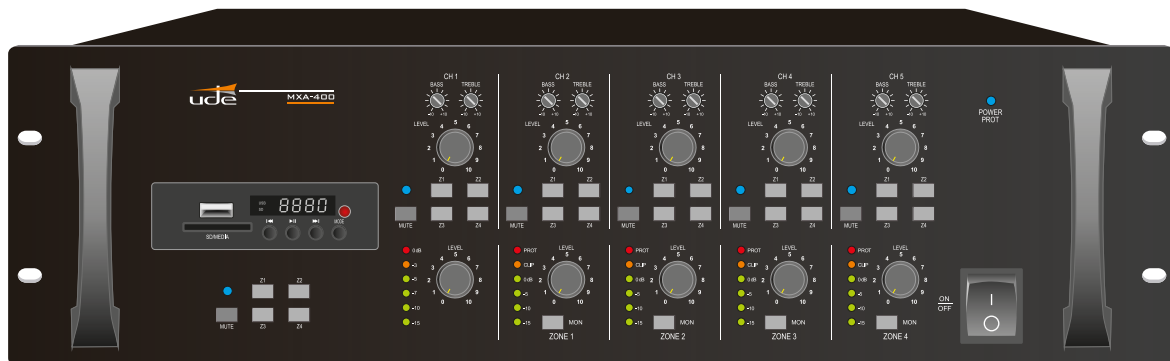


Audio matrix
with 4 independent amplifiers



The MXA-400 allows audio switching from 5 inputs to 4 amplified/line audio outputs, amplified output with a range of in 4Ω / 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 integrated built-in multimedia module allows the playback of MP3 music from USB or SD memory card, digital tuning of FM frequencies, as well as connection to other devices via Bluetooth.

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.

- ✓ 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
- ✓ Bluetooth connection
- ✓ 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 characteristics

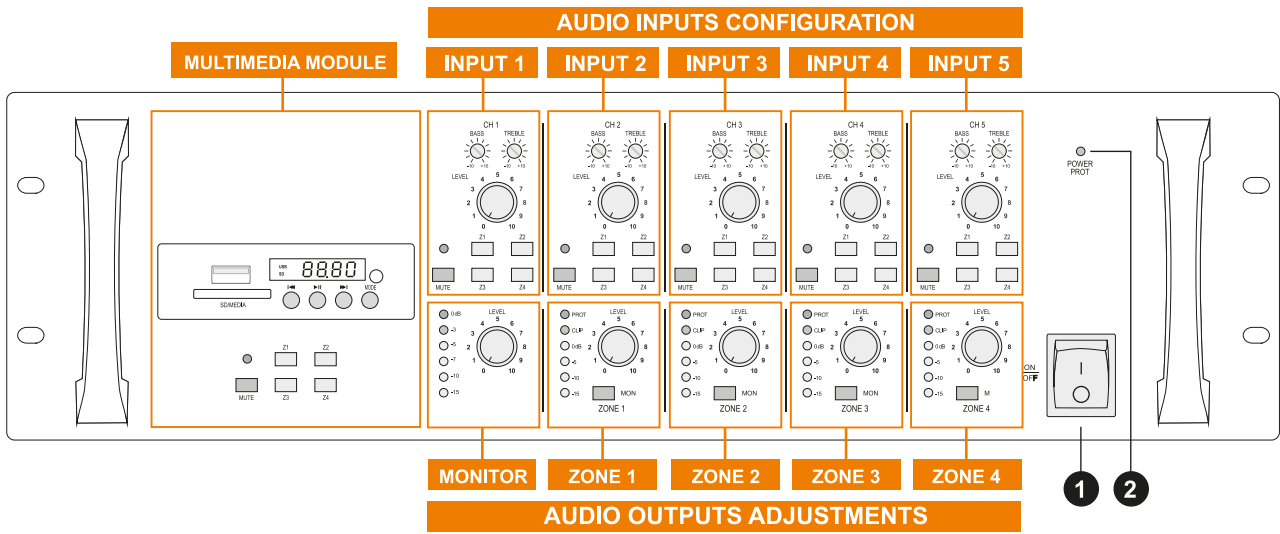
- Output power:	4 x120 W.
- Impedance:	4Ω.
- Voltage output:	L70V - L100V.
- Monitor:	1W - 4Ω.
- Frequency response:	80 Hz. to 16 Khz.
- MP3 player:	Plays MP3 files, max memory capacity 32GB.
- Audio file format:	.wav.
- SD file format:	FAT 16 and FAT 32.
- Distortion (THD):	Less than 1%.
- Max power 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 = 600Ω.
 phantom power = +48 VDC
aux: sensitivity = 350 mV.
 impedance = 10 KΩ.

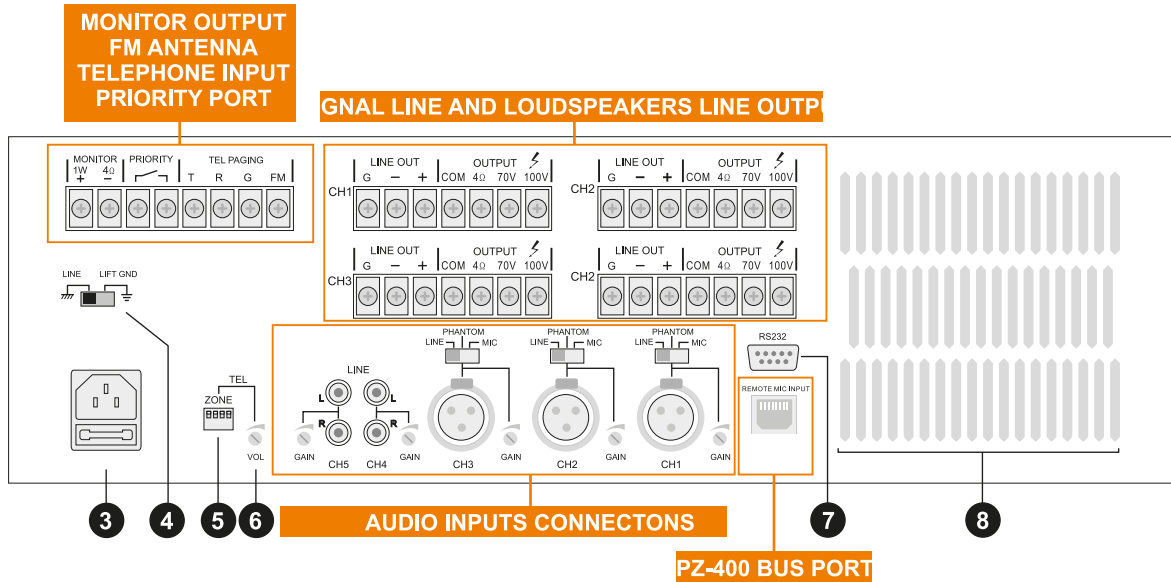
Inputs 4 - 5 AUX (RCA connector).
aux: sensitivity = 350 mV.
 impedance = 10 KΩ.

Phone Input
aux: sensitivity = 350 mV.
 impedance = 10 KΩ.

