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Pentair SLC-L

Pentair Sta-Rite SLC-L Jet Pump Instruction Manual

MODEL: SLC-L | 1/2 HP, 115/230-VOLT**Brand: Pentair**

1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Pentair Sta-Rite SLC-L Single Phase Shallow Deep Well Jet Self Priming Pump. Please read all instructions carefully before beginning any procedures.

Key Features:

- Convenient single phase shallow deep well jet self priming pump.
- Equipped with a 1/2-horsepower motor.
- Operates on 115/230-volt power supply.
- Features durable cast iron construction, reinforced polypropylene diffuser with brass wear ring, and a one-piece threaded stainless steel shaft.
- Includes a high-quality pressure switch with adjustable cut-in pressure settings.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions could result in serious injury, death, or property damage.

- Always disconnect power before servicing the pump.
- All electrical wiring must be performed by a qualified electrician and comply with local and national electrical codes.
- Ensure proper grounding to prevent electrical shock.
- Do not operate the pump dry. Ensure the pump is primed with water before starting.
- Protect the pump from freezing temperatures.
- Install a pressure relief valve in the discharge line to prevent over-pressurization.

3. PRODUCT OVERVIEW

The Pentair Sta-Rite SLC-L pump is designed for reliable water supply from shallow or deep wells. Its robust construction ensures longevity and consistent performance.

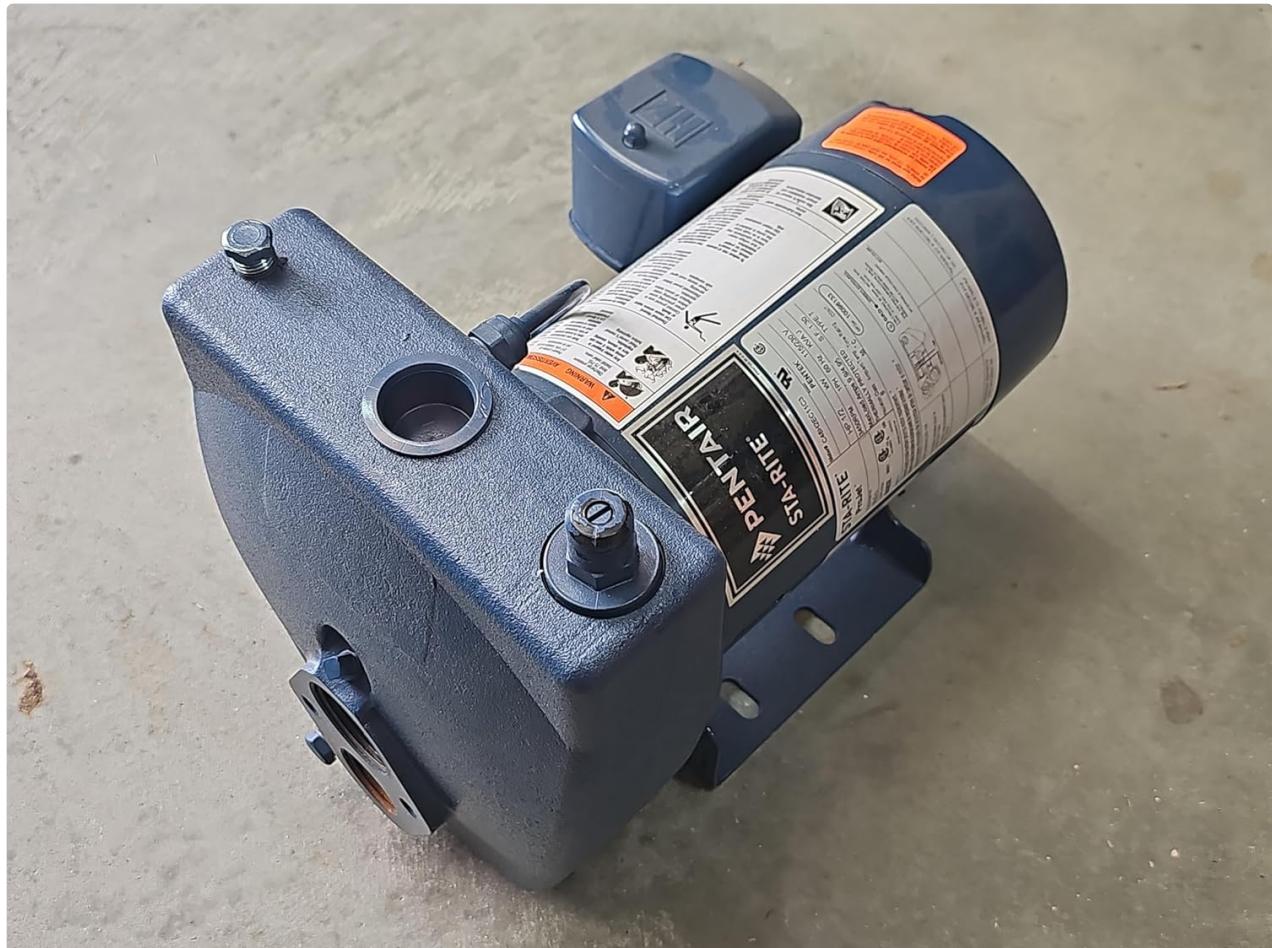


Figure 3.1: Overall view of the Pentair Sta-Rite SLC-L Jet Pump, showcasing its compact and durable design.

