



DANGEROUS MUSIC



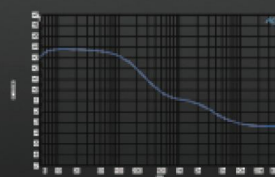
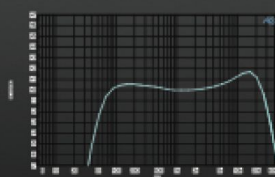
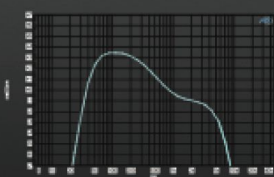
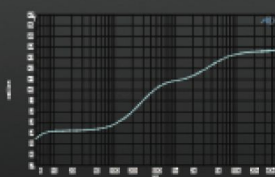
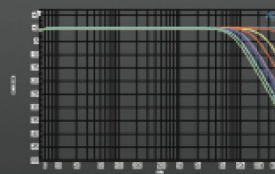
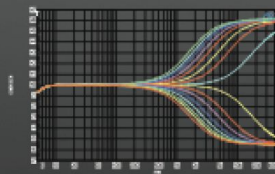
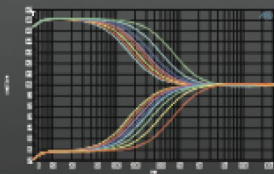
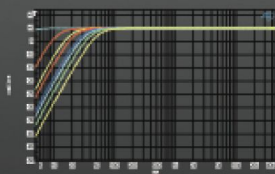
BAX EQ[®] Plug-in

The Dangerous Music Equalizer

USER GUIDE



Plug-in developed by Brainworx



Overview

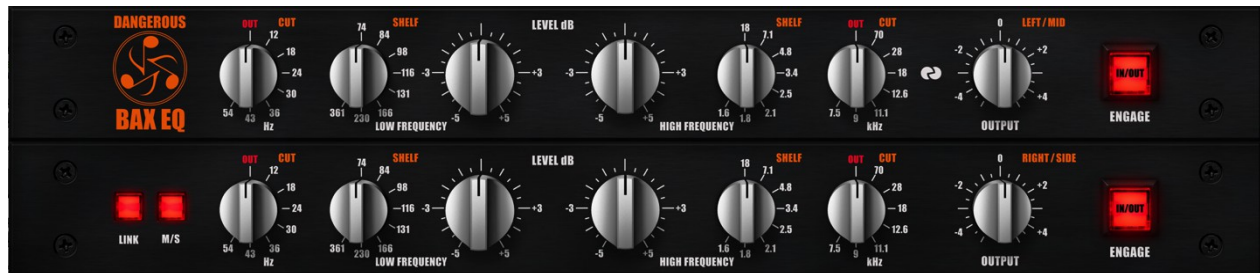
The Dangerous BAX EQ was inspired by Peter Baxandall's legendary 1950's design that has graced hundreds of millions of home hi-fi systems. The BAX EQ's unique design carves broad, open curves and gentle sloping cuts that are essential for recording, mixing and mastering. Seeking the elusive Top 10 vocal sound? Add that perfect sheen of air. Chasing the chunk in grinding guitars? Dial in the meat. Lush midrange, bottomless bass, and space are achieved effortlessly. Please welcome the BAX EQ to your tools for success- no radical sonic signature to overshadow the music... just your music: neater, richer, sweeter.

This plug-in has been faithfully modeled by BRAINWORX after the original BAX EQ hardware and schematics, in close cooperation with the knowledgeable people from DANGEROUS MUSIC USA.

Using this plug-in will not only give you access to the standard BAX EQ features, but we even have added a Dual-Mono and M/S Mastering Version.



[BAX EQ - MIX VERSION PICTURED ABOVE]



[BAX EQ - MASTER VERSION PICTURED ABOVE]

Both versions will give you the exact same & original sound of the famous BAX EQ.

