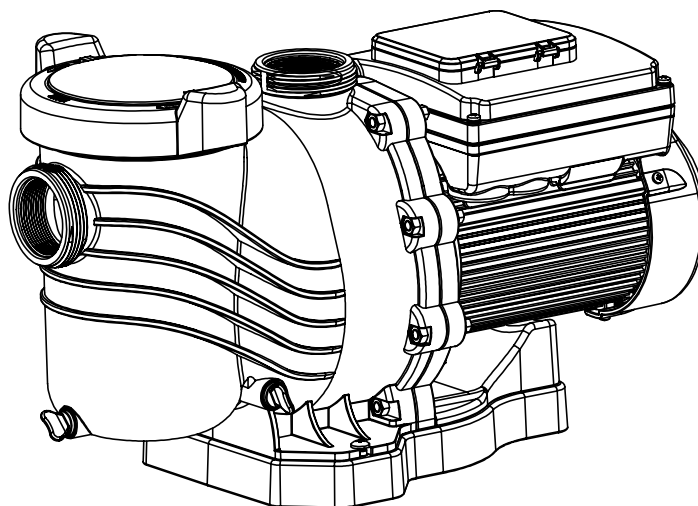




CALIMAR[®]



CMARCF SERIES VARIABLE SPEED PUMP INSTALLATION AND USER'S INSTRUCTIONS



Please read before returning this product for any reason.

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IMPORTANT SAFETY INSTRUCTIONS

NOTICE: This product must be installed and serviced by a contractor licensed and qualified in pool equipment according to local or state requirements.

Before installing and using this electrical equipment, **READ AND FOLLOW ALL INSTRUCTIONS:**



DANGER Indicates a dangerous situation which, if not avoided, may result in death or serious injury.

◆ Applies to all permanently installed equipment on single-phase branch circuits.

◆ The unit must be connected only to a supply circuit protected by a ground-fault circuit interrupter (GFCI).

The installer should provide such a GFCI and it should be tested routinely.

To test: push the test button, power should shut off. Then push reset, power should be restored.

If this fails, the GFCI is defective.

If the GFCI interrupts power without the test button being pressed, ground current is flowing, indicating possible electric shock.

Do not use the pump. Disconnect and have it serviced by a qualified technician.

◆ To reduce the risk of electric shock, replace damaged, broken, cracked, missing, or unsecured suction outlet components immediately. Improperly attached suction outlets may cause severe injury or death due to body entrapment, hair entanglement, limb entrapment, or evisceration.

◆ **SUCTION ENTRAPMENT HAZARD:** Keep away from the main drain and all suction inlets!

This pump does not protect against body or limb entrapment, disembowelment, or hair entanglement!

◆ **HIGH PRESSURE WARNING:** This device operates under high pressure. Stand clear of the pump and filter during start-up. When the circulation system is serviced, air can enter and pressurize the system, causing the lid to blow off, resulting in injury, death, or property damage.

To avoid this hazard, follow these instructions carefully.

◆ Before servicing, record the filter pressure, ensure controls prevent accidental system start, and turn off all power to the pump.

◆ Trapped air can cause the filter lid to blow off, leading to death, serious injury, or property damage. Ensure all air is released before operation.



WARNING indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

- ◆ **Electrical Code Requirements** Electrical connection requirements differ by country, state, and local municipality. Install equipment according to the National Electrical Code (NEC) and all applicable local codes and ordinances.
- ◆ Pumps are powered by a high-voltage motor and must be installed by a licensed electrician or qualified pool service technician.
- ◆ The pump is not submersible.
- ◆ Do not open the controller enclosure; the capacitor bank inside retains high Voltage even when the unit is off.
- ◆ **Electric Shock** – Place the power cord in a safe location. Do not bury it. Avoid damage from lawnmowers, hedge trimmers, and other equipment.
- ◆ **Electric Shock** – Install the pump at least 6 feet from pool walls. Do not use an extension cord.
- ◆ **Electric Shock** – Check the cord regularly. If damaged, stop using the pump and replace it immediately.
- ◆ **Electric Shock** – Connect only to a branch circuit protected by a Ground-Fault Circuit Interrupter (GFCI).
- ◆ **Electric Shock** – Always disconnect power at the circuit breaker before servicing the pump.
- ◆ Do not attempt to change the backwash valve position while the pump is running.
- ◆ Do not allow persons with reduced physical, sensory, or mental capabilities, or lack of experience, to use the product without supervision.
- ◆ The filter and pump should not undergo piping system pressure tests. If unavoidable, consult the manufacturer.
- ◆ Regularly inspect all covers for cracks, damage, or deterioration. Replace damaged or missing certified covers as needed.
- ◆ For multi-residence installations, a clearly labeled emergency switch must be installed and easily accessible.
- ◆ When setting flow rates, the operator must follow local regulations regarding turnover rates and sanitizer feed ratios.
- ◆ Do not store pool chemicals near your equipment. Chemical fumes or spills can corrode equipment, leading to severe injury or property damage.



CAUTION indicates special instructions not related to hazards

◆ **Suction Outlet Maintenance**

Keep suction outlets free of debris (leaves, dirt, hair, paper). Do not run the pump dry; doing so will cause severe damage and void the warranty.

◆ **Ventilation**

Do not install beneath the skirt of a hot tub. Ensure proper ventilation so ambient air temperature remains below the motor rating plate maximum.

◆ **Pool Type**

Permanently installed pools are fixed structures, not easily disassembled. Do not use with storable pools.

◆ **Suction Outlet Compliance**

Use pump only with suction outlets. Failure to comply may cause serious injury or death.

◆ **Component Integrity**

Never use the pool or spa if any suction outlet component is damaged, broken, cracked, missing, or unsecured.

◆ **Protect Pump from Water Exposure**

Protect the pump from direct water exposure (sprinklers, runoff from rooftops, drainage) to prevent motor damage and warranty void.

Congratulations on purchasing your new Variable Speed Pump.

This manual provides proper installation, operation, and maintenance instructions for the Variable Speed Pump.

Please save these instructions for future reference.

This pump uses a quiet TEFC (Totally Enclosed Fan Cooled) motor for energy-efficient operation. You can select speeds from 450 to 3450 RPM. Operating at lower speeds reduces energy costs, lowers noise levels, and decreases greenhouse gas emissions.

