



# DH3000 | MD2000 PLUS | DHT



INSTALLATION, OPERATION, CLEANING, A<sup>ND</sup> PARTS MANUAL

### DOOR-TYPE HIGH TEMPERATURE DISHWASHER

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



championindustries.com

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### ATTENTION

The machine data plate is located at the front corner of the front panel.





### CAUTION

Only a non-chlorinated commerical dishwashing chemical shall be used in this dishwasher.

### THREE WAYS TO REGISTER YOUR PRODUCT AND ACTIVATE YOUR WARRANTY



Scan the QR code www.championindustries.com/warranty-registration located on the lower front panel of the machine.

### OR



### THREE

Complete the fax form on the next page and fax to (336) 661-1660.

# PRODUCT REGISTRATION BY FAX

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

USA

Canada

Fax: (336) 661-1660

Fax: 1-800-204-0109

Model	Serial #
Date of Installation://	
Company Name:	
Address:	
elephone #: (  )	
Contact:	
Address:	
Telephone #:     (     )	
Contact:	
FAILURE TO REGISTER YOU	R PRODUCT MAY VOID YOUR WARRANTY

# **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 USA and 1-800-263-5798 in Canada.

REVISION DATE	REVISED PAGES	SERIAL NUMBER EFFECTIVITY	
04.25.25	All	All	Released First Edition
05.02.25	3-4 78	All	Added Product Registration by Fax Updated Electrical Schematic

# LIMITED WARRANTY

Champion Industries, Bi-Line Systems (herein referred to as ("The Companies"), 3765 Champion Blvd., Winston-Salem, North Carolina, 27105) 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 Bi-Line and installed within the United States to be free from defects in material and workmanship for a period of one (1) year from the date of installation or fifteen (15) months from the date of shipment by The Companies, whichever occurs first. This Limited Warranty does not cover products shipped outside of the United States. The warranty registration card must be returned to The Companies within ten (10) days after installation or registered online at www. championindustries.com/warranty-registration for the United States; or by fax using the form provided at the front of this manual. If the warranty card, fax, or email are not sent to The Companies within fifteen (15) days, then the warranty will expire after fifteen (15) months from the date of shipment. The Companies will not assume any responsibility for additional installation costs in any area with jurisdictional problems with local trades or unions. The Companies reserves the right to repair or replace a defective part or the entire machine, if a defect in workmanship or material is identified within the warranty period. Alternatively, The Companies may elect to accept the return of the machine for a full credit. In the event If The Companies elect to repair then the labor and work performed in connection with the warranty shall be done by The Companies' authorized service agent during regular working hours and at regular labor rates. Overtime charges are the responsibility of the equipment purchaser. Warranty travel is be covered up to fifty (50) miles from the authorized service technician's servicing office. If travel exceeds fifty (50) miles, the end user will be responsible for any additional travel expense. Service calls initiated under warranty and found not to contain any defects in materials or workmanship, will not be covered by The Companies warranty. Defective parts become the property of The Companies. Use of non-OEM 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 charge for the machine. Machines that come with a factory-paid start-up will be limited to one (1) authorized service call for start-up. Installation problems or delays, of any kind, will not be covered by The Companies' warranty and will be the sole responsibility of the equipment purchaser.

#### THE WARRANTY DOES NOT COVER:

- a. Chemical tubing, chemical squeeze tubes, O-rings, or curtains.
- b. Vacuum breakers.
- c. Adjustments to structural or mechanical components covered by recommended maintenance procedures.
- d. Replacement of fuses, resetting of overload breakers, or high-limit thermostats.
- e. Adjustments of thermostats or other temperature controlling devices.
- f. Adjustments of clutches.
- g. Adjustments of water pressure(s).
- h. Adjustments of factory chemical pumps and settings.
- i. Opening or closing of utility supply valves or switching of electrical supply current.
- j. Cleaning of valves, strainers, screens, nozzles, or spray pipes.
- k. Regular maintenance and cleaning as outlined in the operator's guide.

- Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, under or over voltage conditions, power surges, inadequate wiring, outdoor use, or failure to follow maintenance and operation procedures.
- m. Pulper cutter blocks, pulse vanes, and auger brush due to wear and tear.
- n. Damages due to improper storage.
- Special installations or applications, including remote locations, are limited in coverage by this warranty.
- p. Any installation that requires additional work and/or travel to gain access to a machine for service is the sole responsibility of the equipment purchaser.

#### THE FOLLOWING DEFECTS ARE NOT COVERED BY THE WARRANTY:

- 1. Damage to the exterior or interior finish.
- 2. Damage caused by improper connection to utility service other than that designated on the rating plate.
- 3. Inadequate or excessive water pressure.
- Corrosion due to foreign materials, improper water supplies, improper chemicals, or chemicals dispensed in excess of recommended concentrations.
- 5. Failure of components due to the connection of third-party chemical dispensing equipment installed by others.
- 6. Leaks and damage due to the use of non-specified water quality.
- 7. Leaks and damage caused by the installer, including machine table connections.
- 8. Leaks or damage caused by chemical dispensing equipment connections installed by others.
- 9. Failure to comply with all local building codes.
- 10. 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 ninety (90) days from the date of invoice. If any parts defect in material and workmanship is found to exist within the warranty period, then The Companies will refund the cost of the defective part.

#### 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 MACHINES AND PARTS OF THE COMPANIES. ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.

Champion Industries or Bi-Line Systems does not authorize any other person, including persons who deal in Champion Industries or Bi-Line Systems machines, to change this warranty or create any other obligation in connection with Champion Industries or Bi-Line Systems machines.

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# SYMBOLS AND CODES



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# RECEIVING

- 1. Inspect the outside of the dishwasher carton for signs of damage.
- 2. Remove the carton and inspect the dishwasher for damage.
- 3. Check for any accessories that may have shipped with your dishwasher.
- 4. Turn to page 3 of this manual and register your warranty via the website URL or QR code to validate your warranty.
- 5. Move the dishwasher near its permanent location.

### CAUTION

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

(section end)

# PLACEMENT

- 1. Compare the installation site utility connections with the dishwasher utility connections and make sure that they are the same.
- 2. Place the dishwasher in its permanent location.
- 3. The dishwasher has 4 adjustable feet for leveling (see Fig. 2).



Fig. 2 - Leg Adjustment

- 4. Level the dishwasher front-to-back and side-to-side.
- 5. The dishwasher can be installed in a straight-through or a corner configuration.



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# PLACEMENT (CONT.)

- 6. The typical dishwaher load height is 33<sup>3</sup>/<sub>4</sub>" [86cm] (see Fig. 3).
- 7. The machine height is 65<sup>1</sup>/<sub>4</sub>" [166cm].
- 8. The dishwasher doors require an open height of 76<sup>3</sup>/<sub>4</sub>" [195cm] and 86" [218cm] for door removal.



Fig. 3 - Dishwasher Dimensions in Inches and Centimeters

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### CONVERTING STRAIGHT-THROUGH OPERATION TO CORNER OPERATION

### NOTE

Dishwashers are shipped from the factory for Straight-through operation. Refer to the diagrams below and on the next page to convert a Straight-through operation machine to a Corner operation machine. Dish racks enter and exit the sides of a straight-through machine. Dish racks enter the side and exit the front of corner operation machine.

