

VOICE EVACUATION AMPLIFIER MASTER UNIT

MC-VEA-500M



Professional Product Overview

The MC-VEA-500M is an EN54-16 certified, all-in-one voice evacuation controller designed for public address, emergency announcement and life-safety audio applications. It integrates a 500W power amplifier, six-zone speaker output, emergency control, message playback and system supervision within a professional rack-mounted platform.

500W

Rated power output

6 Zones

Built-in speaker outputs

EN54-16

Voice alarm certified

100V AB

Supervised speaker outputs

Certified voice evacuation control for professional safety and communication systems

Description & Key Features

The MC-VEA-500M is a professional master voice evacuation unit developed for EN54-16 compliant public address and voice alarm systems. It combines evacuation control, zone paging, main signal-line monitoring, amplifier changeover, speaker-line supervision, power-supply monitoring, voice recording, SD-card message storage, emergency microphone input and fire-alarm interface functions in one integrated controller.

Built around DSP-based signal processing, the unit delivers reliable audio performance for both routine announcements and emergency evacuation messages. Each controller provides six built-in speaker output zones, 500W rated output power, programmable message management and supervised control interfaces. System configuration can be pre-set through the supplied software and synchronised across the master controller and extension routers for larger multi-zone projects.

01 All-in-one evacuation controller

Combines voice evacuation control, zone paging, monitoring, amplification, voice message playback and fire alarm interfacing in one platform.

02 EN54-16 certified operation

Designed for compliant public address and voice alarm installations where reliable evacuation control is required.

03 Six-zone speaker output

Provides built-in six-zone 100V AB speaker outputs for monitored life-safety audio distribution.

04 Programmable voice messages

Supports automatic EVAC and alert broadcasting with up to 256 programmable voice messages stored on SD card.

05 Speaker-line supervision

AB speaker-line surveillance helps detect wiring or loudspeaker faults before they affect system operation.

06 Backup amplifier management

Supports backup power amplifier management for improved system resilience in emergency conditions.

07 Expandable zone architecture

Can be expanded up to 120 zones by cascading extension routers, subject to project configuration.

08 Remote microphone support

Supports up to 32 remote paging microphone units plus touch-zone and fireman microphone integration.

09 Redundant CAT6 loop network

Supports redundant network cabling backup through CAT6 loop connection for improved system availability.

10 Supervised control I/O

Provides 8 supervised control inputs, 8 control outputs, 1 fault, 1 reset and 1 EVAC relay output.

11 Event and fault recording

Automatically records logs and fault events for maintenance review and system traceability.

12 Flexible emergency interface

Includes emergency microphone, fire alarm interface and software-based zone/message configuration.

Technical Specifications

System Specifications

Parameter	Specification
Model	MC-VEA-500M
Description	6 Zone Voice Evacuation Controller
Rated Power Output	500W
Frequency Response	80Hz - 20kHz
THD	<1% at RMS, 1kHz
Signal-to-Noise Ratio	>70dB
Power Consumption	650W
Power Supply	AC 230V or 115V and 24V DC inputs, 50-60Hz
AC Fuse	250V / 6.3A, slow type and restorable fuse

Audio Inputs & Outputs

Parameter	Specification
Fireman Microphone	5mV, 600 Ohm
Line Inputs 1-2	385mV, 10k Ohm balanced Combo XLR
Line Inputs 3-6	350mV, 10k Ohm, RCA
Speaker Output	100V AB, 6 zone speaker outputs
REC Output	200mV

Control, Message & Physical Data

Control & System Features

Parameter	Specification
Control Input & Output	8 control inputs: Max. 3.3V voltage mode or 0V closed contact; 8 control outputs: 0V closed contact; includes 1 fault, 1 reset and 1 EVAC relay output
Voice Message	MP3 or WMA format; two separate SD card players; programmable voice messages up to 256; 10 years valid
Event Record	HEX format; hard flash memory; events up to 1000 records; 10 years valid
Operating Environment	Operation temperature: +5°C to +40°C; storage temperature: -20°C to +70°C; operation humidity: <95%
Dimensions	484 x 132 x 449mm
Weight	23kg

Line Inputs 1-2	Balanced Combo XLR
Line Inputs 3-6	350mV, 10kΩ, RCA
Speaker Output	100V AB 6 zone speaker outputs
REC Output	200mV

	Operation Temperature	+5°C ~ +40°C
	Storage Temperature	-20°C ~ +70°C
	Humidity	< 95%
	Dimensions	484 × 132 × 449 mm
	Weight	23kg

