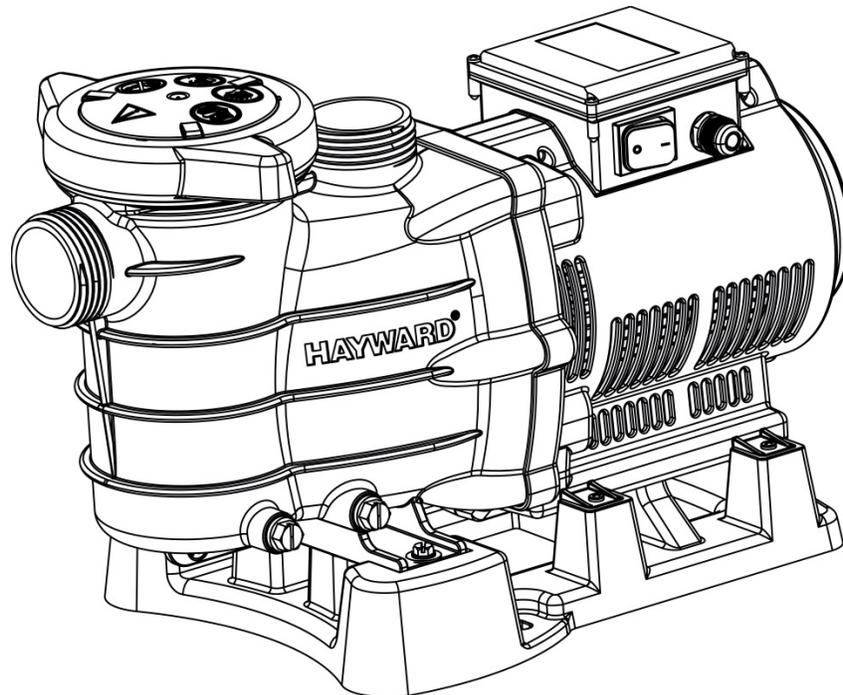


# VL Series Pump®

Owner's Manual



**NOTE** - To prevent potential injury and to avoid unnecessary service calls, read this manual carefully and completely.

**READ AND FOLLOW ALL INSTRUCTIONS**

**SAVE THIS INSTRUCTION MANUAL**

## Table of Contents

1.	IMPORTANT SAFETY INSTRUCTIONS .....	3
2.	General Information .....	6
2.1.	Introduction .....	6
2.2.	Product Dimensions .....	6
3.	Installation and Wiring .....	6
3.1.	Pump Location .....	6
3.2.	Pump Mounting .....	6
3.3.	Plumbing .....	7
3.4.	Electrical .....	7
3.5.	Voltage .....	7
3.6.	Grounding and Bonding .....	7
4.	Startup & Operation .....	7
4.1.	Starting/Priming the Pump .....	7
5.	Maintenance.....	8
6.	Storage / Winterization .....	8
6.1.	Storing Pump For Winterization .....	8
7.	Shaft Seal Change Instructions .....	9
7.1.	Removing the Motor Assembly .....	9
7.2.	Removing the Impeller .....	9
7.3.	Removing the Ceramic Seat .....	9
7.4.	Seal Installation .....	9
7.5.	Replacing the Impeller and Diffuser .....	9
7.6.	Replacing the Motor Assembly .....	10
8.	Replacement Parts .....	11
8.1.	Parts Diagram .....	11
8.2.	Replacement Parts Listing .....	12
9.	Troubleshooting.....	12
9.1.	General Problems .....	12
10.	Warranty.....	14
11.	Product Registration.....	15

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

## 1. IMPORTANT SAFETY INSTRUCTIONS

Before installing or servicing this electrical equipment, turn power supply OFF.



Basic safety precautions should always be followed, including the following: Failure to follow instructions may result in injury.

 This is the safety-alert symbol. When you see this symbol on your pump or in this manual, look for one of the following signal words, and be alert to the potential for personal injury.

 **WARNING** warns about hazards that **could** cause serious personal injury, death or major property damage and if ignored presents a potential hazard.

 **CAUTION** warns about hazards that **will** or **can** cause minor or moderate personal injury and/or property damage and if ignored presents a potential hazard. It can also make consumers aware of actions that are unpredictable and unsafe.

The **NOTICE** label indicates special instructions that are important but not related to hazards.

 **WARNING – READ AND FOLLOW ALL INSTRUCTIONS** in this owner's manual and on the equipment. Failure to follow instructions can cause severe injury and/or death.

