

Forge TME – Vhikk X

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Using FORGE-TME VHIKK X to create melodic components in music

Based on the attached manual, **VHIKK X** is a **multi-algorithm sound source and processor** for Eurorack that can function as both a voice and an effects block. Even though the detailed per-algorithm pages are external to this PDF/manual, there is still enough here to explain how to use it musically for **melodies, basslines, tuned drones, and evolving tonal parts**.

What the module is, musically

VHIKK X is not a conventional “VCO + filter + VCA” voice. It is a **self-contained experimental synthesis voice/processor** with:

- internal synthesis/generation
- stereo audio processing
- internal VCA
- voltage control over most major parameters
- encoder-controlled macro parameters:
 - **BASIS**
 - **TIME**
 - **SEED**
 - **SCAN**

- multiple algorithms selected by two toggle switches
- 4 banks × 9 algorithms = **36 total algorithms** (with firmware support)

That means, in a patch, VHIKK X can serve as:

- the **main melodic voice**
- a **bass voice**
- a **textural counter-melody**
- a **pitched stereo processor** for external oscillators/samplers
- a **drone source** that can still track pitch

The manual explicitly mentions it is good for:

- complex drones/basses
- rich textures
- dynamic SFX
- warped signal processing

For melody-making, the key idea is: **use BASIS as your pitch anchor**, then use the other parameters to shape articulation, timbre, movement, and phrase evolution.

Important melodic features from the manual

1. BASIS is the pitch-oriented control

The manual strongly implies that **BASIS** is the parameter used for tuning and pitch tracking:

- it has a dedicated **BASIS CV input**
- it supports **calibration**
- calibration is explicitly described using **1V and 3V** from a **V/Oct source**
- the manual discusses “tracking” in calibration mode

So for melodic work, **BASIS is your 1V/oct-style pitch destination**.

Practical takeaway

Patch a sequencer, keyboard CV, quantizer, or precision adder into:

- **BASIS CV input**

Then set the **BASIS attenuverter fully clockwise** when you want accurate melodic tracking.

This is the single most important setup step for tonal playing.

2. There is an internal VCA for note articulation

VHIKK X includes a **VCA input** controlling an **internal stereo VCA**.

From the manual:

- with nothing plugged in, a **+5V offset** is present, so the VCA is open
- applying external CV controls amplitude
- a **+5V external CV opens the VCA fully**
- voltages above that can overdrive later stages

Why this matters melodically

This means you do **not necessarily need an external VCA** to make notes. You can patch an envelope, gate-derived envelope, or function generator into:

- **VCA input**

This gives you actual note shapes instead of a continuous drone.

So the simplest melodic patch is:

- pitch CV → BASIS
- envelope → VCA
- output → mixer/audio interface

That turns VHIKK X into a playable voice.

3. It can be calibrated for pitch tracking

Firmware v003 and above provides **BASIS calibration**.

This is crucial if you want:

- proper melodic intervals
- basslines that stay in tune
- sequences over several octaves
- layered tuning with other oscillators

Recommended workflow

Before serious melodic use:

1. Put the **BASIS attenuverter fully clockwise**
2. Enter calibration mode
3. Send known calibration voltages from your sequencer or keyboard CV source
4. Save calibration

This makes VHIKK X much more reliable as a tonal voice.

4. TIME, MORPH, FIELD, FORM, etc. can all become musical phrase shapers

Even if BASIS handles pitch, the other controls are where the module becomes expressive.

Panel controls/CV destinations include:

- WARP
- SPAN
- MORPH
- FUSE

- BASIS
- FIELD
- MIX
- FEED
- TIME
- FORM
- CELL
- SCAN
- VCA

For melodic use, these should be thought of as **secondary dimensions of a note**:

- **TIME**: rhythmic tail, delay scale, temporal smear, articulation length
- **MORPH**: spectral/architectural transition between tonal states
- **FORM**: structure/complexity modifier
- **FIELD**: likely energy/distribution/positioning behavior depending on algorithm
- **SCAN**: movement through internal states or timbral zones
- **SEED**: manual reseeding of wave/timbre/random architecture
- **WARP / SPAN / FUSE / MIX / FEED / CELL**: algorithm-specific voicing and behavior controls

Even without the external algorithm pages, the manual makes clear these parameters are meant to create **coherent but unusual musical transformations**.

