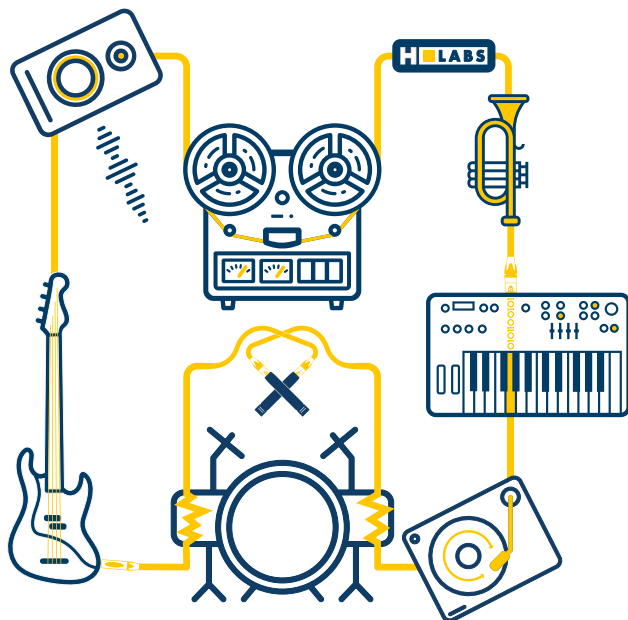


H LABS

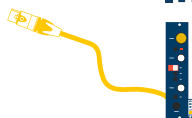
EQ169+

Mastering EQ

USER MANUAL V7.25



**Get the best sound.
In any situation.**



Plug an H Labs.

INTRODUCTION

The EQ169+ is a mono mastering-grade EQ inspired from the legendary Studer® 169 mixing console.

It delivers the exact same smooth curves and mellow sound with increased versatility and performance : fully stepped controls, dual gain range (± 5 or ± 15 dB), additional high-pass filter, output gain...

It's the perfect tool for shaping 2-track masters, drum buses and instrument tracks in a natural way, whether you're performing live or in the studio.

Precise matching between units allows users to achieve perfect stereo work with a pair of EQ169+ units, as well as working in Mid/Side configuration.

WHY A MONO UNIT?

As a mono unit, the EQ169+ is a very flexible unit, offering a high build quality & perfect sound in all situations.

When operating in a mastering chain, the dual mono setup ensures perfect channel separation (zero crosstalk) and better SNR thanks to the separated PCBs and power supplies.

It will adapt to your setup, whether you're working on stereo, Mid/Side or both, without the need for yet another matrix in the unit.

But also, remember that the EQ169+ is a fantastic tracking EQ that will shine on many instruments, whether to shape the lows on a kick drum, to sublimate a voice or give some air to an acoustic guitar...

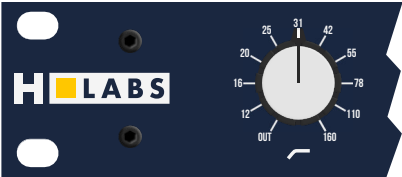
MAINTENANCE

Thanks to their modular design using mainly old school THT components, our products are robust and will be easily serviced for decades. Our aim is to ensure that our products stand the test of time and become future classics.

Feel free to contact us for any maintenance operation or spare parts, we will always be there to help.

⚠ Safety first! This equipment operates at high voltage. Only qualified electronics technicians should open the device for maintenance.