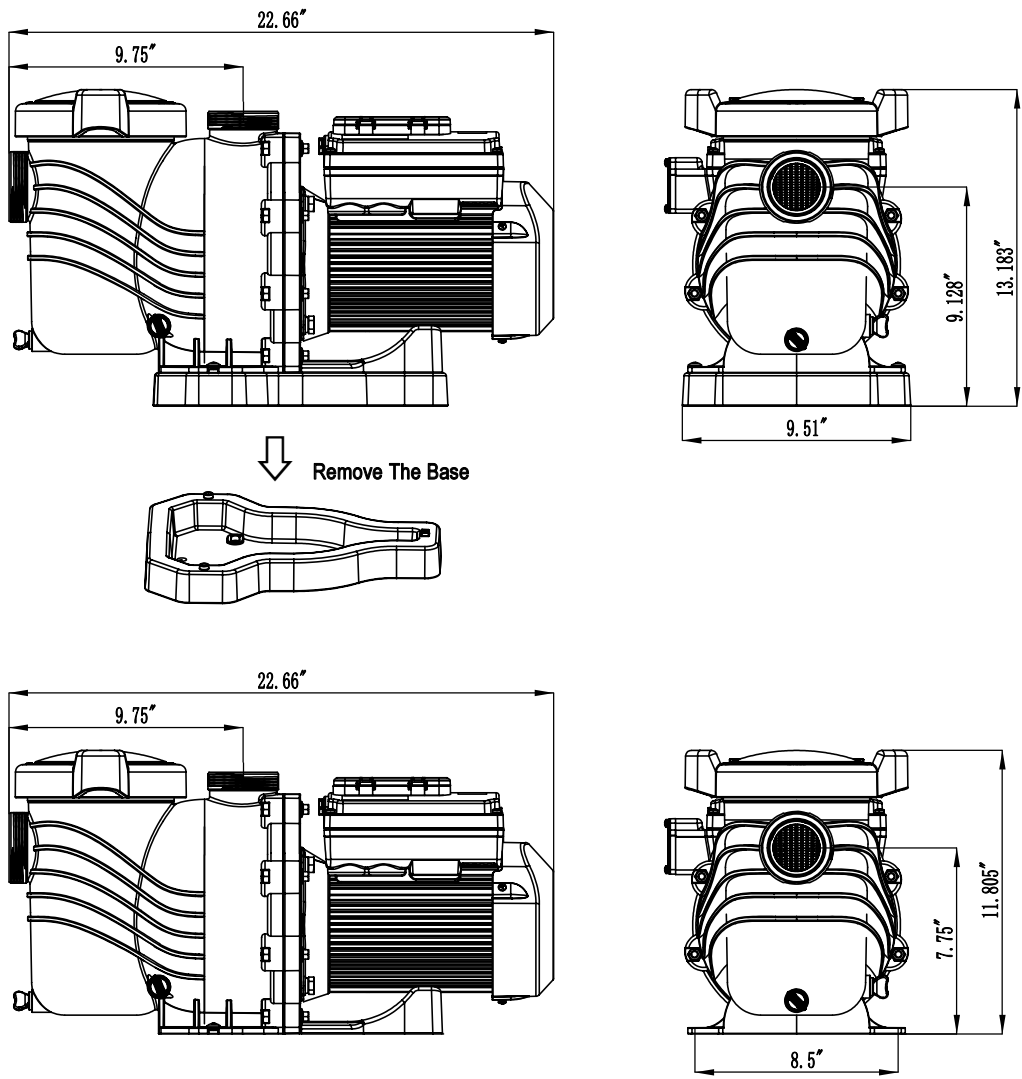
PUMP OVERVIEW

Following is about the proper installation, operation, and maintenance instructions for the Variable Speed Pump. Please save these instructions for future reference.

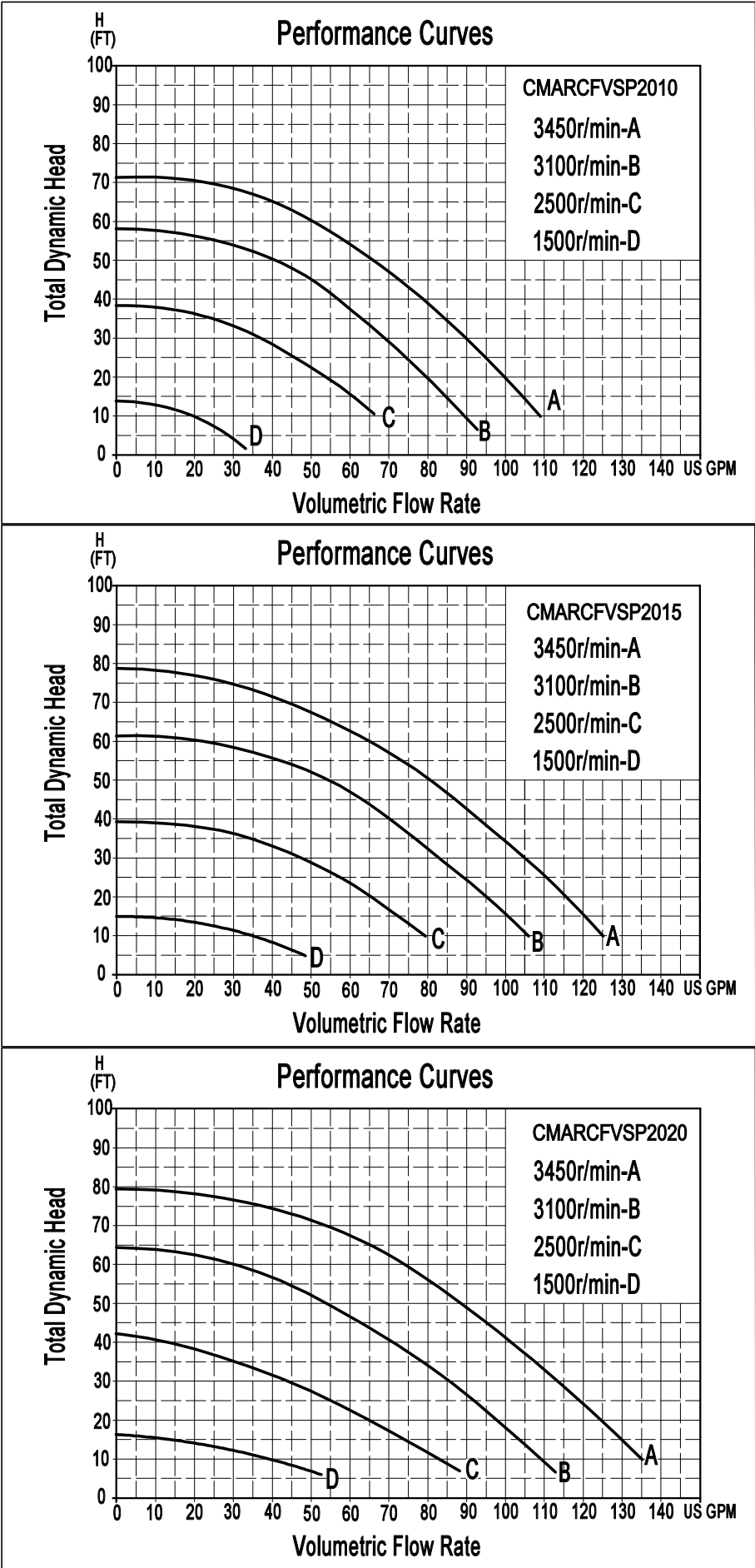
Technical Specifications

CMARCFVSP2010	CMARCFVSP2015	CMARCFVSP2020	CMARCFVSP2030
Input Current: 5.5A	Input Current: 7A	Input Current: 8A	Input Current: 10A
HP: 1.0HP	HP: 1.5HP	HP: 2.0HP	HP: 3.0HP
Input Voltage: 230 Vac Input Frequency: Single phase, 50 or 60 Hz Speed Range: 450 - 3450 RPM Port Size:2"x 2"			

