

Fire Alarm Audio Notification System

ANS Series



*Shown with
keylock door removed.*

Overview

The ANS series of products from Edwards are high-performance audio notification systems that provide voice evacuation capability that meet the Emergency Voice Alarm requirements of NFPA 72 for UL listed fire alarm applications. ANS panels, which are available in 25, 50, or 100 Watt models, include an amplifier, tone generator, digital message repeater (DMR), and supervisory interface.

These self-contained systems offer robust field-configurable features and are supported by a wide range of accessory equipment that provides application flexibility and reliable performance for new and retrofit installations alike.

Expander panels and modules extend the range of the ANS system to meet the needs of even the most demanding audio applications, while accessory equipment such as zone switchers and remote microphones offer the sophistication of high-end systems for a relatively low cost.

ANS systems are ideal for use with Edwards QuickStart® and FireShield® fire alarm control panels when emergency voice alarm service is required. All ANS systems are compatible with EST's award-winning Genesis® line of field-configurable speakers and speaker-strobes, which provide a clean, attractive appearance for any voice audio application.

Standard Features

- Meets NFPA 72 Emergency Voice Alarm requirements
- Clean dead-front construction
- Integrated digital message repeater
- Four minute message capacity
- 25, 50, or 100 Watt models available
- Field selectable for either 25 or 70 Vrms speakers
- 120 VAC power supply and battery charger included
- Paging microphone overrides message and tone
- High reliability, low maintenance
- Fully supervised, UL listed
- Easy installation, operation, and configuration
- Built-in alarm and alert signals
- Compatible with QuickStart and FireShield control panels
- 24 hour backup with two 12 V, 7 AH batteries

Application

National fire codes require voice evacuation systems in places of assembly with over 300-person occupancy, in theatres with more than one screen, and in buildings seven stories or higher. ANS Series Audio Notification Systems represent an effective and efficient solution for meeting these requirements.

ANS systems are ideal for new applications with fire control panels that do not provide integrated audio functions. These audio systems also provide the opportunity to add voice evacuation capability to existing fire alarm applications without replacing existing fire alarm control equipment.

The fire alarm control panel works in concert with the ANS audio system, providing all initiating circuitry and a signaling circuit that connects to the ANS. The ANS provides its own internal supervision as well as supervision for its speaker lines.

Faults are reported back to the fire alarm control panel by means of a supervisory circuit, which is connected to a matching EOLR

on the ANS. Internal failures and speaker line faults open a contact, which the fire alarm control panel reports as an open fault on the supervisory circuit.

