

EQ CHEATSHEET

Sub-Bass (20–60 Hz)

- Adds: Power, rumble, “feel it more than hear it.”
- Too much: Muddy, boomy, overpowering.
- Use for: Kick drum, bass synth, subwoofer content.
- Tip: Cut on non-bass instruments with a high-pass filter (HPF).

Bass (60–250 Hz)

- Adds: Warmth, fullness, body.
- Too much: Boomy, boxy, unclear.
- Use for: Bass guitar, kick drum, male vocals, piano body.
- Tip: Careful EQ here separates kick vs. bass.

Low-Mids (250–500 Hz)

- Adds: Thickness, warmth.
- Too much: Mud, clutter, lack of clarity.
- Use for: Vocals, guitars, snare body.
- Tip: Cutting around 300–400 Hz can clear mud.

Mids (500 Hz–2 kHz)

- Adds: Presence, definition, clarity.
- Too much: Honky, nasal, boxy.
- Use for: Vocals, guitars, keys, most instruments.
- Tip: Boost lightly for intelligibility in vocals.

High-Mids (2–6 kHz)

- Adds: Attack, snap, intelligibility, edge.
- Too much: Harsh, piercing, listener fatigue.
- Use for: Vocals clarity, guitar bite, snare crack, cymbal definition.
- Tip: Small cuts tame harshness (esp. 3–4 kHz on vocals).

Highs (6–20 kHz)

- Adds: Air, sparkle, brightness, detail.
- Too much: Hiss, brittle sound, sibilance.
- Use for: Cymbals to shimmer, vocal “air,” acoustic guitars.
- Tip: Gentle boost at 10–12 kHz can add shine.

The following part of this cheat sheet are good starting points and will be different depending on the source, mic placement and room acoustics.

Vocals

- Low Cut / HPF: Roll off below 80–120 Hz (removes rumble, mic handling noise).
- 200–400 Hz: Too much = muddy; gentle cut cleans up.
- 1–2 kHz: Boost slightly for presence.
- 3–5 kHz: Boost for intelligibility; cut if harsh/nasal.
- 8–12 kHz: Add “air” and brightness.

Drums

- Kick Drum
- 50–80 Hz: Boost for thump/power.
- 250–400 Hz: Cut to reduce boxiness.
- 2–4 kHz: Boost for beater attack/click.

Snare Drum

- 100–200 Hz: Boost for body/weight.
- 400–800 Hz: Cut if boxy.
- 2–4 kHz: Boost for crack/attack.
- 7–10 kHz: Boost for snap/brightness.

Toms

- 80–120 Hz (floor) / 120–250 Hz (rack): Boost for body.
- 400–800 Hz: Cut to reduce mud/boxiness.
- 4–6 kHz: Boost for attack.

Hi-Hats / Cymbals

- 200–300 Hz: High-pass filter (remove bleed/rumble).
- 3–6 kHz: Boost for stick definition.
- 8–12 kHz: Boost for shimmer/air.

Bass Guitar

- 50–80 Hz: Boost for low-end weight.
- 100–250 Hz: Cut to avoid muddiness.
- 700 Hz–1 kHz: Boost for note definition.
- 2–4 kHz: Boost for attack/clarity.

Electric Guitar

- 80–120 Hz: High-pass filter (remove rumble).
- 200–400 Hz: Cut if muddy.

- 2–4 kHz: Boost for bite/presence.
- 6–8 kHz: Cut if harsh/bright.

Acoustic Guitar

- 80–100 Hz: High-pass filter (remove boom).
- 100–250 Hz: Boost gently for body.
- 500 Hz–1 kHz: Cut if boxy.
- 3–5 kHz: Boost for articulation/pick attack.
- 7–12 kHz: Boost for sparkle/air.

Piano / Keys

- 80–120 Hz: Boost for fullness in low end.
- 200–400 Hz: Cut if muddy.
- 3–5 kHz: Boost for presence/clarity.
- 8–12 kHz: Boost for brightness.

Good EQ Trouble shooting Starting points:

- Vocals muddy? → Cut 200–400 Hz.
- Vocals harsh? → Cut 3–4 kHz.
- Vocals dull? → Boost 8–12 kHz slightly.
- Kick drum lacks thump? → Boost ~60–80 Hz.
- Kick drum needs attack? → Boost 3–5 kHz.
- Snare dull? → Boost 2–4 kHz.
- Bass guitar muddy? → Cut ~250 Hz.
- Bass needs clarity? → Boost ~700 Hz–1 kHz.
- Guitar harsh? → Cut 2–3 kHz.
- Guitar dull? → Boost 3–5 kHz.

Helpful to remember:

- EQ is about carving space — boost what makes an instrument shine, cut what makes it clash or muddy.
- EQ is not a volume knob
- EQ works best in context to the rest of the mix; it is best not to eq with the channel in solo.
- Subtractive EQ will usually yield better results. Cut down unwanted frequencies.
- Remember to adjust the output level as you boost or subtract so you aren't fooled by loudness.
- Take time to listen to the changes you make to make sure they are the right ones.
- If you get too far down the rabbit hole and still aren't happy. Reset and start again.

