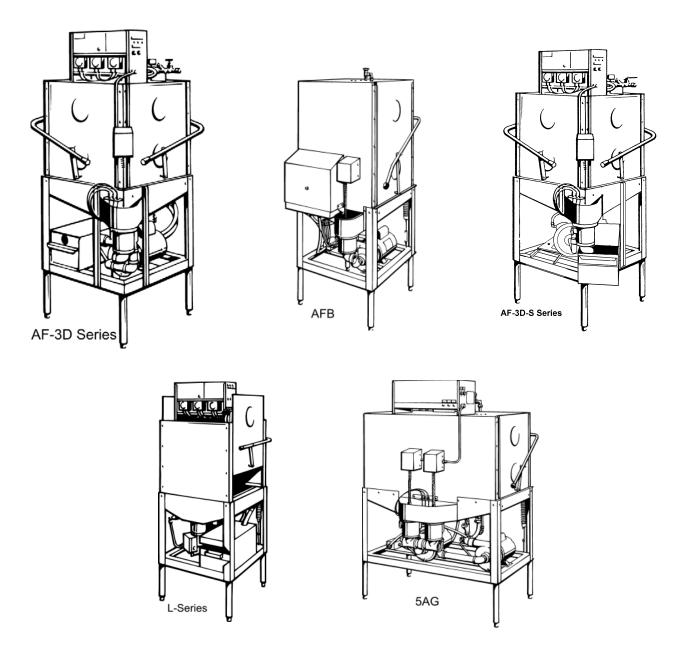
American Dish Service

ADS UPRIGHT DISHWASHERS MODELS: AF/AFC-3D, AF/AFC-3DS, LW/LWC, 5AG, AF/AFC/AFB, AD25



OWNERS MANUAL

900 Blake Street Edwardsville, Kansas 66111 (913)-422-3700

IMPORTANT:

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 with out notice. 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. The instructions and guidelines in this owners manual are given with the assumption that the dishwasher has been installed properly in accordance with all applicable Codes, Ordinances, and Safety requirements. Failure to install and operate the machine in this manner will void the ADS Warranty. ADS assumes no liability or control over the installation or operation of the equipment. Product failure due to improper installation and operation is not covered under the ADS Warranty.

WARNING:

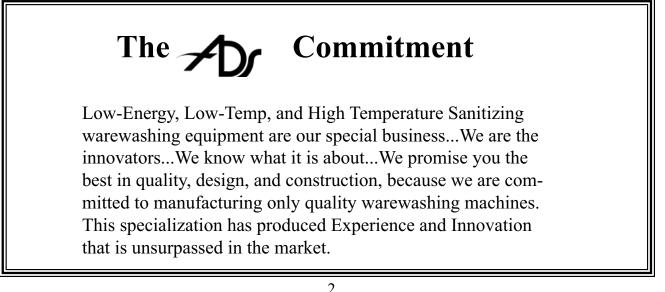
During the operation of all dishmachines, chemicals, high voltage electricity, and normal operational functions can cause harm, bodily injury, or worse if proper installation, operation, and maintenance are not observed. It is imperative that the operator(s) are trained in the operation and made aware of the hazards that can exist. This is the responsibility of the owner of this equipment. When installing, operating, or maintaining your dishwasher you must follow all applicable safety requirements, including the wearing of approved personal protective equipment.

WARRANTY:

To activate coverage of your new ADS dishmachine, please cut the warranty card from the last page of the owners manual and fill in the Model#, Serial#, and other necessary information in the appropriate locations and forward the warranty card to:

> AMERICAN DISH SERVICE 900 Blake Street Edwardsville, KS 66111-3820 USA

WARNING: The warranty will be void if the Warranty Registration Card is not returned to the above addrerss within 30 days of the equipments installation.



GENERAL

The series of ADS Dishmachines represented by this owners manual are manually loaded chemical sanitizing dishwashing machines intended for use in restaurants or other food service facilities. The standard 20" x 20" rack is loaded with dishes, moved into the machine and the doors are closed. The machine will automatically start when the doors are closed (auto-start feature) or without this feature the operator presses the cycle start button and the machine operates. The cycle may range from 72 to 150 seconds depending on the specific model. During operation the operator may prepare the next rack of dishes. When the cycle is complete the operator moves the clean dishes out and the next rack of dirty dishes is placed in the machine.

