

# INSTALLATION, OPERATION, AND SERVICE MANUAL

HUBERT





Hubert HT-E Manual • 07610-004-47-41-B

# **REVISION HISTORY**

Revision Letter	Revision Date	Made by	Applicable ECNs	Details
А	6-21-17	JH	N/A	Initial release of the manual.
В	1-22-18	JH	8537 8574	Added the HT-E-SEER to the manual. Updated the Door Assembly pages. Added item #10 on pg. 48. Corrected P/N for item #10 on pg. 52.

# HUBERT®

# HT-E

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

# HT-E-SEER

Undercounter 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 System (SEER).

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## **TROUBLE SHOOTING**

Common Problems
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#### PARTS

Terminal Block Box, 208/230 V	
Terminal Block Box, 460 V	
Control Kick Panel	
HT-E Electrical Panel, 208/230 V	
HT-E Electrical Panel, 460 V	
HT-E-SEER Electrical Panel, 208/230 V	
HT-E-SEER Electrical Panel, 460 V	
Chemical Feeder Pump Assembly	
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#### **SCHEMATICS**

208/230 V, 50/60 Hz, 1 Phase	53
460 V, 60 Hz, 3 Phase	54

## GUIDES

#### SYMBOLS



- risk of injury to personnel.



- risk of damage to equipment.



risk of electrical shock.



reference data plate.



caustic chemicals.



ground wire.



lockout electrical power.

**NOTICE** - important note.

#### **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

#### LEGEND

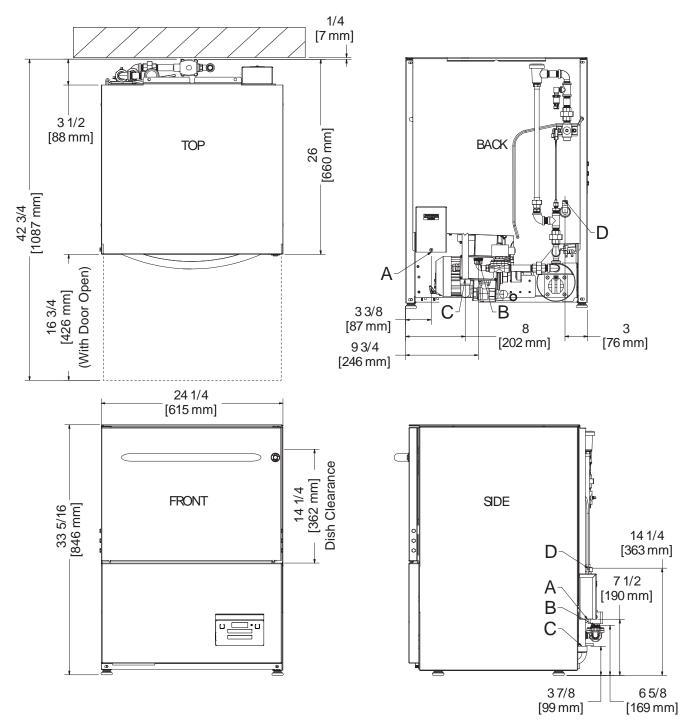
A - Electrical Connection

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

B - Water Inlet (with 6' Hose) (3/4" Male GHT, connect to true 1/2" ID line, 110 °F minimum)

D - Chemical Port

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



# HT-E-SEER DIMENSIONS

LEGEND:

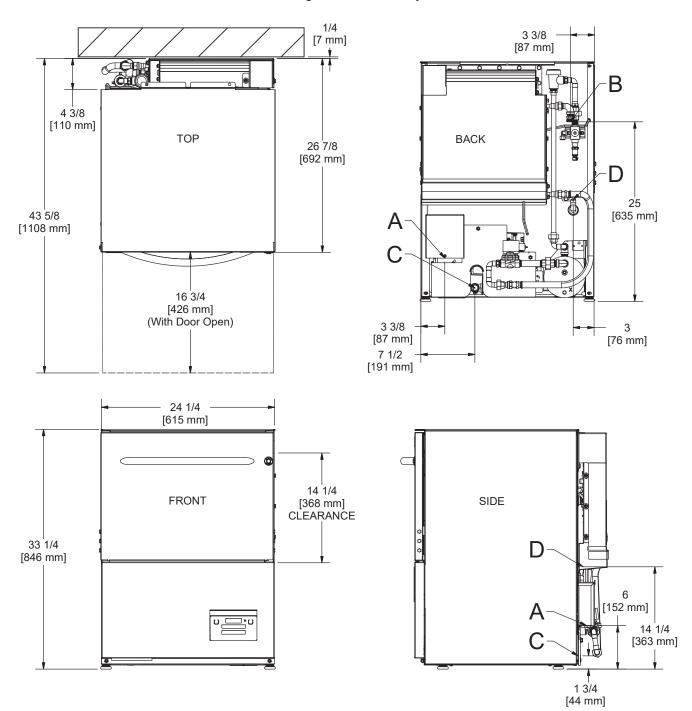
A - Electrical Connection

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

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

D - Chemical Port

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



# HT-E OPERATING PARAMETERS

HT-E

#### **Operating Capacity:**

Racks per Hour	27	
Dishes per Hour		
Glasses per Hour		
Tank Capacity (Gallons):		
Weeh Taul	0	

	-	•		
Wash Tank				3
Rinse Tank				1



**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):

Incoming water is from a "hot" water line.

Minimum Wash Temperature	155
Minimum Rinse Temperature	180
Minimum Incoming Water Temperature	110

#### **Other Water Requirements:**

Water Flow Pressure (PSI)	10
Flow Rate Minimum (GPM)	5.16
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

# HT-E-SEER OPERATING PARAMETERS

#### **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



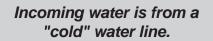
**NOTICE** Always refer to the machine data plate for specific electrical and water requirements. The material provided on this page is for reference only and is subject to change without notice.

#### Water Temperatures (°F):

Minimum Wash Temperature	155
Minimum Rinse Temperature	180
Minimum Incoming Water Temperature	40
Maximum Incoming Water Temperature	90

#### **Other Water Requirements:**

Water Flow Pressure (PSI)	10
Flow Rate Minimum (GPM)	5.16
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



## ELECTRICAL REQUIREMENTS



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
- 460 V, 60 Hz, Three-phase

#### Available Wash Motors:

- 1 HP (208/230 V)
- 3/4 HP (460 V)

#### Available Wash Tank Heaters:

- 3.3 kW (208 V)/4 kW (230 V)
- 4 kW (460 V)

#### Available Rinse Tank Heaters:

- 4.1 kW (208 V)/5.45 kW (230 V)
- 5.45 kW (460 V)

#### HT-E/HT-E-SEER Electrical Characteristics

VOLTS	208	230	460
PHASE	1	1	3
FREQ	60	60	60
WASH MOTOR AMPS	5.0 A	5.0 A	1.4 A
WASH HEATER AMPS	15.9 A	17.4 A	6.3 A
RINSE HEATER AMPS	19.7 A	21.7 A	4.6 A
TOTAL LOAD	24.7 A*	26.7 A*	7.7 A*

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

# **INSTRUCTIONS**

#### 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 unboxed 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.

The plumber must flush the incoming water line!

PLUMBING 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.

A water hardness test must be performed. A hardness test kit can be found on the warning tag that is attached to the incoming plumbing connection on the back of the A water hardness test machine. If water hardness is higher than 3 GPG, install a water softener or install the must be performed. optional HTS-11 (scale prevention and corrosion control). See the Plumbing Options page for more information on the HTS-11.

> See the HT-E Dimensions or HT-E-SEER Dimensions page (depending on your model) and reference item "B" for water inlet connection location.

# **CONNECTIONS:** WATER HARDNESS 3 GPG

WATER SUPPLY If water hardness is higher than 3 GPG and a water softener is not being used, install the HTS-11 into the water line (1/2" ID pipe size minimum) before the machine's incoming water connection point using copper pipe. Observe proper inlet/outlet water directions (flow directions are molded into the top of the head). It is recommended HIGHER THAN that a water shut-off valve be installed before installing the HTS-11 to allow access for service. Plumb from the HTS-11 outlet to the incoming water connection point using copper pipe (or order the 1/2" ID flexible hose kit offered by manufacturer). The water supply must be capable of a minimum of 10 PSI "flow" pressure at the recommended temperature indicated on the data plate. See the Plumbing Options page for more information on the HTS-11.

**INSTRUCTIONS** 

## **CONNECTION:** WATER HARDNESS OF 3 GPG **OR LOWER**

WATER SUPPLY If water hardness tests at 3 GPG or lower, install the water supply line (1/2" ID pipe size minimum) to the machine's incoming water connection point using copper pipe (or order the 1/2" ID flexible hose kit offered by the manufacturer). It is recommended that a water shut-off valve be installed in the water line between the main supply and the machine to allow access for service. The water supply line must be capable of a minimum of 10 PSI "flow" pressure at the recommended temperature indicated on the data plate.

#### PRESSURE REGULATOR

Take care not to confuse static pressure with flow pressure!

The manufacturer has an optional water pressure regulator to accommodate areas where water pressure fluctuates or is higher than the recommended 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.

