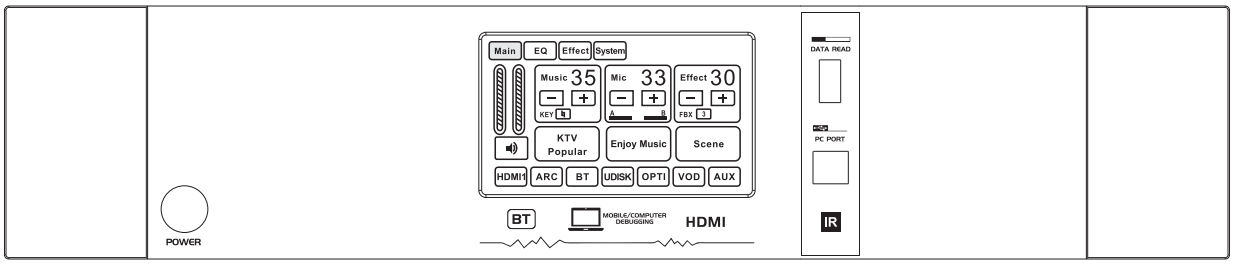
OWNER'S MANUAL

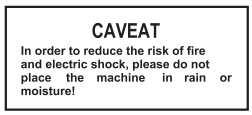
Professional Audio System

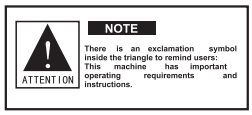


KARAOKE DIGITAL AUDIO PROCESSOR

PRECAUTIONS



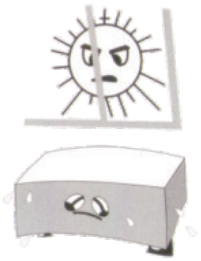






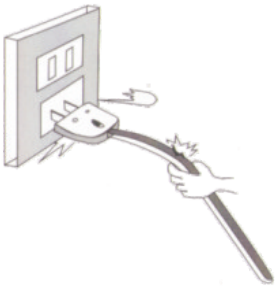


1) Do not place the machine where it is directly exposed to sunlight; dusty place; high temperature place and poorly ventilated place; places with high oil smoke or mist.
2) Non-technical personnel should not open the case to touch the inside, there is a danger of voltage.
3) When the machine is not used for a long time, please pull out the power plug (this machine uses the power plug as the disconnecting device, and the plug should be kept for easy operation).
4) Do not step on or pull on the power cord.
5) The host device must not be subject to water droplets or splashes to avoid danger.
6) Please don't throw, drop, throw, or throw this machine to avoid damage.
7) The body is not waterproof, so avoid falling into water or rain.
8) This machine does not contain any modifiable parts, please do not disassemble and modify without authorization, otherwise you will lose the warranty right.
9) The machine can be cleaned with a soft cloth. If it has stubborn stains, it can be scrubbed with a neutral detergent.
10) The minimum clearance around the equipment for full ventilation is 30CM.
11) Ventilation holes should not cover items such as newspapers, tablecloths, and curtains to hinder ventilation.
12) No naked flame sources, such as lighted candles, should be placed on the equipment.
13) The device should not be subject to dripping or splashing, and no liquid-filled items such as vases should be placed on the device.
14) Do not mix new and old batteries, and only replace them with batteries of the same type or equivalent. Don't mess up the batteries when they are discarded.
15) Please place the battery correctly and take it out when not in use for a long time to prevent leakage. When replacing the battery, please turn off the power first.
16) The equipment can be used normally under the condition of normal temperature 5 ℃ -60 ℃.
17) This product is a Class I structure product and must be connected to a power supply output socket with a protective ground.
18) Only suitable for safe use in areas below 2000m above sea level.
19) Only suitable for safe use in non-tropical climate conditions.



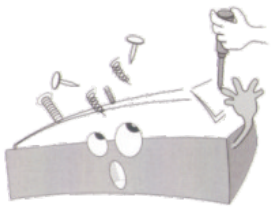
Prevent high temperature

Do not place the machine in the hot sun or near the heating equipment.



