

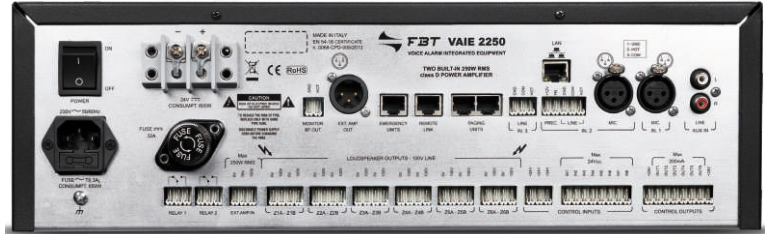
EN 54 - 16

## VAIE 2250 VOICE ALARM SYSTEM

### Description

The VAIE 2250 is a compact Voice Alarm Integrated Equipment enabling background music and calls to be broadcast (all call or to specific zones) without interfering with diagnostic routines. This system was designed for ease of installation and for operating in a vast range of applications in which both voice emergency systems and sound-broadcasting systems are required, as well as in compliance with the applicable safety standards (EN54-16).

The VAIE 2250 Voice Alarm Integrated Equipment includes an emergency microphone, two Class D amplifiers, a message generator and a socket with a USB input for playing out background music. It also has 6 zone outputs with the function of continuous monitoring of the loudspeaker lines.



### Functional features

- Two channel sound broadcasting system.
- Six broadcasting zones.
- Controlled double output line for each single (A and B).
- MP3 files read from USB flash memory as a source of background music.
- Downloading of WAV files from USB flash memory for emergency voice messages and chime.
- Independent 5-level volume control of the music for each zone.
- Sources for service paging announcements settable to 7 priority levels and 36 zone lists.
- System operating functions linked to different access levels, some of which protected by passwords.
- Continuous control and monitoring of the integrity of the critical path (from the sources of the emergency signal to the loudspeaker lines) without interrupting the background music.
- Monitoring of the loudspeaker lines (integrity and dispersion to earth) by means of the two-channel amplification system, even in voice emergency conditions.
- Digital audio control (DSP).
- Easy and rapid configuration (large LCD display).
- Provisions for a web server.
- Emergency zone disabling function (Disabling).
- "Do not disturb" function for protecting the zones from accidental enabling of music or service calls.
- Acoustic signalling of failure status with automatic or manual muting.
- Manual resetting of visual failure signals and automatic resetting with storage of the last occurring failure.
- Direct procedure for starting up the system (start-up) and programming events, without using the management software.
- Possibility of adding a 250W external amplifier to increase the output power of the system.
- Automatic management of the music amplifier as a stand-by for the operational amplifier (internal or external).
- With a second remote VAIE 2250 unit, the system can be expanded to cover up to 12 zones.
- Possibility of connecting up to 16 paging units.
- It is possible to connect up to 7 remote emergency units.

