

# VARIABLE FLOW SERIES SUBMERSIBLE WATER PUMP

# **OWNER'S MANUAL**



# THE INSTRUCTIONS AND WARNINGS HEREIN PRESUME EXISTING FAMILIARITY WITH THE DESIGN AND FUNCTION OF THESE AND SIMILAR PRODUCTS AND THEIR COMPONENTS.

The model(s) represented in this manual may have additions and/or modifications made at any time. Pictures represent a standard unit series and an actual unit may vary slightly. This manual is based on the latest products' information available at the time of creation or last revision. It is believed to be generally accurate and reliable. Please consult our customer service representatives here at Half Off Ponds if detailed information is desired, or whenever there is a question about a given unit's configuration or performance specifications at **1-866-831-6558**.

# VARIABLE FLOW SUBMERSIBLE WATER PUMP MODEL CHART

Variable Flow Series Model #	Rated Voltage / Hertz	Rated Watts	Rated Current Input (Amps)	Pump Output Diameter	Fitting Output Diameter	Recommended Hose Diameter	Max Head Height	Max Flow (GPH)
VF-4000	120V,60Hz	45-130w	2A	2"	2"	2"	19'	4,000
VF-5800	120V,60Hz	80-200w	3A	2"	2"	2"	24'	5,800
VF-8000	120V,60Hz	130-335w	4.4A	2"	2"	3"	31'	8,000

## Introduction

<u>Congratulations</u> on your purchase of a Half Off Ponds' Variable Flow Series Water Pump! Thank you for being a valued customer! We are grateful for the opportunity to provide you with superior products, such as an Variable Flow Series Water Pump that is manufactured to the highest standards using quality materials.



# **Safety First**

It is recommended that you thoroughly read and understand this manual prior to first startup and before you attempt to service the model to which **Variable Flow Series Submersible Water Pump** this applies. If you have any questions, we'll be happy to help. Please call us, at **1-866-831-6558**.

#### THE FOLLOWING CAUTIONS AND WARNINGS ARE FOR YOUR OWN SAFETY!



**Attention:** This pump is not intended for use by persons, (including children) with reduced physical sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the pump by a person responsible for their safety.

- ▲ This pump is designed to be submerged during operation for proper function and cooling. Never operate this pump without it being fully submerged in fresh-water only.
- Never pick up pump by, remove, or put stress on the cord.
- ▲ **Never** operate this pump connected to any voltage other than that shown on the pump.
- Never place your hand, or any object, in or near the inlet opening while this equipment is operating. If pump inlet is clogged, always turn off the power supply first and wait until motor is completely stopped before removing any clogged material.
- Never operate this pump in a swimming pool or in a marina area.
- Never leave children unattended around this pump while operating.
- ⚠ The pump has a built-in thermal overload trip which prevents the pump from overheating. **Never** restart the pump before letting the pump cool down.
- Always have this pump connected to properly grounded GFCI electrical outlet.
- Always disconnect from electrical supply before handling pump.



### **ELECTRICAL SHOCK HAZARD**

This product must be properly grounded!

Do not modify the plug provided. Only plug into a GFCI electrical outlet. If you do not have a GFCI electrical outlet, we recommend you have one properly installed by a qualified electrician!

If the cord should ever need a repair or replacement, please contact Anjon Manufacturing's Customer Service Representatives for further instructions on how to have your product serviced. NEVER modify the cord or plug on your product!

Be sure that your source of power is correctly wired and in proper operating condition. Never hard-wire or permanently connect this product to a power source!

Failure to follow these instructions can result in fire, a serious injury form electrical shock, or even death!



Attention: Do not operate this pump under any condition other than those for which it is specified. Failure to observe these precautions can result in serious injury and will void the warranty!

# Remember, Correct Installation Is Your Responsibility!

Make sure you have the proper installation conditions. The **Variable Flow Series Submersible Water Pump** needs to be protected from any objects/debris during operation. Before beginning assembly or operation of product, make sure all parts are present. If <u>any</u> part of your **Variable Flow Series Submersible Water Pump** is *missing* or *damaged*, <u>do not</u> attempt to assemble, install, or operate.

