American Dish Service™
Manufacturers of Ware Washing Equipment

INSTALLATION INSTRUCTIONS

Model ASQ II Glasswasher

350w Sustainer Heater

Available in 90, 120, 150-Second Time Cycle
Undercounter, Carousel, Chemical Sanitizer, Batch-type Glasswasher

Listed by UL #E68594, NSF/ANSI 3, LA Test Labs File M-780089, Mass. License P3-0111-306

DANGER

The electrical power supplied to this machine is an imminent hazard that could result in severe bodily injury or death if not properly installed or hooked up correctly. When working in the control box or on electrical parts, always disconnect power and tag-out before servicing. Replace cover to control box and other protective covers when finished servicing this equipment.

If you have questions, call 800-922-2178 or visit our website at **www.americandish.com**

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CAUTION

Read manufacturer's manual before using this product. For your safety read and observe all cautions shown throughout these instructions. While performing installations described in this booklet, wear approved personal protective equipment, including safety eye-wear.

CHEMICALS—There are potentially hazardous situations when working with industrial cleaning chemicals for dishmachines. See chemical manufacturer's safe practices and SDS sheets for handling and installing chemicals and supply containers.

WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

NOTICE

#1 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. 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 should be performed by a qualified professional who will ensure that the equipment is installed in accordance with all applicable Codes, Ordinances, and Safety requirements. Failure to follow the installation instructions could 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.

#2 FLUSH OUT—Do not install spray arm until machine is flushed with water. When this machine is turned on, push the FILL switch to put water in the tank then push the START button on the front door to complete one cycle. Do this before installing the spray arm. Pump the flush water out before installing spray arm by pushing the switch marked DRAIN. Draining the water will flush the tank and pump.

#3 WATER HEATERS—or boilers must provide the minimum temperature of 120°F required by the machine listed above, which has a minimum demand of 57.6 gallons per hour. The recommended temperature range for optimal performance is 130-140°F. These specifications are for the glasswasher only, which typically accounts for only part of a restaurant's hot water demand.

#4 IMPORTANT—The model of glasswasher listed in this document must be installed with space around the outside to allow for servicing as well as a 4" space behind the machine from the wall. It should not be built into wooden cabinets.

#5 INSPECT FOR DAMAGE—If you receive a damaged dishmachine, do not sign "Clear" but write "damaged" on the documents.

#6 LOOSE ELECTRICAL CONNECTIONS—Damage to equipment can occur if the following precautions are not observed. Before connecting power to the machine, check all electrical terminals in the control box. Screws can loosen in transit. Loose connections on high amp load terminals such as the pump motor or heater will cause wire burning and component damage during operation and will not be covered under ADS warranty.

#7 "CLEAN CIRCUIT" means the electrical circuit breaker for the glasswasher supplies no other outlets, machines, or lights. GFCI outlets are not recommended for commercial glasswashers; ADS recommends that a single-rack machine be installed with the wire connection (hard-wired) directly from the circuit breaker. If a plug and socket are used to provide electrical power to a glasswasher in a commercial kitchen, then according to electrical code it must be a GFCI, but not all GFCIs are the same. They must be rated for the draw of the circuit.

Reference NEC Article 210.8 GFCI Protection (B) Other Than Dwelling Units (2) Commercial and Institutional Kitchens. All 15 and 20A, 125V receptacles installed in kitchens, even those that do not supply the countertop surface, must be GFCI protected.

#8 This equipment is considered an item of heavy use. It is not rated for outdoor use.

ELECTRICAL SECTION

The electrical power supplied to this machine is an imminent hazard that could result in severe bodily injury or death if not properly installed or hooked up correctly

Electrical: ASQ II, w/350w Sustainer Heater (120 volt, 15 amp)

A time cycle of 72-seconds is the timer available for this model and is compliant with NSF listing.

Showing controls on lower access door

ASQ II control box with cover removed

The power supply for 120 volts, 15 amps, shall consist of two #12-14-gauge wires and one suitable green ground wire. The 15 amp breaker or 15 amp fuse must be on a clean circuit dedicated to the glasswasher. On the left-hand side of the lower cabinet is junction box with a 7/8" hole for the 1/2" conduit that will bring the building's electrical power to the machine. This junction box is to the left side of the pump motors.

