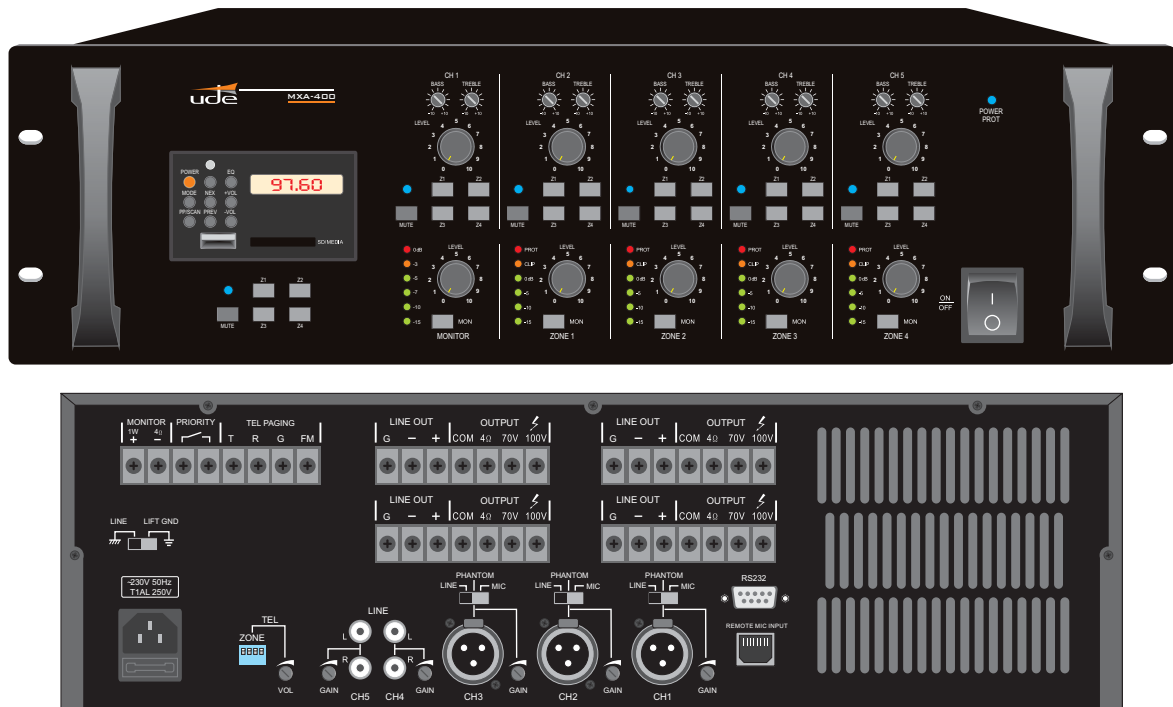


AUDIO MATRIX WITH 4 INDEPENDENT AMPLIFIERS



The **MXA-400** allows audio switching from 5 inputs to 4 amplified/line audio outputs, amplified output with a range of in 4 Ω / L70V and L100V with 120W. rms each one. High performance, and an easy way due to the frontal switch buttons. All audio inputs have volume and bass / treble control.

2 audio channels have the max priority in the matrix. This allows high flexibility in case of priority voice message, for example in evacuation procedures. The tel audio input is able to be connected with a phone interface (IT-15), that is also connected to the PBX.

The USB SD MP3 player module is built in the MXA-400, can play MP3 music files from a USB flash key and SD memory card, as well as tune FM radio stations.

Additionally until 4 desk control (PZ-400) can be connected in daisy chain bus topology, sending audio and data. The connections must be done with FTP cable.

MAIN FEATURES

- ✓ -5 audio inputs (2 RCA and 3 XLR audio inputs).
- ✓ -1 audio input connected to an IT-15 with priority
- ✓ -Four audio outputs of 120W rms each one.
- ✓ -Four line outputs of 0dB each one.
- ✓ -MP3 player and FM tuner integrated
- ✓ -Audio monitor.
- ✓ -Individual input and output volume control.
- ✓ -Individual bass and treble adjustments.
- ✓ -VU meter indicator for each audio output.
- ✓ -Until four PZ-400 desk control.
- ✓ -Multimedia module remote control included.

TECHNICAL DATA

- Output power:	4 x120 W.
- Impedance:	4 Ω .
- Voltage output:	L70V - L100V.
- Monitor:	1W - 4 Ω .
- Frequency response:	80 Hz. to 16 Khz.
- MP3 player:	Plays MP3 files, max memory capacity 32GB.
- Audio file format:	.wav.
- SD file format:	FAT 16 and FAT 32.
- Distortion (THD):	Less than 1%.
- Max power consumption:	750 W.
- Power supply:	220 - 230 VAC (50/60 Hz.).
- Dimensions:	484 x 132 x 440 mm. (3 U).
- Weight:	18,8 Kgs.

Inputs 1 - 2 - 3 MIC / AUX (XLR connector)

microphone: sensitivity = 2,5 mV.
impedance = 600 Ω .
phantom power = +48 VDC

aux: sensitivity = 350 mV.
impedance = 10 K Ω .

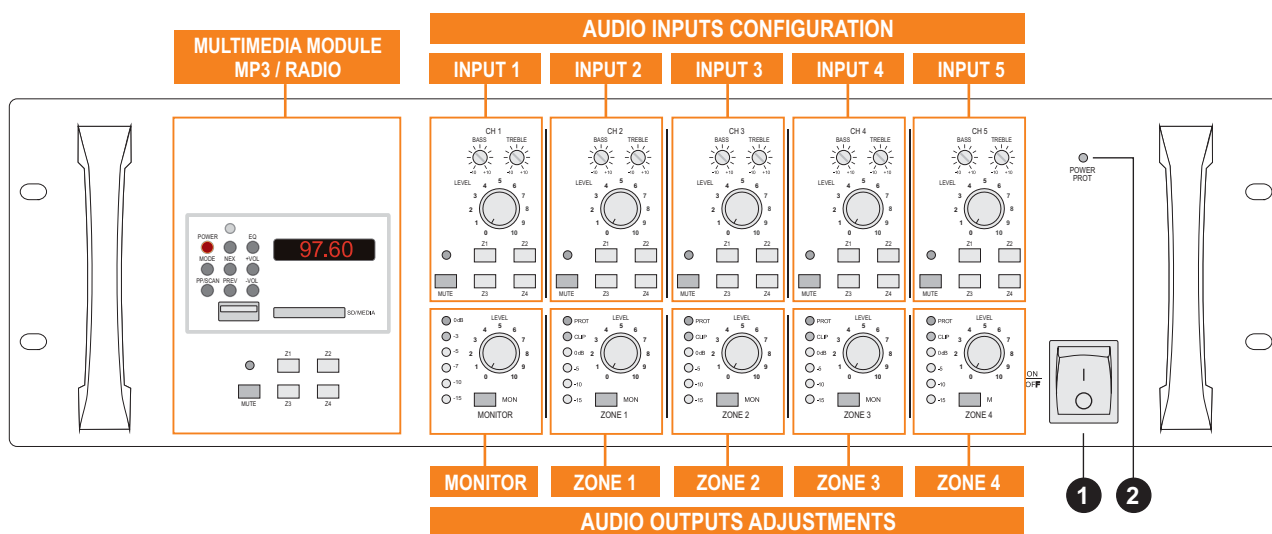
Inputs 4 - 5 AUX (RCA connector).

aux: sensitivity = 350 mV.
impedance = 10 K Ω .

