

F U N C I O N A M I E N T O
O P E R A T I O N

FT1000-SERIES DISHWASHERS LAVE-VAISSELLE DE LA GAMME FT1000 LAVAVAJILLAS SERIE FT1000

MODEL
MODÈLE
MODELO

ML-130250 COVERS ALL OF THE FOLLOWING MODELS

FT1000
FT1000-ER
FT1000-ER-BD
FT1000S
FT1000S-ER
FT1000S-ER-BD



HOBART

701 S. RIDGE AVENUE
TROY, OHIO 45374-0001

937 332-3000

www.hobartcorp.com

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Operation and Care Of FT1000 SERIES DISHWASHERS

SAVE THESE INSTRUCTIONS

OPERATION

MACHINE PREPARATION – CHECK BEFORE BEGINNING OPERATION

Open the machine doors and make sure all components are in their proper operating positions before beginning operation.

- All strainer pans and scrap baskets must be properly installed in each section (Fig. 1).

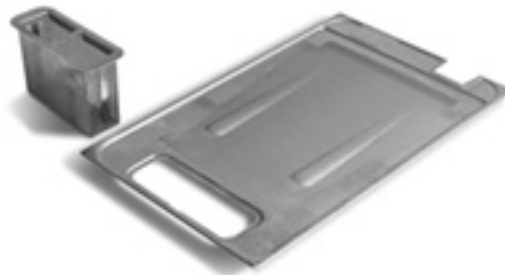


Fig. 1

- The external scrap basket(s) must be properly installed beneath the load of the machine (Fig. 2).



Fig. 2

- All upper and lower wash arms must be properly installed in each section. Wash arm sliders must also be placed in the closed position (Figs. 3 & 4).



Fig. 3

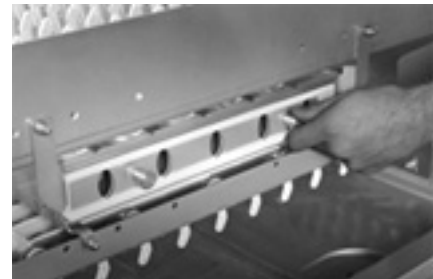


Fig. 4

- The dual rinse and final rinse arms must be properly installed (Figs. 5 & 6).



Fig. 5



Fig. 6

- On machines equipped with the ASR section, the ASR arms, strainer pan, and soil collector stand pipe must be properly installed (Figs. 7 & 8).



Fig. 7

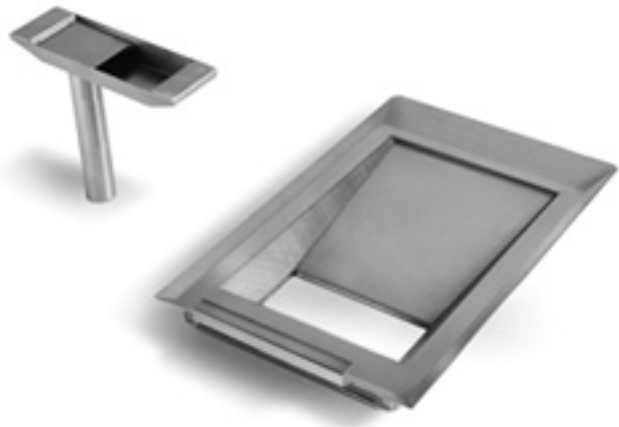


Fig. 8

- All curtains must be properly installed, according to the curtain chart located on the front of the machine's control box or on pages 12-15 of this manual.
- All tank drains must be placed in the closed position.
Master drain (only machines equipped with Auto Clean and Auto Delime) must be placed in the open position.

TANK FILLING

All water (and steam, if equipped) supply valves must be opened and the electric supply turned on before the machine will function.

Close all drains and doors. The drain handles are located near the floor at the front of each tank. Swing drain handles to the right to close and to the left to open. (On machines equipped with Auto Clean and Auto Delime, open the Master Drain located at either the load or unload end of the unit. Swing the Master Drain handle to the right to open and to the left to close.)

Press the Power key on the keypad located on the door of the control box (Fig. 9). The display will light up.



Fig. 9

If door(s) are not closed, *Door(s) Open* displays. If drain(s) are not closed, *Drain(s) Open* displays. If all doors and drains are closed, *Tank(s) Filling* displays and tanks begin to fill. All tanks will be full in approximately 10 to 15 minutes.

NOTE: Opening a door during the fill cycle shuts off the fill valves...*Door(s) Open* displays. Close the door to resume the fill cycle (*Tanks Filling* displays).

After the water level raises the lower float in each tank, the wash, rinse and dual rinse tanks begin to heat. When all tanks are full the fill valves will automatically shut off and the water temperatures display for each tank.

The Maintenance Fill feature adds water to the tanks to maintain proper water levels during operation. If the water level drops below the lower float in any tank, the heat shuts off and filling resumes on the affected tank(s). When the water level reaches the lower float, heating resumes while the tank(s) continue(s) filling until the proper water level is reached.

DISHWASHING

Start the motors for the conveyor, pumps and blower dryer (if equipped) by pressing the green START switch located at either the load or unload end of the machine (Fig. 10) or on the keypad located on the front of the control box (Fig. 10). The machine will operate only if the tanks have filled to the proper level and all doors are closed. Press the red STOP switch (Fig. 10 or 11) to stop the conveyor, pumps and blower dryer motors.

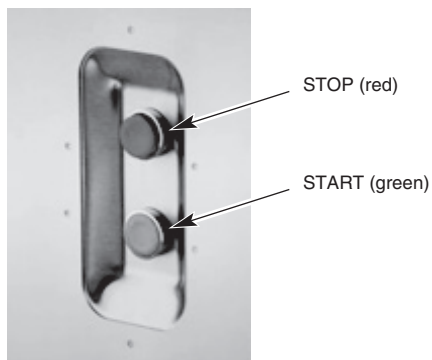


Fig. 10



Fig. 11

All tank temperatures display on the keypad display when the machine is in operation. Final Rinse temperature reads '---' until ware reaches the rinse zone. When ware reaches the rinse zone, the Final Rinse water temperature displays. After the ware exits the rinse zone, Final Rinse temperature again reads '---'.

