

Voice Evacuation System

GV-MP Master Panel and

GV-DP Distributed Panel



Description

Gamewell's Voice Evacuation System is the solution for any project where voice evacuation is mandated for life safety emergencies. Voice evacuation is often required by local Authorities Having Jurisdiction (AHJs) in high-rise buildings and places of assembly for controlled building evacuation during a life safety event. Another important benefit of a voice evacuation system is alerting building occupants of imminent severe weather events such as tornadoes.

With a Gamewell voice evacuation system, building management or a building fire brigade can monitor evacuations when the alarm initially sounds. When the local fire department arrives on site, they can take command of building evacuation or occupant relocation during the emergency.

The Gamewell voice evacuation system has the capacity for up to six channels of digital audio for evacuation, stay-in-place, severe weather messages — or for other announcements. A total of four minutes of messaging is standard. Firefighter phones or warden stations may be included in the system as needed.

A basic Voice Evacuation System includes:

- Master panel (GV-MP, see *Ordering Information* for options).
- Master Microphone Control.
- 16 LED/switch control points (expandable to 1000 points).
- Dual-channel Digital Message Repeater (DMR).
- High-speed communications loop.
- Contact closure input for system activation by any Fire Alarm Control Panel (FACP).
- Distributed Voice Panel (up to 256 may be used).
- Four-output speaker zones (up to eight may be used).
- Single- or dual-channel audio interface.
- Single- or dual-channel amplification.
- Class A or B circuitry.
- Integrated fire phone (*optional*).
- Backup amplifier (*optional*).

The Gamewell Voice Evacuation System incorporates all the required features of an effective voice evacuation installation. Gamewell's voice system is custom-configured for each unique building's floor plan and the local AHJ requirements for a life-safety voice evacuation system. Contact Gamewell Customer

Features

- True multiplexed six-channel distributed audio.
- Integrated fire phone and paging.
- Modular system — components added as needed, either at initial installation or during remote expansion.
- Integrated two-channel digital message receiver.
- Live microphone page to any zone.
- Fully supervised.
- Natural-sound voice recordings.
- Built-in alarm and alert signals.
- Up to four minute message capacity.
- Works with 12 VDC or 24 VDC FACP.
- Three-minute message restart on microphone key.
- All control and audio data on a single high-speed communications loop.

Listings

Listings and approvals below apply to the basic GV-MP and GV-DP panels. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- UL Listed: file S521.
- MEA approved: file 277-96-E.
- CSFM approved: file 6911-1288:161.

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Service to request a blank GV Configuration Worksheet, or visit the Gamewell ESD website to download an electronic copy.

Architectural/Engineering Specifications

The voice evacuation system shall be Gamewell Voice Evacuation System. The Gamewell voice evacuation system shall include one Master Panel and one or more Distributed Panels. The system shall be microprocessor based, and shall be compatible for use with EIA-485 Fire Panel Communications Protocol or contact closures from the Fire Alarm Control Panel (FACP). The system shall have a high-speed, one-megabaud communication bus and have the capacity for six channels of audio and data on a single pair of wires. The field wiring for the communication bus may be configured for either Style 4 or Style 7 supervision. The system shall have the capacity for Fire Fighters Phone and Area & Rescue. The system shall have a minimum capacity of 2028 monitor and control points.

The Master Panel shall contain an integral microphone, dual-channel digital message repeater (DMR) and digital tone generator, 120 VAC power supply, and battery charger. The system shall be modular in design, and shall be expandable such that additional system control points may be configured. The system shall include integral self-diagnostic routines that shall continually monitor system status, and shall indicate the precise type of trouble conditions should they occur in the system. A trouble condition within the system shall cause a trouble indication to be transmitted to the FACP.

