Champion®

Operation, Cleaning, and Maintenance Manual

44 PRO

PRO Series
Standard
Rack Conveyor Dishwashers

Models	
44 PRO	66 PRO
70FF PRO HD	
80HD PRO	

NSF c UL us LISTED

www.championindustries.com

Issue Date: 7.1.19

Manual P/N 116113 rev. E

For machines beginning with S/N RP17011002 and above

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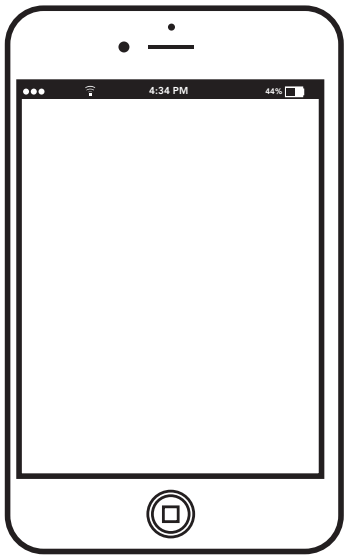
ATTENTION

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 or computer to go to our website at www.championindustries.com and register your product there.**
- **Use the fax form on the next page.**

Model Sizes

44 PRO	44" Single Tank Rack Conveyor
66 PRO	44" Single Tank Rack Conveyor with 22" Prewash Tank
70FF PRO	44" Single Tank Rack Conveyor with 26" Front feed Prewash Tank
80HD PRO	Heavy Duty 44" Single Tank Rack Conveyor with 36" Prewash Tank

Table 1

Minimum Operating Temperatures

MODEL	PREWASH TANK	WASH TANK	FINAL RINSE
44 PRO — 44" 54 PRO — 54"	N/A	160°F/71°C	180-195°F/82-91°C
66 PRO — 44" + 22" PW 70FF PRO — 44 + 26" PW 80HD PRO — 44" + 36" PW	Not to exceed 140°F/60°C	160°F/71°C	180-195°F/ 82-91°C

Table 2

Revision History

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

Revision Date	*Revised Pages*	*Serial Number Effectivity*	*Description*
2.2.17	All	RP17011002	Released First Edition
6.15.17	10	All	Revised 'Below Temp' feature.
8.1.17	IFC	All	Added USGBC
	4-5		Added prewash assembly procedures
2.27.18	11-12	RP18021381	Revised Check Drain Instructions
	16	RP18021381	Revised Conveyor Jam alarm reset instructions
10.19.18	1	RP18071601	Changed drains to electric drain valves
7.1.19	1,25	RP19062022	Changed dependo-drain P/N 114471 to Electric Globe valve P/N 117014

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.
l. 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.
o. 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.
4. 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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SET UP

SET UP

CAUTION:
There may be more than one power source.

CHECK CHEMICAL DISPENSERS AND SUPPLIES.

TURN WATER, ELECTRICAL AND/OR STEAM SUPPLIES ON.

AUTOMATIC ELECTRIC DRAIN VALVE(S) CLOSE WHEN POWER IS ON.

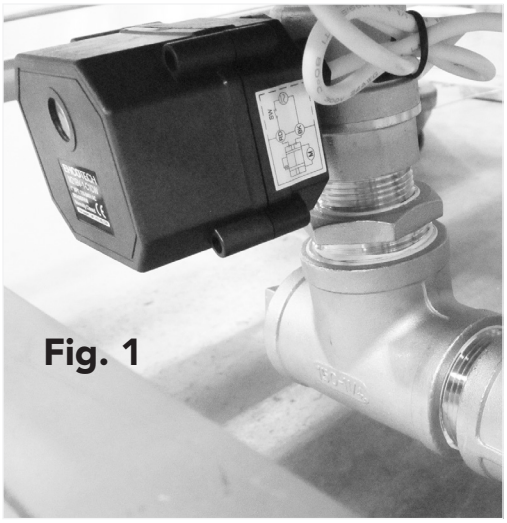
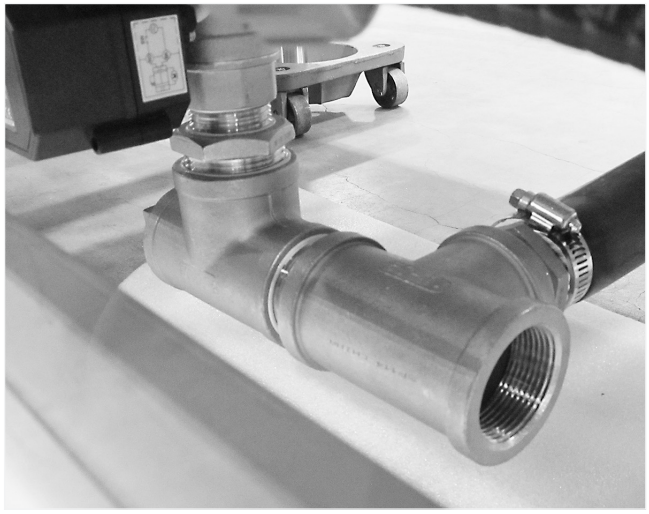


Fig. 1



- PRO Series Dishwashers feature electrically operated drain valves that automatically open and close to drain the dishwashers.

- Refer to Fig. 1 above and note the location of the drain valve.

Drain Valve Operation:

- Valve closes when dishwasher power switch is turned on.
- Valve opens for 10 minutes when power switch is turned off then closes.
- Turn the power on and immediately off to open the valve for an additional 10 minutes.
- See page 25 to manually operate the valve.

SET UP Install the Wash Scrap Screens

1 INSTALL THE SCRAP BASKET.

Fig. 2

2 INSTALL THE SCRAP SCREENS.

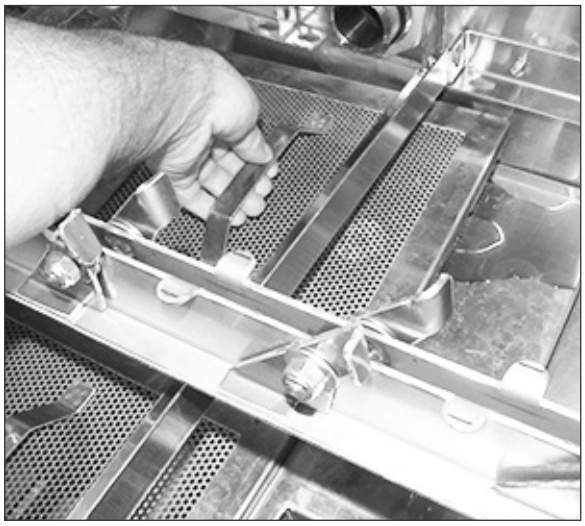


Fig. 3

Install the Prewash Scrap Screens

1 INSTALL THE SCRAP BASKET.

Fig. 4

2 INSTALL THE SCRAP SCREENS.

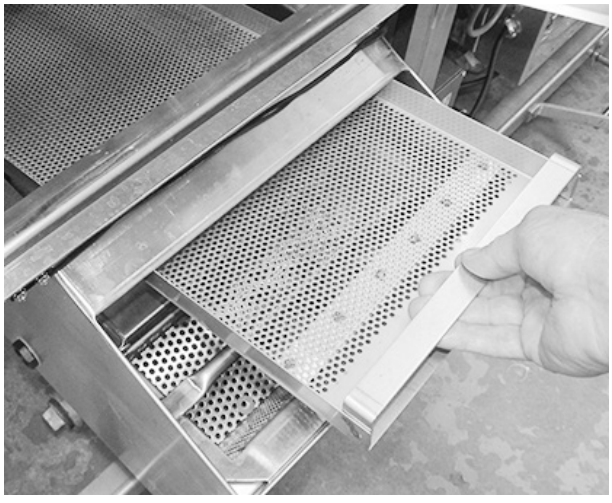


Fig. 5

Install the Wash Arms

1 SLIDE UPPER WASH ARM INTO TRACKS MAKING SURE IT ENGAGES THE WASH MANIFOLD. PUSH WASH ARM UP UNTIL THE LATCHES LOCK IT IN PLACE.