Remove the junction box cover, attach the conduit and connect a black 120 volt supply wire to the black wire in the junction box. Connect a white neutral supply wire to the white wire in the junction box. When powered up, test the neutral wire to a ground source with a voltmeter, it should read 0 to 6 volts. Test the black wire to a ground source, it should read 110-120 volts. Attach a building ground wire to the green ground screw located in the junction box and tighten all wires. Replace the junction box cover.

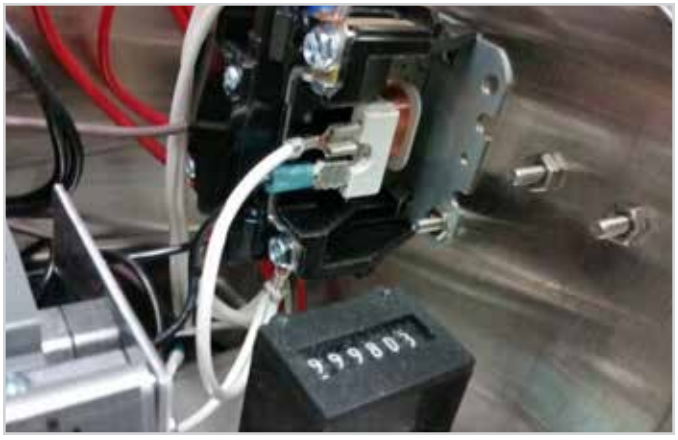
Relays, counter, switches, cam timer, motor contactor

Optional buzzer for low chem alarm, under rack counter

Wash pump is placed behind the rinse pump shown here

Wash pump with rinse pump removed

Showing bottom of tank, float wire, sump, heater attached



Wash motor contactor next to rack counter

THE SUSTAINER HEATER—is rated 350 Watts at 120v, and will draw approximately 3 amps. It is not designed to provide operational heat; the operational hot water must be provided by the building's primary water heater. The sustainer heater is not designed to provide a rise to incoming water temperature. Its purpose is to sustain the existing hot water sitting in the pan of the machine if it were to sit idle. The sustainer's snap-action thermostat receives power any time the machine is switched on. Electrical equipment should have the power turned off when the machine is left unattended.

IT IS RECOMMENDED THAT THIS EQUIPMENT BE INSTALLED USING A NEW 15a CIRCUIT BREAKER.

This machine is not rated as a High Temp or uses a booster heater for final rinse.

PLUMBING SECTION

NOTICE

#1 TANKLESS water heaters can be problematic for commercial dishmachines and glasswashers. The ADS model ASQ II glasswasher requires the full cycle amount of water (1.2 gallon) supplied within 7 seconds. It has been the experience of ADS that tankless supply systems require multiple units plumbed in sequence with a recirculation loop to achieve proper pressure and temperature.

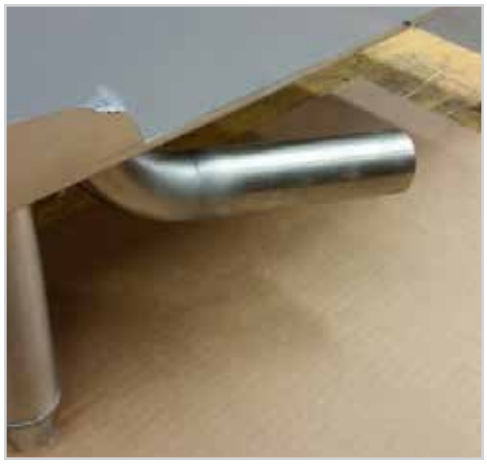
Check with the tankless water heater manufacturer, they may recommend a storage tank to guarantee proper flow and line pressure to the machine. Failure to provide adequate water quantity, pressure and temperature to the machine will cause the machine to function improperly and is not the responsibility of ADS. Improperly installing ADS equipment in this manner could void the warranty. All costs associated with providing an adequate water supply to the machine is the sole responsibility of the user.

