



TECHNICAL BRIEF 2: Tuning Chart

Frequency Range:	Effected Area:	Results Of Excessive Boost:
16hz - 60hz	Sense of power, music is felt more than heard.	Makes music sound muddy
60hz - 250hz	Fundamentals of the rhythm section. Equalizing can change the musical balance making it fat or thin.	Makes music sound boomy
250hz - 2000hz	Low order harmonics of most musical instruments.	Telephone-like quality to music. 500 to 1kHz will be horn-like. 1kHz - 2kHz will sound tinny. Listening fatigue may result
2kHz - 4kHz	Speech recognition.	3kHz - Listening fatigue. Will add a lisping quality to voices. "M", "V", & "B" will become vague.
4kHz - 6kHz	Effects clarity and definition of voices and instruments. The music will seem closer to the listener. Adding boost at 5kHz will make the music seem louder.	Sibilance on vocals (harshness)
6kHz - 16kHz	Brilliance and clarity of sounds.	Sibilance and/or harshness on voices.

Key Frequencies:

Voices 15kHz.	Fullness at 120Hz; Boominess at 200 - 240Hz; Presence at 5kHz; Sibilance at 7.5kHz; Air at 12 - 15kHz.
Harmonica	Sounds "Fat" at 240Hz; will add "Bite" at 3 - 5kHz.
Conga	Resonant ring at 200 - 240kHz; Presence and "Slap" at 5kHz.
Bass Guitar	Attack or pluck is increased at 700 or 1kHz; Bottom will be added at 60 or 80Hz. String noise at 2.5kHz.
Bass Drum	"Slap" at 2.5kHz; Bottom at 60 or 80Hz.
Snare Drum	Fatness at 240Hz; Crispness at 1 - 2.5kHz; Bottom at 60 - 80Hz.
Hi-Hat and Cymbals	"Shimmer" at 7.5 - 10kHz; "Klang" or Gong sound at approx. 200Hz.
Toms	Attack at 5kHz; Fullness at 240Hz.
Floor Toms	Attack at 5kHz; Fullness at 80 or 120Hz.
Electric Guitar	Body at 240Hz; Clarity at 2.5kHz.
Acoustic Guitar	Body at 240Hz; Clarity at 2.5kHz; Bottom at 80 or 120Hz.
Piano	Body at 80 - 120Hz; Presence at 2.5 - 5kHz; Crispness at 10kHz; Honky-Tonk sound at 2.5kHz as bandwidth is narrowed. Resonance at 40 - 60Hz.
Horns	Fullness at 120 - 240Hz; Shrill at 7.5 or 5kHz.