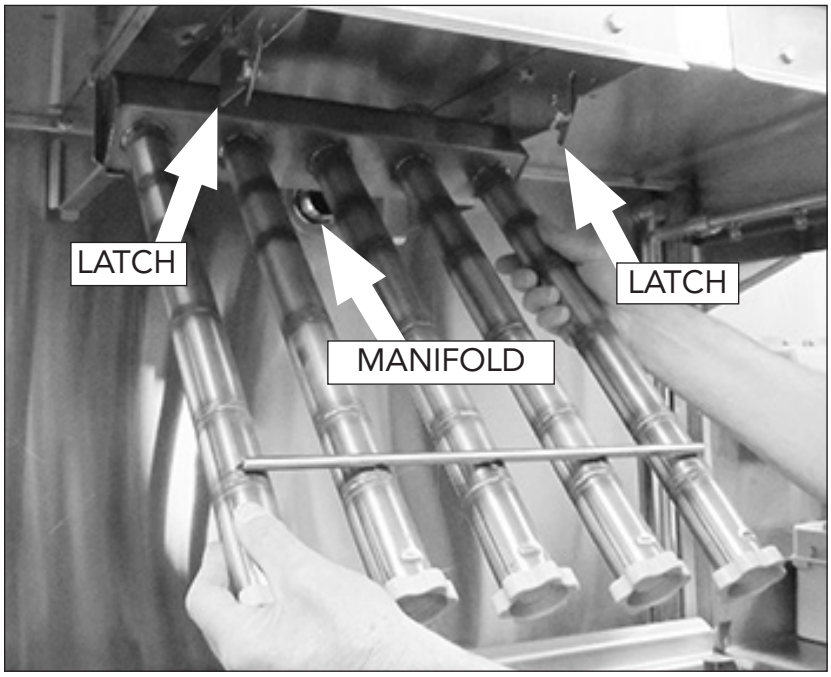


Fig. 6

2 SLIDE LOWER WASH ARM INTO TRACKS MAKING SURE IT ENGAGES THE WASH MANIFOLD. PUSH THE END OF THE WASH ARM DOWN TO LOCK IT IN PLACE.

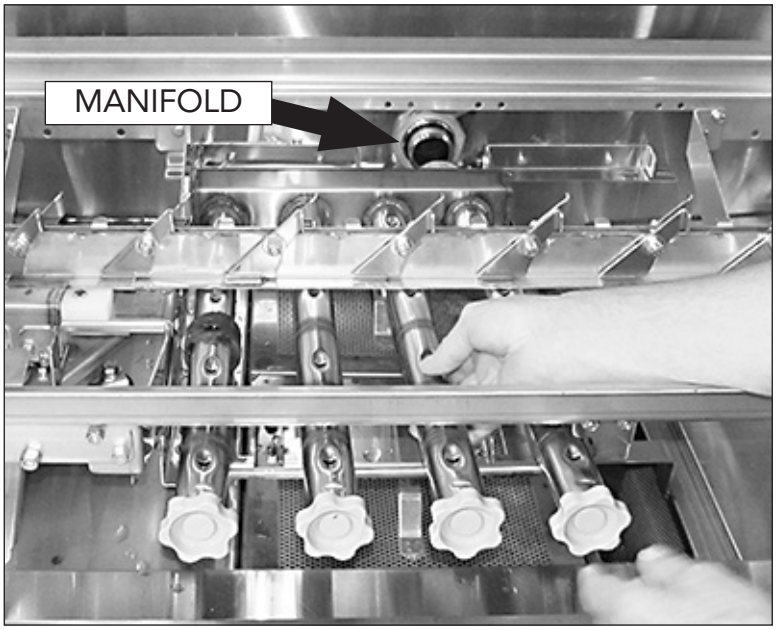


Fig. 7

SET UP

Install the Prewash Arms

1 SLIDE UPPER WASH ARM INTO TRACKS MAKING SURE IT ENGAGES THE WASH MANIFOLD. PUSH WASH ARM UP UNTIL THE LATCHES LOCK IT IN PLACE.

