

# Non-Metallic Control Stations GHG 43 Series

## Installation & Maintenance Information

**IF 1423**

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

### APPLICATION

GHG 43 Series of control stations are used in conjunction with magnetic motor starters or contactors for remote control of motors and to visually indicate that the desired function is being performed. The GHG 43 Series of pushbutton stations, selector switches and factory sealed pilot lights are used separately or in combinations with a variety of standard features and special options available. GHG 43 Series control devices are suitable for use in Class I, Division 2, Groups B, C and D and Zone 1 and 2 hazardous (classified) locations, as defined by the

National Electrical Code® (NEC) and Canadian Electrical Code (CEC) as standard as well as in damp, wet or corrosive locations indoors or outdoors.

GHG 43 control stations are available with 1/2 and 3/4 inch or M20 and M25 hub sizes. The GHG 43 series has 1 or 2 devices and 3 or 4 device enclosure sizes.

### INSTALLATION

**⚠ WARNING**

To prevent electrical shock, be sure all power is turned OFF before and during installation and maintenance.

1. Loosen the captive screws in the cover, then carefully lift off the cover and set it aside to prevent damage to the gasket or devices. Do not remove the control devices from the cover.
2. Select a mounting location that will provide suitable strength and rigidity for supporting all contained wiring and control

devices. Use #10 size hardware to securely mount enclosure back box to the desired location. Figure 1 shows the mounting dimensions of the GHG 43 back box.

3. With the back box securely fastened to the mounting surface, attach the body into the conduit or cable system.
4. Pull necessary control wires into the enclosure. Provide sufficient length for connections to be made in a manner which will comply with all applicable codes and standards.
5. Bonding and grounding of the conduit and equipment is required by the National Electrical Code®. When more than

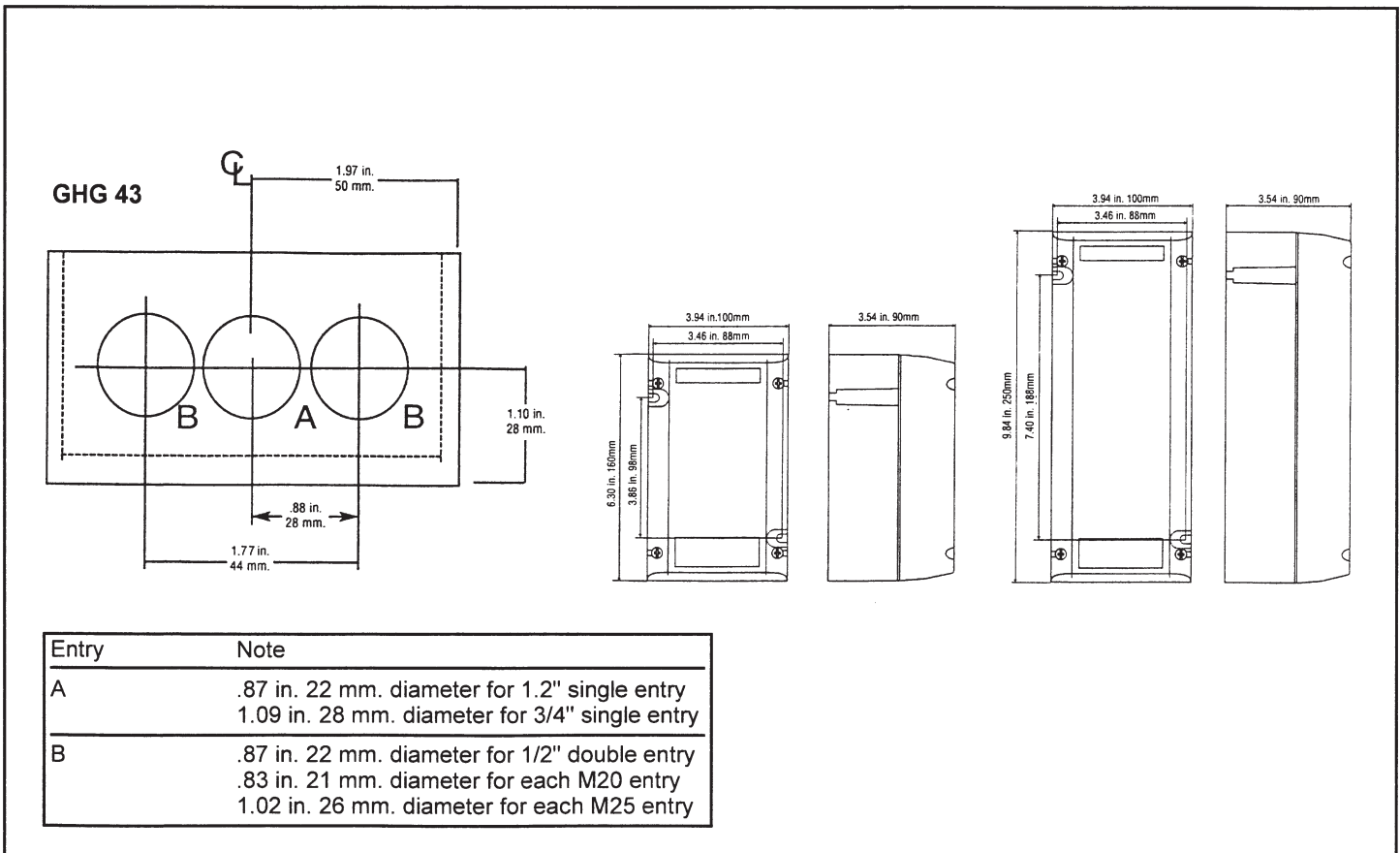
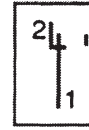


