



GAI-TRONICS®
A HUBBELL COMPANY

Hazardous Switch Replacement Kit— SP2 and ICS

Models 12802-002 & 12802-003

Confidentiality Notice

This manual is provided solely as an installation, operation, and maintenance guide and contains sensitive business and technical information that is confidential and proprietary to GAI-Tronics. GAI-Tronics retains all intellectual property and other rights in or to the information contained herein, and such information may only be used in connection with the operation of your GAI-Tronics product or system. This manual may not be disclosed in any form, in whole or in part, directly or indirectly, to any third party.

General Information

The No. 12802-002 Rotary Adapter Switch Replacement Kit and the No. 12802-003 Pushbutton Replacement Kit are designed as replacements for the switches in GAI-Tronics Hazardous Area ICS Stations or Hazardous Area SP2 Stations. Each kit includes the following components:

No. 12802-002 Rotary Switch Replacement Kit:

Quantity	Description
1	Hazardous Area approved rotary adapter switch



No. 12802-003 Pushbutton Replacement Kit:



Quantity	Description
1	Hazardous Area approved black push button (1-pole)



Important Safety Instructions

- Read, follow, and retain instructions—All safety and operating instructions should be read and followed before operating the unit. Retain instructions for future reference.
- Heed warnings—Adhere to all warnings on the unit and in the operating instructions.
- Attachments—Attachments not recommended by the product manufacturer should not be used, as they may cause hazards.
- Servicing—Do not attempt to service this unit by yourself. Opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Specific Conditions of Use: Flameproof joints are not to be repaired in the field. If the flame path is damaged, the enclosure is to be removed from service and replaced with a new properly working enclosure. The screws used for the body to cover must have a yield stress equal to or greater than 1100 MPa.

 **ATTENTION**  —Install equipment without modification and according to all applicable local, national, and international electrical codes. North America—Consult the National Electrical Code (NFPA 70), Canadian Standards Association (CSA 22.1), and local codes for specific requirements regarding your installation. Class 2 circuit wiring must be performed in accordance with NEC 725.55.

 **WARNING**  —Do not install this equipment in hazardous areas other than those indicated on the approval listing in the “Specifications” section of this manual. Such installation may cause a safety hazard and consequent injury or property damage.

 **WARNING**  —In 24 V dc systems: Under NO condition should this equipment be operated from a battery charger without the batteries connected. An NRTL listed or certified power source must be used.

In 24 V dc systems, most chargers have an unloaded output of 35 to 45 volts that can quickly damage the equipment designed for nominal 24 volts. The maximum battery voltage should never exceed the maximum specified input voltage.

 **WARNING**  —**Do not disconnect equipment while energized.**
Ensure proper grounding to protective earthing.

These enclosures must be installed by trained, qualified and competent personnel. Installation must comply with state and national regulations, as well as safety practices for this type of equipment. The mounting location must be flat and provide proper clearance, rigidity and strength to support the enclosure and all contained devices. The enclosures are equipped with factory-installed hinges. The enclosures should be mounted with the hinges on the left.

Inspect and clean the machined flange flame joint surfaces of both the cover and box. Surfaces must be smooth, free of nicks, scratches, dirt, or any foreign particle build-up that would prevent a proper seal. Surfaces must seat fully against each other to provide a proper explosion-proof joint. Clean surfaces by wiping with a clean lint-free cloth.

