

Acid- Rite® 450 Feeder by Axiall, a Westlake Company

Installation and Operating Instructions



STD 50

The Acid-Rite 450 Feeder is

NSF-Listed for pool and spa applications.
ONLY Axiall. Acid-Rite Sodium Bisulfate
Tablets are permitted for NSF installations.
Use of tablets will void NSF certification.

DANGER:

DO NOT MIX CHEMICALS!

The Acid-Rite® pH Adjustment System is designed
for use with Axiall Acid- Rite® tablets only.

DO NOT USE ANY OTHER TABLETS

Chlorine gas release could result.

Revised 02-05-2021

System Description

Acid-Rite® 450 Feeder

The Acid-Rite® 450 Feeder incorporates a Feeder that will accurately and reliably add a pH adjustment chemical to your water system. The system also incorporates a level controlled solution tank and pump to deliver the acid solution to the return line.

The design allows only the lower tablets to be wetted and dissolved while the tablets above remain drier.

ONLY use Axial Acid-Rite® tablets. Use of other tablets will void the warranty, void the NSF Certification and could increase the possibility of a chlorine gas release.



Installation (Figure 1)

1. Mount the Feeder on a level surface. Bolts/nuts are provided for leveling.
2. Assemble inlet fitting to the Filter. NOTE flow direction.
3. Thread the inlet filter to the float valve nozzle.
4. Assemble elbow and drain valve on the filter bottom.
5. Assemble the flow meter assembly to the feeder using the pipe unions. NOTE flow direction. This was shipped separately to prevent breakage in shipment.
6. Use 1" piping or hose to connect from Return Line water supply to the feeder. Include a block valve.
7. Assemble discharge piping to the pump. The Check/Gate valve assemble (note flow direction) and other supplied parts were shipped separately to allow options in discharge piping.
8. Use 1" piping or hose from discharge to connect to Return Line delivery point **AFTER** the heater. Include a block valve.
9. Plug in the Power and Controller cords.
10. Test run system. Repair any leaks.

