

INSTRUCTIONS

TURBOWASH™

... Pot and Pan Sink

MODEL

TWII

ML-110971



701 S. RIDGE AVENUE
TROY, OHIO 45374-0001

937 332-3000

www.hobartcorp.com

FORM 34504 Rev. B (June 2002)

Installation, Operation, and Care of TurboWash™ Pot and Pan Sink

SAVE THESE INSTRUCTIONS

GENERAL

The TurboWash pot and pan sink is the scullery manager's dream. Soiled pots, pans and utensils can be cleaned in swirling hot water for as long as necessary until soil-adhesion is eliminated. Significantly less manual effort is required on difficult to clean items. Once washed, the pots, pans and utensils can be moved to the optional rinse and sanitizer sinks.

- The wash pump motor is rated 2 H.P. and has permanently sealed bearings.
- Sinks can be specified for left-to-right or right-to-left wash/rinse/sanitize flow.
- A scrapper sink is optional between soiled end and wash sink and may be equipped with or without disposer.
- The AutoFill option provides an automatic timed initial fill for the wash sink.
- Wash Tank Pump Auto Shutoff and Wash Tank Heater are optional.
- The utensil basket accessory allows small items to be washed in the wash sink.



Nominal Dimensions

Front-to-back 34" overall. Sink depth 18"; to water level mark 14". Sink front-to-back 28". Counter height 34". Height to counter rim 36"; to top of backsplash 45". Optional end styles (hemmed, rolled, end splash, or dishwasher connection) add incrementally to the overall length. See table, next page.

Available Section Lengths in Inches

SOILED END EDGE	SOILED END DRAIN BOARD (Optional)	SCRAPPER SINK (Optional)	WASH SINK (Standard)	RINSE SINK (Optional)	SANITIZER SINK (Optional)	CLEAN END DRAIN BOARD (Optional)	CLEAN END EDGE
Hemmed = 0"	0"	0"	30"	0"	0"	0"	Hemmed = 0"
Rolled = 1 1/2"	12"	20" w/o disposer	32"	15"	18.5"	12"	Rolled = 1 1/2"
End Splash = 2 1/2"	20"	36" w/o disposer	36"	18"	20"	18.5"	End Splash = 2 1/2"
Dishwasher Connection 36" minimum	24"	36" with disposer	42"	20"	24"	24"	Dishwasher Connection 20" minimum
	30"		48"	24"	30"	30"	
	36"		54"	30"	36"	36"	
	42"		60"	36"		42"	
	48"					48"	
	54"					54"	
	60"					60"	

INSTALLATION

UNPACKING

Immediately after unpacking, check for possible shipping damage. If the TurboWash is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

Prior to installation, verify that the electrical service agrees with the specifications on the data plate(s).

ASSEMBLY

Assemble the H-frame leg sets into the front-rear leg sockets and tighten the set screws. Fill set screw heads with silicone sealant (NSF approved). Allow space for the drain connection and assemble the frame crossmembers between the rear legs using clamps and 5/16"-18 Screws, Washers, Lockwashers and Nuts, provided (Fig. 1).

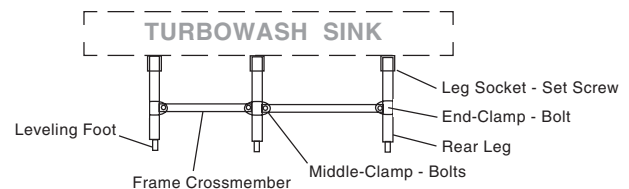


Fig. 1

Location

Provide necessary space for proper operation of the TurboWash, including faucet head clearance and turning diameter so each sink can be filled. Place the TurboWash so it does not interfere with the operation of other equipment in the area. Place the TurboWash backsplash several inches from the wall to allow room for leveling.

Leveling

Turn feet in or out to level the unit front-to-back and side-to-side. Slide the TurboWash flush against the wall so the backsplash can be sealed with silicone sealant.

PLUMBING CONNECTIONS

WARNING: PLUMBING CONNECTIONS MUST COMPLY WITH APPLICABLE SANITARY, SAFETY, AND PLUMBING CODES.

Drains

Drains underneath the TurboWash should be properly connected to a suitable drain (use 2" dia. pipe). Recommended drain height is 10 inches above finished floor.

If a grease trap is required by code, it should have a minimum flow capacity of 42 gallons per minute.

