INSTALLATION GUIDE

PolarisWatermatic

G1000A Feeder

IMPORTANT INFORMATION

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IMPORTANT SAFETY INSTRUCTIONS

When installing and using this product, basic safety precautions should always be followed including the following:

1. READ AND FOLLOW ALL INSTRUCTIONS.
2. DANGER—To reduce risk of injury, do not permit children to use this product unless they are closely supervised at all times.
3. SAVE THESE INSTRUCTIONS.

I. INTRODUCTION

The Polaris Watermatic® G1000A Feeder is designed to monitor the pH level in swimming pools and spas. This state-of-the-art feeder is designed to feed a measured amount of dry acid upon demand during the filtration cycle. The G1000A must be used with a controller. The Watermatic C560, C600 and C660 controllers are designed for this feeder.

IMPORTANT

THE POLARIS WATERMATIC G1000A IS DESIGNED FOR AT OR ABOVE WATER LEVEL INSTALLATION.

II. INSTALLATION

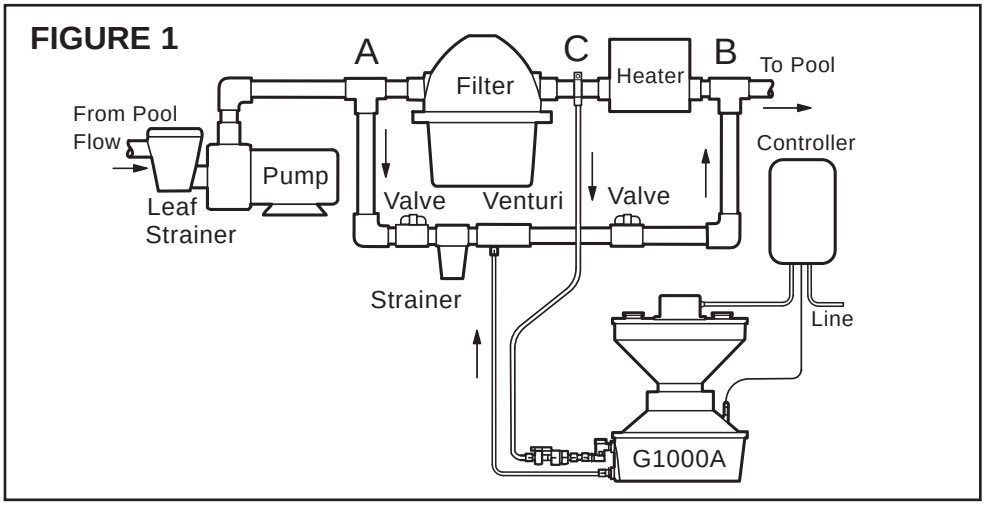
The G1000A feeder is designed to be installed near the filter equipment of the pool or spa. The feeder should be mounted within eight feet of the filter pump and the return line. The controller must be mounted on a wall or panel within eight feet of the feeder and 10 feet or more from the swimming pool or spa.

TOOLS AND MATERIALS REQUIRED

- Utility knife
- Crescent wrench
- DPD test kit
- Fasteners for control box
- Flat screwdriver
- Volt meter
- Electric drill and 7/16” drill bit
- Electrical wire and connectors per local code
- Phillips screwdriver
- Teflon Paste
- 1/2” PVC pipe Schedule 40

Due to the pH nature of the material being fed, it is recommended that the feeder be plumbed with a venturi kit so that the chemical is introduced to the pool down-stream of all equipment.

