

## EXPANDABLE 24/48/72/96 ZONE MULTI-ZONE INTERCOM SYSTEM Model V-2924A, V-2925A, V-2926, V-2928

The V-2924A provides 24 ports of paging with hands-free intercom talk back operation. Ports may be configured as one way paging only to drive self-amplified loudspeaker paging zones. Up to three V-2925A port expansion units may be connected to provide 48, 72, or 96 Ports and up to 16 one-way page groups, and emergency all call. The system allows dialing access from multiple office telephone stations to all speaker locations through the PBX integration of the V-2924A Administrative Caller ID trunk port. The system also allows for calls from individual speaker locations to be placed to these same office telephones through the use of call in buttons. Each system port is compatible with 45-ohm or self-amplified speakers and normally open call buttons. The V-2924A can be accessed via single line phone, an E-Key C. O. line port, or a loop start trunk port. Hands-free amplifier for individual station calls and built-in one-way paging amplifiers for group call, all call pages, BGM, and basic tones are all standard. The V-2924A offers "Meet-Me" and "Follow Me" capability, multiple calling station call queue, two or three digit numbering plan, dial tone, ringback tone, alert tone, repeated alert tone, electric doorlock control, inhibit input, evacuation tone input, night ring and time tone input. The V-2924A is also compatible with the VPB-260 battery backup unit.

When using the V-2926 Option Card, the system provides the following features: up to 4 user custom page groups, enhanced caller ID, programmed to identify classroom or doorphone station that is calling, flexible architectural station numbering, user data storage of system backup files on EEROM, real time clock and SMDR printer output. In addition to these features, the V-2928 Option Card provides 6 time schedules with 256 programmable events, to provide automatic scheduled distribution of tone signals. Both the V-2926 and V-2928 Option Cards are provided with a Windows 95, 98, NT, 2000 and XP based software programming tool designed to interface with the system. The V-2924A system components offer many safety features in addition to ease of use. Emergency paging messages are prioritized to help secure the safety of all personnel. In the event of an emergency, the system will allow emergency announcements to override normal day-to-day operations.

### **V-2924A Expandable Paging/Intercom Controller (24 Ports)**

- 24 one way paging and/or two-way intercom circuits
- 4 Separate Paging/Tone groups per unit
- Background music and tones are group selectable
- Standard twisted pair CAT 2-6 system connections and blocks
- Caller ID loop start trunk C.O. Line position PBX interface
- 4 auxiliary relays for controlling door locking/unlocking access
- SMDR printer output provides record of system activity
- Built in connector for optional battery backup operation (VPB-260)
- Multiple V-2924A units may be interconnected for global all call
- UL and FCC Listed , Registered or Approved

### **V-2925A Expansion Unit (24 Ports Each)**

- Additional 24 one way paging and/or two way intercom ports
- Each Expansion Unit provides 4 Groups of paging/tone broadcast
- Up to (3) V-2925A's may be connected to a V-2924A Controller to expand system to 48, 72 or 96 ports

### **V-2926 Enhanced Feature Option Card with Windows Programming Tool**

- Flexible station dialing numbering using programmable architectural numbers
- Provides enhanced caller ID for programming names of calling party
- Windows 95, 98, NT, 2000 and XP Programming using standard PC or remote modem

### **V-2928 Enhanced Feature Option Card with Event Scheduling and Windows Programming Tool**

- All the Features of V-2926 Option Card with additional Time Event Schedules
- Programming of tones using 6 schedules and 256 events
- 4 auxiliary timed relays for control of V-9927A Tone Generator



***V-2924A with (1) V-2925A Unit  
48 Port System with 8 page groups  
6 Ports in each page group***

## SPECIFICATIONS:

### NOMINAL SPECIFICATIONS

Tip and Ring Input Impedance: 600 Ohms  
Tip and Ring Input Level: -10 dBm  
BGM Input impedance: 10k Ohms

### Background Music Amplifiers

Frequency Response: 50 Hz to 17 kHz +/- 3 dB  
Distortion: < 1.0 %  
Signal to Noise: -70 dB

### Page Amplifiers

Frequency Response: 150 Hz to 7.5 kHz +/- 3 dB  
Distortion: < 1.0 %  
Signal to Noise: -70 dB

### MAIN UNIT CONTROLS

Tone level for internally generated tones (one control handles both time and evacuation tones).  
Tone level for externally generated tones (one control handles time, evacuation or night ring tones).  
Phone to speaker/speaker to phone volume levels.  
Background music system-wide volume control.

### RING SUPPLY

90 Vac, 30 Hz - Ring Patterns:  
2 sec On, 4 sec OFF American  
1 sec On, 4 sec OFF Dutch  
Double Ring British

### AUXILIARY CONTACTS

Remote Signaling Closure (follows ring pattern).  
Contact Closures for Last Four Zones (strike plates)  
(Main V-2924A Unit Only).

### OPTION CARDS & SOFTWARE

V-2926 Feature Enhancement Card. PC  
Programming, Flex Dialing, Database Backup.

V-2928 Event Scheduling Card, same options  
as V-2926 adding timekeeping and audio distribution.

