



Warewashing Systems

INSTALLATION, OPERATION, AND SERVICE MANUAL



DELTA SERIES GLASSWASHER DISHMACHINES

Delta HT-E-SEER Manual • 07610-004-54-86-C

DELTA[®] HT-E-SEER

**MANUFACTURER'S LIMITED WARRANTY
(APPLICABLE ONLY IN THE UNITED STATES AND CANADA)**

WARRANTY REGISTRATION:

To register your Jackson Dishmachine's warranty go to www.jacksonwws-warranty.com or call 1-888-800-5672. Failure to register the Dishmachine will void the warranty.

ONE YEAR LIMITED PARTS AND LABOR WARRANTY

For a period of one (1) year from date of original installation of a new Jackson Dishmachine (but in no event to exceed eighteen (18) months from date of shipment from Jackson's factory), Jackson WWS, Inc. (Jackson) will repair or replace, at its discretion, any original part that proves defective in materials or workmanship at the time the Dishmachine was purchased; provided that (i) the Dishmachine has not been altered, (ii) the Dishmachine has been properly installed, maintained, and operated under normal use conditions and in accordance with the applicable installation, operation and service manual available on the Jackson website, and (iii) a warranty claim is reported to a Jackson Authorized Service Agency within the warranty period. This warranty includes replacement with Jackson 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 shall void this warranty.

THIS WARRANTY DOES NOT APPLY OUTSIDE THE UNITED STATES AND CANADA.

Jackson will pay the labor to repair or replace a defective original part as a part of the warranty, provided that a Jackson Authorized Service Agency performs the labor. Any repair or replacement work by anyone other than a Jackson Authorized Service Agency is the sole responsibility of the purchaser. Labor coverage is limited to regular hourly rates; Jackson will not pay overtime premiums or emergency service charges.

Accessory components (such as table limit switches, pressure regulators, and drain water tempering kits) that are not installed by Jackson at the factory and are shipped with the Dishmachine carry only a (1) one year parts warranty. Labor to repair or replace these components is not included in the warranty or covered by Jackson. Booster heaters not manufactured by Jackson are not covered by this warranty, but are warranted by their respective manufacturers.

This warranty is void if any defect or failure is a direct result from shipping, handling, fire, water, accident, alteration, modification, misuse, abuse, flood, acts of God, burglary, casualty, attempted repair by unauthorized persons, use of replacement parts not authorized by Jackson, improper installation, installation not in accordance with local electrical and plumbing codes, if the serial number has been removed or altered, if the Dishmachine is used for any purpose other than originally intended, or if the equipment is installed for residential use.

Jackson does not authorize any other entity or person, including, without limitation, any entity or person who deals in Jackson's Dishmachines, to change this warranty or create any other obligation in connection with Jackson's Dishmachines.

TRAVEL LIMITATIONS:

Jackson limits warranty travel time to the customer site within 50 miles of the Jackson authorized service agents office and during regular business hours. Jackson will not pay for travel time and mileage that exceeds these limits, or any fees such as those for air or boat travel without prior authorization.

REPLACEMENT PARTS WARRANTY:

For a period of (90) ninety days from the date of installation by a Jackson Authorized Service Agency (but in no event to exceed (180) one-hundred-eighty days from the date of purchase from a Jackson Authorized Parts Distributor or Service Agency), Jackson will repair or replace, at its discretion, any Jackson genuine replacement parts that prove defective in materials or workmanship at the time the replacement parts were installed. This warranty does not include paying the labor to repair or replace the replacement part. This warranty is subject to all conditions, exclusions and limitations applicable to the Dishmachine.

**MANUFACTURER'S LIMITED WARRANTY (CONT.)
(APPLICABLE ONLY IN THE UNITED STATES AND CANADA)**

PRODUCT CHANGES:

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

DISCLAIMER OF WARRANTIES:

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, THAT ARE NOT SET FORTH HEREIN, OR THAT EXTEND BEYOND THE DURATION HEREOF.

LIMITATION OF REMEDIES AND LIABILITIES:

YOUR SOLE AND EXCLUSIVE REMEDY UNDER THIS LIMITED WARRANTY SHALL BE PRODUCT REPAIR OR REPLACEMENT AS PROVIDED HEREIN.

UNDER NO CIRCUMSTANCES WILL JACKSON BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES, OR FOR DAMAGES IN THE NATURE OF PENALTIES. JACKSON'S LIABILITY ON ANY CLAIM OF ANY KIND 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.

ITEMS NOT COVERED:

THIS WARRANTY DOES NOT COVER (1) ADJUSTMENTS INCLUDING, BUT NOT LIMITED TO, TIMER CAMS, THERMOSTATS, DOORS, TANK HEATER ADJUSTMENTS OR CLUTCHES; (2) AIR FREIGHT OR OVERNIGHT FREIGHT; (3) ANY AMOUNT EXCEEDING ORIGINAL PURCHASE PRICE; (4) CLEANING OF DRAIN VALVES, GAS LINES, RINSE/WASH NOZZLES, STRAINERS, SCREENS, OR SPRAY PIPES; (5) CLEANING OR DELIMING OF THE DISHMACHINE OR ANY COMPONENT INCLUDING, BUT NOT LIMITED TO, WASH ARMS, RINSE ARMS AND STRAINERS; (6) CONDITIONS CAUSED BY THE USE OF INCORRECT (NON-COMMERCIAL) GRADE DETERGENTS; (7) CORROSION FROM CHEMICALS DISPENSED IN EXCESS OF RECOMMENDED CONCENTRATIONS; (8) COSMETIC DAMAGE, INCLUDING BUT NOT LIMITED TO, SCRATCHES, DENTS, CHIPS, AND OTHER DAMAGE TO THE DISHMACHINE FINISHES, UNLESS SUCH DAMAGE RESULTS FROM DEFECTS IN MATERIALS AND WORKMANSHIP AND IS REPORTED TO JACKSON WITHIN (30) THIRTY DAYS FROM THE DATE OF INSTALLATION; (9) DAMAGE CAUSED BY LABOR DISPUTE; (10) DAMAGES RESULTING FROM IMPROPER CONNECTION TO UTILITY SERVICE; (11) DAMAGES RESULTING FROM WATER CONDITIONS, INADEQUATE OR EXCESSIVE WATER PRESSURE, ACCIDENTS, ALTERATIONS, IMPROPER USE, ABUSE, HANDLING, OVERLOADS, TAMPERING, IMPROPER INSTALLATION OR FAILURE TO FOLLOW MAINTENANCE AND OPERATING PROCEDURES; (12) DISCOLORATION, RUST OR OXIDATION OF SURFACES RESULTING FROM CAUSTIC OR CORROSIVE ENVIRONMENTS, INCLUDING, BUT NOT LIMITED TO, HIGH SALT CONCENTRATIONS, HIGH MOISTURE OR HUMIDITY, OR EXPOSURE TO CHEMICALS; (13) ELECTRIC BOOSTERS, FEED LINES, FLEX HOSE, FUSES, GARBAGE DISPOSALS, OR GAS PILOTS; (14) EXCESSIVE LIME, MINERAL, OR ALKALINE BUILDUP; (15) EXPENSES DUE TO DISCONNECTION, DELIVERY, RETURN AND REINSTALLATION; (16) FAILURE OF ELECTRICAL COMPONENTS DUE TO CONNECTION OF CHEMICAL DISPENSING EQUIPMENT INSTALLED BY OTHERS; (17) FAILURE OF FACILITY WATER HEATER TO MAKE TEMPERATURE; (18) FAILURE TO MAINTAIN WATER HARDNESS BETWEEN .25 AND 2.0 GRAINS, PH BETWEEN 7.0 AND 8.5 AND TOTAL DISSOLVED SOLIDS BELOW 250 PPM; (19) FAILURE TO COMPLY WITH LOCAL ELECTRICAL BUILDING CODES; (20) LEAKS OR DAMAGE RESULTING FROM SUCH LEAKS CAUSED BY THE INSTALLER, INCLUDING THOSE AT MACHINE TABLE CONNECTIONS, OR BY CONNECTION OF CHEMICAL DISPENSING EQUIPMENT INSTALLED BY OTHERS; (21) OPENING OR CLOSING OF UTILITY SUPPLY VALVES OR SWITCHING OF ELECTRICAL SUPPLY CURRENT; (22) PERFORMANCE OF REGULAR MAINTENANCE AND CLEANING AS OUTLINED IN THE OPERATOR'S GUIDE; (23) REMOVAL OR REINSTALLATION OF INACCESSIBLE DISHMACHINES OR BUILT-IN FIXTURES THAT INTERFERE WITH SERVICING, REMOVAL OR REPLACEMENT OF THE DISHMACHINE; (24) REPLACEMENT WEAR ITEMS INCLUDING, BUT NOT LIMITED TO, CURTAINS, DRAIN BALLS, DOOR GUIDES, GASKETS, O-RINGS, SEALS, SQUEEZE TUBES, AND BEARINGS; (25) RESIDENTIAL USE; (26) USE WITH UTILITY SERVICE OTHER THAN THAT DESIGNATED ON THE RATING PLATE.

REVISION HISTORY

Revision Letter	Revision Date	Made by	Applicable ECNs	Details
A	5-25-18	JH	8566	Initial release of the manual.
B	2-25-19	JH	8585 8619 8630 8648 8682	Updated pgs. 2-3. Added note about hot water heaters to pg. 6. Updated references to adjustable outputs on pg. 11. Added programming instructions and fault codes to pgs. 21-25. Updated pg. 29 to show panel and membrane together. Corrected P/N of item #20 on pg. 38. Updated pg. 40. Updated SEER System, pgs. 47-48. Updated drain water tempering kit and added link to instructions on pg. 51. Updated schematic.
C	4-24-19	JH	QOF 19-553	Updated schematic.

Jackson[®]

Warewashing Systems

Delta HT-E-SEER-S Short Stand

Glasswasher dishmachine; high-temperature, hot-water sanitizing, with a booster tank and detergent and rinse-aid chemical feeder pumps.

Equipped with Steam Elimination and Energy Recovery (SEER) system.

6" stand clearance allows cleaning beneath the machine.

Delta HT-E-SEER-T Tall Stand

Glasswasher dishmachine; high-temperature, hot-water sanitizing, with a booster tank and detergent and rinse-aid chemical feeder pumps.

Equipped with Steam Elimination and Energy Recovery (SEER) system.

14" stand allows storage of chemicals under the machine.

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



- Instructions Hyperlink

ABBREVIATIONS & ACRONYMS

ANSI - American National Standards Institute

GHT - Garden Hose Thread

GPG - Grains per Gallon

GPM - Gallons per Minute

HP - Horse Power

Hz - Hertz

ID - Inside Diameter

kW - Kilowatts

NFPA - National Fire Protection Association

NPT - National Pipe Thread

OD - Outside Diameter

PRV - Pressure Regulating Valve

PSI - Pounds per Square Inch

V - Volts

SPECIFICATIONS

DIMENSIONS - SEER-S

LEGEND

A - Electrical Connection

B - Water Inlet (with 6' Hose)
(3/4" Male GHT, connect to true
1/2" ID line, 40-90 °F)

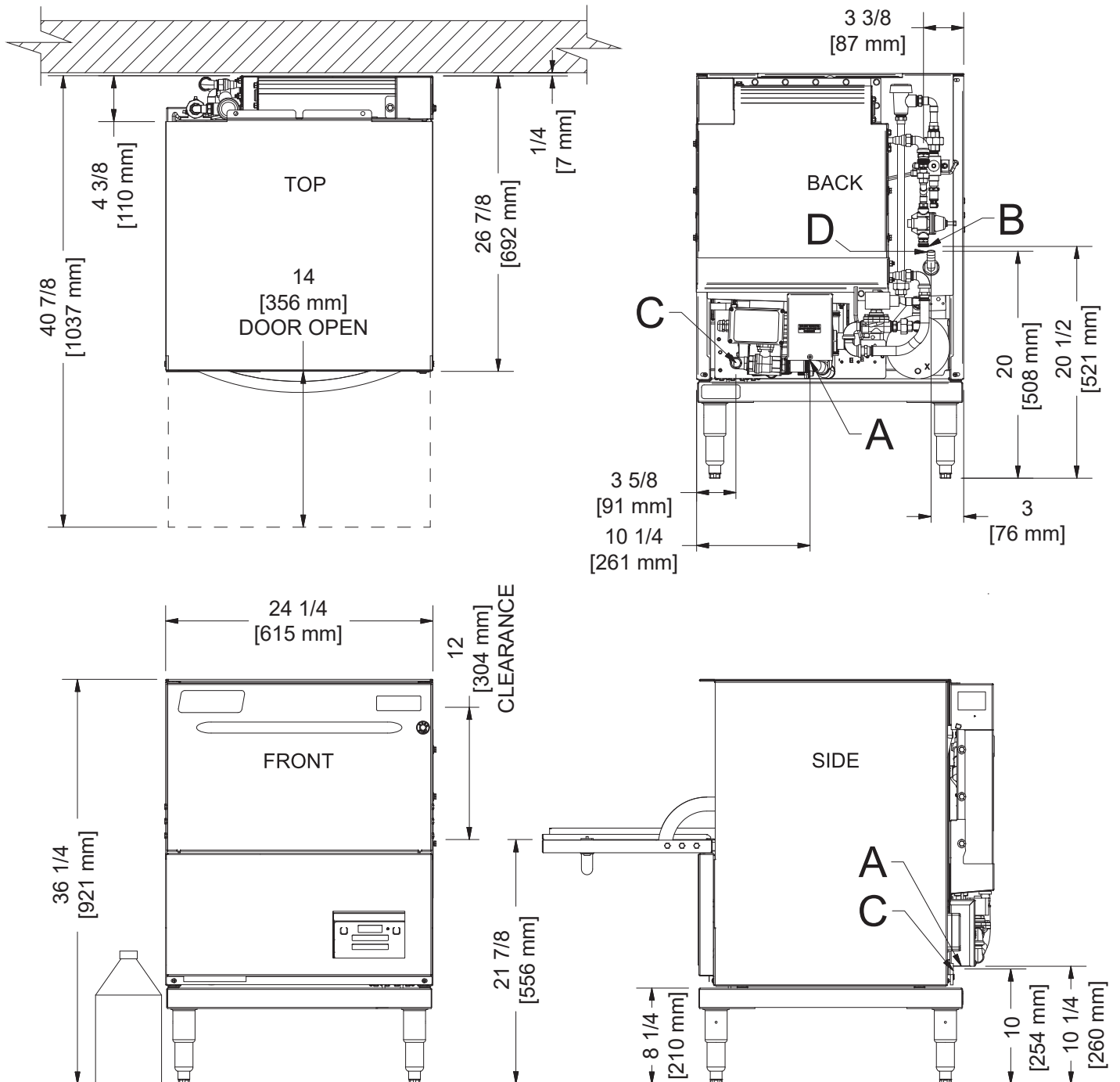
C - Drain Connection

(1" ID, 1 3/8" OD)
(Connect to MIN 1 1/2" Drain with Air-gap)

D - Chemical Port

All dimensions from the floor can be increased 1" using the machine's adjustable feet.

All views shown without rear dress panel.



SPECIFICATIONS

DIMENSIONS - SEER-T

LEGEND

A - Electrical Connection

B - Water Inlet (with 6' Hose)
(3/4" Male GHT, connect to true
1/2" ID line, 40-90 °F)

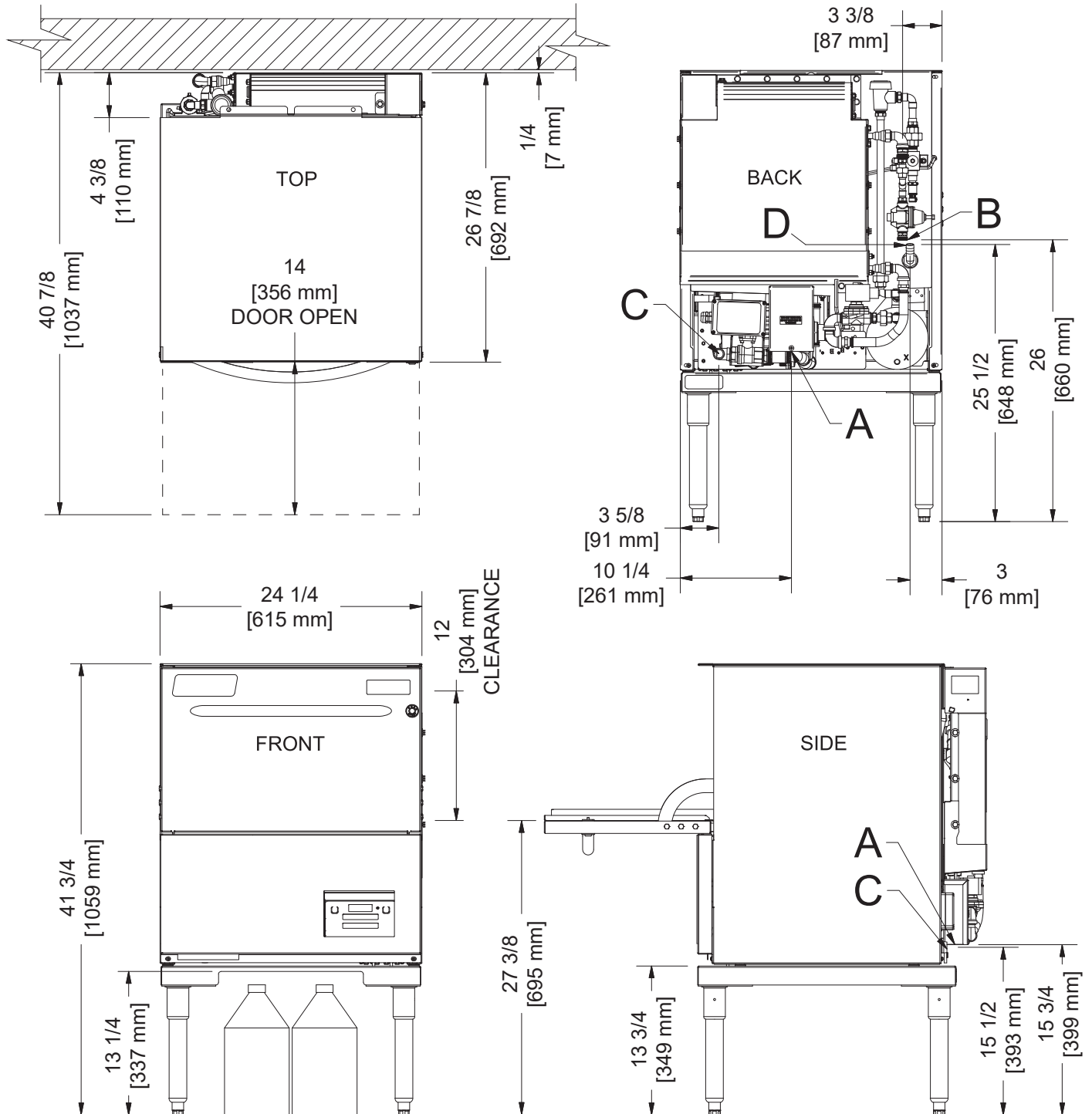
C - Drain Connection
(1" ID, 1 3/8" OD)

(Connect to MIN 1 1/2" Drain with Air-gap)

D - Chemical Port

All dimensions from the floor can be increased 1" using the machine's adjustable feet.

