

UDEVAC-500

Installation and configuration manual

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UDEVAC-500 System

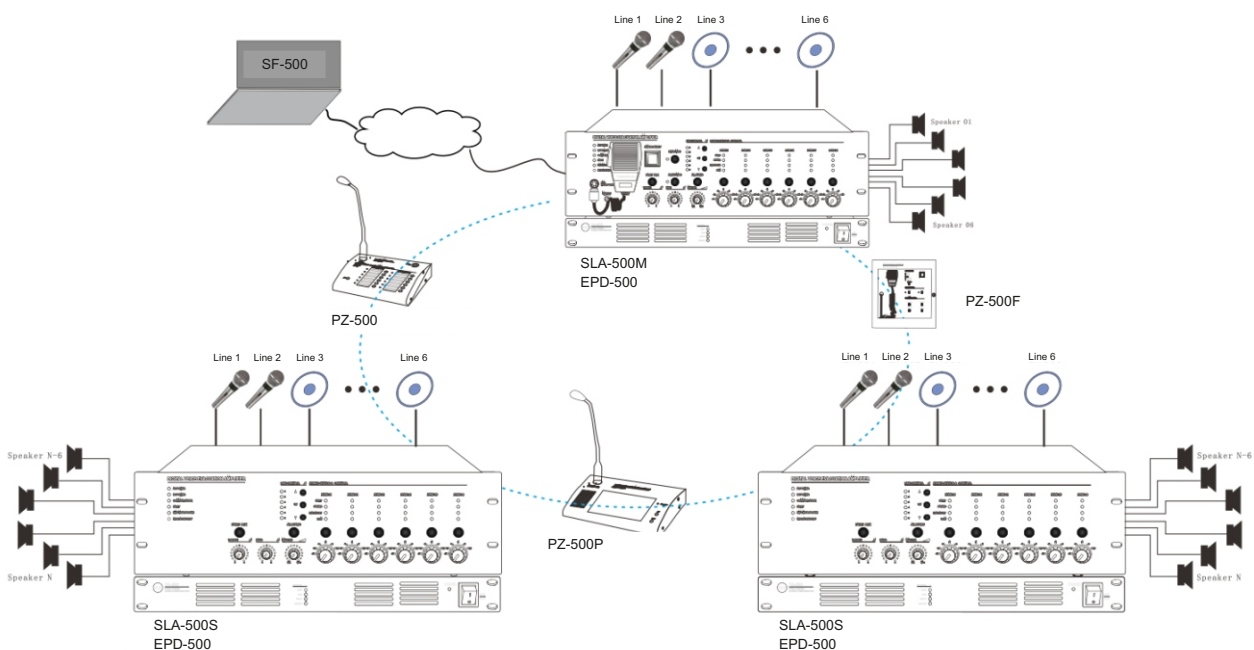
Description of the system

The UDEVAC-500 Voice Evacuation System is an EN54-16 Certified Public Address and Voice evacuation system. Generally used in facilities that need an evacuation system with only one emergency call channel.

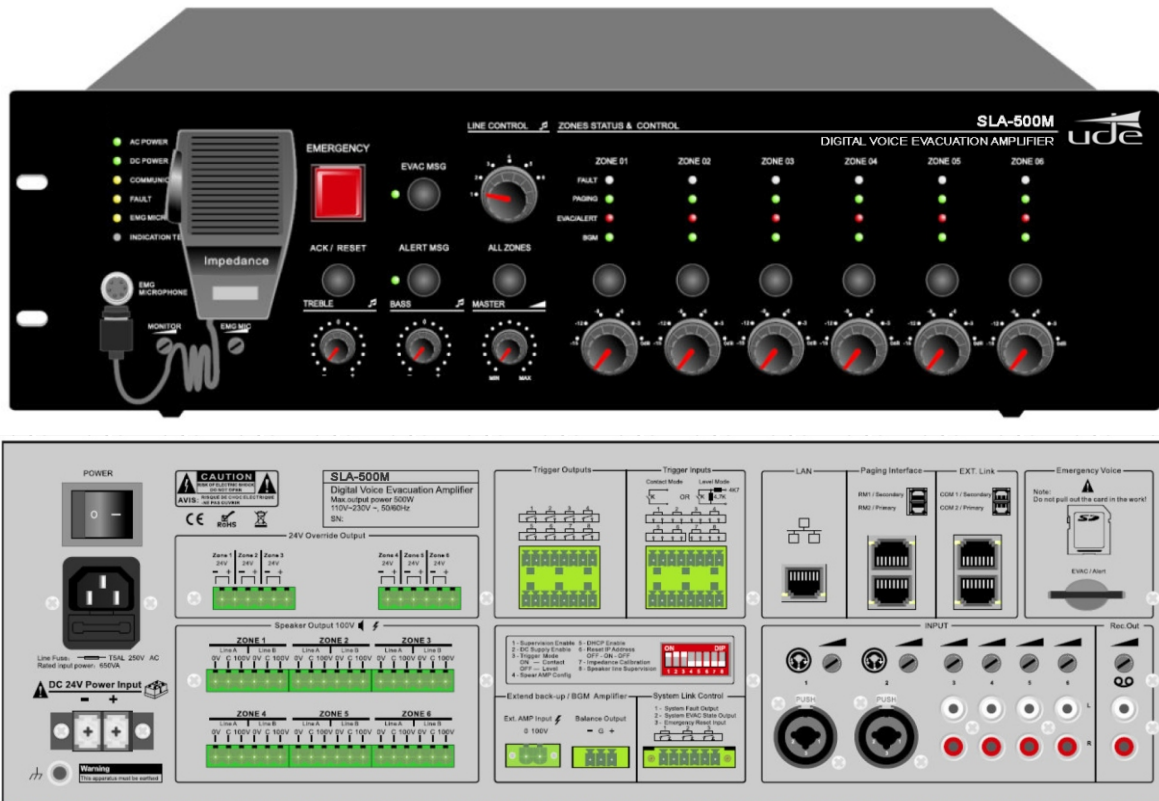
With its modular design, processing technology, and system performance diagnostics, its stability and smooth operation are guaranteed. It is capable of playing background music in the absence of an evacuation alarm. The user can preset the operation of an evacuation alarm, simple and intuitive operation, it is widely used in: residential, hotels, railways, airports, factories and other places.

Main functions of the system

- Integration of all functions in a single system.
- 500W Class D integrated amplifier.
- Automatic issuance of evacuation and alert messages, and up to 255 voice messages to pre-established zones.
- Customizable alert and evacuation messages, stored on a SD card.
- Supervision of loudspeaker lines A + B, spare amplifier and backup power supply.
- Expandable capacity up to 120 zones using SLA-500S expansion modules.
- Connection of up to 32 PZ-500 or PZ-500F remote microphones.
- The system supports redundant wiring up to 600 meters between all system devices.
- 8 input remote controls (supervised) and 8 programmable output remote controls, 1 fault indicator output, 1 EVAC mode indicator output, and 1 EVAC mode reset input



SLA-500M Control Unit / SLA-500S expansion module



Description

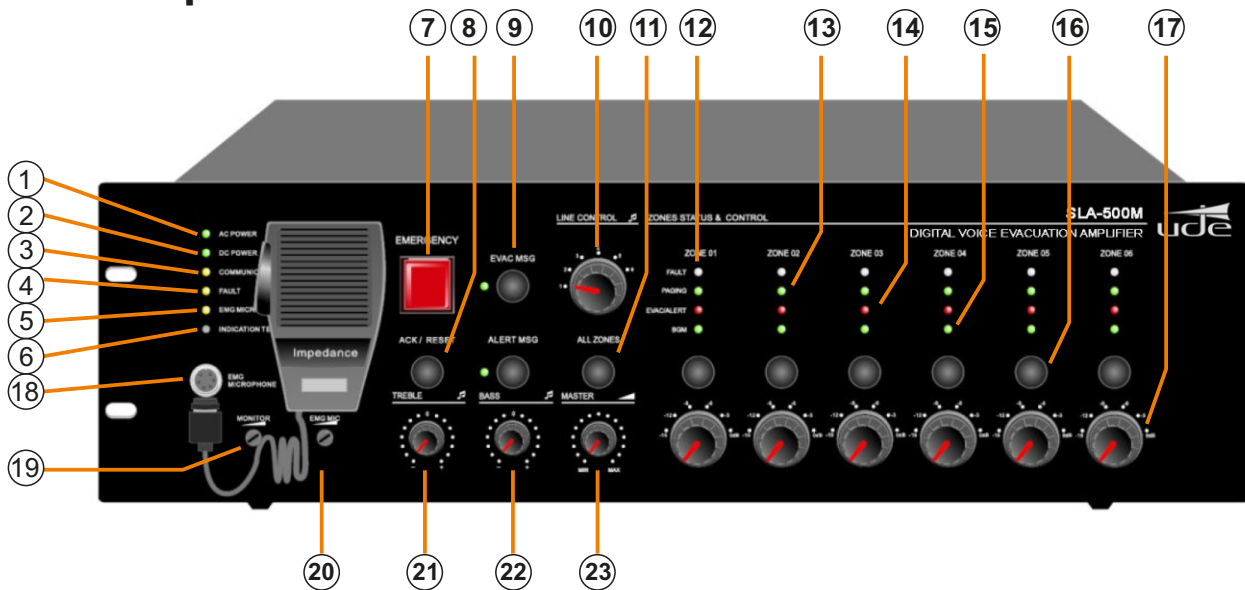
The SLA-500M Evacuation Central is composed of a 500W digital amplifier, with the functions of transmitting emergency messages, as well as evacuation messages by means of a PTT microphone.

The system has a capacity of up to 120 zones with functions of sending voice messages, BGM (Background Music), and supervision of the amplifier and loudspeaker lines, with warning indicators in case of failure.

Main functions

- 255 evacuation messages available.
- 6 speaker zones, with a maximum power of 500W, either in a single zone or distributed among all.
- 6 signal inputs for connecting analog microphones or external music sources. Maximum recording capacity of up to 1000 events in the system log.
- Connection of up to 32 PZ-500 or PZ-500F remote microphones.
- The system supports redundant cabling (ring connection) between the SLA-500M control panel, the remote microphones and the SLA-500S expansion modules, with a maximum length of 600 meters, using UTP CAT6 cable.

Front panel



1. AC Power indicator.

Green AC power supply is currently operating normally.
Yellow AC power supply has a problem.

2. DC 24V indicator.

Green Backup power supply is working normally.
Yellow Failure of the backup power supply.
Off Computer does not have a backup power supply connected.

