

artsound

Operating Manual

MX-2406M

MX-5006M

SIX ZONE MIXING AMPLIFIER



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

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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.

Warnings and safety.

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 risk.



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 ArtSound dealer. Make no further attempt to operate the unit in this condition as 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 nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest ArtSound 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.

- 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 ArtSound 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.

An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

Due to product upgrades, while some of the features and specification in the user manual does not match the actual functions, sorry for any inconvenience and thanks for your kind understanding!

2. General description.

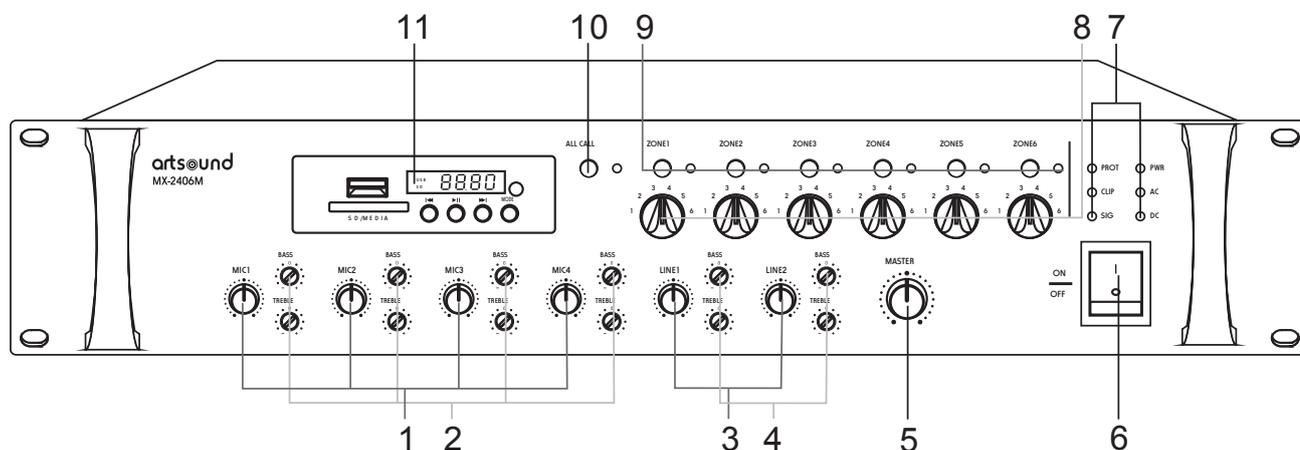
Six-zone mixing amplifier 100V is provided with built-in multimedia source. Suited for all uses of a PA system in schools, home offices or shops.

3. Features

- 4 inputs MIC, 2 inputs LINE, separate treble and bass tuning per channel
- 6 zone outputs with separate volume control
- Built-in siren (2/4-tone) and alarm
- Built-in multimedia source with USB/SD/Bluetooth and FM tuner sound output. Microphone recording function.
- 24V DC power input
- 48V phantom power for MIC1-4 with selector switch
- Optional selective calling console MIC-216 - expandable to 6 units max
- 5 priority levels with the following order:
 - EMC input (externally transmitted signal)
 - ALARM trigger (built-in)
 - TEL input/REMOTE MIC (MIC-216)
 - CHIME (ringtone)
 - MIC1 (with precedence over MIC2-4/LINE1-2)
- 70V/100V speaker output/4-16 Ohm speaker output (monitor function)

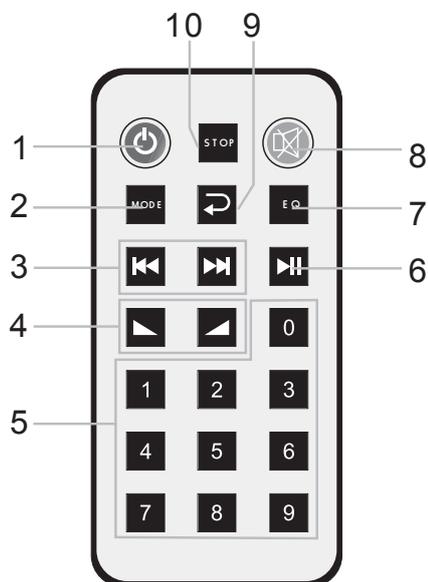
4. Nomenclature and functions.

