

PUBLIC ADDRESS SYSTEM

DV audio

OPERATION MANUAL

PA-120PU 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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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 DV audio 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 DV audio 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 DV audio 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.

1. GENERAL DESCRIPTION

The USB mixer power rated 120W. They are featured of 3 balanced microphone inputs, 2 aux inputs and 2 EMC inputs. Priority muting is achieved via EMC1-2 for overriding other inputs except MIC 1 on front panel. Individual gain controls are provided for Mic 1-3 and Aux 1-2, bass and treble controls and master volume control are provided for overall tone control. 70V, 100V and low impedance 4-16ohms speaker outputs are provided. Extensive protection from short-circuit, overload and high temp.

2. FEATURES

With USB port and fluorescent to display the sound number.

Four function buttons: previous, play/stop, next and repeat.

Remote control over USB for EQ, volume up volume down & mute.

Mixer amplifier for paging and background music system.

In 2U height.

70V, 100V and low impedance 4-16ohm speaker output.

Three Mic inputs by phone jack type.

MIC 1(phone jack) with VOX priority and VOX level on rear panel.

MIC 2-3 by phone jack on rear panel.

Two Aux Inputs and 2 line inputs for spare use

One EMC priority inputs.

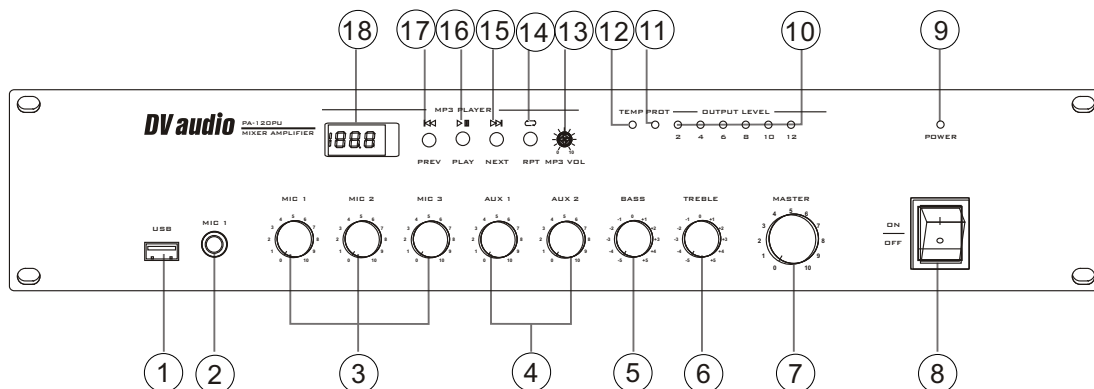
EMC 1 has priority over all inputs except MIC1

MIC 1-3, Aux1-2 and master volume controls and bass/treble tone control

High temp, overload & short-circuit protection.