All views shown without rear dress panel.



Delta HT-E-SEER

Operating Capacity:

Racks per Hour	20
Dishes per Hour	500
Glasses per Hour	720

Tank Capacity (Gallons):

Wash Tank	3
Rinse Tank	1.66



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.

Water Temperatures (°F):

Minimum Wash Temperature	155
Minimum Rinse Temperature	180
Incoming Water Temperature Range	40-90

Incoming water is from a "cold" water line.

Other Water Requirements:

Water Flow Pressure (PSI)	10
Flow Rate Minimum (GPM)	4.33
Water Line Size (NPT)	3/4" Male GHT Connect to true 1/2" ID Line
Drain Line Size (NPT)	1" ID 1 3/8" OD Connect to MIN 1 1/2" Drain with Air-gap
Gallons per Hour (GPH)	13
Gallons per Rack (GPR)	0.65

NOTICE



All electrical ratings provided in this manual are for reference only. Always refer to the machine data plate to get exact electrical information for this machine. All electrical work performed on machines should be done in accordance with applicable local, state, territorial, and national codes. Work should only be performed by qualified electricians and authorized service agents.

Note that all electrical wiring used must be rated, at a minimum, for 212 °F (100 °C) and that only copper conductors must be used.

Where applicable, heating element amperage draws have been adjusted for the assumed input voltage. The manufacturer assumes incoming voltages will be either 208 or 230 volts. Some heating elements used in the machines are rated for other voltages, such as 240 volts. Always verify the amperage draw of the machine in operation when sizing circuit protection.

Amperage loads for motors and heaters are indicated on the machine data plate.

The electrical configurations are as follows:

Available Electrical Characteristics:

- 208 V, 60 Hz, Single-phase
- 230 V, 60 Hz, Single-phase

Available Wash Motors:

- 1 HP

Available Wash Tank Heaters:

- 3.3 kW (208 V)/4 kW (230 V)

Available Rinse Tank Heaters:

- 4.1 kW (208 V)/5.45 kW (230 V)

**Delta HT-E-SEER
Electrical Characteristics**

VOLTS	208	230
PHASE	1	1
FREQ	60	60
WASH MOTOR AMPS	5.0 A	5.0 A
WASH HEATER AMPS	15.9 A	17.4 A
RINSE HEATER AMPS	19.7 A	21.7 A
TOTAL LOAD	24.7 A*	26.7 A*

*The Delta® HT-E-SEER is designed so the heaters never run simultaneously. Total Load is based on the higher of the two loads.

INSPECTION

Do not throw away packaging if damage is evident!

Before installing the machine, check packaging and machine for damage. Damaged packaging might be an indication of damage to the machine. If there is any type of damage to both packaging and unit, do not throw away the packaging. The machine has been inspected at the factory before shipping and is expected to arrive in new, undamaged condition. However, rough handling by carriers or others might result in damage to the machine while in transit. If this occurs, do not return the machine to the manufacturer. Instead, contact the carrier and ask them to send a representative to the site to inspect the damage and request that an inspection report be completed. Contact the carrier within 48 hours of receiving the machine as well as the dealer that sold you the machine.

UNPACKING

The machine should be unpacked and removed from the pallet before installing. Open the front door and remove all materials from inside. Once unpacked, verify there are no missing parts. If a part is missing, contact the manufacturer immediately.

PLUMBING

The plumber must flush the incoming water line!

All plumbing connections must be made to adhere to local, state, territorial, and national codes. The installing plumber is responsible for ensuring the incoming water lines are flushed of debris before connecting to the machine. Note that chips and materials from cutting processes can become lodged in the solenoid valves and prevent them from opening or closing. Any valves that are found to be fouled or defective because of foreign matter left in the water line, and any subsequent damage, are not the responsibility of the manufacturer.

See the Dimensions page and reference item "B" for water inlet connection location.

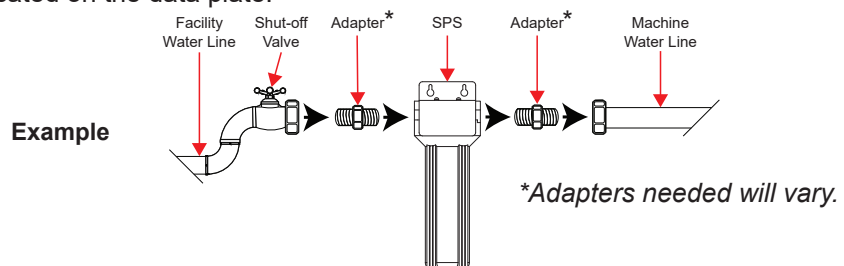
NOTICE

The manufacturer does NOT endorse "Tankless On-demand" water heaters for use with their dishmachines. The manufacturer DOES endorse, and highly recommends, the standard "Tank" style water heaters, sized to properly handle the water heating requirements of the facility.

WATER SUPPLY CONNECTIONS: WATER HARDNESS HIGHER THAN 3 GPG

A water hardness test must be performed.

A hardness test kit can be found on the warning tag attached to the incoming plumbing connection on the back of the machine. If water hardness is higher than 3 GPG and a water softener is not being used, install the optional Scale Prevention System (SPS) into the water line between the facility water line and the machine water line (installed at the factory). See the Scale Prevention System page for more information on the SPS. Observe proper inlet/outlet water directions. A water shut-off valve should be installed before installing the SPS to allow access for service. The water supply must be capable of a minimum of 10 PSI "flow" pressure at the recommended temperature indicated on the data plate.



WATER SUPPLY CONNECTIONS: WATER HARDNESS LOWER THAN 3 GPG

If water hardness tests at 3 GPG or lower, connect the machine water line (installed at the factory) to the facility water line. A water shut-off valve should be installed in the water line between the facility supply and the machine to allow access for service. The water supply line must be capable of a minimum of 10 PSI “flow” pressure at the recommended temperature indicated on the data plate.

PRESSURE REGULATOR

The Delta HT-E-SEER has a pressure regulating valve (PRV) installed at the factory to accommodate areas where water pressure fluctuates or is higher than the recommended pressure. This machine operates at 10 PSI flow pressure. Take care not to confuse static pressure with flow pressure: static pressure is line pressure in a “no flow” condition (all valves and services are closed); flow pressure is the pressure in the fill line when the valve is opened during the cycle.

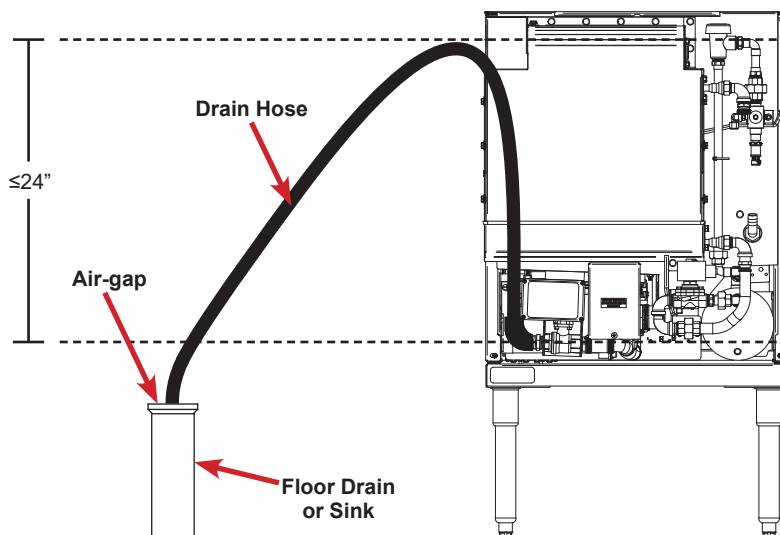
Take care not to confuse static pressure with flow pressure!

SHOCK ABSORBER

A shock absorber comes standard on the Delta HT-E-SEER. This prevents water hammer or hydraulic shock—induced by the solenoid valve as it operates—from causing damage to the equipment.

CONNECTING THE DRAIN LINE

The machine has a pumped (pressure) drain capable of pumping waste water to a height of 24” above the machine's drain pump and is supplied with a drain hose. There must be an air-gap between/around the machine drain hose and the floor drain or sink. The floor drain or sink must be at least 1.5 times larger than the machine drain hose. If a grease trap is required by code, it should have a flow capacity of 12 GPM.



PLUMBING CHECK

After installing the incoming fill line and drain hose, turn on the water supply to the machine. Check for any leaks and repair as required. All leaks must be repaired before operating the machine.

ELECTRICAL POWER CONNECTIONS

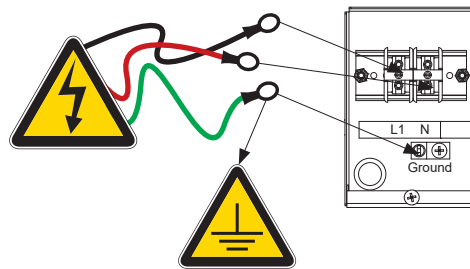


Disconnect electrical power at the breaker or disconnect switch and tag-out in accordance with procedures and codes.

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 left-front of the dishmachine. Refer to the data plate for machine operating requirements, machine voltage, total amperage, and serial number.

Remove the rear dress panel and set aside. Remove the terminal block box cover. Install 3/4" conduit into the hole in the bottom of the terminal block box. Route power wires and connect to terminal block. Install the grounding wire onto the lug provided. "DE-OX" or another similar anti-oxidation agent should be used on all power connections.



VOLTAGE CHECK



Apply power to machine. 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 the machine if voltage is too high or too low. Advise all proper personnel of the location of the breaker and any problems. Replace the terminal block box cover and tighten-down the screws.

SURROUNDING AREA



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

CAUTION! *Damage to materials 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.

LEVELING

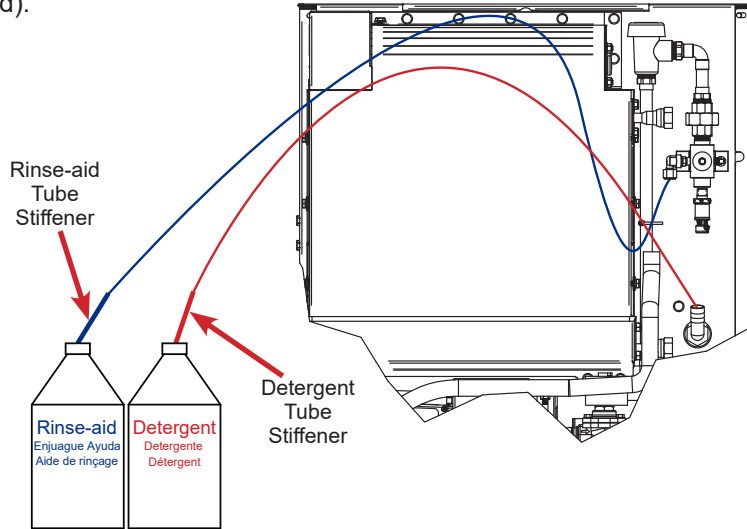
A level machine is important to prevent any damage to the machine during operation and to ensure the best possible results. The machine comes equipped with adjustable bullet feet which can be turned using a pair of pliers. Since this machine is a glasswasher unit, it should be leveled as close as possible to the unit's location before it is pushed under the counter or into place.

CHEMICAL CONNECTIONS



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

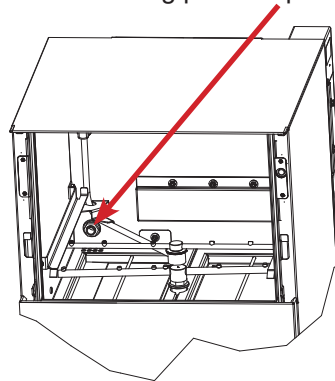
This machine is supplied with detergent and rinse-aid pumps and all necessary tubing. To connect, simply locate the chemical tubes and place the ends (with tube stiffeners) in the appropriate chemical containers (red for detergent and blue for rinse-aid).



Ensure the detergent tube isn't extending past the port and into the wash chamber.



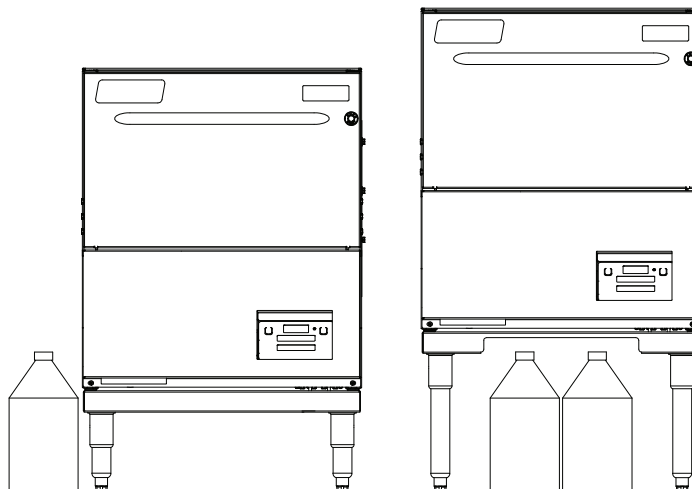
CAUTION! Detergent tube must not extend past port into the wash chamber.



Chemical containers can be stored under the machine for the Delta HT-E-SEER-T and nearby for the Delta HT-E-SEER-S. The bottoms of chemical containers cannot be located any higher than 14" from the floor.

Delta HT-E-SEER-S

Delta HT-E-SEER-T



PRIMING CHEMICAL FEEDER PUMPS

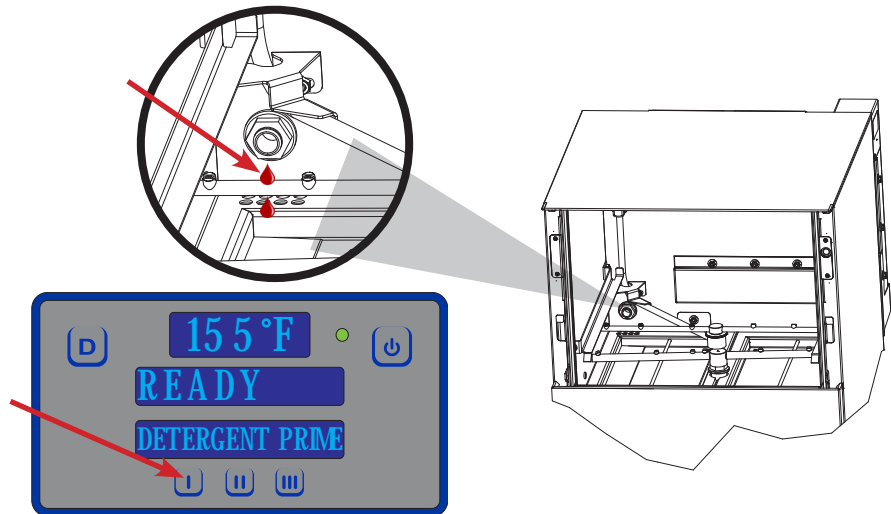


WARNING! Some of the chemicals used in dishwashing may cause chemical burns if they come in contact with skin. Wear protective gear when handling these chemicals. If any skin comes in contact with these chemicals, immediately follow the instructions provided with the chemicals for treatment.

Chemical feeder pumps need priming when the machine is first installed or if the chemical lines have been removed and air was allowed to enter.

CAUTION! Water must be in the sump and wash tank before dispensing chemicals.

1. Verify that the proper chemical tube stiffener inlet is in the proper container.
2. To prime the detergent pump, press the I button until the chemical is seen entering the wash tank. The amount of detergent might need to be adjusted depending on water quality and type of detergent.



3. To prime the rinse-aid pump, press the II button and hold for one minute. The amount of rinse-aid might need to be adjusted depending on water hardness and results.



4. Please refer to the next page for instructions on adjusting the amount of chemicals being dispensed.

PROGRAMMING CHEMICAL FEEDER PUMPS

To access the programming mode, the machine must be ON and "READY" (between cycles).

On the timer board, press and hold both the MOVE and ENTER buttons simultaneously for two seconds.

The PROGRAM (PGM) light and light A will illuminate.

NOTICE Once in the programming mode, the MOVE button is used to scroll between the programming categories and the ENTER button is used to select the category.

Press the MOVE button to move the solid light to the desired location. Please note that options A, B, C, D, E and F are not adjustable outputs.

Press the ENTER button for the chosen category. Now, the (PGM) light will illuminate along with lights corresponding to the time values for the chosen category. The ACCEPT light will blink.

PGM	Delta HT-E-SEER
G	Detergent
H	Rinse-Aid

The PROGRAM light will illuminate.

To change the value of a parameter, use the MOVE button to illuminate the light next to the time option (time is measured in seconds). In the time categories, each second in use will light up. To deselect the option, press ENTER and the light will go off, press ENTER again and it will illuminate. Once you have set your time category, press the MOVE button until the ACCEPT light illuminates and press ENTER. This will save the changed parameters and exit the programming mode.

Timer Programming Board

PGM	<input type="checkbox"/>	TIME IN SECONDS
A	<input type="checkbox"/>	8
B	<input type="checkbox"/>	4
C	<input type="checkbox"/>	2
D	<input type="checkbox"/>	1
E	<input type="checkbox"/>	0.8
F	<input type="checkbox"/>	0.4
G	<input type="checkbox"/>	0.2
H	<input type="checkbox"/>	0.1
ACCEPT	<input type="checkbox"/>	
	MOVE <input type="checkbox"/>	
	ENTER <input type="checkbox"/>	

To change any other values, you will have to return to the programming mode. To revert back to a previous setting, you must return to that option and change the parameter back to the previous setting.

Once in the programming mode, if there have been no keypad inputs for approximately two minutes, the system will automatically exit out of the programming mode. Any changes to parameters will be lost when the programming mode is automatically exited. The wash and drain cycles are not adjustable.

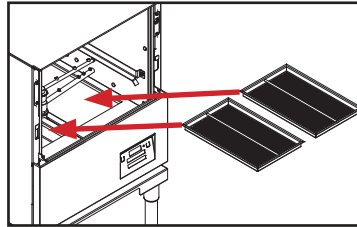
All time adjustments are in seconds. Refer to the table and chart to the left for adjustable outputs.

