

# Champion®

## Installation Manual

### 64 PRO Series Two Tank Rack Conveyor Dishwasher

#### OPTIONS:

- VHR - Ventless Heat Recovery
- HR - Heat Recovery

#### Standard Models

64 PRO	86 PRO
90FF PRO	
100HD PRO	

#### VHR Models

64 PRO-VHR	86 PRO-VHR
90FF PRO-VHR	
100HD PRO-VHR	

#### HR Models

64 PRO-HR	86 PRO-HR
90FF PRO-HR	
100HD PRO-HR	



[www.championindustries.com](http://www.championindustries.com)

Issue Date: 5.21.21

**Manual P/N 117283 rev. B**

For machines beginning with S/N RP20102891 and above

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Printed in the USA



The Spirit of Excellence

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## ATTENTION

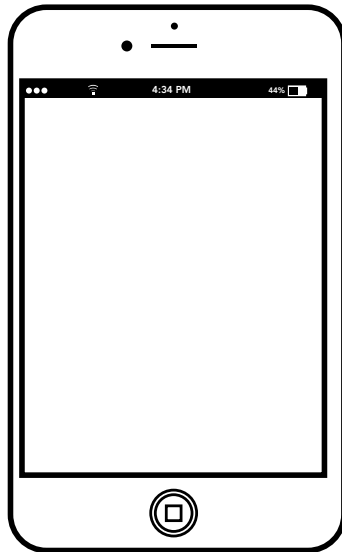
The model no., serial no., voltage, Hz and phase are needed to identify your machine and to answer questions.

**The machine data plate**  
**is located on the side of the top**  
**mounted control cabinet.**

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



# Three ways to REGISTER YOUR PRODUCT and ACTIVATE YOUR WARRANTY.



- Use your mobile phone and scan the QR code on the front of the control cabinet to access the URL <http://www.champdw.us/PRO> and register your product.
- Go to our website at <http://www.championindustries.com/warranty-registration> and register your product.
- 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**

## PRODUCT REGISTRATION CARD

Model

Serial #

Date of Installation: \_\_\_\_/\_\_\_\_/\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_  
(Street) State/Province Zip/Postal Code

Telephone #: (    ) \_\_\_\_ --- \_\_\_\_

Contact: \_\_\_\_\_

Installation Company: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone #: \_\_\_\_\_

Contact: \_\_\_\_\_

**FAILURE TO REGISTER YOUR PRODUCT MAY VOID YOUR WARRANTY**

**IMPORTANT      IMPORTANT**

## Revision History

Specifications are subject to change based on continual product improvement. Dishwasher owners may request a manual by calling 1(800) 858-4477 in the USA and 1(800) 263-5798 in Canada.

<b><i>Revision Date</i></b>	<b><i>Revised Pages</i></b>	<b><i>Serial Number Effectivity</i></b>	<b><i>Description</i></b>
3.5.21	All	RP20102891	Released First Edition
3.29.21	15	All	Revised the HRU venting instructions.
5.21.21	5	All	Added warning to HP mounting instructions.
<a href="http://champdw.us/PRO">http://champdw.us/PRO</a>			

## Limited Warranty

# LIMITED WARRANTY

Champion Industries (herein referred to as "The Company"), 3765 Champion Blvd., Winston-Salem, North Carolina 27105, and 2674 N. Service Road, Jordan Station, Ontario, 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" 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.] Warranty registration must be submitted to The Company within ten (10) days after installation either online at Champion Industries website (<http://www.championindustries.com/warranty-registration>) or by the fax form at the front of this manual. 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 part 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 a Champion 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 the 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'S MAKE 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 Champion dishwashing machines to change this warranty or create any other obligation in connection with Champion dishwashing machines.

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## INSTALLATION CODES

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.



**NOTE:**

Only qualified personnel familiar with the installation of food service equipment should attempt the installation of this machine. Damage or problems associated with improper installation will not be covered by the dishwasher limited warranty.

## SAFETY SYMBOLS

The following symbols are used throughout this manual to alert the reader to important information.



**WARNING:**

Warning statements indicate a condition or practice that can result in personal injury or possible death.



**CAUTION:**

Caution statements indicate a condition or practice that can result in damage to the machine or associated equipment.



**NOTE:**

Note statements highlight important information necessary for the operation of the machine.



## RECEIVING



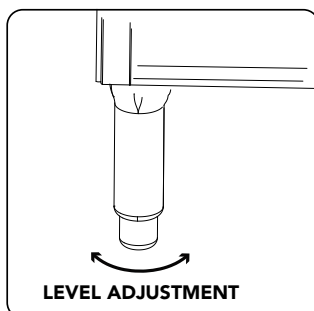
1. Inspect the machine for damage and immediately report the damage to a supervisor.
2. Check the inside of the machine for accessories and installation parts.
3. Register your machine by fax or online as soon as possible.

**CAUTION:**

Use extreme caution to prevent damage to the machine when removing from pallet.

## PLACEMENT

1. Check the dishwasher interior for curtains, panels and supplies.
2. Lift the dishwasher off the shipping pallet and move the machine near its permanent location.
3. Adjust the height and level of the machine using the adjustable legs. Level the machine from side-to-side and front-to-back.
4. Do not remove tags attached to the utility connections.
5. Remove the protective film from the dishwasher exterior.



*Fig. 1 - Leg adjustment.*

**NOTE:**

DO NOT REMOVE THE INSTALLATION TAGS ATTACHED TO THE MACHINE UNTIL ALL UTILITIES ARE CONNECTED.

