## LIMITED WARRANTY

Every F&Q Pump is tested before shipment and when properly used and maintained will provide years of satisfaction. In the unlikely event that our material or workmanship should prove defective within the warranty period, return the pump along with proof of purchase to the original dealer for inspection and replacement if needed. If you prefer, the product may be returned directly to F&Q Pump for repair or replacement. Be sure to include your name, address, proof of purchase, and reason for return. All pumps must be returned freight prepaid. Warranty does not cover any costs associated with the installation or removal of products subject to warranty claims. This limited warranty is extended only to the original purchaser and is void if any of the following apply:

- 1. The pump or product has been dissembled.
- 2. Alterations have been made to the cord or plug.
- 3. The pump has been run dry.
- 4. Flammable liquids, solvents, chemicals, or abrasive solutions were pumped.
- 5. Obvious abuse or misuse of the product took place.

6. The warranty label has been tampered with or removed from the pump. All implied warranties including the implied warranty of merchantability are limited in duration to the same extent as the express warranty as allowed by the state law. F&Q Pump expressly disclaims and excludes any liability for consequential or incidental damages for breach of any express or implied warranty, as allowed by the state law.

THIS LIMITED WARRANTY PERIOD COMMENCES FROM THE DATE OF MANUFACTURE APPEARING ON THE PRODUCT LABEL OR FROM THE ORIGINAL DATE OF PURCHASE. THE F&Q PUMP LIMITED WARRANTY APPLIES TO REPAIRED OR REPLACED PRODUCTS FOR THE BALANCE OF THE APPLICABLE PERIOD OF THE ORIGINAL WARRANTY OR 90 DAYS FROM THE DATE OF SHIPMENT OF A REPAIRED OR REPLACED PRODUCT, WHICHEVER IS LONGER.

## WARRANTY PERIOD

One Year: All Waterfall pumps.

For credit or replacement, please contonct the distributor or seller first.

If you want to return to F&Q Pumps directly, a RMA number must be presented. Any box returned without a Return Approval Form with RMA# and Proof of Purchase will be refused. Please get the form here: http://www.fandqpumps.com/files/RMA.pdf

All the returns are freight prepaid. Please ship to:

10617 E. Rush St. S. El Monte, CA 91733 Attn: Return Goods Department



# WATERFALL PUMP



General Instructions

#### Introduction/ Overview

Congratulations on your purchase of this waterfall pump. To insure efficient and faultless operation, however, it is important to read carefully and strictly comply with this service manual.

## Safety Measures

**Caution:** Before assembly and startup, carefully read this service manual. For safety purposes do not use the pump unless you have read the instructions.

## ELECTRICAL SUPPLY

Before connecting the pump to the power source, verify that the power source is of the same voltage and frequency listed on the pump. The National Electric Code and most local codes <u>REQUIRE</u> that a ground fault circuit interrupter (GFIC) be installed in the branch circuit feeding your pump. For your own safety we urge you to comply with this regulation. Extension cords or splices should <u>NEVER</u> be used with submersible pumps.

## Warning:

Risk of electrical shock – This pump is supplied with a grounding conductor and grounding–type attachment plug. To reduce the risk of electrical shock, connect only to a property grounded, grounding–type receptacle with ground fault interrupter.

# Waterfall Pumps

Pumps are the most exciting of the new technologies available for waterfall pumps. They are durable, reliable and energy efficient. Their power and simplicity of operation make them the perfect choice for many water gardening applications, especially waterfalls. To properly size your pump you must determine the vertical height your pump will be pushing the water. To calculate this, measure the distance in feet from the surface of the pond water to the point that the water returns to the pond (perhaps a waterfall spillway) and consider this the height that the pump must move the water. Add to that number one (1) foot for every 90 degree elbow through which the water passes from the pump to the point of return, and one (1) foot for every ten (10) foot length of tubing and that will provide the total height that the pump must move the water.

## **Operation / Application**

The F&Q Waterfall pumps are designed for the following applications:

- To help circulate water in ponds, water gardens and streams.
- High volume waterfalls and large bio filters.
- Biofilters and UV filters
- Koi Ponds

## Installation

The temperature of the inlet liquid must not exceed 30° C (86° F). Do not lift, carry or attach the pump by its 20' electric power cable. Before starting the pump check that the power cable and/or socket are not damaged. Before carrying out any maintenance on the pump, the power cord must be unplugged from the power service. If the bottom of the pond is sandy or muddy, operate the pump suspended from a rope or chain or install it on a suitable base to prevent its intake from clogging. To facilitate pump priming, we suggest that the air be relieved from the pump by sinking the pump with its discharge outlet facing up.

## **Caution:**

- This pump is designed to pump water only; suitability with other liquids is the responsibility of the end user.
- It is not designed for septic tanks and settling pits.
- This pump must not be used to pump flammable, corrosive, gaseous or explosive liquids. The max. temperature of the pumped liquid must not exceed 30° C (86° F) in continuous operation.
- Do not run the pump dry.
- The pump must be installed below water level, it is not self priming.
- The pump may be used in shallow water for no longer than 10 minutes.
- The power cord must not be used to lift or carry the pump. To lower or lift the pump from pond, attach a rope to the handle.
- In freezing temperatures the pump must be removed from the inlet liquid. Under no circumstances should the pump be left in frozen liquid.

# Maintenance and Care

Before starting any maintenance jobs on the pump it is required to unplug the power cord from the electrical socket to ensure that it cannot restart on its own. After using the pump in very dirty water, it must be rinsed with fresh water and cleaned. The pump should be cleaned periodically or when a decrease in flow is noted. Remove only the screen to the pump body, and carefully clean any debris from the impeller and pump housing. Replace the screen. If the pond bed is covered by sludge, sand or gravel, the pump must be suspended from a rope or chain or fitted on an adequately wide bottom slab. Sand and other abrasive materials will reduce the life of the pump and thus must be avoided. **End of Season:** At the end of the season remove the pump from the pond and clean it as outlined above.

# **TROUBLESHOOTING GUIDE**

PROBLEM	SOLUTION
No water flow from pump	Insure that the power is on to the pump. The pump is not primed, the inlet of
	the pump must be below the water surface. If using inline, the pump must be below water level.
Low water flow from the pump	Check that there is no debris blocking the intake screen or impeller.
	The pump is not large enough. Select a larger capacity pump.
D	Check discharge pipe for any debris.
Pump runs intermittently	The pump is too hot. Check to see that no debris is clogging the intake.

For technical assistance or product information please call F&Q Pump at 626.455.0884. Or you can visit our website at <u>www.fandqpumps.com</u> for the latest information on F&Q Pump products. F&Q Pump is open Monday through Friday from 8:30am to 5:00pm Pacific Time.