YS — Digital EQ



Briefly

A digital equalizer with an analog-like processing character: a Pultec-style bass section, separate generation of even and odd harmonics, four bell-shaped bands, two high shelves, and a dynamic two-band resonance suppression module—from a delicate dynamic EQ to a two-band compressor. A single button switches proportional Q in the style of the API 550, and the Delta button allows you to control exactly what the processor adds to the sound. Stereo and mono versions are available.

Detailed technical description

Bass Shift

The bass section mimics the behavior of classic Pultec-style circuits: simultaneously boosting and increasing the low end, it produces a characteristic "shelving" rise and fall—the very effect prized in passive bass boosters. Adjustments range from 20/30/60/100 Hz, with Low Attenuation adjustable from 0 to 100%.

HP/LP filters

Low- and high-pass filters with a wide cutoff range (20 Hz - 22 kHz and 20 Hz - 30 kHz) and a choice of 6 or 12 dB/octave slopes. The range covers everything from subtle rumble reduction to harsh filtering, from submixes to clean highs.

Saturation

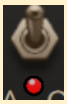
Separate harmonic generation: even harmonics at the beginning of the chain (tube-like characteristics), odd harmonics at the end (film-like saturation characteristics). Each harmonic is enabled and adjusted separately, so you can achieve any combination—from "warmed-up tube" to "thick film," or both at once.

By default, saturation is applied moderately—as a natural coloration of the signal path, not as an overdrive effect. For a more pronounced character, a "warm-up" feature is provided: an increase in input volume with compensation at the output—the signal "saturates" more strongly, while the output level remains the same.

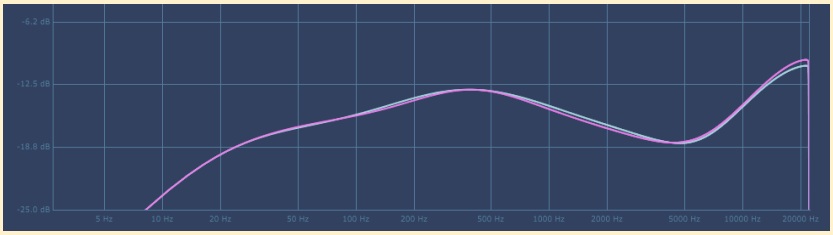
Equalizer

Four bell strips and two high shelves:

Stripe	Frequency range	Q
Low Bell	20 Hz — 2 kHz	0,1 — 15
L-Mid Bell	20 Hz — 2 kHz	0,1 — 15
Mid Bell	400 Hz — 22 kHz	0,1 — 15
H-Mid Bell	400 Hz — 22 kHz	0,1 — 15
High Shelf 1	1 - 22 kHz, slope 6/12/18/24	±12 dB
High Shelf 2	1 - 40 kHz, tilt 6/12/18/24	±24 dB

The Q switch enables proportional Q control in the style of the API 550: the bandwidth narrows as the gain increases. This allows for aggressive boosts with minimal interference to adjacent frequencies—a characteristic behavior of API circuits in digital design.

Buttons I–II add subtle differences between channels: volume differences on the shelves, and Q differences on the bells. This creates a spacious sound without pronounced stereo effects and maintains mono compatibility in important areas.





Each strip is included in the bypass independently, The small red button resets the band settings to factory defaults.

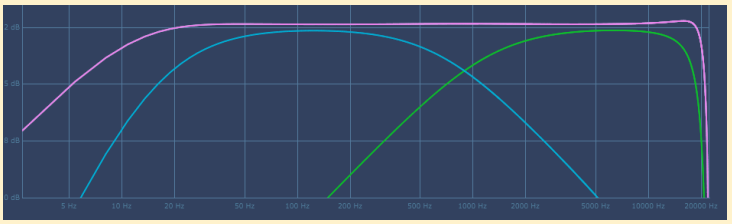
Dynamic Resonance Mod

A dynamic two-way module at the end of the chain with a 20 Hz - 20 kHz range and a wide Q range. The module operates differently depending on the task:

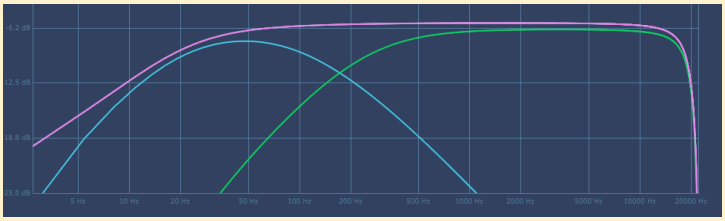
- **without dynamics**- two equalizer bands for reduction, up to very narrow bands as a suppressor of unwanted resonances;
- **with dynamics**- de-esser, dynamic equalizer or two-band compressor.

