

# INSTALLATION, OPERATION, AND SERVICE MANUAL



**RACKSTAR® SERIES CONVEYOR DISHMACHINES** 

#### 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<br>Letter | Revision<br>Date | Made by | Applicable ECNs | Details   |
|--------------------|------------------|---------|-----------------|---|
| Α                  | 9-21-16          | JH      | N/A             | Initial release of manual.  |
| В                  | 10-25-16         | JH      | N/A             | Corrected delime instructions. Corrected P/Ns for item #6 on pg. 42. Updated pg. 13 to change the pressure regulator from standard to optional. Updated Miscellaneous Electrical Components page. Added a Door Assemblies page. Added a Frame Assembly page. Added Display Fault Codes. |



# ELECTRICALLY-HEATED MODELS: RackStar® 44

RackStar® 66

Chemical-sanitizing rack conveyer machine.

#### STEAM-HEATED MODELS: RackStar® 44S RackStar® 66S

Steam-cleaning rack conveyer machine.

| Model:               |  |
|----------------------|--|
|                      |  |
| Serial No.:          |  |
|                      |  |
| Installation Date:   |  |
| Convice Den Namer    |  |
| Service Kep. Name: _ |  |
| Phone Number:        |  |

Jackson WWS, Inc. provides technical support for all of the dishmachines detailed in this manual. We strongly recommend that you refer to this manual before making a call to our technical support staff. Please have this manual with you when you call so that our staff can refer you, if necessary, to the proper page. Technical support is 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

**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

PSI - Pounds per Square Inch

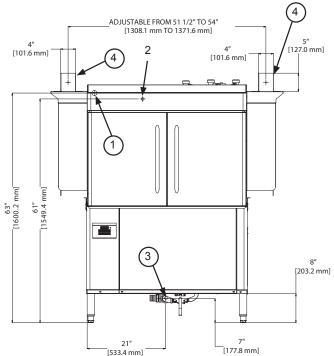
### 44" MACHINE DIMENSIONS

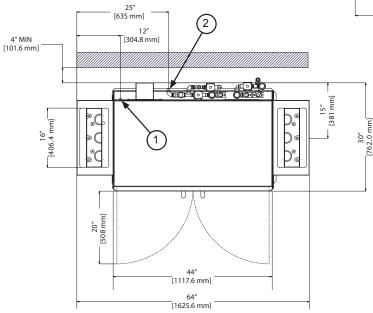
### **SPECIFICATIONS**

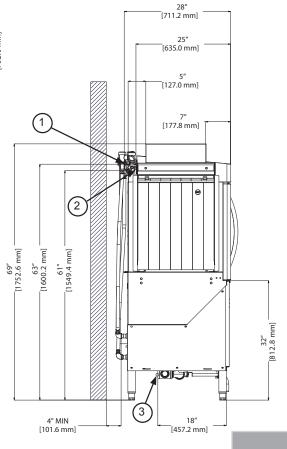
44" LEFT-TO-RIGHT

- Electrical Connection
   (Provided on both sides of unit)
- 2. Water Inlet (1/2" NPT 180 °F)
- 3. Drain Connection (1 1/2" NPT)
- 4. Vent Connections (Including Dampers)

All dimensions from the floor can be increased 1 3/4" using the machine's adjustable feet.



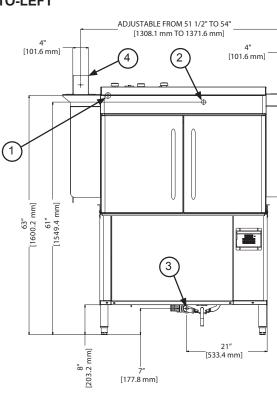




#### **SPECIFICATIONS**

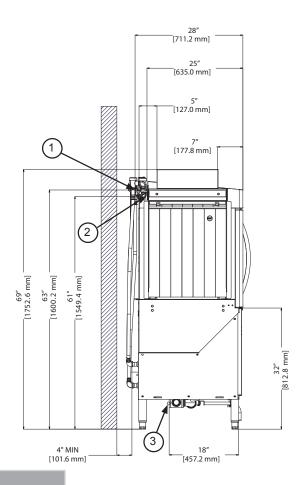
### 44" MACHINE DIMENSIONS

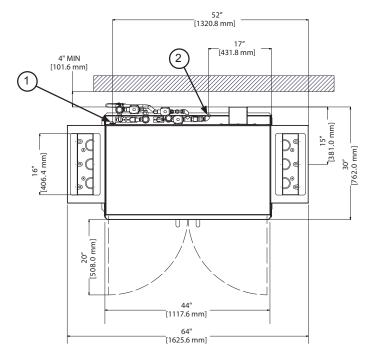
#### 44" RIGHT-TO-LEFT



- Electrical Connection
   (Provided on both sides of unit)
- 2. Water Inlet (1/2" NPT 180 °F)
- 3. Drain Connection (1 1/2" NPT)
- 4. Vent Connections (Including Dampers)

All dimensions from the floor can be increased 1 3/4" using the machine's adjustable feet.



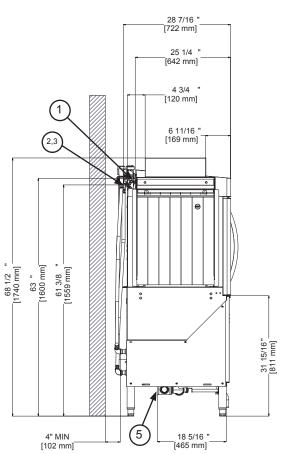


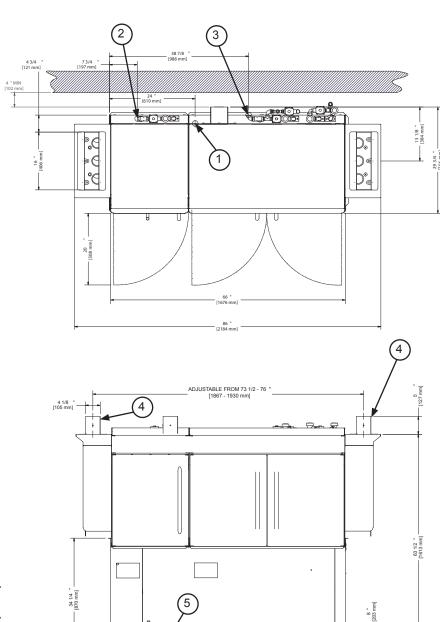
#### 66" MACHINE DIMENSIONS

66" LEFT-TO-RIGHT

- 1. Electrical Connection (Provided on both sides of unit)
- 2. Pre-Wash Water Inlet (1/2" NPT 180 °F)
- Main Water Inlet (1/2" NPT 180 °F)
- 4. Vent Connections (Including Dampers)
- 5. Drain Connection (1 1/2" NPT)

All dimensions from the floor can be increased 1 3/4" using the machine's adjustable feet.





4 7/8 " [124 mm]

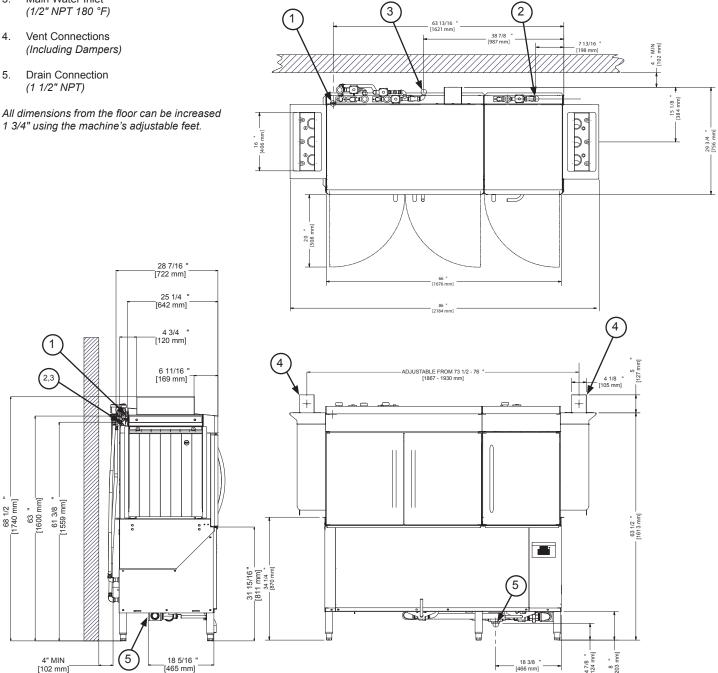
#### **SPECIFICATIONS**

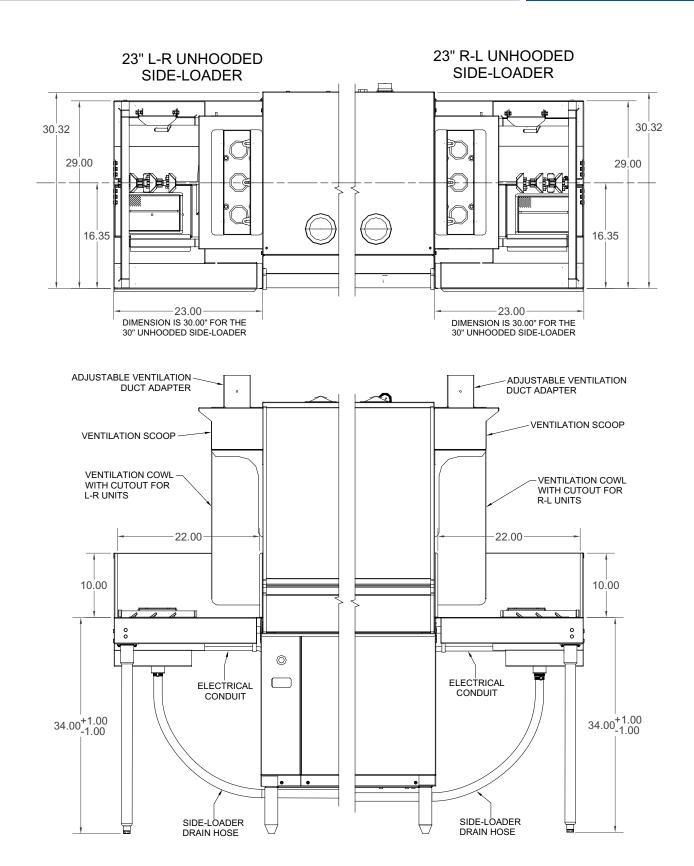
### 66" MACHINE DIMENSIONS

#### 66" RIGHT-TO-LEFT

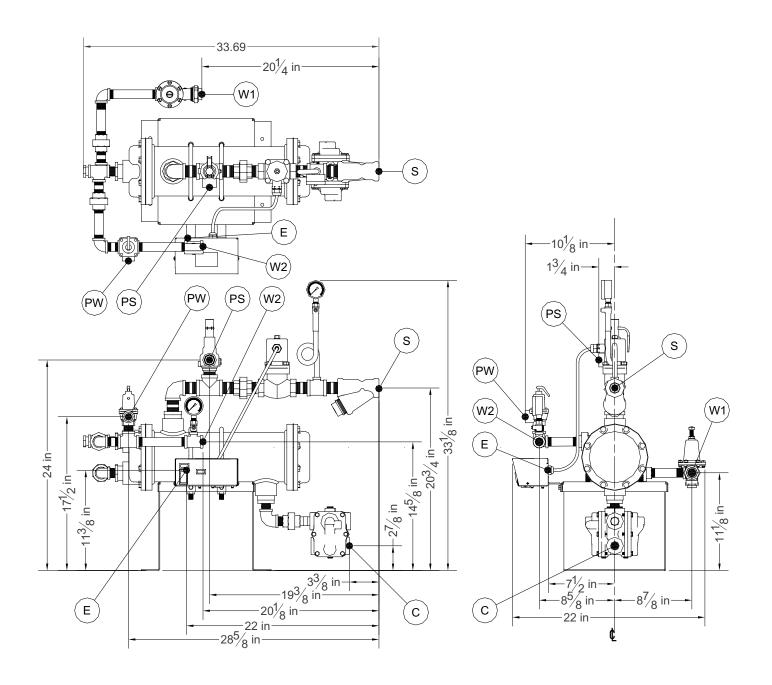
- **Electrical Connection** (Provided on both sides of unit)
- Pre-Wash Water Inlet (1/2" NPT 180 °F)
- Main Water Inlet
- (Including Dampers)
- (1 1/2" NPT)

All dimensions from the floor can be increased





### STEAM BOOSTER HEATER DIMENSIONS



| E  | MAIN ELECTRICAL CONNECTION (7/8" DIA HOLE) |
|----|--|
| W1 | MAIN INLET WATER CONNECTION (3/4" NPT-F)   |
| W2 | WATER OUTLET CONNECTION (3/4" NPT-F)       |
| PW | WATER PRESSURE RELIEF OUTLET (3/4" NPT-F)  |

| PS | STEAM PRESSURE RELIEF OUTLET (1" NPT-F)  |  |  |  |  |
|----|--|--|--|--|--|
| S  | STEAM SUPPLY TO BOOSTER (1" NPT-F)       |  |  |  |  |
| С  | STEAM CONDENSATE CONNECTION (3/4" NPT-F) |  |  |  |  |

| Model Designation:                | 44"  | 66"  | 44" STEAM | 66" STEAM |
|-----------------------------------|------|------|-----------|-----------|
| Operating Capacity:               |      |      |           |           |
| Racks per Hour                    | 218  | 218  | 218       | 218       |
| Dishes per Hour                   | 3488 | 3488 | 3488      | 3488      |
| Glasses per Hour                  | 7848 | 7848 | 7848      | 7848      |
|                                   |      |      |           |           |
| Tank Capacity (Gallons):          |      |      |           |           |
| Wash Tank                         | 35.6 | 35.6 | 35.6      | 35.6      |
| Pre-Wash Tank                     | N/A  | 15.8 | N/A       | 15.8      |
|                                   |      |      |           |           |
| Electrical Loads (as applicable): |      |      |           |           |
| Wash Motor HP                     | 3.0  | 3.0  | 3.0       | 3.0       |
| Drive Motor HP                    | 0.25 | 0.25 | 0.25      | 0.25      |
| Pre-Wash Motor HP                 | N/A  | 2.0  | N/A       | 2.0       |
|                                   |      |      |           |           |
| Wash Heater kW                    | 15   | 15   | N/A       | N/A       |

NOTICE NOTE: Always refer to the machine data plate for specific electrical and water requirements.

The material provided on this page is for reference only and may change without notice.

### SPECIFICATIONS

### OPERATING PARAMETERS

| Model Designation:                 | 44"    | 66"     | 44" STEAM | 66" STEAM |
|------------------------------------|--------|---------|-----------|-----------|
| HOT WATER SANITIZING               |        |         |           |           |
| Water Temperatures (°F):           |        |         |           |           |
| Pre-Wash Temperature (recommended) | N/A    | 110-140 | N/A       | 110-140   |
| Minimum Wash Temperature           | 160    | 160     | 160       | 160       |
| Incoming Rinse Temperature         | 180    | 180     | 180       | 180       |
| Incoming Water Temperature         |        |         |           |           |
| 12 kW Booster                      | 140    | 140     | N/A       | N/A       |
| 18 kW Booster                      | 110    | 110     | N/A       | N/A       |
| No Booster                         | 180    | 180     | 180       | 180       |
| CHEMICAL SANITIZING                |        |         |           |           |
| Water Temperatures (°F):           |        |         |           |           |
| Pre-Wash Temperature (recommended) | N/A    | 110-140 | N/A       | 110-140   |
| Minimum Wash Temperature           | 120    | 120     | 120       | 120       |
| Minimum Rinse Temperature          | 120    | 120     | 120       | 120       |
| Incoming Water Temperature         |        |         |           |           |
| 12 kW Booster                      | 80     | 80      | N/A       | N/A       |
| 18 kW Booster                      | 50     | 50      | N/A       | N/A       |
| No Booster                         | 120    | 120     | 120       | 120       |
| Other Water Requirements:          |        |         |           |           |
| Water Flow Pressure (PSI)          | 15     | 15      | 15        | 15        |
| Flow Rate Minimum (GPM)            | 1.27   | 1.18    | 1.27      | 1.18      |
| Water Line Size (NPT)              | 1/2"   | 1/2"    | 1/2"      | 1/2"      |
| Drain Line Size (NPT)              | 1-1/2" | 1-1/2"  | 1-1/2"    | 1-1/2"    |
| Steam Requirements:                |        |         |           |           |
| Steam Line for Wash Tank (NPT)     | N/A    | N/A     | 3/4"      | 3/4"      |
| Steam Flow Pressure (PSI)          | N/A    | N/A     | 10-20     | 10-20     |
| Consumption @ 15 PSI (lbs/hr)      | N/A    | N/A     | 60        | 60        |

NOTICE NOTE: Always refer to the machine data plate for specific electrical and water requirements.

