

Seaflo FL40

Seaflo FL40 12V 17 L/Min Self-Priming Diaphragm Pump User Manual

Model: FL40

1. INTRODUCTION

Thank you for choosing the Seaflo FL40 12V 17 L/Min Self-Priming Diaphragm Pump. This manual provides essential information for the safe and efficient installation, operation, and maintenance of your pump. Please read these instructions carefully before use and retain them for future reference.

The Seaflo FL40 is designed for reliable water transfer in various applications, particularly suitable for marine and RV plumbing systems. It features automatic self-priming capabilities, a built-in pressure switch for automatic shut-off, and thermal protection for enhanced safety and longevity.



Figure 1: Seaflo FL40 12V 17 L/Min Self-Priming Diaphragm Pump. This image shows the compact design of the pump with its inlet and outlet ports.

2. SAFETY INSTRUCTIONS

WARNING: Failure to follow these safety instructions could result in injury or damage to the pump.

- Always disconnect power before installing, servicing, or performing any maintenance on the pump.
- Ensure the power supply matches the pump's voltage requirements (12V DC).
- Do not operate the pump in an explosive atmosphere or pump flammable liquids.
- Protect the pump from freezing temperatures.
- Ensure proper ventilation around the pump to prevent overheating.
- Use appropriate fuse protection for the electrical circuit.
- Do not run the pump dry for extended periods.

3. SETUP AND INSTALLATION

3.1 Mounting

Mount the pump in a dry, well-ventilated area, protected from direct sunlight and freezing temperatures. The pump can be mounted in any position. Secure the pump using the mounting feet provided, ensuring minimal vibration. Avoid mounting the pump directly above heat sources.

3.2 Electrical Connection

1. Ensure the power source is 12V DC.
2. Connect the positive (+) wire (red) from the pump to the positive terminal of the 12V power supply.
3. Connect the negative (-) wire (black) from the pump to the negative terminal of the 12V power supply.
4. Install an appropriate fuse (e.g., 10A) in the positive line as close to the power source as possible.
5. Ensure all electrical connections are secure and protected from moisture.

3.3 Plumbing Connection

The pump is equipped with quick-connect fittings for easy installation. Ensure all connections are watertight to prevent leaks and maintain pump efficiency.

1. Connect the suction line (inlet) to the side marked "IN" or with an arrow pointing towards the pump. Use the provided suction filter on the inlet line to prevent debris from entering the pump.
2. Connect the discharge line (outlet) to the side marked "OUT" or with an arrow pointing away from the pump.
3. Use flexible hose to minimize vibration and noise. Ensure the hose diameter matches the pump's fittings.
4. Avoid kinks or sharp bends in the hoses, which can restrict flow.

4. OPERATING INSTRUCTIONS

4.1 Initial Priming

The Seaflo FL40 is a self-priming pump. To prime the pump:

1. Ensure all plumbing connections are secure and the inlet line is submerged in the liquid to be pumped.
2. Open a faucet or valve on the discharge side to allow air to escape.
3. Apply power to the pump. The pump will run, drawing liquid and expelling air.
4. Once a steady stream of water flows from the open faucet, close the faucet. The pump will build pressure and then shut off automatically due to the internal pressure switch.

4.2 Normal Operation

The pump operates automatically based on demand. When a faucet or valve is opened, the system pressure drops, and the pump turns on. When the faucet is closed, the pressure builds up, and the pump shuts off. This cycle maintains constant water pressure in the system.

4.3 Thermal Protection

The pump is equipped with a thermal overload protector. If the pump motor overheats due to prolonged dry running, restricted flow, or excessive ambient temperature, the thermal protector will automatically shut off the pump. The pump will restart once it has cooled down to a safe operating temperature. Identify and resolve the cause of overheating to prevent recurrence.

5. MAINTENANCE

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

- **Inspect Connections:** Periodically check all electrical and plumbing connections for tightness and signs of wear or corrosion.
- **Clean Suction Filter:** The inlet suction filter should be regularly inspected and cleaned to prevent debris from entering the pump and reducing flow. Disconnect power, remove the filter, rinse it thoroughly, and reassemble.
- **Check for Leaks:** Inspect the pump and plumbing for any signs of leaks. Address leaks promptly to prevent damage.
- **Winterization:** In freezing climates, drain all water from the pump and plumbing system to prevent damage from ice expansion. Consider using non-toxic antifreeze if the system cannot be completely drained.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Pump does not run	No power; Blown fuse; Loose wiring; Thermal overload activated.	Check power supply; Replace fuse; Secure connections; Allow pump to cool down.
Low flow or no flow	Clogged inlet filter; Air leak in suction line; Kinked hose; Low voltage; Pump not primed.	Clean filter; Check suction line for leaks; Straighten hose; Check power supply; Re-prime pump.
Pump runs continuously (does not shut off)	Air leak in suction line; Leak in discharge line/faucet; Pressure switch malfunction.	Check suction line for leaks; Inspect plumbing for leaks; Contact support if pressure switch is faulty.
Noisy operation	Air in system; Loose mounting; Restricted flow.	Bleed air from system; Tighten mounting screws; Check for blockages.

7. SPECIFICATIONS

- Model:** FL40
- Brand:** Seaflo
- Voltage:** 12 Volts DC
- Max Flow Rate:** 17 Liters per Minute (4.5 Gallons per Minute)

Max Current Draw: 9.2 Amperes
Pressure Switch Shut-off: 40 PSI (2.75 Bar)
Dimensions (L x W x H): 250 x 100 x 100 mm (approximately)
Weight: 1.9 Kilograms
Color: Orange
Part Number: 600240
Power Source: Cable électrique (Electric Cable)

8. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the official Seaflo website or contact your authorized dealer. Keep your purchase receipt as proof of purchase.

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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.

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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