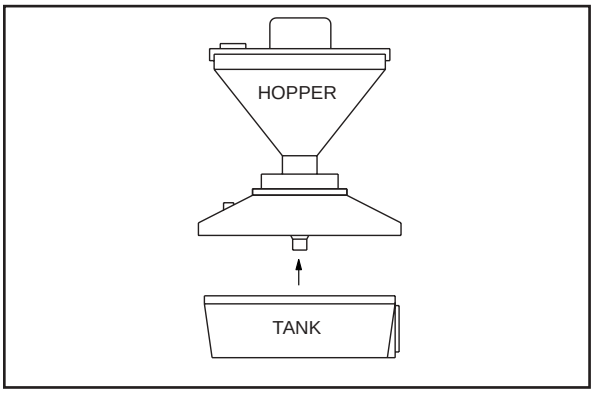
FIGURE 1



ASSEMBLY AND INSTALLATION INSTRUCTIONS

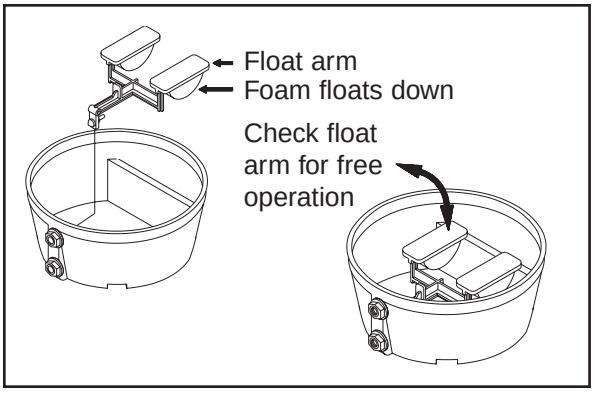
STEP 1

Separate Hopper Assembly from tank. Set Hopper Assembly aside.



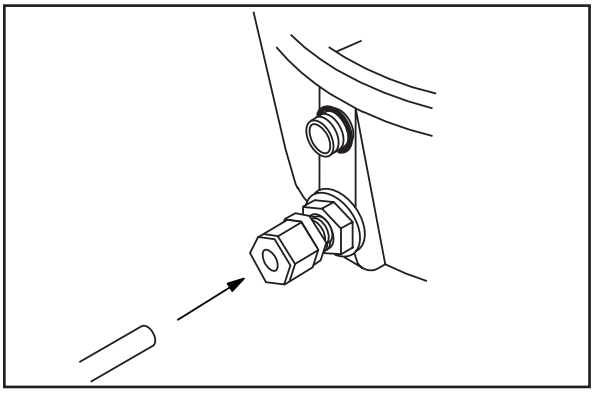
STEP 2

Snap Float Arm into tank bracket if not in place.



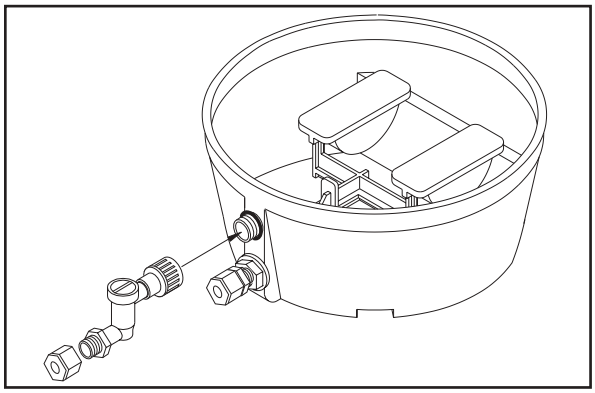
STEP 3

Install male tube adapter, applying teflon paste to the pipe thread. DO NOT OVERTIGHTEN.



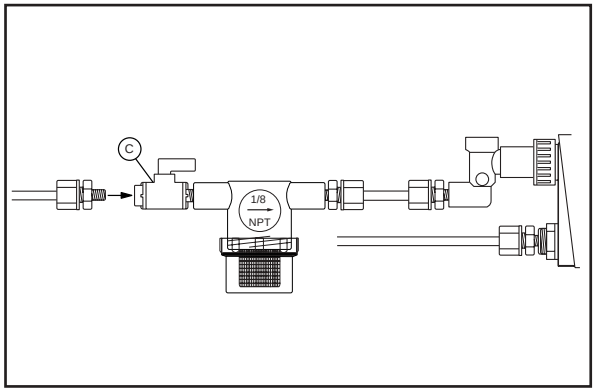
STEP 4

Install the check/flow valve in a vertical position as shown. DO NOT OVERTIGHTEN.