The MIX version is a single-control version which cannot be adjusted differently between left and right channels (something the hardware offers), but is therefore easier to adjust with a mouse whenever there is no need for different settings on L/R channels.

The MASTERING version is an enhanced 2RU version which enables you to adjust L/R channels with different settings, just like the hardware does. In addition we have added an M/S mode which lets you control the MID & SIDE signals of a stereo mix. Widen the stereo image, mono out your bass frequencies, or just get creative.

Front Panel Features & Benefits

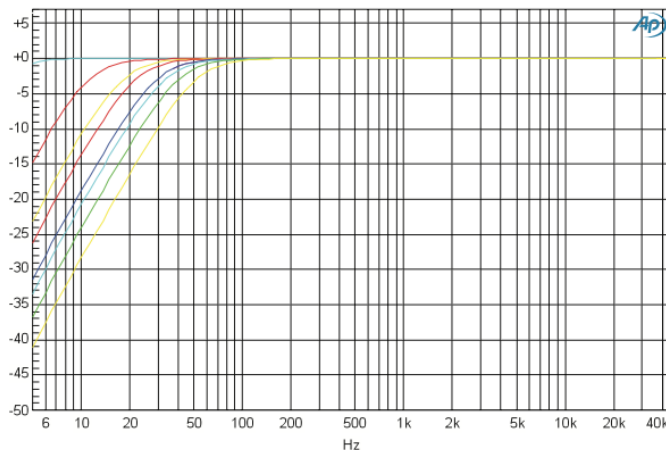
1. LOW FREQUENCY CUT FILTERS



[LOW FREQUENCY CUT KNOB PICTURED ABOVE]

Feature: Infrasonic rumble reduction.

Benefit: INFRASONIC RUMBLE is a PC term for the omnipresent low frequency garbage that loiters unnoticed in the audio shadows. This headroom consuming thief propagates from HVAC units, jets, subways and yes, Rayleigh Waves (i.e. earthquakes and Elephants.) Eliminating it dramatically increases low end clarity and punch while allowing higher maximum levels on any playback device.



[LOW FREQUENCY FILTER GRAPH PICTURED ABOVE]

Feature: 12 dB per octave roll off.

Benefit: These filters are smooth, accurate and musical sounding without artifacts.

Tip: While listening to a familiar mix, turn the knob and listen to the pleasurable changes.

Feature: Individual bypasses.

Feature: The first position is beyond the audio band.

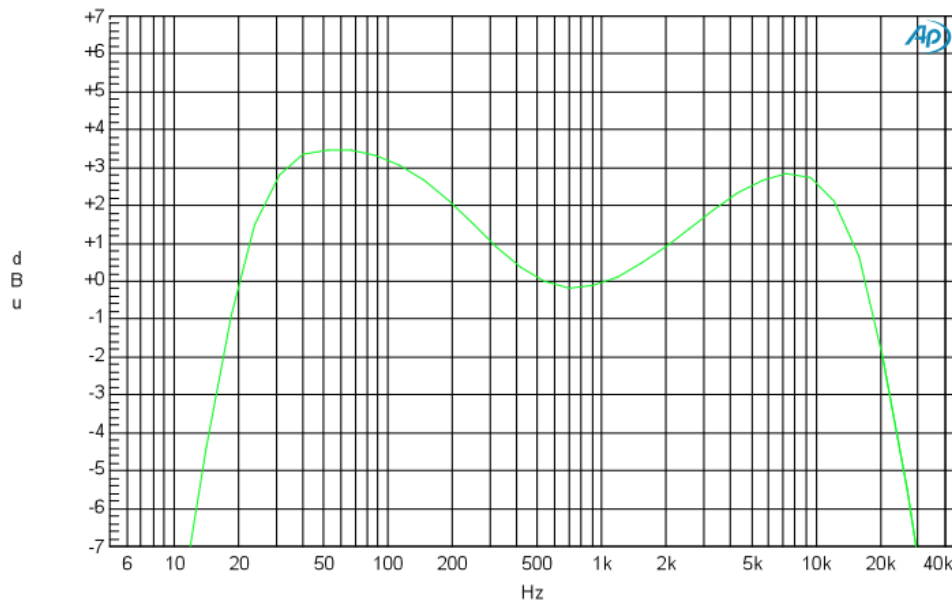
Benefit: Perfect for filtering DC to avoid offsets.

