

# User's Manual Multizone Paging Station



Model: **LDA MPS-8Z S02**





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## 1 SAFETY INSTRUCTIONS

1. Please read these safety instructions carefully.
2. Keep this User's Manual for future reference.
3. Unplug the equipment from the power supply before cleaning.
4. Do not use liquid or aerosol cleaners.
5. Use a cloth or a damp cloth when cleaning.
6. Keep this equipment away from humidity.
7. Lay this equipment on a reliable flat surface before setting it up.
8. The cover grilles are for air convection. Protect the equipment from overheating. **DO NOT COVER THE RACKS.**
9. Place the power cord so that it is not likely to be walked on or pinched by having objects placed on it.
10. Always take into account all warnings and equipment precautions.
11. In order to avoid electric overload, unplug the equipment from the wall outlet if it is not going to be used for several days. Never pour liquid into the grilles, it could cause fire or electric shock.
12. Never open the equipment. For safety reasons, the equipment should only be opened by qualified staff.
13. Pay attention to polarity when using a DC power supply . Reverse polarity may damage the equipment or the power supply.
14. If any of the following situation arises, get the equipment checked by a service technician:
  - a) The cable or power plug is damaged.
  - b) Liquid was poured into the equipment.
  - c) The equipment has been exposed to moisture.
  - d) The equipment has not been working well or you cannot get it work according to User's Manual .
  - e) The equipment dropped and it is damaged.
  - f) The equipment has obvious sign of breakage
15. Disconnect the audio inputs and outputs while making connections. Make sure to use the proper cables to make the connections.





## 2 INTRODUCTION

The MPS-8Z is a high performance digital paging station for the PA/VA system NEO. Up to 8 MPS-8Z paging microphones can be connected in a bus configuration to the ACSI bus of the NEO system via CAT5 cable. The ACSI bus allows a maximum distance of 1Km and provides priority levels between the devices connected to the bus.

It has 8 buttons for paging to 8 zones and additional zone buttons can be added with MPS-8K units. It features an “all-call” button, busy line signal and auto-lock function.

The MPS-8Z offers an Event button that combined with the zone buttons allow a wide variety of system's functions such as launching pre-recorded messages or loading presets.

The sound processing has been configured to achieve high quality results on the paging of voice, in terms of distortion, sensitivity, bandwidth and signal/noise ratio.

It has an iron chassis to provide a superior stability and protection against damages. All buttons are designed for an intensive use.

## 3 DESCRIPTION

### FUNCTIONS

1. Up to 64 zone memories with 8 addressing zones per memory (512 zones through expansion keyboards)
2. 8 memories for events NEO system
3. Recall (until 1 minute)
4. Chime/No chime
5. External microphone input
6. Volume Adjustment
7. System evacuation condition indicator
8. System fault indicator
9. Link system indicator
10. Zone memory selection indicator
11. Conceded word indicator
12. Busy bus indicator
13. 8 zone memory indicators
14. Keyboard lock
15. Zone memories shortlist memory
16. DSA ( Dynamic Sound Adjust)

### 3.1 INDICATORS



Illustration 1: Front indicators

#### 3.1.1 SYSTEM CONDITION INDICATORS

Condition indicators show at all times the operating state of the equipment or system. They are located in the upper right corner of the equipment.

**(a) EMG: “EMERGENCY”**

Active (on) when the system is in a condition of emergency operation (voice alarm). In this condition, the MPS 8Z might not be able to issue warnings, depending on how it has been configured in the system (see NEO User's Manual). Red color.

**(b) FLT: “FAULT”**

Active (on) when the system is in fault condition. This indicator is activated automatically after a fault detection in any of the monitored functions. Amber color.

**(c) LNK: “LINK”**

Active (on) when the equipment is linked to the system. It will turn on intermittently during the linking process with the system or when a link fault between the equipment and some element of the distributed system occurs. If the problem persists, see section 7.4 for resolution. Amber color.

#### 3.1.2 CALL CHANNEL CONDITION INDICATORS

Condition indicators per channel show at all times its condition or operating condition.