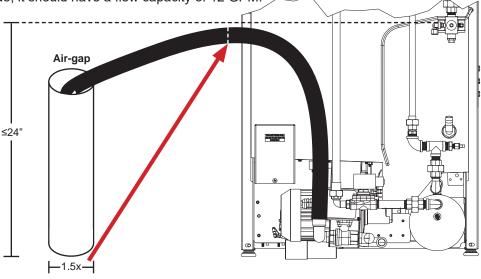
See the Plumbing Options page.

SHOCK ABSORBER A shock absorber (not supplied) should be installed on the incoming water line. This prevents water hammer or hydraulic shock-induced by the solenoid valve as it operates-from causing damage to the equipment.

See the Plumbing Options page.

#### CONNECTING THE **DRAIN LINE**

The machine has a pumped (pressure) drain capable of pumping waste water to a height of 24" above the floor to the kitchen's drain system. Each dishmachine is supplied with a drain hose. When installed, it will extend from the rear side of the machine. There must be an air-gap between the machine drain line and the floor sink or drain at least 1.5 times larger than the 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 line, 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. 8

# **INSTRUCTIONS**

#### ELECTRICAL POWER CONNECTIONS



Disconnect electrical

power at the breaker or

disconnect switch and

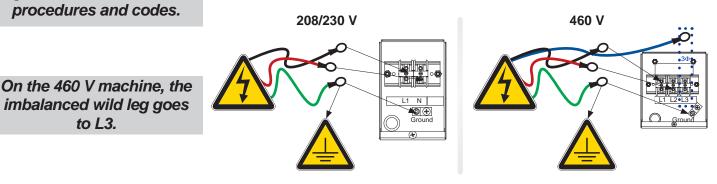
tag-out in accordance with procedures and codes.

to L3.

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 back 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

Damage to materials not recommended for higher temperatures will not be covered under warranty or by the manufacturer.

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.

#### TEMPERATURE SETPOINTS

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

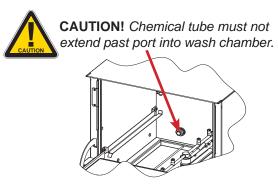
**LEVELING** A level machine is important to prevent any damage to the machine during operation and to ensure the best possible results. The machine comes equipped with adjustable bullet feet which can be turned using a pair of pliers. Since this machine is an undercounter unit, it should be leveled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

# **INSTRUCTIONS**

# **EQUIPMENT**

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

CHEMICAL FEEDER The bottom of the chemical container cannot be located any higher than 8" from the floor. If the unit is equipped with the 6" or 18" table stand, the highest position will be 14" or 26" respectively from the floor.



**PREPARING** This machine is supplied with detergent and rinse-aid chemical feeder pumps.

CHEMICAL Locate the open ends of the chemical tubes with the tube stiffeners and place each FEEDER PUMPS one in the appropriate container.

A. Red Tubing = Detergent

B. Blue Tubing = Rinse-aid

#### PRIMING CHEMICAL FEEDER PUMPS

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.

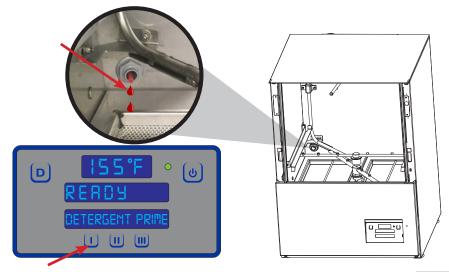




WARNING! Some of the chemicals used in dishwashing may cause chemical burns if they come in contact with skin. Wear protective gear when handling these chemicals. If any skin comes in contact with these chemicals, immediately follow the instructions provided with the chemicals for treatment.

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

- Verify that the proper chemical tube stiffener inlet is in the proper container. 1.
- 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.



#### PRIMING CHEMICAL <sup>3.</sup> FEEDER PUMPS

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 to the section below 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 of FILL, RINSE AID, or DETERGENT. Please note that options A, B, C, and D 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.

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.

# INSTRUCTIONS

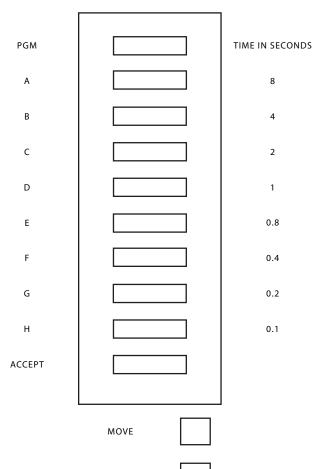
#### PROGRAMMING CHEMICAL FEEDER PUMPS

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 chart below for adjustable outputs.

PGM	HT-E	
E	Not adjustable	
F	Rinse	
G	Detergent	
Н	Rinse-Aid	



TIMER PROGRAMMING BOARD

# **OPERATING INSTRUCTIONS**

**PREPARATION** Before operating the machine, verify the following:

1. Strainers are in place and clean.



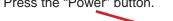
2. Wash and rinse arms are screwed securely into place and end-caps are tight.

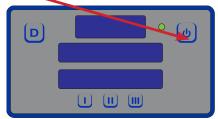


- 3. Wash and rinse arms rotate freely.
- 4. Chemical levels are correct.

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 1. Press the "Power" button. **WASH TUB** 





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



# **OPERATING INSTRUCTIONS**

#### 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.

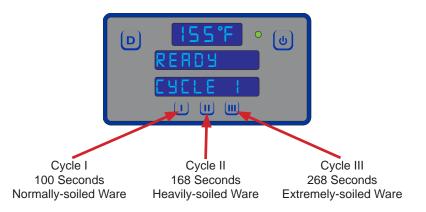
**WASHING A RACK** 1. Follow the Filling the Wash Tub section, ensuring temperature is at least 155 °F and the status displays "READY."



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



- 4. Close the door.
- 5. Choose the cycle.



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

# **OPERATING INSTRUCTIONS**

WASHING A RACK 6. Press the "Start" button and the machine will begin the wash cycle.

D ISS°F ° U WASHING SELE I U U U

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

Temperature shown is the minimum required temperature.

Temperature shown is the minimum required temperature.



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



 After the sanitize cycle is complete, the machine will automatically go back to being "READY" for operation and simply pressing the "Start" button will begin another cycle.



# **OPERATING INSTRUCTIONS**

#### 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.

#### SHUTDOWN & 1 CLEANING

**SHUTDOWN &** 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.



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



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



#### SHUTDOWN & 6 CLEANING

Use a screwdriver to ensure end-caps are tight.

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



7. Ensure the float is free of debris.



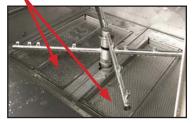
8. Spray or wipe out interior of machine.



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

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.

To delime the dishmachine:

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. Follow the Filling the Wash Tub section of this manual.
- 4. Open the door and add the amount of deliming solution recommended by the chemical supplier.
- 5. Close the door and press the "Delime" button on the display. The status will display "DELIME."



6. Press the "Start" button.



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

If this machine is equipped with an HTS-11 scale prevention and corrosion control device and lime is becoming a frequent problem, the cartridge needs to be replaced. To order a replacement cartridge, see the Plumbing Options page.

# DETERGENT CONTROL

# CONTROL

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

- 1. Hard water greatly affects the performance of the 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.
- 2. Deposited solids from hard water can cause spotting that will not be removed with a drying agent. Treated water will reduce this occurence.
- 3. Treated water might not be suitable for use in other areas of operation and it might be necessary to install a water treatment unit for the water going to the machine only. Discuss this option with a qualified water treatment specialist.
- 4. Machine operators should be properly trained on how much detergent is to be used per cycle. Meet with a water treatment specialist and detergent vendor to discuss a complete training program for operators.
- 5. Certain machine models require that chemicals be provided for proper operation. Some models might require the installation of third-party chemical feeders to introduce those chemicals to the machine. The manufacturer does not recommend or endorse any brand name of chemicals or chemical dispensing equipment. Contact a chemical supplier for questions.
- 6. Some machines come equipped with integral solid detergent dispensers. These dispensers are designed to accommodate detergents in a certain-sized container. If applicable, relate this to a chemical supplier upon first contacting them.



- 7. Water temperature is an important factor in ensuring that 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, there is a possibility that dishes will not be clean or sanitized.
- 8. Instruct machine 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.

#### MAINTENANCE

# PREVENTATIVE MAINTENANCE

#### PREVENTATIVE MAINTENANCE

The manufacturer of this machine 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:



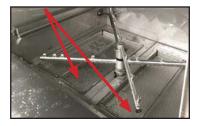
1. Ensure that the water temperatures match those listed on the machine data plate (on the front-left of machine).



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



3. Ensure that strainers are in place, laying flat in 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.



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



#### MAINTENANCE

# PREVENTATIVE MAINTENANCE

#### **PREVENTATIVE** 5. Do not overfill racks. MAINTENANCE

6. Ensure that glasses are placed upside-down in the rack.



- 7. Ensure that all chemicals being injected into 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 HTS-11 into the water line connecting to the dishmachine (see the "Plumbing" 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.

