

## Instructions

51-HPC6

July, 2000  
Supersedes Issue of  
July, 1999

Push-To-Test/Illuminated Pushbutton  
For Type 3, 4, 7, 9 Enclosures  
Class 14, 18, 22, 40 & 51  
Cat No 51PC6, 51PE6

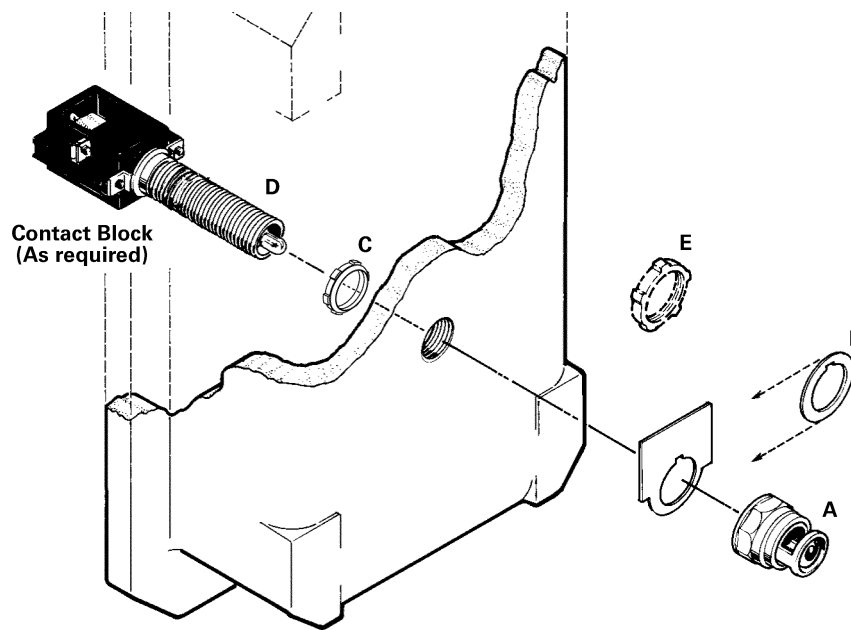


Figure 1

### DESCRIPTION

Two types of Class 51 push-to-test pilot lights are available, the transformer type (shown in Figure 1) and the full voltage type. Push-to-test is a convenient means of checking for lamp failure. The lens holder protects the lamp and serves as the operator push button. The glass lens is available in red, green or amber.

The push-to-test unit is available with a short or long bushing. The short bushing is for use on an enclosure cover with maximum thickness of  $7/8$  inch. The long bushing can be used on a standard enclosure with additional front panel or on a very thick enclosure ( $2\frac{1}{8}$  inch maximum cover thickness.) A sealing lock nut and an octagonal lock nut secure the bushing in position. For long bushing installation in an enclosure and panel, an additional lock nut secures the bushing behind the panel.

**Use with Type 3, 4, 7, 9 enclosures. When used in a Type 3 or 4 enclosure, mount on a flat surface.**

#### Rating:

Transformer pilot lights are available with a 120, 240, 480 or 600 volt primary (50/60 Hertz) and a separate secondary winding which supplies reduced voltage to a miniature bayonet base 6 volt lamp. These units are suitable for applications where vibration is present and long bulb life is desirable.

Full voltage pilot lights are available for 6 and 24, volt AC and DC applications.

**Contents of kits** with catalog number beginning with 51PC6:

- 1 **A** octagonal lock nut
- 1 **B** trim washer
- 1 **C** sealing lock nut
- 1 **D** operator assembly with lamp and two contact blocks (one 52BAK, one 52BAJ)
- 1 **E** plain lock nut for long bushing kits only

	<h3>WARNING</h3>
	<p><b>Hazardous voltage.</b> <b>Can cause death, serious personal injury, or property damage.</b></p> <p>Disconnect power before working on this equipment.</p>

<h3>CAUTION</h3>
<p>Using a pilot light with a voltage rating less than required can result in lamp and or transformer damage.</p>

### INSTALLATION

Check pilot light rating to be sure the rating is suitable for the application. Using a unit with a rating greater than required results in ineffective pilot light performance.

(For Engineering Reference Only - Rev. C)

**INSTALLATION (Continued)**

The push-to-test pilot light is furnished with two factory assembled contact blocks. One or two additional contact blocks may be attached to the unit before or after installing the pilot light. Mounting the contact blocks first avoids the problem of limited access in an enclosure. Check enclosure depth for adequate space and the 1/2 inch air clearance noted in the warning. Typical control circuits for a motor control unit are shown in Figure 2.