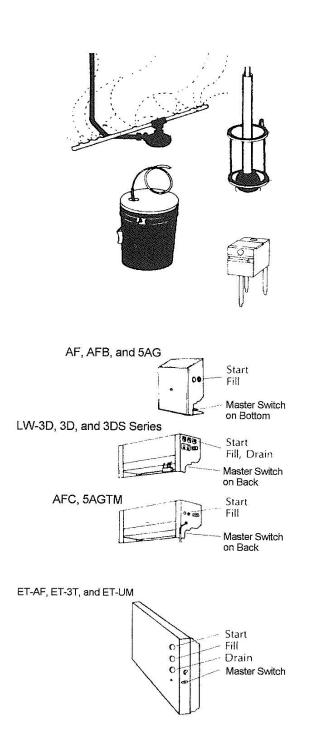
The machine contains only enough water to fill the pump and spray system and wash the dishes during the cycle. At the beginning of each cycle, detergent is metered into the wash water and the dishes are sprayed with a pressurized wash. Rotating arms at both the top and bottom of the cabinet assure complete and even coverage. These arms are powered by the action of the spray and therefore require no drive mechanism.

When washing is complete a solenoid raises the stopper at the bottom of the sump, and soiled wash water drains by gravity from the machine. As water drains it washes the intake screen, thus removing food particles and soil and carrying it into a separate scrap trap.

Near the end of the drain part of the cycle, the fresh water solenoid valve opens and water flows either through the pump and spray system, or directly into the machine (depending on model purchased). This flush cycle carries away soap, soil, and wash water from the dishes, cabinet, and spray system. At the end of the flush cycle, the drain closes and the final rinse commences.

A chlorine based sanitizing chemical and rinse aid are metered into the rinse water which is sprayed under pressure on the dishes. The chemical sanitizing agent provides comparable germ killing ability in 140 degree rinse water as in the conventional machines with 180 degree rinse. The rinse-aid causes the water to flow from the dishes in sheets rather than collect as drops. This allows the dishes to dry faster and at the same time prevents water spots.

Rinse water remains in the sump to be recycled as wash water for the next rack. By purging the machine of soil and detergent, recycling the rinse and using chemicals for sanitation, only a very small amount of low temperature water is required, which results in an economical and energy efficient machine.



OPERATOR PROCEDURES

Daily Start-Up

The following procedure should be followed at the beginning of each shift:

1. Inspect spray arms, drain screen, drain stopper and operating mechanism for cleanliness.

2. Inspect chemical containers to insure adequate supply for shift.

3. Inspect Scrap Trap and clean as required.

4. Turn on "Master Switch".

5. Fill machine with water using "Fill Switch". If water temperature gauge has not reached 120° F (49° C) when the water level is just below overflow, drain water from the machine and continue to fill until proper temperature is attained. Drain is accomplished with the "drain" switch on Model LW and ET series machines and by manually lifting the drain ball on Model A and Model 5 series.

6. With doors opened, move first rack into machine. Dishes must be "pre-scrapped", i.e. remove large food particles, bones, toothpicks, seeds, and standing water.⁶

7. Close doors and the machine will either start automatically if so equipped, or manually press the "Start" button.

8. While machine is operating, prepare subsequent racks for washing.

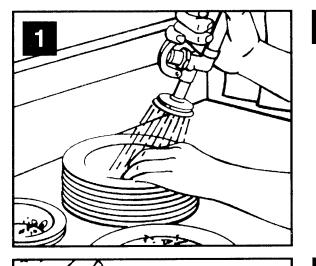
9. When the operating cycle is complete and machine has stopped, raise doors and remove dish rack for drying.

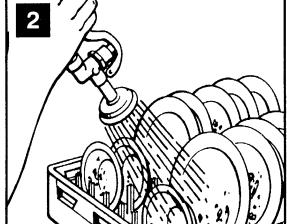
10. If it should become necessary to stop the machine during the cycle use the "MASTER SWITCH".

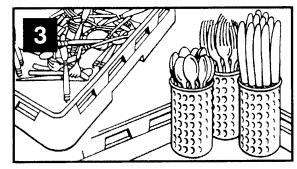
DISHMACHINE OPERATING INSTRUCTIONS INSTRUCCIONES GENERALES PARA MANEJAR LAS MAQUINAS

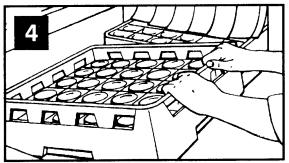
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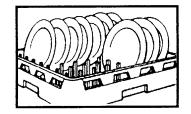


Sort dirty glasses, cups and silverware. Keep all items of the same kind together. Dirty glasses and cups go directly into glass and cup racks above sorting table. After dishes are in stacks, spray each stack with overhead pre-wash hose and allow to soak.

Especie VASOS, TAZAS y cuchilleria que estan sucio. TAZAS y VASOS se ponen directo en las parrillas. Las pavvillas estan sobre la mesa de especie. Pile los platos, entonces remoje los platos con la pistola de pulverizador. Deje los platos remojados.

