

# Tiptop Audio – SD808

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- [Manual PDF](#)
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## Tiptop Audio SD808 – using it musically for melodic components

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The **SD808** is a Eurorack adaptation of the **TR-808 snare drum voice**, but in a modular system it can do much more than just play snare hits. Based on the manual, this module is especially useful as a **pitched percussive sound source**, a **dynamic modulation source via its audio output**, and a **tone/noise layer** that can be processed into melodic material.

## What the module gives you

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### Controls

- **LEVEL** – output gain, with a very hot output stage
- **TONE** – blends between two decaying sine oscillators:
  - low-pitched sine at full CCW
  - high-pitched sine at full CW
  - mixtures in between
- **SNAPPY** – controls the white noise envelope amount, with some effect on decay feel
- **ACCENT** – sets accent intensity / effectively also a fine output gain control when Accent In is unused

## Inputs / outputs

- **GATE IN** – triggers the sound
- **ACCENT IN** – trigger/gate for independent accent articulation
- **SD OUT** – audio output

## Key musical behaviors from the manual

1. **The core drum sound contains two decaying sine generators**, not just noise.
2. This is the main reason it can contribute to melodic material.
3. **TONE changes the balance between low and high resonant components.**
4. This gives a pseudo-pitch contour or selectable body pitch.
5. **The output can get extremely hot** – up to about **20 Vpp** at extreme settings.
6. This matters because you can intentionally drive filters, VCAs, wavefolders, DSP, and interfaces into saturation.
7. **Accent changes more than loudness.**
8. It also changes attack character and noise/body interaction.
9. **Snappy strongly affects transient brightness and how “hard” accent feels.**
10. **There is a white noise trimmer** on the side.
11. Lower noise = more tonal/pitched
12. Higher noise = more noisy/percussive

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# Can an SD808 make melodic parts?

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## Yes – in a modular sense

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It is **not a 1V/oct oscillator** and won't track pitch conventionally, but it **can absolutely be used in melodic roles**:

- **pitched tom-like lines**

- **electro bass blips**
- **plucky tuned percussion**
- **resonant strikes feeding external processors**
- **triggered tonal motifs**
- **audio-rate modulation source for other modules**
- **excitation source for resonators and filters**

Think of it as a **fixed-architecture percussive voice with a tunal center**, rather than a fully tunable synth voice.

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## Best strategies for creating melodic components

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### 1. Use **TONE** as a coarse pitch selector

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The manual says the SD808 uses **two sine-wave T-network oscillators** at different pitches, and **TONE** crossfades their contribution.

That means:

- **CCW**: lower body, more tom/bongo/bass-snare territory
- **CW**: higher body, sharper and more cutting
- **middle**: mixed resonances, more complex pitch impression

#### Musical use

Set **SNAPPY very low** and you'll hear more of the pitched body. Then: - sequence rhythmic triggers into **GATE IN** - manually set **TONE** for the register you want - use **ACCENT IN** for phrasing

This gives you: - tuned percussion lines - pseudo-melodic electro phrases - contrast between "low note" and "high note" gestures

## Patch idea

**Two-note melodic percussion** - Trigger source / sequencer gate → **GATE IN** - Separate rhythmic accent pattern → **ACCENT IN** - **SNAPPY** near minimum - **TONE** adjusted for one register - Record one pass, then repatch or mult the trigger clock and manually move **TONE** for another pass

Because **TONE** isn't CV-able, this is best for: - fixed-register parts - overdubs - performance gestures - sampled loops

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## 2. Minimize noise to reveal the sine body

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The manual makes clear that the SD808 is a mix of: - two decaying sine generators - one enveloped noise generator

If your goal is melody, the pitched part matters most.

### Settings for more tonal use

- **SNAPPY**: low
- **ACCENT**: moderate to high for stronger excitation
- **LEVEL**: moderate at first
- **TONE**: choose low/high body emphasis
- Optional: reduce the internal white-noise trimmer slightly

This produces a more **pitched attack-decay sound**, closer to: - synthetic tom - clave-like tuned click - low conga / electro percussion - short bass hit

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## 3. Use accent patterns as melodic phrasing

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The manual stresses that **ACCENT** affects: - loudness - attack - noise/body emphasis - overall strike intensity

This is very useful musically because many melodic parts do not need distinct pitches on every note — they need **phrasing**.

## What accent can do melodically

An accented hit can read like: - a “higher energy note” - a phrase beginning  
- a syncopated melodic stress - a ghost-note vs. lead-note contrast

### Patch idea

**Call-and-response percussion melody** - Main trigger sequence → **GATE IN**  
- Sparse accent pattern → **ACCENT IN** - **SNAPPY** slightly above minimum -  
**ZONE** around lower-middle - **LEVEL** adjusted to taste

Now you get: - unaccented notes = softer, more body-focused - accented notes = brighter, more aggressive, more articulated

That creates the feel of a melodic phrase even if the absolute pitch doesn't change much.