# **Plumbing**

For maximum water flow, it is recommended that the largest tubing size for your pump is used during your installation. Selecting the correct tubing for your project is crucial for the durability of the installation.

We highly recommend using our Freeze Flex tubing!

**Freeze Flex** is ideal for ponds and waterfalls requiring quality highstrength flexible tubing that resists kinking and collapsing.

Refer to the Variable Flow Series Submersible Water Pump Model Chart for proper hose size recommendations depending on your model.



## **Electrical Requirements**

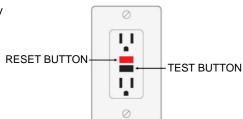
This pump is rated at 120 Volts 60Hz. Only use a power supply rating voltage at 120 volts and 60Hz, which complies with that listed on label on the **Variable Flow Series Submersible Water Pump**. The cord must be plugged into a **GFCI** outlet that is properly installed and grounded in accordance with all local codes and ordinances.

A hard-wired installation is <u>not</u> recommended and <u>will</u> result in the warranty being voided!

It is your responsibility to contact a qualified electrician and assure that the electrical installation is adequate and in conformance with all national and local codes and ordinances. Make sure this pump is securely installed before any operation.

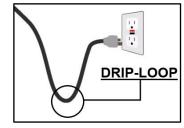
#### EXAMPLE OF A GFCI OUTLET

(GROUNDED FAULT CIRCUIT INTERRUPT)



## **Operation**

- For safety as well as proper performance and lifespan, we recommend Variable Flow pumps be installed inside of a skimmer box, or similar filtration unit. We highly recommend not to place, nor operate, your Variable Flow Series Submersible Water Pump directly into your pond. The pump should not be susceptible to damage from any loose debris, mud, or rocks in the pond to prevent the filter from becoming clogged or cause serious damage to your pump, or any fish you may have in your pond.
- Submerge the pump completely in the water to make the pump body fill with water.
- The water temperature should not exceed 95°F (35°C) and do not let the pump freeze in the wintertime.
- The electrical connection should be secured in a water-proof place and should be <u>at least</u> 6 feet (2 meters) away from the water feature. Ensure that the electrical cord loops below the electrical outlet to form a "<u>Drip Loop</u>". This will prevent water from running down the cord into the electrical outlet.



- Never operate this pump on an extension cord; doing so causes a drop in volts and will result in a voided warranty.
- A minimum water level of approximately 6 inches is required to prevent the pump from taking in air.
- The pump can be switched on by simply plugging it in and switched off by un-plugging it.
- A routine maintenance schedule is critical for proper operation of your pump and will give it a longer operational-life. For proper cleaning, refer to the maintenance section of this manual.
- If you have any issues with your pump, refer to the trouble shooting section of this manual.

# Troubleshooting

If your pump fails to start, or slows down significantly under load, regardless of water level, disconnect from power supply and check the following conditions:

- Check that the supply voltage is correct.
- Verify rotor/impeller can turn freely in the proper direction.
- Check plug and cord for damage.
- Check to see if any dirt entered the output assembly. If so, cleaning instructions are explained within the maintenance section.
- Check to see if any of your hoses or jets have become clogged. Clean them if necessary.
- Ensure the pump has sufficiently cooled down if overheating has occurred.



**Attention:** Repeating cycles of stopping and restarting will damage this pump. Do not continue operation at low water level or while the inlet is clogged with debris. It may cause noise, heavy vibration, and pump damage.

# **Maintenance**

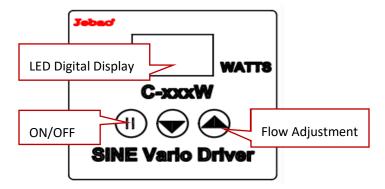
It is your responsibility to upkeep on the maintenance on your **Variable Flow Series Submersible Water Pump**. You must conduct regular routine inspections and make necessary repairs to your pump in order to maintain proper operations.

