

OWNER'S MANUAL



 **Polaris Fountains & Ponds**

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IMPORTANT INFORMATION

# Introduction

Congratulations on the purchase of your new pond package, and thank you for choosing Polaris Designer Fountains. Designer Fountains are handcrafted by skilled artisans using the "Lost Wax" casting method. Each piece is cast from molten brass that is poured into a wax mold, resulting in unparalleled detail and durability.

As each sculpture is individually crafted, there will be variations in color and finish that add to its uniqueness. Polaris Designer Fountains are sure to add beauty and style to both your indoor and outdoor environments for years to come.

Once again, thank you for choosing Polaris products.

# Installation

## Pond Package Components

There are 10 Designer Fountain pond packages available. They are divided into Single Pond Packages and Multi-pond Packages. Listed below are our current packages. If you have any questions about your package, contact Polaris Customer Service at 1-800-822-7933.

**Note:** The pump quantity and sizes listed below are recommendations only. Tubing, clamps, and restrictor clamps are provided when purchasing pump kits.

### Single-Pond Packages

#### PACKAGE 1

- Small Pond (P-P005)
- Small Crane Pair (P-A222FVS)
- Medium Duck Pair (P-A325FV)
- Crazy Frog (P-A352FV)
- Swimming Fish, 7" (P-N164FV)
- Medium Pump Cap (P-PC(G/N)M)
- Two Small Pump Caps (P-PC(G/N)S)

#### Other Equipment Needed:

- Three 80 GPH Pumps
- 12' Section of 3/8" Vinyl Tubing
- One Tee
- Nine Hose Clamps
- Six Restrictor Clamps

#### PACKAGE 4

- Small Pond (P-P005G/N)
- Bullfrog (P-A353FV)
- Cupid (P-E916FV)
- Small Double Dolphin (P-N210FVS)
- Medium Pump Cap (P-PC(G/N)M)

#### Other Equipment Needed:

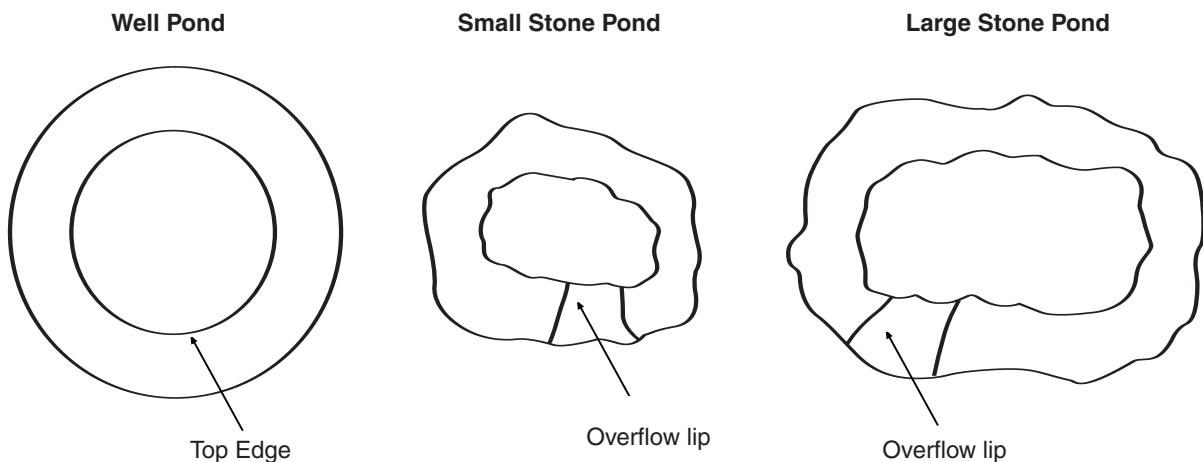
- Two 80 GPH Pumps
- 10' Section of 3/8" Vinyl Tubing
- Two Tees
- Six Hose Clamps
- Three Restrictor Clamps

#### PACKAGE 5

- Large Pond (P-P006)
- Medium Duck Pair (P-A325FV)
- Darn Frog (P-A403FB)
- Large Megan (P-E958FVL)
- Medium Seahorse (P-N200FVM)
- Pedestal (P-PED)
- Two Medium Pump Caps (P-PC(G/N)M)

#### Other Equipment Needed:

- Three 80 GPH Pumps
- 14' Section of 3/8" Vinyl Tubing
- Two Tees
- Eight Hose Clamps
- Five Restrictor Clamps



The selection of three different pond styles are available in two distinctive finishes of granite or natural mineralstone.