### ADDITIONAL INPUTS

Inhibit (Ground Activated)  
Tone One Input  
Input impedance: 10k ohms  
Input Level: -10 dBm  
Tone Two Input  
Input impedance: 10k ohms  
Input Level: -10 dBm

### PRINTER PORT

Type: Serial  
Baud Rate: 9600  
8 Data Bits, No Parity, 1 Stop Bit

### POWER REQUIREMENTS

#### V-2924A

Operating Voltage: 120, 240 Vac  
Current: 1.5 Amp Maximum  
Frequency: 50, 60 Hz

#### V-2925A

Operating Voltage: 120, 240 Vac  
Current: 1 Amp Maximum  
Frequency: 50, 60 Hz

### ENVIRONMENT

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

### DIMENSIONS

Control Unit: 17.5" (44.45 cm) H x 10.3" (26.16 cm)  
W x 3.06" (7.77 cm)D  
Expansion Unit: 17.5" (44.45 cm) H x 8.37" (21.26 cm)  
W x 3.06" (7.77 cm)D  
Option Board: 5.3" (13.46 cm) L x 3.0" (7.62 cm) W  
x 1.1" (2.79 cm)D

### COMPUTER REQUIREMENTS

**HARDWARE:** 80486 (higher is recommended)  
Hard drive with 20 Mbytes free  
Mouse  
8 Mbytes of RAM (more is recommended)  
**SOFTWARE:** Windows 95, 98, NT 2000, and XP

### ACCESSORIES

VPB-260 Battery Backup

# **ARCHITECTS SPECIFICATIONS**

## **Architects and Engineers Specifications**

### **Model V-2924A, V-2925A, V-2926, V-2928**

The proposed system is an expandable, multi-zone intercom/paging/signaling/program distribution sound system. The system is a combination of zone and feature cards, connected and housed in a central location and provides for page priority of emergency messages from any phone. System provides background music and tone distribution if required. The expandable intercom/paging system, V-2924A, shall provide telephone accessed two-way voice intercom and paging utilizing 45-ohm talkback and one-way paging with self-amplified paging loudspeakers. The system shall provide 24 station ports of paging/intercom with handsfree talkback, one-way group call and all call. Using the V-2924A administrative port, the system shall provide for call origination from designated telephone(s) to any speaker location and from any of the speaker locations to designated telephone(s). The V-2925A expansion units shall provide for expansion in 24 station increments with a maximum capacity of 96 stations. Additionally, provisions shall be made for up to six fully expanded 96 zone systems to be interconnected to allow one-way global all call and one-way global priority pages of up to 576 stations. The V-2926 enhanced feature option card provides Windows 95, 98, NT, 2000 and XP programming tool, enhanced caller ID integration and architectural room dialing of station ports. It also features remote maintenance and diagnostics to facilitate optional maintenance from off site service location via modem. The V-2928 Tone/EventScheduling software option shall provide added features to automatically distribute tones and messages via user defined schedules.

The intercom shall be accessible from a C.O. line position of a key system, loop start (or caller ID) trunk port of PBX, dedicated single line telephone set and STA outputs connect to 45 ohm talkback speakers equipped with optional call buttons. The system shall provide the following features; "Meet-Me" and "Follow Me" capability, call queue, two or three digit numbering plan, dial tone, ringback tone, alert tone, repeated alert tone, the ability to operate electric door locks, inhibit input, evacuation tone input, time tone input, night ring input, enhanced caller ID, SMDR printer port, and shall be compatible with the Valcom VPB-260 battery backup set. The system shall provide an override input for system-wide emergency one-way announcements. With the V-2926 Option Card, stations shall be dial selectable via flexible two, three, or four digit programmable user numbers.

The intercom shall provide a tip and ring input impedance of 600 ohms with a nominal level of -10 dBm. The speaker output impedance shall be 45 ohms. Each port may be strapped to provide a one way paging audio signal to drive groups of self-amplified paging loudspeakers. The unit shall provide a line level background music/message input with an input impedance of 10k ohms. The music/message input shall have a frequency response of 50 Hz to 17 kHz +/- 3 dB with less than 1.0% distortion and greater than -70 dB signal to noise. The one way page amplifiers shall have a frequency response of 150 Hz to 7.5 kHz +/- 3 dB with distortion less than 1.0 % and signal to noise greater than -70dB. The unit shall provide the following additional inputs: inhibit (ground activated), -10 dBm/10k ohm evacuation tone input, a -10 dBm/10k ohm time tone input and a universal night answer activation input. The integrated ring supply shall provide 90 Vac, 30 Hz signal in the following optional ring patterns: 2 sec on, 4 sec off ; 1 sec on, 4 sec off; double ring burst. The following auxiliary output contacts shall be provided: remote signaling closure (follows ring pattern), 4 momentary contact closures to operate electric door locks.

The intercom shall operate on 120Vac/60 Hz or 240Vac/50 Hz. When using the V-2926 Option Card, the system shall also provide the following features: User page groups programmable for dial code selection of multiple pre-defined page groups, time sync relay, enhanced caller ID, flexible architectural numbering, EEROM data storage, and internal real time clock. Additionally when using the V-2928 Option Card, the system will provide automatic timekeeping and audio control functions using event scheduling.

The V-2924A system programming tool shall be a Windows 95, 98, NT, 2000 and XP based software tool designed exclusively for the system and provided with either the V-2926 or V-2928 optional enhancement cards.

The V-2924A Control Unit dimensions shall be 17.5" (44.45 cm) H x 10.3" (26.16 cm) W x 3.06" (7.77 cm) D. The shipping weight shall be 17.5 lbs. (7.88 kg).

The V-2925A Expansion Unit dimensions shall be 17.5" (44.45 cm) H x 8.37" (21.26 cm) W x 3.06" (7.77 cm) D. The shipping weight shall be 13.5 lbs. (6.08 kg)

The V-2926 and V-2928 Option Boards and Windows software dimension shall be 5.3" (13.46 cm) L x 3.0" (7.62 cm) W x 1.1" (2.79 cm) D. The shipping weight shall be 1.3 lbs. (.59 kg).

## 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 in any way 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, Inc. 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.