

HA-609A

DUAL CHANNEL CLASS A
COMPRESSOR/LIMITER
ELITE SERIES



USER MANUAL



INTRODUCTION

Thank you for choosing the Elite Series **HA-609A**. Heritage Audio is dedicated to bringing you ‘the sound of yesterday for tomorrow’. We specialize in capturing that unique, enticing sound that everybody has fallen in love with. For years engineers, producers and musicians have been yearning for that classic vibe. Usually the only option is to search for old, used original equipment that is almost always in a questionable state of operation. This brings with it a whole lot of other issues, making the experience less than desirable. Not to mention the very high prices asked for this equipment, which makes them virtually unobtainable for the great majority. Now it’s possible to obtain that same sound with a brand new piece that will give you all the problem-free, heavy-duty use you’ll need for years of music making history.

Peter Rodriguez
CEO
Heritage Audio - Madrid, Spain



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DESCRIPTION

Heritage Audio is proud to announce the HA-609A DUAL MONO STEREO COMPRESSOR/LIMITER, a modern, improved take on the classic tracking/mixing diode bridge compressor. As with the other products in their Elite Series, the HA-609A takes advantage of the latest in manufacturing technology to offer an unprecedented value without compromising audio quality — all built at the Heritage Audio factory in Spain.

The HA-609A is a modern take on the classic transformer coupled diode bridge compressor/limiter design, with several improvements brought in to accommodate the modern workflow. While some classic iterations of this design utilized some IC chips and a class A/B amplifier stage, the HA-609A features an entirely discrete, Class A design and a total of three Carnhill/St Ives transformers per channel.

The addition of a fast attack mode for both the compressor and limiter section allow the HA-609A the flexibility to handle individual tracks as well as groups and 2-bus program material. Thanks to a proprietary system of diode bridge gain reduction cells introduced with our highly regarded SUCCESSOR, the HA-609A has better channel matching than any earlier incarnations; while the use of rotary switches and high quality, stepped pots allow for easy recall and maintain a perfect stereo image.

The Heritage Audio HA-609A is a professional diode bridge-based dynamics processor in a convenient 2 rack unit format. It features Carnhill/St Ives transformer balanced inputs and outputs, with the outputs being driven by means of '73 type Class A amplifiers. It also features St. Ives interstage transformers to isolate the diode bridges in a fully floating configuration. Therefore, there is a total of no less than 6 Carnhill/St Ives transformers per unit, 3 per channel providing tone for days.

Unlike vintage diode bridge designs, the HA-609A has dual attack times both in the compressor and limiter sections and expanded threshold and limit level ranges that easily accommodate the hotter modern input signals. Gone is the classic problem of the unit always compressing even at the highest limit levels and compression thresholds, which used to drive the mixing and mastering engineers crazy.

Finally, the all discrete Class A construction distinguishes itself from other vintage and current diode bridge units, (which still rely on class A/B amps), and reacts so much better to compression, in a much more musical way.



GETTING STARTED

FRONT



1	2	3	4	5	6
LIMIT LEVEL Sets the output level at which limiting occurs. Range is from 0 to +20 dBu on a high quality stepped potentiometer.	LIMIT RELEASE TIME On a 6-position rotary switch. From fast 50 milliseconds to 0.8 seconds and 2 automatic release times (fast on peaks, slow on sustained program).	LIMIT ATTACK TIME 2 different times on a push button. Fast is with button pressed.	COMPRESSION THRESHOLD With an extended range from +20 dBu (fully clockwise) to -20 dBu (fully counterclockwise) on a stepped precision potentiometer.	RATIO From a very gentle 1.5:1 to a harder 6:1. On a 5-position rotary switch.	COMPRESSION RELEASE On a 6-position rotary switch. From medium-fast 100 milliseconds to pretty slow 1.5 seconds and 2 automatic release times (fast on peaks, slow on sustained program).
7	8	9	10	11	12
GAIN MAKEUP Allows for restoring the gain loss up to 20 dB in .5 dB steps, on a 41-step detected precision potentiometer.	COMPRESSION ATTACK TIME 2 different times on a push button. Fast is with button pressed.	GAIN REDUCTION METER 1 and 2 Measures gain reduction in dB. They are illuminated when their BYPASS buttons are disengaged and the unit is active.	LINK Engages the stereo mode. When both channels are linked, the same control signal drives both channels.	LIMIT IN Enables the limiting section. If audio level exceeds the set limit level, it will not react. If it is below the limit level, it is limited at the limit level.	COMPRESS IN Enables the compression section. If audio level is below threshold level, it is attenuated as per the ratio law. If it exceeds the threshold level, it will not react.
13	14	15	16		
BYPASS 1 and 2 True bypass, relay-based type. They effectively bypass the whole unit.	POWER Turns power ON.	ON/OFF INDICATOR Lights up when ON.	LINK INDICATOR Lights up when LINK.		