#### TROUBLESHOOTING

# COMMON PROBLEMS



**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.

PROBLEM	POSSIBLE CAUSE	REMEDY
Water overflow from bottom of	1. Clogged drain.	1. Remove obstruction.
door.	2. Machine not level.	2. Level machine or increase height to the front.
	3. Excessive inlet pressure.	<ol> <li>Install pressure regulating valve or adjust if one is present.</li> <li>Ensure flow meets data plate specification.</li> </ol>
	4. Detergent foaming.	4. Reduce detergent quantity.
	5. Wash or rinse arm end-cap missing.	5. Replace.
Wash motor doesn't	1. Loose or broken wires.	1. Reconnect or replace wires in motor.
operate on wash.	2. Defective "Start" button.	2. Adjust button or replace.
wash.	3. Defective motor contactor.	3. Replace.
Little or no water coming through	1. Limed-up rinse heads or piping.	1. Delime rinse heads.
the rinse assemblies.	2. Low water pressure.	<ol> <li>Increase pipe size to machine.</li> <li>Adjust pressure regulating valve.</li> </ol>

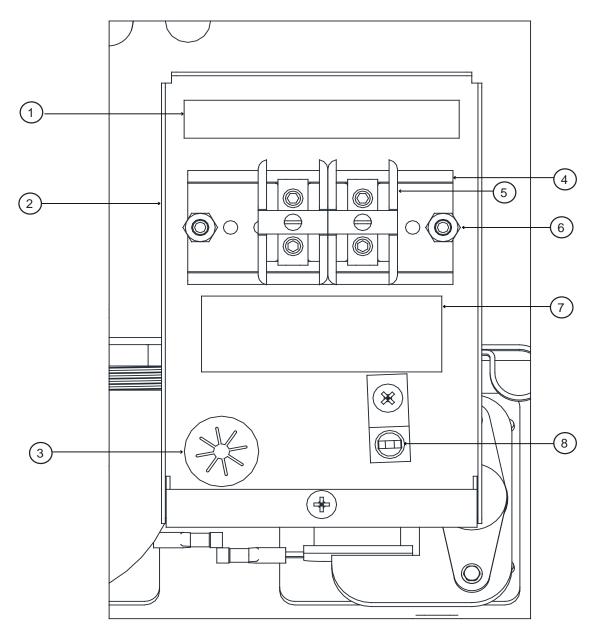
#### TROUBLESHOOTING



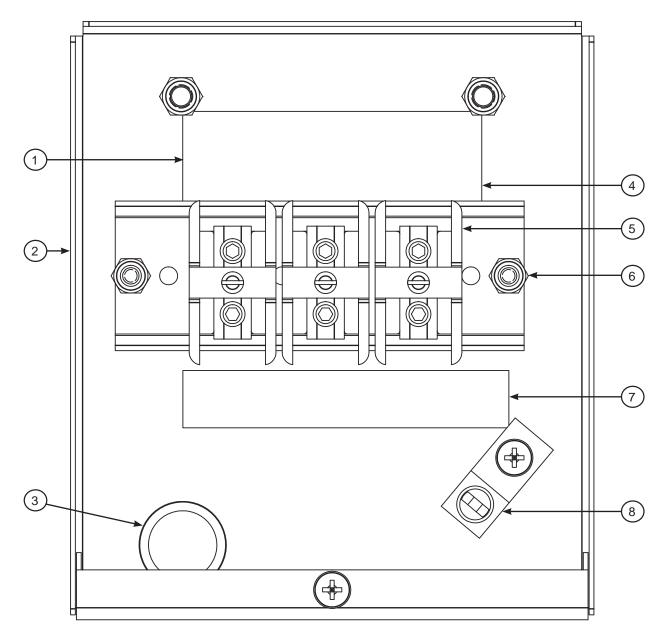
**WARNING!** Inspection, testing, and repair of electrical equipment should only be performed by qualified service personnel. Certain procedures in this section require electrical tests or measurements while power is applied to the machine. Exercise extreme caution at all times. If test points are not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

PROBLEM	POSSIBLE CAUSE	REMEDY
Rinse water runs continuously	1. Defective plunger in solenoid valve.	1. Replace plunger.
with breaker turned off.	2. Defective diaphragm in solenoid valve.	2. Replace diaphragm.
Wash temperature not	1. Water level low.	1. Check water level. If low, run new fill cycle.
within range.	2. RTD setpoint too low.	2. Adjust setpoint.
	3. Defective RTD.	3. Replace RTD.
	4. Wash heater defective.	4. Replace heater element.
	5. Defective heater contactor R1.	5. Replace contactor.
Rinse temperature not	1. RTD is defective.	1. Replace if necessary.
within range.	2. Incoming rinse water does not meet minimum criteria indicated machine data plate.	2. Adjust as required.
	3. Rinse heaters damaged.	3. Check amperages. Replace if necessary.
	4. Setpoint screens set low.	4. Adjust rinse tank setpoint.
Machine doesn't drain	1. Drain clogged.	1. Remove obstruction.
when power button is pressed.	2. Defective drain valve.	2. Replace.
Incorrect water pressure	1. Water turned off.	1. Turn water on.
displayed during Fill or	2. Transducer disconnected.	2. Verify wiring.
Rinse.	3. Pressure transducer defective.	3. Replace pressure transducer.

# TERMINAL BLOCK BOX, 208/230 V

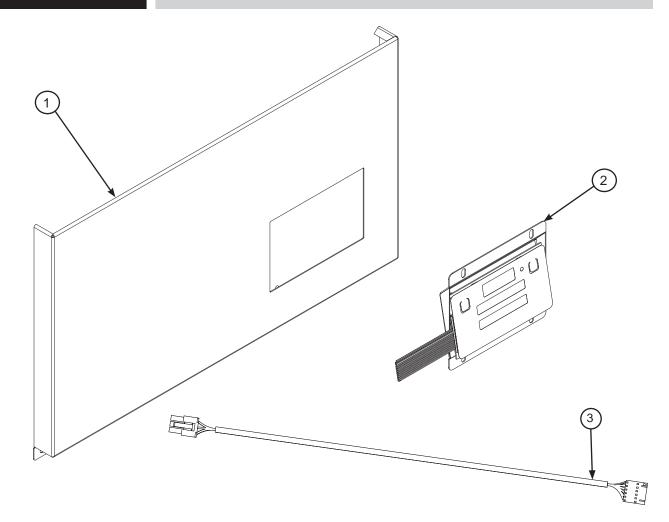


ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Power Connection Decal	09905-011-47-35
2	1	Terminal Block Box	05700-003-27-69
	1	Terminal Box Cover (not shown)	05700-003-27-70
3	1	Strain Relief	05975-003-37-56
4	1	Terminal Block Track	05700-000-43-60
5	2	Terminal Block	05940-500-02-19
6	2	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
7	1	Decal, L1, N	09905-011-62-72
8	1	Ground Lug	05940-200-76-00



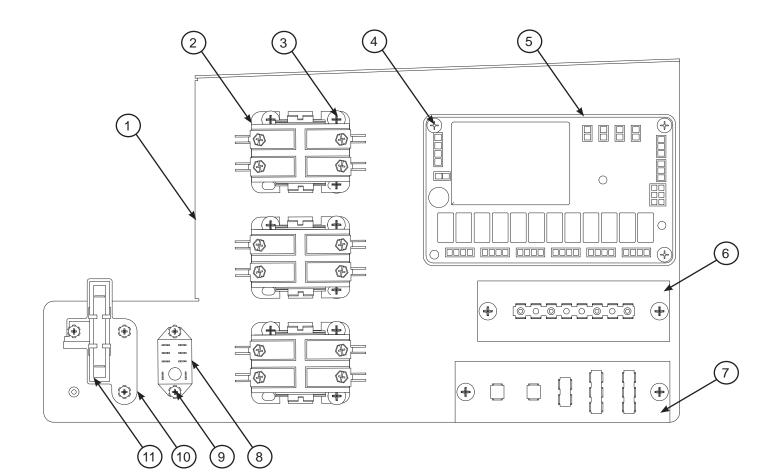
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Power Connection Decal	09905-011-47-35
2	1	Terminal Block Box	05700-004-44-79
	1	Terminal Box Cover (not shown)	05700-004-44-80
3	1	Strain Relief	05975-210-03-00
4	1	Terminal Block Track	05700-004-44-72
5	3	Terminal Block	05940-500-02-19
6	2	Locknut, 8-32 Low Profile	05310-004-23-83
7	1	Decal, L1, L2, L3	09905-101-12-66
8	1	Ground Lug	05940-200-76-00

# CONTROL KICK PANEL



ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete Control Kick Panel Assembly	05700-004-41-87
1	1	Control Kick Panel	05700-004-41-86
2	1	Display Assembly	05700-004-19-47
3	1	Communication Cable	05700-004-33-64

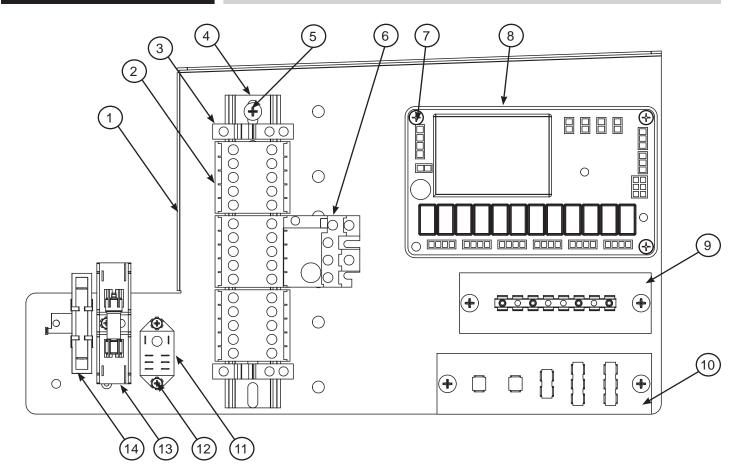
# HT-E ELECTRICAL PANEL, 208/230 V



ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete HT-E Electrical Panel Assembly, 208/230 V	05700-004-42-07
1	1	Electrical Panel	05700-004-40-63
2	3	Contactor, 208/230 V	05945-002-74-20
3	13	Screw, 10-32 x 5/8"	05305-003-02-12
4	3	Screw, 10-32 x 1"	05305-002-19-42
5	1	PCB, Electronic Control	05945-004-36-34
6	1	Terminal Board	05940-004-21-34
7	1	Terminal Board	05940-002-78-97
8	1	Relay	05945-111-89-75
9	5	Screw, 6-32 x 3/8"	05305-002-25-91
10	1	Bracket, Resistor Mount	05700-004-44-51
11	1	Resistor, Wire Wound Power, 1/4" Tabs	05935-004-44-44