The material provided on this page is for reference only and may change without notice.



#### **ELECTRICAL REQUIREMENTS**

#### **SPECIFICATIONS**



All electrical ratings provided in this manual are for reference only. Always refer to the machine data plate to get the 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. A list of authorized Service Agencies is located in the back of this manual.

Note that all electrical wiring used in the dishmachine 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, 230, or 460 Volts. Some of the heating elements used in our machines are actually rated for other voltages, such as 240 or 480 Volts. Always verify the amperage draw of the machine in operation when sizing circuit protection.

If the machine is equipped with the optional rinse heater, note the rinse heater has its own electrical connection and therefore requires a separate service. Amperage loads for motors and heaters are called out on the machine data plate for the installation/service technician.

The electrical configurations of the machines are as follows:

#### **Available Electrical Characteristics:**

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

#### **Available Wash Tank Heaters:**

• 15 kW

#### **Available Booster Tank Heaters:**

- None (standard)
- 12 kW (40 °F rise in temperature)
- 18 kW (70 °F rise in temperature)

### SPECIFICATIONS

### ELECTRICAL REQUIREMENTS



#### 44"

| Volts | Phase | Hz | Wash<br>Motor<br>Amps | Drive<br>Motor<br>Amps | Wash<br>Heater<br>Amps | Total<br>Load |
|-------|-------|----|-----------------------|------------------------|------------------------|---------------|
| 208   | 1     | 60 | 10.0                  | 1.8                    | 72.1                   | 83.9          |
| 230   | 1     | 60 | 10.0                  | 1.8                    | 59.9                   | 71.7          |
| 208   | 3     | 60 | 8.6                   | 1.1                    | 41.6                   | 51.3          |
| 230   | 3     | 60 | 8.4                   | 1.1                    | 34.6                   | 44.1          |
| 460   | 3     | 60 | 4.2                   | 0.6                    | 17.3                   | 22.1          |

#### 44" Steam

| Volts | Phase | Hz | Wash<br>Motor<br>Amps | Drive<br>Motor<br>Amps | Total<br>Load |
|-------|-------|----|-----------------------|------------------------|---------------|
| 208   | 1     | 60 | 10.0                  | 1.8                    | 11.8          |
| 230   | 1     | 60 | 10.0                  | 1.8                    | 11.8          |
| 208   | 3     | 60 | 8.6                   | 1.1                    | 9.7           |
| 230   | 3     | 60 | 8.4                   | 1.1                    | 9.5           |
| 460   | 3     | 60 | 4.2                   | 0.6                    | 4.8           |



#### 66"

| Volts | Phase | Hz | Pre-Wash<br>Motor<br>Amps | Wash<br>Motor<br>Amps | Drive<br>Motor<br>Amps | Wash<br>Heater<br>Amps | Total<br>Load |
|-------|-------|----|---------------------------|-----------------------|------------------------|------------------------|---------------|
| 208   | 1     | 60 | 10.2                      | 10.0                  | 1.8                    | 72.1                   | 94.1          |
| 230   | 1     | 60 | 9.4                       | 10.0                  | 1.8                    | 59.9                   | 81.1          |
| 208   | 3     | 60 | 6.2                       | 8.6                   | 1.1                    | 41.7                   | 58.3          |
| 230   | 3     | 60 | 6.4                       | 8.4                   | 1.1                    | 34.6                   | 50.5          |
| 460   | 3     | 60 | 3.2                       | 4.2                   | 0.6                    | 17.3                   | 25.3          |

#### 66" Steam

| Volts | Phase | Hz | Pre-Wash<br>Motor<br>Amps | Wash<br>Motor<br>Amps | Drive<br>Motor<br>Amps | Total<br>Load |
|-------|-------|----|---------------------------|-----------------------|------------------------|---------------|
| 208   | 1     | 60 | 10.2                      | 10.0                  | 1.8                    | 22.0          |
| 230   | 1     | 60 | 9.4                       | 10.0                  | 1.8                    | 21.2          |
| 208   | 3     | 60 | 6.2                       | 8.6                   | 1.1                    | 15.9          |
| 230   | 3     | 60 | 9.4                       | 10.0                  | 1.1                    | 20.5          |
| 460   | 3     | 60 | 3.2                       | 4.2                   | 0.6                    | 8.0           |

#### 40 °F Rise - 12 kW Booster

| Volts | Phase | Hz | Rinse<br>Heater<br>Amps |
|-------|-------|----|-------------------------|
| 208   | 1     | 60 | 57.7                    |
| 230   | 1     | 60 | 47.9                    |
| 208   | 3     | 60 | 33.3                    |
| 230   | 3     | 60 | 27.7                    |
| 460   | 3     | 60 | 13.8                    |

Note: On the 208 V machines, the rinse heater is actually rated at 17.2 kW.

#### **Blower/Dryer**

| Volts | Phase | Hz | Amps |
|-------|-------|----|------|
| 208   | 3     | 60 | 32.2 |
| 230   | 3     | 60 | 22.9 |
| 460   | 3     | 60 | 13.4 |

#### 70 °F Rise - 18 kW Booster

| Volts | Phase | Hz | Rinse<br>Heater<br>Amps |
|-------|-------|----|-------------------------|
| 208   | 1     | 60 | 82.7                    |
| 230   | 1     | 60 | 71.9                    |
| 208   | 3     | 60 | 47.7                    |
| 230   | 3     | 60 | 41.5                    |
| 460   | 3     | 60 | 20.7                    |

#### **INSTALLATION**

#### **INSTRUCTIONS**

#### VISUAL INSPECTION

Do not throw away the container if damage is evident!

Before installing the unit, check the packaging and the machine for damage. Damaged packaging might be an indication there is possible damage to the product. If there is any type of damage to both the packaging and the unit, DO NOT THROW AWAY THE PACKAGING. The dishmachine has been previously inspected at the factory and is expected to arrive in new, undamaged condition. However, rough handling by carriers or others might result in damage to the unit while it is in transit. If this occurs, 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 request that an inspection report be completed. Contact the carrier and dealer that sold you the unit within 48 hours of receiving the machine in order to report possible freight damage.

## MACHINE

**UNPACKING THE** The machine should be unboxed and removed from the pallet before installing. Remove the wooden lift beams and their associated brackets after the unit has been positioned. 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.

## DISHMACHINE

**LEVEL THE** The dishmachine is designed to operate while level. This is important to prevent any damage to the machine during operation and to ensure the best possible results. The unit comes equipped with adjustable bullet feet, which can be turned using a pair of pliers. Verify the unit is level from front-to-back and side-to-side before making any electrical or plumbing connections.

#### PLUMBING THE **DISHMACHINE**

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 water damage are not the responsibility of the manufacturer.

Water hardness should be a maximum of 6 GPG. Hard water should be treated before being used by the machine. Iron in the water line can cause staining. A filter designed to remove iron from the water supply is highly recommended for supplies in excess of 0.1 ppm.

The manufacturer has an optional water pressure regulator to accommodate areas where water pressure fluctuates or is higher than the recommended pressure. The unit utilizes a flow pressure of 15 PSI for the incoming water line. Do not confuse static pressure with flow pressure. Static pressure occurs when there is no flow and the valves are closed. Flow pressure occurs when water is running into the machine. The pressure regulator should be adjusted to the proper flow pressure indicated on the data plate.

The water supply line must be 1/2" NPT minimum and must be able to provide water at the minimum temperature indicated on the machine data plate.

A shut-off valve should be installed to allow isolating the dishmachine from the water system in the event service is required. It is also suggested that a shock absorber (not supplied with dishmachine) be installed on the incoming water line. This prevents water hammer (hydraulic shock)—induced by the solenoid valve as it operates—from causing damage to the equipment.



# CONNECTING THE DRAIN LINE

The drain for the unit is a gravity discharge drain. All piping to the machine 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. 44" units have one drain connection point and 66" units have two.

## STEAM LINE CONNECTIONS



Some machines covered in this manual are designed to use low-pressure steam as a source of heat for the wash tank. Those machines come with lines by which an outside source of steam (e.g. steam booster) is connected. Connect all steam lines from the booster to the machine in accordance with the booster manufacturer's instructions. Ensure that all applicable codes and regulations are adhered to. See the machine data plate for information related to steam flow requirements.

# ELECTRICAL POWER CONNECTIONS





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

NOTICE



All electrical connections are to be made in accordance with applicable portions of local, state, territorial, and national codes.

This manual provides reference information regarding electrical requirements and loads, but that information may change without notice. Always refer to the machine data plate for voltage requirements, machine voltage, total amperage load, and serial number. If a data plate has been damaged and cannot be read, contact the manufacturer.

The main power terminal blocks (for the dishmachine and for the rinse booster heater, if applicable) are located at the top of the machine. Remove the top cover to access these connections. Route incoming power lines within conduit that will connect via fittings to the pre-punched holes in the back of the control box. Install power and ground wires to lugs as indicated by the appropriate decals in the control box. Use copper conductors only. Use of an anti-oxidation agent is permissible on the power connections. Tighten all connections.

Verify the incoming voltage matches the voltage indicated on the decal next to the incoming power pre-punched hole.

**NOTE:** The dishmachine has a separate power connection from the rinse booster heater and the circuit protection requirements are different for each. Refer to the machine data plate for information on minimum circuit protection.

**CAUTION:** Improperly connecting external devices can cause damage to the machine and/or electrical infrastructure!

SEE PAGE 17 FOR A GUIDE ON WIRING EXTERNAL DEVICES (EXHAUST FAN, CHEMICAL DISPENSERS, ETC.)

#### **INSTALLATION**

#### INSTRUCTIONS

### DISHMACHINE VENTILATION

The dishmachine should be located with an adequate exhaust hood or ventilation system with provisions for venting. This is essential to permit efficient removal of the condensation exhaust. Ensure the exhaust system is acceptable in accordance with applicable codes and standards.

**NOTICE** NOTE: Any damage that is caused by steam and/or moisture due to improper ventilation is NOT covered under the warranty.

Dishmachine ventilation requirements:

Load End: 200 CFMUnload End: 200 CFM

The exhaust system must be sized to handle this volume for the dishmachine to operate properly.

#### **THERMOSTATS**

The thermostats on this unit have been set at the factory for the wash tank and should only be adjusted by an authorized service agent.

### FEEDER EQUIPMENT

This dishmachine DOES NOT COME WITH AN INTEGRAL CHEMICAL SUPPLY/FEEDER SYSTEM. For the dishmachine to operate correctly, connect it to a third-party chemical dispenser that meets the requirements of NSF Standard 29.

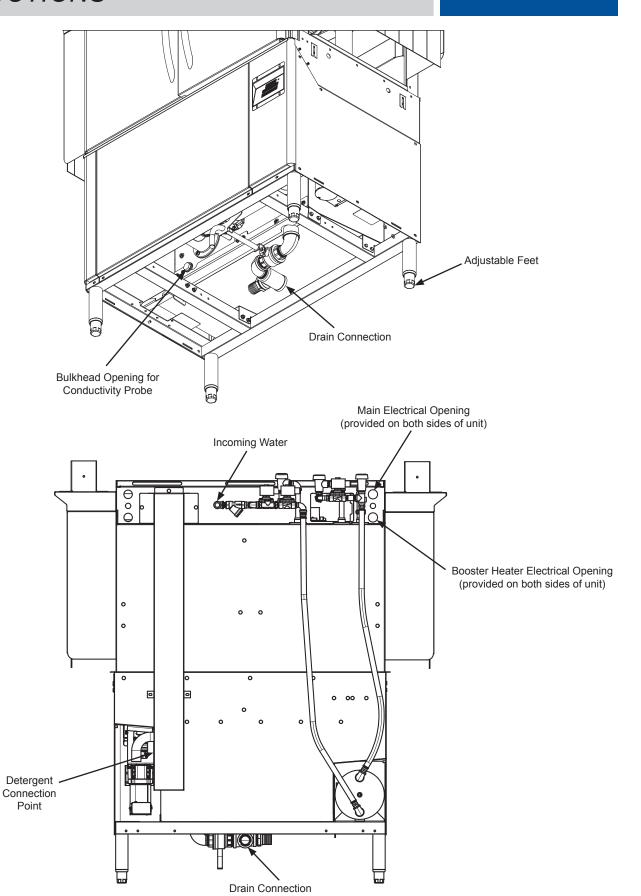


Contact a chemical supplier about connecting a dispenser to the dishmachine. Chemical dispensers must be set for the type and concentration of chemicals being used.

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

The dishmachine can operate in either hot-water-sanitizing mode or chemical-sanitizing mode. The mode of the machine is marked above the machine's data plate.

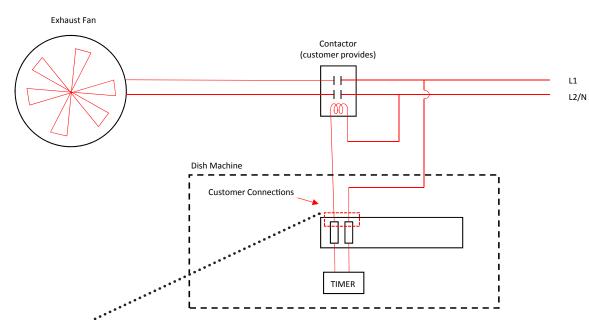
If the unit is operated in chemical-sanitizing mode, ensure an appropriate chlorine-based sanitizer is used in the final rinse line.



### **Wiring Diagram**

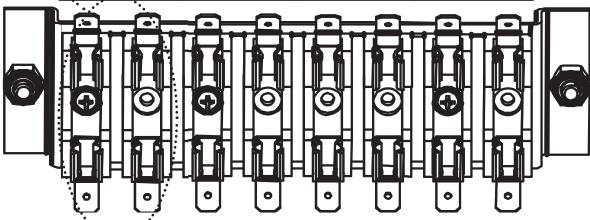


Do NOT connect primary load directly to Terminal Board!

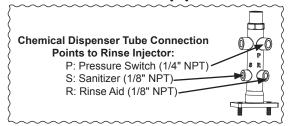


#### **Terminal Board**

|             | WARNING: DISCONNECT POWER TO MACHINE BEFORE SERVICING |   |  |  |  |  |
|-------------|---|---|--|--|--|--|
|             | EXHAUST FAN<br>CONNECTION                             | CONSTANT VOLTAGE CONNECTION             | RINSE AID DISPENSER<br>CONNECTION        | DETERGENT DISPENSER                      |  |  |
| COMMEDITION |   | COMMESTION                              | COMMECTION                               | CONNECTION                               |  |  |
|             | MAXIMUM LOAD<br>1 AMP, 240/120 VAC                    | LIVE WHEN MACHINE<br>POWER SWITCH IS ON | LIVE WHEN RINSE<br>VALVE IS OPEN         | LIVE WHEN WASH<br>PUMP MOTOR IS ON       |  |  |
| •           | INPUT L1 OUTPUT TO (EXTERNAL) EXT. RELAY              |   | FUSE: 3 AMP SLOW-ACTING<br>L1 OUT L2 OUT | FUSE: 3 AMP SLOW-ACTING<br>L1 OUT L2 OUT |  |  |

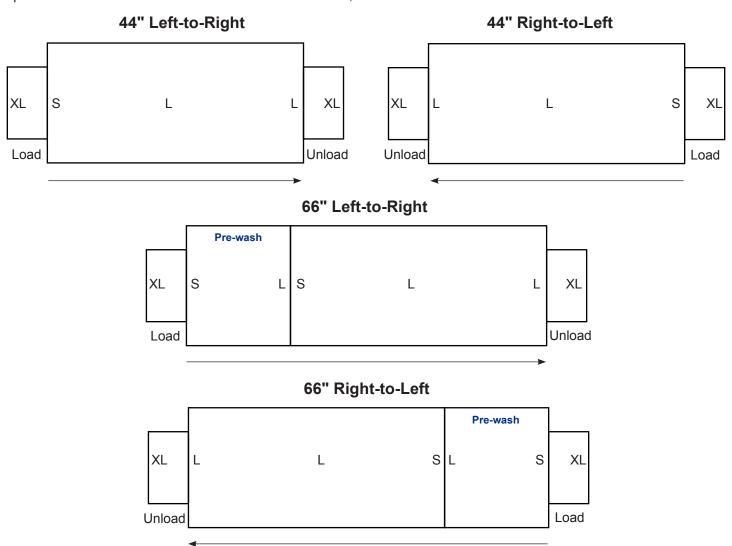


### **Chemical Supplies**



The unit has decals marking the curtain locations inside the machine, starting at the load end and ending at the unload end. The illustrations below indicate the size of the curtain to be placed on the curtain hooks provided. If any curtain components are missing, these must be obtained and installed before operation.

