



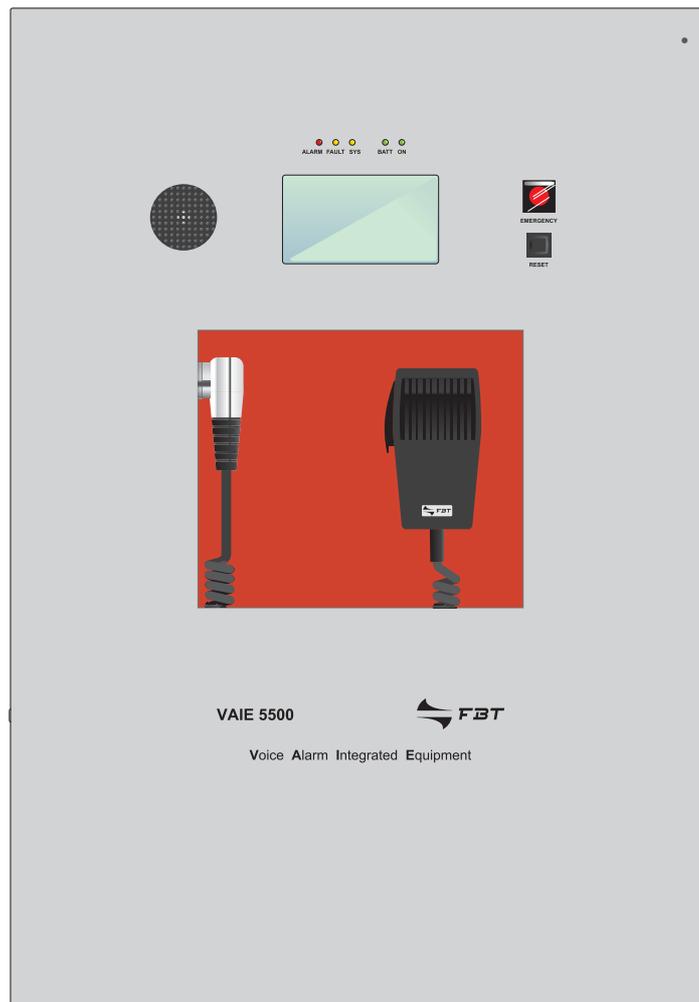
**Audio
Contractor**

VAIE 5500

“LIGHT” Wall-mounted
voice evacuation system

EN 54-16

0068-CPR-044/2016



VAIE 5502 500W / 2 ZONES

INSTRUCTIONS FOR USE

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1. WARNINGS

1.1 POWER SUPPLY AND EARTHING

These items of equipment are intended to work on a 230 VAC +10% / -15%, 50/60 Hz mains voltage and a 24 VDC supply from the internal batteries.

! N.B. – FEATURES OF THE WIRING SYSTEM

The mains AC power **MUST** be supplied through a two-pole differential thermal-magnetic circuit breaker with a current of 10 to 16A dedicated **SOLELY** to the equipment.

! N.B.

These devices have been designed to be connected to an earthed power supply.
Make sure that the equipment is always connected to earth in accordance with legal regulations.

1.2 SAFETY NOTES

All **FBT** equipment is made according to the strictest international standards and complies with European Union requisites. For correct and effective use of the equipment it is important to be aware of all the characteristics by reading carefully these instructions and warnings. While the equipment is in use, it is necessary to ensure adequate ventilation, above all leaving the slits for providing air for the cooling fans free.

REFER TO THE 'INSTALLATION AND CONNECTIONS' SECTION FOR THE RELEVANT PROCEDURES, TO BE CARRIED OUT BY TRAINED SPECIALISED PERSONNEL ONLY.



Important information for correct disposal of the product in accordance with EC Directive 2002/96/EC

This product must not be disposed of as urban waste at the end of its working life. It must be taken to a special waste collection centre licensed by the local authorities or to a dealer providing this service. Separate disposal of electric and/or electronic equipment (WEEE) will avoid possible negative consequences for the environment and for health resulting from inappropriate disposal, and will enable the constituent materials to be recovered, with significant savings in energy and resources. As a reminder of the need to dispose of this equipment separately, the product is marked with a crossed-out wheeled dustbin.

 This product is in keeping with the relevant European Community Directives.

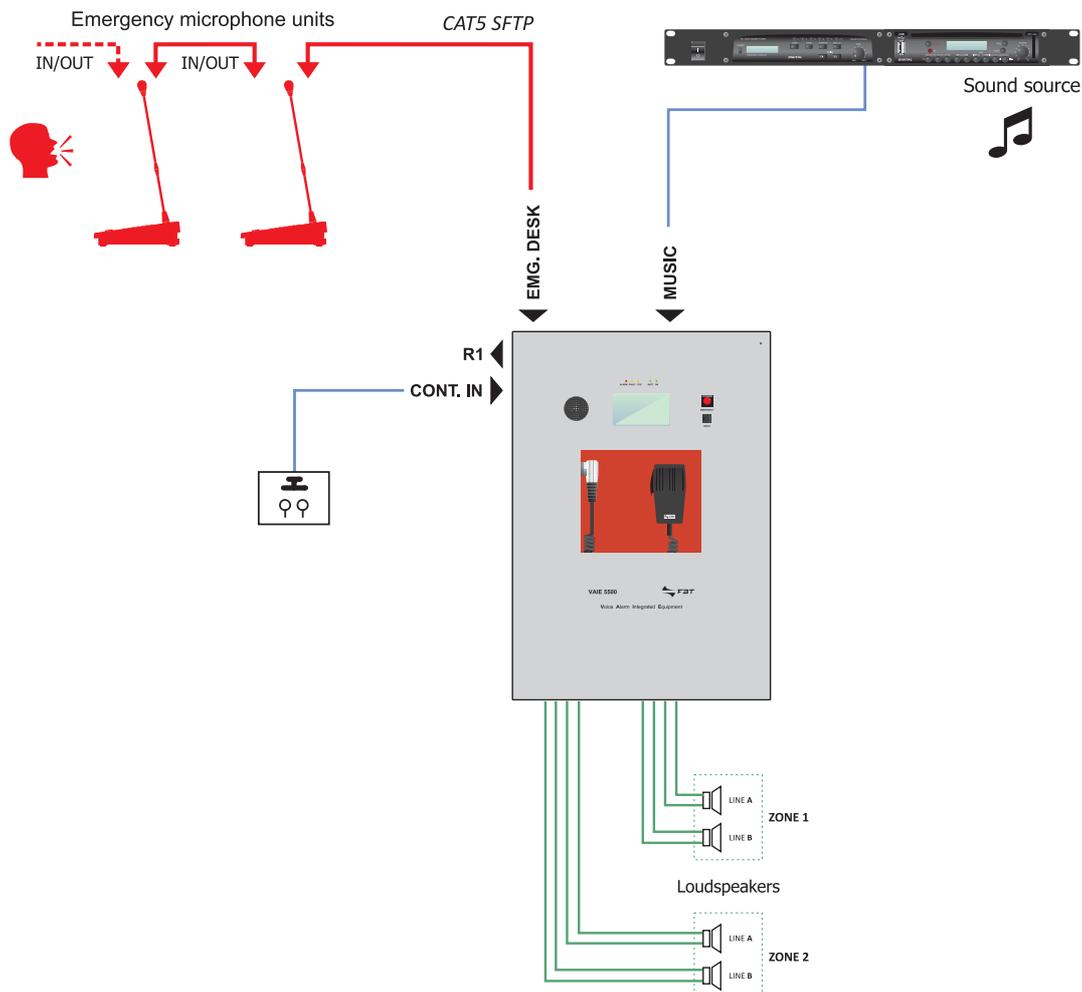
2. INTRODUCTION

2.1 OVERVIEW OF THE SYSTEM

The **VAIE 5500** range includes “light” voice evacuation systems for emergency facilities, designed specifically for wall-mounting and equipped with control units, certified in compliance with **EN 54-16:2008 / EN 54-4** standards. The **VAIE 5502** model is capable of managing 2 zones, each driven by a single amplifier, as well as remote microphone stations and controlled inputs to be connected to a central fire-fighting system.

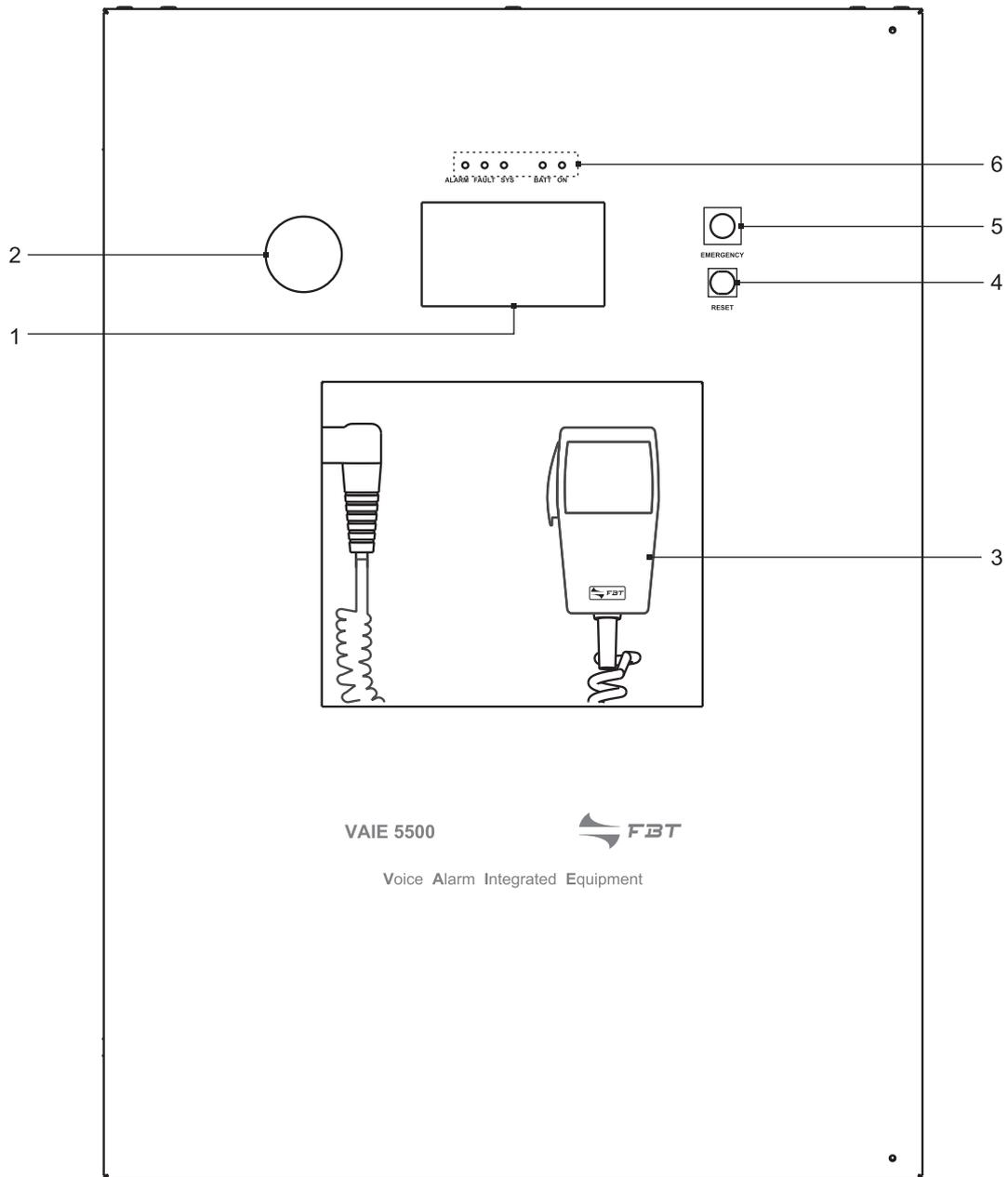
2.2 FUNCTIONAL FEATURES

- Rated audio output: 500 W overall, distributable freely among the 2 zones with a maximum limit of 250 W per single zone.
- Backlit 4.3” display with touch screen for selecting the alert and evacuation zones and enabling navigation for adjusting volume levels, configuring the equipment and viewing failures.
- Handheld fireman’s paging microphone.
- Sending out of pre-recorded EVACUATION and ALERT messages.
- 7 off controlled input contacts, configurable for playing the evacuation and/or alert messages to the programmed zones or for resetting the messages.
- One off music input for sound sources.
- One off configurable relay outputs.
- Double A+B output for each zone.
- Protected local button for placing the system in an emergency state, equipped with its own LED.
- Local button for resetting the fault acoustic signal and stopping playing out of alarm messages.
- Background music and calls of a general nature can be played through microphone stations.
- Up to 4 **FMD** remote emergency units can be connected.



