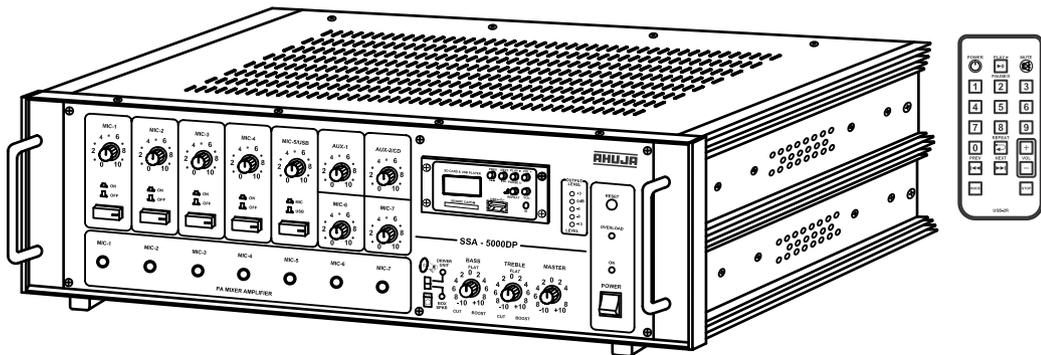


AHUJA[®]**PA Mixer Amplifier**

500W RMS / 750W Max.

SSA-5000DP

- ◆ Thank you for purchasing the AHUJA PA Mixer Amplifier.
- ◆ Please read this manual thoroughly before making connections and turning on the power. Following the instructions in this manual will enable you to obtain optimum performance from your new AHUJA PA Mixer Amplifier.
- ◆ Please retain this manual for future reference.

• Safety Instructions

Read the Instructions: Please read all the instructions in this section carefully before installation or use of the product. All the safety instructions must be followed.

Retain the Instructions: Please retain this Instruction Manual for future reference.



This symbol, wherever it appears, alerts you to the presence of uninsulated hazardous voltage that may be sufficient to constitute a risk of electric shock. External wiring to any terminal marked with this symbol must be done by a trained and instructed person only.



This symbol, wherever it appears adjacent to a component, alerts you that the concerned component can only be replaced by another of the exact same specifications.

WARNING

- To reduce the risk of electric shock, do not remove the top cover. No user serviceable parts inside. Refer all servicing to qualified personnel only.
- Before replacing any fuse, make sure the set is switched off and disconnected from the AC mains or any other power source. Replace a fuse only with another of exactly same specification.

CAUTIONS

Water & Moisture: To reduce the risk of fire or electrical shock, do not expose this set to rain or moisture. Do not use this set near water or in a wet location. Do not keep any object filled with liquid, such as a vase, on top of this set. Do not insert or remove the AC mains plug with wet hands.

Power Source: The voltage & frequency of the AC mains supply, and the voltage of the external battery, (if applicable) to which this set can be connected, is marked on the rear panel of the set. Do not connect this set to any power source other than those specified on the rear panel.

Power Cord Protection: Do not cut, kink, damage or modify the AC power cord supplied with this set. Keep the AC power cord away from heaters and harmful chemicals. Do not keep any heavy object on the power cord.

Operation on Generator: When operating this set on a generator, make sure the set is switched off till the generator voltage has stabilized.

Ventilation: This set should be situated so that its location or position does not interfere with its proper ventilation. Do not cover the ventilation holes / slots. Do not insert or drop anything into the ventilation holes / slots.

Stability: This set must be kept in a stable and flat horizontal position, and never in a tilted position. Do not place this set on an unstable stand, tripod, bracket or mount. Do not use attachments which are not supplied or explicitly recommended by the manufacturer.

Cover Strip: The cover strip of the 100V / 70V audio output terminal strip, and of any other high voltage output terminal strip, must be replaced after making connections. Failure to do so may result in exposure to hazardous voltages.

Earthing: This set must be earthed properly before use. A wire from the Earth terminal on the rear panel must be connected to electrical earth.