**DETERMINING CONVEYER DIRECTION:** The dishmachine will be configured for either Left-to-Right or Right-to-Left operation. Direction is from the load end to the unload end, as shown below.



**IMPORTANCE OF PROPER CURTAIN PLACEMENT:** The curtains inside the dishmachine must be installed properly for the machine to operate correctly. Curtains are used to control air currents inside the unit and assist in maintaining the heat necessary to keep energy costs down. Note the approximate locations for each type of curtain in the above illustrations. **S = Short, L = Long, and XL = Extra Long.** See the chart below for actual curtain lengths and part numbers. Note the different part numbers for the curtain and curtain rod for the load end when a side-loader option is present.

| Legend      | Length | Part #          |
|-------------|--------|-----------------|
| S           | 12"    | 08415-131-73-44 |
| L           | 19"    | 08415-002-14-41 |
| XL          | 24.25" | 08415-002-47-37 |
| Curtain Rod | 20.50" | 05700-003-77-52 |

| Side-Loader<br>Option          | Part #          |
|--------------------------------|-----------------|
| XL<br>(Load End Only)          | 08415-003-84-88 |
| Curtain Rod<br>(Load End Only) | 05700-003-84-57 |

#### INSTALLATION

#### DRAIN QUENCH KIT INSTRUCTIONS





- This kit should only be installed by qualified service personnel to reduce the risk of electric shock, serious injury, or fire. A plumbing permit and the services of a licensed plumber and electrician might be required in some areas.
- Turn off the power supply and place the dishwasher disconnect (if applicable) in the off position. Lockout/tag-out to prevent the power supply from being turned back on accidentally.
- Failure to install this kit within the guidelines might adversely affect safety, performance, component life, and warranty coverage.
- Do NOT pull power for the Drain Quench Assembly from the machine! 120V facility power only!

#### **Tools Required**

- Pipe Wrench
- Adjustable Wrench
- 5/16" Nut Driver
- 3/8" Nut Driver or Wrench
- Phillips Screwdriver
- Pipe Thread Sealant Tape or "Pipe Dope"
- Needle-nose Pliers

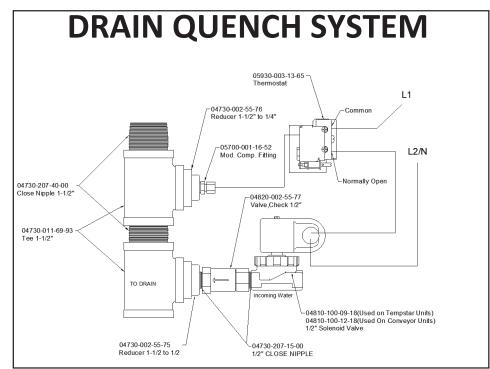
#### Instructions

- 1. Connect Drain Quench Assembly to the machine drain via 1.5" NPT street elbow (04730-206-32-00).
- 2. Orient assembly as shown below:





3. Connect user-supplied 115V cord (from facility power) into solenoid box as shown below:



4. Connect cold water to inlet side of solenoid valve.

Power cannot

be taken from

the machine!

- 5. Secure all electrical (ensure connection is to 120V facility power) and plumbing connections.
- 6. Restore water and power to the machine and verify drain guench performance.

IF THERE ARE ANY ISSUES AFTER INSTALLATION, PLEASE CONTACT TECHNICAL SERVICE AT 1-888-800-5672.

#### **OPERATING INSTRUCTIONS**

#### PREPARATION

Before operating the unit, verify the following:

The strainers are installed.



The drain valve is closed.



The actuator switches move with relative freedom and do not bind.





The curtains are installed correctly.

#### POWER UP To place the unit in standby, press the START button on the display.



- The unit will automatically determine if there is proper water level in the wash tank. If not, the unit will begin to fill until the appropriate level is reached.
- If the wash tank temperature is not at the minimum level for the mode of operation, the wash heater will energize. Refer to the machine data plate for a better understanding of the minimum temperatures needed to operate the unit correctly. It might take several minutes for the wash tank to heat up, depending on the initial temperature of the water.
- If the machine is equipped with a rinse booster option, the booster will turn on when the unit turns on.
- If the machine is heated with a steam booster, the steam booster must be turned on in accordance with the manufacturer's instructions.
- Do not attempt to start the unit until:
  - 1. The unit stops filling.
  - 2. The unit has reached the appropriate wash tank temperature.

**FIRST RACK** The first rack of ware that is placed in the unit will typically reduce the temperature of the wash tank, and the first rack might need to run through the unit again. This process might be necessary any time the unit has not been operated for an extended period of time, although this is dependent on the type of ware being used, its temperature, and the ambient temperature of the kitchen area. To ensure proper operation, always observe the temperatures of the wash and rinse when first starting the unit.

### **PREPARATION**

Proper preparation of ware is essential for the smooth, efficient operation of this dishmachine.

Any ware placed in the unit should have all solid food waste and scraps removed. Ware should also be sprayed-down before entering the dishmachine.

Place cups and glasses upside-down in racks so they do not hold water during the cycle. Presoak flatware in warm water to assist in removing food. Load plates and saucers in the same direction, with the food surface facing the unload end of the machine.

### RACK OF WARE

**WASHING A** This dishmachine is designed to wash ware that is placed in a rack. Materials should not be placed in the unit unless they are properly secured in a dish rack.

> To start the cycle, gently push the rack into the unit on the load end. Once the wash actuator has moved sufficiently, the unit will automatically begin to convey the dish rack through the unit. The entire cycle is automatic.



#### OPERATIONAL INSPECTION

Operators should periodically review the following items while the machine is operating. These items are important for operating the machine in an efficient manner.



- Review wash and rinse temperatures and compare to the minimums on the data plate.
- Verify the pan strainers are not becoming clogged. Keeping these free of soil and debris allows for much better flow of water through the machine and prevents any sort of redeposit issues.
- Water pressure: The dishmachine is designed to run at a minimum of 15 PSI; if it is any lower there will not be enough rinse water to properly remove detergent from the ware.
- Wash and rinse arm nozzles should be free of debris. Open nozzles are essential to the operation of the dishmachine.

#### **OPERATING INSTRUCTIONS**

SHUTDOWN To shut the unit down, press the START button on the front of the machine. To drain the machine, move the drain valve to the drain position. If the machine is equipped with a steam booster, shut it down in accordance with its manufacturer's instructions.

#### CLEANING

Clean the unit at least once every 24 hours or at the end of the day. Cleaning assists in maintaining the efficient operation of the unit by removing soil and debris that might otherwise become trapped in nozzles or deposited onto ware.

Do NOT clean the unit with any type of metallic scrubbing sponge!

Curtains should be removed and scrubbed with mild detergent and a brush and allowed to air-dry.



Strainers should be removed and debris scooped out. Do not hit strainers to remove debris; this can cause them to warp and not seat correctly. Rinsing the strainer under water should remove the rest of any debris trapped in the part.



Wash arms can be removed using a 7/16" driver. However, the dishmachine is designed so that the wash arms are self-cleaning. Operators have the ability to flush the arms by removing the plastic end-caps and running a rack through the unit. This should only be done as a cleaning function with an empty rack and a tub that is filled with water.



- The internal chamber can be cleaned with a mild detergent and dishrag. The strainers and pawl bar should be removed to provide as much room as possible.
- The outside of the unit should be cleaned with a standard countertop or general cleaner. Do not attempt to clean inside any compartments, boxes, or chambers that are secured with a cover. These normally contain live electrical components.

#### RINSE MODES Press the I Key for ECONO RINSE.

Press the II Key for TURBO RINSE.

## **CYCLE COUNT**

CHECKING While the unit is powered off, press and hold the Power Key. The total cycle count will display for several seconds, followed by a normal .ON state.

- **GENERAL** 1. When main power is first connected to the unit, the digital display will sequence through its LEDs to show all are functional.
  - 2. The unit will then go into Standby Mode (blank display).
  - 3. Press the Power Key.
  - The display will show "Heating" until the wash tank reaches operating temperature. Cycle Light



5. The display will show "Ready" when the unit is ready to use.



#### **OPERATIONAL MESSAGES**

| DISPLAY                               | CONDITION   |
|---------------------------------------|---|
| "Check doors"                         | One of the doors is not fully closed or one of the switches is not being triggered. |
| "Filling"                             | The wash tank is filling with water.  |
| "Heating"                             | The unit is heating the water in the wash tank.                                     |
| "Delime"                              | The Delime Key has been pressed.  |
| "Ready"                               | The dishmachine is ready for operation.   |
| "Wash Temp"                           | A rack of dishes is progressing through the wash section.                           |
| Alternates "Wash Temp" & "Rinse Temp" | A rack of dishes is progressing through the rinse section.                          |

#### **OPERATION**

#### **DELIME INSTRUCTIONS**

### DELIME INSTRUCTIONS

To proceed with the delime operation, fill the dishmachine with the correct amount of delime solution as recommended by the chemical supplier. The tank capacities of the machine can be found in the Specifications section of this manual.

After the chemicals are added, perform the following steps:

1. Press the DELIME button.



- 2. Disconnect or turn off chemical feeder pumps.
- 3. Close the doors.
- 4. Press the START button and run the machine for the length of time recommended by the chemical supplier.
- 5. Press the START button to shut the unit off.
- 6. Wait five minutes, then inspect the inside of the machine. If the machine is not delimed, run again.
- 7. Once clean, drain and re-fill the machine and run two cycles to remove residual deliming solution.
- 8. Drain and re-fill the machine.
- 9. The machine is ready to use.

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.

### MAINTENANCE

PREVENTATIVE Jackson 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. So if you have a question or concern, do not hesitate to contact a QUALIFIED SERVICE AGENCY.

> 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 in place laying flat 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/or rinse arms are secure in the machine before operating.
- 4. Ensure that drains are closed/sealed before operating.
- 5. Remove as much soil from dishes by hand as possible before loading into racks.
- 6. Do not overfill racks.
- 7. Ensure that glasses are placed upside-down in the rack.
- 8. Ensure that all chemicals being injected into machine have been verified as being at the correct concentrations.
- 9. Clean the unit every 24 hours or at the end of every workday per the instructions in this manual.
- 10. Follow all safety procedures, whether listed in this manual or put forth by local, state, or national codes/regulations.

### TROUBLESHOOTING

#### **COMMON PROBLEMS**





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

| PROBLEM   | POSSIBLE CAUSE   | REMEDY   |
|---|--|--|
| Dishmachine will not fill after the door is closed. Power "ON" light is illuminated.                        | Faulty rinse solenoid valve.     Faulty door switch.   | Repair or replace valve as required.     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 working power source. |
| Dishmachine will not run after the door is closed. Power "ON" light is illuminated and the unit is filling. | Wash motor faulty/damaged.     Wash motor contactor faulty.  | Verify that the wash motor is getting power; if so, replace the motor.      Check for continuity; if contacts are open, replace the contactor.   |
| Dishmachine runs continuously in the wash cycle.  | 1. Machine is in Delime mode.  | Select an automatic cycle by choosing I, II, or III on the controller display.   |
| Wash heater does not work.  | Faulty heater element.     Faulty heater contactor.  | <ol> <li>Check element for continuity; if open, replace the heater.</li> <li>Replace the contactor.</li> </ol>   |
| Dishmachine fills slowly and/or the rinse is weak.  | <ol> <li>Clogged or obstructed rinse arms.</li> <li>Low incoming water pressure.</li> <li>Y-strainer is clogged</li> </ol> | <ol> <li>Remove and clean the rinse arms.</li> <li>Adjust the water pressure regulator to ensure that there is 10 PSI flow.</li> <li>Clean out the Y-strainer.</li> </ol>  |





**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  |
|--|--|---|
| No indication of pressure.                       | <ol> <li>Water turned off.</li> <li>Transducer disconnected.</li> <li>Pressure transducer defective.</li> </ol>                      | <ol> <li>Turn water on.</li> <li>Verify wiring.</li> <li>Replace pressure transducer.</li> </ol>  |
| Wash water is not reaching required temperature. | Faulty wash heater.      Wash thermometer is defective.  | Check element for continuity; if open, replace the heater.     Replace thermometer.   |
| Doors will not close completely.                 | Obstruction in door channel.     Machine not level.  | Remove the obstruction.     Adjust the feet to level machine.   |
| Water leaks at the wash pump.                    | 1. Wash pump seal defective.  2. Petcock or pump drain (if equipped) not shut/tight.  3. Loose hoses (hose clamps) on the wash pump. | <ol> <li>Replace the seal.</li> <li>Close or tighten.</li> <li>Tighten the hose clamps.</li> </ol>  |
| Will not rinse.                                  | <ol> <li>Defective rinse solenoid.</li> <li>Faulty timer.</li> <li>No water to the machine.</li> </ol>                               | Repair or replace the rinse solenoid.     Replace timer.     Verify that there is water at 10 PSI connected to the machine.   |
| Dishes are not coming clean.                     | Machine temperatures are not up to the minimum requirements.      No detergent/too much detergent.                                   | 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. |

#### **TROUBLESHOOTING**

#### **DISPLAY PROGRAMMING**

## PROGRAM SELECTION MODE

To access Program Selection Mode, the unit should be on and preferably not in operation (accessing this mode during operation will interrupt the process).

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

1. Press and hold the I and II Keys until "Program" starts flashing (2 - 3 seconds).



- 2. Press the Select Key.
- 3. Use the Up-arrow Key to change the program number to "6."



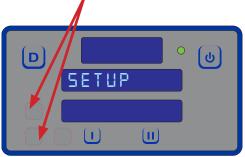
- 4. Press the Select Key.
- 5. "Program" will flash.
- 6. Press the Delime Key to exit.



### **SETUP MODE**

To access Setup Mode, the unit should be on and preferably not in operation (accessing this mode during operation will interrupt the process).

1. Press and hold the Up-arrow and Down-arrow Keys until "Setup" starts flashing (2 - 3 seconds).



- 2. The display will then change to "Version" and show the firmware versions of the IO module and UI board.
- 3. Use the Up-arrow Key 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 Key to choose the category you want to change.
  - Regardless of the category, steps 5 7 remain the same.
- 5. Use the Up-arrow Key to change the options (will be flashing). Numerical options are shown in the top window.



- 6. Press the Select Key to accept the changes.
- 7. Press the Delime Key to exit.