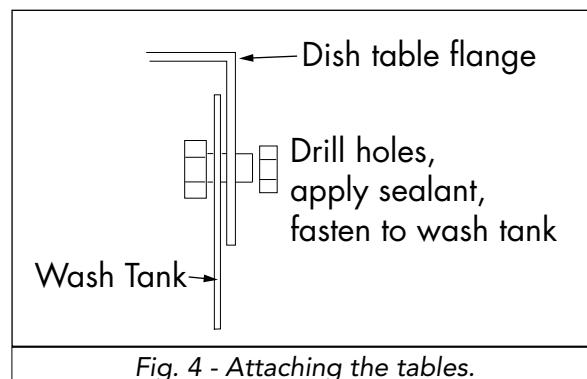
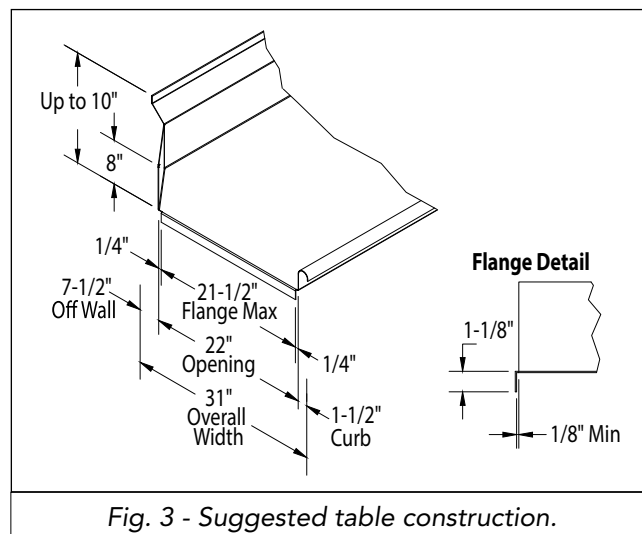
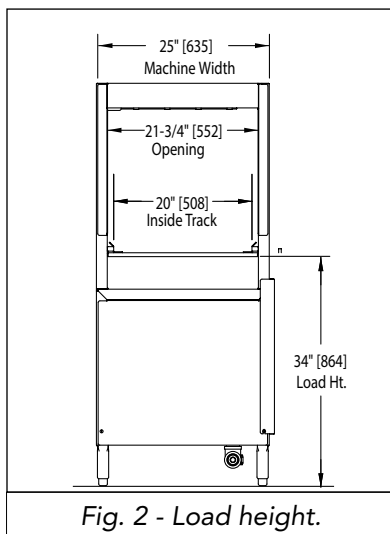


**NOTE:**

Tables should be installed after the machine is placed in its final location, properly leveled and its height properly adjusted. The standard load height for the dishwasher is 34" [864 mm].

When installing the dish tables:

1. The load end table must slope away from the dishwasher to prevent water from entering the machine. The unload table should slope toward the machine to prevent water from pooling on the exit table.
2. The dish rack must not hit the end of the table as it enters or exits the machine. Adjust the table until the track height of the machine is approximately 1/4" above the table edge.
3. Set the tables inside the machine making sure the table flange fits against the wash tank wall. Attach the tables to the machine applying a silicone sealant to the mating surfaces. See Fig. 4.



# STANDARD HOT WATER CONNECTION



**HOT  
WATER**

- MINIMUM 3/4" NPT HOT WATER SUPPLY LINE.
- MINIMUM INCOMING FLOW PRESSURE = 20-22 PSI/138-152 kPa



**CAUTION:** To prevent damage to the dishwasher supply valves, the installing plumber must thoroughly flush debris from the water supply line before connecting it to the dishwasher. Damage caused by improper installation is not covered by the limited warranty.

BOOSTER RISE °F		MINIMUM INCOMING WATER TEMPERATURE	MINIMUM INCOMING SUPPLY FLOWING PRESSURE	OPERATING FLOWING PRESSURE
40°F RISE	12kW	140°F/ 60°C	45 PSI/310 kPa	20 PSI 138 kPa
70°F RISE	21kW	110°F/ 43°C	45 PSI/310 kPa	20PSI 138 kPa
NO BOOSTER		180°F/ 82°C	45 PSI/310 kPa	20PSI 138 kPa

- WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3 MG/L or LESS
- INSTALL A 3/4" OR LARGER SHUT-OFF VALVE IN THE WATER SUPPLY LINE AS CLOSE TO THE DISHWASHER AS POSSIBLE FOR SERVICING.
- WATER SUPPLY CONNECTION IS LOCATED AT THE REAR OF THE DISHWASHER.

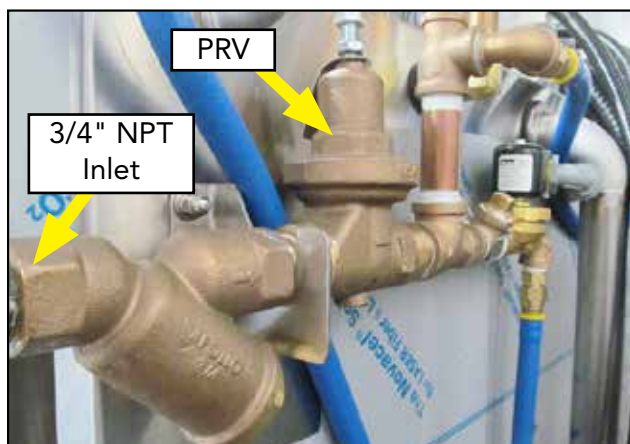


Fig. 5 - No booster may not require a PRV.

## Cold Water Connection for All Machines with Drain Water Tempering, (DWT), Valve



**COLD  
WATER**

- MINIMUM 1/2" NPT COLD WATER SUPPLY LINE.
- MINIMUM INCOMING FLOW PRESSURE = 45 PSI/310.3 kPa

MINIMUM INCOMING  
WATER TEMPERATURE

**36°F/ 2°C**

MAXIMUM INCOMING  
SUPPLY PRESSURE

**60 PSI/414 kPa**



**CAUTION:** To prevent damage to the dishwasher supply valves, the installing plumber must thoroughly flush debris from the water supply line before connecting it to the dishwasher. Damage caused by improper installation is not covered by the limited warranty.

- WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3 MG/L or LESS
- INSTALL A 1/2" OR LARGER SHUT-OFF VALVE IN THE WATER SUPPLY LINE AS CLOSE TO THE DISHWASHER AS POSSIBLE FOR SERVICING.
- WATER SUPPLY CONNECTION IS LOCATED UNDERNEATH THE DISHWASHER.
- CONNECT A 1/2" NPT DRAIN LINE TO THE DWT DEVICE.



Fig. 6 - Mechanical DWT valve.

## Heat Pump, (HP), Mounting Instructions for PRO-VHR Rack Conveyor Dishwashers



**CAUTION:**

The HP weighs 300 lbs./136 kg. Use 4 people to lift.

**Fasteners:**

(18) 1/4-20 x 1/2" Hex Hd. Bolts, P/N 100734

(18) 1/4" Split Lock Washers, P/N 106482

(18) 1/4" Flat Washers, P/N 106026

Perform steps below to mount the HP:

**Step 1:**

Remove the panels, (yellow outline), before lifting.