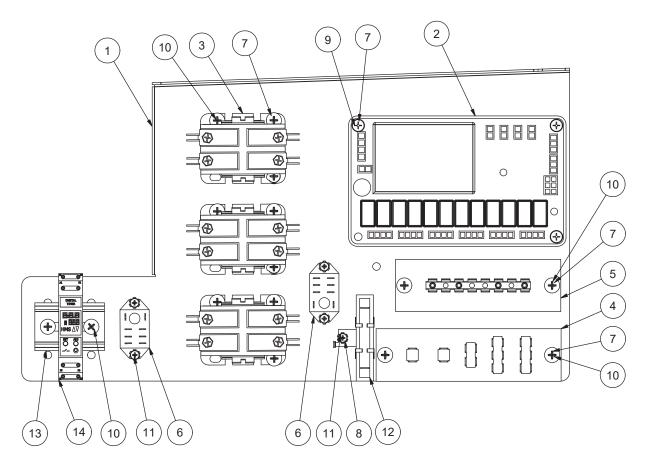
## PARTS

# HT-E ELECTRICAL PANEL, 460 V



ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete HT-E Electrical Panel Assembly, 460 V	05700-004-44-50
1	1	Electrical Panel	05700-004-40-63
2	3	Contactor, 460 V	05945-111-60-07
3	2	End-cap, Contactor	05940-111-60-30
4	1	Dinrail, 7 3/4"	05700-002-79-13
5	6	Screw, 10-32 x 5/8"	05305-003-02-12
6	1	Overload	05945-111-60-08
7	3	Screw, 10-32 x 1"	05305-002-19-42
8	1	PCB, Electronic Control	05945-004-36-34
9	1	Terminal Board	05940-004-21-34
10	1	Terminal Board	05940-002-78-97
11	1	Relay	05945-002-47-41
12	3	Screw, 6-32 x 3/8"	05305-002-25-91
13	1	Fuse Holder	05920-011-72-89
14	1	Resistor, Wire Wound Power, 1/4" Tabs	05935-004-44-44

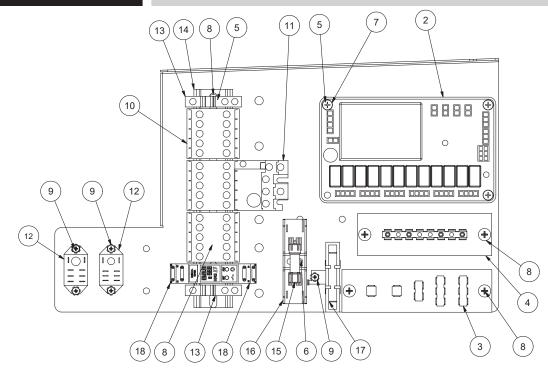
# HT-E-SEER ELECTRICAL PANEL, 208/230 V



ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete HT-E-SEER Electrical Panel Assembly, 208/230 V	05700-004-51-91
1	1	Electrical Panel	05700-004-40-63
2	1	PCB, Electronic Control	05945-004-36-34
3	3	Contactor, 208/230 V	05945-002-74-20
4	1	Terminal Board	05940-002-78-97
5	1	Terminal Board	05940-004-21-34
6	2	Relay	05945-111-89-75
7	18	Fastener	05340-111-58-10
8	5	Nut, Plated	05340-118-04-00
9	3	Screw, 10-32 x 1"	05305-002-19-42
10	15	Screw, 10-32 x 5/8"	05305-003-02-12
11	5	Screw, 6-32 x 3/8"	05305-002-25-91
12	1	Resistor, Wire Wound Power, 1/4" Tabs	05935-004-44-44
13	1	Dinrail, 2"	05700-002-36-09
14	1	Timer, Universal Digital	05945-004-22-78

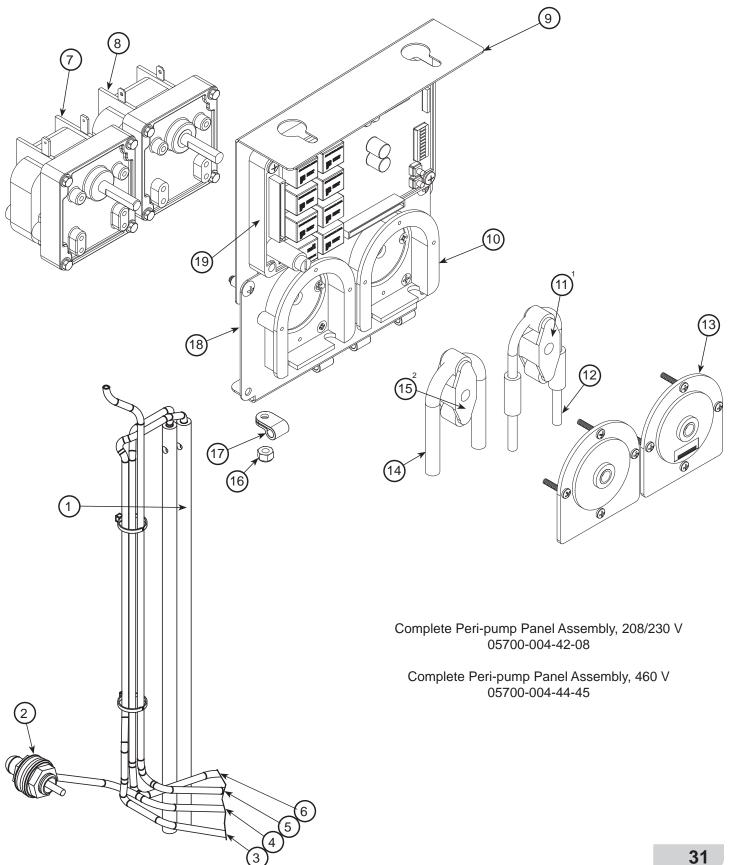
#### PARTS

# HT-E-SEER ELECTRICAL PANEL, 460 V



ITEM	QTY	DESCRIPTION	PART NUMBER
		Complete HT-E-SEER Electrical Panel Assembly, 460 V	05700-004-51-92
1	1	Electrical Panel	05700-004-40-63
2	1	PCB, Electronic Control	05945-004-36-34
3	1	Terminal Board	05940-002-78-97
4	1	Terminal Board	05940-004-21-34
5	9	Fastener	05340-111-58-10
6	6	Nut, Plated	05340-118-04-00
7	3	Screw, 10-32 x 1"	05305-002-19-42
8	6	Screw, 10-32 x 5/8"	05305-003-02-12
9	6	Screw, 6-32 x 3/8"	05305-002-25-91
10	3	Contactor, 460 V	05945-111-60-07
11	1	Overload	05945-111-60-08
12	2	Relay	05945-002-47-41
13	2	End-cap, Contactor	05940-111-60-30
14	1	Dinrail, 7 3/4"	05700-002-79-13
15	1	Fuse, 1/4 A	05920-002-75-95
16	1	Fuse Holder	05920-011-72-89
17	1	Resistor, Wire Wound Power, 1/4" Tabs	05935-004-44-44
18	1	Timer, Universal Digital	05945-004-22-78