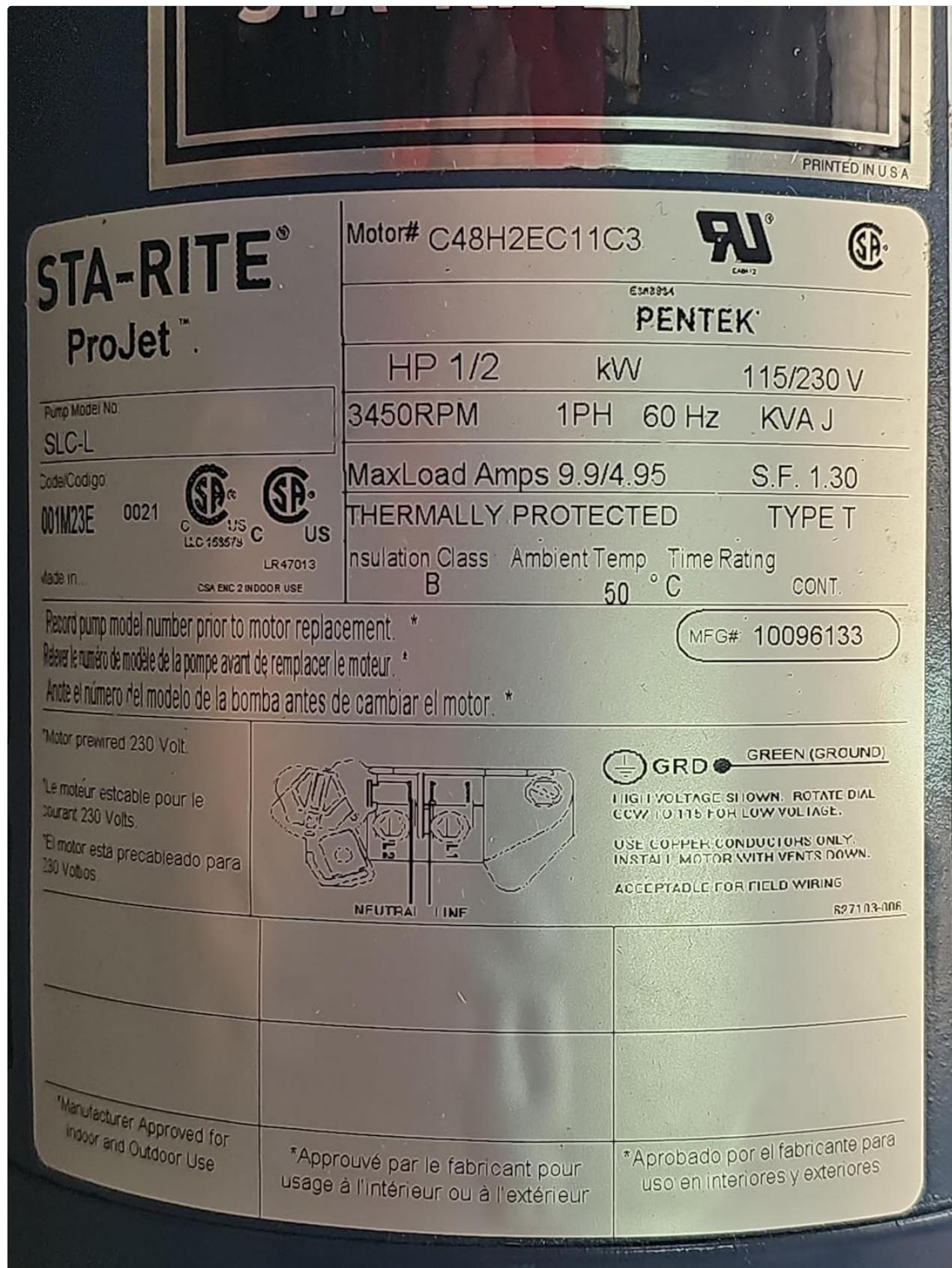


Figure 3.2: Close-up of the motor label, detailing electrical specifications and a wiring diagram for voltage selection. This label is crucial for proper electrical setup.

