

# INSTALLATION GUIDE AND OWNER'S MANUAL



 **Polaris Watermatic**  
**G7500 120V Granular Feeder**

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IMPORTANT INFORMATION

SERIAL NUMBER

# IMPORTANT SAFETY INSTRUCTIONS



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

## READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.

Installation of this equipment should be performed by a licensed electrician and conform to all National Electric Code (NEC), state and local codes. Installations in Canada must comply with CEC requirements.

### **WARNING: To reduce the risk of electrical shock:**

- Install all electrical equipment at least 10 feet (3 m) from inside wall of pool or spa.
- Always disconnect power before servicing this equipment.

**WARNING:** To reduce risk of injury, do not permit children to use this product unless they are closely supervised at all times.

## SAVE THESE INSTRUCTIONS

### **For customer service or support:**

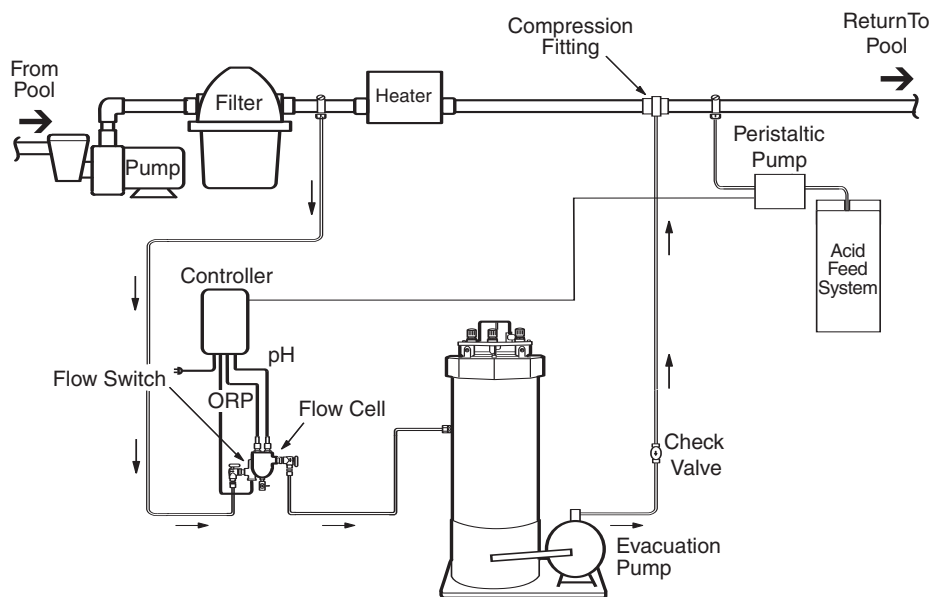
- For online support: [www.polarispool.com](http://www.polarispool.com)
- To contact Polaris: **US and Canada**  
Customer Service  
2620 Commerce Way  
Vista, CA 92081-8438  
1-800-822-7933

# Introduction

The Polaris Watermatic G7500 Calcium Hypochlorite Feeder with Purge System consists of the feeder tank, purge pump and purge controller mounted on a skid. The feeder is designed to work with a Polaris C660 or C2000 ORP/pH controller to maintain chlorine and pH levels in commercial pools and spas. It is not designed for residential use. The feeder must be used with a controller capable of generating a short feed cycle (approximately 3 to 6 seconds) followed by a delay. Using a controller without this feed cycle will damage the feeder.

During the pool filtration cycle, the feeder dispenses a measured amount of granular calcium hypochlorite into the pool to sanitize. For optimum sanitation results and stable pH balance, the G7500 should also be used with an acid feed system.

## Typical Installation

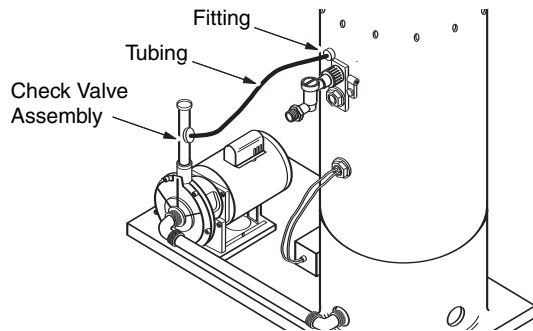


# Installation

## G7500 Feeder

This chlorinator is shipped fully assembled, with the exception of the check valve assembly.

