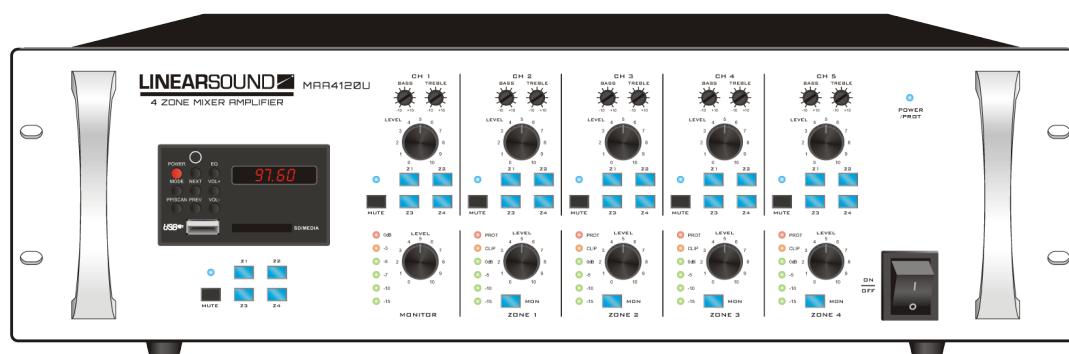


4 CHANNELS MIXER AMPLIFIER LTS.MAA4120U

Operation manual



Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

TABLE OF CONTENTS

1. Safety precautions.....	Page 3
2. Features.....	Page 5
3. Nomenclature and functions.....	Page 5
a. Front panel	
b. Rear panel	
4. Operation.....	Page 6
5. Mute mode functions.....	Page 7
6. Trouble shooting.....	Page 7
7. Connections.....	Page 7
a. Speaker connections	
b. XLR connections	
8. Applications.....	Page 8
9. Block diagram.....	Page 9
10. Specifications.....	Page 9
11. Dimensions.....	Page 10

1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

Safety symbol and message conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety.

WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.

CAUTION

Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

Warning

When installing the unit

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects (including the unit itself) on the power cord, as doing so may result in fire or electric shock.
- Be sure to replace the unit's terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.
- Be sure to ground to the safety ground (earth) terminal to avoid electric shock. Never ground to a gas pipe as a catastrophic disaster may result.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down, causing personal injury and / or property damage.

When the unit is in use

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest dealer. Make no further attempt to operate the unit in this conditions this may cause fire or electric shock, ...
 - If you detect smoke or a strange smell coming from the unit.
 - If water or any metallic object gets into the unit.
 - If the unit falls, or the unit case breaks.
 - If the power supply cord is damaged (exposure of the core, disconnection, etc)
 - If it is malfunctioning (no tone sounds)

- To prevent a fire or electric shock, never open or remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.

Caution

When installing the unit

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Do not block the ventilation slots in the unit's cover. Doing so may cause heat to build up inside the unit and result in fire.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

When the unit is in use

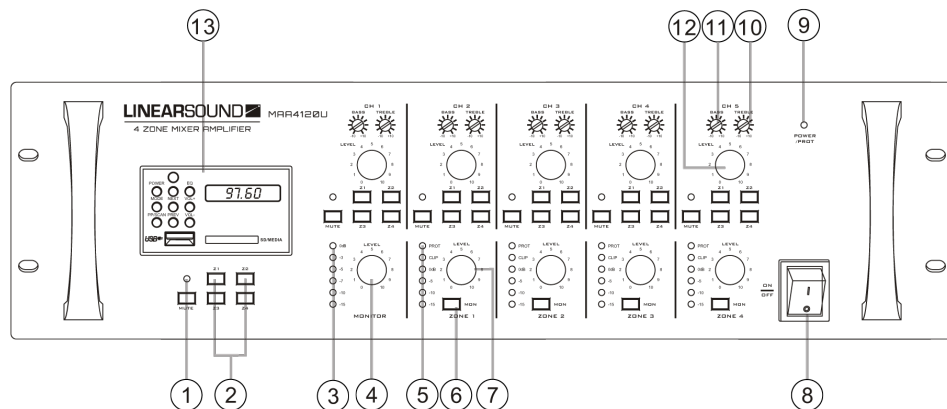
- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest dealer. Make no further attempt to operate the unit in this conditions this may cause fire or electric shock, ...
- To prevent a fire or electric shock, never open or remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.
- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and / or damage.
- Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.
- Contact your dealer as to the cleaning. If dust is allowed to accumulate in the unit over a long period of time, a fire or damage to the unit may result.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

