Ohmforce — Bohm Multimodal Kick Drum Voice

- Manual PDF

Manual PDF / Source

Bohm Eurorack modulation ideas

Bohm looks much deeper than a simple kick module. Since it's a **stereo dual-voice kick system** with **different internal models**, plus optional **Groove** and **Performer** expanders, the best approach is to treat it like a **bass/percussion voice** rather than only a drum source.

From the manual, the key sound-shaping controls are:

- **HIT**
- **VELOCITY**
- **LENGTH**
- **SUSTAIN**
- **ATTACK**
- **PITCH**
- **CURVE**
- **TRS DECAY**
- **COLOR**
- **FX**
- **TRS TONE**

And the important note is that **controls behave differently depending on the selected model**, so the most interesting results will come from: 1. choosing a model, 2. sending modulation to several parameters at once, 3. using the module's pitch and decay behavior as the basis for timbre.

General modulation strategy

For Bohm, I'd think in 3 modulation rates:

1. Trigger-rate modulation

Change something every hit: - velocity accents - pitch amount - decay length - color/tone per step

This is how you get **alive, animated percussion** instead of static kicks.

2. Envelope-rate modulation

Use envelopes to shape timbre over the course of each sound: - short envelope to **PITCH** for punch - longer envelope to **COLOR** or **FX** for evolving body - envelope to **SUSTAIN** or **LENGTH** for bass articulation

3. Slow CV / LFO modulation

Use slow movement for atmosphere and instability: - drift **TRS TONE** - slowly modulate **CURVE** - stereo movement through **FX** or Performer processing

This is how you push it into **pads**, **evolving drones**, and ominous textures.

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1) Distorted percussive sounds

Bohm should be excellent for industrial percussion, smashed kicks, metallic hits, and broken drum machine sounds.

A. Overdriven techno kick variations

Start with a model that already has strong low-end or aggressive transient behavior.

Suggested settings

- **ATTACK:** medium to high
- **PITCH:** low-mid
- **CURVE:** steeper/faster for a hard drop
- **LENGTH / SUSTAIN:** short to medium
- **COLOR:** push until harmonics emerge
- **FX:** increase until it begins to feel unstable or widened
- **TRS DECAY / TRS TONE:** tune for resonance or ringing

Modulation patch

- Send a **random stepped CV** to **VELOCITY**
- Send a second, attenuated random CV to **COLOR**
- Use an accent trigger to open **ATTACK** or increase **HIT**
- Modulate **CURVE** every 4 or 8 steps with a sequencer row

What this does

You'll get kick hits that shift between: - tight thump - crunchy knock - blown-out slam - resonant industrial toms

If the selected model reacts strongly to COLOR or FX, this can get very nasty in a good way.

B. Broken clap/snare-like percussion from a kick engine

Even though Bohm is kick-focused, fast pitch and tone modulation can push it into hybrid percussion.

Patch idea

- Set **PITCH** higher than normal kick range
- Keep **LENGTH** very short
- Increase **ATTACK**
- Tune **TRS TONE** to emphasize a noisy or clicky region

- Modulate **COLOR** with a very fast envelope
- Use small random CV into **PITCH**

Result

You can get: - zap-like hits - electro percussion - woody clicks - distorted rim / tom hybrids

If Groove is installed, layer the second voice slightly offset in timing for **flammed percussion** or **rumble tails**.

C. FM-like impact sounds

Even without explicit FM in the manual, very fast modulation of pitch-related parameters can fake FM-ish percussion.

Try this

- Mult your trigger:
- one copy triggers Bohm
- another triggers a very short envelope
- Send that envelope to **PITCH**
- Send an inverted or attenuated version to **CURVE**
- Optionally modulate **TRS TONE** at the same time

Why it works

The pitch envelope and curve interaction can create: - laser hits - metal punch - tearing impacts - aggressive “speaker rip” attacks

Use a VCA or attenuator because too much pitch envelope will just sound cartoony.

D. Distorted layered percussion with Groove expander

The manual says **Groove adds a secondary kick voice for techno rumbles and layered percussion**. That means you can design one voice as the transient and the other as the dirt/body.

Layer recipe

Main Bohm voice - short - punchy - more attack - less sustain

Groove voice - lower tuned - longer decay - more color / fx - slightly delayed trigger if possible

Modulation

- Sequence different velocities to both voices
- Modulate Groove pitch subtly with an LFO or random source
- Send occasional longer gates for selective rumble blooms

Result

This gives: - warehouse kick stacks - distorted low tom barrages - rolling industrial grooves - pseudo-reverb rumbles without external effects

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2) Crazy basslines for dubstep / drum and bass

This is where Bohm gets really interesting. Since the manual says **PITCH ranges roughly from C1 to C2**, that's right in useful bass territory. It won't be a full-range melodic oscillator in the conventional sense, but for heavy bassline work that limited range can be perfect.

A. Triggered reese-style bass pulses

Use Bohm as a monophonic bass percussion voice rather than a sustained oscillator.