Pay attention to the power cord

When unplugging the plug from the outlet, do not use the power cord. Instead, hold the plug to pull it out. If the machine is not use d for a long time, for example, when traveling, the plug must be unplugged from the power outlet.



Do not open the case

You may get an electric shock when you open the case!
Be careful not to let needles, coins, etc. enter the machine.

DIRECTORY

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One list

1.1 Product Features

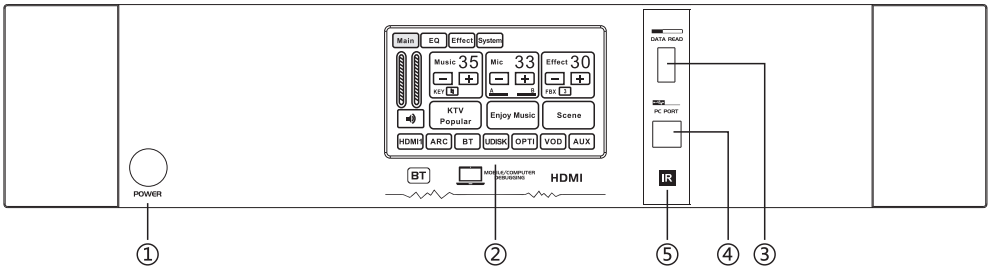
1. Adopts 32-bit high-performance DSP and AD/DA, 24-bit, 48K sampling pure digital professional KTV preeffector.
2. Unique microphone feedback suppression algorithm, with 4 levels of intensity adjustable.
3. The echo effect of professional singing.
4. With the function of audio processor, with ultra-fine delay adjustment.
5. Optical fiber, HDMI, digital audio input interface, obtain a more perfect audio source.
6. The tone-changing function of music can meet the requirements of different singers at any time; Instant and automatic ultra-low tone enhanced dance mode.

1.2 Product Functions

1. 2 sets of microphone input, microphone high-pass filter and low-pass filter, with dual microphone input, MICA and MICB, dual independent 10-segment parameter equalization.
2. Stereo analog music input, 7-segment parameter equalization, high pass filter and low pass filter.
3. Analog audio input, optical fiber audio input, BT, U disk, HDMI audio input, HDMI TV return, a variety of input options.
4. 6 independent channel output, each channel can be independent mixing, high and low frequency divider, main output and surround 7 segment parameter equalization, medium 7 segment and ultra-low 5 segment parameter equalization, delay, voltage limit, polarity change, volume adjustment, mute.
5. Password management, password lock screen function.
6. It has 12 groups of user parameters to store and call.
7. Wireless infrared remote control and BT function.
8. Drive-free USB interface, real-time control of all parameters through PC software.

Two, quick entry

2.1 Front panel description

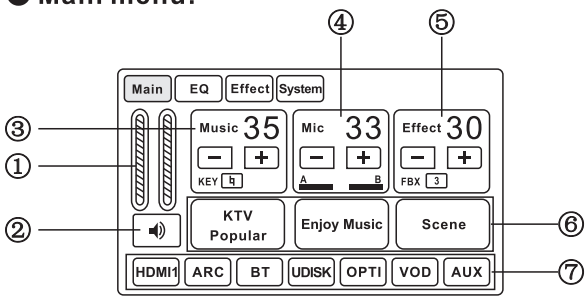


1. Power switch, press the switch to POWER.
2. Touch display.
3. U disk reading window.
4. USB interface, used for data line connection, adjust machine parameters through PC software interface.
5. Infrared receiving window.

Brief introduction of touch screen functions:

1. The touch screen is divided into four menus for adjustment: main menu, balance, effect and system.

● **Main menu:**



①Volume level display.

②Mute, touch the area to switch the mute mode.

③Music volume adjustment, touch the area on the left for the volume reduction, touch the area on the rightfor volume increase. Key is displayed for the up-down level and BT is displayed for the Bluetooth connection status. Symbol appears in the connected state.

