OAC Series, Model M90 Pushbutton Stations

Installation & Maintenance Information

APPLICATION



OAC Series Pushbutton Stations are used in conjunction with magnetic starters or contactors for remote control of motors. OAC Series devices are used indoors or outdoors in damp, wet, or corrosive areas which are hazardous due to the presence of flammable vapors, gases, or combustible dusts.

OAC Pushbutton Stations are suitable for use in Class I, Groups A, B, C, D; Class II, Groups E, F, G and Class III hazardous (classified) areas as defined by the National Electrical Code®.

OAC Series Pushbutton Stations must be installed, inspected and maintained by qualified and competent personnel.

INSTALLATION

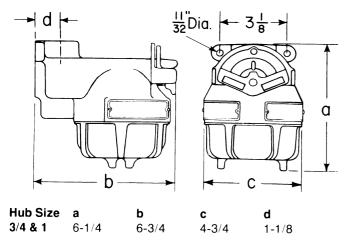
WARNING

Be sure all electrical power is turned **off** before and during installation or maintenance.

 Select a mounting location that will provide suitable strength and rigidity for supporting the pushbutton station and all wiring.
 Figure 1 shows the mounting dimensions of the pushbutton station. Drill mounting holes for two 5/16 in. dia. screws (not furnished).

NOTE: Allow 2-1/2 in. clearance below pushbutton station for removal of cover.

DIMENSIONS



For cover removal, add 2-1/2" to dimension "a".

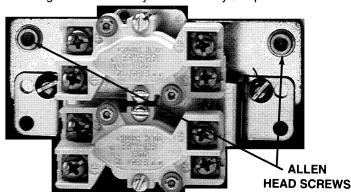
Figure 1.

Securely fasten enclosure to the mounting surface. Connect assembly into conduit system. Install sealing fittings (not supplied with pushbutton station) as required by NEC and other applicable standards.

CAUTION

The Class and Group the product is approved for is marked on the pushbutton station nameplate. Conduit sealing fittings must be installed to comply with requirements in the latest edition of the National Electrical Code, Section 501-5 and/or 502-5, and any other applicable standards, as required. All unused conduit openings must be closed with an approved plug such as the Crouse-Hinds PLG Series. Plug must engage a minimum of five full threads.

- 3. Unscrew cover and carefully set it aside to prevent damage to the threads. **NOTE:** Threads have been treated with a corrosion-resistant lubricant. Relubricate the threads with Crouse-Hinds Type STL thread lubricant when necessary.
- Remove switch/mounting bracket assembly from housing by removing two (2) 8-32 round head screws in switch mounting bracket. Do not disturb knurled Allen Head screws in the flat metal plate. See Figure 2.
- Pull all control wires into enclosure, allowing wires to extend 4 inches out of body opening. Strip insulation to expose 3/8 inch of conductor at the end of each control wire.
- While holding switch/mounting bracket assembly in place, feed wires through locating each near screw terminals on switch to which they are to be connected. Note that the switch/ mounting bracket assembly mounts in only one position.



Normally Open

Normally Closed



Figure 2. Switch/Mounting Bracket Assembly

- 7. Place switch assembly over cam and operator mechanism and securely fasten into place with the two (2) 8-32 round head screws previously removed. Mechanically check switch by fully depressing each position and note that plunger should be fully extended in the switch.
- Make the electrical connections to screw terminals on switch assembly utilizing the wiring schemes established for your system.
- 9. Make sure all wires are clear of operating mechanisms.
- Test wiring for correctness with continuity checks and also for unwanted grounds with an insulation resistance tester.
- Rethread cover onto enclosure housing. Tighten cover until cover flange comes into contact with body face. Check operation of pushbutton station.

CAUTION

During installation, use care to prevent grit, dirt, or other foreign material from lodging on threads. If any such material settles on these threads, clean them with Stoddard solvent*, then relubricate with STL thread lubricant.

*To avoid the possibilities of an explosion, oxidation and corrosion, do not use gasoline or similar solvents.

- 12. Fill sealing fitting following instructions supplied with fitting.
- 13. Installation is complete and power source may be turned on.

MAINTENANCE

- Frequent inspection should be made. A schedule for maintenance check should be determined by the environment and frequency of use. It is recommended that it should be at least once a year.
- If necessary to open enclosure for inspection or service, refer to cautionary statement on nameplate before removing cover.
 Observe thread lubrication procedures outlined in Step 3 of Installation procedure.

WARNING

Always disconnect primary power source before opening enclosure.

Perform visual, electrical, and mechanical checks on all components on a regular basis.

Visually check for undue heating evidenced by discoloration of wires or other components, damaged or worn parts, or leakage

evidenced by water or corrosion in the interior. Check to make sure that all connections are clean and tight, and that contacts in the components make or break as required. Mechanically check that all parts are properly assembled, and operating mechanisms move freely.

SWITCH ASSEMBLY REPLACEMENT

WARNING

Be sure electrical power source to switch is turned off.

- Remove cover and carefully set aside to prevent damage to threads.
- Loosen the screws holding wires to the switch terminals and disconnect all wires. Identify each wire for proper reassembly to replacement switch.
- Remove two (2) 8-32 head screws holding switch/mounting bracket assembly to the operator mechanism. Refer to Figure 2 in Installation Information. Do not disturb the knurled Allen Head screws in the flat metal plate.
- 4. Replace with new switch onto mounting bracket assembly.

| OAC Pushbutton Station | Replacement Switch Catalog No. |
|--|-----------------------------------|
| OAC 2101; 3101 | ESWP126 |
| OAC 2133; 3133; 2139; 3139; 2103; 3103 | ESWP126 (2 reg'd) |

- While holding switch/mounting bracket assembly in place, feed wires through locating each near screw terminals on switch to which they are to be connected. Note that the switch/ mounting bracket assembly mounts in only one position.
- 6. Place switch assembly over cam and operator mechanism and securely fasten into place with the two (2) 8-32 round head screws previously removed. Mechanically check switch by fully depressing each position and note that plunger should be fully extended in the switch.

NOTE: If desired, operation may be checked using circuit tester to verify switch installation.

- 7. Reattach external power leads to switch. Make sure wires are clear of operating mechanisms.
- 8. Check circuits for continuity and proper connections.
- 9. Refer to thread lubrication procedures outlined previously in Step 3 of Installation Information. Reassemble cover into body.
- 10. Electrical power source may be turned ON.

All statements, technical information and recommendations contained herein are based on information and tests we believe to be reliable. The accuracy or completeness thereof are not guaranteed. In accordance with Crouse-Hinds "Terms and Conditions of Sale", and since conditions of use are outside our control, the purchaser should determine the suitability of the product for his intended use and assumes all risk and liability whatsoever in connection therewith.



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