

Bored Brain – EQx5

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[Manual PDF: EQx5 User Guide 1.0](#)

Boredbrain EQx5: using it for melodic work in a Eurorack patch

From the attached manual, the **Boredbrain EQx5** is a **5-band voltage-controlled stereo equalizer**. It is not a pitch source or oscillator, but it can be very effective in building **melodic components** by shaping harmonics, emphasizing note movement, and animating timbre in a way that makes lines feel more musical and articulated.

What the module does

Key functions from the manual:

- **5 frequency bands** with ± 12 dB gain
- Bands:
 - **LOW**: 100 Hz shelf
 - **LO-MID**: 400 Hz peak
 - **MID**: 1 kHz peak
 - **HI-MID**: 4 kHz peak
 - **HIGH**: 10 kHz shelf
- **Post-EQ LEVEL** control
- **BALANCE** control for stereo / dual-input crossfading
- **CV control over all parameters**
- **Stereo I/O**
- **Additional mono sum output**

This means the EQx5 is best understood as a **voltage-controlled spectral sculptor**. In melodic patches, that translates to: - changing the tone of notes over time - accenting note attacks - separating melodic voices in a mix - creating moving formant-like contours - crossfading between two sound sources to suggest phrase development

How EQx5 contributes to melodic material

1. Turn static oscillators into expressive melodic voices

A raw VCO melody can sound flat even when the pitch sequence is good. The EQx5 can add phrase-level motion by modulating selected bands.

Patch idea

- Send a melodic voice into the EQx5.
- Use:
 - a slow envelope or LFO on **MID**
 - a second modulation source on **HI-MID**
 - subtle CV on **LEVEL**
- Keep the boosts moderate.

Result

As notes play, the spectral emphasis shifts. The pitch sequence remains the same, but the line feels more articulated, almost as if it is being “played” rather than merely sequenced.

This is especially effective with: - saw waves - pulse waves - FM tones - wavetable voices

2. Emphasize note attacks for clearer melodies

Melodic clarity often comes from transient definition, not just pitch.

Patch idea

- Route an envelope that is already triggered by your melodic gate into:
- **HIGH CV**
- or **HI-MID CV**
- Use a small positive modulation amount.

Result

Each note gets a brighter onset, helping the melody cut through a dense patch. This works like a dynamic articulation layer, similar to how acoustic instruments have attack-specific spectral changes.

If the melody is too sharp, balance this by gently reducing: - **HIGH** - or boosting **LOW-MID** for warmth

3. Create vowel/formant-like melodic timbres

Because the EQx5 has several fixed bands, you can shape a sound into different “spectral vowels.” Modulating between these gives melodic phrases an almost vocal quality.

Patch idea

Start with a harmonically rich oscillator. Then create settings like:

- “Oo” style
- more **LOW**
- some **LO-MID**
- less **HIGH**

- “Ah” style
- stronger **MID**
- some **HI-MID**
- “Ee” style
- reduced low bands
- more **HI-MID** and **HIGH**

Use CV to move between these contours during a sequence.

Result

The melody gains a talking/singing quality even without a filter sweep. This is a powerful way to make simple sequences feel more memorable.

4. Use CV on multiple bands to create timbral counterpoint

The manual specifically suggests **multiple tempo-synced modulations** and **band-isolated amplitude modulation**.

For melodic composition, this is useful because different harmonic regions can move independently.

Patch idea

- Clock-sync one LFO to modulate **LOW-MID**
- Use a different division for **MID**
- Use a very slow modulation on **HIGH**
- Send a melody through the module

Result

The note pitch may be repeating a short pattern, but the harmonic emphasis evolves over a longer cycle. This creates the impression of

melodic development through timbre, which is very effective in minimal, generative, or Berlin-style patches.

5. Make two melodic voices interact with **BALANCE**

The manual describes **BALANCE** as an equal-power crossfader for the left and right inputs, with a mono sum output available. This is one of the most compositionally useful features.

