Dayton 4LE15

Dayton 1 HP 2" Manual Submersible Sewage Pump 460V, Model 4LE15 User Manual

Introduction

This manual provides essential instructions for the safe installation, operation, and maintenance of your Dayton 1 HP 2" Manual Submersible Sewage Pump, Model 4LE15. Please read this manual thoroughly before attempting to install or operate the pump. Retain this manual for future reference.

Safety Information

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

- Always disconnect power before servicing or performing maintenance on the pump.
- This pump is designed for submersible use in sewage applications only. Do not use for flammable liquids or potable water.
- Electrical connections must be performed by a qualified electrician in accordance with all local and national electrical codes.
- Ensure proper grounding to prevent electrical shock.
- Keep hands and feet clear of the impeller during operation.
- **Proposition 65 Warning:** This product may contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Setup

Unpacking

Carefully remove the pump from its packaging. Inspect for any shipping damage. Report any damage to the carrier immediately. Ensure all components are present.

Location and Placement

The pump must be placed on a solid, level surface within the sump or basin. Ensure the pump is fully submerged during

operation. The sump should be large enough to accommodate the pump and allow for proper flow without obstruction.

Piping Connection

Connect a 2-inch discharge pipe to the pump's outlet. Use appropriate fittings and sealants to ensure a watertight connection. A check valve should be installed in the discharge line to prevent backflow.

Electrical Connection

This pump operates on 460V AC, 3-phase power. All electrical wiring must comply with local and national electrical codes and be performed by a licensed electrician. Ensure the power supply matches the pump's voltage and phase requirements. The motor type is 3-phase, with an amperage of 2.40 A.



Image of the Dayton 1 HP 2 inch Manual Submersible Sewage Pump, Model 4LE15, showing its robust cast iron construction.

Operating Instructions

Initial Start-up

1. After installation and electrical connection, ensure the pump is fully submerged.
2. Verify all piping connections are secure and leak-free.
3. Apply power to the pump. As this is a manual pump, it will begin operating immediately upon receiving power.
4. Observe the pump for proper operation, checking for unusual noises or vibrations.

Manual Operation

The Dayton 4LE15 is a manual submersible pump, meaning it does not include an integrated float switch for automatic operation. To operate the pump, power must be supplied to the unit. To stop operation, power must be disconnected. It is recommended to use an external control panel or switch for safe and convenient operation, allowing for manual control of the pump's on/off cycles.

Maintenance

Regular maintenance ensures optimal performance and extends the life of your pump. Always disconnect power before performing any maintenance.

Routine Checks

- **Impeller:** Periodically inspect the impeller for clogs or wear. The impeller is made of cast iron.
- **Shaft Seal:** Check the shaft seal (Silicone Carbide) for any signs of leakage. A leaking seal requires professional service.
- **Power Cord:** Examine the power cord for cuts, abrasions, or damage. Replace damaged cords immediately.
- **Sump/Basin:** Keep the sump or basin free of excessive debris that could obstruct pump operation.

Cleaning

If the pump's performance decreases, it may be due to debris accumulation. Disconnect power, remove the pump from the sump, and carefully clean the impeller and pump intake area. Use appropriate personal protective equipment when handling sewage pumps.

Troubleshooting

Before attempting any repairs, ensure the pump is disconnected from the power source.

Problem	Possible Cause	Solution
Pump does not start	No power; tripped circuit breaker; faulty wiring; motor issue	Check power supply and circuit breaker. Verify electrical connections. Consult a qualified electrician for motor issues.
Pump runs but no water or low flow	Clogged impeller or intake; air lock; discharge pipe obstruction; worn impeller	Disconnect power, clear clogs from impeller/intake. Bleed air from the system. Check discharge piping for blockages. Inspect impeller for wear.
Pump cycles too frequently	Backflow from discharge pipe; small sump volume	Ensure check valve is installed and functioning correctly. Consider a larger sump if applicable.

Problem	Possible Cause	Solution
Unusual noise or vibration	Debris in impeller; worn bearings; cavitation	Disconnect power, clear debris. If noise persists, professional service may be required. Ensure pump is fully submerged.

Specifications

The following are key specifications for the Dayton 1 HP 2" Manual Submersible Sewage Pump, Model 4LE15:

- **Model Number:** 4LE15 (also G1498314)
- **Horsepower (HP):** 1 HP
- **Rated Voltage:** 460V AC
- **Phase:** 3-Phase
- **Amperage:** 2.40 A
- **Body Material:** Cast Iron
- **Impeller Material:** Cast Iron
- **Shaft Seal Material:** Silicone Carbide
- **Max. Diameter Solids:** 2 inches
- **Body Diameter:** 16 23/32 inches
- **Flow Rate @ 10 Ft. of Head:** 195 gpm
- **Flow Rate @ 15 Ft. of Head:** 165 gpm
- **Flow Rate @ 20 Ft. of Head:** 130 gpm
- **Item Weight:** 92 Pounds
- **Product Dimensions:** 15 x 11 x 22 inches
- **UPC:** 190735329504

Warranty and Support

For specific warranty information, please refer to the documentation provided at the time of purchase or contact Dayton customer support directly. Warranty terms typically cover defects in materials and workmanship for a specified period. If you require technical assistance, replacement parts, or have questions not covered in this manual, please contact the manufacturer or your authorized dealer. Have your pump's model number (4LE15) and serial number ready when contacting support.

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