
18. DRUM MIXING:
EQ, COMPRESSION & BUS GLUE

Drum Mixing: EQ, Compression & Bus Glue

Most engineers don't need a mixing degree. They need enough process to stop guessing — enough to know why the kick feels weak, why the snare disappears, enough to build a drum bus without clicking around for an hour. This guide is for producers, beat makers, and engineers who want a repeatable system. No magic presets. No plugin worship. Just a practical workflow that makes your drums feel intentional.

Level Hierarchy

Faders first. Every drum knows its role before plugins touch it.

Kick EQ & Compression

Constrain the band, shape the tone, control the hit.

Vocal → Kick Sidechain

A dynamic pocket so the kick survives the vocal.

Snare, Hats & Breaks

EQ to protect roles, compress only when there's a reason.

Drum Bus Chain

Multiband stabilizer, then glue compressor. One kit, not a louder kit.

The Drum Mix Starts With Hierarchy

EQ and compression only work when every drum already knows its job. The kick is the foundation. The snare defines the backbeat. Hats, breaks, ghost notes, and percussion create speed and movement around them. If you reach for plugins before that hierarchy exists, you are solving the wrong problem, you are shaping sounds that do not yet have a clear pecking order in the mix.

This guide documents a repeatable starting system: set the level hierarchy first, constrain each sound to the spectrum it actually needs, compress only when there is a reason, then fuse the entire kit on one drum bus. The framework gets you to an organized session in minutes. From there, every decision is a creative one.

01

Step 1

Set the level hierarchy. Faders first, plugins second.

02

Step 2

Constrain each drum to the spectrum it actually needs.

03

Step 3

Compress only when there is a specific problem to solve.

04

Step 4

Fuse the entire kit through the drum bus chain.

> "EQ and compression are finishing tools. The hierarchy is the foundation. Build the foundation first."

Part 1: Build the Level Hierarchy

Faders first. Plugins second. The fastest way to make a drum mix feel intentional is to stop treating every hit as equally important. A kick that sits at the same fader position as a hat pattern has already lost. The session needs a clear tier before any EQ or compression makes sense.

Start with a strict hierarchy, then adjust from there. These are fader starting positions, not peak-meter targets. A sample recorded hot will not behave like a quiet sample at the same fader number. Clip gain, saturation, EQ, and compression all change the actual signal level. Use **-5 / -15 / -20** as your session hierarchy, then listen to the real balance and adjust.

KICK -5 dB

Owns the front of the drum mix. Movement and low impact come first. The kick is the anchor everything else references.

SNARE -15 dB

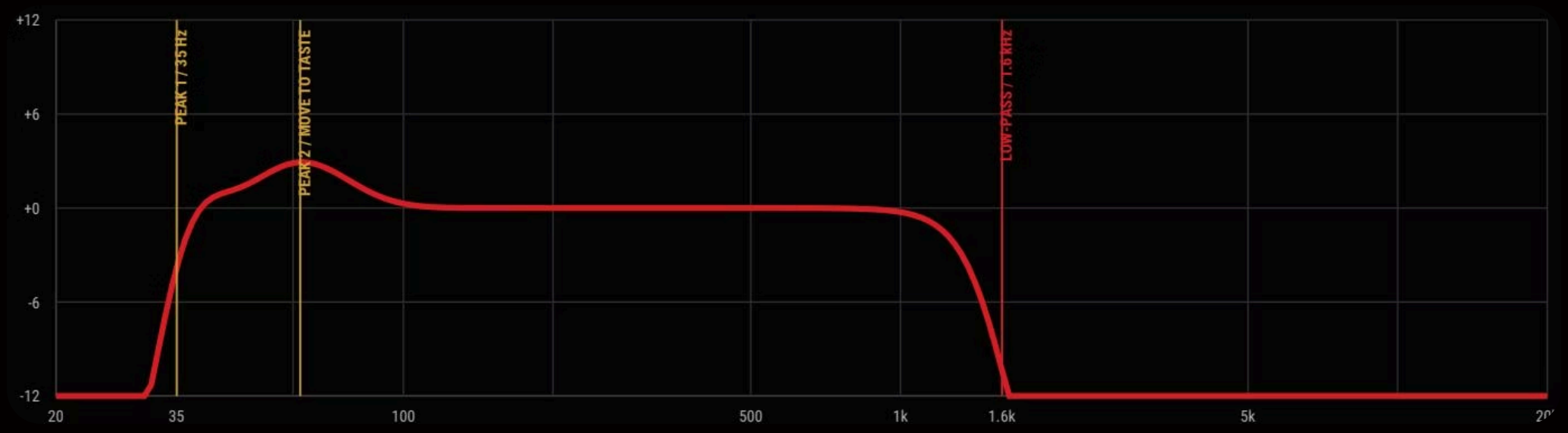
Still clear and strong, but deliberately below the kick in this system. The snare defines the backbeat, it does not compete with the foundation.

