

Diamond Cut Productions, Inc.

Application Notes, AN-31

~Gamma Wave Memory (Brain Fog) Resetter

The human brain consists of numerous neurons which communicate with one another via ionic conduction through nerve tissue. These nerves and neurons can be viewed as ‘neural networks’ which use ionic mechanisms as signal carriers (sort of like wires in an electronic circuit) but the signals are not electronic. A by-product of the process of “thinking” and other tasks performed by a human brain is an electronic artifact which can be detected with sensitive electronic amplifiers connected to the cranium in an array by way of silver / silver chloride electrodes. These electronic artifacts yield frequencies ranging from 0 Hz to 100 Hz and are readily recorded by specialized analog and/or digital Voltage amplifiers electroencephalograph machines (or simply EEG machines). The sum and difference between these discrete neurological signals fall within Voltage frequency bands in which they reside, each of which represent different neurological functions. Here are a list of the various centered frequencies:

Delta: 0 to 4 Hz

Theta: 4 to 8 Hz

Alpha: 8 to 12 Hz

Beta: 12 to 40 Hz

Gamma: 40 to 100 (or slightly higher) Hz

Recently, research has been performed with special emphasis on the Gamma frequency range. Numerous researchers have demonstrated that stimulus with Gamma Waves for 10 to 12 seconds at a time via earphones improves cognitive ability in dementia patients and also prolongs the onset of this type of disease.

The Diamond Cut Productions “Make Waves Signal Generator” includes a preset that can produce sine wave signals in the Gamma frequency range. If you are interested in this topic, you might want to experiment a bit with it on persons with dementia types of handicaps. We emphasize that a good set of headphones be used as opposed to earbuds in order to assure frequency response in these lower frequencies of the audio spectrum. The Make Waves preset which produces a 40 Hz signal for 10 seconds is and called “~Gamma Wave Memory (brain fog) resetter”. Application of this audio signal is generally performed around twice per day for measured results to be observable.

To make your experiments more pleasing and interesting, you can use a dual – tone sum and difference technique to create your target 40 Hz signal. Simply chose two frequencies that are spread apart mathematically by 40 Hz (like 120 Hz and 160 Hz) and then sum them together using the “Paste Mix” function found under the Edit menu. It provides a great deal of freedom to adjust the relative amplitudes of the two chosen signals. Experiment - - - that is the fun of it and you may discover something very special for your aural senses.



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