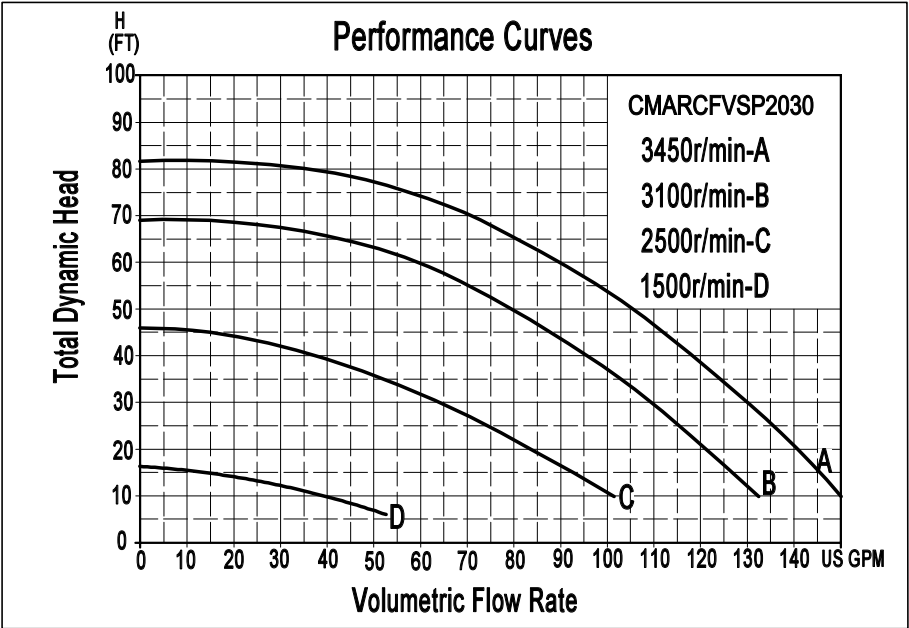
Pump Dimensions



Pump Performance Curves



Pump Performance Curves



INSTALLATION

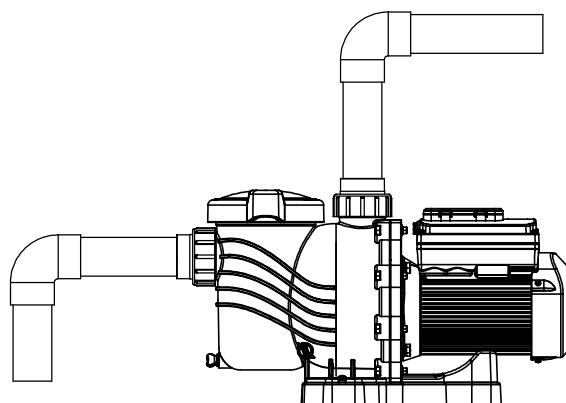
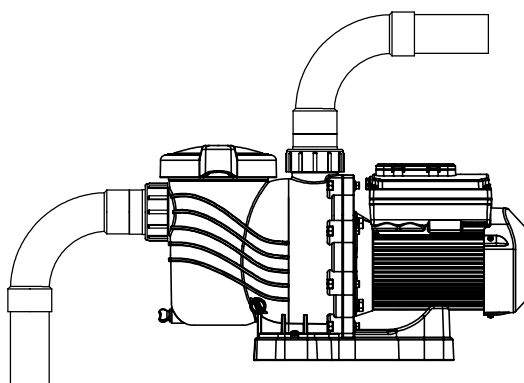
Electrical Requirements

◆ FOR YOUR SAFETY

- ◆ This pump must be installed by a qualified pool professional or licensed/certified electrician and must comply with National Electrical Code as well as all applicable national, state, and local codes.
- ◆ Before installing this product, read and follow all warning notices and instructions that accompany it. Failure to follow instructions can result in property damage, personal injury, or death.
- ◆ Turn OFF the power supply before installing or servicing the pump.
- ◆ Before installing the pump, open the carton and inspect for concealed damage such as dents, broken base, or cracks. If any damage is found, contact the original purchasing store.



Plumbing Installation



- ◆ Protect the pump from direct sunlight and excessive moisture (sun exposure, water runoff, etc.). Locate the pump on a solid surface as close to the pool/spa as possible.
- ◆ For trouble-free self-priming, consult local regulations for minimum distance between pool and pump.
- ◆ Allow enough space around the pump for maintenance and service.
- ◆ Use direct and short piping to the suction to reduce friction loss.
- ◆ Ensure proper surface drainage to prevent flooding.
- ◆ The pump suction inlet should be as close to the water source as possible; the maximum height allowed is 5 ft.
- ◆ Avoid using a suction pipe smaller than the pump connection.
- ◆ The suction pipe should be the same size or larger than the discharge pipe.
- ◆ Prevent the motor from overheating by ensuring the pump is properly ventilated.

Wiring

IMPORTANT VOLTAGE NOTICE: Refer to page 5 for the model you have purchased, and ensure that it is connected to the specified correct voltage.

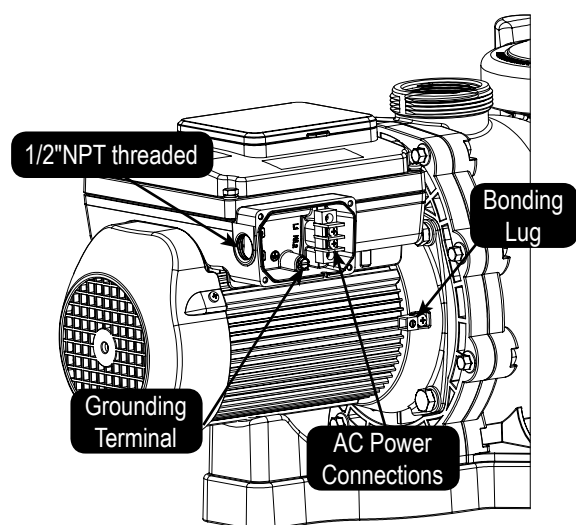
Connecting to incorrect voltage or using in other applications may cause equipment damage or personal injury.