Hot Water Connections

Hot water should be connected as required (temperature range 120 – 140°F). Total water hardness of 4 – 6 grains per gallon is recommended.

Cold Water Connections

Cold water should be connected as required (temperature range 45 – 80°F). Total water hardness of 4 – 6 grains per gallon is recommended.

PLUMBING FITTINGS and Other Options

Temperature mix is provided by faucet(s), optional. Pre-rinse spray is optional. Manual, twist-handle-operated drains (optional) with- or without-overflow (optional) can be provided for installation on each wash, rinse, and sanitizer sink. A free-flow drain (optional) is available for the scrapper sink when it is not equipped with a disposer. A wash sink sump with strainer basket is optional — when so equipped, the recommended drain height is 7 inches above finished floor. A wash sink separator is optional when the wash sink is at least 42 inches long. Dishwasher connectability (optional) requires a drainboard with minimum length of 36 inches at the soiled end or 20 inches at the clean end. Over-shelves (optional) can be installed on the wall above the sink. Under-shelves (optional) can be provided for installation on frame crossmembers underneath clean-end drainboards that are at least 30 inches long.

When supplied by others, all plumbing fittings and pipes must be copper, stainless steel or brass. When auto-fill option is used with plumbing supplied by others, an ASSE-certified vacuum breaker must be installed in accordance with local plumbing codes.

ELECTRICAL CONNECTION

WARNING: ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE APPLICABLE PORTIONS OF THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL ELECTRICAL CODES.

WARNING: DISCONNECT THE ELECTRICAL POWER TO THE MACHINE AND FOLLOW LOCKOUT/TAGOUT PROCEDURES.

WARNING: IF MORE THAN ONE ELECTRICAL SUPPLY CONNECTION IS PRESENT, ALL SUCH CONNECTIONS MUST BE DISCONNECTED BEFORE SERVICING.

ELECTRICAL DATA

Model	Volts / Hertz / Phase	Minimum Circuit Ampacity Maximum Protective Device AMPS
TWII without disposer	208 - 240 / 60 / 1	15 Amps Without Electric Heater in Wash Sink 25 Amps With Electric Heater in Wash Sink
	208 - 240 / 60 / 3	15 Amps Without Electric Heater in Wash Sink 20 Amps With Electric Heater in Wash Sink
	480 / 60 / 3	15 Amps Without Electric Heater in Wash Sink 15 Amps With Electric Heater in Wash Sink
TWII with Disposer Model FD3-50, FD3-75, FD3-125, FD3-150, or FD3-200 and Single-Point Electrical Connection	208 - 240 / 60 / 1	25 Amps Without Electric Heater in Wash Sink 40 Amps With Electric Heater in Wash Sink
TWII with Disposer Model FD3-50, FD3-75, FD3-125, FD3-150, FD3-200 or FD3-300 and Single-Point Electrical Connection	208 - 240 / 60 / 3	20 Amps Without Electric Heater in Wash Sink 35 Amps With Electric Heater in Wash Sink
	480 / 60 / 3	15 Amps Without Electric Heater in Wash Sink 15 Amps With Electric Heater in Wash Sink
Separate Electrical Connection Disposer ONLY Models FD3-50, FD3-75, FD3-125, FD3-150, or FD3-200	120 / 60 / 1	25 Amps
	208 - 240 / 60 / 1	15 Amps
Separate Electrical Connection Disposer ONLY Models FD3-50, FD3-75, FD3-125, FD3-150, FD3-200 or FD3-300	208 - 240 / 60 / 3	15 Amps
	480 / 60 / 3	15 Amps

Compiled in accordance with the National Electrical Code, ANSI/NFPA 70, latest edition.

NOTE: Connections to the TWII control box are made through a $\frac{3}{4}$ " conduit hole provided in the bottom. Use copper wire only.

Replace only with same type and rating of fuse, 0.6 A, 250 Volt, Type 3AG Time Delay.

CHECK ROTATION (Three-Phase Motors Only)

Three-phase motors must rotate in the direction of the arrow on the pump or disposer housing. In order to check rotation, observe the direction of the impeller shaft between the motor and pump housing. Switch the pump on for a few seconds and then switch it off.

If the rotation is incorrect, **DISCONNECT ELECTRICAL POWER SUPPLY** and interchange any two of the incoming power supply leads. Reconnect the electrical power supply and verify correct rotation.