#2 HOODS—Follow all local plumbing and mechanical codes. IMC 2012, section 507.2.2 requires Type II hoods for all commercial ware-washers except where the heat and moisture loads are incorporated into the building's HVAC systems or dishwashing equipment designed with separate heat and moisture removal systems. An undercounter-type, chemical sanitizing dishwasher is rated at 6450 Btu/h by table 5E, ASHRAE Research Project #1362, 8/5/2008. **ADS DOES NOT SPECIFY BUILDING HVAC VALUES.**

#3 DRAIN SIZE—The drain pump motor will pump tank water through a 3/4" hose to the stainless drain manifold. From there the drain water falls by gravity to the building drain. The stainless drain line is 1.5" diameter tube. THIS MODEL WILL NOT PUMP THE DRAIN WATER FROM THE MACHINE.

#4 CONTROL FLOAT—The control float is located inside the tank on the bottom to the right of the spray base, it prevents the machine from starting without sufficient water. Water flow issues will delay cycle until control float senses sufficient water in the tank. The float is secured on the float stem by a retaining clip. The stainless float has an "O" stamped on the end that should be on top. The glasswasher will not start if the float is installed upside down or missing.

Control float, "O" mark should be on top



1.5" OD Drain line exits on the right hand side of cabinet

Drain hose connection to drain pipe

Showing 1/2" H2O solenoid, also stainless 1.5" drain tube

1/2" female hot water inlet

Compression connections for water solenoid

Hot Water Connection

WATER HEATER—Flush the building's water lines before connecting to the machine. Prior to connecting plumbing, level the machine by adjusting the feet at the bottom of each leg up or down. Water heaters or boilers must provide the minimum temperature of 120°F required for this model of machine, which has a minimum hourly demand of **57.6 GPH for ASQ II**. Temperatures above 150°F exceed the operational design limits for this model. This model cannot ⊘ be converted to high temp sanitizing by adding a booster

SUPPLY FLEX HOSE—Domestic style 1/2" flexible braded hose should not ⊘ be used to connect the glasswasher. The ID of the plastic liner for this type hose restricts flow. The minimum size for water connection is 1/2" pipe.

To use copper pipe plumbing, connect 1/2" male pipe thread (1/2" is the minimum allowable pipe size) of the hot water supply line to the 1/2" female pipe thread on the dishmachine's water inlet manifold.

SINK FAUCET MIXING HEAD PROBLEM—If the hot water line is also supplying the faucet of a pre-rinse sink, install check valves on both cold and hot water inlets to the faucet—to avoid cooling the water by cross-connection in the mixing head of the faucet. The hot water inlet manifold is located behind the access door and to the lower right. The supply water must have a minimum of 120°F, but 130-140°F is recommended for best results.

Water Pressure for Filling

Minimum pressure needed at the machine is 15 psi DURING the fill. This is called FLOW pressure. STATIC pressure readings can be misleading and may drop to "0" during fill. With flow pressures below 15 psi, additional measures will be needed to resolve the problem. The first suggestion is to run 3/4" pipe directly from the water heater to the glasswasher. If the problem persists, install a pressure bladder tank used for domestic well water; a 5 gallon size would be a minimum, 10 gallon as a maximum.

Drain Requirements (this model is a gravity drain)

- 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" or larger. Do not use adapters to reduce the drain line. Do not plumb with tight elbows or 180 degree bends.

CHEMICAL FEEDERS SECTION

WARNING **You must wear approved safety eye-wear before connecting chemicals. Read the chemical manufacturer's SDS sheets. Chemicals can damage or corrode plumbing and stainless parts of the dishmachine. Do not run chemical lines over controls or plumbing. Always secure chemical lines and check regularly for leaks. If not properly handled, chemicals can cause serious bodily injury. In the event of chemical contact to skin or eyes; wash immediately with fresh water and seek medical attention.**

Showing deter, rinse, sanitizer internal chemical pumps

Chlorine test strips for measuring sanitizer

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) concentrations should be set at 50 parts per million
Inspect the transfer tubing for any cuts or holes, keep them protected and secured out of the way

Showing chemical lines and temp gauge in cabinet

Optional Chemical Alarm switch, barb with adjusting screw

AUDIBLE LOW CHEMICAL ALARM OPTION—The optional chemical alarm (P/N 031-0326) uses a pressure switch with a barb fitting that extends from the control box and connects to the chemical line by means of a "T" fitting. The switch sends voltage to a buzzer located in the control box. Sensitivity is adjusted by an Allen wrench (5/64" or 2mm) to turn a screw located in the center of the barb (see photo above). Remove the tube from the barb; turn the screw to the right for less sensitivity. Chemical must be placed on the floor of the cabinet for the pressure switch to work.