Best ways to use VHIKK X for melody

1. As a complete melodic voice

This is the most direct use.

Patch

- Sequencer pitch CV → **BASIS**
- Envelope → **VCA**
- Optional slow LFO → **MORPH**
- Optional random stepped CV → **SCAN**
- Optional performance knob moves on **SEED**
- Outputs L/R → mixer

Result

A playable stereo melodic voice with: - proper note articulation - tuned pitch control - timbral variation per note or per phrase - evolving stereo character

Good for

- leads
- basslines
- arpeggios
- eerie plucked tones
- unstable but tonal melodies

2. As a melodic drone source

Because VHIKK X seems very strong at dense and spectrally rich output, it can be used as a **drone voice that still follows musical pitch**.

Patch

- Quantized CV or slow sequencer → **BASIS**
- Leave **VCA unpatched** for constant sustain
- Very slow modulation → **TIME**
- Slow triangle LFO → **MORPH**
- Manual or stepped CV → **SCAN**
- Manually adjust **SEED** occasionally

Result

Instead of discrete notes, you get: - sustained harmonic centers - slow pitch changes - modal or ambient movement - evolving melodic beds

Good for

- ambient
 - soundtrack work
 - intros
 - harmonic pads
 - one-note riffs that bloom internally
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3. As a bass voice

The manual specifically mentions **complex drones/basses**, which suggests bass-capable algorithms.

Patch

- Bass sequencer CV → **BASIS**
- Snappy envelope → **VCA**
- Short modulation envelope or CV accent → **FORM** or **FIELD**
- Optional accent CV → **MIX**, **FEED**, or **WARP** depending on response
- Mono out from **R** jack (manual says L is normalised to R for mono sum)

Result

You can get: - unstable basses - acidic/metallic low-end - animated sub-mid structures - distorted melodic bass sequences

Tip

Because output and input gain are generous and designed to soft-clip, you can push the sound into more aggressive territory for bass parts.

4. As a processor for another pitched voice

VHIKK X is also a **stereo processor**, so it can add melody indirectly by processing an external oscillator, synth voice, sampler, or chord source.

Patch

- External oscillator or full mono/stereo voice → **audio input L/R**
- Sequencer CV → **BASIS** (if algorithm uses pitch-related internal structure)
- Envelope → **VCA**
- Modulation → **TIME / MORPH / FORM / FIELD**
- Audio out → mixer

Result

Instead of generating all tone internally, VHIKK X can: - harmonically reshape external melodic material - granulate/warp lines into new phrases - add internal pitch-aware coloration - create call-and-response versions of an original melody

Good for

- making simple oscillator lines more alive
- stereoizing mono melodies
- transforming sequences into hybrid acoustic/electronic textures
- generating “shadow melodies” from existing material

5. As a phrase-evolving sequenced voice

One of the strongest musical uses here is to let pitch remain stable while timbre evolves under CV.

Core idea

Use:

- **BASIS** for the actual melody
- **SCAN** for phrase-to-phrase variation
- **MORPH** for macro transitions
- **TIME** for rhythmic density or delay scale
- **SEED** manually or occasionally randomized for larger section changes

Patch

- Quantized sequence → **BASIS**
- Gate/envelope → **VCA**
- Clocked stepped random → **SCAN**
- Slow CV → **MORPH**
- Divided clock modulation or envelope → **TIME**
- Manual SEED tweaks between song sections

Result

The notes stay musical, but the tone behaves like a living organism.

This is especially useful if you want: - repeating melodies that don't sound repetitive - techno sequences with internal mutation - soundtrack pulses - post-industrial melodic figures

Using the encoder system musically

The center encoders can target:

- **BASIS + TIME**
- **SEED + SCAN**
- **VOL** mode for input/output levels

This suggests a strong performance workflow.

Performance strategy

Encoder mode 1: BASIS + TIME

Use this for: - tuning the voice to the track - transposing riffs - changing delay/temporal scale live

This is ideal during composition when defining key center and rhythmic feel.

Encoder mode 2: SEED + SCAN

Use this for: - changing timbral family - moving through alternate internal states - introducing new phrase identities

This is ideal during arrangement and live performance.

