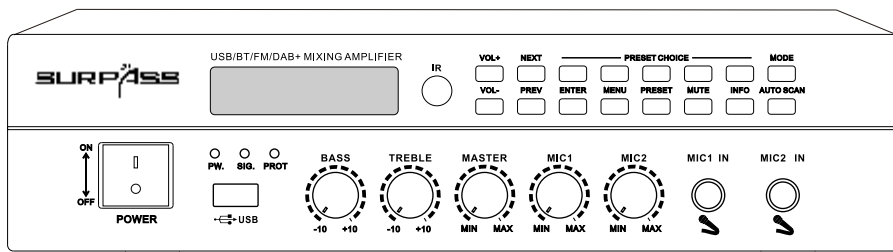




# User Manual

## USB/BT/FM/DAB+ MIXING AMPLIFIER



## 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.



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.

### 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 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.

### 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.

Thank you for purchasing the **USB/BT/FM/DAB+ Mixing Amplifier Series**.

To ensure long and trouble-free use of the equipment, please read all instructional materials provided with the unit.

## Package Contents

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DAB+/FM(RDS) Antenna.....	1
Bluetooth Antenna.....	1
Audio Cable (RCA).....	1
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## Descriptions

These Mixing Amplifiers are designed as convenient solution which accommodates different kinds of audio sources including USB/MP3-player, Bluetooth-receiver and a tuner receiver supporting FM(RDS)/DAB+(DAB).

This series of pa amplifiers also possess one Aux input for adding additional audio source device, and one Line output for adding additional amplifier, and two microphone inputs, the MIC1 input overrides the other audio sources. A digital screen displays the working status of playing program, which can be controlled by the front panel buttons or the remote control.

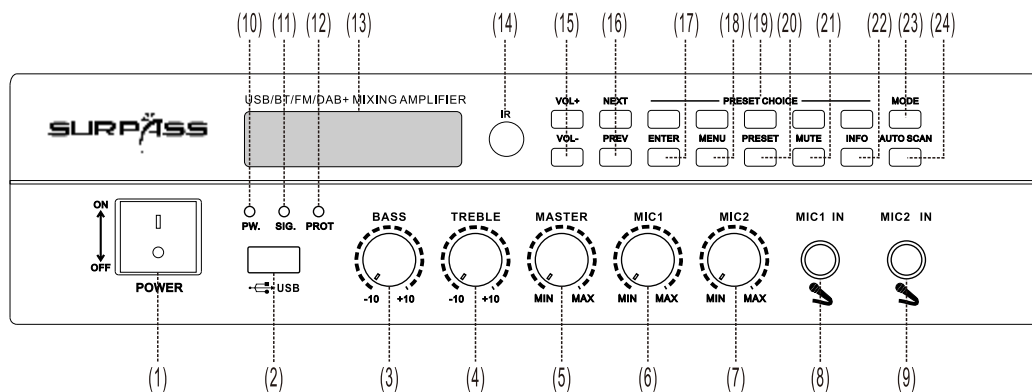
These digital Class-D amplifiers enjoy outstanding feature of high efficiency with 60W and 120W available, with either 70/100-volt or 4 to 16 ohms( $\Omega$ ) output loads. Complete protections provided for output short circuit, overload, high temperature, peak output level.

Widely used in the small to medium distributed speaker systems for PA, paging, or background music.

## Features

- ※ Compatible media: USB, Bluetooth, FM(RDS), DAB+(DAB), Aux In.
- ※ 1 Aux input, 1 Line output.
- ※ Digital Class-D amplifier type with 60W and 120W available.
- ※ 70/100-volt and 4 to 16 ohms( $\Omega$ ) output loads.
- ※ High-definition display for the working status of playing program.
- ※ Controls: MIC1, MIC2, master volume, remote control.
- ※ BASS and TREBLE tone controllers.
- ※ Individual LED indicator for POWER/SIGNAL/PROTECTION.
- ※ Protections provided for output short circuit, overload, high temperature, peak output level.

## □ Front Panel



### 1. POWER switch:

This turns the unit on and off.

### 2. USB port:

Allows to play USB disk.

### 3. BASS control knob:

Allows to adjust the bass tonal quality.