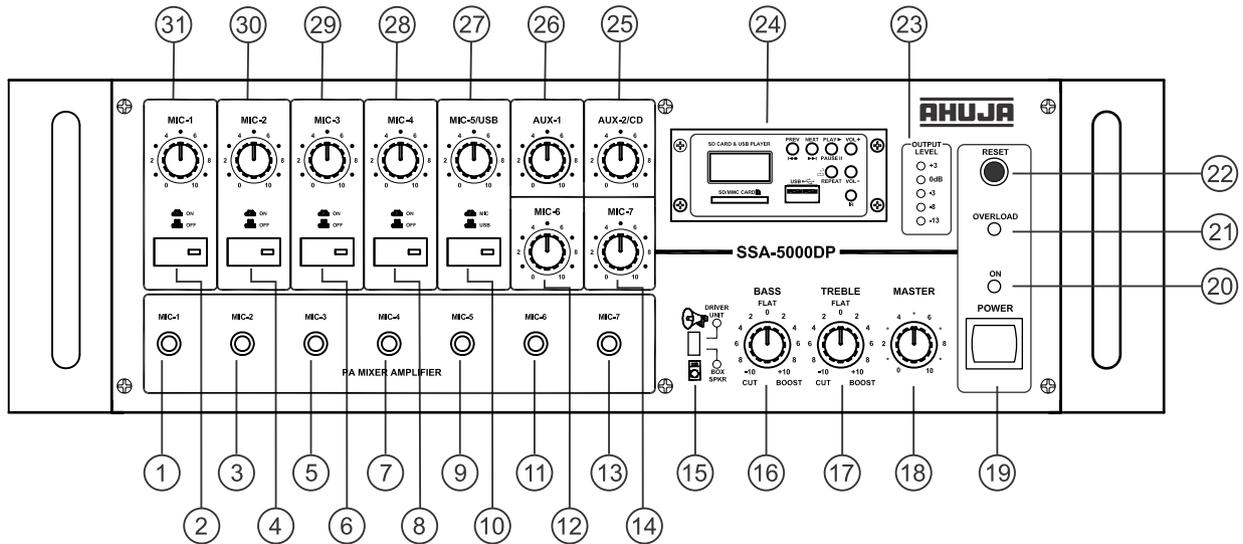
Cleaning: Disconnect this equipment from the AC mains and external battery before cleaning. Clean with a damp cloth, but do not allow any liquid to enter the set. Do not clean with liquids or aerosols.

Exposure to Heat: Do not touch the heatsinks while the set is working.

• **Table of Contents**

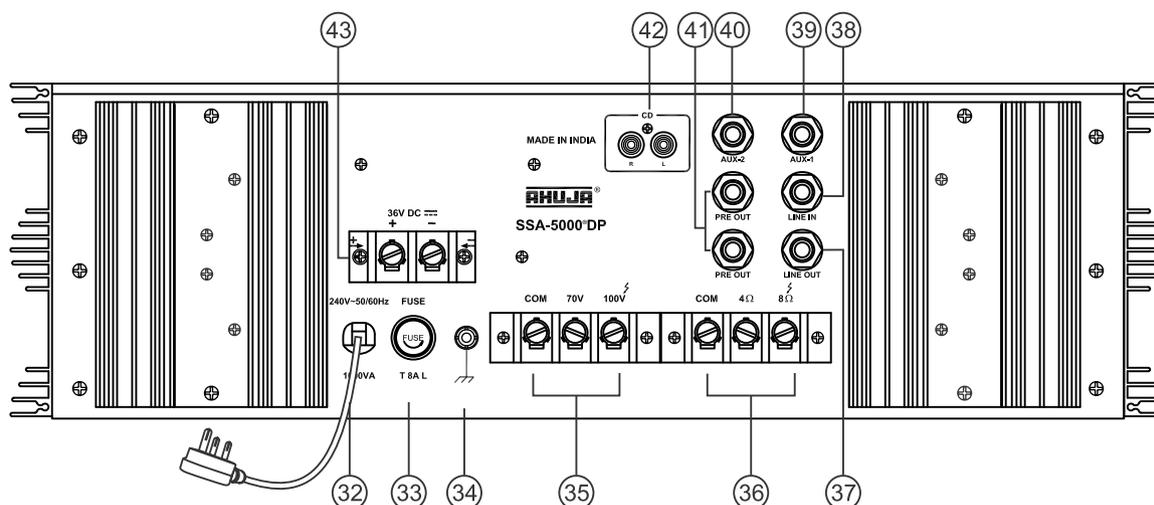
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• Front Panel Controls & Features