Hand scrape, pre-rinse and rack dishes. Dishes must be racked properly for best results.

Limpie a mano, ponga con cuidado los platos en las parrillas, entonces enjueguelos bien. Para mejor resultado los platos deben quedar bien puestos en las parrillas.





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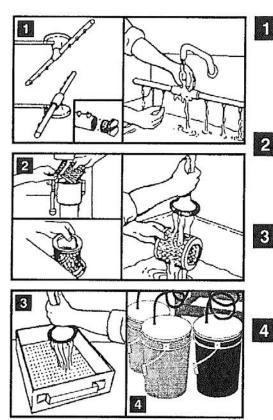
Pre-soak stainless flatware. Wash flat, then place with handle side down in flatware containers, and wash again.

Remoje la vajilla (cuchilleria). Pongala plana. Lave la cuchilleria. Despues, coloquela con los mangos para abajo en los canastillos y lave los otra vez.

Remove the clean rack of dishes. Allow dishes to dry completely before use. Tip cup and glass racks. Place racks of clean dishes in a clean, dry area.

Saque las parrillas con los platos limpios. Deje que los platos se sequen bien, antes de usarlos. Incline las parrillas que tienen las TAZAS y VASOS. Ponga las parrillas con los platos limpios en un lugar seco y limpio.

AFTER EACH MEAL: DESPUES DE CADA COMIDA:



Drain the machine to clean. Remove End Plugs to clean upper and lower spray arms. If spray jets are clogged, use a toothpick to open, and rinse under faucet. Arms will not turn if jets are clogged.

Descargue la maquina para limparia. Saque los tapones para limpiar los brazos rociadores de arriba y de abajo. Si las hoquillas estan taponadas use un palillo para abrirlas, y enjuaguelas bajo la llave de agua. Los brazos no giran cuando las boquillas estan taponadas.

Remove drain screen. Thoroughly clean screen by scrubbing with heavy brush. Rinse under faucet and reinstall.

Saque la rejilla de drenaja. Limpie bien la rejilla fregandola con una escobilla dura. Enjuaguela bajo la llave de agua y vuelva a poneria en sulugar.

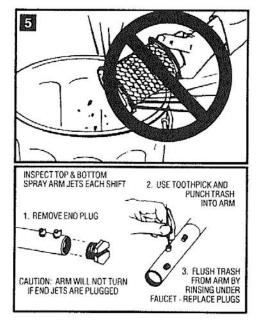
Remove and clean Scrap Tray. Rinse with spray. Check chemical buckets regularly and replace any empty buckets.

Saque y limpie la bandeja de disperdicios. Enjuaguela con el chorro, Revise bien seguido las cubetas de productos químicos y cambie las que esten vacias.

Check to be sure red feeder tube is in the red labeled bucket, (detergent). Check to be sure green feeder tube is in green labeled bucket, (sanitizer). Check to be sure blue feeder tube is in blue labeled bucket, (rinse additive).

Revise bien seguido los tubos de quimicos. Tubo rojo pertenece con la cubeta con el rotula roja (detergente). Tubo verge pertenece con la cubeta con el rotulo verde (sanitar). Tubo azul pertenece con la cubeta con el rotulo azul (aditivo de enjuague).

5 CAUTION: Do not beat screen against garbage can rim. This will damage the screen. Check secondary drain screen and clean thoroughly(LW and 3DS models only).



Daily Maintenance

At the end of each shift the operator should do the following:

1. Drain water from the machine using the drain switch or by lifting the drain ball.

2. Remove spray arms and spray arm caps. Clean thoroughly.

3. Remove stopper and drain screen on AF, AFC,3D, and 5AG models. Remove screen only on LW models and ET models. Clean Thoroughly. Clean Secondary drain screen on LW and 3DS models only.

4. Clean other food or soil from interior surfaces and clean cabinet exterior with soap and water.

- 5. Replace spray arms, drain screen and stopper.
- 6. Clean Scrap Trap.

CHEMICALS

All ADS machines require detergent and sanitizer for proper operation. A rinse-aid may be used if desired.

Selection of the proper chemicals and the correct amounts will depend on several factors. Proper selection is vital if optimum results are to be realized. It may be necessary to change chemicals or adjust the quantity after the initial selection. Initial settings on chemical cams are adjusted by the factory at approximately 10cc of Detergent, 5cc of Sanitizer, and 5cc of Rinse-Aid.

Detergent

Detergent is used to "emulsify" grease and loosen soil. Emulsification is a process which suspends grease in solution. The detergent also reduces surface tension of the water.

The detergent selected must be designed for lowenergy warewashing. Always use established brands.

The proper quantity of detergent may vary over a wide range, and depends on the following factors:

- 1. Water hardness.
- 2. Type and amount of soil.
- 3. Length of time the dishware stands.
- 4. Iron content of water.
- 5. Detergent formulation.

