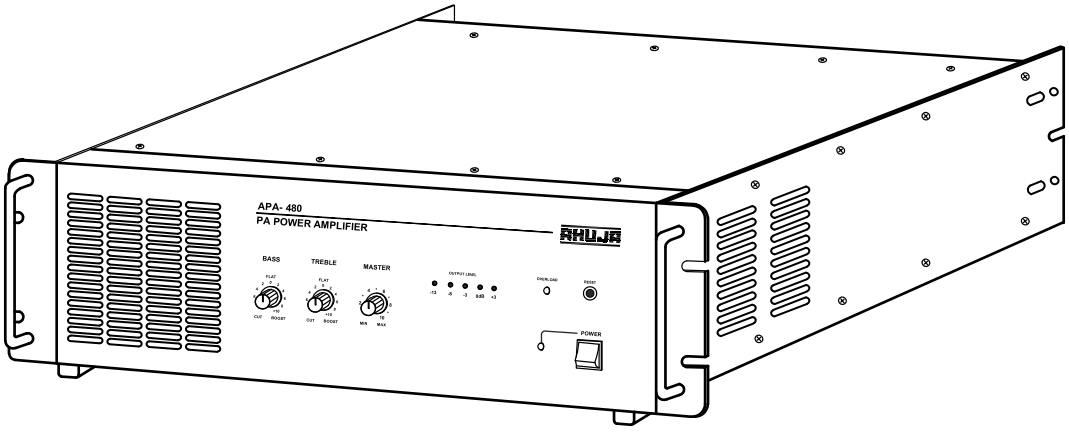
OPERATION MANUAL

AHUJA®

PA AMPLIFIER

600W RMS / 750W Max.

APA-480



- Thank you for purchasing the AHUJA PA 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 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.

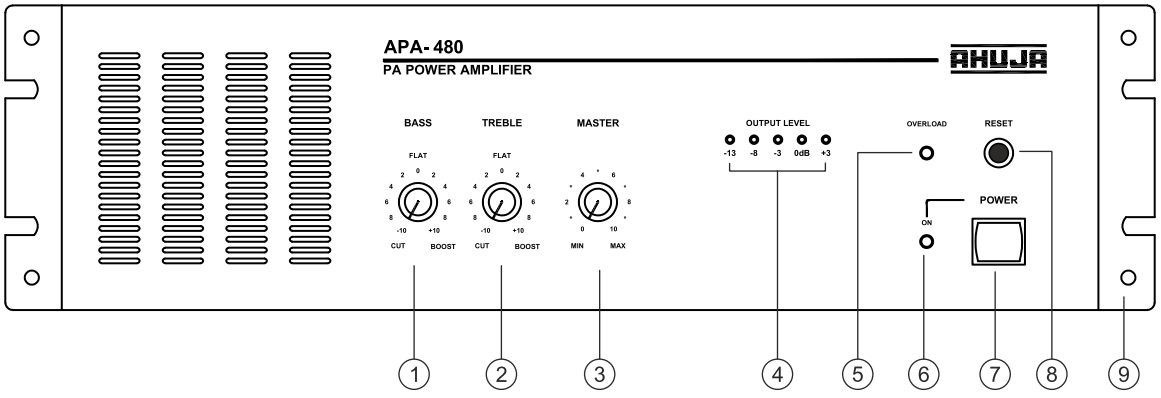
• Table of Contents

Contents **Page No.**

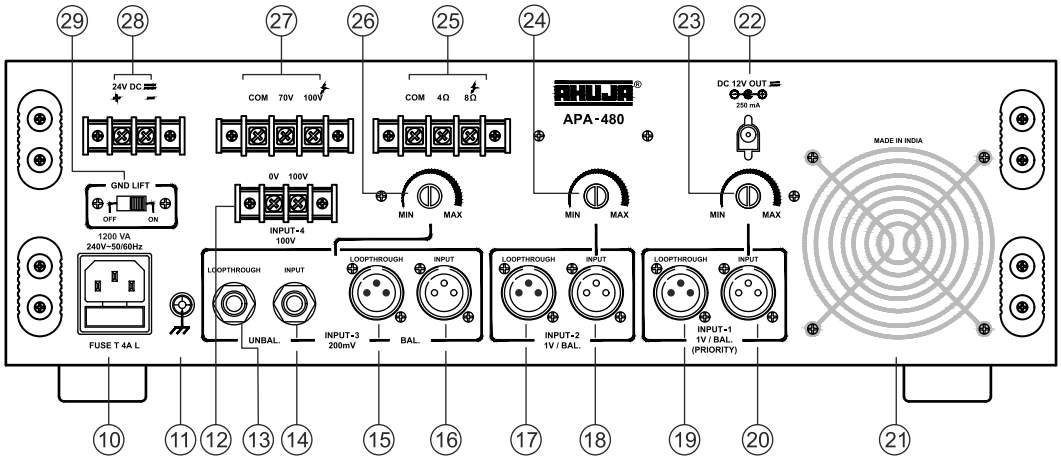
• Features/General Description of Product

