

# Installation and Operation Instructions

## ASQ Glasswasher

*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 hookups 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 Glasswasher, always disconnect power to glasswasher and tag out before servicing. Caution: Refer to chemical suppliers MSDS sheets for proper handling of chemical issues. Heater will remain hot immediately after emptying the wash tank. Turn off machine at master switch (front left switch) before opening for inspection.

### **IMPORTANT:**

Glasswashers are 120 Volt and require a 15 amp. clean circuit and a suitable ground. It is recommended that new glasswashers be installed using new circuit breakers.

### **NOTE TO INSTALLER:**

**ALLOW A TWO (2) INCH CLEARANCE BETWEEN BAR COUNTER AND TOP OF GLASSWASHER HOOD. KEEP FRONT OF CAROUSEL OPEN (NOT UNDER COUNTER FOR LOADING OF GLASSWARE.** Do not operate machine with spray arms installed until machine is flushed with water. Fill machine with water and run through one cycle without spray arms in place. This will flush installation debris from tank and pump and prevent damage to spray arm bushing.

Water Heaters or boilers must provide 120 degree minimum (130-140 degree recommended) water with a minimum recovery rate of 57 gallons per hour. Caution: Do not exceed water temperatures above 150 degree.

All drains are gravity flow. Drain pipes must go downhill.

### **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 -** High concentrations of chlorine sanitizers and caustic detergents will cause damage to metals and welds. Do not wash glasses trimmed with gold or silver with chlorine based sanitizers. Do not exceed 75 ppm free chlorine. Adjust detergents for light glasswasher soil loads and low water consumption. Glasswasher chemical settings are roughly half of normal dishmachine settings. Component failure due to excessive chemical use is not covered under the ADS warranty.

## Electrical

**Important: The glasswasher master switch must be in the OFF position before connecting power. This switch is located on the front of the glasswasher. It is the black switch located on the front left side. The OFF position is to the LEFT.**

The power supply (120 volt - 15 amps) must consist of two (2) 12-14 AWG copper wires and a suitable ground. Wiring must be 2 wire with ground and rated for 90 degree Centigrade (194 degree Fahrenheit). The 15 amp breaker or fuse must be on a clean circuit to the machine. ADS has provided a 3-prong electrical power cord for connection. Install to an approved 3-prong grounded receptacle. This glasswasher must be connected to a 15 or 20 amp. circuit breaker or fuse. If the electrical supply does not meet the above requirements, call a licensed electrician before proceeding.

**Warning: The improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt that the glasswasher is properly grounded. Do not use an extension cord or adapter plug with this machine.**

## Plumbing

### Connect to Water Supply

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

Water Heaters or boilers must provide 120 degree F. minimum (130-140 degree F. recommended) to the glasswasher. Recovery capacity of the water heater must meet the glasswasher's hourly usage rate (57 GPH) as well as all other hot water needs.

**Caution: Do not exceed water temperatures above 150 degrees F.** Residential hot water heaters are not sufficient for commercial application. Typical On-Demand or "Flash Heaters" do not have flow rates capable of supplying commercial dishwashers.

Connect 1/2" MPT water supply line to 1/2" FPT on the fresh water inlet manifold. Access to water inlet is located under the glasswasher, seven (7") inches from the front right corner. Supply water must be 120 degree F. minimum (130-140 degree F. recommended) from primary heat source. Building source water supply must be at a minimum of 15 PSI flow during fill (water solenoid open). Glasswasher is equipped with a control float.

**Control Float:** The control float prevents the machine from starting without sufficient water. Water flow issues will delay cycle until control float senses sufficient water in the tank. **Caution: Control float (white) is secured on the float stem by a retaining clip. White float has a clear end that allows visual viewing of magnets. These magnets must be in the down position on the float stem. Glasswasher will not start if the float is installed upside down.**

**Water Pressure (Flow) Problems:** Water pressure below 15 PSI flow will require additional measures to resolve low pressure issues. To resolve water pressure problems, increase supply pipe diameter or run a dedicated 1/2" supply line directly from hot water heater. If problem persists, suggest installing a pressure bladder tank with a 2 gallon minimum

# Plumbing

## Drain Requirements for Glasswashers

Follow local codes and ordinances

Do not exceed 5 feet distance to drain.

Drain line is 1 1/2" O.D.

Glasswasher drain (1 1/2" Plastic Tube) protrudes through the bottom of the cabinet floor on the right front corner (drain is directly in front of the water inlet connection). This drain can be rotated to either side. Drain lines must be 1 1/2" minimum. Do not plumb with tight elbows or 180 degree bends.

