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.

Some states do not allow the exclusion or limitation of incidental or consequential damages so some of the above exclusions may not apply to you. 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, Moorabbin, Victoria 3189, Australia.
Email: info@arx.com.au

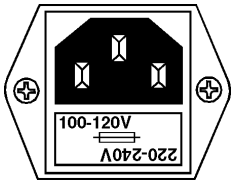
Graphic Equalizer 260, 130, 215

OWNER'S MANUAL

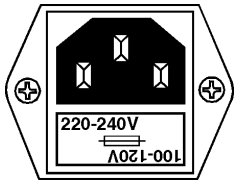
ARX Systems Pty Ltd, PO Box 15,
Moorabbin, Victoria 3189, Australia
Phone: (03) 9555 7859 **Fax**: (03) 9555 6747
International Fax: +61-3 -9555 6747
On the Web: www.arx.com.au
Email: info@arx.com.au

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 180º, 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

CAUTION
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

WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

ATTENTION

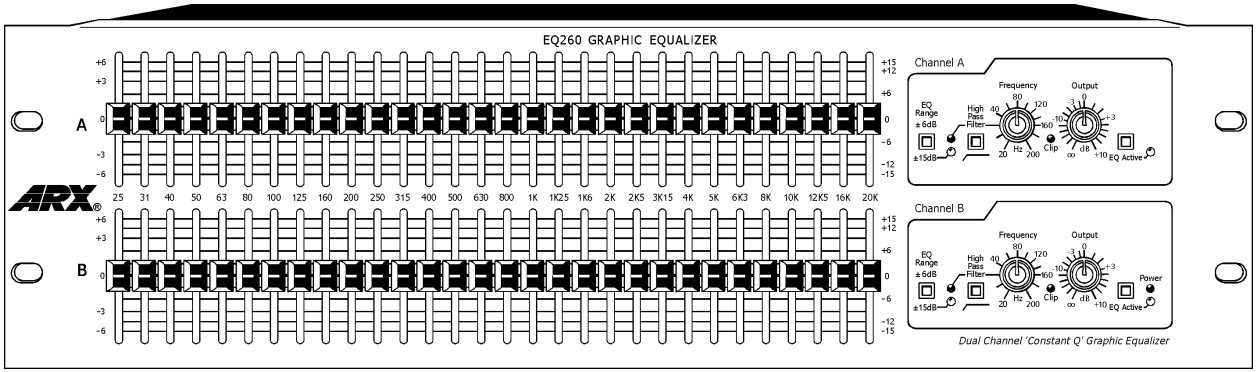
RISQUE DE CHOC ÉLÉCTRIQUE - NE PAS OUVRIR

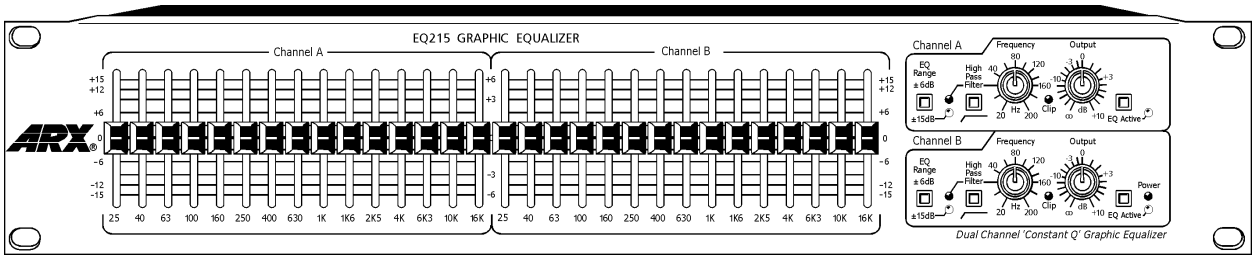
CE N1819

Complies with 89/336/EEC EMC Directive, amended by 92/31/EEC and 93/68/EEC; CE 73/23/EEC Low Voltage directive 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.
Complies with Australian Standard AS/N25 1053

Specifications (All models)

Input Impedance	Balanced 20 K ohms Unbalanced 10 K ohms
Input Headroom	+ 23 dB
CMRR	>55 dB, 20 Hz to 20KHz
Output Impedance	Balanced 300 ohms Unbalanced 150 ohms
Output Level (Max)	+ 23 dB
Filter (EQ215)	Two thirds octave, 15 x ISO standard frequencies per channel
Filter (EQ260, 130)	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	20 Hz to 200 Hz, switchable and sweepable
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 18 Watts (18 VA)
Weight EQ215, EQ130	9 lbs/4 Kg
Dimensions	19"W x 3½"H x 8"D 482 x 89 x 205mm
Weight EQ260	12 lbs/5 Kg
Dimensions	19"W x 5¼"H x 8"D 482 x 132 x 205mm
Input Connector type	Balanced Jack and XLR
Output Connector type	Balanced Jack and XLR