- Designed for use in a wide variety of PA applications. Ideal for fixed installations. Suitable for mounting on a standard 19" audio rack.
- One 200mV unbalanced input through 1/4" phone socket, one 200 mV balanced input through FXLR connectors, two 1V balanced inputs through FXLR connectors.
- One 100V input is provided for connecting another amplifier's output in long line applications.
- One 1V input has priority over all other inputs.
- Loopthrough outputs for connecting another booster amplifier.
- Circuit protector device safeguards against overload and short circuit.
- Ease of operation, combined with service accessibility have been optimized in the design.

• Front Panel Controls & Features



1. **BASS Control**
   For cutting or boosting the signal level of low frequencies for 200mV input signal. This control will be ineffective if 1V input or 100V input sockets are used.
2. **TREBLE Control**
   For cutting or boosting the signal level of high frequencies for 200mV input signal. This control will be ineffective if 1V input or 100V input sockets are used.
3. **MASTER Volume Control**
   For adjustment of the overall volume level from the amplifier.
4. **LED Array**
   This indicates the output level of the amplifier.
5. **OVERLOAD LED**
   This LED glows when the circuit protector trips.
6. **POWER LED**
   This LED glows when the amplifier is switched ON.
7. **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.
8. **RESET button**
   This button pops out when the circuit protector trips. Rectify the cause of the fault and press the RESET button for resetting normal operation of the amplifier.
9. **Rack Mounting Brackets**



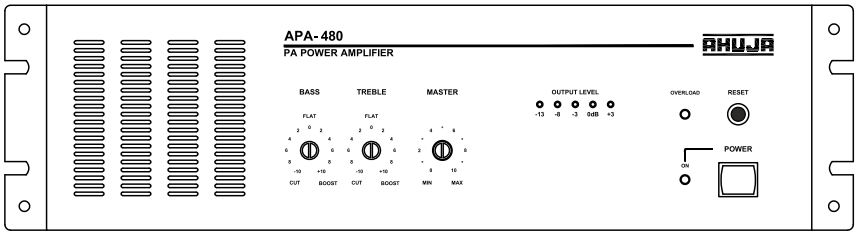
10. **AC Inlet Socket With Built-in Fuse Rating 8 AMP. 250V (F 8A L)**
    Connect the provided AC Mains cable in this socket for AC mains operation. The built-in fuse protects the amplifier from any excessive current flow.
11. **EARTH Terminal**
12. **INPUT-4, 100V Input**
    100V output from any other amplifier can be connected to this amplifier.
13. **LOOPTHROUGH OUTPUT Jack Socket (200mV Unbal.)**
    For connecting to AUX input of another amplifier or a MP3 recorder for recording purpose.
14. **INPUT-3, 200mV Input Jack Socket**
    For accepting unbalanced signal from an auxiliary source like CD player, Keyboard etc.
15. **LOOPTHROUGH 200mV BALANCED OUTPUT MXLR SOCKET** for connecting to a booster amplifier to obtain combined higher power output.
16. **INPUT 3, 200mV BALANCED FXLR SOCKET** for accepting balanced signal from a mixer through a male XLR plug and where tone controls are required.
17. **LOOPTHROUGH 1V BAL. OUTPUT MXLR SOCKET**
    For connecting to a booster amplifier to obtain combined higher power output.
18. **INPUT-2, 1V BAL. FXLR SOCKET**
    For connecting an external Mixer for enhancing the number of inputs.
19. **LOOPTHROUGH 1V BAL PRIORITY OUTPUT MXLR SOCKET**
    For connecting to a booster amplifier to obtain combined higher power output.
20. **INPUT-1, 1V BAL. PRIORITY INPUT FXLR SOCKET**
    For accepting balanced signal from a mixer or 1V paging microphone through a male XLR plug. This input has the priority over all other inputs.
21 **Fan Grill:**
    Protective grill for fan. Do not insert anything into this opening.
22. **12V DC OUTPUT SOCKET**
    For connecting wireless microphone which works on 12V DC and less then 250mA current consumption. 12V DC constant is available upto 250mA current consumption.
23. **INPUT-1, 1V BAL PRIORITY INPUT Level Control**
24. **INPUT-2, 1V BAL INPUT Level Control**
25. **SPEAKER Terminal Block (4Ω and 8Ω)**
    For connecting low impedance speakers.
26. **INPUT-3, 200mV Input Level Control**
27. **SPEAKER Terminal Block (70V, 100V)**
    For connecting speakers with 100V line matching transformers.
28. **BATTERY Terminal Block**
    For connecting two 12V Car Batteries in series (which becomes 24V) as standby power source.
29. **GROUND LIFT SWITCH**
    This switch helps in reducing the hum content generated due to multiple ground loops while cascading two or more equipments. If any hum is audible, try changing position of this switch

