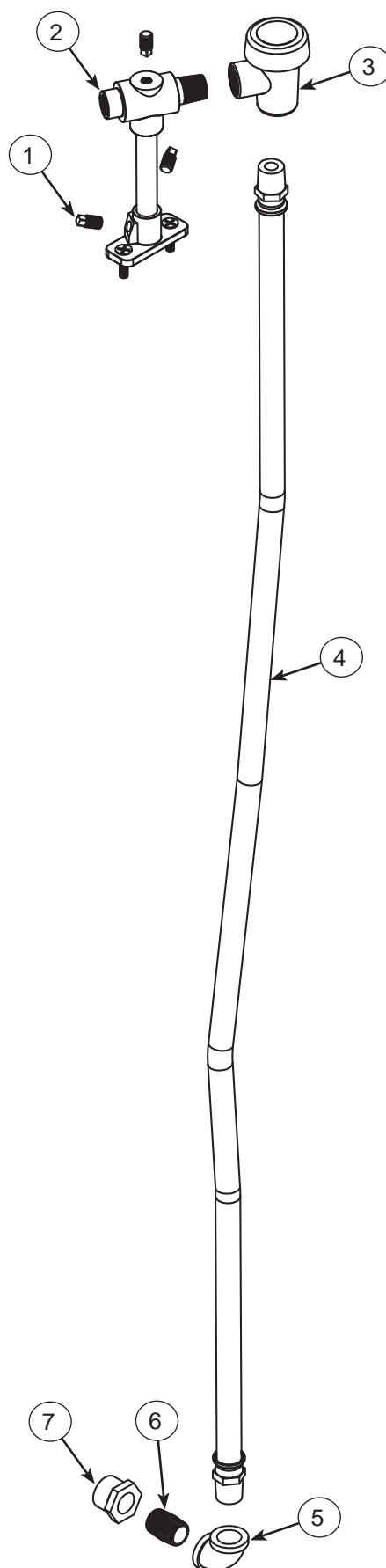
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ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Y-strainer, 1/2" Brass	04730-217-01-10
2	2	Nipple, 1/2" Close Brass	04730-207-15-00
3	1	Tee, 1/2" x 1/2" x 1/4"	04730-002-22-56
4	1	Gauge, Pressure	06685-111-88-34
5	2	Nipple, 1/2" x 4" Brass	04730-207-04-00
6	1	Bracket, Incoming Plumbing	05700-004-48-11
7	1	Solenoid Valve, 1/2", 208 V	04810-003-71-56
8	1	Union, 1/2" x 1/2" Brass	04730-003-62-44
9	1	Elbow, 90-degree, 1/2" Street Brass	04730-206-08-00
10	1	Nipple, 1/2" x 2" Brass	04730-207-19-00
11	1	Casting, 1/2" Flanged Coupling	05700-004-47-97
12	1	Hose Assembly, 1/2" x 48" Blue	05700-004-48-23
13	1	Bushing, 3/4" to 1/2" Brass	04730-002-56-27
14	1	Elbow, 90-degree, 1/2" Brass	04730-011-42-96

NOTICE

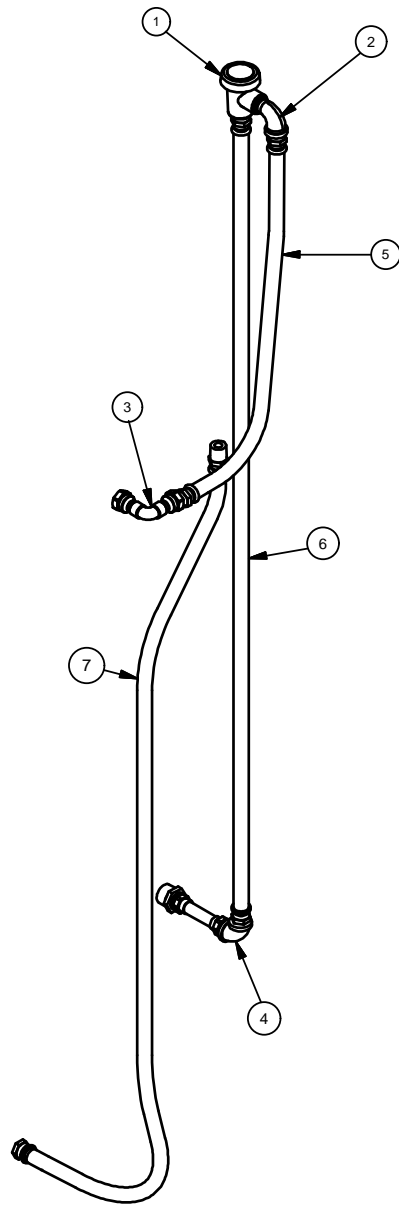
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ITEM	QTY	DESCRIPTION	PART NUMBER
1	3	Plug, 1/8" Brass	04730-209-07-37
2	1	Rinse Injector Assembly	05700-002-56-75
3	1	Vacuum Breaker, 1/2" Brass	04820-003-06-13
4	1	Hose Assembly, 1/2" x 47" Red	05700-004-48-24
5	1	Elbow, 90-degree, 1/2" Brass	04730-011-42-96
6	1	Nipple, 1/2" Close Brass	04730-207-15-00
7	1	Bushing, 3/4" to 1/2" Brass	04730-002-56-27

NOTICE

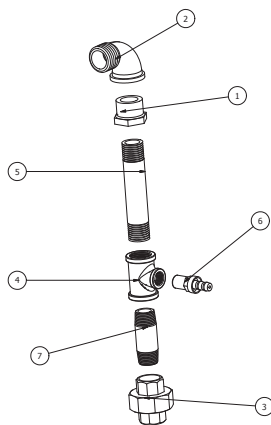
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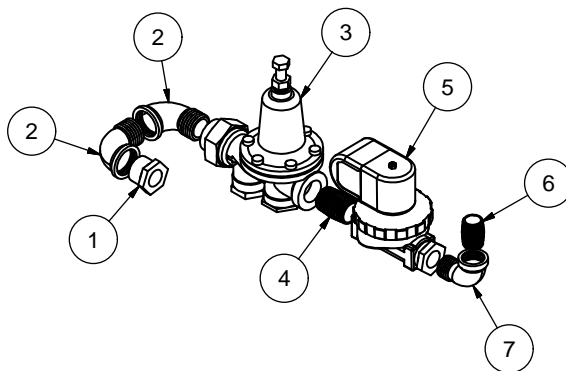
Rinse Injector
05700-004-22-73



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Vacuum Breaker, 1/2" Brass	04820-003-06-13
2	1	Elbow, 90-Degree 1/2" Street Brass	04730-206-08-00
3	1	Plumbing, Rinse Injector	05700-004-19-83
4	1	Plumbing, Outlet with Heat Exchanger	05700-004-19-12
5	1	Hose, 1/2" x 24" Red	05700-004-19-89
6	1	Hose, 1/2" x 67" Red	05700-004-19-99
7	1	Hose, 1/2" x 69" Blue	05700-004-20-00
8	1	Hose Pack Assembly (Not Shown)	05700-004-20-02

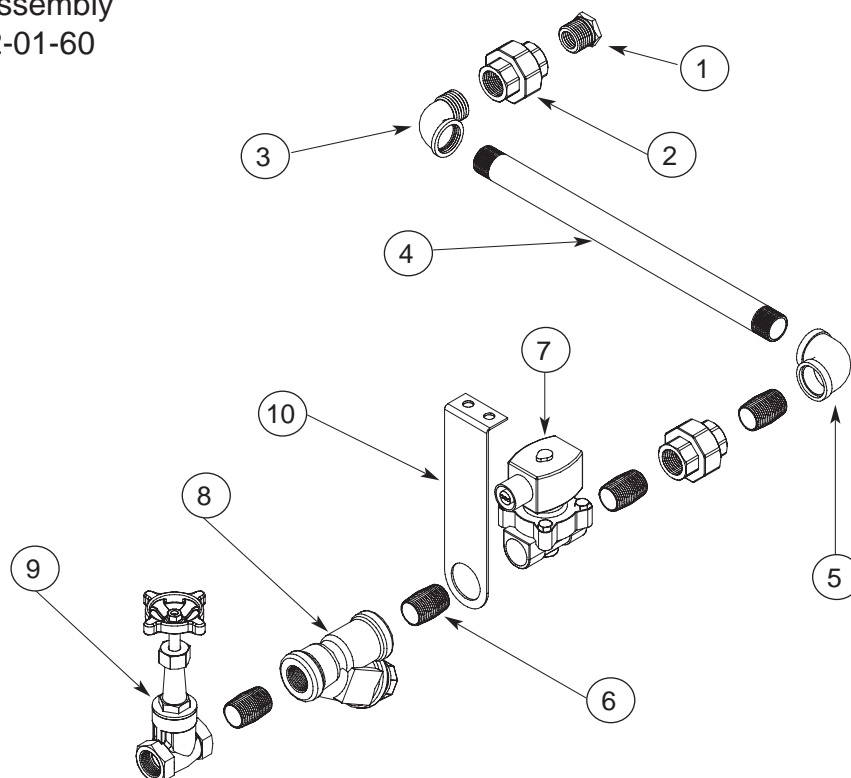


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Bushing, Hex 3/4" to 1/2" Brass	04730-002-56-27
2	1	Elbow, 3/4 Street Brass, 90-Degree	04730-206-04-34
3	1	Union, 1/2" x 1/2" Brass	04730-003-62-44
4	1	Tee, 1/2" x 1/2" x 1/4"	04730-002-22-56
5	1	Nipple, Brass 1/2" x 4"	04730-207-04-00
6	1	Fitting, 1/4" Barb, 1/4" Swivel	04730-011-95-41
7	1	Nipple, 1/2" x 2" Brass	04730-207-19-00