Note: In the rear configuration DIP switches (second switch on the SLA-500M and sixth switch on the SLA-500S), if they are up they activate the supervision of the backup power supply, and downwards they deactivate the supervision of the power supply backup.

3. Communication indicator between the control equipment and the expansion equipment.

Green Connection of the devices is normal.
Yellow That the physical connection fails or is not connected or configured.
Off No logical or physical connection between the control equipment and the expansions

4. Fault indicator.

Yellow System failure, press **FAULT ACK** to silence the alarm tone, although the LED will continue to flash. Verify source of failure to restore system to normal mode.
Off System is working properly, unless the monitoring function is disabled.

5. Emergency microphone indicator.

Green Microphone is working
Yellow Microphone has been disconnected or is faulty
Off Microphone is OK, but not working.

6. Indicator test buttons.

Press this button to turn on all LED indicators to check that all indicator LEDs are working, including the SLA-500M control unit, the SLA-500S expansion modules, and the PZ-500 and PZ-500F remote microphones.

7. Emergency button.

Red blinking System is in emergency mode.
Off System is in normal mode.

Two ways to enter emergency mode and broadcast an emergency message:

1) Activate the emergency mode by pressing the red button with cap. Immediately the red light will start flashing. Then select all or those areas where you want to launch the emergency message, and press the "EVAC MSG" or "ALERT MSG" button as desired.

2) The automatic emergency emission can be activated by closing any of the remote controls **Trigger Inputs** on the rear panel of the SLA-500M control unit and the SLA-expansion units.

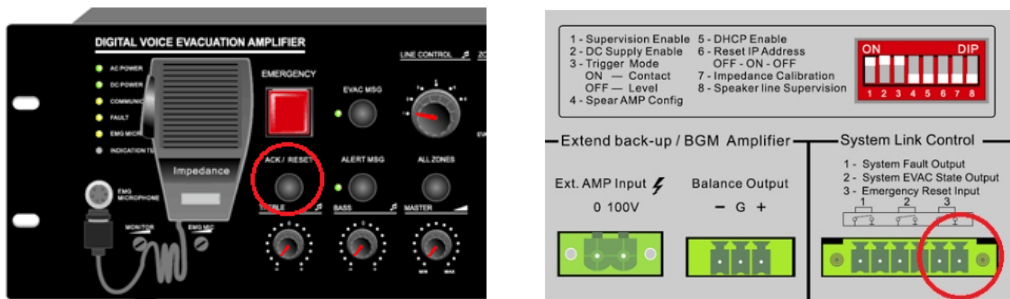
Two ways to exit emergency mode and restore normal operating mode:

1) Press the red capped button on the front panel to end the emergency mode and to end the emergency message broadcast.

2) The automatic way to exit the emergency mode is with a direct short circuit to the **Emergency Reset Input** on the rear panel of the SLA-500M, then the evacuation voice message playback will stop and the zone outputs speakers will be disconnected.

Note:

It does not matter if it is a manual input or an automatic input, the operating time and its activation can be checked and reviewed in the LOG of the SF-500 software.



8. FAULT /ACK Button

If any system module during diagnosis fails, the **FAULT** indicator flashes, press the **FAULT /ACK** button to stop the indicator flashing and the buzzer, until the equipment works normally the **FAULT** will stay on solid.

9. 9. EVAC evacuation message button and indicator.

Green Evacuation message is playing.

Yellow Evacuation voice message or SD card has been lost.

Off Everything is working in normal mode.

Note:

1. If any user wants to manually play the evacuation voice message, they must enter emergency mode, select the zone or zones where they want to launch the message, and then press the voice message key (**EVAC MSG** or **ALERT MSG**).

2. In the system, by default, the priority of "evacuation" is higher than the "alert". Of course, it can be modified with the SF-500 configuration software. If it is not a specific installation need, please do not change the priority.

10. Line input selector for speaker zone outputs.

It is mainly used to select the external line input on this equipment. SLA-500M main unit audio inputs can be routed to the SLA-500S expansion module outputs, but expansion modules audio inputs can only be used in their own zones.

Note: Routing audio from one input to the desired outputs can be done and checked using the SF-500 control software. You can also enable or disable individualized routing for each host of one of its audio inputs to its zones, from its own front panel.

11. All zones selector.

If the current zones are off, they will all turn ON; If all zones are armed, they will all be disarmed (OFF).

12. Speaker zone failure indicator.

Yellow Change in speaker impedance in circuit A or B, or the zone may be open or short-circuited.

Off Current impedance of the speaker zone loop is within the impedance measured when it was first installed.

Important note: it is necessary to carry out a measurement and subsequent recording of the impedance to obtain the value of the impedance of the speaker circuit of each zone, if we connect new speakers we must do the measurement again.

The method is as follows: on the rear configuration switches turn down the seventh switch, wait until you hear alternate beeps from the buzzer and see the fault indicator light blink on the front panel, when finished raise the seventh switch. When an impedance variation occurs in the speaker circuit that exceeds $\pm 10-30\%$ of the impedance value recorded by the equipment, the impedance variation will be recorded in the LOG and the user will hear a beep and the fault light will flash will light up yellow. The detection sensitivity of the zones is equal to or greater than 20W.

13. Message indicator with the emergency microphone or microphone desk (PZ-500).

When giving a voice announcement in one or more zones, this indicator will turn on to notify us that a voice announcement is being made.

14. Indicator that a voice evacuation message is being broadcast in a zone.

When an evacuation or alert message is playing the indicator will light.

15. Indicator that the zone is playing background music.

In general, it is recommended to first select the zone or zones where you want to hear an audio signal, and then select the audio input to be played in these zones. This selection and redirection of audio input signals to zone groups can also be done from the SF-500 software.

16. Zone selection button.

To individually select the six output speaker zones. If none of the zone output indicators are lighting in "PAGING", "EVAC / ALERT" or "BGM", one of them will be turned on by pressing this key (the corresponding LED light is on according to the current output audio level) .

Note: If one of the zone indicator lights are on *PAGING*, *EVAC / ALERT* or *BGM* and is on, you can close the zone output by pressing this key.

17. Attenuation of the output level of the output zone.

Increase or decrease the zone output volume individually up to 6 levels, with a maximum attenuation down to -15dB.

18. Hand Microphone Input.

Input for emergency microphone or fireman's microphone with highest priority.

19. Monitor speaker attenuator.

Increase or decrease the volume of the monitor speaker.

20. Adjusting the output sensitivity of the handheld microphone.

Used to adjust the emergency microphone input sensitivity.

21. Treble control.

Increase or decrease the total treble output.

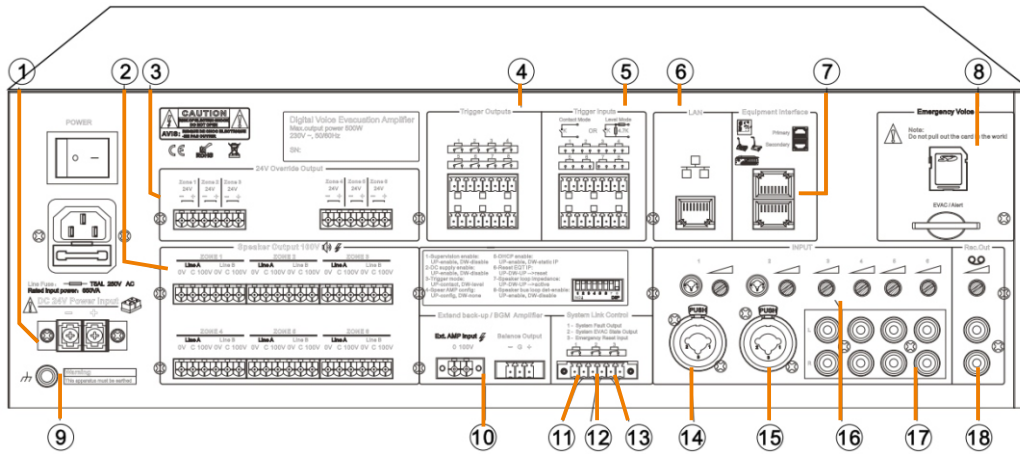
22. Bass control.

Increase or decrease the total bass output.

23. Master volume control.

Increase or decrease the overall volume level.

Rear panel



1. 24V DC emergency power input.

The DC24V power supply to be connected can be sealed lead acid batteries or similar products.

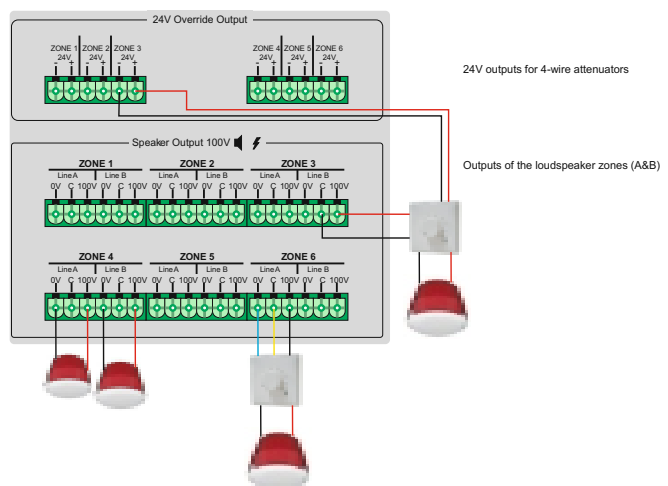
Note:

- Use an EN54-4 certified power supply.
- Please confirm that the DC24V power supply can provide the minimum operating current for the correct operation of the SLA-500M. For example, working at maximum load (500W), the batteries must be capable of supplying a minimum current of 27A, with which their minimum capacity must be 27Ah, and their operating time at full load must not be less than 30 minutes.

2. Speaker zone outputs (A&B)

To connect line speakers
100 volts and 3-wire priority systems.
The output voltage is: 0 ~ 100 v.

Note: please do a speaker circuit check after completing the wiring. Zones that are not connected with speakers should be set as disconnected. This configuration must be done using the SF.500 software.



3. DC24V outputs for 4-wire attenuators

For installations with a four-wire attenuators system. Limited output current for each output: 0.2A.

Note: the output cannot exceed a total power of 28W.

4. Programmable control outputs.

These outputs will usually remain open, these outputs can be programmed with the SF-500 software to activate or deactivate with automatic events or manual events.

5. Programmable control inputs.

These inputs will usually be kept open, these inputs can be programmed in the software SF-500 to enable or disable them automatically or manually.

6. LAN input for Configuration Software.

It is used to connect with the SF-500 configuration software, for programming and manual adjustment and control operations.

