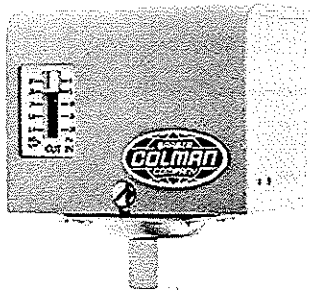
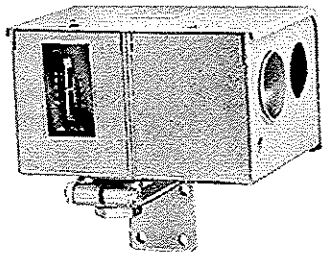
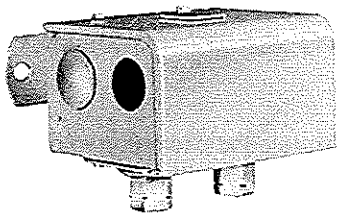
BARBER COLMAN COMPANY
a Siebe company

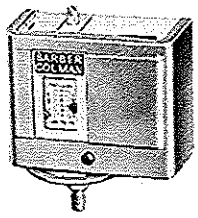
General Instructions

Pressure Controls
Electric Switches
PC 110, PC 141, PC 151
PC 131-0-1, PC 132-0-1


PC 110


PC 141


PC 151


PC 131-0-1
PC 132-0-1

DEVICE INFORMATION

Identification

The pressure electric switch model number and the date of manufacture (numerically, the week followed by the year) is stamped on the housing of the switch.

These pressure controls are used whenever it is necessary to close (or open) an electrical circuit on the basis of a predetermined air pressure signal. Typical applications include the control of air compressors, fans, pilot lights, etc.

The pressure controls incorporate a non-metallic diaphragm which is positioned by air pressure changes. The diaphragm in turn actuates a heavy duty electrical contact through a pivot mechanism.

INSTALLATION

Procedure

These devices can be mounted in any position, refer to Figures 1 thru 4 for mounting dimensions.

1. Surface mounting.
   a. PC-110: Remove device cover and knockouts from back of case. Secure to surface with 2 No. 10 screws.
   b. PC-131-0-1, PC-132-0-1: Attach the mounting bracket to the back of the case with the 1/4-inch 10/32 screws provided. Secure to surface with 2 screws up to 1/4-inch in diameter.
   c. PC-141: Secure the mounting bracket provided to the surface with 2 No. 10 screws. Clamp 1/8 FNPT fitting into the mounting bracket.
   d. PC-151: Secure to the surface with 2 No. 10 screws.
2. Track Mounting (PC-110 only).
   a. Mount device to PNC-112-1 bracket with 2 No. 8 x 1/4-inch sheet metal screws.
   b. Insert PNC-112-1 into SYZE-567 track mounted (horizontal preferred) in the control cabinet.
3. Make air supply connections.
4. Remove device cover and make wiring connections to the switch terminals. Refer to Figures 5 thru 8 for terminal coding.
5. Replace the cover.

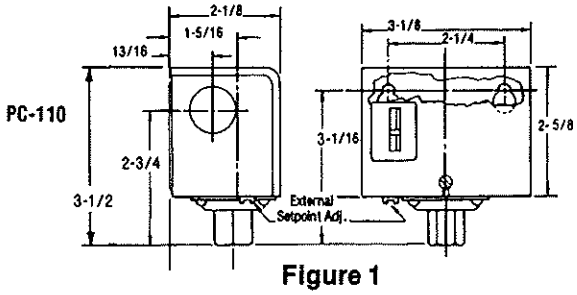


Figure 1

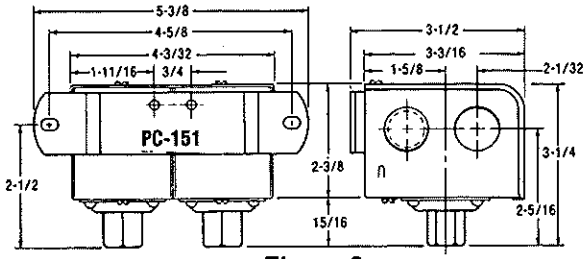


Figure 2

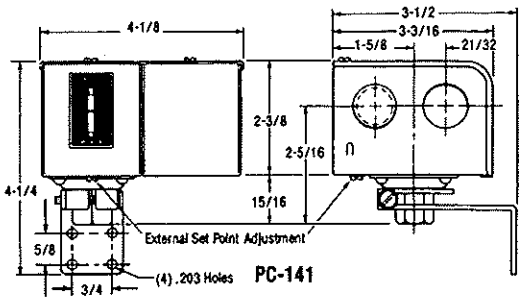


Figure 3

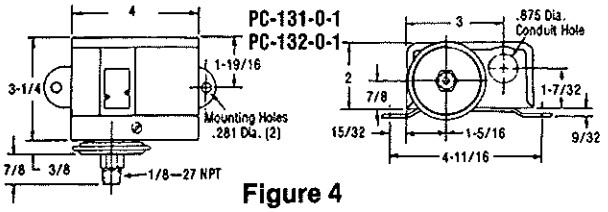


Figure 4

WIRING

All electrical wiring should be in compliance with national and local electrical codes. Electrical loads exceeding the rating of the control should be controlled by means of an intermediate relay or starter. PC-110 has one opening and PC-141 & PC-151 two openings for 1/2-inch. PC-131-0-1 and PC-132-0-1 have one opening for 1/2 or 3/4-inch conduit.

