Intrinsically-Safe Microphone Barrier Kit

Model 10438-001

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General Information

The Model 10438-001 Microphone Intrinsically Safe Barrier Kit is designed for utilizing a remote gooseneck microphone in a Class I, Div. I, Group D hazardous area. The kit provides an intrinsically safe barrier. This allows the use of the microphone at a location other than the station to which it is connected. The enclosure, which is approved for Class I, Div. I, Group D areas, must be used in applications where the microphone is mounted remotely from a station. Examples include the GAI-Tronics Model 400-001 and 400-002NS Rigcom Stations.

The Model 10438-001 Microphone Intrinsically Safe Barrier Kit includes the following components:

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<td>1</td>
<td>Class I, Div. I, Group D Enclosure with I.S. Barrier PCBA</td>
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Installation

This enclosure 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.

Model 10438-001 must be installed in accordance with GAI-Tronics Pub. 42004-381, Control Drawing # 73214.

⚠️ CAUTION ⚠️ Do not install this equipment in hazardous areas other than those indicated on the approval listing in the Specifications section. Such installation may cause a safety hazard and consequent injury or property damage.

⚠️ WARNING ⚠️ To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.
**Mounting**

**NOTE:** The mounting surface must be able to support the weight of the aluminum enclosure. See the Specification section for the weight and dimensions of the unit.

The mounting location must be flat and provide proper clearance, rigidity and strength to support the enclosure and all contained devices. The enclosure must be securely fastened with (customer supplied) 3/8-inch diameter steel mounting bolts and washers, or washer head bolts. Stainless steel is recommended in corrosive environment applications.

Refer to Figure 1 for mounting dimensions.

![Diagram](image-url)

Figure 1. Model 10438-001 Microphone I.S. Barrier Kit Mounting Details and Conduit Entries
**WARNING**

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.

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

**NOTE:** The recommended torque setting for tightening the cover bolts is 8 ft-lbs (10.8 N-m)

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**Enclosure Configuration**

The Model 10438-001 I.S. barrier enclosure contains a single PCBA where all customer connections are made. The barrier bracket covers the intrinsically-safe terminals. Remove the bracket before connecting the I.S. wires to the PCBA. Reattach the bracket after wiring and ensure the bracket is tight against the bottom of the enclosure. All connections should be properly lugged. The enclosure itself has eight cover mounting bolts around the perimeter. The cover of the enclosure contains all applicable approval labeling.

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![Diagram](image-url)

Figure 2. Model 10438-001 Microphone I.S. Barrier Kit Mounting Details and Conduit Entries
**Gooseneck Microphone**

The microphone is mounted to a 19-inch gooseneck and has a supplied mounting flange. The gooseneck microphone assembly has a 25-foot cord.

![Diagram of Gooseneck Microphone Assembly](image)

**Figure 3. Model 12801-001 Microphone Assembly**
Mounting the Gooseneck Microphone Assembly

Use the supplied mounting flange for mounting the gooseneck microphone assembly. A device box could be used to mount the microphone assembly. The gooseneck should be mounted in accordance with applicable electrical codes. Refer to Figure 4 for a typical installation.

![Figure 4. Typical Installation](image-url)
**Specifications**

**Enclosure**

Construction/finish: Cast aluminum/gray enamel
Mounting: Wall or column, two 3/8-inch mounting feet with slots
Conduit entries: Top: one 1/2 inch NPT, Bottom: one 1/2 inch NPT
Dimensions: 8.00 H x 6.00 W x 5.52 D inches (203.2 x 152.4 x 140.3 mm)
Shipping weight: 9.5 lbs. (4.3 Kg)
Temperature range (operating and storage): -4º F to +140º F (-20º C to +60º C)

**Approvals**

NRTL listed (USA): Hazardous locations Class I, Div. I, Group D when installed in accordance with GAI-Tronics Pub. 42004-381, Control Drawing # 73214

**Microphone**

Element:
- Type: Noise-canceling, dynamic
- Impedance: 180 ohms, nominal
Construction/finish: Steel/chrome
Connections: Stripped wires
Dimensions: 19 inches (482.6 mm) gooseneck
Supplied cable length: 25 feet
Shipping weight: 1.25 lbs. (0.57 Kg)
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.

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**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.