

- ◆ Thank you for purchasing 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 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.

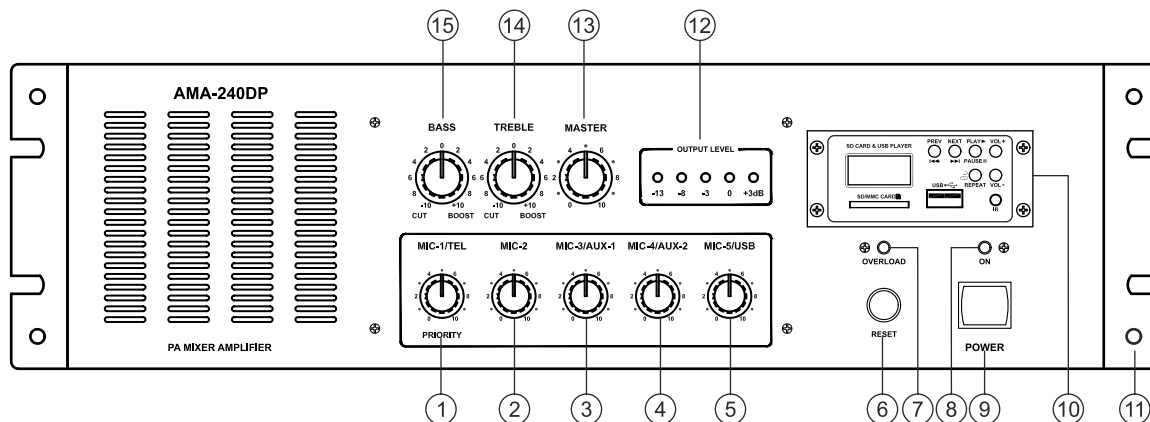
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• Features/General Description of Product

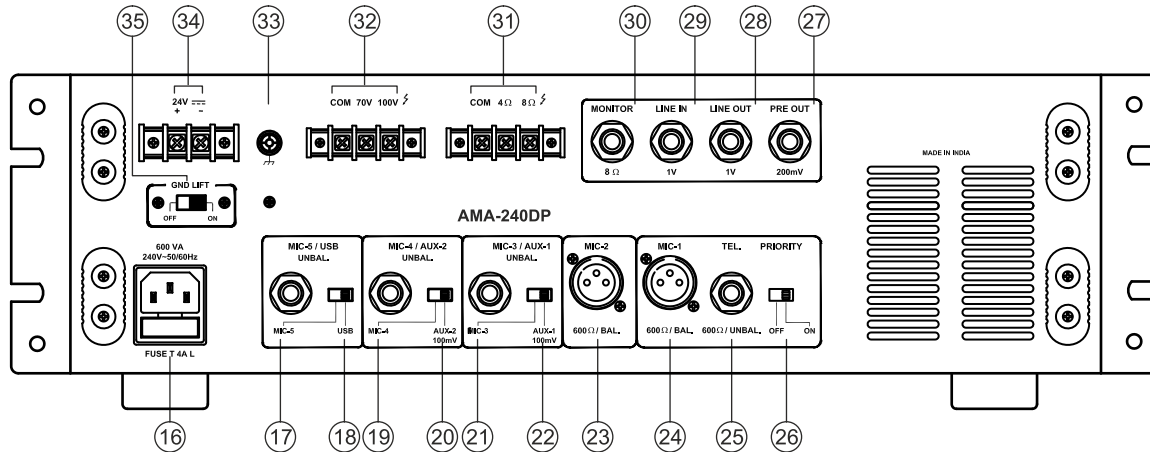
- AMA-240DP amplifier has been designed for both tabletop use and 19" rack mounting applications for fixed installation.
- 5 x Mic, 2 x Aux, 1 x Telephone inputs and a built in MP3 playback facility with remote control.
- MIC1 & MIC2 are balanced inputs through FXLR.
- MP3 playback facility can be used for playback of music recorded in MP3 format in USB pen drives or SD cards.
- Mic 1 and Telephone input have selectable voice operated priority over all other inputs.
- Unbalanced Preamp output for recording the programme. Balanced Line output for connecting to booster amplifiers.
- Balanced Line input for connecting an external audio mixer or another AMA-240DP to work as a Booster Power Amplifier
- 5 LED array to display the speaker output level.
- Cut-Boost type Bass & Treble controls provided for tonal adjustment.
- Ground lift switch provided to avoid multiple ground loops in installation. Helps to eliminate hum.
- Facility of Circuit protector used to safeguards against overload and short circuit.
- Ease of operation, combined with service accessibility have been optimized in the design.