Disposer motor protection, when the TWII is equipped with a disposer, is provided by the disposer motor.

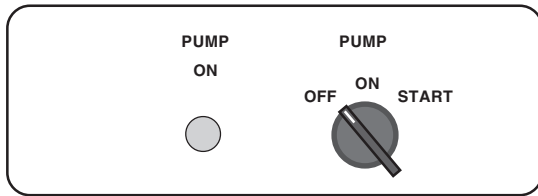
Finish Sealant

After installation, apply a bead of silicone sealant (NSF approved) around the backsplash and wall.

OPERATION

CONTROLS

Manual Pump Control and No Wash Sink Heat.

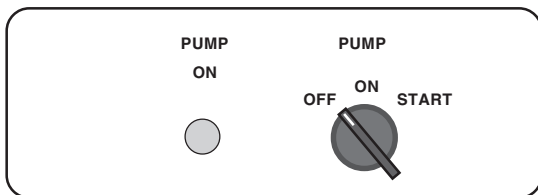


PUMP Switch: [Off - On - Start].

To START: Turn the switch to the Start position and then release it to the On position.

PUMP ON Indicator Light is lit when the pump is On.

Pump Control with Auto Shutoff and No Wash Sink Heat.

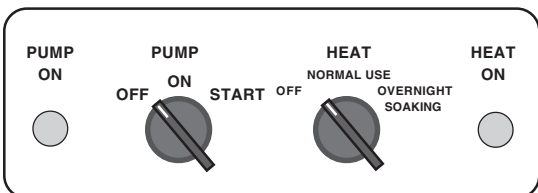


PUMP Switch: [Off - On - Start].

To START: Turn the switch to the Start position and then release it to the On position. Pump automatically shuts off after the preset time counts down.

PUMP ON Indicator Light is lit when the pump is On.

Manual Pump Control with Dual-Setting Wash Sink Heat Control.



PUMP Switch: [Off - On - Start].

To START: Turn the switch to the Start position and then release it to the On position.

PUMP ON Indicator Light is lit when the pump is On.

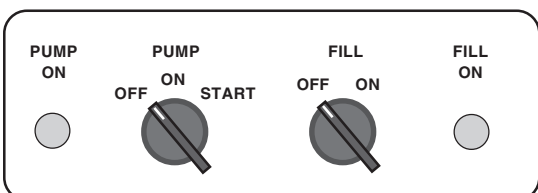
HEAT Switch: [OFF - NORMAL USE - OVERNIGHT SOAKING].

NORMAL USE: 110°F wash sink water temperature.

OVERNIGHT SOAKING: 140°F wash sink water temperature, for overnite soaking only. See Washing for an Extended Time, page 10.

HEAT ON Indicator Light is lit when the Heat Switch is on Normal Use or Overnight Soaking (unless low water is indicated by the float switch).

Manual Pump Control with Timed Fill and No Wash Sink Heat.



PUMP Switch: [Off - On - Start].

To START: Turn the switch to the Start position and then release it to the On position.

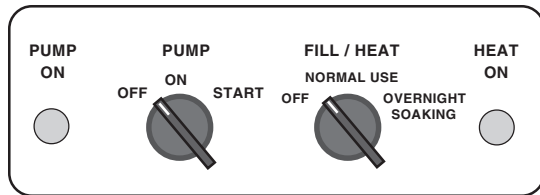
PUMP ON Indicator Light is lit when the pump is On.

FILL [OFF - ON] Switch — Fills the wash sink for a preset amount of time until the water level is sensed.

FILL ON Indicator Light is lit when the FILL Switch is On.

To conserve water, close Drain before turning FILL Switch ON.

Manual Pump Control and Timed Fill with Dual Setting Wash Sink Heat Control.



PUMP Switch: [Off - On - Start].

To START: Turn the switch to the Start position and then release it to the On position.

PUMP ON Indicator Light is lit when the pump is On.

FILL / HEAT Switch: [OFF - NORMAL USE - OVERNIGHT SOAKING] — Fills the wash sink for a preset amount of time until the water level is sensed.

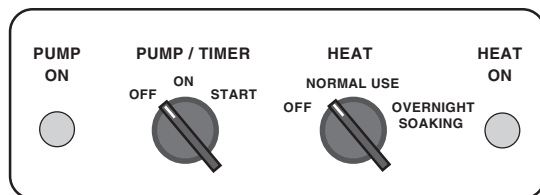
NORMAL USE: 110°F wash sink water temperature.