Fig. 8 -
22" Prewash Tank

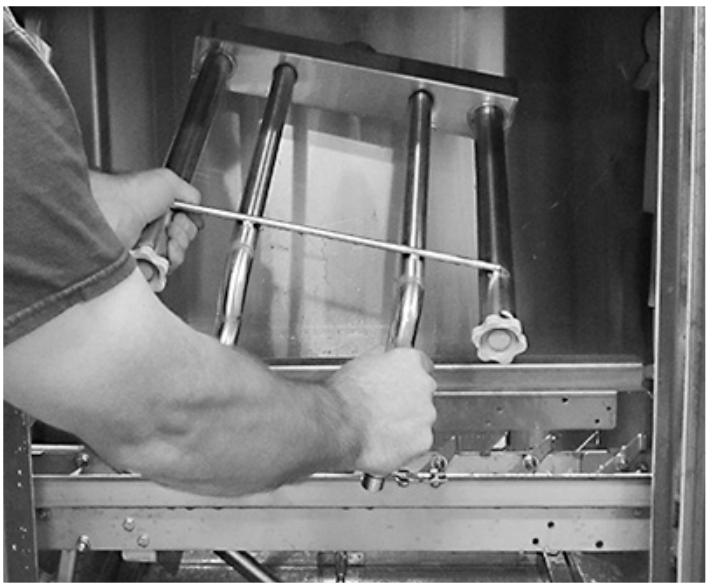


Fig.9 -
36" Prewash Tank

2 MAKE SURE THE CLEAN-OUT PLUGS AND O-RINGS ARE INSTALLED.

Fig. 10

3 INSTALL THE SIDE WASH SPRAY PIPE(S). TURN TO LOCK IN PLACE.

22" Prewash Tank

36" Prewash Tank

Fig. 11

Curtain Locations

Curtain Size

LONG	24" x 20-1/4" [610mm x 514mm]	P/N 113720
	ROD, 5/16" x 24-5/8"	P/N 108250

SHORT	24" x 6-1/4" [610mm x 159mm]	P/N 109723
	ROD, 5/16" x 23-1/2"	P/N 1113012

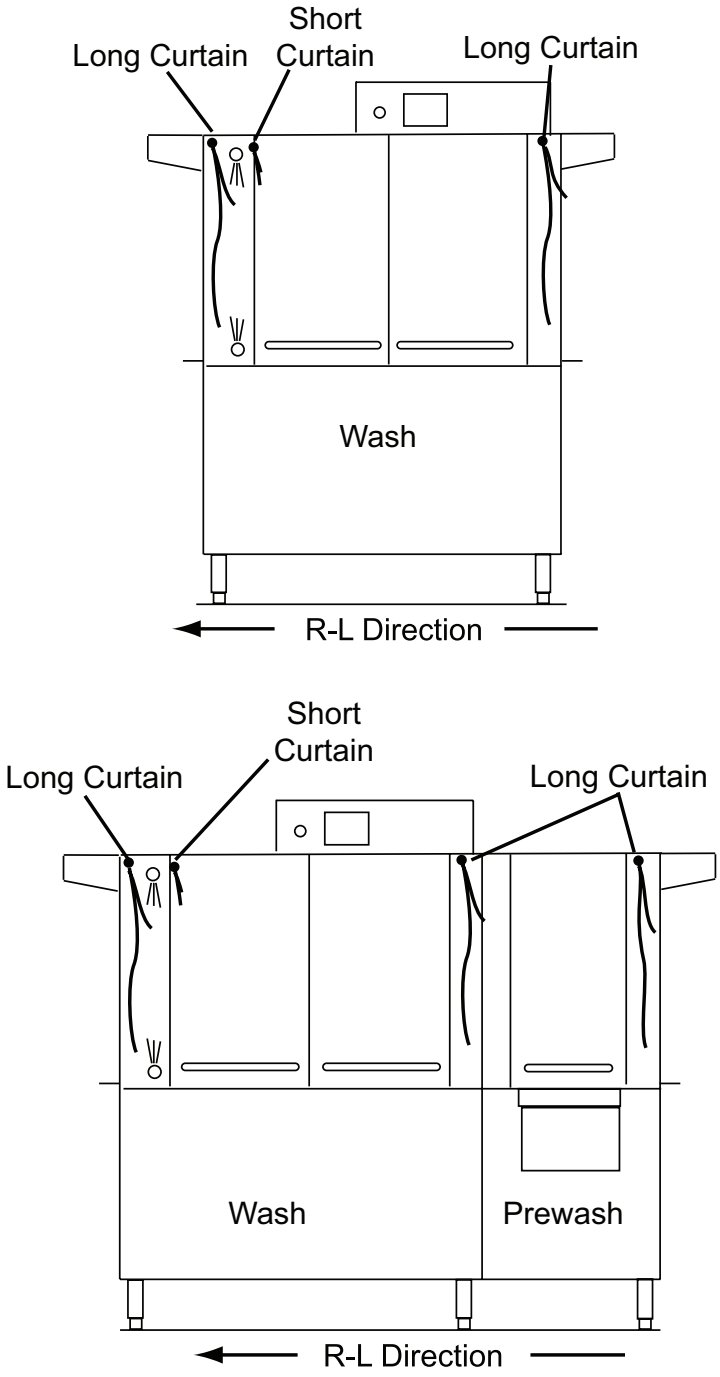


Fig. 12

Curtain Installation

CAUTION:
Failure to properly install a curtain may prevent proper heating of the machine.

LABELS ON THE FRONT OF THE MACHINE INDICATE THE CURTAIN LOCATIONS.

HANG THE CURTAINS ON THE HOOKS LOCATED ON EACH SIDE OF THE HOOD.

MAKE SURE THE CURTAIN SHORT FLAPS FACE THE LOAD END OF THE MACHINE.

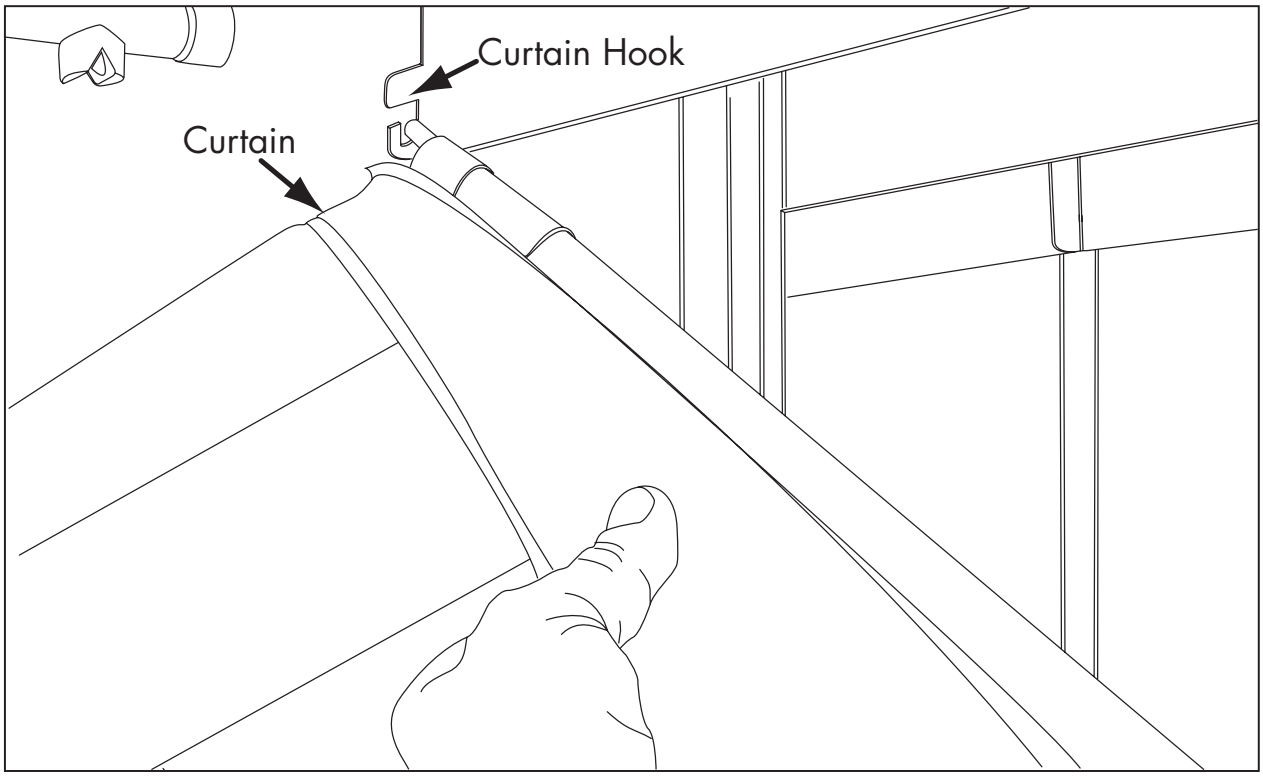


Fig. 13

Operation - Loading Dish Racks

REMOVE FOOD REMNANTS FROM THE WARES BEFORE LOADING THEM INTO DISH RACKS.

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 LONG SIDE UP IN A SHEET PAN RACK

DO NOT OVERLOAD RACKS. SPACE WARES EVENLY IN THE DISH RACK.

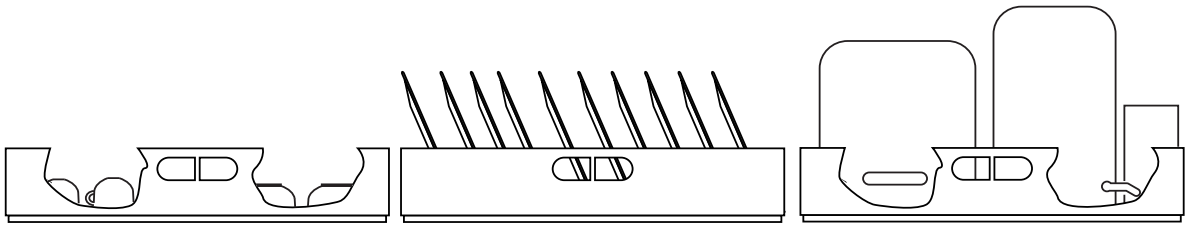


Fig. 14

Sequence of Operation

1. Touch the Green Power button. The drain valves will close and the dishwasher will begin the automatic fill. The display screen will illuminate; a flashing faucet appears and FILLING displays in the status bar.
2. **CHECK DRAIN:** During the initial fill, if the machine does not fill within 5 minutes, the machine will stop filling and CHECK DRAIN will appear in the status bar. Check the machine drain to ensure it is closed. To reset: touch the Wrench symbol to go to the settings screen, touch 'Reset'. The machine will begin filling again. Touch 'MAIN' and return to the operation screen.
3. The incoming wash temperature displays in the Wash °F box. The final rinse temperature displays in the Rinse °F box during the final rinse, the final rinse temperature display is blank at all other times.
4. **READY:** The status bar indicates 'READY' when the machine is full of water. WAIT FOR THE WASH TEMPERATURE to read 160°F/71°C before inserting a dish rack into the machine.
5. Slide a dish rack into the machine until the wash pump(s) start. The conveyor will catch the rack and move it through the machine. The minimum wash temperature displayed must be 160°F/71°C when the rack is in the wash zone. The final rinse temperature displayed when the dish rack is in the final rinse zone must be 180-195°F/82-90°C. The dishwasher runs for 90 seconds for one rack, inserting additional racks continues the automatic operation until the last rack exits the machine. CAUTION: Take care as hot dish racks exit the machine.
6. **DWELL:** Dwell allows the operator to pause heavily soiled wares in the wash zone for 10 seconds. **To activate DWELL:** Slide a dish rack into the machine until the conveyor catches the rack, then immediately touch the 'DWELL' button on the Touch Panel/ Display. The rack will pause in the wash zone for 10 seconds. Wait until dish rack has left the wash zone before inserting another rack. The dwell button must be touched for each rack that requires extra washing.
7. **TABLE FULL:** An optional table limit switch, (TLS), is available to stop the conveyor when too many dish racks are allowed to accumulate on the clean dish table. When this happens, 'TABLE FULL' appears in the status bar and the dishwasher pump(s), conveyor and final rinse stop. Remove dish racks from the unload table to reset the TLS, then insert a dish rack to restart the machine.
8. **CONVEYOR JAM:** If the conveyor jams, the pumps and conveyor stop and 'CONVEYOR JAM' appears in the status bar. Remove any dish racks in the machine and clear the jam. Insert a rack into the machine to restart normal operation.
9. **DOOR OPEN:** 'DOOR OPEN' appears in the status bar whenever a door is opened. The status bar displays 'READY' when the door is closed. Insert a dish rack to start the pumps and conveyor drive.
10. **CHANGE WATER:** The dishwasher should be drained and refilled with fresh water every two hours of continuous operation. 'Change Water' appears in the status bar to remind the operator to perform this function. The dishwasher should also be drained and cleaned every eight hours of continuous operation and at the end of the day, whichever occurs first. Turning the machine power off will automatically open the electric drain valves for 10 minutes.

