

# shakEQ

## Tuning Guide

Learn what each ShakEQ effect and profile does, when to use it, and how different settings shape the tactile response.

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## Profiles

Profiles provide ready-made starting points for different types of content and shaker setups.



### Cinema

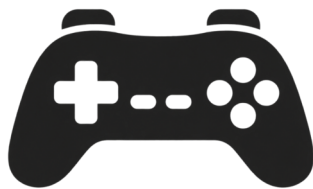
**Cinema** provides the most natural and unrestricted tactile response. It preserves the full dynamic range, allowing powerful transients to stand out naturally.

Its dynamic processing is designed for long listening sessions. Quieter background details are brought into the tactile range in a relaxed, unobtrusive way.

**When do you need it?**

**For movies and other cinematic content.** Cinema is the natural starting point for most material.





## Game

**Game** is designed for active and continuously changing bass content. It limits the dynamics of the strongest transients, reducing unexpectedly powerful impacts that can break immersion.

At the same time, it brings more tactile activity into the foreground, giving the response a more active and punchy character than Cinema.

### When do you need it?

For games — **and also for smaller shakers.**

Limiting extreme transients also reduces the stress on small shakers that are prone to bottoming out, allowing you to drive them harder in a more controlled way.



## Music

**Music** is designed to reproduce fast transients accurately. Unlike Cinema and Game, its processing emphasizes upper bass rather than the lowest frequencies.

This creates a faster and more defined tactile response, especially with large shakers.

### When do you need it?

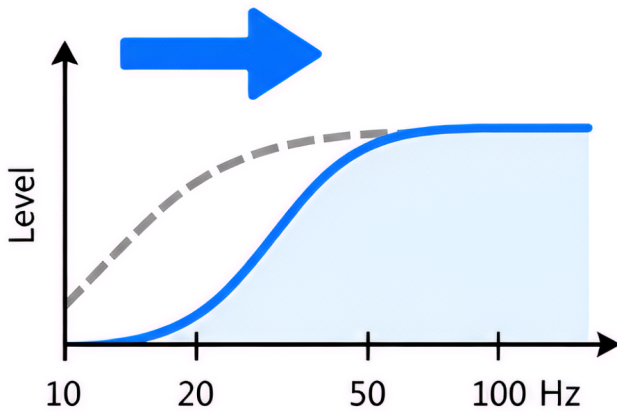
Choose Music when timing, rhythm and transient definition are more important than deep, heavy movement.



# Effects

Effects are the individual tools used to fine-tune each profile to your content, shaker and preference.

## Low Cut (LC)



12 dB/octave high-pass filter. Low Cut reduces energy below the selected frequency. Higher values reduce deep bass, making the shaker feel lighter and faster. The display shows the cutoff frequency in Hz.

### When do you need it?



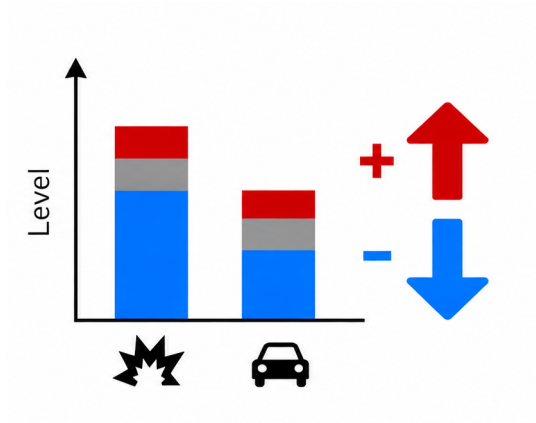
**1. To get the best performance from a smaller shaker.** Small shakers with high resonance frequencies perform poorly at the lowest frequencies. Check the calibration graph for the shaker's low-frequency roll-off. A useful Low Cut setting is often around 10–20 Hz below its resonance frequency.