**Step 2:**

Place the HP on dishwasher, (red outline). Secure using supplied fasteners.

**Step 3:**

Install quick connect plug on top of machine behind fan (Fig. 2).

**Step 4:**

Install compressor cable bracket on back of machine below the HP. (Fig. 3).

**Step 5:**

Plug compressor cable into front of compressor behind the insulation (Fig. 4).

**Step 6:**

Reinstall panels. Mounting complete.

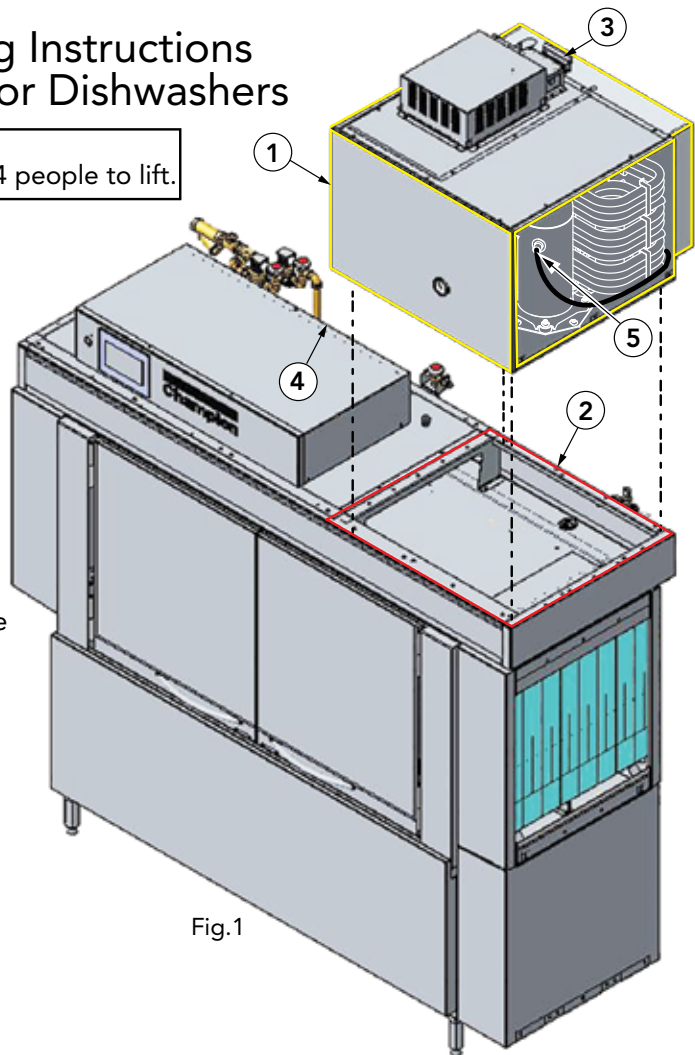


Fig.1

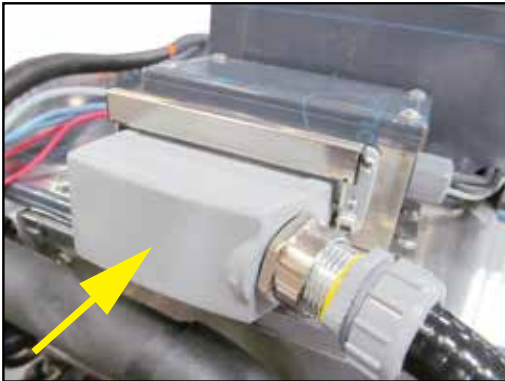


Fig. 2 - Quick Connect Plug



**STOP!**

Do not lift the heat pump by the copper piping on the back of the unit. Doing so will permanently damage the unit and void the warranty.



Fig. 3 - Compressor Cable Bracket



Fig. 4 - Compressor Cable Plug

## VHR HEAT PUMP HOSE CONNECTIONS



**CAUTION:** To prevent damage to the dishwasher supply valves, the installing plumber must thoroughly flush debris from the water supply lines before connecting it to the dishwasher. Damage caused by improper installation is not covered by the limited warranty.

- Refer to the illustration below to connect the blue colored water lines to the Heat Pump.

