

Adjusting Well Pump Pressure Switches

⚠ CAUTION Hazardous voltage, Disconnect power before working on the motor or the pressure switch.

The starting and stopping of the pump is controlled by the pressure switch.



Loosen to Remove
Pressure Switch Cover

Figure 1: Pressure Switch Location

The pressure switch is typically pre-set correctly for the application. If the cut-off or cut-on pressure needs to be changed, follow the procedure below.

These instructions cover one-post and two-post switches.

One-Post Pressure Switches

These allow adjustment of the cut-on and cut-off pressure at the same time. This will keep a 20 PSI differential between the start (cut-on) and stop (cut-off) pressures.

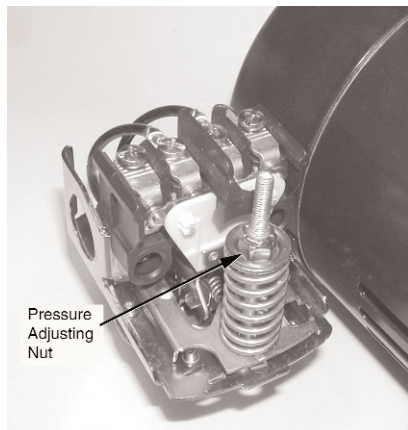


Figure 2: Single Post Pressure Switch

To increase the cut-off and cut-on pressure, turn the nut clockwise . The rate of increase is 2 1/2 PSI for every complete turn of the nut.

(i.e. 4 complete clockwise turns will raise the pressure setting 10 PSI.)

Two-Post Pressure Switches

Pressure switches with two posts allow adjustment of the cut-on and cut-off pressure at the same time. The second post allows adjustment of the cut-off pressure independently.

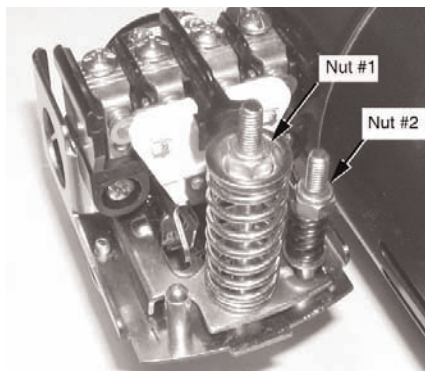


Figure 3: Two Post Pressure Switch

To increase the cut-off and cut-on pressure, turn nut #1 clockwise . The rate of increase is 2 1/2 PSI for every complete turn of the nut. Do not adjust nut #2

The above adjustments maintain a 20 PSI differential between cut-on and cut-off pressures, which is best for pressure tank performance. Very few applications will need to adjust nut #2.

To raise **only** the cut-off pressure, turn nut #2 clockwise.

To lower any pressure, turn the nut counter-clockwise .

NOTICE: The switch should never be adjusted to cut-on below 20 PSI, or cut-off above 60 PSI.

System Pressure

The pressures in a well pump system must keep a set relationship.

- **Dead-head pressure:** This is the pressure the pump produces when not moving water, as with a closed outlet valve.
 - ⚠ **CAUTION** Risk of explosion. Do not run the pump with a closed discharge longer than needed to read the pressure.
- **Cut-Off Pressure:** This is the high pressure that turns off the pump. This should always be at least 5 PSI less than the dead-head pressure.
- **Cut-On Pressure:** This is the low pressure that starts the pump. This is typically 20 PSI less than the cut-off pressure.
- **Tank Precharge Pressure:** This is set 2 PSI less than the cut-on pressure (see chart).

Switch Cut-On Pressure	Tank Air Precharge*
20	18
30	28
40	38

*With NO water pressure