

LPG Manual



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General Info

The LPG is a West Coast Synthesis staple! Our dual Low Pass Gate creates organic percussion timbres, paving the way for sonic exploration with a Buchla/Subotnick vibe.

The LPG has two identical low pass gates in one module. Its unique non-linear qualities emulate percussion timbres like congas, bongos, plucks, etc. The LPG is vactrol based, which creates natural-sounding decays. When the CV input is pinged by short/fast envelopes, it results in more organic sounds like bongos. The slide pot functions in two ways: when the the CV input is not patched, it attenuates/mixes the audio signal. When the CV jack is patched, it attenuates the output level and changes the timbre of the audio signal.

Each LPG channel can be used as a VCA. VCA mode bypasses the low pass filter and resonance and doesn't color the sound of your input audio. The vactrol gives the VCA a living, breathing, non-linear response.

We tested a number of vactrols for this module, and we liked the pre-tested NSL-7053 best of all. The NSL-7053 has a slower response and a more exponential response curve. The VTL5C4 has a slightly faster response and a more linear response curve. But the LPG will work with a number of different types/brands, including dual vactrols. In fact, each channel can be built with a different set of vactrols.

Features:

- Two channels
- CV over resonance
- VCA and mixer function
- Input 1 normals to input 2

Specifications:

- Width: 4HP
- Depth: 57mm
- Power draw:
 - +12V: 45mA
 - -12V: 45mA

Includes power cable and module screws.



Functions

Low Pass Gate

With the switch in LPG mode, the channel will function as a low pass gate.

VCA

With the switch in VCA mode, the channel will function as a VCA. VCA mode bypasses the resonance jack, so simply patch the CV, IN and OUT jacks. The vactrols give the VCA a unique exponential curve.

Mixer

With the switch in VCA mode, patch the input and output jacks and use the slide pot to adjust the signal amplitude.

Mult (in a pinch)

Flip the switch to VCA mode. Since the inputs are normalled, plug your audio into the jack of input one. If nothing is patched into channel two's input, you will receive the same signal out of both outputs. Because sometimes you just need a liiiiiittle more mult.

Synthrotek Dual LPG Quick Start Guide



Important Links

- [Store Page](#)
- [Assembly Instructions](#)
- [Bill of Materials](#)



Powering Up your Module

Turn off your modular system before plugging in your module. Plugging in your module while the power is on (“hot swapping”) can damage a module. Plug a 10 to 16 pin power cable into the module and then into your power supply, aligning the stripe of the cable with the STRIPE indicator on the power supply. Then power it on!

Calibration

If you want to calibrate your vactrols, [use these instructions here](#).

Controls and Jacks

CV LVL

- CV input level. The LED flashes when it receives CV. The brightness varies according to voltage of the signal plugged into the CV jack: the more voltage, the brighter the LED. The brightness is also affected by the trim pot levels (V1 Drive and V2 Drive).

CV

- CV input jack. Input voltage range is 0 to +5V, but going outside that won't damage the circuit.

RES

- Resonance CV input jack. The resonance jack will have no effect if the channel is in VCA mode. Input voltage range is 0 to +5V, but going outside that won't damage the circuit.

LPG/VCA Switch

- Low pass gate/voltage controlled amplifier switch. Toggles between LPG and VCA. The VCA has a vactrol-based exponential curve.



IN

- Audio input. Channel one's input is normalled to channel 2.

OUT

- Audio output.

V1 Drive/V2 Drive (internal trim pots)

- Adjusts the maximum brightness of the vactrol LEDs for channel 1 and channel 2. See the [calibration instructions](#) to learn how to adjust these.

More questions? Get a hold of us here:

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