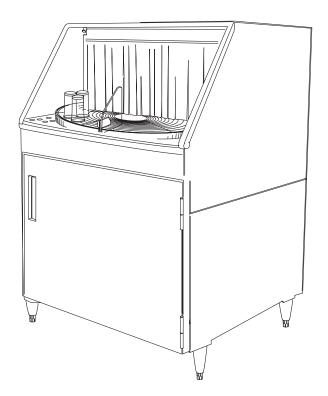
# Champion®

Installation/Operation and Service Parts Manual



# Rotary-type Conveyor Glasswasher

Model: CG7.5 Clockwise Rotation

Issue Date: 1.06.25



3765 Champion Boulevard Winston-Salem, NC 27105 (336) 661-1992 Fax: (336) 661-1660 Toll-free: (800) 858-4477 2674 N. Service Road, Jordan Station Ontario, Canada LOR 1S0 (905) 562-4195 Fax: (905) 562-4618 Toll-free: (800) 263-5798





#### National Service Department

In Canada: Toll-free: 800/ 263-5798 Tel: 905/ 562-4195 Fax: 905/ 562-4618 email: service@moyerdiebellimited.com In the USA: Toll-free: 800/ 858-4477 Tel: 336/ 661-1992 Fax: 336/ 661-1660 email: service@moyerdiebel.com

#### **ATTENTION:**

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

Please have this information on-hand if you call for service assistance.



# REGISTER YOUR PRODUCT to ACTIVATE YOUR WARRANTY.



# Two ways to register:

- Visit our website at: http://www.moyerdiebel.com/service/ for the USA http://www.championindustries.com/warranty-registration for Canada
- Use the FAX FORM on the next page.

# PRODUCT REGISTRATION BY FAX

# **COMPLETE THIS FORM AND FAX TO:**

# (336) 661-1660 in the USA

# 1-(800) 204-0109 in Canada

Model	Serial #		
Date of Installation:/ /			
Company Name:			
Address:	(Street)	State/Province	- Zin/Postal Coc
Telephone #: ( )	(31/661)	State/ Tovince	
Contact:			
Installation Company:			
Address:			
Telephone #:			
Contact:			
FAILURE TO REGISTER	YOUR PRODUCT MA	Y VOID YOUR WAF	RANTY
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# **Revision History**

Specifications are subject to change based on continual product improvement. Equipment owners may request a revised manual, at no charge, by calling 1 (800) 858-4477 in the USA or 1 (800) 263-5798 in Canada.

Revision Date	Revised Pages	Serial Number Effectivity	Revision Description
8.26.16	All	G160520081	Released DFM7.5 version
1.9.17	25	All	Changed shut-off assy part no. to P/N 0714437
9.7.17	37	All	Changed item no. 24 P/N to 0514413
9.15.17	21	All	Corrected item no. 1 P/N from 0313603 to 0312603
10.30.17	36-37	All	Revised float arm bushing illustration
4.23.18	41	All	Changed item no.11 P/N to 0503716
11.8.18	25	All	Deleted Item 11 and changed Item 10 to P/N 0314423
8.23.21	ii	All	Updated Limited Warranty
	37	All	Revised detergent tank part no. from 0712640 to 0714424
	37, 44-45	G200325482	Revised tank fill piping
	37	G210626041	Replaced drain flange, Item 22, P/N 0512535 to Item 22a, P/N 0514646



WAREWASHING SOLUTION SPECIALISTS

# **Limited Warranty**

Moyer Diebel Limited (herein referred to as Moyer Diebel, 2674 North Service Road, Jordan Station, Ontario, LOR 1S0 and 3765 Champion Blvd., Winston-Salem, NC 27105) warrants machines, and parts, as set out below.

WARRANTY OF MACHINES: Moyer Diebel warrants all new machines of its manufacture bearing the name Champion, Moyer Diebel and/or Nexus and installed within the United States and Canada to be free from defects in material and workman-ship for a period of one (1) year after the date of installation or fifteen (15) months after the date of shipment by Moyer Diebel, whichever occurs first. Products shipped outside of United States and Canada do not have warranty. The warranty registration card must be returned to Moyer Diebel within ten (10) days after installation. Warranty registration must be submitted to Moyer Diebel within ten (10) days after installation either online on the Moyer Diebel website (http://www.moyerdiebel.com/service/) for the USA or http://www. championindustries.com/warranty-registration for Canada or by fax on the form provided in the front of this manual if warranty card is not returned to Moyer Diebel within such period, the warranty will expire after one year from the date of shipment. Moyer Diebel 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, Moyer Diebel, at its election, will either repair or replace the defective parts, machine or accept return of the machine for full credit. In the event that Moyer Diebel elects to repair, the labour and work to be performed in connection with the warranty shall be done by a Moyer Diebel "Authorized Service Agent" during regular working hours and will covered at normal rates and any additional overtime rate will be at the responsibility of the equipment purchaser. Warranty is covered up to 50 miles or 80 km/s of travel from a Moyer Diebel authorized service technician. If travel exceeds 50 miles or 80 km's, then the end user will be responsible for additional travel expense. Service calls initiated under warranty that are found to not contain any defects in materials or workmanship, will not be covered by Moyer Diebel. Defective parts become the property of Moyer Diebel. Use of non OEM replacement parts not authorized by Moyer Diebel will relieve Moyer Diebel of all liability in connection with its warranty. In no event will Moyer Diebel's warranty obligation exceed Moyer Diebel's charge for the machine. Models that come with a factory paid start-up will be limited to one visit. Machines found to have issues related to installation procedures, or delays of any kind, will not be covered by Moyer Diebel and the sole responsibility of the equipment purchaser.

#### The following are not covered by Moyer Diebel's warranty:

a. Element tubes and/or squeeze tubes.

b. Vacuum breakers.

c. Replacement of fuses or resetting of overload breakers, or high limits.

d. Adjustment of thermostats, or temperature controlling devices.

e. Adjustment of clutches.

f. Adjustments of water pressure(s).

g. Adjustments of chemical pumps.

h. Opening or closing of utility supply valves or switching of electrical supply current.

i. Cleaning of valves, strainers, screens, nozzles, or spray pipes.

j. Performance of regular maintenance and cleaning as outlined in operator's guide.

k. Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, low voltage conditions, inadequate wiring, outdoor use, or failure to follow maintenance and operation procedures.

I. Wear on Pulper cutter blocks, pulse vanes, and auger brush.

m. Damages due to improper storage.

n. Special installations or applications, including remote locations, are limited in coverage by this warranty. Any installation that requires extra work, and/or travel, to gain access to the unit for service is the sole responsibility of the equipment purchaser.

# 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 foreign materials, water supplies, improper chemicals, or 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 water quality, or the installer, including machine table connections or by connection of chemical dispensing equipment installed by others.

8. Failure to comply with all local building codes.

9. Damage caused by labor dispute.

**WARRANTY OF PARTS:** Moyer Diebel warrants all new machine parts produced or authorized by Moyer Diebel 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, Moyer Diebel will replace the defective part without charge.

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY. MOYER DIEBEL'S WARRANTY IS ONLY TO THE EXTENT REFLECTED ABOVE. MOYER DIEBEL MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. MOYER DIEBEL 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 MOYER DIEBEL DISHWASHING MACHINES AND MOYER DIEBEL PARTS, AND ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.

Moyer Diebel does not authorize any other person, including persons who deal in Moyer Diebel dishwashing machines, to change this warranty or create any other obligation in connection with Moyer Diebel Limited dishwashing machines.

NON STANDARD VOLTAGES: Contact Factory for availability and price. NOTE: Options prices apply only when ordered with machine.

Champion Moyer Diebel • 2674 North Service Rd., Jordan Station, Ontario, LOR 150 Tel: 905/562-4195 Fax: 905/562-5422 sales@moyerdiebellimited.com

Dishwashing Machine Price List Effective January 1\*, 2019 Supersedes all previous lists



WAREWASHING SOLUTION SPECIALISTS

# **Terms & Conditions of Sale**

- 1. **TERMS.** Moyer Diebel Limited is referred to herein as "Seller." The purchaser of the property subject hereto ("Property") is referred to as "Buyer." No terms or conditions other than those stated herein shall be applicable to the state of the Property unless incorporated as part of the order or quotation constituting a part of the Purchase Agreement described below. The Laws of the Province of Ontario will govern this Agreement and all transactions hereunder as to interpretation, enforcement, validity, construction, effect and in all other respects.
- 2. PURCHASE AGREEMENT. Any order for or offer to purchase the Property shall not be binding on the Seller unless it is accepted in writing by the Seller's acknowledgment reflecting such acceptance. When so accepted it shall be binding in accordance with the Terms and Conditions of Sale. No modifications shall be permitted unless agreed to in writing by the parties. Unless otherwise specifically agreed in writing, any delivery or shipping date shown, or mentioned by the Seller, is furnished only for the convenience of the Buyer, is estimated, and is not a date by which the Seller has agreed to ship or deliver the Property. Change orders for the Property will not be permitted without the Seller's consent. The Seller may impose a charge in connection with any change order that the Seller accepts. Each shipment or delivery is subject to Seller's approval of Buyer's creditworthiness including, without limitation, determination that Buyer is not in default on any obligation to Seller.
- 3. **PRICES.** Unless otherwise agreed: (i) all prices will be F.O.B. Destination, (ii) and all sales are subject to the terms and pricing of the applicable policy in effect on the date that the order for the Property is shipped. All invoices not paid within 30 days of the date of their issue shall be subject to a delinquency charge of 18% per annum, state equivalent sales per annum (.0041095% per day), or such lesser amount as may be the maximum rate permitted by law. Buyer agrees to pay all costs of collection including such reasonable attorneys' fees as may be allowed by law.
- 4. **DELIVERY.** If a delivery is F.O.B., shipment of the Property will be in accordance with Buyer's instructions. In the absence of shipping instructions on F.O.B. deliveries, Seller may ship by such method or carrier as Seller may deem reasonable. The risk of loss for Property shall pass to the Buyer upon delivery of the Property to the Buyer or a public carrier. The Seller shall not be liable for failure or delay in the delivery of the Property as a result in whole or in part, of fire, flood, tornado, hurricane or other acts of God; because of any casualty, accident, embargo, strike, lockout, work stoppage, war or government regulation; or for any other reason beyond the Seller's reasonable control including, but not limited to, late delivery,

or non-delivery, of any part or component of the Property that is the subject thereof.