Front panel

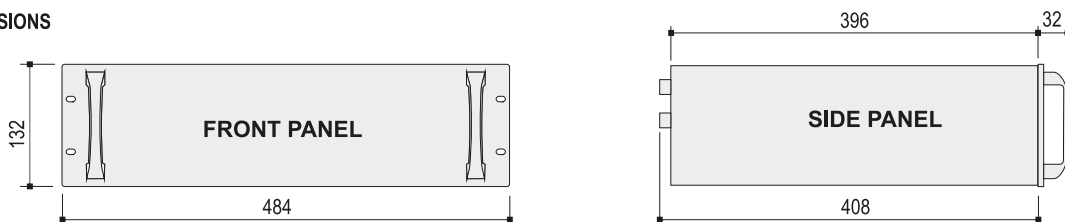


Rear panel



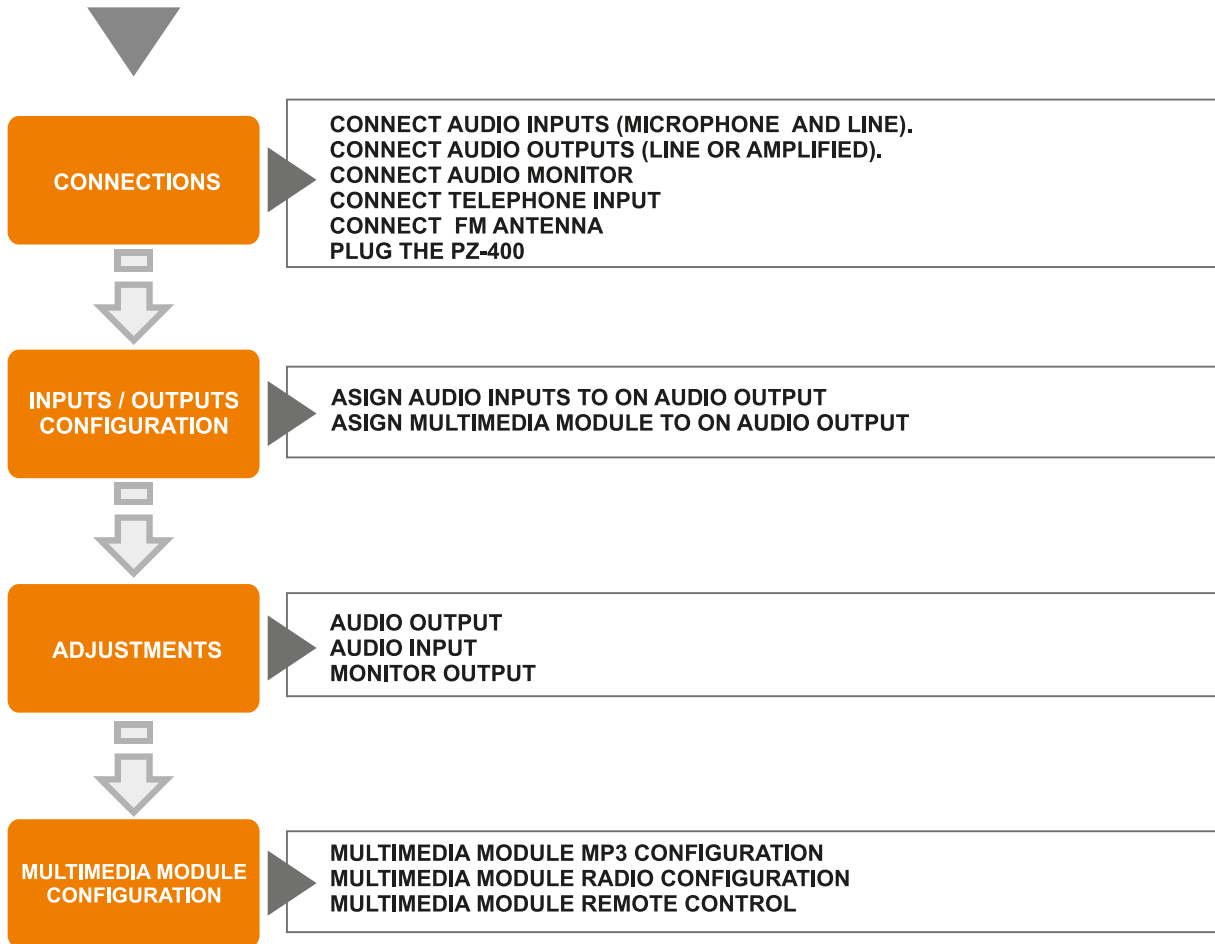
- 1 Power switch ON / OFF.
- 2 Power LED indicator.
- 3 220 - 240 VAC supply input with built-in fuse holder.
- 4 Floating switch.
- 5 Telephone DIP switch
- 6 Telephone volume control
- 7 RS-232 port.
- 8 Cooling system.

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:



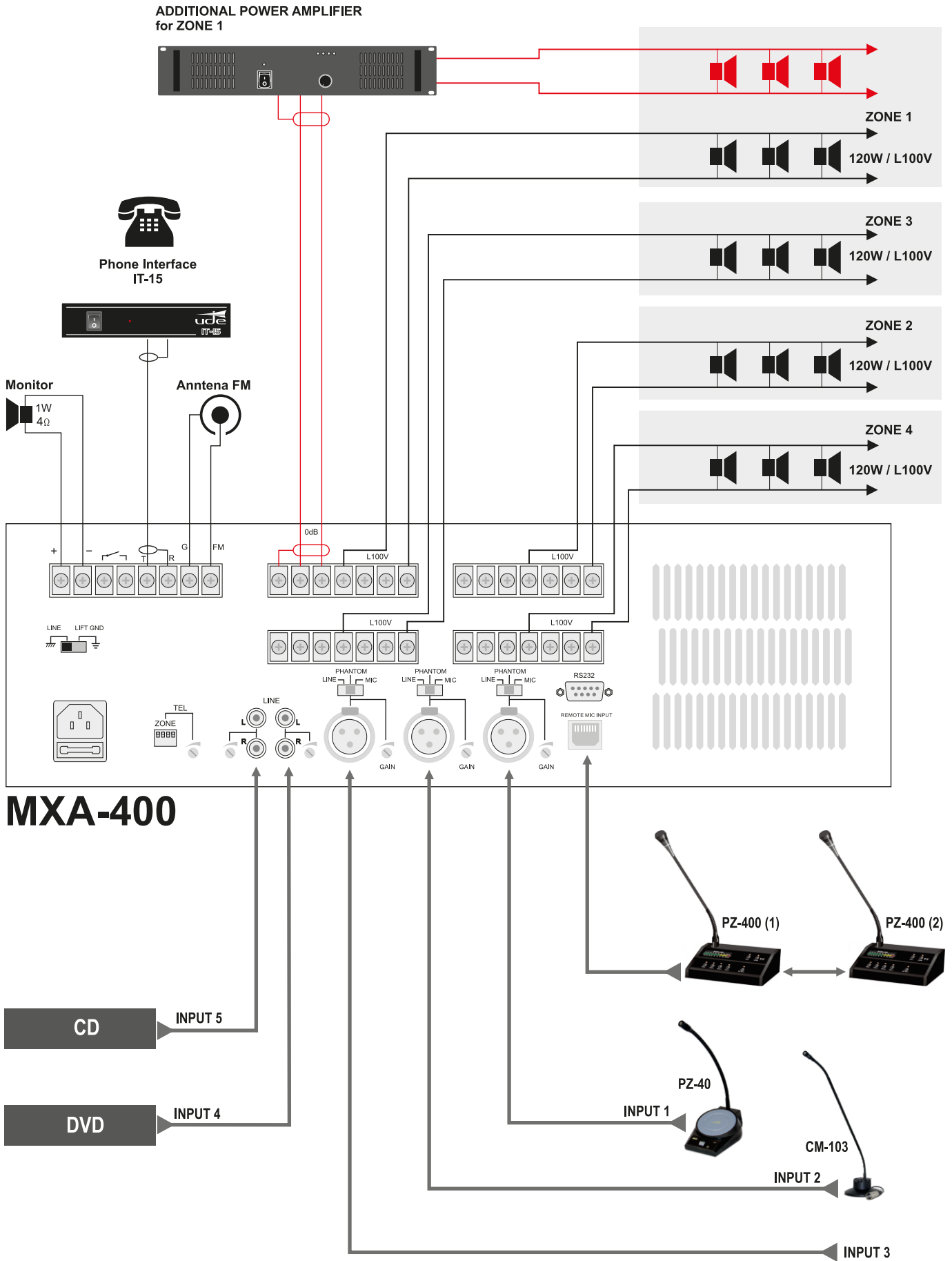
MXA-400 has factory audio inputs priority (not configurable)

