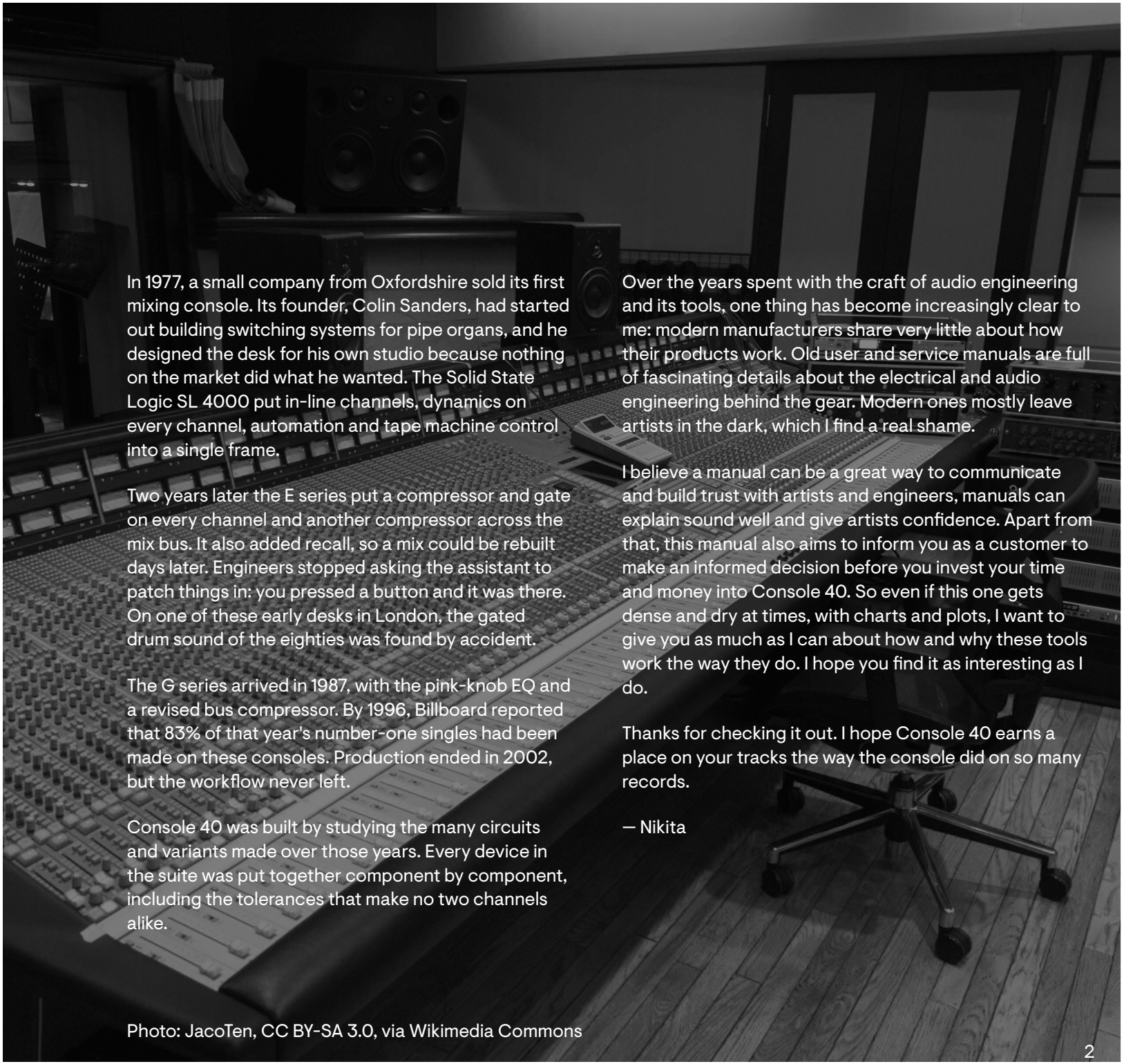
MONOMONO

Console 40

Large format console suite
for Ableton Live

v1.0

Foreword



In 1977, a small company from Oxfordshire sold its first mixing console. Its founder, Colin Sanders, had started out building switching systems for pipe organs, and he designed the desk for his own studio because nothing on the market did what he wanted. The Solid State Logic SL 4000 put in-line channels, dynamics on every channel, automation and tape machine control into a single frame.

Two years later the E series put a compressor and gate on every channel and another compressor across the mix bus. It also added recall, so a mix could be rebuilt days later. Engineers stopped asking the assistant to patch things in: you pressed a button and it was there. On one of these early desks in London, the gated drum sound of the eighties was found by accident.

