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› SHURflo Self-Priming 12 Volt Diaphragm Water Pump - Model 2088-343-435 User Manual

SHURFLO 2088-343-435

SHURflo Self-Priming 12 Volt Diaphragm Water Pump

MODEL NUMBER 2088-343-435 USER MANUAL

Product Overview

The SHURflo 12 Volt Diaphragm Water Pump, Model 2088-343-435, is engineered for reliable performance in heavy-duty applications such as agricultural spraying and general fluid transfer. This self-priming pump is designed to mount in any position, offering installation flexibility. Its robust construction includes chemical-resistant materials and corrosion resistance, ensuring durability and a long service life. A key feature is its ability to run dry without sustaining damage, and a demand switch prevents fluid backflow, contributing to efficient operation.



Image: The SHURflo 12 Volt Diaphragm Water Pump, showcasing its compact design, motor, pump head, and electrical connections. The label on the motor indicates model number 2088-343 and specifications like 3 GPM open flow and 10 MAX amps.

Setup and Installation

Proper installation is crucial for optimal pump performance and longevity. This pump is designed for 12 Volt DC power sources and features 1/2-inch ports for fluid connections.

- **Mounting:** The pump can be mounted in any position. Secure it to a stable, flat surface using appropriate fasteners through the mounting feet. Ensure there is adequate space around the pump for ventilation and future maintenance.
- **Electrical Connection:** Connect the pump to a 12 Volt DC power supply. Observe correct polarity (red wire to positive, black wire to negative). It is recommended to use a 15 amp time-delay fuse or circuit breaker in the positive power line to protect the pump and electrical system.
- **Plumbing Connections:** Connect the inlet and outlet ports using appropriate 1/2-inch fittings. Ensure all connections are tight to prevent leaks and air ingress, which can affect pump priming and performance. An inlet strainer is recommended to prevent debris from entering the pump.

- **Priming:** As a self-priming pump, it will draw water from the source. Ensure the inlet line is submerged in fluid and the outlet line is open to allow air to escape during initial priming.

Operating Instructions

The SHURflo diaphragm pump operates on demand, meaning it will automatically turn on when there is a call for water and shut off when the pressure set point is reached or the outlet is closed.

- **Initial Start-up:** After installation and plumbing, ensure the power supply is connected. Open a faucet or outlet downstream to allow air to purge from the system. The pump will begin to run and prime itself. Once a steady flow of water is observed, close the outlet. The pump should then shut off.
- **Continuous Operation:** The pump is designed for intermittent duty. While it can run dry without damage, prolonged dry running is not recommended. It delivers reliable performance in high flow, moderate pressure applications.
- **Demand Switch:** The integrated demand switch automatically controls pump operation based on system pressure. This prevents continuous running when water is not being drawn, conserving power and extending pump life.

Maintenance

The SHURflo pump is designed for minimal maintenance due to its durable construction and use of chemical-resistant materials. The pump body is fully repairable, allowing for component replacement if needed.

- **Regular Inspection:** Periodically inspect all plumbing connections for leaks and ensure electrical connections are secure and free from corrosion.
- **Inlet Strainer:** If an inlet strainer is installed, clean it regularly to prevent blockages that can reduce flow and put strain on the pump.
- **Winterization:** In freezing conditions, drain all water from the pump and plumbing system to prevent damage from ice expansion.
- **Component Replacement:** Refer to official SHURflo service manuals or authorized service centers for detailed instructions on replacing internal components if necessary.

Troubleshooting

This section provides guidance for common operational issues. For complex problems, consult a qualified technician or SHURflo support.

Problem	Possible Cause	Solution
Pump does not run	No power; Blown fuse/tripped breaker; Loose wiring; Motor failure.	Check power supply; Replace fuse/reset breaker; Secure all electrical connections; Contact SHURflo support.
Low flow or no pressure	Air leak in inlet line; Clogged inlet strainer; Restricted outlet; Low voltage.	Check and tighten all inlet connections; Clean inlet strainer; Clear any obstructions in outlet line; Verify 12V power supply.
Pump cycles on and off rapidly	Small leak in system; Restricted flow; Pressure switch adjustment.	Check for leaks in plumbing; Ensure outlet is not overly restricted; Consult manual for pressure switch adjustment (if applicable).
Pump runs but no water	No water in tank; Air lock; Inlet line not submerged.	Refill water source; Bleed air from system by opening outlet; Ensure inlet line is fully submerged.

Specifications

Brand	SHURFLO
Model Number	2088-343-435
Power Source	Battery Powered (12 Volts DC)
Maximum Flow Rate	3 Gallons Per Minute (GPM)
Maximum Lifting Height	3.7 Meters
Item Weight	5.3 Pounds
Product Dimensions (L x W x H)	11.3" x 5.67" x 4.88"
Material	Plastic
Color	Black
Style	Diaphragm
Manufacturer	SHURflo
Date First Available	February 11, 2009

Warranty and Support

For information regarding warranty coverage, technical support, or replacement parts for your SHURflo 12 Volt Diaphragm Water Pump, please contact SHURflo directly or the authorized dealer from whom the product was purchased. Keep your proof of purchase for warranty claims.

Manufacturer: SHURflo

Contact information can typically be found on the manufacturer's official website or product packaging.