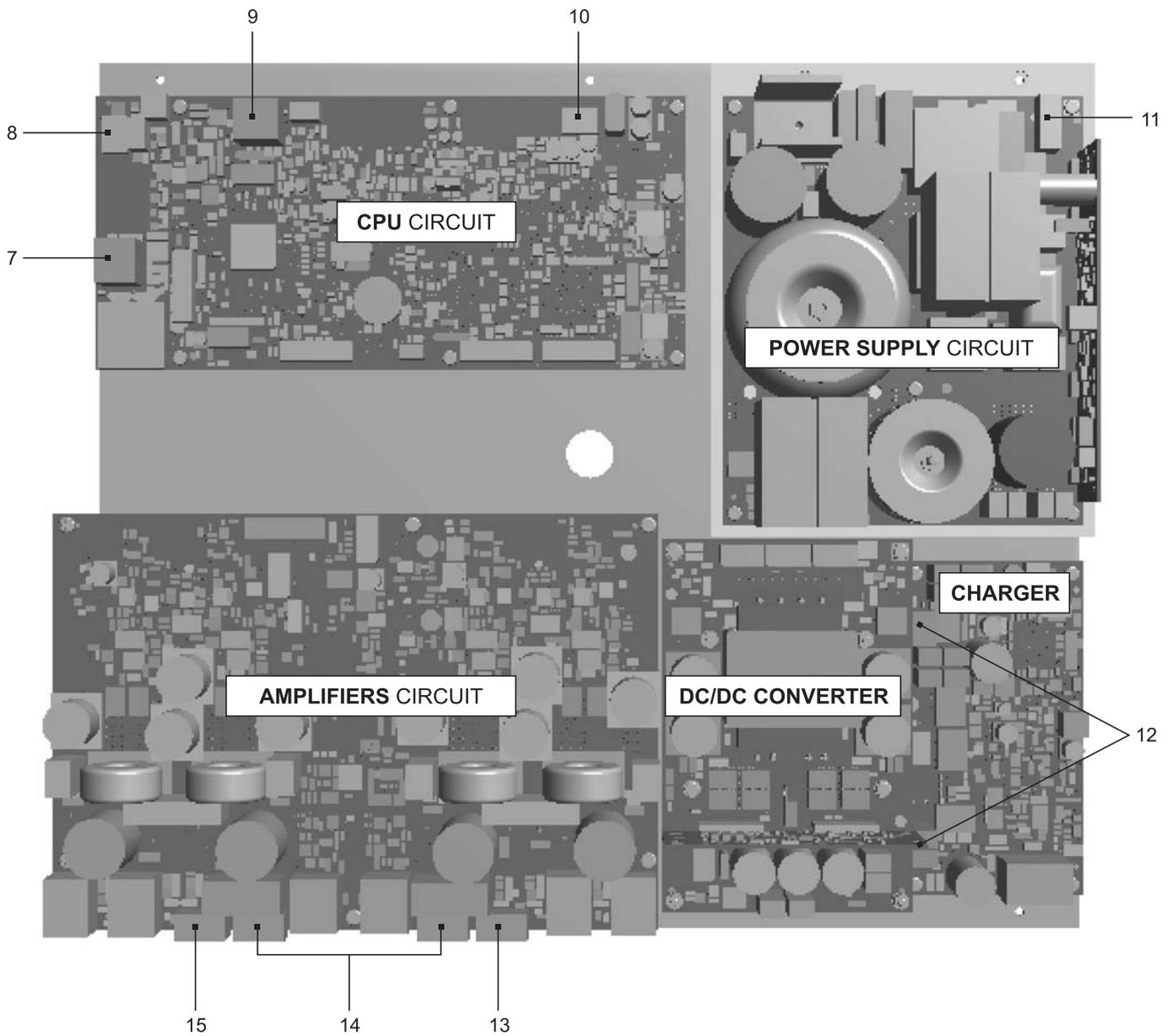
3. GENERAL DESCRIPTION

3.1 FRONT PANEL



- 1) Backlit 4.3" display with touchscreen for selecting the Alert/Evacuation zones and for navigation for adjusting volume levels, configuring the equipment and viewing failures.
- 2) Integrated loudspeaker for playing back the output signals from the zones or the signals of the input sources and for replaying the acoustic signal indicating that a failure has been detected (beep). The signalling tone will be automatically muted if the conditions of failure end. Furthermore, in accordance with the regulations, the beep is muted by the system while the Emergency Microphone is being used.
- 3) Handheld fireman's paging microphone.
- 4) RESET button.
- 5) EMERGENCY button.
- 6) Status LEDs.

3.2 INSIDE VIEW



- 7) 7 off controlled input contacts.
- 8) 1 off relay output contact.
- 9) Input for emergency microphone stations (max. 4).
- 10) Input terminal strip for music sources.
- 11) Connection to 230 VAC power supply.
- 12) Connection to 24 VDC battery power.
- 13) Connection of loudspeaker (zone 1).
- 14) Connection of standby amplifier.
- 15) Connection of loudspeaker (zone 2).

4. INSTALLATION AND CONNECTIONS

! N.B.

Please remind that the operations illustrated in this part of the manual must be carried out by specialised personnel **ONLY**, trained and qualified in the equipment installation and maintenance. When the VAIE 5500 is opened, parts entailing a high risk of electric shocks become accessible.

It is advisable to install the equipment in a closed and sheltered place, protected against possible sources of damage (rain, moisture, high temperatures, etc.).

Depending on requirements, the cables can be inserted by eliminating either the plugs sealing the holes in the top or the rear door (in both cases use a flat screwdriver or a cutter to lift them and remove them).

! It is important to keep the power cables separate from those dedicated to the other connections.

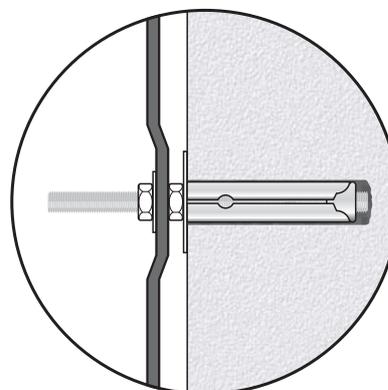
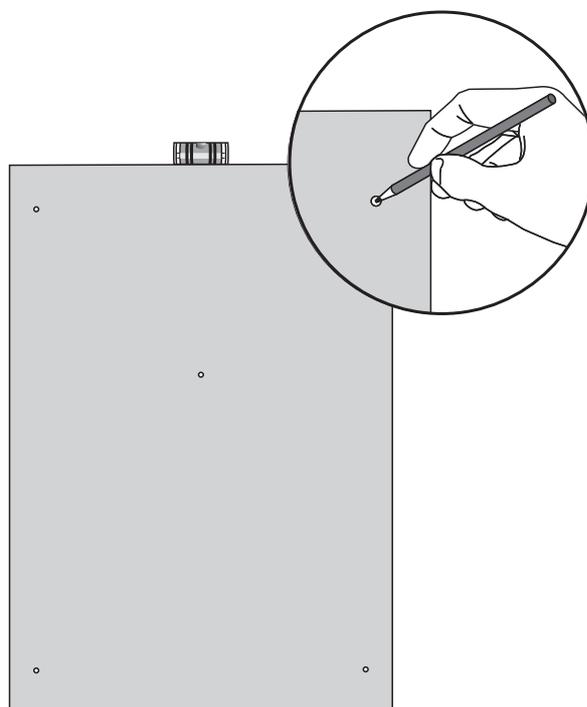
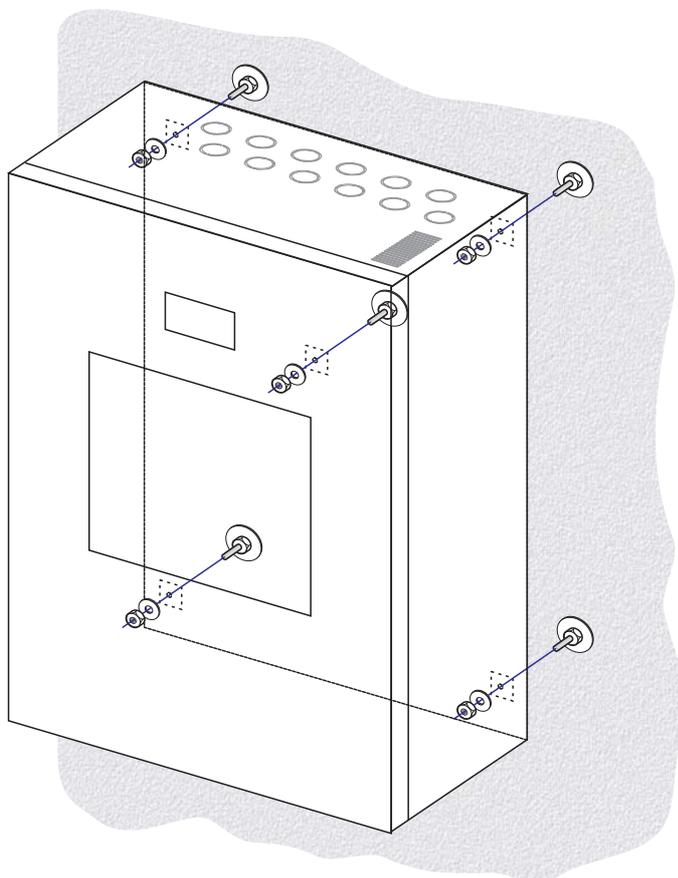
4.1 WALL MOUNTING

Take the cardboard template included in the package and position it at a suitable height so that it is accessible to the user. Ideally, the front display should be at eye level.

Having decided on the position, mark the five points on the wall, drill the holes and fit Fischer wall plugs (min. \varnothing 9 mm) equipped with bolts into them.

Using the wall plugs as reference pins, lift the equipment and hook it to the wall. It is advisable for this activity to be carried out by two people.

Tighten the bolts.

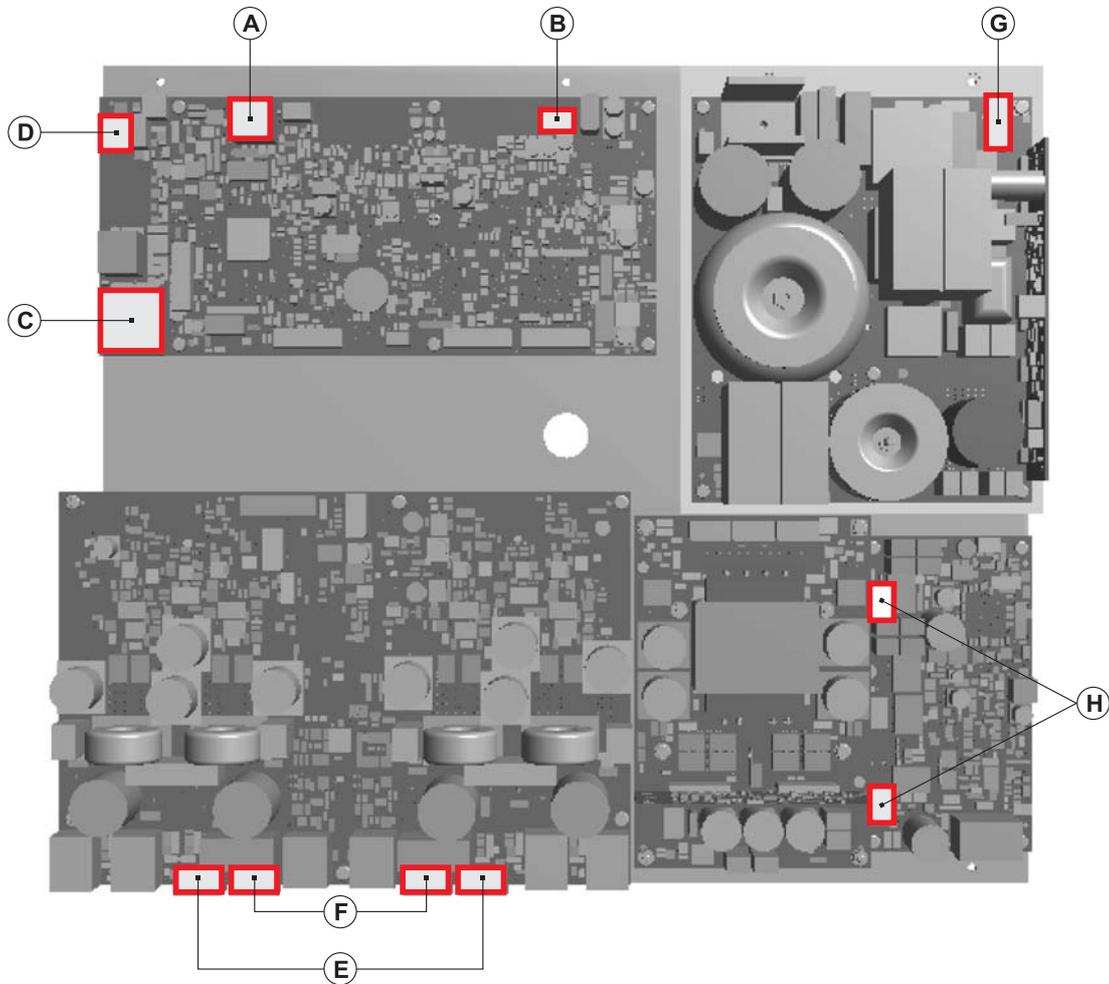


4.2 CONNECTIONS

! N.B.

Check that the main thermal-magnetic circuit breaker is switched OFF.

If it is not, switch it OFF before carrying out any other activities in the cabinet as there is a danger of electric shocks.



Proceed with connection of the various devices, referring to the appropriate points of the manual:

CPU circuit

- | | | | |
|----|-------------|-------------------------------|-----------|
| A) | Point 4.2.1 | Connection of emergency units | (page 10) |
| B) | Point 4.2.2 | Connection of music input | (page 10) |
| C) | Point 4.2.3 | Connection of input contacts | (page 11) |
| D) | Point 4.2.4 | Connection of relay output | (page 11) |

AMPLIFIER circuit

- | | | | |
|----|-------------|-------------------------------------|-----------|
| E) | Point 4.2.5 | Connection of the loudspeaker lines | (page 12) |
| F) | Point 4.2.6 | Connection of the standby amplifier | (page 12) |

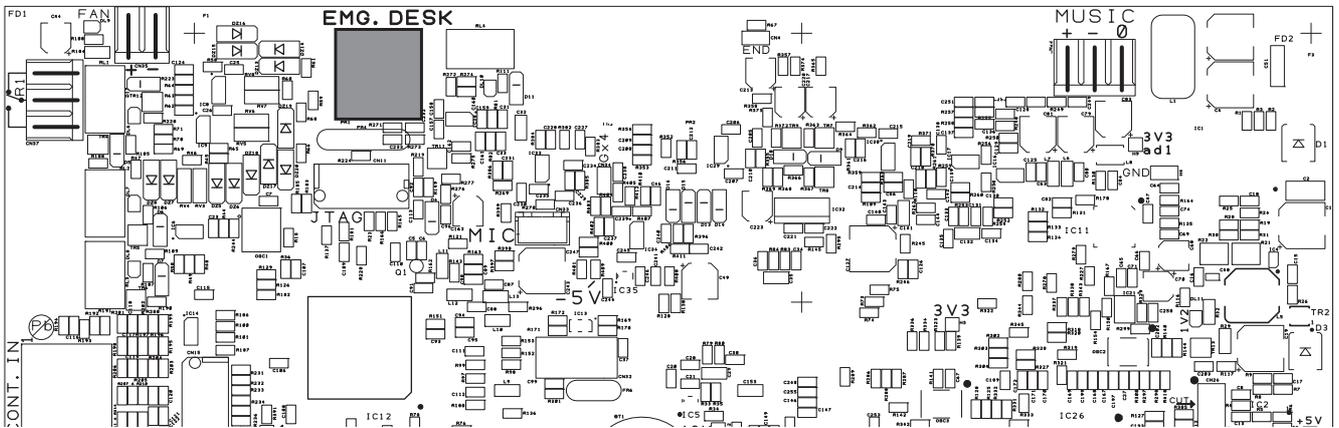
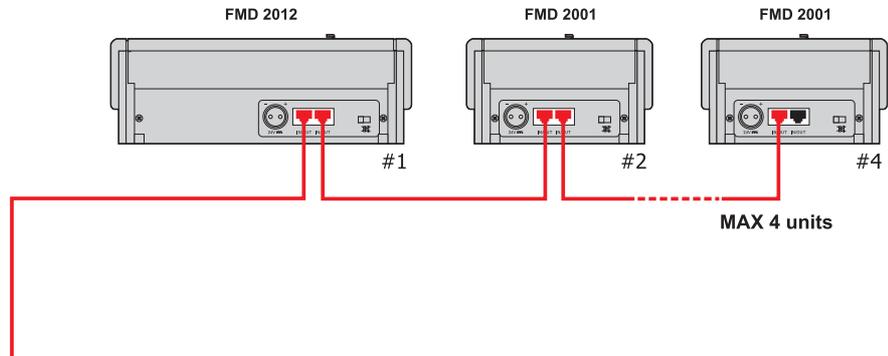
Once the basic connections have been made, it is possible to go on to connect the power supplies:

- | | | | |
|------|-------------|------------------------------|-----------|
| G/H) | Point 4.2.7 | Connection of power supplies | (page 13) |
|------|-------------|------------------------------|-----------|

! N.B.: It is essential to follow the correct sequence for powering up the equipment, failing which it could be damaged.

