



User's Manual  
LH95 Inductor Equalizer

Thank you for your purchase of an Iron Age LH95 Equalizer. Iron Age Audioworks is a small team of engineers and designers and we truly appreciate your business. We hope you enjoy using this as much as we enjoyed making it.

## **Safety**

Safety with audio equipment is normally a matter of common sense, but we want to make sure you get the best use out of your equipment. So please, use common sense including...

- Use typical practices for using electrical and audio equipment.
- Don't clean this with water or use it around water.
- Any ventilation openings in the case need to remain open.
- Don't use this around anything that's hot (such as a radiator or space heater).
- Don't defeat the ground pin on the plug or use a ground-lift device that does.
- Don't use a cut or damaged power cord, and keep the cord from getting pinched or stepped on.
- Don't service the box unless you're a qualified technician.

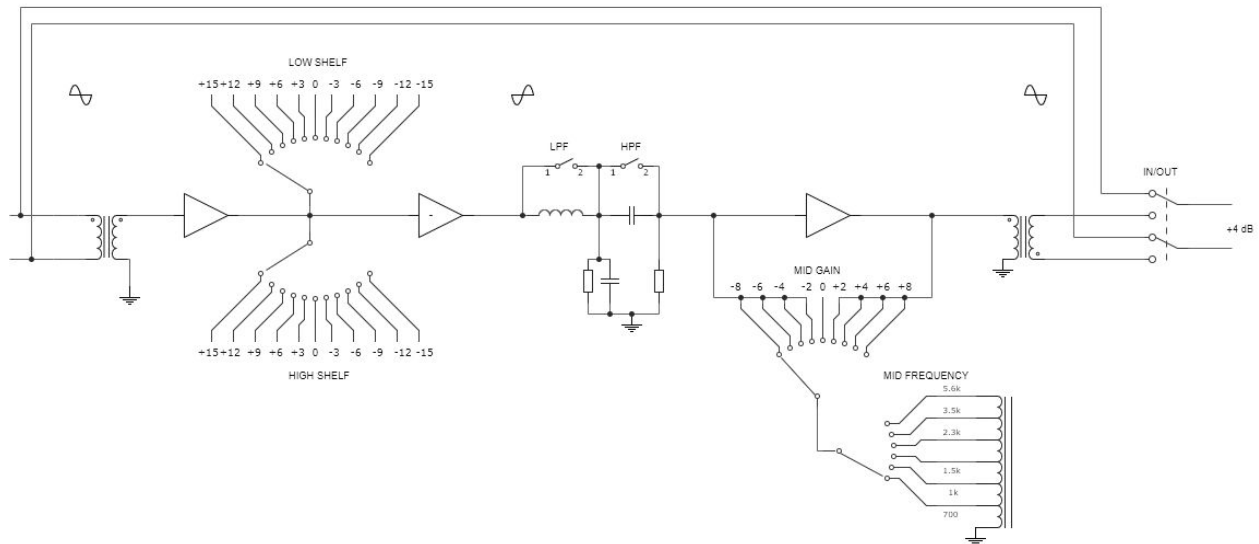
## **Power**

The unit is compatible with any VPR compliant 500 series rack.

## Overview

The Iron Age LH95 is a highly flexible, discrete class A active equalizer in the 500 series format. It features a discrete audio path, three vintage class A gain blocks, transformer balanced inputs and outputs, and an inductor mid band.

## Block Diagram



The equalizer is set up for broad, musical adjustments on the high and low end of the audio band with an active Baxandall stage. The high and low bands allow for up to 15 dB of shelving boost or cut in 3 dB increments, at 40 Hz for bass and 15 kHz for treble.

The mid band stage is a variable frequency presence filter using a custom-wound multitap inductor from Cinemag. It provides up to 8 dB of boost or cut in 2 dB increments. Boost and cut frequencies are approximately mirror-inverted.

Additionally, the EQ features switchable high pass and low pass filters with -3 dB points at 75 Hz and 13.5 kHz.

## Controls

The IN/OUT button switches the EQ in when depressed. When the unit is not in, a true bypass circuit is engaged, connecting the channel input directly to the output with no other components in the signal path. When the EQ is engaged, the LED over the switch is illuminated.



The treble and bass EQ bands have identical controls. The amount of boost or cut is selected by the 11 position gain switch.