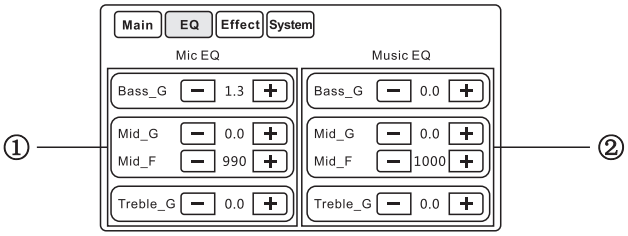
④The microphone volume adjustment, touch the left side of the area to reduce the volume, touch the right side of the area to increase the volume. AB microphone signal and power display.

⑤Effect volume adjustment, touch the left side of the area to reduce the volume, touch the right side of the area to increase the volume. Feedback suppression level displayed.

⑥Mode switching area, in order for popular, professional, folk songs, custom; Music, film, drama, custom; Meeting, scenario 1, scenario 2, customization;Switch and save.

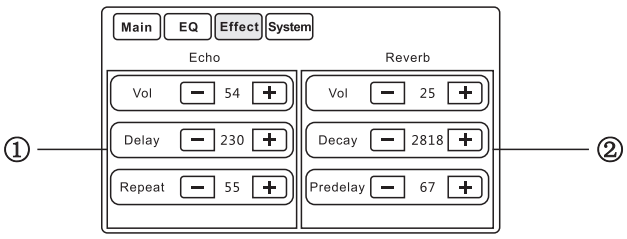
⑦Music input selection area: HDMI1/2/3/4,ARC (to access the TV or other equipment with ARC interface, set the audio output to ARC and the volume should be turned on), BT, U disk, optical fiber, VOD, AUX switch.

● **Balanced menu**



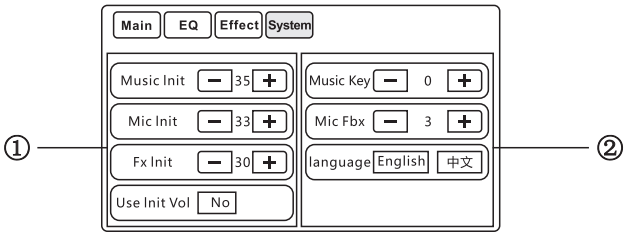
① microphone balance
Bass gain, -24dB~24dB;
Alto gain, -24dB~24dB;
Midtone frequency, midtone sweep adjustment, range: 20Hz~20KHz;
High pitch gain, -24dB~24dB;
② Music balance
Bass gain, -24dB~24dB;
Alto gain, -24dB~24dB;
Midtone frequency, midtone sweep adjustment, range: 20Hz~20KHz;
High pitch gain, -24dB~24dB;

● Effect menu



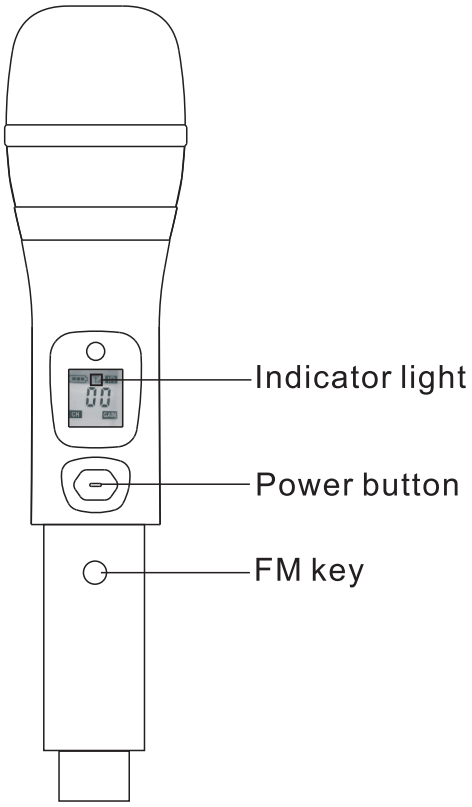
① echo volume: 0~100; Adjust the echo effect to increase the number of the original signal, the greater the value, the more obvious the effect.
Echo delay: 1~500ms; The time of moment between two echoes in the echo effect. The larger the value, the longer the echo interval.
Echo repetition ratio: 0~90; How many times does the echo effect repeat? The higher the value, the more times the echo effect repeats.
② Reverb volume: 0~100; Adjust the reverberation effect to increase the number of the original signal, the greater the value of the effect is more obvious.
Reverberation delay: 500~5000ms; The larger the value, the wider the space.
Reverberation pre-delay: 0~100ms; The delay time when the reverberation effect is heard. The larger the value, the later the reverberation effect will appear, resulting in a more spacious effect.