1. **MIC-1 Input Jack Socket**
For accepting unbalanced signal from a low impedance microphone.
2. **MIC-1 ON/OFF Switch**
3. **MIC-2 Input Jack Socket**
4. **MIC-2 ON/OFF Switch**
5. **MIC-3 Input Jack Socket**
6. **MIC-3 ON/OFF Switch**
7. **MIC-4 Input Jack Socket**
8. **MIC-4 ON/OFF Switch**
9. **MIC-5 Input Jack Socket**
10. **MIC-5 /USB Switch**
For using MIC 5, press this switch. For using MP3 playback, keep this switch unpressed.
11. **MIC-6 Input Jack Socket**
12. **MIC-6 Volume Control**
13. **MIC-7 Input Jack Socket**
14. **MIC-7 Volume Control**
15. **BOX SPEAKER / DRIVER UNIT Selector Switch**
16. **BASS Control**
For attenuating or boosting the signal level of low frequencies.
17. **TREBLE Control**
For attenuating or boosting the signal level of high frequencies.
18. **MASTER Volume Control**
For adjustment of the overall volume level from the amplifier.
19. **POWER Switch**
Push the top part of the knob to switch the amplifier ON. Push the bottom part of the knob to switch the amplifier OFF.
20. **POWER LED**
This LED glows when the amplifier is switched ON.
21. **OVERLOAD LED**
This LED glows when the circuit protector trips.
22. **RESET button**
This button pops out when the circuit protector trips. Rectify the cause and press the RESET button for resetting normal operation of the amplifier.
23. **LED Array**
This indicates the output level of the amplifier. If the red LED's are glowing continuously, reduce the signal level.
24. **MP3 Playback Facility**
(For description see pag no. 6)
25. **AUX-2/CD Volume Control**
26. **AUX-1 Volume Control**
27. **MIC-5/USB Volume Control**
28. **MIC-4 Volume Control**
29. **MIC-3 Volume Control**
30. **MIC-2 Volume Control**
31. **MIC-1 Volume Control**

• Rear Panel Controls & Features



32. 3 CORE AC MAINS CABLE WITH PLUG

33. AC MAINS FUSE Rating 8 AMP 250V (T 8A L)

This protects the amplifier from any excessive current flow.

34. EARTH Terminal

35. SPEAKER Terminal Block (70V, 100V)

For connecting speakers with 100V line matching transformers.

36. SPEAKER Terminal Block (4 ohm and 8 ohm)

For connecting low impedance speakers.

37. LINE Output Jack Socket

For connecting to a booster amplifier to obtain combined higher power output.

38. LINE Input Jack Socket

For connecting inputs such as a CD Player. Also for connecting an external Mixer to enhance the number of inputs.

39. AUX-1 Input Jack Socket

For accepting an unbalanced signal from an auxiliary source like a Tuner, CD Player, Echo or Audio Mixer etc.

40. AUX-2 Input Jack Socket

41. PREAMPLIFIER Output Jack Sockets

For connecting to the AUX input of another amplifier or a recorder for recording purpose. Two jacks have been provided in parallel.

42. RCA Socket

These two RCA jacks marked 'L' & 'R' are for connecting input from MP3 player or CD player.

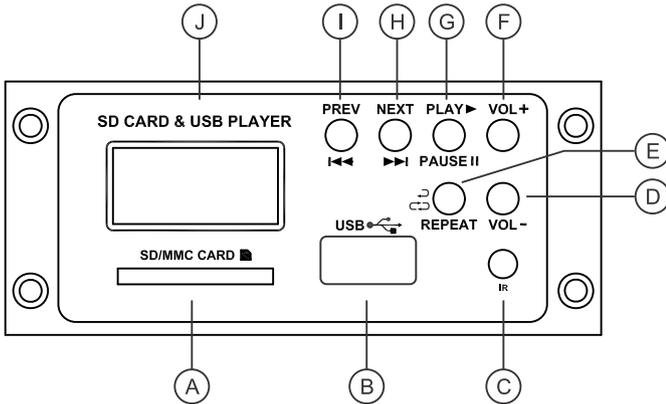
43. BATTERY Terminal Block

For connecting three 12V Car Batteries in series (which becomes 36V) as standby power source.

CAUTION

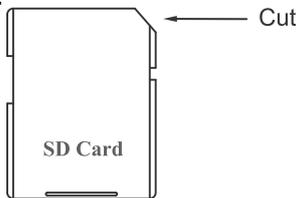
- The equipment must be earthed properly before operating it to avoid electric shock. A wire from the Earth Terminal must be connected to electrical earth for safe operation.

• MP3 Playback Facility: Controls & Features

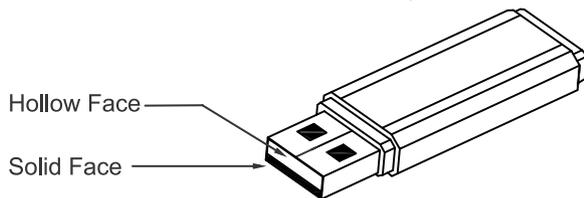


- A. SD/MMC Card Connector:** Insert the SD/MMC Card into its appropriate slot to play. When taking out the card, pull the card to take out.

