



PUBLIC ADDRESS SYSTEM

OPERATION MANUAL

T-B20 T-B40 T-B60 MIXER AMPLIFIER



Please follow the instructions in this manual to obtain the optimum results from this unit. We also recommend that you keep this manual handy for future reference.

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1. 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.

Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety



WARNING

Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury.



CAUTION

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



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 ITC 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 ITC 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 ITC 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.

An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

2. GENERAL DESCRIPTION

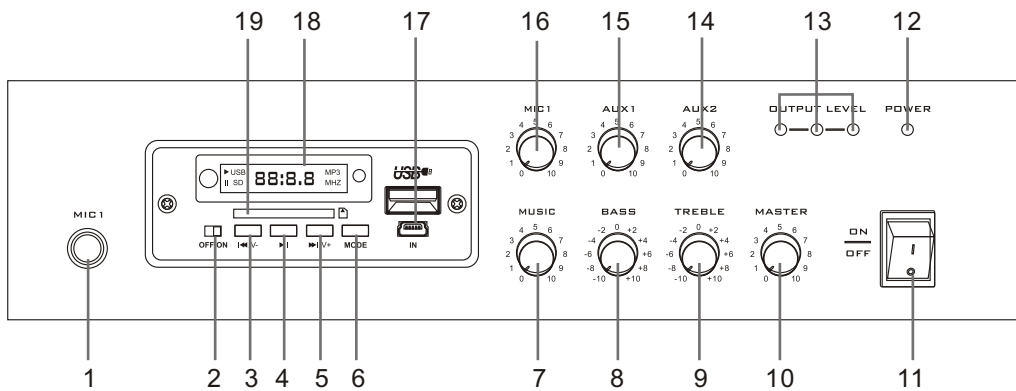
This is desktop mini size constant voltage power amplifier, beautiful looking, light, portable, can used in family, cafe, class room, and other small room for broadcasting.

3. FEATURES

1. Beautiful, light and portable desktop amplifier.
2. Can used in different sound effect place: 20W, 40W, 60W for choose.
3. Good sound with 4~16 ohms output and 100V output, can play music in short distance and can broadcasting in long distance.
4. Adopt 6.3 audio mic input and RCA input for customer to choose.
5. 1 Mic input with independent volume control.
6. 2 audio input with independent volume control.
7. With function of auto play MP3 and power memory.
8. With function of priority, when MIC 1 is in, other audio signal can disconnect.
9. With power indication light, when power on, the light turn blue.
10. With signal indication light and can show different color according to different signal.
11. With function of short circuit, over load, over temperature.
12. With function of MP3 module, can read MP3 in USB flash disk, SD card, support mobile blue tooth.

4. NOMENCLATURE AND FUNCTIONS

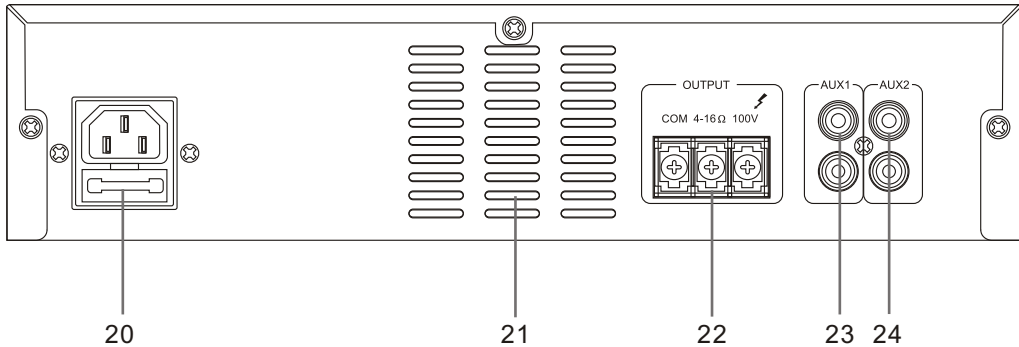
4.1 FRONT PANEL



1. MIC1 input
2. MP3 power switch
3. Previous track/volume down
4. Play/Pause
5. Next one/volume up
6. Mode selection
7. MP3-volume control knob
8. BASS
Adjust bass response. Rotate clockwise to increase bass output and anticlockwise to reduce it.
9. TREBLE
Adjust treble response. Rotate clockwise to increase treble output and anticlockwise to reduce it.
10. MASTER
Master volume controls all size of input signal level.
11. ON/OFF
Power switch, press switch, power on, press again, power off.
12. POWER
Power indicator light, when power is on, power light is on, otherwise is off.
13. Electronic Level signal indication light.
14. AUX2 line input volume control, clockwise rotation, volume increase, otherwise decrease.
15. AUX1 line input volume control.
16. MIC1 volume control knob.
17. USB port.
18. LED display screen.
19. SD/MMC card port.