● System menu



①The initial volume of music: range: 0~84;
②The initial volume of the microphone: range: 0~84;
③The effect of the initial volume: range: 0~84;
④ Use the initial volume: yes/no;When selecting "Yes" toggle mode, the volume changes with the initial volume, and when selecting "No" toggle mode, the volume remains unchanged.
⑤ Sharp: 7 segments in sharp and 7 segments in flat;
⑥ microphone noise: range: 0~4;
⑦ Language: switching between Chinese and English.

Microphone Operation Instructions:



1. As shown on the left, follow the steps below to complete the operation:

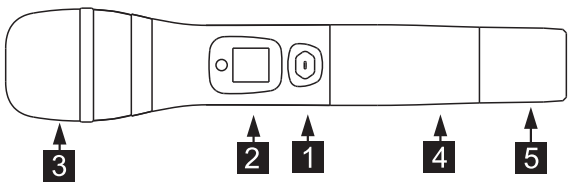
① Press the power button, if the default ID microphone can be automatically connected to the receiving module, if it cannot be connected, the code matching operation is required.

②code matching:

After booting, short press the "frequency modulation button" to change the frequency (don't let go of your hand) and press the "power button" again. The indicator light flashes, and it is in the code matching state. After the indicator light does not flash, the code matching is completed and the microphone is connected to the receiving module.

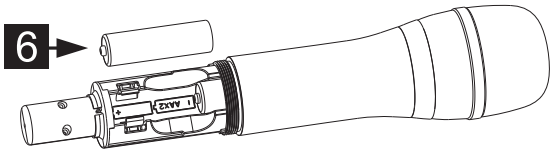
③Change to a unique ID:

After powering on, press and hold the "FM button" until the frequency is beating and press the "Power button". The indicator light flashes. After the indicator light does not flash, the ID has changed and the receiver cannot be connected, then turn off the receiver. Then short press the "frequency modulation button" (don't let go of your hand), and then press the "power button" again. After the indicator light flashes, power on the receiving module within 3 seconds, and the microphone can be connected to the receiving module.



1. Power button, short press-power on; long press for about 2 seconds-power off;
2. LCD display;
3. Net cover with protective sponge inside;
4. The lower tube body can replace the battery when it is unscrewed;
5. Do not hold the transmitting antenna part, otherwise it will affect the transmitting effect;