PREPARATION

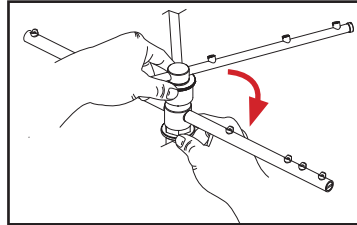


CAUTION! *The Preparation section must be followed before operating machine!*

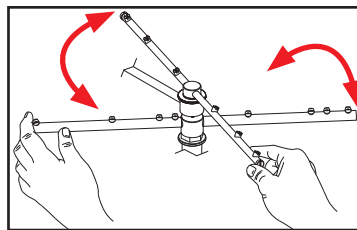
1. Verify strainers are in place and clean.



2. Ensure wash and rinse arms are screwed securely in place and end-caps are tight.



3. Verify wash and rinse arms rotate freely.



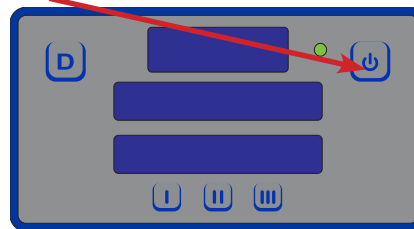
4. Confirm chemical levels are correct.

POWER UP

To energize the machine, turn on the power at the service breaker. The voltage should have been previously verified as correct. If not, the voltage must be verified before energizing the machine.

FILLING THE WASH TUB

1. Press the Power button.



2. The machine will automatically begin the fill cycle.
3. Once the wash tub is filled, the machine displays "HEATING."
4. Wait for wash temperature to display at least 155 °F and for the status to display "READY" before operating the machine.



WARE PREPARATION

Proper ware preparation helps ensure good results and fewer re-washes. If not done properly, ware might not come out clean and the efficiency of the dishmachine will be reduced. 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.

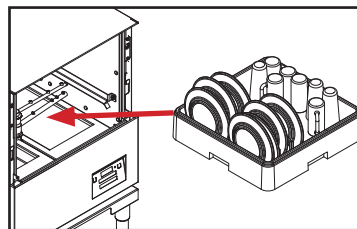
Place cups and glasses upside-down in racks so they don't hold water during the cycle. The machine sanitizes as well as cleans. To do this, ware must be properly prepared before being placed in the machine.

WASHING A RACK OF WARE

1. Follow the Filling the Wash Tub section, ensuring temperature is at least 155 °F and the status displays "READY."

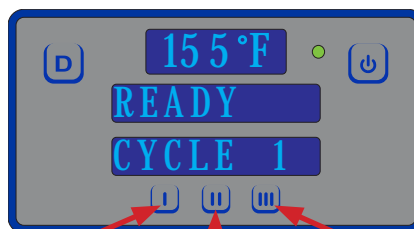


2. Open the door completely.
3. Slide the rack into the machine.



4. Close the door.
5. Choose the cycle (the default is cycle I).

Cycle I is the default cycle.



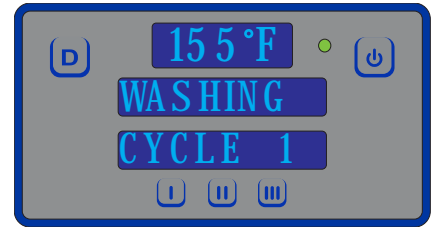
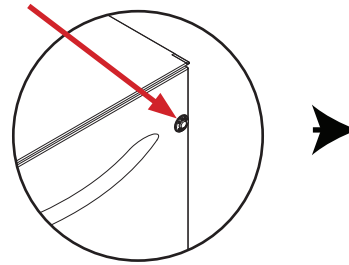
- | | | |
|---|---|--|
| <p>Cycle I
145 Seconds
Normally-soiled Ware</p> | <p>Cycle II
213 Seconds
Heavily-soiled Ware</p> | <p>Cycle III
313 Seconds
Extremely-soiled Ware</p> |
|---|---|--|

NOTICE If Cycle II or Cycle III is chosen, the machine will stay in that cycle until another is chosen.

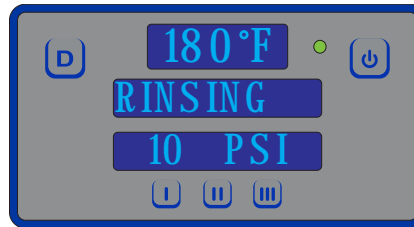
WASHING A RACK OF WARE

Temperature shown is the minimum required temperature.

6. Press the Start button and the machine will begin the wash cycle.



7. After the wash cycle is complete, the machine will automatically enter the rinse cycle.

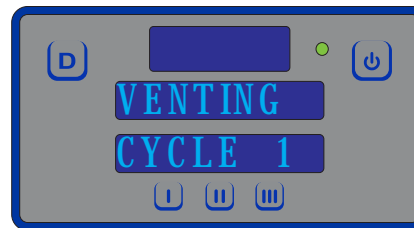


Temperature shown is the minimum required temperature.

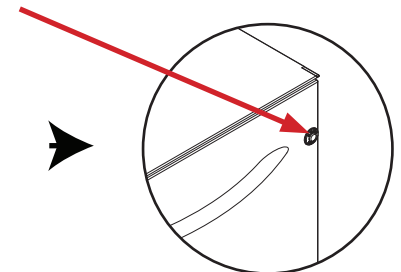
8. Once the rinse cycle is complete, the machine will automatically enter the sanitize cycle.



9. After the sanitize cycle is complete, the machine will automatically enter the venting cycle.



10. After the venting cycle is complete, the machine will automatically go back to being "READY." Open door and remove rack of ware. To start another cycle, load another rack of ware, close door, and push the Start button.



OPERATIONAL INSPECTION

Based on use, the strainers might become clogged with soil and debris as the workday progresses. Operators should regularly inspect the strainers to ensure they have not become clogged. Clogged strainers will reduce the washing capability of the machine. Instruct operators to clean out the strainers at regular intervals or as required by workload. Do NOT beat strainers to remove soil and debris!

SHUTDOWN & CLEANING

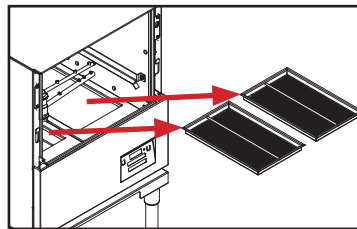
1. Close the door and turn the machine off by pushing the Power button.



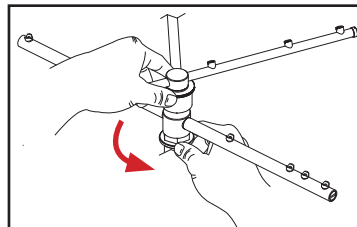
2. The drain valve will activate and empty the machine of water.
3. When draining stops, remove and clean the strainers and set aside.



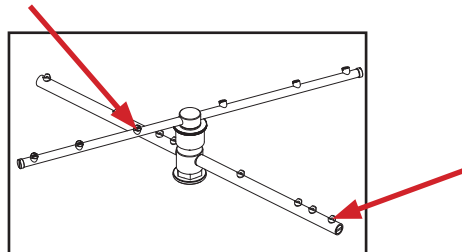
CAUTION! Do NOT beat strainers to remove soil and debris!



4. Unscrew the wash and rinse arms from their manifolds.



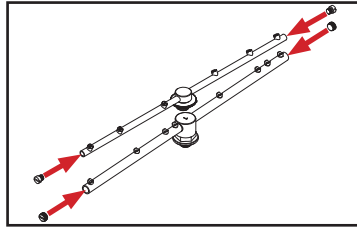
5. Verify the nozzles and arms are free from obstruction. If clogged, remove end-caps, clean nozzles with a brush, and flush with fresh water.



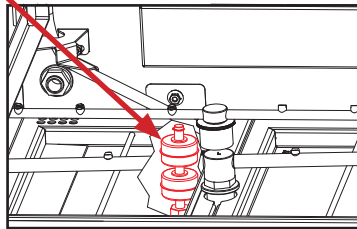
**SHUTDOWN &
CLEANING**

Use a screwdriver to ensure end-caps are tight.

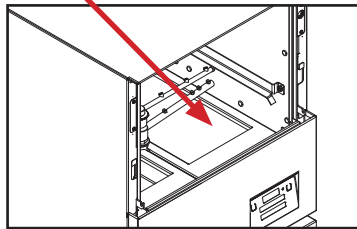
6. Replace end-caps and use a screwdriver to ensure they are tight.



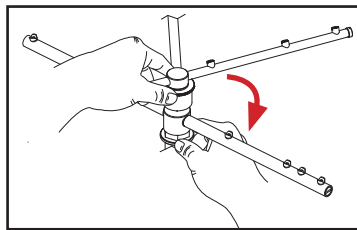
7. Ensure the float (located under left strainer) is free of debris.



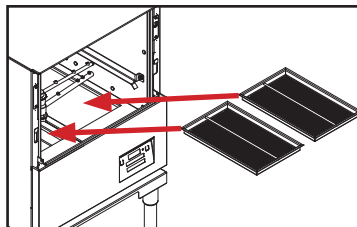
8. Spray or wipe out interior of machine.



9. Replace wash and rinse arms.



10. Replace the strainers and ensure they are laying flat.



11. Use stainless steel polish to clean and protect outside of machine.

DELIMING In order to maintain the machine at its optimum performance level, lime and corrosion deposits must be removed. The frequency for deliming will be based on water conditions. A deliming solution is available from your chemical supplier. Read and follow all instructions on the label.

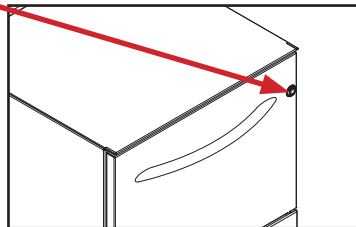
If the machine is equipped with an SPS and lime is becoming a frequent problem, the cartridge needs to be replaced. To order a replacement cartridge, see the Scale Prevention System page.

To delime machine:

1. Remove the rinse arms and place in sink with deliming solution (leave for the amount of time recommended by the chemical supplier).
2. Replace the rinse arms.
3. If machine is full of water, close door, press the Power button, and allow machine to drain and shut-off.
4. Follow the Filling the Wash Tub section of this manual.
5. Open the door and add the amount of deliming solution recommended by the chemical supplier.
6. Close the door and press the Delime button on the display. The status will display "DELIME."



7. Press the Start button.



8. The machine will delime, drain, and refill.
9. Wait five minutes, then inspect the machine. If the machine is not delimed, run again.
10. When clean, press the Delime button. The status will display "READY."
11. Run the machine through two regular cycles to remove residual deliming solution.
12. The machine is now ready for normal operation.

DETERGENT CONTROL

Detergent usage and water hardness are two factors that greatly contribute to the machine's operating efficiency. Using the proper amount of detergent can become a source of substantial savings. A qualified water-treatment specialist can determine what is needed for maximum efficiency from the detergent.

- Hard water greatly affects the performance of the machine, 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.
- Deposited solids from hard water can cause spotting that will not be removed with a drying agent. Treated water will reduce this occurrence.
- Treated water might not be suitable for use in other areas of operation and it might be necessary to install a water treatment system for the water going to the machine only. Discuss this option with a qualified water treatment specialist.
- Properly train operators on how much detergent is to be used per cycle. Meet with a water treatment specialist and chemical supplier to discuss a complete training program for operators.
- Water temperature is an important factor in ensuring the machine functions properly, and 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, it's possible that dishes will not be clean or sanitized.
- Instruct 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.



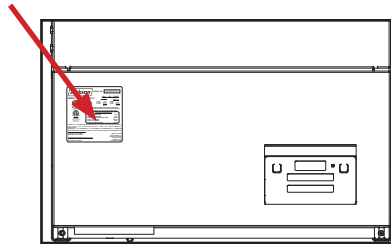
PREVENTATIVE MAINTENANCE

The manufacturer highly recommends that any maintenance and repairs not specifically discussed in this manual only be performed by qualified service personnel. Performing maintenance on the machine may void a warranty.

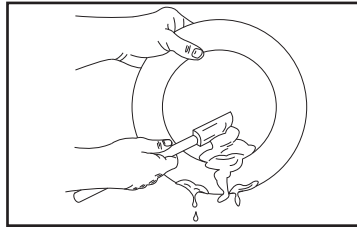
By following the operating and cleaning instructions in this manual, users should get the most efficient results from the machine. As a reminder, here are some steps to ensure that the machine is used properly:



1. Ensure that the water temperatures match those listed on the machine data plate (on the front-left of machine).



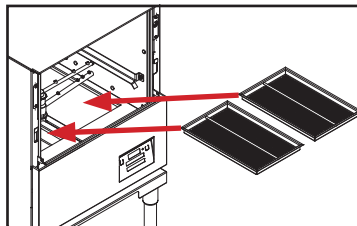
2. Remove as much soil as possible from ware before loading into racks.



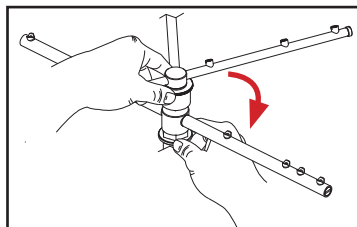
3. Ensure that strainers are in place, laying flat in the tub, and free of soil and debris before operating the machine. To clean strainers, wipe them out with a rag and rinse under a faucet. For stubborn debris, a toothpick can be used. Do not beat strainers on waste cans; once bent, they will not work properly.



CAUTION! Do NOT beat strainers to remove soil and debris!

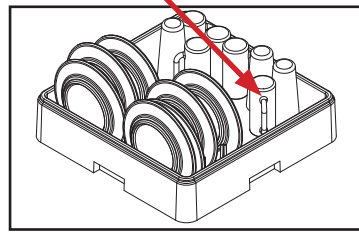


4. Ensure that all wash and rinse arms are secure in the machine before operating.



**PREVENTATIVE
MAINTENANCE**

5. Do not overfill racks.
6. Ensure that glasses are placed upside-down in the rack.



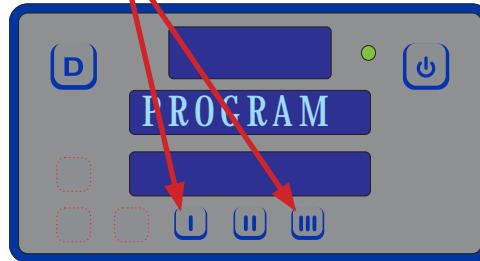
7. Ensure that all chemicals being injected into the machine have been verified at the correct concentrations.
8. Clean the machine at the end of every workday (see Shutdown and Cleaning section).
9. If hard water is present, install an SPS into the water line connecting to the machine (see the Water Supply Connections section).
10. Always contact a qualified service agency whenever a serious problem arises.
11. Follow all safety procedures, whether listed in this manual or put forth by local, state, or national codes/regulations.

MODEL CONFIRMATION

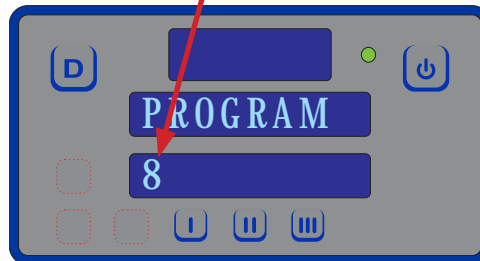
To access programming mode, the machine should be on and not in cycle.

The machine's program number must be correct to ensure the machine works properly. To confirm the program number:

1. Press and hold the I and III Buttons until "Program" flashes (2–3 seconds).



2. Confirm bottom display shows "8." If not, contact a qualified service agency.



3. Press the Delime Button to exit.



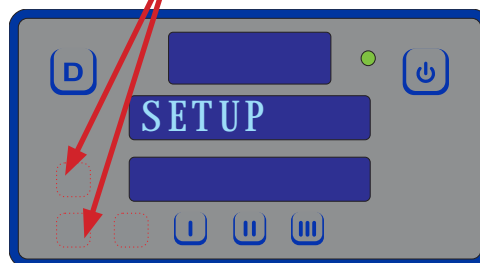
USER SETUP

A transparent guide to locating the programming buttons is included with the machine, behind the control kick panel. Lay the guide over the display and press where indicated.

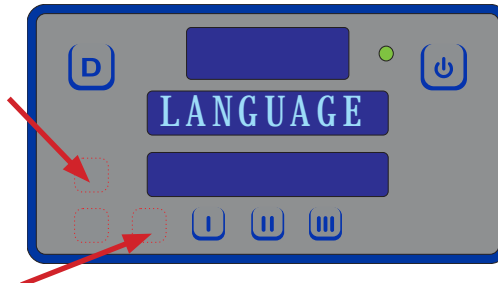
To access programming mode, the machine should be on and not in cycle.

The programming buttons (Up-arrow, Down-arrow, and Select) are hidden on the display and are shown below outlined with red dots.

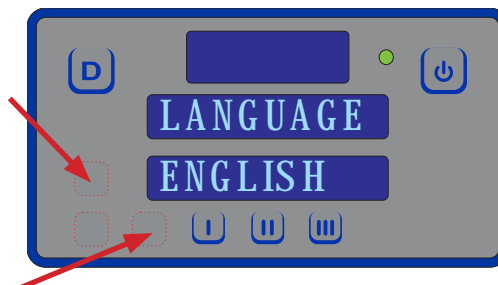
1. Press and hold the Up-arrow and Down-arrow Buttons until "Setup" flashes (2–3 seconds).



2. The display will then change to "Version" and show the firmware versions of the IO module and PCB, Digital Display.
3. Use the Up-arrow Button to cycle through the categories (will be flashing).
 - Language
 - Temperature Scale
 - Wash Temperature
 - Boost Temperature
 - Wash Offset
 - Rinse Offset
 - Boost Offset
 - Spare Offset



4. Press the Select Button to choose the category you want to change.
 - Regardless of the category, Steps 5–7 remain the same.
5. Use the Up-arrow Button to change the options (will be flashing). Numerical options are shown in the top window.



