

# NEO

## User's Manual



Model: **MPS8Z**





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## SAFETY INSTRUCTIONS

1. Keep this User Manual for future reference.
2. Unplug the unit from the power outlet before cleaning it.
3. Do not put containers containing liquids on the device. Do not pour liquids on the unit.
4. Install this equipment on a safe surface. If you do not place the equipment on a safe surface, it may fall and be damaged.
5. Do not place flame sources over the equipment, such as candles.
6. Always keep in mind all warnings and precautions of the equipment.
7. Never open the equipment. For safety reasons, the equipment should only be manipulated by qualified personnel.
8. Pay attention to the connection polarity, when operating the equipment with a direct current (DC) power source. The reversed polarity connection can cause damage to the equipment, or to the power supply.
9. If any of these situations arise, let the technical staff check the equipment:
  - a) The power cord or plug is damaged.
  - b) Liquid has penetrated inside the equipment.
  - c) The equipment has been exposed to moisture.
  - d) The equipment has not worked well or does not work according to the instruction manual.
  - e) The equipment has dropped and been damaged.
  - f) If the equipment has obvious signs of damage.
10. Disconnect the audio inputs and outputs while making the connections. Be sure to use the appropriate cables to make the connection.

# 1 INTRODUCTION

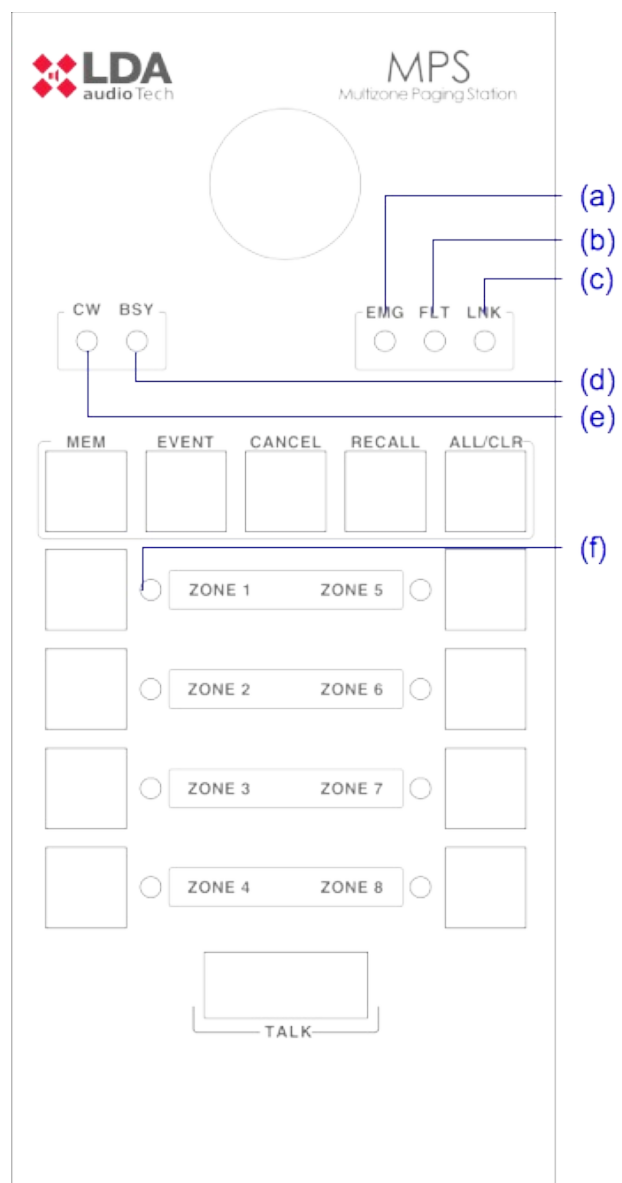
The series of MPS paging stations is designed to provide the system with high-quality public address and performance microphones. The expansion keyboards available, allow it to adjust to the particularities of each system in terms of zones.

# 2 DESCRIPTION

The microphone desk MPS 8Z allows to give live voice announcements messages for up to 64 memories of selection of public address zones of a NEO system.

## FUNCTIONS

1. 8 zone memories with addressing of 8 zones per memory, 64 zones
2. Up to 64 zone memories with addressing of 8 zones per memory, 512 zones (by means of expansion keypads)
3. 8 memories for system events
4. Recall (from latest live PA message)
5. Ding dong (chime)
6. External microphone input
7. Volume adjustment
8. System evacuation status indicator
9. System failure status indicator
10. Status indicator of link with the system
11. Zone memory selection indicator
12. Word indicator granted
13. Busy line indicator
14. 8 Zone memory selection indicators
15. Keypad lock
16. Zone memory pre-selection memory
17. DSA ("Dynamic Sound Adjuster")



Picture 1: Indicators

## ACSI VERSION

The microphone connects to the PAVA system through the ACSI bus (see point 2.3.2 ). Depending on the configuration of the system, the ACSI bus can work in version 1 or 2. At the physical level both versions are identical, they only differ at the functional and protocol level.