Operation - Control Panel Description

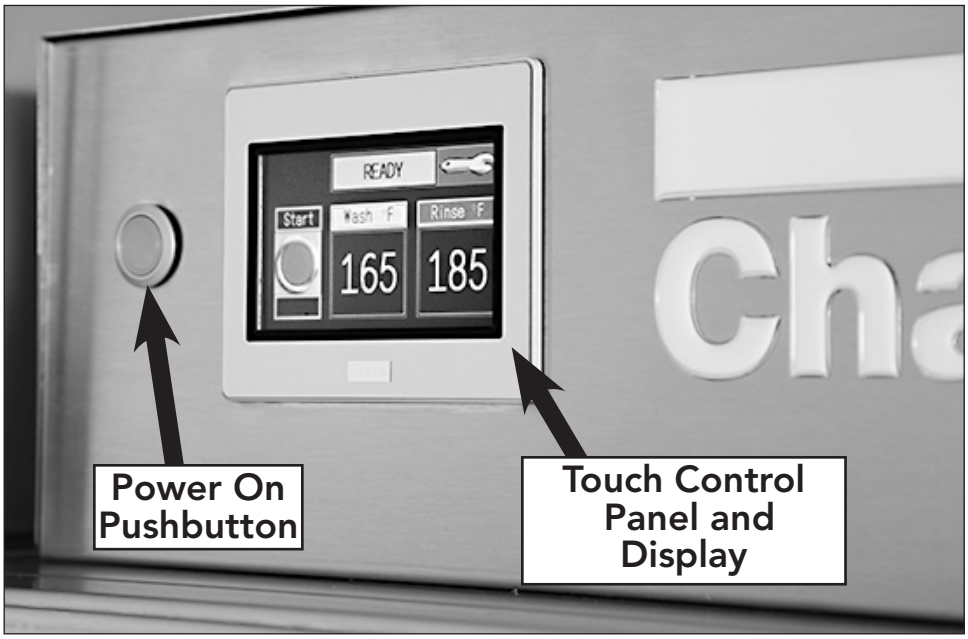


Fig. 15

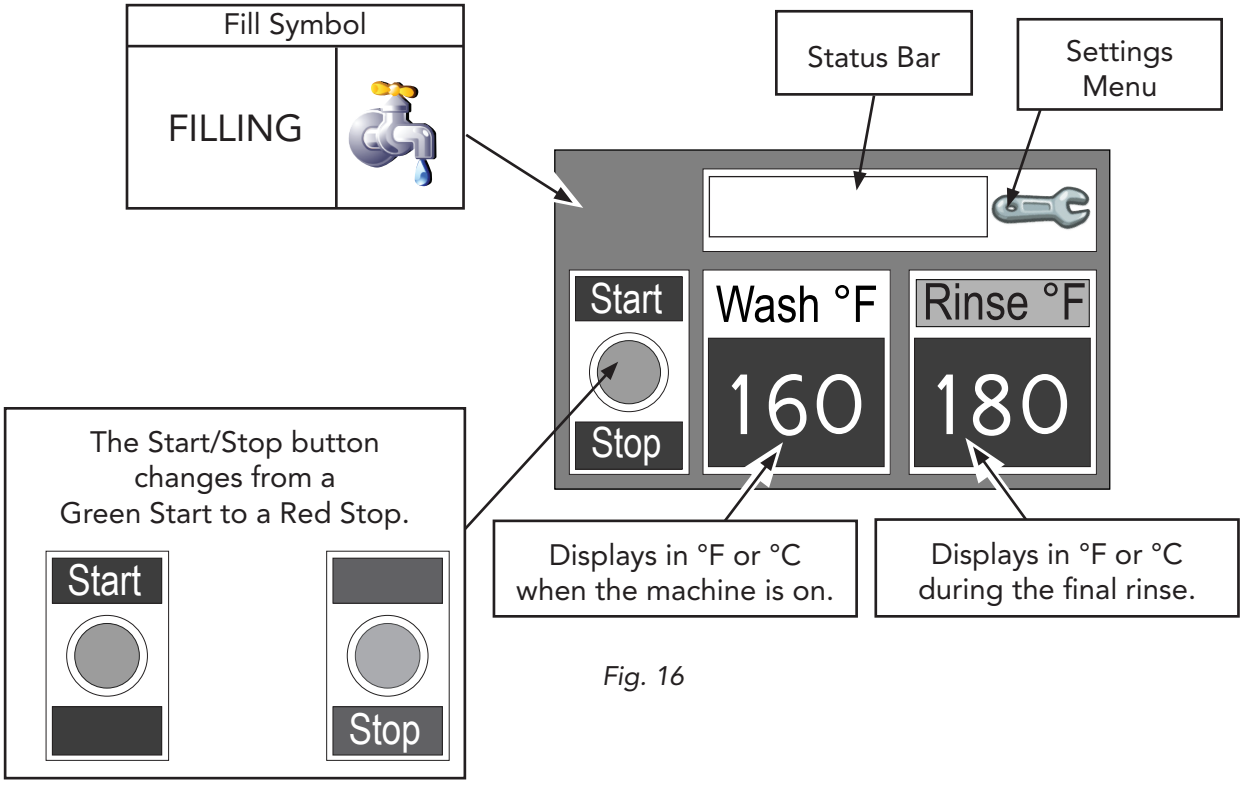


Fig. 16

Displays

INITIAL FILL —

1 Push the Green Power button ON. The display illuminates, the fill symbol flashes,and 'Filling' appears in the status bar.

2 The wash temperature displays. The rinse temperature display is blank; it only displays a temperature during the final rinse.

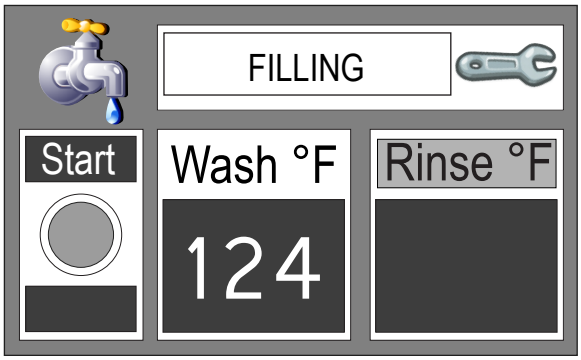


Fig. 17

CHECK DRAIN—

! If the machine does not fill within 10 minutes, the fill stops and 'CHECK DRAIN' appears in the status bar. Make sure the drain valves are closed.

1 To reset the check drain: Touch the wrench symbol to access the maintenance menu.

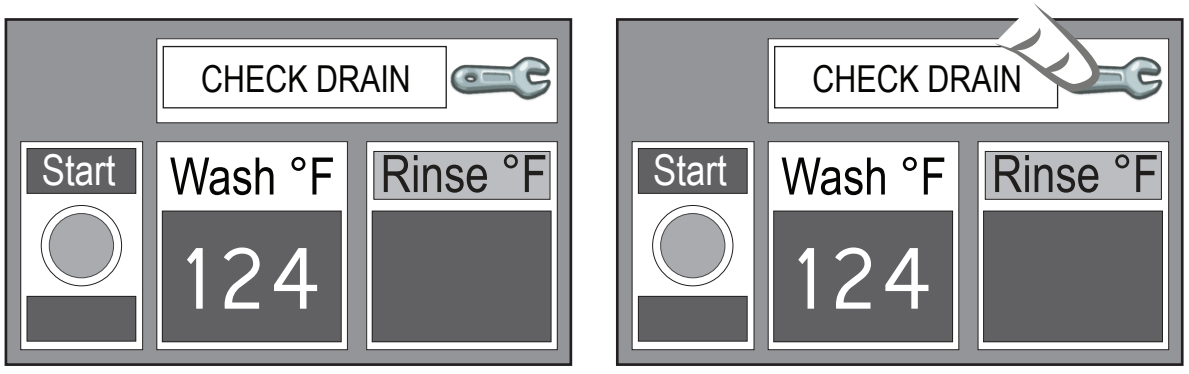


Fig. 18

Continued on next page.

