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Vocia®

VI-6
OPERATION MANUAL

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BIAMP SYSTEMS 9300 SW GEMINI DRIVE, BEAVERTON, OREGON 97008 U.S.A. 503.641.7287 BIAMP.COM

VI-6 Product Description

The VI-6 is a networked audio input expansion device allowing the user to add six channels of background music or user-defined audio to a Vocia system.
As part of the Vocia system, the VI-6 meets paging requirements for facilities of all sizes.

Setup and Use

The Vocia software provides an intuitive interface for configuration, DSP equalization, and programming of the VI-6. The information supplied by this manual relates to physical connections and assignment. For more details on software setup, please consult the Vocia Help File.

Installation

Install the unit away from heat sources, such as vents and radiators, and in rooms with adequate ventilation. Ensure that air can circulate freely behind, beside, and above the unit. Do not exceed the maximum ambient operating temperature of 32° - 108° F (0° - 42°C). Be aware of conditions in an enclosed rack that may cause the temperature to exceed ambient room conditions.

The unit requires one 1.75 inch (44.45 mm) high and 19 inch wide rack space with 17 inch (432 mm) depth. Mounting the unit using four screws with washers will prevent marring of the front panel. PVC or nylon washers are appropriate.

Power Indicator LED

The Unit features one power indication LED on the front panel:

1. Not illuminated: The device is not powered.
2. Flashing green: The unit is receiving power but not data, or the unit has not been configured correctly.
3. Solid green: The unit is operational. Power supply and network traffic are functional.

Signal LED

Six LEDs located in the center of the front panel act as audio signal identifiers for the six input channels and are useful for setting optimum signal levels. Each LED has four states. Please see the table below for the signal mapping to each of the LEDs. Detailed metering of current output levels can be obtained in real time via the Vocia software interface.

Red	Amber	Green	Dark
Signal above clip threshold> -2dbFS	Signal above nominal but below clip threshold > -18dBFS < -3dBFS	Signal above minimum but below nominal threshold > -48dBFS < -19dBFS	Signal below minimum threshold < -48dBFS

Control LEDs

The control LEDs signal the current state of the control I/Os. The first four are input status indicators, and the second four are output status indicators.

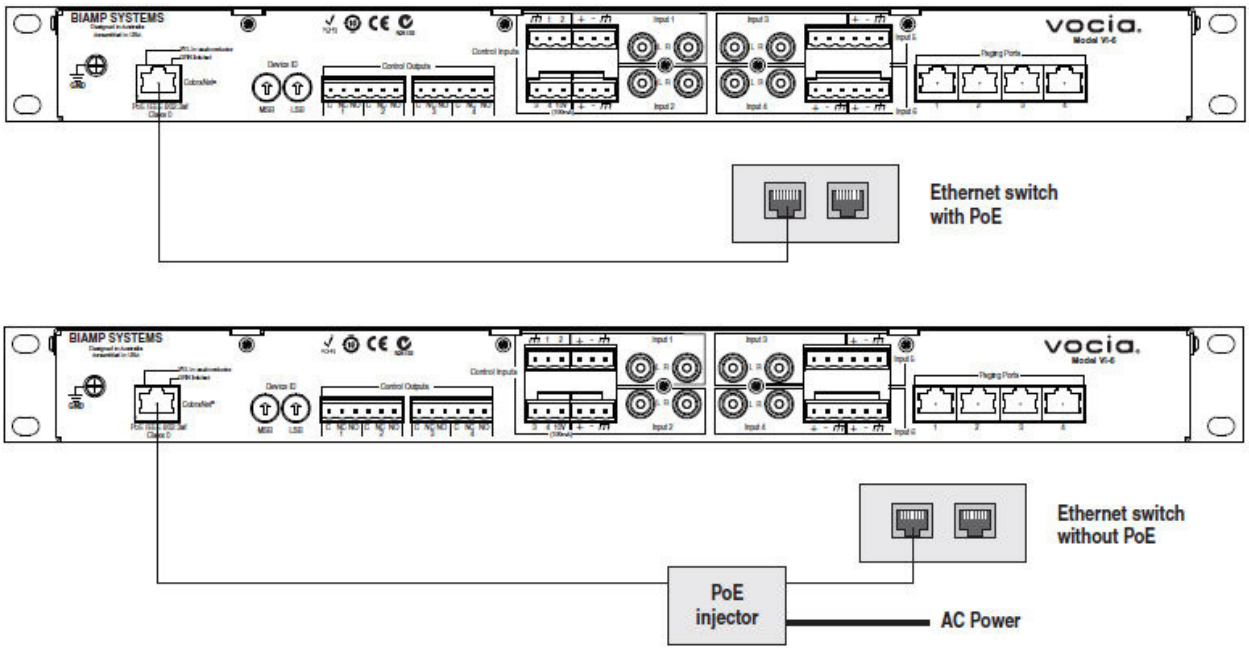
Amber	Green	Dark
Relays are energized	Above input threshold	Not active