Distributed panels shall provide a minimum of four Class B speaker circuits, expandable to eight total. Alternately, panel may be configured for up to four Class A speaker circuits. Panel may be configured for one to eight amplifiers. Panel must provide up to six simultaneous audio channels and up to 12 Fire Phone circuits. Amplifiers will contain their own power supplies, battery chargers, and provide auxiliary power for other components. Speaker circuits shall be supervised for short- and open-circuit conditions, and shall be able to withstand transient or continuous short-circuit conditions without damage to the system.

The system may be configured for General Alarm All-Call operation, Alarm-by-Zone, or Floor Above/Floor Below as required. Contact closures or Intelligent Interface alarm signal shall allow immediate broadcast of an alarm signal and evacuation message to the appropriate area. Non-alarm areas may receive alert tones and messages as required or activated by the FACP. The alarm signal/evacuation message shall be broadcast until the FACP is reset, or until emergency personnel interrupt the broadcast with a manual page.

To prevent unauthorized tampering, the voice evacuation system shall disable the microphone if the microphone is keyed continuously for three minutes or more. Systems that do not have this feature shall not be acceptable.

The system shall be Gamewell GV-MP and GV-DP Voice Evacuation System.

Specifications

GV-MP Master Panel

Primary power: 120 VAC, 24 VDC battery power.

Electrical ratings: all circuits rated at 24 VDC.

Communications bus: EIA-485 standard, 1Mbaud data rate, Category 5 cable.

Voltage: 5 V peak-to-peak maximum.

Current: 50 mA maximum.

Impedance: 120 ohms (maximum impedance between panels).

Frequency: 1.024 MHz.

Backbox: Red, 27.0" H x 14.5" W x 4" D (cm: 68.58 H x 36.83 W x 10.16 D).

MASTER PANEL OPTIONS		
	Standby	Alarm
GV-DCC	80 mA	80 mA
GV-ASC	30 mA	30 mA
GV-MFP	10 mA	10 mA
GV-SSC	25 mA	25 mA
GV-SLC	6 mA	6 mA
GV-MMC	45 mA	45 mA
GV-IOI	20 mA	20 mA

GV-DP Distributed Panel

Primary power: 120 VAC, 24 VDC battery power.

Electrical ratings: all circuits rated at 24 VDC.

Communications bus: EIA-485 standard, 1Mbaud data rate, Category 5 cable.

Voltage: 5 V peak-to-peak maximum.

Current: 50 mA maximum.

Impedance: 120 ohms (maximum impedance between panels).

Frequency: 1.024 MHz.

Battery charging: maximum charging current from EVX-25/50/100 is 800 mA. Maximum battery size is 17 AH.

Backbox: Red, 27.0" H x 14.5" W x 4" D (cm: 68.58 H x 36.83 W x 10.16 D).

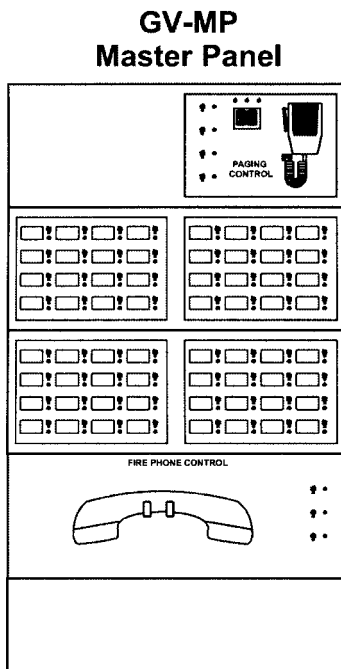
DISTRIBUTED PANEL OPTIONS		
	Standby	Alarm
GV-DCC	55 mA	55 mA
GV-MBR	10 mA	55 mA
GV-AMI	10 mA	10 mA
GV-FPI	13 mA	13 mA

