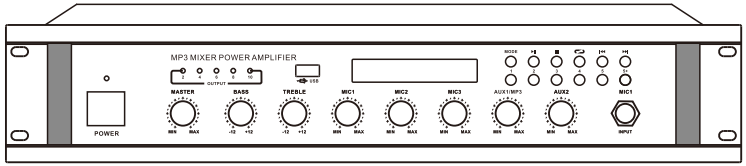
PUBLIC ADDRESS SYSTEM

CAUTION:Do not open the equipment cover arbitrarily, so as not to electric shock.Please contact the professionals to maintain if necessary .

ARVOX

# User Manual




RB-60MT RB-120MT RB-240MT

RB-360MT RB-500MT RB-650MT

**BT/MP3/FM Mixer Amplifier**

**60W/120W/240W/360W/500W/650W**

Thank you for purchasing the **BT/MP3/FM Mixer Amplifier**.
Please carefully follow the instructions in this manual to ensure long, trouble-free use of the equipment.

## Accessories

AC power cord .....1
User manual .....1
Remote control .....1
FM tuner antenna .....1
Audio cable .....1

## Safety Precautions



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**⚠ CAUTION** Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage.

- Before installation or use, be sure to carefully read all the instructions in this section for correct and safe operation.
- Be sure to follow all the precautionary instructions in this section, which contain important warnings and/or cautions regarding safety.
- After reading, keep this manual handy for future reference.





## LIMITED WARRANTY

We warrant that the hardware products it manufactures will be free from defects in materials and workmanship.
The warranty term,beginning on the date of invoice,is one year for Parts replacement,two years for parts repair and six months on accessories.
This warranty does not cover damage or failure caused by alterations, mishandling, abuse, misuse, neglect, accident or resulting from any cause other than a product defect.
In case of defects in material and workmanship under normal use and conditions,we will replace or repair products covered under this limited warranty that are returned to our facility.
To request warranty service, you must contact our international sales team within the warranty period, ship the products back to us in their original or equivalent packaging (freight prepaid). If we repair or replace a product, its warranty term is not extended.

## DISCLAIMER

Information contained in this manual is subject to change without prior notice and does not represent a commitment on the part of the vendor. We shall not be liable for any loss or damages whatsoever arising from the use of information or any error contained in this manual.
It is recommended that all services and repairs on this product be carried out by us or its authorized dealer.
This product must only be used for the purpose it was intended by the manufacturer and in conjunction with this operating manual.
We cannot accept any liability whatsoever for any loss or damages caused by service,maintenance or repair by unauthorized personnel,or by use other than that intended by the manufacturer.

