Advanced

Axis^AX

Audio Panel w/Microphone
AV-VBM

The Advanced AV-VBM, Audio Panel, is designed to be used in conjunction with any Advanced Axis^AX Series or UL864 Listed fire alarm control panel to provide automatic (and manual) fire alarm audio signaling and live voice paging during an emergency situation. The AV-VBM is fully compatible with the Advanced AV-VB distributed audio booster. The combination of the AV-VBM and AV-VB provides the means to meet the total system wattage requirements of virtually any application due to superior true distributed audio technology.

The AV-VBM, Audio Panel, consists of two (2) 40 Watt amplifiers that may be configured Class A or B, a dual digital (programmable) message/tone generator, a power supply/charger (AX-PSU-6) and an integral microphone inside a compact, red, lockable enclosure.

Key status indicators viewable on the front panel display include a green AC power on LED, a yellow amplifier trouble LED and a yellow power supply trouble LED. Additional diagnostic LEDs that are mounted on the amplifier PCB include: amplifier 1 trouble (open or short), amplifier 1 failure, amplifier 2 trouble (open or short) and amplifier 2 failure, and heartbeat. On the AX-PSU-6; LEDs include battery trouble, PSU trouble, AC on LED and heartbeat.

There are 3 toggle switches that provide for manual activation of either Message 1, Message 2 or to initiate an All Call system wide page from the AV-VBM throughout all distributed AV-VB audio boosters.

The built-in dual programmable, flash based, digital message/tone generator of the AV-VBM, Audio Panel, comes standard with Message 1 programmed for Evacuation and Message 2 programmed for Alert messages. Both messages are completely field programmable for tailoring to meet specific installation requirements. Digital messages/tones can be programmed with our simple, user-friendly Windows® based tool. The Windows® based programming tool allows users to select from a library of industry recognized messages/tones. Selection options include: leading and trailing tones and male or female voice messages. In addition, wave files may be downloaded and added to the library to allow complete customization of messages/tones (see figure 1).

In support of some local requirements, the AV-VBM may be set to a "backup mode" whereby as a precaution, should the primary amplifier fail, the secondary amplifier automatically will engage and override the primary amplifier, provided there are no short circuits in the field speaker circuit wiring. Specifically designed for project

Unique Features:
- Interfaces to any Listed Fire Alarm Control Panel
- Advanced Digital Audio Technology
- Dual 40 Watt @ 25 Vrms Amplifiers
- 2-Channel Digital Message/Tone Generator
- Unique Amplifier Booster/Cascading Option
- High Fidelity Sound Quality

Features
- Built-in Live Voice Paging Microphone
- Two (2) Class A or B Speaker Circuits
- AC Power On, Amplifier and PSU and Trouble LEDs
- Internal Service Diagnostic and Status Indicators
- USB Interface for Message/Tone Programming
- Optional one-to-one Amplifier Backup Capability
- Three Prioritized Relay Trigger Inputs
- Message 1 On/Off, Message 2 On/Off and All Call Toggle Switches

Listings and Approvals:
- ETL ANSI/UL 864/1711/1481 Listed: 100027836NYM-001c
- CSFM Approved: 6912-1713:0117
- NYCFD COA #6080

flexibility, each AV-VBM and AV-VB can be setup to produce their own messages. This makes setting up a dual channel, three channel or floor above/floor below application simplistic.

A unique feature of the AV-VB Distributed Audio Booster effectively allows the amplifier to simply re-amplify a signal generated from another amplifier/audio signal source. This allows reduced system wiring, wiring to any listed audio panel/amplifier rated at 25 Vrms, and complete synchronization.

AV-VBM, Audio Panel, message/tone generation is controlled via 3 N.O. relay contacts from the host FACP wired to the three prioritized trigger inputs. When activated, Trigger One will cause both amplifiers to play message 1 (factory programmed as Evacuation). When activated by Trigger Two, both amplifiers will play message 2 (factory programmed as Alert). When Trigger 3 is activated due to an All Call function, amplifiers will output the live audio from the microphone, overriding either message 1 or 2 (see figure 2).

