240 Series





Installation/Operation Manual with Service Replacement Parts

For Champion Model CH240 • Moyer Diebel Model MD240



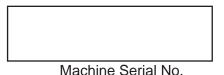


Batch-type Glass Washer

Models:

240HT High Temperature Hot Water Sanitizing

240LT Low Temperature Chemical Sanitizing







Issue Date: 11.9.11

Manual P/N 0513062 rev. A

For machines beginning with S/N W101013036 and above



For future reference, record your dishwasher information in the box below.

Model Number		Serial Number	
Voltage	Hertz	Phase	_
Service Agent		Tel:	
Parts Distributor		Tel:	

National Service Department

In Canada: In the USA:

Toll-free: 800/ 263-5798 Toll-free: 800/ 858-4477
Tel: 905/ 562-4195 Tel: 336/ 661-1556
Fax: 905/ 562-4618 Fax: 336/ 661-1660

email: service@moyerdiebellimited.com email: service@championindustries.com

ATTENTION:

The model no., serial no., voltage, Hz and phase are needed to identify your machine and to answer questions.

The machine data plate is located on the lower front panel.

Please have this information ready if you call for service assistance.

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REGISTER YOUR PRODUCT ONLINE

Make sure you are connected to the internet then enter the address below.

In the U.S.A

http://www.moyerdiebel.com/register

In Canada

http://www.championindustries.com/canada/register

PRODUCT REGISTRATION BY FAX

COMPLETE THIS FORM AND FAX TO:

(336) 661-1660 in the USA

1-(800) 204-0109 in Canada

PRODUCT REGISTRATION CARD

Model	Serial #		
Date of Installation:/			
Company Name:			
Address:	pet)	Province	Postal Code
Contact:			
Installation Company:Address:			
Telephone #:			
Contact:			

FAILURE TO REGISTER YOUR PRODUCT MAY VOID YOUR WARRANTY

IMPORTANT IMPORTANT

Revision History

A revision might be a part number change, a new instruction, or other information that was not available at print time. We reserve the right to make changes to these instructions without notice and without incurring any liability by making the changes. Equipment owners may request a revised manual, at no charge, by calling 1 (800) 858-4477 in the USA or by calling 1 (800) 263-5798 in Canada.

Revision Date	Revised Pages	Serial Number Effectivity	Revision Description
1.22.11	All	W101013036	Released First Edition
11.9.11	All	W101013036	Released Second Edition

LIMITED WARRANTY

Champion Industries, Inc. and Moyer Diebel, (herein referred to as "The Company"), 3765 Champion Boulevard, Winston-Salem, North Carolina 27105, and P.O. Box 301, 2674 N. Service Road, Jordan Station, Canada, L0R 1S0, warrants machines, and parts, as set out below.

Warranty of Machines: The Company warrants all new machines of its manufacture bearing the name "Champion" or "Moyer Diebel" and installed within the United States and Canada to be free from defects in material and workmanship for a period of one (1) year after the date of installation or fifteen (15) months after the date of shipment by The Company, whichever occurs first. [See below for special provisions relating to glasswashers.] The registration card must be submitted by fax or online with The Company within ten (10) days after installation. If the registration is not submitted to The Company within such period, the warranty will expire after one year from the date of shipment.

The Company will not assume any responsibility for extra costs for installation in any area where there are jurisdictional problems with local trades or unions.

If a defect in workmanship or material is found to exist within the warranty period, The Company, at its election, will either repair or replace the defective machine or accept return of the machine for full credit; provided; however, as to glasswashers, The Company's obligation with respect to labor associated with any repairs shall end (a) 120 days after shipment, or (b) 90 days after installation, whichever occurs first. In the event that The Company elects to repair, the labor and work to be performed in connection with the warranty shall be done during regular working hours by The Company's authorized service technician. Defective parts become the property of The Company. Use of replacement parts not authorized by The Company will relieve The Company of all further liability in connection with its warranty. In no event will The Company's warranty obligation exceed The Company's charge for the machine. The following are not covered by The Company's warranty:

- a. Lighting of gas pilots or burners.
- b. Cleaning of gas lines.
- c. Replacement of fuses or resetting of overload breakers.
- d. Adjustment of thermostats.
- e. Adjustment of clutches.
- f. Opening or closing of utility supply valves or switching of electrical supply current.
- g. Cleaning of valves, strainers, screens, nozzles, or spray pipes.
- h. Performance of regular maintenance and cleaning as outlined in operator's guide.
- i. Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, or failure to follow maintenance and operation procedures.
- j. Wear on Pulper cutter blocks, pulse vanes, and auger brush.

Examples of the defects not covered by warranty include, but are not limited to: (1) Damage to the exterior or interior finish as a result of the above, (2) Use with utility service other than that designated on the rating plate, (3) Improper connection to utility service, (4) Inadequate or excessive water pressure, (5) Corrosion from chemicals dispensed in excess of recommended concentrations, (6) Failure of electrical components due to connection of chemical dispensing equipment installed by others, (7) Leaks or damage resulting from such leaks caused by the installer, including those at machine table connections or by connection of chemical dispensing equipment installed by others, (8) Failure to comply with local building codes, (9) Damage caused by labor dispute.

Warranty of Parts: The Company warrants all new machine parts produced or authorized by The Company to be free from defects in material and workmanship for a period of 90 days from date of invoice. If any defect in material and workmanship is found to exist within the warranty period The Company will replace the defective part without charge.

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY. THE COMPANY'S WARRANTY IS ONLY TO THE EXTENT REFLECTED ABOVE. THE COMPANY MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED, TO ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. THE COMPANY SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE REMEDIES SET OUT ABOVE ARE THE EXCLUSIVE REMEDIES FOR ANY DEFECTS FOUND TO EXIST IN THE COMPANY'S DISHWASHING MACHINES AND THE COMPANY'S PARTS, AND ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.

The Company does not authorize any other person, including persons who deal in The Company's dishwashing machines to change this warranty or create any other obligation in connection with The Company's Dishwashing Machines.

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Model Descriptions

240HT

High temperature hot water sanitizing dishwasher with built-in 40°F/22°C rise booster heater 208-240VAC/60/1

240LT

Low temperature chemical sanitizing dishwasher with three built-in chemical dispensers for dtergent, sanitizer, and rinse-aid. 115VAC/60/1

Optional Equipment (consult factory)

70°F/39°C rise built-in booster heater 208-240V/60/1

Additional dish racks:

Flat-bottom dish rack - P/N 101273 Peg dish rack - P/N 101285

Casters, set of four: 2 locking, 2 regular - P/N 0701962 Low chemical alarm - P/N 0707258

Quick disconnect package (includes casters)

Site Glass Kit - P/N 0712993 Pressure Reducing Valve (unmounted) - P/N 107550

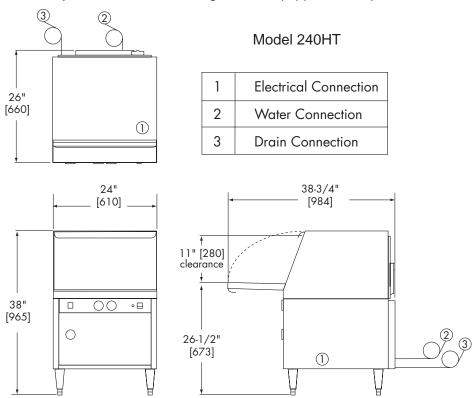
CAUTION:

Be careful when lifting and moving the glasswasher to prevent damage to the machine.

NOTE:

The installation of your glasswasher must be performed by qualified service personnel who will observe all applicable safety, electrical, plumbing, and health codes. Problems due to improper installation are not covered by the Warranty.

- 1. Inspect the outside of the glasswasher carton for signs of damage.
- 2. Remove the carton and inspect the glasswasher for damage.
- 3. Check for any accessories that may have shipped with your glasswasher.
- 4. Turn to the front of this manual for the instructions to validate your machine warranty online or by fax.
- 5. Move the glasswasher near its permanent location.
- 6. Compare the installation site utility connections with the glasswasher utility connections and make sure they are the same.
- The installation should provide storage space for the glasswasher chemical supply containers. Containers must be placed on the floor and as close to the machine as possible.
- 8. Place the glasswasher in its permanent location.
- Level the glasswasher front-to-back and side-to-side.
 The machine has 4 adjustable feet for leveling unless equipped with optional casters.



Note: The 240LT has a flexible power cord and plug for 115VAC/60/1 operation.

Electrical Connections - 240HT



WARNING:

Electrocution or serious injury may result when working on an energized circuit.

Disconnect power at the main breaker or service disconnect switch before working on the circuit.

Lock-out and tag the breaker to indicate that work is being performed on the circuit.

ATTENTION

A qualified electrician must connect the main incoming power to the glasswasher in accordance with all local codes and regulations or in the absence of local codes in accordance with the National Electrical Code.

NOTE

Model 240LT is equipped with a 4 ft. power cord and plug.

This model requires a 115VAC,15A receptacle.

Refer to the 240LT installation section beginning on page 23.



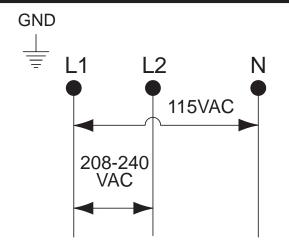
Main Terminal Block (MTB) (shown extended from machine)

- Power connections are made at the Main Terminal Block (MTB) which is located at the lower right-hand side of the glasswasher directly behind the lower front access panel
- Remove the MTB cover and 2 screws holding the MTB to the machine base. Then, pull the MTB up and forward to make the electrical connections.
- 3. Provide a 3 ft. service loop in the supply cable for machine servicing.
- 4. Re-install the MTB and the lower front access panel to complete the installation.
- 5. Refer to the connection diagrams on the next page for wiring instructions.

Electrical Connections - 240HT

See the diagram below and on the next page to connect main incoming power to the Model 240HT glasswasher.

SINGLE PHASE POWER CONNECTION Model 240HT



HOW TO CONNECT 1 PHASE POWER

1. Check the data plate on the front of the dishwasher for the phase of the machine.

If the data plate says the machine is 1 Phase, then connect a 1 PH power supply.

- 2. Remove the lower access panel.
- 3. Pull power connection box forward and out.
- 4. The Main Terminal Block has connections for L1, L2, Neutral and Ground.
- 5. Connect ground, then connect L1, L2 to 208-230VAC.
- 6. Connect a current carrying neutral to N.
- 7. Main Power connections are complete.

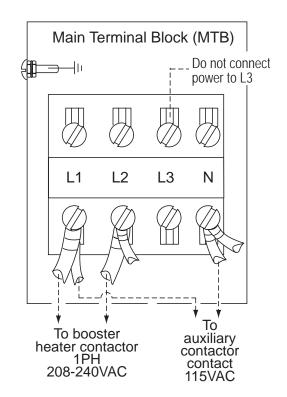
Electrical Connections - 240HT (continued)

ATTENTION ELECTRICIAN:

The Main Terminal Block (MTB) is a 4-pole block. The main incoming power is a 3-wire connection which includes a current-carrying neutral. Connect the 1PH power as shown on the previous page).

The diagram at right illustrates how power is distributed to the booster heater contactor and the auxiliary contactor contact.

The data plate on the lower front cover of the glasswasher lists the correct power requirements.



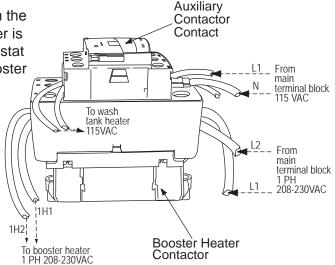
Booster Heater/Wash Tank Heater Interlock Circuit

The booster heater/wash tank heater interlock circuit removes power from the wash tank heater whenever the booster heater contactor energizes. The illustration below shows how the booster heater contactor is wired. The booster heater contactor is located on the backside of the control panel bracket which is located behind the lower front access panel.

Interlock Circuit Operation

 The glasswasher fills with water when the main power switch on the glasswasher is turned on. The booster heater thermostat calls for heat which energizes the booster heater contactor.

- The auxiliary contact on the top of the contactor opens and removes power from the wash tank heater.
- When the booster heater thermostat is satisfied, the booster heater contactor deenergizes and the auxiliary contacts close applying power to the wash tank heater.
- 4. This operation is repeated whenever the booster thermostat calls for heat.



Water Connections- 240HT

NOTE

Plumbing connections must comply with national, local plumbing and sanitary codes.

ATTENTION

Make sure that the flexible water supply and drain hoses are not kinked.

- 1. The 240HT has a 7ft. flexible hot water fill hose with a 3/4" female garden hose connector.
- 2. A 1/2" or larger main incoming supply line should be installed to the glasswasher.
- 3. A 1/2" or larger shut-off valve should be installed in the water supply line as close possible to the glasswasher for servicing.
- 4. A pressure regulating valve, PRV must be installed after the shut-off service valve if the incoming flow pressure exceeds 20-22 psi.
- 5. The hot water supply must provide a minimum of 140°F/60°C, measured at the glasswasher for the 40°F/22°C rise booster. For the 70°F/39°C rise booster the hot water supply must provide a minimum of 110°F/43°C measured at the glasswasher.

Drain Connections - 240HT

- 1. All models have a 6ft. 5/8" I.D. drain hose. The maximum drain height connection must not exceed 3 ft.[0.9 m].
- 2. The drain hose is located at the rear of the glasswasher.
- 3. The drain hose is secured to the rear of the machine by a clamp to maintain a gooseneck bend in the drain hose.
 - DO NOT KINK, STRETCH, OR LENGTHEN THE DRAIN HOSE.
- 4. Install the drain hose to a "WYE" drain fitting.

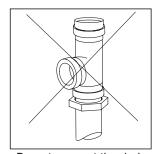
 Connection to a "TEE" fitting will prevent the glasswasher from draining completely.
- 5. The maximum drain flow is 15 US gpm.
- 6. Make sure the drain hose does not kink. Kinks will prevent the glasswasher from draining completely.

ATTENTION

The glaswasher will not drain correctly if the drain hose is connected to a disposer.



Connect the drain hose to a WYE fitting.