## Chemical and Controls Set-up

***Warning: You must wear approved personal protective equipment, including SAFETY EYE-WEAR before connecting chemicals. Chemicals can destroy the plumbing and stainless of the glasswasher. Do not run chemical lines over controls or plumbing. Always secure chemical lines and check regularly for leaks.***

### Chemical Dispensers

ADS provides three (3) peristaltic pumps to dispense liquid chemicals

Chemical feed lines are color coded "Red" Detergent , "Green" Sanitizer, "Blue" Rinse-aid

Pick-up tubes are provided for chemical product containers

Sanitizer (chlorine) settings at 50 parts per million

**Caution:** Use only commercial grade low-energy chemicals. For proper operation, use non-foaming detergents and buffered sanitizers. **NOTE:** Do not use chlorinated detergents. Place color coded tubes into proper chemical containers. Gallon containers (round or square) can be stored behind the door in the glasswasher cabinet. On the side of the control box there are chemical prime switches. There is a decal identifying each switch. To prime chemicals use these momentary prime switches, verifying that all three pumps rotate. If chemical pump squeeze tube has taken a set (not allowing the pump to turn), manually free the pump by turning the chemical pump rotor. Chemical pump covers have a center hole for rotor access.

Chemical dispensing is controlled by a mechanical cam timer. All chemical products must be adjusted for product's concentration and local water conditions. It will be necessary to adjust initial factory setting (See Cam Timer Adjustment Section). Water softeners should be added to correct hard water conditions. Hard water can be treated with expensive chemicals, but it is more effective and less expensive to soften the water before it comes to the dishmachine.

***CAUTION: High concentrations of chlorine sanitizers and caustic detergents will cause damage to metals and welds. Do not wash glasses trimmed with gold or silver with chlorine based sanitizers. Do not exceed 75 parts per million free chlorine. Adjust detergents for light glasswasher soil loads and low water consumption. Glasswasher chemical settings are roughly half of normal dishmachine chemical settings.***

## Cam Timer Adjustment - ASQ Glasswasher

Timer 75 second - 7 cam

Cycle time is not adjustable

Timer cams (wheels) are fixed or adjustable. The first three cams (white) are fixed. Each cam controls a specific function as noted on the timer decal. Adjustable cams are comprised of two wheels. The outer edge of each wheel (half) has a high and low segment. When the wheels are rotated, the two low segments can form a notch. Above each cam is a timer switch with a metal finger that rides on the cam. When the finger drops into the cam notch, the function of that cam begins. To widen (length = time) or close the notch, use timer adjustment tool provided. This tool has two raised buttons that fit into the holes on each wheel. The factory sets the start of each function using the right-side of the cam. **TO ADJUST, rotate only the left-side cam wheel. The left-side of the wheel controls when that specific functions stops.**

**These cams are located on the timer starting from the timer's left continuing to the right.**

**#1 Cam:** The white cam on your left is the master cam. It controls the total time of the cycle and is not adjustable.

**#2 Cam:** This white cam is the motor reversing cam. It is not adjustable.

**#3 Cam:** This white cam controls the drain. It is not adjustable.

**#4 Cam:** The H<sub>2</sub>O or fill cam opens the water solenoid. Too little water causes the pump to surge. Overfilling does not allow all the water to drain between cycles, causing carry-over. **Adjusting only the left-side of cam wheel**, set the cam to close the water solenoid when the glasswasher reaches full sprayarm pressure.

**Float operation:** If the water pressure is low, the control float in the tank will delay the operation of the cam timer during the fill function, until a minimum water level is achieved. Once that level is achieved, the control float will rise, the contacts will close, and the cam timer will resume normal rotation or operation.

**#5 Cam:** This black cam controls detergent. It is adjustable

**#6 Cam:** This black cam controls sanitizer. It is adjustable. Set the sanitizer concentrations at 50 ppm (**Warning: Do not exceed 75 PPM**). Monitor chlorine levels by using chlorine test strips. To Test: Run a load of glasses through a complete cycle use test strip to test a water sample from the top of any clean glass.

**#7 Cam:** This black cam controls rinse additive. It is adjustable.

## Final Installation Check List

Check to be sure the power is **OFF**. The master switch is the black switch located on left front of the glasswasher. To turn the switch off, twist a quarter turn to the left.

Remove all the packaging and the three glassware retainers from the carousel. Glass retainers are wire forms that locate glassware away from the corners. Push a glass retainer into each carousel compartment. Save all instructions for future reference.

Remove the protective film if present from the front panel, the hood, and the control box cover.

Verify 2" clearance between the glasswasher top and bottom of the counter or bar overhang. This is needed for cleaning breakdown. Overhangs cannot extend past the center of the carousel.

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

To operate turn on the main power circuit breaker and turn the glasswasher master switch to the **ON** position by turning it a quarter turn to the right.

Before operating machine, remove the spray arm and manually fill the machine with water using the fill switch (**FILL**). The switch is located on the side of the control box. Run one complete cycle by pushing the red start switch on the front of the door. This is your **flush cycle**, which removes installation debris from the wash tank and the pump. After flushing, re-install the spray arm. **Failure to follow this procedure can damage spray arm pivot and is not covered under the ADS warranty.**

Observe the water level decal. This decal is located behind the door, marked with a black line, on the clear vinyl hose connected to the drain plumbing. This mark is the approximate level for proper fill.

Verify incoming water temperatures 120 degree F. minimum (130-140 degree F. recommended).

Verify that chemical feed lines are in their proper container and that lines are primed. Prime switches are located on side of the control box and labeled.