If ware reaches the unload end of the machine and trips the dish limit switch, the conveyor and final rinse shut off, and the keypad displays the tank temperatures along with Unload Dishes across the bottom. After the ware is removed and the dish limit returns to operating position, normal operation resumes. If ware is not unloaded, the Dish Limit Auto-Timer counts down for one minute, and then shuts off pumps and blower dryer (if equipped). The display continues to show the tank temperatures and Unload Dishes.

If no ware enters the machine for a preset amount of time, the Auto-Timer automatically shuts off the machine and tanks continue to maintain required temperatures. To resume operation, press the green START switch located at either end of the machine or on the keypad located on the front of the control box.

NOTE: The Auto-Timer shut off setting can be adjusted as shown in the Parameters Menu (page 48); the range is from 1 to 12 minutes.

Empty Strainer Baskets As Necessary

The strainer baskets can fill with food soil during operation which will affect dishwasher operation and therefore must be emptied periodically. STOP the machine and open the access doors; strainer baskets are immediately inside at the front of the tanks.

The external scrap basket(s) at the load section needs to be emptied periodically, and can be done without interrupting machine operation. Remove the basket(s) when filled with food soil, empty and replace when done.

Loading

Pre-scrape dishes thoroughly to remove large food particles and debris. Never use steel wool on ware to be loaded into the dishwashing machine; this could introduce surface corrosion which could eventually interfere with machine operation.

All plates, saucers, trays, etc. should be loaded on the conveyor in an inclined position. Bowls should be loaded upside down. Silverware must be washed in racks to prevent loss of items; failing to do so could cause the conveyor to jam and damage ware or machine components.

DO NOT attempt to wash large items (pots, pans, trays, etc.) without first checking to make sure they fit through the machine opening. Such items must not be washed in the dishwasher unless they will easily pass through.

Do not allow foreign objects to enter the unit, especially metallic contaminants.

Unloading

Remove dishes from the conveyor. If a dish pushes against the dish limit, the conveyor stops and the pumps run for one minute before shutting off.

Unload the conveyor starting with the ware furthest from the dish limit. Remove the ware that is striking the dish limit last. The machine automatically restarts.

RECOMMENDED MINIMUM TEMPERATURES

The water temperatures in the tanks and rinse arms are monitored electronically and are displayed on the control box keypad display. The display should be checked periodically to assure that proper temperatures are being maintained.

NOTE: Refer to the HOT WATER SANITIZING label on the side of the control box for minimum temperature ratings.

CONVEYOR SPEED ADJUSTMENT

Depending on the type of ware being washed, the conveyor speed can be adjusted by pressing the SPEED SELECTION key located on the keypad on the front of the control box (Fig. 17). When first pressing the key, the current speed selection will be shown on the bottom line of the display. By pressing the button a second or third time, the speed will toggle to the next available selections; Speed: Low, Speed: Medium, Speed: High.

CLEANING

The dishwasher **MUST** be thoroughly cleaned at the end of each working shift or after each meal. Push the POWER button on the keypad to turn the machine OFF. Follow the instructions below for the manual cleaning process.

For machines equipped with Auto Clean, see instructions on page 9. The Auto Clean process can be completed at the end of each working shift or after each meal; however, it is recommended that a manual cleaning be completed once per week.

⚠ WARNING Disconnect the electrical power to the machine and follow lockout/tagout procedures. There may be multiple circuits. Be sure all circuits are disconnected.

Open all front access doors. Drain the machine by swinging the tank drain handles to the left as shown on the labels located above each tank drain. Drain handles are located near the floor at the front of each tank. Draining the tanks requires approximately 5-10 minutes.

Remove and clean the curtains. Before removing the strainer baskets and pans, clean the interior and all tank shelves using a hose and spray nozzle. Flush all debris toward the strainers.

Remove the wash arms by lifting up on the arm clearing the tab from the notch in the wash arm support. Slide upper arms forward, swinging front of arm down. Slide lower arms forward, tilt front of arms upward to allow water to drain. Remove arms. Clean wash arms in a sink, opening wash arm sliders to flush food soil from arms.

Remove the strainer baskets and strainer pans. Also remove the dual rinse strainer. Empty strainers in trash receptacle or food waste disposer. **DO NOT STRIKE STRAINER PANS OR STRAINER BASKETS ON SOLID OBJECT TO DISLodge DEBRIS.** Scrub strainer pans and strainer baskets in a sink.

Remove dual rinse and final rinse arms and clean debris from nozzles and arms. Never use steel wool to clean warewasher surfaces. Use only products formulated to be safe on stainless steel.

Flush tanks with a water hose, removing any accumulation of food soil.

Reinstall all arms in their proper location and orientation. Ensure that upper arm nozzles point downward, and lower arm nozzles point upward.

To install arms, slide manifolds on the supports toward the rear of the machine and ensure the tabs on the sides of the arms drop into the notches in the supports.

Replace the strainer pans and strainer baskets. Reinstall the curtains according to the curtain chart located on the front of the control box or on pages 12-15 of this manual. Leave the machine doors open to allow the interior to air out and dry.

Clean machine exterior like any other stainless steel appliance. Use damp cloth and mild soapy water.

Spray the channels where the sensors are located at the load end of the machine (Fig. 12). Do not attempt to clean these with metallic objects as damage to sensors can occur.



Fig. 12

Automatic Soil Removal Section (When Equipped)

Machines equipped with Automatic Soil Removal (ASR) feature an additional section located immediately after the load end of the machine. During machine operation, the ASR section captures food soil and pumps it to the external scrap basket, located beneath the load of the machine.

To empty the external scrap basket during machine operation, remove the basket, empty and replace. The machine will continue to operate unless the STOP button is pressed at the load, unload or on the keypad located on the front of the control box.

To clean the ASR system, remove the external scrap basket located beneath the load section, empty food soil, rinse basket in sink and replace. Remove the upper and lower ASR wash arms. To remove the upper arm, pull back on the tab, allow the arm to drop and pull out. To remove the lower arm, pull up slightly and pull the arm out. Rinse both arms in the sink and ensure all nozzles are clear of debris.

Remove the ASR strainer pan, and then remove the soil collector stand pipe. Clean these components using a sprayer hose in a sink. Use a hose to spray down the inside of the ASR section as well.

