



# Reverse Action Pressure Switch Troubleshooting

**RAPS not engaging (system keeps running)**

1: Manually engage RAPS (close the contacts) with lever on side. Does the pump shut off and show "tank full" light?

**TIP:** Ensure the switch contacts are clean of any debris or insects  
**NOTE:** If you have an A9 series, you won't have a lever and unable to manually engage switch

Yes  
No

This means the communication to the controller is good and the controller is doing what it's supposed to  
1: Check to ensure pump is producing required PSI to engage RAPS

Producing enough pressure

The issue is likely a defective RAPS with the RAPS not sensing pressure

Not Producing enough pressure

Need to further look into why pump isn't creating enough pressure

1: Jump the COM2 & TH terminal to ensure "tank full" light turns on  
2: If light comes on, check wiring from pressure switch to controller to ensure a secure connection

**TIP:** The issue lies within the wire or wiring  
1: Check for shorts, breaks in wire  
2: Ensure 2-strand wire is only wired to 1 side of RAPS

**System Cycling on/off**

If system can't maintain pressure, check the following:  
1: Ensure check valve is installed  
2: Check for leaks in plumbing! Most of the time this is the solution. If water pressure is lost, that pressure has to escape somewhere

**Other causes:**  
1: Pump producing too much pressure in a smaller application - turn speed dial down as needed  
2: Pumping up long hill and back-pressure is too much for RAPS - adjust high cutoff point of RAPS / if still continues, need a higher-PSI RAPS

**"Tank Full" light remains on with no system pressure**

**TIP:** Ensure pressure switch isn't submerged. This will damage the switch and cause a closed connection

Remove sensor wires from COM2 & TH  
Does the light go away?

Yes  
No

The controller is sensing a closed circuit  
Let's check pressure switch wiring. Remove wires from side of RAPS. Does the system turn on?

Yes

Pressure switch is likely defective. Call RPS Support for further support

No

Likely a short in the sensor wire  
1: Check wire for damage.  
2: Ensure wired to one side of RAPS

**RAPS engages when pressure is reached, pump doesn't turn off**

Controller is sensing an open circuit  
1: Jump the COM2 & TH terminal. Does the "tank full" light turn on?

Yes  
No

Issue lies with the wiring or the RAPS  
1: Remove wiring from RAPS  
2: Touch sensor wires together (completing the circuit). Does the "Tank Full" light come on?

Yes

Check RAPS contacts for debris or insects to ensure proper contact. If clean, likely a defective RAPS

No

Check the sensor wires for damage. This is likely the issue

**Systems Using Pressure Tanks**

**Important:** If using a pressure tank, ensure the pressure tank PSI is set to 2 PSI below the cut-on point of the RAPS (default is 30 PSI)

This allows the pump to turn on at 2 PSI before the pressure tank pressure is depleted

**Need more help? Call RPS Support at (530) 240-3825**