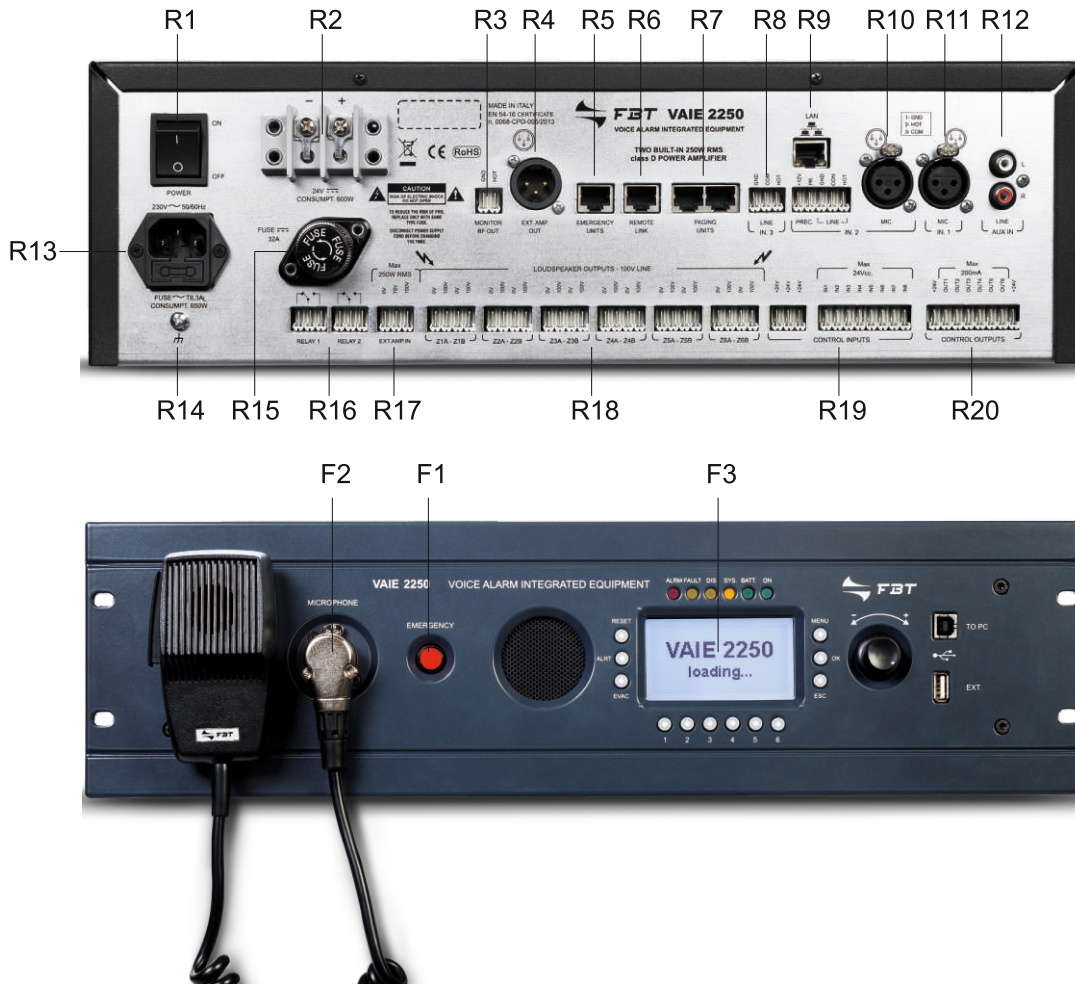
### Technical specifications

- Two 250W RMS Class D amplifiers.
- Built-in message generator for broadcasting voice alarms on two channels (EVAC and ALERT).
- Controlled emergency microphone on the front panel.
- LCD graphic display, 128x64 pixels.
- USB socket on front panel for connecting to storage devices.
- USB socket on front panel for connecting a PC.
- Auxiliary line input for an external source of music.
- Balanced microphone input (IN1) with phantom power supply and precedence contact.
- Balanced microphone or line input (IN2) with phantom power supply (MIC), precedence contact or automatic VOX precedence.
- Balanced line input (IN3) with automatic VOX precedence function.
- 8 programmable and controlled input contacts.
- 6 open-collector outputs, programmable as system status or override outputs for by-passing the attenuators.
- 2 relay outputs for emergency and failure conditions.
- CAT5 socket for remote emergency consoles MBT1106 and MBT1112.
- CAT5 socket for service call consoles FMD2001/FMD2012 range.
- CAT5 socket for connection to a remote VAIE2250 unit.
- 100V - 70V line input/output for connection to a 250W external amplifier for expansion purposes.
- Built-in loudspeaker for channel monitoring and acoustic failure signalling (beep) function.
- Input 24Vdc secondary emergency power supply.

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References



- F1. Flush-mounted push-button for activating the Manual emergency mode.
- F2. Hand-held microphone with a Push-to-Talk (PTT) key for live emergency announcements.
- F3. Backlit black-and-white graphic display, 128x64 pixels.
- R1. ON/OFF switch
- R2. Terminals for 24Vdc external power supply
- R3. Audio signal output for the monitoring / beep loudspeaker
- R4. Audio signal output for external amplifier
- R5. Input for connecting remote emergency microphone stations
- R6. Output for connecting another remote VAIE 2250 unit
- R7. Input for connecting paging microphone stations (MBT) for broadcasting service functions
- R8. Balanced input for external line source
- R9. Socket for connecting a Local Area Network with TCP/IP protocol for an Ethernet 10/100 network
- R10. Balanced input for microphone or external source / Terminal strip for connecting the precedence contact
- R11. Input for external microphone
- R12. Input for connecting an external source of music
- R13. Plug for 230Vac mains power supply, with built-in fuse
- R14. Frame earthing connection
- R15. Fuse for 24Vdc external power supply
- R16. 2 relay outputs for signalling towards external peripheral units
- R17. Input socket for connecting the external amplifier
- R18. Power outputs for loudspeaker lines
- R19. 8 logical inputs with monitoring for control from external peripheral units
- R20. 6 "open collector" outputs for driving external relays for generic peripheral units

