



SmartSeries System General Installation Guide

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SmartSeries System General Installation Guide

Confidentiality Notice

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System Design Considerations

Carefully plan the system layout before installation. Install handset stations in locations that allow for convenience, accessibility, and personnel safety. For comprehensive speaker sound coverage, consider the quantity and location of the loudspeakers—particularly in areas of high ambient noise or reverberation. If you need assistance in speaker layout, refer to GAI-Tronics Speaker/Horn Installation Manual, Publication 42004-135, or consult your GAI-Tronics sales representative for layout and speaker placement information.

Also, carefully plan the layout to minimize the amount of cable required for each installation. This is especially important because all SmartSeries stations are wired in a branch configuration.

GAI-Tronics supplies multi-conductor cable designed specifically for this system. Standard cable has 600 V insulation and is Underwriters Laboratory (UL) rated for power cable tray use.

Capacities/Limitations

SmartSeries Stations—A maximum of 200 SmartSeries stations may be installed in a zone. The system may contain up to 12 zones.

Speakers—Only one speaker can be connected to a SmartSeries station if the station is supervising the speaker. If speaker supervision is not being used, up to four speakers can be connected to a single station in low noise areas. We recommend a maximum of two speakers connected to a single station in high noise areas.

GAI-Tronics System Cable—The recommended maximum cable distance from the control cabinet to a SmartSeries station is 5,250 feet (1600 m).

GAI-Tronics Speaker Cable—The recommended maximum cable distance from a SmartSeries station to an 8-ohm speaker is 75 feet (22.86 meters). The maximum cable distance from a SmartSeries station to a 16-ohm speaker is 150 feet (45.72 meters).

Station Power

SmartSeries stations require 120 V ac power. GAI-Tronics system cable contains a 14 AWG wire triplet for distributing ac power to the SmartSeries stations. This wire can carry a maximum of 15 amps; therefore, up to 30 SmartSeries stations can be connected to a single power circuit. Additional stations must be powered by additional power circuits. Refer to the table below for power calculations.

Page/Party® Zone Power Calculation Table	
The maximum power in any leg of a zone is limited to 120 V ac at 15 A due to the wire size (14 AWG) in the system cable. Therefore, the following calculations must be made when determining the maximum number and type of units in a leg of the zone.	
Number of handset stations, speaker amplifiers, or SmartSeries Remote Terminal Units (RTU).	_____ × 0.5 A = _____
Number of strobes*	_____ × 0.35 A = _____
Total current (<15 A)	_____

*Strobe power requirements are limited to 5 amps per RTU relay circuit. The measurement shown in the table is derived using the Federal Signal Strobe Model 151XST. Other ac strobes may be substituted, and the current draw from these strobes should be used in place of this value shown. Substitute strobes must provide a high input resistance (>300 K-ohms) for the RTU relay supervision circuit to work properly.

Control Cabinet Power

The central cabinet requires a 120 V ac power circuit. The maximum current draw is 2 amps assuming there are no central power amplifiers installed inside the cabinet. If power amps are installed, additional power circuits are required depending on the size and quantity of amplifiers.

NOTE: If the system is being used for emergency notification and communication, a backup power source should be provided for the entire system.

Installing SmartSeries Stations

Each SmartSeries station consists of an enclosure and a plug-in amplifier. Refer to the manual packaged with each enclosure for mounting and connection details.

Electrical Noise Considerations

When planning your system, consider the following suggestions to avoid electrical noise caused by slip rings and silicon control rectifier (SCR) power supplies.

Slip Rings. If possible, avoid using slip rings as audio conductors. Slip rings are a source of electrical noise and are not reliable.

SCR Power Supplies. If the Page/Party[®] system will be installed in areas where SCR power supplies are used to power motors or other heavy equipment, consider using one or all of the following recommendations to reduce electrical noise.

1. *Separation*—Locate the Page/Party[®] system cables as far as possible from the SCR power supply input or output cables. Electrical coupling between cables is reduced by the square of the distance between the cables.
2. *Shielding*—Use shielded (armored) system cables if the cable must be run in the same bundle or cable tray with the SCR power supply cables. Shielded cables reduce capacitive coupling between SCR power supply cables and Page/Party[®] audio cables.
3. *Isolation*—Power source isolation can be used to avoid electrical noise:

Use a low capacitance (primary to secondary) isolation transformer between the Page/Party[®] system and the ac supply to the SCRs. This electrically isolates the Page/Party[®] system's ac power from the noise generated by the SCR on the ac power feed. An isolation transformer can also be used to isolate the Page/Party[®] ac power from an ungrounded ac power source.

NOTE: The neutral side of the transformer output must be grounded in all instances.

The size of the isolation transformer should be based on the number of amplifiers used in the system. If ten or fewer amplifiers are used in the system, a 500 VA transformer is sufficient. If 11 to 20 amplifiers are used in the system, select a 1000 VA transformer. For systems with more than 20 amplifiers, the transformer should be sized to accommodate a load of 50 VA per amplifier.

Installing System Cable between Stations

Cabling between stations is generally installed in cable trays or conduit. To assist in determining the conduit size required, refer to the table below. Size and installation of conduit and cable must meet the requirements of applicable electrical codes.

GAI-Tronics Cable Information			
Region	GAI-Tronics Cable	Conductors	Outside Diameter
USA	Model 60038-101	8	0.60 in.(15.1 mm)
USA	Model 60029-101	16	0.68 in. (17.2 mm)
Europe	Model 60029-111	16	1.218 in. (30.94 mm)

Follow the recommended wire color code for GAI-Tronics 60029 and 60038 Series multi-party cable:

Recommended System Cable

8-Conductor Cable (60038 Series)		16-Conductor Cable (60029 Series)		
Color Code	Function	Color Code		Function
		United States	Europe	
Black	120 V ac line	Black	Brown	120 V ac line
White	120 V ac neutral	White	Blue	120 V ac neutral
Green/Yellow	Ground	Green/yellow	Green/yellow	Ground
Red/Blue	Page Line (L1)	Red/blue	Red/blue	Page Line (L1)
Blue/Red	Page Line (L2)	Blue/red	Blue/red	Page Line (L2)
Red	Party Line (L1)	Red	Red	Party Line 1 (L1)
Tan/Red	Partly Line (L2)	Tan/red	Tan/red	Party Line 1 (L2)
Orange	Spare	Violet	Violet	Party Line 2 (L1)
		Tan/violet	Tan/violet	Party Line 2 (L2)
		Blue	Blue	Party Line 3 (L1)
		Tan/blue	Tan/blue	Party Line 3 (L2)
		Brown	Brown	Party Line 4 (L1)
		Tan/brown	Tan/brown	Party Line 4 (L2)
		Yellow	Yellow	Party Line 5 (L1)
		Tan/yellow	Tan/yellow	Party Line 5 (L2)
		Orange	Orange	Spare

In nonmetallic enclosures, the ground conductor (green/yellow insulation) requires connection to the metallic conduit(s) entering the enclosure. The spare orange conductor should be either terminated to a spare terminal block in the enclosure or taped.

Installing SmartSeries Amplifiers

Each SmartSeries station requires installation of a handset or speaker amplifier. Prior to installing the amplifier in the enclosure, set each amplifier's address. A unique address must be set for each amplifier within a zone.

The installer should document each station's amplifier address and a description of the station's location. This information is needed during system commissioning. A log sheet is included in the rear of this manual for documenting each SmartSeries station address and location.

Setting the Amplifier Address



Two switches are used to set the station address: low address setting and high address setting. Each switch contains 16 settings, labeled 0-F. The amplifier address is determined by the high address setting followed by the low address setting. For example, to assign an address of **05**, the high station address is set to **0** and the low station address is set to **5**.

1. Locate the low station setting and the high station setting on the left side of the amplifier.

For Models 701-802, 701-804, and 751-801: Refer to designators 2 and 3 on Figure 1 for a speaker amplifier or designators 7 and 8 on Figure 2 for a handset amplifier.

For Models 701-9xx, 751-9xx, and 723-9xx Series units: Refer to designators 2 and 3 on Figure 3 for a speaker amplifier or Figure 4 designators 2 and 3 on for a handset amplifier.

2. Rotate the high switch and the low switch to set the desired address. A small arrow on each switch indicates the setting. Valid address settings are 05 to FE.