### 4. TREBLE control knob:

Allows to adjust the treble tonal quality.

### 5. MASTER volume control:

Allows to control the audio level of all the media.

### 6. MIC1 volume control:

Allows to adjust the level of MIC1 input.

### 7. MIC2 volume control:

Allows to adjust the level of MIC2 input.

### 8. MIC1 IN:

Collect microphone with this 6.35mm jack.

This MIC1 input overrides the other audio sources.

### 9. MIC2 IN:

Collect microphone with this 6.35mm jack.

### 10. Power indicator :

The indicator illuminates when the amplifier is powered on.

### 11. Signal indicator :

This indicator illuminates when a signal is present at any input.

### 12. Protection indicator :

This indicator illuminates when the amplifier goes into protection mode in the any case of output short circuit, overload, high temperature or peak output level.

### 13. Media player display:

This shows various types of information of the media.

### 14. IR sensor:

This sensor receives the signal of remote control.

### 15. VOL+ / VOL-:

To turn up or down the volume of the media.

## □ Names & Functions of Front Panel

### 16. NEXT / PREV:

These buttons shall skip to the next or previous track.

### 17. ENTER:

Press this button to confirm a selection.

### 18. MENU (works with buttons of 'PREV', 'NEXT' and 'ENTER'):

#### When in the FM mode(including RDS):

⟨**Scan setting**⟩ : To select scan way of **All stations** or **Strong stations**.

⟨**System setting**⟩ :

**Language selection:** English,Portugués,Español, Française, Italiano, Deutsch.

**SW version:** Shows the software version.

**Factory reset:** Clears the memory completely and scans again for the available stations.

⟨**Audio setting**⟩ : Allows to select **Stereo** or **Mono** mode.

#### When in the DAB+ mode:

⟨**Full scan**⟩ : Allows to scan through all stations.

⟨**System setting**⟩ :

**Language selection:** English,Portugués, Español, Française, Italiano, Deutsch.

**SW version:** Shows the software version.

**Factory reset:** Clears the memory completely and scans again for the available stations.

⟨**Prune**⟩ : Deletes (or not) stations that are either no longer transmitting or have moved frequency.

⟨**DRC**⟩ : Dynamic Range Compression provides a feature that reduces the volume of louder sounds and boosts the volume of quieter sounds. It can be a handy feature when listening to audio at lower volumes.

⟨**Manual tune**⟩ : Allows to scan through the frequencies manually.

### 19. PRESET CHOICE (1,2,3,4,5):

Keep pressing for several minutes to store the favorite stations. And press them to choose to play the stored stations (1 to 5). Through Remote Control that total 9 favorite stations can be stored.

### 20. PRESET:

Press this button to review the 60 stored stations,press 'NEXT' or 'PREV' to choose a desired station then press 'ENTER' to play this station.

### 21. MUTE:

Press this button to shut off the audio of the media,press it again to activate the audio.

### 22. INFO:

Allows to show the related information for the FM(RDS) and DAB+ mode.

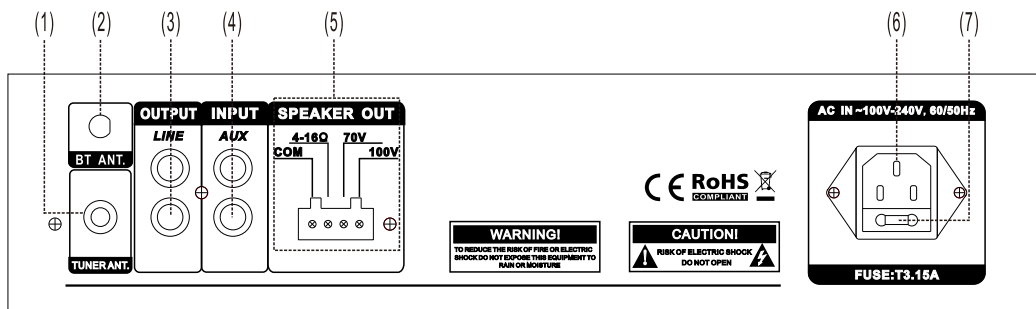
### 23. MODE:

Press this button to choose media among USB,DAB+,FM,Bluetooth and Aux in.

