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Red Lion 97081001

Red Lion RL-SWJ100 1 HP Shallow Well Jet Pump Instruction Manual

Model: 97081001

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Red Lion RL-SWJ100 1 HP Cast Iron Shallow Well Jet Pump. Please read these instructions thoroughly before attempting to install or operate the pump. Retain this manual for future reference.



Figure 1: Red Lion RL-SWJ100 1 HP Shallow Well Jet Pump

2. SAFETY INFORMATION

WARNING: Risk of severe injury or death by electrical shock, or damage to the system.

- Always disconnect the electrical power before touching the pump.
- A Ground Fault Circuit Interrupter (GFCI) is required for electrical connections.
- If the power cord is damaged, it must only be replaced by qualified personnel.
- Installation and servicing of this equipment should be performed by technically qualified personnel familiar with the correct selection and use of appropriate tools, equipment, and procedures.
- This product may expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

RL-SWJ SERIES

SHALLOW WELL JET PUMP

DUAL VOLTAGE MOTOR

Always verify the voltage on the pump matches the power source. Pump comes factory set to 230-volts.

Remove the cover from the motor terminal box and using the end of a flat screwdriver in the opening (3), slide the voltage indicator left or right.

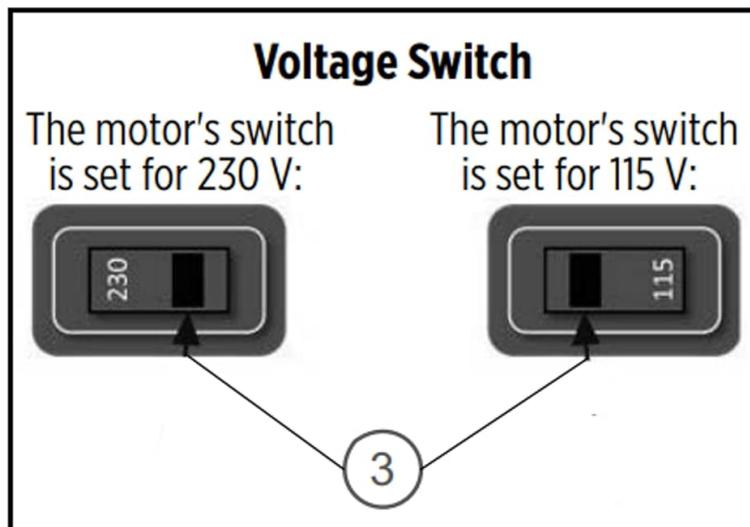


Figure 2: Electrical experience is required for installation.

3. PRODUCT OVERVIEW

The Red Lion RL-SWJ100 is a 1 HP cast iron shallow well jet pump designed for providing fresh water to rural homes, farms, and cottages. It is suitable for suction lifts down to 25 feet. The pump includes a 30/50 pressure switch and is self-priming after initial prime.

Key Features:

- **Shallow Well Application:** Designed for wells less than 25 feet deep.
- **Dual Voltage Motor:** Heavy-duty 115/230 Volt motor, factory-set for 230 Volts, easily switchable to 115 Volts.
- **Durable Construction:** Heavy-duty cast iron casing for longevity. Impeller and volute are made of glass-filled thermoplastic.

- **Integrated Pressure Switch:** Includes a 30/50 pressure switch with auto shut-off.
- **Connections:** 1-1/4-inch Female NPT threaded intake; 1-inch Female NPT threaded discharge.



Figure 3: RL-SWJ Series Features Diagram

4. SPECIFICATIONS

Attribute	Value
Model Number	97081001
Horsepower (HP)	1 HP
Voltage	115/230 Volts (Dual Voltage)
Amperage	13.2 Amps @ 115V; 6.6 Amps @ 230V
Wattage	4800 watts
Maximum Flow Rate	17 Gallons Per Minute (GPM)
Maximum Pressure	74 PSI

Attribute	Value
Suction/Intake	1-1/4-inch Female NPT
Discharge	1-inch Female NPT
Material	Cast Iron (body), Glass-filled thermoplastic (impeller/volute)
Product Dimensions (L x W x H)	14"L x 9"W x 9.5"H
Item Weight	28.5 Pounds
Included Components	30/50 Pressure Switch, Instruction Manual, Pump



RL-SWJ SERIES SHALLOW WELL JET PUMPS

At 30 psi, the gpm at the suction lift height should equal the total number of fixtures including faucets, toilets, and water-consuming appliances.