4.1 Front panel



- | | | |
|------------------------------------|--|------------------------------------|
| 1. MIC1-4 volume controle | 5. MASTER volume | 8. 6-zone volumeregelaars |
| 2. MIC1-4 treble en bass controle | 6. ON/OFF | 9. 6-zone on/off + indicator |
| 3. LINE1-2 volume controle | 7. LED indicator (PROT/CLIP/SIG/
POWER/AC/DC) | 10. Algemene oproep |
| 4. LINE1-2 treble en bass controle | | 11. Multimedia bron (FM/USB/SD/BT) |

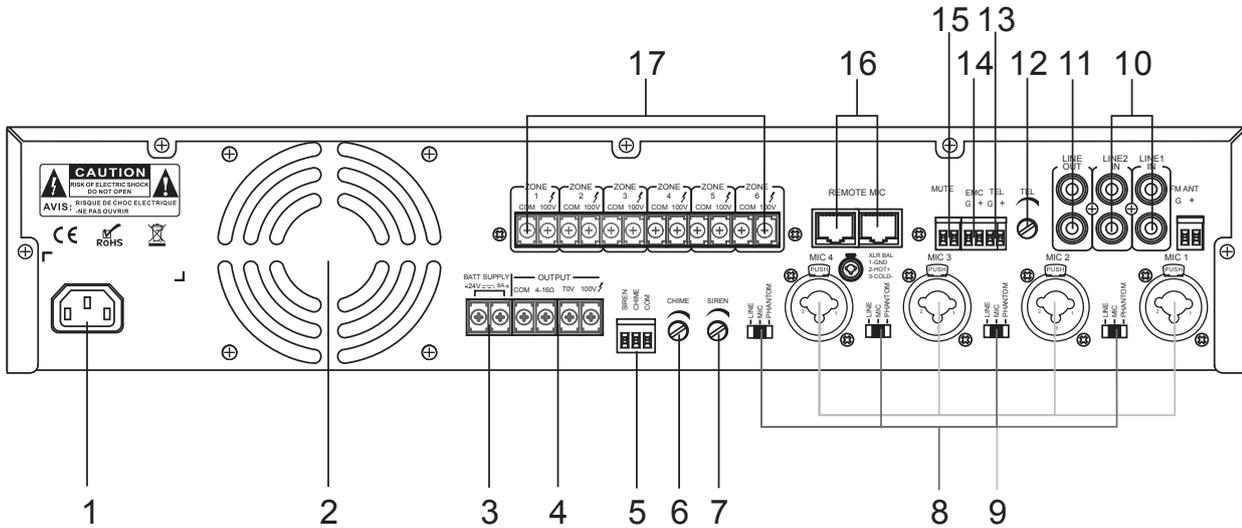
4.2 Remote control (built-in music source)



1. ON/OFF
2. Mode (source selection)
3. Previous/next
4. Volume +/-
5. 0~9
6. Play/pause
7. EQ
8. Mute
9. Repeat
10. Stop

Normal range with use of remote control is 8 metres. Reduced performance may indicate reduced power of the battery.

