

KICK ENGINE

Magnificence Audio - kick drum synthesizer

Manual - version 1.0



Signed and notarized for macOS. Activate with your Magnificence Audio account: see 'Activating'. Questions or bugs: contact@magnificencemusic.com with your macOS version, DAW and a short description.

Installing

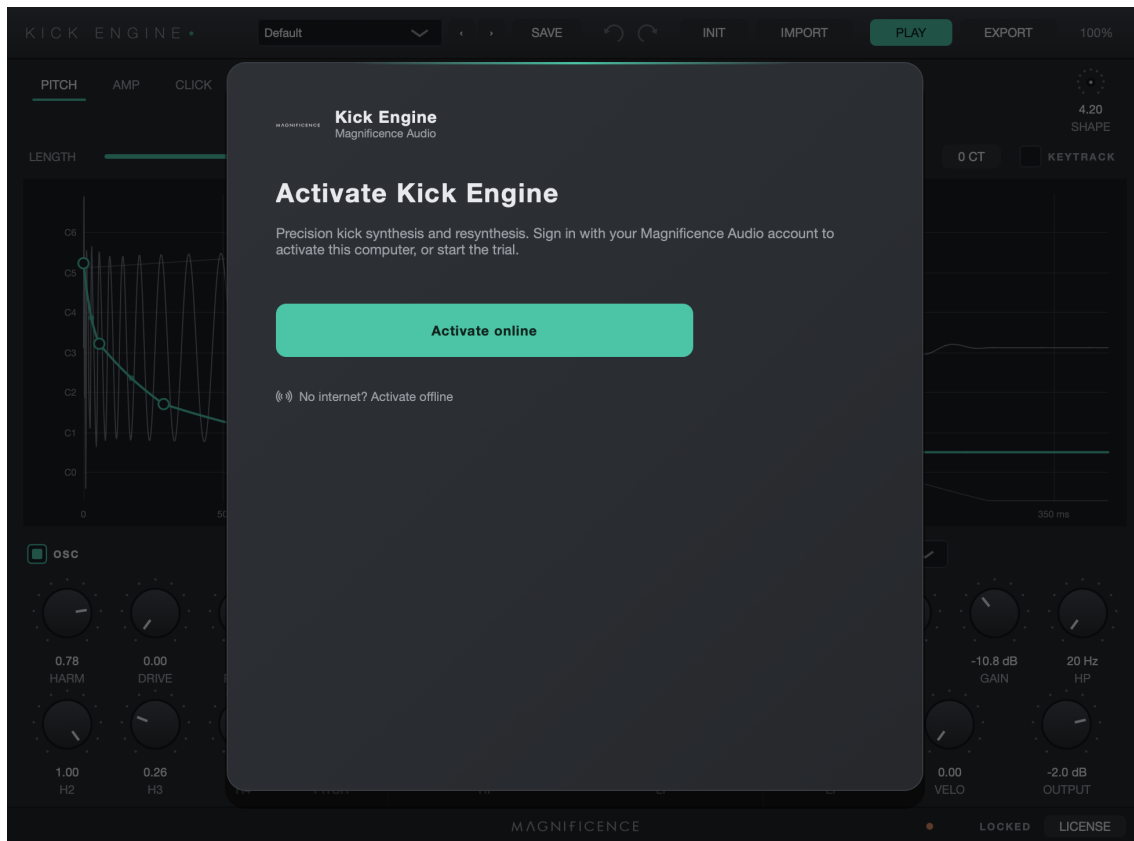
Kick Engine comes as an Audio Unit (AU) and a VST3 for macOS. The plug-in is a universal binary and runs natively on Apple Silicon and on Intel Macs (macOS 10.13 or later). The installer is signed with Apple Developer ID and notarized, so macOS accepts it without extra steps.

- Download 'Kick Engine 1.0.0.pkg' from your Magnificence Audio account and double-click it.
- Choose what to install: the Audio Unit, the VST3, and the factory presets (all three by default). The plug-ins go to /Library/Audio/Plug-Ins, the presets to /Library/Audio/Presets/Magnificence Audio/Kick Engine.
- If you used the beta, the installer removes the old copies from your user Library so there is only one Kick Engine.
- Restart your DAW. If Kick Engine does not appear, rescan your plug-ins in the DAW's plug-in manager (Logic Pro: Settings > Plug-in Manager > Reset & Rescan Selection).

