Pentair SND-L

STA-Rite SND-L Shallow Well Jet Pump User Manual

Model: SND-L | Brand: Pentair

Product Overview

The Pentair STA-Rite SND-L Shallow Well Jet Pump is designed to provide reliable water pressure for wells up to 25 feet deep. It features a robust cast iron body and a precision-molded diffuser for efficient operation. This pump is suitable for various residential water supply applications.



Figure 1: STA-Rite SND-L Shallow Well Jet Pump. This image shows the blue-colored pump unit with its motor and pump housing, featuring the STA-Rite logo on the motor casing.

Setup and Installation

Proper installation is crucial for the optimal performance and longevity of your pump. Always consult local codes and a qualified professional for electrical and plumbing connections.

Pre-Installation Checks:

- Ensure the pump's voltage (115V/230V, 60Hz, 1-phase) matches your power supply.
- Verify the well depth is within the pump's 25 ft. shallow well capacity.
- Confirm all necessary plumbing fittings (1-1/4" NPT suction, 1" NPT discharge) are available.
- Inspect the pump for any shipping damage. Note that pumps are factory-tested and may contain residual water.

Mounting:

Mount the pump on a firm, level surface to minimize vibration. Ensure adequate ventilation around the motor.

Plumbing Connections:

1. Connect the 1-1/4" NPT suction line to the pump's inlet. Ensure all connections are airtight to prevent air leaks, which can affect priming.
2. Connect the 1" NPT discharge line to the pump's outlet.
3. Install a check valve in the suction line to maintain prime.
4. Utilize the drain port for easy winterizing, if applicable.

Electrical Wiring:

Electrical connections should only be performed by a qualified electrician. Ensure the power supply is disconnected before wiring.

- Wire the pump according to the motor's wiring diagram for either 115V or 230V operation.
- Install a recommended circuit breaker based on the pump's amp draw (model and voltage dependent).
- Ensure proper grounding to prevent electrical hazards.

Operating Instructions

Priming the Pump:

Before initial operation or after the pump has been drained, it must be primed.

1. Remove the priming plug located on the pump casing.
2. Fill the pump casing completely with water until it overflows.
3. Replace the priming plug securely.
4. Ensure all valves in the suction and discharge lines are open.
5. Turn on the power supply to the pump. The pump should begin to draw water and build pressure.
6. If the pump does not prime within a few minutes, turn it off, re-check for air leaks in the suction line, and repeat the priming process.

Normal Operation:

The pump is designed for automatic operation via a pressure switch, typically set to 30-50 PSI (except Hi-Flow model SNC-HF25L which uses 20-40 PSI).

- The pump will automatically turn on when system pressure drops below the cut-in setting and turn off when it reaches the cut-out setting.
- Monitor the pressure gauge to ensure proper operation.
- Avoid running the pump dry, as this can cause damage.

Maintenance

Regular maintenance ensures the longevity and efficiency of your STA-Rite pump.

Winterizing:

In regions subject to freezing temperatures, the pump must be properly winterized to prevent damage.

1. Disconnect power to the pump.
2. Open the drain port and remove the priming plug to completely drain all water from the pump casing and associated piping.
3. Store the pump in a warm, dry place if possible, or ensure all water is removed from the system.

General Checks:

- Periodically check for leaks in the plumbing connections.
- Listen for unusual noises during operation, which may indicate a problem.
- Ensure the motor's ventilation openings are clear of debris.
- The heavy-duty ball bearings are shielded and permanently lubricated, requiring no routine lubrication.

Troubleshooting

This section provides solutions to common issues you might encounter with your pump. For complex problems, contact a qualified technician.

Problem	Possible Cause	Solution
Pump runs but delivers no water or low pressure.	Loss of prime. Air leak in suction line. Clogged impeller or suction line. Low well water level.	Re-prime the pump. Check all suction line connections for tightness. Inspect and clear any obstructions. Wait for well to recharge or lower suction line if possible.
Pump cycles on and off too frequently.	Waterlogged pressure tank. Pressure switch malfunction. Small leak in the system.	Check and recharge pressure tank air pre-charge. Inspect or replace pressure switch. Locate and repair leaks.
Motor hums but does not start.	Low voltage. Motor capacitor issue. Impeller jammed.	Verify correct voltage supply. Consult a qualified electrician for capacitor check/replacement. Clear any debris from impeller.

Specifications

Attribute	Detail
Model	SND-L
Horsepower	3/4 HP (also available in 1/2, 1, and 1-1/2 HP variants)
Voltage	115V / 230V, 60Hz, 1-phase
Maximum Flow Rate	11.4 GPM (Gallons Per Minute) for SND model

Attribute	Detail
Maximum Lift	25 feet
Maximum Shut-off Pressure	70 PSI (on SNC & SND models)
Pressure Switch Setting	30 - 50 PSI (except Hi-Flow model SNC-HF25L uses 20-40 PSI)
Suction Size	1-1/4" NPT
Discharge Size	1" NPT
Body Construction	Close-grained Cast Iron
Diffuser Material	Precision-molded, reinforced Polypropylene
Maximum Liquid Temperature	140°F (60°C)
Item Weight	41.2 Pounds
Package Dimensions	22.2 x 12.4 x 11.1 inches
UPC	053786345445, 022315152090

Warranty and Support

For specific warranty details and technical support, please refer to the official Pentair documentation included with your product or visit the Pentair website. Keep your purchase receipt for warranty claims.

Note: Returns will not be accepted if the item has been installed or shows signs of installation. The product must be returned in its original packaging as received.

For further assistance, you may contact Pentair customer service or an authorized service center. You can find contact information on the official Pentair Store on Amazon.

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Question

Example: How do I reset this device or fix this error?

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Model number, symptoms, what you tried, or the section of the manual you are using.

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