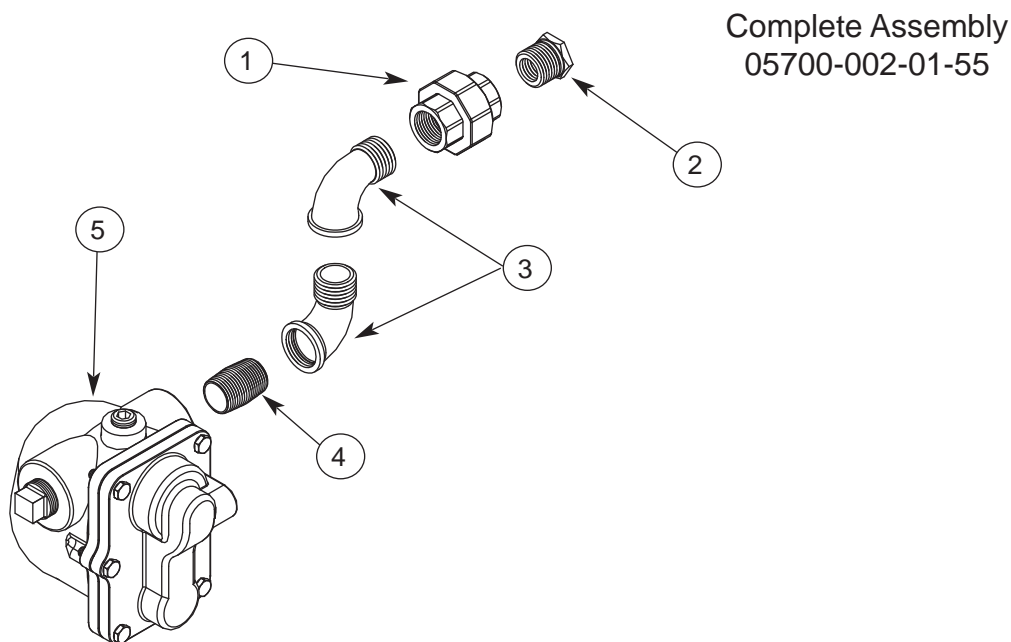
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Bushing, Hex 3/4" to 1/2" Brass	04730-002-56-27
2	3	Elbow, 3/4" Street Brass, 90-Degree	04730-206-04-34
3	1	Pressure Regulator, 3/4"	06685-011-58-22
4	1	Nipple, 3/4" x 1 3/8" Closed Brass	04730-207-34-00
5	1	Valve, 3/4" - 220 V Solenoid	04810-100-03-18
6	1	Nipple, 1/2" Closed Brass	04730-207-15-00
7		Elbow, 90-Degree, 1/2" Street Brass	04730-206-08-00

Complete Assembly
05700-002-01-60

**NOTICE**

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 affect the performance of the 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, rendering them useless.

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Bushing, Reducing, 3/4" to 1/2"	04730-911-02-34
2	2	Union, 3/4" Black Iron	04730-912-01-00
3	1	Elbow, 90-Degree Street, Black Iron	04730-011-87-37
4	1	Pipe, 3/4" NPT Black Iron	05700-002-20-83
5	1	Elbow, 90-Degree 3/4" NPT Black Iron	04730-906-10-34
6	4	Nipple, Close 3/4" Black Iron	04730-907-01-00
7	1	Solenoid Valve, Steam Plumbing, 220 V	04820-002-01-56
8	1	Y-Strainer, 3/4" NPT	04730-217-01-32
9	1	Gate Valve, 3/4" NPT	04820-100-19-00
10	1	Bracket, Steam Plumbing Support	05700-002-01-63

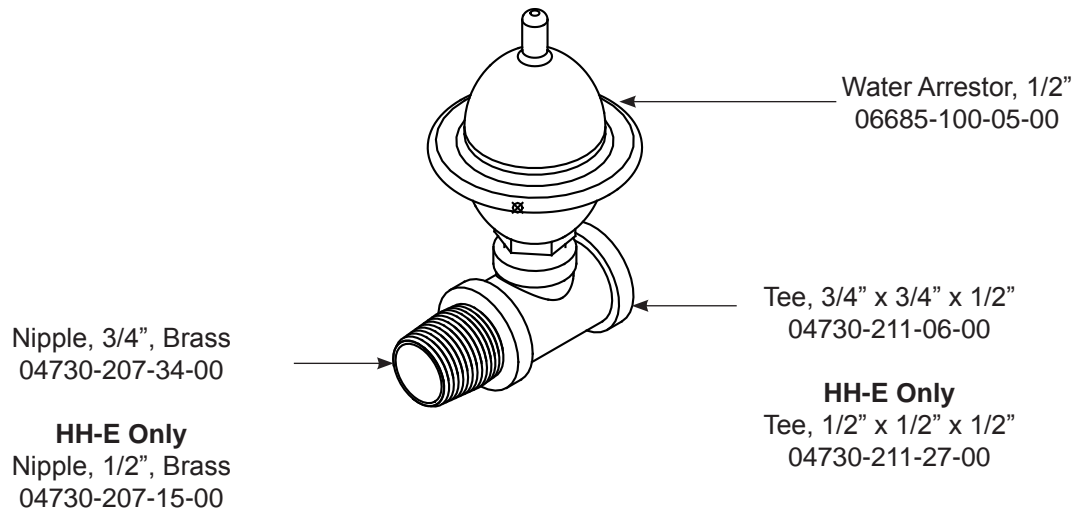
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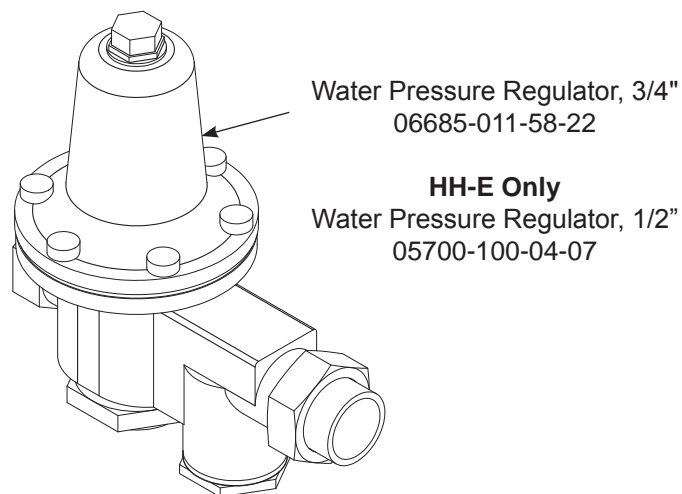
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Union, 3/4" NPT, Black Iron	04730-912-01-00
2	1	Bushing, Reducing, 3/4" to 1/2"	04730-911-02-34
3	2	Elbow, 3/4" 90-Degree Street	04730-011-87-37
4	1	Nipple, Close, 3/4" NPT, Black Iron	04730-907-01-00
5	1	Steam Trap, 3/4" NPT F&T	06680-500-02-77

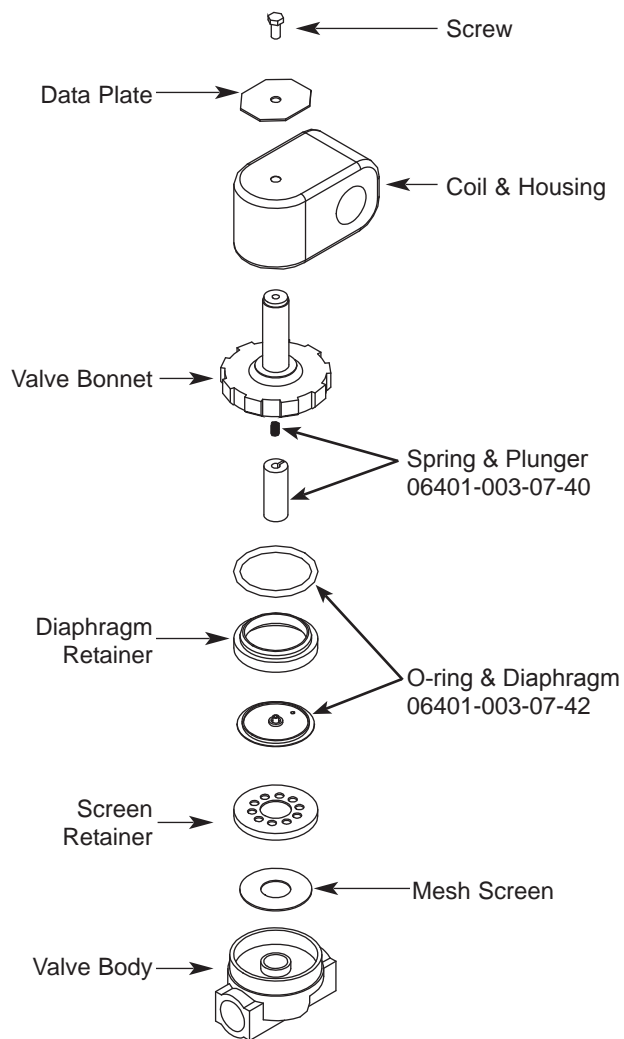
Click [here](#) for the Steam Booster manual.