HIGH PASS FILTER

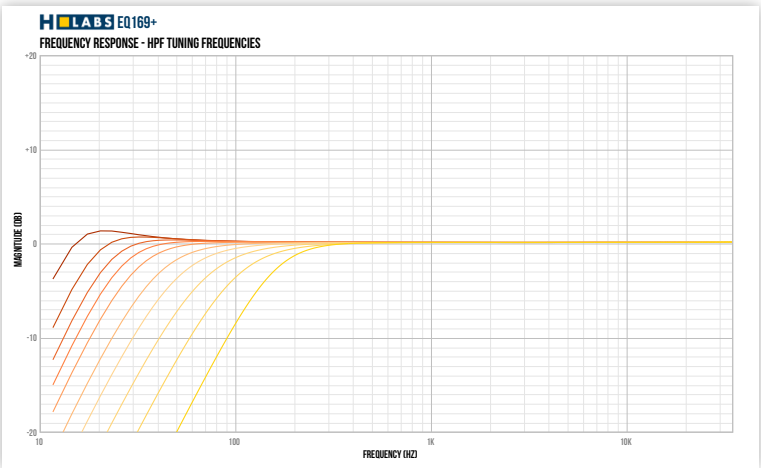
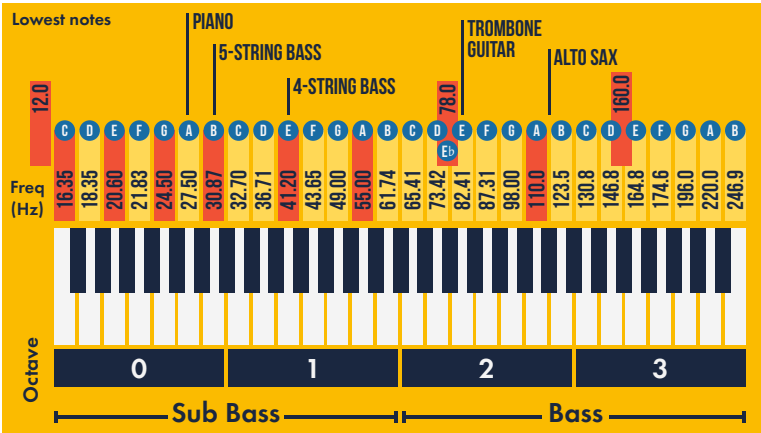


In addition to the 3 EQ bands featured on the original Studer® 169 console, we added a variable high-pass filter on the EQ169+ to get more options on shaping and/or cleaning the low frequencies.

Our innovative "Low-Resonance" design offers a beautiful musicality to this circuit.

In the **OUT** position, the HPF is completely bypassed.

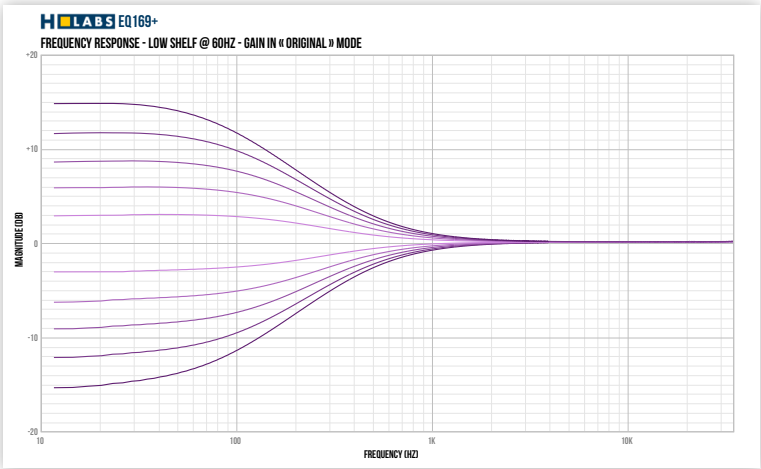
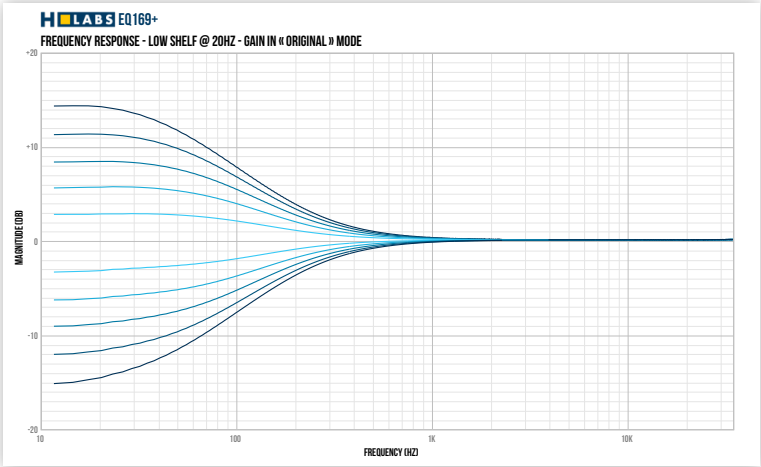
All the HPF frequencies are marked for their -3dB point. They have been carefully selected to be useful & musical, whether for tracking or mastering.



