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> DC HOUSE 110V RV Camper Water Diaphragm Pump (Model DPHC-F42-110V) Instruction Manual

DC HOUSE DPHC-F42-110V

DC HOUSE 110V RV Camper Water Diaphragm Pump

MODEL: DPHC-F42-110V

Introduction

This manual provides essential information for the safe and efficient operation, installation, and maintenance of your DC HOUSE 110V RV Camper Water Diaphragm Pump, Model DPHC-F42-110V. This high-pressure booster pump is designed for various applications including RV kitchen and bathroom faucets, marine deck washdown, garden hose sprinklers, and rain barrel water transfer. It features a powerful 5.5 GPM flow rate and an automatic 70 PSI cut-off pressure switch.



Image: The DC HOUSE water diaphragm pump is suitable for a wide range of applications, from RVs and yachts to garden irrigation and off-grid water systems.

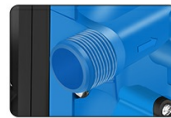
Safety Information

Always prioritize safety during installation and operation. This pump is equipped with a built-in automatic thermal overload protection feature to prevent motor damage by disconnecting the circuit if the unit overheats. The pump can also run dry for up to 10 minutes without damage. Ensure all electrical connections are secure and meet local codes.



SEALED GASKET

Prevents water from leaking into the Motor



1/2" NPT PIPE THREAD

Fitted with multiple connectors to match any outlet



ON DEMAND PRESSURE SWITCH

Enjoy automatic on and off function
Adjustable range of 40-70 PSI



PURE COPPER MOTOR

Durability and efficiency as well as excellent conductivity



BYPASS SWITCH

Makes the pump work smoother



RUBBER BASE

Anti-Vibration & Low Noise

Image: Safety features include thermal protection, which automatically stops the motor if the surface temperature reaches 194°F (90°C), and the ability to run dry for up to 10 minutes without damage.

Setup

The pump features a self-priming lift of 9.8 feet (3 meters) for flexible installation. It is fitted with 1/2" NPT pipe threads, allowing for connection with various standard connectors. Ensure the strainer is firmly tightened before operation.

1. **Firmly tighten the strainer:** Attach the included strainer to the pump's inlet to prevent debris from entering.
2. **Install barbed hose adaptors:** Install the barbed hose adaptors to the threaded MNPT on the pump.
3. **Install hose:** Connect your water hose to the barbed adaptors.



Image: Step-by-step installation guide, illustrating the attachment of the strainer and barbed hose adapters to the pump.

Operating Instructions

This pump operates on an on-demand system with an automatic pressure switch. When a faucet is opened, the pump activates to provide water. When the faucet is closed, the pump shuts off automatically at 70 PSI.

- **Automatic Pressure Switch:** The pump features a built-in automatic pressure switch that starts and stops the pump on demand for seamless water flow.
- **Pressure Adjustment:** The pressure switch is preset to a 70 PSI cut-off. To adjust, open the top cover and turn the screw. Turning clockwise increases pressure (adjustable range: 40-80 PSI), while turning

counter-clockwise decreases it.

- **Smart Bypass:** The integrated smart bypass prevents rapid cycling noise, contributing to quieter operation, especially during low flow usage.



Image: Explanation of the bypass switch for smooth water use and the on-demand pressure switch with adjustable shut-off pressure (40-70 PSI).

Maintenance

The DC HOUSE pump is engineered with durable and corrosion-resistant components for consistent performance and longevity.

- **Diaphragm:** Engineered with a long-lasting Santoprene diaphragm for consistent performance.
- **Housings:** Made from Nylon/Polypropylene for durability.
- **Valves/Seals:** Constructed from EPDM/Viton for reliable sealing.
- **Sealed Gasket:** Prevents water from leaking into the motor, enhancing the pump's lifespan.
- **Screws:** Stainless steel screws are used for corrosion resistance.
- **Motor:** Features a pure copper motor for durability, efficiency, and excellent conductivity.

Regularly inspect the strainer for debris and clean as necessary to maintain optimal flow. Ensure all connections remain tight to prevent leaks.



Image: Breakdown of the pump's durable components, highlighting materials like Nylon/Polypropylene housings, Santoprene diaphragm, and stainless steel screws for long-term reliability.

Troubleshooting

Problem	Possible Cause	Solution
Pump runs but no water flows or low flow	Clogged strainer, air in system, kinked hose, blockage in faucet/line.	Clean strainer. Bleed air from system. Check hoses for kinks. Inspect faucets/lines for blockages.
Pump cycles on and off frequently (rapid cycling)	Small leak in system, pressure switch setting too sensitive, bypass not functioning optimally.	Check for leaks in plumbing. Adjust pressure switch (increase cut-off pressure slightly). Ensure bypass is clear.
Pump does not turn on	No power, faulty wiring, pressure switch malfunction, thermal overload activated.	Check power supply and connections. Verify wiring. Inspect pressure switch. Allow pump to cool if thermal protection activated.
Excessive noise during operation	Vibration, air in system, loose mounting.	Ensure pump is securely mounted on its rubber base. Bleed air from system.

Specifications

The DC HOUSE DPHC-F42-110V water diaphragm pump offers robust performance for various water transfer needs.

Specification	Value
Model	DPHC-F42-110V
Voltage	110V AC
Maximum Flow Rate	5.5 Gallons Per Minute (GPM)
Cut-Off Pressure	70 PSI (Adjustable 40-80 PSI)
Maximum Current	1.6 A
Maximum Head	131 feet (40 meters)
Max. Self-Priming Height	9.8 feet (3 meters)
Product Dimensions (L x W x H)	9" x 5" x 4.5" (230mm x 126mm x 115mm)
Item Weight	6.45 Pounds
Power Source	Corded Electric
Material	Mesh, Plastic, Metal (Housings: Nylon/Polypropylene, Diaphragm: Santoprene, Valves/Seals: EPDM/Viton)

MASSIVE 5.5 GPM FLOW

110V High-Pressure Pump | For Fleet & Equipment

POWERS

5X FAUCETS
SMOOTH OPERATION

CLEAN FASTER. CLEAN BETTER.



Image: Detailed dimensions of the pump, including overall size and component measurements.

4-CHAMBER DIAPHRAGM DESIGN



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Image: A table summarizing the key specifications of the DPHC-F42-110V pump, including flow rate, pressure, and voltage.

Warranty and Support

For warranty information and customer support, please refer to the documentation included with your purchase or contact DC HOUSE directly through their official website or the seller platform where the product was acquired. Keep your purchase receipt for warranty claims.