SHOCK ABSORBER (WATER ARRESTOR) OPTION



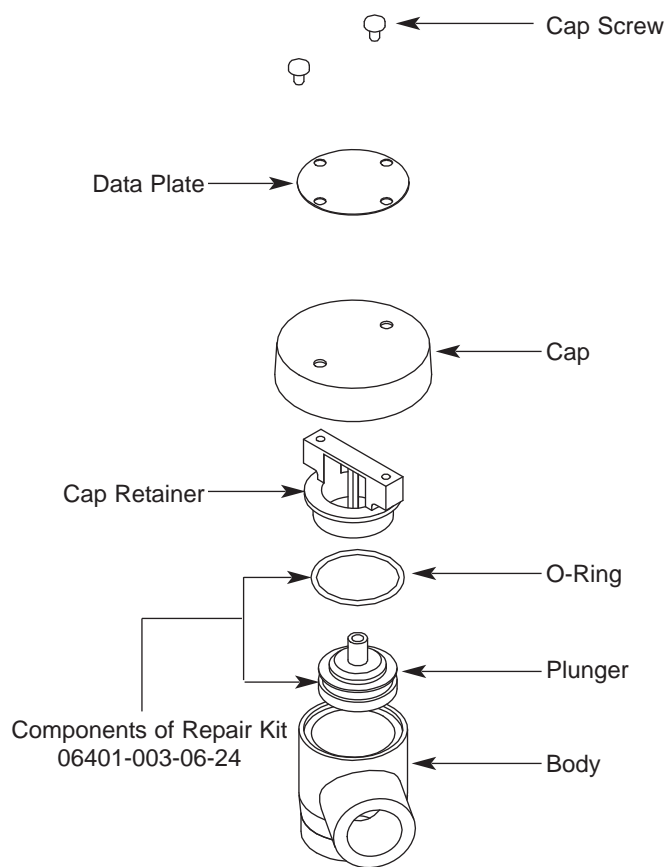
PRESSURE REGULATOR OPTION



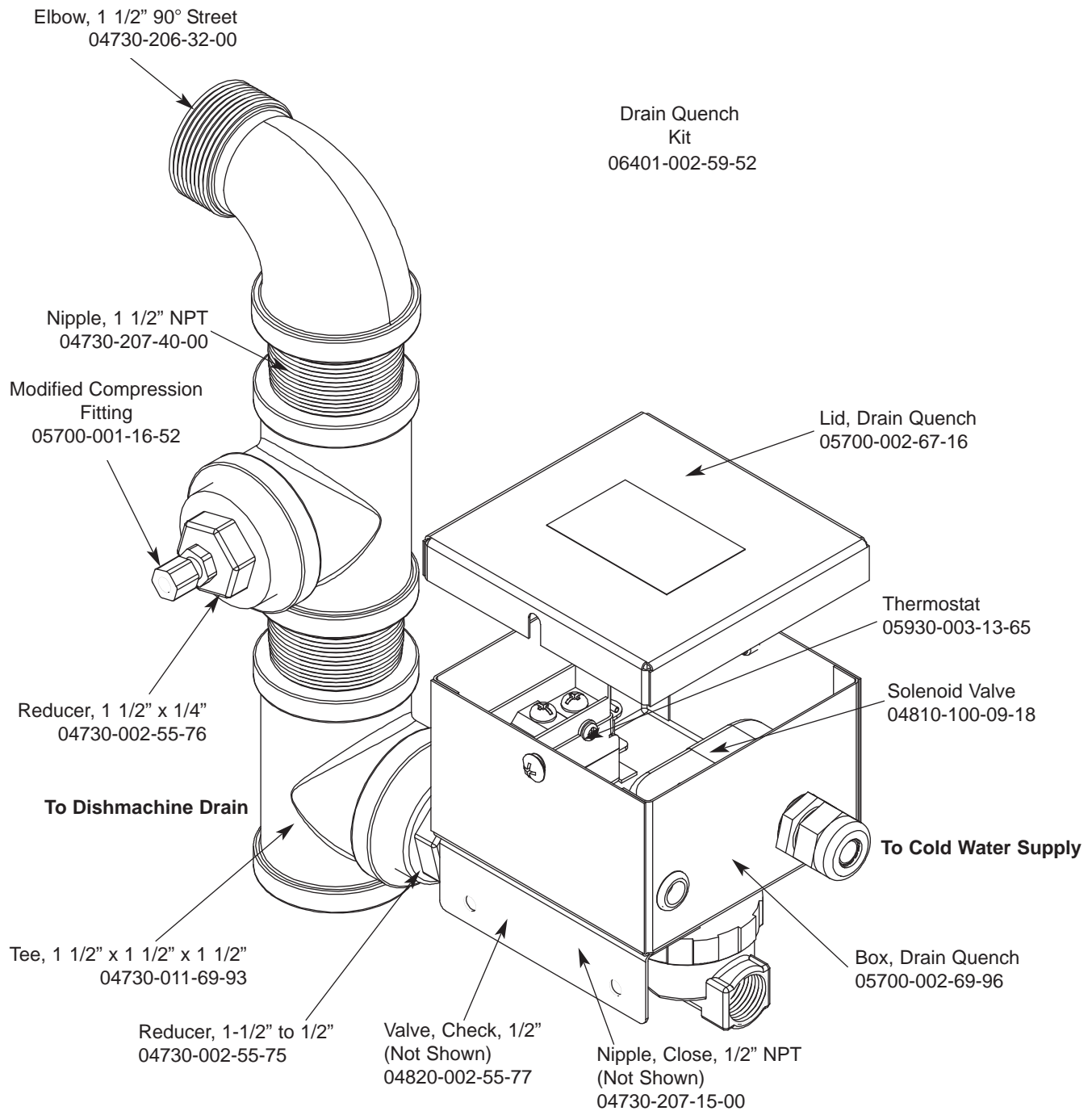


Complete 240 Volt Solenoid Valve Assembly
04810-100-03-18

Coil & Housing only
06401-003-07-44

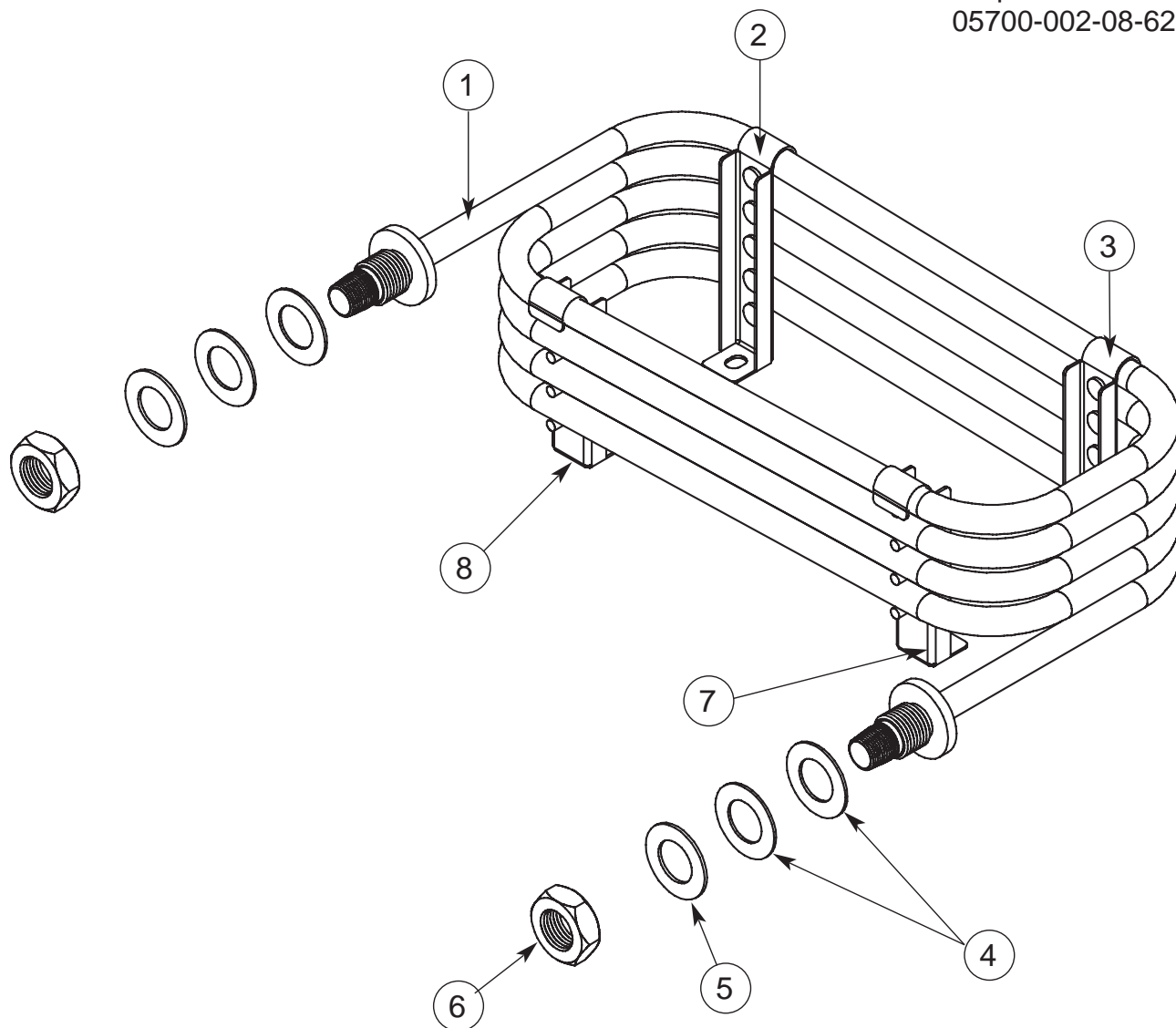


Complete Vacuum Breaker Assembly
04820-002-53-77



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

Complete Assembly
05700-002-08-62



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Steam Coil Weldment	05700-021-41-38
2	1	Stand C, Steam Coil Support	05700-002-08-52
3	1	Stand D, Steam Coil Support	05700-002-08-53
4	1	Gasket, Steam Coil	05700-001-17-86
5	2	Washer, Steam Coil	05700-001-17-87
6	2	Adapter, Steam Coil Nut	05310-011-17-85
7	1	Stand A, Steam Coil Support	05700-002-08-50
8	1	Stand B, Steam Coil Support	05700-002-08-51

The models covered in this manual come supplied with various wash motor assemblies, depending on the characteristics of the machine. To ensure that the correct wash motor assembly is ordered for the model being serviced, refer to the following table:

MODEL	VOLTS	Hz	PHASE	WASH MOTOR ASSEMBLY
Tempstar HH	415	50	3	06105-002-01-29
Tempstar HH, HH NB, HH S, HH LT	208	60	1	06105-002-01-29
Tempstar HH, HH NB, HH S, HH LT	230	60	1	06105-002-01-29
Tempstar HH, HH NB, HH S, HH LT	208	60	3	06105-002-01-29
Tempstar HH, HH NB, HH S, HH LT	230	60	3	06105-002-01-29
Tempstar HH, HH NB, HH S, HH LT	460	60	3	06105-002-09-30

NOTICE When servicing a wash motor please refer to the wiring schematic found on the motor to ensure that it is wired correctly. Different manufacturers use different wire color codes and your new motor might not connect using the same wires. Always refer to the diagrams on the motor you are installing. If the schematics have been removed from the motor you are installing, contact the manufacturer immediately.

The dishmachines covered in this manual come supplied with various heaters, depending on the characteristics of the machine. To ensure that the correct heater is ordered for the model being serviced, refer to the following table:

