



## Class 9012 Type A and Type G MAINTENANCE AND TROUBLE-SHOOTING TIPS

All maintenance recommended by the manufacturer of the equipment shall be performed. If the equipment fails to operate properly, carefully re-read the manufacturers' instructions and recommendations to see that they have been correctly followed. If the operating problems persist and it is suspected that the pressure switch is the cause, the following chart may be of assistance in identifying and correcting the most common pressure switch problems.

PROBLEM	POSSIBLE CAUSE	CORRECTION
Switch will not trip at desired pressure.	<ol style="list-style-type: none"> <li>1. Defective pressure gauge.</li> <li>2. Incorrect pressure settings.</li> <li>3. Settings outside of switch pressure limits.</li> <li>4. Damaged actuator.</li> <li>5. Damaged snap switch.</li> <li>6. Contacts overloaded (welded).</li> <li>7. Surge pressure in system exceeds maximum allowable pressure rating of switch.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace pressure gauge.</li> <li>2. Readjust to correct pressure setting (see Service Bulletin).</li> <li>3. Replace with switch with correct range and differential (see catalog).</li> <li>4. Replace actuator.</li> <li>5. Replace snap switch.</li> </ol>
Switch will not reset at desired pressure.	<ol style="list-style-type: none"> <li>1. Defective pressure gauge.</li> <li>2. Incorrect pressure settings.</li> <li>3. Differential either too wide or too narrow.</li> <li>4. Damaged actuator.</li> <li>5. Damaged snap switch.</li> <li>6. Contacts overloaded (welded).</li> <li>7. Surge pressure in system exceeds maximum allowable pressure rating of switch.</li> </ol>	<ol style="list-style-type: none"> <li>6. Correct overload condition and replace snap switch. If normal load is higher than snap switch rating, install relay.</li> <li>7. Replace switch with one with correct maximum allowable pressure (see catalog).</li> <li>8. Replace with switch with correct differential (see catalog).</li> </ol>
Contact chatter or bounce (trips and resets rapidly).	<ol style="list-style-type: none"> <li>9. Peaks and valleys of ripples in excess of switch setting.</li> <li>10. Excessive vibration.</li> </ol>	<ol style="list-style-type: none"> <li>9a. Place restriction in pressure line to smooth out pressure fluctuations.</li> </ol>
Nuisance tripping on falling pressure.	<ol style="list-style-type: none"> <li>11. Momentary dip in pressure before cycle ends.</li> </ol>	<ol style="list-style-type: none"> <li>9b. If switch is adjustable differential type, increase differential until chatter or bounce stops.</li> </ol>
Switch operates mechanically but not electrically.	<ol style="list-style-type: none"> <li>12. No power to switch.</li> <li>13. Wired to wrong contact.</li> <li>14. Corroded or loose connections.</li> <li>5. Damaged snap switch.</li> <li>6. Contacts overloaded (welded).</li> </ol>	<ol style="list-style-type: none"> <li>9c. If switch is non-adjustable differential type, change to adjustable differential type and increase differential until chatter or bounce stops.</li> <li>10. Move switch to new location or shock mount.</li> </ol>



PROBLEM	POSSIBLE CAUSE	CORRECTION
Erratic operation.	15. Diaphragm or O-ring swell (pressure medium non-compatible with diaphragm or O-ring material). 10. Excessive shock. 16. Foreign matter in pressure medium. 6. Contacts overloaded (welded).	11. Widen differential or replace with wider differential. 12. Get power to switch. 13. Wire to correct contact. (See wiring diagram). 14. Make new connections or tighten existing connections.
Oil leaking past diaphragm into switch housing on 9012 Type A piston type switch.	17. Plug has not been removed from drain hole. 18. Drain line not open to atmosphere.	15. Replace with switch with correct diaphragm or O-ring material. 16. Install filter in system and replace actuator.
Oil leaking from drain hole on 9012 Type A piston type switch.	19. Some bypass leakage is normal on unsealed piston type switch.	17. Remove plug from drain hole and replace diaphragm assembly.
Oil leaking from vent hole on 9012 Type G.	4. Small amount of seepage is normal to ensure seal lubrication. Excessive leakage indicates seal failure.	18. Check drain line to be sure it is always open to atmosphere and not connected into another line. Replace diaphragm assembly.
Pilot light does not light.	13. Wired to wrong contact. 14. Loose connections. 5. Damaged snap switch. 20. Pilot light burned out.	19. If leakage is objectionable, install drain line. 20. Replace bulb or bulb assembly.
Manual reset button will not reset switch.	5. Damaged snap switch. 21. System pressure has not changed by amount of differential of switch.	21. Change system pressure by amount of differential of switch.

## ROUTINE MAINTENANCE

During the normal maintenance period for the machine, the following steps should be followed for all pressure switches.

1. Remove cover
2. Visually inspect for leakage
3. Check all electrical connections
4. Check all pneumatic or hydraulic connections
5. If switch is used as a safety shutdown device, check setting
6. Replace cover