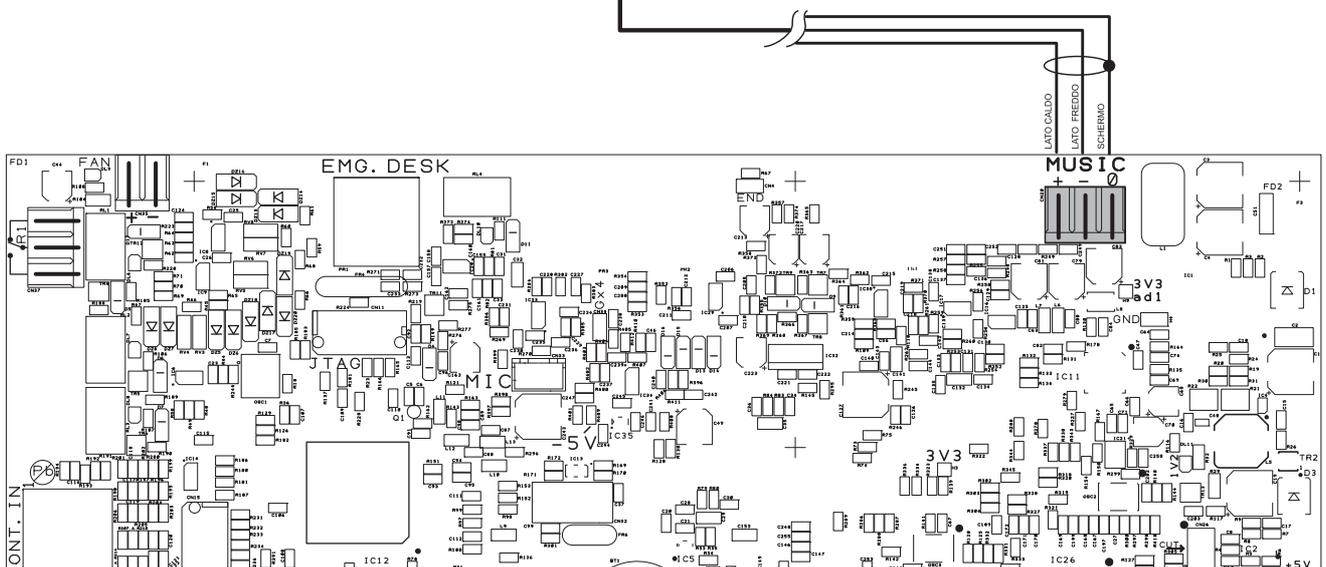
4.2.1 CONNECTION OF EMERGENCY UNITS [CPU CIRCUIT]

Use a CAT. 5e SF/UTP cable for connecting the **EMG. DESK** socket (9) to the 'IN/OUT' sockets of the remote emergency units **FMD range (max 4)**.



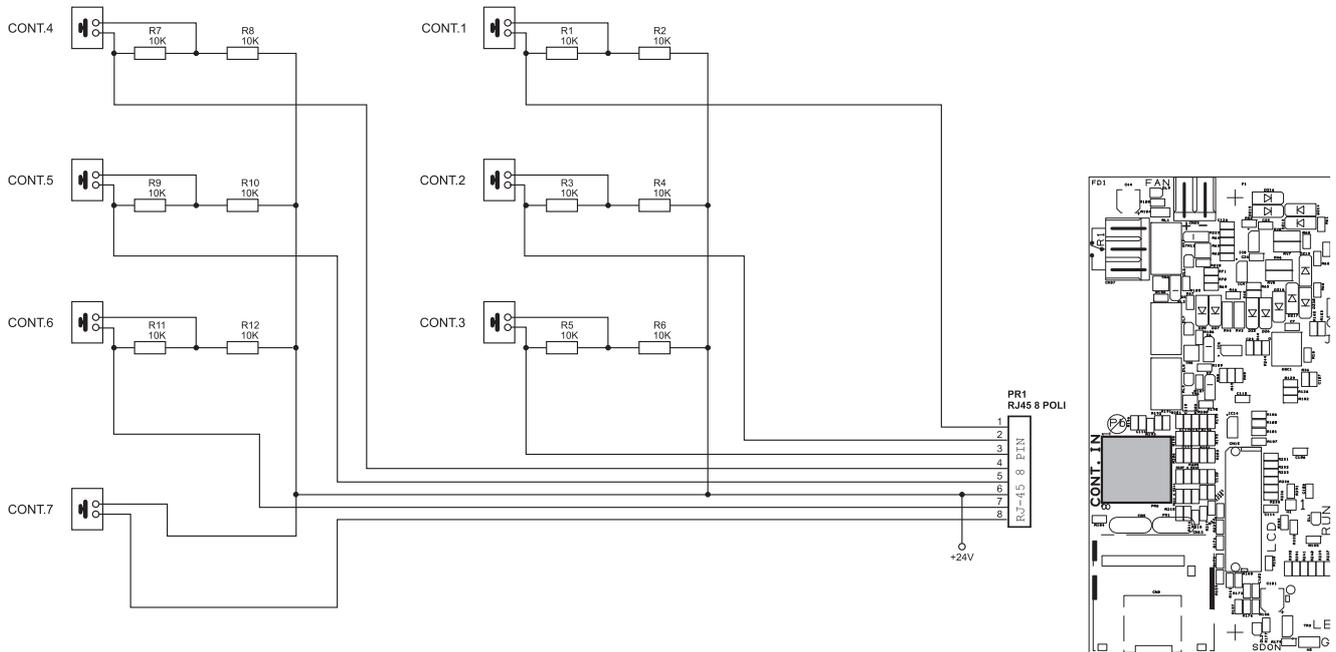
4.2.2 CONNECTION OF MUSIC INPUT [CPU CIRCUIT]

The **MUSIC** terminals (10) are available for connecting outside music sources (CD player, tuner etc.).



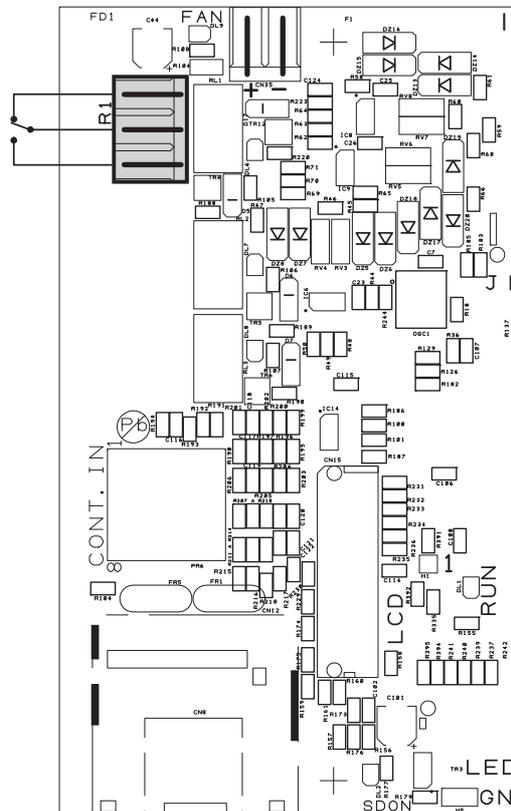
4.2.3 CONNECTION OF INPUT CONTACTS [CPU CIRCUIT]

The **CONT.IN** RJ45 socket (7) provides 7 controlled input contacts. An example of a connection is shown in the figure.



4.2.4 CONNECTION OF RELAY OUTPUT [CPU CIRCUIT]

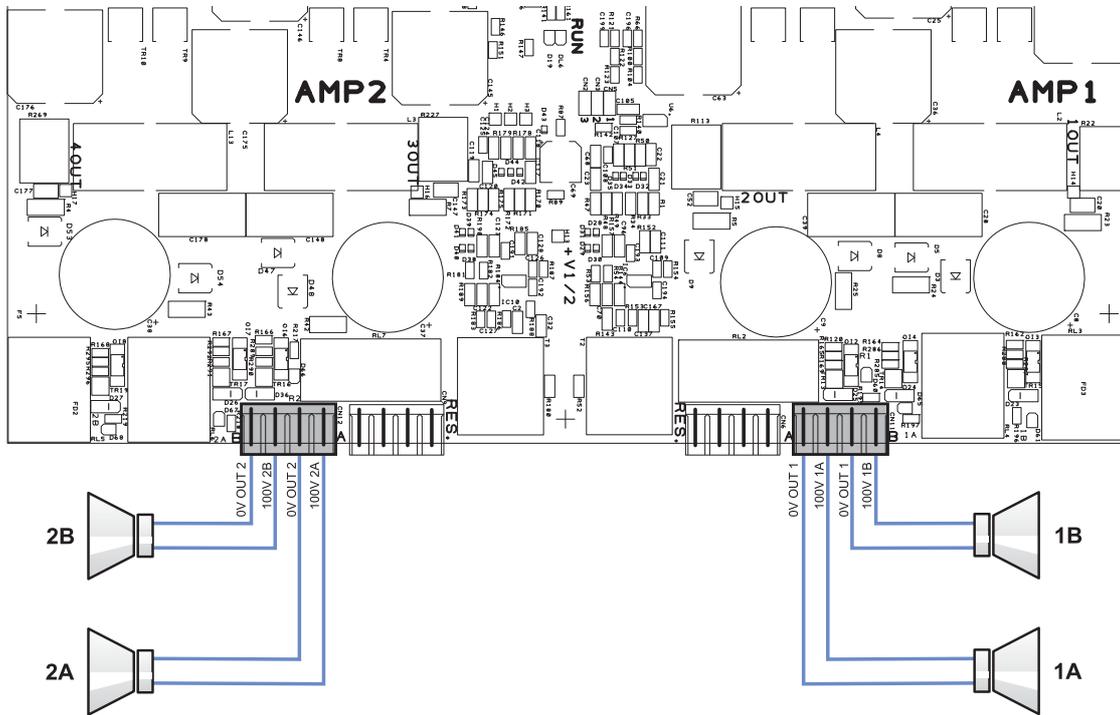
One relay output is available on terminals **R1** (8) for signalling towards outside peripheral units.



4.2.5 CONNECTION OF LOUDSPEAKER LINES [AMPLIFIER CIRCUIT]

Terminals **A/B** (13) and (15) are dedicated for connection of the loudspeaker lines.

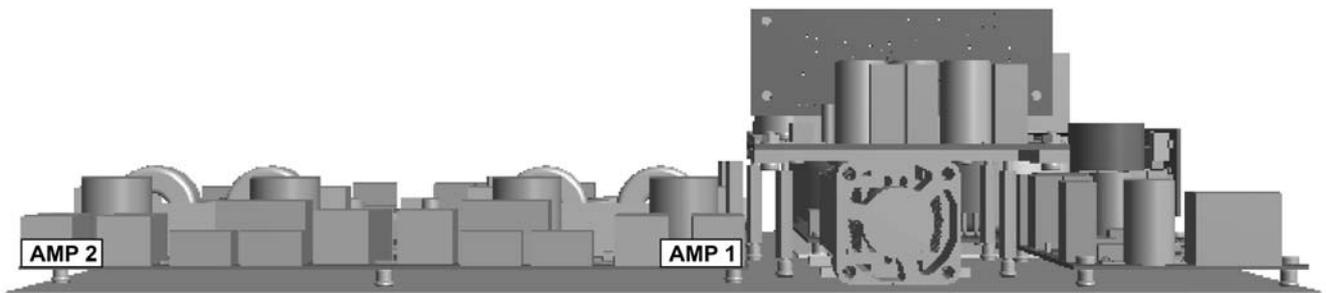
2-zone version, 250W without standby



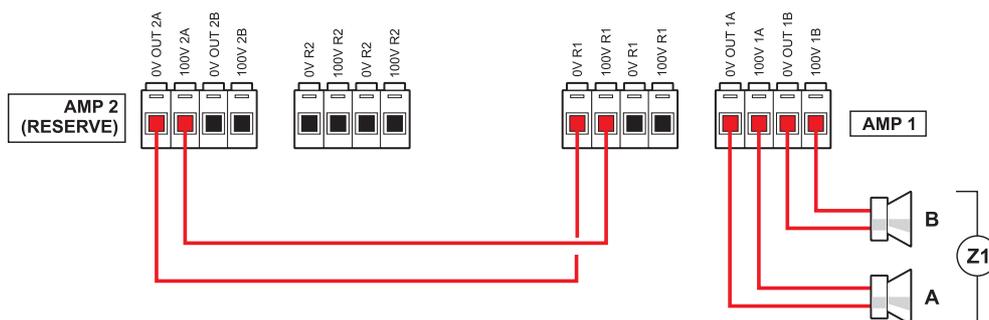
4.2.6 CONNECTION OF THE STANDBY AMPLIFIER [AMPLIFIER CIRCUIT]

1-zone version, 250W with standby

SIDE VIEW



TYPICAL CONFIGURATION
1-ZONE SYSTEM + STANDBY



4.2.7 CONNECTION OF POWER SUPPLIES [POWER SUPPLY AND CHARGER CIRCUITS]

! N.B.

Check that the main thermal-magnetic circuit breaker is switched OFF.

