

NEWTRY 42 Series (LSDPA1-050-070-42)

NEWTRY 42 Series Diaphragm Pump 110V User Manual

Model: 42 Series (LSDPA1-050-070-42) | Brand: NEWTRY

1. PRODUCT OVERVIEW

The NEWTRY 42 Series Diaphragm Pump is a high-efficiency water supply and drainage pump designed for various applications. It features an automatic start/stop pressure switch, self-priming capabilities, and a robust, quiet design for reliable performance.

Key Features:

- **High Efficiency & Safety:** Delivers up to 17.5 L/min with overheat protection. Features a maximum operating pressure of 0.48 MPa (70 psi) and 3m self-priming capability, supporting simultaneous water supply to 3-4 faucets.
- **Multi-Purpose Use:** Suitable for clean tap water, rainwater, seawater, weak acid, and weak alkaline liquids. Ideal for yacht deck washing, RV water supply, agricultural irrigation, household water boosting, and liquid filling.
- **Upgraded Pressure Switch:** Automatically starts when a faucet is opened and stops when closed. Designed for 30A current resistance and guaranteed for 100,000 operation cycles, a 25% improvement in durability.
- **Quiet & Compact Design:** Small and portable, saving space. Low-noise structure with a rubber base that can be fixed to the floor or wall, significantly reducing vibration and noise for use in residential areas or at night.
- **Long-Life Construction:** Made with corrosion-resistant materials for durability. An included filter removes impurities, preventing internal pump damage. Utilizes a permanent magnet motor for stable operation and high durability with minimal energy loss.



Figure 1.1: Key Features of the NEWTRY Diaphragm Pump

2. SAFETY INSTRUCTIONS

- **Electrical Safety:** Ensure the pump is connected to a power source matching its voltage (110V AC). Do not operate with damaged cables or plugs.
- **Liquid Compatibility:** This pump is designed for clean water, rainwater, seawater, weak acid, and weak alkaline liquids. Do not use with flammable liquids, highly corrosive chemicals, or liquids containing large particles.
- **Temperature Limits:** The ambient temperature should not exceed 50°C. The liquid temperature should be between 0°C and 70°C.
- **Submersion:** Do not immerse the pump motor in water.
- **Freezing Prevention:** In cold regions, drain all water from the pump and piping after use during winter to prevent freezing and damage.
- **Ventilation:** Ensure adequate ventilation around the pump during operation to prevent overheating.
- **Children and Pets:** Keep the pump out of reach of children and pets.

3. PACKAGE CONTENTS

Please check that all items are present and undamaged upon opening the package:

- 110V Diaphragm Pump x 1
- 1/2 L-type Barb Connector x 1
- 1/2 L-type Male Connector x 1
- 1/2 Barb Connector x 2
- Hose Clamp x 2
- Seal Tape x 1
- Filter x 1
- Instruction Manual x 1



Figure 3.1: Included Parts List

4. SPECIFICATIONS

Parameter	Value
Brand	NEWTRY
Model	LSDPA1-050-070-42 (110V)
Voltage	AC 110V
Current	1.6A
Max Flow Rate	17.5 L/min
Max Pressure	0.48 MPa (70 Psi / 4.8 bar)
Max Lift Height	48 meters
Self-priming Height	3 meters

Parameter	Value
Material	Nylon (PA), Polypropylene (PP)
Product Weight	3.18 kg
Package Dimensions	31.3 x 15.2 x 13.2 cm