# CHEMICAL FEEDER PUMP ASSEMBLY



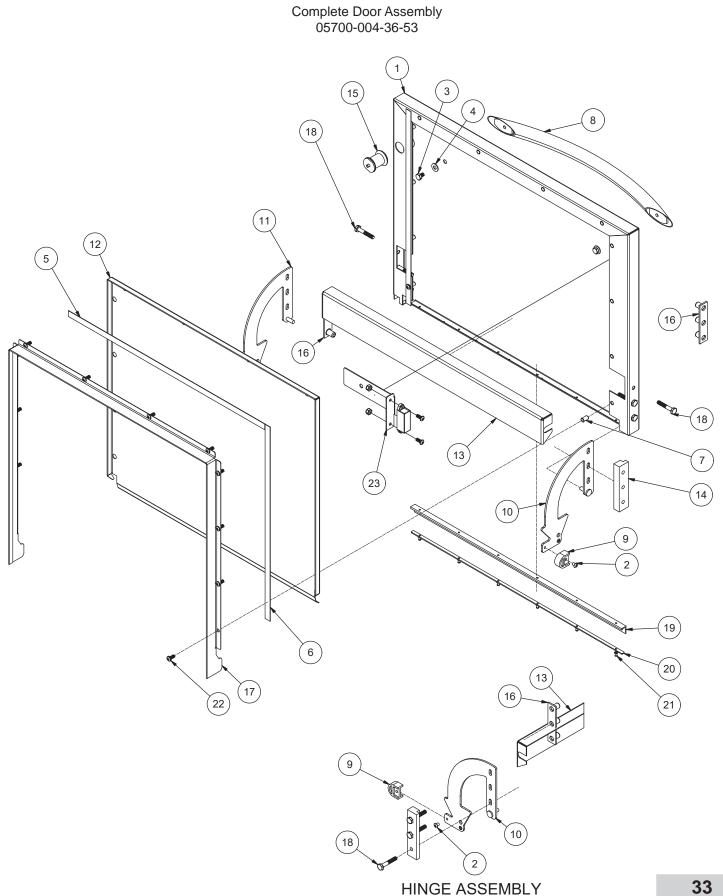
## CHEMICAL FEEDER PUMP ASSEMBLY

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Stiffener, Chemical Tube	05700-002-66-49
2	1	Chemical Port Assembly	05700-004-30-86
3	1	Tubing, Red, 1/4" x 120"	05700-011-37-15
4	1	Tubing, Red, 1/4" x 80"	05700-011-37-14
5	1	Tubing, Clear, 1/8" x 120"	05700-002-76-14
6	1	Tubing, Clear, 1/8" x 48"	05700-002-76-15
	1	Complete Peri-pump Assembly, 36 RPM, 208/230 V	05700-003-78-74
	1	Motor Only, Peri-pump, 36 RPM, 208/230 V	04320-111-47-47
7	1	Complete Peri-pump Assembly, 36 RPM, 115 V (for 460 V machine)	05700-002-96-08
	1	Motor Only, Peri-pump, 36 RPM, 115 V (for 460 V Machine)	04320-111-35-14
	1	Complete Peri-pump Assembly, 14 RPM, 208/230 V	05700-002-72-48
	1	Motor Only, Peri-pump, 14 RPM, 208/230 V	04320-111-47-46
8	1	Complete Peri-pump Assembly, 14 RPM, 115 V (for 460 V machine)	05700-002-96-09
	1	Motor Only, Peri-pump, 14 RPM, 115 V (for 460 V Machine)	04320-111-35-13
9	1	Panel, Outer Control	05700-004-41-89
10	2	Pump Housing	04320-111-37-09
<b>11</b> <sup>1</sup>	1	Roller, Black Plastic	04320-111-65-27
	1	Roller, Red Plastic (36 RPM, 460 V Assembly Only)	04320-111-36-70
12	1	Tube, 8", 208/230 V	05700-011-65-21
12	1	Tube, 8", 460 V	05700-011-76-41
13	2	Pump Cover	04320-111-37-08
1.1	1	Tube, 8", 208/230 V	05700-003-22-89
14	1	Tube, 8", 460 V	05700-111-35-29
15 <sup>2</sup>	1	Roller, White Plastic	04320-002-82-28
16	4	Locknut, 10-24 Hex with Nylon Insert	05310-373-01-00
17	4	P-clamp, 1/4"	05975-002-61-42
18	1	Plate, Peri-pump	05700-004-36-03
19	1	Universal Timer	05945-003-75-23

<sup>1</sup>On the 460 V machine, the 36 RPM peri-pump assembly uses the red roller. So for the 460 V machine, this would be item #15 on the previous page.

<sup>2</sup>On the 460 V machine, the 14 RPM peri-pump assembly uses the white roller. So for the 460 V machine, this would be item #11 on the previous page.

## DOOR ASSEMBLY

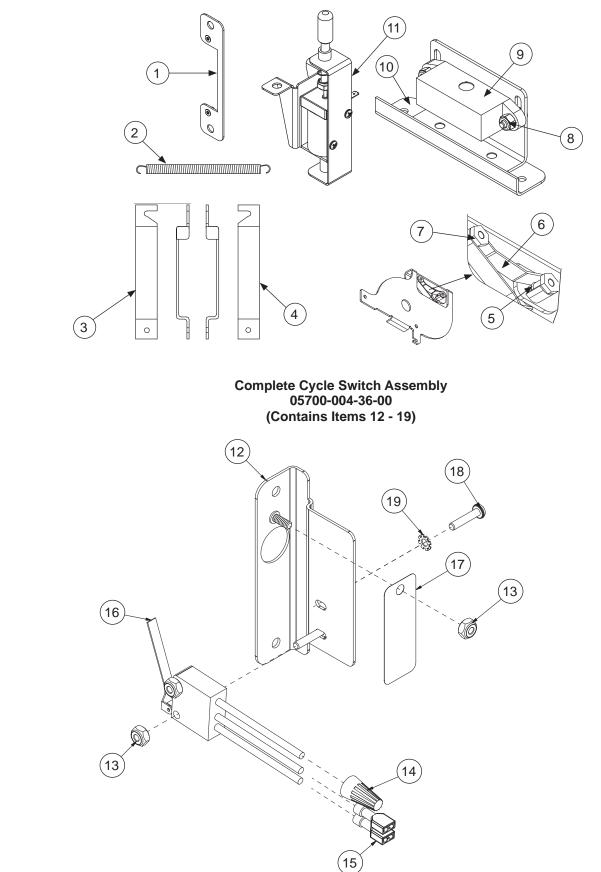


# DOOR ASSEMBLY

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Outer Door Weldment	05700-004-52-86
2	2	Screw, 10-32 x 1/4"	05305-173-01-00
3	2	Bolt, 1/4-20 x 3/8" Hex	05305-274-20-00
4	2	Washer, 1/4-20 ID	05311-174-01-00
5	1	Gasket, Door 20"	05330-003-58-35
6	2	Gasket, Door 17 1/8"	05330-003-58-36
7	12	Fastener, 10-32	05340-111-58-10
8	1	Door Handle	05700-003-26-62
9	2	Stop, Door Hinge	05700-003-32-55
10	1	Hinge, Left	05700-003-32-71
11	1	Hinge, Right	05700-003-32-72
12	1	Inner Door	05700-003-33-21
13	1	Baffle, Door	05700-003-33-38
14	2	Hinge Spacer	05700-003-33-42
15	1	Switch Assembly	05700-003-34-80
16	2	Retaining Plate	05700-011-44-37
17	1	Channel, Door Seal	05700-003-55-49
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	12	Screw, 10-32 x 1/2" with Washer	05305-002-32-37
23	1	Bracket, Door Magnet	05700-004-52-73

# MISCELLANEOUS DOOR COMPONENTS

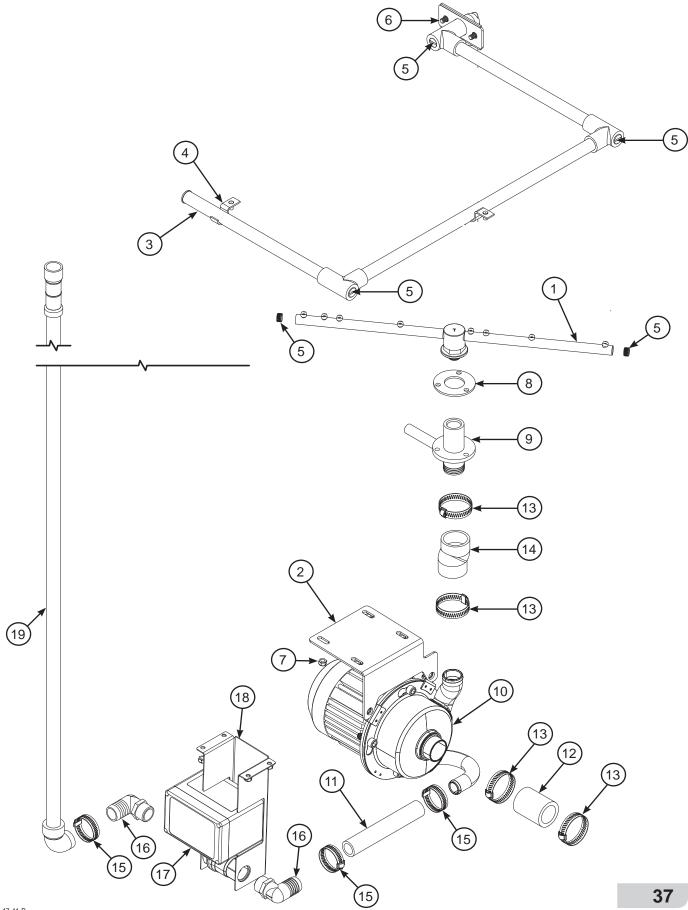
Parts are not shown to scale in relation to each other.



