

Push Button Pendants Manual

80 Series



CONDUCTIX INCORPORATED

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1.0 SAFETY

1.1 Mechanical Specifications

1.1.1 Recommended cable: Pendant Control cable or equivalent, copper conductors 75°C

1.1.2 Bushings are available for cables ranging from 0.30" to 1.16" in diameter.

1.1.3 External Strain Relief: An external strain-relief tie point on the bushing collar has been supplied for the connection of an external-relief wire attached to the upper junction box of the cable. Pre-assembled pendants are supplied with an "S" hook for strain relief attachment.

1.1.4 Torque values:

- Enclosure Screws: 10in-lbs.
- Switch Mounting Screws: 20in-lbs.
- Internal Cable Clamp: 10in-lbs.
- Bushing Clamp: 25in-lbs.
- Terminal Screws: 10in-lbs.

1.2 Electrical Specifications

1.2.1 Contacts rated 5A at 120V AC, continuous resistive load or clamped inductive load, 2A at 240V-AC, for 500,000 operations.

1.2.2 **WARNING:** Turn off all power supply sources and follow Lockout/Tagout Procedures while working on pendant.

1.3 Environmental Specifications

1.3.1 **WARNING!** Use only mild detergents for cleaning pendant housings. Solvents and brake cleaners will damage the housings.

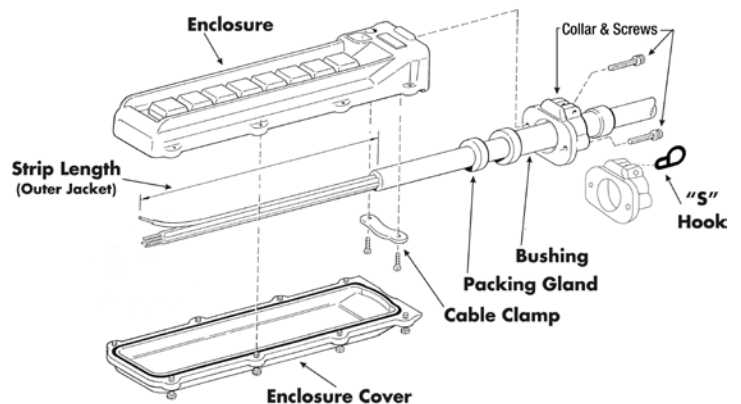
2.0 SPECIFICATIONS

2.1 Disassembly of the Enclosure (See Figure 1)

2.1.1 Remove Bushing and Collar by loosening the bushing collar screws.

2.1.2 Remove Enclosure Cover by loosening the enclosure screws.

DISASSEMBLY AND ASSEMBLY OF THE ENCLOSURE FIGURE 1



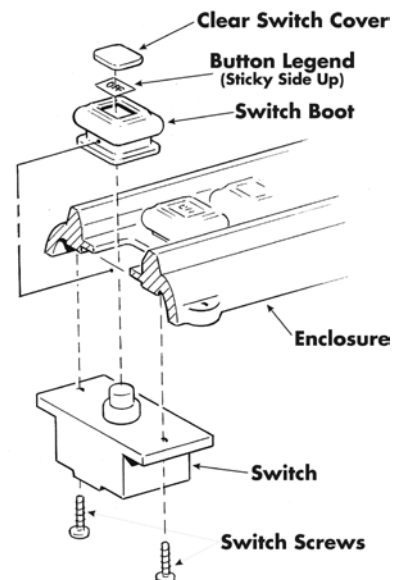
2.2 Mounting Switches (See Figure 1 & Figure 2, page 4)

2.2.1 Skip to Section 2.4 if pendant is preassembled.

2.2.2 Remove Enclosure Cover if not already removed.

2.2.3 Remove the Silicon Switch Boot for switches not requiring a boot. On/Off switches are provided with green and red boots. Swap boots as needed before installing switches.

2.2.4 Fit switch into Enclosure casing, aligning screw holes. Ensure Switch Boot is properly in place. Damaged or incorrectly installed boots will not seal properly, and moisture may leak inside the enclosure. Tighten Switch Screws securely. (Depending on switch, there will be either two or four screws.) Torque to 20 in-lbs.



