PagePac®
by VALCOM

PAGEPAC PLUS ZONE EXPANSION UNIT
V-5335100

INTRODUCTION

The Zone Expansion Unit (ZEU) provides up to 16 zones of audio output (including talkback), contact closure outputs or inputs.

SPECIFICATIONS (see Table 2)
FEATURES

- Provides same features as PagePac Plus Controller
- Maximum of 3 ZEUs per Controller

Power Requirements

- Power from the PagePac Plus Controller through the interconnect cable

Dimensions/Weight

- 16.00"W x 1.75"H x 6.88"D (40.64cm x 4.45cm x 17.48cm)
- 3.0 lbs (1.36 kg)

Environment

- Temperature   0 to +40° C (+32 to +104° F)
- Humidity: 5 to 95% (non-condensing)

Locate in an area free of excess moisture, corrosive gases, dust and chemicals.

INSTALLATION
MOUNTING

NOTE: When installing the Zone Expansion Unit, leave at least four inches of space above and below for proper ventilation.

Installing the paging equipment in a ventilated room where there is easy access to speaker cabling (preferably in the telephone equipment room). Disconnect all power before installing equipment.

1. Mount the Zone Expansion Unit(s) (ZEU) to either a wall, cabinet or a rack (below the controller).
2. Connect 8-pin Molex from Controller to first ZEU, and next ZEUs, if used.

NOTE: Up to 3 ZEUs can be used, providing up to 56 paging and/or control zones.

3. Set DIP switches on each ZEU(s).
4. Set the Zone Option switches on the Controller and ZEU(s).

NOTE: For each zone used, no matter what its function, this switch needs to be set to one of three settings for proper zone operation before applying power to the system.

The Controller has eight switches for zones 1-8. Each subsequent ZEU has switches for zones 9-24, 25-40 and 41-56.

Refer to the Zone Map and Zone Configuration Tables filled out during facility paging system design. You can find these in the PagePac® System Installation and Configuration Guide.

5. Locate and mount all speakers in accordance with the floor plan drawing for this installation.
6. Connect each speaker to the appropriate Home Run or Speaker-to-Speaker wiring scheme as shown on the floor plan.

NOTE: Adjust all speakers per volume and power requirements as noted on floor plan, during or after installation.

Figures 7 and 8 show wiring methods using local and zone connector blocks, and contact closure zone applications.

7. Test speaker wiring for short circuits. Measure the resistance of each Home Run wiring with an ohmmeter. Any pair indicating a value of less than 15 Ohms must be rechecked for possible shorted wiring or speakers. Correct any problems and retest.
8. Make zone connections to Controller and ZEU (see Figures 5 thru 7).
   The zone connectors on the Controller and ZEU can accommodate up to two 22 AWG wires or four 24 AWG wires per zone output. Check zone option switch setting with Zone Map and Zone Configuration tables as you connect each zone.

   NOTE: DO NOT over tighten zone connector screws.

Powering Up System

With all zones wired and connected to the Controller and ZEU(s), initial testing can begin. Once initial testing is done, you can begin to program the Controller with the features for each zone.

1. Plug the power cord into the AC input connector on the AmpliCenter®. the following should happen:
   a. The green Power LED on the AmpliCenter will turn on and stay on.
   b. The green Page Access LED on the AmpliCenter also turns on, but will go out after a few seconds.
   c. On the Controller, verify that the green Phone System Enabled LED is off.
   d. On the Controller, verify that the yellow Attendant Access Enabled LED is off.
   e. The green Power LED on the ZEU(s) will turn on and stay on.

NOTE: If during power up, the system does not respond as described, refer to the Troubleshooting section of this guide and/or the PagePac® Plus System Installation and Configuration guide for detailed troubleshooting.

2. Begin programming the Controller.
A quick reference card for telephone programming, along with detailed programming instructions, can be found in the PagePac Plus System Installation and Configuration Guide, Programming.

TROUBLESHOOTING

Some common problems encountered when the paging system is not operating are described below. Check each item in the order listed.

1. No AC power to AmpliCenter or Controller (they supply power to the ZEU(s)).
2. Host telephone system failure.
3. Host system page port failure.
4. A hardwire disconnect between host system and Controller.
5. AmpliCenter, Controller or ZEU zone switches or DIP switch settings tampered with.

If the problem has not been resolved by checking the preceding items, refer to the troubleshooting tables in the PagePac Plus Installation and Configuration Guide.