 **NOTE**  **Do not adjust any other controls on the amplifier. These controls are factory set and will adversely affect station performance if improperly adjusted.**

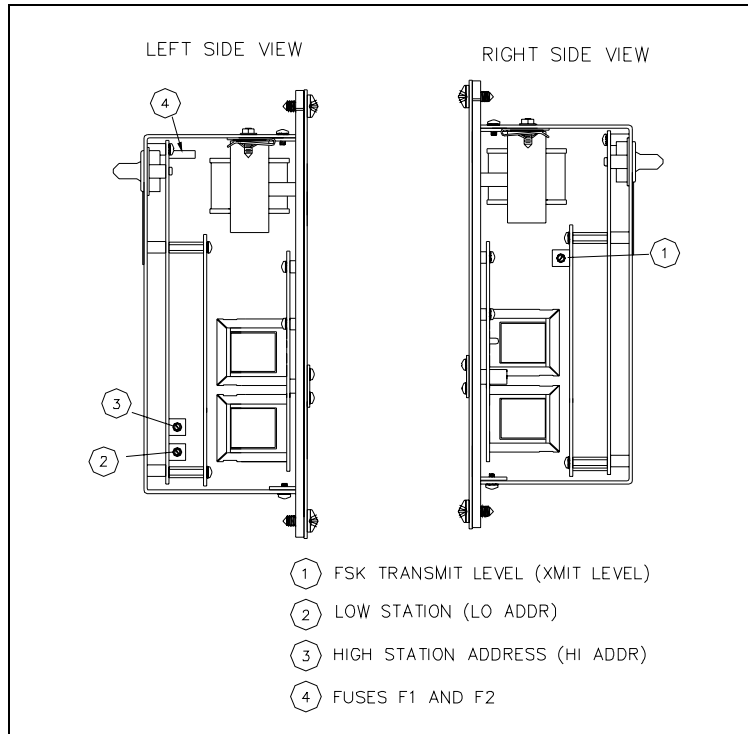


Figure 1. Speaker Amplifier - Reference for Model 751-801

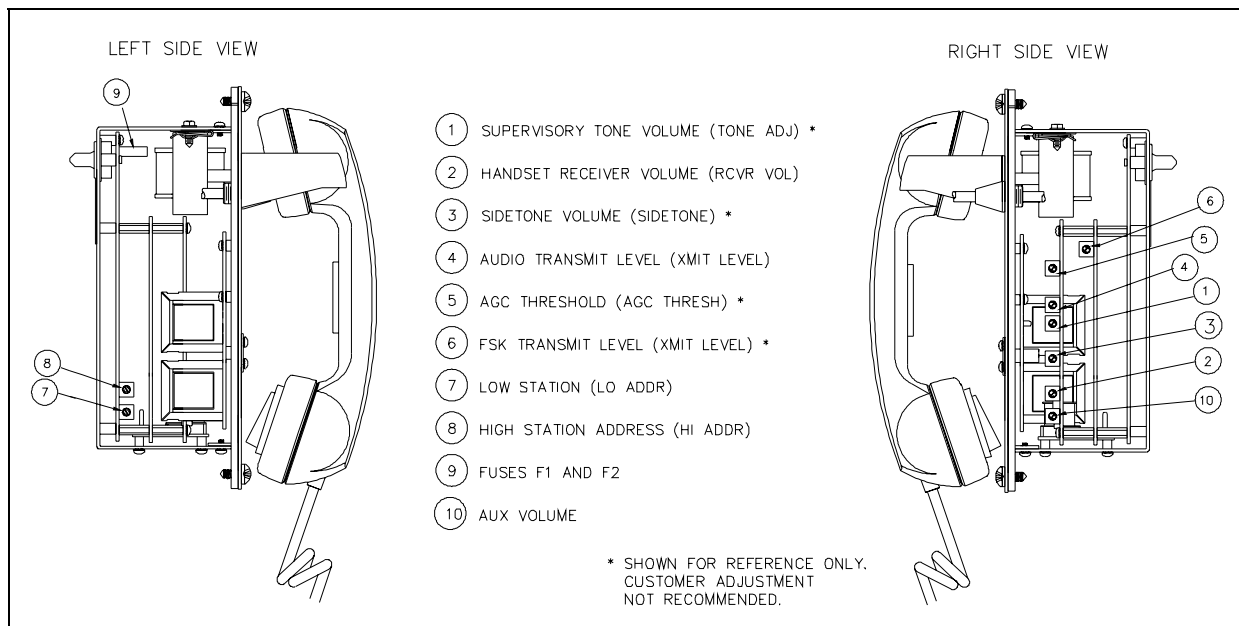


Figure 2. 701-802 Handset Amplifier showing PCBA 69228-106 for Models 701-802, 701-804, and 723-801

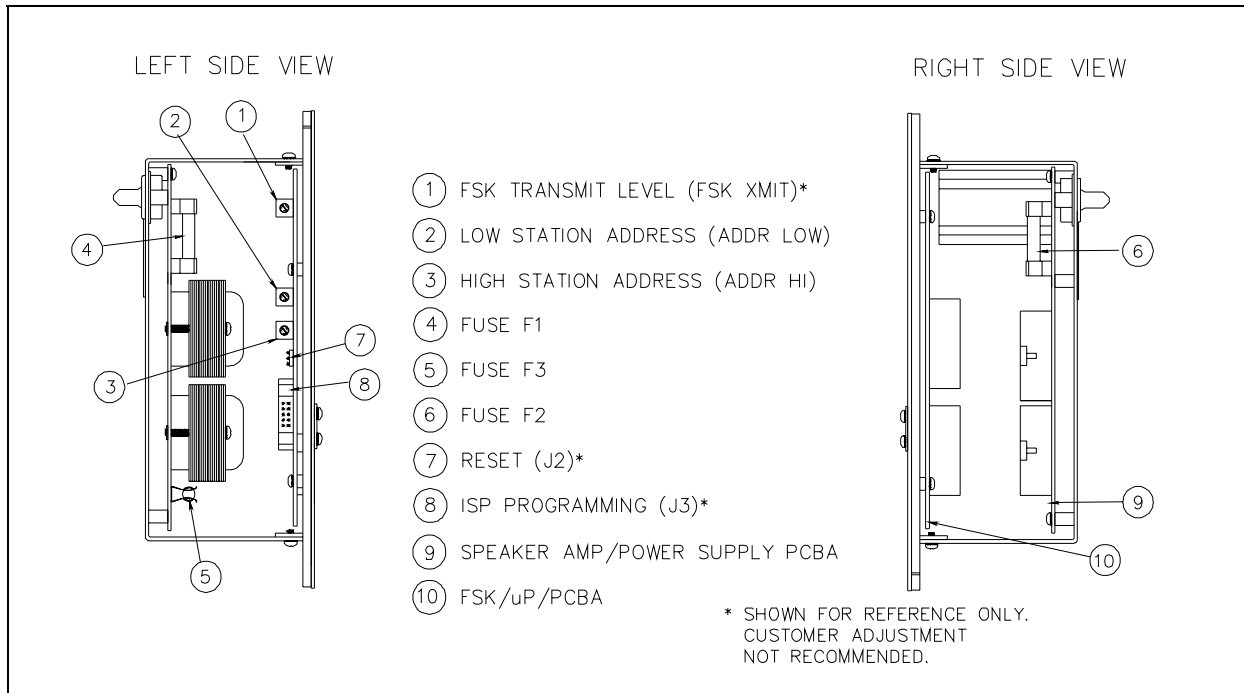


Figure 3. Speaker Amplifier - Reference for Model 751-90x and 723-90x Series

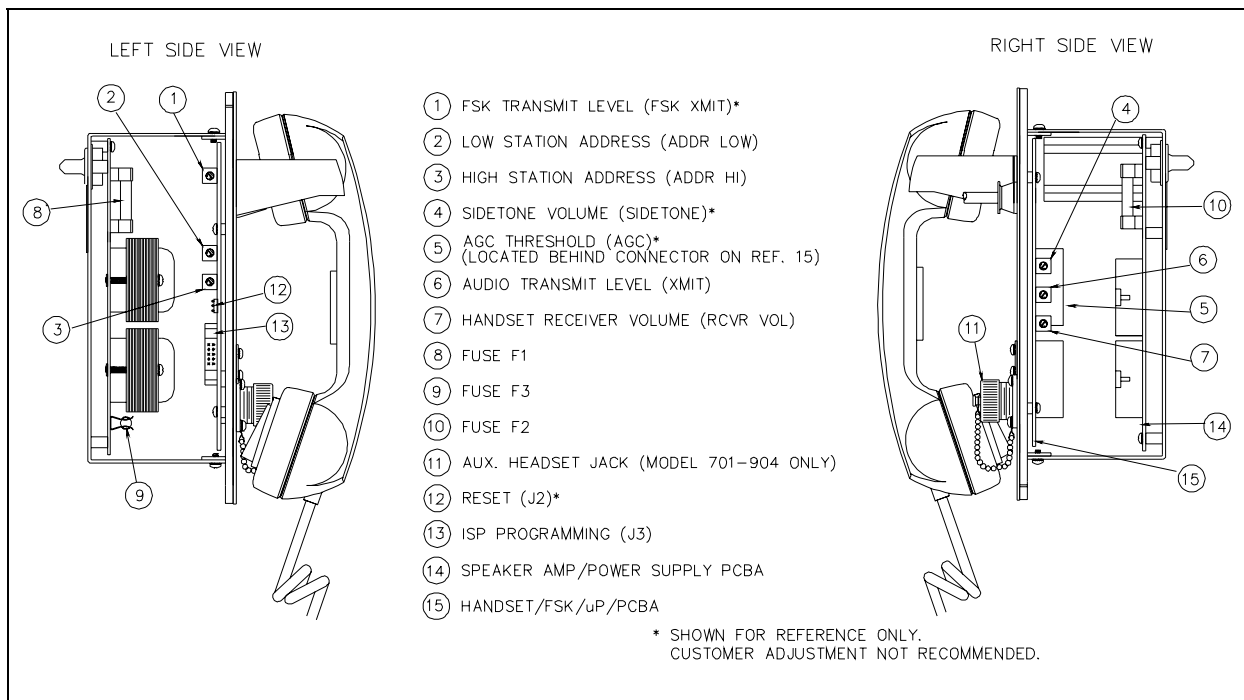


Figure 4. Handset Amplifier - Reference for Models 701-90x Series

Installing the Control Cabinet

General Information

Wiring is separated into paging/communication zones determined by the system architecture. Each zone requires one cable to be terminated at the control cabinet. The system supports several types of zones that include Page/Party® zones, central amplifier zones, and access panels. Refer to the diagrams beginning on page 20 showing typical zone connection configurations.

