



Operation, Cleaning, and Maintenance Guide



Model:

MDHHD

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



Issue Date: 10.15.19

Manual P/N 117117 rev. A

For machines beginning with S/N D190217104 and above

3765 Champion Boulevard
Winston-Salem, NC 27105
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ATTENTION

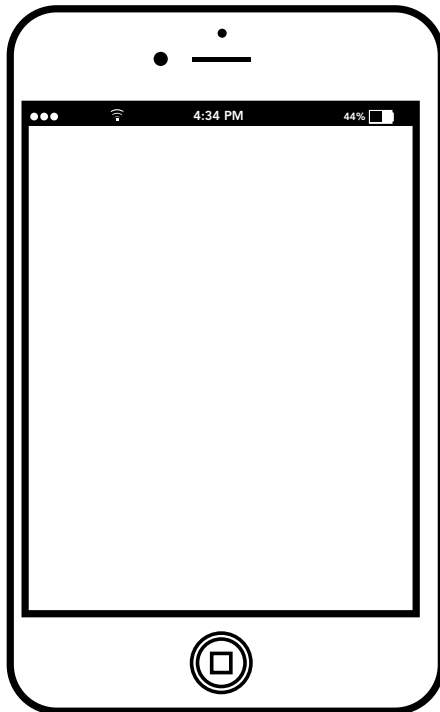
The model no., serial no., voltage, Hz and phase are needed to identify your machine and to answer questions.

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

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



TWO ways to REGISTER YOUR PRODUCT and ACTIVATE YOUR WARRANTY.



- Use your mobile device and connect to the website <https://www.championindustries.com/warranty-registration> to register your product.
- Complete 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) State/Province Zip/Postal Co

Telephone #: () ____ --- ____

Contact: _____

Installation Company: _____

Address: _____

Telephone #: _____

Contact: _____

FAILURE TO REGISTER YOUR PRODUCT MAY VOID YOUR WARRANTY

IMPORTANT IMPORTANT

Specifications are subject to change based on continual product improvement.

Revision History

Revision Date	Revised Pages	Serial Number Effectivity	Revision Description
4.29.19	All	D190217104	Released first edition.
6.10.19	13-17	All	Added deliming instructions.
9.5.19	9	D190617877	Added cycle counter to the program.
10.11.19	10,20	D19108397	Change dependo-matic valve to metal electric valve.
10.15.19	1,12	D19108397	Added 6" strainer to tank.

Limited Warranty

Moyer Diebel Limited (herein referred to as Moyer Diebel, 2674 North Service Road, Jordan Station, Ontario, L0R 1S0 and 3765 Champion Blvd., Winston-Salem, NC 27105) warrants machines, and parts, as set out below.

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

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

- a. Element tubes and/or squeeze tubes.
- b. Vacuum breakers.
- c. Replacement of fuses or resetting of overload breakers, or high limits.
- d. Adjustment of thermostats, or temperature controlling devices.
- e. Adjustment of clutches.
- f. Adjustments of water pressure(s).

- g. Adjustments of chemical pumps.
- h. Opening or closing of utility supply valves or switching of electrical supply current.
- i. Cleaning of valves, strainers, screens, nozzles, or spray pipes.
- j. Performance of regular maintenance and cleaning as outlined in operator's guide.
- k. Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, low voltage conditions, inadequate wiring, outdoor use, or failure to follow maintenance and operation procedures.
- l. Wear on Pulper cutter blocks, pulse vanes, and auger brush.
- m. Damages due to improper storage.
- n. Special installations or applications, including remote locations, are limited in coverage by this warranty. Any installation that requires extra work, and/or travel, to gain access to the unit for service is the sole responsibility of the equipment purchaser.

Examples of the defects not covered by warranty include, but are not limited to:

1. Damage to the exterior or interior finish as a result of the above.
2. Use with utility service other than that designated on the rating plate.
3. Improper connection to utility service.
4. Inadequate or excessive water pressure.
5. Corrosion from foreign materials, water supplies, improper chemicals, or chemicals dispensed in excess of recommended concentrations.
6. Failure of electrical components due to connection of chemical dispensing equipment installed by others.
7. Leaks or damage resulting from such leaks caused by water quality, or the installer, including machine table connections or by connection of chemical dispensing equipment installed by others.
8. Failure to comply with all local building codes.
9. Damage caused by labor dispute.

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

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

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

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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 extremely important to the health of the operator or the operation of the machine.



CAUTION:

Caution statements indicate a condition or practice that may result in damage to the machine.



NOTE:

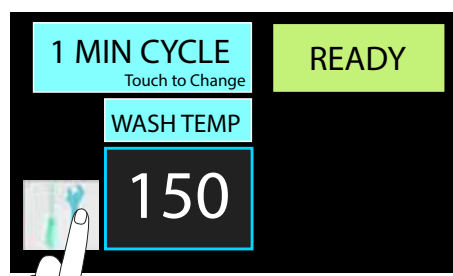
Note statements highlight important information necessary for the operation of the machine.

User Manual Display

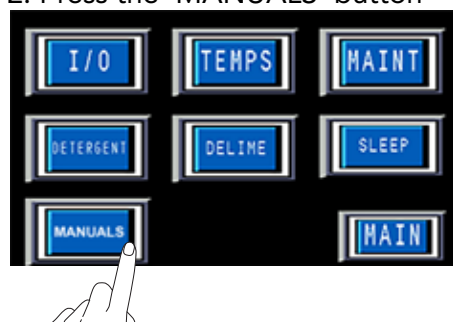
Operation and cleaning instructions are available on the dishwasher digital display.

To access the manuals:

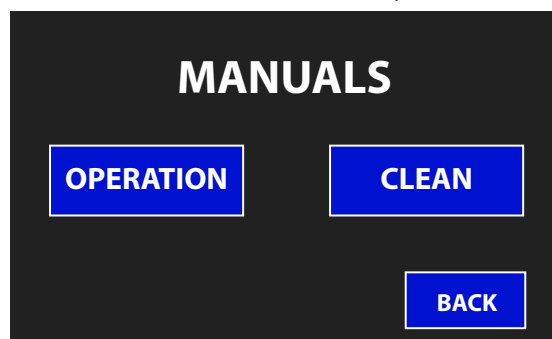
1. Press the 'TOOLS' button



2. Press the 'MANUALS' button



3. Press a manual to be viewed (Operation, Cleaning).



4. Press 'BACK' to return to MAIN screen.

Machine Assembly

To Assemble the dishwasher:

- Install the pump strainer.
- Install the scrap screens and screen spacer.
- Install the upper and lower wash and rinse spray arms. The arms are interchangeable.
- Make sure the arms spin freely.

