

INSTRUCTIONS

AM SELECT DISHWASHERS



MODELS

<i>AM15</i>	<i>ML-130038</i>
<i>AM15T</i>	<i>ML-130039</i>
<i>AM15VL</i>	<i>ML-130153</i>
<i>AM15VLT</i>	<i>ML-130154</i>
<i>AM15SVL</i>	<i>ML-130326</i>
<i>AM15SVLT</i>	<i>ML-130327</i>
<i>AM15SCB</i>	<i>ML-130354</i>



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FORM 35320 Rev. I (February 2019)

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNIT(S) AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

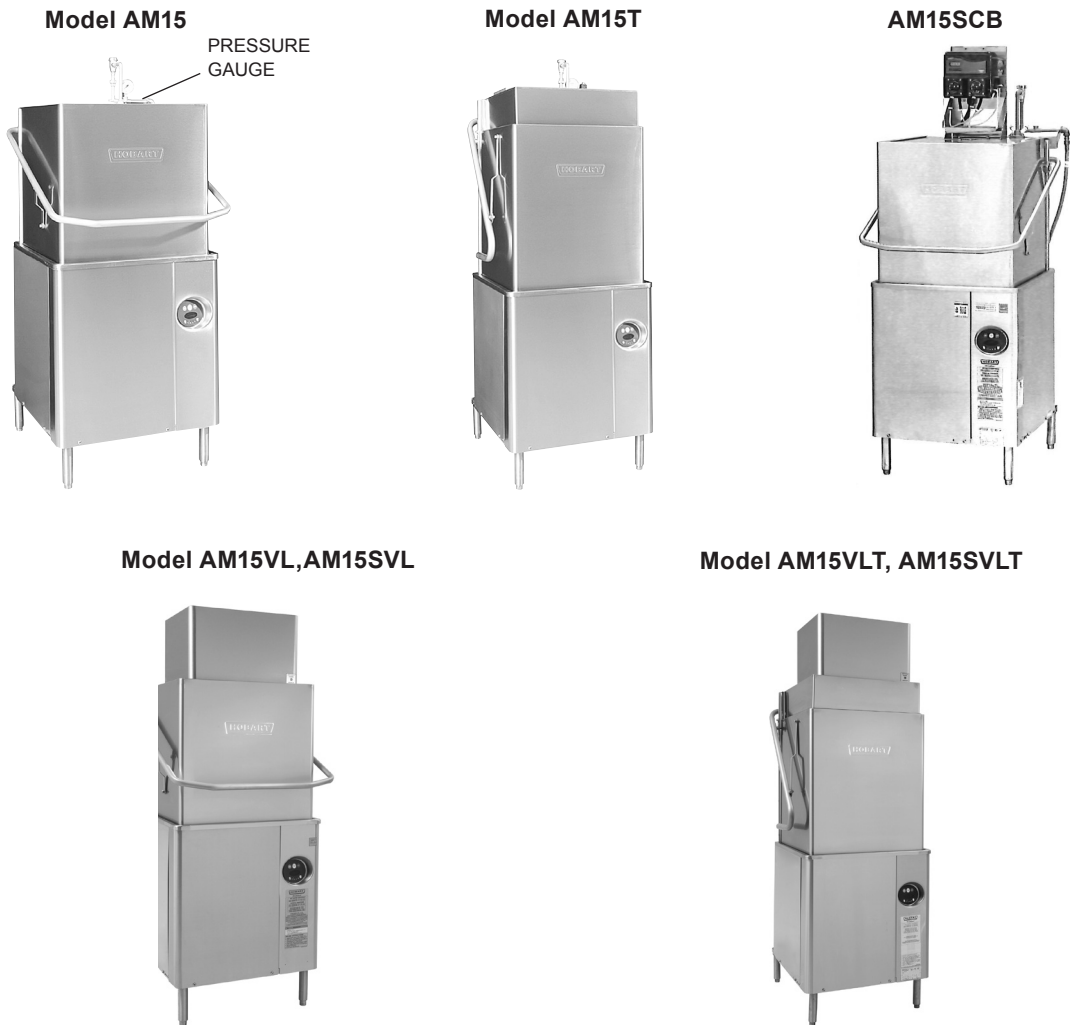


Fig. 1

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Installation, Operation and Care Of AM SELECT DISHWASHERS

SAVE THESE INSTRUCTIONS

GENERAL

Models AM15, AM15SCB, AM15VL, AM15SVL, AM15T, AM15VLT, and AM15SVLT dishwashers can be configured for both straight through or corner operation. AM15, AM15SCB, AM15VL, AM15SVL, AM15T, AM15VLT, and AM15SVLT dishwashers are shipped from the factory in straight-through configuration. Straight-through machines can easily be converted to corner operation.

The AM15 and AM15T dishwashers are designed to operate in one of two modes: Hot water sanitizing mode (designated by the letters "AH" or "AP" on the display when the machine is turned on), or a chemical sanitizing mode (designated by the letters "AC" on the display when the machine is turned on). AM15VL and AM15VLT dishwashers are designed to operate in hot water sanitizing mode only (designated by the letters "HL" on the display when the machine is turned on).

Model AM15SVL and AM15SVLT dishwashers are designed to operate in hot water sanitizing mode only (designated by the letters "Sn" on the display when the machine is turned on). Model AM15SCB dishwashers are designed to operate in chemical sanitizing mode only (designated by the letters "Cb" on the display when the machine is turned on).

The serial number can be found on the machine data plate located on the bottom of the front panel.

DO NOT attempt to operate this dishwasher in the chemical sanitizing mode without a properly installed, NSF Certified, chemical sanitizer feeder (customer supplied except for model AM15SCB, AM15SVL, and AM15SVLT). Contact an authorized detergent representative for information about a chemical sanitizer feeder.

The pump motor is rated 2 H.P. and has thermal overload protection.

The fill line incorporates either an atmospheric vacuum breaker for non "VL" models or an air gap for "VL" models to prevent any reverse flow of water from the dishwasher into the potable water supply. The unit, once turned on, fills the wash tank to the appropriate level and automatically stops filling once the level is reached. A float, located in the wash tank, shuts off the heat supply if the water level becomes too low. When the water returns to the proper level, the heating circuit is again operational.

A frame-mounted 8.5 kW electric booster water heater is available as an option for models equipped with electric tank heat. The booster water heater is standard for "VL" models. For models AM15 and AM15T, the booster water heater is designed to maintain a minimum final rinse temperature of 180°F provided the incoming water to the booster heater is at least 110°F. For ventless models AM15VL, AM15SVL, AM15VLT, and AM15SVLT, the booster water heater is designed to maintain a minimum final rinse temperature of 180°F with cold incoming water.

Model AM15SCB may be provided with or without a booster water heater. Models with a booster are designed to provide a minimum final rinse temperature of 120°F, provided the incoming water of the booster is at least 90°F. Models without a booster must be provided with incoming water at least 120°F (140°F recommended).

Models AM15SVL and AM15SVLT require a single cold-water supply water connection and come equipped with a drain water energy recovery system which includes drain water tempering. They utilize a heat exchanger to capture the energy from the drain water and preheat the incoming cold water for the final rinse. The AM15SVL and AM15SVLT models also include an automatic pumped drain system.

Ventless models AM15VL, AM15VLT, AM15SVL, and AM15SVLT do not require a vent hood. They use an internal condensing system to minimize the water vapor escaping from the unit during loading and unloading. High-temperature AM15 and AM15T models or gas heat dishwashers typically require a hood or vent over the dishwasher to meet local codes. Low-temperature chemical sanitizing machines or low usage electric heat dishwashers may not require individual venting of the machine if the room is amply exhausted. Refer to pages 13 and 14 for venting and hood requirements. Verify with local codes for final authority.

INSTALLATION

UNPACKING

Immediately after unpacking the dishwasher, check for possible shipping damage. If this machine is found to be damaged, save the packaging material and contact the carrier within 5 days of delivery.

Prior to installation, test the electrical service to make sure it agrees with the specifications on the machine data plate; this includes the optional electric booster, if equipped. The dishwasher data plate is located at the bottom of the front panel.

See page 19 for AM15SCB, AM15SVL, and AM15SVLT chemical dispenser installation and setup.

INSTALLATION CODES

Installation must be in accordance with state and local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 (latest edition) if applicable, and the National Electrical Code ANSI/NFPA 70 (latest edition). In Canada, the installation standards are: CAN/CGA B149.1, CAN/CGA B149.2, and CSA C22.2 No.1 (latest editions).

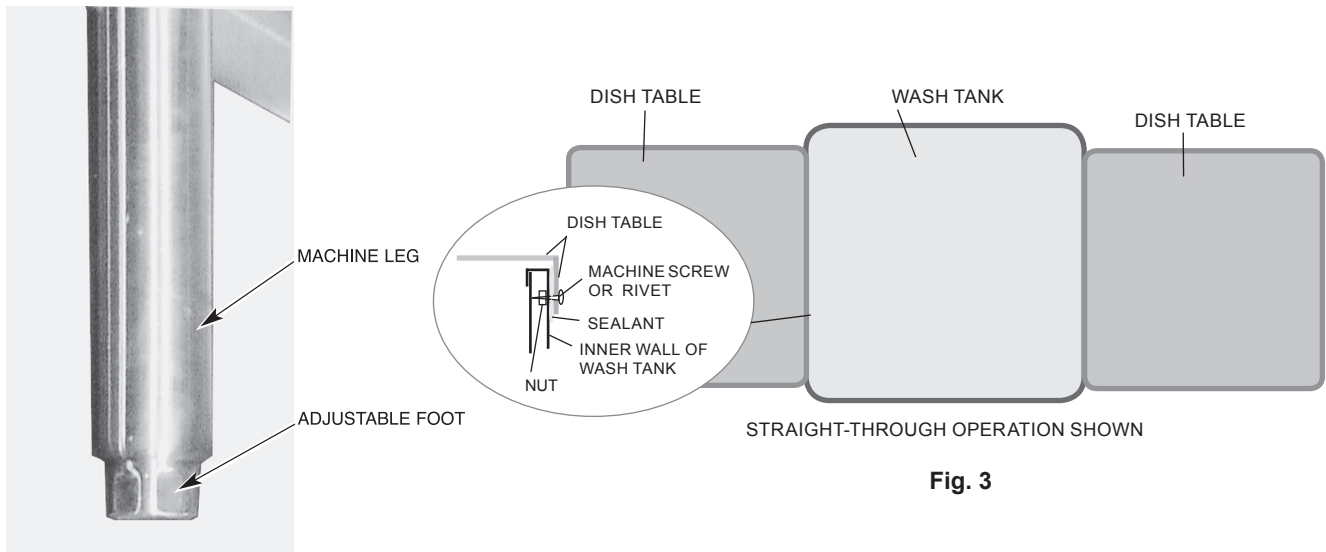
LOCATION

Before finalizing the location, make sure that consideration has been given for the electrical conduit, water supply, drain connection, gas supply and venting (if applicable), tabling (if needed), chemical feeder replenishment (if applicable) and adequate clearance for opening the door.

The dishwasher must be level before any connections are made. Turn the threaded feet (Fig. 2) as required to level the machine and adjust to the desired height.

The edge of dish table that overhangs the AM15 wash tank should be turned down and fitted over the top of the dishwasher tank (Fig. 3). Apply an NSF approved sealant between the overhang of the dish table and the inner wall of the wash tank to prevent leakage (Fig. 3). Fasten the dish tables to the inner wall of the wash tank with non-rusting truss head screws or rivets (Fig. 3).

For straight-through installations, clearance at the front and 15 inches out from the dishwasher at the right side by 27 inches above the finished floor must be provided for servicing.