The MPS8Z microphone can work in both ACSiv1 and ACSiv2 versions, maintaining the same functionality. This will depend on the firmware version installed on your MPS. Firmware versions v01.xx integrate ACSiv1, and firmware versions v02.xx will work in ACSiv2.

You can easily differentiate which firmware version your MPS has installed by observing the boot sequence of the LEDs in the top row when the microphone is turned on (LEDs a, b, c, d and e as shown in Picture 1):

- If a pseudo-random power-up sequence is performed, it is a v01.xx microphone ready to connect to ACSiv1 buses.
- If the LEDs flash twice simultaneously on power-up, it is a microphone with firmware v02.xx, intended for connection to ACSiv2 buses.

**Important note:** be aware that ACSiv1 and ACSiv2 devices cannot be mixed on the same bus. ACSiv1 devices will not operate on buses configured as ACSiv2 or vice versa.

## 2.1 INDICATORS

### 2.1.1 SYSTEM STATUS INDICATORS

The status indicators show at all times the working condition 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 emergency operation state (voice alarm). Under this state, the MPS 8Z may not be able to make live PA live messages, as it has been configured in the system (see NEO system configuration manual). Red color.

**(b) FLT: “FAULT”**

Active (on) when the system is in a fault state. This indicator is activated automatically after the failure detection of any of the supervised functions. Yellow color

**(c) LINK: “LINK”**

Active (on) when the equipment is linked to the system. It will blink while the process of linking to the system or there is a link failure between the equipment and some element of the distributed system. If the problem persists, see chapter 6.4 for resolution. Yellow color

### 2.1.2 STATUS INDICATORS OF THE CALL CHANNEL

The status indicators per channel, show at all times their status or operating condition.

**(d) BSY: “BUSY”**

Active (on) when the call channel is occupied by another device with higher priority in the ACSI bus. When during a voice announcement, the call channel is occupied by a device with a higher priority, it will light up intermittently, indicating that the call has been canceled. Red color.

**(e) CW: “CONCEDED WORD”**

Active (on) when the call channel is assigned and free to be able to make a PA voice announcement. When the pre-warning tone is active on the equipment, it will flash intermittently while it is playing. Green color.

Complementary to this indicator, the MPS 8Z includes an illuminated ring located in the microphone capsule that shows when the user can begin to make the voice message. Red color.

**(f) ZONE x: “ZONE x”**

Active (on) when the memory or zone memories X have been selected. Green color

## 2.2 CONTROLS

### 2.2.1 ADVANCED FUNCTION CONTROLS

#### (a) "MEM"

The "MEM" button is located to the left of the upper area of the keyboard. It allows access to the configured zone memory preselections.

#### (b) "EVENT"

The "EVENTS" button is located in second position from the left side in the upper area of the keyboard. Allows access to the selection of system events.

#### (c) "CANCEL"

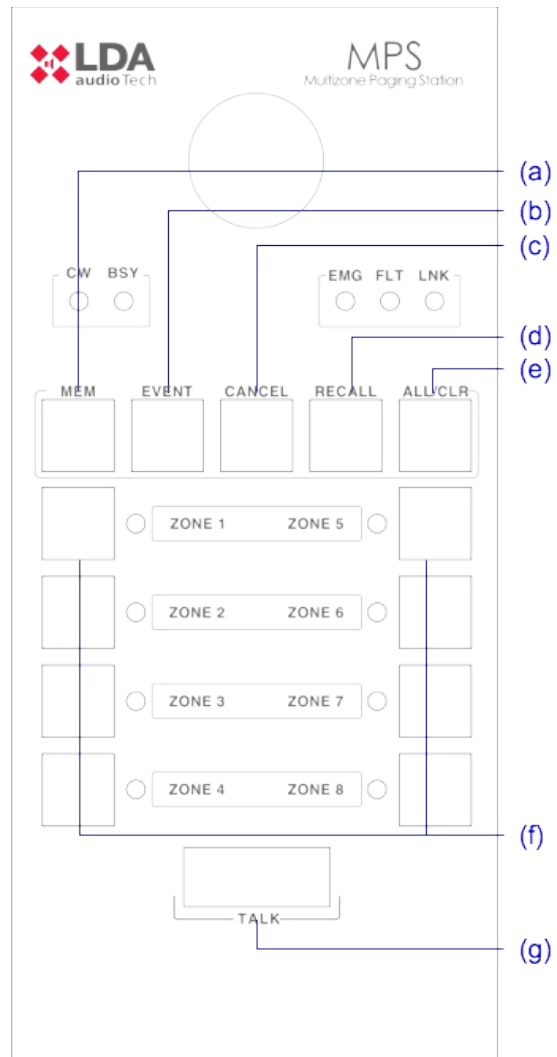
The "CANCEL" button is located in the middle of the upper area of the keyboard. It allows canceling those operations that require confirmation. It also serves as an access key to the configuration functions of the equipment.

