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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.

## 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 **ITC** 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 **ITC** 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 **ITC** 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. DESCRIPTION

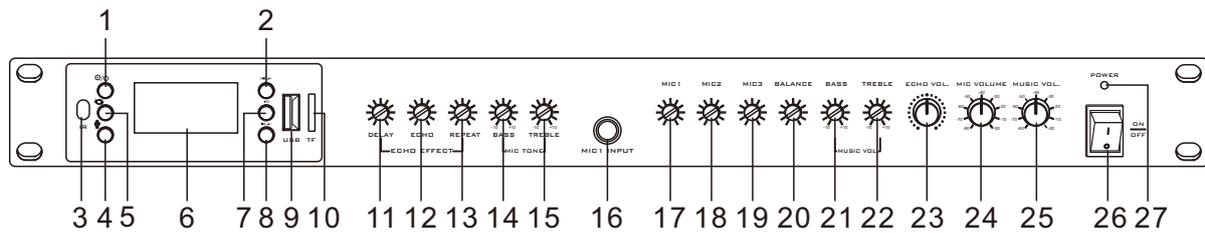
This product adopt high ability power+class D amplifier. Using 1U design, with high efficiency, light and beautiful appearance.

## 3. FEATURES

1. Two channels audio input with switching function.
2. Three channels MIC input function with independence volume adjustment.
3. Professional digital echo delay circuit to make the sound natural and full.
4. MP3 player with TF/USB interface, Bluetooth function with digital display.
5. MP3 recording function enables user to record singing and speech in anytime and anywhere.
6. 60Wx2 /120Wx2 output can connect externally two group of 8Ω loudspeaker.
7. Adapt hidden regulation on volume and effect to make no wrong operation.
8. Forced fan to cooling the device to make sure long term working.
9. Adapt 1U design and combination of switching power supply and class D amplifier chip, efficient, light weight and good looking.

## 4. NOMENCLATURE AND FUNCTIONS

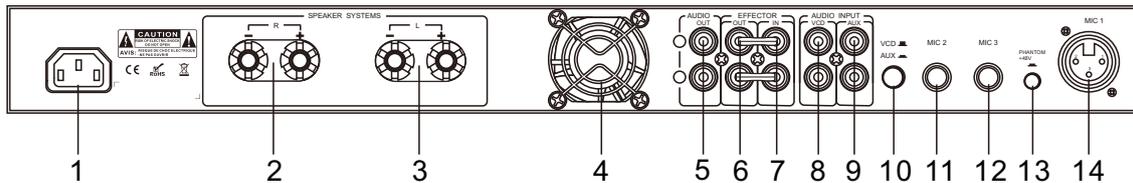
### 4.1 FRONT PANEL



1. Mode function button
2. Previous song/Volume up
3. Infrared receiving window
4. Recording function button
5. MP3 loop playback function button
6. LCD display
7. Play/Pause
8. Next song/Volume reduce
9. USB interface
10. TF card slot
11. Reverberation delay potentiometer
12. Reverberation echo effect Potentiometer
13. Reverberation repetition times adjusting Potentiometer
14. Microphones bass adjust potentiometer
15. The microphone soprano to adjust potentiometer
16. MIC1 unbalanced input port
17. MIC1 The volume potentiometer
18. MIC2 The volume potentiometer
19. MIC3 The volume potentiometer
20. Tone balance control potentiometer
21. The volume bass adjust potentiometer
22. Treble volume adjust potentiometer
23. The total volume control of reverb processors
24. MIC total volume control
25. Music volume control
26. Power switch
27. Power light

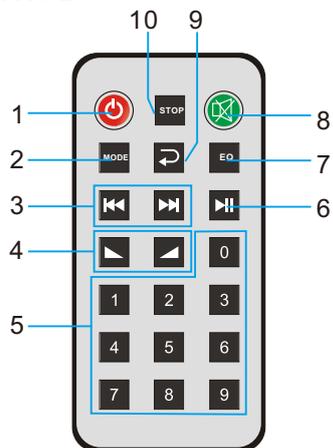
## 4. NOMENCLATURE AND FUNCTIONS

### 4.2 REAR PANEL



1. AC input socket
2. The speaker right channel output (Connection resistance horn)
3. The speaker left channel output (Connection resistance horn)
4. The cooling interface and fan
5. The line output interface, to connect line input interface
6. Mixing output interface
7. Mixing input interface
8. VCD audio signal input interface, to connect VCD audio signal output interface
9. Line input interface, to connect line output interface
10. VCD audio signal and the line input switch
11. MIC2 microphone unbalanced input port
12. MIC3 microphone unbalanced input port
13. Phantom power switch, The power choice of XLR mic input.
14. MIC1 balanced input port