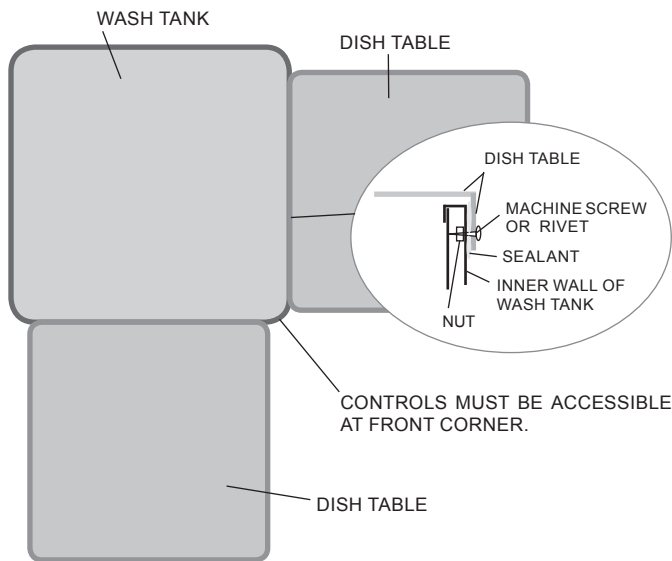
CORNER INSTALLATION

Before placing the dishwasher in its operating location, check machine configuration. If the machine is being installed in a corner (Figs. 4, 5), clearances of 20 inches out from the dishwasher under the left-hand tabling by 27 inches above the finished floor and 15 inches out from the dishwasher at the right side by 27 inches above the finished floor must be provided for servicing. For proper installation of a corner machine, the control and display should be positioned at the front corner for operator access (Fig. 5).

For corner installation, rotate the rack track so the guide rail is positioned on the left side (Fig. 6). For corner machines, remove the front door deflector (unscrew three bolts / nuts, Fig. 7).

NOTE: For AM15SVL and AM15SVLT models installed in a corner installation, it is recommended to move the drain water energy recovery (DWER) assembly to the right side of the machine. Mounting holes are provided from the factory in right-hand side panel. Ensure DWER hoses are oriented correctly and not kinked.

NOTE: For freestanding corner installations, the unit must be orientated to provide access to the right side of the machine.



CORNER OPERATION SHOWN
Fig. 4



Fig. 5

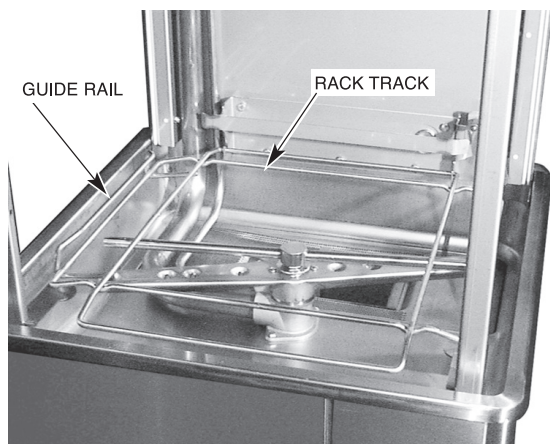


Fig. 6

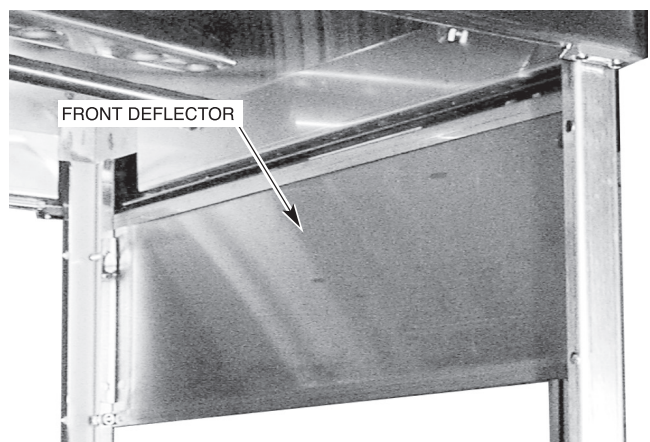


Fig. 7

A splash shield is available (at extra cost) for corner installations to cover the left side opening to the wall. Install the splash shield on the left side using the two 1/4-20 studs on the left rear corner with a lockwasher and nut for each (Fig. 8) and using the two 1/4-20 bolts, lockwashers and nuts on the left front corner (fasteners are provided in the kit).

For corner installations, tabling with backsplashes over 6" high require that a notch be provided to prevent interference with the door mechanism (Fig. 9).

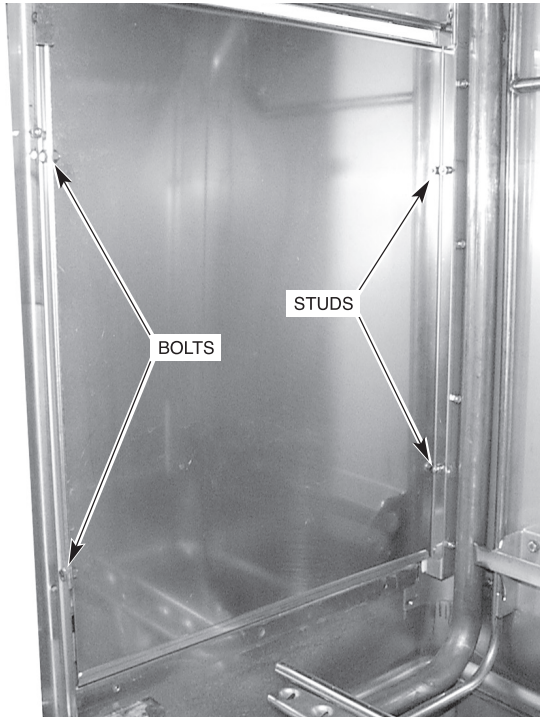
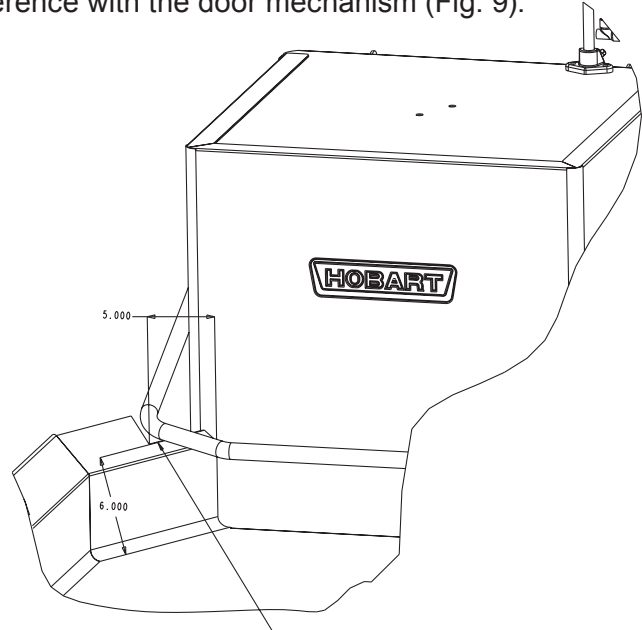


Fig. 8



A NOTCH MUST BE ADDED TO BACKSPLASHES OVER 6" HIGH ON CORNER MACHINES TO PREVENT INTERFERENCE WITH DOOR MECHANISM. NOTCH MUST EXTEND 5" FROM FACE OF THE MACHINE.

Fig. 9

WATER REQUIREMENTS

Proper water quality can improve warewashing performance by reducing spotting, lowering chemical supply costs, improving productivity and extending equipment life. Local water conditions vary from one location to another. The recommended proper water treatment for effective and efficient use of this equipment will also vary depending on the local water conditions. Ask your municipal water supplier for details about local water specifics prior to installation.

Recommended water hardness is 3 grains of hardness per gallon or less. Chlorides must not exceed 30 parts per million. Water hardness above 3 grains per gallon should be treated by a water conditioner (water softener or in-line treatment). Water treatment has been shown to reduce costs associated with machine cleaning, reduce the need for deliming the dishwasher and reduce detergent usage.

Sediment, silica, chlorides or other dissolved solids may lead to a recommendation for particulate filtration or reverse osmosis treatment.

If an inspection of the dishwasher or booster heater reveals lime build-up after the equipment has been in service, in-line water treatment should be considered, and, if recommended, should be installed and used as directed. Contact your Hobart Service office for specific recommendations.

PLUMBING CONNECTIONS

⚠ WARNING Plumbing connections must comply with applicable sanitary, safety, and plumbing codes.

Drain Connection (All models without pumped drain)

The drain connection is a 1-1/2 inch externally threaded pipe connected straight down from the bottom of the wash tank (Fig. 10). The connection can be made in any direction by using the proper fitting (not supplied) and routing to the appropriate drain line.

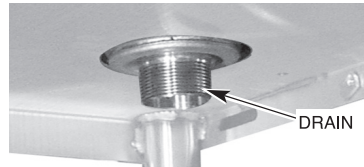


Fig. 10

If a grease trap is required by code, it should have a minimum flow capacity of 14 gallons per minute.

Drain Connection (All models equipped with pumped drain, Fig. 11)

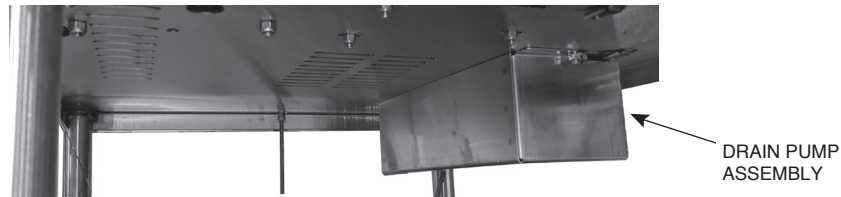


Fig. 11

A drain hose, 7/8" inside diameter and 8' long, is provided. This should be securely plumbed into a drain. Use care not to kink the hose. Drain must have a minimum flow capacity of 8 gallons per minute. The drain hose height cannot exceed 40" above finished floor.

NOTE: If pumped drain air gap kit (part number 00-562492) shipped with machine, refer to installation instructions (F-041133) included with kit.

Water Connection

A suitable water hammer arrestor should be installed in the water line just ahead of the dishwasher.

Without Electric Booster Water Heater - Models AM15, AM15SCB, and AM15T

The water supply line is connected to the 3/4" line strainer (top rear, Fig. 1) with 1/2" minimum supply line. A manual shutoff valve and pipe union are required (customer supplied).

REQUIRED INCOMING WATER TEMPERATURE

Model	Sanitizing Mode	Connection	Water Supply		
			Minimum	Maximum	Recommended
Without Built-in Booster	Hot Water Sanitizing	Hot Water	180°F (82°C)	194°F (90°C)	180°F (82°C)
With or Without Built-in Booster	Chemical Sanitizing	Hot Water	120°F (49°C)	N/A	140°F (60°C)
With Built-in Booster	Hot Water Sanitizing	Hot Water	110°F (43°C)	N/A	140°F (60°C)
AM15VL AM15VLT	Hot Water Sanitizing	Cold Water	N/A	90°F (32°C)	65°F (18°C)
		Hot Water	110°F (43°C)	N/A	140°F (60°C)
AM15SVL AM15SVLT	Hot Water Sanitizing	Cold Water	55°F (13°C)	90°F (32°C)	65°F (18°C)

For AM15, AM15SCB, and AM15T models, proper dishwasher operation requires a flowing pressure of 20 ± 5 psig at the dishwasher. If the flowing pressure exceeds 25 psig, adjust the supplied pressure reducing valve. A pressure gauge (Fig. 1) is provided (not installed) for verification of proper water pressure. The water pressure is monitored when the solenoid valve is open and water is flowing.