## Specifications

| Model | RB-60MT | RB-120MT | RB-240MT | RB-360MT | RB-500MT | RB-650MT |
|---|---|---|---|---|---|---|
| Rated Power | 60W | 120W | 240W | 360W | 500W | 650W |
| Output Terminals | Low impedance:4-16 ohms(Ù) | | | | | |
| | 60W | Voltage line:70V(70 ohms(Ù)) 100V(143 ohms(Ù)) | | | | |
| | 120W | Voltage line:70V(38 ohms(Ù)) 100V(77 ohms(Ù)) | | | | |
| | 240W | Voltage line:70V(19 ohms(Ù)) 100V(39 ohms(Ù)) | | | | |
| | 360W | Voltage line:70V(14 ohms(Ù)) 100V(28 ohms(Ù)) | | | | |
| | 500W | Voltage line:70V(10 ohms(Ù)) 100V(20 ohms(Ù)) | | | | |
| | 650W | Voltage line:70V(10 ohms(Ù)) 100V(20 ohms(Ù)) | | | | |
| MIC. Input | MIC1/MIC2/MIC3:600 ohms(Ù) 10-15 mV ,unbalanced | | | | | |
| LINE Input | AUX1/AUX2:10k ohms(Ù) 200-470 mV ,unbalanced | | | | | |
| AUX Output | 0.775V (0 dB) | | | | | |
| Freq. Response | 60 Hz ~ 15k Hz (± 3 dB) | | | | | |
| THD | <0.5% at 1kHz,1/3 of rated power | | | | | |
| S/N | Line:85 dB , MIC:>72 dB | | | | | |
| Tone | BASS:100 Hz (± 10 dB) , TREBLE:12k Hz (± 10 dB) | | | | | |
| Mute Sensitivity | MIC1 overrides MIC2/MIC3/AUX1/AUX2 with 0~30 dB attenuation | | | | | |
| Controls | Volume controls,tone/treble control,mute control,power control | | | | | |
| Cooling Fan | DC 12V FAN | | | | | |
| Indicator | AC:'POWER',level:0,2、4、6、8、10' | | | | | |
| Protection | FUSE×2.5A | FUSE×2.5A | FUSE×2.5A | FUSE×5A | FUSE×6.3A | FUSE×8A |
| | AC FUSE,short circuit,overload,high temperature | | | | | |
| Power Cord | (3×0.75 $mm^2$)×1.5M (standard) | | | | | |
| AC Power | AC220V~240V 50-60Hz | | | | | |
| Consumption | 78W | 156W | 312W | 455W | 650W | 845W |
| Dimension | 89(H)×483(W)×366(D) mm | | | | | |
| Packing Size | 185(H)×520(W)×435(D) mm | | | | | |
| Net Weight | 5.40kg | 5.90kg | 10.30kg | 11.00kg | 15.50kg | 15.00kg |
| Gross Weight | 6.90kg | 7.40kg | 11.80kg | 12.50kg | 14.5kg | 17.55kg |





※ 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 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 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 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.

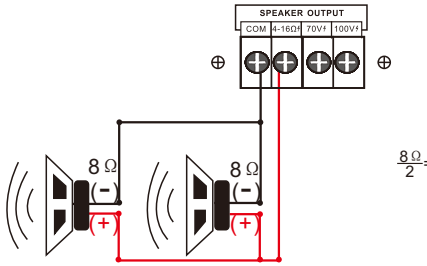




**4-16Ω low impedance output**

This output allows connection of low impedance loudspeakers without transformers, When two or more loudspeakers are used ensure that they are wired in such a way in Series, or in Parallel, or in Series & Parallel Combination that total load impedance remains between 4Ω and 16Ω.

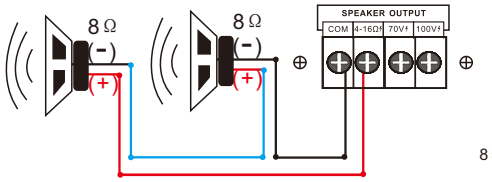
**A.** Connecting speakers in Parallel.




4-16Ω & COM Terminals

$\frac{8\Omega}{2} = 4\Omega$ (Total load impedance)

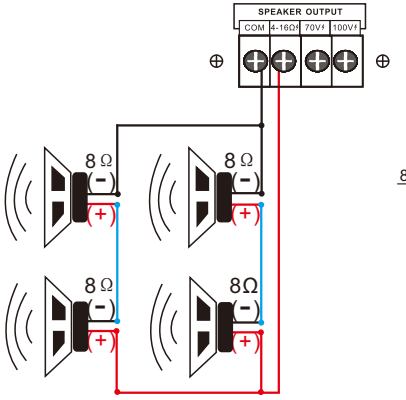
**B.**Connecting speakers in Series.