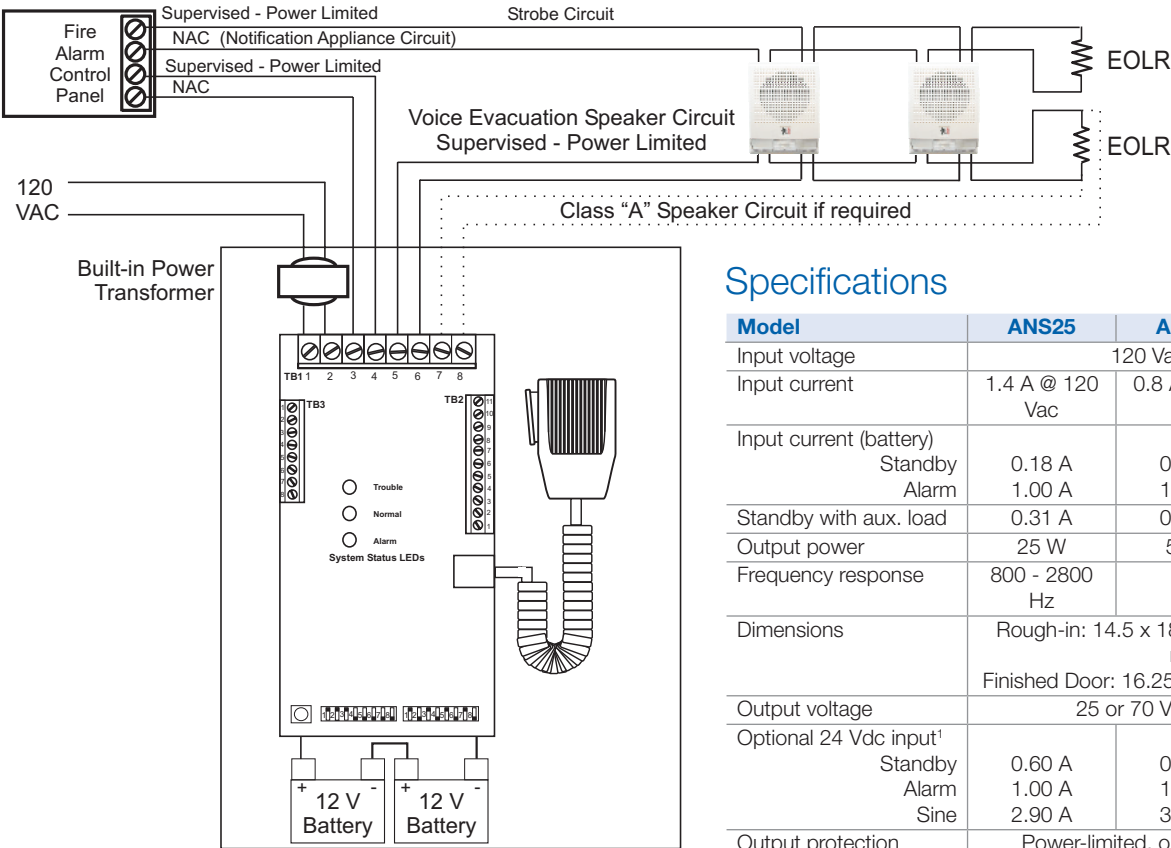
A digital message repeater (DMR) is built into all ANS systems unless ordered without the DMR. The selection from eight available alarm tones, automatic message repeats, AC fault report delay, and connected equipment settings are all field-configurable.

The paging microphone is an integral component of the audio notification system. Removal of the microphone from the panel will cause a Trouble condition. This is reported locally, as well as through the fire alarm control panel.

All ANS panels include a 120 V, 60 Hz supply (standby batteries are required). Optionally, ANS panels can be powered with 24vdc from the fire alarm control panel or a booster power supply. Where speaker-strobes are used, strobe power is provided by the fire alarm control panel or a booster power supply.

Typical Wiring

ANS 25, 50, 100



Standard Message - 15 Seconds

"Attention Please, there has been a report of an emergency. Proceed calmly to the nearest exit and leave the building immediately. Do not use the elevators, use stairwells where necessary. All hand-capped occupants shall use the building evacuation plan."

Specifications

Model	ANS25	ANS50	ANS100
Input voltage	120 Vac at 60 Hz		
Input current	1.4 A @ 120 Vac	0.8 A @ 120 Vac	2.0 A @ 120 Vac
Input current (battery)			
Standby	0.18 A	0.13 A	0.18 A
Alarm	1.00 A	1.00 A	2.50 A
Standby with aux. load	0.31 A	0.26 A	0.85 A
Output power	25 W	50 W	100 W
Frequency response	800 - 2800 Hz	400 - 4000 Hz	
Dimensions	Rough-in: 14.5 x 18 x 4" (368 x 457 x 102 mm) Finished Door: 16.25 x 19.5" (413 x 495 mm)		
Output voltage	25 or 70 Vrms selectable		
Optional 24 Vdc input ¹			
Standby	0.60 A	0.60 A	0.60 A
Alarm	1.00 A	1.00 A	2.60 A
Sine	2.90 A	3.40 A	6.50 A
Output protection	Power-limited, open and short circuit protected		
Battery size			
Minimum	24 V, 7 Ah	24 V, 7 Ah	24 V, 7 Ah
Maximum	24 V, 18 Ah	24 V, 18 Ah	24 V, 24 Ah
FACP NAC circuit current	10 mA maximum		

