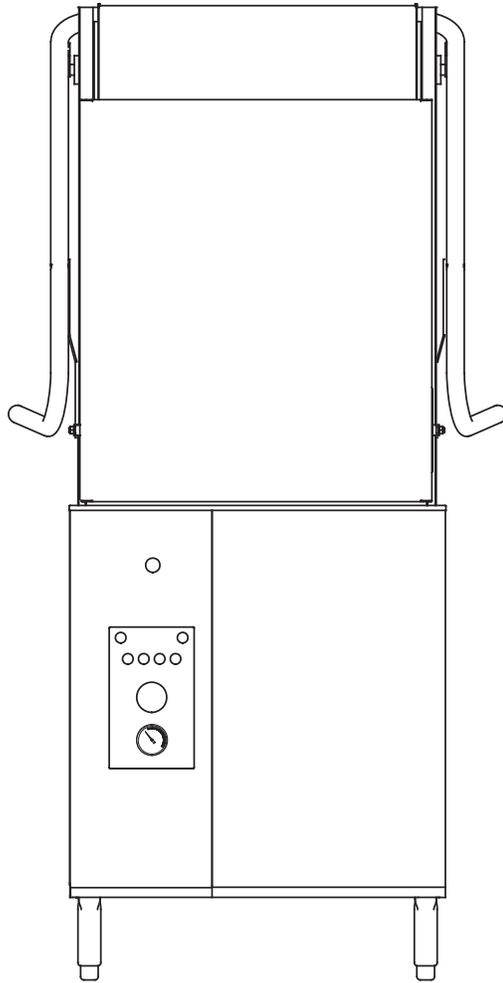


# Tall Hood-type Dishwashers

## Installation, Operation, Cleaning and Maintenance Manual



### M1.5 Series

**Models:**  
DH5000T, MDHHD

Hot water sanitizing machine w/fresh water rinse and built-in stainless steel electric booster

**Options:**  
Ventless Heat Recovery



Issue Date: 1.25.17

**Manual P/N 115744 rev. D**

For machines beginning with S/N D150712934 and above

3765 Champion Boulevard  
Winston-Salem, NC 27105  
(336) 661-1556 Fax: (336) 661-1660  
Toll-free: 1 (800) 858-4477

2674 N. Service Road, Jordan Station  
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Printed in the USA



## National Service Department

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Tel: (336) 661-1556

Fax: (336) 661-1660

email: [service@championindustries.com](mailto:service@championindustries.com)

### ATTENTION

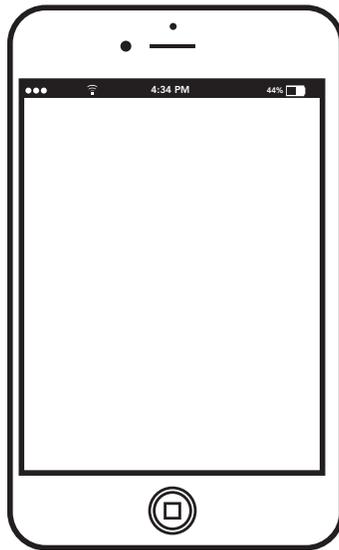
The model no., serial no., voltage, Hz and phase are needed to identify your machine and to answer questions.

**The machine data plate  
is located on the right front corner  
of the lower panel**

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



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



*The QR website is an excellent resource for operators and service agents.*

- Use your mobile device to scan the QR code located on the front panel of your machine or enter our URL <http://www.champdw.us/DH5000T>.
- Visit our website at [www.championindustries.com](http://www.championindustries.com) and register your product there.
- Use the fax form on the next page and fax to 1-800 661-1660.

# 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) Province Postal Code

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

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

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

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

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

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

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

**IMPORTANT IMPORTANT**

## Revision History

We reserve the right to make changes to this manual without notice and without incurring any liability by those 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.

<b>Revision Date</b>	<b>Revised Pages</b>	<b>Serial Number Effectivity</b>	<b>Revision Description</b>
12.7.15	All	D151012934	Released first edition
2.4.16	3	D160113175	Revised splash shield instructions
	11,12,13	D160113175	Revised signal instructions
3.1.16		D160113179	Removed direct vent instructions
7.15.16	11	D160113179	Changed 120VAC signal to Line Power
1.25.17	10	All	Changed motor rotation note from CW to CCW.
	11-13	All	Changed all fuses to 1.5A

## **LIMITED WARRANTY**

Champion Industries and Moyer Diebel (herein referred to as "The Companies"), 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 Companies warrant 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 Companies, whichever occurs first. [See below for special provisions relating to glasswashers.] Warranty registration must be submitted to The Companies within ten (10) days after installation either online on the Champion Industries website (<http://www.championindustries.com>), or the Moyer Diebel website (<http://www.moyerdiebel.com> in the USA or <http://www.championindustries.com/canada> in Canada or by the fax form provided at the front of this manual. The Companies 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 Companies, at their election, will either repair or replace the defective part or accept return of the machine for full credit; provided; however, as to glasswashers, The Companies' 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 Companies elect to repair, the labor and work to be performed in connection with the warranty shall be done during regular working hours by a Champion or Moyer Diebel authorized service technician. Defective parts become the property of The Companies. Use of replacement parts not authorized by The Companies will relieve The Companies of all further liability in connection with its warranty. In no event will The Companies' warranty obligation exceed The Companies' charge for the machine. The following are not covered by The Companies' 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 Companies warrant all new machine parts produced or authorized by The Companies 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 Companies will replace the defective part without charge.

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

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

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## 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.



**DO NOT:**

Do not statements indicate that a condition or practice will diminish the effective operation of the machine.



**OKAY:**

Okay statements indicate that a condition or practice is correct and should be followed.



**NOTE:**

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

## Receiving



Inspect the outside of the shipping carton for signs of damage and report any damage immediately to a supervisor.

Remove the carton, inspect the dishwasher, and check the inside of the machine for accessories and installation parts.

Register your machine by fax or online as soon as possible.



### CAUTION:

Be careful when lifting and moving the machine to avoid damage.

## Placement

Compare the installation site utility connections with the dishwasher utility connections and make sure they are the same.

For straight-through operation, provide 20" [508mm] clearance out from the front of the machine and 20" [508mm] out from the left-side of the machine by 27" [686mm] clearance above the floor for servicing.

For servicing a corner operation machine, provide 35" [889mm] clearance out from the front of the machine under the right-hand tabling, 35" [889mm] out from the left-hand of the machine under the left-hand tabling, and 35" [889mm] out from the front of the machine. Provide 27" [686mm] clearance above the floor on all sides. The dishwasher has 4 adjustable feet for leveling. Level the dishwasher front-to-back and side-to-side.



### NOTE:

Dishwashers are shipped from the factory for straight-through operation but are field convertible to corner operation.

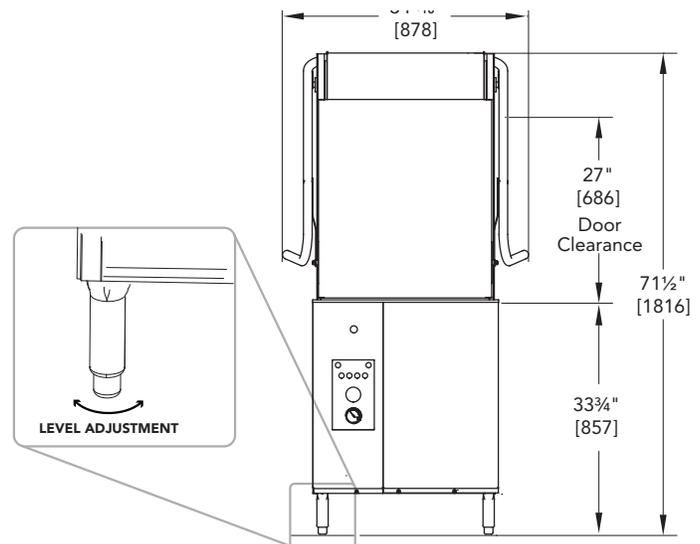


Fig. 1

## Dish Table Connections



**CAUTION:**

Dish tables should be secured to the dishwasher after it is permanently located.

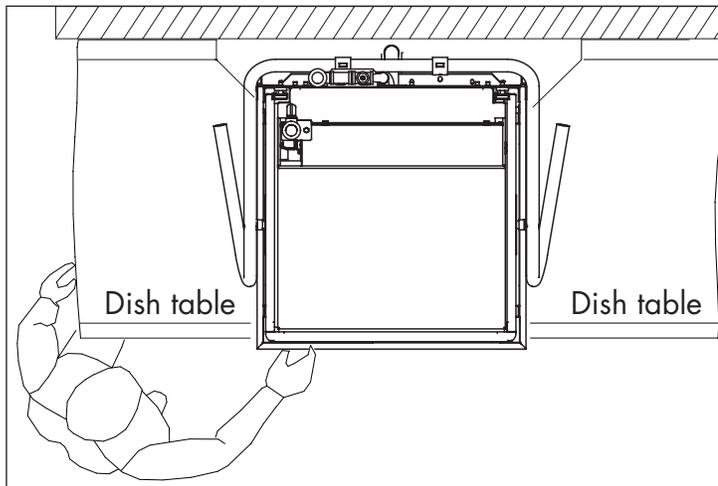


Fig. 2 - Standard straight-through operation.

Refer to Fig. 3 below.

1. Level the dishwasher and dish tables to the required height.
2. Lift up to remove the dishwasher track assembly and set aside.
3. Remove the dishwasher side panels (front and side panel for corner operation).
4. Fit the dish table flanges over the ends of the dishwasher tank and mark two hole locations.
5. Drill 1/4" holes through the table flange and the dishwasher tank.
6. Apply sealant between the table flanges and the wash tank.
7. Install stainless steel 1/4-20 fasteners to secure the tables to the tank.
8. Reinstall the panels and track assembly.

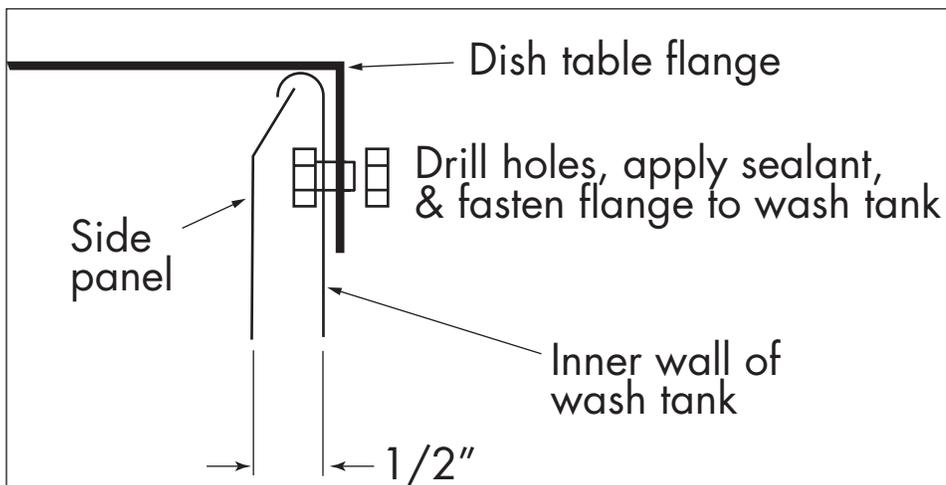


Fig. 3 - Dish table flange installation.