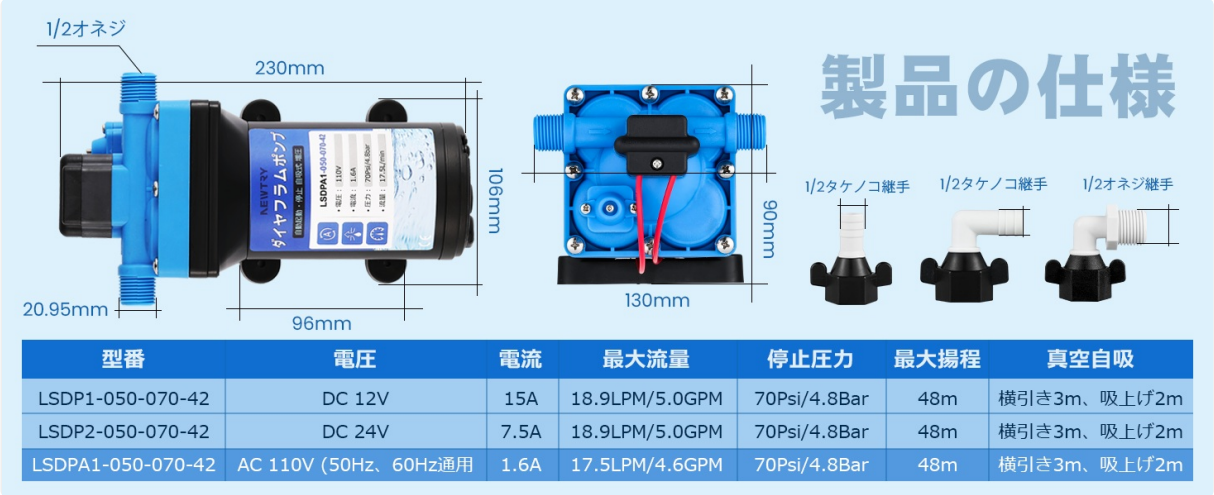


Figure 4.1: 110V Product Parameters

5. SETUP AND INSTALLATION

Follow these steps to properly set up your NEWTRY Diaphragm Pump:

- Mounting:** Secure the pump to a stable, flat surface using the integrated mounting feet. The rubber base helps reduce vibration.
- Inlet Connection:** Connect the inlet hose to the pump's inlet port. Ensure the included filter is installed on the inlet side to prevent debris from entering the pump. Use the provided hose clamps for a secure, leak-free connection.
- Outlet Connection:** Connect the outlet hose to the pump's outlet port. Ensure all connections are tight to prevent leaks.
- Power Connection:** Connect the pump to a 110V AC power source. Ensure the wiring is correct and secure.

