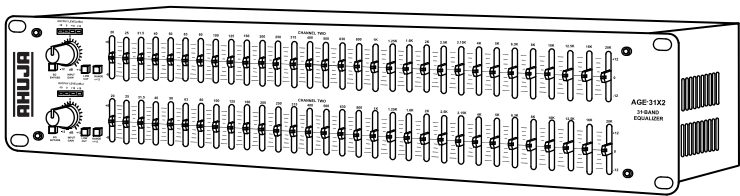


**AHUJA®**

## 2-Channel 31-Band Graphic Equalizer

# AGE-31X2



- ◆ Thank you for purchasing the AHUJA 2-Channel 31-Band Graphic Equalizer.
- ◆ 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 2-Channel 31-Band Graphic Equalizer.
- ◆ 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.

**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.

**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.

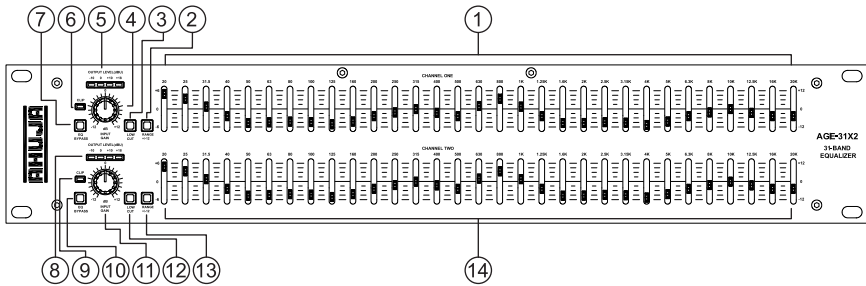
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## • General Description of Product

High quality, professional 2-channel, 31-band graphic equalizer for accurate tuning of the frequency response, thereby helping in feedback control, compensating for poor room acoustics, eliminating unwanted noises and adjusting the tonal character of a programme signal. Highly effective for enhancing the audio experience of any sound installation. Also ideal for a wide variety of monitoring and recording applications.

- Two independent 31 band graphic equalizers in 1/3 octave Constant Q frequency bands.
- Switchable cut/boost range of  $\pm 6\text{dB}$  and  $\pm 12\text{dB}$ . Lowcut filter ON/OFF switch for each channel.
- Equalizer bypass switch easily accessible on front panel.
- Input control in each channel has a gain range from  $-12\text{dB}$  to  $+12\text{dB}$ .
- Four segment LED indicator for monitoring output levels and a Clip LED for each input channel.
- Electronically balanced inputs and outputs available through XLR connectors and 6.3mm (1/4") stereo phone sockets.
- 19" rack mountable in 2U size and usable as a table top unit also.

## • Front Panel Controls & Features



### For CHANNEL ONE

1. **31 EQUALIZER CONTROLS:** There are 31 equalizer slide controls with 20mm travel. Each control can be used to cut or boost the signal level in its frequency band, by either  $\pm 6\text{dB}$  or  $\pm 12\text{dB}$ . This cut/boost range is selectable through the range selector switch.
2. **RANGE SELECTOR SWITCH:** Permits selection of cut/ boost range for all equalization bands. When in pressed position, the cut/ boost range of  $\pm 12\text{dB}$  gets selected. When in released position, the cut/boost range of  $\pm 6\text{dB}$  becomes active.
3. **LOW CUT SWITCH:** When this switch is in pressed position, a high pass filter with cut-off frequency of 63Hz is activated. This is indicated by the glow of its red LED. This feature can be bypassed by keeping low cut switch in released position.
4. **INPUT GAIN CONTROL:** Allows accurate control of optimum input sensitivity with a range of  $-12\text{dB}$  to  $+12\text{dB}$ .
5. **OUTPUT LEVEL LED ARRAY:** A four segment LED display indicates output signal levels ranging from  $-10\text{dBu}$  to  $+18\text{dBu}$ . When all equalizer slide controls are in the center position (0dB), ensure that the signal does not exceed 0dBu level.
6. **CLIP LED:** This red LED lights up to indicate that either the input signal is

