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> VEVOR 12V Diaphragm Pump Instruction Manual - Model NMDP33-G35-50-12

## VEVOR NMDP33-G35-50-12

# VEVOR 12V Diaphragm Pump Instruction Manual

Model: NMDP33-G35-50-12

Brand: VEVOR

## 1. INTRODUCTION

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your VEVOR 12V Diaphragm Pump, Model NMDP33-G35-50-12. Please read these instructions thoroughly before using the product to ensure proper function and to prevent damage or injury.



Image 1.1: The VEVOR 12V Diaphragm Pump, featuring an orange pump head and a black motor housing.

## 2. SAFETY INFORMATION

Observe the following safety precautions to reduce the risk of injury or damage:

- Always disconnect power before performing any installation, maintenance, or troubleshooting.
- Ensure the pump is installed in a dry, protected area. This product is not waterproof and is not suitable for outdoor exposure to elements.
- Verify that the power supply voltage matches the pump's requirements (12V DC).
- Do not operate the pump with flammable liquids.
- Keep children and unauthorized personnel away from the pump during operation.
- Ensure all connections are secure and leak-free to prevent water damage.

## 3. PACKAGE CONTENTS

The following items are included with your VEVOR 12V Diaphragm Pump:

- 1 x 12V Water Pump
- 1 x Filter
- 2 x Hose Adapters
- 1 x Sealing Tape
- 1 x Hexagon Bolt

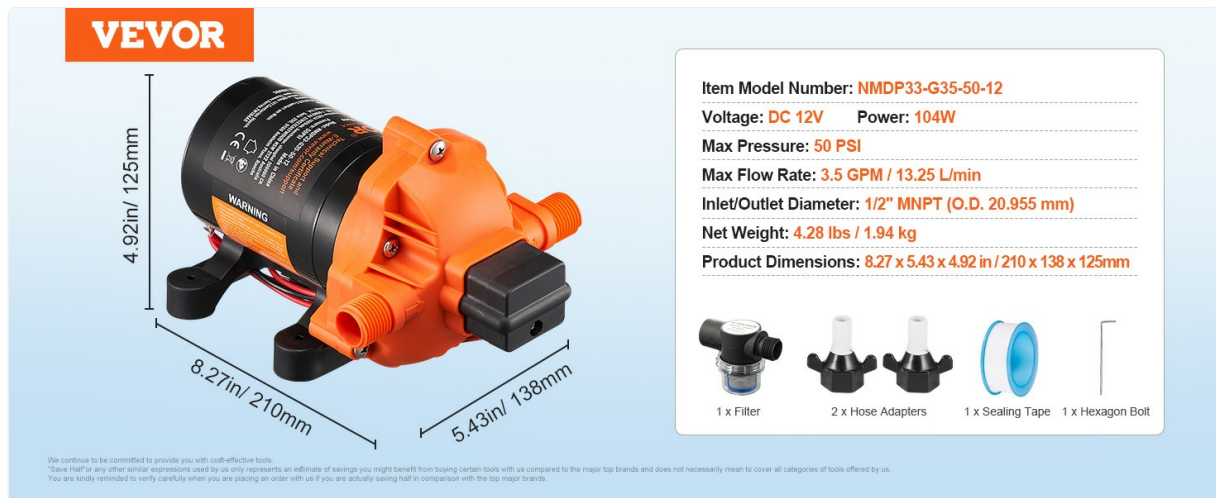


Image 3.1: Diagram illustrating the pump's dimensions and the included accessories.

