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# VA-FMCT-500

**With touchscreen**

EN 54-16 CERTIFIED
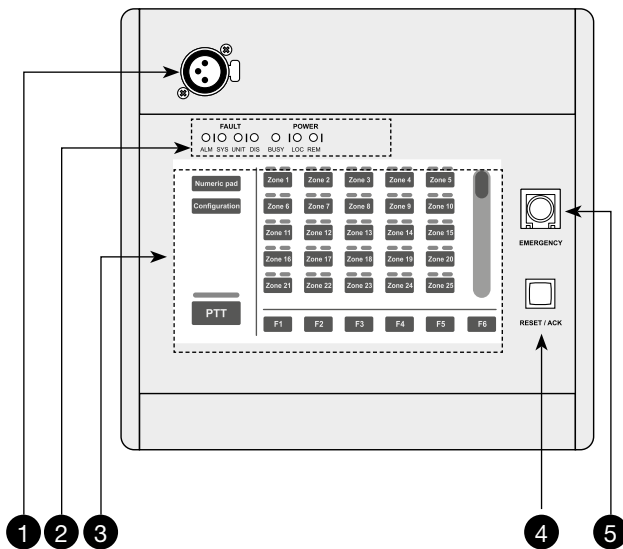


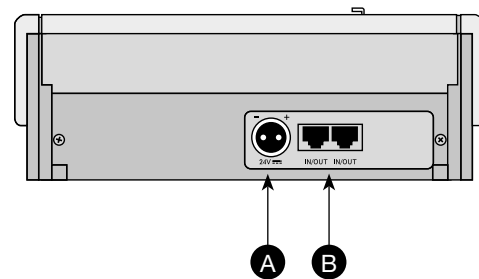## Front view

1 Socket for microphone (not included)*
2 Status-indicator LED's
3 Touch screen display
4 Reset button
5 Emergency button

\* Each station must be completed with an additional micro-
phone to be chosen from among the two following models:
• VA-MG-001, dynamic gooseneck microphone
• VA-MH-001, dynamic hand-held microphone with P.T.T.

## Rear view

A Connector for external 24 VDC power supply
B IN / OUT connectors

## Description

### Designation and function

The VA-FMCT-500 touch-screen unit for emergency calls enables hands-free messages and pre-recorded evacuation / alert messages to be sent out. The large backlit display enables management and customisation of calls for every zone of the system, while specific LEDs provide the main information on the status of the emergency system and concerning any failures.
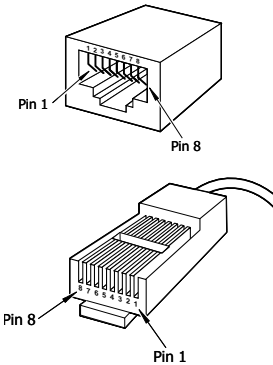
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## 1. Connections

The connections of the stations must be made using CAT 5e SF/UTP cables with braided shields and shielded STP connectors. For these cables (and the associated RJ45 connectors), standards EIA/TIA T568A and EIA/TIA T568B call for the pinouts and colours indicated in the table. The pinouts of the IN/OUT connectors are also indicated (B).
**Attention! Cross-cables are not permitted. All the connectors must be shielded RJ45 connector.**
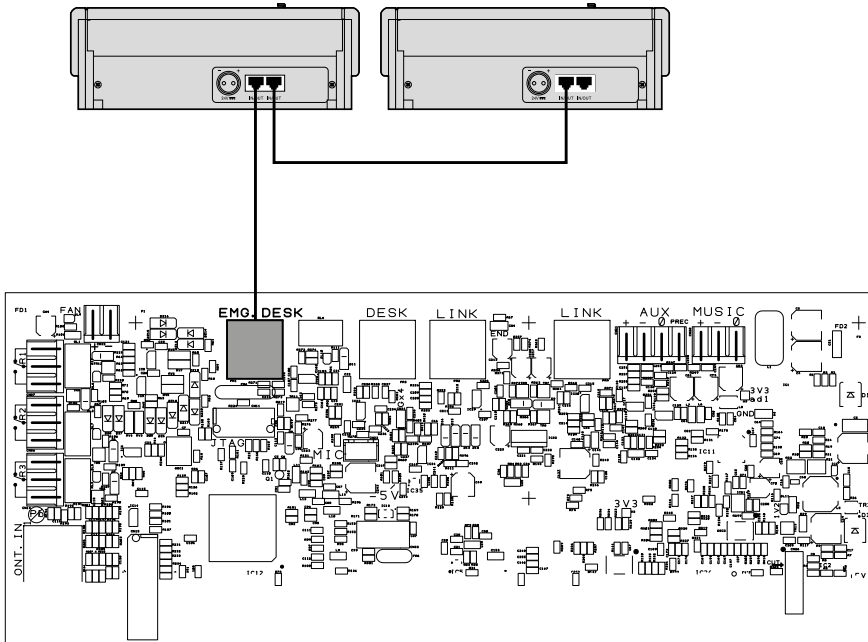
**Connection diagram T568B STANDARD:**

