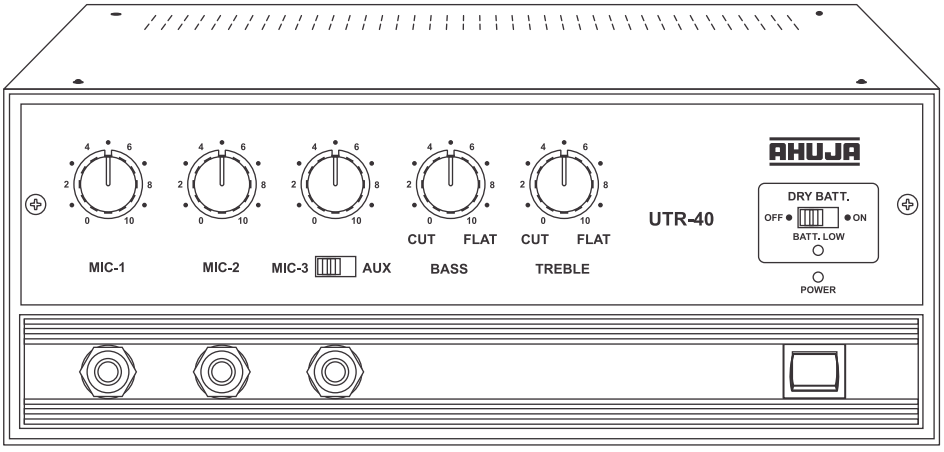
OPERATION MANUAL

AHUJA®

PA AMPLIFIER

30W RMS / 45W Max.

UTR-40



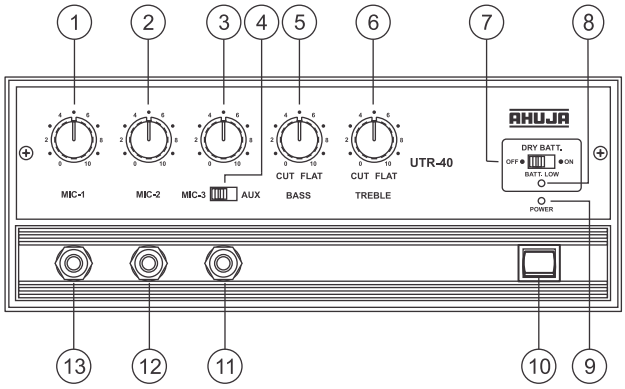
UTR-40 is a ruggedly constructed portable PA amplifier incorporating high-tech design and circuitry ensuring absolute reliability and unfailing performance.

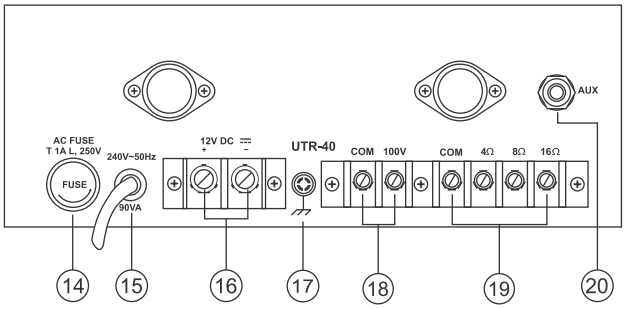
FEATURES

- Operation on 3 power sources - AC Mains, DC 12V Car Battery & DC 12V Dry Cells (8×1.5V UM-1).
- 3 Mic Inputs matchable to all low impedance microphones.
- Aux Input for connecting to any Cassette Player / Mixer. Aux Input is alternate to Mic-3 Input.
- Bass and Treble Controls provided for shaping tonal quality of music & speech as desired.
- 100V line for long distance speakers connections.
- Low Battery Indicator LED.
- Protection against wrong battery polarity provided.

- Thank you for purchasing the AHUJA Portable 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.

