



GLA-TS1 WIZARD



PLEASE NOTE THAT THE GLA-TS1 WIZARD IS INTENDED FOR PROFESSIONAL USE. IT'S NOT A CONSUMER ELECTRONIC DEVICE. ITS INSTALLATION AND USE REQUIRE CERTAIN PROFESSIONAL SOUND ENGINEERING KNOWLEDGE AND SKILLS. LACK OF THIS KNOWLEDGE MAY RESULT IN MALFUNCTION, DAMAGE OR PERSONAL INJURY.

Op

OPERATION AND SAFETY PRECAUTIONS

- Use only grounded electrical outlet!
- Do not open the device and don't do any modifications on it!
- Do not attempt to repair or replace any of the components unless specifically instructed to do so in this guide.
- Pay attention to not put any solid matter (flammable things, coin, nail etc) or liquid (water, alcohol etc.) inside device.
- Do not twist or break the power cord or place heavy objects on it. Doing so may damage the cable and cause a short circuit. Damaged cables can cause fire and electric shock!
- Protect the device from intensive external shock! (for example: falling down)

Never use the device in following conditions:



- Extreme temperature
- Moisture
- High humidity
- Rain
- Dust
- Heavy vibration

In the following cases, turn off the machine immediately, unplug the power cord, and contact us (support@gainlabaudio.com):

- If the mains plug of the appliance is damaged
- If you notice smoke or an unusual odor
- If any object or liquid gets inside the device,

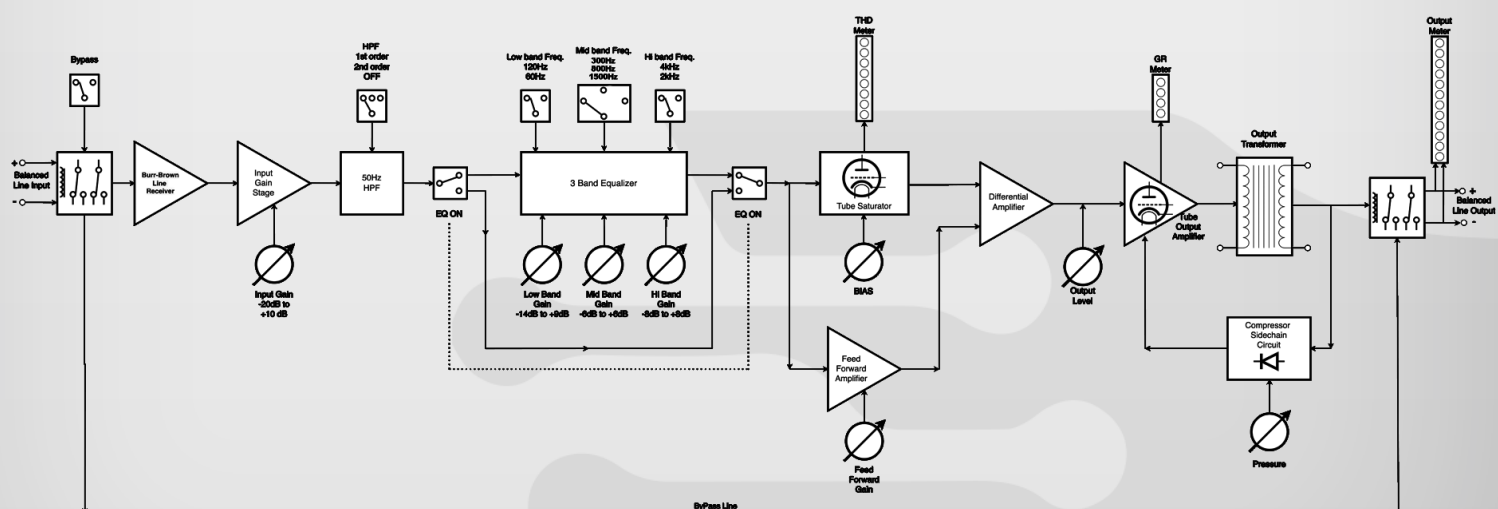
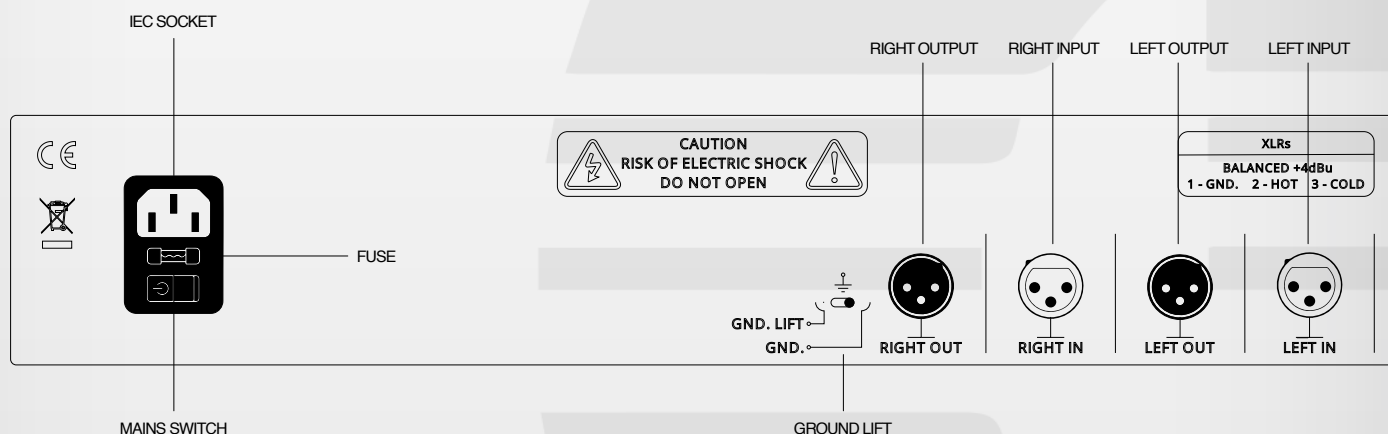
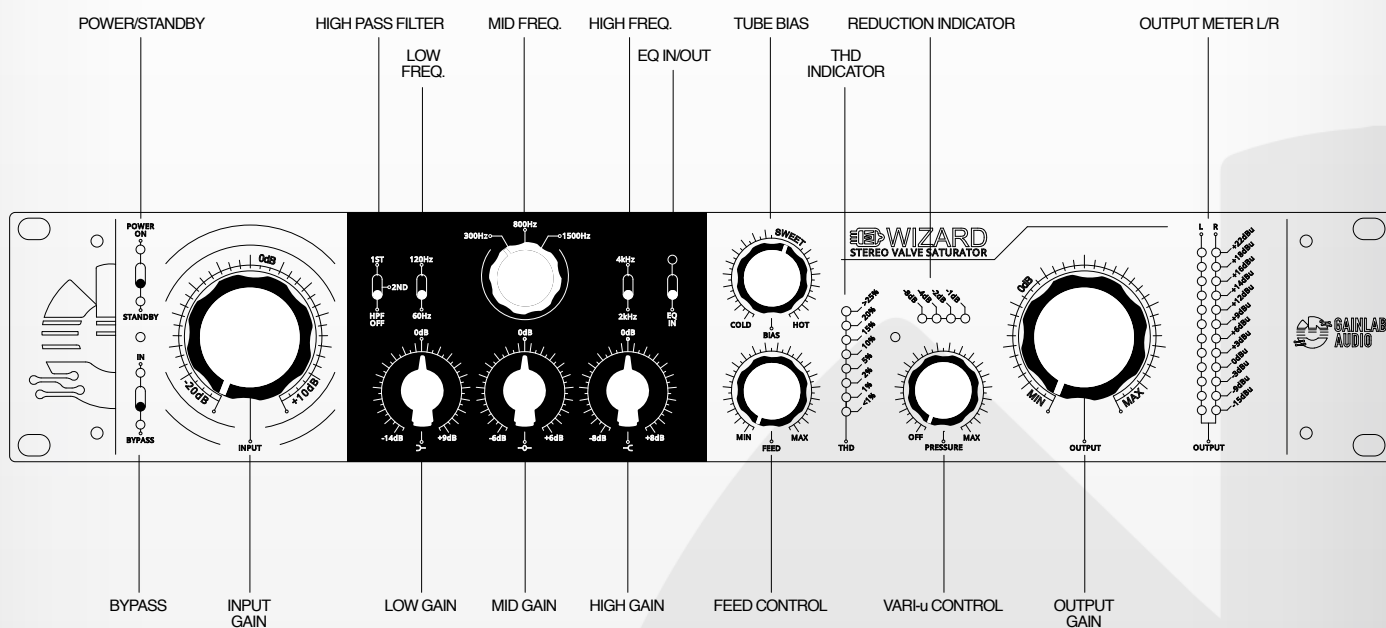
- If the device has been exposed to rain or other moisture,
- If the device does not operate normally
- Do not connect the appliance to a mains socket to which an electrical appliance controlled by an inverter, switching power supply (eg. refrigerator, washing machine, microwave, air conditioner) or a appliance with a motor is connected.
- Depending on the use of the electrical devices, power supply noises may cause a malfunction or audible noise on this unit. If a separate electrical outlet cannot be used, connect a noise filter between this and the other electrical appliance.
- The unit heats up during several hours of continuous operation. This is normal and not a cause for concern.
- Turn off all devices before connecting the device to other devices. This will prevent damage to speakers and other equipment.
- Use of the unit near amplifiers or other equipment that contains a transformer may cause noise. To resolve this issue, relocate the device or move it away from the interfering device.
- Noise may be caused by using a wireless communication device near the device, such as a mobile phone. Such noise can occur when making, receiving, and diverting a call. If you experience this problem, move the wireless device away from the device or turn it off.
- This unit may interfere with radio and television operation, so do not use near such receivers.
- If the device is transported to a location with a very different temperature and / or humidity, moisture may condense inside. Using the device in this condition may result in damage or malfunction. Therefore, wait a few hours for the moisture to completely evaporate before using the appliance.

