



G10 Graphic Equaliser

Congratulations! You've purchased a G10 500 Series 10-Band equalizer. This EQ has balanced input and output and hi/low-pass filters and is the ultimate hands-on sound shaping tool for tracking, mixing, or mastering.

About the G10:

The G10 combines a punchy, transformer-based signal path with the versatile 10-band graphic EQ configuration and a 2520 style op-amp — making it ideal for tweaking drum or guitar sounds, or even processing an entire mix.

With 10 carefully selected bands offering up to 12 dB of boost or cut on tap, the G10 offers a level of tone sculpting that can help any audio sit perfectly in the mix. The easy-to-use slider-based interface helps users intuitively visualize the EQ curves they are applying. Switchable high-pass and low-pass filters, tuned at 80 Hz and 12 kHz respectively, help make the G10 a truly complete sound shaping solution.

The BAE Audio G10 implements an op-amp like those used in well-loved '70s American boards. Unlike some other 10-band equalizers presently on the market, the G10 is fully transformer balanced on the input and output. The G10 also features a CineMag transformer balanced in and out that imbues any audio passing through it with a unique tonal character.

Installation of 500 Series Units:

Follow the instructions provided by the manufacturer of your 500 series rack and power supply to install your G10. Make sure that the card is firmly seated in the slot and fully screw the installation screws into the 500 series rack enclosure. Your input and output connections will be provided on the rear of the rack enclosure either as XLR connectors or part of a DSUB 25 array.

EQ Sliders:

Each of these sliders will give 12 dB of “Boost” and 12 dB of “Cut”. There are ten sliders per channel – ten for the Left channel, and ten for the Right channel. Looking at the front panel, the sliders that control the lowest frequencies are on the left, with the higher frequencies farther right. Usually, identical adjustments should be made for both channels. These sliders are one octave apart from one another. This corresponds with the entire range of human hearing. The last page of this owners' manual contains a chart, showing which sliders to adjust to affect the sound of various instruments. For instance, the lowest note of a bass guitar is 42 Hz. By adjusting the sliders at 30 Hz and 60 Hz you can raise or lower the volume of the bass guitar, bass drum, and any other musical instruments that occupy this frequency range. On the other hand, the sound of the female vocalist occupies a frequency range from roughly 200 Hz to 1500 Hz. By adjusting the sliders within this range, you can change the tonal character of the female voice, and any other musical instruments that occupy this frequency range.

Fully Transformer Balanced

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EQ Frequencies

Sub bass – 20Hz-60Hz

While humans can technically hear down to this region, it's less cerebral and more gut. Somewhere down here is where your subwoofer will make that eerie sound of deep space in sci-fi movies, and this region can add some serious, unearthly power. However, you would very rarely want to add more of this sound, and taking away from here can help give the music more overall clarity.

Bass – 60-200Hz

The majority of the time, a stalwart hip-hop groove will start at or around 60Hz. The foundational, big-hitting lower register rests in this domain, including the heavy punch of the kick drum, and even lower tom drums and bass guitar. Moving up towards the 200Hz line begins to affect the very lowest boom of acoustic guitars, piano, lower brass and strings. If the music is too darned heavy, or not heavy enough down low, a bit of an adjustment here will help.

Upper bass to lower midrange – 200Hz-800Hz

Rising above 200Hz starts to deal with the lighter side of the low end. This region is where the meatier body of an instrument hangs out. Adding EQ around the middle of this spectrum can add a bit of oomph to richer tones, including the lower end of vocals, deeper notes from synthesizers, low brass and piano, and some of the golden tones from the bottom of an acoustic guitar. Lowering the level a bit here can clear up some space, and open up the sound. Moving to the 800Hz region, you'll start to affect the body of instruments, lending more weight with addition, or lightening the load with subtraction.

Midrange – 800Hz-2kHz

This area is a touchy one, and can change the sound quickly. Putting on the brakes in this region can take away the brittle sound of instruments. Adding some juice can give things a metallic touch, and can wear down your ear quickly if pushed.

EQ Frequencies (Continued)

Upper mids – 2kHz-4kHz

As mentioned above, this register is where your ears aim a lot of their focus. Adding or subtracting here can raise or lower the snap of higher instrumentation quickly. Sounds like the pop of snare, and the brash blare of trumpet can all be affected here. Adding a little push here can give more clarity to vocal consonances, as well as acoustic and electric guitar, and piano.

Presence/sibilance register – 4kHz-7kHz

This is commonly referred to as the presence zone, and leads into the highest range of pitches produced by most natural instruments. Boosting the lower end of this scale can make the music sound more forward, as if pushed a little closer to your ears. Backing it off can open the sound, and push instruments away for more depth. The top end of this region is also responsible for the sharp hissing “s” of vocals, known as sibilance. If sharp consonants are popping out at you like the bite of a snake, cutting a few dB from around 5-7kHz can solve the issue, and save you some pain and suffering.

Brilliance/sparkle register 7Hz-12kHz

Raising or decreasing the level at the lower end of this register can help bring some vibrance and clarity, adding a tighter attack and a more pure sound. If things are a little too sharp, or causing some pain after listening for too long, lowering the bottom end of this register can help out quite a bit. Towards the top is where things start to space out into less tangible definition, moving away from what you can hear more towards what you can feel. That shimmering resonance at the tip of a cymbal crash floats around in the regions of this space.

Open air – 12kHz -16kHz

Once you get up here, things really become more subjective. The bottom registers continue to affect the higher overtones of instrumentation, and synth effects from electronic music can pop around in that region as well. Moving further up, it becomes more about creating a spacier, open sound. However, there are very few points in which you’d want to affect the sound much around 14kHz or above — many older listeners won’t be able to even hear these sounds. If you want to boost a bit of space in the belfries of the music, you can add some level here. Too much, however, will make things start to sound synthetic.

1073D Specifications & Features

Noise:

Better than -90dB (EQ IN, 1KHz @ 0dBu, A-weighted)

THD+N:

0.0036% (EQ IN, 1KHz @ 0dBu, A-weighted)

Input Signal Before Clip:

+28dBu (1KHz)

Power Supply:

+/- 16VDC @ 45mA per Rail

Weight

1.75 LBS

Dimensions in Inches

4.5W x 5.25H x 5.5D

Complies with 500 Series Specification for mechanical and electrical interface

+/- 12dB Boost/Cut @ 31Hz, 63Hz, 125Hz, 250Hz, 500Hz, 1KHz, 2KHz, 4KHz, 8KHz, 16KHz

Individually Selectable LPF @ 12KHz, and HPF @ 80Hz (approx. 6 and 10 dB per octave, respectively)

EQ In/Out Select Switch (bypasses EQ and Filters)

Fully enclosed ventilated steel enclosure

CineMag transformer balanced in/out

Top quality components used throughout

Troubleshooting

There are many 500 series racks available, each with slightly different power supplies. Some older 500 racks are notorious for power supply problems.

500 series power supplies are actually two supplies, a +16 Volt and a -16 Volt source. If you turn on the unit, but get no audio, there is a chance that one of the supplies in the rack has either gone down or is in protection mode. This has the potential to cause damage to your 1073D if left like this for a long time.

To verify that a power supply fault has occurred, engage all of the push buttons including the 1/4" input switch with the blue LED. If the blue LED does NOT light, then there is a problem with your power supply.



BAE AUDIO – G10

RECALL SHEET

