

## VE8004/VE8004R QUAD NETWORKED PAGE ZONE EXTENDER

### INTRODUCTION

The VE8004/VE8004R Quad Networked Page Zone Extender enables voice access to two zones of one-way paging over an IP-based LAN/WAN. This allows page zone extension anywhere on the network. The VE8004 is designed for wall or table placement. The VE8004R is designed for 19" rack mounting (1U).

### SPECIFICATIONS

#### Features

- 4 Audio Outputs or Inputs
- 4 Form A relay contacts
- 4 Contact Closure Inputs
- RJ-45 for network connection
- Front panel activity LED
- Provides audio for up to 40 Valcom one-way amplified speaker assemblies per zone
- AUX audio input via RCA jack
- Contact closure or VOX operation of audio input
- Page with music output, music mutes during page
- Output control contact closure provided during paging output
- VM-186 RJ-45 Connectors provided for audio and relay interface
- Compatible with 25 or 70 Volt amplifiers
- 2.5mm jack for optional DC power
- Power over Ethernet (PoE) 802.3af compatible

#### Dimensions/Weight (VE8004)

- 1.75 H x 6.75" W x 9.5" D  
(4.45cm H x 17.15cm W x 24.13cm D)
- Weight: 1.75 lbs. (0.80 kg)

#### Dimensions/Weight (VE8004R)

- 1 Standard 19" Rack Unit
- 1.75 H x 16.50" W x 9.50" D  
(4.45cm H x 41.91cm W x 13.33cm D)
- Weight: 7.80 lbs. (3.54 kg)



**VE8004**



**VE8004R**

#### Nominal Specifications

Input Impedance:	600 Ohms
Input Level:	-10dBm nominal
Voice Switch Sensitivity:	-21dBm
Music Source Input Impedance:	8 to 600 Ohms
Music Input Level:	-10dBm nominal
Output Impedance:	50 Ohms
Output Level:	- 10dBm nominal
Relay Current:	1 AMP @ 24VDC

#### Nominal Power Requirements

##### Via back panel barrel connector:

Voltage:	24VDC
Current:	325mA

##### Via 802.3af PoE Ethernet Switch:

802.3af:	Class 3
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#### Environment

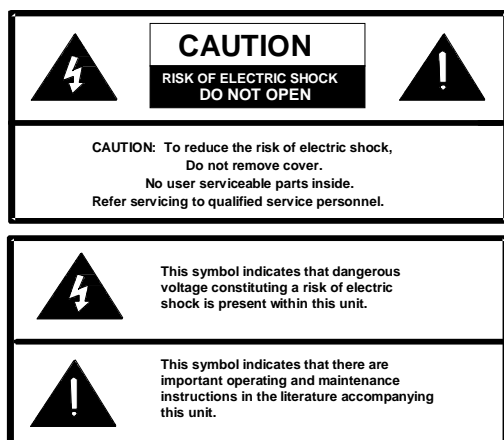
Temperature:	0 to +40° C
Humidity:	0 to 85% non-precipitating

#### Packing List

Qty	Item
1	VE8004 or VE8004R
1	VSP Document
2	Mounting Brackets
4	Rubber Pads (VE8004 only)
6	Wood Screws (VE8004 only)
5	RJ-45 Patch Cables
4	VM-186 RJ-45 Connectors

# INSTALLATION

## Precautionary Designations



## FCC Information

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area may cause harmful interference in which case the user will be required to correct the interference at his own expense.

## Mounting

The VE8004 is designed for wall or table mounting. The VE8004R is designed for 19" rack mounting (1U).

**Table:** Provided with the VE8004 are four rubber pads. Peel pads off their carrier backing and place at the four corners of the bottom of the unit.

**Wall:** Secure mounting brackets to the VE8004, then secure the VE8004 to the wall. See Figure 1.

**Rack:** Secure mounting brackets to the VE8004R. See Figure 1. Place the VE8004R into a standard 19" rack and secure to rack with proper hardware (not included).

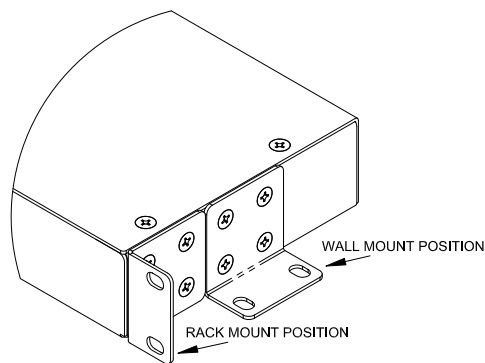


Figure 1.

## Power Connections

The preferred method of powering a VE8004/VE8004R is via a Power over Ethernet (PoE) switch meeting the 802.3af specification.

If the rear panel barrel connector is used for power, the preferred power supply is a Valcom VIP-324.

Make all required signal connections before applying power to the unit. If powering via 802.3af, make sure all signal connections via the back panel are made then connect the VE8004/VE8004R to the Ethernet switch.

If power is supplied via the barrel connector, make sure all signal connections are secure. Attach the unit to the network via the front panel RJ-45 Ethernet connector. Apply power by plugging the power supply into the VE8004/VE8004R via the barrel connector on the rear of the VE8004/VE8004R.