Press both buttons (firmware v003+)

This randomizes: - **SEED** - **SCAN**

For melodic work, this can act like: - instant variation - phrase mutation - "new preset" within the same algorithm

Useful when a melodic pattern is already running and you want a new tone without changing the sequence.

CV normalling makes it easy to animate melodies

One of the smartest features in the manual is the **software-controlled CV normalling**.

Normalled behavior

If CV is patched into VCA:

That CV is normalled to: - MORPH - BASIS - FIELD - TIME - FORM

through the attenuverters.

If CV is patched into MORPH:

That CV is normalled to: - BASIS - FIELD - TIME - FORM

overriding the above behavior.

If nothing is patched to VCA and MORPH:

A small offset is normalled to those inputs so the attenuverters can be used as fine controls.

Why this is useful for melody

This means one envelope or one modulation source can animate multiple note dimensions at once.

Example: one-envelope pluck behavior

Patch: - envelope → **VCA**

Then use attenuverters for: - a bit of **TIME** - a bit of **FORM** - a bit of **MORPH**

Now every note changes not just in loudness, but also in: - brightness - duration feel - spectral contour

This is a huge shortcut for making melodic phrases sound expressive.

Example: one LFO animating a melodic line

Patch: - slow LFO → **MORPH**

Then attenuvert into: - BASIS - FIELD - TIME - FORM

Now one modulation source creates coordinated movement across the whole voice.

That can make static sequences sound composed rather than looped.

Melodic patch recipes

Patch 1: Basic tuned lead

Goal: playable melodic lead

- Quantizer/sequencer CV → **BASIS**
- Envelope → **VCA**
- Set BASIS attenuverter fully CW
- Small slow LFO → **MORPH**
- Outputs L/R → stereo mixer

What to do: - choose an algorithm that self-generates - calibrate BASIS first
- keep SCAN low at first for stable timbre - adjust TIME to control temporal character

Result: a tuned stereo lead with subtle motion

Patch 2: Experimental bassline

Goal: dirty but musical bass

- 8-step sequencer CV → **BASIS**
- Fast decay envelope → **VCA**
- Accent envelope or velocity CV → **FORM**
- Slow modulation → **FEED** or **WARP**
- Mono out from **R**

What to listen for: - low-end weight - attack character - internal saturation - note-to-note instability that still feels controlled

Result: aggressive evolving bass with real melodic identity

Patch 3: Generative melody

Goal: semi-random melodic figure

- Random source → quantizer → **BASIS**
- Triggered envelope → **VCA**
- Clocked stepped CV → **SCAN**
- Slow random CV → **MORPH**
- Manual tweaks to **SEED**
- Optional second slower envelope to **TIME**

Result: changing but coherent melodic phrases

Patch 4: Tonal drone / harmonic bed

Goal: background tonal movement

- Slow sequencer or precision adder changes → **BASIS**
- Leave VCA open
- Slow CV → **TIME**
- Slow LFO → **FIELD**
- Manual SCAN movement
- Stereo out to reverb or directly to mixer

Result: tuned atmospheric layer that supports the harmonic center of a track

Patch 5: Process external melody

Goal: turn a simple melody into a transformed stereo line

- External oscillator/voice → input L (or stereo L/R)
- Melody pitch source also sent to external oscillator as usual
- Optional duplicate pitch CV → **BASIS**
- Envelope → **VCA**
- Modulation → **MORPH, FORM, or TIME**
- Output L/R → mixer

Result: the original melody gains strange internal animation and spatial depth

How to make VHIKK X behave more musically in a tonal track

Because this module is intentionally abstract, the trick is to impose a few musical constraints.

1. Quantize the pitch going to **BASIS**

This keeps the melody anchored even if the timbre is wild.

2. Use small modulation amounts first

Especially on: - **BASIS** - **SCAN** - **MORPH** - **FORM**

Tiny amounts can produce musical liveliness. Large amounts may become atonal or highly unstable.

3. Let one parameter carry the melody and others carry expression

A good default: - BASIS = notes - VCA = note articulation - MORPH = timbre evolution - TIME = rhythmic tail - SCAN = phrase variation - SEED = section-level mutation

4. Save per-algorithm states

The manual says: - SEED and SCAN are saved per algorithm - VOL is saved globally - BASIS/TIME can be global or per-algorithm

For composition, **per-algorithm save** is very useful because each algorithm can become its own melodic preset.