CHECK DRAIN (continued)

2 Touch 'RESET' and then 'MAIN' to clear the 'CHECK DRAIN' message. The display will return to the 'FILLING' shown in Fig. 17.

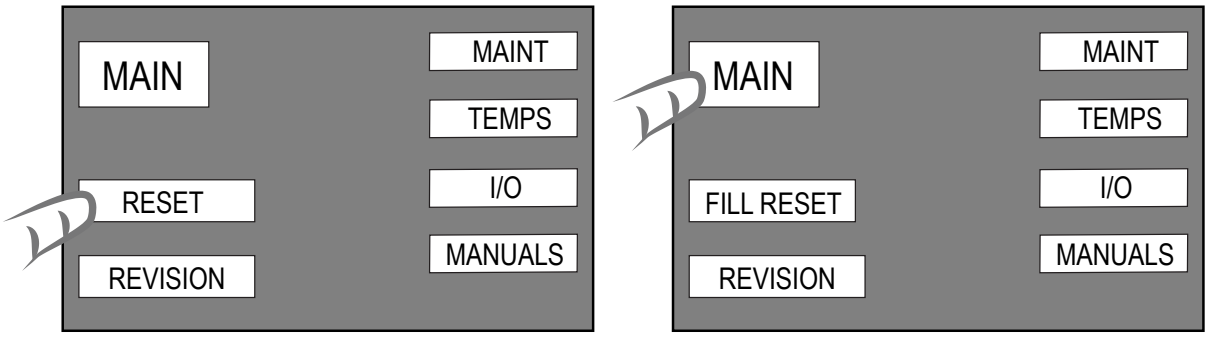


Fig. 19

BELOW TEMP — READY

1 The display indicates 'BELOW TEMP' when the tank is full of water but has not reached the preset temperature. The preset temperature is usually set to 165°F/74°C.

2 The display indicates 'READY' when the wash tank reaches the preset temperature.

! DEFAULT SETTING: MACHINE WILL WASH WHEN 'START' IS PRESSED. OPTIONAL SETTING: THE MACHINE WILL NOT WASH UNTIL THE PRESET TEMPERATURE IS ACHIEVED.

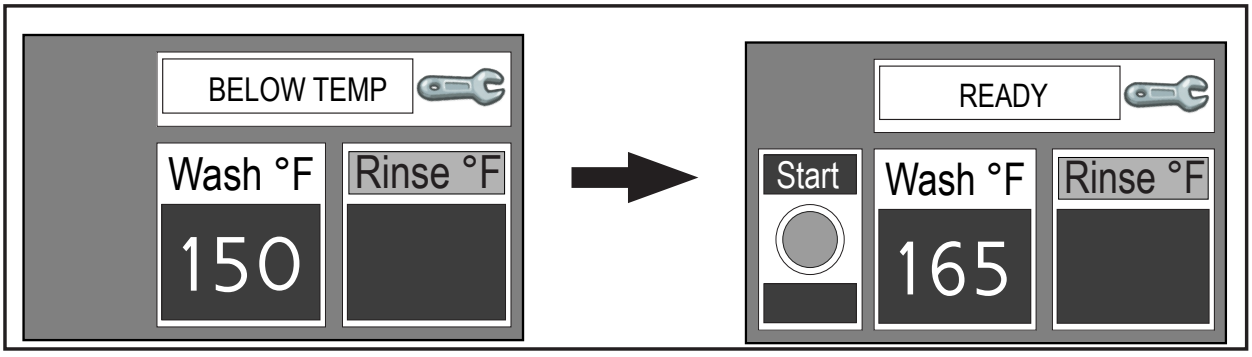


Fig. 20

Displays (continued)

WASH — FINAL RINSE

1	Touch the Green 'Start' button when 'READY' appears in the status bar. The button will change to a Red 'Stop' button.
2	Insert a dish rack into the machine, the pumps and conveyor will start automatically. The minimum wash temperature is 160°F/71°C.
3	The final rinse temperature is displayed when the dish rack enters the final rinse zone. The final rinse temperature must be between 180-195°F/82-90°C.
4	Slide the dish rack out of the machine. The machine will stop automatically and the display will return to 'READY' unless another dish rack is loaded into the machine.

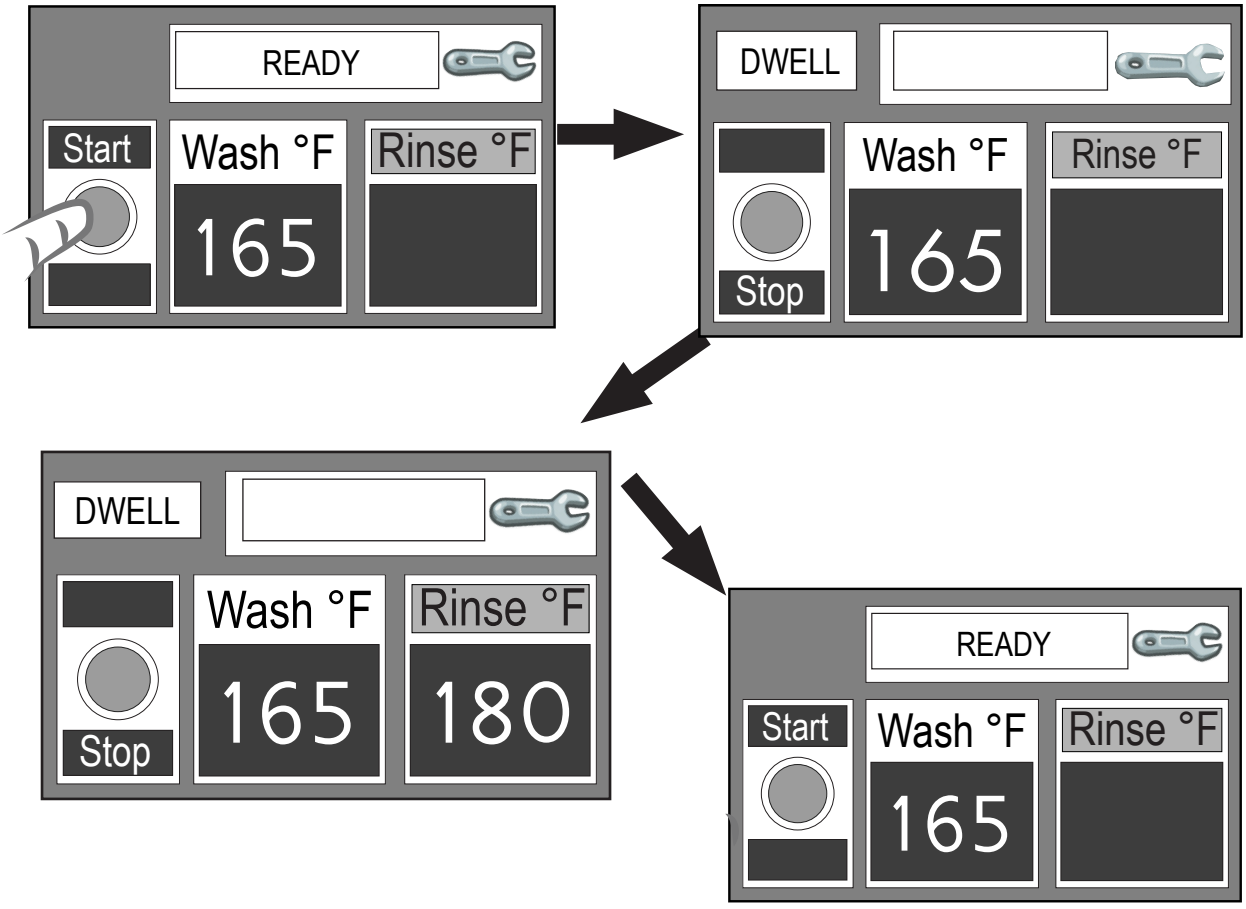


Fig. 21

DWELL — Ten second wash delay for a single dish rack.