NOMENCLATURE AND FUNCTIONS

4.2 REAR PANEL



20. AC power input

21. Vents

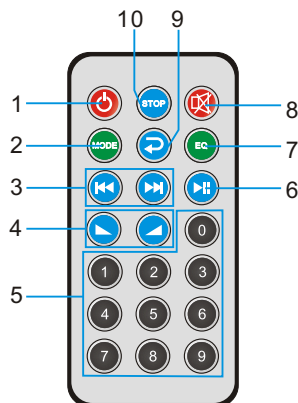
22. SPEAKER TERMINALS

Connecting the speaker terminal. COM is for public terminal which could be connected with negative terminal and the ground wire. 4~16Ω terminal is used to connect the speaker with impedance 4~16Ω; 70V terminal is used to connect the speaker with 70V; 100V terminal is used to connect the speaker with 100V.

23. AUX1 unbalance signal input port.

24. AUX2 unbalance signal input port.

4.3 Remote control



1. Power switch
2. Mode
3. Previous/next
4. Volume increase/decrease
5. 0~9 number button
6. Play/pause
7. Sound effect control
8. Mute
9. Cycle play button
10. Pause

Normal usage distance of remote control:

Remote control distance: 8 meter, angle: level ± 35 , vertical ± 15 .

Remote control usage attention:

1. When install battery, please mind electrode.
2. Please let remote control aim right with window of host machine.
3. When found remote distance get short and insensitive, please change battery.
4. Please take out battery when don't use it for a long time.
5. Take it easy in case of falling.

5. OPERATION ILLUSTRATION

5.1 Power indication

5.2 Power switch

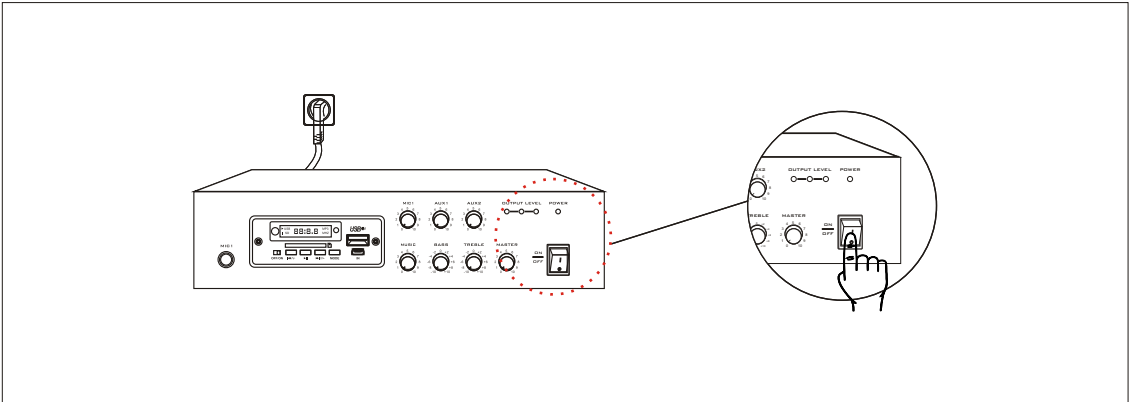


Figure 5.1/5.2

When power switch is "ON", power is on and power indication light is on (Red).
When power switch is "OFF", power is close and light is die out.

i Note:
Need to confirm device is power on, or please contact with supplier for damage.

