# FLOJET

# Kit No. 20409-043 Troubleshooting and Service Kit for 4000 Series Switch Pumps

# **WARNING: BEFORE SERVICING PUMP, TURN OFF PUMP AND DRAIN WATER FROM SYSTEM!!**

#### Failure to Prime - Motor operates, but no pump discharge

- · Restricted intake or discharge line
- · Air leak in intake line
- Punctured pump diaphragm (pump leaking)
- Crack in pump housing

#### Motor Falls To Turn On

- · Loose wiring connection
- · Pump circuit has no power
- · Blown fuse or open thermal protector
- · Pressure switch failure
- Defective motor

# Pulsating Flow - Pump cycles on and off

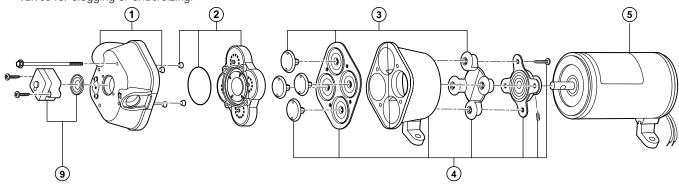
 Restricted pump delivery. Check discharge lines, fittings and valves for clogging or undersizing.

## Pump Fails to Turn Off After All Fixtures Are Closed

- · Empty water tank
- Insufficient voltage to pump (low battery)
- Punctured pump diaphragm (pump leaking)
- · Discharge line leak
- Defective pressure switch

## Low Flow and Pressure

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



# **DISASSEMBLE**

# Pressure Switch

1. Remove switch (9). Disconnect switch wires.

#### **Upper Housing**

- Loosen but do not remove four pump head screws and carefully remove upper housing assembly (1)
- 3. Inspect check valve (2) for debris
- 4. Reassemble new upper housing (1)

#### **Check Valve Assembly**

Follow steps 1

- 3. Replace check valve (2)
- 4. Reassemble upper housing (1)

#### Lower Housing, Diaphragm, Motor

Follow step 2

- Rotate lower housing (4) so mounting notch opening on lower housing near baseplate exposes set screw which holds bearing housing to shaft.
- Loosen this set screw by inserting wrench 1/8" Allen wrench into mounting notch opening. Then, slide lower housing (4) off motor shaft.

# Diaphragm Cont'd

5. Loosen two cam piston screws with Phillips head screw driver and pull apart cam from inner pistons. (Pistons should always be replaced when a new diaphragm is installed.)

#### Motor Cont'd

5. Replace Motor

# **REASSEMBLE**

#### Motor

 Reassemble lower housing assembly (4) to motor. (Follow steps 4 to 10.)

#### Diaphragm

- 2. Lower housing is assembled with:
- · Flat side of diaphragm and outer pistons facing motor
- Hex stem of inner pistons must be aligned into hex holes in outer pistons (4).
- Outer pistons must be aligned with alignment slots on cam assembly making sure screw holes align in cam assembly, otherwise diaphragm will leak.
- 3. Tighten cam piston screws partially, center piston in diaphragm, then tighten screws securely (18 in. lbs. torque)

# **Lower Housing**

- 4. Reassemble lower housing assembly (4) to motor.
- Retighten set screw securely. Set screw head must be positioned facing motor covering seam (indentation). (Positioning of this screw is critical to avoid misalignment and subsequent diaphragm damage.)

# Upper Housing, Check Valve

- 6. Reassemble upper housing (1)
- 7. Properly seat O-Ring in check valve assembly (2) and check if ferrules and screen are in place on upper housing (1)
- 8. Install check valve (2) into upper housing (1) and push in.
- 9. Assemble on to lower housing (4), align 4 screws on to motor by rotating lower housing (4) if necessary.
- 10. Tighten screws evenly to 30 in. lbs. torque.

## **Pressure Switch**

- 1. Place switch against front of pump (9), insert screws and take care not to cross thread or strip out threads in housing.
- 2. Reconnect wires.

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# Flojet



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