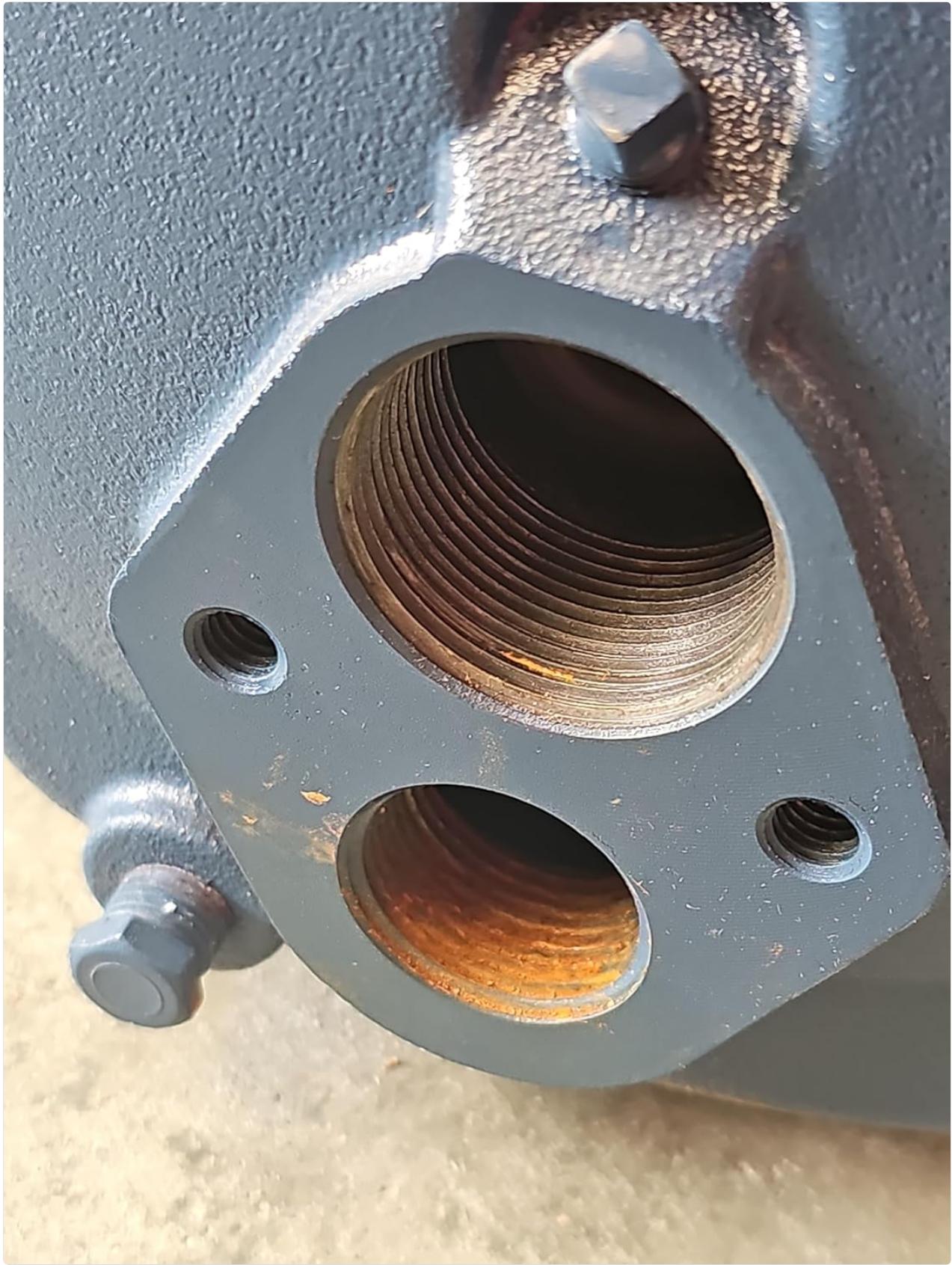


Figure 3.3: View of the pump's threaded inlet and outlet ports, designed for secure plumbing connections. Note the robust cast iron construction.



Figure 3.4: Product label from the packaging, confirming the model number SLC-L, 1/2 HP, and 115/230V 1PH specifications. It also indicates assembly in the USA.

4. SPECIFICATIONS

Attribute	Value
Brand	Pentair
Model Number	SLC-L
Horsepower	1/2 HP
Voltage	115/230-Volt
Phase	Single Phase
Material	Cast Iron, Stainless Steel
Style	Above Ground
Item Weight	35.4 pounds
Warranty	1-year

5. SETUP AND INSTALLATION

Proper installation is crucial for the longevity and performance of your pump. Always consult local plumbing and electrical codes.