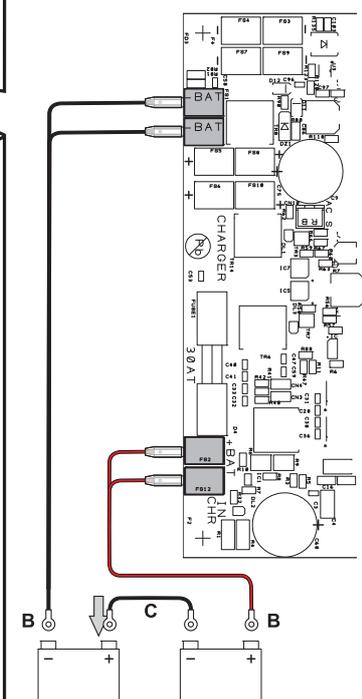
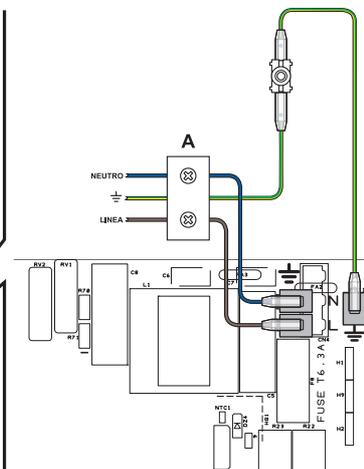
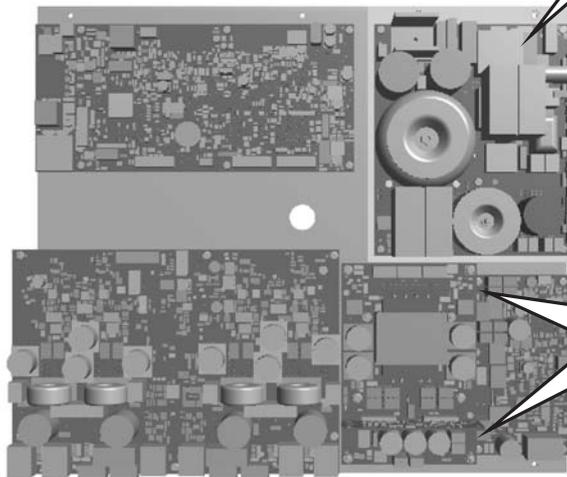
If it is not, switch it OFF before carrying out any other activities in the cabinet as there is a danger of electric shocks.

! N.B.

These devices have been designed to be connected to an earthed power supply. Make sure that the equipment is always connected to earth in accordance with legal regulations.

It is essential to follow the correct sequence for powering up the equipment, failing which it could be damaged.

- 1> Check that the main thermal-magnetic circuit breaker is switched OFF.
- 2> Connect the power cable coming from the thermal-magnetic circuit breaker and the earth cable to the contacts on the terminal strip (A) - see figure.
- 3> Connect the external terminals (B) of the batteries, observing the correct polarities.
- 4> Switch the thermal-magnetic circuit breaker ON.
- 5> Make a jumper between the inside terminals of the batteries using the cable (C) included in the supply.
- 6> Close the front door, tightening the screws firmly.



From now on the VAIE is working.

NOTE:

If the front door is opened, the amplifiers are deactivated automatically, and can be re-activated by specialised personnel only by using a specific menu item.

5. OPERATIONAL CONDITIONS AND TERMINOLOGY

Following is a list of how the operating conditions of the system are signalled and of the definitions used on the subsequent pages of the manual, completed by indications of a general nature.

5.1 **SIGNALLING OF OPERATING CONDITIONS**

The **VAIE** is designed to signal the different operating conditions as defined below:

Idle state (*ALARM, FAULT and SYS LEDs off*)

Normal operating condition, with no current faults or emergencies.

Alarm Status (*ALARM LED on*)

Operating condition signalling the presence of at least one alarm signal, either pre-recorded or live, in at least one output zone.

Faulty status (*FAULT LED on*)

Operating condition signalling the presence of at least one fault detected by the internal diagnostic system, with the relevant LED turning on.

System failure (*SYS LED on*)

Operating condition signalling that the system has crashed due to temporary or permanent CPU malfunctioning, detected by the watchdog device.

Automatic Emergency (*Display showing 'AUTOMATIC EMERGENCY' with active zones*)

Sequence of operations performed by an external peripheral unit connected to the control inputs that, depending on how these are programmed, activates the Alarm Status or resets the alarms.

Manual Emergency (*LED of the EMERGENCY button steady ON or flashing*)

Procedure of action on the system manual controls by an authorised operator, in order to activate emergency sources. Operations in the Manual Emergency mode have priority over those activated in the Automatic Emergency mode.

6. DEFINITIONS

BGM source (*BackGroundMusic*)

One of the audio sources that can occupy the "Music" amplification channel.

PA source (*Public Address*)

One of the audio sources that can occupy the "Voice" amplification channel for service announcements.

Emergency Source

One of the audio sources that can occupy the "Voice" and/or "Music" channels for voice emergency announcements (pre-recorded messages announcing an Alert and/or Evacuation, live messages from the local microphone, a call from a remote emergency microphone station). Activation of an Emergency Source generates the operational condition of "State of Alarm".

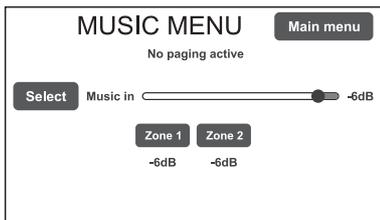
Priority

Occupation of the output zones by an audio signal or a reset order is governed hierarchically by the priority level assigned to each active source. The current activation of the area can be stopped only by another with a higher priority.

7. MENU STRUCTURE

The VAIE allows system functions to be accessed through a series of Management Panels grouped, according to their operational typology and intended use, in Option Menus accessible from the MAIN MENU window. Furthermore, the following Option Menus have been assigned to different levels of access, with reference to the various circumstances requiring different degrees of skill and authorisation of the personnel assigned. In each menu it is possible to browse through the options listed by running a finger over the sidebar or pressing the 'Up' and 'Dn' (Down) buttons. To select an item, press the appropriate button. Similarly, the levels can be adjusted simply by moving the cursor along the indicator bar.

<MUSIC> MENU | BASE LEVEL



Default window for using the system in its normal Idle conditions, where the BGM (Background Music) sources can be controlled and the volumes of the music section can be adjusted. This menu remains inaccessible in a State of Alarm.

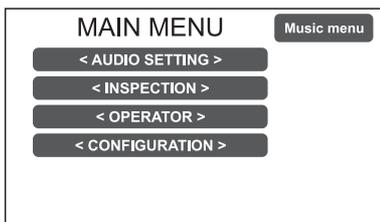
At this basic level, the RESET button is not operational.

This panel is shown immediately when the system is switched ON.

To access the Main Menu press the '**Main Menu**' button.

For the specific features of the MUSIC menu, see page 20.

<MAIN> MENU | BASE LEVEL



Main menu for selecting the four VAIE operational levels.

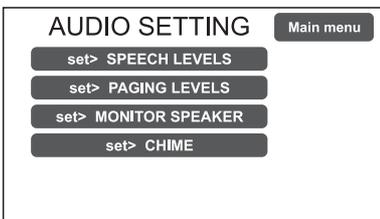
At this basic level the RESET button is not operational.

This panel is shown immediately when the system is switched on.

To go back to the MUSIC Menu press the '**Music Menu**' button.

To select the required item press the relevant key.

<AUDIO SETTING> MENU | BASE LEVEL

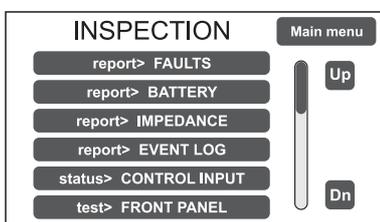


From the MAIN MENU screen, press the **< AUDIO SETTING >** key to access this menu. To select the required item press the relevant key.

To return to the main screen press 'Escape'.

For the specific features of the **AUDIO SETTING** menu, see page 21.

<INSPECTION> MENU | 1 SYSTEM LEVEL



First level of access, for inspecting the state of the system.

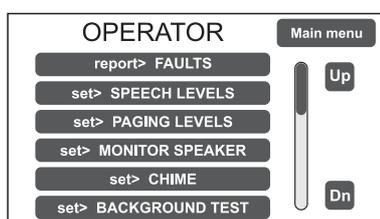
This is intended for the personnel responsible for initial checking of the causes of a fault or emergency. At this level the function of the RESET button is that of muting the acoustic signal indicating the FAULT.

To select the required item press the relevant key.

To go back to the main menu Press 'Main menu'.

For the specific features of the menu **INSPECTION**, see page 23.

<OPERATOR> MENU | 2 SYSTEM LEVEL

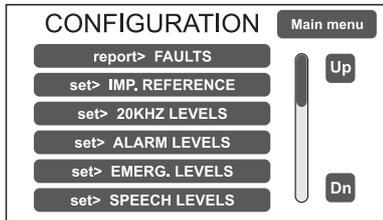


Second level of access, for instructed personnel authorised to manage the system in emergency, failure and disabled conditions.

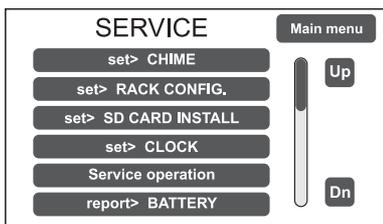
The relevant login password must be entered to access this menu.

To go back to the main screen press 'Main menu'.

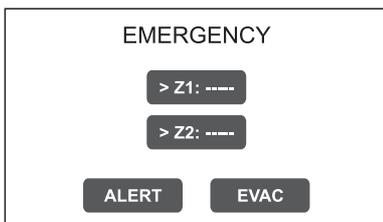
For the specific features of the **OPERATOR** menu, see page 26.

<CONFIGURATION> MENU | 3 SYSTEM LEVEL

Third level of access, for instructed personnel authorised to work on the advanced functions of the system and to alter the configuration parameters, for starting up and altering the system. The relevant login password must be entered to access this menu. To go back to the main screen press 'Main menu'.
For the specific features of the **CONFIGURATION** menu, see page 29.

<SERVICE> MENU | 4 SYSTEM LEVEL

Fourth level of access, included among the options of the CONFIGURATION menu, for technical assistance, firmware up-dating and altering the system operating parameters. Use is permitted only to personnel of the technical service who have the necessary login password.
To go back to the main screen press 'Main menu'.

<EMERGENCY> MENU

Operational environment for managing Manual Emergencies with top priority. Accessible at all times with the dedicated "EMERGENCY" key, it can be used by authorised personnel only, suitably instructed with regard to the Emergency and Evacuation Plan (PEE).
For the specific features of the EMERGENCY menu, see page 37.

8. USING THE SYSTEM

After making all the connections, observing the indications provided in the relevant chapter, and once the door of the cabinet has been closed, the display lights up and shows the panel of the MUSIC Menu, from which it is possible, by pressing the 'Main Menu' key, to access the main screen for selecting the menus.

If the system is being used for the first time, or if changes have been made to its configuration, proceed as indicated in the CONFIGURATION OF THE SYSTEM section. If, on the other hand, the initialisation procedure has already been completed, continue with the indications for use as provided below.

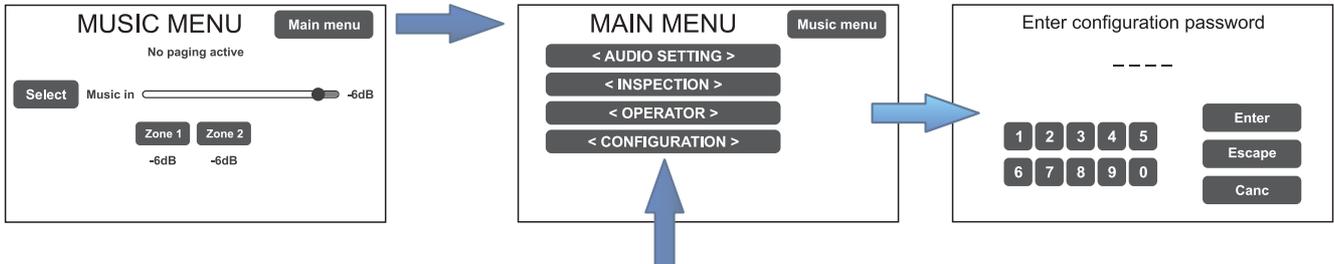
- **For normal use for broadcasting music and microphone announcements**, users may limit their activities to the **MUSIC** and **AUDIO SETTING** menus.
- For management in faulty/emergency conditions and for configuration using advanced functions, see the **INSPECTION**, **OPERATOR** and **CONFIGURATION** menus below.
- For sending emergency messages, see the **MANUAL EMERGENCY** section.

8.1 CONFIGURATION OF THE SYSTEM

Configuration activities may be carried out only by qualified personnel, suitably trained for this purpose.

A) Password

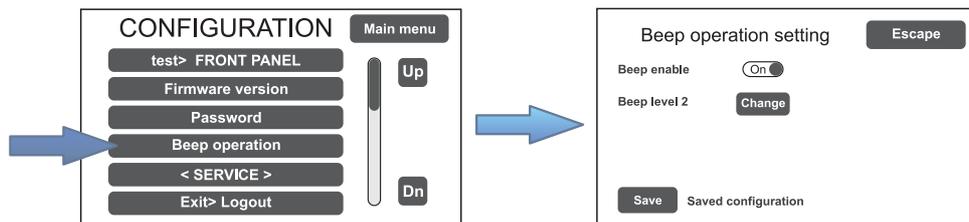
From the MUSIC MENU, go to the MAIN MENU and select < CONFIGURATION >. If access only with a password is enabled, 'Enter configuration password' will appear on the screen.



Enter the 4-digit code of the password and confirm by pressing 'Enter' (the factory default password is 3333; see page 29).

B) Muting the BEEP

During the initialisation process, it is possible that faults may be detected due to differences between the configuration of the system being connected and the values set by default. To mute the acoustic signal (beep) temporarily, browse down through the CONFIGURATION menu and select the item 'Beep operation'.



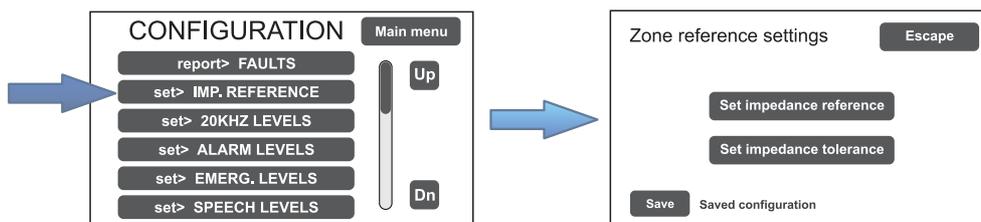
In the 'Beep operation setting' window, move the 'Beep enable' slider to 'Off'. Press 'Save' to save this setting.

! N.B.

In order to comply with regulations, before returning the equipment to its normal operation it is necessary to enable the acoustic signalling by returning the 'Beep enable' slider to its 'On' position.