Replace all components when complete. To replace the soil collector stand pipe, drop the bottom of the tube into the drain body located at the bottom of the ASR tank. Place the strainer pan on top, noting that it sits slightly higher than the tank. Replace the lower wash arm by following the guide rail and pushing the tube into place in the manifold. Replace the upper wash arm by pushing the tube into the upper manifold, pushing up and snapping into place.

Auto Clean (When Equipped)

To perform the Auto Clean procedure, follow the steps listed below (*italics text indicates actual machine display prompts*):

1. Press the blue Auto Clean button located on the keypad on the front of the control box.
2. The display briefly shows *Press Stop Key at any time to abort Auto Clean cycle* before proceeding to step 2.
3. *Close Master Drain* – close the manual Master Drain valve located at either the load or unload end of the machine.
4. *Open All Tank Drains* – open all tank drains located at the bottom of each tank.
5. *Tanks draining*. Please wait a few seconds – at this time, the machine is draining the water in the tanks thru the Master Drain automatic valve.
6. *Clean and replace strainer baskets*. Open wash arm sliders, Close Doors; Press Enter When Done – For machines equipped with ASR, clean and replace the soil collector stand pipe and strainer pan.
7. *No additional user intervention required*. Auto clean will take approximately 26 minutes – at this time, the machine is in the self-cleaning mode. Wash pumps will run to flush food soil from wash arms, and then Auto Clean nozzles located at the rear of each chamber will wash each section.

8. *Close Wash Arm Sliders; then close all doors-Press Enter When Done*
9. *Open Master Drain* – open the manual Master Drain valve located at either the load or unload end of the machine.
10. *Close Tank Drains* – close all tank drains located at the bottom of each tank.
11. *Auto Clean complete, Press Enter key to refill, Otherwise machine powers down in 60 seconds.*

Pressing the BACK button at any time during the Auto Clean process cancels the Auto Clean cycle. The display reads *Auto Clean cycle cancelled. Follow instructions to prepare for washing.*

Auto Delime (When Equipped)

To perform the Auto Delime procedure, follow the steps listed below (italics text indicates actual machine display prompts):

1. When the display prompts *Delime Recommended*, refer to the 'PROGRAMMING' section of this manual when ready to initiate the delime cycle. Navigate to the 'Actions' menu and scroll down to 'Run Delime Cycle'. Press the ENTER key.
2. The display briefly reads *Press Stop Key at any time to abort Delime cycle* before proceeding to step 3.
3. *Place Delime Pump hose in delime solution. Press enter when done.* Place the hose from the delime chemical pump located at the unload end of the machine into the delime solution container.
4. *Open All Tank Drains-Leave drains open.* – open all tank drains located at the bottom of each tank.
5. *Clean Strainer Baskets, then replace. Press enter when done.*
6. *Tanks Draining Please Wait* – after all tanks have drained the display toggles to step 7.
7. *Close Master Drain* – close the Master Drain manual valve located at either the load or unload end of the machine.
8. *Tanks Filling Please Wait* – after the machine has filled, the display toggles to step 9.
9. *Pour xx gallons delime into Tank 1. Press Enter when done* – the display prompts you to pour the required amount of delimer into Tank 1, located next to the dual rinse tank towards the load end of the machine and labeled *Delime Tank*.
10. *Delime Cycle Running. Approximate Time Left: XX:XX* – at this time, the machine is running the auto delime cycle.
11. *Auto Delime Complete. Press Enter key to refill. Otherwise, machine will power down in 5 minutes*
12. *Open Master Drain* – after refilling the machine or powering the machine back up from a power down, open the Master Drain manual valve located at either the load or unload end of the machine.
13. *Close all Tank Drains* – close all tank drains located at the bottom of each tank.

Pressing the BACK button at any time during the Auto Delime process will cancel the cycle. If the delime solution has not yet been introduced into the system, the display will read *Tanks rinsed and ready for wash. Press Enter to refill. Or machine will power down in 5 minutes.* If the delime solution has been introduced into the system, the display will read *Delime solution in Tanks. Press Enter key to Drain and Rinse tanks.*

DO'S AND DON'TS FOR YOUR NEW HOBART DISHWASHER

DO assure proper water hardness of 3 grains or less per gallon.

DO pre-scrape dishes thoroughly.

DO use only detergents recommended by your chemical professional.

DO, at the end of the day, complete a manual cleaning cycle as needed; thoroughly cleanse the machine, rinse, and dry (leave doors open). For machines equipped with Auto Clean, complete this process once per week.

DO, at the end of the day, complete an Auto Clean cycle (when equipped), following instructions on the display.

DO use only products formulated to be safe on stainless steel.

DO NOT use detergents formulated for residential dishwashers.

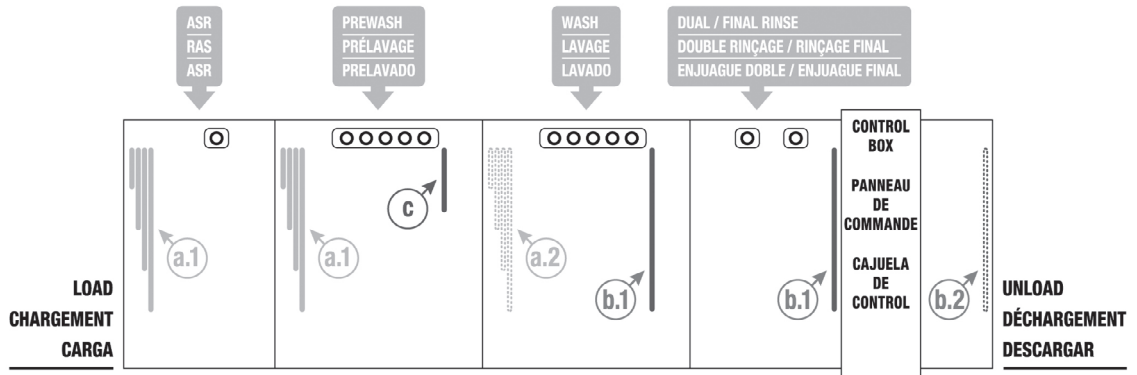
DO NOT allow food soil to accumulate on the tank bottom.

DO NOT use steel wool to clean ware or dishwasher surface.