The G series arrived in 1987, with the pink-knob EQ and a revised bus compressor. By 1996, Billboard reported that 83% of that year's number-one singles had been made on these consoles. Production ended in 2002, but the workflow never left.

Console 40 was built by studying the many circuits and variants made over those years. Every device in the suite was put together component by component, including the tolerances that make no two channels alike.

Over the years spent with the craft of audio engineering and its tools, one thing has become increasingly clear to me: modern manufacturers share very little about how their products work. Old user and service manuals are full of fascinating details about the electrical and audio engineering behind the gear. Modern ones mostly leave artists in the dark, which I find a real shame.

I believe a manual can be a great way to communicate and build trust with artists and engineers, manuals can explain sound well and give artists confidence. Apart from that, this manual also aims to inform you as a customer to make an informed decision before you invest your time and money into Console 40. So even if this one gets dense and dry at times, with charts and plots, I want to give you as much as I can about how and why these tools work the way they do. I hope you find it as interesting as I do.

Thanks for checking it out. I hope Console 40 earns a place on your tracks the way the console did on so many records.

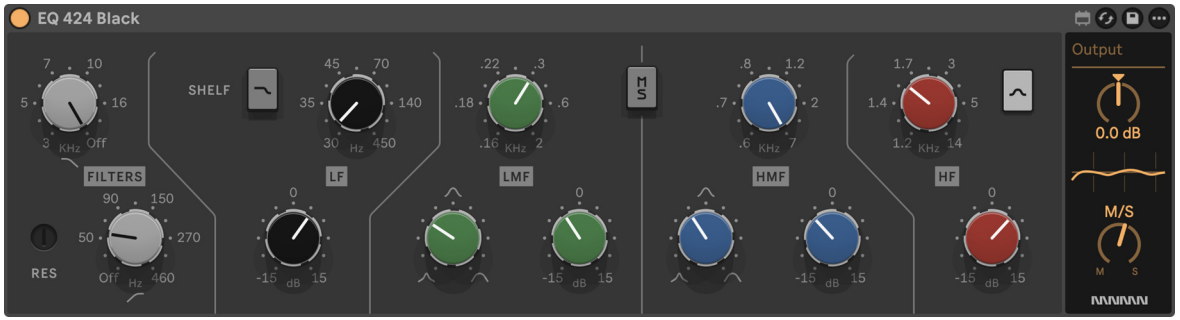
— Nikita

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EQ 422 & 424

Curves EQ encapsulates the spirit of iconic passive filter EQ design, complemented with tools for modern production demands. Following the architecture of the hardware, Curves EQ captures the sound and utility of working with passive hardware EQ (like Pultec EQP-1A3) with a handful of useful additions.