All distributed amplifiers AV-VB units, can be configured to either output the actual audio signals from the AV-VBM in real time, synchronized (as is typical in a standard dual or three channel application) or may each be programmed differently in a multi-channel application (see figures 3 and 4).
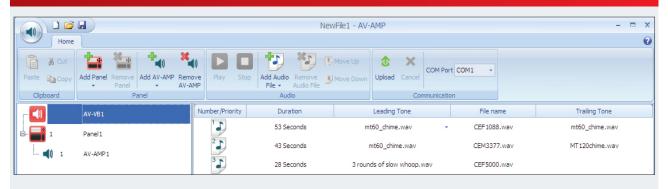
Simplistic Message/Tone Programming

Figure 1

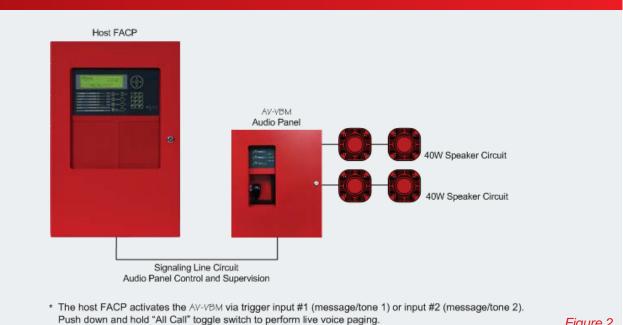## AV-VBM Audio Panel w/Microphone

Figure 2

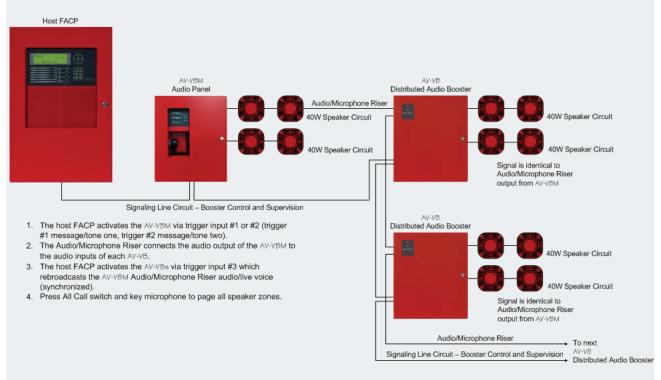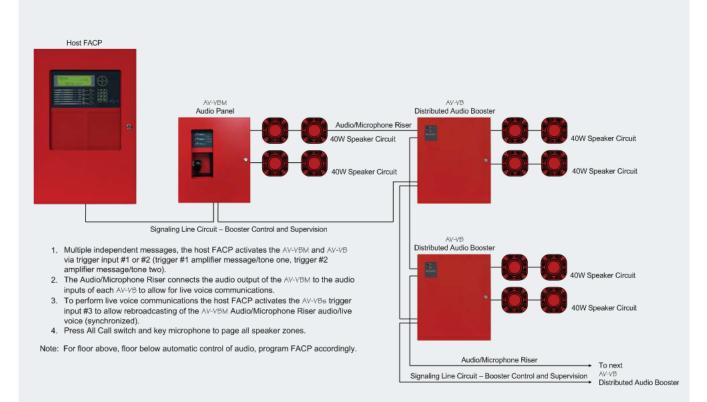## AV-VBM Audio Panel w/Microphone Interface to AV-VB Distributed Audio Booster (Synchronized Audio)

Figure 3

AV-VBM Audio Panel w/Microphone Interface to AV-VB Distributed Audio Booster (non Synchronized)

1. Multiple independent messages, the host FACP activates the AV-VBM and AV-VB via trigger input #1 or #2 (trigger #1 amplifier message/tone one, trigger #2 amplifier message/tone two).
2. The Audio/Microphone Riser connects the audio output of the AV-VBM to the audio inputs of each AV-VB to allow for live voice communications.
3. To perform live voice communications the host FACP activates the AV-VBs trigger input #3 to allow rebroadcasting of the AV-VBM Audio/Microphone Riser audio/live voice (synchronized).
4. Press All Call switch and key microphone to page all speaker zones.

Note: For floor above, floor below automatic control of audio, program FACP accordingly.

Figure 4

AV-VB Audio System Specifications	
Operating Voltage	
Input	120 VAC
Output	24 VDC & 25 Vrms
Operating Current	
Quiescent	40 mA (typical)
Alarm	200 mA (plus total speaker circuit load)
Output Ratings	2x 40 Watts @ 25 Vrms, Class A or B
LED Indicators	AC Power & System Trouble
Operating Temperature	32^0-120^0 F (0 to 48^0 C)
Humidity	10-95% (non-condensing)
Enclosure Dimension	16"W x $19^1/_8$"H x 5"D
Weight	19lb 5oz

Ordering Information	
AV-VBM	Audio Panel
	Optional Modules:
AV-V70	Universal Audio Converter (converts 25Vrms to 70Vrms)

As our policy is one of constant product improvement the right is therefore reserved to modify product specifications without prior notice.