• Front Panel Controls & Features



- MIC-1/TEL Volume Control**
For adjusting the volume level of MIC-1/TEL input channel.
- MIC-2 Volume Control.**
- MIC-3/AUX-1 Volume Control.**
- MIC-4/AUX-2 Volume Control.**
- MIC-5/USB Volume Control.**
- RESET button**
This button pops out when the circuit protector trips. Rectify the cause of the fault and press the RESET button to restore normal operation of the amplifier.
- OVERLOAD LED**
This LED glows when the circuit protector trips.
- POWER LED**
This LED glows when the amplifier is switched ON.
- 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.
- MP3 Playback Facility** (Refer page No. 6)
- Rack Mounting Brackets**
- LED Array**
This indicates the output level of the amplifier.
- MASTER Volume Control**
For adjustment of the overall volume level from the amplifier.
- TREBLE Control**
For attenuating or boosting the signal level of high frequencies.
- BASS Control**
For attenuating or boosting the signal level of low frequencies.

• Rear Panel Controls & Features



16. AC Inlet Socket With Built-in Fuse Rating 4 AMP. 250V (T 4A 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.

17. MIC-5 Input Jack Socket

For accepting unbalanced signal from a low impedance microphone.

18. MIC-5 / USB Selector Switch

19. MIC-4 / AUX-2 Input Jack Socket

For accepting unbalanced signals from either a low impedance microphone or an auxiliary source like MP3 Player etc.

20. MIC-4 / AUX-2 Selector Switch

21. MIC-3 / AUX-1 Input Jack Socket

For accepting unbalanced signals from either a low impedance microphone or an auxiliary source like Tuner etc.

22. MIC-3 / AUX-1 Selector Switch

23. MIC-2 Input FXLR Socket

For accepting balanced signal from a low impedance microphone through a male XLR plug.

24. MIC-1 Input FXLR Socket

25. TELEPHONE Input Jack Socket

For connecting to the audio output of an EPABX to enable connected extensions to use their telephone sets for paging and making announcements. Either of MIC-1 or TEL. input usable one at a time.

26. PRIORITY SWITCH

To make MIC-1/Tel priority ON and OFF over other inputs.

27. PRE-AMPLIFIER OUTPUT Jack Socket

For connecting to AUX input of another amplifier for cascading or a MP3 recorder for recording the programmes.

28. LINE Output Jack Socket

For connecting to the line input of a booster amplifier to cascade for higher power output uses.

29. LINE Input Jack Socket

To connect an external Mixer or line output of another amplifier for cascading.

30. MONITOR Output Jack Socket

For connecting 8Ω monitor speaker of power rating at least 3W.

31. SPEAKER Terminal Block (4Ω and 8Ω)

For connecting the speakers with 4Ω. or 8Ω impedance.

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

For connecting speakers with 100V line matching transformers.

33. EARTH Terminal

34. BATTERY Terminal Block

For connecting two 12V Car Batteries in series (which becomes 24V) as standby power source.