### TO CONVERT THE DISHWASHER FOR CORNER OPERATION

- 1. Convert dishwasher before it is placed in its final position and before connecting utilities.
- 2. The LCD display must be clearly visible to the operator when facing the front of the machine. In addition, the door handles should move freely without interference from walls or other obstructions. The minimum wall clearance is 4" [102mm].
- 3. Position the dishwasher as shown below and refer to the next page for instructions on changing the dish rack guides and door operation (see Fig. 4, Fig. 5, and Fig. 6).



Fig. 4 - Correct Orientation for Straight-through Operation



Fig. 6 - Correct Orientation for Corner Operation



**Fig. 5** - Incorrect Orientation for Corner Operation – Does not allow access to service critical components

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### CONVERTING STRAIGHT-THROUGH OPERATION TO CORNER OPERATION (CONT.) TO CONVERT TRACK GUIDES AND DOOR-LIFT FOR CORNER OPERATION

- 1. Remove the rack guide (A); save the fasteners. Move (A) and re-attach as shown (see Fig. 7).
- 2. Slide a dish rack through the machine to check the guide to dish rack clearance. The dish rack should move smoothly without binding or tipping on the guides.
- 3. Disconnect the door-lift bracket (B) connecting the front door and the wall-side door and discard. To seal the holes, re-install the bolts and lockwashers that held the bracket (see Fig. 8).



Fig. 8 - Door-lift Bracket (B) Removal

4. Disconnect the door linkage arm (C) from the wall-side door and discard. Re-install the white roller (D) and hardware (see Fig. 9).



Fig. 9 - Door Linkage Arm (C) Removal & White Roller (D)

- 5. Disconnect the door linkage arm (C) from the other door but do not discard.
- 6. Lift the handle up and back until the springs relax.
- Adjust the door spring hooks (E) located at the rear of dishwasher to reduce door spring tension until the front and side doors open and close without binding (see Fig. 10).



Fig. 10 - Door Spring Hooks (E) Tension Adjustment



Fig. 7 - Rack Guide (A) Relocation

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# **ELECTRICAL CONNECTIONS**

### WARNING

Electrocution or serious injury may result when working on an energized circuit. Disconnect power at the main breaker or service disconnect switch before working on the circuit. Lock-out or tag the breaker to indicate that work is being performed on the circuit.



### CAUTION

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

### **THREE PHASE CONNECTIONS**

Standard Dishwashers are shipped from the factory for 3-phase operation. To connect the dishwasher for 3-phase operation:

- 1. Remove the front panel and locate the main terminal block in the lower right corner of the panel (see Fig. 11).
- 2. Refer to the Machine Electrical Connection Data Plate located near the main terminal block and make sure that the incoming power supply matches the machine's electrical requirements.
- 3. Connect the incoming 3-phase power as shown (see Fig. 12).



Fig. 12 - Three Phase Power Connection 208-240V/60/3

4. Re-install the lower front panel.





Fig. 11 - Main Terminal Block Location

### **3-PHASE TO 1-PHASE CONVERSION**

A standard 3-phase operation dishwasher can be converted for 1-phase operation with the installation of a jumper wire on the main terminal and rewiring of the wash tank and booster tank heaters.

#### NOTE

A jumper wire, additional jumper bars and a new data plate are stowed in the literature package.

To convert the dishwasher from 3-phase to 1-phase operation:

### **INSTALL MAIN TERMINAL BLOCK JUMPER WIRE**

1. Disconnect all power to the machine.

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- 2. Remove the front panel cover and locate the main terminal block located in the lower right corner of the panel.
- 3. Connect the jumper wire (shipped inside) between L2 and L3 on the output side of the main terminal block (see Fig. 13).
- 4. Connect the 1-phase incoming power supply to L1 and L2 on the input side of the main terminal block.

### **REWIRE WASH TANK HEATER ELEMENT FOR 1PH**

- 1. Remove lower front panel.
- 2. Remove paper insulator and jumper bars from heater terminals.
- 3. Reposition jumper bars for 1PH as shown (see Fig. 14).
- 4. Connect the #33 wire to one element terminal as shown.
- 5. Connect the #34 and #35 wires to the other terminals as shown.
- 6. Reinstall paper insulator and the junction box cover.

#### CAUTION

Verify there is a paint mark on the booster heater element before making change (see Fig. 15). If mark does not exist, contact factory.

### **REWIRE BOOSTER HEATER ELEMENT FOR 1PH**

- 1. Remove paper insulator and jumper bars from the heater terminals.
- 2. Install jumper bars for 1PH as shown below.
- 3. Connect the #36 wire to one element terminal as shown (see Fig. 16).
- 4. Connect the #37 and #38 wires to the other terminals as shown.
- 5. Reinstall paper insulator and the booster heater element cover.

### AFFIX NEW DATA PLATE ON TOP OF EXISTING MACHINE DATA PLATE TO COMPLETE CONVERSION



Fig. 13 - Single Phase Power Connection 208-240V/60/1



Fig. 14 - Reposition Jumper Wires for 1PH Wash Tank Heater Element



Fig. 15 - Marked Booster Heater Element



Fig. 16 - Reposition Jumper Wires for 1PH Booster Heater Element

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# HOT WATER CONNECTION

### HOT WATER

Requires a minimum 3/4" NPT hot water supply line.

### WATER HARDNESS

3 Grains/US Gal. / 0.83 Imp. Gal / 5.3 mg/L or less

### 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.

### MINIMUM / MAXIMUM INCOMING TEMPERATURE

110-140 °F / 43-60 °C

The hot water connection is located at the lower left-rear side of dishwasher (see Fig. 17).

The temperature of the incoming hot water must maintain a minimum temperature of 140 °F / 60 °C for a 40 °F / 22 °C rise booster or a minimum temperature of 110 °F / 43 °C for a 70 °F / 39 °C rise booster.

### MINIMUM INCOMING SUPPLY FLOWING PRESSURE

20 PSI / 138 kPa

A 3/4" line strainer and pressure regulating valve (PRV) were installed at the factory.

- 1. To increase pressure, loosen locknut then tighten the PRV adjusting screw; to decrease presure, loosen the PRV adjusting screw (see Fig. 18).
- 2. Adjust the PRV to supply a minimum flowing pressure of 20 PSI / 138 kPa during the final rinse. The maximum flowing pressure must not exceed 25 PSI / 172 kPa during the final rinse (see Fig. 19).

### INSTALL FULL PORT SHUT-OFF VALVE



Fig. 18 - PRV Adjusting Screw

Fig. 19 - Gauge Face

**Final Rinse** 

Pressure

20-25 PSI

A manually operated 3/4" or larger full port shut-off valve should be installed in the incoming water supply line as close to the dishwasher as possible for servicing.



Fig. 17 - Incoming Hot Water Supply



# **DRAIN CONNECTION**



# **OPTIONAL ELECTRIC DRAIN WATER TEMPERING (DWT)**



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### **COLD WATER**

Requires a minimum 1/2" NPT <u>DEDICATED</u> cold water supply line.

### CAUTION

The cold water supply line must be a dedicated supply connection. Do not connect the drain water tempering valve to a branch supply line.