REAR



1	2	3
LINE INPUTs (L&R) Transformer balanced, XLR Gold Plated.	POWER CONNECTOR To Be Connected to the HA PSU04 Power Supply	LINE OUTPUTs (L&R) Transformer balanced, 73 type Class A amp driven, XLR Gold Plated.

All XLRs are:

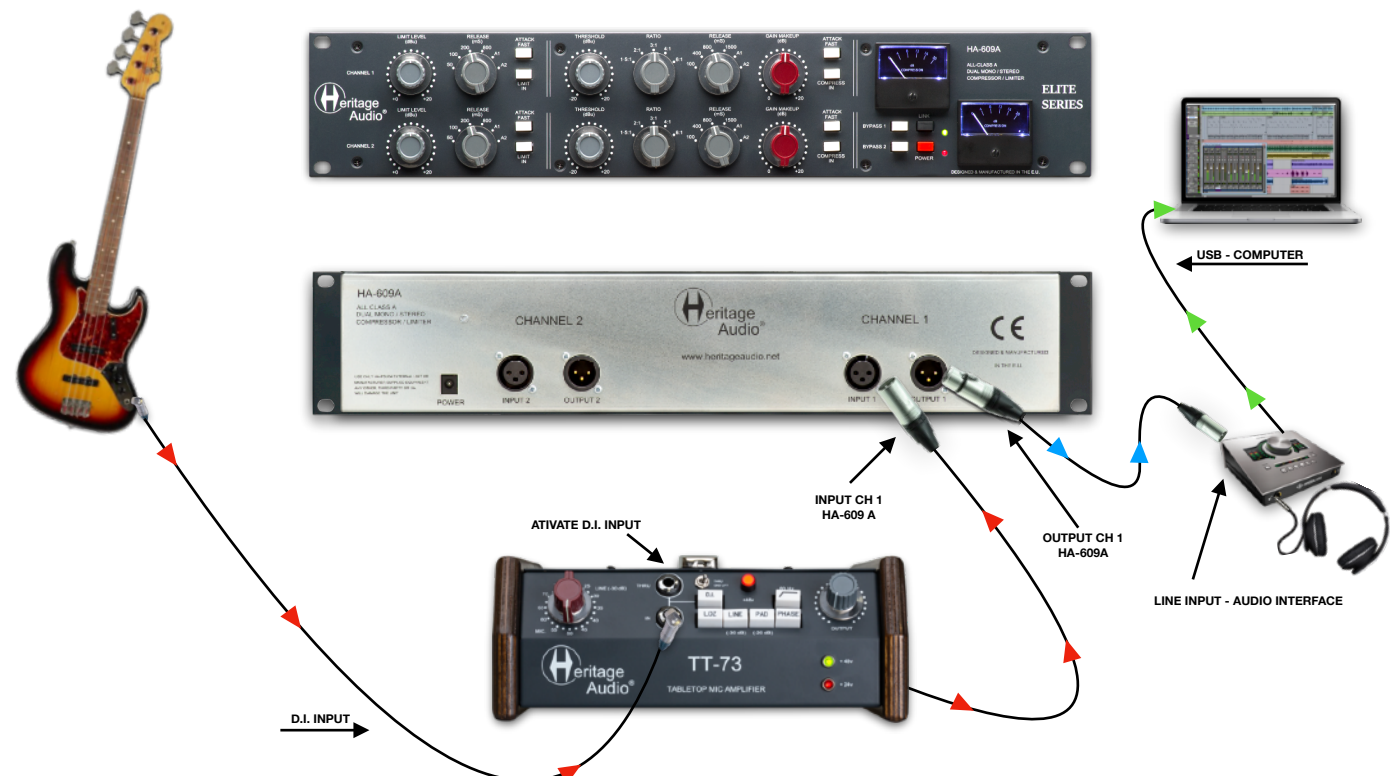
Pin 1: GND
Pin 2: Hot
Pin 3: Cold

MALE XLR

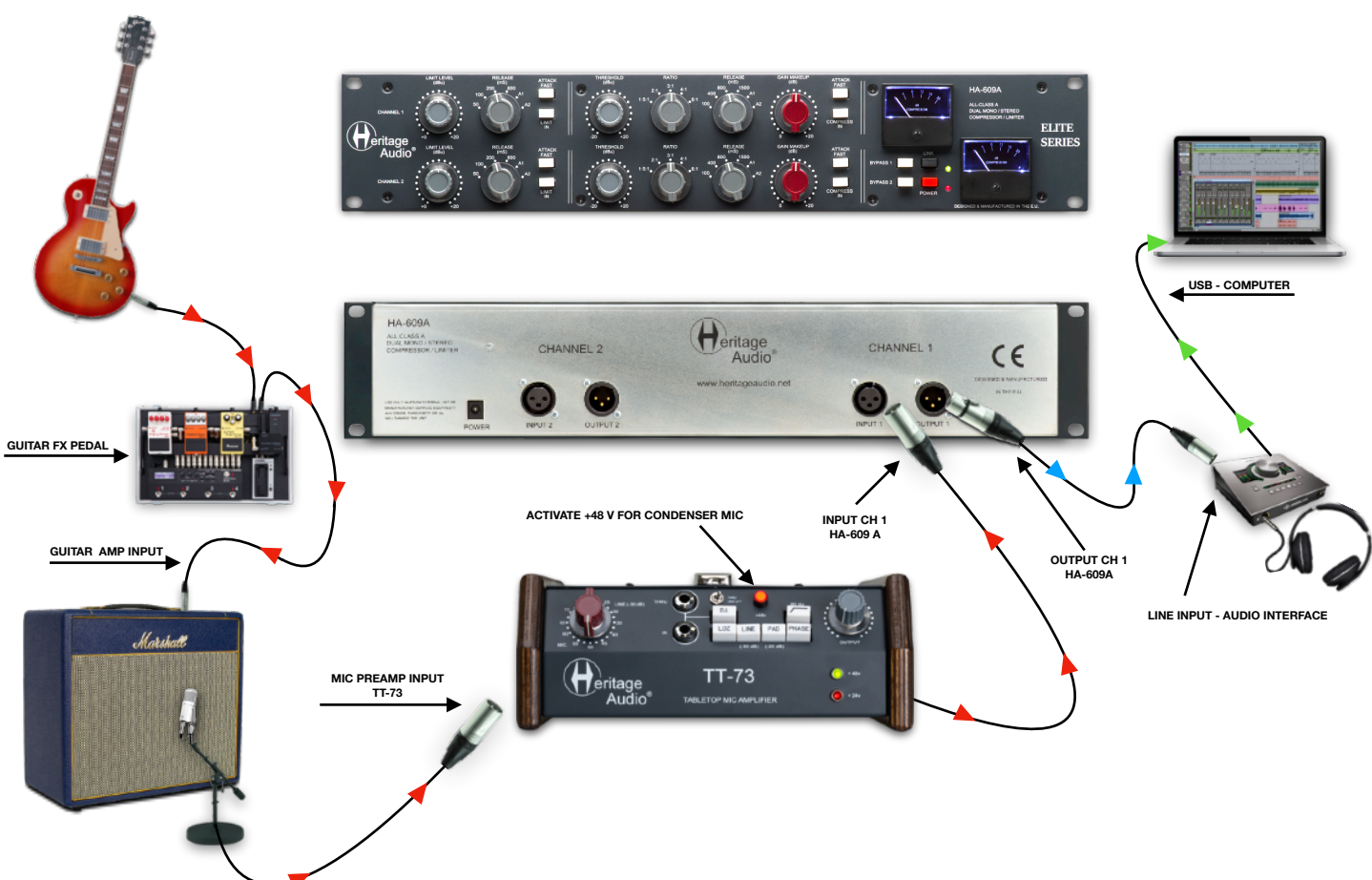
FEMALE XLR

GND
Hot (+)
Cold (-)

