

User's Manual

VIRTUAL AUDIO MATRIX



Model: **LDAZES80S01**

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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.

1 TECHNICAL DESCRIPTION:

The ZES-80 is a virtual audio matrix of LDA which integrates DSP that grounds in the standard (in market) COBRANET™ over Ethernet network.
(<http://www.cobranet.info/community/manufacturer>).

The ZES-80 is provides to assemble different expansion modules increasing its functionality by input / output lock, amplifier of monitoring, tactic to volume controllers, MP3 player, etc.

2 OPERATION DESCRIPTION

The ZES-80 permits as inject as extract analogical audio channels in a COBRANET™ network over ETHERNER network. A COBRANET™ network permits until 65,536 “bundles” (being a “bundle” a package of eight channel of digital audio). One ZES-80 can be connected to 4 input bundles and 4 output bundles whichever into a COBRANET™ network or internally, which can configured any input and any output. Moreover, it has a digital signal processing (DSP) through of it the setting of gain, equalization, filters, mixtures, etc can be made.

2.1 EQUIPMENT TURN ON

The turned on of the equipment suppose the lighting of the indicator of on. If the connection with the server is correct, the LDA link indicator will light. Furthermore, it makes a checking of the components in the front lighting all the indicators according to all the possible states and lighting the display too.

The arrangement of the ZES-80 remains the preset of arrangement established by the user.

The IP, which is 192.168.2.80 by default, could be modified in the Configuration menu. The modification of the IP could be made through the application of configuration.

2.2 FRONT CONTROLS



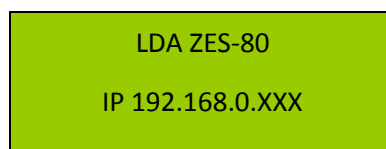
Illustration 1: Controls

- 1.- Menu control
- 2.- Numeric keyboard
- 3.- Output indicators
- 4.- On y link with the server

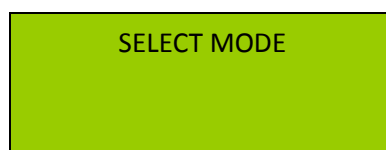
2.3 SETTING MENU

The configuration and monitoring of equipment is realized through the menu shown in the display.

If the equipment is connects to the power supply, the following messenger appears in the display:



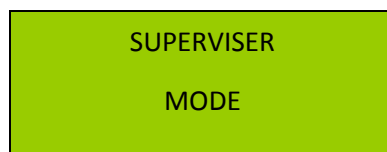
If we press the MENU, the ZES-80 will ask the password:



The ZES-80 has two working modes, they are: Supervisor mode, which has no password, and Administrator mode, whose password is 1234 by default. The initial state of menu is recovered after 15 seconds, whenever the inoperative state is hold in both modes, for security.

SUPERVISER MODE:

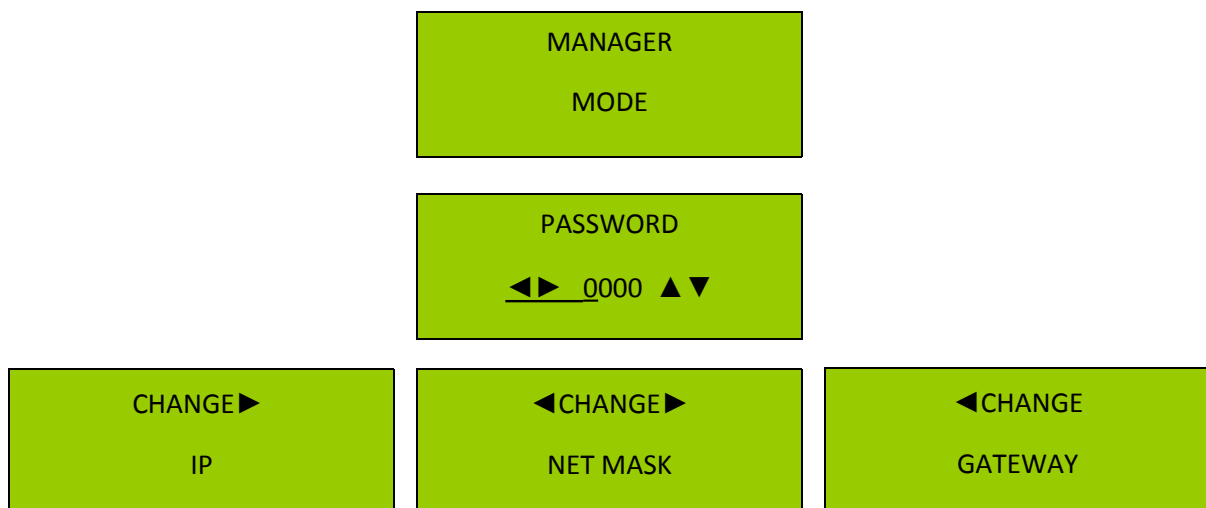
If we press the Menu button, we can access to this menu:



We can see the IP, the net mask and the gateway of the equipment by this mode.

MANAGER MODE:

We can access inside in this mode if we press the Menu button. Then, we must enter the password, which is 8375 by default. The net configuration of the equipment can be realized by this mode.



The lines placed below the "X" letter will be flickering. We can change the IP value with the numerical keyboard or with the following buttons:

▲ Increase the value.