### **PACKAGE 7**

- Well Pond (P-P001)
- Petite Crouching Frog (P-A406FVSS)
- Medium Kneeling (P-E950FVM)
- Entwined Fish (P-N218FV)
- Small Single Dolphin (P-N216FVS)
- Pedestal (P-PED)
- Two Medium Pump Caps (P-PC(G/N)M)

#### **Other Equipment Needed:**

- Three 80 GPH Pumps
- 14' Section of 3/8" Vinyl Tubing
- Three Tees
- Eight Hose Clamps
- Five Restrictor Clamps

### **PACKAGE 8**

- Large Pond (P-P006)
- Medium Crane Pair (P-A222FVM)
- Crazy Frog (P-A352FV)
- Small Turtle (P-A364FVS)
- Small Wildflower (P-E956FBS (FVS))
- Pedestal (P-PED)
- Two Medium Pump Caps (P-PC(G/N)M)

#### **Other Equipment Needed:**

- Two 170 GPH Pumps
- One 80 GPH Pump
- 12' Section of 3/8" Vinyl Tubing
- Three Tees
- Nine Hose Clamps
- Six Restrictor Clamps

## **Multi-Pond Packages**

### **PACKAGE 2**

- Small Pond (P-P005)
- Large Pond (P-P006)
- Medium Crane Pair (P-A222FVM)
- Jumping Frog (P-A357FV)
- Goldfish Pair (P-N161FV)
- Leaping Fish, 12" (P-N166FV)
- Pedestal (P-PED)
- Large Pump Cap (P-PC(G/N)L)
- Medium Pump Cap (P-PC(G/N)M)
- Two Small Pump Caps (P-PC(G/N)S)

#### **Other Equipment Needed:**

- One 300 GPH Pump
- One 170 GPH Pump
- Three 80 GPH Pumps
- 8' Section of 1/2" Vinyl Tubing
- 18' Section of 3/8" Vinyl Tubing
- Two Tees
- Eleven Hose Clamps
- Six Restrictor Clamps

### **PACKAGE 3**

- Small Pond (P-P005)
- Two Large Ponds (P-P006)
- Large Crane Pair (P-A222FVL)
- Medium Ruffled Swan (P-A227FV)
- Large Duck Pair (P-A324FV)
- Jumping Frog (P-A357FV)
- Goldfish Pair (P-N161FV)
- Leaping Fish, 20" (P-N167FV)
- Pedestal (P-PED)
- Large Pump Cap (P-PC(G/N)L)
- Two Medium Pump Caps (P-PC(G/N)M)
- Two Small Pump Caps (P-PC(G/N)S)

#### **Other Equipment Needed:**

- One 300 GPH Pump
- Two 170 GPH Pumps
- Five 80 GPH Pumps
- 10' Section of 1/2" Vinyl Tubing
- 24' Section of 3/8" Vinyl Tubing
- Two Tees
- Seventeen Hose Clamps
- Nine Restrictor Clamps

### **PACKAGE 6**

- Two Small Ponds (P-P005)
- Small Ruffled Swan (P-A229FV)
- Small Guarding Swan (P-A230FV)
- Small Mermaid (P-E951FVS (FBS))
- Swimming Fish, 11" (P-N165FV)
- Two Medium Pump Caps (P-PC(G/N)M)

#### **Other Equipment Needed:**

- One 300 GPH Pump
- Five 80 GPH Pumps
- 6' Section of 1/2" Vinyl Tubing
- 12' Section of 3/8" Vinyl Tubing
- Two Tees
- Seven Hose Clamps
- Four Restrictor Clamps