# TROUBLESHOOTING

# FAULT CODES

| DISPLAY SHOWS  | POSSIBLE CAUSES   | REMEDY   |  |
|--|---|--|--|
| "F4 Service needed,"                                   | Incoming power not properly connected.  | Check connections to heater.   |  |
| "Check incoming power"                                 | 2. L3 is missing (3-phase units only).  | 2. Verify that L3 is present and connected properly.   |  |
| "F6 Service needed," "No water in wash tank"           | <ol> <li>Low or no water pressure.</li> <li>Faulty inlet valve or fill relay.</li> <li>Contactor to wash heater not turning off.</li> <li>Faulty temperature input (T1) on IO module.</li> <li>Faulty temperature probe (T1).</li> <li>Faulty float switch allows heaters to operate with no water in tub.</li> </ol> | <ol> <li>Verify incoming water pressure is 8–12 PSI.</li> <li>Verify that fill relay is supplying voltage to fill solenoid. Replace faulty component.</li> <li>Check for welded contacts. Verify that output from IO module turns off when above the set temperature.</li> <li>Substitute a 1.2 kΩ resistor for T1, and verify that wash heater turns off. If not, replace IO module.</li> <li>Verify that T1 resistance is correct with respect to temperature. (See Table 1.) If not, replace T1.</li> </ol> |  |
|  |   | 6. Replace float switch.   |  |
| "F7 Service needed," "Check wash tank thermostat"      | Contactor to wash heater not turning off.     Faulty temperature input (P10) on IO module.  | <ol> <li>Check for welded contacts. Verify that output from IO module turns off when above the set temperature.</li> <li>Substitute a 1.2 kΩ resistor for T1, and verify that wash heater turns off. If not, replace IO module.</li> </ol>   |  |
| thermostat   | 3. Faulty temperature probe (T1).   | 3. Verify that T1 resistance is correct with respect to temperature. (See Table 1.) If not, replace T1.  |  |
| "F8 No water in wash                                   | Malfunction of fill solenoid or fill relay.   | Replace faulty solenoid or fill relay.   |  |
| tank," "Check inlet                                    | 2. Door is open, which inhibits fill mode.  | 2. Close door to activate door switch.   |  |
| water and door"  | 3. Faulty door switch.  | 3. Replace or adjust door switch.  |  |
| F11 Service need-<br>ed –check wash tank<br>thermostat | Faulty temperature probe (T1).  | Replace probe that connects to P10.  |  |
| F13 Communication<br>error. Check 6-pin<br>cable       | Loose connection in 6-pin cable between display board and IO module.      Faulty 6-pin cable between display board and IO module.      Faulty communication port on IO module or display board.   | 1. Fully disconnect 6-pin cable at each end, and reconnect each end until a click is heard.  2. 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.  3. Temporarily substitute a verified good display board, and check if F13 message recurs. If so, repeat substitution with a good IO module.                           |  |

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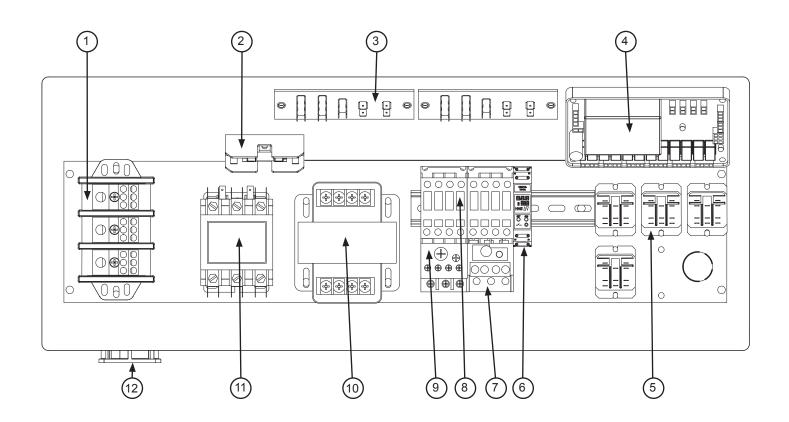
FAULT CODES

**TABLE 1: RESISTANCE-TO-TEMPERATURE VALUES** 

| R (kΩ) | °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 |

# PARTS

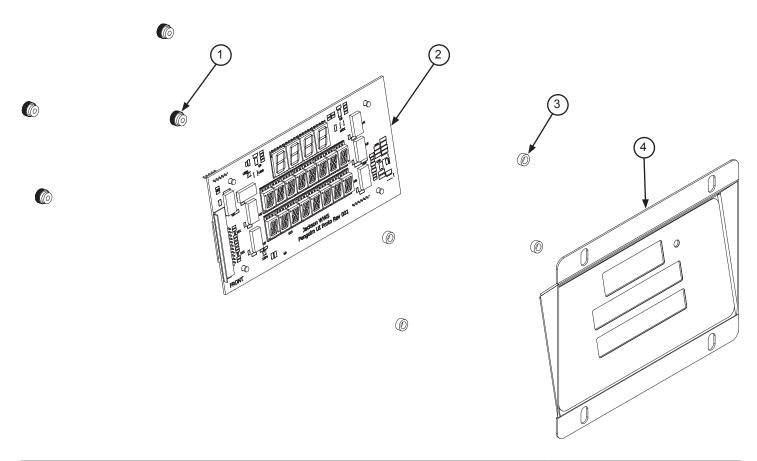
## CONTROL BOX COMPONENTS



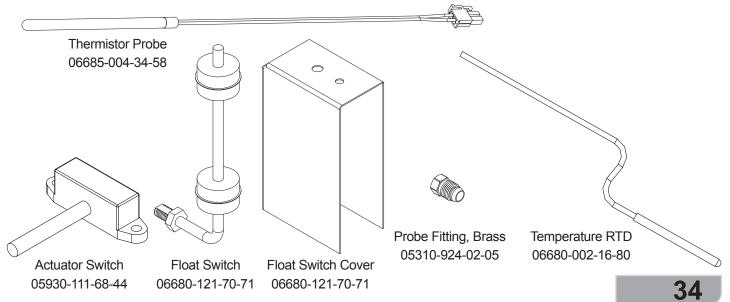
| ITEM | QTY | DESCRIPTION                          | PART NUMBER     |
|------|-----|--------------------------------------|-----------------|
| 1    | 1   | Terminal Block, 3-pole               | 05940-011-48-27 |
| 2    | 1   | Fuse Holder                          | 05920-011-72-89 |
| 3    | 2   | Terminal Board                       | 05940-002-78-97 |
| 4    | 1   | PCB, Electronic Control              | 05945-004-26-34 |
| 5    | 4   | Relay, KUP14AT5-120 P&B 3PO TP MO    | 05945-111-72-51 |
| 6    | 1   | Timer, Universal Digital Multi-timer | 05945-004-22-78 |
| 7    | 1   | Overload                             | 05945-111-68-40 |
| 8    | 2   | Contactor, Wash Motor                | 05945-111-68-38 |
| 9    | 1   | Overload                             | 05945-111-68-39 |
| 10   | 1   | Transformer, 208 V                   | 05950-011-75-59 |
| 10   | I   | Transformer, 230/460 V               | 05950-011-68-35 |
| 11   | 1   | Contactor, CR353FE3AA1 3-pole 50A    | 05945-002-24-70 |
| 12   | 1   | Fan                                  | 05999-004-30-62 |

## MISCELLANEOUS ELECTRICAL COMPONENTS



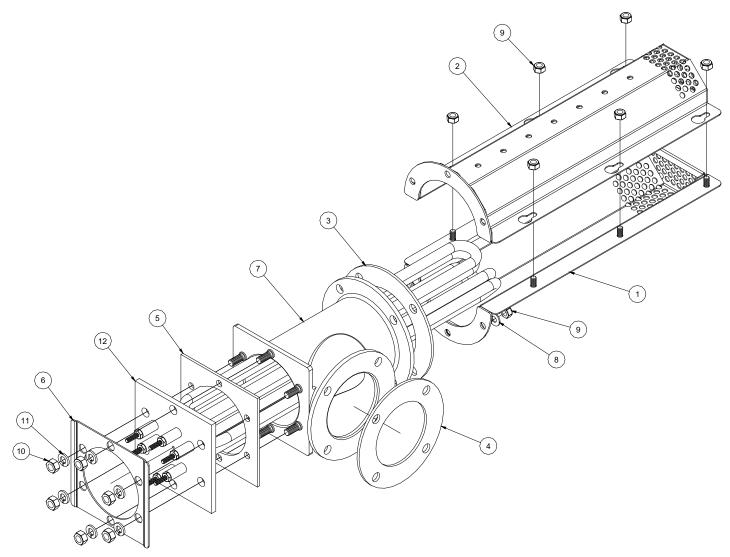


| ITEM | QTY | DESCRIPTION                 | PART NUMBER     |
|------|-----|-----------------------------|-----------------|
| 1    | 4   | Nut, Thumb, 6-32 Nylon      | 05310-002-83-12 |
| 2    | 1   | Board, Populated Circuit    | 05945-004-19-48 |
| 3    | 4   | Spacer, Display Board       | 05999-004-19-75 |
| 4    | 1   | Panel with Display Membrane | 05700-004-40-08 |

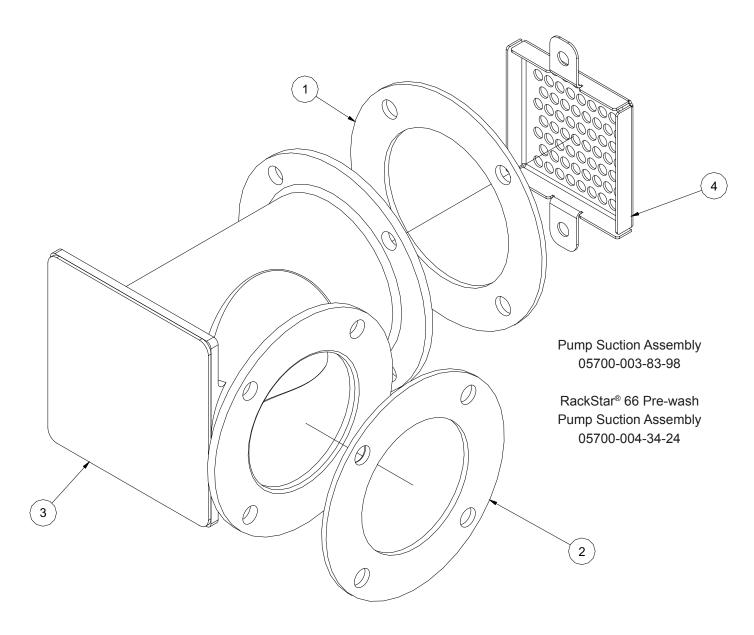




# WASH HEATER & HEATER SHROUD ASSEMBLIES



| ITEM | QTY | DESCRIPTION                         | PART NUMBER      |
|------|-----|-------------------------------------|------------------|
| 1    | 1   | Heater Shroud Weldment Lower        | 05700-003-74-21  |
| 2    | 1   | Heater Shroud Weldment Upper        | 05700-003-74-24  |
| 3    | 1   | Gasket, Suction Casting             | 05330-003-75-89  |
| 4    | 1   | Gasket, Pump Suction                | 05330-003-75-87  |
| 5    | 1   | Gasket, Heater                      | 05330-200-02-70  |
| 6    | 1   | Heater Box Rails                    | 05700-003-74-72  |
| 7    | 1   | Wash Pump Suction Weldment          | 05700-003-77-63  |
| 8    | 2   | Washer, S/S                         | 05311-174-01-00  |
| 9    | 9   | Locknut, 1/4"-20 Hex w/Nylon Insert | 05310-374-01-00  |
| 10   | 6   | Nut, Hex 5/16"-18 S/S               | 05310-275-01-00  |
| 11   | 6   | Lockwasher, 5/16" Split S/S         | 05311-375-01-00  |
| 12   | 1   | Wash Heating Element, 15kW/18kW     | See Heater Chart |



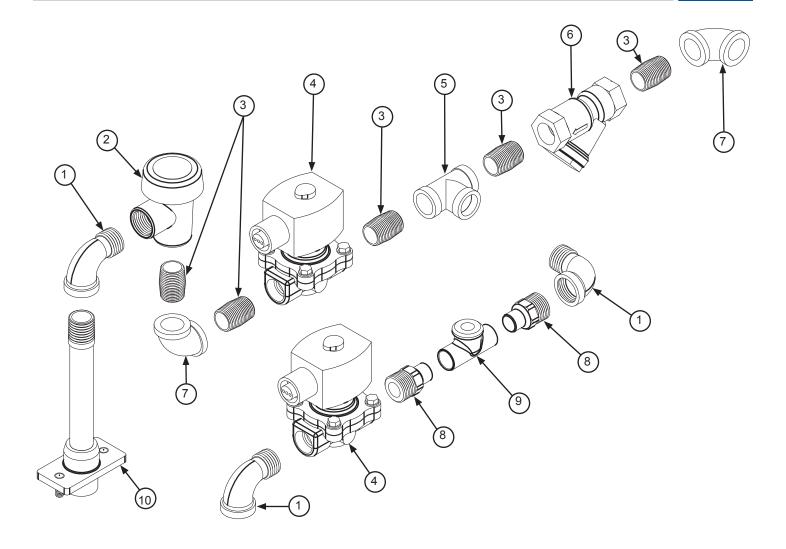
| ITEM | QTY | DESCRIPTION                    | PART NUMBER     |
|------|-----|--------------------------------|-----------------|
| 1    | 1   | Gasket, Suction Casting        | 05330-003-75-89 |
| 2    | 1   | Gasket, Pump Suction           | 05330-003-75-87 |
| 3    | 1   | Pre-Wash Pump Suction Weldment | 05700-003-82-27 |
| 4    | 1   | Strainer, Pre-Wash Pump        | 05700-003-81-28 |



| VOLTAGE | PHASE | KW | PART NUMBER     | CONTACTOR       |
|---------|-------|----|-----------------|-----------------|
| 208     | 1     | 15 | 04540-121-68-45 | 05945-111-68-37 |
| 230     | 1     | 15 | 04540-121-68-46 | 05945-111-68-37 |
| 208     | 3     | 15 | 04540-121-68-45 | 05945-002-24-70 |
| 230     | 3     | 15 | 04540-121-68-46 | 05945-002-24-70 |
| 460     | 3     | 15 | 04540-121-68-47 | 05945-002-24-70 |
| 208     | 1     | 18 | 04540-121-79-30 | 05945-111-68-37 |
| 230     | 1     | 18 | 04540-121-79-31 | 05945-111-68-37 |
| 208     | 3     | 18 | 04540-121-79-30 | 05945-002-24-70 |
| 230     | 3     | 18 | 04540-121-79-31 | 05945-002-24-70 |
| 460     | 3     | 18 | 04540-121-79-32 | 05945-002-24-70 |

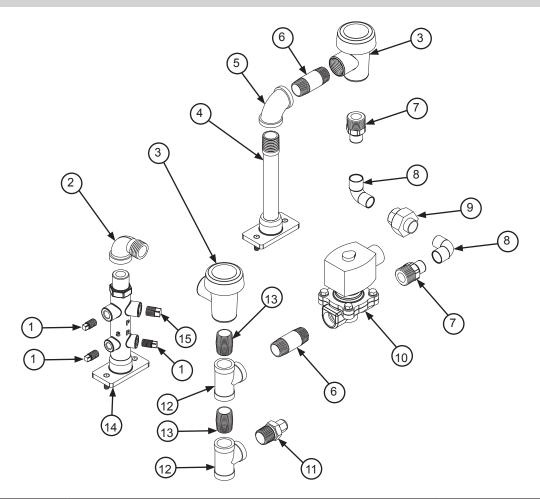
**SERVICE NOTES:** When replacing wash heaters, it is highly recommended to change the gasket as well. Once installed, gaskets become compressed and are subject to extreme temperature changes. Replacing the gasket with the heater might prevent future leaks.

The nuts used to secure the heater to the casting should be torqued to 16 in-lbs. After tightening, the unit should be allowed to heat up and operate normally for approximately 30 minutes. Secure power to the machine and check the nuts once more to verify they are torqued to 16 in-lbs.