 **WARNING** – This product should be installed and serviced only by a qualified professional.

 **CAUTION** – All electrical wiring **MUST** be in conformance with all applicable local codes, regulations, and the National Electric Code (NEC).

**USE OF NON-HAYWARD REPLACEMENT PARTS VOIDS WARRANTY.**

**ATTENTION INSTALLER - THIS MANUAL CONTAINS IMPORTANT INFORMATION ABOUT THE INSTALLATION, OPERATION, AND SAFE USE OF THIS VARIABLE SPEED PUMP THAT MUST BE FURNISHED TO THE END USER OF THIS PRODUCT. FAILURE TO READ AND FOLLOW ALL INSTRUCTIONS COULD RESULT IN SERIOUS INJURY.**

 **WARNING** – To reduce risk of injury, do not permit children to use or climb on this product. Closely supervise children at all times. Components such as the filtration system, pumps, and heaters must be positioned to prevent children from using them as a means of access to the pool.

 **CAUTION** – This pump is intended for use on permanently installed swimming pools and may also be used with hot tubs and spas if so marked. Do **NOT** use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it is capable of being readily disassembled for storage and reassembled to its original integrity. Though this product is designed for outdoor use, it is strongly advised to protect the electrical components from the weather. Select a well-drained area, one that will not flood when it rains. It requires free circulation of air for cooling. Do not install in a damp or non-ventilated location. (For hot tub and spa pumps) Do not install within an outer enclosure or beneath the skirt of a hot tub or spa.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

 **WARNING** – Pool and spa components (seals, gaskets, etc.) have a finite life. All components should be inspected frequently and replaced at least every ten years, or if found to be damaged, broken, cracked, missing, or not securely attached.



 **WARNING** – **Risk of Electric Shock.** All electrical wiring **MUST** be in conformance with applicable local codes, regulations, and the National Electric Code (NEC). Hazardous voltage can shock, burn, and cause death or serious property damage. To reduce the risk of electric shock, do **NOT** use an extension cord to connect unit to electric supply. Provide a properly located electrical receptacle. Before working on pump or motor, turn off power supply to the pump.

 **WARNING** – (For all cord- and plug-connected units) **WARNING** - To reduce the risk of electric shock, replace damaged cord immediately.

 **WARNING** – **Risk of Electric Shock.** In accordance with the National Electric Code (NEC), connect only to a branch circuit protected by a ground-fault circuit-interrupter (GFCI). Contact a qualified electrician if you cannot verify that the circuit is protected by a GFCI. The unit must be connected only to a supply circuit that is protected by a ground-fault circuit-interrupter (GFCI). Such a GFCI should be provided by the installer and should be tested on a routine basis. To test the GFCI, push the test circuit button. The GFCI should interrupt power. Push the reset button. Power should be restored. If the GFCI fails to operate in this manner, the GFCI is defective. If the GFCI interrupts power to the pump without the test button being pushed, a ground current is flowing, indicating the possibility of an electric shock. Do not use this pump. Disconnect the pump and have the problem corrected by a qualified service representative before using.

 **WARNING** – **Suction Entrapment Hazard.** Suction in suction outlets and/or suction outlet covers, which are damaged, broken, cracked, missing, or unsecured cause severe injury and/or death due to the following entrapment hazards (symbols complements of APSP):



**Hair Entrapment** - Hair can become entangled in suction outlet cover.



**Limb Entrapment** - A limb inserted into an opening of a suction outlet sump or suction outlet cover that is damaged, broken, cracked, missing, or not securely attached can result in a mechanical bind or swelling of the limb.



**Body Suction Entrapment** - A differential pressure applied to a large portion of the body or limbs can result in an entrapment.

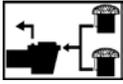


**Evisceration/ Disembowelment** - A negative pressure applied directly to the intestines through an unprotected suction outlet sump or suction outlet cover which is damaged, broken, cracked, missing, or unsecured can result in evisceration/disembowelment.

**Mechanical Entrapment** - There is potential for jewelry, swimsuits, hair decorations, fingers, toes, or knuckles to be caught in an opening of a suction outlet cover resulting in mechanical entrapment.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

**⚠ WARNING** – To Reduce the risk of Entrapment Hazards:



- When outlets are small enough to be blocked by a person, a minimum of two functioning suction outlets per pump must be installed. Suction outlets in the same plane (i.e. floor or wall), must be installed a minimum of three feet (3') [0.91 meter] apart, as measured from near point to near point.
- Dual suction fittings shall be placed in such locations and distances to avoid “dual blockage” by a user.
- Dual suction fittings shall not be located on seating areas or on the backrest for such seating areas.
- Never use pool or spa if any suction outlet component is damaged, broken, cracked, missing, or not securely attached.
- Replace damaged, broken, cracked, missing, or not securely attached suction outlet components immediately.
- In addition to two or more suction outlets per pump installed in accordance with latest APSP standards and CPSC guidelines, follow all national, state, and local codes applicable.
- Installation of a vacuum release or vent system, which relieves entrapping suction, is recommended.