Benefit: In the hardware, relays remove the filters entirely from the signal path until desired, for true A/B comparisons. In comparison, many EQs leave filters in the circuit, even when they are bypassed. This potentially adds noise, distortion and phase shift. The BAX EQ places only the single selected frequency (or none) into the audio chain. We have modeled this behavior.

Tip: Always leave it engaged during tracking and mixing. See INFRASONIC RUMBLE above.

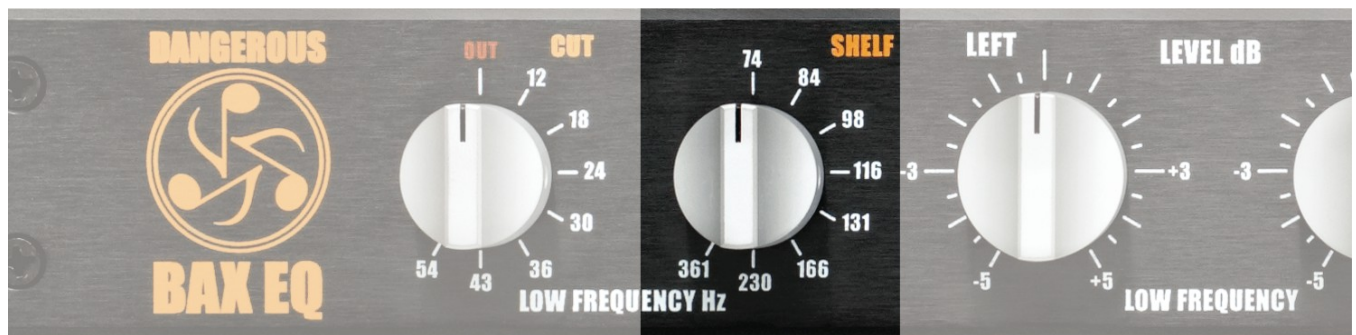
Tip: Employ these knobs in conjunction with the shelf controls to instantly create remarkably musical contours.

Operation: Simply rotate the knob to the appropriate frequency and trust your ears.



[EXAMPLE OF FILTERS AND SHELFs COMBINED IN THE GRAPH PICTURED ABOVE]

2. LOW FREQUENCY SHELF



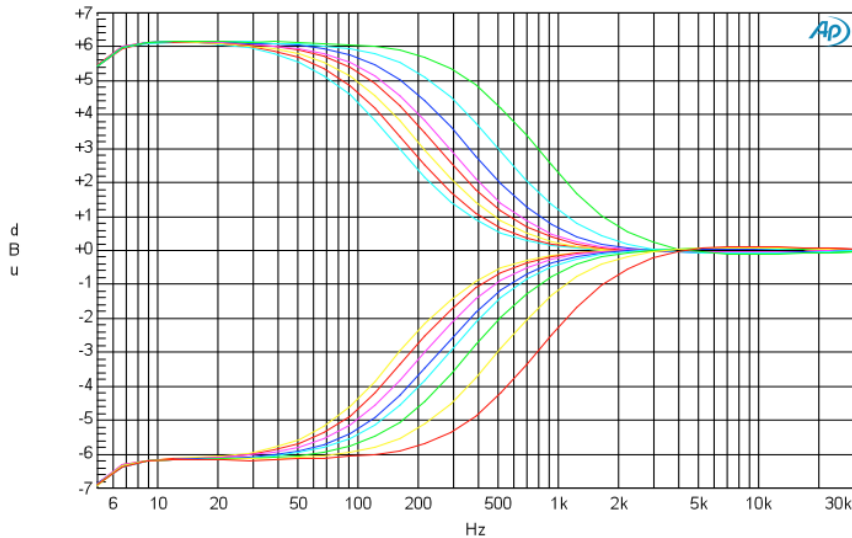
[LOW FREQUENCY SHELF KNOB PICTURED ABOVE]

Feature: Broad bandwidth shelving EQ that affects several octaves.