While inserting SD/MMC card into the slot, ensure that the card is inserted in such a way that all pins are facing downward and cut is towards right as shown in figure.



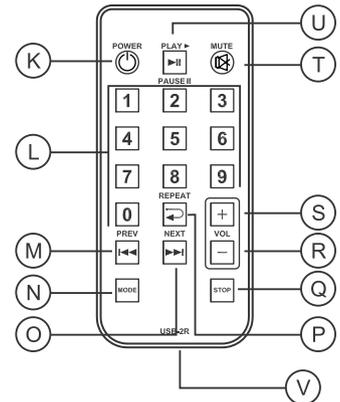
- B. USB Connector:** Insert the USB drive here. While inserting USB drive into the USB connector, hold the USB drive in such a way that hollow part of the USB drive is upwards as shown in Figure.



Any forceful insertion in wrong direction will damage the connector.

- C. IR Sensor:** Picks up signal from the Remote control. Point the Remote control toward this sensor when using the remote control.
- D. VOL-:** To decrease volume level of MP3 player.
- E. REPEAT ↻:** Press once to repeat the song being played. Press again to repeat all the songs.
- F. VOL+:** To increase volume level of Mp3 player.
- G. ►|| PLAY/PAUSE:** Press PLAY/PAUSE once to Pause if music is already playing. Press PLAY/PAUSE again to resume playing. Play will resume from the same point where it had stopped.

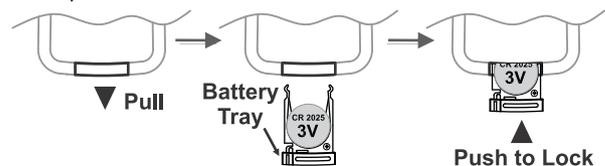
Remote Control



- H. ►|| Next:** Press NEXT to select next forward music track. Pressing NEXT repeatedly will move the system to successively next forward tracks.
- I. ◀◀ Prev:** Press PREV to Select the previous track. Pressing PREV repeatedly will move the system to successively previous tracks.
- J. LCD Display:** Displays 3 digits of the track selected to play i.e 001 to 999. During play, displays the time duration of the track played.

