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Vocia®

**VOIP-1
OPERATION MANUAL**

The Vocia Voice over IP Interface (VoIP-1) acts as a SIP end point allowing a direct connection to an existing VoIP call manager. The interface permits live, real-time paging using any page code within a Vocia system. The VoIP-1 supports Vocia regular and emergency messaging, and will also support page stacking and store-and-forward functionality.

Setup and Use

The Vocia software provides an intuitive interface for configuration, DSP equalization, and programming of the VoIP-1. 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

The unit requires one 1.75 inch (44.45 mm) high and 19 inch wide rack space with 9 inch (228 mm) depth. Mounting the unit using four screws with washers will prevent marring of the front panel. PVC or nylon washers are appropriate.

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.

Front Panel Information

The VoIP-1 LEDs are as follows (from left to right when viewing the front of the chassis):

1. 24V DC power 1
2. 24V DC power 2
3. Fault
4. Activity
5. Status
6. Line 1 Status
7. Line 1 In Use
8. Line 2 Status
9. Line 2 In Use
10. Line 3 Status (functional for VoIP-1-4 model only)
11. Line 3 In Use (functional for VoIP-1-4 model only)
12. Line 4 Status (functional for VoIP-1-4 model only)
13. Line 4 In Use (functional for VoIP-1-4 model only)

Power (Chassis Indicator)

The VoIP-1 has two power indicators. If power is applied to one or both 24V DC power connectors, the corresponding LED will be on.

- Off – The power connection is not available or not within the voltage range.
- Solid green – The unit is receiving power.

Fault (Chassis Indicator)

There are two types of chassis Faults that will be reported depending on the severity of the problem. Audio may still be passing, but if the condition causing the warning is not corrected, a failure may occur.

- Flashing amber – A warning has occurred, meaning some aspect of the unit is not performing within normal specification.
- Solid amber – A Fault has occurred, meaning some aspect of the unit has failed and audio may not be passing.

Activity (Chassis Indicator)

The VoIP-1 has an activity LED that will illuminate to show the configuration status of the unit.

- Off – The unit is not configured.
- Solid green – The unit is configured.

Status (Chassis Indicator)

The VoIP-1 has a tri-color Status LED that indicates the health of the hardware.

- Solid green – The unit is powered up and working normally.
- Flashing amber – Shown during the power-up self-test.
- Solid red – The unit experienced a problem during the power-up self-test.

Status

- Flashing green – When trying to complete SIP registration.
- Solid green – When SIP registration is complete and the VoIP line is available.

In Use
- Off – No incoming call activity.
- Solid green – Incoming call or call connected.

Note: The third and fourth 'Status' LEDs and 'In Use' LEDs will remain extinguished at all times on the VoIP-1-2 model.

Power

The VoIP-1 requires an external single 24V DC power source to operate, but is capable of accepting dual 24V DC inputs for redundancy. Both power sources may be connected concurrently, however each must be capable of supporting the full 30 watt load of the unit (inputs are not intended to load-share). Loss or return of either power source will not result in an interruption to normal operation as long as one of these power sources remains functional. Monitoring of power sources is selectable via the Vocia Software.

Pin	Function
1	DC Power 1 24V(+)
2	DC Power 1 24V(-)
3	DC Power 2 24V(+)
4	DC Power 2 24V(-)

The power connector is a four-way 5.08mm standard header with mating pluggable screw terminal block with cable restraint. When power is present at either or both 24V power inputs the corresponding front panel green power LED will illuminate.

CAUTION
Due to potential energy hazard, connections to the Auxiliary Power DC inputs must be made by a qualified electrician or other qualified person as required to conform with all local codes.

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.

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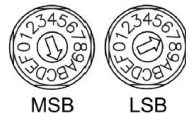
NOTE
Changes made to the Device ID while connected to the network require a power cycle of the device in order to take effect.

Network Connections

All CobraNet routing and bundle assignments are processed by the Vocia devices locally. Vocia makes dynamic use of available bundles in CobraNet. A 100Base-T Ethernet switch (not repeater hub) is required when networking multiple units. CobraNet utilizes standard CAT5, CAT5e, CAT6, or CAT7 cabling, which has a specified maximum length of 328 feet (100 meters). Additional Ethernet switches, or switches which provide fiber-optic interface, can be used to extend the physical distance between units within a network. Please note that CobraNet limits network extensions to seven hops (one-way transmissions) within a network. The CobraNet network connection is configured with the primary connector on the left and the secondary (redundant) connector on the right. The primary and secondary CobraNet ports are provided to facilitate connection redundancy. Each connector provides two LEDs that indicate Ethernet link and network activity.

Left LED	Right LED	Description
None	None	No Data Connectivity or CobraNet activity
None	Green	Link established

Flashing yellow	Green	Link established and CobraNet activity detected; The unit is acting as a CobraNet Performer
Flashing yellow	Flashing green	Link established and CobraNet activity detected; The unit is acting as a CobraNet Conductor
Flashing yellow	None	CobraNet fault. Check cabling and configuration for errors

VoIP Connections

Each RJ-45 VoIP connection will support up to two lines. The connection will act as a third-party SIP endpoint.

The VOIP-1-2 unit can support up to two VoIP lines via 1 RJ-45 connector.

The VOIP-1-4 unit can support up to four VoIP lines via 2 RJ-45 connectors.