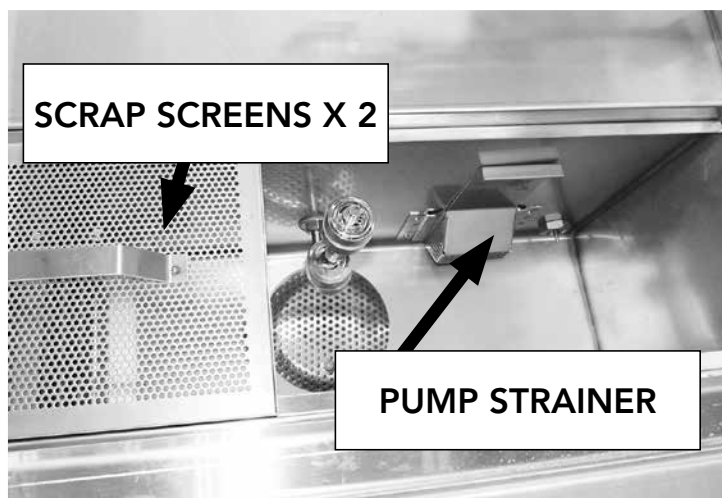


Fig. 1

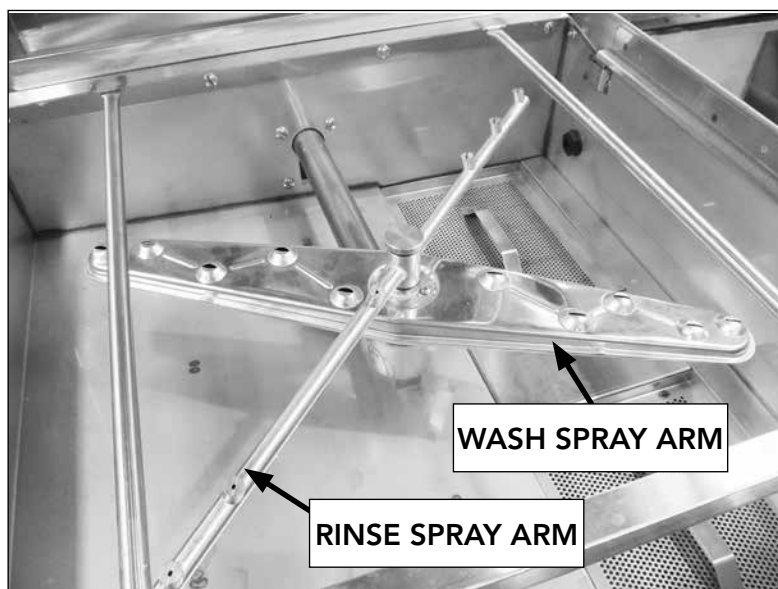


Fig. 2

Detergent Requirement



Use a commercial grade **NON-CHLORINATED** detergent in this dishwasher. Consult the chemical supplier for the rinse-aid requirements.

Recommended Water Hardness

- A water supply with a water hardness of 3 grains/US Gal - 0.83 Imp. Gal - 51.3mg/L or less is highly recommended.

Loading Wares

- Wares should be scrapped and rinsed to remove large food particles and debris (Fig. 3).

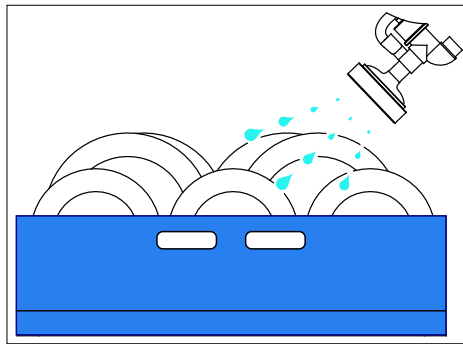


Fig. 3

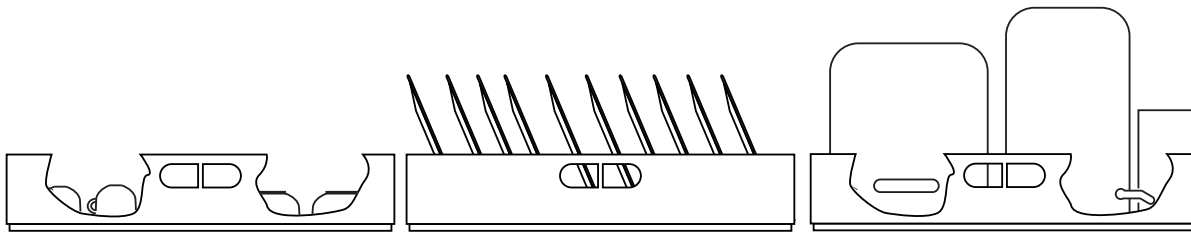


Fig. 4

- Load plates in peg racks, bowls and cups in flat-bottom racks, and glasses in a glass 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.
- Do not overload dish racks and only wash one dish rack at a time.
- Never wash objects such as mops, floor mats, or other foreign materials.

Machine Controls

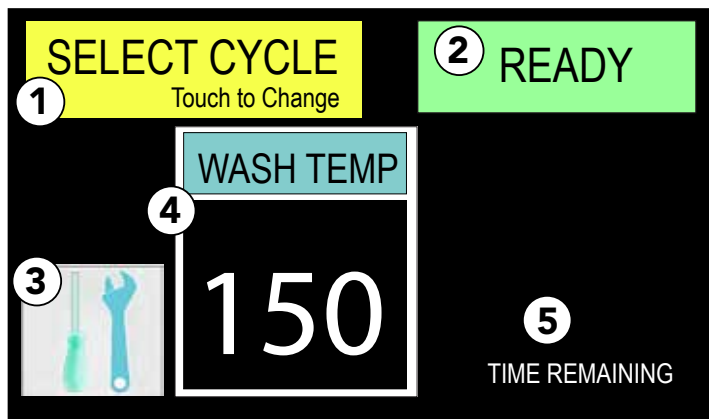
The pressure gauge is located at the top of the machine. The control panel is located on the front left side of the lower panel.

A - Pressure Gauge - Displays the incoming water pressure.

B - Green Push Button Power Switch - Powers off display, heaters and opens drain.

C - Digital Touchscreen Display - shows machine status and time cycle selections.

Main Touchscreen Display



- ① Select a 1, 2, 4, or 6 minute wash cycle.
- ② Status window shows the machine operation state such as, FILLING, READY etc.
- ③ Settings Icon accesses data and maintenance menus.
- ④ Temperature display window shows wash and final rinse temperatures.
- ⑤ Time Remaining area shows the elapsed time for the Rinse, Dwell.