**2. To make a large shaker feel faster.** Some large shakers are slow at very low frequencies, which can make them feel delayed or sluggish. Raising Low Cut can make the response noticeably faster. With music, even settings close to 80 Hz can be useful.

**3. To prevent bottoming out.** If your shaker reaches its movement limits at very low frequencies, raising Low Cut can reduce the excessive movement.

**4. For a lighter, more subtle response.** Bass mixes vary greatly between movies and games, and sometimes the tactile response can feel too heavy. A higher Low Cut can make the shaker feel lighter and more like a subtle extension of your subwoofer system.

# Gain



**Gain** adjusts the overall shaker level. The control ranges from -9 to +3, with each step changing the level by 3 dB.

Set the input level correctly in **Input Monitor** before adjusting Gain. If you regularly need positive Gain values, your Input Gain is probably set too low.

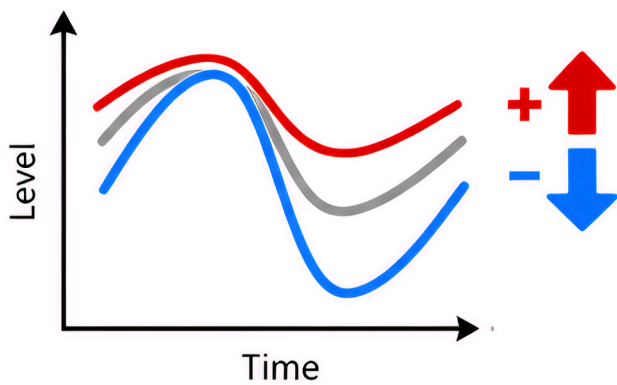
Positive Gain values can reduce the available dynamic range. This is not necessarily a problem — a more compressed response can sometimes be desirable — but it is a trade-off to be aware of. For the widest possible dynamics, keep Gain at 0 or below.

## When do you need it?

**All the time.** Gain should be your primary control when you simply want more or less shaker output. It is a predictable, static level adjustment: all tactile effects are raised or lowered uniformly.

Gain Rider (see below), in comparison, adjusts the level dynamically based on the content. Use Gain for normal level adjustment, and Gain Rider more deliberately when you want to change how ShakEQ responds to different source levels.





## Wet/Dry (WT)

**Wet/Dry** compensates for the dynamic behaviour of different shaker types. It has five positive settings for large shakers and five negative settings for small shakers.

Large shakers are typically less sensitive above 50 Hz while having a wide dynamic range at lower frequencies. **Positive values** dynamically bring more higher-bass information into the tactile range.

Small shakers tend to compress their response because of their limited movement. **Negative values** expand the tactile dynamic range, helping transients feel more distinct.

**Wet/Dry 0** applies no dynamic processing.



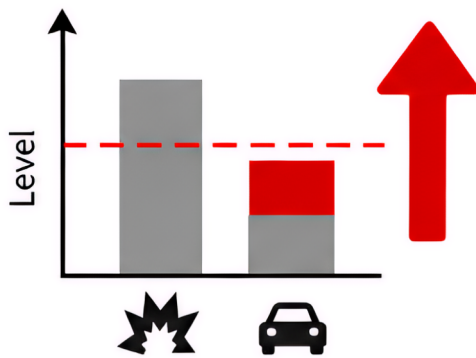
### When do you need it?

**When your shaker does not respond dynamically as you expect.** If some effects disappear while others are very strong, or if too many different sounds feel equally strong, changing the shaker level alone will not solve the problem. Try a different Wet/Dry setting instead.

**With large shakers:** Try positive values if deep bass feels strong but subtle effects are difficult to feel.

**With small shakers:** Try negative values if too many sounds feel similar and strong effects do not stand out clearly enough. Negative values may reduce the overall shaker level. Compensate with Gain or Gain Rider if needed.

# Gain Rider (GR)



**Gain Rider** brings more of the soundtrack into the shaker's tactile range. It automatically raises the overall shaker level when bass activity is low and reduces the extra gain when stronger bass appears. Higher values provide more level compensation.

