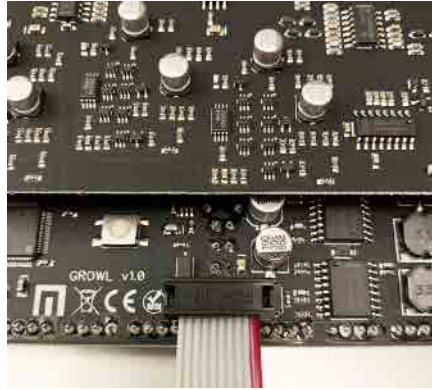


MANTHER GROWL QUICKSTART GUIDE

MANTHER GROWL is a full featured, Eurorack monophonic synth voice with an analog signal path, and like the Manther Tabletop, it includes a coveted CEM3340 VCO IC chip. The analog filter is based on an SSM2044 chip. Square, Saw and Triangle waveforms have their own individual level controls (manual control as well as CV jack inputs), as well as their own individual outputs. Wavefold control can be set to Tri or ALL (folds all waveforms and external input post-filter). Dial the independent LFO level controls to modulate pitch, pulsewidth and filter cutoff. Also includes manual controls over both VCA and filter ADSR and both the VCA and filter have individual gate inputs.

CONNECT POWER CABLE WITH RED STRIPE TO WHITE LINE



LFO & OSCILLATOR

LFO ASSIGNMENT CONTROLS:
Assign LFO amount to VCO Pitch, VCO Pulsewidth and VCF Cutoff.

VCO OCTAVE RANGE SWITCH:
2', 4', 8', 16'

VCO FINE TUNE CONTROL:
FINE

VCO 1V/OCT INPUT:
Insert 1V/oct from an external source.

LFO SPEED:
Control the LFO speed.

LFO WAVEFORM SWITCHES:
Switch from Saw/Ramp, Sine, Square and Random LFO.

LFO OUTPUT

VCO PULSE WIDTH MODULATION CV INPUT

VCO PULSE WIDTH MODULATION CONTROL

MANTHER GROWL

LFO PITCH LFO PW LFO CUTOFF OUT CV IN OUT CV IN OUT CV IN SHAPE CV IN

FINE

1 V/O

LFO SPEED RND

PULSE WIDTH EXT LEVEL CUTOFF RES

GATE ENV OUT LFO OUT PWM EXT IN VCA OUT VCA CV GATE ENV OUT FREQ CV RES CV

A D S R VCA ENVELOPE ENV LEVEL A D S R FILTER ENVELOPE

TRI ALL

INDIVIDUAL OSCILLATOR INPUTS AND OUTPUTS AND LEVEL CONTROLS:
Square, Saw, Tri-Shape level controls, each with their own outputs and CV inputs (controlling levels).

WAVEFOLD SHAPE CV INPUT:
CV input controls wavefolding amount.

WAVEFOLD SHAPE CONTROL.
Manual shape control.

ASSIGN WAVEFOLDING SHAPE TO TRI OR ALL:
Switch wavefolding from Triangle only to ALL (fold signal post-filter).

Your serial number:

Visit malekkoheavyindustry.com to read the full manual and register your product for warranty!

VCA & FILTER

VCA ENVELOPE OUTPUT

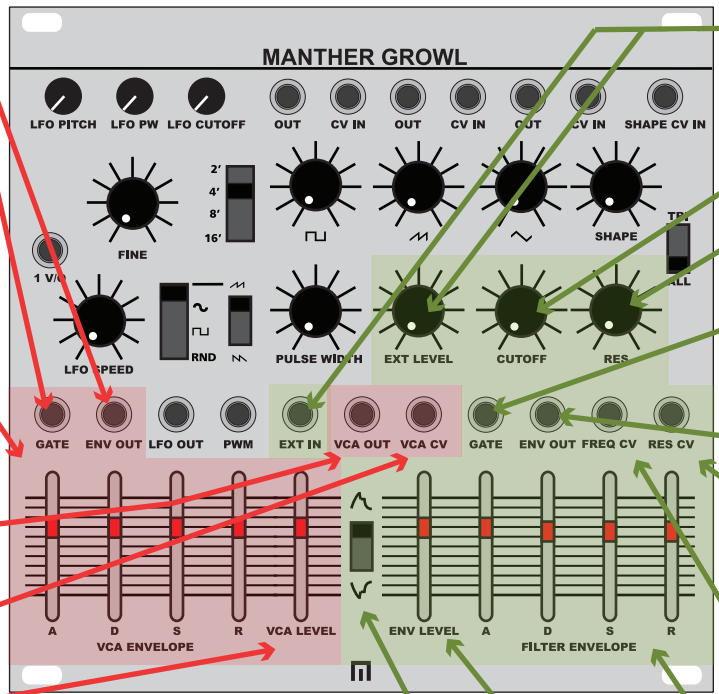
VCA GATE INPUT:
Insert any gate over 1.6V to start VCA envelope. If there is no gate input on the Filter Envelope, the VCA envelope gate input will be normalised to the Filter (both start at the same time based on VCA envelope gate input).