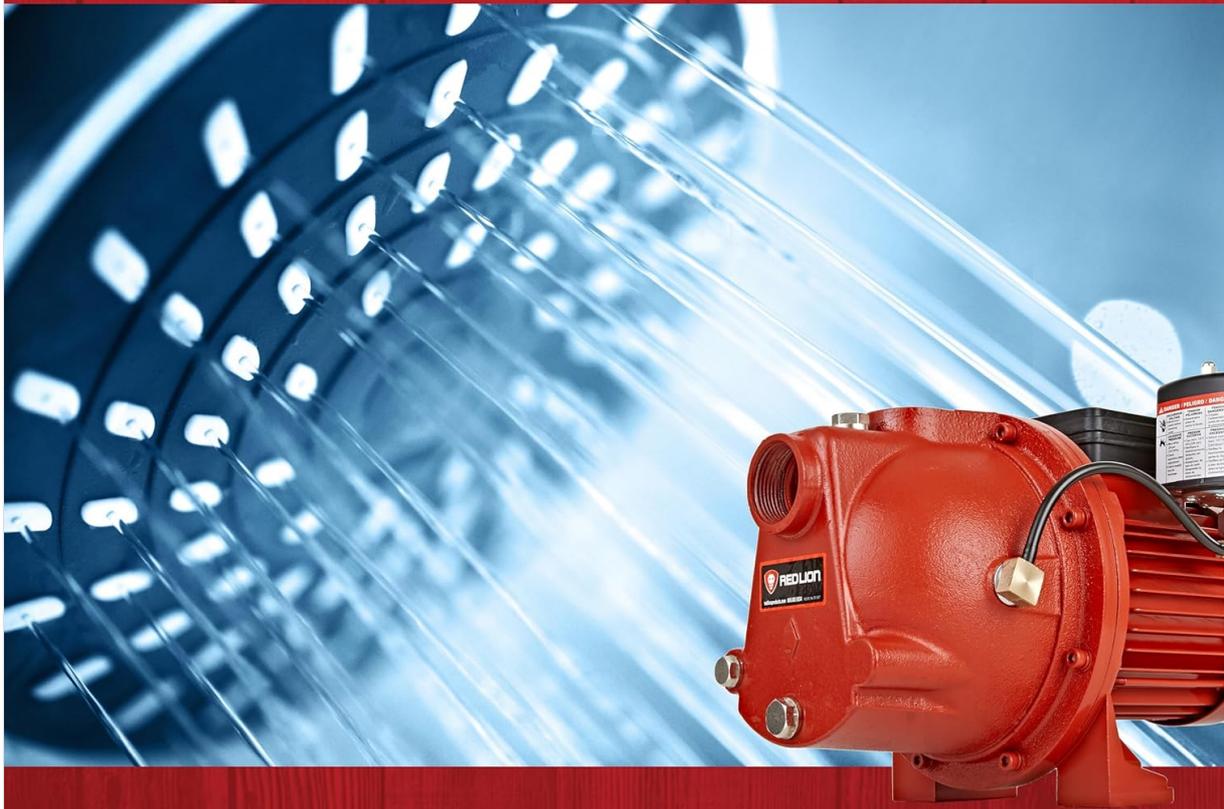