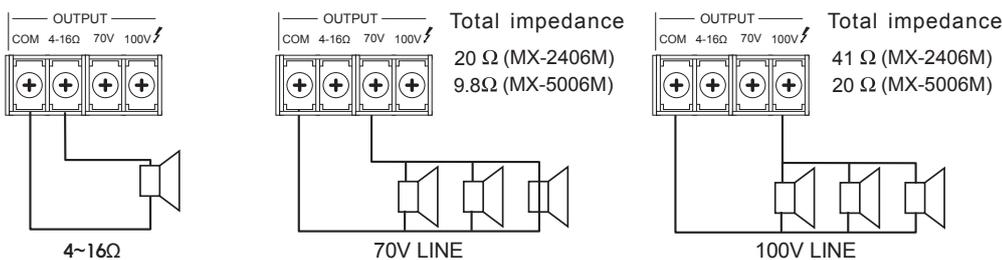
4.3 Rear panel.



- 1. AC power supply
- 2. Ventilation grid
- 3. 24V DC power supply (backup)
- 4. 4~16Ω/70V/100V speaker clamps
COM = speaker mass
70V/100V = speaker "+" terminal
4~16Ω = terminal for speakers 4~16Ω
- 5. Alarm/Siren trigger
- 6. Siren volume control
- 7. Alarm volume control
- 8. Selection button LINE/MIC/phantom power
- 9. MIC1/MIC2/MIC3/MIC4 balanced input
- 10. RCA line signal input
- 11. RCA line signal output
- 12. Tel. input volume control
- 13. Tel. signal input
- 14. EMC input
- 15. MUTE input
- 16. MIC-216 (selective calling console) input
- 17. 6-zone 100V speaker output

5. Use.

5.1 Connect the speakers



- Make sure the equipment is switched off before connecting the speakers. When the equipment is switched on, there is a risk of electric shock.
- It is not possible to use the 4 ~ 16Ω/70V/100V terminals simultaneously.
- **Make sure the speaker wires are not strained.**
- During installation of the speakers, make sure the sum of nominal input power of the speakers to be connected is lower than the nominal power of the equipment.



WARNING
 Make sure to attach the included cover after completing the connection.
 Never touch the speaker terminals to prevent electric shock.
 Do not install this amplifier in a small room with insufficient ventilation.

5.2 Connect any external equipment

- Make sure the equipment and all connected equipment are switched off.
- Use the corresponding cable to connect this equipment and other external devices.

5.3 Connect the power supply and switch on the equipment

- Make sure the amplifier and connected devices are switched off.
- Turn the volume button (MASTER volume) to the left.
- Connect the supplied AC power cable.
- Switch on the connected external equipment, then the amplifier.

5.4 Use of microphone

- Turn the volume control of the selected input to the left. Connect the microphone to the amplifier.
- Turn the volume control to the desired position.
- Position the microphone and speak clearly while the volume button is turned to the left and no distortion occurs.

5.5 Switch off

- Turn the volume button to the left to minimum.
- Switch off the ON/OFF button on the amplifier, then on the switched-on external devices.

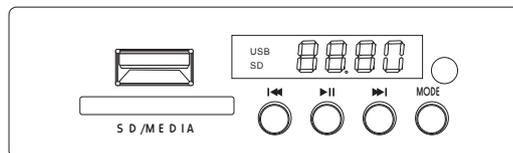


WARNING

- **Wait for about 5 sec. before you switch the equipment on again after switching it off. Switching it on and off continuously may cause breakdown of the amplifier.**
- **Even after switching it off, some residual power is always still present. Pull the plug out of the socket if you do not use the amplifier for extended periods of time.**

5.6 Built-in multimedia source

- USB/SD input : auto display as soon as medium is placed
- 'MODE' button – choice selection source – FM/Bluetooth or MP3 playback
- ⏮ button : short pulse = previous number/long pulse = volume -
- ⏩ button: short pulse = next number/long pulse = volume+
- ⏸ button: press to pause music, press again to continue playing

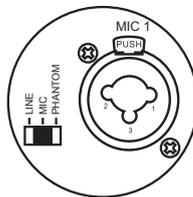


5.7 Bluetooth function

- Press the 'MODE' key until Bluetooth appears.
- Go to Bluetooth settings in in the device to be connected and connect with amplifier.
- Once connected, the device is automatically recognised.