1. Using teflon tape or paste, attach the assembly to the top of the pump.
2. Use the clear tubing provided to attach the check valve to the feeder tank at the fitting above the flow indicator.



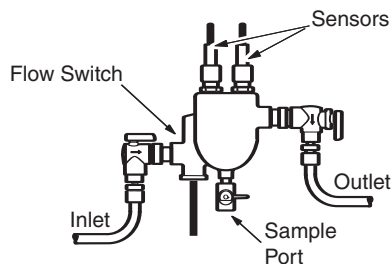
Install the feeder on a level pad, within 8 feet of the filter pump and return line, no closer than 24 inches from the heater and at a minimum of 10 feet from the swimming pool or spa.

**When installing outdoors, protect feeder from the elements with a protective cover.**

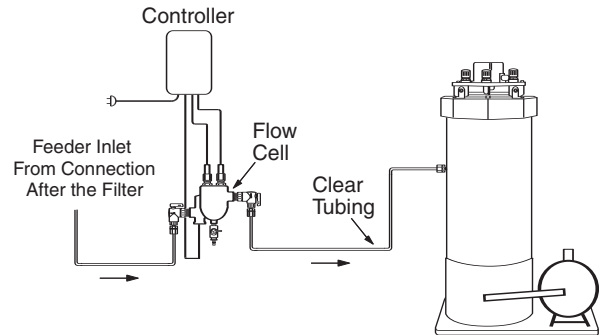
1. Drill and tap a 1/2" NPT hole and install the 1/2" threaded compression fitting on the return line to the pool.
 

**Note:** A 1/2" ball valve (not included) can be installed at this point, if desired.
2. Drill and tap a 1/2" NPT hole into the main pool line after the filter but before the heater for the chlorinator inlet line.
3. Using teflon tape or paste on the threads, screw the 1/2" ball valve/inlet filter assembly into the tapped hole.
4. Run the inlet line for the feeder through the flow cell provided with the controller.

### Flow Cell Assembly



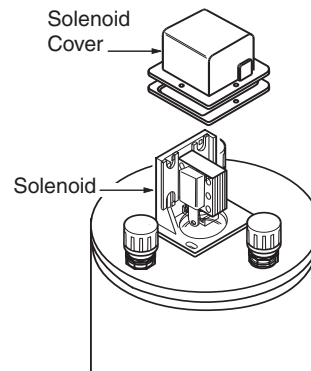
5. Use the clear tubing to connect the outlet side of the flow cell to the male tube adapter on the side of the feeder tank.



## Purge System

The evacuation pump and the purge controller, which make up the purge system, are wired for low voltage. A 110VAC outlet must be available.

1. Connect the 1/2" white tubing attached to the discharge side of the pump line to the compression fitting on the pool return line.
2. Use 16-3 braided wire (check local electrical codes) to connect the solenoid outlet at the top of the feeder to the controller. Provide 2-3 feet of extra wire so the hopper assembly can be removed from the tank and set on the floor for monthly maintenance.



# Operation

## Prior to Start-Up

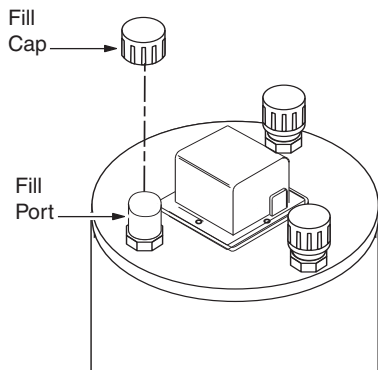
Balance the pool so that the total alkalinity is in the 60 to 80 PPM range and the pH is in the 7.2 to 7.6 range.