Gamewell GV-MP, GV-DP True Multiplexed System Capabilities

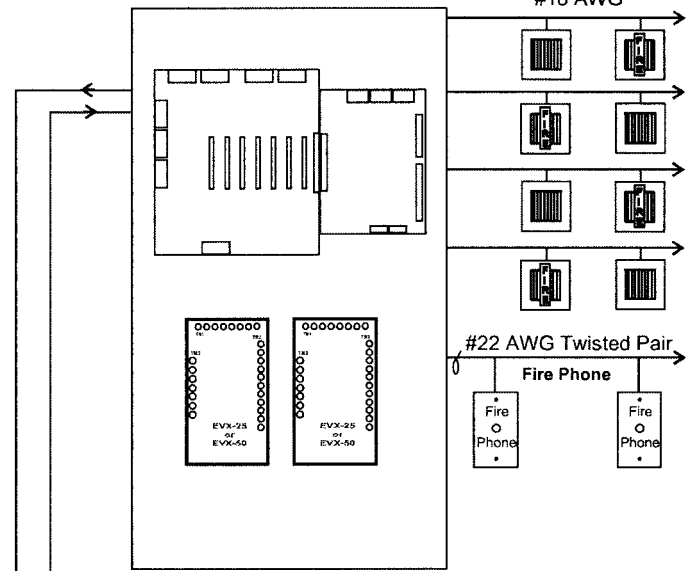
NetComm Loop:

- Twisted pair, Category 5.
- 4,000 ft. (121.92 m) between panels.
- 50,000 ft. (15.24 km) total system loop.
- Data and six audio channels simultaneously.
- High-speed EIA-485 communications.
- Style 4 or Style 7 field-selectable.

