# User's Manual SECURITY DESK MICROPHONE



# Model: LDAMCA8NS01



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#### WARNING:

This device can't be exposed to drippings or water projections and it must be situated far of objects containing fluids.

The alternating current supply cables are the main devices to disconnect this product and should be easily accessible at all times.



#### 1 <u>TECHNICAL DESCRIPTION:</u>

The MCA-1/8N is a desk microphone with advanced features for professional PA systems that comply with the EN-60849 standard.

The microphone includes control via Ethernet for remote control and monitoring. The MCA-1/8N allows broadcasting messages in multizone mode, with up to 8 configurable zones (model 8N). In addition, the capsule is under constant supervision, so that any error is directly notified.

It includes "general call" functions, with busy line and floor granted signals shown through LED and display screen. Furthermore, a system failure light and sound indicator warn of any malfunction of the system.

Likewise, the microphone also works automatically with the auxiliary LDA system, and in the display it indicates when this work mode is activated.

Special attention has been given to sound processing in order to achieve top quality results with regard to distortion, sensibility, band width and noise/signal ratio. For this reason the MCA-1/8N includes a top quality dynamic capsule.

The exterior quality is based on the desk's resistance, since it is made of iron, which provides superior stability and protection in case it is knocked. All the push buttons are designed for intensive use and the main push button is made of stainless steel, contributing to the microphone's overall robustness.

#### 2 **OPERATION DESCRIPTION**

The MCA-1/8N security microphone operates as a microphone for eight zones totally configurable by the control server. Each zone can be selected independently and the light indicators show the zone's current status.

#### 2.1 OPERATION WITH SERVER

When the system server is in operation, the MCA-8N operates as a multizone microphone for which priority is configurable, just like the zones assigned to each button.

On selecting a zone, the light indicator will turn green. In order to talk, the TALK button is pushed and the server will handle the request. In case the command is granted, the TALK button will turn green, together with the other buttons. The message "PALABRA CONCEDIDA [WORD GRANTED]" will appear on the display.

When one of the zones assigned to the zone buttons is busy, the button will be red indicating its status. In such case, there are two possibilities if a command is

requested: if the microphone has greater priority that the one using the line, the command will be granted; otherwise the microphone will indicate "LINE BUSY" and the occupied zones will flash red (8N).

In order to speak through several microphones at the same time, it is essential that none of the zones occupied with one microphone are selected by the others.

#### 2.2 OPERATION WITH THE AUXILIARY SYSTEM

When the auxiliary system is activated through the ASC-82N, this is detected by the microphone and is indicated on the display.

At that moment the available option is to make a general call to all of the system's zones or to the part of the system that depends on the ASC-82N used.

The TALK button is used to make the petition, and it will light up green together with the other buttons to indicate that the command has been granted. In case the line remains busy, all the buttons will be red. In addition, these status will be displayed in text on the screen.

In case the microphone has been assigned with maximum priority, it will show command granted even if the line was previously busy.

#### **2.3 STATUS MONITOR**

This equipment is designed to comply with the EN-60849 standard in respect to voice evacuation systems.

The MCA-8N includes several test and monitoring systems, which are described below:

Capsule Supervision – The microphone's capsule, as well as its connection to the gooseneck, are constantly checked. The connection to the central server is also monitored. When a failure is detected, the microphone reproduces a sound warning and turns on the system failure indicator, indicating the problem detected on the display.



In addition, when the MCA-8N is at rest, it generates a pilot tone in a cyclical manner in order to verify the audio path to the next device of the critical path.

#### 2.4 CONNECTION AND CONFIGURATION

In order to connect the device, the lower cover is opened to access to the main board shown in the picture.



Ilustration 1: Main board

Description of elements:

1. Gain control - This potentiometer is used to adjust the microphone's output gain

2. Audio connection - Audio output and auxiliary system connector. The pin configuration corresponds to the ASC-82N:

\*In the picture, Pin 1 is the one on the right.

- 1. Audio –
- 2. Audio +
- 3. GND
- 4. Control (Active at 0)
- 5. Line busy (Active at 0)
- 6. Aux On. Indicator of active auxiliary system (Active at 0)
- 3. Supply connector 5 VDC
- 4. IP address Configuration The device's IP address is configured using the number of the last binary group. Switch number 1 corresponds to the most significant bit.

The complete address is 192.168.0.XXX.

5. Ethernet connector – It is connected to the Ethernet network 10/100Mbps.

For cable output, there are three openings on the back panel, the size of which corresponds to the size of each cable.

#### 2.5 DESCRIPTION OF FRONT PANEL:

The top part of the microphone has all the elements needed for its normal operation. They appear numbered in the following picture.





Ilustration 2: Front panel

1. LED indicating system failure

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- 2. Push buttons for zone selection. In addition to selecting a zone, these buttons light up in two colours to indicate selected and/or busy zones.
- 3. Display Alphanumeric display to show microphone status and failure warnings

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### 3 TECHNICAL SPECIFICATIONS

Power supply:	5Vdc, 500mA
Frequency response	200-15000Hz
Audio output	750mV 600Ω balanced
Sensitivity	0 dBm
Noise/signal ration	100dB (A-weighted)
Directionality	Axial, with hypercardioid type polar diagram
Type of transducer	Dynamic with moving coil
Length of gooseneck	250mm
Size	131x60x173 mm (width x height x depth)
Power consumption	2.5W

Chart 1: Tecnical specifications



<u>NOTAS</u>

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