Do not connect the drain hose to a TEE fitting.

Check List

- 1. Make sure the glasswasher is permanently located.
- 2. Make sure all utility connections are complete.
- 3. Make sure the flexible drain hose and the hot water fill hose are not kinked.
- 4. Remove any protective film from glasswasher.
- 5. Check the interior for foreign material.
- 6. Remove the scrap screen and check the sump for foreign material.
- 7. Make sure the chemical supply containers are full and that the chemical pick-up tubes are installed in the proper containers.
- 8. Make sure the scrap screen is in place.
- 9. Make sure the spray arms are in place and that they spin freely.
- 10. Close the glasswasher door.
- 11. Turn hot water supply on and check for leaks in the main water supply piping connected to the glasswasher.

ATTENTION

Make sure the overflow guard is in place. Model 240HT only.



Make sure the overflow guard is in place.



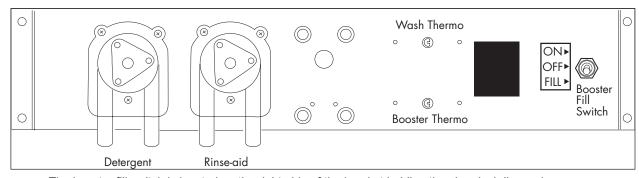
Make sure the scrap screen is in place.

ATTENTION

The built-in booster tank was drained prior to shipment and must be filled before operating the machine.

Booster Fill Switch

The booster tank is refilled using the Booster Fill Switch. It is located behind the lower front access panel and on the right-side of the bracket that holds the chemical dispensing pumps.



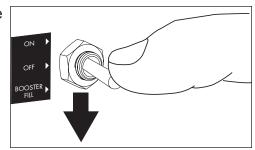
The booster fill switch is located on the right-side of the bracket holding the chemical dispensing pumps.

To fill the booster tank:

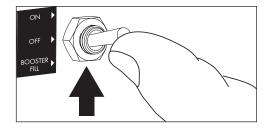
- 1. Remove the lower front access panel.
- 2. Locate the booster fill switch and note the 3 switch positions (ON OFF FILL).
- 3. Turn the main power supply on.

DO NOT TURN THE GLASSWASHER POWER SWITCH ON.

4. Push and hold the booster fill switch DOWN to the booster fill position until water is heard spraying inside the glasswasher wash compartment.



5. Release the booster fill switch and push it UP to the ON position.



6. Booster fill is complete.

ATTENTION

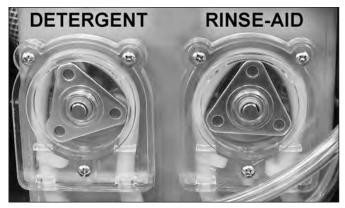
Contact a local chemical supplier for detergent and rinse-aid chemicals.

The detergent should be a non-chlorinated liquid detergent.

The chemical dispensing pumps must be adjusted by the chemical supplier.

Model 240HT Hot Water Sanitization:

- 1. <u>The 240HT</u> is equipped with a built-in detergent dispensing pump and rinse-aid dispensing pump. (See the photographs below.)
- 2. The pumps are located on a center bracket behind the lower-front access panel.
- 3. Each pump is equipped with 6 feet [1.8 m] of pick-up supply tubing, a stiffener tube, and a strainer.
- 4. A red label marked DETERGENT is attached to the detergent pump inlet tubing.
- 5. A blue label marked RINSE-AID is attached to the rinse-aid pump inlet tubing.
- 6. The detergent enters the wash tank compartment through a fitting at the right rear of the wash compartment.
- 7. The detergent supply should be a non-chlorinated liquid detergent.
- 8. The rinse-aid enters the final rinse piping through a fitting located on the upper-right rear side of the glasswasher. The fitting is located near the vacuum breaker.



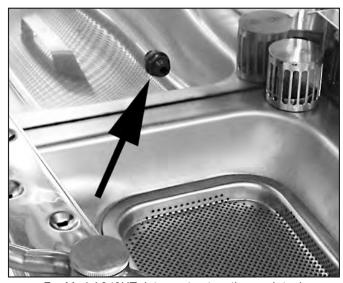
For Model 240HT, the dispensing pumps are located on the center bracket behind the lower-front access panel.



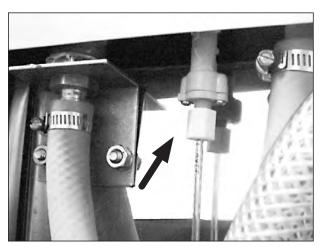
A stiffener tube, strainer and 6 ft. [1.8 m] of pick-up tubing are supplied with the built-in detergent and rinse-aid pumps.

Model 240HT Hot Water Sanitization (continued)

- 9. The chemical supplier will choose the appropriate liquid rinse-aid.
- 10. The factory chemical dispensing pump settings are only approximations; therefore, your chemical supplier must adjust the dispensers for the supplied product.
- 11. Place the chemical supply containers as close to the glasswasher as possible.
- 12. Do not elevate the chemical containers above the finished floor.



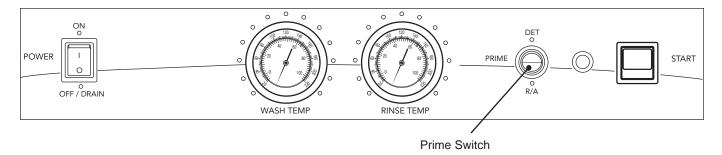
For Model 240HT detergent enters the wash tank compartment through a fitting on the rear wall of the wash tank compartment.



The rinse-aid enters the final rinse piping at the rear of the glasswasher near the vacuum breaker.

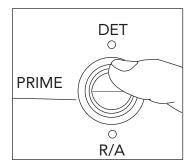
Priming the Chemical Dispensing Pumps

The chemical dispensing pump supply lines must be primed before they will pump the chemicals into the machine. The 240HT features a 2-position PRIME push button located on the front control panel to prime the chemical dispensing pumps.

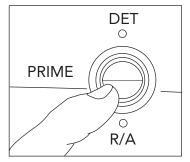


To Prime the Dispensing Pumps:

- 1. Make sure the chemical containers are full and the correct pick-up tubes are in the containers.
- 2. Turn the glasswasher power switch ON.
- 3. The switch will illuminate and the glasswasher will fill with water.
- 4. Open the glasswasher door, then push and hold the prime push button UP to the DET position until detergent is observed entering the wash tank compartment from the detergent injection point at the right-rear of the wash tank.
- 5. Release the push button.



Push up to prime detergent.



Push down to prime rinse-aid.

- 6. Push and hold the prime push button DOWN to the R/A position for 3 minutes.
- 7. Release the push button.
- 8. Run one empty wash cycle to remove accumulated chemicals from the wash compartment.

Chemical Dispensing Pump Speed and Tank Fill Adjustments

The chemical dispensing pump speeds are not set at the factory. Variations in the type of chemicals supplied by the chemical supplier always require that the supplier make final adjustments for the products supplied.

- 1. Adjustment screws are provided for the dispensing pumps and for the wash tank fill. They are located on the right-side of the glasswasher behind the lower front access panel.
- 2. Make sure the chemical containers are full and the pick-up tubes are in the proper containers.
- Turn the glasswasher power switch ON. The switch will illuminate and the glasswasher will fill with water.
- 4. Run a normal glasswasher cycle and test detergent and rinse-aid concentrations according to the chemical supplier's instructions.

CAUTION

Excessive pressure to the potentiometers when adjusting can result in bent or broken adjusting screws.

- Each dispensing pump has a clearly marked adjustment screw. Turn the screw CW to increase the time of the dispensing pump and CCW to reduce the dispensing pump time.
- 6. The Fill adjustment screw will provide a small change in the tank water level. If a large adjustment is needed, then check the incoming water pressure and make sure the fill hose is not kinked. If these items are okay, then the size of the incoming water supply should be evaluated.
- 7. The 240HT uses detergent and rinse-aid only, a sanitizer is not required.

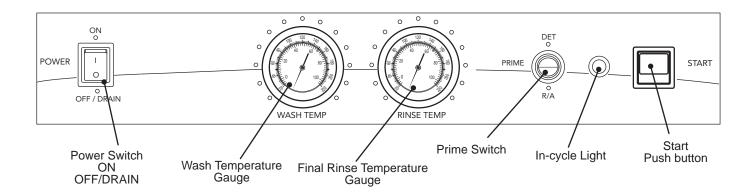


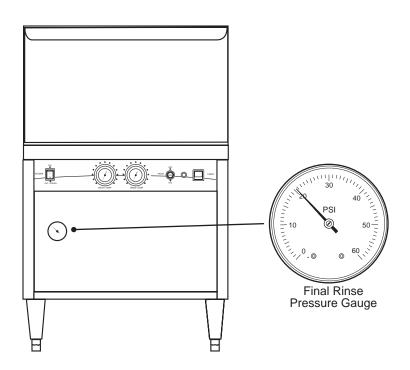
Operation Model 240HT

Control Panel

The illustrations below show the layout of the 240HT control panel and the final rinse pressure gauge. Normal Wash Mode instructions are on the next page.

This machine has a <u>Rinse Sentry</u> feature to ensure the final rinse water temperature is maintained at a minimum of 180-195°F/82-91°C during the final rinse. The rinse sentry feature is explained on page 14.





Operation

Normal Wash Mode

- 1. Make sure the flexible drain hose and the flexible fill hose are not kinked then turn the water supply on.
- 2. Close the glasswasher front door.
- 3. Turn the power on at the main circuit breaker.
- 4. Push the glasswasher Power Switch UP to turn the power ON.
- 5. The power switch will illuminate and the machine will fill.
- 6. Check the pressure gauge as the machine fills and make sure the incoming water pressure is between 20-22 psi [138-152 kPa].
- 7. Open the front door and check the water level in the wash tank compartment. The approximate water fill level should reach the top-left edge of the wash tank compartment as shown in the photograph below.



Approximate water fill level.

- 8. Close the door.
- 9. Wait 10-minutes for the booster heater to reach temperature and for the WASH temperature gauge to indicate a minimum of 150°F/66°C.
- Load soiled wares into the dish rack. Place plates, glasses, cups and bowls in a peg rack. Place utensils in a single layer in a flat-bottom rack.
 Place pots and pans in a flat-bottom rack. <u>Do not overload the dish racks</u>
- 11. Slide 1 dish rack into the wash compartment making sure the wares do not interfere with the rotating spray arms. Do not wash more than 1 dish rack at a time.
- 12. Close the front door then press the START BUTTON. The green in-cycle light will illuminate and the wash cycle will begin. The wash cycle time runs for approximately 70-seconds.
- 13. Opening the door when the glasswasher is in-cycle will stop the glasswasher. The cycle will restart automatically from the beginning of the wash cycle when the glasswasher door is closed.
- 14. The final rinse cycle begins at the end of the wash cycle and runs for approximately 16-seconds Check the RINSE temperature gauge during the final rinse and make sure it indicates a minimum of 180-195°F/82-91°C. The final rinse water is retained for the next wash cycle.

Operation Model 240HT

Rinse Sentry Mode

The final rinse water temperature must be a minimum 180-195°F/82-91°C during the final rinse cycle to ensure that all wares are sanitized. If for any reason, the hot water temperature in the booster tank cannot provide this temperature, then the glasswasher will enter a Rinse Sentry Mode of operation.

The Rinse Sentry changes the Normal Operation Mode as described below:

- 1. The Rinse Sentry constantly monitors the water temperature inside final rinse booster.
- 2. If the temperature inside the booster falls below 180-195°F/82-91°C then the Rinse Sentry will extend the wash cycle time until the booster water temperature reaches the proper temperature.

NOTE: LOW INCOMING WATER TEMPERATURE TO THE DISHWASHER OFTENS CAUSES THE RINSE SENTRY TO OPERATE.

- 3. The in-cycle light will remain illuminated during the Rinse Sentry Mode.
- 4. The glasswasher will continue to wash for a maximum time of 5-minutes.
- 5. After 5-minutes the Rinse Sentry will stop and the glasswasher cycle will resume normal operation.
- 6. The rinse water temperature gauge must be monitored to ensure that a minimum of 180-195°F/82-91°C is maintained. If the temperature is below the required minimum, then the problem must be identified and corrected immediately to maintain sanitization.

Drain Mode

The 240HT drains automatically whenever the ON-OFF/DRAIN power switch is placed in the OFF/DRAIN position.

To drain the machine:

- 1. Close the glasswasher door.
- 2. Press the lighted power switch down to the OFF/DRAIN position.
- 3. The power switch light will go out.
- 4. After a 4 second pause, the in-cycle light will illuminate and the glasswasher will drain, fill with water, perform 3 short cycles and then drain completely.

DO NOT OPEN THE DOOR UNTIL THE IN-CYCLE LIGHT GOES OUT.

5. When the in-cyle light goes out, the drain cycle is complete.

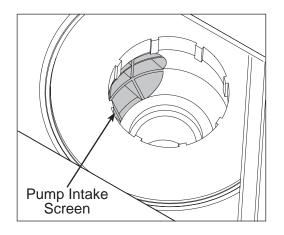
After Each Meal Period or every 8 Hours of Operation

- 1. Close the glasswasher door.
- 2. Press the lighted power switch down to the OFF/DRAIN position.
- 3. The power switch light will go out.
- 4. The in-cycle light will illuminate and the glasswasher will drain, fill with water, perform 3 short cycles and then drain completely.
- 5. The in-cycle light will go out indicating that the drain cycle is complete.
- 6. Remove the scrap screen carefully to keep the soil or waste particles from falling into the sump.
- 7. Clean the scrap screen by rinsing with clean water. Be sure to back-flush the screen.

 Do not strike the screen against solid objects.
- 8. Check the sump for foreign material and clean as required.
- 9. Replace scrap screen. Make sure that spray arms turn freely.
- 10. Check the chemical containers and refill as required.
- 11. Close the door and return to normal operation mode.