## Converting from Standard to Corner Operation



**NOTE:** An optional splash shield is available for corner operation but may not have shipped with the machine unless it was specified at the time of order. Contact the equipment dealer for instructions on how to order the splash shield.

Refer to Fig. 4 and Fig. 5 below to convert the machine:

1. Place the dishwasher so that the control panel is easily accessible.
2. Install the optional splash shield before moving the machine against the wall. The splash shield may have been installed at the factory or shipped separately. Locate the fasteners supplied at the rear of the machine, remove and set aside. Place the channel on the bottom of the shield over the edge of the tank. Reinstall the fasteners and make sure the hood opens smoothly.
3. Connect the utilities before placing the machine in its permanent location.
4. Follow the instructions on the previous page to install the dish tables.

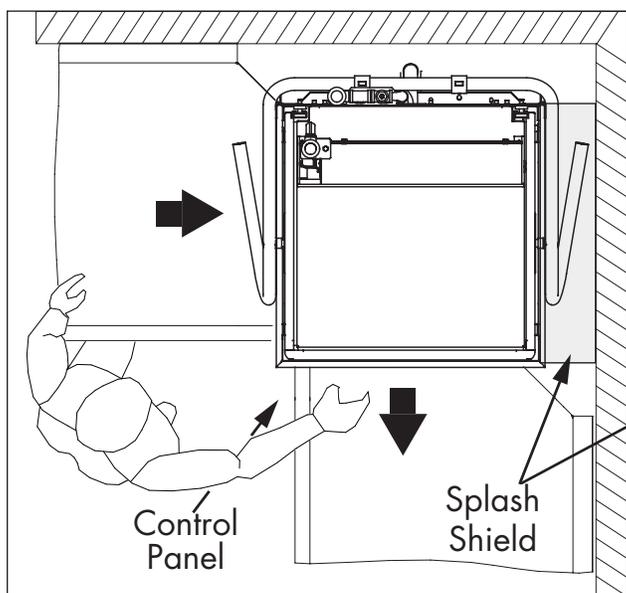


Fig. 4 - Corner configuration.

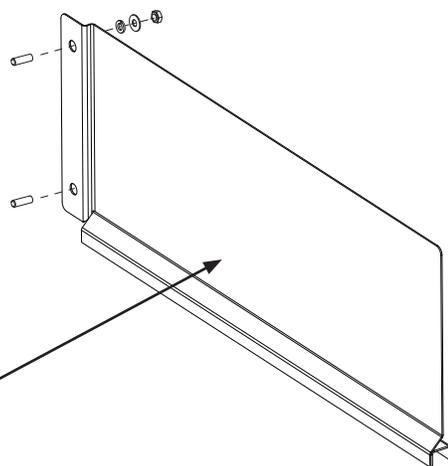


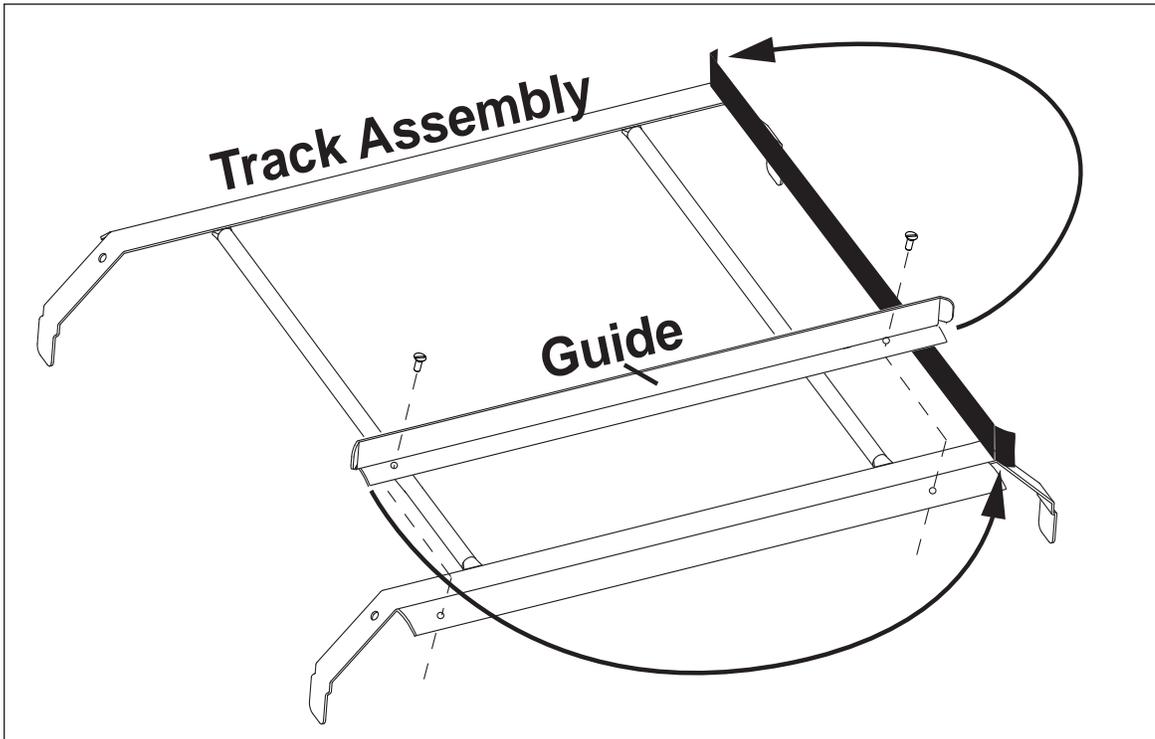
Fig. 5 -  
The splash shield fits over the right-hand edge of the wash tank and fastens to studs on the back support.

Continued on the next page.

## **Converting from Standard to Corner Operation** *(continued)*

Follow the steps below to convert the track assembly for corner operation:

1. Pull the track assembly straight up and lift it out of the machine, then rotate the track assembly 180° and reinstall it in the machine.
2. Note the guide attached to the track assembly. Remove and save the fasteners holding the guide.
3. Position the guide on the right-hand side of the track assembly and secure with the existing fasteners.
4. Slide a dish rack through the machine to ensure it moves freely.
5. The corner conversion is complete.



*Fig. 6 - Move the rear dish rack guide to the right-hand side of the track assembly.*

## Water Connection - Standard Model



**HOT  
WATER**

Connect the plumbing in accordance with the specifications below.

**! MINIMUM 3/4" NPT HOT WATER SUPPLY LINE.**



**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 TEMPERATURE	MINIMUM INCOMING SUPPLY FLOWING PRESSURE	MINIMUM/MAXIMUM OPERATING FLOWING PRESSURE
40° RISE	140°F / 60°C	45 PSI / 310 kPa	20/25 PSI / 138/172 kPa
70° RISE	110°F / 43°C	45 PSI / 310 kPa	20/25 PSI / 138/172 kPa

**! WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3mg/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.**

**! CONNECTION IS LOCATED AT REAR LEFT-SIDE OF MACHINE.**



Fig. 7 - The incoming HOT water line is a 3/4" NPT connection.

Continued on the next page.

## Water Connection - Ventless Heat Recovery (VHR) Model



**COLD  
WATER**

Connect the plumbing in accordance with the specifications below.

**! MINIMUM 3/4" NPT COLD WATER SUPPLY LINE.**



**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/MAXIMUM INCOMING TEMPERATURE	MINIMUM INCOMING SUPPLY FLOWING PRESSURE	MINIMUM/MAXIMUM OPERATING FLOWING PRESSURE
40-70° RISE	55-75°F / 13-24°C	45 PSI / 310 kPa	20/25 PSI / 138/172 kPa

**! WATER HARDNESS OF 3 GRAINS/US GAL - 0.83 IMP GAL - 5.3mg/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.**



**NOTE:** Local codes may require the installation of a backflow preventer and a pressure relief tank in the cold water supply line. Consult the local authority for details. The backflow preventer and pressure relief tank are not supplied by the factory.

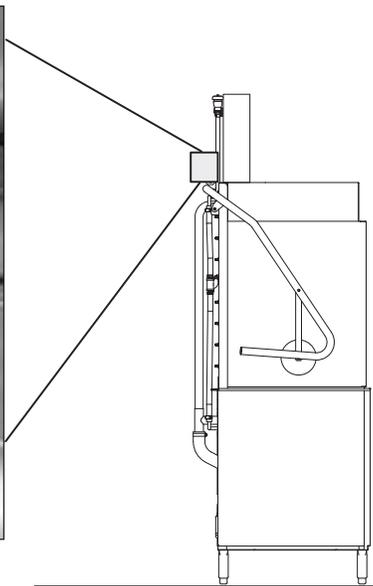


Fig. 8 - The COLD water supply is a 3/4" NPT connection located at the top left-side of the machine.

## Drain Connection - Standard and VHR Models



**DRAIN**

Connect the drain in accordance with the specifications below.

**!** GRAVITY DRAIN - 2" OD SLIP-FIT HOSE CONNECTION.



**CAUTION:** The dishwasher drain connection must comply with all local plumbing, health and safety codes. Damage caused by improper installation is not covered by the limited warranty



**AUTOMATIC ELECTRIC DRAIN VALVE.**



**MAXIMUM FLOW RATE: 15 US GPM / 12.5 IMP. GPM / 57 LPM.**



**NOTE:** A Drain Water Tempering Kit Option is available to ensure the temperature of the water entering the drain does not exceed 140°F/60°C ( see next page).

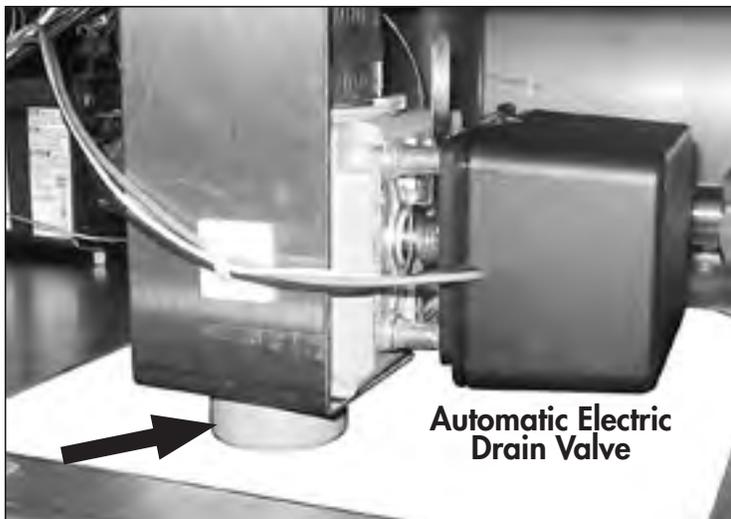


Fig. 10 - The drain is a 2" OD slip-fit hose connection.