# MISCELLANEOUS DOOR COMPONENTS

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Switch Mounting Plate Assembly	05700-003-33-54
2	1	Door Spring	05700-003-32-85
3	1	Cover, Left Hinge Weldment	05700-004-36-80
4	1	Cover, Right Hinge Weldment	05700-004-36-81
		Hinges secured with Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
5	2	O-ring	05330-003-32-34
6	1	Latch Spring	05700-003-32-32
7	2	Latch Nut	05700-003-32-33
8	2	Locknut, 6-32 Hex with Nylon Insert Screw, 6-32 x 1/4"	05310-373-03-00 05305-171-01-00
9	1	Door Switch	05930-003-31-44
10	1	Door Switch Bracket Door Switch & Bracket Assembly	05700-003-31-43 05700-003-32-21
11	1	Door Interlock Assembly, 208/230 V (HT-E-SEER) Solenoid Only, 208/230 V (HT-E-SEER) Door Interlock Assembly, 115 V (for 460 V Machine) (HT-E- SEER) Solenoid Only, 115 V (for 460 V Machine) (HT-E-SEER)	05700-004-47-47 05999-004-47-49 05700-004-52-89 05700-004-52-88
12	1	Switch, Cover Plate	05700-004-35-99
13	3	Nut, Lock 6-32 Hex with Nylon Insert	05310-373-03-00
14	1	Wire Nut, Blue Metal	05945-111-01-00
15	2	Terminal, .187 Pink Reel	05940-111-46-18
16	1	Door Switch	05930-303-38-00
17	1	Lever Spring, Start Button	05700-004-35-98
18	2	Screw, 6-32 x 5/8"	05305-011-39-85
19	2	Lockwasher, #6 Ext.Tooth	05311-271-02-00

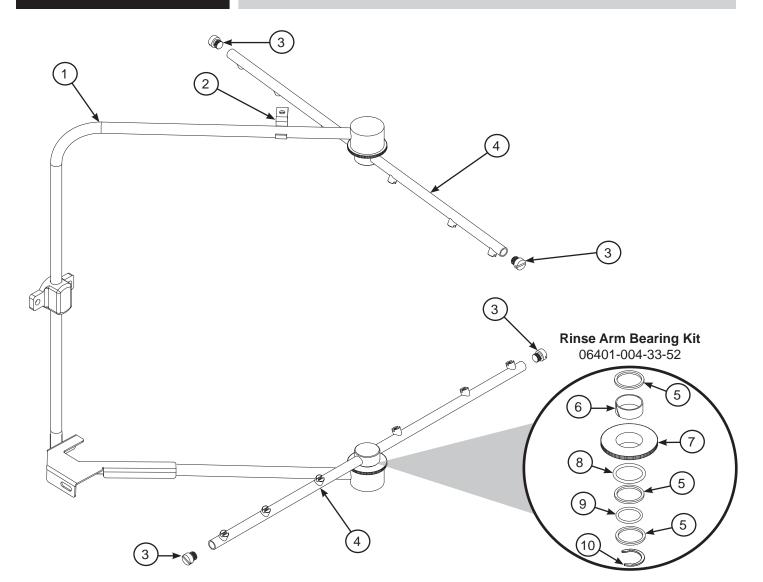
## WASH & MOTOR ASSEMBLY



# WASH & MOTOR ASSEMBLY

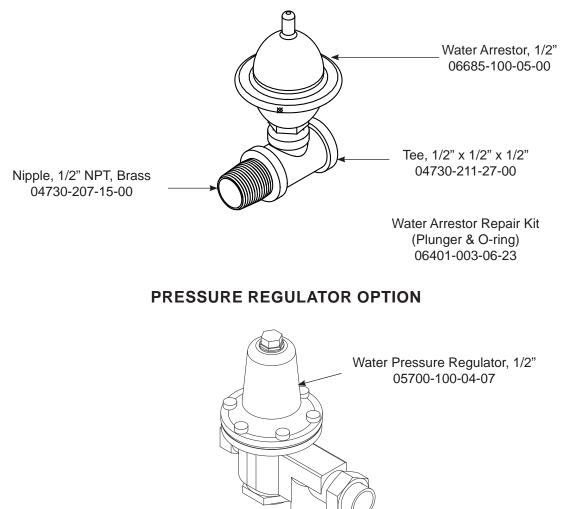
ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Wash Arm Assembly	05700-021-39-23
2	1	Motor Support	05700-004-40-61
3	1	Wash Halo	05700-004-42-21
4	2	Pipe Clamp	05700-000-35-06
5	5	Wash Arm End-cap	05700-003-31-59
6	2	Screw, 1/4-20 x 1/2"	05307-011-36-96
7	4	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
8	1	Manifold Gasket	05330-002-34-77
9	1	Wash Hub	05700-004-43-04
10	1	Pump and Motor, 208/230 V	06105-004-35-22
10	1	Pump and Motor, 460 V	06105-003-52-78
11	1	Discharge Hose, 5/8" x 8"	05700-004-46-28
12	1	Hose, 1 1/4" x 2 3/4"	05700-011-44-48
13	4	Clamp, 1 1/16" to 2"	04730-719-18-00
14	1	Hose, Manifold Bottom	05700-001-22-92
15	3	Clamp, 13/16" to 1 1/2"	04730-719-06-09
16	2	Hosebarb, 90-Degree, 3/4" x 1"	04730-011-65-87
17	1	Drain Valve Assembly, 208/230 V	04730-003-33-64
	1	Drain Valve Assembly, 460 V	04730-003-34-60
10	1	Bracket, Drain Valve Support, 208/230 V	05700-004-35-85
18	1	Bracket, Drain Valve Support, 460 V	05700-004-42-01
19	1	Drain Hose	04720-004-32-00

## RINSE MANIFOLD ASSEMBLY



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Complete Rinse Manifold Assembly	05700-004-40-58
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
4	2	Rinse Arm	05700-004-38-75
5	3	Washer, Rinse Arm	05330-011-42-10
6	2	Bearing, Rinse Arm	03120-004-12-13
7	1	Bushing, Rinse Head	05700-021-33-84
8	1	O-ring	05330-002-60-69
9	1	Retaining Ring	05330-004-32-57
10	1	Retaining Ring, Rinse Head Bushing	05340-112-01-11

#### SHOCK ABSORBER (WATER ARRESTOR) OPTION



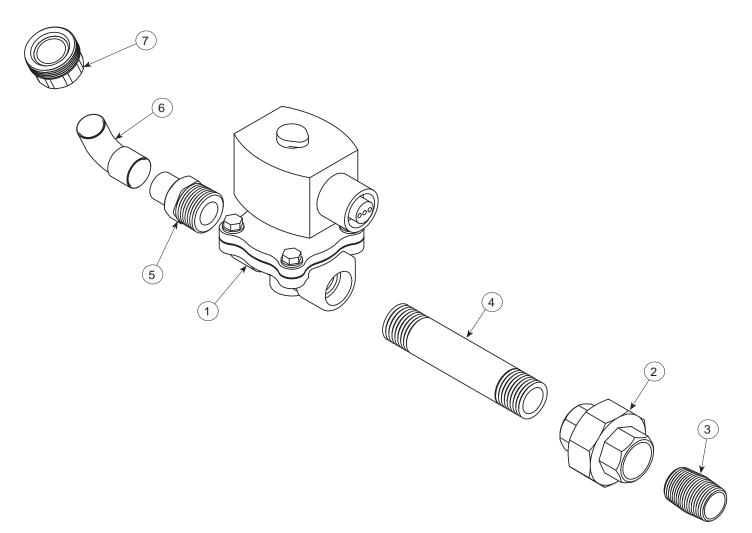
**HTS-11 OPTION** 

- Replacement Cartridge 9 (inspect at least every 6 months) 0 04730-003-28-04 0 HTS-11 System Replacement Test Strip 04730-003-28-03 (Not Shown) 06401-003-28-06 NOTICE Must be installed vertically. The provided bracket is secured to the wall. Observe proper inlet/outlet water directions (flow directions are molded into the top of the head). Line pressure should be released before changing cartridges. Machine should be delimed before installation. 40

## HT-E PLUMBING ASSEMBLY

Complete Inlet Plumbing Assembly, 208/230 V 05700-004-09-03

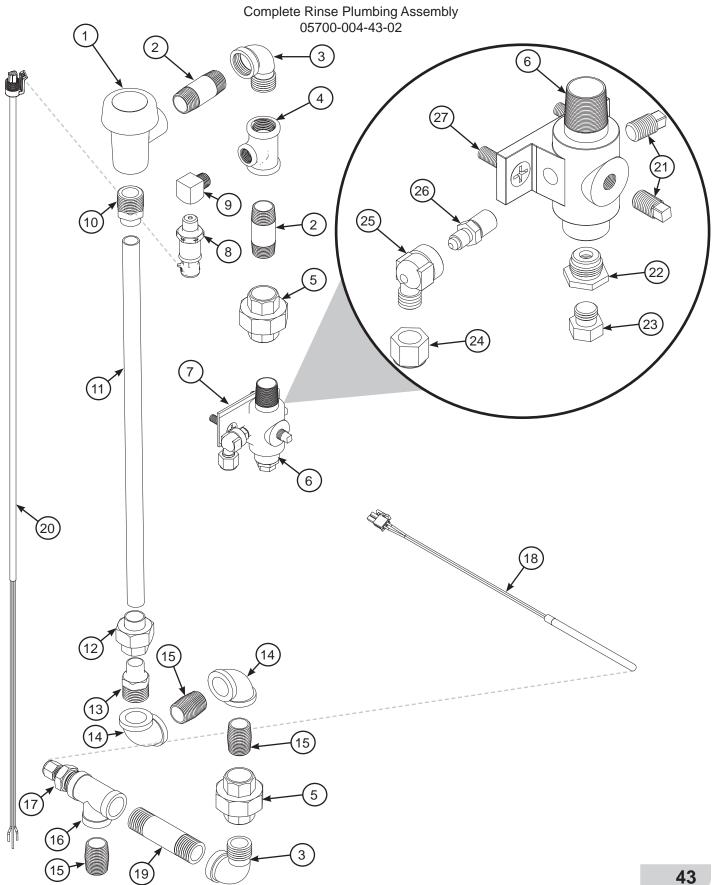
Complete Inlet Plumbing Assembly, 115 V (for 460 V Machine) 05700-004-44-40