If the pump is housed in a skimmer make sure the screens and filters in the skimmer are kept clean and free of debris. This will allow water to flow unrestricted into the pump chamber.

If the pump is operated directly in the water feature, make sure the pump intake screen is kept clean and free of debris.

Every water feature is different; learn how frequently your pump needs to be cleaned to allow unrestricted water flow.

Pumps that become damaged due to restricted water flow (running "dry") are not covered under the terms of the warranty.



#### **Function Button Lock:**

While the pump is running, press the " $\blacktriangle$ " or " $\blacktriangledown$ " button for three seconds until the LED light flashes for 3 seconds, the controller locked; Similarly, press the " $\blacktriangle$ " or " $\blacktriangledown$ " button for 3 seconds again, LED indicator light flashes for three times, the controller is now unlocked.

#### Screen Saver:

Once the controller is plugged into the GFCI outlet. If no buttons are pressed for 17 seconds the controller will enter screen saver mode. It will wake up when you press any button.

#### Data memory function:

When the pump powers down, the controller keeps the same settings in memory.

## **Error Codes**

- Er01: Controller current issue, check the GFCI and unplug the pump to reset it.
- Er02: Controller overheating; Move the controller to a shaded area, it might need a cover over it to keep it out of the sun.
- Er03: The pump is running dry. Check the pond and skimmer water level and make sure the skimmer leaf basket, and pump intake screen is clear of debris.
- Er04: The pump was blocked; The impeller is blocked, clean the pump and impeller to ensure the impeller can rotate.
- Er05: Controller voltage issue; check the GFCI and unplug the pump to reset it



**Attention:** We recommend that you remove the pump from the water feature and soak it for up to **36 hours** in a solution of **CLR (Calcium Lime Rust)** and water <u>at least</u> once a year, before pond winterization and storing your pump. Rinse thoroughly before re-installing the pump in the water feature.

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## **LIMITED WARRANTY**

Products manufactured by are warranted to the original user only to be free of defects in material and workmanship for a period of 24 months from the date of purchase, but not more than 30 months from the date of manufacture. HALF OFF PONDS liability under this warranty shall be limited to repairing or replacing, at HALF OFF PONDS's discretion, without charge, F.O.B. HALF OFF PONDS will not be liable for any cost of removal, installation, transportation, or any other charges which may arise in connection with a warranty claim.

Products which are sold but not manufactured by HALF OFF PONDS are subject to the warranty provided by the manufacturer of said product(s) and not by HALF OFF PONDS's warranty. HALF OFF PONDS will not be liable for damage or wear to products caused by abnormal operating conditions, accident, abuse, misuse, unauthorized alteration or repair, or if the product was not installed in accordance with HALF OFF PONDS's printed installation and operating instructions.

To obtain service under this warranty, the defective product must be returned to the distributor or dealer of HALF OFF PONDS's products from which it was purchased together with proof of purchase and installation date, failure date, and supporting installation data. Unless otherwise provided, the distributor or dealer will contact HALF OFF PONDS or an authorized service station for instructions. Any defective product to be returned to HALF OFF PONDS or a service station must be sent freight prepaid: documentation supporting the warranty claim and/or a Return Merchandise Authorization (RMA) must be included if so instructed. In the absence of suitable proof of purchase date, the effective date of this warranty will be based upon the date of manufacture.

Any replacement product may be either new or like-new, provided that it has functionality at least equal to that of the product being replaced. No requests for service under this warranty will be accepted if received more than 30 days after the term of the warranty. Correction of defects, in the manner and for the duration of the warranty described in this warranty, shall constitute complete fulfillment of all liabilities and responsibilities of HALF OFF PONDS to the user with respect to the product, and shall constitute full satisfaction of all claims, whether based on contract, negligence, and strict liability or otherwise. Except for the obligations specifically set forth in this warranty, in no event shall HALF OFF PONDS be liable for direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory and whether advised of the possibility of such damages.

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