Little Giant LG-SWJ50

Little Giant Select Series LG-SWJ50 Shallow Well Jet Pump

Model: LG-SWJ50 (97080504)

User Manual

Introduction

The Little Giant Select Series LG-SWJ50 1/2 HP cast iron shallow well jet pump is designed for supplying fresh water to rural homes, farms, and cottages. This pump is suitable for suction lifts down to 25 feet and delivers up to 12.6 GPM at 30 PSI with a 5-foot lift. It includes a 30/50 pressure switch and features dual voltage capability (115/230 Volts).
This manual provides essential information for the safe and efficient installation, operation, and maintenance of your LG-SWJ50 pump. Please read all instructions carefully before use.

Safety Information

WARNING: Improper installation or use can result in electrical shock, fire, personal injury, or property damage. Always follow local electrical and plumbing codes.

- Disconnect power before servicing the pump.
- Ensure the voltage switch on the pump matches the power source to prevent severe damage.
- Do not operate the pump dry. Always ensure water is flowing through the pump when it is on.
- This pump is designed for fresh water only. Do not use with flammable or corrosive liquids.
- Keep children and unauthorized personnel away from the pump during operation.

Components Checklist

Verify that all components are present before beginning installation:

- Little Giant Select Series LG-SWJ50 Shallow Well Jet Pump
- 30/50 Pressure Switch (pre-installed)
- Owner's Manual (this document)

Setup

1. Unboxing and Inspection

Carefully remove the pump from its packaging. Inspect the pump for any signs of shipping damage. If damage is found, do not proceed with installation and contact your supplier.



Figure 1: Exploded view of the LG-SWJ50 pump, highlighting key components such as the 30/50 Pressure Switch, 1/2 HP 115/230V Thermally Protected Motor, Robust Cast Iron Casing, 1-1/4" FNPT Suction, 1" FNPT Discharge, Drain Port, 1/8" FNPT Pressure Gauge Port, and Integrated Venturi/Nozzle Assembly.

2. Voltage Selection

The LG-SWJ50 pump is factory-set for 115 Volts. If your power source is 230 Volts, you must switch the pump's voltage setting. Refer to the detailed instructions in the owner's manual for the correct procedure to switch from 115V to 230V operation. Failure to match the pump's voltage setting to the power source will cause severe damage to the pump.

3. Plumbing Connections

Connect the pump to your well and discharge lines. The pump features a 1-1/4-inch Female NPT threaded intake and a 1-inch Female NPT threaded discharge. Ensure all connections are watertight using appropriate sealants and fittings.



Figure 2: The LG-SWJ50 pump is designed for shallow wells up to 25 feet deep, providing reliable water supply.

4. Priming the Pump

Before initial operation, the pump must be properly primed. Remove the priming plug and fill the pump casing with water until it overflows. Replace the priming plug securely. This step is crucial for self-priming after the initial setup.

Operating Instructions

Once installed and primed, the LG-SWJ50 pump operates automatically via the integrated 30/50 pressure switch. When the system pressure drops below 30 PSI, the pump will activate. When the pressure reaches 50 PSI, the pump will shut off.

- Ensure the power supply is connected and the voltage setting is correct.
- Open a faucet or valve in your water system to allow water to flow. The pump should start.
- Close the faucet/valve. The pump will build pressure and shut off automatically.
- Monitor for leaks and proper pressure operation during the first few cycles.



Figure 3: The LG-SWJ50 pump delivers 12.6 GPM at a 5-foot lift and 9.5 GPM at a 15-foot lift, both at 30 PSI.

Maintenance

Regular maintenance ensures optimal performance and longevity of your pump.

- **Winterization:** In freezing climates, drain the pump completely to prevent damage from ice expansion. Remove the drain plug and priming plug to allow all water to escape. Store the pump in a warm, dry place if possible.
- **Check for Leaks:** Periodically inspect all plumbing connections for leaks. Tighten fittings as necessary.
- **Clean Intake Screen:** If the pump's performance decreases, check the intake for debris and clean if necessary.
- **Motor Inspection:** Ensure the motor is free from dirt and obstructions for proper cooling.

Troubleshooting

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Pump does not start	No power; incorrect voltage setting; motor overload; faulty switch	Check power supply; verify voltage switch setting; reset thermal overload; inspect pressure switch.
Pump runs but no water	Pump not primed; air leak in suction line; low water level in well; clogged intake	Re-prime pump; check suction line for leaks; verify well water level; clean intake screen.
Low pressure/flow	Partially clogged lines; worn impeller; air in system; pressure switch setting	Inspect and clear lines; contact service for impeller replacement; bleed air from system; adjust pressure switch.
Pump cycles too frequently	Water leak in system; faulty pressure switch; undersized pressure tank (if applicable)	Check for leaks; replace pressure switch; consider adding or replacing pressure tank.