#### (d) "RECALL"

The "RECALL" button is located in the second position from the right side in the upper area of the keyboard. It allows to repeat the last voice announcement message into the selected zone memories.

#### (e) "ALL / CLEAR"

The "ALL / CLEAR" button is located to the right of the upper area of the keyboard. Allows the selection of all available zone memories. When one or more zone memories are selected, by pressing this button it will unselect all.



Picture 2: Controls

### 2.2.2 CALL FUNCTIONS CONTROLS

#### (f) ZONE MEMORY

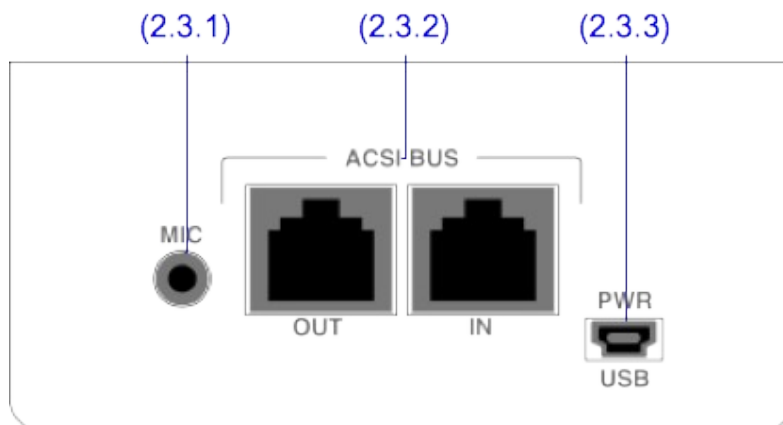
They are located in the lower half of the microphone desk. They allow the selection of zone memories, and the voice message, one or several simultaneously. When a memory is selected, the memory indicator will be activated.

#### (g) "TALK"

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



## 2.3 INPUTS AND OUTPUTS



Picture 3: Inputs and Outputs

### 2.3.1 MIC

It allows the connection of an external dynamic microphone. More precisely, this input is a 3.5mm mini-jack input.

This input has three terminals for the connection of an unbalanced mono input signal, where one of the terminals has no connection.

The connection is made through a male mini-jack type connector with 3 contacts of 3,5mm.

Mark	Description	Type	Signs	Activation
1	Audio signal unbalanced	Input	+	Configuration (see 4.4.3)
2	No connected	NC		
3	GND	Input	⊥	

Table 1: Input External microphone

### 2.3.2 CONNECTION TO THE PUBLIC ADDRESS AND VOICE ALARM SYSTEM (ACSI BUS)

The MPS8Z microphone connects to the PAVA system via the ACSI bus, which provides line-level audio link plus control signals and power, all on the same cable (see chapter 4 on connecting the device and its power supply). There are two such connectors, both of which are identical and internally interconnected. The connection of microphones must be done in "daisy chain" bus mode, where each device is connected to the previous and next device in the chain.

The connection is done through a standard Ethernet T568B Cat 5E or better cable. Maximum connection distance for all the bus is 1000m (3280ft).

Mark	Description	Type	Signals	Activation
<b>ACSI BUS</b>	Line level balanced audio. Control and power bus.	Input	Protocol	N/A

Table 2: Bus ACSI connection

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

### 2.3.3 AUXILIAR POWER SUPPLY

The equipment has an auxiliary power supply. Emergency voltage is continue and has a nominal value of 5V. It will be externally supplied through an USB charger, included with the equipment (female miniUSB connector).

Mark	Description	Type	Signals	Activation
<b>POWER USB</b>	Auxiliar power supply input.	Port	USB 1.1	5V DC Max Current: see technicals characteristics (chapter 8 )

*Table 3: Auxiliar power supply input*

Connection is done through a male miniUSB cable, AB type (supplied with the system)

### 2.3.4 PORTS FOR EXPANSION KEYBOARDS

The equipment has two available 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 port*

## 3 OPERATION DESCRIPTION:

### 3.1 TURNING ON

Select the power supply origin as shown on 4.1. Connect the power supply cable into 'POWER' connector located on the back side of the equipment, or directly through the ACSI bus. On the frontal side of the equipment, a check indicators sequence will start. Once the sequence is finished, linking with system process will start and it will be shown in the corresponding indicator.