6. Press the Select Button to accept the changes.
7. Press the Delime Button to exit.

DISPLAY SHOWS	POSSIBLE CAUSES	REMEDY
"F1 Service needed," "No water in Booster"	<ol style="list-style-type: none"> 1. Low or no water pressure. 2. Faulty inlet valve or fill relay. 3. Contactor to booster heater not turning off. 4. Faulty temperature input (P12) on IO module. 5. Faulty temperature probe (T3). 6. Faulty float switch allows heaters to operate with no water in tub. 	<ol style="list-style-type: none"> 1. Verify incoming water pressure is 10 ± 2 PSI. 2. Verify that fill relay is supplying voltage to fill solenoid. Replace faulty component. 3. Check for welded contacts. Verify that output from IO module turns off when above the set temperature. 4. Substitute a 1.2 kΩ resistor for T3, and verify that booster heater turns off. If not, replace IO module. 5. Verify that the booster-probe resistance is correct with respect to temperature (see table on pg. 24). If not, replace T3. 6. Replace float switch.
"F2 Service needed," "Check booster thermostat"	<ol style="list-style-type: none"> 1. Contactor to booster heater not turning off. 2. Faulty temperature input (P12) on IO module. 3. Faulty temperature probe (T3). 	<ol style="list-style-type: none"> 1. Check for welded contacts. Verify that output from IO module turns off when above the set temperature. 2. Substitute a 1.2 kΩ resistor for T3, and verify that booster heater turns off. If not, replace IO module. 3. Verify that the booster probe resistance is correct with respect to temperature (see table on pg. 24). If not, replace T3.
"F3 No water in wash tank," "Check inlet water and door"	<ol style="list-style-type: none"> 1. Malfunction of fill solenoid or fill relay. 2. Door is open, which inhibits fill mode. 3. Faulty door switch. 	<ol style="list-style-type: none"> 1. Replace faulty component. 2. Close door to activate door switch. 3. Replace or adjust door switch.
"F4 Service needed," "Check incoming power"	<ol style="list-style-type: none"> 1. Incoming power not properly connected. 2. L3 is missing (3-phase machines only). 	<ol style="list-style-type: none"> 1. Check connections to heater. 2. Verify that L3 is present and connected properly.
"F5 Service needed," "Check booster thermostat and high limit"	<ol style="list-style-type: none"> 1. Faulty temperature input (P12) on IO module. 2. Faulty temperature probe (T3). 3. Faulty high-limit switch. 4. Faulty booster heater. 5. Booster-heater contactor not energizing. 	<ol style="list-style-type: none"> 1. Substitute a 1.8 kΩ resistor for T3, and verify that booster heater turns on. If not, replace IO module. 2. Verify that T3 resistance is consistent with the table on pg. 24. If not, replace T3. 3. Replace high-limit switch. 4. Check booster heater for proper resistance. Replace if incorrect. 5. Verify that drive voltage to contactor coil is present during a call for heat and that contactor closes. If voltage is present, replace contactor. If voltage is not present, check wiring.

DISPLAY SHOWS	POSSIBLE CAUSES	REMEDY
"F6 Service needed," "No water in wash tank"	<ol style="list-style-type: none"> 1. Low or no water pressure. 2. Faulty inlet valve or fill relay. 3. Contactor to wash heater not turning off. 4. Faulty temperature input (T1) on IO module. 5. Faulty temperature probe (T1). 6. Faulty float switch allows heaters to operate with no water in tub. 	<ol style="list-style-type: none"> 1. Verify incoming water pressure is 10 ± 2 PSI. 2. Verify that fill relay is supplying voltage to fill solenoid. Replace faulty component. 3. Check for welded contacts. Verify that output from IO module turns off when above the set temperature. 4. Substitute a 1.2 kΩ resistor for T1, and verify that wash heater turns off. If not, replace IO module. 5. Verify that T1 resistance is correct with respect to temperature (see table on pg. 24). If not, replace T1. 6. Replace float switch.
"F7 Service needed," "Check wash tank thermostat"	<ol style="list-style-type: none"> 1. Contactor to wash heater not turning off. 2. Faulty temperature input (P10) on IO module. 3. Faulty temperature probe (T1). 	<ol style="list-style-type: none"> 1. Check for welded contacts. Verify that output from IO module turns off when above the set temperature. 2. Substitute a 1.2 kΩ resistor for T1, and verify that wash heater turns off. If not, replace IO module. 3. Verify that T1 resistance is correct with respect to temperature (see table on pg. 24). If not, replace T1.
"F8 No water in wash tank," "Check inlet water and door"	<ol style="list-style-type: none"> 1. Malfunction of fill solenoid or fill relay. 2. Door is open, which inhibits fill mode. 3. Faulty door switch. 	<ol style="list-style-type: none"> 1. Replace faulty solenoid or fill relay. 2. Close door to activate door switch. 3. Replace or adjust door switch.
"F9 Service needed," "Check incoming power"	<ol style="list-style-type: none"> 1. Incoming power not properly connected. 2. L3 is missing (3-phase machines only). 	<ol style="list-style-type: none"> 1. Check connections to heater. 2. Verify that L3 is present and connected properly.
"F10 Service needed," "Check wash tank thermostat and high limit"	<ol style="list-style-type: none"> 1. Faulty temperature input (T1) on I/O module. 2. Faulty temperature probe (T1). 3. Faulty high-limit switch. 4. Faulty wash heater. 5. Wash-heater contactor not energizing. 	<ol style="list-style-type: none"> 1. Substitute a 1.8 kΩ resistor for T1, and verify that wash heater turns on. If not, replace I/O module. 2. Verify that T1 resistance is correct with respect to temperature (see table on pg. 24). If not, replace T1. 3. Replace high-limit switch. 4. Check wash heater for proper resistance. Replace if incorrect. 5. Verify that drive voltage to contactor coil is present during a call for heat and that contactor closes. If voltage present, replace contactor. If voltage not present, check wiring.
F11 Service needed —check wash tank thermostat	Faulty temperature probe (T1).	Replace probe that connects to P10.


DISPLAY SHOWS	POSSIBLE CAUSES	REMEDY
F12 - Not Used	N/A	N/A
F13 Communication error. Check 6-pin cable	<ol style="list-style-type: none"> Loose connection in 6-pin cable between display board and I/O module. Faulty 6-pin cable between display board and I/O module. Faulty communication port on I/O module or display board. 	<ol style="list-style-type: none"> Fully disconnect 6-pin cable at each end, and reconnect each end until a click is heard. Inspect for broken wire or unseated terminal by gently pulling on each wire at each end of the cable. Reseat any loose terminals by inserting it fully into the housing using long-nosed pliers. Replace cable if broken wire is found. Temporarily substitute a verified good display board, and check if F13 message recurs. If so, repeat substitution with a good I/O module.

RESISTANCE-TO-TEMPERATURE VALUES

R (k Ω)	°F
11.58	69.8
10.37	75.2
9.30	80.6
7.78	89.6
3.05	140.0
2.54	150.8
2.18	159.8
1.58	179.6
1.45	185.0
1.33	190.4
1.16	199.4
0.96	212.0




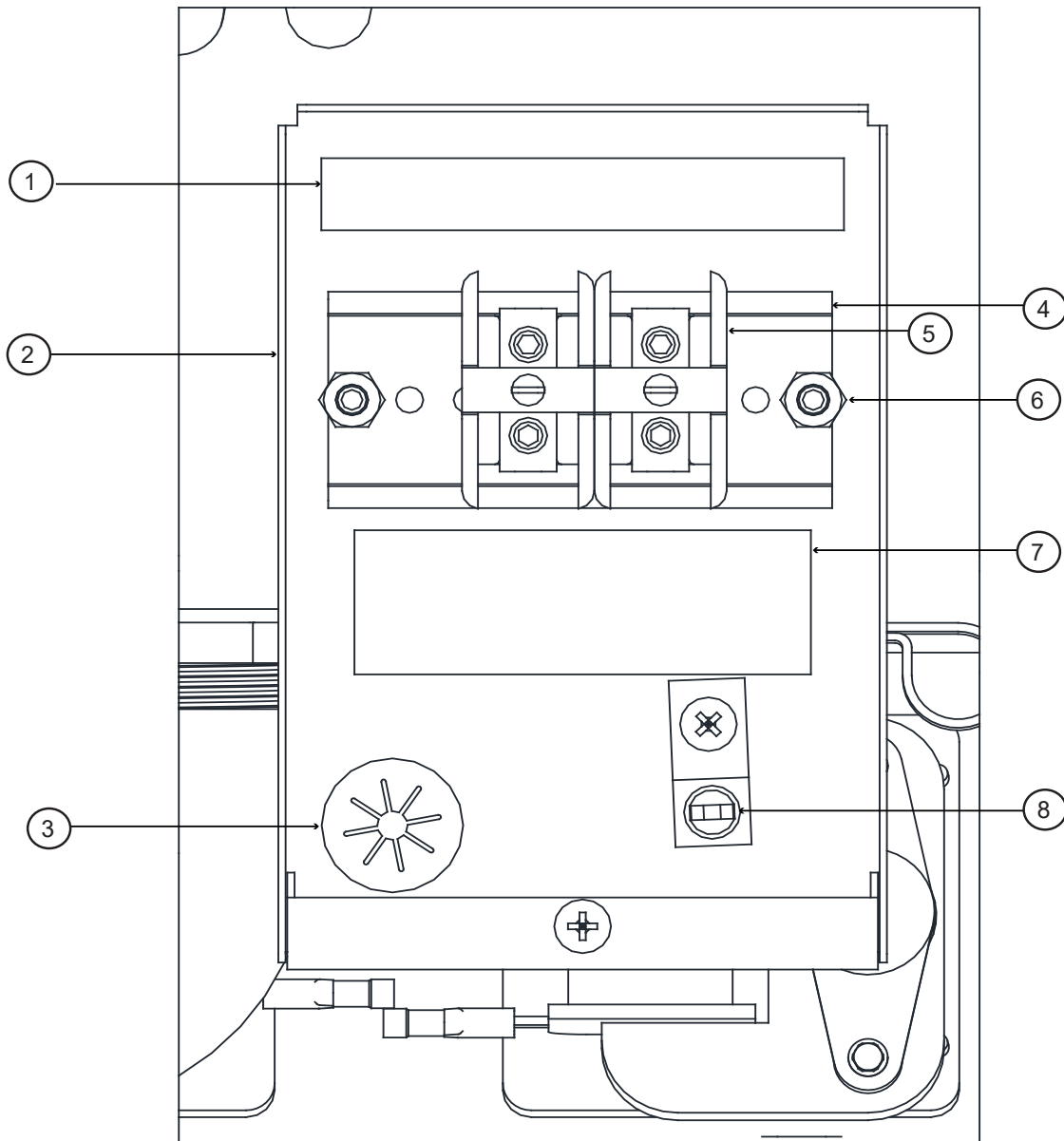
WARNING! Inspection, testing, and repair of electrical equipment should only be performed by qualified service personnel. Certain procedures in this section require electrical tests or measurements while power is applied to the machine. Exercise extreme caution at all times. If test points are not easily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

OBSERVATION	POSSIBLE CAUSE	REMEDY
Water overflow from bottom of door. 	<ol style="list-style-type: none"> 1. Clogged drain. 2. Machine not level. 3. Excessive inlet pressure. 4. Detergent foaming. 5. Wash or rinse arm end-cap missing. 	<ol style="list-style-type: none"> 1. Remove obstruction. 2. Level machine or increase height to the front. 3. Install pressure regulating valve or adjust if one is present. Ensure flow meets data plate specification. 4. Reduce detergent quantity. 5. Replace end-cap.
Wash motor doesn't operate on wash.	<ol style="list-style-type: none"> 1. Loose or broken wires. 2. Defective Start button. 3. Defective motor contactor. 	<ol style="list-style-type: none"> 1. Reconnect or replace wires in motor. 2. Adjust button or replace. 3. Replace.
Little or no water coming through the rinse assemblies.	<ol style="list-style-type: none"> 1. Limed-up rinse heads or piping. 2. Low water pressure. 	<ol style="list-style-type: none"> 1. Delime rinse heads. 2. Increase pipe size to machine. Adjust pressure regulating valve.
Rinse water runs continuously with breaker turned off.	<ol style="list-style-type: none"> 1. Defective plunger in solenoid valve. 2. Defective diaphragm in solenoid valve. 	<ol style="list-style-type: none"> 1. Replace plunger. 2. Replace diaphragm.

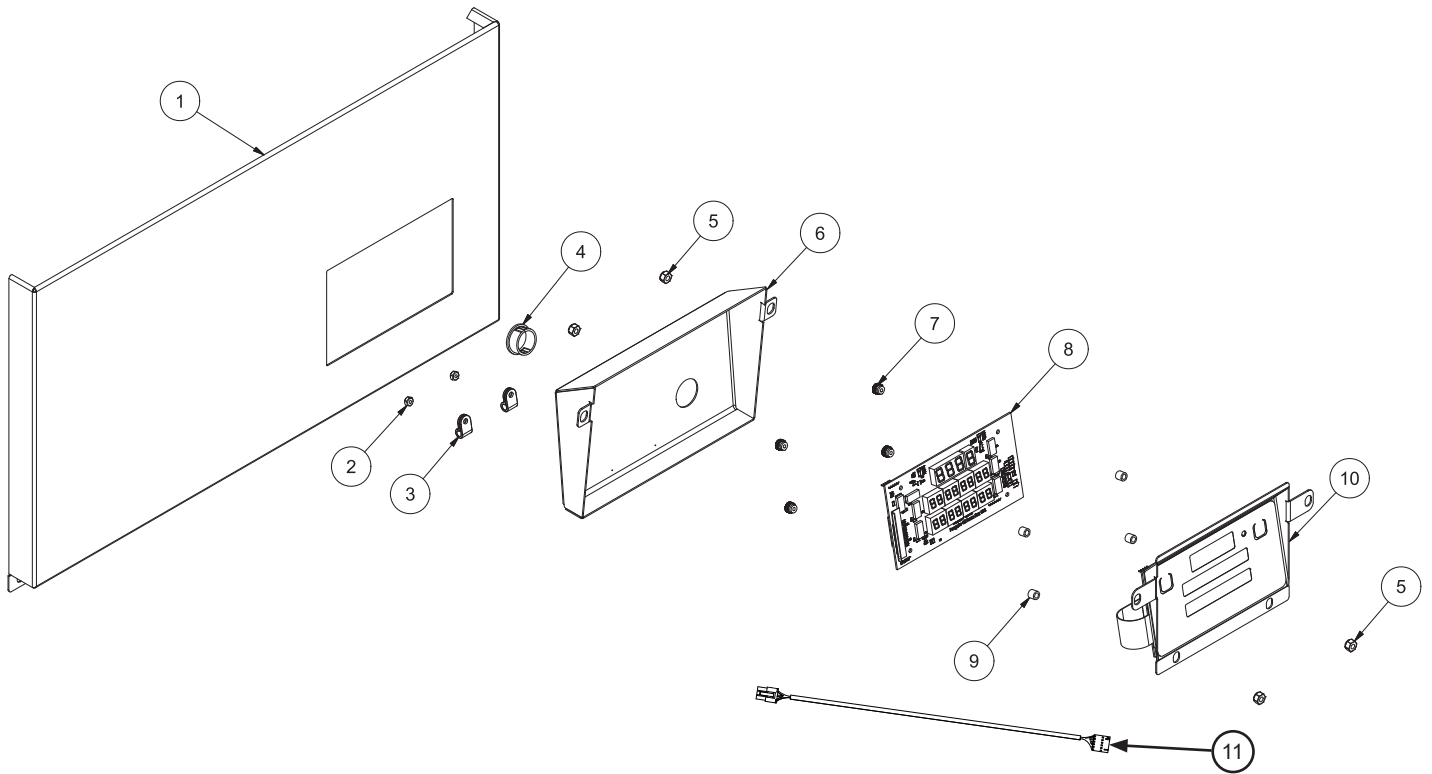


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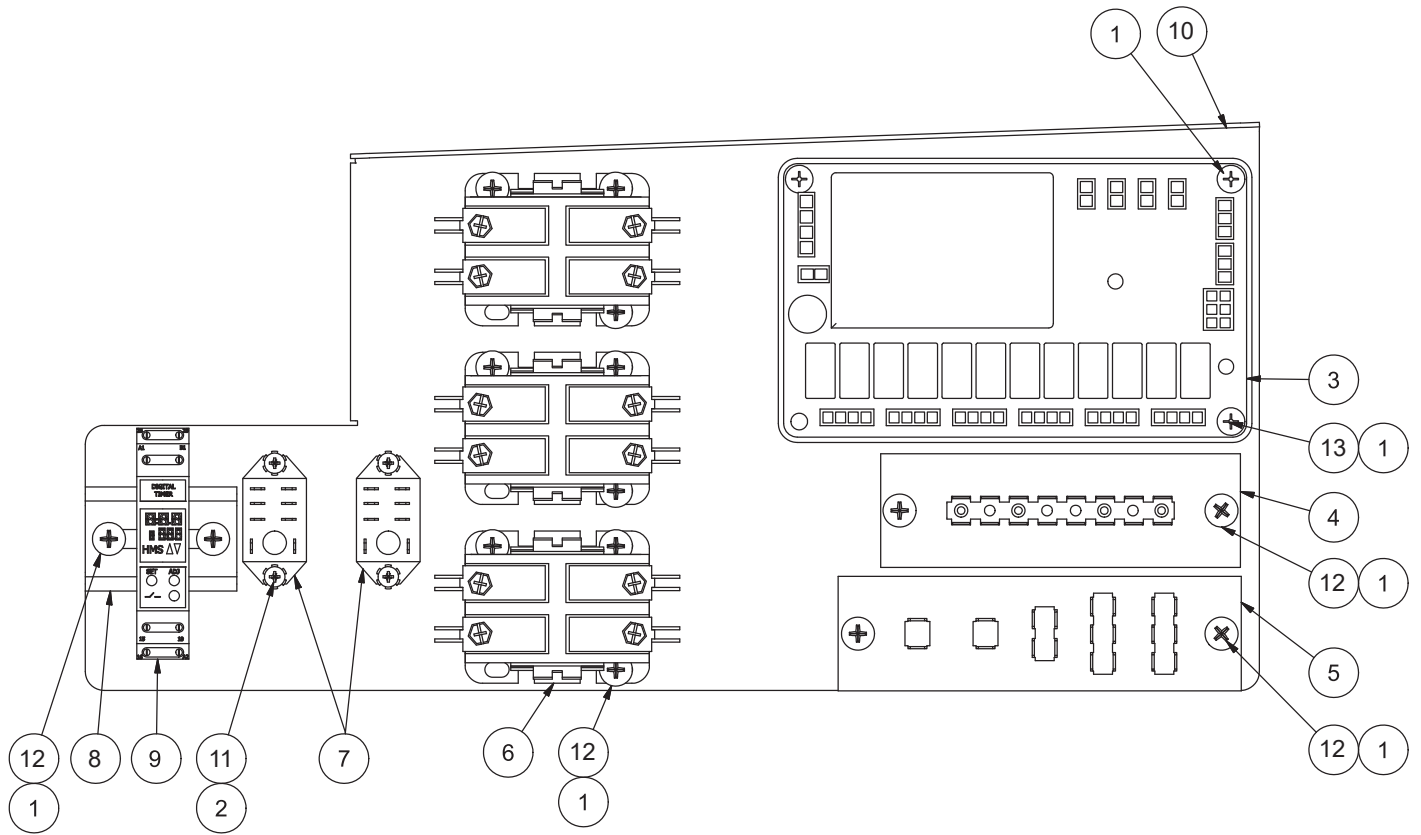
OBSERVATION	POSSIBLE CAUSE	REMEDY
Wash temperature not within range.	<ol style="list-style-type: none"> 1. Water level low. 2. RTD setpoint too low. 3. Defective RTD. 4. Wash heater defective. 5. Defective heater contactor. 	<ol style="list-style-type: none"> 1. Check water level. If low, run new fill cycle. 2. Adjust setpoint. 3. Replace RTD. 4. Replace heater element. 5. Replace contactor.
Rinse temperature not within range. 	<ol style="list-style-type: none"> 1. RTD is defective. 2. Incoming rinse water does not meet minimum temperature on machine data plate. 3. Rinse heater damaged. 4. Setpoint screens set low. 5. Defective heater contactor. 	<ol style="list-style-type: none"> 1. Replace if necessary. 2. Adjust as required. 3. Check amperage. Replace if necessary. 4. Adjust rinse tank setpoint. 5. Replace contactor.
Machine doesn't drain when power button is pressed.	<ol style="list-style-type: none"> 1. Drain clogged. 2. Defective drain valve. 3. Defective wash pump. 4. Defective motor contactor. 5. Defective timer. 	<ol style="list-style-type: none"> 1. Remove obstruction. 2. Replace drain valve. 3. Replace wash pump. 4. Replace contactor. 5. Replace timer.
Incorrect water pressure displayed during Fill or Rinse.	<ol style="list-style-type: none"> 1. Water turned off. 2. Transducer disconnected. 3. Pressure transducer defective. 	<ol style="list-style-type: none"> 1. Turn water on. 2. Verify wiring. 3. Replace pressure transducer.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Power Connection Decal	09905-011-47-35
2	1	Terminal Block Box	05700-004-36-47
	1	Terminal Box Cover (not shown)	05700-003-27-70
3	1	Strain Relief	05975-003-37-56
4	1	Terminal Block Track	05700-000-43-60
5	2	Terminal Block	05940-500-02-19
6	2	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
7	1	Decal, L1, N	09905-011-62-72
8	1	Ground Lug	05940-200-76-00