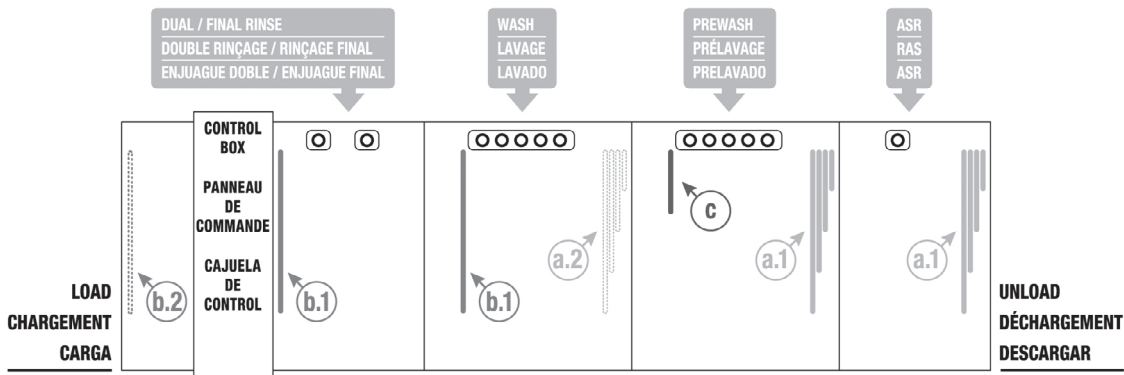
DO NOT allow foreign objects to enter the unit, especially metallic contaminants.

NOTE: Failure to follow use, care, and maintenance instructions may void your Hobart dishwasher warranty.

5' CENTER SECTION | 5' AVEC ZONE CENTRAL | DERECHA-IZQUIERDA CON CENTRO DE 5'



5' CENTER SECTION | 5' AVEC ZONE CENTRAL | DERECHA-IZQUIERDA CON CENTRO DE 5'



LEGEND | LÉGENDE | LEYENDA

a.1

PAIRS OF 4-PLY CURTAINS AT SECTION DIVIDERS
 PAIRES DE RIDEAUX À 4 ÉPAISSEURS POUR SÉPARER LES ZONES
 PARES DE CORTINAS DE 4 CAPAS EN LOS SEPARADORES DE SECCIÓN

b.1

LONG CURTAINS
 RIDEAUX LONGS
 CORTINAS GRANDES

c

SHORT CURTAINS AT UNLOAD SIDE OF UPPER ARMS
 RIDEAU (X) COURT (S) EN AVAL DES GICLERS DE LAVAGE SUPÉRIEURS
 CORTINAS PEQUEÑAS EN EL ÁREA DE DESCARGA DE LOS BRAZOS SUPERIORES

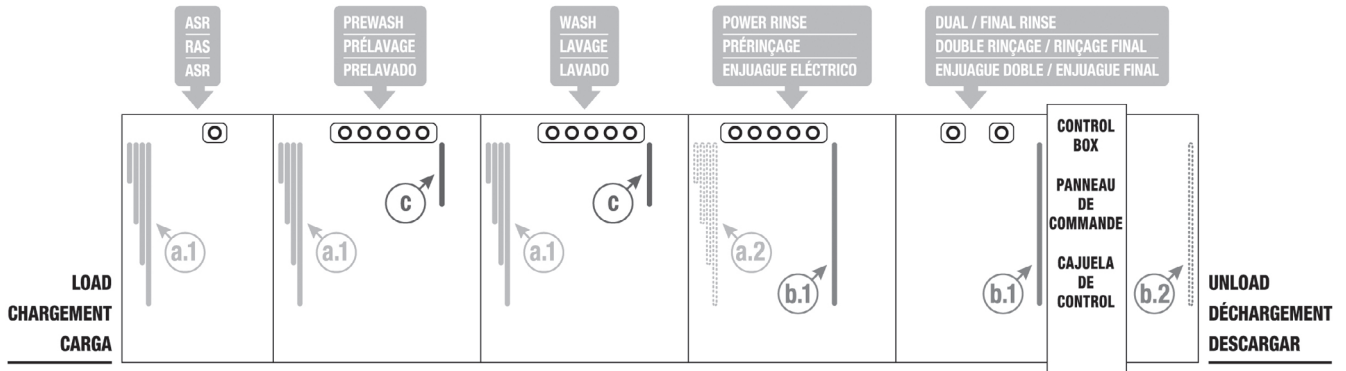
a.2

CURTAIN PLACEMENT FOR UNITS WITHOUT BLOWER DRYER

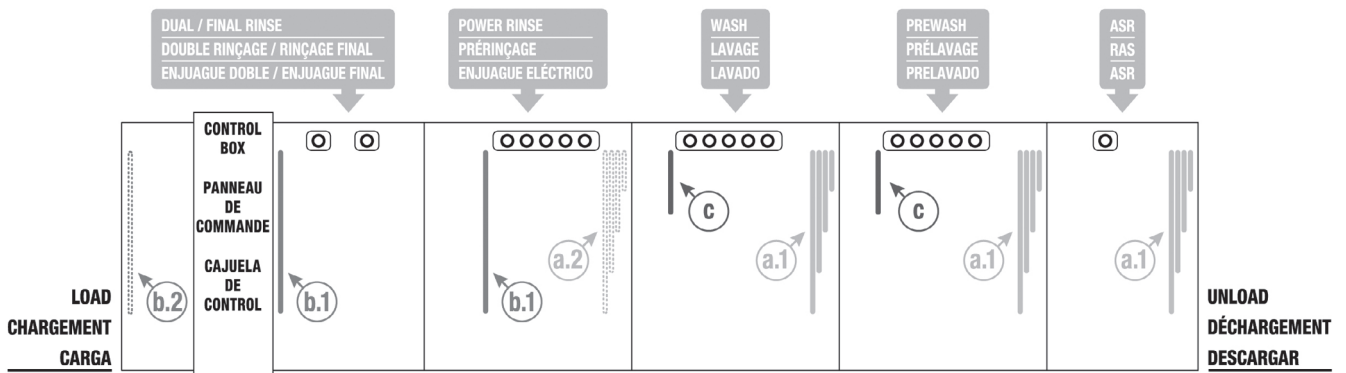
b.2

POSITION DES RIDEAUX SUR LES APPAREILS SANS TUNNEL DE SÉCHAGE.
 COLOCACIÓN DE LA CORTINA PARA UNIDADES SIN SECADOR DE AIRE

