

## INTERNATIONAL LIMITED WARRANTY

ARX Systems (ARX) warrants to the first purchaser of any ARX equipment that it is free from defects in materials and workmanship under normal use and service. ARX's sole obligation under this warranty shall be to provide, without charge, parts and labour necessary to remedy defects, if any, which appear within twelve (12) months from date of purchase, and for a further twelve (12) months supply parts only.

**This is our only warranty.** It does not cover finish or appearance items, or if the equipment has been, in ARX's sole judgement:

- Subjected to misuse, abuse, negligence or accident;
- Repaired, worked on, or altered by persons not authorized by ARX;
- Connected, installed, adjusted or used for a purpose other than that for which it was designed.

This warranty gives you and us specific legal rights and you may also have other rights which may apply.

### ***Warranty Service Procedure***

Should it become necessary to have your equipment serviced under the terms of the warranty, please follow these steps:

1. Call your ARX distributor for a Return Authorization (RA) number;
2. **Carefully** repack the unit, in its original packaging where possible, including a note with a description of the problem, and a copy of the receipt showing date of purchase. Attach these to the actual unit itself. Don't forget to write your name and address clearly, and include a phone number where you can be contacted during normal business hours. Make it easy for our service technicians to contact you if they have a question. Also, use **plenty** of packing material - better to be safe than sorry.
3. Send the unit freight prepaid to ARX Systems, at the address given you with your RA number. We will pay the return freight when the serviced unit is returned to you.
4. We strongly recommend you insure the package. We can't fix it if it gets lost! Send it by UPS, Fedex, or any similar service that can track the package. Parcel Post is *not* recommended

*If Warranty Registration Card is missing, please write to ARX in the country of purchase, stating model and where purchased, or to ARX, PO Box 15, Cheltenham, Victoria 3192, Australia.*

*Or you can Email us at: [info@arx.com.au](mailto:info@arx.com.au)*

# GRAPHIC EQUALIZER

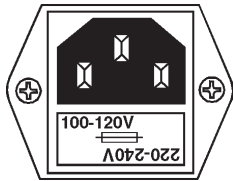
## OWNER'S MANUAL



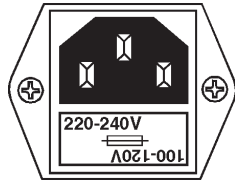
ARX Systems Pty Ltd, PO Box 15,  
Cheltenham, Victoria 3192, Australia  
Phone: 03 - 9555 7859 Fax: 03 - 9555 6747  
International Fax: +61-3 -9555 6747  
On the Web: <http://www.arx.com.au>  
Email: [info@arx.com.au](mailto:info@arx.com.au)

 **IMPORTANT - PLEASE READ THIS FIRST** 

This is a dual voltage unit. It is essential that you check that the voltage on the fuseholder cover below the AC connector on the rear of the chassis is set correctly before connecting it to AC power.



THIS IS SET FOR  
100 V AC TO 120 V  
AC OPERATION



THIS IS SET FOR  
220 V AC TO 240 V  
AC OPERATION

To change, pull fuseholder out and rotate 180°, then push in again. Do not insert power cable into unit until voltage has been correctly set. Do not plug power cable into AC power until voltage has been correctly set

**WARNING SYMBOLS USED ON THIS EQUIPMENT**





This symbol is intended to alert you to the presence of important operating instructions contained in this owner's manual




This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



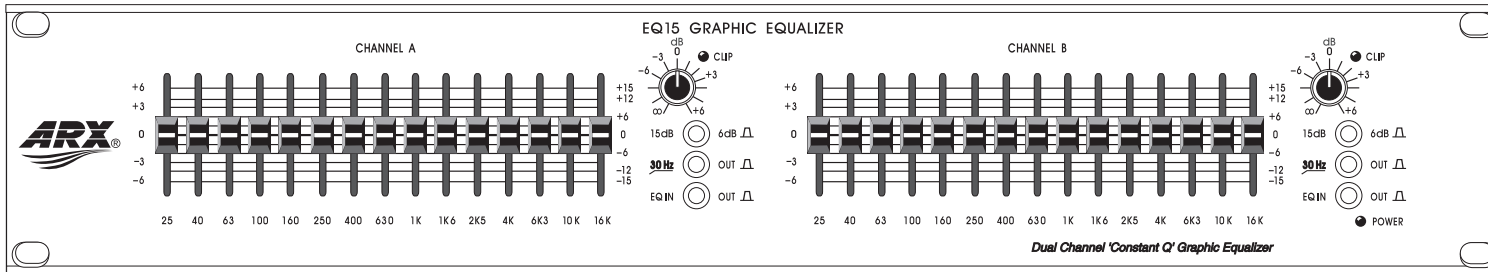
This symbol indicates that a Slow Blow fuse is used in this equipment. Replace with same type and value only

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK OF UNIT NO USER-SERVICEABLE PARTS INSIDE REFER SERVICING TO QUALIFIED PERSONNEL		
<b>WARNING</b>		
TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.		
<b>ATTENTION</b>		
RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR		


Complies with 89/336/EEC Electromagnetic Compatibility Directive, amended by 92/31/EEC and 93/68/EEC and meets the following standards: EN 55013 : 1990, Sections 3.2 and 3.5 EN 55020 : 1988, Sections 4.3, 5.4, 6.2, 7.0, 8.0.

