

MOTORCITY EQualizer

7 BAND PASSIVE EQ
AMERICAN HERITAGE



USER MANUAL



INTRODUCTION

Thank you for choosing the **MOTORCITY Equalizer**. 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 would like to congratulate you on being the lucky owner of our MOTORCITY Equalizer, the world's first reproduction of the "Holy Grail" of classic EQ's. With its introduction the MOTORCITY Equalizer is the first member of our 'American Heritage' line of products as it's a faithful reproduction of the actual EQs from Detroit's very own MOTOWN Studios. Originally designed by in-house engineers with the idea of producing the greatest possible impact on the music they were creating that dominated the charts for over a decade. This was their secret weapon. Until now we have mainly focused on designing and manufacturing equipment inspired by legendary vintage British console modules, using the same hand-wired, transformer-coupled Class A circuitry, but also making sure they are compatible with modern day studio environments. Now we wanted some of that American flavor.

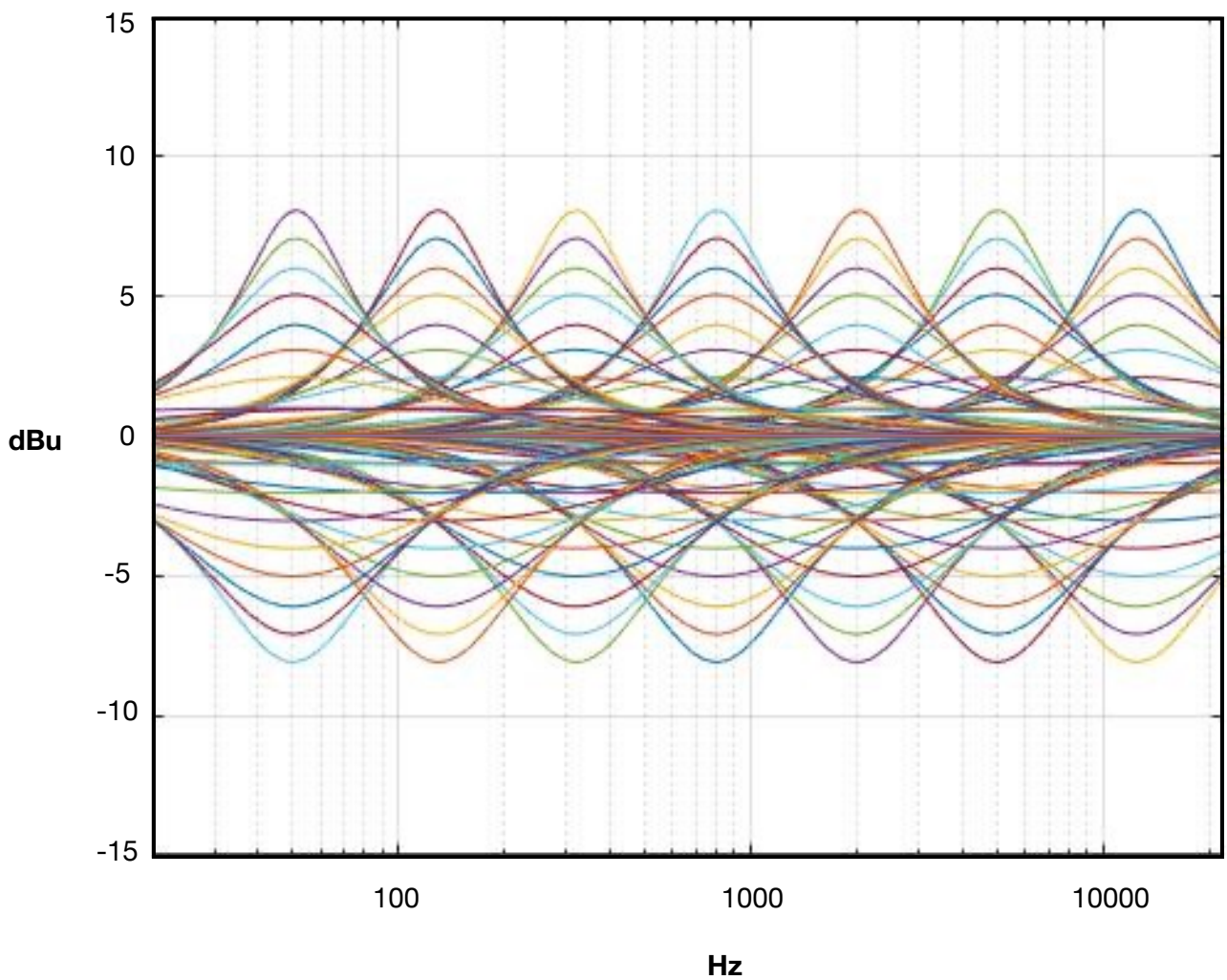
After a long gruelling process of meticulously researching and engineering everything to the exact original specifications of this iconic 1960s Motown design, we did it. We actually achieved that huge, classic, punchy, warm signature sound that has blessed so many hit records all without a hint of harshness or distortion. It wasn't easy, but it was definitely worth it. Sadly, there were only about 2 dozens of these EQs produced so we were very lucky to get our hands on 2 original Motown units owned by eight-time Grammy winning producer, mixdown artist, and innovative engineering genius Michael Brauer. With these two we were able to make a spec-to-spec copy to ensure we capture that unmistakable sound. The unique passive equalization circuit we incorporated is identical to the original design. And with the 10-gauge hand brushed aluminum face plate, historically accurate control layout including custom molded bakelite knobs, the MOTORCITY Equalizer certainly looks the part.

The MOTORCITY Equalizer is a completely analog, passive EQ design with access to seven frequency points across the tonal spectrum. Each frequency has a stepped rotary switch capable of a flat response at '0' and a cut or boost of up to 8 db in 1 dB stepped increments. As these are stepped rotary switches it's very easy to make precise settings and quick recalls. Frequency points are at: 50 Hz, 130 Hz, 320 Hz, 800 Hz, 2000 Hz, 5000 Hz, and 12,500 Hz. It also features a master gain control (± 8 dB), again in 1 dB stepped increments.

Reproducing a vintage design supposes many challenges, but one of the biggest is that it is no longer possible to obtain the original parts. Therefore, we at Heritage Audio had to have them custom built from scratch. We only used 100 % period-correct materials, values and tolerances. That means this MOTORCITY Equalizer is the real deal, not just something similar, a close copy or a 'new and improved' version of the original. You might ask why we went through so much trouble to recreate this all-time classic... Well, we couldn't say it any better than Michael Brauer himself when asked about the EQs - 'It simply got that sound!'

The MOTORCITY Equalizer really is the genuine article made available to the general public for the first time ever. Something to be celebrated for sure. For the first time in history you can incorporate this one-of-a-kind equalizer into your own setup. Now we can't guarantee you the massive string of hits that Motown had over six decades ago, but we can provide you with a tool that'll pump up your tracks with the sound that did.

