



# Venas

*Integrirani Audio Evakuacioni Sistem*

*VM-2000 series*



## Bitan deo savremene instalacije

Upoznajte TOA VM-2000 seriju sistemskih pojačala - veoma pristupačani, a kvalitetan uređaji za ambijentalne razglase i sve slučajeve evakuacije objekata. Komunikacijska infrastruktura je nezaobilazan detalj u svim kompleksnijim objektima sa savremenim upravljanjem. Preko govornih poruka, usmerenih na željenu oblast objekta, moguće je ostvariti najrazličitije pogodnosti - od bezbednosnih, preko organizacionih, pa sve do marketinških. Investicija u Venas sisteme sa VM-2000 pojačalima je pun pogodak za svakoga ko želi prijatan audio ambijent u svom objektu, ali i efikasno obaveštavanje u slučaju potrebe za evakuacijom.

safe&sound



# Jedan uređaj za stvaranje audio-ambijenta, obaveštavanje i uzbunjivanje

Bogato iskustvo u proizvodnji audio-sistema, kao i želja da se ispuni svaki zahtev korisnika, dovelo je do nastanka VM-2000 serije sistemskih pojačala. Osim odličnih audio performansi, ovi uređaji omogućuju veoma efikasnu kontrolu nad sistemom, kako u normalnim uslovima, tako i u stanju uzbune. Zbog ovih osobina često su viđeni u tržnim i poslovnim centrima, obrazovnim i kulturnim ustanovama, bolnicama, hotelima, fabrikama, lukama i aerodromima.

U skladu sa svojom namenom, VM-2000 pojačala imaju 3 Line/Mic ulaza, 2 BGM ulaza, upravljanje sistemom preko mikrofonske konzole i pristup razglasu preko telefonske centrale. Ostale pogodnosti:

- kontrole su urađene u stilu koji omogućava brzo razumevanje i jednostavan rad
- signal sa ulaza se može poslati u zonu po izboru, ili u svih pet zajedno (u slučaju uzbune)
- Volume i Bass/Treble kontrola za sve zone zajedno ili pojedinačno
- prestižan izgled pojačala sa mikrofonom omogućava postavljanje centra na mesto po želji (repcija, show-room, kancelarija...)



VM-2240: sistemsko mikser pojačalo sa 5 zona, snage 240W

## Sistem koji se lako proširuje

Dizajn VM-2000 pojačala podrazumeva da svaki audio sistem kasnije može postati "tesan" i da ga treba proširiti. Kada 5 zona zvučnika više nije dovoljno, jednostavno se ubaci još jedno VM-2000 pojačalo. Takav sistem ima 10 zona i snagu oba pojačala. Kontrola ovakvog proširenog sistema se i dalje vrši na isti način, samo treba mikrofonskoj konzoli dodati petozonsko RM-210 proširenje. Za svakih narednih 5 zona, postupak se može ponoviti. VM-2000 pruža ne samo osnovnu, već i proširivu samostalnu platformu i to po IEC60849 (EN60849) standardu.



## Samodijagnostika (siguran sistem)

Za automatsko utvrđivanje eventualno nastalog kvara preporučuje se SV-200M proširenje za samodijagnostiku. Tako proširen sistem je u stanju da se samoproverava. U slučaju kvara, uređaj istog momenta javlja mesto kratkog spoja ili prekida na kablovima, kao i adresu zvučnika koji je ispao iz sistema. Na VM-2000 pojačala se može priključiti i rezervno napajanje na 24V DC, za slučaj havarije na mreži.



## Snimljene glasovne poruke

Dodavanjem EV-200 proširenja sistem dobija značajnu količinu dopunske memorije za snimanje reklamnih, ali i bezbednosnih poruka. S obzirom da se Venas audio sistem može integrisati sa sistemima za dojavu požara, automatsko uzbunjivanje i obaveštavanje ugroženih zona je logičan nastavak te ideje.



## Upravljanje sistemom

Upravljanje Venas sistemom za evakuaciju se najefikasnije vrši sa proširive mikrofonske konzole. Puštanje snimljenih poruka, najave, pozivi i druga "civilna" obaveštenja se mogu vršiti glasom uživo, ili putem ranije snimljenih poruka. Prilikom proširivanja sistema konzoli se mogu dodavati RM-210 proširenja za svakih dodatnih 5 zona.