OVERNIGHT SOAKING: 140°F wash sink water temperature, for overnite soaking only. See Washing for an Extended Time, page 10.

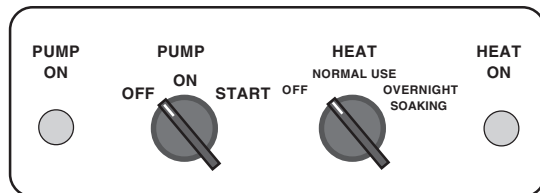
HEAT ON Indicator Light is lit when the FILL / HEAT Switch is on NORMAL USE or OVERNIGHT SOAKING (unless low water is indicated by the float switch).

To conserve water, close Drain before turning FILL / HEAT Switch to NORMAL USE or OVERNIGHT SOAKING.

Pump Control with Auto Shutoff and Dual-Setting Wash Sink Heat Control.



or



PUMP / TIMER or PUMP Switch: [OFF - ON - START].

To START: Turn the switch to the Start position and then release it to the On position. Pump automatically shuts off after the preset time counts down.

PUMP ON Indicator Light is lit when the pump is On.

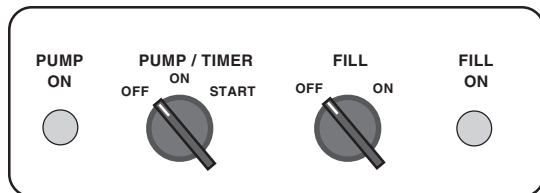
HEAT Switch: [OFF - NORMAL USE - OVERNIGHT SOAKING].

NORMAL USE: 110°F wash sink water temperature.

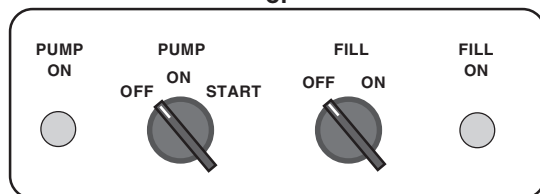
OVERNIGHT SOAKING: 140°F wash sink water temperature, for overnite soaking only. See Washing for an Extended Time, page 10.

HEAT ON Indicator Light is lit when the Heat Switch is on Normal Use or Overnight Soaking (unless low water is indicated by the float switch).

Pump Control with Auto Shutoff and Timed Fill.



or



PUMP / TIMER or PUMP Switch: [OFF - ON - START].

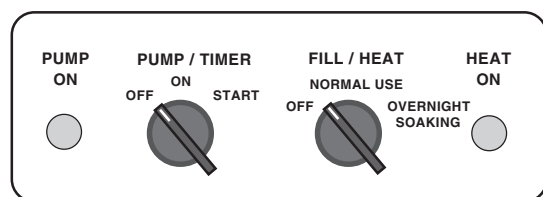
To START: Turn the switch to the Start position and then release it to the On position. Pump automatically shuts off after the preset time counts down.

PUMP ON Indicator Light is lit when the pump is On.

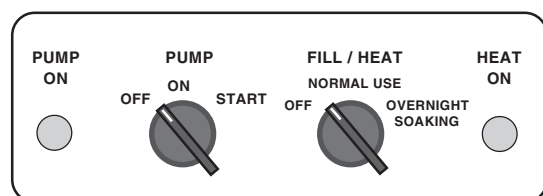
FILL [OFF - ON] Switch — Fills the wash sink for a preset amount of time until the water level is sensed.

FILL ON Indicator Light is lit when the FILL Switch is On. To conserve water, close Drain before turning FILL Switch On .

Pump Control with Auto Shutoff and Timed Fill with Dual Setting Wash Sink Heat Control.



or



PUMP / TIMER or PUMP Switch: [OFF - ON - START].

To START: Turn the switch to the Start position and then release it to the On position. Pump automatically shuts off after the preset time counts down.

PUMP ON Indicator Light is lit when the pump is On.

FILL / HEAT [OFF - NORMAL USE - OVERNIGHT SOAKING] Switch — Fills the wash sink for a preset amount of time until the water level is sensed.

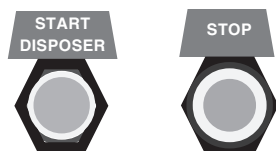
NORMAL USE: 110°F wash sink water temperature.