Front Panel Controls

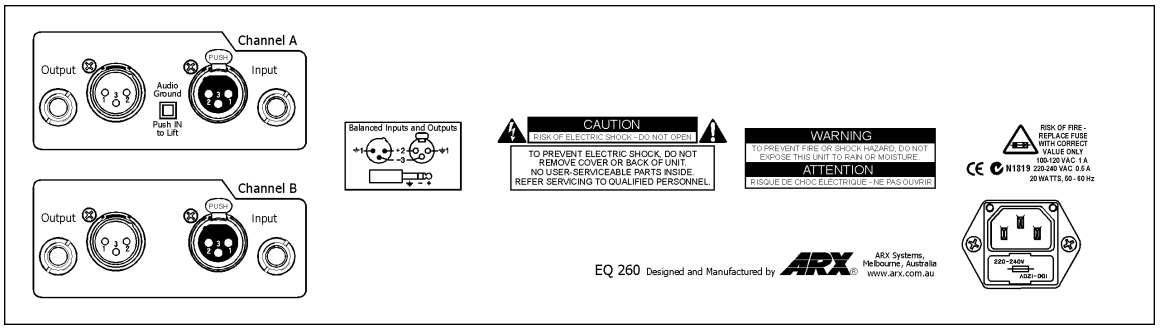
1. 15 (EQ215) or 30 (EQ260, 130) 60mm Extended Resolution long throw, centre grounding sliders per channel, on standard ISO frequencies
2. Clip LED indicates onset of clipping, monitored at all vital stages throughout the EQ circuitry
3. Input Gain control, from infinity through 0dB to +6dB
4. 20 Hz to 200 Hz sweepable
5. High Pass Filter switch and LED
5. 15 dB/6 dB EQ range switch and LED
6. Hardwire Equalizer IN/OUT bypass switch and LED
7. Power LED indicates Equalizer is connected to AC power

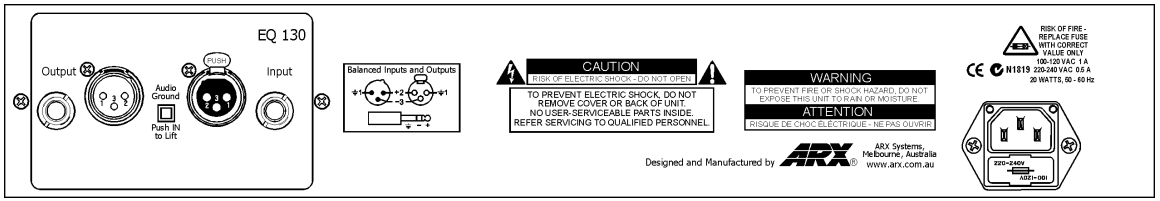
EQ130 is electronically identical to a single channel of the EQ 260

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
- 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

Channel B connectors identical to Channel A on EQ260 and EQ215





Where to use the Graphic Equalizer

A Graphic Equalizer can be inserted anywhere in the line level signal chain of the audio system:

- As a channel insert on the mixing console
- As a group insert on the mixing console
- On the Main Outputs or Aux sends of the mixing console
- Pre or Post Graphic EQ
- Pre or Post System crossovers

However, it is not designed to have a microphone or an instrument plugged directly into it. If you need equalization at this point, then connect it to the channel insert point of the mixing console.

Setting up the Equalizer

Setting up your ARX Graphic Equalizer is very straightforward and intuitive.

Firstly, connect the unit to AC power. ***Please Note*** that it 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. See ***Page 2*** for more details on this.

Getting started

We'll assume a typical use for a dual channel Graphic Equalizer - as a Front of House room equalizer for a sound system.

1. Power down the complete system.
2. Connect the Main Outputs of the console to the respective inputs of the Equalizer - typically, Left to Channel A, Right to Channel B.
   Note: Whether you're using the Balanced Jack or the XLR connectors, for optimum hum and noise rejection it is essential that you use good quality shielded balanced cable for all lines coming in to and out of the Equalizer.
3. Connect the A and B outputs of the Equalizer to the Inputs of the next item in the signal path - typically either a crossover or and amplifier.
4. Set the Equalizer Output level controls at 0dB (12 o'clock)
5. Make sure the console and the amplifiers are turned down, then power up the system.
6. Play some music through the console and bring the master faders up to about -10dB
7. Slowly turn the amplifiers up until you can hear the music coming out of the speakers.
8. Make sure the Equalizer is switched IN and not bypassed, then gently boost and cut a few faders for a physical check that everything is working.
9. When you are satisfied that the system is operating correctly, turn the amplifiers up to normal operating levels.

That's it - your Graphic Equalizer is installed and ready for room tuning.

Introduction

Building on 20 years of EQ design and manufacture, ARX once again redefines the standard for Graphic Equalizers!

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

The EQ130 single channel 30 band and the EQ260 dual channel 30 band 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 EQ215 dual channel 15 band 2/3 octave graphic equalizer is targeted at installations where the program material is predominantly pre-recorded and pre-processed, such as AV installations, DJ/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.

On its satin grey steel front panel, each channel has a Gain recovery control with up to 6 dB of gain; a Clip LED to indicate circuit overload; 30 or 15 of our new XR Extended Resolution long-throw, centre grounding sliders, switchable to either +/-15 dB, or +/-6 dB for accurate fine tuning. At the 0dB slider position each filter is effectively removed from the circuit to further enhance these equalizers' low noise figures.As well there is a switchable and sweepable 20 Hz to 200 Hz High Pass filter, and an IN/OUT hardwire bypass switch which removes the EQ circuitry completely from the signal path.

On the rear panel, the EQ260 has true differential Balanced Inputs and Servo Balanced Outputs, on both XLR as well as convenient TRS jack connectors.

There is also an audio ground lift switch to isolate the audio ground from the chassis ground.Other features include true differential balanced Inputs and servo balanced Outputs on both XLR and TRS connectors, plus an audio ground lift switch.

AC power range is a universal 100 to 120V or 220 to 240V AC, and is connected to the unit via a removable power lead and standard 3 pin IEC connector, with built-in fuse and voltage switch.

At ARX, we believe that our graphic equalizers deliver superlative, uncompromising audio quality that will truly enhance any pro audio application. Their accuracy, compact High Density design, attractive styling, and most of all its superb sound make them the graphic equalizers of choice for demanding engineers around the world.