## VAIE 2250

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#### Technical data

Rated output power @230VAC	250 W RMS – with two 250W amplifiers for a dual <i>voice</i> and <i>music</i> channel
Rated output power @24VDC	160 W RMS – with two 160W amplifiers for a dual <i>voice</i> and <i>music</i> channel
N° of output zones	6 zones with a redundant double line (A + B)
Display	3" backlit display, 128x64 pixels
<b>Inputs</b>	
<b>USB-EXT.</b>	<b>USB input powered via the front panel –Type A socket</b>
<b>Emergency microphone</b> • Sensitivity / Impedance • Frequency response / S/N ratio	Balanced XLR-F on front panel Signal level 20 mV / 10 kW 60 ÷ 20.000 Hz / 72 dB
<b>IN.1 Socket (MIC.)</b> • Sensitivity / Impedance • Frequency response / S/N ratio	<b>Programmable modes: ON / OFF / Precedence / Mix con IN.2</b> Balanced XLR-F (with activatable 21 V phantom power supply) Signal level Min. 3 mV - Max 100 mV / 1.8 kW 240 ÷ 20.000 Hz / 63 dB
<b>IN.2 Socket (MIC.)</b> • Sensitivity / Impedance • Frequency response / S/N ratio <b>Socket (LINE)</b> • Sensitivity / Impedance • Frequency response / S/N ratio	<b>Programmable modes: ON/ OFF / Precedence / VOX con A.P.T.</b> Balanced XLR-F (with activatable 21 V phantom power supply) Signal level Min. 3 mV - Max 100 mV / 1,8 kW 240 ÷ 20.000 Hz / 63 dB Balanced with terminals (HOT-COM-GND) Signal level Max 1800 mV / 31 kW 60 ÷ 20.000 Hz / 84 dB
<b>IN.3 Socket (LINE-VOX)</b> • Sensitivity / Impedance • Frequency response / S/N ratio	<b>Programmable modes: ON/ OFF / VOX con A.P.T.</b> Balanced with terminals (HOT-COM-GND) Signal level Max 3600 mV / 3 kW 90 ÷ 20.000 Hz / 86 dB
<b>AUX</b> • Sensitivity / Impedance • Frequency response / S/N ratio	<b>RCA stereo socket for source of sound (BGM) - Conversion to mono</b> Signal level Max 1800 mV / 31 kW 60 ÷ 20.000 Hz / 84 dB
<b>Paging units</b> • Sensitivity / Impedance • Frequency response / S/N ratio	<b>2 RJ45 sockets per unit (PA) - MBT1106/1112</b> Signal level Max 1400 mV / 85 kW 60 ÷ 20.000 Hz / 83 dB
<b>EMERGENCY UNITS</b>	<b>RJ45 for connection and dedicated emergency microphone station.</b>
<b>EXT. AMP.IN</b>	<b>External amplifier input with terminals 0 - 70 - 100V (max. 250W RMS).</b>
<b>Outputs</b>	
<b>Constant voltage outputs</b> • Load impedance (PA8506-V only) • Load impedance (with 250 W ext. amplifier)	<b>6 zones for dual-line /A/B) 100 V lines - Tot. 12 pairs of terminals, 2.5 mm<sup>2</sup></b> Min. 40Wfor total group of zones 1 to 6 Min. 40Wfor total group of zones 1 to 3 / Min. 40Wfor total group of zones 4 to 6
<b>External amplifier</b> • Sensitivity / Impedance • Frequency response / S/N ratio	<b>Output for external amplifier with balanced XLR-M socket and level 0 dBV</b> 1 V / 500 Ω 40 ÷ 20.000 Hz / 84 dB
<b>Monitor BF OUT</b> • Output / Impedance	<b>Loudspeaker built into front panel 1 W / 8 W</b> Rear output with terminals (HOT-GND) - 1 V / 400 W
<b>Connections to eternal peripheral units</b>	
<b>Remote links</b> • Sensitivity / Impedance of <i>voice</i> – <i>music</i> channels • Output / Impedance of <i>voice</i> – <i>music</i> channels	<b>RJ45 for connection to secondary VAIE 2250 unit (slave).</b> Signal level Max 3600 mV / 3 kW 1 V / 400 W
<b>Emergency controls</b> • CONTROL INPUTS • CONTROL OUTPUTS	<b>Programmable to normally open or normally closed states.</b> 8 inputs with diagnostics. Terminals and service power supply: 24 VDC. 6 open-drain outputs, max 200mA. Terminals and service power supply: 24 VDC., 2 relays for signalling emergencies and failures, N.O-N.C. terminals - Exchange
<b>Precedence IN 1 - IN 2</b>	<b>Precedence input and terminals with common +12 VDC power supply.</b>
<b>LAN</b>	<b>LAN RJ45 socket for TCP/IP connection to web server.</b>
<b>General information</b>	
Mains power supply Power consumption at rated output	230 V <sub>ac</sub> 50/60 Hz P = 370W/480 VA
Secondary power supply 24V <sub>dc</sub> / Consumption	24 V <sub>cc</sub> (min 22V <sub>dc</sub> ÷ max 28V <sub>dc</sub> ) / 9 A
Operating environmental conditions	Temperature: +5°C to +40°C Relative humidity: 25%-75% non-condensing
Mounting	Optional AC8506 brackets for mounting in 19" rack (height: 3U).
Size (W x H x D)	439 x 132 x 387 mm
Size, packaged (W x H x D)	535 x 225 x 470 mm
Net weight / Gross weight	20,5 kg / 22 kg