Installation Instructions

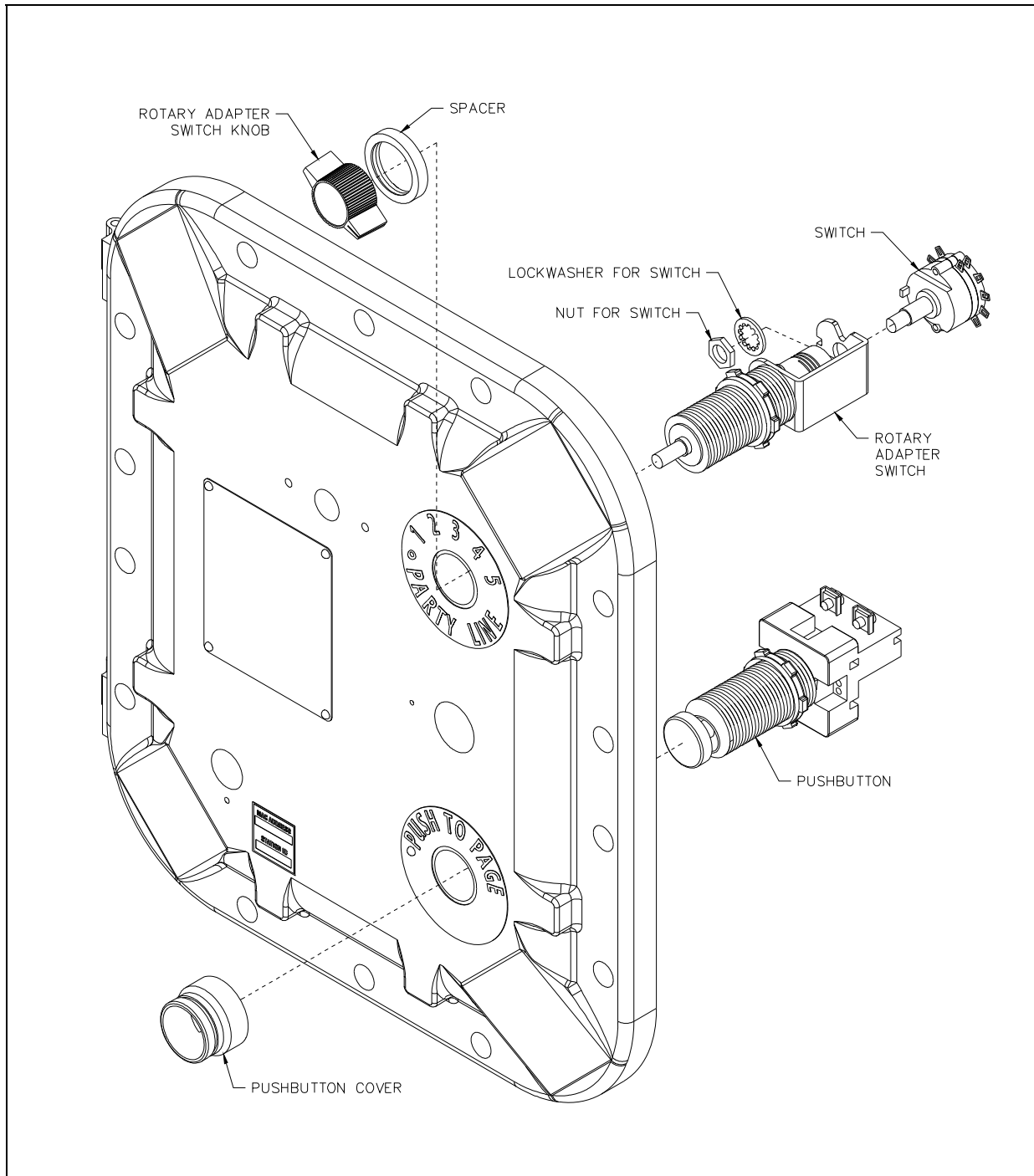


Figure 1. Front cover assembly detail

Rotary Adapter Switch Kit

1. Remove the 14 bolts from the front of the enclosure and open the front cover.
2. Unplug the cable assembly connecting the switch to the Main PCBA.
3. Remove the knob from the rotary adapter switch on the front cover.
4. Unscrew the spacer on the front cover for the switch that is being replaced.
5. Unscrew the rotary adapter switch from the front cover and remove the potentiometer from it.
6. Screw the new rotary adapter switch into the front cover.
Make sure the switch protrudes from the front of the enclosure between 0.25-inch and 0.30-inch.
7. Using a flat head screwdriver and hammer, tap the lock nut until it is set tight to the enclosure lid.
8. Screw the spacer onto the switch on the front cover.
9. Using pliers, rotate the potentiometer switch shaft fully to the left. This sets the switch to the Party Line 1 position.
10. Fasten the potentiometer to the rear of the rotary adapter switch (see Figure 2).

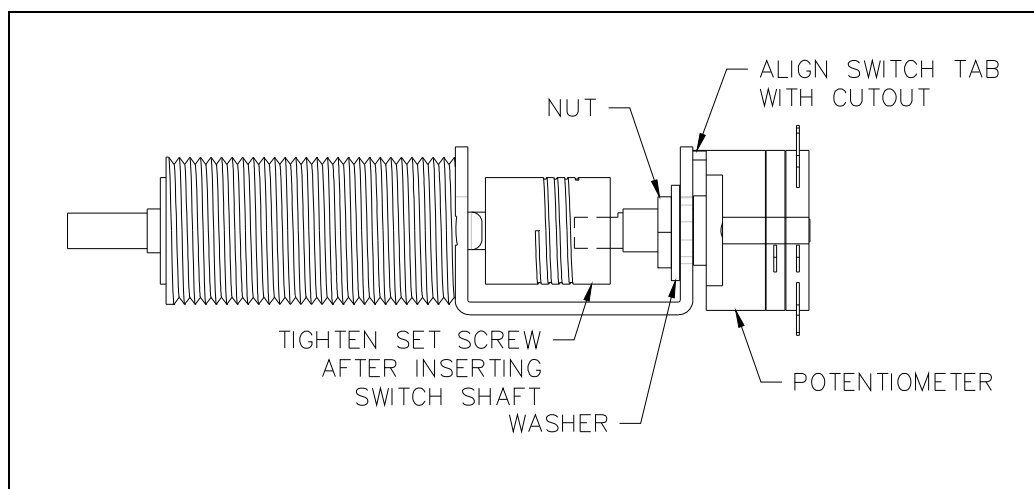


Figure 2. Switch Assembly Detail

11. Plug the connectors on the harness into the Main PCBA.
12. Fasten the rotary adapter switch knob onto the rotary adapter switch, setting the position to Party Line 1.
13. Inspect and clean the machined flange flame joint surfaces of both the cover and box.
Surfaces must be smooth, free of nicks, scratches, dirt, or any foreign particle build-up that would prevent a proper seal. Surfaces must seat fully against each other to provide a proper explosion-proof joint.
14. Clean surfaces by wiping with a clean lint-free cloth.
15. Apply a light coat of Killark “LUBG” lubricant to flange surfaces and close the cover.
16. Install and tighten all cover bolts to 30 ft-lb.