Controls and Indicators, Terminals and Connectors

Figure 9 shows the controls and indicators, terminals and connectors on the rear panel of the ZEU(s). Table 1 identifies them by function.

Table 1. Controls and Indicators, Terminals and Connectors

1	Zone option 3-position slide switch: 70V audio out, contact closure input and contact closure output.
2	Zone connector for expansion zones: plus, minus and ground screw terminals.
3	8-pin Molex connector from controller: power, control and audio or previous ZEU.
4	8-pin Molex connector to additional ZEU: power, control and audio.
5	DIP switch to be set when one, two or three ZEU(s) are used.

TECHNICAL ASSISTANCE

When calling, have a VOM and a telephone test set available and call from the job site. Call (540) 563-2000 and press 1 for PagePac Technical Support or visit our websites at http://www.pagepac.com and www.valcom.com.

Should repairs be necessary, attach a tag to the unit clearly stating company name, address, phone number, contact person and the nature of the problem. Send the unit to:

Valcom, Inc.
PagePac® Repair Dept.
5614 Hollins Road
Roanoke, VA 24019-5056

Table 2. ZEU Specifications

Capacities	Each ZEU connects up to 16 zones of audio output (including talkback), contact closure outputs or inputs.
Dimensions and Weights	Height: 1.75" (4.45cm) Width: 16.00" (40.64cm); 19.00' (48.26cm) with brackets attached Depth: 6.88" (17.48cm) Weight: 3.0 lbs (1.36kg)
Electrical Relay Contacts	Control Contact Closure: Contacts are rated at 120VAC/50VDC at 1 Amp Audio Zone: Contacts are rated at 2 Amps
Temperature Range	0 to +40° C (+32 to +104° F) operational -40 to +66° C (-40 to +150° F) storage and shipment
Humidity Range	5 to 95% (non-condensing) storage/shipment and operation
Altitude	Sea level to 10,000 ft. operational (1048 to 648 millibars) 40,000 ft. max. shipment
Environmental	Locate in an area free of excess moisture, corrosive gases, dust and chemicals.
Interconnect Cable	8-position, 5 Amp contact rating, locking, keyed, 22 AWG wire, housing material 94V-2, providing 70.0VrmS (4), common ground, +17VDC, Serial Data and Clock Data

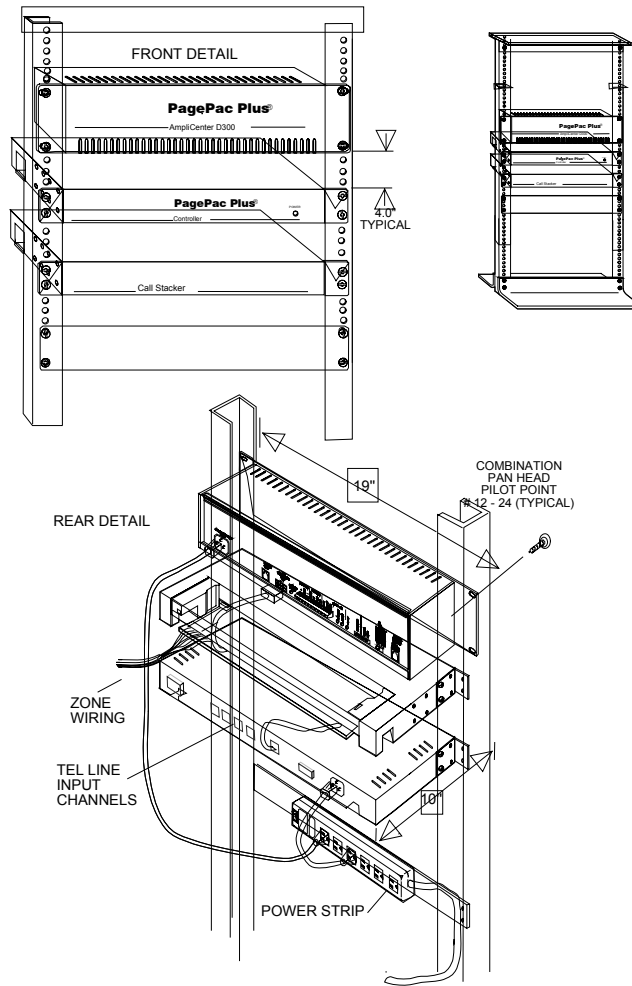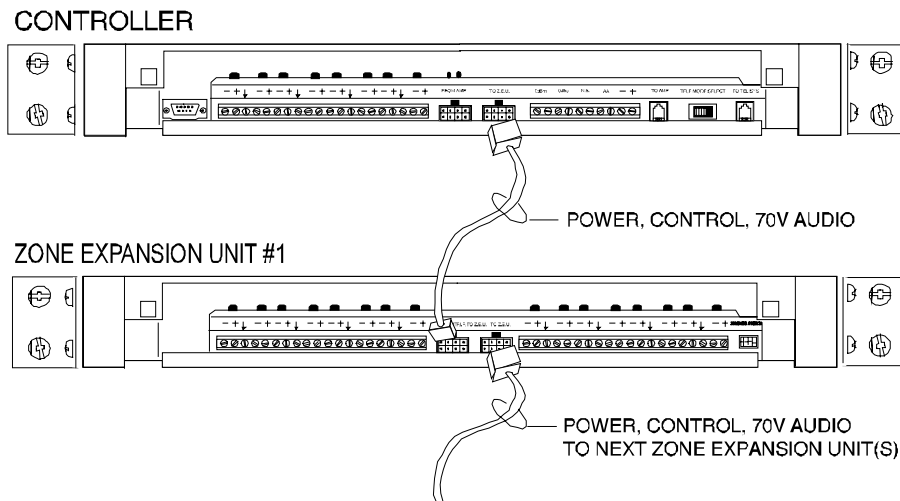**Figure 1. Wall Mounted Hardware**