When you turn on the equipment for the first time, you must make the typical installation adjustments (see chapter 4)

### 3.2 KEYBOARD LOCK

The MPS 8Z has an optional feature to lock the keyboard. To configure key lock, please see section 4.4.5.

If any button is pushed during the key lock, the zone memory indicators will blink four times.

When this feature is activated, keyboard locks manually or 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 again "CANCEL" and "TALK" keys. he zone memory indicators will blink twice.

### **3.3 PAGING VOICE ANNOUNCEMENTS**

To page a voice announcement, select the zone memories which you want to issue the warning. Their selection indicators will light up. Then push "TALK" key. 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.

#### **3.3.1 ZONE MEMORY SELECTION**

To issue a warning, you can click every selection control of the zone memories or use the "ALL/CLR" key. This control will select every single zone. If you want to deselect them, press the desired zone control again or the "ALL/CLR" key 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 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.

#### **3.3.2 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.

#### **3.3.3 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.
- Selection leds blinks.
- Press the zone memory where you want to assign the group.

#### **3.3.4 RECALL**

The system has a memory to record up to 45 seconds of the last voice message. To repeat the message issued, select the zones you want to issue the message in, then press "RECALL". "CW" indicator will start blinking. Confirm by pressing the "TALK" button before 3 seconds. If the notice channel is available, the "CW" indicator will light up, otherwise the "BSY" indicator will light up.

To cancel the recall, press "CANCEL" button. "CW" indicator will turn off.

NOTE: If different messages are issued before 15 seconds, the recording may not be done to protect the memory. In this case when you press "RECALL" key, "BSY" indicator will automatically light up showing there is no recorded message.

### 3.4 SYSTEM EVENT

The desktop microphone 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 User's Manual of NEO system.

#### 3.4.1 LAUNCHING SYSTEM EVENTS

To launch a system event press the “event” control. The “CW” and “BSY” indicators will light up simultaneously. Then select the desired event by pressing the zone memory button where it is assigned. Then push “TALK” to confirm or “CANCEL” to cancel. If the system has been able to launch the event, the “CW” indicator will blink twice.

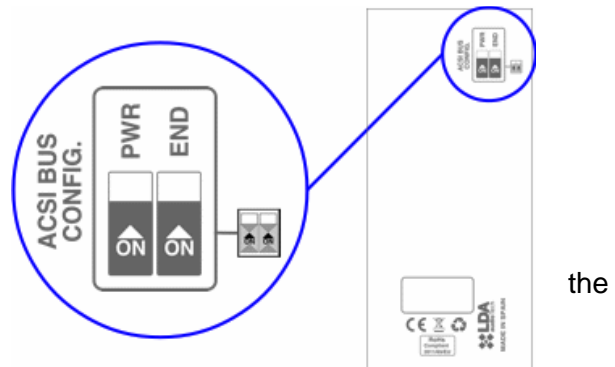
## 4 CONNECTION AND SETTING UP

### 4.1 POWER SUPPLY

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

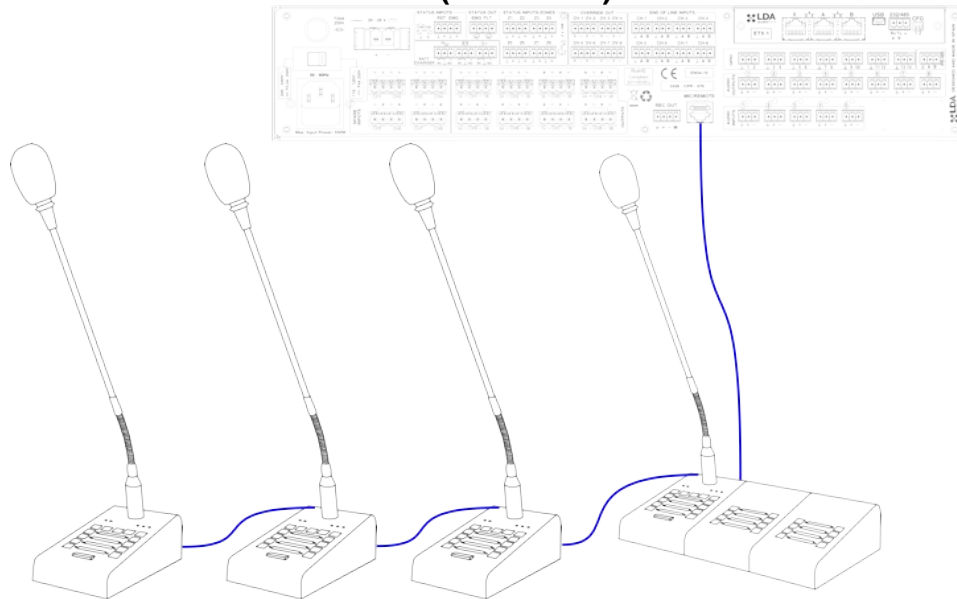
#### 4.1.1 POWER SUPPLY SELECTOR

The equipment has a “PWR” selector that allows you to choose the energy source between local or provided through the ACSI bus. When the selector is in OFF position, the equipment will be locally supplied by the external charger. When the selector is in ON position, the MPS 8Z will be supplied from the ACSI bus. If the external charger is connected, it will switch automatically if ACSI bus power is interrupted.



