



User's Manual

Channel Strip 622

Thank you for your purchase of an Iron Age 622 500 series module. 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 the 500 series chassis it is mounted in. It complies with VPR standards.

Overview

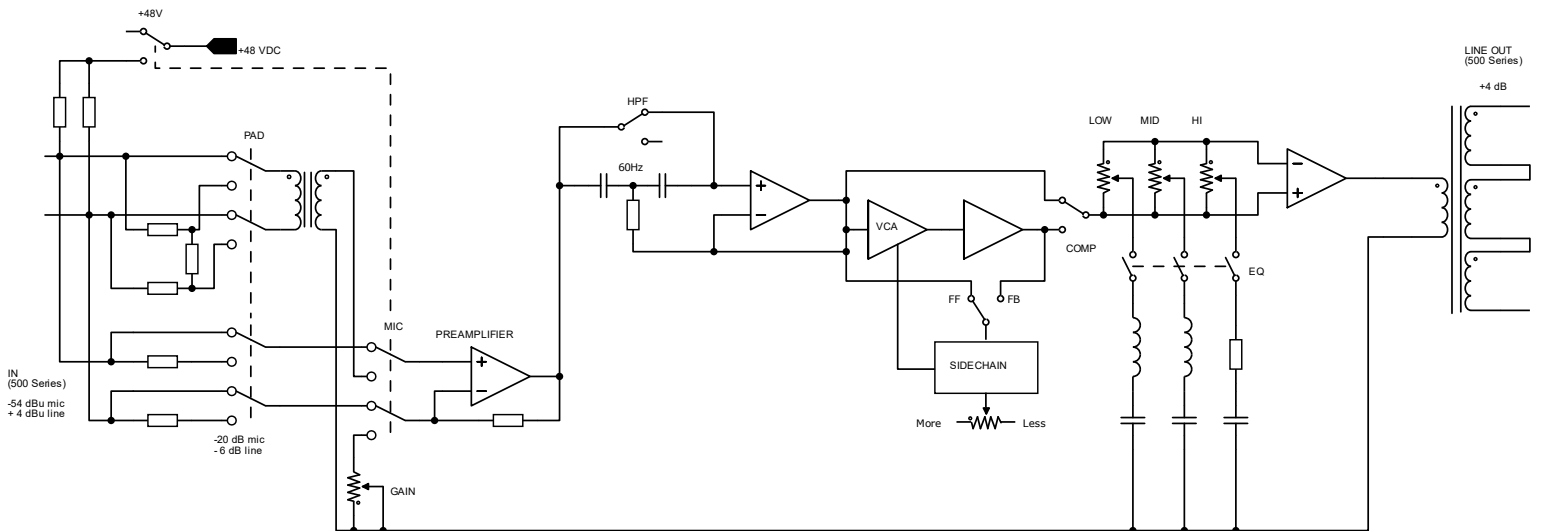
The Iron Age 500 series 622 channel strip module was designed as a flexible tracking and mix solution. The module is packed with features like no other in the 500 series format and has the instant Iron Age tone.

Each 622 features a discrete mic / line amp that offers up to 60 dB of gain in mic mode. In line mode it is a classic balanced input. The pad engages a 20 dB pad in mic, and a 6 dB pad in line.

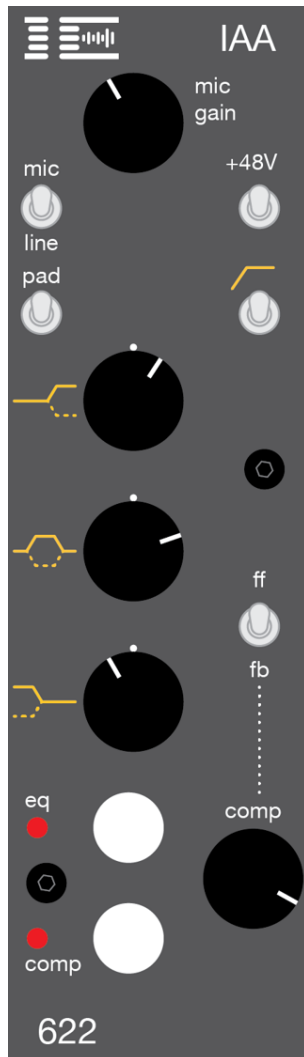
The preamp stage feeds an active high pass filter set for 60Hz, followed by a simple and powerful VCA compressor. The output stage is a three band “swinging input” classic console-style inductor EQ, using a second discrete op amp for gain and a custom-wound steel core Cinemag output transformer. 48V phantom power is available in mic mode and is disabled in line.

As with all Iron Age products, the 622 is as discrete as possible, designed and made in the USA.

Block Diagram



Controls



The GAIN knob adjusts the gain of the preamplifier in mic mode only. In line mode the gain knob does not change the level.

The MIC switch engages the mic pre circuit and enables the phantom power. When the switch is down, phantom power is defeated, and the input is a fixed unity gain stage.

The PAD switch engages a 20 dB pad in mic mode and a 6 dB pad in line mode.

The +48 switch provides phantom power to the microphone. Because of the 500 series format, phantom power has the potential to be turned on inadvertently. Please be aware before turning it on!

The HPF switch engages an active 60 Hz high pass filter.

The COMP switch engages the VCA compressor.

The FF/FB switch changes the sidechain detection for compression between feedforward and feedback mode.

The COMP knob is a combination of several compressor functions. As the knob is rotated clockwise, threshold is lowered, ratio is raised, and makeup gain is increased. The net gain through the compressor is approximately constant, but the threshold is lowered while and peak reduction and gain of signals below threshold increase as you rotate. The sidechain detector is set with a threshold of approximately -10 dBu. It sounds complicated, but in practice it is very simple – “more is more” from mild, gentle compression to complete squashing.

The EQ switch engages the passive EQ.

The high band is a shelf offering +/-15 dB of correction at 10 kHz.

The mid band is an inductor peaking band offering +/-15 dB at a center frequency of 1.2 kHz.

The high band is an inductor shelf offering +/-15 dB of correction at 100 Hz.

Inputs and Outputs

The input uses a Jensen mic input transformer to receive a nominal -54 dBu balanced input in mic mode or +4 dBu in line mode via the 500 series pinout.

The output is a nominal +4 dBu transformer balanced line output via the 500 series pinout.

Chassis

The Iron Age H9 is a VPR compliant 500 series module.

Technical Specifications

Gain Range

Mic	3 - 58 dB
Line	+0 dB / -6 dB

Maximum Input Level

Mic	-2 dBu
Line	+26 dBu

Maximum Output Level +26 dBu

Input Impedance

Mic	1200 Ohms, transformer balanced
Line	10k Ohms, transformer balanced

Output Impedance <47 Ohms, transformer balanced

Frequency Response +/- 1 dB 20Hz-20kHz

Actual Measured Noise better than -90 dBA

THD @ +15 dBu output <0.1%

Power Consumption <120 mA

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