

Frequency Guide

Help! My lead singer sounds like he is in a fishbowl, I have feedback coming from one of my back-up vocal mics, and the bass sounds like a dying cow. What do I do?

With this easy-reference guide you can quickly assess and correct most frequency issues while running sound. Included in this guide are the general frequency ranges, a brief description of what they do to a sound, and what this particular frequency sounds like when it is boosted.

Frequency Chart - Compiled by Mark Owens

Sub-bass: 20-40 Hz → thunder, earthquakes, power → feels like tapping fingers on your chest

Bass: 40-50 Hz → tonic, fundamental of kick drum → very light tapping of fingers on your chest

Baritone/tenor: 80-160 Hz → first harmonies of bass notes → ocean, “ooo” of 250 (hard to define)

Mud: 160-320 Hz → alto, everything has energy here → “ooo” sound, round

Body/warmth: 320-640 Hz → alto, everything has energy here → “o” sound

Soprano: 640Hz-1280kHz → fundamental of soprano notes, overtones of instruments → “ah” sound, crowd noise

Bite/edge/harsh: 1.25k-2.5k → all overtones/harmonics → “eh” sound, pressure washer

Presence: 2.5k-5k → overtones, presence, speech recognition → “ihe” sound, like dentist hose

Brilliance/sparkle: 5k-10k → metallic, tambourine, sibilance, cymbals → “s” sound

Air: 10k-20k → extreme highs, air, hiss, sizzle → air leak in a tire

For a graphic representation of these frequencies, see the chart on the following page:

