

# Installation Instructions

## HT-25 High Temperature Dishmachine

*If you have questions, call 800-922-2178 or visit our website at: [www.AmericanDish.com](http://www.AmericanDish.com)*

### BEFORE YOU BEGIN:

American Dish Service provides this information as a service to our customers. Keep all instructions for future reference. ADS reserves the right to alter or update this information at any time. Should you desire to make sure that you have the most up-to-date information, we would direct you to the appropriate document on our web site: [www.americandish.com](http://www.americandish.com).

Set out below are the specifications and requirements that you must use and follow to properly install the type or types of equipment listed above. **It is your obligation as the customer to ensure that the machine is installed safely and properly, and when completed, the machine is left in proper and safe working order.** Electrical, Plumbing, and Chemical hookup must be performed by qualified personnel who will ensure that the equipment is installed in accordance with all applicable Codes, Ordinances, and Safety requirements. **Failure to follow these requirements will void the warranty. ADS assumes no liability or control over the installation of the equipment. Product failure due to improper installation is not covered under the ADS Warranty.**

### WARNING:

When working on the machine, always disconnect power to HT-25 and tag-out before servicing. Heater will remain hot immediately after emptying the wash tank. Turn off machine at master switch before opening for inspection.

### IMPORTANT:

HT-25 requires a 10-gauge neutral and suitable ground. It is recommended that new equipment be installed with new circuit

### NOTE TO INSTALLER:

**DO NOT INSTALL SPRAY ARMS UNTIL MACHINE IS FLUSHED WITH WATER.** Machine will automatically fill with water and complete one cycle when power is turned on. This will flush installation debris from tank and pump and prevent damage to spray arm bearings. After flushing, empty the tank by removing the pump filter and install both wash and rinse spray arms.

Machine can be installed in corner or straight installations. Make sure removable tray track guide (dishrack guide) is aligned for installation. Verify that door lever arm clears dishtable (7" needed for clearance). If necessary, notch dishtable flap.

### FOR YOUR SAFETY

Read and observe all **CAUTIONS** and **WARNINGS** shown throughout these instructions. While performing installations described in this booklet APPROVED Personal Protective Equipment, including SAFETY EYE-WEAR must be worn.

**IMPORTANT** - Dishmachine **MUST** be installed to allow for servicing of motors and booster (B-13). Do not install chemical dispensers on the top of the control box or dishmachine. If you receive a damaged dishwasher, immediately contact your dealer.

### Optional Accessories -

**Built-on Booster B-13** - Stainless Steel Built-on Booster. Pre-plumbed with single connection installation.

**Hatco Booster C6 or C12** - Free standing Booster in 3-phase or single phase. C-6 Booster is 40 degree rise and C-12 is 70 degree rise.

# Electrical

## Electrical HT-25 (3-phase with 10-gauge neutral)

The power supply (208 volt - 40 amps) must consist of three (3) **eight**-gauge wires of 50a capacity, ten-gauge wire of 40a capacity, and a suitable ground. The 40 amp breaker or fuse must be on a clean circuit to the machine. ADS has provided a conduit hole (1 3/8" for 1" conduit) for electrical service in the back of the control box. Attach the eight-gauge wires to the main distribution block (5 pole) in the control box, to terminals marked L1, L2, & L3. Attach the ten-gauge neutral and ground wire to their proper terminal locations as marked on the main distribution block and tighten all wires.

**240 Volt Delta System:** If you have 240 volt, delta system, attach the high leg (200 volt line) to L3. Attach your 120 volt wires to L1 and L2.

**230-B Phase System:** If you have 230-B phase power (230v, 230v, neutral), a separate 120 volt control circuit must be supplied. The 120 volt, **twelve to fourteen**-gauge supply wires (black & white) must be attached to the connection terminal (4 blades) located 1" under the main distribution block. This connection terminal is labeled, with a yellow decal, marked 120 volt. Prior to connecting 120 volt supply wires, you will need to remove short, jumper wires (black and white) that connect main distribution block to this terminal. Make sure that wires (also black and white) connecting master switch to this connection terminal remain attached.

