



GAI-TRONICS® CORPORATION
A HUBBELL COMPANY

Model 69460-001 Crew's Quarters Muting Card for Centra-Page Systems

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General Information

GAI-Tronics Centra-Page systems provide dependable paging and party line communications for rugged and hazardous industrial facilities. Centra-Page systems feature centrally-located electronics providing environmental protection and unitized amplification for easy maintenance. Standard Centra-Page central cabinets can support up to 30 handset stations, and in most cases, up to 60 paging speakers. Alarms and telephone interfacing can also be added to a Centra-Page system.

The Model 69460-001 Crew's Quarters Muting Card is used in Centra-Page systems to provide up to three selected tones and/or speech messages for broadcast in living areas such as conference rooms and crew's quarters.

The Model 69460-001 Card plugs into the 10461-002 Centra-Page Card Rack in the same manner as a standard Model 69037-101 Station Card. The 69460-001 is then wired to the selected output on the Model 10961-001 AMI Centra-Page Interface, which can be used to signal the 69460-001 Card to broadcast the tone. Jumpers on the Model 10961-001 can select one or all of the three tones to activate the output to broadcast the alarm on the 69460-001 card.

NOTE: The Model 69460-001 Card is for use with speakers only because it does not contain a handset station power supply. To connect a station in the crew's quarters area, use a standard Model 69037-101 Station Card and do not wire any speakers to the card.

Installation

Jumper Settings

The Model 69460-001 Card contains three jumpers (P5, P6, P7). These jumpers set the logic levels of the card's input control lines to either active HIGH (24 V) or active LOW (0.7 V). For operation in a standard Central Page system using the Model 10961-001 Interface Panel or Model 10460-002 Interface Panel, the jumpers must be set to active HIGH. Active HIGH is the factory default setting for all jumpers. The active LOW setting is used only in special applications in which a custom-designed interface panel is present or the card is being controlled by a device other than the interface panel. Refer to Figure 1.

Jumper	Function	Active High	Active Low
P5	Input #1	Short pins 2&3	Short pins 1 & 2
P6	Input #2	Short pins 2&3	Short pins 1 & 2
P7	Input #3	Short pins 2&3	Short pins 1 & 2