NOTICE The water pressure regulator must have a relief by-pass. Failure to use the proper type of pressure regulator may result in damage to the unit.

With Electric Booster Water Heater - Models AM15, AM15SCB, and AM15T

The water supply line is connected to the 3/4" line strainer below the machine with 1/2" minimum supply line. A manual shut off valve and pipe union are required (not supplied).

The water supply must have a minimum temperature of 110°F (43°C), and a flowing pressure of 20 ± 5 psig at the pressure gauge on top of the machine. Model AM15SCB with booster heater requires minimum 90°F water supply at 20 ± 5 psig at the gauge. If the flowing pressure exceeds 25 psig, adjust the supplied pressure reducing valve.

NOTICE The water pressure regulator must have a relief by-pass. Failure to use the proper type of pressure regulator may result in damage to the unit.

Incoming water temperature below 110°F (43°C) or below 90°F (18°C) for AM15SCB with booster, may require longer wash cycle time than the 57 second cycle; refer to OPERATION, page 28.

When the fill / final rinse valve is on, water from the booster tank enters the dishwasher through the final rinse arms. During the rinse cycle, this water is 180°F (82°C), 130°F (40°C) for AM15SCB. A small amount of water will likely dribble out of the lower rinse arm into the tank between cycles due to the natural expansion of water as it is being heated.

With Electric Booster Water Heater - Models AM15VL, AM15SVL, AM15VLT, and AM15SVLT

The AM15VL and AM15VLT models require both a cold water supply connection and a hot water supply connection. The cold water supply line is connected to the line strainer at the top of the machine using 1/2" mpt connection. A pressure regulator and pressure gauge are not required. A manual shut-off valve and pipe union are required (customer supplied).

The AM15SVL and AM15SVLT models require a single cold-water supply connection. The machine is shipped with a 96" hose and should be connected to a 3/4" male garden hose fitting (not supplied).

NOTICE The cold water supply must not exceed 90°F (32°C) for proper operation. Optimal results are obtained when cold water supply temperature is below 65°F (18°C). For best results, it may be necessary to use 1/2 inch pipe for the cold water pipe size and minimize the distance between the dishwasher and the entrance into the building. Pipe insulation will also improve results.

If cold water supply temperature is consistently above 90°F (32°C) or if excessive water vapor or steam is entering the room after the condensing cycle is complete, contact Hobart Service to increase condensing time.

The hot water supply line is connected to the composite valve at the top of the machine with a female garden hose fitting. The machine is shipped with a 96" hose and should be connected to a 3/4" male garden hose fitting (not supplied). A pressure regulator and pressure gauge are not required as this is a pumped rinse machine. A manual shut-off valve and pipe union are required (customer supplied).

GAS TANK HEAT (WHEN SPECIFIED)

Check the gas data plate attached to the dishwasher or the tag attached to the incoming gas piping for the type of gas to be used. The burner is not adjustable. The maximum flowing inlet gas pressure must not exceed the Maximum value in the table. If line pressure exceeds the Maximum value in the table, an additional pressure regulator (not supplied) must be installed in the supply line.

GAS PRESSURE SPECIFICATION **[FLOWING GAS PRESSURE — NOT STATIC]**

Type of Gas	BTU/HR	Inches W.C. (Water Column) <i>FLOWING</i>		
		Incoming Line Pressure		Manifold Pressure
		Minimum	Maximum	
Natural	25,000	3.5	7.0	3.2
Propane	25,000	9.0	11.0	8.2

Static inlet line pressure should not exceed 14 inches W.C. The minimum value is for input adjustment.

The gas valve is provided with a pressure tap to measure the gas pressure downstream, which is also the manifold pressure. Gas supply piping must have a sediment trap (supplied by others) installed ahead of the dishwasher's gas control. Connect the gas supply to the 1/2 inch NPT gas inlet underneath the machine (Fig. 12).

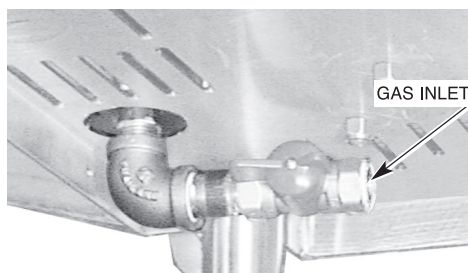


Fig. 12

⚠ WARNING Do not use Teflon tape on gas line pipe threads. For gas line pipe connections, use Loctite 565, Hobart part 546292, or a flexible sealant suitable for use with Natural and Propane Gases.

The appliance and its gas connections must be leak tested before placing the appliance in operation. Use soapy water for leak test. **Do not** use open flame. The installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 (latest edition). Copies may be obtained from American Gas Association, Inc., 1515 Wilson Boulevard, Arlington, VA 22209.

The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig (3.45kPa).

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig (3.45kPa). Dissipate test pressure from the gas supply line before re-connecting the appliance and its manual shutoff valve to the gas supply line.

NOTICE Failure to follow this procedure may damage the gas valve.

The dishwasher must be installed so that the flow of combustion and ventilation air is not obstructed. Do not store material underneath the machine; air openings into the combustion chamber must not be blocked. Make sure there is an adequate supply of make-up air in the room to allow for combustion of the gas at the burner.

Keep the appliance area free and clear from all combustible substances. Do not obstruct the flow of combustion and ventilation air. The dishwasher must have a minimum clearance from combustible construction of 1 inch from the flue at the rear. Clearances of 20 inches out from the dishwasher at the front (or left side in a corner installation) by 27 inches above the finished floor and 15 inches out from the dishwasher at the right side by 27 inches above the finished floor must be provided for servicing. The burner is ignited automatically by solid state electronic circuitry; there is no pilot light. Gas flow is regulated by the temperature control circuit.

VENTING REQUIREMENTS — WITH GAS TANK HEAT

Hobart model AM15 or AM15T dishwashers equipped for gas tank heat are not provided with a flue collar and are not intended to have the flue directly connected to a ventilation system. However, the products of combustion must be vented to the outside air. The most common method of venting is a vent hood over the entire dishwasher (Fig. 13). Refer to Rate of Exhaust Flow Calculations on the next page for calculations of the proper vent rate for your hood. Another method is a small vent hood (Fig. 14) positioned about five inches above the flue exit at the rear of the dishwasher and connected to existing ductwork. In either case, an electrical interlock must be installed to allow the flow of gas to the dishwasher burner ONLY when the exhaust system is energized. For additional information, refer to the National Fuel Gas Code, ANSI Z223.1, NFPA 54.

NOTICE Make sure the installation meets the local code for your area.

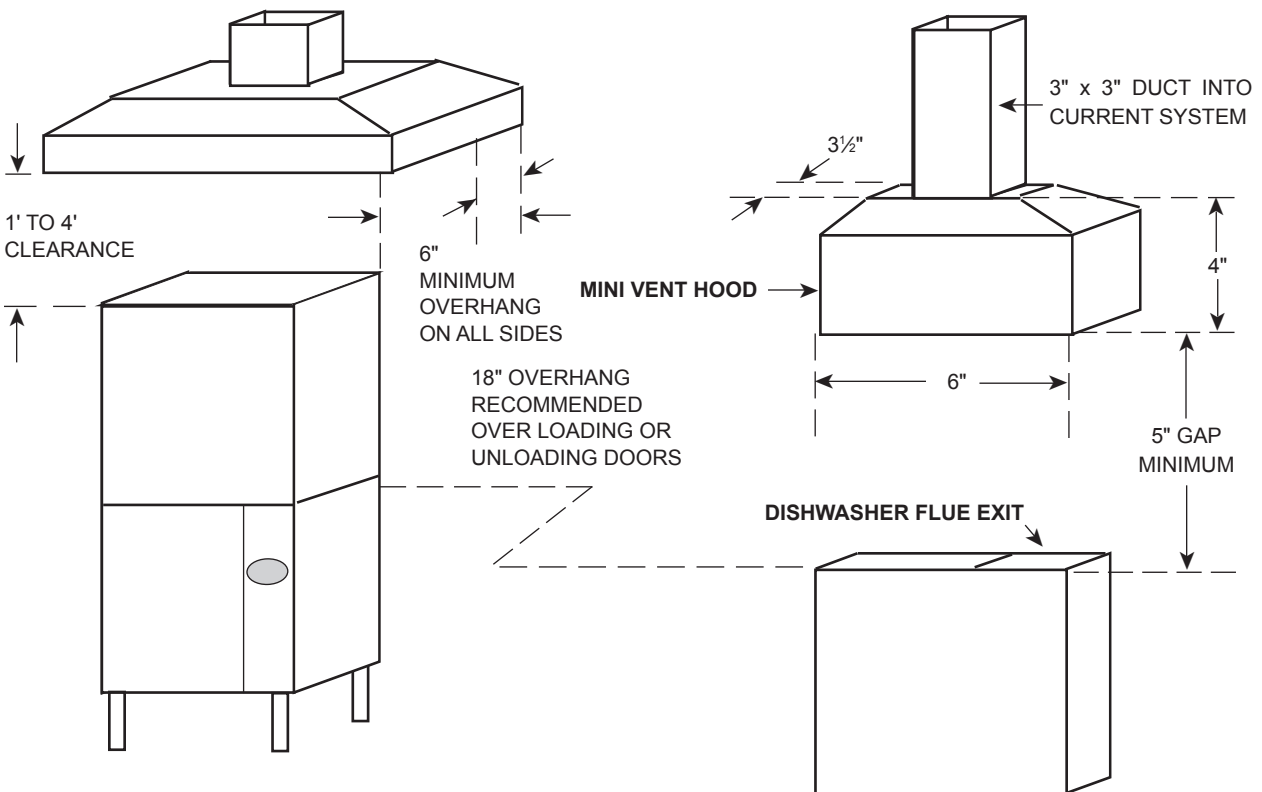


Fig. 13

Fig. 14

NOTE: Any listed and labeled factory-built commercial exhaust hood tested in accordance with UL Standard 710 by a nationally recognized testing laboratory, must be installed according to the terms of its listing and the manufacturer's installation instructions.

Rate of Exhaust Flow Calculations

Based on the 2015 International Mechanical Code.

The minimum net airflow for Type II hoods used for dishwashing appliances shall be 100 cfm per linear foot of hood length. The net quantity of exhaust air shall be calculated by subtracting any airflow supplied directly to a hood cavity from the total exhaust flow rate of a hood.

Ventless models AM15VL, AM15SVL, AM15VLT, and AM15SVLT do not require a Type II vent hood. According to 507.3 of the 2015 IMC, Type II hoods are not required where the heat and moisture load is incorporated into the HVAC system design. See Table A for heat dissipation or heat gain to space.