Picture 4: Power supply selector

## 4.2 CONNECTION TO THE SYSTEM (ACSI BUS)



Picture 5: Devices connection in a Public Adress 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 (1093,61 yrd)

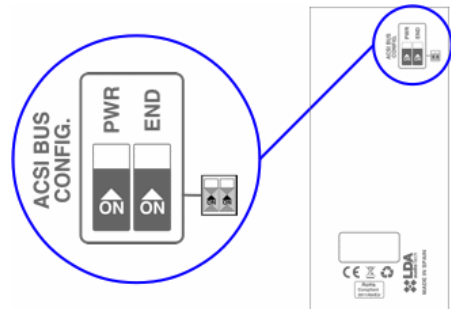
Each device has a priority selector in the bus. Depending on the configured priority, it will be allowed to occupy the channel while it is occupied by another device. The priority of MPS 8Z matches the address of the ACSI bus. To set the system address in the bus and set the ACSI address of the MPS 8Z, 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 2 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” y “EMG” indicators blink simultaneously, there is an address conflict in the ACSI bus with this device. In that case you must change the address.

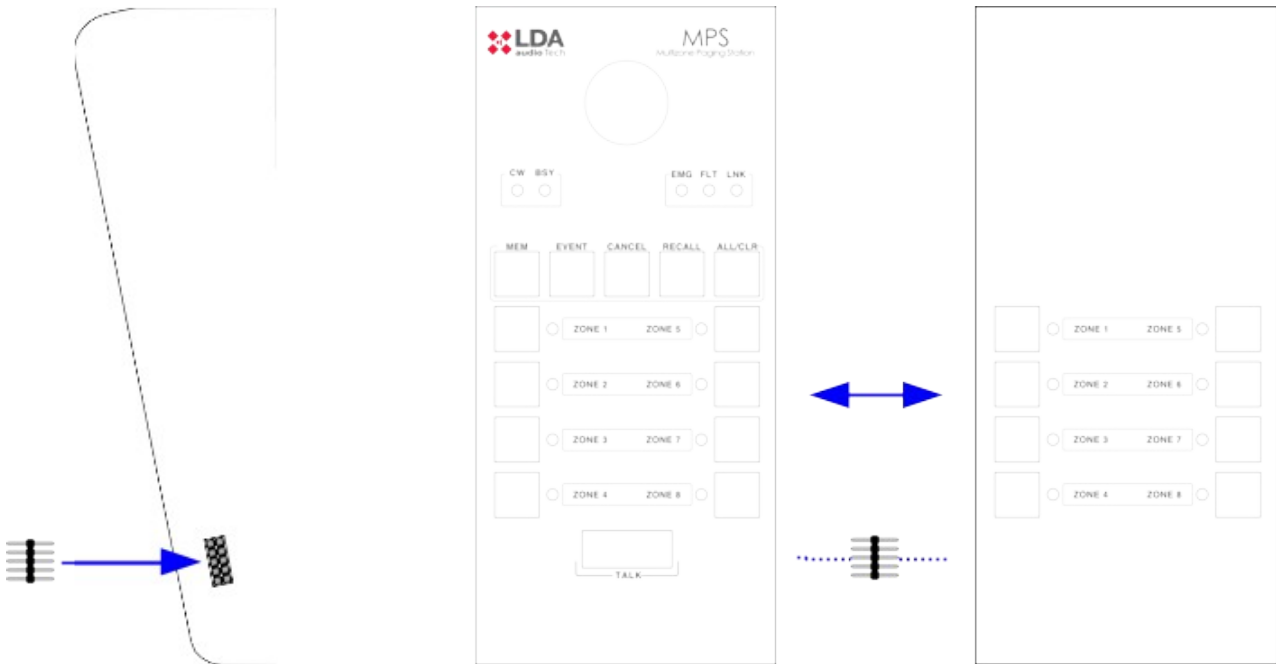
### 4.2.1 BUS TERMINATOR

The bus terminator selector “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.