Note:

- 1) Default IP address: 192.168.1.168, communication port number: 16888
- 2) To restore the default IP address, activate and deactivate DIP switch number 6 on the rear panel of the control unit once.
- 3) If you want to change the ip address, please enable DIP switch number 5 to enable DHCP function. Make sure the DHCP function is enabled.
- 4) The SF-500 software will help you to configure the SLA-500M evacuation equipment. All communication cables must comply with TIE/EIA-568B standards, including connections to the SLA-500S expansion modules and the PZ-500 and PZ-500F paging microphones.

7. Input for SLA-500 S expansion modules and PZ-500 and PZ-500F paging microphones.

Use a pin-to-pin CAT6 UTP cable (TIE / EIA-568B standard) to interconnect all the devices that make up the UDEVAC-500 system, the maximum communication distance is up to 600 meters. Loop or star connection of all connected equipment is possible, the SF-500 software will automatically detect the connection mode of the system.

8. SD memory card for emergency messages.

System emergency messages are stored on the SD memory card, evacuation and alert messages are monitored in real time, maximum capacity of 32 GB SD memory card. SD memory card supports a maximum of 255 messages. Never handle this card with the equipment turned on. Do not delete or manipulate the files if you are not sure, make a backup copy of the original files before making any changes, otherwise the equipment may stop working and will not come under warranty. **VERY IMPORTANT THE AUDIO FILES MUST BE IN "WAV" FORMAT.**

In the root directory of the SD card there are 3 folders:

- **BGM folder for music.**

- **EVAC folder:**

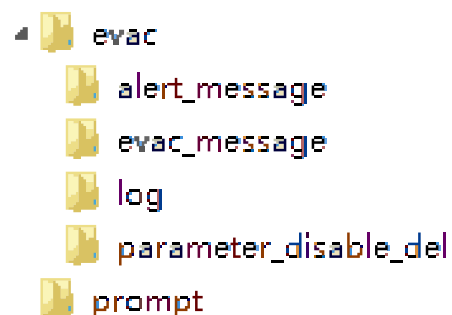
"**alert_message**" where the alert message is. To change the alert message we must replace the audio file by putting the new file (WAV) with the same name as the one originally in the folder.

"**evac_message**" where the evacuation message is stored To change the evacuation message we must replace the audio file by putting the new file (WAV) with the same name as the one originally in the folder.

"**log**" where the event log is stored. **where the equipment configuration is stored. VERY IMPORTANT DO NOT HANDLE THIS FOLDER.**

"**parameter_disable_del**" where the equipment configuration is stored. **VERY IMPORTANT DO NOT HANDLE THIS FOLDER.**

- **PROMPT folder:** within this folder are the "Ding Dong" warning tones that are emitted at the beginning and at the end of voice messages, the warning tones can be modified according to customer requirements and be replaced by others (Format WAV) these tones are for all notification desks, these warning tones are not supervised in real time, they are only supervised once when the equipment is turned on, so if there are no warning tones or the file has been lost, do not will be warned as a failure.



9. Ground connection.

10. Backup amplifier input.

11. System fault output relay.

When the system has any fault, this relay output will close (normally open contact).

12. Relé de salida del modo de emergencia.

When the system operates in fire or evacuation mode, this relay will close (normally open contact).

13. Fire alarm reset input.

This input is used to connect with the Fire Panel, and allows the equipment to be restored to normal mode at the end of the alarm, by means of a contact closure greater than 0.5 seconds.

- With the equipment in fire mode, this input allows the equipment to be restored to normal mode.
- When the equipment is in normal mode, no process occurs if this input is activated.

14. Input with sensitivity adjustment for MIC (microphone) or line (line) and XLR connector.

15. Input with sensitivity adjustment for MIC (microphone) or line (line) and XLR connector.

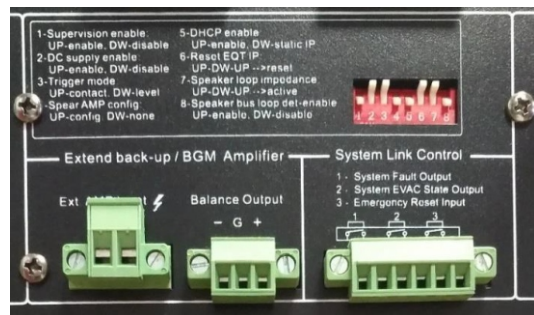
16. Potentiometer for adjusting the sensitivity of each of the inputs.

17. Inputs with sensitivity adjustment for line (line) and RCA connector.

18. REC recording output.

This Rec output is the mixed output of all audio inputs so that you can record with other equipment.

19. DIP switches for configuration of control or expansion equipment functions. DIP DIP switches for configuration of functions of the control or expansion equipment. Up means "enable" and down means "disable".



SLA-500M main equipment:

Switch 1, above activates the general supervision of the system (amplifier, speaker lines, etc.). Down disables supervision.

Switch 2, above activates emergency power supervision. Down disables emergency power supervision.

Switch 3, above enables the trigger inputs as contact activation. Below enables the trigger inputs as voltage level activation.

Switch 4, above indicates there is a spare amplifier. Down indicates there is no spare amplifier.

Switch 5, above enables DHCP. Below disables DHCP.

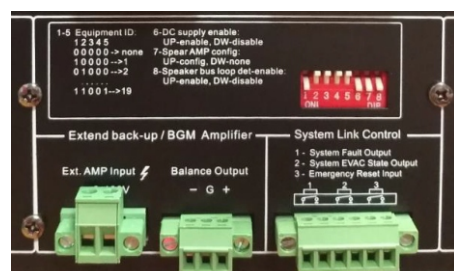
Switch 6, resetting the IP address, normally upwards, moving downwards and immediately upwards resets the IP address of the device to its factory value.

Switch 7, make an analysis of the impedance of the loudspeaker lines, normally upwards, move downwards and immediately upwards allows to perform the acquisition of impedance values of the loudspeaker lines.

Switch 8, above activates the supervision of the loudspeaker lines. Down disables loudspeaker line supervision.

SLA-500S expansion module:

DIP switches 1 to 5 are used to configure the identification number of the extension equipment. The 6th switch is to configure the 24VDC input. The 7th switch is to configure the backup amplifier. The 8th switch is to configure the loudspeaker line supervision function.



Technical characteristics

Model		SLA-500M	SLA-500S
Description		Control equipment	Expansion unit
AC electrical part	Power supply	AC220V-250V, 50/60Hz	
	Power consumption	Control equipment 850W	
	Maximum current	<3A	
	Fuse	250V/5A, low speed type	
DC electrical part	Power supply	24V DC, 20V-27.5V	
	Maximum current	<27A	
Microphone	Sensitivity	5mV	
	Impedance	600Ω	
Emergency	THD	<1%, at rated output power, 1kHz	
	Sensitivity	775mV	
	Impedance	10kΩ	
	S / N Ratio	>70dB	
Line inputs 1-6	Fault output	Closed circuit, no voltage	
	EVAC Output status	Closed circuit, no voltage	
	EVAC input Reset	Closed circuit, no voltage, T> 0.5s	
	8 control outputs	Closed circuit, no voltage	
	8 control inputs	Way-1: closed circuit, no voltage	
Control input & departure	Format	WAV	
	Memory card	SD memory card	
	Capacity	32G	
	No. of messages	255 Max	
	Period	10 years	
	SD Card Format	FAT/FAT32	
Emergency message	Format	HEX	
	Way to store	Nand Flash	
	No. of events	1000	
	Period	10 years	
Log (events)	Operating temperature	+5°C ~ +40°C	
	Storage temp	-20°C ~ +70°C	
	RH	< 95%	
Work environment	Dimensions	484(W)x132(H)x449(D)mm (3U)	
	Net weight	11.5kg	
	Rack mountable	19" rack mount	
	Finish	Aluminum plate and metal case in black	

PZ-500F fireman microphone



Description

The PZ-500F is an E54-16 compliant, wall-mounted, fireman warning microphone.

Main functions

Fireman's microphone according to EN 54-16.

"EVAC MSG" or "ALERT MSG" activation buttons for all zones simultaneously, "FAULT ACK" button, plus 4 programmable emergency buttons.

Remote emission of pre-recorded messages in case of emergency.

Top priority supervised PTT microphone.

Microphone signal monitored in real time.

Configurable as PTT or normal.

24V DC phantom power from SLA-500M or SLA-500S.

Status LEDs for AC, DC, Fault, Mic and Test.

Communication distance up to 600 meters.

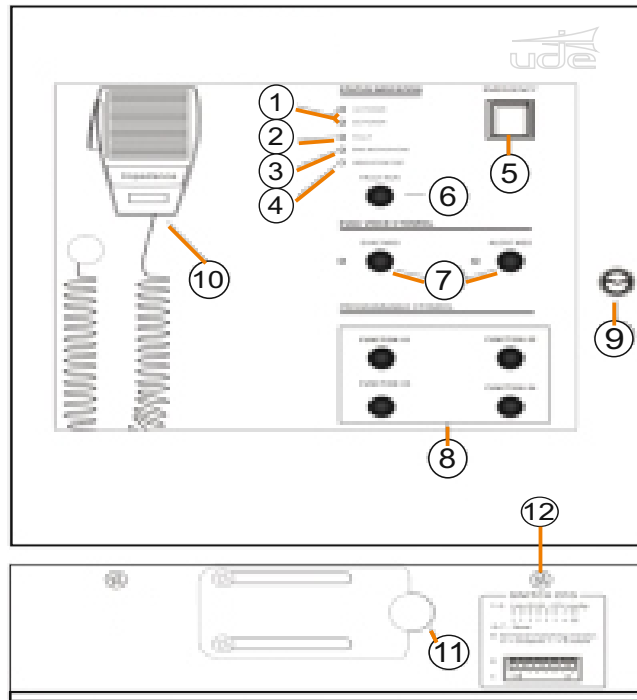
Up to 32 fireman microphones supported in the system.

Redundant connection in loop mode with the rest of the system's devices, using UTP CAT6 cable.

Internal DIP switch for setting the device ID (addressing).

Front door with key lock.

Front panel



1. Equipment power indicator.

Green system has an AC or DC power failure.
Yellow system works well AC and DC supplies are normal.

2. Equipment and system status indicators (FAULT)

Yellow failure of some module or system equipment, please press "**FAULT ACK**" to cancel the warning buzzer. **(blinking)** new failure in the equipment, to inform the user.
Off all modules in the system are operating normally.

