The Infinity SP and VP series of pumps are high quality products designed using the latest technological improvements in water gardening today. These pumps are suitable for use in ponds, aquariums, fountains, filters, statuary and aquatic gardens. These pumps have been developed on the basis of synchronous technology whereby the electrical parts have been fully encapsulated in epoxy resin.

The pumps have an economical, powerful and reliable motor. The SP series is suitable to be used submersibly in fresh water. The Infinity VP series of pumps are suitable for installation on dry land for in-line use or they can be used submersibly in fresh and salt water. The VP series are equipped with a ceramic shaft which allows for their use in salt water applications.

Infinity pumps are carefully inspected and tested to insure both safety and operating performance. However, failure to follow the instructions and warnings in this manual may result in pump damage and/or serious injury. Be sure to read and save this manual for future reference.

**WARNING**

The National Electric Code requires that a ground fault circuit interrupter (GFCI) be used in the branch circuit supplying electric water pumps and other pond/aquatics equipment. For any information regarding the proper installation required for this pump please contact your local electrical supplies dealer or a licensed electrician.

Do not remove the grounding pin from the plug.
Do not connect to any voltage other than that shown on the pump.
Do not pump any liquids other than fresh water (fresh or salt for VP series) as specifically noted in the owner’s manual.
Do not use with water above 86°F (30°C.)

Some models of Infinity pumps are equipped with an internal thermal protector switch that will automatically turn off the pump in the case of overheating. Once the pump is cooled, the unit will restart provided that no irreversible damage has occurred.

Risk of electric shock: This pump is supplied with a grounding connector and grounding type attachment plug. To reduce the risk of electric shock, be certain that the pump is connected only to a properly grounded, grounding-type electrical receptacle.

NOTE: Insure that the electrical cord loops below the electrical outlet to form a “Drip Loop”. This will prevent water from running down the cord and into the electrical outlet.
Infinity™ Pumps - Care & Instructions

Infinity™ SP Series of Submersible Variable Flow Pumps
Models SP-75, SP-130 & SP-160

Please be sure to read these instructions carefully before you begin installation and use.

1. Place the pump in a suitable location using the rubber suction feet as additional support if possible. The unit must be fully submerged in the water since this will cool the unit.
2. Place the pump in a location where water can be circulated around the pump.
3. Turn the flow control valve clockwise to increase the water flow, turn the flow control valve counterclockwise to reduce the water flow.
4. Clean the impeller at least every month. The impeller is situated in the pump housing and can be accessed by holding the pump body and rotating the impeller cover and pulling the pump cover away from the main body.
5. Clean the impeller in fresh water and the housing with cotton buds or similar to remove any and all accumulated debris from the pump and then reassemble.

The electricity supply cord must extend below the plug socket; this is to prevent water drops from making contact with the plug or electricity supply outlet – this is called a “drip loop”. See diagram in the WARNING section.

Infinity™ VP Series of In-line/Submersible Variable Flow Pumps
Models VP-300, VP-600, VP-1150, VP-1650 & VP-2250

Please be sure to read these instructions carefully before you begin installation and use.

1. Place the pump in a suitable location using the rubber suction feet as additional support if possible. Never let the pump run dry.
2. Place the pump at least 6” and no more than 36” below the water on a stable surface that is free from sludge, sand and other debris. Allow for adequate water circulation around the pump for maximum performance.
3. Add fountain extension pipes so that the fountain head is above the surface of the water.
4. Turn the flow control valve clockwise to increase the water flow, turn the flow control valve counterclockwise to reduce the water flow.
   - The cascading water bell nozzle (if so equipped and provided) is adjusted by turning the top piece of the head higher for a smaller bell and by turning the top piece of the head lower for a wider shaped bell.

MAINTENANCE & CLEANING

The Infinity Series of pumps do not require lubrication or special maintenance. The following maintenance and cleaning will improve your pump’s performance and life.