C) Acquisition of impedances

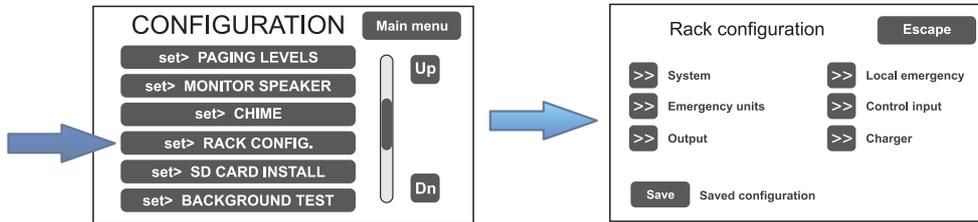
From the CONFIGURATION menu, select the item 'set> IMP. REFERENCE' to access the 'Zone reference setting' screen page.



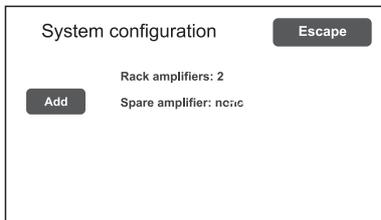
From here it is possible to set the reference impedance and the tolerance for controlling the impedance of the loudspeaker lines (refer to the point on *Impedance acquisition and tolerance setting* on page 30).

D) Rack configuration

In the CONFIGURATION menu, browse through the items and select '**set>RACK CONFIG**'. From here it is possible to configure all the basic settings of the system.



D1) >> System



On the '**System configuration**' screen page, you can set standby amplifier.

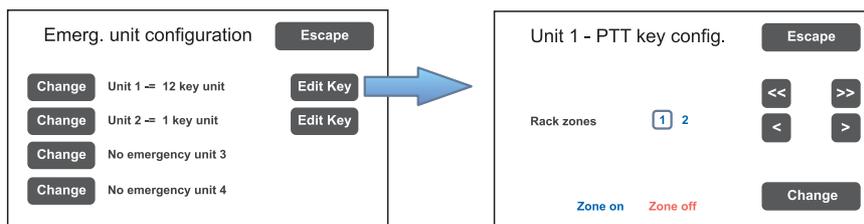
Spare amplifiers: standby amplifier (add or remove).
The item 'Rack amplifiers' automatically shows the number of amplifiers present in the system.

D2) >> Emergency units

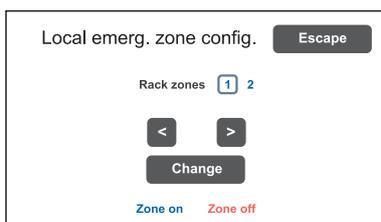
On the '**Emerg. unit model**' screen page, use the sub-menus to set the configuration of the emergency units. In a system with a VAIE 5500 unit it is possible to connect up to 4 remote emergency units: click on '**Change**' to select the model:

- 1 key unit = single zone microphone unit (FMD 2001)
- 12 key unit = 12-zone microphone unit (FMD 2012)

Once selected the microphone units, click on '**Edit Key**' to set the single keys (see Point *Emergency units*, page 32).



D3) >> Local emergency



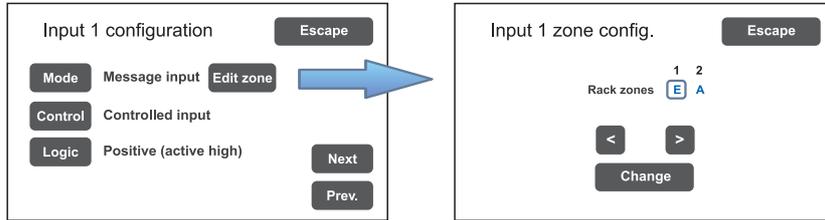
Screen page for setting the zones in which the emergency messages will be broadcast. Move in the table using the arrow keys.

Blue = Active zone / Red = Inactive zone

See the section on *Local emergency* on page 32.

D4) >> Control input

Screen page for managing the inputs being controlled (1 to 7).
Use the 'Next' and 'Prev.' Keys to move from one input to another.

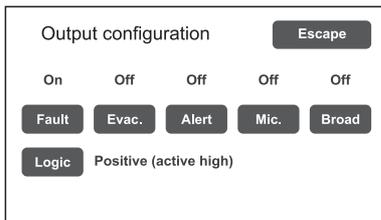


Mode Setting of the operating mode of the input (message, reset or de-activated) and of the relevant zones (only if the item "Message input" is selected).

Control Enabling/disabling of control of the selected input.

Logic Impostazione della logica di attivazione dell'ingresso.

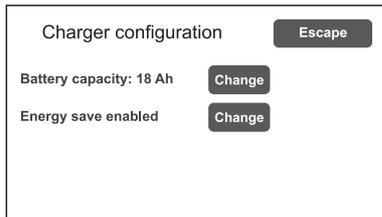
D5) >> Output



Screen page for setting the output.

D6) >> Charger

On selecting the item >>**Charger** this screen page containing information about the internal batteries appears.



Battery capacity

Press 'Change' to select a value between 18, 26, 33 or 40 Ah. Please see details on page 33.

Energy save (enabled/disabled)

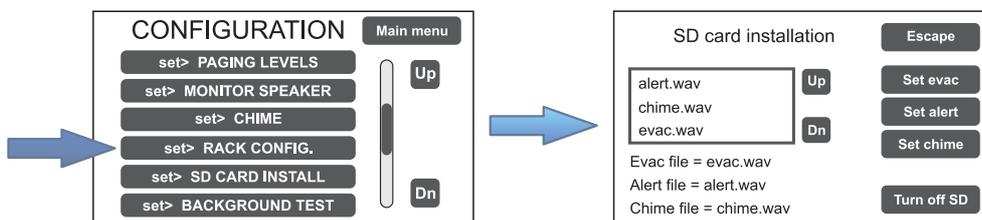
For enabling/disabling the function allowing the batteries to go into the energy saving mode in the absence of the mains power supply.

! N.B.

In order to comply with the regulations, the "Energy save" function should always be enabled.

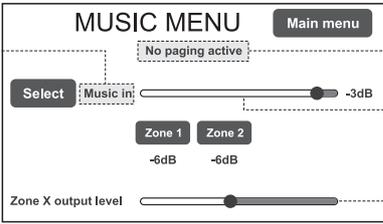
E) Emergency messages

The default messages (Alert, Evacuation and Chime) are stored in the SD card mounted on the CPU. To access the relevant screen, select the item **set> SD CARD INSTALL** from the CONFIGURATION menu. See page 34 for the relevant activities.



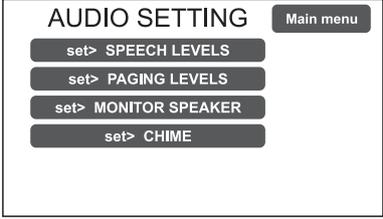
8.2 MUSIC MENU

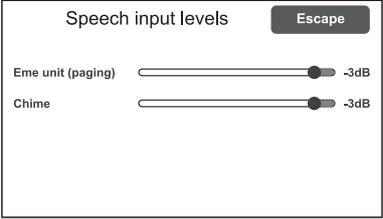
SETTING THE AUDIO PARAMETERS OF BGM SOURCES

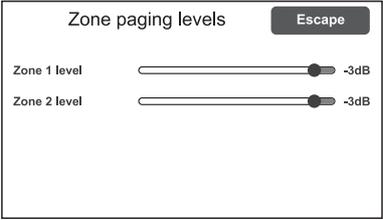
Screen page	Description of main panel	Description of options
	<p>Music source control panel displayed by the VAIE 5500 in conditions of normal "Idle" state operation:</p> <p><u>Navigation keys:</u></p> <p>Main menu Access to the main menu screen</p> <p>Select Selection of the music source (BGM)</p> <p>Zone X Selection of the output zone</p> <p><u>Indications on the display:</u></p> <p>A) Adjustment of the general output volume of the BGM source. B) Adjustment of the specific output volume of the selected zone. C) Selected music source. D) Presence of broadcast calls.</p>	<p>SELECTION OF THE BGM SOURCE Press the 'Select' key to select one of the following music sources:</p> <ul style="list-style-type: none"> - Music in Music source connected to the MUSIC input (10) - No music No source selected <p>ADJUSTMENT OF THE GENERAL MUSIC VOLUME To adjust the volume, move the cursor along the bar (A). The attenuation value set is visible directly on the display (from 0 dB to -70 dB/Off). The value set is stored for each BGM source selected.</p> <p>ADJUSTMENT OF THE MUSIC VOLUME FOR EACH ZONE OUTPUT Press the key of the required zone. The 'Zone X output level' bar (B) will appear to make adjustments in the same way as for the general volume. The attenuation value set is visible directly on the display (from 0 dB to -70dB/Off). The value set is stored for each zone and shown below the relevant button.</p> <p>MUSIC ACTIVATION AND DEACTIVATION FOR EACH ZONE OUTPUT Music activation on a zone is shown by the green colour of the relevant key. Otherwise the key will be blue. To change the activation state, press the zone key once and then again before the level bar (B) disappears.</p>

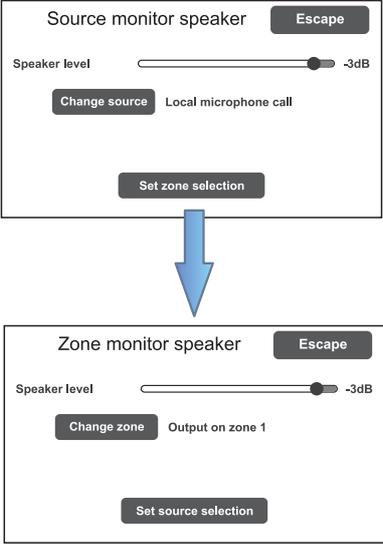
8.3 <AUDIO SETTING> MENU

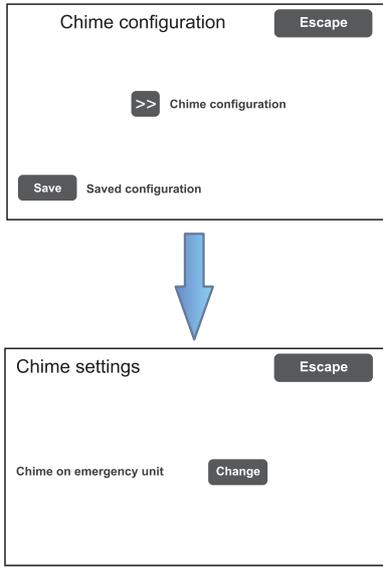
SETTING THE AUDIO PARAMETERS OF THE PA SOURCES

Screen page	Description of main panel	Description of options
	<p>Music and broadcast source control panel displayed by the VAIE in conditions of normal “Idle” state operation.</p> <p>Access menu to the panels for managing the parameters concerning the music and voice source audio. To select the desired item, press the relevant key.</p> <p>To return to the main screen, press ‘Escape’</p>	<p>The options of the AUDIO SETTING menu enable access to the following panels:</p> <p>set> SPEECH LEVELS</p> <p>set> PAGING LEVELS</p> <p>set> MONITOR SPEAKER</p> <p>set> CHIME</p>

set> SPEECH LEVELS	Management of the <i>voice</i> sources	Relevant items
	<p>On this screen page the volume of the voice sources connected to the VAIE can be adjusted.</p> <p>To change the value indicated, move the cursor along the bar next to each source.</p> <p>To return to the < AUDIO SETTING > screen, press ‘Escape’.</p>	<p>Eme unit (paging) Remote emergency units on broadcasting calls.</p> <p>Chime Warning signal.</p>

set> PAGING LEVELS	Management of the output level
	<p>On this screen page the output volume during broadcasting calls can be adjusted zone by zone.</p> <p>To change the indicated value, move the cursor along the bar next to each source.</p> <p>To return to the < AUDIO SETTING > screen, press ‘Escape’.</p>

set> MONITOR SPEAKER	Management of monitor speaker	Sources available for selection
	<p>In this panel, besides adjusting the volume of the monitor speaker on the VAIE, input and output signals of the equipment can be played.</p> <p>The Source Monitor speaker screen enables one of the input sources to be played back, while Zone monitor speaker enables one of the output zones to be played back.</p>	<p><i>Local microphone call</i> <i>Emergency unit call</i> <i>Music input source</i> <i>Evac message</i> <i>Alert message</i> <i>Speaker monitor off</i></p> <p>Selectable zones <i>Output on zone X</i> <i>Speaker monitor off</i></p>

set> CHIME	Management of CHIME input	
	<p>Configuration of the chime input is accessed from this panel (<i>Chime configuration</i>).</p>	
	<p>Chime settings On this screen, chime can be enabled or disabled.</p>	<p><i>Chime on emergency unit (on/off)</i></p>

8.4 <INSPECTION> MENU

SYSTEM STATUS INSPECTION

This menu is intended for selecting options for system status inspection.

It is for use by the personnel in charge of initial checking of the causes leading to a fault or to an emergency state.

In this menu it is possible to select:

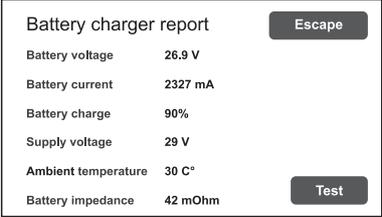
- report> FAULTS
- report> BATTERY
- report> IMPEDANCE
- report> EVENT LOG
- status> CONTROL INPUT
- test> FRONT PANEL
- < OPERATOR >
- < CONFIGURATION >

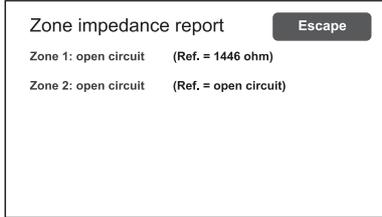
To return to the main screen press **Main menu**.