¹ Input current measurements are determined using test conditions specified in UL 1711. Sine represents measurements made while the unit produces a continuous, undistorted sine wave of 1 kHz into the rated load of 25, 50, or 100 W at the rated output voltage. Alarm is the average current the unit experiences delivering an alarm signal, temporal whoop, to the rated load. Standby is the current draw of the unit with all normal power on and auxiliary terminals fully loaded. Battery standby is the current draw from the batteries on loss of power in an otherwise normal standby state.

Accessory Equipment

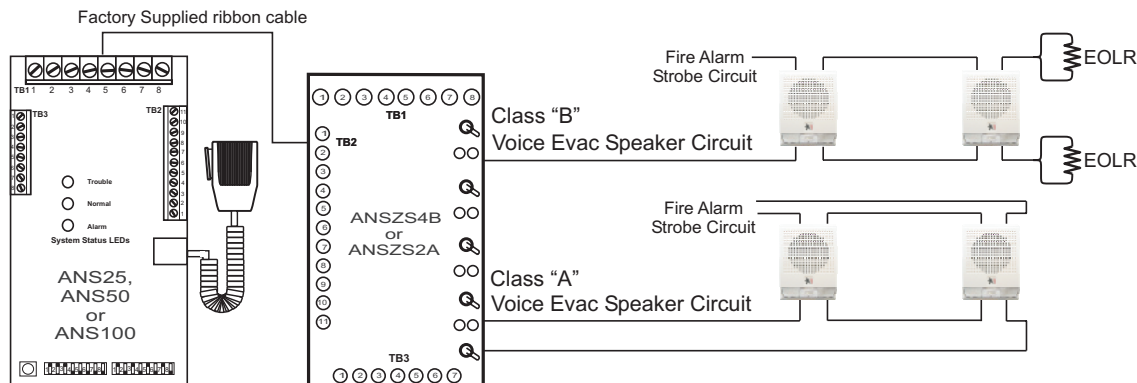
Zone Splitters



ANSZS4B (4-zone) and ANSZS2A (2-zone) Zone Splitters allow the output of any ANS systems audio amplifier to supervise and drive multiple zones.

Individual Zone Select switches allow the manual selection of any or all voice evacuation zones for emergency paging. Automatic zone selection is also

provided with the connection of normally-open contacts from the fire alarm control panel or other auxiliary control system. The ALL-CALL Switch selects all voice evacuation zones for emergency paging. Individual LEDs annunciate zone status, providing Zone Active or Zone Fault indications. All ANS Series Zone Splitters are compatible with 25V and 70V voice evacuation system amplifier outputs.