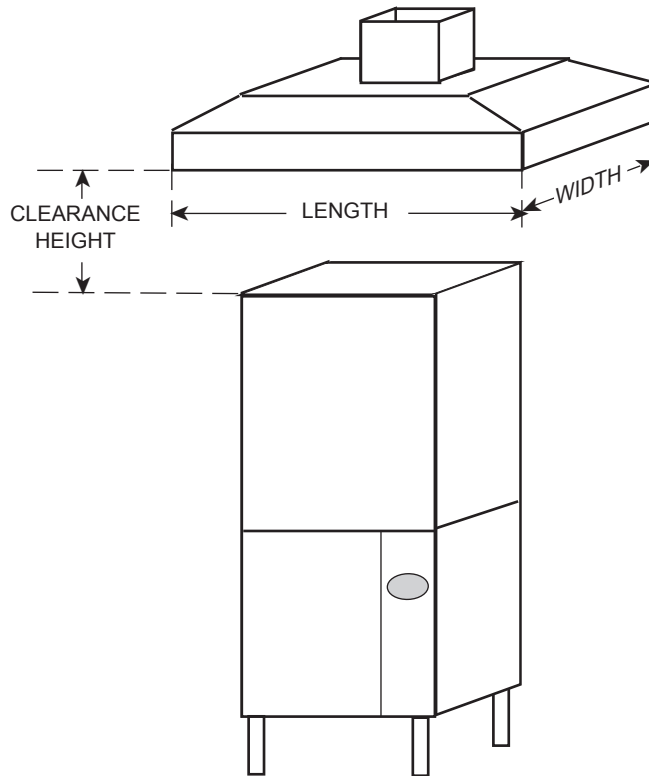


Fig. 15

TABLE A: HEAT DISSIPATION

	Model	Electric Heat	Gas Heat	13 kW Electric Booster	8.5 kW Electric Booster	Steam Booster	Latent Heat (BTU/HR)	Sensible Heat (BTU/HR)
Hot Water Sanitizing	AM15	X					7,400	3,200
		X		X			22,900	9,800
		X			X		17,500	7,500
		X				X	27,800	11,900
			X				10,900	4,700
			X			X	31,200	13,400
	AM15T	X					10,400	4,400
		X		X			32,100	13,800
		X			X		24,600	10,500
		X				X	38,900	16,700
			X				15,200	6,500
			X			X	43,700	18,700
	AM15, AM15T with power vent fan option	X					1,200	1,300
		X		X			3,700	4,200
		X			X		2,800	3,200
		X				X	4,500	5,100
			X				1,800	2,000
			X			X	5,000	5,700
	AM15VL, AM15SVL	X			X		9,300	3,400
	AM15VLT, AM15SVLT	X			X		13,000	4,800
Chemical Sanitizing	AM15	X					9,400	2,800
			X				10,900	4,600
	AM15T	X					13,200	3,900
			X				15,200	6,500
	AM15SCB	X			X		12,200	4,300

- Assumptions:
1. Machines operate 70% of each hour while in use.
 2. All heat dissipated enters the room except for models with power vent fan option and gas heat models. Gas heat models must be provided with vent hood which directs 40% of heat to outside atmosphere.
 3. 70% of heat output is latent, 30% is sensible.
 4. Chemical sanitizing models operate at 60% of the heat output of equivalent hot water sanitizing models.

ELECTRICAL CONNECTIONS

⚠ WARNING Electrical and grounding connections must comply with the applicable portions of the National Electrical Code, NFPA 70 (latest edition) and / or other local electrical codes.

⚠ WARNING Disconnect the electrical power to the machine (both dishwasher and booster if applicable) and follow lockout / tagout procedures. Be sure all circuits are disconnected.

Refer to the wiring diagram attached inside the front trim panel and to the machine data plate for service size requirements when connecting the dishwasher. Also, refer to Electrical Data, shown below.

To access the controls area, remove the right side panel, remove the front panel and open the control panel door. The dishwasher electrical service connection can be made through the 1³/₂ inch diameter hole for ¾ inch trade size conduit located on the right side at the rear of the machine. By removing a knockout, this hole can be enlarged to 1³/₈" diameter for 1 inch trade size conduit, if required.

ELECTRICAL DATA

Models	Volts / Hz / Ph	Tank Heat	Minimum Circuit Ampacity Maximum Protective Device AMPS		
			Dishwasher ONLY	Optional 8.5 KW Electric Booster	
				8.5 KW Booster ONLY	Optional Single Point Electrical Connection 3 Phase Only Dishwasher and Booster
AM15, AM15T	208 - 240 / 60 / 1	Gas	20		
	208 - 240 / 60 / 3	Gas	15		
	480 / 60 / 3	Gas	15		
AM15, AM15T, AM15VL, AM15VLT	208 - 240 / 60 / 1	Electric	50	50	
	208 - 240 / 60 / 3	Electric	30	30	60
	480 / 60 / 3	Electric	15	15	30
AM15, AM15T	200 - 240 / 50 / 3	Electric	30	30	60
	380 - 415 / 50 / 3	Electric	15	15	30
					Standard Single Point Electrical Connection with 4.3 KW Electric Booster
AM15SCB	208 / 240 / 60 / 1	Electric			30 / 40
					Standard Single Point Electrical Connection with 8.5 KW Electric Booster
AM15SVL, AM15SVLT	208 - 240 / 60 / 3	Electric			60
			Optional Dual Point Electrical Connection		
AM15SVL, AM15SVLT	208 - 240 / 60 / 3	Electric	30	30	

Compiled in accordance with the national electrical code, NFPA 70 (latest edition).

A fused disconnect switch or circuit breaker (customer supplied) must be installed in the electrical service line(s) supplying this dishwasher and should meet the requirements of your local electrical code.

Voltage Adjustment

This adjustment procedure applies to all AM15 dishwashers rated at 200 to 240 volts, 50/60 Hz, 3 phase. All other AM15 dishwasher voltages are preset at the factory and do not require this adjustment procedure.

THIS PROCEDURE MUST BE DONE ONLY BY A QUALIFIED ELECTRICIAN.

If the supply voltage to the machine is 220 to 264 volts, no change is necessary. The control circuit transformer [1T] should already be set to operate at 240 volts.

If the supply voltage to the machine is 177 to 220 volts, the control circuit transformer [1T] must be changed to operate at 208 volts.

Hobart supplied chemical dispenser box (WHEN PROVIDED) - If the supply voltage to the machine is 177 to 220 volts, move wire on high voltage terminal block (208/240 COM) from 240V COM to 208V COM.

Dishwasher without Electric Booster

For single-phase machines, power supply connections are made to terminal blocks. For three-phase machines connections are made to contactor lugs. The machine must be grounded according to electrical code(s); a grounding lug is provided in the controls area. Electrical connections for machines with gas tank heat are made to contactor 1CON in the controls area.

Motor Rotation (Three-Phase Machines Only)

Three-phase motors must rotate in the direction of the arrow on the motor end bell. To check rotation, observe the motor shaft (Fig. 16). Close the machine door and press the power switch to ON. When the machine is completely filled, open and close machine door to verify that the motor shaft rotates in the counterclockwise direction.

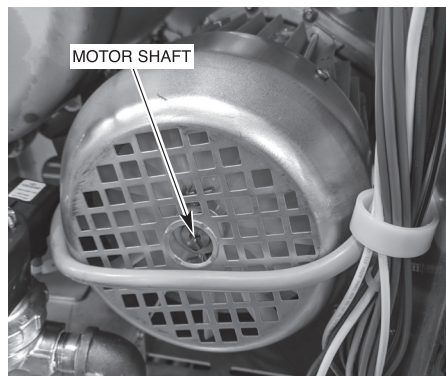


Fig. 16

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

Dishwasher With Electric Booster (Separately Connected)

Single phase machines (with the exception of AM15SCB) with an electric booster require two separate connections, one for the booster and the other for the dishwasher (including motor, controls and tank heat). For single-phase machines, all power supply connections are made to terminal blocks (Fig. 17). The single phase dishwasher is connected to terminal block 1TB in the controls area. The single phase booster is connected to terminal block 2TB in the controls area.

Model AM15SCB single phase only requires one service connection: at 2TB for models with booster and 1TB for models without booster (Fig. 20).

If the machine is three phase, the electrical connection for the dishwasher is made to the contactor 2CON in the controls area. The electrical connection for the three phase booster is made to the contactor 3CON in the controls area (Fig. 18).

Dishwasher With Electric Booster (Single Point Electrical Connection)

Three phase machines configured with the optional single point electrical connection are connected to terminal block 1TB in the controls area (Fig. 19). The machine must be grounded according to electrical code(s); a grounding lug is provided.

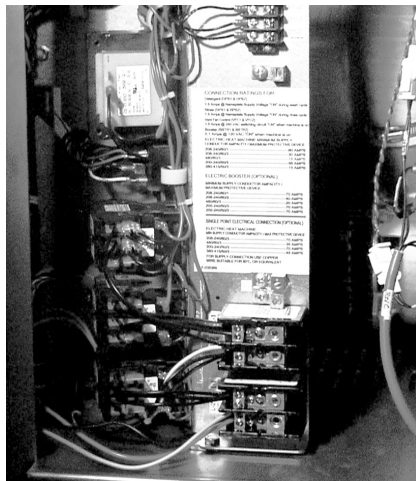


Fig. 17

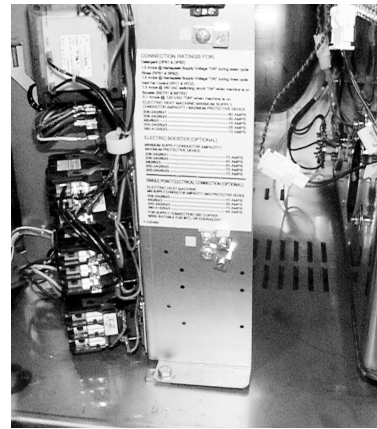


Fig. 18

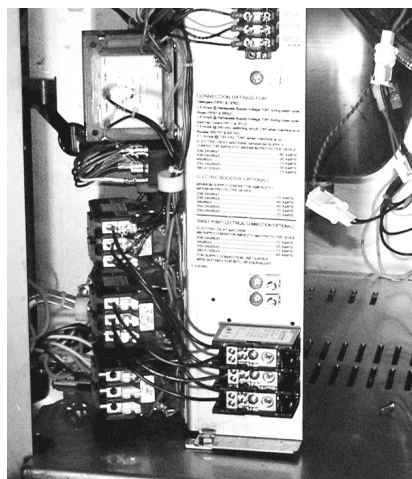


Fig. 19



Fig. 20

EQUIPMENT CONNECTIONS

⚠ WARNING Electrical and grounding connections must comply with the applicable portions of the National Electrical Code, NFPA 70 (latest edition) and / or other local electrical codes.

⚠ WARNING Disconnect the electrical power to the machine (both dishwasher and booster if applicable) and follow lockout / tagout procedures. Be sure all circuits are disconnected.

Vent Fan Control

The vent fan control feature is standard on models AM15 and AM15T. This feature is not available on Model AM15SCB and on ventless models AM15VL, AM15SVL, AM15VLT, and AM15SVLT. The vent fan control relay provides switch contacts only and does not provide power to the vent fan motor. The rating for a vent fan control relay connected to terminals VFC1 and VFC2 is 1.5 Amps at 240 Volts maximum. When the dishwasher is connected to the vent fan, the vent fan is switched on when the dishwasher is on, and off when the dishwasher is off.

Remote Booster Control

The booster control feature is standard on models AM15, AM15SCB, and AM15T. This feature is not available on ventless models AM15VL, AM15SVL, AM15VLT, and AM15SVLT. The load rating for remote booster control connections to BSTR1 and BSTR2 is 0.1 Amp. at 120 Volts maximum. **The booster control provides a control signal only and does not provide power to the remote booster.** When a remote booster is connected to the dishwasher, the booster is on when the dishwasher is on and off when the dishwasher is off.

DETERGENT, RINSE AID, SANITIZER DISPENSERS FOR MODELS AM15SCB, AM15SVL, and AM15SVLT

Setup:

For models AM15SVL and AM15SVLT, the chemical dispensing module is shipped inside the chamber of the dishmachine. Remove packing material. For AM15SCB models, the dispenser is factory installed to the bracket located on the top of the machine (Fig. 22). For AM15SVL and AM15SVLT models, mount the dispenser to the wall close enough to the dish machine to be able to connect the 10' conduit/wire assembly (Fig. 23).

Complete tube installation using the prelabeled tubes. **NOTE:** Pumps rotate in clockwise direction.

NOTE: Tube routing runs from bottle to sensor, sensor to pump, and from pump to machine.

Install the conduit from the chemical dispenser in the opening at the rear of the controls area and connect the wiring harness to the mating receptacle. See Figure 21.