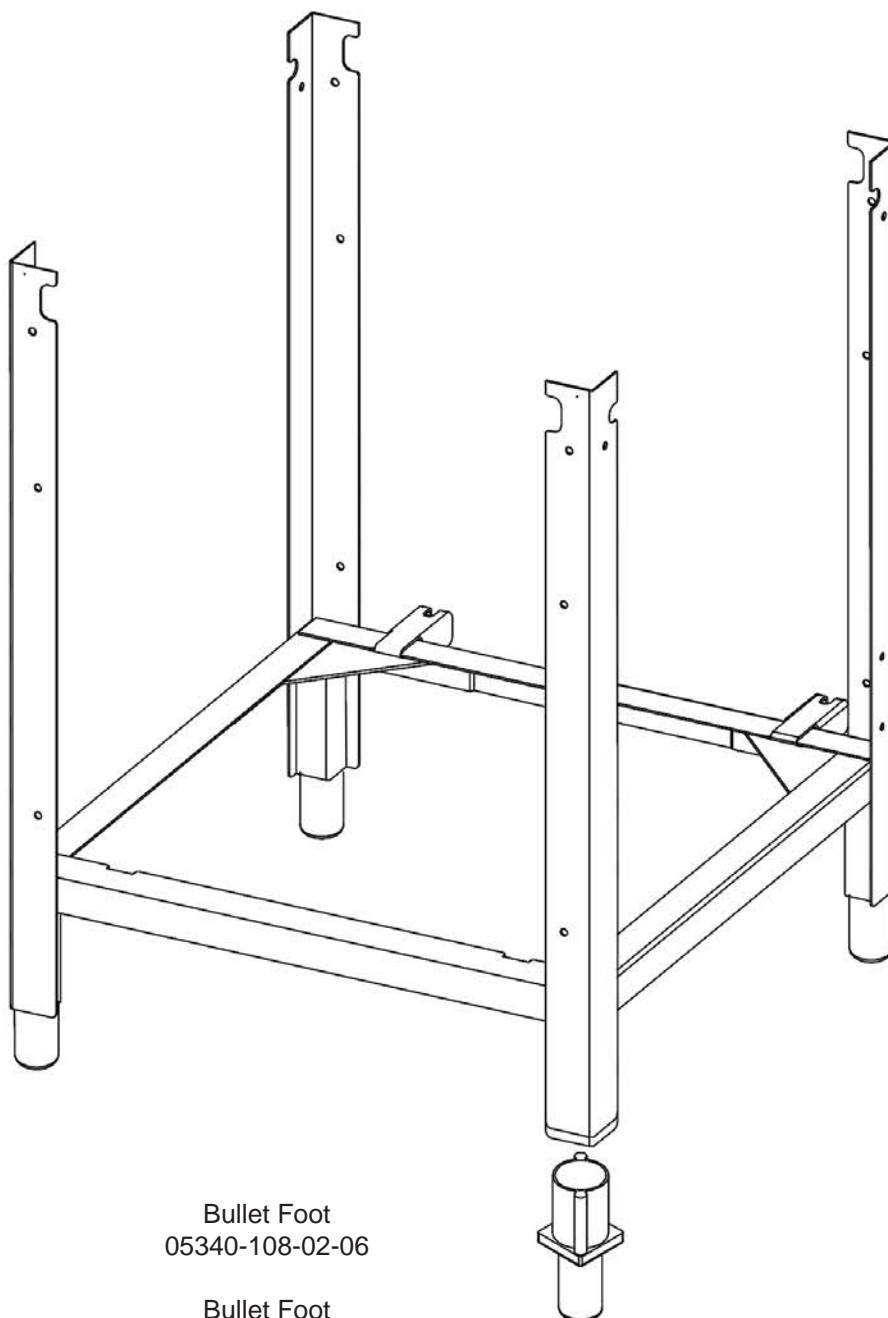
MODEL	V	Hz	PH	WASH HEATER ASSEMBLY	40°F RISE RINSE HEATER (12 kW)	70°F RISE RINSE HEATER (14 kW)
Tempstar HH	415	50	3	04540-002-43-09	04540-002-43-10	N/A
Tempstar HH	208	60	1	04540-121-47-39	04540-121-47-40	04540-121-63-38
Tempstar HH	230	60	1	04540-121-47-39	04540-121-47-40	04540-121-63-38
Tempstar HH	208	60	3	04540-121-47-39	04540-121-47-40	04540-121-63-38
Tempstar HH	230	60	3	04540-121-47-39	04540-121-47-40	04540-121-63-38
Tempstar HH	460	60	3	04540-121-65-99	04540-100-01-15	04540-121-63-39
Tempstar HH NB, HH LT	208	60	1	04540-121-47-39	N/A	N/A
Tempstar HH NB, HH LT	230	60	1	04540-121-47-39	N/A	N/A
Tempstar HH NB, HH LT	208	60	3	04540-121-47-39	N/A	N/A
Tempstar HH NB, HH LT	230	60	3	04540-121-47-39	N/A	N/A
Tempstar HH NB, HH LT	460	60	3	04540-121-65-99	N/A	N/A
Tempstar HH S	208	60	1	04540-121-47-39	N/A	N/A
Tempstar HH S	230	60	1	04540-121-47-39	N/A	N/A
Tempstar HH S	208	60	3	04540-121-47-39	N/A	N/A
Tempstar HH S	230	60	3	04540-121-47-39	N/A	N/A
Tempstar HH S	460	60	3	04540-121-65-99	N/A	N/A

Cover, Front Panel
05700-002-01-42

Frame Weldment
05700-002-03-49

Frame Weldment, 460 V
05700-002-62-41

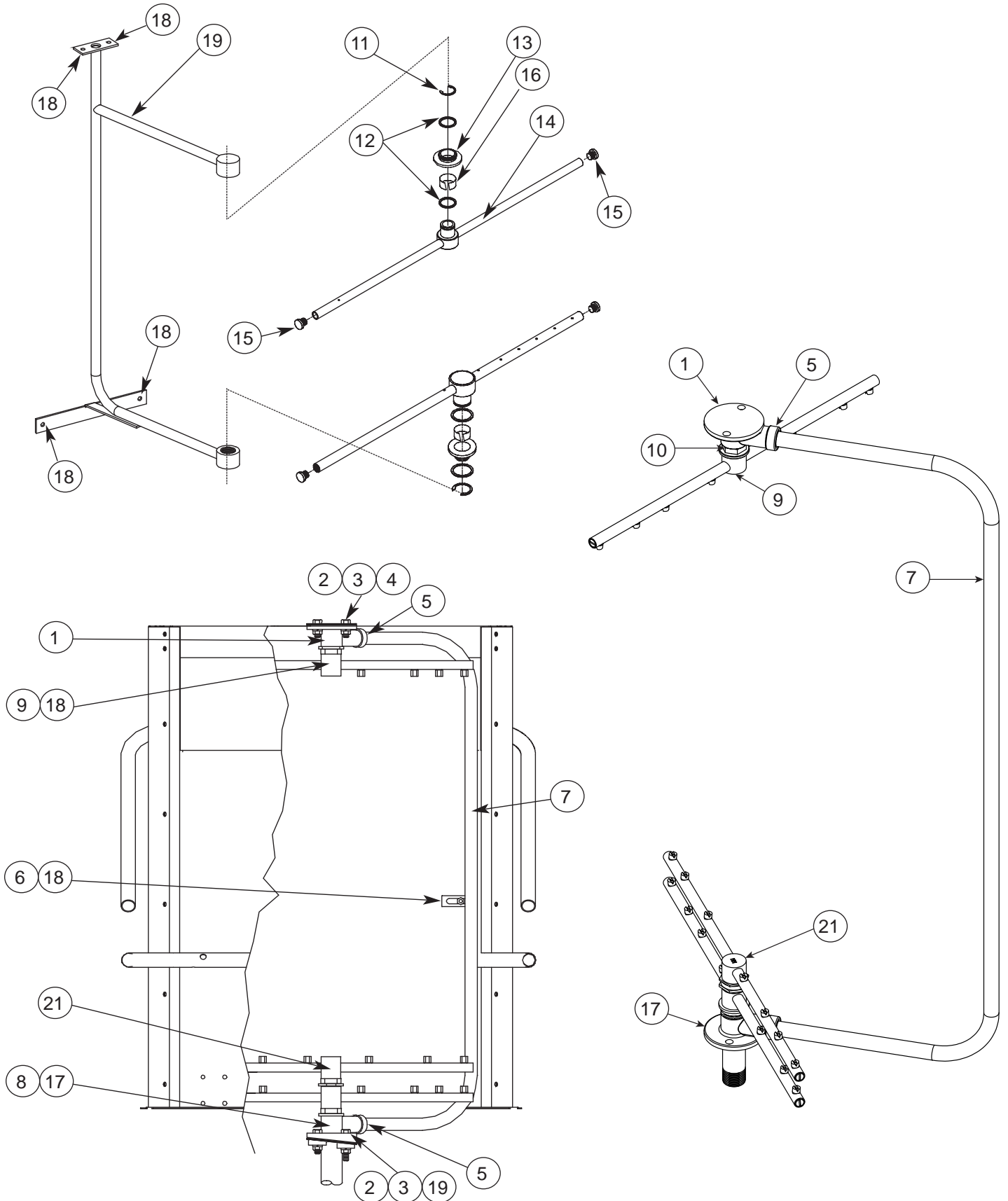
Frame Weldment
05700-004-22-56



Bullet Foot
05340-108-02-06

Bullet Foot
05340-002-14-55

Flange Feet
05340-002-01-15

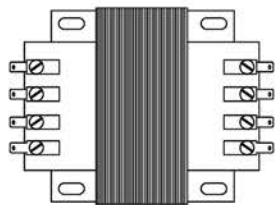


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Upper Manifold	05700-031-34-82
2	4	Nut, 3/8-16 Hex	05310-276-01-00
3	4	Lockwasher, 3/8"	05311-276-01-00
4	2	Bolt, Hex 3/8-16 x 7/8"	05306-011-36-95
5	2	O-ring	05330-111-35-15
6	1	Positioning Bracket, Manifold Tube	05700-011-34-63
7	1	Tube, Wash Manifold	05700-031-92-58
8	2	Gasket, Manifold	05700-111-35-03
9	1	Wash Arm Assembly	05700-004-13-13
10	1	Bearing Assembly	05700-021-35-97
11	2	Clip, Retaining, Rinse Head Bushing	05340-112-01-11
12	4	Washer	05330-011-42-10
13	2	Bushing, Rinse Head	05700-021-33-84
14	2	Complete Rinse Arm Assembly Complete Rinse Arm Assembly, HH-E Only	05700-002-58-09 05700-004-47-74
	2	Rinse Arm Rinse Arm, HH-E Only	05700-031-49-58 05700-004-47-56
15	4	Plug	04730-111-60-41
16	2	Bearing	03120-004-12-13
17	1	Lower Wash Manifold Weldment	05700-002-21-70
18	5	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
19	1	Rinse Manifold Weldment	05700-002-01-19
20	2	Bolt, Hex 3/8-16 x 1 1/4"	05305-276-10-00
21	1	Wash Arm, Double Assembly	05700-003-94-00
	1	Wash Arm, Double Assembly, 460 V (Not Shown)	05700-002-46-86
	1	Wash Arm Assembly, 460 V (Not Shown)	05700-021-63-81
	1	Wash Arm Weldment, 460 V (Not Shown)	05700-021-63-42
	1	Bearing Assembly, 460 V (Not Shown)	05700-021-63-80

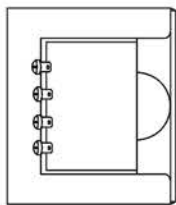
Rinse Arm Bearing Kit
(Includes items 11, 12, and 16)
06401-004-33-51

See Maintenance section for [replacement instructions](#).