## Water Connection for Drain Water Tempering Valve Standard and VHR Models



**NOTE:** The drain water tempering kit is designed to reduce the temperature of water entering the building drain when the dishwasher is in the automatic drain cycle. A field installation kit is available from the factory if needed.



**COLD  
WATER**

Connect the plumbing in accordance with the specifications below.



**MINIMUM 1/2" NPT COLD WATER SUPPLY LINE.**



**MAX OPERATING FLOWING PRESSURE IS 45 PSI / 310 kPa.**



**CONNECTION LOCATED AT REAR OF MACHINE.**



**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.



**NOTE:** A drain water tempering kit is available to install in the field if necessary. Contact the local authority for information concerning local codes and regulations.



Fig. 9 - The drain water tempering connection is a 1/2" NPT COLD water connection.



# Electrical Connection - Single Phase and Three Phase

## Standard and VHR Models *(continued)*



Refer to the diagrams below for the main terminal block wiring and three phase and single phase motor connections.



**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 machine.

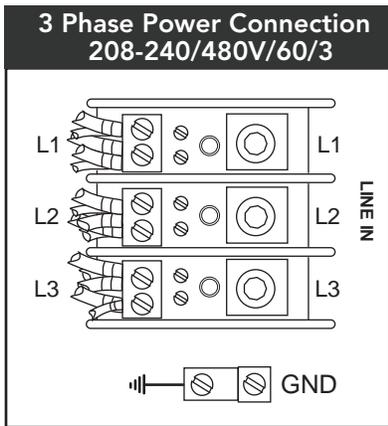


Fig. 12

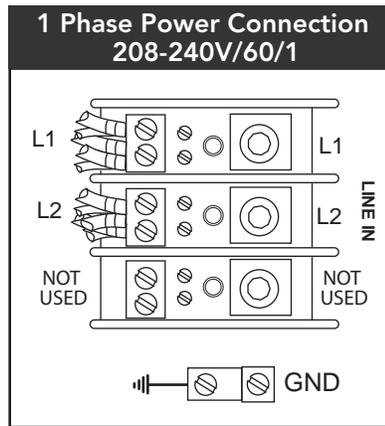


Fig. 13

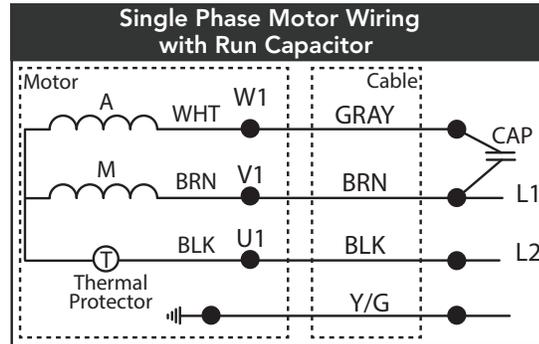
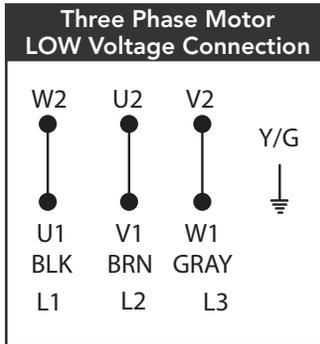
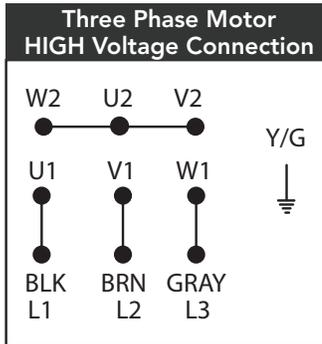


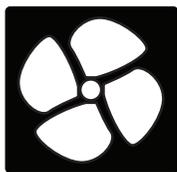
Fig. 14



**NOTE: CHANGING MOTOR ROTATION -**

An arrow on the rear motor housing indicates that the proper motor rotation is CCW when viewed from the rear. To change the rotation on three phase machines, reverse L1 and L2 at the main terminal block.

## Ventilation - Vent Fan Control for Standard Model Only



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 vent fan motor to the Line Power 120VAC 1.5 Amp fused connection terminals. Damage to any component caused by improper installation is not covered by the limited warranty.

The fused 120VAC Line Power is designed to operate an external vent fan contactor only (supplied by others), and is limited to 1.5 AMP maximum load. The 120VAC is available whenever main power to the machine is turned on.

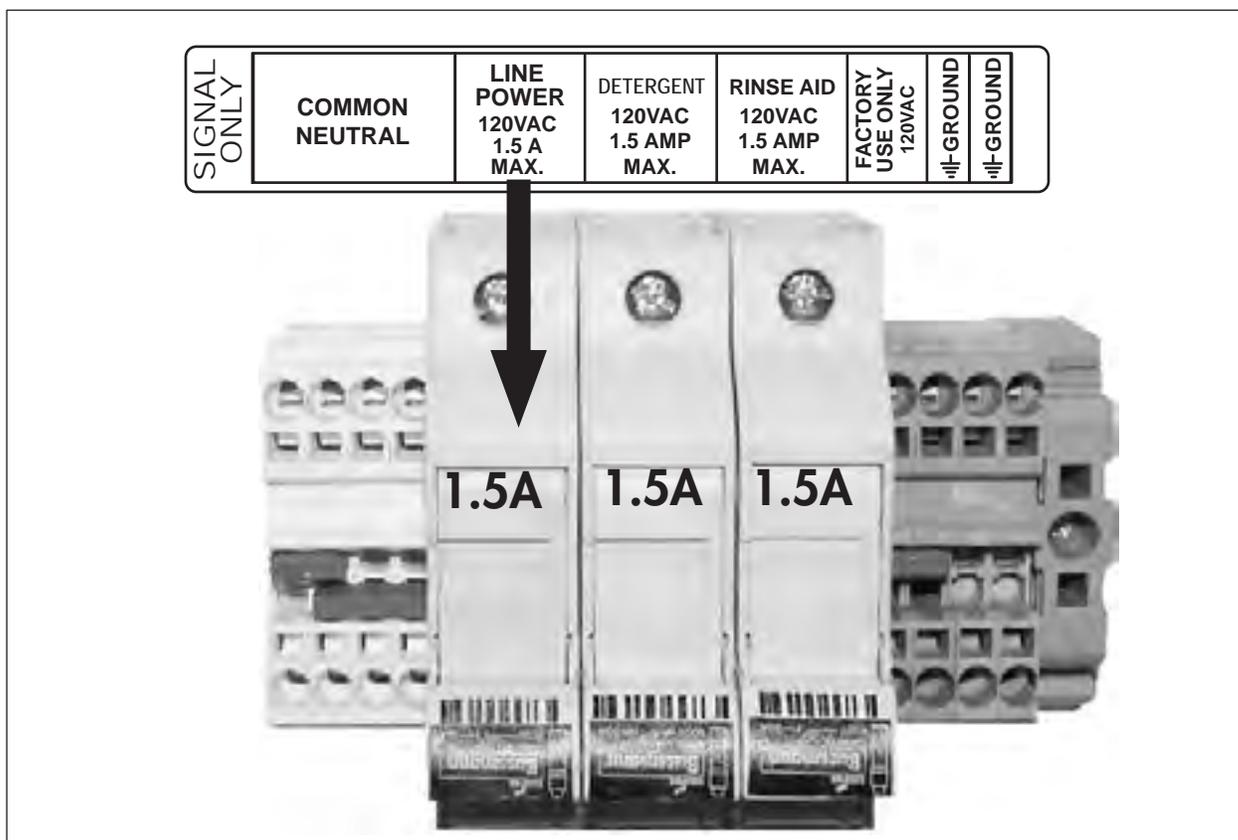


Fig. 15

## Detergent Dispenser Connection - Standard and VHR Models

### DET

! USE A NON-CHLORINATED COMMERCIAL GRADE DETERGENT.

! WASH TANK CAPACITY: 9.5 US GAL / 7.9 IMP. GAL / 36 L

! TWO 7/8" DIAMETER HOLES ON LOWER RIGHT SIDE OF TANK.  
• TOP HOLE IS FOR DETERGENT INJECTION.  
• BOTTOM HOLE IS FOR THE DETERGENT PROBE.

! FUSED 120VAC 1.5 AMP MAX. LOAD DETERGENT SIGNAL CONNECTION AT LOWER FRONT OF MACHINE BEHIND THE FRONT PANEL.

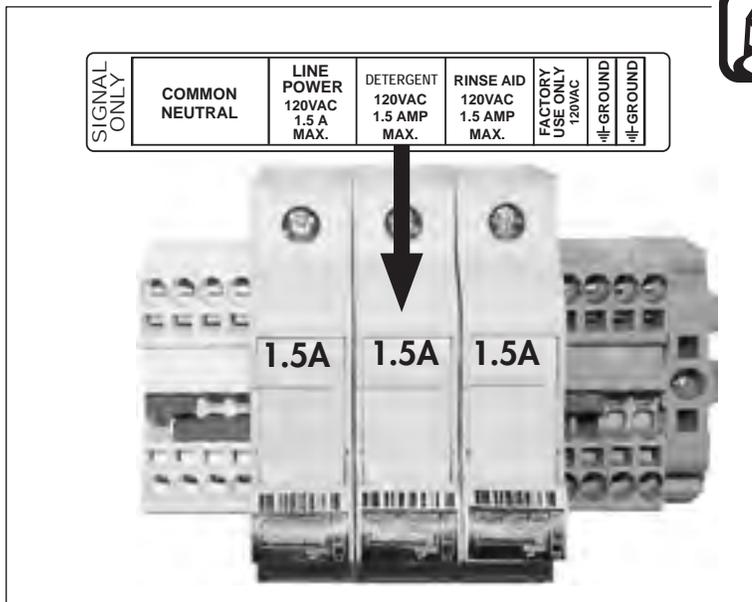


Fig. 16



**NOTE:**  
A fused 120VAC 1.5A Line Power connection is supplied for chemical dispensing equipment if needed.

! THE DETERGENT SIGNAL IS ENABLED THROUGHOUT THE WASH CYCLE.