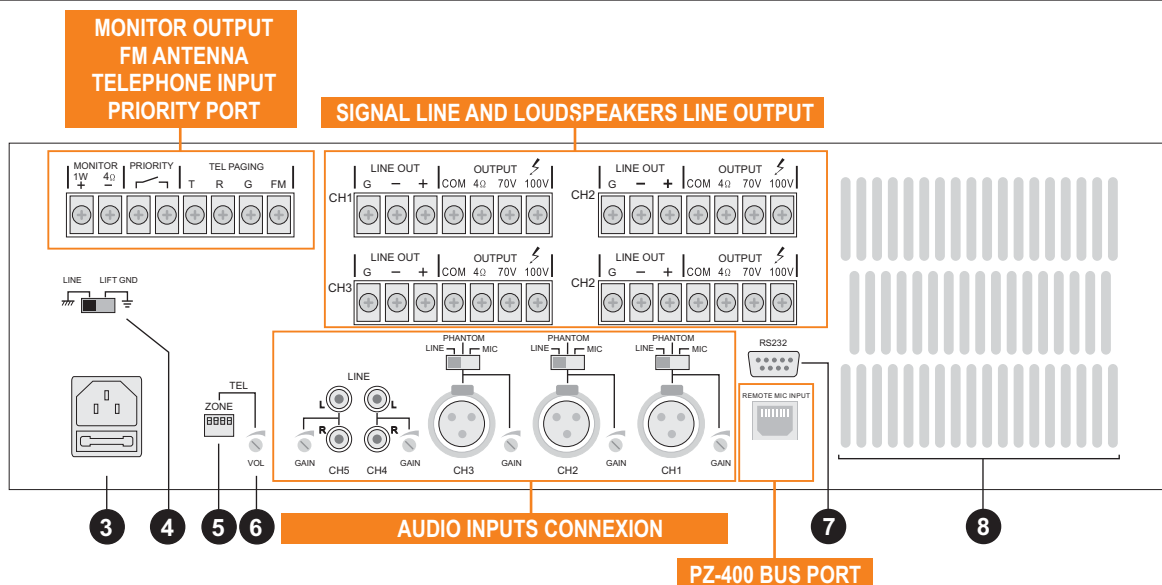
Phone Input

aux: sensitivity = 350 mV.
impedance = 10 K Ω .

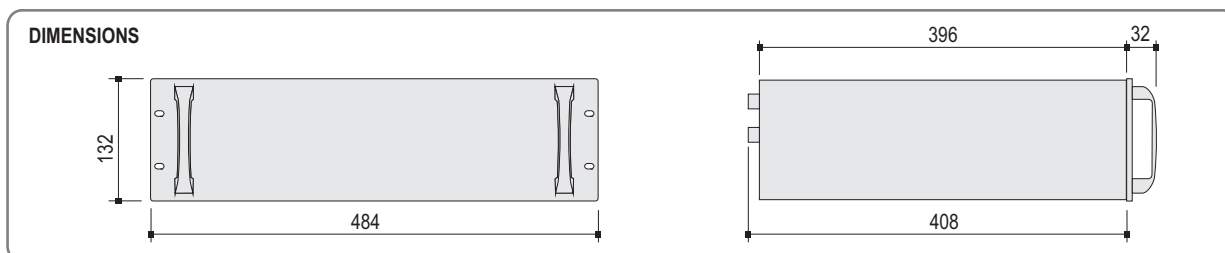
FRONT PANEL



REAR PANEL

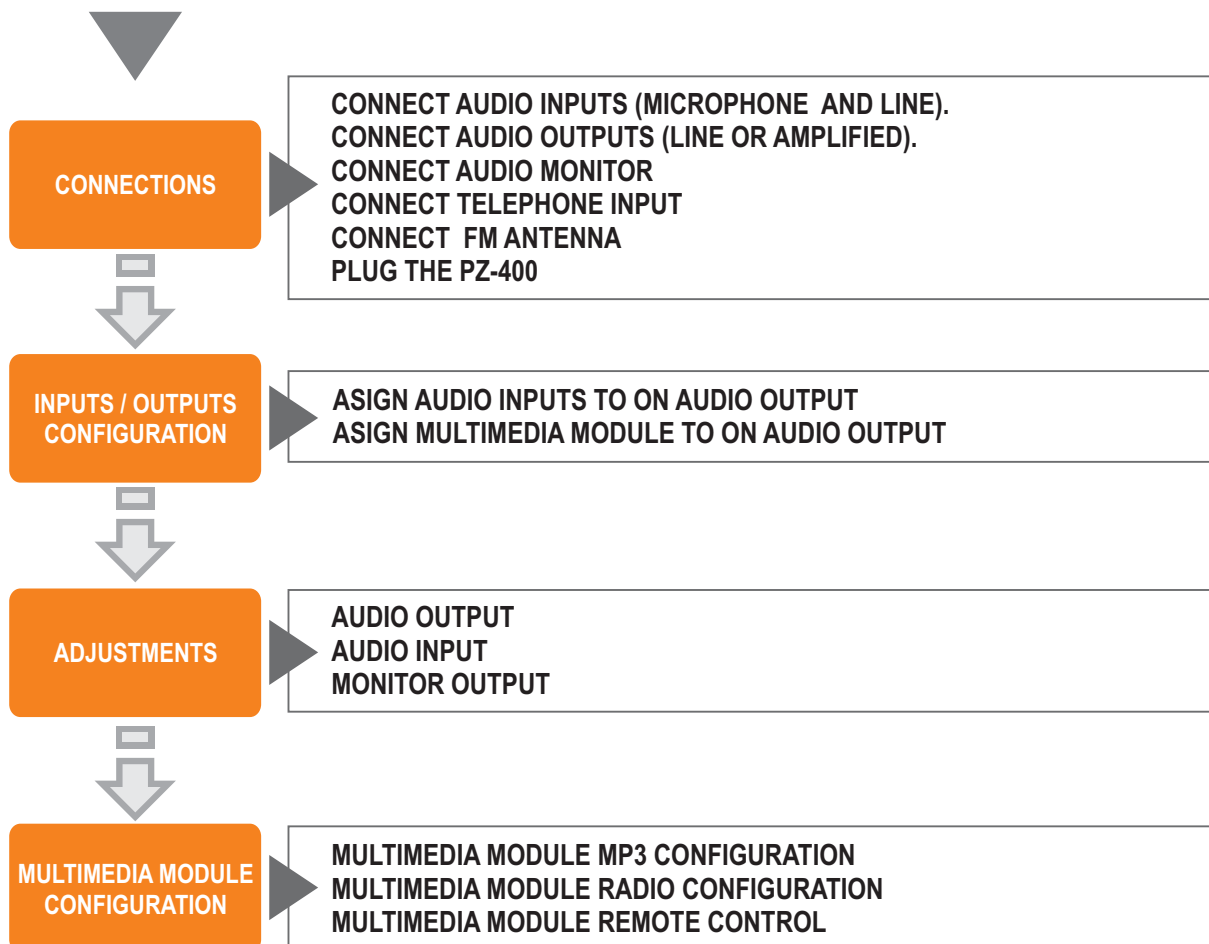


DIMENSIONS



The MXA-400 can manage until 5 audio inputs + USB SD MP3 player module + telephone input and switch to one or more audio outputs, four in total.

Follow the next instructions:



MXA-400 has factory audio inputs priority (not configurable)

*** * ***

CH1 anf TEL. max priority.

VOX control will mutes all other audio inputs.
It is recommended for emergency purposes.

*** ***

PZ-400 medium priority.

When the operator uses the PZ-400 desk control, a VOX control will mute the MP3 module, CH2, CH3, CH4 and Ch5.

