

Accu-Tab® PowerBase® 3012AT by Axial Corporation

Installation and Operating Instructions



DANGER:

DO NOT MIX CHEMICALS!

The *PowerBase* 3012AT chlorinator system is designed for use with Axial Corp. approved tablets only. Do not use Cal-Hypo tablets with stabilized chlorine or bromine products, or other sanitizing chemicals.

Fire or explosion could result.

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System Description

The ACCU-TAB® tablet chlorinator system incorporates an Axial Corporation chlorinator, which is designed to utilize Axial's ACCU-TAB® Blue SI calcium hypochlorite tablets. The chlorinator is mounted on an aluminum frame. Included in the system is an integrated, level controlled solution tank, which supplies a centrifugal pump. Using a manually adjusted valve and flow meter the amount of water through the chlorinator is controlled. This results in a constant and predictable rate of chlorine delivery. Additional water is supplied to the solution tank, with float level control, to assure the pump does not run dry.

Overflow protection is standard. Two additional level switches in the top area of the Solution Tank (4" apart) will flip a latching relay in the electrical box causing the pump to turn on/off as needed.

The chlorination system is designed for use ONLY with Axial *Accu-Tab* Blue SI tablets utilizing the Axial erosion feeder technology that erodes only the bottom layer of tablets on the sieve plate, while keeping tablets above the sieve plate dry and ready for use. Tablets other than Axial *Accu-Tab* Blue SI tablets will have different delivery rates, resulting in improper chlorine delivery.

Installation and Start-Up Instructions

1. Uncrate, remove from pallet, and check for damage that may have occurred during shipping.
2. Locate Chlorination System in adequately ventilated area and on level ground. If system is in area subject to standing water, then system should be raised above standing water. Adjust leveling feet as necessary.



3. All systems are tested in full operation at the factory, however fittings may loosen during shipping. **Before Installing System**, hand-tighten all fittings on pipe unions.
4. Use 1-1/2" minimum piping (2" minimum Model 3140) on the chlorinator inlet and outlet piping to ensure ample supply of water. (Refer to the chart at the end of these instructions for the minimum required system supply water flow rate.) Use isolation valves at main system connections. A check valve **MUST** be installed on the discharge line from the chlorinator.



Inlet



Outlet

5. Connect cords to proper power source and controller source. Plugs are labeled.



6. Once the power and water input and output connections are in place, open isolation valves and check for leaks. Supply water will begin filling the tank through the float valve. This will automatically prime the pump. (Any air initially in the pump will vent into the solution tank through the blue prime line.)



7. Turn system on using the controller.
8. Open the pump discharge valve slightly to start water flow through system.



9. Open inlet valve and set to desired flow rate.



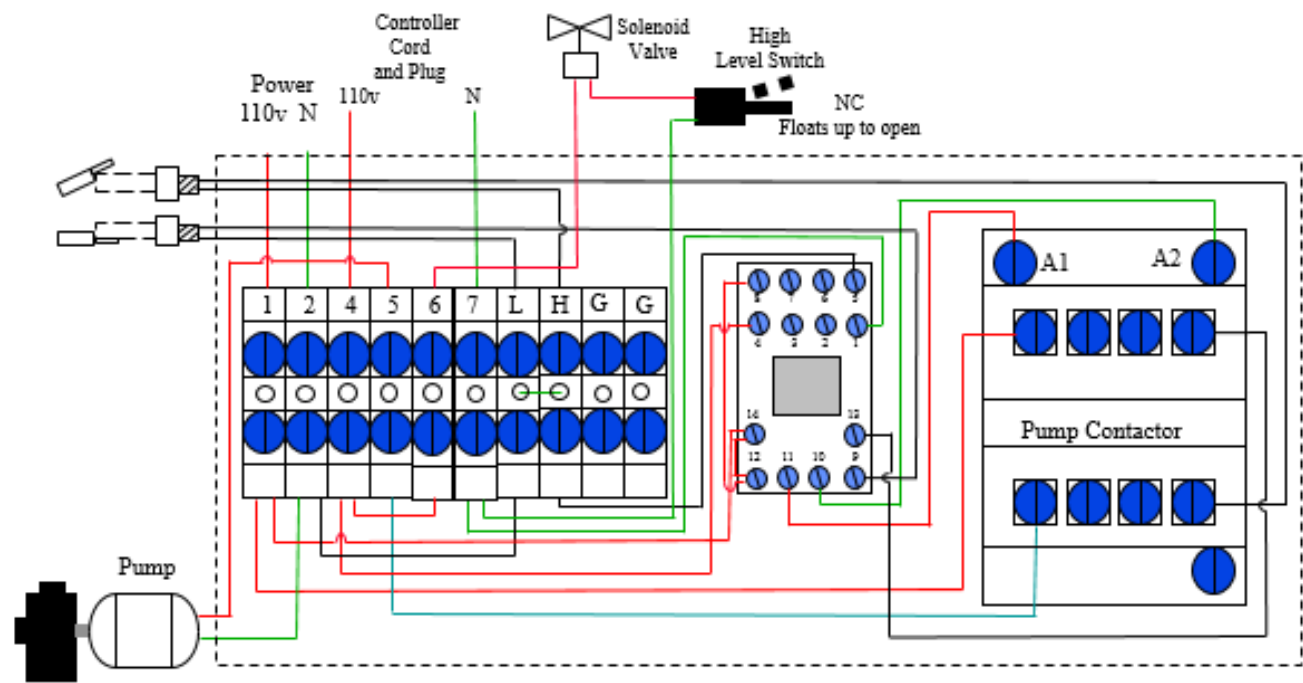
10. Slowly, and in small increments, continue to open the discharge valve, and adjust inlet valve as necessary to get desired inlet flow.
11. Make incremental changes to the discharge valve until the tank water level drops and stabilizes at approximately $\frac{3}{4}$ tank level.



