SEN20

A fast, frequency-conscious noise gate in the spirit of the early-80s British studio gates, split into two or three bands, each with its own gate.

> **A Lab plug-in.** The Lab is where new GFX plug-ins are built in the open: they may change sound or controls between versions.

Overview

SEN20 is a fast, frequency-conscious noise gate in the spirit of the early-1980s British dual-channel studio gates. The Stable SEN20 gates the whole sound at once; this Lab version splits it into two or three bands, each with its own gate.

So a kick's lows can breathe while its top snaps shut, or a tom's body can keep ringing while the cymbal wash in its top is cut. The release adapts to the programme as before (quicker after a short hit, slower after a long note), and each gate has a fixed 3 dB of hysteresis.

By default every band hears the same key; with BAND KEY lit each band listens only to its own part of it, and LINK lets one band's gate open another's. THICK adds the house

weight, iron and drag on the output and makes the gates close on a rounded curve, so gated drums keep their body. There is no DRIFT: SEN20 is a precision tool.

Reach for it for

- Kick: the lows breathe, the top snaps shut
- Snare: a tight top with the body kept
- Toms: ring kept, cymbal wash cut
- Hat bleed out of a snare mic
- Guitar chunk and breath removal, band by band
- Parallel and slow ambient gating

Controls

The header

PRESETS	Opens the preset list (with "Reset all to defaults" at the end).
◀ / ▶	Steps to the previous or next preset, wrapping round.
Preset display	Shows the preset's name. Click it for the preset list too.

KEY FILTERS

HPF	OFF (20 Hz) to 8 kHz: a high-pass on what the gates hear.
LPF	250 Hz to OFF: a low-pass on what the gates hear.
EXT KEY	Key from inputs 3 / 4 (a sidechain).
LISTEN	Hear the filtered key.

BANDS

2 BANDS / 3 BANDS	Two bands (LOW / HIGH) or three (LOW / MID / HIGH). Switching glides, never a click.
LOW | MID	40 Hz to 1 kHz, default 150 Hz, with a readout. In two-band mode it is the LOW | HIGH split.

MID | HIGH	800 Hz to 12 kHz, default 3 kHz (always at least an octave above the first split). Three bands only.
LINK	A menu: LOW opens MID, LOW opens MID + HIGH, or MID opens HIGH (two bands: LOW opens HIGH). The led band keeps its own timing and RANGE; its THRESHOLD is unused (greyed). LINK matters with BAND KEY lit.
BAND KEY	Dark (default): every band hears the whole filtered key. Lit: each band hears only its own band of the key.
The split	24 dB per octave crossovers with no latency; with every band open the bands add back flat in level.

GATE (one row per band)

LOW / MID / HIGH	The band key: lit = that band is gated, dark = it passes untouched (the row greys).
SOLO	Hear that band alone.
Lamps	Red = shut, yellow = holding or closing, green = open.
THRESHOLD	-50 to +20 dBu (0 dBu = -18 dBFS): the gate opens above this level.
ATTACK	How fast it opens (from 0.01 ms).
HOLD	How long it stays open after the key falls (up to 4 s).
RELEASE	How fast it closes (up to 5 s), adapted to the programme.
RANGE	-70 to 0 dB: how far the band drops when shut.
GR	A 21-LED ladder: how far the band is turned down, to -70 dB.

OUTPUT

IN / OUT	LED ladders -42 to 0 dBFS; click to clear the peaks.
LEVEL	-12 to +12 dB.

THICK	The house THICK circuit on the output: weight, iron and drag, and a rounded close on every gate.
LOOK	1 ms look-ahead (1 ms latency, reported). Switching it dips the output for 5 ms each way.
IN	The whole unit in or out (crossfaded).

Knobs and the fader: drag up or down (hold Shift for fine moves) or use the mouse wheel; double-click or Ctrl-click returns to the default. Values show while you hover. S / M / L set the panel size; ? shows the credits and this manual's address.

Presets

Init	One setting on every band (-20 dBu, -40 dB range): sounds as the original one-band SEN20.
Snare Tight Top	Split at 350 Hz, key 180 Hz - 8 kHz, LOOK: the body drops only 20 dB, the top shuts hard and fast.
Kick Lows Breathe	Split at 120 Hz, key LPF 150 Hz: the lows open softly and fall slowly, the top snaps shut.
Tom Ring Low	Three bands, BAND KEY lit, LINK LOW opens MID + HIGH, THICK: the low ring lasts, the top closes fast.
Guitar Chunk	Split at 250 Hz: tight, fast gating for chugging rhythm parts.
Breath Remover	Split at 1.5 kHz: gentle (-6 / -15 dB) gating that pulls breaths down.
Parallel Gate	Fast, shallow gating with THICK: punch without choking.
Slow Ambient	Slow attack and release with THICK: the sound swells in and fades away.
Hat Bleed Out	Split at 3 kHz, key HPF 150 Hz: the top only opens on the snare, so hat bleed is cut.
Drum Bus Bands	Three bands with BAND KEY lit: gentle gating, each band on its own hits.

Tips

- Start from Init and change one band at a time; SOLO that band to hear what its gate does.
- Put the first split just above a kick's boom or a snare's body: the lows can close gently while the top is gated hard.
- For toms with cymbal bleed, BAND KEY lit and LINK LOW opens MID + HIGH: only the tom's low end opens the gate.
- THICK keeps gated drums from sounding thin; turn it off for a cleaner, more surgical gate.

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