

# **DSP Karaoke Power Amplifier**

| karaoke series | KU23UU |
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User Manual \_\_\_\_\_

- Thank you for your patronage of our products. Please read through this user manual to ensure you know how to use this device properly.
  - After you have read this manual, please keep it in a safe place for future references.
- High voltage inside, please do not open the cover and contact professionals for maintenance;
- Please do not place the device in the rain or humid places;
- The device must work in a well-ventilated environment;
- Please note the local power supply must be consistent with the voltage of the device;
- Unplug the power plug when unused for a long time;
- Please follow the instructions stated in this user manual when matching the load of the device, do not let the device run in overload for long time.



Before this device is connected to the power outlet, please first determine the local power grid voltage is the same as the voltage indication behind the rear plate of this device. When connecting the device to the power socket, make sure the socket and the power cord are not damaged. Please pull out the power plug after turning off the power.

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## Contents

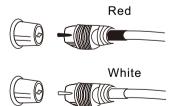
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Please read the user manual in detail before using this device, and preserve the user manual for future references.

### Characteristics —

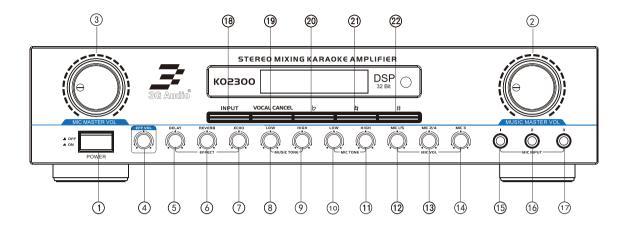
- Thank you for choosing our comprehensive karaoke power amplifier, this product condensed the valuable design concept of our company in the field of professional power amplifiers and karaoke processors for over 20 years. With excellent audio performance, special vocal processing technology, and high reliability to ensure the quality of this product.
- Audio processing uses the 32bit high-performance dual core DSP processor;
- The parametric equalization is adjustable through the music channels, with high and low two tones;
- The parametric equalization is adjustable through the microphone channels, with high and low two tones;
- Microphones have four levels of feedback suppression, including vocal excitement, virtual surround sound, and other features;
- Microphones have adjustable audio effects: delay, reverb, echo;
- Music has adjustable audio effects: original sound elimination; key modulation has four rising mode: #1, #2, #3, and #4, #2 and original key; four decreasing mode b1, b2, b3, and b4;
- Multifunctional input and output Supports PCM.
- The power supply of the amplifier adopts active power factor correction technology to achieve higher power factor and wide operating voltage range;
- The amplifier module uses the Class D amplification technology, its small in size and lightweight;
- Comprehensive protective functions: patented adaptive temperature management system, power over-voltage/ under-voltage/ over-current protection, power inrush current limit, power release shutdown noise suppression, output short-circuit, direct current protection, and others.

## Signal Cables -



When connecting the RCA plug, make sure to insert the red plug in the red socket, and insert the white plug in the white socket.

### Front Panel

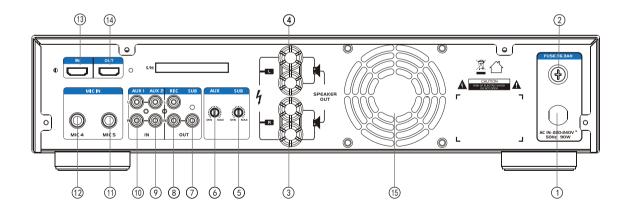


- 1. Power switch
- 2. Music master volume
- 3. Microphone master
- 4. Microphone effects volume
- 5. Delay
- 6. Reverb
- 7. Echo

- 8. Music parametric equalization low tone
- 9. Music parametric equalization high tone
- 10. Microphone parametric equalization low tone
- 11. Microphone parametric equalization high tone
- 12. MIC 1/5 volume
- 13. MIC 2/4 volume