圧カスイッチ 自動ON/OFF



より長い耐用寿命



始動・停止可能な回数

8万回 → 10万回



耐電流

20A → 30A

Figure 5.1: Connecting Inlet Hose

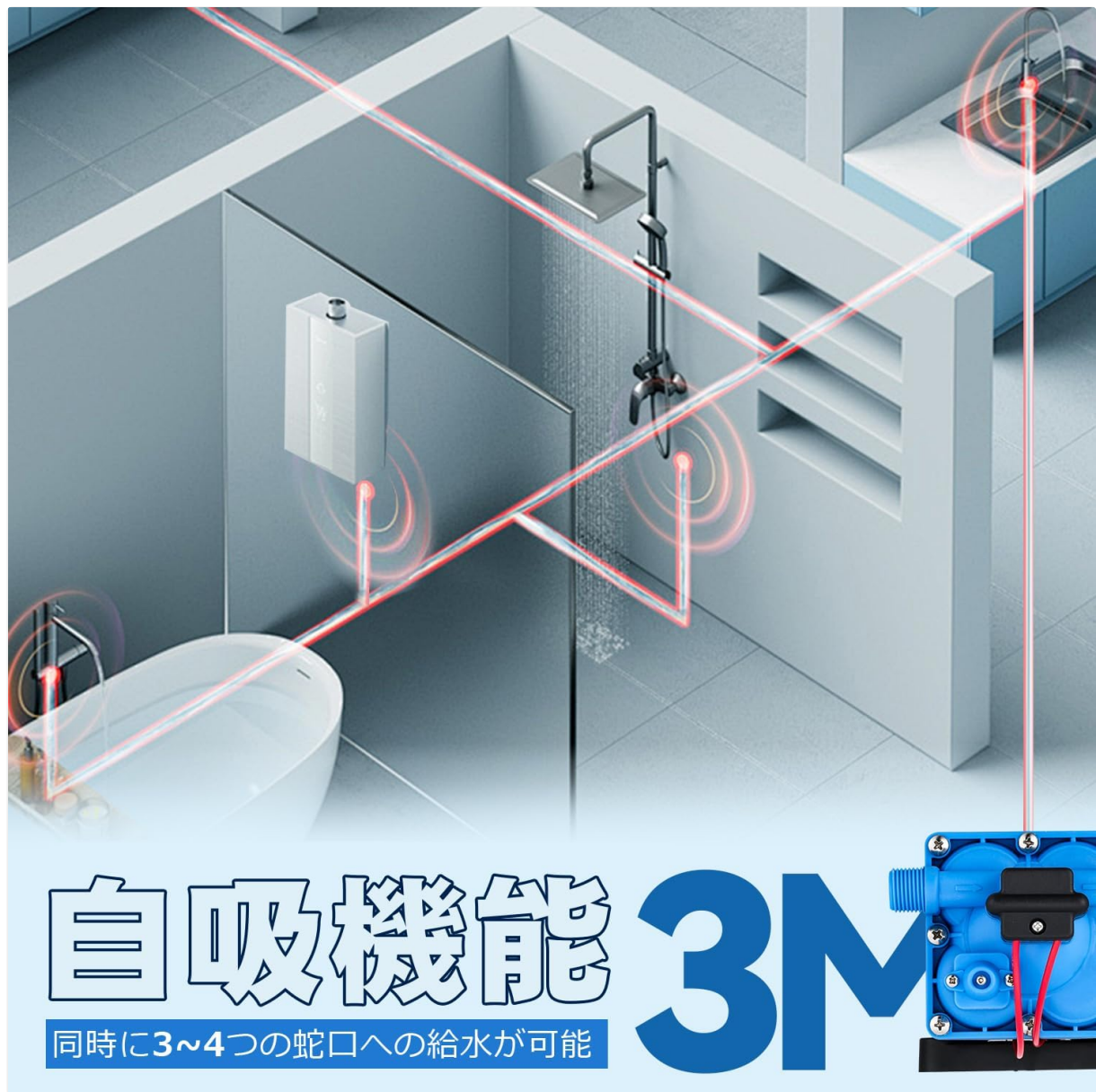


Figure 5.2: Self-Priming Function in action

Installation and Operation Video:

Your browser does not support the video tag.

Video 5.1: This video demonstrates the installation process for the NEWTRY water pump series, including connecting hoses and the filter. It also shows the self-priming function and automatic on/off operation.

6. OPERATING INSTRUCTIONS

The NEWTRY Diaphragm Pump is designed for ease of use with its automatic pressure switch:

- 1. Initial Start-up:** After installation, ensure all connections are secure and the pump is connected to power. Open a faucet connected to the pump's outlet. The pump will automatically start and begin transferring water.
- 2. Automatic Operation:** The pump's pressure switch will detect water demand. When a faucet is opened, the pressure drops, and the pump starts. When the faucet is closed, the pressure builds up, and the pump automatically stops.
- 3. Continuous Operation:** The rated continuous operating time for the pump is 90 minutes. After 90 minutes of continuous use, it is recommended to stop the pump and allow it to rest for a short period before resuming operation. Prolonged continuous use beyond this can lead to carbon accumulation.

The maximum continuous operation time is 3-4 hours under no-load conditions (e.g., pumping horizontally without significant height difference). Pumping to heights of 20-30 meters will introduce load and reduce continuous operation time.