8' CENTER SECTION | 8' AVEC ZONE CENTRAL | DERECHA-IZQUIERDA CON CENTRO DE 8'



8' CENTER SECTION | 8' AVEC ZONE CENTRAL | DERECHA-IZQUIERDA CON CENTRO DE 8'



LEGEND | LÉGENDE | LEYENDA

<p>a.1 PAIRS OF 4-PLY CURTAINS AT SECTION DIVIDERS PAIRES DE RIDEAUX À 4 ÉPAISSEURS POUR SÉPARER LES ZONES PARES DE CORTINAS DE 4 CAPAS EN LOS SEPARADORES DE SECCIÓN</p>	<p>c SHORT CURTAINS AT UNLOAD SIDE OF UPPER ARMS RIDEAU (X) COURT (S) EN AVAL DES GICLERS DE LAVAGE SUPÉRIEURS CORTINAS PEQUEÑAS EN EL ÁREA DE DESCARGA DE LOS BRAZOS SUPERIORES</p>
<p>b.1 LONG CURTAINS RIDEAUX LONGS CORTINAS GRANDES</p>	<p>a.2 CURTAIN PLACEMENT FOR UNITS WITHOUT BLOWER DRYER POSITION DES RIDEAUX SUR LES APPAREILS SANS TUNNEL DE SÉCHAGE. b.2 COLOCACIÓN DE LA CORTINA PARA UNIDADES SIN SECADOR DE AIRE</p>

PROGRAMMING

MACHINE OPERATION AND PROGRAMMING SECURITY LEVELS

The advanced digital controls on your dishwasher allow several setup and customization options. Because these options can affect the operation of the machine, they are all locked-out by default from the factory. To unlock them for editing, the security level must be elevated to an appropriate level.

It is recommended to keep the dishwasher in the lowest security level possible at all times. This will prevent options from being inadvertently or intentionally modified from what is expected or acceptable. The security level will automatically revert back to the lowest allowable level (either Operator or SuperOperator, as described below) when any of the following occur:

1. No keys on the keypad are pressed for 10 minutes or more.
2. The machine is placed in Standby by pressing the POWER key.
3. An invalid Security Code is entered on the ENTER SECURITY CODE? Screen.

The following names and descriptions of the various security levels are listed from the lowest level to the highest level. A higher security level includes all of the abilities of the lower levels plus some extra abilities, as described below.

NOTE: The security level does not, by itself, affect the operation of the machine or inhibit the use of any of the Start, Stop, or Power keys or buttons. All of these basic functions are always available in any security level.

Operator – O

This is the most basic security level and is enabled by default when the unit is powered up as initially set by the factory. No security code is required to enter this security level. This level only allows entering the Security Code to elevate the current security level to something higher.

SuperOperator – SO

This security level can be set up to be the default level when the unit is powered up, instead of the Operator security level. If it is set up to be the default level, the Operator security level will not be accessible until SuperOperator Access is disabled by a manager or by Hobart Service. The SuperOperator level does not require a security code to be entered by the user, but is only accessible if enabled by a manager or Hobart Service.

A SuperOperator is granted access to a few of the menu options, but not as many as in the Manager security level. The available options for a SuperOperator are described in the Parameters Menu. A manager or Hobart Service technician can enable or disable this security level via the Manager or Service programming parameters. Refer to Navigating the Parameters Menu for more details.

Manager – M

This security level is the highest level attainable by the user. It requires the Manager Code to be entered before the security level will be elevated to Manager.

This security level offers unrestricted access to all of the options listed in the Parameters Menu. Because of this, it is recommended that power to the machine be cycled off and on when access to the Manager level options are no longer explicitly needed.

The Security Code for the Manager level can be changed by a kitchen manager or anyone with the Manager Code. The default code is listed in the section titled Entering the Operation Parameters Menu. As such, it is recommended that this code be changed from the default and stored in a safe place where all kitchen managers, but no one else, can access it. If the code is ever lost or forgotten, it can be reset by Hobart Service.

NOTE: Having Hobart Service reset the Manager Code is not covered under either the basic or the extended warranty.

USER PROGRAMMING INSTRUCTIONS

The dishwasher is equipped with electronic digital controls to allow greater precision for cleaning your ware, maintaining required tank temperatures and other advanced functions. Some of these functions are customized to suit the needs of your kitchen operation.

All customization is performed through the on-screen menu using the UP, DOWN/MENU, ENTER, and STOP/BACK keys located on the keypad on the control box door (Fig. 17).

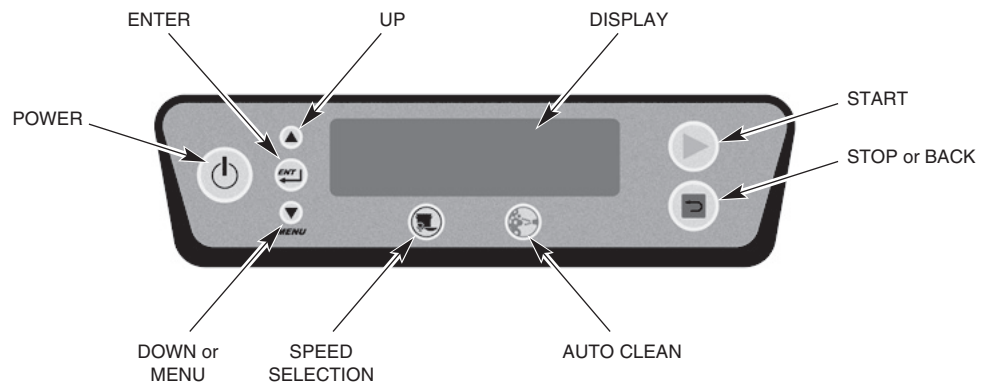


Fig. 17

MENU DISPLAY PROMPTS

The following prompts are used inside the menus.

- The UP and DOWN arrow keys are used to change parameter values and to navigate the menu.
- The ENTER key is used to accept a value, perform a specified action or enter a submenu.
- The BACK key will always revert back to the previous menu screen.
- The text just to the right of the '>' symbol on the display screen shows what action or command will occur by pressing the ENTER key.