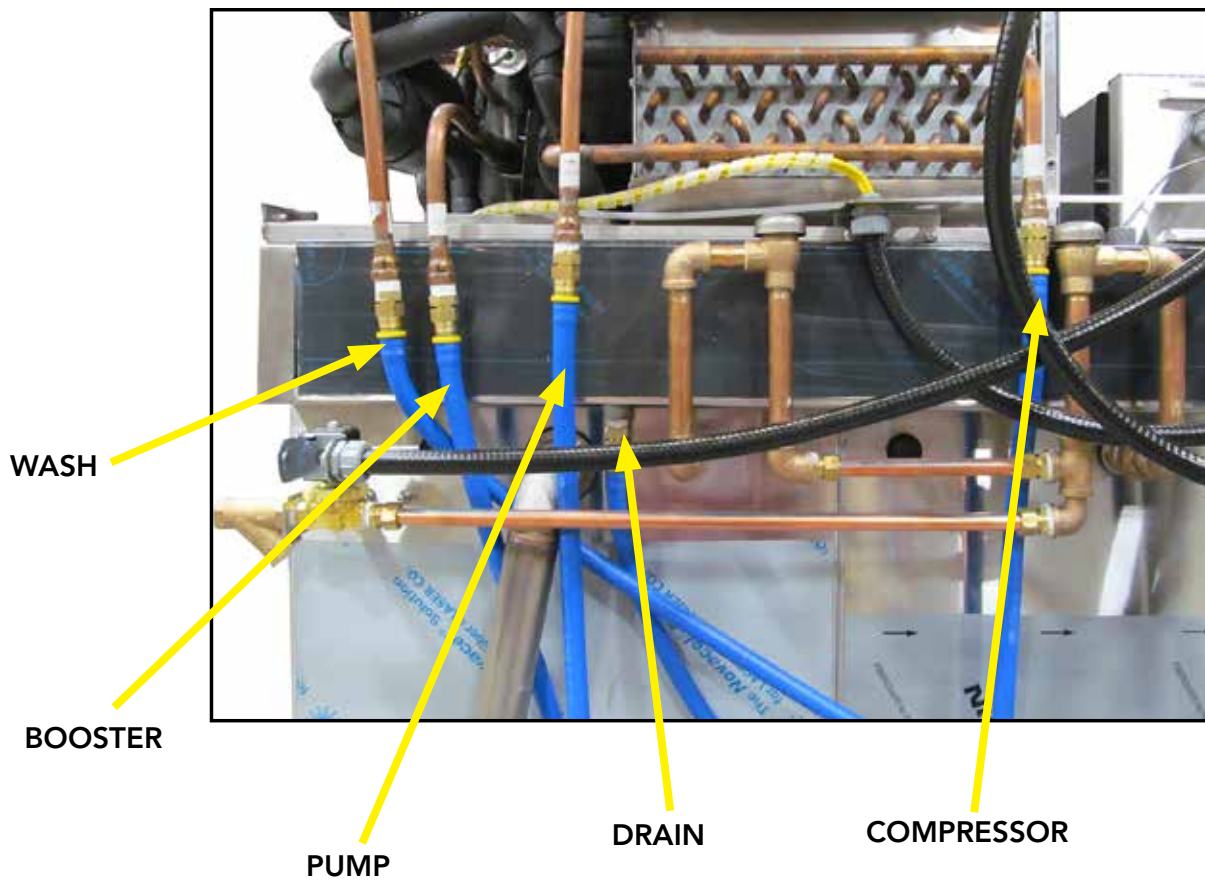


Fig. 5 - HP hose connections.



**CAUTION:** Make sure connections are tight and do not leak when installed.



## VHR HOT WATER CONNECTION



**HOT  
WATER**

- MINIMUM 3/4" NPT HOT WATER SUPPLY LINE.
- OPERATING FLOWING PRESSURE = 20 PSI/138-152 kPa
- PRV REQUIRED IF INCOMING PRESSURE EXCEEDS 60 PSI/413.7 kPa



**CAUTION:** To prevent damage to the dishwasher supply valves, the installing plumber must thoroughly flush debris from the water supply line before connecting it to the dishwasher. Damage caused by improper installation is not covered by the limited warranty.

BOOSTER RISE °F		MINIMUM INCOMING WATER TEMPERATURE	MINIMUM INCOMING SUPPLY FLOWING PRESSURE	OPERATING FLOWING PRESSURE
40°F RISE	12kW	140°F/60°C	45 PSI/310 kPa	20 PSI 138 kPa
70°F RISE	21kW	110°F/ 43°C	45 PSI/310 kPa	20 PSI 138 kPa
NO BOOSTER		180°F/ 82°C	45 PSI/310 kPa	20 PSI 138 kPa

- WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3 MG/L or LESS
- WATER SUPPLY CONNECTION IS LOCATED AT THE TOP OF THE DISHWASHER.
- INSTALL A 3/4" OR LARGER SHUT-OFF VALVE IN THE WATER SUPPLY LINE AS CLOSE TO THE DISHWASHER AS POSSIBLE FOR SERVICING.



Fig. 6 - Heat recovery hot water connection.

## VHR COLD WATER CONNECTION



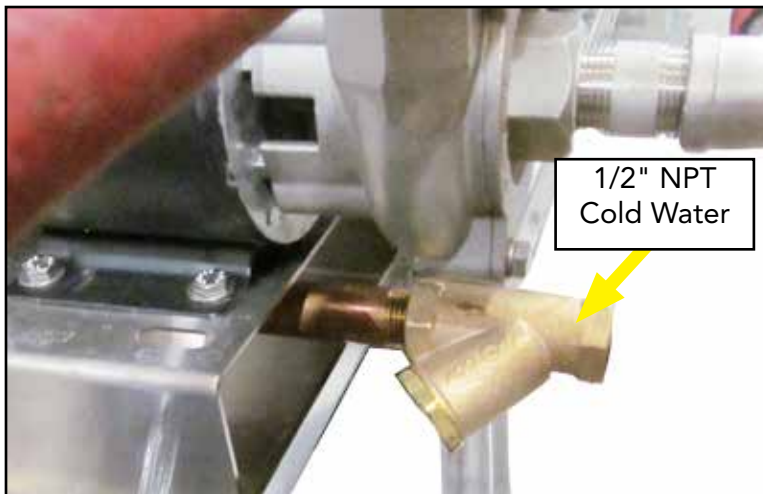
**COLD  
WATER**

- MINIMUM 1/2" NPT HOT WATER SUPPLY LINE.
- MINIMUM INCOMING FLOW PRESSURE = 20-22 PSI/138-152 kPa
- PRV REQUIRED IF INCOMING PRESSURE EXCEEDS 60 PSI/413.7 kPa



**CAUTION:** To prevent damage to the dishwasher supply valves, the installing plumber must thoroughly flush debris from the water supply line before connecting it to the dishwasher. Damage caused by improper installation is not covered by the limited warranty.

- INCOMING WATER TEMPERATURE = 55-75°F/12.7- 23.8°C.
- WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3 MG/L or LESS
- INSTALL A 1/2" NPT OR LARGER SHUT-OFF VALVE IN THE WATER SUPPLY LINE AS CLOSE TO THE DISHWASHER FOR SERVICING.
- WATER SUPPLY CONNECTION IS LOCATED AT REAR OF MACHINE BEHIND THE RECIRCULATION PUMP.



*Fig. 7 - Heat recovery cold water connection.*



# HEAT RECOVERY, HR, HOT WATER CONNECTION



## HOT WATER

- MINIMUM 3/4" NPT HOT WATER SUPPLY LINE.
- MINIMUM INCOMING FLOW PRESSURE = 30 PSI/206.8 kPa
- PRV REQUIRED IF INCOMING PRESSURE EXCEEDS 60 PSI/413.7 kPa



**CAUTION:** To prevent damage to the dishwasher supply valves, the installing plumber must thoroughly flush debris from the water supply line before connecting it to the dishwasher. Damage caused by improper installation is not covered by the limited warranty.