**(d) CW: “CONCEDED WORD”**

Active (on) when the call channel is assigned and free to issue a voice warning. When the prior notice tone is active on the equipment, it will turn on and off while it is sounding. Green color. Additionally to this indicator, the MPS 8Z includes an illuminated ring located on the microphone capsule that shows when the user can start issuing the message. Red color.

**(e) BSY: “BUSY”**

Active (on) when the call channel is busy because of another device with a higher priority. When during a voice warning the call channel is busy because of a higher priority equipment, it will turn on and off intermittently indicating that the call has been canceled. Red color.

#### 3.1.3 SELECTION INDICATORS

Selection indicators show those selection memories that have been pressed. Green color.

## 3.2 CONTROLS



*Illustration 2: Controls*

### 3.2.1 ZONE MEMORY CONTROLS

They are located in the lower half of the microphonic desk. They allow to select zone memories and the warning voice call, one or more simultaneously. When a memory is selected, the memory indicator will light up.

### 3.2.2 TALK

It is located at the bottom of the keyboard, in the central area. It allows to request the voice warning channel to make the call through the selected zone memories. It also works as confirmation "OK" of the operations that require it.

### 3.2.3 MEMORY

The "MEM" button is located on the left upper part of the keyboard. It allows to access the preset zone memories and their recordings.

### 3.2.4 EVENTS

The "EVENTS" button is located in the second position from the left, on the upper part of the keyboard. It allows to access the system events selection.

### 3.2.5 CANCEL

The "CANCEL" button is located in the middle of the upper part of the keyboard. It allows to cancel those operations that require confirmation. It also works as an access key for the functions configuration of the equipment.

### 3.2.6 RECALL

The "RECALL" button is located in the second position from the right, in the upper part of the keyboard. It allows to repeat the last voice warning through the zone memories selected.

### **3.2.7 ALL/CLEAR**

The "ALL/CLEAR" button is located in the right upper part of the keyboard. It allows to select every zone memory available. When one or more zone memories are selected, all of them can be deselected by pushing the button.

### **3.2.8 BUS TERMINATOR**

The terminator selector "BUS END" is located in the upper part of the base of the equipment. It allows to activate/deactivate the bus terminator. This control must be active when the equipment is in the last position in the ACSI bus.

### **3.2.9 EXPANSION KEYBOARD IDENTIFIER**

The keyboard selector is only available on expansion keyboards attached to the MPS 8Z. "ID" is located in the middle of the base of the equipment. It allows to choose the position of the keyboard in the expansion keyboard of the set. Each keyboard must have a unique identifier. In a system where memory keys have not been configured, the zone of each expansion keyboard is determined by the selected identifier. Then we have:

- ID 1: Zones 9-16
- ID 2: Zones 17-24
- ID 3: Zones 25-32
- ID 4: Zones 33-40
- ID 5: Zones 41-48
- ID 6: Zones 49-56
- ID 7: Zones 57-64
- ID 8: Position not allowed
- ID 9: Position not allowed
- ID 0: Position not allowed

### **3.2.10 POWER SUPPLY SELECTOR**

The equipment has a selector that allows to choose the energy source between local or provided through the ACSI bus. When the selector is in 5V position, the equipment will be locally supplied by the external charger provided with the equipment. In this mode, in the event of a supply problem through the charger, the equipment will be automatically supplied from the ACSI bus. If the selector is in the 24V position, the MPS 8Z will be supplied exclusively from the ACSI bus.

### 3.3 INPUTS AND OUTPUTS



Ilustración 3: Entradas y Salidas

#### 3.3.1 MIC

Allows to connect a dynamic external microphone. It consists of a 3.5mm mini-jack input. The input has three terminals for linking a mono unbalanced signal input, where one terminal has no connection.

The connection is made by a mini-jack 3 ¼" pin male connector.



Illustration 4: External microphone input

Mark	Description	Type	Señales	Activation
1	Unbalanced audio signal	Input	+	Configuration function
2	Electrect bias power	N/A		
3	GND	Input	⏏	

Table 1: External microphone input

#### 3.3.2 PUBLIC ADDRESS SYSTEM INPUT/OUTPUT\* (ACSI BUS)

The equipment has two connections for distributed elements in public address systems. It consists of a line level audio input plus control signals for connecting up to 8 devices in "daisy chain" bus, where each device is connected to the next. Both connections are identical and interconnected. The ACSI bus supplies remote power to the equipment, see 3.2.10.