### **MINIMUM / MAXIMUM INCOMING TEMPERATURE**

55-75 °F / 13-24 °C

### WATER HARDNESS

3 Grains/US Gal. / 0.83 Imp. Gal / 5.3 mg/L or less.



Fig. 21 - Electric Drain Water Tempering Valve

### 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.

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# **OPTIONAL PUMPED DRAIN WATER TEMPERING (DWT)**



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# **OPTIONAL PUMPED DRAIN WATER TEMPERING (CONT.)**

### **ASSEMBLY INSTRUCTIONS**

# DRAIN WATER TEMPERING VALVE ASSEMBLY

- 1. Assemble the drain water valve parts (see Fig. 23).
- 2. Mount assembly (see Fig. 24) using wall bracket. (Fasteners supplied by others.)
- 3. Install 1" drain hose (5 ft. supplied) to 1" side of cast Tee-fitting.
- 4. Install 3/4" drain hose from machine to 3/4" side of cast Tee-fitting.
- 5. Install WYE fitting in a vented drain line.
- 6. Install 3/4" NPT hose barb adapter fitting into WYE fitting.
- 7. Connect 1" drain hose (5 ft. supplied) to WYE fitting.
- 8. Connect dedicated 1/2" NPT cold water supply to Line Strainer.



Fig. 23 - Drain Water Tempering Components

### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	102397	BUSHING, REDUCING, 1"NPTx3/4"NPT, SST	1
2	102485	NIPPLE, 1/2" NPT X 1-1/2" LG., BRASS	2
3	102514	TEE, 1/2" NPT, BRASS	1
4	105993	CLAMP, HOSE, M20, 19/44, SST GEAR TYPE	3
5	111779	BALL VALVE, 1/2" NPT BRONZE, FXF	1
6	116575	BARB HOSE ST 3/4MPTx1" H SST	1
7	116777	WYE, 1-1/2" SCH-80 PVC GRAY	1
8	117009	HAMMER ARRESTOR, SIOUX CHIEF	1
9	117393	CHECK VALVE DUAL, WATTS 1/2" FNPT	1
10	117885	DRAIN TEMPERING VALVE SUPPLIED	1
11	117886	DRAIN TEMPERING VALVE STRAINER SUPPLIED	1
12	117887	DRAIN TEMPERING VALVE NIPPLE W/FLOW DISC SUPPLIED	1
13	207960	HOSE, DWT OUTLET, PUMPED DRAIN, DM	1
14	332454	BRACKET, 1/2" PIPE SUPPORT, 3" CL	1
15	341557	BRACKET, DWT MECH VALVE SUPPORT, 3" CL	1
16	0514382	HOUSING, CAST TEE DRAIN WATER TEMPERING, KIT	1

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# **OPTIONAL PUMPED DRAIN WATER TEMPERING (CONT.)**



Fig. 24 - Drain Water Tempering Valve Assembly

# **VENT FAN CONTROL SUPPLIED BY OTHERS**

The standard dishwasher is equipped with a fused signal connection for an external vent fan contactor (supplied by others).



### CAUTION

The 120VAC signal is limited to a 1.0 AMP maximum load. Do not connect a vent fan motor to the signal connection terminals.

### NOTE

The 120VAC signal is available whenever the dishwasher green power switch is ON.

To connect the external vent fan contactor:

- 1. Disconnect all power to the machine.
- 2. Remove the top cover panel and locate the three fuse blocks on the machine base.
- 3. Connect one wire of the external vent fan contactor to the FAN SIGNAL fuse block.
- 4. Connect the other wire to a COMMON NEUTRAL terminal (see Fig. 25).
- 5. Connect the external vent fan contactor coil wires.
- 6. Re-install the top cover panels.
- 7. Restore power to the machine.



Fig. 25 - Vent fan signal connection

# **DETERGENT DISPENSING SYSTEM BY OTHERS**

### WASH TANK CAPACITY

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10 US Gal. / 8.3 Imp. Gal / 38 L

### TWO 7/8" DIAMETER HOLES ON RIGHT-SIDE OF TANK

Top hole is detergent injection port (see Fig. 26).

Bottom hole is tank sensor port (see Fig. 26).

### ATTENTION

Warewashing chemicals are supplied by others. Always follow supplier's instructions for proper handling and use.

CAUTION

Only a non-chlorinated commercial dishwashing chemical shall be used in this dishwasher.



Fig. 26 - Injection and tank sensor ports (if equipped)

(section end)

# DETERGENT SIGNAL FOR DISPENSING SYSTEM BY OTHERS

### **120VAC FUSE BLOCK**

### CAUTION

The 120VAC signal is limited to a 2.0 AMP maximum load. Do not connect a vent fan motor to the signal connection terminals.

Located in the upper cabinet on the left side of the panel

Signal enabled during wash cycle



Fig. 27 - Vent fan signal connection

# CHANGE SCREEN DISPLAY LANGUAGE: ENGLISH AND FRENCH

- 1. Toggle Dip Switch 5 to the closed position on the circuit board to change the screen display language to French (see Fig. 28 and Fig. 29).
- 2. Toggle Dip Switch 5 to the open position to change screen display language to English.







Fig. 29 - Circuit Board Dip Switch 5

3. The LCD screen will display dishwasher status in French if Dip Switch 5 is in the closed position. See Fig. 30 below for French language screens of those found in the Operation section (see page 34) and Cleaning and Maintenance section (see page 42).



Fig. 30 - French Display Screens

# CHANGE SCREEN DISPLAY TEMPERATURE: FAHRENHEIT AND CELSIUS

- 1. Toggle Dip Switch 6 to the closed position on the circuit board to change the screen display temperature to Celsius °C (see Fig. 28 and Fig. 31).
- 2. Toggle Dip Switch 6 to the open position to change screen display temperature to Fahrenheit °F.



Fig. 31 - Circuit Board Dip Switch 6



Dip Switches 1-4 are factory configured and should not be switched from default positions.

Dip Switches 5-6 are user configurable.

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Dip Switches 7-8 should be avoided by user.

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# **INITIAL START-UP**



### **INITIAL START-UP**

# **INSTALLATION CHECK LIST**

- 1. Remove any protective film from dishwasher. Check the interior for foreign material.
- 2. Make sure that the dishwasher is permanently located.
- 3. Make sure that all utility connections are complete.
- 4. Make sure that the chemical supply containers are full.
- 5. Make sure that the pump suction screen is in place (see Fig. 32).
- 6. Make sure the drain screen is clean and unobstructed by debris (see Fig. 33).





Fig. 32 - Pump suction strainer

Fig. 33 - Unobstructed drain screen

7. Make sure the scrap screen plate and scrap screens are installed and firmly seated. The screen plate is mounted in the center of the wash tank and locks in a slot on the back screen support (see Fig. 34 and Fig. 35).



Fig. 34 - Center mounted scrap screen plate separating scrap screens.



Fig. 35 - Place scrap screens

- 8. Make sure that the spray arms are in place and that they spin freely.
- 9. Fully close the dishwasher door.
- 10. Turn hot water supply on and check for leaks in the main water supply piping connected to the dishwasher.

### IMPORTANT

During the initial fill, adjust the PRV to ensure that the flowing pressure of the incoming water is set between 20-25 PSI.