1. Open the tank and verify that:
  - The inlet jet (the black fitting at the end of the white tubing) is located directly over the drain hole in the bottom of the blue tank. In addition to filling the tank, this assembly eliminates any vortex that might form at the bottom of the tank during the purge cycle. If a vortex forms, the pump can draw air, stop the tank from draining properly, and shut the system down.
  - The prime line inside the tank (the black 3/8" tubing) is not aimed at the liquid level sensor near the base of the blue tank.
  - The float assembly and the liquid level sensor move freely.
2. Make sure all four DIP switches on the purge controller are in the OFF position.
3. Set the controller for a 5.8 second feed with a 6 minute delay.

## Filling the Feeder

The feeder should be filled only through the three holes in the hopper lid. If the lid is removed with material in the hopper, the material will flow out the bottom. **Do not re-use** this material unless it has been caught in a clean, dry container. **Do not push the piston back** into the hopper while material is still in the hopper.

1. Unscrew and remove all three fill caps on the hopper lid.



2. Carefully pour sanitizer evenly into all three holes using the funnel provided. **Do not shake the feeder when filling.**
3. Once filled, replace and tighten the caps.

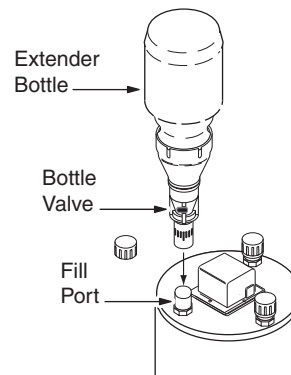
Use no more than one to two weeks of material at a time. Chunks in material will adversely affect the unit's ability to feed. The hopper on a spa should not be more than half full as granular material tends to pick up moisture.

The factory installed "B Cup" is suitable for most applications.

## Extension Hoppers and Bottles

To increase the amount of useable granular material, Watermatic feeders provide the option of using extension hoppers or extension bottles.

1. Remove fill cap from hopper.
2. Slide bottle assembly onto fill port and open bottle valve.



Extension bottles **may not** be watertight so should be protected from the elements.

Polaris **does not recommend** the use of extension hoppers or bottles on pools or spas under 50,000 gallons.

## Start-Up

The purge controller is factory set for a 5-minute fill. As the tank fills, the float switch will close (raise to the horizontal position) and the green light on the purge controller will illuminate. Five minutes after the light comes on, the evacuation pump will activate. If the purge system is turned off, the 5-minute timing cycle is reset.

1. Turn on (switch should be pointing towards the cover and away from the tank) the purge controller.
2. Open any valves that were closed during installation. Turn on the filter pump and prime if necessary.
3. Open the valve feeding the chlorinator. The tank will begin to fill with water.

The tank should fill to between 2 and 4 inches below the bottom of the white floats at the top of the tank.

- If the water is too high, turn down the ball valve on the inlet side.
- If the water is too low, check the plumbing for leaks.

The evacuation pump will drain the tank in less than 2 minutes. Once drained, the liquid level sensor inside the tank drops, the green light goes off and the pump stops. The system then begins a 5-minute pump time out cycle.

It should not be necessary to change the factory fill and timeout settings.

To manually activate the solenoid, push the Manual Feed button on the controller when the feed light is off. Or, turn the controller off, then on while the feed light is lit. Chlorine will drop into the tank.

# Maintenance

## Cleaning the Measuring Cup

Clean weekly or as needed.

1. Close the bottle valves and tap the side of the hopper until the material drops from the fill holes. Remove extender bottles from the top of the feeder and replace the caps.
2. Lift the hopper unit from the tank and turn it upside down. Remove the measuring cup and clean it with tap water. Dry cup completely.
3. Wipe the end of the piston with a damp rag to remove residue. Dry thoroughly.
4. Reinstall the measuring cup and set the hopper back onto the tank.