Activating

Kick Engine is licensed through your Magnificence Audio account. The first time you open the plug-in it shows the activation screen; the plug-in is silent until it is activated or on trial.

- Activate online: click 'Activate online'. Your browser opens the Magnificence Audio account page; sign in (or create an account), confirm, and the plug-in unlocks by itself.
- Trial: new accounts can start a free trial from the same screen. The plug-in shows the days left; when the trial ends it locks until you buy a license.
- No internet on this computer: choose 'Activate offline', save the machine file, exchange it for a license file in your account on another device, and load that file.
- A license runs on up to 3 computers. Open LICENSE at the bottom right of the plug-in to see the details, check for updates, or deactivate this computer so you can use the seat elsewhere.
- The plug-in checks its license online now and then; it keeps working offline for 30 days.



The activation screen. It appears on first launch and whenever the plug-in is not licensed; **LICENSE** (bottom right) opens it at any time.

Where things live

License	~/Library/Application Support/Magnificence Audio/Kick Engine/license.mb
Presets	~/Library/Audio/Presets/Magnificence Audio/Kick Engine/ (subfolders become categories)
Clicks	~/Library/Audio/Presets/Magnificence Audio/Kick Engine/Clicks/ (your own click WAVs)
Settings	~/Library/Application Support/Magnificence Audio/Kick Engine.settings (interface size)

How Kick Engine works

A kick is a sine wave whose pitch and level change over time, plus a short click on top. Kick Engine makes both visible: every curve you see is exactly what you hear, and the grey waveform behind the curve is a real render of the current sound. There are three layers:

- OSC: a pure sine oscillator driven by the PITCH and AMP curves. HARM adds harmonics, DRIVE saturates the sine itself.
- CLICK: a short sample layered on top for the attack. Use the built-in click, one of the eleven factory clicks, your own files, or the 'top' of an imported kick.
- FX: a clipper that only works inside its own HP/LP band (the rest stays dry), and SHAPE, a high-frequency boost or cut at the end of the chain.

Every MIDI note restarts the kick from exactly the same point, so all hits are identical. To make that click-free the output runs 1.5 ms behind, which your DAW compensates automatically.



The main window: header, curve editor, and the OSC / CLICK / FX sections.

The curve editor

The tabs PITCH, AMP, CLICK, DIST and HARM switch which curve you edit. The curve in colour is the one you are editing; the dim grey curve is the related one (AMP under PITCH, CLICK under AMP). The vertical axis shows the sounding pitch in notes, including the PITCH offset, so what you read on a point is what sounds.

Add a point	double-click an empty spot. The point lands exactly on the line, so nothing changes until you move it.
Move a point	drag. Shift = vertical only, Alt = snap to semitones (pitch), Cmd = fine.
Bend a segment	drag the small handle between two points up or down. Segments are straight lines until you bend them, and a bend only affects that one segment.
Delete	double-click a point, or select points and press Delete / Backspace.
Select	drag on an empty spot for a rubber band, Shift+click to add, Cmd+A for all, Esc to clear.
Right-click	Phase lock (pitch only) or Delete.
Undo / redo	the arrows in the header, or Cmd+Z / Cmd+Shift+Z.
Zoom	scroll over the editor to zoom around the mouse (up to 250x), Shift+scroll or horizontal scroll to pan, pinch on a trackpad. A bar under the plot shows the visible part and can be dragged. Keys: left/right = pan, +/- = zoom, 0 or double-click the time axis = reset.

Pitch

The PITCH curve is the heart of the kick: a fast sweep down into the body note. The last point holds its value forever, so you do not need a point at the end. ROOT shows the note the curve settles on, with the deviation in cents. Press 0 CT to tune it to exactly 0 cents, or double-click the ROOT value and type a note (F1, G#0) or a frequency (45 Hz). The PITCH knob transposes the whole curve; KEYTRACK makes MIDI notes transpose it (C1 = as drawn).

Phase lock: right-click a pitch point and choose Phase lock. From then on the sine arrives at that point with the same phase, no matter what you change before it. The tail stays identical while you reshape the attack. Imported kicks get one lock per cycle automatically.