5.3 MIC1 input(6.3mm)

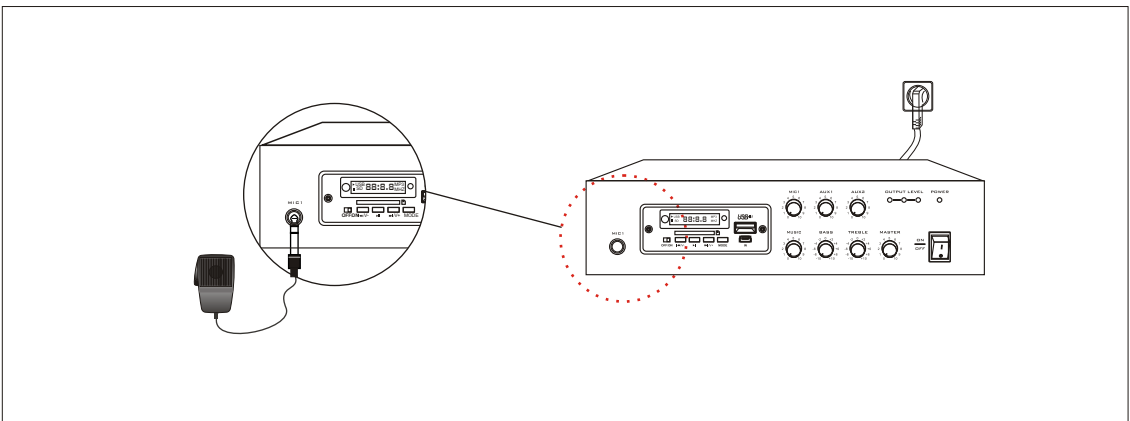


Figure 5.3

MIC1 adopt 6.3 port, when MIC1 is in, adopt with constant voltage or resistance speaker output, control volume by knob on panel, and adjust BASS/TREBLE to reach the effect what you want.

i Note:
1. When mic in, but 6.3 mic is not complete in, can not paging.
2. Before using mic in, should adjust volume to lowest level, or will come to noise.

5.4 AUX1/AUX2 input

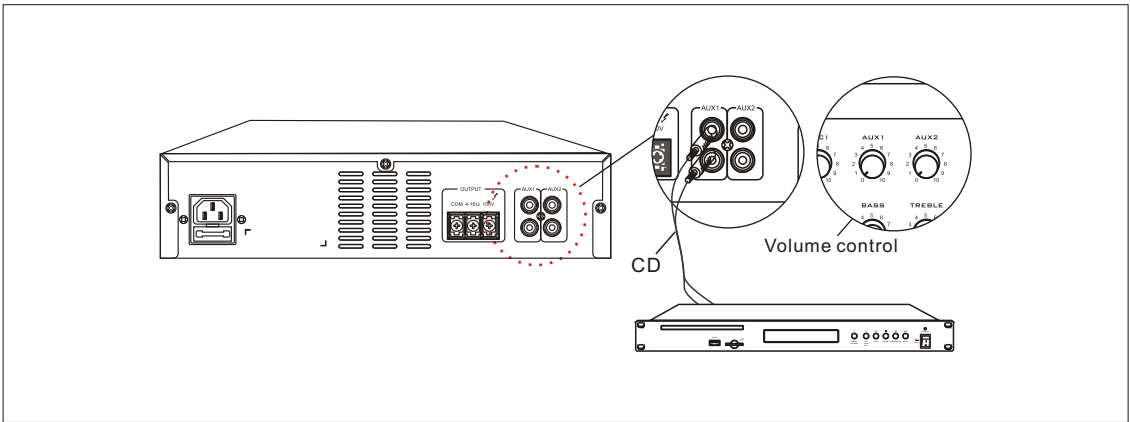


Figure 5.4

When back panel AUX1/AUX2 assist in, its volume should be control by AUX1/AUX2 knob, and combine with BASS/TREBLE adjustment to reach effect you want. AU X1/AUX2 assist input should adopt RCA unbalance connect port input, can used to connect with CD/MP3/TUNER.

i Note:

1. When using assistant input, should adjust volume in middle level to prevent noise.
2. Don't let audio source to many device, or will cause noise.