VCA ADSR CONTROL:
Controls for Attack, Decay, Sustain and Release of VCA Envelope.

VCA OUTPUT:
POST VCA AUDIO OUTPUT

VCA CV INPUT:
CV input controls VCA level.

VCA LEVEL CONTROL:
Manual control the level of the main VCA output.



FILTER EXTERNAL INPUT & LEVEL CONTROL:
Audio input routes to filter and knob controls incoming level.

FILTER CUTOFF CONTROL

FILTER RESONANCE CONTROL

FILTER GATE INPUT:
Insert gate to start the Filter Envelope.

FILTER ENVELOPE OUTPUT

FILTER RESONANCE CV INPUT:
Modulate the resonance of the filter.

FILTER FREQUENCY CV INPUT:
Modulate the frequency of the filter.

ADSR FILTER CONTROL:
Controls for Attack, Decay, Sustain and Release of the Filter Envelope.

FILTER ENVELOPE LEVEL CONTROL:
Control the amount of envelope sent to the filter cutoff.

FILTER ENVELOPE INVERT SWITCH
Switch to invert the Filter Envelope.

YOUR FIRST PATCH

Patch from a 1V/oct source and adjust the VCO FINE control accordingly.

Adjust the VCO OCTAVE RANGE SWITCH per the diagram.

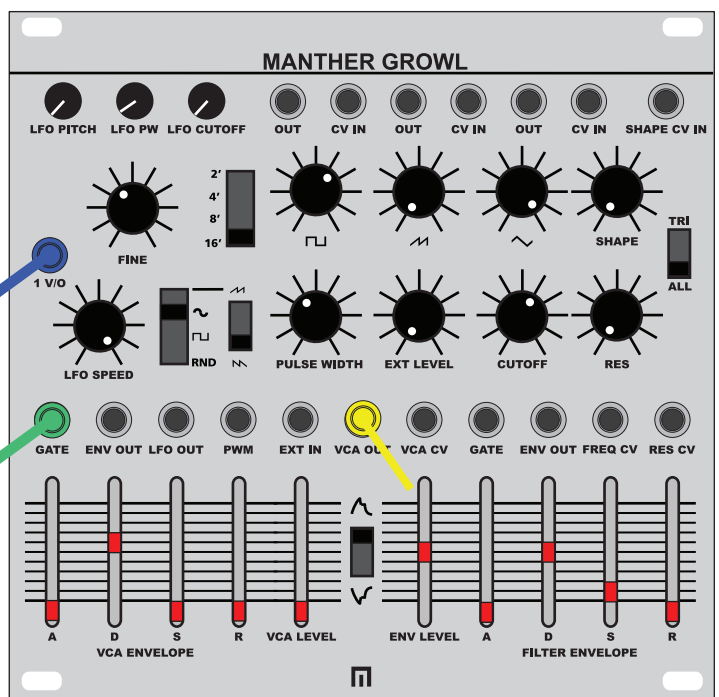
Adjust the VCO SQUARE WAVE, SAW, TRI-SHAPE, WAVEFOLD SHAPE and PULSEWIDTH controls per the diagram.

Assign VCO WAVEFOLDING SHAPE SWITCH to ALL.

Adjust LFO SPEED fully to the right.

Adjust/assign the LFO PULSEWIDTH control per the diagram.

Patch a short gate into the VCA



Adjust the VCA ENVELOPE ATTACK, DECAY, SUSTAIN, RELEASE and VCA LEVEL controls per the diagram.

Set the FILTER ENVELOPE INVERT SWITCH to the up position.

Adjust FILTER ENVELOPE LEVEL, ATTACK, DECAY, SUSTAIN AND RELEASE controls per the diagram.

Adjust FILTER EXT LEVEL, CUTOFF and RESONANCE controls per the diagram.

Patch out from the VCA OUT to main mixer.