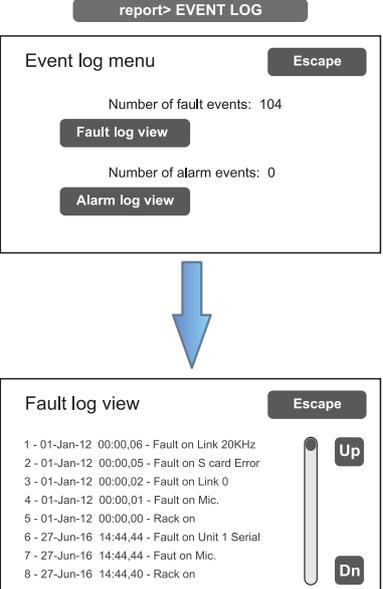
report> FAULTS	Investigation on faulty conditions
	<p>Six items are listed with a general indication of the fault status. The categories of the faulty parts and the status general reporting are shown in the following table. Press the required item to access the chosen sub-panel and view the details of the fault as illustrated on the following screens.</p> <p>To return to the INSPECTION menu press Escape.</p>

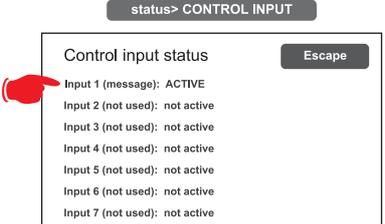
Label	Category subject to diagnosis	See panel	Notes
Loudspeaker lines	Loudspeaker lines		The diagnosis status is reported for each output line.
Voice alarms	Voice emergency sources		For each monitored element, additional sub-panels can be accessed, where the diagnosis status is reported.
Amplifiers	Amplifiers Loudspeaker line <i>Ground fault</i>		The diagnosis status is reported for each monitored element.

Label	Category subject to diagnosis	See panel	Notes
Power supplies	Primary and secondary power supplies Display management memory		The diagnosis status is reported for each monitored element.
Control input	Local input contacts		The diagnosis status is reported for each monitored element.
Communication	Internal data communication of VAIE 5500		The diagnosis status is reported for each monitored element.

report> BATTERY	Status of batteries
	<p>This panel displays all the data relating to the internal batteries of the VAIE 5500.</p> <p>The equipment carries out testing of the batteries automatically approximately once an hour. It is in any case possible to start an immediate test manually by pressing the 'Test' key.</p> <p>To return to the INSPECTION menu, press Escape.</p>

report> IMPEDANCE	Impedance of the lines
	<p>Panel for checking the impedance values measured in real time compared with the value stored during the start-up (see page 34).</p> <p>If the tolerance is exceeded, the fault will be reported in the relevant menu together with a too high, too low or short-circuit impedance value.</p> <p>To return to the INSPECTION menu, press Escape.</p>

report> EVENT LOG	Event log
	<p>This panel displays a report showing the total number of faults and alarms recorded during system operation.</p> <p>Press Fault log view for a detailed view of the faults.</p> <p>Press Alarm log view for a detailed view of the alarms.</p> <p>To return to the INSPECTION menu, press Escape.</p>

status> CONTROL INPUT	Status of the local input contacts
	<p>This panel shows a list of the controlled inputs, their types (message, reset, not used) and their statuses (input active/not active).</p> <p>In the event of activation of one of these inputs, the system will enter an “Alarm status”, light up the ALARM LED and show automatically the panel indicating which zones are affected by the emergency (see under <i>Activation of an automatic emergency</i>, page 39).</p> <p>To return to the INSPECTION menu, press Escape.</p>

test> FRONT PANEL	heck of operation of the visual and acoustic signalling devices
	<p>Panel for checking operation of the monitor speaker, of the display, of the touch screen and of the signalling LED for the emergency operations.</p> <p>With the exception of the yellow SYS LED, which remains OFF, all the other LEDs and the emergency button will be in the flashing mode. The screen background colour changes in sequence so as to check correct functioning of all the pixels.</p> <p>Press the small black square that appears on the display to check proper calibration of the touch screen.</p> <p>Press the EMERGENCY button to test correct sounding of the “beep” by the monitor speaker as well as button efficiency.</p> <p>To return to the INSPECTION menu, press RESET.</p>

The < OPERATOR > and < CONFIGURATION > keys can be used to go on to the subsequent menus.

8.5 <OPERATOR> MENU

MANAGEMENT OF EMERGENCY, FAULTY AND DISABLED CONDITIONS

Menu from which to select options, to be used only by the personnel in charge of managing the system in the event of an emergency and/or a fault. If a login password was enabled at the time of configuration, the following panel will appear:

Enter operator password

2222

1	2	3	4	5	Enter
6	7	8	9	0	Escape
					Cancel

Enter the 4-digit numerical password (it is **2222** by default) and press **Enter**.
Once the OPERATOR menu is accessed, new items in addition to those already seen will be found.

report> FAULTS

set> SPEECH LEVELS

set> PAGING LEVELS

set> MONITOR SPEAKER

set> CHIME

set> BACKGROUND TEST

set> CLOCK

report> BATTERY

report> IMPEDANCE

report> EVENT LOG

status> CONTROL INPUT

test> FRONT PANEL

Firmware Version

< INSPECTION >

< CONFIGURATION >

Exit> Logout

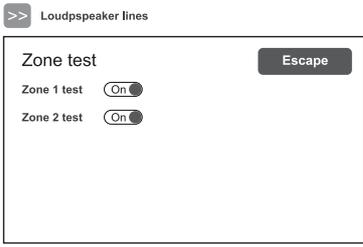
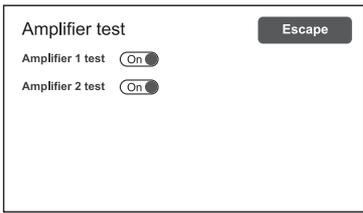
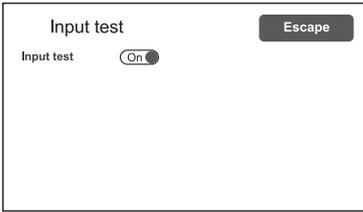
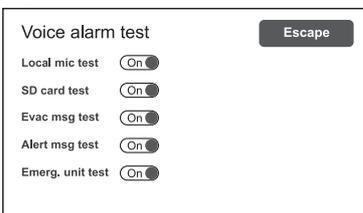
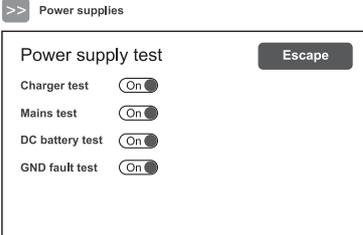
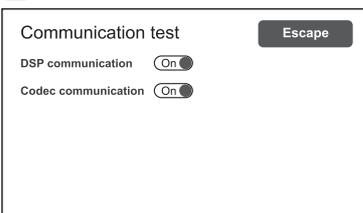
To return to the main screen page press **Main Menu**.

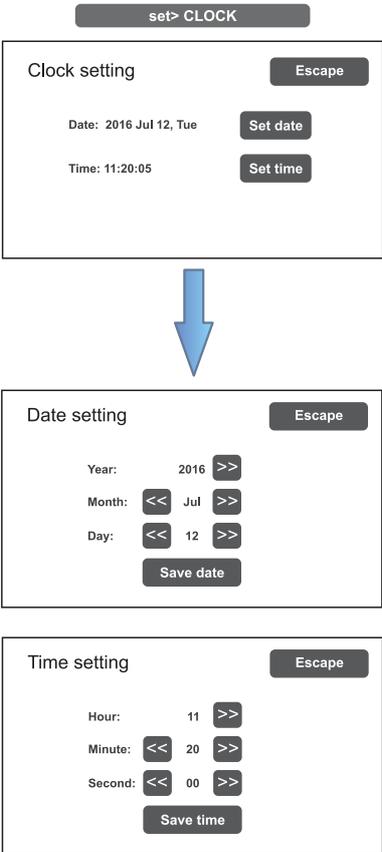
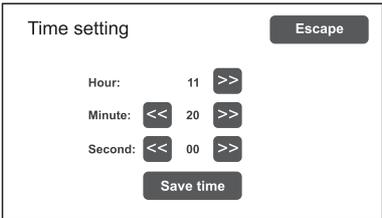
set> BACKGROUND TEST	Enabling and disabling of the monitoring tests						
<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">set> BACKGROUND TEST</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Background test Escape</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding: 2px;">>> Loudspeaker lines</td> <td style="padding: 2px;">>> Voice alarms</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">>> Amplifiers</td> <td style="padding: 2px;">>> Power supplies</td> </tr> <tr> <td style="border-right: 1px solid black; padding: 2px;">>> Control input</td> <td style="padding: 2px;">>> Communication</td> </tr> </table> <p style="text-align: center; margin-top: 5px;">Save Saved configuration</p> </div> </div>	>> Loudspeaker lines	>> Voice alarms	>> Amplifiers	>> Power supplies	>> Control input	>> Communication	<p>Panel for enabling and disabling the monitoring tests applied to those items affecting the system functioning in emergency conditions. Select the required item(s) in order to access the relevant sub-panels *.</p> <p>If the parameters of one or more items are changed, press Save to save the new configuration.</p> <p>To return to the OPERATOR menu press Escape.</p>
>> Loudspeaker lines	>> Voice alarms						
>> Amplifiers	>> Power supplies						
>> Control input	>> Communication						

*For details see the table on page 27.

Note:

Upon access to the various panels shown below, the touch screen shows the programming status as currently set. To change this status move the cursors to the desired positions – as indicated in the table - and then press '**Save**' on the **set> BACKGROUND TEST** panel.

Label	Application	See panel	Notes
Loudspeaker lines	Loudspeaker lines		<p>Panel for testing the loudspeaker lines.</p> <p>On = test enabled Off = test disabled</p>
Amplifiers	Amplifiers		<p>Panel for testing the local amplifiers.</p> <p>On = test enabled Off = test disabled</p>
Control input	Controlled inputs		<p>Panel for testing the input contacts.</p> <p>On = test enabled Off = test disabled</p>
Voice alarms	Voice emergency sources		<p>Panel for testing the incoming emergency sources:</p> <ul style="list-style-type: none"> - Testing of handheld micro - Testing of SD card - Testing of EVAC message - Testing of ALERT message - Testing of emergency units <p>On = test enabled Off = test disabled</p>
Power supplies	Power supplies		<p>Panel for testing of power supplies:</p> <ul style="list-style-type: none"> - Testing of battery charger - Testing of mains supply - Testing of 24 VDC batteries - Testing of GND fault <p>On = test enabled Off = test disabled</p>
Communication	Internal data communication of VAIE 5500		<p>Panel for testing of internal data communication of VAIE:</p> <ul style="list-style-type: none"> - Testing of DSP comm. - Testing of codec comm. <p>On = test enabled Off = test disabled</p>

<p style="text-align: center;">set> CLOCK</p>  <p style="text-align: center;">↓</p>  	<p style="text-align: center;">Setting of system date and time</p> <p>Panel for setting the system date and time. Press the following buttons:</p> <ul style="list-style-type: none"> - Set date and - Set time <p>to set these parameters.</p> <p>To return to the OPERATOR menu press 'Escape'.</p> <p>After setting the desired date, press 'Save date' before pressing 'Escape' to exit.</p> <p>After setting the desired time, press 'Save time' before pressing 'Escape' to exit.</p>
<p style="text-align: center;">set> Firmware Version</p> 	<p style="text-align: center;">Viewing the firmware version</p> <p>Panel for viewing the version of the firmware installed in the VAIE 5500 system.</p> <p>To return to the OPERATOR menu press 'Escape'.</p>

The < **INSPECTION** > and < **CONFIGURATION** > keys can be used to go on to the subsequent menus.

! N.B.:

Upon completion of the operations carried out, before returning to the basic level, that is to say to the **MUSIC MENU**, it is advisable to log out of the system level corresponding to the current menu, so as to reset the required password for future accesses and to prevent unauthorised personnel from accessing the advanced functions of the system

To do this, select **Exit> Logout** from the list in the OPERATOR menu.

The system returns to its basic level and shows the **MUSIC MENU** panel.
The request for the login password will be reset also for any other levels visited.

8.6 <CONFIGURATION> MENU

MANAGEMENT OF ADVANCED SYSTEM FUNCTIONS AND CONFIGURATION CHANGES

This option selection menu is for use only by specifically trained personnel authorised to work on advanced system functions and to modify the configuration parameters, for system start-up and maintenance purposes. If a login password was enabled at the time of configuration, the following panel will appear:

Enter configuration password

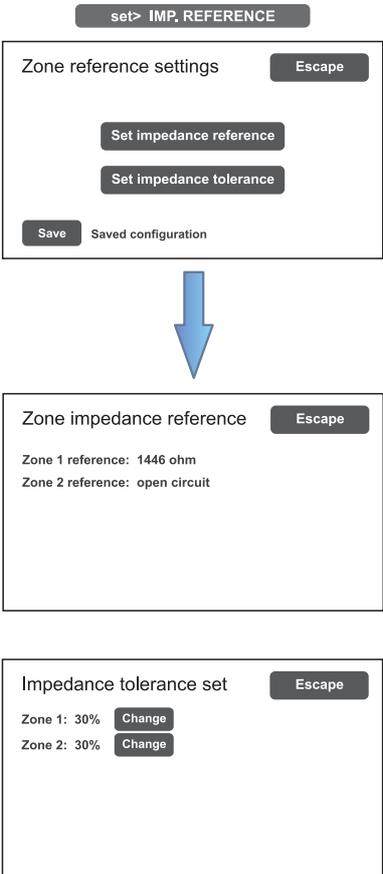
3 3 3 3

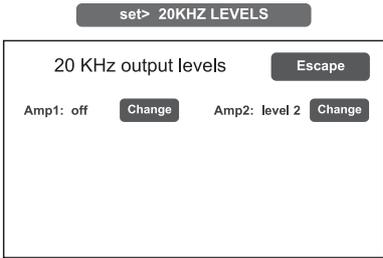
1	2	3	4	5	Enter
6	7	8	9	0	Escape
					Canc

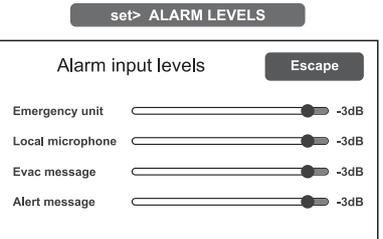
Enter the 4-digit numerical password (it is **3333** by default) and press **Enter**.
Once the CONFIGURATION menu is accessed, additional new items will be seen.