◆ RISK OF ELECTRIC SHOCK

- ◆ The pump must be installed following the National Electrical Code and all applicable local codes. Make sure to connect to the correct voltage.
- ◆ Ensure all electrical connections are tight and clean.
- ◆ Before wiring the pump, make sure all circuit breakers and switches are turned off.
- ◆ After disconnecting power, wait six (6) minutes before turning on or servicing the drive.

Bonding and Grounding



wiring diagram

Line-----	ΦL1	L
Line-----	ΦL2	N
GND--		US EU

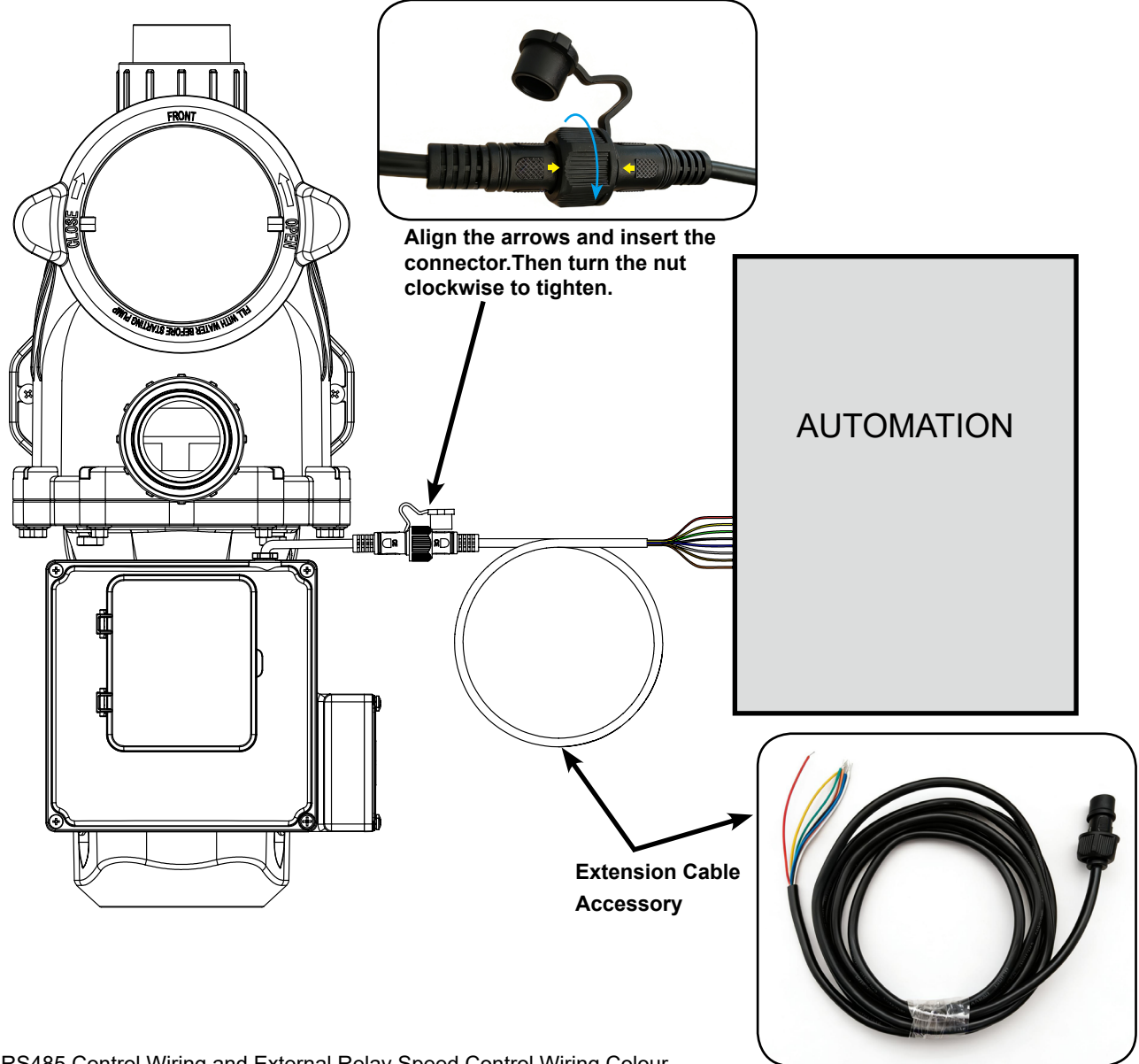
SUITABLE FOR FIELD WIRING
USE COPPER CONDUCTORS ONLY

**USE SOLID WIRE #8 AWG IN USA AND
#6 AWG IN CANADA FOR BONDING**

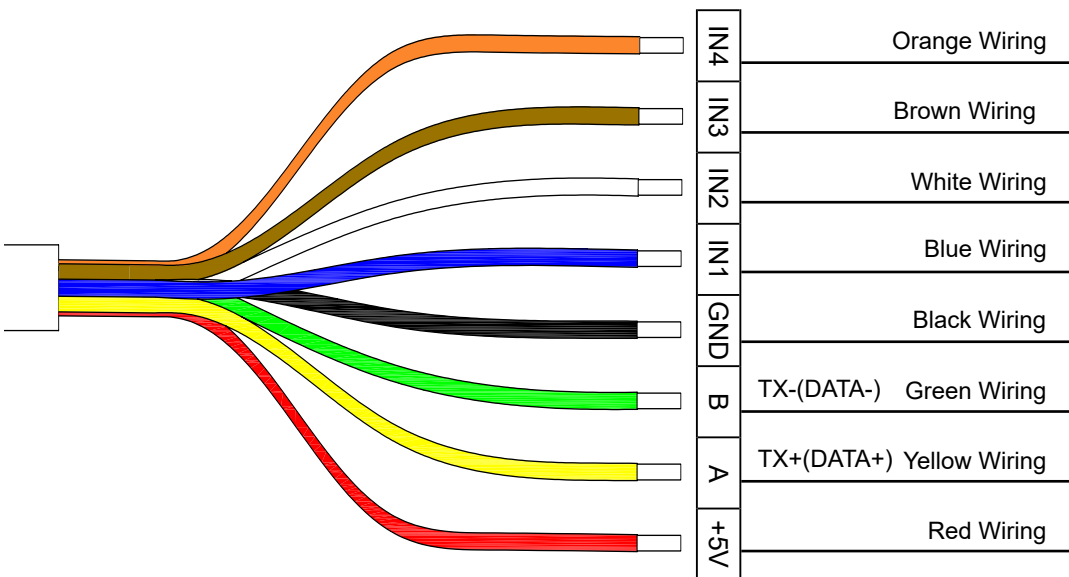
- ◆ The pump must be installed in accordance with the National Electrical Code and all applicable codes.
- ◆ Connect the electrical service ground using the green ground terminal.
- ◆ To reduce the risk of current, the pump motor must be bonded to all metal parts of the swimming pool and conduit within 5 ft. (1.5 m) of inside walls.
- ◆ Use a solid copper bonding conductor not smaller than 8 AWG; in Canada, use 6 AWG or larger.
- ◆ The pump should be permanently connected to a circuit breaker, 2-pole timer, or 2-pole relay.
- ◆ If AC power is supplied by a GFCI circuit breaker, use a dedicated breaker with no other electrical loads.
- ◆ Connect the pump permanently to a circuit. Make sure no other lights or appliances share the same circuit.
- ◆ The field wiring compartment has a 1/2" NPT threaded conduit port for liquid-tight fittings.
- ◆ Use the bonding lug to bond the motor frame to the equipment pad.