**⚠ WARNING** – **Hazardous Pressure.** Pool and spa water circulation systems operate under hazardous pressure during start-up, normal operation, and after pump shut-off. Stand clear of circulation system equipment during pump start-up. Failure to follow safety and operation instructions could result in violent separation of the pump housing and cover due to pressure in the system, which could cause property damage, severe personal injury, or death. Before servicing pool and spa water circulation system, all system and pump controls must be in off position and filter manual air relief valve must be in open position. Before starting pump, all system valves must be set in a position to allow system water to return back to the pool. Do not change filter control valve position while pump is running. Before starting pump, fully open filter manual air relief valve. Do not close filter manual air relief valve until a steady stream of water (not air or air and water mix) is discharged from the valve. All suction and discharge valves **MUST** be OPEN when starting the circulation system. Failure to do so could result in severe personal injury and/or property damage.



**⚠ WARNING** – **Separation Hazard.** Failure to follow safety and operation instructions could result in violent separation of pump components. Strainer cover must be properly secured to pump housing with strainer cover lock ring. Before servicing pool and spa circulation system, all system and pump controls must be in off position and filter manual air relief valve must be in open position. Do not operate pool and spa circulation system if a system component is not assembled properly, damaged, or missing. Do not operate pool and spa circulation system unless filter manual air relief valve body is in locked position in filter upper body. All suction and discharge valves **MUST** be OPEN when starting the circulation system. Failure to do so could result in severe personal injury and/or property damage.

**⚠ WARNING** – Never operate the circulation system at more than 50 PSI maximum.

**⚠ WARNING** – **Fire and burn hazard.** Motors operate at high temperatures and if they are not properly isolated from any flammable structures or foreign debris they can cause fires, which may cause severe personal injury or death. It is also necessary to allow the motor to cool for at least 20 minutes prior to maintenance to minimize the risk for burns.

**⚠ WARNING** – Failure to install according to defined instructions may result in severe personal injury or death.

## SAVE THESE INSTRUCTIONS

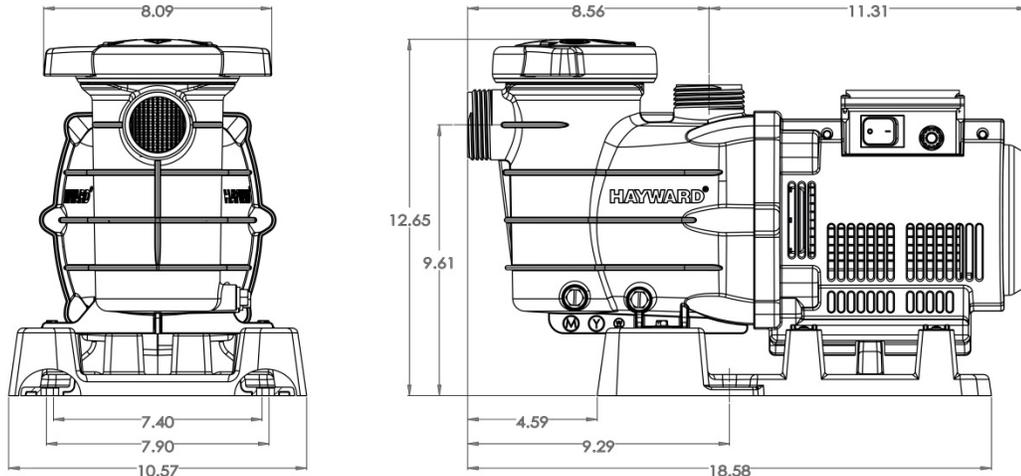
USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

## 2. General Information

### 2.1. Introduction

This manual contains information for the proper installation and operation of the Hayward VL Series Pump. The instructions in this manual **MUST** be followed precisely.