ENTERING THE MANAGER MENU

To enter the Manager menu:

1. Press the MENU key from the main screen. This will take you to the *Main Menu*.
2. With the '>' symbol to the left of Manager, press the ENTER key. This will take you to the *Enter Security Code* screen.
3. You are prompted with four asterisks [****].
4. Use the UP and DOWN keys to change the digit of the Security Code to the appropriate value*.

* The default Security Code to enter Manager programming is 1001. This code can be changed by anyone with this knowledge and it is recommended to change it from the default. If the code is ever lost for some reason, it can be reset by Hobart Service.

NOTE: Resetting the code is not covered under your warranty, whether you are in the initial warranty period or in the extended warranty period.

5. Press the ENTER key to move to the next digit to the right.
6. Repeat steps 4 and 5 for each digit.
After pressing ENTER on the fourth digit, you will be in the *Manager Menu*.
7. Press the UP or DOWN keys repeatedly until the '>' symbol is to the left of the desired option and then press the ENTER key. The Manager options are: *About*, *Actions*, *Logs*, and *Operation Parameters*.

ABOUT SCREEN

The About screen displays the following information; *Machine Model*, *Control Board Revision*, *Relay Board Revision*, *Software Version*, *Sanitizing Mode*, and *Service Number*.

ACTIONS MENU

The Actions Menu provides the following options:

- **Change Manager Code:** Allows the manager security code to be changed from the default value.
- **Reverse Jog:** Allows the conveyor to be jogged in the reverse direction in case there is a conveyor jam. When entering this mode, the following message is displayed:

Be sure all personnel are clear of conveyor. Press button in upper control box while pressing Enter.

> Exit without jogging

Reverse jog conveyor

To reverse jog the conveyor, press the ENTER button with the '>' symbol located to the left of Reverse jog conveyor while also pressing the green button located behind the upper control box door (Fig. 18).

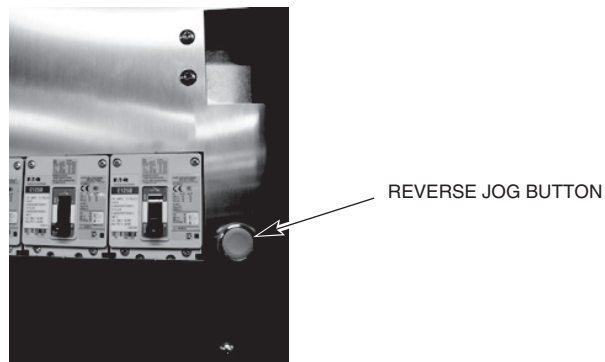


Fig. 18

- **Run Delime Cycle:** Initiates the Auto Delime cycle; see page 10 of this manual for the complete procedure.
- **Set Date/Time:** Enter this screen to set the date and time

LOGS MENU

Entering the Logs menu will provide the following options:

- **Delime Counter:** Displays the time remaining before delime recommendation is displayed. Also allows the ability to *Clear Delime Counter*.
- **Error Log:** Displays the previous errors along with the date/time the errors occurred.
- **Statistics:** Entering the Statistics screen will display the following information; *Time of Operation, Run Time Percent, Rinse Time, and Fill Time*.

OPERATION PARAMETERS MENU

NOTE: The parameters can be changed anytime the display is active, which is when the machine is operating or in idle mode.

Hobart believes that the default settings that leave the factory are suitable for the majority of kitchen operations. However, there are cases where kitchen managers may find the need to change one or more options; the Parameters Menu allows these changes.

Within the Parameters Menu, the manager (or operator, in some cases) may modify factory default settings. The menu structure and description of each option are detailed below. Please contact Hobart Service if you are uncomfortable changing any setting or are unsure of which one(s) to change.

The Parameters Menu lists the parameter name, a short description, a list of possible values the parameter can have, the factory default value based on the specific dishwasher model, and the security level required to access that parameter

PARAMETERS MENU

Parameter Name	Description	Possible Values	Default Value	Security Required
Auto Clean Demo Mode	Enables or disables the Auto Clean Demo Mode. When enabled, this mode allows the Auto Clean cycle to be demonstrated for training purposes without running the complete cycle.	Disabled Enabled	Disabled	SO
Auto Timeout	Adjustable timer for determining when to shut down the pumps and conveyor when no dishes are in the machine.	1 – 12 mins	6 mins	SO
Conveyor Speed High	Sets the High conveyor speed setting when the operator presses the Speed Selection button on the keypad changing the setting to Speed: High.		8.5 ft/min	M
Conveyor Speed Low	Sets the Low conveyor speed setting when the operator presses the Speed Selection button on the keypad changing the setting to Speed: Low.		6.5 ft/min	M
Conveyor Speed Medium	Sets the Medium conveyor speed setting when the operator presses the Speed Selection button on the keypad changing the setting to Speed: Medium.		7.5 ft/min	M
Delime – Main Tanks Quantity	Sets the number of delimer gallons required per tank.	1.0 – 2.0	0.05	M

Delime – Water Hardness	Water hardness input setting which the control uses for determining when to delime the machine.	0 – 250	8	M
Delime Concentration	Sets the delimer concentration for the final rinse and booster system.	1.5% 3.0%	3.0%	SO
Delime Demo Mode	Enables or disables the Delime Demo Mode. When enabled, this mode allows the Delime cycle to be demonstrated for training purposes without running the complete cycle.	Disabled Enabled	Disabled	SO
Dirty Water Interval	Sets the period (in hours) of rinsing before an alert is shown. This option is only available when Dirty Water Mode is set to “Alert” or to “Alert + Lockout”.	1 – 6 hours	4 hours	M
Dirty Water Mode	<p>Can be enabled to indicate that the water may be dirty and may need to be changed. Monitors the final rinse on time and when the final rinse on time exceeds a user-definable level, a message will display. The message will not be disabled until a water change event occurs by draining all tanks in the machine.</p> <p>There are three different modes. Disabled: Ignores dirty water. Alert : Displays “Water Change Required” after a period of operation but does not require refilling. Alert + Lockout: Displays “Change Water Soon” for 5 minutes after a period of operation; then “Water Change Required” displays and the machine cannot run until all tanks are drained and refilled.</p>	Disabled Alert Alert + Lockout	Disabled	M
Energy Saver Time	After a period of machine inactivity, the control initiates Energy Saver Mode: All warewash components are turned off, and the display on the keypad dims, displaying “Energy Saver On”. To exit Energy Saver mode, press the STOP button on the keypad. You may also press the POWER button to completely turn the machine off	1 – 6 hours	2 hours	M
Language Select	Enables or disables the ability for the operator to change the displayed language	Disabled Enabled	Disabled	SO

