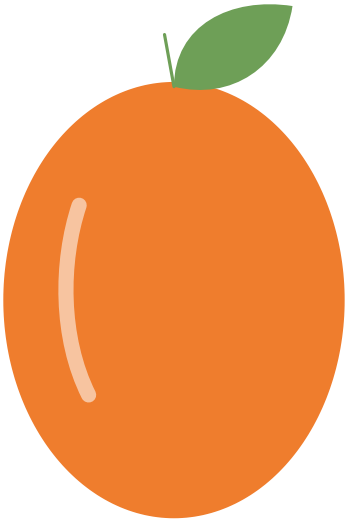


KA Root

Instruction manual

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kumquataudio.com

NO. 21 · INSTRUMENT

KA Root

A drum machine that grows grooves from the hits you plant, or from a recording.

KA Root is a drum machine. Plant a few hits on the grid and roots grow from them: answers a few steps away that change from bar to bar, so the beat has a life of its own. Or drop in a recording and Root finds the hits in it and builds a kit from them. It has the classic step grid too, with the steps between the beats, and a stutter or glitch for any step.

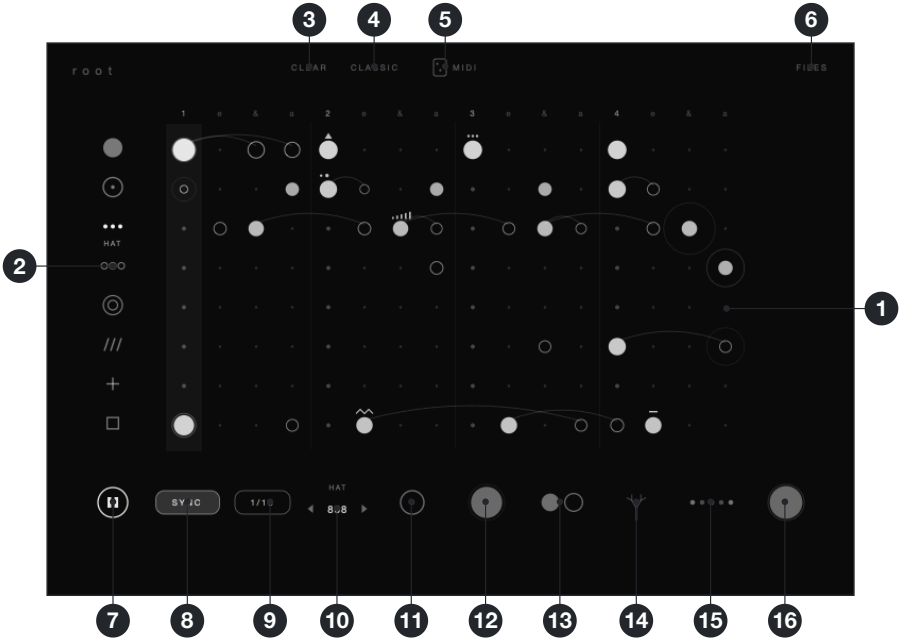


FIG. 1 The parts of KA Root. The numbers are explained on the next page.

Parts

fig. 1

1. **The grid**
   Eight drums, sixteen steps: the beats 1, 2, 3, 4 and the steps between them (e, &, a). Click a step to plant a hit, drag along a row to paint hits, click a hit to take it away, drag a hit up or down for how hard it is. Right-click a step for stutters and glitches. Hollow circles are the roots growing from your hits.
2. **The drums**
   Kick, snare, hat, open hat, tom, clap, rim and perc. Click one to choose it for the controls below. On hover each shows M (mute), S (solo) and an x that clears just that drum's row.
3. **Clear**
   Takes every planted hit off the grid.
4. **Classic**
   Plants a plain, classic beat on the grid to start from (it replaces what is there).
5. **MIDI**
   Drag the beat out as a MIDI file onto a track in your music software: four bars, with the roots as they grow. Root stops playing the pattern itself when you pick it up, so it is not heard twice. A click saves the file on your Desktop.
6. **Files**
   Opens a file browser beside the window. Drop a recording on the window and Root finds the hits in it and builds a kit; drop a single sound on a drum's row to give that drum its own sound.
7. **Play**
   Runs and stops the machine when your song is stopped. While your song plays it turns the pattern off and on.
8. **Sync / Free**
   Click to switch between your song's tempo (Sync) and Root's own (Free). In Free, drag up and down on it to set the tempo.
9. **Rate**
   How fast the steps go: 1/8, 1/16, 1/32, and the triplets 1/8T and 1/16T. Click to step through them.
10. **The sound**
    The sound of the chosen drum: six built-in sounds, and a seventh, your own, from a recording or a file you dropped. Click the arrows to step through them.
11. **Tune and decay**
    Of the chosen drum: drag sideways to tune it up or down, up to make it ring longer.
12. **Tone and level**
    Of the chosen drum: drag sideways from dark to bright, up for louder.
13. **Pan**
    Where the chosen drum sits, left to right.
14. **Roots**
    How much grows from the hits you plant: answers a few steps away that change from bar to bar. Nothing means only what you planted plays.
15. **Swing**
    Drag up to make the off-beat steps late.
16. **Level**
    The level of the whole machine.