CI CLEANING AND MAINTENANCE

Clean the appliance daily with a soft, dry or slightly damp cloth. Use a soft, abrasion-free cloth to remove stubborn dirt. Then wipe the device with a dry cloth. Never use benzine, thinner, alcohol or other solvents, strong alkaline or acidic cleaners as they may cause discoloration and deformation.



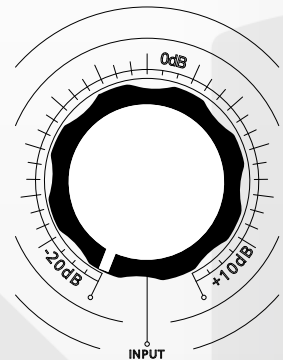
OVERVIEW



DURING THE WARM-UP PERIOD, THE REDUCTION METER OF THE WIZARD SLOWLY RETURNS FROM ITS MAXIMUM POSITION TO ITS IDLE STATE. ONCE THIS IS COMPLETE, ALL FUNCTIONS ARE FULLY OPERATIONAL. FOR OPTIMAL PERFORMANCE, WE RECOMMEND ALLOWING THE UNIT TO WARM UP FOR FIFTEEN MINUTES BEFORE USE.

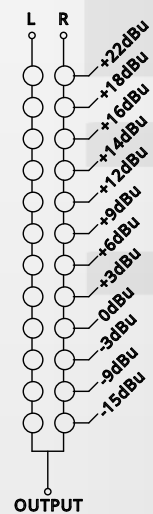
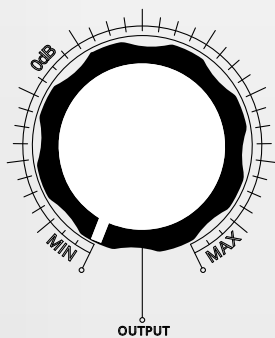
In INPUT GAIN

This is one of the most essential controls on the Wizard. The amount of saturation added to the signal is primarily determined by how much level you feed into the unit. Turning the input gain counterclockwise results in a cleaner signal with less harmonic content. Turning it clockwise increases the input level, pushing the tube stage harder and producing more noticeable saturation. Use this control to set the desired amount of coloration based on your source material and processing intent.