Settings

- **SUSTAIN:** medium
- **LENGTH:** medium-long
- **PITCH:** tuned to root note area
- **CURVE:** moderate, not too steep
- **COLOR:** enough to growl
- **FX:** add stereo dirt/motion
- **TRS TONE:** find a sweet spot with midrange bite

Modulation

- Sequence pitch changes in a low register
- Send an LFO to **COLOR**
- Send a different slower LFO or stepped random to **FX**
- Use accent CV into **VELOCITY**
- Occasionally increase **ATTACK** for selected notes

Sound

This should create: - gnarly bass stabs - wobbling low-end phrases - distorted “donk” basses - neuro-ish bass punches

Because Bohm starts from a kick architecture, even pitched notes will retain a percussive front edge, which is excellent for DnB.

B. Dubstep wobble from parameter cross-modulation

Instead of only wobbling filter cutoff like on a subtractive synth, wobble the **body mechanics** of the kick model.

Core patch

- Clock-sync an LFO
- Send it to **COLOR**
- Send an attenuated inverted copy to **TRS TONE**
- Send another divided clock modulation to **FX**
- Sequence **PITCH** in a repeating 1–2 bar pattern

Why this is cool

As COLOR rises while TONE falls, or vice versa, the bass can morph from: - hollow - nasal - snarling - sub-heavy - torn-speaker distorted

This gets you much more unusual movement than a normal filter wobble.

C. Machine-gun bassline growls

Use very short note retriggers with varying pitch envelope depths.

Patch

- Rapid trigger pattern from a sequencer
- A modulation lane to **VELOCITY**
- Another lane to **CURVE**
- A burst generator or ratcheting trigger into HIT
- Envelope to **PITCH** amount via VCA

Target sound

- stuttering bass attacks
- talking growls
- tearing fills
- jump-up DnB style bass punctuation

The trick is to make every rapid hit slightly different. Small CV movement on CURVE and COLOR matters a lot.

D. Sub drop / bass cannon patch

Bohm should be able to produce devastating drops if you extend the decay and pitch motion.

Settings

- **PITCH:** low
- **LENGTH / SUSTAIN:** long
- **CURVE:** tuned for a dramatic downward sweep
- **COLOR:** moderate
- **FX:** enough to widen or dirty the tail

Modulation

- Trigger with a long gate
- Use a descending envelope to **PITCH**
- Slowly open **COLOR** over the tail
- If Performer is installed, use its **ducking and stereo processing** around the hit

Result

- festival-style bass drops
- trailer impacts
- cinematic subs
- huge intros and transitions

E. Fake sidechained bass using Performer

The manual says Performer adds **DJ-style effects, ducking, and stereo processing**. That is extremely useful for bass design.

Idea

Patch Bohm as both: - your kick/percussive source - and a sustained bass element

Then use Performer's ducking to carve motion around the attacks.

Outcome

You can get: - self-pumping basslines - club-style movement - huge stereo body with centered attack - more mix-ready distorted low-end

This is especially effective for dubstep intros and halftime grooves.

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3) Haunting atmospheric pad sounds

This is the least obvious use, but definitely possible if you stop thinking of Bohm as only a drum.

The manual mentions: - stereo processing - multiple models - FX and tone controls - longer sustain/length options - expanders for wider processing

That suggests Bohm can be pushed into **drone and pad-adjacent territory**, especially with re-triggering, long decays, and slow modulation.

A. Ghost drone patch

Settings

- **LENGTH / SUSTAIN:** high
- **ATTACK:** softened if possible
- **PITCH:** low-mid
- **CURVE:** gentle
- **COLOR:** low to medium
- **FX:** moderate to high

- **TRS TONE:** tuned for a hollow or mournful resonance

Modulation

- Very slow LFO to **PITCH** (tiny depth)
- Separate slow LFO to **COLOR**
- Random smooth CV to **TRS TONE**
- Sparse triggers or manually tapped HIT

Result

Instead of a punchy kick, you get: - foggy resonant blooms - distant machine drones - haunted engine-room ambience - dark underscoring textures

Add external reverb after Bohm and it becomes much more pad-like.

B. Granular-feeling pad from repeated soft retriggers

Use frequent but low-intensity hits to create a cloud.

Patch

- Send a fast but irregular trigger stream
- Lower **VELOCITY**
- Lengthen **SUSTAIN**
- Keep **ATTACK** modest
- Slowly modulate **FX** and **TRS TONE**

What happens

Each hit becomes a small fragment in a larger texture. In stereo this can feel like: - swarming air - distant choirs of machinery - unstable ambient beds - eerie pulsing fog

This works especially well if the model has a resonant or tonal tail.

C. Dissonant haunted pad using pitch drift

Because Bohm only spans roughly **C1 to C2**, the pitch range is constrained, which is actually helpful for dark drone work.