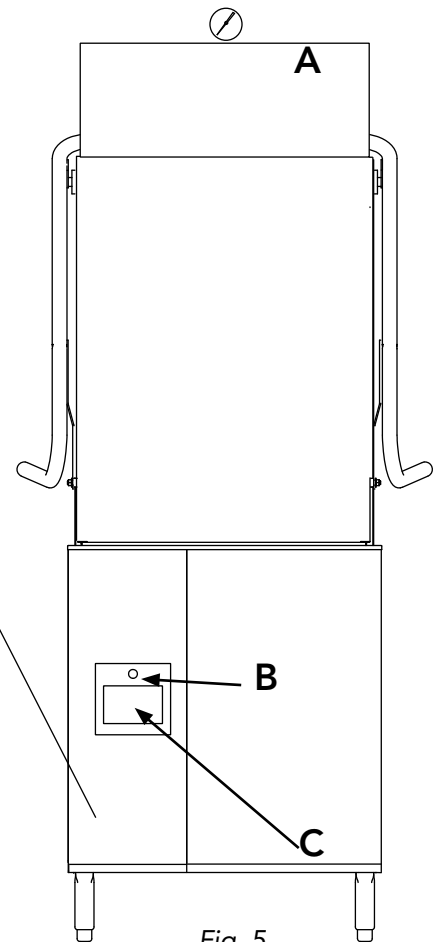


Fig. 5

Cycle Times

- The MDHHD cycle consists of a wash, rinse, dwell.

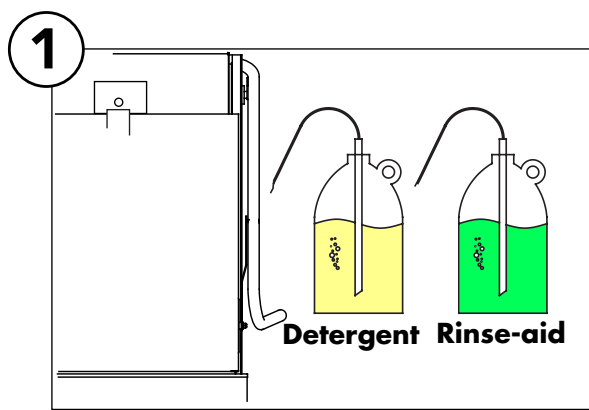
STANDARD CYCLE OPTION*	STANDARD CYCLE TIMES*
Dishwasher Cycle Option 1	Approx. 1 minute
Wash	36 seconds
Rinse	8 seconds
Dwell **	16 seconds
Dishwasher Cycle Option 2	Approx. 2 minutes
Wash	94 seconds
Rinse	10 seconds
Dwell **	16 seconds
Pot/Pan Cycle Option 4	Approx. 4 minutes
Wash	214 seconds
Rinse	10 seconds
Dwell **	16 seconds
Pot/Pan Cycle Option 6	Approx. 6 minutes
Wash	334 seconds
Rinse	10 seconds
Dwell **	16 seconds

* Cycle times can be changed when machine is washing.

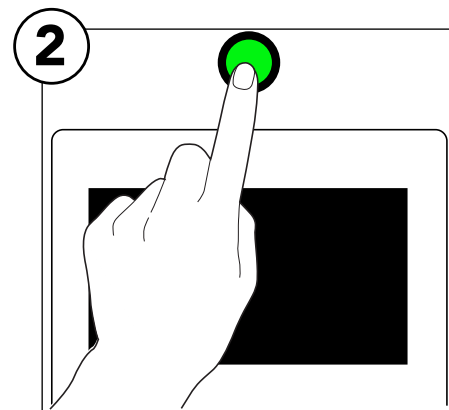
** Cycle pauses.

Operation Sequence

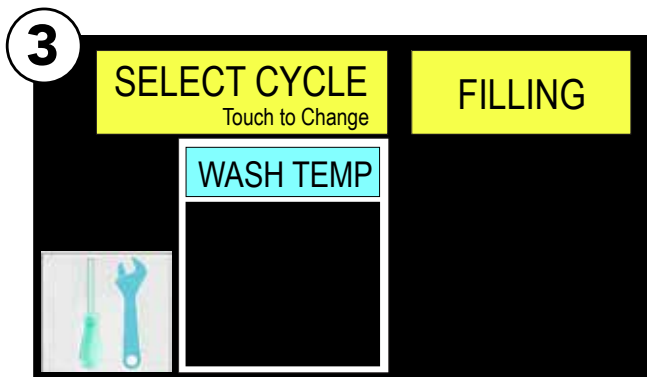
- Push the green power button on.
- FILLING is displayed
- READY displayed when the machine filled.
- Touch SELECT CYCLE button for 1, 2, 4, or 6 minute total cycle.
- Insert dish rack of wares and close doors.
- WASHING displayed during wash cycle.
- TIME REMAINING indicates the rinse, dwell, and recovery portions of the cycle are running.
- RINSING = 10 seconds and final rinse temperature is displayed
- DWELLING = 16 second pause.
- READY is displayed at the end of the cycle.



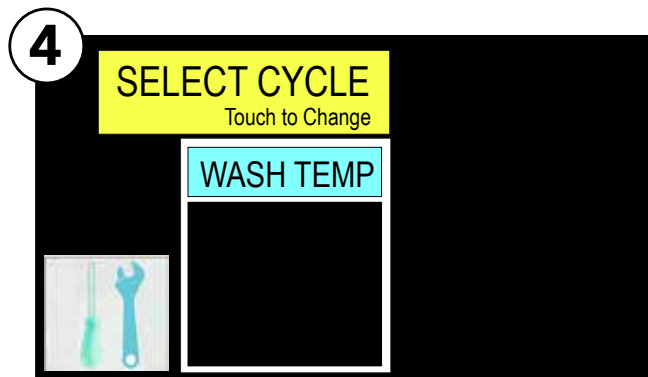
Check the chemical levels
in the containers.



Push the green power button
ON.

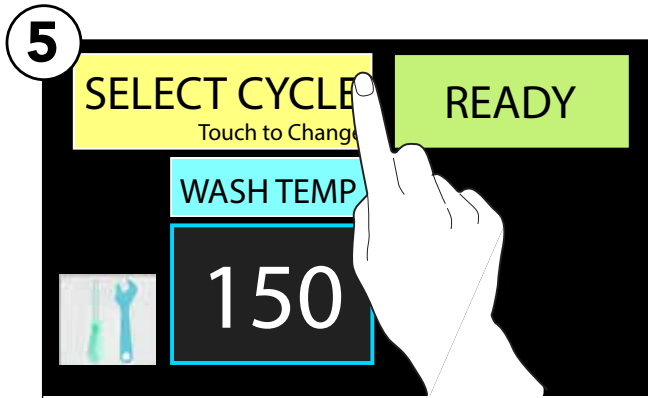


'FILLING' is displayed as machine fills
automatically.