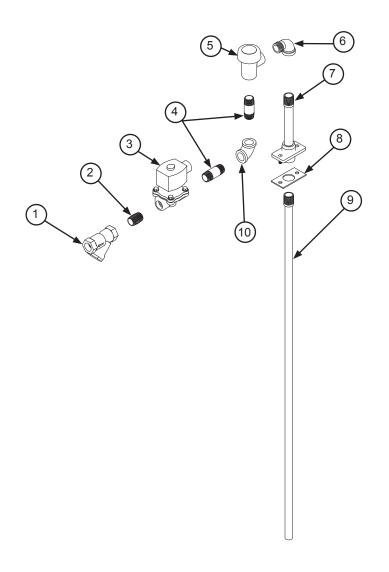


| ITEM | QTY | DESCRIPTION                       | PART NUMBER     |
|------|-----|-----------------------------------|-----------------|
| 1    | 3   | Elbow, 90-Degree 1/2 Street Brass | 04730-206-08-00 |
| 2    | 1   | Vacuum Breaker                    | 04820-003-06-13 |
| 3    | 5   | Nipple, 1/2 Close Brass           | 04730-207-15-00 |
| 4    | 2   | Solenoid Valve, 1/2               | 04810-003-71-55 |
| 5    | 1   | Tee, 1/2 Brass                    | 04730-211-27-00 |
| 6    | 1   | Y-strainer                        | 04730-217-01-10 |
| 7    | 2   | Elbow, 1/2 NPT                    | 04730-011-42-96 |
| 8    | 2   | Adapter, 1/2 Fitting X Male       | 04730-011-59-53 |
| 9    | 1   | Tee, 1/2 X 1/2 X 1/4 Female       | 04730-411-25-01 |
| 10   | 1   | Tank Fill Injector Weldment       | 05700-003-76-84 |

# PLUMBING ASSEMBLIES



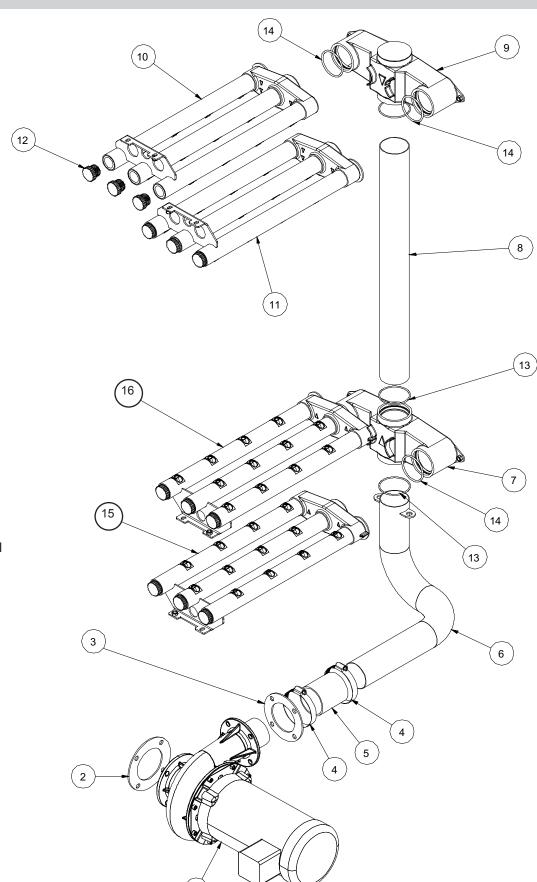
| ITEM | QTY | DESCRIPTION                       | PART NUMBER     |
|------|-----|-----------------------------------|-----------------|
| 1    | 3   | Plug, 1/8 Brass                   | 04730-209-07-37 |
| 2    | 1   | Elbow, 90-Degree 1/2 Street Brass | 04730-206-08-00 |
| 3    | 2   | Vacuum Breaker, 1/2"              | 04820-003-06-13 |
| 4    | 1   | Injector, Turbo Rinse             | 05700-004-32-61 |
| 5    | 1   | Elbow, 1/2 NPT Brass              | 04730-011-42-96 |
| 6    | 2   | Nipple, 1/2 Brass 2 Long          | 04730-207-19-00 |
| 7    | 2   | Adapter, 1/2 Fitting X Male       | 04730-011-59-53 |
| 8    | 2   | Elbow, 1/2                        | 04730-406-31-01 |
| 9    | 1   | Union, 1/2                        | 04730-412-05-01 |
| 10   | 1   | Solenoid Valve, 1/2               | 04810-003-71-55 |
| 11   | 1   | Fitting, Comp. 1/2 NPT X 1/4      | 05700-004-36-74 |
| 12   | 2   | Tee, 1/2 Brass                    | 04730-211-27-00 |
| 13   | 2   | Nipple, 1/2 Close Brass           | 04730-207-15-00 |
| 14   | 1   | Rinse Injector                    | 05700-003-76-83 |
| 15   | 1   | Plug, 1/4 Brass                   | 04730-209-01-00 |



| ITEM | QTY | DESCRIPTION                        | PART NUMBER     |
|------|-----|------------------------------------|-----------------|
| 1    | 1   | Y-strainer                         | 04730-217-01-10 |
| 2    | 1   | Nipple, 1/2" Close, Brass          | 04730-207-15-00 |
| 3    | 1   | Valve, 1/2"                        | 04810-003-71-55 |
| 4    | 2   | Nipple, 1/2" Brass 2 Long          | 04730-207-19-00 |
| 5    | 1   | Vacuum Breaker, 1/2"               | 04820-003-06-13 |
| 6    | 1   | Elbow, 90-degree 1/2" Street Brass | 04730-206-08-00 |
| 7    | 1   | Wash Fill Injector                 | 05700-003-77-56 |
| 8    | 1   | Gasket, Rinse Manifold             | 05330-003-75-91 |
| 9    | 1   | Tube, Tank Fill                    | 05700-003-76-81 |
| 10   | 1   | Elbow, 1/2" NPT 90 Brass           | 04730-011-42-96 |

# **PARTS**

# WASH MANIFOLD & ARM ASSEMBLY





Mechanical Pump Seal 05330-002-34-22

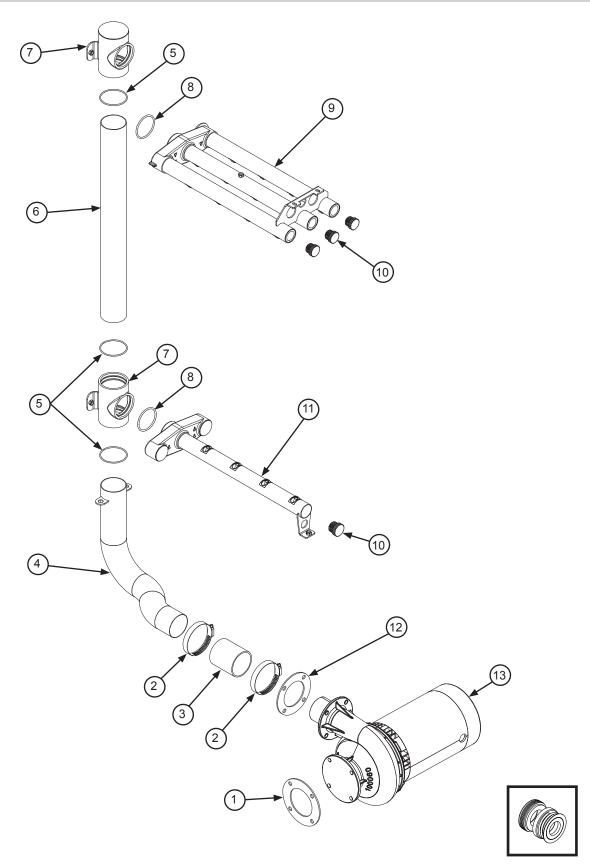
# WASH MANIFOLD & ARM ASSEMBLY



| ITEM | QTY | DESCRIPTION   | PART NUMBER                        |
|------|-----|---|------------------------------------|
| 1    | 1   | Pump & Motor Assembly                                       | See Table Below                    |
| 2    | 1   | Gasket, Pump Suction  | 05330-003-75-87                    |
| 3    | 1   | Gasket, Pump Discharge                                      | 05330-003-75-88                    |
| 4    | 2   | Hose Clamp, Range 2-9/16" to 3-1/2"                         | 04730-003-15-40                    |
| 5    | 1   | Hose, Wash Pump Discharge                                   | 05700-003-77-62                    |
| 6    | 1   | (L-R Machines) Lower Manifold (R-L Machines) Lower Manifold | 05700-004-27-39<br>05700-004-30-27 |
| 7    | 1   | Casting, Wash Manifold                                      | 09515-003-71-50                    |
| 8    | 1   | Tube, Manifold Riser  | 05700-003-72-37                    |
| 9    | 1   | Wash Manifold Weldment, Upper                               | 05700-003-73-66                    |
| 10   | 1   | Wash Arm Weldment, Top-right                                | 05700-003-75-79                    |
| 11   | 1   | Wash Arm Weldment, Top-left                                 | 05700-003-75-80                    |
| 12   | 12  | Cap, Threaded   | 04730-603-12-00                    |
| 13   | 3   | O-Ring, Silicone, .103 Dia., 2-1/2" x 2-11/16" OD           | 05330-003-73-71                    |
| 14   | 4   | O-Ring, Silicone, .139 Dia., 2-1/4" ID x 2-1/2" OD          | 05330-003-73-72                    |
| 15   | 1   | Wash Arm Weldment, Bottom-right 05700-004-27-43             |                                    |
| 16   | 1   | Wash Arm Weldment, Bottom-left                              | 05700-004-27-42                    |

| PUMP & MOTOR ASSEMBLY                  | PART NUMBER     |
|--|-----------------|
| Wash Pump, 3 HP, 208 V, 60 Hz, 3-Phase | 06105-003-76-11 |
| Wash Pump, 3 HP, 230 V, 60 Hz, 3-Phase | 06105-003-76-11 |
| Wash Pump, 3 HP, 460 V, 60 Hz, 3-Phase | 06105-003-76-11 |
| Wash Pump, 3 HP, 460 V, 60 Hz, 1-Phase | 06105-003-76-13 |
| Wash Pump, 3 HP, 230 V, 60 Hz, 1-Phase | 06105-003-76-13 |

## PRE-WASH MANIFOLD & ARM ASSEMBLY



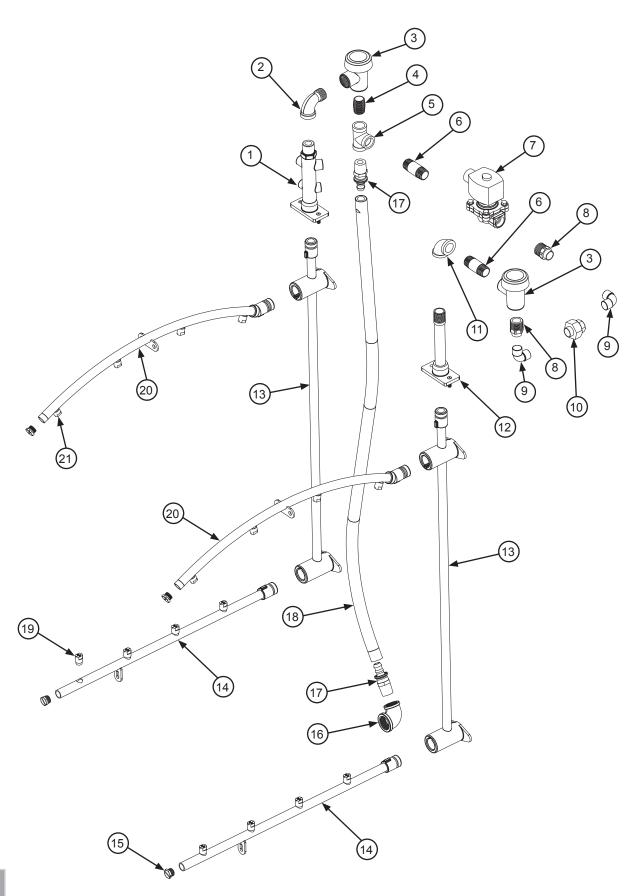
Mechanical Pump Seal 05330-002-34-22

# PRE-WASH MANIFOLD & ARM ASSEMBLY



| ITEM | QTY | DESCRIPTION  | PART NUMBER     |
|------|-----|--|-----------------|
| 1    | 1   | Gasket, Pump Suction                               | 05330-003-75-87 |
| 2    | 2   | Hose Clamp   | 04730-003-15-40 |
| 3    | 1   | Hose, Wash Pump Discharge                          | 05700-003-77-62 |
| 4    | 1   | Manifold, Pre-wash System                          | 05700-004-31-60 |
| 5    | 3   | O-Ring, Silicone, .103 Dia., 2-1/2" x 2-11/16" OD  | 05330-003-73-71 |
| 6    | 1   | Tube, Manifold Riser                               | 05700-003-81-53 |
| 7    | 2   | Casting, Pre-wash Manifold                         | 09515-003-77-22 |
| 8    | 2   | O-Ring, Silicone, .139 Dia., 2-1/4" ID x 2-1/2" OD | 05330-003-73-72 |
| 9    | 1   | Pre-wash Arm                                       | 05700-003-75-79 |
| 10   | 4   | Cap, Threaded                                      | 04730-603-12-00 |
| 11   | 1   | Pre-wash Arm, Lower                                | 05700-003-80-96 |
| 12   | 1   | Gasket, Pump Discharge                             | 05330-003-75-88 |
| 13   | 1   | Pre-wash Motor                                     | See Table Below |

| PUMP & MOTOR ASSEMBLY                   | PART NUMBER     |
|---|-----------------|
| Pre-Wash Pump, 2HP, 208V, 60Hz, 3-Phase | 06105-003-76-12 |
| Pre-Wash Pump, 2HP, 230V, 60Hz, 3-Phase | 06105-003-76-12 |
| Pre-Wash Pump, 2HP, 460V, 60Hz, 3-Phase | 06105-003-76-12 |
| Pre-Wash Pump, 2HP, 460V, 60Hz, 1-Phase | 06105-003-76-14 |
| Pre-Wash Pump, 2HP, 230V, 60Hz, 1-Phase | 06105-003-76-14 |

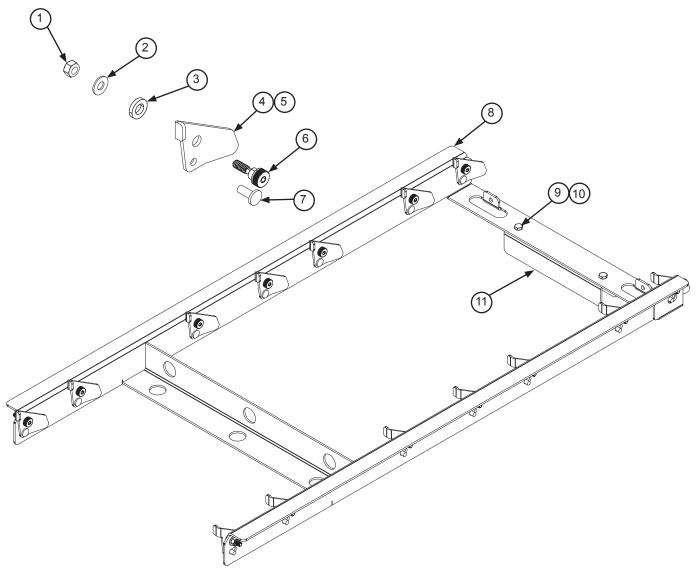


# RINSE ASSEMBLY

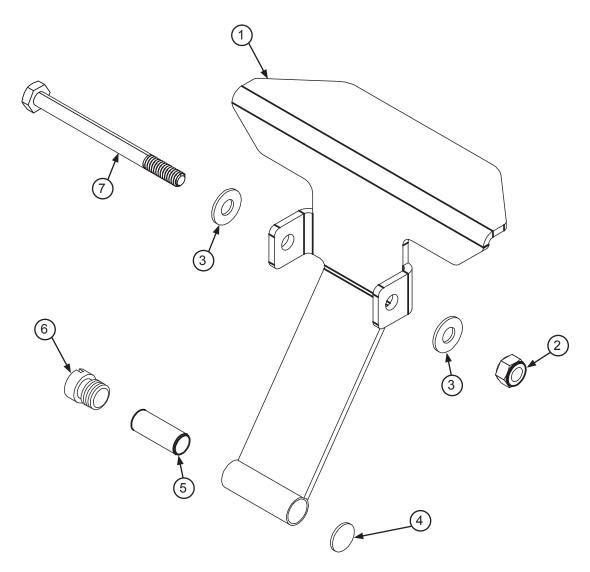


| ITEM | QTY | DESCRIPTION                       | PART NUMBER     |
|------|-----|-----------------------------------|-----------------|
| 1    | 1   | Rinse Injector                    | 09515-003-73-35 |
| 2    | 1   | Elbow, 90-degree 1/2 Street Brass | 04730-206-08-00 |
| 3    | 2   | Vacuum Breaker                    | 04820-003-06-13 |
| 4    | 1   | Nipple, 1/2 Close Brass           | 04730-207-15-00 |
| 5    | 1   | Tee, 1/2 Brass                    | 04730-211-27-00 |
| 6    | 2   | Nipple, 1/2 Brass 2 Long          | 04730-207-19-00 |
| 7    | 1   | Valve, 1/2"                       | 04810-003-71-55 |
| 8    | 2   | Adapter, Male                     | 04730-401-03-01 |
| 9    | 2   | Elbow, 607 1/2 IN CTOC            | 04730-406-01-01 |
| 10   | 1   | Union, 1/2"                       | 04730-412-05-01 |
| 11   | 1   | Elbow, 1/2 NPT 90 Brass           | 04730-011-42-96 |
| 12   | 1   | Fill Injector                     | 05700-004-32-61 |
| 13   | 2   | Rinse Manifold                    | 05700-003-76-79 |
| 14   | 2   | Lower Rinse Arm                   | 05700-004-32-95 |
| 15   | 4   | End-cap, Rinse Arm                | 05700-011-35-92 |
| 16   | 1   | Elbow                             | 04730-004-34-53 |
| 17   | 2   | Fitting, 1/2" Male Swivel Brass   | 04730-004-19-62 |
| 18   | 1   | Hose                              | 05700-004-33-91 |
| 19   | 8   | Nozzle, Lower Rinse Arm           | 04730-003-76-06 |
| 20   | 2   | Upper Rinse Arm                   | 05700-003-76-02 |
| 21   | 8   | Nozzle, Upper Rinse Arm           | 04730-003-76-07 |