4-16Ω & COM Terminals

8Ω x 2 = 16Ω (Total load impedance)

**C.** Connecting speakers in Series & Parallel combination.




4-16Ω & COM Terminals

$\frac{8\Omega \times 2}{2} = 8\Omega$ (Total load impedance)

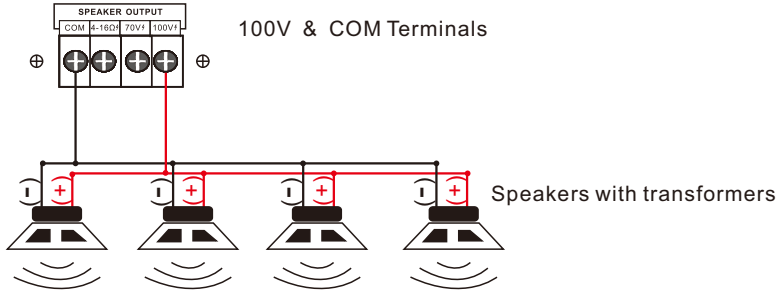
# Connections of Speakes

**Important Notes**

This amplifier has different loudspeakers outputs of 100V,70V and low impedance 4-16Ω. **It's only possible to use one output at the same time,connecting more than one may damage internal parts of the amplifier.Each of 100V,70V,4-16Ω terminals must work with COM.**

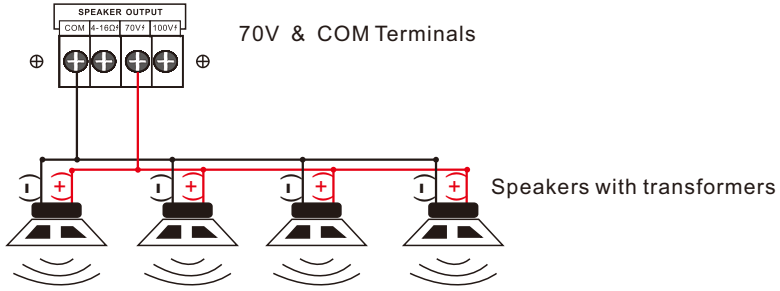
**100V line output**

This system is most commonly used in for PA system. Only use 100 V line loudspeakers with transformers. All loudspeakers are wired in parallel and the sum of their power must not exceed the rated output power of the amplifier. **It is advisable not to load the amplifier at more than 70% of its rated output power when using music sources.**




**70V line output**

This system is common in the USA, it operates on the same principles as 100 V line except that at rated output power the amplifier has 70V RMS on its output terminals.








## Descriptions & Features

The **BT/MP3/FM Mixer Amplifier** has features of built-in **bluetooth,MP3 player** with a USB slot for connecting external U disk and **FM tuner** function.

Features three balanced mic. and two line inputs, **60/120/240/350/500 watts** of amplifier power are available with either 70/100-volt or 4 to 16 ohms(Ω) loads.

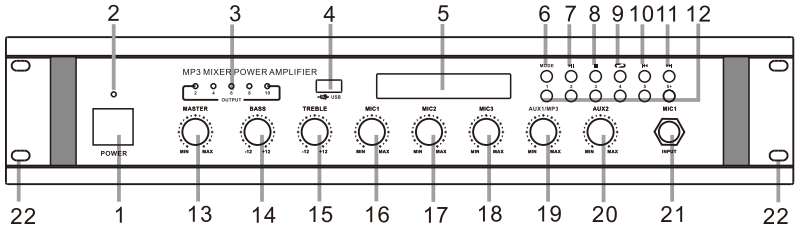
Also includes a line level output for adding additional amplifiers.

The unit also features muting function that MIC1 overrides MIC2,MIC3 AUX1,AUX2 with 0~30dB dB attenuation.

And features complete protection is provided for output short circuit, overload,hightemperature,peak current limiters.

※ Standard 19" 2U metal housing with front panel of aluminium alloy.
※ Built-in players of USB card,FM tuner and bluetooth receiver.
※ High-definition display for the working status of playing programmes.
※ Powerful amplifier tubes.
※ 3 microphone inputs,2 AUX inputs and 1 AUX Output.
※ 70/100-volt and 4 to 16 ohms(Ω) output loads.
※ Individual volume controller for inputs.
※ Master volume controller for all inputs.
※ BASS and TREBLE tone controllers.
※ Features muting function that MIC1 input overrides others of MIC2,MIC3,AUX1,AUX2 with 0~30dB attenuation.
※ Protections of short circuit,overload,high temperature.
※ Includes a line level output for adding additional amplifiers.