OVERNIGHT SOAKING: 140°F wash sink water temperature — for overnite soaking only. See Washing for an Extended Time, page 10.

HEAT ON Indicator Light is lit when the FILL / HEAT Switch is on NORMAL USE or OVERNIGHT SOAKING (unless low water is indicated by the float switch).

To conserve water, close Drain before turning FILL / HEAT Switch to NORMAL USE or OVERNIGHT SOAKING.

Disposer Controls.



START DISPOSER Push-Button Switch (green).

STOP Push-Button Switch (red).

To START: Push the START DISPOSER Switch. If either the Disposer Cone Swirl option or Disposer Scraper Sink Swirl option is included, water will begin flowing into the disposer (via the electrically controlled solenoid valve).

To STOP: Push the STOP Switch.

Chemical Supplies

Ask your chemical supplies representative for a recommendation on the type and amount of low-sudsing detergents and chemical sanitizers to use with your TurboWash sink. Your chemical supplier should provide instructions, time and temperature requirements, concentrations, and safety information for the chemicals used. Test kits or disposable color swabs for verification of chemical concentrations should also be available from your chemical supplier. Refer to the table below for Volume Requirements for Wash and Sanitizer Sinks (by size).

WASH SINK VOLUME REQUIREMENTS

Wash Sink Length (side to side) INCHES	Wash Sink Volume in U.S. Gallons
30"	61 gal.
32"	64 gal.
36"	71 gal.
42"	81 gal.
48"	91 gal.
54"	102 gal.
60"	112 gal.

SANITIZER SINK VOLUME REQUIREMENTS

Sanitizer Sink Length (side to side) INCHES	Sanitizer Sink Volume in U.S. Gallons
18.5"	31 gal.
20.0"	34 gal.
24.0"	41 gal.
30.0"	51 gal.
36.0"	61 gal.

Wash Procedure

FILL: Wash Sink

Fill wash sink with warm water (110°F) to Water Level mark on back wall of sink. Do not overfill. After wash sink is filled with water, add detergent to wash sink (detergent, quantity, and instructions should be provided by your Chemical supplier).

FILL: Sanitizer Sink

Fill sanitizer sink with warm water to Water Level mark on back wall of sink. After sanitizer sink is filled, add sanitizer to sanitizer sink (sanitizer, quantity, minimum temperature, and instructions should be provided by your Chemical supplier).

FILL: Rinse Sink (optional)

If immersion rinse is required by local code or health department, fill rinse sink with warm water (120°F minimum per National Restaurant Association) to the Water Level mark on back wall of sink. Some localities may allow the rinse sink to be used for spray - rinsing at some minimum temperature.

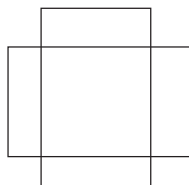
• WASH

Start wash pump. Turn wash sink Heat Switch to Normal Use [110°F].

Pre-scrub all items — scrape loose food soil into trash receptacle and pre-spray ware. Do not allow soiled ware to dry out.

Place large items in wash sink. Place small items in utensil basket. Put utensil basket in wash sink. Do not nest or stack pans together as this would inhibit wash action. Most items can be loaded or unloaded while the pump is on. Sheet pans can be loaded or unloaded easier with the pump turned off. Alternate sheet pans' lengths and widths so they don't nest and inhibit washing action.

Wash items in wash sink for 3 – 10 minutes or as long as necessary to obtain clean ware.



- **RINSE** Move items to rinse sink. Rinse items by immersing in rinse sink or spraying with water.
- **SANITIZE** Sanitize items by immersing in sanitizer sink for the required amount of time which should be specified by your chemical supplier. Remove items from sanitizer sink. Stack and allow clean ware to dry as per local health codes and recommendations. If ware is not completely clean, put it back in wash sink.

CHANGE WATER Change water at least every 4 hours or when it feels greasy or has excessive floating debris. See Cleaning the TurboWash, page 11.

GENERAL **DO NOT** put knives, sharp tools, towels, mops, scrub pads, plastic bags, plastic wrap, or any small items in wash sink.
DO NOT run wash pump without 'pump-inlet' strainers in place.
DO pre-scrap all items before putting them in the wash sink.
DO skim any floating food particles from the wash sink to keep water clean.

