

## Troubleshooting Guide Model 950

### I. WILL NOT SHUT OFF

- A. Check for foreign object at bottom of solenoid cavity.
- B. Check seat of solenoid plunger to see if there is anything embedded in it.
- C. Check solenoid plunger to see if it is free moving.
- D. Check spring on solenoid plunger to see if it is on properly. Replace if necessary.
- E. Open manual bleeder. If no water comes out then unscrew diaphragm cap bolts and remove diaphragm assembly and check for clogged inlet orifice.
- F. Check for debris under seat disc after gaining access to diaphragm assembly (as described in "E" above). Also look into valve body and check for rocks or other debris on or around brass valve seat.
- G. If there is excess back pressure in system which can be caused by an insufficient number of heads for the volume of water passing thru the valve, it may be necessary to balance the system in order for the valve to shut off:
  1. Turn flow control clockwise a half turn at a time until slightly less water is passing out the heads.
  2. Turn flow control counter clockwise a half turn so that the same amount of water is passing out the head as just before it decreased slightly.

### II. WATER WEEPS PAST VALVE SEAT

- A. Check for debris embedded in seat disc or on brass seat in valve body.
  1. Remove diaphragm cap bolts.
  2. Remove diaphragm assembly.
  3. Check for debris under seat washer or on valve seat.
- B. Check diaphragm assembly for loose diaphragm shaft or valve disc nut. If either is loose, weeping can occur.
- C. Check for tear in diaphragm. This is rare, but could be caused by a sharp edge on the diaphragm plate. If this is found to be the case, be sure to smooth out the rough or sharp edges on the diaphragm plate.
- D. Check to see if diaphragm shaft appears to be off center on the diaphragm. A loose diaphragm shaft can work its way off center over a period of time resulting in the seat disc seating off center on the valve seat. In rare cases, the seat disc could be off center enough to allow water to seep by. If this occurs, replace diaphragm assembly.

**III. VALVE WILL NOT OPEN**

- A. Check to see if solenoid is receiving power as follows:
  - 1. Energize solenoid at the controller. The solenoid should vibrate enough that it can be felt when coil is touched.
  - 2. As an additional check, remove coil and solenoid assembly from diaphragm cap making sure that the plunger does not fall from the hollow tube of the stem. Have another person energize the solenoid at the controller. Plunger should be sucked up into the tube portion of the stem.
  - 3. If the solenoid is not receiving power, the most likely cause, assuming the controller is functioning properly, is a damaged valve wire. Another possibility is a bad coil.
- B. Check for clogged exhaust port.
  - 1. Remove coil from solenoid post.
  - 2. Unscrew solenoid post from diaphragm cap.
  - 3. Take a thin rod or wire and place it through hole in center of solenoid cavity, running it down until it has passed into mouth of valve body.
  - 4. If no obstruction is found, remove diaphragm cap and check for obstruction in the horizontal port that leads from diaphragm chamber to solenoid cavity.
- C. Check for missing cleaning rod (except for 3/4" size).
  - 1. Remove cap bolts.
  - 2. Remove diaphragm cap. Cleaning rod should be attached to diaphragm.
- D. Too much elevation of heads from valves can cause valve not to open. Consult factory regarding three-way solenoid valve to correct problem.

**IV. WATER LEAKS OUT FLOW-CONTROL STEM**

- A. Remove cap bolts
- B. Remove diaphragm cap.
- C. Remove flow-control cross handle
- D. From underneath the diaphragm cap, unscrew the flow-control stem so that it drops down from the cap.
- E. Replace the flow-control a-ring and reassemble valve.