- 5. DISCLAIMER OF WARRANTIES AND LIMITATIONS OF DAMAGES. THE PROPERTY IS WARRANTED ONLY TO THE EXTENT REFLECTED IN THE SEPARATE MANUFACTURER'S LIMITED WARRANTY APPLICABLE THERETO, THE SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. THE SELLER SHALL NOT BE LIABLE TO BUYER FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. In case of a breach by the Seller, the Buyer's exclusive remedy shall be, at the Seller's option, repair or replacement, or the return of the Property to the Seller and refund to the Buyer of the purchase price. In no event shall the Seller's liability exceed the contract price of the Property.
- 6. ORDER CANCELLATION AND RETURN. Buyer acknowledges that the Seller will have incurred costs in connection with the sale of the Property; that the Property is produced by the Seller as required pursuant to confirmed orders, that Buyer's failure to accept delivery of Property as to which Seller has given its acceptance will result in damage to the Seller which may be difficult to ascertain; and that liquidation damages as follows are reasonable and will be paid by Buyer if Property is not purchased:
- a. As to standard machines, the Buyer will pay the Seller, as liquidated damages, 25% of the agreed price of the Property.
- b. As to all other machines, the Buyer will pay the Seller, as liquidated damages, the following percentages of the agreed price of the Property:
- i. 25% of the agreed price upon cancellation before production of the machine begins,
- ii. 35% of the agreed price after production of the machine begins, and before the machine is substantially completed, and
- iii. 50% of the agreed price after substantial completion of the machine.
- iv. 100% of the agreed price for all custom made equipment.
- 7. **DISPUTE RESOLUTION.** Any unresolved dispute arising in connection herein shall be resolved by arbitration in Toronto, Ontario, under the rules of the Arbitration Act, (Ontario).
- 8. GENERAL PROVISIONS. The sale of the Property herein identified shall be governed by the law of Ontario. Failure or delay of the Seller in exercising any right, power or privilege shall not operate as a waiver of any such right, power or privilege. If any portion of these Terms and Conditions of Sale shall be held to be invalid or unenforceable, all other provisions shall nevertheless remain valid and enforceable in accordance with their terms.

NON STANDARD VOLTAGES: Contact Factory for availability and price. NOTE: Options prices apply only when ordered with machine.

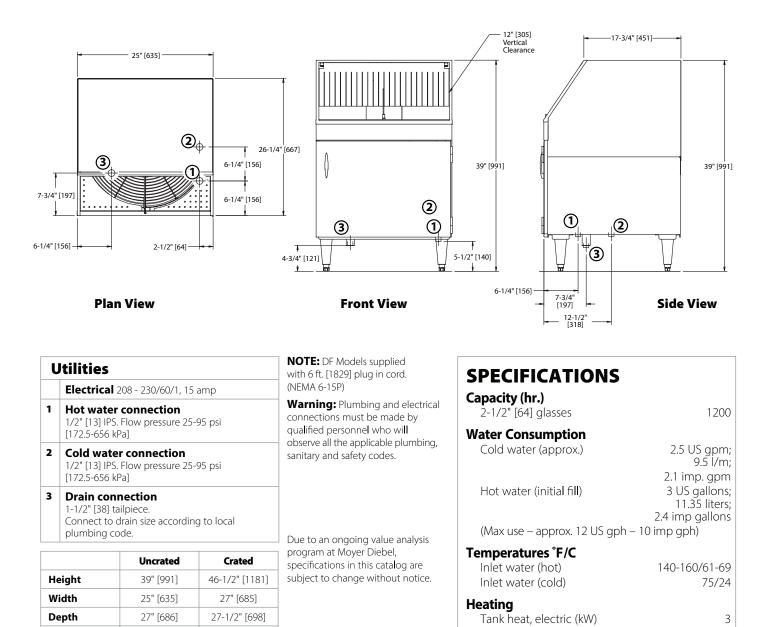
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Dimensions shown in inches and [millimeters]



**Conveyor Movement** 

-	-		
* Adjusta	ble foot	height -	11/4" [45]

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Ship Wt. lbs/kg

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156/71

176/80

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Clockwise

# Installation

# Unpacking

- 1. Move the glasswasher to its permanent location.
- Open the door and remove the box marked "LEGS". The box contains (4) 6" [152cm] screw-in legs. These legs are threaded tightly into the base of the machine.
- 3. Remove (2) 1/2-13 x 2" bolts holding the glasswasher to the pallet.
- 4. Lift the front door off the bottom hinges and set carefully aside.
- 5. The illustrations below show one method to install the legs without lifting the glasswasher completely off the pallet.

#### NOTE:

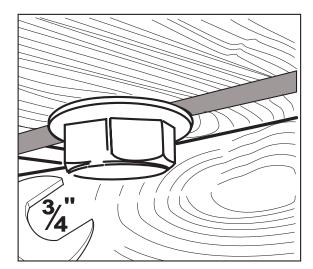


The installation of the dishwasher must comply with all local electrical, plumbing, health and safety codes or in the absence of local codes, installed in accordance with the applicable requirements in the National Electrical Code, NFPA 70, Canadian Electrical Code (CEC), Part 1, CSA C22.1; and the Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations, NFPA 96.

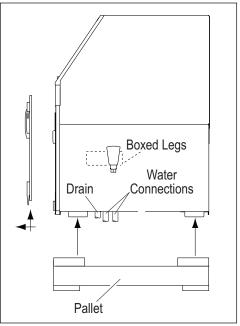


#### CAUTION:

The glasswasher water inlet plumbing and the drain piping extend below the pallet. Use extreme care when moving the glasswasher to prevent damage to the glasswasher plumbing.



Remove the (2) pallet bolts holding the glasswasher to the pallet.



<u>Continued on the next page.</u>

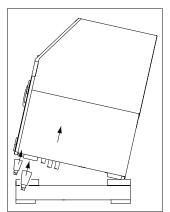
Glasswasher plumbing connections extend below the pallet.

Instal	lation
matai	auon

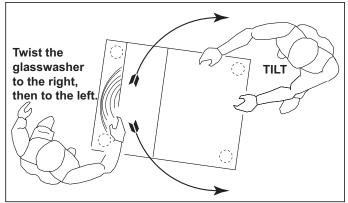
Item Part No. No.

# Installation Unpacking (continued)

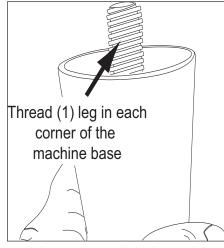
- 6. Use two people to move the machine in order to install the legs.
- 7. Have one person behind the glasswasher tilt it back as the person in front twists the machine to the right. This makes the front left leg mounting hole accessible.
- 8. Screw one of the legs tightly into place. Repeat this process for the remaining legs.
- 9. Lift the glasswasher off the pallet, and re-install the front door.
- 10. Level the glasswasher front-to-back and side-to-side by adjusting the leg bullet feet in or out.
- 11. Compare the site utilities with the data plate specifications. If they agree, then proceed with the installation according to the diagrams on the next page.
- 12. Remove the packing material in the glasswasher and discard, then remove any protective film on the machine.



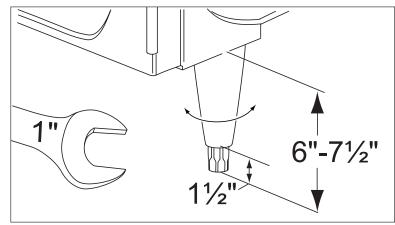
Tilt the machine back to clear plumbing connections.



Twist the machine to the right until the front right leg mounting hole is accessible.



Make sure to install the legs tightly.



Level front-to-back and side-to-side

#### ROTARY **ATTENTION** PLUMBERS/ELECTRICIANS GLASSWASHER M7-M7.5 FAILURE TO FOLLOW THESE INSTRUCTIONS WILL VOID WARRANTY! llannannannannanna

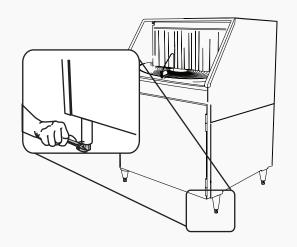


Plumbing connections must be made BEFORE electrical installation begins. Damage to the water heaters will occur if power is turned on without adequate water supply.

All plumbing and electrical connections must be made by qualified installers familiar with food service equipment in accordance with all local plumbing and electrical codes.

All plumbing and electrical connections **must be positioned** to allow the unit to be removable for service and cleaning.

- Ensure water temperature and pressure meet the following MINIMUM requirements for optimal perfomance of the unit.



• Place glasswasher in permanant location.

• Level glasswasher with 4 levelling feet. Level side to side, and front to back.

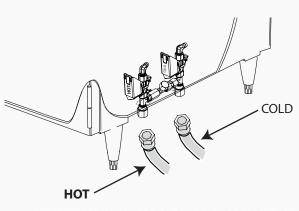
INCOMING TEMPERATURE INCOMING PRESSURE



- Installation plumber has responsibility to thoroughly flush incoming water line before connecting unit.
- Check valves must be installed on both inlets by others.

Note: A shutoff valve should be installed on incoming water lines.

Connect water lines:



 Connect drain, Gravity<sup>1</sup>/<sub>2</sub>" Tailpiece (slip-fit) Maximum drain flow 3 US gallons/min [11L/min].

> CONNECT THE 1-1/2" DRAIN TO TAIL PIECE, AS SHOWN (PLUMBING NOT SUPPLIED).