Remote Control

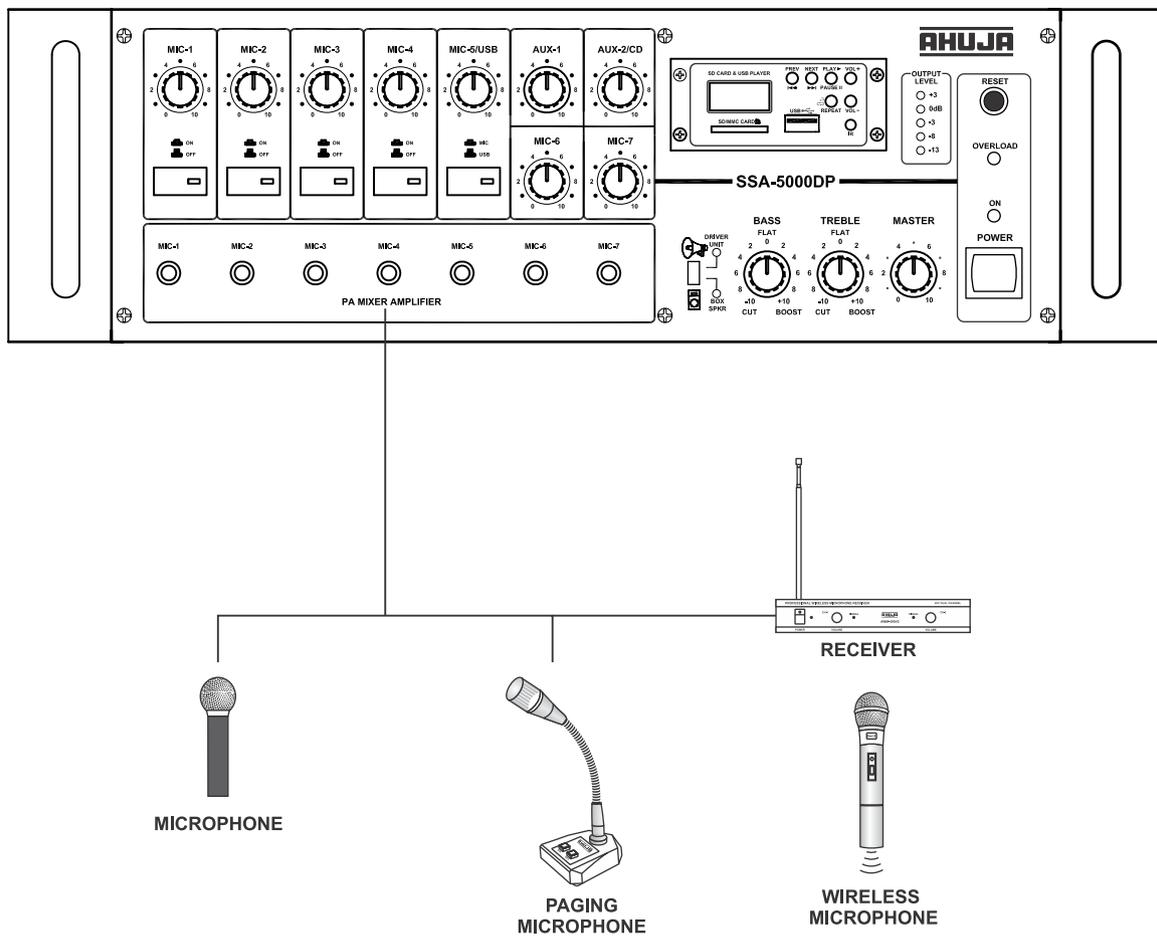
- K. Power:** Press once to switch off MP3 digital player, press again to switch ON.
- L. Number key 0 to 9.** To choose the track number to be played.
- M. ◀◀:** To select the previous track.
- N. MODE:** To select SD or USB if both are inserted.
- O. ►||:** Press to select the next track.
- P. ↻** Press once to repeat the song being played. Press again to repeat all the songs.
- Q. STOP:** Press to stop the track being played.
- R. Vol:** Press to decrease the volume of Digital Player.
- S. Vol:** Press to increase the volume of Digital Player.
- T. MUTE:** Press once to mute the sound, press again the resume the sound.
- U. ►|| PLAY/PAUSE:** Press Play/Pause once to Pause when music is already playing. Press Play/Pause again to resume playing.
- V. Battery Replacement:** Pull out the battery tray and replace the battery with positive electrode facing upwards as shown in fig. below. Push the battery compartment back to the close position. Use CR2025 or equivalent lithium coin cell.



