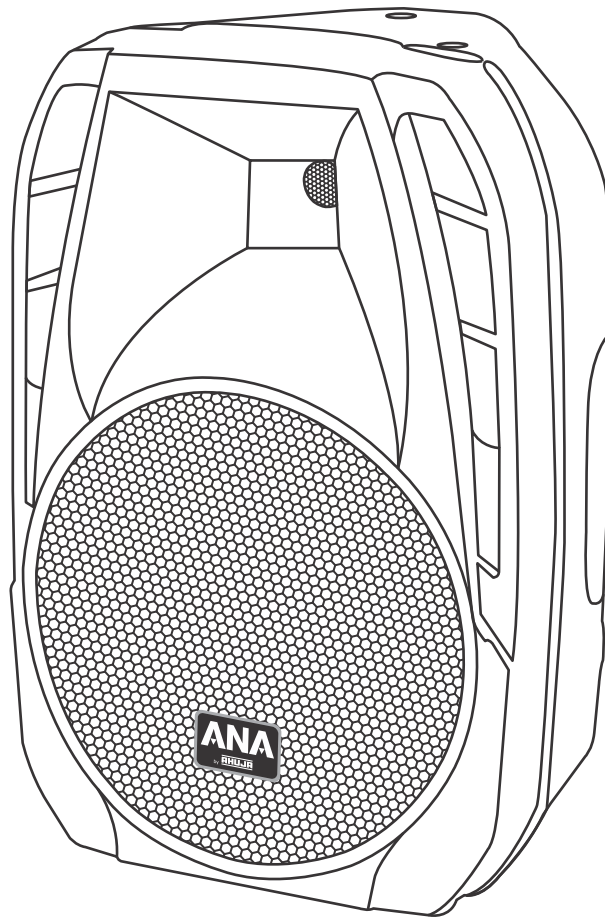


**AHUJA**<sup>®</sup>

**Active Loudspeaker**  
325W RMS Bi-Amp

OPERATION MANUAL

# ABA-4000



- ◆ Thank you for purchasing the AHUJA Bi-Amp ABA-4000 Active Loudspeaker.
- ◆ 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 Bi-Amplifier Active Loudspeaker.
- ◆ 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 back 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:** Do not insert or remove the AC mains plug with wet hands.

**Power Source:** The voltage & frequency of the AC mains supply 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.

**Stability:** This set must be kept in a stable and flat position. This set can also be mounted on a stand. Before using any stand, check its strength and stability.

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

## • Table of Contents

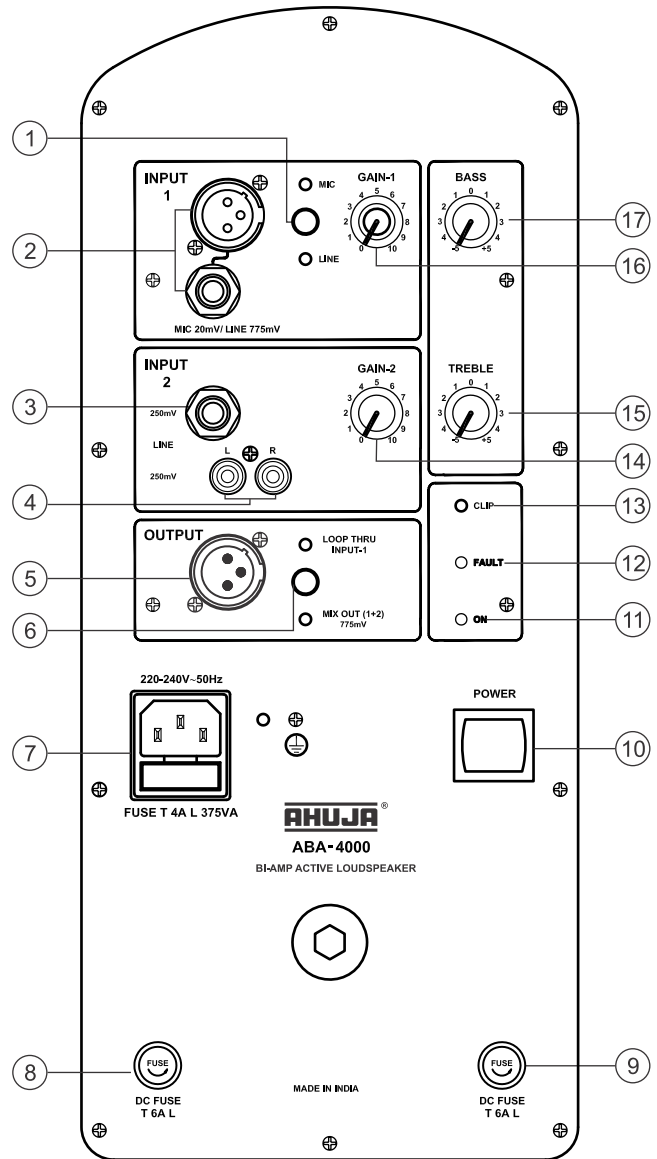
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## • Features/General Description of Product