## Network Connection

The VE8004/VE8004R has one RJ-45 Ethernet network connector on the front panel.

Use one of the supplied patch cables to connect the VE8004/VE8004R to an Ethernet switch.



Front View

## Status Indicator Lights

The VE8004/VE8004R has 3 status indication lights on the front panel:

**STATUS:** Flashes during normal operation and solid during system startup.

**LINK:** Indicates 100 Mbit Ethernet connection when illuminated. No activity indicates 10 Mbit connection.

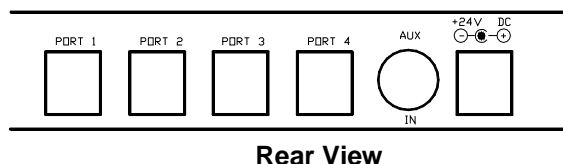
**ACT:** Indicator flashes to indicate network activity.

## Signal Connections

The VE8004/VE8004R has five signal connectors on the rear panel:

- 1 RCA jack for AUX audio input
- 4 RJ-45 connectors for audio and relay connections for each networked channel

**AUX Input:** Local audio may be input via the rear panel RCA jack. Nominal input impedance is 600 Ohms. Connect any compatible audio source using an RCA patch cable. Audio supplied through the rear panel RCA jack is transformer coupled to both Audio Out channels when Audio Out is idle. This is typically used for background music.



**Networked Channels:** Access to the networked audio is via four rear panel RJ-45 connectors. Provided with the VE8004/VE8004R are four RJ-45 patch cables and four VM-186 RJ-45 Connectors. Signals connections are made by connecting one end of a patch cable to the VE8004/VE8004R and the other to the VM-186 connector. Access to the signals is via screw terminal connections or 110-style punchdown block on the VM-186 (see Figure 2). Signals are present on pairs of pins as shown in Figure 2.

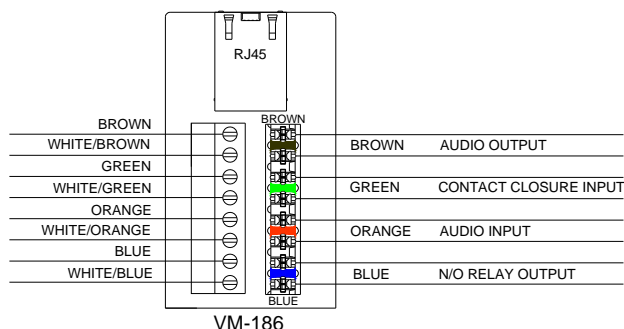


Figure 2. VM-186 RJ-45 Connector

## Setup

Information specific to your application will need to be programmed into the VE8004/VE8004R using a computer. The PC used for programming should be connected to the same subnet as the VE8004/VE8004R. Setup will be done using the IP Solutions Setup Tool. Download the latest version of the free IP Solutions Setup Tool from Valcom website at [www.valcom.com/vipsetuptool](http://www.valcom.com/vipsetuptool).

## TECHNICAL ASSISTANCE

When trouble is reported, verify power is being supplied to the unit and there are no broken connections. If a spare unit is available, substitute a spare unit for the suspected defective unit.

Assistance in troubleshooting is available from the factory. Call (540) 563-2000 and ask for Class Connection Technical Support.

Valcom equipment is not field repairable. Valcom, Inc. maintains service facilities in Roanoke, VA. Should repairs be necessary, attach a tag to the unit clearly stating your company name, address, phone number, contact person and the nature of the problem. Send the unit to:

**Valcom, Inc.**  
**Repair & Return Dept.**  
**5614 Hollins Road**  
**Roanoke, Va. 24019-5056**

#### VALCOM LIMITED WARRANTY

Valcom, Inc. warrants its products only to the original purchaser, for its own use, to be free from defects in materials and workmanship under conditions of normal use and service for a period of one year from the date of shipment. This Limited Warranty obligation shall be limited to the replacement, repair or refund of any such defective device within the warranty period, provided that:

1. inspection by Valcom, Inc. indicates the validity of the claim;
2. the defect is not the result of damage, misuse or negligence after the original shipment;
3. the product has not been altered in any way or repaired by others and that factory sealed units are unopened (a service charge plus parts and labor will be applied to units defaced or physically damaged);
4. freight charges for the return of products to Valcom are prepaid;
5. all units 'out of warranty' are subject to a service charge. The service charge will cover minor repairs (major repairs will be subject to additional charges for parts and labor).

**This Limited Warranty is in lieu of and excludes all other warranties, expressed or implied and in no event shall Valcom, Inc. be liable for any anticipated profits, consequential damages, loss of time or other losses incurred by the buyer in connection with the purchase, operation, maintenance, installation, removal or use of the product. The maximum liability of Valcom under this warranty is limited to the purchase price of the specific Product covered by the warranty.**

**Disclaimer.** Except for the Limited Warranty provided herein, the product is provided "as-is" without any warranty of any kind whatsoever including, without limitation, any **WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT.**

This warranty specifically excludes damage incurred in shipment. In the event a product is received in damaged condition, the carrier should be notified immediately. Claims for such damage should be filed with the carrier involved in accordance with the F.O.B. point.

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