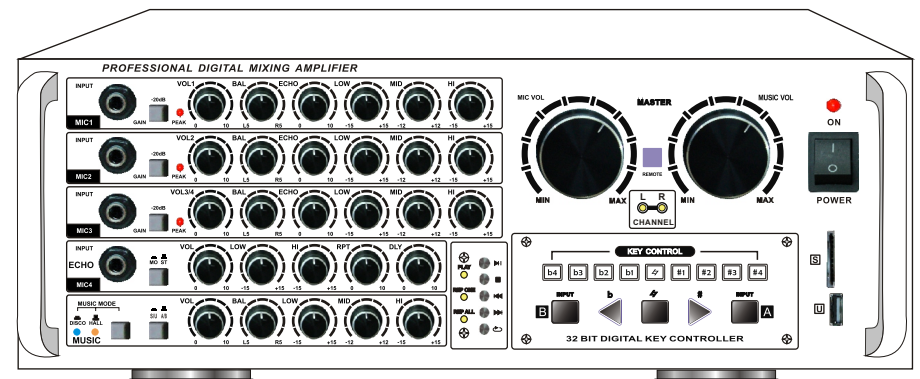


# Operation Manual

## PROFESSIONAL DIGITAL MIXING AMPLIFIER



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## SAFETY PRECAUTIONS

### Check the voltage of your local mains supply



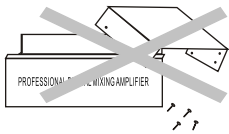
The power cord should not be connected to a direct current (DC).

### If malfunction occurs



If malfunction occurs, such as noise in the sound or odor from the unit, remove the power cord from the AC outlet and stop using the unit immediately and consult your local dealer.

### Do not disassemble the unit



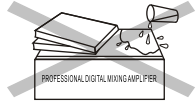
Do not attempt to modify, repair, or disassemble the unit, as opening or removing covers may expose you to dangerous voltage or other hazards. There are no user serviceable parts inside. If the unit has a problem or breakdown in case of you attempt to modify the unit, quality of the unit can not be guaranteed.

### When you are not using the unit for a long period of time



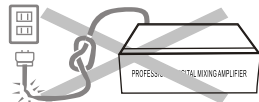
When you leave your home for a long period of time, turn OFF the power and remove the power cord from the AC outlet. This will prevent from unexpected accident and fire.

### Avoid pushing or dropping any object or liquid into the unit



Never push or drop any kind of objects into this unit through openings as they may touch dangerous voltage points or short-circuit parts that could result in a fire or electric shock. Never spill any kind of liquid on this unit. If some object/liquid has been dropped, remove the power cord from AC outlet and consult your local dealer.

### Do not damage the Power Cord



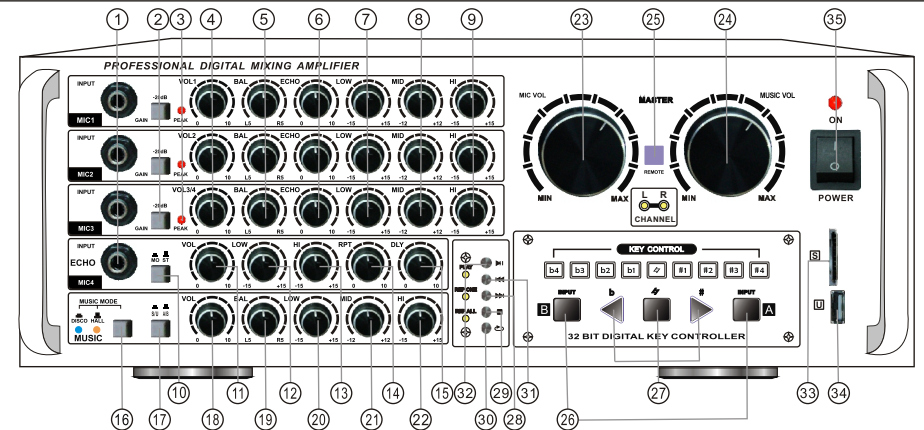
When remove the power cord from AC outlet always grasp and pull the plug, not the power cord. Damage to the power cord may cause short-circuit or shock hazard. Power cord should not be routed to under furniture or where it may be likely damaged.