Washing for an Extended Time

TurboWash can clean extremely hard soils by soaking in the wash sink for an extended time or overnight. The optional AutoShutoff timer will turn the pump off after the preset time lapses (4 hours is preset at the factory). The optional wash tank heater will remain on Normal Use or Overnight Soaking setting until shut off. **NOTE:** Overnight Soaking [140°F] Heater setting is recommended for overnite use only. The next morning, drain the wash sink before reaching in. Spray off or cool hot items before handling. Rinse, sanitize, stack, and allow clean ware to dry as normal.

DOs and DON'Ts for Your New Hobart TurboWash

- DO** assure proper water hardness (4 – 6 grains per gallon is recommended).
- DO** pre-scrap pots and pans thoroughly — scrape loose food soil into trash receptacle and pre-spray ware.
- DO** use only detergent and sanitizer recommended by your chemical professional.
- DO** at the end of the day, thoroughly clean the TurboWash. Rinse and allow to dry.
- DO** closely follow your chemical professional's prescribed deliming schedule.
- DO** use only products formulated to be safe on stainless steel.
- DO NOT** over soften water (recommended water hardness is 4 – 6 grains per gallon).
- DO NOT** allow food soil to accumulate on the sink bottom.
- DO NOT** exceed chemical manufacturer's recommended concentrations for detergent, sanitizer, or lime scale remover.
- DO NOT** use steel wool to clean ware or TurboWash.
- DO NOT** allow objects such as knives and other sharp items in the wash sink.
- DO NOT** overload wash sink — keep all items below the water surface.
- NOTE:** Failure to follow use, care, and maintenance instructions may void your Hobart warranty.

MAINTENANCE

CLEANING THE TURBOWASH

WARNING: DISCONNECT THE ELECTRICAL POWER TO THE MACHINE AND FOLLOW LOCKOUT/TAGOUT PROCEDURES.

Maintain your TurboWash in a clean condition at all times. Clean before using, at least every four hours during use or at a frequency necessary to maintain clean conditions, and at least once daily, if used.

Turn pump and heater Off.

Open drains and empty all sinks. Wipe out and remove any soil residues to a trash receptacle.

Release the latch and lift out the outer 'pump-inlet' strainer at the rear wall of the wash sink. Release the latch and lift up the hinged 'inner pump-inlet' strainer at the rear of the wash sink. Lift up the hinged heater cover on the side wall of the wash sink. Flush out any remaining food soil. Remove food soil from sink bottom and dispose in trash receptacle. Clean sinks or components using a detergent solution mixed according to the chemical manufacturer's instructions and a clean brush or cloth. Use care when cleaning around heater compartment, and probe / float assembly — flush with a gentle spray. Clean heater cover and both 'pump-inlet' strainers and replace in their original positions. When necessary, wipe the wash, rinse, and sanitizer sinks with clean sanitizer diluted per the chemical supplier's instructions and allow to air dry.

When needed, clean the exterior of the TurboWash as you would any appliance. If grease accumulates around the pump motor fan cover, clean as necessary.

If lime or calcium scale accumulates in the sink area or as often as recommended by your chemical supplier, delime the sink(s) using a deliming agent. Follow the chemical supplier's instructions for proper concentration; and rinse sinks after deliming.

TROUBLESHOOTING

Symptom	Possible Cause	Suggested Corrective Action
Pump and heat off.	Circuit breaker tripped.	Reset circuit breaker at electrical panel. Turn pump switch off and then restart.
	Low water caused float switch to turn off.	Make sure drain is closed. Add water to wash sink. Turn pump switch off and then restart.
	Float switch clogged.	Refer to Cleaning the TurboWash, page 11.
Pump and pump light are off; heat is on.	AutoShutoff occurred after the preset time lapsed.	Check cleaning procedure. Turn pump switch off and then restart.
Pump is off. Pump light and heat are on.	Motor overload protector tripped.	Turn pump switch off. Wait a few minutes for motor overload protector to cool. Then press manual reset button on motor and restart.
		If pump is jammed or clogged, call for service.

Auto Shutoff Timer Adjustment

The Auto Shutoff Timer is preset at the factory to turn the wash sink pump off 4 hours after being turned on. Contact Hobart service to adjust the AutoShutoff timer setting — up to 500 minutes, if needed.

SERVICE

Rely on your plumbing contractor for repairs to standard fittings, faucets, and drains. Contact your local Hobart service office for repairs or adjustments needed on the TurboWash equipment.