## PACKAGE 9

- Two Large Ponds (P-P006)
- Large Crane Pair (P-A222FVL)
- Frog Prince (P-A359FV)
- Medium Turtle (P-A364FVM)
- Small Crouching Frog (P-A406FVS)
- Fascination (P-E897V)
- Small Child Fishing (P-E900FVS)
- Pedestal (P-PED)
- Large Pump Cap (P-PC(G/N)L)
- Two Medium Pump Caps (P-PC(G/N)M)
- Two Small Pump Caps (P-PC(G/N)S)

### Other Equipment Needed:

- One 300 GPH Pump
- One 170 GPH Pump
- Three 80 GPH Pumps
- 8' Section of 1/2" Vinyl Tubing
- 18' Section of 3/8" Vinyl Tubing
- Two Tees
- Eleven Hose Clamps
- Six Restrictor Clamps

## PACKAGE 10

- Two Small Ponds (P-P005)
- Two Large Ponds (P-P006)
- Large Crane Pair (P-A222FVL)
- Medium Duck Pair (P-A325FV)
- Darn Frog (P-A403FB)
- Petite Crouching Frog (P-A406FVSS)
- The Squeeze (P-E876FV)
- Small Kneeling (P-E950FVS)
- Goldfish Pair (P-N161FV)
- Swimming Fish, 11" (P-N165FV)
- Leaping Fish, 17" (P-N170FV)
- Pedestal (P-PED)
- Three Large Pump Caps (P-PC(G/N)L)
- Four Medium Pump Caps (P-PC(G/N)M)
- Two Small Pump Caps (P-PC(G/N)S)

### Other Equipment Needed:

- Two 300 GPH Pumps
- Two 170 GPH Pumps
- Six 80 GPH Pumps
- 16' Section of 1/2" Vinyl Tubing
- 40' Section of 3/8" Vinyl Tubing
- Six Tees
- Twenty-two Hose Clamps
- Twelve Restrictor Clamps

## Tools Required

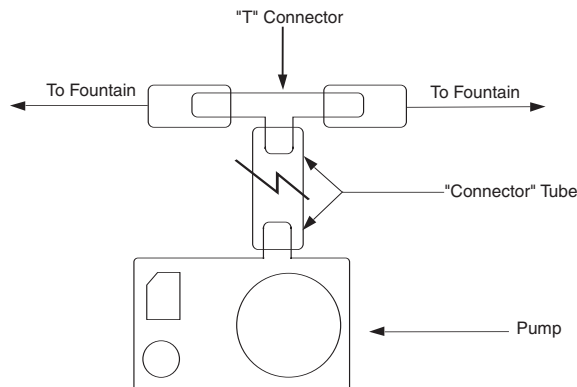
- Slot-head screwdriver
- Scissors
- Shims
- Power Bar(s) with grounded sockets
- Two to three 12" H and/or one 24" H supports (e.g. concrete blocks), depending on the package. **Note:** Package 6 uses 10" supports. Three small supports (e.g. concrete blocks) are used for package 1 only.

## Installing Single Pond Packages

1. Choose a flat surface for the location of the pond to ensure proper operation.
2. Fill the pond with water and allow it to sit for a few hours. If any leaks are found, contact Customer Service.
3. For package 5, place the pedestal near the edge of the pond and position the Megan fountain on the pedestal and edge for proper support. For packages 7 and 8, place the pedestal in the center of the pond.
4. Position the fountains as desired, keeping the following in mind:
  - Any fountain pairs should be placed near each other.
  - Some fountain pairs (e.g. Crane) will need small blocks to provide enough clearance for connection access.
5. Position the pumps in the pond, near the fountain(s) to which each pump will be connected. For fountains displayed on a pedestal, a pump can be placed under the pedestal.