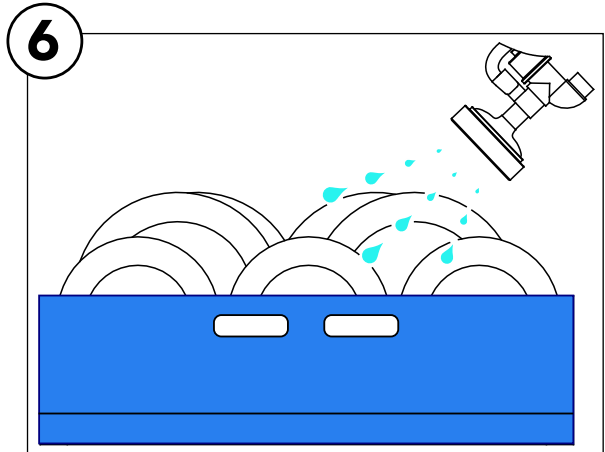
The machine preheats. Minimum wash
temperature is 150°F.

Operation Sequence (continued)

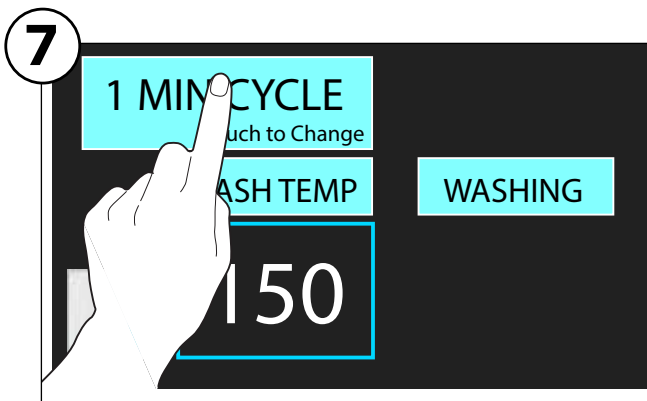


When READY appears, touch the SELECT CYCLE button to choose a cycle. Each touch advances the cycle time between 1, 2, 4, and 6 minutes.

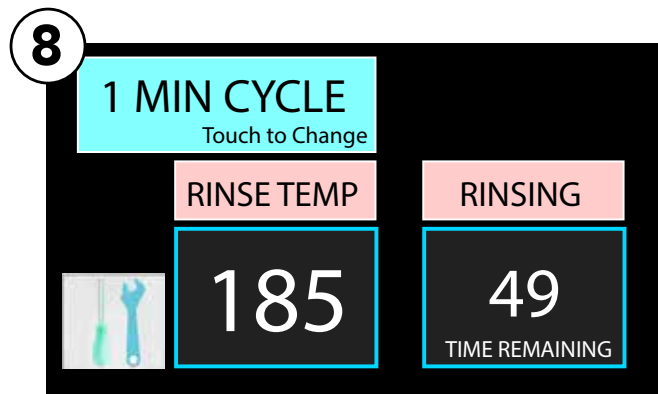
NOTE: A cycle may be selected before or after the door is closed. Cycle starts when door is closed.



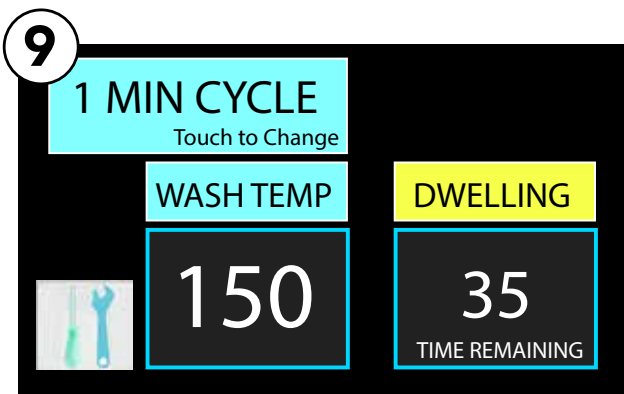
Scrap and load wares into dish rack. Wash one rack at a time and do not overload the rack. Slide the rack into the machine and close the doors.



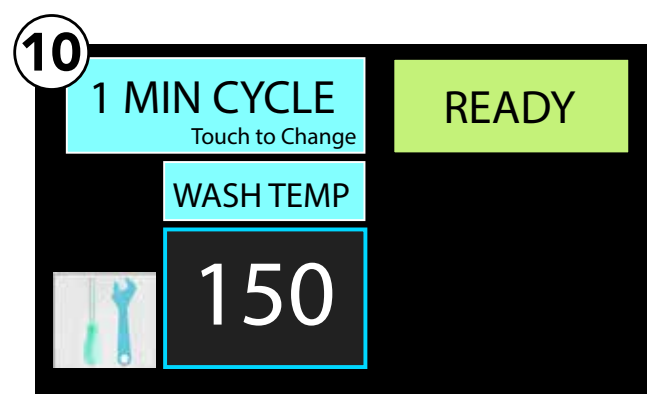
When the CYCLE is selected, the machine starts and 'WASHING' is displayed.



At the end of the wash cycle the 10 sec. final rinse begins. The RINSE TEMP display must read between 185-195°F.



'DWELLING' is displayed as the 16 sec. DWELL begins.



The display returns to READY at the end of the 1 MIN CYCLE. Open the doors, and remove the rack of clean wares.



Caution:
Wares may be hot after washing. Be careful when removing wares.

Changing Cycle Times

- **Starting a Dishwasher Cycle**

A cycle time must be selected before closing the doors to start a cycle.

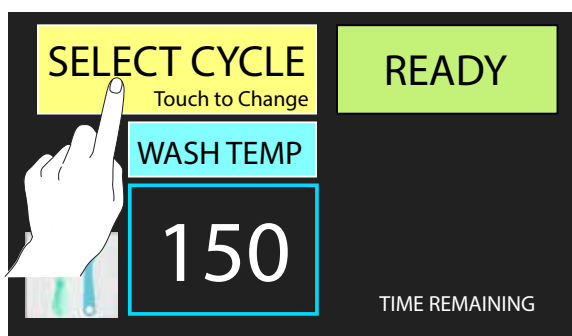
When "SELECT CYCLE" is displayed, the operator can open and close the doors without starting another cycle. Pushing 'Select Cycle' and closing the door starts a cycle.