MOTORCITY EQualizer



INDIVIDUAL FREQUENCY DESCRIPTIONS

50 Hz - Boost/Cut Curves

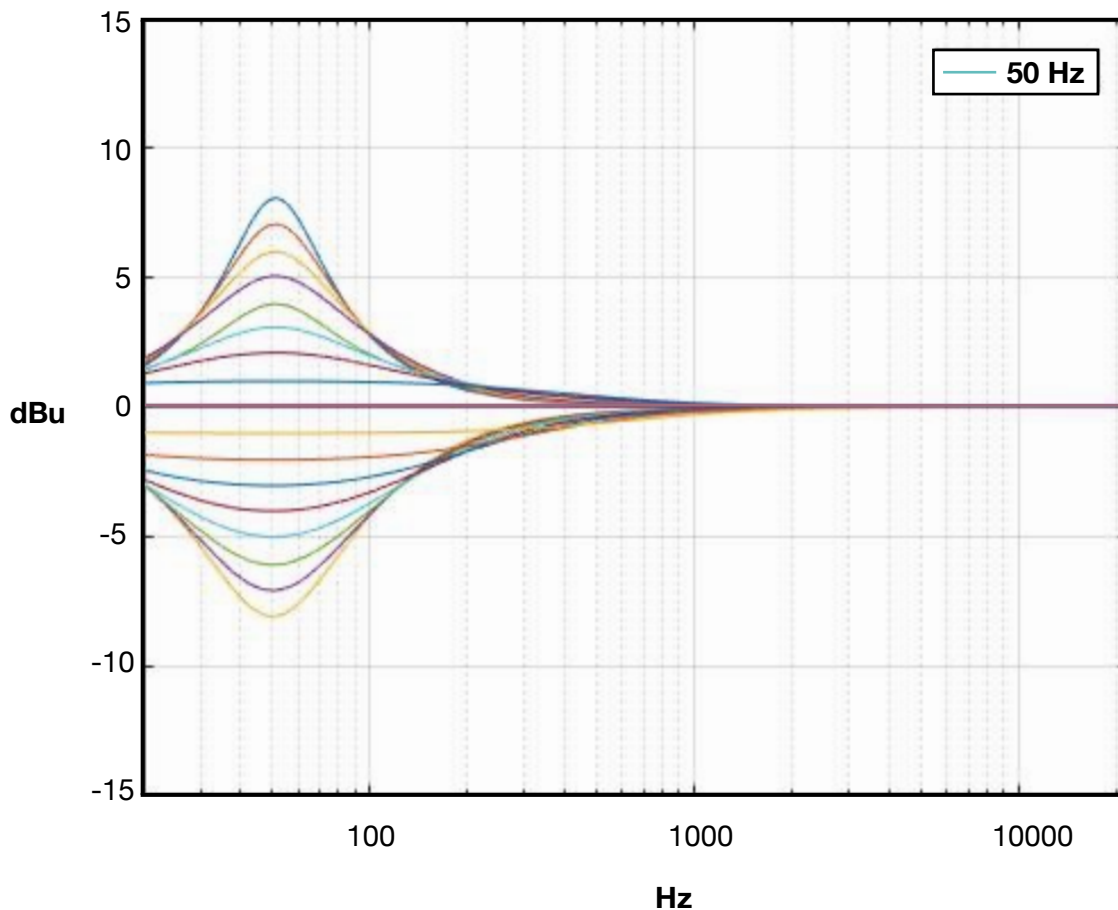


Usually felt more than heard - Adds weight & a solid foundation and hits in the chest.



Can increase Low-end rumble(noise).

SUB-BASS



130 Hz - Boost/Cut Curves

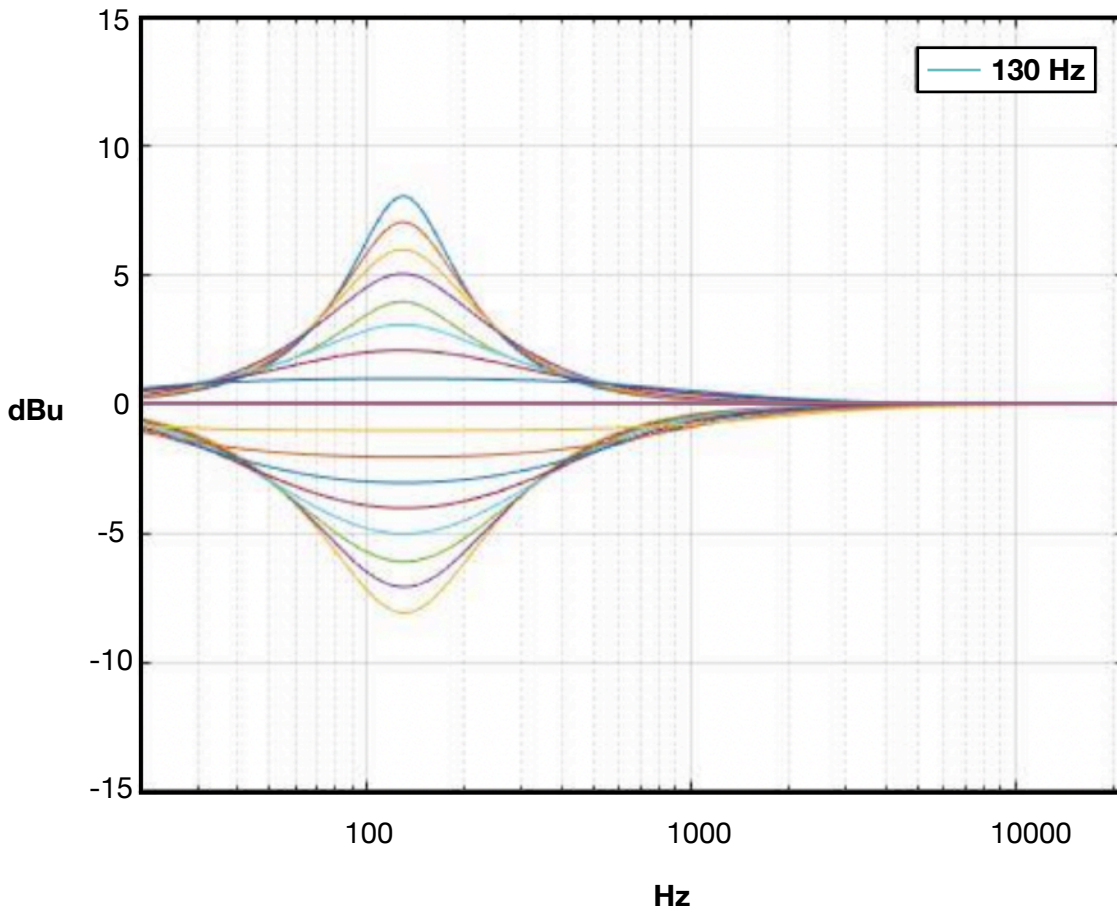


Add for warmth, deeper sound and more thump.



Too much makes things boomy, too little makes things too thin.