| Pin | T568A (Colour) | T568B (Colour) | IN/OUT (Function) |
|---|---|---|---|
| 1 | White/Green | White/Orange | Audio + |
| 2 | Green | Orange | Audio – |
| 3 | White/Orange | White/Green | GND |
| 4 | Blue | Blue | Not connected |
| 5 | White/Blue | White/Blue | Not connected |
| 6 | Orange | Green | +VDC |
| 7 | White/Brown | White/Brown | Serial + |
| 8 | Brown | Brown | Serial – |
| Shield | Shield | Shield | GND |



### 1.1. Connection to compact system VA-500

Die VA-FMCT-500 Stationen müssen an die Steckdose des kompakten VA-500 Systems angeschlossen und als Alternative zu den Notsystemen der FMD-Reihe verwendet werden. In jedem Kartenkäfig können sich maximal zwei Stationen befinden



### 1.2. Sizing
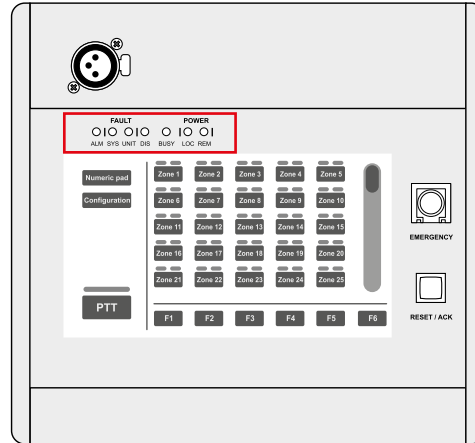
Using a CAT 5e SF/UTP cable with braided shielding, the following maximum limits can be maintained for the total length of the connection:
1 station total length     max. 300 m
2 stations total length    max. 200 m

For systems with more than three stations connected to them, at distances greater than those indicated above, each station will also have a local power supply providing a continuous stabilised current of 24 VDC/500 mA, using the socket provided for this purpose on the rear (A).

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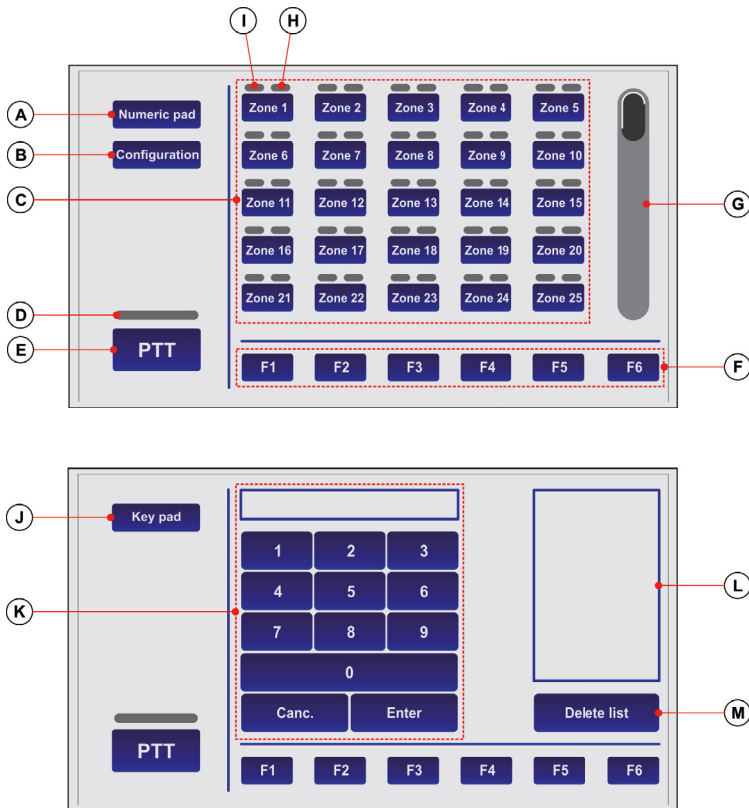
## 2. Operating instructions

