

Hydraulic Technologies  
5885 11th Street  
Rockford, IL 61109-3699 USA  
Internet Address:  
<http://www.powerteam.com>  
Tech. Services: (800) 477-8326  
Fax: (800) 765-8326  
Order Entry: (800) 541-1418  
Fax: (800) 288-7031

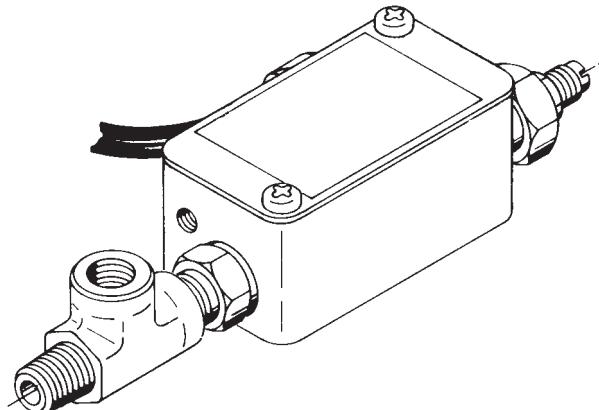
Hydraulic Technologies  
655 Eisenhower Drive  
Owatonna, MN 55060-0995 USA  
Phone: (507) 455-7000  
Tech. Services: (800) 533-6127  
Fax: (800) 955-8329  
Order Entry: (507) 455-1480  
Fax: (800) 283-8665  
International Sales: (507) 455-7223  
Fax: (507) 455-7746

## Operating Instructions for:

9625

# PRESSURE SWITCH

Pressure Range: 1,000 - 10,000 PSI  
Contact Rating Max.: 5 AMPS at 250 VAC



The #9625 Pressure Switch can be mounted directly to a control valve manifold or can be mounted in-line. The switch is designed to stop the pump motor or electrical device at a pressure setting and to restart the motor when pressure falls below that setting.



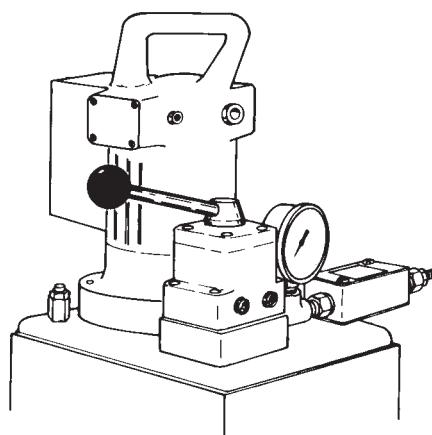
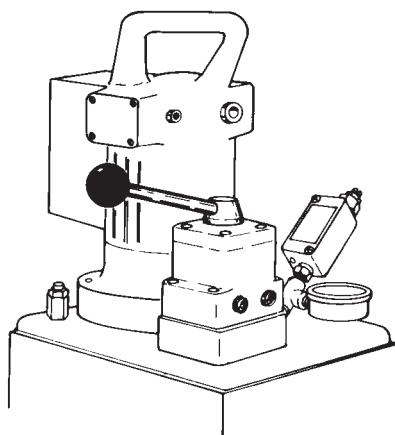
- WARNING:** To help prevent personal injury,
- All electrical work must be done by a qualified electrician.
  - Disconnect the power supply before removing the electrical box cover.

## INSTALLATION

### Pump Mounted Installation

Mount the pressure switch to the control valve or the manifold by threading the switch fitting into the port provided for a pressure gauge. An elbow can be used to change the angle (see Figure 1), and a tee fitting (supplied) can be used if both a pressure switch and a gauge are required (see Figure 2).

**IMPORTANT:** Seal all external pipe connections with a high-quality, nonhardening thread sealant, such as Power Team HTS6. Teflon tape can be used to seal hydraulic connections if only one layer of tape is used. Apply the tape carefully, two threads back, to prevent it from being pinched by the coupler and broken off inside the system. Any loose pieces of tape could travel through the system and obstruct the flow of oil or cause jamming of precision-fit parts.



Note: Shaded areas reflect last revision(s) made to this form.

## In-Line Installation

The pressure switch can be mounted "in-line" between the hydraulic pump and cylinders as shown in Figure 3.