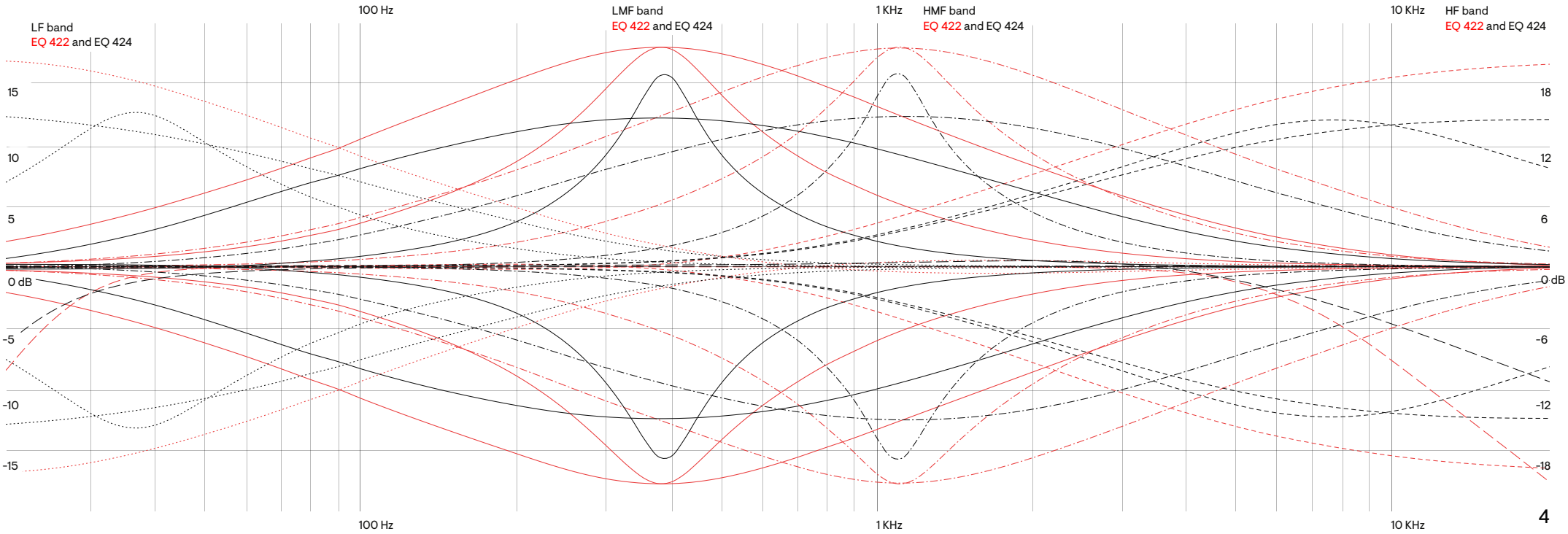


Pink vs Black

Every channel of the console had its own four-band parametric EQ with high- and low-pass filters. Over the desk's lifetime that EQ card was redesigned several times. Until 1987, the colour of a channel's low-frequency knob caps told you which card it had.

The first E series desks shipped with the Brown card. Its bells kept a constant width and its shelves were gentle. A rare Orange option followed, reworked to imitate the curves of valve equalisers, and very few were sold. Next came the Black, which grew out of discussions with working engineers. It had more boost and cut, tighter control of the low end and a steeper high-pass. From the summer of 1985 it replaced the Brown as standard.

Engineers were increasingly tracking and mixing entire projects on the console. The G series, launched in 1987, answered with a redesigned signal path, EQ included. The new card was shaped through listening tests with professional engineers. Its bells narrow as they are pushed, its shelves dip slightly before they lift, and ×3 and ÷3 switches let the mid bands reach into the low and high ranges. It became standard on new desks and was sold as an upgrade for older ones. The colour code was dropped at the same time. The name Pink came later.



What 422 is Great at



The broad-brush.

Its bells widen as you back off and tighten as you push, so gentle moves stay smooth and natural while big ones become focused on their own. Engineers reach for it to shape tone rather than fix problems: overall EQ on groups and busses, subtle polish on vocals and instruments, and bells that the ×3 and ÷3 switches can place anywhere from the deep lows to the air.

Gentle, natural tone shaping and subtle fixes on vocals and instruments

Wide, musical curves for busses, groups and the whole mix

Sharp, mid-forward boosts that give rock guitars their bite

Crisp overheads and hi-hats, weighty kick and bass

Placing vocal and keys bells deep in the lows or high in the air with ×3 / ÷3

What 424 is Great at



Precise, punchy EQ.

Its bells keep the width you set at any gain, so you decide how focused a move is and it stays that way. That makes it the choice for detail work: tight drums, a low end with real weight, and sources pushed forward in a crowded mix. Many engineers ran both cards side by side, the Black for detail and the Pink to shape the overall character.

Punchy drums, with a low end that holds solid when you boost hard

Pushing vocals and guitars forward to cut through a busy mix

Precise lifts and clean scoops, focused even at low gain

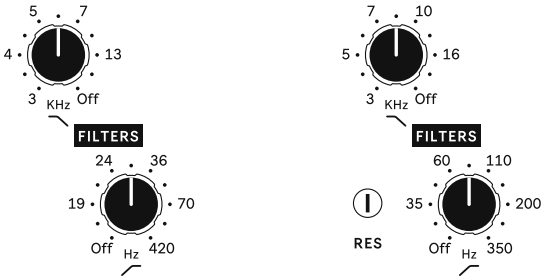
A round, full tone for pop, R&B and hip-hop

Console 40 includes both: EQ 424 Black and EQ 422 Pink and while learning both is definitely beneficial — it allows you to purposefully build channel strips for specific material, mastering one will push your mixes further into greatness.

Band Overview

Filters and low band

While both topologies contain the same number of band selection, before we dive into what specific devices offer, let's get a clear understanding how each band differs between distinct topologies.

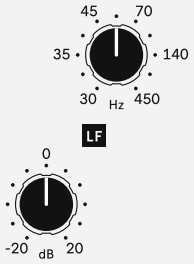


FILTER SECTION

Both EQs place a high-pass and a low-pass at the far left of the panel, and each switches out entirely at the end of its travel. Beyond that they behave quite differently.

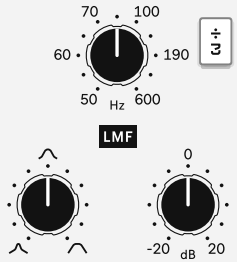
The 424 spreads its high-pass evenly from 20 to 350 Hz. Its knee is gentle, and the RES trim can add a lift right at the corner, tightening the bottom as it rolls away. Its low-pass sweeps evenly from 3 to 24 kHz with a gentle 6 dB/oct slope that softens the top rather than cutting it.