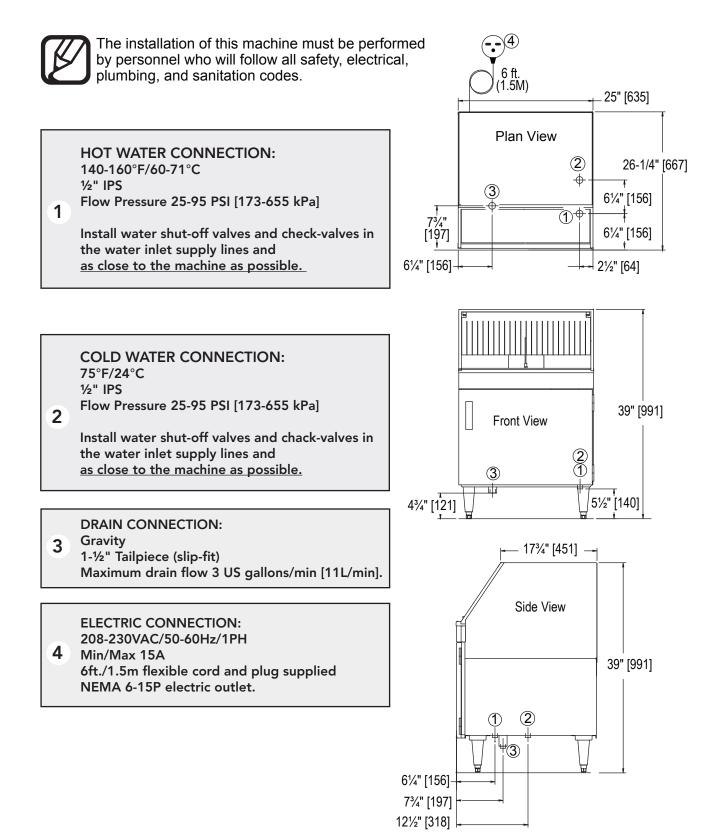
• 4 ft. standard power cord supplied.

- Check data plate (on lower front panel) for electrical power requirements.
- Connect to 15 amp, 208/230 volt receptacle (NEMA 6-15P Commercial grade or better).
- Installation is complete!





# **Utility Connections**



# Installation (continued)

# Chemicals

#### Glassware cleaning chemicals

- 1. A qualified chemical supplier should supply liquid detergent, sanitizer and rinse-aid for the glasswasher. The glasswasher manufacturer does not sell glassware washing chemicals.
- 2. A chemical's formulation and strength vary depending on the chemical supplier; therefore, the specifications given below are approximations only.
- 3. The glasswasher has 3 built-in chemical dispensing pumps for

Detergent - Use a commercial grade non-chlorinated detergent specifically made for glasswashers. The recommended concentration of detergent should be .35%

Sanitizer - 2 types of sanitizer may be used.

(5.25%) Sodium hypochlorite (*chlorine bleach*) to provide a minimum concentration of 50 ppm in the final rinse. The 50 ppm concentration must be checked using test strips to make sure the proper concentration is maintained.

Iodophor (lodine formulated with a rinse agent), to provide a minimum<br/>concentration of 12.5ppm in the final rinse. The 12.5 ppm concentration<br/>must be<br/>checked using test strips to make sure the proper<br/>concentration is maintained.

Rinse-aid - Consult your chemical supplier for the proper type of rinse-aid to use in the glasswasher.

#### Installing chemical supply containers and chemical pick-up tubes

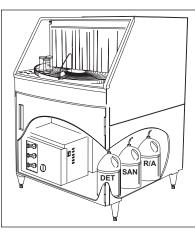
1. There is enough space inside the lower compartment to hold 3 one gallon containers for detergent, sanitizer, and rinse-aid.

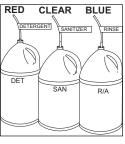
#### The contents of each container must be marked clearly.

- The glasswasher comes equipped with 3 gray tubes, called stiffener tubes, and tubing for each chemical pump. The tubing inserted in the chemical container has a strainer.
- 3. The outlet tubes from the supply containers to the chemical pumps are marked with color-coded labels, they are:

RED -	Detergent		(DET)
CLEAR -	Sanitizer	(SAN)	
BLUE -	Rinse-aid	(R/A)	

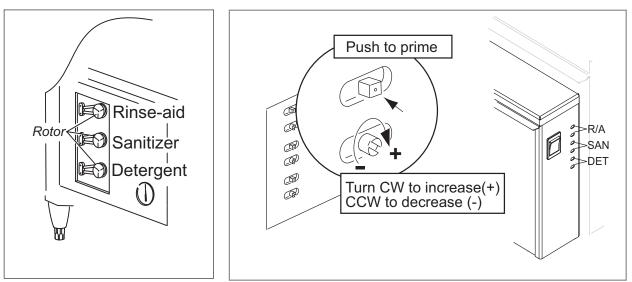
- 4. Pull the stiffener tubes and chemical tubing forward and out of the compartment. Make sure the tubing is not tangled or kinked.
- 5. Insert the stiffener tube and pick-up tubing into its container and stow the supply containers in the lower compartment as shown to the right.





#### Priming the Chemical Injectors and Approximate Chemical Settings

Each chemical injector can be adjusted using its prime button and concentration adjusting screw. These controls are located on the right side of the control box located in the lower compartment of the glasswasher. The white injector rotors are visible through the control box window.



Chemical Injector Prime and Concentration Controls



# NOTE:

All of the chemical settings below are approximations. Consult a qualified chemical representative trained in the use of the test equipments required for taking samples and performing adjustments.

#### 1. **Priming the Pumps:**

Make sure the proper chemical pick-up tube is in its supply container, then push and hold the prime button until the detergent, sanitizer and rinse-aid feed tubes are full of chemicals. Release the Prime button.

#### 2. Approximate Chemical Settings:

The approximate chemical volume dispensed by the chemical injectors can be determined by counting the number of revolutions of the injector rotor.

Detergent - 1 revolution in 1-second of the detergent pump rotor ~ 0.35% concentration. Sanitizer - 1 revolution in 5-seconds ~ 12.5 ppm of lodophor or 50 ppm of chlorine. Rinse-aid - 1 revolution in 8-seconds ~ the median volume recommended.

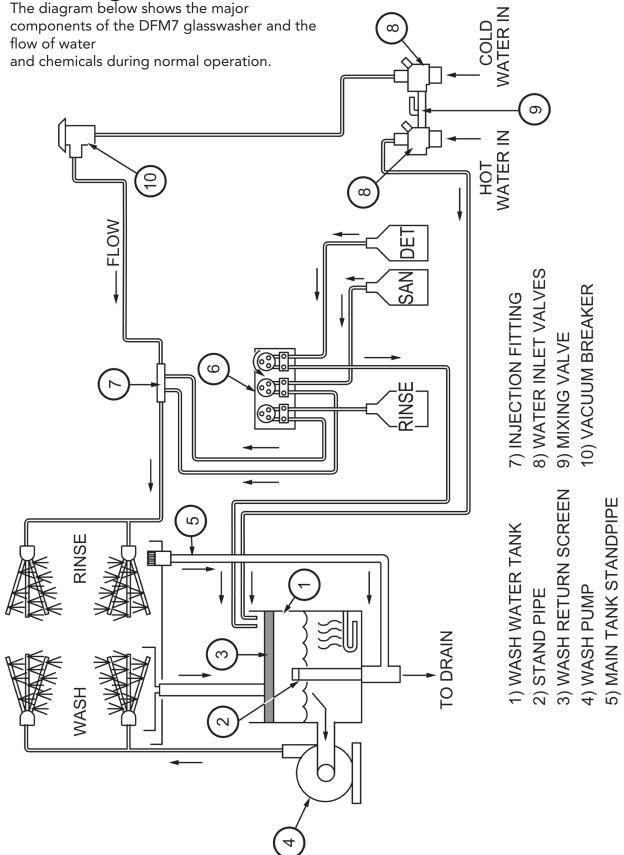
Turn the Injector Concentration screws clockwise to increase or counter-clockwise to decrease the volume of dispensed chemical.

3. The detergent chemical setting must be performed when the hot-water fill solenoid valve is open. The hot-water valve is open when the power switch is in the ON position during initial fill and when the detergent tank float assembly calls for hot water

The sanitizer and the rinse-aid setting can be performed whenever the cold-water fill solenoid valve is open. The cold-water fill valve is open whenever the glasswasher power switch is ON and the conveyor is turning. A separate rinse-aid is not needed when lodophor is used as a sanitizer. Turn the Injector Concentration Screw fully counter-clockwise until the rinse-aid injector rotor stops turning.

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Flow Diagram The diagram below shows the major components of the DFM7 glasswasher and the flow of water



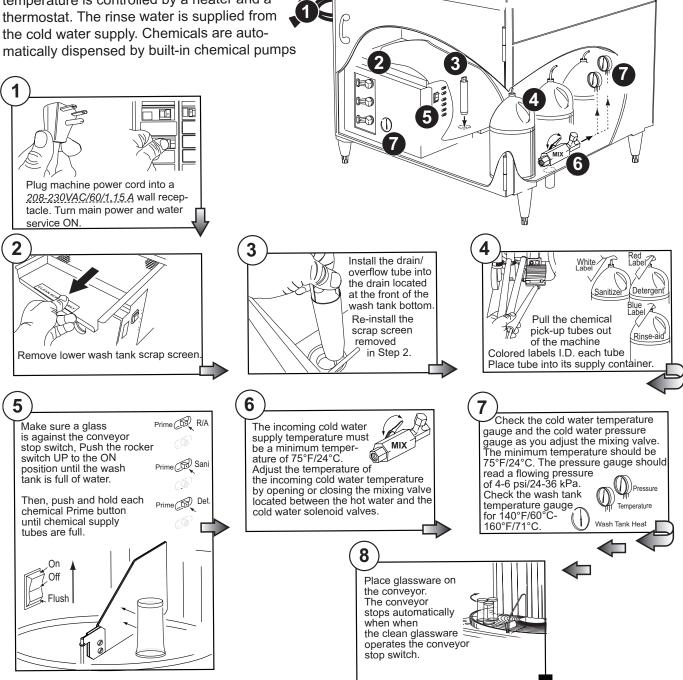
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6) CHEMICAL INJECTOR

# Quick Operation Guide

The glass washing machine is designed to automatically wash a wide variety of glassware.

The glass washer consists of a wash section and rinse section. Glasses rotate on a conveyor through each section. A wash tank in the lower compartment holds heated wash water. The water level in the wash tank is maintained by a float and cam-operated switch. The wash tank water temperature is controlled by a heater and a thermostat. The rinse water is supplied from the cold water supply. Chemicals are automatically dispensed by built-in chemical pumps



#### Operation

# Operation

### Assembling the Glasswasher

- 1. Make sure the power switch is in the OFF postion.
- 2. Install the wash arms and rinse spray arms. The spray arms have locating notches in the end of each arm. Push the spray arm straight into the hub. Do not twist.
- 3. Install the conveyor assembly as follows:
  - Insert the conveyor into the wash chamber keeping the rear raised. Pull the conveyor forward until it meshes with the drive gear located at the front of the wash chamber.
  - Continue to pull the conveyor forwards as you lower it on the pivot.
- 4. Install the stainless steel cylinder in the center of the conveyor.
- 5. Install the conveyor shut-off assembly (plexiglass divider).
- 6. Install the right and left hand tray.
- 7. Install the curtain assembly.
- 8. Install the upper and lower scrap screens.
- 9. Intsall the standpipe in the detergent tank. Twist slightly to make sure it seats securely in the drain.
- 10. Install the drain tray/waste collector (if equipped). Make sure the drain fitting is secure.
- 11. Make sure the chemical supply containers are full.
- 12. Close the door.