1	Insert a dish rack of heavily soiled dishes into the machine. 'DWELL' appears on the display.
2	Immediately touch the 'DWELL' button when it appears. It will turn red when touched indicating dwell is activated. The conveyor will stop the rack for ten seconds when it is in the wash zone. The rack will then continue to the final rinse zone and exit the machine.
3	The DWELL function ends when the dish rack exits the machine.

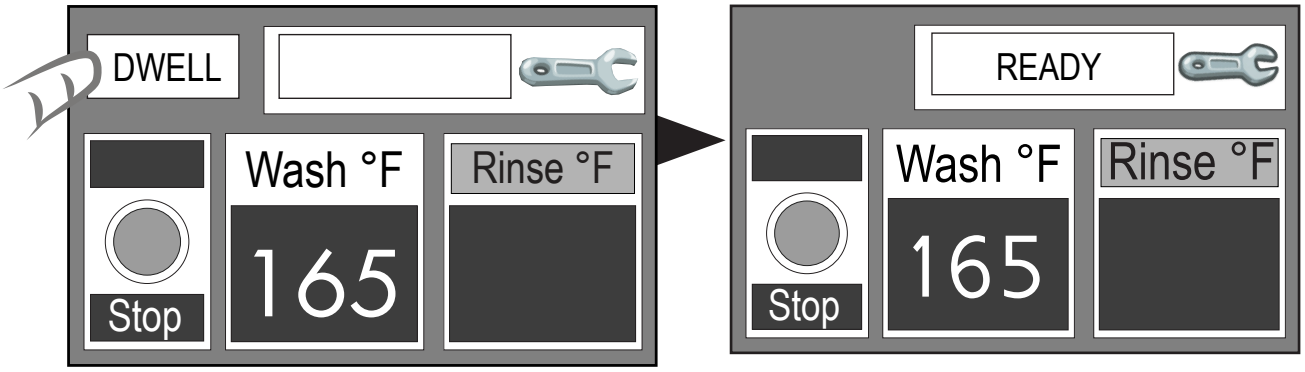


Fig. 22

DWELL — Wash delay for multiple dish racks.

TO WASH MULTIPLE DISH RACKS USING THE 'DWELL' FEATURE:

1	Insert the first rack and touch the 'DWELL' button to begin.
2	Wait for the first rack to pause (10 secs. for 44 PRO, 15 secs. for 66 Pro) then insert another rack into the machine and immediately touch the 'DWELL' button.
3	Repeat this process until the last dish rack of heavily soiled wares is inserted into the machine. The dwell operation will stop after the last rack exits the machine.

Displays - ALARMS

DOOR OPEN — The machine stops if a dishwasher door is opened.

To clear the 'DOOR OPEN' alarm: Close the door.
'READY' will appear in the status bar.
Insert a dish rack to restart the machine.

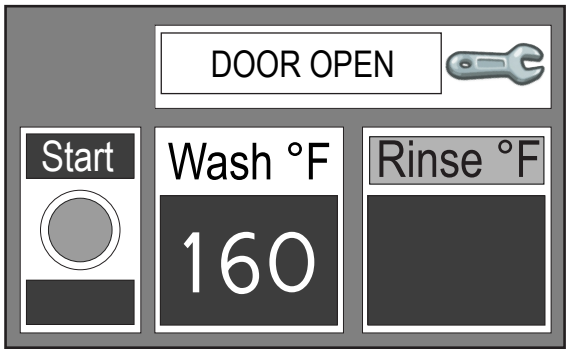


Fig. 23

TABLE FULL — The machine stops if too many dish racks have accumulated on the dishwasher unload table, tripping the table limit switch.

To clear the 'TABLE FULL' alarm:
Remove the dish racks on the unload table.
Remove any dish racks inside the machine for reprocessing.
Insert a dish rack to restart the machine.

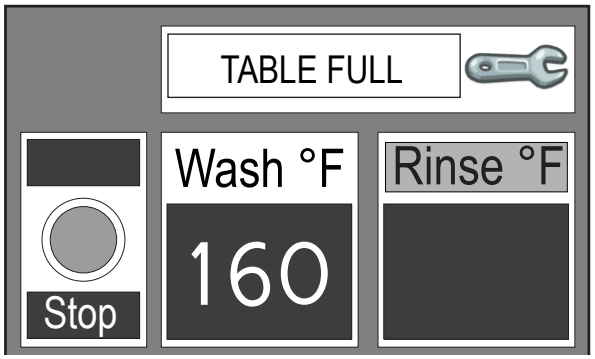


Fig.24

ALARMS

CONVEYOR JAM —

The machine stops and 'Conveyor Jam' is displayed if the conveyor is overloaded or an object interferes with the conveyor's movement.

To rest the 'Conveyor Jam' alarm:

1. **Open the doors and remove any dish racks.**
2. **Inspect the machine interior for articles obstructing the pawl bar drive.**
3. **Touch the Wrench symbol to access the reset button.**
4. **Touch 'RESET'.**
5. **Touch 'MAIN'.**
6. **Touch the green 'Start' button when 'READY' appears.**
7. **Insert a dish rack of wares.**

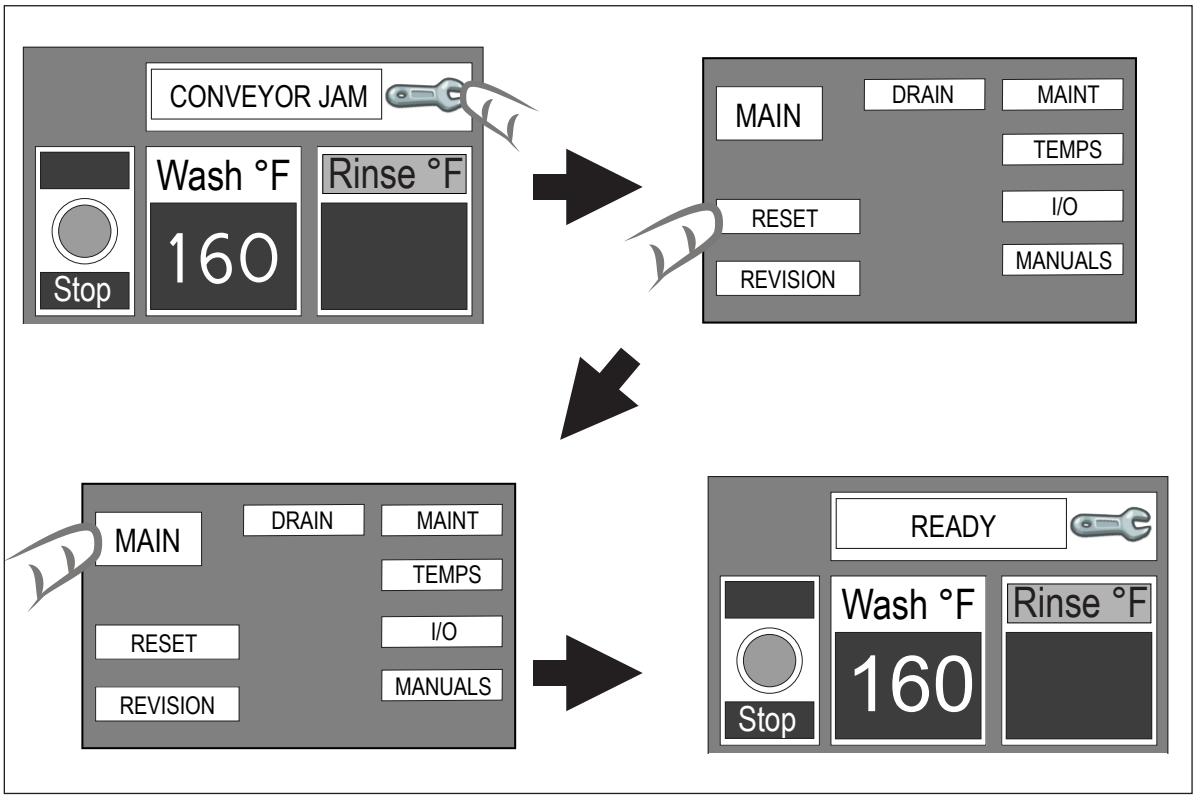


Fig. 25

ALARMS

CHANGE WATER — This OPTIONAL alarm prompts the operator to drain the machine and refill with fresh water after an extended period of operation. The Change Water alarm does not stop the dishwasher.