Remove front panel and check rotation of wash motor. A rotation arrow is provided on the motor. If motor is running in reverse, turn off main power and switch incoming power wires on L1 & L2. Verify proper rotation and tighten all wires.

**Caution:** Before powering machine, check all screw terminals in control box. Screws can loosen in transit. Loose connections on high load terminals will cause wire burning and component damage during machine operation and will not be covered under ADS warranty.

## Electrical HT-25 (single-phase "DUAL" circuits with 10-gauge neutral)

ADS has provided two (2) conduit holes (1 3/8" for 1" conduit) for electrical service in the back of the control box.

**Warning:** Label building circuit breakers, noting DUAL supply to dishmachine.

**Circuit One:** The power supply (208 volt - 30 amps) must consist of a minimum of two (2) **ten**-gauge wires of 40a capacity (**eight**-gauge wires are recommended for added service life), a ten-gauge neutral, and a suitable ground. Attach the two (2) eight-gauge wires to the main distribution block (four poles) in the control box to terminals marked L1 & L2. Attach the ten-gauge neutral and the ground wire to their proper terminal locations as marked on the main distribution block.

**Circuit Two:** The wash heater is powered, on a separate circuit, using two (2) **six**-gauge wires of 75a capacity (208 volt - 60 amp). The 60 amp breaker or fuse must be on a clean circuit to the machine. Using the second conduit hole, attach the wires to the wash heater distribution block (2 pole) and tighten both wires.

**Caution:** Before powering machine, check all screw terminals in control box. Screws can loosen in transit. Loose connections on high load terminals will cause wire burning and component damage during machine operation and will not be covered under ADS warranty.

## Electrical HT-25 with built-on Booster (3-phase with 10-gauge neutral)

**HT-25 with built-on booster cannot be installed using 230-B phase power (230, 230, neutral). For this voltage free-standing booster must be utilized.**

The power supply (208 volt - 50 amps) must consist of three (3) **eight**-gauge wires of 65a capacity, a ten-gauge neutral, and a suitable ground. The 50 amp breaker or fuse must be on a clean circuit to the machine. ADS has provided a conduit hole (1 3/8" for 1" conduit) for electrical service in the back of the control box. Attach the eight-gauge wires to the main distribution block in the control box, to terminals marked L1, L2, & L3. Attach the ten-gauge neutral and ground wires, of 40a capacity to their proper terminal locations as marked on the main distribution block and tighten all wires.

**240 volt Delta System:** If you have 240 volt (delta system) attach the high leg (200 volt line) to terminal marked L3. Attach your 120 volt, eight-gauge wires to terminals marked L1 & L2.

Remove front panel and check rotation of wash motor. A rotation arrow is provided on the motor. If motor is running in reverse, turn off main power and switch incoming power on L1 & L2. Verify proper rotation and tighten all wires.

**Caution:** Before powering machine, check all screw terminals in control box. Screws can loosen in transit. Loose connections on high load terminals will cause wire burning and component damage during machine operation and will not be covered under ADS warranty.

# Plumbing

## Connect Water Supply for HT-25 (dishmachine only)

**Important: Before installing, check local plumbing codes. Flush water lines before connecting to dishmachine. Prior to plumbing the dishmachine, level machine by adjusting feet, at the bottom of each leg, up or down.**

Connect 1/2" MPT water supply line to ball valve located behind control box at top of machine. Supply water must be 180 degree minimum @ 20 PSI flow from the booster heater. Once connected, adjust pressure regulator (provided) on dishmachine plumbing to 20 PSI flow. To adjust pressure turn adjustment screw (at top of regulator) **counter-clockwise** to decrease pressure or **clock-wise** to increase pressure.