### 24. AUTO SCAN:

Press this to scan through and store the stations automatically. The stored stations can be review in the PRESET list. Press it again to stop scanning.

## □ Rear Panel



### 1. TUNER ANT. connector:

Connect the included DAB+/FM antenna here.

### 2. BT ANT. connector:

Connect the included bluetooth antenna here.

### 3. RCA output jacks:

These RCA pin output jacks are available for adding additional amplifier.

### 4. RCA input jacks:

These RCA pin output jacks are available for connecting other external audio device here.

### 5. Speaker output terminals:

Including 70/100-volt or 4 to 16 ohms( $\Omega$ ) output loads, please refer to page 11-12 for more details.

### 6. AC IN connector:

Connect the included power cord here.

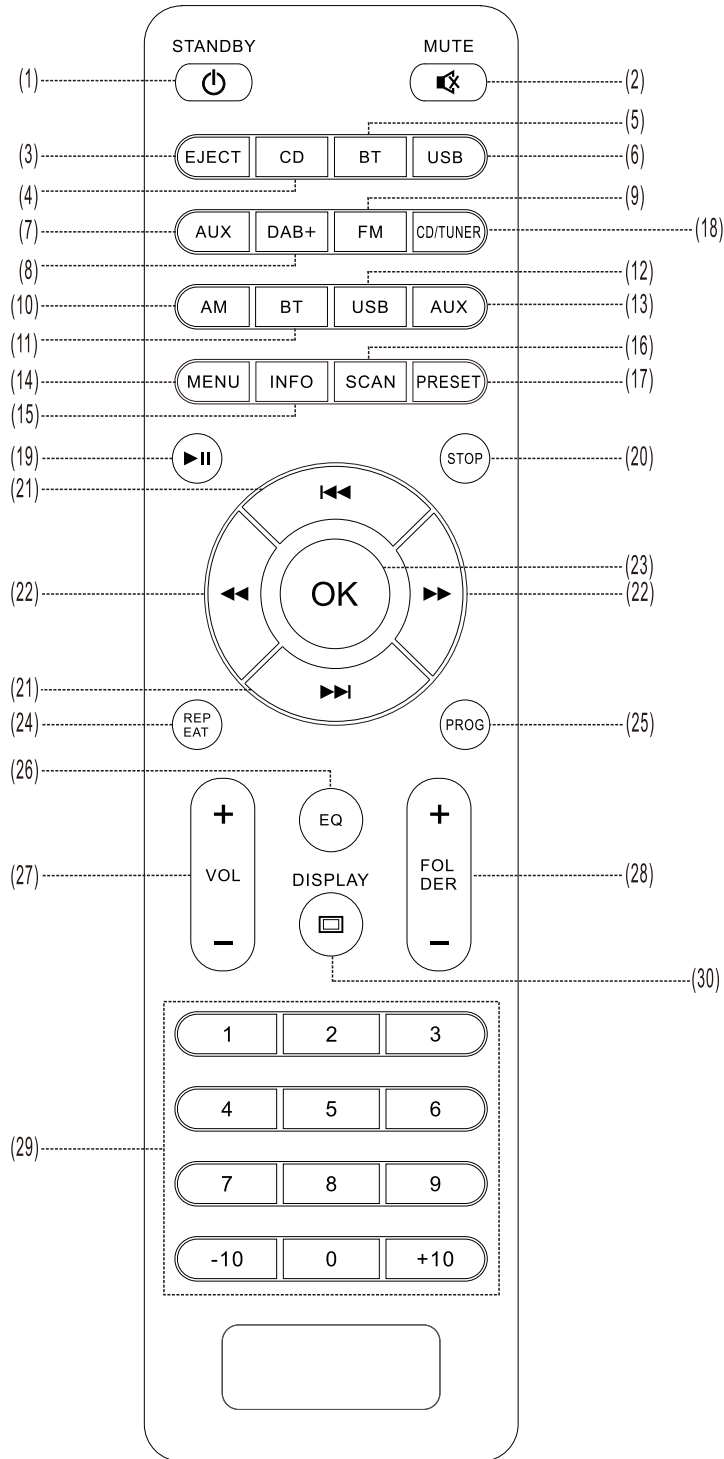
### 7. Fuse:

Fuse for protection against surges and short circuit. If the amplifier suddenly turns off and will not turn on, check the fuse and replace it if necessary.