# Filling the Wash Tank

- 1. Ensure that the overflow/drain tube is in place in the detergent tank.
- 2. Flip power on-off/flush switch to the "ON" position. The water will fill until the proper water level is reached.
- 3. The water temperature is controlled by a tank heater and an adjustable thermostat. The thermostat should be set for a minimum of 140°F/60°C.

# **Operating Instructions**

- 1. Ensure that the chemical supply containers are full.
- 2. Detergent is fed into the tank in controlled amounts by the detergent dispensing pump. Use detergent at a strength recommended to you by your chemical supplier.
- 3. Open the front door and flip the on-off/flush switch to the "ON" position. The detergent tank will fill automatically.
- 4. Load glasses on the conveyor. The conveyor will stop when the glasses contact the conveyor shut-off switch.

# **Cleaning Instructions**



#### NOTE:

The cleaning instructions are attached to the inside of glasswahser front door.

### Daily Cleaning or after 8 hours of Operation:

- 1. Make sure that any glasses on the conveyor are clean, then remove them from the conveyor.
- 2. Push the on-off/flush switch on the right-hand side of the glasswasher control box to the "OFF" position.
- 3. Remove the splash curtain from the curtain hooks located at each end of the splash curtain rod.
- 4. Remove the (2) stainless steel conveyor guards located at each corner of the glasswasher and the plexiglass stop assembly.
- 5. Remove the cylindrical stainless steel conveyor guard located in the center of the glasswasher.
- 6. Remove the conveyor by lifting the rear of the conveyor while pulling it forward to disengage the conveyor drive gear located at the right front corner of the wash chamber.
- 7. Take these parts to a sink and wash in hot soapy water using a soft brush and cloth, then rinse with fresh water and set aside to air dry.



#### DO NOT:

Do not clean with harsh detergents or abrasive scouring pads. Do not strike the conveyor on the floor or any hard surface. Do not strike screens on hard surfaces.

- 8. Clean the wash chamber interior with hot soapy water, then rinse with fresh water. Wipe the interior with a soft cloth. Allow the wash chamber to air dry overnight.
- 9. Remove the upper scrap screen, remove large debris in a trash can, take screen to a sink, and flush screen with fresh water.



#### DO NOT:

Do not leave water in the glasswasher overnight.

- 10. Remove the lower scrap screen, remove large debris in a trash can, take screen to a sink and flush screen with fresh water.
- 11. Remove the stainless steel wash tank cover; clean with hot soapy water at the wash sink. Wipe clean and dry.
- 12. Remove the detergent wash tank drain/overflow to drain the tank, then flush the tank with fresh water and wipe with a clean cloth.
- 13. Reassemble the glasswasher in reverse order for continued operation, or leave disassembled overnight to aid drying.

Continued on the next page.

# Cleaning Instructions (continued)

# Weekly Cleaning, after 7 days or 56 hours of Operation

- 1. Complete 1-11 in the Daily Cleaning section on the previous page.
- 2. Remove chemical supply containers if they are stowed inside the glasswasher, wipe any chemical spills with a damp cloth. Detergent and sanitizer (Chlorine) are corrosive on metal and must be removed as much as possible.
- 3. Check the inlet chute on the right side of the detergent tank and flush with fresh warm water to clean any chemical residue.
- 4. Check chemical supply lines. If a line is restricted, remove the pick-up tube from the container, then insert it into a separate container filled with fresh warm water.
- 5. PUSH and HOLD the PRIME BUTTON labeled for the matching chemical tube until the water moves freely through the supply tubing. Repeat for each chemical making sure that the warm water is fresh and free of any other chemical.
- 6. Return the pick-up tubes to the chemical container matching the label on the supply tube, then PUSH and HOLD the PRIME BUTTON for the corresponding chemicals until the chemical moves freely through the supply tube.
- 7. Inspect the chemical dispensing pumps visible behind the plexiglass window located on the front of the control box.
- 8. Find the spray tube assemblies, (3 spray tubes each) located in the wash chamber. There are (2) assemblies in the top and (2) assemblies in the bottom. Pull (1) assembly at a time. Check the black O-ring on the spray tube hub for damage, replace if missing.
- 9. Insert and twist the small brass drill bit (reamer) in each spray tube hole to clean. Insert and twist the large drill on the wood handle. Push the large reamer down the length of the spray tubes. Insert and twist the long brush in each spray tube to remove loose debris. Flush the spray tube assembly, then reinstall in the glasswasher. Repeat for each spray

tube assembly.

10. Reassemble the glasswasher in reverse order for continued operation, or leave disassembled overnight to aid drying.

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#### Troubleshooting

The following troubleshooting guide can help identify a problem and provide a solution. Inspect your glasswasher before you contact an authorized service representative.

Problem	Cause(s)	Solution(s)
Glasswasher will not turn ON.	Main breaker/fuse box is OFF.	Turn breaker/fuse box ON.
	Disconnect fuse blown/breaker tripped.	Turn breaker/fuse box ON. Replace fuse/reset breaker.
	Glasswasher ON/OFF switch OFF. Power cord unplugged.	Flip ON/OFF switch ON. Plug-in power cord.
	Clean glass(es) touching the conveyor shut-off switch.	Remove clean glasses from the rinse-side of the glasswasher.
Conveyor will not rotate.	Conveyor center hub out of position.	Reposition the conveyor.
	Conveyor support(s) out of position and/or broken.	Reposition or replace support(s).
	Drive gear out of position.	Reposition drive gear.
	Gear teeth on conveyor worn or broken.	Replace the conveyor.
	Gear teeth on drive gear worn or broken.	Replace drive gear.
	Object jamming the conveyor.	Remove object.
Conveyor will not stop rotating.	Conveyor drive motor defective.	Authorized Service Agent may replace conveyor drive motor.
	Conveyor stop switch needs adjustment or switch is defective.	Authorized Service Agent may adjust or replace switch.
Conveyor rotates in wrong direction.	The drive motor is turning the conveyor backward.	Authorized Service Agent may remove drive motor and rotate motor stator 180° and re-install.
Upper scrap screen is hard to remove.	Large debris, such as broken glass, is on screen.	Remove conveyor and lower spray arm(s). Remove debris.
	Scrap screen bent and/or broken.	Authorized Service Agent may repair or replace damaged screen.
	Door magnet broken or missing.	Replace door magnet.
Front door will not close or remain closed.	Door bent or broken.	Straighten or replace door.
Glasswasher not level or rocks back and forth.	Leg(s) are not screwed firmly into machine base.	Tighten leg(s) or replace.

Problem	Cause(s)	Solution(s)
Water sprays our the front of the glasswasher.	Splash curtain is missing, positioned incorrectly, or damaged.	Re-install the splash curtain or replace the splash curtain.
	Spray arm(s) are damaged or missing.	Replace spray arm(s).
	Glass(es) interferes with splash curtain.	Reload glass(es).
	Clogged spray arm(s) makes water come out in wrong direction.	Clean the spray arm(s).
Poor washing results.	Water volume from wash and/or rinse spray arm(s) low.	Clean spray arm(s).
	Water level in detergent tank low.	Re-install drain/overflow tube in wash tank. Service Agent must adjust water level switch until water level is below top of overflow.
	Water level float ball stuck or filling with water.	Clean float ball, replace if filling with water.
	Water level switch defective.	Authorized Service Agent may replace switch.
	Detergent and/or rinse-aid supply low.	Refill chemical supplies.
	Wash pump and/or water valve(s) and/or line strainers clogged or defective.	Authorized Service Agent may replace wash pump and/ or solenoid valve(s). Clean line strainers.
	Detergent tank temperature low.	Raise incoming water temperature or adjust thermostat for 140°F/60°C in
	Chemical injectors out of adjustment.	detergent tank. Contact chemical supplier to calibrate settings.
Chemical supply container(s) fill with water.	Peristaltic tube(s) are stretched or worn on the glasswasher chemical pumps.	Inspect and replace tube(s).
	Flow control washer in cold water solenoid valve is defective.	Contact Service Agent to repair solenoid valve.

#### Troubleshooting

Problem	Cause(s)	Solution(s)
Water temperature below 145°F/66°C in detergent tank.	Detergent tank thermostat tempeature setting low.	Increase thermostat setting to 145°F/66°C.
	Thermostat is defective.	Authorized Service Agent may replace thermostat.
	Detergent tank heater is defective.	Authorized Service Agent may replace detergent tank heater.
	Incoming water temperature is below 140°F/60°C.	Raise incoming water temperature to 140°F/66°C
Water leaking under glasswasher.	Pump water seal defective.	Authorized Service Agent may replace pump seal.
	Glasswasher drain line is clogged.	Clean drain line.
	Upper wash compartment	Clean drain screen.
	drain screen is clogged. Detergent tank drain screen is clogged.	Clean detergent tank drain screen.
	Building drain line is clogged.	Clean building drain line.
	Condensation is forming on the underside of wash compartment.	Open rinse water mixing valve until temperature of water is 70°F/21°C.
	Vacuum breaker at rear of glasswasher leaking.	Replace vacuum breaker.

Problem	Cause(s)	Solution(s)
Water flows into glasswasher when ON/OFF switch is in the OFF position.	FLowing water supply line pressure measured at the glasswasher exceeds 95 PSI (655 kPA).	Incoming water pressure must be 5 PSI/35 kPa on pressure gauge located on right-side of glasswasher lower compartment.
	Defective solenoid valve(s). Defective AUTO-FILL switch.	Authorized Service Agent may rebuild or replace solenoid valve(s).
		Service Agent may replace the switch.
Chemical(s) are not flowing into the glasswasher.	Rinse water pressure too high.	Reduce flowing water pressure measured at the glasswasher below 95 PSI (655 kPa).
	Chemical container(s) are empty.	Refill the container(s).
	Chemical supply line(s) are clogged.	Remove the supply line(s) from the chemical container(s) and flush with warm water.
	Chemical supply and/or pump tube(s) are broken.	Replace supply line(s) and/ or pump tube(s).
	No power to chemical dispensing pump(s).	Authorized Service Agent may replace chemical dispensing pump.
	Dispensing pump is defective.	Authorized Service Agent must inspect and repair.
	Chemical pumps out of adjustment.	Chemical supplier must adjust chemical pumps.

