GYRATOR**FLT**

HYBRID GYRATOR FILTER

[RACK EXTENSION]
MANUAL

Re Rack Extension
PRODUCT OF TURN2ON
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FX device by Turn2on Software

The **GyratorFLT** is a modern tribute to the iconic Gyrator-based equalizers and filters that shaped the sound of the recording industry. Named after the groundbreaking electronic circuit, the GyratorFLT is not just another filter– it is a resonant, dynamic tone-shaping tool designed for precision and musicality.

Historically, Gyrator circuits were introduced as solid-state alternatives to inductor-based equalizers, offering the same warm, rich filtering characteristics without the size and weight of traditional analog components. These circuits found their way into high-end studio equipment, known for their ability to sculpt tone with a unique mix of resonance and clarity.

With **GyratorFLT**, we bring that classic musical filtering into the modern age as a powerful Rack Extension plugin for Reason. Whether you're sculpting bass, adding character to midrange frequencies, or giving air to high-end details, this versatile filtering unit delivers vintage-inspired warmth and contemporary flexibility in one intuitive interface.

Gyrator-based equalizers first appeared in the late 1960s and became a staple in high-end studio consoles and outboard gear. Unlike traditional passive EQs, which relied on heavy and expensive inductors, Gyrator circuits emulated inductors electronically, providing a warm yet controllable resonance without unwanted phase shifts.

From classic mixing consoles to boutique parametric equalizers, the Gyrator principle has been used to create highly musical, smooth, and effective tone-shaping tools. Our **GyratorFLT** is inspired by these designs but extends them into new creative territories–merging the best aspects of equalization and resonant filtering into a single, performance-driven effect.

Dual Parallel Processing – Blend between a resonant EQ path and a filter-based path for ultimate control over your sound.

Bandpass Resonance Control – Stack multiple BP filters for deep, warm resonance or a more surgical tone-sculpting approach.

Advanced Saturation & Drive – Shape harmonics and warmth with multiple saturation and distortion modes.

LFO Modulation – Introduce movement by modulating frequency, resonance, or drive.

Shelving Filters – Add further shape the tone before or after filtering.

Mix between dry and processed signals or Blend between EQ and Filter paths for dynamic sound design.

Feedback Section – Integrated feedback circuit for unique resonant and overdriven.

The GyratorFLT is more than just an EQ or a filter– it's a creative tone-sculpting machine, inspired by legendary circuits but designed for modern production.

WHAT MAKE GYRATORFLT UNIQUE

The **EQ** section provides precise control over gain and frequency, useful for tonal shaping.
The **Filter** section introduces the resonance that is key to emulating a gyrator's analog-style peaks.
Parallel routing offers a rich, hybrid sound with blended characteristics from both modules.

Parallel Routing (EQ + Filter): This isn't very common in modern filter effects, especially with easy blending options.

Feedback & Modulation Options: By allowing filter cutoff, resonance, or gain modulation, device adds dynamic sound-shaping capabilities that are not always available in standard EQs or filters.

Saturation in Filter Path: This adds warmth and harmonic content, giving it an edge for creative sound design.

GyratorFLT concept will most closely resemble elements from musical EQs or analog-inspired filters, but the combination of parallel EQ + Filter with feedback and modulation makes it distinct. This balance of tonal control and dynamic movement positions it between classic EQ tools and modern modular filters, creating a versatile and creative effect suitable for both sound design and mixing.

GyratorFLT design is inspired by the principles of a gyrator. However, it's technically a hybrid of EQ and filter effects with added features like modulation, feedback, and blending, which goes beyond the typical behavior of a pure gyrator circuit.

Reverb in the mix

1. Spatial Depth & Dimension
Since the GyratorFLT is a dynamic filter-based effect, adding reverb allows it to blend into a mix with a sense of space. This is especially useful for sound design, synth processing, and percussive elements, making them feel more ambient or larger-than-life.