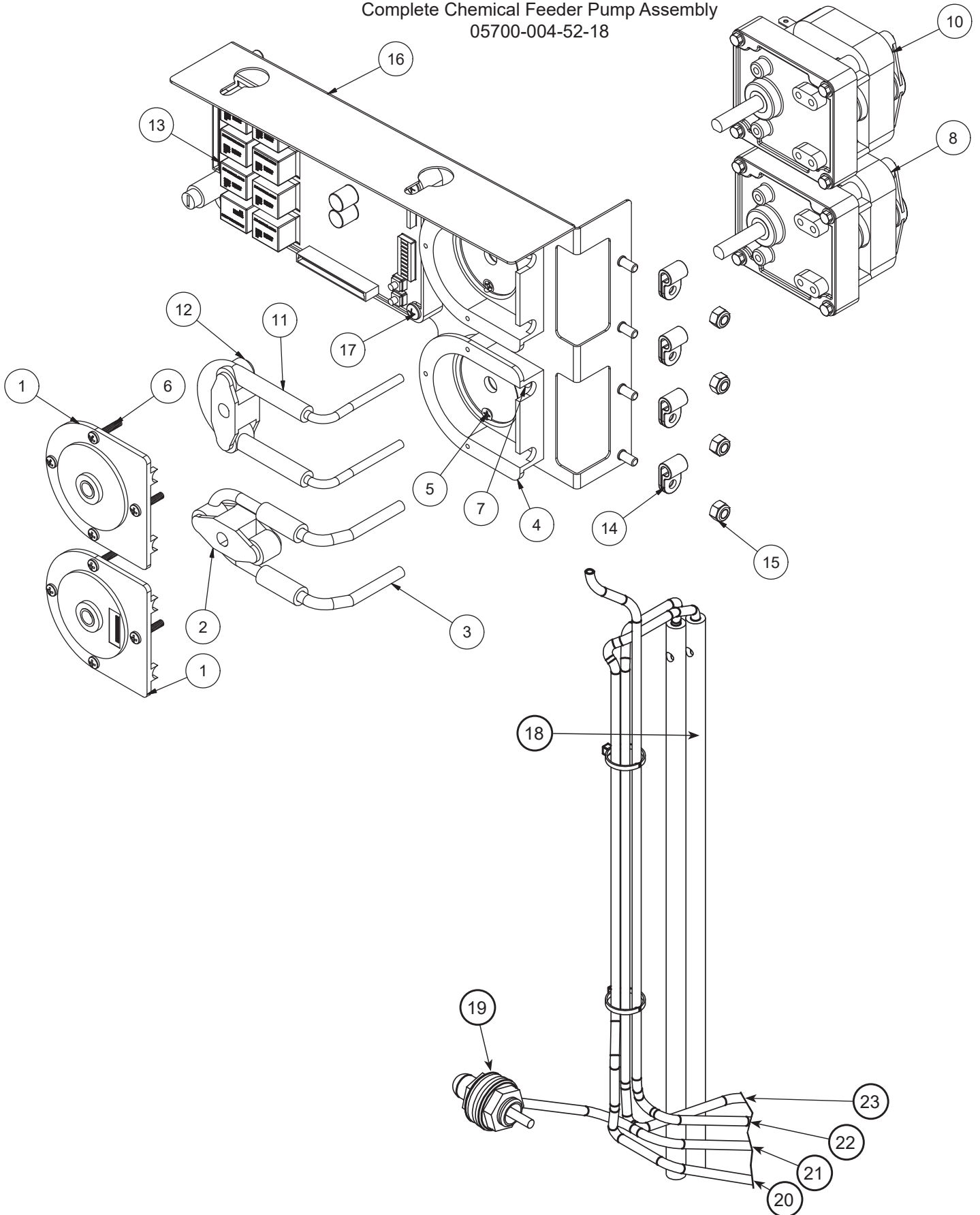


ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete Control Kick Panel Assembly	05700-004-52-41
1	1	Control Kick Panel	05700-004-52-40
2	2	Locknut, 6-32 Hex with Nylon Insert	05310-373-03-00
3	2	P-clamp, 1/4" ID	05975-002-61-42
4	1	Bushing, Snap	05975-210-09-00
5	4	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
6	1	Cover, Display	05700-004-52-43
7	4	Nut, Thumb 6-32 Nylon	05310-002-83-12
8	1	PCB, Digital Display	05945-004-46-18
9	4	Spacer, Unthreaded, 9/32" Nylon	05975-004-47-89
10	1	Panel & Membrane Switch Assembly	05700-004-68-71
11	1	Communication Cable	05700-004-33-64



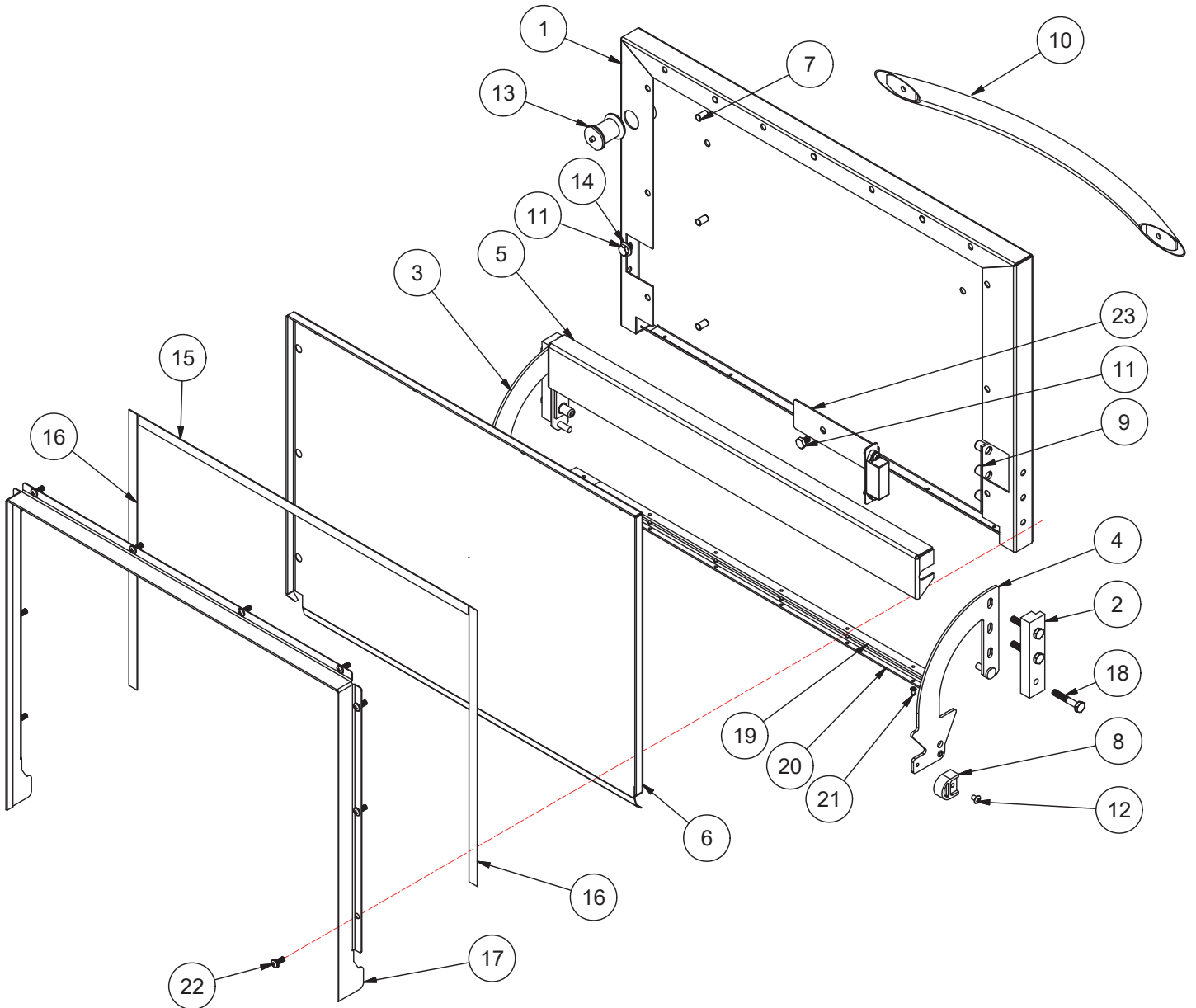
ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete Electrical Panel Assembly	05700-004-52-17
1	18	Fastener	05340-111-58-10
2	4	Nut, Plated	05340-118-04-00
3	1	PCB, Electronic Control	05945-004-26-34
4	1	Terminal Board	05940-004-21-34
5	1	Terminal Board	05940-002-78-97
6	3	Contactors, 30 A 240 V	05945-002-74-20
7	2	Relay	05945-111-89-75
8	1	Dinrail, 2"	05700-002-36-09
9	1	Timer, Universal Digital	05945-004-22-78
10	1	Electrical Panel	05700-004-52-15
11	4	Screw, 6-32 x 3/8"	05305-002-25-91
12	15	Screw, 10-32 x 5/8"	05305-003-02-12
13	3	Screw, 10-32 x 1"	05305-002-19-42

Complete Chemical Feeder Pump Assembly
05700-004-52-18



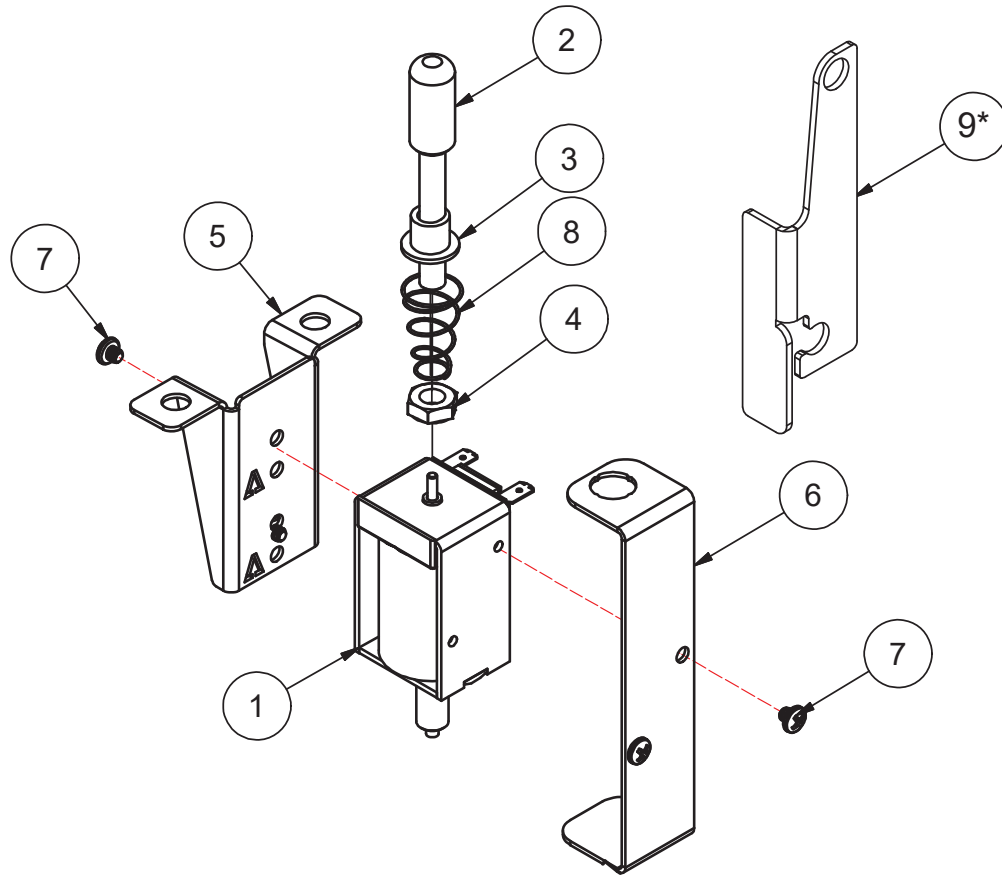
ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete Chemical Feeder Pump Assembly	05700-004-52-18
1	2	Pump Cover	04320-111-37-08
2	1	Roller, Black Plastic	04320-111-65-27
3	1	Tube, 8"	05700-011-65-21
4	2	Pump Housing	04320-111-37-09
5	4	Screw, 8-32 x 3/8"	05305-011-37-07
6	8	Screw, 6-32 x 3/4"	05305-011-37-05
7	4	Screw, 8-32 x 1/2"	05305-011-37-06
8	1	Complete Peri-pump Assembly, 14 RPM Motor Only, Peri-pump, 14 RPM	05700-002-72-48 04320-111-47-46
9	3	Fastener, 10-32	05340-111-58-10
10	1	Complete Peri-pump Assembly, 36 RPM Motor Only, Peri-pump, 36 RPM	05700-003-78-74 04320-111-47-47
11	1	Tube, 8"	05700-003-22-89
12	1	Roller, White Plastic	04320-002-82-28
13	1	Timer, Universal	05945-003-75-23
14	4	P-clamp, 1/4" ID	05975-002-61-42
15	4	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
16	1	Panel, Outer Control	05700-004-52-16
17	3	Screw, 10-32 x 1"	05305-002-19-42
18	2	Stiffener, Chemical Tube	05700-002-66-49
19	1	Chemical Port Assembly	05700-004-30-86
20	1	Tubing, Red, 1/4" x 120"	05700-011-37-15
21	1	Tubing, Red, 1/4" x 80"	05700-011-37-14
22	1	Tubing, Clear, 1/8" x 120"	05700-002-76-14
23	1	Tubing, Clear, 1/8" x 48"	05700-002-76-15

Complete Door Assembly
05700-004-54-05



ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete Door Assembly	05700-004-54-05
1	1	Outer Door Weldment	05700-004-54-06
2	2	Hinge Spacer	05700-003-33-42
3	1	Hinge, Right	05700-003-32-72
4	1	Hinge, Left	05700-003-32-71
5	1	Baffle, Door	05700-003-33-38
6	1	Inner Door	05700-004-54-08
7	10	Fastener, 10-32	05340-111-58-10
8	2	Stop, Door Hinge	05700-003-32-55
9	2	Retaining Plate	05700-011-44-37
10	1	Door Handle	05700-003-26-62
11	2	Bolt, 1/4-20 x 3/8" Hex	05305-274-20-00
12	2	Screw, 10-32 x 1/4"	05305-173-01-00
13	1	Switch Assembly	05700-003-34-80
14	1	Washer, 1/4-20 ID	05311-174-01-00
15	1	Gasket, Door 20"	05330-003-58-35
16	2	Gasket, Door 14 1/2"	05700-004-54-09
17	1	Channel, Door Seal	05700-004-54-11
18	6	Screw, 1/4-20 x 1 1/2" Hex Head	05305-274-23-00
19	1	Gasket, Door L	05330-004-36-05
20	1	Gasket Clamp	05700-004-36-56
21	6	Pop Rivet, 1/8" x 3/8"	05320-003-06-98
22	10	Screw, 10-32 x 1/2" with Washer	05305-002-32-37
23	1	Bracket, Door Magnet	05700-004-52-73