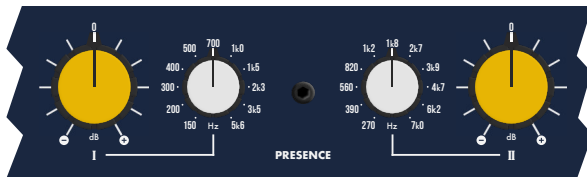
LOW SHELF



The Low Shelf band features the original 20Hz tuning and an additional 60Hz setting for extended possibilities.

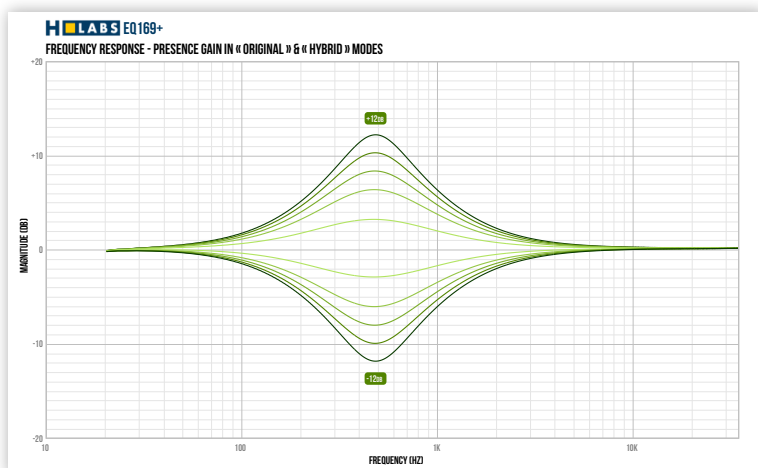
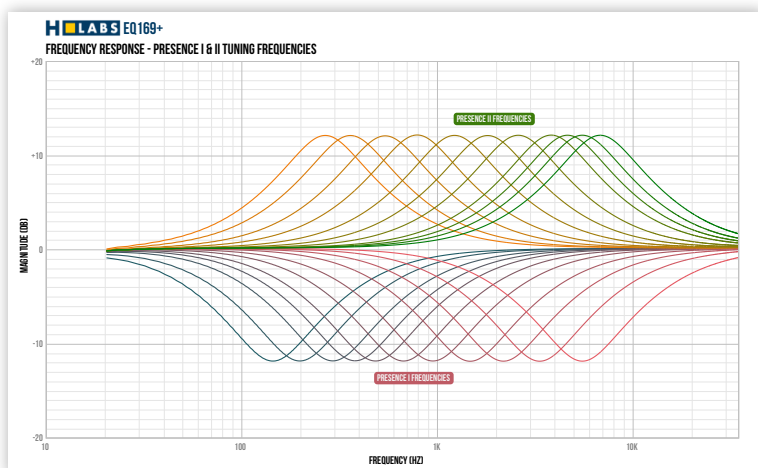


PRESENCE BANDS



The original Presence band has been splitted in two, for more tuning possibilities.

With a total of 22 frequencies inspired by the most famous classic EQs, ranging from 150 to 7,000 Hz, users can boost and/or cut within a broad medium-frequency band. The wide Q factor (≈ 1.0) delivers an always smooth sound.