CH1 and 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.

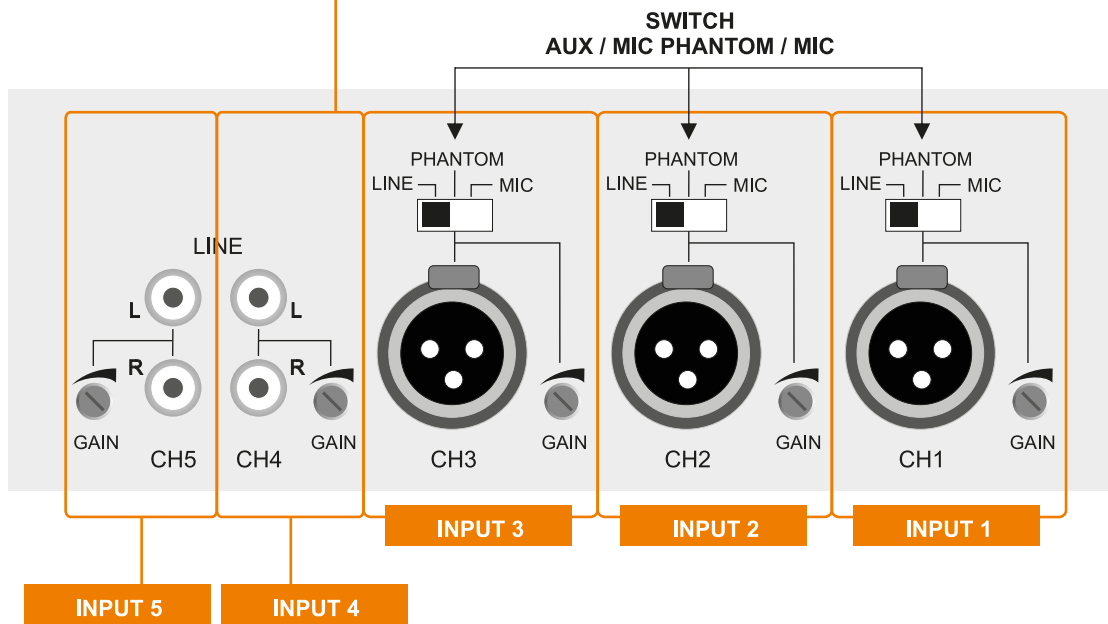
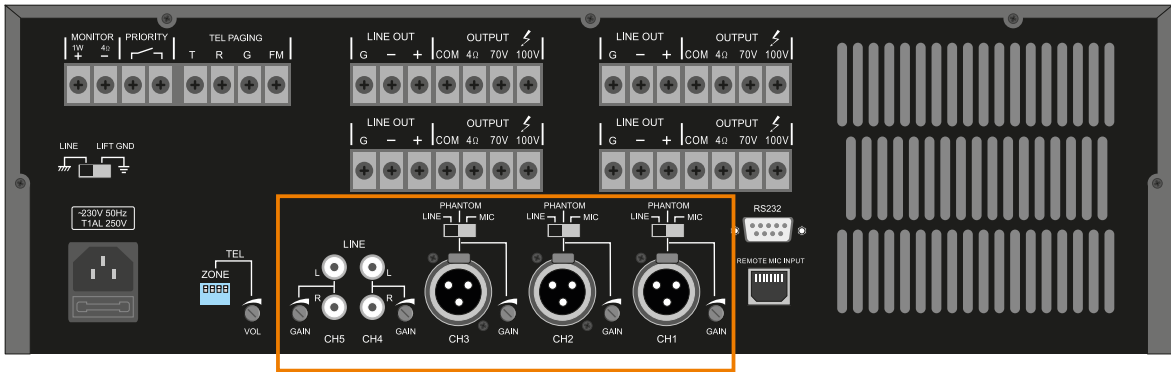
Sin Prioridad
MP3 module, CH2, CH3, CH4 and CH5: will me mixed with the same priority.

CONNECTION DIAGRAM



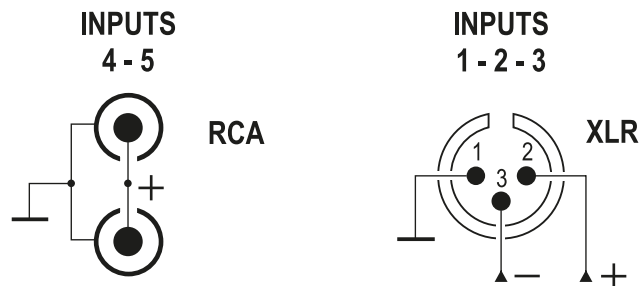
CONNECTIONS

AUDIO INPUTS (MICROPHONE AND LINE)