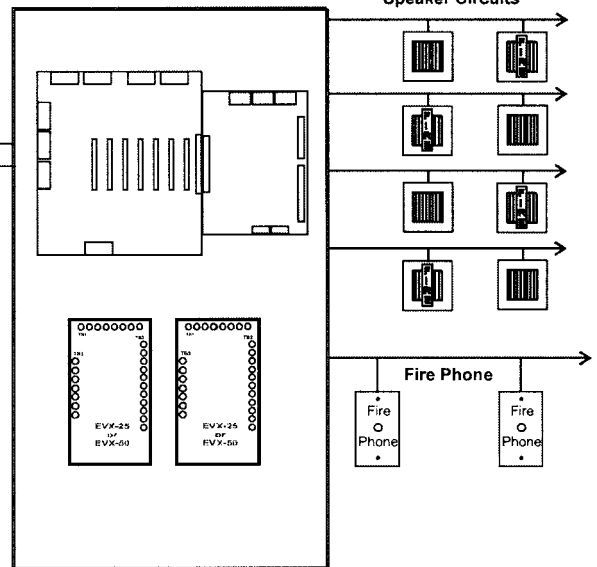
Head End Control



GV-DP Distributed Panel

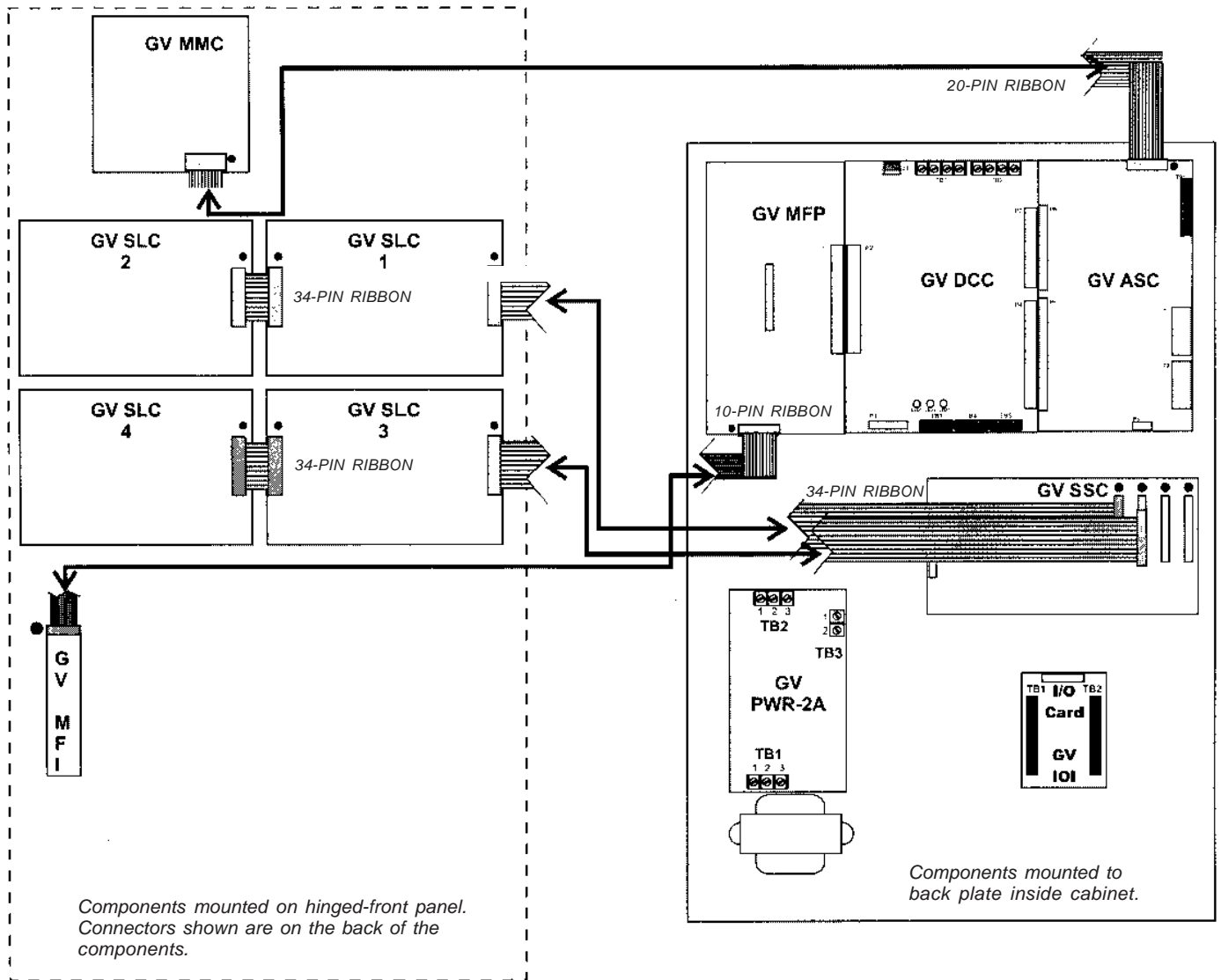