- ABA-4000 is an Active Loudspeaker with a built-in Bi-Amplifier; 275W RMS for LF + 50W RMS for HF.
- Attractive Plastic moulded cabinet. Product designed for use in a wide variety of PA and Musical Instrument applications.
- ABA-4000 has two inputs: Input-1 is a Balanced input switchable between MIC input and LINE input. Input-2 is a Balanced 250mV LINE input either through 6.3mm stereo jack or stereo L&R input through Dual RCA socket.
- Line Output through XLR and switchable for MIX output (1+2) and Loop through Output of input-1.
- Built-in 12"/8 ohm high quality woofer and an 8 ohm compression driver with titanium diaphragm.
- Active Bass/Treble controls for proper shaping of Low/High frequency levels.
- CLIP LED for monitoring the output & caution against overdrive.
- Protection provided for DC offset, output short and overdrive conditions.

## • Rear Panel Controls Description

1. **Push Selector Switch for Mic/Line**  
Keep the switch unpressed when connecting a mic to either socket of input 1. Keep the switch in pressed position when using Line level signal, e.g. from a mixer. LED glow indicates whether Mic or Line is selected.
2. **Mic/Line Balanced Input Jack Socket/XLR Connector**
3. **Input 2 Jack Socket to connect wireless receivers, Keyboards etc.,**
4. **Dual RCA to connect L&R outputs from CD, iPod etc..**
5. **Line Output XLR Connector**  
For connecting to the Line input of another ABA-4000.
6. **Push Selector switch to select either Loop through Output of Input -1 or Mixed Output (1+2).**
7. **AC Socket with built-in 4A Fuse (T 4A L)**
8. **DC fuse holder (- Supply)**
9. **DC fuse holder (+ Supply)**
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. **Power LED**  
This LED glows when the power is switched on.
12. **Fault LED**  
This LED glows when any of the DC fuse blows. This may happen because of output shorting, DC offset or overdrive.
13. **Clip LED**  
This LED glows when the output is too high. If this LED glows continuously, reduce the signal level.
14. **Volume Control for Input -2**
15. **Treble Control**  
For cutting or boosting the signal level of high frequencies.
16. **Volume control for Input -1**
17. **Bass Control**  
For cutting or boosting the signal level of low frequencies.



