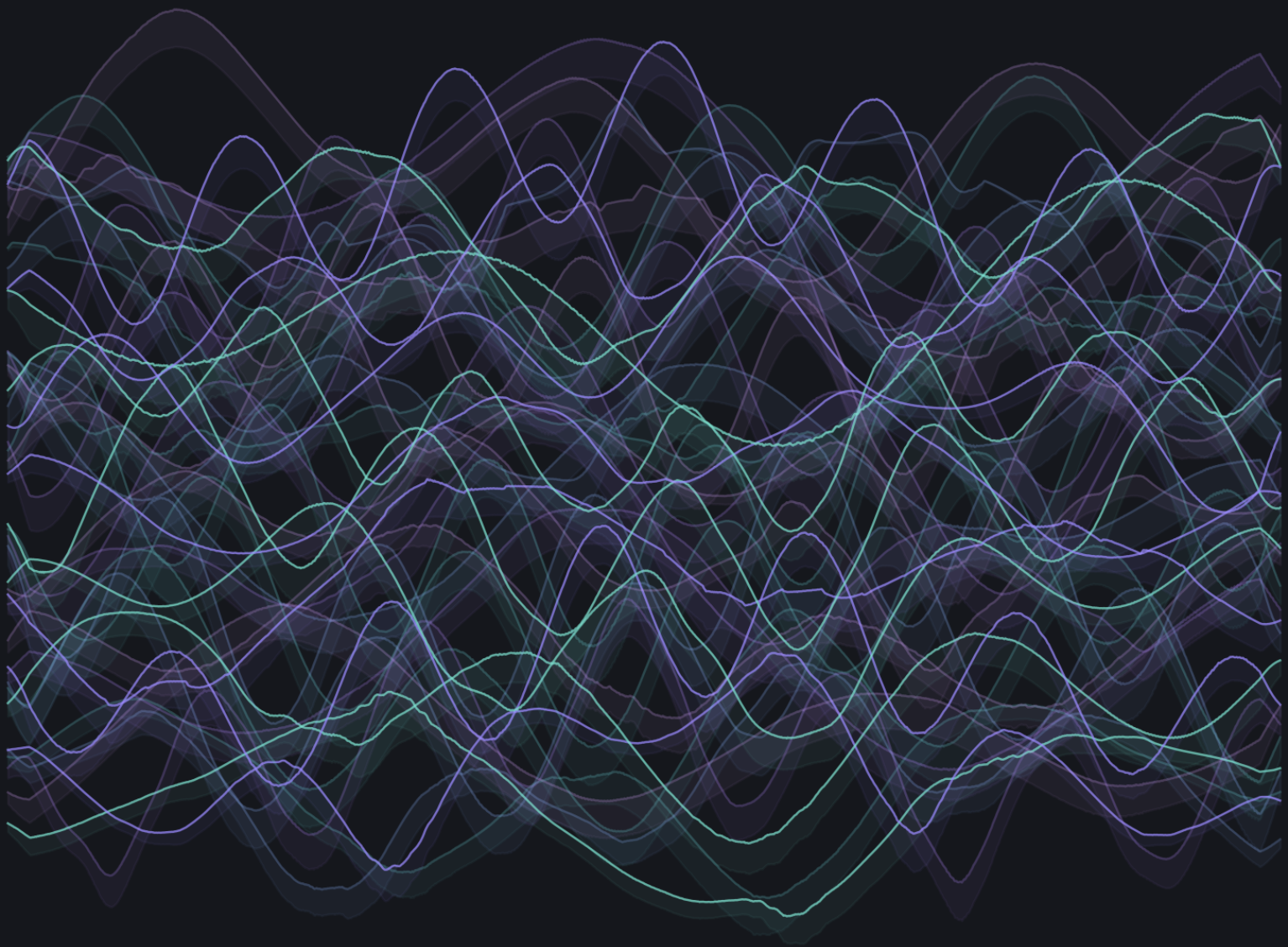
BLUE LANTERN MODULES · AMBIENT CHOIRS, PADS AND TEXTURES

TecAmbient

User Manual



56 engines · choirs · tape · pads · textures · chords · ADSR · effects · 1 V/oct

Eurorack module · Blue Lantern Modules, Chandler, Arizona

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CHAPTER 1

Welcome

TecAmbient is an **ambient voice** for Eurorack: synth choirs, a tape-replay boy choir, warm pads, strings, organs, bells, chimes, rain and drones, played as **chords** of up to four notes, shaped by an **ADSR envelope**, and finished with built-in **chorus** and **echo**. Everything follows 1 V/oct.

Every sound is synthesized in real time; there are no samples. One module can hold a full maj9 chord, and the effects give it space without extra modules.

Highlights

- **56 engines**: 8 choirs and voices, 5 tape-replay sounds (including a boy choir), 28 pads and drones, 15 struck and self-playing textures.
- **Chords**: 15 chords from fifths to maj9, quartal and cluster voicings, with inversion, spread, strum and scale-aware harmony; chosen in the menu or by CV.
- **ADSR** from 2 ms to 12 s, gated by TRIG, to the level, TIMBRE, COLOR and pitch.
- **Effects**: chorus (light, deep, ensemble), ring modulator, echo up to 1.2 s (clock sync), drive and filter.
- **MORE page**: internal clock, ratchets, probability, swing, random notes, arpeggiator, glide, vibrato, 8 presets, favorite engines, display modes and your own boot logo.
- **Self-playing textures**: wind chimes, rain, ocean, stars and dust play on their own, with nothing patched but a pitch.

Quick start

1. Power on. After the start-up animation the module shows **AAH** and sings straight away. Play V/OCT and turn TIMBRE.
2. Open **MORE** in the menu and set **CHRD** to **MAJ9**: the choir now sings a chord.
3. Try **BOYS**, **PAD**, **STRG** and **CHIM**. Then **BELL** with a slow clock into TRIG.
4. For swells, set **ENV** to **ADSR** and **env VCA** to ON, and send a gate into TRIG.

NOTE Your calibration is kept in its own memory area and is never affected by choosing engines or loading presets.

CHAPTER 2

Panel and controls

Control	Function
Encoder + display	Turn to choose the engine. Click for the menu. Hold on special items (calibration, presets, logo). On the engine screen, hold to mark a favorite.
COARSE / FINE / V/OCT	Pitch of the chord's root, 1 V/oct (calibrated).
FM knob + input	Pitch modulation; or, with FMDS on the MORE page, TIMBRE, COLOR, echo, ring, the **chord** or the preset.
TIMBRE knob + CV	The engine's main sound control (vowel, cutoff, brightness, density…).
COLOR knob + CV	The engine's second control (ensemble, tape age, decay, speed…).
TRIG	Gate for the ADSR, strikes the struck engines, clocks ARP and the echo's CLK time.
OUT	Audio output, effects included.



CHAPTER 3

Chords, envelope and effects

Chords: polyphony from one module

CHRD (on the MORE page) chooses what every engine plays from the root note at V/OCT. With **OFF** the engines play a single note, thickened with detuned unison voices. Changing chords never clicks: notes fade in and out in a few milliseconds.

CHRD	Notes (semitones)	CHRD	Notes (semitones)
OFF	single note, unison	MIN9	0 3 10 14
OCT	0 12	MAJ9	0 4 11 14
5TH	0 7 12	6-9	0 4 9 14
SUS2 / SUS4	0 2 7 12 / 0 5 7 12	M7-5	0 3 6 10 (half-diminished)
MAJ / MIN	0 4 7 12 / 0 3 7 12	QRTL	0 5 10 15 (quartal)
MAJ7 / MIN7	0 4 7 11 / 0 3 7 10	CLST	0 2 4 7 (cluster)
ADD9	0 4 7 14		

INV inverts the chord (the lowest notes move up an octave), **SPRD** moves the top note up an octave for an open voicing, **STRM** strums the struck engines, and **HARM** keeps every chord note in the QNTZ scale (diatonic chords from one CV).