## Cleaning the Hopper and Extender Bottles

If water or moisture enters the hopper or extender bottles, the chlorine may develop lumps and not feed properly. **Granular Cal Hypo must be stored in a cool, dry place.**

To change the chlorine:

1. Remove the hopper assembly from the tank and set it over a bucket.
2. Loosen the lid screws (3) and carefully lift straight up. Chlorine will flow out the bottom.
3. Clean and dry the hopper and measuring cup. Replace the top, being careful not to damage to the piston.
4. Replace the chlorine bottle(s).

## Cleaning the Mixing Tank

**Make sure all chlorine is flushed from the tank before cleaning.**

Clean monthly or as needed. Maintaining an alkalinity level between 60 and 80 ppm will reduce cleaning frequency requirements.

1. Turn the controller off and remove the hopper.
2. Rinse the float assembly with water to remove granular chlorine.
3. Allow the system to go through two cycles to ensure there is no chlorine in the tank.
4. Turn the evacuation pump off using the switch

on the purge controller J-box. The circulation pump will continue to run.

5. Allow the tank to fill with water. Once full, the float will stop the incoming water. Shut off the incoming water.
6. Add 1/2 to 3/4 gallon of muriatic or lactic acid to the full tank. Allow it to sit for 5 minutes.
7. Turn the purge controller switch to the **on** position to restart the pump. The pump will start after a five-minute delay. Allow the pump to cycle.
8. If there is visible scaling in the tank or line, repeat the cycle.
9. Turn on the incoming water.
10. Replace the chemical hopper and turn on the controller.

## Purge PumpCare

The purge pump has a clear spring check valve on the outlet port. For proper operation this check valve must be kept clear of debris. Otherwise, the tank can overflow during the fill cycle.

## Sensor Tip Care

Refer to the ORP/pH Controller owner's manual for information on cleaning and calibration of the sensors.

## Winterizing

If the G7500 is being used in areas with a colder climate, it is important to winterize the system.

1. Turn off the main power to the controller.
2. Gently remove the sensors from the flow cell assembly and store them 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 it completely covers the tips of the sensors. Store the sensors in a warm place. **Do not expose sensors to freezing temperatures.**
3. Drain all water from the flow cell/flow switch assembly, feeder, and plumbing.

# Troubleshooting

**Action:** The gray ball in the flow indicator is not moving or is moving slowly.

- Solution:
1. Check and clean in-line filter or flow switch.
  2. If tank is filled and red light is on, check purge controller for blockage or calcium build-up. Clean/reset.
  3. If tank is filled and green light is off, check for debris in the liquid level sensor inside the tank.

**Action:** The tank is overflowing.

- Solution:
1. Turn down ball valve on inlet side so tank fills to 2" below the float.
  2. Check purge controller. Clean and reset as necessary.
  3. If tank is filled and green light is off, check for debris in the liquid level sensor inside the tank.
  4. Inspect check valve on pump outlet line. Clean or replace as needed.

**Action:** ORP reading is below set point and the chlorine is low in the pool.

- Solution:
1. Check hopper and fill if it is empty.
  2. Check hopper for blockages and break up any lumps in Cal Hypo.
  3. Check solenoid wiring for corrosion or other damage.
  4. Test sensor. Replace if necessary.
  5. Make sure solenoid moves freely. Replace blown fuse if necessary with a 1.5 amp Slo-Blo fuse.
  6. See controller manual. pH is out of range and safety interlock settings are preventing ORP feeding.

**Action:** Chlorine is low, low ORP light is on and the controller is shut down.

- Solution:
1. Check the sensor.
  2. All Polaris controllers automatically shut down if ORP drops below 100 mV. Check chlorine levels in feeder and pool. If too low, add chlorine to pool to raise ORP above 100 mV.

**Action:** Manual Feed (on controller) will not activate the feeder when the feed light is off.

- Solution:
1. Check and replace fuse if blown.

**Action:** The low ORP light and the high pH light are both on.

- Solution:
1. Switch the sensor connections at the controller.

**Action:** Chlorine is low and display lights are on, but either the power light or the flow light is off.

- Solution:
1. Check the flow switch or jumper flow terminal on the controller.