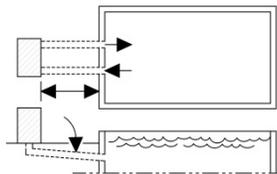
### 2.2. Product Dimensions



## 3. Installation and Wiring

 **WARNING** – This product should be installed and serviced only by a qualified professional.

### 3.1. Pump Location



Locate pump as close to pool as practical and run suction lines as direct as possible to reduce friction loss. Suction lines should have continuous slope upward from lowest point in line. Joints must be tight (but not over-tightened). Suction line diameter must equal or be larger than the discharge line diameter.

Though the pump is designed for outdoor use, it is advised to place pump and filter in the shade to shield them from continuous direct heat. Select a well-drained area that will not flood when it rains. Do NOT install pump and filter in a damp or non-ventilated location. Keep motor clean. Pump motors require free circulation of air for cooling.

### 3.2. Pump Mounting

Install pump on a level concrete slab or other rigid base to meet all local and national codes. Secure pump to base with screws or bolts to further reduce vibration and stress on pipe or hose joints. The base must be level, rigid, and vibration free.

Pump mount must:

- Allow pump inlet height to be as close to water level as possible.
- Allow use of short, direct suction pipe (to reduce friction losses).
- Allow for valves in suction and discharge piping.
- Be protected from excess moisture and flooding.
- Allow adequate access for servicing pump and piping.

**USE ONLY HAYWARD GENUINE REPLACEMENT PARTS**



**WARNING – Hazardous Pressure.** Pumps, filters, and other equipment/ components of a swimming pool filtration system operate under pressure. Incorrectly installed and/or improperly tested filtration equipment and/or components may fail resulting in severe personal injury or death.

### 3.3. Plumbing

1. Fittings (elbows, tees, valves, etc.) restrict flow. For better efficiency, use the fewest possible fittings. Avoid fittings that could cause an air trap. Pool and spa fittings **MUST** conform to the International Association of Plumbing and Mechanical Officials (IAPMO) standards.
2. Union fittings should be connected hand tight. Do not over tighten the fittings as damage may occur.

### 3.4. Electrical



**WARNING** – All electrical wiring **MUST** conform to local codes, regulations, and the National Electric Code (NEC).

**WARNING** – Connect only to a grounded, 3 pin, GFCI protected outlet

### 3.5. Voltage

Voltage at pump **MUST NOT** be more than 10% above or below nameplate rated voltage, or components may overheat, causing overload tripping and reduced component life. If voltage is less than 90% or more than 110% of rated voltage when pump is running at full load, consult the power company.

### 3.6. Grounding

1. Install, ground and wire pump in accordance with local or national electrical code requirements.

## 4. Startup & Operation

### 4.1. Starting/Priming the Pump

Fill strainer housing with water to suction pipe level. If water leakage occurs from anywhere on the pump or filter, **DO NOT** start the pump. If no leakage occurs, stand at least 10 feet from pump and/or filter and proceed with starting the pump.

**WARNING** – Return to filter to close filter manual air relief valve when a steady stream of water (not air or air and water) is discharged from valve. Failure to do so could result in severe personal injury.

**ATTENTION** – **NEVER OPERATE THE PUMP WITHOUT WATER.** Water acts as a coolant and lubricant for the mechanical shaft seal. **NEVER** run pump dry. Running pump dry may damage seals, causing leakage, flooding, and voids warranty. Fill strainer housing with water before starting motor.

**ATTENTION** – Do **NOT** add chemicals to pool/spa system directly in front of pump suction. Adding undiluted chemicals may damage pump and voids warranty.

**ATTENTION** – Before removing strainer cover:

1. **STOP PUMP** before proceeding.
2. **CLOSE VALVES** in suction and outlet pipes.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

3. RELEASE ALL PRESSURE from pump and piping system using filter manual air relief valve. See filter owner's manual for more details.
4. If water source is higher than the pump, pump will prime itself when suction and outlet valves are opened. If water source is lower than the pump, unscrew and remove strainer cover; fill strainer housing with water.
5. Clean and lubricate strainer cover O-ring with "Jack's 327" if necessary.
6. Replace strainer cover on strainer housing; turn clockwise to tighten cover.

**NOTE - Tighten strainer cover lock ring by hand only (no wrenches).**

Turn on power and wait for pump to prime, which can take up to fifteen (15) minutes. Priming time will depend on vertical length of suction lift and horizontal length of suction pipe. If pump does NOT prime within 15 minutes, stop motor and determine cause. Be sure all suction and discharge valves are open when pump is running. See Troubleshooting Guide.