▼ Decrease the value.

◀ move the pointer leftward.

▶ move the pointer rightward.

When the IP is selected we must press OK button in order to keep the changes. The display will go back to show the message “CHANGE IP”. If we introduce an incorrect value, the “INCORRECT VALUE” message will appear. In this case, any change is not realized.

IMPORTANT: In order to remain the changes in the net configuration, it is necessary to restart the equipment.

2.4 CONNECTION

The picture below belongs to the rear panel of the equipment and it is explained as follows:

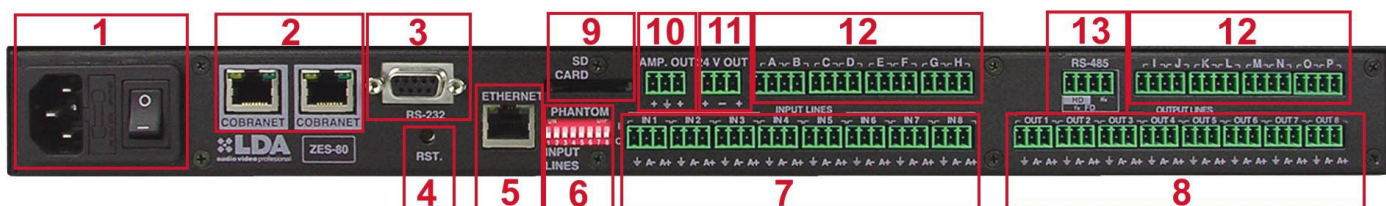


Illustration 2: connections

Nº	DEVICE	DESCRIPTION
1	Network base	Power supply: 220V~ with switch
2	Cobranet connectors	Automatic redundant connection for audio over Ethernet. If a input lose the connection, it will try to connect by other input automatically.
3	RS-232 connector	RS-232 for connection (Optional)
4	Reset button	For resetting the microprocessor
5	Ethernet connector	Ethernet connection for controlling the equipment.
6	Phantom supply-selector for inputs.	If it is On, the phantom supply activates 48V for microphones which require this kind of supply.
7	Audio input	8 audio input Pins description: 1- GND 2- Audio- 3- Audio+
8	Audio output	8 audio output Pins description: 1- GND 2- Audio- 3- Audio+

Chart 1: Connections

2.5 EXPANSION MODULES:

BASIC:

It has the same components and device that table on 2.4 shows (2.4 Connection).

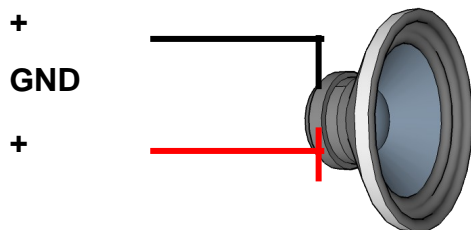
INTERVENING:

The basic module is added the following devices:

Nº	DEVICE	DESCRIPTION
10	Amplifier	Integral amplifier is parallel connected to the 7 output in order to connect the system monitor. MAX: 2x0.25W @ 8ohms / 1 x 1.5W @ 4ohms (bridge)
12	GPIO interface	I/O can be set by software for interface of TTL signals (0-5V)

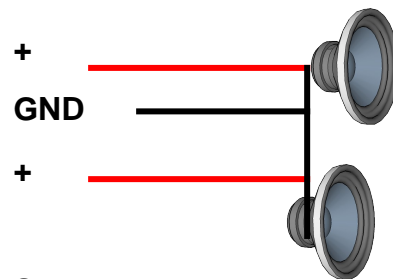
Chart 2: Expansion modules

Amplifier connection:



Bridge

MAX 1 x 1.5W @ 4 Ω



Stereo

MAX 2 x 0.25W @ 8 Ω

COMPLETE:

It is added to the intervening module the following devices:

Nº	DEVICE	DESCRIPTION
9	MP3 player	Read the data and kept them in the SD target. The format used is FAT16. It is connected to input and output number 8 for broadcasting and recording of messages.
11	Volume controllers / sirens tactic	Output activated by software in order to control the volume controllers and the sirens, which are supplied at 24V maximum 1 A.
13	RS-485	Optional. The ZES-80 can implement this kind of communication device or the same that the RS-232 connector. It is set in factory. It can help to the Half-duplex communication and permit the Loop-Half-duplex.

Chart 3: Amplifier connections

3 TECHNICAL SPECIFICATIONS

Supply:	220—240~ 50Hz
Consumption:	< 40 W
Volume controller:	De -100 a 12dB
Sensitivity of input	0 dBm
S/N	>100 dB
Distortion + Noise	< 0.01% (tip. <0.006%) 20-20000 Hz
Cross of channels	< -80 dB 20-20000Hz
Dynamic range	-100 a 9 dBu (THD+N < 1%) 20-20000Hz
Input impedance	10 KΩ
Output impedance	100 ohm
Nominal gain	0 dB (exchangeable) 20-20000Hz
Line connectors	Plug-in terminal-blocks, fixing by screws.
Cobranet interface	RJ-45 (10/100Mbits)
Ethernet interface	RJ-45 (10/100Mbits)
Dimensions:	44 x 483 x 310 mm (height x width x depth) One unit of 19" rack.

Chart 4: Technical specifications

