

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, burned voice coils, 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 includes running a speaker system with the ISC leads disconnected, or with a non-ARX crossover, or with the wrong processor.

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, DHL 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.

Or you can Email us at: info@arx.com.au

Multi Q Parametric Equalizer OWNER'S MANUAL



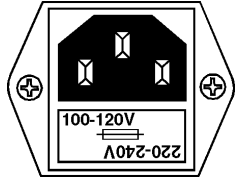
ARX Systems Pty Ltd, PO Box 15,
Moorabbin, Victoria 3189, Australia
Phone: (03) 9555 7859 Fax: (03) 9555 6747
International Fax: +61-3 -9555 6747
On the Web: www.arx.com.au
Email: info@arx.com.au



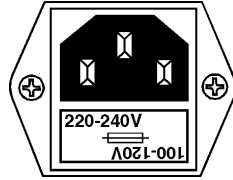
IMPORTANT - PLEASE READ THIS FIRST



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 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



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

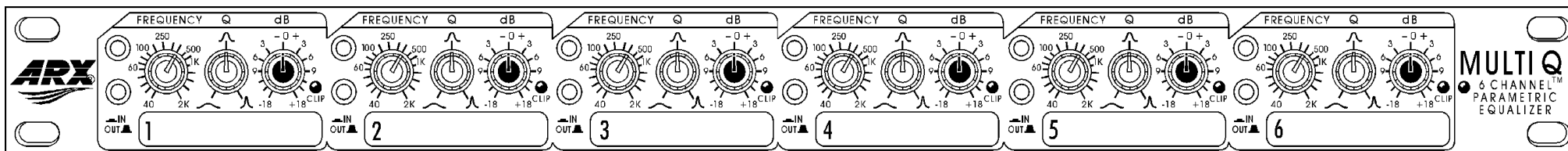
RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR



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: EN55013: 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

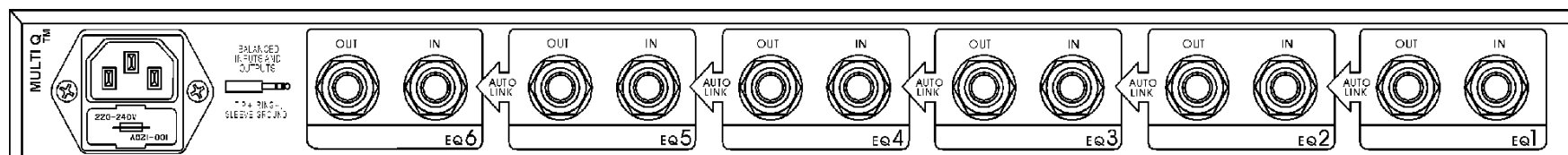
Multi Q Specifications

Filter Type	Full Parametric State Variable
Maximum Cut/Boost	±18 dB, user variable
Bandwidth	3 octaves to 1/20th octave, user variable
Impedance	Balanced 20 Kohms Unbalanced 10 Kohms
Input Headroom	+ 21 dB
CMRR	>60 dB, 20 Hz - 20 KHz
Output Impedance	Balanced 300 ohms Unbalanced 150 ohms
Output Level (Max)	+ 21 dB
Frequency Response	10 Hz to 20 KHz, ± 0 .5 dB
Signal to Noise ratio	
<i>One Channel:</i>	-98 dB Unweighted -101 dB 'A' weighted
<i>Six Channels:</i>	-88 dB Unweighted -93 dB 'A' weighted
Distortion	.004% THD @ 0 dB, 1KHz
Dynamic Range	119 dB (single Channel)
Power Requirements	100-120 V AC, 220-240 V AC 50-60 Hz 8 Watts (8 VA)
Weight	5 lbs/2.2Kg
Dimensions	19"W x 1¾"H x 6"D 482 x 44 x 155mm
Input Connector type	Balanced Jack (TRS)
Output Connector type	Balanced Jack (TRS)



Front Panel Controls

- EQ In/Out switch. A hardwire Bypass of the EQ circuitry.
- Frequency x10 switch.
- Frequency select control. When used in conjunction with the x10 switch, gives a range of centre frequencies from 40 Hz through to 16 KHz.
- ‘Q’ (Bandwidth) control, variable from 3 octaves through to 1/20th octave.
- Cut and Boost control, variable +/- 18 dB.
- Clip LED, indicating the onset of circuit overload.
- Numbered marker panel, for labelling EQ assigns.



Rear Panel Controls

- Tip/Ring/Sleeve Balanced Jack Input connector for Channel 1. Tip + Hot, Ring - Cold, Sleeve Ground
- Tip/Ring/Sleeve Balanced Jack Output connector for Channel 2. Tip + Hot, Ring - Cold, Sleeve Ground

Note: Channels 1 to 6 connectors identical in function

- 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

Application Notes

The ARX Multi Q 6 Channel parametric Equalizer is a powerful and flexible tool for all audio equalization requirements, equally at home in Studio work, Broadcast, fixed installations or touring sound systems. Careful attention to circuit layout and shielding has resulted in noise figures that make the Multi Q ideal for Digital applications.

Each channel of the Multi Q can be accessed individually, and has effective control over virtually the complete audio spectrum, from 40 Hz to 16KHz.