Expander Panels and Modules

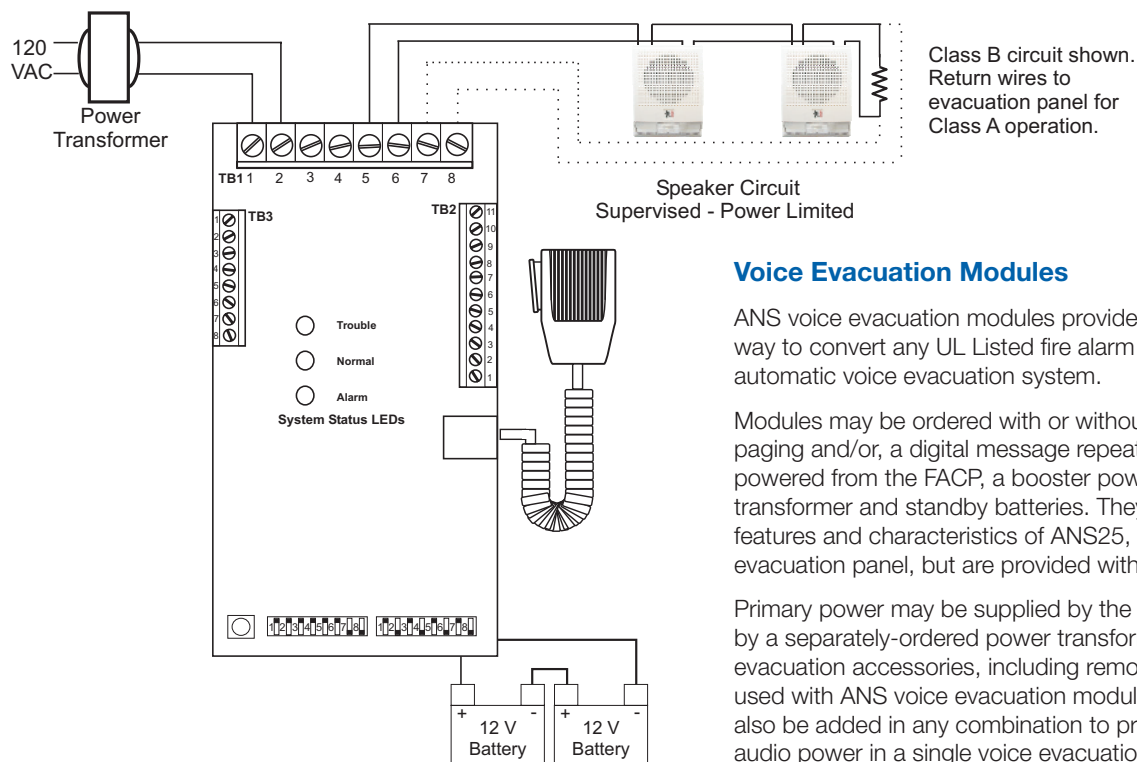


Audio Notification System expander panels and modules provide an easy and cost-effective way to increase the output power of ANS25, ANS50 or ANS100 voice evacuation systems.

Audio Notification System panels include an audio amplifier, temporal pattern alarm tone, power supply

and battery charger. They can be ordered with or without a paging microphone and/or digital message repeater.

Audio Notification System modules do not include cabinet, and are intended to be mounted in a UL Listed enclosure. They can be ordered with or without a paging microphone and/or digital message repeater. Voice evacuation expanders may be ganged together in any combination to provide up to 2,000 Watts of audio power.



Voice Evacuation Modules

ANS voice evacuation modules provide an easy and cost-effective way to convert any UL Listed fire alarm panel or system to an automatic voice evacuation system.

Modules may be ordered with or without a microphone for manual paging and/or, a digital message repeater (DMR). Modules can be powered from the FACP, a booster power supply or an optional transformer and standby batteries. They provide all the operational features and characteristics of ANS25, ANS50, or ANS100 voice evacuation panel, but are provided without the enclosure.

Primary power may be supplied by the fire alarm control panel or by a separately-ordered power transformer. Any of the ANS voice evacuation accessories, including remote microphones, may be used with ANS voice evacuation modules. Expander modules can also be added in any combination to provide up to 2,000 Watts of audio power in a single voice evacuation system.

Accessory Equipment

Remote Microphone Panel

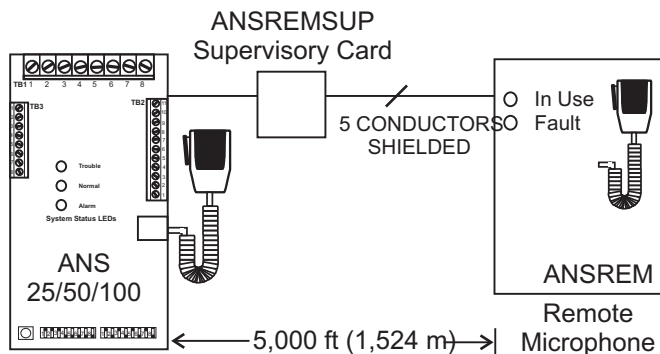


The ANSREM is a supervised remote microphone for use with the ANS voice evacuation system. The microphone provides crystal-clear live voice messages over the system speakers.