OTHER -20 dB

Hats, breaks, ghost hits, and percussion support the main two hits. They add speed and texture, not volume.

Part 2 & 3: Kick EQ - Build the Band, Then Shape It

In this system, the kick is deliberately restricted to a useful working range. Start by making the big decision before the small ones: **cut everything below 35 Hz and everything above about 1.6 kHz.** That gives the kick a controlled lane before you start shaping its tone. Sub-rumble below 35 Hz steals headroom without helping the hit. Upper click and noise above 1.6 kHz belongs to a different space, if you need more click, that is a deliberate exception, not the default.



The Two-Peak Method

Peak 1

Fixed at 35 Hz: This is the anchor. It reinforces the bottom edge of the kick right where the high-pass starts. Adjust gain and Q so the weight feels intentional, not boomy.

Peak 2

Start Close, Move to Taste: Place the second peak near the first, then sweep it until the kick has the weight, punch, and shape you want. Frequency, gain, and Q are all tone controls here — use all three.

What Changes When You Move Peak 2?

- **Closer to Peak 1:** Low-end resonance feels more concentrated and heavier.
- **A little higher:** Kick starts to feel more punchy and less purely sub-focused.
- **More gain / narrower Q:** Resonance becomes more obvious and present.
- **Less gain / wider Q:** Shape feels more natural and blended.
- **Always:** Make the final call with the bass playing. A kick that sounds huge in solo can be the wrong kick in a full low-end system.

Part 4: Kick Compression

Control the hit. Do not erase the hit. After EQ, use compression only if the kick needs more repeatability or envelope control. The compressor should make every hit feel intentional without flattening the transient that creates punch. Compression here is a surgical tool, not a default step in the chain.

2:1

Ratio

Enough control without immediately clamping the dynamics out of the hit.

2ms

Attack

Aggressive enough to control the transient — back off if the kick loses snap.

50ms

Release

Fast recovery so the compressor releases before smearing the next hit.

Attack — Read the Transient

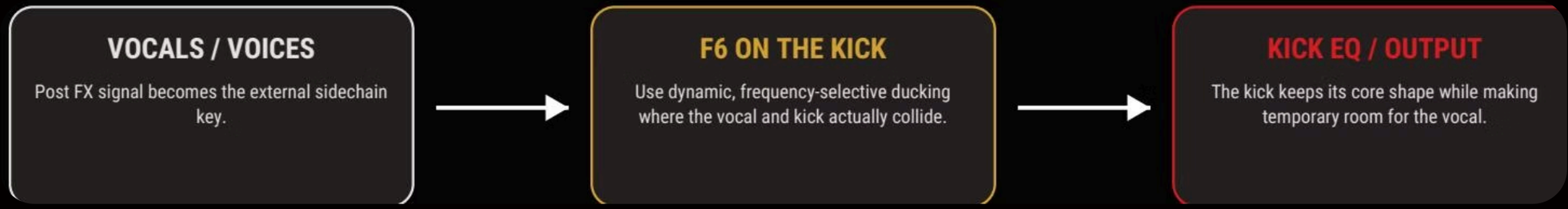
Too fast and the front edge of the kick disappears. The 2 ms example is a useful aggressive starting point, back off if the kick loses its snap and starts feeling soft. The attack setting is your primary control over how the hit actually lands on the listener.

Threshold — Set From the Signal

Do not copy a threshold number from this document. Set it from the actual signal level in your session. Lower the threshold only until the kick becomes more consistent from hit to hit. Stop there. If it is triggering on every transient at a moderate reduction, it is doing its job. If you are pulling 10 dB of gain reduction on a standard kick hit, you have gone too far.

Part 5: Vocal → Kick Sidechain

One detail from the actual session that is easy to miss: **the kick receives a sidechain from the vocal bus.** In the session, F6 Stereo is on the kick with VOICES selected as the external sidechain source (Post FX), placed before the kick EQ. The vocal and kick occupy overlapping frequency territory, when the vocal enters, it can mask the kick's core presence. The sidechain gives the kick a dynamic way to temporarily make room.