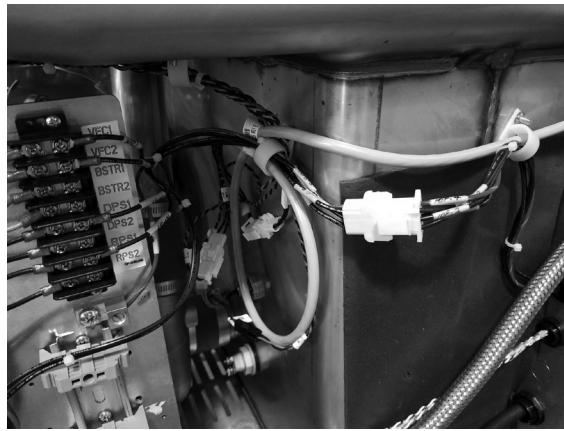
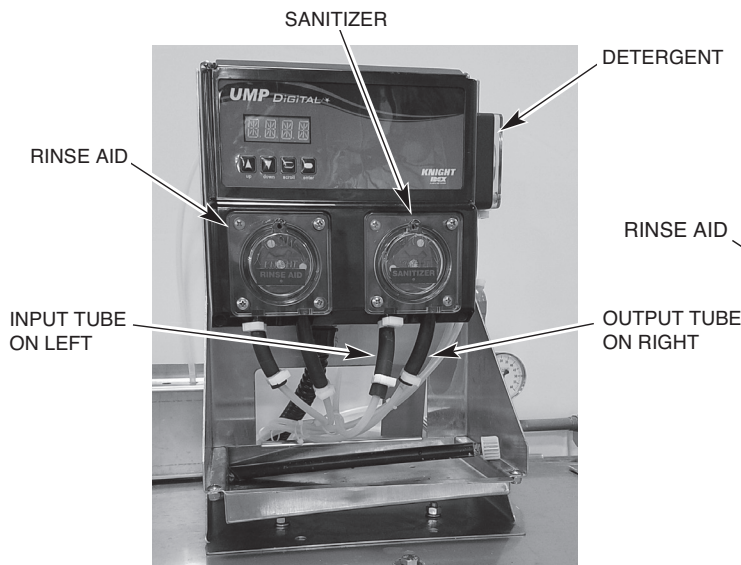


Fig. 21

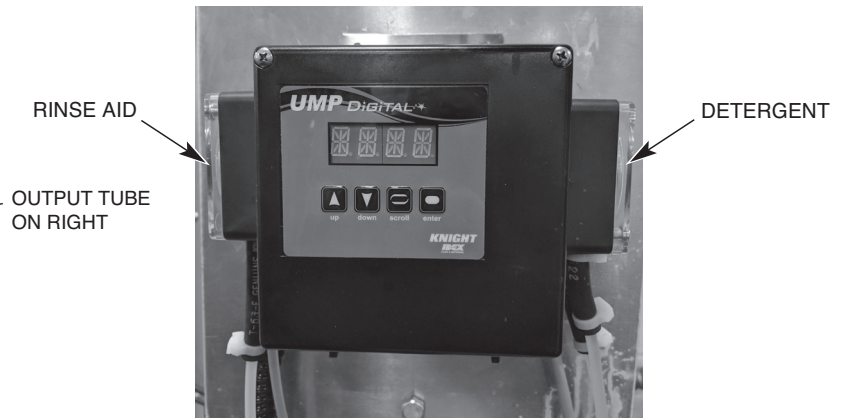
Chemical Tube Routing for Models AM15SCB, AM15SVL, and AM15SVLT

For AM15SCB models, install the pre-labeled chemical tubes into the appropriate chemical bottle.



AM15SCB

Fig. 22



AM15SVL & AM15SVLT

Fig. 23

For AM15SVL and AM15SVLT models, the pre-labeled detergent and rinse aid tubing (Fig. 24) must be routed from the dish machine to the chemical dispenser mounted on the wall (Fig. 23). Ensure the clear tubing is inserted a minimum of 3/8" into the black chemical pump tube and tighten tube clamp.

NOTE: Input tube on left of chemical pump. Output tube on right.

Install the pre-labeled chemical tubes from the chemical dispenser into the appropriate chemical bottle.

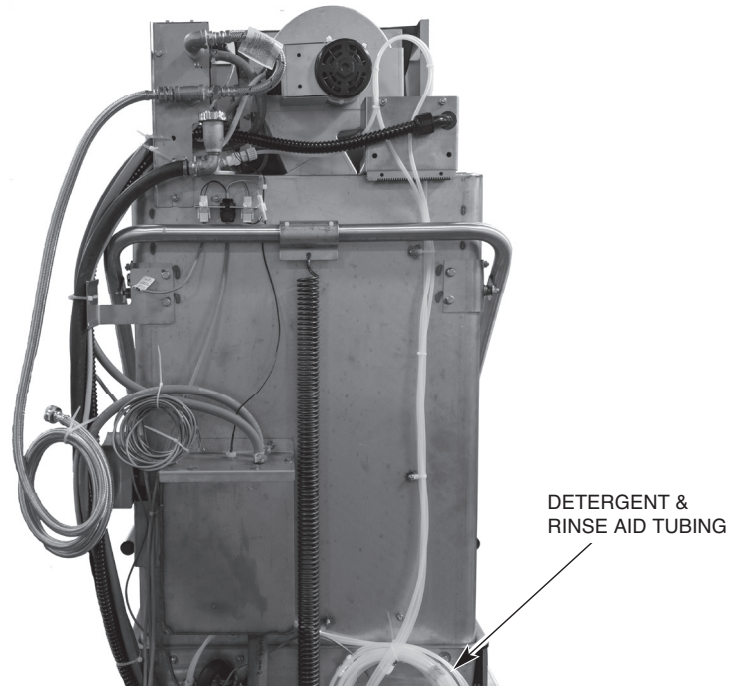


Fig. 24

Chemical Pump Programming

NOTE: The Chemical Dispensing Module, when shipped with the AM15SCB, AM15SVL, or AM15SVLT is factory preset to the following settings. This adjustment procedure is to verify or alter settings if chemical dosing changes are required to achieve proper concentrations.

1. Power on dishwasher.
 - a. Display shows "UMP DIGITAL".
2. Press and hold the ENTER button until display changes to "ENTER PASS CODE 0000".
3. Below is a list of the editable Parameters and the Hobart factory settings for the chemical dispensing module. Press the ENTER button to toggle to the next Parameter.
 - a. Press the SCROLL button to change each digit.
 - b. Once the desired digit is flashing, press the UP or DOWN buttons to change value.
 - c. Press the ENTER button to save the value and toggle to the next parameter.
4. To save and exit the programming, hold down the ENTER button until "UMP DIGITAL" is displayed.

PARAMETER NAME	AM15SCB FACTORY SETTING		AM15SVL, AM15SVLT FACTORY SETTING	
	Supra LP Detergent (Red)	QSR Detergent (Yellow)	Supra LP Detergent (Red)	QSR Detergent (Yellow)
ENTER PASS CODE	0000	0000	0000	0000
CHANGE PASS CODE	0000	0000	0000	0000
LANGUAGE	ENGLISH	ENGLISH	ENGLISH	ENGLISH
PROBE/PROBLESS MODE	PROBELESS	PROBELESS	PROBE	PROBE
DETERGENT CONCENTRATION	N/A	N/A	030 ***	030 ***
DET. PULSE PERCENT	N/A	N/A	50	50
DET. PULSE RATE	N/A	N/A	05	05
DOOR/CONVEYOR MODE	DOOR	DOOR	DOOR	DOOR
ALARM DELAY	N/A	N/A	512	512
INITIAL DETERGENT CHARGE	030 ***	030 ***	N/A	N/A
INITIAL CHARGE REPEAT	OFF	OFF	N/A	N/A
DETERGENT RECHARGE TIME	02 ***	04 ***	N/A	N/A
RECHARGE AFTER RACKS	01	01	N/A	N/A
RINSE SPEED	010 *	010 *	010 *	010 *
RINSE DELAY	00	00	00	00
RINSE LIMIT	30	30	30	30
SANITIZER SPEED	025 **	025 **	000 **	000 **
SANI RUNS WITH DET OR RINSE	RINSE	RINSE	RINSE	RINSE
CHANGE WATER CNT (COUNT)	000	000	000	000
UP – RESET RACK CNT				
UP – RESET INIT CNT			N/A	N/A

* Rinse Aid pump energizes while in SCROLL mode.

** Sanitizer pump energizes while in SCROLL mode.

*** These settings are for the detergent pumps with the yellow rollers and the large squeeze tube (squeeze tubes are marked T-50E, .250" I.D., Hobart part number 00-975322-0016).

Chemical Pump Priming

Detergent: Press and hold UP & DOWN buttons simultaneously until detergent is flowing thru entire tube.

Rinse Aid: Press and hold UP & SCROLL buttons simultaneously until rinse aid is flowing thru entire tube.

Sanitizer: Press and hold DOWN & SCROLL buttons simultaneously until sanitizer is flowing thru entire tube.

Chemical Pump Rate (RPM) Verification

To verify dispensing rate (voltage variations may affect dosage), run a cycle and verify pump rotates the approximate number of revolutions during a cycle. If the pump does not rotate the approximate revolutions shown in the table below, adjust accordingly. Refer to Chemical Pump Programming (page 22).

AM15SCB		
	HOBART FACTORY SETTING	NUMBER OF PUMP REVOLUTIONS
Supra LP Detergent (Red)	02 *	2.8
QSR Detergent (Yellow)	04 *	5.6
Rinse Aid	010 *	1.1
Sanitizer	025 *	2.5

AM15SVL, AM15SVLT		
	HOBART FACTORY SETTING	NUMBER OF PUMP REVOLUTIONS
Rinse Aid	010 *	2.25

* Due to variation in supply voltage, the factory settings may need to be adjusted to obtain the correct number of pump revolutions.

Testing Sanitizer (Chemical Sanitizing Machines)

1. Place a serving bowl or mixing bowl upside down on a rack and run it through a cycle.
2. After cycle, dip a sanitizer test strip into the water collected on the surface of the bowl.
3. Compare the test strip to the test scale provided with your testing kit (Fig. 25). If the sanitizer level is out of limits (i.e. below 50 ppm or above 100 ppm), adjust the dosing. Refer to Chemical Pump Programming (page 22), for adjustment instructions, or contact your chemical provider.

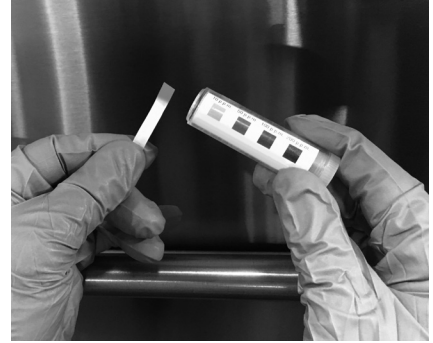


Fig. 25

DETERGENT, RINSE AID, SANITIZER DISPENSERS (FOR ALL MODELS EXCEPT AM15SCB, AM15SVL, and AM15SVLT)

Tubing Installation

Detergent, rinse aid and/or sanitizer dispensers not provided by Hobart must have all connections sealed against leakage.

The dishwasher uses 0.74 gallons of rinse water per rack at a flow rate of 4.4 gallons per minute at 20 psig flowing pressure. This information is used when setting the detergent, rinse aid or sanitizer pumps.

NOTE: Ventless "VL" models do not have a pressure gauge.

See Hobart form F15523 for sanitizer volumes and installation instructions.

Detergent Dispenser

The dishwasher has two 7/8" diameter plugged holes, one on the rear of the chamber and one on the lower part of the tank near the pump (Fig. 26). With the tank empty, remove both plugs to install the detergent dispenser.