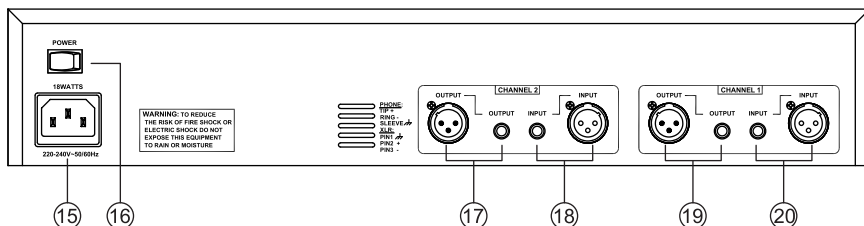
overloading the input circuit or the input gain control setting is high enough to distort the signal. This LED glows 4dB prior to actual clipping of the signal. Occasional blinking of clip LED is normal but its continuous glow should be avoided by reducing the output signal level through input gain control.

7. **EQ BYPASS SWITCH:** When it is pressed, the equalization settings of the processor become ineffective which means that the output signal has same frequency response as that of the input signal. This mode is indicated by the glow of built-in red LED. When this switch is in released position, the equalization mode is active and the LED does not glow.

### For CHANNEL TWO

8. **OUTPUT LEVEL LED ARRAY:** For description refer point no. 5.
9. **CLIP LED:** For description refer point no. 6.
10. **EQ BYPASS SWITCH:** For description refer point no. 7.
11. **INPUT GAIN CONTROL:** For description refer point no. 4.
12. **LOW CUT SWITCH:** For description refer point no. 3.
13. **RANGE SELECTOR SWITCH:** For description refer point no. 2.
14. **31 EQUALIZER CONTROLS:** For description refer point no. 1.

## • Rear Panel Controls & Features



### 15. 3 Pin AC socket

**16. Power ON/OFF Switch:** Press the right part of the switch to switch the power ON. Press the left part of the switch to switch the power OFF.

**17. Output Connectors for Channel 2**  
Either male XLR or stereo jack socket can be used for delivering balanced/unbalanced output of channel 2.

**18. Input Connectors for Channel 2**  
Either female XLR or stereo jack

socket can be used for connecting balanced/unbalanced input signals to channel 2.

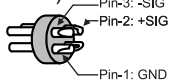
**19. Output Connectors for Channel 1**  
Either male XLR or stereo jack socket can be used for delivering balanced/unbalanced output of channel 1.

**20. Input Connectors for Channel 1**  
Either female XLR or stereo jack socket can be used for connecting balanced/unbalanced input signals to channel 1.

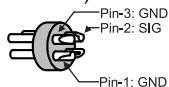
## • Connector Wiring

1. Pin connections of a 3 pin male XLR plug:

a) Input (Balanced)

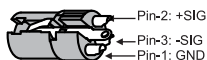


b) Input (Unbalanced)

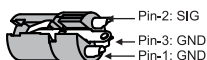


2. Pin connections of a 3 pin female XLR plug:

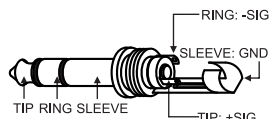
a) Output (Balanced)



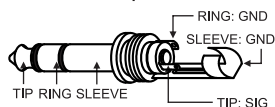
b) Output (Unbalanced)



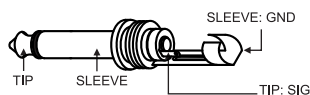
3. Pin connections of a 6.3mm (1/4") Stereo Phone Plug for balanced Input and balanced Output.