Figure 1

one conduit enters the enclosure, ground continuity between conduits must be maintained through proper bonding. A grounding conductor, if used, must be connected to the conduit bonding system. For GHG 43 Series, a brass grounding plate or grounding terminal on the hubs are supplied for thru feed entry. Use Crouse-Hinds type GP bonding fittings and install per wiring procedures shown. Use wire type and size as required by NEC and any other applicable standards.

6. Make the electrical connections utilizing the wiring scheme established for your system. Unit is ready for wiring to devices mounted on the DIN rail. It is not necessary to remove any device from the cover for field wiring. Follow the contact arrangements listed on the side of each switch. The contact block are provided with binding screw terminals and each terminal is numbered.



Designates normally closed



Designates normally open

- Strip the insulation on each conductor wire back  $\frac{3}{8}$ ".
- Use a slotted or Phillips head screwdriver to loosen the field wiring terminal screws the required 3 or 4 turns.
- Insert the bare wire conductor(s) on either side of the terminal screw(s), under the terminal wire clamp(s) and securely tighten the screw(s).  
**Note: Do Not** exceed 15 in. lbs. of torque

7. Test wiring for correctness with continuity checks and also for unwanted grounds with an insulation resistance tester.

**CAUTION**

To prevent damage to enclosure, make sure that the cover gasket and body flanges are free of any foreign substances before mating to ensure proper gasket sealing.

8. Carefully assemble cover assembly to the device body with the cover screws. Check the tightness of the cover screws to ensure that the cover assembly is securely fastened. Do Not exceed 35 in. lb. of torque.

**WARNING**

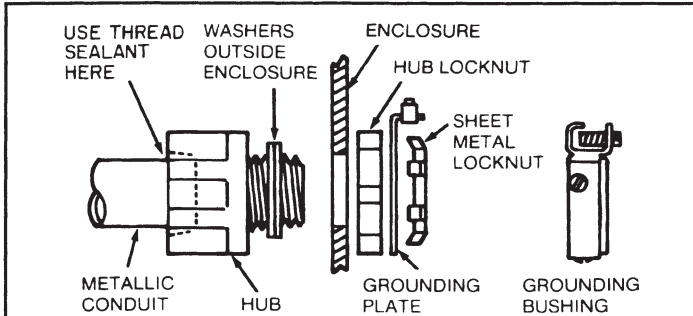
To prevent electrical shock, be sure all power is turned OFF before replacing the lamp or opening enclosure.