Specifications

Feature	Detail
Model Number	97080504
Horsepower (HP)	1/2 HP
Voltage	115/230 Volts (Dual Voltage)
Amperage (115V)	8.4 Amps
Amperage (230V)	4.2 Amps
Maximum Flow Rate	12.6 Gallons Per Minute (at 30 PSI, 5-ft. lift)
Maximum Lifting Height	25 Feet
Maximum Pressure	64 PSI
Suction Connection	1-1/4-inch Female NPT
Discharge Connection	1-inch Female NPT
Material	Cast Iron (housing), Glass-filled polyester (impeller/volute)
Item Weight	21.7 Pounds
Product Dimensions (L x W x H)	13.86" x 8.54" x 8.4"
Included Components	Pump with 30/50 pressure switch, Installation manual
Certifications	NSF-372 certified for fresh drinking water

Little GIANT®
SELECT SERIES™

LG-SWJ50
JET PUMP

HP	Volts	Amps	Intake	Discharge	Suction Lift	US GPM @ 30 PSI	Max. Pressure
1/2	115/230	8.4A @ 115V 4.2A @ 230V	1-1/4" FNTP	1" FNPT	5'	12.6	64 PSI
					15'	9.5	
					25'	5	

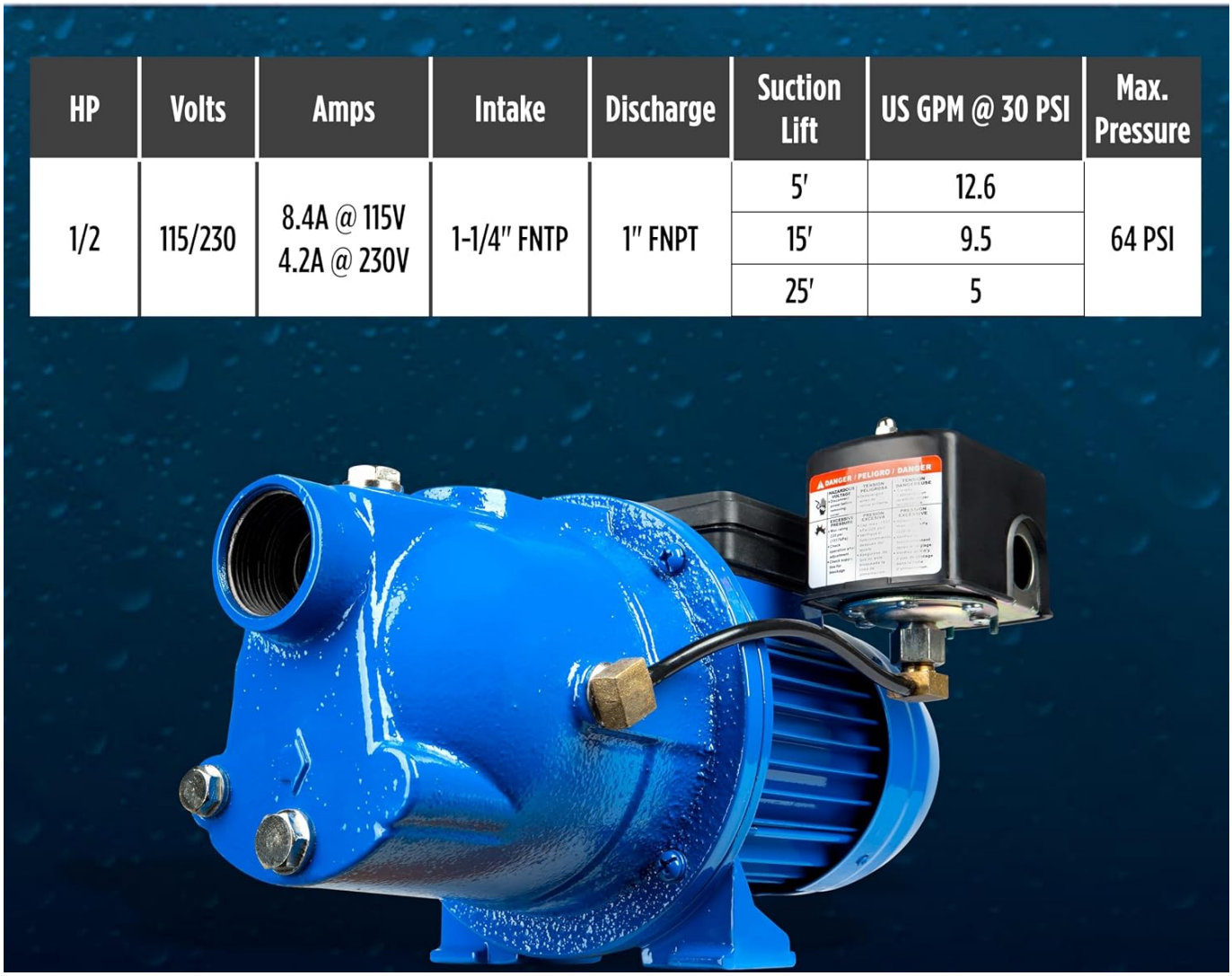


Figure 4: Detailed performance specifications for the LG-SWJ50 pump under various conditions.



Figure 5: The LG-SWJ50 pump is NSF-372 certified, making it suitable for fresh drinking water applications.

Warranty and Support

Little Giant products are backed by a commitment to quality and customer satisfaction. For warranty information and support, please refer to the following:

- **30 Day Return Policy:** For items purchased within 30 days, please refer to Amazon's return policy.
- **After 30 Days:** If Amazon.com is the seller, your product is covered by the terms outlined in this manual. For troubleshooting or installation assistance, please contact Little Giant customer support. If another seller is indicated, please contact them directly.

For more information about Little Giant and their product range, you can visit their official store: Little Giant Store on Amazon.

Official Product Video

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Video 1: "Little Giant Pumps - 80 Years of Excellence" - An overview of Little Giant's commitment to quality and experience in pumping solutions.

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