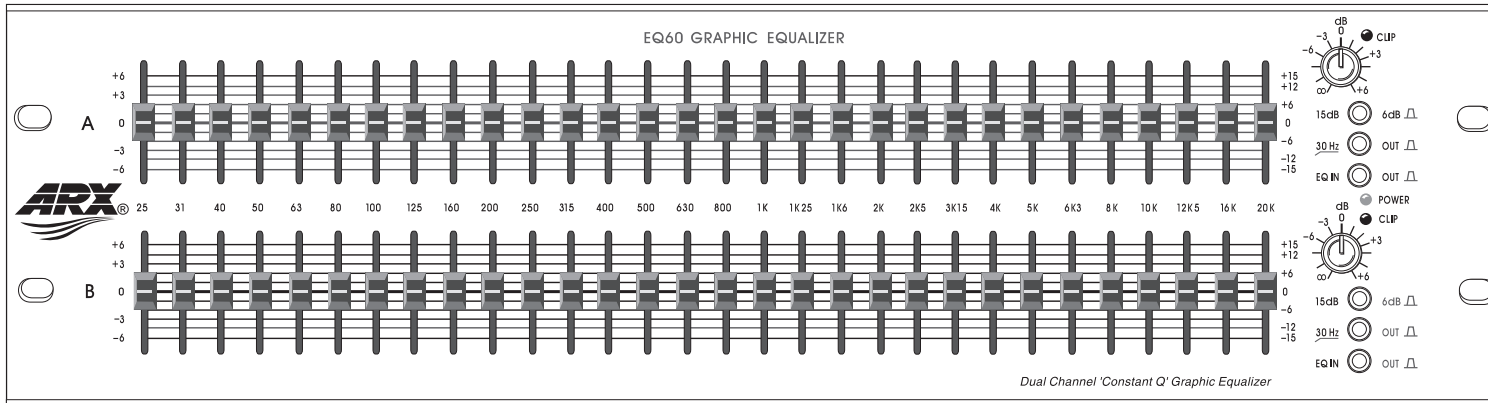
**EQ15 Specifications**

Input Impedance	Balanced 20 K ohms Unbalanced 10 K ohms
Input Headroom	+ 23 dB
CMRR	>52 dB, 20 Hz to 20KHz
Output Impedance	Balanced 300 ohms Unbalanced 150 ohms
Output Level (Max)	+ 23 dB
Filter	Two thirds octave, 15 x ISO standard frequencies per channel
Filter Type	R/C active, MFB bandpass, Constant Q
Centre Frequency accuracy	±2% of nominal
Maximum Cut/Boost	±15 or 6 dB, switchable
Frequency Response	10 Hz to 20 KHz, ±.25 dB
Signal to Noise ratio	-93 dB Unweighted -98 dB 'A' weighted (All controls centred)
High Pass Filter	-3dB @ 30 Hz, switchable
Distortion	.0035% THD @ 0dB, 1KHz
Dynamic Range	116 dB
Power Requirements	100/120 V AC 50 - 60 Hz 220/240 V AC 50 - 60 Hz 20 Watts (20 VA)
Weight	8 lbs/3.75 Kg
Dimensions	19"W x 3½"H x 9"D 482 x 89 x 230mm
Input Connector type	Jack and XLR
Output Connector type	Jack and XLR



### Front Panel Controls

1. 15 or 30 maximum throw, well damped, centre grounding sliders per channel, on standard ISO frequencies
2. Clip LED indicates onset of clipping, monitored at all vital stages throughout the EQ circuitry
3. Input Gain control, from infinity through 0dB to +6dB
4. 15 dB/6 dB EQ range switch
5. 30 Hz High Pass Filter IN/OUT switch
6. Equalizer IN/OUT switch
7. Power LED indicates Equalizer is connected to AC power