TYPE OF CHEMICALS—Use only commercial grade low-energy chemicals. For proper operation, use non-foaming detergents and buffered sanitizer. Do not wash gold, pewter, silver, or silver-plate with chlorine based sanitizers. High concentrations of chlorine sanitizers and caustic detergents will cause damage to metals and welds. Do not exceed 50 parts-per-million (PPM) "free" or available chlorine, using higher than 50 ppm will be dependent on local health requirements, however, the increased chlorine will result in higher corrosion of metal parts. Purpose-built ware-washing dispensers are needed to properly meter chemicals for wash and rinse. These dispensers are included with this model. Manually adding industrial chemicals to the machine is unsafe and not approved.

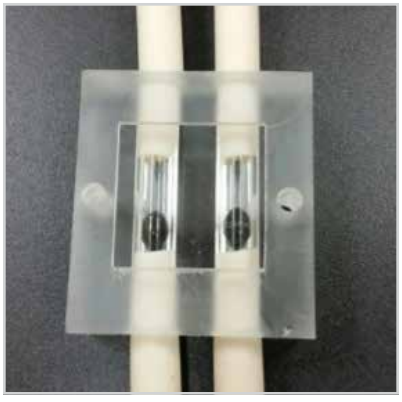
CHEMICAL LINES—Place color coded tubes into proper chemical containers. The containers of one gallon each are placed inside the lower cabinet. On the side of the control box door, there are chemical prime switches. There is a decal identifying each switch. To prime chemicals, use these momentary switches, verifying that all three pumps rotate. If a chemical pump squeeze tube has taken a set (not allowing the pump to turn), manually free the pump by pulling on the discharge side (right-hand) of the squeeze tube while pushing the prime switch. Squeeze tubes should be replaced at least every six months.

WARNING **CONTAINERS:** The ADS chemical delivery system is designed for 5 gallon pails of industrial low-energy chemical products. Always use chemical resistant safety gloves and safety goggles (indirect- vented or non-vented) when changing chemical buckets. Immediately report spills and refer to your chemical suppliers SDS safety data sheet or SDS material safety data sheet for information if chemical come in contact with skin or eyes.

Any modifications to the chemical delivery system for smaller containers must include **Closed Loop Chemical Containers** (spill proof bottles) in a secured racking system. It is the responsibility of the user of the machine to purchase chemicals in spill proof containers. **FAILURE CAN RESULT IN SERIOUS INJURY**. Never place chemicals in open containers or containers that can be easily tipped over when moving or changing product. Failure to do so will void your ADS warranty.

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

VISUAL CHEMICAL INDICATOR—



ET-AF Chemical Flow Indicator

According to NSF/ANSI 3, section 5.19.3 and 5.19.5

"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. Please see instructions for electrical and plumbing connections located in this manual and in the feeder equipment manual."

--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 being delivered to the respective washing and sanitizing systems.

For ADS family models of ET-AF and the model ASQ II, the chemical Flow Indicator (084-6403) is the visual means to indicate liquid is flowing in the feeder system for detergent and sanitizer. In each of the tubes machined through the clear plastic housing, there is a black colored marble (099-1008). Squeeze tube material (092-2000) is inserted in both upper and lower tube openings. These tubes are pushed into the holes of the housing and held in place by tension of the tube wall against the housing's inner surface. When inserting the squeeze tubes into the housing, lubrication using dish soap is helpful.

When the top tube of the indicator is connected to the inlet side of the chemical peristaltic pump, liquid is drawn up through the supply tube of the chemical bucket. The liquid is drawn into the bottom of the Flow Indicator housing and lifts the black indicator marble upward in the visual chamber. This movement shows flow of the liquid in the tube. The tube with red colored liquid will indicate detergent flowing, the tube with clear liquid will indicate sanitizer (chlorine) flowing.