Sin Prioridad

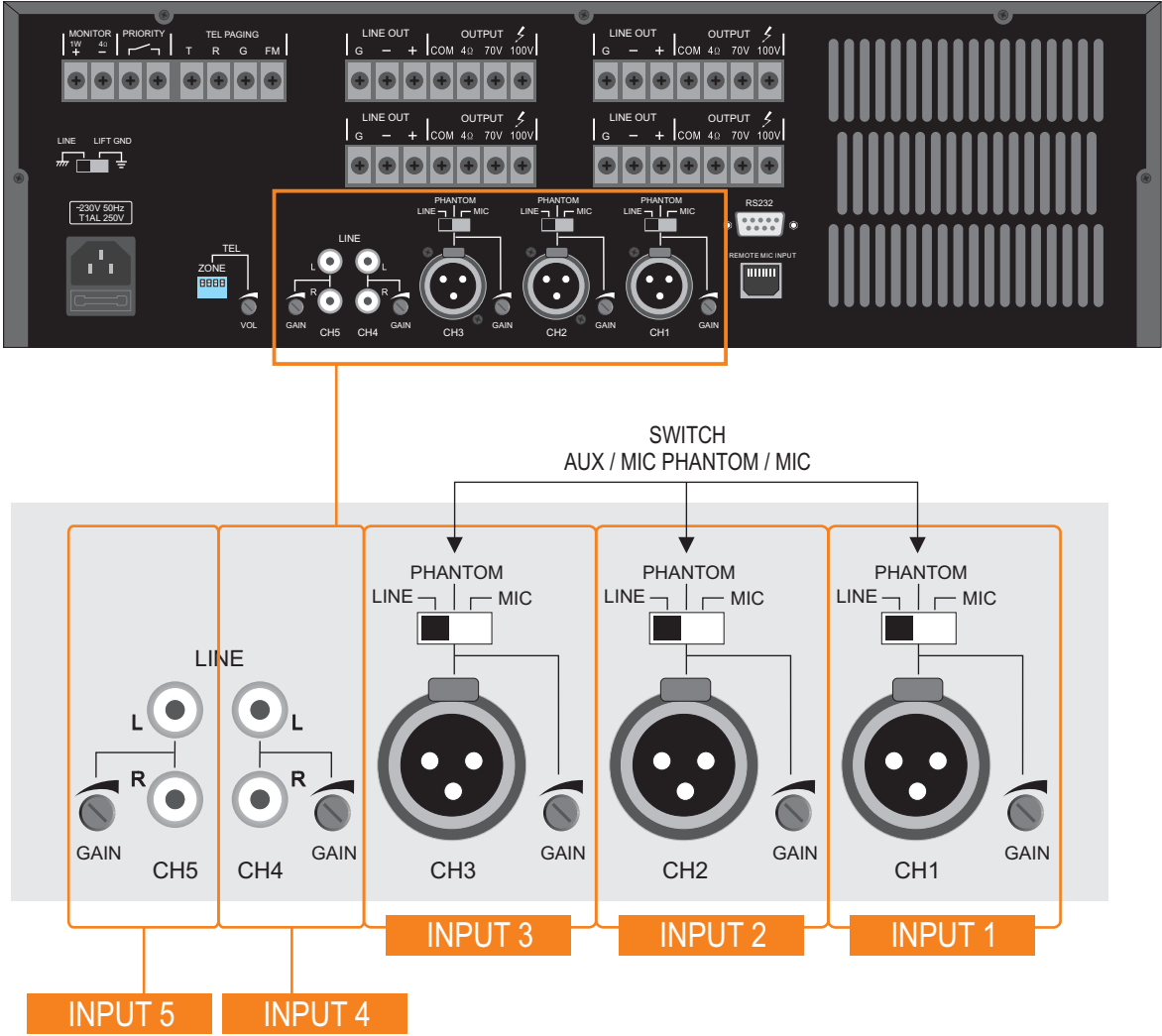
MP3 module, CH2, CH3, CH4 and CH5: will me mixed with the same priority.

CONNECTIONS



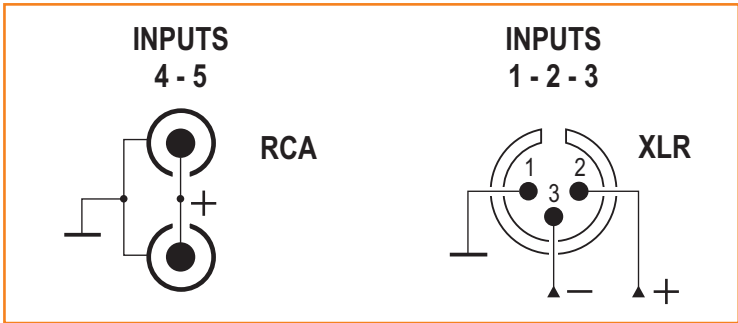
CONNECTIONS

AUDIO INPUTS (MICROPHONE AND LINE)



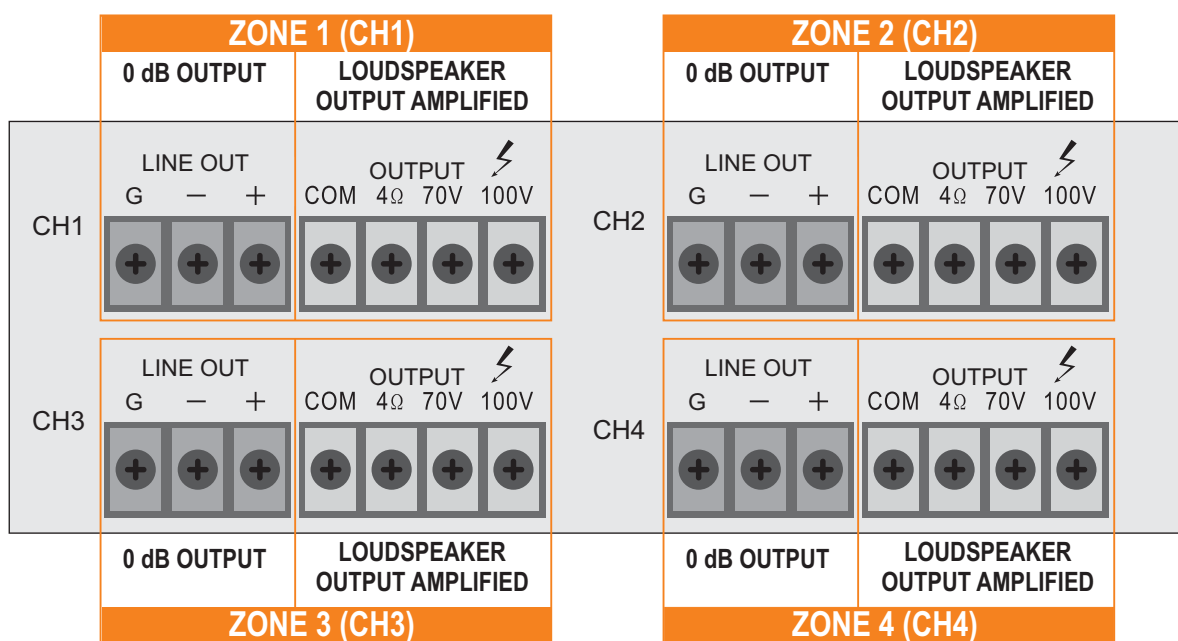
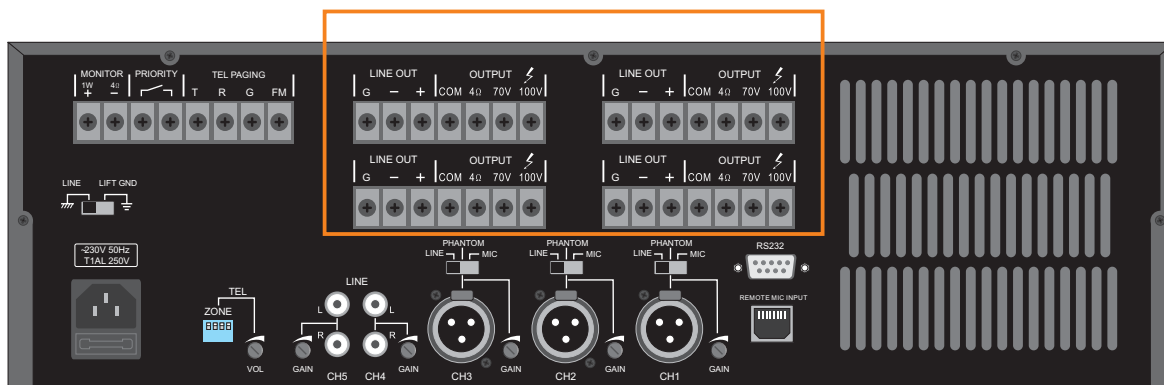
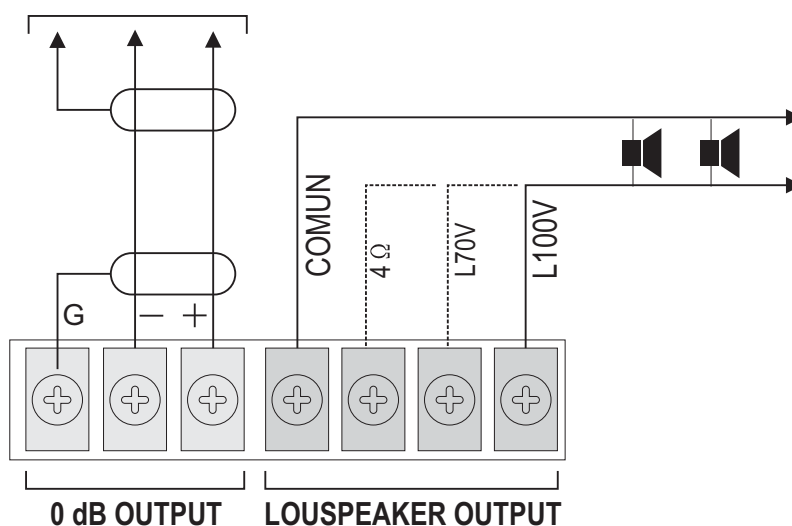
Input	Sensitivity input	Socket	PHANTOM power	Matrix switch	Volume control
INPUT 1	MIC and AUX	XLR	YES	YES	YES
INPUT 2	MIC and AUX	XLR	YES	YES	YES
INPUT 3	MIC and AUX	XLR	YES	YES	YES
INPUT 4	AUX	RCA	NO	YES	YES
INPUT 5	AUX	RCA	NO	YES	YES