422



LF

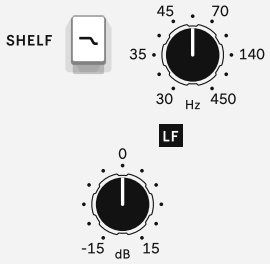
A low shelf from 30 to 450 Hz with up to 20 dB of boost or cut. Everything below the frequency moves together, with a slight dip just above the corner before the lift. Unlike the 424, it is always a shelf.



LMF

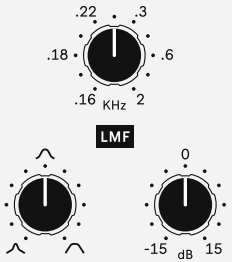
A bell from 200 Hz to 2.5 kHz with up to 20 dB of boost or cut. The ÷3 switch moves it down to 50–600 Hz. Small moves stay broad and gentle; push harder and the bell tightens on its own.

424



LF

The same 30 to 450 Hz range, up to 15 dB of boost or cut, and a SHELF / BELL toggle. Shelf lifts or lowers everything below the frequency. Bell centres on the frequency instead, leaving the deepest lows alone.



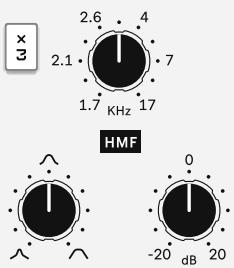
LMF

A bell from 160 Hz to 2 kHz with up to 15 dB of boost or cut. The bell keeps the width set by Q at any gain, so a narrow cut stays narrow, ideal for precise lifts and clean scoops.

Parametric mid and high-bands

Both EQs place their high mid and high bands in the same spots. What differs is how they respond: the 424's bells hold their width at any gain, while the 422's follow the gain and reach further with ×3.

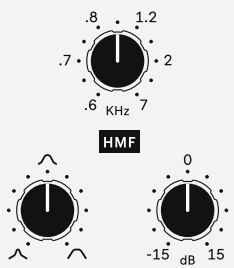
422



HMF

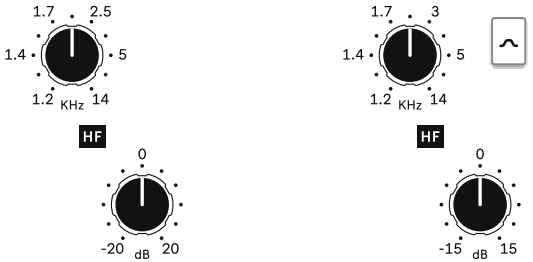
A bell from 600 Hz to 6 kHz with up to 20 dB of boost or cut. The ×3 switch lifts it to 1.7–17 kHz, reaching into presence and air. Small moves stay broad; push harder and the bell tightens on its own.

424



HMF

A bell from 600 Hz to 7 kHz with up to 15 dB of boost or cut. Q sets the width and it holds at any gain, so a narrow cut on a harsh ring stays narrow however deep you go.



HF

Both EQs close with a high shelf from 1.2 to 14 kHz: turn it up for air and presence, or down to soften brightness and hiss. The 422 offers up to 20 dB and stays a shelf. The 424 offers up to 15 dB and adds a SHELF / BELL toggle: as a bell, it centers on the frequency and lifts a range around it, leaving the extreme top alone.



It comes down to the material and personal taste, of course, and I don't have enough hours on large-format consoles to speak with authority. Still, I find myself reaching for the 420 far more than any other: the 422's four bands, streamlined, and I love the simplicity and wider range where bands interact. I rarely need four bells and filters, and I rarely use M/S while mixing — if that's your jam, 424 should be your weapon of choice. If I feel 420 is not enough — I'd rather take a step back to check the overall balance before returning to sculpting.

And if anything I say helps you in the mix: using a little EQ, or none at all, is just as valid as reaching for the full boost range if materials calls for it.