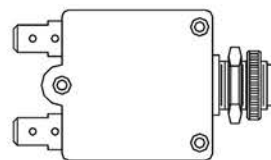
460 V MACHINE TRANSFORMER MOUNTING BOX



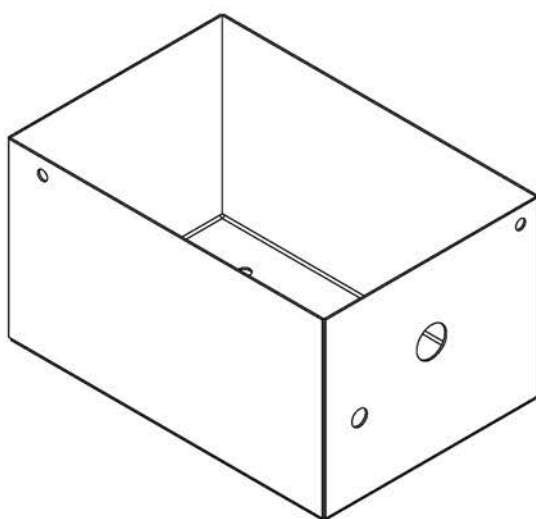
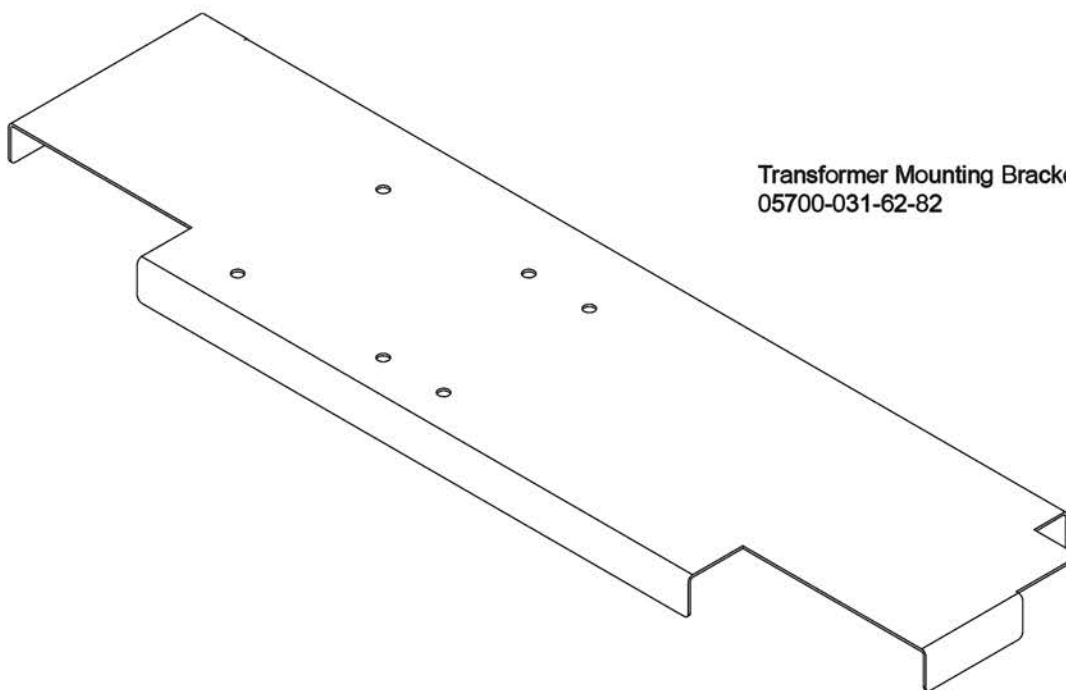
460V Transformer
05950-111-65-93



2 Amp Circuit Breaker
05925-111-64-18

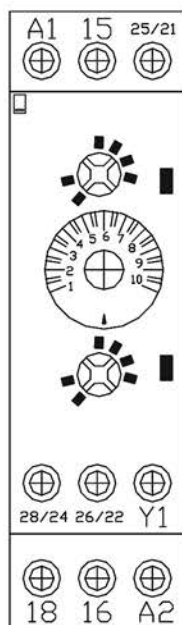


Transformer Mounting Bracket
05700-031-62-82

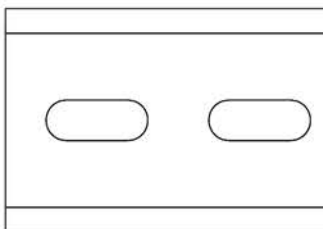


Transformer Mounting Box
05700-002-10-01

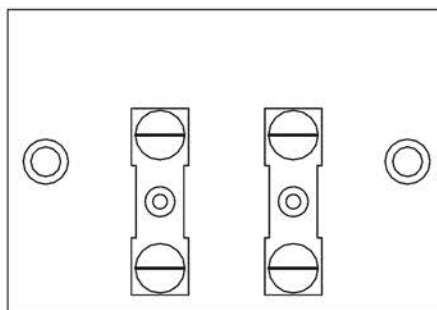
Transformer Mounting Box Top (not shown)
05700-000-78-53



