VE8025/VE8045
8 PORT RETROFIT GATEWAY

INTRODUCTION
The VE8025 and VE8045 Talkback Gateways are designed for intercom applications using analog 25V or 45 ohm speakers respectively. They are ideal for modernizing existing analog intercoms. The VE8025/VE8045 Talkback Gateways support 8 intercom stations consisting of a speaker and normally open call button. Each speaker and call button requires a dedicated pair of application appropriate wire.

SPECIFICATIONS
Features
• 8 Speaker Connections
• 2 Line Level Outputs
• 2 Form A relay contacts
• 8 N.O. Call Button Inputs
• RJ-45 for network connection
• Front panel activity LED
• Provides audio for up to 40 Valcom one-way amplified speaker assemblies in 2 zones
• AUX audio input via screw terminal
• Contact closure or VOX operation of audio input
• Power over Ethernet (PoE) 802.3af compatible

Dimensions/Weight (VE8025/8045)
• 1 Standard 19” Rack Unit
• 1.75 H x 16.50" W x 7.38" D (4.45cm H x 41.91cm W x 18.75cm D)
• Weight: 5.20 lbs. (2.36 kg)

Nominal Specifications
Output Wattage: 1/2 Watt/Speaker Output
Line Level Output: -10 dBm 50 Ohms
Relay Current: 1 AMP @ 24VDC
Input Wattage: 14 Watts (48VDC)

Nominal Power Requirements
Via 802.3af PoE Ethernet Switch: 802.3af: Class 3

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

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**

Always check speaker lines, new or existing, for transient voltage and proper impedance before cross connecting to the intercom equipment. Use a good quality **Impedance Meter**, not an Ohm meter.

<table>
<thead>
<tr>
<th>Speaker Type</th>
<th>Number of speakers</th>
<th>Sum of Tap settings</th>
<th>Expected Impedance Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>45 Ohm</td>
<td>1</td>
<td>N/A</td>
<td>=&gt; 45 Ohm</td>
</tr>
<tr>
<td>25 Volt</td>
<td>Any</td>
<td>½ Watt</td>
<td>=&gt; 1300 Ohm</td>
</tr>
</tbody>
</table>

The VE8025/VE8045 is designed for rack mounting (1U).

**Rack:** Secure mounting brackets to the VE8025/VE8045. (See Figure 1) Place the VE8025/VE8045 into a standard 19” rack and secure to rack with proper hardware (included).
Power Connections
The VE8025/VE8045 is powered via a Power over Ethernet (PoE) switch meeting the 802.3af specification.

Make sure all signal connections via the back panel are made then connect the VE8025/VE8045 to the Ethernet switch.

Network Connection
The VE8025/VE8045 has one RJ-45 Ethernet network connector on the front panel.

Use an Ethernet patch cable to connect the VE8025/VE8045 to an Ethernet switch.

Signal Connections
The VE8025/VE8045 has screw terminals for all field wiring connections. See Figures 2 & 3.

The number one cause of troubles in retrofit systems is directly related to the existing field wiring.

It is imperative that existing speaker and call switch wiring (field wiring) be assessed before making connections to new equipment. Guidelines for doing so may be found in our Best Practices and General Troubleshooting Procedures.

Auxiliary Input
The auxiliary input on the VE8025 and VE8045 has absolute priority and is intended for emergency messaging from a line level source. It is not a music input as paging will not override aux audio.

Status Indicator Lights
The VE8025/VE8045 has 3 status indication lights on the front panel: Link and ACT are built into the RJ45 Connector.

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.

Setup
Information specific to your application will need to be programmed into the VE8025/VE8045 using a computer. The PC used for programming should be connected to the same subnet as the VE8025/VE8045. 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.
LN of ZN7. LN OUT2 is a line level clone of ZN8. Each may provide audio to 40 Valcom Self Amplified Speakers or a suitable aux input of an amplifier.

AUX IN is an input for local line level auxiliary audio. It is triggered by VOX or an optional N.O. Dry Switch Contact. AUX audio will be broadcast on all audio outputs.

CC1 and CC2 are relay outputs that may follow DTMF, be mapped to an input on a second VoIP endpoint or close when a particular intercom output is accessed.

EXT is not used at this time

SW 1 – 8 are call button inputs
ZN 1-8 are speaker connections. The VE8025 is designed for use with 25 volt speakers tapped at up to 1/2W.

IMPORTANT
1/2 W Max Per Output

LN OUT1 is a line level clone of ZN7. LN OUT2 is a line level clone of ZN8. Each may provide audio to 40 Valcom Self Amplified Speakers or a suitable aux input of an amplifier.

AUX IN is an input for local line level auxiliary audio. It is triggered by VOX or an optional N.O. Dry Switch Contact. AUX audio will be broadcast on all audio outputs.

CC1 and CC2 are relay outputs that may follow DTMF, be mapped to an input on a second VoIP endpoint or close when a particular intercom output is accessed.

EXT is not used at this time

SW 1 – 8 are call button inputs
ZN 1-8 are speaker connections. The VE8045 is designed for use with 45 ohm speakers (one speaker per output).
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 (877) 427-2166 and ask for Valcom Engineered Solutions Technical Support, or visit our website at www.ValcomES.com.

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

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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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