- The chamber hole is for installation of the detergent feeder tube.
- The lower tank hole is used for installation of the detergent sensor.

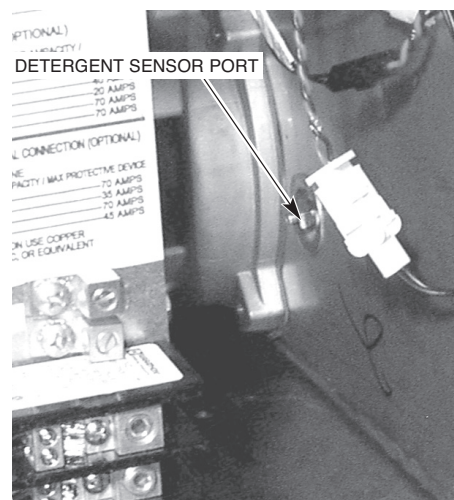


Fig. 26

Rinse Aid Dispenser

The rinse line flange connector on top of the dishwasher has two 1/8 inch NPT pipe plugs (Fig. 27).

- Remove the plug(s) (Fig. 27) for installation of the rinse aid dispenser tube and / or chemical sanitizer tube, as needed.

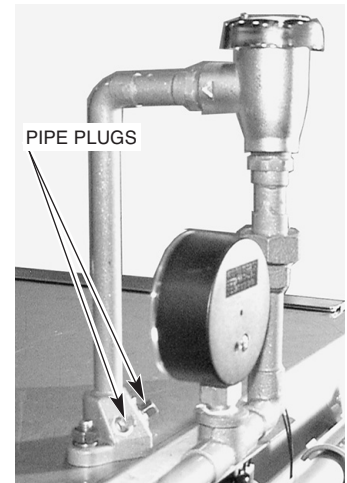


Fig. 27

Chemical Sanitizer Dispenser - AM15 and AM15T Models Only

When the dishwasher is to be operated in the chemical sanitizing mode, the machine must be converted to low-temperature sanitization (refer to Setup, page 27). A chemical sanitizer dispenser that has been tested and certified by NSF International must be installed.

- Remove the pipe plug (Fig. 28) for installation of the chemical sanitizer tube. To assure an unobstructed flow of sanitizer, locate the sanitizer tube in the center of water flow by drilling the sanitizer tube fitting so that its inside diameter is equal to the outside diameter of the tube. Slide the tube into the flange until it touches the opposite side and then pull it back out 1/4 inch (Fig. 28).
- Rate for 6% Sodium hypochlorite (bleach) - 3 ml. within 10 seconds (maximum).
- Rate for 8.4% Sodium hypochlorite (bleach) - 2 ml. within 10 seconds (maximum).

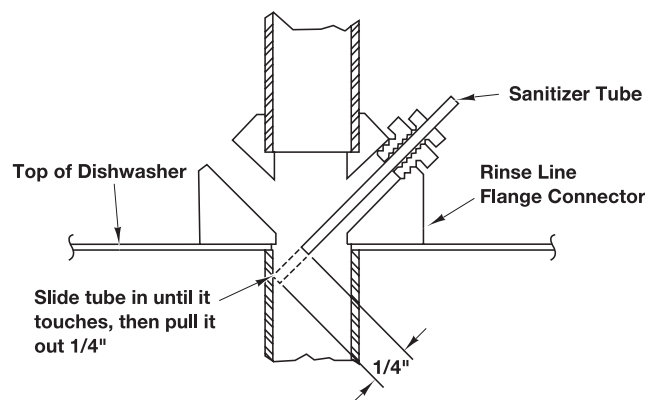


Fig. 28

DETERGENT, RINSE AID, SANITIZER DISPENSERS — EQUIPMENT CONNECTIONS

⚠ WARNING Electrical and grounding connections must comply with the applicable portions of the National Electrical Code, NFPA 70 (latest edition) and / or other local electrical codes.

⚠ WARNING Disconnect the electrical power to the machine (both dishwasher and booster if applicable) and follow lockout / tagout procedures. Be sure all circuits are disconnected.

This machine must be operated with an automatic detergent feeder and, if applicable, an automatic chemical sanitizer feeder, including a visual means to verify that detergents and sanitizers are delivered or a visual or audible alarm to signal if detergents and sanitizers are not available for delivery to the respective washing and sanitizing systems. Refer to the installation section of this manual and to the chemical feeder equipment manual(s).

Detergent Dispenser (Fig. 29)

Terminals DPS1 and DPS2 are supplied with controlled machine line voltage. They are ON during the wash cycle and OFF between cycles or when the machine power supply is OFF. Maximum rating for detergent dispenser connected to DPS1 and DPS2 is 1.5 Amps at line voltage. Check the machine supply voltage and use corresponding feeder transformer voltage. Use UL Listed 600 volt minimum insulated wire for the connections. Do not use bell wire, lamp cord or similar type wire. Splice connections, if required, must be made in the feeder transformer junction box - not in the main controls enclosure. Remove $\frac{7}{8}$ " diameter cap plug(s) for $\frac{1}{2}$ " trade size conduit fittings from the rear of the enclosure. Remove the side panel. Strain relief fittings must be provided for all wiring.

Rinse Aid / Sanitizer Dispenser(s) (Fig. 29)

Terminals RPS1 and RPS2 are supplied with controlled machine line voltage and are ON during the rinse cycle only. Maximum rating for rinse aid dispenser connected to RPS1 and RPS2 is 1.5 Amps at line voltage. Check the machine supply voltage and use corresponding feeder transformer voltage. Use UL Listed 600 volt minimum insulated wire for the connections. Do not use bell wire, lamp cord or similar type wire. Splice connections, if required, must be made in the feeder transformer junction box (supplied by others) — not in the main controls enclosure. Remove $\frac{7}{8}$ inch diameter cap plug(s) for $\frac{1}{2}$ inch trade size conduit fittings from the rear of the enclosure. Strain relief fittings must be provided for all wiring.

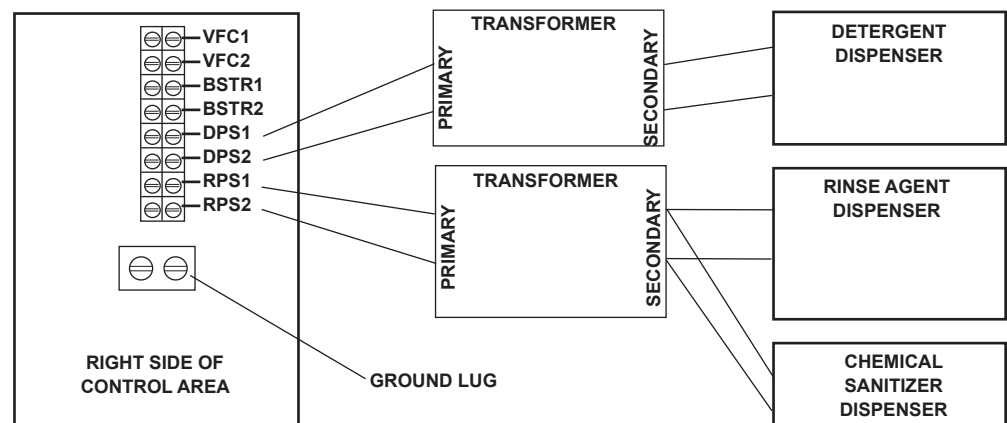


Fig. 29

SETUP

Sanitizing Mode (AM15 and AM15T Models Only)

1. With the machine OFF, press and hold the OFF key.
2. Press and release the ON key.

The display initializes until **88** displays.

3. Release the OFF key.

SET X^{°F}_{°C} displays. **X** can be H, C or P:

H = Hot Water Sanitizing, Internal Booster.

C = Chemical Sanitizing, No Booster.

P = Hot Water Sanitizing, External Booster.



4. Press CYCLE to select P, H, or C as the sanitizing mode.

After 15 seconds, the selection is saved and the machine turns off.

End of Cycle Buzzer - All Models

1. With the machine OFF, press and hold the OFF key.
2. Press and release the ON key.

The display initializes until **88** displays.

3. Release the OFF key.

SET X^{°F}_{°C} displays. **X** can be P, H or C. (See above).

5. Press and release the OFF key.

SET WASH XX displays. **XX** can be On or OF:

SET WASH On = End of Cycle Buzzer is ON.

SET WASH OF = End of Cycle Buzzer is OFF.

SHORTCUT IF
PROGRAMMING BOTH FEATURES
AT THE SAME TIME.



6. Press CYCLE to select On or OF for the End of Cycle Buzzer.

After 15 seconds, the selection is saved and the machine turns off.

OPERATION

PREPARATION

For all models, except for the AM15SVL, AM15SVLT, and AM15SCB models equipped with optional pumped drain, the overflow tube must be in its proper location below the strainer pan (Fig. 30). For all models, place the strainer pan and the strainer bucket in their proper positions (Fig. 31).

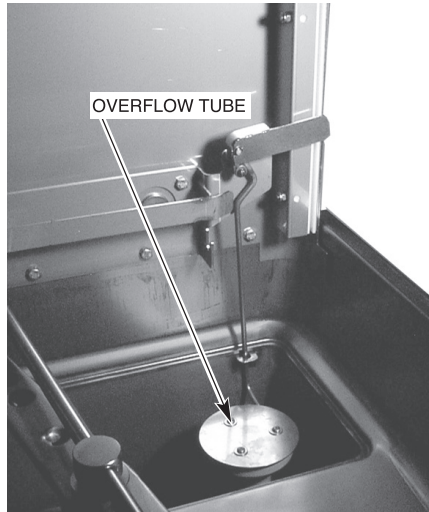


Fig. 30

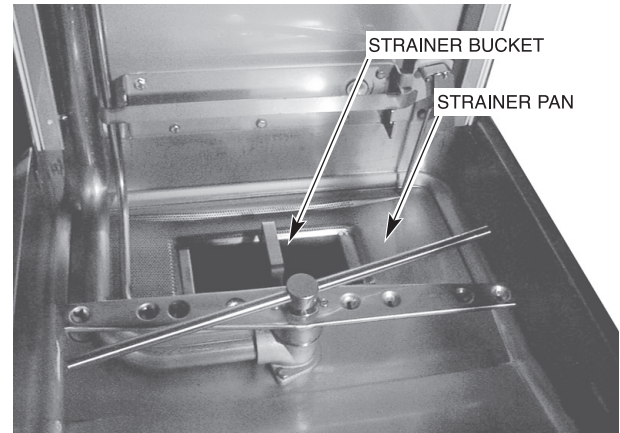


Fig. 31

An automatic detergent dispenser is required. Closely follow supplier's instructions.

Close the door; this will automatically close the drain on all models except for the AM15SVL, AM15SVLT, and AM15SCB models equipped with optional pumped drain.

Open the manual gas valve (if applicable). Press the ON button to turn the power on (Fig. 32). If the machine's door is closed and no water is in the tank, the fill cycle will begin automatically. During the fill cycle, the word FILL is displayed.



Fig. 32

When washing or in idle mode, the readout displays the wash temperature. During the rinse cycle, the rinse icon and temperature are displayed. Select the wash cycle: 1 for normal serving ware, 2, 4 or 6 for pots and pans. Each wash cycle is followed by an automatic rinse. When the rinse cycle is complete and the rinse icon turns off, the door can be opened.

For ventless models, the door must remain closed until the condensing cycle is complete and the cycle light turns off. AM15SVL and AM15SVLT models include a lock to prevent the door from opening until the cycle is complete. A cycle countdown in seconds is displayed during the condensing cycle. Failure to follow these instructions will result in excess water vapor in the room.



Fig. 33

DISHWASHING

Scrape the dishes to remove large particles of food and debris. Never use steel wool on ware to be loaded into the dishwasher.