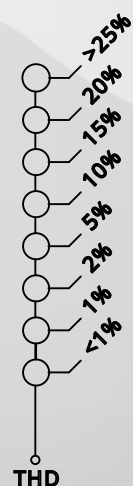
Og OUTPUT GAIN

The Output Gain control works in tandem with the Input Gain. It allows you to attenuate the output level of the Wizard to a healthy signal level that can be safely accepted by the next device in the signal chain. For this reason, it is recommended to use the Input and Output Gain controls together. This way, you can achieve the desired amount of saturation while maintaining a consistent output level relative to the original signal.



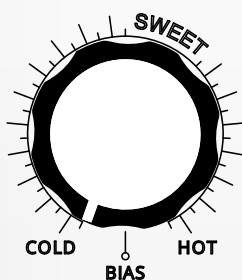
Th THD INDICATOR

The THD (Total Harmonic Distortion) Indicator displays the percentage of harmonic content added to the original signal as a result of saturation. As you increase the Input Gain, the THD value rises accordingly, giving immediate visual feedback on how much harmonic distortion is being introduced. The THD reading is derived by comparing the original input signal with



the processed, saturated output signal. The character and amount of saturation can be further shaped using the built-in EQ and the tube bias control. As a result, the THD value shown by the indicator may also vary depending on these additional settings.

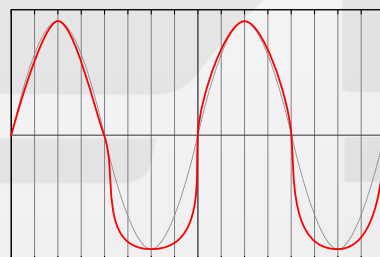
Bi BIAS



Tube bias refers to a control voltage applied to the control grid of a vacuum tube to set its idle operating point specifically, the amount of idle anode (plate) current flowing through the tube when no input signal is present. This setting significantly affects the tube's amplification behavior, linearity, and distortion characteristics.

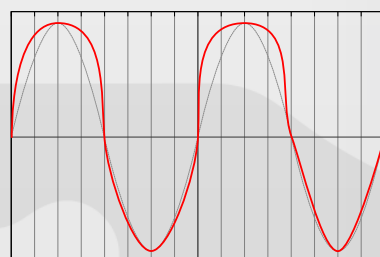
Cold Bias

In cold bias mode, the bias voltage is lower (more negative) than the optimal setting, resulting in reduced idle current. The tube conducts less in its idle state, operating on the lower region of its transfer characteristic curve. This causes the tube to run cooler hence the term "cold bias." This mode introduces a distinct type of saturation, which can be musically pleasing for certain source signals. A common artifact is clipping on the negative peaks of the waveform at low input levels, as the tube may be too close to cutoff.



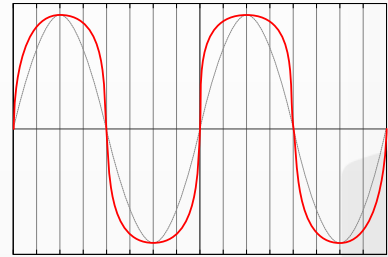
Hot Bias

In hot bias mode, the control grid is biased less negatively relative to the cathode than the ideal setting, resulting in increased idle current. The tube conducts more in idle, operating in the upper portion of its characteristic curve. This leads to the tube running "hotter" and introduces a higher probability of signal peaks reaching the non-linear regions of the transfer curve. This is typically associated with the classic "warm," "thick," and "analog" sound.

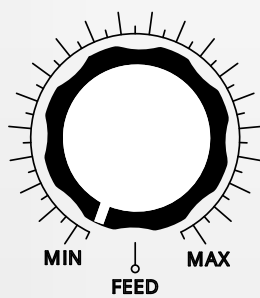


Sweet Bias

In this setting, the tube operates with the most balanced and linear transfer characteristic. Even in this mode, however, it is possible to drive the input signal to a level that pushes the tube into saturation. This operating point provides the most neutral and controlled saturation behavior, making it ideal when subtle harmonic coloration is desired without overt saturation artifacts.

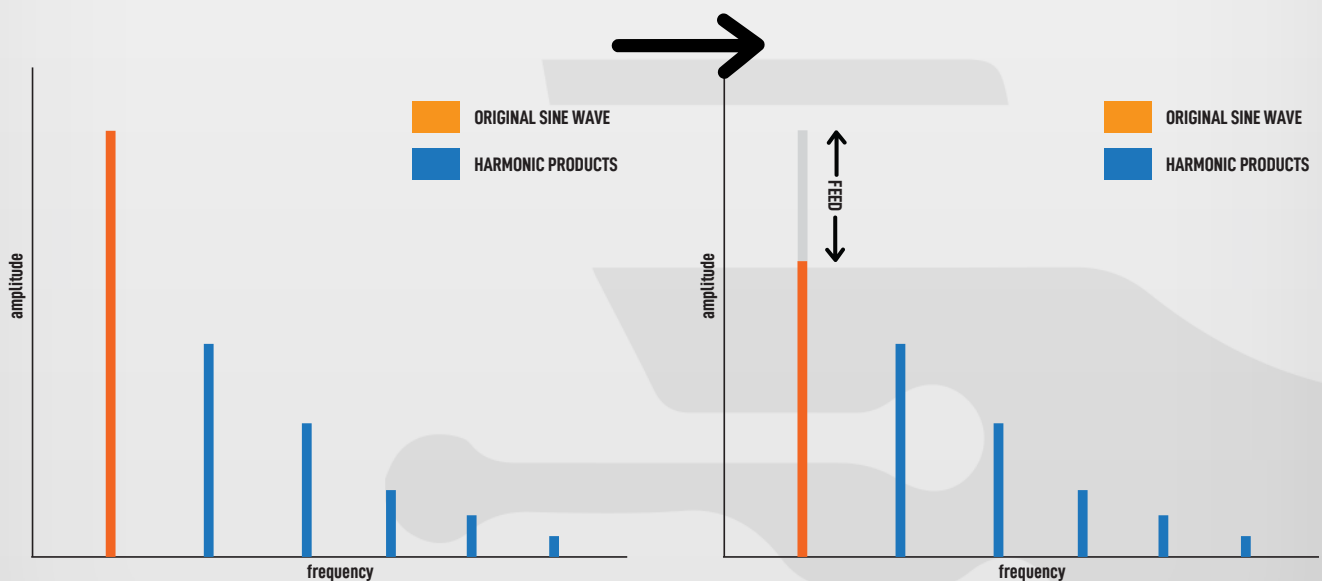


Fe FEED



The Feed potentiometer controls the feedforward amplifier. It allows the user to cancel out the original, pre-saturation signal from the saturated output of the Wizard, effectively enabling adjustment of the balance between the saturated and original signal. Turn the Feed control all the way down if you want the same amount of original signal at the output as what enters the input. Turn the Feed control up if you want the