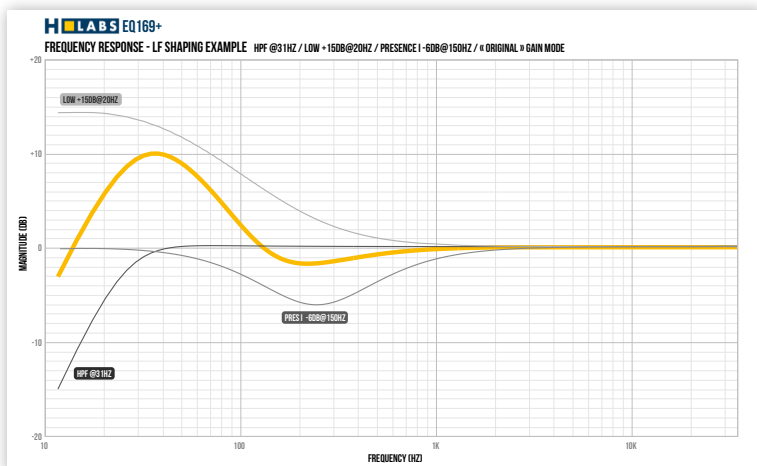
SHAPING THE LOWS

By manipulating the High-Pass Filter, the Low-Shelf and one of the Presence bands, you can create unexpected EQ curves to shape the low end.

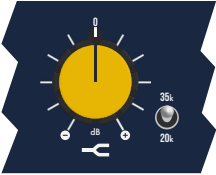
The HPF will be particularly useful in taming the 15dB of gain offered by the Low-Shelf, resulting in a more or less conventional bell curve.

Furthermore, the presence band has the potential to narrow the Q of this bell.

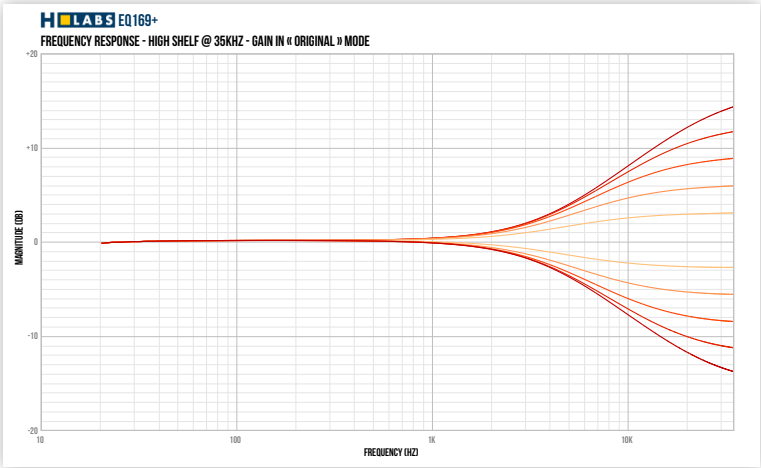
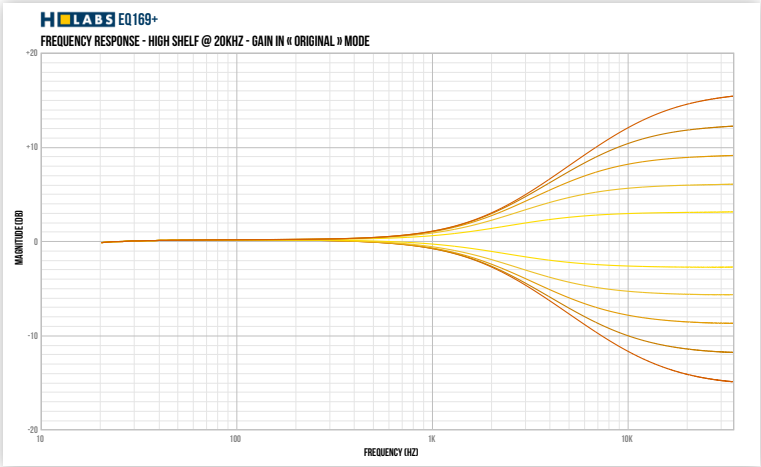
The example below shows the results of setting the high-pass filter (HPF) to 31Hz, applying +15dB of gain to the low shelf at 20Hz and -6dB of gain to the Presence I at 150Hz. An interesting curve for a deep kick drum, for example!



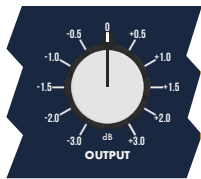
HIGH SHELF



The High Shelf band features the original 20kHz tuning and an additional 35kHz setting. The last one will put some « air » on your music, without affecting too much the mids.