Remove the scrap screen





Clean the pump intake screen

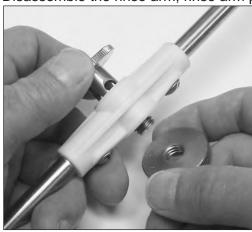
Cleaning Model 240HT

At the End of the Day

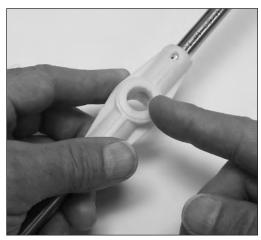
- 1. Perform Steps 1-9 on the previous page.
- 2. Remove the lower rinse and wash spray arms.



3. Disassemble the rinse arm, rinse arm pin and the retaining spacer.



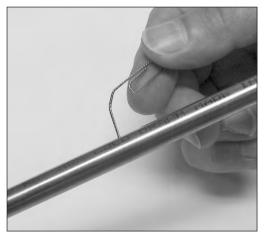
4. Inspect the rinse arm hub for wear.
Contact a service agent to replace the hub if needed.



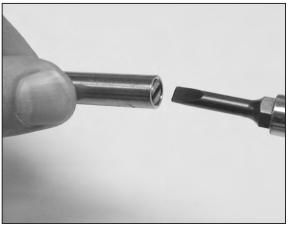
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At the End of the Day (continued)

5. Using a small paper clip, clean the rinse arm nozzles.



6. If the rinse arm needs cleaning, Use a flat blade screwdriver, remove the rinse arm end plugs and set them aside.



7. Flush the inside of the rinse arm with fresh water and reassemble the rinse arm.



(continued on next page)

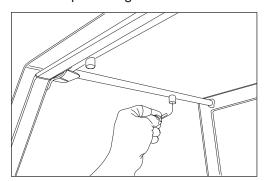
- 8. Remove the wash arm assembly and flush with clean water.
- Inspect the wash arm bearings for wear.
 Contact a service agent to replace the bearing if needed.



10. Inspect the wash tank heating element, and tank probes for scale build-up. De-lime the machine in accordance with the chemical supplier instructions.



11. Using a small paper clip, clean the rinse nozzles in the rigid rinse piping located at the top of the glasswasher wash compartment. The rinse piping is not removable.



- 12. Wipe the interior and exterior of the machine with a soft cloth and a mild detergent.

 DO NOT HOSE THE EXTERIOR OF THE MACHINE WITH WATER.
- 13. Reassemble the glasswasher and leave the door open to aid in overnight drying.

De-liming

Minerals accumulate on the interior surfaces of the glasswasher. The removal of lime deposits is called de-liming and the glasswasher should be de-limed regularly. Inspect the machine interior for lime deposits. If de-liming is required, a de-liming agent should be used in accordance with the chemical supplier's instructions.

DANGER:

Death or serious injury may result when de-liming solution is mixed with sodium hypochlorite sanitizing agent. Mixing may cause hazardous gases to form. De-liming solution and other acids must never be mixed with chlorine, iodine, bromine, or fluorine.

CAUTION:

Skin contact with de-liming solutions can cause severe irritation and possible chemical burns. Always wear eye protection, rubber gloves and protective clothing when handling chemicals.

Follow the steps below to de-lime the 240HT glasswasher.

- 1. Open the glasswasher door and remove any dish racks. Close door.
- 2. Turn the power switch on the glasswasher to the ON position.
- 3. Remove the detergent and rinse-aid chemical supply tubing from their chemical supply.
- 4. Place the tubing in a container of hot water.
- 5. Press and hold the prime switch UP in the DET position for 2 minutes to flush the detergent from the supply tubing. Release the switch.
- 6. Press and hold the prime switch DOWN in the R/A position for 4 minutes to flush the rinse-aid from the supply tubing. Release the switch.
- 7. Turn the glasswasher power switch to OFF/DRAIN to drain the wash tank. The green in-cyle light will go out when complete (90 seconds). Turn the power switch to ON to refill the machine. Repeat 3 more times to completely flush any chemicals from the machine.
- 8. Open the door and carefully add the de-liming chemical to the wash tank in accordance with the chemical supplier's instructions. Be careful to avoid splashing.
- 9. Close the door and press the START button to begin a wash cycle.
- 10. The green in-cyle light will illuminate.
- 11. Turn the glasswasher power switch to OFF/DRAIN to drain the wash tank. The green in-cyle light will go out when complete (90 seconds). Turn the power switch to ON to refill the machine.
- 12. Repeat 3 more times to completely flush any chemicals from the machine.
- 13. Check the de-liming results and if scale is still present repeat steps 8-12.
- 14. Return chemical supply tubing to their containers and prime the chemical lines.
- 15. Return the glasswasher to normal operation.

Maintenance

Follow the maintenance schedules below to keep the glasswasher operating most efficiently.

Daily Maintenance

- 1. Make sure that the water supply is on and that the drain is not clogged.
- 2. Check the temperature gauges and/or displays to ensure that they are operating.
- 3. Make sure that dish racks are in good condition.
- 4. Check the chemical containers and refill as required.
- 5. Follow the cleaning procedures given above.

Weekly Maintenance

- 1. Perform Steps 1-5 in the Daily Maintenance.
- 2. Inspect water lines for leaks.
- 3. Check for water leaks underneath the glasswasher.
- 4. Make sure the flexible water fill and drain hoses are not kinked.
- 5. Make sure that the glasswasher is level.
- 6. Clean accumulated lime deposits from the wash tank heating element.
- 7. Inspect the scrap screen and replace it if damaged.
- 8. Check the spray arms and replace or repair if damaged.

Monthly Maintenance

- 1. Perform the Daily and Weekly Maintenance listed above.
- 2. Clean the chemical dispenser pick-up tubing for the detergent and rinse-aid pumps by flushing with hot water.

To clean the pick-up tubing:

- 1. Remove the pick-up tubes from their containers.
- 2. Place each tube in a separate container of hot water.
- 3. Press and hold the PRIME button up in the DET position until water flows into the wash tank compartment.
- 4. Press and hold the PRIME button down in the R/A position for 3 minutes.
- 5. Return the pick-up tubes to their containers.
- 6. Run 3 empty glasswasher cycles to flush any chemicals from the glasswasher wash compartment.

Troubleshooting 240HT

Follow the troubleshooting guide below in the event that your glasswasher does not operate as expected. Perform the basic checks below before calling an authorized s ervice agent:

Condition	Cause	Solution
Glasswasher will not run.	Door not closed. Main power OFF. Glasswasher OFF.	Close door completely. Check breaker on panel. Turn Glasswasher ON.
Low or no water.	Main water supply off. PRV defective. Solenoid valve defective. Solenoid strainer clogged.	Open supply valve. Adjust/replace PRV. Install repair kit or replace. Clean strainer.
	Timer board defective.	Test/replace timer board.
Chemicals won't feed into Glasswasher.	Chemical supply low. Supply tubing damaged. Supply tubing kinked. Pick-up tube clogged or defective.	Refill chemical container. Replace tubing. Straighten tubing. Clean/replace tube.
	Timer board defective.	Test/replace timer board.
Low water pressure pumped from spray arms.	Clogged scrap screen. Clogged spray arms.	Clean scrap screen. Clean spray arms.
	Clogged pump intake screen.	Inspect sump and clean pump intake screen.
Poor wash results.	Water temperature low.	Raise incoming water temperature.
	Thermostat defective.	Adjust/replace thermostat.
	(See chemicals won't feed above.)	(See chemicals won't feed above.)
	(See low or no water above.)	(See low or no water above.)
	Detergent injector defective.	Replace squeeze tube. Replace injector motor. Clean tubing. pick-up hoses and strainer.
	Wares incorrectly loaded. in dishrack.	Reposition wares or reduce amount of wares.
	Booster high limit tripped.	Reset or replace high limit.
	Wash tank high limit tripped.	Reset or replace high limit.
(HT models only) Glasswasher stays in wash cycle.	Rinse Sentry extends wash mode for a maximum time of 5-minutes to allow final rinse water booster temperature to reach 180°F/82°C.	Raise incoming water temperature. Adjust/replace final rinse booster thermostat.

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Electrical Connection Model 240LT



WARNING:

Electrocution or serious injury may result when working on an energized circuit.

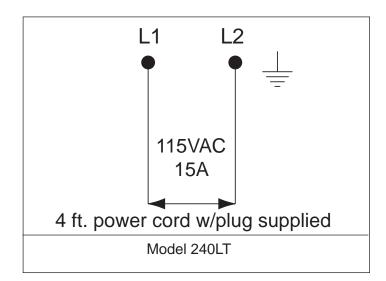
Disconnect power at the main breaker or service disconnect switch before working on the circuit.

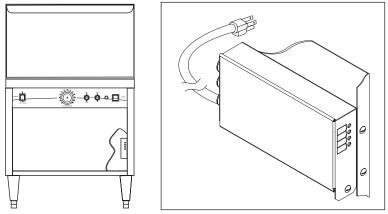
Lock-out and tag the breaker to indicate that work is being performed on the circuit.

ATTENTION

A qualified electrician must connect the main incoming power to the glasswasher in accordance with all local codes and regulations or in the absence of local codes in accordance with the National Electrical Code.

- 1. Model 240LT is equipped with a 4 ft. power cord and plug.
- The power cord is prewired at the junction box located on the front right side of the machine behind the lower front access panel.
- 3. This model requires a 115VAC,15A receptacle.





The 240LT power cord is prewired to the junction box located at the lower right-side of the machine behind the lower front access panel.

Water Connection

ATTENTION

Plumbing connections must comply with national, local plumbing and sanitary codes.

IMPORTANT

Make sure that the flexible water supply and drain hoses are not kinked.

- 1. The 240LT has a 7 ft./1.8 m flexible hot water fill hose with a 3/4" female garden hose connector.
- 2. A 1/2" or larger main incoming supply line should be installed to the glasswasher.
- 3. A 1/2" or larger shut-off valve should be installed in the main water supply as close to the glasswasher as possible for service.
- 4. The machine has a built-in flow control. The incoming hot water supply pressure must be between 25-95 psi/173-655 kPa.
- 5. The hot water supply must provide a minimum of 140°F/60°C, measured at the glasswasher.

Drain Connection

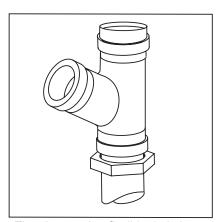
ATTENTION

Do not connect the drain hose to a disposer. The glasswasher will not drain correctly.

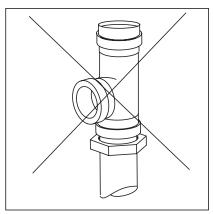
- 1. This model has a 6ft. 5/8" I.D. drain hose. The maximum drain height connection must not exceed 3 ft.[.09 m] above the finished floor.
- 2. The drain hose is located at the rear of the glasswasher.
- 3. The drain hose is secured to the rear of the machine by a clamp to maintain a goose-neck bend in the drain hose.

<u>DO NOT REMOVE THE DRAIN HOSE RETAINING CLAMP.</u> DO NOT KINK, STRETCH OR LENGTHEN THE DRAIN HOSE.

- 4. Install the drain hose to a "WYE" drain fitting. Connection to a "TEE" fitting will prevent the glasswasher from draining completely.
- 5. The maximum drain flow is 15 US gpm/12.5 Imp gpm/57 Lpm.
- 6. Make sure the drain hose does not kink. Kinks will prevent the glasswasher from draining completely, and the glasswasher will overflow out the front door.



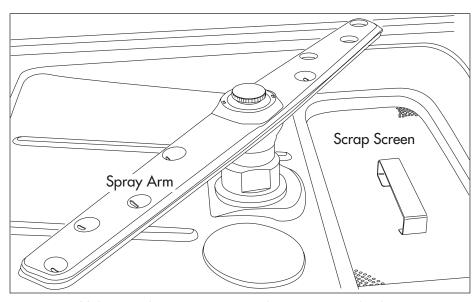
The glasswasher flexible drain hose must be connected to a WYE fitting.



Do not connect the glasswasher flexible drain hose to a TEE fitting.

Check List Model 240LT

- 1. Make sure the glasswasher is permanently located.
- 2. Make sure all utility connections are complete.
- 3. Make sure the flexible drain hose and the hot water fill hose are not kinked.
- 4. Remove any protective film from glasswasher.
- 5. Check the interior for foreign material.
- 6. Remove the scrap screen and check the sump for foreign material.
- 7. Make sure the chemical supply containers are full and that the chemical pick-up tubes are installed in the proper containers.
- 8. Make sure the scrap screen is in place.
- 9. Make sure the spray arm is in place and that it spins freely.
- 10. Close the glasswasher door.
- 11. Turn hot water supply on and check for leaks in the main water supply piping connected to the glasswasher.



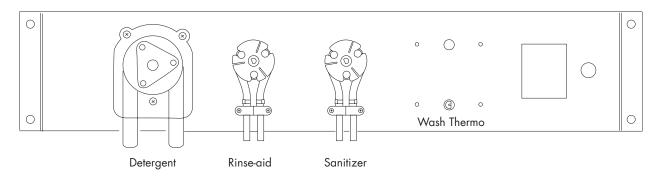
Make sure the scrap screen and spray arm are in place.

Chemical Dispensing Pumps Model 240LT

ATTENTION

(For 240LT Model Only), 5.25% sodium hypochlorite (chlorine bleach) must be used as a sanitizing agent to provide a minimum concentration of 50 ppm in the final rinse.

The 50 ppm concentration must be checked using chlorine test strips to make sure the proper concentration is maintained



- 1. <u>Model 240LT</u> is equipped with built-in detergent, rinse-aid, and sanitizer dispensing pumps. (See the illustration above).
- 2. The pumps are located on a center bracket behind the lower-front access panel.
- 3. The pick-up tubes are marked with colored labels that identify the type of chemical used:

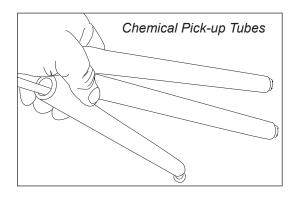
RED = Detergent (Non-chlorinated)

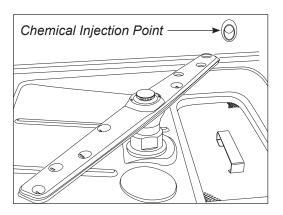
BLUE = Rinse-Aid (Consult chemical supplier)

WHITE = Sanitizer (5.25% Sodium hypochlorite (chlorine bleach) solution.