2. FEATURES

1. All sources are with matrix 4 roads output function.
2. When priority is short circuit and TEL and MIC1 are inputted, MIC2 - CH5 and MP3 will automatically keep mute. Priority = TEL = Paging MIC1 > (MIC2 - CH5, MP3)
3. One road TEL input (volume adjustable), choose 1 - 4 zones output freely by manual, with second priority.
4. 3 roads MIC input, with three levels selector switch input sensitivity, signal gain control.
5. 2 roads RCA stereo LINE input, signal gain control.
6. 5 roads separate adjustable tone and volume control.
7. The volume from all audio source in 1 - 4 zone can be adjusted.
8. 4 roads LINE output, output is not controlled by monitor volume.
9. Power output : 4R, 70V, 100V output terminals; one road monitor 1W 8R output.
10. With AC output protection, overload protection, short-circuit protection, overheat protection, top input protection.
11. LED indicator : Level indicator, clip indicator, protect indicator.
12. Built in MP3 player : Separate power switch, MP3 player with SD card slot and USB port.
13. With float switch, grid noise can be dealt with by floating.

3. NOMENCLATURE AND FUNCTIONS

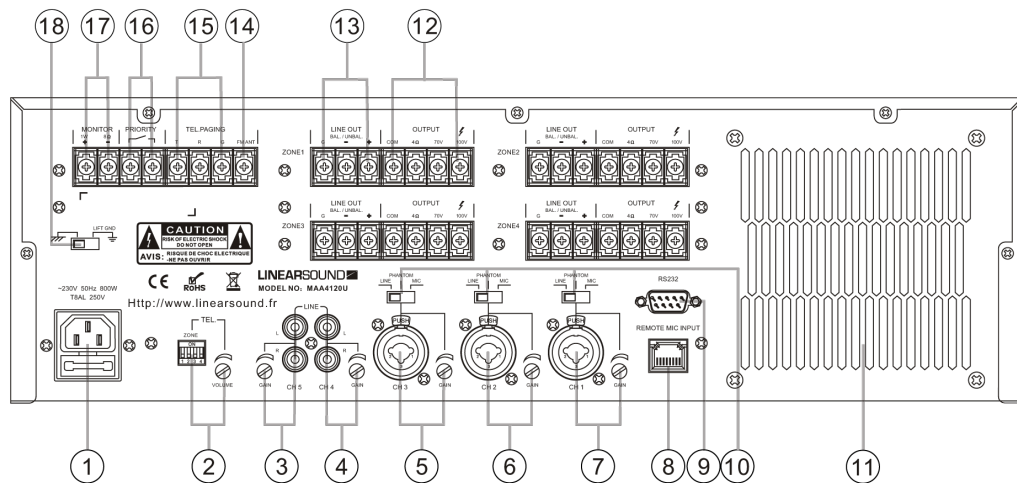
a. Front panel



1. Mute button and indicator : Mute on, indicators are on; mute off, then indicators are off.
2. Amplifier matrix 4 channel selector button
3. Monitor level indicator
4. Monitor volume control : Adjust monitor volume, clockwise rotation, increase volume, conversely reduce.
5. 1 zone amplifier level indicator
6. 1 zone monitor selector button
7. 1 zone amplifier output volume control
8. ON/OFF power switch : Switch on, power on, switch down, power off.
9. POWER power indicator : When power on, power indicators are on; when power off, power indicators are off.
10. CH1 High-pitched tone control : Adjust high pitch, clockwise rotation, increase volume, conversely reduce.

