

Bulletin 800T / 800H Pilot Devices

(Cat 800T; 800H)



WARNING: To prevent electrical shock, disconnect from power source before installing or servicing.



IMPORTANT: 800T devices should be mounted in and properly bonded to, a grounded metal enclosure. When installing the device in a metal enclosure, maintain 1/2" (12.7) minimum clearance between exposed metal parts of contact block and enclosure.

800T devices are rated Type 4 and 13, 800H devices are rated Type 4, 4X and 13. Install on a flat, smooth surface of an enclosure. Devices maintain their Type ratings only when properly mounted in an enclosure with the same rating(s).

Emergency Stop Push Buttons are UL NISD Listed when mounted in a non-ventilated enclosure only.

Installation (see Figs. 1 and 2)

1. Remove the following parts from the unit:
Lens or cap, mounting ring, thrust washer and legend plate or trim washer.
2. Determine the correct number of gaskets to be used per the table in Fig. 1.
3. Place the unit into the mounting hole from the rear of the panel.
4. Position legend plate or trim washer and then thrust washer, with thrust washer tang engaging legend plate or trim washer and panel notches.
5. Install mounting ring and tighten against thrust washer to 25 - 30 lb-in (2.8 - 3.4 Nm).
6. Install lens or cap to operator.



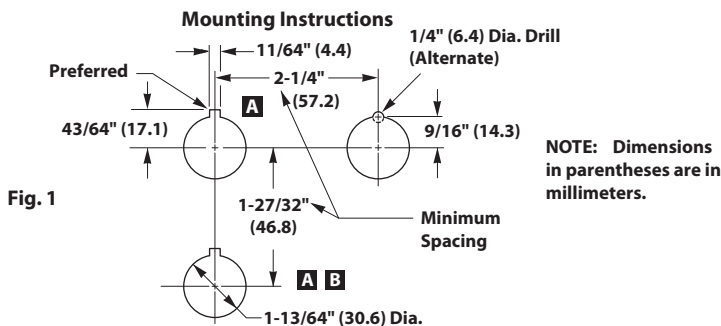
WARNING: For those illuminated and pilot devices rated for Class 1 Division 2 Hazardous Locations, **EXPLOSION HAZARD** - Do not replace bulb unless power has been switched off or the area is known to be non-hazardous.

For those illuminated and pilot light devices rated for Class 1 Division 2 Hazardous Locations, the lens must be assembled to the device. Those devices rated Class 1 Division 2 are marked specifically as such on the device.

Lens or cap must be tight against bushing to provide a tight seal.

Available Mounting Accessories:

- Wrench for Octagonal Mounting Ring - Catalog No. 800T-N245
- Wrench for 800H Pilot Light Mounting Ring - Catalog No. 800H-N10
- Device Bonding Kit for 800T devices to meet the bonding requirements of CSA Standard C22.2 No. 0.4 - Catalog No. 800T-N300 (F)

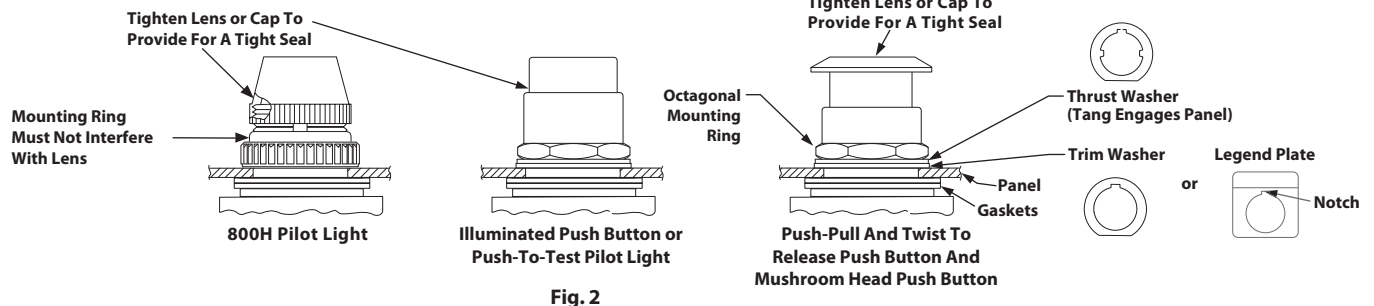


A When large (Automotive) Legend Plate is used, spacing is 2-1/2" (63.5).

B When jumbo Legend Plate is used, spacing is 2-1/2" (63.5).

Gaskets Required for Various Panel Thicknesses

Panel Thickness	Products with octagonal mounting rings	Pilot lights with knurled mounting rings
	Panels thicker than 3/16" (4.8) must be counterbored	Panels thicker than 1/4" (6.4) must be counterbored
16 Gage 1/16" (1.6)	3	4
12 Gage 7/64" (2.8)	2	3
10 Gage 9/64" (3.6)	1	2
3/16" (4.8)	1	2
1/4" (6.4)	—	1
Number of 1/16" (1.6) Gaskets shipped with the product	3	4



Lamp Replacement: (Bayonet Base)

1. Remove Lens
2. To remove lamp: Push lamp inward, turn counterclockwise, and remove
3. To install new lamp: Insert in socket, push inward and turn clockwise (see Figure 3)
4. Reinstall Lens

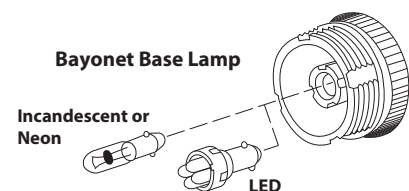


Fig. 3

Available Accessories for 800T and 800H Illuminated Device

- Dual Input Module Kits: **800T-N290** (120 Vac Full Voltage) Power module and lamp
800T-N291 (24 Vac Full Voltage) Power module and lamp
800T-N296 (120 Vac Transformer Type) Relay module.