5.5 4~16Ω/100V speaker output

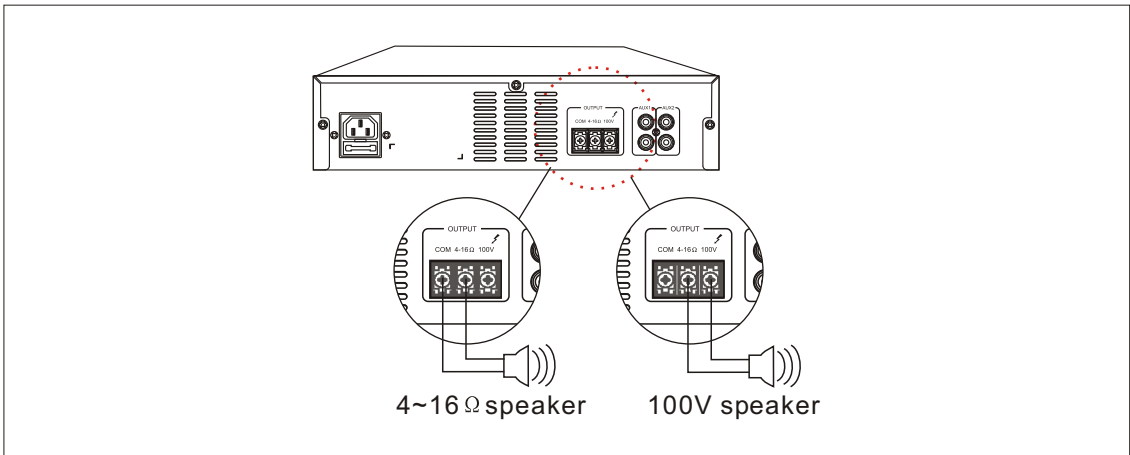


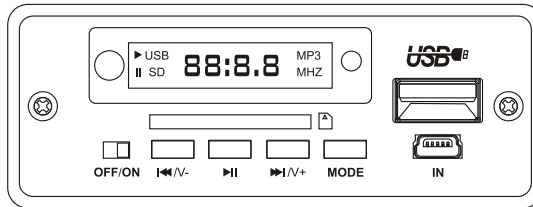
Figure 5.5

The loudspeaker output with constant resistance and constant voltage in two ways, convenient to choose. 100V and 4~16Ω output can only have one and COM at the same time use the connection at the same time corresponding constant pressure or constant resistance horn. With line between the transformer and the speaker of the total power should be less than the rated power output power amplifier.

i Note:

1. When use the device, pay attention to the positive and negative connection, avoid burning the speaker.
2. Connection terminals fender is completed, please be sure to set up. Speaker terminals with high voltage, do not touch, to avoid electric shock.

5.6 The Operation Instruction of Built-in MP3



The MP3 can be switched on/off separately. The USB interface and SD card take the priority of others.

- ① "OFF/ON" switch: when the switch is set to ON, the power is on; when the switch set to OFF, the power is off.
- ② "MODE" button: there are 3 modes for choice: radio, blue tooth, audio.
- ③ "◀/V-" button: short press to select the previous track, long press to reduce the volume.
- ④ "▶/V+" button: in the audio status, press the first time to pause, the second time to continue.
- ⑤ "▶/V+" button: short press to select the next track, long press to increase the volume.
- ⑥ The "RPT" button on the remote control can set two modes: single cycle and all cycle.
- ⑦ The "EQ" button on the remote control can choose different sound effects according to the users preferences.