For this reason, your chemical distributor should be consulted to determine the amount which will give you the best results with the lowest detergent usage. Your distributor should use a test kit to test water hardness before making a recommendation. After the machine has been in use or if conditions change, the setting can be readjusted for optimum results.

Sanitizer

Sanitizer should be 6% solution of sodium hypochlorite. The initial setting is 5cc and this should be checked regularly with a Chlorine Test Kit. Free chlorine in the final rinse should be 50 ppm td 100 ppm. However, high concentrations can cause deterioration of metal.

Rinse-Aid

Rinse-aid reduces surface tension and causes the rinse water to run off in sheets rather than collect in droplets. This exposes more water surface to the air which allows the glasses to dry faster and prevents spot formation.

The optimum amount of rinse-aid varies depending on many of the same factors that affect detergent usage. Consult your commercial chemical supplier.

Water Softeners

In many cases, a water softener should be added to correct for hard water conditions which impede the operation of the unit.

Hard water can be treated with more expensive chemicals, but it is more efficient and cheaper in cost to soften the water before it comes to the dishmachine.

CAUTION: The dishmachine is given a basic control set-up to perform quality and performance testing. The machine is NOT set-up to operate properly in any given environment, and must be adjusted for operation and chemical usage based upon the conditions that are present in each account.

CAUTION: DO NOT WASH SILVER OR SILVERPLATE WITH CHLORINE TYPE SANITIZER!

PREVENTIVE MAINTENANCE

Machine should be inspected approximately once a month. The following steps will help to eliminate costly repair bills.

1. Check that all operator procedures have been followed.

2. Inspect six spray arm thumb screws to insure they are finger-tight.

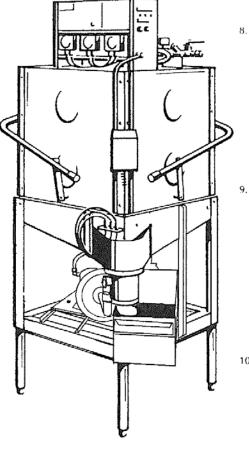
3. Inspect drain ball for wear.

4. Manually spin spray arms to insure that bearings and pivots are operational.

5. Operate doors and inspect smooth operation.

 Slide a tray of dishes into and through machine to insure proper alignment of tray track and dishtable.

7. Using manual switch, inspect fill rate by draining and refilling. If rate is slow, the line strainer screen and/or solenoid valve may need servicing.



 Remove control system cover and: a. Inspect cycle counter.

- b. Inspect peristaltic pumps and rotors. If necessary lubricate.
- Inspect chemical intake and discharge tubes.
- d. Inspect squeeze tubes.
- e. Inspect timer for wear or damage.

 Inspect wiring for loose or broken connections.

Cycle machine and:

- a. Listen for rhythm of spray arms.b. Listen at pump intake for surge
- due to cavitation. c. Inspect chemical pick up tubes.
- d. Inspect vacuum breaker valve for leaks.
- e. Inspect timer for proper mechanical operation.
- f. Observe water level to insure machine has completely drained prior to start of pre-rinse.
- Test chlorine concentration using test paper. 50 ppm minimum.

AMERICAN DISH SERVICE

Limited Warranty

Parts and Labor

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, American Dish Service 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 (75 miles) 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.

American Dish Service 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. This warranty will be void if the Warranty Registration Card is not returned to American Dish Service within thirty (30) days of the equipments installation.

This warranty is void if the equipment is installed for residential use.

Any action under the terms of the Warranty must be commenced within one (1) year from the date of purchase of the equipment.

CLIP HERE AND MAIL

WARRANTY REGISTRATION CARD

DATE PURCHASED

AMERICAN DISH SERVICE MODEL

SERIAL NUMBER

IERICAL DISH SERVICE MODE

This Warranty is void unless this card is completed, signed, mailed and postmarked within 10 days after installation of the machine. Purchaser'sName

Address			
City	State	Zip Code	
Purchased from			(Dealer's Name)
City	State	Zip Code	
I have read and understand the American Dich Service warranty. I realize that the warranty will be void if the defeat is due to			

I have read and understand the American Dish Service warranty. I realize that the warranty will be void if the defect is due to improper installation, misuse, modification of the machine, repair or servicing other than by an authorized American Dish Service Dealer, or operated in a manner contrary to applicable factory instructions that accompany the machine.

Purchaser's Signature_____

American Dish Service

Manufacturer of low and high temperature Commercial Dishwashers and Glasswashers

> 900 Blake Street Edwardsville, Kansas 66111 Ph:(913) 422-3700 Fax:(913) 422-6630