

POLYRES 3-BAND RESONATOR

[RACK EXTENSION] **MANUAL**

FX device by Turn2on Software





POLYRES was inspired by the Resonators section in one of the first polysynths - Polymoog synthesizer. The resonators is three parallel filters, globally switchable to HP, LP and BP modes.

Three individual resonant filters are band-limited with own frequency range (LOW 60-300 Hz, MED 300-1500 Hz, HIGH 1500-7500 Hz). Turning up Emphasis for each band create individual peaks (resonances), called Resonators.

While it sound interesting, in the early era of polysyths original Resonators are 6 db/oct filters that passed too many harmonics, resulting in a buzzy sound even at maximum resonance. It isn't very useful for formant sounds because there aren't any overlapping frequencies between the bands.

POLYRES have the same three resonant filters with Cutoff, Emphasis and Gain controls for Low, Medium and High bands. POLYRES also include original HighPass, LowPass and BandPass modes. Plus Slope modes (12 dB/oct or 24 dB/oct) helps to work more clear and stable with incoming signal.

POLYRES resonator are an exclusive audio effect, designed in the earliest era of audio processing in the synthesizer industry. Every sound at "The Model" by Kraftwerk makes use of this resonators section of he otriginal stynthesizer.

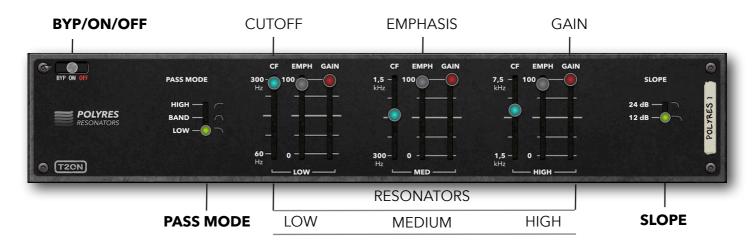
POLYRES audio processor is a 3-band resonant filters system, that reproduce character of the musical sounds, that was used by many musicians and allows touch to the sound of 70s.

Try out today the legend 3-band resonator.





POLYRES THREE-BAND RESONATOR



PASS MODE

Original hardaware resonator section in early polysynth has a three-position PASS MODE switch that selects filter mode for all three resonator bands (Low, Medium, High).

LOW-PASS: Allows frequencies below the cutoff frequency value to pass through, but blocks frequencies above the cutoff frequency value.

HIGH-PASS: Allows frequencies above the cutoff frequency value to pass through, but blocks frequencies below the cutoff frequency value.

MEDIUM-PASS: Combines LowPass and HighPass modes, saving signal sound in the middle. The cutoff frequency is halfway between the slope of the decline on each side.

SLOPE

A filter cuts the signal level at a specified frequency. The slope is measured in decibels of gain reduction per octave. Slope set the character of how the filter works and affects to the frequencies above and below the cutoff frequency.

12 dB/oct: clearer and brighter character. 24 dB/oct: tighter and darker character.

ENABLE BYP/ON/OFF BYPASS - disable effect ON - enable effect

	OFF - mute incoming signal
LOW RESONATOR	
CF	Cutoff Frequency sets the frequency of the parametric Low-Band (60 - 300 Hz).
EMPHASIS	Resonance parameter: Emphasis signal around the selected cutoff frequency of the Low-Band by adding feedback from the Low-Band filter output.
GAIN	Adjust the volume control of Low-Band Resonator. This resonator can be muted if Gain = 0%
MEDIUM RESONATOR	
CF	Cutoff Frequency sets the frequency of the parametric Medium-Band (300 - 1500 Hz).
EMPHASIS	Resonance parameter: Emphasis signal around the selected cutoff frequency of the Medium-Band by adding feedback from the Medium-Band filter output.
GAIN	Adjust the volume control of Medium-Band Resonator. This resonator can be muted if Gain = 0%
HIGH RESONATOR	
CF	Cutoff Frequency sets the frequency of the parametric High-Band (1500 - 7500 Hz).
EMPHASIS	Resonance parameter: Emphasis signal around the selected cutoff frequency of the High-Band by

adding feedback from the High-Band filter output.

GAIN

Adjust the volume control of High-Band Resonator. This resonator can be muted if Gain = 0%



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





POLYRES

3-BAND RESONATOR

Reason Studios Add-on Shop



Turn2on

Rack Extension Developer

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Thanks to all beta-testers,

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- MrFigg (Cameron Jeffrey)
- Philip Meadows (Despondo)



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