Control Wiring and External Relay Speed Control Wiring

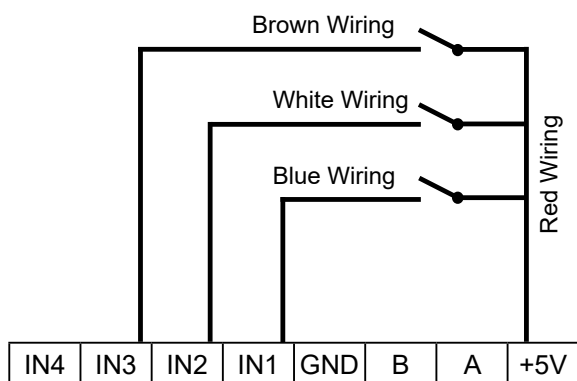
(External Control only for Model:100EPE-VSBC,150EPE-VSBC,200EPE-VSBC,300EPE-VSBC,130EPE-VSBC,165EPE-VSBC)



RS485 Control Wiring and External Relay Speed Control Wiring Colour



Remote control scheme 1



Mode	RELAY	IN1	IN2	IN3		Default Speed(RPM)
Manual or Schedule	1	ON	OFF	OFF	SPEED1	3000
	2	OFF	ON	OFF	SPEED2	1500
	3	OFF	OFF	ON	SPEED3	2500

IN1/IN2/IN3 is controlled by 3 external relays. After the relay is pull-in in one of IN1/IN2/IN3, the running time corresponding to the speed can be realized. The speed is completed on the pump operation panel. Refer to the **"Set the speed and time of the four speeds in Schedule mode"** for the specific operation steps.

EXAMPLE: Set start time and end time for every relay on external Automation panel:

IN1→RELAY1:Start AM 8:00-Stop AM10:00 Operating speed 3000RPM.

IN2→RELAY2:Start AM 11:00-Stop PM 1:00 Operating speed 1500RPM.

IN3→RELAY3:Start PM 2:00-Stop PM10:00 Operating speed 2500RPM.

Remote control scheme 2

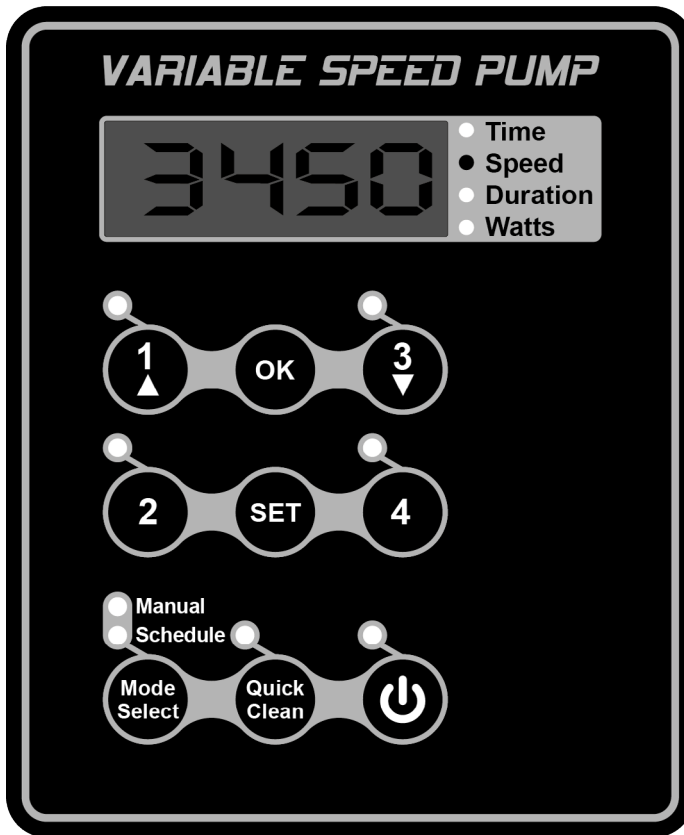


Mode Select	RELAY	IN4		Default Speed(RPM)	Default Duration(Hours)
Manual	1	ON	SPEED1	3000	2
			SPEED2	1500	10
			SPEED3	2500	2
			SPEED4	1000	4
Schedule	1	ON	Quick Clean	3450	/

IN4 It is controlled by one relay of the external controller. After the relay is closed, four kinds of speeds can be realized corresponding to different running times. The time and speed are all completed on the pump operation panel. Refer to the **"Set the speed and time of the four speeds in Schedule mode"** for the specific operation steps.

OPERATION & SETTINGS

Panel Introduction



Interface description

- 1) Time: The current time
- 2) Speed: Rotational speed.
- 3) Duration: Duration
- 4) Watts: Real-time power consumption.

5) Button **1** : 1-speed gear, the value is increased in the setting state.

6) Button **2** : 2-speed gears.

7) Button **3** : 3-speed gears, the value is decreased in the setting state.

8) Button **4** : 4-speed gears.

9) Button **OK** : The save function is in the setting state, and the current parameters can be viewed while running.

10) Button **SET** : Set the activation Button, press the Button **SET** while running, and adjust the rotation speed by pressing **1** and **3**.

11) Button **Quick Clean** : Quick cleaning function.

When the pump is running in schedule mode, it automatically switches to the QUICK CLEAN setting speed by pressing the Button , replacing the current schedule mode running speed, and the total time remains unchanged. If you need to exit QUICK CLEAN, press the Button again.

12) Button **Power** : Pump start/stop.

13) Button **Mode Select** : Mode switch, Manual /Schedule/Wi-Fi. In the setting state: switch or on.

"Manual": When the pump starts, select the required speed gear, and then press the Button to run the pump for 24 hours of continuous operation.

