



User's Manual

Mic Preamp QPP

Thank you for your purchase of an Iron Age Mic Pre (QPP). 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 powered by an internal linear power supply and will accept standard 110 VAC power. A user-accessible fuse is located on the IEC connector at the rear of the case. It will come set at +/-22V and +48V for phantom power. Please contact us if you would like to change the supply voltage for use with other op amps.

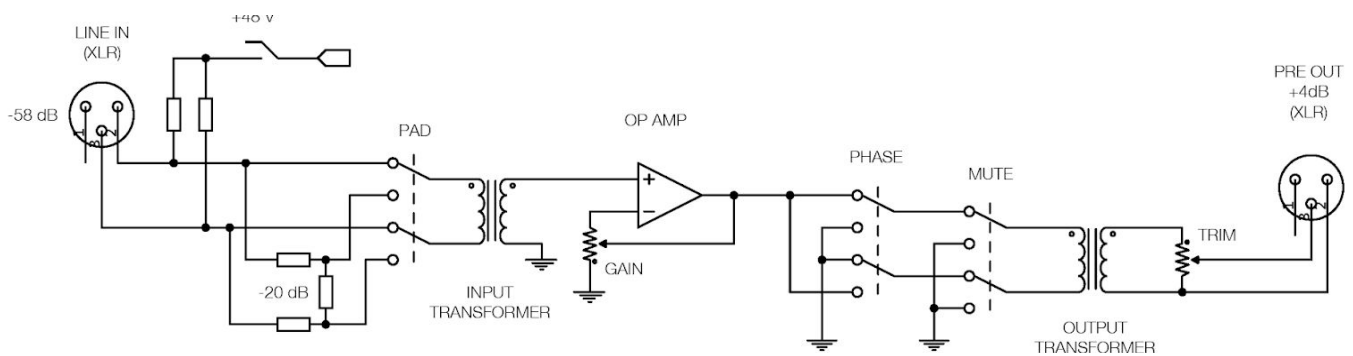
Overview

The Iron Age Quad Preamp was designed as a four channel front end solution. The mic preamp is the most important part of your signal chain, and this preamp gives the detail and depth your signal deserves.

Each QPP features four all-discrete, transformer balanced input and output mic pres with a simple and powerful amplifier topology that offers up to 64 dB of useable gain. We use a Jensen input transformer in front of the operational amplifier, followed by a custom-wound Cinemag output transformer and an infinitely variable T-pad attenuator. A bank of -20 dB pad, phase, mute, and 48V phantom power switches round out the feature set.

As with all Iron Age products, the QPP uses the M2 discrete operational amplifier, designed and built in-house by us.

Block Diagram



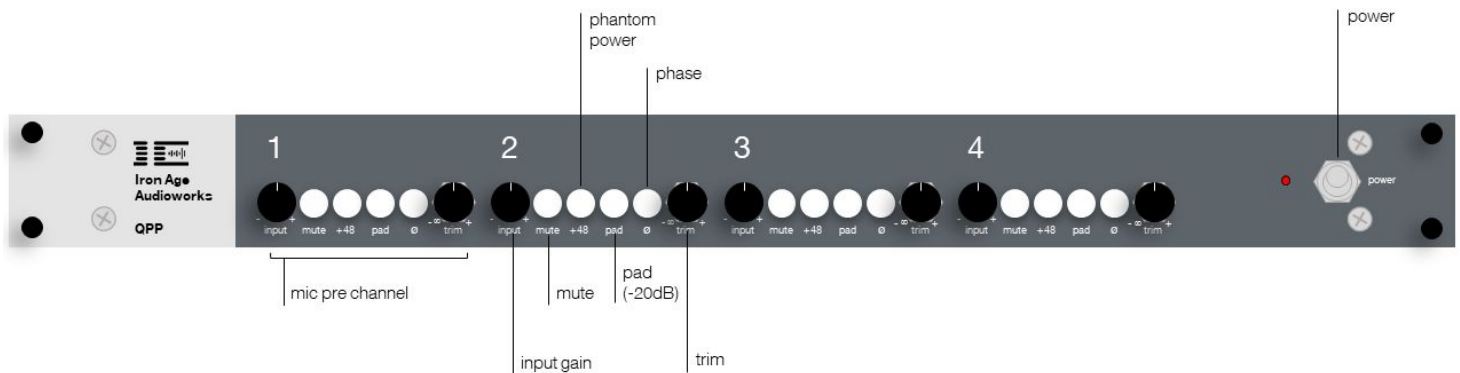
Through the IAA Custom Shop we also offer a variety of input transformers, output transformers, op amps, and even voltages to give you the sound you want. Whether you're looking for quiet and clear, warm and smooth, or edgy and rock and roll, this preamp can do what you need.

Reach out to us with to whiteboard your idea!

contact@ironageaudioworks.com

Controls

Front Panel



The POWER switch turns the unit on and off.

The GAIN knob adjusts the gain of the operational amplifier.

The TRIM knob attenuates the signal after the output transformer. For maximum headroom the TRIM should be set fully clockwise.

The PAD button engages a -20 dB pad with a characteristic impedance of approximately 2300 ohms.

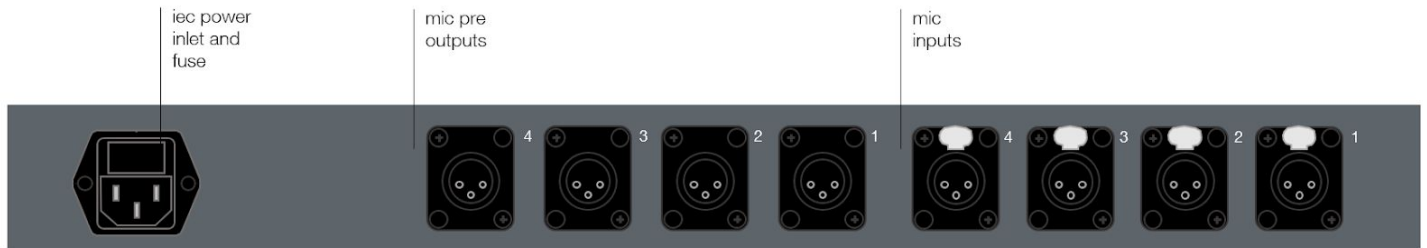
The +48 button provides phantom power to the microphone through the XLR connector.

The MUTE button turns the mic pre signal to the transformer off.

The PHASE button inverts the signal being set to the primary side of the output transformer, inverting the phase of the output signal by 180 degrees.

Inputs and Outputs

Back Panel



Each channel uses a Jensen mic input transformer to receive a nominal -60 dBu balanced input via an XLR jack on the rear panel of the unit.

Each mic pre output is a nominal +4 dBu transformer balanced line output using a Cinemag output transformer via a XLR jack on the rear panel.

Chassis

The Iron Age QPP uses a standard 19" 1RU. The unit is powered by an IEC power cord and an internal bipolar power supply.

Technical Specifications

Gain Range	28 - 64 dB (8-44 dB with PAD)
Maximum Input Level	-3.5 dBu
Maximum Output Level	+26 dBu
Input Impedance	2300 Ohms, transformer balanced
Output Impedance	<75 Ohms, transformer balanced
Frequency Response	+0.1, -0.75 dB 20Hz-20kHz
Actual Measured Noise	-107 dBA typical
THD @ +15 dBu output	0.002% typical
Crosstalk (any channel)	Better than -90 dB
Power Consumption	100 mA max

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).

Contact 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.

contact@ironageaudioworks.com