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# **OPERATION**

LOADING WARES	
MACHINE CONTROLS	
LCD DISPLAY SCREEN	
CYCLE TIME	
OPERATION SEQUENCE	
Start-up Steps	
Ware Washing Steps	
RINSE SENTRY	
VARICYCLE	



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# **LOADING WARES**

- 1. Wares should be scrapped and rinsed to remove large food particles and debris prior to loading into dishwasher (see Fig. 36).
- 2. Load plates in peg racks, bowls and cups in flat-bottom racks, and glasses in a glass rack (see Fig. 36).



Fig. 36 - Scrap and rinse wares

3. Load silverware in a single layer in a flat-bottom rack.

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- 4. Load pots, pans, and utensils upside down in a flat-bottom rack.
- 5. Load bake sheets and trays on the short edge in a bake sheet rack.



Do not overload dish racks and only wash one dish rack at a time.

### CAUTION

Never use warewashing machine to wash objects such as mops, floor mats, or other foreign materials.

### OPERATION

# **MACHINE CONTROLS**

The pressure gauge is located at the top of the machine. The control panel is located on the front of the control cabinet (see Fig. 37).

- A. Pressure Gauge Displays the incoming water pressure
- B. Push Button Power Switch Powers off display, heaters and opens drain
- C. LCD Display Screen Shows machine status and time cycle info
- D. Push Button Varicycle Switch Extends wash cycle up to 16 minutes.



Fig. 37 - DH3000 / MD2000 PLUS / DHT Control Cabinet

(section end)

## LCD DISPLAY SCREEN

1. Displays DOOR OPEN when machine is idle and the door is open.

The tank symbol will show low water level when float is down and full water level when float is up. W and heat symbol indicate wash heat. Heat image is red when wash heater is energized and dark gray when de-energized. B and heat symbol indicate booster heat. Heat image is red when booster heater is energized and dark gray when de-energized (see Fig. 38).

2. Displays READY when machine is full and door is closed (see Fig. 39).

3. Displays FILLING when machine is filling. Water droplets simulate

water flow (see Fig. 40).



Fig. 38 - Door Open Screen



Fig. 39 - Ready Screen





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# LCD DISPLAY SCREEN (CONT.)

4. Displays WASH during wash state and wash tank temperature (see Fig. 41).

5. Displays VARICYCLE if machine enters Varicycle during wash state (see Fig. 42).

6. Displays RINSE during rinse state and rinse tank temperature. Water droplets simulate water flow (see Fig. 43).

7. Displays DWELL during dwell state and time remaining in seconds (see Fig. 44).

8. Displays TEMPERATURE SET POINTS in temperature set point mode (see Fig. 45).



Fig. 41 - Wash Screen



Fig. 42 - Varicycle Wash Screen



Fig. 43 - Rinse Screen



Fig. 44 - Dwell Screen



Fig. 45 - Temp Set Points Screen

# CYCLE TIME

DH3000 / MD2000 PLUS / DHT cycle is approximately 1 minute and consists of a wash, dwell, rinse and sanitary dwell time. If the Varicycle button is pressed during a wash cycle, the display will indicate machine is in Varicycle mode and the wash cycle timer is now set to 16 minutes. If the Varicycle button is pressed for a second time during a wash cycle, Varicycle is removed from the display and machine immediately progresses to rinse and sanitary dwell cycles (unless the wash cycle is less than 40 seconds: the machine is allowed to finish the remainder of the 40 second wash cycle before progressing to rinse and sanitary dwell).

DH3000 / MD2000 PLUS / DHT Cycle Approx. 1 minute	DH3000 / MD2000 PLUS / DHT Cycle Times
Wash (displayed WASH)	35 seconds
Dwell (not displayed)	1 second
Rinse (displayed RINSE)	7 seconds
Sanitary Dwell (displayed DWELL)	17 seconds

(section end)

# **OPERATION SEQUENCE**

### **START-UP STEPS**

- 1. Turn the main power on at the main circuit breaker.
- 2. Make sure the spray arms and the scrap screens are in place.
- 3. Turn the water supply on.
- 4. Close the dishwasher front door.
- 5. Check the chemical levels in the containers.
- 6. Push the green power button on. The power button will illuminate and the machine will fill with water (see Fig. 46).
- 7. FILLING is displayed as machine fills automatically.
- 8. READY is displayed when the machine is filled (see Fig. 47).

### NOTE

It is recommended the tank temperature is 150 °F / 66 °C before washing wares. Allow 10 minutes for machine to preheat.



Fig. 46 - Power button on starts machine filling



Fig. 47 - Ready screen after preheating

(cont. on next page)

**[**
### **OPERATION SEQUENCE (CONT.)**

### WARE WASHING STEPS

- 1. Scrap and load soiled wares into dish rack.
- 2. When READY displays, lift door and slide rack into the machine's wash compartment.

### IMPORTANT (!)Wash one rack at a time and do not overload the rack. Make sure that wares do not interfere with the rotating spray arms. 3. Close the front door fully and the wash cycle will begin automatically. 4. WASH is displayed during wash state. The wash time runs for approximately 35 seconds. The wash temperature display must read a minimum of 150 °F / 66 °C. NOTE Opening the door when the dishwasher is in-cycle will stop the dishwasher. The cycle will resume automatically when the dishwasher door is closed. 5. RINSE is displayed during final rinse state. The final rinse state begins at the end of the wash cycle and runs for approximately 7 seconds. The final rinse temperature display must read a minimum of 180 °F / 82 °C. IMPORTANT (!)Make sure the final rinse temperature is within the acceptable range of operation at 180-195 °F / 82-91 °C. Check pressure gauge to ensure 20-25 PSI during final rinse. 6. DWELL is displayed during the sanitary dwell state. The sanitary dwell begins at the end of the final rinse and runs for approximately 17 seconds. 7. The display returns to READY at the end of the 1 minute cycle. 8. Open the door and remove the rack of clean wares. WARNING Wares may be hot after washing. Be careful when removing wares.

9. Repeat steps for additional dish racks.

## **RINSE SENTRY**

This machine is equipped with a Rinse Sentry Feature that monitors the booster temperature during the wash cycle and will extend the wash cycle time until a minimum of 180 °F is achieved in the tank. Once achieved, the machine will complete the wash cycle and perform a final rinse.

(section end)

## VARICYCLE



# CLEANING AND MAINTENANCE

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### CLEANING

### 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.



#### WARNING

Dishwasher surfaces may be hot. Use caution when cleaning the machine.

#### **TO CLEAN THE DISHWASHER:**

- 1. Push the power button OFF. The electric drain valve will open and the machine will drain. The drain valve will remain open for 10 minutes.
- 2. Pushing the power button on and immediately off will open the drain valve for another 10 minutes.
- 3. Open the door and flush the interior with fresh water.
- 4. Remove the upper and lower wash and rinse spray arms and flush with clean water.
- 5. Check the rinse spray arm nozzles. If necessary, remove the end plugs and clean the nozzles with a small paper clip (see Fig. 49). Flush the arms clean and replace the end plugs.





6. Remove the scrap screens and pump strainer Flush and back flush the screens in a sink.

#### NOTICE

Do not strike the screens against hard surfaces.