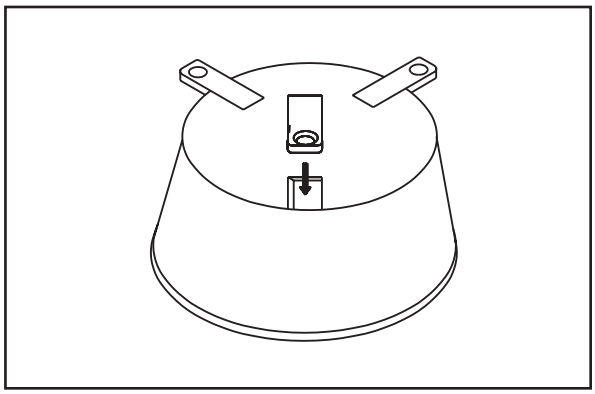
STEP 5

Attach the valve strainer assembly to check/flow valve unit and hand tighten. See arrow on strainer for proper flow direction.



STEP 6 (Optional)

If unit is to be secured in position, install the three legs by hammering them into place. A small amount of PVC glue can be used.



STEP 7

Be sure power is shut off to the filter pump. Close valves (if any) between the pump and the pool. Position the tank on a level pad near the filter pump, but no closer then six inches from the heater.

The feeder must be installed at or above water level. If necessary, mount the unit on a shelf.

STEP 8

Install a PVC tee with a 1/2" female pipe thread, tap a 1/2" FPT hole or use a saddle clamp which has a 1/2" FPT at point A on FIGURE 1 on page 1.

STEP 9

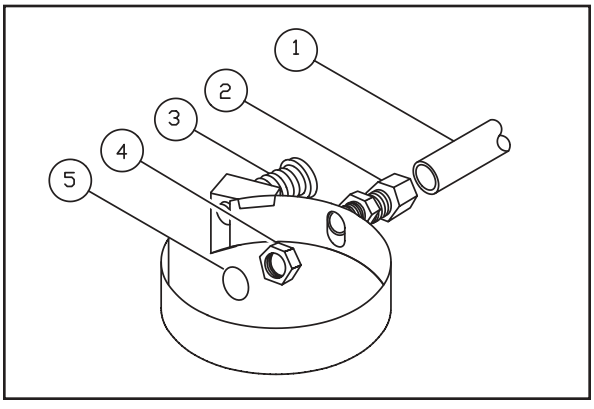
Install a PVC tee with a 1/2" female pipe thread, tap a 1/2" FPT hole or use a saddle clamp which has a 1/2" FPT at point B (see FIGURE 1 on page 1).

STEP 10

Install the Venturi and in-line strainer as shown in FIGURE 1 on page 1 using rigid 1/2" PVC pipe. Ball valves should be used on each side of the Venturi strainer assembly to facilitate cleaning of the filter screen. **The Venturi assembly must be turned off during backwash to prevent the in-line strainer from becoming filled with debris.**

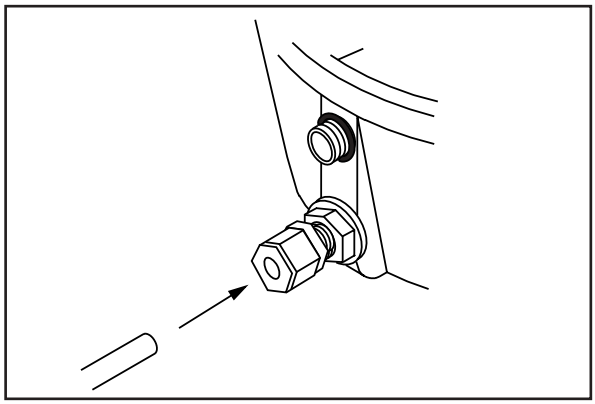
STEP 11

Drill 7/16" hole in pipe after the filter. Insert male tube adapter with washer into hole. Attach clamp to pipe and fitting. Tighten and attach to feeder as shown in Figure 1 on page 1.