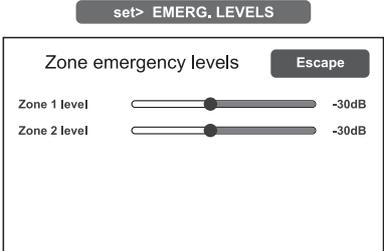
- report> FAULTS
- set> IMP. REFERENCE
- set> 20KHZ LEVELS
- set> ALARM LEVELS
- set> EMERG. LEVELS
- set> SPEECH LEVELS
- set> PAGING LEVELS
- set> MONITOR SPEAKER
- set> CHIME
- set> RACK CONFIG.
- set> SD CARD INSTALL
- set> BACKGROUND TEST
- set> CLOCK
- report> BATTERY
- report> IMPEDANCE
- report> EVENT LOG
- status> CONTROL INPUT
- test> FRONT PANEL
- Firmware Version
- Password
- Beep operation
- < SERVICE >
- Exit> Logout

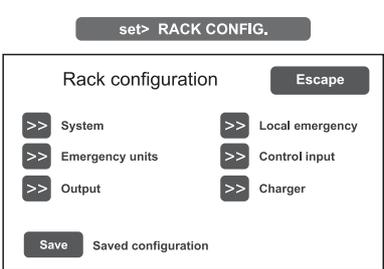
To return to the main screen, press **Main Menu**.

set> IMP. REFERENCE	Impedance acquisition and tolerance setting
 <p>set> IMP. REFERENCE</p> <p>Zone reference settings Escape</p> <p>Set impedance reference</p> <p>Set impedance tolerance</p> <p>Save Saved configuration</p> <p>Zone impedance reference Escape</p> <p>Zone 1 reference: 1446 ohm Zone 2 reference: open circuit</p> <p>Impedance tolerance set Escape</p> <p>Zone 1: 30% Change Zone 2: 30% Change</p>	<p>Panel for acquiring line impedance values and setting the tolerance threshold for the diagnostic tests.</p> <p>Press the appropriate buttons to access the sub-panels.</p> <p>The Zone impedance reference panel shows the impedance values measured on the output zones, which will constitute the reference values.</p> <p>Use the set>Impedance tolerance set panel to define the tolerance, choosing one of the suggested values (press the Change key associated with the desired zone and set one of the following values: 10%, 20%, 30%, 40% or 50%). When the diagnostic system detects a value beyond the tolerance chosen for the reference value, a 'Fault' is activated.</p> <p>To return to the CONFIGURATION menu, press Escape.</p>

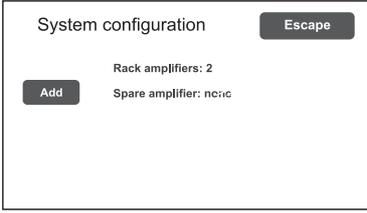
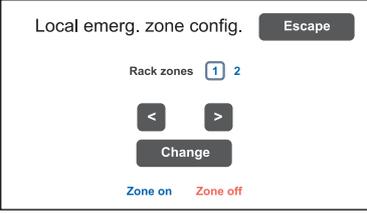
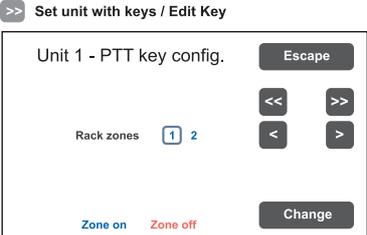
set> 20KHZ LEVELS	Setting the test signal level
 <p>set> 20KHZ LEVELS</p> <p>20 KHz output levels Escape</p> <p>Amp1: off Change Amp2: level 2 Change</p>	<p>Panel for setting the test signal levels to 20 kHz in the various audio channels. Press the Change keys associated with the level to be adjusted and select one of the following options: level 1, level 2, level 3 or Off. The recommended value for the amplifiers is 2.</p> <p>To return to the CONFIGURATION menu, press Escape.</p>

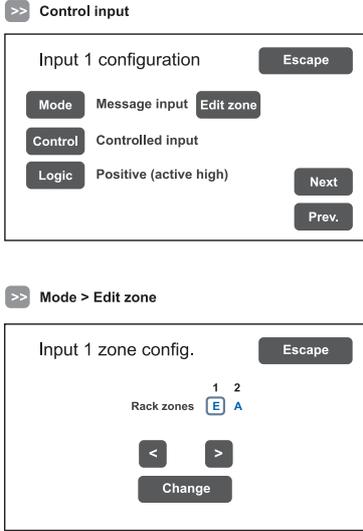
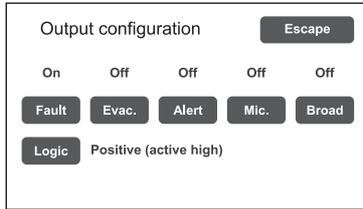
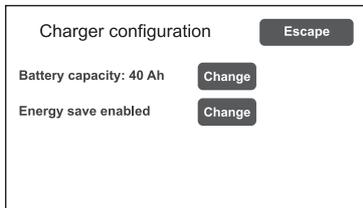
set> ALARM LEVELS	Setting the alarm source level
 <p>set> ALARM LEVELS</p> <p>Alarm input levels Escape</p> <p>Emergency unit <input type="range"/> -3dB</p> <p>Local microphone <input type="range"/> -3dB</p> <p>Evac message <input type="range"/> -3dB</p> <p>Alert message <input type="range"/> -3dB</p>	<p>Panel for setting the output volume of the alarm sources connected to the VAIE 5500.</p> <ul style="list-style-type: none"> - Emergency units. - Hand-held paging local microphone. - Evacuation message. - Alert message. <p>To return to the CONFIGURATION menu, press Escape.</p>

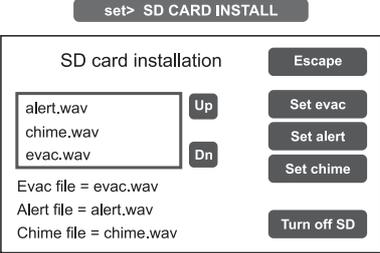
set> EMERG. LEVELS	Setting the zone volume level during emergencies
	<p>Panel for adjusting the zone volume during emergencies.</p> <p>To return to the CONFIGURATION menu, press Escape.</p>

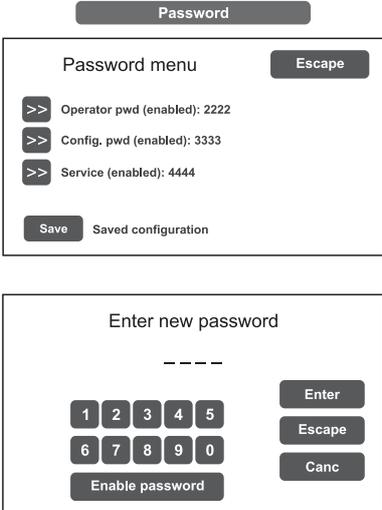
set> RACK CONFIG.	Rack configuration
	<p>This panel contains all the parameters needed for configuring the rack:</p> <ul style="list-style-type: none"> - System. - Emergency messages to broadcasting zones. - Emergency units. - Controlled inputs. - Output. - Battery charger. <p>Note that any changes whatsoever to any of the sub-panels illustrated on the following page must be saved by pressing the Save button.</p> <p>To return to the CONFIGURATION menu, press Escape.</p>

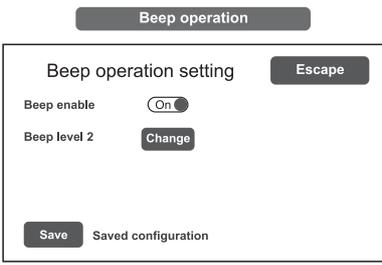
For the details of the **set> RACK CONFIG.** panel see the tables on the following pages.

Label	Application	See panel	Notes
System	No. of amplifiers Standby amplifier		In this panel it is possible to set the attribution of a standby amplifier. The total number of amplifiers present in the system is also shown automatically.
Local emergency	Local emergency		<p>Panel for setting the default broadcasting zones for emergency messages.</p> <p>Press 'Change' to change the zone status, choosing between: Blue = active zone and Red = inactive zone</p> <p>Premere 'Escape' per uscire dalla schermata.</p>
Emergency units	Postazioni d'emergenza		<p>From this panel it is possible to use the sub-menus to set the configurations of the emergency units connected to the VAIE 5500.</p> <p>To configure the emergency units, press 'Set unit with keys', then press the 'Change' key to select the model.</p> <p>Then press 'Edit key' for configuring the keys. Use the '<<' and '>>' keys to pass from one key to another of the unit. Move over the table using the '<' and '>' keys.</p> <p>Press 'Change' to change the association of the zone with the key, choosing between: Blue = Zone associated Red = Zone not associated</p> <p>To leave the screen, press 'Escape'.</p>

Label	Application	See panel	Notes										
Control input	Controlled Input contacts		<p>Panel for configuring the controlled inputs. To go from one input to another (from 1 to 7), press Next or Prev.</p> <p>Press Mode to select one of the following modes: - Message input > Edit zone Setting of the messages for the zones (E = evac, A = alert, N = none) - Not active input - Reset input</p> <p>Press Control to enable or disable control over the concerned input.</p> <p>Press Logic to set the logic typology attributed to the concerned input, choosing between: - Positive (active high) - Negative (active low)</p> <p>To leave the screen, press 'Escape'.</p>										
Output	Relay output		<p>Panel for configuring the relay output.</p> <p>Activate or de-activate (On/Off) the type of event to be associated with the output in question by pressing the appropriate buttons.</p> <p>To leave the screen, press 'Escape'.</p>										
Charger	Battery charger	 <p>2 AMP (Pmax = 250W)</p> <table border="1" data-bbox="703 1738 1075 1861"> <thead> <tr> <th>Capacity</th> <th>Duration without mains supply</th> </tr> </thead> <tbody> <tr> <td>18 Ah</td> <td>24 h + 30 min*</td> </tr> <tr> <td>26 Ah</td> <td>35 h + 30 min</td> </tr> <tr> <td>33 Ah</td> <td>44 h + 30 min</td> </tr> <tr> <td>40 Ah</td> <td>72 h + 30 min</td> </tr> </tbody> </table>	Capacity	Duration without mains supply	18 Ah	24 h + 30 min*	26 Ah	35 h + 30 min	33 Ah	44 h + 30 min	40 Ah	72 h + 30 min	<p>Battery configuration panel.</p> <p>By pressing 'Change' it is possible to set:</p> <ul style="list-style-type: none"> - The capacity of the battery (choose between 18, 26, 33 or 40 Ah). - 'Energy save' mode enabled/disabled. This enables the batteries to remain in the energy saving mode when there is no mains power. <p>*According to UNI ISO 7240-19 point 5.15.3 requirements: 24 h standby plus 30 minutes in vocal alarm condition.</p>
Capacity	Duration without mains supply												
18 Ah	24 h + 30 min*												
26 Ah	35 h + 30 min												
33 Ah	44 h + 30 min												
40 Ah	72 h + 30 min												

set> SD CARD INSTALL	Setting of zone level during emergencies
	<p>The standard alert and evacuation messages and the broadcast chime are stored at the factory on the SD card mounted on the CPU circuit. In order to customise the system, it is possible, however, to add to and/or update these files. To do so, it is necessary to:</p> <ul style="list-style-type: none"> - Place the main thermal-magnetic circuit breaker upstream from the system in the OFF position: the VAIE 5500 enters the stand-by mode, exploiting the power supply from the batteries. - Open the front door of the VAIE 5500 by unscrewing the two fixing screws: the amplifiers will automatically switch off. - On the display, press the Turn off SD key: the red LED associated with the card extinguishes. At this point it is possible to extract the SD from the VAIE 5500. - Programme the card with the new audio files (max. 20). Following are the requisites of the files, which have to be copied into the root directory of the SD card: <ul style="list-style-type: none"> • Format: *.WAV • Resolution: 16 bit / mono • Sampling frequency: 48 kHz • Filename: max 16 characters (including the .wav extension). - UOnce the files have been copied onto the SD card, fit it back onto the CPU circuit and, on the display, press the Turn on SD key. Check that the red LED lights up again. - Close the front door of the VAIE 5500, tightening the screws firmly back into place. - Return the main thermal-magnetic circuit breaker to its ON position. <p>The SD card is now mounted correctly and the menu on the display shows a list up-dated with the new audio files, which can be browsed using the Up/Dn keys.</p> <p><u>To set the new EVACUATION message (EVAC):</u> Select the desired file and press the Set evac key.</p> <p><u>To set the new ALERT message:</u> Select the desired file and press the Set alert key.</p> <p><u>To set the new broadcast CHIME:</u> Select the desired file and press the Set chime key.</p> <p>The names of the files set appear as a reminder at the bottom of the screen, together with the type of use.</p> <p>To return to the CONFIGURATION menu press Escape.</p>

Password	Setting a password
 <p>The screenshot shows two panels. The top panel, titled 'Password', contains a 'Password menu' with three entries: 'Operator pwd (enabled): 2222', 'Config. pwd (enabled): 3333', and 'Service (enabled): 4444'. Each entry has a right-pointing arrow icon. To the right of the menu is an 'Escape' button. Below the menu is a 'Save' button with the text 'Saved configuration'. The bottom panel, titled 'Enter new password', shows a numeric keypad with digits 1-0 and an 'Enable password' button. To the right of the keypad are 'Enter', 'Escape', and 'Canc' buttons.</p>	<p>Panel for enabling, disabling and customising the password for logging into the system service levels. The default passwords set are those shown here on the left. To change these settings and enter a new code, press the key associated with the menu in which the change is to be made and, on the next sub-panel, enter the new password.</p> <p>To correct a typing error, use the Canc key.</p> <p>To enable / disable a password, use the Enable password or Disable password keys (as the case may be).</p> <p>Press Enter to confirm and return to the Password menu panel.</p> <p>Press Save to save the change made.</p> <p>To return to the CONFIGURATION menu press Escape.</p>

Beep operation	Set the control 'beep'
 <p>The screenshot shows a 'Beep operation' panel. It contains 'Beep operation setting' with an 'Escape' button to its right. Below this are two settings: 'Beep enable' with a toggle switch currently in the 'On' position, and 'Beep level 2' with a 'Change' button. At the bottom left is a 'Save' button with the text 'Saved configuration'.</p>	<p>From this screen, the acoustic fault (conventionally known as a 'beep') can be set.</p> <ul style="list-style-type: none"> - Beep enable / disable: Move the cursor to the 'On' position (beep enabled) or to the 'Off' position (beep not enabled), as needed (see the "N.B." note below). - Beep level: Adjustment of the beep volume, which can be set at one of three different levels (1 / 2 / 3 / Off). Press the Change key until the desired volume is reached. <p>To return to the CONFIGURATION menu, press Escape.</p> <p>! N.B. In order to comply with the regulations, before using the equipment for normal operation it is necessary to enable the acoustic signalling by setting 'Beep enable' to the 'On' position.</p>

<SERVICE> MENU [FOR TECHNICAL ASSISTANCE OPERATORS ONLY]

Fourth access level, included in the CONFIGURATION menu options. **Its use is permitted only to those members of the technical service personnel who have appropriate login passwords.**

Enter configuration password

4 4 4 4

1	2	3	4	5	Enter
6	7	8	9	0	Escape
					Canc

Enter the 4-digit code of the password (this is **4444** by default) and press **Enter**.
Upon accessing the SERVICE menu, press **Service Operation**.