Chords by CV. With **FMDS** set to **CHRD**, 0 to +5 V at the FM input steps through the 15 chords (OCT → CLST), with hysteresis so a steady CV never flickers. A sequencer can play a whole progression: one CV for the root (V/OCT), one for the chord (FM).

Envelope (ADSR)

With **env VCA** OFF (factory setting) the sound plays continuously: perfect for drones and external VCAs. With **ENV ADSR** and **env VCA** ON, the gate at TRIG plays the sound through attack, decay, sustain and release (2 ms to 12 s). The envelope can also move TIMBRE (env TIM), COLOR (env COL) and pitch (env FM).

Chorus, echo and more

CHOR: LITE (one moving tap), DEEP (two taps), ENS (the string-machine ensemble). **ECHO**: a mono echo in the style of a bucket-brigade chip: longer times are darker and warmer, and changing **TIME** bends the repeats like tape. **FDBK** sets the repeats. **TIME** on CLK follows the clock at TRIG. The MORE page adds drive and a filter. On the heaviest engines with big chords, TecAmbient lightens the chorus by itself so the sound never breaks up.

TIP For long ambient tails: ECHO 8, TIME 750–1200, FDBK 11–12, CHOR DEEP.

CHAPTER 4

Choirs and voices

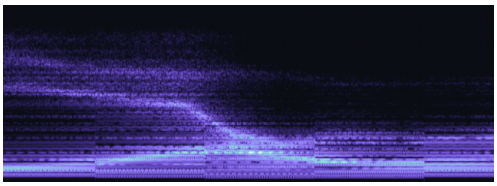
The choirs use a formant singing synthesizer: every voice is a pulse source shaped by vocal-tract resonances, with its own vibrato. No samples.

Each engine has a *sound portrait*: nine seconds of its demo (a slow chord progression) played by TecAmbient. Time runs left to right, frequency (0–4 kHz) bottom to top.

AAH

Aah choir

Engine 1 · Formant choir



A choir of synthesized singers on “aah”. With no chord, three singers share the note, each with its own vibrato and a slight drift. With a chord, one singer sings each note.

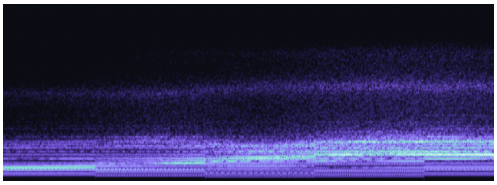
TIMBRE	Vowel: ee → ah → oo
COLOR	Ensemble: unison spread (no chord), vibrato depth (chords)
TRIG	No effect

TIP ENV ADSR with ATT 9 and REL 11, VCA on: every gate becomes a slow choir swell.

OOH

Ooh choir

Engine 2 · Soft, darker choir



A darker, rounder choir for “ooh” and “oh” sounds. COLOR blows breath into the voices, from a clean hum to an airy whisper.

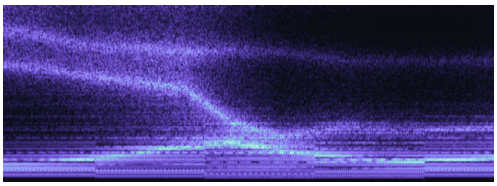
TIMBRE	oo → oh → ah
COLOR	Breath
TRIG	No effect

TIP COLOR fully up with a long ECHO gives a ghostly, whispered choir.

HALO

Halo

Engine 3 · High, airy choir



A bright, high choir with a singer an octave above (no chord) and extra breath. Made for angelic pads.

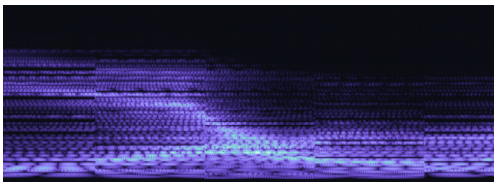
TIMBRE	Vowel
COLOR	Air: octave voice and breath
TRIG	No effect

TIP Play it an octave higher than you think (OCTV +1) for cathedral-like pads.

VOXP

Vox pad

Engine 4 · Saws through a vowel



A sawtooth chord through one shared vowel filter: a vocoder-like, talking pad. Sweep TIMBRE and the pad says “ee-ah-oo”.

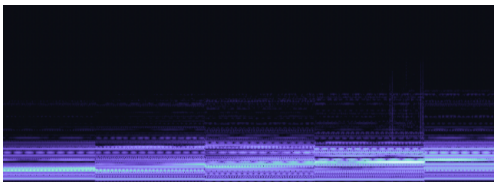
TIMBRE	Vowel
COLOR	Detune
TRIG	No effect

TIP A slow LFO on TIMBRE makes the pad breathe vowels.

MONK

Monks

Engine 22 · Low chant with undertone



A low, dark choir of monks on “oo” and “oh”, with very little vibrato, and an undertone an octave below the root that you can bring in with COLOR.

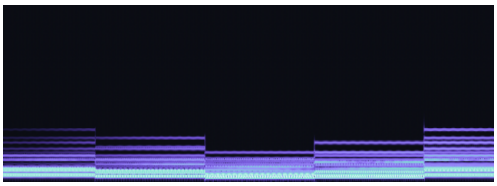
TIMBRE	Vowel: oo → oh
COLOR	Undertone (octave below)
TRIG	No effect

TIP CHRD 5TH, OCTV −1, and a slow ECHO: a monastery in one module.

HUM

Hum

Engine 23 · Humming choir



Closed-mouth humming: a soft, round “mmm” that opens towards a vowel as TIMBRE rises. With no chord, three hummers share the note.

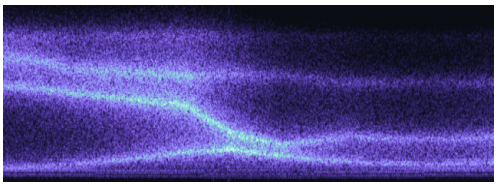
TIMBRE	Mouth: closed (mm) → open
COLOR	Ensemble spread
TRIG	No effect

TIP Keep TIMBRE low and use CHRD MAJ9 for a gentle lullaby pad.

WHSP

Whisper

Engine 24 · Whisper choir



A choir that whispers: the voices are replaced by breath shaped by the vowels. COLOR goes from a hushed voice to pure whisper.

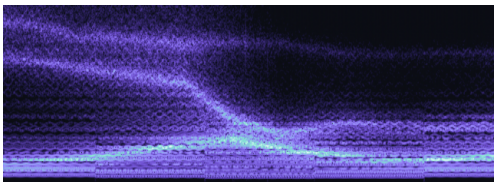
TIMBRE	Vowel
COLOR	Voice → whisper
TRIG	No effect

TIP Move TIMBRE slowly and add CHOR DEEP: wind that seems to speak.

SOPR

Sopranos

Engine 25 · Operatic sopranos



A bright, high section of sopranos with a real operatic vibrato, from gentle to wide.

TIMBRE	Vowel
COLOR	Vibrato depth
TRIG	No effect

TIP OCTV +1 and CHRD OFF for a soaring solo line; ECHO on CLK for space.

