

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.

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

COMPO™

Single/Dual Channel
Enhanced
Compressor Limiter

OWNER'S MANUAL



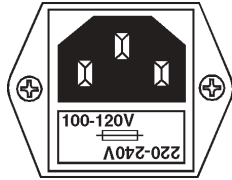
ARX Systems Pty Ltd, PO Box 15,
Moorabbin, Victoria 3189, Australia
Phone: (03) 9555 7859 Fax: (03) 9555 6747
International Fax: +61-3 -9555 6747
On the Web: www.arx.com.au
Email: info@arx.com.au



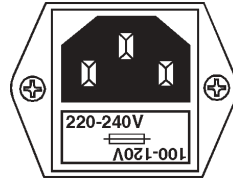
IMPORTANT - PLEASE READ THIS FIRST



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

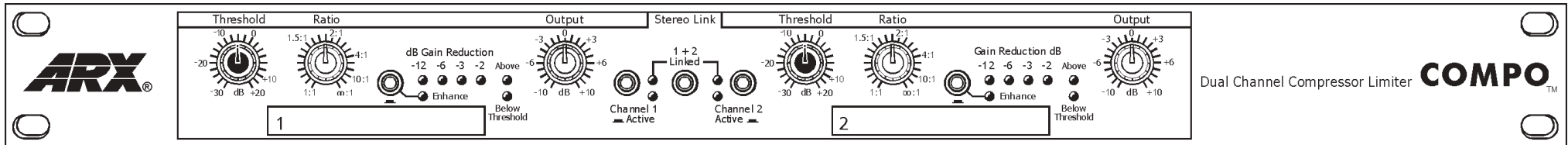
RISQUE DE CHOC ÉLECTRIQUE - NE PAS OUVRIR



Complies with 89/336/EEC EMC Directive, amended by 92/31/EEC and 93/68/EEC 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

COMPO™ Specifications

Input Impedance	Balanced 20 Kohms Unbalanced 10 Kohms
Input Headroom	+22 dB
CMRR	>45dB, 20 Hz - 20 KHz
Output Impedance	Balanced 300 ohms Unbalanced 150 ohms
Output Level (Max)	+20 dB
Frequency Response	20 Hz to 20 KHz. Note: RFI filter -6dB 100KHz
Signal to Noise Ratio	-88dB Unweighted -93dB A weighted
Distortion	.03% @ 0dB, 1 KHz
Dynamic Range	108dB
Attack and Release Times	Program dependent
Threshold	Variable -30dB to +20dB
Ratio	Variable 1:1 to infinity:1
Output Gain	Variable -20dB to +20dB
Maximum Input Level	+20 dB
Power Requirements	100/120 V AC 50/60 Hz or 220/240 V AC 50/60 Hz 8 watts (8 VA)
Weight	5 lb/2.2 Kg
Dimensions	19"W x 1¾"H x 6"D 482 x 44 x 155 mm
Input Connectors	Jack and XLR
Output Connectors	Jack and XLR

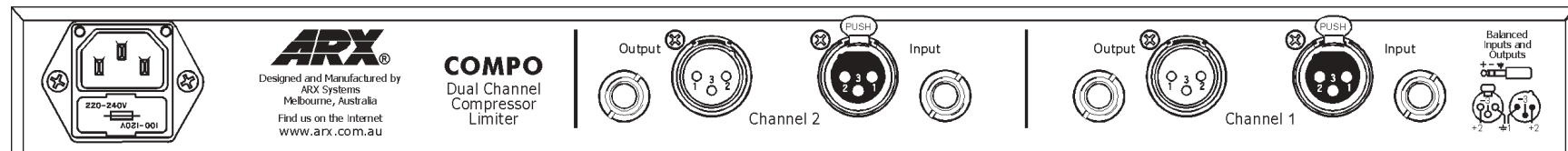


Front panel controls

- Threshold control; variable from -30dB to +20dB
- Ratio control; variable from 1:1 to infinity :1
- Enhance switch and status indicator LED
- 5 segment LED display Gain Reduction meter
- Above/Below Threshold status LEDs
- Numbered marker panel for labelling compressor assigns

- Output Gain control; variable from -20dB to +20dB
- Compressor Bypass switch and status LED
- Stereo link switch and status indicator LED