STEP 12

Place compression nut on one end of blue tube and attach to cross pump tank. Hand tighten nut. Do not use pliers.

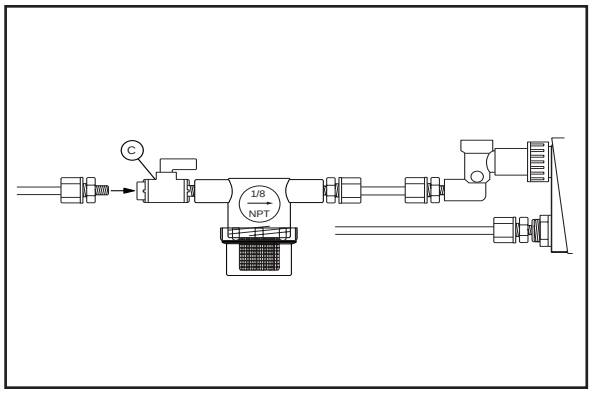


STEP 13

Make sure that all fittings are secure and tight (see FIGURE 1 on page 1).

STEP 14

Place compression nut on one end of blue tube and attach to ON/OFF valve (location C). Hand tighten nut.

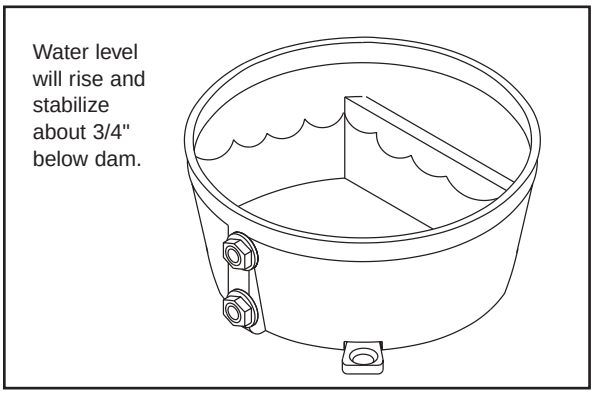


STEP 15

Turn on power to filter pump and prime pump. Drain air from filter tank. Open valves (if any) between the pool filter system and pool.

STEP 16

Water will enter the check/flow valve and begin to fill cross-pump tank. Ball in check/flow valve (flow indicator) will become active with adequate water pressure. Be sure on/off valve is ON.



STEP 17

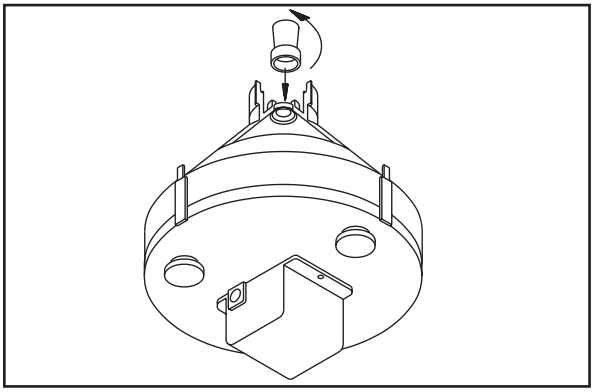
Select measuring cone.

CONE		DOSAGE	POOL SIZE Gallons
B		2 oz.	50,000-150,000
C		1 oz.	2,500-50,000

1 oz. cone factory installed

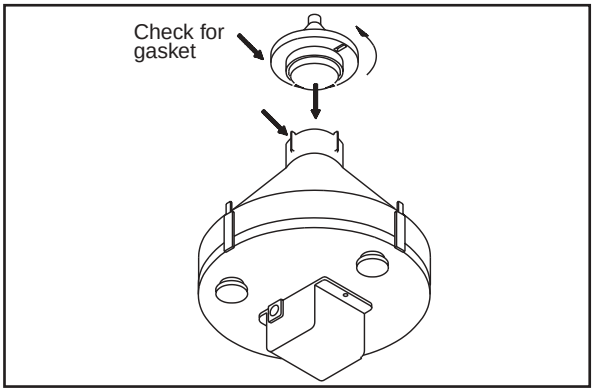
STEP 18

Remove measuring cup and thread selected measuring cone onto Hopper.