Figure 2. Rack Mounted Hardware

Figure 3. 8-pin Molex Connector from Controller to Zone Expansion Unit(s)

ON 1ST ZONE EXPANSION UNIT SET DIP SWITCH TO:

ENABLES
ZONES 9-24

ON 2ND ZONE EXPANSION UNIT SET DIP SWITCH TO:

ENABLES
ZONES 25-40

ON 3RD ZONE EXPANSION UNIT SET DIP SWITCH TO:
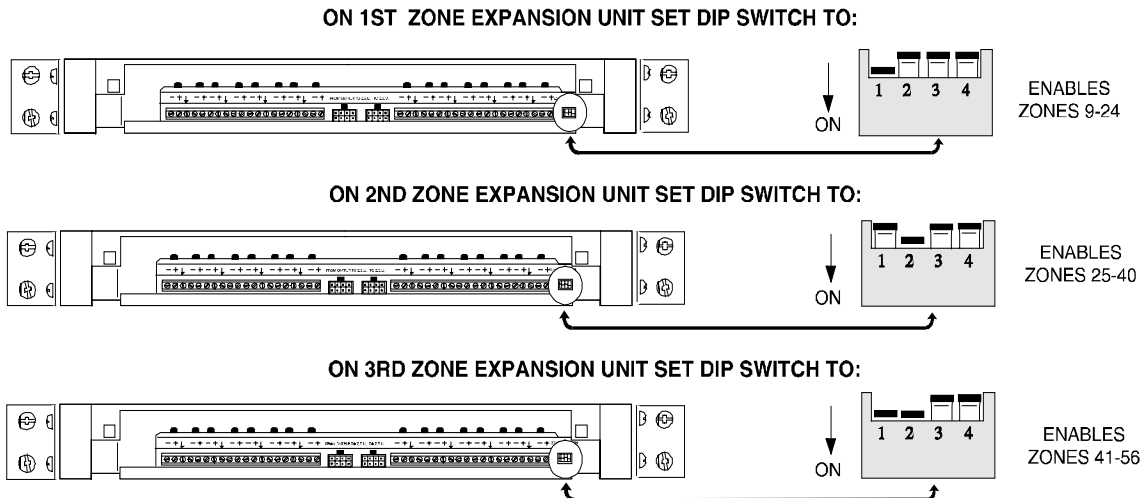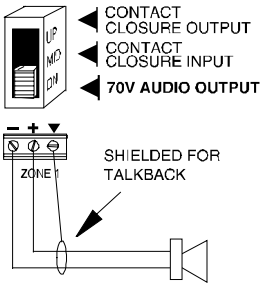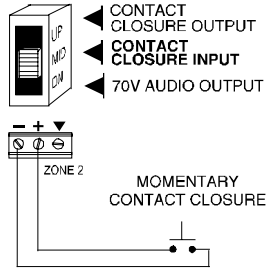