3. NOMENCLATURE AND FUNCTIONS

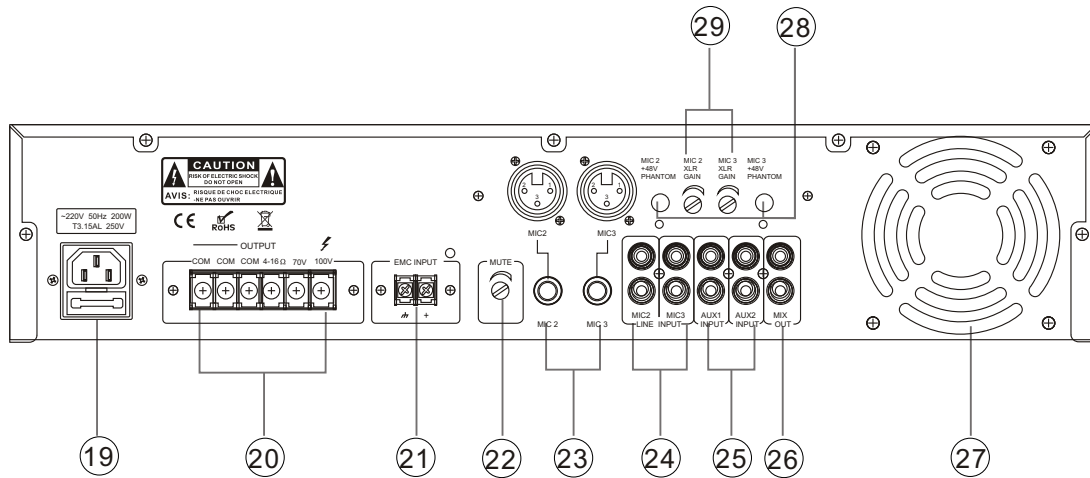
3.1 FRONT PANEL



- | | |
|---|--|
| <ol style="list-style-type: none"> 1. USB Interface
MP3 Storage which can be connected with USB interface 2. MIC1
MIC1 input 6.3 Microphone jack input 3. MIC1 \ MIC2 \ MIC3
MIC volume control 4. AUX1 \ AUX2
Aux volume control 5. Bass
Clockwise rotation to increase the output of the bass; otherwise decrease. 6. Treble
Clockwise rotation to increase the output of the treble; otherwise decrease. 7. Master volume
All the level control of the inputs are controled by the master volume. | <ol style="list-style-type: none"> 8. POWER SWITCH
On top of the openin g Power
Press the end, power shut down 9. POWER
Power indicator 10. Level Indicator 11. PROT
Protection indicator 12. TEMP
Temperature indicator 13. Mp3
MP3 volume control 14. Circulation play choice 15. NEXT 16. PLAY/PAUSE
Play/Pause button (MP3) 17. LAST 18. MP3 Frame
Display the current work state |
|---|--|

NOMENCLATURE AND FUNCTIONS

3.2 REAR PANEL



- | | |
|---|---|
| <p>19. ~220V 50Hz AC POWER INPUT</p> <p>20. Output terminal of the speaker
Connecting 4~16 Ω /70V/100V speaker</p> <p>21. EMC
Alarm signal input of EMC</p> <p>22. MUTE
Potentiometer of mute</p> <p>23. MIC2\MIC3
Unbalanced input of mic</p> <p>24. MIC2 LINE1 /MIC3 LINE2
Aux input of MIC2/MIC3, sensitivity:
775mV</p> | <p>25. AUX1/AUX2
Aux input jack, un-balanced signal
connection, sensitivity: 350mV</p> <p>26. OUT
Line output, cascade connection,
can be connect with next amplifier</p> <p>27. FAN</p> <p>28. MIC2 MIC3 PHANTOM SWITCH</p> <p>29. MIC2 MIC3 GAIN ADJUSTMENT</p> |
|---|---|

4. OPERATION METHOD

4.1 OPERATION METHOD

Among the 4 output terminals, only COM and one of others are used. When 70V and 100V are used, the speaker should be with line transformer, and the total power of speakers should be less than the output rating.

4.2 MUTE FUNCTION

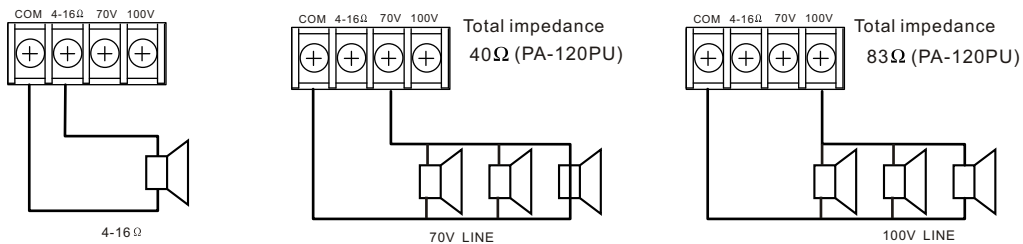
Mic 1 has the highest priority of input jack, whose signal input will restrain other signal inputs. The restraining degree can be adjusted by the mute control on the back panel of the amplifier. The adjust range is 0-30 dB.

4.3 WARNINGS

4.3.1 Cabinet should be safely grounded. The cabinet is already connected with the GND of the power cord. Pls connect the power plug with the grounded power grid.

4.3.2 After turning the switch on and inputting the signal, if abnormal indicator is flashing, there is short trouble in the outlet line. In this situation, the power should be cut off. Re-power up after the removal of fault.

5. CONNECTING METHOD



NOTE:

4~16Ω/70V/100V terminals cannot be used at the same time.

Impedance means the (load) impedance value of the whole speaker system.