"Schedule": The pump can be turned on at a scheduled time according to the set start time, and it will run according to the set speed and duration. If it exceeds the set total time, the pump will stop working and be in a standby state; 24 hours is a cycle.

1. Set the system parameters

(address code--- 12H/24H switching--- set the current time--- set the self-priming on and off and set the speed and time--- on or off the anti-freeze function and set the temperature).

Note: It can only be set when the pump is stopped.

STEPS	Operating Instruction	Display
1	Long press Button SET for 3S to set the activation	PA:01
2	Set by Button 1 and Button 3	PA: 01-09 Universal
3	Press the Button OK to save	It shows 8:00 AM (default 12-hour format), and the LED time light flashes
4	Press the Button Mode Select to switch	12H switches to 24H (12H displays AM or FM+ display time).
5	Adjust the current time by Button 1 and Button 3	
6	Press the Button OK to save	P0:00 (P0:00 indicates self-priming OFF).
7	Adjust the self-priming time by Button 1 and Button 3	P0:01-P0:15 can be set (Max. 15min)
8	Press the Button OK to save	Display self-priming speed 3400 RPM (self-priming default speed)
9	Adjust the self-priming speed by Button 1 and Button 3	The self-priming speed of 2000-3450 RPM can be set
10	Press the Button OK to save	F: 0 (F: 0 means antifreeze OFF).
11	Antifreeze ON or OFF by Button 1 and Button 3	F: 1 indicates antifreeze ON
12	Press the Button OK to save	Display antifreeze temperature 40F
13	Press the Button Mode Select to switch	Switch Fahrenheit and Celsius
14	Adjust the antifreeze temperature by Button 1 and Button 3	temperature range 40-50F, 4.4-10°C
15	Press the Button OK to save	the default antifreeze speed is 1000 RPM
16	Adjust the antifreeze speed by Button 1 and Button 3	Antifreeze speed 750 RPM - 3450 RPM can be set
17	Press Button OK to save and exit	
Note: If you want to exit directly during the setting process, just press the Button SET .		

Default Parameters			
	Default speed(rpm)	Default startup time	Default duration
Priming	3400		Default Off (1-15min)
Freeze	1000		Off by default
1 	3000	AM 8:00	2
2 	1500	AM 10:00	10
3 	2500	FM 8:00	2
4 	1000	FM 10:00	4
Quick Clean 	3450		The default 30 min Range is 1MIN-1H

2. Set the speed and time of the four speeds in Schedule mode

Note: The pump can only be set when it is stopped. The following are the SPEED 1 setting steps.

STEPS	Operating Instruction	Display
1	Press the Button 1 	Display speed 3000 RPM
2	Press the Button SET 	Activate the setting (LED Speed light flashes)
3	Adjust the rotation speed by Button 1  and Button 3 	
4	Press the Button OK  to save	12H display start time AM8:00 LED Time light flashes 24H display start time 8:00 LED Time light will flash
5	Adjust the startup time by Button 1  and Button 3 	
6	Press the Button OK  to save	Display duration 2:00 LED Duration light flashes
7	Adjust the duration with Button 1  and Button 3 	
8	Press Button OK  to save and exit	
	Note: SPEED 2  , 3  and 4  settings are the same as above	

3. Set the Quick Clean speed and time

Note: The water pump can only be set when it is stopped. The following are the Quick Clean setting steps.

STEPS	Operating Instruction	Display
1	Press the Button 	Display speed 3400 RPM
2	Press the Button  to activate the settings	LED Speed light flashes
3	Set the rotation speed by Button  and Button 	
4	Press the Button  to save	Display duration 0:30, LED Duration light flashes
5	Adjust the startup time by Button  and Button 	
6	Press the Button  to save	

User settings data			
	speed(rpm)	startup time	duration
			
			
			
			
	speed(rpm)	duration	
			
Priming			
	ON/OFF	Temperature	speed(rpm)
Freeze			

4. Factory reset

STEPS	Operating Instruction	Display
1	Press and hold Button  10S	Reset to factory settings

MAINTENANCE

Routine Maintenance

This pump requires minimal service; routine maintenance involves keeping the basket clean and inspecting it once a week. Check the O-ring or other components when cleaning and replace if necessary.

- Turn off the power and release the system pressure.
- Inspect the pump basket for debris and remove it. Replace the basket if cracked.
- Loosen the suction inlet hose or piping.
- Turn the transparent lid nut counter-clockwise by hand and lift the transparent lid.
- Remove the basket and fill the pump pot and volute with water up to the inlet port.
- Clean the clear lid, O-ring, and sealing surface of any debris.
- Verify that all valves have been returned to the correct position for normal operation.
- Turn ON the power to the pump.



SERVICING



- ◆ Before servicing the pump, switch off the circuit breakers at the power source.
- ◆ The pump must be serviced by a professional technician qualified in pool/spa installation.
- ◆ Improper installation or operation can create electrical hazards and high voltage risks.

Pump Disassembly

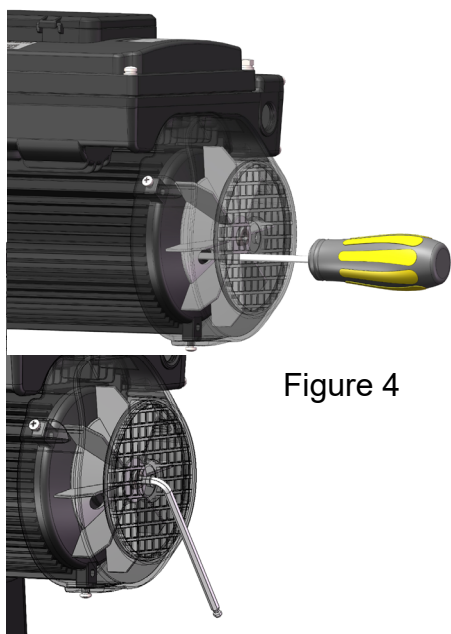


Figure 4

To remove and repair the motor sub-assembly, follow these steps:

Press the Start/Stop button to stop the pump and turn off the power.

1. Drain the pump by removing the drain plugs.

2. Remove the 8 bolts using a 10mm socket or open-end wrench and hold the pump housing to separate the rear sub-assembly.

3. Gently pull the two pump halves apart to remove the rear sub-assembly.

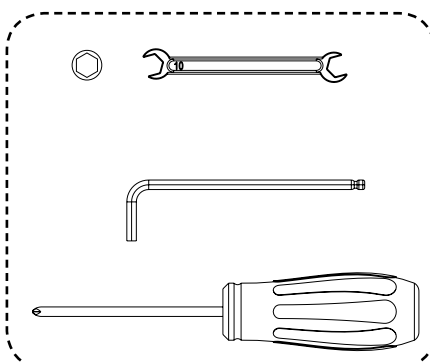
4. To unscrew the impeller from the shaft, insert a Phillips screwdriver into the motor fan hole and twist the impeller counter-clockwise. See Figure 4.