11. CH1 low-pitched tone control : Adjust low pitch, clockwise rotation, increase volume, conversely reduce.
12. CH1 volume control
13. MP3 player, with USB & SD card slot

b. Rear panel



1. ~230V 50 Hz AC power input socket
2. Telephone DIP switch and volume control
3. CH5 line signal input and signal gain control
4. CH4 line signal input and signal gain control
5. CH3 microphone signal input and signal gain control
6. CH2 microphone signal input and signal gain control
7. CH1 microphone signal input and signal gain control
8. Remote microphone input port
9. RS232 port
10. LINE, PHANTOM, MIC signal input selector switch
11. Vents
12. ZONE1 - output terminals for connecting speakers; COM is common terminal, can be connected to the negative electrode, the ground, etc. 4 terminal can be connected to constant resistance 4 speaker; 70V terminal can be connected to 70V constant voltage speaker; 100V terminal can be connected to 100V constant voltage speaker
13. ZONE1 - LINE signal output
14. Radio antenna port
15. Telephone signal input port
16. Short circuit Priority
17. Monitor output port
18. Floating switch

4. OPERATION

For the four output terminals, please only use the COM and one of the others. When using 70V and 100V, the speaker must be with transformers. Moreover, and the total power of the speakers should be less than the rated output power.

5. MUTE FUNCTION

Mute priority description : Priority = Tel = Paging MIC1 > (MIC2 - CH5 / MP3) When priority is short circuit and TEL and MIC1 are inputted, MIC2 - CH5 and MP3 will automatically keep mute.

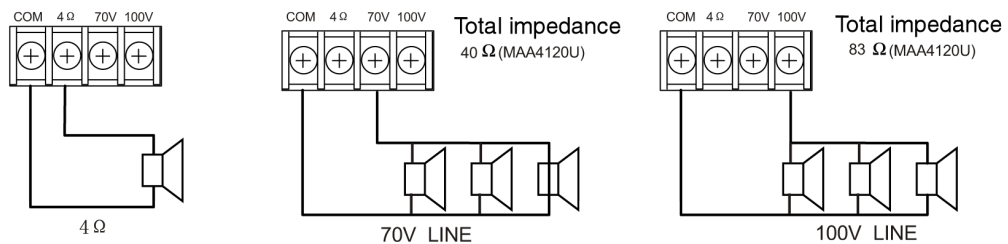
6. TROUBLE SHOOTING

Fault phenomenon	The cause of the problem
There is no sound output when the line connection is good	<ol style="list-style-type: none"> 1. No electricity or plug contact undesirable 2. The fuse was burn out 3. The volume is not open 4. No input signal
Normal startup, the alarm triggered	<ol style="list-style-type: none"> 1. Load short circuit or damaged 2. Power supply voltage is not stable, too high or too low 3. Overload
In the normal use of all of a sudden no sound output	<ol style="list-style-type: none"> 1. Temperature is too high, the machine in temperature protection 2. Loose cable connection

7. CONNECTIONS

a. Speaker connections

Total impedance 81 ohms or 167 ohms (LTS.A650L)



Notes

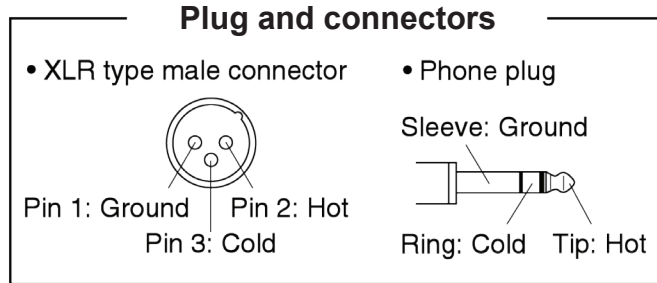
- Both the 4ohm and 70V / 100V terminals cannot be used at the same time
- Impedances indicated in the figures represent the total speaker system (load) impedances



WARNING : Be sure you attach the supplied terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.