BOOSTER RISE °F		MINIMUM INCOMING WATER TEMPERATURE	MINIMUM INCOMING FLOWING PRESSURE
40°F RISE	12kW	140°F/ 60°C	30 PSI/206.8 kPa
70°F RISE	21kW	110°F/ 43°C	30 PSI/206.8 kPa
NO BOOSTER		180°F/ 82°C	30 PSI/206.8 kPa

- WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3 MG/L or LESS
- INSTALL A 3/4" NPT OR LARGER SHUT-OFF VALVE IN THE WATER SUPPLY LINE AS CLOSE TO THE DISHWASHER FOR SERVICING.
- WATER SUPPLY CONNECTION IS LOCATED AT REAR OF MACHINE AT THE UNLOAD END OF THE MACHINE

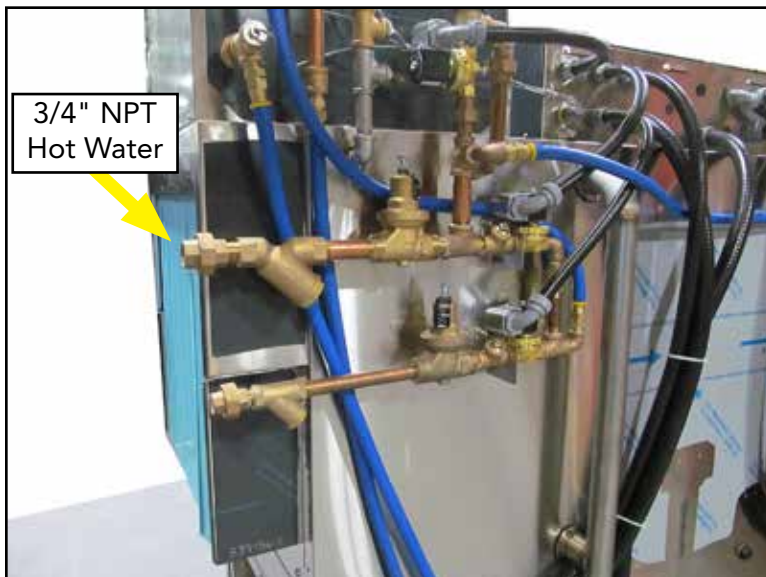


Fig. 8 - Heat recovery Hot water connection.

## HEAT RECOVERY, HR, COLD WATER CONNECTION



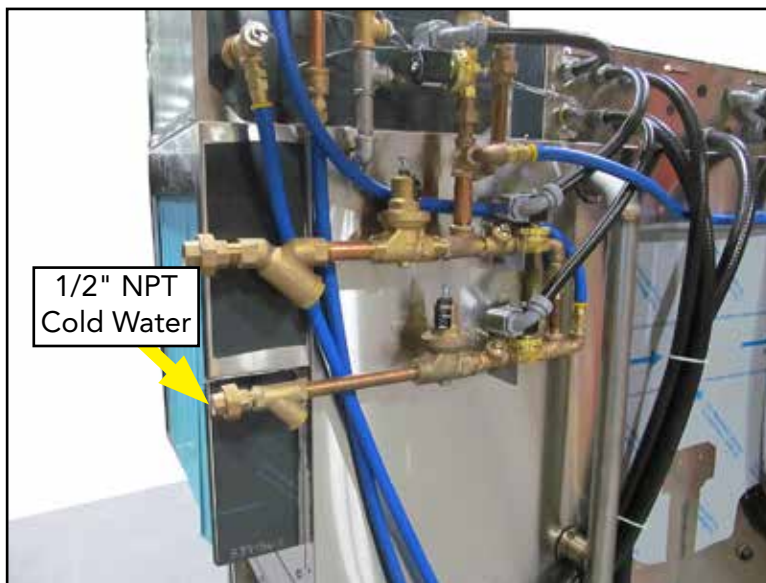
### COLD WATER

- MINIMUM 1/2" NPT COLD WATER SUPPLY LINE.
- MINIMUM INCOMING FLOW PRESSURE = 55 PSI/379.2 kPa
- PRV REQUIRED IF INCOMING PRESSURE EXCEEDS 60 PSI/413.7 kPa



**CAUTION:** To prevent damage to the dishwasher supply valves, the installing plumber must thoroughly flush debris from the water supply line before connecting it to the dishwasher. Damage caused by improper installation is not covered by the limited warranty.

- INCOMING WATER TEMPERATURE = 55-75°F/12.7- 23.8°C.
- WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3 MG/L or LESS
- INSTALL A 3/4" NPT OR LARGER SHUT-OFF VALVE IN THE WATER SUPPLY LINE AS CLOSE TO THE DISHWASHER FOR SERVICING.
- WATER SUPPLY CONNECTION IS LOCATED AT REAR OF MACHINE AT THE UNLOAD END OF THE MACHINE.



*Fig. 9 - Heat Recovery Cold Water Connection.*

## STEAM CONNECTION - (STANDARD or HR ONLY)



- CHECK THE STEAM SUPPLY PRESSURE REQUIREMENTS PRIOR TO CONNECTING THE STEAM SUPPLY LINE.
- CHECK THE STEAM SUPPLY PRESSURE REQUIREMENTS PRIOR TO CONNECTING THE STEAM SUPPLY LINE.
- 1" NPT SUPPLY LINE FOR WASH TANK 3/4" SUPPLY LINE FOR BOOSTER.
- STEAM CONNECTION IS LOCATED ON THE SIDE OF THE MACHINE.
- STEAM CONDENSATE LINE IS 3/4" NPT FOR MACHINE, 1/2" NPT FOR BOOSTER.
- CONDENSATE LINES MUST BE GRAVITY DRAIN WITH NO BACK PRESSURE. A CONDENSATE LIFT PUMP MAY BE REQUIRED IF LINE IS ABOVE THE BASE OF THE MACHINE.

## STEAM CONSUMPTION

- TANK HEAT - LBS./HR. REQUIRED AT 15 PSI = 125 LBS./HR.
- STEAM BOOSTER - LBS./HR. REQUIRED 70°F/21.1°C @ 15 PSI = 110 LBS./HR.
- WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3 MG/L or LESS



*Fig. 10 - Steam inlet.*



*Fig. 11 - Condensate return.*

## DRAIN CONNECTION



- GRAVITY DRAIN - 1-1/4" NPT CONNECTION LOCATED UNDERNEATH MACHINE.
- MAX FLOW = 15/US/GAL/MIN.
- USE A DIRECT OR INDIRECT CONNECTION TO THE BUILDING IN ACCORDANCE WITH LOCAL CODE.
- THE DRAIN CONNECTION IS AT THE LOAD END OF THE MACHINE WITH OR WITHOUT PREWASH.
- THE DRAIN VALVES ARE ELECTRIC. THEY OPEN AND CLOSE AUTOMATICALLY WHEN DISHWASHER POWER IS OFF OR ON.