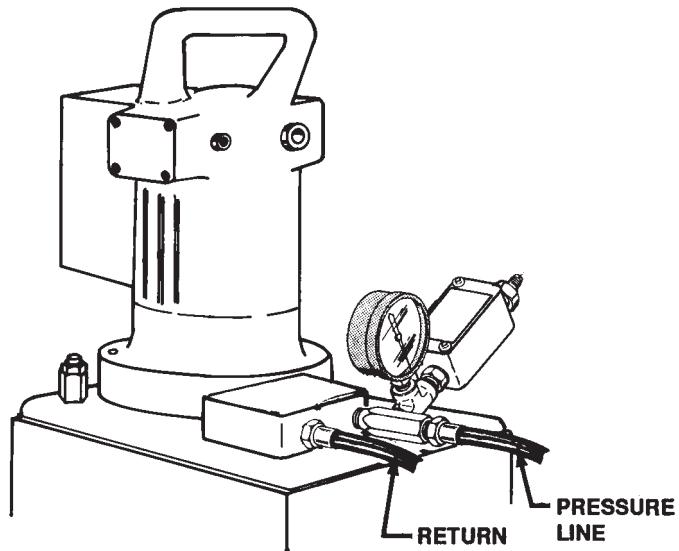


FIGURE 3

## Electrical Sequence and Operation

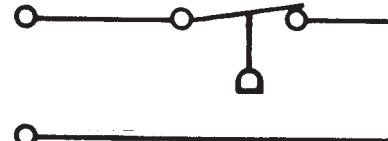
**WARNING:** To help avoid personal injury, all electrical work must be done by a qualified electrician.

### North American & International Color Codes

Conductors	North American	International
Line .....	Black .....	Brown .....
Neutral .....	White .....	Blue .....
Ground .....	Green .....	Green/Yellow .....

The electrical switch is held closed (circuit closed) by spring pressure when the hydraulic pressure is below the preferred setting. The electrical switch is open (circuit open) when hydraulic pressure is at or above the selected setting. See Figure 4.

**IMPORTANT:** The electrical rating of this switch is 5 AMP at 250 VAC max. To prevent permanent damage to this switch, a control relay must be installed to handle currents or voltage exceeding these specifications. The pressure switch should never be used to actuate the electric motor directly.



NOTE: Switch is wired normally open and held closed by spring force.

FIGURE 4

## PRESSURE REGULATING CONTROL ADJUSTMENTS

### Pressure Regulating Controls

The pressure regulating valve (see Figure 5) can be adjusted to bypass oil at a specific pressure setting so that the pump will continue to run.

The pressure switch (see Figure 6) can be adjusted to stop the pump motor at a specific pressure setting, and then restart the pump when the pressure falls below that setting.

**Note:** The pressure switch is adjusted in conjunction with the pressure regulating valve to insure accuracy when setting a maximum PSI level. A pressure switch alone will break the motor's energy supply at a selected setting, but the hydraulic pump will continue building pressure as it slows to a stop. The pressure regulating valve is adjusted at a setting slightly above the pressure switch setting to compensate by releasing the pressure developed by the hydraulic pump as it "coasts" to a stop. As a result, the pressure limit requirements can be held to approximately 300 PSI.

## Adjusting the Pressure Regulating Valve

### NOTES:

- Adjust the pressure regulating valve by *increasing* it to a preferred pressure setting. *Do not adjust it by decreasing* from a higher to a lower pressure.
- Range of pressure settings is from 1,000 minimum to 10,000 PSI maximum--depending upon the PSI range set for each pump model.

1. Place pipe plugs in valve ports. See Figure 5.
2. Loosen the locknut on the pressure regulating valve. Turn the adjusting screw a few turns counterclockwise to decrease the pressure setting to a lower than desired pressure. See Figure 5.
3. Connect the pump power supply, and place the hydraulic control valve in the ADVANCE position. Set the motor control toggle switch on RUN.
4. Slowly turn the adjusting screw in clockwise direction. This will gradually increase the pressure setting. When the preferred setting is reached, lock the adjusting screw in position by tightening the locknut.

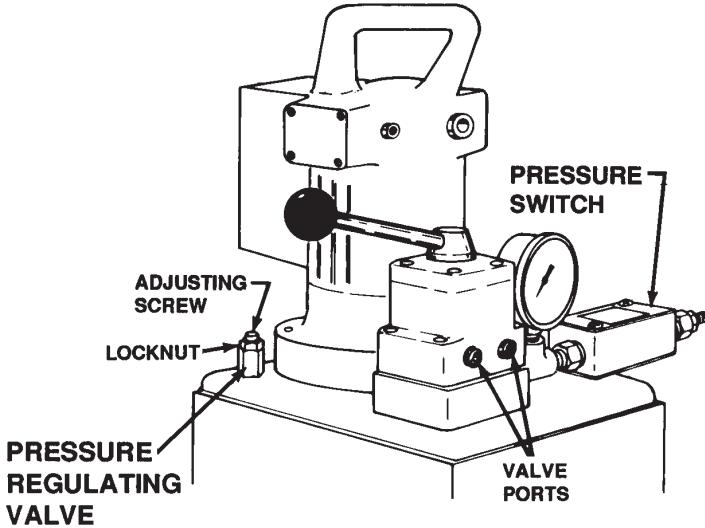


FIGURE 5

## Adjusting the Pressure Switch

The pressure switch is generally used and adjusted with the pressure regulating valve. A pressure switch can also be used alone for activating electrical devices such as motors, solenoids, relays, etc. which are located elsewhere in the circuit.