5.8 Selection button LINE/MIC/PHANTOM

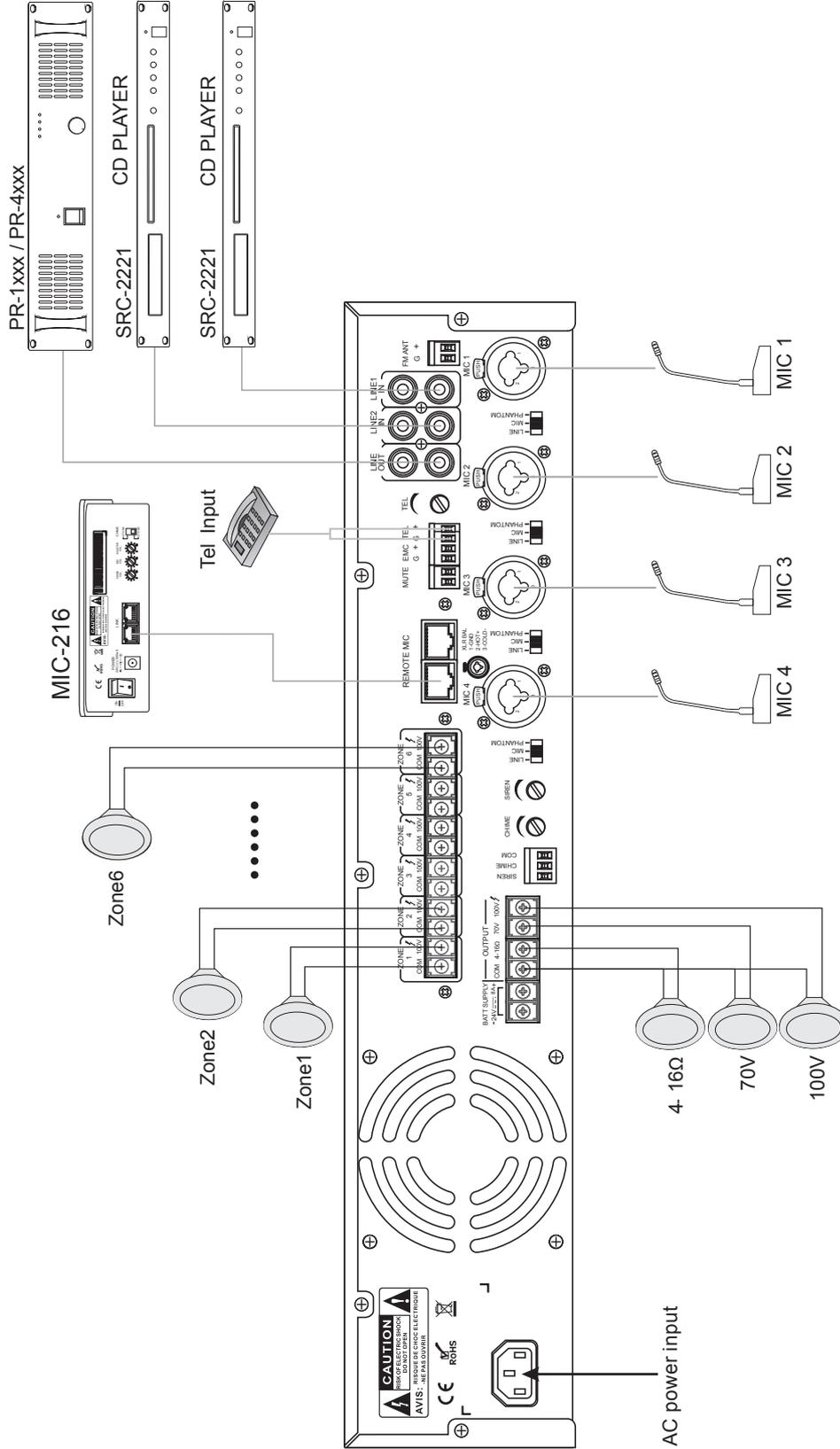
- Select LINE when external devices type CD, DVD or other are connected.
- Select MIC when a condenser microphone with power is connected.
- Select PHANTOM to use the 48V built-in phantom power for microphones without power of their own.



