



User manual

Automatic bilge pump 550 GPH 12V Ø19mm

Item no: 1200099



User Manual

Product Overview

This is a 12V fully automatic submersible bilge pump that operates via impeller resistance sensing (no float switch required). It features a built-in check valve, thermal overload protection, and low power consumption, suitable for fresh or saltwater marine bilge applications.

1. Specifications

Flow Rate: 500 GPH (31.5 L/min)

Voltage: 12V DC (minimum operating voltage: 10.5V)

Current Draw: 1.6A @ 12V; 1.8A @ 13.6V

Standby Power: ~0.25A/day (self-tests every 2.5 minutes for 1 second)

Recommended Fuse: 4A (not included)

Discharge Port: 3/4" (19mm) hose

Dimensions: H × W × D: 108mm x 72.5mm x 58mm

2. How It Works (Automatic Operation)

When powered, the pump performs a self-test every 2.5 minutes: runs for 1 second to measure impeller load.

If water is detected (increased impeller resistance), the pump runs continuously until water is removed (down to ~1/4" / 0.6cm).

If no water is present, it shuts off and resumes the 2.5-minute check cycle.

Activation Level: ~5/8" (1.6cm); Shut-Off Level: ~1/4" (0.6cm).

3. Wiring Instructions (3-Wire System)

Black: Negative (–) → Connect to hull ground / battery negative

Brown: Automatic Positive (+) → Connect to switch "Auto" terminal

Brown/White: Manual Override → Connect to switch "Manual" terminal

Wiring Notes

Keep all wire connections above the highest water level. Use marine-grade butt connectors and sealant to prevent corrosion.

Install a 4A fuse near the positive power source for circuit protection.

Recommended switch: Rule 41/43 3-position panel switch (Auto-Off-Manual).

Safety Warnings

Use only for fresh or saltwater; do not pump chemicals, oil, or corrosive fluids.

Disconnect power before servicing to prevent electric shock.
Keep all electrical connections above water level and properly sealed.
Do not use in flammable or explosive environments; ensure adequate ventilation.
Keep out of reach of children; operation by untrained personnel is prohibited

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