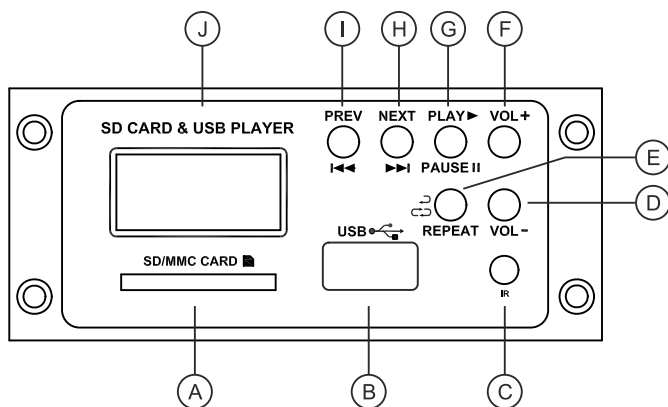
35. GROUND LIFT SWITCH

This switch helps in reducing the hum content generated due to multiple ground loops while cascading two or more equipments.

Caution

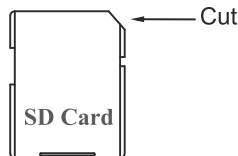
- The equipment must be earthed properly before operating it to avoid electric shock. A wire from the Earth Terminal must be connected to electrical earth for safe operation.

• MP3 Playback Facility: Controls & Features

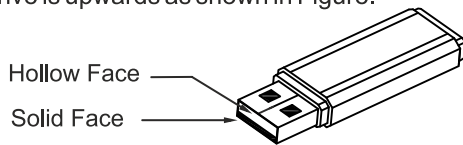


- A. SD/MMC Card Connector:** Insert the SD/MMC Card into its appropriate slot to play. When taking out the card, pull the card to take out.

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.



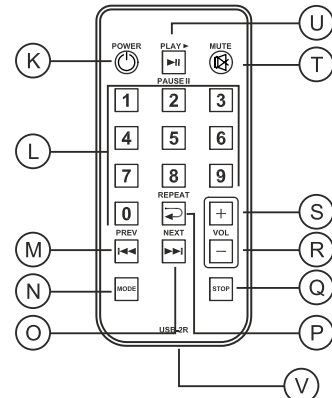
- B. USB Connector:** Insert the USB drive here. While inserting USB drive into the USB connector, hold the USB drive in such a way that hollow part of the USB drive is upwards as shown in Figure.



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.
- 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.

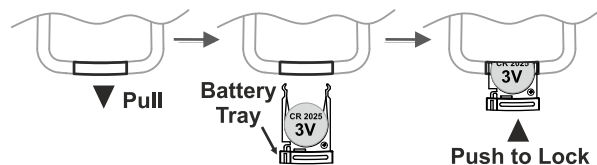
Remote Control



- 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 to 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.

