

The Mix Cheat Sheet

Starting points for EQ, panning, levels and compression. Keep it next to your DAW.

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01 Vocal EQ

RANGE	WHAT LIVES THERE	TYPICAL MOVE
Below 80–120 Hz	Rumble, handling noise, plosives	High-pass as high as possible without thinning the voice
120–250 Hz	Body and warmth	Leave, small boost for thin voices, cut if heavy
250–500 Hz	Mud, boxiness	Cut 2–3 dB if cloudy or boxy
800 Hz–1.5 kHz	Nasal, honky tone	Narrow cut if needed
2–5 kHz	Presence, consonants	Gentle boost for clarity; too much = harsh
5–9 kHz	Sibilance	De-esser or dynamic EQ
10–16 kHz	Air	High shelf, after de-essing

Cut narrow, boost wide. Make EQ decisions with the whole mix playing, not in solo.

02 Panning

ELEMENT	POSITION	LOGIC	ABLETON	FL STUDIO	PRO TOOLS
Kick, snare, bass, lead vocal	Centre	0	C	Centred	0
Hi-hat	~20% off-centre	±13	10L/R	20%	<20 / 20>
Piano / keys, guitar	20–30% opposite sides	±13–19	10–15L/R	20–30%	20–30
Background vocals	Pair, ~50% L and R	–32 / +32	25L / 25R	50% L/R	<50 / 50>
Harmonies, adlibs	~60–65% L and R	±38–41	30–33L/R	60–65%	60–65
Double-tracked guitars	Hard L and R	–64 / +63	50L / 50R	100% L/R	<100 / 100>
Pads, strings, overheads	Wide stereo	Keep stereo; high-pass the side channel below ~100–150 Hz			

Keep everything below ~100–150 Hz mono. Balance left and right. Check in mono regularly.

03 Starting levels (relative to kick & lead vocal = 0 dB)

ELEMENT	LEVEL	ELEMENT	LEVEL
Kick	0 dB	Background vocals	–7 dB
Lead vocal	0 dB	Guitar	–8 dB
Bass	–3 dB	Cymbals, harmonies	–9 dB
Snare	–4 dB	Strings	–11 dB
Synth lead	–6 dB	Adlibs	–12 dB
Hi-hat	–7 dB	Pads	–14 dB
Piano / keys	–7 dB	Reverb / delay returns	–16 to –18 dB

A pop starting balance. Adjust by ear and genre. Leave mix-bus peaks around –6 to –3 dBFS before mastering.

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Compression, reverb and the rules that fix most mixes.

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04 Compression starting points

ELEMENT	RATIO	ATTACK	RELEASE	GAIN REDUCTION
Kick	4:1–8:1	5–10 ms	50–100 ms	3–6 dB
Snare	4:1–6:1	5–15 ms	100–200 ms	3–6 dB
Bass	4:1–6:1	30–50 ms	150–300 ms	3–6 dB
Lead vocal	3:1–4:1	10–30 ms	100–200 ms	3–6 dB
Background vocals	4:1–6:1	5–15 ms	~100 ms	4–8 dB
Clean guitar	3:1–4:1	10–20 ms	100–200 ms	2–4 dB
Piano	2:1–3:1	20–50 ms	~200 ms	2–4 dB
Synth lead	4:1–8:1	1–10 ms	50–150 ms	3–6 dB
Pads / strings	2:1–3:1	30–100 ms	300 ms+	1–3 dB
Mix bus	~2:1	~30 ms	Auto / medium	1–3 dB

Slower attack = more punch; faster attack = more control. Always level-match before judging.

05 Vocal reverb by genre

GENRE	TYPE	DECAY	PRE-DELAY
Pop	Plate (+ quiet hall for depth)	1.2–1.8 s	30–60 ms
Hip-hop	Short room, or none	0.4–0.6 s	0–20 ms
R&B	Room or plate	0.8–1.2 s	25–35 ms
Indie	Short plate or room	0.8–1.5 s	20–40 ms

Reverb on a send. High-pass the return at 200–400 Hz, low-pass at 6–10 kHz. One beat in ms = 60,000 ÷ BPM.

06 Rules that fix most mixes

- Kick and bass: decide who owns the sub; carve with small complementary EQ dips.
- Sidechain the bass to the kick: fast attack, 100–300 ms release.
- Tune the 808 to the key before any EQ.
- Add harmonics (saturation) so bass translates to phones.
- De-ess before adding air or reverb.
- Ride vocal levels before compressing.
- Check at low volume, in mono and against a reference at matched loudness.
- Streaming plays at about -14 LUFS (Spotify) / -16 LUFS (Apple): louder isn't louder.

Want this for every element in 5 genres?

MixMap maps 63 elements across Pop, Hip-Hop, R&B, Electronic and Indie: frequency, pan, width, level, compression, reverb and delay. Bonus: MasteringMap.

thesonicsecrets.com/mixing/mixmap