## 5. Maintenance

- Clean strainer basket regularly. Do NOT strike basket to clean. Inspect strainer cover gasket regularly and replace as necessary.
- Hayward pumps have self-lubricating motor bearings and shaft seals. No lubrication is necessary.
- Keep motor clean. Insure motor air vents are free from obstruction to avoid damage. Do NOT use water to hose off motor.
- Occasionally, shaft seals must be replaced, due to wear or damage. Replace with genuine Hayward seal assembly kit. See "Shaft Seal Change Instructions" in this manual.

## 6. Storage / Winterization



**WARNING** – Separation Hazard. Do not purge the system with compressed air. Purging the system with compressed air can cause components to explode, with risk of severe injury or death to anyone nearby. Use only a low pressure (below 5 PSI), high volume blower when air purging the pump, filter, or piping.

**ATTENTION** – Allowing the pump to freeze with water in it will void the warranty.

**ATTENTION** – Use ONLY propylene glycol as antifreeze in your pool/spa system. Propylene glycol is non-toxic and will not damage plastic system components; other anti-freezes are highly toxic and may damage plastic components in the system.

Drain all water from pump and piping when expecting freezing temperatures or when storing pump for a long time (see instructions below). Gravity drain the system as far as possible.

Keep motor dry and covered during storage. To avoid condensation/corrosion problems, do NOT cover or wrap pump with plastic film or bags.

### 6.1. Storing Pump For Winterization



**WARNING** – To avoid dangerous or fatal electrical shock hazard, turn OFF power to motor before draining pump. Failure to disconnect power may result in serious personal injury or death.

1. Drain water level below all inlets to the pool.
2. Remove drain plugs and strainer cover from strainer housing. (See "Parts Diagram" section of this manual for pump component locations.)
3. Disconnect pump from wiring (after power has been turned OFF), and piping.
4. Once the pump is fully drained of water, re-install the strainer cover and drain plugs. Store pump in a dry area.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

## 7. Shaft Seal Change Instructions

### IMPORTANT SAFETY INSTRUCTIONS PLEASE READ AND FOLLOW ALL INSTRUCTIONS

When servicing electrical equipment, basic safety precautions should always be observed including the following. Failure to follow instructions may result in injury.

-  **WARNING** – To reduce risk of injury, do not permit children to use this product.
- Disconnect all electrical power service to pump before beginning shaft seal replacement.
- Only qualified personnel should attempt rotary seal replacement. Contact your local authorized Hayward Dealer or service center if you have any questions.
- Refer to “Parts Diagram” section of this manual for pump component locations.

Exercise extreme care in handling both the rotating and the stationary sections of the two-part replacement seal. Foreign matter or improper handling will easily scratch the graphite and ceramic sealing surfaces.

### 7.1. Removing the Motor Assembly

1. Remove the six (6) 3/8" hex head bolts (item #14), which hold the motor assembly to the pump/strainer housing (item #6), using a 3/8" wrench or socket.
2. Slide the motor assembly out of the pump/strainer housing (item #6), exposing the diffuser (item #10). Remove the diffuser (item #10) off of the seal plate (item #13) to expose the impeller (item #11).

### 7.2. Removing the Impeller

3. To prevent the motor shaft from turning, secure using a flat screw driver on the motor shaft.
4. Remove the impeller (item #11) by rotating counterclockwise.

### 7.3. Removing the Ceramic Seat

5. Remove the spring seal assembly (item #12) and seal plate (item #13) from the motor by removing the four (4) bolts (item #16) that secure it to the motor, using a 5/16" wrench or socket.
6. Press the ceramic seat with rubber cup out of the seal plate (item #13). If tight, use a small screwdriver to tap seal out.

**STOP** - Clean all recesses & parts to be reassembled. Inspect gaskets & replace if necessary.

### 7.4. Seal Installation

7. Clean and lightly lubricate the motor shaft and seal recesses in the seal plate (item #13) with a dilute solution of non-granulated liquid-type soap. Gently wipe the polished face of the ceramic seal with a soft cotton cloth. Lubricate the rubber cup on the ceramic seat and press it firmly into the recess of the seal plate (item #13), with the polished ceramic surface facing out.
8. Reassemble the motor to the seal plate (item #13) using the four (4) bolts (item #16).
9. Gently wipe the black, polished surface of the spring seal assembly (item #12) with a soft cotton cloth.
10. Press the spring seal assembly (item #12) onto the motor shaft, with the black polished surface facing the ceramic seat.