Up to five ANSREM panels may be connected to a single ANSREMSUP supervisory card. This provides supervision of the wires to the AN-

SREM and supports wiring distances of up to 5,000 feet (1,524 meters).

The ANSREM is housed in an attractive surface or semi-flush mounted enclosure, with a hinged locking door. It features dead-front construction, a microphone with a "Press-to-Talk" button, and discreet LEDs that indicate In-Use and Fault status.



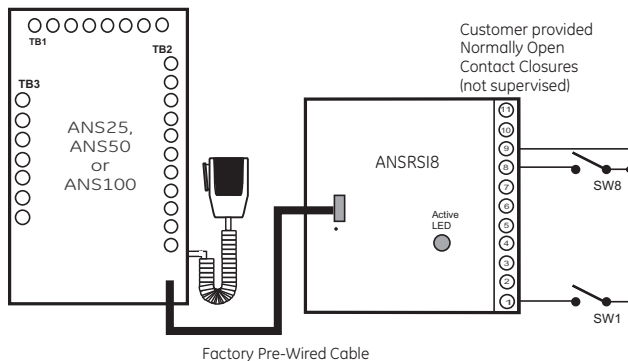
Remote Serial Interface



The ANSRSI8 is designed to facilitate access to the RS-232 input capabilities of ANS Series audio panels. Simple contact closures provided by an auxiliary control select one of many available custom messages and tones. This additional control

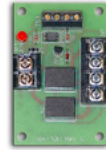
interface allows the ANS 25/50/100 series to operate as a multi-message, complex sequence voice messaging system.

The ANSRSI8 mounts in the voice messaging system enclosure, and connects to the ANS 25/50/100 using a simple plug-in connector. Each ANSRSI8 has eight inputs for the connection of auxiliary normally-open contacts. Multiple serial interfaces may be connected to provide up to 64 separate control points.

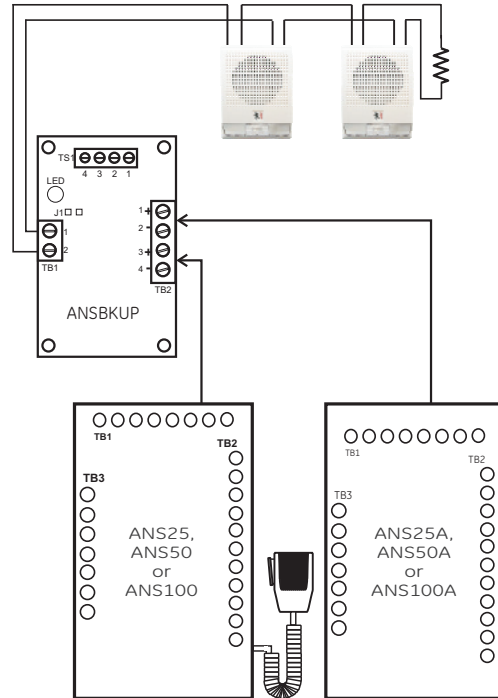


NOTE: The ANSRSI8 Remote Serial Interface is not UL Listed for fire alarm applications and is suitable for private-mode signaling only.

Backup Amplifier Switching Card



The ANSBKUP switching card continually monitors the primary amplifier for signs of failure. Should the amplifier fail, the ANSBKUP automatically activates a backup amplifier. A single amplifier can be used to back up one or more amplifiers of equal or lesser wattage. One ANSBKUP is required for each amplifier being backed up. The backup amplifier does not require its own microphone and digital message repeater unless a fully redundant voice evacuation system is required.



Note: Back-up amplifier does not require microphone or DMR.