## When do you need it?

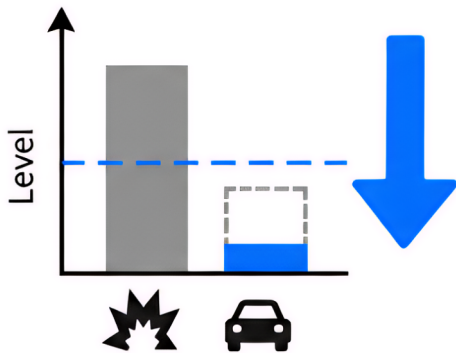
**1. When you want to adjust the shaker level less often.** A level that feels right with one movie may feel too weak with another. Gain Rider automatically compensates for these differences.

**2. To reduce the risk of bottoming out.** Turning up the shaker to make weak content more exciting can cause excessive movement when strong bass suddenly appears. Gain Rider boosts weaker content while backing off when the bass gets stronger.

**3. To compensate for other processing.** Negative Wet/Dry values can reduce the overall shaker level. Gain Rider can help recover the lost output.



# Gate (GTE)



A normal audio gate — often called a noise gate — removes noise below a selected level. Noise is rarely the problem with bass shakers. Instead, ShakEQ's Gate controls how strong a signal needs to be before it becomes part of the tactile experience.

Higher values remove more low-level activity while letting strong effects through. High settings may slightly reduce the overall shaker level. Compensate with Gain if needed.

When do you need it?

**1. Especially with smaller shakers.** Small shakers have a limited dynamic range, so weak and strong signals can start to feel too similar. Gate removes weaker signals and helps important effects stand out. Set Wet/Dry first, then use Gate for final cleanup.

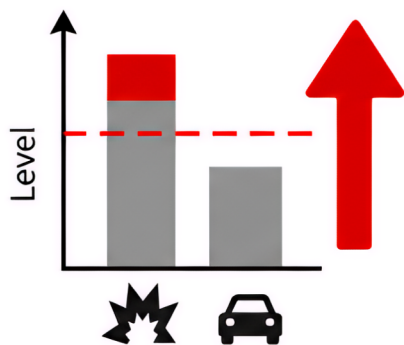
**2. When dialogue, music or background sounds cause unwanted vibration.** This can be especially noticeable in games when using a stereo signal as the source. Gate can keep these weaker sounds out of the tactile response.

**3. When you only want to feel the strongest events.** A low High Cut (low-pass filter) has traditionally been used to achieve this, but it also removes higher-frequency information from strong impacts. Gate removes events based on their level instead, preserving more tactile detail.

**4. When heavy ShakEQ processing makes quiet sounds too strong.** Gate can prevent unwanted sounds from getting boosted without you having to dial back your settings.

**5. When your shaker buzzes with quiet signals.** Some large shakers produce audible buzzing or mechanical noise at very low signal levels. Gate can prevent these signals from reaching your shaker.





# Adaptive Bass Lift (ABL)

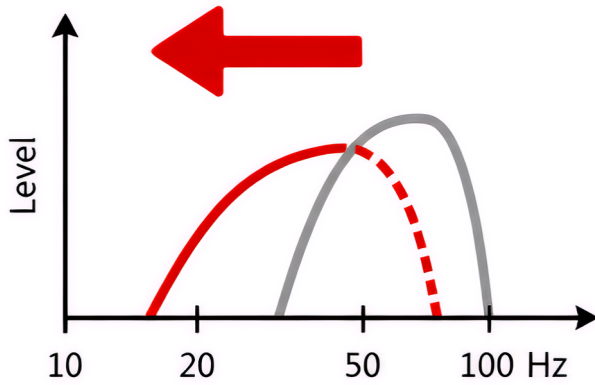
**Adaptive Bass Lift** boosts ultra-low frequencies during significant bass events. Unlike a fixed bass boost, ABL leaves low-level signals largely untouched. Higher values make ABL more sensitive, so it activates more often.