FRONT & REAR PANEL CONTROLS & FUNCTIONS





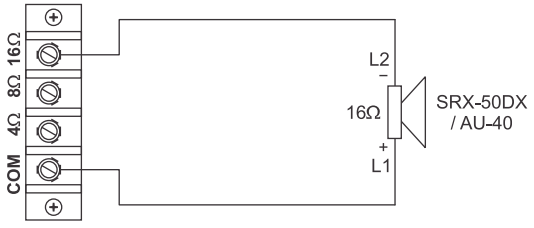
1. **MIC-1 Volume Control**
2. **MIC-2 Volume Control**
3. **MIC-3 / AUX Volume Control**
4. **MIC-3 / AUX Selector Switch**
5. **BASS Control**
   At FLAT position this offers normal frequency response. When moved to CUT position it cuts low frequencies thus reducing feedback & offers full protection for driver unit operation.
6. **TREBLE Control**
   At FLAT position high frequencies are fully reproduced. Turning the control anti-clockwise will reduce high frequencies and shrillness in sound to desired level.
7. **DRY BATT. ON / OFF Switch**
   This switch is provided for operating the amplifier on Dry Battery. This must be switched 'OFF' when the amplifier is operating on AC or 12V Car Battery.
8. **BATT. LOW Indicator LED**
   This indicator LED glows when Dry Battery Cells have become weak. The UM-1 cells now need replacement.
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-3 Input Jack Socket**
12. **MIC-2 Input Jack Socket**
13. **MIC-1 Input Jack Socket**
14. **AC MAINS FUSE 1 Amp 250V (T 1A L)**
    This prevents excessive current flow caused by any defect / short circuit in the amplifier.
15. **3 Core AC Mains Cable With Plug**
16. **BATTERY Terminal Strip**
    For connecting a 12V Car Battery as standby power source.
17. **EARTH Terminal**
    Before connecting the amplifier on AC Mains the same should be grounded with wire from this terminal to water pipe or to Main's earth for safety.
18. **SPEAKER Terminal Strip (100 V line)**
    For connecting speakers with 100V LMT.
19. **SPEAKER Terminal Strip (4, 8 and 16Ω)**
    For connecting low impedance speakers.
20. **AUX Input Jack Socket**
    For connecting Cassette Player, CD Player, Echo or Audio Mixer etc.

SPEAKER CONNECTIONS

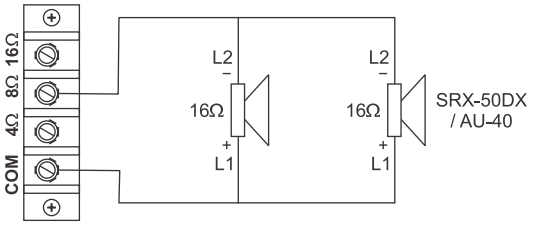
Low impedance speaker connections

Speaker impedance taps of 4, 8 and 16Ω 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.

Connecting one speaker / driver unit of 16Ω impedance to properly matched terminals



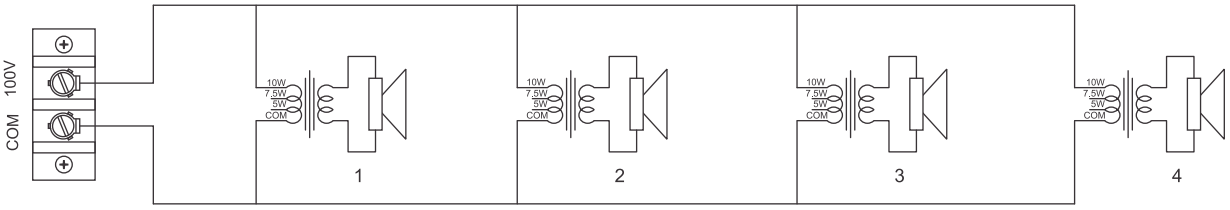
Connecting two speakers / driver units of 16Ω impedance in parallel



IMPORTANT Always connect L2 / (-) of driver unit / speaker to common terminal strip of the amplifier and connect L1 / (+) to the 4Ω / 8Ω / 16Ω tap of the strip.