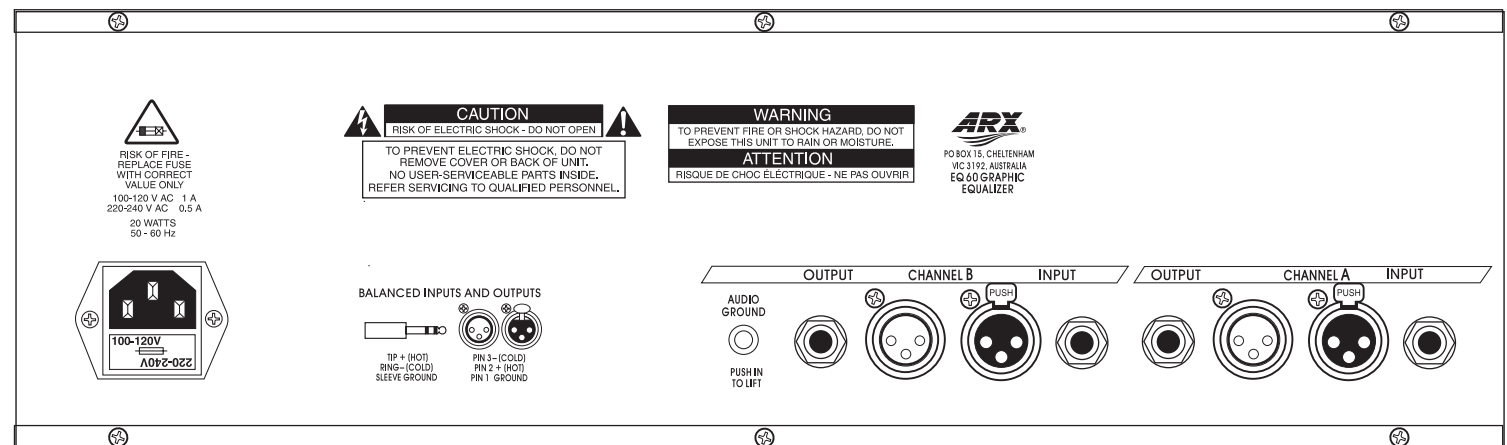


### Rear Panel Connectors

- Balanced Input TRS socket Channel A. Tip HOT, Ring COLD, -Sleeve GROUND
- Balanced Input XLR type Channel A. Pin 2 HOT, Pin 3 COLD, Pin 1 GROUND
- Balanced Output XLR type Channel A (same wiring as Input)
- Balanced Output TRS socket Channel A (same wiring as Input)
- Audio Ground Lift switch

Channel B connectors identical to Channel A

- IEC 3 pin AC connector and integral fuseholder. Replace fuse with correct value only: 100 - 120 V AC 1 amp, 220-240 V AC 0.5 amp. Please also refer to voltage details on Page 2



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## **EQ60 Specifications**

Input Impedance	Balanced 20 K ohms Unbalanced 10 K ohms
Input Headroom	+ 23 dB
CMRR	>52 dB, 20 Hz to 20KHz
Output Impedance	Balanced 300 ohms Unbalanced 150 ohms
Output Level (Max)	+ 23 dB
Filter	One third octave, 30 x ISO standard frequencies per channel
Filter Type	R/C active, MFB bandpass, Constant Q
Centre Frequency accuracy	±2% of nominal
Maximum Cut/Boost	±15 or 6 dB, switchable
Frequency Response	10 Hz to 20 KHz, ± .25 dB
Signal to Noise ratio	-93 dB Unweighted -98 dB 'A' weighted (All controls centred)
High Pass Filter	-3dB @ 30 Hz, switchable
Distortion	.0035% THD @ 0dB,1KHz
Dynamic Range	116 dB
Power Requirements	100/120 V AC 50 - 60 Hz 220/240 V AC 50 - 60 Hz 20 Watts (20 VA)
Weight	10 lbs/4.5 Kg
Dimensions	19"W x 5¼"H x 9"D 482 x 132 x 230mm
Input Connector type	TRS Jack and XLR
Output Connector type	TRS Jack and XLR

*EQ30 specifications electronically identical except that it's a single channel unit*

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## **Introduction**

Thank you for choosing this ARX Graphic Equalizer. We hope you enjoy using it as much as we enjoyed creating it. As with all ARX equipment, it has undergone extensive factory calibration and 'burn in' before shipping. To ensure continued trouble free use, please familiarise yourself with the contents of this manual before using.

## **About ARX Graphic Equalizers**

ARX graphic equalizers are designed to give flawless performance, yet take up the minimal rack space commensurate with total operator control. The EQ30 and EQ60 are uncompromisingly professional third octave equalizers that are equally at home with applications ranging from Compact Disc mastering and Broadcasting to high level Studio room tuning and Concert Sound. The EQ15 is targeted at installations where the program material is predominantly pre-recorded and pre-processed, such as Disco and Karaoke, or where budget constraints preclude the use of a dual 30 band equalizer.

Rigorous analysis and testing of equalizer requirements, and the limitations of existing designs, has led ARX design engineers to develop and refine the innovative 'Constant Q' circuitry featured in these equalizers. Constant Q is a true WYSIWYG (What You See Is What You Get) design concept that allows far more accuracy in EQ control.

Each channel has a Gain recovery control with up to 6 dB of gain; a Clip LED to indicate circuit overload; 30 or 15 maximum throw, well damped, centre grounding sliders, switchable to either +/-15 dB, or +/-6 dB for accurate fine tuning. As well there is a switchable 30 Hz High Pass filter, and an IN/OUT hardwire bypass switch which removes the EQ completely from the circuitry.

Other features include true differential balanced Inputs and servo balanced Outputs on both XLR and TRS connectors, plus an audio ground lift switch.

With their compact High Density design, cool good looks, and precision electronics, ARX Graphic Equalizers provide attractive solutions for all equalization applications.