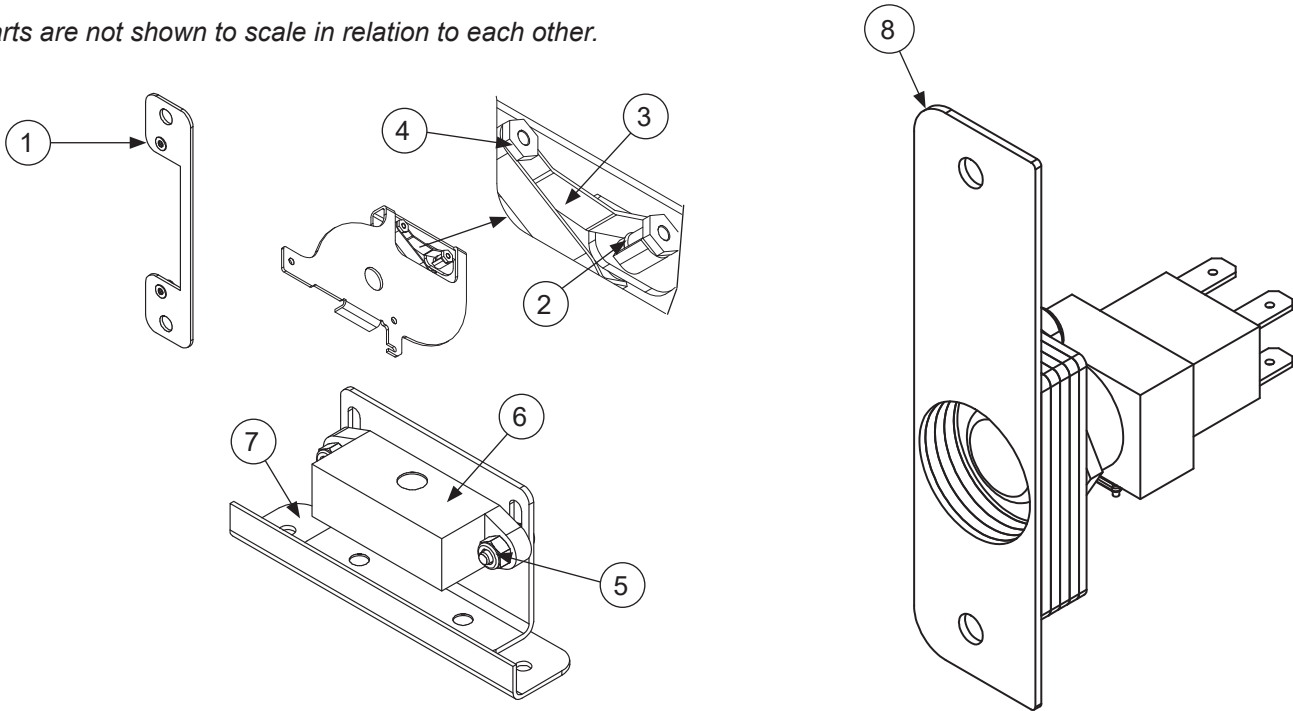
Complete Door Interlock Assembly
05700-004-47-47



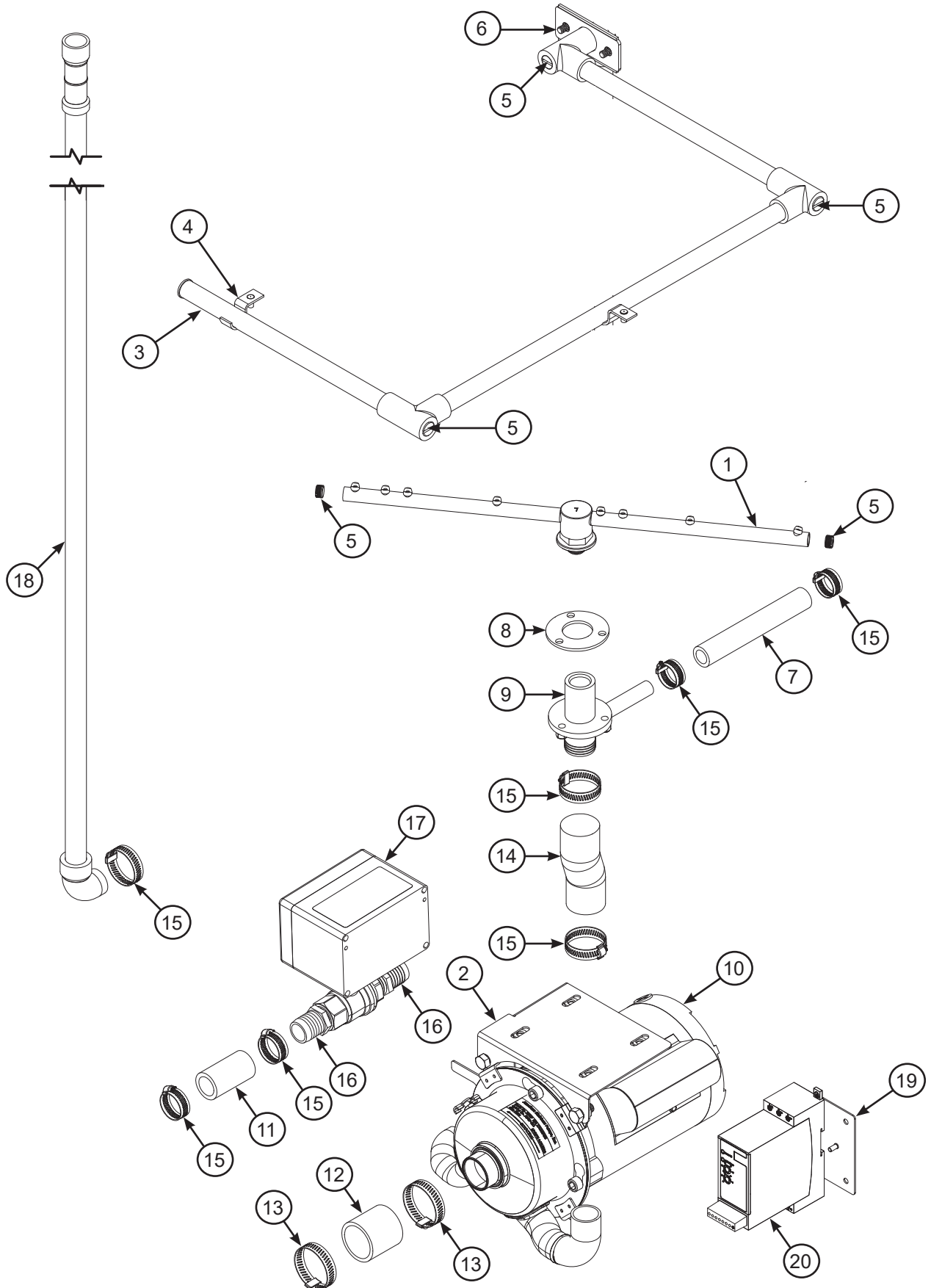
ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete Door Interlock Assembly	05999-004-47-47
1	1	Solenoid, Door Interlock	05999-004-47-49
2	1	Solenoid Stop	05700-004-47-51
3	1	Bearing, Dry Running Sleeve, 1/4" ID	03120-004-47-52
4	1	Locknut, 1/4-20 Low Profile with Nylon Insert	05310-374-02-00
5	1	Bracket, Solenoid	05700-004-50-99
6	1	Bracket, Solenoid Guide	05700-004-51-00
7	4	Screw, 6-32 x 1/8", Pan Head Phillips	05305-004-51-01
8	1	Spring, Conical Compression	05340-004-47-53
9*	1	Guide Plate, Door Interlock	05700-004-47-40

**Item not included in complete door interlock assembly and must be ordered separately.*

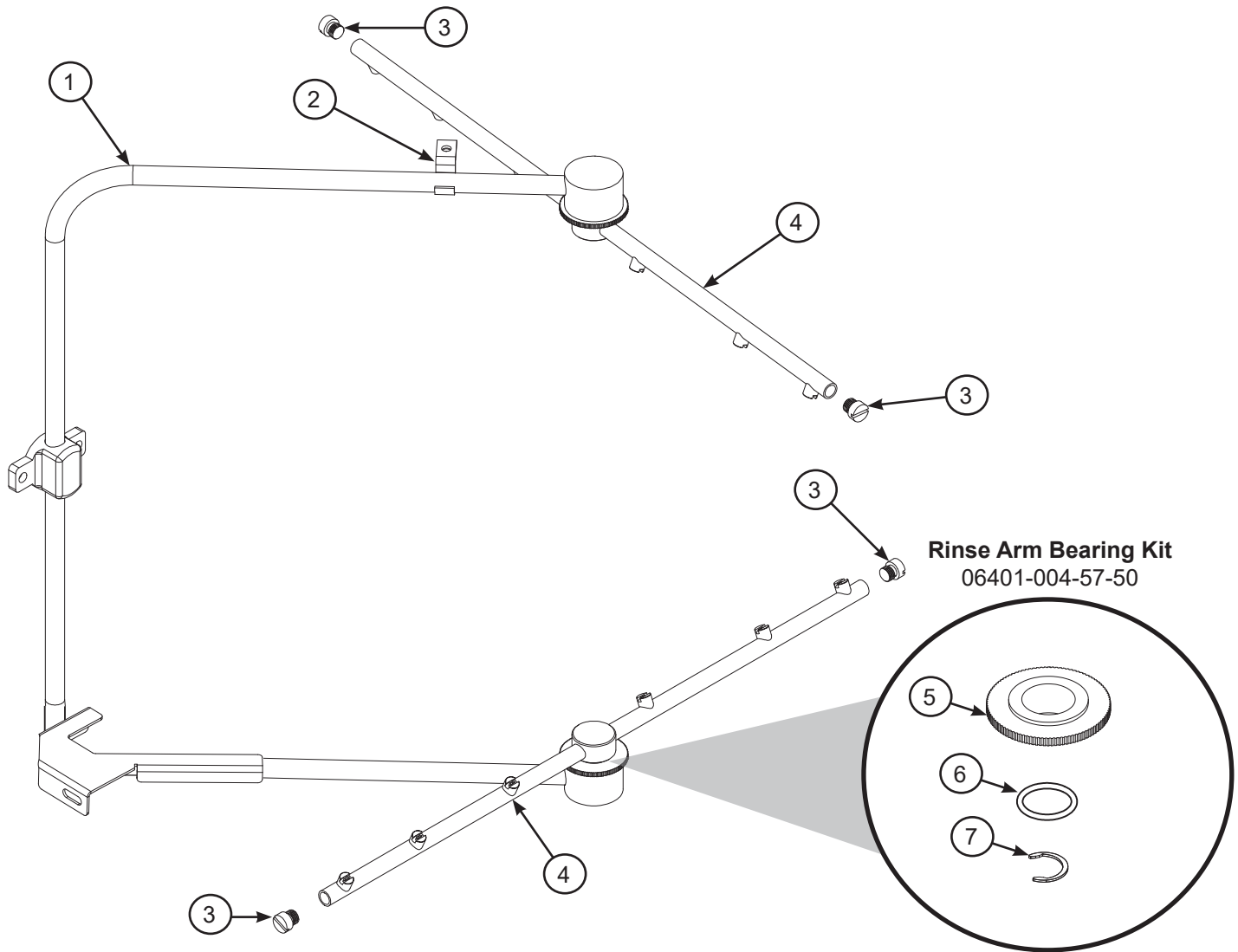
Parts are not shown to scale in relation to each other.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Switch Mounting Plate Assembly	05700-003-33-54
2	2	O-ring	05330-003-32-34
3	1	Latch Spring	05340-004-67-82
4	2	Latch Nut	05700-003-32-33
5	2	Locknut, 6-32 Hex with Nylon Insert	05310-373-03-00
	2	Screw, 6-32 x 1/4"	05305-171-01-00
6	1	Door Switch	05930-003-31-44
7	1	Door Switch Bracket	05700-003-31-43
	1	Door Switch & Bracket Assembly	05700-003-32-21
8	1	Switch Mount Assembly	06401-004-47-76

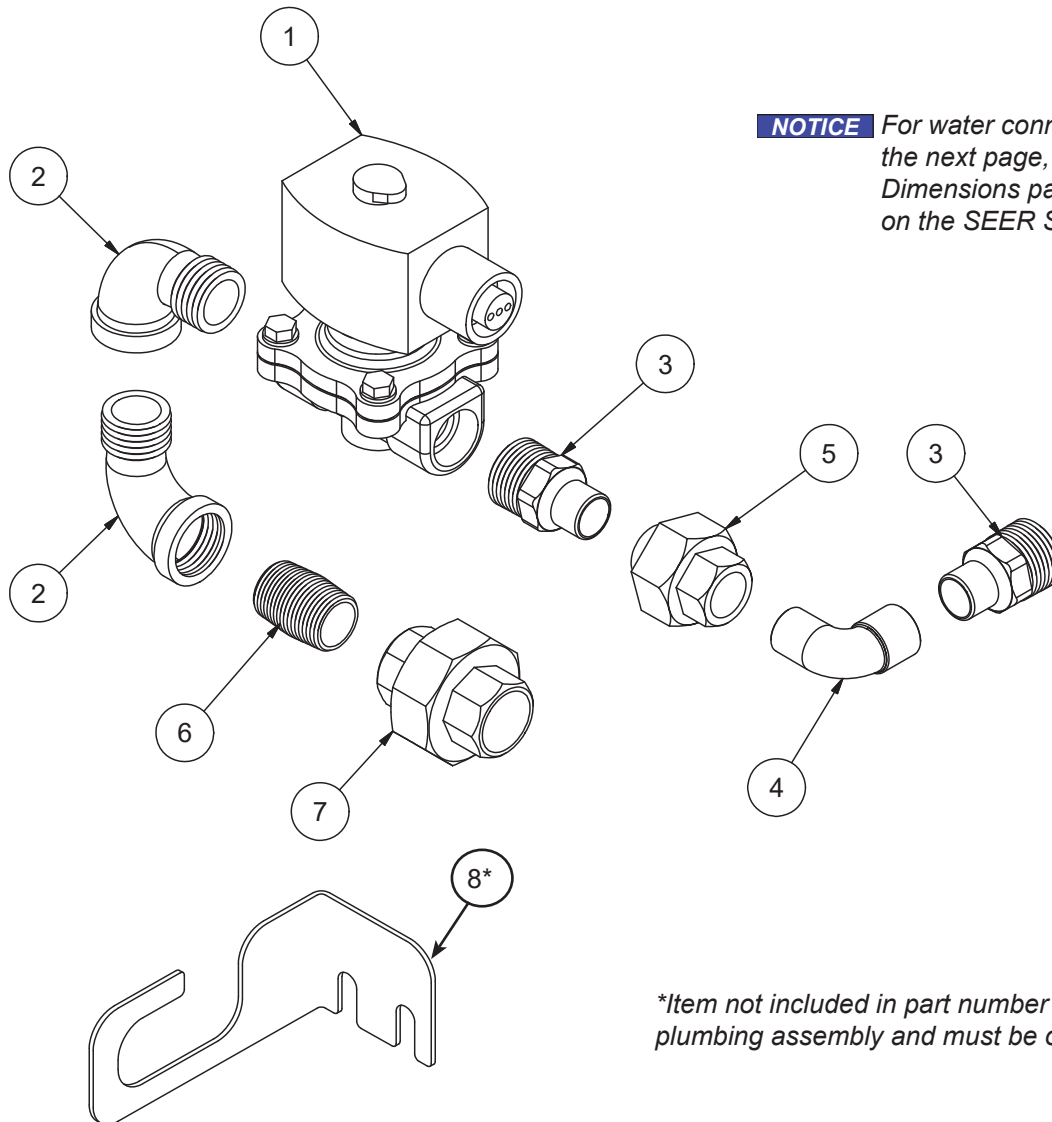


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Wash Arm Assembly	05700-021-39-23
2	1	Motor Support	05700-004-53-96
3	1	Wash Halo	05700-004-42-21
4	2	Pipe Clamp	05700-000-35-06
5	5	Wash Arm End-cap	05700-003-31-59
6	1	Gasket, Manifold	05330-003-75-91
7	1	Hose, 5/8" ID, Blue Silicone	05700-004-53-99
8	1	Gasket, Wash Hub	05330-002-34-77
9	1	Wash Hub	05700-004-43-04
10	1	Pump and Motor	06105-004-50-75
11	1	Hose, 7/8" ID x 8", Blue Silicone	05700-004-43-76
12	1	Hose, Bottom Manifold Pump	05700-001-22-92
13	2	Clamp, 1 1/16" to 2"	04730-719-18-00
14	1	Hose, 1 1/4" ID x 4", Blue Silicone	05700-004-54-00
15	7	Clamp, 13/16" to 1 1/2"	04730-719-06-09
16	2	Hosebarb, 1 3/4"	04730-011-65-86
17	1	Drain Valve Assembly	04730-003-33-64
18	1	Drain Hose	04720-004-32-00
19	1	Bracket, Soft Starter	05700-004-55-94
20	1	Soft Starter	05945-004-55-75



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Complete Rinse Manifold Assembly	05700-004-52-44
2	1	Pipe Clamp	05700-000-35-06
3	4	Rinse Arm End-cap	04730-111-60-41
4	2	Complete Rinse Arm Assembly	05700-004-39-39
	2	Rinse Arm	05700-004-38-75
5	2	Bearing Assembly, Rinse Arm	05700-004-54-71
6	2	O-ring (included in item #5)	05330-002-60-69
7	2	Retaining Ring	05340-112-01-11

Complete Plumbing Assembly
05700-004-53-98

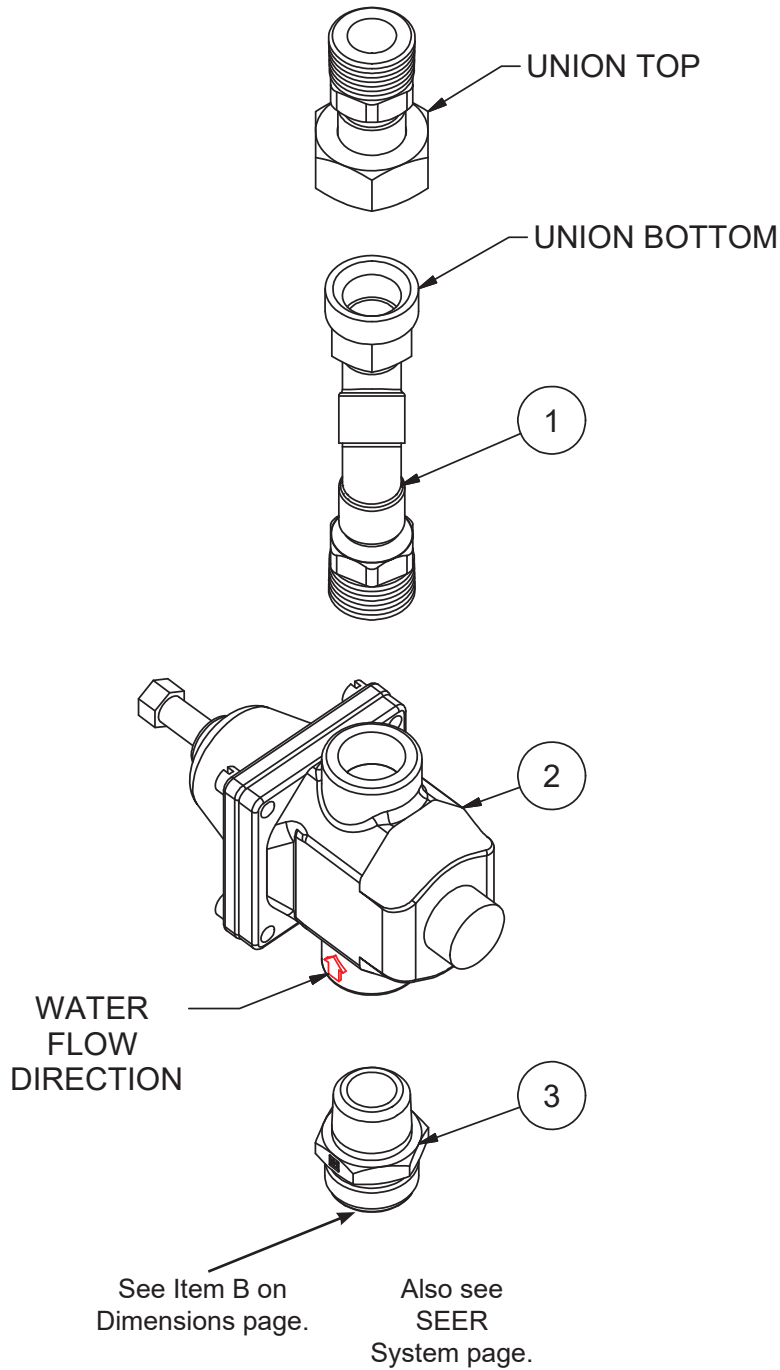


NOTICE For water connection point, see the next page, item B on the Dimensions page, and item #27 on the SEER System page.