• Interconnections

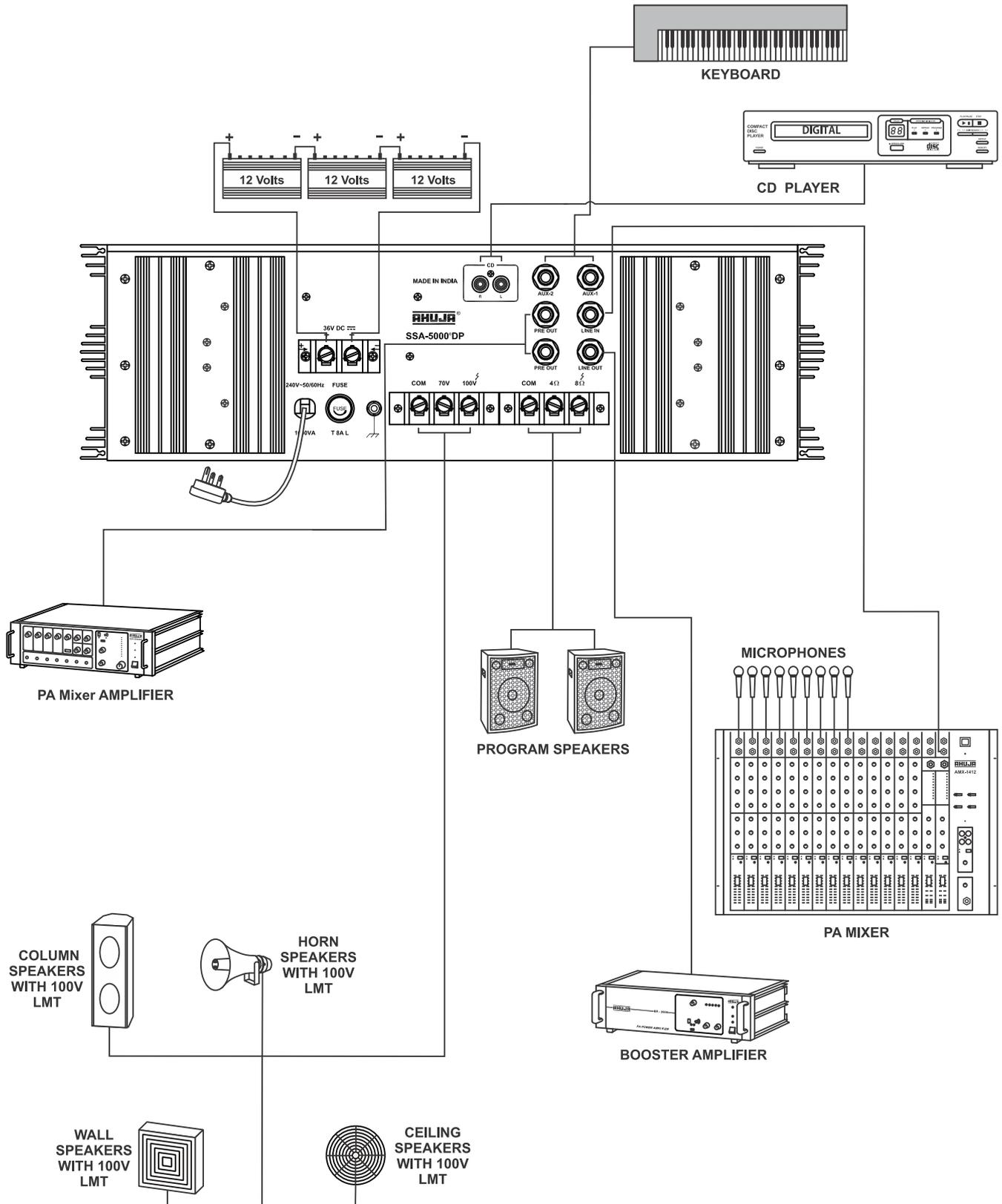
- The amplifier can be placed as a tabletop unit. The amplifier should be situated so that its location or position does not interfere with its proper ventilation.
- The amplifier must be powered through an AC earthed mains outlet.
- All connections must only be carried out or changed with the amplifier switched OFF and the AC lead disconnected from the mains.
- The amplifier may also be operated from a DC supply of 36 Volts (three car batteries connected in series).
- To avoid loud switching noise, always switch ON the amplifier after all other units of the audio system have been switched ON. After operation switch it OFF first, then the other units.
- The connection diagrams that follow display the typical types of input sources (Mics, Keyboard, MP3 Player, Mixer, CD Player etc.) and speakers (Wall, Ceiling, Box, Horn, Column) which can be connected to the amplifier. For correct connections and operation check the specifications of the connected equipment.

FRONT PANEL - SSA-5000DP



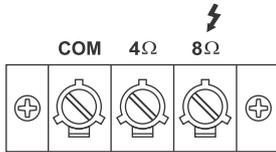
Interconnections....

REAR PANEL - SSA-5000DP



• Speaker Connection Guidelines

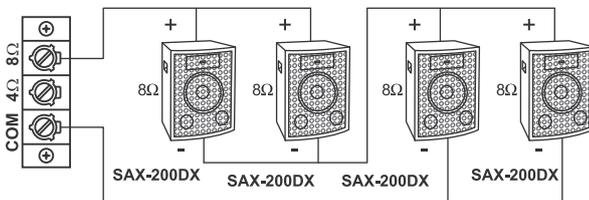
SSA-5000DP is a high-powered PA mixer amplifier. Therefore it is very important that correct loudspeaker connections are made to avoid damage to the amplifier or speakers.



Low Impedance Speaker Connections

- Box type Speakers can be directly connected to Com-4Ω / 8Ω Terminal Strip.
- The Box Speaker / Driver Unit switch must be kept at Box Speaker position. If by mistake the switch remains in Driver Unit position the quality of sound will not be rich and natural.
- No Driver Units / Horn Speakers / Column Speakers (with 100V LMT) should be connected to Com-4Ω / 8Ω

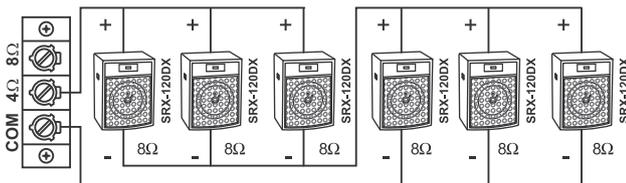
Connecting Four SAX-200DX Speakers



Resultant Impedance = $(8 \text{ ohm}/2) \times 2 = 8 \text{ ohm}$

The Four SAX-200DX Speakers (each speaker can handle 200W of power) should be wired in a parallel-series combination as shown in figure. Two groups of two speakers each are connected in parallel and then the groups are connected in series. The resulting impedance will be 8Ω. The speaker system should be connected to the 8Ω tap of the amplifier.