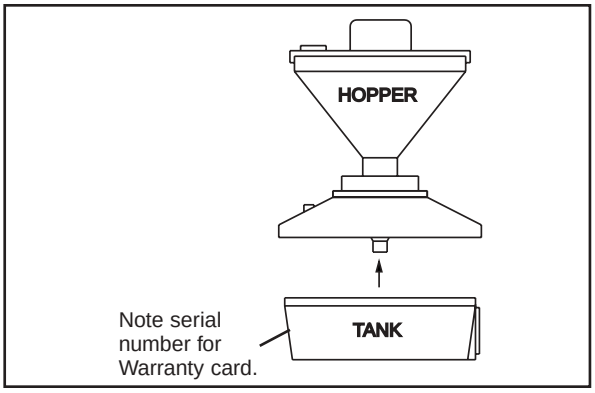
STEP 19

Install measuring cup.

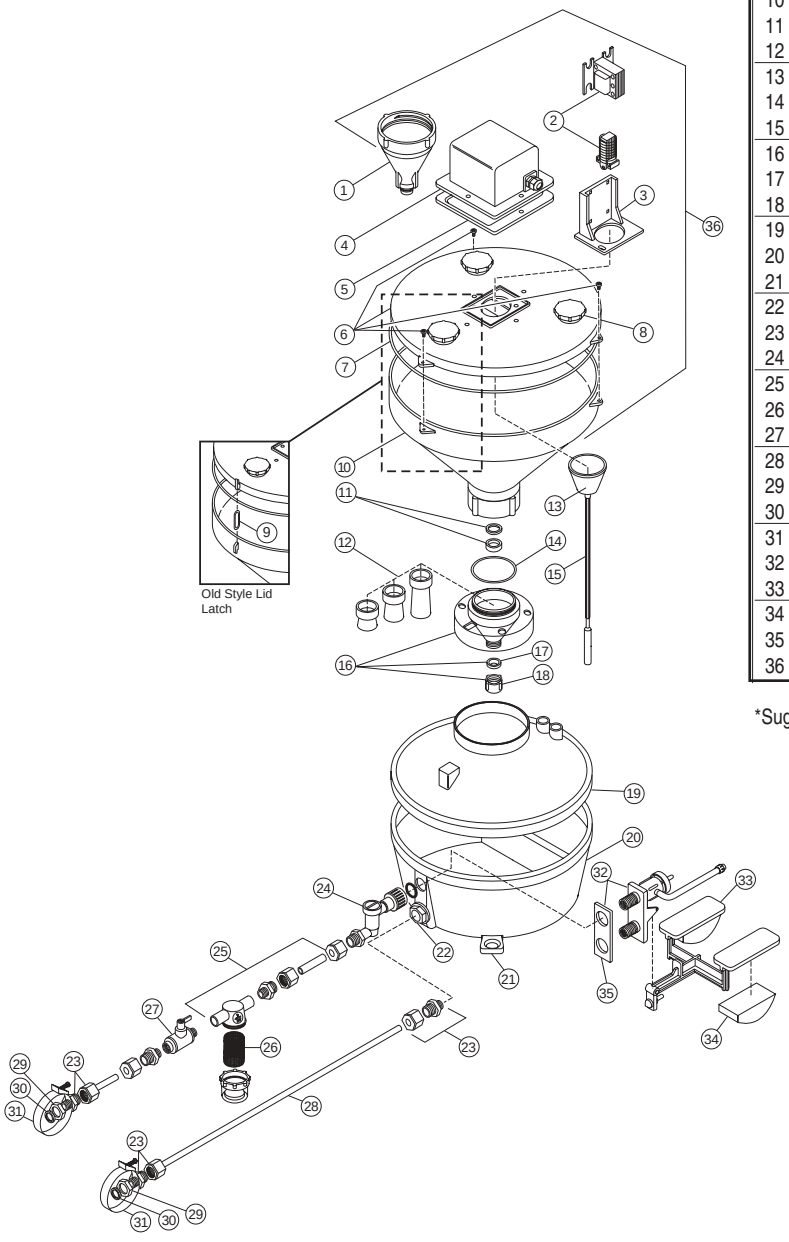


STEP 20

Place Hopper Assembly onto tank. You are now ready to install the Controller.