Benefit: Unlike a surgical or chainsaw EQ that targets problems like 50 or 60 cycle hum, but often comes with an audio sacrifice, the BAX EQ is shapely, sweet with minimized phase delay for sexy sonic sculpting.

Tip: The frequencies noted on the faceplate reside at the bottom shoulder of the slope and reach way into the midrange, thus providing a remarkably natural and smooth character.

Operation: Increase the tonal power by engaging the filters in conjunction with the boost/cut. Simultaneously boost with the main controls and cut with the filters.



[LOW FREQUENCY SHELF GRAPH PICTURED ABOVE]

3. LOW FREQUENCY LEVEL CONTROLS



[LOW FREQUENCY LEVEL CONTROLS PICTURED ABOVE]

Feature: Individual Left and Right or M and S Controls in the MASTERING version.

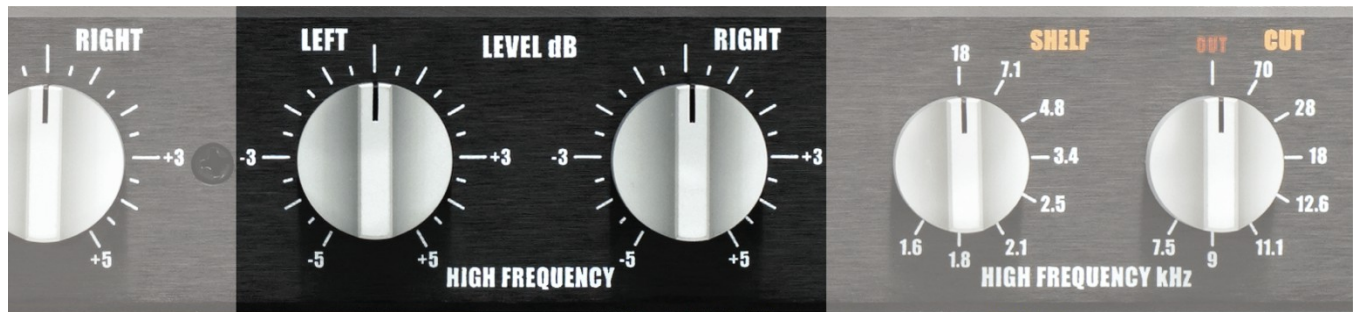
Benefit: Discrete left and right controls allow for the correction of any stereo low frequency imbalance in .5 dB steps. Left channel need a hair less whomp? Pull it down a half dB or so as needed.

Benefit: Leverage the BAX for M/S stereo tracking or mixing. Adjust the low frequencies in the M/S stereo field (M/S mode).

Feature: Stepped attenuators.

Benefit: Stepped knobs provide for the repetition of previous settings with deadly accuracy. Producer requesting a touch more thump? Return to your prior settings and add judiciously as required.

4. HIGH FREQUENCY LEVEL CONTROLS



[HIGH FREQUENCY LEVEL CONTROLS PICTURED ABOVE]

Feature: Individual Left and Right or M and S Controls in the MASTERING version.

Benefit: Identical to the low frequency level controls, discrete left and right controls allow for the correction of any stereo low frequency imbalance in .5 dB steps. Left channel need a hint more than the right? Pull it up a half dB or so as needed.

Benefit: Leverage the BAX for M/S stereo tracking or mixing. Adjust the high frequencies in the M/S stereo field (M/S mode).

Feature: Stepped attenuators.

Benefit: Stepped knobs provide for the repetition of previous settings with deadly accuracy. Producer requesting a touch more air? Return to your prior settings and add judiciously as required.