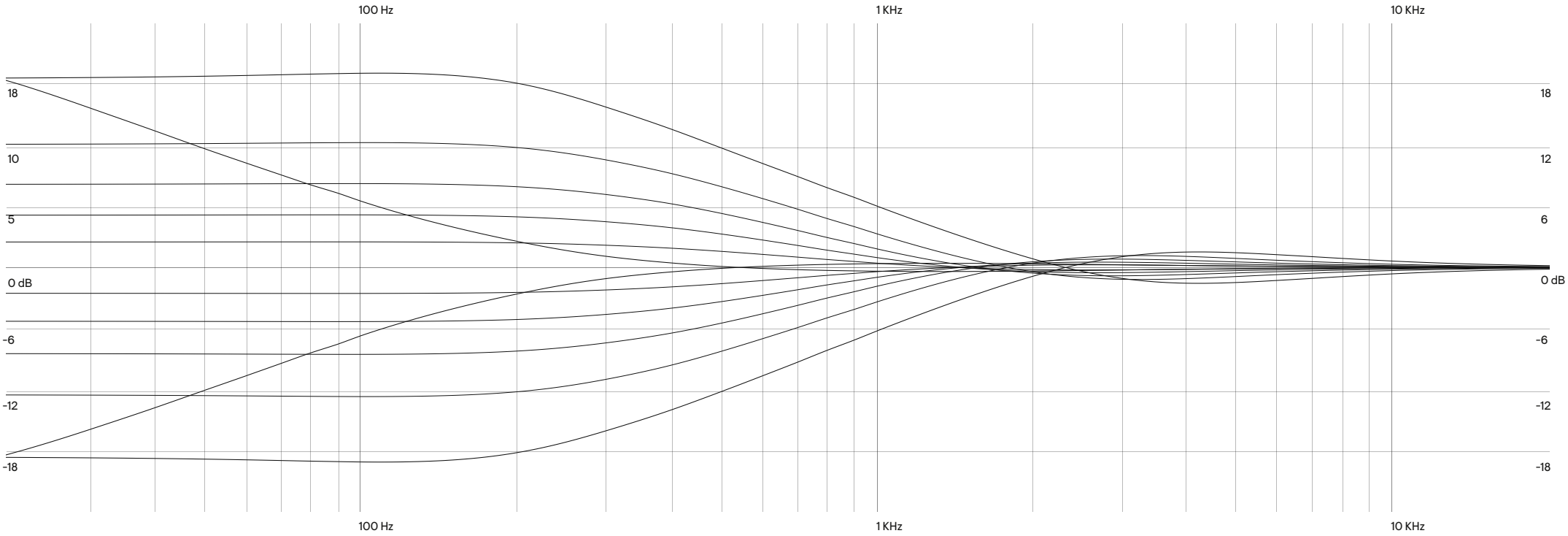
EQ 422 & 420


Pink
M
S
45
70
35
140
30
Hz
450
LF
0
-20
dB
20
FILTERS
24
36
70
Off
Hz
450

Low Frequency Band

The low shelf is where a track finds its weight. Set low, it leans on the sub and lowest bass: a few dB of boost fills out a thin kick or bass without clouding the low mids. Turned up towards 450 Hz, the same shelf reaches into the body of guitars, piano and vocals, where a gentle cut clears mud and a boost warms a thin source.

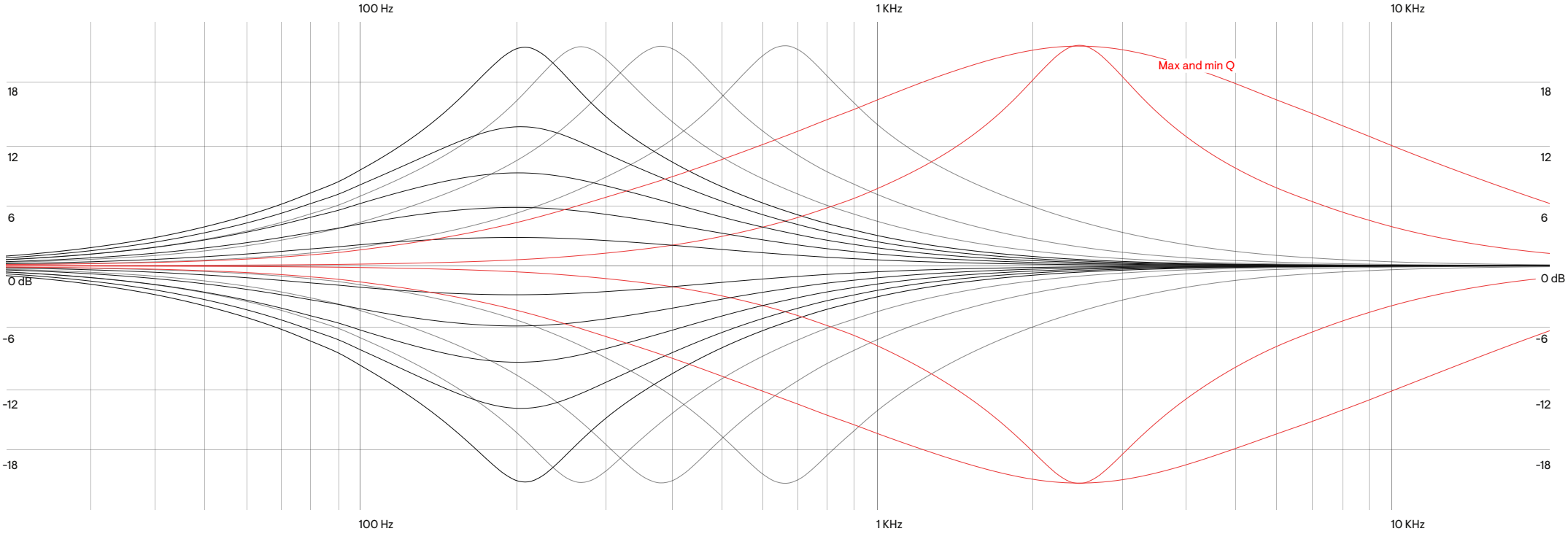
Up to 20 dB either way is available, though most useful moves live in the first few. Because the shelf is broad and smooth, moves blend in rather than stand out, so it suits a whole bass line, a drum bus or a full mix. On kick and bass, pair a boost with the high-pass for weight without rumble.



