

## Audio Alert Voice Evacuation System

### Features

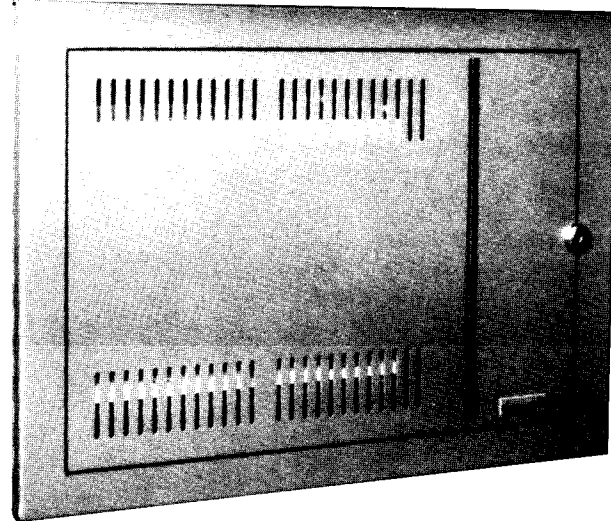
- Combines Fire alarm and Public Address functions into one common panel.
- Penetrating slow-whoop alarm signal.
- Crystal clear, high intelligibility voice override – Microphone can be used with or without alarm condition.
- Compatible with 24V Fire Alarm Control Panels – Simple 6-Wire hookup.
- Fully supervised and U.L. Listed.
- Class A or B speaker wiring.
- 25VRMS, optional 70.7VRMS signaling voltage.
- 20 Watt tone and paging amplifier – Expandable for multi-zone or multi-signal applications.
- Rugged and reliable – Current limiting protects amplifier even when shorted.
- Battery backup from Fire Alarm Panel.
- Battery Saver Circuit reduces current to 4mA standby on batteries.

### Description

The Gamewell Audio Alert System provides a slow whoop evacuation alarm signal and voice transmission over the system speakers. It is connected to a conventional 24VDC Fire Alarm Panel.

Speaker line, tone generator and amplifier are continuously supervised with trouble conditions automatically indicated by the Fire Alarm Panel.

High reliability state-of-the-art circuits allow continued operation even under severe fault conditions. Amplifier is protected



against open circuit, overload or output short circuit, over voltages and excessive temperature. The system microphone automatically overrides alarm signal or can be used for announcements without activating the alarm signal.

For complex multi-zone or multi-signal applications, the Audio Alert can easily be configured using additional 20 Watt amplifier modules. Up to 40 modules maximum can be paralleled to the system microphone for additional speaker circuits or higher output power.

In addition, multiple remote microphones connected up to 5000 feet from the Audio Alert panel can be used for public address announcements, paging and automatically disconnected during an alarm condition.

### Operation

In normal quiescent condition, all the Fire Alarm System functions, switches and status indicators operate as normal, and the Audio Alert is fully supervised. When the amplifier is used in conjunction with a remote paging microphone Model GW-360-2, the Audio Alert system can be used for day-to-day public address announcements and is automatically disabled during an alarm condition. During an alarm

condition a slow whoop signal is used for evacuation. The system microphone overrides the alarm signal or can be used for paging in non-alarm condition.

### Application

With the Gamewell Audio Alert System it is possible to use and fully supervise bells, horns, horn/strobe combinations and speakers in the same installations using two alternatives:

- A. Connect bells and horns to one bell circuit and the amplifier module to a second bell circuit.
- B. Connect bells and horns to the same bell circuit as the Audio Alert. In this application, the bells are wired ahead of the amplifier module input and the bell circuit E.O.L. resistor is installed at the end of the speaker line.