*Item not included in part number of complete SEER plumbing assembly and must be ordered separately.

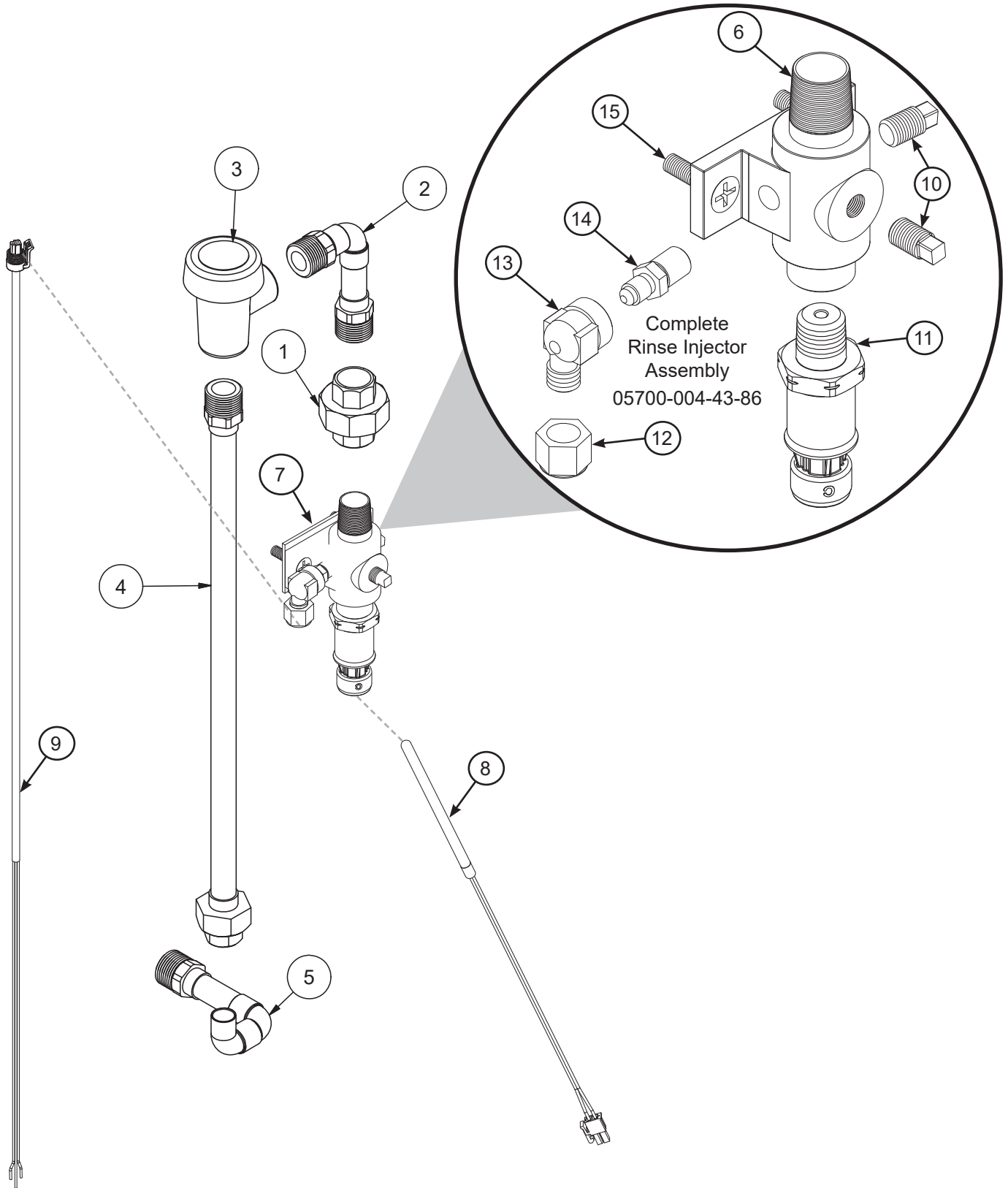
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Valve, 1/2"	04810-003-71-56
2	2	Elbow, 90-Degree, 1/2" Street Brass	04730-206-08-00
3	2	Adapter, 1/2"	04730-011-59-53
4	1	Elbow, 1/2"	04730-406-31-01
5	1	Union, 1/2"	04730-412-05-01
6	1	Nipple, 1/2" Close Brass	04730-207-15-00
7	1	Union, 1/2" x 1/2" Brass	04730-003-62-44
8*	1	Bracket, Plumbing Support	05700-004-56-19

Complete PRV Plumbing Assembly
05700-004-56-92



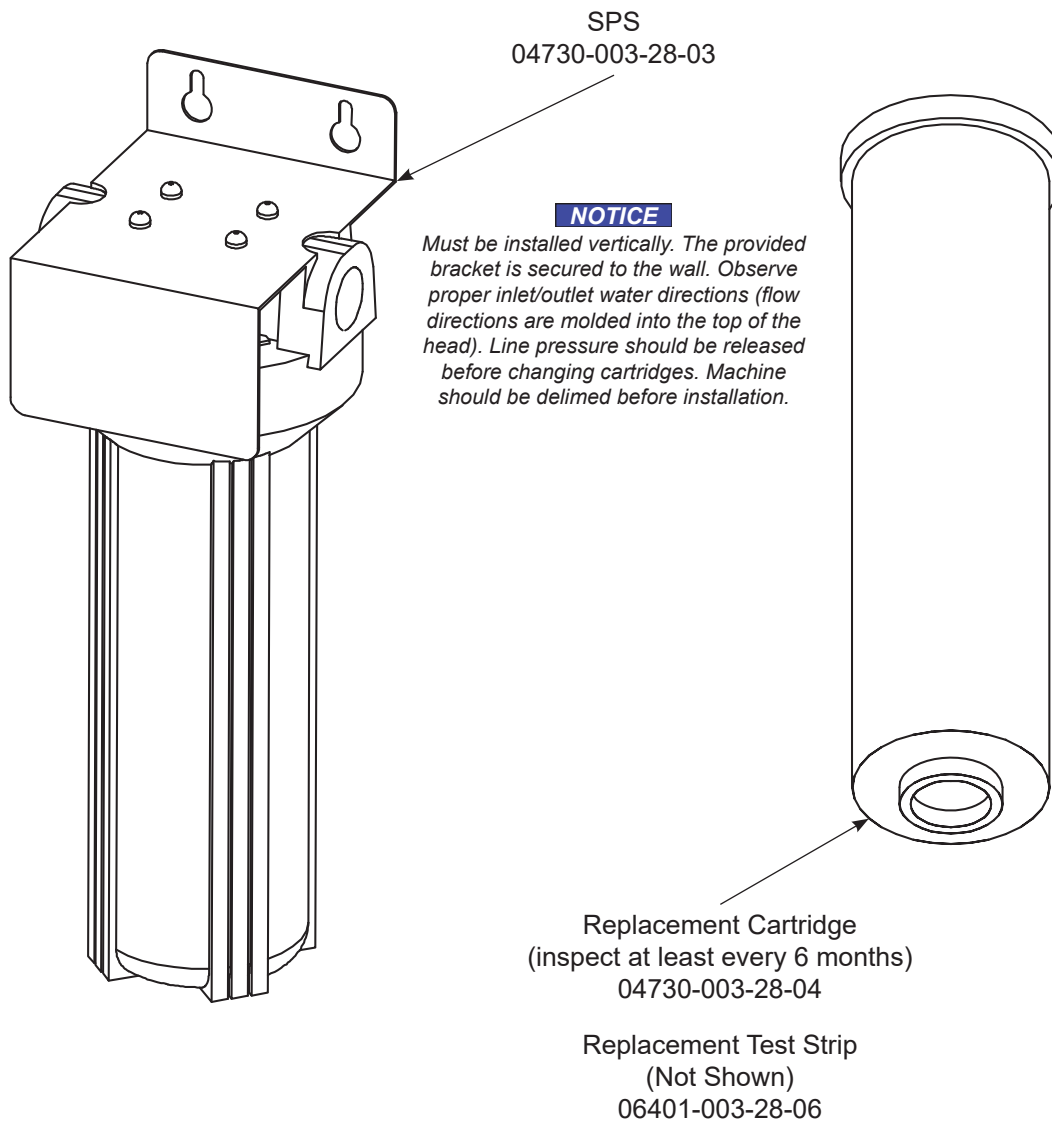
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Plumbing Inlet, Offset	05700-004-56-93
2	1	PRV, 1/2"	04820-004-09-37
3	1	Garden Hose Connector	04730-004-24-76

Rinse Plumbing Assembly (Items 1-5)
05700-004-53-97

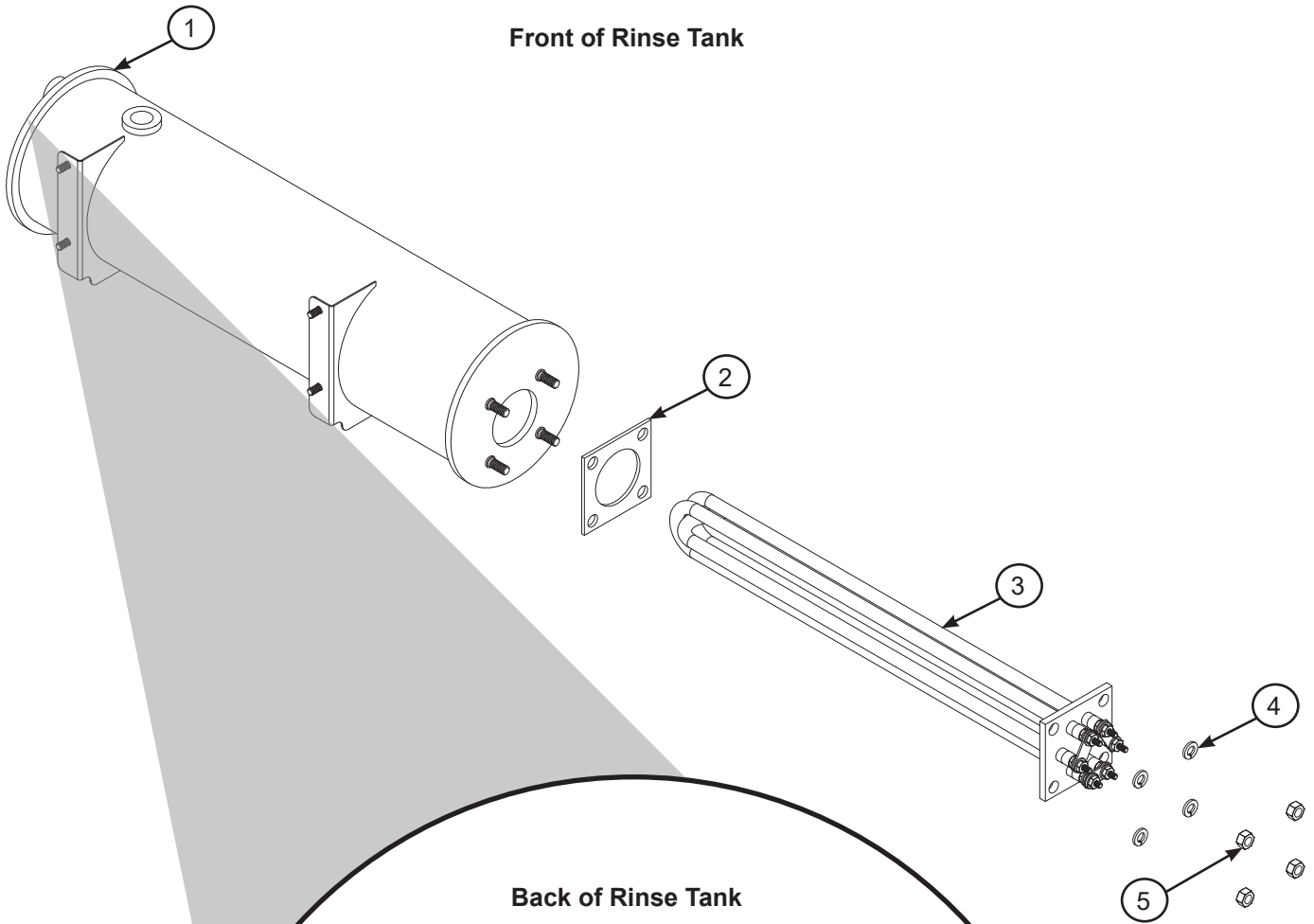


ITEM	QTY	DESCRIPTION	PART NUMBER
		Rinse Plumbing Assembly (Items 1–5)	05700-004-53-97
1	1	Union, 1/2" x 1/2" Brass	04730-003-62-44
2	1	Injector/Vacuum Breaker Connection	05700-004-54-02
3	1	Vacuum Breaker, 1/2" Brass	04820-003-06-13
4	1	Vacuum Breaker/Rinse Tank Connection	05700-004-54-01
5	1	Rinse Tank/Union Connection	05700-004-46-25
6	1	Complete Rinse Injector Assembly Rinse Injector	05700-004-43-86 05700-004-26-98
7	1	Gasket, Rinse Manifold	05330-003-75-91
8	1	Thermistor Probe, 4" with 18" Cable	06685-004-34-58
9	1	Harness, Transducer	05700-004-33-62
10	2	Plug, 1/8" Brass	04730-209-07-37
11	1	Transducer	05945-004-17-01
12	1	Nut, Tube, 1/8"	04730-011-59-45
13	1	Fitting, Outlet Elbow	04820-111-51-18
14	1	Check Valve	04820-111-51-14
15	2	Screw, 1/4-20 x 1"	05305-011-81-58