The presence band has a frequency selection switch and a gain switch. The amount of boost or cut is selected by the 9 position gain switch, and the center frequency is selected by the 6 position gain switch.

The HPF and LPF switches are each two position toggles which engage the filters.

### Technical Specifications

Gain Range +/-15 dB, bass and treble in 3 dB increments  
+/-8 dB, presence in 2 dB increments

Maximum Input Level +18 dBu

Maximum Output Level +21 dBu

Input Impedance approx. 5.6kOhms, transformer balanced

Output Impedance <45 Ohms, transformer balanced

Frequency Response, set flat +/-0.5 dB 40 Hz - 16 kHz

Noise <-85 dBA

THD @ +15 dBu output <1% typical

Power Consumption approx. 90 mA

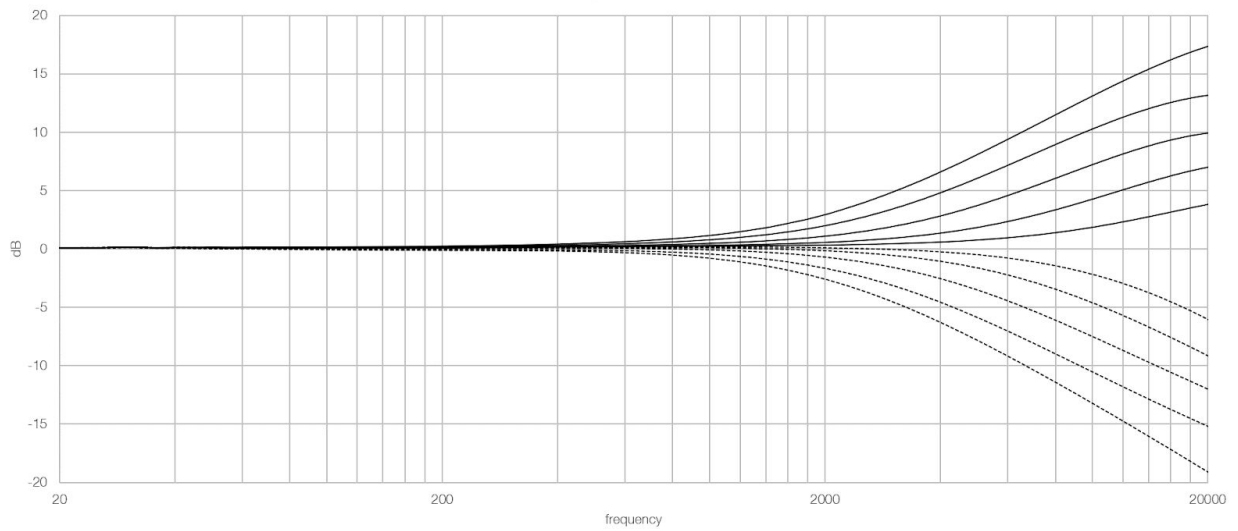
## Frequency Response

Frequency response plots generated from actual data measured from LH95 production unit.