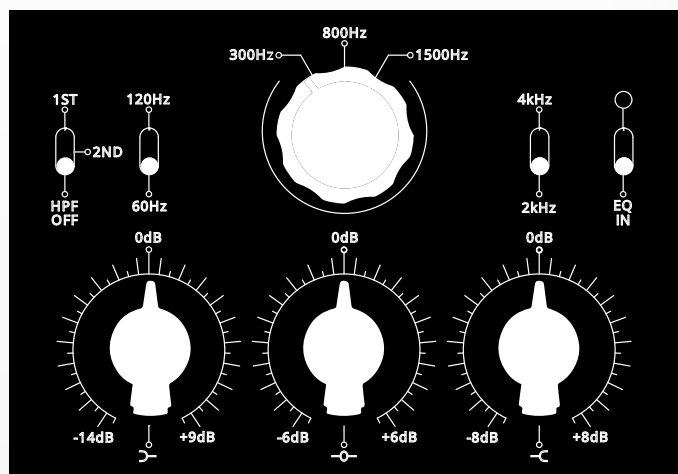
original signal to be increasingly attenuated in favor of the saturated signal at the output.



Eq ONBOARD EQUALIZER

The unit is equipped with a built-in equalizer that allows shaping the incoming signal before it reaches the tube saturation stage. This is essential because with more complex program material, certain frequency ranges may become oversaturated, while others may not receive enough saturation at all. A typical case is when a full mix bus is processed through

the saturator—low frequencies may be so dominant that the bass range gets oversaturated, while the high frequencies show little to no saturation. The equalizer consists of a high-pass filter, a low-frequency band, a mid-frequency band, and a high-frequency band. If desired, the equalizer can be fully bypassed from the signal path.



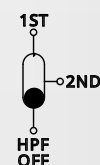
Eq In

The Eq In switch engages the equalizer in the signal path. In the down position, the equalizer is bypassed; in the up position, the equalizer is active.



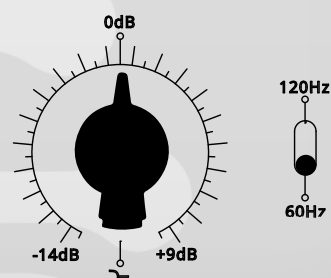
High Pass Filter

The High Pass Filter is a low-cut filter designed to remove sub frequencies from the signal before they reach the saturation stage. The switch has three positions: in the bottom position, the filter is bypassed; the middle position engages a second-order (steeper) slope; and the top position engages a first-order (gentler) slope.



Low Band

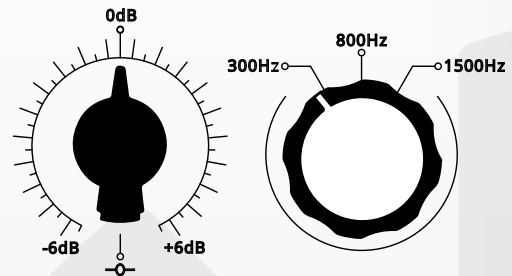
The low-frequency band is controlled by two physical elements: a toggle switch for selecting between two preset frequencies, and a potentiometer for boosting or cutting the



selected frequency with a shelving characteristic. It's worth noting that the boost and cut behavior of this band is asymmetrical—cutting allows for a greater range than boosting.

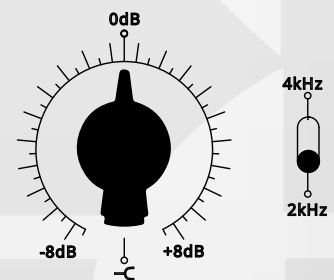
Mid Band

The mid-frequency band also features two control elements on the front panel: a three-position rotary switch for selecting one of the three preset frequencies to work with, and a potentiometer for boosting or cutting the selected frequency using a bell-shaped EQ curve.



High Band

The high-frequency band also features a shelving characteristic and is controlled by two front-panel elements: a two-position switch for selecting between the available preset frequencies, and a potentiometer for boosting or cutting the selected frequency.



NOTES

It is worth noting that there is a **strong correlation between the equalizer and the saturator**. The higher the saturation level, the less headroom the equalizer has to fully realize its intended frequency response. As a result, under certain operating conditions, even with the gain control turned all the way up, a given EQ band may not reach its theoretical maximum boost.

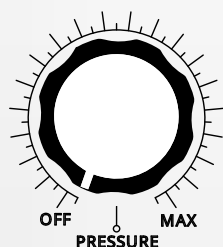
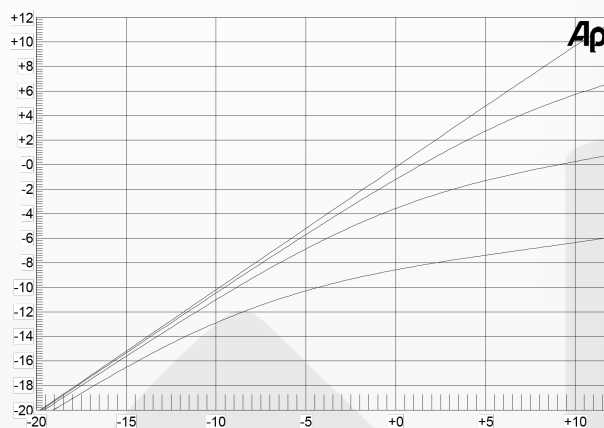
Furthermore, depending on the position of the Bias control, the same amount of EQ boost or cut can result in a noticeably different tonal character—simply because the coloration introduced by the saturation affects the already EQ-shaped signal in a subjectively different way. For this reason, **we recommend revisiting and adjusting the EQ settings whenever the Bias is changed**.