3. Handheld microphone status indicator

Green microphone is working, giving a warning.
Yellow the microphone is faulty.
Off microphone is normal.

4. Handheld microphone status indicator

In any state, press this button and all LEDs will light. Used to confirm that the LEDs are working properly.

5. Emergency button and indicator.

Red (blinking) equipment is in emergency mode.
Off equipment is normal mode.

To make an emergency warning broadcast:

- A)** Activate emergency mode by pressing the red button with cover and immediately the red light will start flashing. and then press the **EVAC MSG** or **ALERT MSG** buttons, which will activate the warning in all zones of the system.
- B)** The automatic transmission of an emergency will be activated by closing any of the rear inputs remote controls of the control unit or the expansion unit and the red light will flash.

Emergency mode reset:

- A)** Press the **ACK / RESET** button on the front panel to end the emergency mode and to end the emergency message broadcast.
- B)** The automatic way to exit the emergency mode is with a direct short-circuit in the **Emergency Reset Input** on the rear panel of the SLA-500M, and then the playback of the evacuation voice message will stop and the exit zones will speakers will be disconnected. These events are logged and can be viewed in the SF-500 software's history (LOG).

6. FAULT ACK button

A) All the modules of the system are supervised and the diagnosis is normal, if we press this button when the **FAULT** light is not flashing, the equipment will not do any action or process.

B)) If any module in the system has any fault, the **FAULT** indicator light will flash, press the **FAULTACK** button and the **FAULT** indicator will stop flashing and the buzzer will stop until another fault is detected then the **FAULT** indicator starts to flash again and the buzzer to sound.

7. EVAC & ALERT Message buttons and indicators.

Green voice message or alert is playing **EVAC MSG/ALERT MSG**

Yellow a voice message, alert or the SD card has failed.

Off voice message or alert is not being played.

If you need to manually play the evacuation voice messages, you need to enter the emergency mode and then press the **EVAC MSG** or **ALERT MSG** button.

By default in the system the evacuation message has priority over the alert message. You can change the priority through the SF-500 software. If due to special installation requirements it is not essential, please do not change it.

8. Programmable function buttons and indicators.

Blink indicator programmed function is active

Off programmable functions are disabled

9. Lock

10. Hand microphone

It is mainly used to guide people in an emergency situation:

11. Wiring entry

12. DIP switch for setting the device ID (addressing). Configuration of the "ID" of the equipment by means of the DIPs.

Raised in position **ON** means that it is activated and lowered means disabled. From the 1st to the 5th switch are to configure the address / identification of the microphone through a binary system. The 6th switch up means that the voice prompts mode is normal and down means the voice prompts mode in PTT mode. The 7th switch up means that this microphone gives announcements in individual zones and down means that the group of zones for the announcement of this microphone, as a group could be defined with several zones.

The 8th switch is to activate all the LEDs as a test of these indicative LEDs, downwards it activates the test of the LED indicators, all the LED indicators will light up in red-green-yellow to know their normal operation. Below is an example configuration of the announcement microphone from number 1 to 4.

Values assigned to each DIP switch



Technical characteristics

Phantom power	
Voltage	20V ~ 27.5V
Maximum current	Less than 0.2A (with 24V power, all LEDs on and in voice prompt mode)
Consumption	Less than 3W
MIC Performance	
SPL	30mV
Mechanical specifications	298 x 298 x 89 mm
Net weight	3.8KGS
Installation	Desktop
Colour	Black
Environmental requirements	
Operating temperature	+5°C ~ +40°C
Storage temperature	-20°C ~ +70°C
Relative humidity	<95% without condensation

Microphone desk PZ-500 and expansion keyboard PZ-500E



Description

The PZ-500 Microphone Desk and PZ-500E Expansion Keypad allow users to select paging zones remotely. It has a 12-zone capacity that can be expanded with the expansion keypad and allows you to connect up to 32 looping microphones.

Main characteristics

Remote microphone of the Digital Voice Evacuation.

System. Microphone with 12 zone capacity.

It can be expanded to 12 more zones through PZ-500E.

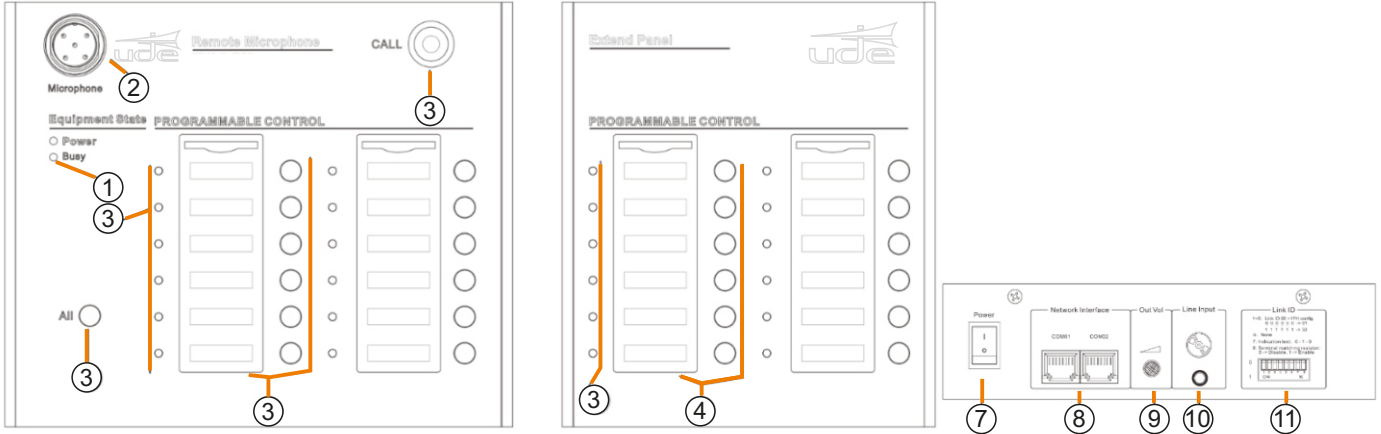
The system supports 32 remote looping microphones.

12 zone selection buttons with three-color indicators.

Two RJ45 ports for link input and output.

Communication cable or CAT6 up to 600 meters.

Panel frontal y posterior



1. Device status indicator "busy"

Green equipment is busy, please wait.
Off free and can be used to call a specified zone.

2. Microphone

The gooseneck microphone has a luminous ring, lit red indicates that it is ready to give a voice warning.

3. Speaker Zone Status Indicators

Steady light current speaker zone is activated and in voice announcement.
Flashing light user is selecting this speaker zone.
Off speaker zone is not currently working and is on standby.

4. Zone selection buttons

5. All zones selection button "ALL "

Used to select all zone groups.

6. Voice announcement Start Button

To start voice prompts with the microphone.

Description of operation:

1. When a voice announcement is being made, if we press this button, the voice announcement will end;
2. When there is no voice prompt and a zone is selected, press this button to start the voice prompt (you need to wait for the microphone light to turn on).

Note: If the microphone is in PTT mode, it will be necessary to keep pressing the button, otherwise the voice announcement will end (PTT this mode is explained in point "11" of this manual, later).

7. Switch

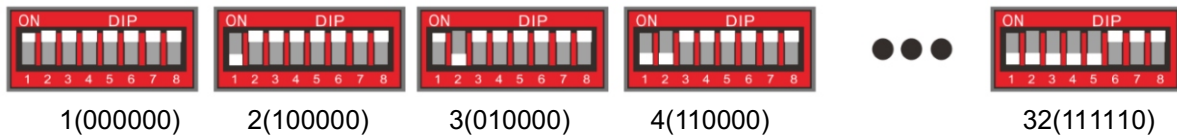
8. Connection inputs with other system devices

9. Microphone output sensitivity regulation

10. Line input for external audio

11. Device ID configuration DIP switch

From the 1st to the 5th switch are to configure the address / identification of the microphone through binary system.



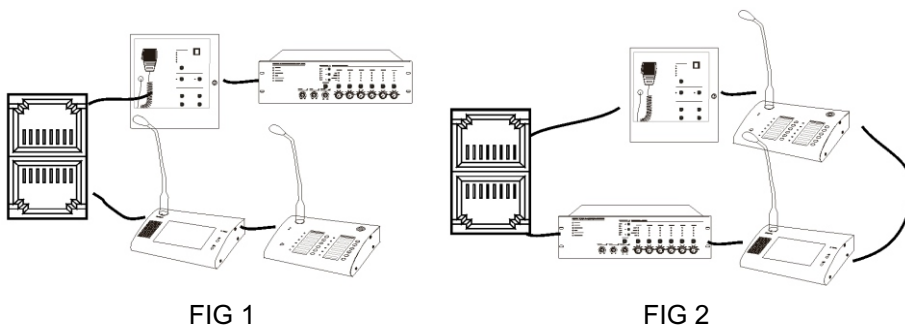
"6" Operation in normal mode;

Unplugged - indicates that it works in PTT mode, it must be held down to make the voice announcement;

"7" Allows you to test the microphone indicator LEDs, normally up, lower and raise it immediately to perform the test.

"8" End of line resistor.

Above indicates disabled, below indicates enabled.



Nota:

1. If the PZ-500F, PZ-500, PZ-500P or SLA-500S cannot communicate normally with the main equipment (SLA-500M), activate the end-of-line resistor of the last connected equipment at the end of the line. The PZ-500F firefighters microphone cannot be the last equipment in the installation, this resistor is only for star wiring not for loop-type wiring.
2. If the installation is like Figure 2, the resistor should not activate.

Technical characteristics

Model	PZ-500	
Description	Microphone notification desk	
System capacity	32 units	
Communication distance	600 meters	
Connection system	Star or redundant loop connection	
Number of zones	12 zones o 12 groups	
Announcements mode	PTT or normal mode	
Electrical parts	Supply Voltage	20V-27.5V
	Maximum Current	<0.1A
	Consumption	<2.4W
Line input	Sensitiviy	775mV
	Impedance	10k Ω
	S/N Ratio	>70dB
Microphone input	Sensitiviy	5mV
	Impedance	600Ω
Working environment	Working temperature	+5 °C ~ +40 °C
	Storage temperature	-20 °C ~ +70 °C
	Relative humidity	< 95%
Mechanical part	Dimensions	240(W) x 140(D) x 55(H) mm
	Weight	1kg
	Finish	Aluminum case in black

Operation guide

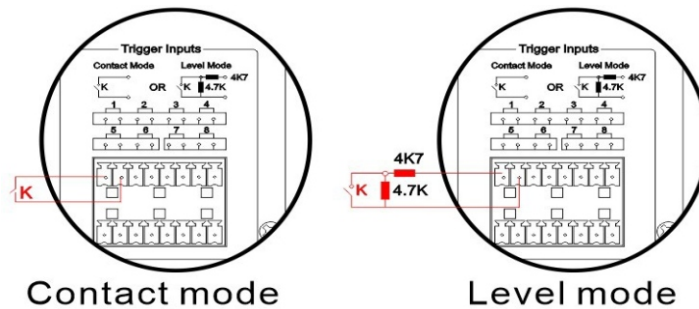
Background music broadcast

Connect the audio sources or microphones to the **INPUT1-6** inputs on the rear panel, select the line input via the input source selector on the front panel of the main equipment or expansion equipment, connect the zone output with the corresponding background music indicator means that music is playing in that area.

