

Spectrum

SPECTRUM BALANCE METER · AU + VST3 · macOS

ZEROPINK

USER MANUAL



A meter with one reference and one verdict: your mix, read against pink.

We all want the perfect mix.

What Spectrum is

01

Spectrum is a **meter, not a processor** — it changes nothing in your audio. Its one job is to answer the question behind the whole ZEROPINK suite: *how far is this mix from pink?* Pink noise carries equal energy per octave, and mixes that translate tend to sit close to that slope. On the glass, pink is the horizontal 0 dB line — a balanced mix reads flat against it.

Eleven octave bands, each drawn as a bar (or a joined curve) showing that octave's **deviation from pink in dB**, with the figure printed at the base of each bar. Bands inside the pink pocket stay calm and dark; the further a band drifts, the brighter and hotter it glows — you can read the verdict from across the room.

And like every ZEROPINK ladder, the bands are **tuned to the song**: set TUNE to the key and all eleven octave centres land on that note — C0 through C10 for a song in C. You are reading the octaves of the music, not an arbitrary ISO grid.

The flanks read the glass for you. Left of the glass: LOWS, MIDS and HIGHS region cards, each with a verdict (ON PINK · OVER · UNDER) and a correction (↓ pull ~2 dB, ↑ add ~1 dB, ✓ hold). Right: the BALANCE score — 0–100, higher is better — and TILT, the overall slope of the mix in dB/oct with its own verdict.

GOOD AT

The last look before a bounce, referencing across systems, catching a dull top or a bloated low end in seconds, and watching a master settle onto pink as you work.

NOT FOR

Fixing what it finds. Spectrum points; GraphEQ and the rest of the suite move. Nothing here touches the signal.

THE GLASS — eleven octaves against pink

02



READING THE BARS

Each column is one octave of the song's key — note and frequency printed at the top, the measured deviation from pink at the base. The pink band around the 0 dB line is the **tolerance pocket**: inside it, an octave counts as on pink and its bar stays calm. Outside, the bar heats up in proportion — a faint blush at 2 dB off, a bright glow at 6.

Hover any octave and the top-right corner prints its exact centre frequency, note name, and deviation.

LISTENING TO WHAT YOU SEE

S and M under each octave solo or mute that octave in the monitor path — hear exactly the band the meter is flagging. Multiple solos sum, soloed columns wash pink, and none of it is ever printed to the output.

DISPLAY in the footer stacks three layers you can switch independently: **SPECTRUM** (bars per octave), **CURVE** (a line joining the band centres) and **DELTA** (the area between the curve and the pink line shaded — the deviation itself, made visible).

PROBE — hold $\mathbb{H}$ (ctrl on Windows) and click anywhere in the glass to audition a one-octave band-pass around that exact frequency; drag to sweep it, release to return. The window and its Hz · note readout draw on the glass while you hold. Monitor only — never printed.

The flanks — verdicts and corrections

03

LOWS · MIDS · HIGHS

The left flank folds the glass into three regions — lows to 200 Hz, mids to 2 kHz, highs above. Each card reads the region's average deviation, gives its verdict (**ON PINK** · **OVER** · **UNDER**), and — the part you act on — a correction line: ↓ **pull** ~2 dB, ↑ **add** ~1 dB, or ✓ **hold**. Three cards, three moves, done.

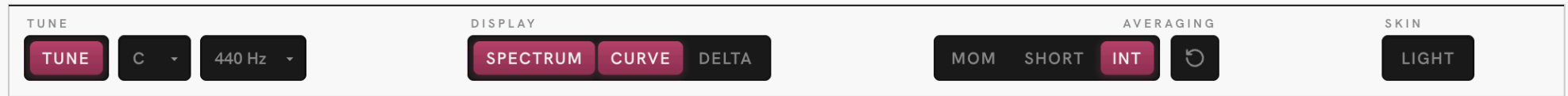
BALANCE & TILT

BALANCE VS PINK is the whole mix in one number, 0–100 — how tightly all eleven octaves hug the pink line. **ON PINK** from 86 up, **CLOSE** from 70, **OFF PINK** below; the small arrow shows which way it is moving as you work.

TILT is the overall slope of the mix in dB/oct — the single most audible property of a spectrum. Positive reads **TOO BRIGHT**, negative **TOO DARK**, and within ± 0.3 dB/oct it holds at **BALANCED**, with a correction line like the region cards.

The footer, and everything else

04



TUNE — the pink TUNE cap engages key-tracking; the KEY menu picks the note and **PITCH** sets the concert reference, 440 or 432 Hz. With TUNE off the ladder falls back to the standard octave grid from 16 Hz (C0...C10).

AVERAGING — MOM is instantaneous, SHORT a few seconds, INT the whole programme. Read INT against pink before you commit to a move; the ↺ button clears the history and starts over.

DISPLAY — SPECTRUM · CURVE · DELTA layers, described with the glass.

SKIN — graphite or satin-metal. Cosmetic parity; nothing else changes.

Help — the ! cap latches hover tooltips over every control; the ? cap opens this manual. The wordmark opens zeropink.net.

THE LAST LOOK

Last plugin on the master bus. TUNE to the key, AVERAGING on INT, play the whole song. Ship when BALANCE holds ON PINK and TILT reads BALANCED.

FIND THE PROBLEM OCTAVE

A band glows — solo it, hear what lives there, then fix it at the source or hand the move to GraphEQ's matching band.

REFERENCE A MIX YOU TRUST

Play your reference through Spectrum on INT and note its region readings — then chase the same shape, not an absolute ideal.

SPECIFICATIONS

AU + VST3 · macOS 11+ · Apple silicon native.

Eleven key-tracked octave bands, deviation-from-pink metering.

Fixed -3 dB/oct pink reference · momentary / short-term / integrated averaging.

Analysis only — zero latency, no signal processing.

Window 1024×512 — size the host view to the panel; never scale the artwork.

THE NAME ON THE DOOR

PINK is the frequency half of the ZEROPINK idea — the spectral reference this whole meter is built on. Spectrum is that reference made visible: the one panel in the suite whose only job is the pink line itself.