5.9 Selective calling microphone (MIC-216)

- Connect the MIC-216 to one of the RJ-45 terminals on the back of the device to use this selective or general calling option and remote activation of the built-in tone generator.

6. Applications.



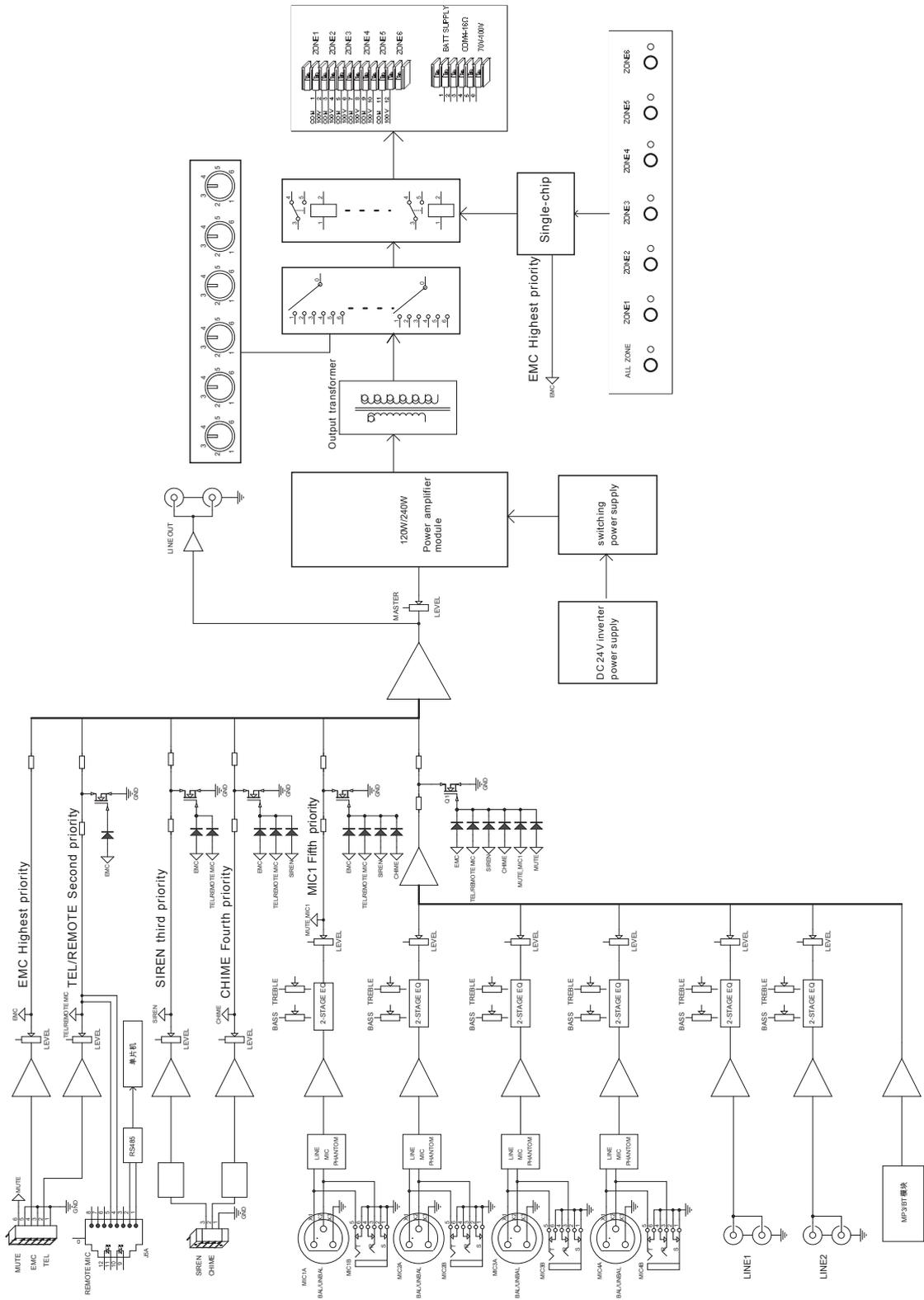
7. Specifications.