The chemicals enter the wash tank compartment through a fitting on the right rear of the wash compartment.

- 4. The detergent supply should be a non-chlorinated liquid detergent, the chemical supplier will determine an appropriate rinse agent. Your chemical supplier must adjust the dispensers for the supplied product.
- 5. Place the chemical supply containers as close to the glasswasher as possible.
- 6. Do not elevate the chemical containers above the finished floor.

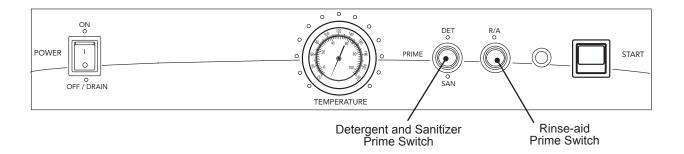




Chemical Dispensers

Model 240LT

Priming the Chemical Dispensing Pumps



1. There are two chemical dispenser prime push buttons on the 240LT. The first is labeled DET and SAN on the front control panel; the second is labeled R/A.

DET = Detergent

SAN = Sanitizer

R/A = Rinse-aid

- 2. Make sure the chemical containers are full and the correct pick-up tubes are in their containers.
- 3. Turn the glasswasher power switch ON. The switch will illuminate and the glasswasher will fill with water.
- 4. Open the glasswasher door, then push and hold the first prime push button UP to the DET position until detergent enters the wash tank compartment. Release the PRIME push button.
- 5. Push and hold the prime push button DOWN to the SAN position until sanitizer is observed entering the wash tank compartment. Release the Prime push button.
- 6. Push and hold the second prime push button UP to the R/A position until rinse-aid is observed entering the wash tank compartment. Release the Prime push button.
- 7. Run three empty cycles to remove chemicals in the wash tank.
- 8. Priming is complete.

Chemical Dispensers 240LT

Chemical Dispensing Pump Speed and Tank Fill Adjustments

NOTE:

The chemical dispensing pump speeds are not set at the factory and variations in the type of chemicals supplied by the chemical supplier always require that the supplier make final adjustments for the products supplied.

- 1. Adjustment screws are provided for the dispensing pumps and for the wash tank fill. They are located on the right-side of the glasswasher behind the lower front access panel.
- 2. Make sure the chemical containers are full and the pick-up tubes are in the proper containers.
- Turn the glasswasher power switch ON.
 The switch will illuminate and the glasswasher will fill with water.
- 4. The chemical supplier should run a normal glasswasher cycle and test detergent and rinse-aid concentrations according to the chemical supplier's instructions.

CAUTION:

Excessive pressure to the potentiometers when adjusting can result in bent or broken adjusting screws.

- 5. Each dispensing pump has a clearly marked adjustment screw. Turn the screw CW to increase the time of the dispensing pump and CCW to reduce the dispensing pump time.
- 6. The Fill adjustment screw will provide a small change in the tank water level. If a large adjustment is needed, then check the incoming water pressure making sure the fill hose is not kinked. If the above items are okay then the size of the incoming water supply should be evaluated.
- 7. For Model 240LT detergent, rinse-aid and sanitizer are used.

5.25% sodium hypochlorite (chlorine beach) must be used as a sanitizing agent to provide a minimum concentration of 50 ppm in the final rinse. The 50 ppm concentration must be checked using chlorine test strips to make sure that the proper concentration is maintained.

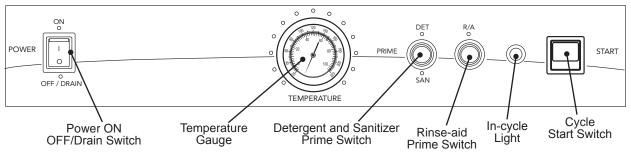


Turning the chemical dispenser adjusting Screws increase or decrease the chemical dispensed.



Proper Water Level in the Wash Tank.

240LT Normal Wash Cycle



240LT Control Panel

- 1. Push the POWER switch up to the ON position. The switch illuminates and water enters the wash compartment.
- 2. Check the temperature gauge to ensure that it indicates a minimum of 140°F/60°C.
- 3. Prescrap and load wares into the appropriate dish rack. Do not overload dish rack. Load wares in a peg rack; load silverware in a single layer in a flat-bottom dish rack. Overloading dish rack will result in poor washing results.
- 4. Open glasswasher door and slide dish rack into the machine. Load 1 dish rack per wash cycle.
- 5. Close the glasswasher door. Press and hold START button for 1 second. The cycle light illuminates and the wash cycle begins.
- 6. Check the temperature gauge during the final rinse cycle to ensure the final rinse temperature indicates a minimum of 140°F/60°C during the final rinse.
- 7. The green in-cycle light goes out completing the cycle. The final rinse water is held for the next wash cycle.
- 8. Open the glasswasher door and remove the dish rack of clean wares.
- 9. Repeat steps 2-8 for additional cycles.

NOTF:

Opening the door stops the cycle. When the glasswasher door is closed the cycle automatically restarts from the beginning of the cycle.

240LT Drain Operation

- 1. Push the glasswasher POWER switch up to the ON position.
- 2. The POWER switch illuminates and the machine fills with water.
- 3. Press and hold the green START button for 1 second.
- 4. Release the START switch.
- 5. The glasswasher starts and the green cycle light illuminates.
- 6. Check the temperature gauge to confirm that it displays the correct incoming hot water temperature. This may take several minutes for the wash tank to reach temperature.
- 7. When the glasswasher stops, push the POWER switch down to the OFF/DRAIN position.
- 8. After a 4 second pause, the green cycle light will illuminate, the machine will drain, fill with water; and perform 3 short cycles and then drain completely.
- 9. The green cycle light goes out when the machine has drained completely.

Cleaning

The best preventative maintenance is keeping the glasswasher as clean as possible during regular use. A regular cleaning schedule will increase the life of the glasswasher and ensure the best washing results.

CAUTION:

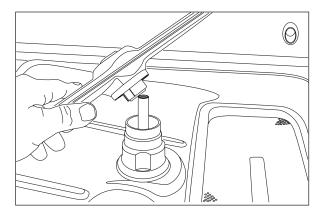
Damage to the unit or improper operation may occur if components are not flushed and cleaned on a regularly scheduled basis.

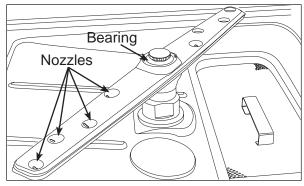
After Each Meal Period or Every 8 hours of Operation

- 1. Remove the scrap screen and flush with clean water. Be sure to backflush the screen.
- 2. Inspect the sump and pump intake screen and clean as required.
- 3. Reassemble the machine and return to normal operation.

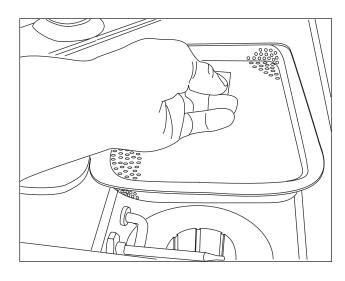
Daily-End of the Day

- 1. Push the POWER switch to the OFF/DRAIN position and close the door to drain the tank. The green in-cycle light will illuminate indicating the machine is in the drain cycle.
- 2. After the green in-cycle light goes out, open the door and remove the lower spray arm.
- 3. Backflush the spray arm with clean water to remove any debris from the spray nozzles. Do not strike the spray arm against solid objects

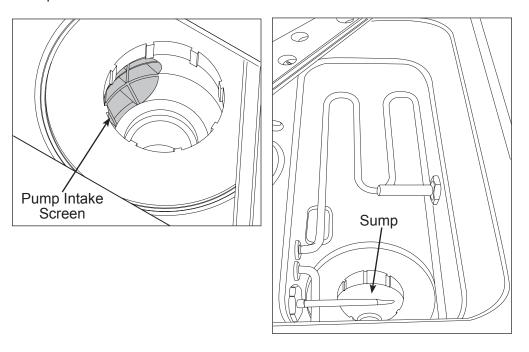




4. Remove and clean the scrap screen by rinsing with clean water. Be sure to backflush the screen. Do not strike the screen on hard surfaces.



- 5. Inspect the sump and remove any foreign material.
- 6. Clean the pump intake screen. The pump intake screen is not removable.
- 7. Reinstall the scrap screen.

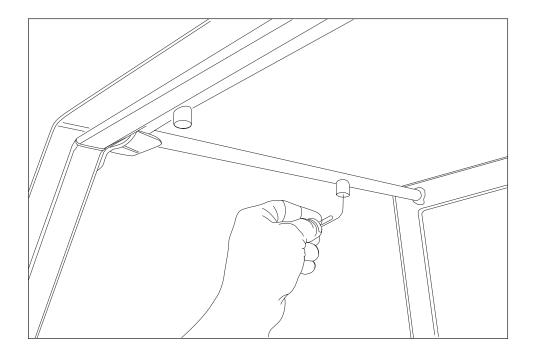


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Cleaning

Daily-End of the Day (continued)

8. Using a small paperclip, clean the nozzles in the upper rinse piping. The rinse piping is not removable.



- 9. Wipe the exterior of the glasswasher clean using a soft cloth and mild detergent.
- 10. Leave the glasswasher door open overnight to allow the inside to dry.

Minerals accumulate on the interior surfaces of the glasswasher. The removal of lime deposits is called de-liming and the glasswasher should be de-limed regularly. Inspect the machine interior for lime deposits. If de-liming is required, a de-liming agent should be used in accordance with the chemical supplier's instructions.

DANGER:

Death or serious injury may result when de-liming solution is mixed with sodium hypochlorite sanitizing agent. Mixing may cause hazardous gases to form. De-liming solution and other acids must never be mixed with chlorine, iodine, bromine, or fluorine.

CAUTION:

Skin contact with de-liming solutions can cause severe irritation and possible chemical burns. Always wear eye protection, rubber gloves and protective clothing when handling chemicals.

Follow the steps below to de-lime the 240LT glasswasher. Close the door.

- 1. Open the glasswasher door and remove any dish racks.
- 2. Turn the power switch on the glasswasher to the ON position.
- 3. Remove the detergent, sanitizer and rinse-aid chemical supply tubing from their chemical supply containers.
- 4. Place the tubing in a container of hot water.
- 5. Press and hold the prime switch UP in the DET position for 2 minutes to flush the detergent from the supply tubing. Release the switch.
- 6. Press and hold the prime switch DOWN in the SAN position for 4 minutes to flush the sanitizer from the supply tubing. Release the switch.
- 7. Press and hold the prime switch UP in the R/A position for 4 minutes to flush the rinse-aid from the supply tubing. Release the switch.
- 8. Turn the glasswasher power switch to OFF/DRAIN to drain the wash tank. The green in-cyle light will go out when complete. Turn the power switch to ON to refill the machine. Repeat 3 more times to completely flush any chemicals from the machine.
- 9. Open the door and carefully add the de-liming chemical to the wash tank in accordance with the chemical supplier's instructions. Be careful to avoid splashing.
- 10. Close the door and press the START button to begin a wash cycle.
- 11. The green in-cyle light will illuminate and the machine will complete an automatic cycle.
- 12. Turn the glasswasher power switch to OFF/DRAIN to drain the wash tank. The green in-cyle light will go out when complete (90 seconds). Turn the power switch to ON to refill the machine.
- 13. Run 3 more empty wash cycles to completely flush any chemicals from the machine.
- 14. Check the de-liming results and if scale is still present repeat steps 8-13.
- 15. Return chemical supply tubing to their containers and prime the chemical lines.
- 16. Return the glasswasher to normal operation.

Maintenance Schedule

Follow the maintenance schedules below to keep the glasswasher operating most efficiently.

Daily Maintenance

- 1. Make sure that the water supply is on and that the drain is not clogged.
- 2. Check the temperature gauge and ensure it is operating.
- 3. Make sure that dish racks are in good condition.
- 4. Check the chemical containers and refill as required.
- 5. Follow the cleaning procedures given above.

Weekly Maintenance

- 1. Perform Steps 1-5 in the Daily Maintenance.
- 2. Inspect water lines for leaks.
- 3. Check for water leaks underneath the glasswasher.
- 4. Make sure the flexible water fill and drain hoses are not kinked.
- 5. Make sure that the glasswasher is level.
- 6. Clean accumulated lime deposits from the wash tank heating element.
- 7. Inspect the scrap screen and replace it if damaged.
- 8. Check the spray arm and replace or repair if damaged.

Monthly Maintenance

- 1. Perform the Daily and Weekly Maintenance listed above.
- 2. Clean the chemical dispenser pick-up tubing by flushing with hot water.

To clean the pick-up tubing:

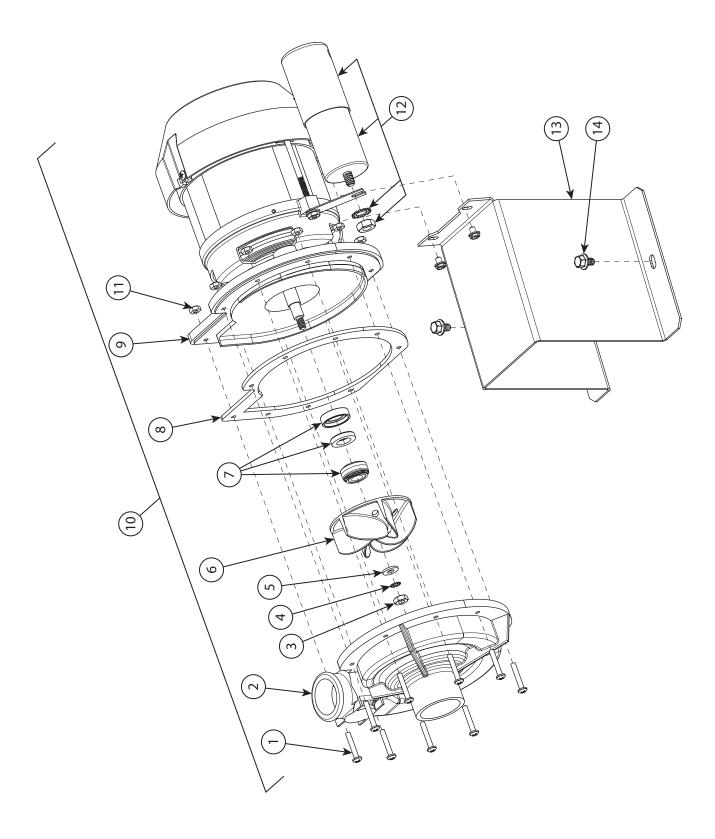
- 1. Remove the pick-up tubes from their containers.
- 2. Place each tube in a separate container of hot water.
- 3. Press and hold the PRIME button up in the DET position until water flows into the wash tank compartment.
- 4. Press and hold the PRIME button down in the SAN position for 3 minutes.
- 5. Press and hold the PRIME button up in the R/A position for 3 minutes.
- Return the pick-up tubes to their containers.
- 7. Run 3 empty glasswasher cycles to flush any chemicals from the glasswasher wash compartment.