Connecting modules with pressure-type terminal blocks are provided in the control cabinet for connecting the incoming field wiring to the control cabinet's card rack. The terminal blocks can accept conductors ranging from 28 AWG to 12 AWG in size. The types of cable and connecting modules are different for each type of zone.

The access panel connecting module can accommodate 8 access panels; each central amp connecting module can accommodate 6 power amplifiers; and the Page/Party® connecting module can accommodate one Page/Party® zone. In some systems (if specified), the connection modules may be factory wired to larger DIN-mounted terminal blocks to provide additional termination points for system cables. This is often the case if Page/Party® cables or central amplifier speaker cables are wired in a loop to provide cable redundancy. Depending on the system functionality, additional terminals can be provided for connecting auxiliary devices or systems.

Access panels and power amplifiers can be factory installed in the control cabinet or can be remotely located from the cabinet. If factory installed, all wiring to the access panel is completed and no further installation is necessary. If remotely located, refer to the section *Attaching Wires To Connecting Modules* on page 10.

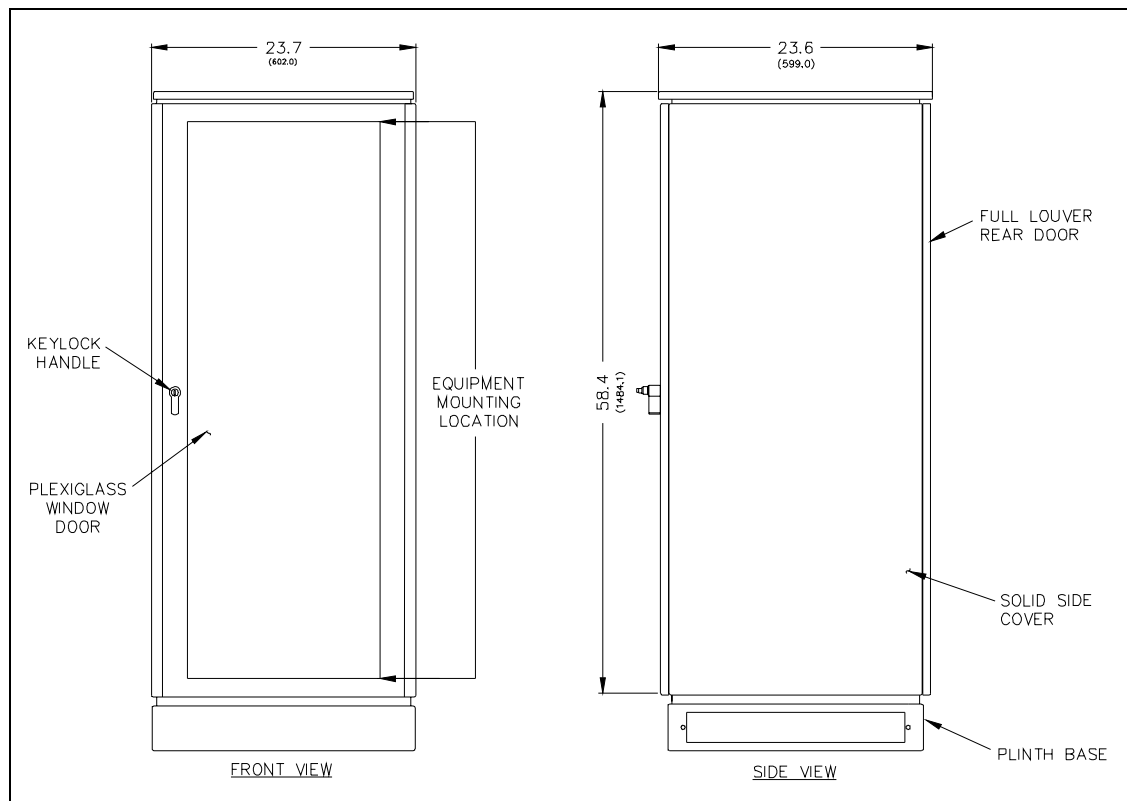


Figure 5. Typical floor standing cabinet (with front and rear door access)