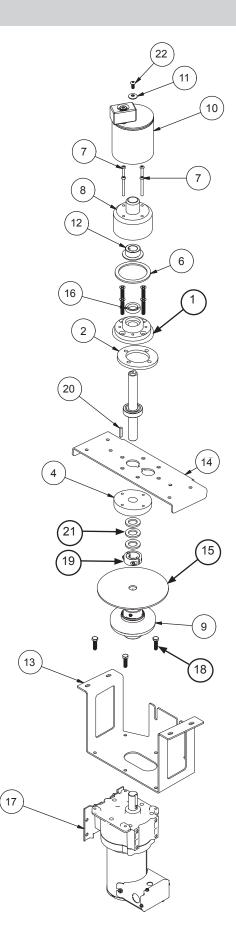


| ITEM | QTY | DESCRIPTION                            | PART NUMBER     |
|------|-----|--|-----------------|
| 1    | 14  | Locknut, 1/4-20 Hex w/Nylon Insert     | 05310-374-01-00 |
| 2    | 14  | Washer, 1/4-20 I.D.                    | 05311-174-01-00 |
| 3    | 14  | Washer-Flat, .406 I.D. x .750 O.D.     | 05311-004-29-35 |
| 4    | 7   | Rack Catch, Left                       | 05700-004-15-70 |
| 5    | 7   | Rack Catch, Right                      | 05700-004-15-71 |
| 6    | 14  | Bolt-Shoulder, 3/8 DIA. x 1/4", 1/4-20 | 05306-004-29-34 |
| 7    | 14  | Rivet, Flat Head                       | 05320-107-21-00 |
| 8    | 1   | 44" Pawl Bar Weldment                  | 05700-004-17-74 |
| 9    | 2   | Bolt, 1/4-20 x 1/2                     | 05305-274-02-00 |
| 10   | 2   | Nut, 1/4-20 x 1/2                      | 05310-011-44-35 |
| 11   | 1   | Rack Drive Guide                       | 05700-004-11-80 |



| ITEM | QTY | DESCRIPTION                         | PART NUMBER     |
|------|-----|-------------------------------------|-----------------|
| 1    | 1   | Paddle Switch                       | 05700-004-26-89 |
| 2    | 1   | Nut, Lock 1/4-20 Hex w/Nylon Insert | 05310-374-01-00 |
| 3    | 2   | Washer, 1/4-20 I.D.                 | 05311-174-01-00 |
| 4    | 1   | End-cap, Magnet Tube                | 05700-002-21-36 |
| 5    | 1   | Magnet                              | 05930-003-31-63 |
| 6    | 1   | End-cap, Paddle Switch              | 05700-011-60-92 |
| 7    | 1   | Bolt, Hex Head, 1/4-20 x 3-1/4"     | 05306-004-29-03 |

# DRIVE ASSEMBLY



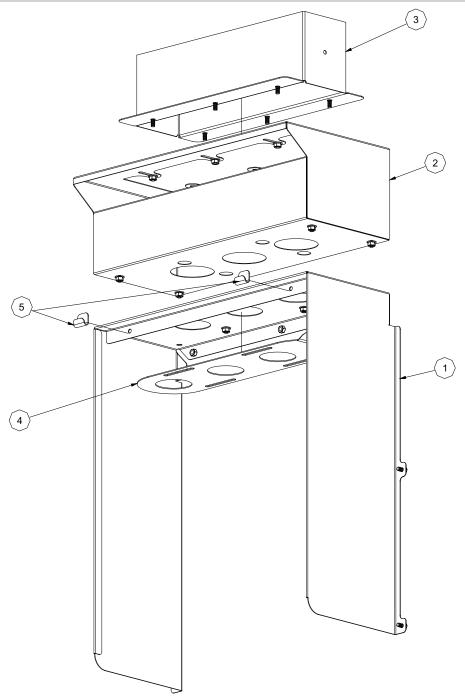
Drive Assembly 05700-004-29-95

# DRIVE ASSEMBLY



| ITEM | QTY | DESCRIPTION                            | PART NUMBER     |
|------|-----|--|-----------------|
| 1    | 1   | Drive Casting, Top                     | 09515-004-17-06 |
| 2    | 1   | Gasket, Drive Casting                  | 05330-004-20-31 |
| 3    | 4   | Screw, 1/4-20 x 1 1/2" Flat            | 05305-011-44-50 |
| 4    | 1   | Drive Casting, Bottom                  | 09515-004-17-03 |
| 5    | 1   | Drive Shaft                            | 05700-004-29-79 |
| 6    | 1   | Gasket, Drain Seat                     | 05700-002-04-42 |
| 7    | 4   | Screw, 10-32 x 1 3/4"                  | 05306-003-92-52 |
| 8    | 1   | Drive Shaft Cover                      | 05700-004-29-46 |
| 9    | 1   | Clutch-Drive, 3/4" x 3/4"              | 06105-004-29-41 |
| 10   | 1   | Drive Plate Cover                      | 05700-004-29-49 |
| 11   | 1   | Washer, Bonded Sealing 1/4" x 3/4"     | 05311-002-77-79 |
| 12   | 1   | Collar, Shaft Drive                    | 05700-004-29-45 |
| 13   | 1   | Motor Plate                            | 05700-004-19-38 |
| 14   | 1   | Motor Support Plate                    | 05700-004-26-97 |
| 15   | 1   | Gasket, Clutch                         | 05330-004-28-88 |
| 16   | 1   | Seal, Viton Oil Shaft 3/4" ID          | 05330-004-29-06 |
| 17   | 1   | Drive Motor                            | 06105-004-29-53 |
| 18   | 4   | Bolt, 1/4-28 x 1" S/S Hex Head         | 05306-004-30-91 |
| 19   | 1   | Collar, Shaft 3/4" (Clamp-On)          | 03120-004-33-50 |
| 20   | 1   | Key, 3/16" x 9/10" Long                | 05700-011-89-17 |
| 21   | 3   | Bearing, Thrust 3/4" Shaft x 1-1/4" ID | 03120-004-37-10 |
| 22   | 1   | Sealing Pan Head Phillips              | 05305-004-26-70 |

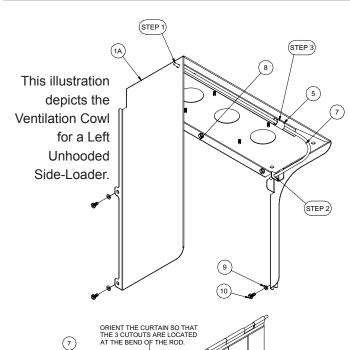
# VENTILATION COWL



| ITEM | QTY | DESCRIPTION               | PART NUMBER     |
|------|-----|---------------------------|-----------------|
| 1    | 2   | Ventilation Cowl          | 05700-004-34-01 |
| 2    | 2   | Ventilation Scoop         | 05700-004-29-68 |
| 3    | 2   | Ventilation Duct Adapter  | 05700-003-75-73 |
| 4    | 2   | Damper, Ventilation Scoop | 05700-003-74-76 |
| 5    | 4   | Curtain Hook              | 05700-003-17-98 |

### VENTILATION COWL FOR UNHOODED SIDE-LOADER



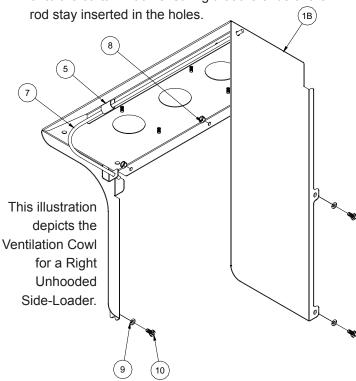


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To attach the curtain and rod to the Ventilation Cowl, ensure that the curtain is oriented as depicted and follow the steps below:

- 1. Insert the rod into the hole at the rear of the Ventilation Cowl.
- 2. Insert the rod into the bracket at the front of the Ventilation Cowl.

3. Gently lift the rod at the curtain cutout over and onto the curtain hook ensuring that the ends of the



| ITEM | QTY | DESCRIPTION                                     | PART NUMBER     |
|------|-----|---|-----------------|
| 1A   | 1   | Ventilation Cowl w/Cutout for Left Side Loader  | 05700-003-84-67 |
| 1B   | 1   | Ventilation Cowl w/Cutout for Right Side Loader | 05700-003-84-66 |
| 2    | 1   | Ventilation Scoop (not shown)                   | 05700-003-75-74 |
| 3    | 1   | Ventilation Duct Adapter (not shown)            | 05700-003-75-73 |
| 4    | 1   | Damper, Ventilation Scoop (not shown)           | 05700-003-74-76 |
| 5    | 2   | Curtain Hook                                    | 05700-003-86-10 |
| 6    | 1   | Curtain, XL for Side-Loader                     | 08415-003-84-88 |
| 7    | 1   | Curtain Rod                                     | 05700-003-84-57 |
| 8    | 3   | Locknut, 1/4-20 Hex w/Nylon Insert              | 05310-374-01-00 |
| 9    | 3   | Lockwasher, 1/4" Spring                         | 05311-274-01-00 |
| 10   | 3   | Bolt, 1/4-20 x 1/2" Long                        | 05305-274-02-00 |

6

# PARTS

### **MOTOR OVERLOADS**

**WASH MOTORS**: Overloads are specified for 3-phase units only.

For GE brand MT03\* series overloads, the process for setting is as follows:

- Determine the Full Load Amps (FLA) for the wash motor.
- Set the overload at the closest setting without going over for the FLA of the motor.
- The overload already compensates for the FLA and will have a setpoint that is 125% of the FLA. (Example: Wash motor is rated at 10.0 FLA on the data plate. The replacement MT03\* overload will be set at 10.0. It will trip at 12.5 Amps.)

| WASH MOTOR<br>VOLTAGE | PART NUMBER     | GE PART NUMBER |
|-----------------------|-----------------|----------------|
| 208                   | 05945-111-68-40 | RT1M           |
| 230                   | 05945-111-68-40 | RT1M           |

Blue selector switch should be set to H for manual reset.

**DRIVE MOTORS**: Overloads are specified for 3-phase units only.

For GE brand MT03\* series overloads, the process for setting is as follows:

- Determine the FLA for the drive motor.
- Set the overload at the closest setting without going over for the FLA of the motor.
- The overload already compensates for the FLA and will have a setpoint that is 125% of the FLA. (Example: Drive motor is rated at 1.0 FLA on the data plate. The replacement MT03\* overload will be set at 1.0. It will trip at 1.25 Amps.)

| DRIVE MOTOR VOLTAGE | PART NUMBER     | GE PART NUMBER |
|---------------------|-----------------|----------------|
| 208                 | 05945-111-68-39 | RT1G           |
| 230                 | 05945-111-68-39 | RT1G           |

Blue selector switch should be set to H for manual reset.

PRE-WASH MOTORS: Overloads are specified for 3-phase units only.

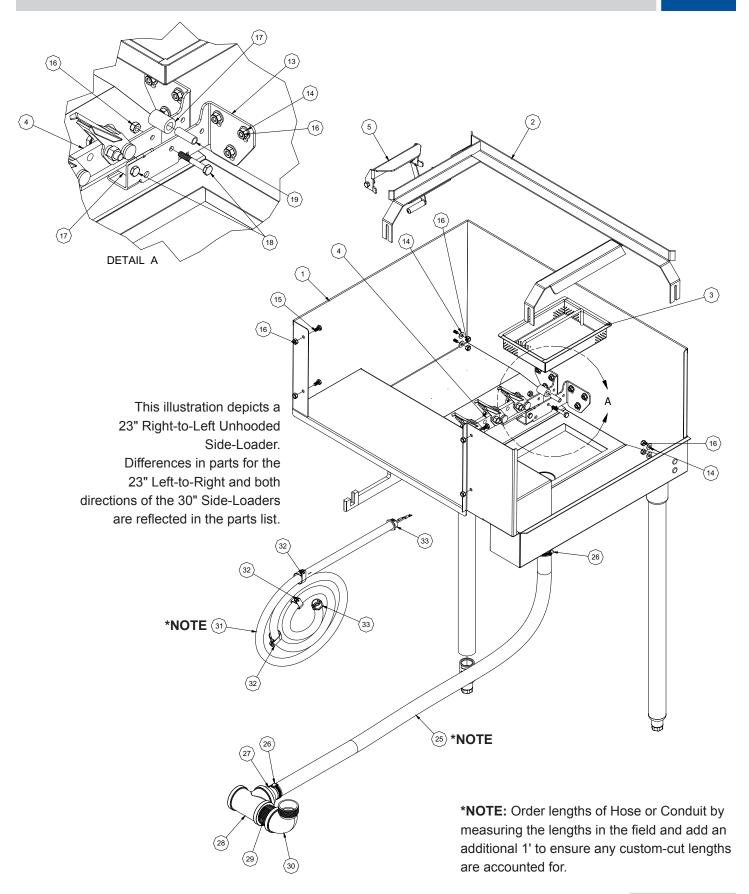
For GE brand MT03\* series overloads, the process for setting is as follows:

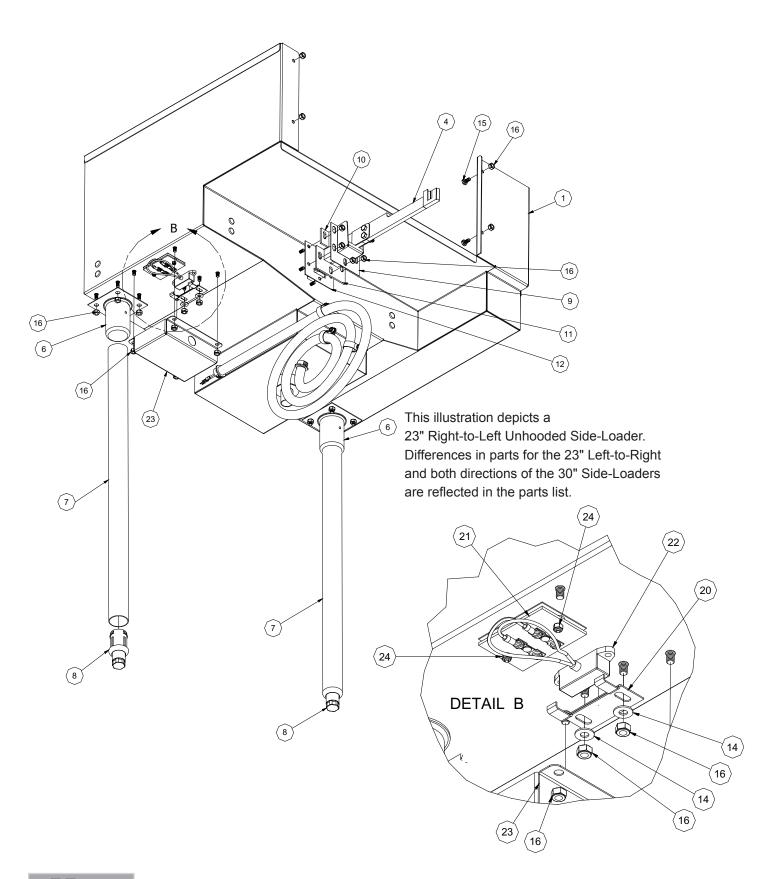
- Determine the FLA for the pre-wash motor.
- Set the overload at the closest setting without going over for the FLA of the motor.
- The overload already compensates for the FLA and will have a setpoint that is 125% of the FLA. (Example: Pre-wash motor is rated at 6.0 FLA on the data plate. The replacement MT03\* overload will be set at 6.0. It will trip at 7.5 Amps.)

| PRE-WASH MOTOR VOLTAGE | PART NUMBER     | GE PART NUMBER |
|------------------------|-----------------|----------------|
| 208                    | 05945-003-76-28 | MT03M          |
| 230                    | 05945-003-76-28 | MT03M          |
| 460                    | 05945-003-76-26 | MT03K          |

Blue selector switch should be set to H for manual reset.