GV-DP Distributed Panel

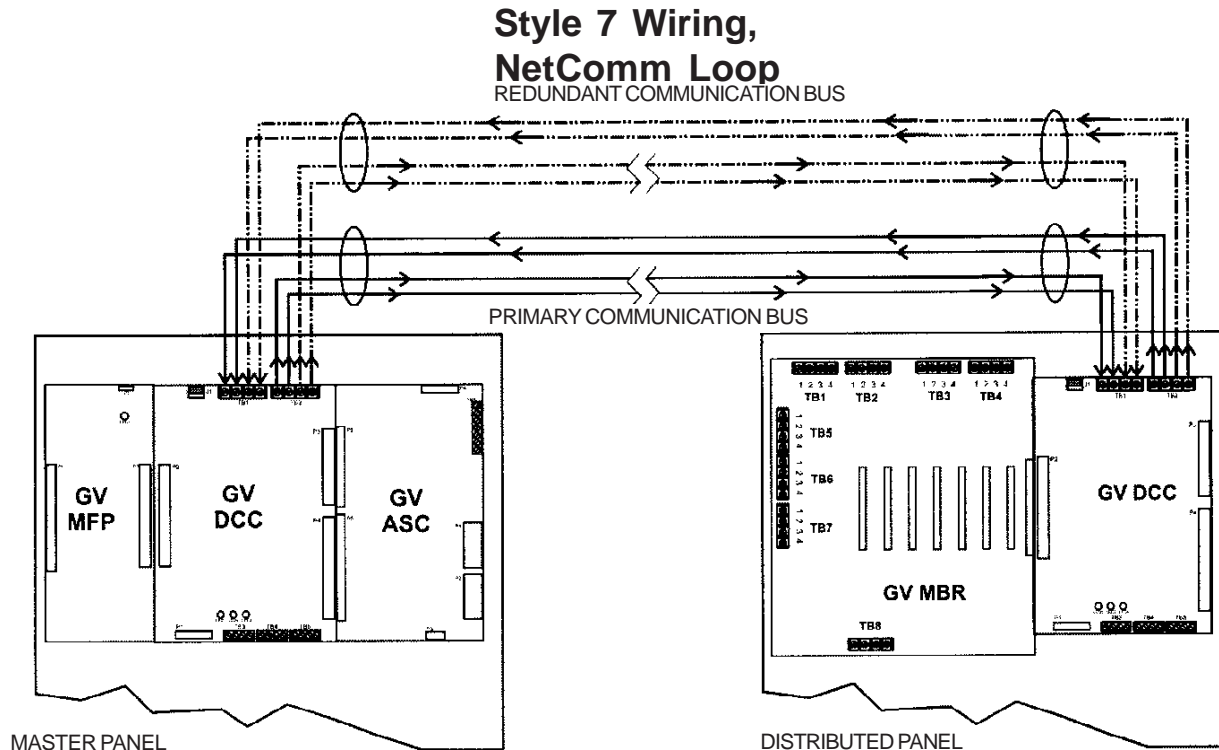
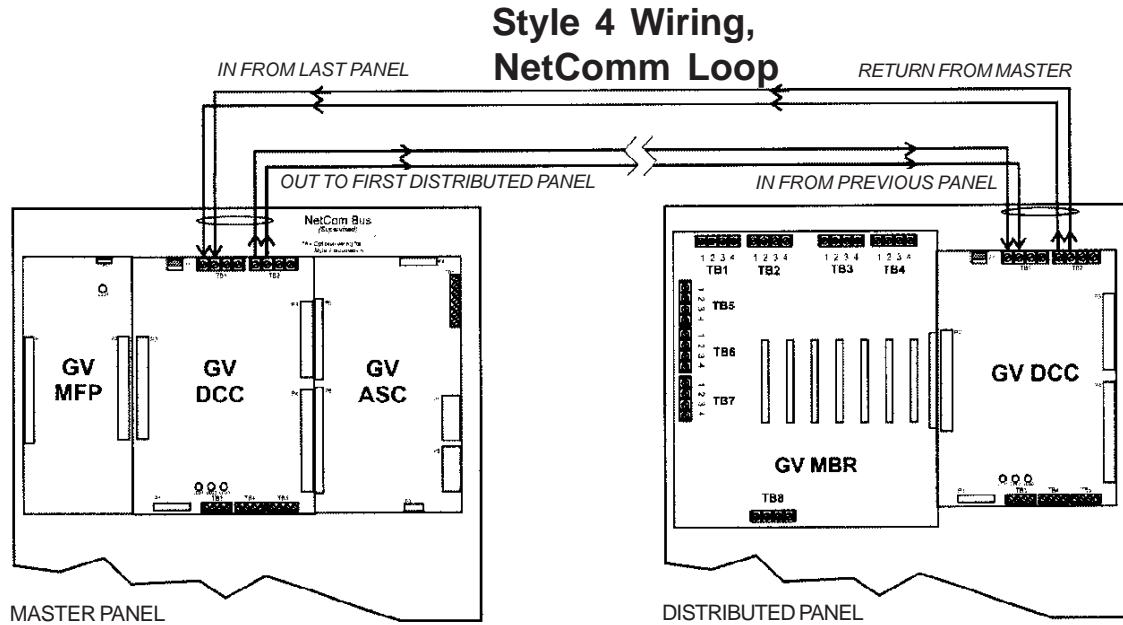