BASS



320 Hz - Boost/Cut Curves

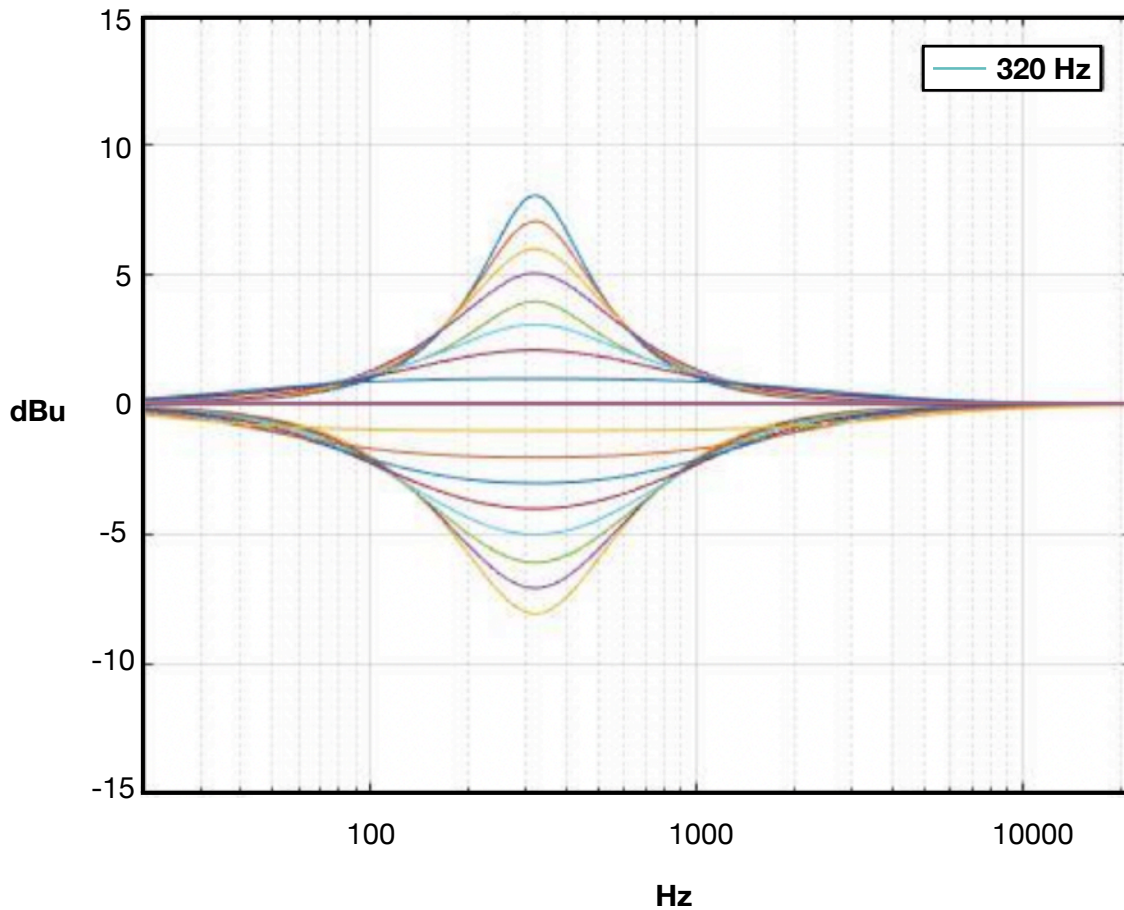


Used to add bass presence, definition and fullness.



Too much makes things muffled and muddy, too little makes things hollow.

LOW MIDRANGE



800 Hz - Boost/Cut Curves

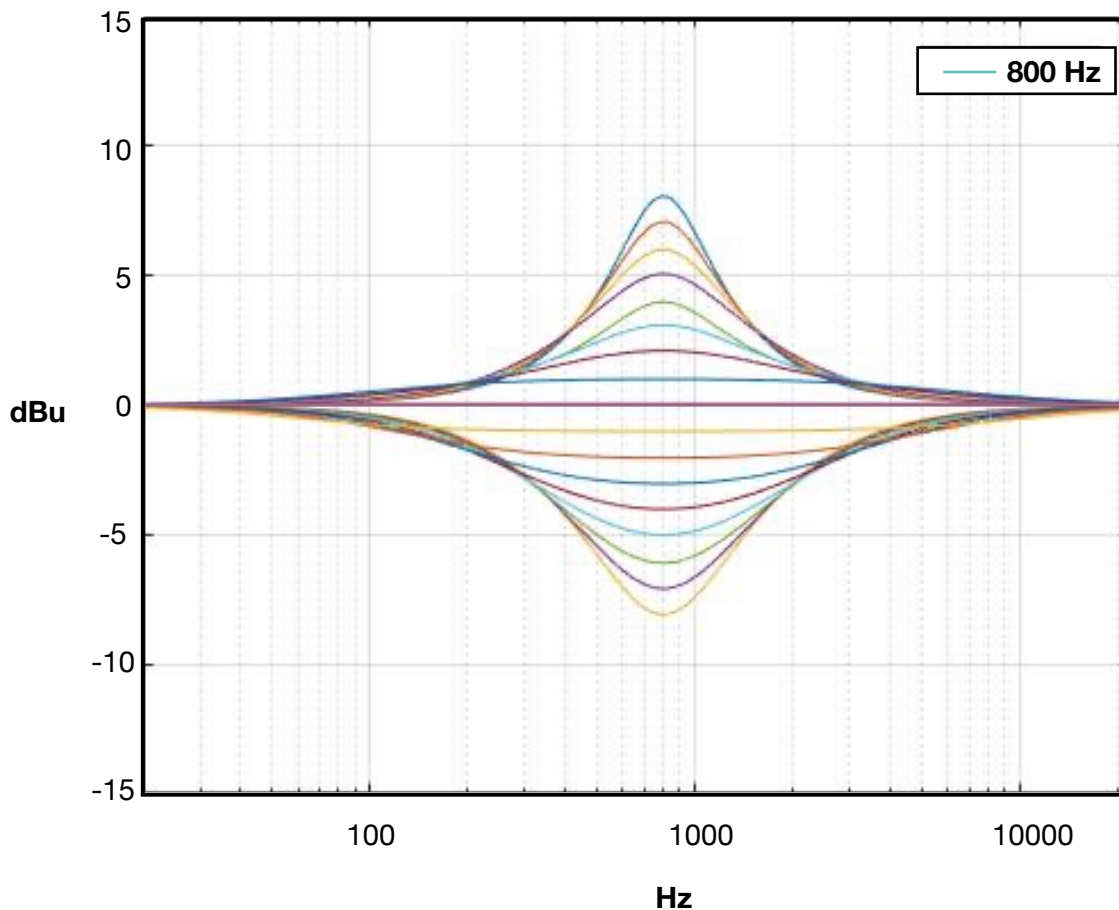


Helps to make things stand out in the mix.



Too much can produce honk and cause ear fatigue, so use carefully.