### Engineer's Specification

The required system shall provide an Evacuation Alarm Signal and Voice Transmission over the system speakers. All equipment shall be U.L. listed. The system shall be a Gamewell Audio Alert Voice Evacuation Alarm integrated with a 24VDC Fire Alarm Panel. Speaker lines shall be (Select one): 25VRMS, 70.7VRMS and

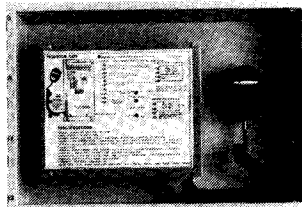
supervised for open or short circuit. Speakers shall be Gamewell U.L. Listed Fire Protective Signaling speakers.

1. Amplifier, Signal Generator, Power Supply, Output Transformer and Speaker Lines shall be continuously supervised for normal operation, open or short circuit and ground fault
2. Amplifier shall be capable of withstanding a continuous output short circuit with alarm tone sounding without failure, fusing or shutdown.
3. System shall be operable for Non-Emergency Public address announcements without an Alarm condition.
4. The system shall have provision for connection of GW-526-2 U.L. listed Remote Microphone Stations, which shall be automatically disconnected from system upon alarm activation.
5. A Battery Saver Circuit shall reduce standby current on the Amplifier Module to 0.005 Ampere or less during 120VAC power failure.
6. Speaker Line Output shall include provision for Class A or Class B supervised speaker wiring.
7. Amplifier shall be specifically designed for High-Intelligibility Speech Reproduction and Fire Evacuation Signaling.
8. DC Current Consumption shall be a maximum of 1.2 Amperes with a 20 Watt RMS load with Alarm Sounding.
9. Protection Circuitry shall be included to prevent failure due to overloading, overheating, speaker line short circuit, over voltage, and polarity reversal. Automatic current limiting shall keep circuitry within safe operating limits, without shutdown.

**Pre-Recorded Message**

The GW-360-M1-DMR forms a complete voice evacuation system that provides voice paging, a "slow Whoop" alarm and pre-recorded message playback.

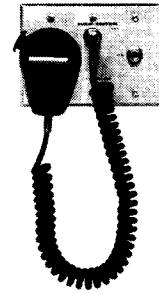
Upon activation, the DMR will pause 10 seconds to allow the "slow Whoop" signal to be heard, then play back the pre-recorded message three times and return to the "slow Whoop" signal. Timing and repetitions may be field programmed.



**Accessories**

**GW-562-2 Audio Control (UL Listed)**

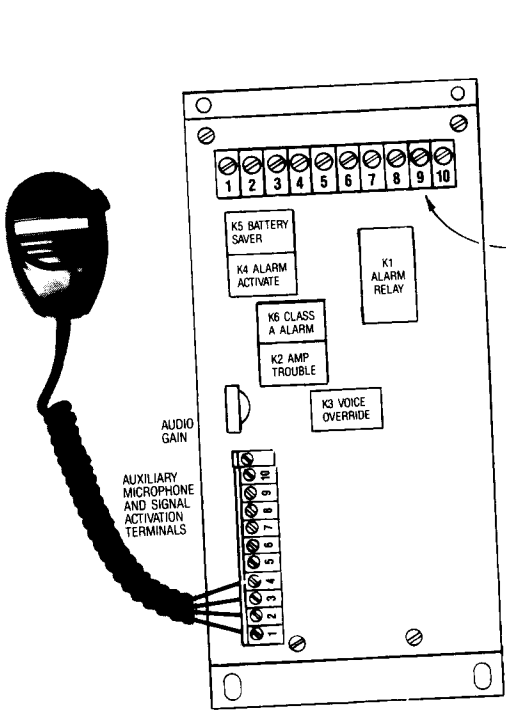
- Operates as a Remote Paging Microphone with Audio Alert Voice Evacuation Alarm. Can be used for day-to-day paging, and automatically disabled during alarm condition.
- Attractive stainless steel microphone station with gain control, key access switch, plug-in microphone and hanger bracket. Dual on-board amplifiers provide high output signal to eliminate hum and noise even when miles of wire are used.
- Unique design permits the use of an almost unlimited number of microphones, connected in parallel with 4-conductor shielded cable. (#20AWG).