# HT-E PLUMBING ASSEMBLY

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Valve, 1/2", 208/230 V Valve, 1/2", 115 V (for 460 V Machine)	04810-003-71-56 04810-003-71-55
2	1	Union, 1/2" x 1/2" Brass	04730-003-62-44
3	1	Nipple, 1/2" Close Brass	04730-207-15-00
4	1	Nipple, 1/2" x 4" NPT Brass	04730-207-04-00
5	1	Adapter, 1/2" Fitting, Male	04730-011-59-53
6	1	Elbow, 1/2"	04730-406-31-01
7	1	Hose Adapter	04720-004-24-68

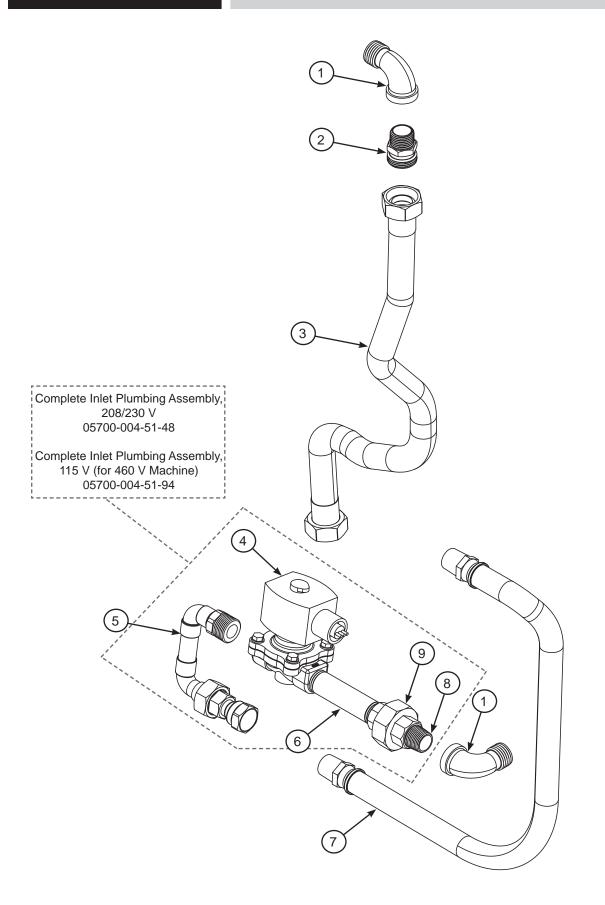
# RINSE PLUMBING ASSEMBLY



# RINSE PLUMBING ASSEMBLY

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	Vacuum Breaker, 1/2" Brass	04820-003-06-13
2	2	Nipple, 1/2" Brass, 2" Long	04730-207-19-00
3	2	Elbow, 90-Degree, 1/2" Street Brass	04730-206-08-00
4	1	Tee, 1/2" x 1/2" x 1/4"	04730-002-22-56
5	2	Union, 1/2" x 1/2" Brass	04730-003-62-44
C	1	Complete Rinse Injector Assembly	05700-004-43-86
6	1	Rinse Injector	09515-004-22-73
7	1	Gasket, Rinse Manifold	05330-003-75-91
8	1	Pressure Transducer	05945-004-17-01
9	1	Elbow, 90-Degree, 1/4" x 1/4" Brass	04730-003-77-83
10	1	Adapter, Male	04730-401-03-01
11	1	Copper Tube, 1/2" x 15 1/2"	05700-000-97-23
12	1	Union	04730-412-05-01
13	1	Adapter, Male, 1/2" Fitting	04730-011-59-53
14	2	Elbow, 90-Degree, 1/2" Brass	04730-011-42-96
15	3	Nipple, 1/2" Brass	04730-207-15-00
16	1	Tee, 1/2" Brass	04730-211-27-00
17	1	Compression Fitting, 1/2" x 1/4"	04730-004-36-38
18	1	Thermistor Probe, 4" with 18" Cable	06685-004-34-58
19	1	Nipple, Brass 1/2" x 3"	04730-004-20-10
20	1	Harness, Transducer	05700-004-33-62
21	2	Plug, 1/8" Brass	04730-209-07-37
22	1	Adapter	05700-002-29-75
23	1	Thermostat Fitting, Brass	05700-011-73-73
24	1	Nut, Tube, 1/8"	04730-011-59-45
25	1	Fitting, Outlet Elbow	04820-111-51-18
26	1	Check Valve	04820-111-51-14
27	2	Screw, 1/4-20 x 1"	05305-011-81-58

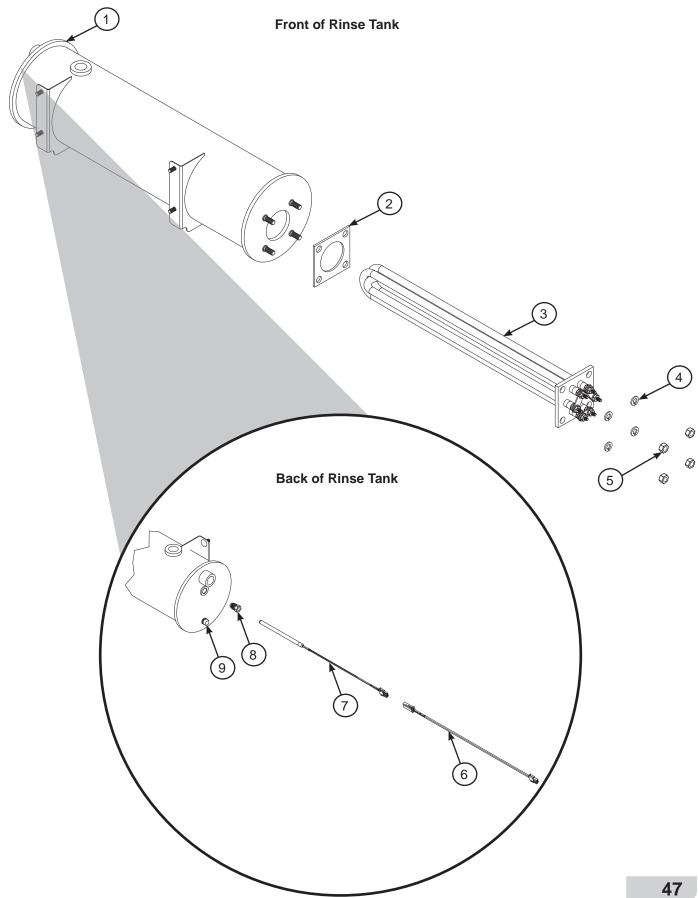
## HT-E-SEER PLUMBING ASSEMBLIES



# HT-E-SEER PLUMBING ASSEMBLIES

ITEM	QTY	DESCRIPTION	PART NUMBER
1	2	Elbow, 90-Degree, 1/2" Street Brass	04730-206-08-00
2	1	Adapter, 3/4" x 1/2" Brass	04720-004-51-55
3	1	Hose Assembly, 3/4" GHT, 1/2" ID	04720-004-24-67
4	1	Valve, 1/2", 208/230 V Valve, 1/2", 115 V (for 460 V Machine)	04810-003-71-56 04810-003-71-55
5	1	Adapter Assembly	05700-004-51-57
6	1	Nipple, 1/2" x 4" Brass	04730-207-04-00
7	1	Discharge Hose, Rinse Tank	05700-004-51-56
8	1	Nipple, 1/2" Close Brass	04730-207-15-00
9	1	Union, 1/2" x 1/2" Brass	04730-003-62-44

# RINSE TANK ASSEMBLY



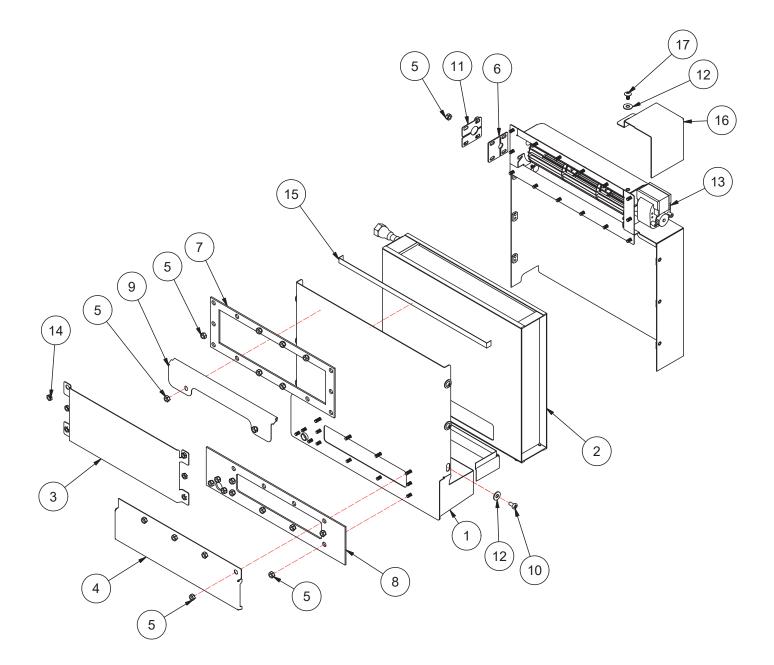
# RINSE TANK ASSEMBLY

ITEM	QTY	DESCRIPTION	PART NUMBER
4	1	Rinse Tank, 208/230 V	05700-004-41-88
	1	Rinse Tank, 460 V	05700-004-44-46
2	1	Heater Gasket	05330-011-47-79
2	1	Rinse Heater, 5.45 kW, 208-230 V	04540-004-45-12
3	1	Rinse Heater, 5.45 kW, 460 V	04540-121-65-99
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