Low FR Temperature Alarm	Enables or disables a visual alarm on the display that indicates that Final Rinse water temperature is below the NSF required minimum of 180°F (82°C). When enabled, a message will display notifying the user of this condition. However, machine operation will not change and ware will continue to run through the machine as expected. When disabled, there will be no extra message indicating a low-temperature event; however, the temperature display will still show the current Final Rinse water temperature	Disabled Enabled	Disabled	M
Primary Language	This option sets the default language shown on the display.	English French Spanish	English	SO
Super Operator Access	Enables or disables the SuperOperator access level. When enabled, this allows any user to modify values in the Parameters Menu that are marked as requiring only SO security without entering a password. When disabled, the only operation allowed by any user is the ability to enter the Security Code and exit the menu. No parameters are allowed to be modified.	Disabled Enabled	Disabled	M
Tank Stirring	Enables or disables the tank stirring mode which turns the pumps on for 15 seconds for every 15 minutes of idle time to keep the machine chambers hot.	Disabled Enabled	Disabled	M
Tank Temperature Alert	Displays a message when water temperature for any tank falls below minimum requirement for at least ten minutes. After temperature increases past the minimum requirement, the message stops.	Disabled Enabled	Disabled	M
Temperature Units	Sets whether temperatures and set points are displayed in °F or °C.	F C	F	SO

MAINTENANCE

⚠ WARNING Disconnect the electrical power to the machine and follow lockout/tagout procedures. There may be multiple circuits. Be sure all circuits are disconnected.

LINE STRAINERS

Line strainers used in water or steam lines should be cleaned one week after machine installation and periodically thereafter.

LUBRICATION

A list of acceptable lubricants, as well as the lubricants themselves, are available from your local Hobart Service office.

Motors

All motors have sealed bearings and require no lubrication maintenance.

Conveyor Gearmotor

Check the oil level in the conveyor gearmotor at the unload end of the machine every six months by removing the gear case fill plug (Fig. 19). The oil level should be at the bottom of the fill plug hole. Draining the gear case can be achieved by removing the drain plug (Fig. 19) and capturing and recycling the drained oil. After re-screwing the drain plug back in the hole, use only Shell Omala S2 G220 to replenish or replace the oil.

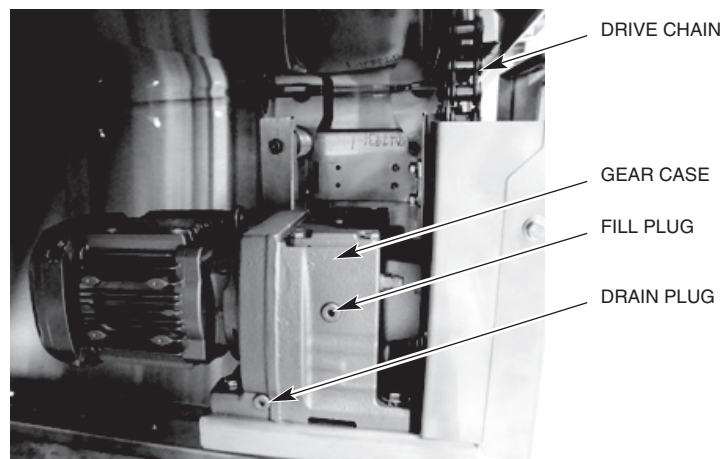


Fig. 19

Conveyor Drive Chain

Inspect the drive chain (Fig. 19) regularly and lubricate as required with Hykogen Concentrate A (supplied).

Conveyor Take-Up Unit

Lubricate the two conveyor take-up unit adjusting screws (Fig. 20) at the load ends of the machine at least twice a year using the Chevron FM Grease, provided for this purpose.