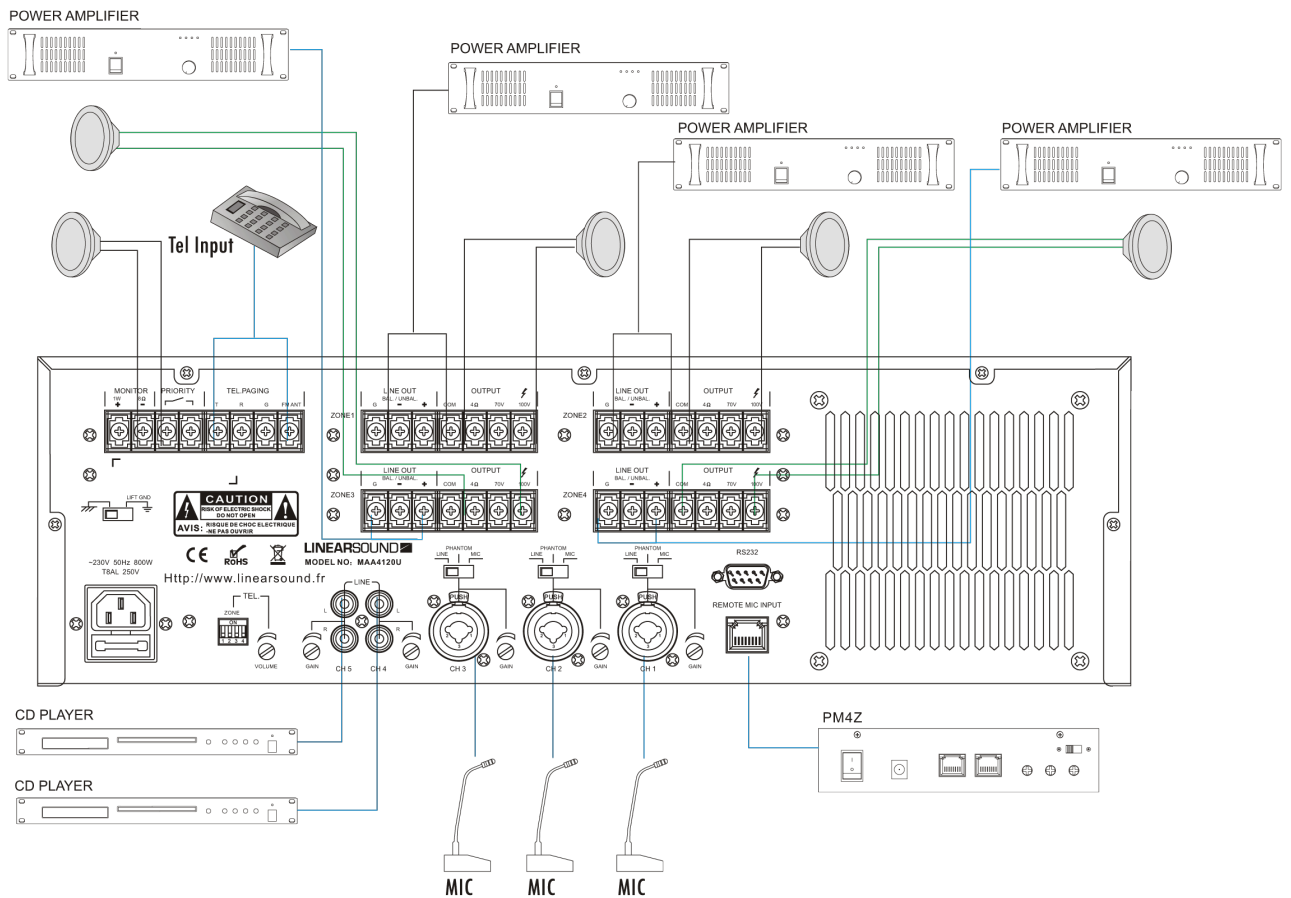
b. XLR connections

Combined XLR (female) phone jack connectors.

