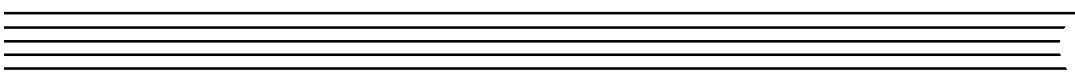


Owner's Manual
On-Shore Fountain



DesertRain
FLOATING FOUNTAINS

Installation

The On-Shore system uses a swimming pool pump and motor located on shore in a protective housing with semirigid or rigid hose running from the lake to the pump for intake and discharges through fire hose out to the nozzle floating in the lake.

Benefits and Applications:

- Circulates shallow lakes
- Aids in circulation of isolated fingers of water
- Easy access to pump and motor for maintenance and repair
- Keeps electrical cable out of water
- Less expensive than traditional well pumps & motors
- Easy installation
- Recommended for fishing and/or brackish lakes

Brackish means salty. The On-Shore Pump & Motor system is the only system acceptable for brackish lakes because the water comes in contact with only the plastic parts (less corrosive than metals) of the pump and because there is no readily-available electrical cable manufactured for use in salt water. The salts will penetrate and oxidize the copper cable. Lights are not recommended in brackish water.

BEFORE ORDERING: Have a qualified commercial electrician with pool pump experience come out to the proposed fountain site to evaluate the electrical situation. The electrician will know right away if a new line needs to be run for the fountain, what are the electrical volt and phases available. Use this electrician for the fountain's final electrical hook-ups.

BEFORE YOUR FOUNTAIN ARRIVES: The concrete pad for the pump, the hard plumbing buried from the pump to the lake's edge, the electrical run and the uni-strut for the control panel can all be done before your fountain arrives. The concrete pad and the uni-strut should both be placed well above the highest water line, but as close to the lake's edge as possible to shorten your hose and pump runs. The shorter the runs, the less friction loss, the bigger the fountain display. We recommend using at least 3" PVC pipe for your plumbing run from the pump to the lake's edge again to reduce friction loss. Make sure you have adequate electricity, with no voltage loss in place for your fountain and lights.

NO DRY RUNS: Lights and pump are water cooled so running them out of the water will indeed burn them up. Pump requires priming with water in strainer basket before starting or damage to the pump is likely.

Installation is easy and should take about four hours. Read completely through the literature before beginning installation. These instructions are intended for mechanically and electrically experienced people.

Installation Instructions:

Have swimming pool pump mounted on-shore in desired location on concrete pad above highest water line and as close to the shore as possible following the instructions of the pump manufacturer. Next, have the power control center mounted on a post or uni-strut rack above the highest waterline. Then, it's time to assemble your fountain. Ten steps and you're done. Here is an overview of the steps, details follow on the next page.

1. Assembly the fountain floats.
2. Attach the PVC suction hose to your pump for intake with PVC unions.
3. Glue hose to swing check valve and place on bottom of lake then couple with union to pump.
4. Fill pump strainer basket with water before starting pump.
5. Attach the fire hose to the fountain using PVC unions.
6. Float the fountain to it's position in the lake leaving the other end of the hose secured on shore.
7. Anchor the fountain, see instructions below.
8. Return to shore and attach the fire hose to the on-shore pump using PVC unions so the pump may be removed from the system later for maintenance or repair.
9. Attach the intake screen to the PVC suction hose with PVC unions.
10. Congratulations, you're fountaining.

ASSEMBLING THE FOUNTAIN

FLOATS

The two floats bolt together easily by attaching the joiner plates onto the top of the floats. The stainless steel joiner plates are pre-punched and all necessary hardware is enclosed. The Desert Rain embossed sides face up, rounded edges face up, square edges are down.

CROSSBAR

The crossbar is the long stainless steel bar that bolts easily into the brass inserts on the bottom (square edges) of the float with the enclosed hardware.

NOZZLE

The nozzle hand screws onto a supplied PVC pipe which goes through a pre-punched hole in the crossbar. Use Teflon tape only. Do not use pipe dope compound. Be careful not to cross-thread and hand tighten only.

HOSE

Allow enough fire hose length to follow the contours of your lake bottom. When you initially install the hose, it is full of air and will float. When the unit is started, it will fill with water and sink. Better too long than too short.