Condition	Cause	Solution
Dishwasher will not run.	Door not closed. Main power OFF. Dishwasher OFF.	Close door completely. Check breaker on panel. Turn dishwasher ON.
Low or no water.	Main water supply off. Solenoid valve defective. Solenoid strainer clogged. Flow washer defective. Timer board defective.	Open supply valve. Install repair kit or replace. Clean strainer. Replace flow washer. Test/replace timer board.
Chemicals won't feed into dishwasher.	Chemical supply low. Supply tubing damaged. Supply tubing kinked. Pick-up tube clogged or defective. Timer board defective.	Refill chemical container. Replace tubing. Straighten tubing. Clean/replace tube. Test/replace timer board.
Low water pressure pumped from spray arms.	Clogged scrap screen. Clogged spray arms. Clogged pump intake screen.	Clean scrap screen. Clean spray arms. Clean sump and pump intake screen.
Poor wash results.	Water temperature low. Thermostat defective. (See chemicals won't feed above.) (See low or no water above.) Detergent injector defective. Wares incorrectly loaded. in dishrack.	Raise incoming water temperature. Adjust/replace thermostat. (See chemicals won't feed above.) (See low or no water above.) Replace squeeze tube. Replace injector motor. Clean pick-up tubing,. hoses and strainer. Reposition wares/reduce amount of wares.

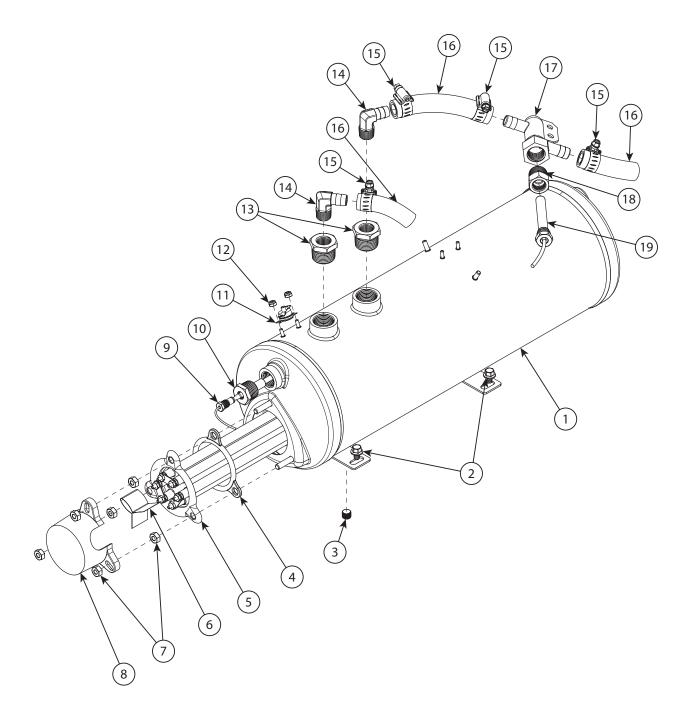
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Service Replacement Parts

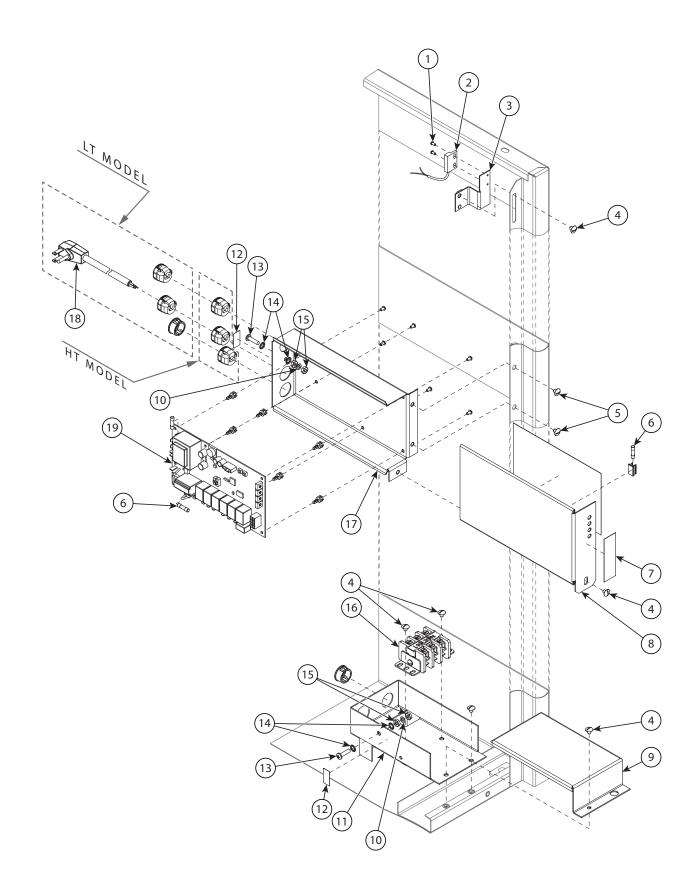
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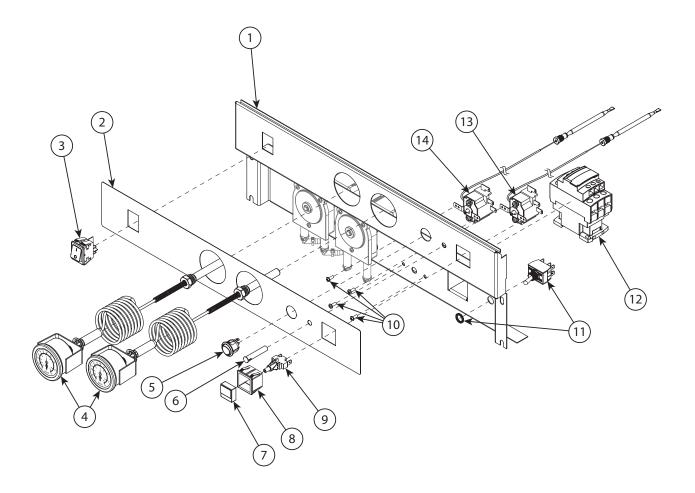
Item No.	Part No.	Description	Qty.
1	0512340	SCREW, M4, PHIL.PAN HD.	9
2	0512341	IMPELLER, HOUSING COVER	1
3	114144	NUT, M6 (LEFT-HAND THREADS)	1
4	0501501	WASHER, LOCK 1/4"	1
5	0501478	WASHER, PLAIN 17/64"	1
6	0512345	IMPELLER	1
7	114139	SEAL, PUMP	1
8	110285	GASKET, PUMP	1
9	114137	PLATE, PUMP BACKING	1
10	0512101	MOTOR, PUMP ASSEMBLY COMPLETE 115V/60/1	1
11	107337	NUT, M4	9
12	0512347	CAPACITOR, 40µF	1
13	0313028	BRACKET, PUMP	1
14	0512185	BOLT, HEX FLANGE, 1/4-20 X 3/8" SST	2



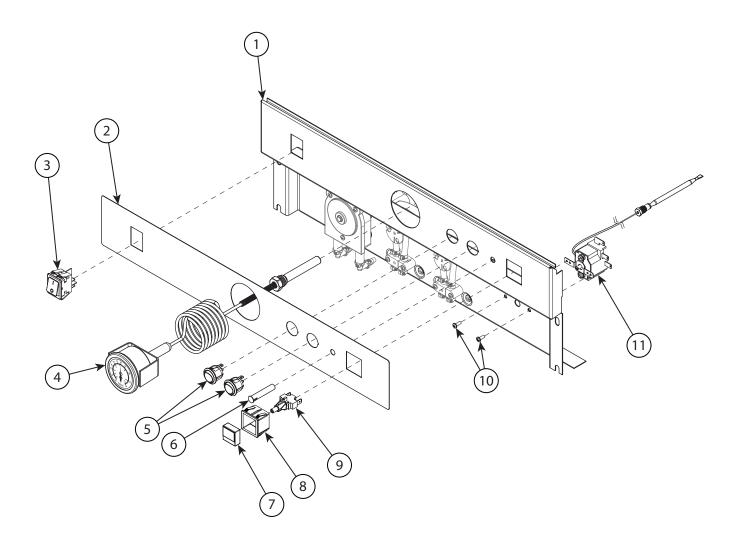
Item No.	Part No.	Description	Qty.
1	0509042	TANK, BOOSTER	1
2	0512185	BOLT, HEX FLANGE, 1/4-20 X 3/8" SST	2
3	0508817	PLUG, 1/8" HEX COUNTERSUNK	1
4	109985	SEAL, ELECTRIC HEATER FLANGE	1
5	111235-1	HEATER, 5/6.6KW 208-240V/60/1, 40°F RISE	1
	111233	HEATER, 7.5/10KW 208-240V/1/60, 70°F RISE	1
6	111885	INSULATION, FISHPAPER	1
7	100003	NUT, HEX 1/4-20 SST	6
8	H161123	COVER, HEATING ELEMENT	1
9	0512108	THERMOSTAT, BOOSTER	1
10	0512425	ADAPTER, THERMOSTAT (ORDER WITH ITEM 9)	1
11	110562	THERMOSTAT, HIGH LIMIT	1
12	108954	NUT, GRIP 6-32 WITH NYLON INSERT SST	2
13	0508840	BUSHING, 3/4" MPT X 3/8" FPT BRASS	2
14	0502653	ELBOW, 90° 3/8" MPT X 1/2" HOSE	2
15	0503679	CLAMP, SS GEAR, MIN. 5/16" MAX. 7/8" SST	4
16	107417	HOSE, RUBBER 1/2" ID X .84" OD	A/R
17	0512857	TEE, RINSE THERMOMETER	1
18	0512941	FITTING, BOOSTER THERMOMETER	1
19	0512107	THERMOMETER, 2" DIAL	1



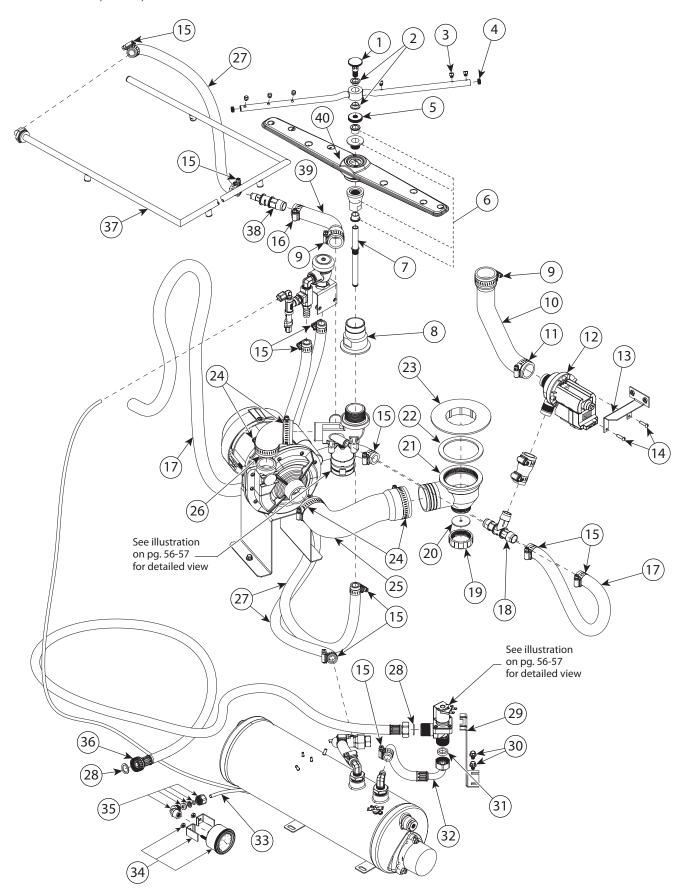
Item No.	Part No.	Description	Qty.
1	0503746	SCREW, 4-40 X 3/4" ROUND HEAD SST	2
2	113719	SWITCH, MAGNETIC REED	1
3	0313082	BRACKET, SWITCH ADJUSTMENT	1
4	100007	SCREW, 10-32 X 3/8" TRUSS HEAD	3
5	100778	SCREW, 1/4-20 X 3/8" TRUSS HEAD SST	2
6	0512373	FUSE, 4A, 250VAC	2
7	0512243	LABEL, ADJUSTMENT	1
8	0312189	COVER, TIMER ENCLOSURE	1
9	0312339	COVER, ENCLOSURE, ELEC. CONN.	1
10	0501472	WASHER, FLAT 1/8" X 1/2" BRASS	2
11	0312338	BASE, ENCLOSURE ELEC. CONN (240HT)	1
12	0503592	LABEL, GROUND (EARTH)	2
13	0501403	SCREW, RH 10-32 X 3/4" SLOTTED BRASS	2
14	0501493	WASHER, LOCK #10 EXT. TOOTH BRASS	4
15	0501533	NUT, 10-32 BRASS	4
16	0509527	BLOCK, TERMINAL 4-POLE	1
17	0312888	BASE, TIMER ENCLOSURE	1
18	0512292	CORD AND PLUG (240LT ONLY)	1
19	0512105-1	TIMER CKT. BOARD, SOLID STATE	1