III. G1000A EXPLODED PARTS DIAGRAM



No.	Part #	Description	Qty
	G1000	Dichlor Granular Feeder, 120V	
	G1000A	Acid Granular Feeder, 120V	
1	2-250	Funnel	1
2	3-150*	Piston Solenoid, 120V	1
	3-151	Piston Solenoid, 240V	1
3	1-030	Bracket, Solenoid	1
4	1-010	Cover, Solenoid	1
5	1-020	Gasket, Solenoid Cover	1
6	1-094	Hopper Lid White (New Style)	1
	1-095	Hopper Lid Red (New Style)	1
7	1-110	Gasket, Hopper Lid	1
8	1-052	Fill Caps, Set of 3	1
9	4-011	Lid Latch O-ring, Set of 3 (Old Style)	1
10	8-175	Hopper Assembly (New Style)	1
11	2-120	Piston Seat, Upper w/Retainer Ring	1
12	1-175	Measuring Cone Set	1
13	4-030*	Piston Boot	1
14	1-190	Gasket, Collar	1
15	1-290*	Piston, Hopper	1
16	8-135	Measuring Cup Assembly	1
17	2-260*	Piston Seat, Lower	1
18	1-260	Cup Guard	1
19	1-310	Lid, Tank	1
20	1-330	Tank	1
21	2-231	Anchor, Tank, Set of 3	1
22	1-350	Nut, Diverter Valve Assembly	1
23	2-135*	1/8" M x 3/8" Jaco® Fitting	4
24	8-050	Flow Indicator, Clear	1
25	8-110	Strainer Assembly	1
26	8-112	Screen, Strainer Assembly	1
27	8-090*	On/Off Valve, 1/8"	1
28	2-270*	3/8" Tube, 20 Foot, Blue	1
29	2-139	Nylon Jam Nut	2
30	4-190	Washer, Pipe Seal	2
31	5-251	Clamp, Snap Lock	2
32	8-010*	Diverter Valve Assembly	1
33	8-030*	Float Arm Assembly	1
34	8-510	Float	2
35	1-370	Gasket, Diverter Valve Assembly	1
36	8-215	Hopper and Lid Assembly	1

*Suggested stocking parts.

IV. OPERATION

A. PRODUCT DESCRIPTION AND USE

When the pool or spa pH moves above the desired level, the controller activates the G1000A feeder and a measured amount of dry acid is dispensed into the water.

B. PROPER pH LEVELS

Check the pH level of your pool or spa with your test kit. The pH should be maintained between 7.2 and 7.6 to maximize sanitizer efficiency and ensure the accuracy of the Watermatic Controller. **A pH level above or below this range will cause inaccurate sensor readings**. High or low pH levels can also cause irritation to swimmers as well as other problems associated with the pool and equipment.

C. START-UP OPERATIONS

Remove 1 of the 3 fill caps on the top lid and carefully pour in dry acid using the funnel provided, see exploded parts diagram. Remove the funnel and replace caps tightly. Hopper will hold about 8 lbs. of dry acid chemical. **Be sure no water or moisture gets into hopper. Note: The straps on the side of the hopper are for servicing only. DO NOT REMOVE.**

D. FILLING THE FEEDER

The G1000A dry acid feeder should be filled only through the three holes in the hopper lid. The three rubber lid latches should be removed only if the unit needs to be serviced.

If the hopper lid is removed with material in the hopper, the material will flow out of the bottom of the hopper. DO NOT RE-USE this material unless you have placed a clean, empty bucket under the hopper to catch the material.

DO NOT attempt to PUSH THE PISTON back into the hopper while the material is still in the hopper. Damage to the piston, solenoid or spring can occur.