Possible # of Zones	Total Speaker Wattage	Recommended Equipment
1	20 Watt	GW-360-M1
2	40 Watt	GW-360-M2
3	60 Watt	GW-360-M2 plus GW-360-1
4	80 Watt	GW-360-M2 plus GW-360-2
5	100 Watt	GW-360-M2 plus GW-360-3

**Technical Specifications**

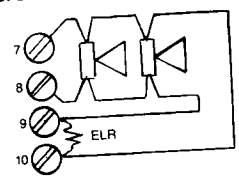
Power Output::	20 Watts RMS per Module
Audible Signaling Voltage:	25 VRMS (70 VRMS optional)
Microphone:	Low impedance dynamic with push-to-talk switch.
Supervision:	Amplifier, tone generator, power supply, output transformer, and speaker lines continuously supervised. Ground Fault detection.
Power Input:	24 – 40 VDC, unfiltered, full wave rectified from Fire Alarm Panel.
Current Drain (24 VDC Supply):	0.2 Amp Quiescent 0.004 Amp stand-by on battery 1.2 Amp maximum alarm
Current Drain (Bell Circuit):	0.025Amp
Alarm Activation:	Alarm will sound when bell circuit activates. Auxiliary terminals supplied for manual or zone activation.
Frequency Response:	400 – 4000 Hz.
Alarm Tone:	Slow Whoop (Optional Horn, Hi-Lo, March Time, Wail, Yelp, Beep).
Protection:	Overload, Polarity Reverse, Open/Short Circuit. Automatic current limiting.
Dimensions:	Cabinet – 20"W x 14"H x 4"D Amplifier Module – 5"W x 9"H x 3"D



**FIRE ALARM PANEL CONNECTIONS:**

- 1 120 VAC 60 Hz @ 0.03 amp for Battery saver. Connect to same Branch circuit as Fire Alarm Control Panel. Supervised.
- 2
- 3 + 24 VDC Power @ 1.2 Amp Max. (0.006 A stand-by on Battery) Supervised.
- 4 -
- 5 + Bell Circuit 0.025 Amp. (Alarm Polarity Shown) Supervised.
- 6 -
- 7 - Speaker Output 20 Watt RMS (see Dia. at right) Supervised.
- 8 +
- 9 + Class "A" Speaker Output Supervised
- 10 -

**SUPERVISED CLASS A OPERATION**

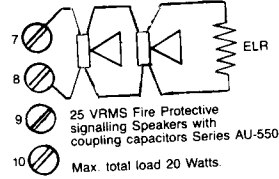


End of Line Resistor: Use ELR supplied by Control Unit Manufacturer for Bell Circuit

**AUXILIARY MICROPHONE CONNECTIONS:**

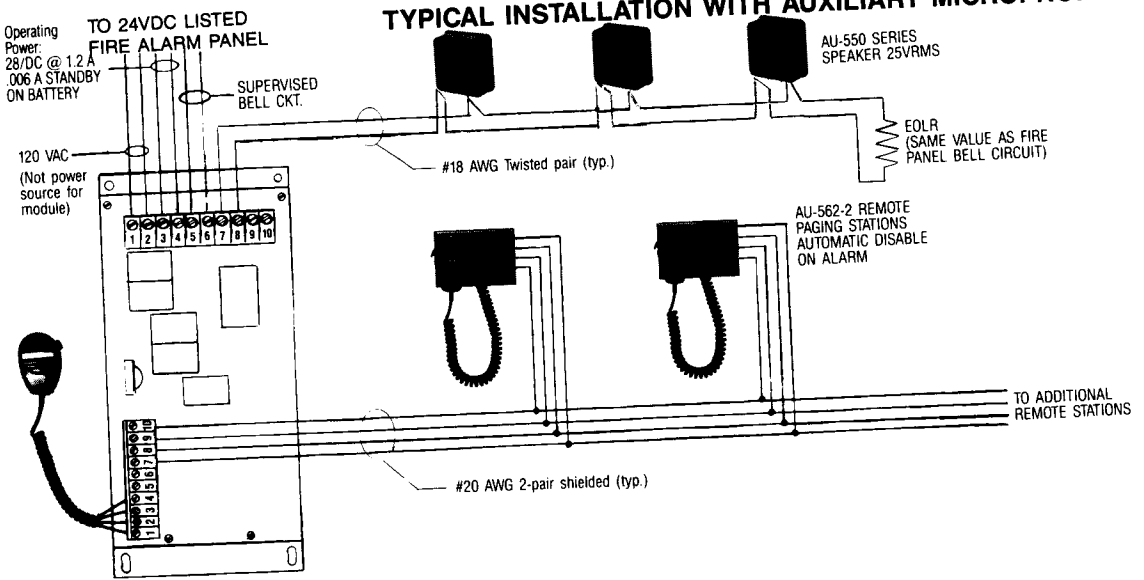
- 1. Black
- 2. White
- 3. Red
- 4. Green
- 5. Signal Activate
- 6. Non-interrupted +24V
- 7. Audio-in Remote
- 8. Negative
- 9. Push-to-Talk
- 10. Interrupted +24V
- 11. Mic. Preamp Output