### Do not overload the AC outlet on the unit



This unit provides AC outlet which can be connected to the system source components. Do not overload the AC outlet on the unit. If power consumption exceeds over the indicated on the rear panel, this can result in fire or other hazard. The outlet should not be used for connections of TVs in which may exceed in a moment over the indicated wattage.

## FUNCTION OF FRONT PANEL



### Microphone Parts

1. MIC1.2.3.4 :Terminal for input plug for stereo mic or other signals
2. GAIN :Signal amplification is decreased by 20dB when this switch is on in case big input signal is used.
3. PEAK :Red light goes on in case of excessive mic input
4. VOL :Adjusts mic. volume.
5. BAL :Adjusts balance of left and right of mic. sound.
6. ECHO :Adjusts echo accuracy.
7. LOW :Adjusts bass response.
8. MID :Adjusts mid-range response.
9. HI :Adjusts treble response.

### Echo Parts

10. SELECTOR :Choose for stereo/mono of echo.
11. VOL :Adjusts mixing of echo sound.
12. LOW :Adjusts echo bass response.
13. HI :Adjusts echo treble response.
14. RPT :Adjusts echo repetition.
15. DLY :Adjusts echo speed.

### S/U Function Parts

28. FUNCTION KEY : Next switch
29. FUNCTION KEY : Stop switch
30. FUNCTION KEY : Repetition switch
31. FUNCTION KEY : Prev switch
32. FUNCTION KEY : Play/Pause switch
33. FUNCTION KEY : S input interface
34. FUNCTION KEY : U input interface

### Music Parts

16. SELECTOR :Choose for HALL/DISCOBEAT of DSP effect mode.
17. SELECTOR :Choose for S/U or A/B input signal switch.
18. VOL :Adjusts volume of external device connected to back panel.
19. BAL :Adjusts balance of left and right of the whole product.
20. LOW :Adjusts bass response of external device.
21. MID :Adjusts mid-range response of external device.
22. HI :Adjusts treble response of external device.

### Master Channel Parts

23. MIC VOL :Adjusts the audio master volume of the microphones connected to this unit.
24. MUSIC VOL :Adjusts volume of main unit.

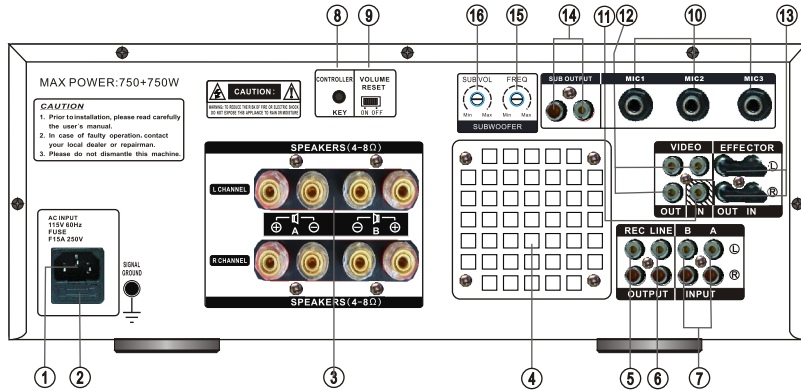
### Key Controller Parts

25. REMOTE SENSOR :As received signal infrared from remote control unit.
28. SELECTOR :Choose for music input A or B.
27. Sign # :To degrade musical tones.
- Sign # :To normal [of] musical tones.
- Sign b :To boost up tones.

