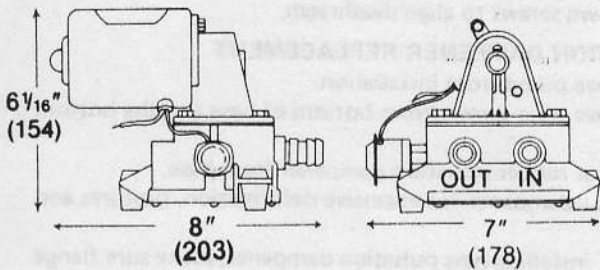


**PAR™**

PRODUCT DATA

ORIGINAL EQUIPMENT  
CENTRIC WATER SYSTEM PUMP**MODELS:** 36975-1101  
36975-1141  
36975-1161  
36975-2161  
36975-3131  
36975-3161  
36975-4161MODEL 36975-SERIES  
AUTOMATIC MULTI-FIXTURE PUMP

## PUMP DIMENSIONS



Dimensions in parenthesis are in millimeters.

## OPERATION

- Check level of water in tank.
- Check all strainers or any aerators and clean thoroughly.
- Open all faucets, hot and cold. Turn on power to pump and wait for hot water tank and water lines to fill.
- Close each faucet when it starts to deliver a steady stream of water (close cold water faucet first).
- Observe the pump. Check to be sure pump stops soon after closing last faucet.
- Pump is now ready for automatic operation. It will start when a faucet is opened and stop when the faucet is closed.
- Turn off power to pump and open faucet to relieve system pressure before hooking up to city water.

## MAINTENANCE

**WINTER STORAGE.** PAR pumps, with their unique pulsation dampener, will withstand frozen water without damage, provided the system is not under pressure prior to freezing. To prevent accidental damage, the entire water system should be protected from freezing during winter storage. This requires complete draining, using the following directions and/or vehicle manufacturers instructions:

1. Open all faucets and drains and allow pump to empty water tank and intake line. Run the pump dry for 1 to 2 minutes before turning off.
2. With all drains open, blow air through city water entry. Allow time for the water heater to empty.
3. Disconnect discharge and intake hoses from the pump. Start the pump and allow to run until all water is expelled from unit. (Running dry will not harm the pump.)
4. Reconnect the hoses, close the drains but leave faucets open. The water distribution system is now dry and ready for winter storage.

An alternate method is to use potable water system anti-freeze solution. Follow directions of anti-freeze manufacturer, and use a PAR Winter Protection Kit Model-44610-0000.

**DO NOT USE AUTOMOTIVE TYPE RADIATOR ANTI-FREEZE. IT IS POISONOUS.**

## FEATURES

- Self-Priming
- Diaphragm Design Allows Dry Running
- Built-in Discharge Check Valve
- Low Current Draw
- Built-in Hydraulic Pulsation Dampener
- Large Vibration Absorbing Pads
- Available with Barb, Threaded or Flare Ports
- IAPMO Approved

## SPECIFICATION

	U.S. GPM	Liters/Min.	Can. GPM
Open Flow:	2.9	11.0	2.4
Cut-in Pressure:	18 PSI Nom. (120 kPa)		
Cut-off Pressure:	33 PSI Nom. (230 kPa)		
Voltage:	12 VDC		
Current:	5 Amp Nominal (4 Amps @ Open Flow)		
Fuse Rating:	5 Amp "Slo-Blo"		
	7-1/2 Amp Normal		
Ports:	Slip-on 1/2" or 5/8" ID Hose, 1/2" MPT or 1/2" Flare		

Vert. Dry

Suction Lifts: 6 feet (1.8m)

Approvals: IAPMO Type IV

Net Weight: 5.4 lbs. (2.4 kgs.)

## TROUBLE SHOOTING

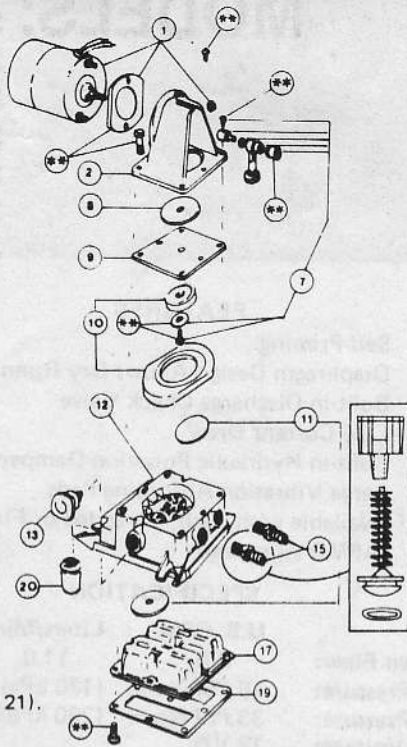
Problems	Causes
Pump operates but no water flows through faucet	<ul style="list-style-type: none"> <li>-Low water level in tank.</li> <li>-Suction line clogged or kinked.</li> <li>-Loose hose clamps or fittings in suction line.</li> </ul>
Pump cycles on and off although all faucets are closed.	<ul style="list-style-type: none"> <li>-Water leak in plumbing.</li> <li>-Water leak in flush toilet valve.</li> <li>-Internal leak in pump.</li> <li>-Outlet valve not sealing.</li> </ul>
Pump operates roughly and has excessive noise and vibration.	<ul style="list-style-type: none"> <li>-Flow through intake line is restricted, kink in hose.</li> <li>-Pump mounted on flimsy board.</li> <li>-Deformed or ruptured pulsation dampener in pump.</li> <li>-Worn connecting rod bearing.</li> </ul>
Pump fails to start when faucet is opened.	<ul style="list-style-type: none"> <li>-No voltage to pump.</li> <li>-Blown fuse.</li> <li>-Clogged piping.</li> <li>-Kink in outlet line.</li> <li>-Defective pressure switch.</li> </ul>
Pump fails to stop when faucets are closed.	<ul style="list-style-type: none"> <li>-Empty water tank.</li> <li>-Outlet valve not sealing.</li> <li>-Air in system.</li> <li>-Very low voltage.</li> <li>-Defective pressure switch.</li> </ul>