Mu ONBOARD COMPRESSOR

The Wizard features a built-in dynamics control function. This dynamics section operates similarly to the widely known Vari-Mu compressors (such as those in the style of the Fairchild 670), as it regulates the output tube stage via a sidechain signal.

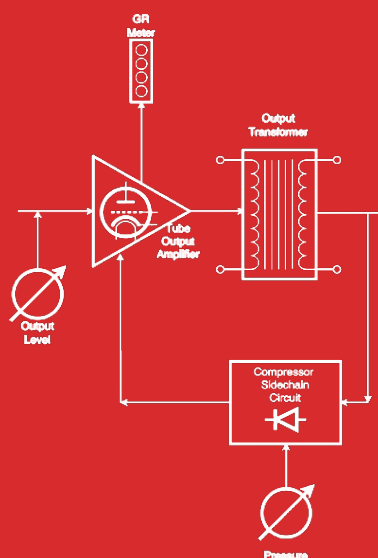
A key characteristic of this type of compressor—due to its topology—is that the stronger the incoming

signal, the higher the compression ratio becomes in response. For this reason, it is often referred to as an 'intelligent' compressor. It has a very soft knee and delivers a remarkably natural-sounding compression. The built-in dynamics control section features two front-panel controls: one serves as the compressor's actual threshold, and the other is the reduction meter.



NOTES

It's important to note that in the case of the Wizard's built-in compressor, the compression is applied by controlling the output tube amplifier stage. As a result, the compressor is effectively positioned after the Output Gain control in the signal path. This means that once a threshold is set using the Pressure potentiometer, any increase in output level via the Output control will result in increased gain reduction.





WIZARD SPECIFICATIONS

FREQUENCY RESPONSE

20Hz-20kHz +0.5dB/-1dB

STERO BALANCE

+/- 1dB max.

STEREO CROSSTALK

> 52dB

INPUT IMPEDANCE

>24kOhm

OUTPUT IMPEDANCE

<150 Ohm

MAX OUTPUT LEVEL

+30dBu

MAX INPUT LEVEL

+28dBu

S/N RATIO

> 90dB (10% THD)

FLOOR NOISE

< -70dBu

(EQ-OFF, HPF-OFF, BIAS-SWEET, FEED-MIN. PRESSURE-OFF, Input 0dB, Output 0dB)

INPUT:

2x Balanced XLR

OUTPUT:

2x Balanced XLR

DIMENSIONS:

483mm x 280mm x 89mm

WEIGHT:

5,7 Kg

MAINS VOLTAGE:

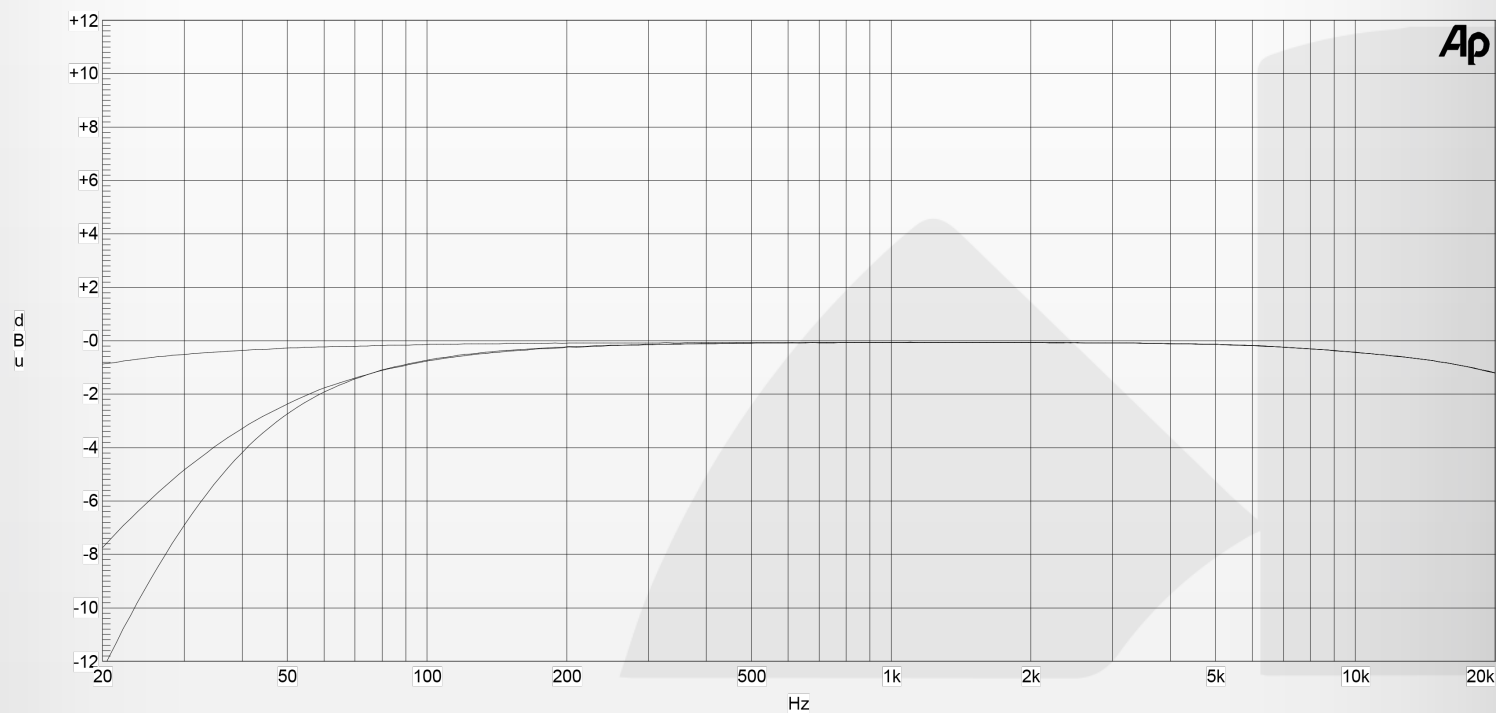
230V AC (EU version)