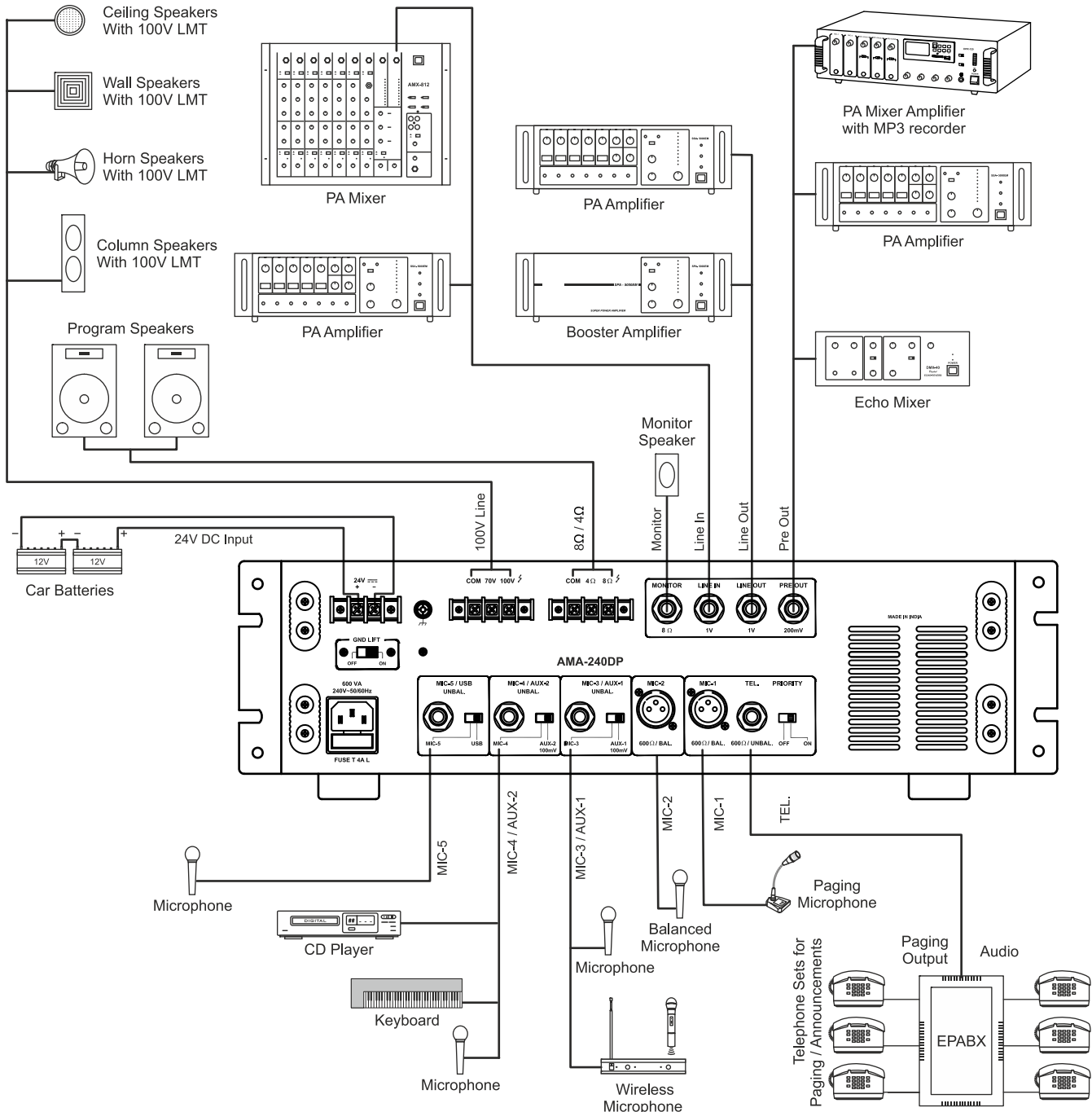


Caution

Danger of explosion if battery is incorrectly replaced. Replaced only with the same or equivalent type.

• Interconnections

- The amplifier can be placed as a tabletop unit or can be installed into standard 19" rack. For rack mounting, three unit rack space is 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, keep master control at min position and 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 shown below, displays 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.



• Specifications

MODEL	AMA-240DP
Power Output	415W RMS Max., 325W RMS at 10% THD 300W RMS at 5% THD, 240W RMS at 1%THD
Output Regulation	≤ 2dB no load to full load at 1kHz
Input Channels	3 × mic 2.5mV / 4.7kΩ (Unbalanced), 2 × mic 2.0mV / 2kΩ (Balanced) 1 × Line 1V / 50kΩ (Balanced), 2 × AUX 100mV / 470kΩ (Unbalanced) 1 × Telephone 150mV / 10kΩ
MP3 Playback	Built-in MP3 playback facility (USB,SD and MMC card) with Remote control.
Frequency Response	50–15,000Hz ±3dB
Signal to Noise Ratio	60dB
Tone Controls	Bass: ±10dB at 100Hz, Treble: ±10dB at 10kHz
Preamp Output	200mV / 600Ω (Unbalanced)
Line Output	1V / 1kΩ (Balanced), Monitor 5V / 8Ω
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 4Amp. (F 4A L); DC: 14 Amp. Circuit Protector
AC Power Consumption	600 VA
DC Power Consumption	7A
Dimensions	W485 × H142 × D405 mm
Weight	21.00 kg approx.