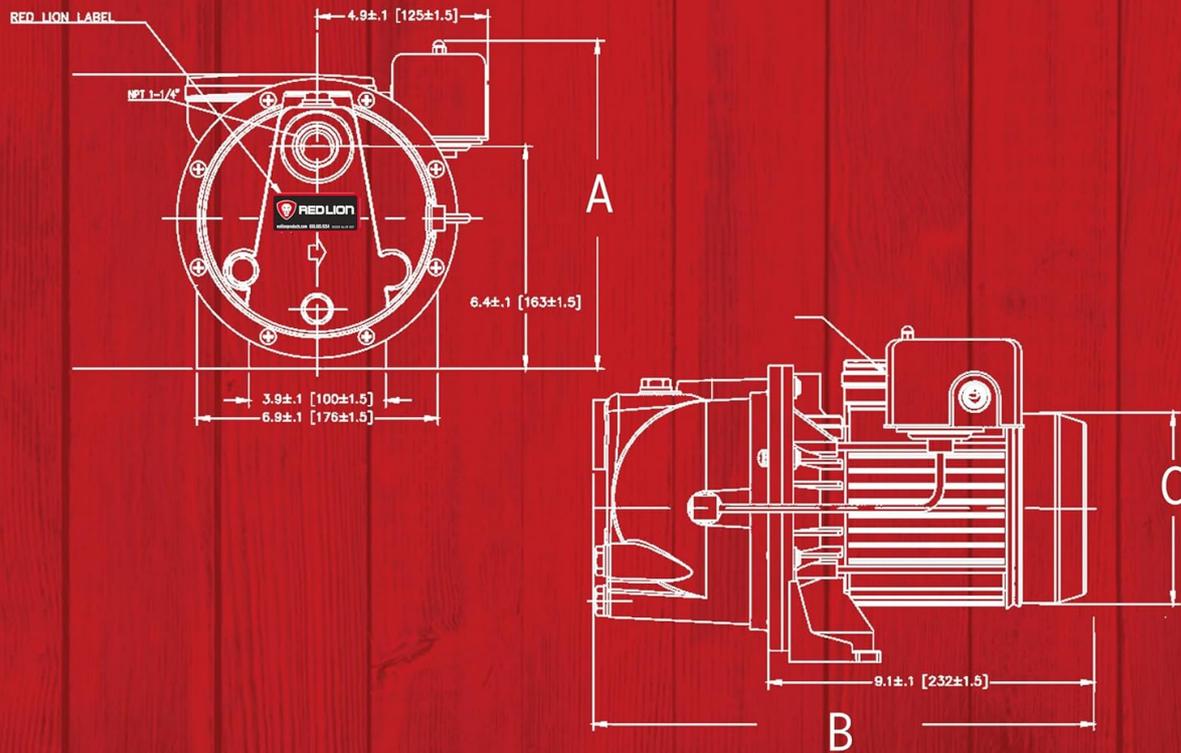