Replacement battery

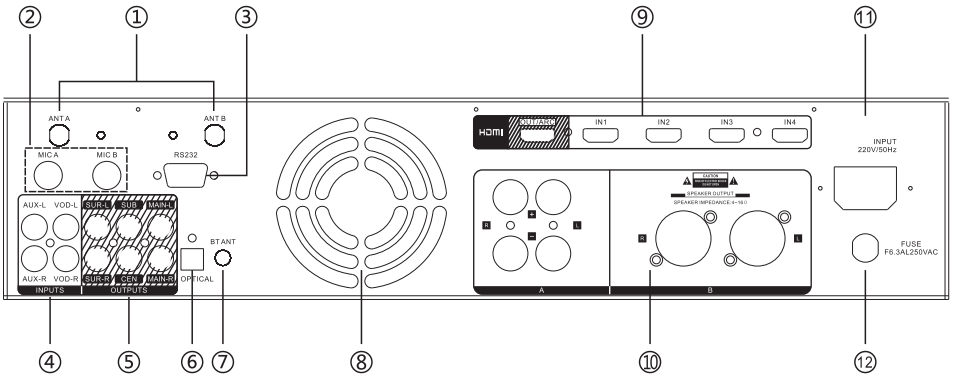


6、 Replacement battery

The continuous working time of 2 AA batteries is about 6 hours. When the battery indicator is low (or), please turn off the transmitter and replace the batteries. When replacing the battery, please pay attention to the polarity of the battery!

- ✦Make sure the transmitter is off!
- ✦Unscrew the lower tube body;
- ✦Replace the battery, pay attention to the polarity of the battery!