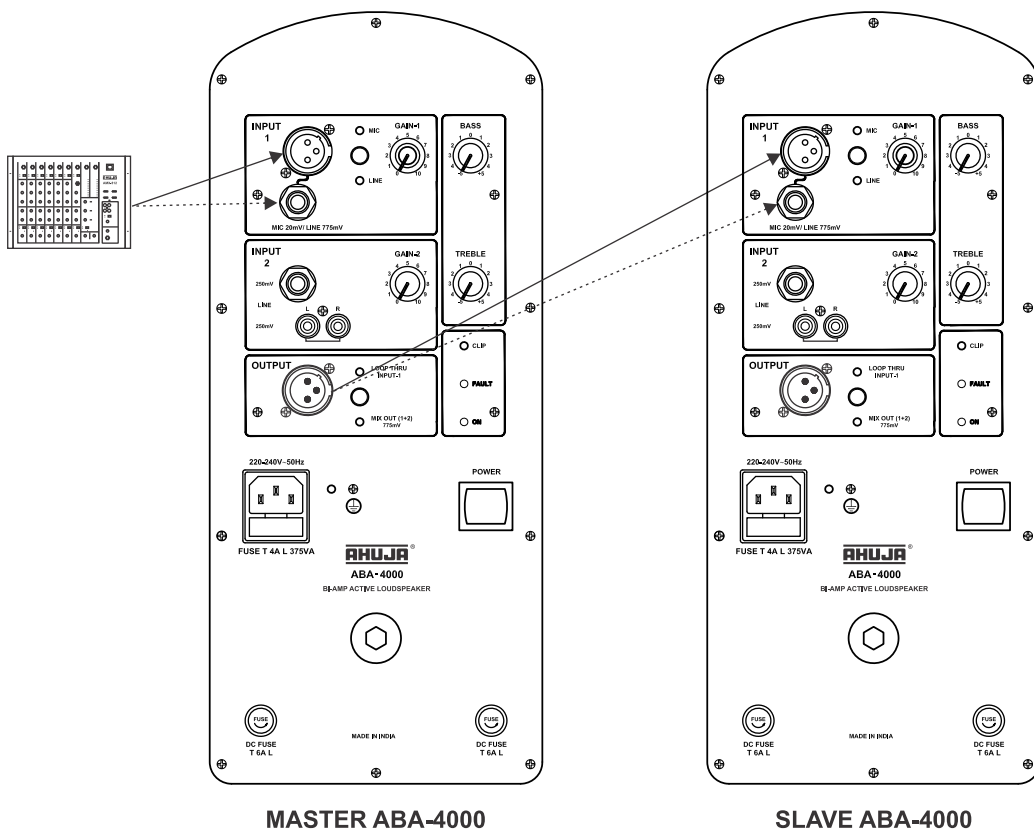
## • Interconnection of Multiple ABA-4000

1. Connect the microphone or Mixer signal to the desired input of first (master) ABA-4000.
2. Connect the Output of Master ABA-4000 to Line input of slave ABA-4000 and so on.

The different applications are demonstrated in Setup-1 to Setup-5.

3. The output level of each ABA-4000 can be controlled from its individual gain control.
4. Bass, Treble control setting, if needed, will be done from the first (master) ABA-4000 only.
5. For undistorted sound, ensure that CLIP LED does not glow continuously.

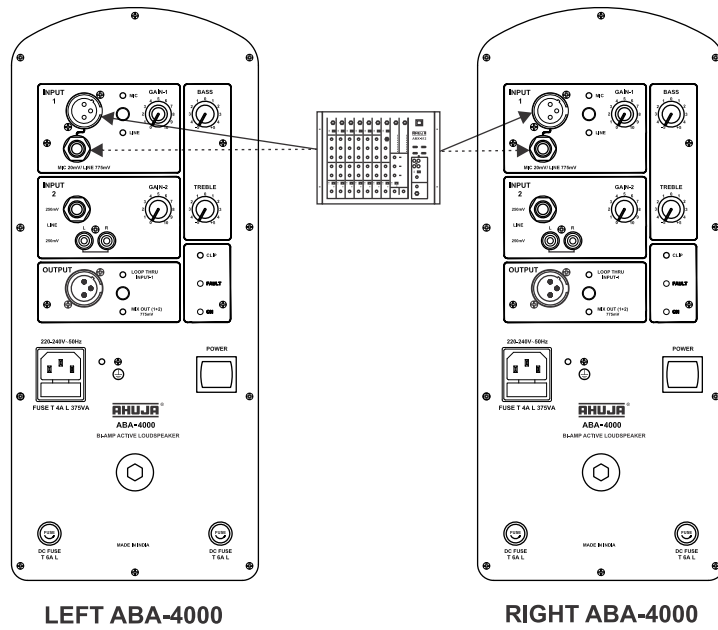
### SETUP-1: Mixer Feeding Master ABA-4000 & Output of Master ABA-4000 to Slave ABA-4000



- Keep Mic/Line switch in Line position.