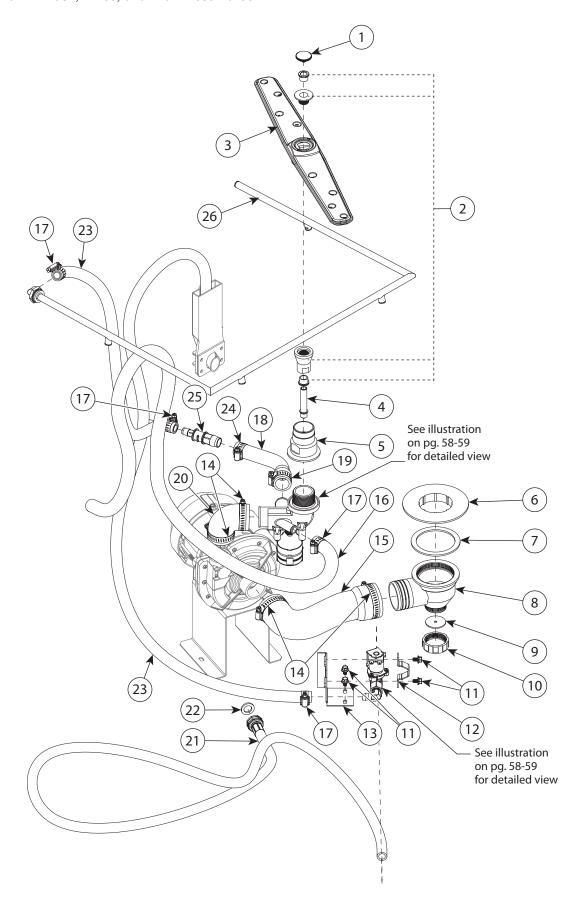
Item No.	Part No.	Description	Qty.
1	0313026	PANEL, LOWER FACIA	1
2	0513068	LABEL, FACIA 240HT	1
3	0512220	SWITCH, ROCKER DPST 125V NEON	1
4	0512107	THERMOMETER, 2" DIAL	2
5	0512226	SWITCH, ROCKER RND, SPDT MOMENTARY	1
6	0512232	LIGHT, INDICATOR, GREEN LED 2VDC	1
7	0512218	BUTTON, SWITCH GREEN	1
8	0512217	HOUSING, SWITCH	1
9	0512216	CONTACT, MOMENTARY, N.O.	1
10	0501540	SCREW, NIBS RH 8-32 X 1/2" PAN HD. PHIL. SST	4
11	0501373	SWITCH, 3-POSITION TOGGLE	1
12	0512432	CONTACTOR 25/40A, 3-POLE 115VAC	1
13	0512108	THERMOSTAT, BOOSTER	1
14	0507323	THERMOSTAT, WASH TANK	1



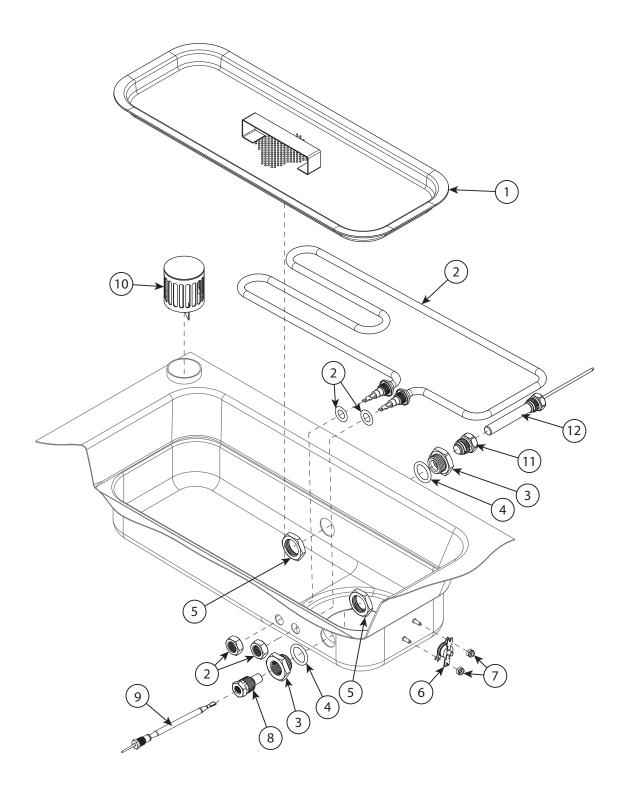
Item No.	Part No.	Description	Qty.
1	0313027	PANEL, FACIA LOWER	1
2	0513067	LABEL, FACIA 240LT	1
3	0512220	SWITCH, ROCKER, DPST 125V NEON	1
4	0512107	THERMOMETER, 2" DIAL	1
5	0512226	SWITCH, ROCKER RND SPDT MOMENTARY	2
6	0512232	LIGHT, INDICATOR, GREEN LED 2VDC	1
7	0512218	BUTTON, SWITCH GREEN	1
8	0512217	HOUSING, SWITCH	1
9	0512216	CONTACT, MOMENTARY, N.O.	1
10	0501450	SCREW, NIBS RH 6-32 X 3/16" PHIL. SST	2
11	0507323	THERMOSTAT, WASH TANK	1



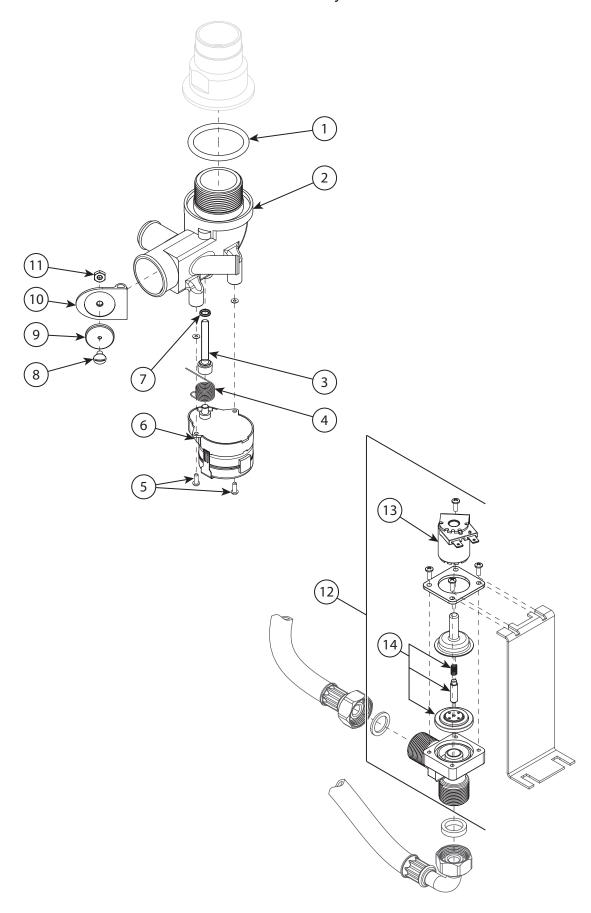
Item No.	Part No.	Description	Qty.
1	H36275	SPINDLE, RINSE ARM	1
2	H190663	BUSHING, RINSE ARM	2
3	H37149	NOZZLE, RINSE ARM	6
4	0512843	CAP, RINSE ARM, 5/16-24	2
5	H34998	NUT, SPACER	1
6	0712749	BEARING, ASSEMBLY, WASHARM	1
7	0512124	SHAFT, LOWER	1
8	0512066	HUB, LOWER WASHARM	1
9	0512322	CLAMP, HOSE 1-13/16" - 2-3/4" MAX SST	2
10	0512132	HOSE, OVERFLOW MOULDED	1
11	0502563	CLAMP, HOSE GEAR-TYPE 1" SST	1
12	0512227	PUMP, DRAIN 115V/60/1	1
13	0312145	BRACKET, DRAIN PUMP	1
14	0512352	SCREW, PHILLIPS PAN HEAD #10 X 3/4"	2
15	0503679	CLAMP, HOSE GEAR-TYPE SST	9
16	0508808	CLAMP, HOSE GEAR-TYPE SST	1
17	0509302	HOSE, 5/8" ID X 1" OD BRAIDED	A/R
18	0512134	TEE, POLY 3/4"	1
19	108447	CAP, 1-1/4" PLASTIC	1
20	D80305	GASKET, ELBOW	1
21	D500603	ELBOW, PUMP SUCTION	1
22	D80208	GASKET, PUMP SUCTION	1
23	D500615	FLANGE, PUMP SUCTION	1
24	0502571	CLAMP, HOSE 1-1/2" GEAR-TYPE SST	4
25	0512118	HOSE, PUMP SUCTION	1
26	0512119	HOSE, PUMP DISCHARGE	1
27	107417	HOSE, RUBBER 1/2" ID X .84" OD	A/R
28	0505320	WASHER, GARDEN HOSE	2
29	0313050	BRACKET, VALVE	1
30	0512185	BOLT, HEX FLANGE, 1/4-20 X 3/8" SST	2
31	0512936	WASHER, SILICON, 5/8" ID X 7/8" OD	1
32	0512926	HOSE, BOOSTER FILL, 1/2" ID X 12" LG.	1
33	107928	TUBING, 1/4" NATURAL	A/R
34	109812	GAUGE, PRESSURE 0-60 PSI	1
35	111100	ELBOW, FEMALE 1/4" OD X 1/8" NPT	1
36	0509526	HOSE, 1/2" X 7 FT. LG. W/GARDEN HOSE ADAPTER	1
37	0713051	MANIFOLD, UPPER WASH	1
38	0512321	COUPLER, 3/4" MPT X 3/4" HOSE BARB, POLYPRO	1
39	0512120	HOSE	1
40	H420548	ASSEMBLY, WASHARM (INCLUDES ITEM 6)	1



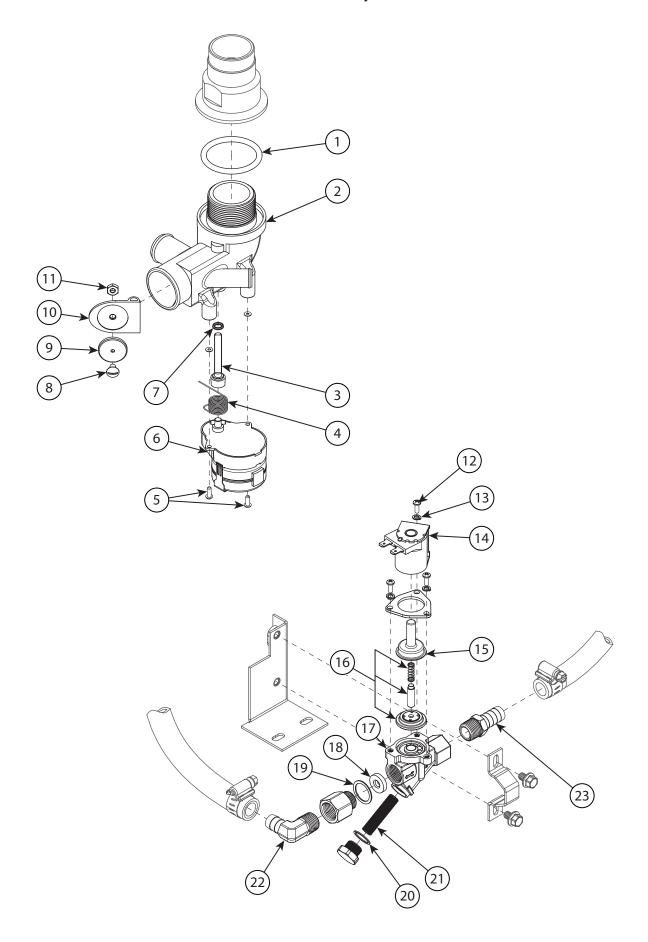
Item No.	Part No.	Description	Qty.
1	0512129	NUT, WASHARM	1
2	0712749	BEARING ASSEMBLY, WASHARM	1
3	H420548	WASHARM ASSEMBLY (INCLUDES ITEM 2)	1
4	0512125	SHAFT, LOWER F&D	1
5	0512066	HUB, LOWER WASHARM	1
6	D500615	FLANGE, PUMP SUCTION	1
7	D80208	GASKET, PUMP SUCTION	1
8	D500603	ELBOW, PUMP SUCTION	1
9	D80305	GASKET, ELBOW	1
10	108447	CAP, 1-1/4" PLASTIC	1
11	0512185	BOLT, HEX FLANGE, 1/4-20 X 3/8" SST	4
12	0300203	CLAMP, VALVE	1
13	0313050	BRACKET, VALVE	1
14	0502571	CLAMP, HOSE 1-1/2" GEAR-TYPE SST	4
15	0512118	HOSE, PUMP SUCTION	1
16	0509302	HOSE, 5/8" ID X 1" OD BRAIDED	A/R
17	0503679	CLAMP, GEAR, MIN. 5/16" MAX. 7/8" SST	5
18	0512120	HOSE	1
19	0512322	CLAMP, HOSE 1-13/16" - 2-3/4" MAX. SST	1
20	0512119	HOSE, PUMP DISCHARGE	1
21	0509526	HOSE, 1/2" X 7 FT. W/FEM. GARDEN ADAPTER	1
22	0505320	WASHER, GARDEN HOSE	1
23	107417	HOSE, RUBBER 1/2" ID X .84" OD	A/R
24	0508808	CLAMP, HOSE GEAR-TYPE SST	1
25	0512321	COUPLER, 3/4" MPT X 3/4" HOSE BARB, POLYPRO	1
26	0713051	MANIFOLD, UPPER WASH	1