Three ready-made presets of a two-band compressor with a matched crossover:

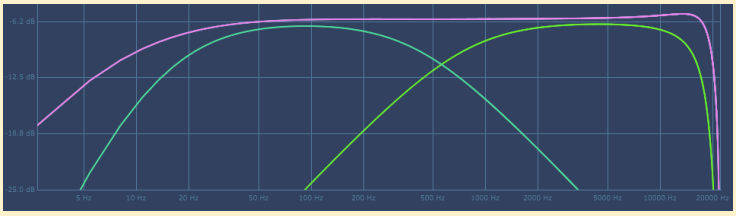
Dual Bend Comp 1 — 1000 Гц,



Dual Bend Comp 2 — 200 Гц,



Dual Bend Comp 3 — 500 Гц



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Automatic suppression of selected frequencies is adjusted using the detector's sensitivity control. A Solo function is available for precise adjustment: the selected frequency is subtracted in antiphase with the unprocessed signal. You can hear the degree and timing of suppression: partial or continuous, depending on the sensitivity.

Attack and release times are tied to the frequency control: they change automatically for correct operation without artifacts (faster at high frequencies, smoother at low frequencies), and the current values are displayed informatively when adjusting the frequency.

Exit section

Two volume faders - input and output signal - with RMS and VU indicators for input and output I/O, plus a Mono adjustment of 50 Hz - 2 kHz.

Buttons:

- **Clip**— -0.5 dB peak limiter: protection against overload after saturation and dynamics processing;

- **Flux**— slight fluctuations in volume between channels, synchronized with the tempo of the project, simulating the movement of a tape recorder (0.5 dB is a delicate “breathing”, not an effect);
- **Delta**— adds the unprocessed signal in antiphase: the output only contains what the processor has added to the sound. A quick and honest check of "what have I really changed?"
- **Gain Scale**— sets the band volume range from 0 to +24 dB. On a 0 to -24 dB scale, the settings are inverted: boosts become cuts, and vice versa. The selected range also changes the display of values on all band volume knobs.

Additionally

- **Oversampling**Up to x32 with a choice of FIR filters - clean saturation performance without aliasing.
- **Color**— switching the design from dark to light; three color buttons set the color of the buttons and VU indicators, and a small knob controls the brightness.
- **BYP**- full bypass for a fair comparison.
- **Interface scale**in the lower right corner - adjustment to any monitor.
- Presets: Files / Presets with navigation, including factory scenarios (HiHat De-snared and others).

Features and benefits

- **One tool instead of a chain.**Equalization, coloring, dynamics, and output control live in a single window: there is no need to assemble and desynchronize several plugins; the processing order is already logically structured.
- **Tenses that are always right.**Linking the attack and release to frequency removes the most painstaking part of setting up dynamic suppression—at 100 Hz and 10 kHz, the detector works correctly without manual adjustment.
- **Rumor instead of guesswork.**Delta and Solo with antiphase provide direct auditory control: you can see not "what the analyzer shows", but hear what exactly has been removed - locally in the band and globally across the entire device.
- **Flexibility of dynamics.**One module covers four tasks—resonance suppressor, de-esser, dynamic EQ, two-band compressor—with ready-made, matched presets for a quick start.
- **Invertible Gain Scale**allows you to switch the entire band processing from boost to cut with one switch - convenient for comparing "add" and "remove" at the same values.
- **The order of harmonics is the same as that of iron.**Even in front, odd in the back - this is not an imitation of “one amplifier”, but an opportunity to combine a lamp and a film in the same way as it is done in a real circuit.
- **An honest way out.**With a limiter, RMS/VU metering, and mono low-pass control, the output path is ready for mastering, not just tracking.
- **Two versions.**Stereo is for mixing, mono is for single-channel paths; the interface and logic are identical, and the presets work in both versions.