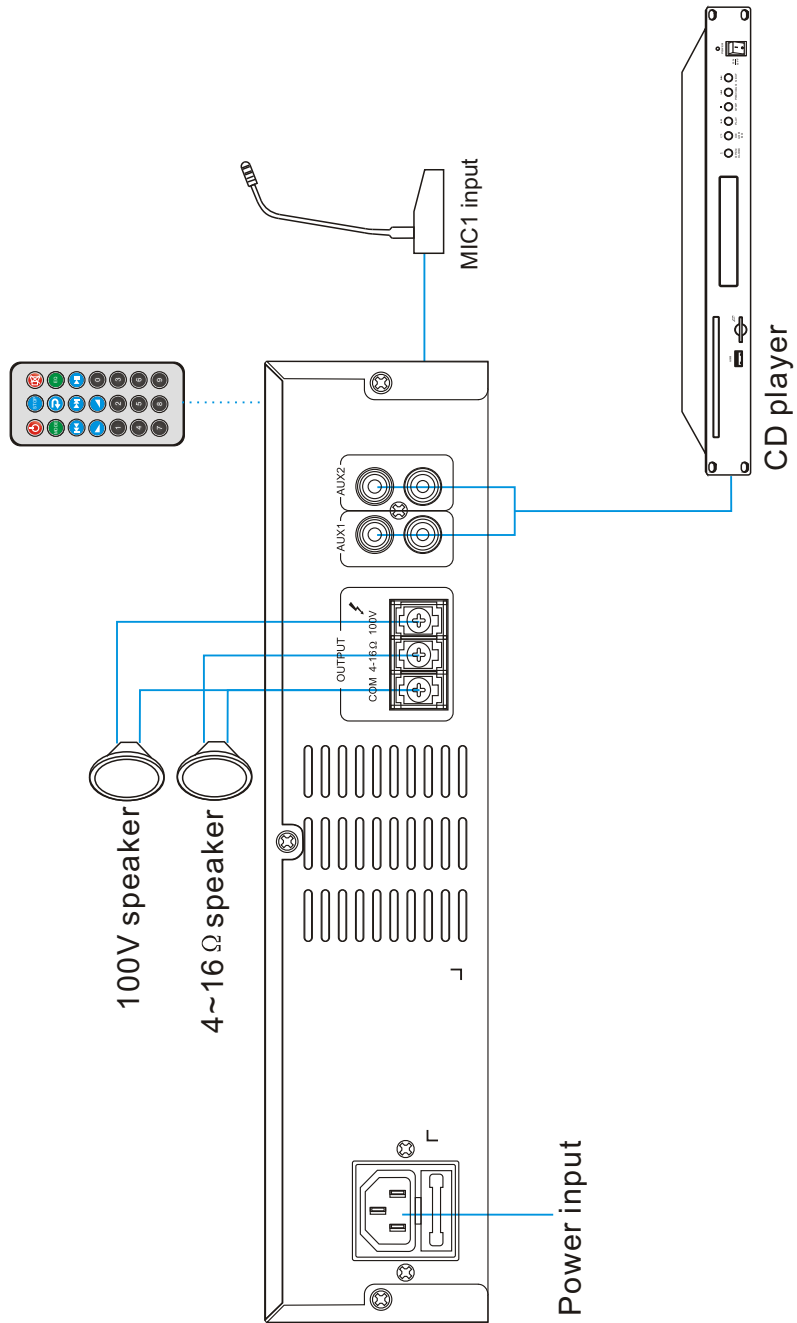
i Note:

1. The user needs to push the button with a proper strength to avoid destroying the button.
2. Operate the remote control in a possibly short range since when obstacles exist, the remote control can not work in a long distance.
3. If the button is loose or fail to work, please change the remote control or battery. If the problems occur again, please contact the supplier.
4. The SD card or USB interface must be inserted in the right way to avoid the damage to the SD card or USB interface.