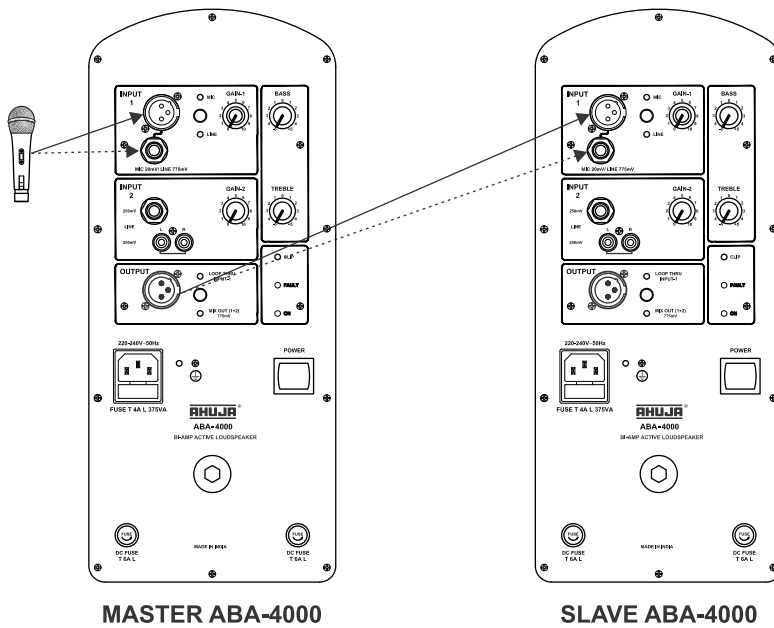
# • Interconnection of Multiple ABA-4000...

## SETUP-2: Mixer Feeding 2 ABA-4000 (L&R)



- Keep Mic/Line switch in Line position.

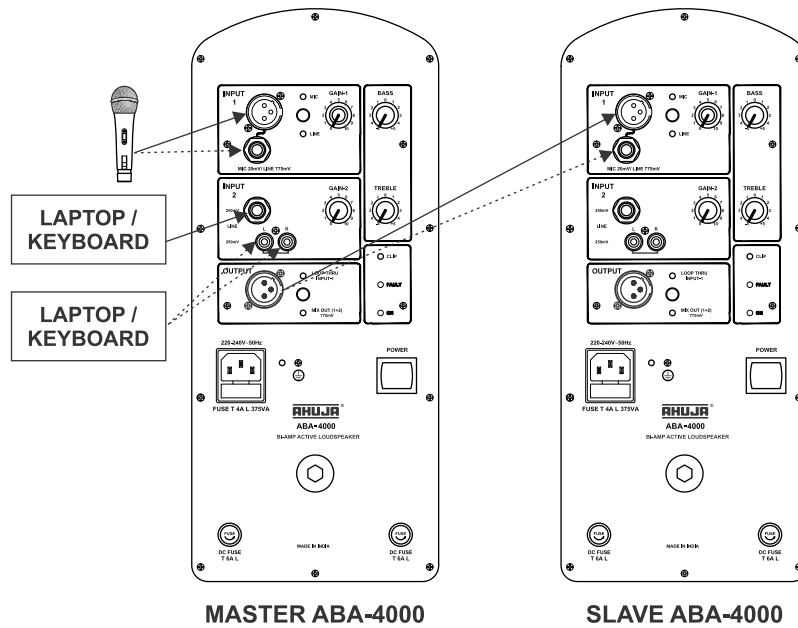
## SETUP-3: Only Mic is connected to Input-1 of Master ABA-4000 & Master Feeding Slave ABA-4000.



- Keep Mic/Line switch of Master in MIC position.
- Keep Mic/Line switch of Slave in LINE position.