### 4.3 REMOTE CONTROL



1. Power switch
2. Mode
3. Previous/next
4. Volume increase/decrease
5. 0~9 number button
6. Play/pause
7. Sound effect control
8. Mute
9. Cycle play button
10. Stop

#### Normal usage distance of remote control:

Remote control use distance: In the case of no obstructions, usually remote control distance is 8 meters; remote control angle: horizontal  $\pm 35$  degrees, vertical  $\pm 15$  degrees are valid.

#### Remote control usage attention:

1. When install battery, please mind electrode.
2. Please let remote control aim right with window of host machine.
3. When found remote distance get short and insensitive, please change battery.
4. Please take out battery when don't use it for a long time.
5. Take it easy in case of falling.

## 5. OPERATION

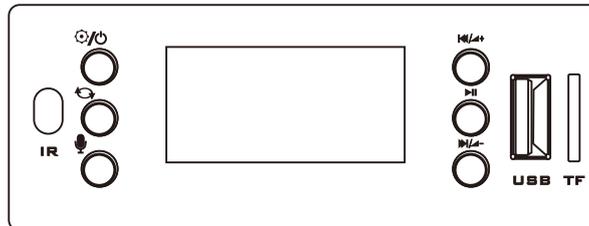
### Opening processor

1. According to the introduction, to set and connect cable in right place.
2. Check output line and input line if they are short out.
3. Check out local power grid is the same as this brochure.
4. Make sure panel power is off, and volume control to minimum.
5. Connect with power, and audio source, turn this device power switcher to on, and turn volume knob to proper position.
6. Open up efficient device and class D amplifier to make sure this device is working well.

### Close procedure

1. Turn volume knob to minimum position.
2. Turn off power switcher to off place.
3. Close this device panel power switcher to off position, close other efficient device and audio source device.

### Built-in Mp3 player operation method



The buttons are explained as follows:

S.No	Buttons	Function
1		Mode function button; FM / USB / BT / playing (Long press this button to forcibly turn on / off the machine, This device has no FM function)
2		Previous song (long press to increase volume)
3		Mp3 loop playback function button; (with Repeat One / Repeat ALL / Random / Repeat Folder mode.)
4		Play / Pause (long press this button in FM mode to receive the station)
5		Recording function button; (press this button in PLAYING mode to record) (Long press the Record button to switch between recording and USB playback)
6		Next song (long press to decrease volume)

### USB function

Press the MODE button to select the USB mode, copy the MP3 file in the U disk (below 32G), and it supports MP3 / WAV / WMA / AEC / FLAC format.

### TF card function

Insert a TF card (below 32G) to copy the MP3 file, and it supports MP3 / WAV / WMA / AEC / FLAC format.

### Bluetooth function

Press the MODE button to select the Bluetooth mode, turn on the mobile phone Bluetooth for connecting, it can play normally when the mobile phone is 10 meters barrier-free away. Bluetooth default name is "BP10\_BT".

## 5. OPERATION

### MP3 song loop playback

In USB or TF card mode, play a song at will, press the mode button to switch between REPEAT One / REPEAT ALL / Random / REPEAT Folder.

### Functional memory function

You can turn it off by the remote controller or long pressing the MODE button. After it is turned on, it can remember the function mode selected before. If you unplug the power cable and turn it on again, the default is Bluetooth function mode.

### Recording function

In the PLAYING mode, press the lower left Recording button to record and store in the USB flash drive. It shows the current specific number of recordings and recording time. If you want to end the recording, you can long press the Recording button to complete recording and play the current recording file. In USB playback mode, long press Recording button to switch between USB songs and recorded files for playback.