Note: Emergency messages and microphones are common between main equipment and expansion equipment, while line inputs 1-6 are only for the equipment itself.

Automatic emergency broadcast

From the normal state, connect a fire panel or other external control equipment to the 8 control input terminals (Trigger inputs) of the main equipment or an expansion one. The control input terminals receive a contact from a fire panel or other external control equipment and then a general emergency message will be issued. At the same time, a control output will be activated on the control equipment to activate third-party equipment. There are two kinds of control inputs, by contact (short circuit) or by voltage level. Press the emergency button or remote reset input again to end the emergency broadcast.

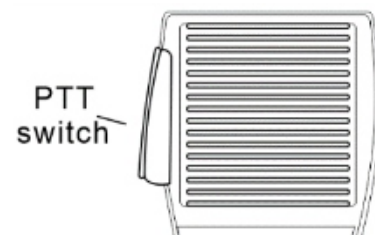


Manual activation of the emergency message

Press the emergency button, it will light up red, then select the zone and press the **EVAC MSG** or **Alert MSG** button. For the manual emergency broadcast to work the message indicator light and the zone evacuation light must be on. Press the emergency button or remote reset input again to end the emergency broadcast.

Warning with the emergency microphone

Press the side button of the emergency microphone to make the emergency announcement to all zones at any time (in the process the user can manually activate or deactivate the loudspeaker zones, by default all partitions and zones are activated), the tone The pre-announcement will sound first and the EMG microphone indicator will light indicating that it is ready for the emergency announcement, release the microphone to end the voice announcement. This emergency microphone circuit is always supervised in real time.



General announcement or by zones of a microphone notification desk

Select the zone or **ALL** (in the selected zone or zones the green LED will flash), press the call button to make the voice announcement with Chime (the green zone LED will light up steadily). Under PTT mode, the call button must be held down to make any voice announcements.

SF-500 Configuration software

Description

Equipment configuration:

System Requirements:

AMD/Inter CPU 2.0G, Windows XP SP3 / Window 7/8 / 8.1 / 10.

Installation.

Double click on "SF-500.exe" The installation will be done in a transparent way for the user, and will finish with the creation of a shortcut to the SF-500 application on the desktop of the computer.

Nota: Right click on the "SF-500" shortcut and select properties to run the application as administrator.

Configuration and use of the software

Put the PC and the SLA-500M equipment in the same IP number range

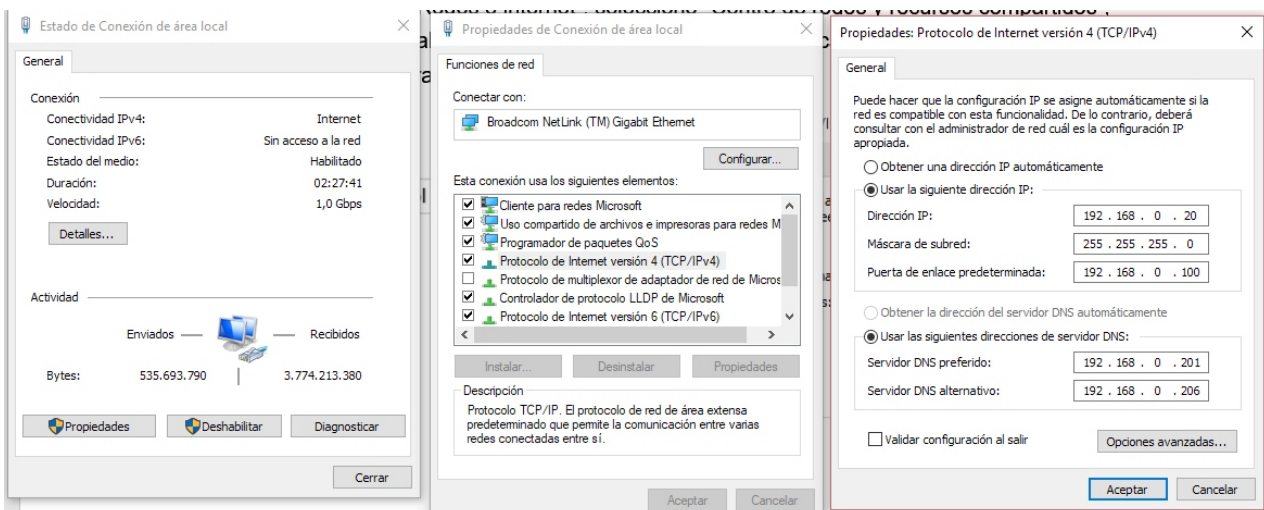
Device's default IP address: 192.168.1.168

Sub Mask: 255.255.0.0,

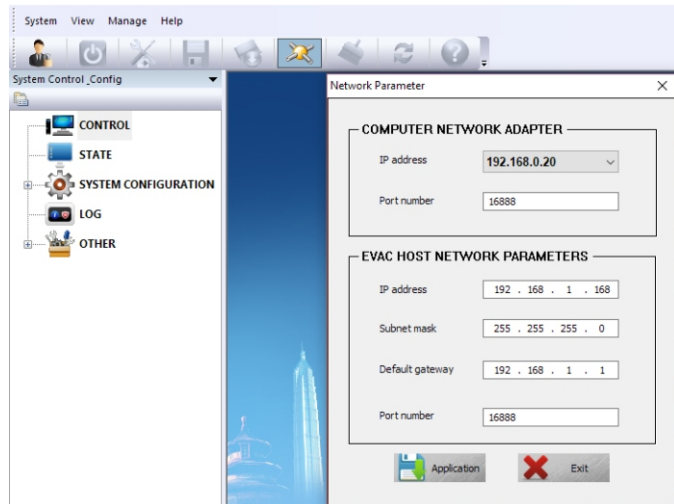
Gateway: 192.168.1.1.

Put down the 5th switch of the configuration DIP switch on the rear panel of the main unit to have the static IP address assignment.

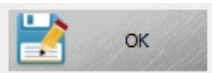
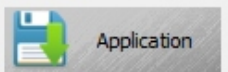
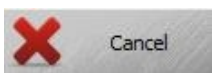





Go to control panel select **Network and Internet**, select **Network and Sharing Center**, select **Local Area Connection** when the window appears as below, select **Properties**, in connection properties select "Internet Protocol version 4" and press properties and then the **Internet Protocol Properties** window opens where we can change the IP of the computer










If, on the other hand, we want to assign a new IP to the SLA-500M, we can move the 5th switch of the configuration DIP switch up so that the SLA-500M obtains an IP address from our DHCP server.




Introduction to icons

	Save and synchronize with the SLA-500M equipment, each revision must click this OK button.
	Save, but do not synchronize with the SLA-500M.
	Cancel the action
	The current zone is disabled for operation.
	The current zone is operational
	Zone impedance variation (open circuit or short circuit)
	The current zone is normal, no audio is playing.
	The current zone is on emergency broadcast.

	<p>System modules are operating normally</p>
	<p>Some module of the system is defective or faulty</p>
	<p>The current equipment is operating normally</p>
	<p>The current equipment is working with an error or is faulty</p>
	<p>Update</p>
	<p>Upload</p>
	<p>Save</p>
<p>Host</p>	<p>Host 01 - SLA-500M Host 02 - SLA-500S</p>

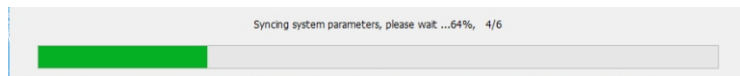
Configuration Software Operation

Log In

Double-click the SF-500 shortcut on the desktop to start the setup program. Once the main window of the software opens. Click , a window will open to enter username and password for identity verification, the default username is "admin" and the password is empty, users can modify this password after setting the team. The software closes after entering the wrong password 3 times.

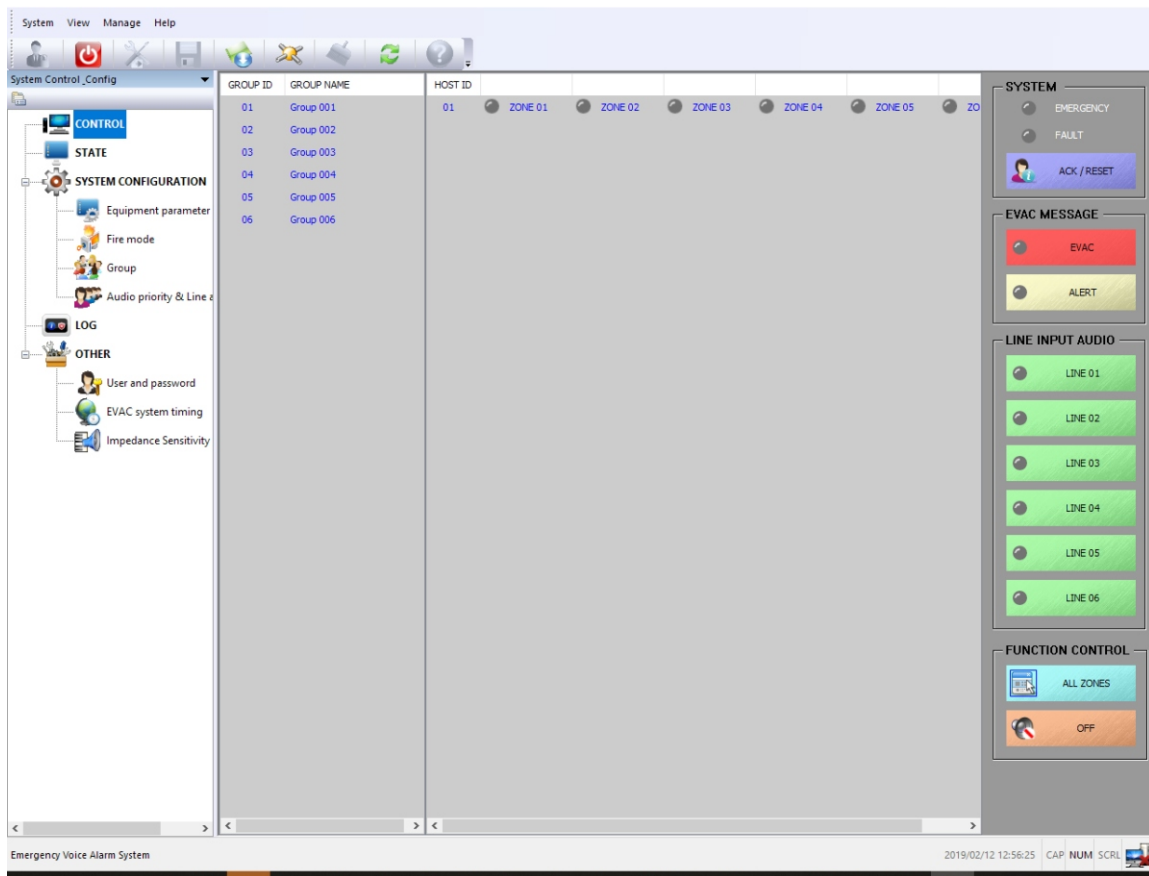
Synchronize

Once we give "OK" in the "LOGIN" window, the connection of the SF-500 with the SLA-500M will start, a synchronization bar will appear like the image below and then the Main Page will be displayed.





















