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MultiPath Paging™ System

Revision 1.01

The most reliable and flexible integrated MultiPath™ Paging system EVER!

Performance Specification

COMMUNICATION SYSTEM

The MultiPath™ Paging System shall provide at least the following functions and features:

- A. One way voice paging from any telephone station to a zone, group of zones, or all zones
- B. One way voice paging to a user defined temporary (on the fly) group zone.
- C. Microprocessor based system capable of handling up to 360 zones. A zone is defined as a speaker output/contact closure combination. A zone output shall support Valcom self-amplified one way speakers and a closure output to activate strobes, and other ancillary devices.
- D. System shall be modular in design and capable of expanding in increments of 24 one-way page zones at a time allowing for budget flexibility and expandability.
- E. System shall interface with any telephone system, thus allowing the end user(s) to upgrade or replace their telephone system without suffering a requirement to replace, or lose any feature of, their internal communications MultiPath™ paging system.
- F. Priority paging from selected telephone stations to a zone, group of zones, or all zones.
- G. Distribution of emergency announcement(s) from any authorized telephone to all areas furnished with a loudspeaker. Emergency announcements shall have the highest system priority.
- H. Shall provide one-way priority override voice paging to all zones from a microphone.
- I. System shall provide a contact closure associated with each one-way page zone for activation of strobes and other ancillary devices.
- J. Distribution of general announcements from any administrative telephone, staff telephone, or room/office telephone. The system shall be capable of providing all-call, group call, multiple group call, or dial-on-the-fly page groups.
- K. Speakers shall be software assignable to any or all of 72 (seventy-two) paging groups.



- L. Provide unlimited time tone schedules/unlimited events with the ability to automatically administer 8 (eight) or more schedules at any given time. Each scheduled event shall be capable of utilizing any one of 9 (nine) user defined internal tones/auxiliary sources. Automatically administered schedules shall be capable of simultaneous operation. Schedule administration, modification and creation functions must be available through administration PC software.
- M. Provide 2, 3 or 4 digit architectural numbering for each zone.
- N. Provide facilities for up to 7 (seven) call-in priority levels. Each zone call in switch shall be assignable to any one or two of these priority levels. The call button priority levels shall have the capacity to change state on a time of day basis. The priority levels shall be as follows:
 - 1) Normal
 - 2) Security
 - 3) Normal/Emergency
 - 4) Urgent/Emergency
 - 5) Overhead Ring
 - 6) Emergency Only
 - 7) Ignore
- O. Call in switch priority levels shall determine call queue placement. Emergency calls will be answered first; urgent calls second and normal calls last.
- P. Two-way communication for door entry, rinse stations, emergency response locations, and or picking areas.
- Q. Any zone/area loudspeaker must have the flexibility to be programmed as an off limit paging zone that may be programmed daily or hourly as not to receive normal pages or normal tones. These zones shall still receive emergency pages and emergency tones. System shall be able to add any zone at any time to this off limit paging zone.
- R. Programmable features shall be stored in non-volatile memory and shall not be lost due to power failures.
- S. Distribution of discreet signal tones to a zone, group of zones, or all zones. Program sources shall include music, speech or signals from radio, tape, CD, cable or digital audio messaging units (programmable)
- T. Shall provide preannounce and privacy tones that are software programmable. .
- U. System functionality must include the capability to manually distribute up to 5 (five) emergency alert tones via pushbuttons, contact closure, or dial up tones from any administrative telephone. These tones shall be customizable with respect to



cadence, type and duration. Dial up tones must only be accessible by authorized users.

- V. The system must provide a minimum of 4 (four) ports to be connected to the telephone system from the MultiPath™ Paging system. These 4 (four) ports shall provide built-in Enhanced Caller Line Identification which will visually announce the zone of the call in location, the architectural zone number, and the status of the call-in level; thus allowing interfacing to any telephone system.
- W. The system shall have the ability to control all system relays. Relays shall be DTMF controlled, automatically cycle at a programmed time of day, follow time schedule events, follow time group events, follow security calls, and follow emergency and ADA calls. All relays must be software programmable with the flexibility to change as required.
- X. The system shall provide at least three simultaneously operating, non-restrictive program distribution channels. The audio program material shall be controlled and distributed with administration PC software allowing simple and easy changes.
- Y. The system shall provide a built in Ethernet port on the CPU for network connectivity over the LAN/WAN for system setup, programming, and system changes. This port shall also be utilized for the administration software as to allow easy and simple access to the system for daily, weekly, monthly, and yearly changes.
- Z. Class of Service, with day and night programmable modes. Each day of the week shall have the ability to be programmed for different times to allow flexibility.
- AA. System shall provide Emergency Synthesized Voice Announce.
- BB. Emergency Restricted Access Mode
- CC. On site or remote programming and diagnostics from a Windows® based PC.

1.0 PAGING CONTROL UNIT

- A. Shall be capable of expanding to 360 zones.
- B. Provide pre-alert tone to zones for general announcements.
- C. Ability to program and control the built-in master clock with 1024 events and unlimited time schedules with multiple time groups.
- D. Ability to produce user defined tone signals for time tones or emergency tones.



- E. Ability to select the tone on an all-call basis from any, or selected, administrative telephones.
- F. Provide an RS-232 port, which will give ability to monitor operations and functions of the systems.
- G. Provide off-site programming of the system. It shall also be capable of determining basic circuit faults.
- H. The system shall be capable of simultaneous conversations between telephone interface ports.
- I. The system shall have a Windows® based PC administration programming tool which allows the administrative personnel to easily manage Audio Sources, schedules, paging groups, zone changes, time updates, holiday schedules and day/night mode operation from their desktop PC.
- J. System shall also be connected to Valcom self-amplified one-way speakers and horns with built-in volume controls. An unlimited quantity of Valcom one-way speakers and horns may be connected to each zone.
- K. System speakers shall be capable of utilizing UTP 3/5/5e/6-telecom/data wiring for installation, thus allowing for only one type of wiring infrastructure within the facility. The speaker zones shall be capable of utilizing spare pairs in the telephone wire allowing for lower installation cost.
- L. Provide 8 (eight) unrestricted audio paths for communication between administrative phones, program material, time tone distribution, and paging.
- M. Provide 6 (six) software programmable pushbutton inputs that can be used to activate tones, emergency tones, time tones, schedules, set system time, force a holiday schedule, door entry, etc.
- N. Provide 8 (eight) software programmable output contact closures which can be activated manually to turn on cameras, unlock doors, emergency lockdown, etc., or automatically via Master Time Control Center.
- O. Provide voice-synthesized call-in, which allows the administrative telephones to hear the incoming intercom call's room number over the handset.
- P. Provide call confirmation tone at speaker when an intercom call is placed. This verifies that the call has been placed in queue. If the call is upgraded to an emergency, a second confirmation tone shall be activated.
- Q. Provide Emergency Voice Announce. Automatically announce the architectural zone number over any one, group, or all speakers if an emergency call-in goes unanswered.



1.1 WIRING

- A. All wiring shall be listed for the intended purpose. The intercom/paging system shall use UTP 3/5/5e/6 U.L. listed cable.
- B. All interior wiring shall be in accordance with new construction guidelines suggested by the Manufacturer; including the speakers and the call-in switches.



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