Master Panel Layout

GV-MP64P shown

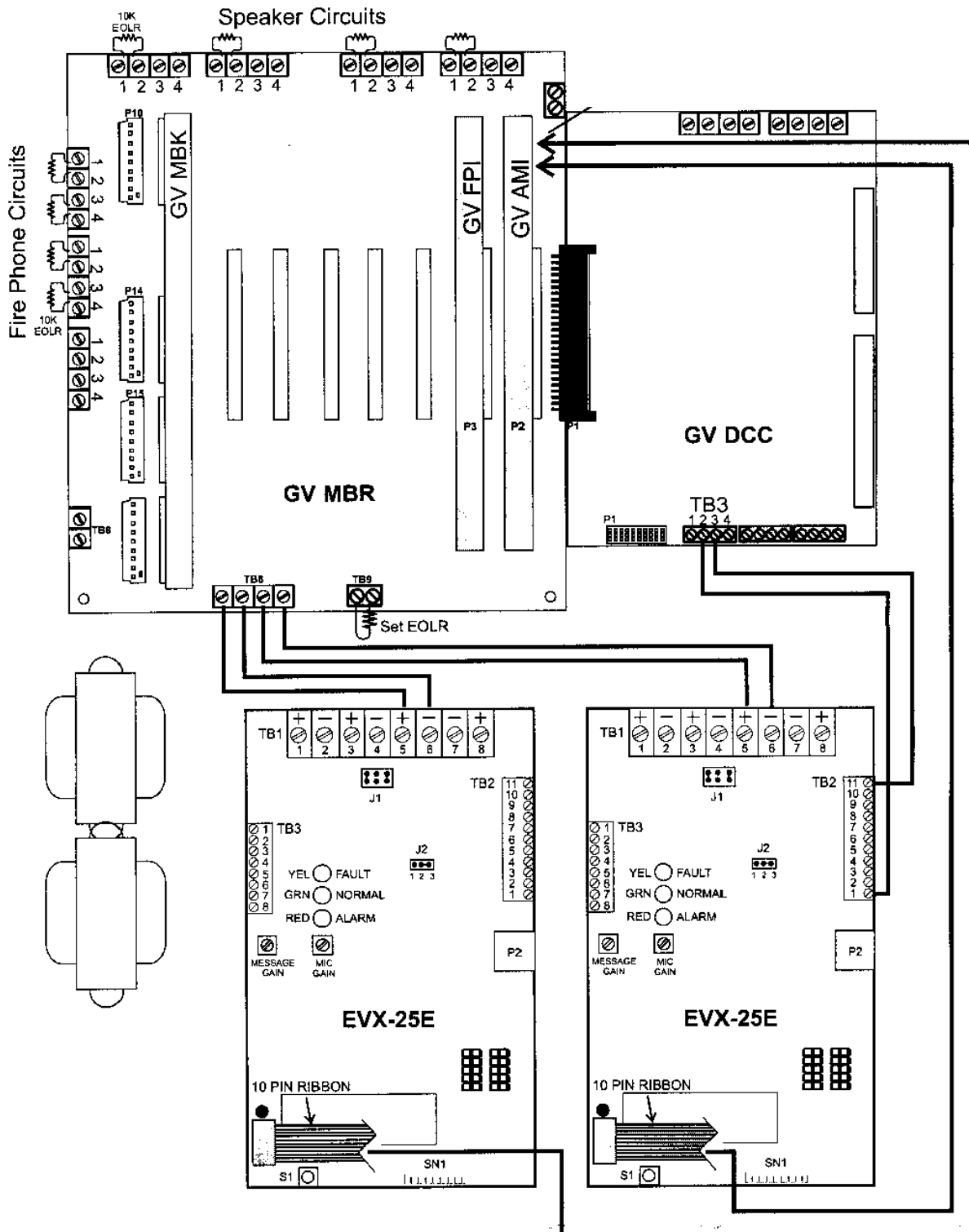


Typical Wiring, Master Panel to Distributed Panel

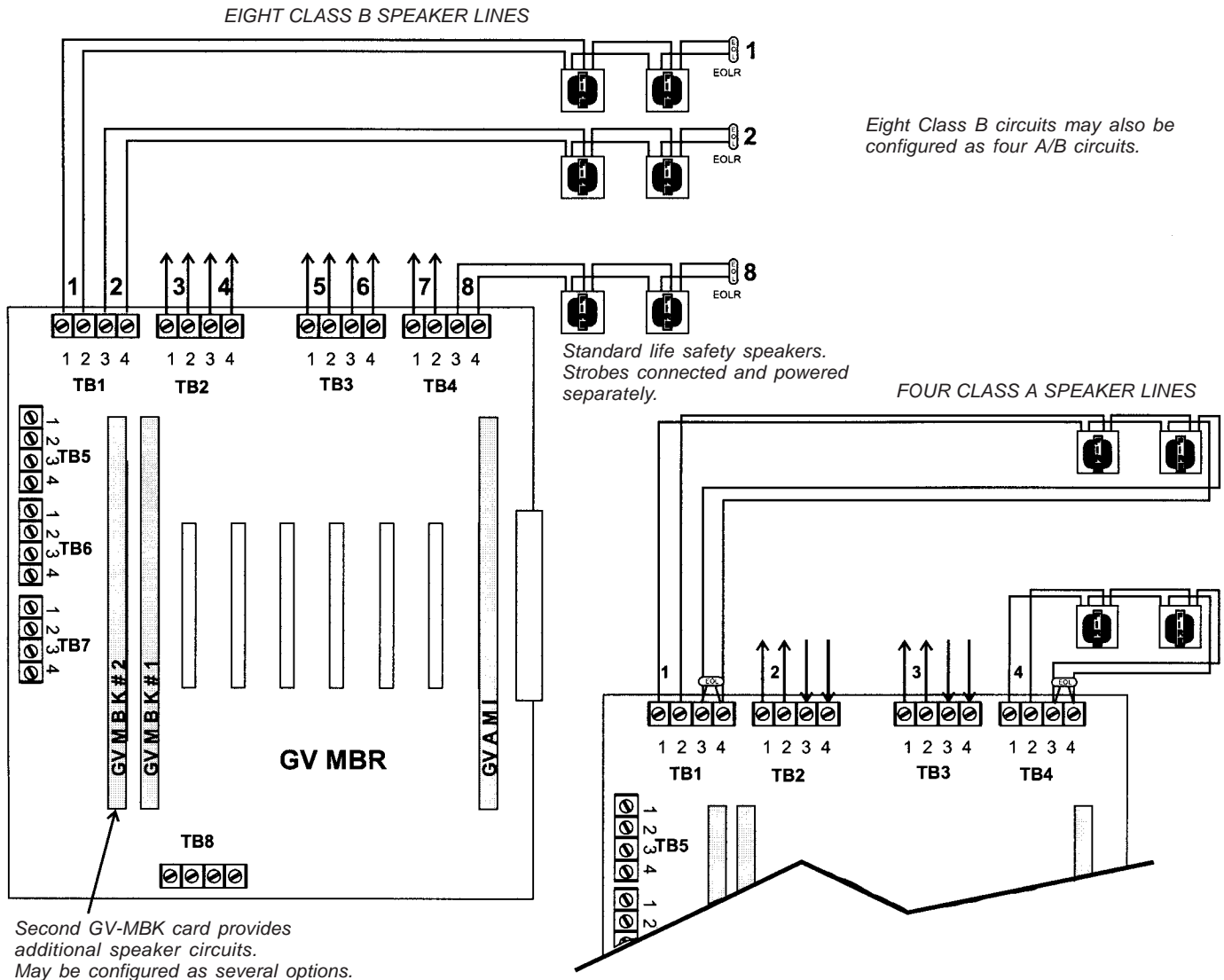


GV-DP Distributed Panel Connection Detail

GV-DPD25P shown



GV-DP Distributed Panel, Typical Speaker Wiring



Ordering Information

Master Panel Configurations

GV-MP16	Master panel, 16-switch control.
GV-MP32	Master panel, 32-switch control.
GV-MP48	Master panel, 48-switch control.
GV-MP64	Master panel, 64-switch control.
GV-MP80	Master panel, 80-switch control.
GV-MP96	Master panel, 96-switch control.
GV-MP112	Master panel, 112-switch control.
GV-MP128	Master panel, 128-switch control.
GV-MP144	Master panel, 144-switch control.
GV-MP16P	Master panel, 16-switch control, master fire phone.
GV-MP32P	Master panel, 32-switch control, master fire phone.
GV-MP48P	Master panel, 48-switch control, master fire phone.
GV-MP64P	Master panel, 64-switch control, master fire phone.
GV-MP80P	Master panel, 80-switch control, master fire phone.
GV-MP96P	Master panel, 96-switch control, master fire phone.
GV-MP112P	Master panel, 112-switch control, master fire phone.