Model	MX-2406M	MX-5006M
Output power	240W	500W
Speaker terminals	4~16Ω/ 70V/100V	
Input sensitivity	MIC:5mV ±1mV	
	LINE: 350mV±20mV	
	AUX: 350mV±20mV	
	EMC/TEL: 775mV	
Pre-output	AUDIO OUT: 1V±50mV/ 100Ω	
Microphone frequency	Low frequency:±10dB at 100Hz	
	High frequency:±10dB at 10KHz	
Frequency response	MIC: 80H 16KHz (±3dB)	
	LINE: 20Hz 20KHz (±3dB)	
Signal-to-noise ratio	MIC: ≥65dB; Music:≥70dB	
Total harmonic distortion	THD+ N≤0.1%	
Indicator	Power indicator	
Short-circuit protection	Short-circuit, no voltage	
Cooling method	Air cooling	
Protection	Overheat/Short-circuit	
Operation Temperature	+5°C~+40°C	
Storage Temperature	-20°C~+70°C	
Permitted humidity level	<95%(No condensation)	
Voltage	~110V 50Hz	~110V 60Hz
	~120V 50Hz	~120V 60Hz
	~220V 50Hz	~220V 60Hz
	~230V 50Hz	~230V 60Hz
	~240V 50Hz	~240V 60Hz
Power consumption	380W	800W
Weight	7.2Kg	8.4Kg
Dimensions	484 x 353 x 88 mm	