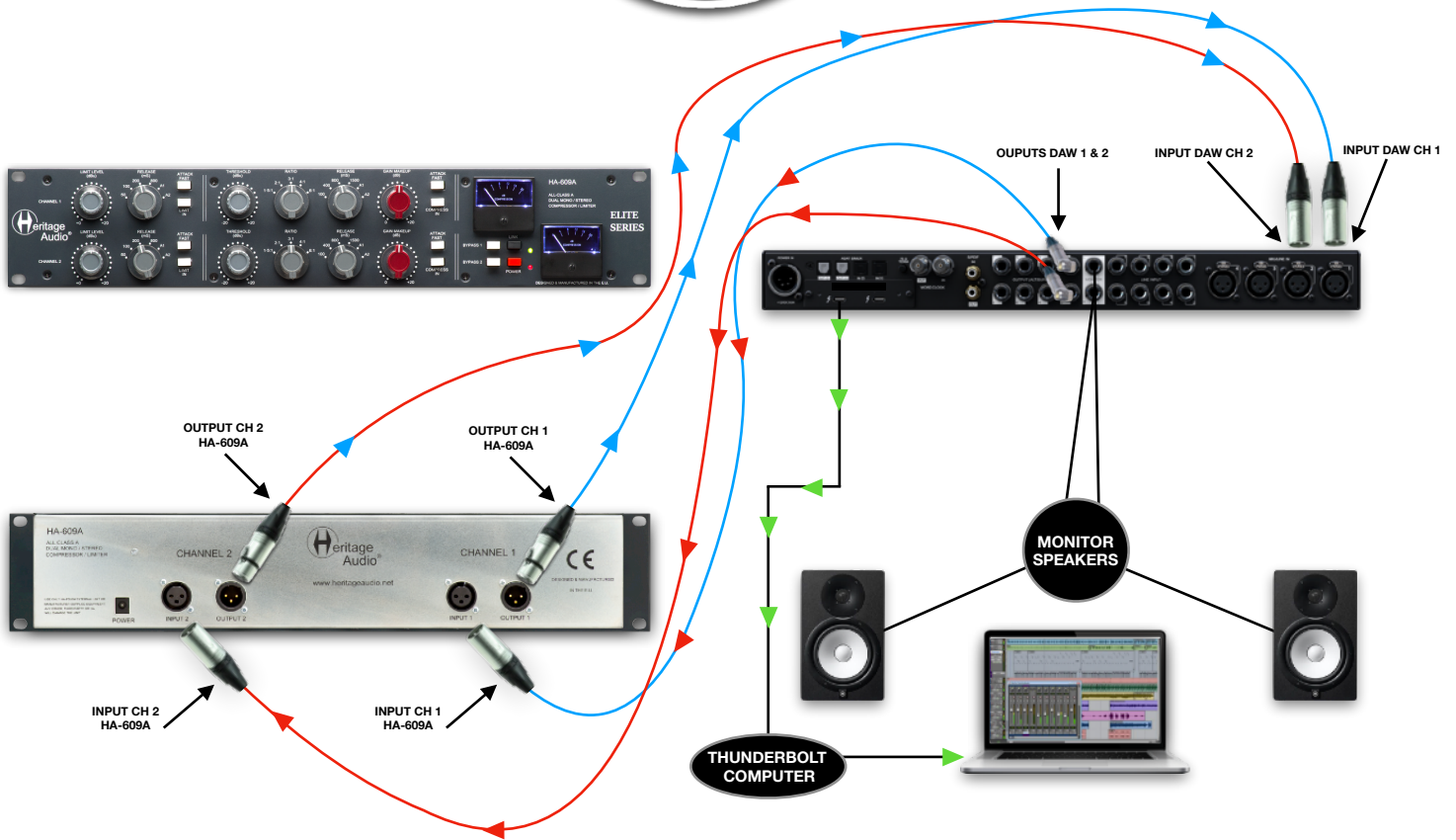
BASS
RECORDING



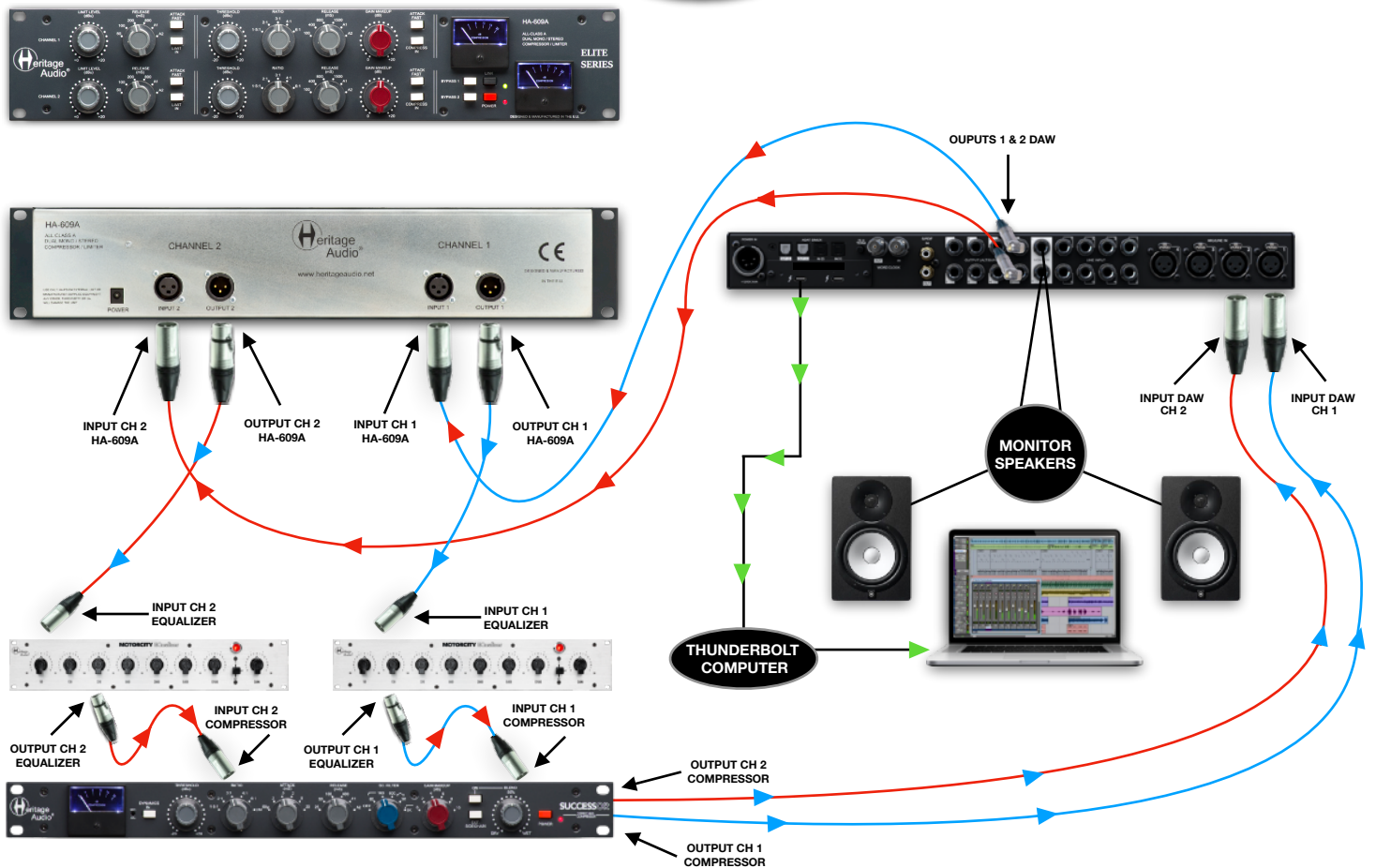
GUITAR
RECORDING



MIXING DAW



MIXING MIXBUS

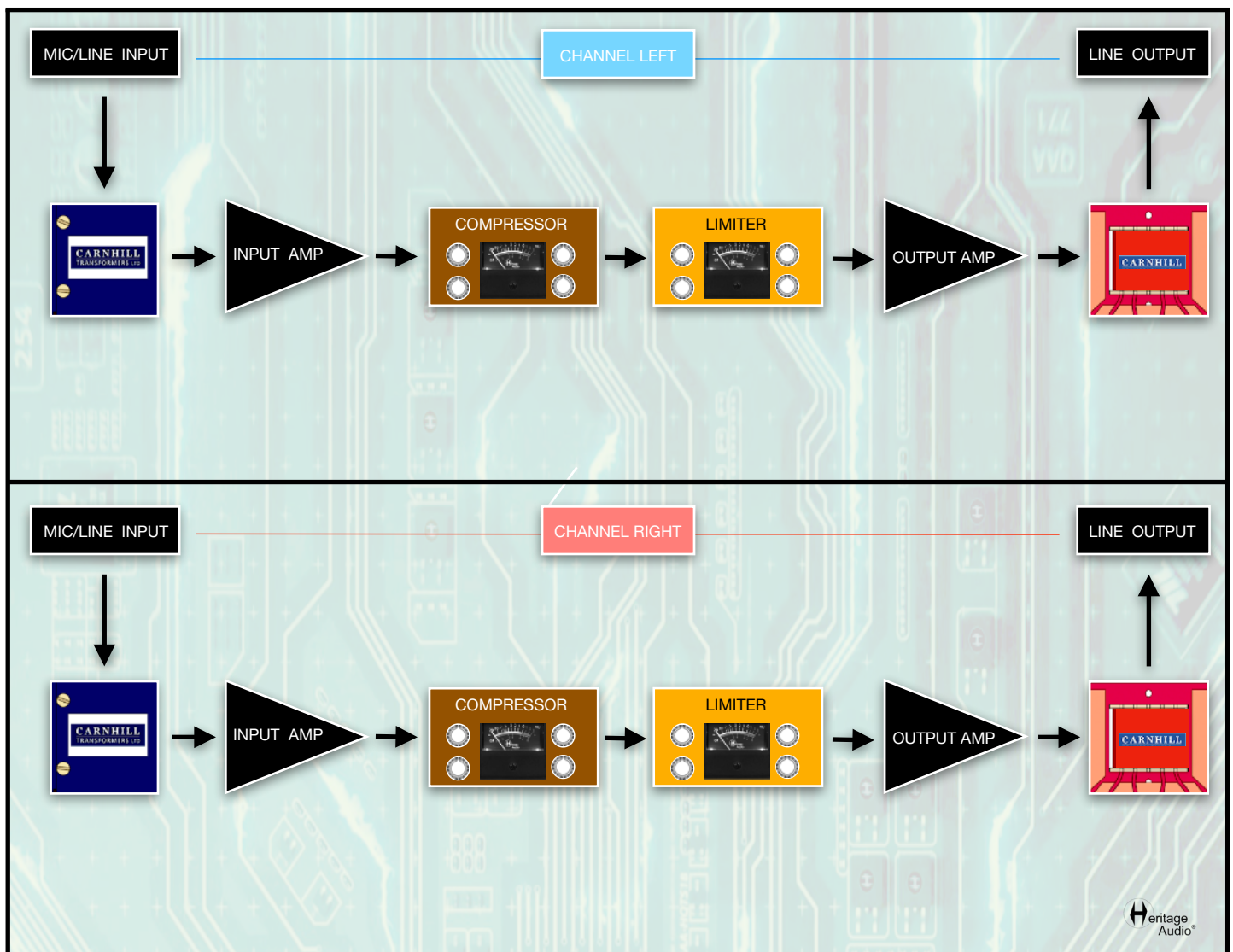


SPECIFICATIONS

- **Maximum input level:** Over +22 dBu.
- **Maximum output level:** Over +26,5 dBu into 600 Ω .
- **Self-Noise:** Less than -75 dBu 20 Hz-20 KHz. -80 dBu A-weighted.
- **THD+N (50Hz- 20KHz):** not engaged, less than 0,07 % at +20 dBu.
- **Frequency response, COMPRESS and LIMIT OUT, ± 0.5 dB, 15 Hz- 30 KHz.**
- **Input impedance:** 10 K Ω , transformer balanced and floating.
- **Output impedance:** Less than 75 Ω , transformer balanced and floating, Class A driven.
- **Compressor characteristics:** Threshold from -20 to +20 dBu on a 41-step precision potentiometer. Ratio selectable on a rotary switch, 1.5:1, 2:1, 3:1, 4:1, 6:1. Release selectable on a rotary switch, 100, 400, 800, 1500 ms, A1 and A2 auto release times. A1 corresponds to 50 ms on peaks and around 500 mS on sustained program. A2 to 50 ms on peaks and 1.5 seconds on sustained program.
- **Limiter characteristics:** Limit level selectable from 0 to +20 dBu on a 41-step precision potentiometer. Release selectable on a rotary switch, 50, 100, 200, 800 ms, A1 and A2 auto release times. A1 corresponds to 50 ms on peaks and around 800 ms on sustained program. A2 corresponds to 50 ms on peaks and about 1.5 seconds on sustained program.
