

Emergency and Fire Evacuation Audio System Secure System



SF08



CM80



SVF



SB80

Description

EN 60849 STANDARD

The "ELECTRO ACOUSTIC SOUND SYSTEMS FOR EMERGENCY PURPOSES" standard establishes the technical criteria for equipment and systems used to make announcements outdoor or indoor in case of emergencies. A typical application is evacuation message systems in case of fire alarm.

MINIMUM REQUIREMENTS OF EMERGENCY ANNOUNCEMENT SYSTEMS

In order to be compliant, sound amplification systems for background music and message broadcast must keep control of the following main functions (for more detailed information refer to legislation above):

- amplifier efficiency
- efficiency of power lines connecting speakers
- efficiency of microphone units
- broadcast of emergency announcements in manual/automatic mode
- activation of back-up amplifiers in case of failure of any of the amplifiers in use
- intelligibility of emergency messages regardless of background noise
- generation of alarm messages after a warning signal with duration from 4 to 10 seconds
- if pre-recorded messages are to be used, they must be stored in a non-volatile memory and monitored in order to guarantee availability when needed
- the announcement system must be activated within 3 seconds from the alarm signal; the system can be divided into multiple areas and different messages can be used for each area
- speakers must be minimum fire resistant (metal body and fire housing, ceramic terminals, etc).

The XTE "SECURE SYSTEM" units integrate a regular P.A. and background music audio system with an emergency announcement broadcast system compliant to the **EN 60849 EUROPEAN STANDARD**.

In case of emergency will provide pre-recorded alert messages and evacuation directions for the fastest and safest evacuation of the building.

It can be easily interfaced to existing fire alarm systems to activate the alert announcement procedures automatically.

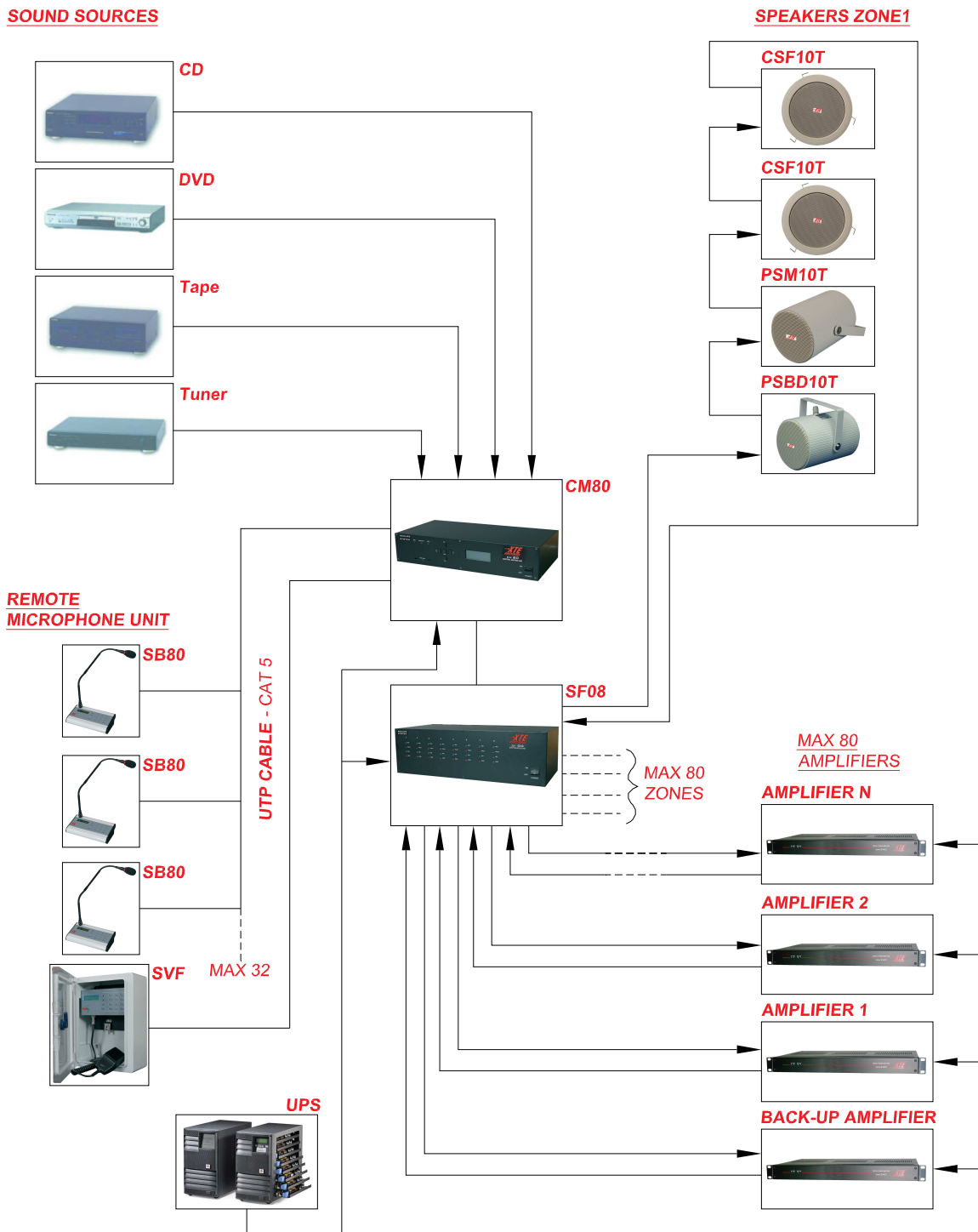
Features

- Broadcast 80 zones (8 zones per switching unit)
- 6 programmable inputs
- Management of 2 back-up amplifiers for each switching unit
- Local and remote control of failures
- Selective broadcast of evacuation messages
- 32 peripheral microphone stations
- Emergency microphone unit with priority over all other stations to generate general calls also in case of failure of the control unit
- Serial port for connection to a PC and/or an external printer
- Connection to an audio input with programmable "VOX" function for connection to a telephone switchboard.
- 3 audio inputs for connection to external sound sources (CD players-tuners-MP3-etc.)
- Built-in pre-recorded message board with solid state memory

System Architecture

1. **Central unit** for system control and supervision, with interface for connection to remote microphone units, internal sound board for emergency messages with solid state memory, auxiliary audio inputs for connection to external sound sources (tuners, CD players, recorded spot message players, etc.), input for the emergency microphone unit, output for interface with area selection and switching unit, RS232 serial interface for PC or printer.
2. **Remote Microphone Unit** with keyboard and LCD for selective and general calls, with digital output for audio and controls, to be connected by means of Standard UTP CAT5 cable. Multiple daisy chain connection allows up to 32 units to be connected to the Central Unit.
3. **Emergency Microphone Unit**
4. **Modular switching unit** for audio lines housing up to 8 zone modules, configurable for multiple cascade connection (max 10 units, 80 zones total). The Zone Modules perform amplifier and speaker line diagnostic in order to switch to a back up amplifier in case of fault.
5. **Power amplifiers** for constant voltage speaker systems (100V)
6. **Passive speakers** for constant voltage audio lines (100V)
7. **Background noise detection unit** for automatic volume control,
8. **UPS** for emergency power supply

System Architecture Diagram



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