### Power Parts

35. POWER : LED for power is lighted when the switch is turned on.

## FUNCTION OF REAR PANEL

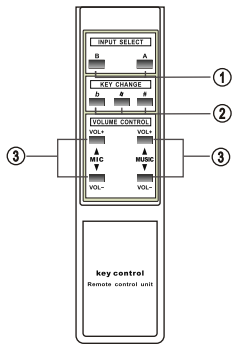


- ① **AC 115V/60Hz POWER INPUT** : Connect the cable power to source of AC 115V with frequency 60 Hz.
- ② **FUSE** : Unplug this product from wall outlet before changing fuse.
- ③ **SPEAKER TERMINAL** : This terminal connects to the speakers. Make sure polarity is correct after connection. Use the speaker of impedance 4-8 Ohm for each channel.
- ④ **VENTILATION** : Inside have heatsink with automatic blower to keep temperature stable.
- ⑤ **OUTPUT (REC)** : Use this terminal when recording amplifier output to TAPE-DECK.
- ⑥ **OUTPUT (LINE)** : This terminal connects amplifier output to the input terminal of External amplifier (e.g. Surround Amplifier).
- ⑦ **MUSIC INPUT (A/B)** : This terminal uses to connect sound source, such as AUDIO CD, VCD, DVD, etc.
- ⑧ **KEY CONTROL JACK**
- ⑨ **MASTER VOLUME ON/OFF**
- ⑩ **MIC INPUT JACKS** : Terminal for input plug for stereo mic or other signals
- ⑪ **VIDEO INPUT JACKS**
- ⑫ **VIDEO OUTPUT JACKS**
- ⑬ **EFFECTOR (IN/OUT)** : Use this terminal when connecting external sound-effect devices such as graphic EQ.
- ⑭ **SW OUT**: The bass output signal line to connect the bass power amplifier or active bass speakers
- ⑮ **FREQ**: The bass signal frequency adjustment
- ⑯ **VOL**: The bass line signal output volume adjustment

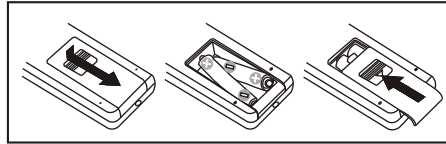
## SPECIFICATIONS

	<b>MA-3000K II</b>
<b>Output Power (4 Ω)</b>	L CH 750W + R CH 750W
<b>Output Power (8 Ω)</b>	L CH 500W + R CH 500W
<b>MIC input sensitivity</b>	10mV
<b>External devices sensitivity</b>	200mV
<b>Signal/Noise ratio (with IHFA Filter)</b>	≥80dB
<b>T.H.D (1KHz, 10W)</b>	0.1%
<b>Frequency band</b>	20Hz~20KHz
<b>Mic. tone adjustment: LOW</b>	80Hz±15dB
<b>Mic. tone adjustment: MID</b>	3.5KHz±12dB
<b>Mic. tone adjustment: HI</b>	12KHz±15dB
<b>Echo tone adjustment: LOW</b>	80Hz±15dB
<b>Echo tone adjustment: HI</b>	12KHz±15dB
<b>Music tone adjustment: LOW</b>	100Hz±15dB
<b>Music tone adjustment: MID</b>	1KHz±12dB
<b>Music tone adjustment: HI</b>	10KHz±15dB
<b>Power source</b>	<b>AC 115V/60Hz</b>
<b>Dimension (mm)</b>	430(W)X170(H)X460(D)

## REMOTE CONTROL OPERATION



### How to install batteries



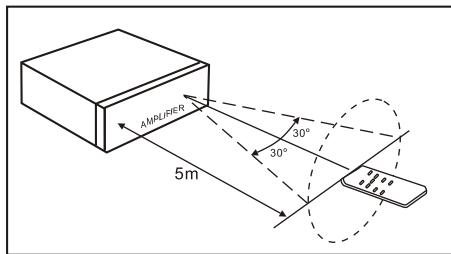
The service life of the batteries for this remote control is approx. six months under normal use. If the remote control is not going to be used for an extended period of time, remove the batteries. It is recommended to replace weak batteries at your earliest opportunity.