Low Mid Band

The mid band in Curves is modeled after the inductor-based circuitry found in classic passive EQs, it not only shapes the frequency spectrum but also imparts a subtle, musical saturation that adds presence and richness—especially noticeable on vocals, guitars, snares, and synths (more on this behavior on later).

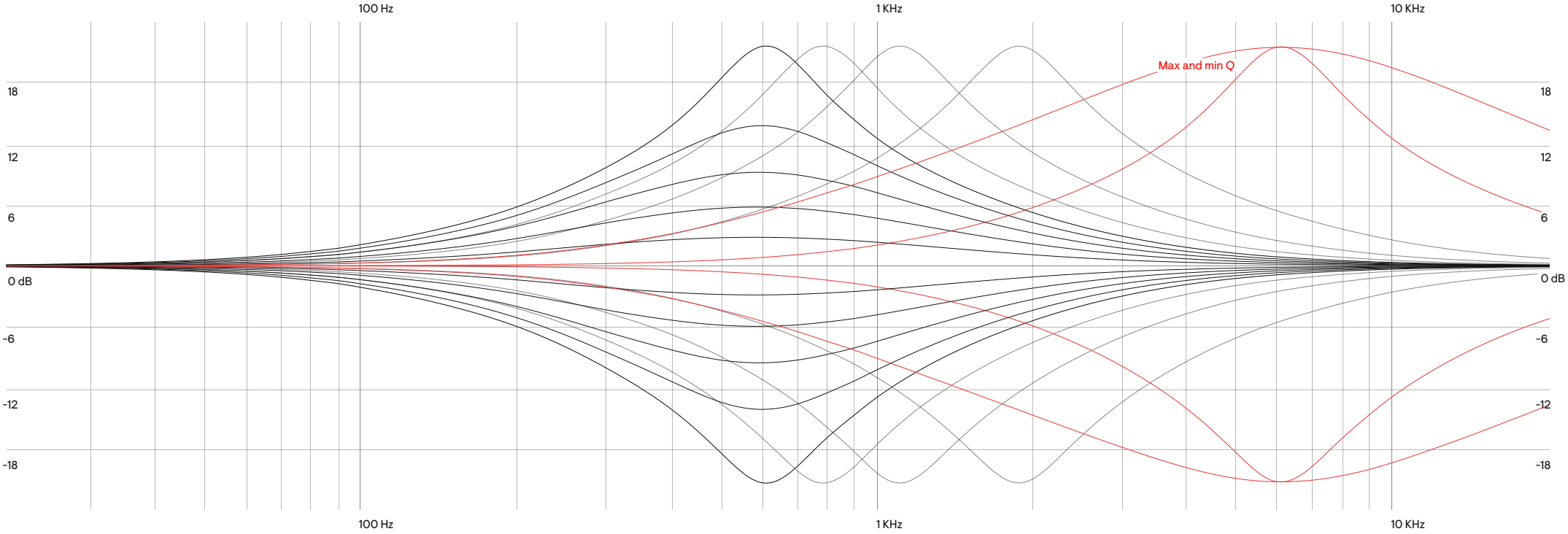
The mid band provides precise control over a wide spectrum, extending from the low-mids at 200 Hz all the way up to 12 kHz. This extensive range makes it an exceptionally versatile tool for addressing nearly any frequency-related mixing challenge. It can enhance vocal presence, bring out the attack of percussion, highlight the brilliance of acoustic instruments, or it effectively can reduce harshness, resonances, or create space in dense arrangements. The bandwidth control allows you to tailor the precision of your adjustments—use narrower settings for surgical problem-solving or wider settings for more natural, musical shaping of the frequency spectrum.



