

# PAR-MATE™

SINGLE FIXTURE PUMP

MODEL 44020-Series  
2.5 GPM



## FEATURES

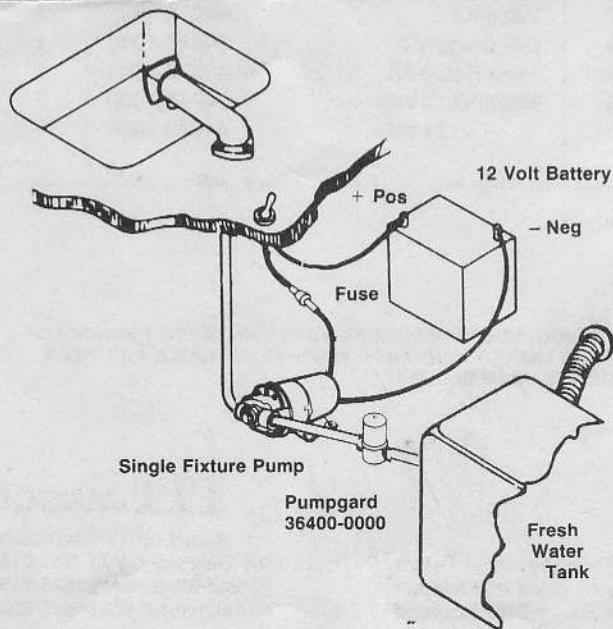
- Self-Priming
  - Dry Running
  - Low Current Draw
  - Smooth Flow and Quiet Operation
  - Complete with 1/2" Hose Adaptors
- 
- IAPMO Listed
  - Meets USCG Electrical Requirements

## SPECIFICATIONS

Open Flow: 2.5 GPM 9,5 L/min.  
Vertical Dry Lift: 4 ft. 1,2 m  
Ports: 1/2" Threaded  
Dimensions: 7-1/2" x 5-1/4" x 3-3/8"  
(190,5mm) x (133,4mm) x (85,7mm)

## APPLICATION

The PAR-MATE water system pump is designed for single-fixture water systems in recreational vehicles and pleasure boats. The installation of a switch permits manual control of the pump. A generous flow of water is delivered through any of the PAR® galley hand pumps or a standard faucet fixture with SEALS REMOVED. No bypass plumbing is required with this flow-through pump and it will not affect the use of hand pump fixtures when power is not available.



## MOUNTING

The PAR-MATE is a self-priming pump. It may be located away from the tank, above (up to 4 ft.) 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 at the pump. NOTE: Intake hose must be minimum 1/2" ID reinforced hose. Avoid any kinks or fittings which could cause excessive restriction. If noise at pump is present, restriction on intake exists. A PAR Pumpgard 36400-Series 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. Fresh water tank must be vented. Faucet screens should be periodically cleaned.

MODEL 44020-Series

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In the single-fixture installation, pump delivers water through a standard household faucet WITH SEALS REMOVED. A PAR galley hand pump may be used in place of the faucet as a backup when power source is disconnected. Also PAR Electric Faucet Model 42520-0000 may be used in place of faucet and switch.

Do not close off discharge when pump is operating; use the switch to control pump.

**WARNING: FIRE HAZARD. WIRING MUST COMPLY WITH APPLICABLE ELECTRICAL STANDARDS AND INCLUDE A PROPERLY SIZED FUSE OR CIRCUIT BREAKER. IMPROPER WIRING MAY CAUSE A FIRE RESULTING IN INJURY OR DEATH.**

**IF YOU ARE NOT FAMILIAR WITH APPLICABLE ELECTRICAL STANDARDS, HAVE THE UNIT INSTALLED BY A QUALIFIED ELECTRICIAN.**

### WIRING

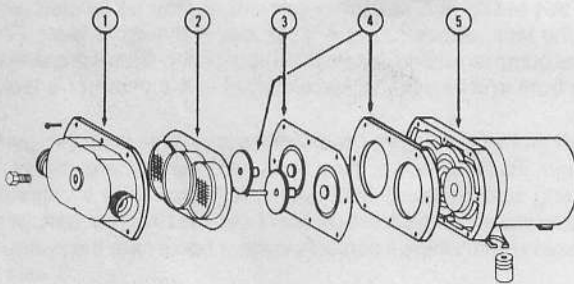
The pump should be protected with a 6 Amp fuse for 12 Vdc (24 Vdc - 3 Amp) in the positive lead. The pump circuit should not include any other electrical loads. An on-off or pushbutton switch must be installed in this circuit to operate the pump electrically.

Wire size based on length of conductor from source of current to most distant fixtures is as follows:

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

### EXPLODED VIEW



### OPERATION

- Check water level in tank. Be sure valves are open and strainers or aerators are clean.
- Activate electric pump using your manual on-off switch or pushbutton.
- If a PAR galley hand pump fixture is installed, the electric pump will deliver water with no adjustments to the hand pump needed.
- If power is not available to the pump, operate your PAR hand pump normally, with no adjustments to the electric pump.

### TROUBLESHOOTING

#### 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.
- No water in tank.

#### Motor fails to turn on.

- Pump or equipment not plugged in electrically.
- Loose wiring connection.
- Defective motor.
- Defective switch.
- Blown fuse.

#### 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.

### PARTS LIST

| KEY | DESCRIPTION      | PART #     | QTY. |
|-----|------------------|------------|------|
| 1   | Body Kit         | 44013-1000 | 1    |
| 2   | Valve Kit        | 44038-1000 | 1    |
| 3   | Diaphragm Kit    | 44017-1000 | 1    |
| 4   | Plate/Piston Kit | 44032-1000 | 1    |
| 5   | Motor Kit 12 Vdc | 44043-1000 | 1    |
|     | 24 Vdc           | 44043-2000 | 1    |

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



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