Caution! Audio input number 1 mutes all other audio inputs (max priority) when vox control detect audio modulation in this port.

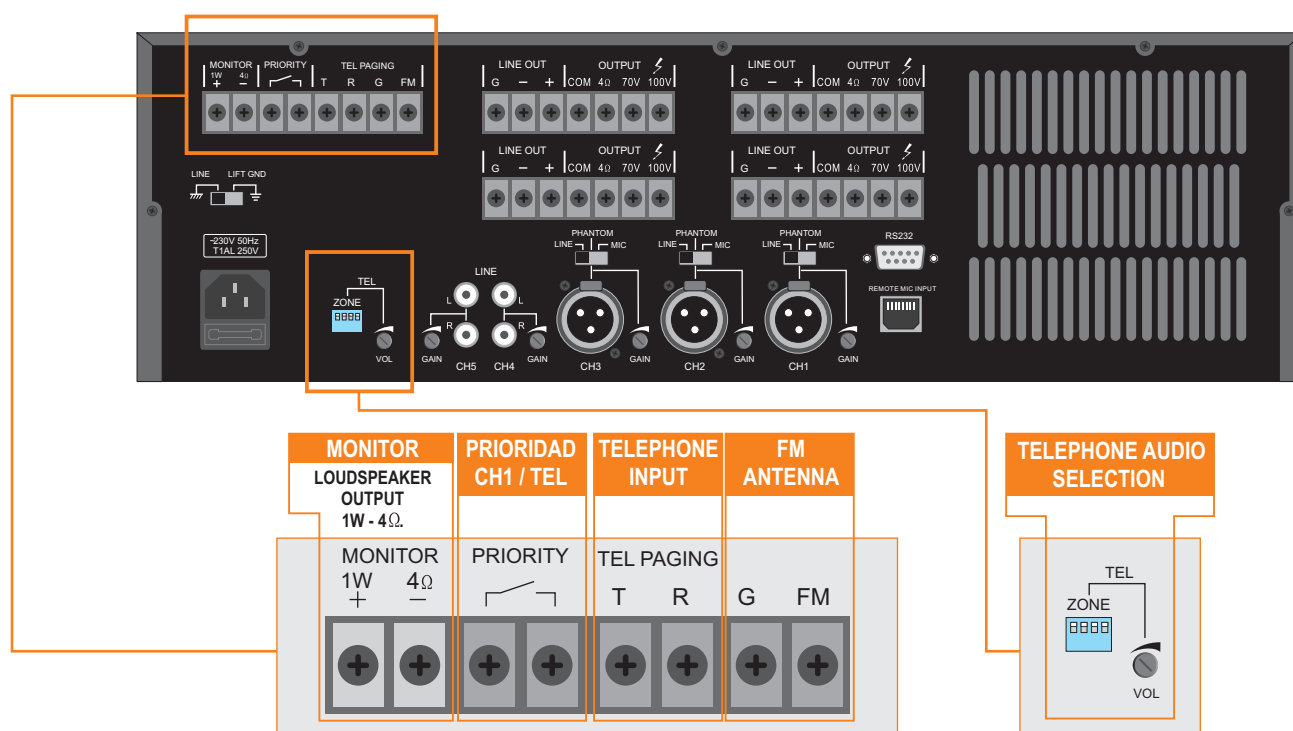


CONNECTIONS

AUDIO OUTPUTS (LINE OR AMPLIFIED)

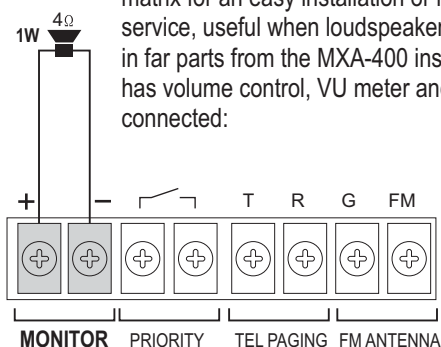
ADDITIONAL AMPLIFIER
CONNECTED TO 0dB

CONNECTIONS

AUDIO MONITOR CONNECTION - TELEPHONE INPUT CONNECTION
FM ANTENNA CONNECTION

Audio monitor

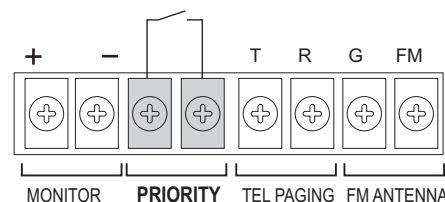
A 4Ω (1W) can be connected to the MXA-400 audio matrix for an easy installation or maintenance service, useful when loudspeakers lines are installed in far parts from the MXA-400 installation. Monitor has volume control, VU meter and must be connected:



Priority (CH1 / TEL inputs)

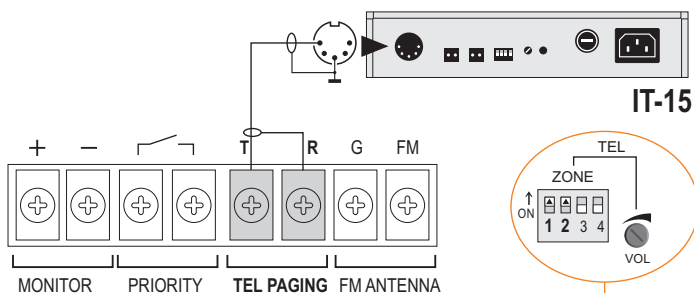
Channel 1 and the tel. audio input from the IT-15 (phone interface), are audio inputs with high system priority. The MXA-400 allows choose which one would have priority from the other, CH1 or TEL. audio input.

Close contact: Channel 1 has priority against the phone interface input.
Open contact: Phone interface input has priority against channel 1.



Phone Interface

The tel. audio input, allows a connection with a PBX through a phone interface IT-15 and the MXA-400, with this connection diagram:



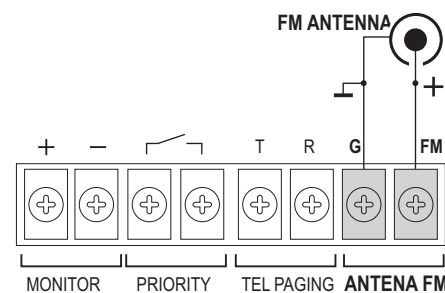
The audio signal can be addressed to one or multiple paging zones, with a DIP switch. Also exists an individual volume control all in the rear part of the matrix.