When filling, DO NOT SHAKE the feeder to attempt to get more granular material into the unit. Damage to the piston, solenoid spring or rubber boot can occur if the granular material is packed up against the rubber piston boot.

When using dry acid materials from a bulk container, it is imperative that the bulk container be kept sealed and free of any moisture.

It is recommended that no more than one to two weeks of material be put into the hopper at one time. The hopper on a spa should not be more than half full. Dry acid material, by nature, tends to pick up moisture. Attempts to put several months supply in the hopper can result in the material forming chunks which adversely affect the unit's feeding abilities.

E. USE OF EXTENSION HOPPERS AND EXTENSION BOTTLES

Watermatic feeders provide the option of using extension hoppers or extension bottles which increase the amount of dry acid material available for use. Extension bottles MAY NOT be watertight, so when using bottles, position the feeder in a protected area out of the elements.

Polaris DOES NOT RECOMMEND the use of extension hoppers or extension bottles on spas or pools under 50,000 gallons.

As mentioned above, only use the number of bottles or the amount of material that will be used in a relatively short period of time.

V. MAINTENANCE

A. CLEAN STRAINER SCREEN

See FIGURE 1 location B on page 1.

The strainer screen is located on the pressure side of the feeder to protect the unit from being clogged by debris.

Always turn the on/off valve to the OFF position while cleaning or backwashing the filter. Remember to turn the valve back to the ON position when the procedure is complete.

Regularly examine the movement of the ball in the check/flow valve. If the filter pump is on and the ball is not active, then water is not running through the feeder.

Verify that the on/off valve is ON. If it is, strainer cleaning may be required.

- Turn on/off valve OFF and remove the screen from strainer. Clean with water and replace. Turn the valve back ON.
- If there is still inadequate water pressure to the feeder, then clean the filter.
- If the screen gets clogged regularly, the filter may require service.

B. DRY ACID IN HOPPER

Be sure to check dry acid level in hopper and refill when low.

Replace caps tightly after adding dry acid chemical.

Be sure funnel is completely dry before pouring dry acid.

If water or moisture enters hopper, dry acid will develop lumps and may not feed properly.

- If dry acid must be changed, remove hopper assembly from tank and set over bucket. Depending on the style of the lid, release the three o-ring bands (old style) or unscrew the three screws (newer style) and carefully lift the lid straight up; dry acid will flow out the bottom of the cup. Be sure the hopper and measuring cup are completely clean and dry, then replace top, being careful not to damage the piston.
- Add new dry acid to unit.

C. CLEAN MEASURING CUP

Should the unit fail to dispense the pH chemical, check for a clog in the bottom of the measuring cup. If cleaning is necessary:

- Remove hopper unit from cross pump tank and turn upside down. Unscrew measuring cup. Clean measuring cup with tap water.

  DRY COMPLETELY WITH CLEAN TOWEL BEFORE REPLACING.
- Be sure that the piston tip is clean and dry.
- Thread on measuring cup. Set hopper back onto tank.

D. WINTERIZING

If the system is subject to extended shutdowns or is located in colder climates, it is important to winterize the system.

1. Turn off the main power to the controller.
2. Loosen the compression fitting nuts and gently remove the sensors from the tank lid.

   The sensor tips must be stored in a protective cap or bottle filled with a liquid solution of one teaspoon salt and three teaspoons water. Mix the solution thoroughly and make sure the solution completely covers the tips of the sensors.

   STORE THE SENSORS IN A WARM PLACE. DO NOT EXPOSE SENSORS TO FREEZING TEMPERATURES.
3. Drain the water from the tank.

VI. TROUBLESHOOTING

Problem: **Insufficient water flow to the feeder, indicated by little or no movement of the gray ball in the Check/flow valve.**

Solution:
1. Verify that on/off valve is ON.
2. Check strainer screen for dirt and debris, clean if necessary.
3. Check filter, clean or backwash if needed.
4. See if filter pump is working properly. Clean pump basket or repair pump if necessary.

Problem: Sanitizer level too low.