GV-MP128P	Master panel, 128-switch control, master fire phone, dual cabinets.

Master Panel Options

Cards may be added as job requirements demand.

GV-MFP	Master fire phone. Enables system to incorporate two-way communication. Included with “P” panels.
GV-SSC	Switch scan card. Included in basic panels; up to seven additional cards may be added.
GV-SLC	Switch LED card. 16-LED switch-bank card, up to eight per GV-SSC.
GV-IIC	Audio module interface card. 16-FACP input card, provides hard-wire interface to FACP. Maximum of eight, or 128 points.
GV-OI	Output interface card. 16-FACP output card (128 points maximum). Custom messages available, please contact factory.

Ordering Information

Distributed Panel Configurations

GV-DPS25	Distributed panel, single channel, 25 W.
GV-DPS50	Distributed panel, single channel, 50 W.
GV-DPS100	Distributed panel, single channel, 100 W.
GV-DPS25P	Distributed panel, single channel, 25 W, fire phone.
GV-DPS50P	Distributed panel, single channel, 50 W, fire phone.
GV-DPS100P	Distributed panel, single channel, 100 W, fire phone.
GV-DPD25	Distributed panel, dual channel, 25 W.
GV-DPD50	Distributed panel, dual channel, 50 W.
GV-DPD100	Distributed panel, dual channel, 100 W.
GV-DPD25P	Distributed panel, dual channel, 25 W, fire phone.
GV-DPD50P	Distributed panel, dual channel, 50 W, fire phone.
GV-DPD100P	Distributed panel, dual channel, 100 W, fire phone.

Distributed Panel Options

Cards may be added as job requirements demand.

GV-MBK	Motherboard relay card. Expands distributed panel output to eight Class B or four Class A circuits.
GV-FPI	Fire phone interface card. Included in "P" panels; up to two additional cards may be added.
GV-FPO	Fire phone output card. Use with second and third GV-FPIs within distributed panel to terminate FFP circuits.
GV-AMI	Audio module interface card. Included with basic panel; additional cards provide the ability to control multiple modules or accommodate full six-channel operation. One additional GV-AMI required for dual-channel redundant amplification.
GV-BA	Amplifier switching relay. One is used with each distributed panel amplifier for automatic switching-in of redundant amplification.
GV-BRK	Breakout card. Two required when redundant amplification is desired.



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