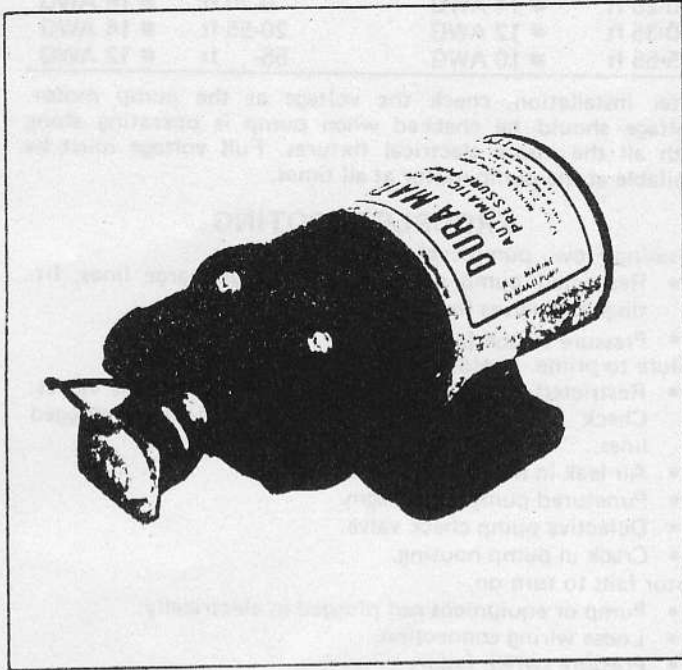


# DURA-MATE™

AUTOMATIC WATER PRESSURE PUMP

# MODEL 42240-SERIES

MODEL 42240-SERIES



## PRODUCT DATA

### FEATURES

- Self-Priming
- Dry Running
- Low Current Draw
- Smooth Flow and Quiet Operation
- Complete with Multiple Ports
- IAPMO Listed
- Meets USCG Electrical Requirements for Ignition Protection

### APPLICATIONS

The DURA-MATE automatic water system pump is designed for self-contained recreational vehicles and pleasure boats with multiple-fixture water systems. The system is automatic when a faucet is opened, the pump instantly begins operation to provide a constant flow from tank to faucet. Closing the faucet automatically discontinues pump operation.

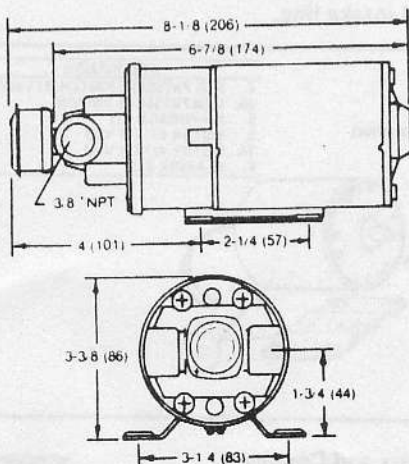
### SPECIFICATIONS

Open Flow: 2.8 GPM 10,6 L/min.

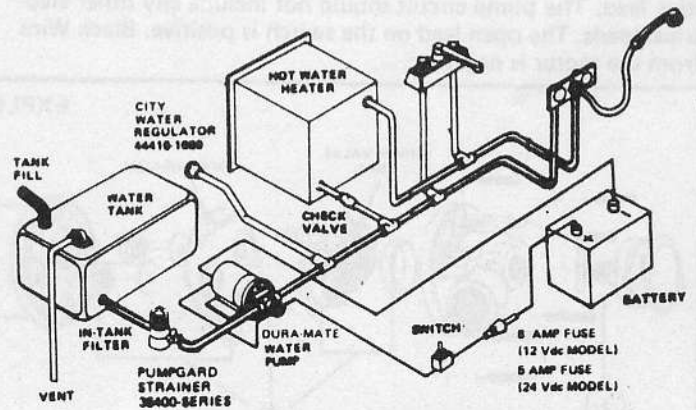
MODEL	VOLT	PRESSURE		OPEN FLOW	FUSE
		CUT-IN	CUT-OUT	AMP DRAW	SIZE
42240-0000	12 Vdc	18 ± 4	32 ± 4	2.5	8 AMP
42240-0010	12 Vdc	10 ± 4	21 ± 4	2.5	8 AMP
42240-0011	24 Vdc	10 ± 4	21 ± 4	1.5	5 AMP

Vertical Dry Lift: 6 ft 2,6 m  
 Ports: (2) 1/2" - 5/8" Barb and  
 (2) 1/2" Threaded (Qest)

### DIMENSIONS INCHES (MILLIMETRES)



### TYPICAL INSTALLATION



**ITT JABSCO**  
 43000-0448 Rev. 8/83

## MOUNTING

The DURA-MATE is a self-priming pump. It may be located away from the tank, above or below the liquid level.

For vertical pump mounting, locate the motor on top. This will prevent water from entering the motor chamber in the event of a leak.

Rubber grommets are provided on the pump base to absorb pump vibration. To be effective, they must not be compressed by the mounting screws.

Pump inlet and outlet hoses may transmit hydraulic vibration and create noise. To correct this problem, wrap the hose in foam where it contacts walls or floors near the pump.