The operator should be informed that this movement of the marbles in the housing is the visual indication that chemicals are being delivered for the washing and sanitizing operations of the dishmachine. Management should be notified if there is no movement of the indicators.

CAM TIMER ADJUSTMENT SECTION

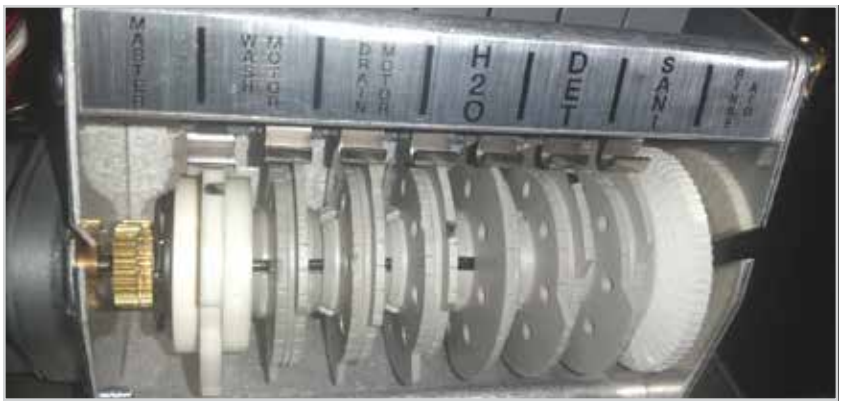
Timer for the ASQ II is a 7-cam. The cycle times are not adjustable. The cams of the timer are wheels whose positions are either fixed or adjustable on its hub. Each cam controls a specific machine function, as noted on the timer decal. Adjustable cams are comprised of two wheels held together at the hub. The perimeter of each wheel is divided into 180-degrees of high cam and 180-degrees of low cam. When one of these wheels is rotated on the hub in relation to the opposing wheel, the two lower cam segments can form a notch in the perimeter (see photo below). Above each cam is a timer switch with a metal finger that rides along the outer edge of the cam. When the finger drops into the lower cam notch, the function of that cam starts.

Cam timer adjustment tool

Cams showing lower notch

Spray arm pressure tester #088-1048

To lengthen out the notch (length = time energized) or close the length of the notch, use the timer adjustment tool, which is provided and taped to the control box shelf. This tool has two raised buttons that fit into the holes on the side of each wheel. The factory sets the start of each function using the right-side wheel of the cam. TO ADJUST rotate only the left-side cam wheel. The left-side of the wheel controls the point when that specific functions ends. Factory settings are only initial settings, adjustments will be required for each chemical as well as the water fill time because water pressures will be different for every account.



ASQ II cam timer, fixed cams are MASTER, WASH MOTOR and DRAIN MOTOR

Adjustable cams are colored gray ASQ II Glasswasher Cam Timer Adjustment Timer 75 second - 7 cam, cycle time is not adjustable.

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

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

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

#4 Cam: The H2O 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. Adjust only the left-side of cam wheel, set the cam to close the water solenoid when the glasswasher reaches full spray arm pressure of 9 psi.

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

#6 Cam: This gray cam controls sanitizer. It is adjustable. Set the sanitizer concentrations at 50 ppm.

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

TUNING A BATCH-TYPE MACHINE SECTION

Tuning is essential for proper cleaning; do not skip this IMPORTANT PROCEDURE

The key to understanding proper tuning is to realize that the drain sequence cannot be changed. It is a fixed time function and the regulator of the cycle between wash and rinse. Therefore, all tuning is accomplished by setting or adjusting the fill cam in relationship to the fixed drain cam. The goal of tuning is to eliminate all soiled wash water through the drain, before the drain period ends.