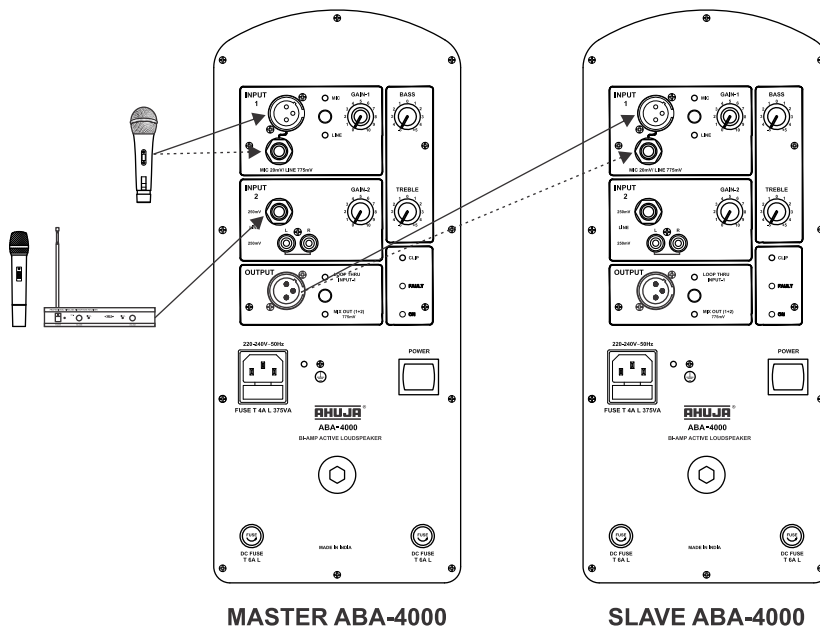
## • Interconnection of Multiple ABA-4000...

**SETUP-4: Mic is connected to Input-1 of Master ABA-4000 and Laptop / Keyboard connected to Input-2 of Master ABA-4000. Master ABA-4000. Feeding Slave ABA-4000.**



- Keep Mic/Line switch of Master in MIC position.
- Keep Mic/Line switch of Slave in LINE position.
- Select the output switch of Master to MIX OUT (1 + 2) position.

**SETUP-5: Mic is connected to Input-1 of ABA-4000 & wireless Mic is connected to Input-2 of Master ABA-4000. Master Feeding Slave ABA-4000.**



- Keep Mic/Line switch of Master in MIC position.
- Keep Mic/Line switch of Slave in LINE position.
- Select the output switch of Master to MIX OUT (1 + 2) position.

## • Active Loudspeaker

<b>Specifications</b>	
<b>Model</b>	<b>ABA-4000</b>
<b>Speaker</b>	1 x 12" LF Speaker, $\varnothing$ 2.5" Voice Coil 1 x HF Compression Driver, $\varnothing$ 1.75" Voice Coil
<b>Power Output (Bi-amp)</b>	LF: 275W RMS at 1% THD Class H, HF: 50W RMS at 1% THD Class AB
<b>Output Regulation</b>	Better than 0.5dB
<b>Input Channels</b>	INPUT-1: MIC 20mV/3k $\Omega$ balanced, LINE: 775mV/10k $\Omega$ balanced, INPUT-2: LINE (Jack) 250mV/20k $\Omega$ balanced, RCA: 250mV (L&R)/10k $\Omega$
<b>Frequency Response</b>	50-20,000Hz $\pm$ 3dB
<b>Crossover Frequency</b>	2kHz , Filter Slope 24dB per octave
<b>S/N Ratio</b>	60dB
<b>Tone Controls</b>	Bass: $\pm$ 5dB at 100Hz, Treble: $\pm$ 5dB at 10kHz
<b>Output</b>	a) Loop through (INPUT-1): 20mV or 775mV b) Mixed Output (1+2): 775mV/1k $\Omega$
<b>Protections</b>	AC: Fuse 1x4A (T 4A L) DC: Fuse 2x6A (T 6A L)
<b>Power Supply</b>	AC: 220-240V 50/60Hz
<b>AC Power Consumption</b>	375VA
<b>Dimensions</b>	W385 x H585 x D305 mm
<b>Weight</b>	20.80 kg approx.

Design and Specifications are subject to change without notice owing to continuous product up-gradation. Technical specifications are subject to production tolerances.

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