MIDRANGE



2 kHz - Boost/Cut Curves

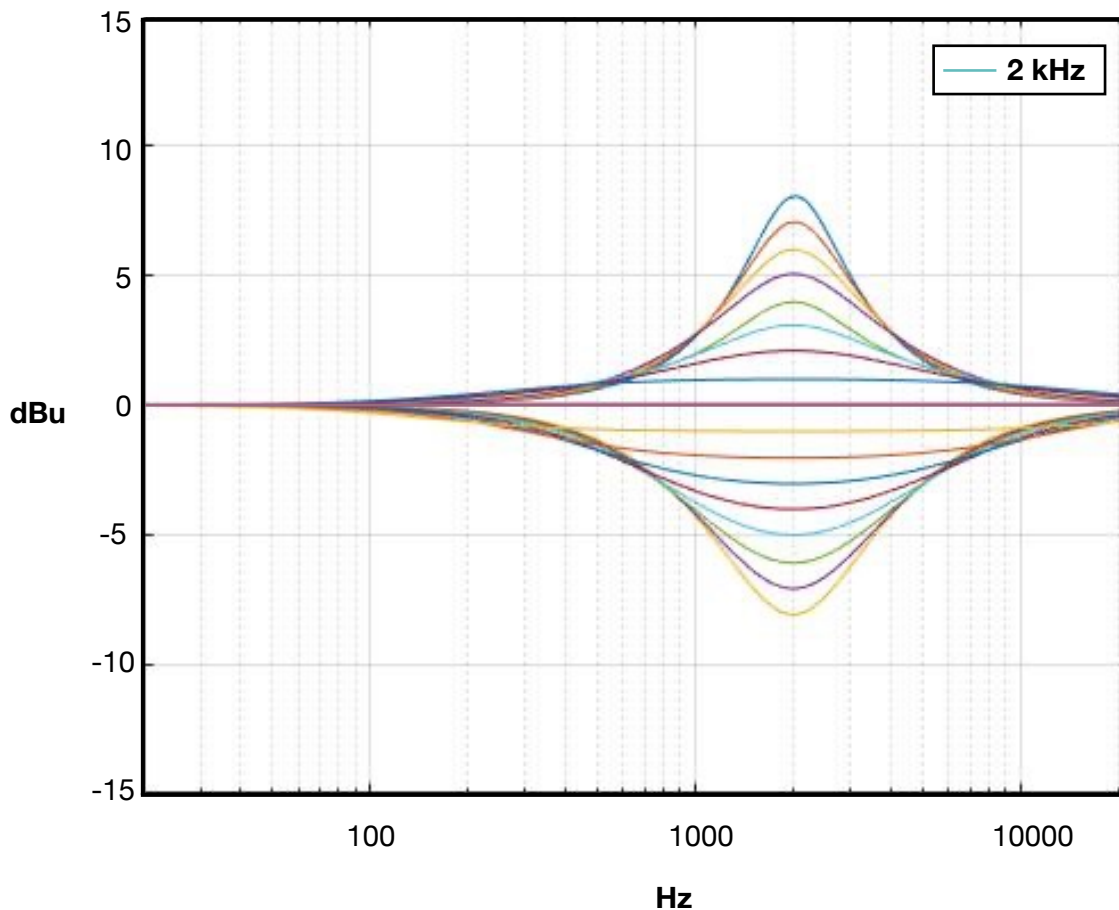


Used to add presence and definition of attacks of drums & percussion and add crunch & whack.

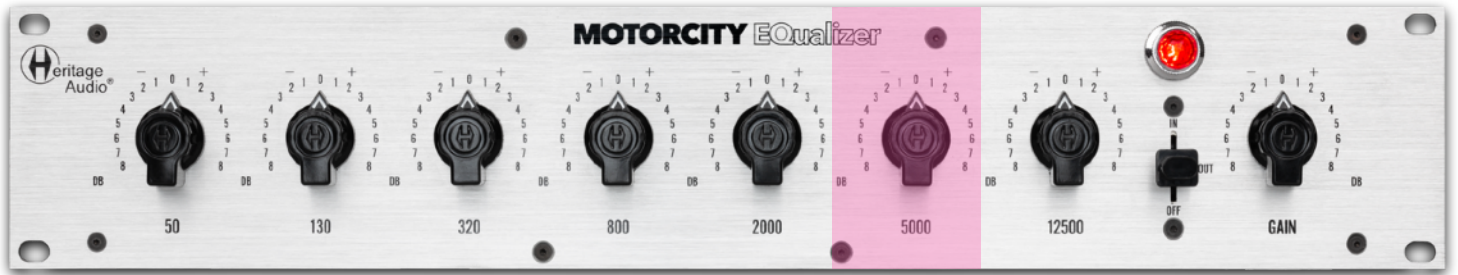


Too much will cause ear fatigue, so use carefully.

UPPER MIDRANGE



5 kHz - Boost/Cut Curves

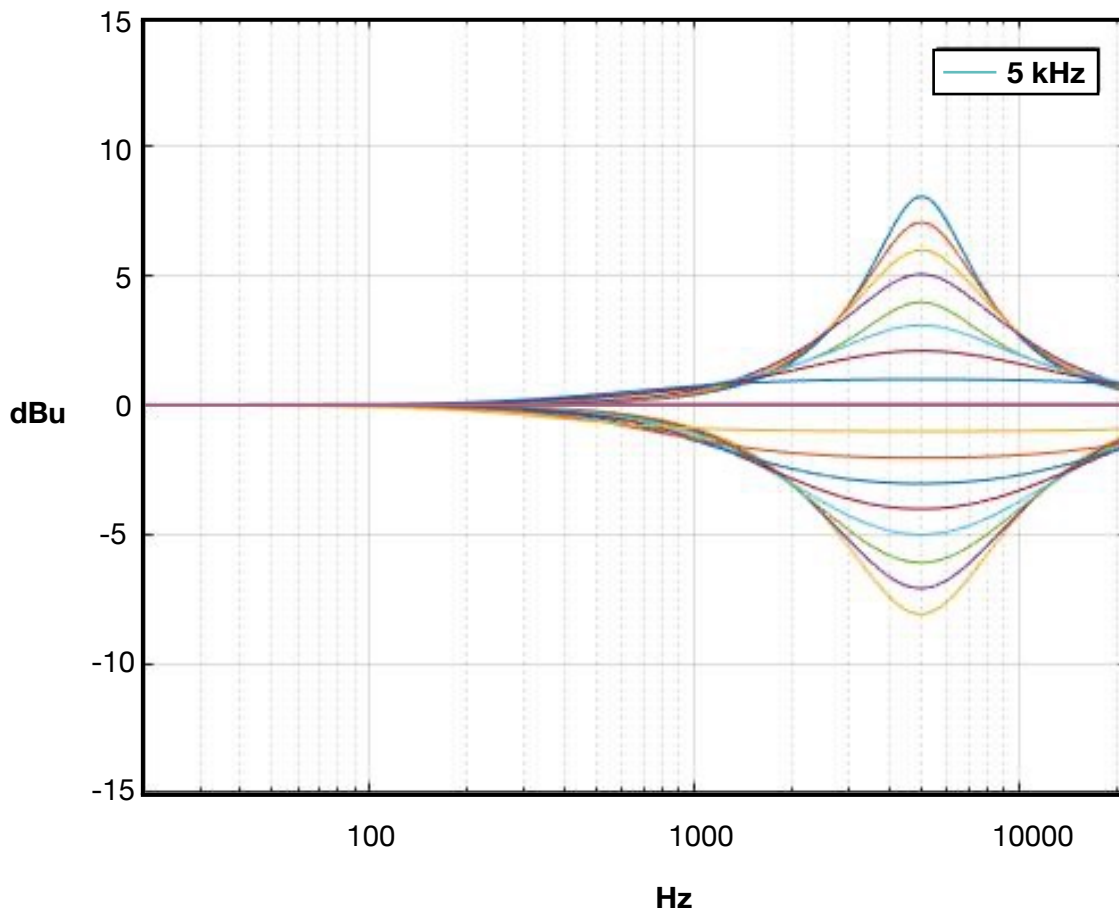


Used to add clarity to signals and give them an edge.