NOTE: Connections should be tightened to 7 in-lbs.



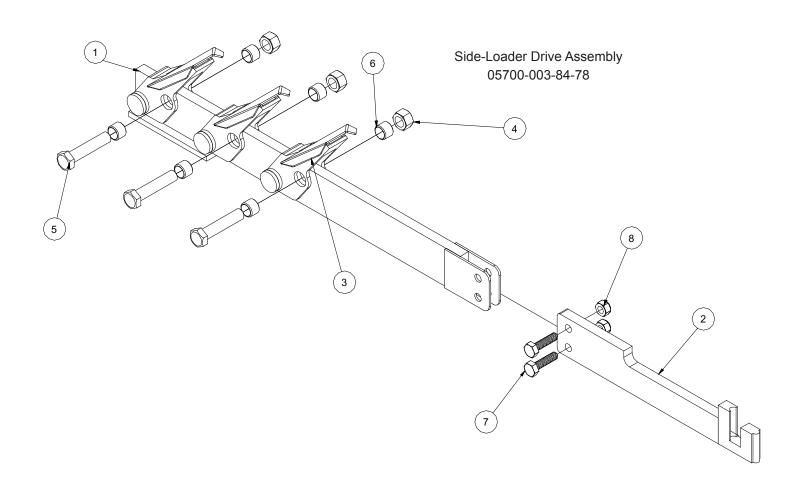




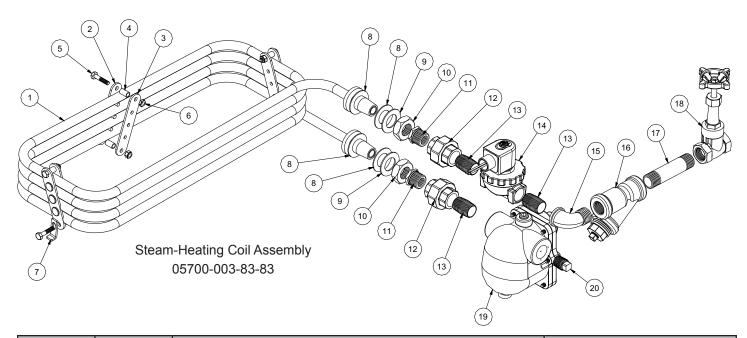
| ITEM | QTY   | DESCRIPTION  | PART NUMBER  |
|------|-------|--|--|
| 1    | 1     | Tub Weldment, 23" Side-Loader L-R<br>Tub Weldment, 23" Side-Loader R-L<br>Tub Weldment, 30" Side-Loader L-R<br>Tub Weldment, 30" Side-Loader R-L | 05700-003-84-59<br>05700-003-84-58<br>05700-003-88-46<br>05700-003-88-39 |
| 2    | 1     | Rack Support L-R   | 05700-003-90-00  |
| 3    | 1     | Strainer   | 05700-021-85-10  |
| 4    | 1     | Pawl Bar Drive Linkage (see side-loader drive linkage page)  | 05700-003-84-78  |
| 5    | 1     | Actuator Switch Assembly   | 05700-003-89-96  |
| 6    | 2     | Leg Socket   | 05700-002-56-14  |
| 7    | 2     | Support Leg  | 05700-021-87-59  |
| 8    | 2     | Foot, Adjustable   | 05340-108-01-03  |
| 9    | 1     | Gutter, Pawl Bar   | 05700-021-66-86  |
| 10   | 1     | Guide Block Top-Slotted  | 05700-011-69-49  |
| 11   | 1     | Guide Block Bottom-Slotted   | 05700-011-69-50  |
| 12   | 1     | Gasket, Drive Gutter   | 05330-011-68-55  |
| 13   | 1     | Bracket, Loader Pawl Bar Support   | 05700-003-87-39  |
| 14   | 16    | Washer, 1/4" S/S   | 05311-174-01-00  |
| 15   | 4     | Bolt, 1/4-20 x 1/2" Long   | 05305-274-02-00  |
| 16   | 39    | Locknut, 1/4-20 Hex w/Nylon Insert   | 05310-374-01-00  |
| 17   | 2     | Roller   | 05700-011-68-16  |
| 18   | 2     | SRackStar® , 1/4-20 x 1-3/4" Long Hex Head   | 05305-274-10-00  |
| 19   | 2     | Roller Shaft   | 05700-011-68-14  |
| 20   | 1     | Bracket, Limit Switch  | 05700-021-71-18  |
| 21   | 1     | Terminal Board   | 05940-011-84-41  |
| 22   | 1     | Switch Assembly, Side-Loader, 24VDC  | 05700-003-87-43  |
| 23   | 1     | Cover, Side-Loader Switch  | 05700-003-87-41  |
| 24   | 2     | Locknut, 6-32 Hex w/Nylon Insert   | 05310-373-03-00  |
| 25   | *NOTE | Drain Hose, Polybraid 1" (*SEE NOTE ON PG. 54)   | *04720-011-69-16   |
| 26   | 2     | Hose Clamp (Range: 13/16" to 1-1/2")   | 04730-719-06-09  |
| 27   | 1     | Drain Fitting Weldment   | 05700-021-84-61  |
| 28   | 1     | Tee, 1-1/2" Brass  | 04730-011-69-93  |
| 29   | 1     | Nipple, 1-1/2" Close Brass   | 04730-207-40-00  |
| 30   | 1     | Elbow, 90 Deg Street, Brass 1-1/2"   | 04730-206-32-00  |
| 31   | *NOTE | Conduit, 1/2" Flex 2 (*SEE NOTE ON PG. 54)   | *05975-003-33-36   |
| 32   | 3     | Clamp, 1" Nylon  | 04730-002-41-88  |
| 33   | 2     | Fitting, 1/2" Straight Twist/Snap  | 05975-003-33-27  |

# PARTS

# SIDE-LOADER DRIVE LINKAGE



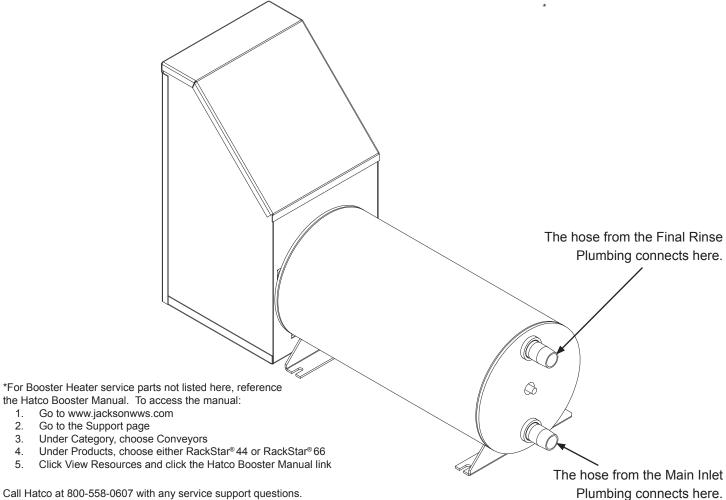
| ITEM | QTY | DESCRIPTION                            | PART NUMBER     |
|------|-----|--|-----------------|
| 1    | 1   | Pawl Bar, Side-Loader                  | 05700-021-86-88 |
| 2    | 1   | Drive Linkage, Side-Loader             | 05700-001-99-16 |
| 3    | 3   | Pawl Dog w/Wing                        | 05700-021-86-79 |
| 4    | 3   | Locknut, 3/8-16 w/Nylon Insert         | 05310-011-72-55 |
| 5    | 3   | Bolt, 3/8-16 x 1-3/4" Long Hex Head    | 05306-011-36-94 |
| 6    | 6   | Spacer, Pawl Bar Dog                   | 05700-011-71-45 |
| 7    | 3   | SRackStar® , 1/4-20 x 1" Long Hex Head | 05305-274-27-00 |
| 8    | 3   | Locknut, 1/4-20 Hex w/Nylon Insert     | 05310-374-01-00 |



| ITEM | QTY | DESCRIPTION  | PART NUMBER     |  |
|------|-----|--|-----------------|--|
| 1    | 1   | Steam Coil Weldment                                | 05700-003-83-70 |  |
| 2    | 3   | Steam Coil Spacer Weldment                         | 05700-003-83-33 |  |
| 3    | 3   | Plate, Steam Coil Spacer                           | 05700-003-83-32 |  |
| 4    | 6   | Sleeve, 1/4" x 5/8" Long                           | 05700-003-83-35 |  |
| 5    | 6   | Bolt, 1/4-20 x 1-1/4 Hex Head                      | 05305-274-22-00 |  |
| 6    | 6   | Locknut, 1/4-20 Low Profile w/Nylon Insert         | 05310-374-02-00 |  |
| 7    | 1   | Bracket, Steam Coil Adjustment                     | 05700-003-83-79 |  |
| 8    | 4   | Gasket, Steam Coil                                 | 05700-001-17-86 |  |
| 9    | 2   | Washer, Steam Coil Adapter                         | 05700-001-17-87 |  |
| 10   | 2   | Nut, Steam Coil Adapter                            | 05310-011-17-85 |  |
| 11   | 2   | Reducer, 3/4" x 1/2" Black Iron                    | 04730-911-02-34 |  |
| 12   | 2   | Union, 3/4" Black Iron                             | 04730-912-01-00 |  |
| 13   | 3   | Nipple, Close 3/4" Black Iron                      | 04730-907-01-00 |  |
| 14   | 1   | Valve, 3/4" Steam 110V Coil                        | 04820-011-87-39 |  |
| 15   | 1   | Elbow, 3/4" Street, Black Iron                     | 04730-011-87-37 |  |
| 16   | 1   | Y-Strainer, 3/4" Steam                             | 04730-217-01-32 |  |
| 17   | 1   | Nipple, 3/4" x 4" Long, Black Iron                 | 04730-907-02-34 |  |
| 18   | 1   | Valve, Gate 3/4" Steam                             | 04820-100-19-00 |  |
| 19   | 1   | Trap, Steam 3/4" 06680-500-02-77                   |                 |  |
| 20   | 1   | Plug, 3/4" Square Head, Black Iron 04730-002-86-59 |                 |  |



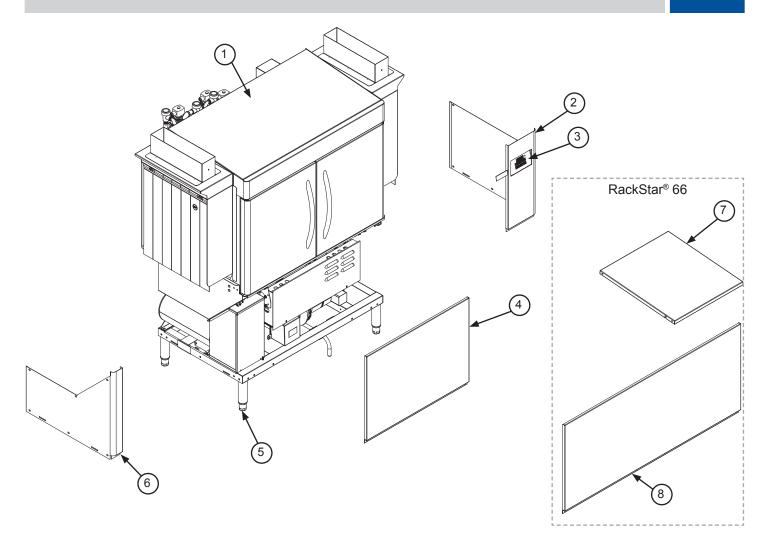
# BOOSTER HEATER OPTION (ELECTRIC)



Call Hatco at 800-558-0607 with any service support questions.

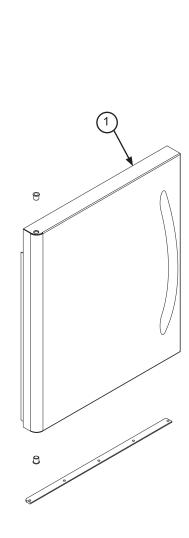
| ITEM | QTY | DESCRIPTION    | PART NUMBER     |
|------|-----|----------------|-----------------|
| 1*   | 1   | Booster Heater | See Chart Below |

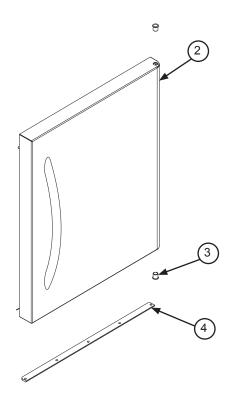
| BOOSTER HEATER                    | PART NUMBER     |
|-----------------------------------|-----------------|
| 12 kW (40 °F Rise) 208 V, 3-Phase | 04540-004-30-83 |
| 12 kW (40 °F Rise) 240 V, 3-Phase | 04540-004-30-82 |
| 12 kW (40 °F Rise) 480 V, 3-Phase | 04540-004-30-81 |
| 12 kW (40 °F Rise) 208 V, 1-Phase | 04540-004-30-80 |
| 12 kW (40 °F Rise) 240 V, 1-phase | 04540-004-30-79 |
| 17 kW (70 °F Rise) 208 V, 3-Phase | 04540-004-29-75 |
| 18 kW (70 °F Rise) 240 V, 3-Phase | 04540-004-29-77 |
| 18 kW (70 °F Rise) 480 V, 3-Phase | 04540-004-30-77 |
| 18 kW (70 °F Rise) 208 V, 1-Phase | 04540-004-29-76 |
| 18 kW (70 °F Rise) 240 V, 1-Phase | 04540-004-30-78 |



| ITEM | QTY | DESCRIPTION                                     | PART NUMBER                                     |
|------|-----|---|---|
| 1    | 1   | Hood Dress Panel                                | 05700-004-18-39                                 |
|      | 1   | Right Dress Panel, Right-to-Left Machine        | 05700-004-31-93                                 |
| 2    |     | Left Dress Panel, Left-to-Right Machine         | 05700-004-30-60                                 |
| 3    | 1   | Display   | See "Miscellaneous Electrical Components" page. |
| 4    | 1   | Front Dress Panel, RackStar® 44                 | 05700-004-30-44                                 |
| 5    | 1   | Adjustable Foot                                 | 05340-011-71-74                                 |
| 6    | 1   | Left Dress Panel, Right-to-Left Machine         | 05700-004-31-92                                 |
|      |     | Right Dress Panel, Left-to-Right Machine        | 05700-004-30-59                                 |
| 7    | 1   | Pre-wash Hood Dress Panel 05700-004-30-08       |   |
| 8    | 1   | Front Dress Panel, RackStar® 66 05700-004-34-48 |   |

