

June, 2023

# TECHNICAL BULLETIN

#TB10014

## TOPIC

OPERATION AND TROUBLESHOOTING OF A PRESSURE SWITCH ON A PRESSURE WASHER

## MODEL REFERENCE

85.300.082 (1/4) & 85.300.083 (3/8) INSTALLED ON ALL GAS DRIVEN AND DIESEL FIRED HOT WATER PRESSURE WASHERS

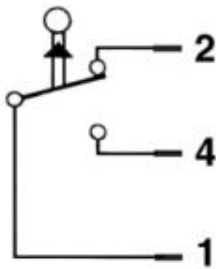


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The pressure switch is a mechanical part that moves a piston according to the pressure and this piston activates or deactivates a micro switch. The pressure switch is preset to activate at 580 psi

Pressure switches are mainly used to activate a diesel burner

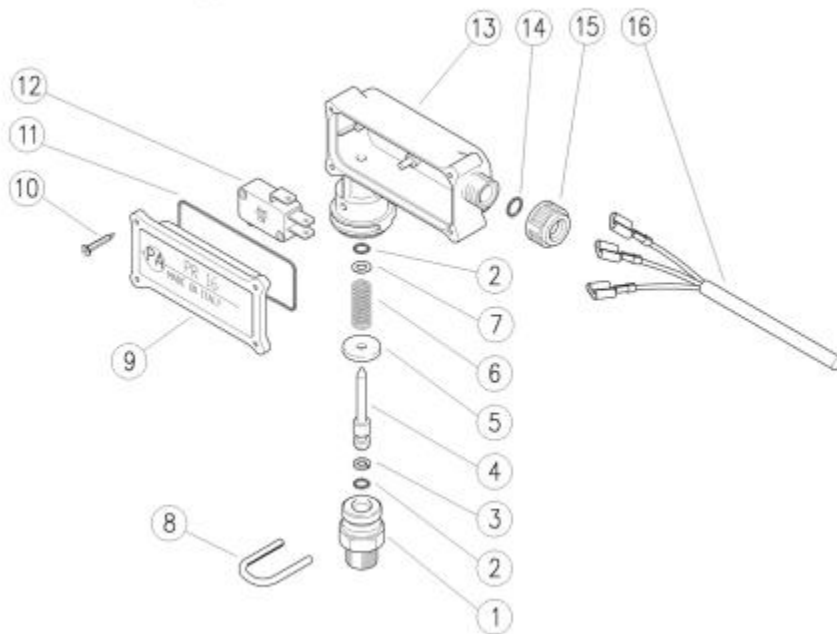
Specification : 4000 PSI / 250 VOLT / 16 AMP. / OPERATION 580 PSI

**WIRING DIAGRAM**

1) RED - 2) BLUE - 4) BROWN

**ELECTRICAL CONNECTION**

N.O. RED + BROWN – Normally opened  
N.C. RED + BLUE – Normally closed



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There are two things to check on a pressure switch, the micro switch and the piston movement.

#### 1- Micro switch

##### \*\*\* Make sure the unit is not running

While leaving it connected, gently remove the micro switch from the plastic casing and with a multimeter check if there is continuity between the red and brown wires only in the normally open (N.O) state and continuity between the red and blue wires only when you press the micro switch, or normally closed (N.C) state. If continuity, proceed to piston operation check, if no continuity, replace pressure switch.



N.O, The piston is down  
(red and blue)



N.C, The piston is up  
(red and brown)



\*\*\*Note that the blue wire is not used to operate the burner, only the red and brown wires are required

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## 2- Piston operation

Remove the micro switch and run the pressure washer with a 0-40° nozzle (not the black soap nozzle). Before starting the unit, the piston should be down (Fig. #1), each time you trigger the gun the piston should go up (Fig. #2), when you release the trigger gun the piston should go down.

If the plunger always stays down, or always stays up, or somewhere in between like in Figure 3, replace pressure switch

Fig #1



N.O, Normal state 0 psi

Fig #2



N.C. 580 psi or more

Fig #3



half-raised piston  
replace pressure switch

### \*\*\* IMPORTANT

The pressure switch takes the reading before the unloader, aka regulator, this technical bulletin assumes that the unloader is working correctly. When the gun trigger is released there is no more pressure in the pump. If the unloader does not operate correctly, the piston of the pressure switch may still remain N.C, but the problem is not with the pressure switch but with the unloader or there may be a leak in the high pressure line.