Each VA-FMCT-500 station is equipped with a set of LED's (2) for indicating the operating status of the system. The status corresponding to each LED is indicated below.

| | | | |
|---|---|---|---|
| ● ALARM | red | This indicates a current «Alarm condition» in the system. | |
| ○ FAULT SYS | yellow | This signals the presence of a fault condition of the equipment to which the station is connected. | |
| ○ FAULT UNIT | yellow | This indicates an unspecified failure of the actual station. Consult the «Unit fault list» menu to see the type of failure (see point 3.5, Unit fault list). | |
| ○ DIS | yellow | This signals an active «Disabled condition». This indicates the presence of at least one zone in which the sending out of emergency messages is disabled. | |
| ○ BUSY | yellow | - Off: system free (no station on calls).<br>- Steady ON: this indicates that another station having the same or a higher priority is occupying the system.<br>- Flashing: This indicates that another station with a lower priority is occupying the system. During a broadcast call, on the other hand, it indicates the length of the chime. | |
| ● POWER LOC | green | This indicates the presence of the local direct current supply applied to the external socket of the station. | |
| ● POWER REM | green | This indicates the presence of power supplied by a VA-500 unit via the CAT 5 cable. | |

N.B.: For further information on the operating conditions of the system, such as the «Alarm status» or the «Disabled status», consult the section on «Operating conditions and names» of the manual of the control unit to which the system is connected.

All the zone selection, configuration and customisation operations are carried out via the station's touch screen display. The main viewing mode is designated as the «KEY PAD» mode. The same operations can also be carried out viewing the «NUMERIC PAD» (only in the broadcasting mode). In this case the user can digit the zone number directly.
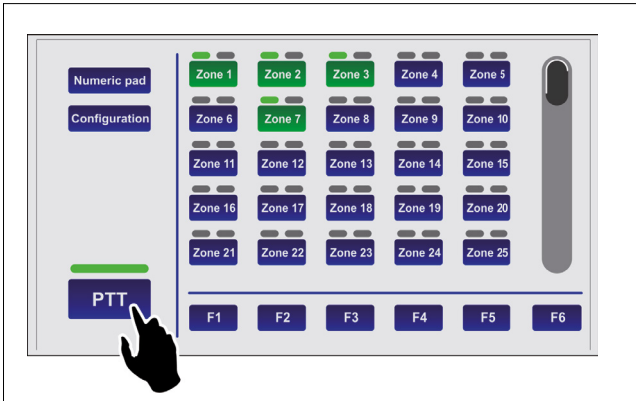


A  Key for changing to the NUMERIC PAD mode
B  Configuration menu access key
C  Zone-selection keypad
D  Indicator showing the status of the hands-free call
   • OFF: PTT not activated
   • ON: PTT activated
E  Key for making hands-free calls (PTT)
F  Function keys
G  Scroll bar
H  Zone status indicator
I  Call type indicator
J  Key for changing to KEY PAD mode
K  Numerical keypad
L  List of selected zones
M  Key for cancelling the list

