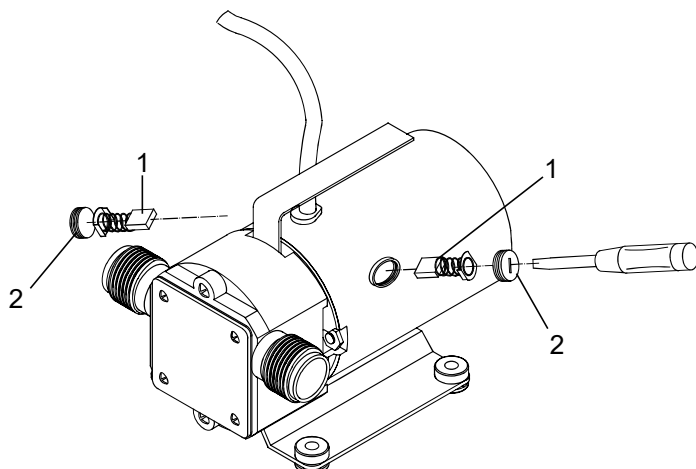


Brush Replacement (continued)



Item	Description	Qty
1	Brush	2
2	Brush cap	2



NOTE: Use a flathead screwdriver or coin to remove the brush caps.



NOTE: Replace both brushes at the same time to prevent uneven motor operation.

Troubleshooting



CAUTION: SHUT OFF POWER TO THE PUMP.

Problem	Possible Cause	Corrective Action
The motor runs but no water is discharged or flow rate is lower than expected.	The suction or Discharge hose or pipe is blocked or too restrictive.	<ul style="list-style-type: none"> <input type="checkbox"/> Check hose/pipe for blockages. <input type="checkbox"/> Check manual for maximum lengths of pipe/hose that pump can handle. <input type="checkbox"/> Do not use a hose/pipe that is narrower than the discharge of the pump itself.
	The discharge hose/pipe goes up too high.	Every pump has a maximum "head" capability, which is the highest it can lift water. Do not route the discharge hose/pipe higher than 48 ft.
	The discharge hose is restricted.	If you are using a hose that is narrower than the pump discharge, or a long hose, the pump will not be able to discharge water at the rate for which it was designed. Use a shorter, thicker hose. Check the hose for coils or kinks.
	The suction hose has collapsed and won't stay open.	Suction hoses should be reinforced so they can maintain their shape under suction conditions. Replace the hose with reinforced, suction rated type.
	There is a leak in the suction hose.	Repair or replace suction hose.
	The impeller or other internal parts are worn, damaged, or clogged.	<ul style="list-style-type: none"> <input type="checkbox"/> Inspect the impeller and volute for wear or breakage. Repair as needed. <input type="checkbox"/> Check for clogs in the impeller and in the suction and discharge ports.

Troubleshooting (continued)

Problem	Possible Cause	Corrective Action
The motor does not run or is humming. The pump is not running.	The impeller is stuck or jammed with debris.	Inspect the impeller area for any debris that may have entered. Remove as needed. Make sure impeller rotates freely.
	The motor is locked up.	Check the cooling vents at the back of the pump's motor. Remove any foreign objects if present.
	The motor has failed.	If all items above check out OK, the motor has failed. Replace the pump.
	The pump is not getting any power.	<ul style="list-style-type: none"> <input type="checkbox"/> Check the outlet where the pump is plugged in. Make sure it has power. If no power, check your home's fuse or circuit breaker panel and repair as needed. <input type="checkbox"/> Ensure the pump's plug is also making good contact in the outlet. <input type="checkbox"/> Check to see if the GFCI outlet needs to be reset.
	The brushes worn out.	Check and replace the brushes.
	The pump has overheated from dry running.	Unplug the power and wait for 30 minutes, then plug the power cord back in the outlet.
	The internal connection or motor has failed.	If all items above check out OK, the motor has failed.
	The liquid temperature is below 32°F or above 95°F.	Do not operate the pump in temperatures as indicated.
The impeller wears out quickly.	Sand, dirt or other grit in the water is accelerating wear.	This pump is designed to pump clear water only. If there is dirt or grit in the water, the internal parts of the pump will wear at an accelerated rate.
	Some liquid other than water is being pumped.	This pump is designed to pump clear water only. Pumping anything other than clear water will void the warranty.
The impeller is broken.	The pump has picked up debris that caused the damage or has run dry for too long.	Replace the impeller.