It is at this point that the H2O (FILL) cam should be adjusted so the water solenoid turns the fill water on. That function is controlled by the adjustment of the fill cam. For optimum results, allow the fill water to flush the interior of the machine for a few seconds before the drain finishes. Once the drain ends the fill cycle begins. Fill must continue until full spray arm pressure is reached. This can be verified with the use of a spray arm pressure tester (Kit #088-1048) attached where one of the end plugs are usually screwed into the wash arm. The tester gauge will indicate full spray arm pressure when the needle stops fluctuating and remains steady. Adjust the fill cam to turn the water OFF when this point of steady pressure is reached. It is important that the machine is not overfilled. Use just enough water to reach Full Spray-arm Pressure (FSP), no more than that is needed for proper operation.

72-second timer operation of ASQ II [Pump shut off] - [*sanitizer here]

START [------ **WASH 40-Sec** ------] **-** [-- **DRAIN 14-Sec** --] **-** [--- **21-Seconds to FILL and Rinse** ---] **END**

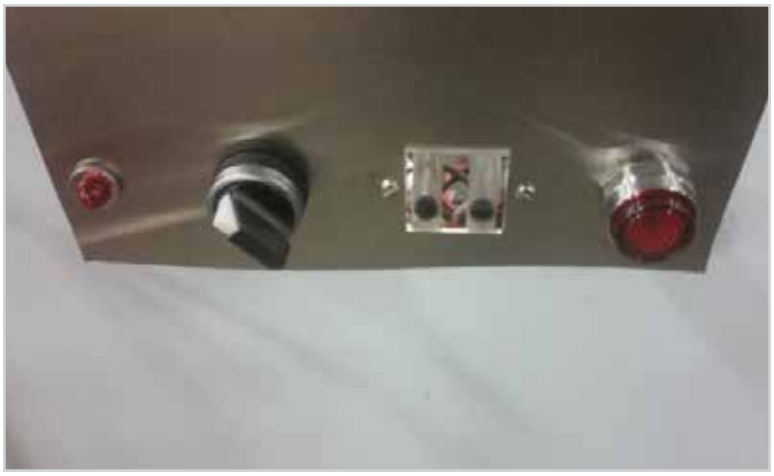
[*detergent here] [-Fill until FSP is reached-]

If a pressure gauge tester is not available, an approximation of full spray arm pressure could be determined by the sound of the spray arm. There would be a typical continuous swishing sound of the water spraying. Again, when this sound is heard, that would be the point to turn the water OFF. Seven seconds of full spray arm rinse pressure is required by health code. Operating temperature of 120°F is the minimum, 130-140°F is recommended.

FINAL INSTALLATION CHECK LIST

WARNING

Do not rotate the carousel while machine is in cycle. Doing so could result in serious bodily injury from spraying hot water and chemicals.



Cycle light, master switch, chemical sight window, red start switch

1. 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.
2. 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.
3. Remove the protective film if present from the front panel, the hood, or other surfaces.
4. Verify 2" clearance between the glasswasher top and bottom of the countertop overhang. This is needed for cleaning breakdown. Overhangs cannot extend past the center of the carousel.
5. Turn on the water supply. Check for leaks. Tighten any connections if needed.
6. 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
7. 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 the 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.
8. 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.
9. Verify incoming water temperatures 120 degree F. minimum (130-140 degree F. recommended).
10. 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.

Outer tray to dump glasses, carousel

ASQ II tank spray arm

Wash tank with spray arm, float, secondary scrap screen

Heater cover

Spray base and float

Showing pump scrap basket

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. The carousel rotation can turn either way. 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 sections completely 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 latch detent pushes into the notch of the carousel wheel.

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.

BREAK-DOWN AND CLEANING FOR DAILY MAINTENANCE

WARNING

WARNING: Glass Breakage can occur - always visually inspect tank for sharp shards of glass before breakdown.