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## 4. Send the SD808 into resonant filters to “tune” it externally

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The manual explicitly encourages running these drums through: - resonant filters - VCAs - wavefolders - DSP - CV/audio inputs of other modules

This is one of the strongest ways to make the SD808 melodic.

### Why it works

A short percussive strike is an excellent **excitation source** for a resonant filter. If your filter self-oscillates or has strong resonance, the SD808 becomes the impulse that excites a tuned frequency.

### Patch idea

**Tuned filter percussion** - SD808 **SD OUT** → resonant low-pass or band-pass filter audio input - Set filter resonance high - Use sequenced CV into filter cutoff - Trigger SD808 rhythmically - Keep **SNAPPY** low-to-mid so the body is present

Result: - the SD808 strike excites the filter - the **filter cutoff sequence becomes the melody** - the SD808 provides attack and character

This can yield: - marimba-like lines - plucked synth motifs - acid-adjacent percussive melodies - tuned dub-techno pings

This is probably the **best patch category** if your goal is clearly melodic output.

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## 5. Use it as an exciter for resonators or physical-model modules

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Even though the manual mentions filters specifically, the same principle extends to: - resonators - comb filters - Karplus-Strong systems - modal synth modules - physical modeling voices

### Patch idea

**Resonator melody source** - SD808 **SD OUT** → resonator input - Pitch CV sequence → resonator pitch input - **SNAPPY** low for clean excitation, or high for noisier string/metal excitation - Accent selected notes for dynamic phrase contour

Results: - bell-like sequences - tuned plucks - metallic melodic percussion - hybrid acoustic-electronic lines

The manual's discussion of using drums as patch elements fits this perfectly.

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## 6. Overdrive external modules for harmonically richer pitched voices

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The manual emphasizes that the SD808 output can be **much hotter than typical modular VCO levels**, and that this can create: - distortion - clipping - additional harmonics - tighter attacks

For melody, this is valuable because the stock SD808 is relatively simple spectrally when noise is low. Harmonic enrichment helps it read as a more substantial synth voice.

## Patch idea

**Distorted tuned plucks** - SD808 **SD OUT** → wavefolder / saturator / input drive stage - Then into VCF or LPG - Sequence filter cutoff or resonator pitch - Use **ACCENT IN** for note emphasis

This can transform the sound into: - distorted bass plucks - industrial mallet lines - crunchy sequence accents - electro lead-percussion hybrids

## Important practical note

Start with lower **LEVEL** settings. The manual warns the output can be hot enough to clip interfaces around **10 Vpp**, while SD808 can hit around **20 Vpp**.

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## 7. Use the audio output as a modulation source

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The manual explicitly says you can send the drum audio into **CV inputs of just about any module**.

This is one of the more modular ways to derive melodic complexity.

## Uses

- SD808 audio → filter cutoff CV
- SD808 audio → VCA CV
- SD808 audio → oscillator FM input
- SD808 audio → waveshaper CV
- SD808 audio → effect parameter CV

Because the SD808 contains a decaying dual-sine/noise transient, this creates **audio-derived envelopes and transient FM**.

## Patch idea

**Percussion-driven melody animation** - Main melodic oscillator provides drone or sequence - SD808 output milted: - one copy to mixer/audio path - second copy to filter FM or cutoff CV on another voice - Triggers on SD808 occur in complementary rhythm to melodic sequence

Results: - each snare hit bends or excites the melodic voice - melody acquires rhythmic articulation - percussion and pitch become tightly interlocked

This is a great way to make the SD808 part of the **melodic ecosystem**, even when it isn't the main audible note source.

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# Specific melodic patch recipes

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## A. Electro tom bassline

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Goal: make the SD808 behave like a pitched bass percussion voice.

**Settings** - **SNAPPY**: near minimum - **TONE**: lower half - **ACCENT**: medium-high - **LEVEL**: moderate

**Patch** - Gate sequencer → **GATE IN** - Accent rhythm → **ACCENT IN** - SD OUT → low-pass filter - Optional envelope follower from SD808 to duck or shape another voice

**Result** - punchy low percussive notes - pseudo-bassline grooves - classic electro style

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## B. Tuned strike into resonant filter

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Goal: turn the SD808 into a melodic trigger source.

**Settings** - **SNAPPY**: low to mid - **TONE**: wherever the strike is clearest - **ACCENT**: dynamic, with accented phrase peaks

**Patch** - SD OUT → resonant band-pass filter - Pitch sequencer CV → filter cutoff - Trigger sequencer → SD808 GATE IN

**Result** - filter determines note pitch - SD808 determines attack/body/transient - very playable melodic percussion voice

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## C. Metallic melody through wavfolder

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Goal: derive harmonically richer tuned percussion.

