


# EN54 Voice Evacuation Systems



- 125 - Voice Evacuation System**
- 127 - 8 zones Voice Evacuation System**
- 129 - 6 zones Voice Evacuation System**
- 131 - Compact Voice Evacuation System**
- 132 - EN54 Fireproof Speaker**

## EN54

### EN 54 Standards

The *EN 54 Fire detection and fire alarm system* is a mandatory standard of European Union market that specifies requirements and laboratory test for every component of fire detection and fire alarm system.

The standard is developed and approved by European Committee for Standardization (CEN). It came into force in April 2011. It has been widely recognized around the world. Three sections regarding to Voice Evacuation Systems in the standard:

### EN 54-4

EN 54-4: Power supply equipment

An uninterrupted monitored power supply system is crucial for this type of system, guaranteeing system availability at all times. Some of the characteristics that have to be fulfilled:

- Monitoring and detecting faults in batteries
- Protecting against surge
- Protection against over discharge

### EN 54-16

EN 54-16: Voice alarm control and indicating equipment

Requirements that the control system must fulfill as well as the tests that have to be undertaken. Some of the characteristics that have to be fulfilled:

- Immediate availability. It must be able to send warning message 10 seconds after applying electric power supply
- Immediate response. Less than 3 seconds after an alarm is set off
- Supervision of the critical signal route: the alarm system link, the PA system, the amplifiers and the loudspeaker lines. This supervision must not interfere with the normal operation of the system and must be supervised at least every 100 seconds
- Status indication and fault monitoring
- On some occasions a back-up amplifier is compulsory in case there is a problem with one of them

### EN 54-24

EN 54-24: Voice alarms - Loudspeakers

This establishes the requirements that must be fulfilled by the loudspeakers within emergency evacuation systems. Some of the characteristics that have to be fulfilled:

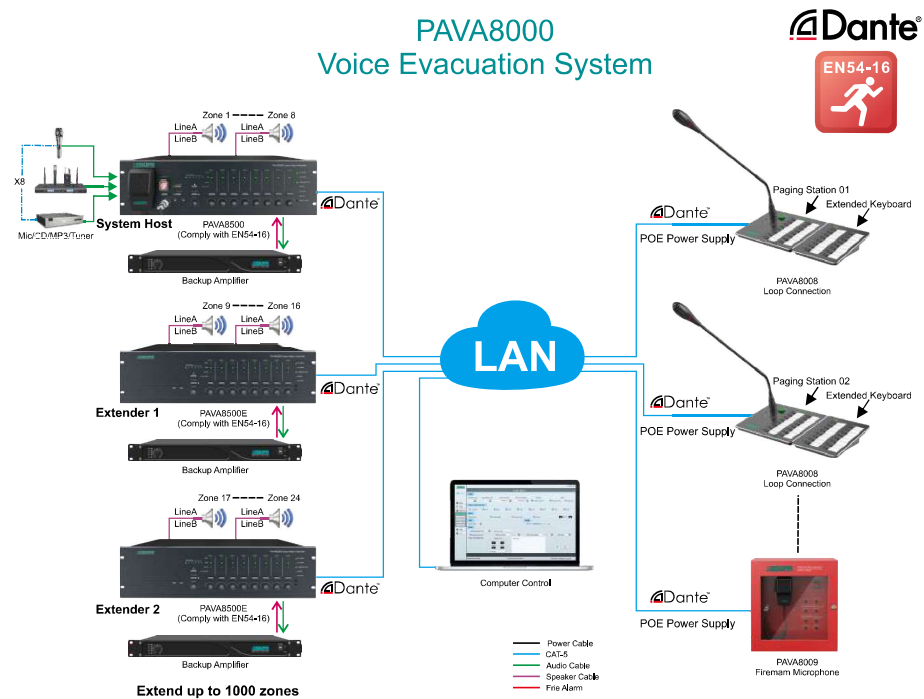
- Ceramic connector to withstand high temperature
- Thermal fuse
- Fireproof dome
- Fireproof cables

## Voice Evacuation System

The EN 54 Fire detection and fire alarm systems is a mandatory standard of European Union market that specifies requirements and laboratory test for every component of fire detection and fire alarm system.

The requirements related with voice evacuation system includes EN54-4 (Power supply equipment), EN 54-16 (Voice alarm control and indicating equipment) and EN 54-24 (Voice alarm loudspeakers).

In order to meet the market requirements, DSPPA has launched the PAVA6000 voice evacuation system into the market.



### Features:

- 8 to 1000 zones control (by extender)
- Compact design with built-in amplifier
- Support remote control and system diagnose via computer
- Comply with EN54-16 standards
- Built-in SD card for voice message
- Auto detection for system failure speaker line / EMC Mic / Paging Mic, etc

### Applications:

Venues of all sizes where voice evacuation is needed: shopping mall, exhibition & convention center, star hotel, school, etc.