5. Place the seal plate face down on a flat surface and remove the carbon spring seat.

6. Remove the graphite seal ring from the impeller shaft. Clean the seal plate, seal housing, and impeller shaft.

Tools Needed:

- ◆ 10mm socket or open-end wrench
- ◆ Phillips screwdriver
- ◆ L-shaped Allen wrench



- ◆ **Do NOT operate the pump without water.**
- ◆ Running the pump dry will damage the mechanical seal and cause the pump to leak.
- ◆ If this happens, the damaged seal must be replaced. Always maintain the proper water level.
- ◆ If the water level drops below the suction port, pump will draw air, lose its prime, and run dry, damaging the seal.
- ◆ Continued operation in this manner can cause pressure loss, damaging the pump case, impeller, and seal, potentially resulting in property damage and personal injury.



Pump Reassembly

1. When installing the replacement seal into the seal plate, wet the rubber boot with soapy water and press the seal into the plate.
2. Reinstall the seal plate onto the motor.
3. Before installing the rotating part of the seal on the impeller shaft, wet the shaft with soapy water and slide the seal to the end.
Clean the seal contact surface with a clean cloth.
4. Screw in the impeller lock screw (tighten clockwise). Note: Insert a Phillips screwdriver into the motor fan hole.
5. Remount the diffuser onto the seal plate.

6. Apply silicone grease to the diffuser quad ring and seal plate O-ring before reassembly.
7. Assemble the motor sub-assembly to the strainer pot and pump body.
Tighten the bolts until all 4 are in place and finger-tightened.
8. Fill the pump with water.
9. Read and follow the "Priming Program" before reinstalling the pump lid and plastic clamp.
10. Re-prime the system.

TROUBLESHOOTING

Error Code

The screen will display error codes once the pump encounter problems and stop running. When error codes occur, un-plug the pump power cord to shut down the pump, wait for the LED lights to go out. Reconnect the power supply to the pump.

Troubleshooting is required if the error code appear again. Details error code and troubleshooting description list in below table

Error Code & Description	
E-01 Inverter unit protection E-02 Acceleration over current E-03 Deceleration over current E-04 Constant speed over current E-05 Acceleration over voltage E-06 Deceleration over voltage E-07 Constant speed over voltage E-09 Motor overload E-10 Inverter overload E-24 Inverter hardware fault	E-08 Under voltage fault Absolute AC low voltage is detected. This may be caused by normal voltage fluctuations and will clear automatically. Use a multimeter to check if input voltage is below 220V. If so, there is an issue with the supply; if voltage is normal, the controller may be at fault.
Internal error. Frequent alarms may indicate a problem with rotating parts (motor, impeller, seals, or bearings). Disassemble the pump and inspect the impeller, seals, and bearings. See page 17 for disassembly instructions.	E-14 Module overheating Module overheating, possibly due to overload or high ambient temperature (above 40 °C /104 °F). Check if the fan cover is blocked or if the fan blades are damaged.
E-12 Phase failure at output side E-17 Current detection fault	E-16 Communication fault Communication between HMI and controller is lost or damaged. Check the communication wire at the back of the keypad on the controller top cover. Ensure the 6-pin wire is properly inserted and undamaged.

Troubleshooting Guide

PUMP FAIL TO START

No display

Check that all power switches are on, breakers are correctly set, the timer is properly configured, and motor wiring at terminals.

Pump shaft damaged

Replace the motor or bearing.

Pump shaft locked

Verify that the pump can rotate by hand and remove any blockages.

PUMP FAULT

Pump does not start, leaks, or draws too much air

Check suction pipe and gate valves. Secure the pump lid, ensure gasket is in place, and verify water level to prevent air intake.

Pump filter basket blocked

Clean pump body and replace filter basket.

Pump does not start and water flow is insufficient

Ensure suction lines, pump, filters, and pump volute are filled with water.
Make sure valves in suction line are open and water flows through the skimmer.

PUMP IS NOISY

Fan has debris

Check for debris behind the pump.

Fan has debris

Check for debris behind the pump.

Fan has debris

Check for debris behind the pump.

Loose installation

Check pump and mounting bolts for tightness.

Pump shaft damaged

Replace the motor or bearings.

PUMP IS NOISY

Air leaks in suction lines or bags

Check suction lines and valves, secure the pump lid, ensure gasket is in place, and verify water level to prevent air intake.

No water flow during pump operation

Check if pump rotates by observing the rear fan. If it rotates, ensure impeller is properly installed.

Impeller or pump filter blocked

Turn off power, disassemble the pump (see page 17 "Pump Disassembly"), and remove debris from the impeller. If debris remains, remove left screws and O-ring, clean and reinstall impeller, reassemble as per page 18 "Pump Reassembly," and clean the suction trap..

Plugged or restricted pipes

Check filter and suction pipes for blockages, including partial shut-off valves or dirty pool filters.

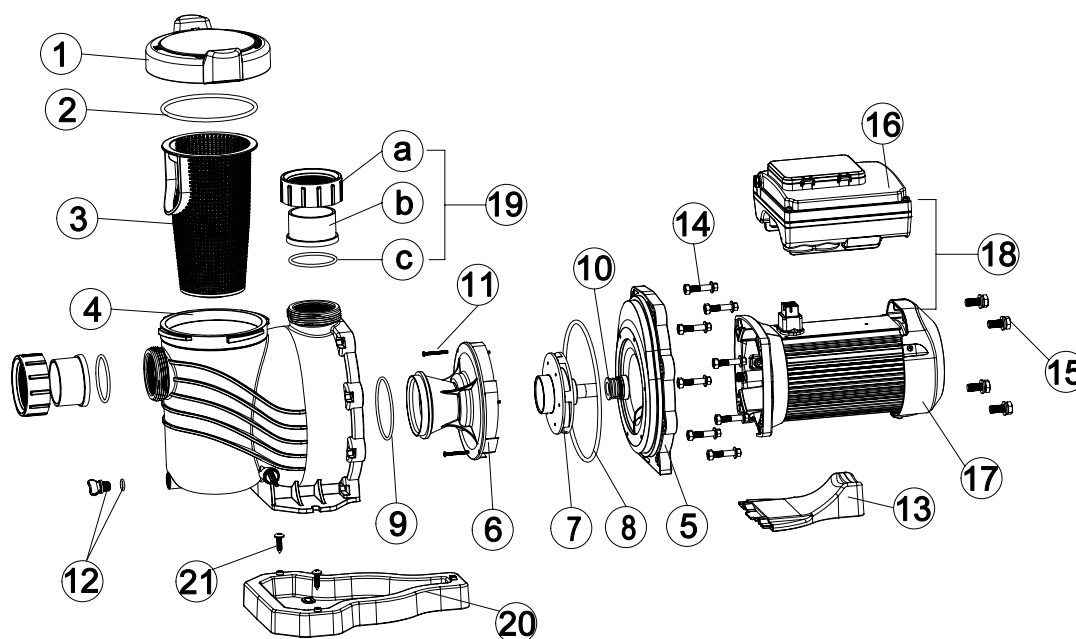
Air leakage

Check pipe connections and ensure they are tight.