**Action:** Chlorine is low and the pH feed light is on, or the pH is out of range.

- Solution:
1. See controller manual. pH is out of range and safety interlock settings are preventing ORP feeding.

**Action:** Sanitizer level is too high.

- Solution:
1. The pH level is too high.
  2. ORP reading is depressed by algaecide or another additive.
  3. Total Dissolved Solids (TDS) or conditioner levels are too high.

**Action:** Sanitizer level is too low.

- Solution:
1. The pH level is too low. Low pH levels increase ORP readings.
  2. Algaecide or other additive is eliminating the ORP reading.

**Action:** Pool cloudy or excessive scaling in the feeder and lines.

- Solution:
1. The alkalinity is too high.

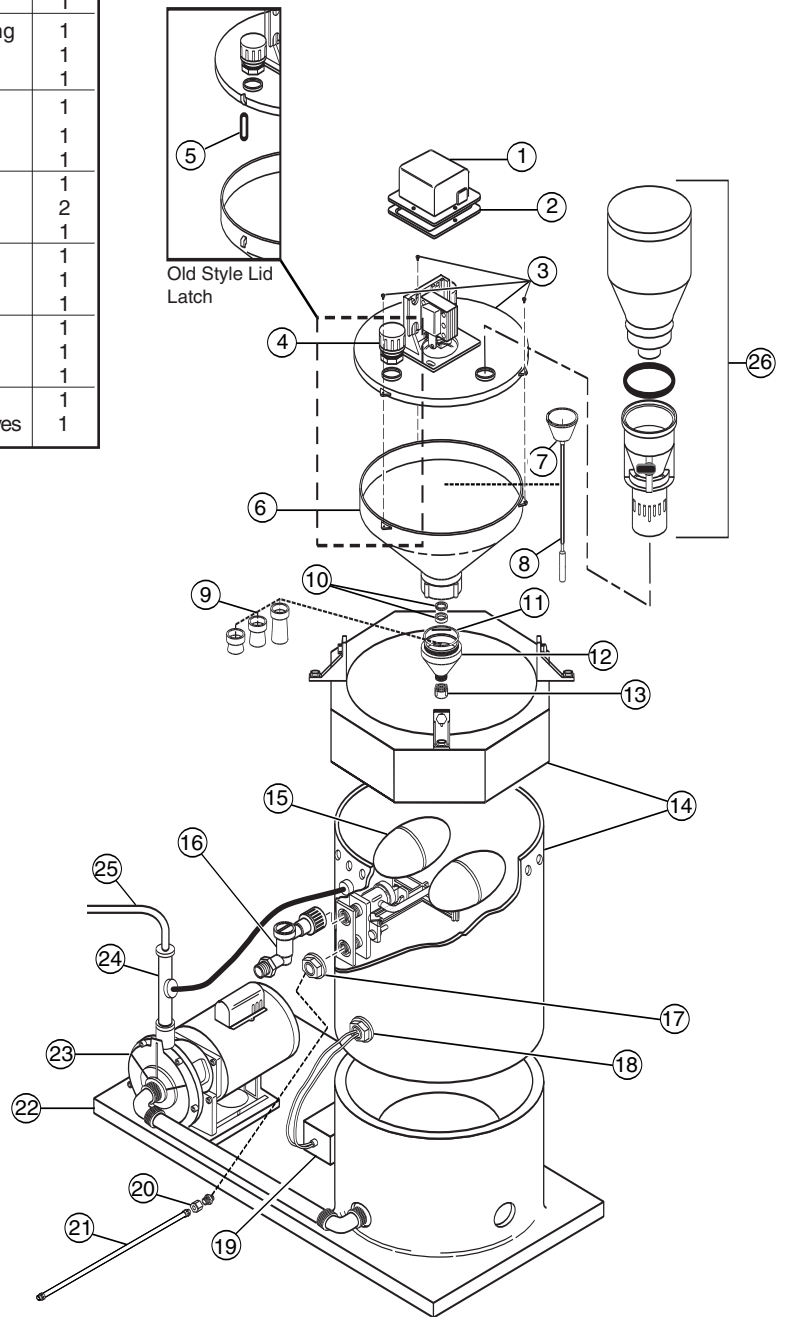
**Action:** Chemical use is excessive.