Try this

- Tune the main pitch to the root
- Send tiny random or sample-and-hold modulation to **PITCH**
- Use another slow modulation to **CURVE**
- Increase **FX** for width or instability
- Layer Groove at an interval-like offset if possible

Result

You'll get subtle beating and tonal ambiguity: - ominous low strings vibe - degraded tape-organ feeling - dark ambient resonance - horror soundtrack undertones

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D. Stereo cinematic pad with Performer

Performer's stereo processing is the key here.

Patch concept

- Long-decay Bohm sound
- Sparse triggers
- Slow CV to timbral parameters
- Use Performer for width, ducking, and DJ-style effects

Best use

- huge intro washes
- breakdown textures
- transitions between heavy sections

- hovering stereo dread

Even if the source is still obviously “kick-derived,” once spread and effected it can become very atmospheric.

Best parameters to modulate for each goal

For distorted percussion

Prioritize: - **VELOCITY** - **ATTACK** - **CURVE** - **COLOR** - **TRS TONE**

These shape the impact and harmonic aggression.

For basslines

Prioritize: - **PITCH** - **CURVE** - **SUSTAIN** - **LENGTH** - **COLOR** - **FX**

These shape note identity, weight, and movement.

For pads/drones

Prioritize: - **LENGTH** - **SUSTAIN** - **COLOR** - **FX** - **TRS TONE** - subtle **PITCH**

These shape resonance, tail, width, and slow transformation.

Advanced modulation ideas

1. Macro modulation

Use one CV source multed to several destinations with different attenuations: - positive to **COLOR** - inverted to **TRS TONE** - slight amount to **CURVE**

One knob or one LFO can then create major morphs.

2. Accent-dependent timbre

Instead of only accenting loudness, use accent gates/CV to also open: - **ATTACK** - **COLOR** - **FX**

That makes accented steps brighter, harsher, and more explosive.

3. Probability-based mutation

Use a probabilistic trigger or random stepped CV to occasionally alter: - **PITCH** - **LENGTH** - **TRS DECAY**

This makes loops feel less repetitive and more performative.

4. Audio-rate abuse

If Bohm accepts sufficiently fast CV on certain inputs, try audio-rate modulation of: - **PITCH** - **COLOR** - **TRS TONE**

Even if it doesn’t behave like clean FM, aliasing and instability can create brutal digital textures.

5. Resampling workflow

Since the module uses **microSD / SDHC** and stores models/samples/settings, a practical approach is: - patch extreme sounds - record long improvisations - resample the best moments - use those snippets in a sampler for further composition

That's often the fastest path to truly unique bass and atmospheric material.

Performance mode suggestions

The manual mentions: - **Studio Mode** - **Live Song Mode** - **Jam Mode**

Studio Mode

Use this for: - dialing exact sweet spots - calibrating modulation depth - building resampling material

Live Song Mode

Use this for: - sequenced parameter changes - switching kick/bass character per section - structured bassline or drum evolution

Jam Mode

Use this for: - improvised macro modulation - live tweaking of color/fx/tone - chaotic transitions and fills

For your goals, **Jam Mode** sounds especially promising for discovering weird bass and haunted textures.

Practical patch recipes

Recipe 1: Industrial broken kick

- 4-on-the-floor trigger into HIT
- random CV to VELOCITY
- short envelope to PITCH
- sequencer row to COLOR
- occasional accent to ATTACK
- Groove layer with long rumble tail

Recipe 2: Dubstep growl stab

- melodic trigger sequence
- tune PITCH to root/fifth
- medium sustain
- synced LFO to COLOR
- inverted LFO to TRS TONE
- stepped modulation to FX
- Performer ducking for pump

Recipe 3: Neuro percussion fill

- ratcheting triggers
- short decay
- modulate CURVE every step
- random CV to PITCH at low depth
- high COLOR and aggressive FX
- automate mutes for sudden drops

Recipe 4: Haunted drone bed

- sparse triggers
- long sustain/length

- slow LFO to COLOR
- random smooth CV to TRS TONE
- tiny pitch drift
- stereo processing from Performer
- external reverb after output

Recipe 5: Bass cannon transition

- one trigger every 8 or 16 bars
- long pitch envelope downward
- long sustain
- increase FX over tail
- optional Groove layer for sub reinforcement
- Performer widening on tail only

Final advice

The big takeaway from the manual is that **Bohm is model-based**, and **controls react differently per model**, so the deepest sound design move is not just modulating more CV, but **finding which model turns a given parameter into something extreme**.

If I were designing the kinds of sounds you want, I'd explore in this order:

1. **Find 2–3 aggressive models** for distorted percussion
2. **Find 2 models with the strongest tonal sustain** for basslines
3. **Find 1–2 resonant/atmospheric models** for drone and pad work
4. Patch:
5. envelope to **PITCH**
6. LFO to **COLOR**
7. inverted LFO to **TRS TONE**
8. stepped random to **VELOCITY** or **CURVE**
9. Use **Groove** for layered rumble/body
10. Use **Performer** for stereo movement, ducking, and live destruction

That combination should get you well beyond “kick drum” territory and into: - mangled industrial percussion - dubstep and DnB bass assaults - eerie cinematic atmospheres

Generated With Eurorack Processor