## 4. SPECIFICATIONS

<b>Model Number</b>	NMDP33-G35-50-12
<b>Voltage</b>	12 Volts DC
<b>Maximum Flow Rate</b>	3.5 GPM (13.25 L/min)
<b>Maximum Pressure</b>	50 PSI (Adjustable 40-100 PSI)
<b>Power</b>	104W
<b>Inlet/Outlet Diameter</b>	1/2" MNPT

<b>Product Dimensions (L x W x H)</b>	8.27" x 5.04" x 4.33" (210 x 128 x 110 mm)
<b>Item Weight</b>	4.28 Pounds (1.94 kg)
<b>Material</b>	Plastic
<b>Motor Type</b>	Pure Copper
<b>Chamber Design</b>	3-Chamber Diaphragm
<b>Noise Level</b>	<65dB
<b>Certifications</b>	CE, ROHS

## 5. INSTALLATION

Follow these steps for proper installation of your diaphragm pump:

1. **Mounting:** Secure the pump to a stable, flat surface using appropriate fasteners. The pump's base is designed with anti-vibration pads to minimize noise. Ensure the mounting location is dry and protected from the elements.
2. **Inlet Connection:** Connect the water supply line to the pump's inlet port (marked 'IN'). Use the provided filter on the inlet side to prevent debris from entering the pump. Ensure all connections are tight and sealed with the provided sealing tape to prevent leaks.
3. **Outlet Connection:** Connect the output water line to the pump's outlet port (marked 'OUT'). Use the provided hose adapters as needed. Ensure connections are secure and leak-free.



Image 5.1: Illustration of the standard 1/2" MNPT inlet and outlet ports for easy connection.

4. **Electrical Connection:** Connect the pump to a 12V DC power source. Ensure correct polarity (red wire to positive, black wire to negative). It is recommended to install an appropriate fuse or circuit breaker in the power line for protection.
5. **System Priming:** Once all connections are made, open a faucet in your water system to allow air to escape. Turn on the pump. It will self-prime and begin pumping water. Allow water to flow until all air is purged from the system.



Image 5.2: Example of a VEVOR pump integrated into an RV's water supply system.

## 6. OPERATING INSTRUCTIONS

The VEVOR 12V Diaphragm Pump features an automatic pressure switch for convenient operation.

- **Automatic Operation:** The pump will automatically start when a faucet or water outlet is opened, causing a drop in pressure. It will stop when the faucet is closed and pressure is restored.
- **Pressure Adjustment:** The pump's pressure switch is adjustable from 40 to 100 PSI. The factory setting is typically 50 PSI. To adjust the pressure:
  - a. Open the pressure switch cover using a screwdriver.
  - b. Locate the screw in the center of the switch.
  - c. Turn clockwise to increase pressure, or counter-clockwise to decrease pressure.



Image 6.1: Step-by-step guide for adjusting the pump's pressure switch.

**Note:** The pump is designed to support dry running for short periods (2-3 minutes) without damage, and includes a built-in check valve bypass switch for continuous water supply even if the check valve fails.

## 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 maintain flow rate.

- **Connection Checks:** Regularly check all water and electrical connections for tightness and signs of wear or corrosion.
- **Winterization:** In freezing temperatures, drain all water from the pump and plumbing system to prevent damage from ice expansion.
- **Overheat/Overload Protection:** The pump is equipped with internal overheat and overload protection. If the pump stops unexpectedly, check for blockages or excessive load. Allow the pump to cool down before restarting.

## VERSATILE APPLICATIONS

Convenient water solutions for mobile living



Image 7.1: Internal view of the pump's pure copper motor, designed for durability and featuring integrated protection mechanisms.

## 8. TROUBLESHOOTING

Refer to the table below for common issues and their potential solutions:

Problem	Possible Cause	Solution
Pump does not start	No power, incorrect wiring, blown fuse/breaker, faulty switch.	Check power supply, verify wiring, replace fuse/reset breaker, test pressure switch.

Low flow or pressure	Clogged inlet filter, air in system, restricted lines, low voltage, worn pump head.	Clean filter, bleed air from system, check for kinks/blockages, verify voltage, inspect pump head.
Pump runs continuously	Leak in system, faulty pressure switch, air in system.	Check for leaks, inspect/replace pressure switch, bleed air from system.
Excessive noise/vibration	Loose mounting, air in system, debris in pump, worn bearings.	Secure mounting, bleed air, clean pump, contact support if internal issue suspected.

## 9. WARRANTY AND SUPPORT

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For warranty information or technical assistance, please refer to the VEVOR official website or contact their customer support directly. Keep your purchase receipt as proof of purchase for any warranty claims.