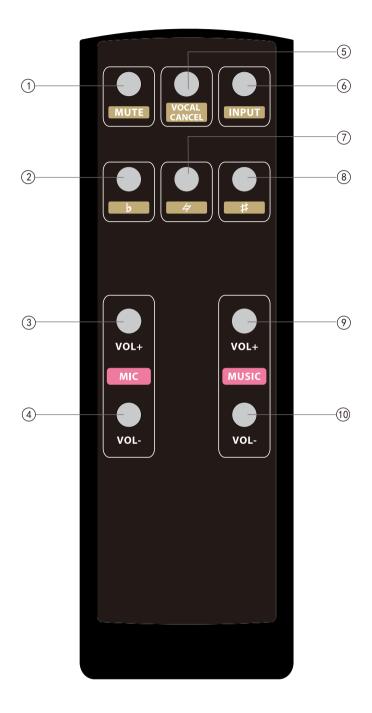
- 14. MIC 3 volume
- 15. MIC 1 input
- 16. MIC 2 input
- 17. MIC 3 input
- 18. Input selection
- 19. Vocal cancellation
- 20. b Lower key
- 21. 4 Original key
- 22. # Raise key

## Rear Panel -



- 1. Power cable
- 2. Fuse holder
- 3. Right channel speaker output
- 4. Left channel speaker output
- 5. SUB output volume
- 6. AUX input volume
- 7. SUB output
- 8. REC output
- 9. AUX2 input
- 10. AUX1 input
- 11. MIC 5 input
- 12. MIC 4 input
- 13. Multifunctional input
- 14. Multifunctional output
- 15. Heat vent

#### Introduction of Remote Control Functions -



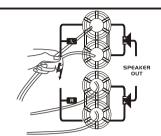
- 1. Mute
- 2. b Lower key
- 3. Increase MIC volume
- 4. Decrease MIC volume
- 5. Vocal cancellation

- 6. Input selection
- 7. #Original key
- 8. #Raise key
- 9. Increase music volume
- 10. Decrease music volume

## Pre-connection -

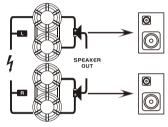
## Speaker cable connection

- 1. Turn the bolt on the binding post counterclockwise, and insert the wire into the hole from the side.
- 2. Turn the bolt on the binding post clockwise to tighten the wire.



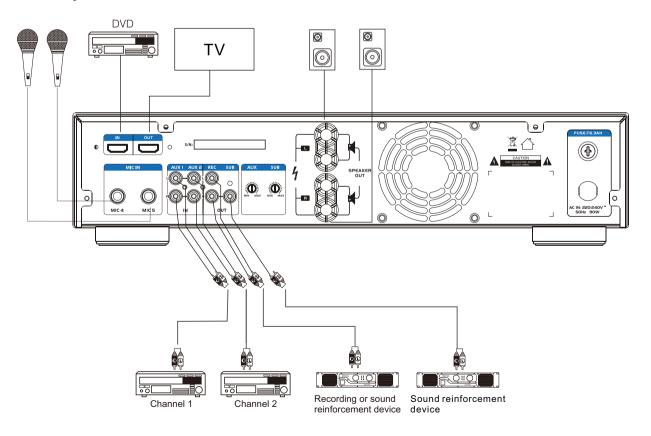
Before connecting, select the appropriate speaker cable and connect the speaker from the shortest distance.

This device provides the connection of a set of speakers. Pay attention to whether the phase is correct, if the cables are not connected correctly, the sound quality will become unnatural and it will lack low frequency.



Attention: The end of the cord cannot touch its neighboring cord.

## **System Connection**



### Panel Features Description —

#### 1. Buttons and their basic definitions

Input selection: audio input mode selection can be selected between channel 1/channel 2/multifunctional. Voice cancellation: select on or off.

b Key lowering: select between four modes: b1, b2, b3, and b4.

夕Original key: select 夕original key.

# Key rising: select between four modes: #1, #2, #3, and #4.

#### 2. Operation Interface Description

Main interface menu: displays the statuses of all main features of the system, this interface will be displayed when the device is turned on, and all submenus that are unused for 10 seconds will return to this main interface.



- ① MIC master volume: displays the current master volume of the microphone, adjust the volume by turning the MIC master volume knob, volume range is 00-50.
- ② Music master volume: displays the current master volume of music playing, adjust the volume by turning the MUSIC master volume knob, volume range is 00-50.
- ③ Effect master volume: displays the current master volume of microphone effects, adjust the volume by turning the EFFECT master volume knob, volume range is 00-50.
- ④ Input selection: displays the current input mode for the audio source, lightly press the INPUT button on the panel to select the audio source.

Voice cancellation main menu: lightly press the Voice Cancellation button on the panel to display the interface.