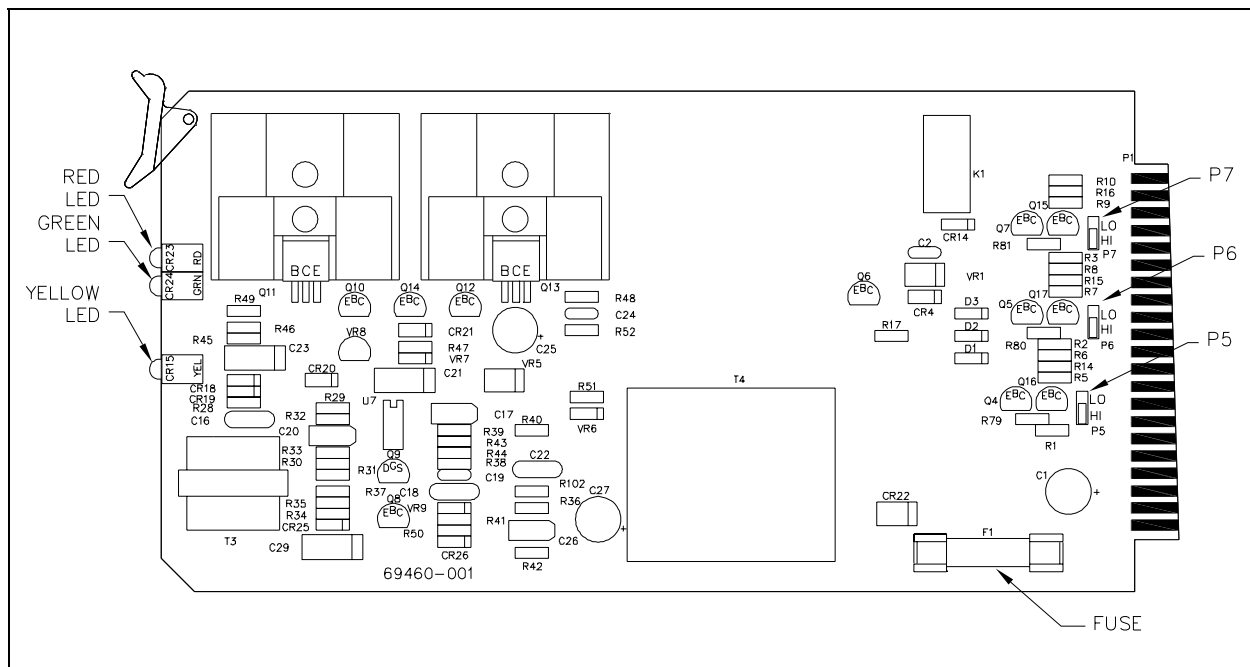


Figure 1. Model 69460-001 Crew's Quarter's Muting Card

Card Rack Installation

1. Open the Centra-Page system central cabinet to access the front panel.
2. Slide the Model 69460-001 Card into the card rack slot associated with the speaker to be muted. Ensure that the connector at the rear of the card has plugged firmly into the connector in the card rack.
3. Snap the white clip on the front of the card into place to secure the card in the card rack.
4. Open the Centra-Page cabinet to access the rear of the card rack. Attach the new terminal block label as noted in Figure 2.
5. Use No. 14, 16, or 18 AWG cable to complete the connections to the speakers. The distance between the central cabinet and the speakers determines the wire gauge that is required: the greater the distance to be covered, the larger the wire gauge that is needed. Refer to GAI-Tronics Pub. 42004-135 for more information on speaker installation and wiring.
6. Refer to Figure 2 and Figure 3. The Model 10961-001 AMI Centra-Page Interface is equipped with a Crew's Quarters activation output (TBX04 position 9 - the black wire). Connect the black wire from the 10961-001 TBX04 to the card rack terminal block position 2. Jumpers P1, P2 and P3 on the 69452-001 Interface PCBA are used to control which of the three tones will be broadcast to the crew's quarters. The jumper in position 1 and 2 make the tone non-active. The jumper in position 2 and 3 make the tone active. One or all the jumpers can be active. For example, to broadcast tones 1 and 2 only to the crew's quarters, put P1 and P2 in position 2 and 3 and allow P3 to remain in position 1 and 2.

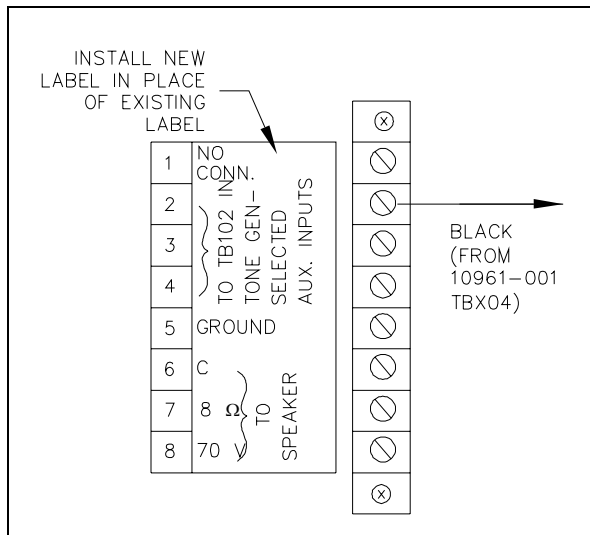


Figure 2. Wiring at Card Rack

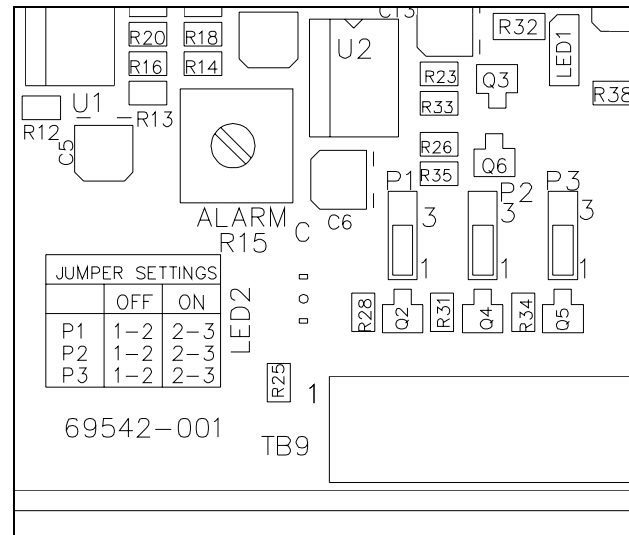


Figure 3. Model 69542-001 AMI Centra-Page Interface - jumper section

Operation

Card Indicators

The card contains three indicator LEDs that are visible from the front of the card rack. These LEDs are used to identify the card functions as follows.

Table 2 - Indicator Functions	
LED Color/Position	Function
Red (top)	24 V dc power is present on the card.
Green (middle)	Audio is present on the speaker output.
Yellow (bottom)	One or more of the control inputs is active, which enables the speaker output.

Speakers

8-Ohm Out Operation

When using the 8-ohm output connections, always use speakers of proper voice coil impedance and power handling capability. Consult GAI-Tronics Pub. 42004-135 and 42004-220 for more details on speaker installation and wiring.

70.7 Volt Out Operation

Greater speaker line distances from the central cabinet can be obtained by using the 70.7 V output connection compared with using 8-ohm output. The individual speaker's power level is determined by the tap settings on the line-matching transformer. The use of these transformers allows the speakers to be placed at longer distances from the central amplifier system without significant power loss.

The sum of the speaker power settings must not exceed the total power available from the amplifier PCBA. For example, the 69460-001 PCBA's 70.7 V output (~16 W out with ~27 V dc in) can drive approximately eight speakers tapped at 2 watts each or four speakers tapped at 4 watts each.

Speaker Wiring Distance Guide

Cable distance should be kept as short as possible to reduce the power loss. The following chart illustrates the correlation between three typical wire sizes and the distance that speakers with integral drivers or horns with separate drivers can be placed from the central card rack for a -1 dB loss (-20% power loss). For a 0.5 dB loss, divide all lengths in half.

Table 2.

Speaker Wiring Guidelines for 69430-001 PCBA Based on ~27 V DC Input to Card Rack Assembly			
Speaker Output Connection	Wire Size		
	18 AWG (0.82 mm ²)	16 AWG (1.31 mm ²)	14 AWG (2.08 mm ²)
8-ohm out	77 feet (23.5 meters)	123 feet (37.5 meters)	196 feet (59.7 meters)
70.7 volt out	2,900 feet (884 meters)	4,700 feet (1,432 meters)	7,500 feet (2,286 meters)

Service Information

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 will be made without charge. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 for help identifying the Regional Service Center closest to you.

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