CHAPTER 5

Tape replay

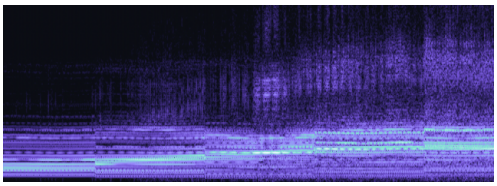
The tape engines recreate the character of vintage tape-replay keyboards, where every key played a strip of tape: the wobble of the tape (wow and flutter), its rounded top end, its hiss and its saturation. COLOR is always the age of the tape. The voices themselves are synthesized, so there are no samples and no 8-second limit: the notes sustain as long as you hold them.

Each engine has a *sound portrait*: nine seconds of its demo (a slow chord progression) played by TecAmbient. Time runs left to right, frequency (0–4 kHz) bottom to top.

BOYS

Boy choir

Engine 17 · Tape-replay boy choir



The sound of a vintage tape-replay keyboard playing its boy choir: young, pure voices with little vibrato, replayed from tape with wow, flutter, a gently rounded top end, a little hiss and tape saturation. It is the loudest of the choirs, and every note is fully synthesized (no samples).

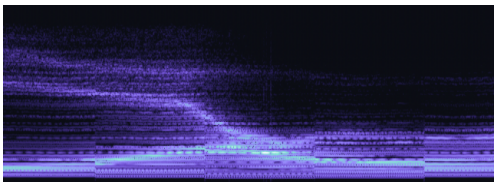
TIMBRE	Vowel: oo → ah
COLOR	Tape age: wow, flutter, darkness and hiss
TRIG	No effect

TIP CHRD MIN or MAJ7 with ENV ADSR (ATT 6, REL 9, VCA on): pressing keys on an old tape keyboard.

TCHR

Tape choir

Engine 18 · Mixed choir on tape



A mixed choir with a soprano line an octave above, replayed from tape like BOYS.

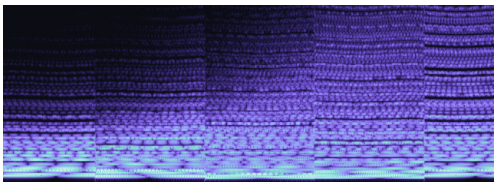
TIMBRE	Vowel (ee → ah → oo)
COLOR	Tape age
TRIG	No effect

TIP Lower COLOR for a clean choir, raise it for a worn, wobbly tape.

TSTR

Tape strings

Engine 19 · Strings on tape



A string section on tape: two slightly detuned saws per note through a soft filter and a body resonance, with the wow and hiss of tape.

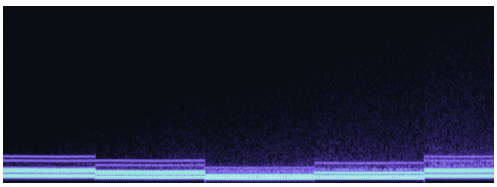
TIMBRE	Brightness
COLOR	Tape age
TRIG	No effect

TIP CHRD MIN7, ENV ADSR with ATT 7 and REL 10: classic tape-replay strings.

TFLT

Tape flute

Engine 20 · Flute on tape



A breathy flute: a pure tone with a little octave, gentle vibrato and a breath band, replayed from tape.

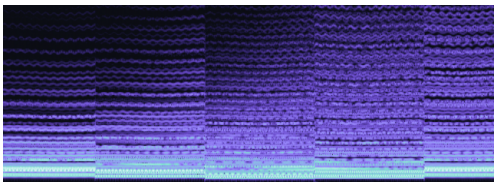
TIMBRE	Breath
COLOR	Tape age
TRIG	No effect

TIP Single notes (CHRD OFF), ECHO 7 with TIME on CLK. (dotted): the famous tape flute intro sound.

TCLO

Tape cello

Engine 21 · Cello on tape



A bowed cello on tape: a saw with vibrato through a warm filter and a wooden body.

TIMBRE	Brightness
COLOR	Tape age
TRIG	No effect

TIP OCTV −1 and slow notes; GLID 3 for expressive slides.

CHAPTER 6

Pads and drones

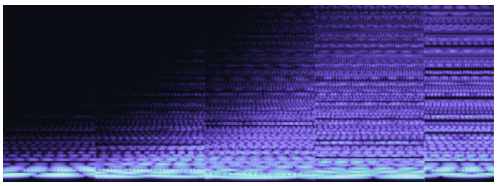
The pads sound continuously, like an oscillator. Shape them with ENV ADSR and env VCA, or with an external VCA.

Each engine has a *sound portrait*: nine seconds of its demo (a slow chord progression) played by TecAmbient. Time runs left to right, frequency (0–4 kHz) bottom to top.

PAD

Analog pad

Engine 5 · Detuned saws, breathing filter



The classic warm polysynth pad: detuned sawtooth waves (plus a sub octave with no chord) through a low-pass filter that slowly breathes on its own.

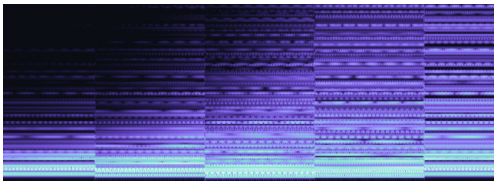
TIMBRE	Cutoff
COLOR	Detune
TRIG	No effect

TIP Envelope to TIMBRE (env TIM 6–8) with a slow attack opens the filter on every swell.

STRG

Strings

Engine 6 · String machine



A string ensemble in the style of the 1970s string machines: phase-locked 8', 4' and 16' sawtooth registers. The ensemble chorus makes them shimmer.

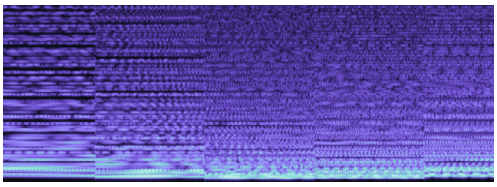
TIMBRE	Brightness
COLOR	Registers: 8' → 8'+4' → +16'
TRIG	No effect

TIP Set CHOR to ENS: the three-tap ensemble is what makes the strings.

SSAW

Supersaw

Engine 7 · Huge detuned stack



Seven detuned sawtooth waves on one note, or three on each note of a chord. Big, bright, trance-style pads.

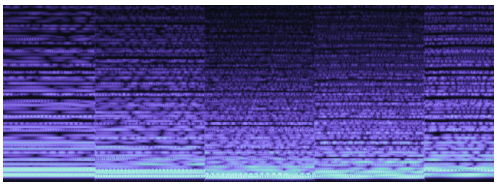
TIMBRE	Detune
COLOR	Mix: centre → sides
TRIG	No effect

TIP Small TIMBRE for a rich single voice; high TIMBRE for a huge, wide wall.

PWM

PWM pad

Engine 8 · Moving pulse waves



Pulse waves whose widths move slowly, each at its own speed, for that soft, chorused analog motion.

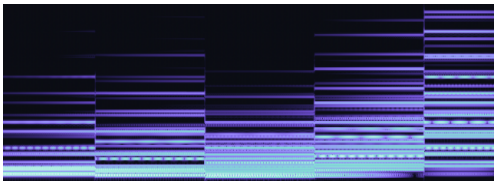
TIMBRE	PWM depth
COLOR	PWM speed (0.08–3 Hz)
TRIG	No effect

TIP Very slow PWM (COLOR low) with a long release is pure 1980s ambient.

GLAS

Glass

Engine 9 · Glassy FM pad



Two-operator FM with a gently moving index. COLOR steps through seven ratios, from warm harmonic tones to glassy and bell-like, gliding between them.