- 7. Clean the drain in the bottom of the wash tank.
- 8. Clean the float switch.
- 9. Clean the detergent probe with a non-metallic green Scotch Brite™ scrub pad.
- 10. Wipe the interior with a soft cloth.
- 11. Reinstall the scrap screens and spray arms making sure the spray arms spin freely.
- 12. Wipe the machine exterior clean with a soft cloth and mild detergent.



**'!**`

#### CAUTION

DO NOT FLUSH THE EXTERIOR OF THE MACHINE WITH WATER.

13. Leave the doors open to aid in overnight drying of the machine interior.

# DELIMING

	$\mathbf{\mathcal{D}}$	<b>DANGER</b> Skin contact with deliming solutions can cause severe irritation and possib burns. Wear protective clothing, goggles and face shield when handling	
(!	$\mathbf{D}$	<b>ATTENTION</b> Consult the chemical representative's recommendations for the use of delir the dishwasher. Deliming solution or other chemicals are not supplied by th	
		Minerals accumulate on the interior surfaces of the dishwasher. The dep white haze and, in cases of heavy accumulation, may appear as a grant generic name for mineral deposits is lime. Removing lime deposits is cal Your dishwasher should be de-limed regularly; how often will depend on content of your water. Inspect your machine interior for lime deposits. If deliming is required, a deliming agent should be used for best results in accordance with the chemical supplier's instructions. <b>TO DE-LIME THE DISHWASHER:</b> While the power button is off, press the Varicycle button 3 times within 30 seconds to enter into the delime cycle. The screen displays DRAIN as the automatic drain valve opens (see Fig. 50). Displays 1. OPEN DOOR 2. CLEAN SCREENS 3. ADD CHEMICAL 4. CLOSE DOOR after drain valve closes. Open the door. Remove scrap screens. Clean food soils. Reinstall screens. Add the delime chemical according to the chemical representative's instructions (see Fig. 51).	ılar solid. The lled deliming.
ľ	ŝ	<b>NOTE</b> Deliming operation cannot be stopped once delimer is added.	4. CLOSE DOOR DELIME Fig. 51 - Delime Instructions Screen
	3.	Close door and machine fills. Displays FILLING (see Fig. 52). Displays V remaining as machine washes (see Fig. 53). Displays DRAIN as machine dra	
	ŝ	<b>NOTE</b> To cancel delime wash, press the Varicycle button 3 times within 30 secon Machine will cancel the delime wash and progress to the delime flush cy	
			(cont. on next page)

# **DELIMING (CONT.)**



Fig. 52 - Delime Filling Screen



Fig. 54 - Delime Drain Screen

- 4. After the float is down to completely drain tank for 2 minutes, machine progresses to delime flush cycle. Displays DELIME RINSE 1 OF 2 while machine fills, rinses, and drains.
- 5. Displays FILLING as machine safety flush fills (see Fig. 55).
- Displays IN PROGRESS as machine safety flush washes for 2 minutes (see Fig. 56). 6.
- 7. Displays DRAIN as machine safety flush drains for 2 minutes (see Fig. 57).



Fig. 55 - Delime Rinse Filling

Fig. 56 - Delime Rinse In Progress

Fig. 57 - Delime Rinse Drain

Machine repeats delime flush steps again and displays DELIME RINSE 2 OF 2 while 8. machine fills, rinses, and drains a second time (see Fig. 58, Fig. 59, and Fig. 60).



Fig. 58 - Second Rinse Filling

Fig. 59 - Second Rinse In Progress

Fig. 60 - Second Rinse Drain

- 9. Displays DELIME COMPLETE at the end of the delime cycle (see Fig. 61).
- Push power button to fill machine and resume normal operation. 10.



Fig. 61 - Delime Complete Screen

### MAINTENANCE

### **MAINTENANCE SCHEDULES**

#### DAILY MAINTENANCE

- 1. Check the chemical container levels.
- 2. Make sure the water supply is on and the drain is clear of debris.
- 3. Clean the machine.
- 4. Check all of the wash arm and rinse arm spray jets and clean as necessary.
- 5. Check the digital display for damage.
- 6. Make sure the dish racks are in good condition.

#### WEEKLY MAINTENANCE

- 1. Inspect the water and the drain lines for leaks.
- 2. Check underneath the dishwasher for leaks.
- 3. Make sure the floor drains are clear of debris and handle the machine drain flow.
- 4. Check the chemical tubing and chemical container levels.

#### **MONTHLY MAINTENANCE**

- 1. Check and delime machine if required. Some locations may require more frequent deliming.
- 2. Replace damaged scrap screens.
- 3. Replace worn spray arm bearings.
- 4. Check chemical dispenser squeeze tubes and replace as required.
- 5. Remove chemical tubes from containers and flush with hot water.

#### YEARLY MAINTENANCE

Contact your authorized service agent for a preventive maintenance inspection.

#### LUBRICATION

There are no lubrication points or schedules for this dishwasher.



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#### NOTE

Consult your chemical supplier for chemical dispensing system maintenance.

## **TROUBLESHOOTING CHART**

CONDITION	CAUSE	SOLUTION
Dishwasher will not run. LCD display unresponsive.	Door not closed/bad door switch. Bad pump / contactor.	Close door completely.
	Power off/overload tripped.	Check breaker on panel.
Low or no water.	Main water supply is off.	Open supply valve.
	PRV setting incorrect.	
	Line strainer clogged.	-
	Valve or float defective.	Contact Service Agent.
Chemicals won't feed into dishwasher.	Chemical supply low.	Refill chemical container.
	Pick-up tube clogged.	Rinse tube with warm water.
	Supply tubing damaged.	Replace tubing.
	Supply tubing kinked.	Straighten tubing.
	Squeeze tube worn.	Replace squeeze tube.
Poor wash results.	Wares incorrectly loaded in dish rack. —	reduce amount of wares.
	Clogged screens.	Clean screens.
	Clogged spray arms.	Clean spray arms.
	Chemical injectors not feeding.	Check chemical supplies.
	Detergent Dispenser leaking.	Repair detergent pump hose.
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.
Dishwasher will not drain.	Drain screen.	Clean screen.
	Drain valve defective.	Contact Service Agent, open drain valve manually to drain.
	Building drain clogged.	Contact Building Maintenance

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# SERVICE

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# ELECTRIC DRAIN VALVE MANUAL OPERATION (P/N 117014)

### **VALVE POSITION SIGHT WINDOW**



Fig. 62 - Valve position sight window closed

### **STEPS TO ADJUST VALVE POSITION**

1. Remove four 2.5mm coil retaining allen screws (see Fig. 64).



Fig. 63 - Valve position sight window open



Fig. 64 - Remove allen screws

2. Remove the coil from the valve body (see Fig. 65).



Fig. 65 - Remove coil from the valve body



Fig. 66 - Turn valve body key with pliers

- 3. Using pliers, turn valve body key to adjust valve (see Fig. 66).
- 4. Reassemble in reverse order.

### **DIP SWITCH TO TOGGLE I/O DISPLAY**

- 1. Toggle Dip Switch 7 to the open position on the circuit board to turn on the I/O display screen overlay (see Fig. 67 and Fig. 68).
- 2. Toggle Dip Switch 7 to the closed position to turn off the I/O display screen overlay.





Fig. 67 - Circuit Board

Fig. 68 - Circuit Board Dip Switch 7

### PUSH BUTTONS TO ENTER / CHANGE TEMP SET POINTS

#### NOTE

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Push buttons function when Dip Switches 1 and 2 are in factory preset open positions.

- 1. Hold down simultaneously push buttons 1 and 2 for 3 seconds to enter temperature set point mode and display temperature set screen (see Fig. 69).
- 2. Push button 1 to increase Tank/Booster temp set point.
- 3. Push button 2 to decrease Tank/Booster temp set point.
- 4. Push button 3 to toggle between Tank and Booster temperature set point selection.
- 5. Hold down simultaneously buttons 1 and 2 again for 3 seconds to take board out of temp set point mode.



Fig. 69 - Circuit Board Push Buttons

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# SERVICE REPLACEMENT PARTS

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### WASH PUMP / MOTOR ASSEMBLY



### WASH PUMP / MOTOR ASSEMBLY (CONT.)

#### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	114134	SLINGER, WATER	1
2	114135	NUT	9
3	114136	SCREW	9
4	114137	BACKPLATE, PUMP	1
5	114138	GASKET, PUMP	1
6	114139	SEAL, PUMP	1
7	114140	WASHER	1
8	114141	IMPELLER	1
9	114142	WASHER	1
10	114143	WASHER, LOCK	1
11	114144	NUT, IMPELLER	1
12	114145	HOUSING, PUMP	1
13	114322	CAPACITOR 15µF	1
14	114525	PUMP / MOTOR ASSEMBLY COMPLETE 220VAC/60/1	1
15	116980	PUMP PLUG	1

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#### NOTE

The motor cannot be ordered as a separate replacement part.

## **BOOSTER SUB ASSEMBLY**



(cont. on next page)

# **BOOSTER SUB ASSEMBLY (CONT.)**

#### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT, 1/4-20 SST	4
2	100184	NIPPLE, 3/4" NPT X CLOSE, BRASS	4
3	100210	PLUG, 1/8" NPT SQ. HEAD, SST	1
4	100571	UNION, 3/4" NPT, BRASS	1
5	102392	BUSHING, REDUCING, 3/4" NPT X 1/2" NPT, BRASS	1
6	102444	ELBOW, STREET, 3/4" NPT X 90, BRASS	1
7	106026	WASHER, FLAT, 1/4" X 5/8" X .06" SST	1
8	106482	WASHER, LOCK, 1/4" SPLIT, SST	3
9	107550	VALVE, PRESSURE REGULATING, 3/4" NPT, BRONZE	1
10	108528	BARB HOSE EL 1/2" NPT X 1/2" H, BRASS	1
11	108954	HEX GRIP NUT, 6-32 SST W/ NYLON	2
12	109985	O-RING, BOOSTER HEATER	1
13	110562	THERMOSTAT, SNAP, FIXED DISC	1
14	110768	STRAINER, LINE, 3/4" NPT, BRONZE FEMALE	1
15	111233	HEATER, 7.5KW/10KW-208V/240V, 3PH, BOOSTER	1
16	111437	VALVE, SOLENOID 3/4" NPT, HW	1
17	115530	ADAPTER, THERMOMETER, DIGITAL	1
18	333154	BRACKET, PIPING SUPPORT	1
19	0509042	BOOSTER TANK WELDED ASSEMBLY	1
20	0513310	THERMISTOR, PROBE ASSEMBLY UCTR.	1

### LOWER CONTROL CABINET ASSEMBLY



## LOWER CONTROL CABINET ASSEMBLY (CONT.)

### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	100007	SCREW,TRUSS HEAD,10-32 x 3/8 SST	21
2	103310	GROUND LUG	1
3	104873	LABEL GROUND	1
4	106402	FUSE BLOCK, 2 POLE	1
5	106980	LABEL 1M	1
6	106982	LABEL HC	1
7	107099	LABEL 1MOL	1
8	107289	FUSE, ATDR, 2.5 AMP, LPCC-2.5, 600V	2
9	107964	BUSH SNAP #2126 0.875 X 0.687	8
10	108122	CONTACTOR, 3 POLE	1
11	108397	TRANSFORMER 150VA 220/230/240/440/460/480:110/115/120	1
12	110068	SNAP BUSHING 1.500 OD X 1.062 ID	3
13	110569	LABEL MAX AMP 2.5A	1
14	111273	LABEL BC	1
15	111628	STARTER MTR 4.0-6.3A	1
16	111702	CONTACTOR 50FLA 3P 120COIL	1
17	111833	INPUT TERMINAL BLOCK	1
18	113769_3	DIN RAIL 35MM X 15 MM	1
19	114515	TERMINAL BLOCK, GREEN	1
20	114516	END PLATE	1
21	114519	END BLOCK E/NS 35 N	4
22	116166	CONTACTOR 60FLA 3P 120COIL	1
23	117516	TERMINAL STRIP 6 PT BRIDGED WHITE, PTFIX 6X2.5 WH	1
24	117518	TERMINAL STRIP 2 PT GRAY, PTFIX 2X2.5 GY	6
25	117847	DIN RAIL ADAPTER, NS35/7.5, PTFIX-NS35A	2
26	207498	DIN RAIL 35MM X 4.75" LG	1
27	341390	INNER PANEL, LWR CON CABINET	1

## **UPPER CONTROL CABINET ASSEMBLY**



(cont. on next page)

## **UPPER CONTROL CABINET ASSEMBLY (CONT.)**

### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	100734	CAP SCREW,HEX HEAD,1/4-20 X 1/2 SST	4
2	106026	WASHER,FLAT,1/4x5/8x.06 SST	4
3	106482	WASHER,LOCK,1/4 SPLIT,SST	4
4	107966	HEX GRIP NUT,10-32 SST W/NYLON	4
5	112519	PLUG SNAP 0.875 D-FLAT #2509HE	2
6	114282	SCREW,10-32x1/2,SLOTTED-HEX-WASHER-HD, TYPE F THRD CUT,SS	7
7	114365	CORD GRIP LIQUID TITE W/LOCKNUT 1/2 NPT	4
8	117782	DISPLAY CONTROL BOARD, DH/MD2000	1
9	117787	TFT SCREEN MOUNT, MACHINED	1
10	117856	PUSH BUTTON 20MM FLUSH GREEN ILLUM. LATCH ASSY 120V,+	1
11	117857	PUSH BUTTON ASSY FLUSH BLUE CUSTOM ILLUM. MOM W/NO CON+LIGHT	1
12	117860	RIBBON CABLE, 20 PIN, DISPLAY TO CON. BOARD, DH3000	1
13	117871	WASHER, VIBRATION DAMPENING, .141" ID X .250 OD X .063 THK	4
14	117872	SCREW, #4 X 3/16" LG, TFS FOR PLASTIC, SST PAN PH PHILLIPS	4
15	208042	GASKET, 3/4" WD X 1/8" THK X 30.5" LG	2
16	208043	GASKET, 3/4" WD X 1/8" THK X 8.5" LG	2
17	341122	UPPER CONTROL CABINET ENCLOSURE, DH3000	1
18	341464	COVER, UPPER CON. CABINET, DH3000	1
19		INNER PANEL ASSEMBLY (see page 60)	1

### **INNER PANEL ASSEMBLY**



(cont. on next page)

