Moog — Mavis

- Manual PDF

Moog Mavis User Manual PDF

Moog Mavis Eurorack Module Cheat Sheet

Power & Installation

- **Eurorack Power**: 44 HP wide; draws 175mA from +12V only (does not use -12V)
- Connect 10-pin ribbon (pin 1/-12V red stripe UP, but only uses +12V)
- Max depth: ~26mm

Panel Controls

Oscillator (VCO)

- **PITCH**: Coarse pitch (8Hz – 8kHz)
- **VCO WAVE**: Fade Saw⇔Pulse
- **PULSE WIDTH**: Pulse duty (5%-50%)
- **VCO MOD MIX**: LFO⇔EG modulation mix to VCO
- **PITCH MOD AMT**: Mod amount to Pitch
- **PWM AMT**: Mod amount to Pulse Width

Filter (VCF)

- **CUTOFF**: 4-pole LPF cutoff (30Hz−20kHz)
- **RESONANCE**: Add resonance/self-oscillation
- **VCF MOD MIX**: LFO⇔EG modulation mix to filter
- **VCF MOD AMT**: Bipolar mod amount to Cutoff (center=off, left=invert, right=normal)

LFO

- **LFO RATE**: 0.1−550Hz (audio-rate capable)
- **LFO WAVE**: Fade Tri⇔Square

EG (Envelope Generator)

- **ATTACK**: (0.8ms−5.5s)
- **DECAY**: (3ms−18s)
- **SUSTAIN**: 0−8V level
- **RELEASE**: (3ms−18s)

VCA

- **VOLUME**: Output/headphones level
- **VCA MODE [TOGGLE]**: DRONE (on)/normal EG control

Keyboard Section

- **13-button C-to-C keyboard**
- **KB SCALE**: 1V/octave (1 octave) to 5V/octave (5 octaves)
- **GLIDE**: Portamento time (max ~9s)

Utilities

- **FOLD**: Amount of wave folding (wavefolder)
- **ONE LVL**: Mixer ch.1 Level (ONE input)
- **ATTENUATOR**: Attenuate +5V or input signal

Patchbay Jack Reference

Label	Type	Row/Col	Function & Voltage Range
/VCA	Out	R1;C1	Main audio/headphone out: -5V/+5V
KB CV	Out	R1;C2	Keyboard 0–1V (CCW KB scale), 0–5V (CW)
FOLD IN	In	R1;C3	Wavefolder input: -5V/+5V
1V/OCT	In	R2;C1	Pitch CV: -5V/+5V
PWM	In	R2;C2	Pulse Width CV: -5V/+5V
ONE (-5)	In	R2;C3	Mixer ch.1 in: -10V/+10V
ONE	Out	R3;C3	Mixer ch.1 out: -8V/+8V
LFO RATE	In	R3;C1	LFO rate CV: -5V/+5V
CUTOFF	In	R3;C2	Filter cutoff CV: -5V/+5V
TWO	In	R4;C3	Mixer ch.2 in: -10V/+10V
GATE	In	R4;C1	EG gate in: 0V=OFF, +5V=ON (1.5–3.5V)
VCA CV	In	R4;C2	VCA level: 0V–8V
ONE+TWO	Out	R5;C3	Mixer sum out: -8V/+8V
VCO	Out	R5;C1	Raw oscillator out: -5V/+5V
S+H (VCO)	In	R5;C2	S+H sample input: -5V/+5V
LFO	Out	R6;C1	LFO out: -5V/+5V

Label	Type	Row/Col	Function & Voltage Range
S+H GATE	In	R6;C2	S+H clock in: 0–+5V, rising edge
ATTN (+5)	In	R6;C3	Attenuator in: -10V/+10V
EG	Out	R7;C1	Envelope out: 0–8V
S+H	Out	R7;C2	S+H out: -5V/+5V
ATTN	Out	R7;C3	Attenuator out: -10V/+10V
MULT	In	R8;C1	Passive mult in: any CV/audio
MULT 1	Out	R8;C2	Passive mult out (copy of MULT in)
MULT 2	Out	R8;C3	Passive mult out (copy of MULT in)

Internal Modules (Patchable via Patchbay)

- **Wavefolder**: Patch-in via FOLD IN, enable with FOLD knob.
- **Mixer**: Inputs: ONE (-5), TWO; Output: ONE+TWO (balance ONE LVL knob).
- **Attenuator**: ATTN (+5) in, ATTN out, set amount via knob.
- **Sample+Hold**: S+H (VCO) in, S+H GATE in, S+H out. Defaults: sample VCO, gate from LFO.
- **MULT**: 1 in, 2 outs.

Patch Examples (Quick Reference)

- **Engage Wavefolder**: VCO out → FOLD IN
- **Add S+H filter modulation**: S+H out → CUTOFF in
- **Mixer as audio sum**: LFO (audio rate) → ONE in, VCO out → TWO in, ONE+TWO out → signal path

- **MULT**: One source (e.g., S+H) to two destinations (e.g., pitch and cutoff)
- **External pitch**: CV/gate controller → 1V/OCT in & GATE in

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Voltage Ranges (Quick Reference)

- **Patchbay Inputs**: Most -5V/+5V (mixer/attenuator -10V/+10V)
- **Pitch CV**: 1V/oct standard
- **Gate in**: rises >3.5V triggers EG, drops <1.5V releases EG
- **All outputs (audio/CV)**: labeled per jack above

For more detail, see the official manual PDF.

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