### Pump recommendations:

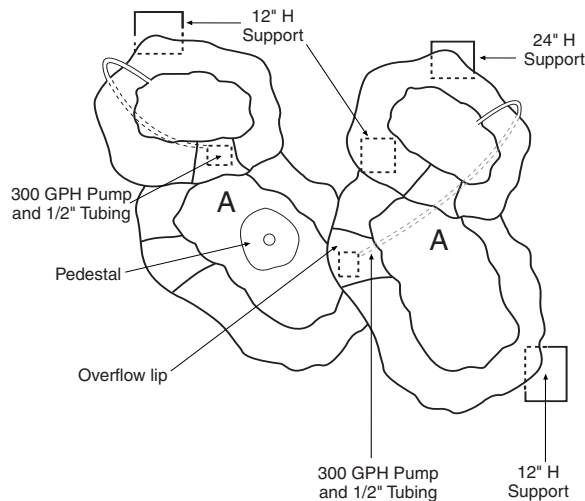
- 170 GPH - One large fountain
  - 170 GPH with tee - Two medium fountains
  - 80 GPH with tee - Two small fountains
  - 80 GPH - One small to medium fountain
6. Measure the distance from the fountain to the pump and cut an appropriate length of tubing.
  7. If connecting two fountains to one pump, use a tee:



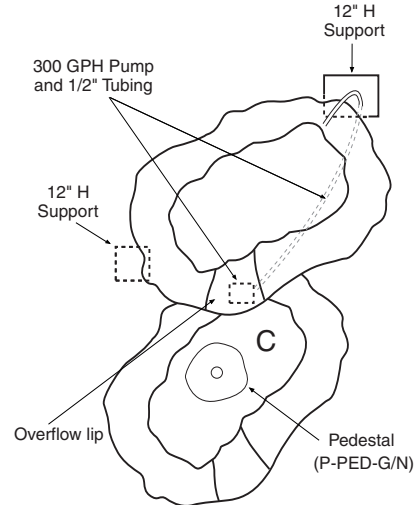
- a. Measure and cut a length of "connector" tubing and place one end over the pump outlet. The length is determined by whether the tee is connected inside or outside of the pond.
  - b. Insert the center of the tee into the free end of the "connector" tubing.
  - c. Cut two lengths of tubing to reach from the ends of the tee to the nipples on the fountains. Check for any kinks in the tubing prior to installing.
8. Install a restrictor clamp on the fountain-end of the tube and tighten. For fountains displayed on a pedestal, run the tube through the top of the pedestal before attaching the restrictor clamp.
  9. Secure the tubing to the fountain with a hose clamp. The tightness of the restrictor clamp will control the flow of water.
  10. Repeat steps 6 through 9 until all of the fountains have been connected to the appropriate pumps.
  11. Gather the pump cords together and run them over the edge of the pond to the nearest power source. Power bars are recommended.
  12. Fill the well pond to within 3" to 4" from the top edge. Fill all the stone ponds to within 1" to 2" of the overflow lip. See the diagram on page 4.
  13. Connect the power bar to an electrical outlet and turn on the pumps. Note: Do not run the pumps unless fully submerged.
  14. If necessary, adjust the fountain stream by loosening the restrictor clamp on the tube.
  15. Place the provided pump caps over the pumps. The medium cap covers one 170 GPH pump and one 80 GPH pump. The small cap covers one 80 GPH pump.
  16. Use greenery to conceal any visible tubes and cords in the pond.

## Installing Multi-Pond Packages

1. Choose a flat surface for the location of the pond to ensure proper operation.
  2. Fill the pond with water and allow it to sit for a few hours. If any leaks are found, contact Customer Service.
  3. Position the bottom pond in the chosen location with enough room for the higher level ponds to be placed around it.
  4. As each level is placed, establish the support location(s) for the upper pond(s), depending on the pond configuration (see the diagrams on this page for the support placement of your package).
- For pond packages 3 and 10, the pond located at the highest level will need a 24" support and the middle level(s) will need 12" supports at opposite ends.



- All other packages use 10"-12" supports for the upper levels. If both of the ponds are the same size, use the supports at the upper left and right edges of the highest pond. If the upper pond is smaller, only one 12" support is needed at the center of the upper edge. Package 6 uses two 10" supports.