110V AC (US version)

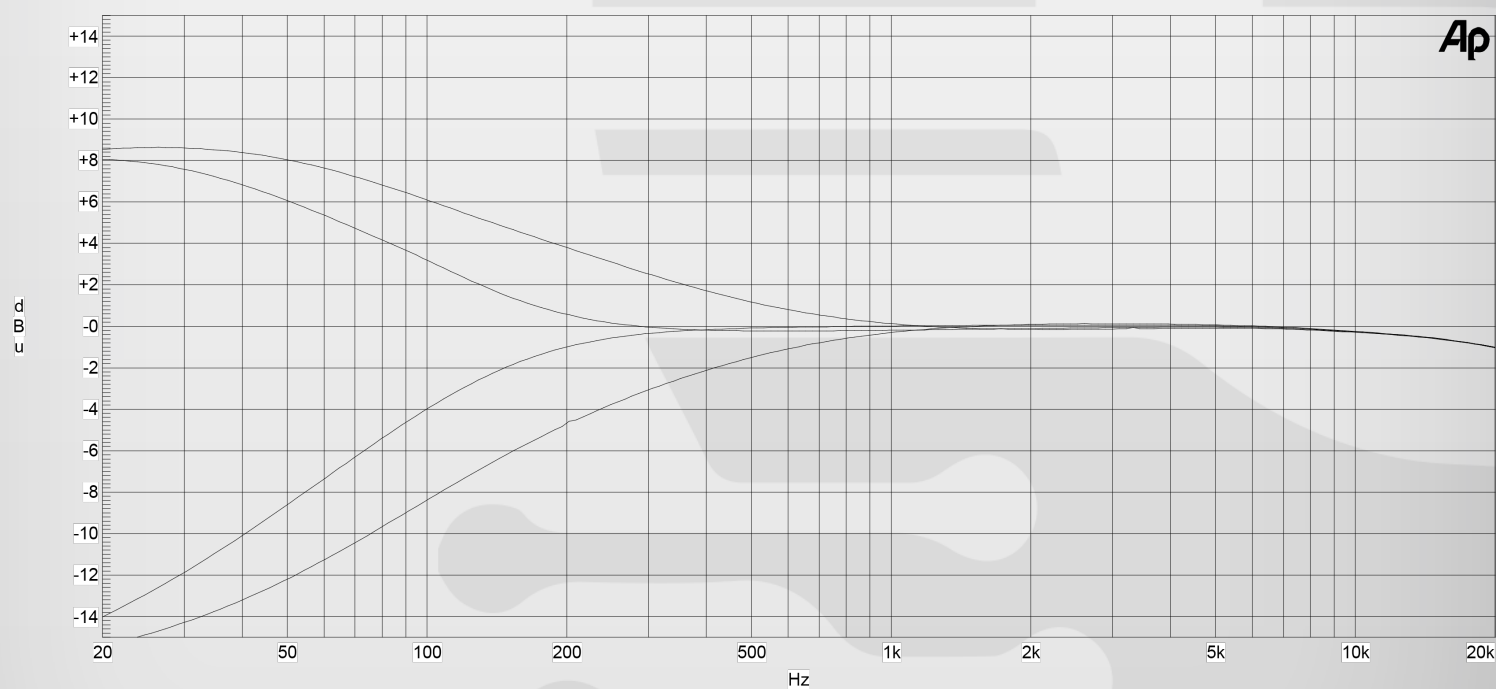


WIZARD EQ CURVES

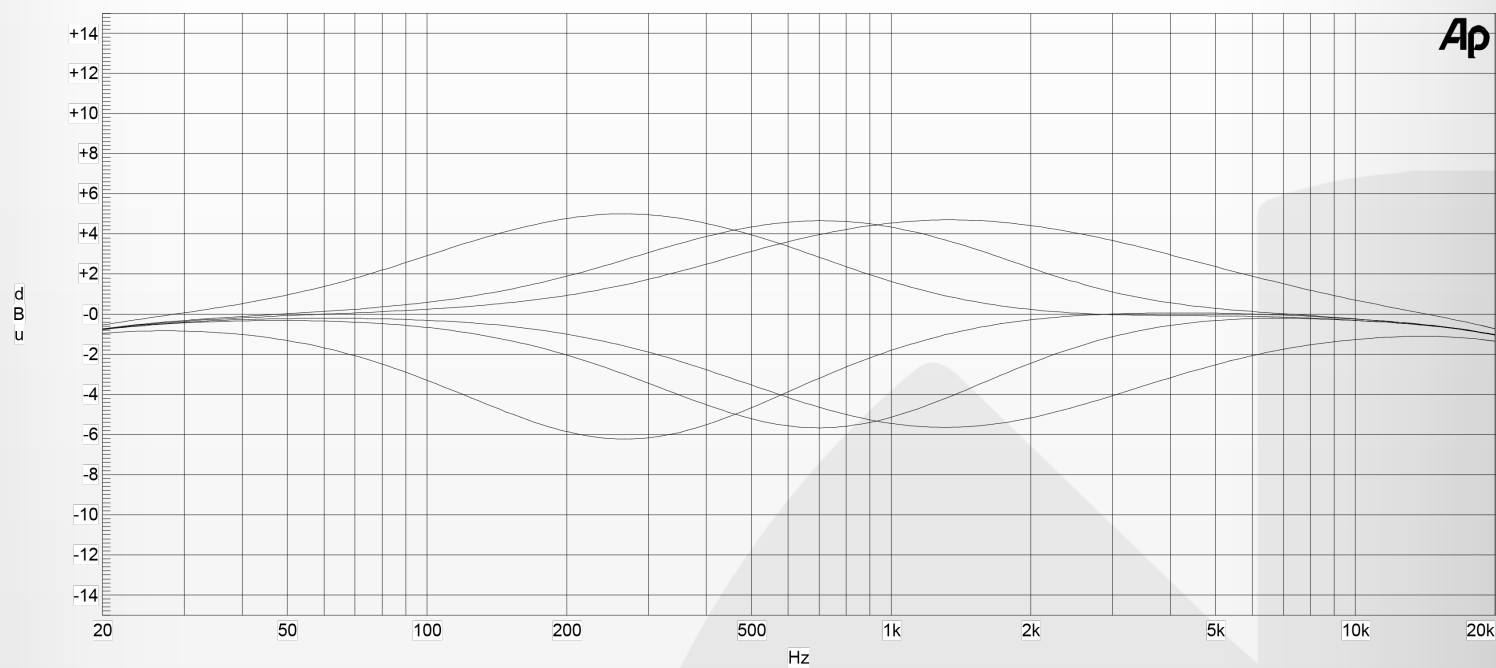