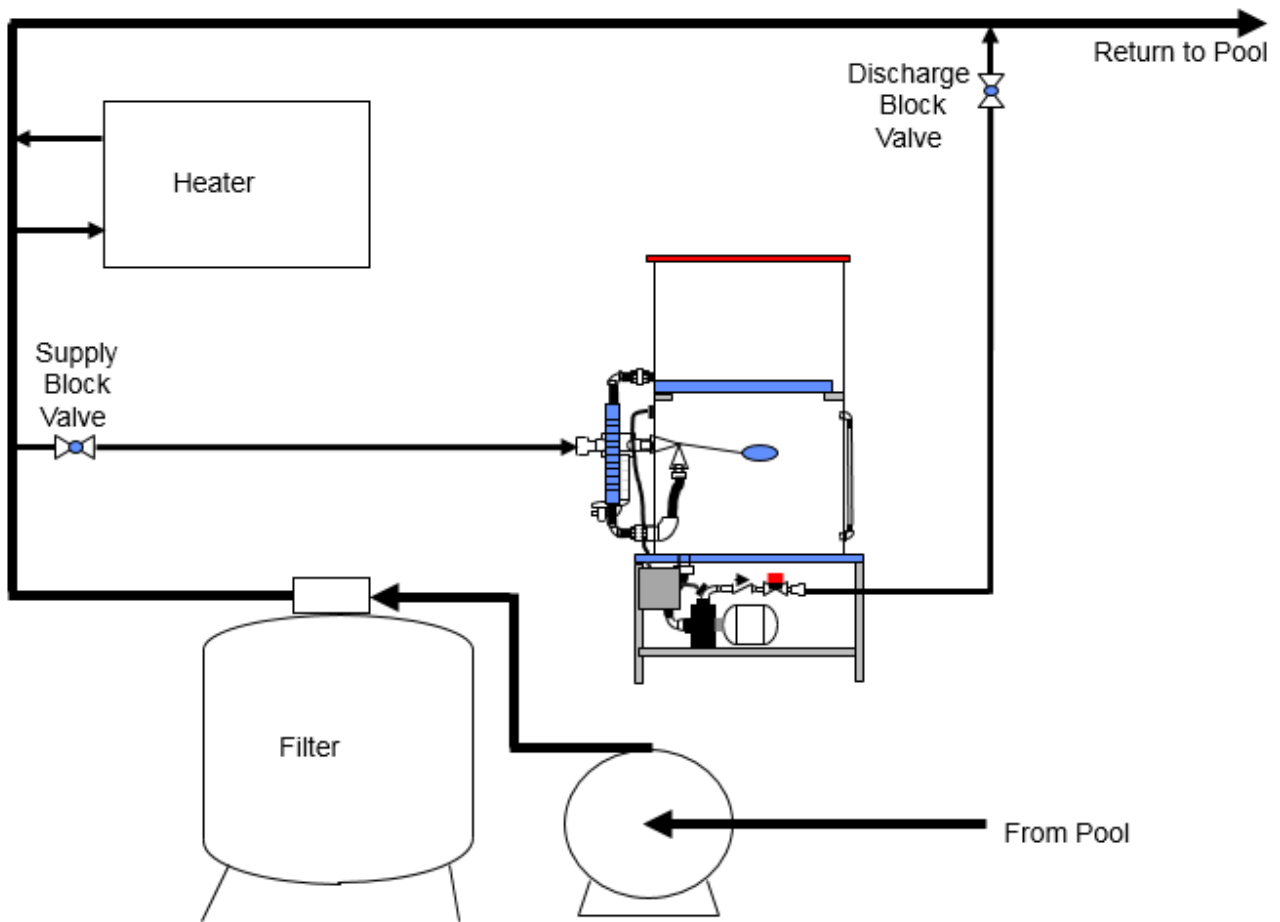


FIGURE 1 – Installation

Start-Up Instructions

1. Open inlet and outlet block valves. Water will flow through the feeder and fill the solution tank.
2. When inlet water stops flowing, open the Discharge Control valve a 2-3 turns.
3. Start pump with controller, and set flow at 1-2 gpm.
4. Shut down system, to prevent acid splashing while tablets are added.
5. Add *Acid-Rite* tablets to feeder.
6. Start system using the controller to add acid to pool/spa.
7. Monitor pH of pool/spa and adjust flow through feeder as needed.

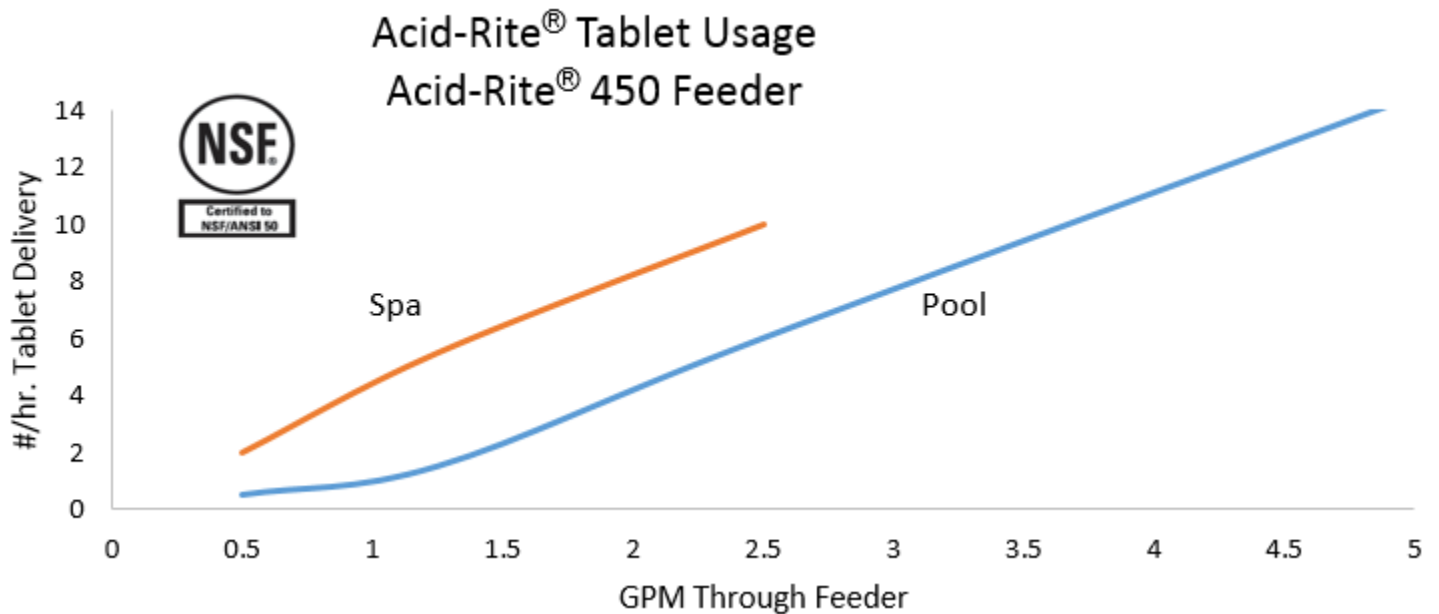
Operation Instructions

1. Remove lid from Acid-Rite® 450 Feeder.
2. Add *Acid-Rite* pH Adjusting Tablets to the feeder.
3. Replace lid.
4. Check pH of water system and adjust flow as necessary.