5. Ensure the upper pond(s) are positioned so that the front edge overlaps the lower pond, and the back edge is on the supports (as indicated in the diagrams above). The pond should overlap enough so the water cascade clears the inner edge of the next lower pond. Always start at the lowest level and work upward, placing the necessary supports to assist in stabilizing the structure. Continue this process until all ponds are in place.

**Note:** Shims may also be necessary to stabilize and level the ponds.

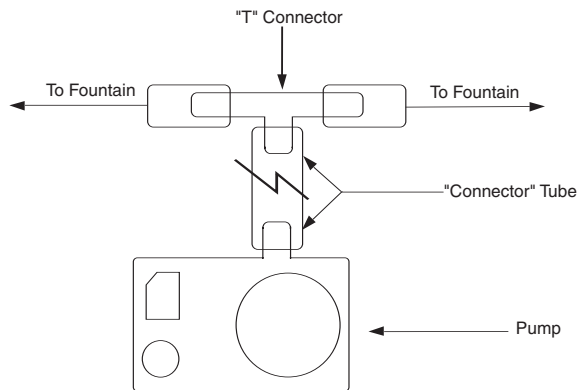
6. If a pedestal is provided with the pond package, place it at the center of the large pond. Position the fountains as desired, keeping the following in mind:
  - Any fountain pairs should be placed near each other.
  - If floating a fountain (e.g. Ruffled Swan or Darn Frog), two standard bricks can be used under the fountain for proper support.
7. Position the pumps in the ponds under the overhanging edges, near the fountain(s) to which each pump will be connected. For fountains displayed on a pedestal, a pump can be placed under the pedestal.

Pump recommendations:

- 300 GPH - One waterfall
- 170 GPH - One large fountain
- 170 GPH with tee - Two medium fountains
- 80 GPH with tee - Two small fountains
- 80 GPH - One small to medium fountain

8. Measure the distance from the fountain to the pump and cut the appropriate length of tubing.
9. If you are connecting two fountains to one pump, use a tee:

Measure and cut a length of "connector" tubing and place one end over the pump outlet. Length is determined by whether the tee is connected inside or outside the pond.



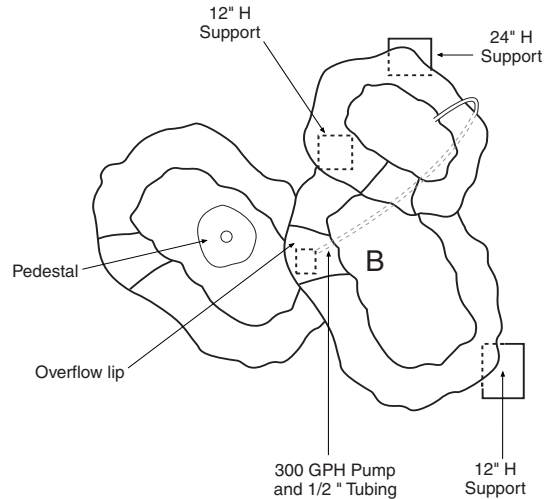
Insert the center of the tee into the free end of the "connector" tubing.

Cut two lengths of tubing to reach from the ends of the tee to the nipples on the fountains. Check for kinks in the tubing.

10. Install a restrictor clamp on the fountain-end of the tube and tighten. For fountains displayed on a pedestal, cut a hole in the top of the pedestal and run the tube through it before attaching the restrictor clamp.
11. Secure the tubing to the fountain with a hose clamp. The tightness of the restrictor clamp will control the flow of water.
12. Repeat steps 8 through 11 until all of the fountains have been connected to the appropriate pumps.
13. Install the pumps to run the waterfalls.

**4-Pond Waterfall:** Run the tubing for the three pond side from the first 300 GPH pump located under the overflow lip, beneath the middle and upper ponds and then over the back edge of the upper pool. The tubing for the 2-pond side runs from the second 300 GPH pump located under the overflow lip, beneath the upper pond and then over the back edge of the pond. (A in the diagram on page 8). Package 10 uses this step.

**3-Pond Waterfall:** Run the tubing from the 300 GPH pump located under the overflow lip, beneath the middle and upper ponds and then over the back edge of the upper pool (B in the diagram below). Package 3 uses this.



