

FIREMINT

PITCH & FORMANT SHIFTER VOICE ALTERATION FX

[RACK EXTENSION] MANUAL



FX device by Turn2on Software



Formants are the resonant frequencies from the human mouth with vocal tract. If a vocal track is pitch-shifted (without formant correction), the formants are shifted too, and you have a less natural-sounding result.

Pitch frequency is the fundamental frequency of the speech signal, and formant frequencies are essentially resonance frequencies of the vocal tract. These frequencies vary among different people and words, but they are within a certain frequency range.

Pitch-shifters usually transpose the signal in semitones up or down.

Formant shifters do not affect the pitch or timing of a segment. Formant shifters change only the sound of the voice, and you can have a low or high-pitched voice without changing the key.

Now all of this is possible to control with "**FIREMINT**" Pitch & Formant Shifter vocal effect.

For the creative powerful pitch warming effect, enable the "**Link**" button to sync the Pitch-Shifter changes to the Formant-Shifter at the same time.

Cretively automate the Formant shifter by selecting between 2 and 4 octaves in the **octave range** parameter.

The Pitch-Shifter engine is based on the four frequency range (age or quality) parameter.

Drive analog modeled tube saturation, adds to the vocal track some warmth, grit and edge.

FIREMINT Pitch & Formant Shifter manipulates the semitone transpose and formant voice changes of a vocal signal in parallel or at once.

Turn2on "FIREMINT" Rack Extension is a flexible and powerful take on Pitch & Formant Shifter. It retains the basic functionality with the addition of shift quality range modes and analog modeled saturation control. Voice alteration effect that change pitch of a vocal and change the gender of vocal with formant shifting.

With **FIREMINT**, it is possible to create huge variations of harmony and robotic vocoder effects.

Try **FIREMINT** Pitch & Formant Shifter as part of your Reason Rack today.



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BYPASS

FIREMINT PITCH FORMANT SHAPER CONTROL

•	PITCH LINK FRMNT FORMANT SHIFT QUALITY PATCH DRY/WET SHIFTER SHIFT TO PITCH OCT RANGE RANGE BROWSER LEVELS
SCALE NOTE CORRECTION C D E F G SOFT BYP 10 T20N	RANGE 4 OCT 2 OCT SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB WET SHIFT QUALITY RANGE MODERN (20 kHz) 1/0 0,0 dB DRY 0,0 dB
	CALE NOTE FORMANT FORMANT SPEED / TUNE DRIVE MIX GAIN ORRECTION SHIFTER TRACKING CORRECTION
PITCH	Sets the Pitch of the vocal track up to an octave up or down (-120+12 semitones).
FORMANT	Adjust formants to make the sound source seem bigger or smaller. Formant shifting does not affect the pitch or timing of a segment. Bigger values make a vocal more feminine, extreme values make a vocal-like a chipmunk. Lower values make the voice deeper. To get a more realistic vocal, turn the formant knob up when you use up-shifting, or down when you use down-shifting. Set Formant-shifting to -13 to add some depth to a voice If LINK is enabled, Formant parameter is synced to the Pitch knob changes
FORMANT OCTAVE RANGE	Set octave range for the Formant Shifter 4 OCT: 2 octaves up and 2 octaves down (-240+24 semitones) 2 OCT: 1 octave up and 1 octave dowm (-120+12 semitones)
FORMANT TRACKING	Formant tracking across the keyboard (0% = none, 100% = normal)
LINK	When active, Pitch-Shifter and Formant knob are paired and combined into one knob
SCALE NOTE CORRECTION	The incoming signal can be scaled to the 12 semitones. Scale note correction is allowed if note key is enabled, and avoide if note key is disabled. When the incoming pitch is not allowed it gets shifted to the nearest pitch that is allowed - that could be up or down, whichever is nearer. This works like a autotune effect
SHIFT QUALITY RANGE	Selectable pitch-shifter quality models (frequency range): MODERN (20 kHz) / NINETIES (10 kHz) / EIGHTIES (7 kHz) / SEVENTIES (5 kHz)
SPEED CORRECTION	Controls speed of the note scale correction
TUNING CORRECTION	Controls the tuning of the notes scale correction
DRIVE	Adds analog modeled saturation and more level to the signal (up to +40 dB)
MIX	Mixing between DRY (incoming) signal and WET (processed) signal
GAIN	Output gain control allows for reduction of the output signal by up to -inf or boost it up to +12 dB
DRY & WET LEVELS	DRY Level: level of incoming unprocessed signal WET Level: level of processed signal
ENABLE BYP/ON/OFF	BYPASS - disable effect / ON - enable effect / OFF - mute incoming signal

Soft Bypass with smoothed fade in/out functionality



REAR PANEL





AUDIO INPUT/OUTPUT:

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 ICONS

This is a true stereo device





FIREMINT

PITCH & FORMANT SHIFTER VOCAL / VOICE ALTERATION FX

Reason Studios Add-on Shop



Turn2on

Rack Extension Developer

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Thanks to all beta-testers,

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- Challis McAffee (Challism)
- MrFigg (Cameron Jeffrey)
- Philip Meadows (Despondo)



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

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