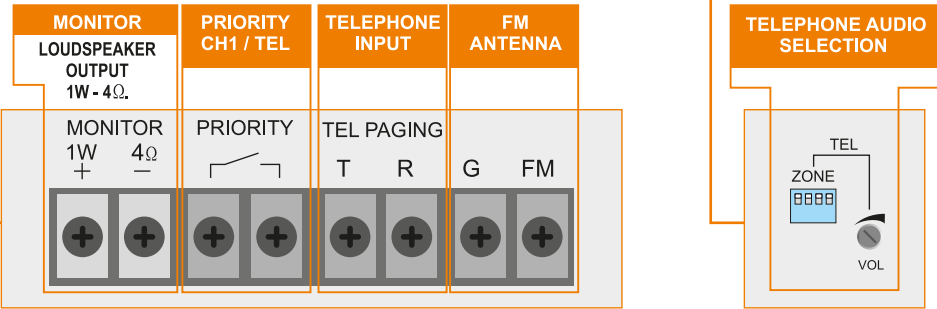
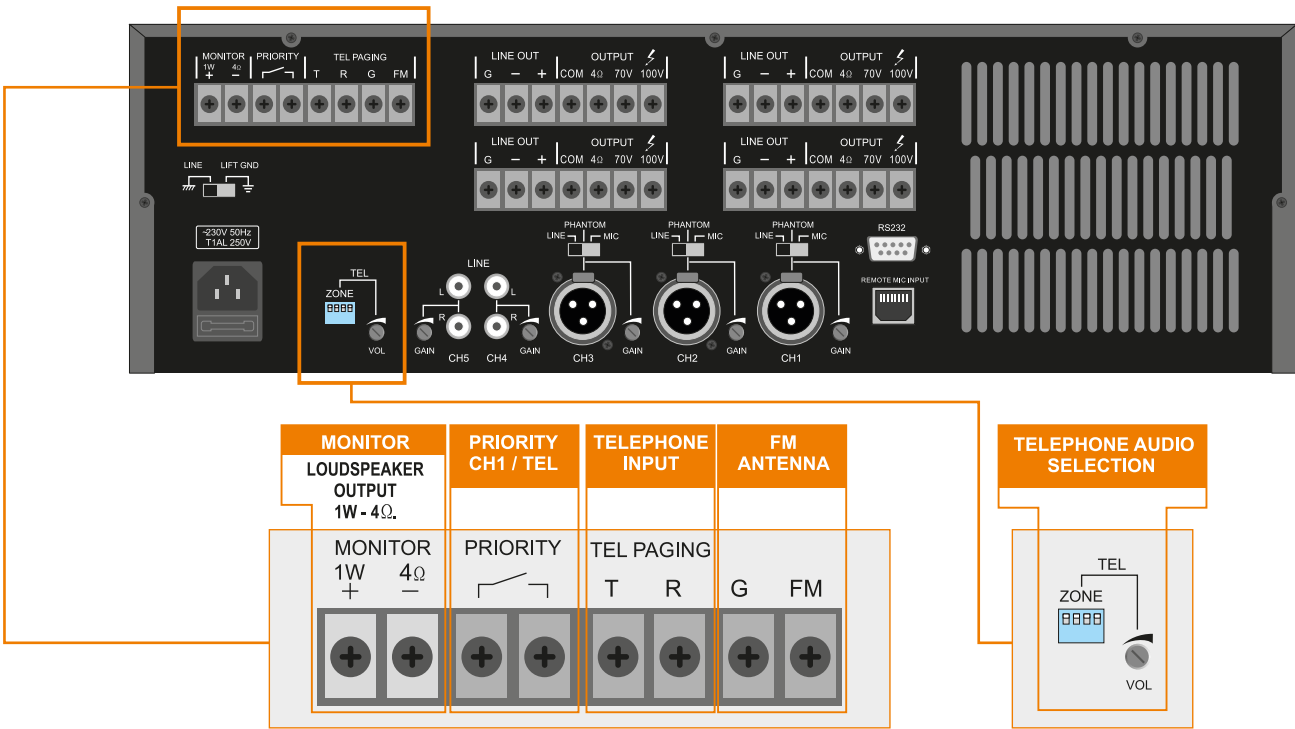
Input	Sensitivity input	Socket	PHANTOM power	Matrix switch	Volume control
INPUT 1	MIC and AUX	XLR	YES	YES	YES
INPUT 2	MIC and AUX	XLR	YES	YES	YES
INPUT 3	MIC and AUX	XLR	YES	YES	YES
INPUT 4	AUX	RCA	NO	YES	YES
INPUT 5	AUX	RCA	NO	YES	YES

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



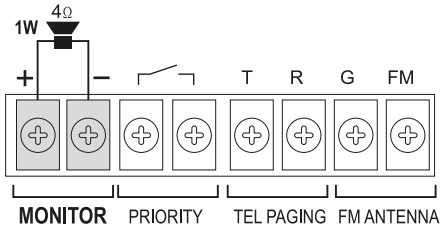
CONNECTIONS

**AUDIO MONITOR CONNECTION - TELEPHONE INPUT CONNECTION
FM ANTENNA CONNECTION**



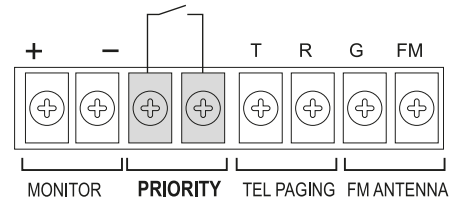
Audio monitor

A 4W (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:



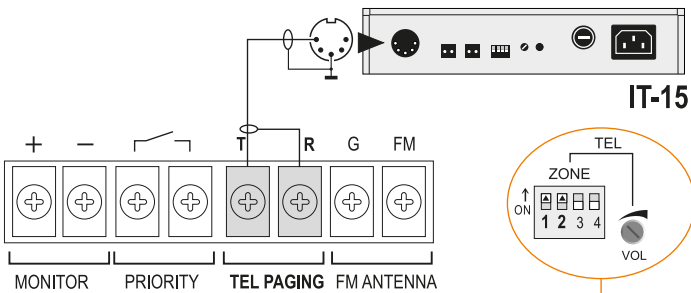
Priority (CH1 / TEL inputs)

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

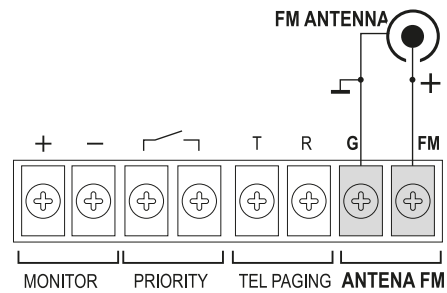
The tel. audio input, allows a connection with a PBX through a phone interface IT-15 and the MXA-400, with this connection diagram:



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

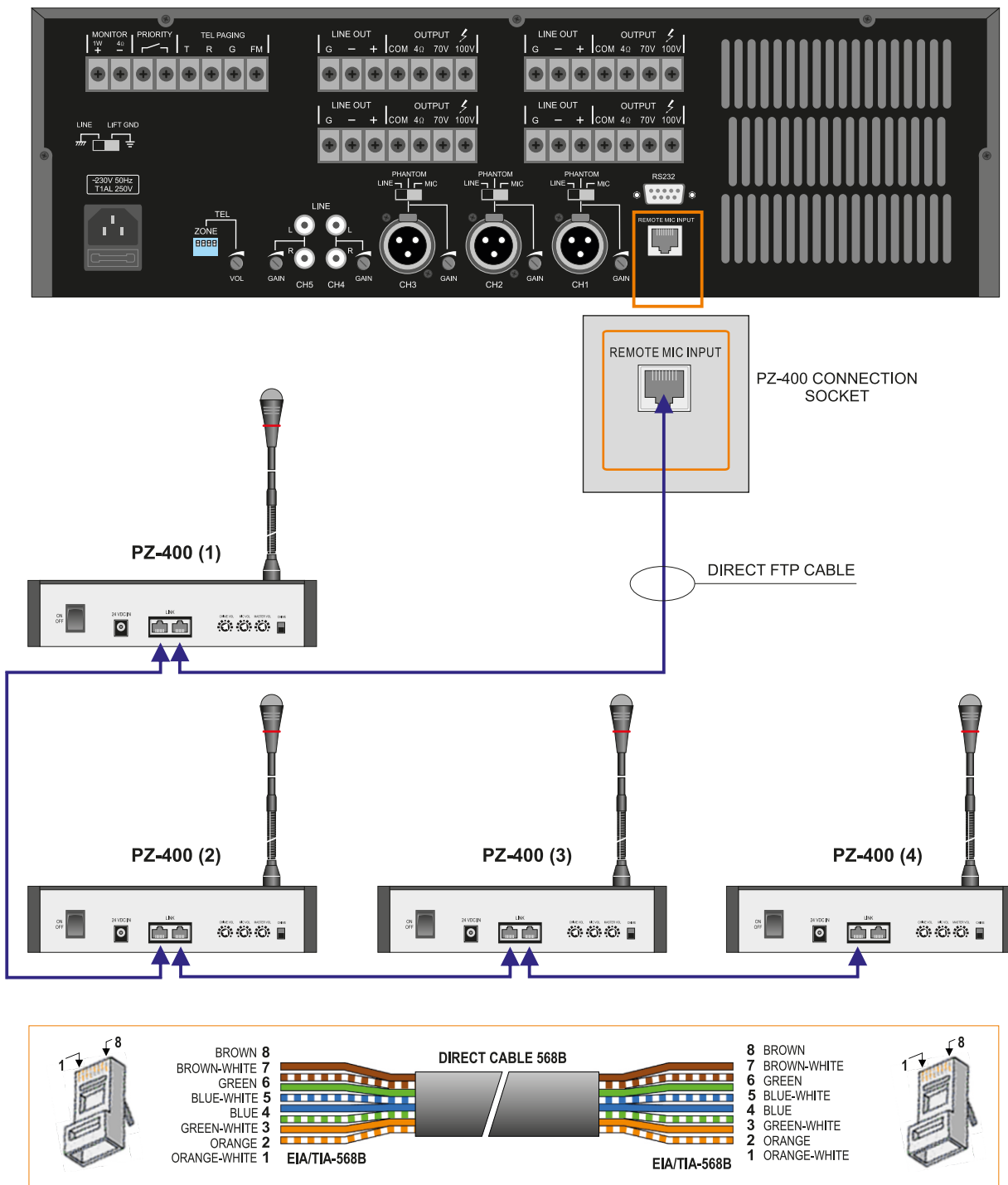
PZ-400 desk control

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.

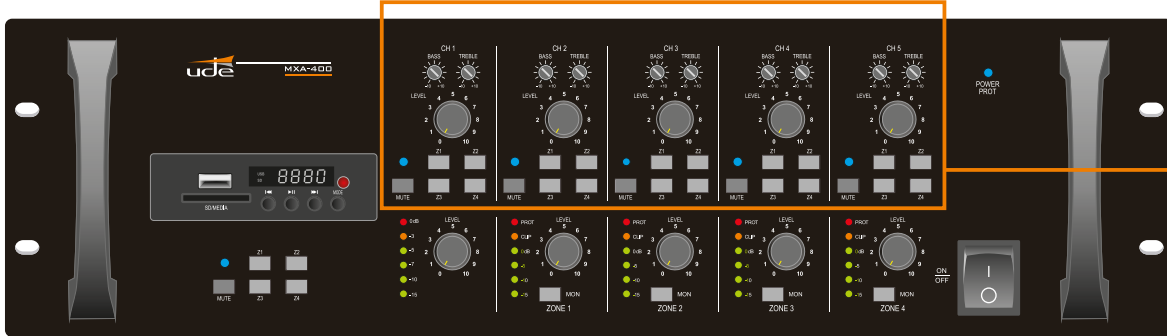


Input / Output CONFIGURATION

ASIGN AUDIO INPUTS TO ON AUDIO OUTPUT

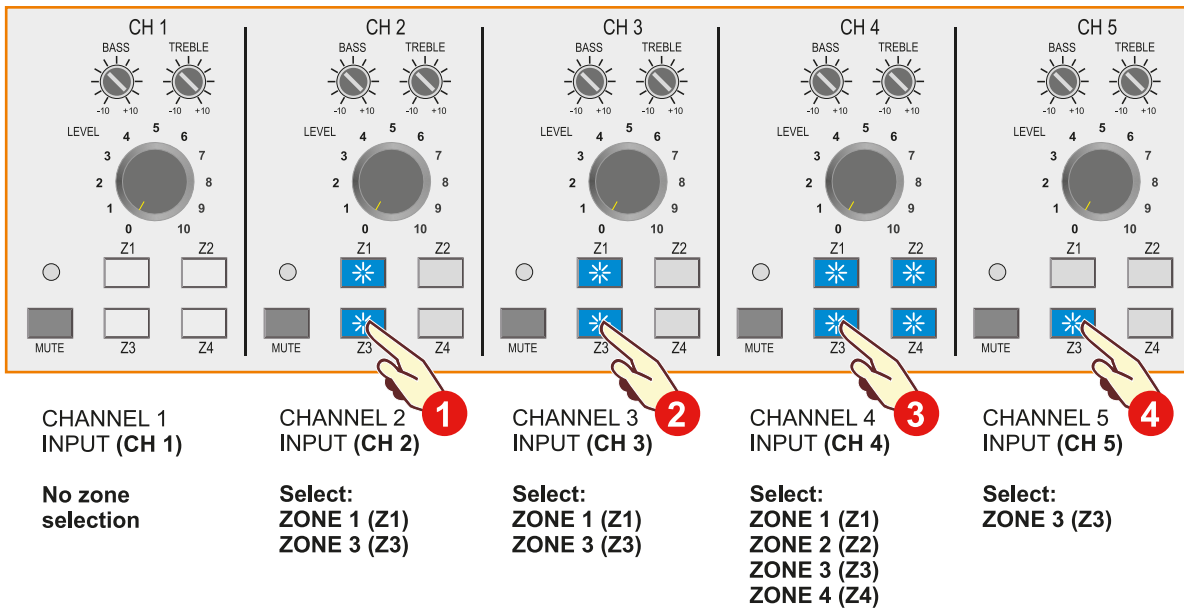
Matrix configuration

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 matrix is managed by grouping 4 pushbuttons on each of the audio inputs. When the push button is selected, it remains illuminated indicating that the input is connected to the output. The telephone input is switched via DIP switches.