Picture 6: Bus terminator selector

### 4.3 MPS-8K EXPANSION KEYBOARDS INSTALATION



Picture 7: MPS-8K Expansion Keyboard Installation

MPS-8Z paging microphone can attach up to 7 expansion keyboards, each of them with 8 zone selection buttons. In order to connect the expansion keyboards, MPS-8Z has 2 expansion ports, one on either side of the device. This way, the keyboards can be installed both on the right side or the left side of the MPS-8Z. All the expansion keyboards should be attached only in one of the sides (it is not possible to attach 2 keyboards on both sides at the same time).

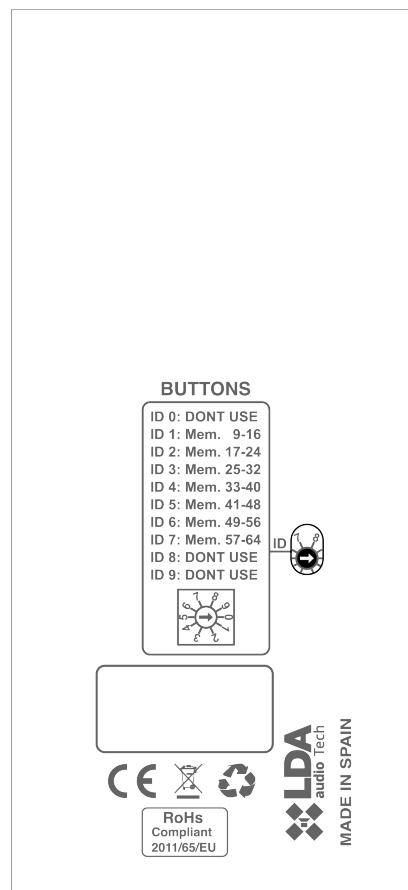
To install the expansion keyboards, please follow the next steps:

- Disconnect MPS-8Z from the ACSI bus and from the power supply.
- Place the connection adapter (supplied with the expansion keyboard) on the chosen side and connect both the paging station and the expansion keyboard completely till make a full connection.
- Flip over both devices and screw the metal plate at the bottom in order to fix the connection of both devices.
- Select the expansion keyboard ID with the corresponding roulette as shown in chapter 4.3.1
- Connect again the MPS-8Z to the ACSI Bus. By default, the new buttons will adopt the PAVA System zones as shown in chapter 4.2

### 4.3.1 KEYBOARD ID

The keyboard ID selection roulette is only available in the expansion keyboards attached to the MPS-8Z. This selection roulette is located at the base of the device in the central part. It allows to select the location of the keyboard within the set of all the attached keyboards. Each keyboard should have a different ID. In a PAVA System where the Zone Buttons have not been configured (with NEO Configurator), the zone associated to each button will be determined by the ID selected in the roulette. The zone assigned to each button will be by default as follows:

- 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: Zones 9-16 Selection not allowed, by default it will assigned ID 1.
- ID 9: Zones 9-16 Selection not allowed, by default it will assigned ID 1.
- ID 0: Zones 9-16 Selection not allowed, by default it will assigned ID 1.



Picture 8: MPS-8K Expansion Keyboard ID

## 4.4 MPS 8Z CONFIGURATION

It is possible to configure MPS-8Z Paging Microphone according to several operation parameters. To access the configuration mode of the device, follow these steps:

- Make sure the device does not have conceded word. The “CW” light should be off.
- Keep pressed the button “CANCEL” and the button “EVENT” for at least 2 seconds.
- When you are in the configuration mode, the “FAULT” and “LINK” lights will be blinking.
- Configure the parameters as shown in chapter 4.4 .1 to 4.4 .6.
- Press the button “TALK” to confirm, or “CANCEL” to cancel any change.
- The device will restart with the new configuration.

### 4.4.1 CONFIGURATION. TALK

The zone 1 button enables/disables the “latch” function for the “TALK” button. When this option is enabled, the zone 1 light will remain on. When this function is enabled, pressing once the “TALK” button will keep the microphone open until the “TALK” button is pressed again.

To confirm the new configuration, press “TALK”, to cancel, press “CANCEL”.

#### **4.4.2 CONFIGURATION. CHIME**

The zone 2 button enables/disables the pre-talk chime. When this function is enabled (light on), a chime will be played before the microphone is open to talk.

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

#### **4.4.3 CONFIGURATION. EXTERNAL MICROPHONE**

The zone 3 button enables/disables the input for an external microphone. When this function is enabled (light on), the external microphone input will be enable and the microphone incorporated within MPS-8Z will be disabled.

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

#### **4.4.4 CONFIGURATION. DSA**

The zone 4 button enables/disables the DSA function. DSA (Digital Sound Adjustment) is a Digital Voice Processing that automatically adjust the gain of the voices of different users. When this function is enabled, the zone 4 light will remain on.