ENABLES
ZONES 41-56

Figure 4. Setting Zone Expansion Unit Dip Switches

SPEAKER SETTING

CONTACT CLOSURE OUTPUT
CONTACT CLOSURE INPUT
70V AUDIO OUTPUT

ZONE 1

SHIELDED FOR
TALKBACK

SIGNAL-IN SETTING

CONTACT CLOSURE OUTPUT
CONTACT CLOSURE INPUT
70V AUDIO OUTPUT

ZONE 2

MOMENTARY
CONTACT CLOSURE

CONTACT CLOSURE SETTING

CONTACT CLOSURE OUTPUT
CONTACT CLOSURE INPUT
70V AUDIO OUTPUT

ZONE 2

MOMENTARY OFF
MOMENTARY ON
RELAY POWER

ZONE OPTION SWITCHES

CONTROLLER

ZONE EXPANSION UNIT
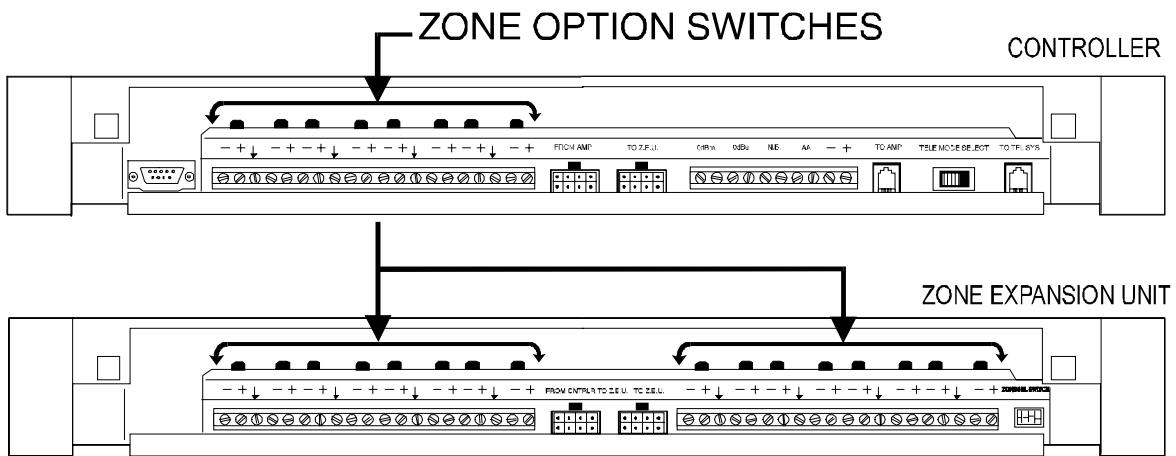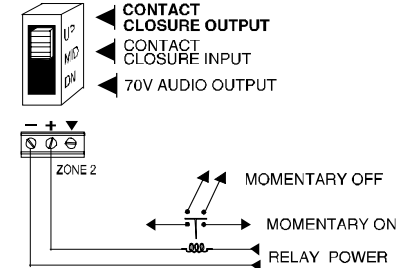
Figure 5. Setting Zone Option Switches on Controller and Zone Expansion Units
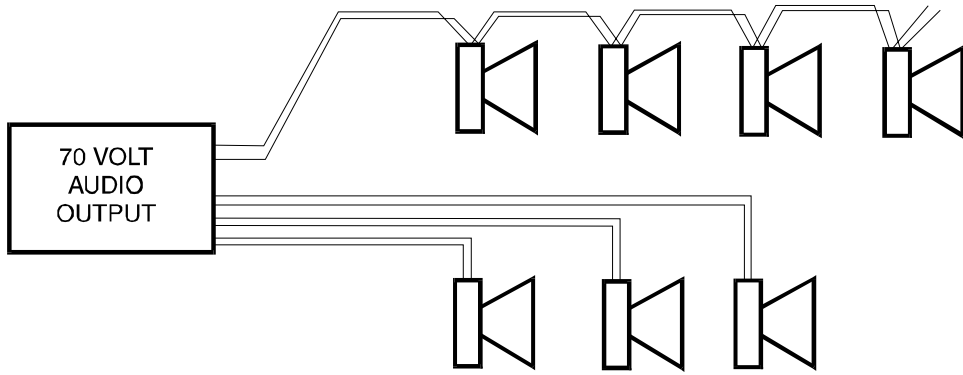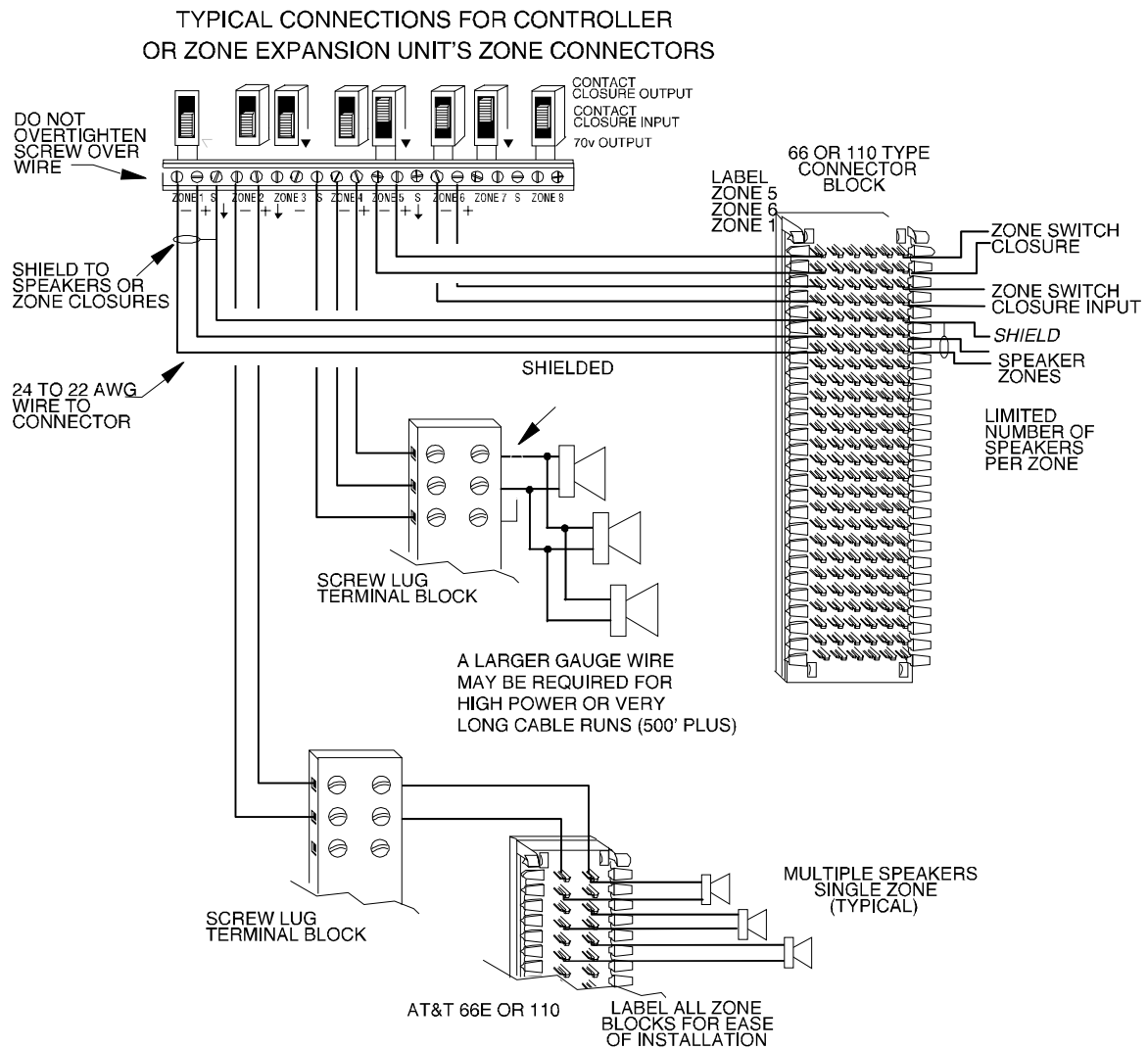
Figure 6. Speaker Wiring Methods
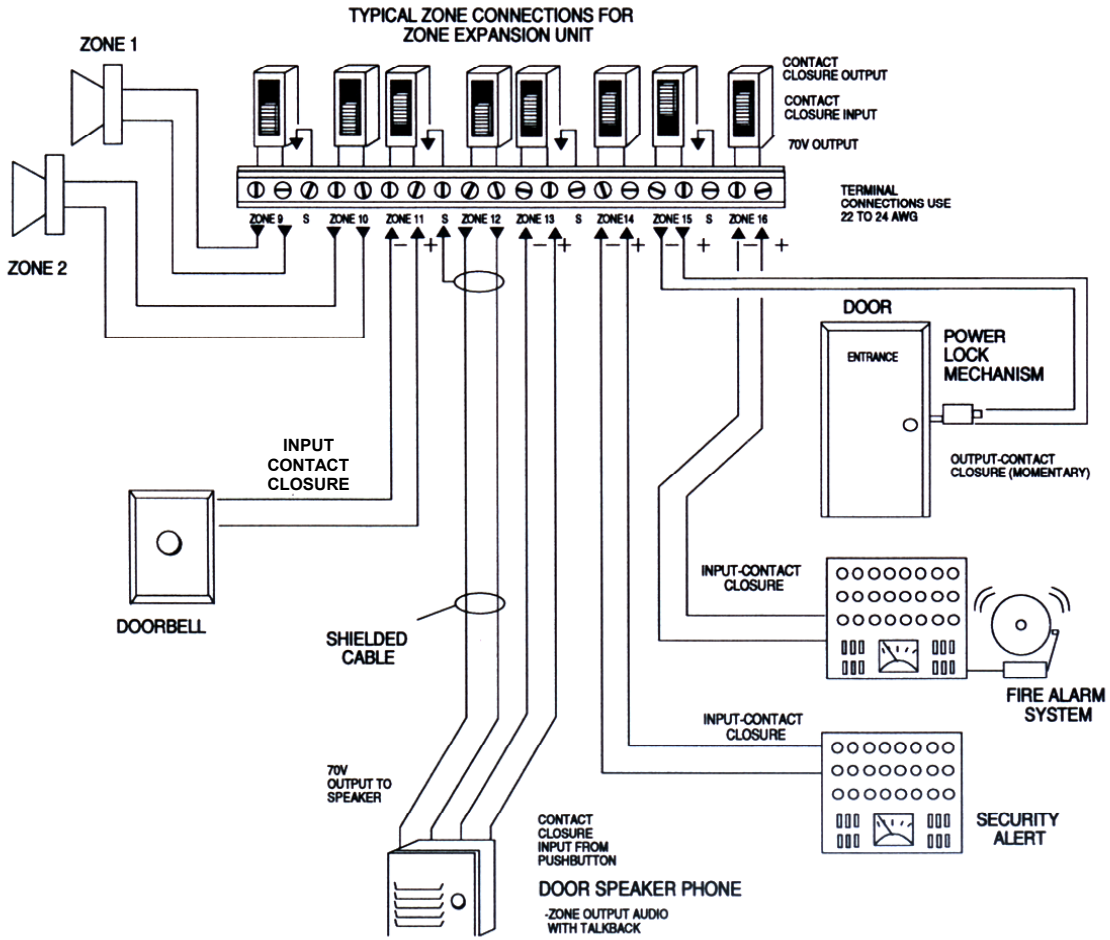