High Mid Band

The high mid band is where a sound gets its edge. Between 600 Hz and 6 kHz lie the presence of a vocal, the bite of an electric guitar and the crack of a snare, along with the harshness that tires the ear when there is too much of it. A small lift in the upper part of the range brings a part to the front of a mix; a narrow cut tames a piercing resonance without dulling the whole sound. Press ×3 and the range moves up to 1.7–17 kHz, where a bell can add sparkle to cymbals and hi-hats or open up the air above a vocal, working on a chosen band rather than everything above it as a shelf would.

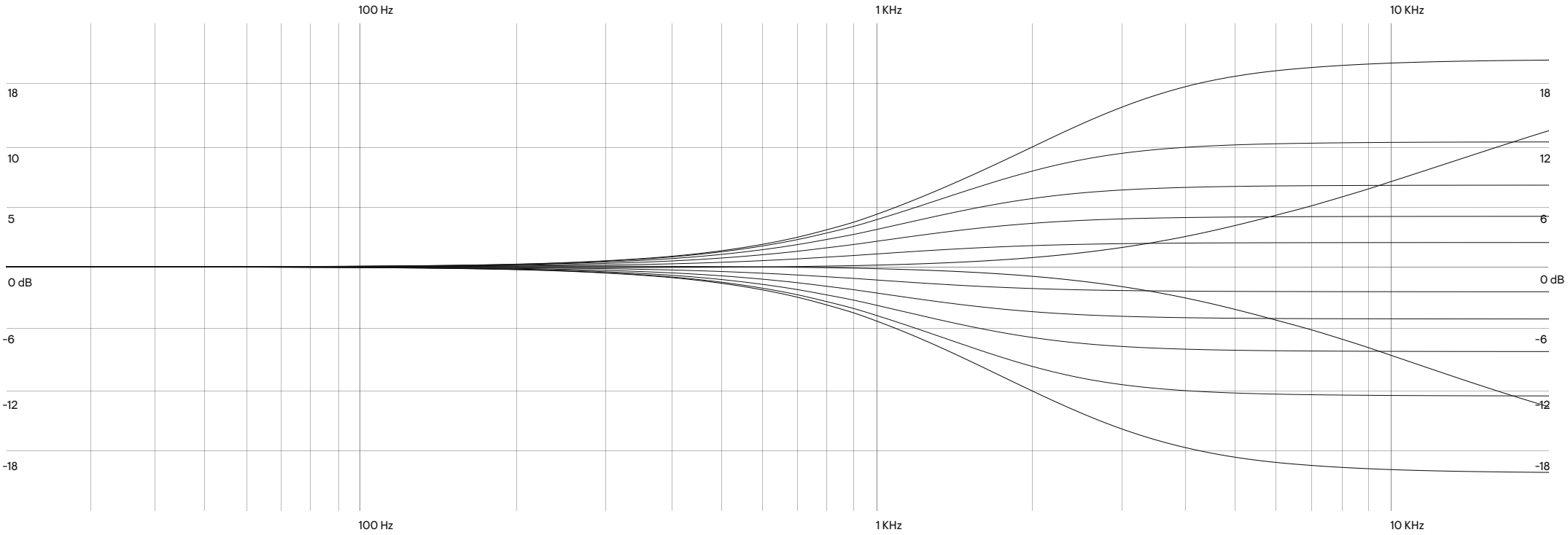
As on the low mids, the Q dial runs from a tight bell to a broad curve, and the bell narrows as you push it, so gentle moves stay smooth while bold ones stay precise and controlled.



High Frequency Band

The high shelf is where a track finds its air and clarity. Set low, it starts in the upper mids and lifts everything above: a couple of dB brightens a dull vocal, piano or acoustic guitar as a whole, while a cut takes the glare off a harsh cymbal or an edgy synth. Turned up towards 14 kHz, it works mostly on the very top octave, adding sheen and air while leaving presence largely alone. Up to 20 dB either way is available, though a few dB usually does the job.