Solution:
1. Check Indicator knob setting. If it is too low, turn it up.
2. Test pH in pool, it may be too low. Adjust if necessary.
3. Check for a water flow problem and refer to the solutions above.
4. Refill sanitizer hopper if empty.
5. Hopper may be clogged. Clean and dry hopper, replace sanitizer.
6. Check for solenoid failure and replace if necessary.
7. Check for sensor failure and replace if necessary.

Problem: **Sanitizer level too high.**

Solution:
1. Check the indicator knob setting. If it is too high, turn it down.
2. Test pH in pool, it may be too high. Adjust if necessary.
3. Check the sensor tip, it may be dirty and need cleaning.

Problem: **All controller lights are off.**

Solution:
1. Confirm the power supply to the unit.
2. Check for bad fuses and replace as needed.

Problem: **Cross-pump tank is overflowing.**

Solution:
1. Examine installation and mounting. Unit should be mounted above water level.
2. Check the float arm installation and verify that it is in the proper position.

Problem: **Blown fuses.**

Solution:
1. Make sure the Solenoid can move freely.

VII. LIMITED WARRANTY

This limited warranty is extended to the original consumer purchaser of this Polaris Watermatic G1000A Feeder manufactured by Polaris Pool Systems, Inc., 2620 Commerce Way, Vista, California 92083-8438, USA.

Polaris warrants the unit it manufactures, including all parts and components thereof, to be free of defects in material and workmanship. This warranty does not cover plumbing or normal replacement items. including gaskets and o-rings. The warranty does not cover improper installation of the Polaris Watermatic G1000A. Installation instructions should be read before installation and followed carefully. If you have any questions regarding your Polaris Watermatic Feeder, please contact us at 1-800-822-7933. Be sure to provide the serial number of your unit when you call.

This warranty commences on the date of installation of the Polaris unit. The unit is warranted for a period of one (1) year.

The limited warranty does not apply if the failure is caused or contributed to by any of the following: power failure or reduction, unusual atmospheric conditions, improper handling, improper storage, winter freezing, abuse, improper installation, unsuitable application, lack of reasonable and necessary maintenance, natural disasters, or repairs/alterations made or attempted by other than Polaris or one of its Authorized Service Centers. Polaris will repair or replace, at its option, a unit or part proved to be defective within the warranty period and under the conditions of the warranty.

The consumer must deliver or ship the unit or warranty parts freight prepaid to the nearest Polaris Authorized Service Center or return it freight prepaid (after proper authorization) to the plant of manufacture. Authorization to return a unit or part to the plant of manufacture must be obtained from the Polaris Customer Service Department. Check with your dealer for the local procedure before exercising this warranty. If further directions or instructions should be required, contact the Customer Service Department at 1-800-822-7933. Be sure to insure your shipments against loss or damage in transit.

Polaris is not responsible for the cost of removal of the unit or part, damages due to removal, or any other expenses incurred in shipping the unit or part to or from the factory or its Authorized Service Centers, or the installation of the repaired or replacement unit. The consumer must bear these expenses.

This warranty does not cover repair or replacement of a unit or part except at our factory or a Polaris Authorized Service Center.

THIS LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL SUCH OTHER WARRANTIES ARE DISCLAIMED EXCEPT TO THE EXTENT ANY IMPLIED WARRANTY MAY BE IMPOSED BY STATE CONSUMER LAW. ANY SUCH IMPLIED WARRANTY IMPOSED BY STATE CONSUMER LAW IS LIMITED IN DURATION TO ONE (1) YEAR FROM DATE OF PURCHASE. IN NO EVENT SHALL POLARIS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY NATURE OR KIND OR FOR DAMAGES TO PERSONS OR PROPERTY, INCLUDING ANY DAMAGE RESULTING FROM THE USE OF THE POLARIS WATERMATIC G1000A FEEDER WITH A SUBSTANDARD POOL CIRCULATION SYSTEM.

Some states do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you.

This limited warranty is valid only in the United States of America and Canada, and it does not apply to Polaris Watermatic Feeders sold or installed in any other country.

Polaris

Your pool. Our reputation.

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