To clear the 'CHANGE WATER' alarm:

1. **Touch the red 'STOP' display button.**
2. **Open the doors. 'DOOR OPEN' appears in the status bar.**
3. **Open the drain and allow the machine to drain completely.**
4. **Close the doors. The machine will begin to fill and heat automatically.**
5. **Touch the green 'START' button when 'READY' appears in the status bar.**
6. **Insert a dish rack to start the machine.**

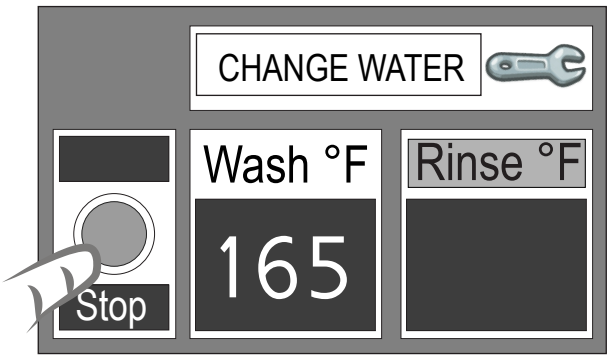


Fig. 26

Cleaning - Intervals

Cleaning your dishwasher is the best maintenance you can do. The cleaning intervals below are the minimum requirements for most dishwashers. You may need to clean your dishwasher more often when washing heavily soiled wares or during long periods of continuous operation.

Daily or every 2 hours of operation

1. Turn power switch to OFF.
2. Pull drain lever(s) to drain water. Remove scrap screens and scrap baskets. Clean inside of the tanks and flush with clean water. Back flush the scrap screens until clean.

   DO NOT STRIKE SCREENS OR BASKETS AGAINST SOLID OBJECTS

3. Remove the spray arm assemblies. Remove the end cap from each spray arm.
4. Flush the spray arms and nozzles to remove any debris.
5. Replace the end caps. Check the condition of the manifold O-ring.
6. Reinstall the spray arms.
7. Remove and clean the curtains. Allow them to dry at the end of the day.
8. Leave the doors open between operations, allowing the machine to dry.
9. Make sure that the final rinse nozzles are clear of mineral deposits.
10. Straighten a metal paper clip to clean the nozzles.
11. Check the temperature and pressure gauge readings during operation.
12. Inspect the machine for signs of water leaks.
13. Check the chemical supplies and refill as necessary.

At the End of the Day

1. Perform Steps 1-10 as listed above.
2. Remove the curtains and clean with fresh water.

   DO NOT USE STEEL WOOL TO CLEAN THE INTERIOR OF THE MACHINE.

3. Wipe the interior and exterior of the machine with a soft cloth and a mild detergent. **DO NOT HOSE THE EXTERIOR OF THE MACHINE WITH WATER.**
4. Reassemble the dishwasher and leave the doors open to allow overnight drying.
5. Contact the chemical supplier for deliming if required.

Cleaning

PUMP SUCTION STRAINER — The pump suction strainer is located in the bottom of the wash tank(s) and is the most neglected cleaning task.

CAUTION:
Failure to clean the pump suction strainer significantly reduces wash results.

TO CLEAN THE PUMP SUCTION STRAINER:

1. **Perform the cleaning procedures shown on the next pages before cleaning the strainer.**
2. **Refer to Fig. 27 below and note the location of the strainer on the tank wall. Pull the strainer straight up to remove.**
3. **Refer to Fig. 28 below and note the screen on the bottom of the strainer. Thoroughly clean this screen.**

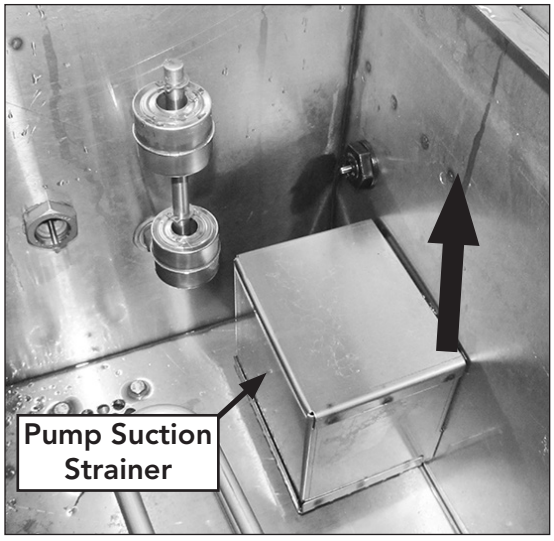


Fig. 27

Fig. 28

Cleaning

WASH ARMS — The upper and lower wash arms should be removed and cleaned after eight hours of continuous operation and at the end of the day.

1	**Rotate the wash arm end plugs 1/4 turn and pull out to remove.**
2	**Inspect the wash arm O-ring. Damage significantly reduces wash performance.**
3	**Flush the wash arms and inspect the wash arm nozzles to ensure they are clean.**
4	**Inspect the wash manifold O-ring. Damage significantly reduces performance.**
5	**Remove the Prewash sidewash pipe plugs and flush pipes clean (see Fig. 31).**