RM-210: proširenje za mikrofonsku konzolu



RM-210: proširenje za mikrofonsku konzolu

# VenaS

Integrirani Audio Evakuacioni Sistem  
VM-2000 series

player / recorder BGM



telefonska centrala



RM-200M konzola



indikator kvarova



spoljni kontrolni uređaj



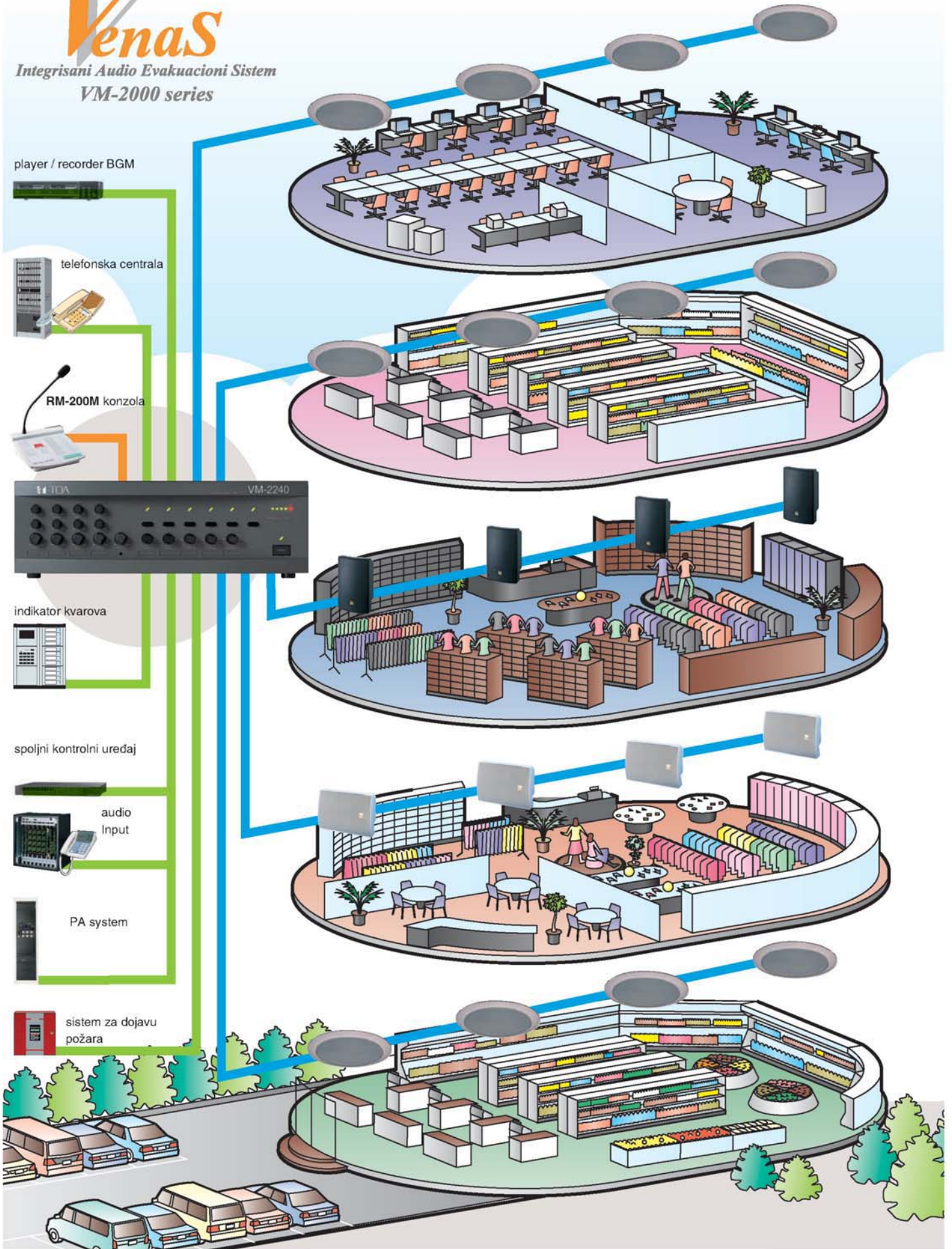
audio  
Input



PA system



sistem za dojavu  
požara



## SPECIFICATIONS

### System Management Amplifier VM-2120/VM-2240

Model No.	VM-2120	VM-2240
Power Requirement	AC mains, 50/60 Hz DC: 24 V	
Rated Output	120 W	240 W
Frequency Response	50 - 16,000 Hz	
Distortion	Less than 1%	
Signal-to-Noise Ratio	More than 60 dB	
Tone Control	Bass: 100 Hz $\pm 10$ dB, Treble: 10 kHz $\pm 10$ dB (Inputs 1 - 3 and BGM individually adjustable.)	
Remote Microphone/ Expansion Amplifier Connection	Two RJ45 female connectors Maximum distance: 800 m	
Audio Input	Inputs 1 - 3 -60 dB <sup>*1</sup> [MIC]/-10 dB <sup>*1</sup> [LINE] (switchable), 600 $\Omega$ , electronically balanced <sup>*2</sup> , combined XLR type connector (female)/ 1/4" phone jack (Only Input 1 is additionally equipped with DIN connector <sup>*3</sup> .)	
Telephone Paging Input	Push-in terminal block -10 dB <sup>*1</sup> , 10 k $\Omega$ , electronically-balanced <sup>*2</sup> Control : No-voltage make contact input	
BGM 1 - 2 Power Amplifier Input External Speaker Line Input	-20 dB <sup>*1</sup> , 10 k $\Omega$ , RCA pin jack, monaural 0 dB <sup>*1</sup> , 10 k $\Omega$ , RCA pin jack 100 V line, for All-Zone Broadcast	
Audio Output	Speaker Output 83 $\Omega$ (100 V line, volume control in maximum position), Removable terminal block with screw terminals.	41 $\Omega$ (100 V line, volume control in maximum position), Removable terminal block with screw terminals.
Speaker Zone Control Direct Speaker Line Output Line Output Recording Output Preamplifier Output	5-zone selector with attenuator Direct output from the power amplifier output transformer, Removable terminal block with screw terminals. 0 dB <sup>*1</sup> , 10 k $\Omega$ , RCA pin jack 0 dB <sup>*1</sup> , 10 k $\Omega$ , RCA pin jack 0 dB <sup>*1</sup> , 10 k $\Omega$ , RCA pin jack	
Control Inputs 1 - 3	For controlling Inputs 1 - 3, Push-in terminal block No-voltage make contact.	
Control Input and Output	25-pin female D-sub connector Input : No-voltage make contact input Output : Open collector output (1) External control input •Activation of messages for an optional Voice Announcement Board <sup>*4</sup> •Activation of power •Activation and stop of Emergency Broadcast •Unit's broadcast cutoff (when activated by an external emergency equipment) (2) Status output •Irregularity of communications with the Remote Microphone and an expansion amplifier •AC power condition •DC power condition •Irregularity of the sound source of the Voice Announcement board •Stop of the unit's broadcast	