- **Changing from a short cycle to a longer cycle.**

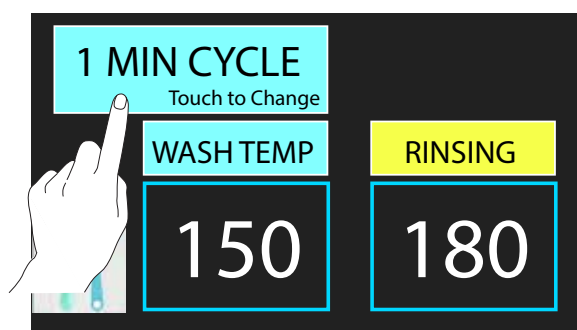
Entering a longer wash cycle when a shorter cycle is running will extend the wash cycle.

- **Changing from a long cycle to a shorter cycle while washing.**

Entering a shorter cycle when a longer cycle is running will stop the longer cycle and the short cycle will complete its time.



When displayed, Select Cycle must be pressed to begin a cycle.



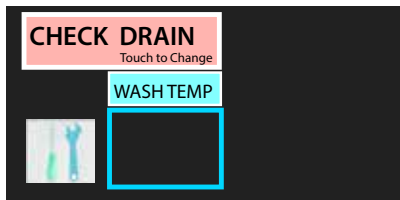
Cycle can be changed when the dishwasher is in cycle.

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.

Alarm/Notifications

"CHECK DRAIN" ALARM



Condition: The dishwasher has stopped filling.

Cause: The machine has filled for 6 minutes but has not filled.

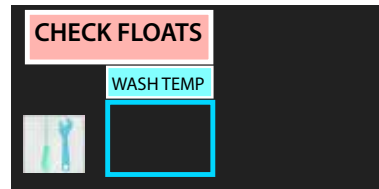
Solution:

- Check the wash tank upper float for something jamming it.

TO RESET THIS ALARM:

Push the 'CHECK DRAIN' button once the problem is fixed.
Call service if the machine continues to alarm.

"CHECK FLOATS " ALARM



Condition: The dishwasher has stopped operation.

Cause: The upper float is up but the lower float is not made.

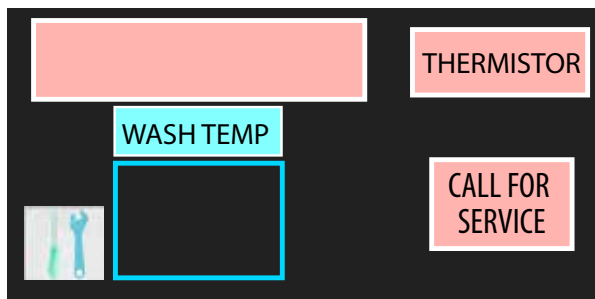
Solution:

- Check the wash tank lower float to see if it is jammed.

TO RESET THIS ALARM:

Push the 'CHECK FLOATS' button once the problem is fixed.
Call service if the machine continues to alarm.

"CHECK THERMISTOR" ALARM and LOCKOUT

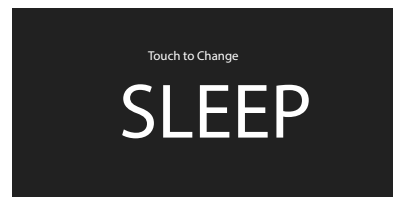


Condition: The dishwasher operation is locked out.

Cause: A temperature sensing thermistor has a problem.

Solution: Contact the service agent for repair.

"SLEEP " MODE



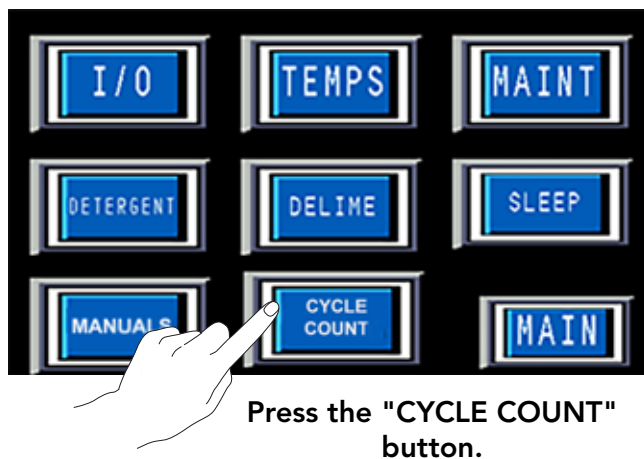
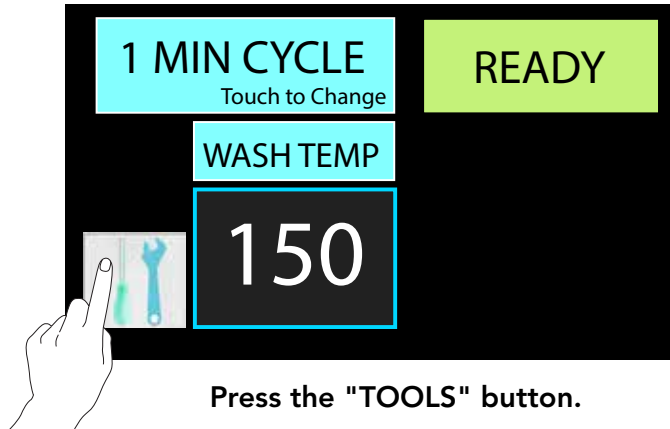
Condition: Dishwasher is off; all heaters are disabled.

Cause: The machine was idle for user programmed time.

TOUCH THE SCREEN TO WAKE THE MACHINE.

Cycle Counter

- This machine is equipped with a cycle counter that records the number of total cycles the machine operates. The counter can be accessed when the machine is idle. The counter can not be reset.
- To access the counter:



"CYCLE COUNT" is displayed.
Press "BACK" and "MAIN" buttons to return
to the main screen.

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.**



CAUTION:

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. Instructions to manually open the drain valve are on page 20.
2. Pushing the power button on and immediately off will open the drain valve for another 10 minutes.



Fig. 6

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 (Fig. 7).
5. Check the rinse spray arm nozzles. If necessary, remove the end plugs and clean the nozzles with a small paper clip (Fig. 8). Flush the arms clean and replace the end plugs (Fig. 8).
6. Remove the scrap screens and pump strainer. Flush and back flush the screens in a sink. Do not strike the screens against hard surfaces.
7. Clean the drain in the bottom of the wash tank.
8. Clean the float switch.