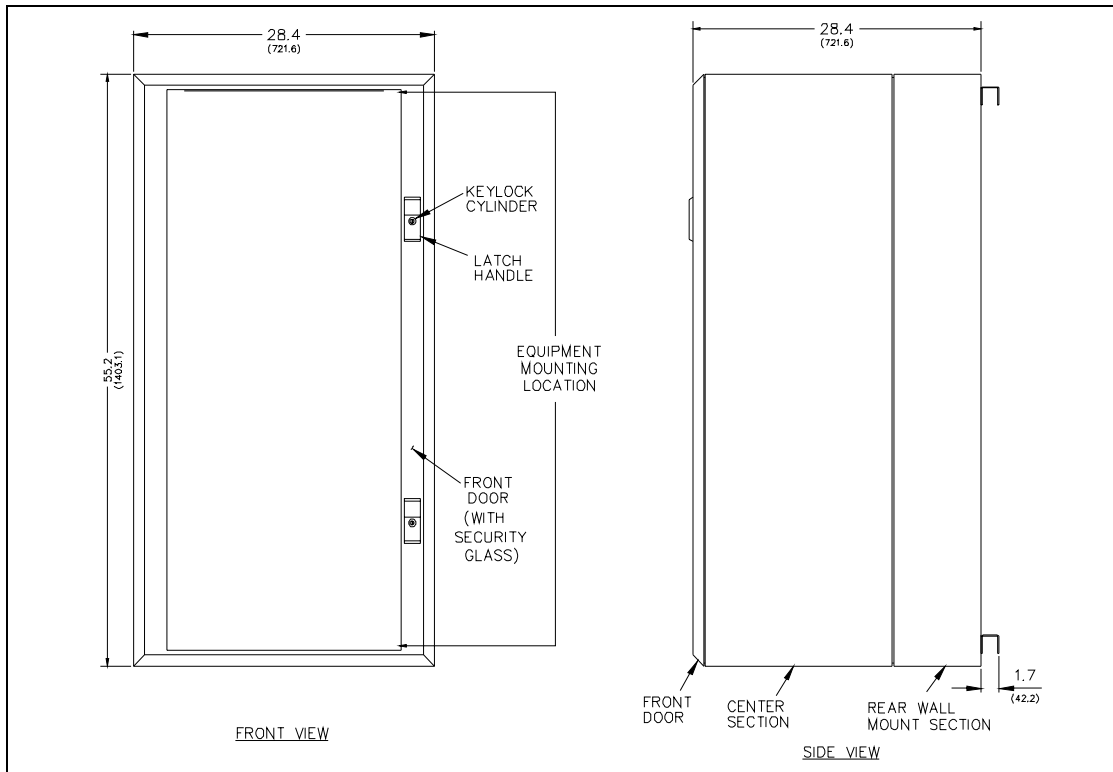


Figure 6. Typical 3-section wall-mount cabinet

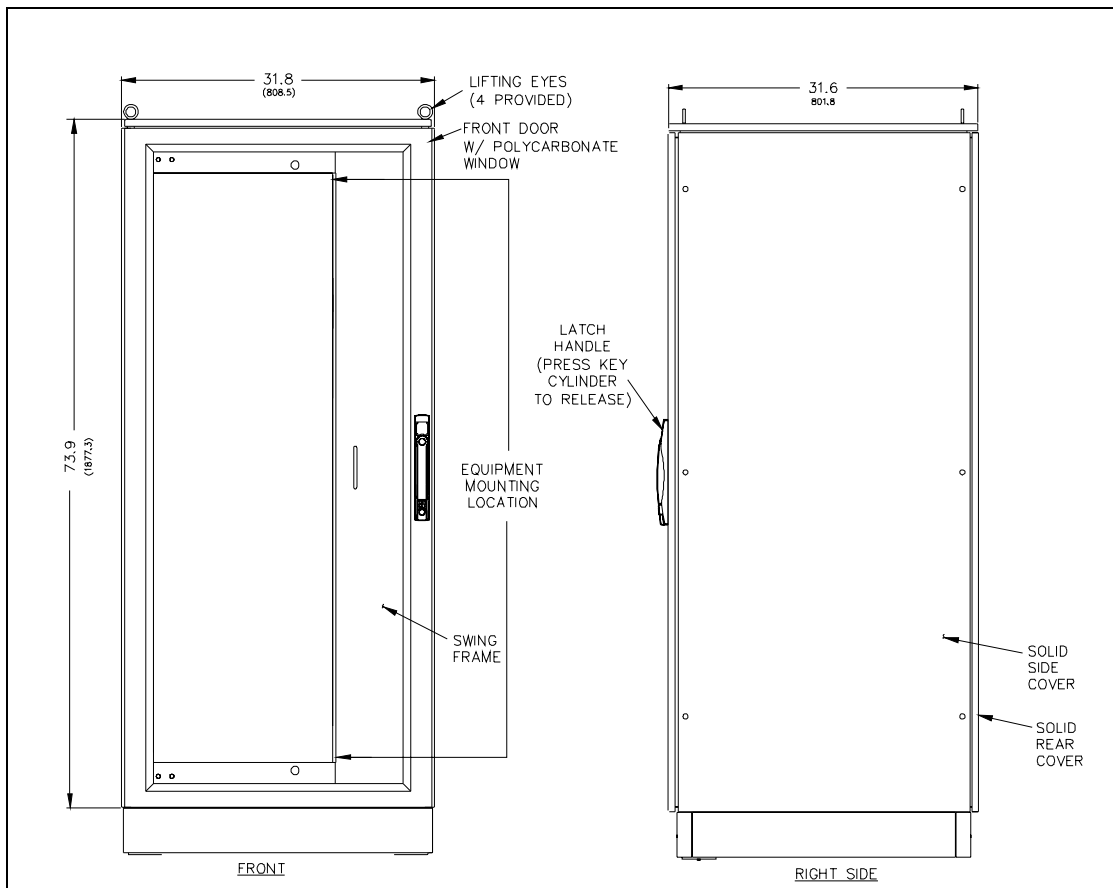




Figure 7. Typical floor-standing cabinet with front door access

Mounting the Control Cabinet

1. Visually inspect the condition of each shipping container for signs of physical damage.
2. Unpack the equipment and inspect the equipment for any damage.
3. Determine a suitable location for the control cabinet. Consider the following when deciding on a location:
 - Allow access for conduit/cable entry as required by the type of cabinet.
 - Adequate space for the cabinet or door to swing open.
 - Future cabling requirements for connection of additional equipment.
4. *Floor-standing cabinets:* level the cabinet.
Wall-mounted enclosure: plumb and secure to the wall using adequate mounting bolts.

Terminating Field Wiring to the Control Cabinet

5. Carefully examine *all* internal components and their placement prior to drilling or punching to ensure that you do not damage the internal components. Damage resulting from cable entry installation is not covered under warranty.

 **NOTE**  Methods for installing and attaching cable conduit entries to the cabinet must comply with all applicable codes and/or site requirements.

6. Drill or punch conduit entries into the cabinet at the recommended locations. Use cable conduit entries, or cable gland bushings equipped with an O-ring to prevent entry of dust or moisture which can damage the internal components.

Recommended Conduit Entries

Floor-standing cabinets: bottom only

Floor-standing cabinets with front door access: top, bottom, and side (bottom preferred)

Wall-mounted enclosure: top and bottom gland plates only (bottom preferred)

7. Enter the cabinet with the cables and route to the appropriate connecting module leaving adequate spare cabling for servicing. Each connecting module is labeled (see Figure 8 and Figure 9 and the Wiring Tables on page 12).

Attaching Wires to Connecting Modules or Terminal Blocks

NOTE All initial wire terminations within the control cabinet **will be performed** by a GAI-Tronics Technician during system commissioning. Should cables need to be added or replaced after commissioning, follow the steps below:

8. Turn the designated terminal block screws counterclockwise several times to open the terminal.
9. Crimp the ferrules on the end of each wire before securing to the terminal to ensure proper termination.
NOTE: The size of the ferrule is dependent upon the size of the conductor used and may be purchased from any supplier such as Phoenix, Altec or Weidmuller.

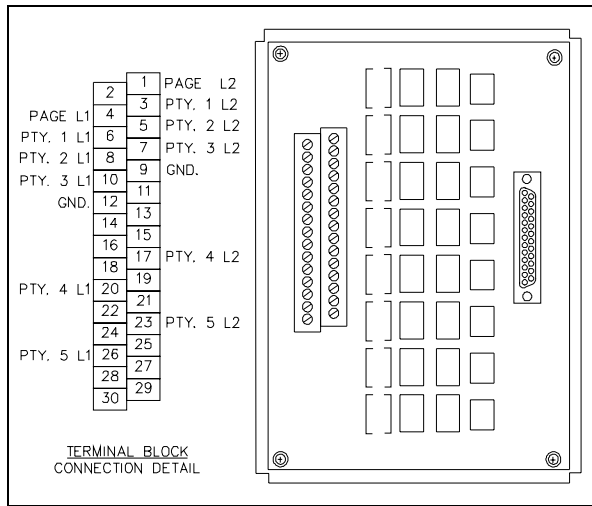


Figure 8. 13118-003 Connecting Module for Page/Party® Zones

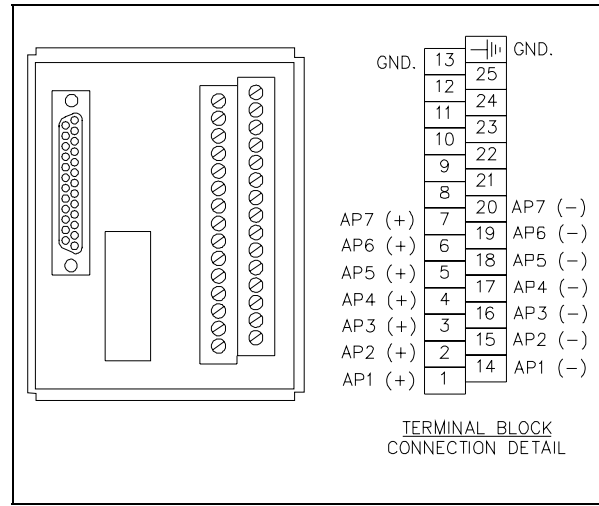


Figure 9. 13118-005 Connecting Module for Access Panels and Central Amplifier Zones (Access Panel label shown)

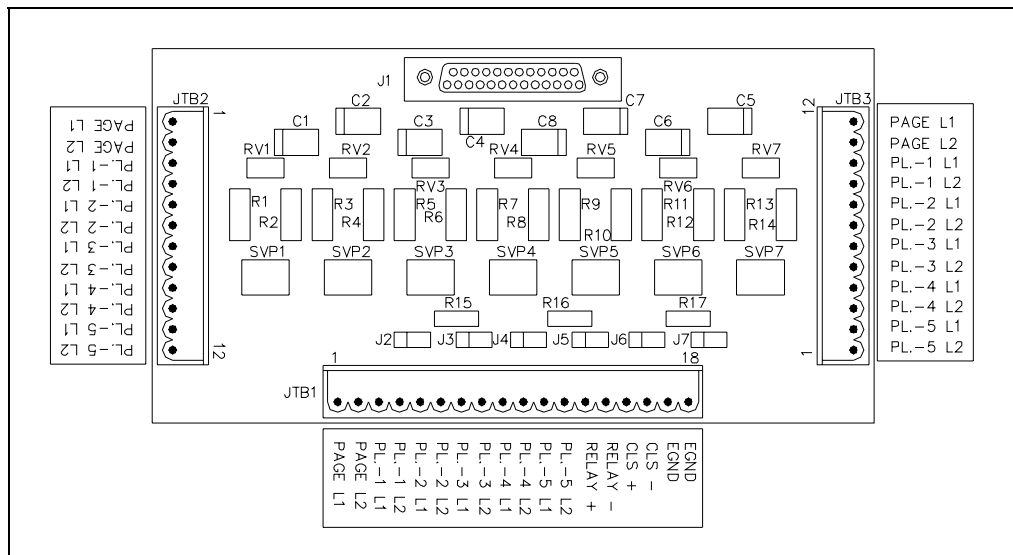


Figure 10. 13118-009 Termination Module

10. Insert the cable conductor and verify that there are no strands of wire extruding from the terminal.
(Extruding wires could short to another terminal.)
11. Secure the wire by turning the screw clockwise.
NOTE: Do not tighten the pressure fitting over the wire insulation.
12. Gently pull on the wire to verify that the wire is secured tightly in the terminal block.

Wiring Table 1 - Page/Party® Zone Connections			
Audio Line	Terminal 13118-009	Terminal 13118-003	System Cable Color- Code
Page Line (L1)	1	2	Red/blue
Page Line (L2)	2	1	Blue/red
Party Line 1 (L1)	3	4	Red
Party Line 1 (L2)	4	3	Tan/red
Party Line 2 (L1)	5	6	Violet
Party Line 2 (L2)	6	5	Tan/violet
Party Line 3 (L1)	7	8	Blue
Party Line 3 (L2)	8	7	Tan/blue
Party Line 4 (L1)	9	18	Brown
Party Line 4 (L2)	10	17	Tan/brown
Party Line 5 (L1)	11	24	Yellow
Party Line 5 (L2)	12	23	Tan/yellow

GAI-Tronics 8- or 16-conductor cable is required.