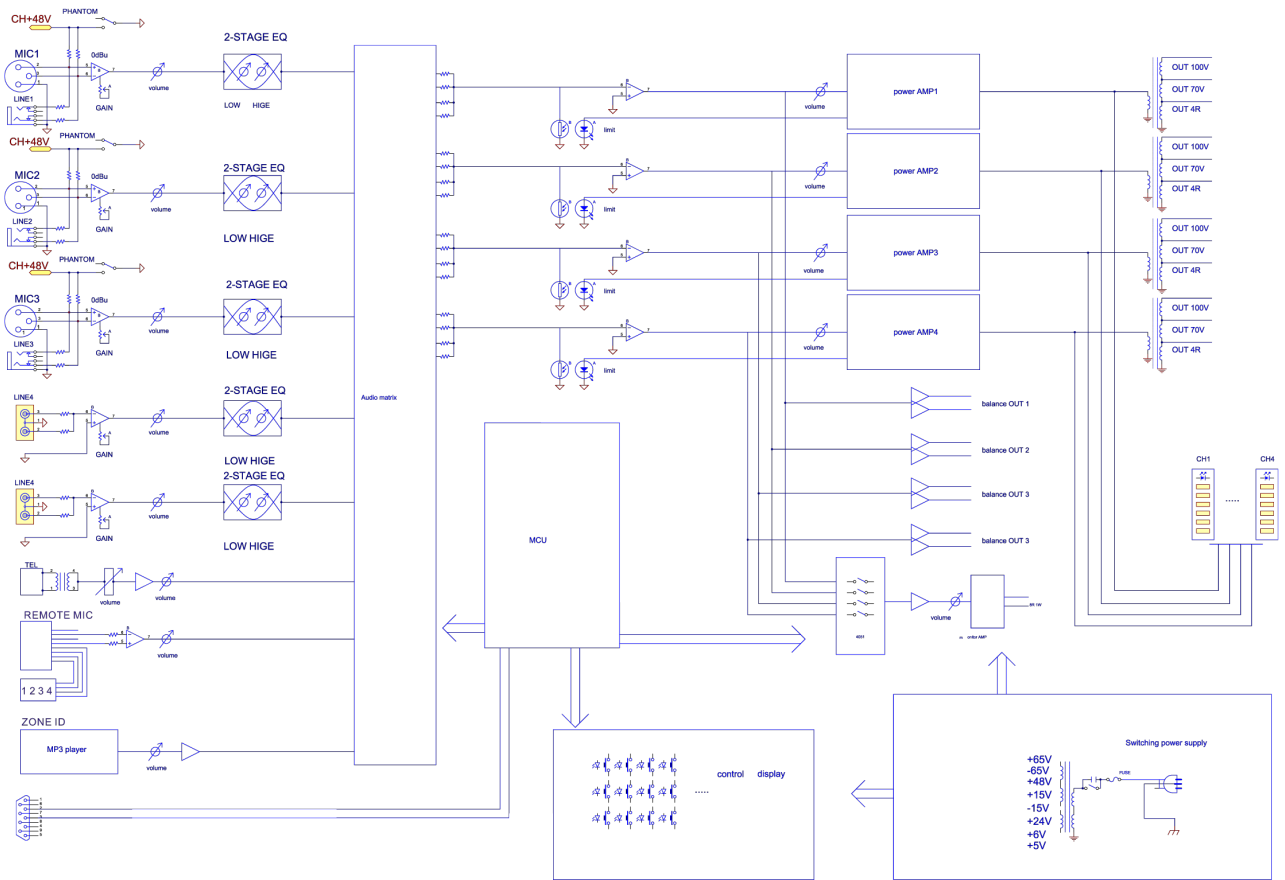


8. APPLICATIONS

Rear panel connections.