The connection is made by UTP network cable, T568B standard. The maximum connection distance for the entire bus is 1000m (3280ft).



Ilustración 5: ACSI Bus Input

Mark	Description	Type	Signals	Activation
<b>BUS</b>	Line level balanced audio	Input	Protocol	N/A

Table 2: ACSI Bus Connection

NOTE: This connection is **not** compatible with standard ethernet.

### 3.3.3 PERIPHERAL SUPPLY INPUT

The equipment has an input for peripheral power supply. The emergency power line is continuous and has a nominal value of 5V to be supplied externally to the equipment with a USB charger provided with the equipment. MiniUSB female connector.



Illustration 6: USB Port

Mark	Description	Type	Signals	Activation
<b>POWER USB</b>	Peripheral power supply input	Port	USB 1.1	4,5 ÷ 5,5V DC Maximum current: see technical specifications in section 8

Table 3: Peripheral power supply

The connection is made by a miniUSB AB male cable (provided with the equipment).

### 3.3.4 PORTS FOR EXPANSION KEYBOARDS

The equipment has two ports for connecting additional keyboards, one on each side of the unit. Only one of the ports can be used simultaneously.

Mark	Description	Type	Signals	Activation
	Expansion port	I/O	-	N/A

Table 4: Expansion Ports

## 4 OPERATION DESCRIPTION:

### 4.1 TURNING ON

Select the origin of the power source of the equipment according to 3.2.10. Connect the power cord to the "POWER" connector on the rear part of the equipment or power it directly from the ACSI bus. In the front part of the equipment, an indicator checking sequence will start. Once the sequence is concluded, the linking process with the system will start and it will be indicated by the corresponding indicator.

When you turn on the equipment for the first time, you must make the typical installation adjustments (see section Error: No se encuentra la fuente de referencia).

### 4.2 KEY LOCK

The MPS 8Z has a feature to lock the keyboard manually and automatically after 60 seconds from the last operation. To lock the keyboard, press the "CANCEL" and "TALK" keys simultaneously. The zone memory indicators will blink once. To unlock the keyboard, press the "CANCEL" key again and the "TALK" key simultaneously. The zone memory indicators will blink twice.

If any button is pushed during the key lock, the zone memory indicators will blink four times. To set the key lock see section 5.3.5.

### 4.3 ISSUING VOICE WARNINGS

To issue a voice warning, select the zone memories through which you want to issue the warning; their selection indicators will light up. Then push the "TALK" button. If the notice channel is available, the "CW" indicator will light up and the equipment will be ready to issue the warning. If the prior notice tone is set, the "CW" indicator will light up intermittently until it is completed. If the channel is not available, the "BSY" indicator will light up.

#### 4.3.1 ZONE MEMORY SELECTION

To issue a warning, you can click every selection control of the zone memories, or use the "ALL/CLR" control. This control will select every single zone. If you want to deselect them, press the desired zone control again or the "ALL/CLR" control if you want to do it with all of them. Zone memory indicators will turn off.

By default, the system zones which are assigned to each MPS 8Z coincide with the zones of the system. That way in the memory of Zone 1 we can select Zone 1 and in the memory 2 the zone 2. The zones assigned to each zone memory button can be set with the configuration application of the NEO system, so that each zone memory can contain up to 8 zones of the system. Thus one MPS 8Z can address up to 64 zones of the system, and up to 512 zones if it is equipped with expansion keyboards.

#### 4.3.2 ZONE MEMORY GROUP SELECTION

The equipment allows to record zone memory shortlists for user's comfort. To select a group, push the "MEM" control and then one of the set groups assigned to one of the selection zone controls. The group of zone memories will remain selected and their selection indicators will light up.

### **4.3.3 RECORDING ZONE MEMORY GROUP**

The equipment allows to record zone memory shortlists for user's comfort. To make the recording follow the next procedure:

- Ensure that the equipment has not conceded word. The "CW" indicator will be off.
- Press the zone memories you want to be part of the group.
- Hold the "MEMORY" key for a second.
- The "EMG" and "LINK" indicators will blink simultaneously.
- Press the zone memory where you want to assign the group.