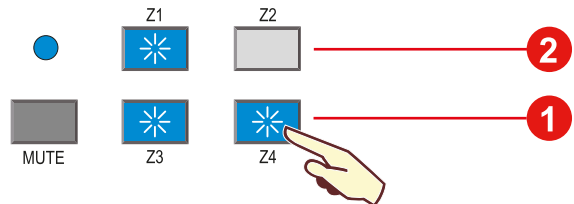
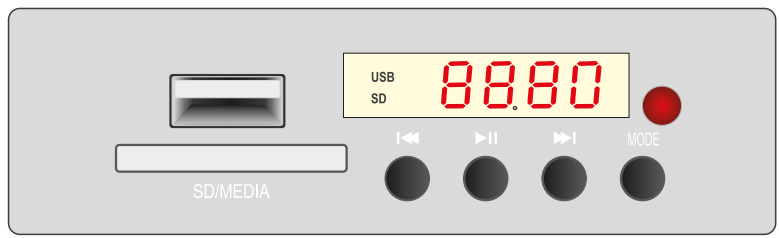
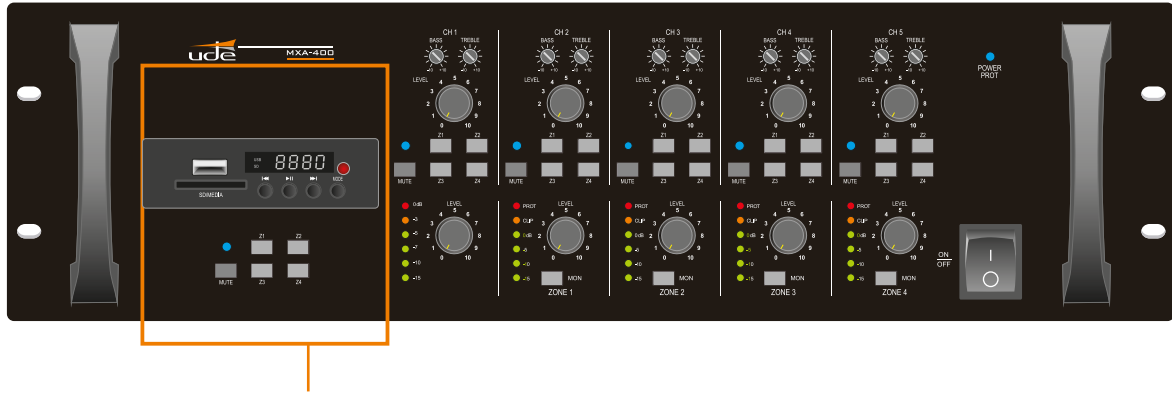
All inputs have a MUTE button, which allows muting the selected input (when activated, it lights up).



- 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.

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.

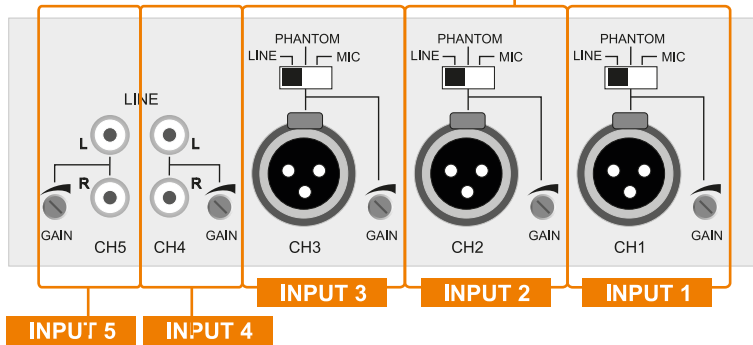
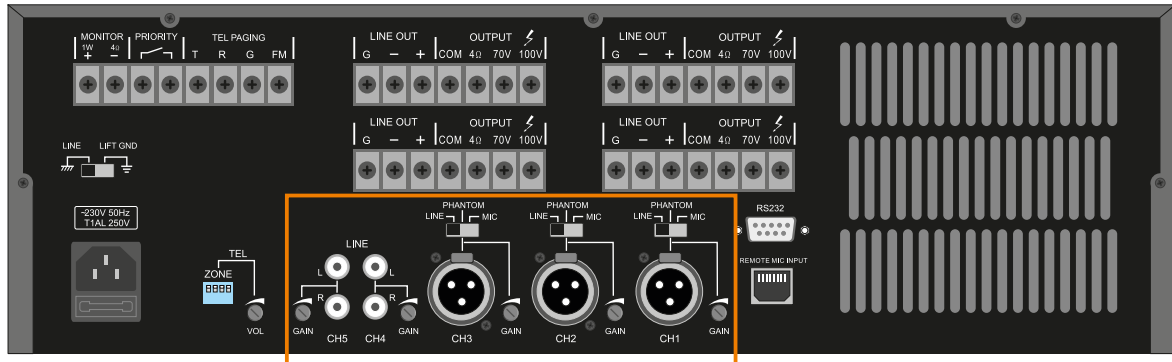
EQUALIZATION and ADJUSTMENTS

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

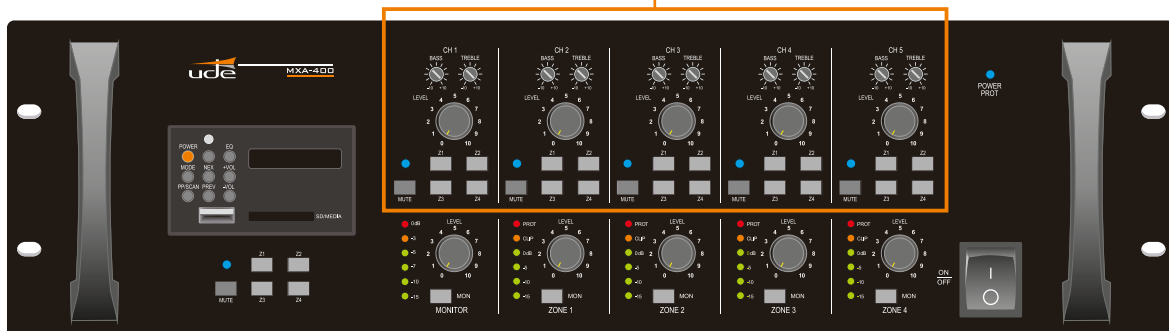
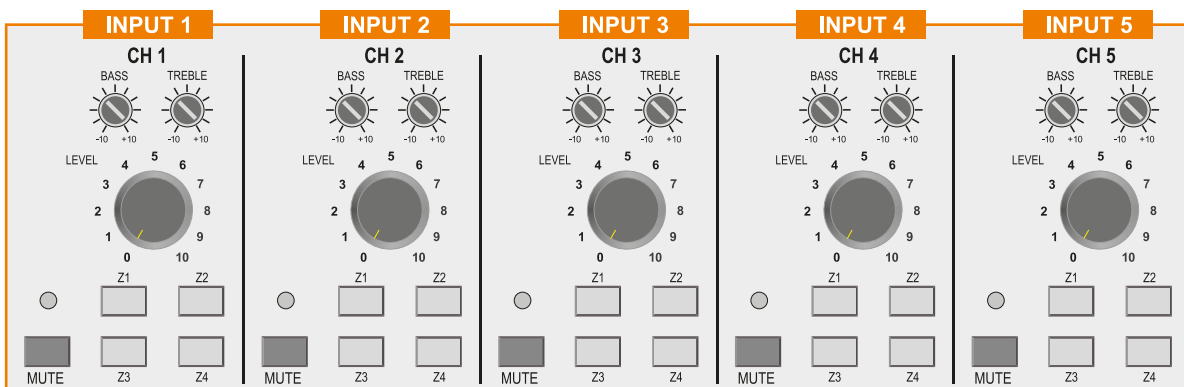
The volume control can be done in two parts:



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

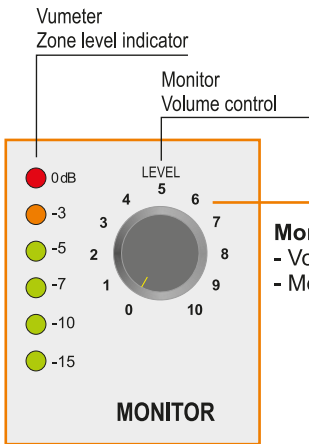
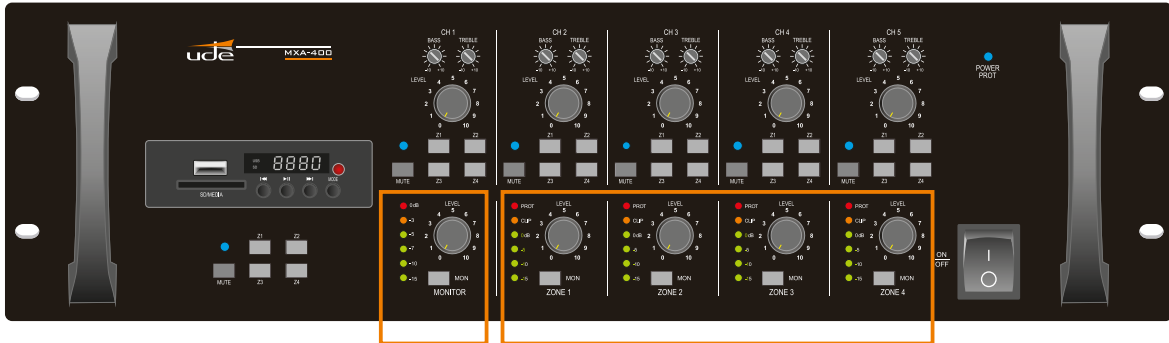
FRONTAL PANEL ADJUSTMENTS

- 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.**

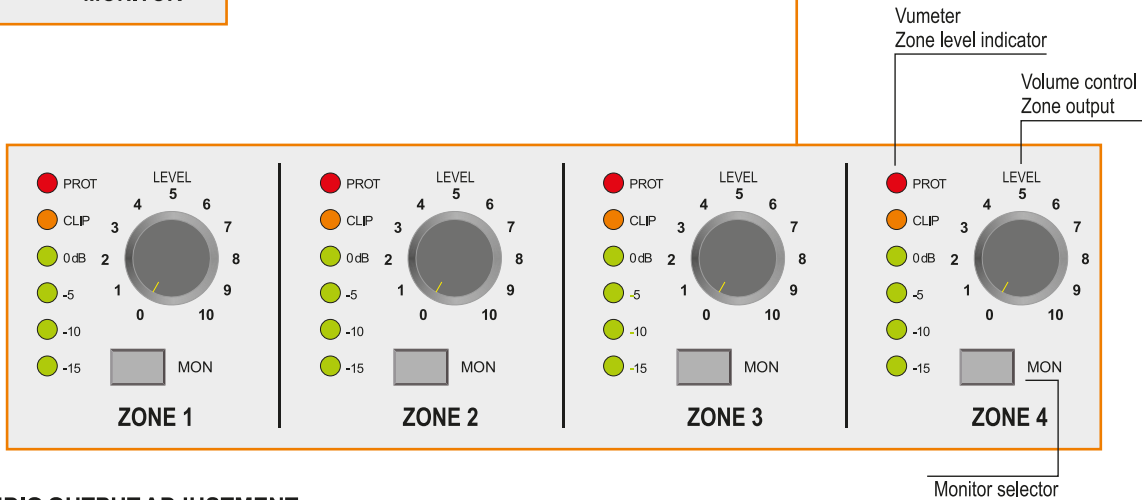


AUDIO OUTPUT

Each audio output has individual volume controls.



Monitor volume control:
 - Volume control knob.
 - Monitor level indicator.



AUDIO OUTPUT ADJUSTMENT

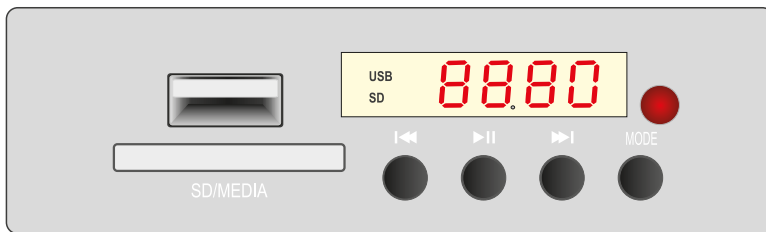
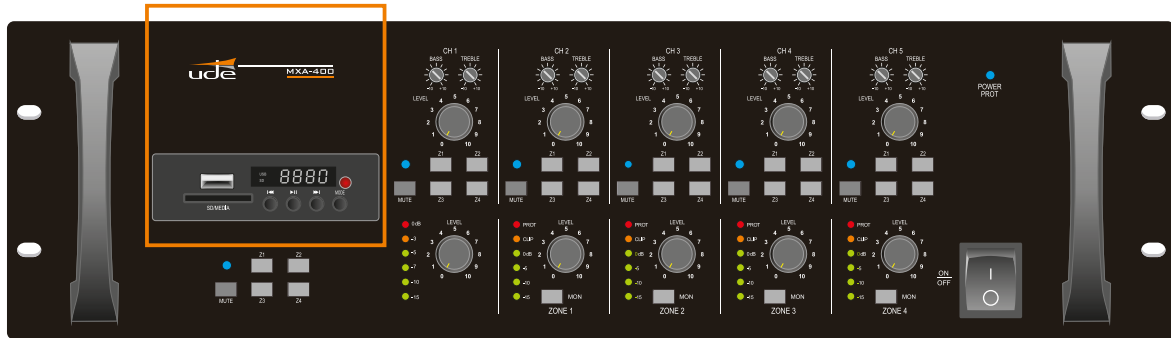
Each output has:
 - Volume control knob (LEVEL)
 - Level indicator

The output volume control only affects the amplified signal (4W, 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