WARNING: Addition of acid without pool circulation can result in chlorine gas release. Always have the feeder interlocked with a no flow circulation system condition.

NOTE: When pool water circulation stops, flow to the feeder will stop. This will stop acid delivery.

NOTE: Minimum flow through feeder is 0.5 gpm.



Troubleshooting

System overflows.

1. Debris in the float valve.
2. Debris in the check valve.
3. Float valve stuck in down position. Clean float valve. DO NOT use any lubricant on the valve internals.

Pump will not run.

1. Check power supply and connections, and controller 110v signal.
2. Check for 110 voltage across terminals #2 and #5. If voltage present, wiring or pump motor failure.
3. If no voltage, check pump contactor.

Pump loses prime (solution tank empties and refills)

Maximum inlet flow exceeded. To determine the maximum inlet flow rate, start by closing the discharge gate valve. Open the discharge gate valve in small increments. Remember to allow a few minutes each time to allow the flow meter to stabilize. If pump loses prime, maximum inlet flow has been exceeded. Shut down system for a few minutes (which will prime the pump), close back on the discharge gate valve and restart the system. Continue this process until the maximum inlet flow is determined.

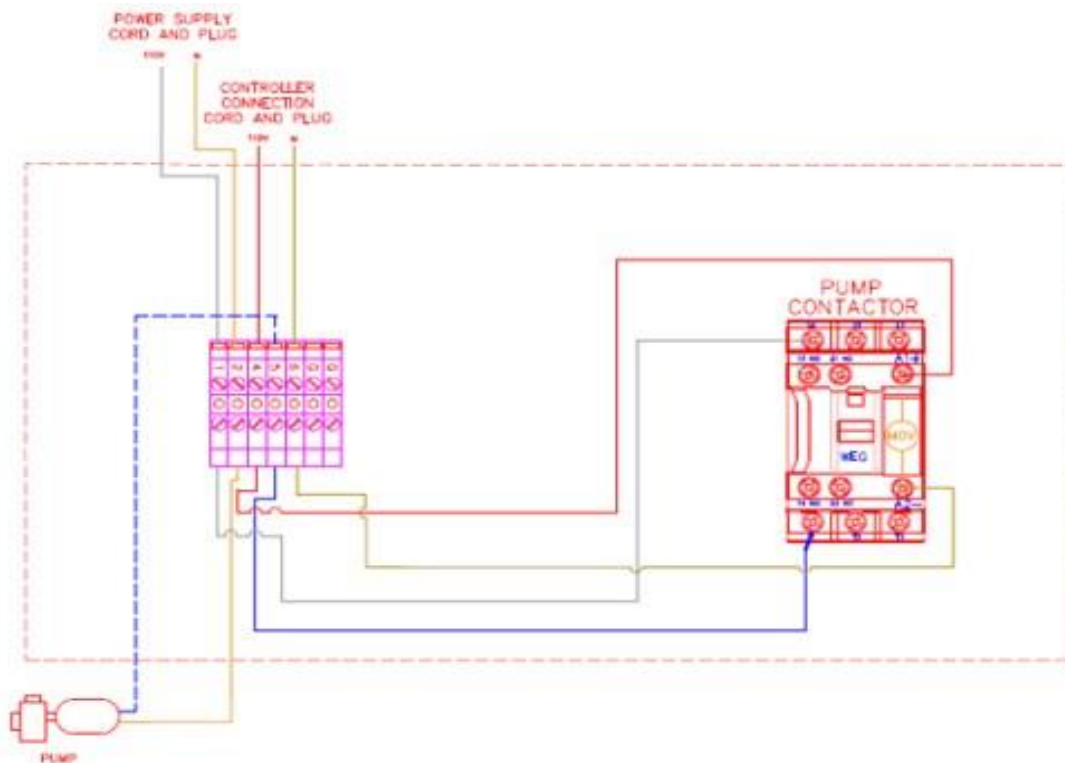
Float Valve maintenance

If valve becomes clogged with debris on a continuing basis, add a second filter to the inlet. Use the 60 mesh in the first filter then a 100 mesh in the second. The 100 mesh filter can be supplied by your specialist.