Fig. 17

## Rinse-Aid Dispenser Connection - Standard Model

**R/A**

! **STD. RINSE / RACK: .85 US GAL / .7 IMP. GAL / 3.2 L  
POT/PAN RINSE / RACK: 1.18 US GAL / .98 IMP. GAL / 4.5L**

! **1/8" NPT PIPE PLUG AT THE REAR OF THE MACHINE  
NEAR THE VACUUM BREAKER FOR RINSE AID INJECTION.**

! **FUSED 120VAC 1.5 AMP MAX. LOAD RINSE AID SIGNAL CONNECTION  
AT LOWER FRONT OF MACHINE BEHIND THE FRONT PANEL.**

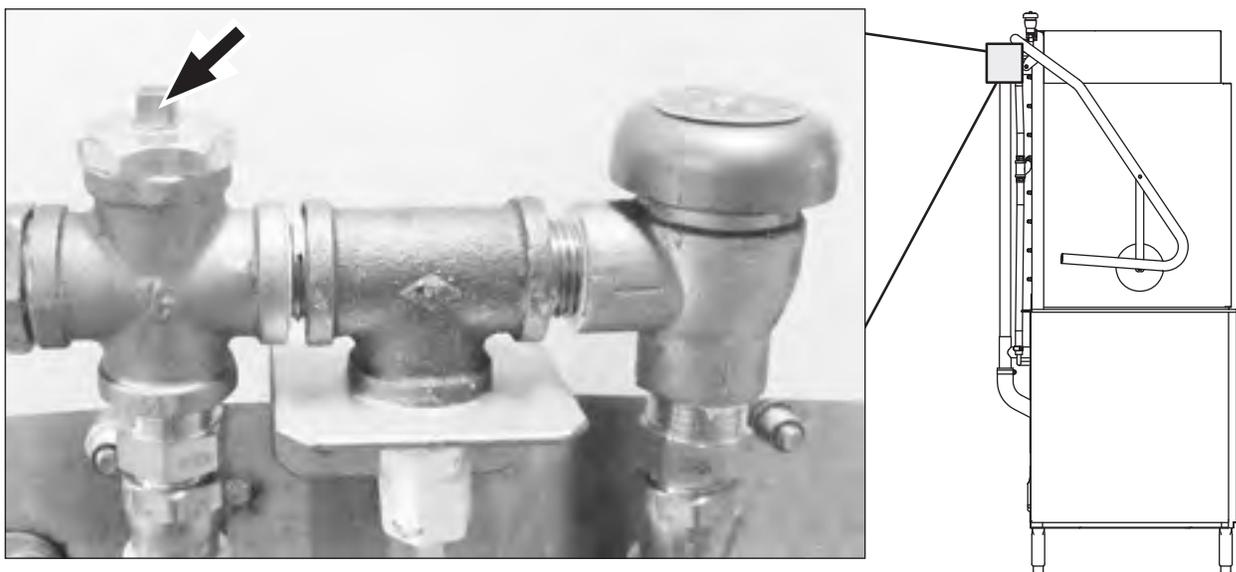


Fig. 18

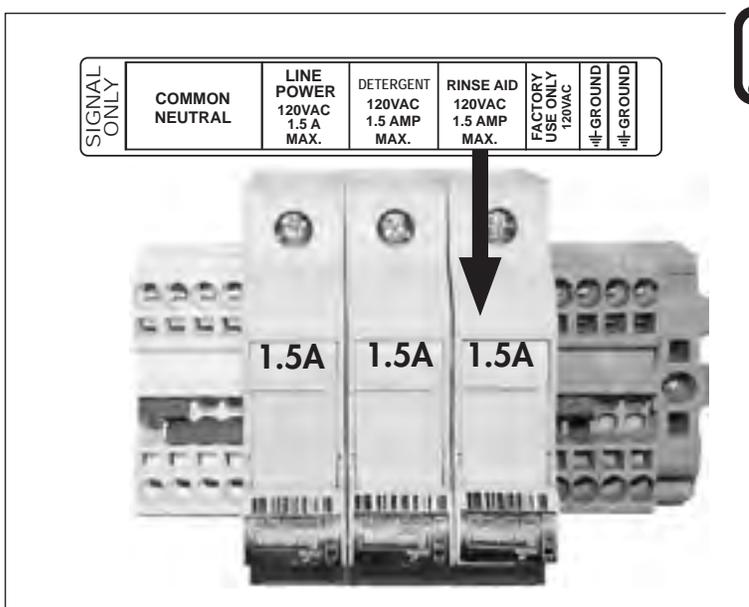


Fig. 19



**NOTE:**  
A fused 120VAC 1.5A  
Line Power connection  
is supplied for chemical  
dispensing equipment  
if needed.

## Operation

### Operation - Control Panel Description

The control panel is located on the front left side of the lower panel. The controls include:

- A - ON/OFF** green power button. Turns power on and off and initiates a drain cycle when the switch is placed in the OFF position.
- B - CYCLE** green indicator light. Illuminates during an automatic timed cycle. The cycle light is off during the 10 minute automatic drain cycle.
- C- CYCLE SELECTION** buttons. Four blue push buttons provide 1 minute, and 1.5 minute total cycle times for normally soiled wares and 4 minute and 6 minute total cycle times for pots, pans and heavily soiled wares.
- D- WASH** digital temperature display. Indicates the wash tank water temperature with green LED's when the wash water temperature is 150°F/66°C.
- E- RINSE** digital temperature display. Indicates the final rinse water temperature with green LED's when the final rinse temperature is 180-195°F/ 82-91°C.
- F- PRESSURE** gauge. Indicates the final rinse water flowing pressure during the final rinse. The proper pressure reading is 20-22 PSI during the final rinse.



**NOTE:** The wash cycle time cannot be changed while the dishwasher is washing.

### Time Cycle Options

CYCLE OPTION	TOTAL CYCLE TIME
<b>Dishwasher Cycle Option 1</b>	<b>Approx. 1 minute</b>
Wash	35 seconds
Rinse	10 seconds
Dwell	15 seconds
<b>Dishwasher Cycle Option 1.5</b>	<b>Approx. 1-1/2 minutes</b>
Wash	65 seconds
Rinse	10 seconds
Dwell	15 seconds
<b>Pot/Pan Cycle Option 4</b>	<b>Approx. 4 minutes</b>
Wash	3-1/2 minutes
Rinse	15 seconds
Dwell	10 seconds
<b>Pot/Pan Cycle Option 6</b>	<b>Approx. 6 minutes</b>
Wash	5-1/2 minutes
Rinse	15 seconds
Dwell	10 seconds

### Control Panel Description

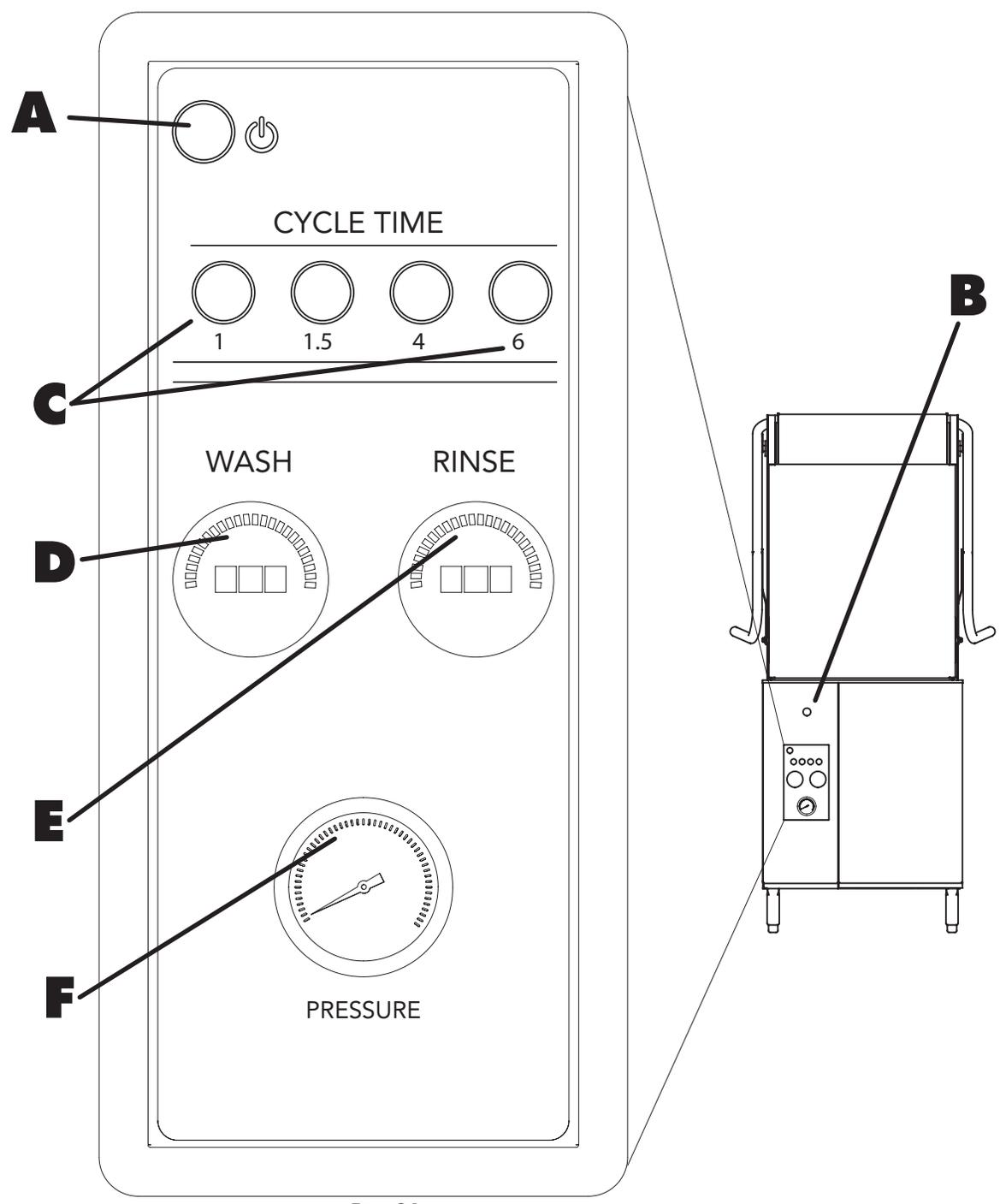


Fig. 21

## Operation - Set-up

- 1 TURN WATER SUPPLY AND MAIN POWER ON.
- 2 INSTALL PUMP STRAINER AND SCRAP SCREENS (See Fig. 22).
- 3 INSTALL UPPER AND LOWER WASH AND RINSE SPRAY ARMS. MAKE SURE THEY SPIN FREELY (See Fig. 23).