5. HIGH FREQUENCY SHELF

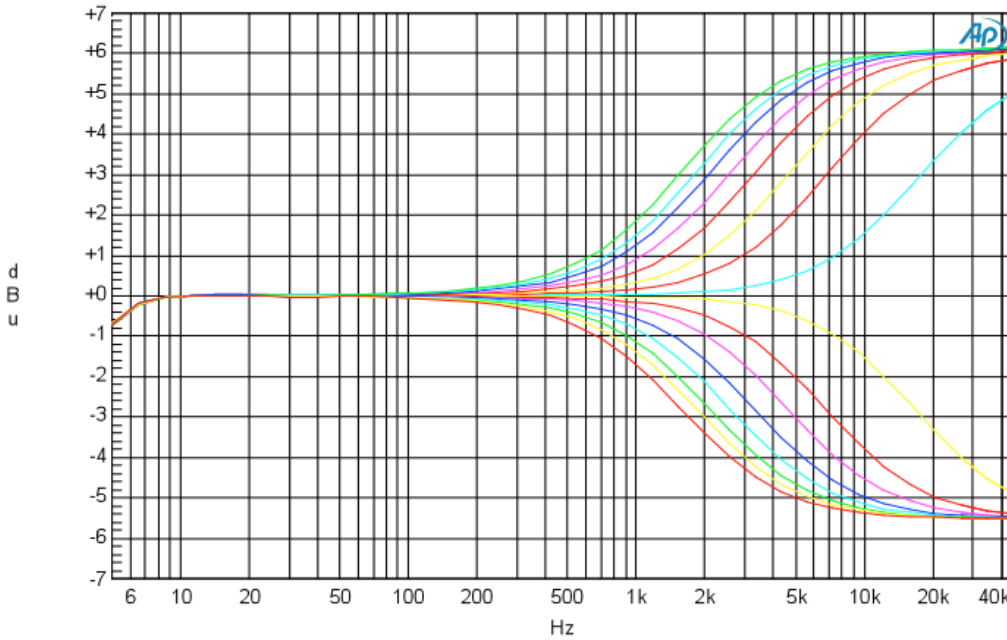


[HIGH FREQUENCY SHELF KNOB PICTURED ABOVE]

Feature: Broad bandwidth shelving EQ that affects several octaves.

Benefit: Unlike a surgical or chainsaw EQ that targets problems like string buzz, but often comes with an audio sacrifice, the BAX EQ is shapely, sweet with minimized phase delay for subtle, sexy sonic sculpting.

Tip: The frequencies noted on the faceplate reside in the middle of this slope, thus corresponding with the most audible band. The highest frequency shoulder is approximately twice the listed frequency (where the cut/boost is exactly 5dB). So for example, when modifying 1.6kHz, a 5dB boost occurs at 3.2kHz.