## Remote Control

The shipment does not contain the batteries.  
Please get and insert the suitable batteries - AAA/1.5V before use.



## □ Names & Functions of Remote Control

### 1. STANDBY:

Press this button to activate and deactivate this unit.

### 2. MUTE:

Press this button to mute this unit's audio.

**Buttons of 3 - 7:** These buttons are used for other models.

### 8. DAB+:

Press this to switch the input source to "DAB+ Mode".

### 9. FM(containing RDS):

Press this to switch to the input of source to "FM Mode".

### 10. AM:

This button is used for other models.

### 11. BT:

Press this to switch the input source to "Blueetooth Mode".

### 12. USB:

Press this to switch the input source to "USB Mode".

### 13. AUX:

Press this to switch the input source to "AUX IN" by connecting additional audio player.

### 14. MENU:

Please refer to the operations of front panel "MENU".

### 15. INFO:

Allows to show the related information for the FM(RDS) and DAB+ mode.

### 16: SCAN:

Press this to scan through and store the stations automatically.

### 17. PRESET:

Press this button to review the 60 stored stations,press 'NEXT' or 'PREV' to choose a desired station then press 'ENTER' to play this station.

### 18. CD/TUNER:

Press this button to switch between controlling left and right side media when use additional function buttons (19 - 29) for another model of 2CH Media Player.

### 19. PLAY/PAUSE:

Press this to start, resume, or pause the playback.

### 20. STOP:

Press this to stop playback.

### 21. SKIP (PREV. & NEXT) button:

When in the USB and Bluetooth mode: Press these buttons to skip to previous or next track.

### 22. Fast-reverse & Fast-forward button:

Press and hold these buttons to scan at fast reverse or fast forward playback for other models.

### 23. OK button:

Press this to confirm a selection.

### 24. REPEAT:

Press this turn the repeat playback function on/off.

**25. PROGRAM:** This button is used for other models.

### 26. EQ selection:

Press this to select the EQ mode among Classic, Rock, Pop, Jazz and Flat.

### 27. VOL +/- button:

Press this to adjust the output audio level.

### 28. FOLDER:

Press this to select the folder when use USB media.