① Voice cancellation selection: displays the current voice cancellation mode: lightly press the Voice Cancellation button on the panel to turn on or turn off the mode.

 Ы Key lowering main menu: lightly press the
 Identification with the panel to display the interface.



① b Key lowering selection: displays the current b1 mode, lightly press the button on the panel to select between the four key changing modes: b1, b2, b3, or b4.

## Front Panel Features Description ———

4 Original key main menu: lightly press the 4 Original Key button on the panel to display the interface.



#Key raising main menu: lightly press the #Key Raising button on the panel to display the interface.



① #Key raising selection: displays the current #1 mode, lightly press the # button on the panel to select between the four key changing modes: #1, #2, #3, or #4.

Microphone effects main menu: to display this interface, turn the delay, reverb, and echo knobs.



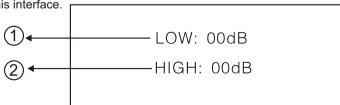
- ① Reverb: adjust the reverb volume by turning the REVERB knob, volume range is 00-50.
- ② Echo: adjust the echo volume by turning the ECHO knob, volume range is 00-50.
- ③ Delay: adjust the delay volume by turning the DELAY knob, time range is 000-500MS.

usic parametric EQ main menu: turn the LOW FREQUENCY and the HIGH FREQUENCY knobs to display this interface.



- ① Low frequency: adjust the low frequency parametric EQ by turning the LOW FREQUENCY knob, parametric EQ range is -12dB-+12dB .
- 2 High frequency: adjust the high frequency parametric EQ by turning the HIGH FREQUENCY knob, parametric EQ range is -12dB-+12dB .

Microphone parametric EQ main menu: turn the LOW FREQUENCY and HIGH FREQUENCY knobs to display this interface.



- ① Low frequency: adjust the low frequency parametric EQ by turning the LOW FREQUENCY knob, parametric EQ range is -12dB-+12dB .
- ② High frequency: adjust the high frequency parametric EQ by turning the HIGH FREQUENCY knob, parametric EQ range is -12dB-+12dB .

## Performance Indicator Description

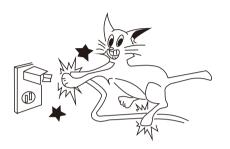
| Model                         | KO2300  |       |
|-------------------------------|---|-------|
| Rated Power                   | L   | 300W  |
|                               | R   | 300W  |
| Rated Source EMF              | MIC1-5  | 20mv  |
|                               | AUX1  | 260mv |
|                               | AUX2  | 260mv |
| SNR                           | MIC1-5  | 85dB  |
|                               | AUX1  | 90dB  |
|                               | AUX2  | 90dB  |
| THD                           | <0.03% @8¦ ,20Hz-20kHz  |       |
| Frequency Response            | 20 Hz-20 kHz ( 0.5dB)   |       |
| Resolution                    | >75dB 1kHz @8 Rated Power   |       |
| Intermodulation<br>Distortion | <0.05% @8¦ ,60Hz/7kHz 4:1   |       |
| Input Impedance               | Unbalanced Input >10k  Balanced Input >20k  |       |
| Power Supply<br>Requirements  | AC 220-240V 50Hz  |       |
| Environment<br>Tempurature    | Operating temperature -10Ў~40Ў<br>Storage and transportation temperature -25Ў~80Ў |       |
| Net Weight                    | 5.7kg   |       |
| Dimensions                    | 430mm 334mm 89mm  |       |

## Safety Regulations -

#### Abnormal Phenomena

Please turn off the power and pull out the cord if the device has any unusual sound or smell during operation.





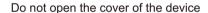
#### **Power Cord Protection**

Power plug contact and separation sock must be handled properly. Do not touch the power cord with wet hands to avoid electric shock. Do not put the power cord in crowded places.



#### Keep away from water and sundries

Do not drop in or place metal materials on the device, such as nails, metal coil, or flammable materials, or else it would cause the risk of fire hazard or electric shock. Do not spill water on the amplifier. Do not place any liquid containers on the amplifier.

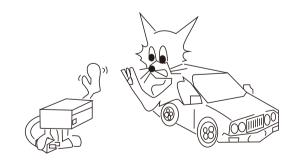


High pressure inside the device, do not open the cover without professional guidance.



#### If unused for a long time

For safety reasons, unplug the power plug to prevent the risk of fire hazard.





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