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› Liberty Pumps 404L Compact 1/3 HP Low Profile Drain Pump User Manual

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Liberty Pumps 404L Compact Drain Pump User Manual

Model: 404L

1. PRODUCT OVERVIEW

The Liberty Pumps 404L is a compact, low-profile drain pump designed for gray wastewater applications where gravity drainage is not feasible. This system is ideal for laundry tray sinks, bar sinks, washing machines, and other basement remodeling projects. It features a short profile, making it suitable for installation in confined spaces.



Figure 1: Liberty Pumps 404L Compact 1/3 HP Low Profile Drain Pump. This image shows the complete pump unit with its compact design.

Key Features:

- **Pre-assembled and Ready to Install:** The system arrives fully assembled, simplifying the installation process.
- **Fully Automatic Operation:** Designed for hands-free operation once installed.
- **Compact Design:** Features a short profile, only 11 inches tall, for installation in tight spaces.
- **Easy Switch Inspection:** QuickTree Technology provides a separate access cover for convenient inspection of the switch mechanism.
- **Superior Seal:** Integrally molded rubber gasket ensures a gas-tight seal.

2. SETUP AND INSTALLATION

Before beginning installation, ensure all local plumbing and electrical codes are met. This unit is designed for gray wastewater only. Do not use for sewage or hazardous materials.

Installation Steps:

1. **Placement:** Position the pump unit on a firm, level surface in the desired location, ensuring adequate space for connections and future maintenance.

- 2. **Inlet Connection:** Connect the drain line from the fixture (e.g., laundry tub, washing machine) to the pump's inlet port. Ensure a secure, watertight connection.
- 3. **Discharge Connection:** Connect the pump's discharge outlet to the main drain line. Use appropriate piping and fittings. Ensure the discharge line has a check valve to prevent backflow.
- 4. **Vent Connection:** Connect the pump to a proper vent line. **Important:** The manufacturer's manual states that an air admittance device (AAV) cannot be used with this pump. Proper venting is crucial for correct operation and to prevent issues like the pump not filling fast enough or short-cycling.
- 5. **Electrical Connection:** Connect the pump to a dedicated, properly grounded 120-volt electrical outlet. Ensure the circuit is protected by a ground fault circuit interrupter (GFCI) as required by local codes.
- 6. **Testing:** After all connections are made, slowly fill the basin with water to test the pump's operation. Observe for leaks and ensure the pump cycles on and off correctly.

3. OPERATION

The Liberty Pumps 404L operates automatically. Once properly installed and connected to power, the pump will activate when the wastewater level in the basin reaches a predetermined point and will shut off once the water is pumped out to a lower level.

- Ensure the pump is always plugged into a live, grounded outlet.
- Avoid introducing solid debris, grease, or chemicals that are not compatible with gray wastewater systems into the drain connected to the pump.
- The pump is designed for intermittent use as needed for draining fixtures.

4. MAINTENANCE

Regular maintenance helps ensure the longevity and efficient operation of your Liberty Pumps 404L.

Recommended Maintenance:

- **Periodic Inspection:** Periodically check the pump basin for excessive buildup of debris or sediment.
- **Cleaning:** If buildup is present, disconnect power to the pump before attempting to clean. Remove the access cover (QuickTree Technology) to inspect the float switch and clear any obstructions. Use caution when working inside the pump.
- **Check Connections:** Ensure all plumbing and electrical connections remain secure and free of leaks or corrosion.
- **Float Switch:** Verify that the float switch moves freely and is not obstructed by debris. The separate access cover facilitates this inspection.

Always disconnect power before performing any maintenance or inspection.

5. TROUBLESHOOTING

If you encounter issues with your Liberty Pumps 404L, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Pump does not run.	No power; tripped breaker; float switch obstructed; motor failure.	Check power supply and breaker. Ensure float switch moves freely. If power is present and switch is clear, contact support.
Pump runs continuously.	Float switch stuck in "on" position; check valve failure; discharge line obstruction.	Inspect float switch for obstructions. Check check valve for proper function. Clear any blockages in the discharge line.
Pump cycles on/off too frequently (short-cycling).	Improper venting; check valve leaking; discharge head too high.	Verify proper vent connection (no AAV). Inspect check valve. Consult installation guidelines for discharge head limits.
Poor or no drainage.	Inlet or discharge line clogged; pump impeller obstructed; low voltage.	Clear any clogs in plumbing lines. Disconnect power and inspect pump impeller for debris. Verify proper voltage.

If troubleshooting steps do not resolve the issue, contact Liberty Pumps customer support or a qualified technician.

6. TECHNICAL SPECIFICATIONS

Specification	Detail
Brand	Liberty Pumps
Model Number	404L
Product Dimensions (L x W x H)	13.75" x 13.75" x 11.13"
Item Weight	19 Pounds
Voltage	120 Volts
Material	Polyolefin
Horsepower	1/3 HP
Application	Gray Wastewater

7. WARRANTY INFORMATION

Specific warranty details for the Liberty Pumps 404L are typically provided with the product packaging or can be found on the official Liberty Pumps website. It is recommended to register your product upon purchase to ensure full warranty coverage.

Please retain your proof of purchase for any warranty claims.

8. CUSTOMER SUPPORT

For technical assistance, parts, or further information regarding your Liberty Pumps 404L, please contact Liberty Pumps directly.

Manufacturer: Liberty Pumps

Refer to the product packaging or the official Liberty Pumps website for the most current contact information, including phone numbers and online support resources.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

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

Details

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

Submit question