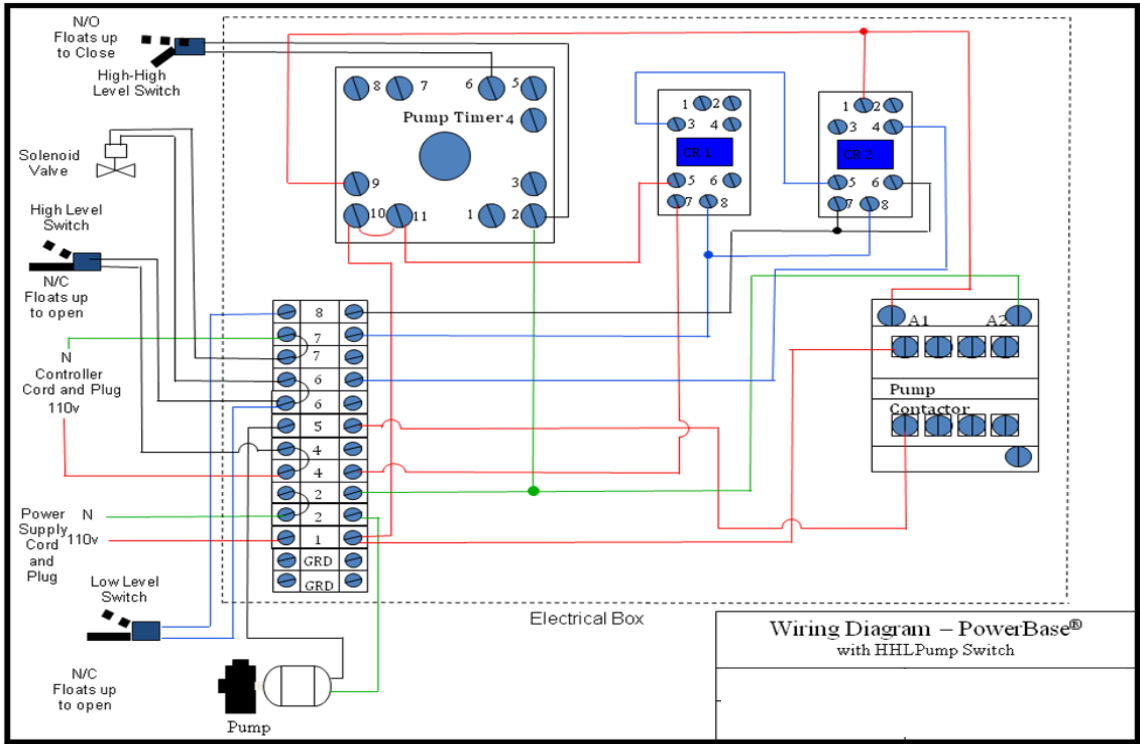
12. Turn the system OFF and ON several times, allowing it to operate for several minutes each time. Check all connections for leaks, make sure the delivery pump suction always remains covered with water.
13. To begin chlorinating, remove the chlorinator lid and fill the Chlorinator with ACCU-TAB® Blue SI Tablets.
14. Check the system daily for leaks and proper operation of all components.
15. Adjust the flow rate through the chlorinator by adjusting the inlet valve.

MINIMUM SUPPLY WATER FLOW REQUIREMENTS

Model	Minimum supply flow, gpm
3012 AT	15



Electrical Drawing Base System



Operating and Maintenance Instructions

A. Solution Tank Leveling

(Tank level runs low causing the pump to lose prime)

This is caused by the pump moving more water than is fed to the system. This can lead to inconsistent chlorine residuals, and can lead to premature pump motor failure. Follow this procedure to adjust:

1. Slowly, and using small increments, close the pump discharge valve.
2. Make incremental changes to the discharge valve until the tank water level rises and stabilizes, and is approximately at $\frac{1}{2}$ to $\frac{3}{4}$ tank level.