### **4.3.4 RECALL**

The equipment features a memory that records up to 45 seconds of the voice message. To repeat the last message issued, select the zones you want to issue the message in, then press "RECALL" and confirm by pressing the "TALK" control. If the notice channel is available, the "CW" indicator will light up. Otherwise, the "BUSY" indicator will light up. To cancel the recall, press the "CANCEL" control. The "CW" indicator will turn off.

## **4.4 SYSTEM EVENT**

The microphone desk MPS 8Z allows to launch system events, such as pre-recorded messages issuance, sound sources assignment, zone volume control, etc. To assign system events to zone memory selection buttons of the MPS 8Z, see the software configuration of NEO system in the User's Manual.

### **4.4.1 LAUNCHING SYSTEM EVENT**

To launch a system event press the "EVENT" control; the "CW" and "BUSY" indicators will light up simultaneously. Then select the desired event by pressing the zone memory button where it is assigned. Then push the "TALK" button to confirm or "CANCEL" to cancel. If the system has been able to launch the event, the "CW" will blink twice. If the event has not been released, the "BUSY" will blink twice.

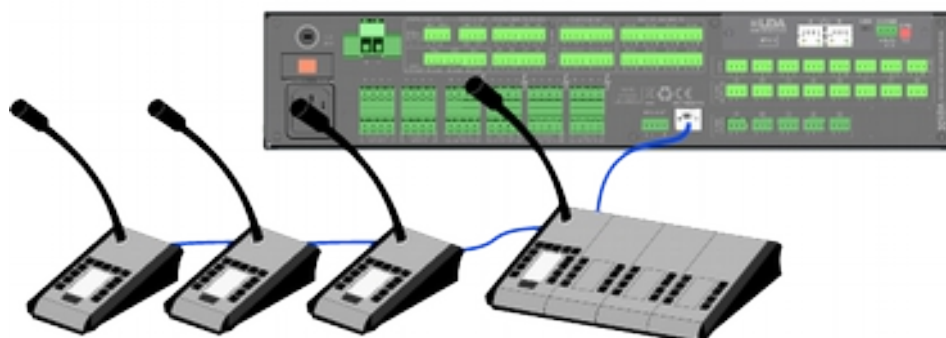
## **5 CONNECTION AND START UP**

### **5.1 POWER SUPPLY**

The MPS 8Z is provided with an external power supply with a 5V DC A female USB, which is connected by a male AB miniUSB to a male A USB also provided. It can be used to supply the equipment or it can also be supplied directly from the bus ACSI, through its connection to the bus. If this is the case keep the power supply for later use.



## 5.2 CONNECTION TO THE SYSTEM (ACSI BUS)



*Illustration 7: Devices connection in a Public Address System*

The equipment has two connections for the public address system. The connection for all the elements is in bus mode. Each device is connected to the previous one, up to eight devices and a maximum total wiring of 1000m (914.4 yrd) distance.

Each device has a priority selector in the bus. Depending on the configured priority, it will be allowed to occupy the channel while it is occupied by another device. The priority of MPS 8Z matches the address of the ACSI bus.

To set the system address in the bus.

To set the ACSI address of the MPS 8Z, proceed as follows:

- Ensure that the equipment has not got conceded word. The "CW" indicator will be off.
- Hold the "CANCEL" and "MEM" buttons for at least 3 seconds.
- The access to the address setting will be confirmed by the intermittent lighting up of the "LINK" and "EMG" indicators. The set bus address will be indicated by lighting the indicator of the zone memory associated.
- Push the memory selection button whose number corresponds with the desired address. Remember the address matches the priority. The selection indicator of the corresponding zone memory will light up.
- Press the "TALK" button to confirm; "CANCEL" to cancel the address change.
- The equipment will restart with the new bus address.
- If while starting the MPS 8Z the "LINK", "FAULT" and "EMG" indicators blink simultaneously, there is an address conflict in the ACSI bus with this device. In that case you must change the address.

