

## Quick guide to EQ settings

**Kick** – Cut 200 Hz with a fairly wide bell curve (with a Q of 1 to 3) to attenuate some of the “boxy” sound of the drum. Boost 3.5 kHz to 5 kHz with a fairly sharp bell curve (with a Q of 3 to 6). The phat nasty (the good kind of nasty) bumpin’ frequencies in the kick drum are around 80 – 150 Hz. Different size kick drums are centered around different frequencies. 50 Hz and below is the subtle sub frequencies that add depth to the kick. Don’t go boosting that low end just because you don’t think you can hear it well enough. You don’t want to compromise that nice top end you’ve carved out. The biggest mistake people make is mixing the low end too hot.

**Snare** – Use a high pass filter around 100 – 150 Hz, because there are generally no frequencies generated by the snare drum below that threshold that you need. Try gently cutting the mid-range (around 600 Hz) with a wide bell curve (Q of .5 to 2) to take out some of the harsher noises in this range that aren’t always frequencies most prominent in the snare drum. Sometimes you still want to feel the weight of the snare, which you can do by leaving a little low end around 150 Hz to 300 Hz. That crack you want in the snare is usually between 1 kHz and 4 kHz, depending on the snare drum. Try boosting 3.5 kHz to get more crack...but don’t have a crack attack!

**High Tom** – Use a high pass filter around 50 Hz to 80 Hz, or even higher. Toms are tricky – sometimes they sound great without any tweaking, other times it’s a much-needed fix. Try cutting around 500 or 600 Hz with a soft Q (1 to 3) to take out some of the “nasty” box-like sound. Boost that frequency first so you can hear what sort of “nasty” I’m talking about. The slap/crack of the high tom might be around 3.5 or 4 kHz, so you can boost that with a sharp Q (similar to the slap of the kick) to help the top end cut through the mix. The sweet spot in the low end is entirely dependent on the tom, but is usually around 150 to 300 Hz.

**Low Tom** – Only use a high pass filter if the floor tom is too bassy, and then use it around 50 Hz. Similar to the kick, cut around 200 or 250 Hz to attenuate that boxy sound, then subtly boost (if needed) 3.5 kHz to help the attack/slap cut through the mix.

**High Hat** – Use a high pass filter starting anywhere from 200 Hz to 450 Hz. You only really want the sweet, smooth, and bright frequencies between 800 Hz and 10 kHz. If you’ve got a harsh sounding hat, try cutting 1 or 2 kHz with a medium Q (3-6).

**Overheads** – If you’re just going for the cymbals, cut most of the other drums out by using a high pass filter around 200 Hz to 400 Hz. Sometimes you’ll want to gently attenuate (cut) 600 Hz with a wide Q (.5 to 2) to soften those harsh mid frequencies not always favored in drums.

**Vocals** – Use a high pass filter starting around 100 to 150 Hz. Listen carefully, and depending on the singer, you might want more low end or less. If you recorded the vocals in a small room, there could be “room modes” (frequencies that are more reverberant than others due to the dimensions of the room), that are affecting your vocal. You can find these by using the search and destroy method and listening for frequencies that sound like they’re humming or feeding back. You may want to cut a little harshness around 1 kHz to 2 kHz (with a medium Q between 4 and 6), which is where most of the harsh sibilance (s’s, t’s, v’s, f’s) is. You don’t want to cut too much of this, because the sibilance helps us understand what the vocalist is saying – you just don’t want these frequencies to sound too harsh on the ears. You can add “air” to vocals to make them sound lighter and brighter by boosting 5 Hz and higher with a shelf EQ...or a soft shelf boost after 1 kHz.

**Acoustic Guitar** – In a full band mix, you want the acoustics to really pop out of the mix, and the best way to do this is to cut off all the baggage – so use a high pass filter as low as 100 Hz and up as high as 400 Hz (use your own judgment, all acoustics are different). You should also look for frequencies in the lower mid-range that are excessively boomy or humming (most acoustic guitars have a natural resonance – a frequency at which they vibrate/reverberate the most). Before you boost 3 kHz – 10 kHz to get that sparkly you want, try cutting the low end and mid range more with a wide EQ band.

**Electric Guitar** – For rhythm guitars, you want to keep some of the warmth and power of the low end, but you still want to get rid of the unnecessary rumble deeper down. Try using a high pass filter around 100 Hz. For lead guitars, try using a high pass filter up to 150 Hz or 200 Hz. Start low and raise the frequency until you hear it begin to affect the center of the tone, then back off (lower the frequency) to where you can’t tell the difference. You might not be able to hear the lower frequencies you’re cutting out, but you are cleaning up your mix! This allows more room for the kick and bass guitar in the low end without the guitars muddying up everything.

You may have noticed I didn’t mention anything else besides the high pass filter when mixing electric guitars... That’s because I believe it’s better to go for a great tone with the amp and mic placement than try to fix it with EQ. I rarely use more than a high pass filter on my electric guitars.

**Bass** – Your bass guitar should be married to your kick drum. It should sound as though the kick drum is your bassist thumping his strings – the attack at the front of every hit. To achieve this, you should find what frequency your kick is centered on and carve out that frequency in your bass guitar (cut about 5 dB and see what it sounds like) to make space for the kick. To get rid of the boominess of a bass guitar, try cutting between 80 Hz and 150 Hz. Cutting to carve out that space for the kick drum will help control a boomy bass as well. If you want to add a little presence (brightness) to your bass, try boosting sharply on a frequency between 1kHz and 3 kHz.