Cleaning

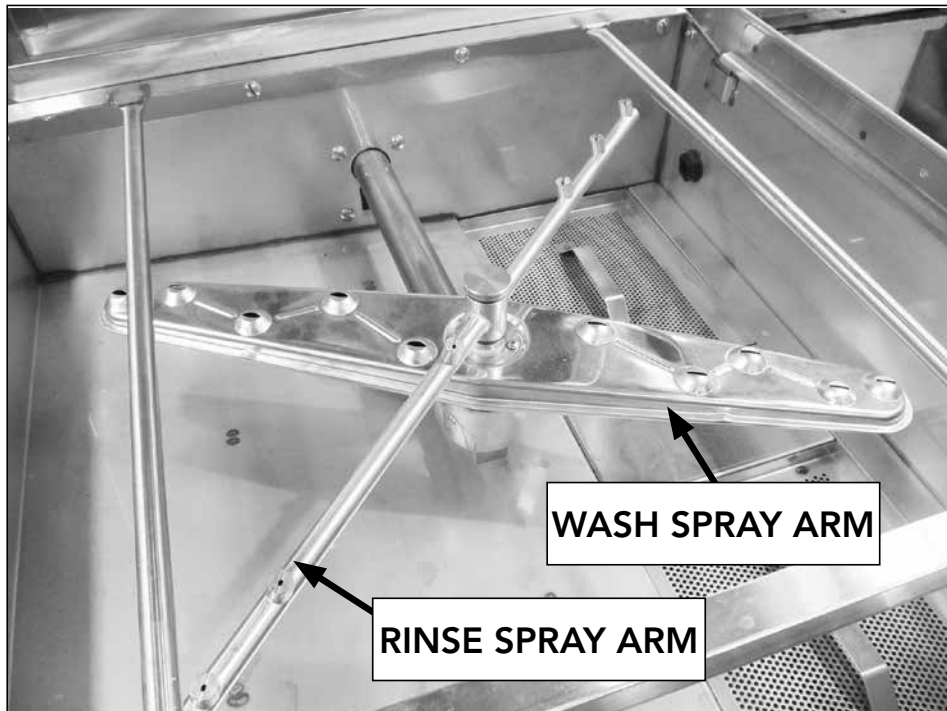


Fig. 7

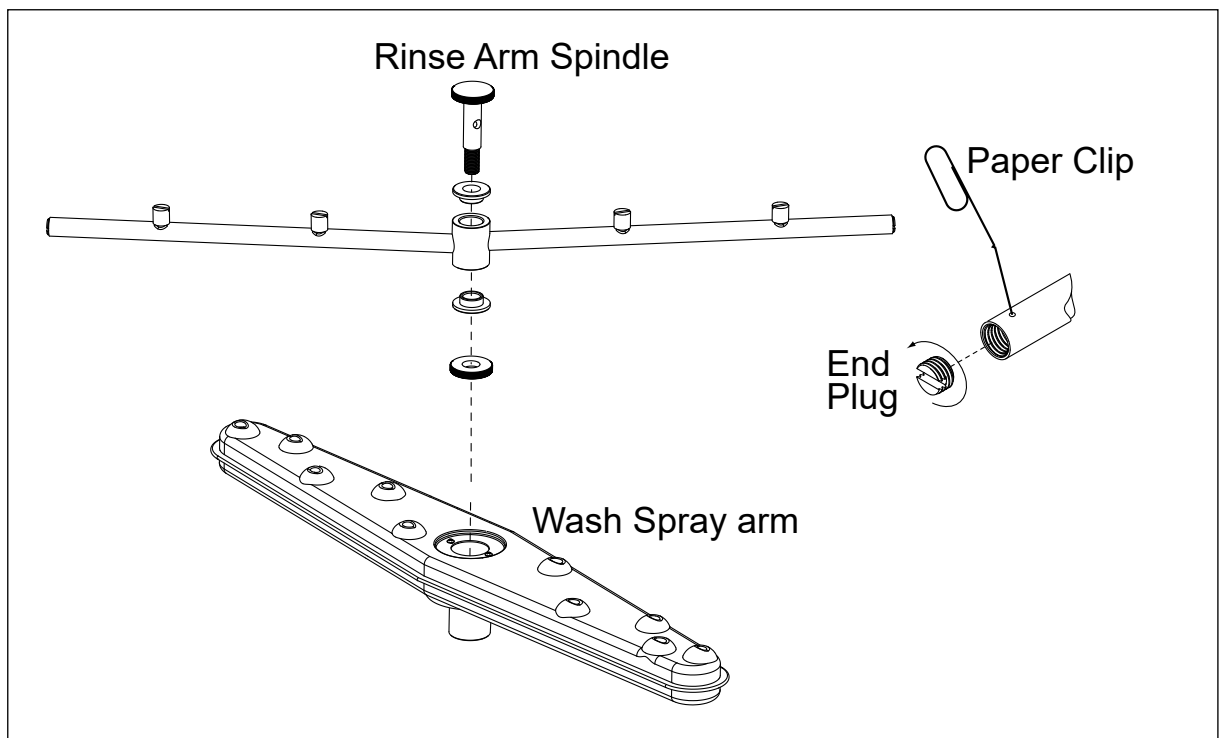


Fig. 8

Cleaning (continued)

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.

DO NOT FLUSH THE EXTERIOR OF THE MACHINE WITH WATER.