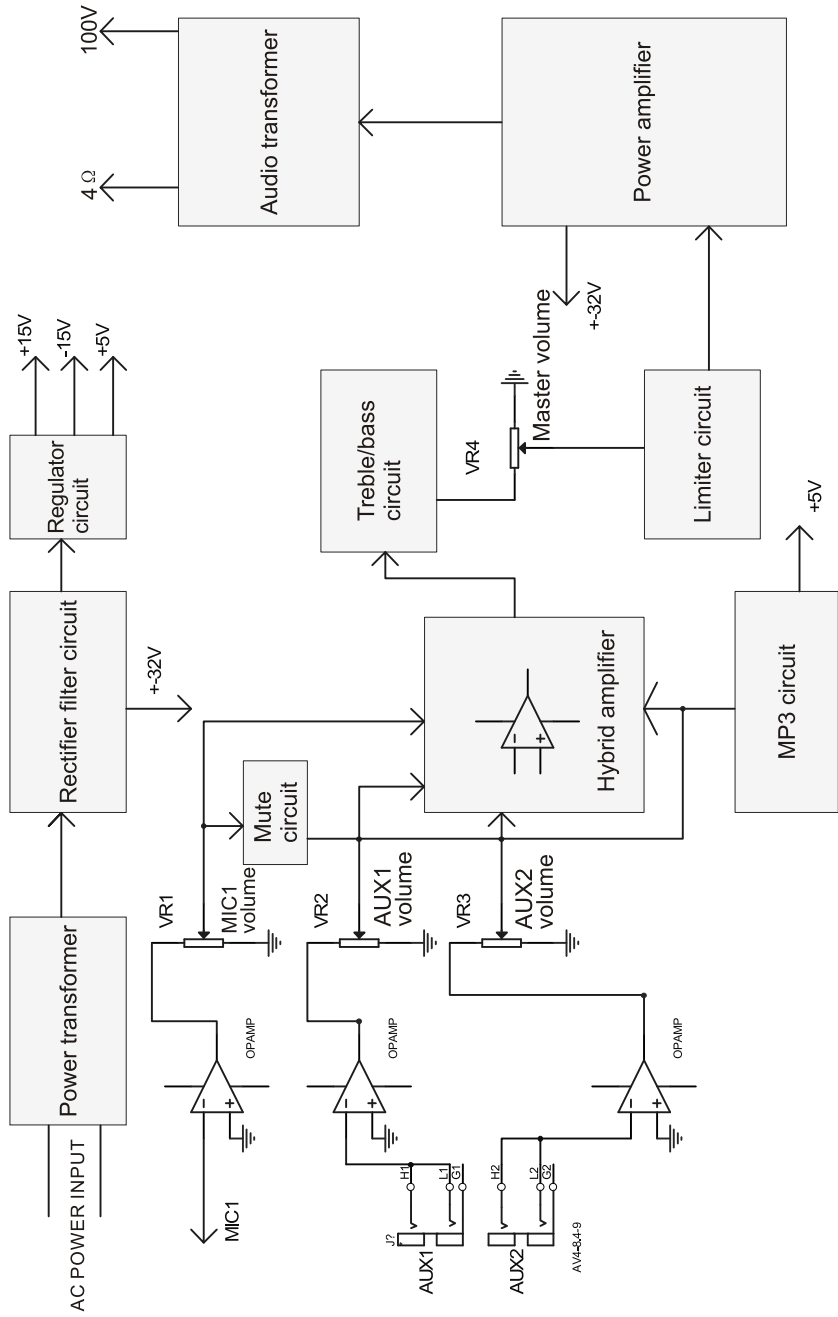
5.7 The Blue tooth function operation instruction on the mobile-phone

- ① Press the "MODE" button on the MP3 player to set it on Blue tooth mode.
- ② Find the Blue tooth setting on the mobile-phone.
- ③ Turn on the Blue tooth of the mobile-phone. If the Blue tooth is on, then skip this step.
As the systems of the mobile-phones vary, the setting screen may have slightly difference.
- ④ It needs to note that the mobile-phone needs to be set Visible to all nearby Blue tooth devices.
Otherwise, it may fail to do the searching and matching.
- ⑤ When the device is found, choose it to connect with the MP3 player. Then the music of the mobile-phone can be played on the amplifier.

6.CONNECTION DIAGRAM



7. BLOCK DIAGRAM



8. SPECIFICATIONS

Model	T-B20	T-B40	T-B60
Input sensitivity/impedance	20W	40W	60W
Loudspeaker output	4~16 Ω /100V		
Input Sensitivity & source impedance	MIC IN: +5mV, unbalanced 6.3 connection terminal AUX IN: 350mV, unbalanced RCA connection terminal		
Tone	Bass: 100Hz \pm 10dB Treble: 10KHz \pm 10dB		
Frequency response	80Hz~16KHz(-3dB)		
Signal to noise ratio	\geq 75dB		
THD	Rated power output, distortion \leq 1%		
Priority	MIC1		
Protection	thermal-shutdown protection, short-circuit protection, overload, protection		
Power supply	<input type="checkbox"/> ~110V 50Hz <input type="checkbox"/> ~110V 60Hz <input type="checkbox"/> ~120V 50Hz <input type="checkbox"/> ~120V 60Hz <input type="checkbox"/> ~220V 50Hz <input type="checkbox"/> ~220V 60Hz <input type="checkbox"/> ~230V 50Hz <input type="checkbox"/> ~230V 60Hz <input type="checkbox"/> ~240V 50Hz <input type="checkbox"/> ~240V 60Hz		
Power Consumption	40W	80W	120W
Dimension(mm)	284x188x 66.5		
Weight	2.8Kg	3.5Kg	4.2Kg

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