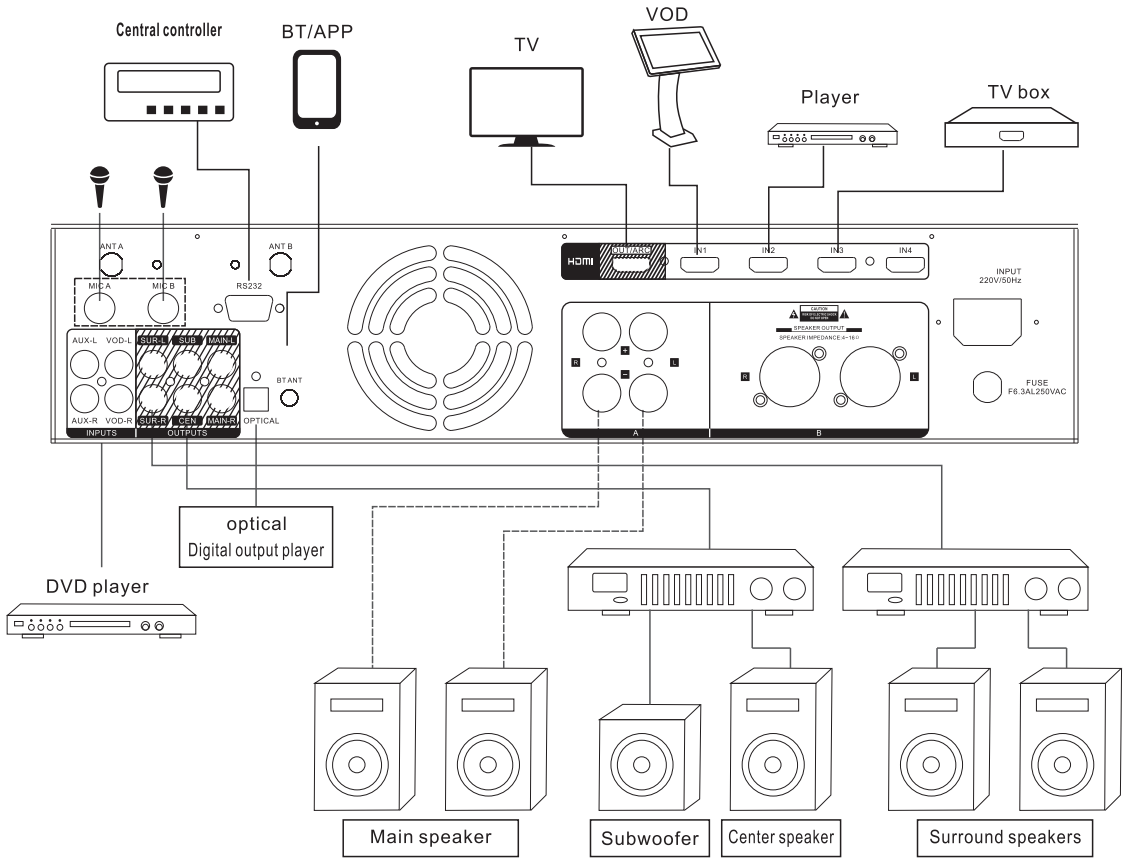
2.2 Rear panel description



1. Wireless microphone antenna reception.
2. MICA/B 2-way microphone input jack.
3. The RS232 interface is used to connect to the central controller.
4. Two audio input ports.
5. Audio output interface.
SUR-L/R: surround left and right channel output interface.
SUB: Subwoofer output interface.
CEN: Center output interface.
MAIN-L/R: Main channel left and right channel output interface.
6. Optical fiber input interface.
7. BT antenna reception.
8. Fan vents.
9. HDMI, IN1, IN2, IN3, IN4 input, HDMI, OUT/ARC output interface/TV audio return signal.
10. Speaker output interface, connect to speakers (8/4Ω).
11. Power socket.
12. Fuse

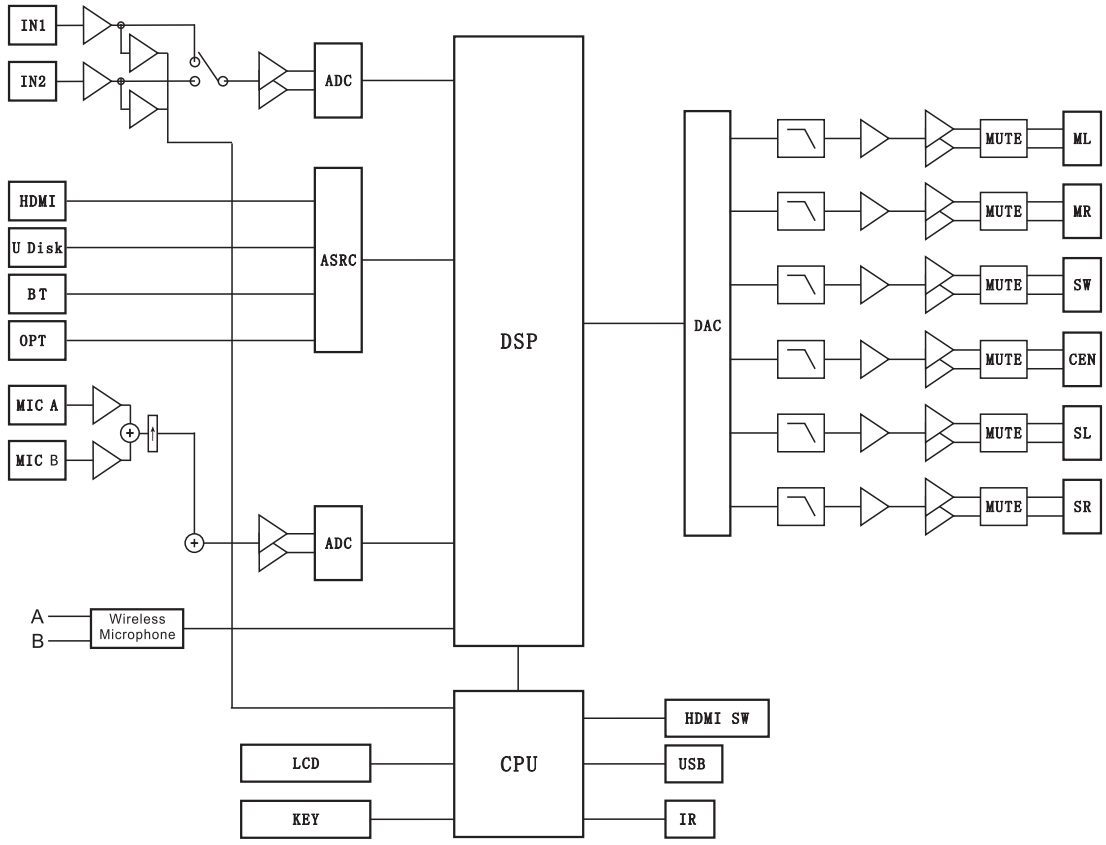
2.3 Connection method

1. Before connecting, make sure to turn off the pre-effects and all power amplifiers. Connect pre-effects and related equipment. Pay attention to ensure good connection and contact.

