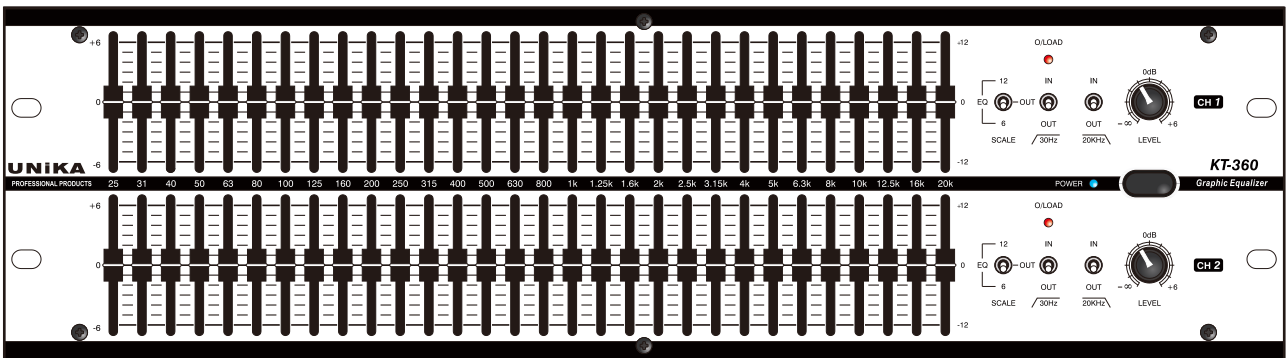


User Instructions

This booklet contains important information concerning the proper and safe operation of your new equalizer.

EQUALIZER | **KT-360**

Made in Taiwan



Index

- 01 Precautions
- 01 Introduction
- 02 Front Panel
- 02 Rear Panel
- 03 Audio Connections
- 03 Specifications

EQUALIZER | KT-360

Precautions | Introduction | Front Panel | Rear Panel | Audio Connections | Specifications

PRECAUTIONS

Before connecting the unit to the mains power, ensure that the operating voltage is correct for your local supply. It is important that you observe the following instructions if another voltage setting is required. Do not install this unit in a location subjected to excessive heat, dust or mechanical vibrations.

VOLTAGE SELECTION and POWER CONNECTION

Connection is made by means of an IEC standard power socket. The rear panel voltage label, indicates the voltage required for satisfactory operation of the unit.

Before connecting this unit to the mains supply, ensure the fuse fitted is the correct type and rating is as indicated on the rear panel, adjacent to the fuse holder.

*Mains voltage change should be carried out by a qualified service technician only.

SAFETY WARNING

This unit is fitted with 3-pin power socket: For safety reasons the earth lead should not be disconnected. Signal 0V is referenced internally to chassis via a resistor capacitor network which provides earth loop immunity. To prevent shock or fire hazard, do not expose the unit to rain or moisture. To avoid electrical shock do not remove covers. Refer servicing to qualified personnel only.

ATTENTION!

Cables: This product should only be used with high quality, screened twisted pair audio cables, terminated with metal bodied 3-pin XLR connectors. The cable should be connected to pin 1. Any other cable type or configuration for the audio signals may result in degraded performance due to electromagnetic interference.

Electric Fields: Should this product be used in an electromagnetic field that is amplitude modulated by an audio frequency signal (20Hz to 20KHz), the signal to noise ratio may be degraded. Degradation of up to 60dB at a frequency corresponding to the modulation signal may be experienced under extreme conditions (3V/m, 90% modulation).

INTRODUCTION

The graphic equalizer is a vital component in any audio system. The entire signal passes through it and so any limitations imposed by the equalizer will compromise the performance of the whole system. For example, an indifferently designed equalizer may introduce severe phase distortion, noise and other anomalies related to centre frequency accuracy, filter shape and attenuation accuracy which may manifest themselves as an overall deterioration in the perceived sound quality of the system. Clearly, this is an unacceptable state of affairs, but fortunately your choice to utilise a UNiKA KT-360 graphic equalizer will eliminate these problems, offering you unprecedented product performance coupled with the highest filter calibration and reliability standards in the industry.

The KT-360 equalizer is a direct result of this research. It should be noted that graphic equalisation cannot always overcome all frequency response related problems. There are applications where the ability to cut and boost the response at a particular frequency, or over a certain bandwidth other than the equalizer specified one, is required to overcome exceptionally difficult response anomalies or narrow band feedback problems.