High Pass Filter



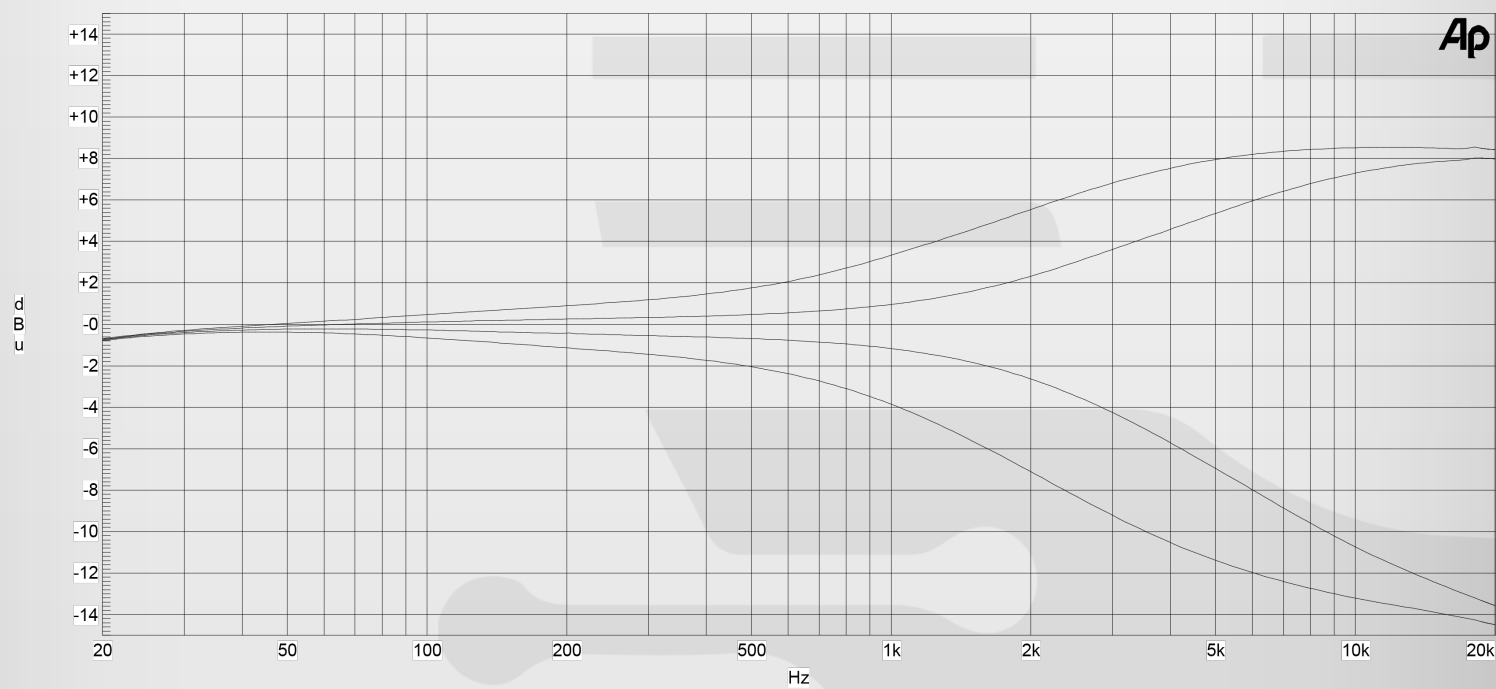
Low Band



Mid Band

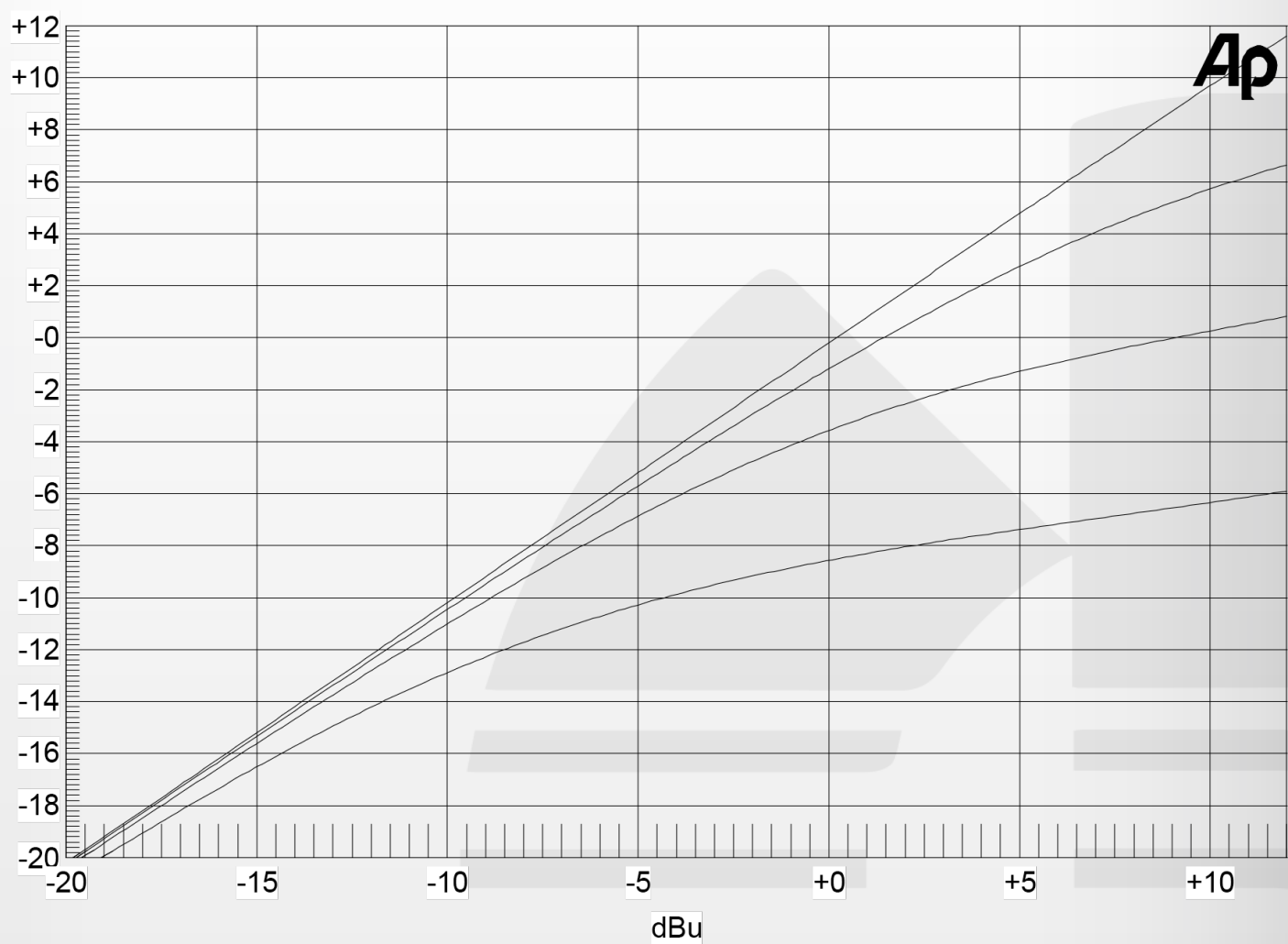