BUTTON SWITCH FIGURE 2

2.0 SPECIFICATIONS

2.3 Mounting Mushroom Head and Selector, Switches

2.3.1 Remove Enclosure Cover if not already removed.

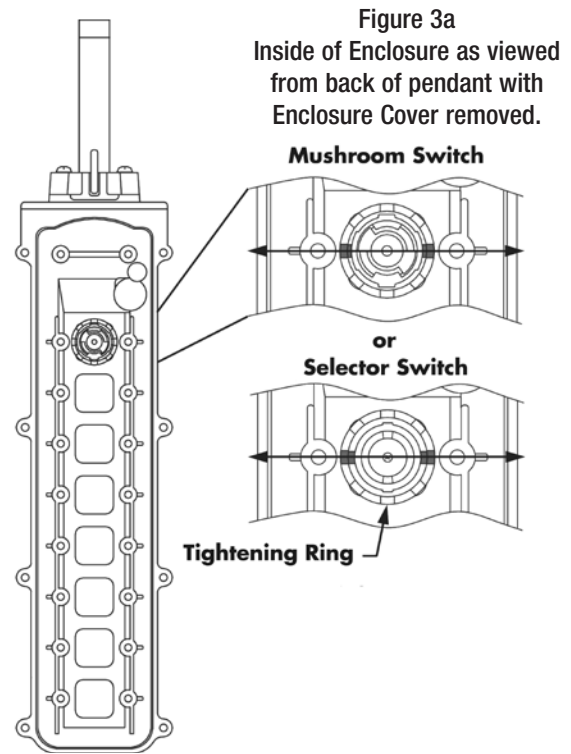
2.3.2 Install Switch Frame by inserting it from the front of the enclosure through the square hole. Make sure the gasket and legend are in the correct position. From the back, install the Tightening Ring, making sure to align notches of Tightening Ring with tabs of Switch, and tighten (see figure 3a).

2.3.3 Install Switch to enclosure by using two screws provided. Make sure the designated letters on the Switch read correctly from the top of the enclosure.

2.3.4 Follow section 2.4 for cable installation, and wire as needed. (See Switch Schematics Section 3.0 Pages 6-7).

2.3.5 Apply appropriate legend label from the Selector Legend Sheet. Note: Legend Sheet is provided with Selector, Mushroom and on/off switches.

Important: Firmly fasten Tightening Ring to secure Frame. Align the notches for the Tightening Ring with the screw holes in the Enclosure. The Switch has tabs that fit into the cut-outs on the Frame. Misalignment will prevent the switch from seating properly



2.4 Cable Installation (See Figure 1, Page 3)

2.4.1 Disassemble pendant according to instructions in Section 2.1

2.4.2 Cut the two Packing Glands apart and use only one. The Glands are labeled in millimeters. (See Table 2.4.2). Be sure to choose the correct cable gland for the cable used. If the cable gland is loose, an adequate seal will not be achieved and moisture may leak inside the enclosure.

Table 2.4.2

| Part Number | Diameter / Inches | Diameter / Millimeters |
|-------------|-------------------|------------------------|
| 34411 | .295 - .354 | 7.50 - 9.00 |
| | .346 - .413 | 8.80 - 10.5 |
| 34412 | .406 - .472 | 10.3 - 12.0 |
| | .464 - .531 | 11.8 - 13.5 |
| 34413 | .524 - .591 | 13.3 - 15.0 |
| *39825 | .583 - .650 | 14.8 - 16.5 |
| 34414 | .642 - .709 | 16.3 - 18.0 |
| *39826 | .701 - .768 | 17.8 - 19.5 |
| 34415 | .760 - .827 | 19.3 - 21.0 |
| | .819 - .886 | 20.8 - 22.5 |
| 34416 | .878 - .945 | 22.3 - 24.0 |
| | .937 - 1.004 | 23.8 - 25.5 |
| 34417 | .996 - 1.063 | 25.3 - 27.0 |
| | 1.055 - 1.122 | 26.8 - 28.5 |
| 34418 | 1.114 - 1.161 | 28.3 - 29.5 |

* 39825 & 39826 used on enclosures with large collar.

2.4.3 Pull cable through the Bushing Collar, Bushing, and Packing Gland. Then feed the cable through the cable hole of Enclosure casing. Determine amount of outer jacket that needs to be stripped. Strip the outer jacket.

2.4.4 Position cable so that the Cable Clamp will clamp the jacketed part of the cable. Secure the cable by installing the Cable Clamp and tightening Cable Clamp Screws.

2.4.5 Secure the Bushing and Collar firmly to the enclosure casing with the two Collar Screws after adjusting wiring length and clamping cable.

2.4.6 NOTE: Tighten all applicable screws using the recommended torque values in Section 1.1.4

2.4.7 Connect wiring connections to the push button terminals using UL listed ring terminals. (See Switch Schematics on Page 6-7.) Wire lengths must be a minimum of 6" long according to NEC code. Route wires along the inside of housing. Never leave wires on top of switch due to interference with back cover installation.