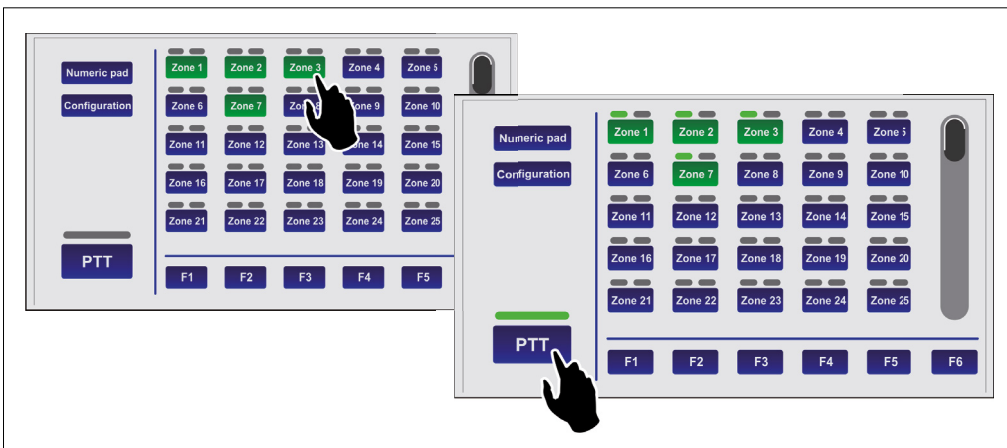## The VA-FMCT-500 station enables the following to be done via the system:

• Sending out a service (broadcasting) call hands-free
• Sending out emergency messages hands-free
• Sending out pre-recorded evacuation /alert messages
• Sending out messages selectively to broadcasting zones
• Resetting emergency messages / Muting the buzzer to acknowledge a failure

## 2.1. Sending out a service (broadcasting) call hands-free

To send out a service message hands-free to the broadcasting areas, press the PTT button (E) and hold it down. The green indicator will light up to show that the microphone is active. Before speaking, remember to wait for the yellow BUSY LED to turn off, indicating the end of the chime. If no zone was selected in advance, the call will be sent to all the zones of the system, and therefore all the indicators (l) on the display will turn green.
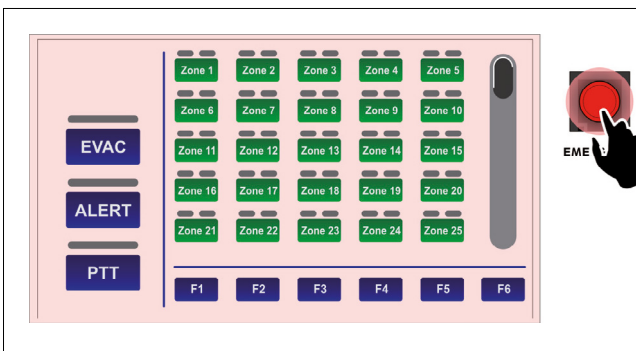


If you wish to address messages only to some zones or groups of zones, consult point 2.4.3. Sending out messages selectively to broadcasting zone (page 7). To end the call, release the PTT key.



## 2.2 Sending out emergency messages hands-free

To send out an emergency message hands-free to the broadcasting zones, it is necessary fi rst of all the place the station in the emergency mode:
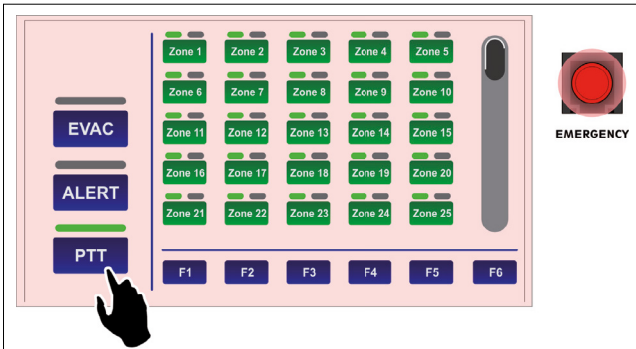
1. Lift the lid protecting the EMERGENCY key (5) and press the key. It will light up steadily to indicate that the emergencymode has been activated. The background of the display will change colour and all the zone keys will turn green to indicate general pre-selection.

2. Press the PTT key and hold it down. The red ALARM LED will light up and the green indicator will show that it is possible to speak via the microphone. If no particular zones have been selected in advance, the message will be broadcast in all the zones. If you wish to address the message only to some speci c zones or groups of zones, see point 2.4 (sending out messages to selected broadcasting zones, page 7). To end the hands-free emergency message, release the PTT key and press the EMERGENCY button.

N.B.: Remember that the PTT key has priority over any pre-recorded message already being sent out.

NOTE: An emergency condition can be stopped only by a station with a higher priority or by local commands by the VA-500.