Fig.12 - Electric Drain Valve.



Fig. 13 - Drain connection.



### NOTE:

Procedure to manually open and close the valve on next page.

## DRAIN VALVE OPERATION



- To manually operate the new valve, four 2.5mm socket allen screws must be removed, the valve coil removed, and the valve globe rotated with pliers.

- The valve coil has an indicator line showing valve position. Ensure valve is reassembled in the same position.



1



Remove four 2.5mm coil retaining allen screws.

2



Remove the coil from the valve body.

3

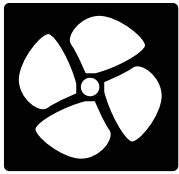


Using pliers, turn the valve body key to the vertical position to open valve.

Reassemble in reverse order.

Fig. 14 - Manually open the drain valve.

## VENTILATION - VENT HOOD FAN CONTROL



Standard model installations using an approved vent hood may require a vent fan signal. This signal is supplied by the dishwasher control circuit. A qualified installer must connect a signal circuit to the fuse holder and a common neutral terminal provided. See Fig. 15.



**CAUTION:** To prevent damage to the dishwasher do not connect the vent fan motor to Line Power 120VAC, 1.0 Amp fused connection terminals. The fused 120VAC Line Power only supplies an external vent fan contactor (supplied by others), and is limited to 1.0 AMP maximum load. The 120VAC is powered whenever main power is on.

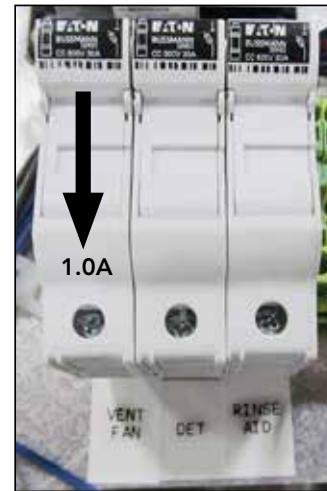


Fig. 15 - Connection is located inside the top control cabinet.

## PANT LEG DUCT SETTING

- LOAD END = 200CFM @ 1/4" SP, 71L/SEC.
- UNLOAD END = 400CFM @ 1/4" SP, 189L/SEC.
- ADEQUATE AIR CHANGES SHOULD BE CONSIDERED BY THE HVAC CONTRACTOR.
- 4" X 16" VENT STACKS WITH ADJUSTABLE DAMPERS ARE SUPPLIED BY FACTORY.



**NOTE:**

Loosen the wing-nut holding the damper handle and turn it to open or close the damper to adjust the steam exiting the machine.

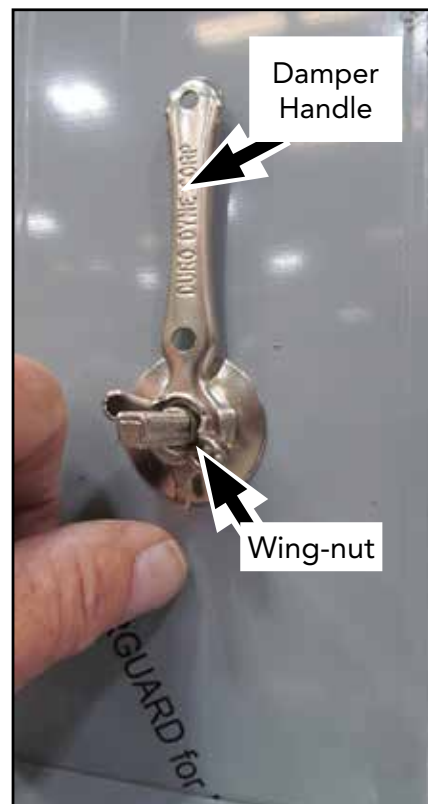
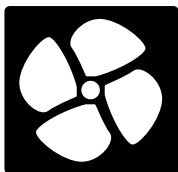


Fig. 16 - Duct.



## VENTILATION - HEAT RECOVERY UNIT (HRU)



- LOAD END = 200 CFM @ 1/4" SP, 71 L/SEC.  
w/PREWASH = 150 CFM @ 1/4" SP, 70.8 L/SEC.
- UNLOAD END = 200 CFM @ 1/4" SP, 71L/SEC.
- ONE 4" X 16" VENT STACK WITH ADJUSTABLE DAMPER FOR THE MACHINE LOAD END IS SUPPLIED BY FACTORY.



**CAUTION:** Freezing air must not be allowed to be drawn down into the HRU coil when building vent is off if direct vent ducting is connected to the machine. Installation of the building vent must not block the screen on the HRU.

