

HN-6 Harmonic Notch *Clean Resonance Control.*

Harmonic notch processor · 6 bands × 5 harmonics · Mono / Stereo / 5.1 · VST3 · AU · Standalone

HN-6 removes resonances, hum and ring at the root. Each of its six bands plants a surgical notch on a fundamental and repeats it up the series automatically — octaves (f:1,2,4,8,16) or true harmonics (f:1,2,3,4,5) — with the depth of each next step set by MASTER DECAY. The doctrine is narrow and honest: the fundamental takes the full cut, the partials progressively less, and the timbre survives. Six problems, six knobs, thirty notches.



HN-6 face. The numbers below refer to this view.

TOP PANEL

- 1 MANUAL** — Opens this manual.
- 2 DISPLAY** — Log frequency response, 20 Hz–20 kHz, +6...–42 dB. Colored curves = each band's notch series; the cream curve = the total response; the filled trace behind is the live input spectrum. The nodes are hands-on: drag a numbered node to set **FREQ** and **CUT**, mouse wheel = **Q**, Shift+wheel = **MASTER DECAY**, double-click a node = band on/off. The chip shows the selected band's exact numbers. "analyzer idle — press **INPUT** to go live" appears while no audio runs.
- 3 OUTPUT** — Master trim, –24...+12 dB. Double-click any value on the face to type it exactly ("2.4k" style accepted for frequencies).
- 4 ON** — Processing engaged.
- 5 BYPASS** — Full bypass; the total curve dims while bypassed.

I/O ROW

- 6 INPUT** — Standalone only: pick the input device and press **INPUT** to go live.
- 7 MONITOR** — Standalone only: routes the processed signal to the monitor output.
- 8 STATUS** — Insert mode and state (e.g. "stereo insert · running").
- 9 ANALYZER** — Cycles **FFT** (filled spectrum) → **64 BAND** (bars with peak-hold) → **ANA OFF**.
- 10 FFT SIZE** — 2048 / 4096 / 8192 — analyzer resolution versus speed.

- 11 **SERIES** — OCTAVE: notches at f:1, 2, 4, 8, 16 — hum and its octaves, room modes. HARMONIC: f:1, 2, 3, 4, 5 — the true overtone family of a ringing note or buzz.
- 12 **WIDTH** — CONST Hz: Q scales with each multiple so every notch keeps the same bandwidth in hertz — surgical up top. PROP Q: the same Q everywhere, bandwidth grows with frequency — gentler, more musical.

MODEL ROW

- 13 **MODEL** — MONO / STEREO / 5.1 — channel configuration; one process is applied across the model's channels.
- 14 **INSERT PATCH** — The rack-side patch points this unit occupies (with RP-1, e.g. INS A · CH 15 / INS B · CH 16). Read-out, set by the rack.

BANDS

- 15 **BAND · LED** — Click the band header to switch it on/off. LED and curve carry the band color.
- 16 **FREQ** — The fundamental, 20 Hz–20 kHz (log). Type exact values by double-clicking the readout.
- 17 **CUT** — Depth at the fundamental, 0...–40 dB. Each upper step gets $CUT \times DECAY^k$.
- 18 **Q** — 0.5–100. Stay narrow: start at Q 30–40 and deepen rather than widen — a neighbor problem gets its own band, not a wider notch.
- 19 **MASTER DECAY** — $\times 0.05...$ $\times 1.00$ — how much of the cut each next harmonic inherits (harmonic slope link). $\times 0.50$ halves the depth per step; $\times 1.00$ repeats it at full strength.

QUICK START

1. Switch band 1 on and drag its node onto the offending fundamental — or double-click the readout and type it.
2. SERIES: OCTAVE for hum and room modes; HARMONIC for a ringing note's overtone family.
3. Cut deep at the fundamental and let MASTER DECAY ($\sim \times 0.50$) taper the series.
4. WIDTH CONST Hz keeps the upper notches surgical. Keep Q high; never widen — add another band instead.
5. Watch the ANALYZER, A/B with BYPASS, and touch OUTPUT only if you removed real energy.