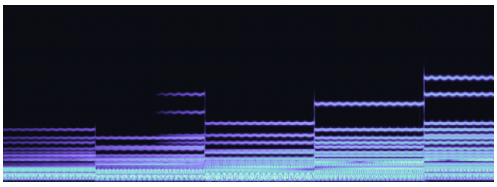
TIMBRE	Brightness (FM index)
COLOR	Ratio (7 steps)
TRIG	No effect

TIP Pair with a fast attack and medium decay (ENV ADSR) for glassy keys.

ORGN

Organ

Engine 10 · Drawbar organ



Six drawbars (16', 8', 4', 2 2/3', 2', 1') morphing from flute to full organ. COLOR adds a slow rotary-style vibrato and tremolo.

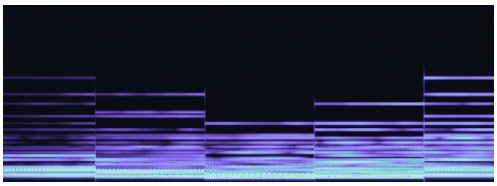
TIMBRE	Registration: flute → full → bright
COLOR	Vibrato / tremolo
TRIG	No effect

TIP Chords plus a little GLID give gospel-like organ swells.

SHIM

Shimmer

Engine 11 · Sparkling partials



Octave and fifth partials above every note, each fading in and out at random, like light on water.

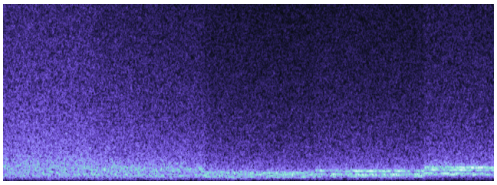
TIMBRE	Upper partials
COLOR	Sparkle speed
TRIG	No effect

TIP High TIMBRE, medium COLOR and a long ECHO: instant shimmer pad.

AIR

Air

Engine 12 · Wind and whistles



Noise through a resonant band on every note. From breath and wind to whistling, tuned tones.

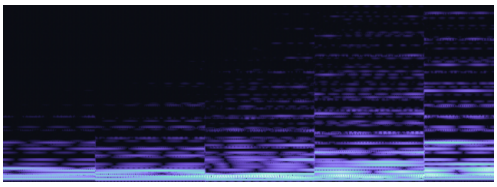
TIMBRE	Resonance: breath → whistle
COLOR	Movement: gusts and sweeps
TRIG	No effect

TIP Modulate TIMBRE slowly for wind that turns into a melody and back.

DRON

Drone

Engine 13 · Beating, folded drone



Pairs of slowly beating triangle waves through a wavefolder and a low-pass, with a sub octave under the root. Made for long, evolving drones.

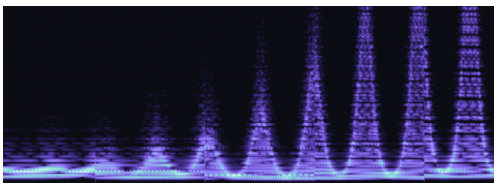
TIMBRE	Fold
COLOR	Beat speed (0.05–3 Hz)
TRIG	No effect

TIP CHRD 5TH or SUS2 on a low note, no envelope, and slow CV on TIMBRE.

SWEP

Sweep pad

Engine 26 · Resonant filter sweep



Detuned saws through a resonant low-pass that an internal LFO sweeps slowly up and down.

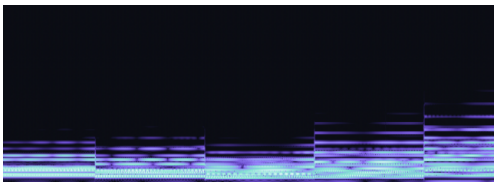
TIMBRE	Sweep depth
COLOR	Sweep speed (0.04–1.3 Hz)
TRIG	No effect

TIP COLOR low and TIMBRE high: one long sweep every 20 seconds.

FMPD

FM pad

Engine 27 · Soft FM pad



A carrier and its octave on one modulator, with the brightness breathing slowly and differently on every note.

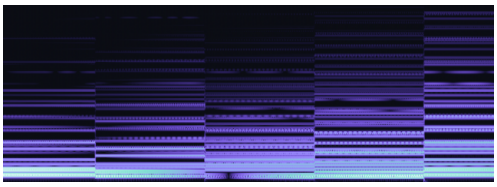
TIMBRE	Brightness (index)
COLOR	Detune of the octave
TRIG	No effect

TIP Keep TIMBRE low for warm electric-string pads.

HOLW

Hollow

Engine 28 · Odd-harmonic pad



A hollow, woody pad of triangle and square waves (odd harmonics only), detuned for movement.

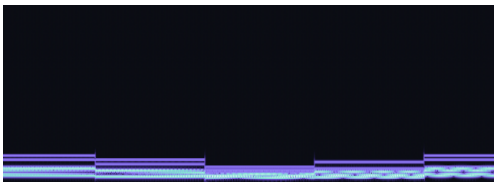
TIMBRE	Triangle → square
COLOR	Detune
TRIG	No effect

TIP Halfway on TIMBRE sounds like a soft clarinet ensemble.

SINE

Sines

Engine 29 · Pure beating sines



The calmest engine: pure sine waves in pairs that beat slowly against each other, with an optional octave.

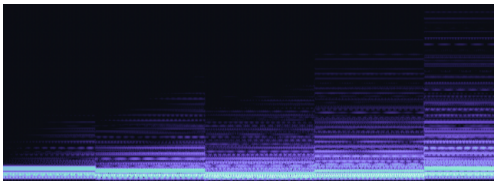
TIMBRE	Beat speed (0.05–2 Hz)
COLOR	Octave above
TRIG	No effect

TIP CHRD QRTL with a slow beat: meditation in a box.

SUB

Sub drone

Engine 30 · Sine and sub octave



A deep sine and its sub octave, warmed by gentle saturation. A foundation under everything else.

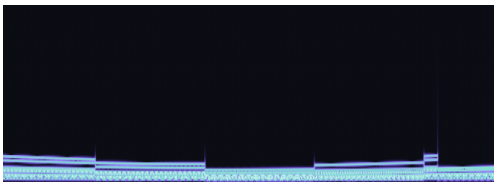
TIMBRE	Warmth (saturation)
COLOR	Sub-octave level
TRIG	No effect

TIP Play the root an octave down with CHRD 5TH.

SHEP

Shepard

Engine 31 · Endless rising tone



A Shepard tone: octaves under a fixed spectral window glide forever, so the chord seems to rise (or fall) without end.

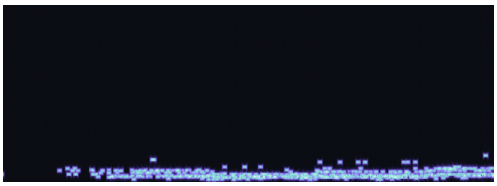
TIMBRE	Speed: down ← still → up (centre is still)
COLOR	Window height (darker → brighter)
TRIG	No effect

TIP Set TIMBRE just right of centre for an almost imperceptible, endless rise.

GRAN

Granular

Engine 32 · Cloud of grains



A cloud of tiny sine grains on the chord notes. Short grains scatter over octaves; long grains melt into a smooth shimmer.

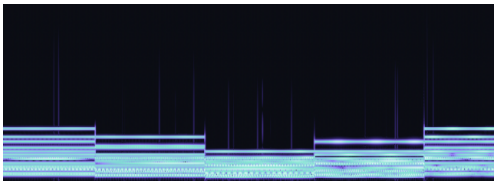
TIMBRE	Density
COLOR	Grain length (20–400 ms) and scatter
TRIG	No effect

TIP Medium TIMBRE, COLOR at 2 o'clock and a long ECHO: frozen-time textures.