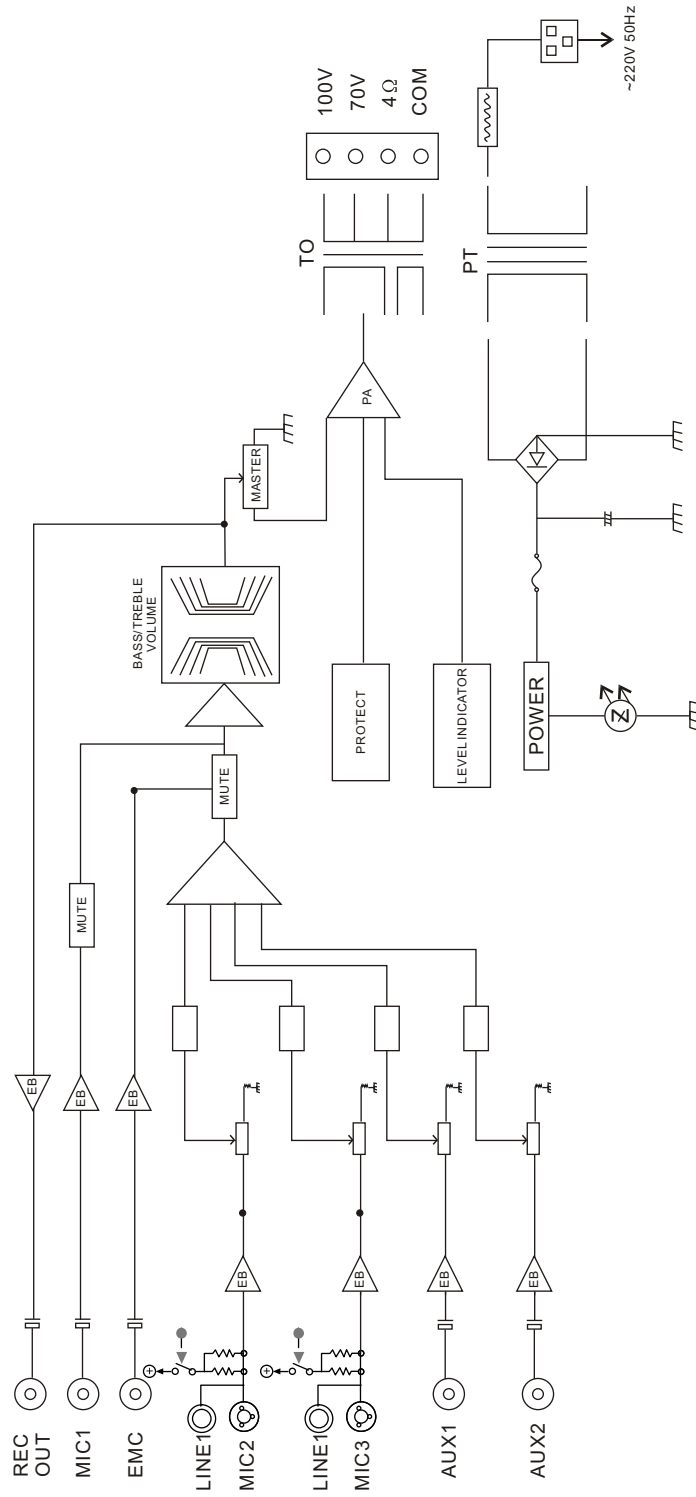


Pls install the terminal cover after connection. With high voltage, never touch the speaker terminal to avoid shock.

6. FAULT REMOVAL

Fault Phenomenon	Fault Cause
1. Connecting the lines, but no sound output	1.Power off or poor contact of the plug 2.Fuse burned out 3.Volume control is off. 4.No signal input
2. Boot up normally, but alarm happens when using.	1.Short circuit of load or damaged 2.Unstable power voltage, too low or too high 3.Overload
3. No sound output suddenly in normal use.	1.Overheating, the amplifier into temperature protection 2.Poor contact of the connecting lines