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

#### **4.4.5 CONFIGURATION. LOCK**

The zone 5 button enables/disables the keyboard lock. When this function is enabled (light on), the MPS-8Z will be automatically locked after 1 minute since the last operation on the microphone. In order to unlock the microphone, you will need to press the buttons "CANCEL" and "TALK" simultaneously.

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

#### **4.4.6 CONFIGURATION. OUTPUT VOLUME**

The output volume level of the MPS-8Z is configured with Zone 7 and Zone 8 buttons. Press Zone 7 to increase the volume level and Zone 8 to decrease volume level. Each time the button is pressed, the corresponding zone light will be shortly on. When the volume level is at the maximum, the zone 7 light will remain on. When the volume level is at the minimum, the zone 8 light will remain on.

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

## **5 UPDATE**

If a firmware update is required, confirm that the image of the supplied update matches your model. If the equipment has expansion keyboards connected, it is not necessary to disconnect them. Proceed as follows:

- Connect the equipment to the NEO system.
- Use the Configuration software, search and select the MPS in the devices list and you can send the firmware file through the PC.



## 6 FAULT RESOLUTIONS

### 6.1 ERROR CODES

LED	ERROR
Z1	ADAU FAILURE
Z2	DingDong FLASH MEMORY FAILURE
Z3	MESSAGE FLASH MEMORY FAILURE
Z4	<NOT USED>
Z5	PTT FAILURE
Z6	LINK FAILURE
Z7	<NOT USED>
Z8	<NOT USED>

### 6.2 THERE IS NO LINK WITH THE SYSTEM

The system will indicate link fault when it detects that the transmission route has a shortcircuit or is disconnected.

Check that the equipment where is connected the ACSI bus is working properly, try connecting just one unit in the ACSI bus with a short cable to discard problems in the cable.

Check that the ACSI bus version configured on the system (v1 or v2) matches the ACSI version of the firmware loaded on the MPS microphone.

Check that only the last element in the bus has the option "END of Bus" activated, according to chapter 4.2.1

Connect the auxiliary power supply included with the equipment in case that the MPS-8Z is powered directly from the ACSI bus.

Check that the connection between the equipment and the system was correctly performed as indicated in chapter 4.2.

RESET the unit (the equipment must be configured again). In this case, press simultaneously the buttons "CANCEL", "EVENTS" and "MEMORY" for 5 seconds. The equipment will restart. Configure the address accordingly (see 4.2).

If this procedure does not work, disconnect the unit from the ACSI bus and contact LDA's Support Department. Once the unit is removed, if there are more units connected in the bus, connect the inputs and outputs lines of the ACSI bus in order to keep the system functioning in normal operation.

### 6.3 STATE LED INDICATORS BLINK simultaneously

The system will indicate address fault in the ACSI bus when there are two or more units with the same address.

Confirm that the unit's address is correct, in order to do this, follow the steps indicated in chapter 4.2

RESET the unit (the equipment must be configured again). In this case, press simultaneously the buttons "CANCEL", "EVENTS" and "MEMORY" for 5 seconds. The equipment will restart. Configure the address accordingly (see 4.2).

If this procedure does not work, disconnect the unit from the ACSI bus and contact LDA's Support Department. Once the unit is removed, if there are more units connected in the bus, connect the inputs and outputs lines of the ACSI bus in order to keep the system functioning in normal operation.

#### **6.4 NO LED INDICATOR IS ON**

If this is the case, probably there is a problem in the power supply.

If the unit is being powered over the ACSI bus, disconnect the unit from the bus and connect the auxiliary power supply included with the equipment. The unit will then start the test of the led light indicators.

If the problem remains, or if it is connected to the auxiliary power supply and the bus simultaneously, follow the steps indicated in chapter 6.1

#### **6.5 THE VOICE ANNOUNCEMENT IS VERY LOUD/LOW.**

If this situation is similar in all the elements connected to the bus, check the configuration of the equipment where it is connected (NEO).

In case there is a specific MPS-8Z unit, check the configured volume according to chapter 4.4.6.

RESET the unit (the equipment must be configured again). In this case, press simultaneously the buttons "CANCEL", "EVENTS" and "MEMORY" for 5 seconds. The equipment will restart. Configure the address accordingly (see 4.2).

If this procedure does not work, disconnect the unit from the ACSI bus and contact LDA's Support Department. Once the unit is removed, if there are more units connected in the bus, connect the inputs and outputs lines of the ACSI bus in order to keep the system functioning in normal operation.

#### **6.6 IS NOT POSSIBLE TO HEAR THE VOICE ANNOUNCEMENT**

Check that the output volume configured in the equipment is correct according to chapter 6.5.

If the problem remains, activate the gong signal according to chapter 4.4.2. Perform a call and check that the gong signal can be heard correctly. If this is the case, the microphone's gooseneck might had been damaged. Contact LDA's Support Department/RMA and ask for a replacement.