# **INNER PANEL ASSEMBLY (CONT.)**

### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	100007	SCREW,TRUSS HEAD,10-32 x 3/8 SST	2
2	107564	SCREW,TRUSS HEAD,6-32 x 1 SST	4
3	111115	FUSE, ATMR, 2 AMP	2
4	111153	FUSE HOLDER ASSEMBLY	3
5	112901	FUSE, ATDR, 1 AMP	1
6	114519	END BLOCK E/NS 35 N	2
7	117516	TERMINAL STRIP 6 PT BRIDGED WHITE, PTFIX 6X2.5 WH	1
8	117518	TERMINAL STRIP 2 PT GRAY, PTFIX 2X2.5 GY	2
9	117772	CONTROL BOARD	1
10	117847	DIN RAIL ADAPTER, NS35/7.5, PTFIX-NS35A	2
11	207498	DIN RAIL 35MM X 4.75" LG	1
12	341050	INNER PANEL, UPPER CABINET, DH3000	1

### WASH AND RINSE SPRAY ARM ASSEMBLIES



(cont. on next page)

### WASH AND RINSE SPRAY ARM ASSEMBLIES (CONT.)

### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT, 1/4-20 SST	2
2	100738	CAP SCREW, HEX HEAD, 1/4-20 X 1 SST	2
3	106482	WASHER, LOCK, 1/4 SPLIT, SST	2
4	109835	SCREW #8 X 1/2 PAN PHILLIP	4
5	109864	WASHARM HUB SUPPORT	2
6	113514	BEARING, RINSE ARM, DOOR MACHINE	4
7	114556	NUT, RINSE ARM, DH/MD2000	2
8	114858	WASHARM DH5000	2
9	115222	RINSE ARM WELDMENT	2
10	207096	WASH ARM BEARING	2
11	341020	STANDPIPE WELDMENT, WASH	1
12	341025	RINSE MANIFOLD	1
13	0507443	SPINDLE, RINSE ARM, DHB	2
14	0507445	SPINDLE WASHARM, DM	2

## FINAL RINSE ASSEMBLY



(cont. on next page)

# FINAL RINSE ASSEMBLY (CONT.)

### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT, 1/4-20 SST	2
2	100135	GAUGE, PRESSURE 0-60 PSI	1
3	100156	LOCKNUT, 3/4" NPT, BRASS	1
4	100171	BUSHING, RED FACE 3/4 X 1/2 BRASS	1
5	100206	NIPPLE, 1/2"NPT X 2 1/2"LG., BRASS	2
6	100500	VACUUM BREAKER, 1/2" NPT BRONZE	1
7	100599	CROSS, 3/4"NPT, BRASS	1
8	100738	CAP SCREW, HEX HEAD, 1/4-20 X 1 SST	2
9	101259	PLUG, 1/8"NPT SQ.HEAD, BRASS	1
10	102388	BUSHING, REDUCING, 1/2"NPTx1/4"NPT, BRASS	1
11	102514	TEE, 1/2"NPT, BRASS	1
12	105976	BUSHING, REDUCING, 3/4"NPTx1/8"NPT, BRASS	2
13	106482	WASHER, LOCK, 1/4 SPLIT, SST	2
14	107419	BARB HOSE ST 1/2NPTx1/2 H BRASS	1
15	109854	GASKET WASH STANDPIPE, DHB	1
16	109864	WASHARM HUB SUPPORT	2
17	113269	CLAMP, HOSE, M12, 14/32, SST GEAR TYPE	2
18	208040_S	HOSE, 1/2" OD FINAL RINSE	1
19	332552	BRACKET SUPPORT	1
20	341020	STANDPIPE WELDMENT, WASH	1
21	341025	RINSE MANIFOLD	1
22	0513310	THERMISTOR, PROBE ASSY UCTR.	1



# HOOD ASSEMBLY (CONT.)

#### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT,1/4-20 SST	8
2	100736	CAP SCREW,HEX HEAD, 1/4-20 X 3/4 SST	4
3	104925	WASHER,FLAT,1/4x1x.06 SST	4
4	106026	WASHER,FLAT,1/4x5/8x.06 SST	8
5	106482	WASHER,LOCK,1/4 SPLIT,SST	8
6	0310781-1	PIVOT, DOOR HANDLE	4
7	336578	BAFFLE UPPER HOOD	2
8	341298	HOOD WELDMENT	1
9	341427	HOOD STIFFENER, LIFT ARM BRACKET	2
10	0510459	DOOR SPRING	2
11	0510788-2	TUBE, SPACER, VC, DHBE	2

## **DOOR LIFTARM ASSEMBLY**



(cont. on next page)

# DOOR LIFTARM ASSEMBLY (CONT.)

#### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	100002	CAP SCREW,HEX HEAD,1/4-20 X 1 3/8 SST	4
2	100003	HEX PLAIN NUT, 1/4-20 SST	2
3	104971	HEX GRIP NUT,6-32 SST	2
4	106026	WASHER,FLAT,1/4x5/8x.06 SST	8
5	106382	SCREW,TRUSS HEAD,6-32 x 3/8 SST	2
6	106482	WASHER,LOCK,1/4 SPLIT,SST	2
7	107962	HANDLE GRIP	2
8	107967	HEX GRIP NUT,1/4-20 SST W/NYLON	4
9	113937	MAGNET, REED SWITCH	1
10	114154	SCREW,TRUSS HEAD CARRIAGE,1/4-20 X 1/2 SST	6
11	0310843-2	WEAR STRIP,24" DOOR	6
12	341298	HOOD WELDMENT	1
13	341302	DOOR WELDMENT, FRONT	1
14	341303	BRACKET, DOOR CONNECTION	2
15	341304	DOOR WELDMENT, LH SIDE	1
16	341306	DOOR WELDMENT, RH SIDE	1
17	341391	LIFT ARM LINKAGE	2
18	0510779-1	HANDLE, DOOR	1
19	116933	LIFT ARM BUSHING	2
20	0510788-2	TUBE, SPACER, VC, DHBE	2

## WASH TANK HEAT, DRAIN, SCREENS, HOSES



## WASH TANK HEAT, DRAIN, SCREENS, HOSES (CONT.)

### PARTS LIST:

ltem No.	Part No.	Description	Qty.
1	100003	HEX PLAIN NUT, 1/4-20 SST	3
2	100154	HEX PLAIN NUT, 5/16-18 SST	4
3	100547	LOCKNUT, 1/2" NPT, SST	1
4	100694	NIPPLE, 1"NPT X CLOSE, SST	1
5	100740	CAP SCREW, HEX HEAD, 5/16-18 X 1 SST	8
6	102376	WASHER, FLAT, 5/16x3/4x.05 SST	8
7	102503	PLUG, 3/8"NPT SQ.HEAD, SST	1
8	106013	WASHER, LOCK, 5/16 SPLIT, SST	4
9	106014	HEX ACORN PLAIN NUT, 1/4-20 SST	1
10	106026	WASHER, FLAT, 1/4x5/8x.06 SST	11
11	106482	WASHER, LOCK, 1/4 SPLIT, SST	4
12	107089	HEX PLAIN JAM NUT, 1/2-13 SST	1
13	107340	CLAMP, HOSE, M28, 33/57, SST GEAR TYPE	6
14	107967	HEX GRIP NUT, 1/4-20 SST W/NYLON	4
15	108345	GASKET, HEATER/ STANDPIPE	1
16	108417	LOCKNUT, 1/2" NPT PLASTIC	2
17	108418	B PLUG, 1/2" PLASTIC	
18	108954	HEX GRIP NUT, 6-32 SST W/NYLON	4
19	109034	GASKET, 13/16 x 1 3/16 (1/2" PLUG)	2
20	111092	FLOAT SWITCH DOOR MACHINE	1