Example:

Zone number 1 and 2 will connect in case of telephone signal, due to the position of the DIP switch.

FM Antenna

The USB SD MP3 player module also has a FM tuner, an external antenna can be connected to the matrix in order to increase the FM reception signal.



CONNECTIONS

PZ-400 CONNECTION

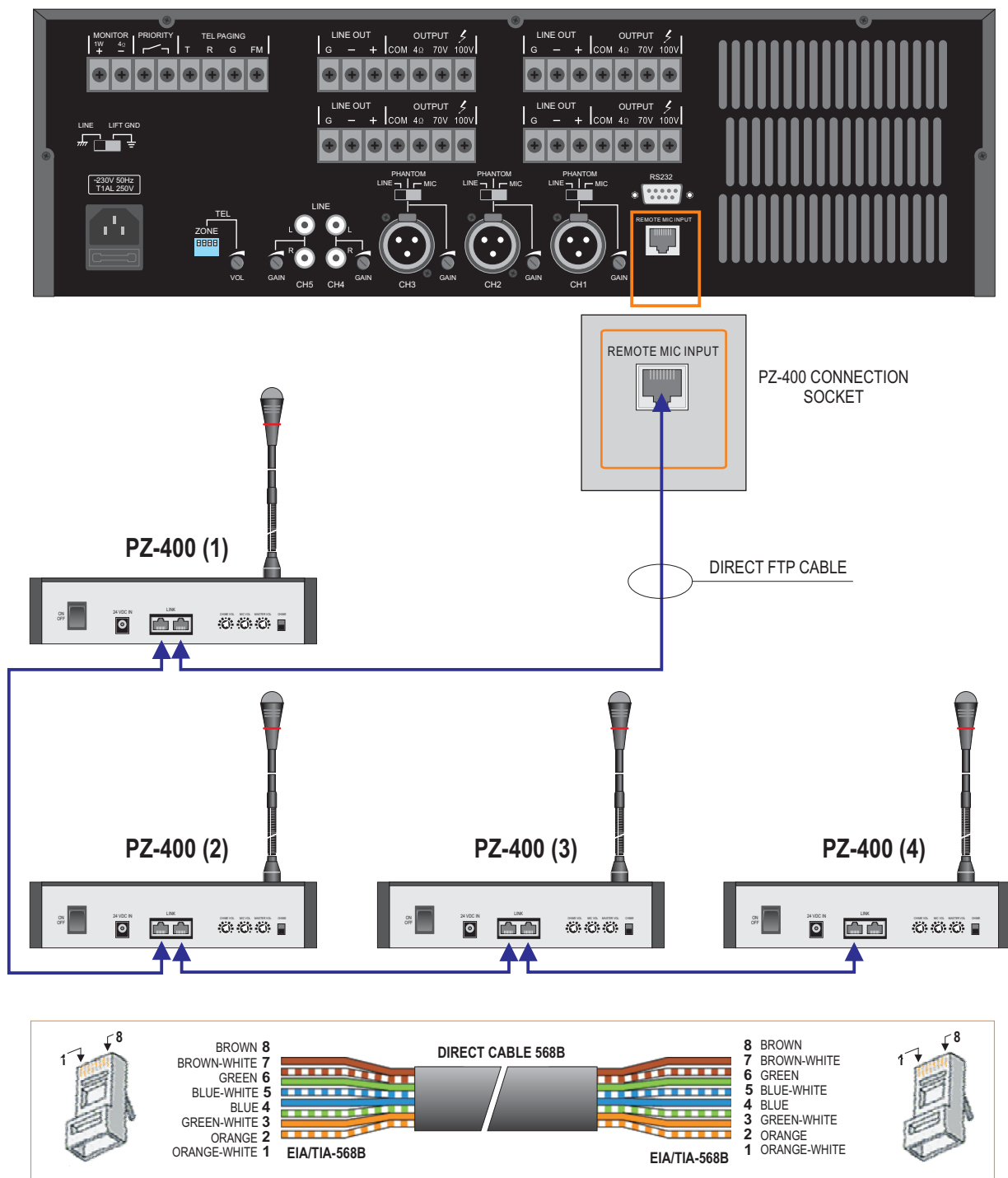
PZ-400 desk control

With the BUS port, the PZ-400 can send voice message to one or more PA zones (until 4). To install the desk control, follow next steps:

Connection to MXA-400.

The first PZ-400 paging desk should be connected with a FTP CAT-5 bus to the MXA-400, in a point to point connection. In case of more than one paging desk in the installation, the other PZ-400 might be connected in a daisy-chaining topology, the amount of meters from the last paging desk until the matrix (MXA-400) cannot be more than 1000 meters (including intermediate PZ-400).

Caution! In connection operation time, remove the power supply.

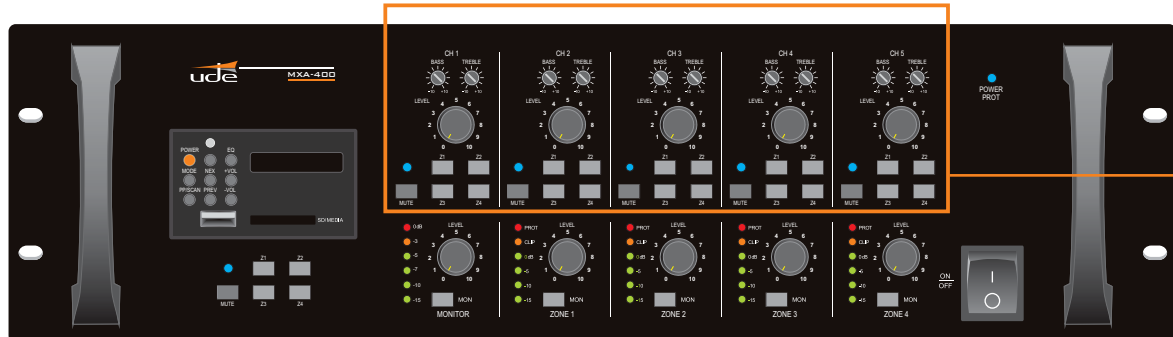


Input / Output CONFIGURATION

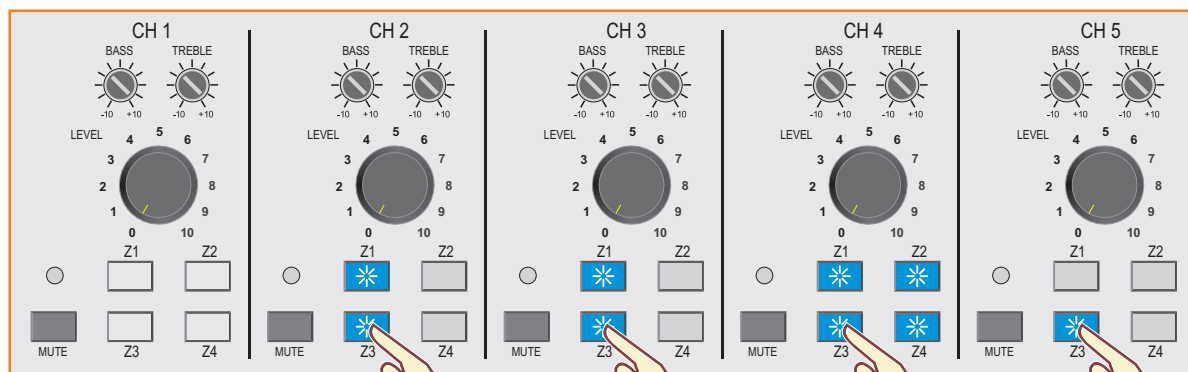
ASIGN AUDIO INPUTS TO ON AUDIO OUTPUT

Matrix configuration

The configurable audio matrix allows to switch the input audio to any audio output (with or without amplification), bringing a high flexibility to users and infrastructures designers due to the high multiple equipment concentration in just one.