ANCHORING

When anchoring the fountain in place, use one concrete block on two lengths of rope which are tied to the crossbar of the fountain. Rope length should be twice as long as the water depth. Leave some slack in the rope to allow vertical movement of the fountain as water levels change. An alternate method is to stake the anchor ropes at opposing shorelines. Conceal the anchor line from view by hanging several weights on a dark colored anchor rope.

LIGHT FIXTURES

DO NOT connect 220 volt power to lights as it will instantly damage the lamps. **DO NOT** operate lights out of water, overheating will ruin the lamp and/or shatter the glass lens. The light fixtures are mounted on swivels to adjust the direction of the beam. Two hex head mounting bolts allow lights to be removed from the water for lamp changes. It is critical to keep the inside of the fixture dry.

SPEC SHEET

1-3 hp Floating Fountain On Shore Operating System

FLOAT

Two Piece Polyethylene Float System. Roto-cast molded with threaded brass inserts. 36" OD, 18" ID, 4" Height. Extremely durable.

FRAME

304 stainless steel, pre-punched for easy assembly. All hardware is stainless steel to prevent corrosion.

NOZZLE

Solid Brass to prevent corrosion and erosion. Solid brass is used for durability and strength.

PUMP

Sta-Rite swimming pool pump.

INTAKE HOSE

PVC Suction Hose, 2", 3", 4" and 6" available in 10' increments

DISCHARGE HOSE

250 PSI Test MIL spec hose, available in 2", 3" and 4" in 50' increments.

PLUMBING

All schedule 40 and schedule 80 PVC. Swing check valve included.

INTAKE SCREEN

304 Stainless Steel to prevent clogging and damage, easy to clean, rustproof. 4-1/2 square foot, 1/8" holes on 3/16" staggered centers.

CONTROL PANEL

NEMA 3R enclosure to house GFI breakers, surge protection, timer, photo cell for lights, thermal overload protection, all pre-wired.

LIGHTS

UL listed underwater bronze cast lights, thermally protected

SPLICE

Permanent underwater splice to prevent underwater wire connector problems. No leaks, nor corrosion, no shorts.

On Shore	1 hp	1 hp	2 hp	3 hp
Voltage	115	230	230	230
Amps	15	10	15	20
GPM	60	60	120	140

Fountain Size Height x Diameter	1 hp	2 hp	3 hp
Trumpet 1.5"	5' x 20'	6' x 30'	7' x 45'
Trumpet 2"	n/a	5' x 25'	6' x 40'
Three-Tier 1.25"	18' x 6'	25' x 8'	n/a
Three-Tier 1.5"	n/a	20' x 9'	30' x 10'

Fountain size is based on no intake or discharge hose runs. There will be a friction loss per each foot of hose used. The larger the diameter of the hose and the smaller the length run, the less friction loss.

Recommend using the shortest possible runs and largest diameter hose to reduce your friction loss.

2" hose only recommended for 1 hp with intake and discharge hose runs each under 50'.

LIGHT CABLE MAXIMUM RUN			
Lights	2 x 250 Watt	2 x 500 Watt	2 x 1000 Watt
Amps	4.17	8.33	16.67
#10/3	500	280	140
#8/3	920	460	230
#6/3	1450	730	360



SPEC SHEET

On-Shore Floating Fountains 5 - 15 hp

FLOAT

Compartmentalized Polyethylene Float System. Roto-cast molded sections with threaded brass inserts, stainless steel hardware. 48" OD, 32" ID, 10" Height. Extremely durable, fully adjustable, stable, with ballast fill plug 3/4".



FRAME

1-1/2" x 1-1/2" x 1/8" 304 stainless steel, welded and all hardware is stainless steel to prevent corrosion.

PUMP

Sta-Rite swimming pool pump.

INTAKE HOSE

PVC Suction Hose, 2", 3", 4" and 6" available in 10' increments

DISCHARGE HOSE

250 PSI Test MIL spec hose, available in 3" and 4" in 50' increments.

INTAKE SCREEN

304 Stainless Steel to prevent clogging and damage, easy to clean, rustproof. 4-1/2 square foot, 1/8" holes on 3/16 staggered centers.