NOTE: Terminations for the ac power and spare conductor in each Page/Party® zone's system cable are generally provided next to the corresponding zone connection module in most cabinets. These four terminal blocks are mounted on the DIN rail providing a convenient termination point for the cable's ac power and the spare (orange) conductor when using GAI-Tronics 8-conductor or 16-conductor system cables.

Unless specified, the cabinet is NOT factory wired to provide ac power to the Page/Party® stations via these terminals, although the terminals can be used for connection to the local power panel if needed. Refer to Figure 11 on page 13 and Station Power Limiting section on page 2.

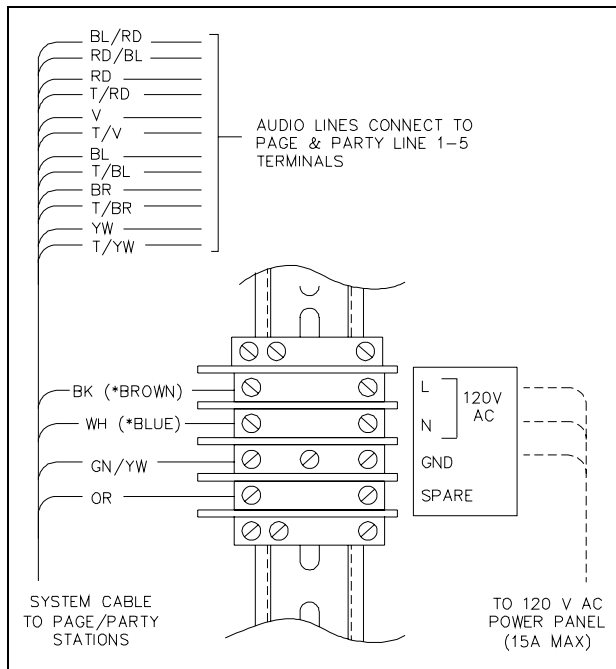


Figure 11. Typical termination block connections for 120 V ac power
*shows European version colors

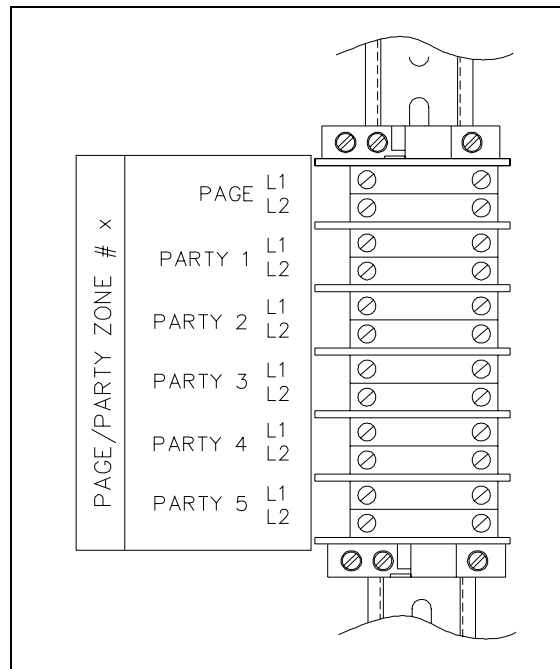


Figure 12. Typical termination block connections for Page/Party® line terminations

Connecting Module #1		Connecting Module #2	
Amplifier	Terminal	Amplifier	Terminal
1 (input -)	5	7 (input -)	5
1 (input +)	18	7 (input +)	18
2 (input -)	6	8 (input -)	6
2 (input +)	19	8 (input +)	19
3 (input -)	7	9 (input -)	7
3 (input +)	20	9 (input +)	20
4 (input -)	8	10 (input -)	8
4 (input +)	21	10 (input +)	21
5 (input -)	9	11 (input -)	9
5 (input +)	22	11 (input +)	22
6 (input -)	10	12 (input -)	10
6 (input +)	23	12 (input +)	23

One 18 AWG shielded twisted pair cable is required for each amplifier.

Access Panel	Terminal	Access Panel	Terminal
#1 (+)	1	#5 (+)	5
#1 (-)	14	#5 (-)	18
#2 (+)	2	#6 (+)	6
#2 (-)	15	#6 (-)	19
#3 (+)	3	#7 (+)	7
#3 (-)	16	#7 (-)	20
#4 (+)	4	#8 (+)	8
#4 (-)	17	#8 (-)	21

One 18 AWG twisted pair cable is required for each access panel.

Connecting Input Circuits

Cabinets containing Monitored Input Modules (MIMs) provide input circuits which may be activated by a dry contact either opening or closing. Contact inputs can be manually activated from a switch or electronically from a relay. Each MIM allows connection of up to eight inputs. Each input requires a 2-conductor cable (#18-20 AWG recommended).

The cable should enter the cabinet and be routed to the MIM input terminal blocks. Two terminals are provided for each input circuit. Terminals are labeled with the input circuit number. Follow the steps in the section *Attaching Wires To Connecting Modules and Terminal Blocks* on page 11 when adding or replacing MIMs.

NOTE: The MIM(s) are factory installed in the control cabinet and should not require changes. Each board contains switch and jumper settings that must be correctly configured for system operation. The settings are made at start-up by authorized GAI-Tronics technicians.

Supervised Input Circuits

Each input circuit can be *supervised*, meaning cable between the contact closure initiating device and the MIM input are monitored for open and short circuits and ground faults. If cable supervision is being used, end-of-line resistors must be installed. Resistor locations and values depend on the number and type of input contacts being used.

Each input (if supervised) must be configured to operate in one of three modes. Each mode requires a unique connection scheme between the contact closure device and the input terminals at the control cabinet. The connection scheme for each mode is indicated below. Each input circuit is independent; therefore, a different mode may be used on each input circuit.

Mode 1: Multiple Normally Open Switches

In this mode, multiple normally-open dry contact closures may be installed on the line. The input cable is monitored for ground faults and open circuits. The end-of-line resistor is a 20 K Ω ½-watt resistor (5% tolerance).

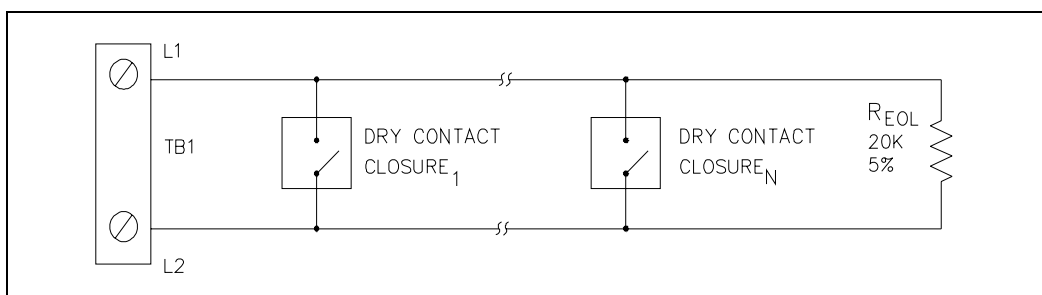


Figure 13. Line Supervision: Multiple Switch

NOTE: The resistor is not included but can be ordered separately as Model 12509-003 End-of-Line Resistor Kit.

Mode 2: Single Normally-Open Switch

In this configuration, only one normally-open dry contact closure may be installed. The input cable is monitored for open circuits, wire-to-wire short circuits, and ground faults. A series 5.1 k Ω , 1/2-watt resistor and a parallel 15 k Ω , 1/2-watt resistor must be installed as shown to provide proper line supervision. Both resistors should be 5% tolerance.

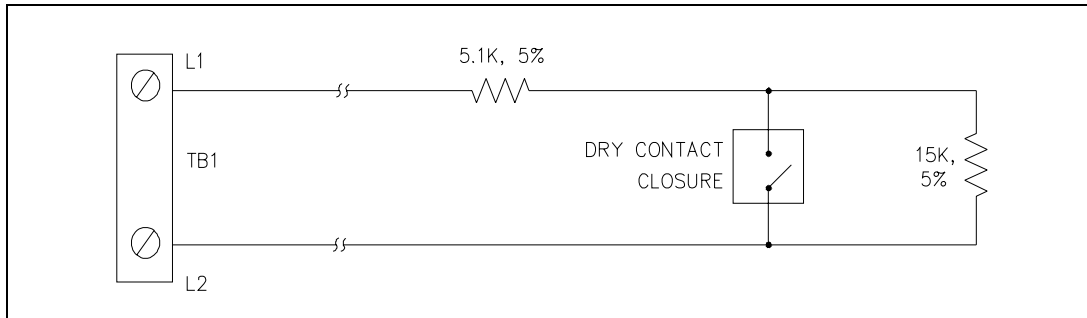


Figure 14. Line Supervision: Single Normally-Open Switch

NOTE: The resistors are not included but can be ordered separately as Model 12509-003 End-of-Line Resistor Kit.