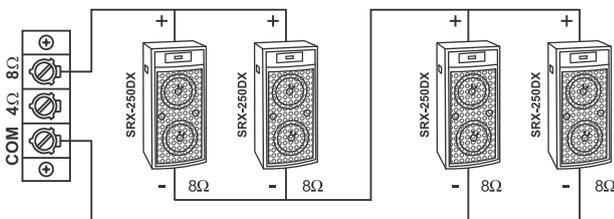
Connecting Six SRX-120DX Speakers



Resultant Impedance = $(8 \text{ ohm}/3) \times 2 = 5.33 \text{ ohm}$

The Six SRX-120DX speakers (each speaker can handle 100W of power) should be connected in parallel-series combination as shown in figure. Two groups of three speakers each are connected in parallel and then the groups are connected in series. The resulting impedance would be 5.33Ω. Thus they should be connected to the 4Ω tap of the amplifier.

Connecting Four SRX-250DX Speakers



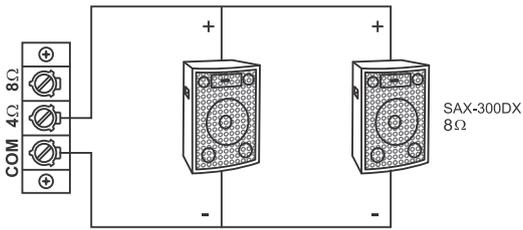
Resultant Impedance = $(8 \text{ ohm}/2) \times 2 = 8 \text{ ohm}$

The Four SRX-250DX Speakers (each speaker can handle 200W of power) should be wired in a parallel-series combination as shown in figure. Two groups of two speakers each are connected in parallel and then the groups are connected in series. The resulting impedance will be 8Ω. The speaker system should be connected to the 8Ω tap of the amplifier.

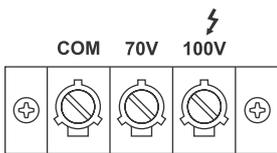
IMPORTANT

- When Box speakers are connected to COM-4Ω / 8Ω Terminal Strip NO Speakers / Driver Units with 100V LMTs should be connected to the Red Terminal Strip marked COM-70V/100V.
- Box Speakers should be connected only to either COM-4Ω or COM-8Ω terminals as illustrated above but never to more than one set of terminals.

Speaker Connection Guidelines....



Resultant Impedance = $(8 \text{ Ohm} / 2) = 4 \text{ Ohm}$

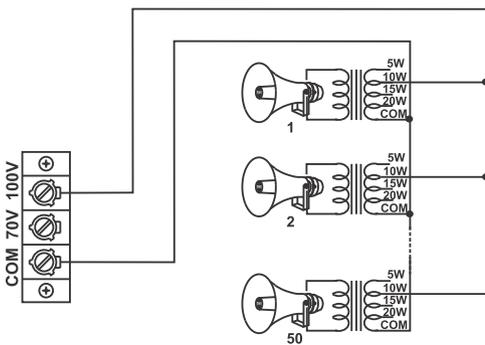


Connecting Two SAX-300DX Speakers

The Two SAX-300DX speakers (each speaker can handle 300W of power) should be wired in parallel as shown in figure. The resulting impedance of the speaker system is 4Ω. Thus they should be connected to the 4Ω tap of the amplifier.

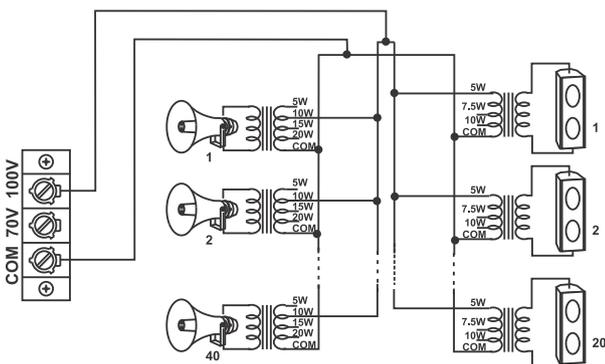
High Impedance Speakers or Speakers Using A 100V Line Matching Transformer

- Only Driver Units / Horn Speakers / Column Speakers with 100V Line Matching Transformers are to be connected to COM-70V / 100V Terminal Strip.
- The Box Speaker / Driver Unit switch must be kept at Driver Unit position.
- When any of the above speakers are connected to the COM-70V / 100V Terminal Strip then NO Box speakers should be connected to the COM-4Ω / 8Ω Terminal Strip.
- The power drawn from the amplifier should not exceed 500 Watts.