The improper use of batteries may lead to chemical leakage or explosion. Observe the following precautions;

- ① **SELECTOR music input A or B**  
Press A, music input become channel A.  
Press B, music input become channel B.
- ② **KEY CHANGE SWITCH**  
Press b, To degrade musical tones.  
Press ♯, To normal [of] musical tones.  
Press #, To boost up musical tones.
- ③ **VOLUMECONTROL (MIC/MUSIC) SWITCH**  
Moment depress (▲), voice will go up.  
Moment depress (▼), voice will go down

### Wireless remote control

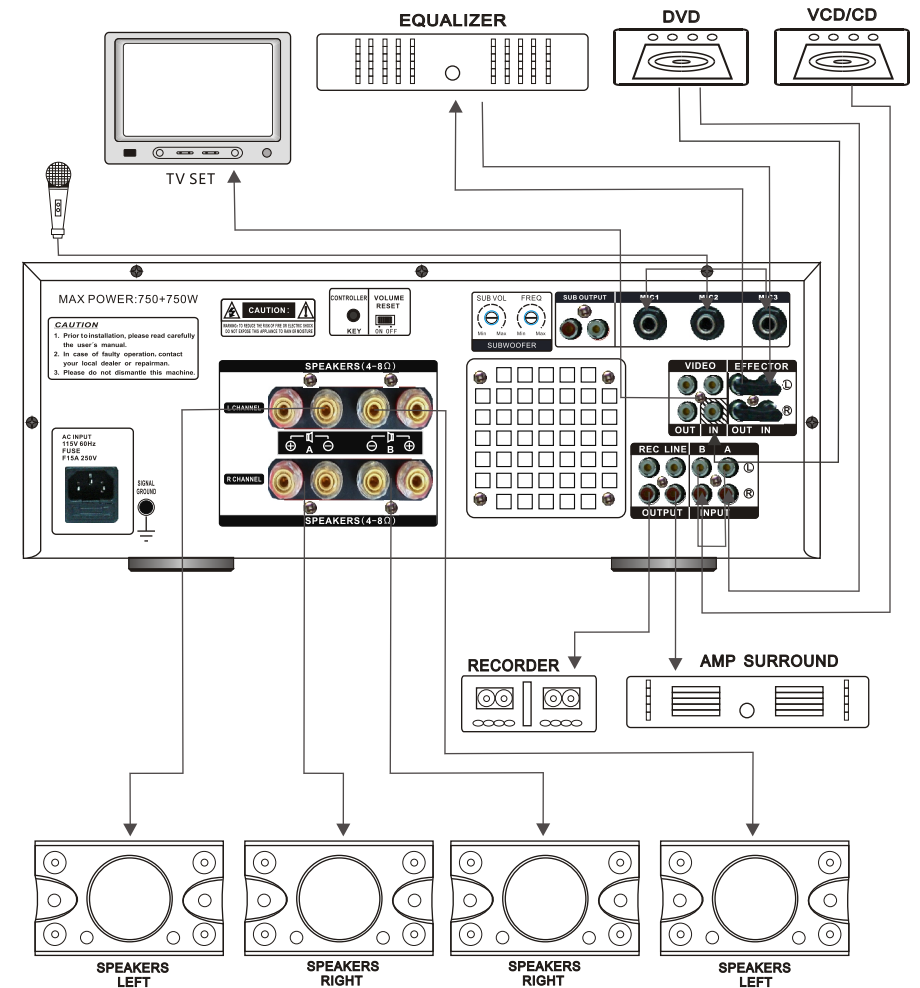
The allowable distance between the wireless remote control unit and the remote sensor (infrared signal reception window) is approx. 5 m. Note that the remote control may not work if it is not properly pointed toward the remote sensor or if there is any obstacle between the remote control and the sensor.



- ① Insert batteries with their positive (+) and negative (-) poles position correctly according to the indication on the battery compartment.
- ② Do not use an old and new batteries together.
- ③ Use batteries of the same type. Never use batteries of different types together as voltage may be different, even if they are the same shape.
- ④ Discard exhausted batteries into a designated bin (so as not to contaminate the environment).

## CONNECTING GUIDE

Use the speaker of impedance 4-8 Ohm, when use speaker terminal A or B.