**MAINTENANCE**

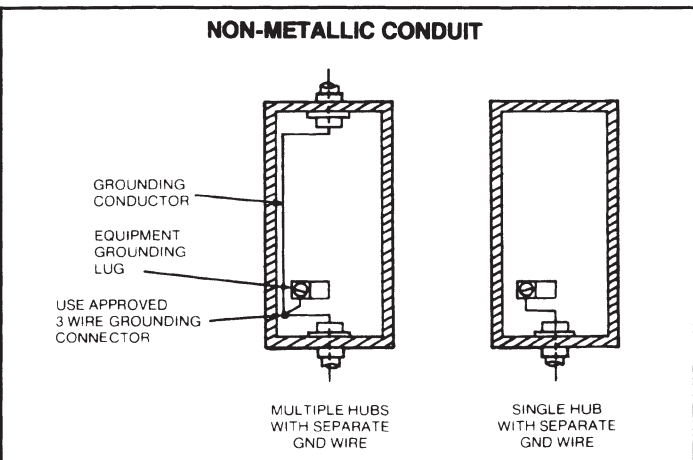
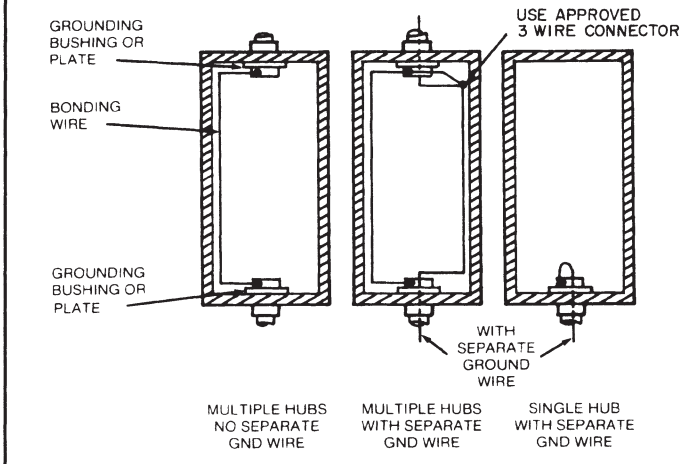
1. Frequent inspection should be made. The environment and frequency of use should determine a schedule for maintenance checks. It is recommended that it should be at least once a year
2. Perform visual, electrical and mechanical checks on all components on a regular basis.
  - Visually check for undue heating evidenced by discoloration of wires or other components, damaged or worn parts or leakage evidenced by water or corrosion in the interior.
  - Electrically 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 that operating mechanisms move freely.

**CAUTION**

To prevent damage to equipment, pushbuttons with lockouts (catalog suffix S708) are supplied with factory installed bonding conductor and grounding plate. These must be installed and connected to the system ground.



**GROUND WIRING PROCEDURES METALLIC CONDUIT**

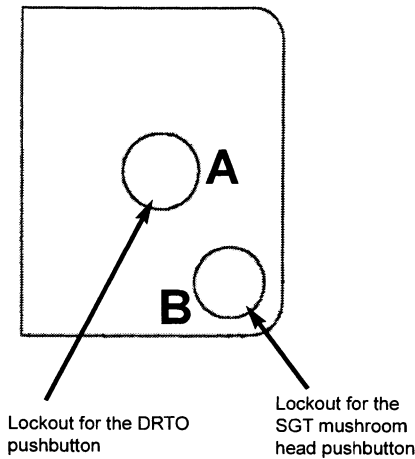


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## LOCKOUT OF PUSHBUTTON AND MUSHROOM HEADS

Both the DRTO single pushbutton and SGT mushroom head use the same lockout mechanism which is equipped with a bolt and chain. The user must supply the padlock.

1. For the DRTO single pushbutton use the lower middle through hole marked **A** on the figure below. Depress the pushbutton. Insert the lockout bar over the pushbutton, making sure the bar is secured through both holes. Secure your own padlock to secure the lockout bar.
2. For the SGT mushroom head follow the same procedure but use the upper hole in the corner of the lockout mechanism marked **B** on the figure below.

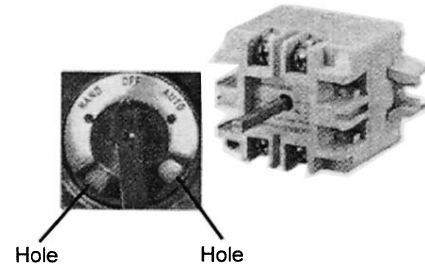
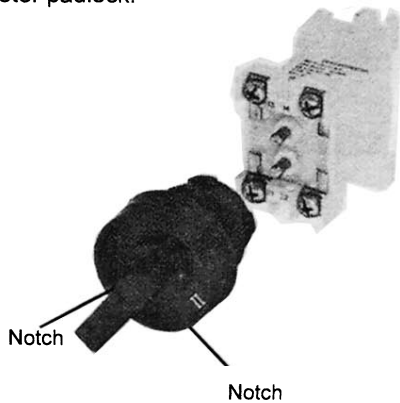


**SIDEVIEW OF LOCKOUT**

## LOCKOUT OF THE SELECTOR SWITCHES

The SCT and Ex 23 selector switches are capable of having lockouts. Put the switches in the desired lockout position.

1. For the SCT notch out the collar at the respective switching position. The handle can be locked out with a 3/16" to 1/4" diameter padlock.
2. For the Ex 23 place switch in position to be locked. Drill out the collar with a 3/16" hole. Insert a 3/16" padlock to lock the handle in the respective position.



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*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 herewith.*

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