High impedance (100V) speaker connections

Upto 4 speakers with 100V line Matching Transformer (like SCM-15T) can be connected at 10 watts tap as shown below:



OPERATION OF AMPLIFIER

Operation on AC Mains

- Set all Volume Controls to '0' position.
- Keep the Dry Battery Switch at 'OFF' position.
- Connect the speakers and required inputs to the amplifier.
- Plug-in the AC power supply cord to the nearest AC Mains Socket and put the power switch to 'ON' position.
- The pilot LED should start glowing.
- Amplifier is ready for operation.
- Adjust the volume and tone controls to the desired levels.

Operation on 12V Car Battery

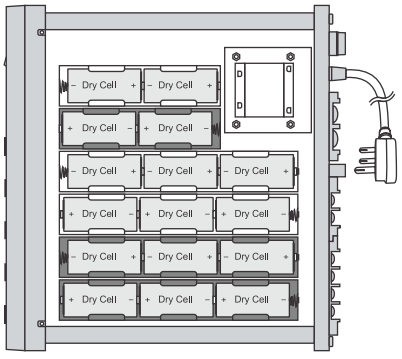
- Connect the speakers and required inputs to the amplifier.
- Connect positive pole of the battery to the screw terminal of the battery strip marked '+' and the negative pole to the screw terminal marked '-'.
- The pilot LED should glow. In case it does not glow check the battery polarity.
- The amplifier is ready for operation.
- To switch off the amplifier on Car Battery operation, disconnect supply to battery terminals at the rear.

Operation on 12V Dry Cells (2 × 8 × 1.5V UM-1 Cells)

- Turn the amplifier upside down and remove the base plate.
- The dry cell section has two sets of cell trays - grey and white.
- Insert 8 or 16 nos. UM-1 cells in correct polarity as indicated on the cell trays and re-fix the base plate tightly.
- After connecting inputs and speakers, slide the Dry Battery Switch to 'ON' position. The pilot LED should glow.
- Amplifier is now ready for operation.
- When the Low Battery LED glows it indicates that the Dry Cells are weak and need to be replaced.

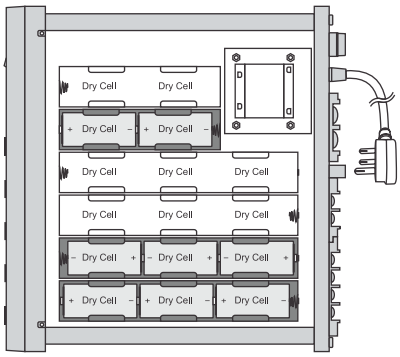
BATTERY INSERTION

Bottom View



16 Cells for Longer Duration Operation

Bottom View



8 Cells (inserted in set of grey trays) for Normal Operation

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.

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	45 Watts RMS Max. 30 Watts RMS at 10% THD
Inputs/Sensitivities	3 × Mic 0.65mv / 4.7kΩ 1 × Aux 100mV / 470kΩ
Frequency Response	100Hz - 15000Hz ±3dB
Tone Controls	Bass: -10dB at 100Hz Treble: -10dB at 10KHz
Signal to Noise Ratio	60dB
Speaker Output	4Ω , 8Ω , 16Ω and 100V
Power Supply	AC: 220-240V 50 / 60Hz; DC: 12-14V (Car Battery) DC: 12V Dry Cells (Two Banks of 8×1.5V UM-1 Cells each)
Protection	AC: Fuse 1Amp. (T 1A L); DC: Fuse 6Amp. (T 6A L)
Power Consumption	AC: 90VA; DC: 1.8Amps
Dimensions	W280 × H115 × D270 mm
Weight	5.3kg (without dry cells) approx.

E. & O. E. 0K/12/14/R2

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