

Intrinsically-Safe Microphone Barrier Kit

Model 10438-001

Confidentiality Notice

This manual is provided solely as an operational, installation, 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 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:

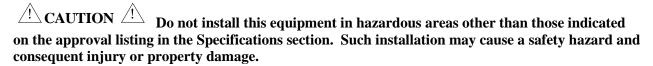
Qty Description

- 1 Gooseneck Microphone Assembly with Mounting Flange
- 1 Class I, Div. I, Group D Enclosure with I.S. Barrier PCBA

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.



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.

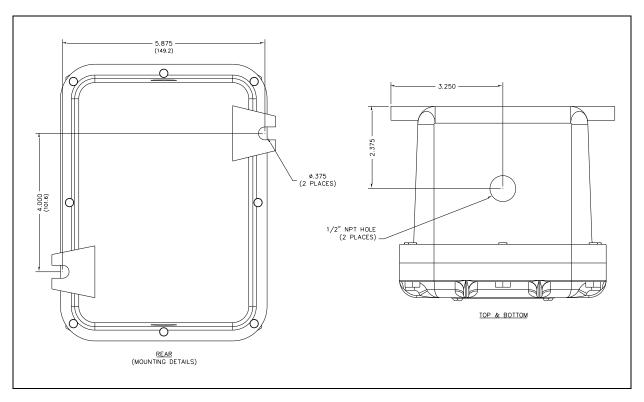


Figure 1. Model 10438-001 Microphone I.S. Barrier Kit Mounting Details and Conduit Entries

Pub. 42003-209B Page: 3 of 6



Insure proper grounding to protective earthing.

Do not disconnect equipment while energized.

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)

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.

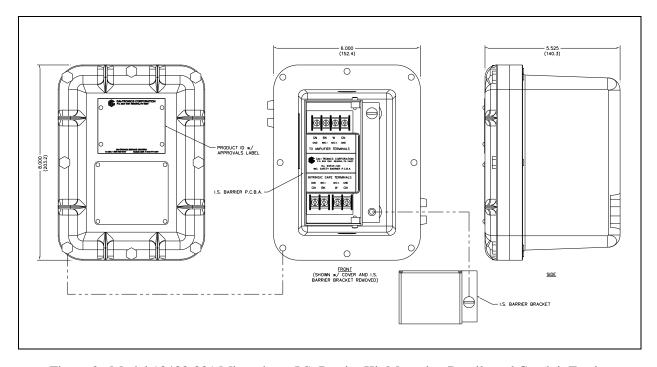


Figure 2. Model 10438-001 Microphone I.S. Barrier Kit Mounting Details and Conduit Entries

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.

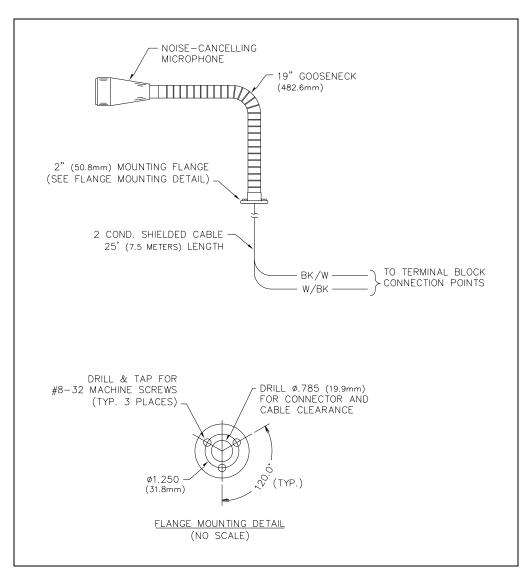


Figure 3. Model 12801-001 Microphone Assembly

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.

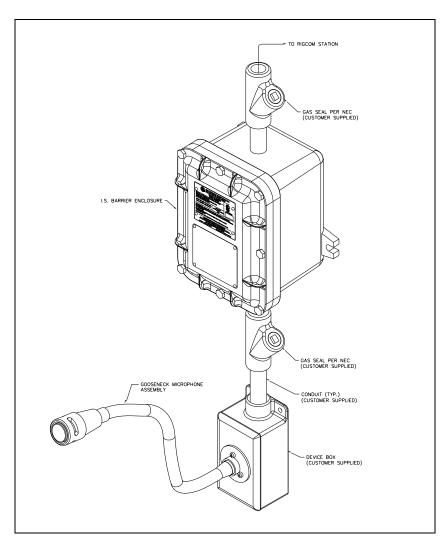


Figure 4. Typical Installation

Pub. 42003-209B Page: 6 of 6

Specifications

Enclosure

Construction/finish	
Mounting	Wall or column, two 3/8-inch mounting feet with slots
Conduit entries	Bottom: one 1/2 inch NPT
Dimensions	$H \times 6.00 \text{ W} \times 5.52 \text{ D}$ inches $(203.2 \times 152.4 \times 140.3 \text{ mm})$
Shipping weight	9.5 lbs. (4.3 Kg)
Temperature range (operating and storage)	-4° F to +140° F (-20° C to +60° C)
Approvals	
	Hazardous locations Class I, Div. I, Group D GAI-Tronics Pub. 42004-381, Control Drawing # 73214
Microphone	
Microphone Element:	
Microphone Element: Type	
Microphone Element: Type	
Microphone Element: Type Impedance Construction/finish	
Microphone Element: Type	
Microphone Element: Type	

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.

<u>Services.</u> 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.

<u>Warranty Periods.</u> 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.

<u>Limitations / Exclusions.</u> 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.