Carry out routine maintenance when the pump flow is visibly reduced. Switch off the electricity and remove the pump for the water source (DO NOT use the cable to lift the pump out) and firmly pull off the pre-filter cage from the pump motor (Fig. 1). Remove pre-filter foam and clean thoroughly in fresh water. A blocked foam filter will reduce the pump flow rate. Regular maintenance: remove the impeller cover by turning the in-line housing counterclockwise while pushing in to release the lock (Fig. 2). Once unlocked, firmly pull the cover away from the pump motor (Fig. 3). Carefully remove the impeller locator (small round washer if applicable) and the impeller unit (Fig. 4). Wash parts with fresh water and clean thoroughly. Once you have cleaned the pump, re-assemble in reverse order (Fig. 5).

Your actual cleaning frequency will be based on your specific use conditions.

Do not allow the pump to operate in below freezing conditions (32°F) since this will cause the pump to freeze up and become inoperable. In freezing conditions, remove the pump from the use area and store in a frostfree location.
WARRANTY

This pump is warranted to the original purchaser against defective material and workmanship under normal use for a period of one year from the date of purchase. The warranty is limited to the repair or replacement of the pump in the sole discretion of Smart Solar Inc. which is found to be defective in material or workmanship. Proof of purchase is required on all claims in the form of a dated purchase slip affixed to the enclosed warranty registration card.

Application: This warranty covers only properly installed and maintained units. Warranty is limited to applications pumping fresh water (SP Series) or fresh water and marine water (VP series) at temperatures above 32°F and below 86°F (0°C – 30°C), with a pH range of 5 to 9. Other liquid applications and extreme temperature uses void this warranty.

Claims handling: All USA warranty claims should be made by returning the defective pump, freight prepaid along with a copy of the completed warranty registration card to Smart Solar Inc. Call 813.343.5775 to obtain a return authorization and the location of the service center nearest to you. All returned items will be inspected to determine the cause of failure before warranty is approved. Removal charges. This warranty does not cover any costs associated with the installation, removal or reinstallation of any products subject to warranty claims.

Disposition: Smart Solar will promptly handle your claim and advise you of disposition generally within 72 hours of receipt. In the event of products damaged in transit, Smart Solar will advise you and you will need to file a claim with the sending carrier.

Disclaimer: Any oral statements about the product(s) made by the seller, the manufacturer, the representatives or any other parties do not constitute warranties, are not part of the contract for sale and are not to be relied upon by the user. Seller’s and manufacturer’s sole obligation, and buyer’s and user’s only remedy shall be for Smart Solar to repair or replace, at Smart Solar’s sole discretion, the Infinity pump product as described above. Neither seller or Smart Solar shall be liable for any injury, loss or damage, direct, incidental or consequential (including, but not limited to, incidental or consequential damages for lost profits, lost sales, personal injury, property damage, or any other incidental or consequential loss not specifically mentioned herein), arising from any cause whatsoever, no matter whether based upon warranty, contract, negligence or other misuse, and the buyer and user agrees that no other remedy shall be available to them. Smart Solar shall not be held liable for the loss of any fish, plants or other livestock as a result of any failure or defect of this product. Before using, the buyer and user shall determine the suitability of the product for the intended use, and assumes all risk and liability whatsoever in connection therewith. The warranty and remedy described in this limited warranty is an EXCLUSIVE warranty and remedy and IN LIEU of any other warranty or remedy, express or implied, which other warranties and remedies are hereby expressly EXCLUDED, including but not limited to any implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. This warranty gives the buyer and the user specific legal rights, and the buyer and the user may have other rights which vary from state to state. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitation may not apply to you.

Removal charges: This warranty does not require any costs associated with the installation, removal or reinstallation of any products subject to warranty claims.

LIMITATION: This warranty specifically excludes the sponge filter and the impeller unit, which are normal wear items and may require annual replacement depending on actual usage conditions. If you require replacement for these parts, please contact your dealer of Smart Solar, Inc. directly at 813.343.5775.

TROUBLESHOOTING

If the pump fails to operate, check the following:

Check the circuit breaker and try another outlet to insure the pump is getting electrical power. Note: Always disconnect from electrical outlet before handling the pump.

Check the pump discharge and tubing for kinks and obstructions. Algae build-up can be flushed out with a garden hose.

Check the inlet screen or filter sponge to insure it is not clogged with debris.

Remove the pump inlet to access the impeller area. Turn the rotor to insure that it is not broken or jammed.