8. FAQ.

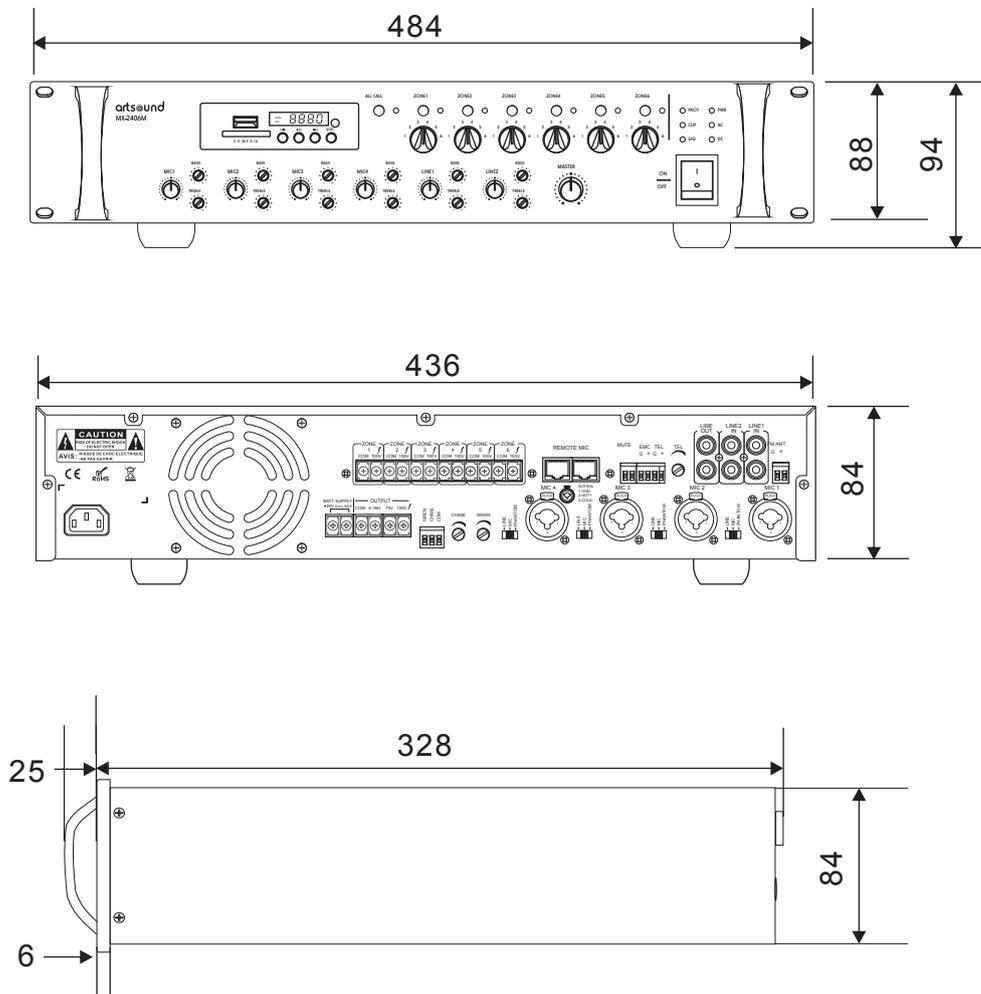
Symptom	Cause
1. Equipment won't start	<ul style="list-style-type: none"> • Check the power cable on voltage. • The equipment is still in 'safety' mode. Check the LED indication and let the equipment cool off.
2. All is connected but there is no sound	<ul style="list-style-type: none"> • The amplifier is not switched on or the power is poorly connected. • The fuse is defective. • The volume control is not set high enough. • There is no incoming signal • There is short circuit on the speaker line
3. The sound disappears	<ul style="list-style-type: none"> • The amplifier has gone into safety mode tot o high temperatures. • There is a poor speaker connection.
4. Volume level too low	<ul style="list-style-type: none"> • Low-ohm speakers are connected to the 70V/100V speaker terminal. • The volume controls are not set high enough.
5. The sound is distorted	<ul style="list-style-type: none"> • The input volume signal of the external equipment or microphone are set too high.

9. Block diagram.



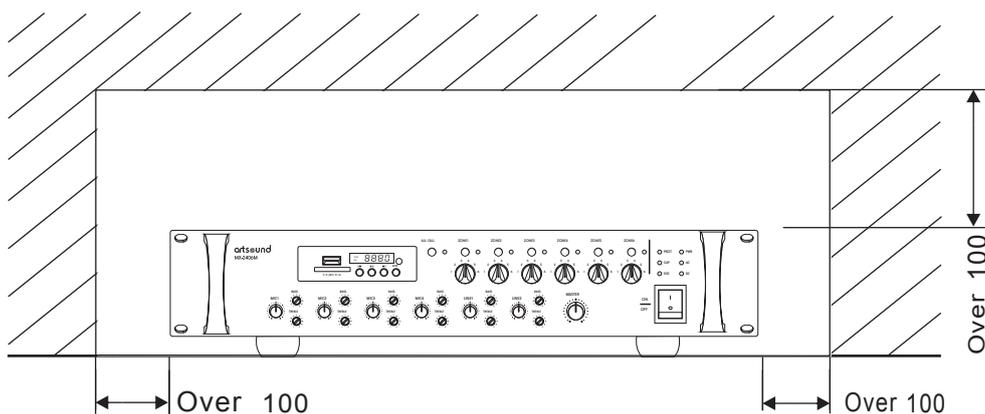
10. Dimensional diagram.

UNIT : mm



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

UNIT : mm



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smart solutions in audio



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range at www.artsound.be**

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