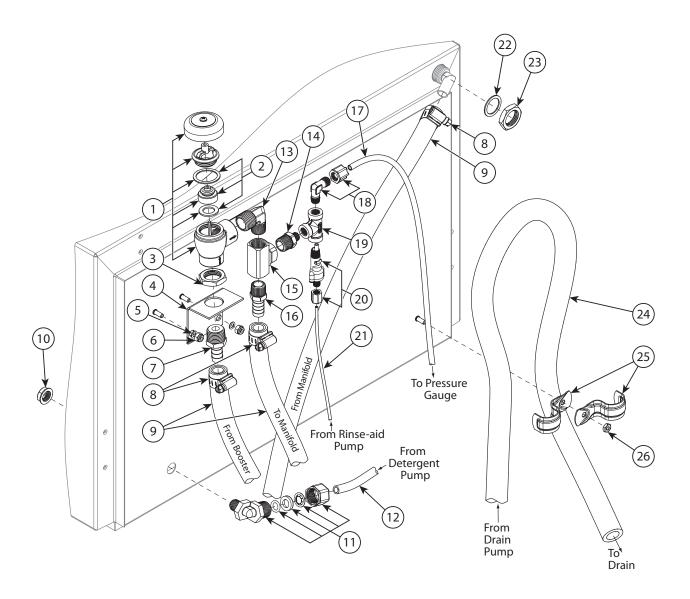
Item No.	Part No.	Description	Qty.
1	0512136	SCREEN, SCRAP	1
2	0512169	HEATER, 120VAC, 750W, C/W NUT-GASKET	1
3	0508872	ADAPTER, THERMOMETER	2
4	0501836	O-RING	2
5	201029	NUT, LOCK 1/2" NICKLE-PLATED	2
6	113604	THERMOSTAT, FIXED HIGH LIMIT 212°F	1
7	108954	NUT, GRIP 6-32 W/NYLON INSERT SST	2
8	0512920	BUSHING, THERMOSTAT (USE WITH ITEM 9)	1
9	0507323	THERMOSTAT, WASH TANK	1
10	0712236	TUBE, OVERFLOW (240HT ONLY)	1
11	0508873	ADAPTER	1
12	0512107	THERMOMETER, 2" DIAL C/W 7 FT. CAPILLARY	1



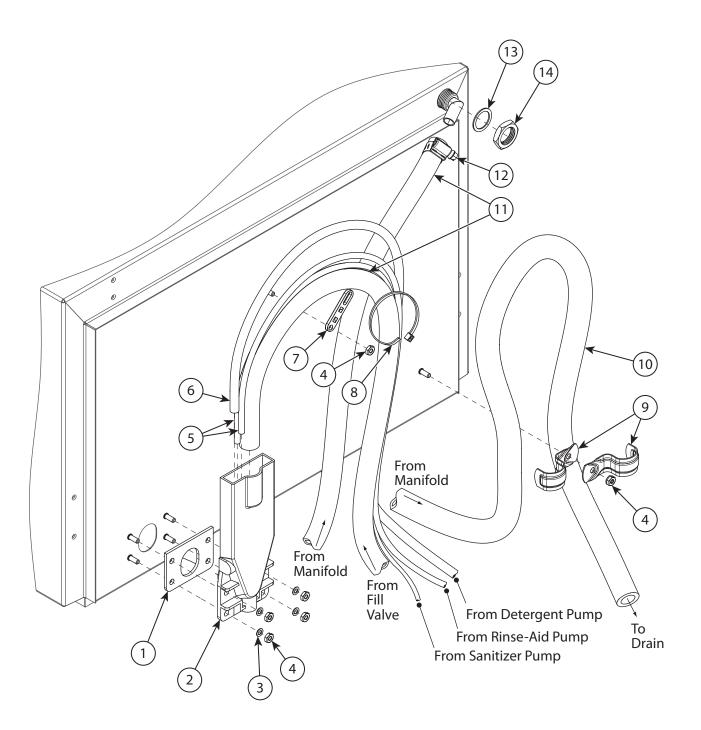
Item No.	Part No.	Description	Qty.
1	0512133	O-RING, 2-1/8" OD X 1-34" ID X 3/16" SILICON	1
2	0712368	MANIFOLD, DRAIN ASSY. FWR (Includes Items 2-11)	1
3	0512128	SHAFT, DRAIN FLAP	1
4	0512126	SPRING, TORSION	1
5	104833	SCREW, 6-32 X 3/8" RD. HD. SLOTTED SST	2
6	0712123	MOTOR, DRAIN 115V C/W PIN	1
7	0512130	O-RING, DRAIN SHAFT	1
8	0501412	SCREW, TRUSS SLOT 10-32 X 3/8" SST	2
9	0512127	GASKET, DRAIN	1
10	0512104	FLAP, DRAIN	1
11	100194	NUT, GRIP 10-32 SST	1
12	0512853	VALVE, WATER INLET 115VAC/60/1 (Includes Items 13 and 14)	1
13	0512861	COIL, 115VAC/60/1 7W	1
14	0512860	KIT, REPAIR SOLENOID VALVE	A/R



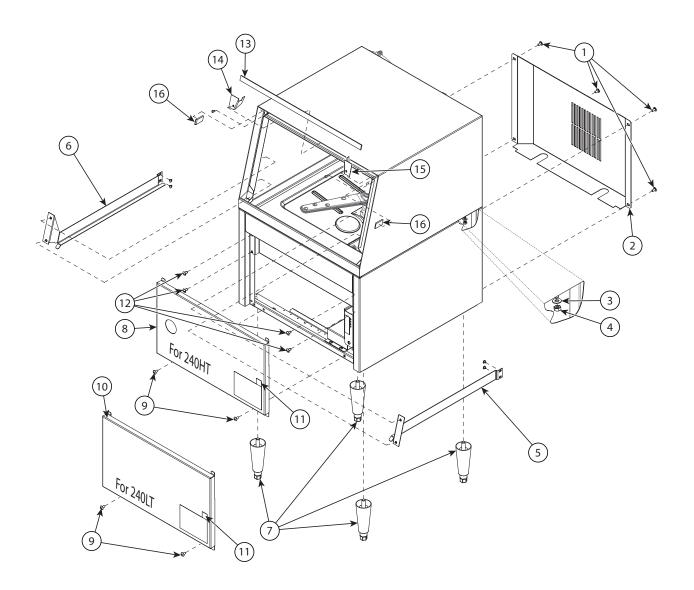
Item No.	Part No.	Description	Qty.
1	0512133	O-RING, 2-1/8" OD X 1-34" ID X 3/16" SILICON	1
2	0712367	MANIFOLD, DRAIN ASSY. FWR (Includes Items 2-11)	1
3	0512128	SHAFT, DRAIN FLAP	1
4	0512126	SPRING, TORSION	1
5	104833	SCREW, 6-32 X 3/8" RD. HD. SLOTTED SST	2
6	0712123	MOTOR, DRAIN 115V C/W PIN	1
7	0512130	O-RING, DRAIN SHAFT	1
8	0501412	SCREW, TRUSS SLOT 10-32 X 3/8" SST	2
9	0512127	GASKET, DRAIN	1
10	0512104	FLAP, DRAIN	1
11	100194	NUT, GRIP 10-32 SST	1
12	0501406	SCREW, 8-32 X 1/2", SLOT, RH SST	3
13	0501497	WASHER, SPLIT, LOCK #8	3
14	0505235	COIL, 115V/60/1, 10W	1
15	0505229	GUIDE	1
16	0502811	KIT, REBUILD VALVE	A/R
17	0504952	VALVE, WATER INLET 115VAC/60/1 (Includes Items 12-21)	1
18	0504958	WASHER, FLOW, 5.0 GPM	1
19	0502807	GASKET	1
20	0502804	WASHER, SEAL	1
21	0502803	STRAINER SCREEN, SOLENOID VALVE	1
22	0502653	ELBOW, 90°, 3/8 MPT X 1/2" HOSE	1
23	0502618	HOSE BARB, 1/2" X 3/8" MPT	1



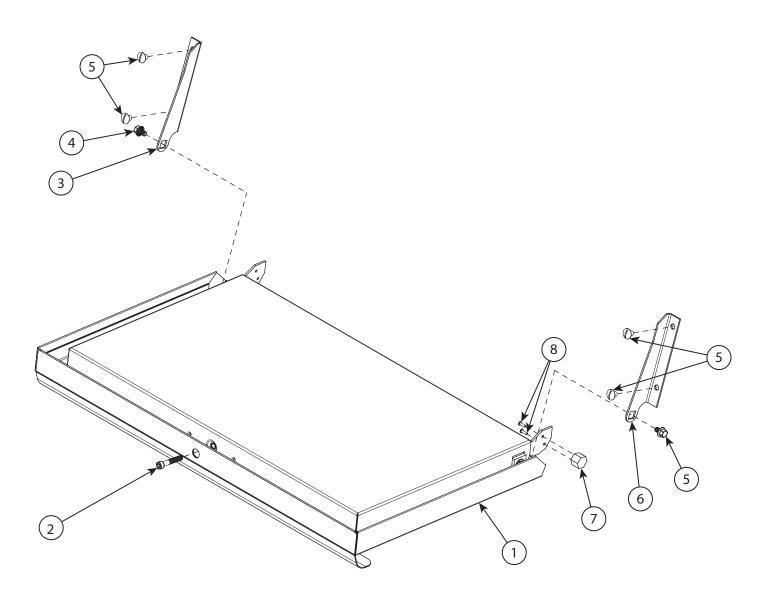
Part No.	Description	Qty.
100500	VACUUM BREAKER, 1/2" BRONZE (Includes Item 2)	1
0508366	KIT, REPAIR VACUUM BREAKER 1/2"	A/R
201029	NUT, LOCK 1/2" NICKLE PLATED	1
0312190	BRACKET, VACUUM BREAKER	1
0501501	WASHER, SPLIT LOCK 1/4" SST	2
100003	NUT, HEX 1/4" SST	2
0502651	COUPLER, 1/2" MPT X 1/2" HOSE	1
0503679	CLAMP, GEAR MIN. 5/16" mAX. 7/8" SST	2
107417	HOSE, RUBBER 1/2" ID X .84" OD	A/R
110856	LOCKNUT, 1/4" PLASTIC	1
0510881	ELBOW, 3/8" TUBE X 1/4" NPT COMP. POLY.	1
0502667	HOSE, 1/4" ID X 3/8" OD PVC	A/R
0509606	ELBOW, 90°, 1/2" MPT X 3/8" MPT REDUC.	1
0513071	ADAPTER, 3/8" NPT X 1/8" NPT BRASS	1
0502580	TEE, 3/8" FPT BRASS	1
0502618	HOSE, BARB 1/2" X 3/8" MPT	1
107928	TUBING, NATURAL 1/4"	A/R
112728	FITTING, COMP. 1/4" OD X 1/*" MPT ELL J	1
110501	TEE, 1/8" NPT SST	1
112763	INJECTOR FITTING, RINSE-AID	1
112883-1	HOSE, 1/8" OD X 1/16" ID PU95	A/R
0512239	O-RING	1
201029	LOCKNUT, 1/2" NPT	1
0509302	HOSE, 5/8" ID X 1" OD PVC BRAIDED	A/R
B502523	CLAMP, 1" PLATED CABLE STRAP	2
0503722	NUT, HEX 10-32 SST	1
	No. 100500 0508366 201029 0312190 0501501 100003 0502651 0503679 107417 110856 0510881 0502667 0509606 0513071 0502580 0502618 107928 112728 110501 112763 112883-1 0512239 201029 0509302 B502523	No. 100500 VACUUM BREAKER, 1/2" BRONZE (Includes Item 2) 0508366 KIT, REPAIR VACUUM BREAKER 1/2" 201029 NUT, LOCK 1/2" NICKLE PLATED 0312190 BRACKET, VACUUM BREAKER 0501501 WASHER, SPLIT LOCK 1/4" SST 100003 NUT, HEX 1/4" SST 0502651 COUPLER, 1/2" MPT X 1/2" HOSE 0503679 CLAMP, GEAR MIN. 5/16" mAX. 7/8" SST 107417 HOSE, RUBBER 1/2" ID X .84" OD 110856 LOCKNUT, 1/4" PLASTIC 0510881 ELBOW, 3/8" TUBE X 1/4" NPT COMP. POLY. 0502667 HOSE, 1/4" ID X 3/8" OD PVC 0509606 ELBOW, 90°, 1/2" MPT X 3/8" MPT REDUC. 0513071 ADAPTER, 3/8" NPT X 1/8" NPT BRASS 0502580 TEE, 3/8" FPT BRASS 0502618 HOSE, BARB 1/2" X 3/8" MPT 107928 TUBING, NATURAL 1/4" 112728 FITTING, COMP. 1/4" OD X 1/*" MPT ELL J 110501 TEE, 1/8" NPT SST 112763 INJECTOR FITTING, RINSE-AID 112883-1 HOSE, 1/8" OD X 1/16" ID PU95 0512239 O-RING 201029 LOCKNUT, 1/2" NPT 0509302 HOSE, 5/8" ID X 1" OD PVC BRAIDED B502523 CLAMP, 1" PLATED CABLE STRAP



