

HANS QUICK START GUIDE

HANS

is a concise 4-pole low-pass stereo diode-ladder filter equipped with an internal LFO. Drawing inspiration from the renowned diode ladder filters present in EMS and Roland TB-303 devices, this filter imparts a distinctive and individual sonic quality. Additionally, the module includes an internal LFO to introduce dynamic variations to the cutoff frequency.

CONTROLS

1. FREQ. Turn this potentiometer to change the filter's cutoff frequency. If you turn the control to the left, more frequencies are cut off. High frequencies are cut off first, followed by mid and low frequencies until the entire signal can no longer be heard. Move this potentiometer to the right to add more frequencies to the sound until they are all audible when you turn it all the way to the right.

2. RES. Apply positive feedback that accentuate higher frequencies by turning this resonance control to the right. Self-resonance is possible, but only at very high frequencies. Feedback may be unstable at very high resonance settings.

3. LFO RATE. Determines how fast the LFO cycles are. Turn the control to the right to increase the LFO speed and turn it to the left to obtain slow cycles of up to 10 minutes per cycle. The LFO doesn't reach audio rates.

4. LFO LEVEL. Adjusts the voltage level of the LFO, which influences the cutoff frequency of the filter. Turn the LEVEL knob clockwise to achieve the full LFO swing so that the filter opens and closes completely depending on the LFO rate. Turning it anti-clockwise introduces smaller changes to the cutoff frequency. If you turn the knob fully anti-clockwise, no LFO voltage is passed to the filter. The LED indicates the LFO voltage level.

5. CV Input Attenuator. Sets the voltage level of the external CV that is fed into the CV input (C). Turn it to the left to lower the voltage level and achieve smaller changes in the cutoff frequency.

INPUTS & OUTPUTS

A. Stereo Input L & R. Patch your stereo signal to be processed by the filter here. If you want to use a mono signal, connect it to the IN L socket, which is internally normalised to the IN R input.

B. Stereo Output L & R. Take the filtered stereo signal from this output and connect it to other modules for further processing.

C. CV input. Patch any external CV here to dynamically control the filter's cutoff frequency (1). Use its associated attenuator (5) to regulate the voltage level. The associated LED indicates the voltage level.

D. LFO Out. The internal LFO's triangle waveform is accessible at this output. The LFO cycles range from +0V to a maximum of +10V. LFO levels can be controlled with the LFO LEVEL control (4).

CALIBRATION

CUTOFF_RNG. Turn the FREQ control (1) all the way to the left and then adjust the cutoff-range trimmer on the back of the circuit board until no more signal can be heard at the output (B).

QUESTIONS?

Please go to www.st-modular.de and post your question in the forum.

