

2hp – Swarm

- [Manual PDF](#)
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[2hp Swarm Manual PDF](#)

2hp Swarm – Cheat Sheet

Type: Hyper Oscillator

Width: 2HP

Depth: 45mm

Power: - +12V: 85mA - -12V: 7mA - +5V: 0mA

Controls & Functions

Knobs

- **VOICES**

- Sets number of active oscillators.
- CCW (counterclockwise) = 1 oscillator.
- Center = 20 oscillators.
- CW (clockwise) = up to 88 (Saw) / 55 (Pulse).

- **DETUNE**

- Controls detune amount applied to oscillators.
- CCW = No detune; Center = "tasteful" detune; CW = "chaotic" detune.

- **FREQ**

- Macro pitch for all voices, tracks 1V/Oct.
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Switches/Toggles

- **WAVE TOGGLE**
 - Left: Sawtooth waveform.
 - Right: Pulse waveform.
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Inputs & Outputs

Jack	Type	Function	Voltage Range
VOICES	CV Input	Number of active oscillators	-5V to +5V
DETUNE	CV Input	Modulates the detune amount	-5V to +5V
FREQ	CV Input	1V/Octave pitch control	-5V to +5V
OUT	Audio Out	Mixed oscillator output	10Vpp

Patch Suggestions

- **Analog VCA:** Use with VCA for precise control over amplitude and modulation.
 - **EG (Envelope Generator):** Shape the amplitude with snappy or drawn-out envelopes for classic "super-saw" sounds.
 - **MMF (Multi-Mode Filter):** Add patchable filtering for dynamic lead or bass sounds.
 - **Lo-Fi Effect:** Crunch or warp tones for digital or vintage texture.
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Installation Tips

- Align red stripe of power cable with the white line on the PCB.
 - Use either row of 5 pins (on power connector) with proper stripe alignment.
 - Secure with 2.5mm screws/nuts.
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