Engineering Specification

The voice evacuation system shall be Edwards ANS Series or approved equal. The voice evacuation system shall provide <25><50><100> Watts signal power and <25><50><100> Watts voice power, and shall be UL Listed.

All speaker circuits shall be field selectable for 25 or 70 Vrms operation and shall be power limited.vav

The voice evacuation system shall be microprocessor based, and shall contain an integral microphone, <25><50><100> Watt audio amplifier, tone generator, digital message repeater, 120 VAC power supply, and battery charger.

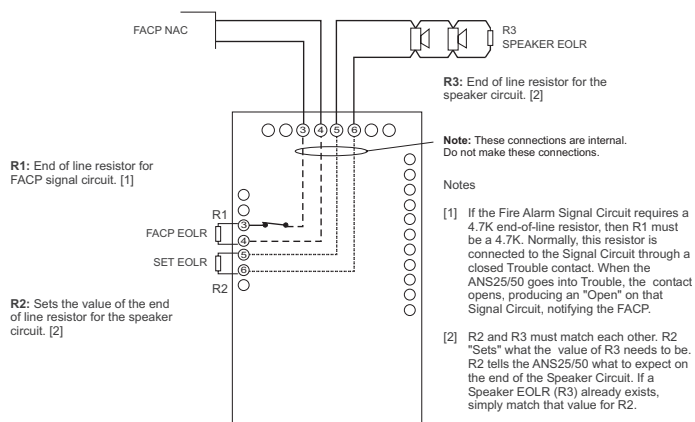
The voice evacuation message/signal shall be broadcast until the Fire Alarm Control Panel (FACP) is reset, or until fire emergency personnel interrupt the broadcast with a manual page. On reset system shall automatically return to standby (normal operating) condition.

A secondary message shall be provided that can be triggered by the closure of a contact from either the FACP or from any normally open contact device.

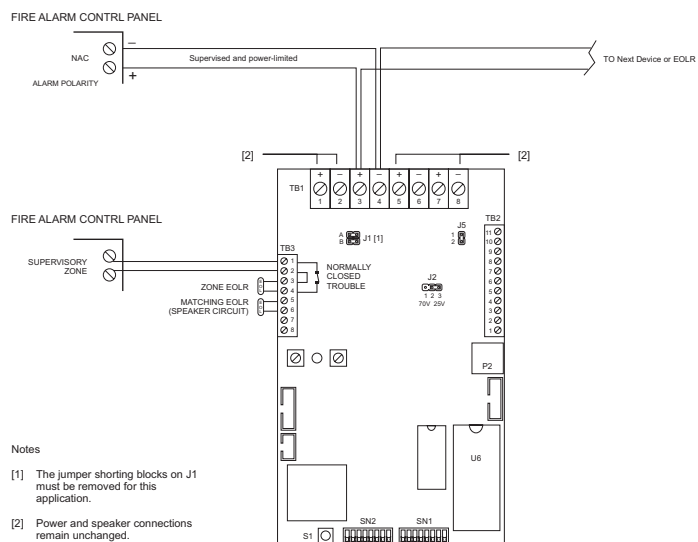
Remote paging microphone(s) will be supported by the system through a supervised circuit. Remote microphone(s) may be mounted up to 5,000 ft. (1,524 m) away from the voice evacuation panel.