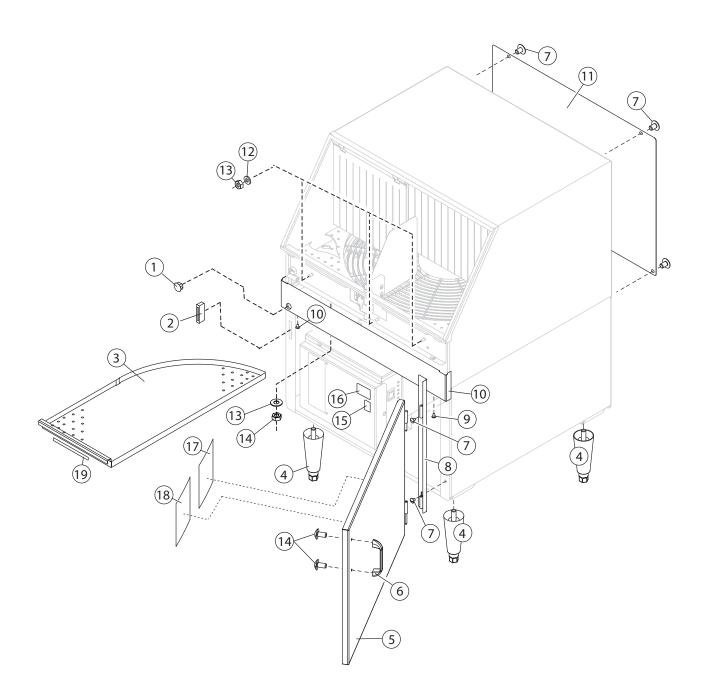
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# Service Replacement Parts

# **Illustration List**

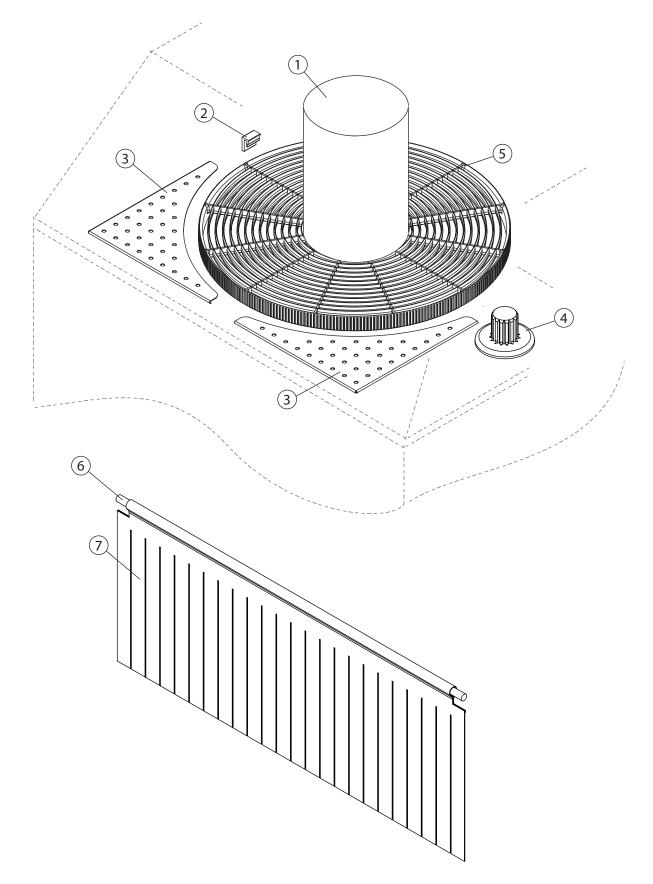
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Base Assembly	18
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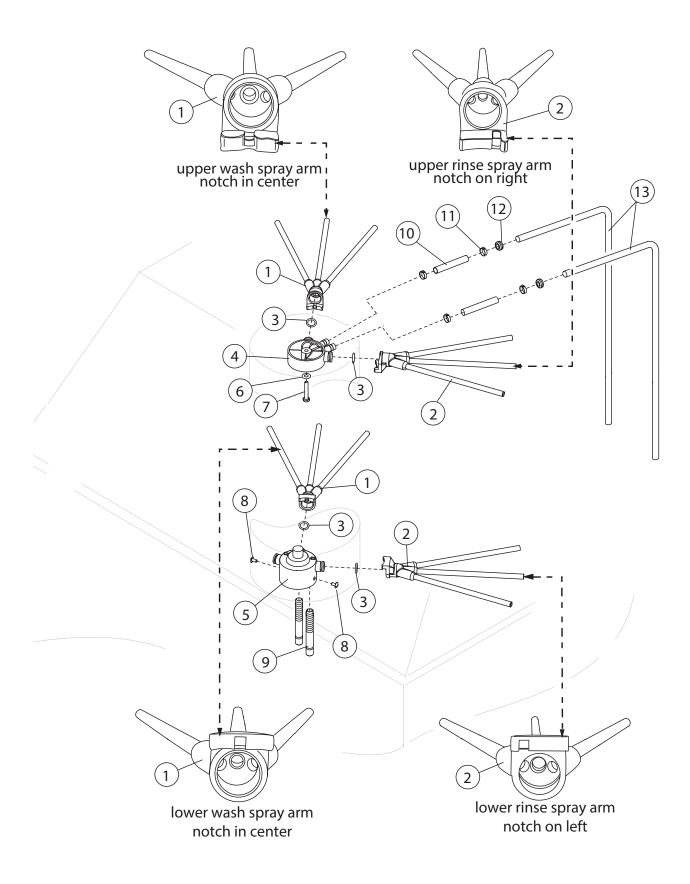


#### **Base Assembly**

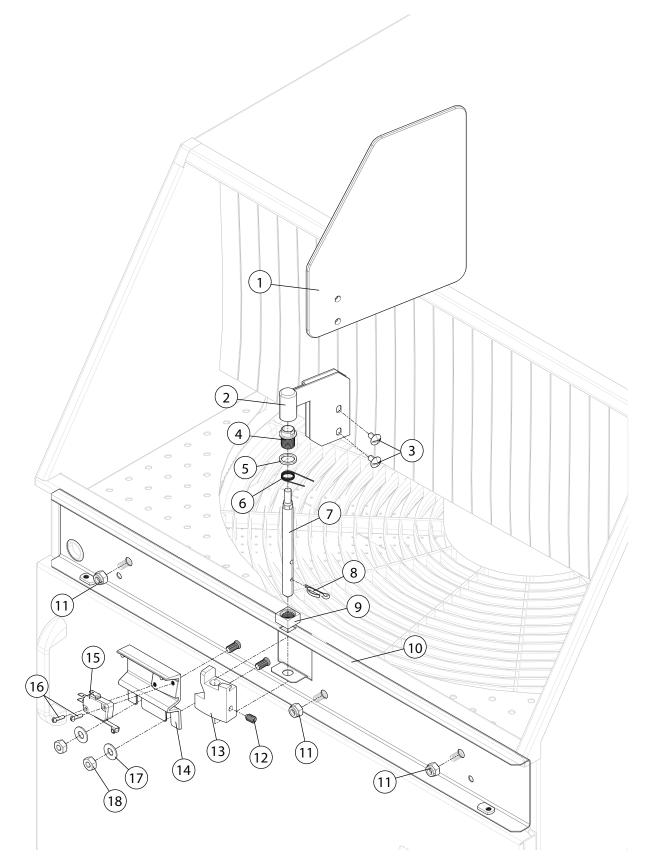
ltem No.	Part No.	Description	Qty.
1	112519	PLUG, CAP 1"	1
2	0501885	DOOR CATCH, MAGNETIC	1
3	0713746	SCRAP SCREEN, WASH TANK (Includes Item 19)	1
4	0501873	LEG 6"	4
5	0712692	DOOR ASSY.	1
6	111561	HANDLE, DOOR	1
7	0510884	SCREW, 1/4-20 X 1/2" TRUSS HEAD	10
8	0712647	BRACKET, DOOR	1
9	0501412	SCREW, 10-32 X 3/8"	2
10	0312598	PANEL, FLAT FACIA	1
11	0312601	PANEL, REAR	1
12	0501476	WASHER, FLAT 1/4"	2
13	107967	NUT, 1/4-20 NYLON LOCK	2
14	0501464	SCREW, 10-24 X 3/8"	2
15	0505112	LABEL, DATA PLATE	1
16	0503301	LABEL, WARNING	1
17	0512659	LABEL, CLEANING INSTRUCTIONS	1
18	0514421	LABEL, ELECTRICAL SCHEMATIC	1
19	0507471	LABEL, CLEAN SCREENS DAILY	1



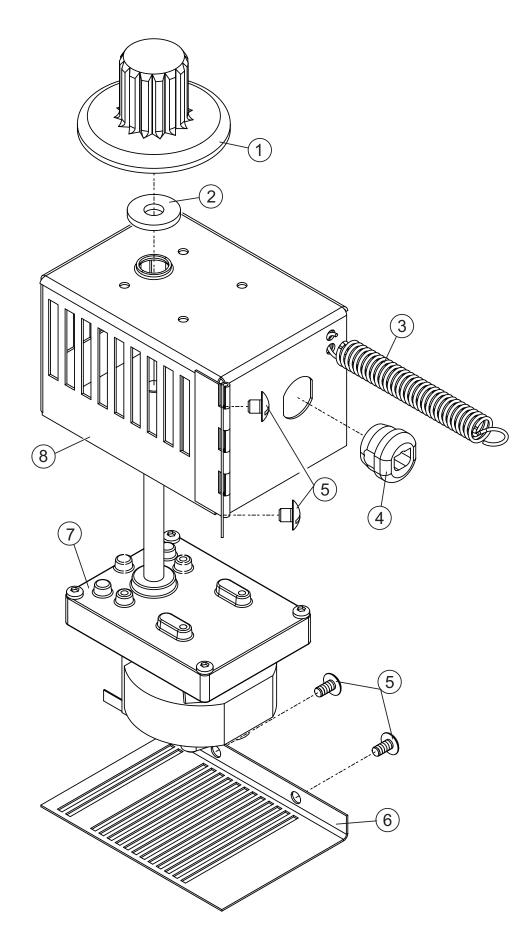
ltem No.	Part No.	Description	Qty.
1	0312603	HUB, CONVEYOR	1
2	0312695	BLOCK, CONVEYOR GUIDE	4
3	0312604	TRAY, CONVEYOR	2
4	0506886	GEAR, DRIVE	1
5	0506885	CONVEYOR	1
6	0312610	ROD,CURTAIN, 3/8" D X 24" L	1
7	0512549	CURTAIN	1