過熱
保護機能



低騒音



圧力
調整可能



永久磁石
モーター



NEWTRY
ダイヤモンドポンプ
自動起動・停止 自吸式 増圧

LSDPA1-050-070-42

- 電圧 : 110V
- 電流 : 1.6A
- 圧力 : 70Psi/4.8bar
- 流量 : 17.5L/min

製品パラメータ

110V

電圧	電流	圧力	流量	揚程
▶ 110V	1.6A	70Psi/4.8bar	17.5L/min	48m

Figure 6.1: Automatic On/Off Function



Figure 6.2: Water Pressure Comparison

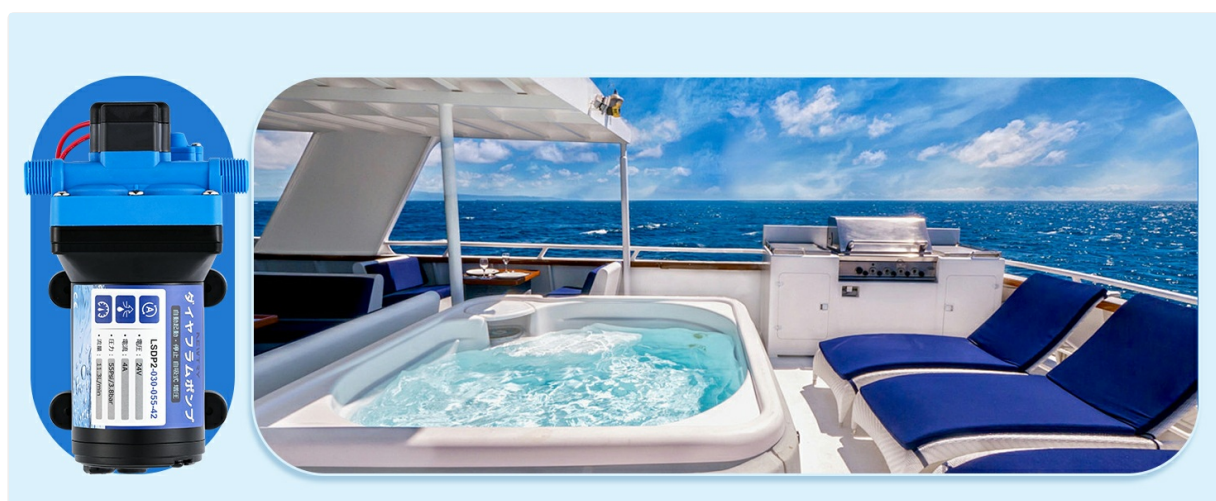


Figure 6.3: Example Application - Yacht Deck Washing



Figure 6.4: Example Application - RV Water Supply

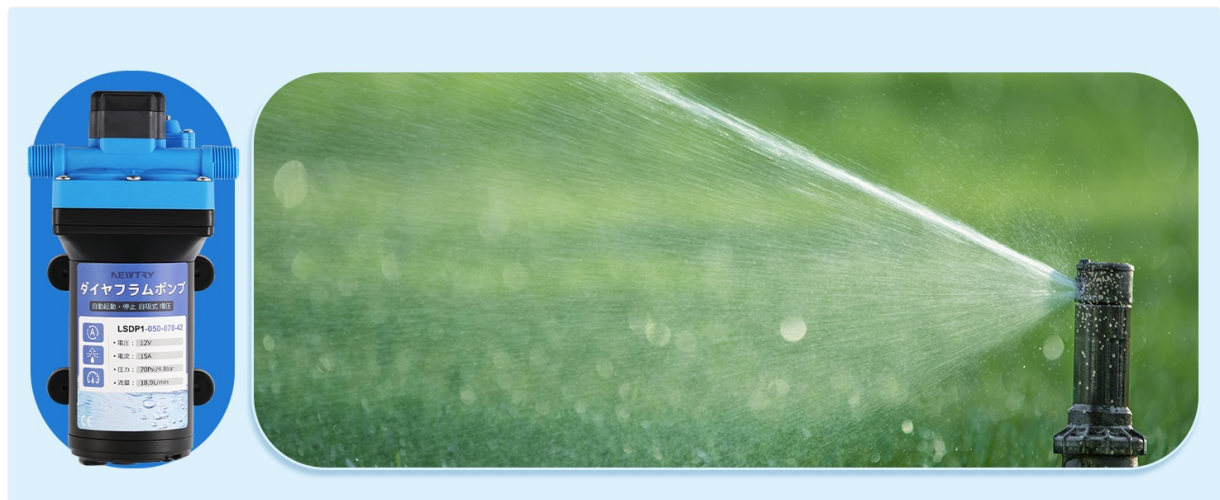


Figure 6.5: Example Application - Agricultural Irrigation

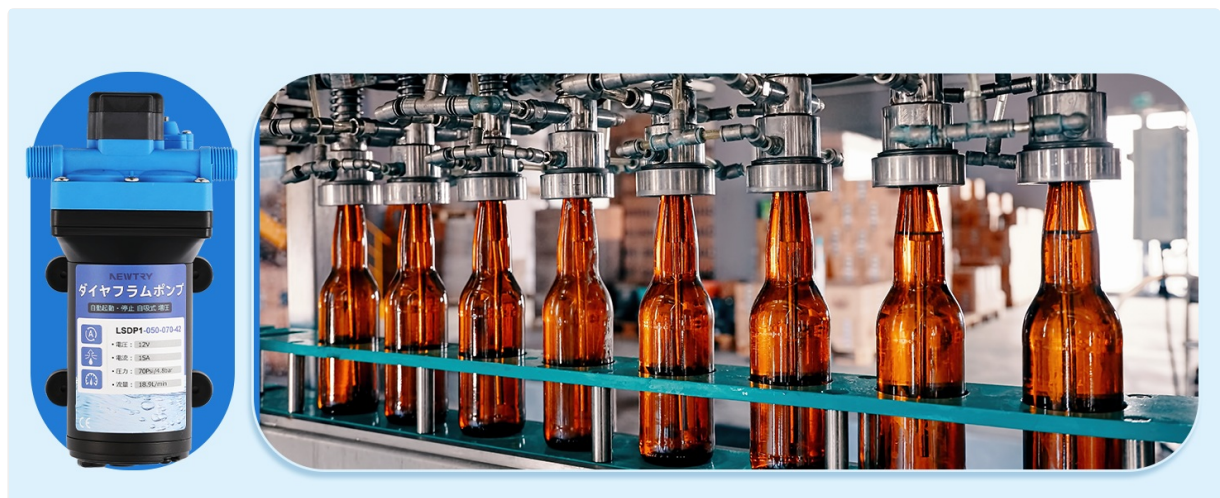


Figure 6.6: Example Application - Liquid Filling

7. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your pump:

- **Filter Cleaning:** Periodically inspect and clean the inlet filter to prevent blockages and ensure smooth water flow. A clogged filter can reduce pump efficiency and cause damage.
- **Hose Inspection:** Check hoses and connections regularly for any signs of wear, cracks, or leaks. Replace damaged hoses and tighten loose connections as needed.

- **Winterization (Cold Climates):** Before freezing temperatures set in, disconnect the pump and drain all water from the pump and connected hoses. Store the pump in a dry, frost-free location to prevent damage from freezing water.
- **General Cleaning:** Keep the exterior of the pump clean and free from dirt and debris.

適用範囲

✓ 周囲温度 ≤ 50°C

✓ 吸引可能な液体の温度：0~70°C