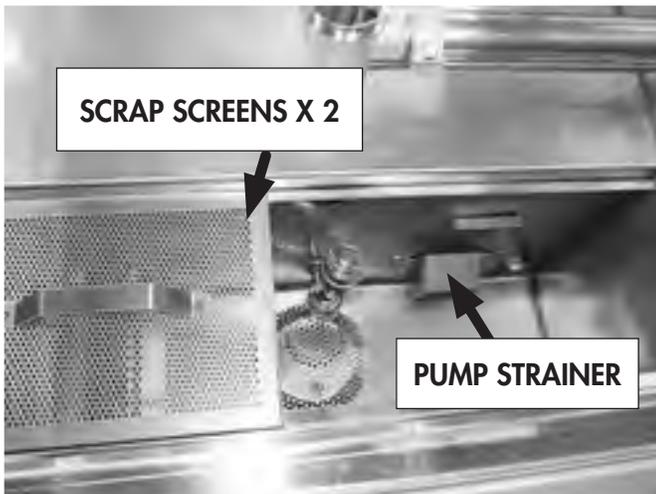


Fig. 22

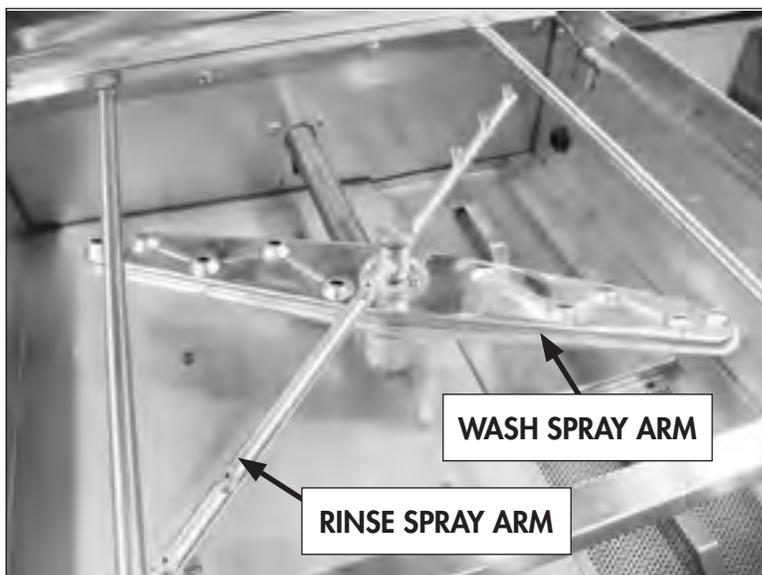


Fig. 23

## Operation - Loading Wares

**1** REMOVE LARGE FOOD PARTICLES AND DEBRIS BEFORE LOADING WARES.

**2** LOAD PLATES IN A PEG RACK, BOWLS AND GLASSES IN A FLAT-BOTTOM RACK.  
LOAD SILVERWARE IN A SINGLE LAYER IN A FLAT-BOTTOM RACK.  
LOAD POTS, PANS, AND UTENSILS UPSIDE DOWN IN A FLAT-BOTTOM RACK.  
LOAD BAKE SHEETS AND TRAYS ON THE SHORT EDGE IN A BAKE SHEET RACK.

**3** DO NOT OVERLOAD RACKS AND ONLY WASH ONE RACK AT A TIME.

**4** NEVER WASH FOREIGN OBJECTS SUCH AS FLOOR MATS, MOPS, OR TOOLS.



**CAUTION:** Ferrous metals in the form of metal scrub pads must not be used to clean wares or dishwasher surfaces. Avoid putting any type of ferrous metal in the machine.

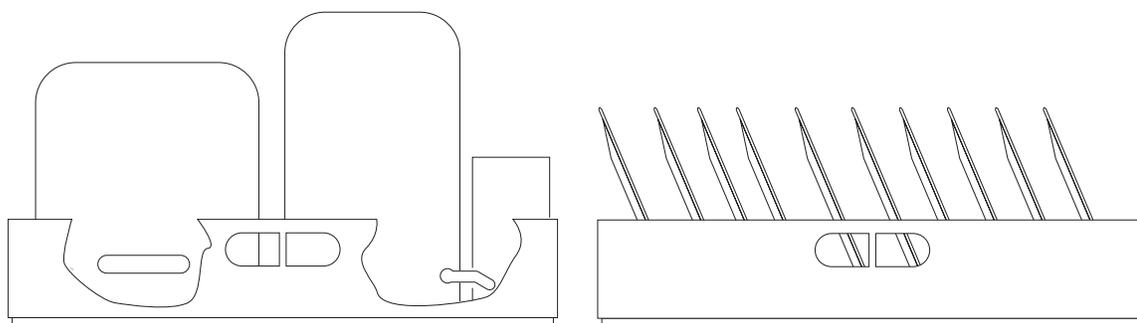


Fig. 24

## Operation - Wash Cycles



**NOTE:** The DH5000T operates as a dishwasher in cycles 1 and 1.5 and as a pot/pan washer in cycles 4 and 5.

CLOSE THE DOOR. PUSH THE POWER SWITCH ON.

- 1 THE POWER SWITCH WILL ILLUMINATE.  
THE MACHINE WILL FILL WITH WATER AUTOMATICALLY.

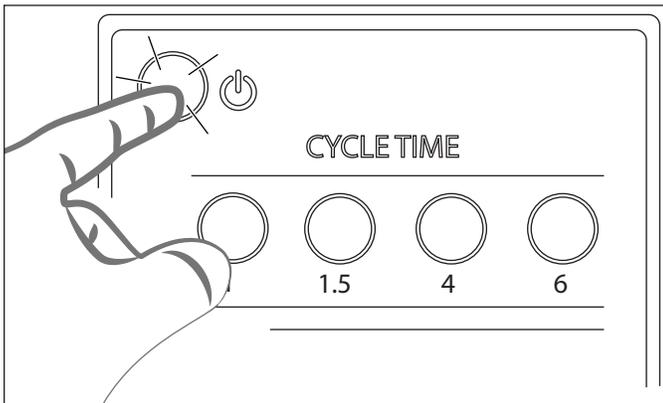


Fig. 25

- 2 WAIT APPROXIMATELY 15 MINUTES UNTIL THE WASH TANK DIGITAL DISPLAY INDICATES 150°F/66°C.

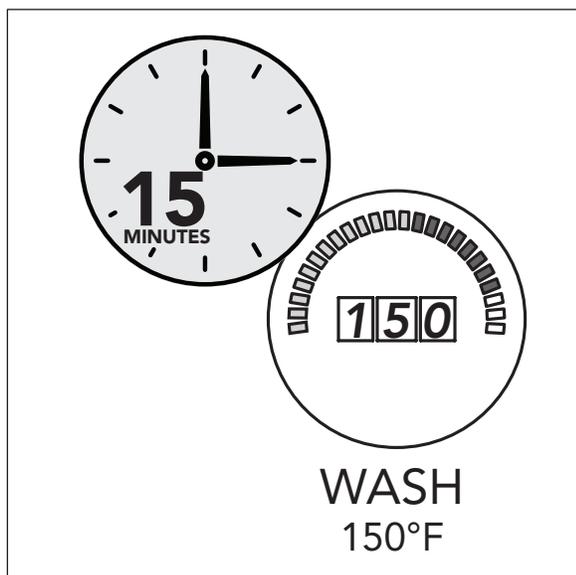


Fig. 26

## Operation - Wash Cycles *(continued)*

**3** PRESS A BLUE TIME CYCLE BUTTON. THE BUTTON ILLUMINATES.

**4** CLOSE THE DOOR. THE GREEN CYCLE LIGHT ILLUMINATES AND THE WASH CYCLE BEGINS. THE WASH CYCLE IS FOLLOWED BY THE FINAL RINSE.

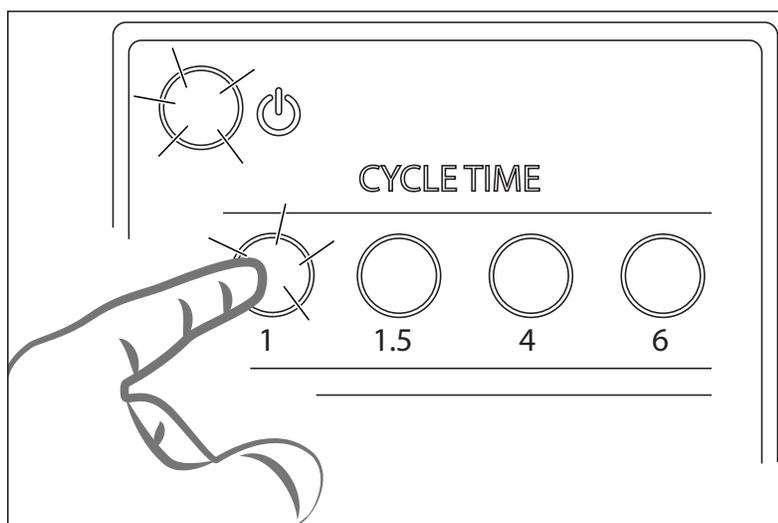
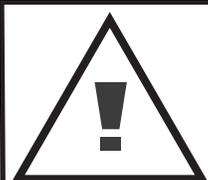


Fig. 27



**IF THE DOOR IS OPENED DURING A CYCLE, THE WASH TIMER WILL RESET AND THE DISHWASHER WILL RESTART THE CYCLE FROM THE BEGINNING.**

## Operation - Wash Cycles *(continued)*

- 7** MONITOR THE FINAL RINSE TEMPERATURE AND PRESSURE DURING THE FINAL RINSE. THE PRESSURE MUST BE A MINIMUM OF 20 PSI AND THE TEMPERATURE MUST BE A MINIMUM OF 180°F/82°C.

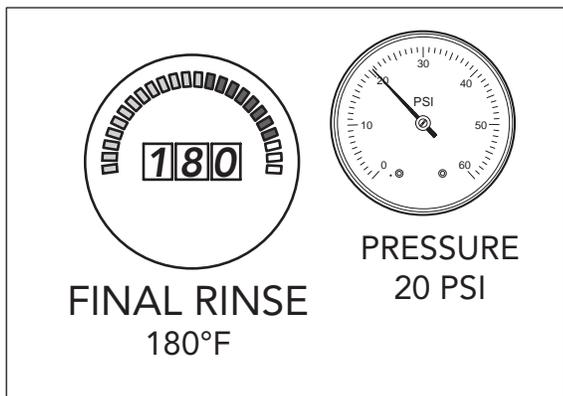


Fig. 28

- 8** THE GREEN CYCLE LIGHT WILL GO OUT WHEN THE FINAL RINSE IS COMPLETE. THE BLUE TIME SELECT BUTTON REMAINS ILLUMINATED. OPEN THE DOOR AND REMOVE THE CLEAN RACK OF WARES. THE MACHINE WILL REPEAT THE TIME CYCLE UNTIL ANOTHER TIME IS SELECTED.



**CAUTION:** Wares and dishwasher surfaces are hot during operation. Be careful when opening the door and loading or unloading dish racks.

## Rinse Sentry Feature

The DH5000T is equipped with the rinse sentry feature that continuously monitors the temperature inside the booster heater to assist in maintaining a final rinse temperature of 180°F/82°C. In the event that the temperature is below 180°F, Rinse Sentry will add a maximum of 5 minutes to the selected wash cycle time.



**NOTE:** Repeated rinse sentry operation may indicate low incoming water temperature. Check the incoming water temperature if required.

## Operation - Automatic Drain Cycle



The DH5000T is equipped with an automatic electrically operated drain valve.