Software main page

At the top is the toolbar. In the left window is the configuration options tree, in the center is the system status window and in the right part are the reset, evacuation, alert buttons for the line inputs. The bottom is the status of the system.



Menu bar and tools

The system has a menu bar and tools:

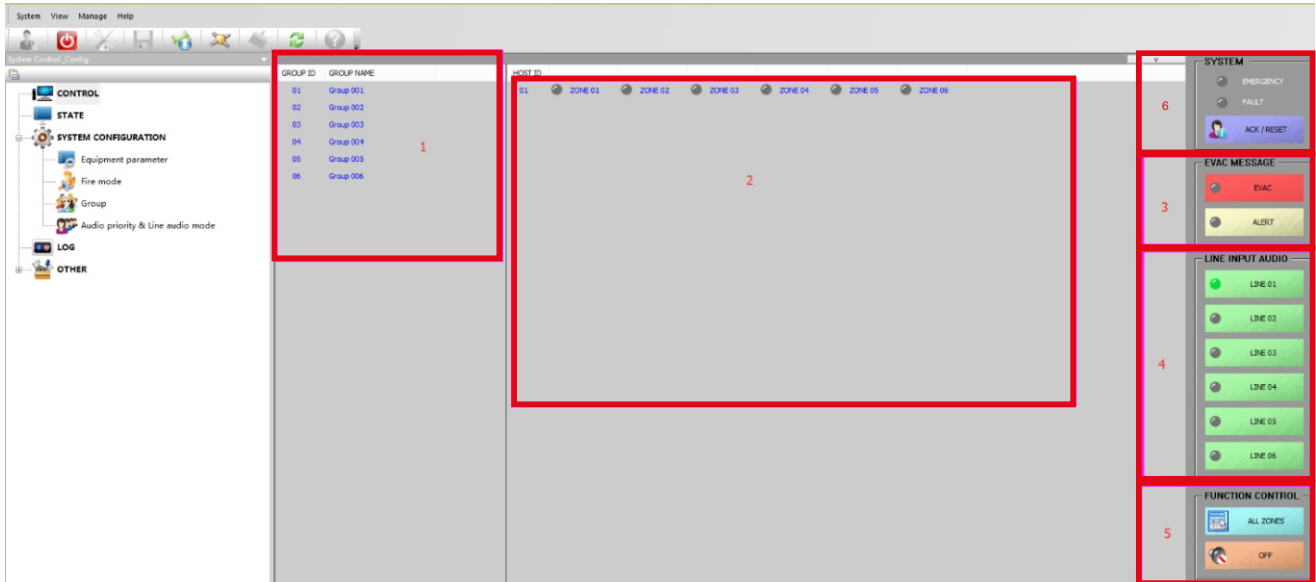
		Login	Enter with password and username, the default username is "admin" and the password is empty
		Exit	Exit the program.
		Import...	Import a schedule.
		Save	Save a schedule.
		Firmware download	Download firmware.
		Network adapter	Configuration of network parameters.
		Empty all log	Delete log
		Reflash	Exit the program.
			Software version information

Ventana “System Control Config”

	<p>"CONTROL" with this button we open the equipment control window, we can see the output status of the system zones, the "Reset", "Evac", "Alert" buttons and the input line buttons.</p>
	<p>"STATE" is used to check the connection status of all equipment connected to the SLA-500M control unit.</p>
	<p>"SYSTEM CONFIGURATION" to check or modify the operating parameters of the equipment.</p>
	<p>"Equipment parameter" to configure the control equipment and the equipment connected to it (microphone desks, slave amplifiers, etc).</p>
	<p>"Fire mode" to configure the parameters of the actions and events that the control equipment must take in the event of an evacuation or alert message being activated.</p>
	<p>"Group" to configure the parameters of the groups of zones, allows us to create groups of speaker zones according to the number of expansion units that we have configured.</p>
	<p>"Audio priority & Line audio mode" to configure the parameters of the priorities of the different audio signal inputs, such as microphone desks, evacuation messages, music inputs, etc.</p>
	<p>"LOG" to check the events that have occurred in the equipment such as alarms, module failures, impedance changes, etc.</p>
	<p>"OTHER" to check or modify the user and password for access.</p>
	<p>"User and password" to check or modify the user and password for access.</p>
	<p>"EVAC system timing" to check or modify the date and time of the equipment.</p>
	<p>"Impedance Sensivity" to check or modify tolerance to impedance variations in loudspeaker lines</p>

Window "Control"

In this window we can see the output status of the system zones, the "Reset", "Evac", "Alert" buttons and the input line buttons



- 1 In this window we can see the groups that should have been previously configured in "Group" once all the groups have been configured, click on the corresponding group name and in window "2" on the right the zones contained will be displayed in the selected group.
- 2 The zones currently included in window "1" show all partitions or groups of zones in the system.
- 3 In this window we can see the status of the evacuation and alert voice messages of the equipment, the color of the corresponding indicator informs us of its current status :
Off: normal operation but not activated
Green: running at the moment
Yellow: indicates that there is a fault or breakdown.

If the user changes the SD card, please use a card in FAT32 file format, to prevent malfunctions do not put other files in evacuation or alert folders and evacuation or alert messages must be in. WAV.

- 4 In this window we can see the status of the audio inputs. When any group is selected (including "ALL ZONES" in "5"), click on any of the line audio inputs, to output the audio from that input to the corresponding speaker group.
- 5 Functions keys
"ALL ZONES" Used to select all speaker zone groups.
"OFF" Serves to close the audio of the selected speaker outputs, for example, zone output 1 has the background music of LINE 1 input activated, music playback will stop in this zone.
- 6 In this window we can see 2 status indicators and a reset button, these indicators inform us of the operating status of the equipment, if it is in emergency mode or there is a malfunction, and with the reset button we can perform an emergency or malfunction mode reset.

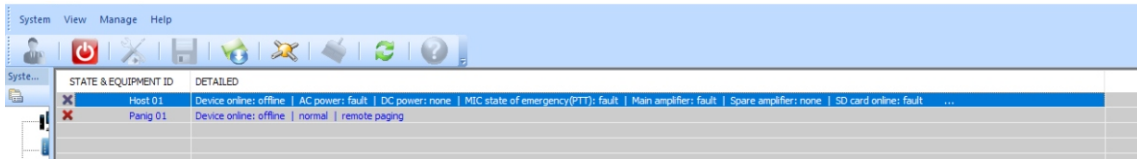
Window “State”

STATE

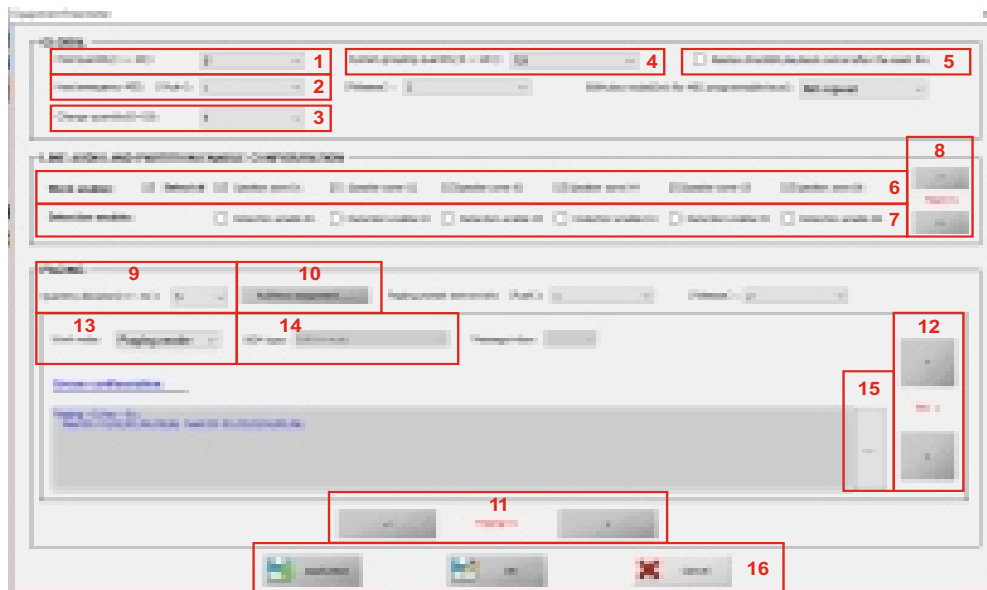
Helps us to check the connection status of all the equipment (microphone desks, expansion equipment, fire brigade microphones, etc.) connected to the SLA-500M control equipment, including the equipment itself.

STATE & EQUIPMENT ID

In this window the "State" will indicate the status of the equipment. A green tick means that it is connected and working correctly, if there is a red X it indicates a failure in the connection or in the equipment itself. "Equipment ID" informs us of the type of equipment, amplifiers, microphones, etc. (Host 01, Paging 01, etc.).



Ventana "System Configuration"



GLOBAL

- 1 In this window we can select the number of connected devices, a SLA-500M control device and up to 19 SLA-500S expansion kits. The system supports a maximum of 20 computers.
- 2 " In this window we can select the number of handheld microphones connected to the control equipment SLA-500M.
- 3 In this window we can select the number of CB-6000 battery chargers connected with the master and slave equipment.
- 4 In this window we can select the number of groups of speaker zones.
- 5 In this window we can select that the music starts again when the reset input of the evacuation alarm is activated.