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

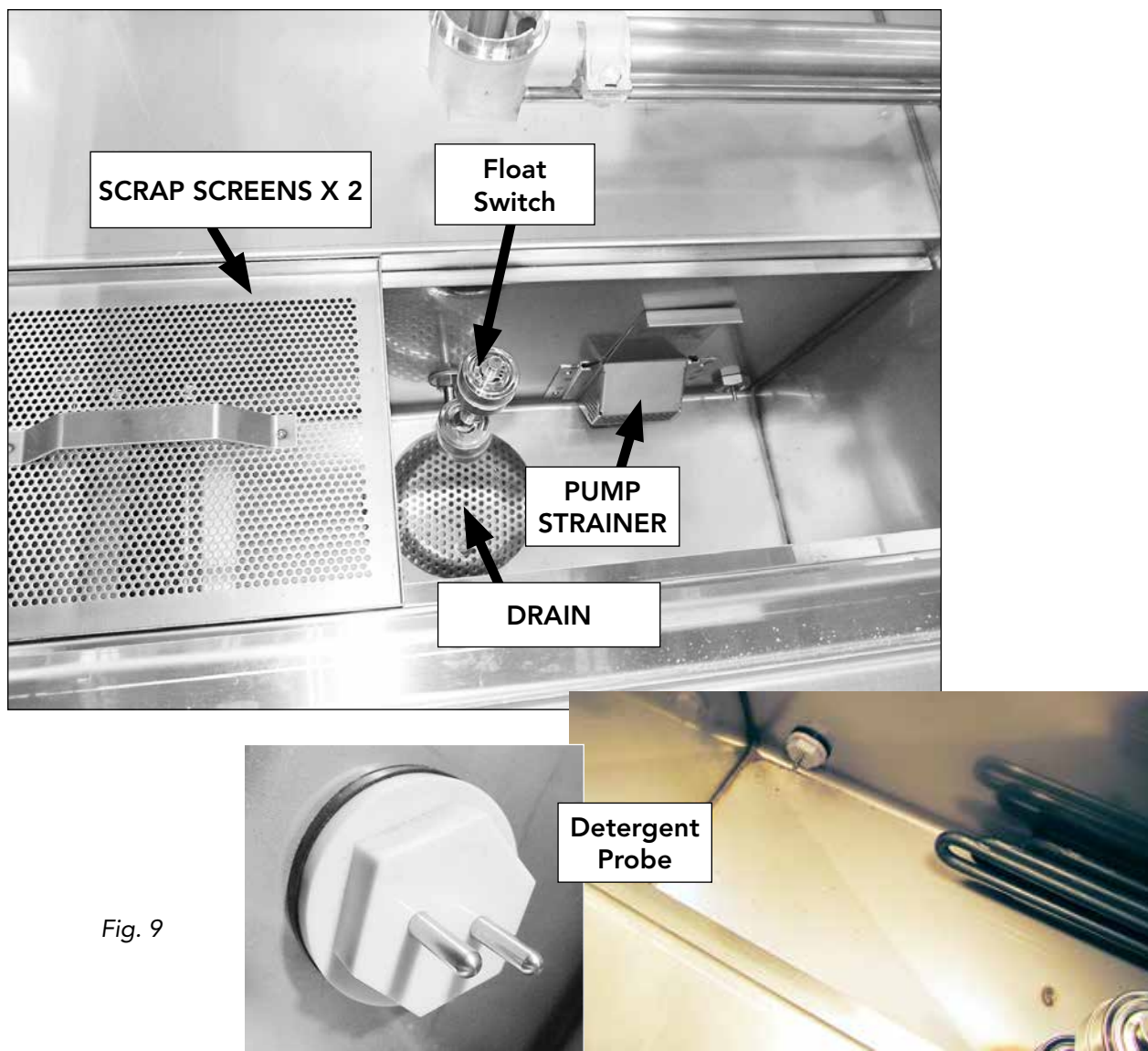


Fig. 9



Deliming



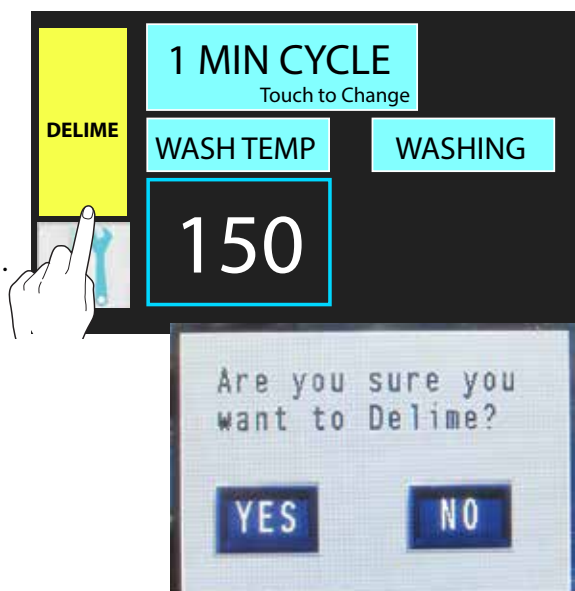
WARNING:

Consult the chemical representative's recommendations for the use of deliming chemicals. Wear protective clothing, goggles and face shield when handling chemicals.

Deliming intervals are determined by the amount of lime build-up in the dishwasher. A password protected delime time interval is adjustable by manager, maintenance or service.

Delime Alarm

- A yellow "DELIME" button will appear when deliming is due.
- Press the "Delime" button.
- The message box below appears.
- Press "YES" to begin deliming, "NO" to pause.
- The yellow "Delime" button will reappear again later.



NOTE:

Deliming can also be started manually.
See page 17 for instructions.

Step1: Deliming begins when "CLOSE DOOR TO START" displayed. The operation can be stopped by pressing and holding the words "PRESS AND HOLD TO CANCEL" below the message window.



Step 2: "DRAINING" displayed as machine drains.



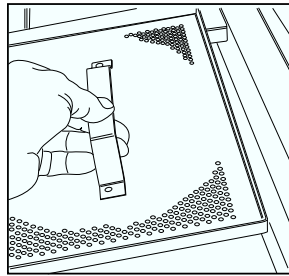
Deliming



Deliming (continued)

Step 3: "CLEAN SCREENS" picture displayed.

- Remove scrap screens.
- Clean food soils.
- Reinstall screens.



Step 4: "CLOSE DOOR TO FILL" displayed.



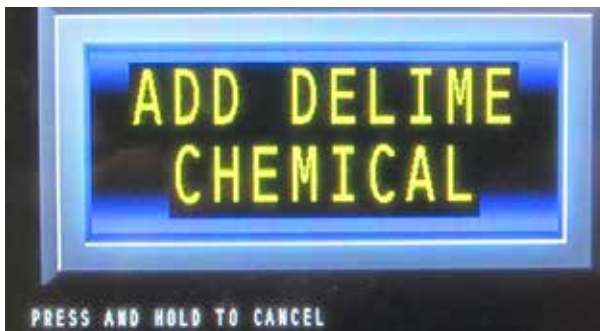
Step 5: Close doors and machine fills.

- "FILLING" displayed.



Step 6: "ADD DELIME CHEMICAL" displayed.

- Open the doors and add the delime chemical according to the chemical representative's instructions.
- The wash tank capacity = 10 US gals.
- **DELIMING OPERATION CAN NOT BE STOPPED ONCE DELIMER IS ADDED.**



Step 7: "CLOSE DOOR TO START" displayed.



Step 8: "DELIME IN PROGRESS"

- Door latches
- Green power button deactivates
- Machine washes.
- The remaining WASH DELIME time in minutes is displayed on screen.



Step 9: "TIME REMAINING" disappears from screen.
"DRAINING" displayed.

- Door remains latched
- Green power button deactivated
- Drain valve opens and machine drains.





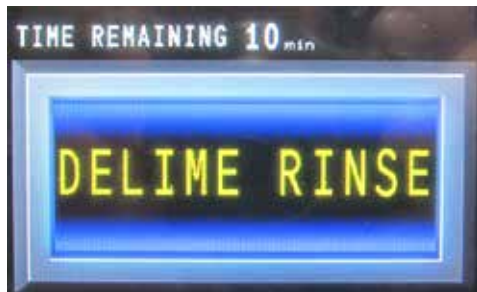
Deliming (continued)

Step 10: Machine Fills



Step 11: "DELIME RINSE" displayed.

