Intellijel — Atlantix

- Manual PDF

Atlantix Manual (PDF)

Atlantix Eurorack Synth Voice Cheat Sheet

Overview

- **Standalone analog dual-VCO synth voice** (VCO A + B)
- Extensive normalization and modulation routing, full patch override
- Mixer with noise/sub/aux routing, multi-mode filter (VCF/Phaser), ADSR + linear VCA, S&H/T&H, Expander
- **All signals and modulations available via jacks.**

Quick Reference Guide

1. VCO A (Oscillator 1)

Control	Function/Range
[1.1] OCTAVE A	8-position coarse tune (octaves)
[1.2] PITCH A	Fine tune (~±1 semitone), tracks **PITCH A IN** (1V/Oct)
[1.3] IM slider	FM index mod source amount (default: Envelope)

Control	Function/Range
[1.4] INDEX	Base FM1 amount (depth)
[1.5] FM2	FM2 depth (Exponential FM, default: Envelope)
[1.6] PWM	Pulse width mod amount, default: VCO B sine or Envelope
[1.7] PWM SRC	PWM modulation source select
[1.8] PW	Pulse width setting (50%–~95%, full mod to 100% = silence)
[1.9] PULSE POS	Center/Edge pulse position switch
[1.10] TZFM/ EXP	Linear Thru-Zero FM or Exponential FM
[1.11] AC/DC	DC = deeper, AC = accurate (only for linear FM)
[1.12] SYNC TYPE	Hard / None / Soft sync selection
[1.13] SYNC SRC	VCO B Saw or GATE default for sync src

VCO A Jacks

Jack	Function	Range
[1.A] PITCH A IN	1V/Oct pitch CV input	0–+5V typical
[1.B] SYNC A IN	Sync input (Ext overrides norm)	Logic/Audio signal
[1.C] IM IN	FM index mod CV (FM1 depth)	±5V

Jack	Function	Range
[1.D] FM1 IN	Linear/Exp FM input	±5V
[1.E] FM2 IN	Exponential FM input	±5V
[1.F] PWM IN	Pulse width modulation	±5V
[1.G] SINE OUT	Sine output	10Vpp

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2. VCO B (Oscillator 2 / LFO)

Control	Function/Range
[2.1] OCTAVE B	8-position coarse tune
[2.2] PITCH B	Fine tune, tracks **PITCH B IN** (1V/Oct)
[2.3] PITCH SRC	Pitch A + B or B only
[2.4] VCO/LFO	Switch: audio rate or LFO (50s cycle)
[2.5] Indicator	Bi-color LED shows polarity/rate

VCO B Jacks

Jack	Function	Range
[2.A] PITCH B IN	1V/Oct pitch CV input	0–+5V typical
[2.B] FM B IN	Exponential FM input	±5V
[2.C] SYNC B IN	Hard sync input	Logic/Audio
[2.D] SPIKE OUT	Spike waveform out	10Vpp

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3. MIXER

Mixes: VCO A Pulse/Saw, Sub, Noise, AUX1 (Tri/Square), AUX2 (Sine/Saw, route to MIXER or VCA)
Sub, Noise, and AUX waveforms selectable by switches

Control	Function
[3.1] PULSE	VCO A pulse level
[3.2] SAW	VCO A saw level
[3.3] SUB	SUB level, type: -1/-2/OR
[3.4] NOISE	Noise level, type: WHITE/PINK
[3.5] AUX1	AUX1 level, source: VCO A TRI/B SQUARE
[3.6] AUX2	AUX2 level, source: VCO A SINE/B SAW, routing
[3.7] AUX2 ROUTE	Route AUX2 pre/post filter (MIXER/VCA)
[3.8-3.11] Switches	Set Noise/Sub/AUX1/AUX2 source types

MIXER Jacks

Jack	Function	Range
[3.A] AUX1 IN	External input to mixer	±5V
[3.B] AUX2 IN	External input (pre/post VCA)	±5V
[3.C] MIXER OUT	Mixed output (default to VCF in)	10Vpp

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4. VCF / Phaser

Control	Function/Range
[4.1] FM1	FM1 depth (default: MOD Y)
[4.2] FM2	FM2 depth (default: VCO A pitch), polarity switchable
[4.3] ENV	Envelope FM depth, polarity switchable
[4.4] FREQ	Cutoff freq
[4.5] Q	Resonance (CV offset at Q IN)
[4.6] Mode	LP/BP/HP (High = always 4-pole), PHZ/Filter toggle
[4.7] 4P/2P	2/4 pole (LP/BP mode only)
[4.8] PHZ/Filter	Phaser/Filter switch
[4.9] FM2 Polarity	Invert FM2 CV
[4.10] ENV Polarity	Invert envelope CV