## 5.3 MPS 8Z CONFIGURATION

The microphone desk MPS 8Z allows to configurate various operating parameters. To access the configuration of the equipment, proceed as follows:

- Ensure that the equipment has not got conceded word. The "CW" indicator will be off.
- Hold the "CANCEL" key and the "EVENT" button for 3 seconds.

- The access to the configuration of the equipment will be confirmed by intermittent lighting of the "FAULT" and "LINK" indicators.
- Set the desired option as described in the following sections ( 5.3 x)
- Press the "TALK" button to confirm; "CANCEL" to cancel the configuration change.

#### **5.3.1 CONFIGURATION. TALK**

By pushing the zone memory 1 button, the "latch" for the "TALK" button activates or deactivates. When the function is active, the zone memory 1 indicator will stay on. When activated, a press of the "TALK" button will mark the beginning of the warning voice, which will remain active until the "TALK" button is pressed again.

To confirm the new configuration press "TALK"; to cancel press "CANCEL"

#### **5.3.2 CONFIGURATION. WARNING TONE**

By pressing the zone memory 2, the warning tone prior to the warning voice message activates or deactivates. When the function is active, the zone memory 2 indicator will stay on.

To confirm the new configuration push "TALK"; to cancel press "CANCEL".

#### **5.3.3 CONFIGURATION. EXTERNAL MICROPHONE**

By pressing the zone memory 3, the external microphone input activates or deactivates. When the function is active, the zone memory 3 indicator will stay on. When activated, the gooseneck microphone will be disabled.

To confirm the new configuration press "TALK"; to cancel press "CANCEL"

#### **5.3.4 CONFIGURATION. DSA**

The DSA function is a digital speech signal process that corrects the differences between the voices of the different potential users. By pressing the zone memory 4 the sound dynamic adjuster activates or deactivates. When the function is active, the zone memory 4 indicator will stay on.

To confirm the new configuration press "TALK"; to cancel press "CANCEL"

#### **5.3.5 CONFIGURATION.LOCK**

By pressing the zone memory 5, the keyboard lock activates o deactivates. When the function is active, the zone memory 5 indicator will stay on. The keyboard lock has an automatic lock period after the last tap that, in case there is no tapping in the next minute after unlocking the keyboard, it will lock automatically.

To confirm the new configuration press "TALK"; to cancel press "CANCEL"

### 5.3.6 CONFIGURATION. OUTPUT VOLUME

To configure the output volume push the zone memory 7 button to increase the volume and the zone memory 8 button to decrease it. Each tap of the button area lights up of the associated indicator as confirmation. When the maximum volume is reached, the corresponding indicator to zone memory 7 will light up. Similarly, when the minimum volume is reached the zone memory 8 indicator will stay on.

To confirm the new configuration press "TALK"; to cancel press "CANCEL"

## 5.4 EXPANSION KEYBOARDS CONNECTION

The microphone desk MPS 8Z can equip up to 7 expansion keyboards with 8 zone memories each one. It has two expansion ports (one on each side) to connect the expansion keyboards, thus keyboards can be installed next in the left or right side of the MPS 8Z. Expansion keyboards can only be installed in one of the two directions.

To do the installation proceed as follows:

- Disconnect the MPS 8Z from the bus and its peripheral power supply
- Place the adapter (provided with the expansion keyboard) on the chosen side and match the sides of both teams until the electric connection is complete.
- Turn over both equipments and screw the union metallic accesory that blocks the bodies of the equipments.
- Configure the expansion keyboard ID as described in section 3.2.9
- Reconnect the MPS 8Z to the system. By default the new keys will take the parts of the system as described in section 3.2.9

## 6 UPDATE

If a firmware update of the equipment is required, make sure that the update image provided matches your model. If the equipment has expansion keyboards connected it is not required to disconnect them.

The update is made from the Configuration Software of the NEO system, In the device view it will be possible to send a firmware update.

The update process is made automatically from the NEO equipment to the ACSI devices. This may take a few minutes depending on the device and the system. During this time the device will not be operational.

NOTE: The firmware update is only allowed for devices version 1.0.1 or later. The version can be checked from the system configuration application.

