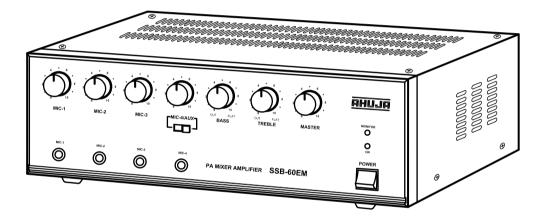


PA Mixer Amplifier

60W RMS/90W Max.

SSB-60°EM

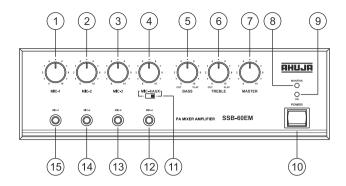


SSB-60EM incorporates high-tech design and circuitry with high quality performance and absolute reliability.

FEATURES

- Provision for automatic changeover from AC to Battery Operation ensures continuity of program.
- 4-MIC & 1-AUX inputs
 Mic-1 to Mic-3 are provided with individual Volume Controls. Volume Control for Mic 4 is alternate to Aux. The Aux input is for connecting Mixer, MP3 Player etc.
- BASS and TREBLE controls provided for shaping tonal quality of music & speech as desired.
- MASTER control permits adjustment of overall volume of program inputs.
- PRE-OUT for connecting Recorder for recording or for connecting additional Booster Amplifier.
- Protection against wrong battery polarity provided.
- 100V line for long distance speakers connections.
- 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.

FRONT & REAR PANEL CONTROLS & FEATURES



- 1. MIC-1 Volume Control
- 2. MIC-2 Volume Control
- 3. MIC-3 Volume Control
- 4. MIC-4 / AUX Volume Control
- 5. BASS CONTROL

For attenuating the signal level of low frequencies.

6. TREBLE CONTROL

For attenuating the signal level of high frequencies.

7. MASTER CONTROL

This acts as a GATE for overall opening of the volume level of the Amplifier.

8. MONITOR LED

This LED indicates the output level of Amplifier.

9. POWER LED

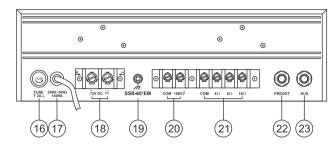
This LED glows when the amplifier is switched 'ON'.

10. 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.

- 11. MIC-4 / AUX Selector Switch
- 12. MIC-4 Input Jack Socket

For connecting Lo-impedance microphones.



- 13. MIC-3 Input Jack Socket
- 14. MIC-2 Input Jack Socket
- 15. MIC-1 Input Jack Socket
- 16. AC MAINS FUSE 2 Amp 250V (T 2A L)

This prevents excessive current flow caused by any defect / short circuit in the amplifier.

- 17. 3 Core AC Mains Cable With Plug
- 18. BATTERY Terminal Block

For connecting a 12V Car Battery as standby power source.

- 19. EARTH Terminal
- 20. SPEAKER Terminal Block (100V line)

For connecting Column Speakers / Driver Units with 100V line matching transformers.

21. SPEAKER Terminal Block (4Ω , 8Ω and 16Ω)

For connecting low impedance speakers.

22. PRE-OUT Jack Socket

For connecting to Recorder or Booster.

23. AUX Input Jack Socket

For connecting MP3 Player, CD Player, Echo Mixer or Audio Mixer etc.

GUIDELINES TO OPERATE THE AMPLIFIER

- 1. Place the amplifier in dry and well ventilated place. Considerable heat is generated inside the amplifier during continuous use, therefore do not block the top cover ventilation holes by placing anything on top of the amplifier.
- Only good quality Low Impedance Microphones like AHUJA: ASM-580XLR, AUD-101, AUD-77DX are recommended
 to be used to avoid / reduce feedback & howling. This will help obtaining satisfactory power output from Amplifier
 without howling or feedback.
- 3. Driver Units, Column Speakers & Box speakers give best performance and are safe from damage when fed with up to half of their handling capacity. This is because these have to handle certain peak music signals and transients which may be two to three times higher than the power wattage being fed to these by Amplifier.
- 4. It is advised to keep the Master Control of the Amplifier at '0' position before switching 'ON' the amplifier & later may be moved to optimum position say '6 to 8'.

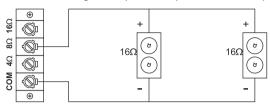
Caution

• 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.

SPEAKER CONNECTIONS

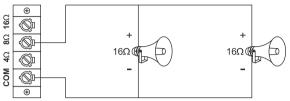
Low impedance speaker connections

Speaker impedance taps of 4, 8 and 16 Ω have been provided at the rear, Always use 23/36 or thicker speaker cable to reduce power loss in the cables. Make proper matching speaker connection as explained below.



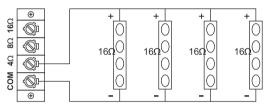
Resultant Impedance = $16 \div 2 = 8\Omega$

Connecting two Speakers (like SRX-50DX) in parallel. • Connecting two driver units (like AU-60) in parallel.



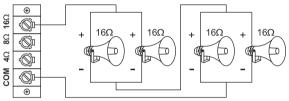
Resultant Impedance = $16 \div 2 = 8\Omega$

Connecting four Speakers (like SCM-30) in parallel.



Resultant Impedance = $16 \div 4 = 4\Omega$

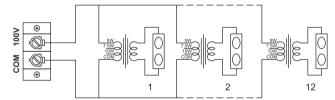
Connecting four driver units (like AU-35 / AU-40) in a series - parallel combination.

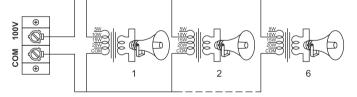


Resultant Impedance = $(16 \div 2) \times 2 = 8 \times 2 = 16\Omega$

High Impedance (100V line) speaker connections

- Connecting 12 Column Speakers with 100V LMT connected at 5 watts tap.
- Connecting 6 Driver Units with 100V LMT connected at 10 watts tap.





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 canceling 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 & $4\Omega/8\Omega/16\Omega$ of the amplifier to the '+' of the speakers.
- In case of LMTs the COM of all the LMTs should be connected to the COM of the red terminal strip of the amplifier and the power tap to 100V line as shown in figure.

IMPORTANT

- When 100 Volt line is being used, no speakers / driver unit should be connected to $4\Omega / 8\Omega / 16\Omega$ (Low Impedance)
- Loudspeaker / driver unit should be connected to either COM- 4Ω , COM- 8Ω , COM- 16Ω or COM-100V terminals, but never to more than one set of terminals.

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 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 lequid to enter the set. Do not clean with liquids or aerosols.

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

SPECIFICATIONS

Power Output	90 Watts RMS Max. 65 Watts RMS at 10% THD 60 Watts RMS at 5% THD
Output Regulation	≤2db, no load to full load at 1kHz
Inputs / Sensitivities	4 × Mic 0.65mV / 4.7kΩ 1 × Aux 100mV / 470kΩ
Frequency Response	50Hz - 15000Hz ±3db
Tone Controls	Bass: -10db at 100Hz Treble: -10db at 10kHz
Signal to Noise Ratio	60dB
Pre-Amp Output	200 mV / 600Ω
Speaker Output	4Ω , 8Ω , 16Ω and $100V$
Power Source	AC: 220-240V 50/60Hz; DC: 12V (Car Battery)
Protection	AC: Fuse 2Amp. (T 2A L); DC: Fuse 10Amp. (T 10A L)
Power Consumption	AC: 160VA; DC: 3Amps (average)
Dimensions	W350 × H120 × D265 mm
Weight	7.00 kg approx.

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