## Front Panel



**1.Power switch**
**2.Power indicator**: Lights green when the power is switched on.
**3.LED level meter**: Indicates an output level.
**4.USB port**: Allows to play USB disk.
**5.Screen**: Displays the working situation of playing programmes.
**6. Mode**: To select the mode of the module FM or USB.
**7.Play/Pause (For USB & FM Tuner)**:
- Mode USB:Press this button to Play or to Pause the USB.
- Mode FM: Press APS button briefly and the tuner shall automatically search the stations and store them in the memory.

**8.Stop (For USB):**
- Press this button to stop playing USB.
- Pressing Play button again would return to the song.

**9.Repeat (For USB)**:
- Press this button to play the song repetitively.
- Pressing this button would shift between RPT ONE and RPT ALL.

**10. PREV (For USB & FM Tuner)**:
- This button shall return to the previous song or FM stored station.

**11. Next (For USB & FM Tuner)**:
- This button shall skip to the next song or FM stored station.

**12.Buttions** for choosing songs or FM stations stored.
**13.Master volume control:** Allows to control all inputs.
**14 & 15.Bass control & Treble control**
**16. MIC1 volume control**
**17. MIC2 volume control**
**18. MIC3 volume control**
**19. AUX1 volume control**
**20. AUX2 volume control**
**21. MIC1 input**
**22. Rack mounting holes**

## Remote Control

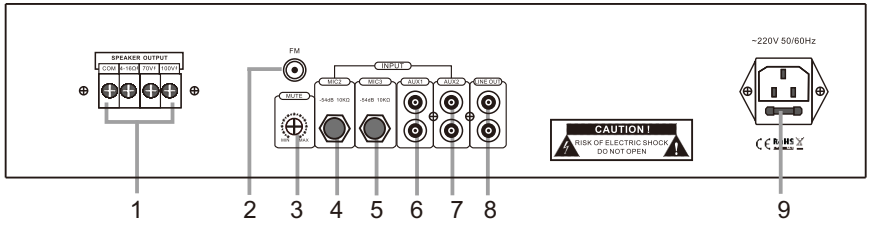


**POWER**:Switch on / standby of the player.
**MODE**:To select the mode of the module FM or USB.
**BUTTON 1- 0**:To choose songs or FM stations stored.
**MUTE**:To mute the volume.
Press again to return to previous volume.
**EQ**:To create 6 different equalizer effects for the USB mode.
**REP**:To press this button to play the song repetitively.
Pressing this button would shift between RPT ONE and RPT ALL.
**SCAN**:No function.
⏮ :PREV (For USB & FM Tuner)
This button shall return to the previous song or FM stored station.
⏭ :Next (For USB & FM Tuner)
This button shall skip to the next song or FM stored station.
⏯ :Stop (For USB)
Press this button to stop playing USB.
Pressing Play button again would return to the song.
**VOL-** :For volume down **VOL+** :For volume up





## Rear Panel




1.Speaker output terminals
• Do not use both the 4-16 Ω,70V and 100V terminals at the same time.
• Impedances indicated in the figures represent the total speaker system (load) impedances.
2.FM antenna input
3.Mute sensitivity control
• Adjust the threshold level to activate the MIC1 input priority function.
• Turn to the position of “MIN”, the MIC1 input has priority over other inputs.
• Turn to the position of “MAX”, the MIC1 input misses priority over other inputs.
4.Microphone 2 input
5.Microphone 3 input
6. AUX1 input
7. AUX2 input
8. Audio signal output
9. AC power inlet

## Connection Illustration

**Bluetooth connection**

The name “**BGM SYSTEM**” is shown on the mobile device for pairing.

