



GAI-TRONICS® CORPORATION  
A HUBBELL COMPANY

# Model 13411-001 (8-Ohm) and 13411-002 (16-Ohm) Replacement Voice Coil/Diaphragm Assemblies

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## 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 following driver assemblies are covered in this manual:

Model	Description
13314-001	8-ohm, Div. 2 Hazardous
13314-002	16-ohm, Div. 2 Hazardous
13314-003	70-volt, Div. 2 Hazardous (16-ohm VC)
13314-004	100-volt, Div. 2 Hazardous (16-ohm VC)
13315-001	8-ohm, Div. 1 Hazardous
13315-002	16-ohm, Div. 1 Hazardous
13315-003	70-volt, Div. 1 Hazardous (16-ohm VC)



The equipment described below is listed by Underwriter's Laboratories for use in the hazardous areas described. This listing is contingent upon several points:

- Equipment is installed in accordance with the National Electrical Code and/or any special instructions.
- No unauthorized mechanical or electrical modifications are made.
- The ac input power is disconnected from all associated equipment before removing equipment covers.
- Replacement parts are equivalent to the original.
- All cover bolts and/or fittings removed for maintenance are replaced before reconnecting the ac power.

## Voice Coil Replacement for 13314 Series Drivers

1. Remove the three retaining screws from the back cover, and open the driver housing.
2. Firmly grasp wires leading to the connector tabs on the voice coil frame, and pull the leads straight out.
3. Remove the two retaining screws from the bracket holding the magnet assembly in place, and carefully withdraw the magnet assembly.
4. Replace the voice coil assembly, placing the new silicon gasket provided into the driver cavity first. Discard the old gasket.
5. Check to see if any foreign material has entered the magnet assembly voice coil gap. See “Cleaning the Magnetic Gap” section below.

6. Replace the magnet assembly, being careful not to crush the voice coil, and replace the bracket and screws.

 **CAUTION**  **Do not over-tighten these screws. The recommended torque is 6–8 inch-pounds. Tighten sequentially.**

7. For Models 13314-001 and 13314-002, connect the black wire onto the wide tab connection of the voice coil and the white wire to the narrow tab. See Figure 1 below.

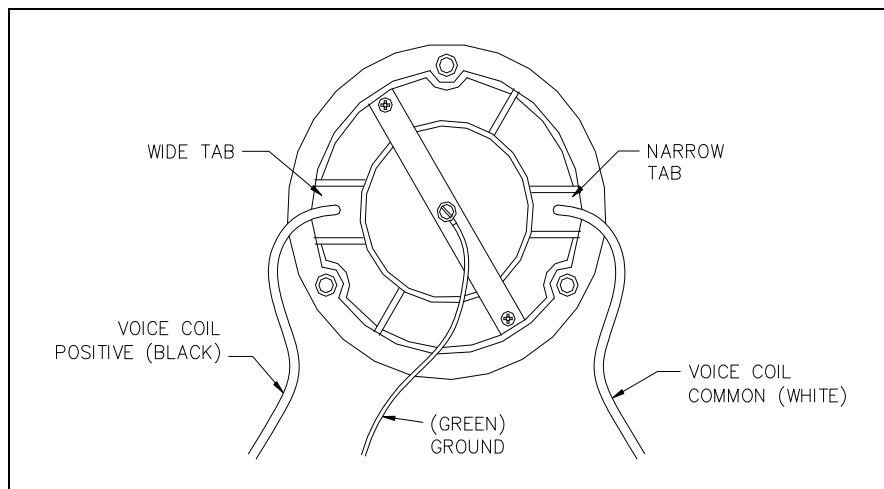


Figure 1. Models 13314-001 and -002 Rear View with Cover Removed

8. For Model 13314-003, (the 70-volt driver with a transformer), and 13314-004 (the 100-volt driver with a transformer), connect the gray wire to the wide tab and the blue wire to the narrow tab.
9. Replace the back cover using the new gasket provided, and reinstall the screws.

## Voice Coil Replacement for 13315 Series Drivers

1. Remove the six flange bolts from the driver, and remove the rear housing.

**⚠ CAUTION ⚠** Handle the castings with extreme care. The mating flange surfaces must not be scratched, scored, or otherwise damaged.

2. For Model 13315-003, the 16-ohm with a 70-volt transformer, remove the wire nuts connecting the transformer secondary to the voice coil leads.
3. Remove the three screws retaining the transformer mounting plate and remove the plate assembly.
4. Perform steps 3 through 6 in the “Voice Coil Replacement for 13314 Series Drivers” section.
5. Connect the black wire to the wide tab of the voice coil and the white wire to the narrow tab.
6. For Model 13315-003, bring the black and white wires through their associated clearance holes in the transformer mounting plate, and reconnect the plate to the front housing.
7. Reconnect the gray wire from the transformer to the black voice coil lead and the blue transformer common wire to the white voice coil lead using suitable splice connectors. See Figure 2 below.
8. Replace the rear housing cover and bolts. **NOTE:** Bolts must be torqued to 40 foot-pounds (54.2 N-m).

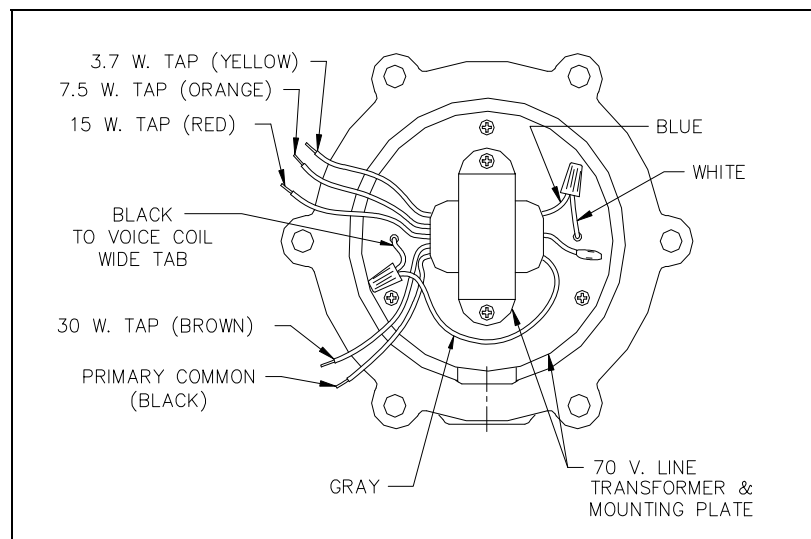


Figure 2. 13315-003 Rear View with Cover Removed

## Cleaning the Magnetic Gap

If any material (fillings, dust, etc.) is apparent in the magnetic gap, it may be easily cleaned using a small piece of masking tape doubled over with its adhesive side out. Insert the tape end into the gap, and slide it all the way around. Repeat this process until the masking tape comes out clean.

# Warranty

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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

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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.