

EQ

Target Frequencies for Recording and Mixing.

Source of the article unknown – but very useful!

The trick to getting a good mix is balancing the frequencies of each instrument and bringing them together to make the big picture. Achieving this is something that must be done with your own experimentation. However, this guide should provide you with a starting point to avoid wasted time searching the entire EQ range.

30 - 100hz : These are the sub bass frequencies. The extreme low-end, around 60hz is the "woof" sound. I usually shelf the low end of the bass guitar here, and probably all the way up to around 150hz. All the low bass notes are in this range.

100hz - Very important frequency especially for the bass drum. This is where the pounding and the sense of pushing air is located. Boost the bass drum here to get the sense of the kick drum punching you in the chest. Give a little boost (+2 or +4, usually never more than that) to the guitar here for added warmth if needed. Also the low end of the piano or keyboard is in this area.

100hz - 500hz - Cut somewhere in this area if the electronic organ is producing too much signal noise. You will have to experiment in this area to find the sound you want. Also this area will add warmth to most synths. You may need to search up to 800hz for the higher registered ones.

200hz - This is where the "proximity effect" range is located, too much here and it will sound muddy and dull. For more transparency cut here.

250-500hz - Great vocal range, adds low-end or warmth to the vocals. Don't boost here too much though cause it is very close to the 200hz, you don't want muddiness when looking for warmth. Cut here (piano) a little if piano and vocals are fighting for this area. You will also find the resonance of the drum heads and the body of an acoustic guitar around this area.

500-600hz - The body of the electric guitar, the clank of the hi-hat, and also great for toms if you don't use a lot of echo (reverb).

500-800hz - Boost around here if you need to bring more clarity to your synth. Especially for lead parts played on a synth, It will accentuate it's fundamental pitch making it more understood.

700-900hz - Great bass guitar frequency for it brings out the octave harmonics of the low notes. Making the bass line more distinguishable in pitch. 1-2khz - The BANG!! Awesome frequency for the snare. Boost here a bit but not too much for it can make the snare sound like hitting a cardboard tube.

3khz - The excitement. Watch boosting here also as I said before. Gives the bass drum smack (mix well with 100hz to get an awesome bass drum sound.), Give boost to bass for more rhythm quality, give boost to guitar for more edge (be very careful with guitar in this range), adds excitement to vocals, adds power to toms, adds tone to rock piano or keyboard (good for accompanying the guitar), and bang of the crash cymbals.

4k- 8k - Boost around this area if the high end of the organ is weak.

5khz - Adds presence or brightness. Brings clarity to snare drum (boost for adding rhythm quality of the snare), another place to bring out the basses rhythmic qualities (great alternative for 3khz), boost around here to increase the highs of the piano when accompanying vocals, sometimes vocals may need treatment here also.

5k -7k - Pay attention here. If your synth (strings, mostly) sounds a little buzzy, you may want to cut here.

7khz - Sibilants range. Sticks hitting the toms, sibilants of the hi-hat, sometimes cut here a little on vocals to get rid of slushy "S's". Adds sparkle to the acoustic guitar.

8k - Upper harmonics of string and brass synth. Boost around here to give more clarity and presence to these instruments.

10khz - Texture of the snare drum, splash or highs of the guitar, brilliance of the piano or keyboard, great for adding the sense of an acoustic environment to an acoustic guitar track.

10khz and above - Predominantly the cymbals. Also to boost reverberation of a room and the sense of being surrounded by air.