The status of the EMERGENCY key indicates the condition of the system:
- OFF:          Emergency de-activated
- Flashin:      Emergency under way, activated by another station or by local commandsby the system
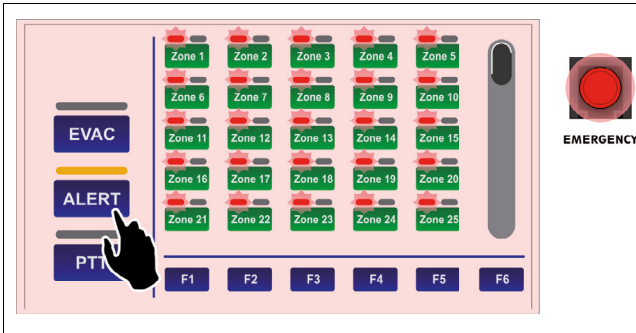- Steady ON:  Manual emergency activated from the station itself

All the keys are active so as to enable the operator to manage the emergency.

## 2.3. Sending out pre-recorded evacuation / alert messages

To send out pre-recorded evacuation or alert messages (stored in the memory of the control unit connected to the VA-FMCT-500), after activating the emergency mode (see point 2.2) press ALERT or EVAC to send out an alert or evacuation message respectively in the broadcasting zones.



The indicators (I) will turn red: if the evacuation message (EVAC) was selected they will remain steady ON. If the alert message (ALERT) was selected they will be flashing.

Again in this case, if no particular zone was selected beforehand, the selected message will be sent out by default to all the zones. If you wish to send the message out only in some zones or groups of zones, consult point 2.4, Sending out messages to selected broadcasting zones (page xx). To stop pre-recorded messages, hold the RESET / ACK button down until the messages are deactivated (about 2 seconds).

By pressing the EMERGENCY button again, the messages will be deactivated and the station will exit the emergency mode. Remember to close the lid again.
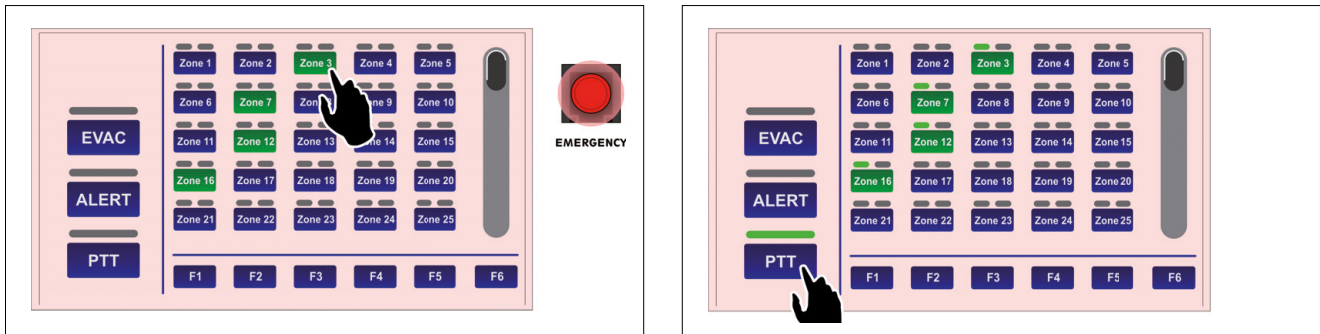
## 2.4. Sending out messages selectively to broadcasting zones

The keypad of the VA-FMCT-500 station can be used to pre-select one or more zones to which to send out hands-free or pre-recorded messages. Each zone key has three indicators showing its condition:

| Indicator | Colour | System condition | Status | Meaning |
|---|---|---|---|---|
| Zone 1 | red | Manual emergency activated | Steady ON, with ALARM LED ON | Pre-recorded evacuation. Announcement under way |
| Zone 1 | red | Manual emergency activated | Flashing, with ALARM LED ON | Pre-recorded alert announcement under way |
| Zone 1 | green | Idle condition | Steady | Hands-free service announcement under way |
| Zone 1 | yellow | Fault condition | Flashing | Zone in failed condition or unavailable due to amplifier failure |
| Zone 1 | yellow | Fault condition | Steady | Zone set in a «disabled condition» |
| Zone 1 | green (key) | All | Steady | Zone selected |

### 2.4.1. Sending out messages selectively hands-free

After activating the emergency with the EMERGENCY key (all the keys turn green to indicate general pre-selection), press the buttons corresponding to the required zones. These will remain green to confirm that they have been selected. At this point, press the PTT key and hold it down. The microphone will be activated and it will be possible to send out the announcement hands-free. At the end of the announcement, release the PTT key and press EMERGENCY again to exit the emergency mode.