The configuration is made with 4 zone buttons in each audio input. When a zone is selected, the button keeps lighting up showing the selection.



CHANNEL 1
INPUT (CH 1)

No zone
selection

CHANNEL 2
INPUT (CH 2)

Select:
ZONE 1 (Z1)
ZONE 3 (Z3)

CHANNEL 3
INPUT (CH 3)

Select:
ZONE 1 (Z1)
ZONE 3 (Z3)

CHANNEL 4
INPUT (CH 4)

Select:
ZONE 1 (Z1)
ZONE 2 (Z2)
ZONE 3 (Z3)
ZONE 4 (Z4)

CHANNEL 5
INPUT (CH 5)

Select:
ZONE 3 (Z3)

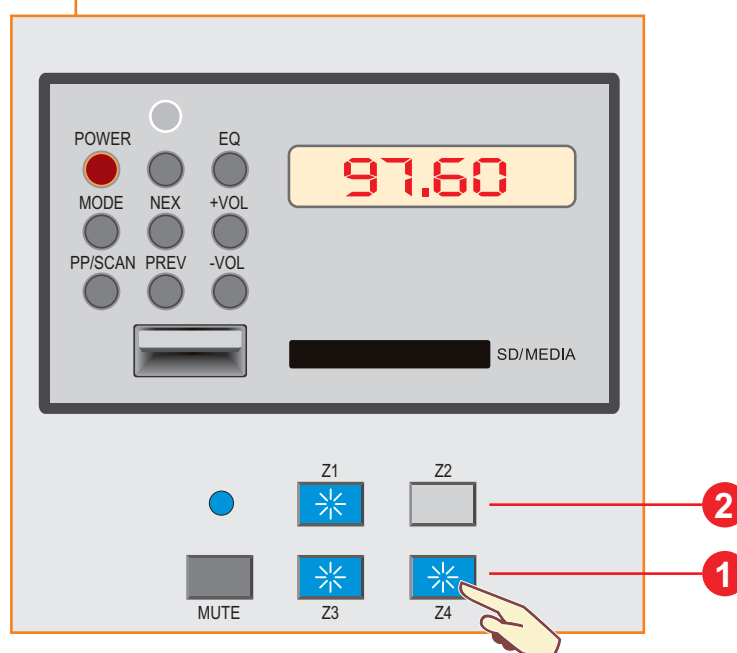
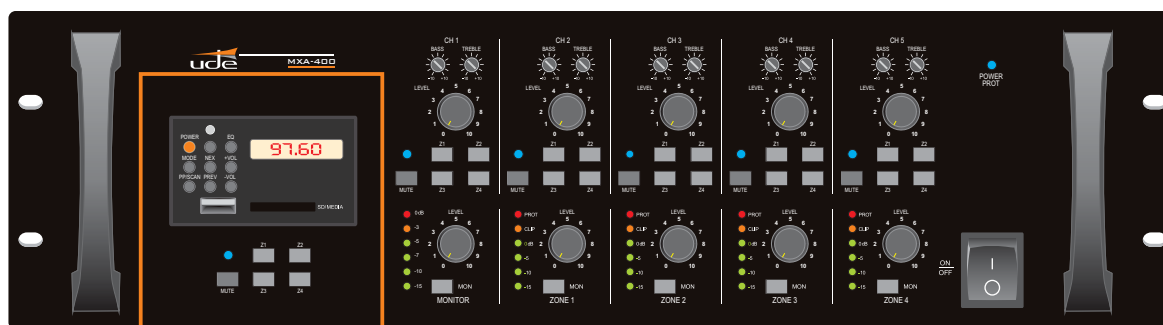
- 1 ZONE number 1 and 3 play the audio input number 2.
- 2 ZONE number 1 and 3 play mix the audio of inputs number 2 and 3.
- 3 - ZONE number 1 play mix the audio of inputs number 2, 3 and 4.
- ZONE number 2 plays mix the audio of input number 4.
- ZONE number 3 play mix the audio of inputs number 2, 3 and 4.
- ZONE number 4 plays mix the audio of input number 4.
- 4 - ZONE number 1 play mix the audio of inputs number 2, 3 and 4.
- ZONE number 2 plays mix the audio of input number 4.
- ZONE number 3 play mix the audio of inputs number 2, 3, 4 and 5.
- ZONE number 4 plays mix the audio of input number 4.

Input / Output CONFIGURATION

ASIGN MULTIMEDIA MODULE TO ON AUDIO OUTPUT

Multimedia module zone selection:

The configuration is made with 4 zone buttons in each audio input. When a zone is selected, the button keeps lighting up showing the selection.



ZONE CONFIGURATION OF THE MP3 MODULE

Example. Select:

ZONE 1 (Z1)

ZONE 3 (Z3)

ZONE 4 (Z4)

Push the zone buttons to select.

- 1** The button will turn on the ILLUMINATION.
- 2** Buttons WITHOUT ILLUMINATION are not selected.

In case all ZONES are selected, all button will light up.

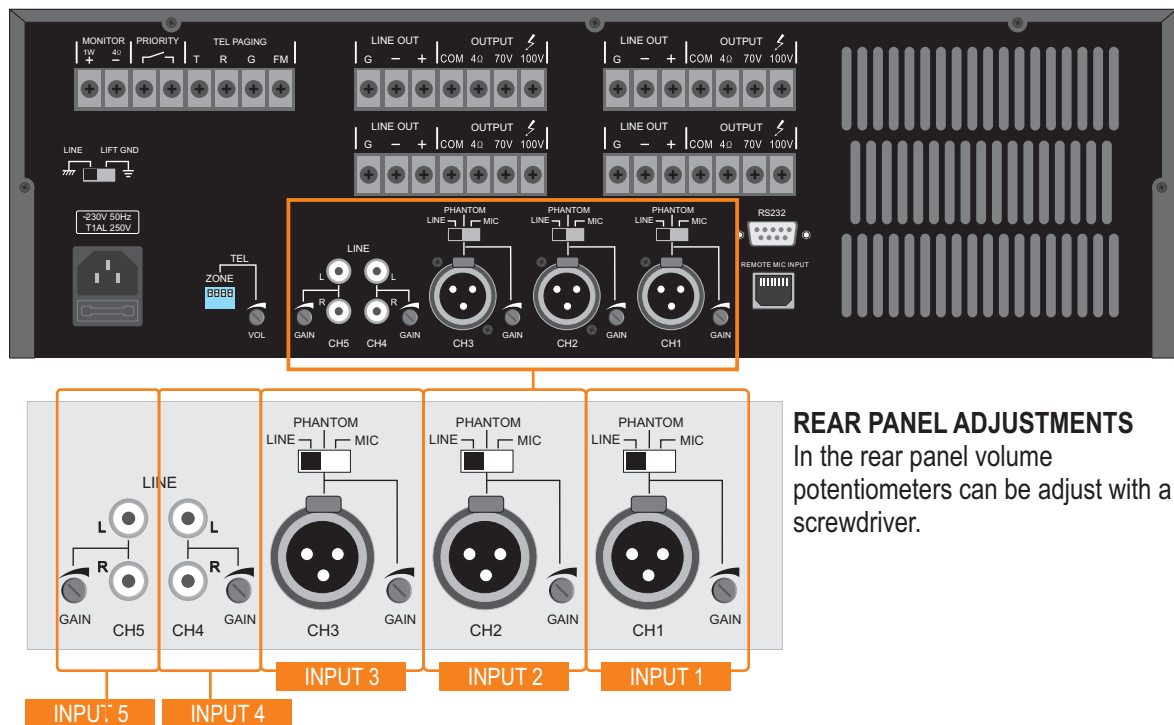
EQUALIZATION and ADJUSTMENTS

AUDIO INPUTS ADJUSTMENTS

The MXA-400 have a wide range of volume and tone controls, bringing an easy way to adjust volumes and equalization, to get the best performance and sound quality.