SPEC

Spectral

Engine 33 · Moving harmonic peak



A resonant peak sweeps slowly up and down the harmonics of every note, like a slowly moving formant.

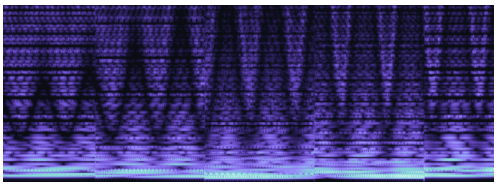
TIMBRE	Peak range
COLOR	Sweep speed
TRIG	No effect

TIP With chords, each note sweeps at its own pace: the chord shimmers inside.

PHSR

Phaser

Engine 34 · Phaser pad



Detuned saws through a four-stage phaser with feedback, slowly swirling.

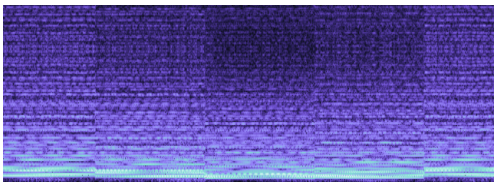
TIMBRE	Depth and feedback
COLOR	Speed
TRIG	No effect

TIP COLOR low and TIMBRE high: the classic jet-like phase sweep.

LOFI

Lo-fi

Engine 35 · Crushed pad



A soft saw pad crushed in bits and sample rate, with a gentle wobble: nostalgic, gritty, cassette-era.

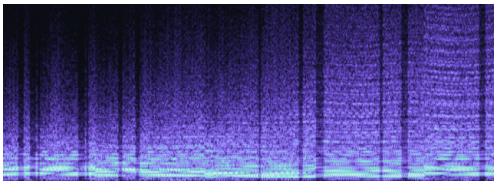
TIMBRE	Bits (12 → 3)
COLOR	Sample rate (48 kHz → 3 kHz)
TRIG	No effect

TIP TIMBRE at 9 o'clock, COLOR at 11 o'clock: dusty video-game nostalgia.

VHS

VHS

Engine 36 · Worn videotape



A warm pad played from an old videotape: deep wow, saturation, hiss and the occasional dropout.

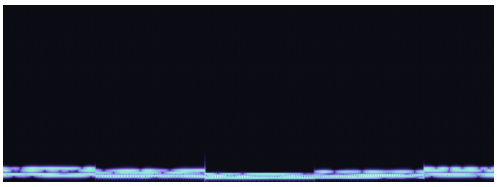
TIMBRE	Brightness
COLOR	Wear: wow, hiss and dropouts
TRIG	No effect

TIP COLOR fully up for a tape that's been played a thousand times.

DRFT

Drift

Engine 37 · Drifting clusters



Each note is a small cluster of sines that slowly wander around it, never quite in tune with each other.

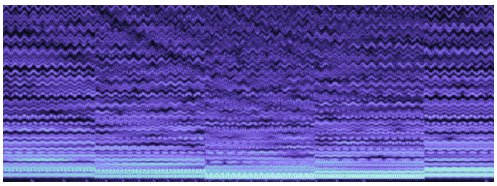
TIMBRE	Tone (adds the third harmonic)
COLOR	Drift range (up to ±50 cents)
TRIG	No effect

TIP Wide COLOR with CHRD OFF gives a living, organic drone.

CHIP

Chip

Engine 38 · 8-bit pad



Pulse-wave chords with the stepped output of old game consoles, and a chip-style vibrato.

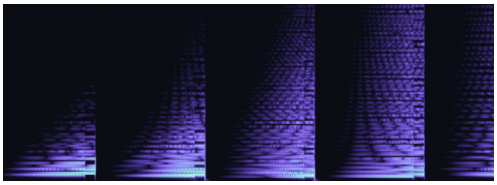
TIMBRE	Pulse width (12.5% → 50%)
COLOR	Vibrato
TRIG	No effect

TIP CHRD MAJ7 with a short echo: a nostalgic title-screen chord.

NOVA

Reverse

Engine 39 · Reverse swells



Every note swells up like a tape played backwards, then cuts off and starts again. In chords, the notes are staggered.

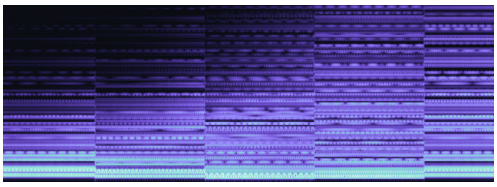
TIMBRE	Brightness
COLOR	Swell length (0.5–6 s)
TRIG	Restarts the swells, staggered across the chord

TIP Clock TRIG every bar and set COLOR to match: backwards pads in time.

REED

Reed organ

Engine 40 · Harmonium



Pulse reeds through a nasal body, with the slow swell and tremble of the bellows.

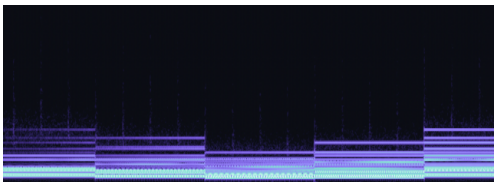
TIMBRE	Brightness
COLOR	Bellows: swell and tremolo
TRIG	No effect

TIP Low notes, CHRD MIN: a pump organ in a quiet chapel.

PIPE

Pipe organ

Engine 41 · Flue pipes



Pipe-organ voices from a soft flute stop to a principal, with the sound of the wind and a chiff on each trigger.

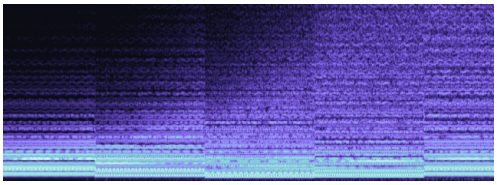
TIMBRE	Stops: flute → principal
COLOR	Wind noise and chiff
TRIG	The pipes speak with a chiff

TIP Long chords with ECHO 6 and TIME 1200 for a big church.

BOWD

Bowed

Engine 42 · Bowed strings



Bowed strings with vibrato and bow noise through a wooden body.

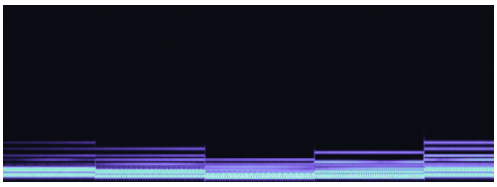
TIMBRE	Bow pressure
COLOR	Vibrato depth
TRIG	No effect

TIP Play single notes with GLID 2 for a lonely violin.

GLSH

Glass harmonica

Engine 43 · Wet glass rims



The ethereal glass harmonica: pure tones with soft upper partials and a shimmering tremor from the fingers on the glass.

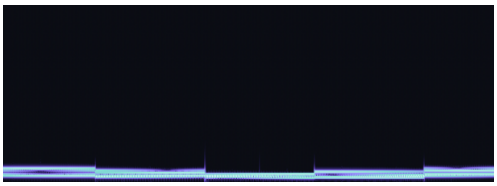
TIMBRE	Upper partials
COLOR	Shimmer
TRIG	No effect

TIP ENV ADSR with a slow attack (ATT 8): each note fades in like a rubbed glass.

BOWL

Singing bowl

Engine 44 · Sustained singing bowl



Three inharmonic partials, each a slowly beating pair, like a singing bowl being circled. TRIG strikes it again for an accent.

TIMBRE	Upper partials
COLOR	Beat speed
TRIG	Strikes the bowl (accent)

TIP One note, CHRD OFF, a slow random trigger: sound-bath meditation.