1. Loosen the locknut on the pressure switch (see Figure 6 on back sheet 2 of 2). Turn the adjusting screw in a clockwise direction to increase the pressure setting and counterclockwise to decrease pressure.
2. Connect the pump power supply and place the control valve in the ADVANCE position. Set the motor control toggle switch on RUN.
3. Slowly turn the pressure switch adjusting screw in a counterclockwise direction, decreasing the pressure switch setting until the pump motor shuts off. Then tighten the locknut to lock the adjusting screw.
4. Move the hydraulic flow control valve to the RELEASE position to relieve the hydraulic pressure. Move the control valve back to ADVANCE, and start the hydraulic pump again to check the pressure setting. It may be necessary to make a second fine adjustment.

## Adjusting the Pressure Switch Electrical Switch

**!** **WARNING:** Disconnect the power supply before removing the electrical box cover.

The microswitch located inside the electrical switch can be adjusted if necessary.

1. Remove the top cover of the switch. Loosen the two screws located in the middle of the bottom cover.
2. Place a .020 thick shim between the spring retainer and the platen (see Figure 6 below). Loosen the set screw (shown in Figure 6), and tighten the spring retainer until it contacts the shim. Lock the spring retainer in place by tightening the set screw.
3. Slide the switch mounting bracket towards the platen until the switch button contacts the platen surface. Secure the switch mounting bracket by tightening the two screws located in the middle of the bottom cover.
4. Connect a volt/ohm meter to the electrical cord. Tighten the switch adjustment screw against the switch mounting bracket until the switch button contacts the platen and actuates. The volt/ohm meter will react when the button actuates, and an audible click can be heard. Continue tightening the switch adjustment screw 1/8 turn after the switch button actuates.
5. Put the top cover back on the switch.

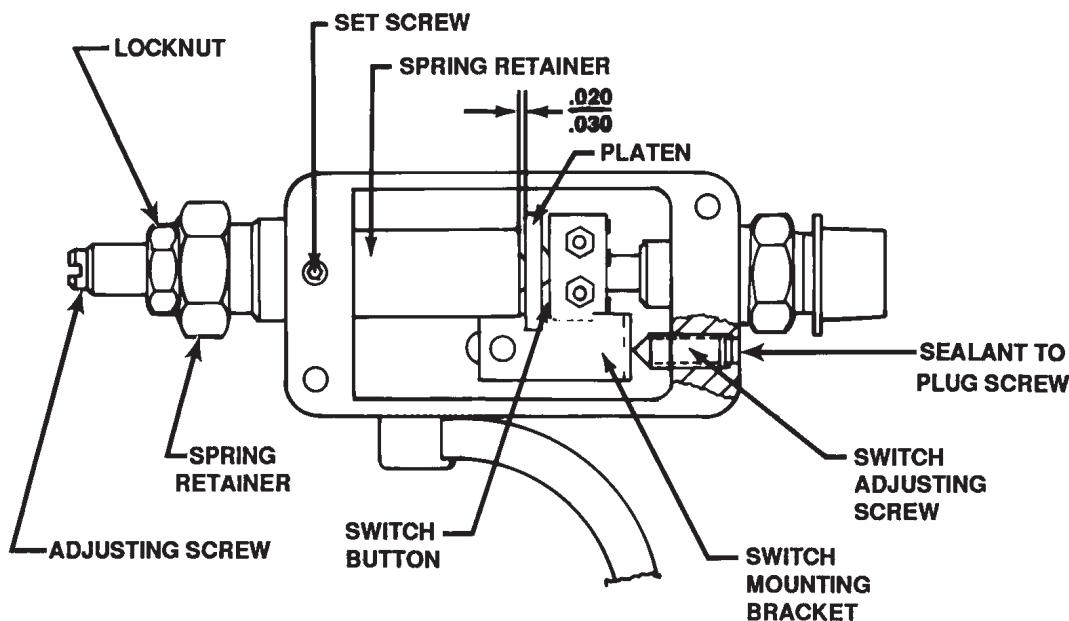


FIGURE 6