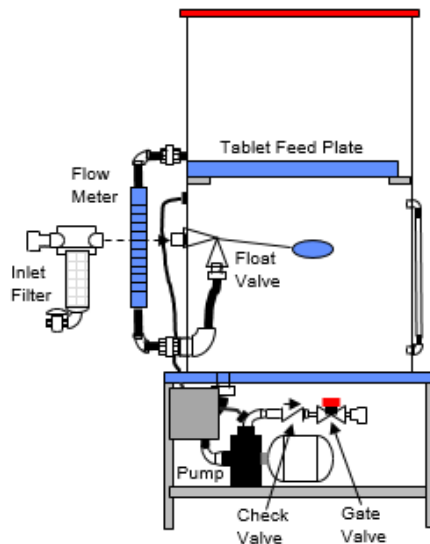
Cleaning

Over time and when the system is not highly used, some residue/build-up may float on the solution surface in the solution tank or collect on the walls or float valve ball. Wiping up and disposing of this residue in the trash is sufficient cleaning.

Should cleaning be necessary, refer to the Safety Data Sheet for use of Personal Protective Equipment for handling acid solutions.



Electrical Drawing



Acid-Rite 450 Feeder Parts List

- Inlet Filter
- Flow Meter
- Tablet Feed Plate
- Lid
- Float Valve
- Pump
- Check Valve
- Gate valve

Schematic and Parts List

ACID-RITE® SYSTEM LIMITED WARRANTY

Axiall, a Westlake Company ("Axiall") warrants (subject to the below conditions) only its title to this water treatment system equipment (the "System") and that the System will be free of defects in materials and workmanship for a period of eighteen (18) months from its original shipment date.

THIS IS THE ONLY REPRESENTATION OR EXPRESS WARRANTY THAT AXIALL MAKES AND ALL OTHER EXPRESS WARRANTIES UNDER STATUTE OR ARISING OTHERWISE IN LAW FROM A COURSE OF DEALING OR USAGE OF TRADE WITH RESPECT TO THE SYSTEM ARE DISCLAIMED. ANY IMPLIED WARRANTIES EXISTING AS A MATTER OF LAW SHALL NOT EXCEED THE DURATION OF THIS LIMITED WARRANTY. IN THE EVENT THE SYSTEM FAILS TO CONFORM TO THIS WARRANTY, AXIALL'S EXCLUSIVE OBLIGATION AND YOUR EXCLUSIVE REMEDY SHALL BE LIMITED TO, AT AXIALL'S OPTION, THE FURNISHING OF NEEDED REPLACEMENT PARTS OR THE FURNISHING OF A NEW SYSTEM (BUT THIS DOES NOT INCLUDE INSTALLATION OR THE COSTS FOR INSTALLATION). EXCEPT AS PROVIDED IN THE IMMEDIATELY PRECEDING SENTENCE, IN NO EVENT WILL AXIALL BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO ANY USE MADE OF THE SYSTEM.

Warranty Conditions. This Limited Warranty shall apply and be effective only if: (i) the System is installed and

operated and maintained in accordance with this manual and the instructions accompanying the System; (ii) you, at your cost, promptly return the System or defective part to such location as may be specified by Axiall; and, (iii) only Axiall's *Acid-Rite* sodium bisulfate tablets are used in the System. If any of these conditions are not met, this Limited Warranty will not apply and you acknowledge and agree that your purchase of the System will be on an "AS-IS" basis without any warranty of any kind whatsoever having been provided by Axiall.

You assume all responsibility and risk and liability arising from: (i) the unloading, installation, storage, handling and use of the System, including use thereof alone or in combination with other materials; (ii) the improper functioning or failure of unloading, installation, transportation or storage equipment you use, whether furnished or recommended by Axiall or not; and, (iii) the failure to comply with laws, rules and regulations governing storage, unloading, installation, handling, and use of the System. You will indemnify, hold harmless, and defend Axiall from and against any claim, suit, damage, cost, expense, fine, liability, or cause of action whatsoever, including reasonable attorney fees, on account of relating to, or arising out of the use, possession, installation or resale of the System.

This Limited Warranty gives you specific rights, and you also may have other rights, which vary from jurisdiction to jurisdiction. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Some jurisdictions do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.