LINE AUDIO AND PARTITION ENABLE CONFIGURATION

- 6 In this window we can select the speaker zones enabled so that they work.
- 7 In this window we can select the speaker zones that have impedance supervision enabled. The minimum power required in each line for correct impedance supervision is 20W.
- 8 In this window we can select each of the computers (Host01,02,03, etc) previously configured in window "1".

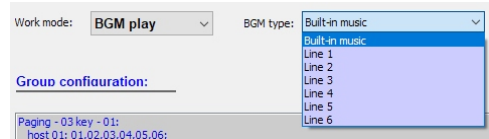
PAGING

- 9 In this window we can select the number of microphone desks that the system will have with a maximum of 32 microphones.
- 10 In this window we can configure the type of microphone (TYPE - Business paging-SLA-500MRM, Fire paging-PZ-500F, Touch paging-PZ-500P), the address (ADDRESS) can also be set.

ID	NAME	TYPE	ADDRESS
01	Paing 01	Fire paging	01
02	Paing 02	Business paing	02
03	Paing 03	Touch paging	03

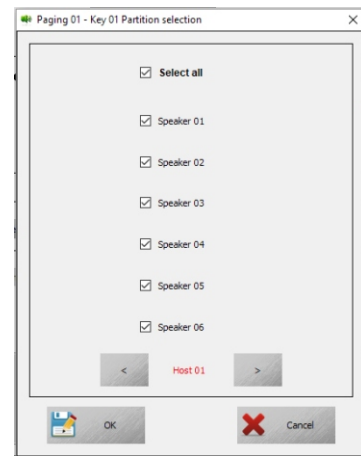
Notas: at address 01 there must always be the PZ-500F fireman microphone, in the "TYPE" section we must select "**Fire paging**" as fireman microphone, by default they are always as "Business paging" PZ-500.

- 11 In this window we can select one of the microphones, configured in window "9", in order to later configure that same microphone.
- 12 In this window we can select and program the button of the microphone desk to assign the corresponding speaker zone, the image shows the first button, depending on the type of microphone desk, it will allow us to program more or fewer buttons (4 buttons to the PZ-500F firemans microphone and up to 60 buttons for the PZ-500 or PZ-500P desks).
- 13 In this window we can configure the working mode of each of the microphones selected in window "11", if we select the "Paging mode" the microphone will only perform the function of giving warnings by zones, if we select the "BGM Play" mode "We will be able to control the music and speaker lines of the specified main equipment.

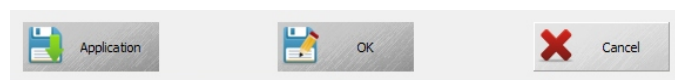


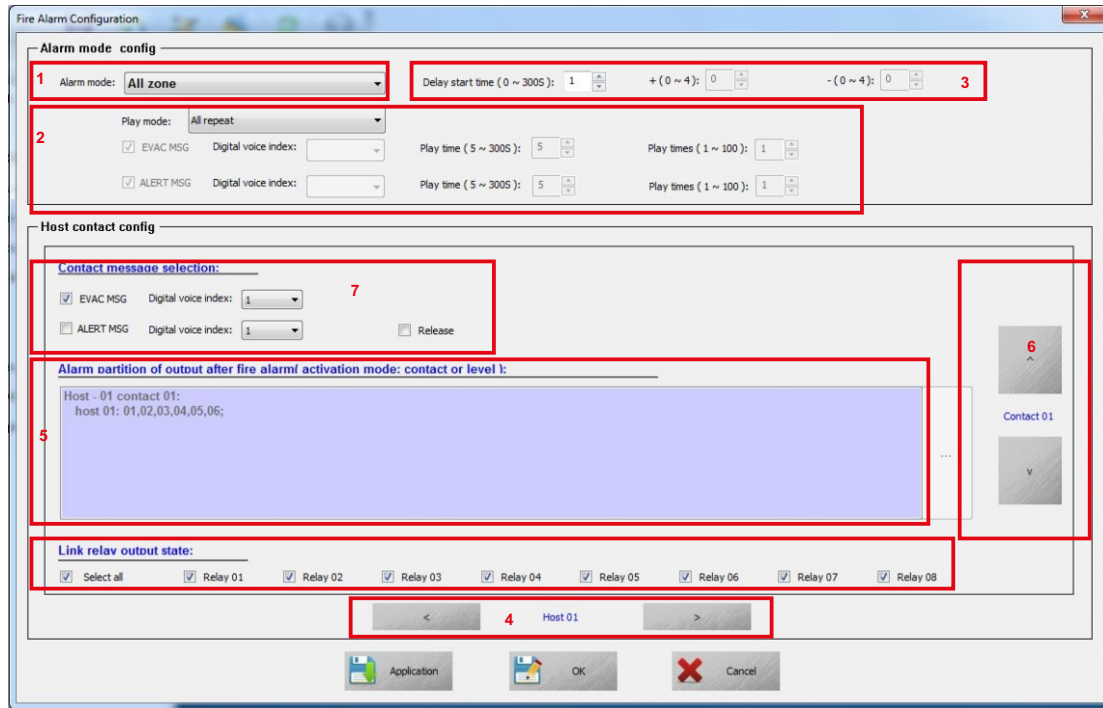
- 14 Window "13" we have selected "BGM Play" this Window will be enabled and we will be able to configure the audio of the external input lines.

- 15 Selecting this button will open the window where we can configure which zone or zones this button is activated by selecting in window "12". You can select a single zone, several zones, or all zones including expansion equipment zones. We can see the expansion equipment zones if we select the expansion equipment with the arrow buttons (Host 01 is the main equipment and from Host 02 onwards, they are the SLA-500S expansion equipment).



- 16 Once all the parameters have been configured, if we select the "Application" button, the communication window with the equipment will open and the configurations will be saved. If we press "OK", the changes will be saved in a configuration file that we can save, if press the "Cancel" button, nothing will be saved.



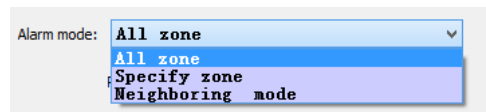


Fire mode

"Fire mode" to configure the parameters of the actions and events that the control equipment must take in the event of an evacuation or alert message being activated.

"Alarm mode config"

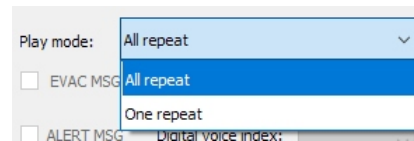
- 1 Selecting this button will open the window (Down indicated) where we can configure: In this window we can select **"All zone"**, **"Specify zone"** and **"Neighboring mode"**.



If we select **"All zone"** it means that once the fire alarm is activated through the **"Trigger Inputs"** contact inputs of the control or expansion equipment, all the loudspeaker zones will be activated and the evacuation message will be heard in them.

- 2 this is the time in seconds of delay in the activation of the alarm and the output of the voice message from Evacuation in all speaker zones of the system (control equipment and expansions).

In this operating mode we can also configure the playback mode in window 3



"All repeat" the message is repeated until a reset is done.

"One repeat" the message is played only once.

"Host contact config"

- 4 In this window we can select the device (Host 01 Main device, Host 02 Expansion device, Host 03 Expansion unit, etc.) in order to configure the alarm activation inputs of each of the units.
- 5 In this window we can select the evacuation message or the alert message to be used as an emergency message in case of fire.
- 6 In this window we can select the input contact that will activate the message selected in "6" and of the equipment selected in "5".
- 7 This window is used to select the speaker zones where the message selected in "6" will be activated and the equipment selected in "5", this window will only be active if in "Alarm mode config" in window "1" we have selected the specific zones option "Specify zone".

We can select one or more of the output relays that will be activated with the input contact that we are programming at this moment.

We can see the information of the equipment and the contact entries, in addition, if specific zones have been selected, it will also appear which zones will be activated and from which equipment (Host 01, Host 02, etc.).

Once all the parameters have been configured, if we select the "Application" button, the communication window with the equipment will open and the configurations will be saved, if we press "OK" the changes will be saved in a configuration file that we can save, if press the "Cancel" button, nothing will be saved.

Note:

- (1). Different contacts can be configured to activate different types of emergency messages, such as contact 1 of the control team will activate the evacuation message, contact 2 will activate the alert message.
- (2). Different input contacts can select the same emergency message, after activating the input, the priorities of messages, microphones and audio inputs will be applied.

Group "Group" to configure the parameters of the zone groups.

ID	NAME	WORK PARTITION
001	Sala espera1	host 01: 1;
002	Sala espera2	host 01: 2;
003	Sala espera3	host 01: 3;
004	Oficinas	host 01: 4;
005	Recepción	host 01: 5;
006	Almacen 1	host 01: 6;
007	Almacen 2	host 02: 1;
008	Mecánica	host 02: 2;
009	Cantina	host 02: 3;
010	Fabrica	host 02: 4;
011	Exterior	host 02: 5;
012	Muelle carga	host 02: 6;

Description:

"ID" is an identification number in the system and cannot be modified.

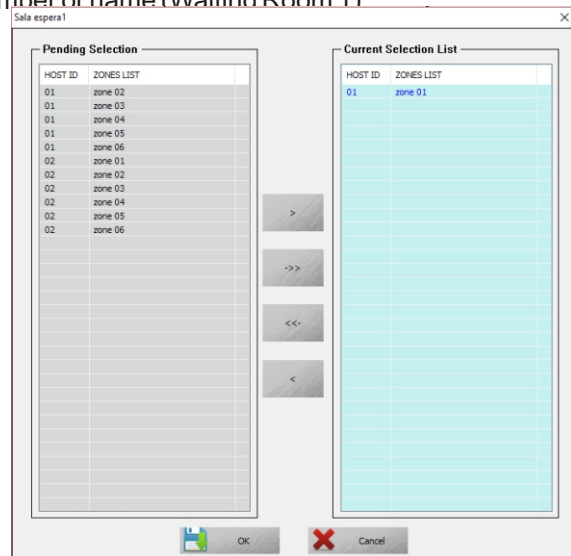
"NAME" This is the name that the user can enter to easily identify a group of announcement zones. Click on the item and then type the text of no more than 12 characters and press "Enter" to save.

"WORK PARTITION" Show list of zones in current group, double click to Add or delete zones.. The upper left of the dialog box shows the current zone number or name (Waiting Room 1)

The upper left of the dialog box shows the current zone number or name (Waiting Room 1).