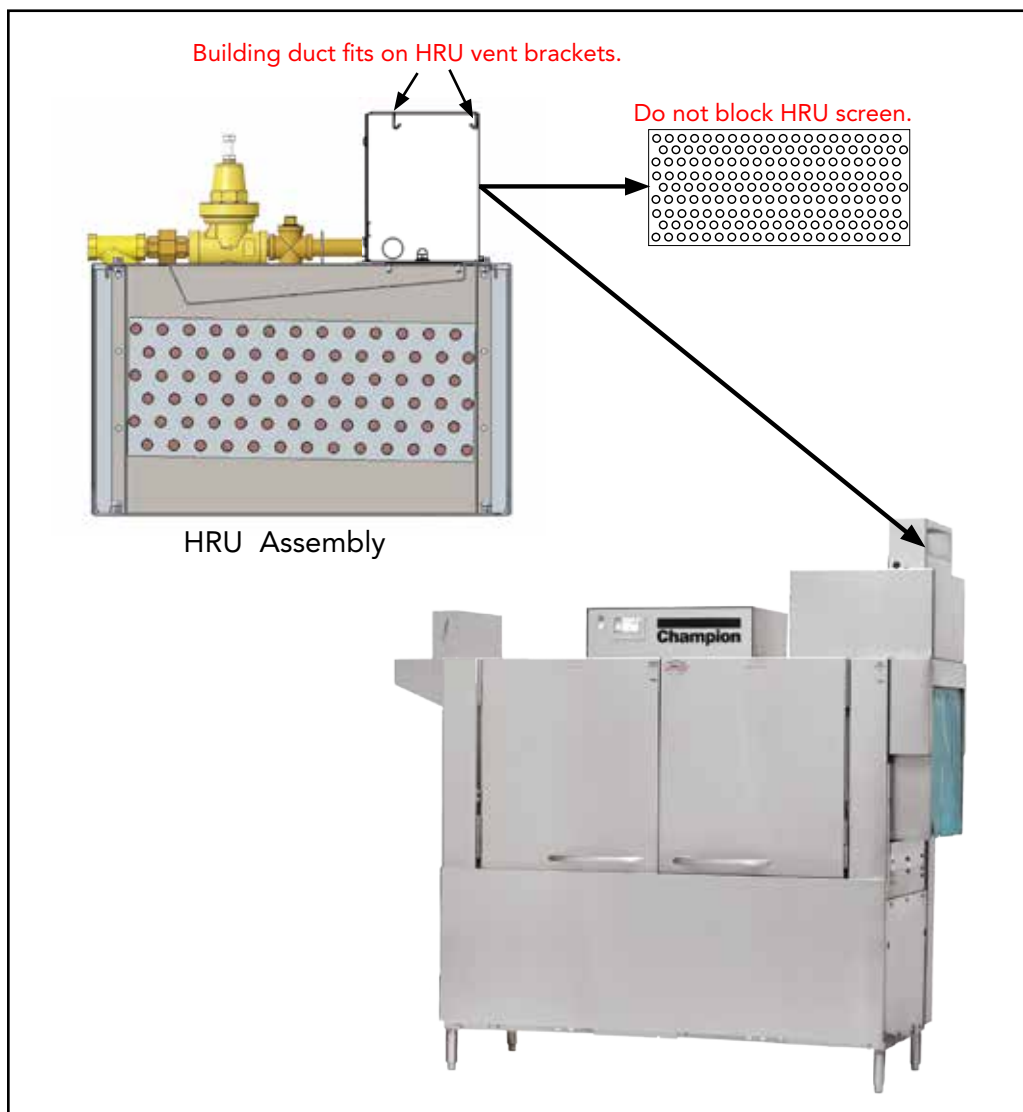


Fig. 17 - Do not block screen when installing building venting.

## DETERGENT DISPENSER CONNECTION



### Detergent Requirement



Use a commercial grade NON-CHLORINATED detergent in this dishwasher.

- WASH TANK CAPACITY IS 17 US GAL./14.2 IMP. GAL./64.4 L.
- USE A NON-CHLORINATED COMMERCIAL GRADE DETERGENT.
- A 7/8" DIAMETER HOLE FOR DETERGENT SENSOR IS LOCATED IN THE SIDE OF THE WASH TANK.
- FUSED 120VAC 0.5 AMP MAX LOAD DETERGENT SIGNAL CONNECTION IS PROVIDED INSIDE THE CONTROL CABINET.
- THE DETERGENT SIGNAL IS ENABLED DURING THE WASH CYCLE.



Fig. 18 -  
Connection is located inside the top control cabinet.



Fig. 19 -  
Detergent Sensor provided in side of wash tank.



## RINSE-AID DISPENSER CONNECTION

**R/A**

- RINSE = 0.29 US GAL./RACK, 0.24 IMP. GAL/RACK, 3.78 L/RACK.
- 1/8" NPT PIPE PLUG PROVIDED IN FINAL RINSE PIPING.
- FUSED 120VAC, 0.5 AMP MAX LOAD RINSE AID SIGNAL CONNECTION PROVIDED INSIDE THE CONTROL CABINET.



**Consult the chemical supplier for the rinse-aid requirements.**

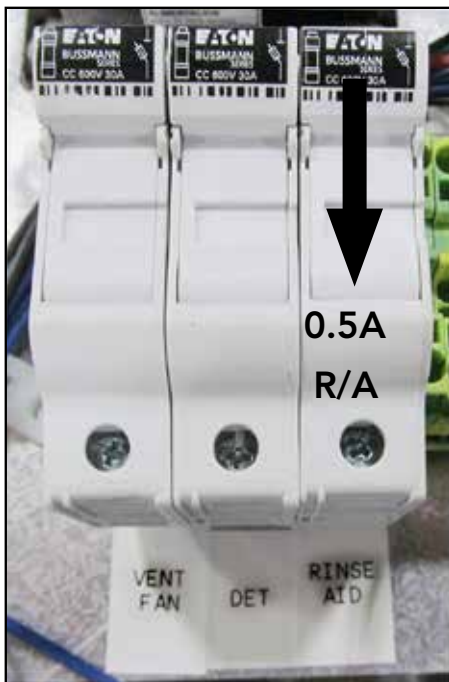


Fig. 20 -  
Rinse-aid connection.



Fig. 21 -  
Rinse-aid injection point.

## ELECTRICAL CONNECTION



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.



**WARNING:**

There may be more than one power source connected to the machine. Make sure all power sources are disconnected, locked and tagged out before working on the circuit.

Electrocution may occur when working on energized circuits. Disconnect power at the main breaker or service disconnect switch, then lock out and tag the circuit to indicate that work is being performed.

**! ATTENTION INSTALLER !**

**All machines are shipped from the factory as a 1-POINT connection. The BOOSTER is wired for 21kW operation.**

**IT IS THE INSTALLER'S RESPONSIBILITY TO CHANGE THE CONNECTION TO 2-POINT AND/OR THE BOOSTER TO 12kW IF REQUIRED.**

## Electrical Connection - Changing 1-Point to 2-Point Electrical Connection

- COMPARE ELECTRICAL SUPPLY WITH THE MACHINE ELECTRICAL CONNECTION DATA PLATE BEFORE CONNECTING POWER TO MACHINE.
- THE DATA PLATE IS ADJACENT TO THE INPUT TERMINAL BLOCK.
- 1-POINT CONNECTION MACHINE HAVE JUMPERS BETWEEN THE INPUT BLOCKS.
- REMOVE THE JUMPERS FOR 2-POINT ELECTRICAL CONNECTION.

