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- › [Liberty Pumps](#) /
- › [Liberty Pumps LE41A LE40 Pump User Manual](#)

## Liberty Pumps LE41A

# Liberty Pumps LE41A LE40 Pump User Manual

Model: LE41A

## 1. INTRODUCTION

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This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Liberty Pumps LE41A LE40 Sewage/Effluent Pump. Please read this manual thoroughly before installation or use to ensure proper function and to prevent potential hazards.

## 2. SAFETY INFORMATION

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Always observe safety precautions to reduce the risk of injury, fire, or electric shock. This pump is designed for residential sewage applications. Do not use for purposes other than those specified.

### General Safety Guidelines:

- Ensure the power source is disconnected before performing any maintenance or installation.
- All electrical wiring must comply with local codes and regulations.
- Do not operate the pump with a damaged cord or plug.
- Keep hands and feet clear of the pump's intake and discharge openings during operation.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

## 3. PRODUCT OVERVIEW

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The Liberty Pumps LE41A LE40 series is a heavy-duty, reliable submersible pump designed for residential sewage and effluent applications. Its robust construction ensures long-lasting performance.



**Figure 3.1:** Liberty Pumps LE41A LE40 Sewage/Effluent Pump. This image shows the red cast iron pump unit with its black power cord and a light grey float switch attached to the side, ready for submersible operation.

### **Key Features:**

- All cast iron construction with an epoxy powder coat finish for durability.
- Stainless steel fasteners for corrosion resistance.
- Quick-disconnect 10-foot power cord for easy replacement without breaking motor seals.
- Vortex style impeller capable of passing a 2-inch spherical solid.
- Oil-filled, thermally protected motor for extended life.

- Pumps up to 143 Gallons Per Minute (GPM).
- Maximum discharge head of 20 feet.

## 4. SETUP AND INSTALLATION

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Proper installation is crucial for the pump's performance and longevity. Consult a qualified professional if you are unsure about any steps.

### Installation Steps:

1. **Site Preparation:** Ensure the sump basin is clean and free of debris. The basin should be large enough to accommodate the pump and allow for proper float switch operation.
2. **Discharge Piping:** Connect the pump to the discharge piping. The pump features a 2-inch discharge size. Use appropriate fittings and ensure all connections are watertight. A check valve should be installed in the discharge line to prevent backflow.
3. **Float Switch Adjustment:** Position the float switch to ensure the pump activates and deactivates at the desired water levels. Ensure the float has free movement and does not interfere with the pump or basin walls.
4. **Electrical Connection:** Connect the pump to a dedicated 115-volt electrical circuit. Ensure the circuit is properly grounded and protected by a ground fault circuit interrupter (GFCI). The quick-disconnect power cord is 21 feet long.
5. **Testing:** After installation, fill the sump basin with water to test the pump's operation. Verify that the pump turns on when the water reaches the activation level and turns off when the water is sufficiently removed. Check for any leaks.

## 5. OPERATION

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The Liberty Pumps LE41A LE40 is designed for automatic operation via its float switch. Once properly installed and connected to power, the pump will activate when the water level rises to the float's activation point and deactivate when the water level drops.

### Normal Operation:

- The pump will run quietly during operation.
- The pump is designed to handle solids up to 2 inches in diameter.
- Avoid running the pump dry for extended periods, as this can cause damage.

## 6. MAINTENANCE

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Regular maintenance helps ensure the longevity and reliable operation of your pump.

### Maintenance Schedule:

- **Monthly:** Inspect the sump basin for excessive debris. Ensure the float switch moves freely and is not obstructed.
- **Quarterly:** Remove the pump from the basin (after disconnecting power) and inspect the impeller for any obstructions or wear. Clean the pump exterior if necessary.
- **Annually:** Have a qualified technician inspect the pump's electrical connections and overall condition.

**Important:** Always disconnect power to the pump before attempting any inspection or maintenance.

## 7. TROUBLESHOOTING

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This section provides solutions to common issues you may encounter with your pump.

Problem	Possible Cause	Solution
Pump does not run.	No power; tripped circuit breaker/GFCI; float switch stuck or defective; motor thermal overload.	Check power supply; reset breaker/GFCI; free float switch or replace if defective; allow motor to cool down.
Pump runs but does not pump water.	Clogged impeller or discharge pipe; air lock; check valve installed backward.	Disconnect power and clear obstructions; prime pump if air locked; check check valve orientation.
Pump runs continuously.	Float switch stuck in "on" position; check valve leaking; pump undersized for application.	Free float switch; inspect/replace check valve; consult professional for proper pump sizing.

If the problem persists after attempting these solutions, contact Liberty Pumps customer support or a qualified service technician.

## 8. SPECIFICATIONS

Attribute	Value
Model	LE41A
Brand	Liberty Pumps
Material	Cast Iron
Color	Red
Style	Sewage Pump
Power Source	Corded Electric
Voltage	115 Volts
Horsepower	0.4 HP
Maximum Flow Rate	142 Gallons Per Minute (GPM)
Maximum Lifting Height	20 Feet
Product Dimensions (L x W x H)	10.75" x 10.75" x 14"
Item Weight	39 Pounds
Discharge Size	2 Inch
Cord Length	21 Feet
UPC	671812101553

## 9. WARRANTY AND SUPPORT

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### Warranty Information:

Liberty Pumps, Inc. warrants that pumps and other products of its manufacture are free from all factory defects in material and workmanship for a period of **2 years from the date of purchase**. This warranty is subject to the terms and conditions outlined in the official warranty statement provided with the product or available on the manufacturer's website.

### Customer Support:

For technical assistance, parts, or warranty claims, please contact Liberty Pumps customer support. Refer to the contact information provided on the product packaging or the official Liberty Pumps website.

*Note:* Always have your product model number (LE41A) and date of purchase available when contacting support.