Too much will make things harsh and irritating while reducing will distance the sound.

PRESENCE



12.5 kHz - Boost/Cut

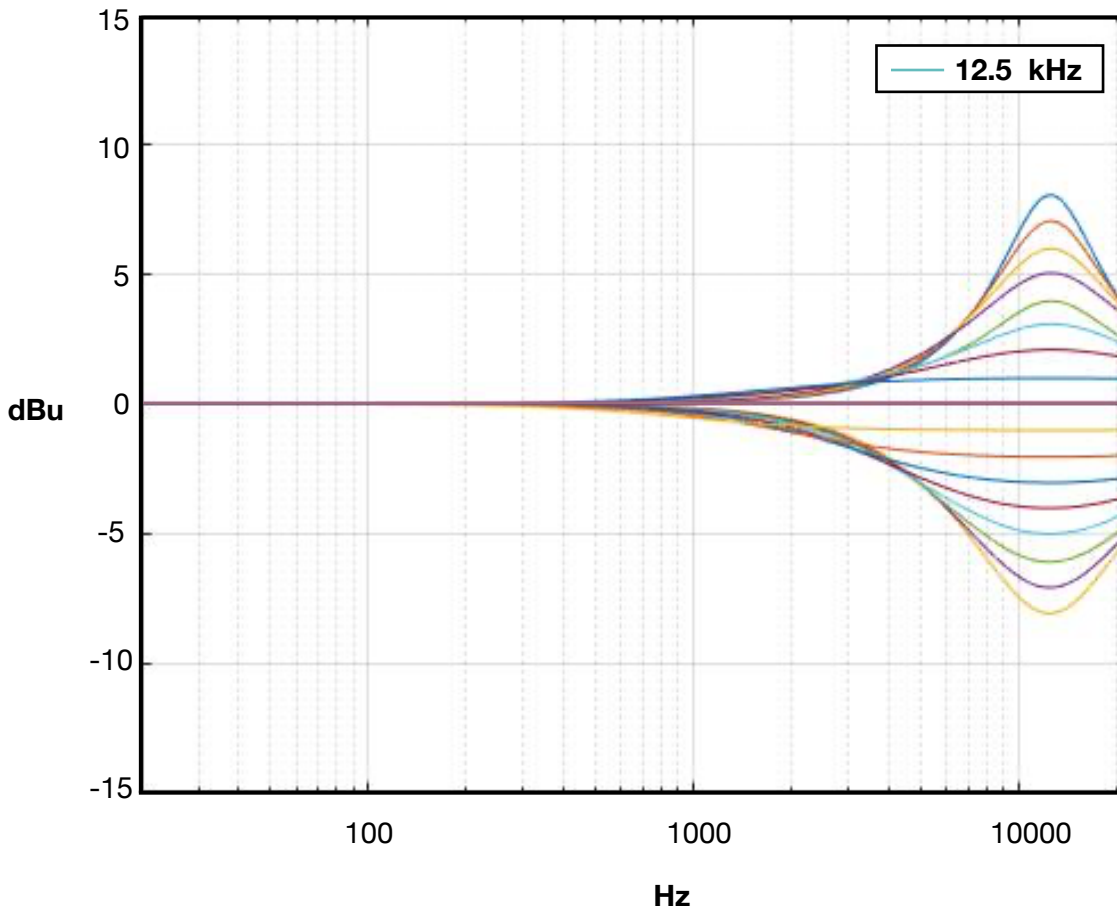


Used to make things sparkle and to add air.



Too much will accentuate hiss and cause ear fatigue.

BRILLIANCE



GETTING STARTED

FRONT



1	2	3	4	5
STEPPED ROTARY SWITCH ±8 dB at 50 Hz	STEPPED ROTARY SWITCH ±8 dB at 130 Hz	STEPPED ROTARY SWITCH ±8 dB at 320 Hz	STEPPED ROTARY SWITCH ±8 dB at 800 Hz	STEPPED ROTARY SWITCH ±8 dB at 2000 Hz
6	7	8	9	10
STEPPED ROTARY SWITCH ±8 dB at 5000 Hz	STEPPED ROTARY SWITCH ±8 dB at 12500 Hz	LEVER SWITCH ON/OUT/IN	STEPPED ROTARY SWITCH ±8 dB of GAIN	RED JEWEL Indicator light