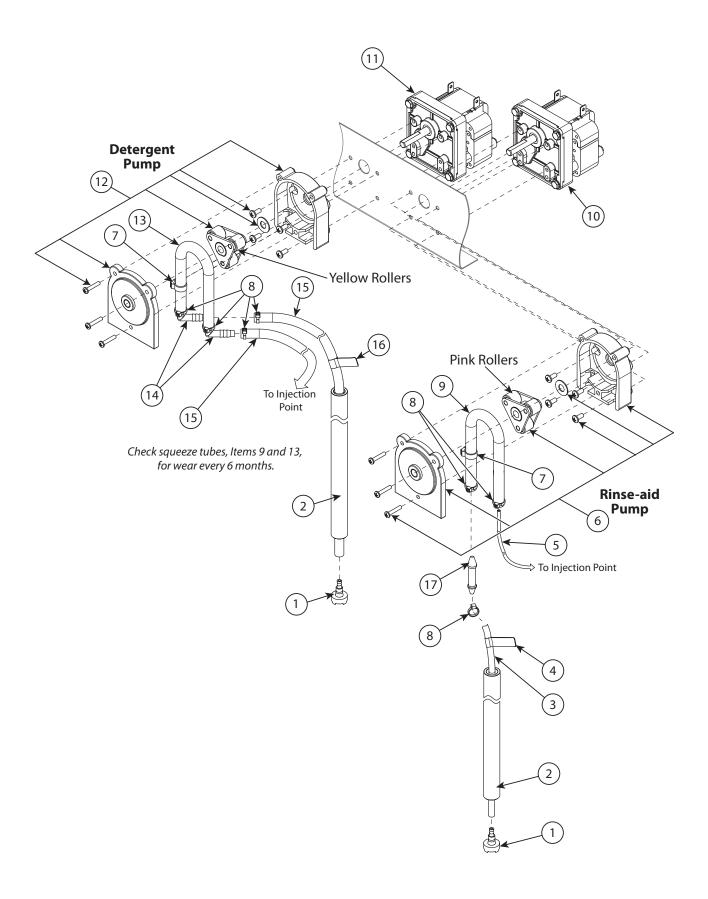
Item No.	Part No.	Description	Qty.
1	0509048	GASKET, INLET CHUTE	1
2	0508867	CHUTE, INLET	1
3	0507709	WASHER, FLAT #10 SST	4
4	0503722	NUT, HEX 10-32 SST	6
5	0502666	HOSE, 1/8" ID X 1/4" OD (RINSE AID & SANITIZER)	A/R
6	0502667	HOSE, 1/4" ID X 3/8" OD (DETERGENT)	A/R
7	106090	TIE PLATE TP-2	1
8	0501519	TIE, NYLON 4"	1
9	B502523	CLAMP, 1" PLATED CABLE STRAP	2
10	0509302	HOSE, 5/8" ID X 1" OD PVC BRAIDED	A/R
11	107417	HOSE, RUBBER 1/2" ID X .84" OD	A/R
12	0503679	CLAMP, GEAR MIN. 5/16" mAX. 7/8" SST	1
13	0512239	O-RING	1
14	201029	LOCKNUT, 1/2" NPT	1



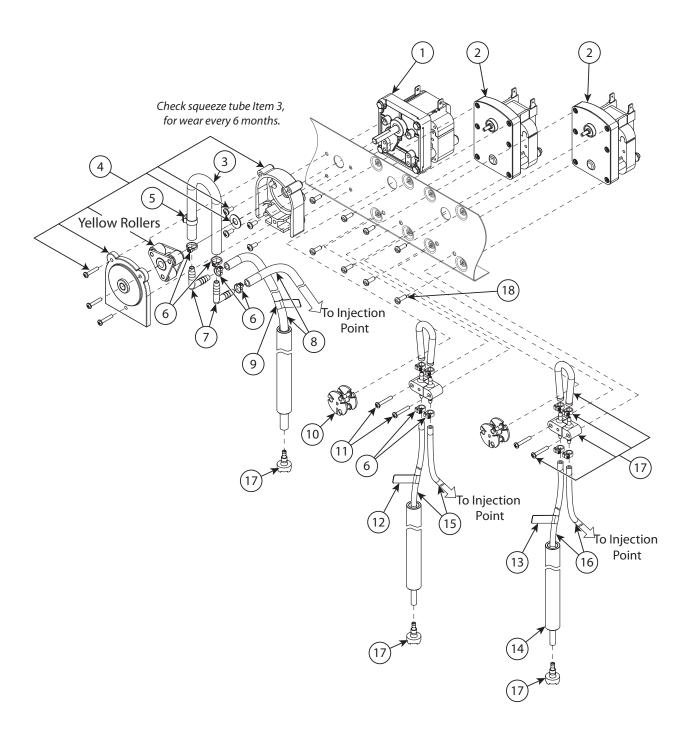
Item No.	Part No.	Description	Qty.
1	0501412	SCREW, 10-32 X 3/8" TRUSS SLOTTED, SST	4
2	0313083	PANEL, REAR LOWER	1
3	0501501	WASHER, SPLIT LOCK 1/4" SST	4
4	0501539	NUT, HEX 1/4-20 SST	4
5	0313029	RAIL, TRAY RH	1
6	0313030	RAIL, TRAY LH	1
7	0501873	LEG, NP W/SST HEX FOOT	4
8	0313076	PANEL, LOWER FRONT (240HT ONLY)	1
9	100779	SCREW, 1/4-20 X 5/8" TRUSS PHIL. SST	2
10	0313052	PANEL, LOWER FRONT (240LT ONLY)	1
11	0512937	LABEL, ENERGY STAR 1"	1
12	100778	SCREW, 1/4-20 X 3/8" TRUSS HEAD SST	2
13	0512319	GASKET, DOOR 1/8" X 5/8" X 21.5" LG.	1
14	0313081	BRACKET, RETAINING LS, UPPER WASHARM	1
15	0313080	BRACKET, RETAINING RS, UPPER WASHARM	1
16	0512322	GASKET, STEAM BLOCK	2



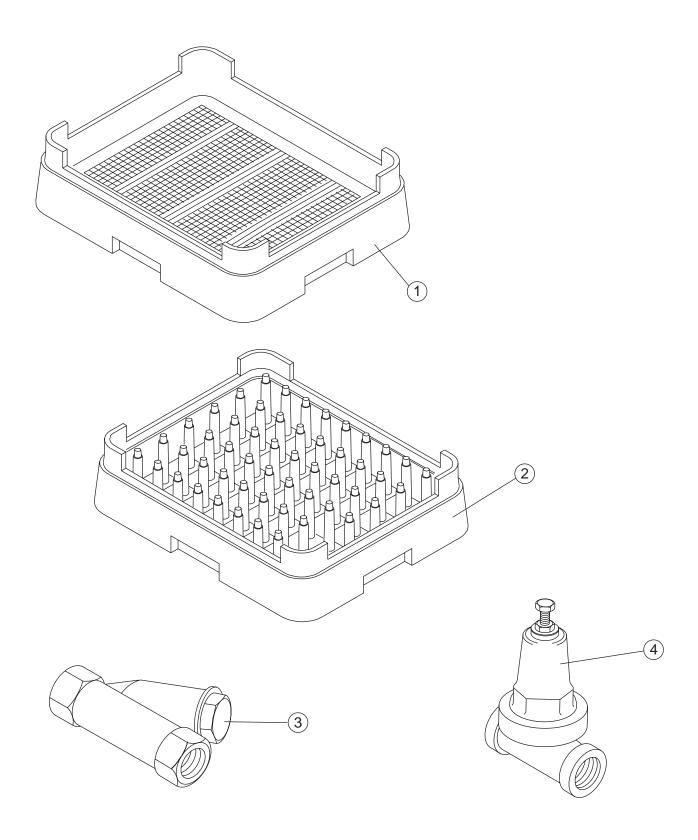
Item No.	Part No.	Description	Qty.
1	0713153	DOOR, WELDED ASSY.	1
2	0513044	NUT, COUPLING 1/4-20 X 7/8" sst	1
3	0313033	BRACKET, HINGE TANK LS	1
4	0512185	BOLT, HEX HEAD FLANGE, 1/4-20 X 3/8" SST	2
5	100778	SCREW, 1/4-20 X 3/8" TRUSS HEAD SST	4
6	0313033-1	BRACKET, HINGE TANK RS	1
7	0513059	HOLDER, MAGNET	1
8	107015	SCREW, 4-40 X 1/4" ROUND HEAD SST	2



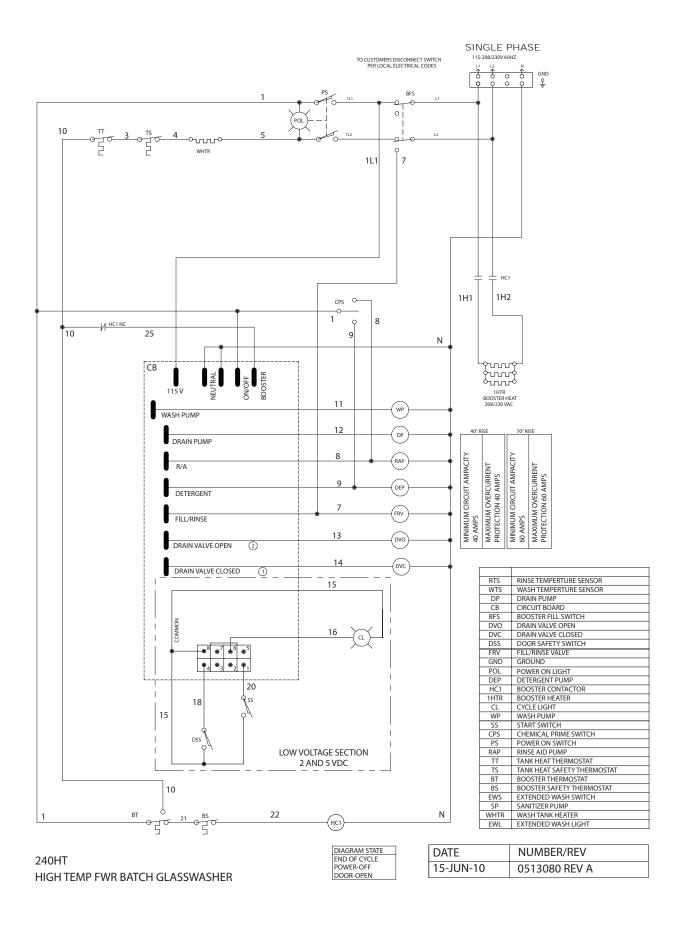
Item No.	Part No.	Description	Qty.
1	0501869	STRAINER	1
2	0306363	TUBE, 1/2" ID X 11-7/8" LG. STIFFENER	2
3	0502666	HOSE, 1/8" ID X 1/4" OD PVC	A/R
4	0505483	LABEL, RINSE-AID	1
5	112883-1	TUBING, 1/8" OD X 1/16" ID (RINSE-AID)	A/R
6	0512325	PUMP HEAD KIT, RINSE AID (PINK ROLLERS)	1
7	0512369	CLAMP, HOSE	2
8	0501519	TIE, CABLE 4"	7
9	112759	TUBE, PUMP 1/8" ID X 9" LG.	1
10	0510872-1	GEARMOTOR, RINSE-AID 115V/60/1	1
11	0510870-1	GEARMOTOR, DETERGENT 115V/60/1	1
12	114203	PUMP HEAD KIT, DETERGENT (YELLOW ROLLERS)	1
13	114202	TUBE, PUMP 3/16" ID X 3/8" OD X 8-1/4" LG.	1
14	0502644	ELBOW, 1/4" HOSE BARB	2
15	0502667	HOSE, 1/4" ID X 3/8" OD PVC	A/R
16	0503695	LABEL, DETERGENT	1
17	0512794	CONNECTOR, 5/32" X 1/8"	1

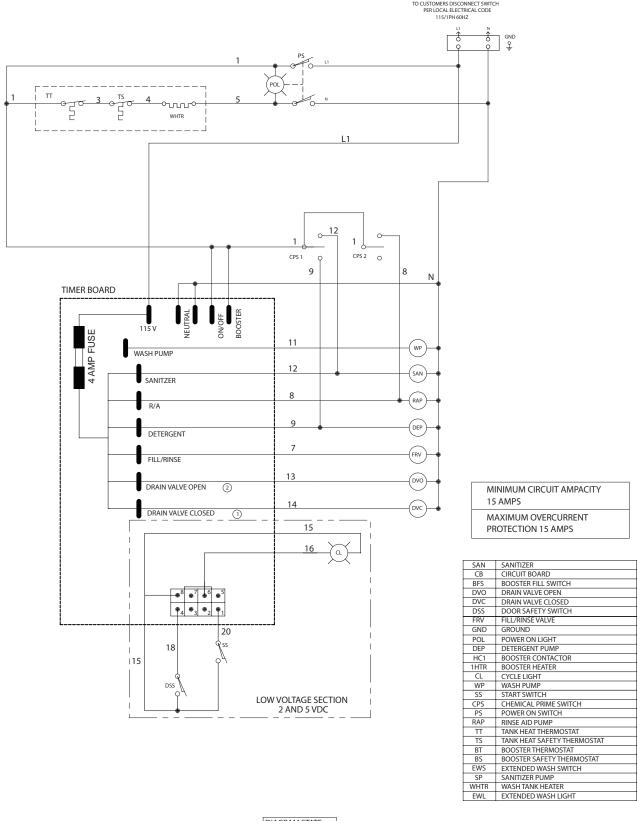


Item No.	Part No.	Description	Qty.
1	0510870-1	GEARMOTOR, DETERGENT 115V/60/1	1
2	0503756	MOTOR, INJECTOR PUMP 115V/60/1	2
3	114202	TUBE, PUMP 3/16" ID X 3/8" OD X 8-1/4" LG.	1
4	114203	PUMP HEAD KIT, DETERGENT (YELLOW ROLLERS)	1
5	0512369	CLAMP, HOSE	1
6	0501519	TIE, CABLE 4"	8
7	0502644	ELBOW, 1/4" HOSE BARB	2
8	0502667	HOSE, 1/4" ID X 3/8" OD PVC	A/R
9	0503695	LABEL, DETERGENT	1
10	0707142	ROTOR, ASSEMBLY	2
11	0506589	SCREW, 6-32 X 7/8" PAN HD. PHIL SST	4
12	0505483	LABEL, RINSE-AID	1
13	0504694	LABEL, SANITIZER	1
14	0306363	TUBE, 1/2" ID X 11-7/8" LG. STIFFENER	2
15	112883-1	TUBING, 1/8" OD X 1/16" ID (RINSE-AID)	A/R
16	0502666	HOSE, 1/8" ID X 1/4" OD PVC	A/R
17	0706635	TUBE, ELEMENT ASSY. 45CC	2
18	0504822	SCREW, 8-32 X 1/2" PAN HD. PHIL. SST	8



Item No.	Part No.	Description	Qty.
1	101273	RACK, SILVERWARE FLAT-BOTTOM	1
2	101285	RACK, PLATE & TRAY, PEG	1
3	104421	STRAINER, LINE 1/2" BRONZE (240HT)	1
4	108265	PRESSURE REDUCING VALVE 1/2" (240HT)	1





Model 240LT LOW TEMP F&D BATCH GLASSWASHER DIAGRAM STATE
END OF CYCLE
POWER-OFF
DOOR-OPENED

DATE	NUMBER/REV
15-JUN-10	0513081 REV A