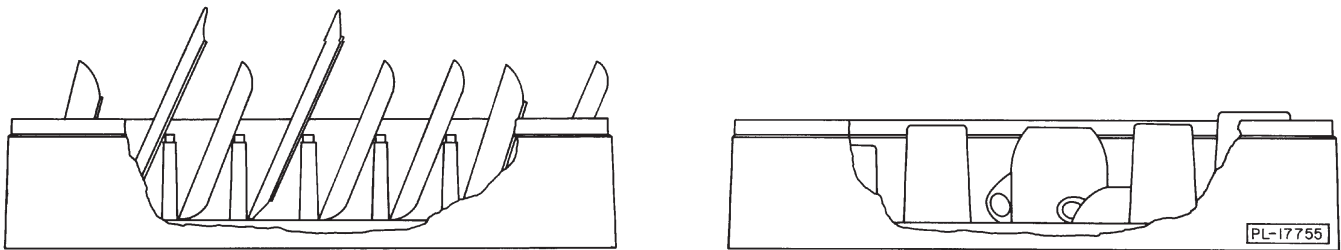


Fig. 34

Arrange the dishes in a rack. Do not stack dishes one on top of another, as water must have free access to all sides of every dish. Stand plates and dishes up edgewise in a peg-type rack (Fig. 34). Cups, glasses, and bowls should be inverted in an open-type or compartment type rack (Fig. 34). Silverware and other small pieces may be scattered loosely over the bottom of a flat bottom rack.

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

After filling a rack, open the door, slide rack into the dishwasher and close the door.

Throughout the wash cycle, the tank water temperature is displayed on the front panel display, along with the word WASH and an icon. During the rinse cycle, the rinse water temperature is displayed, along with the word RINSE and an icon. When the rinse cycle is completed, the readout displays the tank water temperature.

On AM15VL, AM15SVL, AM15VLT, and AM15SVLT models, a countdown of the remaining cycle time, along with the rinse icon only, is displayed during a condense cycle.

When the cycle is finished and the rinse icon disappears, or the condensing cycle light goes out for "VL" models, open the door, remove the clean dishes, slide in another rack and close the door.

To add a dish after the wash cycle has started, open the door slightly. Wait 10 seconds to allow the wash arm to coast down and to avoid water splashing before opening the door fully.

Operating temperatures for all models are as follows:

Sanitizing Mode	Wash Temperature		Rinse Temperature	
	Minimum Wash	Recommended Wash	Minimum Rinse	Recommended Rinse
Hot Water	150°F (66°C)	150°F (66°C)	180°F (82°C)	180°F (82°C)
Chemical	120°F (49°C)	140°F (60°C)	120°F (49°C)	140°F (60°C)

For "VL" models only - If excessive amounts of steam or water vapor exit the machine after condensing cycle light goes out and door is opened, incoming cold water temperature may be too high. Contact Hobart Service to adjust the rinse and condense times according to the adjustment table. Increasing cycle time will increase water consumption and decrease the racks per hour, but should reduce the water vapor entering the room.

RECOMMENDED CONDENSE TIME (Based on Incoming Water Temp.)

Incoming Water Temp. °F (°C)	Condense Time (Sec.)	Rinse Time (Sec)	Racks per Hour (1 min cycle)
60 (16)	30	10	40
65 (18)	33	11	38
70 (21)	36	12	37
75 (24)	39	13	35
80 (27)	42	14	34
85+ (29+)	45	15	33

For AM15SCB models only - Wash will not start for up to 5 minutes if wash tank temperature is not up to 125°F (37°C) or if booster temperature is not up to 125°F (37°C). Display will flash "FILL" until wash and rinse temperatures reach 125°F (37°C).

If sanitizer supply is empty after 3 cycles, "ADD SANITIZER" and a wrench icon displays, an error code "Eb" appears, and the machine is inoperable. Replace sanitizer supply, prime sanitizer pump until "ADD SANITIZER" is no longer displayed, and then turn the machine off and back on again.

If detergent supply is empty, "ADD DETERGENT" will display, but the machine will remain operable. Replace detergent supply and prime detergent pump until "ADD DETERGENT" is no longer displayed.

Sequence of Operations for AM15SVL and AM15SVLT Models

Wash will not start for up to 5 minutes if the wash tank temperature is below 150°F (66°C). During this time, the FILL indicator flashes to indicate warm up and the door will remain locked. After the wash cycle, if the booster temperature is below 183°F (84°C), the wash cycle will be extended up to 45 seconds before completing the rinse cycle. If the final rinse temperature does not reach 180°F (82°C), the wash and rinse cycle will be repeated, up to 2 more times. If after the 3rd cycle the final rinse temperature still does not reach 180°F (82°C), an alarm will sound, the machine will be inoperable and error code "EA" will be displayed. If this situation occurs, the machine must be serviced by a qualified technician.

If the detergent supply is empty after 3 consecutive cycles, "ADD DETERGENT" is displayed, error code "Eb" appears and the machine is inoperable. Replenish the detergent supply, prime, then turn the machine off and back on again.

CLEANING

The machine must be thoroughly cleaned at the end of each working shift or at least daily. Never use steel wool to clean warewasher surfaces. Use only products formulated to be safe on stainless steel.

1. Push the OFF button (on models equipped with optional pumped drain, the machine will automatically drain through a pumped drain system once the OFF button is pressed).
2. Open the machine door.
3. Clean off the dish tables into the dishwasher.
4. Drain the machine by lifting up the drain lever (Fig. 35). (Does not apply to models equipped with optional pumped drain.)
5. Thoroughly cleanse and flush the dishwasher interior. Remove remaining soil with a soft cloth or brush and mild cleanser. Rinse again.
6. Remove and empty the strainer bucket and pan. Wash and rinse them thoroughly.
7. Clean the pump cover with a soft cloth or brush. Do not allow food soil to accumulate on the tank bottom or to enter the drain.
8. Remove the overflow tube (does not apply to models equipped with optional pumped drain). Wash and rinse the overflow tube inside and out.
9. On models equipped with optional pumped drain, clean the pumped drain screen (Fig. 36).

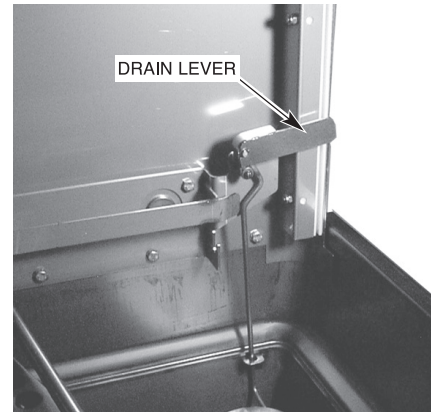


Fig. 35



Fig. 36

10. Ensure upper and lower wash and rinse arms rotate freely and are free of any obstructions. If not, remove arms and clear out any obstructions.
11. Remove and check wash arms and rinse nozzles (Figs. 37, 38) to make sure they are free of any lime and solids. Refer to Maintenance, page 36.

NOTICE Do not bang wash arms or rinse arms to clean.

12. Replace all removed parts. Leave machine door open to allow interior to air out and dry.

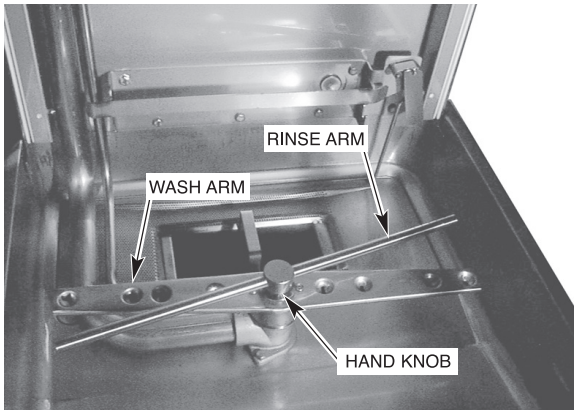


Fig. 37

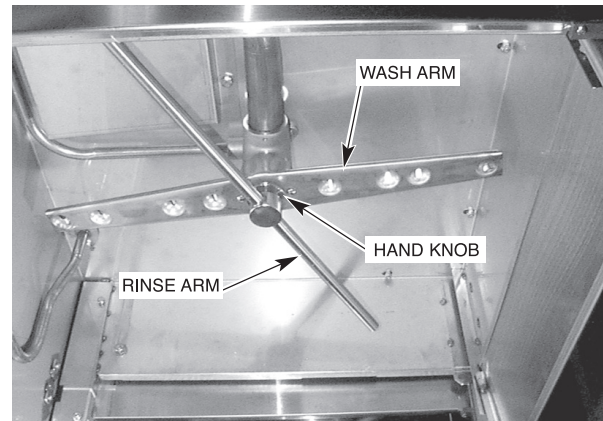


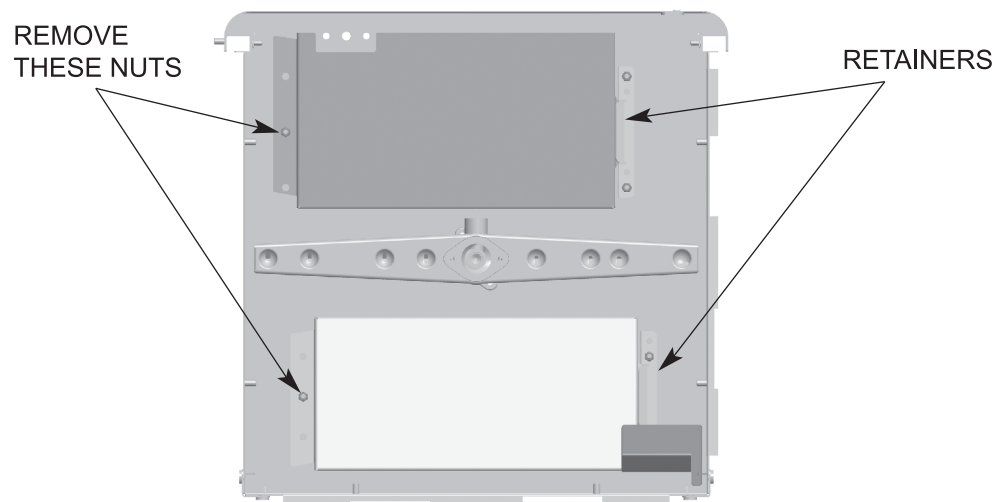
Fig. 38

FOR MODELS AM15VL, AM15SVL, AM15VLT AND AM15SVLT:

In addition to normal cleaning, the baffles, located on the upper chamber on the inside of the machine, may need periodic cleaning.

⚠ WARNING Disconnect the electrical power to the machine (both dishwasher and booster if applicable) and follow lockout/tagout procedures. Be sure all circuits are disconnected.

1. Loosen and remove the nut from each baffle and remove the baffles by sliding the tab out of the retainer.



FRONT OF MACHINE

Fig. 39

2. Debris may collect on top surfaces of baffles and should be washed in a sink with a mild detergent and rinsed.

CLEAN SURFACES

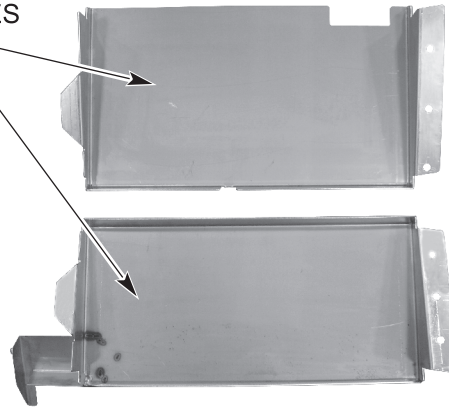


Fig. 40

3. Replace all removed parts. When replacing the front baffle be sure that the back side of the baffle is on the outside of the duct lip on the chamber top.



