Distributed Audio Booster

The CAV-VB, Distributed Audio Booster, is designed to be used in conjunction with an Axis AX "V" Series, Axis AX Command Center Intelligent Fire Alarm Control Panel or a CAV-VBM Audio Panel to provide increased digital audio signaling during an emergency situation (alarm, alerts, warnings, mass notification, etc.) to meet total system wattage requirements via true distributed audio methodology.

The CAV-VB, Distributed Audio Booster, consists of an audio amplifier (CAV-AMP-80) containing; two (2) dual 40 Watt amplifiers configured Class A or B, a 16 digital message/tone generator and supervision circuitry, a power supply/charger (CAX-PSU-6) and an enclosure. A green AC power LED and yellow trouble LED are provided on the front of the enclosure. Additional internal PCB LEDs are provided for detailed service diagnostics as well as amplifier status.

The sixteen (16) programmable, flash based, digital message/tone generator of the CAV-VB is completely field programmable for tailoring to meet specific installation requirements. Digital messages/tones are programmed in a 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, male or female voice messages, message category (such as; evacuation, alert, warnings, etc.) and message priorities. In addition, wave files may be downloaded and added to the library to allow complete customization of messages/tones. Used in conjunction with the Windows® based programming tool, the Axis AX Series PC-NeT field configuration programming tool with its powerful control-by-event programming, greatly simplifies and drastically reduces the time it takes to program very large complex applications (see figure 1)

If controlled by one of the three (3) prioritized relay trigger inputs, two of the relay trigger inputs can be assigned to two separate/individual messages (such as; one input could generate an evacuate message/tone and the other input could generate an alert message/tone) input three is always allocated/assigned as booster mode activation for microphone input rebroadcasting.

In support of some local requirements, the CAV-VB 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 fi eld speaker circuit wiring.

Specifically designed for project flexibility, each CAVVB can be setup to produce its own messages or it can be operated in a unique "booster" mode. Booster mode allows the CAV-VB amplifier to simply re-amplify a signal generated from another amplifier/audio signal source [i.e. Axis AX "V" Series, Axis AX Command Center Intelligent Fire Alarm Control Panel and/or CAV-VBM Audio Panel] (see figure 2)

Features

- Interfaces with any AxisAX "V" Series and/or AxisAX Command Center Fire Alarm Control Panel
- Advanced Digital Audio Technology
- Dual 40 Watt @ 25 Vrms Amplifiers
- 16-Channel Digital Message/Tone Generator
- Unique Amplifier Booster/Cascading Option
- High Fidelity Sound Quality
- Two (2) Class A or B Speaker Circuits
- External AC Power and Trouble LEDs
- Internal Service Diagnostic and Status Indicators
- USB Port Interface for Message/Tone Programming
- Simple User-Friendly Message/Tone Programming
- Optional one-to-one Amplifi er Backup Capability
- Three Prioritized Relay Trigger Inputs
- AxisAX "V" Series Controlled via PBUS or Relay Inputs
- AxisAX "V" Series Powerful CBE Logic Programming

Listings and Approvals

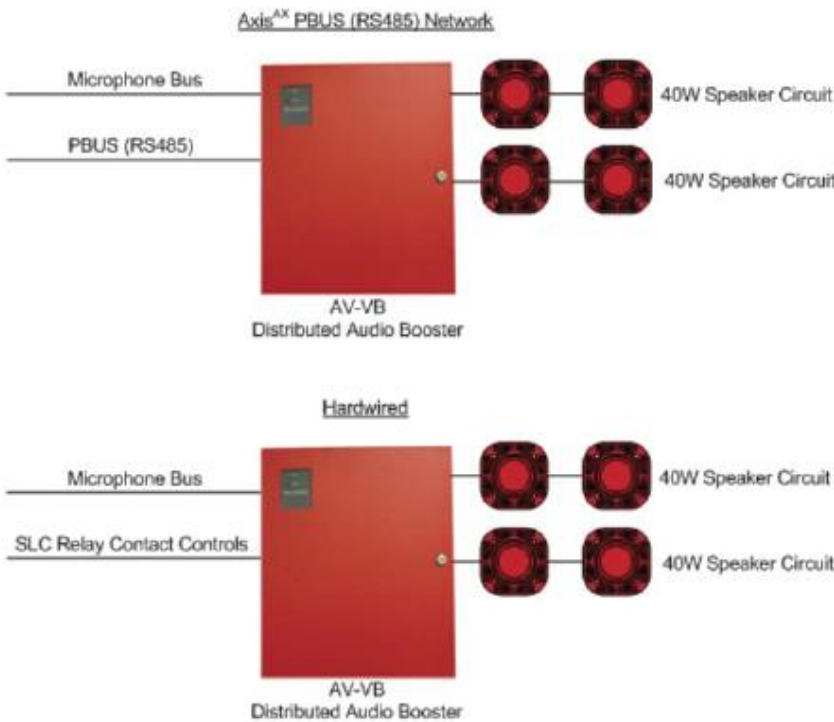- CAN/ULC-S527-11 & CAN/ULC-S559-04 Listed: 100780709NYM-001

CAV-VB, Distributed Audio Booster, message/tone generation or booster operation can be controlled either via the Axis AX "V" Series or Axis AX Command Center Intelligent Fire Alarm Control Panel's PBUS (RS-485 network) serial communications bus (contact Advanced regarding correct software version), or from the activation of one of three (3) prioritized relay trigger inputs. When controlled via the PBUS (RS-485 network) serial communications bus (contact Advanced regarding correct software version), one of sixteen messages/tones stored in the CAV-VB amplifier can be selected for broadcasting. If controlled by one of the three (3) prioritized relay trigger inputs, two of the relay trigger inputs can be assigned to two separate/individual messages (such as; one input could generate an evacuate message/ tone and the other input could generate an alert message/ tone) input three is always allocated/assigned as booster

mode activation (see figure 3). The functionality of selecting different prioritized messages, based on specific events, makes the CAV-VB ideal for numerous emergency signaling applications. Pre-programmed alarm, evacuation, alerts, warnings and other types of messages are extremely easy to implement. In booster mode operation, message/live audio from an Axis AX "V" Series, Axis AX Command Center or CAV-VBM Audio Panel is reamplified and the identical message is rebroadcast out each CAV-VB, resulting in a distributed audio system.

Specification

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 $^\circ$F -120 $^\circ$F (0 $^\circ$C to 48 $^\circ$C)
Humidity	10-95% (Non-condensing)
Enclosure Dimension	16" W x 19 1/ 8 " H x 5" D
Weight	19lb 5oz

Wiring Diagram

Axis^AX PBUS (RS485) Network

Microphone Bus
PBUS (RS485)
40W Speaker Circuit
40W Speaker Circuit
AV-VB
Distributed Audio Booster

Hardwired

Microphone Bus
SLC Relay Contact Controls
40W Speaker Circuit
40W Speaker Circuit
AV-VB
Distributed Audio Booster

Order Codes and Options

CAV-VB	Distributed Audio Booster
Optional Modules:	
CAV-V70	Universal Audio Converter (converts 25 Vrms to 70 Vrms)