Its exclusive and unique internal patching system lets you access up to 6 channels of parametric EQ, either individually or in multiples.

What exactly does this mean? Here's an example.

If you insert a lead into the Input of Channel 1, the signal will automatically be routed through Channels 2 to 5 and come out at the Channel 6 Output, giving you a single channel, 6 band equalizer.

If you pull the lead out of the Channel 6 Output and plug it into the Channel 3 Output, the signal will stop there, giving you a single channel 3 band EQ. You can plug another lead into Channel 4 Input and another into Channel 6 Output, giving you another single channel 3 band EQ.

In this way, the Multi Q can be whatever you like: a single 6 band EQ, two 3 band EQs, a 2 and a 4 band EQ, six one band EQs, any combination you need. All this at the same time and without the need for extra patch leads.

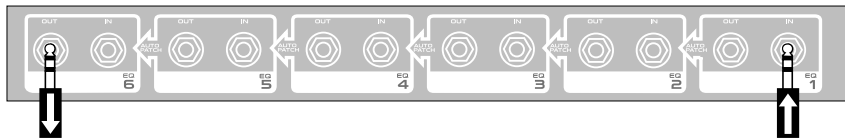
All this makes the Multi Q a unique creative tool, because unlike other parametric Equalizers you are not stuck with having to use 4 or 5 bands of EQ when you may only need one or two. The Multi Q frees up these extra bands for use by other applications needing EQ.

Typical configurations

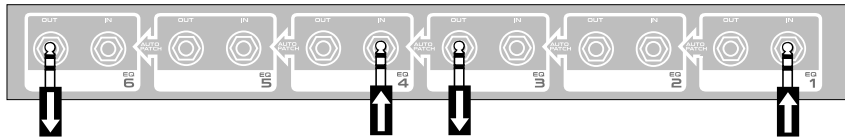
Multi Q applications are as varied as your imagination, but here are a few examples to get you started.

- Room tuning for live sound work, whether fixed installation or touring
- Control room tuning
- Broadcast studio tuning
- Main mix sweetening, both Live and Studio
- As a notch filter for 6 monitor sends, or as a multi band channel insert for really hot stage monitor levels
- As extra EQ on up to 6 mixing console channels, when the existing channel EQ is not enough
- Kick and Snare drum tweaking
- Extra punch to Bass guitar
- Vocal sweetening
- To generate a House curve for fixed installations
- Digital mastering - CD, DAT
- Cassette mastering

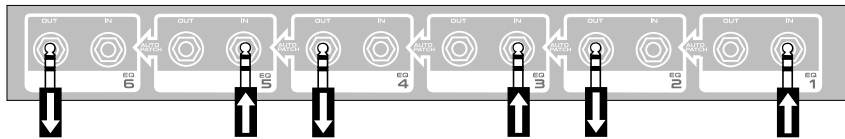
Single channel, 6 band EQ



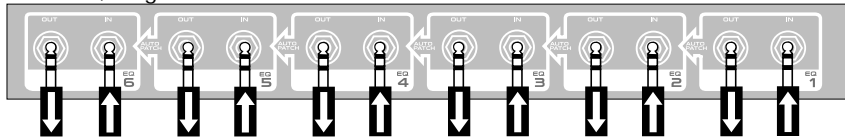
Dual channel, 3 band EQ



Three channel, 2 band EQ



Six channel, single band EQ



IMPORTANT NOTE

For lowest noise it is important that you insert the next Input jack into the channel immediately following the Output jack. So if you're coming out of Channel 2, insert the next Input into Channel 3. Don't leave any channels spare in between.

Introduction

Thank you for choosing this ARX Multi Q Parametric 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 the Multi Q

The sheer amount of signal processors necessary for today's standards of audio production puts a great strain on the available space in equipment racks, whether in the studio, fixed installations or on the road.

Each rack unit has to earn its space.

Recognizing this fact, ARX design engineers have developed the 'Multi Q', an innovative new approach to parametric equalization. Six channels each cover the complete audio spectrum, and each has its own Balanced Input and Output.

Each channel also has controls for Frequency Select, with x 10 switch; Bandwidth, from 3 octaves through to 1/20th octave; Cut and Boost, up to + or -18 dB; and IN/OUT hardwire bypass switch. A clip LED indicates overload through all circuitry, and each channel has a numbered marker panel for easy confirmation of EQ assigns.

The Multi Q's exclusive and unique Internal patching system allows access to 6 channels of parametric EQ, either individually or in multiples.

Inserting a lead into Channel 1 Input, for example, will automatically route that signal through Channels 2, 3, 4, 5 and deliver it at the Output of Channel 6, forming a 6 band single channel parametric EQ. However if you insert a lead into the Output of Channel 3, that same signal will stop and exit there, giving you a 3 band parametric EQ. You can then start again at Channel 4 through 6.

In this way the Multi Q can be configured as a 6 band single channel EQ, or 6 single band EQs, or two 3 band EQs, or a 2 and a 4 band EQ, in fact any combination you need.

The Multi Q does all this without the need for handfuls of extra patch leads, making it a unique creative tool for House or Monitor EQ, Studio EQ, compressor or gate sidechain EQ, and the ideal desk EQ insert on up to 6 desk channels.