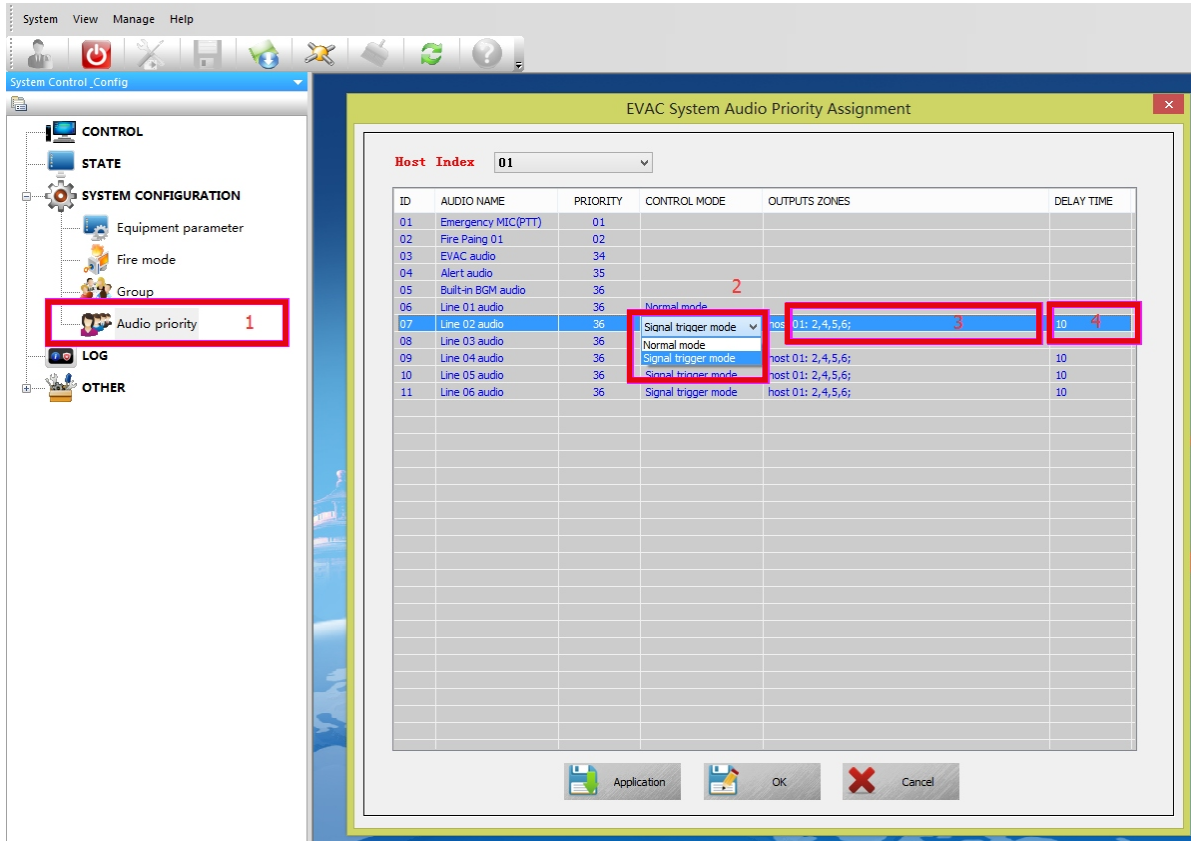
The central left part shows the current list of equipment (HOST ID, Host 01, Host 02) and zones (ZONE LIST), we can select the zone and add it to the right to add that zone in the current group (Waiting room1) , you can double click on the corresponding zone or by means of the arrows ">" and "<" add or remove the zones, you can also add or remove all the hit zones by means of the arrows "<<" and ">>".

Nota : Please click "OK" after modifying the settings to save those settings.



Audio priority & Line audio mode

"Audio priority & Line audio mode" to configure the parameters of the priorities of the different audio signal inputs, such as microphone desks, evacuation messages, music inputs, etc.



- ① **Host index** is for selecting the control equipment (Host 01) or expansion equipment (Host 02, Host 03, etc.).
- ② **ID** is a number that is added automatically by the system and cannot be modified
- ③ **AUDIO NAME** is the name of the audio input, microphones, evacuation audio messages, etc., it is added automatically by the system and cannot be modified
- ④ **PRIORITY** means the priority of the audio of each of the inputs, but also note that if an input of higher priority than the current audio output is activated, it will be cut off. Be careful when modifying these factory-set priorities.

Click on the SF-500 Control menu:

On the left it shows that there are six groups in SF-500.

The right shows that there are six groups of zones in the system.

The red LED on the right side indicates that the system is working in emergency mode.

The yellow "FAULT" LED indicates when a system failure occurs.

The LEDs of the EVAC and ALERT buttons, off, indicate that the messages are correct on the card. SD. They are activated when any of these emergency messages are launched.

Description:

On the left side of the panel SLA-500M or the SLA-500S panel line output control knob, SF- 500 just shows current effective line output

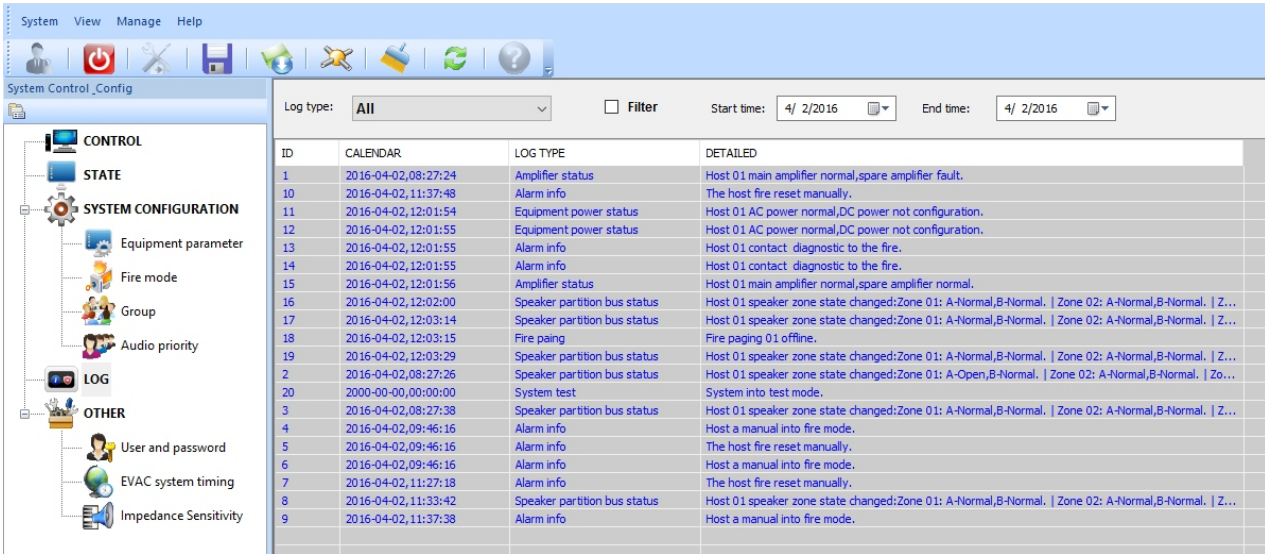
SF-500 system group can be set from 0 ~ 120, by "**system configuration**" - "**Equipment parameter**" to confirm the group number (the default is six), each zone in the group can be set by "**Group**"

Put the mouse in the empty place in the grouping list and double click or press "ALL ZONES" to show the status of the zones.

Click the items in the group list to check which zones include the Group, such as clicking Group Six.

GROUP ID	GROUP NAME	HOST ID	ZONE 01	ZONE 02	ZONE 03	ZONE 04	ZONE 05	ZONE 06
01	GROUP 01	01	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
02	GROUP 02							
03	GROUP 03							
04	GROUP 04							
05	GROUP 05							
06	GROUP 06							

Window “Log”



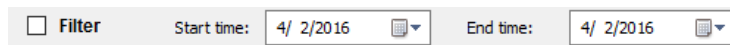
"ID" The registration number of the alarm.

"CALENDAR" indicates the date and time of the registration.

"LOG TYPE" It indicates the type of event (Alarm, fire warning, impedance change in a speaker zone, etc.), it can be used for searching when there are many records.

"DETAILED" will inform us of the details of the type of event that has occurred.

Description :

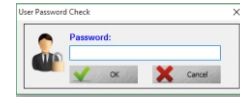


The user can filter certain events in the log, choosing the start and end date and time, or type of record (log type), and also save it on the computer as an Excel sheet, by pressing the .

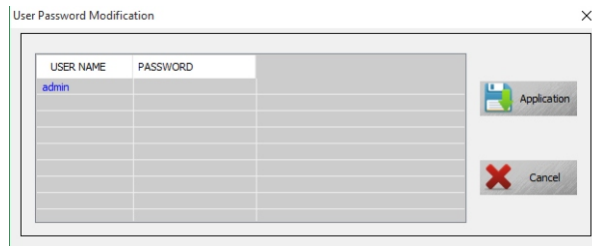
Window "Other"

Change password

Click **"User and password"**: and it will ask us for username and password to access. If it is incorrect, the system will automatically eject you



If the password entered is correct, it will show us the following window:



USER NAME

It means the name of the current login user. Double click to enter the edit state.

PASSWORD:

It means the password of the current login user. Double click to enter the edit state.

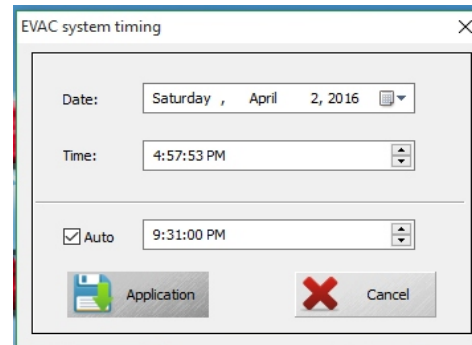
After editing, please click on application, otherwise your settings your settings will not be saved.

Update System Time

"Data" and **"Time"** means date and time, this is the current time and date of the equipment

"Auto" In auto mode the date and time are automatically synchronized by software.

After editing, please click **"Application"**, otherwise your settings will not be saved.



Set the maximum tolerance for the impedance variation of speaker lines

Click **"Impedance Sensitivity"** Select the maximum allowed tolerance value of the current speaker circuit from the drop down list box in the pop-up window (If you receive many incorrect impedance alert notifications, you can increase the tolerance percentage to fix it).