### 29. Number buttons:

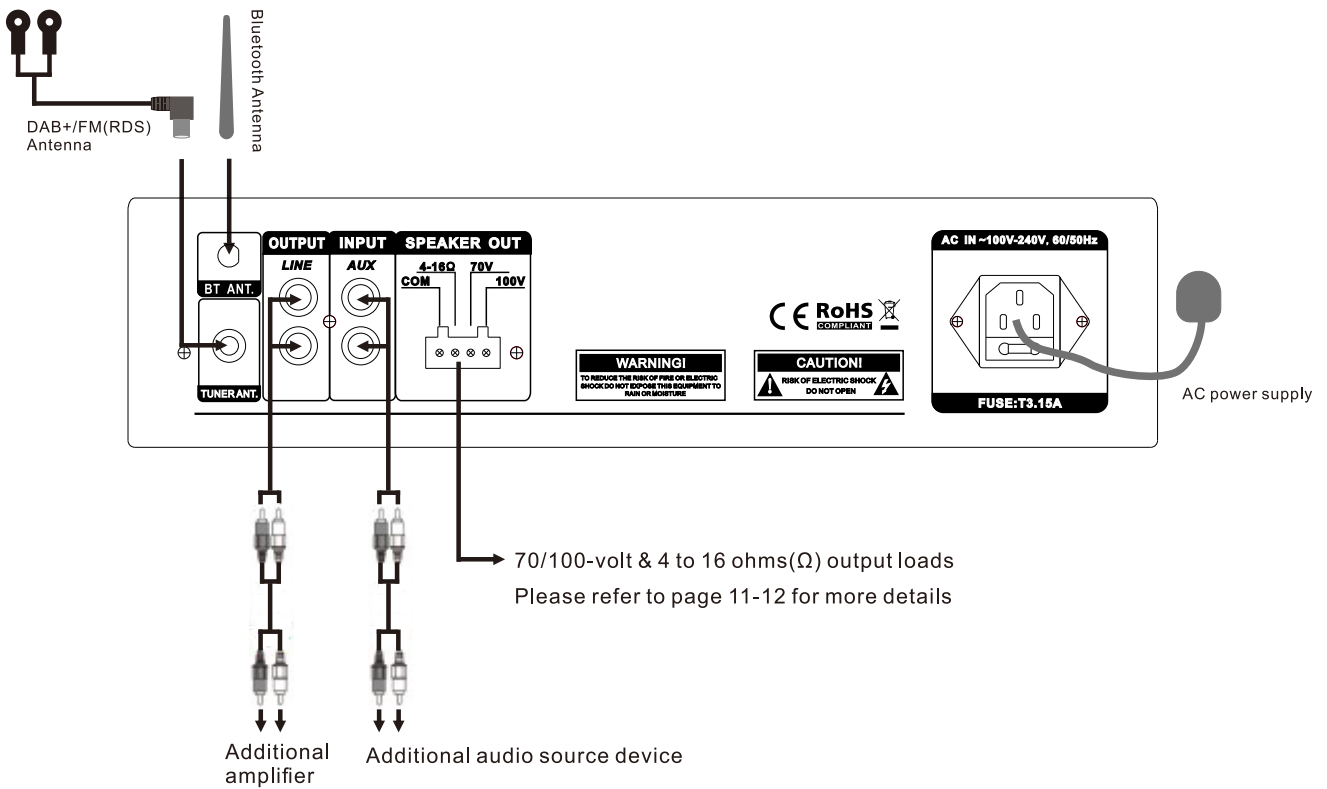
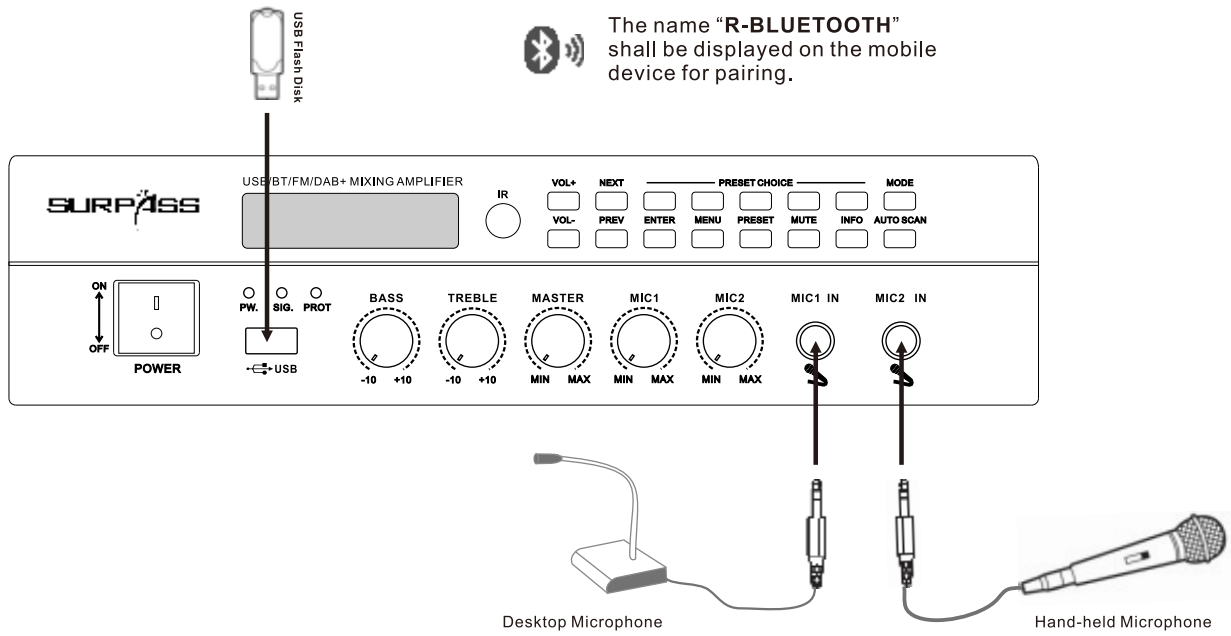
Use these number buttons to select tracks or preset stations.