VCF Jacks

Jack	Function	Range
[4.A] FM1 IN	Filter CV 1 (attenuated)	±5V
[4.B] FM2 IN	Filter CV 2 (attenuated)	±5V
[4.C] VCF IN	Main audio in (defaults to mixer)	10Vpp
[4.D] Q IN	Resonance CV	±5V

Jack	Function	Range
[4.E] VCF OUT	Main filter audio out	10Vpp

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5. ENVELOPE / VCA

Classic ADSR, routed to VCA, FM, PWM, filter | Control | Function/Range | |----------|----------| | **[5.1] A** | Attack time (time varies by **RATE** switch) | | **[5.2] D** | Decay time | | **[5.3] S** | Sustain level (0–5V) | | **[5.4] R** | Release time | | **[5.5] RATE** | Envelope speed: FAST/MED/SLOW | | **[5.6] ENV/GATE** | VCA controlled by ENV or GATE | | **[5.7] DRIVE** | VCA drive: Sym/None/Asym | | **[5.8] MAN GATE** | Manual gate trigger (momentary button) |

Envelope/VCA Jacks

Jack	Function	Range
[5.A] GATE IN	Gate trigger input	Gate/Trigger
[5.B] RETRIG	Retrigger (while gating)	Trigger
[5.C] LEVEL	Envelope output VCA (defaults 5V)	0–5V CV
[5.D] ENV OUT	Envelope out	0–5V
[5.E] INV ENV OUT	Inverted envelope	0–-5V
[5.F] VCA IN	VCA signal in (defaults to VCF O)	10Vpp
[5.G] OUT	Main audio output	10Vpp

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6. MODS (X, Y, S&H, Noise)

Control	Description
[6.1/6.5] MOD X/ Y SRC	8-way selector: VCO B (Sine, Tri, Saw, Sq), S&H, Noise, VCF, (X: VCA; Y: Mixer)
[6.2/6.6] UNIPOLAR	UP: unipolar (0–5V); DOWN: bipolar (-5–+5V)
[6.4/6.8] POLARITY	UP: normal, DOWN: inverted
[6.9] HOLD SRC	S&H hold: VCO B Sq or Gate
[6.10] S&H/T&H	S&H (sample-hold rising edge), T&H (track-hold low)

MOD Jacks

Jack	Function	Range
[6.A] S&H HOLD	S&H sample trigger/gate	Gate/Clk
[6.B] S&H SAMP	S&H input (default: WhiteNoise)	±5V
[6.C] S&H OUT	S&H output	-5V to +5V
[6.D] NOISE OUT	Dedicated noise out	±5V
[6.E] MOD X OUT	X source out (audio or CV)	±5V
[6.F] MOD Y OUT	Y source out (audio or CV)	±5V

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7. ATLX Expander Jacks

- **[X.A] LP OUT:** Lowpass out | **[X.B] HP OUT:** Highpass out

- **[X.C] BP OUT:** Bandpass out | **[X.D] PHZ OUT:** Phaser out
- **[X.E] SUB OUT:** Sub osc out | **[X.F] RING OUT:** Ring mod out
- **[X.G/H] X/Y IN:** Ring mod inputs (default: A/B Sine)
- **[X.I-X.L] A outputs:** Sine, Tri, Saw, Pulse
- **[X.M-X.P] B outputs:** Sine, Tri, Saw, Square

Voltage Ranges

- **CV Inputs:** Most use ±5V, envelopes/sources generally 0–5V, outputs 10Vpp audio
- **Gate/Trigger:** Standard 5V logic
- **Keep CV within ±12V for safety when patching external gear.**

Key Internal Normalizations

- Patch points override normaled routing.
- Envelope, MOD X/Y, and default oscillator and modulator connections pre-wired.
- Mixer output normalled to filter, filter output normalled to VCA, VCA to OUT.

Tips

- Use **VCO B** as audio or LFO in mod matrix; Exponential/Linear FM available
- **Drive** switch on VCA for saturation/color
- **AUX2** can be routed post-filter (VCA) for parallel processing
- **MODS**: Noise, S&H, VCO/VCF/MIX sources as mod or audio
- **Expander** gives direct outs for advanced patching (filter breakouts, ring mod, etc)