- set> CHIME
- set> RACK CONFIG.
- set> SD CARD INSTALL
- set> CLOCK
- Service operation**
- report> BATTERY
- Firmware Version
- Password
- Beep operation
- < CONFIGURATION >
- Exit> Logout

8.7 MANUAL EMERGENCY

THE PROCEDURE FOR MANAGING EMERGENCIES IN THE MANUAL MODE (TO BE CARRIED OUT BY AN AUTHORISED OPERATOR) IS DESCRIBED BELOW.

8.7.1 GENERAL INFORMATION

The manual emergency mode can be accessed at any time and has priority both over any pre-recorded messages under way - that may have been activated by an external peripheral unit connected to the controlled inputs (7) – and over any emergency units able to function on the output lines from the **VAIE 5500** being used.

8.7.2 MANUAL MANAGEMENT OF AN EMERGENCY

The **VAIE 5500** enables structured management of alarm messages, of their muting and of the selection of zones, as described in greater detail below. Following is a list of operations for a fast approach to manual emergencies.

8.7.3 SENDING OUT OF A LIVE EMERGENCY NOTICE

FROM THE VAIE 5500

- 1) Lift the safety lid and press the **EMERGENCY** key (5) once. It lights up steadily. The display shows the **VAIE 5500** output zones. The fact that the system has been placed in a state of emergency is shown simultaneously on any station present in the system.



- 2) **To send:**

A voice message > Select the desired zones and racks, then use the hand-held microphone (3) to speak, keeping the button on its side pressed.

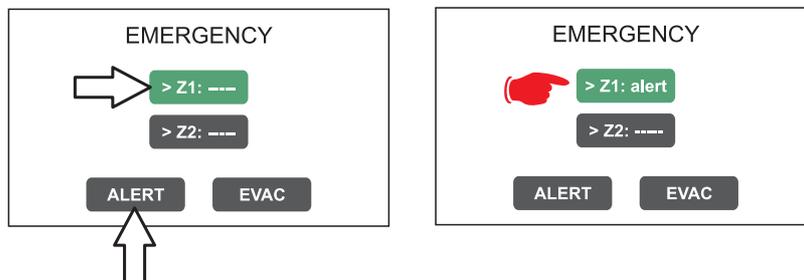
A pre-recorded ALERT message > Select the desired zones and racks and press ALERT.

A pre-recorded EVACUATION message > Select the desired zones and racks and press EVAC.

In both cases, the keys on the display will show the type of message being broadcast in each zone.

Note:

If the PTT key of the hand-held microphone or the ALERT or EVAC keys are pressed without selecting any zones beforehand, the message will be sent out as set at the time of system configuration (see **set> RACK CONFIG. > Local emergency** on page 32). The zones selected at the configuration stage are highlighted by the marker '>' on the keys. Any faulty zones or racks are shown by the yellow colour of the concerned key.



Note:

A message sent via the hand-held microphone has top priority over the pre-recorded evacuation and alert messages. In the event of simultaneous selection, an EVAC message always has priority over an ALERT message.

- 3) To end the state of emergency, press the **EMERGENCY** key (5) again.

8.7.4 SENDING OUT OF A LIVE EMERGENCY NOTICE FROM REMOTE STATIONS

- 1) Lift the safety lid on the station and press the **EMERGENCY** key once. It lights up steadily.
The fact that the system has been placed in a state of emergency by the station is shown also on any other stations.
- 2) Select the zones where the message should be sent.
- 3) Activate the EVAC message or the ALERT message by means of the appropriate button or speak through the microphone keeping the PTT key pressed until the end of the message.

Note: The PTT key has priority over any pre-recorded messages being sent out.

- 4) If necessary, repeat the sequence of points **2)** and **3)** above several times.
- 5) To end the state of emergency, press **EMERGENCY** button again.

8.7.5 EXIT OF THE SYSTEM FROM MANUAL MANAGEMENT OF AN EMERGENCY

At the end of the procedure for managing a Manual Emergency, press the red EMERGENCY key, which will extinguish and – if there is no activation taking place from external peripheral units connected to the controlled input contacts – the system will return automatically to its Idle state, displaying the MUSIC MENU.

The ALARM LED will extinguish to indicate that the VOICE ALARM has been deactivated.

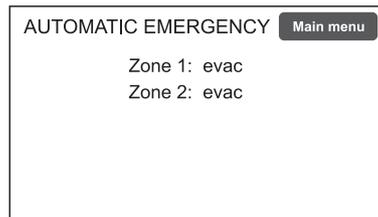
If, on the other hand, any of controlled inputs have been activated, the EMERGENCY button will start to flash and the system will remain in a state of Automatic Emergency, resuming the broadcasting of the messages in the various areas, depending on how the activated inputs were programmed.

8.8 AUTOMATIC EMERGENCY –ALARM STATUS ACTIVATED BY AN EXTERNAL PERIPHERAL UNIT

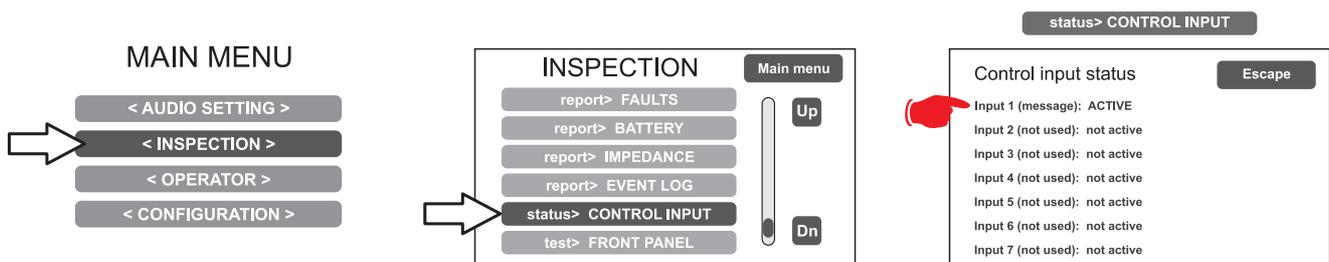
THE PROCEDURE FOR MANAGING AN EMERGENCY STATUS SET OFF BY AN EXTERNAL PERIPHERAL UNIT THAT ACTIVATES THE INPUT CONTACTS PROGRAMMED TO ENABLE THE “ALARM STATUS” IS DESCRIBED BELOW.

8.8.1 ACTIVATION OF AN AUTOMATIC EMERGENCY

In the event of activation of a programmed input contact the **VAIE 5500** stops its 'Idle' state normal activity, mutes the music being broadcast, inhibits operation of the PA sources for broadcasting announcements and shows the AUTOMATIC EMERGENCY screen, which indicates the type of message being sent out to the zones:



To see rapidly which input is activating the emergency, press the Main Menu key to return to the main panel, then go to the **INSPECTION** menu and select the item **status> CONTROL INPUT**:



8.8.2 VIEWING THE OPERATIONAL STATUS

The condition of active VOICE ALARM - live announcement via the microphone or pre-recorded message under way - is shown by the red ALARM LED lighting up on the front panel of the **VAIE 5500**.

8.8.3 SYSTEM OPERATION DURING AN AUTOMATIC EMERGENCY

As long as the input contacts remain active, the MUSIC MENU panel continues to be deactivated, however it is in any case possible to navigate through the various menus containing options for accessing advanced system functions and to inspect or change their settings.

The current “Alarm Status” due to the Automatic Emergency can be changed by an authorised operator, who can take steps to activate the manual controls for managing the system emergency in order to mute the messages by holding the RESET key down for at least 2 seconds, to change those under way or to send out live announcements with the microphone.

For details concerning the **Manual Emergency** mode, see the appropriate section (page 37).

8.8.4 EXITING FROM AN AUTOMATIC EMERGENCY

Exit from an Automatic Emergency takes place when no input contact is active. The system will return to the 'Idle State', displaying the MUSIC MENU panel.

9. FAILURE STATUS

THE VAIE 5500 HAS DIAGNOSTIC ROUTINES THAT MONITOR CONTINUOUSLY THE AVAILABILITY OF EMERGENCY SOURCES AND THE INTEGRITY OF CRITICAL PATHS OF THE SIGNALS ENSURING SYSTEM OPERATION IN EMERGENCY CONDITIONS.

9.1 SYSTEM OPERATION AND SIGNALLING IN A GENERIC FAILURE CONDITION

• SYSTEM SIGNALLING DUE TO AN EXISTING “FAILURE CONDITION”

When the monitoring system detects a fault during the normal “Idle State” operation, it promptly activates signalling of the “Failure Condition” as follows:

- the FAULT LED lights up (visual signalling).
- sending out of a beep by the monitor speaker (acoustic signal).
- activation of the local output contacts, if programmed to send signals to an external peripheral unit.
- location of the fault (FAULT): the faulty device and the type of fault are shown on the menu pages under the item **report> FAULTS**.

• SYSTEM SIGNALLING FOR RESUMPTION FOLLOWING A “FAILURE CONDITION”

If the cause of the fault no longer exists, the system resumes automatically its “Idle State”, deactivating all the above signalling and storing the information concerning the last fault. The word RESUMED is shown in the menu pages under the item **report> FAULTS** referred to operation of the device that was previously faulty.

• CANCELLING THE ACOUSTIC FAULT SIGNALLING AND OPERATION RESUMPTION SIGNALLING

To cancel the acoustic signalling of a current fault:

- go to the INSPECTION, OPERATOR or CONFIGURATION menus.
- press the **RESET** button briefly to halt the beep.

To cancel the signalling of the fault of which a report has been stored and that no longer exists (operation has been RESUMED), there must be no faults under way or the beep must already have been stopped. Therefore:

- go to the INSPECTION, OPERATOR or CONFIGURATION menus.
- press the RESET button briefly to reset all the signalling of faults after which operation has been resumed.

Note: In the event of a fault of a loudspeaker line due to a short circuit, once the line has been repaired, it is necessary to carry out a MANUAL RESET in order to re-activate the audio signal on the output of the concerned line:

- Go to the OPERATOR menu or to the CONFIGURATION menu.
- Select the **report> FAULTS** menu followed by **>>Loudspeaker line**. Then, on the ‘**Fault zone impedance report**’ screen, press the RESET key and hold it down for at least two seconds.

9.2 SYSTEM OPERATION AND SIGNALLING WITH A FAULT ON A LOUDSPEAKER LINE

A fault on a loudspeaker line may be due to any of several causes, such as high impedance, low impedance or a short circuit.

If it is a matter of a change in the impedance, the VAIE 5500 continues to send out the zone output audio signal. If, on the other hand, there is a short circuit, the system disconnects the faulty line of the zone and continues to send the audio signal on the other line (if any) of the same zone.

10. TECHNICAL SPECIFICATIONS

MODEL	VAIE 5502
Rated audio output @230V _{AC} *typical distortion at 25 W 0,025%	500 W / D=2,5%*
Rated audio output @24V _{DC} *typical distortion at 25 W 0,025%	400 W / D=10%*
Display	4.3" , backlit with touch screen, 480x272 pixels
N° of zones/amplifiers	2
Inputs	
Emergency microphone • Sensitivity / Impedance • Frequency response • S/N ratio	Dynamic, XLR-F on the front door Signal level: 20 mV / 10 kΩ 60 ÷20.000 Hz 72 dB
Emergency units (EMG. DESK) • Sensitivity / Impedance • Frequency response • S/N ratio	1 off Rj45 for emergency microphone units (FMD range) Signal level: max. 1400 mV / 85 kΩ 60 ÷20.000 Hz 83 dB
MUSIC • Sensitivity / Impedance • Frequency response • S/N ratio	Balanced with terminals (HOT-COM-GND) 134 mV / 31 kΩ 90 ÷ 20.000 Hz 81 dB / 85 dBA
Outputs	
Constant voltage outputs With double lines (A/B) <i>One zone output can be configured as a standby for the others.</i>	2 zones for 100V lines Load impedance for each zone ≥ 40 Ω Load impedance for all zones ≥ 20 Ω
Emergency controls • Controlled inputs CONT. IN • Output R1	Programmable for normally active or normally inactive state 7 off inputs with diagnostic 1 relay for signalling, state of emergency and faults, <i>N.O-N.C-Exchange state</i>
General information	
Mains power supply @230V _{AC} Consumption @230V _{AC}	230 Vac 50/60Hz +10/-15% 646 W full load (2amps active) 36 W no load
Secondary power supply @24 V _{DC} (26,3 V _{DC}) Secondary power supply Consumption @24 V _{DC}	20 A full load 0,7 A no load / quiescent 0,2 A no load / energy saving
Batteries	Suggested model: W-MS12/28 (26÷28 Ah) It is possible to use other batteries (18 Ah - 33 Ah - 40 Ah / see page 34).
Charger / Power supply unit	8 A (I max. a) 12 A (I max. b) 21 V (final voltage – detached battery) 27,2 V (complete load voltage)
Environmental operating conditions	Temperature: +5°C ÷ +40°C Relative humidity: 25% to 75% (non-condensing)
Type of mounting	Wall mounting
Dimensions (L x H x P)	430 x 620 x 240 mm
Net weight (without batteries)	19,3 kg

LIST OF OPTIONAL FUNCTIONS

CLAUSE	DESCRIPTION
7.6.2	Manual silencing of the voice alarm condition
7.7.2	Manual reset of the voice alarm condition
7.9	Voice alarm condition output
8.3	Indication of fault related to the transmission path to the CIE
8.4	Indication of fault related to voice alarm zone
10	Voice alarm manual control
11	Interface to external control device(s)
12	Emergency microphone(s)
13.14	Redundant power amplifier

LIST OF THE AUXILIARY FUNCTIONS

DESCRIPTION
Broadcast calls
Background music



**Audio
Contractor**



0068

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16

0068-CPR-044/2016

(Rev. 1 del 13/06/2017)

**EN54-4:1997 + A1:2002 + A2:2006
EN 54-16:2008**

**Apparecchiatura di controllo e segnalazione per sistemi di allarme vocali
per i sistemi di rivelazione e allarme con alimentatore integrato**

VAIE 5502

Funzioni:

- 7.6.2 Silenziamento manuale della condizione d'allarme vocale
- 7.7.2 Reset manuale della condizione d'allarme vocale
- 7.9 Uscita per segnalazione della condizione d'allarme vocale
- 8.3 Indicazione di guasto relativa ai percorsi di trasmissione
- 8.4 Indicazione di guasto relativa alle zone d'allarme
- 10 Controllo manuale degli allarmi vocali
- 11 Interfaccia per dispositivo(i) di controllo esterno(i)
- 12 Microfono(i) d'emergenza
- 13.14 Amplificatore di riserva



code: 41531

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