Figure 7. Zone Wiring Using Connector Blocks

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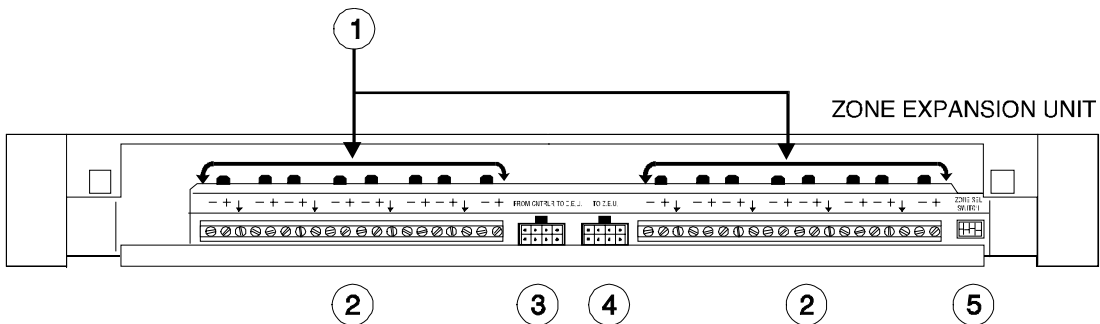**Figure 8. Speaker and Contact Closure Zone Wiring to Controller**

Figure 9. Zone Expansion Unit Back Panel

VALCOM LIMITED WARRANTY

Valcom, Inc. warrants its products 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. The obligation under this warranty 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 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, or use of the product.

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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