LIP ON
CHAMBER TOP

REAR OF
FRONT BAFFLE

Fig. 41

4. Leave machine door open to allow interior to air out and dry.

DELIME INSTRUCTIONS

If the optional delime notification is activated and the DELIME light is on, follow the instructions, below. Delime is also necessary if deposits are visible inside or outside the machine.

DELIME INSTRUCTIONS (does not apply to models equipped with optional pumped drain)

1. Remove rack, drain tank, press "OFF".
2. Disable the detergent feeder chemical system according to the chemical manufacturer's recommendation. This will prevent the addition of detergent during the deliming operation.
3. Press and hold "CYCLE" & "ON" for 3 seconds; close door, unit fills then indicates "ADD DELIME".
4. For AM15SCB models only, press and hold chemical dispenser "SCROLL" & "ENTER" buttons for 5 seconds to disable chemicals.
5. Open door & add delime agent per supplier instructions for 14 gallon tank.
6. Close door, pump starts & display flashes "DELIME". After 12 minutes display scrolls "DRAIN".
7. Check interior, close door to run additional cycles if necessary.
8. Drain tank, turn unit off.

Note: Do not turn unit off until tank is empty.

Note: The delime display on the chemical dispenser resets to normal operation after 10 minutes. Repeat step 4 above to keep chemical dispenser in delime mode until process is complete.

DELIME INSTRUCTIONS (models equipped with optional pumped drain)

1. If machine is on, press "OFF" to drain unit and power down.
2. Disable the detergent feeder chemical system according to the chemical manufacturer's recommendation. This will prevent the addition of detergent during the deliming operation.
3. Remove rack and close door.
4. Press and hold "CYCLE" & "ON" for 3 seconds. Unit fills, then flashes "ADD DELIME".
5. For AM15SVL, AM15SVLT, and AM15SCB models, press and hold chemical dispenser "SCROLL" & "ENTER" buttons for 5 seconds to disable chemicals.
6. Open door and add delime agent per supplier instructions for 12-gallon tank.
7. Close door. Pump starts, machine will run for 8 minutes, then drain. Once drained, the machine will refill, run pump for 1 minute to flush delime agent, then drain and power off.
8. Check interior. Repeat steps 1-6 to run additional cycles, if necessary.

Note: The delime display on the chemical dispenser resets to normal operation after 10 minutes. Repeat step 5 above to keep chemical dispenser in delime mode until process is complete.

DOS AND DON'TS FOR YOUR NEW HOBART WAREWASHER

- DO** ASSURE PROPER WATER HARDNESS (3 GRAINS OR LESS PER GALLON IS RECOMMENDED).
- DO** PRE-SCRAP DISHES THOROUGHLY.
- DO** USE ONLY DETERGENTS RECOMMENDED BY YOUR CHEMICAL PROFESSIONAL.
- DO** AT THE END OF THE DAY, THOROUGHLY CLEANSE THE MACHINE, RINSE AND DRY (LEAVE DOOR OPEN).
- DO** CLOSELY FOLLOW YOUR CHEMICAL PROFESSIONAL'S PRESCRIBED DELIMING SCHEDULE.
- 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** EXCEED CHEMICAL MANUFACTURER'S RECOMMENDED CONCENTRATIONS FOR DETERGENT, SANITIZER, RINSE AID OR LIME SCALE REMOVER.
- DO NOT** USE STEEL WOOL TO CLEAN WARE OR WAREWASHER SURFACES.
- DO NOT** ALLOW FOREIGN OBJECTS TO ENTER THE UNIT, ESPECIALLY METALLIC CONTAMINANTS SUCH AS PAPER CLIPS, RETAINERS, ETC.
- NOTE:** FAILURE TO FOLLOW USE, CARE AND MAINTENANCE INSTRUCTIONS MAY VOID YOUR HOBART WAREWASHER WARRANTY.

MAINTENANCE

⚠ WARNING Disconnect the electrical power to the machine (both dishwasher and booster if applicable) and follow lockout / tagout procedures. Be sure all circuits are disconnected.

WASH ARMS

Upper and lower wash and rinse arms (page 32, Figs. 37, 38) should turn freely and continue turning for a few seconds after being whirled by hand. To check, rotate arms and remove any obstructions causing improper operation.

If either the strainer pan or the strainer bucket is not properly in place, obstructions (such as food particles or bones) may clog the wash arm nozzles. The wash arms are easily removed for cleaning.

To remove the lower wash arm, unscrew the hand knob and lift the rinse arm off (Fig. 37). The wash arm can be lifted off once the rinse arm is removed.

The upper wash and rinse arms are removed by unscrewing the hand knob (Fig. 38) and lowering both arms together. Be careful not to drop these arms.

MOTOR(S)

The wash pump motor, rinse pump motor ("VL" models only), fan motor ("VL" models only) and the blower motor (gas heat models) are equipped with permanently lubricated bearings and require no lubrication maintenance.

FLUE (MACHINES EQUIPPED WITH GAS TANK HEAT ONLY)

When cool, check the flue opening every three months for obstructions.

TROUBLESHOOTING

MANUAL RESET BUTTON ON PUMP MOTOR

If the pump motor becomes overheated, the thermal overload protector will cause the motor to not operate. If this occurs, contact Service.

To avoid a service call, check symptoms and related possible causes. If machine still does not operate properly, contact Service.

COMMUNICATION MODULE

For model AM15SCB equipped with the sPod® embedded communication module, the unit will automatically connect to a SiteSage® gateway and begin transmitting relevant data for remote monitoring at start-up. If problems arise, contact the support group for your communication system supplier.

SYMPTOM	POSSIBLE CAUSE
No machine operation.	<ol style="list-style-type: none"> 1. Machine off, turn machine on. 2. Blown fuse or tripped circuit breaker at power supply. 3. Check tank water level.
Dishes not clean.	<ol style="list-style-type: none"> 1. Insufficient wash water due to drain obstruction preventing proper drain closing. 2. Worn or torn drain O-ring allowing wash water to drain. 3. Loss of water pressure due to pump obstruction. ⚠ WARNING Disconnect electrical power supply (both dishwasher and booster if applicable) and drain tank. Check for any obstruction at the pump intake. 4. Incorrect water temperature. Contact Service for adjustment or repair. 5. Incorrect detergent dispensing. For AM15SVL and AM15SVLT models, ensure chemical probe in wash tank is clean. Contact your detergent representative. 6. Excessive mineral deposits throughout wash and rinse system. Deliming may be necessary, refer to page 34. 7. Check wash and rinse arms to make sure they rotate properly. 8. Strainers clogged causing inadequate water supply to pump; clean machine according to Cleaning, page 31. 9. Obstruction in wash arms or wash arms will not turn; clean machine according to Cleaning, page 31. 10. Detergent dispenser may be clogged. 11. Excessive soil quantity; scrape dishes before cycle. 12. Improper rack loading; refer to Preparation and Dishwashing, pages 28, 29. 13. Incoming water supply turned off.
Spotting silverware, glasses and dishes.	<ol style="list-style-type: none"> 1. Improperly loaded racks. 2. Incorrect rinse water temperature or rinse pressure. 3. Loss of water pressure due to pump obstruction. ⚠ WARNING Disconnect electrical power supply (both dishwasher and booster if applicable) and drain tank. Check for any obstruction at the pump intake. 4. Excessively hard water. 5. Incorrect detergent for water type. 6. Incorrect rinse additive for water type. 7. Incorrect concentration of detergent, rinse additive and/or sanitizer. 8. Excessive soil quantity; scrape dishes before cycle.
Excessive steam or water vapor after cycle is complete - AM15VL, AM15SVL, AM15SVLT, and AM15VLT models only.	<ol style="list-style-type: none"> 1. Incoming cold water too warm. Contact Hobart Service for adjustment of condensing cycle time.
Inadequate rinse or rinse water temperature too low. Possible EE display.	<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. Reassemble. Note: AM15VL and AM15VLT models have 2 supply lines. 2. Low supply line pressure. 3. Excessive mineral deposits throughout wash and rinse system. Deliming may be necessary, refer to page 34. 4. Incoming water temperature to booster (if applicable) below 110°F. Machine will automatically extend wash time until booster heats up (this applies to AM15 and AM15T booster equipped machines only). 5. If EE displays: Booster did not reach temperature within 8 minutes after initial initial fill. Press OFF, wait 5 seconds and press ON. May be booster heater failure.

SYMPTOM**POSSIBLE CAUSE**

Leaking valve.	<ol style="list-style-type: none"> Foreign material preventing proper valve operation. NOTE: A critical period is soon after installation when pipe compound or metal shavings may lodge at the valve seat. Shut off supply line. Unscrew and lift bonnet from valve body. Clean valve and reassemble. Note: AM15VL and AM15VLT models have 2 supply lines. If a solenoid valve is malfunctioning (not opening or not closing), it is recommended that you contact Hobart Service.
No wash tank heat.	<ol style="list-style-type: none"> The machine is equipped with a low water safety device which shuts off heat if the water level drops. Check for proper water level. If the water level is too low, the overflow tube might be out of position. Or, something may be inhibiting free movement of the low water float; remove any foreign object from around the low water float or its magnet. Gas line closed. Blown fuse or tripped circuit breaker at power supply. If a failure occurs due to the gas heat control board or gas pressure, contact Hobart Service.
No or slow fill. Possible E2 display.	<ol style="list-style-type: none"> Debris may be obstructing standpipe movement allowing fill water to drain. Water supply may be off; make sure hot water supply valve is open. Dirty line strainer causing reduced water flow. Turn off hot water supply, remove strainer cap, withdraw and clean screen. Reassemble. Worn or torn drain O-ring allowing wash water to drain. If E2 displays: Water did not reach the float during a fill within 2.5 minutes. Press OFF, wait 5 seconds and press ON.
Possible Ed display.	<ol style="list-style-type: none"> Slow leak. Make sure the drain lever is closed, the standpipe is seated and the O-ring is clear of all food soil or other debris.
Dribbling water from lower rinse arm.	<ol style="list-style-type: none"> If equipped with electric booster, normal dripping from the lower rinse arm will occur during water heating due to expansion of the water. This will occur once between machine cycles. If water dribbles or leaks continuously from rinse arms on any machine, refer to Leaking Valve, above.
Possible E6 display.	<ol style="list-style-type: none"> Contact your local Hobart Service Office.
Wrench lights up and P1, P2 or P3 displays. "VL" Models - water continuously filling through chamber/holding tank.	<ol style="list-style-type: none"> Contact your local Hobart Service Office. Water level probe in holding tank may be contaminated or failed. Contact Hobart Service. Refer to Leaking Valve above.
"SVL" Models – Wrench lights up and "EA" displays.	<ol style="list-style-type: none"> Final rinse temperature below 180°F (82°C) for three consecutive cycles. Water supply may be off; make sure water supply valves are open. Booster heater malfunction; contact your local Hobart Service Office.
"SVL" Models – Wrench lights up and "Eb" displays.	<ol style="list-style-type: none"> Detergent supply empty; replenish. Prime, press off, wait 5 seconds and press ON. Detergent pump not functioning; contact your local Hobart Service Office.
"SCB" Models – Wrench lights up and "Eb" displays.	<ol style="list-style-type: none"> Sanitizer supply empty; replenish. Prime, press OFF, wait 5 seconds and press ON. Sanitizer pump not functioning; contact your local Hobart Service Office.

SERVICE

Contact your local Hobart-authorized service office for any repairs or adjustments needed on this equipment. If a gas orifice fitting is to be replaced, have it serviced by qualified Hobart-authorized service personnel. Long-term service contracts are available on this and other Hobart products. Call 1-888-4HOBART for Hobart Service 24 hours a day.