5. Use global BASIS/TIME save if switching algorithms live

If you want to browse algorithms without losing your tuning center or time base, set BASIS/TIME to **global saving**.

That makes live melodic performance more manageable.

Stereo considerations for melodic use

VHIKK X is stereo throughout, with:

- stereo inputs
- stereo outputs
- true stereo improvements
- level LEDs for L/R
- mono sum available by patching only the **R** output

How this helps melodically

Melodies can feel larger and more finished without additional modules.

Use stereo when you want: - wide lead lines - immersive arpeggios - animated drones - melodic effects returns

Use mono sum when you want: - centered bass - simpler mix placement - layering with other stereo voices

Gain staging tips for musical patches

The module has:

- input gain from silence to **+30 dB**
- output up to **18 Vpp**
- soft clipping at gain stages
- ability to handle line level in/out as well

For melody:

- keep output moderate if going into another resonant/filter stage
- push output harder for saturated bass or lead
- if processing external line-level synths, use input gain to bring them up
- use the encoder **VOL** mode to balance external vs internal energy

This matters because melodic clarity can disappear if the internal saturation is too heavy.

Limitations to be aware of

Because the provided PDF does not include the actual algorithm descriptions, a few things remain algorithm-dependent:

- whether an algorithm is self-generating or processor-focused
- where the VCA sits in that specific signal path
- how BASIS behaves in every algorithm
- exactly what TIME / FORM / FIELD / CELL do in each algorithm

So in practice, the best melodic workflow is:

1. choose an algorithm
2. verify it has pitched/self-oscillating behavior or useful pitch interaction
3. calibrate BASIS
4. patch pitch CV to BASIS
5. patch envelope to VCA
6. use MORPH / TIME / SCAN for expression

That is the reliable “musical core” across the module.

Best musical roles for VHIKK X in a Eurorack system

Excellent at

- lead voice with complex timbre
- bass voice with internal movement
- generative melody source
- tuned drone
- stereo melodic processor
- evolving arpeggios
- unstable but repeatable riffs

Probably less ideal for

- ultra-precise vanilla subtractive melodies
- transparent bread-and-butter analog lines
- immediate one-knob-per-function conventional synthesis

This module is best when you want the melody to feel: - strange - alive - haunted - dynamic - textural - characterful

Recommended “used together” signal chains in a rack

If by “used together” you mean how the functions of VHIKK X work together with typical Eurorack modules, here are the strongest pairings:

VHIKK X + sequencer

For: - basslines - riffs - leads

Patch sequencer CV to BASIS, gates to envelope, envelope to VCA.

VHIKK X + quantizer + random source

For: - generative tonal music - ambient melodies - shifting motifs

Random to quantizer to BASIS, clocked triggers to envelope/VCA.

VHIKK X + envelope/function generator

For: - expressive notes - plucks - swells - animated timbre via CV normalising

A single envelope patched to VCA can animate multiple parameters through normalised routing.

VHIKK X + clocked modulation

For: - per-step phrase variation - tempo-linked movement - evolving motifs

Patch stepped or synced modulation to MORPH, TIME, or SCAN.

VHIKK X + external oscillator or sampler

For: - processing existing melodies - making cleaner sources more alien - stereo melodic enhancement

Patch audio in, then use VHIKK X as a pitch-aware or timbre-shaping transformation stage.

Bottom line

VHIKK X can absolutely be used to create melodic components, especially if you treat it as an **experimental tuned voice** rather than a traditional oscillator.

The essential melodic patch is:

- **Pitch CV to BASIS**
- **Envelope to VCA**
- **Calibrate BASIS**
- Use **MORPH / TIME / SCAN / FORM** for expression
- Use **SEED** for larger identity changes

Its strengths for melody are:

- stereo output
- internal VCA
- pitch calibration
- rich algorithmic sound generation
- easy coordinated modulation through CV normaling
- strong potential for evolving but still playable tones

In other words:

VHIKK X is best for melodies that are not merely notes, but events.

[Generated With Eurorack Processor](#)