

XONE VF-1 Analogue Filter



The **XONE:VF-1** is a high quality, 1U rack analogue filter unit equipped with a wide range of input and output connectors, which features an enhanced version of the legendary **XONE** Filter circuits

- **Filters:** three different filter types are provided: high-pass, band-pass and low-pass, which can be selected together to create further types - for example, high-pass and low-pass together create a notch filter. All of the filter controls are "soft switched" to prevent clicks, allowing them to be changed on the fly
- **Resonance:** this control allows the sharpness of the filter to be adjusted from a gentle roll-off for a subtle filter sound, to near oscillation at maximum. Automatic Resonance Control (ARC) monitors the output of the filter and automatically reduces the resonant peaks of high signal levels, thus minimising potentially system-damaging transients
- **Mono/stereo:** the filter can be configured as a stereo 2-pole (12dB/octave) or a mono 4-pole (24dB/octave) by selecting the Mono switch on the rear panel, without the need to re-patch
- **Invert Filter:** Another rear panel switch sums the inverted filter signal with the non-filtered input signal and routes the remainder to the TRS jack outputs; this can give some unusual and subtle sounds, especially if routed to an effects unit

- **Valve:** as well as the VCA filter the VF-1 also has a valve (tube) input stage with drive control, allowing the signal level through the valve to be progressively increased in order to create strong second harmonics, or taken all the way into clipping. This is a great tool for adding warmth to a mix or for fattening up thin, reedy bass sounds. Automatic gain reduction circuitry maintains a near constant output level as the overdrive control is increased
- **Envelope Follower:** this function with switchable release speed, allows the filter cut-off frequency to be modulated by the intensity of the input signal, and can be used to create some interesting effects with drum loops and bass lines. It can also be switched into the valve overdrive circuits to give intensity modulated overdrive
- **LFO:** the low frequency oscillator with square/triangle waveforms completes the modulation toolbox for the filter system
- **MIDI:** the VF-1 can send and receive MIDI, allowing the filter frequency, filter type, and on/off status to be remotely controlled or saved to a sequencer. It can be configured to operate in several different modes; for instance, to allow it to interface to our MIDI equipped **XONE:92** DJ mixer, and another to track the filters to MIDI notes

TECHNICAL SPECIFICATIONS

Operating Levels

XLR	+4dBu Headroom +22dB
Jack	0dBu Headroom +22dB
RCA	0dBu Headroom +22dB
Maximum output	+26dBu

Frequency Response (20Hz-30KHz)

Line to Main output (0dB)	+0/-0dB (Filter OFF)
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Distortion at 1KHz +0VU out

THD + Noise (line in 0dB gain)	<0.002% (Filter OFF)
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Noise Performance (22Hz-22KHz unweighted)

Residual output noise (XLR)	<-100dBu Filter OFF
Filter on	<-85dBu (89dB S/N)

Connection Impedances

Line Inputs	>9K ohms
Outputs	<47 ohms

Filter

Filter	20Hz-20KHz multi-type VCF
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System

Power supply	Internal Universal input
Power Consumption	14W Max 7W nominal