### 2.4.2. Sending out pre-recorded evacuation or alerting messages selectively

After activating the emergency with the EMERGENCY key (all the keys turn green to indicate general pre-selection), press the buttons corresponding to the required zones. These will remain green to confirm that they have been selected. At this point:
• to send out an evacuation message, press EVAC
• to send out an alert message, press ALERT
It is possible to carry out the procedure described above several times to add more zones both in the ALERT and in the EVAC modes, keeping in mind that selection of EVAC for a zone has priority over selecting ALERT.

### 2.4.3. Sending out service messages hands-free

Select the required zones, which will turn green. Press the PTT key and hold it down, waiting for the BUSY LED to turn OFF, indicating the end of the chime. At this point, the microphone is active and it is possible to send out the announcement handsfree. To end the announcement, release the PTT key.

### 2.4.4. Sending out messages selectively using the function keys

It is possible to send out messages or announcements to pre-selected groups of zones using the same procedures and sequences indicated above, with regard to both emergencies and service broadcasts. To this end, the station has 6 function keys (F1 to F6). To set the function keys, consult point 3.1, Function key configuration (page 9).

### 2.5. Resetting emergency messages / Muting the buzzer to acknowledge a failure

The RESE/ACK key (4) has different functions depending on the status of the system:
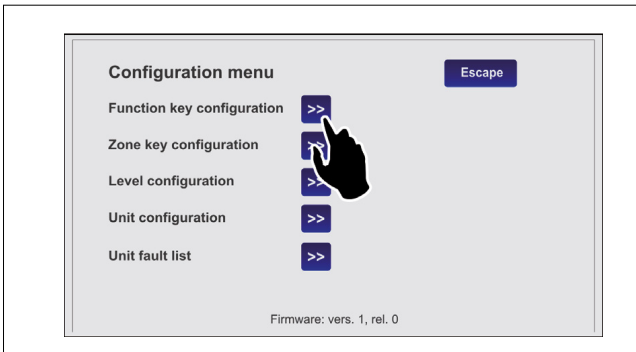• RESET function | Resetting messages
While there is an alarm condition in progress or with a station in the emergency condition, keeping the RESET/ACK key pressed for 2 seconds enables sending out of the messages to be stopped (including those called up by activation of the control inputs), but keeping in any case the system in a condition of emergency.
• ACK function | Muting of the buzzer to acknowledge a failure
In the presence of failures, press the RESET/ACK key briefly. The buzzer will be muted only on the station, while the LED referred to the failure under way will remain ON. This function is active in any status of the station (emergency or service). In the event of a new additional failure, the buzzer will start to sound again.

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## 3. Settings and adjustment

By pressing the «Configuration» (B) while viewing the Keypad, it is possible to access the configuration menu of the VA-FMCT-500. To return to the main screen, press «Escape».
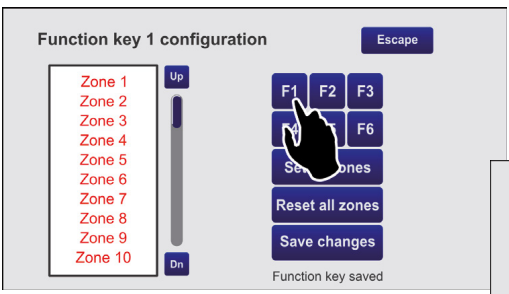


### 3.1 Function key configuration

This screen page enables the broadcasting zones to be associated with the function keys from F1 to F6. Using this option, it will be possible to send messages to a pre-selected group of zones pressing a single key.

N.B.: Each key is factory set to call all the zones (green). It is possible, using the «Reset all zones» key, to change this setting by clicking only once (the zones that are not associated will be red). Starting out from this condition, it is possible, for example, to configure key F1:

• Press F1: The wording «Function key 1 configuration» will appear above the list to confirm the selection made.