- **Dimensions (W x H x L):** 482 mm x 88 mm (2 Rack units) x 184 mm.



SIGNAL FLOW



TROUBLE SHOOTING



PROBLEMS	SOLUTIONS
There doesn't seem to be any power feeding the HA-609A.	Make sure the HA-PSU04 power supply has been connected.
There is no lighting in my VU meters.	This is normal, how it should be in Bypass mode. Upon activating the unit it will light up.
When compressing heavily I can't get enough signal on to my interface.	Make sure to compensate with the GAIN MAKEUP knob to return to a good, healthy level.
There is no signal from the HA-609A.	Double check that you have made the right connections with the right cables.
There is still no signal from the HA-609A.	Make sure the GAIN MAKEUP is not fully turned down.
There is still no signal whatsoever from the HA-609A.	Double check your routing in your DAW to make sure it's correct.
There are way too many peaks getting through regardless of the compressor or limiter settings.	Try using the ATTACK FAST button to make the processors react quicker and more aggressively.
Too many of the initial hits (transients) of my drum/percussion track sound way too softened and blurred.	Make sure the ATTACK FAST button is not pressed to allow more of the initial transient through unaffected.
Too many of the initial hits of my drum/percussion track still sound way too softened and blurred.	Try deactivating the LIMITER or reducing its effect a lot.
I'm getting altogether too much compression applied to my signal.	Back off a bit on the THRESHOLD and/or reduce the RATIO.
The compression seems to be overpowering the signal and seems to simply just reduce the volume.	Experiment with the RELEASE setting to find a more appropriate timing. The A1 and A2 automatic settings can be very helpful here.
I'm trying to compress a stereo signal but my levels are all over the place between the two channels, Left and Right.	Make sure you have pressed the LINK button to make the Left channel the main controller for both channels.
Even though I don't have the BYPASS button pressed the Compressor and Limiter aren't responding.	Both the Compressor and the Limiter have their own IN buttons. Make sure these are pressed when you want them to work.

* For any further doubts or questions please get in contact with us at: support@heritageaudio.com

WARRANTY STATEMENT

LIMITED 2 YEAR WARRANTY

Heritage Audio **HA-609A** is warranted by Heritage Audio SL to be free from defects in materials and workmanship for the period of 2 years to the original purchaser. In the event of such defects, the product will be repaired without charge or, at our option, replaced with a new one if delivered to Heritage Audio prepaid, together with a copy of the sales slip or other proof of purchase date. The warranty excludes problems due to normal wear, abuse, shipping damage or failure to use the product in accordance with the specifications.

Heritage Audio shall not be liable for damages based upon inconvenience, loss of use of the product, loss of time, interrupted operation or commercial loss or any other damages, whether incidental, consequential or otherwise.

This warranty is not transferable.

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REGISTRATION

Please visit our website: <https://heritageaudio.com/registration/>

Session / Title: _____ Track: _____ Connected Equipment: _____

Date: _____ Instrument: _____ Notes: _____

☒ Switch **ON** ☐

☐ Switch **OFF** ☐

Session / Title: _____ Track: _____ Connected Equipment: _____

Date: _____ Instrument: _____ Notes: _____

☒ Switch **ON** ☐

☐ Switch **OFF** ☐



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