### 30. DISPLAY:

Push this button to make the screen light on/off.

### □ Connection Illustration

Carefully read the operation manuals of the devices to be connected and then connect them correctly. Before making connections, turn this unit and all equipment to be connected off power.



## ☐ Connections of Speakers

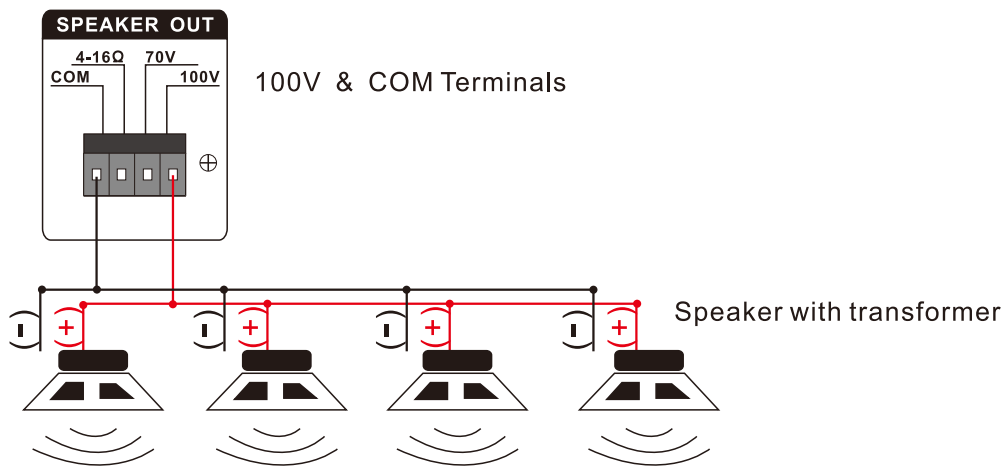
### Important Notes

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. (common) terminal.**

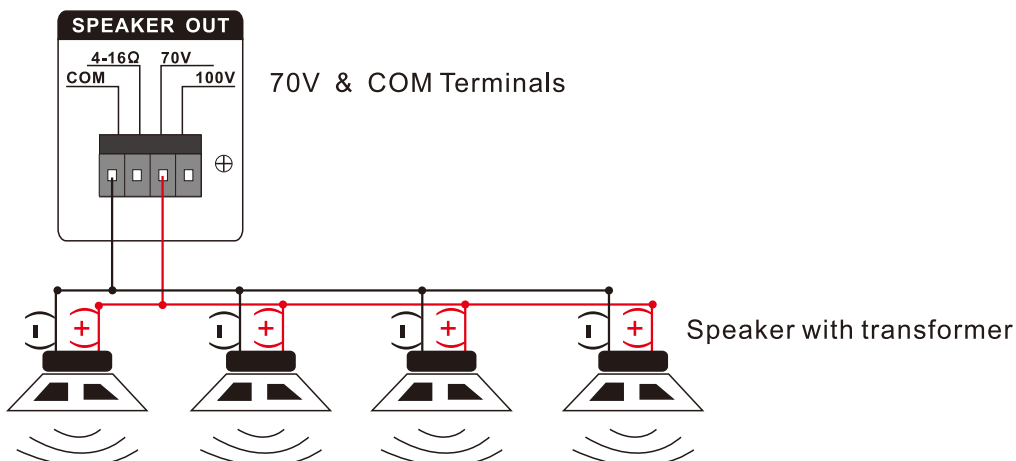
### 100V line output

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.