• Use the «Up» and «Dn» keys to browse through the list and select the zones to be associated with the key (in the example, 1, 2, 3 and 4).

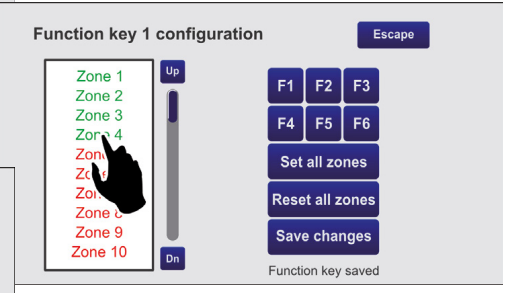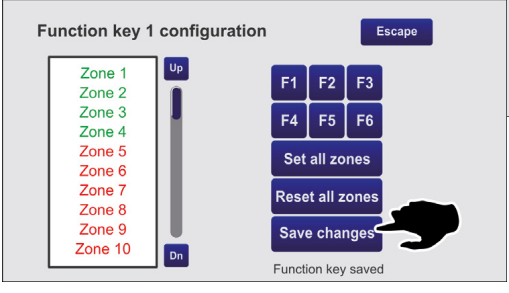• Press «Save changes», then «Escape» to return to the configuration menu.



Starting out from this condition, it is possible, for example, to configure key **F1**:

- Press F1: The wording "Function key 1 configuration" will appear above the list to confirm the selection made.
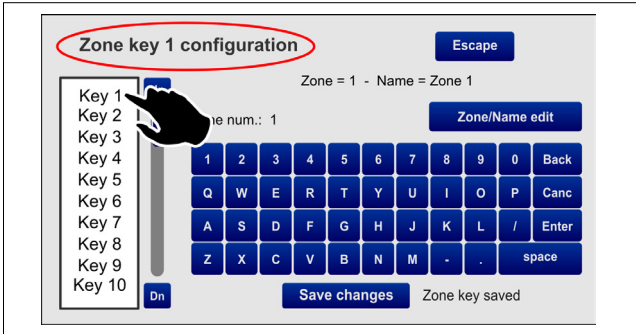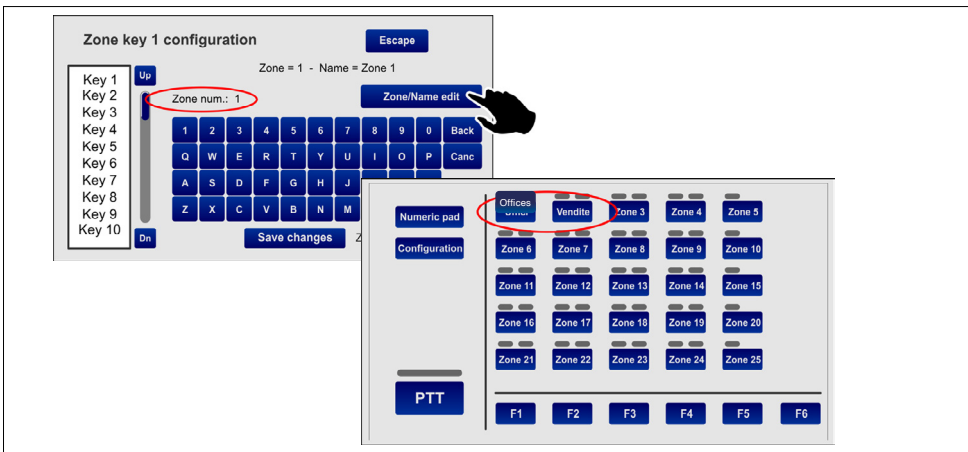
## 3.2. Zone key configuration

This screen page enables the 60 available keys to be configured separately and to customise their names. By way of example, try configuring key no. 1 as associated with zone 1 and identify it as «Offices».



1. Select the item «Key 1» from the list of keys: the wording «Zone key 1 configuration» will appear on the screen, showing that key no. 1 is being dealt with.
2. Press the «Zone/name edit» key, then the «1» key: the wording «Zone num.: 1» will appear. Press «Enter» to confirm.
3. Press the «Zone/name edit» key again and digit «Offices»: the wording «Zone name: offices» will appear. Press «Enter» to confirm.
4. Press «Save changes» to save the configuration.