Channel 2 controls identical to Channel 1



Rear Panel Connectors

- Balanced TRS Input socket. Tip + (HOT), Ring - (COLD), Sleeve GROUND
- Balanced XLR Input socket. Pin 2 + (HOT), Pin 3 - (COLD), Pin 1 GROUND
- Balanced XLR type Output socket (same wiring as Input)
- Balanced TRS Output socket (same wiring as Input)
- 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

Architects and Engineers Specifications

The enhanced compressor/limiter shall be a dual channel unit in a steel chassis six inches deep and one rack unit high. There shall be a front panel switch to link the channels to track as a stereo pair. Each channel shall have a pair of LEDs for indicating Above or Below Threshold, and a 4 segment LED Gain Reduction display, plus variable controls for Threshold, Ratio and Output Gain. Attack and Release times shall be program dependent.

Each channel shall also have a Bypass switch on the front panel, and a switch to control the Enhance circuit. This circuit shall provide Low frequency enhancement at 50 Hz, and High frequency enhancement at 10 KHz.

The unit shall have electronically Balanced inputs and outputs, on both TRS jack and XLR type connectors, with passive RFI filters and an Input impedance of 20 Kohms (10 Kohms unbalanced).

The Input headroom shall be +22dB, with a CMRR of better than 45dB, and the frequency response shall be 20 Hz to 20 KHz, ± 0.5 dB. The Output impedance shall be 300 ohms (150 unbalanced), and the Maximum Output level shall be +20dB, with a Signal to Noise ratio of -93dB 'A' weighted (-88dB unweighted). T.H.D shall be 0.03% @ 0dB, 1 KHz, and the unit shall have a dynamic range of 108dB.

AC Power shall be supplied via a removable mains cable, connecting to an IEC connector with an integral fuse and voltage change switch on the unit's rear panel.

The compressor/limiter shall be the ARX COMPO.

Where to use the COMPO

The COMPO can be inserted anywhere in the line level signal chain of the audio system:

- As a channel insert on mixing consoles
- As a group insert on mixing consoles
- Pre or Post Graphic EQ
- Pre or Post System crossovers

However, since it is a line level device, it is not designed to have a microphone or an instrument plugged directly into it. If you need compression at this point, you should use the COMPO as a channel insert.

Compressors and Limiters and the COMPO

A *compressor* is a variable gain amplifier whose output voltage compared to input voltage decreases as its input level increases past a set threshold.

A *limiter* is a compressor with a high compression ratio, thus maintaining an essentially constant output level despite any increase in input level past the threshold.

So, looking at this in non-technical terms, these devices basically stop signal levels from getting any louder than the level you set (the Threshold). A compressor puts a gentle to heavy 'squeeze' on the excess level, depending on the compression ratio you set. A limiter, on the other hand, stops excess level with a brick wall!

Each channel of the COMPO can act as either compressor or limiter, since its compression ratio is infinitely variable, from 1:1 (none) through to ∞ :1 (hard limiting).

In Dual channel mode, each COMPO channel is independent, but can be switched to track as a stereo pair by a switch on the front panel.

Each channel also has an 'Enhance' switch. When switched in, this unique circuit adds a small amount of EQ within the compressor envelope to restore the sagging frequency response of compressed program material, bringing back the sparkle and punch that is often lost.

Introduction

Thank you for choosing this ARX COMPO™ Dual Channel Enhanced compressor/limiter. 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 the COMPO.

About the COMPO

The COMPO is a unique audio product developed by ARX to handle all-round audio dynamics control at a competitive price without compromising on essential features.

It comprises two independent compressor/limiters, with variable Threshold, Ratio and Output gain controls.

A Stereo Link switch on the front panel switches the COMPO from being two individual channels to operating as a linked stereo pair that track together.

The COMPO features comprehensive LED indication of all operating functions and status plus Gain reduction LED metering. Its Above/Below Threshold LED pair provides instant visual confirmation of compressor status.

A unique part of each COMPO channel is the switchable 'Enhance' function, which provides frequency restoration to preserve the spectral balance of the audio signal, to compensate for the sagging Low and High frequency response of compressed program material. A good way to think of it is as a 'smart' loudness control.

Technical features include true differential Balanced Inputs and Outputs on both XLR and TRS jack connectors for convenient patching, a Bypass switch to compare compressed and uncompressed levels, plus a passive RFI filter on the Input..

With its uncomplicated and intuitive layout, plus user-variable operating parameters and innovative precision electronics, the COMPO from ARX is an excellent choice of compressor/limiter that is totally at home in any pro audio environment.