(Tank level runs high causing the solenoid to close)

This is caused by either too high a flow through the chlorinator, or the discharge valve is closed too much. Follow the procedure to adjust:

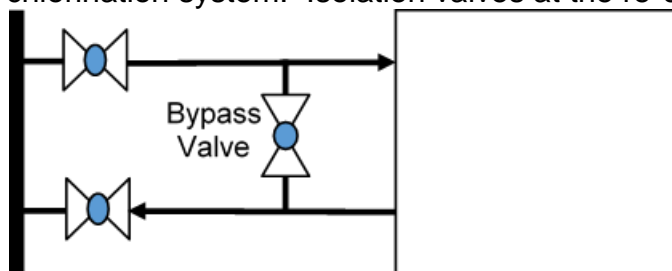
1. Slowly, and using small increments, open the discharge valve.
2. Make incremental changes to the discharge valve until the tank water level drops and stabilizes, and is approximately at $\frac{1}{2}$ to $\frac{3}{4}$ tank level.
3. If level will not drop, begin reducing the water flow to the chlorinator. If this results in low chlorine residuals, contact PPG Technical Service at 800-245-2974 for assistance.

B. Cleaning the chlorination system

Over time, and depending on the pool water chemical characteristics, some calcium scale may build up in the system.

Inlet/Outlet Bypass

To facilitate the cleaning process a Bypass may be installed between the inlet and outlet lines to/from the chlorination system. Isolation valves at the re-circulation line are required.



Following procedure to clean:

1. Prepare 2 gallons of weak acid solution.
2. Open doors and windows for ventilation.
3. Reduce the tablet volume in the chlorinator by operating the system to deplete the tablets.
4. Physically remove any remaining tablets or pieces of tablets. Store in a safe manner (clean pail or surface).
5. Operate the system for 30 minutes to flush out all remaining chlorine solution, and hose down inside of chlorinator walls.
6. Shut down the system, and close isolation valve on line feeding the system
7. Pump tank level down to about $\frac{3}{4}$ tank if necessary to prevent system from overflowing while adding cleaning acid
8. Close the discharge isolation valve.
9. Turn system on using controller to start flow circulation through tank.
10. Very slowly and carefully pour the weak acid solution into chlorinator.

CAUTION: AS ACID DISSOLVES SCALE, CARBON DIOXIDE WILL BE RELEASED, AND FOAMING WILL OCCUR. IF ANY CHLORINE WAS LEFT IN THE TANK OR CHLORINATOR, CHLORINE GAS MAY ALSO BE RELEASED.

11. Operate for 10-15 minutes.
12. Open isolation valves on the inlet and discharge to the system.
13. Be prepared to handle some acid being discharged to the pool.
14. Operate for 30 minutes to flush system, and thoroughly wash out chlorinator with a hose.
15. Switch off.
16. Inspect for any debris in the chlorinator or tank, and remove if found.
17. Add tablets and restart system to resume chlorination.

Operating and Maintenance Instructions (Con't)

- C. Cleaning the chlorination system
 1. Clean the system as outlined above once per year
 2. Float Valve must be free to move. Disassemble valve and clean.
 3. Disassemble Solenoid Valve and clean out debris and make sure small orifices are clear
 4. Disassemble Discharge Check Valve and soak in muriatic acid solution if necessary.

Operating Troubleshooting Guide

- A. Tank fills and **continuously overflows** when system shuts down.
 1. Solenoid has failed
 - a. Shut inlet isolation valve to verify that it is the solenoid
 - b. Disassemble the solenoid to check for debris.
 - c. Reassemble the solenoid, and open isolation valve.
 - d. If overflowing continues, replace solenoid valve.
 2. Check valve has failed
 1. Shut outlet isolation valve to verify that it is the check valve.
 2. Disassemble the check valve to check for debris or scale.
 3. If scale is present, clean with a dilute acid solution.
 4. Reassemble the check valve, and open the isolation valve.
 5. If overflowing continues, replace check valve.
- B. Tank fills and **overflows slightly**, then stops.
 1. Level in the solution tank is too high during operation. Refer to "Solution Tank Leveling" in the "Operating and Maintenance Instructions" section of this manual.
- C. Tank continually runs low level/empty, causing pump to lose prime.
 1. Float Valve not operating properly
 - a. Remove solution tank lid and verify that float is free to move up/down.
 - b. If the float is in the up position, and cannot be freed, replace float valve.
 2. Inlet solenoid failure
 - a. Check flow rate on flow meter.
 - b. If no flow, then check for power to solenoid valve.
 - c. If no power to valve, check electrical system using electrical schematic.
 - d. If power to valve, close inlet isolation valve, disassemble the solenoid and check for debris.
 - e. If no debris, then solenoid is faulty.
 - f. Replace solenoid valve.
 3. Improper tank leveling
 - a. Refer to "Solution Tank Leveling" in the "Operating and Maintenance Instructions" section of this manual.
- D. Contact PPG Technical Service (800-245-2974) for assistance.

CAL-HYPO COMERCIAL 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 Accu-Tab® Blue SI calcium hypochlorite 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.