Application Drawings

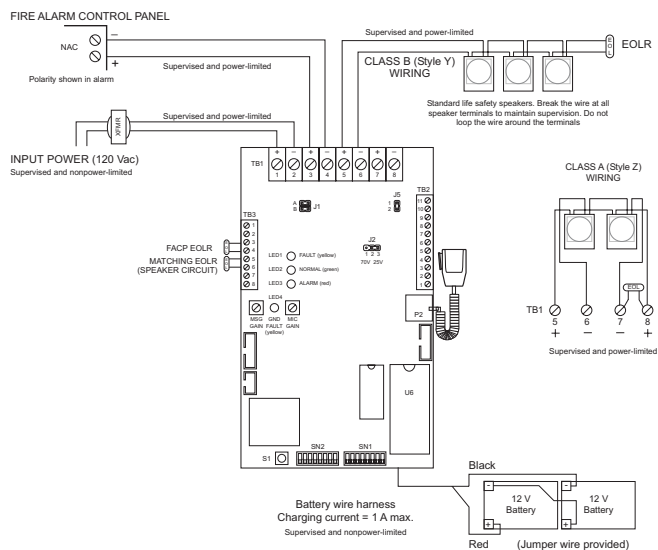
End of Line Resistors



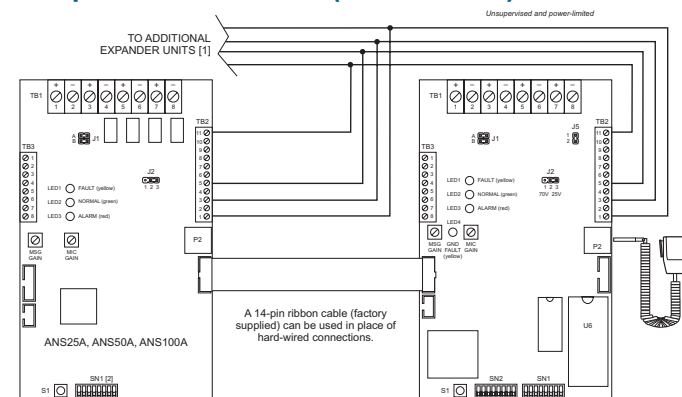
Fire Alarm Control Panel Supervisory Circuit



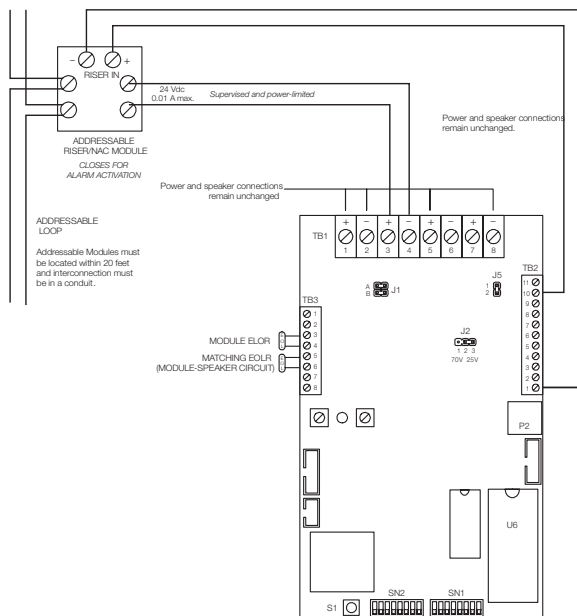
Dedicated Fire Alarm Control Panel Notification Appliance Circuit



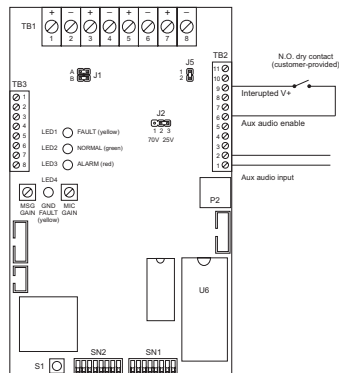
Multiple Unit Connection (15 units max.)