TO DRAIN—Drain water from the tank using the drain switch marked (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 the front. Remove the carousel drum by lifting up 1-1/2" until the carousel has cleared the pivot pin, then pull it out and towards the front. 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 and bearing is held in the spray base with bayonet fittings. 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

INSTALLING PUMP SEAL AND IMPELLERS

Drain Pump 063-2900 Motor Replacement and ASQ II Wash Pump 063-3000 Motor Replacement

ADS Tool Kit 088-1092 to replace seals for 092-2005 drain pump and 092-2006 wash pump

1. After removing the pump from the machine, remove 3 bolts and lock washers holding pump cover on.

2. Brace the impeller against a screwdriver to remove the locknut holding the impeller to the shaft.

3. Take the spring and cap out, remove the 4 nuts and washers holding the housing to the motor.

4. Lift the pump housing off the motor; from the back of the housing push the ceramic portion of the seal out.

5. With two seal parts removed and housing off of the motor, the new motor can be put into the assembly.

6. Place the ceramic portion of the seal, boot down into the housing. Use small amount of dish soap.

7. With tool 088-1092 press the ceramic firmly to the bottom of the housing.

8. Turn the housing over, check that seal and boot are fully seated in housing, place protective shield over the threads on the motor shaft.

9. Carefully place the housing on the motor, align the housing correctly and slide it over the 4 attachment studs.

10. Place lock washers and nuts on the studs and tighten. Place small amount of soap on black portion of seal.

11. Also lube the protective shield covering the threads, slide the seal on the shaft, use open side of the tool.

12. Carefully press the seal down the shaft until seated against the white ceramic portion of the seal. Do not pound or hammer on the installing tool, this could break the ceramic portion.

13. Remove the protective shield, place the spring over the seal collar with the cap on top.

14. Remove the protective shield, place the spring over the seal collar with the cap on top.

15. Note the impeller has a "D" cut hole which aligns with the motor shaft flat.

16. Place one drop of Loctite on shaft threads. Brace impeller with a screwdriver and fasten locknut 098-2507 to hold impeller securely to the motor.

17. Place O-ring gasket 089-6311 on the pump cover and place into the pump housing

18. Align the cover, insert the ¼-20 SS bolts and lock washers, tighten firmly. Remove the plug on the end of the motor cord and attach motor wires to the original wires of the machine control for the drain pump

The wash pump 063-3000 for the ASQ II is serviced in the same procedure steps as the drain pump, with the exception of being larger in size and motor horsepower.

The part number for the seal installing tool on both pumps is 088-1092.

The seal for the ASQ II wash pump is 092-2006 and the O-ring gasket is 089-6313

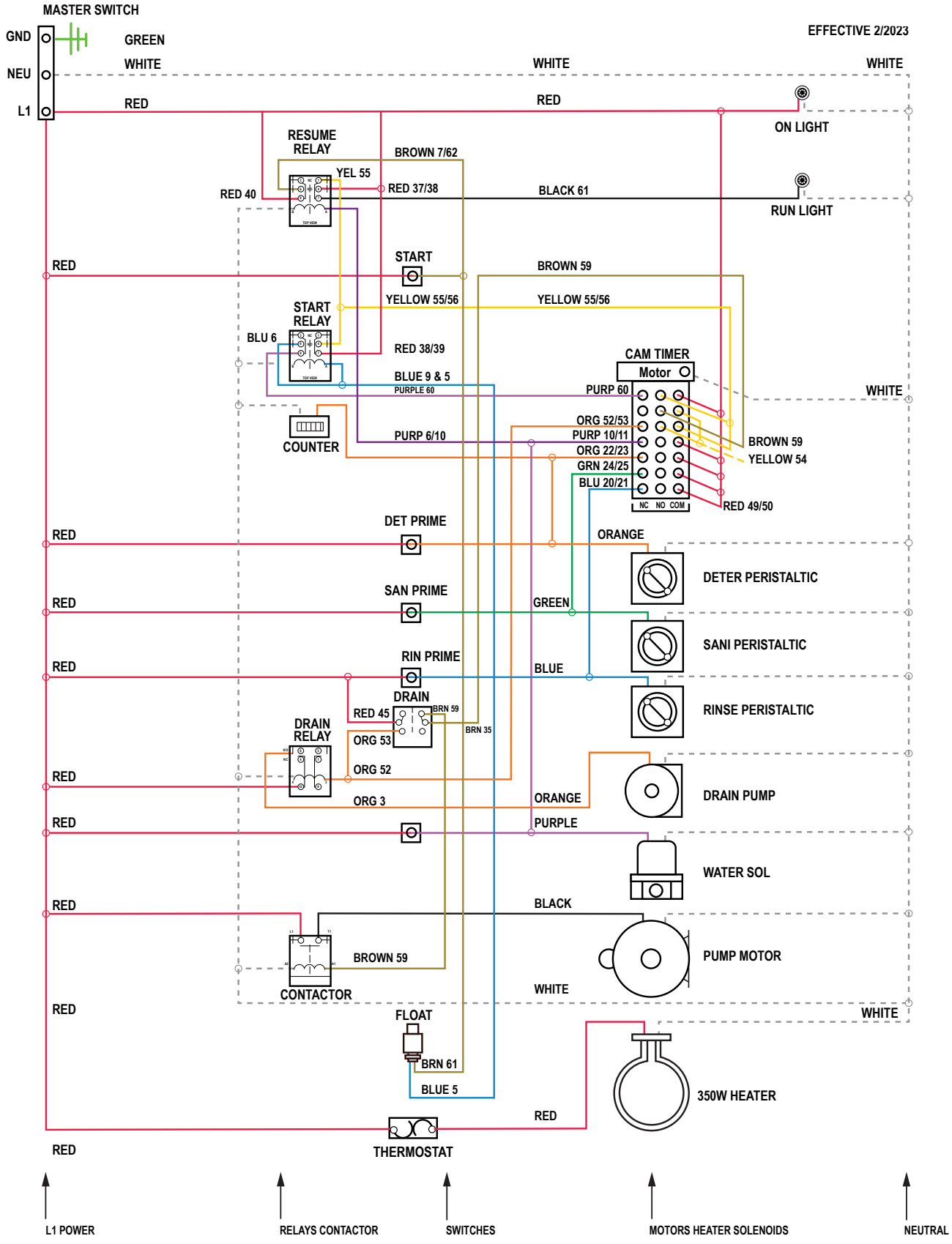
Note: Also lube the protective shield covering the threads, slide the seal on the shaft, use open side of the tool.