How to Set It — Rules for This Sidechain

1 Play Together, Not Solo

Play the kick and vocal together. Do not tune this relationship in solo mode, the sidechain only makes sense in context. You are solving a real collision, not a theoretical one.

2 Target Only the Collision Zone

Let the vocal trigger only the frequency area that is actually masking the kick. The goal is a small, temporary pocket , not obvious pumping or ducking that you can hear as an effect.

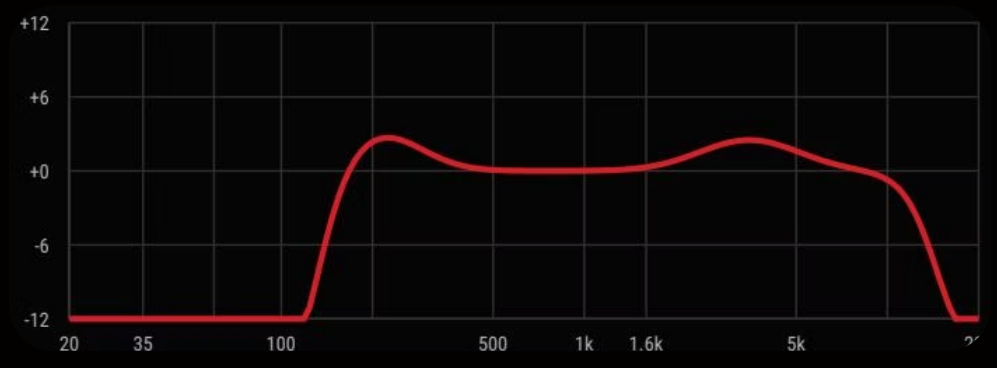
3 Keep the Kick Intact

The kick weight and transient must remain. If the kick suddenly sounds weak every time the vocal enters, the sidechain is doing too much. There is no fixed threshold number. set the amount from the actual vocal and kick relationship in the session.

Part 6 & 7: Snare, Hats, Breaks & Channel Compression

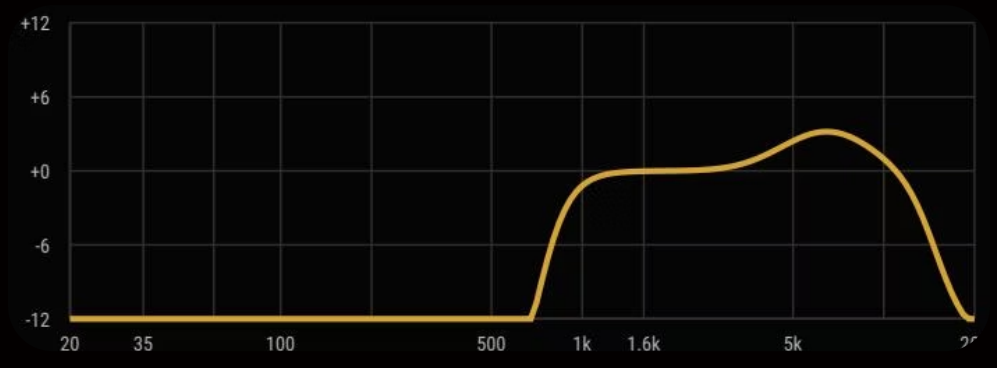
Use EQ to protect roles, not to make every channel full-range. The screenshots from the session follow the same logic as the kick: remove spectrum that is not doing a job, then shape the useful range. The exact numbers change with the sample, the principle stays fixed. Every drum should occupy the territory it needs and nothing more.

Snare — Keep Body + Crack



High-pass at 100 Hz removes useless low rumble. Keep enough mid body to feel physical. Shape the upper crack only where it helps the backbeat. At -15 dB on the fader, the snare does not need to fill the entire spectrum, it needs to cut through the right one.

Hats / Perc — Filter Lows Hard



High-pass aggressively, around 500 Hz. Hats, breaks, ghost notes, and percussion are support layers at -20 dB. Remove all the low-end they do not need. Tame harshness in the upper midrange before raising the fader. These channels should never be competing with the kick or snare for low-frequency space.

Channel Compression — Ask the Question First

Compression is not mandatory on every channel. Ask what problem it is solving before you insert it. Use it when a drum is inconsistent hit to hit, when the transient is too aggressive and jumps out of the mix, or when the sustain needs to sit in a tighter rhythmic pocket. The best channel compression often feels like nothing happened, you just notice that the drum sits still instead of wandering.