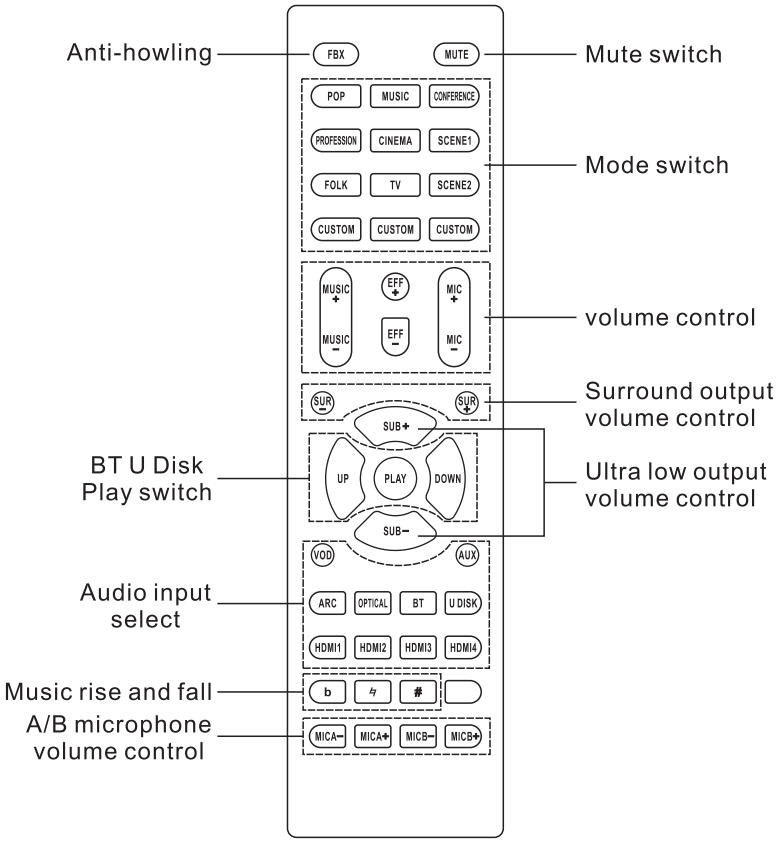


2. Turn on the power of the relevant player and start playing.
3. Adjust the volume of all power amplifiers to the minimum, and then turn on the power of the pre-effects first, then turn on the power of the power amplifier.
4. Slowly increase the volume of the power amplifier until you are satisfied.
5. Start debugging the system with PC software.