Mode 3: Single Normally-Closed Switch

In this configuration, only one normally-closed dry contact closure may be installed. In this mode, the loop is monitored for open circuits, wire-to-wire short circuits, and ground faults. A series 5.1 k Ω , 1/2-watt resistor and a parallel 15 k Ω , 1/2-watt resistor must be installed as shown to provide proper line supervision. Both resistors should be 5% tolerance.

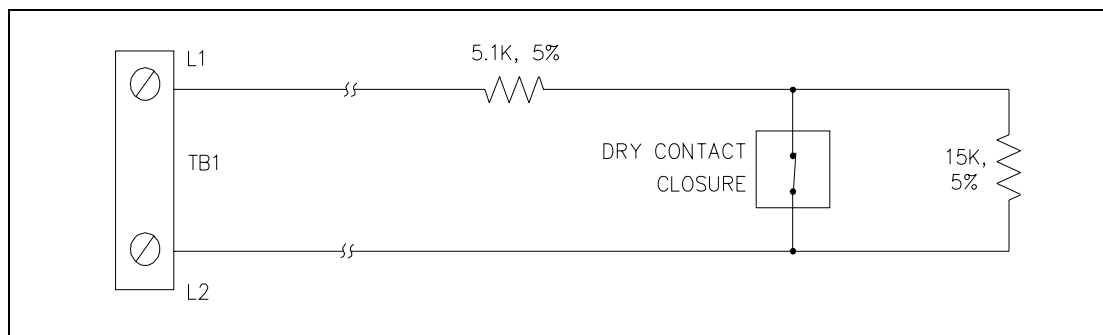


Figure 15. Line Supervision: Single Normally-Closed Switch

NOTE: The resistors are not included but can be ordered separately as Model 12509-003 End-of-Line Resistor Kit.

Connecting Relay Circuits

Cabinets containing Monitored Relay Modules (MRMs) provide relay switching circuits allowing connection of remote signaling devices such as beacon or strobe lights. Each MRM provides eight relay outputs. Each relay is a double-pole type. Each pole contains normally open, common, and normally closed contacts. Cabling from each signaling device circuit should enter the cabinet and be routed to the MRM terminal blocks. Terminals are provided for each relay contact. Terminals are labeled with the relay circuit number and relay contact description. Follow the steps in the section *Attaching Wires To Connecting Modules and Terminal Blocks* on page 11 when adding or replacing MRMs.

NOTE: The MRM(s) are factory installed in the control cabinet and should not require changes. Each board contains switch and jumper settings that must be correctly configured for system operation. The settings are made at start-up by authorized GAI-Tronics technicians.

Unsupervised Circuits

In this mode power is switched to the signaling devices. This mode supports both ac and dc powered signaling devices. Refer to Figure 16 and Figure 17 for appropriate power and signaling device connections.

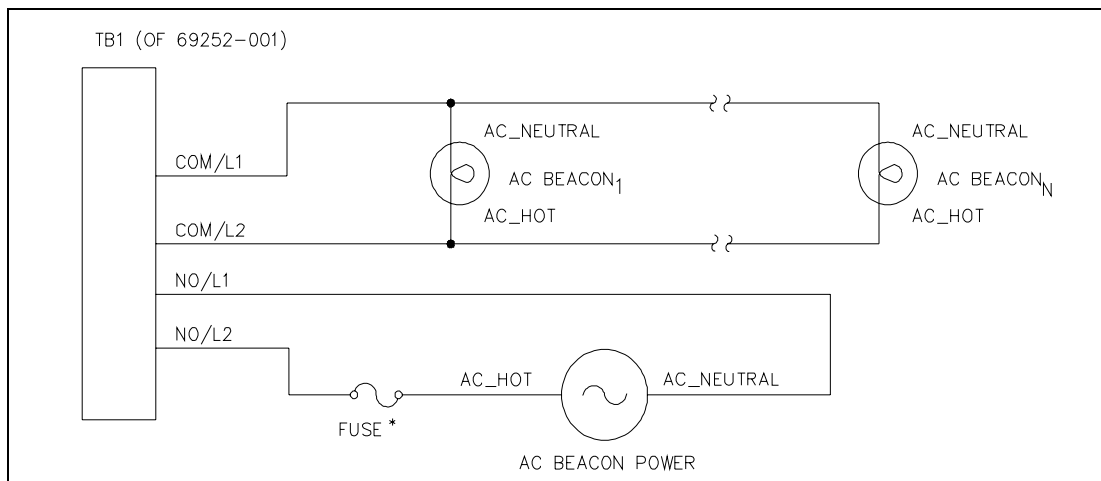


Figure 16. AC-Powered Beacons

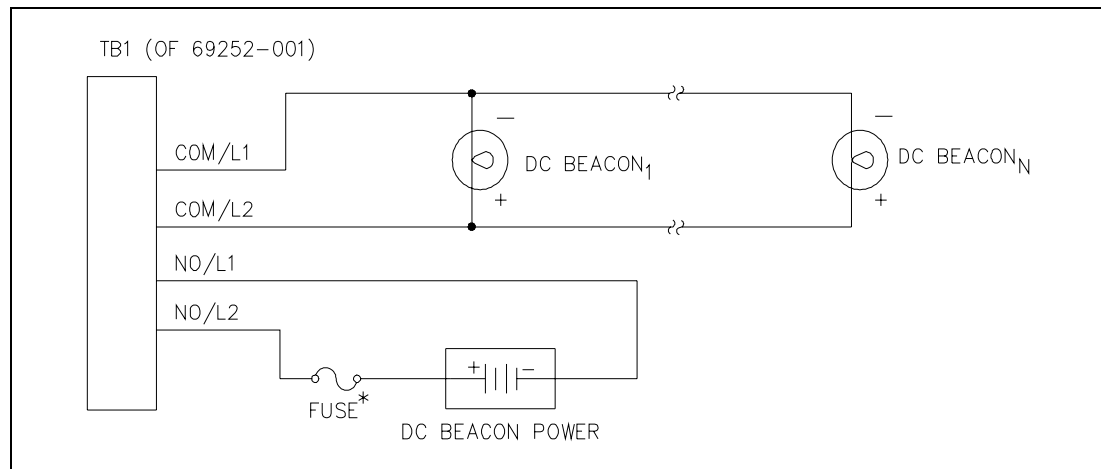


Figure 17. DC-Powered Beacons

NOTE: The MRM does not contain any current-limiting for the signaling device power. An external fuse must be provided for each output circuit with the appropriate voltage and current ratings. The selected fuse should be of the Slo-Blo[®] variety. Also, cable conductor sizes must conform with load requirements set forth in all applicable code requirements.

Supervised Relay Circuits

Each relay output circuit may be *supervised*, meaning cable between the signaling appliance and the MRM relay is monitored for an open circuit (cable break). If the cable must be supervised, an end-of-line resistor must be installed next to the last signaling device on the line as shown below.

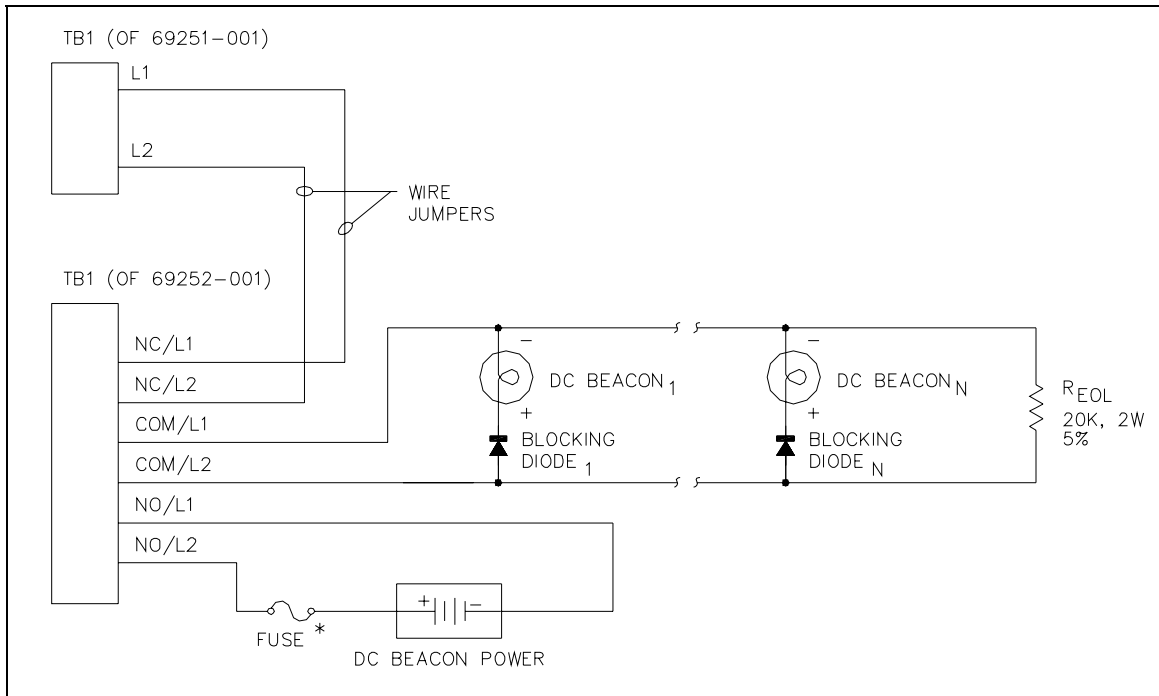


Figure 18. DC-Powered Beacons (supervised cable)

This mode can be used to control several ac or dc-powered signaling devices by switching power to the devices (dc shown in Figure 18). The cable is monitored for open circuits, wire-to-wire short circuits, and ground faults. The cable monitoring only occurs while the circuit is **inactive** (signaling devices are off).