CHAPTER 7

Struck and self-playing

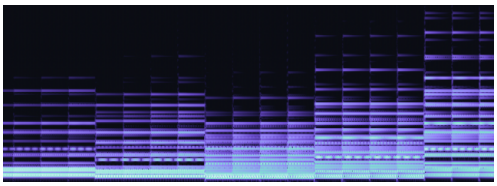
The struck engines play the chord on every trigger at TRIG (strummed: see STRM on the MORE page) and decay on their own. CHIM, RAIN, TIDE, STAR and DUST play by themselves.

Each engine has a *sound portrait*: nine seconds of its demo (a slow chord progression) played by TecAmbient. Time runs left to right, frequency (0–4 kHz) bottom to top.

BELL

Bells

Engine 14 · FM bells and chimes



Every trigger strikes the chord as bells (lightly strummed). The bright attack fades into a pure tone.

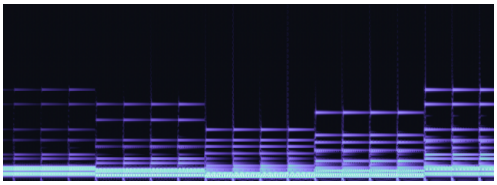
TIMBRE	Brightness
COLOR	Decay (0.9–12 s)
TRIG	Strikes the chord

TIP Slow clock, long decay, high ECHO feedback: bell landscapes.

KEYS

Keys

Engine 15 · Electric piano



An FM electric piano: a bark on the attack, a round body, a tine on top. Each trigger plays the chord.

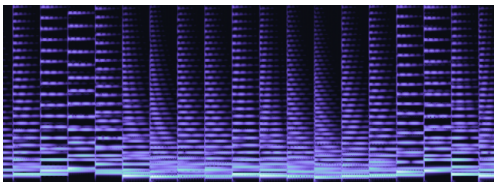
TIMBRE	Bark (attack brightness)
COLOR	Decay (1.2–6 s)
TRIG	Plays the chord

TIP Use FMDS CHRD to play the progression from a sequencer.

ARP

Arpeggio

Engine 16 · Polyphony by arpeggio



Plays the chord one note at a time with plucked, filtered saws. It follows the clock on TRIG, and runs free at the TIMBRE rate after 1.5 s without triggers. With CHRD off it plays root, fifth, octave and the fifth above.

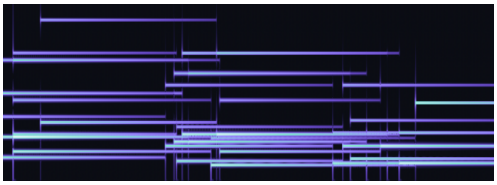
TIMBRE	Speed (0.5–12 Hz, free running)
COLOR	Pattern: up, down, up-down, random, 2 octaves, random octaves
TRIG	Next note (the clock)

TIP Clock it with 8ths and set TIME to CLK for rhythmic, synced echoes.

CHIM

Wind chimes

Engine 45 · Self-playing chimes



Metal chimes tuned to the chord, played by an invisible wind. TRIG is a gust (several chimes at once).

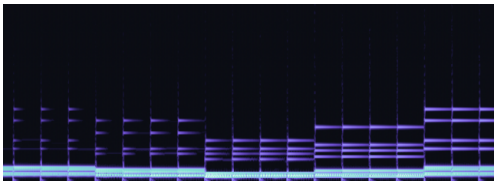
TIMBRE	Wind: how often
COLOR	Ring time (0.5–6 s)
TRIG	A gust

TIP No patching needed: set a chord and let it play.

KALI

Kalimba

Engine 46 · Thumb piano



Metal tines with their high partials, strummed across the chord on each trigger.

TIMBRE	Brightness
COLOR	Decay (0.5–4 s)
TRIG	Plays the chord

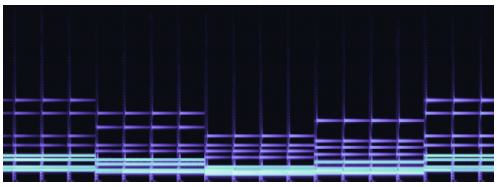
TIP ARP on the MORE page with ICLK 90: a kalimba melody.

MUSB

Music box

Engine 47 · Comb music box

The bright teeth of a music box, strummed slowly, ringing long.



TIMBRE	Brightness
COLOR	Decay
TRIG	Plays the chord

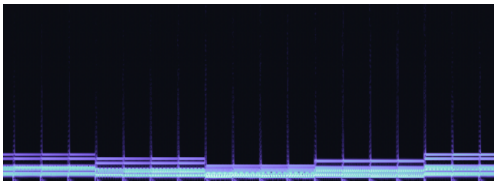
TIP OCTV +1, CHRD MAJ9, ECHO 6: a lullaby from an old toy.

HARP

Harp

Engine 48 · Plucked harp

Plucked strings with harmonic partials, strummed across the chord like a harp.



TIMBRE	Brightness
COLOR	Decay (0.9–6 s)
TRIG	Plucks the chord

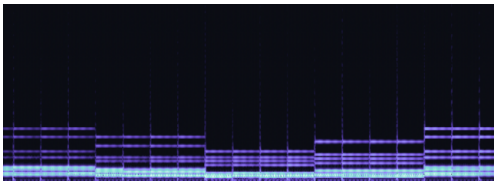
TIP STRM 12 on the MORE page for a slow, sweeping glissando.

VIBE

Vibraphone

Engine 49 · Vibes with motor

Metal bars with long decay and the vibraphone's motor tremolo.



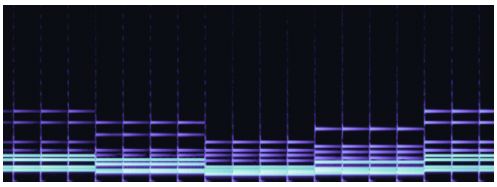
TIMBRE	Mallet hardness
COLOR	Motor speed (off → 8 Hz)
TRIG	Strikes the chord

TIP COLOR around 10 o'clock: the slow, warm tremolo of a jazz ballad.

CELS

Celesta

Engine 50 · Celesta



Small bright bars an octave up, soft and bell-like.

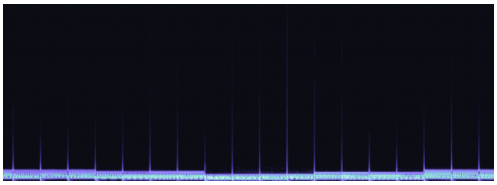
TIMBRE	Brightness
COLOR	Decay
TRIG	Strikes the chord

TIP ARP UP with ICLK 120 and ACRD MAJ7: a twinkling celesta line.

GONG

Gong

Engine 51 · Gong and tam-tam



Low, inharmonic modes with very long decays: a soft mallet on a gong.

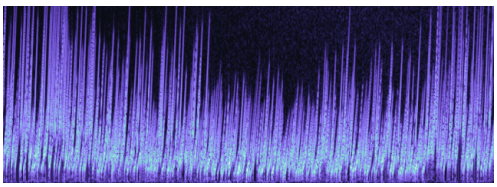
TIMBRE	Brightness
COLOR	Decay (2–10 s)
TRIG	Strikes

TIP One strike every few bars with a long ECHO: a temple.

RAIN

Rain

Engine 52 · Rain and drops



A soft patter of rain with tuned drops on the chord notes, playing by itself.