Three, Hardware Principle Block Diagram



Description Of Remote Control



Four, technical parameters

Items	Paremeter	
	Microphone MIC	MUSIC
Frequency Range	22-200000Hz	22-20000Hz
Frequency Response	±1.5dB	±1.5dB
SNR	>98dB	>98dB
Distortion THD+N	<0.05%	<0.05%
Dynamic Range	ADC 105dB, DAC 103dB	ADC 105dB, DAC 103dB
Maximum Input Level	180mVrms/-15dBV	3Vrms/8dBV
Maximum Output Level/Power	56Vrms/400W 8Ω , 69Vrms/600W 8Ω	
Noise Level	<-85dBu	<-90dBu
Input Interface	2 wired microphones, divided into A/B groups	Lotus (VOD/AUX), Optical (Optical), Coaxial, HDMI, USB
Output Interface	6 Lotus 5.1-channel outputs, 1 set of binding posts output and a set of speaker rotary Kalong output	
Parametric Equalization	MIC dual 10-band independent (63Hz, 125Hz, 250Hz, 500HZ, 1KHz, 2KHz, 4KHz, 6.3KHz, 8KHz, 10KHz) reverberation 5 sections (125Hz, 250Hz, 1KHz, 2.5KHz, 8KHz) 5 segments of echo (125Hz, 250Hz, 1KHz, 2.5KHz, 8KHz) +/-6dB, PC software for parameter adjustment +/-24dB	MUSIC 7-segment (125Hz, 250Hz, 500Hz, 1KHz, 2KHz, 4KHz, 8KHz) +/-6dB, PC software is parameter adjustment +/-24dB
	Main output 7 segments (125Hz, 250Hz, 500Hz, 1KHz, 2KHz, 4KHz, 8KHz) 5 segments (125Hz, 250Hz, 1KHz, 2.5KHz, 8KHz) surround 5 segments (125Hz, 250Hz, 1KHz, 2.5KHz, 8KHz) Ultra-low 5 segments (31Hz, 63Hz, 125Hz, 250Hz, 500Hz) +/-6dB, PC software is parameter adjustment +/-24dB	
Crossover Xover	7 types 12/18/24dB high and low pass	7 types 12/18/24dB high and low pass
	Output 7 types 12/18/24dB high and low pass	
Limiter Compressor	MIC adjustable parameter limiter	MUSIC adjustable parameter limiter
	Output adjustable parameter limiter	
Howling suppression function FBX	Software built-in howling suppression, level 4	
HDMI	4 in 1 out, version 2.0	
Built-in wireless microphone frequency response	22-200000Hz, +/-3dB	
Built-in wireless microphone distortion	0.03%	
Built-in wireless microphone frequency range	650-680.1Mhz (470-960 can be customized)	
Built-in wireless microphone receiving sensitivity	<-94dBM	
Built-in wireless microphone handheld voltage	3V, (two AA batteries)	
Power requirements and consumption Power Consumption	220VAC +/-10%, rated power consumption 400W/600W	
Weight	Net weight (400W) 12.5kg (600W) 14.3kg	
Size	L429*D386*H102mm	

Five, must pay attention to

When using this product, do not use inferior microphones, as the frequency response of inferior microphones is not good. It will seriously affect the singing effect, such as dry voice, not fullness, distortion, and easy howling. At the same time, if the microphone lead wire is not well shielded, the lead wire will easily induce noise and cause unnecessary noise to the speaker.
When singing, you must avoid howling the microphone is too close to the speaker. Severe howling can easily damage the power amplifier and speakers. In order to avoid howling, care should be taken to keep the microphone as far away from the speaker box as possible. At the same time, appropriately reduce the microphone volume and attenuate the microphone treble. Do not tap the microphone or pull the microphone lead. Do not work when the speaker wire is short-circuited or the amplifier power is exceeded for a long time.

Six, simple faults and maintenance

note:
In order to avoid unnecessary losses to you during transportation, when this machine fails, it is not necessarily a problem with this machine. Please check the following methods before submitting for repair. After the fault is determined, pack the machine and return it to our company. We will provide you with warm repair services.

Failure Phenomenon	Cause Of Issue	Solution
No sound output and the display does not light up	The power socket is dead	Overhaul the power supply system
	The power plug is not plugged in properly	Connect the power plug correctly and ensure good contact
	AC 220V fuse blown	Replace the fuse of the same specification after pulling out the power plug
No sound output but the screen display is normal	The output speaker signal is not connected properly	Reconnect and ensure good contact
	Master volume is set to minimum	Reset according to the setting method in this manual
	The unit is set to mute	Unmute
	No signal output from signal source	Repair signal source
Only one channel of output	The speaker output signal line on one side is not connected properly	Reconnect and ensure good contact
	An input signal is incorrectly inserted or not inserted	Reconnect and ensure good contact
	Signal line is damaged	Reconnect and make sure the contact is good

Note: If the fault still cannot be eliminated, please send it to a nearby dealer for repair.

The company's products will keep up with the development of technology and keep improving. Specifications are subject to change without notice!

Professional Audio System

KARAOKE DIGITAL AUDIO PROCESSOR