## Operating Instructions

The carousel is divided into three positions by stainless steel panels. These panels isolate each compartment, controlling the water and washing action of the rotating spray. With a push of the detent lever, the carousel easily rotates and locks into the next position. While one section of the carousel is being washed, the operator can unload the cleaned glassware from the second section, then load dirty glassware into the last section of the carousel.

To operate, completely load the first compartment or section of carousel. **Note: Failure to load complete sections can cause breakage of tall stemware.** Release the carousel by pushing the detent latch to the left. This latch is located in the front between the carousel and the glasswasher cabinet. Manually turn the carousel until the loaded glasses are in the washing compartment. Proper alignment is indicated when the detent falls into the notch.

Start the cycle by pushing the red start switch on the front of the glasswasher. The switch stays illuminated during operation. Wash, Rinse, and Sanitization occurs in 75 seconds. Do not move the carousel until the full cycle is completed.

## Break-down and Cleaning for Daily Maintenance

***WARNING: Glass Breakage can occur - always visually inspect tank before breakdown.***

Drain water from the tank using the drain switch (**drain**), located on the side of the control box. The control box is mounted on the inside of the door. Remove the hood top by lifting up approximately one (1") inch and slide the hood top toward you. Remove the carousel by lifting up 1 1/2" until the carousel has cleared the pivot pin, then pull it towards you. The pivot pin is attached to the top center of the cabinet. Once the hood top and the carousel are removed, the operator has easy access to the splash shields, the spray arm, the scrap tray, and the pump screen. Remove the splash shields under the carousel (triangular shaped) by lifting up on the innermost edge, then slide the shield towards the center. The spray arm lifts off of the spray arm pivot. Once the spray arm is removed, the scrap tray can be lifted out by the handles and the circular pump screen will slide up, off the pump housing. **Important: Always visually inspect tank for any broken glass before removing pump screen.**

**To Clean:** Unscrew the end plug from the spray arm tube. Clear plugged spray jets by pushing a toothpick into the jet. The spray arm will not turn if the jets are plugged. Flush debris from the spray arm by rinsing under a faucet and replace the endplugs. Clean the scrap tray and the pump screen by flushing with water. **Caution: Do not hit the scrap tray against a trash can.** After cleaning, reassemble in reverse order.

## **Limited Warranty**

American Dish Service warrants to the original purchaser that its products are free of defects in material and workmanship and agrees to repair or replace, at its option, any parts that prove to be defective within ninety (90) days from date of purchase. American Dish Service may require reasonable proof of your date of purchase. Therefore, you should retain your copy of the invoice or shipping document.

In addition, ADS will exchange any part covered under this limited warranty which is found defective, as determined by American Dish Service, under normal use and service up to two hundred and seventy (270) days following the first ninety (90) day limited warranty period as described above, excluding feed line, flexible hose, and squeeze tubes.

The warranty does not cover equipment subject to accidents, freight damage, improper power and/or plumbing hookups, or lack of routine required maintenance as determined by American Dish Service. This warranty is void if the defect is due to improper installation, high chemical concentrations, misuse, modification of the machine, repair or servicing other than by an authorized American Dish Service dealer, or authorized agent, or operated in a manner contrary to applicable factory instructions herein or failure to perform all required maintenance.

The timer cams for water and chemicals are adjustable. Proper adjustment is the responsibility of the installer of the equipment. This warranty does not extend to machine malfunction resulting from improper cam adjustment.

All warranty work for machines will be performed, within the ninety (90) day period, during normal working hours, by an authorized agent receiving prior authorization by American Dish Service. Overtime charges and expediting charges such as "overnight" and "air freight" will be the responsibility of those requesting service outside normal American Dish Service procedures. Expenses due to disconnections, delivering, returning, and reinstalling the machine are borne by the purchaser and are not the responsibility of American Dish Service. Travel charges for time and mileage outside normal service area (75miles) shall be the responsibility of those requesting service.

Defective parts become the property of American Dish Service. Parts replaced within the warranty period carry warranty only until the end of the original limited warranty. Replacement parts not supplied by American Dish Service will relieve American Dish Service of all future liability and responsibility. American Dish Service will provide the names of the nearest authorized dealers upon request.

ADS is not responsible nor liable for any conditions of erosion or corrosion caused by corrosive detergents, acids, lye or other chemicals used in the washing or cleaning process.

**This warranty is void outside of the United States of America.**

**AMERICAN DISH SERVICE HAS MADE NO WARRANTIES THAT THE GOODS SOLD OR SERVICES PROVIDED ARE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE AND THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED WHICH EXTEND BEYOND THE EXPRESS LIMITED WARRANTY CONTAINED IN THIS AGREEMENT. UNDER NO CIRCUMSTANCES SHALL AMERICAN DISH SERVICE BE LIABLE FOR ANY LOST SALES, LOST PROFITS OR ANY OTHER INTANGIBLE LOSS OR ANY OTHER SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR ANY INABILITY TO USE THE PRODUCTS SOLD BY AMERICAN DISH SERVICE.**

American Dish Service's liability under this agreement shall in no event exceed the amount paid for the equipment purchased from American Dish Service.

Any action under the terms of this Warranty must be commenced within one year from the date of purchase of the equipment.