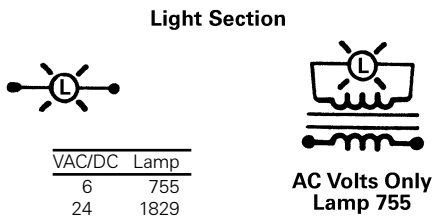
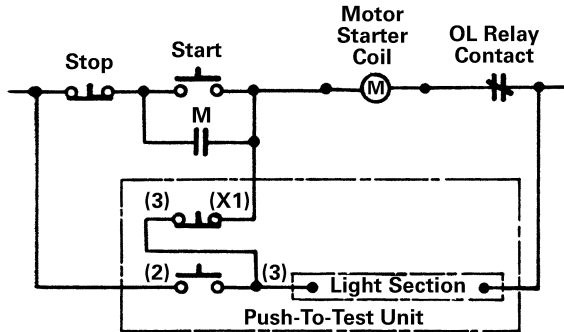


Figure 2

	<p><b>WARNING</b></p>
	<p><b>Hazardous voltage.</b>                  Can cause death, serious personal injury, or property damage.</p> <p>Maintain 1/2 inch minimum clearance through air between uninsulated live parts, such as contact block terminals, and enclosure.</p>

**BUSHING INSTALLATION**

1. Mount operators on 2 1/4 inch minimum centers.
2. On the enclosure panel or cover, drill and tap a 3/4 14NPSM hole for each pilot light. The thickness of the enclosure panel must allow a 5-thread minimum engagement with the bushing.
3. For pilot lights mounted near the edge of the enclosure panel, be sure to maintain 1/2 inch minimum air clearance between contact block terminals and enclosure wall.
4. Remove octagonal lock nut **A** and trim washer **B** from the assembly **D**.
5. Move sealing lock nut **C** to the rear of the bushing.

6. From inside the enclosure, install assembly **D** through a 3/4 inch 14NPSM tapped hole until the front of the bushing projects 5 or 6 threads from the front surface of the enclosure.
7. Place trim washer **B**, or the legend plate (optional), and lock nut **A** on the projecting bushing. Align the legend plate as desired. Tighten the lock nut securely.  
**Note:** When the legend plate is used, discard trim washer **B**.
8. To secure the pilot light in position, tighten the sealing lock nut **C** securely against the enclosure.

Using wrench catalog number 52MAWA or 52MAWB facilitates assembly and prevents scoring of the octagonal lock nut **A**; however, neither tool is required for installation.

When the long bushing pilot light is used on a very thick enclosure, follow the instructions for short bushing installation, discarding plain lock nut **E**.

For an enclosure with panel mounting, observe the following mounting dimensions:

1. On the graphics panel, drill a 1 1/32 inch diameter minimum clearance hole in line with the tapped hole for each pilot light.
2. When installing assembly **D**, include lock nut **E** and front panel as shown in Figure 3.

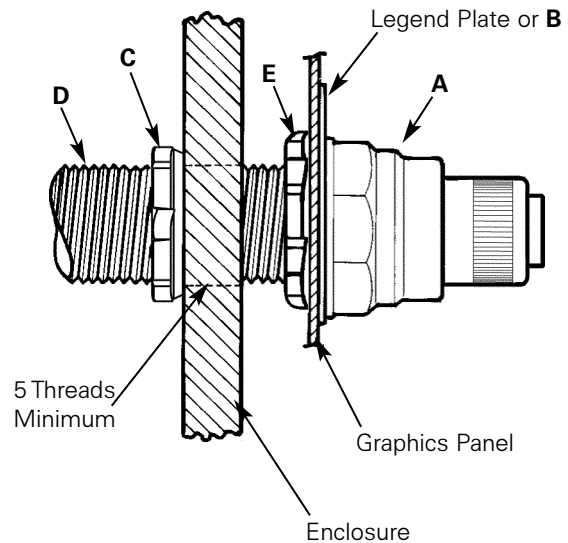


Figure 3

**LAMP REPLACEMENT**

Replace the lamp with one of exactly the same type and rating. The lamp numbers listed in Figure 2 are the lamps furnished with the pilot lights; use the same, or an equivalent, lamp. The lamp is accessible by removing the lens holder from assembly **D**.