## PAVA8500 8 Zones 500W Voice Evacuation System Amplifier



### Features:

- 8 zones speaker output (could be extended up to 1000 zones)
- Built in 500W digital amplifier
- One button alarm, built in EVAC message & Chime
- 8 Zones speaker output with individual volume control
- Support remote Mic zones or group paging
- DC battery backup monitoring
- Real time monitor with EMC microphone for emergency situation avacuation
- 8 dry contact trigger input/output, DC24V override output
- Support 100V Speaker AB line outputs with impedance supervision



PAVA8000 Voice Evacuation System Software

## PAVA8500E 8 Zones 500W Voice Evacuation System Extender Amplifier



### Features:

- Built-in 500W digital amplifier
- 8 zones speaker output with individual management
- Auto detection for system failure, AC/DC, paging Mic, etc.
- Zones extendable by another extender amplifier
- Support remote control via computer
- Comply with EN54-16 requirements

**PAVA8008/PAVA8008E**  
16 Zones Remote Paging Station



**Features:**

- Remote paging mic of PAVA8500
- Each microphone has 16 zones capacity
- Zones extendable by extender Mic PAVA8008E
- System indicators of AC/DC, fault, Mic, etc.
- Comply with EN54-16 requirements

**PAVA8009**  
Fireman Microphone



**Features:**

- Wall mounted structure, conform to the EN standard
- Programmable for the buttons
- Microphone real-time monitoring
- Support paging priority setting
- Support AC220V/POE power supply
- Long distance transmission(Dante technology)

**PAVA6240/PAVA6500**  
6 Zones Voice Evacuation System Amplifier



**Features:**

- 6 zones speaker outputs (extendable to 120 zones)
- Support remote paging microphone (up to 32 sets)
- Comply with EN54-16 requirements
- Built-in 240W/500W digital amplifier
- Built-in voice alarm message in SD (editable)
- Auto detect of system failure, speaker line, paging Mic, etc.
- 6 zones 24V override outputs
- 8 EMC dry contact inputs and outputs

**PAVA6240E/PAVA6500E**  
6 Zones Voice Evacuation System Extender Amplifier



**Features:**

- 6 zones speaker outputs
- Built-in 240W/500W digital amplifier
- Comply with EN54-16 requirements
- 8 EMC dry contact inputs and outputs
- 6 zones 24V override outputs
- Auto detect of system failure, speaker line, power supply, etc.

**PAVA6005**  
Touch Screen Remote Paging Station



**Features:**

- With 7" touch screen to operate and display working status
- Paging key mode and PTT mode can be configured
- Paging priority can be configured
- Support zone/group paging through touch screen
- Two RJ45 ports for connection
- One 3.5mm line input for audio source
- One 3.5mm output interface for monitor
- Support DC 24V or phantom power 24V supply

**PAVA6006**  
12 Zones Remote Paging Station



**Features:**

- 12 zones individual control and group control
- Supports 32 remote microphones
- Support cascaded linkage and loop connection
- RJ45 interface, working distance 600m
- One auxiliary input via 3.5mm jack
- Support communication line auto detection

**PAVA6500FM**  
Fireman Microphone



**Features:**

- Fireman microphone of PAVA6240/PAVA6500
- Support all zones paging and voice message playing
- Comply with EN54-16 requirements
- With 4 groups editable via software
- Auto detect of system failure, Mic, communication, etc.

**PAVA2240**  
Compact Voice Evacuation System Amplifier



**Features:**

- AB line speaker output of two zones, independent switch with master volume, treble and bass adjustment
- Support speaker line detection (light load, overload, open circuit and short circuit)
- One channel audio input, two-zone paging microphone, support offline detection
- Built-in primary and standby 240W digital amplifier module, auto switch to standby amplifier when the primary one breaks down
- Support AC/DC power supply, and AC/DC automatic recognition and switch
- With 24V battery charger, auto charging when AC power supply is used
- With emergency button which supports playing of recordings in SD card under emergency circumstances. Button-press records will be saved in SD card
- Speaking through a handheld microphone will be automatically recorded in SD card
- Two-channel linkage output
- Two channels of dry contact input
- Can be connected with Fireman Microphone PAVA2200

**PAVA2220**  
Fireman Microphone



**Features:**

- Can remotely control PAVA2240
- With EVAC,ALERT voice
- Support real-time monitoring of microphone
- One cable to supply power, transmit audio and communicate
- Support 500m long-distance transmission
- Support redundant cable connection
- With operation permission control