### Volume +/-

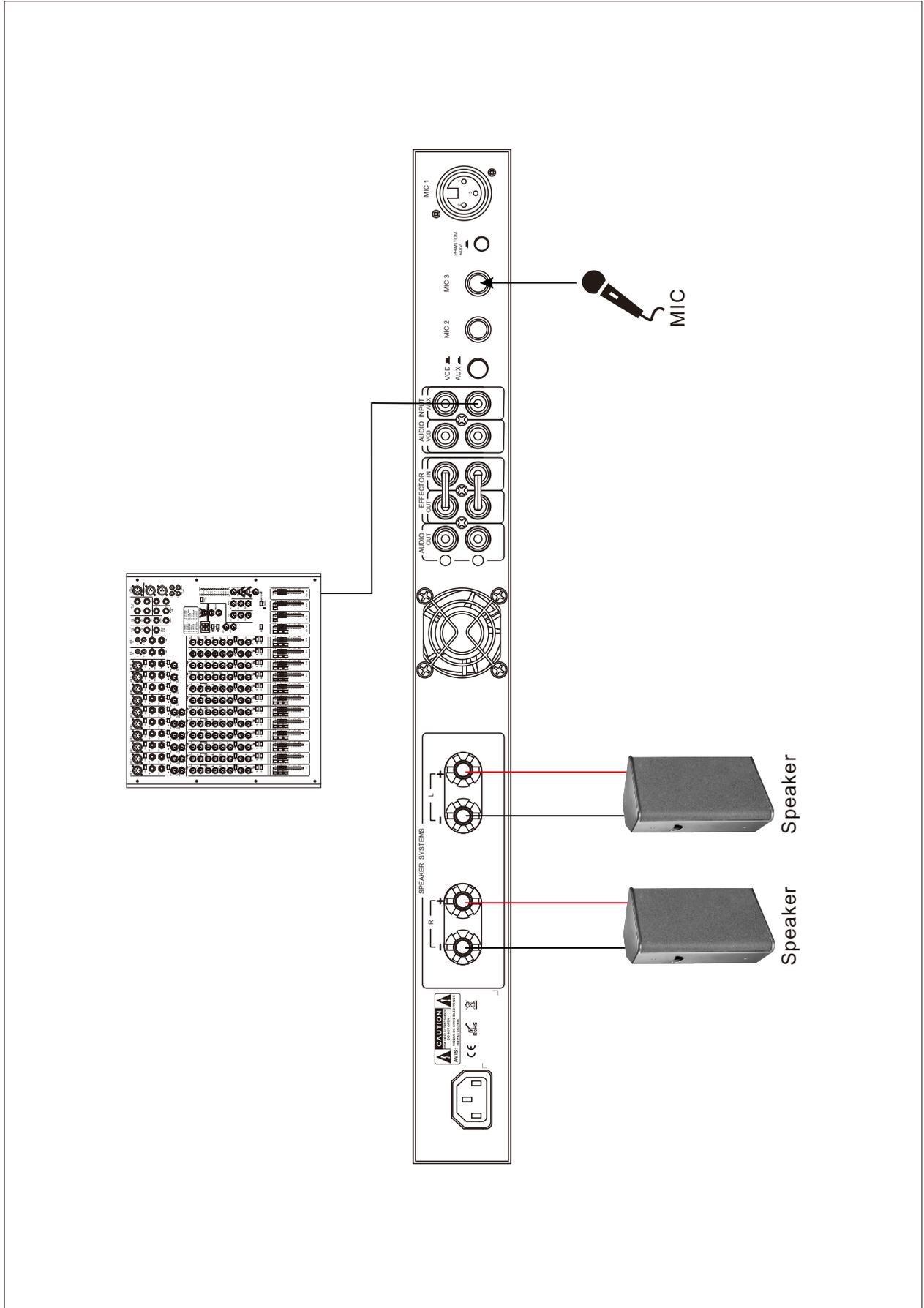
Long press the Previous Song button to increase the volume quickly, and long press the Next Song button to decrease the volume quickly.