When dc powered signaling devices are used, one blocking diode must be provided for each device. Some dc signaling devices already contain an internal blocking diode—in this case, no additional blocking diode is required. The end-of-line resistor is 20 K Ω , 2-watt, 5% tolerance. Observe all polarities as indicated in Figure 18. Refer to *Attaching Wires to Connecting Modules* on page 11.

NOTES:

- The blocking diodes, the wire jumpers, and resistor are not included but can be ordered separately as 12509-004 MRM End-of-Line Resistor Kit.
- The MRM does not contain any current-limiting for the signaling device power. An external fuse must be provided for each output circuit with the appropriate voltage and current ratings. The selected fuse should be of the Slo-Blo[®] variety. Also, cable conductor sizes must conform with load requirements set forth in all applicable code requirements.

Connecting Supervised Speaker Loops

Cabinets containing an Audio Distribution/Monitor Module (ADM) allow speaker cables to be supervised in central amplifier zones. Supervised means that the speaker cable is monitored for open circuit, short circuit and ground faults. Ground fault detection is only possible when using an amplifier with balanced output. Each speaker cable must be wired in a loop configuration as shown in Figure 19. Each ADM can supervise up to six speaker loops.

If the power amplifiers being used in the system provide *amplifier failure* contacts, the ADM can monitor the contacts. Each ADM can monitor up to six power amplifiers. Upon the ADM receiving an amplifier failure contact, a system trouble report is generated.

Speaker Loop Return Lines

A twisted pair cable from the last speaker must be returned to the control cabinet and routed to the speaker return terminal blocks on the ADM. Two terminals are provided for each line. Terminals are labeled with the speaker cable number. Refer to *Attaching Wires To Connecting Modules* on page 11.

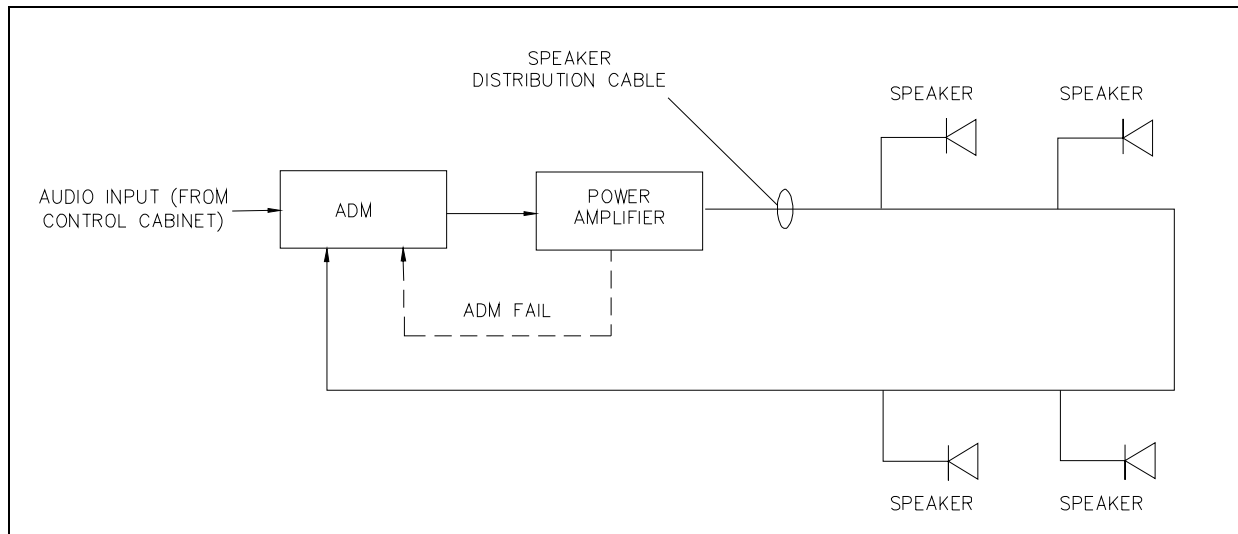


Figure 19. Supervised Speaker Loop Diagram

Connecting a Printer

A dot matrix line printer with continuous paper-feed (purchased separately) can be connected to the control cabinet. The parallel printer cable (purchased separately) is connected to the printer connector located on the rear of the card rack. Refer to the printer manual packaged with the printer for paper installation and other printer set-up options such as font type and character spacing.

Connecting a Telephone Line

A telephone interface may be provided with the control cabinet for the dial-up telephone access feature. If provided, the telephone cable should enter the cabinet and connect to the 2-point terminal block labeled TEL. LINE located either at the cabinet's termination panel or on the telephone interface.

NOTE: The incoming telephone line should be equipped with *calling party disconnect* feature to allow the phone line to be disconnected when the caller hangs-up the telephone.

Connecting Cabinet Power

⚠ NOTE ⚠ The initial application of ac power must be performed by a GAI-Tronics technician during system commissioning.

The control cabinet requires a 120 V ac power source. If the system is being used for emergency notification, an uninterruptible power source (UPS) is recommended.

The termination for the power conductors is located in rear of the cabinet. Refer to Figure 20 for the typical power terminal detail. Connect power conductors to the appropriate terminals using a 12 or 14 AWG wire. Refer to *Attaching Wires to Connecting Modules* on page 11.