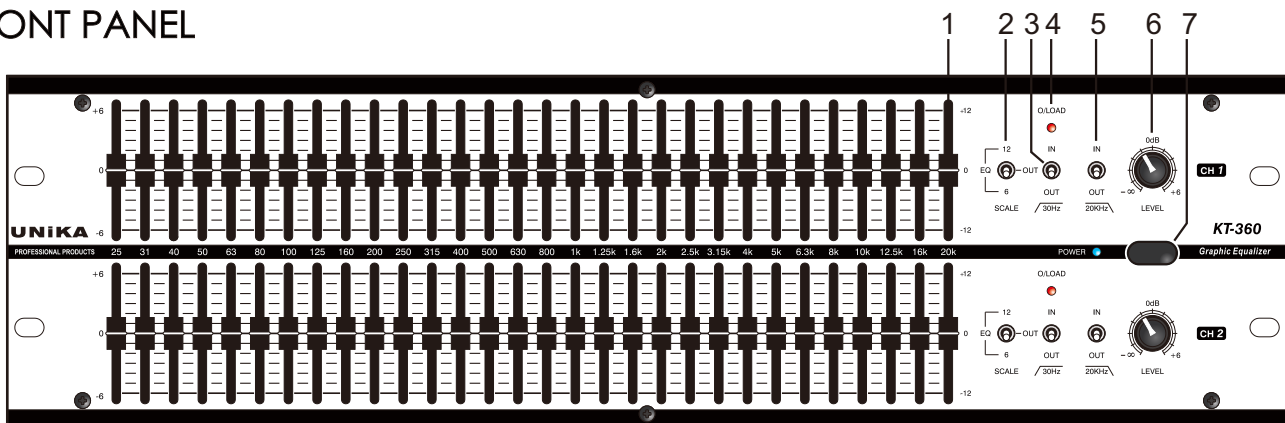
When such an instance is encountered, it may be more appropriate to use the greater range of control provided by a parametric type equalizer, where the centre frequency, bandwidth and amplitude are all controllable.

When using an equalizer remember that the need to use large amounts of boost or cut that within the equalization curve indicates that there may be something fundamentally wrong with the sound system or room acoustics, which should be further investigated and corrected before final equalization is applied.

EQUALIZER | KT-360

Precautions | Introduction | Front Panel | Rear Panel | Audio Connections | Specifications

FRONT PANEL

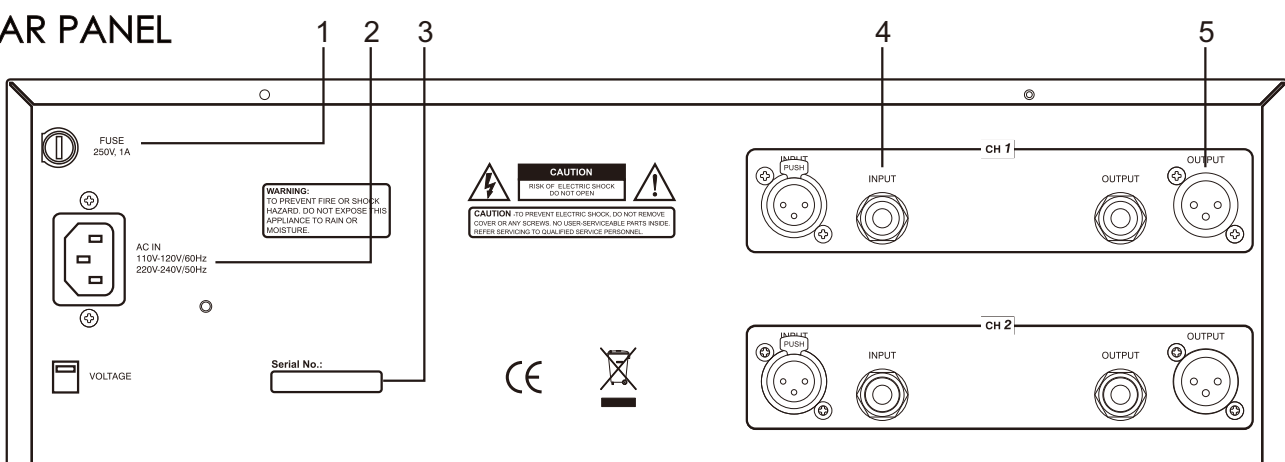


- 1. The high quality faders** - used in this equalizer have an oil-damped action for smooth operation and feature a center detent following accurate "flat" setting.
- 2. The scale switch selects** - maximum boost and cut for the equalizer of either 6dB or 12dB. The center position of this switch performs the bypass function, which silently removes the graphic equalizer section from the signal path.
- 3. Low cut filter** - switch enables a 30Hz subsonic filter to be connected in or out of circuit.
- 4. The Overload LED** - The signal level is monitored at several separate points within the circuitry of the unit, and any one of these signals exceeding a threshold, set 3dB below clipping, will cause the LED to light. This threshold is set at +19dB, but it must be remembered that excessive boost of some frequencies combined

with a high average input signal, can occasionally cause this level to be exceeded. In this event, the input level control should be turned down to correct the problems. However, if the input signal itself exceeds +19dBu the input stage will be overloaded. If this problem arises, the signal level from the output of the preceding piece of equipment must be turned down.