ltem No.	Part No.	Description	Qty.
21	111885	FISH PAPER INSULATION	1
22	113604	THERMOSTAT, FIXED, SNAP, 212F	1
23	113719	REED SWITCH, ALEPH	1
24	114178	HEATER 5.2KW 208/3 90d TANK	1
25	114525	PUMP MTR 1HP 220V 60hz UL 1PH, DM	1
26	114745	HOSE DISCHARGE REINFORCED	1
27	115489	O-RING SILICONE #210	1
28	115490	WASHER, FLAT, .531X1.250X.060 SST	2
29	115530	ADAPTER, THERMOMETER, DIGITAL	1
30	117216	SUCTION HOSE, DH6000, EPDM	1
31	117298	HOSE OVERFLOW, EPDM, DM	1
32	117578	DRAIN TEMPERING MANIFOLD	1
33	117659	VALVE BALL, 1"NPT BRASS, 110-230V ELEC, NC (no override)	1
34	304816	STRAINER, DRAIN	1
35	305164	SCREEN WELDMENT	2
36	332539	MOUNTING SUPPORT, PUMP	1
37	332544	SUPPORT FILLER SCREENS	1
38	333021	SCREEN, SUCTION	1
39	422010	RACK GUIDE ASSY, DH/MD2000 (see page 72)	1
40	0513310	THERMISTOR, PROBE ASSY UCTR.	1





(cont. on next page)

# TRACK ASSEMBLY (CONT.)

#### PARTS LIST:

Item			
No.	Part No.	Description	Qty.
1	341187	TRACK REAR	1
2	341190	SIDE SPLASH BAFFLE, RACK GUIDE, DH/MD2000	2
3	341189	TRACK FRONT	1
4	332025	TUBE CROSS TRACK	1
5	100754	SCREW, FLAT HEAD, 10-32 X 1/2 SST	2
6	106486	WASHER, LOCK, #10 SPLIT, SST	2
7	104985	HEX PLAIN NUT, 10-32 SST	2
8	332023	TRACK, RAIL ADJUST	1
9	106026	WASHER, FLAT, 1/4x5/8x.06 SST	6
10	106482	WASHER, LOCK, 1/4 SPLIT,SST	6
11	100073	SCREW, TRUSS HEAD, 1/4-20 x 1/2 SST	6

### DRAIN WATER TEMPERING ASSEMBLY



### DRAIN WATER TEMPERING ASSEMBLY (CONT.)

### PARTS LIST:

Item No.	Part No.	Description	Otr
		Description	Qty.
1	100735	CAP SCREW,HEX HEAD,1/4-20 X 5/8 SST	2
2	100998	NIPPLE,3/8"NPT X CLOSE,BRASS	1
3	102431	ELBOW,STREET,3/8"NPT X 90, BRASS	1
4	105993	CLAMP,HOSE,M20,19/44,SST GEAR TYPE	2
5	106026	WASHER,FLAT,1/4x5/8x.06 SST	4
6	106482	WASHER,LOCK,1/4 SPLIT,SST	2
7	107967	HEX GRIP NUT,1/4-20 SST W/NYLON	4
8	112799	BARB HOSE ST 3/8NPTx1/2 H BRASS	1
9	117597	BARB HOSE ST 3/8NPTx1/2 H SST 304	1
10	117664	ADAPTER, 3/8 MPT X 1/2 FPT HEX, BRASS	1
11	208041	HOSE, 1/2" OD, DRAIN TEMPERING	1
12	340915	CLAMP, ELEC. DWT INLET PIPING SUPT, DH6000/T-M2	1
13	341463	BRACKET, ELEC. DWT INLET PIPING SUPT, DH3000	1
14	341553	BRACKET, DWT SUPORT	1
15	421925	VALVE, 0504952 W/ NO FLOW RESTRICTOR, 3/8 NPT W/ Y-STRAINER	1
16	0507324	VALVE, CHECK 3/8i	1



(cont. on next page)

# DISH RACKS (CONT.)

### PARTS LIST:

Item No.	Part No.	Description	Qtv.
1		DISH RACK, FLAT-BOTTOM	A/R
2	101285	DISH RACK, PEG	A/R

#### ELECTRICAL SCHEMATIC



USES	
RAGE	TYPE
5A	LP-CC-2-1/2
5A	LP-CC-2-1/2
A	LP-CC-1
2A	LP-CC-2
2A	LP-CC-2
A	BK/GMA-1-R

	LEGEND
1M	WASH MOTOR CONTACTOR
1MOL	WASH MOTOR OVERLOAD
ВC	BOOSTER TANK CONTACTOR
BSTR	BOOSTER
DSS	DOOR SAFETY SWITCH
DTV	DRAIN TEMPERING VALVE
DV	DRAIN VALVE
FSW	FLOAT SWITCH
FU	FUSE
НС	TANK HEAT CONTACTOR
HLTS	HIGH LIMIT SWITCH
RWV	RINSE WATER VALVE
THRM	THERMISTOR
VC S	VARICYCLE SWITCH

	DIP S	SWITCHES
SW 1	SW 2	FUNCTION
OPEN	OPEN	MD3000
OPEN	CLOSED	NA
CLOSED	OPEN	NON-COSTCO SINK
CLOSED	CLOSED	COSTCO SINK
	DIP	SM 3
ΠP	EN	BOOSTER
CLO	SED	ND BOOSTER
	DIP	SW 4
DP	EN	DWT
CLO	SED	DRAIN PUMP
	DIP	SW 5
ΠP	EN	ENGLISH
CLO	SED	FRENCH
	DIP	SW 6
DP	EN	FAHENHEIT
CLO	SED	CELSIUS
	DIP	SW 7
ΠP	EN	I/O DISPLAY OFF
CLO	SED	I/O DISPLAY ON
DI	P SWITCH	H 8 NOT USED

	PUSH BUTTONS
PB1	INCREASE TEMP SET POINT
PB2	DECREASE TEMP SET POINT
PB3	TOGGLE TANK TEMP/ BOOSTER TEMP SET POINT

\*\*PUSH BUTTONS FUNCTION FOR 3000 PRODUCT FAMILY ONL

BUTTONS 1 & 2 HELD DOWN SIMULTANEOUS SECONDS PLACES THE BOARD IN TEMP SET PLACES THE BUARD IN TERM SET SCREEN. WHEN HELD DOWN TEMP SET SCREEN. WHEN HELD DOWN TOUSLY AGAIN FOR 3 SECONDS TAKES BOARD OU

BOOSTER TEMP DEFAULT SET POINT IS 185F ADJUSTABLE BETWEEN 180F-190F.

#### \_\_\_\_\_ DH3000/NEXUS-DHT/MD2000 PLUS 1 & 3 PHASE В 703403 А