REAR

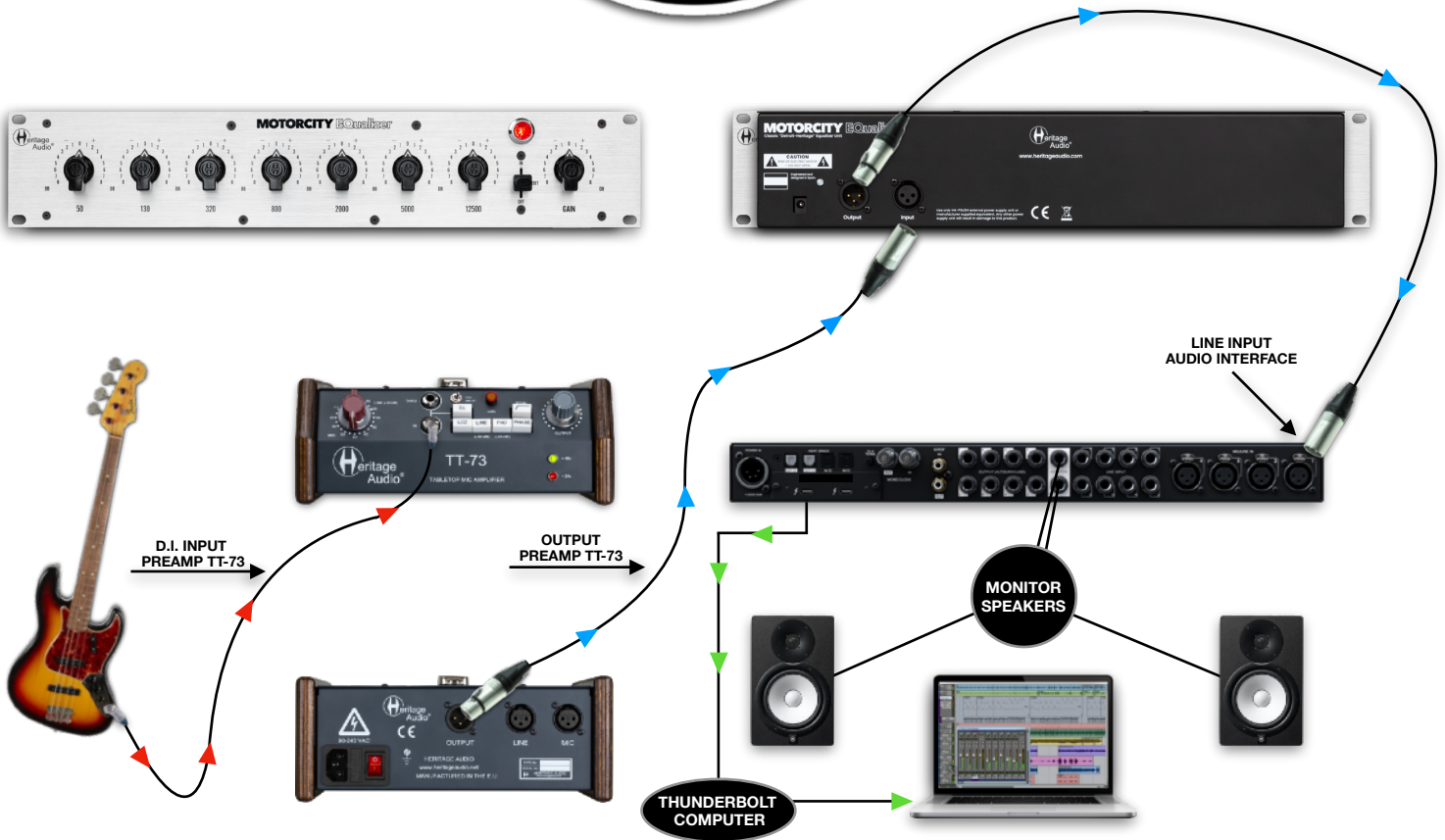


1	2	3
POWER INPUT To Be Connected to the HA PSU04 Power Supply	LINE OUTPUT Male Gold Plated XLR Connector	LINE INPUT Female Gold Plated XLR Connector

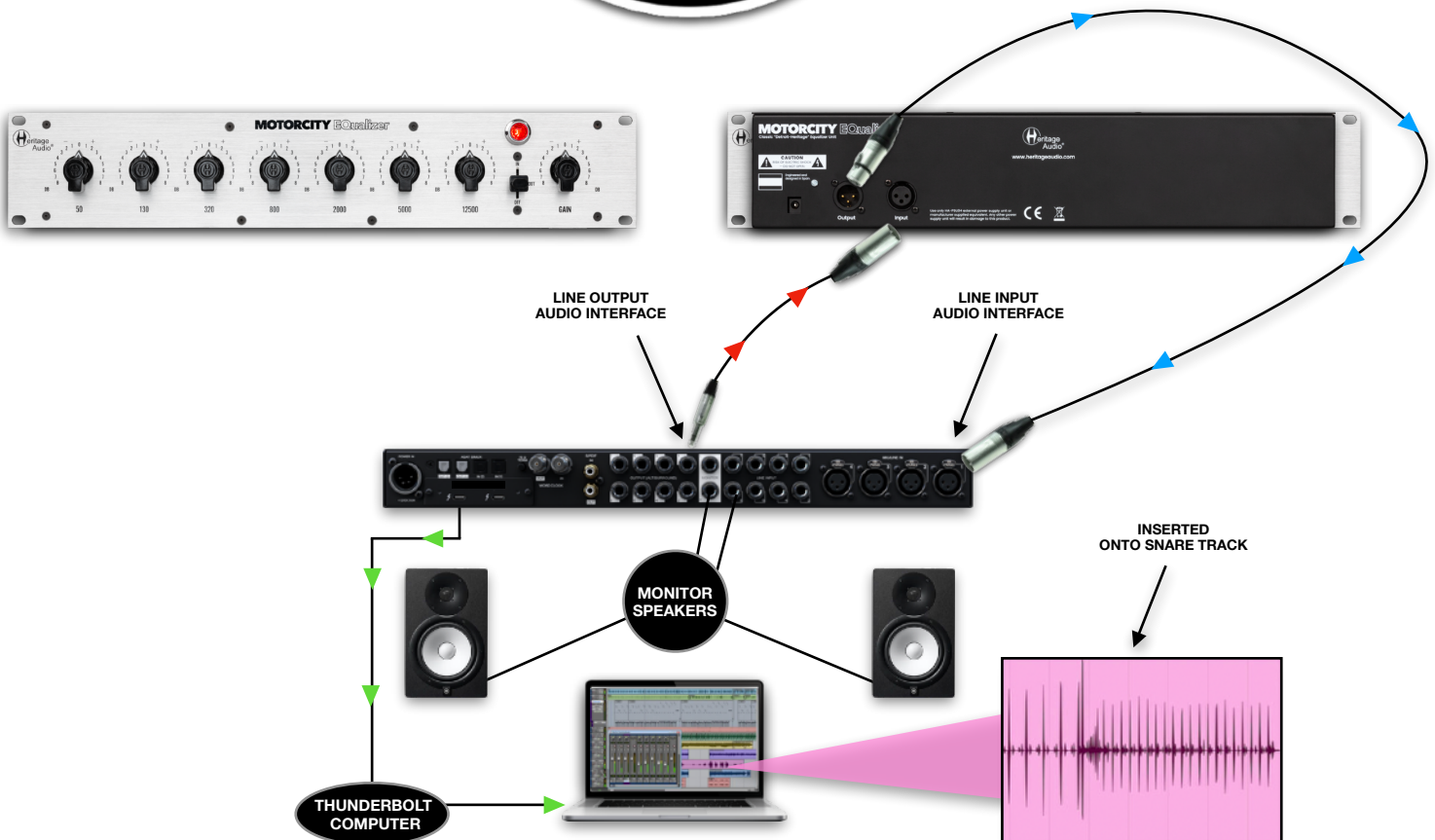
All XLRs are:	MALE XLR	FEMALE XLR
Pin 1: GND		
Pin 2: Hot		
Pin 3: Cold		