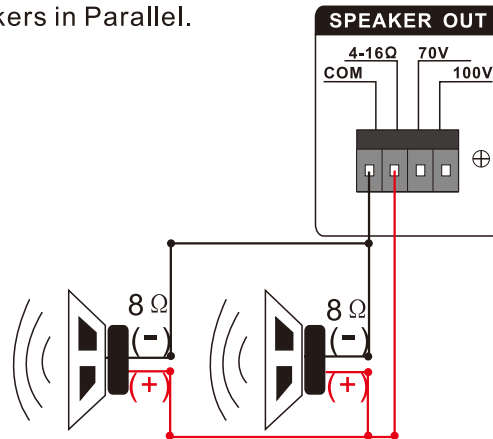


## 4-16Ω low impedance output

This output allows connection of low impedance loudspeakers without transformers,

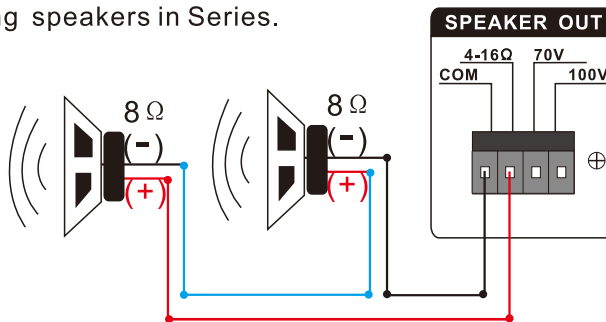
When two or more loudspeakers are used ensure that they are wired in such a way in Series, or in Parallel, or in Series & Parallel Combination that total load impedance remains between 4Ω and 16Ω.

### A. Connecting speakers in Parallel.



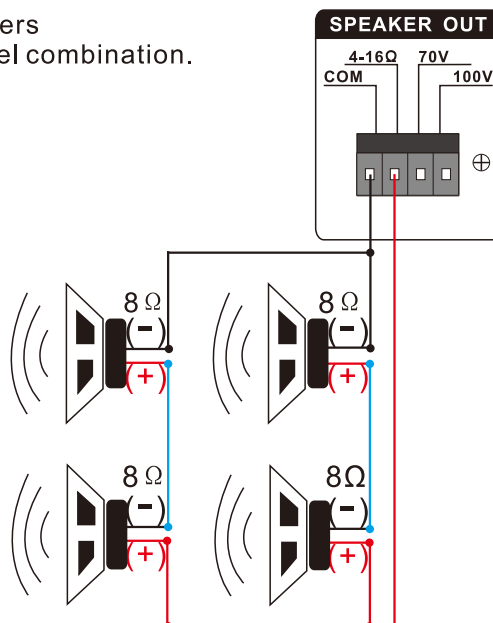
$$\frac{8\Omega}{2} = 4\Omega \text{ (Total load impedance)}$$

### B. Connecting speakers in Series.



$$8\Omega \times 2 = 16\Omega \text{ (Total load impedance)}$$

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



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

## □ Specifications

Mode	SP-60DAB		SP-120DAB
Rated Power	60W		120W
Output Terminal	Low impedance:4-16 ohms ( $\Omega$ )		
	60W	Voltage line:70V(51 ohms), 100V(167 ohms)	
	120W	Voltage line:70V(41 ohms), 100V(83 ohms)	
Compatible media	USB,Bluetooth,FM(RDS),DAB+(DAB),Aux in		
Playable format	MP3,WAV		
Bluetooth version	5.0 version		
Tuner frequency range	FM(RDS): 87.50 - 108.00 MHz		
	DAB+(DAB): 87.50 - 108.00 MHz		
MIC input	MIC1/MIC2: 600 ohms( $\Omega$ ) 5-10 mv ,unbalanced		
AUX input	10k ohms( $\Omega$ ) 150-470 mv ,unbalanced		
LINE output	0.775V (0 dB)		
Frequency response	60 Hz ~ 15k Hz ( $\pm$ 3 dB)		
THD	<0.5% at 1kHz,1/3 rated power		
S/N	AUX:85 dB , MIC:>72 dB		
Tone	BASS:100 Hz ( $\pm$ 10 dB) , TREBLE:12k Hz ( $\pm$ 10 dB)		
Protection	AC FUSE: T3.15A		
	Short circuit,overload,high temperature		
Power cord	(3 $\times$ 0.5 mm <sup>2</sup> ) $\times$ 1.5M (standard)		
Power supply	AC 100-240V 50/60 Hz		
Power consumption	84W		168W
Net weight	2.90kg		3.60kg
Gross weight	3.90kg		4.60kg
Dimension (HxWxD)	72x305x275mm		
Carton size (HxWxD)	140x350x350mm		





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