**CAUTION:** Before servicing pump, turn off power and open faucets to relieve pressure in water system.

**JABSCO PRODUCTS** **ITT**

Form 43000-0396 Rev 4/80

**EXPLODED VIEW**



\*\*Indicates items included in Hardware Kit (Key 21).

**PARTS LIST**

Key	Description	Part Number	Qty.
1	Motor Kit 12 Volt D.C.	30201-0000	1
2	Motor Mount	35452-0001	1
7	*Connecting Rod Assembly	30033-0000	1
8	Diaphragm Plate	35479-0000	1
9	*Diaphragm	44821-0000	1
10	Spacer Set Kit	44822-0000	1 Set
11	*†Valve Flappers	44823-0000	1 Set
12	†Base Assembly	44824-0000	1
13	Pressure Switch	37121-0010	1
15	Ports (Inlet & Outlet) Barb (See Note)	37176-0000	1 Set
17	*†Pulsation Dampener	44825-0001	1
19	†Bottom Plate	35686-0000	1
20	†Vibration Pad Kit	44826-0000	1 Set
21	Hardware Kit	44827-0000	1 Set
	*Service Kit	44829-0001	

\*Indicates Parts Contained in Service Kit.

†Indicates Parts Supplied with Base Assembly.

**NOTE:** Threaded Outlet Port 37050-0001  
 Threaded Inlet Port 37050-0000  
 Flare Outlet Port 37050-0002  
 Flare Inlet Port 37050-0003

**VALVE FLAPPER REPLACEMENT**

1. Remove motor and six tie down screws. (see Motor Replacement)
2. Lift off motor mount and diaphragm assembly from the pump base.
3. Remove bottom plate and pulsation dampener.
4. Pull valve flappers from base and clean all foreign materials from seats.
5. Install new valve flappers into base, wet, the intake from above and the output from below. Both flappers are the same.

**DIAPHRAGM AND CONNECTING ROD REPLACEMENT**

1. Remove motor and six tie down screws. (see Motor Replacement)

2. Lift off motor and diaphragm assembly from the pump base.
3. Remove diaphragm screw to separate diaphragm from connecting rod assembly.
4. Inspect diaphragm for cuts and cracks.
5. Check connecting rod assembly for breaks, cracks or excessive wear on eccentric pin and bearing if connecting rod is to be reused, open cover and relubricate by packing built-in reservoir with an automotive grease. Original lubricant normally lasts the lifetime of the pump.
6. When reassembling connecting rod to diaphragm, be sure to align. Proper alignment is achieved when the rod slips straight onto motor shaft and the diaphragm rests squarely on the motor mount pad. Misalignment will create a strain on diaphragm and significantly shorten its life. Use tie down screws to align diaphragm.

**PULSATION DAMPENER REPLACEMENT**

1. Remove pump from installation.
2. Remove nine screws from bottom of base and the bottom plate.
3. Pull out rubber pulsation dampener from base.
4. Inspect dampener for excessive deformation, ruptures and leaks.
5. When installing new pulsation dampener, make sure flange is correctly seated to effect a proper water and air seal.

**PRESSURE SWITCH REPLACEMENT**

1. Disconnect wires from pressure switch.
2. Unscrew switch from base.
3. Thread new switch with sealing washer into pump base, metallic side of washer facing switch. Tighten securely.
4. Rewire one motor lead and pos. (+) battery wire to switch terminals.

**MOTOR REPLACEMENT**

1. Disconnect one motor wire from pressure switch, the other from splice connector.
2. Loosen eccentric set-screw on motor shaft.
3. Remove two motor nuts and pull motor away from motor mount, while holding back eccentric/connecting rod assembly.
4. When installing new motor, adjust eccentric on motor shaft so little or no contact is made between teflon washer and connecting rod bearing.
5. Rewire motor leads to pressure switch, and splice connector.

**PORT CONFIGURATION**

MODEL NO.	INTAKE PORT	OUTPUT WITH CHECKVALVE
36975-1101/1141	1/2"-5/8" BARB	1/2"-5/8" BARB
36975-2161	1/2" THREADS	1/2" THREADS
36975-3161/3131	1/2"-5/8" BARB	1/2" THREADS
36975-4161	1/2" FLARE	1/2" FLARE

APPROVED



T-1220



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