APPLICATIONS

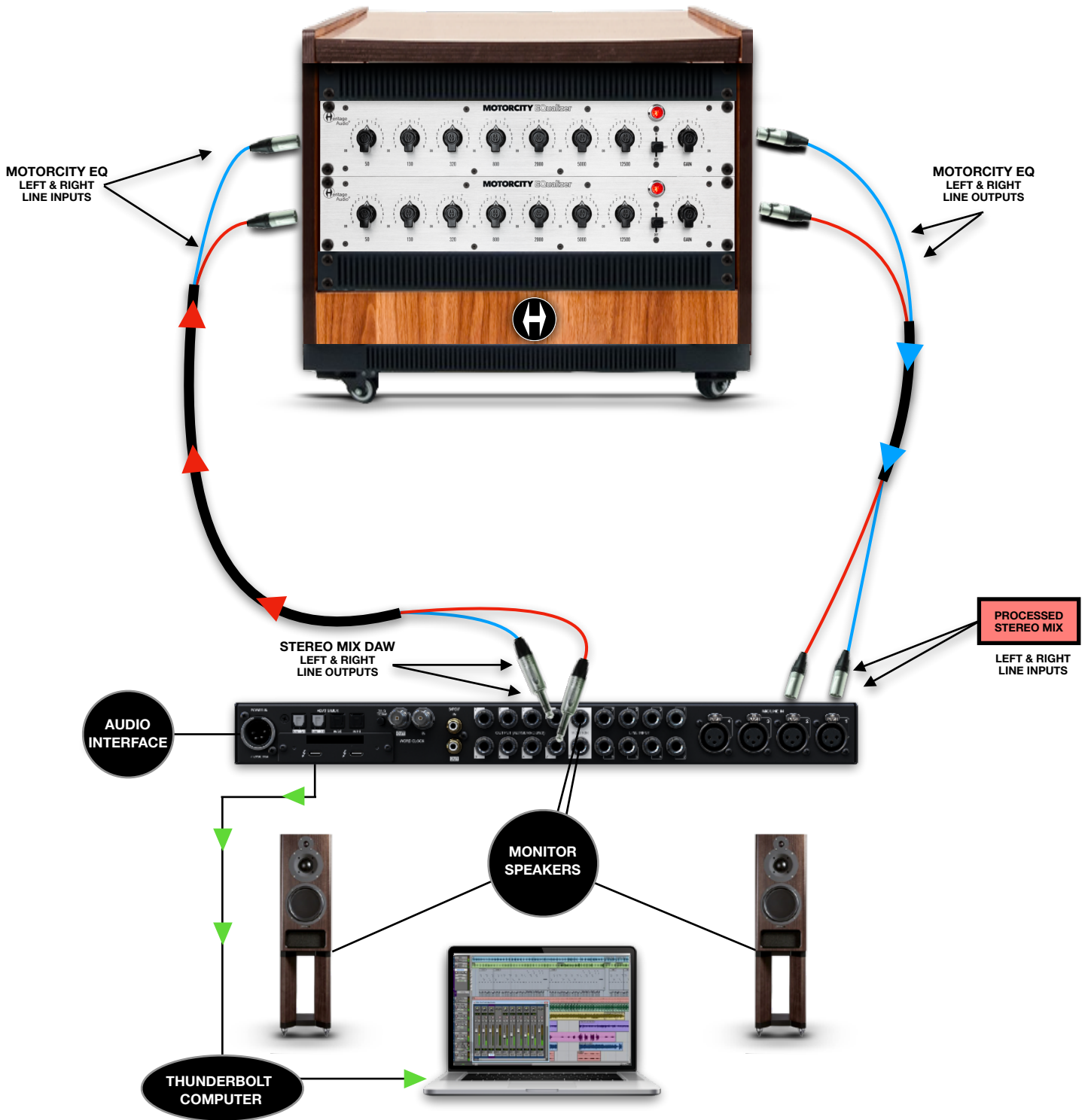
BASS RECORDING



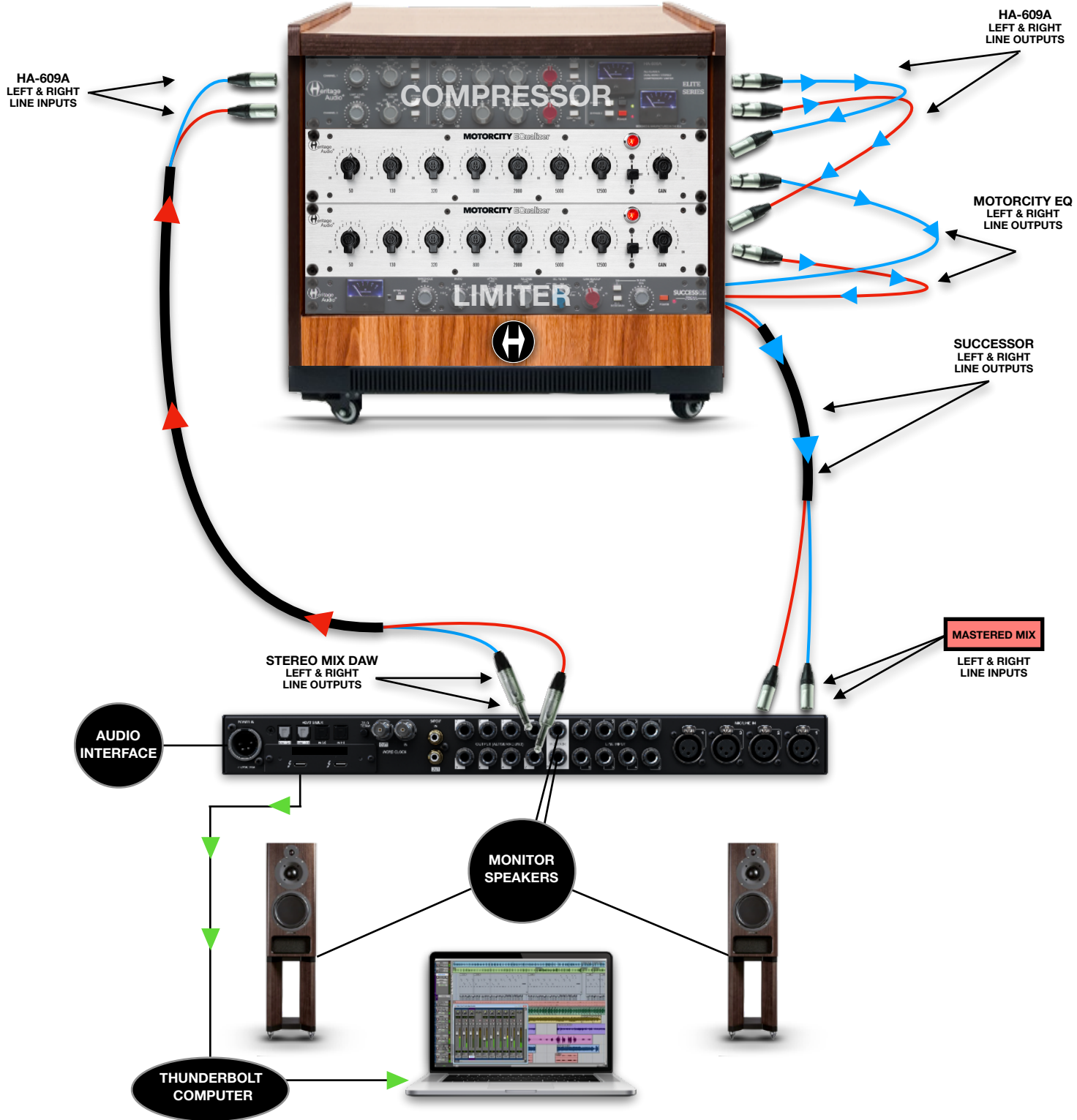
TRACK INSERT



MIX BUSS INSERT



MASTERING

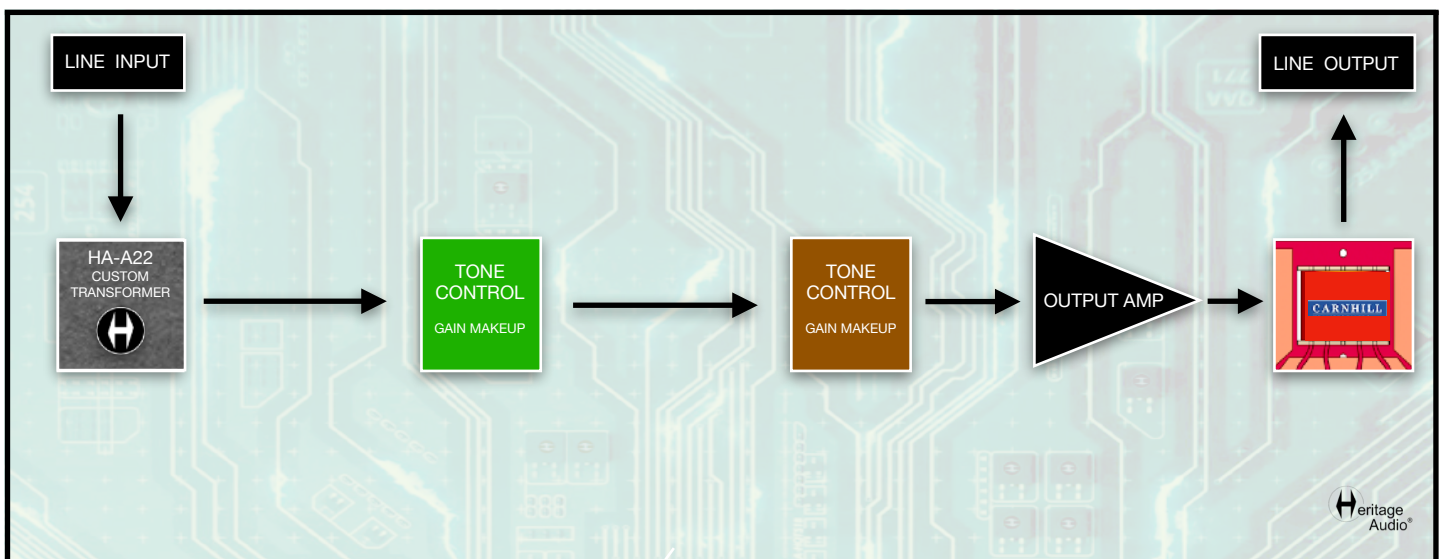


SPECIFICATIONS



- **Line input impedance:** 2400 Ω bridging, transformer balanced and floating.
- **Output impedance:** Less than 75 Ω , transformer balanced and floating, to drive a load of 600 Ω .
- **Maximum output:** Greater than +26,5 dBu into 600 Ω (internally terminated).
- **THD:** Less than 0,025 % at 1 kHz, Less than 0,05 % at 100 Hz.
- **Frequency response:** 20 Hz (+0,3 dB) to 20 kHz (-0,2 dB).
- **Self noise:** Less than -100 dBu.
- **Power consumption:** Less than 90 mA @ 48 V DC.
- **Dimensions (W x H x L):** 482 mm x 116mm (2 Rack units) x 381 mm..
- **Weight:** 6,8 Kg.

SIGNAL FLOW



TROUBLE SHOOTING



PROBLEMS	SOLUTIONS
Applying Cut and Boost to the frequencies doesn't have any affect on the signal.	Make sure the MOTORCITY Equalizer isn't in OUT mode.
There is a very distorted signal being outputted from the unit.	Check to see if you have left the OUTPUT GAIN knob in too high of a position.
There is almost no output signal at all.	Check to see if you have left the OUTPUT GAIN knob in too low of a position.