Delay Timer
05945-011-65-44



2" Din Rail
05700-002-36-09

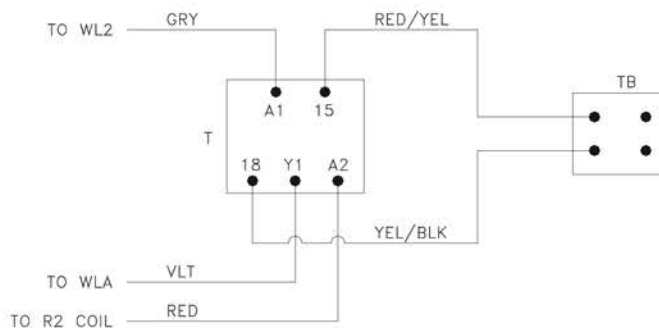


Terminal Board
05940-011-84-41

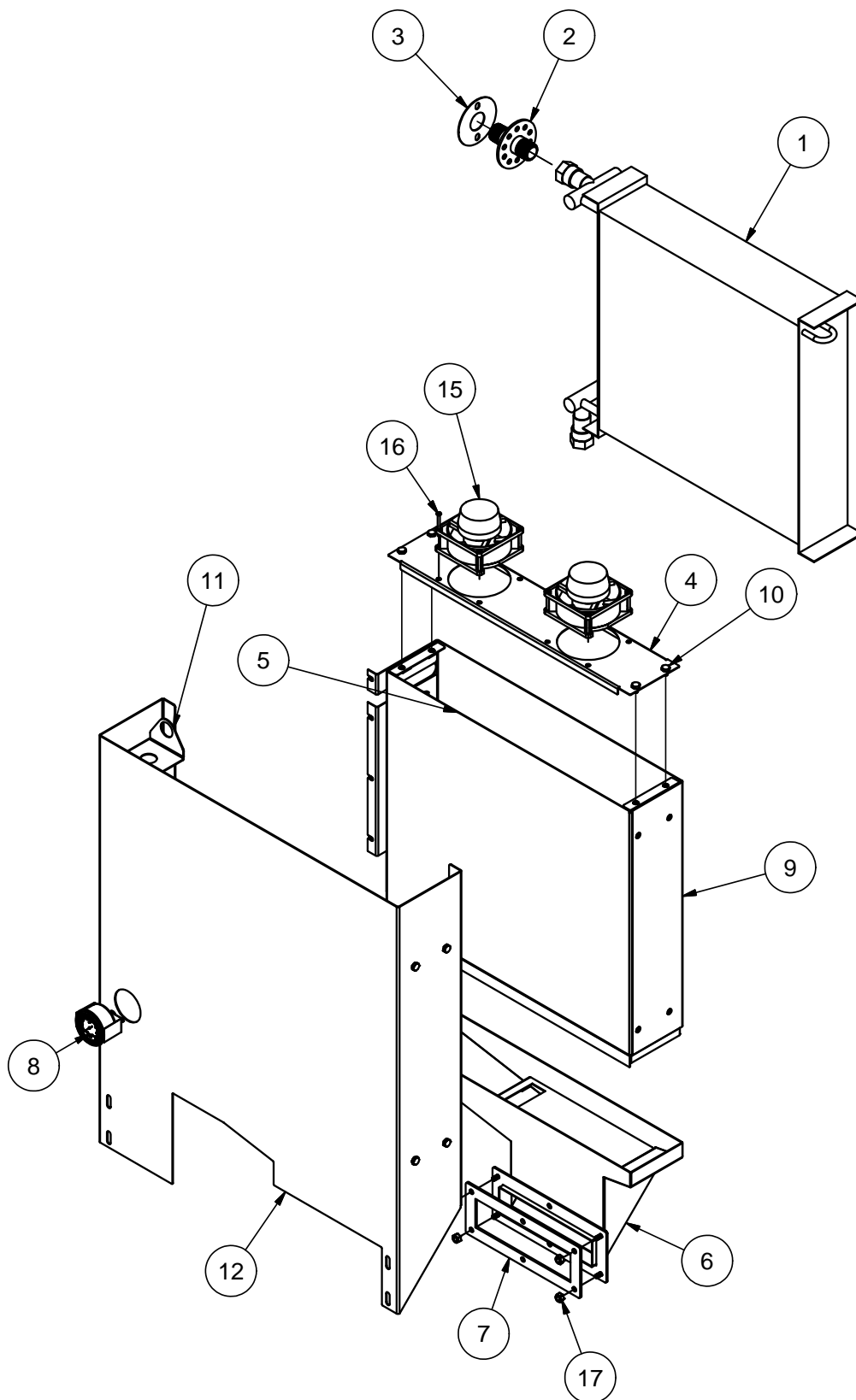
TEMPSTAR EXHAUST FAN HOOKUP

LEGEND

T TIMER
TB TERMINAL BOARD

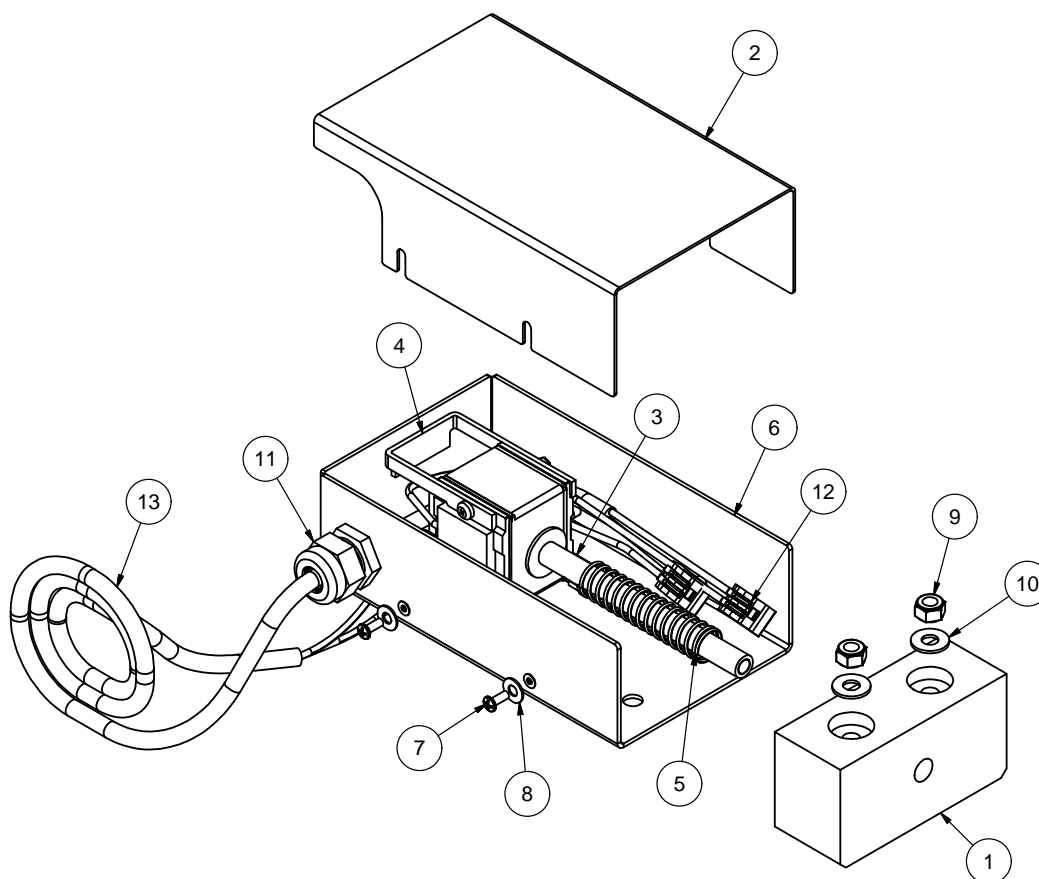


9905-002-54-41

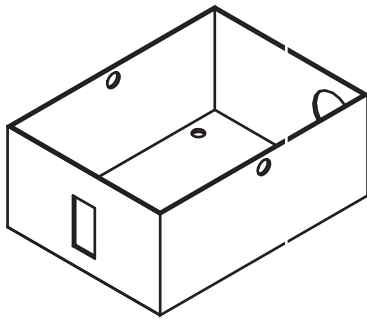


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Coil, Heat Exchanger	04420-004-19-61
2	1	Inlet, Cold Water	05700-004-19-01
3	1	Ring, Water Inlet	05700-004-19-24
4	1	Plate, Fan Mounting	05700-004-18-07
5	1	Upper Shroud	05700-004-18-06
6	1	Exhaust Box	05700-004-18-04
7	1	Gasket, Heat Exchanger	05330-004-18-22
8	1	Gauge	06680-011-86-42
9	1	Coil Box Back	05700-004-18-03
10	12	Bolt, 1/4-20 x 3/8" Hex	05305-274-20-00
11	1	Bracket, Vacuum Breaker	05700-004-18-91
12	1	Shroud, Heat Exchanger	05700-004-18-92
13	6	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
14	6	Washer, Flat	05311-173-02-00
15	2	Fan, 3.62 Square, 85-236 VAC, Corrosion-resistant	05999-004-19-46
16	8	Screw, 6-32 x 1 1/2"	05305-004-19-80
17	4	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00

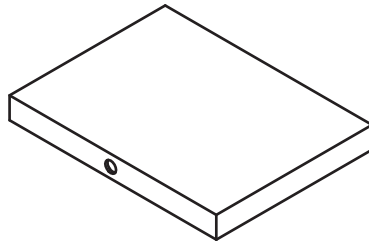
See Installation section for [mounting instructions](#).



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Guide Block, Door Lock	09330-004-22-72
2	1	Cover, Door Lock Mounting	05700-004-22-80
3	1	Rod, Interlock Weldment	05700-004-23-15
4	1	Solenoid, Horizontal, 1" Push	04820-004-24-11
5	1	Spring, Compression	05935-004-24-10
6	1	Base, Door Interlock Box	05700-004-24-25
7	8	Screw, 3/8" Pan Head	05305-171-02-00
8	8	Washer, Flat #10	05311-173-02-00
9	2	Locknut, 1/4-20	05310-374-01-00
10	2	Washer, 1/4-20	05311-174-01-00
11	1	Fitting, Black	05975-011-59-50
12	2	Connector, 2-Conductor	05935-004-03-49
13	1	SJ Cord, 55"	05700-004-24-31



Door Interlock Box Bottom
05700-001-21-26



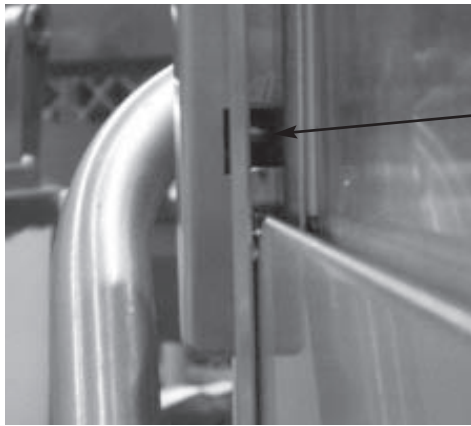
Door Interlock Box Cover
05700-001-21-27

Other Door Interlock
components (not shown):

Pipe Clamp (found on the side of the machine)
05700-000-35-05

Solenoid, Electrical Interlock Option
04810-100-61-33

Relay
05945-111-47-51



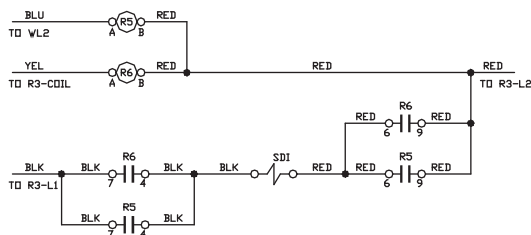
Latch access hole



The following instructions are for models equipped with the Door Interlock option. These instructions should only be used if the door interlock fails to unlatch and the doors won't open.

1. To manually disengage, find the latch access hole.
2. Gently insert the tip of a screwdriver or other metal utensil into the access hole, making contact with the latching arm.
3. Disengage the interlock by pushing the latching arm back with a minimal amount of force.
4. The doors should now open.

TEMPSTAR SDI OPTION

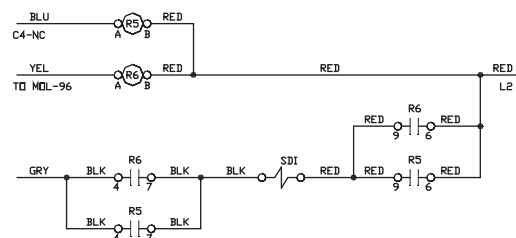


LEGEND

R5 RINSE RELAY
R6 WASH RELAY
SDI SAFETY DOOR INTERLOCK SOLENOID

09905-002-35-85a

TEMPSTAR 460V SDI OPTION

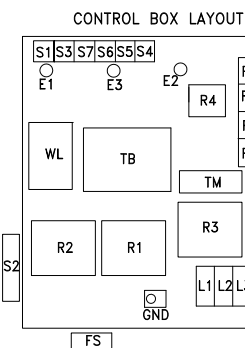
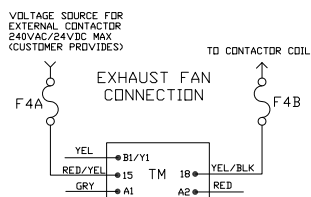
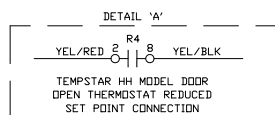


LEGEND

R5 RINSE RELAY
R6 WASH RELAY
SDI SAFETY DOOR INTERLOCK SOLENOID

LEGEND

L1 L2 L3 POWER DISTRIBUTION BLOCK
 GND GROUND
 H1 RINSE HEATER
 H2 WASH HEATER
 M1 WASH MOTOR
 R1 RINSE HEATER CONTACTOR
 R2 WASH HEATER CONTACTOR
 R3 WASH MOTOR CONTACTOR
 R4 CONTROL RELAY
 F1 CONSTANT VOLTAGE CONNECTION
 F2 DETERGENT DISPENSER FUSE BLOCK
 F3 RINSE DISPENSER FUSE BLOCK
 F4 EXHAUST FAN FUSE BLOCK
 S1 POWER SWITCH
 S2 DOOR SWITCH
 S3 AUTO/MANUAL (DELIME) SWITCH
 S4 CYCLE SELECTOR
 E1 POWER LIGHT
 E2 HEATER OVERLOAD LIGHT
 E3 CYCLE LIGHT
 HLTS WASH HEATER HIGH LIMIT
 TS1 RINSE HEATER THERMOSTAT
 TS2 WASH HEATER THERMOSTAT
 HP HIGH WATER LEVEL PROBE
 WL WATER LEVEL CONTROL
 FS RINSE/FILL SOLENOID
 TB TIMER BOARD
 TM EXHAUST FAN TIMER
 PB1 RINSE TEMP PROBE
 PB2 WASH TEMP PROBE
 RF RECOVERY FANS
 DI DOOR INTERLOCK