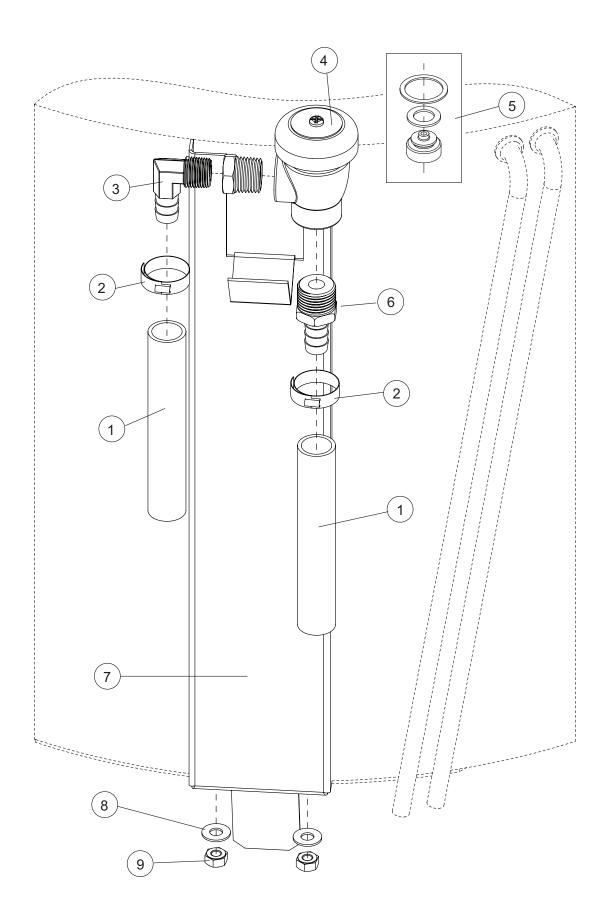
ltem No.	Part No.	Description	Qty.
1	0501613	WASH ARM	2
2	0501738	RINSE ARM	2
3	0501608	O-RING	4
4	0501610	TOP MANIFOLD	1
5	0301622	BOTTOM MANIFOLD	1
6	0501476	FLAT WASHER, 1/4"	1
7	0501422	BOLT, 1/4-20 X 1-1/2"	2
8	0501412	SCREW, 10-32 X 3/8"	2
9	0500813	BOTTOM MANIFOLD INLET TUBE	2
10	0502663	BRAIDED HOSE, 3/8"	A/R
11	0503679	GEAR CLAMP #6	4
12	0509478	GROMMET	2
13	0300908	TUBE, RINSE	2



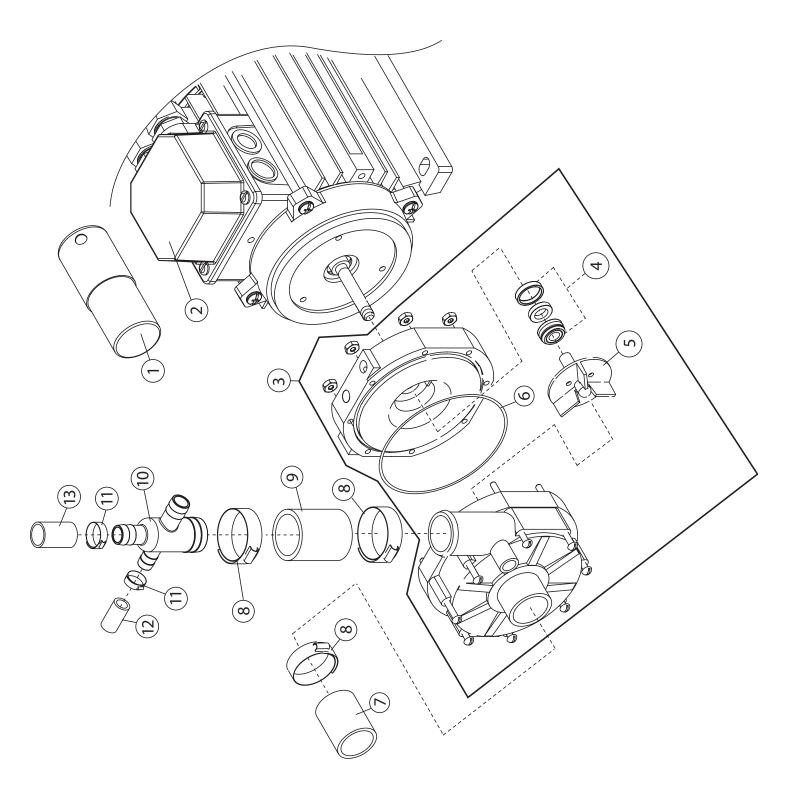
ltem No.	Part No.	Description	Qty.
1	0512556	PLATE, DIVIDER	1
2	0713771	SHUT-OFF ARM ASSY.	1
3	0501412	SCREW 10-32 X 3/8"	2
4	0513768	BUSHING, SHAFT SHUT-OFF ARM	1
5	0513775	O-RING	1
6	0512559	SPRING	1
7	0513770	SHAFT, CONVEYOR SHUT-OFF	1
8	106558	PIN, COTTER	1
9	0513769	NUT	1
10	0314423	BRACKET, FACIA MOUNT, DFM7.5	1
11	107697	NUT, 1/4-20 WITH NYLON INSERT	3
12	0510854	SCREW, DOG-POINT 1/4-20 X 1/2"	1
13	0512557	CONVEYOR SHUT-OFF CAM	1
14	0513789	HOUSING, CONVEYOR SWITCH	1
15	0501379	SWITCH 15A	1
16	0501437	SCREW 4-40 X 1/2"	2
	0714437	SHUT-OFF ASSEMBLY (INCLUDES ITEMS 1-3)	1



ltem No.	Part No.	Description	Qty.
1	0506886	GEAR, DRIVE	1
2	0507264	SLINGER, WATER	1
3	0501923	SPRING, EXTENSION	1
4	0512713	BUSHING, SNAP	1
5	0501412	SCREW 10-32 X 3/8"	4
6	0307617	COVER, DRIVE MOTOR HOUSING	1
7	0512532	MOTOR, DRIVE 230VAC	1
8	0712712	HOUSING, DRIVE MOTOR	1



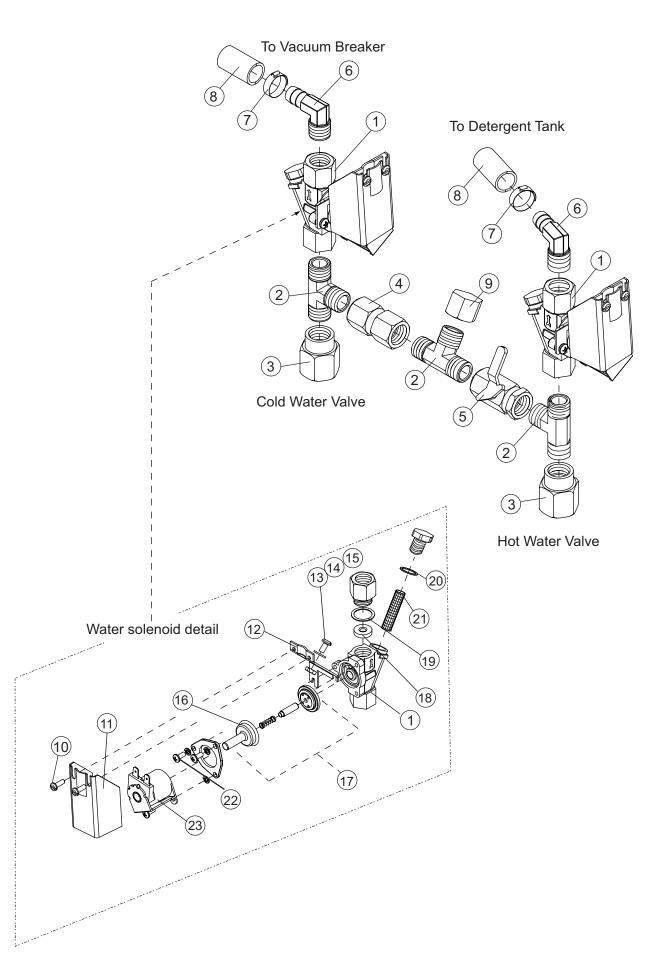
ltem No.	Part No.	Description	Qty.
1	0502665	HOSE,1/2" I.D. BRAIDED	A/R
2	0503679	CLAMP, 7/16" GEAR	2
3	0502653	BARB, HOSE 3/8" MPT X 1/2" 90°	1
4	100500	BREAKER, VACUUM 1/2"	1
5	0708366	KIT, REPAIR VACUUM BREAKER	1
6	0502651	COUPLER, HOSE 1/2" MPT X 1/2"	1
7	0312684	SUPPORT, PLUMBING	1
8	0501476	WASHER, FLAT 1/4"	2
9	107967	NUT, 1/4-20 NYLON LOCK	2



ltem No.	Part No.	Description	Qty.
1	0512679	MOTOR CAPACITOR 6.3uF, 370VAC	1
2	0512531	PUMP/MOTOR COMPLETE 230V/50-60Hz/1Ph	1
3	0512678	PUMP KIT (INCLUDES ITEMS 4-6)	1
4	0512677	SEAL, PUMP	1
5	0512680	IMPELLER, PUMP	1
6	0512746	O-RING, WASH PUMP	1
7	0507320	HOSE 1" I.D. X 1-1/4" OD	6
8	0502563	CLAMP ,HOSE #6	A/R
9	0502668	HOSE ,BRAIDED 1" I.D. X 1-3/8" O.D.	6
10	0501632	CONNECTOR, PUMP HOSE	1
11	0503679	CLAMP, HOSE #16	A/R
12	0502665	HOSE, BRAIDED 1/2" I.D. X 3/4" O.D.	A/R
13	0502663	HOSE, BRAIDED 3/8" I.D. X 5/8" O.D.	A/R