**SUPERVISED CLASS B OPERATION**



25 VRMS Fire Protective signalling Speakers with coupling capacitors Series AU-550. Max. total load 20 Watts.

**TYPICAL INSTALLATION WITH AUXILIARY MICROPHONE**



Ordering Information

Supplied	Part No.	Model	Audio Alert Description
---	70216	GW-360-M1	One 20 Watt Module and Microphone Mounted in enclosure - 25VRMS
---	70218	GW-367-M1	One 20 Watt Module and Microphone Mounted in enclosure - 70VRMS
---	70220	GW-360-M2	Two 20 Watt Modules and Microphone Mounted in enclosure - 25 VRMS
---	70222	GW-367-M2	Two 20 Watt Modules and Microphone Mounted in enclosure - 70 VRMS
---	70224	GW-360-1	One 20 Watt Module Mounted in Enclosure - 25VRMS
---	70226	GW-367-1	One 20 Watt Module Mounted in Enclosure - 70VRMS
---	70228	GW-360-2	Two 20 Watt Modules Mounted in Enclosure - 25VRMS
---	70230	GW-367-2	Two 20 Watt Modules Mounted in Enclosure - 70VRMS
---	70232	GW-360-3	Three 20 Watt Modules Mounted in Enclosure - 25VRMS
---	70234	GW-367-3	Three 20 Watt Modules Mounted in Enclosure - 70VRMS
---	70236	GW-360-E	One 20 Watt Module Extender Only - 25VRMS
---	70237	GW-367-E	One 20 Watt Module Extender Only - 70VRMS
---	70238	GW-562-2	Remote Paging Microphone with Key Access
---	70948	GW-360-M1-DMR	One 20 Watt Module with Digital Message Repeater and Microphone Mounted in Enclosure - 25VRMS
---	70949	GW-367-M1-DMR	One 20 Watt Module with Digital Message Repeater and Microphone Mounted in Enclosure - 70VRMS
---	70956	GW-DMR-1	One Digital Message Repeatert Module
---	70946	GW-360-EM	One 20 Watt Module with Microphone - 25VRMS
---	70947	GW-367-EM	One 20 Watt Module with Microphone - 70VRMS
---	30858	Chassis-300	Chassis for mounting up to 3 modules and one microphone on one (1) row of FlexAlarm Cabinet.
---	30857	Chassis-400	Chassis for mounting up to 3 modules and one microphone on two (2) rows of Zans-400-01 or RSP-01.
---	71389		4 Circuit Splitter for Audio Alert
---	71390		8 Circuit Splitter for Audio Alert



Ten Forge Park  
 Franklin, Massachusetts 02038  
 (508) 520-1684 FAX (508) 520-1683

Data and design subject to change. Supply subject to availability GW 10/95 (revised) Printed in U.S.A.

U.L. Listed

firealarmresources.com