2.0 SPECIFICATIONS

2.5 Button Legends PN: 34326 (A Button Legend Sheet is supplied with all pre-assembled pendants. Switch covers are sent loose with all pendants.)

2.5.1 Select the appropriate label from the Legend Sheet. Carefully remove from sheet. Labels have adhesive on the printed side. Carefully place label on larger side of the Clear Switch Cover.

2.5.2 Place one edge of labeled Switch Cover in appropriate Switch Boot. Complete installation by gently lifting rim of boot over remaining edges of Switch Cover.

2.6 Vertical Legends PN: 34327

2.6.1 Select the appropriate label from the Legend Sheet. Carefully remove from sheet. Labels have adhesive on the backside. Carefully place label on Enclosure casing beside appropriate switch.

2.7 Reassembly of the Enclosure (See Figure 1, Page 3)

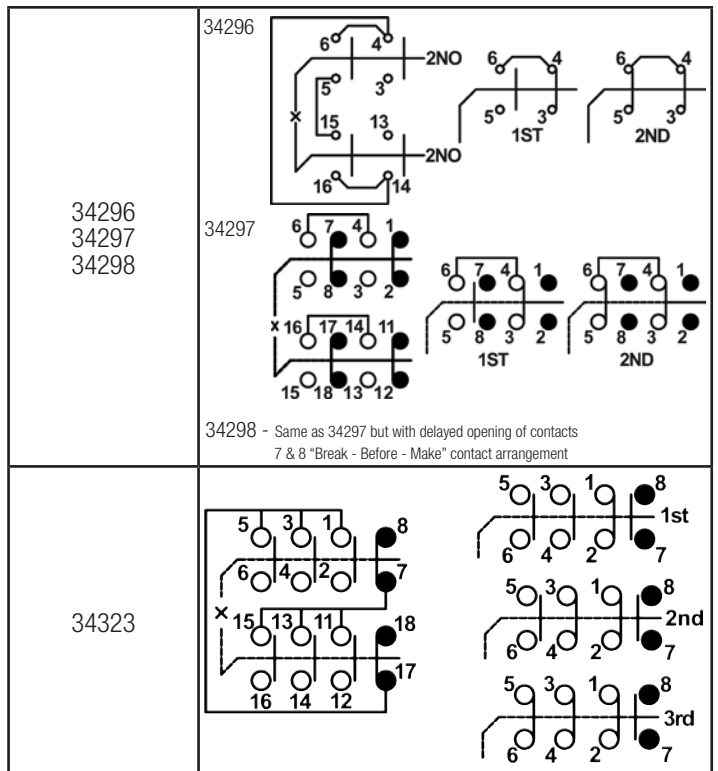
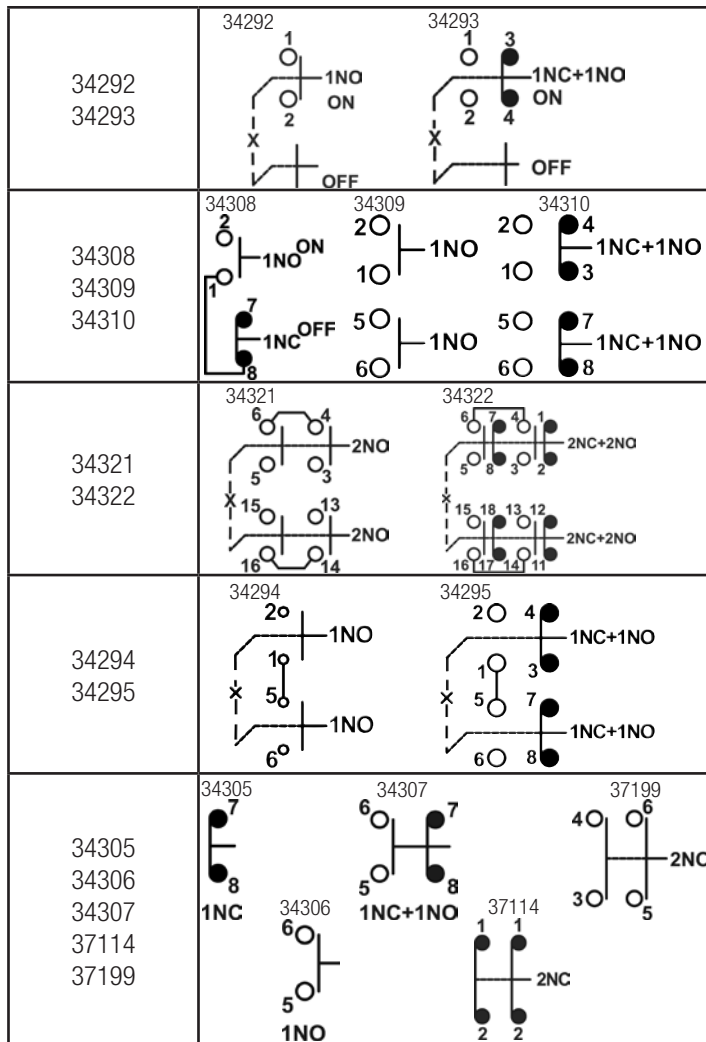
2.7.1 Ensure that all conductors are insulated from one another.