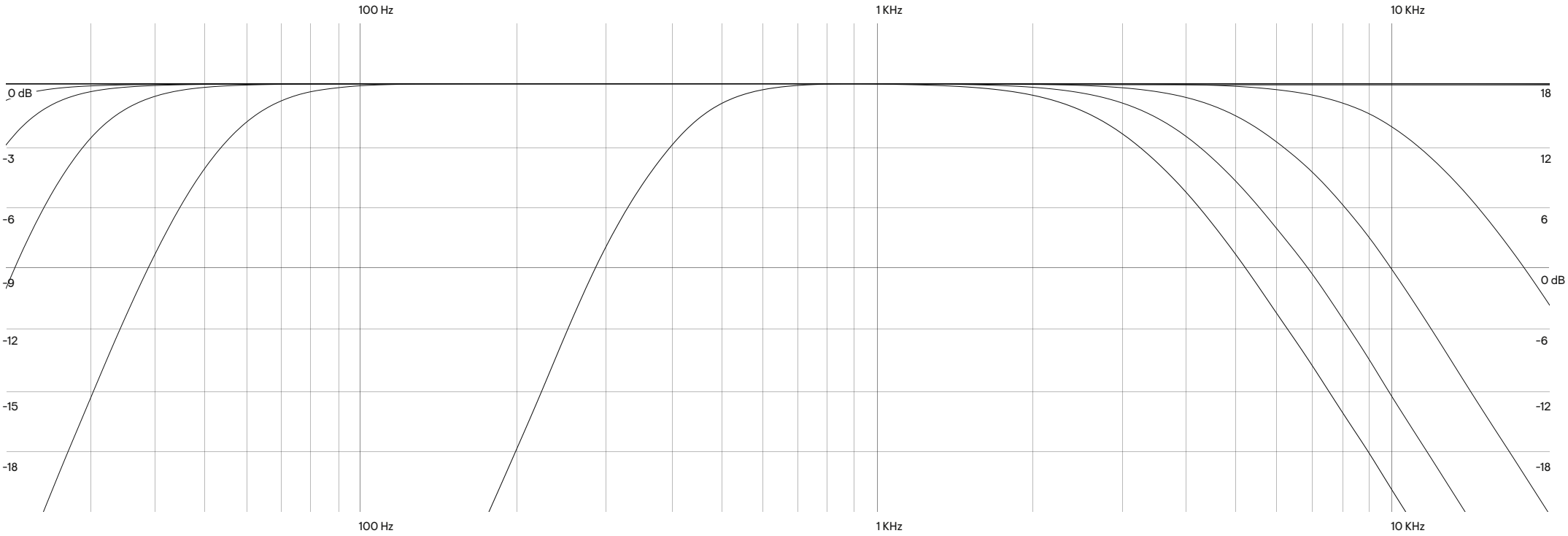
Because the shelf is broad and smooth, it suits overheads, a vocal bus or a full mix, and a gentle cut here pairs with the low-pass to soften hiss and brittle sources.



Filters

The filters clean up the edges of a sound before the bands shape what's left. The high-pass rolls off at a steep 18 dB/oct with a sharp knee, and most of its travel sits below 70 Hz, so trimming rumble, handling noise or sub build-up is a fine, precise move; the last part of the throw reaches up to 450 Hz for thinning pads, guitars or backing vocals out of the way.

The low-pass falls at a gentler 12 dB/oct from 3 kHz upwards, softening hiss, fizz and brittle top end without a hard edge. With the high-pass fully left and the low-pass fully right, both switch out completely. On the chart, the bold curves mark each filter's furthest reach.



Closing Notes

Thank you so much for checking out my work. I hope it helps you explore and learn these tools. I would never claim great expertise in audio engineering, but through my love for this craft I hope to shed a bit of light on it. I'm always happy to share what I know, and I'd especially love to hear your thoughts on the result. Please don't hesitate to reach out with questions, concerns, feedback or anything else.

You can reach me at info@monomono.audio, or send me a message on Instagram at @monomono.audio. I handle all my communication myself and will be happy to hear from you.

Oh, and while the research and proofreading were done with the help of various language models, every single em dash in this manual was put in by hand. Decades of print-design experience still leak through in my copy.

— Nikita
Including this one. It's shift+⌘+-. You're welcome.

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The engineers quoted in this manual are quoted from the published interviews listed below. Their words describe their work on the original hardware, not on Console 40, and no endorsement of Console 40 by any of them is claimed or implied.

Hugh Padgham, on the first console with dynamics on every channel: Mix, Classic Tracks: Phil Collins "In the Air Tonight", by Robyn Flans, 2005.

Andy Wallace, on the channel compressors being used "more for the sound" and "pretty aggressive-sounding": Mix, Andy Wallace, by Michael Barbiero, October 2005.

Bob Clearmountain, on the channel compressor "on fast attack and fast release" as "a fast high-frequency limiter": Sound On Sound, Secrets of the Mix Engineers: Bob Clearmountain, by Paul Tingen, February 2009.

Mark Endert, on backing vocals with the channel compressors "set to a 5:1 ratio": Sound On Sound, Secrets of the Mix Engineers: Mark Endert, September 2007.

George Seara, on ad libs at 3:1 with fast release, linked: Sound On Sound, Inside Track: Shawn Mendes "Treat You Better", by Paul Tingen, December 2016.

While the research and proof-reading was done using LLMs, every single em-dash in this manual is put in manually by me. It’s years of print-design still leaking through in my copy.

Release Notes

1.0 — SEPTEMBER 24, 2025

Initial Release