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.

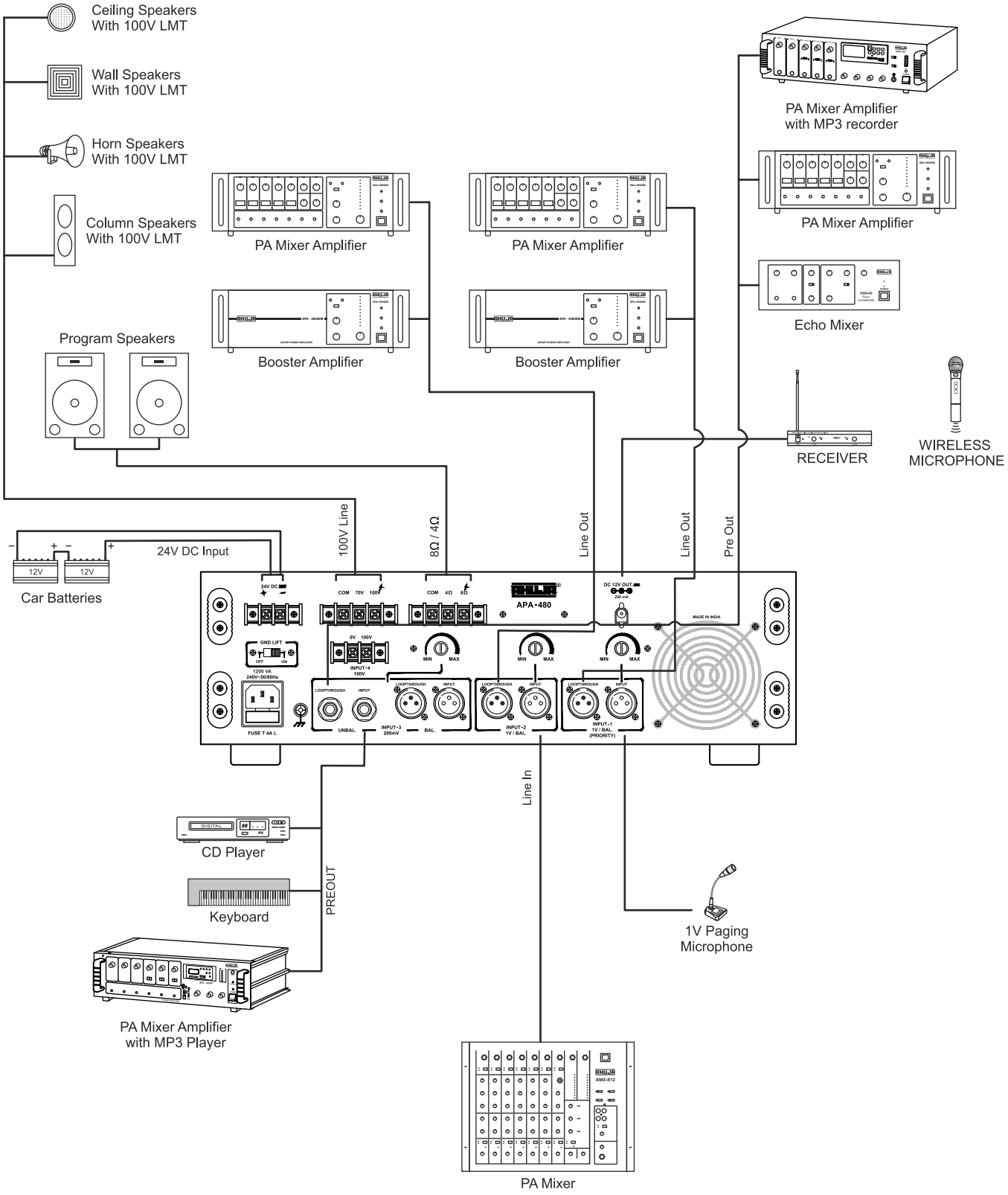
• Installation Tips

- After making all adjustments in a fixed installation, the BASS, TREBLE and MASTER control knobs on the front panel can be removed, if so required. The potentiometers can then be accessed only with a screwdriver. This will prevent accidental/unintended changes in the control setting by un-authorised person.



• Interconnections

- The amplifier can be placed as a tabletop unit or can be installed into standard 19" rack. For rack mounting, three unit rack spaces are required.
- The amplifier must be powered through an AC earthed mains outlet or 24V DC (2×12V Car Batteries).
- All connections must only be carried out or changed with the amplifier switched OFF.
- To avoid loud switching noise, always switch ON the power amplifier after all other units of the audio system have been switched ON. After operation switch it OFF first and then the other units.
- The connection diagram on the next page, displays the typical types of input sources (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.


Ceiling Speakers
With 100V LMT
Wall Speakers
With 100V LMT
Horn Speakers
With 100V LMT
Column Speakers
With 100V LMT
Program Speakers
PA Mixer Amplifier
PA Mixer Amplifier
Booster Amplifier
Booster Amplifier
PA Mixer Amplifier
with MP3 recorder
PA Mixer Amplifier
Echo Mixer
RECEIVER
WIRELESS
MICROPHONE
24V DC Input
12V
12V
Car Batteries
100V Line
8Ω / 4Ω
Line Out