- 1** TO DRAIN THE DISHWASHER:  
OPEN THE DISHWASHER AND REMOVE ALL WARES FROM INSIDE THE MACHINE.
- 2** PUSH THE POWER SWITCH OFF. THE POWER LIGHT WILL GO OUT.  
NOTE: THE GREEN CYCLE LIGHT IS OFF DURING THE DRAIN CYCLE.
- 3** THE DRAIN VALVE WILL OPEN, THE MACHINE WILL DRAIN FOR 10 MINUTES, THE DRAIN VALVE WILL CLOSE AND THE MACHINE WILL POWER OFF.
- 4** PUSHING THE POWER SWITCH ON AND IMMEDIATELY OFF WILL START ANOTHER 10 MINUTE DRAIN CYCLE AND POWER OFF.

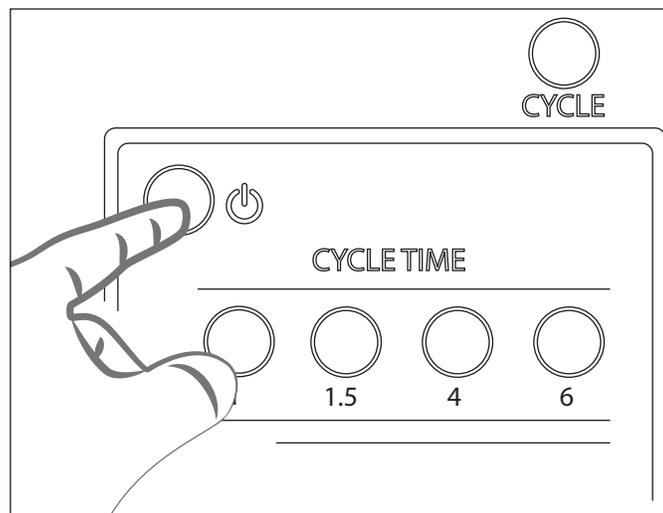


Fig. 29

## Cleaning



**WARNING:**

Dishwasher surfaces can be hot and cleaning chemicals can be caustic to the skin and eyes. Wear protective clothing and eye protection when handling chemicals and cleaning the machine.



CLEAN THE MACHINE AT THE END OF EACH MEAL PERIOD OR AFTER EVERY 2 HOURS OF CONTINUOUS OPERATION AND AT THE END OF THE DAY.

To clean the dishwasher:

1. Push the power button OFF, the light will go out, the electric drain valve will open and the machine will drain. The drain valve will remain open for 10 minutes. Pushing the power button on and immediately off will open the drain valve for another 10 minutes.
2. Open the door and flush the interior with fresh water.
3. Remove the upper and lower wash and rinse spray arms and flush with clean water.
4. Check the rinse spray arm nozzles. If necessary, remove the end plugs and clean the nozzles with a small paper clip to remove lime or other debris. Flush the arms clean and replace the end plugs. See Fig. 30 below.

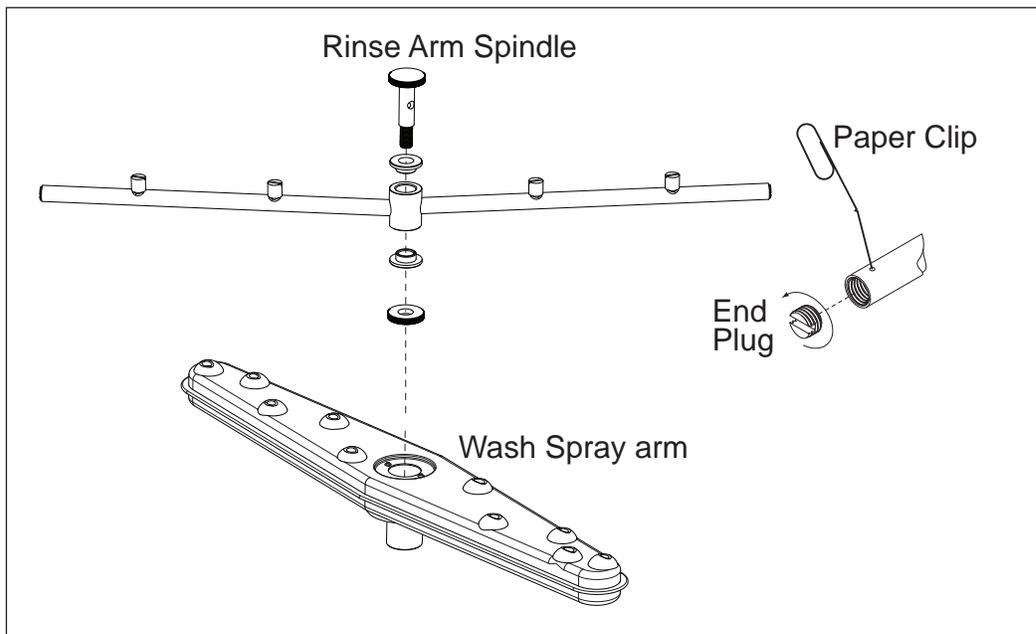


Fig. 30

## Cleaning *(continued)*

5. Remove the scrap screens and pump strainer making sure that debris does not fall out of the screens and into the wash tank. Flush and backflush the screens in a sink. Do not strike the screens against hard surfaces.
6. Clean the round drain screen in the bottom of the wash tank. Clean the float switch. See Fig. 31 below.

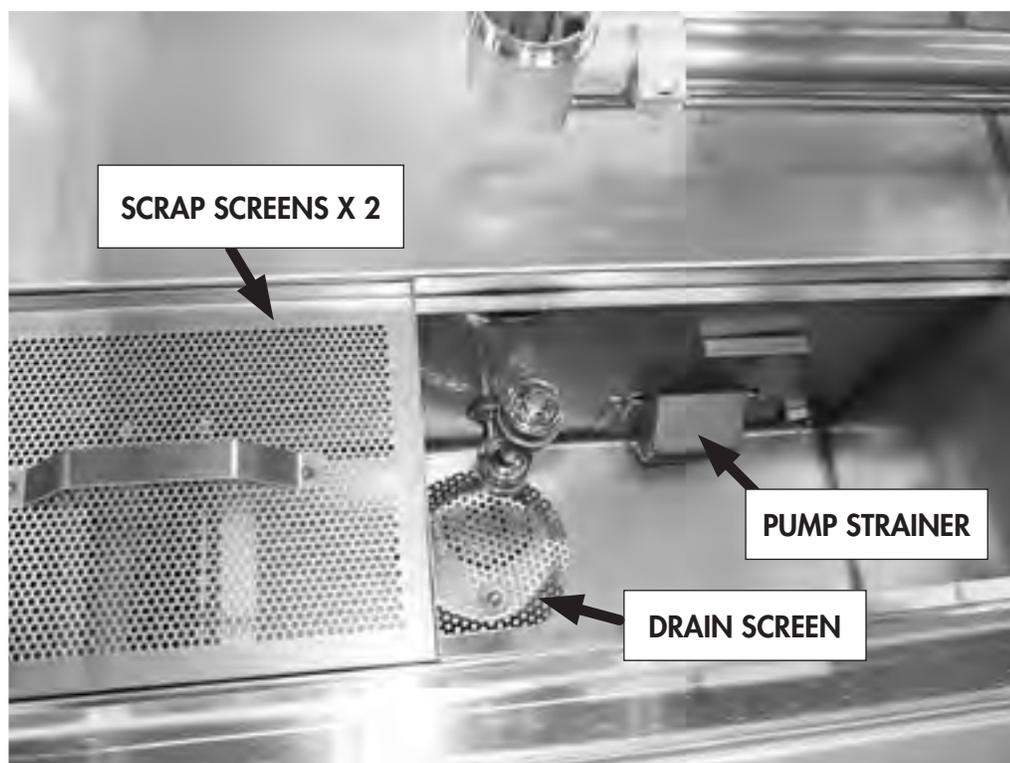


Fig. 31

7. Rinse and drain the machine. Wipe the interior with a soft cloth. Reinstall the scrap screens and spray arms making sure the spray arms spin freely.
8. Wipe the exterior clean with a soft cloth and mild detergent. **DO NOT FLUSH THE EXTERIOR OF THE MACHINE WITH WATER.**
9. Leave the door open to dry the interior of the machine.

## Cleaning - Deliming

Minerals accumulate on the interior surfaces of the dishwasher. The deposits have a white haze and, in cases of heavy accumulation, may appear as a granular solid. The generic name for mineral deposits is lime. The removal of lime deposits is called deliming. The dishwasher should be delimed regularly.



**WARNING:**

Death or serious injury may result when deliming solution is mixed with sodium hypochlorite (chlorine bleach) sanitizing agent. Mixing may cause hazardous gases to form. Deliming solution and other acids must never be mixed with chlorine, iodine, bromine, or fluorine.



**WARNING:**

Deliming solutions can cause severe irritation and possible chemical burns. Always wear protective clothing and goggles when handling chemicals.



**NOTE:** Contact a qualified chemical supplier for deliming chemicals and instructions to delime the dishwasher. Follow all of the chemical supplier's directions making sure to always wear eye protection, rubber gloves and rubber aprons when handling chemicals and deliming the machine.

# Maintenance

## Daily Maintenance

1. Check all of the wash arm and rinse arm spray jets and clean as necessary.
2. Make sure the water supply is on and the drain is not clogged.
3. Check the temperature displays to ensure they are operating.
4. Make sure the dish racks are in good condition.
5. Check the chemical containers and refill as required.
6. Follow the cleaning procedures on pgs. 22-24.

## Weekly Maintenance

1. Perform Steps 1-5 in the Daily Maintenance.
2. Inspect water lines for leaks.
3. Check for water leaks underneath the dishwasher.
4. Make sure the floor drain and/or piping handles the drain water discharge.
5. Make sure the dishwasher is level.
6. Clean accumulated lime deposits from the wash tank heating element.
7. Inspect the scrap screen and replace if damaged.
8. Check the spray arms and replace or repair if damaged.

## Yearly Maintenance

Contact your authorized service agent for a preventive maintenance inspection.

## Lubrication

There are no lubrication points nor schedules for this dishwasher.