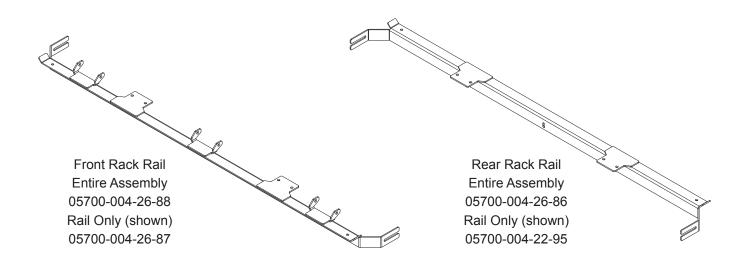
# DOOR ASSEMBLIES

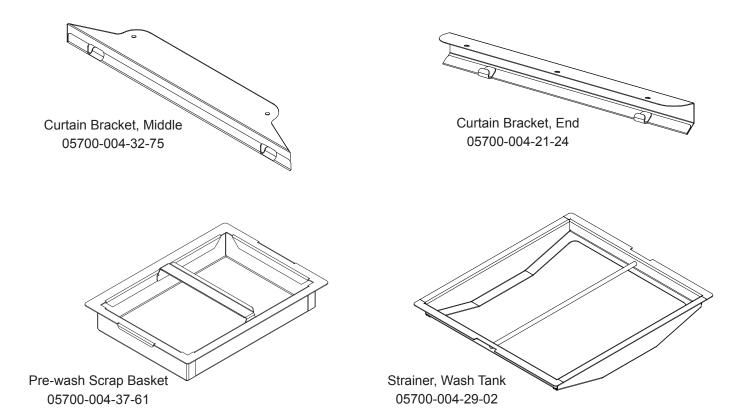




| ITEM | QTY | DESCRIPTION             | PART NUMBER     |
|------|-----|-------------------------|-----------------|
| 1    | 1   | Left Door Assembly      | 04420-002-43-94 |
| 2    | 1   | Right Door Assembly     | 05306-002-89-27 |
| 3    | 4   | Bearing, Flanged Sleeve | 03120-004-39-92 |
| 4    | 2   | Door Seal               | 09330-004-17-41 |





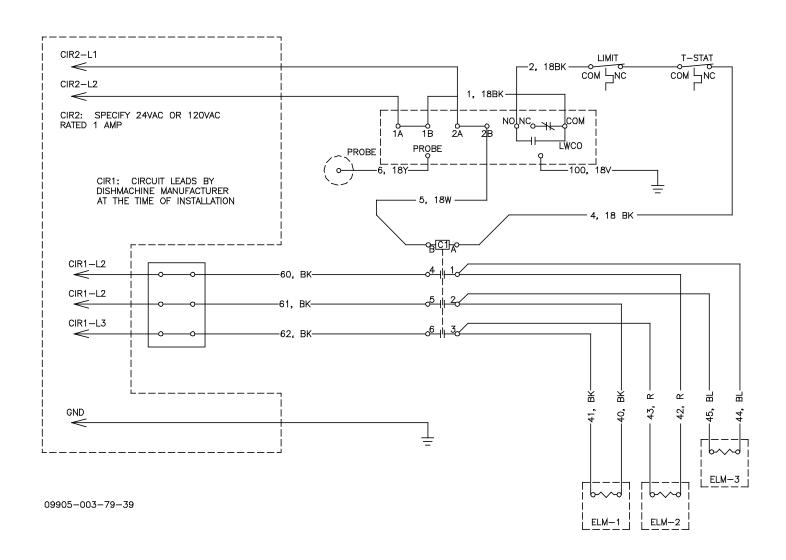


### SCHEMATICS

# BOOSTER HEATER, 3-PHASE

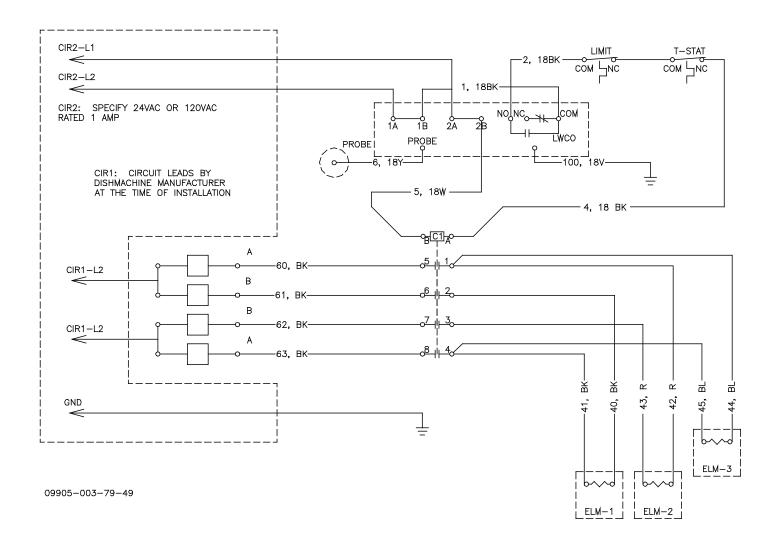
### USE THIS SCHEMATIC FOR THE FOLLOWING BOOSTER HEATER OPTIONS:

- 208V, 60Hz, 3-Phase, 12 kW, 40° Rise
- 230V, 60Hz, 3-Phase, 12 kW, 40° Rise
- 460V, 60Hz, 3-Phase, 12 kW, 40° Rise
- 208V, 60Hz, 3-Phase, 18 kW, 70° Rise
- 230V, 60Hz, 3-Phase, 18 kW, 70° Rise
- 460V, 60Hz, 3-Phase, 18 kW, 70° Rise



### USE THIS SCHEMATIC FOR THE FOLLOWING BOOSTER HEATER OPTIONS:

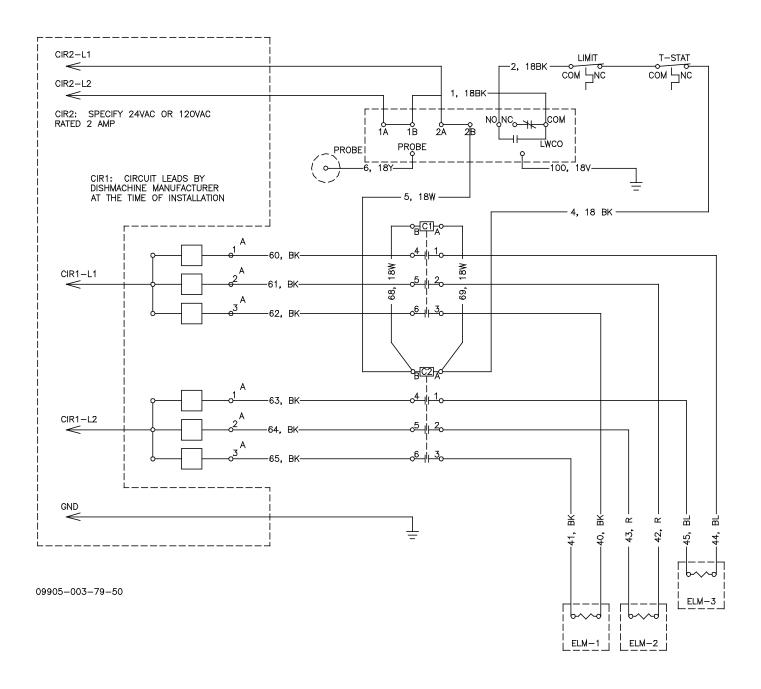
- 208V, 60Hz, 1-Phase, 12 kW, 40° Rise
- 230V, 60Hz, 1-Phase, 12 kW, 40° Rise

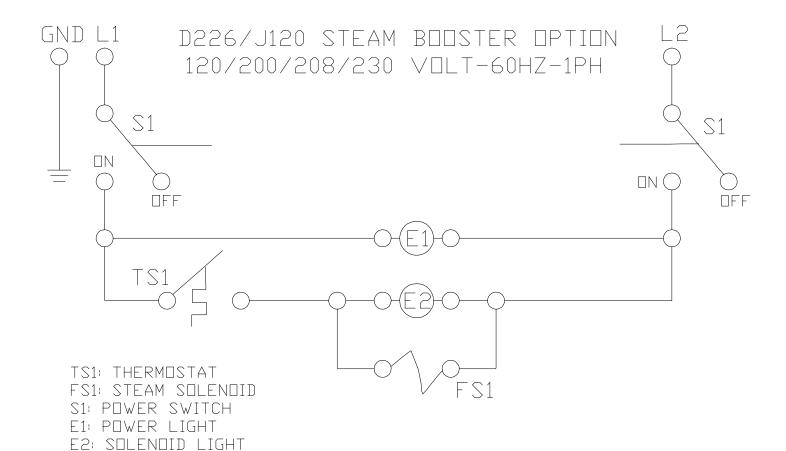


# BOOSTER HEATER, 1-PHASE, 18kW

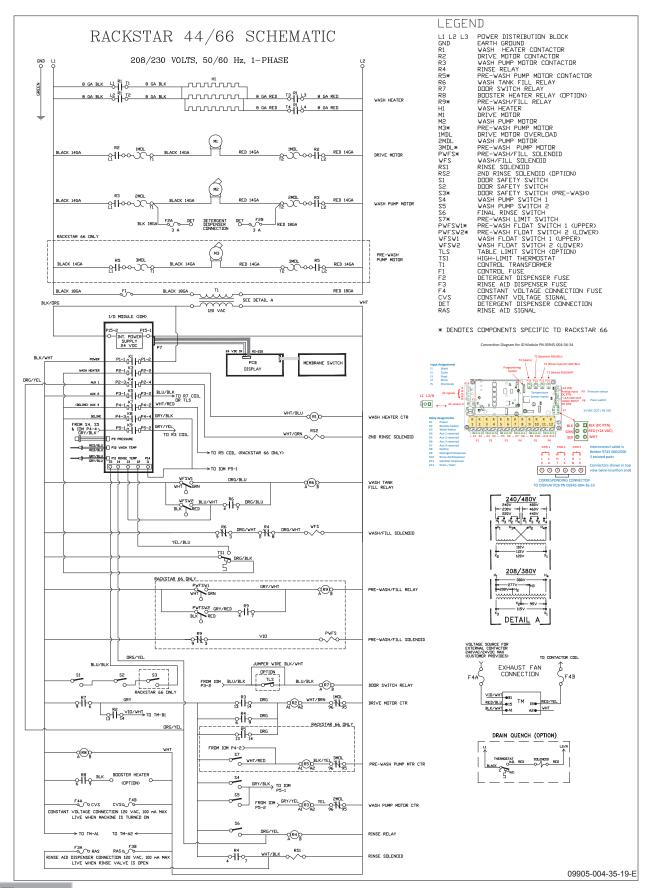
### USE THIS SCHEMATIC FOR THE FOLLOWING BOOSTER HEATER OPTIONS:

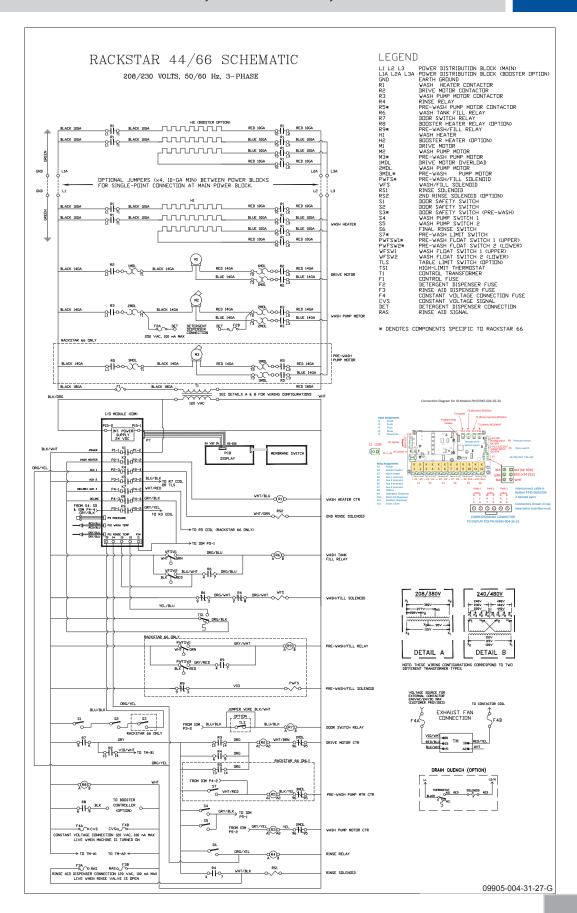
- 208V, 60Hz, 1-Phase, 18 kW, 70° Rise
- 230V, 60Hz, 1-Phase, 18 kW, 70° Rise



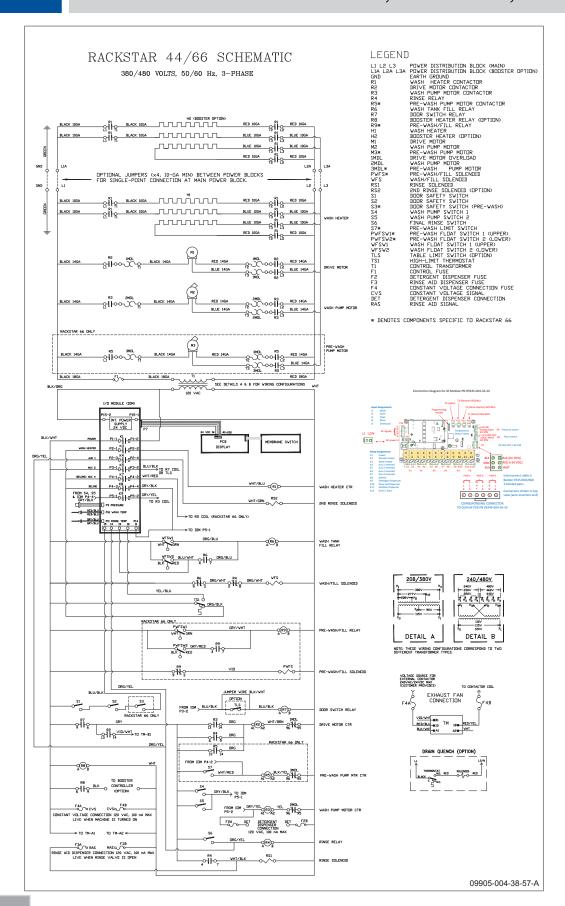


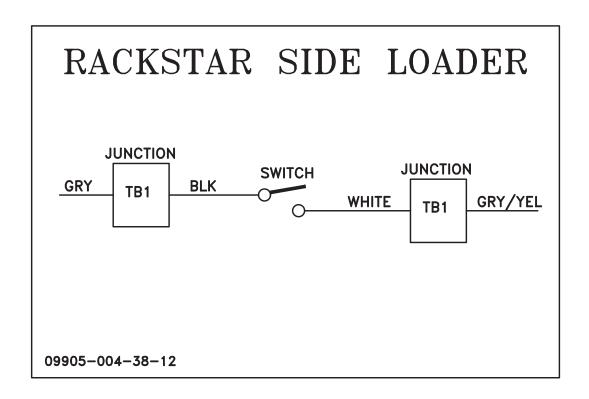
### RACKSTAR 208/230 V, 50/60 HZ, 1-PHASE





### RACKSTAR 380/480 V, 50/60 HZ, 3-PHASE

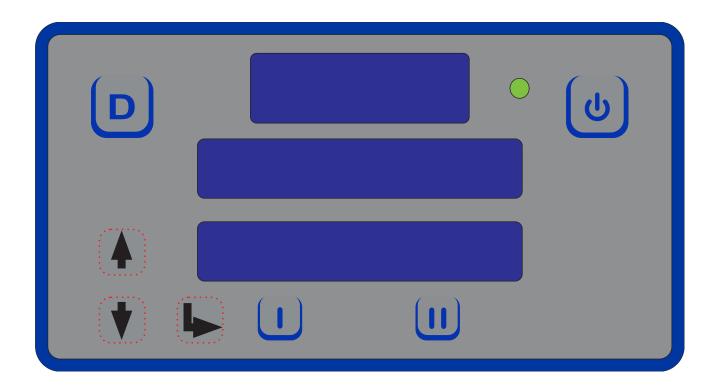


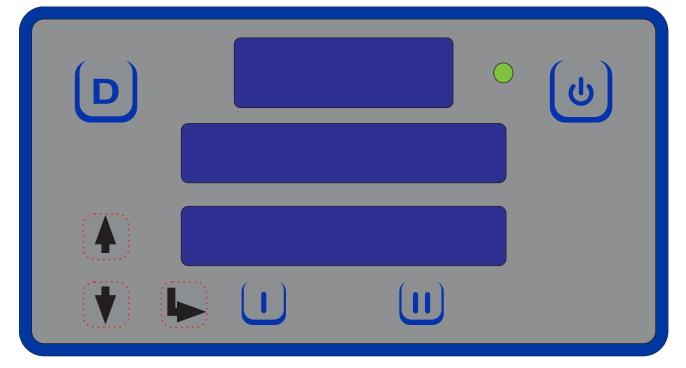


# ADDENDUM

## **DISPLAY TEMPLATE**

This page can be copied and the display templates cut-out. Lay the cut-out over the display and use the Up-arrow, Downarrow, and Select Buttons to locate the hidden programming buttons.







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