## When do you need it?

- 1. When impacts lack weight.**  
ABL adds extra ultra-low-frequency energy to important bass events, making them feel bigger and more powerful.
- 2. When impacts lack definition.**  
ABL increases the difference between normal bass activity and powerful effects, making impacts stand out more clearly. With small shakers, use a higher Low Cut when increasing ABL.
- 3. When you want an easy-to-use BEQ-like effect.** ABL automatically adds ultra-low-frequency emphasis based on the content. Similar to BEQ, it can restore or enhance deep bass in movies, but there is no need to find and load a separate filter for each title.



# Bass Extender (BX)



**Bass Extender** generates new low-frequency energy from audio cues higher in the frequency range. Higher values create more deep bass, extending tactile effects below the range of the original signal.

## When do you need it?

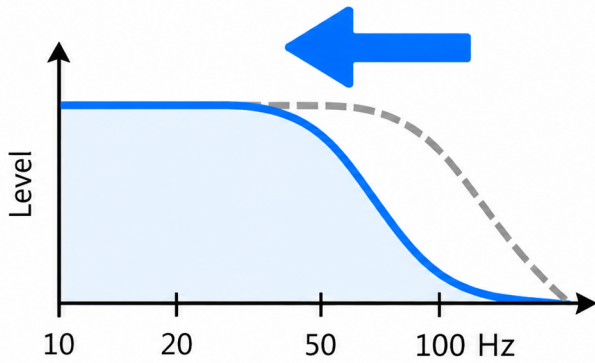
**1. When the soundtrack has little deep bass.** Some content has plenty of upper bass but little energy at the lowest frequencies. Bass Extender creates deep bass for the shaker to reproduce.

**2. When you want more consistent results from different content.** Bass Extender makes the shaker less dependent on the low-frequency content of the original mix. This gives you a more consistent tactile experience between movies and games. The trade-off is that stronger settings reduce some of the differences and nuances between the original mixes.

**3. When ABL still feels too shallow.** ABL makes bass events more dynamic, but the source may simply lack very low frequencies. Bass Extender creates this missing energy, adding more depth and physical weight.



# High Cut (HCUT)



24 dB/octave low-pass filter. High Cut reduces energy above the selected frequency. Lower values reduce audible sound but also remove tactile detail. DSPeaker recommends keeping the factory setting of 200 Hz unless audible sound is a problem. The display shows the cutoff frequency in Hz.

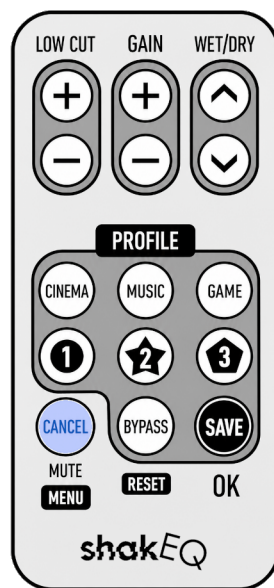
Unlike the other effects, High Cut is a global setting and applies to all profiles. For this reason, it is located in the Menu.

## When do you need a lower setting?

**1. When the shaker produces too much audible sound.** Lowering High Cut reduces the higher frequencies that make shaker movement audible.

**2. When the furniture buzzes or rattles at high frequencies.** High Cut can reduce the frequencies causing the problem, although fixing the mechanical source is always preferable when possible.

Press and hold to open **MENU**, then select **HCUT**



## When do you NOT need a lower setting?

**When you simply want to feel fewer, stronger effects.** A low High Cut can achieve this by leaving mainly the deepest bass, but it also removes higher-frequency information that gives impacts detail and definition.

Keep High Cut as high as possible and use Gate instead — possibly together with ABL — when you want the shaker to react mainly to significant events. This gives you a more selective tactile response without sacrificing upper-bass extension.