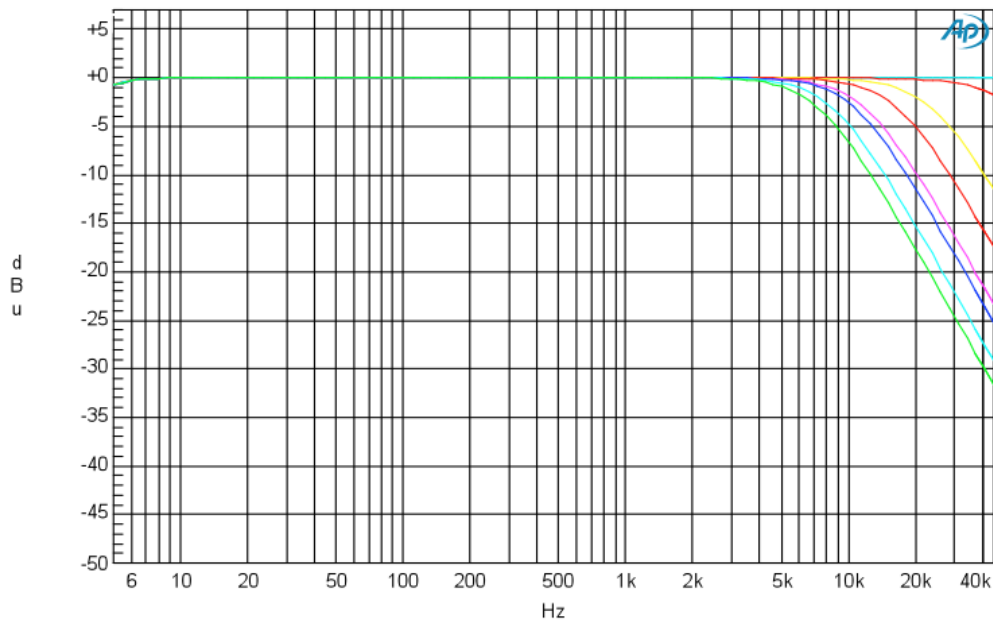


[HIGH FREQUENCY SHELF GRAPH PICTURED ABOVE]

6. HIGH FREQUENCY CUT

Feature: Ultrasonic Noise Reduction.

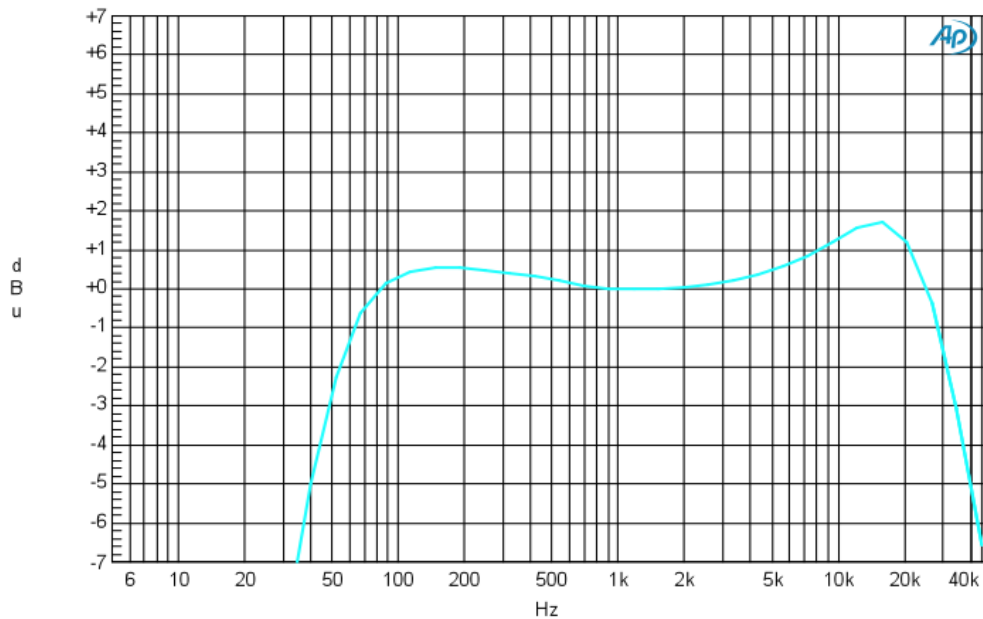
Benefit: ULTRASONIC or OUT OF BAND NOISE is derived from a myriad of man made and natural sources. It propagates slew rate overload, ultimately manifesting itself as harsh, brittle sound.



[HIGH FREQUENCY FILTER GRAPH PICTURED ABOVE]

Tip: While tracking, utilize the HI CUT FILTER. Especially when boosting bodacious amounts of top end, this practice will reveal a bright & airy treble that is never harsh or blaring. Perfect for adding “air” to a ribbon mic and conversely, for “gentling up” an overly bright and sassy condenser mic.

See the following graph for an example.