2. Smoothing Resonances
If your Gyrator filter settings introduce sharp resonances, a moderate reverb decay can help soften the peaks and make them less harsh. A short room reverb can glue the effect together while retaining clarity.

3. Creating Atmospheric Modulation
When combined with LFO-controlled filtering, adding a plate or hall reverb can turn simple movements into sweeping ambient textures, great for pads, drones, or experimental processing.

4. Stereo Enhancement
A stereo reverb tail can help widen the processed signal, making it sound larger and more immersive. If your effect is used for mixing or mastering, a subtle ambient reverb can create depth without overpowering the dry signal.

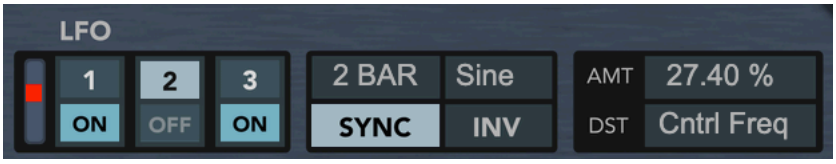
5. Sculpting Decay & Tail Character
Depending on the type of pre-filtering (low cut/high cut) and the mix balance, reverb can add a smooth decay to rhythmic filtering, making it work well on synth stabs, leads, or even drum elements.

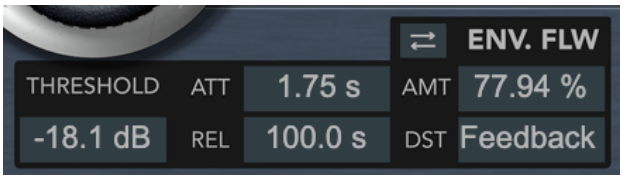
	SHELF FILTERS / PARAM EQ
LOW / HIGH SHELF	Boosts or cuts low frequencies before reaching EQ and Filter.
LOW / HIGH LEVEL	Adjusts the level of the Low/High shelving filters. Boosting the low end can give more body to the signal, making it feel richer and warmer, while cutting the high end can smooth out harshness.
EQ BANDWIDTH	Adjusts the width of the bell EQ curve (0.33 to 3 octaves). Lower values create a sharper focus.
EQ GAIN	Controls the level of the EQ band; influences the bandpass effect when combined with Filter path. Adjust for subtle boosts or cuts. Modulating the gain can introduce subtle changes in amplitude, which adds movement to the signal.

	BP FILTER
RESONANCE	Adjust for the sharpness of the bandpass filter peak. Modulating the resonance can dynamically emphasize or de-emphasize the filter's peak, contributing to a more organic feel.
SLOPE	Switch between 18 & 24 db/Oct filter slope modes
FILTER GAIN	Controls the level of the Filter
FEEDBACK	Controls the amount of signal fed back into the filter path, increasing intensity.
SATURATION	Adds warmth or harmonic distortion, mimicking non-linear analog characteristics.
SATURATION MODE	Switch saturation between the "Tube" & "Transistor" modeled modes

	MAIN
CENTRAL FREQUENCY	Controls the center frequency of both the EQ and Filter paths (40 Hz - 16 kHz). Modulating the center frequency can create a sweeping effect, making the sound feel dynamic and evolving. It allows the resonant peak to move across the spectrum, creating a pronounced effect that can evoke a sense of motion.
BLEND	Balances between EQ and Filter in parallel; allows for independent blending of these paths. Make flexibility in fine-tuning the overall sound.
REVERB	Set reverb size at the end of the processed signal
MIX	Blends between the EQ/Filter paths and the dry input signal. This is helpful in cases where a subtle tonal adjustment is needed, keeping some of the original signal intact.
INPUT LEVEL	Adjusts the input level before processing.
OUTPUT LEVEL	Adjusts the final output level.