**NOTE:** Consult the chemical supplier for dispensing system maintenance.

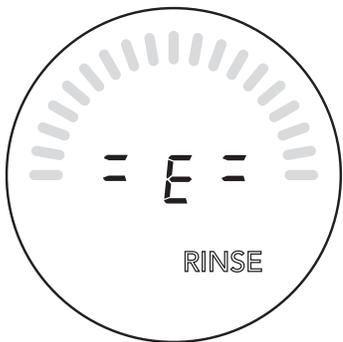
## Troubleshooting

Condition	Cause	Solution
Dishwasher will not run.	Hood not closed. Main power OFF. Dishwasher OFF.	Close Hood completely. Check breaker on panel. Turn dishwasher ON.
Low or no water.	Main water supply is off. PRV setting incorrect. Line strainer clogged. Solenoid valve defective.	Open supply valve. Set to 20-22 PSI flowing. Contact Service Agent. Contact Service Agent.
Chemicals won't feed into dishwasher.	Chemical supply low. Pick-up tube clogged. Supply tubing damaged. Supply tubing kinked.	Refill chemical container. Contact Chemical Supplier. Contact Chemical Supplier. Straighten tubing.
Poor wash results.	Wares incorrectly loaded in dishrack.  Clogged screens. Clogged spray arms.  Chemical injectors not feeding.  Thermostat defective.  Detergent Dispenser defective.  Water temperature low.	Reposition wares or reduce amount of wares.  Clean screens. Clean spray arms.  Contact Chemical Supplier.  Contact Service Agent.  Contact Chemical Supplier.  Contact Service Agent.
Dishwasher stays in wash cycle.	Rinse Sentry extends wash mode to allow final rinse water booster temperature to reach 180°F/82°C.	Contact Service Agent is wash cycle runs for longer than 6 minutes.
Dishwasher will not drain.	Drain screen clogged.  Drain valve defective.  Building drain clogged.	Clean drain screen.  Contact Service Agent.  Contact Building Maintenance.
Condensate Removal Option Model Steam not being vented.	Incoming cold water temp. is above 75°F/24°C.  Incoming water pressure is below 45 PSI flowing pressure at the dishwasher.  Condensate coil or fan defective.	Check incoming water temperature.  Check incoming water pressure.  Contact Service Agent.

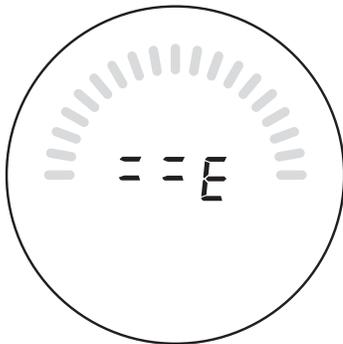
## Troubleshooting - Display Error Codes



Indicates the wash thermistor is defective.



Indicates the final rinse thermistor is defective.

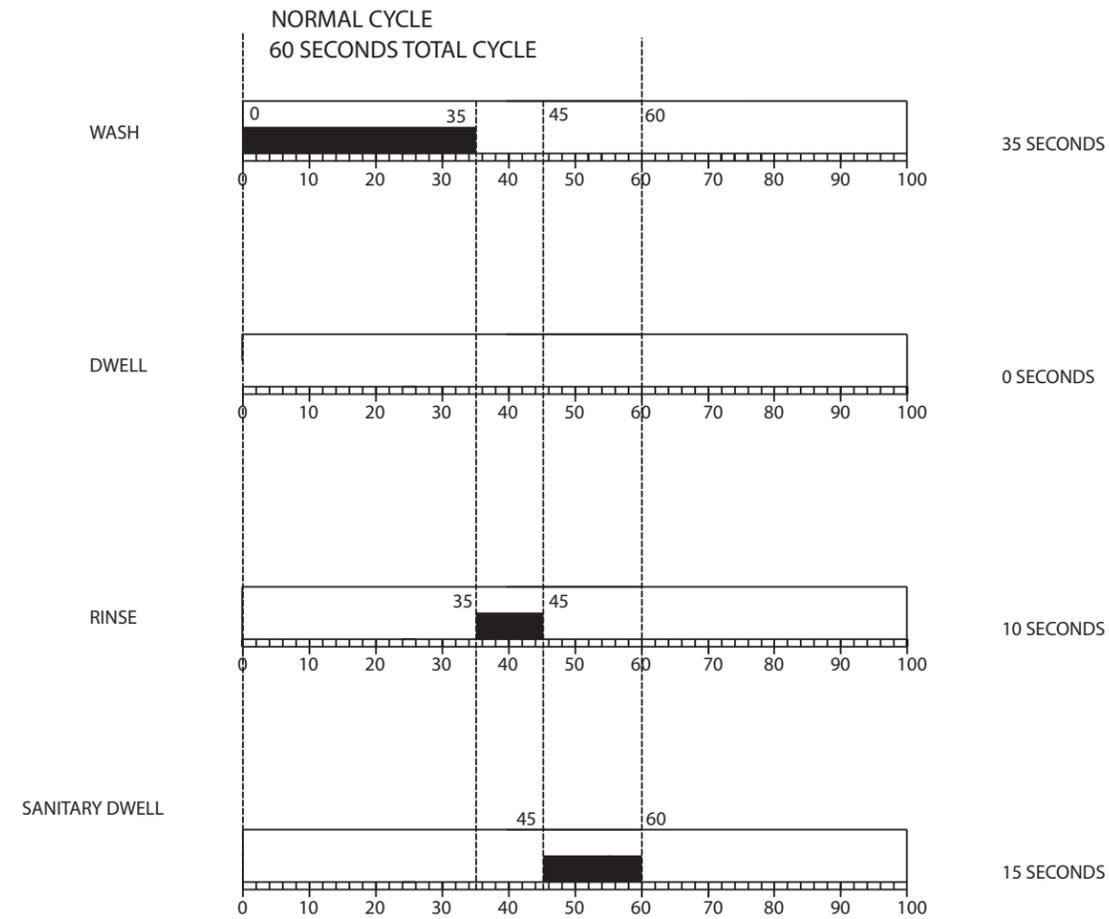


Indicates the booster thermistor is defective.

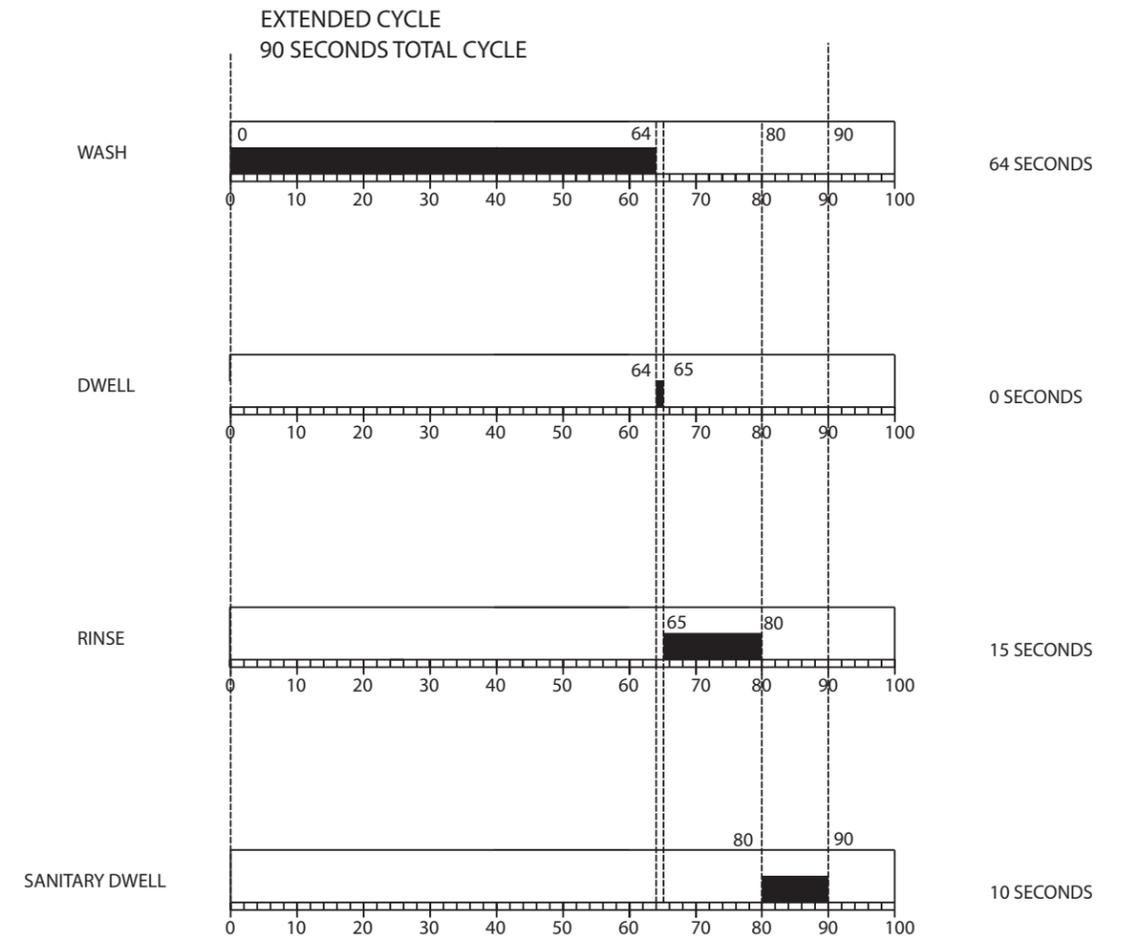
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# TIME CYCLE - Tall Hood-type Series - MODE "B"

DRAWING REPRESENTS ONLY THE STRUCTURE OF TIME CYCLES.  
FOR MODES OF OPERATION SEE DWG# 114470 SHEETS 10-16



**CYCLE# 1:**  
60 SECONDS CYCLE CONSISTING OF:  
35 SECOND WASH,  
0 SECOND DWELL,  
10 SECOND RINSE,  
15 SECOND SANITARY DWELL.



**CYCLE# 2:**  
90 SECONDS CYCLE CONSISTING OF:  
64 SECONDS WASH,  
1 SECONDS DWELL,  
15 SECONDS RINSE,  
10 SECONDS SANITARY DWELL.

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.			
DR. BY	J.MCALLISTER	SCALE	
DATE	2MAR12	SHEET	1 OF 1

REV.	DESCRIPTION	DATE	BY
A	CHANGED RINSE AND DWELL CYCLE TIMES	13AUG12	JAM
B	CHANGED RINSE AND DWELL CYCLE TIMES	19SEP12	JAM

REV.	DESCRIPTION	DATE	BY

<p><b>Champion</b> The Dishwashing Machine Specialists</p>	<b>TIME CYCLES</b> <b>Tall Hood-type</b>	
	<b>B 114470-9</b>	REV. <b>B</b>

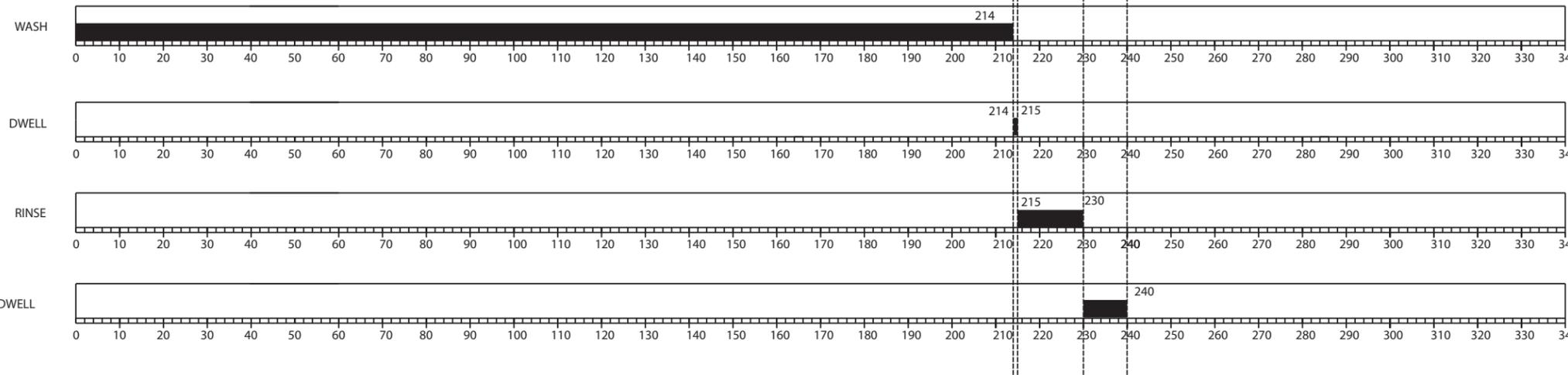
# Tall Hood-type Series - MODE C - TIME CYCLES 3 AND 4

DRAWING REPRESENTS ONLY THE STRUCTURE OF TIME CYCLES 3 AND 4.  
FOR CYCLES 1 AND 2 SEE DWG# 114470 SHEET 9

JUMPER SETTINGS:  
JB1 = OPEN  
JB2 = CLOSED  
JB3 = OPEN

NOTES:  
TRIGGERING EVENT:  
CYCLE SWITCH IN POSITION 1, 2, 3 OR 4  
"CYCLE SWITCH" STATE IS IGNORED DURING CYCLE, IT IS READ AT BEGINNING AT THE CYCLE AND PROPER CYCLE TIME STRUCTURE APPLIED.