CHECKOUT

Using a test gauge, raise and lower the air pressure to verify the settings. Verify switch action by observing the action of the controlled device.

RUN/ADJUST

PRESSURE SETTING

PC-151 is factory set and no field adjustments can be made. PC-110 and PC-141 : The adjustment of the setpoint screw (Figures 5 and 7) establishes the control operating point on a pressure increase when used as a N.C. switch, or on a pressure decrease when used as a N.O. switch, and is indicated by the pointer of the graduated scale.

1. PC-110: Refer to Figure 5. Turn the adjuster with a screwdriver to move the indicator to the required setting on the scale. To change the differential from the 2 psi factory setting, loosen the lock screw and set the pointer at the required differential. Secure the lock screw.
2. PC-141: Refer to Figure 7. Remove cover and turn the adjuster with a screwdriver to move the indicator to the required setting on the scale.
3. PC-131-0-1, PC-132-0-1: The setting of the setpoint adjusting screw (Figure 6) establishes the control operating point on a pressure increase and is indicated by the pointer on the right side (cutout) of the graduated scale. Next, the differential adjusting screw should be turned until the desired switch operating point on a pressure decrease is established (as indicated by the scale pointer on the left).

   For example, to properly set a PC-131-0-1 to open its contacts at 15 psig and close them at 12 psig, proceed as follows:

   a. Turn setpoint adjusting screw until the pointer on the right is at 15 psig on the graduated scale.

   b. Turn differential adjusting screw until the scale pointer on the left is at 12 psig.

   c. Raise and lower the air pressure to check the accuracy of the settings.

REPAIR

Field repair is not recommended. Replace a defective device.

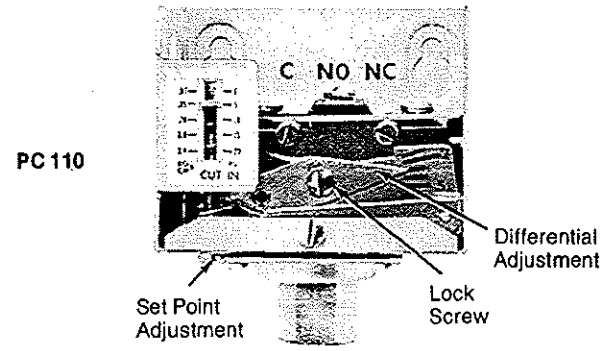


Figure 5

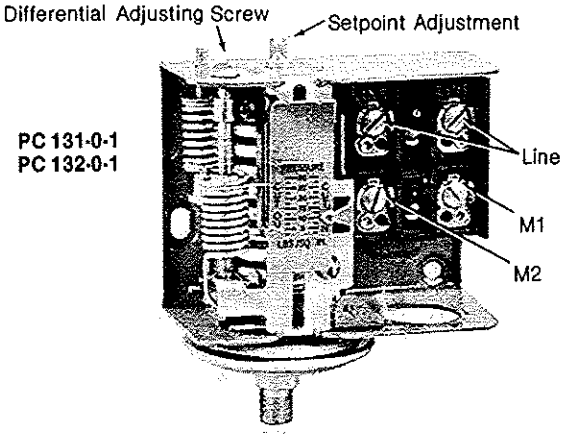


Figure 6

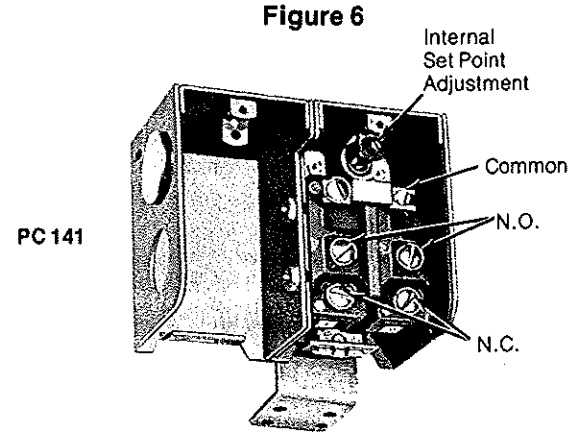


Figure 7

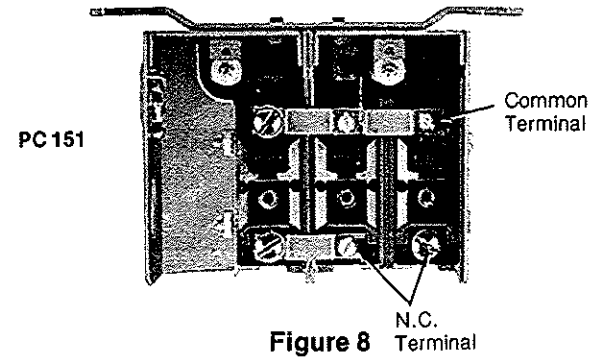


Figure 8

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