2.7.2 Ensure that the Enclosure Seal Gasket is in place in the slot of the Enclosure Cover.

2.7.3 Remove all wire waste and debris from inside the Enclosure Case.

2.7.4 Install the Enclosure Cover and tighten Enclosure Screws.

3.0 SWITCH SCHEMATICS



3.0 SWITCH SCHEMATICS

| | |
|--|--|
| 37107 37108 34317 34318 34319 34320 37109 37110 | <p>34317 (2-POS) 1NO 1NC 34318 (2-POS) 2NO 34319 (3-POS) 2NC 34320 (3-POS) 2NO 37107 (2-POS) 1NC 37108 (2-POS) 1NO 37109 (2-POS) 2NC 37110 (3-POS) 1NO 1NC</p> |
| 34313 37122 37123 37124 37125 | <p>34313 1NC 37122 1NO 37123 1NO 1NC 37124 2NC 37125 2NO</p> |
| 34299 34300 37126 | <p>34299 1NO 34300 1NC + 1NO 37126 2NO</p> |
| 34301 34302 37127 | <p>34301 1NO 37127 2NO 34302 1NO+1NC</p> |
| 34314B - (1K) 34314D - (2K) 34314 - (5K) 34314C - (10K) | <p>1 2 3 C.W.</p> |
| 34304 | Blind rubber gasket with metal plate |

| P/N | Switch Description |
|--------|--|
| 34292 | Maintained On-Off, 1NO |
| 34293 | Maintained On-Off, 1NC 1NO |
| 34308 | Momentary On-Off, 1NC, 1NO |
| 34309 | Momentary, 2NO, w/o interlock |
| 34310 | Momentary, 2NC, 2NO, w/o interlock |
| 34321 | Momentary, 4 NO w/interlock |
| 34322 | Momentary, 4NC, 4NO, w/interlock |
| 34294 | Momentary, 2NO w/interlock |
| 34295 | Momentary, 2NC, 2NO w/interlock |
| 34305 | Momentary, 1NC |
| 34306 | Momentary, 1NO |
| 34307 | Momentary, 1NC, 1NO |
| 37114 | Momentary, 2NC |
| 37199 | Momentary, 2NO |
| 34296 | 2-Speed, 4NO, w/interlock |
| 34297 | 2-Speed, Double Contact, 2NC, 4NO, w/interlock |
| 34298 | 2-Speed, Double Contact, 2NC, 2NO x 2 w/interlock (Late Break) |
| 34323 | 3-Speed, 1NC, 6NO |
| 37107 | 2 Position Selector, 1NC |
| 37108 | 2 Position Selector, 1NO |
| 34317 | 2 Position Selector, 1NC, 1NO (A-B) |
| 34318 | 2 Position Selector, 2NO |
| 34319 | 3 Position Selector, 2NC, (A-Both-B) |
| 34320 | 3 Position Selector, 2NO (A-Off-B) |
| 37109 | 2 Position Selector, 2NC |
| 37110 | 3 Position Selector, 1NO, 1NC |
| 34313 | Mushroom, 30mm, Red, 1NC (HORN) |
| 37122 | Mushroom, 30mm, Red, 1NO |
| 37123 | Mushroom, 30mm, Red, 1NO, 1NC |
| 37124 | Mushroom, 30mm, Red, 2NC |
| 37125 | Mushroom, 30mm, Red, 2NO |
| 34299 | Alternative, 1NO |
| 34300 | Alternative, 1NC, 1NO |
| 37126 | Alternative, 2NO |
| 34301 | 1NO |
| 34302 | Toggle, 1NC, 1NO |
| 37127 | Toggle, 1NO, 1NC |
| 34314B | Variable Position Resistor (1K) |
| 34314D | Variable Position Resistor (2K) |
| 34314 | Variable Position Resistor (5K) |
| 34314C | Variable Position Resistor (10K) |
| 34304 | Blind Rubber Gasket with metal plate |

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