DIP-SWITCH SETTINGS

TEMPSTAR

ON	1	2	3	4	5	6	7	8
↑	0	0	0	0	0	0	0	X

WITH HEAT RECOVERY

ON	1	2	3	4	5	6	7	8
↑	0	0	0	0	0	0	0	X

TEMPSTAR HH

ON	1	2	3	4	5	6	7	8
↑	0	X	X	X	0	0	0	0

HH WITH HEAT RECOVERY

ON	1	2	3	4	5	6	7	8
↑	0	X	0	0	0	0	0	X

TEMPSTAR HH-E

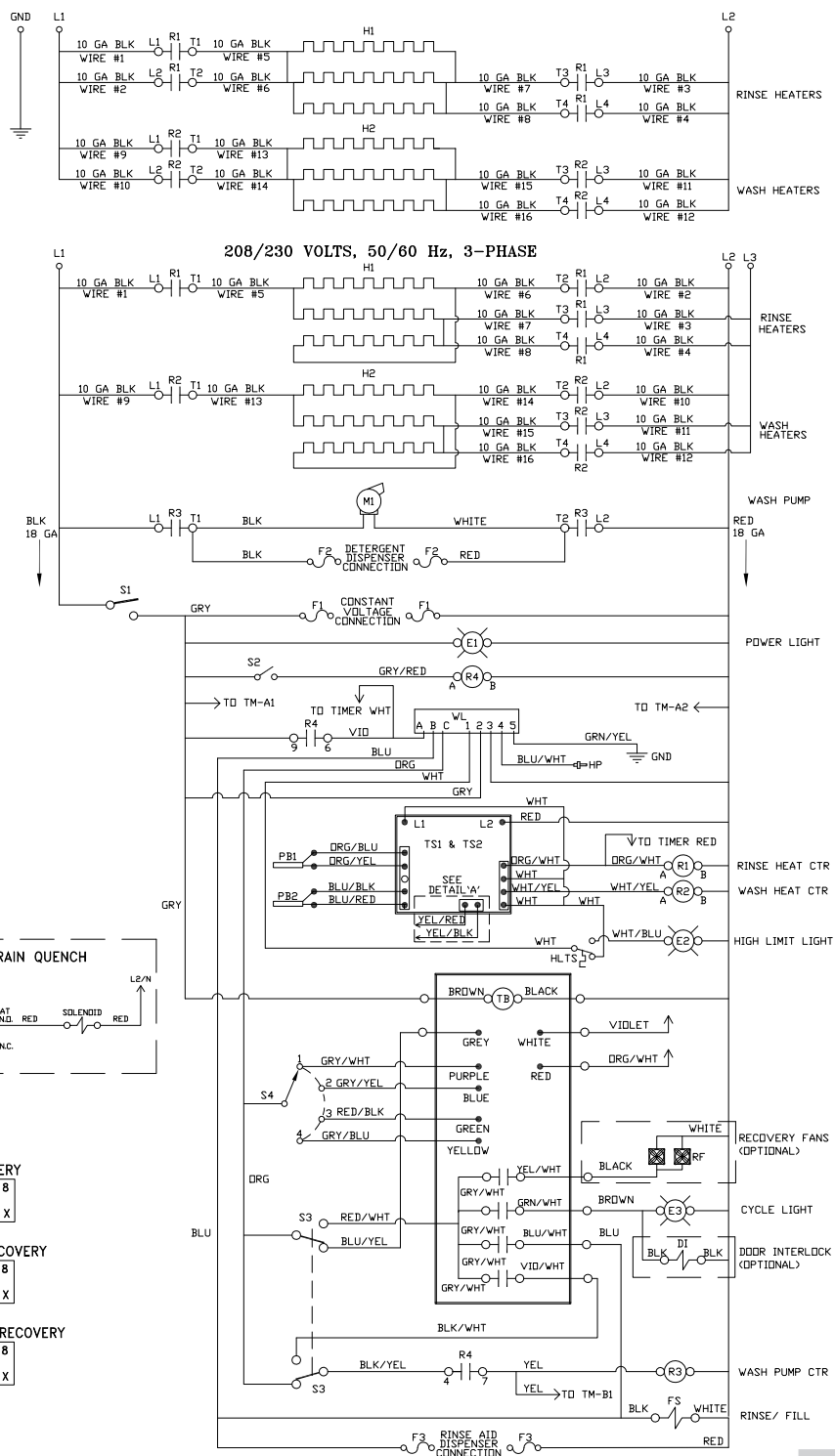
ON	1	2	3	4	5	6	7	8
↑	0	X	X	X	X	0	0	0

HH-E WITH HEAT RECOVERY

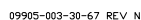
ON	1	2	3	4	5	6	7	8
↑	0	X	X	X	X	0	0	0

TEMPSTAR/TEMPSTAR HH/HH-E
SCHEMATIC

208/230 VOLTS, 50/60 Hz, 1-PHASE



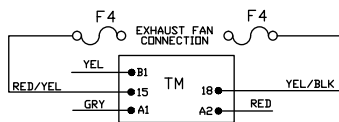
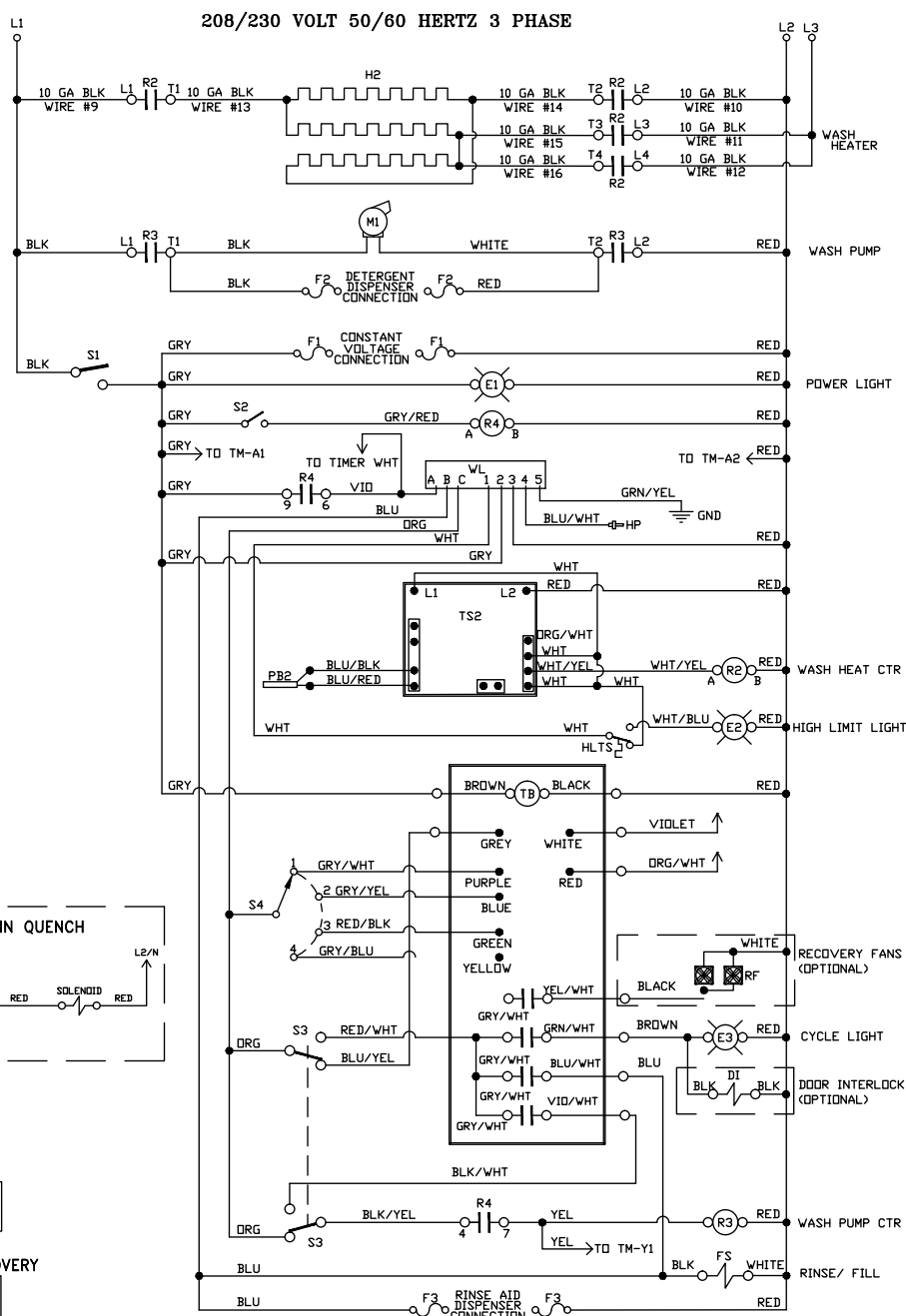
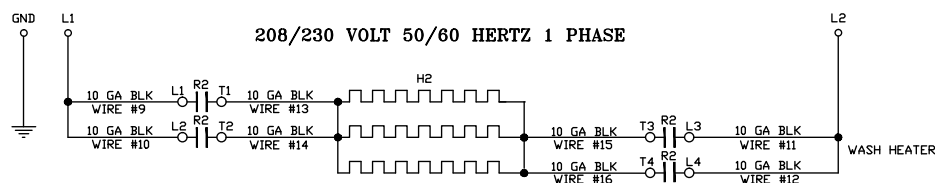
460 VOLTS, 50/60Hz, 3-PHASE



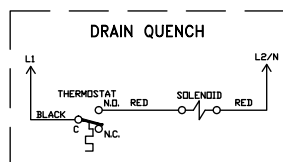
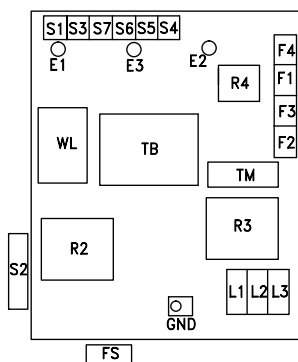
TEMPSTAR NB/LT & TEMPSTAR HH NB/LT
ELECTRICAL DIAGRAM

LEGEND

L1 L2 L3 POWER DISTRIBUTION BLOCK
 GND GROUND
 H2 WASH HEATER
 M1 WASH MOTOR
 R2 WASH HEATER CONTACTOR
 R3 WASH MOTOR CONTACTOR
 R4 CONTROL RELAY
 F1 CONSTANT VOLTAGE CONNECTION
 F2 DETERGENT DISPENSER FUSE BLOCK
 F3 RINSE DISPENSER FUSE BLOCK
 F4 EXHAUST FAN FUSE BLOCK
 S1 POWER SWITCH
 S2 DOOR SWITCH
 S3 AUTO/MANUAL (DELIME) SWITCH
 S4 CYCLE SELECTOR
 E1 POWER LIGHT
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 E3 CYCLE LIGHT
 HLTS WASH HEATER HIGH LIMIT
 TS2 WASH HEATER THERMOSTAT
 HP HIGH WATER LEVEL PROBE
 WL WATER LEVEL CONTROL
 FS RINSE/FILL SOLENOID
 TB TIMER BOARD
 TM EXHAUST FAN TIMER
 PB2 WASH TEMP PROBE
 RF RECOVERY FANS
 DI DOOR INTERLOCK