[FILTERS AND SHELVES COMBINED TO CRAFT A WARM SHIMMERING VOCAL]

7. ENGAGE IN / OUT



[ENGAGE IN / OUT BUTTON PICTURED ABOVE]

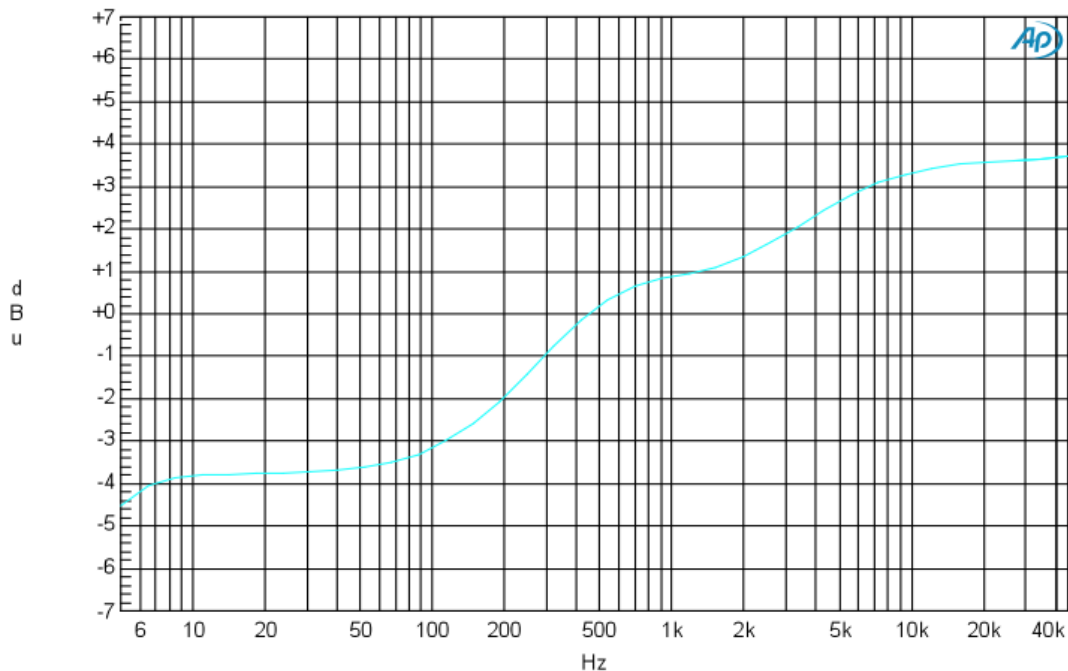
Feature: Bypass ENGAGE SWITCH.

Benefit: Allows true A/B comparison by completely removing the BAX EQ and all of its filters from the circuit while in Bypass.

BAX EQ Application Notes

COMBINING CUT AND LEVEL CONTROLS

- Tip: To achieve more bottom from a mix, cut first and then add. The results will be tighter, punchier low end.
- Tip: Leverage the BAX EQ for tracking. Even in “cut only mode”, utilize it on every track to control the source’s frequency range, thus dramatically focusing the energy and making the mix process a snap.
- Tip: Increase the tonal power by engaging the filters in conjunction with the boost/cut controls. Simultaneously boost with the main controls and cut with the filters.
- Tip: Engage the BAX in conjunction with a surgical style EQ to improve the latter’s efficiency.
- Tip: Add to any gear chain (i.e. mic pre, comp, eq) to take it from good to great without altering the original character.



[YOUR SCULPTING PICTURED ABOVE]

Now it’s your turn to actually put the BAX EQ through its paces (this is why you use it, after all, right?)

Go ahead and engage the cut controls to remove the garbage and ease the burden on your converters. Remember, these are remarkable shaping tools as well when employed with the shelving and level controls to gracefully sculpt Michelangelo-like audio hillocks and valleys. Go forth and seek the audio truth amongst that audioscape.

-The Dangerous Music Team