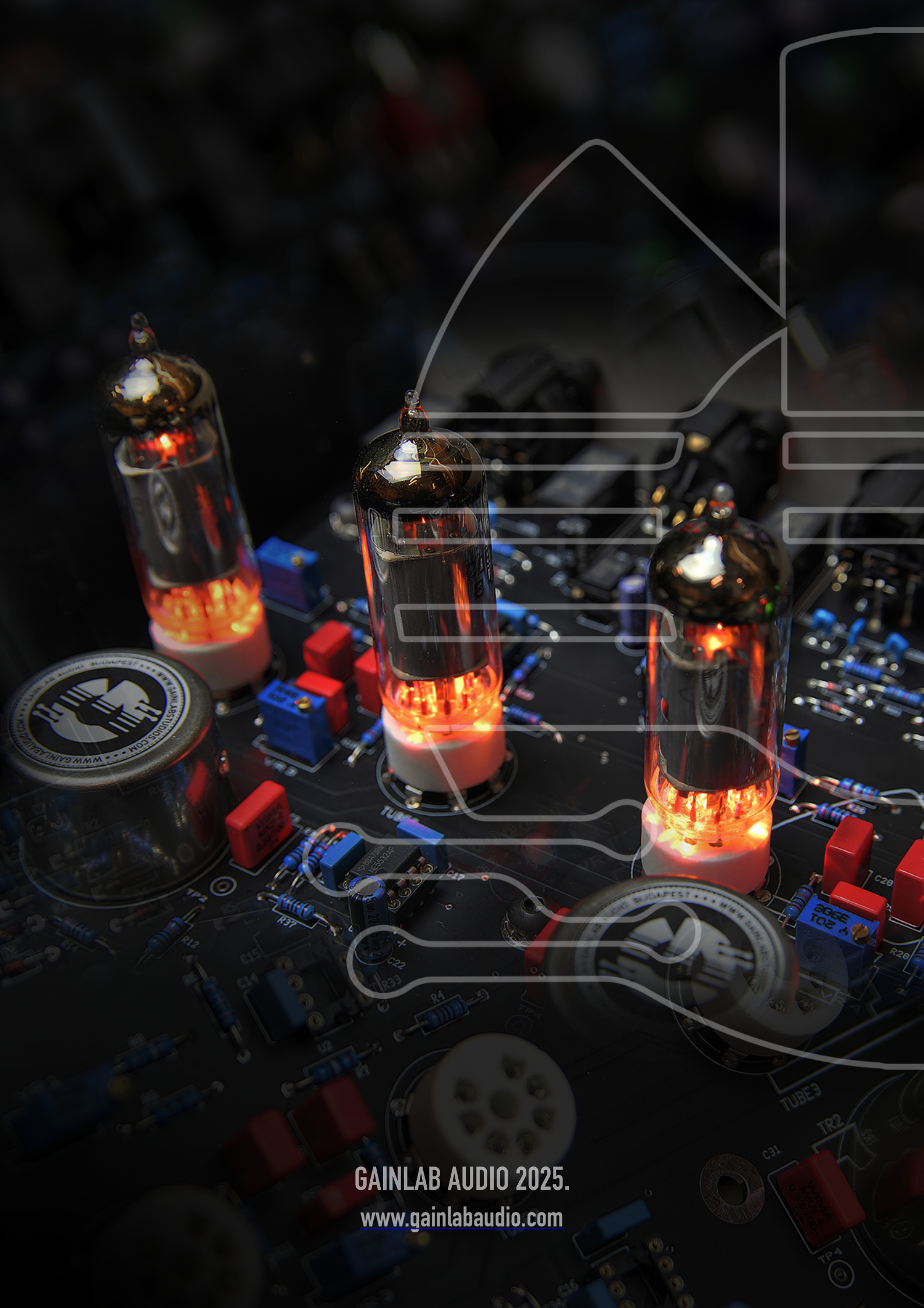
High Band





COMPRESSOR TRANSFER





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