CONTROL PANEL

NEMA 3R enclosure to house GFI breakers, surge protection, timer, photo cell for lights, thermal overload protection, all pre-wired.

NOZZLE

Solid Brass to prevent corrosion and erosion. Solid brass is used for durability and strength.

PLUMBING

All schedule 40 and schedule 80 PVC.

LIGHTS

UL listed underwater bronze cast lights, thermally protected

LIGHT ELECTRICAL CABLE

PVC Double-jacketed heavy duty TW submersible light cable

LIGHT SPLICE

Permanent underwater splice to prevent underwater wire connector problems. No leaks, nor corrosion, no shorts.

ON-SHORE FOUNTAINS 5 hp - 15 hp				
Horsepower	5 hp	7 1/2 hp	10 hp	15 hp
230 Volt 10 Amps	27.5	42.1	51	n/a
208 Volt 30 Amps	19.1	28.3	37	54.5
230 Volt 30 Amps	16.6	24.6	32.2	47.4
460 Volt 30 Amps	8.3	12.3	16.6	23.7
Pump GPM	325	400	560	710

LIGHT CABLE MAXIMUM RUN			
Lights	2 x 250 Watt	2 x 500 Watt	2 x 1000 Watt
Amps	4.17	8.33	16.67
#10/3	500	280	140
#8/3	920	460	230
#6/3	1450	730	360



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FLOATING FOUNTAINS

To extend the life and enjoyment of your fountain, we recommend:

- **Adequate Electricity to the motor**

Your fountain must have adequate electricity with no more than a 3% voltage drop to the motor. This must be calculated and provided for prior to ordering and installing your fountain by a qualified commercial electrician with swimming pool pump experience. Transient Voltage Surge Protection and Ground Fault Protection are provided on your fountain to protect the motor. If your fountain can not run with these in place, then you have an electrical problem that needs to be addressed, **DO NOT OVERRIDE** these protections as this will most likely result in pump failure and will not be covered by your warranty.

COMMON SIGNS: Your fountain shuts itself off, trips breakers or overload, or has high amp readings.

YOU NEED TO: Turn the fountain off at the disconnect, call your electrician and give the electrician our technical support number 1-800-899-2565.

- **Adequate air and water to cool the pump**

Your fountain's pump is water and air cooled. It requires water and air to flow easily over the pump. Keep your pump well ventilated. Keeping your water clean will keep your fountain clear of debris, mineral deposits, plant deposits, and other water flow restricting elements. If your water is challenged with these environmental problems, periodically check your fountain and pump strainer basket for debris hazards, plant and mineral build ups. Cleaning of the intake screen, nozzle is easily done with a wire brush. Motor damage caused by environmental hazards is not covered by your warranty.

COMMON SIGNS: Your fountain is shrinking in size, shuts itself off after running for a short time, trips breakers or overload, or has high amp readings.

YOU NEED TO: Turn the fountain off at the disconnect, call your electrician and give the electrician our technical support number 1-800-899-2565.

- **Lighting Maintenance**

The lenses of the lights will need to be cleaned periodically to remove film. Bulbs last for about 2 years and will need to be replaced with submersible same voltage and wattage lamps. The lights are water cooled, so running them on land will indeed burn them up. No fishing near the electrical light cable. Fishing hooks can damage the wire casing on the light electrical cable creating electrical leaks.

COMMON SIGNS: Lights seem dim, dull or out of balance.

YOU NEED TO: Replace bulbs with same size and style.

- **Pump Owner's Manual**

A separate owner's manual for your swimming pool pump is included with your fountain. Please follow those directions for your pump's installation, operation, maintenance, warranty and repair instructions.

- **Troubleshooting & Repair**

Desert Rain Floating Fountains were designed with ease of ownership in mind. With readily-available "off the shelf" replacement pumps and motors, down time and costs are at a minimum. For repair service, call your electrician or local swimming pool pump dealer. Your fountain is a swimming pool pump and motor with a display nozzle. If the swimming pool pump is in need of replacement, finding out what caused it's demise is crucial. The fifteen minutes spent starting at the control panel will be well worth it. Please call 1-800-899-2565 for technical help and we'll be happy to help you.

TECHNICAL SUPPORT AVAILABLE AT 1-800-899-2565