**See Dispenser Hookup below.**

## Connect Water Supply for HT-25 with B-13 built-on booster

**Important: Before installing, check local plumbing codes. Flush water lines before connecting to dishmachine. Prior to plumbing the dishmachine, level machine by adjusting feet, at the bottom of each leg, up or down.**

B-13 Booster is pre-plumbed to dishmachine. Connect 1/2" MPT water supply line to 1/2" FPT water connection (marked incoming) located at rear of booster heater. Supply water must be 140 degree minimum.

Once connected, adjust pressure regulator (provided) on dishmachine plumbing to 20 PSI flow. To adjust pressure turn adjustment screw (at top of regulator) **counter-clockwise** to decrease pressure or **clock-wise** to increase pressure.

**See Dispenser Hookup below**

## Drain Requirements

**Follow local codes**

**Gravity drain line is 2" copper**

**Close petcock on wash pump before operating machine**

ADS provides a 2" copper drain. To prevent clogging, run drain line as straight as possible. Drain Lines must be 2" minimum. Do not plumb with tight elbows or 180 degree bends. Use of floor sink for drain can cause flooding. Always run gravity drain line downhill.

## Dispenser Hook Up

**(Wear approved SAFETY EYE-WEAR)**

### Dispenser Hookup

**ADS provides two (2) ports (1/8" IPS, female) in mixing chamber for dispenser check valves.**

**Dispenser signals are 120 volt.**

**Probe hole (7/8") is provided in wash tank for probe installation (install probe before operating machine)**

**Detergent hole (7/8") is provided for bulk head fitting (install fitting before operating machine)**

Connect chemical dispenser to 120 volt terminal block located at the left hand corner of control box, labeled detergent and rinse.

A hole for the detergent fitting (barb) is located in the rear or back wall of the wash tank. To access the probe hole, remove front panel. Probe hole is located behind the wash pump.

**Warning: You must wear APPROVED Personal Protective Equipment, including SAFETY EYE-WEAR before connecting chemicals. Chemicals can destroy the plumbing and stainless of the dishmachine. Do not mount dispensers on top of the control box or run chemical lines over controls or plumbing. Always secure chemical lines and check regularly for leaks.**

# Final Installation Check List

**-WARNING: Check to be sure power is OFF.** Shut-off Main Power at circuit breaker(s).

-Open door and remove all packaging, including cardboard support under wash heater. Do not dispose of packing material

until you remove spray arms. ***Caution: Packing materials contain your upper and lower wash and rinse arms. Do not install spray arms before flush procedure.***

-Tighten all wire connections in control box and on wash heater terminals. To tighten wash heater terminals, remove front panel. Access to heater terminals are behind wash pump. **Loose wires will cause damage to dishmachine.**

-Remove protective film if present from doors, front panel, and control box.

-Before turning on water, if chemical dispenser is not installed, plug both probe and chemical injection holes in wash tank.

-Plug mixing chamber ports.

-Turn on water supply. Check for leaks. Tighten connections if needed.

-To operate, turn on main power source breaker and switch dishmachine master switch to ON position. Check heater circuit

breaker, inside control box, and verify it is in the ON position (breaker toggle should be in the up position).

Machine will automatically fill with water and complete one cycle when power is turned ON. This is your **flush cycle**, which

removes installation debris from wash tank and pump. After flushing, empty the tank by removing the pump filter. ***Failure***

***to follow this procedure can damage spray arm bearings.*** Reinstall pump filter after flushing.

-Install wash and final rinse spray arms. Upper and lower wash arms are interchangeable, as well as final rinse arms. Wash

arms install by placing over stationary spray dome. Screw final rinse arms into spray dome which holds wash arms in place.

-Verify incoming water temperatures and final rinse pressure (20 PSI minimum flow).

-To operate dishmachine, doors must be in the down position (safety interlock). If equipped with "auto-start" machine will