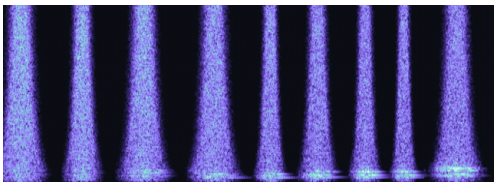
TIMBRE	Rain (patter level)
COLOR	Drops (how many)
TRIG	No effect

TIP Pair it with a quiet pad on another module.

TIDE

Tide

Engine 53 · Ocean waves



Waves of noise breaking slowly; turn TIMBRE up and the chord resonates inside the waves.

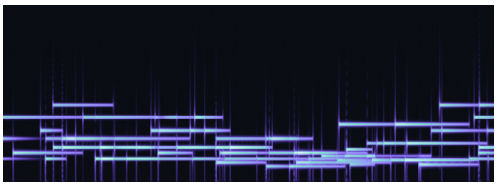
TIMBRE	Tone: surf → tuned
COLOR	Wave speed (12 s → 3 s)
TRIG	No effect

TIP TIMBRE at noon and CHRD SUS2: the sea sings.

STAR

Stars

Engine 54 · Twinkling bells



Tiny high bells twinkling on the chord, by themselves. TRIG adds one.

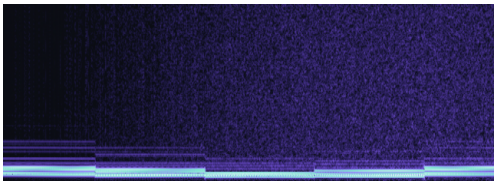
TIMBRE	How many
COLOR	Height (1 to 3 octaves up)
TRIG	Adds a twinkle

TIP Very sparse (TIMBRE low) with a long ECHO: a night sky.

DUST

Dust

Engine 55 · Dusty record



A warm sine-and-triangle pad under vinyl crackle, with a slow record wobble.

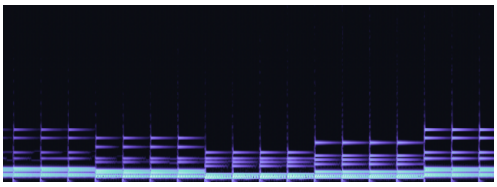
TIMBRE	Crackle
COLOR	Warmth (darker)
TRIG	No effect

TIP CHRD MAJ7, TIMBRE at 10 o'clock: an old record of a song you can't remember.

MRMB

Marimba

Engine 56 · Wooden bars



Wooden bars (modes 1 : 4 : 10), struck with soft or hard mallets.

TIMBRE	Mallet hardness
COLOR	Decay (0.3–1.5 s)
TRIG	Strikes the chord

TIP ARP UPDN with ICLK 100 and RTCH 2 now and then.

CHAPTER 8

The MORE page

TecAmbient has a second page of settings. In the menu, scroll to **MORE** and click. **BACK** (first and last item) returns to the main menu. Everything is saved with your settings; the calibration is never touched.

FM jack and randomness

Item	Values	What it does
FMDS	PTCH TIMB COLR ECHO RING CHRD PRST	What the FM jack controls: pitch (default), TIMBRE, COLOR, echo level, ring frequency, the chord, or the preset (PRST: 0–5 V picks preset 1–8).
RNDT / RNDC	0–15	Each trigger moves TIMBRE / COLOR by a random amount.

Rhythm and triggers

Item	Values	What it does
RTCH	1–4	Ratchet: each note repeats 1–4 times, spread over one clock step.
PROB	6–100 %	Probability that a trigger plays.
SWNG	50–75 %	Swing: every other note is played late.
ICLK	OFF, 40–240 BPM	Internal clock (quarter notes): the module plays with nothing patched at TRIG.
GATE	13–100 %	Gate length of the notes made by ICLK and ratchets (for the ADSR).
TRNT	OFF 1OCT 2OCT	Each note jumps to a random note (in the QNTZ scale when one is set).
OCTJ	OFF 25–100 %	Chance of a random octave jump.

Arpeggiator and voice

Item	Values	What it does
ARP	OFF UP DOWN UPDN RAND UP2 CONV	Arpeggiator of the root note, stepped by each trigger (or ICLK).
ACRD	OCT 5TH MAJ MIN SUS4 MAJ7 MIN7 DOM7 ADD9 DIM	The chord the arpeggiator plays.
ARNG	1–3	Arpeggiator range in octaves.
GLID	0–15	Glide between notes (up to 2.5 s).
VIB / VRAT	0–15 / 0–15	Vibrato depth and rate.

Chords

Item	Values	What it does
CHRD	OFF OCT 5TH SUS2 SUS4 MAJ MIN MAJ7 MIN7 ADD9 MIN9 MAJ9 6-9 M7-5 QRTL CLST	The chord every engine plays (chapter 3).
STRM	0–15	Strum of the struck engines: the notes start up to 60 ms apart (0: each engine's own strum).
INV	ROOT 1ST 2ND 3RD	Chord inversion.
SPRD	OFF ON	Spread: the top note goes up an octave.
HARM	OFF ON	Chord, arpeggio and random notes stay in the QNTZ scale.

Effects

Item	Values	What it does
DRIV	0–15	Drive (soft saturation).
FILT / FCUT	OFF LP HP BP / 0–31	Output filter and its cutoff.

Presets and workflow

A preset stores the engine and every sound setting, from both pages.

Item	Values	What it does
SAVE	SV 1–SV 8	Choose a slot, then **hold** the encoder: SAVD.
LOAD	LD 1–LD 8	Choose a slot, then **hold** the encoder: LOAD (or EMPT for an empty slot).
INIT	–	Hold the encoder: all sound settings back to default (calibration, presets and favorites stay).
FAVS	OFF ON	On the engine screen, **hold** the encoder to mark a favorite (FAV+ / FAV–). With FAVS ON, the encoder only stops on favorites.

Display

Item	Values	What it does
DISP	NAME NOTE LEVL	Engine screen: the engine name, the note being played, or a level meter.
SAVR	OFF 1MIN 5MIN 10M	Screensaver: the logo text scrolls after this long without touching the encoder.
LOGO	OFF ON	Boot logo at power-up. **Hold** the encoder on LOGO to edit the text.

CHAPTER 9

Settings menu and calibration

Click the encoder to enter the menu, turn to choose an item, click to edit, click again to go back. Settings are saved automatically. The envelope items start with a small envelope symbol (shown as “env”).

Item	Values	Function
WAVE	56 engines	Engine selection (also directly on the encoder).
META	OFF / ON	When ON, the FM input selects the engine instead of modulating pitch.
BITS	2BIT … 16B	Bit depth of the output. Lower values add digital crunch.
RATE	4KHZ … 96K	Output sample rate. Lower values add aliasing and a lo-fi character.
TSRC	EXT. / AUTO	Trigger source. AUTO also triggers when the V/OCT pitch changes by more than about half a semitone.
TDLY	NONE … 4ms	Delays incoming triggers, so a V/OCT voltage arriving just after the gate is captured correctly.
ENV	AD / ADSR	Envelope type. AD: fires on each trigger. ADSR: follows the gate at TRIG.
env ATT / DEC	0 … 15	Attack and decay times (2 ms to 12 s).
env SUS / REL	0 … 15	Sustain level and release time (ADSR).
env FM / TIM / COL	0 … 15	Envelope amount to pitch, TIMBRE and COLOR.
env VCA	OFF / ON	OFF: the sound plays continuously (drones). ON: the envelope shapes the level.
RANG / OCTV	as stock	Range of the COARSE knob; octave transposition.
QNTZ / ROOT	OFF, SEMI, scales	Quantizer to semitones or one of 53 scales (including 6 chord-tone scales), and its root.
FLAT / DRFT / SIGN		Analog-style tracking, random drift and waveform imperfections.
CHOR	OFF, LITE, DEEP, ENS	Chorus: light, deep, or the string-machine ensemble. Factory setting: LITE.
RING	OFF, 30 … 1200 Hz	Ring modulator, for metallic and bell-like tones.
ECHO	0 … 15	Echo level (0 = off). A warm bucket-brigade-style echo. Factory setting: 5.
TIME	125 … 1200 ms, CLK	Echo time, or locked to the clock at TRIG (or ICLK): CLK, CLK. (dotted), CLKT (triplet), CL/2, CLx2.
FDBK	0 … 15	Echo repeats. Factory setting: 8.
MORE	—	Opens the MORE page (chapter 8).
BRIG / CAL. / CV tester		Display brightness, pitch calibration, CV input monitor.

