



Model 36950-2502
36950-2503

ELECTRIC WATER SYSTEM PUMP

Original Equipment

FEATURES

- Self-Priming
- Diaphragm Design Allows Dry Running
- Built-in Discharge Check Valve
- Quiet Operation
- Built-in Hydraulic Pulsation Dampener
- Large Vibration Absorbing Pads
- Available with Barb, Threaded (Qest® Type) Ports

PRODUCT SPECIFICATIONS

Open Flow3.0 GPM (US), 11.4 lpm, 2.5 GPM (Can)

Cut-in Pressure (Nominal):20 psi (1.4 bar)

Cut-off Pressure (Nominal):40 psi (2.7 bar)

Voltage:12VDC

Current:6 Amps Nominal

Fuse Rating:6-1/4 Amps Slow Blow/8 Amp Normal

Vert. Dry Suction Lift:5 Feet

Ports:Slip-on 1/2" or 5/8" I.D. Hose or 1/2" Threads

Approx. Ship. Weight:11 lbs (5.0 kgs)

INSTALLATION

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 relieve system pressure before hooking up to city water.

MAINTENANCE

WINTER STORAGE

Jabsco 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 manufacturer's instructions:

1. Open all faucets and drains and allow pump to empty water tanks and intake lines. Run 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 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 Jabsco Winter Protection Kit Model 44610-0000.



Model 36950 -O.E.M. SERIES

⚠ DANGER DO NOT USE AUTOMOTIVE TYPE ANTI-FREEZE. IT IS POISONOUS. USE OF THIS TYPE OF ANTI-FREEZE WILL CAUSE SERIOUS INTERNAL INJURY OR DEATH.

MODELNO.	INTAKE PORT	OUTPUT WITH CHECKVALVE
36950-2000	1/2" - 5/8" BARB	1/2" - 5/8" BARB
36950-2502	1/2" THREADS	1/2" THREADS
36950-2503	1/2" - 5/8" BARB	1/2" THREADS

SERVICE

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

VALVES REPLACEMENT

1. Remove motor and four tie down screws.
2. Expose valves by lifting jack shaft and attached diaphragm assembly from pump base.
3. Lift valves from pockets. Clean all foreign materials from valves and seats.
4. Reinstall valves into same pockets, being sure rubber valve with small hole is UP on intake and rubber valve without the small hole is DOWN on discharge (see exploded view). CAUTION: Do not use valve with small hole in rubber on discharge side of pump.
5. When reassembling, adjust belt tension to 1/4" play.

DIAPHRAGM & CONNECTING ROD REPLACEMENT

1. Remove motor and four tie down screws then lift jack shaft and attached diaphragm assembly from pump base.
2. Expose diaphragm by removing two diaphragm ring screws and detaching ring.
3. Remove diaphragm screw to separate diaphragm and plates from connecting rod. Inspect diaphragm for cuts and ruptures.
4. Remove lock nut to separate connecting rod from jack shaft.
5. When reassembling, be sure to align diaphragm and connecting rod so that rod slips straight onto jack shaft and diaphragm rests squarely on diaphragm retainer. Misalignment will create a strain on diaphragm and significantly shorten its life. Adjust belt tension to 1/4" play.

PULSATION DAMPENER REPLACEMENT

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

SWITCH REPLACEMENT - PROCEDURE A

Direct replacement of switch with threaded stem directly into pump body.

1. Disconnect power leads from switch and remove switch from pump.
2. Moisten rubber side of washer with water. Thread washer onto switch threads with metallic side of washer facing switch. Apply a thin film of sealing compound to be replacement switch threads. Keep compound clear of passage-way hole.
3. Screw replacement switch into pump base/body until snug.
4. Reconnect switch power leads.

SWITCH REPLACEMENT - PROCEDURE B

For pump base-body with flange mount and two screw holes only,

1. Disconnect power leads from switch. Remove two screws on switch flange and save. **CAUTION: These screws hold down a strong spring.** Hold switch firmly. Personal injury could result if switch is allowed to fly loose. Remove switch housing, spring, plunger and diaphragm from base/body.
2. Remove stem, retainer, and screws from switch and discard leaving switch housing, spring, plunger and diaphragm,
3. Insert plunger and spring assembly into base/body noting stack-up in diaphragm.
4. Cover with switch housing assembly. Hold firmly and retain with two screws saved from old switch.
5. Reconnect switch power leads.