8. BLOCK DIAGRAM

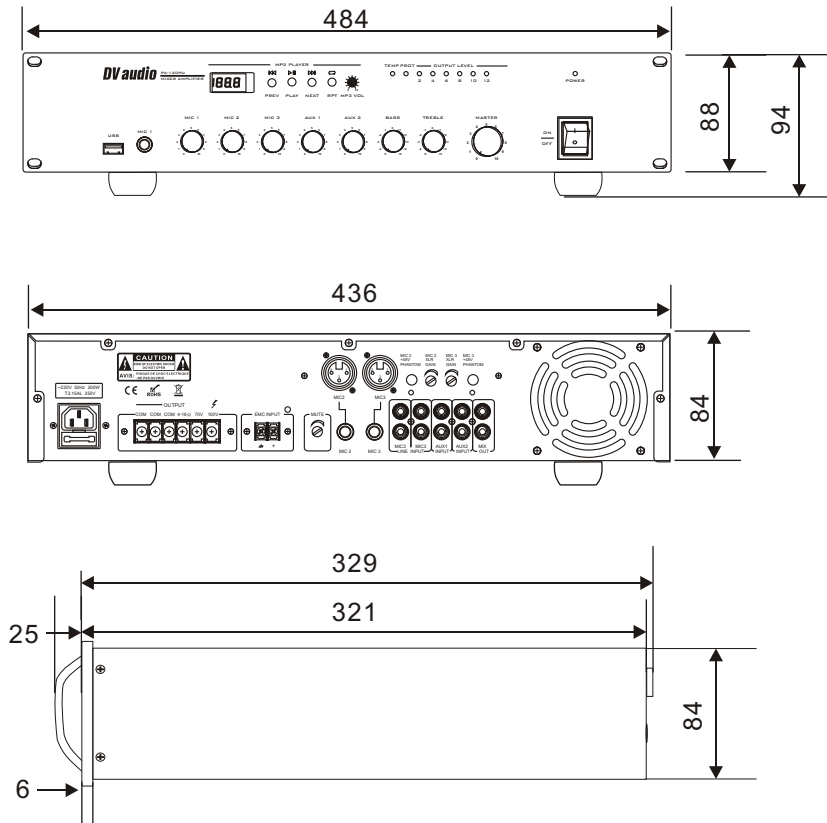


9. SPECIFICATIONS

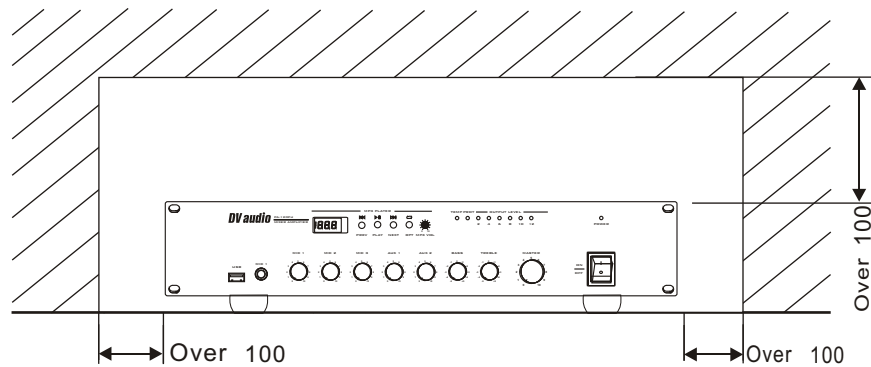
MIXER AMPLIFIER	
MODEL	PA-120PU
RATED POWER OUTPUT	120W
SPEAKER OUTPUTS	4~16Ohms,70V/100V
INPUT	MIC 1: 5mV/600 Ohms Unbalanced TRS input MIC 2,3: 5mV/600 Ohms Unbalanced TRS/XLR input MIC2,3:LINE:775mV/10KOhms,Unbalanced RCA input AUX 1, 2: 350mV/10KOhms, Unbalanced RCA input EMC:775mV/10KOhms, Unbalanced EMC input
TONE	Bass: ± 10 dB at 100Hz Treble: ± 10 dB at 10KHz
FREQUENCY RESPONSE	50Hz~16KHz
S/N RATIO	MIC 1,2,3: 66dB;AUX 1,2: 80dB
T.H.D	Less than 0.5% at 1KHz, 1/3 rated power
CROSSTALK	≤ 50 dB
MUTING FUNCTION	MIC 1 over other input signals with 0~30dB attenuation
CONTROLS	Individual gain controls, power switch
COOLING	Fan automatically start up when temp reaches 55°C
PROTECTION	AC fuse, short-circuit and high temperature
POWER SUPPLY	~220V 50Hz
POWER CONSUMPTION	200W
DIMENSION(mm)	484X353X88
NET WEIGHT	9.94Kg
GROSS WEIGHT	10.14Kg

10. DIMENSIONAL DIAGRAM

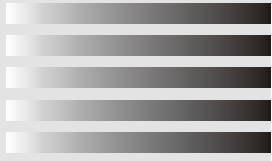
UNIT :mm



Keep the unit's all sides over 10 cm away from objects that may obstruct air flow to prevent the unit's internal temperature rise.



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