- Solution:
1. TDS, nitrates, etc. are too high. Pool needs to be balanced.
  2. Low or no stabilizer.
  3. Organic loads (leaves, insects, small animals, etc.) are high, affecting sensor readings.

# Polaris Watermatic

## Exploded Parts Diagram

No.	Part #	Description	Qty
1	1-010	Cover, Solenoid	1
2	1-020	Gasket, Solenoid Cover	1
3	8-165	Lid with Solenoid Assembly, 120V (New Style)	1
4	1-051	Fill Cap, Set of 3	1
5	4-011	Lid Latch O-ring, Set of 3 (Old Style)	1
6	8-850	Hopper Assembly	1
7	4-030	Piston Boot	1
8	1-390	Piston, Hopper, Teflon	1
9	1-175	Measuring Cone Set	1
10	2-120	Piston Seat, Upper w/Retainer Ring	1
11	1-190	Gasket, Collar	1
12	8-135	Measuring Cup Assembly	1
13	1-260	Cup Guard	1
14	8-851	Tank Assembly	1
15	8-035	Float Arm Assembly	1
16	8-050	Flow Indicator, Clear	1
17	1-350	Nut, Diverter Valve Assembly	2
18	9-535	Liquid Level Sensor, C800	1
19	C 800	Purge System, 120V	1
20	2-135	1/8" M x 3/8" Jaco Fitting	1
21	2-270	3/8" Tube, 20 Foot, Blue	1
22	9-852	Base	1
23	PB4-75	Evacuation Pump, 120V	1
24	8-800	Check Valve Assembly, C800	1
25	2-276	1/2" Tubing, 16 Foot	1
26	9-706	Hopper Extension Kit, 3 Bottles w/ Valves	1



### **Polaris Watermatic Limited Warranty**

This limited warranty is extended to the original consumer purchaser of this Polaris Watermatic G7500 Feeder manufactured by Zodiac Pool Care, Inc. ("Zodiac"), 2620 Commerce Way, Vista, CA 92081-8438, USA.

Zodiac warrants the Watermatic G7500 Feeder it manufactures, including all parts and components thereof, to be free of defects in material and workmanship. For questions regarding your Polaris Watermatic G7500 Feeder, please feel free to call or write us. Be sure to provide the serial number of your unit.

The warranty commences on the date of installation of the feeder and shall remain in effect for a period of one (1) year, but in no event shall it be in effect for more than two (2) years from the date of manufacture of the feeder as established by the serial number.

This limited warranty does not apply if the failure is caused or contributed by any of the following: improper handling, improper storage, abuse, unsuitable application of the unit, lack of reasonable and necessary maintenance, winter freezing or repairs made or attempted by other than Zodiac or one of its authorized service centers. Zodiac 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.

Unless local repair is authorized, the consumer must deliver or ship the unit or the 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 to the plant of manufacture must be obtained from the Zodiac Customer Service Department. For your convenience, please 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 (USA and Canada only) or 760-599-9600. This warranty does not cover repair or replacement of a unit except at our factory or a Polaris Authorized Service Center.

Zodiac is not responsible for the cost of removal of the unit, damages due to removal, any other expenses incurred in shipping the unit or parts to or from the factory or its authorized service centers, the installation of the repaired or replacement unit. The consumer must bear these expenses. Be sure to insure your shipments against loss or damage during transit.

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 ZODIAC 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 G7500 FEEDER.

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.

This limited warranty is valid only in the United States of America and Canada, and it does not apply to Polaris Watermatic G7500 Feeders sold or installed in any other country.





2620 Commerce Way, Vista, CA 92081-8438 • 760-599-9600 • 1-800-822-7933

[www.polarispool.com](http://www.polarispool.com)