Length

LENGTH sets how long the kick plays. All curves keep their absolute time in milliseconds when you change it: shortening cuts the end, lengthening adds tail, and the attack does not move.



AMP tab: the level curve of the oscillator. The CLICK curve is shown dimmed behind it.

Importing a kick

Drop any kick sample (WAV, AIFF, FLAC) on the window, for example straight from Splice. Kick Engine analyses it:

- Everything below the split frequency (600 Hz by default) is the sub. Its pitch and level are measured cycle by cycle and become the PITCH and AMP curves, with a phase lock on every cycle so the oscillator follows the sample exactly.
- Everything that is left after subtracting that sub, the 'top', goes to the CLICK layer. OSC + CLICK together reproduce the original sample.
- Turn CLICK off to hear only the reconstructed sub; turn OSC off to hear only the top. Now you can tune, lengthen, reshape or re-click the kick while keeping its character.
- The FX section is reset to neutral on import so you always hear the clean reconstruction. The IMPORT button does exactly the same through a file chooser.
- The PITCH knob transposes the imported kick as a whole, up or down, while the oscillator keeps following the same waveform.
- The top is stored inside your DAW project and inside presets, so a project or preset still sounds the same on another computer or after the original sample is gone. The same goes for click files you load yourself.



An imported kick: one pitch point per cycle (squares are phase-locked), the top is loaded in the CLICK layer.

The sections

OSC

HARM	amount of harmonics added to the sine. The knob is the peak of the HARM curve: turning it scales the curve, editing the curve moves the knob.
H2 / H3 / H4	mix of the 2nd (octave), 3rd (fifth) and 4th harmonic.
DRIVE	saturation on the oscillator itself (tanh). Great for a harder body.
PHASE	start phase of the sine. Set automatically by import.
GAIN	oscillator level.
PITCH	transpose in semitones (also used by 0 CT).

CLICK

List	Built-in click, FACTORY (Click 1-11), USER (your Clicks folder, subfolders become categories), Load file..., Show clicks folder... The arrows step through them.
GAIN / PITCH	level and playback pitch of the click. START and LENGTH trim the sample.
HP / LP	filters on the click only. Wide open = no filtering.
CLICK curve	level of the click over time (CLICK tab).



CLICK tab with the click list.

FX

Type	Soft, Hard, Tube or Fold clipping, 2x oversampled.
AMOUNT	how hard the clipper is driven.
MIX	how much of the clipped signal you hear. MIX is the peak of the DIST curve, so you can

GAIN	clip only the attack or only the tail.
HP / LP	level of the clipped signal after the clipper. the band that gets clipped. Outside the band the signal stays completely dry, so you can clip the attack without touching the sub.
SHAPE	top-right: up is a bell boost at 5 kHz, down is a shelf cut at 10 kHz. Last stage of the chain.
VELO	how much MIDI velocity affects the level. OUTPUT is the master level (default -2 dB).



DIST tab: the clipper mix over time.

Making a kick: a quick workflow

- 1. Start from Default or a preset, or drop a kick you like onto the window.
- 2. PITCH: set the body note with 0 CT (or type the note), then shape the sweep: the first two or three points decide the punch.
- 3. AMP: a slow decay for a long 808-style kick, a fast one for a tight club kick. Pull the handle to bend the decay.
- 4. CLICK: pick a factory click, set its GAIN and PITCH, and shorten its curve if it rings too long.
- 5. HARM and DRIVE for body, the FX clipper (with HP set above the sub) for attack grit, SHAPE for air.
- 6. Play it with MIDI. Every hit is identical, so what you hear in the loop is what you get.
- 7. SAVE as a preset (type 'Folder/Name' to make a category) or EXPORT: click to save a WAV, drag the button straight into your DAW.

Presets and size

The preset list is in the header, with arrows to step through. A preset called 'Default' loads automatically in every new instance. 'Show presets folder...' opens the folder in Finder. The percentage in the top-right corner sets the interface size (50-150 %) and is remembered.

Known limitations

- One click layer (not three). Mono output.
- Import works best on kicks with a clean sub; very distorted or atonal samples (stomps) may be refused or give a short or odd pitch curve.



HARM tab: harmonics over time.