### High Band



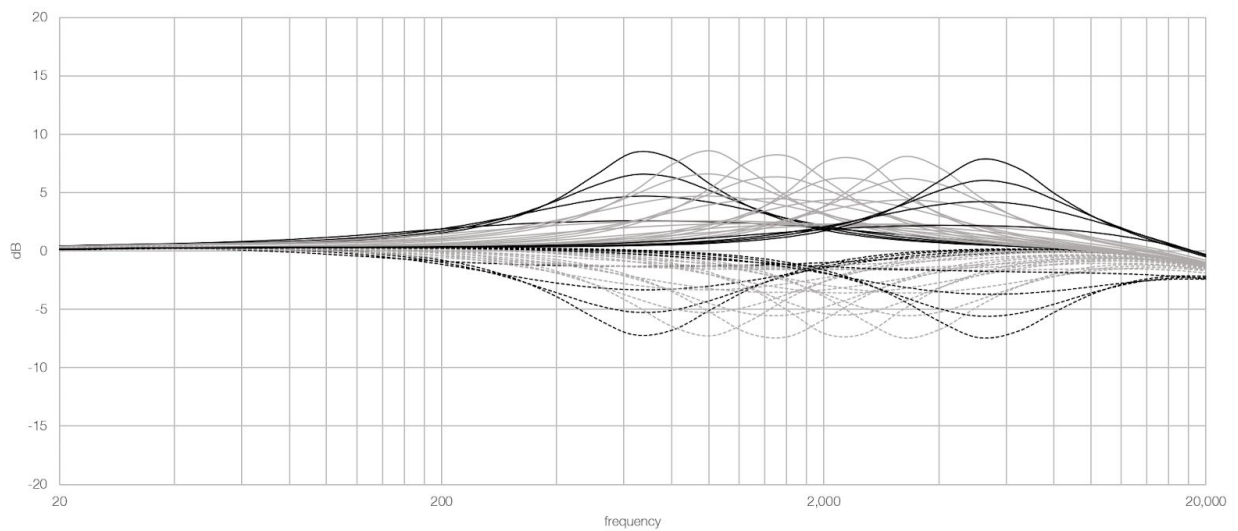
High Band



### Mid Band



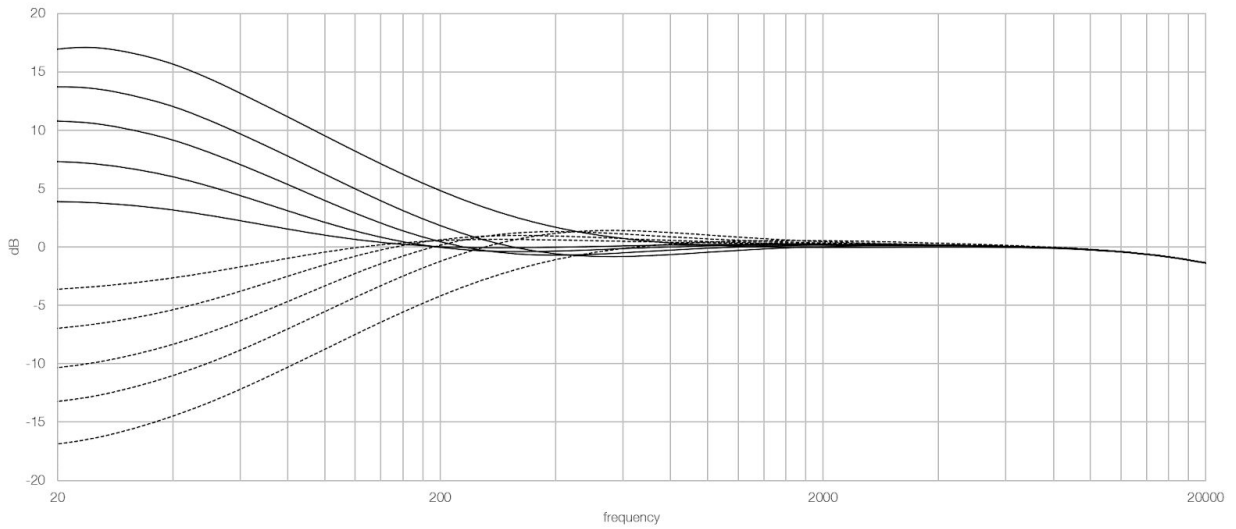
Mid Band



## Low Band

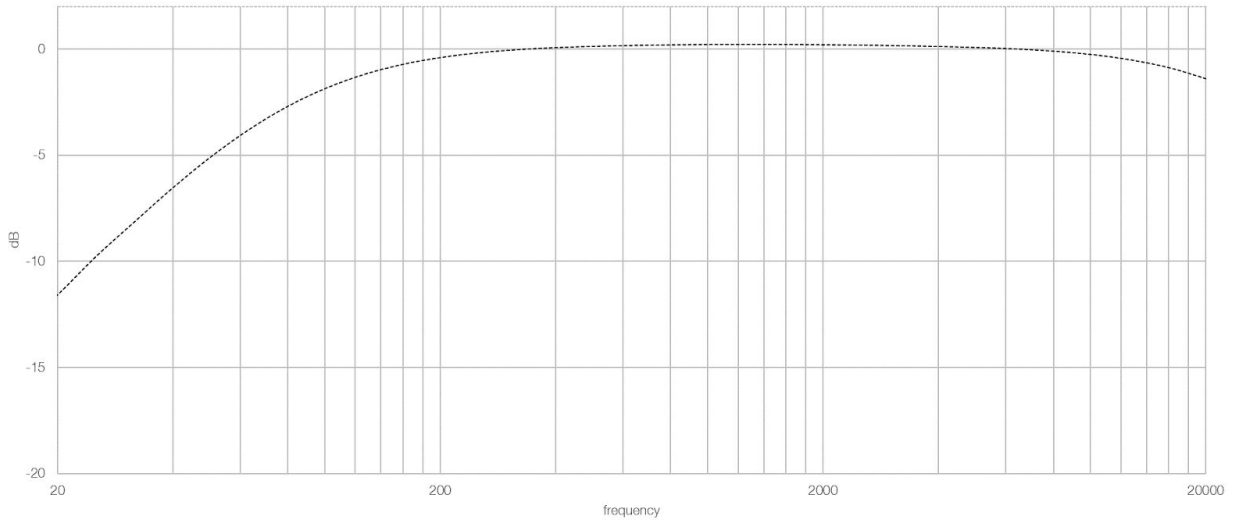


Low Band

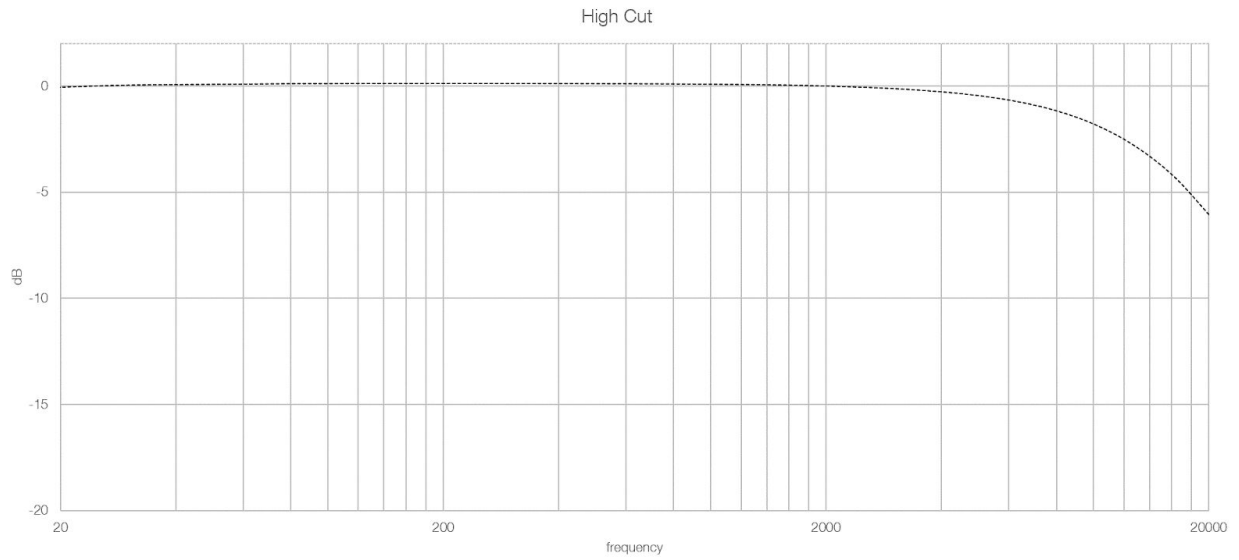


## Low Cut Filter

Low Cut



## High Cut Filter



## Warranty

We warrant this product to be free from defects of materials and workmanship for a period of one (1) year from the date of purchase. We will remedy any defect identified within this period by repairing or replacing the product at our option. It will be your responsibility to pay for shipping the product to us, and if the product is determined to be defective, our responsibility to pay for shipping the product back to you.

LIMITATIONS AND EXCLUSIONS. This warranty, and any other express or implied warranty, does not apply to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or modified in any way. This warranty is extended to the original purchaser only. THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, TO THE EXTENT ALLOWED UNDER APPLICABLE STATE LAW. IN NO EVENT SHALL IRON AGE AUDIOWORKS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT.

If you suspect a defect in this product, please contact us to discuss the problem (it is possible that a suspected defect could be quickly remedied or due to improper usage).

Call or email us with any issues, to say hi, or share the music you've made. We love this gear and want you to love it too.