



GAI-TRONICS®  
A HUBBELL COMPANY

# Model 305-002

## 600-Ohm Line Balance Assembly

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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 GAI-Tronics Model 305-002 Line Balance Assembly is designed to properly load both the page and party line circuits of a GAI-Tronics 600-ohm Page/Party® communication system. One line balance assembly must be installed in each system. The line balance assembly may be used in single or multi (up to five) party line systems.

### Installation

There are three primary considerations in determining the location of the line balance assembly:

1. It should be near the electrical center of the system.
2. It should be adjacent to an indoor station in a relatively quiet area.
3. It should be no more than 26,400 feet (5 miles or 8 km) from the most distant station, when used with GAI-Tronics' standard cable. For larger systems or when non-standard cable is to be used, please contact a GAI-Tronics representative for further information.

Mounting can be accomplished by either suspending the assembly by a 1-inch conduit nipple (not supplied) from the bottom of an indoor wall station or by using the mounting ears located on the box. Connect one twisted pair for the page circuit and a similar pair for each party line between the terminal blocks of the line balance assembly and the associated indoor wall station.

### Adjustment

To set the control for proper page circuit loading and to minimize the receiver sidetone, complete the steps listed below. Sidetone is the amount of signal returned from the microphone to the receiver element of the handset, i.e., how loudly the user hears his or her own voice. This adjustment needs to be made during the initial installation of the system. However, if more than ten handset stations or speaker amplifiers are added or deleted in the system at any time, readjust the page circuit loading.

1. Remove the line balance assembly cover to expose the line balance control.
2. Lift the handset from the adjacent station and press the PAGE button.
3. Blow steadily into the handset microphone and adjust the control to minimize receiver sidetone.
4. After final adjustment, replace the cover and secure it with four mounting screws.

Each amplifier has a paging speaker volume control, accessible from the front panel with a screwdriver. It is concealed behind the metal nameplate. To access the control, loosen (do not remove) the two nameplate screws and pivot the nameplate around the left screw. This control is preset at the factory for a moderate 4-watt output to the connected speaker.

For more detailed system installation information, please refer to GAI-Tronics Pub. 42004-324.

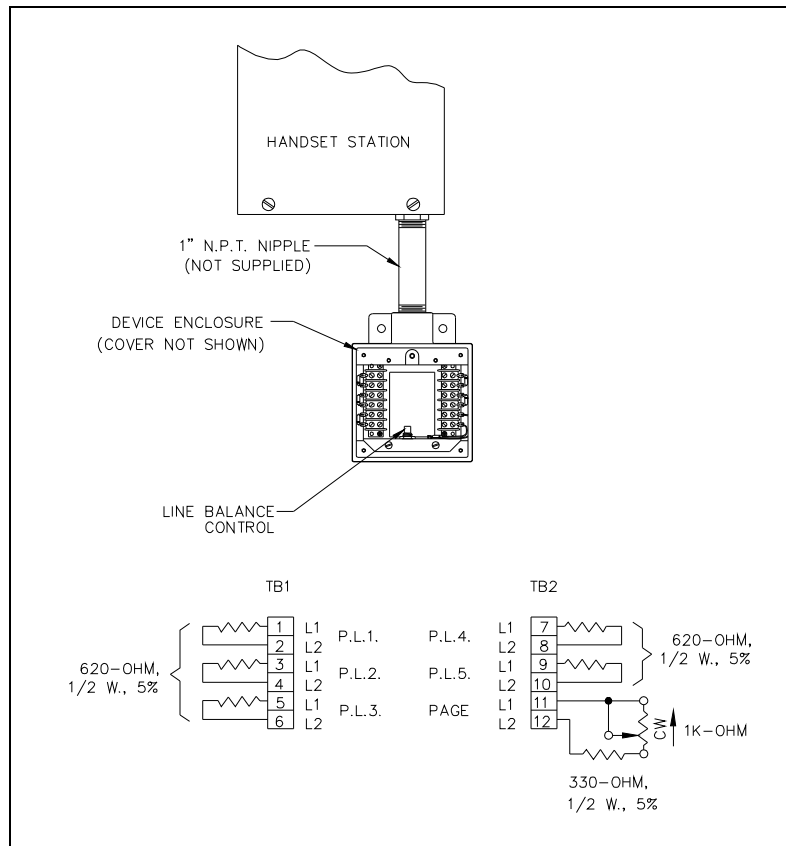


Figure 1. 305-002 Terminal Connections

## Specifications

Terminations .....	Barrier-type terminal blocks for field wiring to page and party line circuits
Mounting.....	Mounting lugs or support by 1-inch NPT pipe nipple from handset station
Enclosure .....	Cast aluminum two-gang outlet box with cast, dust-tight aluminum cover
Control .....	Rheostat adjustment control provided for page line circuit
Finish .....	Aluminum or epoxy
Dimensions .....	5.30 H × 4.60 W × 2.25 D inches (134.6 × 116.8 × 57.2 mm)
Shipping weight .....	2 lbs. (0.9 kg)

# 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.