Transient

Faster attack catches a jumping front edge. Slow down if the drum loses punch.

Body / Sustain

Release controls how quickly the sound returns. Tune it to the groove.

Consistency

Bypass and level-match. If it only sounds better because it's louder, the compression did nothing.

Part 8 & 9: The Drum Bus Chain

All drums converge into one controlled system. Once the individual channels are doing their jobs, route the entire kit to one drum bus. The order in this workflow is intentional: multiband control first, glue compression second. The multiband stage handles uneven frequency regions before they hit the broadband compressor. Then the glue compressor reacts to a more stable drum picture. The result is cohesion instead of one loud frequency band constantly forcing the whole bus to compress.

Multiband First — Stabilizer, Not Crusher

Think of the multiband as a frequency stabilizer. It stops one zone from taking over the bus without making the drums sound crushed. Set crossover points around the actual kit, not a magic preset. Low handles kick weight, mid handles snare body and break character, high handles crack, hats, and air.

The rule: If the bus needs extreme multiband compression, go back to the individual channels and fix the source. The bus should be cleaning up a balanced signal, not compensating for broken channel work.

Frequency Zones on the Bus

LOW

Kick weight + low drum energy. Stabilize without killing the punch.

MID

Snare body + break character. Even this zone without squashing the backbeat.

HIGH

Crack + hats + air. Control harshness without pulling the life out of the top end.

Part 10: Glue Compressor After the Multiband

The goal is one kit, not a louder kit. The glue compressor is the final drum-bus movement stage. It should make the hits lean into each other and feel like one performance while keeping the kick and snare transients alive. If it makes the kit sound louder without making it feel more connected, you have gone too far or set it wrong.

Ratio — 2:1 Start

Enough control to create cohesion without immediately sounding clamped. The bus does not need to be smashed, it needs to breathe together.

Attack — Let Transients Through

Let enough transient through that the kick and snare still speak. If the snare loses crack, the attack or threshold is too aggressive. Ease up until the punch returns.

Release — Follow the Groove

The bus should recover with the rhythm of the track. If the kit pumps or stays ducked between hits, the release is not returning naturally to the groove.

Listen For These Three Things

Kick

Still hits first. Does not turn into a soft low-end swell when the bus works.

Snare

Still has a clean front edge. Does not disappear into the bus compression.

Support Layers

Feel connected to the main hits without suddenly jumping to their volume level.

The Final Recipe + Practice Drill

Fast setup. Clear hierarchy. Then adjust by ear. The steps below are the complete drum system in one pass. Use them to get organized quickly in any session, then let your ears finish every decision. The numbers get you to the starting line. The ear makes the record.

The 9-Step Recipe

01

Level

Kick -5 dB / Snare -15 dB / everything else -20 dB.

02

Kick Band

High-pass at 35 Hz. Low-pass around 1.6 kHz.

03

Two Peaks

One fixed at 35 Hz. Move the second nearby to taste.

04

Vocal SC

VOICES Post FX → F6 sidechain on the kick. Carve only the collision area.

05

Channel EQ

Remove spectrum each snare, hat, break, or percussion layer does not need.

06

Channel Comp

Compress only to control transient, sustain, or consistency.

07

Drum Bus

All drums → linear multiband → glue compressor.

08

Full Mix

Make final decisions with bass, vocals, and music playing, not in solo.

09

A/B

Bypass and level-match. Keep processing only when it actually improves the groove.

Practice Drill — 20 Minutes

Use a fresh drum kit. Do not load a saved chain. The point is to practice the decisions, not memorize a preset. Work in the full mix as early as possible.

1 **Balance**

Set faders: kick -5, snare -15, all others -20 dB.

2 **Shape the Kick**

HP 35 Hz, LP 1.6 kHz, fixed 35 Hz peak, move the second peak until the kick fits the bass.

3 **Control the Kick**

Add compression only if the hit needs tighter transient, sustain, or consistency. Level-match bypass.

4 **Vocal Sidechain**

Route VOICES Post FX → F6 on kick. Frequency-selective pocket only, no audible pumping.

5 **Clean Support Drums**

EQ snare, hats, breaks, and perc to keep only the spectrum they need.

6 **Build the Bus**

All drums → linear multiband → glue compressor. Listen for connection, not volume.

Pass the drill when: The kick still leads, the snare still cuts, support drums stay behind them, the vocal is clearer when it enters, and the bus feels connected without obvious pumping. Repeat on three different kits.

> **The numbers get you to the starting line. The ear makes the record.**