CONTROL BOX LAYOUT



DIP SWITCH SETTINGS

TEMPSTAR

ON	1	2	3	4	5	6	7	8
	0	0	0	0	0	0	0	0
							X	X

TEMPSTAR HH

ON	1	2	3	4	5	6	7	8
	0	X	X	X	0	0	0	X

WITH HEAT RECOVERY

ON	1	2	3	4	5	6	7	8
	0	0	0	0	0	0	0	0
	X						X	X

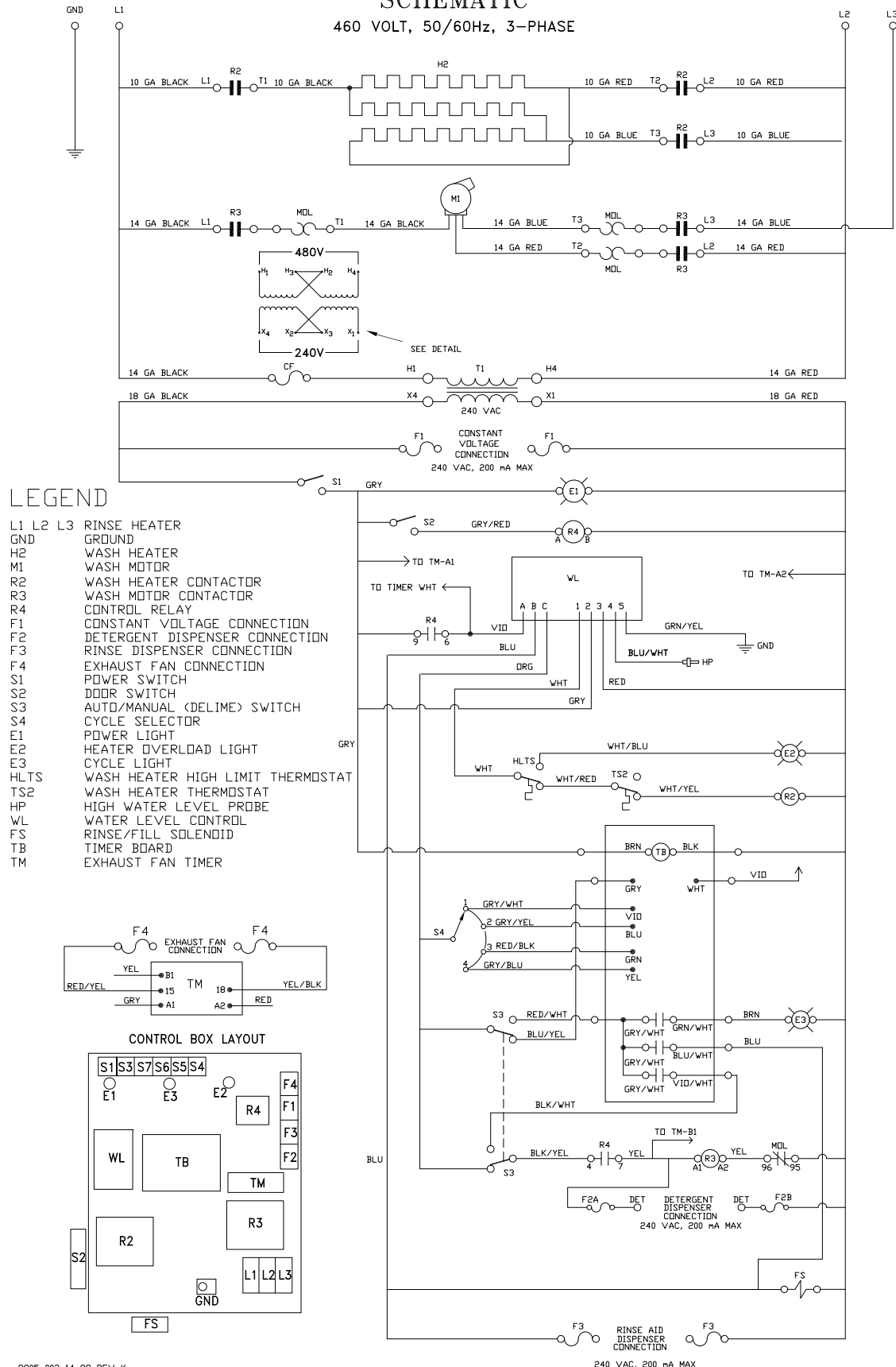
HH WITH HEAT RECOVERY

ON	1	2	3	4	5	6	7	8
	0	0	0	0	0	0	0	0
	X						X	X

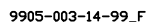
TEMPSTAR LT/NB & TEMPSTAR HH/NB

SCHEMATIC

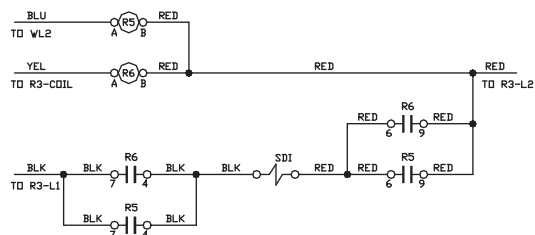
460 VOLT, 50/60Hz, 3-PHASE



208/230 VOLT 50/60 HERTZ 1/3 PHASE



TEMPSTAR SDI OPTION

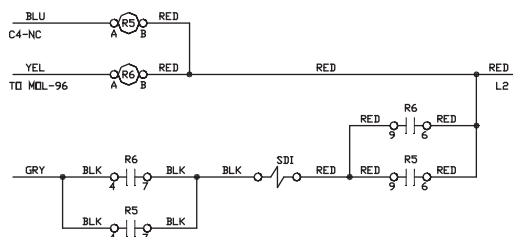


LEGEND

R5 RINSE RELAY
R6 WASH RELAY
SDI SAFETY DOOR INTERLOCK SOLENOID

09905-002-35-85a

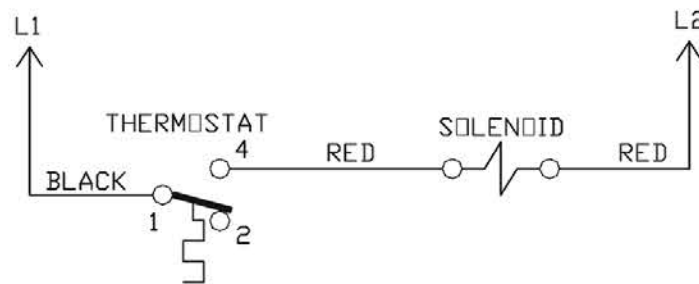
TEMPSTAR 460V SDI OPTION



LEGEND

R5 RINSE RELAY
R6 WASH RELAY
SDI SAFETY DOOR INTERLOCK SOLENOID

DRAIN QUENCH SYSTEM



CONNECT BLACK WIRE TO MOTOR CONTACTOR - L1 WITH PIGGYBACK TERMINAL PROVIDED

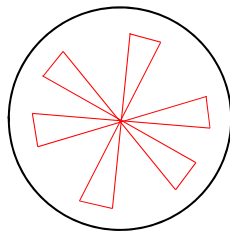
CONNECT WHITE WIRE TO MOTOR CONTACTOR - L2 WITH PIGGYBACK TERMINAL PROVIDED

Wiring Diagram

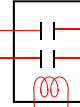


Do NOT connect primary load directly to Fuse Block!

Exhaust Fan



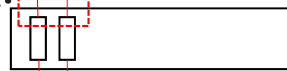
Contactor
(Customer provides or orders optional kit - 05700-004-35-35)



L1
L2/N

Dishmachine

Customer Connections

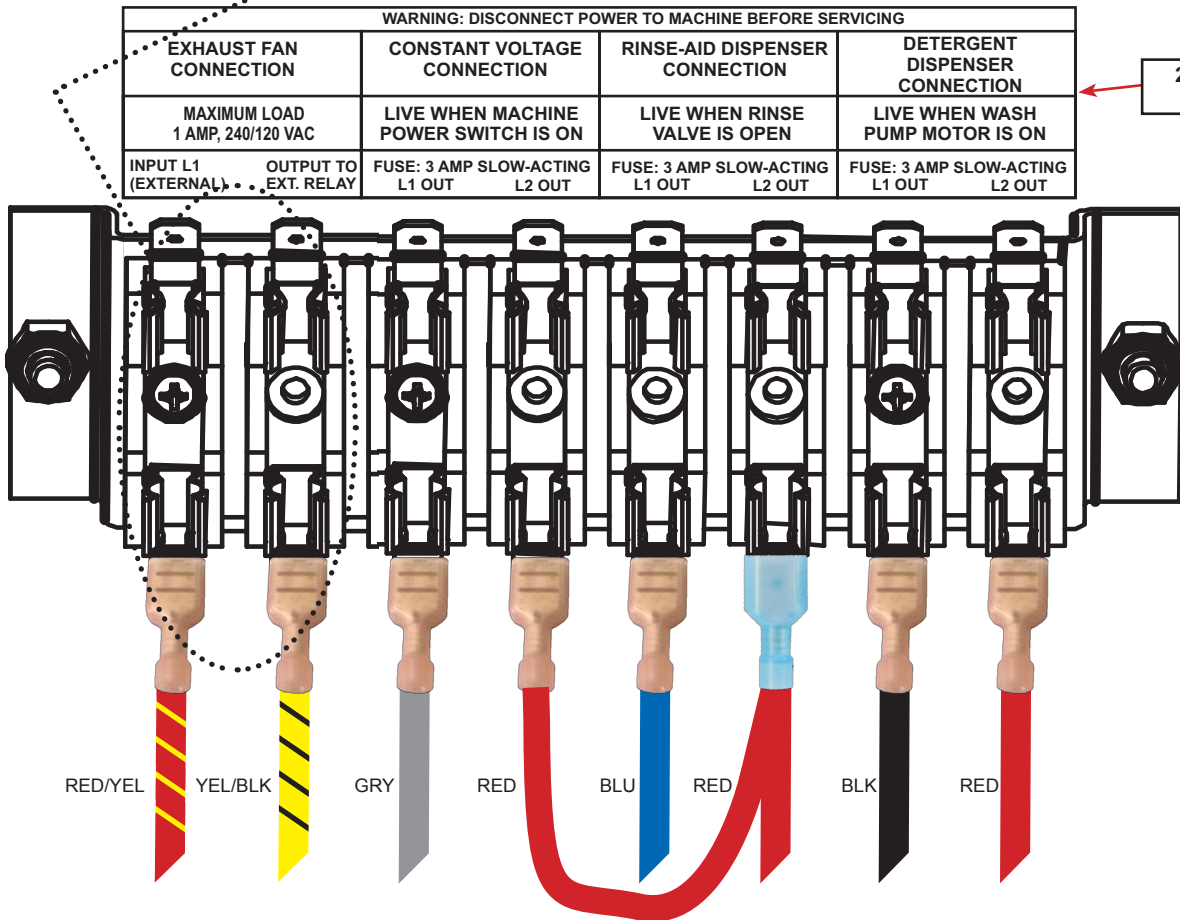


Timer

NOTICE

Orientation of Fuse Block and wires might differ between models. Wire colors correspond to function.

Fuse Block



WARNING: DISCONNECT POWER TO MACHINE BEFORE SERVICING

EXHAUST FAN CONNECTION	CONSTANT VOLTAGE CONNECTION	RINSE-AID DISPENSER CONNECTION	DETERGENT DISPENSER CONNECTION
MAXIMUM LOAD 1 AMP, 240/120 VAC	LIVE WHEN MACHINE POWER SWITCH IS ON	LIVE WHEN RINSE VALVE IS OPEN	LIVE WHEN WASH PUMP MOTOR IS ON
INPUT L1 (EXTERNAL) . . . EXT. RELAY	FUSE: 200 mA SLOW-ACTING X4 OUT X1 OUT	FUSE: 200 mA SLOW-ACTING X4 OUT X1 OUT	FUSE: 200 mA SLOW-ACTING X4 OUT X1 OUT

460 V
Decal



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