- Final rinse water valve opens for the pre-programmed time.
- Time remaining displayed on screen.
- Valve closes.



Step 12: "COMPLETE" displayed.

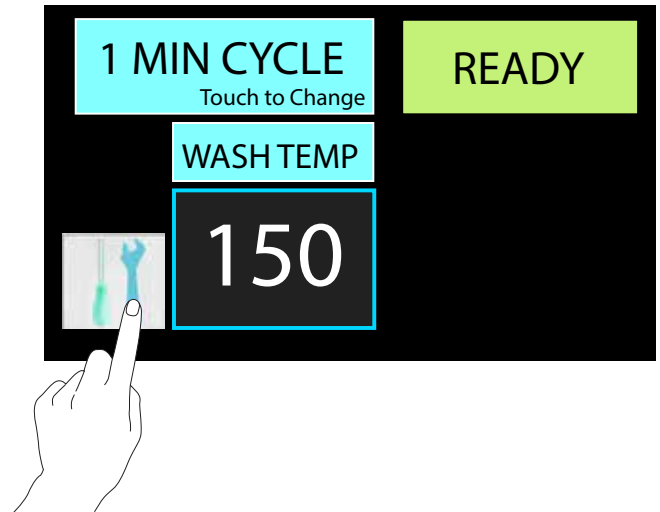
- Deliming operation complete.
- Green power button reactivated.
- Make sure door is closed.
- Push "COMPLETE" button to fill machine.
- Resume normal operation.



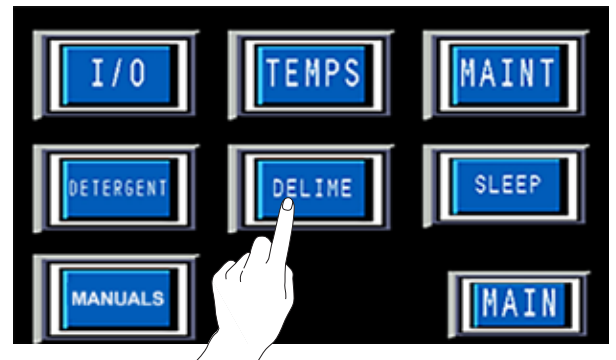
Manual Delime Start

Deliming can be started manually without waiting for the scheduled interval. To start:

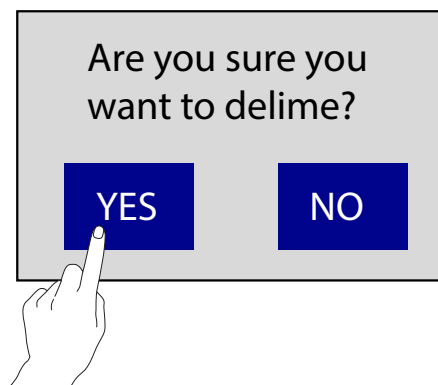
- Press the main screen 'TOOLS' button.



- Press the 'DELIME' button.



- Press DELIME START to begin.
- The message box below appears to confirm the selection.
- Press "YES" to begin deliming, "NO" to cancel.
- Follow the screen prompts beginning on page 13 to delime.



Maintenance

Maintenance Schedules

Daily Maintenance

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

Weekly Maintenance

- Inspect the water and the drain lines for leaks.
- Check underneath the dishwasher for leaks.
- Make sure the floor drains are clear of debris and handle the machine drain flow.

Monthly Maintenance

- Check and delime machine if required.
- Replace damaged scrap screens.
- Replace worn spray arm bearings.

Yearly Maintenance

Contact your authorized service agent for a preventive maintenance inspection.

Lubrication

There are no lubrication points or schedules for this dishwasher.

Troubleshooting Chart

Condition	Cause	Solution
Dishwasher will not run. HMI unresponsive.	Hood not closed/bad door switch. Bad pump/contactator. Power off/overload tripped. Cycle not selected	Close Hood completely. Check breaker on panel. Select 1,2,4 or 6 min. cycle.
Low or no water.	Main water supply is off. PRV setting incorrect. Line strainer clogged. Valve or float 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 Detergent Pump Error Squeeze tube worn.	Refill chemical container. Rinse tube with warm water. Replace tubing. Straighten tubing. Check chemical containers. Replace squeeze tube.
Poor wash results.	Wares incorrectly loaded in dish rack. Clogged screens. Clogged spray arms. Chemical injectors not feeding. Detergent Dispenser leaking. Water temperature below 55°F for VHR.	Reposition wares or reduce amount of wares. Clean screens. Clean spray arms. Check chemical supplies. Repair detergent pump hose. Contact Service Agent Increase water temp to 75°F.
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. Drain valve defective. Building drain clogged.	Clean screen. Contact Service Agent, open drain valve manually to drain. Contact Building Maintenance.

Manually Operating the Drain Valve



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

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

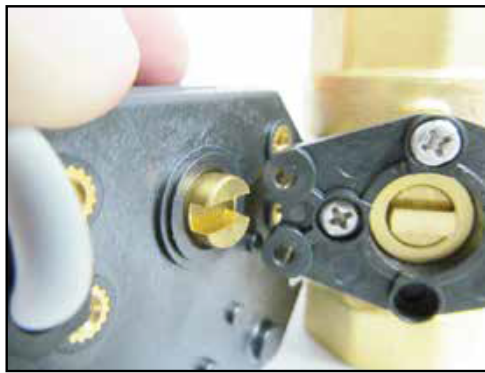


1



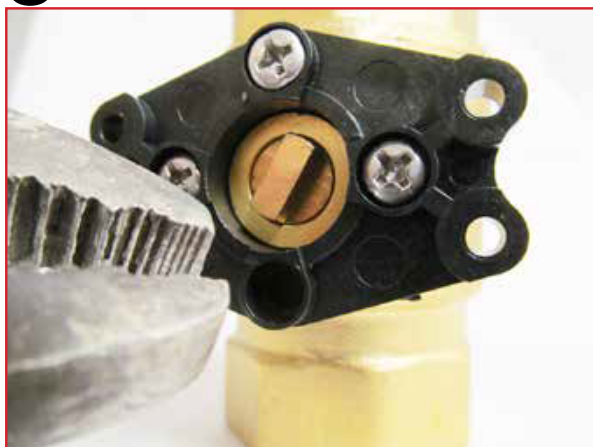
Remove four 2.5mm coil retaining allen screws.

2



Remove the coil from the valve body.

3



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

Reassemble in reverse order.