4. Pin connections of a 6.3mm (1/4") Stereo Phone Plug for unbalanced Input & unbalanced Output.



5. Pin connections of a 6.3mm (1/4") Mono Phone Plug for connecting unbalanced signal in Input & Output.



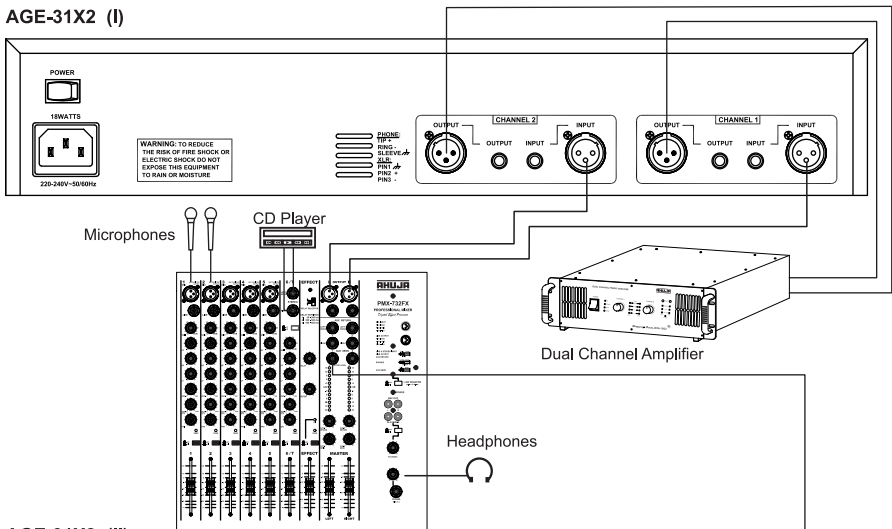
## • Interconnection & Operation

Amongst wide variety of applications, AGE-31X2 can be used in the following ways:

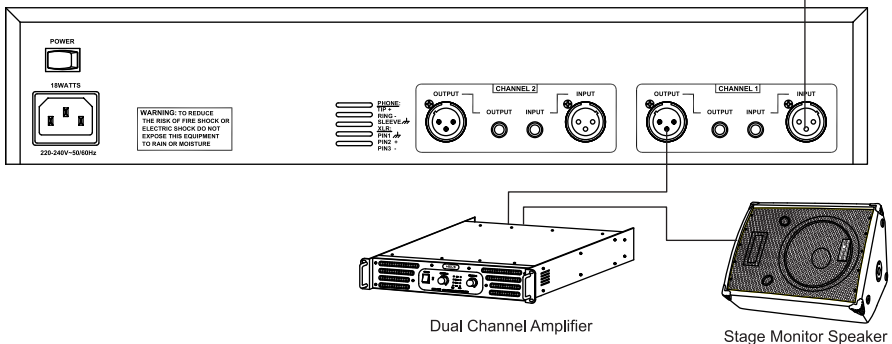
1. (i) By connecting L&R line outputs of an Ahuja audio mixing console to balanced XLR/Stereo Jack inputs of channel 1 and channel 2 in AGE-31X2.
  - (ii) Connect balanced outputs from channel 1 and channel 2 of AGE-31X2 to balanced inputs of a dual channel power amplifier.
2. (i) By connecting Aux Send (pre-fader) output from an Ahuja audio mixing console to the balanced input of AGE-31X2.
  - (ii) Connect balanced output of AGE-31X2 to an amplifier which is connected to a stage monitor speaker system.

For optimum operation of the system, ensure that the input signal level LED of 0dB lights up occasionally.

AGE-31X2 (I)



AGE-31X2 (II)



## • Specifications

<b>INPUT IMPEDANCE</b>	40k $\Omega$ Balanced/20k $\Omega$ Unbalanced
<b>MAX INPUT LINE LEVEL</b>	+21dBu
<b>INPUT CONNECTORS</b>	2 $\times$ Female XLR and 2 $\times$ 6.3mm (1/4") stereo jack socket
<b>OUTPUT IMPEDANCE</b>	200 $\Omega$ Balanced/100 $\Omega$ Unbalanced
<b>MAX OUTPUT LEVEL</b>	+20dBu
<b>OUTPUT CONNECTORS</b>	2 $\times$ Male XLR and 2 $\times$ 6.3mm (1/4") stereo jack socket
<b>SIGNAL TO NOISE RATIO</b>	100dB
<b>FREQUENCY RESPONSE</b>	20-20,000Hz (-1dB)
<b>DISTORTION</b>	0.05%
<b>CROSSTALK</b>	80dB
<b>POWER REQUIREMENT</b>	220-240V AC 50/60Hz
<b>DIMENSION</b>	W483 $\times$ H90 $\times$ D180 mm
<b>WEIGHT</b>	3.70kg

### AHUJA RADIOS

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