Patch idea

Feed two related sound sources into **L** and **R**: - two oscillators tuned to the same melody but with different waveforms - root and harmony voices - a dry voice and a wavefolded / FM variant - two separate sequences

Then modulate **BALANCE** with: - a slow LFO - a stepped random voltage - a phrase envelope - a manual performance gesture

Take the **mono out** if you want a single blended melodic line.

Result

You can morph between two melodic timbres or two actual parts. This is excellent for: - verse/chorus variation - call-and-response textures - adding harmonic motion without changing the main sequencer - moving from soft to aggressive phrasing over time

The manual also notes this can be used like a **VCA-like volume crossfader** when combined with **LEVEL CV**.

6. Separate melody from bass or chords in a full patch

Even if the EQx5 is processing a subgroup rather than one oscillator, it can help define melodic roles.

Patch idea

- Send a bus containing several elements into the EQx5.
- Use boosts around:
- **MID** and **HI-MID** to help lead lines speak
- Reduce **LOW** if the melody is being masked by bass content

Result

The melodic content becomes easier to hear. In a modular context, spectral separation often matters as much as note selection.

This is especially useful if your patch includes: - drones - chords - percussion - noise layers

7. Animate harmonically rich drones into implied melodies

A drone can become “melodic” if different partials are brought in and out rhythmically.

Patch idea

- Use a static or slowly changing oscillator drone
- Modulate 2–3 EQ bands with envelopes or synced LFOs
- Optionally crossfade between two drone sources with **BALANCE**

Result

Instead of hearing a fixed drone, the ear begins to track moving harmonic regions as if they were melodic gestures. This is a great way to create ambient or experimental melodic content without sequencing traditional notes.

Best musical roles for EQx5 in melodic patching

Excellent for

- adding expression to sequenced lines
- making repeated melodies feel less repetitive
- spectral phrasing
- formant-style shaping
- crossfading between melodic layers
- helping a lead stand out in a mix
- making drones and textures feel melodic

Less suited for

- generating pitch directly
- quantized melody creation
- envelope-per-note shaping as precisely as a dedicated filter/VCA combo
- narrow resonant filter-style sweeps

This module is more about **tone choreography** than pitch generation.

Practical melodic patch recipes

Recipe 1: Expressive lead enhancer

- VCO -> VCF/VCA -> EQx5
- Sequencer pitch + gate drive the voice
- Envelope multed to:
 - VCA
 - **HI-MID CV**
 - Slow LFO to **MID CV**

- Slight random CV to **LEVEL**

Use when: a lead sequence is good but needs life and articulation.

Recipe 2: Morphing dual-voice melody

- Voice A into **L input**
- Voice B into **R input**
- Take **mono out**
- Slow CV into **BALANCE**
- Envelope into **LEVEL**
- Set slightly different EQ curves for each side's apparent contribution through the shared processing behavior

Use when: you want one melody to evolve between two identities.

Recipe 3: Talking bassline

- Rich bass oscillator into EQx5
- Sequence pitch normally
- Accent envelope into **LO-MID** and **MID**
- Small inverse or reduced **HIGH**
- Optional slow movement on **BALANCE** if using a second bass timbre

Use when: a bassline should carry melodic personality, not just low-end support.

Recipe 4: Generative timbral melody

- Drone or repeating ostinato into EQx5
- Clocked modulation to **LOW-MID**, **MID**, and **HI-MID**
- Different clock divisions for each
- Mild CV on **LEVEL**

Use when: you want evolving melodic impressions without adding more note data.

If used with other modules

Only one manual was attached, so I can only directly analyze the **EQx5**. In a larger melodic Eurorack system, it pairs especially well with:

- **Oscillators / complex VCOs:** provides harmonic sculpting
- **Sequencers / quantizers:** pitches the material while EQx5 adds expressive timbre motion
- **Envelope generators:** animate note attacks via band CV
- **LFOs / random CV:** create long-form spectral development
- **VCAs / filters:** combine amplitude, subtractive tone, and band-focused EQ movement
- **Stereo voices / dual oscillators:** exploit BALANCE for crossfaded melodic variation

If you want, send the other module manuals too and I can explain **how those specific modules work together as a full melodic system.**

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