**Settings** - **SNAPPY**: low - **TONE**: upper-middle for brighter body - **LEVEL**: enough to drive folder

**Patch** - SD OUT → wavfolder - Wavfolder → VCF or LPG - Optional sequenced CV to wavfolder symmetry/fold amount - Accent pattern into ACCENT IN

**Result** - complex overtones - more note-like presence - aggressive melodic sequences

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## D. Noise-excited pluck line

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Goal: use the noise component as a melodic exciter.

**Settings** - **SNAPPY**: medium-high - **TONE**: to taste - **ACCENT**: moderate

**Patch** - SD OUT → resonator / comb filter / Karplus module - Sequenced pitch CV → resonator pitch - Sparse accents on important notes

**Result** - string/metal/pluck-like notes - noisy attack with tuned sustain - very expressive for IDM, electro, experimental music

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## E. Layer with a VCO for melodic transient design

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Goal: use the SD808 to give a melodic synth note a realistic attack.

**Patch** - VCO → VCF/VCA → mixer - SD808 → same mixer channel or parallel bus - Trigger both from same sequencer - Use SD808 accent to define phrase accents - Tune VCO conventionally; use SD808 as transient/body reinforcement

**Result** - synth notes gain percussive front edge - works especially well for:  
- plucks - bass stabs - FM percussion lines - EBM / electro sequences

This is one of the most musically useful applications: the SD808 does not need to carry the whole pitch identity to contribute melodically.

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# How to think about “melody” with this module

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## The SD808 creates melody in three ways

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### 1. By supplying a pitched body

The two sine generators provide a tonal center. This is not precise keyboard pitch, but enough for: - low/high note contrast - tuned percussion roles - bass/percussion hybrids

### 2. By shaping phrase dynamics

Accent and Snappy create expressive note hierarchy: - ghost notes - strong notes - transitions - syncopated emphasis

This often matters as much as pitch in melodic writing.

### 3. By exciting other tuned modules

This is where it becomes most powerful: - filters - resonators - feedback systems - combs - physical models

These external modules provide exact pitch behavior; the SD808 provides the **attack character**.

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## Best settings for different musical roles

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### For the most tonal / melodic behavior

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- **SNAPPY**: low
- **TONE**: choose low or high body emphasis
- **ACCENT**: moderate-high
- **LEVEL**: moderate unless intentionally saturating
- Optional white noise trimmer: slightly reduced

### For expressive melodic percussion

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- **SNAPPY**: just above minimum
- **ACCENT IN**: active with selective triggers
- **TONE**: mid or low-mid
- This is specifically supported by the manual, which notes strong dynamics when accented and unaccented notes are used with Snappy just above minimum.

### For harmonic processing

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- **LEVEL**: high
- **ACCENT**: high
- **SNAPPY**: mid
- Feed into distortion, folder, filter, DSP

### For resonator excitation

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- **SNAPPY**: low for clean strikes, higher for noisy texture

- **LEVEL**: enough to excite but not overload
  - **ACCENT**: use for phrase peaks
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## Important limitations

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### What it does not do well on its own

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- precise pitch sequencing
- 1V/oct melodic lines
- sustained notes
- traditional keyboard-style melodies

### What it does extremely well in melodic contexts

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- tuned percussive motifs
- phrase articulation
- transient design
- resonator/filter excitation
- aggressive harmonically processed strikes
- percussive-bass hybrids

So the SD808 is best viewed as a **melodic percussion building block**, not a conventional voice oscillator.

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# Most effective “used together” modular roles

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If you mean “used together” with the rest of a Eurorack system, the manual strongly points toward these combinations:

1. **SD808 + resonant filter**  
Best for tuned percussion melodies.
2. **SD808 + wavefolder/distortion**  
Best for aggressive synthetic plucks and bass hits.
3. **SD808 + resonator / physical model**  
Best for rich tuned lines.
4. **SD808 + another drum voice through ring mod/VCA**  
Best for complex hybrid melodic/noise percussion.
5. **SD808 + CV destination**  
Best for percussion-controlled animation of another melodic voice.
6. **SD808 layered with VCO voice**  
Best for adding attack and dynamic realism to melodic synth lines.

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## Bottom line

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The **Tiptop SD808** is nominally a snare module, but the manual makes clear that its architecture — **two decaying sine oscillators plus enveloped noise**, with **strong accent behavior** and **very hot output level** — makes it highly useful for melodic composition in Eurorack.

Its strongest melodic uses are:

- **pitched percussion voice**
- **bass/percussion hybrid**

- **exciter for tuned filters/resonators**
- **transient layer for melodic synths**
- **audio-rate modulation source**
- **harmonic source when overdriven**

If you want, I can also turn this into: 1. a **patch cookbook** with 10 concrete SD808 melodic patches, or

2. a **module interaction matrix** showing how SD808 pairs with filters, LPGs, wavefolders, sequencers, and resonators.

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