Audio Inputs

The volume control can be done in two parts:

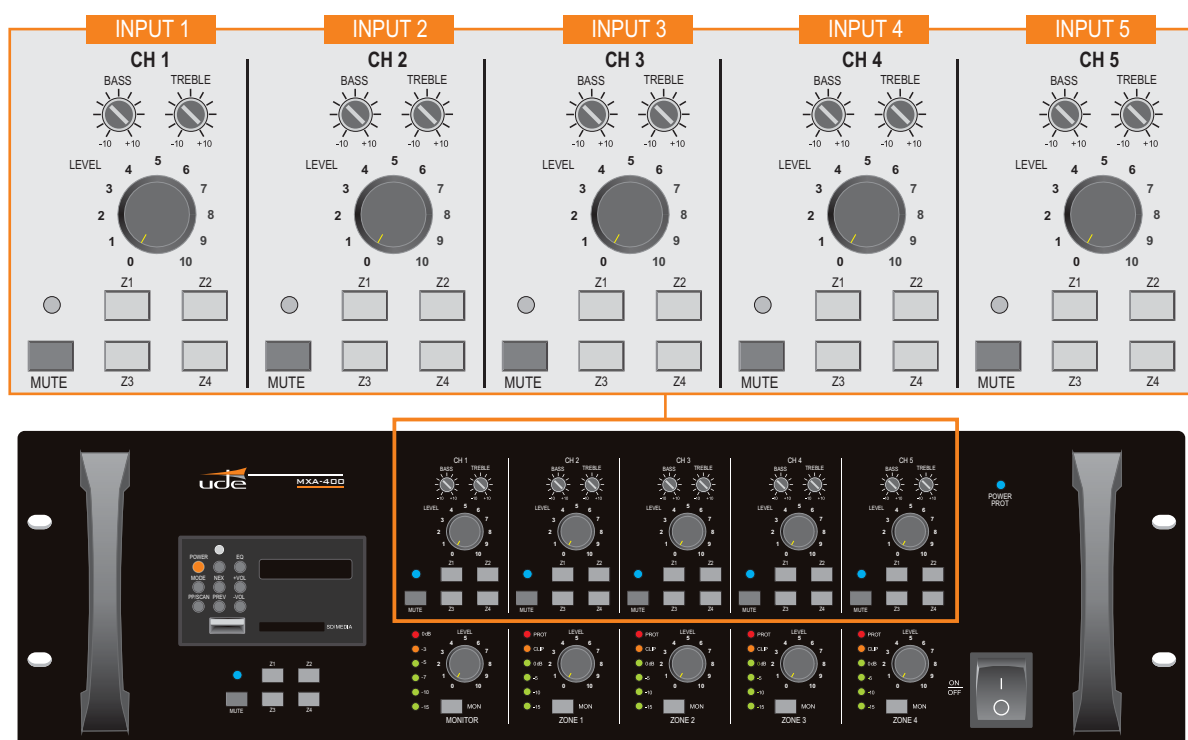
**REAR PANEL ADJUSTMENTS**

In the rear panel volume potentiometers can be adjust with a screwdriver.

FRONTAL PANEL ADJUSTMENTS

- The tone control in individual in each audio input, with a potentiometer for bass and treble.
- The mute button is specific for each zone. The LED indicator show when the mute is applied.

UDE recommends use only frontal panel volume controls.

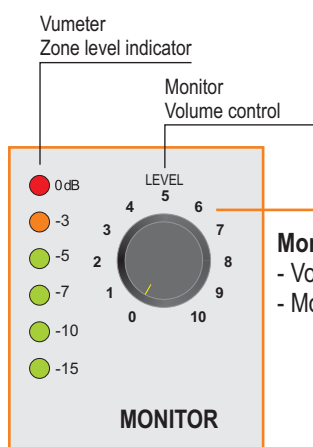
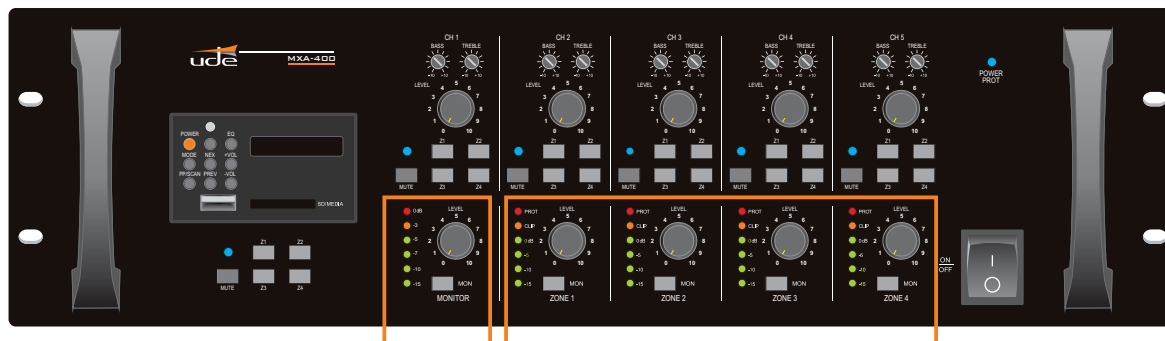


EQUALIZATION and ADJUSTMENTS

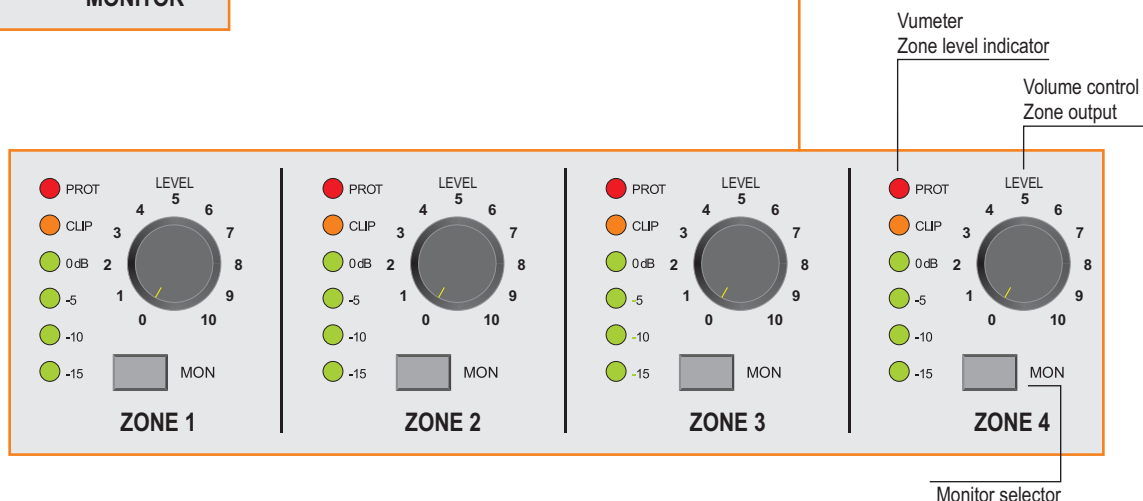
AUDIO AND MONITOR OUTPUT ADJUSTMENT

AUDIO OUTPUT

Each audio output has individual volume controls.

**Monitor volume control:**

- Volume control knob.
- Monitor level indicator.



AUDIO OUTPUT ADJUSTMENT

Each output has:

- Volume control knob (LEVEL)
- Level indicator

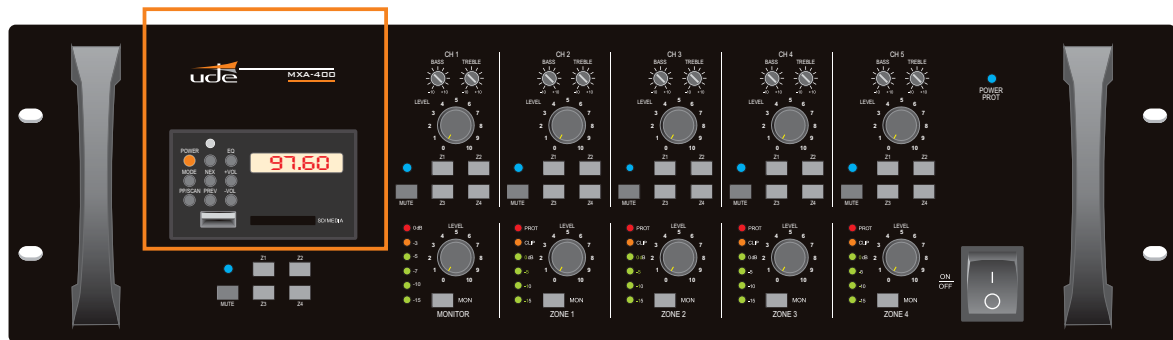
The output volume control only affects the amplified signal (4Ω, L70V y L100V) and does not affect the balanced line signal (0dB).