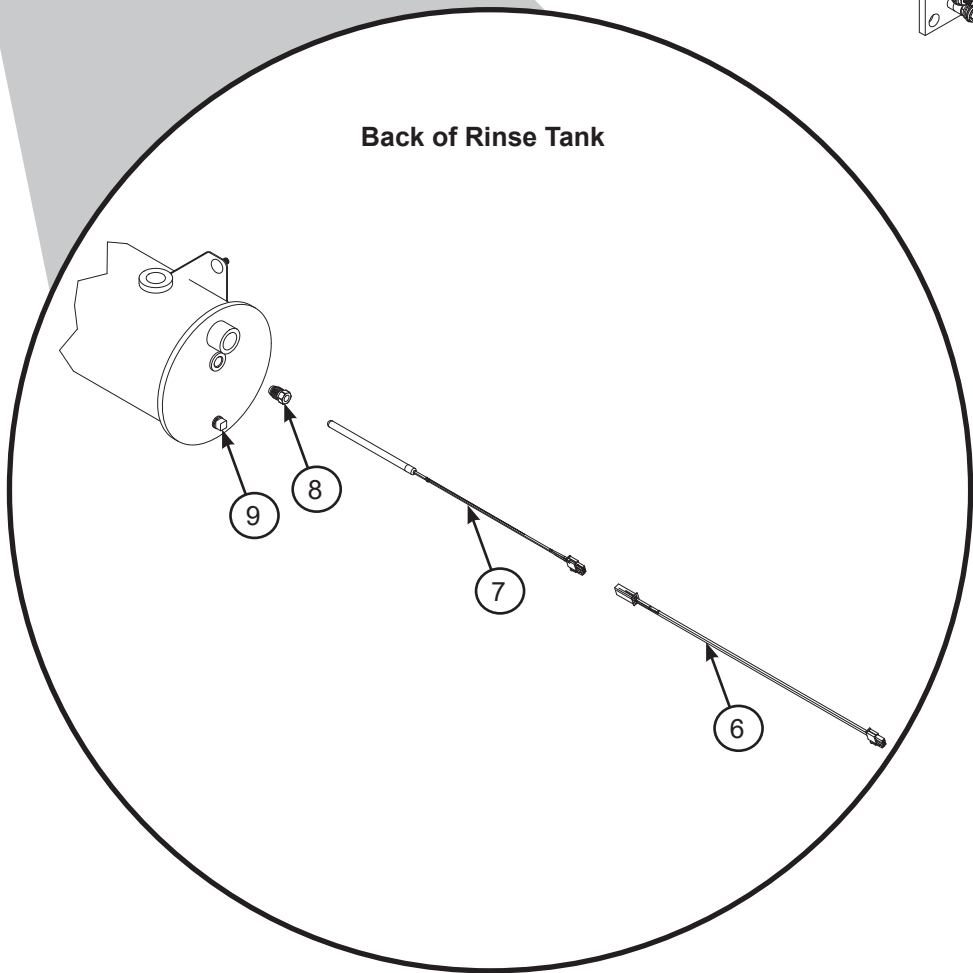
SCALE PREVENTION SYSTEM (SPS) OPTION



Front of Rinse Tank

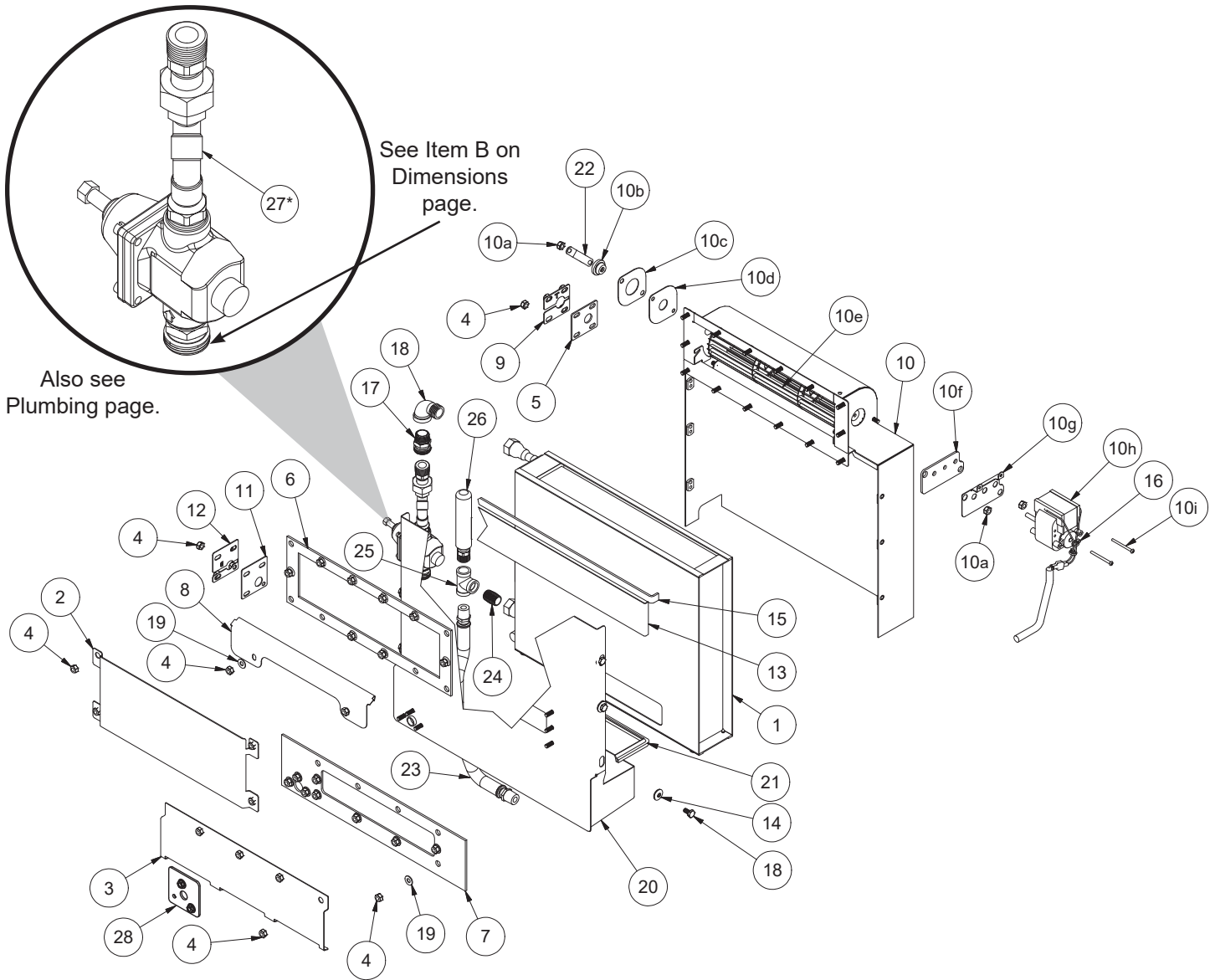


Back of Rinse Tank



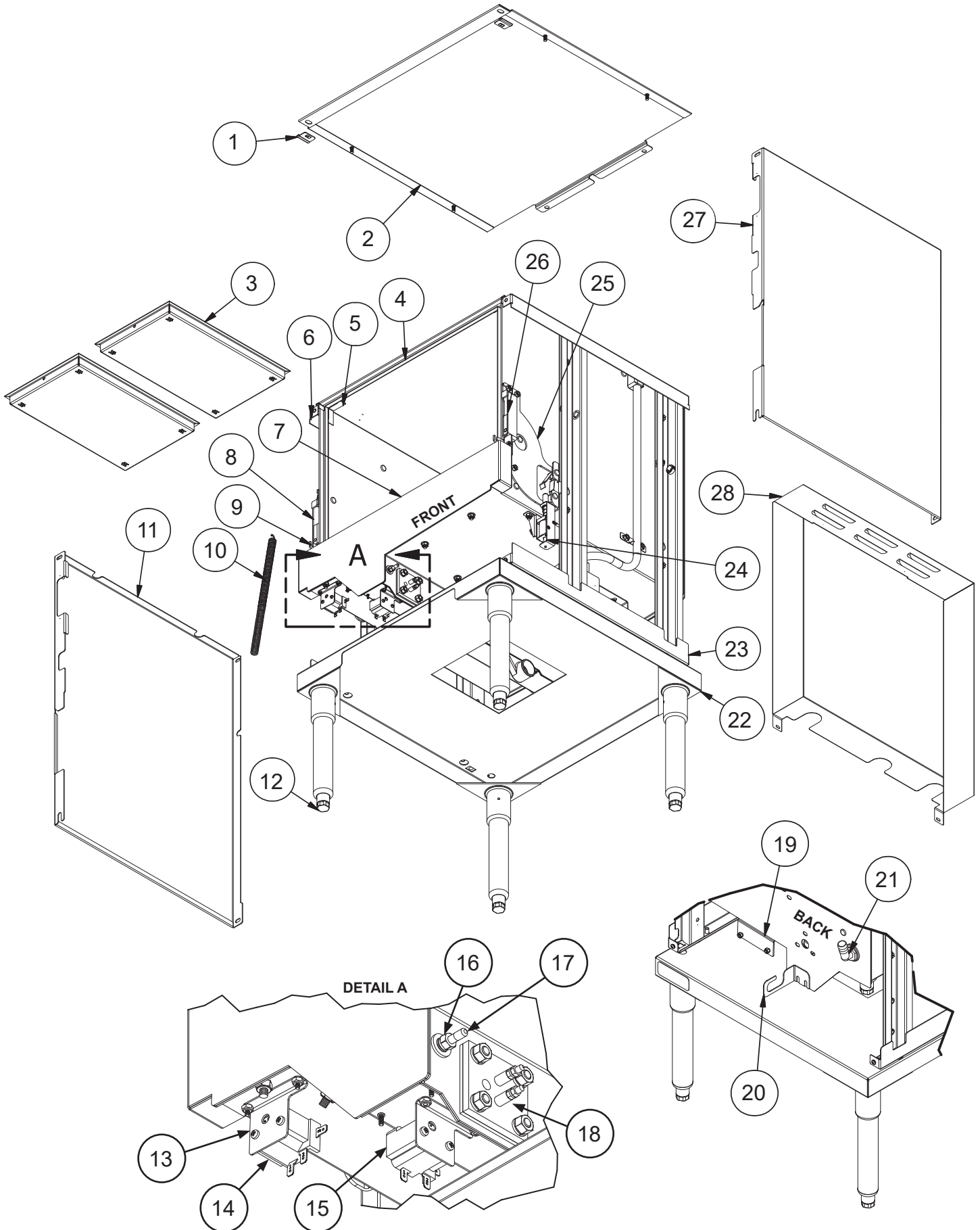
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Rinse Tank	05700-004-41-88
2	1	Heater Gasket	05330-011-47-79
3	1	Rinse Heater, 5.45 kW, 208-230 V	04540-004-45-12
4	4	Lockwasher, Split 5/16"	05311-275-01-00
5	4	Nut, Hex 5/16-18	05310-275-01-00
6	1	Cable, Temperature Probe	05700-004-33-23
7	1	Thermistor Probe, 4" with 18" Cable	06685-004-34-58
8	1	Fitting, 1/4", Brass Nut/Sleeve	05310-924-02-05
9	1	Plug, 1/4" Brass	04730-209-01-00
10	1	Thermostat, Rinse Tank High-limit (Not Shown)	05930-004-33-12

Complete SEER System Assembly
05700-004-54-18



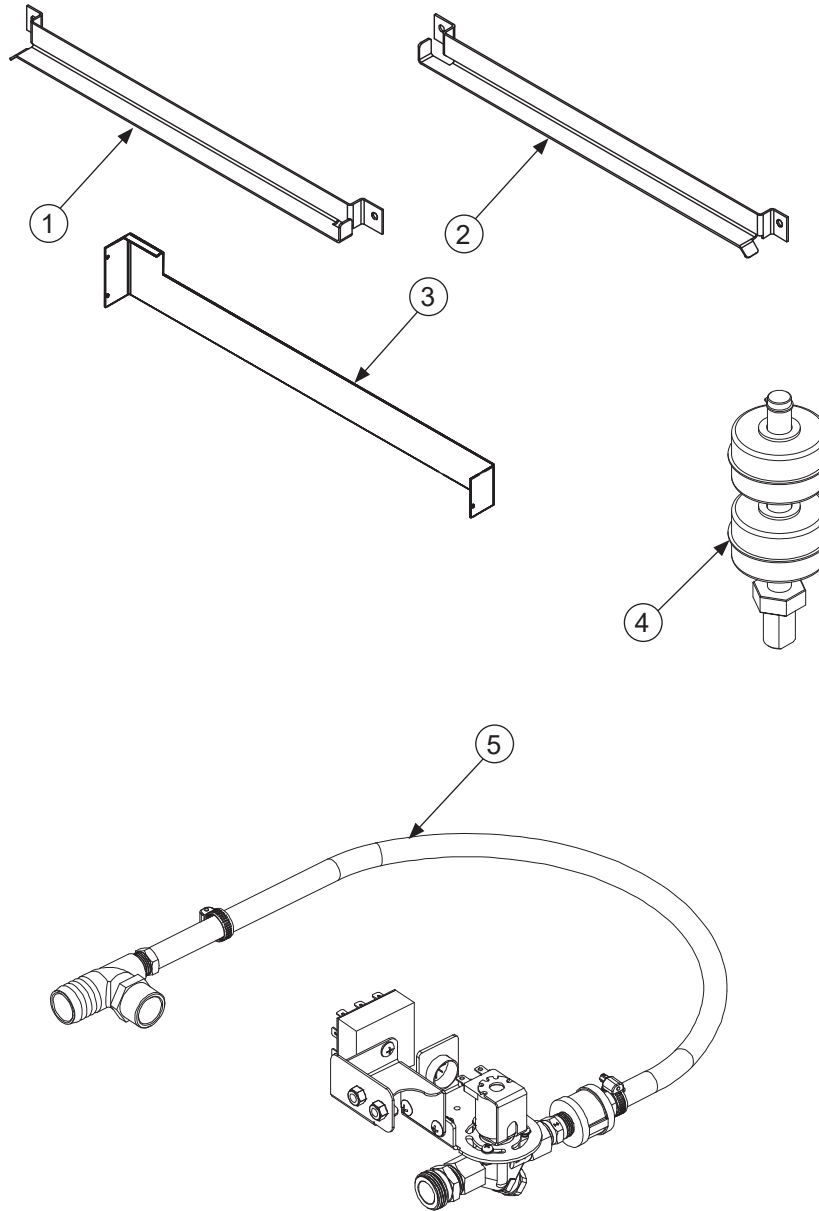
**Item not included in part number of complete SEER system assembly and must be ordered separately.*

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Heat Exchanger, 3/8", Tubes 1/2"	04420-004-37-32
2	1	SEER System, Top Cover	05700-004-47-21
3	1	SEER System, Bottom Cover	05700-004-47-19
4	36	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
5	1	SEER System, Plumbing	05330-004-55-58
6	1	SEER System, Top Gasket	05330-004-48-50
7	1	SEER System, Bottom Gasket	05330-004-48-51
8	1	SEER System, Diversion Plate	05700-004-47-27
9	1	SEER System, Plumbing Seal Bracket	05700-004-47-30
10	1	Complete Fan & Housing Assembly	05700-004-50-83
10a	4	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
10b	1	Bushing & Housing Assembly	03120-004-50-88
10c	1	Bracket, Interchangeable Bearing Boot	05700-004-50-94
10d	1	Gasket, Interchangeable Bearing Boot	05330-004-50-95
10e	1	Wheel, Blower	05999-004-50-85
10f	1	Gasket, Motor	05330-004-50-90
10g	1	Bracket, Motor Adjustment	05700-004-50-92
10h	1	Motor, Fan	05999-004-50-84
10i	2	Screw, 6-32 x 1 3/4"	05305-004-36-67
11	1	SEER System, Plumbing Seal Gasket (Outlet)	05330-004-55-57
12	1	SEER System, Plumbing Seal Bracket (Outlet)	05330-004-51-27
13	1	SEER System, Gasket Top	05330-004-55-54
14	5	Washer, Bonded Sealing 1/4" x 3/4" OD	05311-002-77-79
15	1	Strip, 1/2" x 1/8" x 22" Sponge Rubber	05330-100-10-00
16	2	Tie, Panduit Cable	05975-602-01-16
17	1	Adapter, Double Male	04720-004-51-55
18	1	Elbow, 90-degree 1/2" Street Brass	04730-206-08-00
19	20	Washer, 1/4-20 ID	05311-174-01-00
20	1	SEER System, Bottom Mount	05700-004-54-19
21	1	Gasket, Enclosure Back	05330-004-56-02
22	1	Bracket, Bearing Hard Stop	05700-004-67-53
23	1	Discharge Hose, Rinse Tank	05700-004-51-56
24	1	Nipple, 1/2" Close Brass	04730-207-15-00
25	1	Tee, 1/2" Brass	04730-211-27-00
26	1	SEER System, Shock Absorber (Water Hammer)	04730-004-58-56
27*	1	Plumbing, PRV	See Plumbing page.
28	1	SEER System, Back Plate Gasket	05330-004-54-23



ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Plug, Shroud	05700-003-32-50
2	1	Top Shroud	05700-003-37-06
3	2	Strainer	05700-004-09-43
4	1	Tub Back	05700-004-55-03
5	2	Channel Back	05700-004-04-24
6	1	Left Frame Assembly	05700-004-52-33
7	1	Tub Front	05700-004-51-79
8	1	Hinge Cover, Left	05700-002-18-41
9	1	Hinge Stop, Left	05700-003-32-61
10	2	Door Spring	05700-003-32-85
11	1	Left Shroud	05700-004-55-00
12	4	Foot, Adjustable	05340-108-01-03
13	2	Bracket, High-limit	05700-004-36-37
14	1	Thermostat, High-limit	05930-004-33-12
15	1	Thermostat, High-limit	05930-004-33-15
16	2	Fitting, Brass Sleeve	05310-924-02-05
17	1	Thermistor Probe, 4" with 18" Cable	06685-004-34-58
18	1	Wash Heater, 4 kW	04540-003-99-44
19	1	Bracket, Terminal Box	05700-004-55-90
20	1	Bracket, Rinse Tank Plumbing Support	05700-004-56-19
21	1	Fitting, Bulkhead to 1/2" Hosebarb	04730-011-45-21
22	1	Stand Assembly	05700-004-54-13
23	1	Right Frame Assembly	05700-004-52-32
24	1	Door Interlock Assembly	See next page.
25	1	Hinge Stop, Right	05700-003-32-60
26	1	Hinge Cover, Right	05700-004-22-66
27	1	Right Shroud	05700-004-54-49
28	1	Rear Dress Panel	05700-004-56-20

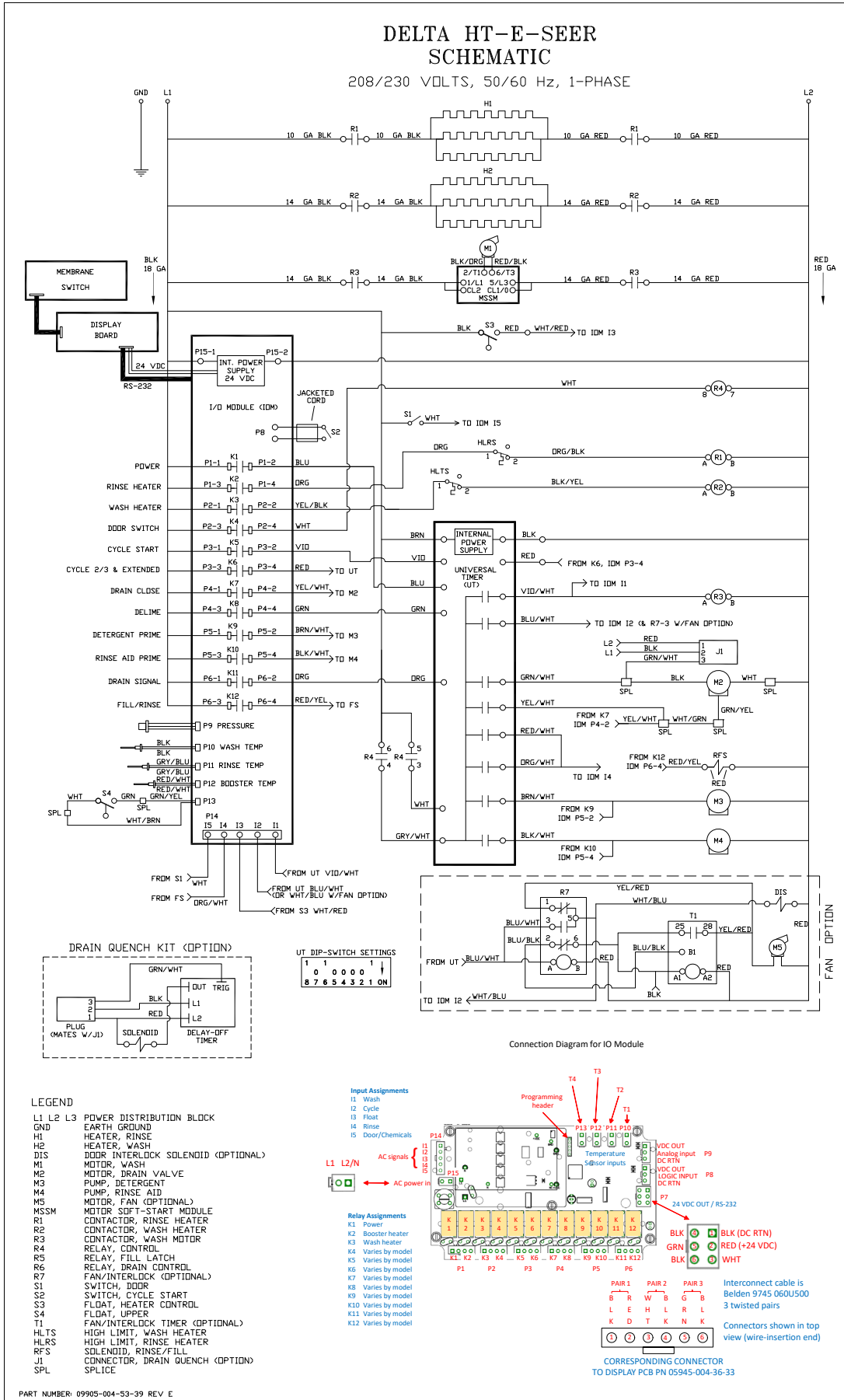
Parts are not shown to scale in relation to each other.



Drain Water Tempering
Kit Install Instructions



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Rail, Left Rack	05700-031-37-88
2	1	Rail, Right Rack	05700-031-37-88
3	1	Splash Shield	05700-003-33-51
4	1	Dual Float Switch	06680-004-48-53
5	1	Drain Water Tempering Kit	06401-004-59-11





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