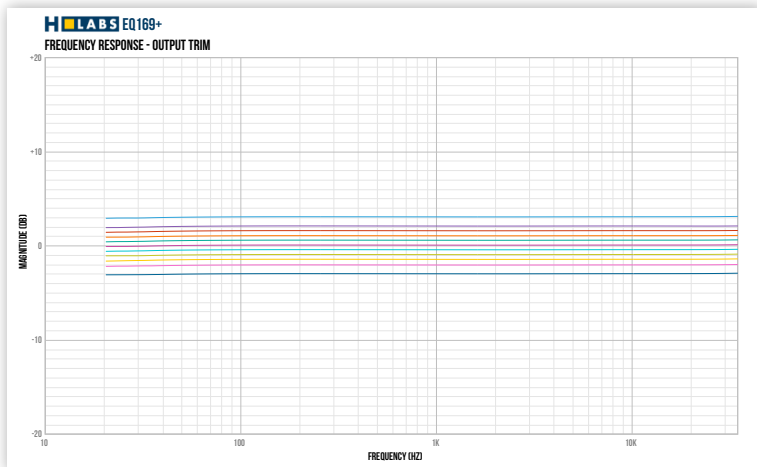


OUTPUT TRIM



The **OUTPUT TRIM** will help maintain equivalent sound levels with and without EQ for an easy comparison using the **BYPASS** switch.

Extremely precise with its **0.5dB** range, it was designed to be perfectly transparent to the sound.



BYPASS



The EQ169+ features a relay-operated **BYPASS**.

The **green** LED indicates that the signal is processed by the EQ. It will turn **red** when the bypass is engaged.

EQ GAIN MODES



You can switch between 3 different modes affecting the gain applied on each EQ band (all the yellow knobs in fact).

The **ORIGINAL** mode keep the same gains as in the original Studer® circuit :

±12dB on Presence | ±15dB on Shelves

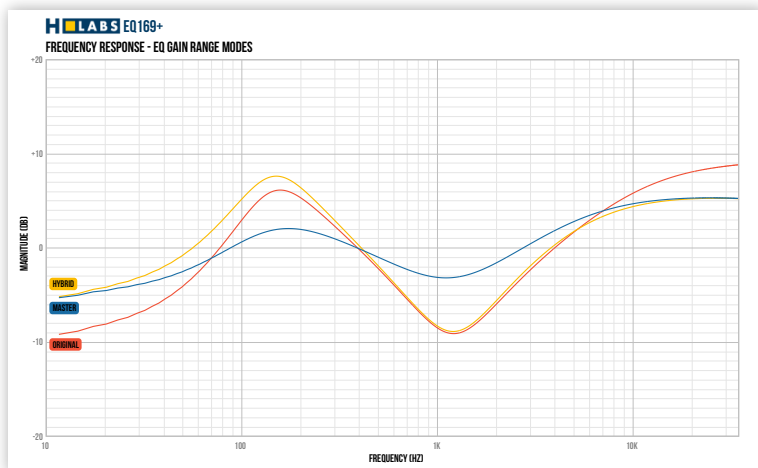
The **MASTER** mode provides precise control over the gain of all four bands, enabling fine-tuning essential for most mastering applications.

±5dB on Presence | ±5dB on Shelves

The **HYBRID** mode is an interesting alternative that offers a wide gain range on the Presence bands, while also providing precise control over the High and Low shelves. We found this option to be particularly effective when used on a drum bus or room mic, for example.

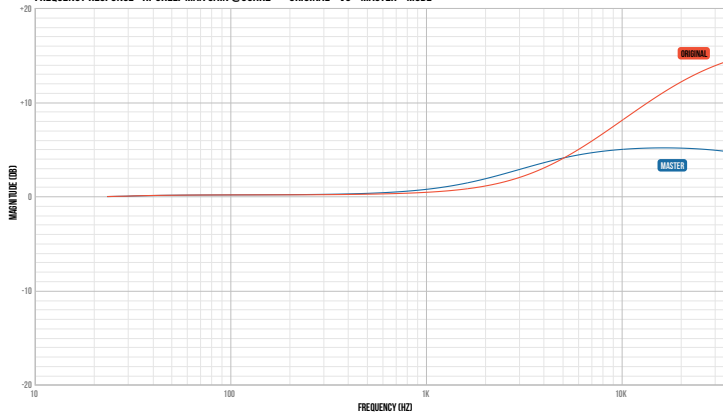
±12dB on Presence | ±5dB on Shelves

You will find below a few examples showing the different curves of the different modes.