Pump runs, then alarms and stopsn has debris

Error code displayed; see page 18 "Error Code."

REPLACEMENT PARTS



Ref. No.	Part No.	Description	Qty
1	100EPE-SCK	Strainer Cover Kit	1
2	100EPE-CO	Cover O-ring	1
3	100EPE-B	Basket	1
4	100EPE-SH	Strainer Housing	1
5	100EPE-SP	Seal Plate	1
6	100EPE-D	Diffuser	1
7a	100EPE-IM	Impeller for CMARCFVSP2010	1
7b	150EPE-IM	Impeller for CMARCFVSP2015	1
7c	200EPE-IM	Impeller for CMARCFVSP2020	1
7d	300EPE-IM	Impeller for CMARCFVSP2030	1
7e	130EPE-IM	Impeller	1
7f	165EPE-IM	Impeller	1
8	100EPE-SHO	Strainer Housing O-ring	1
9	100EPE-DO	Diffuser O-ring	1
10	100EPE-SA	Seal Assembly	1
11	100EPE-DS	Diffuser Screws(2pcs)	1
12	100EPE-DPO	Drain Plug with O-ring 2pcs	1
13	100EPE-MF	Mounting Foot	1
14	100EPE-HBK	Housing Bolt Kit(8pcs) Motor	1
15	100EPE-MBK	Bolt Kit(4pcs)	1
16a	100EPE-MD	Motor Drive for CMARCFVSP2010	1
16a1	100EPE-MDC	Motor Drive	1
16b	150EPE-MD	Motor Drive for CMARCFVSP2015	1
16b1	150EPE-MDC	Motor Drive	1
16c	200EPE-MD	Motor Drive for CMARCFVSP2020	1
16c1	200EPE-MDC	Motor Drive	
16d	300EPE-MD	Motor Drive for CMARCFVSP2030	

Ref. No.	Part No.	Description	Qty
16d1	300EPE-MDC	Motor Drive	1
16e	130EPE-MD	Motor Drive	1
16e1	130EPE-MDC	Motor Drive	1
16F	165EPE-MD	Motor Drive	1
16F1	165EPE-MDC	Motor Drive	1
17a	100EPE-M	TPA1-120-35-6SQ for CMARCFVSP2010	1
17b	150EPE-M	TPA1-120-40-6SQ for CMARCFVSP2015	1
17c	200EPE-M	TPA1-120-45-6SQ for CMARCFVSP2020	1
17d	300EPE-M	TPA1-120-55-6SQ for CMARCFVSP2030	1
17e	130EPE-M	TPA3-120-35-6SQ	1
17f	165EPE-M	TPA3-120-40-6SQ	1
18a	100EPE-VMD	VSPM-SV13SQ-D for CMARCFVSP2010	1
18a1	100EPE-VMDC	VSPM-SV13SQ-DC	1
18b	150EPE-VMD	VSPM-SV15SQ-D for CMARCFVSP2015	1
18b1	150EPE-VMDC	VSPM-SV15SQ-DC	1
18c	200EPE-VMD	VSPM-SV18SQ-D for CMARCFVSP2020	1
18c1	200EPE-VMDC	VSPM-SV18SQ-DC	1
18d	300EPE-VMD	VSPM-SV22SQ-D for CMARCFVSP2030	1
18d1	300EPE-VMDC	VSPM-SV22SQ-DC	1
18e	130EPE-VMD	VSPM-DV13SQ-D	1
18e1	130EPE-VMDC	VSPM-DV13SQ-DC	1
18f	165EPE-VMD	VSPM-DV15SQ-D	1
18f1	165EPE-VMDC	VSPM-DV15SQ-DC	1
19	100EPE-UCK	Union Connector Kit	1
20	100EPE-BP	Base Part	1
21	100EPE-MBSK	Mounting Foot and base Screws kit (ST6.3X25 2pcs)	1

WARRANTY

The CaliMar® Variable Speed Pool Pumps are warranted to be free from defects in materials and workmanship, under normal use and non-commercial application, for a period of one (1) year.

This limited warranty is subject to the following terms, conditions, and exclusions.

To obtain the benefits of this warranty, contact the warranty department for troubleshooting. Proof of purchase may be required. This warranty extends to the original retail purchaser and original installation site only, beginning at the original date of purchase, and is non-transferrable. CaliMar® Variable Speed Pumps are intended for residential pool use and any commercial application voids the warranty.

Should a defect in any item or part covered by the warranty become evident during the warranty's term, CaliMar® will at its sole discretion repair or replace such item or part. CaliMar® reserves the right to replace defective parts with new or refurbished parts. This warranty does not include the cost of labor or transportation charges for equipment or component parts to or from CaliMar®, or the removal, reinstallation, or any such costs incurred in obtaining warranty. The warranty is not applicable to problems arising from circumstances outside the control of CaliMar®, including, but not limited to the following:

- Damage or premature wear due to improper pool chemistry, and failure to maintain pool water chemistry in accordance with the recommendations contained in the owner's manual.
- Damage due to improper installation or connection to improper voltages, including materials and workmanship supplied by others.
- Damage due to negligence or failure to properly maintain equipment, including operation with insufficient water flow or the maintenance of clean and tight electrical connections.
- Damage due to improper service, as well as unauthorized equipment modifications and use of non-genuine replacement parts.
- Damage due to misapplication, misuse, abuse, or failure to operate equipment as specified in the owner's manual.
- Problems resulting from tampering, accident, fire, flood, freezing, lightning, insects, or other natural elements, or other circumstances beyond the control.
- Damage due to over-tightening of threaded components or excessive pressure or stress.

Disclaimers: This limited warranty constitutes the entire warranty. No other warranties apply, expressed or implied. The liability of CaliMar® shall not exceed the repair or replacement of defective items or parts under the referenced limited warranty terms. Under no circumstances shall CaliMar® or authorized agent/installer be responsible for consequential, special, or incidental damage(s) of any kind, including but not limited to personal injury, property damage, or damage to or loss of equipment. CaliMar® or agent/installer is not liable for any other expenses that may be incurred during installation or servicing. This warranty is valid only in the United States of America



CALIMAR®

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