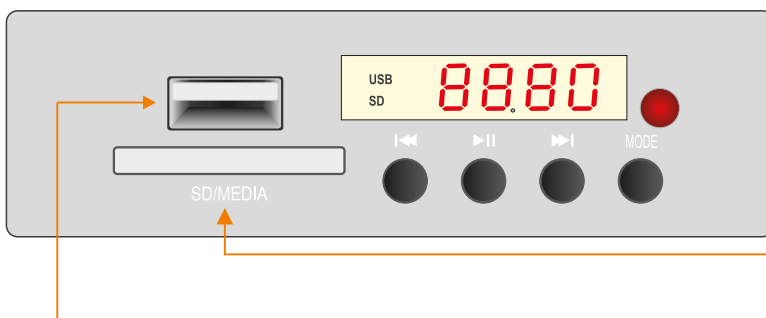
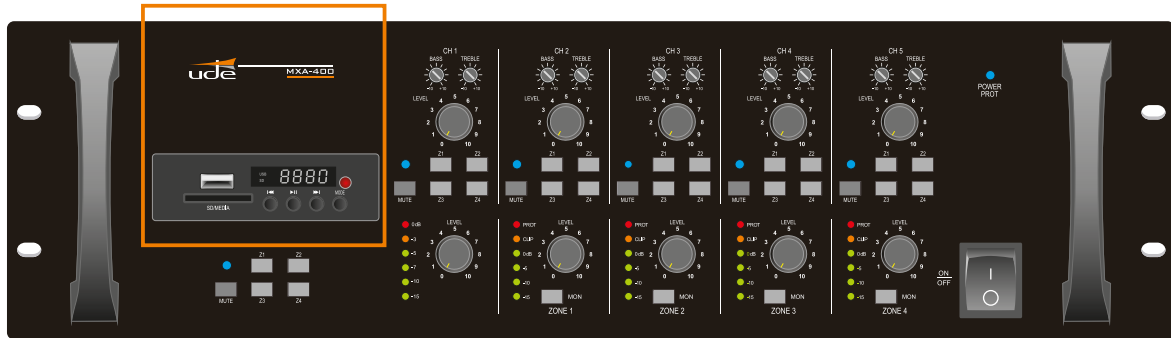


The **MULTIMEDIA MODULE** can:
MP3 Player from **USB** or **SD card**.
Tuner FM (87.6 MHz - 108 MHz).
Bluetooth Connection.

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**
PREV **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.
- +VOL**
-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).

MULTIMEDIA MODULE CONFIGURATION MULTIMEDIA MODULE MP3 CONFIGURATION



The MULTIMEDIA MODULE can:
 MP3 Player from USB or SD card.
 Tuner FM (87.6 MHz - 108 MHz).
 Bluetooth Connection.
 SD Card Slot

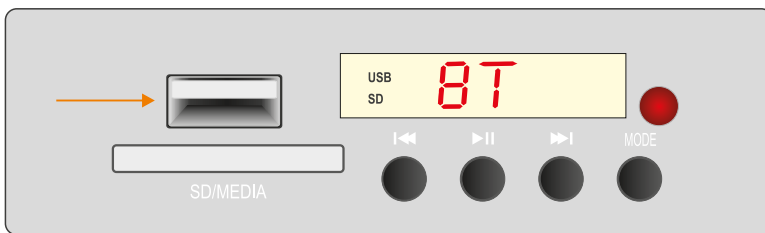
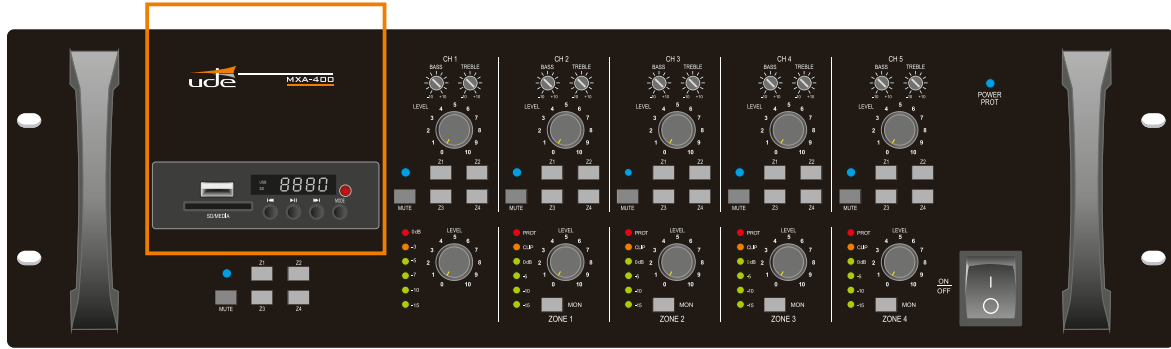
USB Port

MP3 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 **MP3** option.
- PP/SCAN** **PP. Play / Pause**
 Press for music play / pause.
- NEX** **MP3 navigation button**
PREV Pres PREV and NEXT buttons to navigate MP3 audio files from USB or SD card.
- +VOL** **Volume control**
-VOL The volume control is digital, pressing the VOL+ and VOL- buttons.
 The volume range is: 0 (min volume) y 15 (max volume).
- EQ** **Equalization**
 Press button EQ to choose from 7 different audio equalization presets.

CONFIGURACIÓN MOD. MULTIMEDIA

CONFIGURACIÓN MÓDULO MULTIMEDIA (Modo Bluetooth).



El MÓDULO MULTIMEDIA incorpora tres tipos de funciones :

Reproductor MP3 (entrada mediante USB y SD).

Sintonizador FM (87.6 MHz - 108 MHz).

Conexión Bluetooth.

MP3 mode will only work with an SD card or USB device inserted.

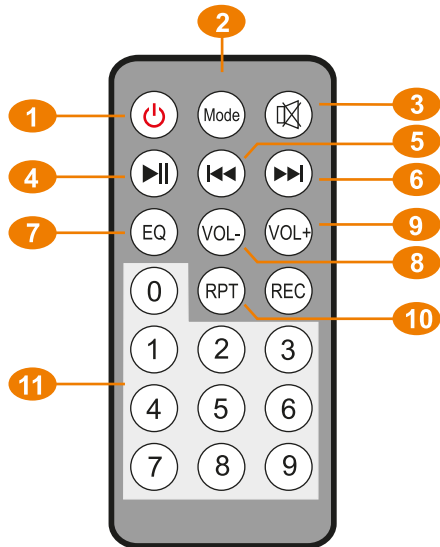
Bluetooth Mode

- POWER** **On/Off.**
Press and hold the POWER button for 2 seconds to switch the multimedia module on or off.
- MODE** **MODE. OPERATING MODE SELECTION**
Press to change in the following order: (RADIO > Bluetooth). Select the Bluetooth option.
With Bluetooth activated on the sound source, synchronise with the matrix.
The device will appear as "PA-xxxxx".
- NEX**
MP3 file selection
Press the PREV and NEXT buttons to browse MP3 songs on the memory device (USB or SD).
- PREV**
- +VOL**
Volume control
It is carried out in digital format, by clicking on the indicated buttons (VOL+ and VOL-).
The adjustment range is: 0 (minimum volume) and 15 (maximum volume).
- VOL**

MULTIMEDIA MODULE CONFIGURATION

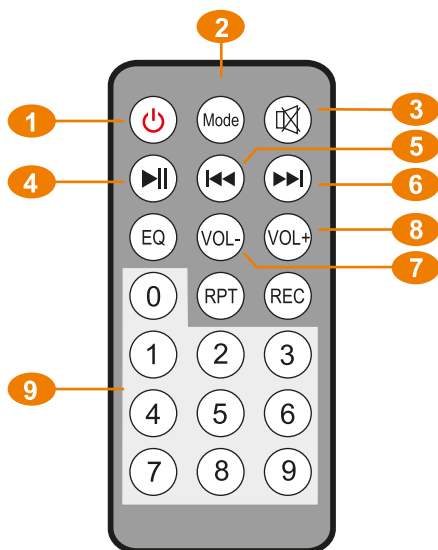
REMOTE CONTROL CONFIGURATION

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