## CYCLE 3

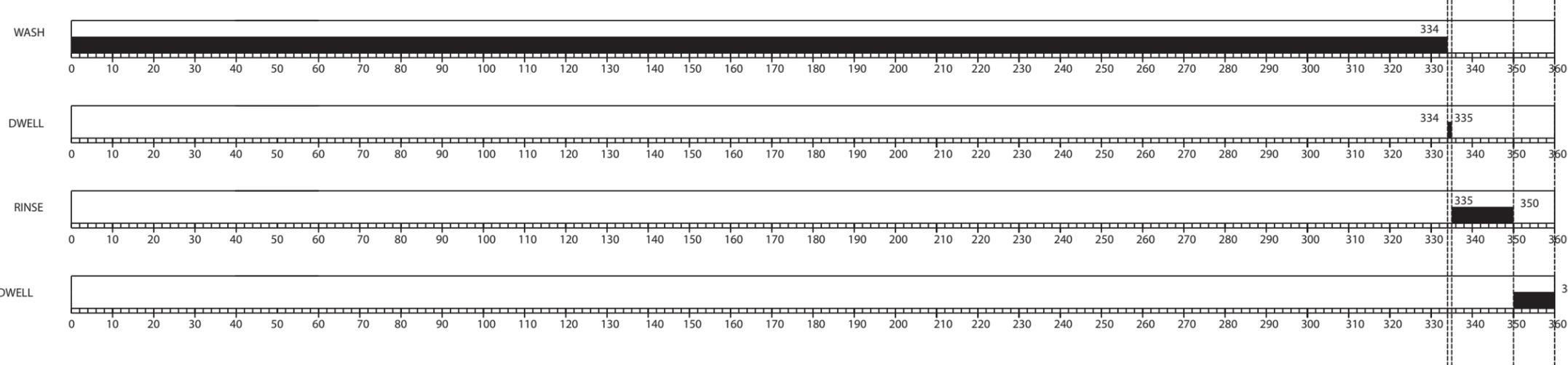


INPUTS  
SOLID LINE INDICATES SWITCH CLOSURE

OUTPUT  
SOLID LINE INDICATES 120VAC COMING OUT OF THE OUTPUT TERMINAL

INITIAL STATE:  
POWER ON  
DOORS OPEN  
TANK FULL

## CYCLE 4



CYCLE 3 4 MINUTE CYCLE (240 SECONDS TOTAL)  
CONSISTING OF: 214 SECOND WASH,  
1 SECOND DWELL,  
15 SECOND RINSE,  
AND 10 SECOND DWELL.

CYCLE 4 6 MINUTE CYCLE (360 SECONDS TOTAL)  
CONSISTING OF: 334 SECOND WASH,  
1 SECOND DWELL,  
15 SECOND RINSE,  
AND 10 SECOND DWELL.

WASH TIMES:  
1 MINUTE = ∞  
90 SECONDS = 0 Ω  
4 MINUTE = 4.7K Ω  
6 MINUTE = 15K Ω

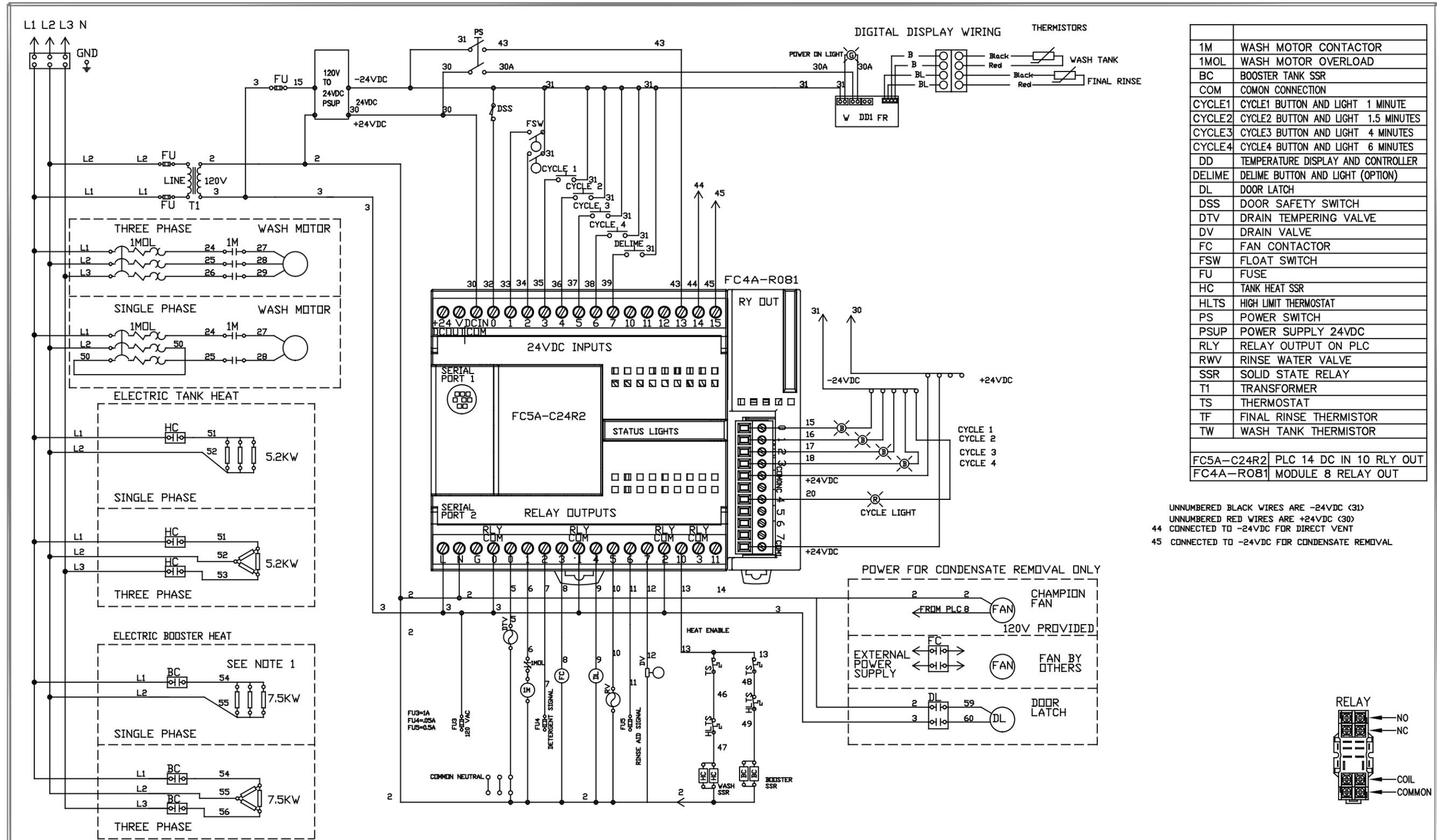
CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.			
DR. BY	J.MCALLISTER	SCALE	
DATE	7MAR12	SHEET	1 OF 1

REV.	DESCRIPTION	DATE	BY
A	CHANGED RINSE AND DWELL CYCLE TIMES	19SEP12	JAM

REV.	DESCRIPTION	DATE	BY

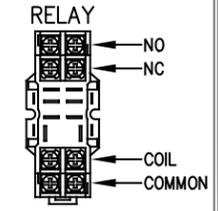


TIME CYCLES Tall Hood-type	
B 114470-17	REV. A



1M	WASH MOTOR CONTACTOR
1MOL	WASH MOTOR OVERLOAD
BC	BOOSTER TANK SSR
COM	COMON CONNECTION
CYCLE1	CYCLE1 BUTTON AND LIGHT 1 MINUTE
CYCLE2	CYCLE2 BUTTON AND LIGHT 1.5 MINUTES
CYCLE3	CYCLE3 BUTTON AND LIGHT 4 MINUTES
CYCLE4	CYCLE4 BUTTON AND LIGHT 6 MINUTES
DD	TEMPERATURE DISPLAY AND CONTROLLER
DELIME	DELIME BUTTON AND LIGHT (OPTION)
DL	DOOR LATCH
DSS	DOOR SAFETY SWITCH
DTV	DRAIN TEMPERING VALVE
DV	DRAIN VALVE
FC	FAN CONTACTOR
FSW	FLOAT SWITCH
FU	FUSE
HC	TANK HEAT SSR
HLTS	HIGH LIMIT THERMOSTAT
PS	POWER SWITCH
PSUP	POWER SUPPLY 24VDC
RLY	RELAY OUTPUT ON PLC
RWW	RINSE WATER VALVE
SSR	SOLID STATE RELAY
T1	TRANSFORMER
TS	THERMOSTAT
TF	FINAL RINSE THERMISTOR
TW	WASH TANK THERMISTOR
FC5A-C24R2	PLC 14 DC IN 10 RLY OUT
FC4A-R081	MODULE 8 RELAY OUT

UNNUMBERED BLACK WIRES ARE -24VDC (31)  
 UNNUMBERED RED WIRES ARE +24VDC (30)  
 44 CONNECTED TO -24VDC FOR DIRECT VENT  
 45 CONNECTED TO -24VDC FOR CONDENSATE REMOVAL



CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR. BY	J. MCALLISTER	SCALE	NONE
DATE	8/10/15	SHEET	1 OF 1

REV.	DESCRIPTION	DATE	BY

REV.	DESCRIPTION	DATE	BY

**Champion**  
The Dishwashing Machine Specialists

DH5000T - TALL HOOD DOOR MACHINE

B	702856-0	REV. 0
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