## 6. TROUBLESHOOTING

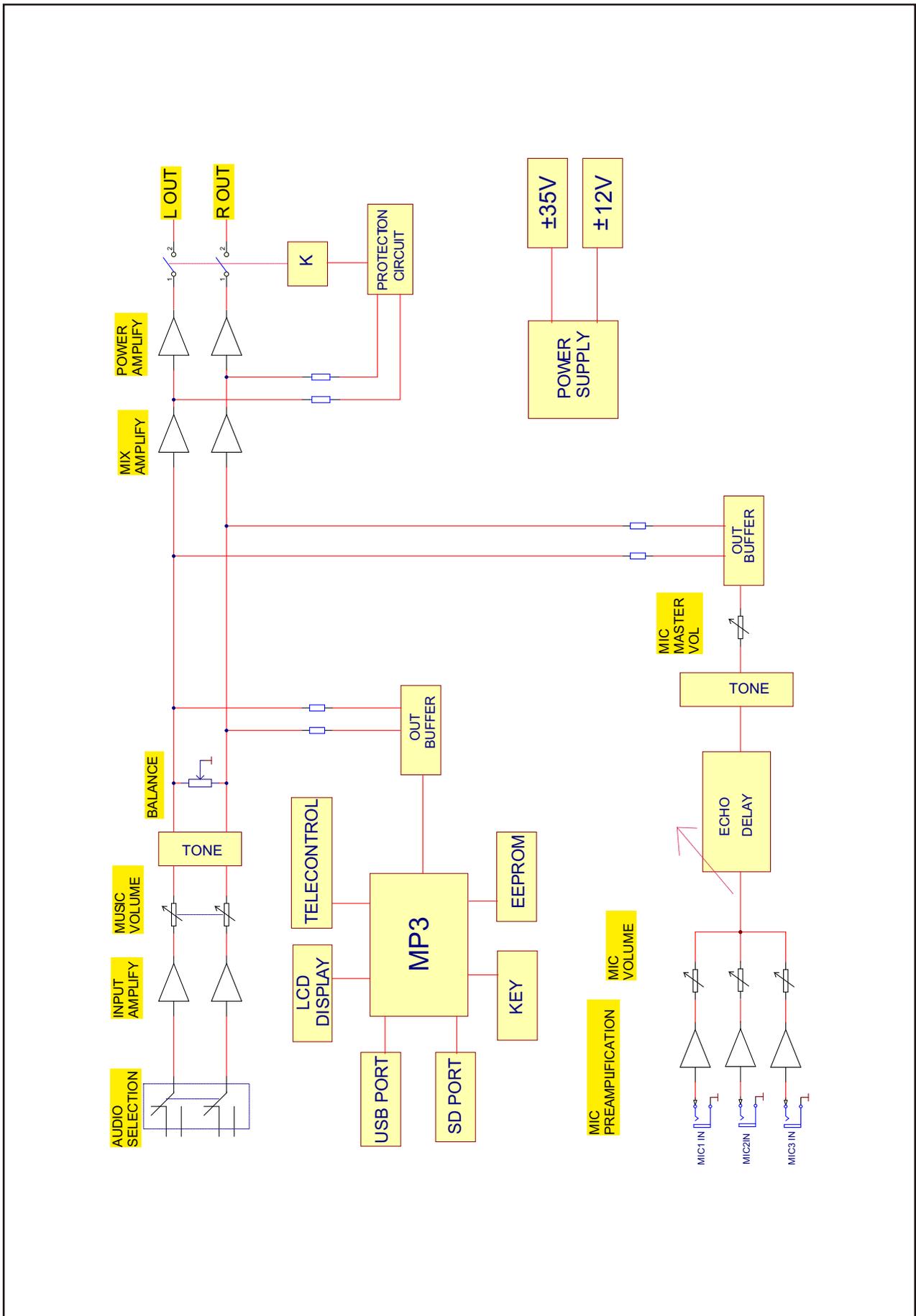
Failure phenomena	Failure cause
1. Power switch is not opened	<ol style="list-style-type: none"><li>1. Power line is cut off</li><li>2. The protection function of the equipment is not activated</li></ol>
2. All lines are connected, but there is no sound.	<ol style="list-style-type: none"><li>1. The power switch is not opened or the power plug is bad contacted.</li><li>2. The fuse is burnt</li><li>3. The volume knob is not opened or turned down to a extra low level</li><li>4. There is no audio signal input</li><li>5. There is short-circuit in the speaker line.</li></ol>
3. The sound suddenly disappears in normal status.	<ol style="list-style-type: none"><li>1. The equipment is in very high temperature to make it into protection status.</li><li>2. The connection wire is bad contact.</li></ol>
4. Low sound	The equipment is set to be low impedance connection, but the speakers connected is with high impedance.
5. Sound is distorted	The input level of Mic or external equipment is too high