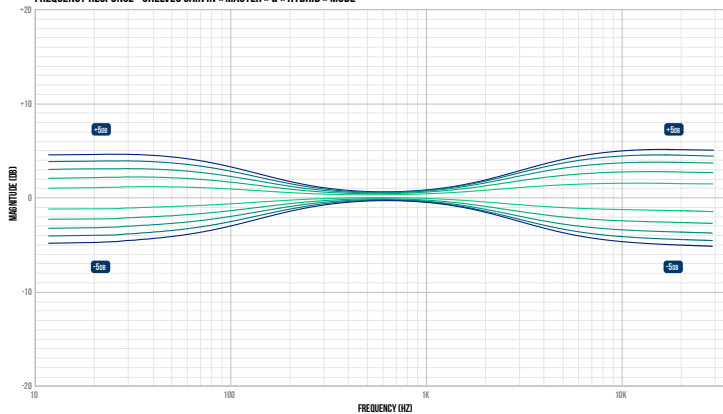
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FREQUENCY RESPONSE - HI-SHELF MAX GAIN @35KHZ - « ORIGINAL » VS « MASTER » MODE



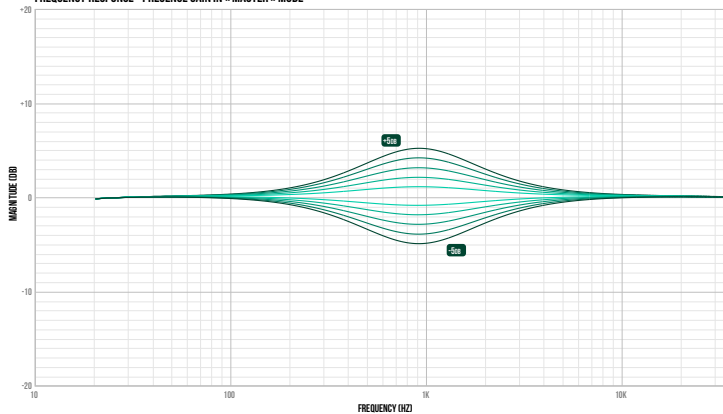
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FREQUENCY RESPONSE - SHELVES GAIN IN « MASTER » & « HYBRID » MODE



H LABS EQ169+

FREQUENCY RESPONSE - PRESENCE GAIN IN « MASTER » MODE



POWER SUPPLY & GROUND LIFT



POWER SUPPLY

We integrated a worldwide compatible power supply, so you can just plug it in without thinking.

i For the most demanding applications, this socket is compatible with secured V-LOCK® power cables (available from our shop).

GROUND LIFT

Use the ground lift to remove unwanted noises from ground loops.

SPECIFICATIONS

- ▶ **Fully stepped** with 11-positions switches behind each knob
- ▶ Transformerless input & output for a transparent sound
- ▶ Max level (input & output) : +22dBu
- ▶ Input impedance: 48k Ω
- ▶ Output impedance: 50 Ω
- ▶ 0.005% THD @ 0dBu
- ▶ Frequency response (1k Ω load): ± 0.1 dB from 5.4Hz to 25kHz+ (our Audio Precision can't measure above 25kHz ☺)
- ▶ SNR : >108dB (0.2% THD)
- ▶ Relay operated bypass circuit
- ▶ Neutrik XLR inputs & outputs
- ▶ Earth lift on the output to avoid ground loops
- ▶ Worldwide compatible power supply: 100-240V | 50-60Hz
- ▶ Dimensions (1U rack) : 483x260x44mm | 19.0x10.2x1.7in
- ▶ Weight : 3.8kg | 8.4lb
- ▶ Optional accessory : V-LOCK power cable

Designed and assembled in our workshop in Saint V rand (France).



THANK YOU

FOR USING OUR ANALOG AUDIO TOOLS



For any question,
feel free to contact us at
support@hlab.audio

H LABS
hlab.audio