External Attenuator Control Output	Removable terminal block with screw terminals, relay, no-voltage make contact output, transfer type	
Surveillance Input and Output <sup>*5</sup>	25-pin female D-sub connector Input : No-voltage make contact input Output : Open collector output	
Power Output	24 V DC	
Chime Tone	Built-in chime: 2-tone chime/2-tone chime(fast repeat) 4-tone chime (Up)/Single-tone chime/ 4-tone chime (Up & Down)/Gong/off	
Finish	Panel: ABS resin Case: Steel plate painted	
Dimensions	419 (W) $\times$ 143.3 (H) $\times$ 356.2 (D) mm	

\*1 0 dB = 1 V

\*2 Can be transformer-balanced with the addition of an optional IT-450 input transformer.

\*3 For connection of the Paging Microphone with remote control switch.

\*4 An optional EV-200 Voice Announcement Board is required.

\*5 An optional SV-200M Surveillance Board is required.

### Remote Microphone RM-200M

Power Requirement	24 V DC (12-30 V DC). (Supplied from VM-2120/VM-2240 Amplifier or local power supply.)
Distortion	Less than 1%
Frequency Response	100 - 10,000 Hz
Signal-to-Noise Ratio	More than 60 dB
Audio Output	0 dB <sup>*1</sup> , 600 $\Omega$ , balanced
Microphone	Unidirectional electret condenser microphone, gooseneck type.
Speaker Zone Control	Zones 1-5 (Zones 1-10 with 2 stacked amplifiers) Groups 1-2, and All-Zone Broadcast
Emergency Broadcast	Activation of Emergency Broadcast (pre-recorded announcement <sup>*2</sup> or live microphone announcement) by Emergency Switch
Voice Announcement Board Control	Activation of 5 messages <sup>*2</sup>
Number of Connectable Units	Up to 4
Communication System	RS-485
Volume Control	Microphone volume control
Connection Cable and Connector	Category 5 STP cable, RJ45 connector
Communication Distance	800 m maximum in total
Finish	ABS resin
Dimensions	190 (W) $\times$ 75.7 (H) $\times$ 21.5 (D) mm (Gooseneck microphone excluded)

\*1 0 dB = 1 V

\*2 An optional EV-200 Board must be mounted in the VM-2120 or VM-2240 Amplifier.

### Remote Microphone Extension Unit RM-210

Power Requirement	24 V DC (Supplied from RM-200M Remote Microphone)
Connection	Connection to RM-200M with dedicated cable
Function	Activation of Voice Announcement Board messages when controlling speakers in 10 zones at RM-200M
Finish	ABS resin
Dimensions	110 (W) $\times$ 75.7 (H) $\times$ 21.5 (D) mm

### Voice Announcement Board EV-200

Number of Messages	Two emergency messages Five commercial messages One chime tone
Recording method	EV-350R recorder required (option)

### Surveillance Board SV-200M

Function	Pre-amplifier fault detect Power amplifier fault detect Speaker line open and short circuit detect Speaker line ground leakage detect
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Prodaja i ugradnja:

ARCEL d.o.o. Beograd  
Tel/fax: 011/30-466-18  
URL: www.arcel.co.yu



TOA Corporation  
URL: www.toa.co.jp/global/

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