Figure 4: RL-SWJ100 Performance Chart

RL-SWJ100

SHALLOW WELL JET PUMP

DIMENSIONS



HEIGHT (A)	LENGTH (B)	WIDTH (C)	WEIGHT
9.5" (241 mm)	14" (357 mm)	5.4" (138 mm)	28.5 lbs (12.9 kg)

Figure 5: RL-SWJ100 Dimensions

5. SETUP AND INSTALLATION

5.1 Voltage Selection

The RL-SWJ100 pump is dual voltage (115/230 Volts) and comes factory-set for 230 Volts. Ensure the pump's voltage setting matches your power source. To change the voltage, remove the cover from the motor terminal box and slide the voltage indicator switch to the desired setting (115V or 230V) using a flat screwdriver.

RL-SWJ100

SHALLOW WELL JET PUMP

PERFORMANCE

HP	Volts	Amps	Watts	Intake	Discharge	Max. Pressure	Max. Flow
1	115/230	13.2A @ 115V 6.6A @ 230V	4800	1-1/4" FNPT	1" FNPT	74 psi	17 gpm

Cast Iron Shallow Well Jet Pumps

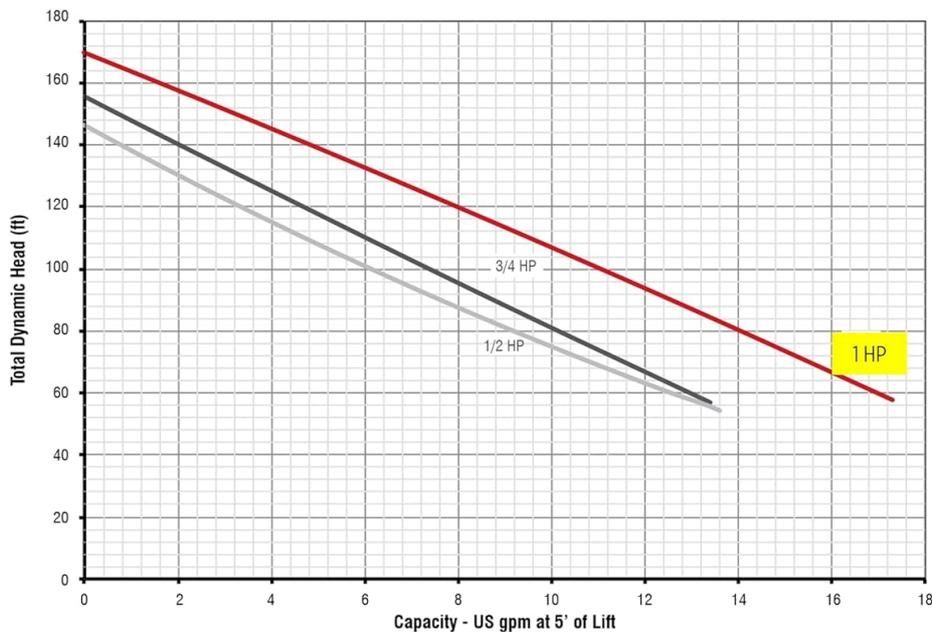


Figure 6: Voltage Switch Settings

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Video 1: This video demonstrates how to change the voltage setting on a Red Lion RL-SWJ Series Jet Pump from 230V to 115V or vice versa.

5.2 Pressure Tank Installation

If installing with a pressure tank, ensure the tank's pre-charge pressure is set correctly before installation. The pre-charge pressure should be 2 PSI below the pump's cut-in pressure setting (e.g., 28 PSI for a 30 PSI cut-in). Make all pipe connections according to local plumbing codes. Ensure the pipe size from the tank to the house is the same as the pipe size from the pump to the tank.

Your browser does not support the video tag.

Video 2: This video provides instructions on how to install or adjust a pressure tank in conjunction with a jet pump system.

6. OPERATING INSTRUCTIONS

6.1 Priming the Pump

Before starting the pump for the first time or after it has been drained, it must be properly primed. This involves filling the pump casing and suction line with water to ensure it can create the necessary suction to draw water from the well. Refer to the detailed priming instructions in the full owner's manual for your specific setup.

6.2 Initial Start-up

After priming and ensuring all connections are secure and leak-free, restore power to the pump. The pump should start and build pressure. Monitor the pressure gauge to ensure it reaches the desired cut-off pressure (e.g., 50 PSI for a 30/50 switch). The pump will automatically shut off once the cut-off pressure is reached.

7. MAINTENANCE

- **Regular Inspection:** Periodically check all connections for leaks and ensure the pump is securely mounted.
- **Pressure Tank Check:** Verify the pressure tank's air charge annually.
- **Winterization:** In freezing climates, drain the pump and piping completely to prevent damage from ice expansion.
- **Cleanliness:** Keep the pump area clean and free from debris to ensure proper ventilation.

8. TROUBLESHOOTING

This section provides general guidance for common issues. For detailed troubleshooting steps, consult the complete owner's manual.

Common Issues:

- **Pump runs but no water:** Check for proper priming, ensure the suction line is submerged, and inspect for air leaks in the suction line.
- **Pump cycles too frequently:** This often indicates a problem with the pressure tank (low air charge, waterlogged) or a leak in the system.
- **Pump does not start:** Verify electrical connections, check the circuit breaker, and ensure the voltage switch is set correctly.
- **Low pressure:** Check for clogs in the piping, inspect the impeller for damage, and verify the well's water level.

9. WARRANTY AND SUPPORT

9.1 Warranty Information

The Red Lion RL-SWJ100 pump comes with a 2-year manufacturer's warranty. For specific terms and conditions, please refer to the warranty details provided with your product or contact Red Lion customer support.

9.2 Customer Support

For troubleshooting assistance, installation guidance, or to inquire about parts and service, please contact Red Lion customer support. If your product was purchased within 30 days, refer to Amazon's return policy. For purchases beyond 30 days, consult your owner's manual or contact the seller directly if different from Amazon.com.

For additional information, visit the official Red Lion website: www.redlionproducts.com