## PLUMBING

For best pump performance, flexible hoses are recommended instead of rigid piping. NOTE: Intake hose must be 1/2" ID reinforced hose at minimum. Avoid any kinks or fittings which could cause excessive restrictions. If noise at pump head is present, restriction on intake side exists. A PAR® Pump-guard Model 36400-0000, In-Line Strainer, should be installed between the pump and fresh water tank. Plumbing lines and fittings must be large enough to minimize flow restrictions. Typical installations use 1/2" tubing for main line and short 3/8" tubing for branch lines to individual fixtures (valves, elbows, etc. used should be the same size as pipe to tubing). Select two of the port adaptors supplied to match your plumbing system. NOTE: Wrap Teflon\* tape around ports to insure proper seal. *Fresh water tank must be vented.* Faucet screens should be periodically cleaned.

Excessive pump cycling results from undersized plumbing lines, fittings and fixtures. The use of an accumulator tank (Jabsco Model 12573-0000 or 18810-0000), although not required, is recommended for a more effective water distribution system. It eliminates "water hammer", stores pressure to allow a limited use of water without restarting pump (desirable for night-time use), assures a constant, even stream of water at faucets farthest from pump and prolongs pump life by cutting down rapid start/stop operation.

## WIRING

In an easily accessible location, install a switch to control electricity to the pump. Turn the pump off when not in use for extended periods, or when tank is out of water.

The pump should be protected with an 8 Amp fuse for the 12 Vdc Models or a 5 Amp fuse for the 24 Vdc Model in the positive lead. The pump circuit should not include any other electrical loads. The open lead on the switch is positive. Black Wire from the motor is negative.

Wire size based on length of conductor from source of current to most distant fixture.

12 Vdc		24 Vdc	
0-20 ft	# 14 AWG	0-20 ft	# 16 AWG
20-35 ft	# 12 AWG	20-55 ft	# 14 AWG
35-55 ft	# 10 AWG	55- ft	# 12 AWG

After installation, check the voltage at the pump motor. Voltage should be checked when pump is operating along with all the inside electrical fixtures. Full voltage must be available at the pump motor at all times.

## TROUBLE SHOOTING

Pulsating Flow - pump cycles on and off.

- Restricted pump delivery. Check discharge lines, fittings and valves for clogging or undersizing.

- Pressure switch failure.

Failure to prime - motor operates, but no flow.

- Restricted intake or discharge line. Open all line valves. Check for "jammed" check valve and clean clogged lines.
- Air leak in intake line.
- Punctured pump diaphragm.
- Defective pump check valve.
- Crack in pump housing.

Motor fails to turn on.

- Pump or equipment not plugged in electrically.
- Loose wiring connection.
- Pressure switch failure.
- Defective motor.

Pump fails to turn off after all faucets are closed.

- Switch orifice clogged.
- Empty tank.
- Punctured pump diaphragm.
- Discharge line leak.
- Defective pressure switch.
- Insufficient voltage to pump.
- Debris lodged under intake flappers.
- Pressure switch failure.

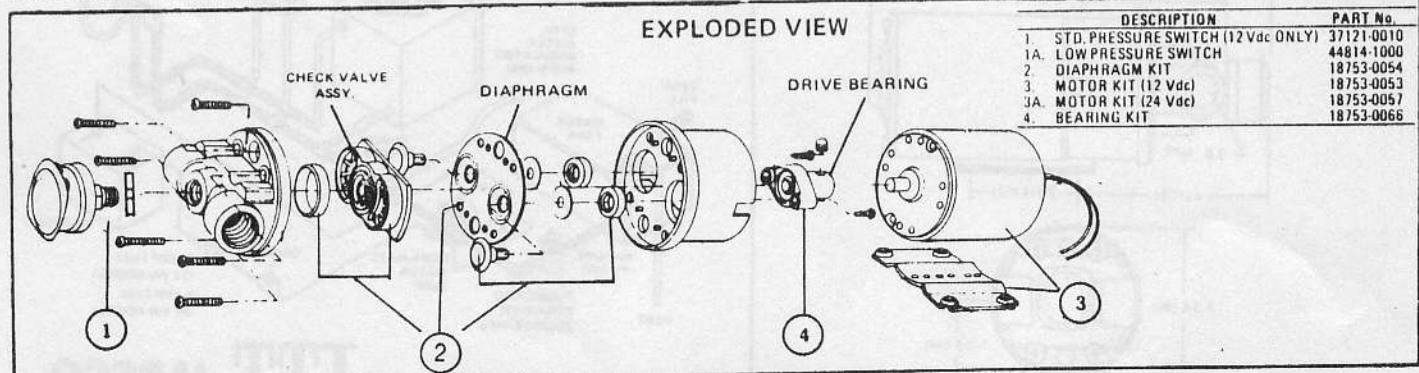
Low flow and pressure.

- Air leak at pump intake.
- Accumulation of debris inside pump and plumbing.
- Worn pump bearing (excessive noise).
- Punctured pump diaphragm.
- Defective motor.

Noise at pump head.

- Heavy restriction on intake side of pump.
- Clogged filter.
- Kinked intake line.

## EXPLODED VIEW



DESCRIPTION	PART No.
1. STD. PRESSURE SWITCH (12 Vdc ONLY)	37121-0010
1A. LOW PRESSURE SWITCH	44814-1000
2. DIAPHRAGM KIT	18753-0054
3. MOTOR KIT (12 Vdc)	18753-0053
3A. MOTOR KIT (24 Vdc)	18753-0057
4. BEARING KIT	18753-0066

LISTED



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\*Teflon is a trademark of E. I. du Pont de Nemours and Company.

THE PRODUCT DESCRIBED HEREIN IS SUBJECT TO THE JABSCO ONE YEAR LIMITED WARRANTY, WHICH IS AVAILABLE FOR YOUR INSPECTION UPON REQUEST.

**ITT JABSCO**

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