ADS WIRE CHART (LADDER)

Model: ASQ II

Connect to 120v electric supply using 14-12 AWG Copper wire clean circuit

15 Amp Circuit Breaker or fuse with 15 amp rating



WARNING!

This product is manufactured solely for **commercial** use.

It is not to be used in residential installations of any kind. Doing so will immediately void all warranties.

American Dish Service assumes no liability for such unintended uses.

FOR PARTS & SERVICE MANUALS GO TO

www.americandish.com

American Dish Service™
Manufacturers of Ware Washing Equipment

WELBILT
an ALI Group Company

PRODUCTION FINAL INSPECTION

AMERICAN DISH SERVICE CORPORATION
DISHMACHINE TEST

American Dish Service™
Manufacturers of Ware Washing Equipment

SERIAL #: _____

MODEL #: _____

DATE: _____

Checked:

- ☐ 1 Drain Ball - seated properly
- ☐ 2 **No leaks around nuts & bolts**
- ☐ 3 Chemical pumps traced, through prime switches, for proper operation *

Detergent	**Rinse Aid**	**Sanitizer**
☐ Prime	☐ Prime	☐ Prime

- ☐ 4 **Pump - free from leaks.**
- ☐ 5 Plumbing - free from leaks.
- ☐ 6 **Tight nuts and bolts**
- ☐ 7 Tight drain linkage.
- ☐ 8 **Spray arms rotate freely.**
- ☐ 9 Spray arm end plugs - secure.
- ☐ 10 **Spray arm pressure - 16 PSI minimum.**
- ☐ 11 Smooth door operation.
- ☐ 12 **Smooth rack operation.**
- ☐ 13 Nameplate properly installed and engraved.
- ☐ 14 **Decals properly installed and are straight.**
- ☐ 15 Overall machine operation is to standard.
- ☐ 16 **Overall machine cleanliness is to standard.**
- ☐ 17 General appearance of machine is free from scratches, dents, etc.

ELECTRICAL SAFETY

- ☐ 18 **Hi Pot Test - passed to standard**
- ☐ 19 Ground Test - passed to standard

I certify the above items have been checked and meet or exceed established American Dish Standards

Inspector: _____

***CUSTOMER NOTE: Cam adjustment varies with chemical concentrations. Adjust factory settings accordingly.**