### 7.5. Replacing the Impeller and Diffuser

11. Screw the impeller (item #11) onto the motor shaft in a clockwise direction. Tighten snugly by holding motor shaft with flat head screw driver as noted in step #4.
12. Place the diffuser (item #10) over the impeller (item #11) and onto the seal plate (item #13), aligning the three pins on the diffuser (item #10) with the three holes on the seal plate (item #13).

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

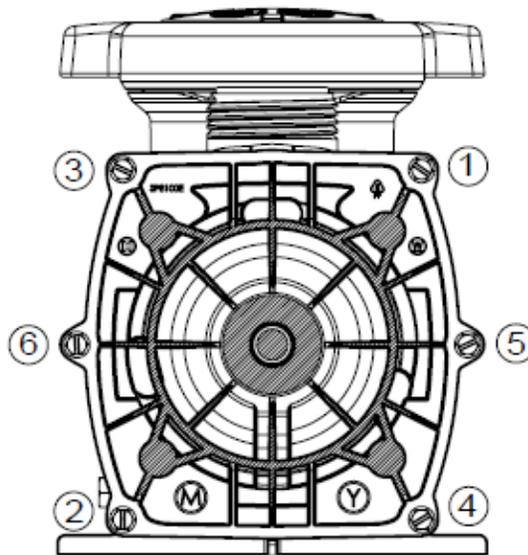
## 7.6. Replacing the Motor Assembly

13. Slide the motor assembly, with the diffuser (item #10) in place, into pump/strainer housing (item #6), being careful not to disturb the diffuser gasket (item #9).
14. Fasten assembly to pump/strainer housing (item #6) using the six (6) bolts (item #14). (Be sure housing gasket (item #8) is in place, and lubricated. Replace if damaged). Tighten bolts alternately and evenly to 50-60 inch-pounds according to housing bolt torque pattern detail (**Figure 7.6-1**).