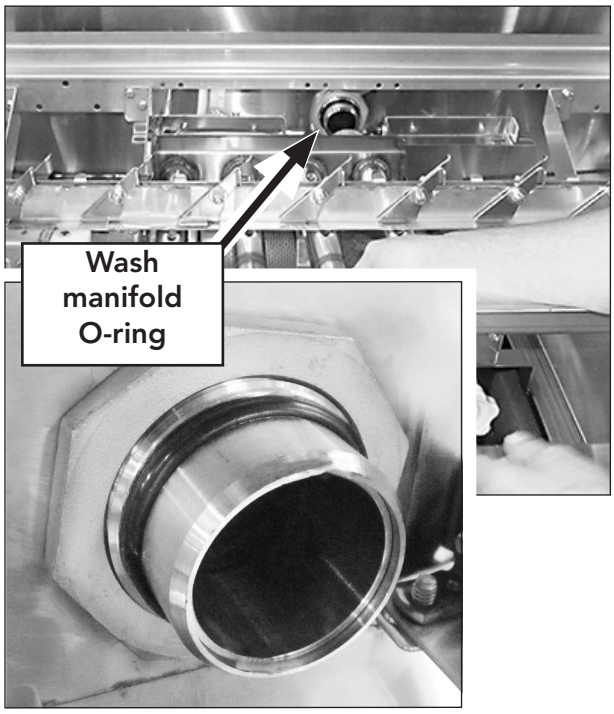


Fig. 29

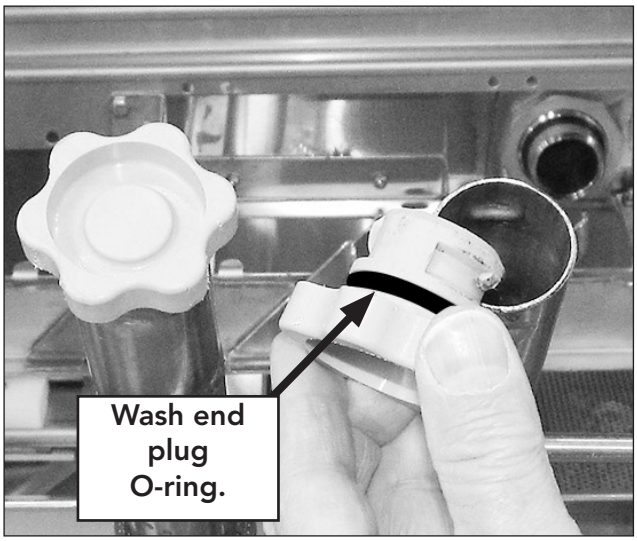


Fig. 30

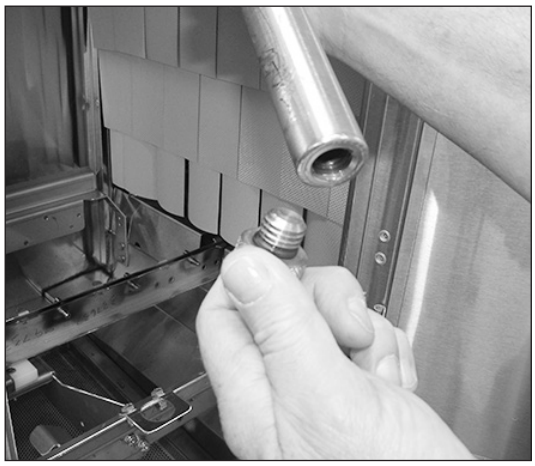


Fig. 31

RINSE ARMS —

The upper and lower rinse arm nozzles should be cleaned regularly to prevent scale build-up.

TO CLEAN THE RINSE ARMS:

1. Rotate the rinse arm 1/4 turn and pull to remove from the rinse manifold.
2. Inspect the rinse arm O-rings and replace if damaged or worn.
3. Use a straightened paper clip to clean the rinse arm nozzles.
4. Remove the end plug and flush to remove any debris.

Fig. 32

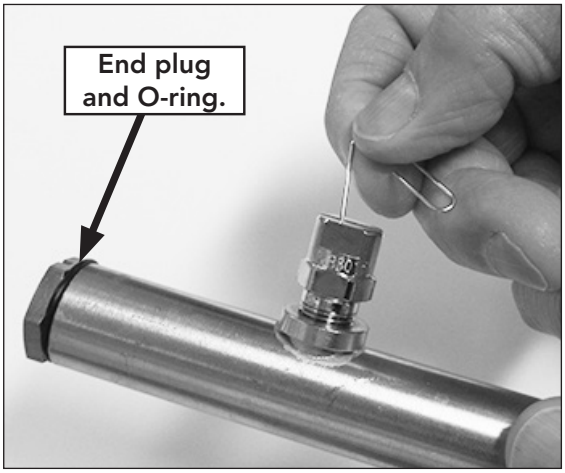


Fig. 33

EXTERIOR —

CAUTION:
NEVER HOSE THE EXTERIOR OF THE MACHINE WITH WATER.

TO CLEAN THE MACHINE EXTERIOR:

1. Use a soft cloth and mild detergent.
2. Leave the doors open to aid in overnight drying.

Deliming

WARNING:
Death or injury can result from toxic fume when deliming agents come in contact with Chlorine Bleach, or other chemicals that contain iodine, bromine, or fluorine.

CAUTION:
Deliming agents can cause chemical burns. Wear rubber gloves, eye protection and any other protective clothing as instructed by a qualified chemical supplier.

CAUTION:
Follow all of the chemical supplier's instructions when deliming the dishwasher.

1. Consult the Chemical Supplier's instructions before deliming the machine.
2. Wear personal protective equipment including rubber gloves, rubber apron, googles and face shield.
3. Make sure detergent and rinse-aid chemicals will not enter the machine during the deliming process.
4. Turn dishwasher power off and drain the machine.
5. Remove the scrap screens, strainer baskets and wash arms. Clean and set aside.
6. Remove the final rinse arms, clean the nozzles using a paperclip and set aside.
7. Clean any food soils from the machine interior.
8. Reinstall the scrap screens, baskets, wash arms and rinse arms.
9. Turn the dishwasher power on and fill the machine with fresh water.
10. The wash tank holds 17 US gals of water. Wear protective clothing and add the chemical supplier's recommended quantity of deliming solution to the machine.
11. Insert an upside down dishrack into the entrance of the machine. This will operate the start switch to run the machine until the chemical supplier's recommended deliming time has elapsed.
12. Turn the dishwasher power off to stop.
13. Open the doors and inspect the machine interior. If it is not delimed satisfactorily, drain and refill the machine, then repeat steps 8-9.
14. When deliming is complete, drain and refill the machine with fresh water. Then run the machine 2 cycles and drain and refill again to flush any residual chemicals.
15. Restore the detergent and rinse-aid systems.
16. Deliming is complete.

Maintenance

Weekly

1. Inspect all water lines for leaks and tighten at joints if required.
2. Clean any detergent residue from the exterior of the machine.
3. Check that the drain/overflow pipes seat tightly in their drains.
4. Clean any accumulated scale from the heating element.
5. Inspect the spray arms for any damage or missing parts.
6. Inspect the final rinse arms for missing parts.
7. Inspect the pawl bar and drive assembly for damage or missing parts.
8. Check that float switches move freely.
9. Check the idle pump actuator and the final rinse actuator for freedom of travel.

Monthly

1. Inspect interior of machine for lime deposits and clean.
2. Check o-rings on spray arm piping connections.
3. Check that the drain/overflow o-rings are in place and in good condition.
4. Clean any accumulated scale from the heating element.
5. Inspect the spray arms o-rings and ensure all plugs are installed.
6. Inspect the final rinse arms for missing parts and are clean.
7. Inspect the pawl bar and drive assembly for damage or missing parts.
8. Check that float switches move freely.
9. Check the idle pump actuator and the final rinse actuator for freedom of travel.
10. Check the drive clutch and adjust as necessary.
11. Check the pump rotation and direction of rotation.
12. Check the operation of temperature gauges or displays.
13. Perform complete operation check.

Yearly

1. Contact authorized service agent to perform complete maintenance review of machine.
2. Correct any abnormal situations as recommended.

Before calling for service check the following conditions.

1. Dishwasher main power and water supply is on.
2. Machine has been assembled correctly.
3. Conveyor is clear of any obstructions.
4. Drains are closed.
5. Screens and pump intake screens are clear.
6. Doors are closed and secure.

Condition	Cause	Solution
Dishwasher will not run.	Door not closed. Main power OFF. Dishwasher OFF. Dish rack not inserted.	Close door completely. Check breaker on panel. Turn dishwasher ON. Insert dishrack into machine.
Low or no water.	Main water supply off. PRV setting incorrect Solenoid strainer clogged. Solenoid valve defective.	Open supply valve. Adjust the PRV setting Clean strainer. Contact Service Agent.
Poor wash results.	Detergent not added to tank. Wares incorrectly loaded. in dishrack. Clogged screens . Clogged spray arms. Thermostat defective. End plugs missing. Water temperature low.	Check detergent suppy. Reposition wares or reduce amount of wares. Clean screens.. Clean spray arms. Contact Service Agent. Check spray arms. Check incoming water temperature.
Dishwasher conveyor stops for 10 seconds.	'DWELL' feature in action.	DO not touch 'DWELL' button when loading rack.
Dishwasher conveyor will not run.	Conveyor jammed or table limit switch has stopped conveyor.	Check conveyor for jams Remove racks from load end of table.

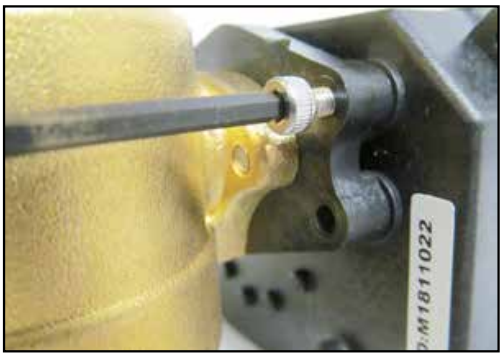
HOW TO MANUALLY OPERATE NEW PRO DRAIN VALVE

Electric Drain Valve, P/N 117014 Beginning with S/N: RP19062022, Effective 7/1/19

- The new electric drain valve does not have a manual lever as the Dependo-Drain.
- 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.