

ECHELON AUDIO

SIFT

Frequency-Targeted De-Esser — User Manual



The SIFT interface. Hover any knob, button or toggle in the plugin for a quick tip; this manual covers every control in full.

SIFT is a frequency-targeted de-esser. It detects sibilance in a tunable HF band and reduces it either wideband or split-band, with Consonant onset-preservation and a Focus ratio gate to keep vocals crisp and natural. Allround/Vocal detection, full channel routing, oversampling, tempo-synced release and a one-click Learn — which finds the band as well as the threshold — round it out.

Global & Header Controls

Control	What it does
Learn Intensity (G/N/H)	How hard Learn aims: Gentle, Natural or Hard.
Learn	Listens for about three seconds, then proposes a threshold AND the sibilant band it actually found. The proposal is a live preview: KEEP accepts the whole thing, UNDO puts every value back.
Source	Narrows where Learn looks: Auto, Male (4–8 kHz), Female (6–11 kHz), Rap (5–9 kHz), Bright condenser (7–12 kHz) or Cymbals / OH (6–14 kHz). Stored with the plugin; it is not an automatable parameter.
A / B	Hold two complete settings and click to compare them.
Preset < >	Browse presets; the name in the middle is the current preset.
Bypass	Bypass the whole plugin to compare against the dry signal.
Advanced	Everything outside the daily workflow, grouped: Dynamics, Routing, Quality, and Data & privacy.
Menu (■)	Matched Bypass, window size (S / M / L / Fit), full screen, the grain toggle, the guided tour and About. Every row is reachable from the keyboard.
Activity display	Twenty seconds of input level, detected sibilance and gain reduction on one shared timebase. The reduction trace rests at zero when nothing is being reduced.
Detection Band	Live spectrum. The shaded area is what is being REDUCED in the current mode; the dashed outline is the detection window. Drag either handle, or double-click a value to type it.

Controls

De-Essing

The core controls that detect and tame sibilance ('ess', 'sh', 'ch' sounds).

Control	Range	What it does
Threshold	-60 ... 0 dB	Level the sibilance must exceed before de-essing engages. Lower = more reduction.
Range	0 ... 24 dB	Maximum amount of gain reduction applied to the sibilant band.
Ratio	1:1 ... 20:1	How hard sibilance above threshold is reduced. Higher = more aggressive.

Control	Range	What it does
Attack	0.05 ... 50 ms	How fast reduction engages when an 'ess' hits. Fast clamps sharp sibilants; slow is gentler.
Release	5 ... 500 ms	How fast reduction recovers after the sibilant passes. Short = transparent, long = smoother.
Consonant	0 ... 100%	Onset preservation — protects the leading transient of consonants so words stay crisp and natural.
Focus	0 ... 100%	Single-vocal HF/broadband ratio gate — tightens de-essing onto true sibilance and leaves the rest alone.
Lookahead	0 ... 10 ms	Delays the audio so the detector reacts before the sibilant hits. Adds latency.
Mix	0 ... 100%	Dry/wet blend of the de-essed signal against the original.
Output	-12 ... +12 dB	Final output trim to match levels against bypass.

Detection Band

Define and target the sibilance band.

Control	Range	What it does
Mode	Wideband / Split / Band	Wideband ducks the whole signal when sibilance hits. Split reduces everything above Band Low. Band reduces ONLY Band Low to Band High and leaves the air above it untouched. (Band = the Split Scope parameter set to Band Only; with Band High at 20 kHz there is no air left to keep, so it behaves exactly as Split.)
Band Low	1 ... 16 kHz	Lower edge of the targeted sibilance band. In Split it is also the crossover point.
Band High	2 ... 20 kHz	Upper edge of the targeted sibilance band. In Band mode the reduction stops here.
Detector EQ	Allround / Vocal	Allround weights the detector flat; Vocal tilts it toward typical vocal sibilance.
Det Peak	Peak / RMS	Peak is fast and transient-accurate; RMS is smoother and level-based.
Auto Thr	On / Off	Continuously set the threshold from the program level.

Monitor

Hear what the detector hears, or hear only what is being removed.

Control	Range	What it does
Audition	Off / Sibilance / Delta	Off = normal. Sibilance solos the detected band; Delta solos only what is being removed.

Routing

Channel processing, oversampling and release sync.

Control	Range	What it does
Link	0 ... 100%	How tightly the channels share reduction. 100% locks the stereo image; lower is more independent.
Input	-12 ... +12 dB	Input trim into the de-esser.
Channel	ST / M-S / L / R / Mid / Side	Which part of the signal is processed.
Oversample	Off / 2× / 4×	Higher reduces aliasing, and costs both CPU and latency: 2× roughly doubles the de-esser's CPU and adds about half a millisecond of latency, 4× more again. Off is right for almost everything.
Matched Bypass	On / Off	Compare bypass at equal loudness, so nothing wins just by being louder. Also in the  menu.
Release Sync	Off / ¼ / ¼T /  /  T / 1/16 / 1/32	Sync the release time to host tempo.

Echelon Audio · SIFT 1.1.0 · option-click any control for its default, double-click to type an exact value; drag the band handles on the Detection Band display.