# 7. APPLICATIONS

## REAR PANEL CONNECTIONS



# 8. BLOCK DIAGRAM

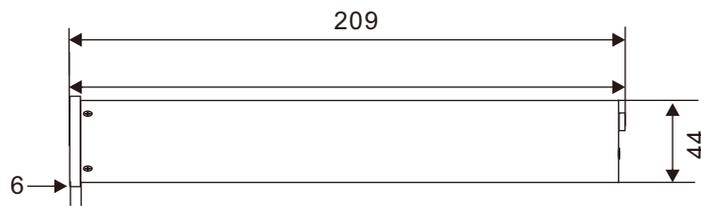
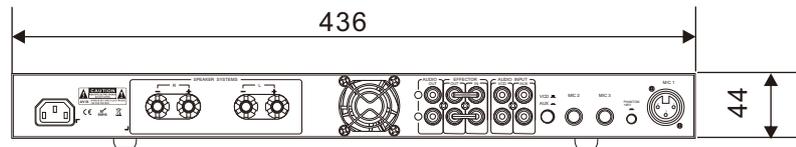
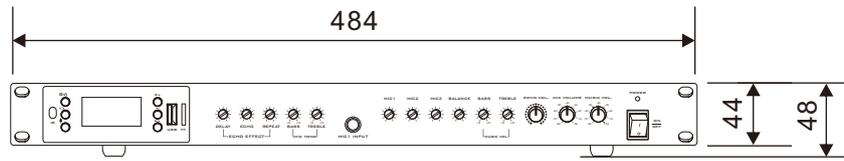


## 9. SPECIFICATIONS

Model	TS-2060W	TS-2120W
Power output	2x60W	2x120W
Output Impedance	4~8Ω	
Input sensitivity and impedance	MIC1/2/3: ±5mV/600Ω (Unbalanced input) AUX: 350mV/10KΩ (Unbalanced input) VCD: 350mV/10KΩ (Unbalanced input) EFFECTOR IN: 350mV/10KΩ (Unbalanced input)	
Front output	EFFECTOR OUT: 350mV/470Ω AUDIO OUT: 1V±50mV/ 470Ω	
Microphone Tone	Bass: ±10dB at 100Hz, Treble: ±10dB at 10KHz	
Music tones	Bass: ±10dB at 100Hz, Treble: ±10dB at 10KHz	
Effect Parameter	DELAY: 80ms-240ms; ECHO: 1-12; REPEAT: 0.1s-2s	
Frequency response	AUX, VCD: 20Hz(±3dB)~20KHz(±3dB) MIC: 50Hz(±3dB)~16KHz(±3dB)	
SNR	MIC: ≥65dB; music: ≥70dB	
THD	Rated output power amplifier distortion ≤1%	
Indicators	Power Indicator	
Short circuit mode	Short circuit, no voltage	
Cooling method	Air-cooled	
Protection mode	Over-temperature / short-circuit	
Working temperature	+5°C~+40°C	
Storage temperature	-20°C~+70°C	
Relative humidity	<95%(no condensation)	
Supply voltage	<input type="checkbox"/> ~110V 50Hz <input type="checkbox"/> ~110V 60Hz <input type="checkbox"/> ~120V 50Hz <input type="checkbox"/> ~120V 60Hz <input type="checkbox"/> ~220V 50Hz <input type="checkbox"/> ~220V 60Hz <input type="checkbox"/> ~230V 50Hz <input type="checkbox"/> ~230V 60Hz <input type="checkbox"/> ~240V 50Hz <input type="checkbox"/> ~240V 60Hz	
Power consumption	200W	300W
Weight	3.1Kg	3.2Kg
Dimensions	484x209x44mm	

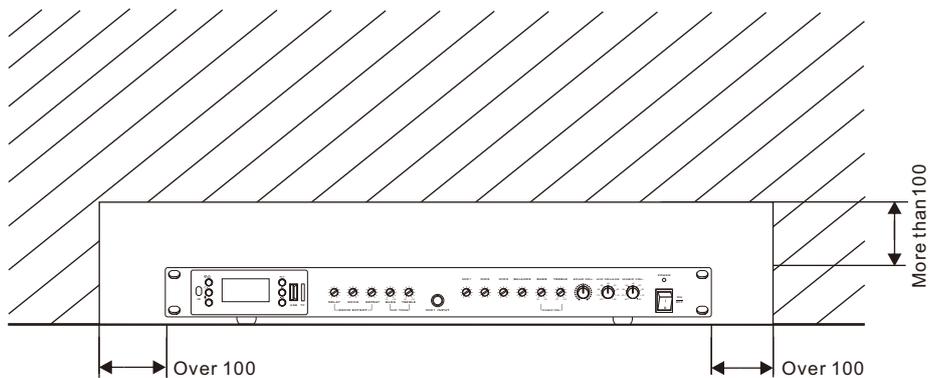
## 10. DIMENSIONAL DIAGRAM

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



# PUBLIC ADDRESS SYSTEM