1L3	1L2	1L1	2L3	2L2	2L1
DISHWASHER For 1-Point and 2-Point Connection			BOOSTER For 2-Point Connection Only		
REMOVE JUMPERS FOR 2-POINT ELECTRICAL CONNECTION					

P/N 115809/E

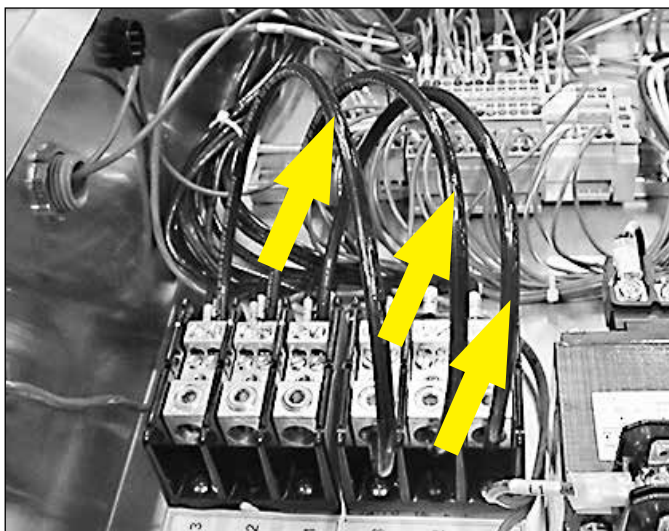


Fig. 22 -  
1-point connection jumpers.

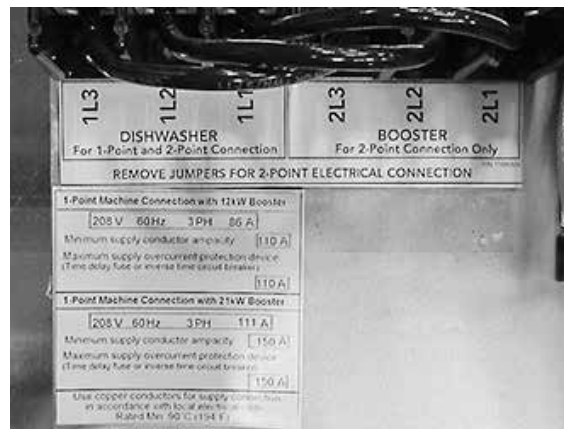


Fig. 23 -  
1-point connection data plate.

## Electrical Connections - Changing 1-Point to 2-Point Electrical Connection

To convert a 1-point connection to a 2-point connection.

1. Open the control cabinet and remove the jumpers, (Fig. 22), between 'Dishwasher' terminal block and the 'Booster' terminal block.
2. Cover the existing 1-point connection data plate, (Fig. 23), with the 2-point connection data plate, (Fig. 24), stowed in the plastic bag, (Fig. 25), next to the input terminal block.
3. Connect the incoming power according to the customer's requirements.
4. Conversion is complete.

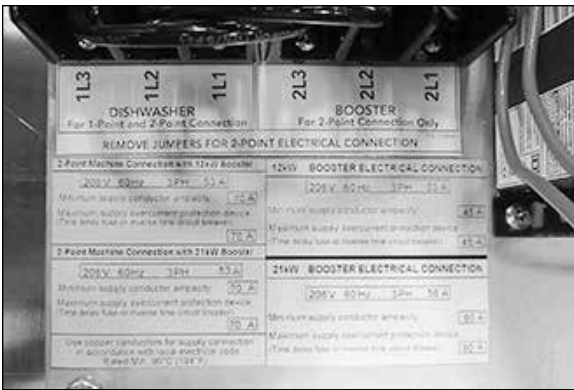


Fig. 24 -  
2-point connection data plates.



Fig. 25 -  
The 2-point data plate is located in a plastic bag next to the terminal block.

# Electrical Connection - 21 kW to 12kW Booster Conversion



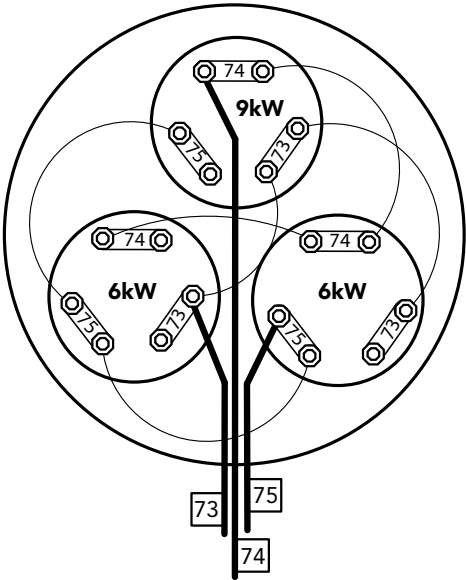
## ATTENTION

The booster is shipped from the factory wired for 21kW operation. For 12kW operation, the booster must be reconnected as shown below.

## 21kW to 12kW Booster Conversion

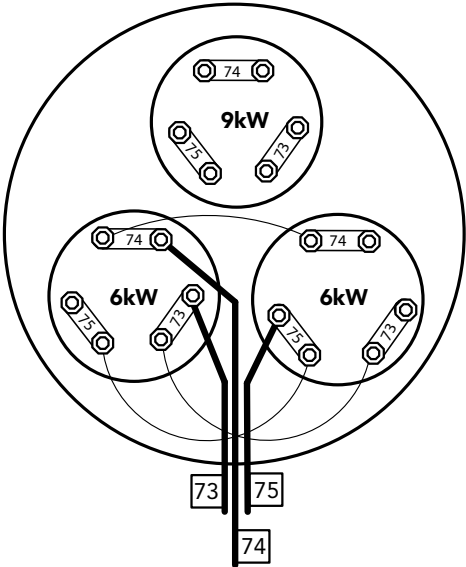
- 1 Disconnect all power from the unit.
- 2 Remove the booster cover.
- 3 Remove the jumper wires from the 9kW element.
- 4 Connect a jumper wire between 73 on the 6kW elements.
- 5 Remove the power wire #74 from the 9kW element.
- 6 Reconnect the power wire #74 to the #74 strap on the left 6kW element.
- 7 Double-check all wiring.
- 8 Replace the booster cover.
- 9 Conversion is complete.

### 21kW Booster



#73 and #75 FROM SSR  
#74 DIRECT FROM CABINET

### 12kW Booster



#73 and #75 FROM SSR  
#74 DIRECT FROM CABINET

## CHECK MOTOR ROTATION



All motors are phased the same at the factory.  
Reverse L1 and L2 at the main terminal block to change motor direction of all motors.

1. Fig. 26 shows the rotation arrow label on the rear pump housing.



*Fig. 26 - Motors rotate counter-clockwise.*

2. Fig. 27 shows the drive motor rotation label on the drive plate.



*Fig. 27 - Clutch rotates counter-clockwise.*

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