5.1. Site Selection

- Install the pump in a dry, well-ventilated location protected from direct sunlight and freezing temperatures.
- Mount the pump on a solid, level surface to prevent movement and vibration.
- Position the pump as close as possible to the water source to minimize suction lift.

5.2. Plumbing Connections

- The pump's suction inlet is 1-1/4 inch FNPT, and the discharge is 1 inch FNPT. Do not reduce the size of the suction plumbing.
- Use appropriate pipe thread sealant (PTFE tape or thread compound) on all threaded connections. Do not overtighten.
- Ensure all joints are airtight to prevent air leaks, which can affect pump operation.
- Install a pressure relief valve in the discharge line, rated to handle pump flow at 75 PSI, to prevent over-pressurization.

5.3. Electrical Connections & Voltage Change

The SLC-L pump is convertible between 115V and 230V. It is factory-wired for 230V. Verify your power supply and adjust the motor voltage if necessary. **All electrical work must be performed by a qualified technician.**

- Always disconnect the electrical power at the main breaker before touching the pump or performing any wiring.
- Locate the motor's wiring diagram on the motor label (refer to Figure 3.2).
- Remove the motor cover to access the voltage selection switch or plug.
- Adjust the switch or plug to match your power supply (115V or 230V). Operating a 115V wired motor on 230V will destroy the motor.
- Connect the power lines to the pressure switch terminals marked L1 and L2. Ensure proper grounding.

Video 5.1: This video demonstrates how to change the voltage on a jet pump motor, providing a visual guide for the internal wiring adjustments. (Source: ASIW Supply)

Video 5.2: A detailed guide on changing the voltage settings for a Red Lion jet pump, which is similar in principle to the Pentair SLC-L. (Source: Franklin Electric - Little Giant)

Video 5.3: This video provides general installation steps for a shallow well jet pump, offering useful visual context for plumbing and setup. (Source: Franklin Electric - Little Giant)

Video 5.4: Learn how to install or adjust a pressure tank with a jet pump, a common component in well water systems. (Source: Franklin Electric - Little Giant)

Video 5.5: An overview of the Acquaer 1 HP Shallow/Deep Well Jet Pump, highlighting its features and capabilities, relevant for understanding similar jet pump systems. (Source: Dertek)

6. OPERATING INSTRUCTIONS

6.1. Priming the Pump

- Before initial startup or after the pump has run dry, it must be primed.
- Remove the priming plug on top of the pump casing.
- Fill the pump casing completely with water until it overflows.
- Replace the priming plug securely.

6.2. Starting the Pump

- Ensure all plumbing connections are secure and leak-free.
- Open a faucet in the system to allow air to escape.
- Restore electrical power to the pump. The pump should start and begin to build pressure.
- Once a steady stream of water flows from the open faucet, close the faucet. The pump will continue to run until the system pressure reaches the cut-out setting of the pressure switch.

7. MAINTENANCE

Regular maintenance ensures optimal performance and extends the life of your pump.

- **Winterization:** In areas subject to freezing, drain the pump and all exposed piping completely to prevent damage.
- **Inspection:** Periodically check all connections for leaks and tighten as necessary.
- **Cleaning:** Keep the pump motor's ventilation openings clear of debris to ensure proper cooling.
- **Pressure Switch:** Ensure the pressure switch is functioning correctly. Adjustments should only be made by qualified personnel.

8. TROUBLESHOOTING

Before attempting any repairs, always disconnect power to the pump.

8.1. Pump Runs but Delivers No Water

- **Check Priming:** Ensure the pump is fully primed.
- **Suction Line Leaks:** Inspect the suction line for air leaks. Tighten all connections.
- **Foot Valve/Strainer:** Check if the foot valve is submerged or if the strainer is clogged.
- **Well Water Level:** Verify that the well has sufficient water.

8.2. Low Water Pressure

- **Clogged Impeller:** Debris may be partially blocking the impeller.
- **Air in System:** Check for air leaks in the suction line.
- **Pressure Tank:** Inspect the pressure tank's air charge.
- **Worn Components:** Internal pump components may be worn.

8.3. Pump Does Not Start

- **No Power:** Check circuit breaker or fuse.
- **Incorrect Voltage:** Verify the motor is wired for the correct voltage (115V or 230V).
- **Motor Overload:** The motor's thermal overload protector may have tripped. Allow it to cool and reset.
- **Pressure Switch:** The pressure switch may be faulty or stuck.

9. WARRANTY AND SUPPORT

9.1. Warranty Information

This Pentair Sta-Rite SLC-L pump comes with a **1-year warranty** from the date of purchase, covering defects in materials and workmanship under normal use and service. Please retain your proof of purchase for warranty claims.

9.2. Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact Pentair Customer Service. Visit the official Pentair website for contact details and further resources.

Website: www.pentair.com