✓ 吸引可能な液体のタイプ：不燃性かつ粒子を含まない清浄な水、弱酸性および弱アルカリ性溶液、塩類液体（例：水道水、雨水、海水など）



- ポンプモーターを水に完全に浸さないでください。
- 寒冷地では冬季使用後、ポンプ・配管内の水を抜いてください。（凍結破損防止）

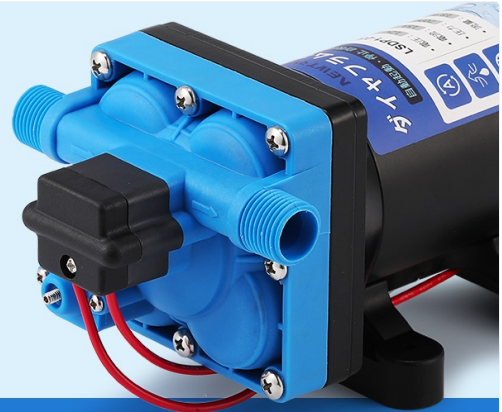


Figure 7.1: Application Range and Important Warnings

8. TROUBLESHOOTING

If you encounter issues with your pump, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Pump does not start	No power, loose wiring, faulty switch, motor overheating.	Check power supply and connections. Ensure switch is ON. Allow pump to cool down if overheated.
No water flow or low flow	Inlet hose kinked or blocked, clogged filter, air in the system, low water source, worn impeller.	Check and clear inlet hose. Clean filter. Prime the pump if necessary. Ensure adequate water source. Inspect impeller for damage.
Pump runs continuously (does not shut off)	Leak in the system, faulty pressure switch, open faucet.	Check all connections and hoses for leaks. Ensure all faucets are closed. If problem persists, pressure switch may need inspection.
Excessive noise or vibration	Loose mounting, air in the system, debris in pump, worn bearings.	Tighten mounting screws. Bleed air from the system. Check for and remove debris. Contact support if bearings are suspected.

9. WARRANTY AND SUPPORT

For warranty information or technical support, please contact NEWTRY customer service or refer to the official NEWTRY website. Keep your purchase receipt as proof of purchase.

For further assistance, please visit the [NEWTRY Store on Amazon](#).