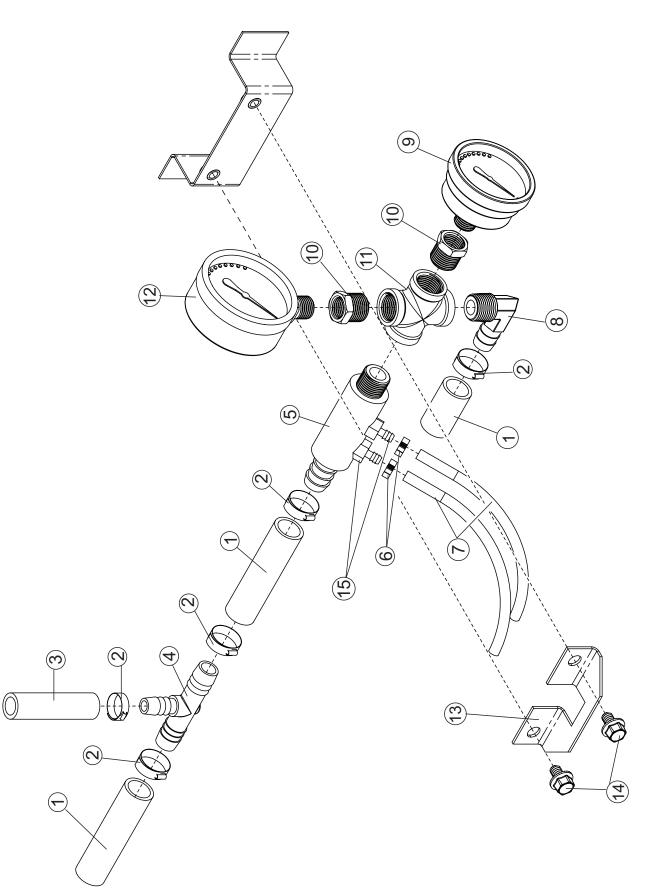


**NOTE:** The pump motor is not available as a separate service replacement part.



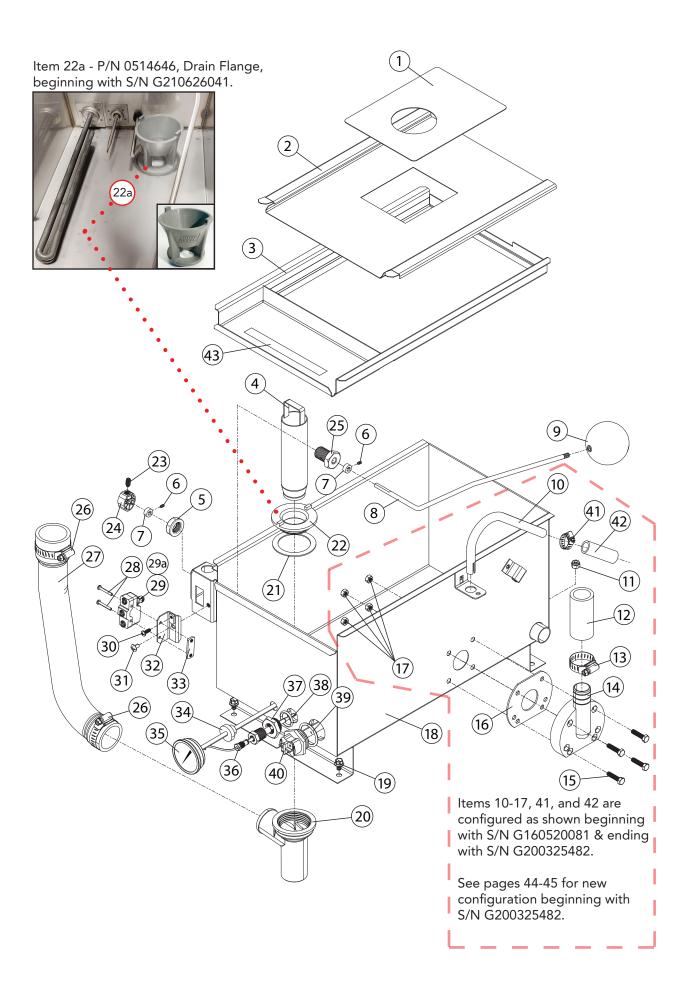
## Inlet Plumbing

ltem No.	Part No.	Description	Qty.
1	0514517	VALVE, SOLENOID 230VAC/60 HZ	2
2	0503802	TEE, 3/8" MPT	3
3	0503801	ADAPTER, 3/8" FEM X 1/2"	1
4	0507324	VALVE, CHECK 3/8"	1
5	0502768	VALVE, STOP	1
6	0502653	BARB, HOSE 3/8" X 1/2' 90°	2
7	0503679	CLAMP, GEAR 7/16"	2
8	0502665	HOSE, BRAIDED 1/2" I.D. X 3/4" O.D.	A/R
9	0509659	CAP	1
10	0504822	SCREW 8-32 X 1/2"	2
11	0306208	COVER, CABLE CLAMP	2
12	0307373	CLAMP, CABLE	2
13	0501404	SCREW 10-32 X 3/8" BRASS	2
14	0501493	WASHER, LOCK #10	2
15	0501533	NUT 10-32 BRASS	2
16	0505229	GUIDE, SOLENOID	1
17	0502811	KIT, DIAPHRAGM	A/R
18	0502810	WASHER, FLOW (2.6 gpm)	1
19	0502807	WASHER, BRASS	1
20	0502804	GASKET, STRAINER CAP	1
21	0502803	SCREEN	1
22	0501406	SCREW 8-32 X 1/2"	2
23	0502806	COIL, SOLENOID VALVE, 230VAC/60	1

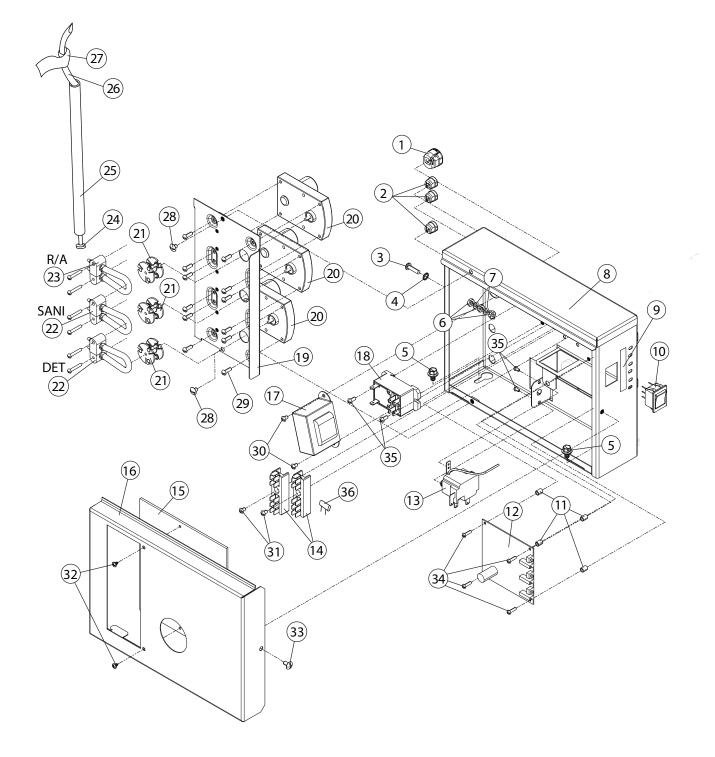


#### Sanitizer Plumbing

ltem No.	Part No.	Description	Qty.
1	0502665	HOSE, BRAIDED 1/2" I.D. X 3/4" O.D.	A/R
2	0503679	CLAMP, GEAR 7/16"	5
3	0502663	HOSE, BRAIDED 3/8" I.D. X 5/8" O.D.	A/R
4	0502652	TEE, 1/2" X 1/2" X 3/8"	1
5	0503669	FITTING, BARB INJECTOR	1
6	0501519	TIE, CABLE 4"	2
7	0502666	TUBING, CHEMICAL 1/8" I.D. X 1/4" OD	A/R
8	0502653	BARB, HOSE 3/8" MPT X 1/2" 90°	1
9	0503668	THERMOMETER	1
10	0502577	BUSHING, REDUCER 3/8" X 1/4"	2
11	0502583	CONNECTOR, CROSS 3/8" FPT	1
12	0507100	GAUGE, PRESSURE 0-30 PSI	1
13	0300918	CLAMP	1
14	0512185	BOLT, 1/4-20 X 3/8"	2
15	0502645	BARB, HOSE 1/8"	2