## SEER SYSTEM ASSEMBLY

Complete SEER System Assembly, 208/230 V 05700-004-48-96

Complete SEER System Assembly, 115 V (for 460 V Machine) 05700-004-52-64



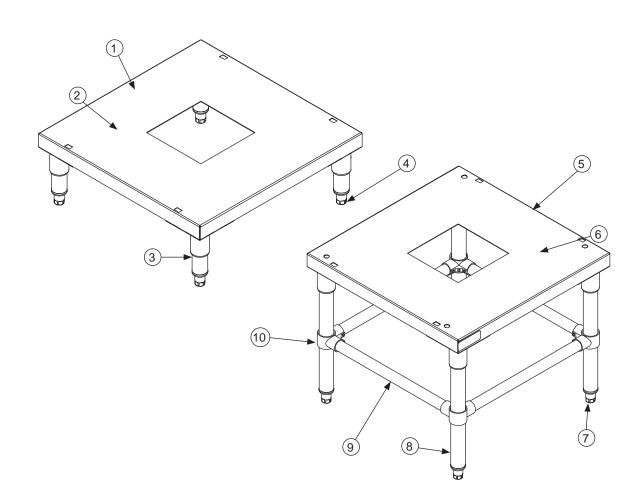
# SEER SYSTEM ASSEMBLY

ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	SEER System, Bottom Mount	05700-004-47-22
2	1	Heat Exchanger, 3/8", Tubes 1/2"	04420-004-37-32
3	1	SEER System, Top Cover	05700-004-47-21
4	1	SEER System, Bottom Cover	05700-004-47-19
5	29	Locknut, 1/4-20 Hex with Nylon Insert	05310-374-01-00
6	1	SEER System, Plumbing	05330-004-48-34
7	1	SEER System, Top Gasket	05330-004-48-50
8	1	SEER System, Bottom Gasket	05330-004-48-51
9	1	SEER System, Diversion Plate	05700-004-47-27
10	6	Screw, 1/4-20 x 1/2"	05305-003-07-58
11	1	SEER System, Plumbing Seal Bracket	05700-004-47-30
12	7	Washer, 1/4-20 x 3/4" OD	05311-011-76-30
13	1	Fan and Housing Assembly, 208/230 V Fan and Housing Assembly, 115 V (for 460 V Machine)	05700-004-50-83 05700-004-52-63
14	6	Locknut, 1/4-20 Low Profile with Nylon Insert	05310-374-02-00
15	1	Strip, 1/2" x 1/8" Sponge Rubber	05330-100-10-00
16	1	SEER System, Fan Motor Cover	05700-004-47-28
17	1	Screw, 1/4-20 x 1/2"	05305-004-23-84

## **STANDS & COMPONENTS**

# **INSTRUCTIONS**

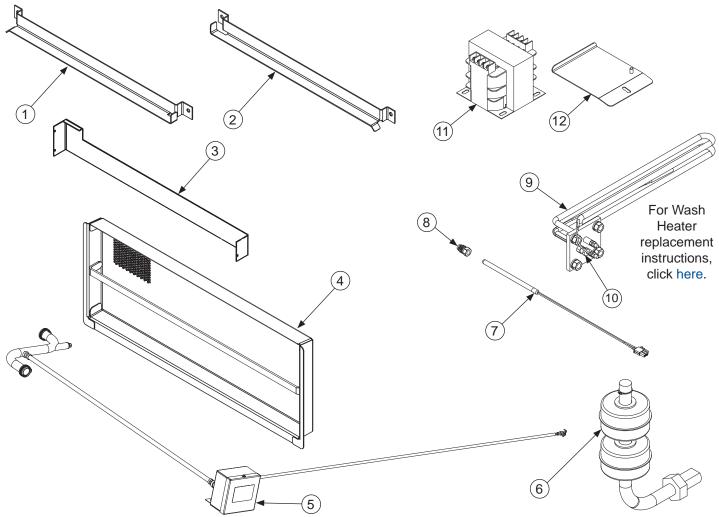
**INSTALLATION** To install the stand, first remove the adjustable feet from the machine. Place machine on table and use the square mounting holes to line-up the machine. Re-insert the adjustable feet through bottom of table top and tighten to lock machine to table.



ITEM	QTY	DESCRIPTION	PART NUMBER
1	1	6" Stand Assembly	05700-003-34-24
2	1	Stand	05700-002-88-82
3	4	6" Leg	05700-021-61-10
4	4	Bullet Foot	05340-108-01-03
5	1	18" Stand Assembly	05700-003-34-25
6	1	Stand	05700-002-88-82
7	4	Bullet Foot	05340-108-01-03
8	4	18" Leg	05700-002-89-47
9	4	Cross Brace	05700-003-25-90
10	4	Cross Member Bracket	04730-003-25-89

# MISCELLANEOUS PARTS

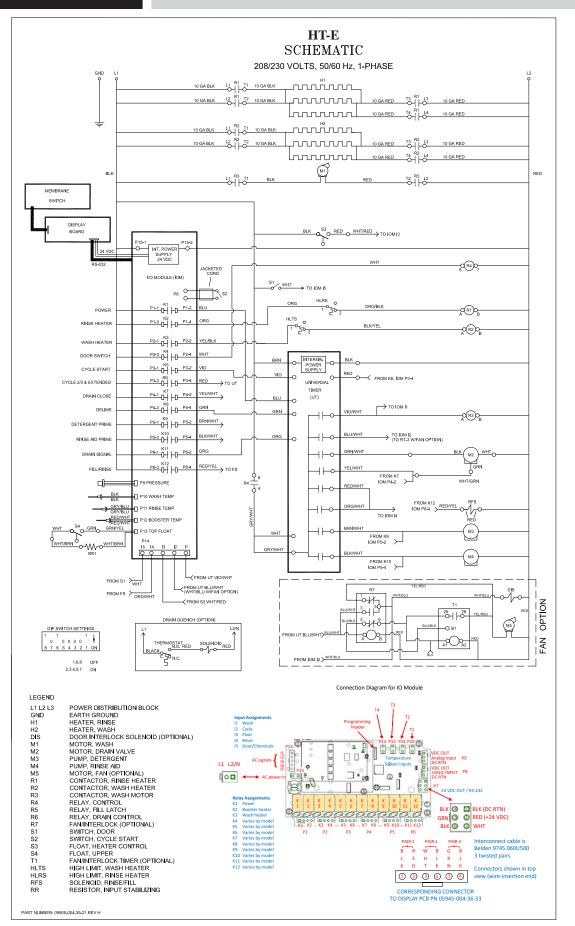
Parts are not shown to scale in relation to each other.



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	Strainer	05700-004-09-43
5	1	Drain Quench Kit	06401-002-59-99
6	1	Dual Float Switch	06680-121-70-16
7	1	Thermistor Probe, 4" with 18" Cable	06685-004-34-58
8	1	Probe Fitting, 1/4" Brass	05310-924-02-05
9	1	Wash Heater, 4 kW, 208-230 V	04540-003-99-44
9	1	Wash Heater, 4 kW, 460 V	04540-004-12-29
10	1	Thermostat, Wash Tank High-limit with Compression Fitting	05930-004-33-15
11	1	Transformer, 460 V	05950-011-50-70
12	1	Transformer Bracket, 460 V	05700-004-44-55

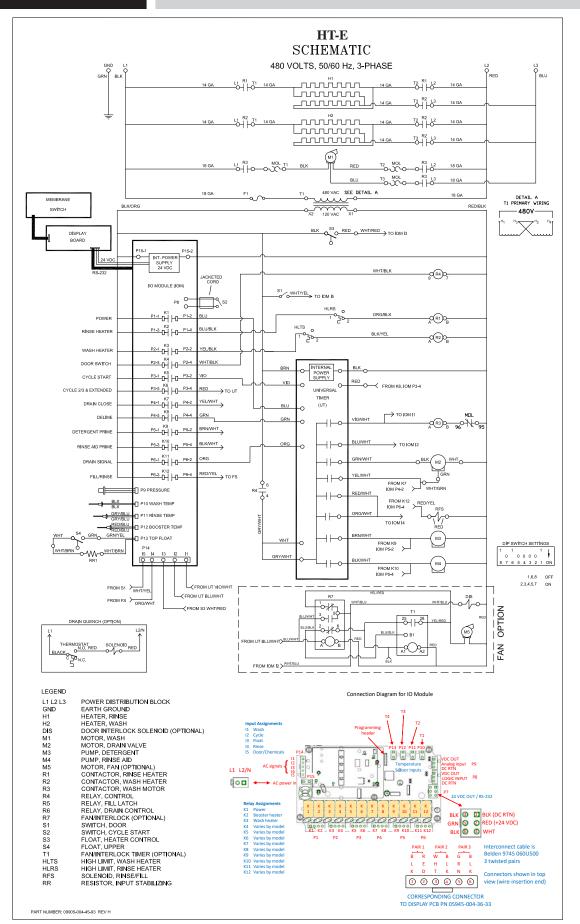
#### SCHEMATICS

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



#### SCHEMATICS

# 460 V, 60 HZ, 3-PHASE



07610-004-47-41-B



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