Connecting Fifty Driver Units with 100V LMT

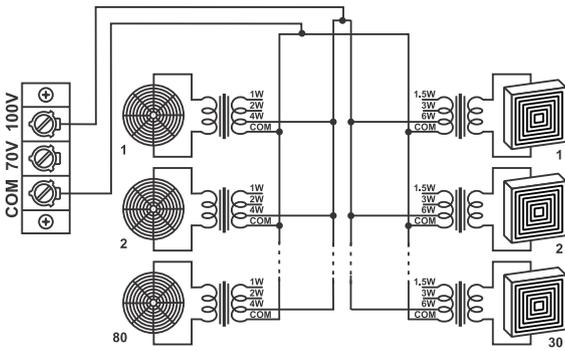
50 Driver Units with 100V Line Matching Transformer connected at 10 Watts tap can be operated.



Connecting a Combination of Driver Units and Column Speakers with 100V LMT

40 Driver Units with 100V LMT at 10 Watts and 20 Column Speakers with 100V LMT at 5 Watts can be connected together. The power drawn from the amplifier should not exceed 500 Watts.

Speaker Connection Guidelines....

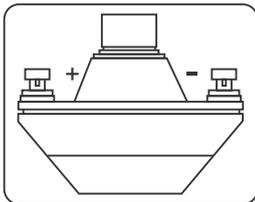


Connecting a combination of Wall and Ceiling Speakers with 100V LMT

80 Ceiling Speakers with 100V LMT at 4 Watts and 30 Wall Speakers with 100V LMT at 6 Watts can be connected together. The power drawn from the amplifier should not exceed 500 Watts.

Use of 70 Volt Line

A loudspeaker / Driver Unit with its LMT adjusted to the 15W tap, when connected to COM and 100V terminals on the Amplifier's Terminal Strip will draw 15W from the Amplifier but when the same is connected to COM and 70V it will only draw half power i.e. 7.5W. A good use of 70V line tap can be made in installations where large number of Speakers / Driver Units are to be installed for more even distribution of sound.



Correct Phasing of Loudspeakers

- When two or more Speakers / Units are installed in the same area and are facing the same direction, it is essential that their cones / diaphragms act in unison. Otherwise the sound level of one speaker will be cancelling the sound level of the other. To avoid any mistake, the terminals of Box speakers and the Driver Units are marked '+' & '-'. Always connect the COM of the Amplifier to '-' of speaker & 4Ω / 8Ω of the amplifier to the '+' of the speakers.
- In case of LMT's the COM of all the LMT's should be connected to the COM of the red strip terminal of the amplifier and the power tap to 100V line as shown in figure.

IMPORTANT

- When 70 / 100 Volt line is being used, no speakers / driver units should be connected to 4Ω / 8Ω (Low Impedance) Tap.
- Loudspeaker / driver unit should be connected to either COM-100V or COM-70V terminals, but never to more than one set of terminals.

• Specifications

Model	SSA-5000DP
Power Output	750W RMS Max. 500W RMS at 10%THD 450W RMS at 5% THD 415W RMS at 2% THD
Output Regulation	≤ 2 dB no load to full load at 1kHz
Input Channels	7 × Mic. 0.8mV / 4.7kΩ (Mic source impedance 50Ω to 1kΩ) 2 × Aux. 100mV / 470kΩ, 1×CD 200mV/50kΩ Line Input 1V / 50kΩ
MP3 Playback	Built-in MP3 Playback facility (USB, SD & MMC Card) Remote Control provided
Frequency Response	50 – 15000Hz ±3dB
S/N Ratio	60dB
Tone Controls: Switch at Box Speaker Position Switch at Driver Unit Position	Bass: ±10dB at 100Hz Treble: ± 10dB at 10kHz Bass: -10dB at 100Hz Treble: ± 10dB at 10kHz
Pre-amp Output	200mV / 600Ω
Line Output	1V / 1kΩ
Output Taps for Speaker Matching	4 & 8Ω (for direct connections) 70 & 100V Line (for use with LMT)
Power Supply	AC: 220 - 240V 50 / 60Hz (110V on request) DC: 36V (3 × 12V Car Battery)
Protection	AC: Fuse 8Amp. (T 8A L); DC: 20Amp. Circuit Braker
AC Power Consumption	1000VA
DC Power Consumption	8A
Dimensions	W510 × H172 × D385 mm
Weight	27.00 kg approx.

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