You can keep using the equipment while the gooseneck is being replaced, by using an external microphone and following the steps of chapter 4.4.3.

If the gong signal does not sound, perform a RESET (the equipment must be configured again). In this case, press simultaneously the buttons "CANCEL", "EVENTS" and "MEMORY" for 5 seconds. The equipment will restart. Configure the address accordingly (see 4.2).

If this procedure does not work, disconnect the unit from the ACSI bus and contact LDA's Support Department. Once the unit is removed, if there are more units connected in the bus, connect the inputs and outputs lines of the ACSI bus in order to keep the system functioning in normal operation.

## **6.7 THE EXPANSION KEYBOARD DOES NOT ADDRESS THE SELECTED ZONES.**

If when pressing the memory button several zone memory indicators of different keyboards are switch on, the identifier of one keyboard is not correct, or is the same as other unit. Check the identifier according to chapter 4.3

If the problem is still present, check the connection between the MPS-8Z and the expansion keyboard, as indicated in chapter 4.3

If previous actions do not solve the problem, perform a RESET (the equipment must be configured again). In this case, press simultaneously the buttons "CANCEL", "EVENTS" and "MEMORY" for 5 seconds. The equipment will restart. Configure the address accordingly (see 4.2).

If this procedure still does not work, disconnect the unit from the ACSI bus and contact LDA's Support Department. Once the unit is removed, if there are more units connected in the bus, connect the inputs and outputs lines of the ACSI bus in order to keep the system functioning in normal operation.

## **6.8 THE EXPANSION KEYBOARD DOES NOT SWITCH ON**

If when pressing the memory button from one or several keyboards their led light indicators are not on, there might be a fault in one of the keyboards.

Check the connection between the MPS-8Z and the expansion keyboard, as indicated in chapter 4.3

If the problem is not solved, disconnect the power supply from the unit for several minutes and check that each keyboard is working from the first to the last of them. Disconnect the first keyboard that is not switched on and connect the rest to the MPS-8Z. If necessary, re-configure the address following chapter 4.3.1 and the content of each zone through the System's Configuration software. If the problem is not solved, contact the Support Department.

## 7 MAINTENANCE INDICATIONS

The unit requires a reduced periodic maintenance.

The periodicity of the maintenance must be adjusted according to the conditions of the installation. At least, it is recommended to establish a maximum of 1 year period.

### **Warnings:**

- Use only a soft cloth that does not create fluff
- Disconnect the unit from any external power supply.
- Disconnect all external devices.
- Keep the product away from any liquid.
- Do not use aerosols, solvents or abrasive substances.
- Do not spray any cleaner directly on the appliance

### **Operations:**

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

## 8 TECHNICAL SPECIFICATIONS

Model	MPS 8Z
Power supply	5V DC, 1 x miniUSB type AB.
Power consumption MPS 8Z	230 mA max.
Power consumption Expansion Keyboard	40 mA max.
Frequency response	200- 15000 Hz (+/-2dB).
Signal to noise ratio	R> 98dB, A-weighted.
Sensitivity	-43 dB. at 1KHz.
Direccional axis	Axial with hipercardioid polar diagram response.
Kind of transducer	Condenser.
DSP	Integrated. 48 kHz, 24 bits – 172 MIPS.
External Microphone input	1 x Unbalanced audio 15mV, 47 K $\Omega$ , 3Pin, miniJack 3,5mm type, for dynamic microphone.
ACSI Bus	2 x ACSI ports identical: Balanced audio 1Vp, 0,707Vrms. 10 K $\Omega$ , RJ-45 female, Total legth: 1000m. / 3280ft.
Expansion ports	2 x Pin grid of 2 rows x 5 female contacts.
Indicators	State: Emergency/ Fault. Link. Busy, Busy Line, Conceded word and zone selected. Gooseneck includes illuminated ring for conceded word.
Buttons	3 buttons for special functions: Memory, Events and Cancel. Re-call button, Selection / deselection button of all zones. 8 zone-memory buttons. 1 Talk button.
Functions	Gong, re-call, zone-memory, volume control, DSA (Dynamic Sound Adjustment), activation of events. Addressing up to 512 zones of the system.
Gooseneck length	350mm / 13,75"
Dimensions without gooseneck (W x H x D)	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 / 2,20 lb
Accessories for MPS 8Z	1 x miniUSB AB male to USB A male cable 1x USB power supply with connector Type C (EU) 1 x Ethernet Cable 2m / 6,56ft. 1 x Anti-pop
Expansion keyboar accessories	1 x expansion port adapter 2 x 5 pins male-male 1 x union accessory to MPS 8Z 4 x Countersunk screws (3 x 5 mm)