9. BLOCK DIAGRAM



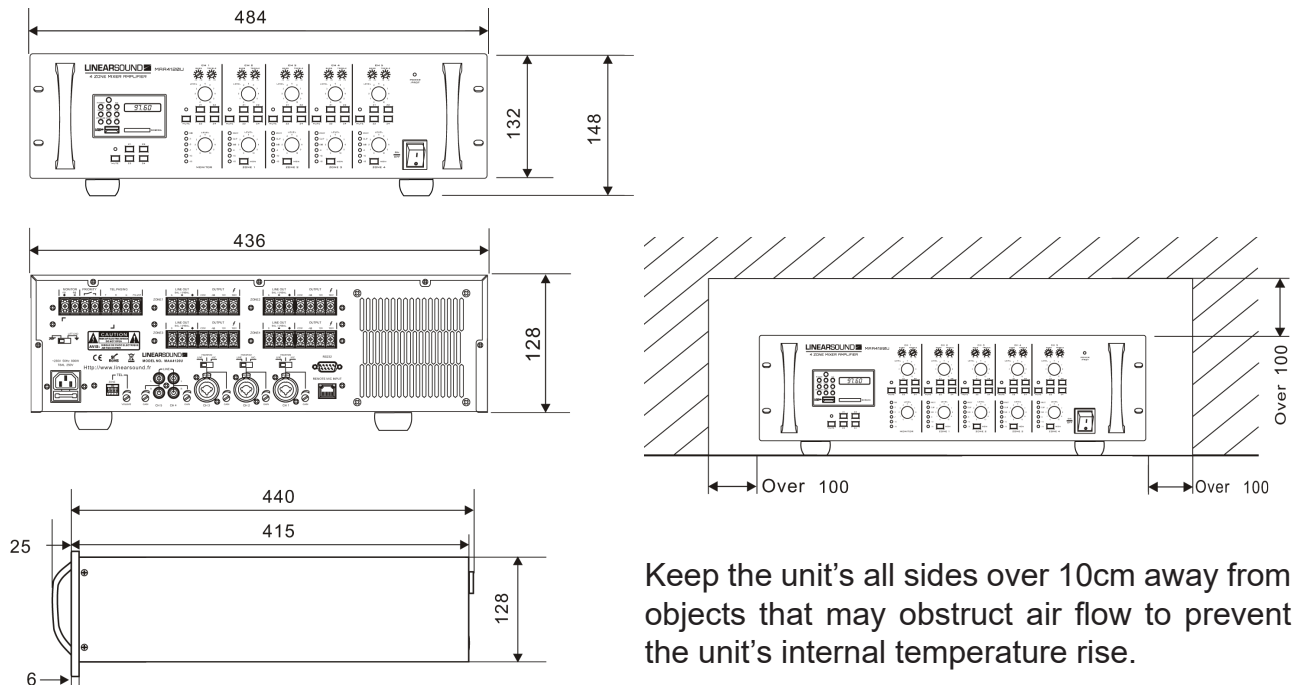
10. SPECIFICATIONS

Power output	4 x 120W
Output interface	4 ohms, 70V / 100V
Monitor output	1W / 8Ω
Input sensitivity and impedance	CH1, 2, 3 : 2.5 mV / 600, 175 mV / 10K, balance input Ch5 , 6 : 350 mV / 10K, balance input TEL : 350 mV / 10K Ω Remote MIC : 387 mV / 10K Ω
Tone	Bass : 10 dB at 100 Hz Treble : 10 dB at 100 Hz
SNR	≥65 dB
Line 1 - 4 output level	1V / 600Ω (balance output)
Frequency	80 Hz - 16 KHz (0 / -3 dB)
MP3	Support MP3 format, max. capacity of 32 GB
Recording format	WAV
SD file system	Only FAT16, FAT32, the biggest one partition, does not support folder to store

Harmonic distortion	≤ 1%
Consumption	800W
Supply voltage	~ 230V 50 Hz
Dimensions	484 x 440 x 132 mm
Weight	11,68 kg

11. DIMENSIONAL DIAGRAM

Unit : mm



Keep the unit's all sides over 10cm away from objects that may obstruct air flow to prevent the unit's internal temperature rise.

LINEARSOUND



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