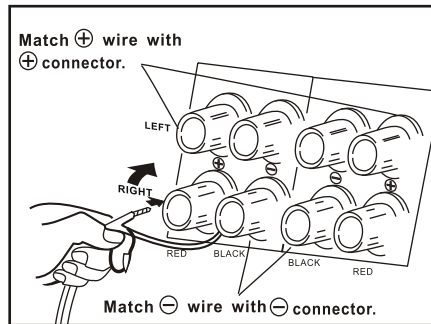


Notes: the output of power amplifier is only connected to a set of speakers which the impedance is 4 Ω or to two sets of speakers with 8 Ω. If the impedance of the speakers is less than 4 Ω, the power amplifier will be abnormal or damaged.

## CONNECTIONS

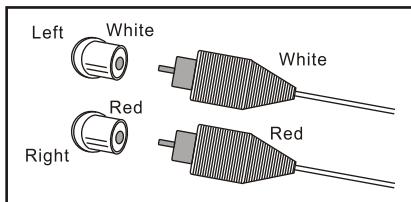
### How to connect speaker cords

1. Turn connector to the left, then insert the stripped end of the cord.
2. Turn connector to the right until the wire is held securely.



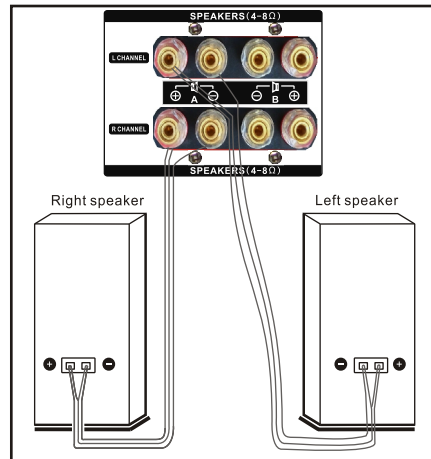
Strip about 15 mm of the outer covering from the ends of the cords by using the pliers before making connections.

- When connecting RCA pin plug cords, match the colors—connect red cord to red jack and white cord to white jack.

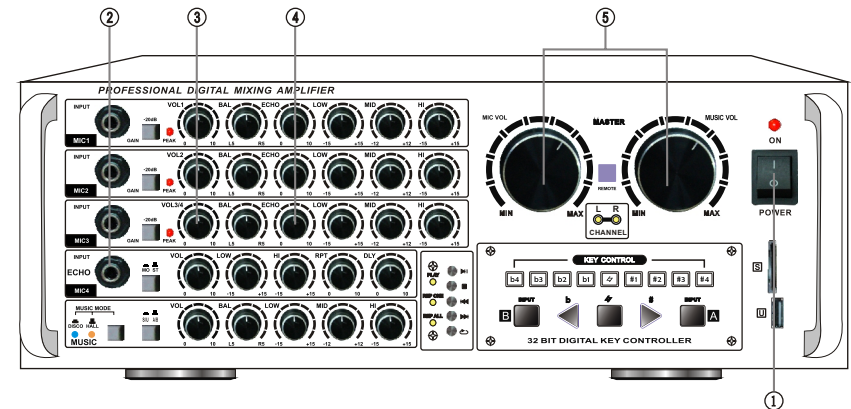


### Cautions :

- See that wire frays (straggle conductors) are not sticking out of the speaker connectors. If the wire frays come into contact with other conductors, it may lead to failure of the unit.
- If one set of speakers are connected, use speakers with  $4\Omega$ - $8\Omega$  impedance.
- If two sets of speakers are connected, use speakers with  $8\Omega$ - $16\Omega$  impedance.



## BASIC OPERATION



- ① The power ON of this unit and other equipment.
- ② Connect the required number of microphones.
- ③ Turn the MIC VOL controls to balance the level with that of music source.
- ④ Adjust the echo level as required.
- ⑤ Set the karaoke music machine to the play mode, then set the MIC VOL and MUSIC VOL control to the required level.

### How to use microphones properly and operating precautions

- Keep the microphone approx. 5 to 10 cm away from your mouth.
- To make the voice sound clearly, leave the proper space between the microphone head and holding position on the microphone.
- Do not cover the lower wind screen of the microphone. As this may muffle the bass sound, defeating proper vocal reproduction. It may also cause howling.

Provide a space of approx. 5 to 10 cm.

Leave the proper space.