- 5. High cut filter** - switch enables a 20KHz subsonic filter to be connected in or out of circuit.
- 6. The input level control** - allows the system gain to be up to +6dB when in its fully clockwise position, and offers full attenuation in its anti-clockwise position.
- 7. The power switch** - is a two pole type, isolating both the live and neutral conductors. When the power is on, a red status LED lights.

REAR PANEL



- 1. The mains fuse** - is located in a fuse holder, fitted to the rear panel. Always replace with the correct type and rating of fuse, as indicated adjacent to the fuse holder.
- 2. Mains** - is supplied via an IEC standard 3 pin connector. A compatible power cable is supplied with the unit.

- 3. The serial number** - of this unit should be quoted in any correspondence concerning the unit.
- 4. Input connections** - are made via complementary XLR style sockets or 1/4" TRS phone jack.
- 5. Output connections** - are made via complementary XLR style sockets or 1/4" TRS phone jack.

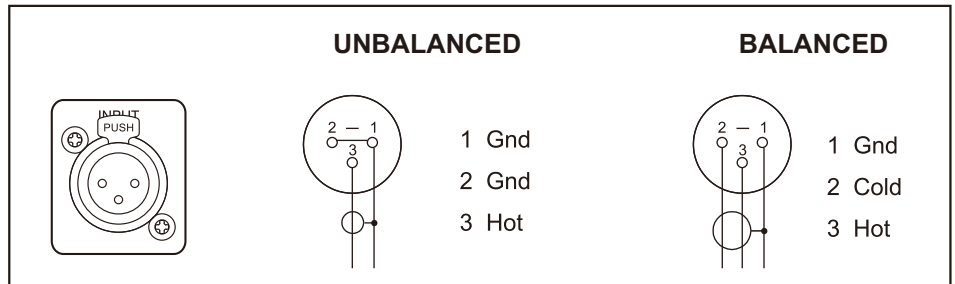
EQUALIZER | KT-360

Precautions | Introduction | Front Panel | Rear Panel | Audio Connections | Specifications

AUDIO CONNECTIONS

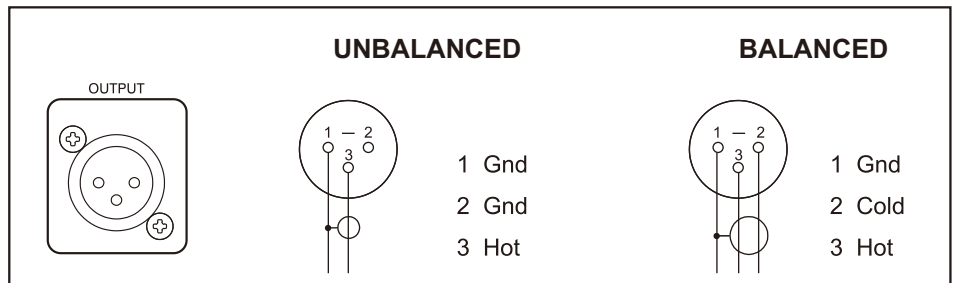
Input

The input circuitry is a transformerless, electronically balanced design which achieves a symmetry of better than -50dB from 20Hz to 10KHz. If transformer balancing of the input is required, this must be stipulated at the time of order, it is not retro-fittable.



Output

The standard output is unbalanced, but balancing transformers are available and may be retrospectively fitted. The output circuitry is capable of driving a 600 ohm load at a level of +22dBm.



NOTE : When using a fully balanced system, either pin 2 or 3 may be the Hot terminal.

SPECIFICATIONS

INPUT

Type	Transformer balanced(option)
Impedance	
Balanced	20K Ω
Unbalanced	10K Ω

FILTERS

Centre frequencies	2x30
ISO	25Hz -20KHz 1/3 octave
Tolerance	$\pm 5\%$
Maximum boost/cut	$\pm 6/12$ dB
High pass filter	18dB/OCTAVE -3dB@30Hz
Low pass filter	18dB/OCTAVE -3dB@20KHz

PERFORMANCE

Frequency response	20Hz-20KHz ± 0.5 dB
Distortion(@+4dBm)	<0.01% @ 1KHz
Equivalent input noise	<-90dBu(20Hz-20KHz) unweighted
Channel separation	>75 dB @1KHz
Overload indicator	+19dBu
Level Control	+6dB to $-\infty$

OUTPUT

Type	Transformer balanced(option)
Min. Load impedance	600 Ω
Source impedance	
Max.Level	+22dBu

POWER REQUIREMENTS

Voltage	Switchable, 110V-120V/60Hz 220V-240V/50Hz
Consumption	<15VA
Weight	
Nett	5Kg
Shipping	6Kg

DIMENSIONS

Width	482mm (19")
Depth	205mm (8")
Height	133mm (51/4")

TERMINATIONS

Input	3 pin XLR
Output	3 pin XLR
Power	3 pin ICE