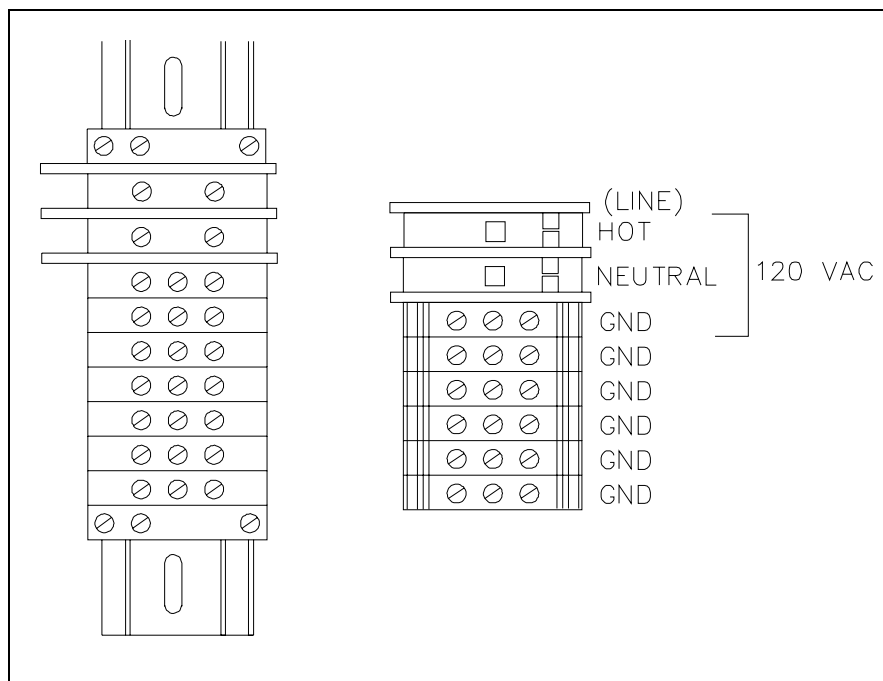


Figure 20. Typical Power Connection Detail

Typical Connection Diagrams

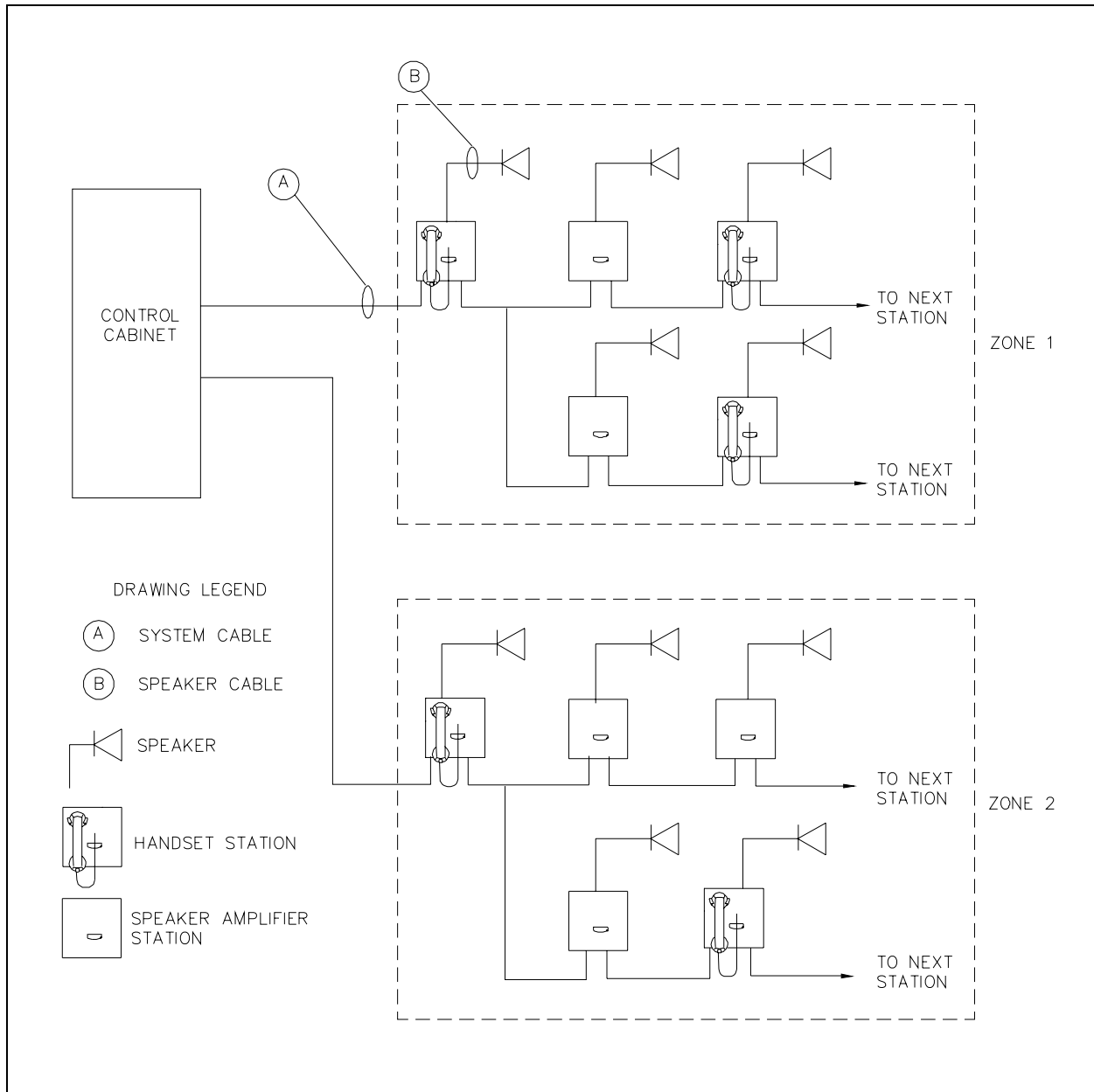


Figure 21. Typical Page/Party® Connection Diagram

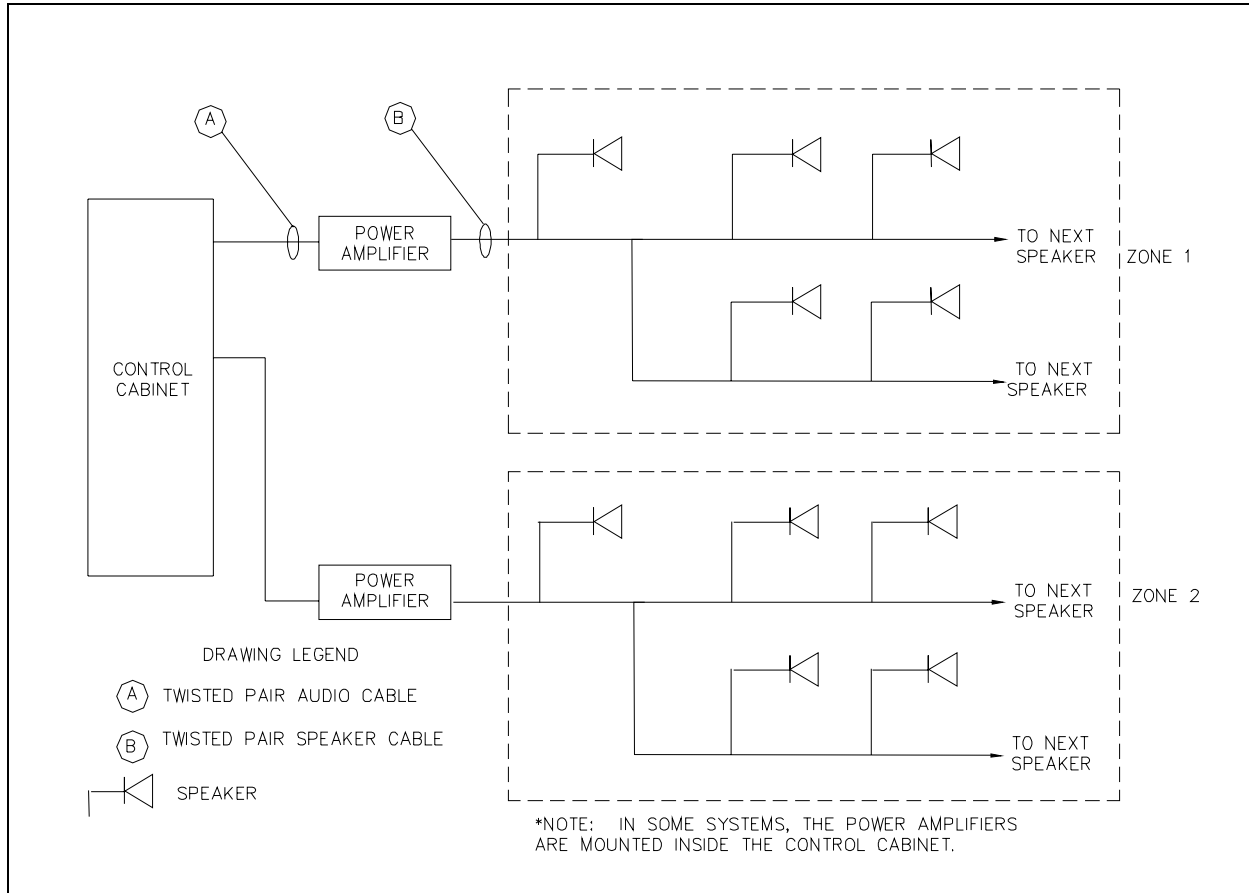


Figure 22. Typical Central Amplifier Zone Connection Diagram (Unsupervised Speaker Lines)

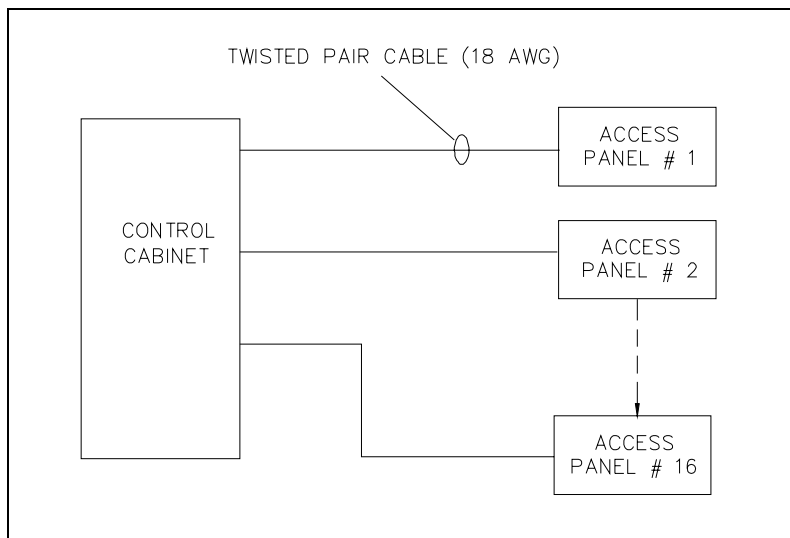




Figure 23. Typical Access Panel Connection Diagram

Plug-in Cards

 **WARNING**  **Remove power before inserting or removing the plug-in printed circuit boards. Failure to adhere to this warning will result in equipment damage and is not covered under warranty.**



Warning: Observe precautions for handling electrostatic sensitive devices.

The plug-in cards are factory installed in the card rack and should not require changes. Each board contains switch and jumper settings that must be correctly configured for system operation. The settings are made at system start-up by authorized GAI-Tronics technicians. Some or all of the following PCBAs may be supplied with the control cabinet:

Model Number	Description
69254-002, -003, -004, -005, -006	Master Control Unit (MCU)
69440-001	Master Control Unit (MCU)
69253-001	Audio Generator Interface (AGI)
69257-002, -003, -101	Access Panel Interface (API)
69268-001	Amplifier Zone Interface (AZI)
69255-001	Page/Party [®] Interface (PPI)
69439-001	External Audio Interface (EAI)
69320-101	Voice Network Adapter (VNA)