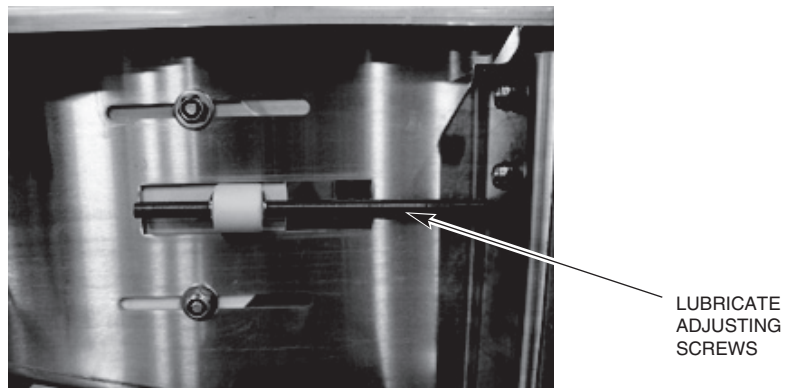


Fig. 20

TROUBLESHOOTING

TROUBLESHOOTING

Symptom	Possible Cause
	<p>NOTE: If symptom(s) persist after possible causes have been checked, contact Hobart Service.</p>
Machine Won't Operate After Start Button is Pressed	<ol style="list-style-type: none"> 1. Inspection door(s) not closed. Door(s) Open displays. 2. Conveyor may be jammed. 3. Check drains, make sure they're closed. Check tanks, make sure they're full. 4. Blown fuse or tripped circuit breaker at power supply
Ware Not Clean	<ol style="list-style-type: none"> 1. Insufficient pre-scrapping or tank water may need to be changed. 2. Wash arm sliders in open position. 3. Wash arm nozzle obstruction(s). 4. Loss of water pressure due to pump obstructions. <p>⚠ WARNING Disconnect the electrical power to the machine and follow lockout/tagout procedures. There may be multiple circuits. Be sure all circuits are disconnected.</p> <ol style="list-style-type: none"> 5. Incorrect water temperature. Check circuit breaker to electric heat supply, or main steam valve. Make certain valve is completely open. 6. Incorrect detergent dispensing. Contact your chemical representative. 7. Wash arms installed incorrectly. 8. Ware not loaded properly. 9. On machines equipped with the ASR section, ensure strainer and soil collector stand pipe are unobstructed.
Spotting of Ware	<ol style="list-style-type: none"> 1. Ware not loaded properly. 2. Incorrect final rinse water temperature (minimum 180°F). 3. Incorrect detergent and/or rinse aid dispensing. Contact your chemical representative. 4. Improper water hardness (3 grains or less per gallon is recommended). 5. Clogged rinse nozzle(s). 6. Misaligned rinse arms. Rinse arms should be positioned so that they align in hub on chamber wall. 7. Water leaking past rinse arm manifold O-ring.
Inadequate Rinse	<ol style="list-style-type: none"> 1. Dirty line strainer causing reduced water flow. Turn off water supply, remove strainer cap, withdraw and clean screen. 2. Rinse arm(s) are not properly inserted in the hubs. 3. Clogged dual rinse nozzle(s) – clean the nozzle(s). 4. Dual rinse tank strainer pan is clogged – clean the strainer pan.
Continuous Rinse Operation	<ol style="list-style-type: none"> 1. Photoelectric sensors are blocked. Clean channels where sensors are located (Fig. 21). 2. Remove the vertical panels from load end of machine adjacent to prewash or ASR chamber. With machine power on, verify indicators on sensor (Fig. 22) flash on and off when blocking and unblocking the sensor. 3. Improperly operating rinse pump circuit. Contact Hobart Service.

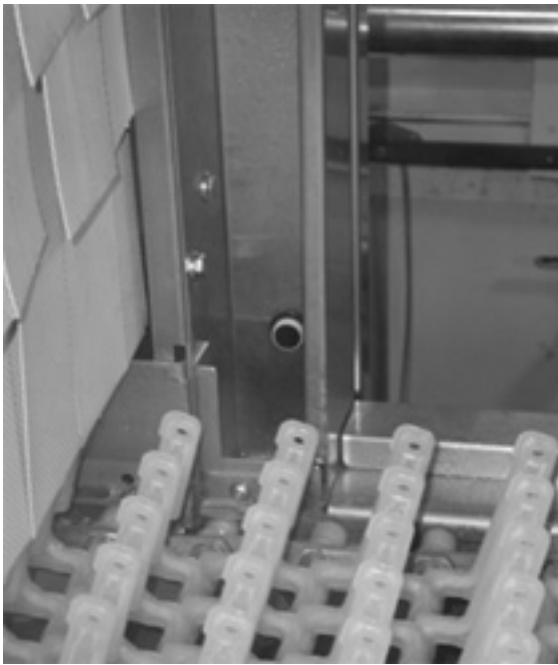


Fig. 21



Fig. 22

<p>Tanks Not Heating</p>	<ol style="list-style-type: none"> 1. Low water safety devices shut off heat. Check for proper water level. 2. Lower float(s) do not move freely. 3. Circuit breaker(s) to heat system tripped (electric heat). 4. Steam supply valve(s) are not opened completely or supply pressure too low (steam heat). 5. Overtemp protector tripped (electric heat). Contact Hobart Service. 6. Failed heating element (electric heat). Contact Hobart Service. 7. Bucket trap not functioning correctly (steam heat). Contact Hobart Service. 8. Improperly operating steam solenoid valve(s) (steam heat). Contact Hobart Service.
<p>No Fill or Slow Fill</p>	<ol style="list-style-type: none"> 1. Door(s) are open. 2. Drain(s) open 3. Main fill (water supply valve) could be closed. 4. Upper and/or lower fill floats do not move freely. 5. Dirty line strainer (Fig. 23) causing reduced water flow. Turn off water supply, remove strainer cap, withdraw and clean screen. 6. Problem with solenoid valve. Contact Hobart Service. 7. Low incoming water supply pressure.

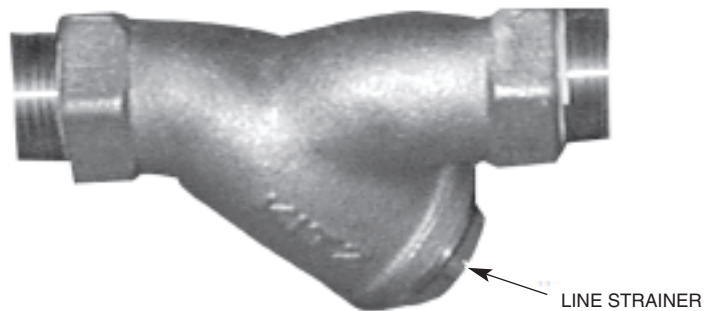


Fig. 23

No Blower Dryer Heat (Electric Heat Blower Dryer)	<ol style="list-style-type: none"> 1. Blower motor(s) not operating properly. 2. Circuit breaker to electric blower dryer heaters tripped. 3. Overtemp protector tripped; red overtemp indicator light is lit. Contact Hobart .
No Blower Dryer Heat (Steam Blower Dryer)	<ol style="list-style-type: none"> 1. Blower motor(s) not operating properly. 2. Improperly operating steam solenoid valve. 3. Steam supply valve is not completely open or supply pressure is too low. 4. Bucket trap not functioning correctly.

Display Reads	Possible Resolution
Door(s) Open	Close all inspection doors.
Tank Drain(s) Open	Close all tank drains.
Unload Dishes	Remove all ware from unload section of the machine, starting with the ware closest to the machine chambers. Remove the ware that is in contact with the dish limit last.
Probe Error – [Tank Name]	Ensure lower float assembly in indicated tank is not visibly damaged and sufficient water is in the tank to cover the lower float.
Final Rinse Temp Low	<ol style="list-style-type: none"> 1. Check that the final rinse booster tank circuit breaker is on and not tripped (if equipped). 2. Check that the final rinse booster tank overtemp circuit is not tripped (if equipped). 3. Ensure that the building supply water temperature to the final rinse booster tank is at least the minimum specified by Hobart. 4. If temperature control needs adjustment, or if there is a booster heater failure, contact your local Hobart Service office.
Check Water Level	<ol style="list-style-type: none"> 1. Ensure all drains are closed and free of debris. 2. Check that the water supply valve is open. 3. Open inspection doors and check water level of all tanks. Water should be about 1 inch down from top of strainer pan or higher. Close inspection doors. 4. If tanks fail to fill after another 20 minutes, contact Hobart Service.