Note:

The frontal volume control knobs allow to control individually the amplified PA zone.

MULTIMEDIA MODULE CONFIGURATION

MULTIMEDIA MODULE RADIO CONFIGURATION



The MULTIMEDIA MODULE can:

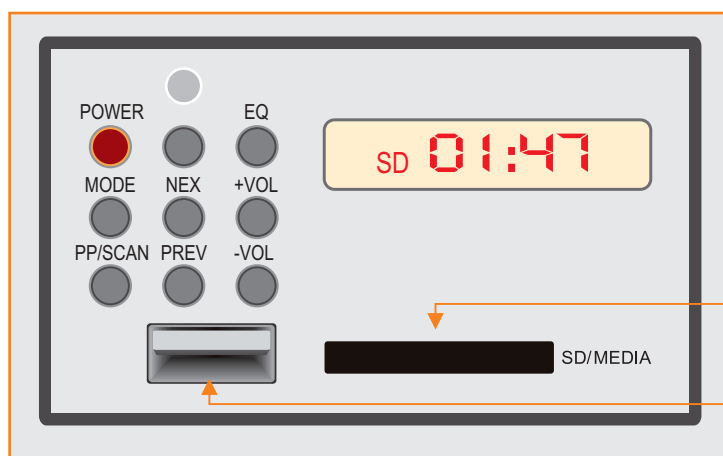
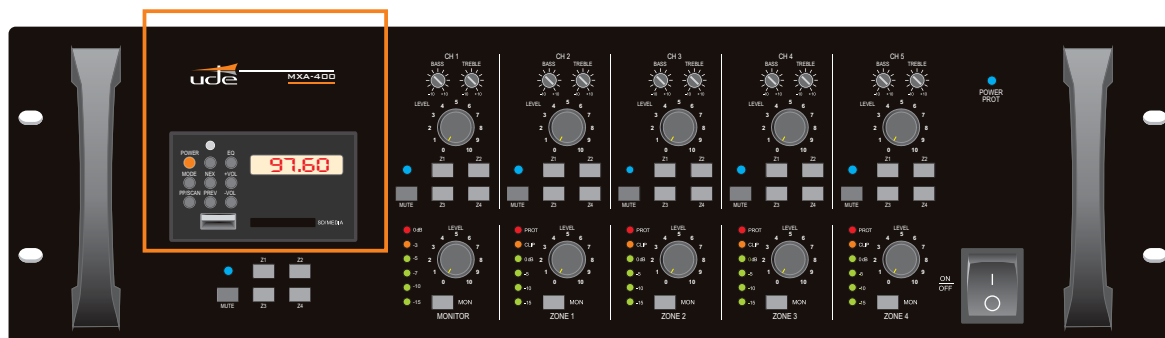
- Play MP3 from USB or SD card.
- Tuner FM (87.6 MHz - 108 MHz).

RADIO mode

- POWER**  **ON / OFF.**
Press 2 seconds POWER button to switch ON or OFF the player module.
- MODE**  **MODE.** RADIO or MP3 player
Press "MODE" button to select the audio source between:
(Radio > MP3 player) . Select **RADIO** option.
- PP/SCAN**  **Automatic scan**
Different FM tunes can be stored, for a future easy selection.
Keep pressing 3 seconds the PP/SCAN button and the module automatically will begin to find channels.
Press the PP/SCAN button to navigate along the different preset tunes.
- NEX**  **FM frequency manual navigation**
The player module can go from the 87.6MHz to the 108Mhz.
Press NEXT button to increase the frequency or PREV to decrease.
Note: It is no possible to store radio station in manual mode.
- PREV** 
- +VOL**  **Volume control**
The volume control is digital, pressing the VOL+ and VOL- buttons.
The volume range is: 0 (min volume) y 15 (max volume).
- VOL** 

MULTIMEDIA MODULE CONFIGURATION

MULTIMEDIA MODULE MP3 CONFIGURATION



The MULTIMEDIA MODULE can:

- Play MP3 from USB or SD card.
- Tuner FM (87.6 MHz - 108 MHz).

SD card socket

USB port

MP3 mode



ON / OFF.

Press 2 seconds POWER button to switch ON or OFF the player module.



MODE. RADIO or MP3 player

Press "MODE" button to select the audio source between:
(Radio > MP3 player) . Select **MP3** option.



PP. Play / Pause

Press for music play / pause.



MP3 navigation button

Press PREV and NEXT buttons to navigate MP3 audio files from USB or SD card.



Volume control

The volume control is digital, pressing the VOL+ and VOL- buttons.

The volume range is: 0 (min volume) y 15 (max volume).



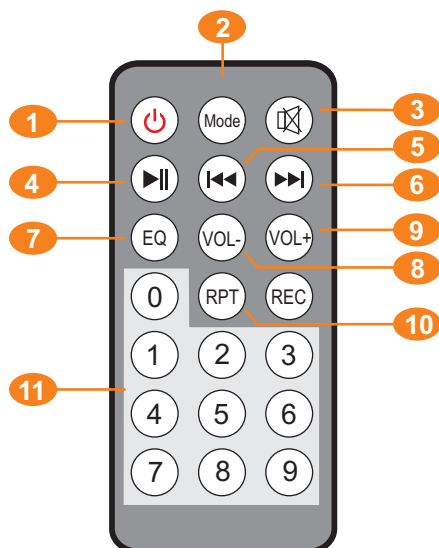
Equalization

Press button EQ to choose from 7 different audio equalization presets.

MULTIMEDIA MODULE CONFIGURATION

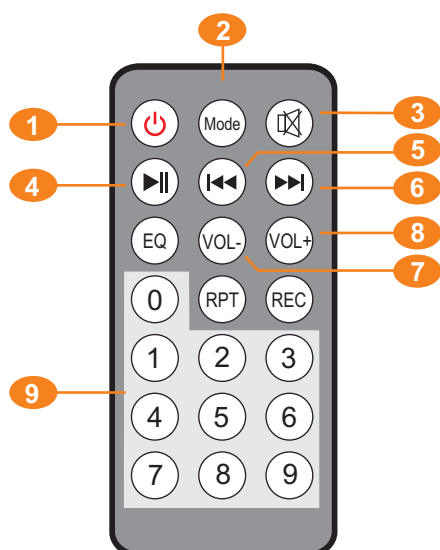
REMOTE CONTROL CONFIGURATION

MP3 PLAYER MODE



- 1 ON / OF
- 2 FUNCTION
- 3 MUTE
- 4 PLAY / PAUSE
- 5 TRACK NAVIGATION (-)
- 6 TRACK NAVIGATION (+)
- 7 EQUALISATION
- 8 (VOL-) VOLUME CONTROL
- 9 (VOL+) VOLUME CONTROL
- 10 REPETITION MODE
- 11 TRACK SELECTION

RADIO MODE



- 1 ON / OF
- 2 FUNCTION
- 3 MUTE
- 4 NEXT CHANNEL / STATION
- 5 FM FREQUENCY MANUAL NAVIGATION (-)
- 6 FM FREQUENCY MANUAL NAVIGATION (+)
- 7 (VOL-) VOLUME CONTROL
- 8 (VOL+) VOLUME CONTROL
- 9 CHANNEL / STATION SELECTION