Make certain no cover bolts are omitted. Use only those bolts supplied with the enclosure.

Pushbutton Switch Kit

1. Remove the 14 bolts from the front of the enclosure and open the front cover.
2. Unscrew the ferrule wires from the pushbutton, disconnecting the pushbutton from the main PCBA.
3. Remove the pushbutton cover from the pushbutton on the front cover.
4. Unscrew the pushbutton from the front cover.
5. Screw the new pushbutton into the front cover. Make sure the threads of the pushbutton protrude from the front of the enclosure between 0.25-inch and 0.30-inch.
6. Using a flat head screwdriver and hammer, tap the lock nut until it is set tight to the enclosure lid.
7. Fasten the pushbutton cover onto the pushbutton. Tighten the set screw on the cover.
8. Screw in the wires with ferrules into the replacement pushbutton.
9. Inspect and clean the machined flange flame joint surfaces of both the cover and box.
Surfaces must be smooth, free of nicks, scratches, dirt, or any foreign particle build-up that would prevent a proper seal. Surfaces must seat fully against each other to provide a proper explosion-proof joint.
10. Clean surfaces by wiping with a clean lint-free cloth.
11. Apply a light coat of Killark “LUBG” lubricant to flange surfaces and close the cover.
12. Install and tighten all cover bolts to 30 ft·lb.
Make certain no cover bolts are omitted. Use only those bolts supplied with the enclosure.

Warranty

Equipment. GAI-Tronics warrants for a period of one (1) year from the date of shipment, that any GAI-Tronics equipment supplied hereunder shall be free of defects in material and workmanship, shall comply with the then-current product specifications and product literature, and if applicable, shall be fit for the purpose specified in the agreed-upon quotation or proposal document. If (a) Seller's goods prove to be defective in workmanship and/or material under normal and proper usage, or unfit for the purpose specified and agreed upon, and (b) Buyer's claim is made within the warranty period set forth above, Buyer may return such goods to GAI-Tronics' nearest depot repair facility, freight prepaid, at which time they will be repaired or replaced, at Seller's option, without charge to Buyer. Repair or replacement shall be Buyer's sole and exclusive remedy. The warranty period on any repaired or replacement equipment shall be the greater of the ninety (90) day repair warranty or one (1) year from the date the original equipment was shipped. In no event shall GAI-Tronics warranty obligations with respect to equipment exceed 100% of the total cost of the equipment supplied hereunder. Buyer may also be entitled to the manufacturer's warranty on any third-party goods supplied by GAI-Tronics hereunder. The applicability of any such third-party warranty will be determined by GAI-Tronics.

Services. Any services GAI-Tronics provides hereunder, whether directly or through subcontractors, shall be performed in accordance with the standard of care with which such services are normally provided in the industry. If the services fail to meet the applicable industry standard, GAI-Tronics will re-perform such services at no cost to buyer to correct said deficiency to Company's satisfaction provided any and all issues are identified prior to the demobilization of the Contractor's personnel from the work site. Re-performance of services shall be Buyer's sole and exclusive remedy, and in no event shall GAI-Tronics warranty obligations with respect to services exceed 100% of the total cost of the services provided hereunder.

Warranty Periods. Every claim by Buyer alleging a defect in the goods and/or services provided hereunder shall be deemed waived unless such claim is made in writing within the applicable warranty periods as set forth above. Provided, however, that if the defect complained of is latent and not discoverable within the above warranty periods, every claim arising on account of such latent defect shall be deemed waived unless it is made in writing within a reasonable time after such latent defect is or should have been discovered by Buyer.

Limitations / Exclusions. The warranties herein shall not apply to, and GAI-Tronics shall not be responsible for, any damage to the goods or failure of the services supplied hereunder, to the extent caused by Buyer's neglect, failure to follow operational and maintenance procedures provided with the equipment, or the use of technicians not specifically authorized by GAI-Tronics to maintain or service the equipment. **THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

Return Policy

If the equipment requires service, contact your Regional Service Center for a return authorization number (RA#). Equipment should be shipped prepaid to GAI-Tronics with a return authorization number and a purchase order number. If the equipment is under warranty, repairs or a replacement will be made in accordance with the warranty policy set forth above. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 (inside the USA) or 610-777-1374 (outside the USA) for help identifying the Regional Service Center closest to you.