Check the pump discharge and outlet before handling the pump. Always disconnect from electrical outlet to insure the pump is getting electrical power. Note:

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Check the circuit breaker and try another outlet to insure the pump is getting electrical power. Note: Always disconnect from electrical outlet before handling the pump.

Check the pump discharge and tubing for kinks and obstructions. Algae build-up can be flushed out with a garden hose.

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Remove the pump inlet to access the impeller area. Turn the rotor to insure that it is not broken or jammed.

Technical Information

STI Model | Watts | Max. GPH | Min. GPH | Max. Height (Feet) | Outlet | Cable Length (Feet) | Impeller Shaft | Fresh Water | Salt Water |
--- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
VP-300 | 17 | 300 | 175 | 6.50 | 1/2" | 16 | Ceramic | Y | Y |
VP-600 | 40 | 600 | 250 | 7.50 | 1/2" | 16 | Ceramic | Y | Y |
VP-1150 | 70 | 1,150 | 300 | 9.00 | 3/4" | 1" | Ceramic | Y | Y |
VP-1650 | 145 | 1,650 | 500 | 12.50 | 3/4" | 1" | Ceramic | Y | Y |
VP-2250 | 226 | 2,250 | 550 | 16.50 | 3/4" | 1-1/4" | Ceramic | Y | Y |

SP Fountain Series submersible pump – Stainless steel shaft, magnetic drive, sealed epoxy

SP-75 | 5.5 | 75 | 35 | 1.50 | 3/8" | 6 | Stainless Steel | Y | N |
SP-130 | 10 | 130 | 45 | 4.30 | 3/8" | 1/2" | Stainless Steel | Y | N |
SP-160 | 13 | 160 | 50 | 5.50 | 3/8" | 1/2" | Stainless Steel | Y | N |

Infinity™ Pumps - Care and Instructions
Attachments included with the SP-75 and SP-130 Pumps:

- #1 - Connector
- #2 - Connector

Attachments included with the SP-160 Pump:

- #1 - Connector
- #2 - Connector
- #3 - Connector
- #4 - Single Volcano Nozzle
- #5 - Water Bell Nozzle
- #6 - Flow Control
- #7 - Raising Pipe

Attachments included with the VP-300 Pump:

- #4 - Single Volcano Nozzle
- #8 - Flow Control
- #9 - Water Bell Nozzle
- #10 - Long Raising Pipe
- #11 - Long Raising Pipe
- #12 - Short Raising Pipe
- #13 - Water Inlet
- #14 - Water Outlet
- #15 - Water Outlet
- #16 - Water Outlet
- #17 - Double Volcano Nozzle
- #18 - Single Volcano Nozzle
- #19 - Flow Control
- #20 - Flat Cover
- #21 - Water Outlet
- #22 - Water Outlet
- #23 - Water Intake Inlet

NOTE: All attachments pictured are not shown in proportional scale with attachments in the other photos. They are shown for easy identification only.
VP-1150

Attachments included with the VP-1150 Pump:

#14 - Water Outlet
#15 - Water Outlet
#16 - Water Bell Nozzle
#17 - Double Volcano Nozzle
#18 - Single Volcano Nozzle
#19 - Flow Control
#20 - Flat Cover
#21 - Water Outlet
#22 - Water Outlet
#23 - Water Intake Inlet

VP-1650

Attachments included with the VP-1650 Pump:

#16 - Water Bell Nozzle
#17 - Double Volcano Nozzle
#18 - Single Volcano Nozzle
#20 - Flat Cover
#21 - Water Outlet
#22 - Water Outlet
#23 - Water Intake Inlet
#24 - Water Outlet
#25 - Water Outlet
#26 - Water Outlet
#27 - Water Outlet
#28 - Foaming Nozzle

VP-2250

Attachments included with the VP-2250 Pump:

#20 - Flat Cover
#21 - Water Outlet
#22 - Water Outlet
#29 - Cascade Bell Insert for Narrow Bell Shapes
#30 - Cascade Bell with Large Bell Shape Insert
#31 - Volcano Nozzle
#32 - Water Intake Inlet
#33 - Flow Control
#34 - Water Outlet
#35 - Water Outlet
#36 - Water Outlet