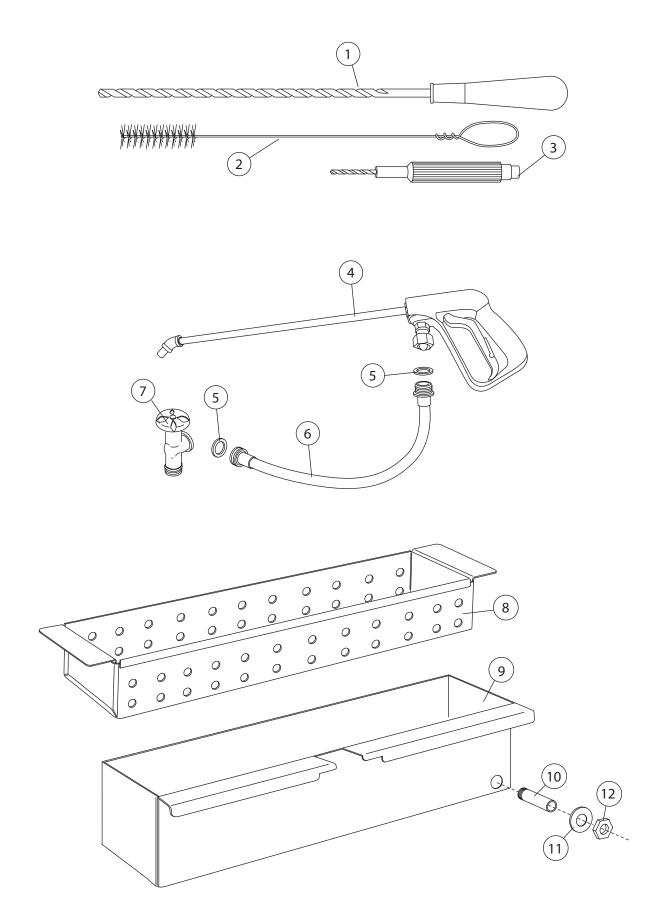


ltem No.	Part No.	Description	Qty.
1	0312592	COVER, STEAM	
2	0312591	COVER, DETERGENT TANK	
3	0712641	SCREEN, DETERGENT TANK	
4	0700948	STANDPIPE, DETERGENT TANK	
5	201669	LOCKNUT, 1/4 NPT, NICKLE PLATE	
6	0501397	SCREW, SET 6-40 X 3/16" SOCKET SST	2
7	0703673	COLLAR (SET SCREW INCLUDED)	2
8	0512554	ROD, FLOAT	
9	0503670	BALL, FLOAT	
10	0307427	TUBE, WATER INLET	
11	107967	NUT, GRIP 1/4-20 W/NYLON INSERT	
12	0502668	HOSE, PVC 1" I.D. X 1-3/8" OD	é
13	0502563	CLAMP, GEAR 1"	
14	108051	FLANGE, ELBOW	
15	0507431	BOLT M6 X 25MM (METRIC)	Z
16	107886	GASKET, INLET CHUTE	
17	107435	NUT, M6 (METRIC)	2
18	0714424	TANK, DETERGENT	
19	0512185	BOLT, HEX FLANGE 1/4-20 X 3/8" SST	2
20	0512534	TEE, MOLDED DRAIN	
21	0512536	GASKET, DRAIN	
22 22a	0514646 0514646	DRAIN FLANGE, MOLDED (Prior to S/N G210626041) DRAIN FLANGE, MOLDED (Beginning with S/N G210626041)	
23	0501395	SCREW, SET 1/4-20 X 5/16" SST	
24	0514413	CAM, FLOAT	
25	0512550	BUSHING, FLOAT ROD	
26	0502571	CLAMP, HOSE 1-1/2"	2
27	0512533	HOSE, MOLDED DRAIN	-
28	0503723	SCREW, 6/32 X 1"	2
29 29a	0501375 0501382	SWITCH, TRIP C/W ROLLER (Prior to S/N G210726051) SWITCH, TRIP, SEALED W/ROLLER (Begins S/N G210726051)	
30	0514175	SCREW, NYLOCK 9-32 X 3/8" SST	2
31	0501412	SCREW. 10-32 X 3/8" TRUSS HD. PHIL. SST	
32	0314416	BRACKET, FLOAT SWITCH	
33	0502977	WELDNUT, DUAL 6/32 NICKEL PLATED	
34	0501896	SEAL, THERMOMETER	
35	0501600	THERMOMETER, 8" STEM	
36	0507323	THERMOSTAT	
37	0501650	ADAPTER, THERMOSTAT	
38	0501836	O-RING	
39	0503588	O-RING, HEATER (Comes with Item 40)	
40	0507315	HEATER, DETERGENT TANK 3kW (Includes Item 39)	
41	0503679	CLAMP, HOSE #6	
42	0502665	HOSE, BRAIDED 1/2"	A
43	0507471	LABEL, CLEAN SCREENS DAILY	



tem No.	Part No.	Description	Qty.
1	0503647	STRAIN RELIEF BUSHING (LARGE)	1
2	0512713	STRAIN RELIEF BUSHING (1/2")	3
3	0501404	SCREW, 10-32 X 3/8" ROUND HEAD, BRASS	1
4	0501493	WASHER, LOCK #10 EXT. TOOTH BRASS	1
5	0512185	BOLT, HEX FLANGE 1/4-20 X 3/8" SST	2
6	0501533	NUT, 10-32 BRASS	3
7	0501472	WASHER, FLAT, #10 BRASS	2
8	0314412	BOX, CONTROL	1
9	0512663	LABEL, PRIME	1
10	0512539	SWITCH, ROCKER, ON/OFF/FLUSH	1
11	0508710	SPACER, CONTROL BOARD	4
12	0508433	CIRCUIT BOARD, MOTOR CONTROL	1
13	0507323	THERMOSTAT, CONTROL	1
14	0503749	BOARD, TERMINAL 11 PT	2
15	0312590	WINDOW, CONTROL BOX COVER	1
16	0312589	COVER, CONTROL BOX	1
17	0508920	TRANSFORMER, 240VAC/18VAC, 30VA	1
18	0514162	RELAY, DPST 30A, 240VAC, 240VAC COIL	1
19	0312588	PANEL, CHEMICAL PUMP	1
20	0501353	MOTOR, INJECTOR 140 RPM, 24VDC	3
21	0707142	ROTOR, INJECTOR	3
22	0706635	TUBE, ELEMENT 45cc (DET, ERGENT, SANITIZER)	2
23	0706634	TUBE, ELEMENT ASSY 15cc (RINSE-AID)	1
24	0501869	STRAINER	3
25	0306363	TUBE, STIFFENER	3
26	0502666	TUBING, CHEMICAL 1/8" I.D. X 1/4" O.D.	A
27	0503695	LABEL, DETERGENT	1
	0503694	LABEL, SANITIZER	1
	0505483	LABEL, RINSE-AID	1
28	0504822	SCREW, 8-32 X 1/2" PAN HD. PHIL. SST	12
29	0501411	SCREW, 10-32 X 1/4"	1:
30	0501408	SCREW. 8-32 X 1/4" TRUSS HD. PHIL. SST	2
31	0503648	SCREW, 8-32 X 3/8" PAN HD. SST	2
32	0504823	RIVOT, POP 1/8" ALUMINUM	2
33	0501411	SCREW, 10-32 X 1/4" RD. HD. PHIL. SST	1
34	106695	SCREW, 6-32 X 1/2" ROUND HD. PHIL.	4
35	0501450	SCREW, NIBS RH 6-32 X 3/16" PHIL. SST	2
36	0713778	SNUBBER COMES W/FASTONS	1
	0714474	ASSEMBLY, DFM7.5 CONTROL BOX COVER	1
	0512538-1	HARNESS, WIRING (NOT SHOWN)	1
	0512538-1	HARNESS, WIRING (NOT SHOWN)	1
	0503637	2.5AMP FUSE PART (NOT SHOWN)	1
	0507372	2.5AMP FUSE PART (NOT SHOWN)	1
	106090	WHITE, TIE PLATE	1

## **Options And Accessories**

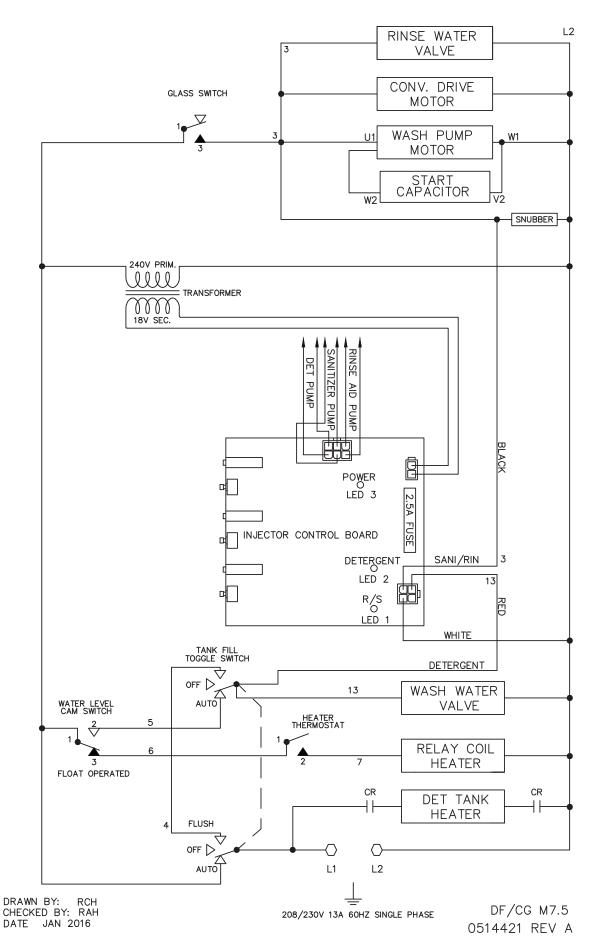


# **Options and Accessories**

ltem No.	Part No.	Description	Qty.
1	0708986	TUBE SCRAPER	1
2	0501826	TUBE BRUSH	1
3	0501633	JET REAMER (COMES WITH DRILL)	1

ltem No.	Part No.	Description	Qty.
4	0510571	NOZZLE, WASHDOWN	1
5	0505320	1/2" HOSE WASHER	1
6	0501833	1/2" X 10' HOSE ASSY.	1
7	0506643	FAUCET	1
	0503801	ADAPTER, 3/8" FEM X 1/2" FEM (NOT SHOWN)	1
	0701956	WASH DOWN HOSE KIT (Includes items 4-8)	1

ltem No.	Part No.	Description	Qty.
8	0512719	SCREEN, DRAIN TRAY	1
9	0512717	TRAY, DRAIN	1
10	0512943	TUBE, DRAIN	1
11	0503716	GROMMET	1
12	0512946	NUT, 5/8-20 BULKHEAD, POLY.	1
	0712551	DRAIN TRAY AND WASTE COLLECTOR KIT (Includes items 8-12)	1



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#### Vacuum Breaker Fill Install - Beginning with S/N G200325482



Upper piping configuration with vacuum breaker beginning with S/N G200325482.



Lower piping configuration beginning with S/N G200325482.



Air gap configuration prior to S/N G200325482.

Part No.	Description	Qty.
0508808	CLAMP, GEAR, M11/M16 X 1-1/4" SST	1
0512985	CLAMP, HOSE 1/2 29/32" #8 SST	1
100500	BREAKER, VACUUM 1/2" BRONZE	1
0502650	BUSHING, 1/2" X 3/8" BRASS	1
0502651	COUPLER, 1/2" MPT X !/2" HOSE, SW/500	1
0502653	ELBOW, 90°, 3.8" MPT X 1/2" HOSE	1
0514323	HOSE, MOULDED, RINSE SUCTION	1
0514191	FITTING, BOOSTER, INLET M4	1
0502645	BARB, HOSE, 1/8" MOULDED	1
0708366	KIT, VACUUM BREAKER, REPAIR 1/2"	A/R

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