Line Out
Pre Out
APA-480
Line In
CD Player
Keyboard
PREOUT
PA Mixer Amplifier
with MP3 Player
1V Paging
Microphone
PA Mixer

• Specifications

MODEL	APA-480
Power Output	750W RMS Max., 600W RMS at 10% THD, 550W RMS at 5% THD, 500W RMS at 2% THD, 480W RMS at 1%THD (Rated)
Output Regulation	≤ 2dB no load to full load at 1kHz
Input Channels	1× 200mV / 470kΩ (Unbalanced), 1× 200mV / 50kΩ (Balanced) (FXLR) 2 × 1V / 50kΩ (Balanced) (FXLR) (One 1V input has priority over other inputs) 1 × 100V / 50KΩ
Frequency Response	50–15,000Hz ±3dB
Signal to Noise Ratio	60dB
Tone Controls	Bass: ±10dB at 100Hz, Treble: ±10dB at 10kHz
Preamp Output	Loopthrough 1×200mV (Unbalanced) / 600Ω, 1×200mV (Balanced) /1kΩ (MXLR)
Line Output	Loopthrough 2× 1V / 1kΩ (MXLR)
Output Taps for Speaker Matching	4Ω & 8Ω (for direct connections) 70V & 100V Line (for use with LMT)
Power Supply	AC: 220-240V 50/60Hz; DC: 24V (2 × 12V Car Battery)
Protection	AC: Fuse 8Amp. (F 8A L); DC: 30 Amp. Circuit Protector
AC Power Consumption	1200 VA
DC Power Consumption	15A
Dimensions	W485 × H142 × D510 mm
Weight	32.20 kg approx.

• Design and Specifications are subject to change without notice owing to continuous product upgradation.
• Technical specifications are subject to production tolerances.

AHUJA RADIOS • 215, Okhla Industrial Estate, New Delhi - 110 020, INDIA
Tel.: +91-11-26831549, 41612474 Fax: +91-11-26847287
E-mail: ahuja@ahujaradios.com, admin@ahujaradios.com
Website: www.ahujaradios.com

AHUJA®

E. & O.E. 0K/07/18