## 7 FAULT RESOLUTION

### 7.1 THERE IS NO LINK TO THE SYSTEM

The equipment will indicate a fault in the link to the system when a short-circuit or disconnection in the transmission path is detected.

Check that the MPS 8Z does not link, it is the only bus that can not connect. If there are more devices on the bus with this problem, start by checking the closest to where the bus (NEO) begins.

Check that the equipment to which the ACSI bus (NEO Controller) is connected works properly.

Check that the last equipment of the bus has the "Terminator Bus" option active according to section 3.2.8.

Connect the peripheral power supply provided with the computer in case the MPS 8Z is directly supplied from the ACSI bus.

Check that the connection between the equipment and the system has been carried out properly according to section 5.2. To debug the fault, disconnect both ends of both bus cables connected between the system and the equipment and measure between their terminals with a multimeter on the scale  $k\Omega$ . If the result is 0, the line is in short-circuit and must be checked or replaced. If the result is 1, it means that it is correct.

Do a RESET (the equipment will have to be reconfigured). To do so, simultaneously press the "CANCEL", "EVENTS" and "MEMORY" keys for 5 seconds. The equipment will restart. Configure the address of the equipment according to 5.2.

If none of the above works, remove the equipment from the bus and contact the support/repair service. If there are more devices connected to the bus, connect the input and output bus ACSI lines of the equipment to allow the rest of the system to keep working normally.

### 7.2 CONDITION INDICATORS BLINK SIMULTANEOUSLY

The system will indicate an ACSI bus address fault when there are two devices with the same address.

Check that the bus address is correct; to do so, follow the steps in 5.2.

Do a RESET (the equipment will have to be reconfigured). To do so, simultaneously press the "CANCEL", "EVENTS" and "MEMORY" keys for 5 seconds. The equipment will restart. Configure the address of the equipment according to 5.2.

If none of the above works, remove the equipment from the bus and contact the support/repair service. If there are more devices connected to the bus, connect the input and output bus ACSI lines of the equipment to allow the rest of the system to keep working normally.

### 7.3 NO INDICATOR LIGHTS UP

If this is the case, there is probably a problem with the power supply of the equipment.

If the equipment is supplied from the ACSI bus, disconnect the equipment from the bus and connect the peripheral power supply provided to the equipment. The equipment must do the indicators verification test.

If the problem persists or it is connected to the peripheral power supply and the bus simultaneously, follow the steps in section 7.1.

### 7.4 THE VOICE WARNING SOUNDS LOUD/LOW

If the problem is common to all the equipments connected to the bus, check the configuration of the equipment to which the bus (NEO) is connected.

In case it is a MPS 8Z in particular, check the volume configured according to section 5.3.6.

Do a RESET (the equipment will have to be reconfigured). To do so, simultaneously press the "CANCEL", "EVENTS" and "MEMORY" keys for 5 seconds. The equipment will restart. Configure the address of the equipment according to 5.2

If none of the above works, remove the equipment from the bus and contact the support/repair service. If there are more devices connected to the bus, connect the input and output bus ACSI lines of the equipment to allow the rest of the system to keep working normally.

## **7.5 THE VOICE WARNING DOES NOT SOUND**

Make sure the output volume configured is correct according to 7.4.

If it is not solved, active the prior notice call according to section 5.3.2. Make a call and confirm that the prior notice is heard correctly. If so, the gooseneck microphone has suffered some damage, contact the support/repair service and request a replacement.

You will be able to keep using the equipment while it is being replaced, using a peripheral microphone by following the steps in section 5.3.3.

Do a RESET (the equipment will have to be reconfigured). To do so, simultaneously press the "CANCEL", "EVENTS" and "MEMORY" keys for 5 seconds. The equipment will restart. Configure the address of the equipment according to 5.2.

If none of the above works, remove the equipment from the bus and contact the support/repair service. If there are more devices connected to the bus, connect the input and output bus ACSI lines of the equipment to allow the rest of the system to keep working normally.