When I activate the equalizer there is just too much of an increase in the signals volume.	Adjust the OUTPUT GAIN knob to a lower position to compensate for any big equalizer adjustments of frequencies.
When I activate the equalizer there is just too much of a drop in the signals volume.	Adjust the OUTPUT GAIN knob to a higher position to compensate for any adjustments made to frequencies.
The MOTORCITY Equalizer just makes every track sound too good.	Be thankful you finally have the 'Holy Grail' of EQs at your fingertips.

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

WARRANTY STATEMENT

LIMITED 2 YEAR WARRANTY

Heritage Audio **MOTORCITY EQualizer** 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.

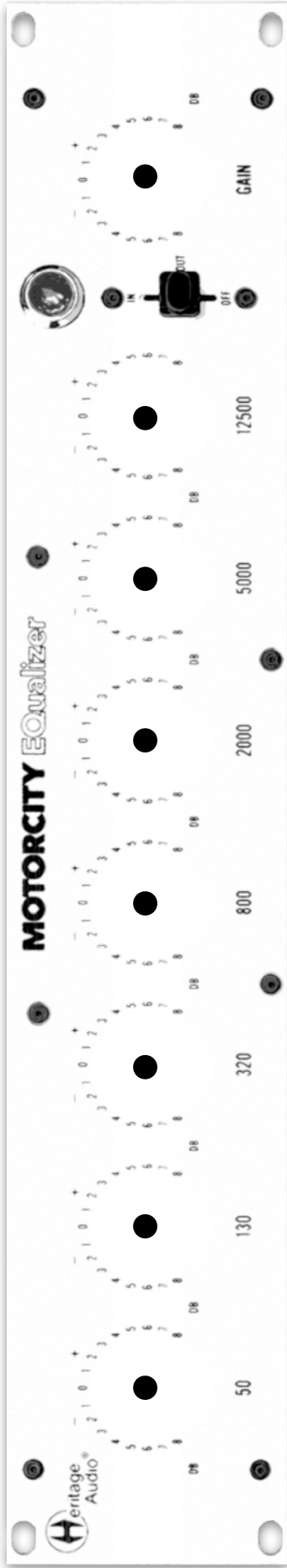
This warranty is not transferable.

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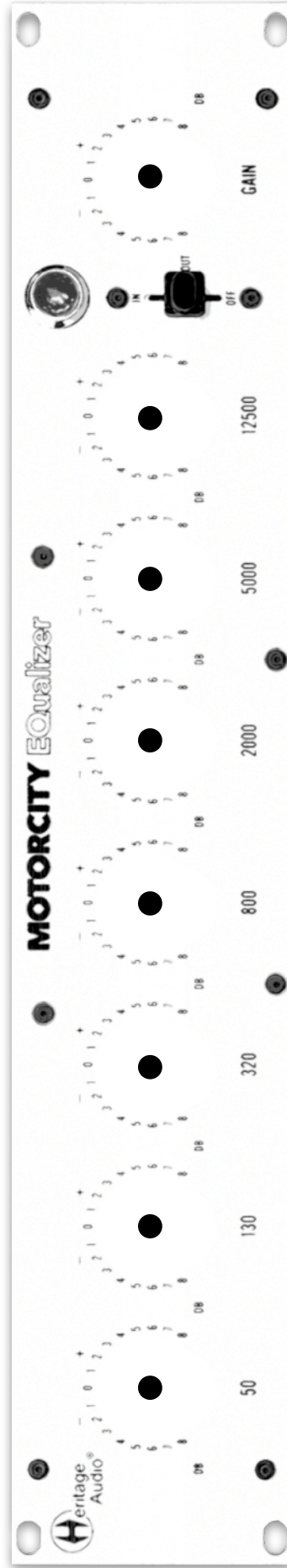
REGISTRATION

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



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

Date: _____ Instrument: _____ Frequency: _____ Notes: _____



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

Date: _____ Instrument: _____ Frequency: _____ Notes: _____



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