	ENVELOPE FOLLOWER
THRESHOLD	Determines the level at which the envelope follower starts reacting to the input signal. *Lower Values*: Make the envelope react to quieter sounds. *Higher Values*: Ignore lower-level signals and only respond to louder transients.
ATTACK	Controls how quickly the envelope reacts when the input signal exceeds the threshold. Short Attack: Creates a snappy, fast response, good for percussive or plucked sounds. Long Attack: Results in a smoother, more gradual rise, useful for pads or swelling effects.
RELEASE	Determines how long it takes for the envelope to return to zero after the input level drops below the threshold. Short Release: The modulation follows the transients tightly, making the effect more responsive. Long Release: Creates a lingering effect where modulation fades out slowly.
AMT	Controls the intensity of the modulation applied to the selected destination.
INVERT	Invert Envelope Follower character to the negative value
DESTINATION	Defines which parameter the envelope follower modulates.





	LFO
RATE	Determines how fast the LFO oscillates.
SYNC	Synchronizes the LFO rate to the project tempo. Synced Mode: The rate is locked to musical values (e.g., 1/4, 1/8, 1/16 note, triplets).
WAVEFORM	Defines the shape of the LFO oscillation. Sine – Smooth, cyclic modulation (good for vibrato, gentle panning). Triangle – Similar to sine but with linear motion (works well for wobble bass). Sawtooth (Ramp Up/Down) – Creates rising or falling modulation (useful for rhythmic swells). Square – Instant jumps between two values (good for choppy effects like tremolo or gate).
INVERT	Invert LFO waveform
AMT	Controls how much the LFO affects the assigned parameter.
DESTINATION	Specifies which parameter the LFO modulates.

The GyratorFLT is more than just an EQ or a filter—it's a creative tone-sculpting machine, inspired by legendary circuits but designed for modern production.

Whether used for subtle analog warmth or extreme resonant textures, it provides deep flexibility and a uniquely musical response.

Start shaping your sound today and unlock the full potential of the GyratorFLT!

Using GyratorFLT in Your Mix

1. Enhancing Low-End Warmth

Use a low-band EQ boost with a gentle resonance in the filter path.
Add Low Drive for extra harmonic depth.
Blend in parallel with dry signal for tight, punchy bass.

2. Sculpting Midrange Character

Apply narrow-band filtering with resonance to carve out specific tones.
Modulate the filter cutoff for a moving, expressive effect.
Use moderate saturation for added presence and edge.

3. Adding High-End Air & Detail

Enable the High Shelf EQ to open up the top-end.
Use the High Bypass to let crisp transients through without distortion.
Introduce subtle feedback resonance for shimmering textures.

4. Creating Rhythmic Filter Effects

Assign the LFO to Frequency or Resonance for a pulsing, sweeping effect.
Sync the LFO Rate to your project tempo for dynamic movement.
Increase the Feedback Amount for resonant, evolving textures.

UPDATE 1.0.2:
- LFO Rate Sync to the project tempo bugfix
- LFO Phase Sync to the project tempo bugfix
- Now Central Frequency Modulation affect to the new "EQ+Filter" mode, or peviously default "only Filter" mode (Switch placed at the rear panel under .Freq Mod CV controls)
- Envelope Follower Feedback bufg fix
- New Envelope Follower Invert (negative) option
- CV Inputs bug fixes to correct lables
- New animated LFO indicator now moved with waveform it represents
- LFO effects on the EQ section bugfixes
- Add for the Input Level, control of the parallel Dry level.
- Selectable Saturation modes: default "Tube" modeled mode, and new "Trasnsistor" modeled mode.
- New Reverb On/Off button

REAR PANEL

CONNECTORS

AUDIO I/O | Mono or Stereo connections for audio signals.

CV INPUTS | Use these CV inputs to control the main parameters by external CV source curves

SIGNAL ROUTING
True stereo fx

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Reason Studios Add-on Shop

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PRODUCT OF TURN2ON
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Turn2on

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Thanks to all beta-testers

Thank you very much for supporting us by choosing our products.

This allows us to develop future interesting and creative effects / utilities / instruments in the Rack Extension format.

We try to keep prices as low as possible. Don't hesitate to contact support with any questions regarding our products or to offer your own ideas for product updates or even new products you would like developed.

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