Figure 7.6-1

**50 - 60 INCH LBS**

**5.6 - 6.8 N m**



## 8. Replacement Parts

### 8.1. Parts Diagram

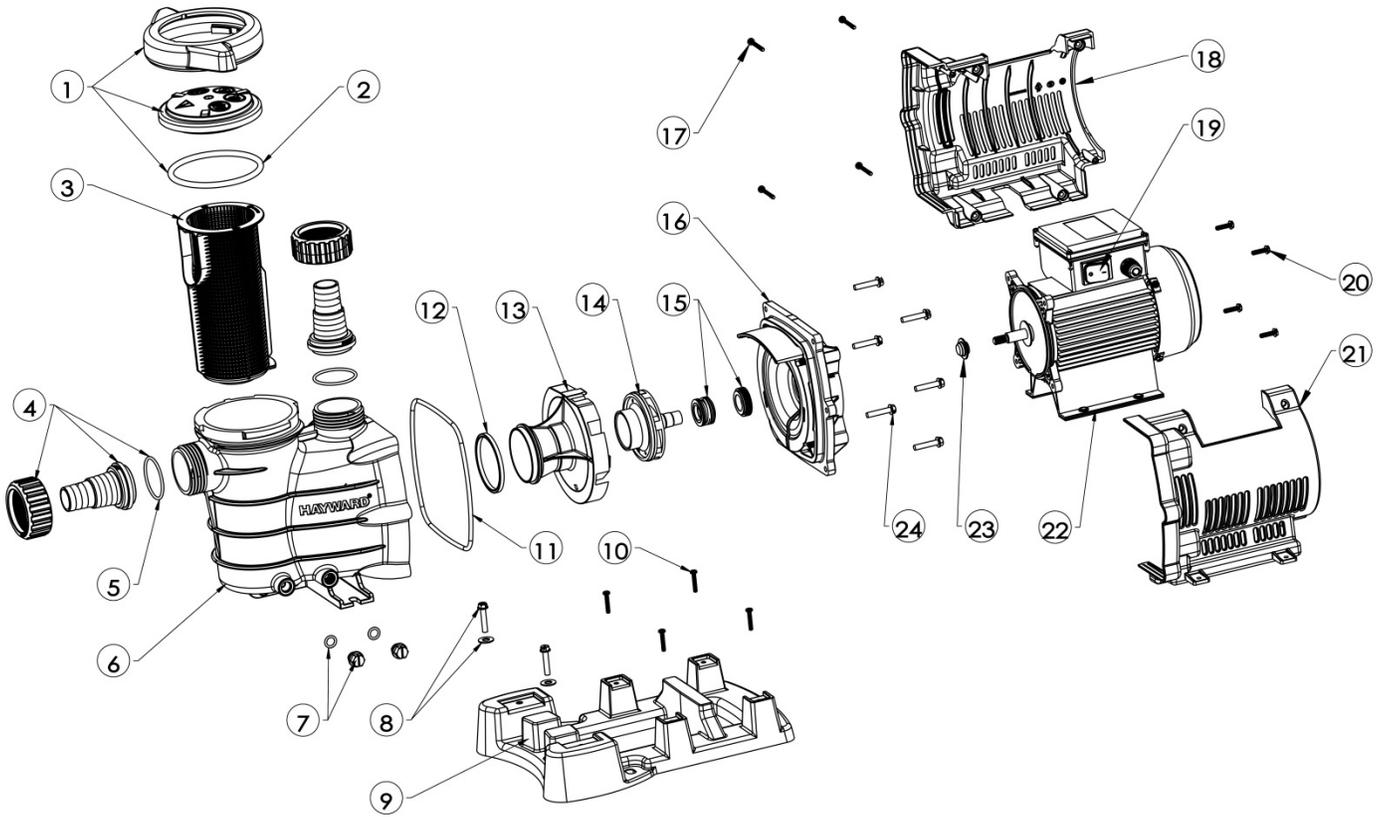


Figure 8.1-1

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

## 8.2. Replacement Parts Listing

Ref. No.	Description	Model VL2280	Model VL2285
1	Strainer Cover Assembly	SPX8100LDS	SPX8100LDS
2	Strainer Cover O-Ring	SPX8100S	SPX8100S
3	Strainer Basket	SPX8100M	SPX8100M
4	Male Adapter Kit	SPX8100UNBPAK	SPX8100UNBPAK
5	Male Adapter O-ring	SPX8100UNO	SPX8100UNO
6	Pump Housing	SPX8100AA	SPX8100AA
7	Drain Plug Assembly	SPX1700FG	SPX1700FG
8	Housing Fix Screw Kit	SX180KKIT	SX180KKIT
9	Base	VLX2280G	VLX2280G
10	Shroud Fix Screw Kit	SPX0714Z2	SPX0714Z2
11	Seal Plate O-Ring	GMX600F	GMX600F
12	Diffuser Gasket	SPX8100R	SPX8100R
13	Diffuser	SPX8100B	SPX8100B
14	Impeller	VLX1280TC	VLX1280TC
15	Shaft Seal Assembly	SPX1600Z2	SPX1600Z2
16	Seal Plate	SPX8100E	SPX8100E
17	Shroud Screw Kit	SPX2700Z3PAK4	SPX2700Z3PAK4
18	Rear Shroud	VLX2280AM2	VLX2280AM2
19	Switch	LTBCYXSW	LTBCYXSW
20	Motor Mounting Screw	SPX8100Z1	SPX8100Z1
21	Front Shroud	VLX2280AM1	VLX2280AM1
22	Motor	VLX2280Z1C	VLX2285Z1C
23	Slinger	SPX1500Q6	SPX1500Q6
24	Housing Screw Kit	6060XZ1	6060XZ1
25	25' Cord Set	SPX1550WA5CH	SPX1550WA5CH

*\* Items 17 & 18 not shown in figure 8.1-1*

## 9. Troubleshooting

### 9.1. General Problems

- **Motor Will NOT Start:**
  1. Check for and correct any improper or loose wiring connections; open switches or relays; tripped circuit breakers, or blown fuses.
  2. With the power disconnected, manually check the rotation of the motor shaft for free movement and lack of obstruction. Correct if necessary.
- **Motor Shuts OFF:**
  1. Check for low voltage or power drop at the motor (frequently caused by undersized wiring). Contact a qualified professional to verify the electrical connections.

