



# FILTER X1

FILTER X1

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LIMITER SHOW METER DISPLAY VALUES ◀ ▶ HIGHLIGHT FINAL FILTER

HIGH PASS 24

HIGH PASS 24

HIGH PASS 24

F1 - RESO

FREQ - F2 - RESO

FREQ - F3 - RESO

	20	40
36dB		
24dB		
12dB		
0dB		
-12dB		
-24dB		
-36dB		

Filter X1 Rack Extension  
OPERATION MANUAL v 1.0.0

SWITCH SKIN

# Revision history

**Version 1.0.0 - Initial Release**

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## About Filter X1

Filter X1 Rack Extension is the perfect hands-on filter for Reason. It is a combination of three Studio-grade Multi-mode Digital Filters with Interactive Display Control and the standard knob controls for each filter. It comes with an interactive Graphic Approximation Display (GAD) which lets you control both frequency and resonance at the same time and thus making it possible to have more control over filter and also making the control itself much easier.

## Components, Effects & Controls

### Device Sections



## Controls/Properties

- Enabled: Enables/Disables the filter effect
- Filter 1(2,3) Mode: Type of filter to apply
  - Turned Off: Filter module is bypassed
  - Low Pass 12: 12 dB/oct lowpass
  - Low Pass 24: 24 dB/oct lowpass
  - Low Pass +: Brickwall lowpass (no resonance)
  - Band Pass 6: Bandpass with 6 dB/oct roll-offs
  - High Pass 12: 12 dB/oct highpass
  - High Pass +: Brickwall highpass (no resonance)
  - Comb +: Comb filter
  - Comb -: Comb filter with inverted phase
- Filter 1(2,3) Freq: Cutoff frequency
- Filter 1(2,3) Resonance: Strength of resonant peak at cutoff frequency
- Dry/Wet Balance (MIX): Mix between clean signal and filtered signal (0% = clean, 100% = only filtered)
- Limiter Enabled: Enables/disables a built in CPU-friendly clip limiter
- Show Volume Meter: Shows/hides the volume indicator on the display (shaped as the filter curve)
- Show Display Values: Shows/hides Frequency and Resonance values of the active filter on the display
- Display mode: Switches between following modes:
  - Highlight Final Filter Curve: Highlights the combined curve after all three filters have been applied with individual filter curves in the background
  - Highlight Active Filter Curve: Highlights the active filter curve with inactive filter curves in the background
  - Show Only Active Filter: Shows only the active filter curve
  - Display OFF
- Active Filter: Determines which filter is controlled on the display
- The Filter "Circle Control": The visual control on the display, the circle/dot which controls Freq and Resonance properties (mentioned above) simultaneously.

## Shortcuts

Shift + Click = Cycle active filter (switches between filter 1, 2 and 3 on the display)

Ctrl (cmd) + Click = Reset current filter

Alt + Click = Cycle display modes (switches between different views/modes on the display)

## Basic Use

Set the desired filter mode on the first filter using “Filter 1 Mode” property. Click “FILTER 1” in the top controls to make sure you are controlling the correct filter. Click on the filter circle/dot control and move it left/right to control the frequency and up/down to control the resonance. You can move the circle/dot freely across the display. Notice that the resonance (vertical position) stays only in the upper half of the display, this means that when the circle/dot control is at the middle of the display vertically, Resonance is at 0% and when the circle/dot is at the top, Resonance is at 100%.

You can repeat the same process for filters 2 and 3. Set the filter mode, click on FILTER 2 (or 3) depending on which one you want to control, and use the circle/dot control.

You can switch between display modes/views with mini arrows in the top controls. Keep in mind that if you turn a filter on and then switch to another filter, the first filter stays on. This is important to know in case you change the display view to only show the active filter curve).

## Recording Automations via Display

If you start recording and play with the circle/dot control you’ll notice that no automation is being recorded. This is because there is no “Track” created for the device in Reason and because this is a pseudo control meaning it isn’t registered as an actual property in Reason. But not to worry, this control actually controls two separate properties, **Freq** and **Resonance** which ARE normal Reason controls. So all you need to do is either “Create a Track for Filter X1” or right-click on any of the knobs and select “Edit Automation” (which will automatically create a Track for the device) and now your automations will be recorded.

## Display

Graphic Approximation Display (GAD) is the visual representation of the filter curve. It displays an approximation of the actual filter curve which is not 100% precise but provides a clean curve shape and comes very useful for better control over the device and the sound. The GAD offers three different display modes (or views). It can display the **Final Filter Curve**, meaning the combination of the curves of all three filters, with individual filter curves in the background. It can **highlight the active filter curve** and show the other curves in the background OR it can display **ONLY the active filter curve**. Filters each have different colors, and every filter has the control “circle” – a control which controls frequency and resonance of the active filter simultaneously. You can switch between active filters by using the navigation at the top of the screen. Next to the control circle, X1 displays the values for frequency and resonance, these values can be toggled ON and OFF. And the display also has a volume meter which follows the filter curve.

## Back Panel & CV



In addition to the standard stereo INPUT/OUTPUT, the following CV Inputs are available:

- Filter 1 Cutoff CV in (controls the cutoff frequency)
- Filter 1 Reso CV in (controls the resonance)
- Filter 2 Cutoff CV in
- Filter 2 Reso CV in
- Filter 3 Cutoff CV in
- Filter 3 Reso CV in

## Support

For support regarding Filter X1, please visit <https://www.bassgrid.com/support-section.html>

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