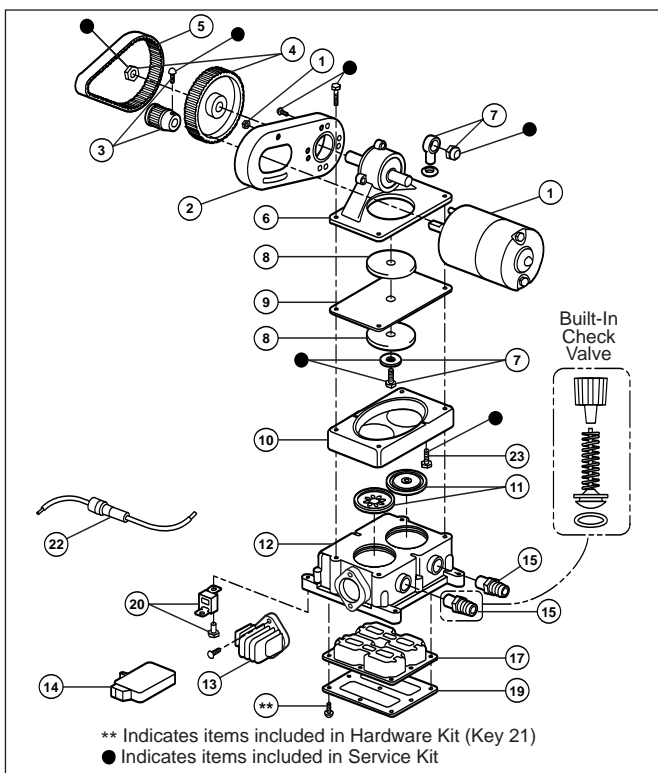
MOTOR REPLACEMENT

1. Disconnect one motor wire from pressure switch terminal, the other from splice connector.
2. Remove two motor nuts to separate motor.
3. Loosen screw to slide off small pulley from motor shaft.
4. When assembling, be sure to adjust belt tension before tightening motor nuts. Proper adjustment is made when belt can be depressed 1/4" at a point halfway between pulleys. Do not overtighten belt.

TROUBLESHOOTING

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

EXPLODED VIEW



Key	Part No.	Description	Qty
1	30200-0000	Motor Kit 12 Vdc	1
2	34628-0000	Motor Mount	1
3	37169-0000	Small Pulley	1
4	37171-0001	Large Pulley	1
5	30022-0000	Belt*	1
6	35689-0001	Jack Shaft Assembly	1
7	37173-0001	Connecting Rod Assembly	1
8	35503-0000	Diaphragm Plate	2
9	30015-0000	Diaphragm*	1
10	35497-0000	Retainer	1
11	30004-0000	Valve Set (Inlet & Outlet)* ‡	1 Set
12	44114-1100	Base Assembly* ‡	1
13	37121-0010	Pressure Switch (See Note 3)	1
	37121-0000	Pressure Switch (See Note 2)	1
14	18753-0141	Micro Switch Only	1
15	37176-0000	Ports (Inlet & Outlet) Barb ‡	1 Set
		Discharge port includes built-in Check Valve (See Note 4)	
17	44127-1000	Pulsation Dampener	1
19	35686-0000	Bottom Plate ‡	1
20	43990-0058	Vibration Pad Kit ‡■	1
21	43990-0060	Hardware Kit ■	1 Set
22	35578-0000	Fuse Holder (some models)	1
	43990-0061	Service Kit ■ *	

* Indicates parts contained in Service Kit

‡ Indicates parts supplied with Base Assembly

■ Except Model 36950-2180

NOTE 2 – Includes Switch and Conversion Kit to Mount New Style Switch Onto Older Style - J and -0000 Pumps.

NOTE 3 – Replacement Switch only for -2000 Series Pumps. Meets USCG Electrical Standards.

NOTE 4 – Threaded Outlet Port 37050-0001, Threaded Inlet Port 37050-0000

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

Jabsco



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