WARNING: 800T-N296 is not rated for Class I Division 2 Hazardous Location.

- Flashing Lamp (6V): **800T-N212** Available for any illuminated device which uses the ANSI No. 755 or No. 1866 lamp.
- Lamp Installer: **800T-N82** Useful for installation or replacement of incandescent lamps
- LED Lamps and Power Modules for extended lamp life:
(Consult A-B Catalog for ordering information)

Contact Blocks for 800T and 800H Push Buttons



WARNING: Only Sealed Switch and Logic Reed Blocks may be used on devices rated for Class I, Division 2 Hazardous Locations.

Substitution of the contact block may impair suitability for Division 2.

Exposure to some chemicals may degrade the sealing properties of materials used in the sealed contact blocks.

Normally Open (NO) contacts, sealed switch contact blocks and logic reed contact blocks can not be used for emergency stop control circuits. **3**

The contact blocks listed below may be mounted in various combinations on an operator. See operator instruction sheet for any additional contact block limitations. Two Tiers High Maximum (for mounting instructions see contact block instruction sheet)

- Illuminated Push Button Operators Accept One (1) or Two (2) Contact blocks
- Non-Illuminated Push Button Operators Accept One (1) to Four (4) Contact blocks

Standard Block Cat. No. 800T/TC-	Self Monitoring Cat. No. 800TC-	Mini-Block Cat. No. 800T-	PenTUFF Block Cat. No. 800T/TC-	Sealed Switch Block 3 Cat. No. 800T-	Logic Reed Block 3 Cat. No. 800T-	Number of Contacts
XA 7 8	-	-	XAV- 7 8	XAP 3	XAR	1 N.O.-1 N.C.
XA1 7 8	-	-	-	-	-	1 N.O.-1 N.C. (Late Break)
XA2 1 8	-	-	-	-	XA2R	2 N.O.
XA4 7 8	-	-	-	-	XA4R	2 N.C.
XA7 7	-	-	-	-	-	1 N.C.-1 N.C. (Late Break)
XD1 8	-	XD5 2 8	XD1V 8	XD1P 3	XD1R	1 N.O.
XD2 7	-	XD6 2 7	XD2V 7	XD2P 3	XD2R	1 N.C.
XD3 8	-	-	XD3V 8	-	-	1 N.O. (Early Make)
XD4 7	XD4S 3 7	-	XD4V 7	-	-	1 N.C. (Late Break)
Series C or later	Series A or later	Series B or later	Series D or later	Series E or later	Series A or later	

- 1** 800T-XA2 contact blocks must be used only on the second level if stacked.
2 Mini-blocks may be used on the second level only.
3 Sealed Switch blocks are not stackable and may be used one tier high maximum.

Fig. 4

Contact Target Table

To determine the contact targets of Allen-Bradley 800T and 800H Momentary Push Buttons, 2 and 3 position Push-Pull Push Buttons, and 2 position Twist-release Push Buttons, proceed as follows.

1. Identify the **CONTACT BLOCK** used by looking at the contact block cover plate and finding a Catalog No. such as 800T-XA.
2. Identify the **CIRCUIT** for which the contact target is desired by looking again at the contact block cover plate for a wiring symbol such as "A", "B", "A1", etc.
3. Refer to Fig 5 and find the contact block and wiring symbol.
Read across the top to find the Lens or Cap position, (IN, CENTER, or OUT)
The contact target is at the intersection of the contact block row and position column.

2 Circuit Contact Block Cat. No. 800T-	Single Circuit Contact Block Cat. No. 800T-	Normal Circuit Operation	Wiring Symbol	OUT Position	CENTER Position 4	IN Position
XA, XAR, XAP	XD2, XD6, XD2R, XD2P	N.C.	B	X	O	O
	XD1, XD5, XD1R, XD1P	N.O.	A	O	O	X
XA1	XD4	N.C.L.B. 5	BZ	X	X	O
	XD1, XD5, XD1R, XD1P	N.O.	A	O	O	X
1 XA2, XA2R	XD1, XD5, XD1R, XD1P	N.O.	A1	O	O	X
	XD1, XD5, XD1R, XD1P	N.O.	A2	O	O	X
XA4, XA4R	XD2, XD6, XD2R, XD2P	N.C.	B1	X	O	O
	XD2, XD6, XD2R, XD2P	N.C.	B2	X	O	O
XA7	XD4	N.C.L.B. 5	BZ	X	X	O
	XD2, XD6, XD2R, XD2P	N.C.	B	X	O	O
-	XD3	N.O.E.M.	AZ	O	X	X
-	XD4	N.C.L.B. 5	BZ	X	X	O

4 3 position Push-Pull Only

5 Using the NCLB Contact function on 2 position Push-Pull and 2 position Twist-Release causes the following:

- When the button is pushed from the "OUT" to the "IN" position, the mechanical detent action of the operator occurs before the contacts change state.
- When the button is pulled from the "IN" to the "OUT" position, the contacts change state before the mechanical detent action of the operator occurs.

6 Self Monitoring Block to be used only on 2 position devices. Only functional on level 1.

7 ⊕ Contact blocks with normally closed contacts meet direct drive positive opening standard requirements when properly fused to IEC 269-1 and 269-2. Shallow/mini contacts: 10 A gl or N type cartridge fuse. PenTUFF contacts: 6 A gl or N type cartridge fuse.

Abbreviations and Symbols

NO = Normally Open NC = Normally Closed EM = Early Make LB = Late Break O = Open X = Closed

Fig. 5

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