Ground Screw

This screw provides a connection point to ground the chassis of the device. The power supply to the unit is sourced from PoE, which may have no connection to ground. The chassis of the unit should be connected to a safety ground (main power supply ground) using the grounding screw.

Network Connection

PoE-enabled network switches or PoE midspan adapters must be used to power the unit. These must be 802.3at Type 1 compliant. The maximum cable distance between any unit and an Ethernet switch is 328 feet (100 meters) when using copper cabling. Additional Ethernet switches and/or fiber-optic cable can be used to further extend distances between units on a network. Please note that CobraNet limits network extensions to seven hops (one-way transmissions) within a 100Mb network. If other network traffic shares an Ethernet switch with the Vocia network, a managed switch should be used with separate VLANs.



The connector provides two LEDs that indicate Ethernet link and network activity.

Left LED	Right LED	Description
None	None	No power or data connectivity. Please check the PoE network connection.
Amber	Flashing Green	Link established and CobraNet activity detected (normal operation).
Flashing Amber	Flashing Green	Link established and CobraNet activity detected (normal operation). Unit is operating as CobraNet Conductor.
Flashing Amber	None	CobraNet Fault. Check cabling and configuration for errors.

Device ID

The rotary ID switches give the unit a unique Device ID. The switches are in hexadecimal format. All units of the same device type must have a unique Device ID to function properly within a Vocia Paging World. The Factory Default Device ID is 01. A Device ID of 00 is invalid and cannot be used.

To assign a Device ID of hex 07, leave the MSB switch on 0 and turn the LSB switch to 7. Device ID switches should be set using a 0.1 inch (2.5mm) to 0.12 inch (3.0mm) flat blade screwdriver.

NOTE
Changes made to the Device ID while connected to the network require a power cycle of the device in order to take effect.

Control Outputs

The Control Outputs, labeled 1 through 4, are isolated, voltage-free, software-configurable relay outputs. The individual pins are labeled as follows:

1. (C): common/ground pin
2. (NC): normally closed (connected to C when relay is not energized)
3. (NO): normally open (connected to C when relay is energized)

Control Inputs

The Control Inputs are labeled as follows:

1. (Ground symbol): logic common/ground input pin
2. (1–4): individual logic inputs
3. (10V): 10V reference voltage (when used as a switch input, a switch must be connected between the input and logic common terminal)

Audio Inputs

Two sets of plug-in barrier strip and RCA connectors provide analog audio signal input. Inputs 1 through 4 are designed for line-level input. The RCA and plug-in barrier strip connectors are resistively summed internally so that a stereo source can be conveniently converted to mono audio. Inputs 5 and 6 are designed for microphone or line-level inputs and include phantom power. All plug-in barrier strip connectors should be wired from left to right as follows:

1. High
2. Low
3. Ground

Paging Ports

The VI-6 has four Paging Ports on the rear of the unit which facilitate connection of either a Vocia Paging Stations Interface 1 (VPSI-1) or a Vocia Auxiliary Microphone 1 (VAM-1), or a combination of both. The Paging Ports when used in conjunction with these devices allow a balanced audio input, external Push-to-Talk and LED feedback of Zone and Paging states.

When the VI-6 audio input path is configured to use the Paging Ports the associated line inputs of the VI-6 will be disabled. The Audio Channel Signal Presence LEDs on the front of the VI-6 chassis will continue to operate when the input channel is configured for Paging. It will function as it normally would when configured as a Background or a User Input. The LEDs will function regardless of whether the associated ancillary paging devices PTT is pressed.