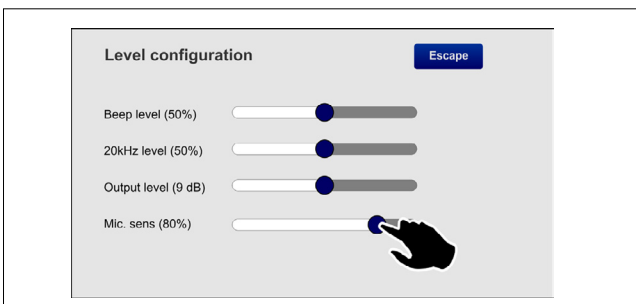Continue in the same manner for the other keys.



## 3.3 Level configuration

This screen page can be used to adjust the levels of the following parameters:
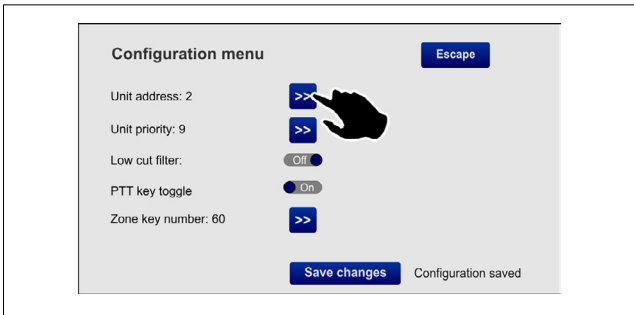• Beep level Volume of the failure signalling buzzer (beep)
• 20 kHz level Volume of the test tone
• Output level -7 dB to 24 dB.
• Mic. sens Level of sensitivity of the microphone (to be lowered in the event of a so-called *Larsen effect* due to closeness of the station to the speakers).
Move the cursors along the bar until the required level is reached. Press «Escape» to return to the previous screen page.

### 3.4. Unit configuration

This screen page enables the main operating parameters of the station to be set.



### 3.4.1. Unit address

Each station must have its own univocal address. Press the >> key to select the desired address (four IDs, from 1 to 4, are available).
- Press «Save changes» to confirm the selection made.
- If you do not wish to save the changes made, press «Escape».

### 3.4.2. Unit priority

To set the priority level of the station, press the >> key to select the desired level of priority (there are seven possible levels, from 8 = lowest priority to 14 = top priority).
NOTE: This is a very important parameter as the priority that is chosen determines the operating conditions of the station both in an emergency condition and in a broadcasting condition.
- Press «Save changes» to confirm the selection made.
- If you do not wish to save the changes made, press «Escape».

### 3.4.3. Low-Cut Filter

To set the low-cut fi lter, use the cursor (ON = fi lter activated, OFF = fi lter not activated).
- Press «Save changes» to confirm the selection made.
- If you do not wish to save the changes made, press «Escape».

### 3.4.4. PTT Toggle

The PTT button is factory set to work as a toggle button, that is to say, in order to be active it has to be pressed and then held down. In a broadcasting condition, however, it is possible to change this feature and set the button so that once it is pressed it will remain down until it is pressed again. To do this, the cursor has to be moved to its «ON» position.
N.B.: This setting will NOT be active in emergency conditions.
- Press «Save changes» to confirm the selection made.
- If you do not wish to save the changes made, press «Escape».

### 3.5 Unit fault list

This screen shows any failures that have occurred to the station. In the example, a problem concerning the station's microphone is indicated.
Note: The lack, if any, of serial communication with the control unit to which the station is connected is also signalled on this page.

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## Technical data

| | |
|---|---|
| Number of selectable zones | 1 to 216 (from 20 to 60 zone selection keys plus 6 function keys) |
| Typical output level | 300 mV |
| Frequency response | 20–20'000 Hz |
| Distortion | < 1% |
| LOW-CUT Filter | -10 dB / 100 Hz |
| S / N Ratio | > 60 dB |
| Connection | RJ45 (IN / OUT) |
| Power supply voltage | 24 VCC |
| Maximum absorption 24 VDC | 165 mA |
| Dimensions (W × H × D) | 230 × 80 × 200 mm |
| Net weight (without microphone) | 1.6 kg |
| Certificate | EN 54-16 (DoP: CPR-63-19-025) |

## Dimensions in mm



478

80

230

200