Item	Values	Function
TAMB	—	Version. **Holding for 1 s restores all factory settings, including calibration**. (To reset only the sound, use INIT on the MORE page.)

Calibrating V/OCT

1. Disconnect the **FM** input. Set **COARSE** and **FINE** to 12 o'clock. Set CHRD to OFF.
2. Choose **SINE** (a pure, steady tone), and connect a calibrated V/OCT source.
3. In the menu, go to **CAL.** and hold the encoder for 1 second. The display shows **>C2**.
4. Send exactly **1 V** and click. The display shows **>C4**.
5. Send exactly **3 V** and click. Calibration is saved.

NOTE Holding the encoder on **TAMB** restores all factory settings and also erases your calibration.

CHAPTER 10

Patch ideas

Patch	Engine	How
Tape boy choir	BOYS	CHRD MIN7, ENV ADSR with ATT 6, REL 9, env VCA on, ECHO 5. Play chords from a keyboard gate.
Choir swells	AAH	CHRD MAJ9, ENV ADSR, ATT 9, REL 11, VCA on. A slow clock into TRIG; a slow LFO on TIMBRE.
Progression from CV	PAD	FMDS CHRD. Sequencer track 1 to V/OCT (roots), track 2 to FM (chords), gates to TRIG.
Diatonic chords	STRG	QNTZ on a major mode, HARM ON, CHRD MAJ7: every root gets the right chord of the key.
Endless rise	SHEP	TIMBRE a little right of centre, CHRD SUS2, CHOR DEEP, ECHO 8.
Garden of chimes	CHIM	CHRD ADD9, TIMBRE at 10 o'clock, COLOR high, ECHO 7, TIME 667. No patching.
Ocean drone	TIDE	CHRD SUS2 on a low note, TIMBRE at noon; SUB on a second module.
Bell landscape	BELL	ICLK 40, PROB 50 %, CHRD MAJ9, COLOR high, ECHO 8, FDBK 12.
Lo-fi memories	VHS	CHRD MAJ7, COLOR at 2 o'clock, CHOR LITE: a warm, worn home video.
Sound bath	BOWL	CHRD OFF, a slow random trigger, COLOR low, ECHO 6 with TIME 1200.
Reverse pads	NOVA	Clock TRIG every bar, COLOR to match the bar length, CHRD MIN9.
Music box lullaby	MUSB	OCTV +1, ARP UP, ICLK 80, ACRD MAJ7, ECHO 6.

CHAPTER 10

Quick reference

#	Display	Engine	TIMBRE	COLOR
1	AAH	Aah choir	Vowel	Ensemble
2	OOH	Ooh choir	oo → oh → ah	Breath
3	HALO	Halo	Vowel	Air
4	VOXP	Vox pad	Vowel	Detune
5	PAD	Analog pad	Cutoff	Detune
6	STRG	Strings	Brightness	Registers
7	SSAW	Supersaw	Detune	Mix
8	PWM	PWM pad	PWM depth	PWM speed
9	GLAS	Glass	Brightness	Ratio
10	ORGN	Organ	Registration	Vibrato / tremolo
11	SHIM	Shimmer	Upper partials	Sparkle speed
12	AIR	Air	Resonance	Movement
13	DRON	Drone	Fold	Beat speed
14	BELL	Bells	Brightness	Decay
15	KEYS	Keys	Bark	Decay
16	ARP	Arpeggio	Speed	Pattern
17	BOYS	Boy choir	Vowel	Tape age
18	TCHR	Tape choir	Vowel	Tape age
19	TSTR	Tape strings	Brightness	Tape age
20	TFLT	Tape flute	Breath	Tape age
21	TCLO	Tape cello	Brightness	Tape age
22	MONK	Monks	Vowel	Undertone
23	HUM	Hum	Mouth	Ensemble spread
24	WHSP	Whisper	Vowel	Voice → whisper
25	SOPR	Sopranos	Vowel	Vibrato depth
26	SWEP	Sweep pad	Sweep depth	Sweep speed
27	FMPD	FM pad	Brightness	Detune of the octave
28	HOLW	Hollow	Triangle → square	Detune
29	SINE	Sines	Beat speed	Octave above
30	SUB	Sub drone	Warmth	Sub-octave level
31	SHEP	Shepard	Speed	Window height
32	GRAN	Granular	Density	Grain length
33	SPEC	Spectral	Peak range	Sweep speed
34	PHSR	Phaser	Depth and feedback	Speed

#	Display	Engine	TIMBRE	COLOR
35	LOFI	Lo-fi	Bits	Sample rate
36	VHS	VHS	Brightness	Wear
37	DRFT	Drift	Tone	Drift range
38	CHIP	Chip	Pulse width	Vibrato
39	NOVA	Reverse	Brightness	Swell length
40	REED	Reed organ	Brightness	Bellows
41	PIPE	Pipe organ	Stops	Wind noise and chiff
42	BOWD	Bowed	Bow pressure	Vibrato depth
43	GLSH	Glass harmonica	Upper partials	Shimmer
44	BOWL	Singing bowl	Upper partials	Beat speed
45	CHIM	Wind chimes	Wind	Ring time
46	KALI	Kalimba	Brightness	Decay
47	MUSB	Music box	Brightness	Decay
48	HARP	Harp	Brightness	Decay
49	VIBE	Vibraphone	Mallet hardness	Motor speed
50	CELS	Celesta	Brightness	Decay
51	GONG	Gong	Brightness	Decay
52	RAIN	Rain	Rain	Drops
53	TIDE	Tide	Tone	Wave speed
54	STAR	Stars	How many	Height
55	DUST	Dust	Crackle	Warmth
56	MRMB	Marimba	Mallet hardness	Decay

CHAPTER 11

Specifications

Engines	56: 8 choirs and voices, 5 tape replay, 28 pads and drones, 15 struck and self-playing
Polyphony	Up to 4 notes (15 chords, inversion, spread, strum, chords by CV); unison voices on single notes
Synthesis	Formant singing voices, band-limited saws and pulses, FM, additive and Shepard tones, two-pole modal resonators, granular, resonant noise, wavefolding, phaser, bit crushing, tape simulation; voices at 48 kHz, output at 96 kHz
Envelope	AD or ADSR on the TRIG gate, 2 ms–12 s, to level, TIMBRE, COLOR and pitch
Effects	Chorus (3 modes), ring modulator, echo up to 1.2 s (clock sync), drive, LP/HP/BP filter
Rhythm	Internal clock 40–240 BPM, ratchets, probability, swing, random notes, arpeggiator
Presets	8 slots, from the menu or by CV; favorite engines
Pitch	1 V/oct calibrated input, quantizer (semitones plus 53 scales), glide, vibrato, drift
Settings storage	Non-volatile; settings, presets and calibration are kept when the power is off
Format	Eurorack module with a 4-character LED display
Version	TAMB

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