**2-pond waterfall:** Run the tubing from the 300 GPH pump under the overflow lip, beneath the upper pond and then over the back edge of the pond. See C in the diagram on page 8. Packages 2, 6 and 9 use this step.

**Note:** A weight or fountain should be placed on the tubes to anchor. Do not leave the end of the tube below the water.

14. Gather the pump cords together and run them over the edge of the pond and then under the ponds to the nearest power source. Power bars are recommended.
15. Going from top to bottom, fill the upper ponds to overflowing. Fill the bottom pond to within 1" to 2" of the overflow lip.
16. Connect all the power bars to an electrical outlet and turn on the pumps. **Note:** Do not run the pumps unless fully submerged.
17. If necessary, adjust the fountain stream by loosening the restrictor clamp on the tube.
18. Place the pump caps over the pumps. The large cap covers one 300 GPH pump and two 80 GPH pumps. The medium cap covers one 170 GPH pump and one 80 GPH pump. The small cap covers one 80 GPH pump.
19. Use greenery to conceal any visible tubes, cords and open areas under the pond overlaps.

# Operation and Maintenance

When operating correctly, the fountain should flow a clean stream of water by the power generated from the pump. The ponds should hold the water with no signs of leakage, and the waterfalls should transfer the water into each descending pond.

## Cleaning the Fountains

The Designer Fountains require very little attention. Maintenance of the fountains is only necessary if you wish to maintain a showroom finish. Otherwise, the natural tendency of brass is to oxidize into a verdigris (green-gray) patina.

1. Wipe off any water spots with a coarse cloth or brush with a very soft brass-bristled brush or lint brush.
2. Apply a light coat of clear paste wax with a paintbrush for continued protective coverage.
3. Use a clean cloth to buff the fountain to the desired luster.

## Cleaning the Ponds

1. Keep the pond free of any algae build-up due to the water standing motionless for an extended period of time. Periodic visual checks will assist in finding the correct cleaning timeframe.
2. Brush or sweep the pond edges and wipe off with a damp cloth.
3. To cover scuff marks or scratches, spray Armor All™ onto the pond surface and wipe off any excess. The area will return to its original color.
4. Add a capful of lemon-scented bleach or chlorine to protect the fountain and pond from any algae growth.
5. For excessive amounts of algae due to long-standing water, drain the pond and allow it to dry. Scrub the affected area with bleach and water, using a stiff brush. Allow to dry before refilling the pond.
6. For green discoloration to the pond surface, apply muriatic acid to the affected area with a spray bottle or disposable brush and allow it to evaporate. Several applications may be needed for severe discoloration. Note: When using muriatic acid, a well ventilated space and protective gloves are necessary.

# Troubleshooting

If the fountain package is not operating correctly, please review the following suggestions.

1. Verify the pump is on and operating correctly.
2. Verify the pump impeller is not frozen. If it is, remove the cover, spray with WD-40® and move the blade by hand until it moves freely.
3. Check for any kinks in the tubing.
4. Verify that the tubing is securely fastened to both pump and fountain, with no visible leakage.
5. Ensure the pump is completely submerged.
6. Check the copper tubing for any clogs. If there is a clog, run a thin wire into the end of the tube as far as possible to loosen any debris. If the clog is still apparent, back-flush the system by attaching a vinyl tube to the front end of the copper tube and running the pump until the blockage is cleared.
7. Verify the water is clearing the opening of the fountain by a sufficient distance. Insufficient clearance will cause the water to drain back into the body cavity and leak through tiny pinholes that are the results of the lost-wax casting process.  
  
Adjust the copper tube by inserting a thin, blunt instrument into the tube and manipulating it until the proper clearance is obtained.  
  
If the water continues to fill the fountain, there is an internal leak. Please contact our Customer Service Department for assistance.

If you are still having problems, it is possible that a more powerful pump is needed. Pump size determines the amount and height of water discharged. The pump capacity is affected by the distance from the pump to the fountain, and the height from the fountain discharge to the water level in the pond.



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