Addressable Systems



Auxiliary Audio





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U.S.
T 888-378-2329
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India
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F +32 2 721 86 13

Latin America
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F 305 593 4300

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Ordering Information

Part Number	Description	Wt. lb (kg)
Audio Notification Panels		
<i>Panels include DMR, temporal pattern, standard message, microphone, power supply and battery charger.</i>		
ANS25MDG	25 Watt Audio Notification Panel. Gray Cabinet.	29 (13.2)
ANS25MDR	25 Watt Audio Notification Panel. Red Cabinet.	29 (13.2)
ANS50MDG	50 Watt Audio Notification Panel. Gray Cabinet.	32 (14.5)
ANS50MDR	50 Watt Audio Notification Panel. Red Cabinet.	32 (14.5)
ANS100MDG	100 Watt Audio Notification Panel. Gray Cabinet.	32 (14.5)
ANS100MDR	100 Watt Audio Notification Panel. Red Cabinet.	32 (14.5)

Part Number	Description	Wt. lb (kg)
Audio Expander Panels		
<i>Panels include power supply and battery charger. DMR and microphone ordered separately.</i>		
ANS25XG	25 Watt Audio Expander Panel. Gray Cabinet.	29 (13.2)
ANS25XR	25 Watt Audio Expander Panel. Red Cabinet.	29 (13.2)
ANS50XG	50 Watt Audio Expander Panel. Gray Cabinet.	32 (14.5)
ANS50XR	50 Watt Audio Expander Panel. Red Cabinet.	32 (14.5)
ANS100XG	100 Watt Audio Expander Panel. Gray Cabinet.	32 (14.5)
ANS100XR	100 Watt Audio Expander Panel. Red Cabinet.	32 (14.5)
Zone Splitters		
ANSZS4B	Zone Splitter, 4 Class B circuits with zone selection switches and All-Call switch.	1 (0.5)
ANSZS2A	Zone Splitter, 2 Class A circuits with zone selection switches and All-Call switch.	1 (0.5)
ANSZSC4A	Class A Converter.	1 (0.5)
ANSZC2B	Zone Adapter, 1 circuit to 2 circuits.	1 (0.5)
Remote Microphones		
ANSREMG	Remote microphone. Requires ANSREMSUP card in ANS panel. Gray surface/semi-flush cabinet. Supervised.	8 (3.6)
ANSREMR	Remote microphone. Requires ANSREMSUP card in ANS panel. Red surface/semi-flush cabinet. Supervised.	8 (3.6)
ANSREMSUP	Remote microphone supervisory card, one per system. Supervises up to 5 remote microphones.	1 (0.5)
ANSZSR	Relay card for supervision/zone splitter to remote microphone.	1 (0.5)
ANSMIKE	Microphone.	1 (0.5)

Part Number	Description	Wt. lb (kg)
Backup Amplifier Modules		
ANSBKUP	Backup amplifier switching module.	1 (0.5)
Accessories		
ANSAUX	Audio Matching - line input/output card.	1 (0.5)
ANSRSI8 (For private mode signaling only.)	Eight-input remote serial interface module. Accepts dry contact interface to control up to eight messages. Message recording included.	1 (0.5)
Modules & Transformers (cabinets & transformers ordered separately)		
ANS25A	25 Watt expander module.	5 (2.3)
ANS25AM	25 Watt expander module with microphone.	5 (2.3)
ANS25AMD	25 Watt audio notification module with DMR and microphone.	5 (2.3)
ANS50A	50 Watt expander module.	5 (2.3)
ANS50AM	50 Watt expander module with microphone.	5 (2.3)
ANS50AMD	50 Watt audio notification module with DMR and microphone.	5 (2.3)
ANS100A	100 Watt expander module.	5 (2.3)
ANS100AM	100 Watt expander module with microphone.	5 (2.3)
ANS100AMD	100 Watt audio notification module with DMR and microphone.	5 (2.3)
ANST2885	Power transformer, open frame, 28 VAC @ 100 VA. (ANS25)	4 (1.8)
ANST28180	Power transformer, open frame, 28 VAC @ 180 VA. (ANS50/ANS100)	5 (2.3)
Custom Messages		
ANSMDRALT	Alternate prerecorded DMR message PROM from library.	
ANSDMRCUSTOM	Custom recorded message PROM. Call customer service for quotation and availability.	

Larger systems available upon request. Please contact customer support for more information.