**USE ONLY HAYWARD GENUINE REPLACEMENT PARTS**

- **Motor Hums, But Does NOT Start:**
  1. Impeller jammed with debris. Have a qualified repair professional open the pump and remove the debris.
- **Pump Won't Prime:**
  1. Empty pump/strainer housing. Make sure the pump/strainer housing is filled with water and the cover o-ring is clean. Ensure the o-ring is properly seated in the cover o-ring groove. Ensure the o-ring sealing surface is lubricated with "Jack's 327" and that the strainer cover is locked firmly in position. Lubricant will help to create a tighter seal.
  2. Loose connections on the suction side. Tighten the union connections.  
**NOTE** - Any self-priming pump will not prime if there are suction air leaks. Leaks will result in bubbles emanating from the return fittings on the pool wall.
  3. Leaking O-ring or packing glands on valves. Tighten, repair, or replace the valves.
  4. Strainer basket or skimmer basket loaded with debris. Remove the strainer housing cover or the skimmer cover. Clean the basket, and refill the strainer housing with water. Tighten the cover.
  5. Suction side clogged. Contact a qualified repair professional. You should have 5" - 6" of vacuum at the strainer cover (your pool dealer can confirm this with a vacuum gauge). You may be able to check by removing the skimmer basket and holding an object over the bottom port with the skimmer full and the pump running. If no suction is felt, check for line blockage.
    - a. If the pump develops a vacuum, check for a blocked suction line or a dirty strainer basket. An air leak in the suction piping may be the cause.
    - b. If the pump does not develop a vacuum and the pump has sufficient "priming water":
      - i. Re-check the strainer housing cover and all threaded connections for suction leaks. Check if all system hose clamps are tight.
      - ii. Check voltage to ensure that the motor is rotating at full rpm's.
      - iii. Open the housing cover and check for clogging or obstruction in suction. Check the impeller for debris.
      - iv. Remove and replace the shaft seal only if it is leaking.
- **Low Flow – Generally:**
  1. Clogged or restricted strainer or suction line. Contact a qualified repair professional.
  2. Undersized pool piping. Correct the piping size.
  3. Plugged or restricted discharge line of filter, valve partially closed (high gauge reading). Sand filters – backwash as per manufacturer's instructions; D.E. filters – backwash as per manufacturer's instructions; Cartridge filters – clean or replace the cartridge.
  4. Air leak in suction (bubbles issuing from return fittings). Re-tighten the suction and discharge connections using PTFE tape. Inspect other plumbing connections, and tighten as required.
  5. Plugged, restricted, or damaged impeller. Replace the impeller including a new seal assembly.
- **Noisy Pump:**
  1. Air leak in suction piping, cavitation caused by restricted or undersized suction line or leak at any joint, low water level in pool, and unrestricted discharge return lines. Correct the suction condition or throttle return lines, if practical. Holding your hand over the return fitting will sometimes prove this, or by putting in a smaller eyeball fitting.
  2. Vibration due to improper mounting, etc. Mount the pump on a level surface and secure the pump to the equipment pad.
  3. Foreign matter in the pump housing. Loose stones/debris hitting the impeller could be the cause. Clean the pump housing.
  4. Motor bearings noisy from normal wear, rust, overheating, or concentration of chemicals causing seal damage, which will allow chlorinated water to seep into bearings wiping out the grease causing bearing to whine. All seal leaks should be replaced at once.

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS



## 10. Warranty

### HAYWARD® LIMITED WARRANTY

To Buyer, as original purchaser of this equipment, Hayward Pool Products, 620 Division Street, Elizabeth, New Jersey, warrants its products free from defects in materials and workmanship for a period of **ONE (1)** year from the date of purchase.

Parts which fail or become defective during the warranty period, except as a result of freezing, negligence, improper installation, use, or care, shall be repaired or replaced, at our option, without charge, within 90 days of the receipt of defective product, barring unforeseen delays.

To obtain warranty replacements or repair, defective components or parts should be returned, transportation paid, to the place of purchase, or to the nearest authorized Hayward service center. For further Hayward dealer or service center information, contact Hayward customer service department. No returns may be made directly to the factory without the express written authorization of Hayward Pool Products.

To original purchasers of this equipment, Hayward Pool Products warrants its products to be free from defects in materials and workmanship for a period of **ONE (1)** year from the date of purchase.

Filters which become defective during the warranty period, except as a result of freezing, negligence, improper installation, use or care, shall be repaired or replaced, at our option, without charge.

All other conditions and terms of the standard warranty apply.

Hayward shall not be responsible for cartage, removal and/or reinstallation labor or any other such costs incurred in obtaining warranty replacements.

The Hayward Pool Products warranty does not apply to components manufactured by others. For such products, the warranty established by the respective manufacturer will apply.

Some states do not allow a limitation on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

**Hayward Pool Products  
620 Division Street  
Elizabeth, NJ 07207**

**\* Supersedes all previous publications.**

USE ONLY HAYWARD GENUINE REPLACEMENT PARTS

## 11. Product Registration

DATE OF INSTALLATION	_____
INITIAL PRESSURE GAUGE READING (CLEAN FILTER)	_____
PUMP MODEL	_____

\*Retain this Warranty Certificate in a safe and convenient location for your records

**Register Warranty online at [Haywardpool.ca](http://Haywardpool.ca)**