## **7.6 THE EXPANSION KEYBOARDS DO NOT ADDRESS THE ZONES**

If multiple zone memory indicators light up when a zone is pressed, the identifier of one of the keyboards is not correct, or matches with other expansion keyboard. Check identifiers in section 3.2.9

If the problem is not solved, check the connection between the MPS 8Z and the expansion keyboards, as indicated in 5.4

If none of the above solved the problem do a RESET (The equipment will have to be reconfigured). To do so, simultaneously press the "CANCEL", "Events" and "MEMORY" keys for 5 seconds. The equipment will restart. Configure the address of the equipment according to 5.2.

In case that the expansion keyboard still does not work, disconnect it from the MPS 8Z and contact the support/repair service.

## **7.7 THE EXPANSION KEYBOARD DOES NOT TURN ON**

If when pressing a zone memory of one or more expansion keyboards indicators do not light up, some of the expansion keyboards might be suffering a breakdown.

Check the connection between the MPS 8Z and the expansion keyboards, as described in section 5.4.

If you have not solved the problem, disconnect the power supply of the equipment for a few minutes and check the functioning of the keyboards from the last to the first one. Disconnect the first expansion keyboard that does not work and connect the rest to the MPS 8Z. If necessary, reconfigure the address according to 3.2.9 and content of the zones through the application of system configuration and contact the support/repair service.

## **8 MAINTENANCE INSTRUCTIONS**

The equipment requires a reduced periodic maintenance.

The frequency of maintenance should be adjusted depending on the equipment installation conditions. It is advisable to set at least a maximum period of one year.

**Warnings:**

- Use only a soft, lint-free cloth.
- Disconnect the equipment from any external power supply.
- Disconnect all external devices.
- Keep the product away from any liquid.
- Do not use aerosol sprays, solvents or abrasives.
- Do not spray any cleaner directly on the equipment.

**Operations:**

- Wipe with a damp cloth
- Clean air inlets and outlets of the machine with a vacuum cleaner.
- Check the computer connections.

**9 TECHNICAL FEATURES**

<b>Model</b>	<b>LDAMPS8ZS02</b>
Power Supply	4.5- 5.5V DC, 1 x miniUSB tipo AB
Power Consumption	230 mA max
Expansion Keyboard Consumption	40 mA max
Frecuency Response	200 Hz □ 15000 Hz (+/- 2dB)
Signal to noise ratio	>98dB, A-weighted
Sensitivity	-43 dB (1KHz)
Directionality	Axial with hypercardioid type diagram
Type of transducer	Condenser
DSP	Integrated. 48 kHz, 24 bits □ 172 MIPS
External microphone input	1 x Unbalanced audio 15mV, 47 KΩ, 3Pin, 3.5mm miniJack type for dynamic microphone
ACSI Bus	2 x Identical ACSI ports: Balanced audio 1Vp, 0,707Vrms. 10 KΩ, female RJ-45, Total 1000m. / 3280ft
Expansion Port	1 x Pin row, 2 rows x 5 female contact
Indicators	Condition: Emergency, Fault Link, Busy line, Conceded Word, zones selection. Illuminated ring in gooseneck for conceded word
Buttons	3 special function buttons: Memory, Events and Cancel Automatic recall, all zone memories selection/deselection button 8 zone memory buttons botones de memoria de zona 1 TALK button

Functions	Prior notice tone, recall, zone memories, DSA, system events launching. Directionality until 512 system zones.
Gooseneck length	350mm / 13,75"
Dimensions without gooseneck (A x H x P)	86 mm x 65mm x 190mm / 3,38" x 2,56" x 7,48"
Operating conditions	-5 °C to +45 °C / 23 °F to 113 °F 5% to 95% Relative Humidity (no condensation)
Finish	Front: Fe, Grey RAL 7016 Base: Fe, Black RAL 9005
Weight	1 Kg / XX,x lb
MPS 8Z accesories	1 x miniUSB AB male to USB A male 1x Power Supply USB connector Type C (EU Type) 1 x Ethernet cable 2m / 6,56ft. 1 x Pop filter
Expansion keyboard accesories	1 x expansion port adaptor 2 x 5 contacts male-male 1 x connecting piece to MPS 8Z 4 x countersunk screw (3 x 5 mm)

**Ver. 0.1**