

Bastl Instruments — Dark Matter

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[Bastl Instruments Dark Matter Manual \(PDF\)](#)

Sound Design with Bastl Dark Matter: Feedback Observatory

The **Bastl Dark Matter** is a feedback-based voltage-controlled audio processor and distortion unit for Eurorack, known for producing wild, self-oscillating timbres, gritty distortion, and dynamic feedback textures. Below is a focused analysis for achieving **distorted percussive sounds**, **crushing basslines**, and **haunting pad textures** using modulations and features outlined in your manual scans.

1. Distorted Percussive Sounds

Key Sections to Use

- **Drive** section for clipping and saturation
- **Dynamics** section for envelope following and transient shaping
- **Feedback (FBK) and Tone** for chaotic or saturated harmonics
- **X-Fade** for rhythmical crossfading

Patch Suggestion

1. **Input:** Send drum triggers or sharp envelopes (from sequencer or trigger source) into the **INPUT** jack.
2. **Drive Setting:**

3. Crank up **DRIVE** for hard clipping.
 4. Use the **HYPERDRIVE** switch for extra saturation.
 5. Adjust **DRIVE CV** with a fast/steep envelope for punchy attacks.
 6. **Dynamics:**
 7. Engage **DYNAMICS** envelope follower for amplitude-reactive effects—great for emphasizing percussion transients.
 8. Route **DYNAMICS OUTPUT** to modulate **FBK CV** or **TONE CV** for evolving attack/release filtering and feedback.
 9. **Feedback:**
 10. Slowly increase **FBK**. Feedback instability introduces raw, broken textures.
 11. Patch **FBK OUT** to external FX (reverb or delay), then back to **FBK IN** for metallic/echoed hits.
 12. **Tone:**
 13. Use the **TONE CV** input for envelope or sequencer modulation.
 14. Emphasize mid/high frequencies for snappy percussion.
 15. **X-Fade:**
 16. Use an external CV (e.g., clocked random or trigger sequencer) to alternate between **DRIVE** and **FBK** paths for glitchy, percussive gating.
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2. Dubstep/Drum & Bass Basslines

Key Sections to Use

- **Drive, Dynamics, Tone, Feedback, and CV modulation everywhere**

Patch Suggestion

1. **Input:** Patch a saw or square bass VCO into the **INPUT**.
2. **Drive:**
3. Engage **DRIVE** past saturation for heavy grit.
4. Modulate **DRIVE CV** with an envelope synced to your bassline for rhythmic accents.
5. **Tone:**

6. Patch a synced LFO to **TONE CV** for evolving vowel or formant sweeps.
7. Use the **BASS** and **TREBLE** boost for sculpting the sub and high-end.
8. **Feedback:**
9. Raise **FBK** amount to dial in wild resonance/growl.
10. Modulate **FBK CV** with sequencer steps, random CV, or audio-rate sources for “talking” basslines.
11. **Dynamics:**
12. Enable the envelope follower; use its output to modulate **DRIVE** or **TONE** for basslines that change character depending on their own amplitude.
13. **X-Fade:**
14. Fade between **DRIVE** (cleaner) and **FBK** (nastier) using a sequenced or free-running LFO.

Expert Tip:

Insert an external distortion or filter between **FBK OUT** and **FBK IN** for truly unpredictable, filthy results.

3. Haunting Atmospheric Pad Sounds

Key Sections to Use

- **Tone** for bandpass-like shaping
- **Slow, moving modulation of FBK/Tone**
- **X-Fade** for subtle textural morphs

Patch Suggestion

1. **Input:** Use a pad sound (rich waveform, slow attack) from your synth/oscillator.
2. **Drive:**
3. Keep **DRIVE** moderate for warmth; avoid hard clipping unless you want grit.
4. Use slow, shallow LFOs on **DRIVE CV** for gentle drift.

5. **Tone:**
 6. Add subtle EQ via **BASS** and **TREBLE** boost as needed.
 7. Modulate **TONE CV** with a slow, cycling LFO or an attenuated random source.
 8. **Feedback:**
 9. Set **FBK** just before oscillation for haunting feedback wisps.
 10. Modulate **FBK CV** with a very slow S&H or unipolar LFO for evolving atmospheres.
 11. **Dynamics:**
 12. Engage envelope follower if you want the pad to react dynamically to your playing.
 13. Patch **DYNAMICS OUTPUT** to **TONE** or **FBK** for amplitude-sensitive evolving movement.
 14. **X-Fade:**
 15. Slowly modulate crossfade with a wide, slow LFO to morph subtly between clean and processed signals.
 16. **External Feedback:**
 17. Try routing **FBK OUT** through reverb/fx before returning to **FBK IN** for endless, ghostly atmospheres.
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General Modulation Suggestions

- **Sequencer CV > FBK or TONE CV:** Rhythmic morphs and timbral variation.
 - **Random CV > FBK / X-FADE:** Evolving chaos, especially effective on pads or basses.
 - **Audio-rate mod > FBK or TONE:** Extreme FM, vocal-like or broken digital timbres.
 - **Envelope Follower:** Use dynamic output to self-modulate for organic, responsive sounds.
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Explore these patching techniques with your **Bastl Dark Matter** and discover unique, evolving, and sometimes uncontrollable textures!