Operation

step by step

1. Put the plug-in on an instrument track. Press Play to run it, or play your song with Sync on and it follows your tempo.
2. Click Classic for a plain beat to start from, or click steps on the grid to plant your own hits. Drag along a row to paint hits.

3. Drag the Roots drawing up until the beat starts to answer itself. Down to nothing

Controls and settings

range · start

Control	Range	Starts at	What it does
Roots	0 to 100 %	35 %	How much grows from the hits you plant.
Swing	0 to 100 %	0 %	How late the off-beat steps are.
Level	–24 to +6 dB	0 dB	The level of the whole machine.
Sync / Free	Sync, Free	Sync	Your song's tempo, or Root's own (Free).
Tempo	40 to 220 bpm	100 bpm	Only in Free: drag up and down on the Free pill.
Rate	1/8, 1/16, 1/32, 1/8T, 1/16T	1/16	How fast the steps go.
Sound	six built-in, and yours	the first	The sound of the chosen drum.
Tune	–12 to +12 semitones	0	Of the chosen drum.
Decay	short to long	halfway	How long the chosen drum rings. Only ever

How it works

a closer look

Root plays a grid of eight drums and sixteen steps. What you plant on it plays exactly. Roots are added to it: after a planted hit, answers come a few steps away, different for each drum and different every bar, with a fill on the fourth bar, and a little laid back. They are worked out from the pattern and the bar number, so the same pattern grows the same way every time.

A recording you drop in is cut at the places where a new sound starts. Each piece is measured (how bright, how low, how long) and given to the drum it fits best, so the kit comes from the recording. Sounds you bring are played at their own level and tone until you change them.

Each step can carry an effect, which makes several small hits inside the step, and the hits are put in a list ahead of time so the timing is as exact as the steps.

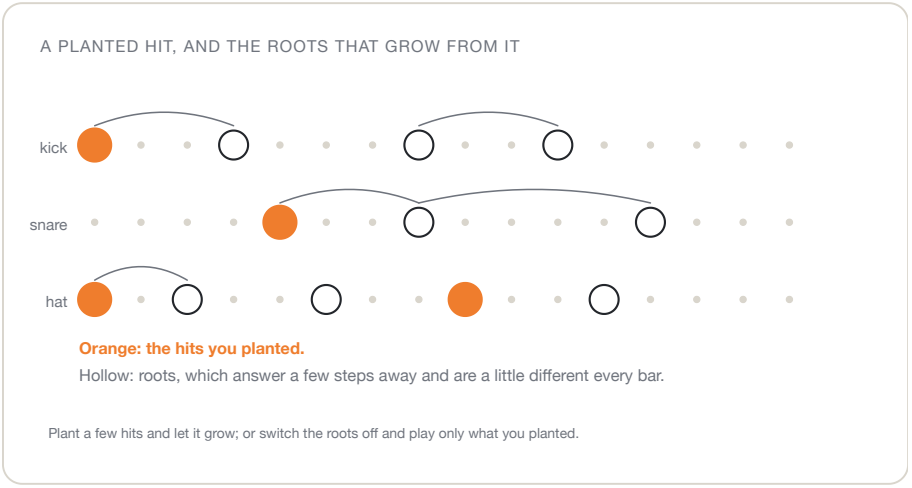


FIG. 2 Roots grow from the hits you plant, a few steps away.

CARE

Care and troubleshooting

If this happens	Do this
A plug-in does not appear in the list	Restart the music software. In Logic Pro, open the Plug-in Manager, select the Kumquat plug-ins and choose Reset & Rescan Selection.
An old name is still showing	Quit Logic with Cmd+Q and open it again. If it persists, remove the old copies from /Library/Audio/Plug-Ins/Components.
My key was not accepted	Copy all of it, from KA1 to the end, with no spaces added or lost. A key for one plug-in does not unlock the others.
The pop-up help does not show	Press the “?” at the top of the window to turn it on. It is one choice for all the plug-ins.
Which part of the picture does a knob change?	Point at the knob, or hold it down while you turn it: the part of the picture it controls lights up, with the knob’s name and value.
KA Drum Gate, Silence Trim, Auto Mixer or Time Align shows a message instead of a picture	Open Logic Pro using Rosetta, put the plug-in first in the Audio FX list, select a region and press play.
The sound is late	KA De-Click, De-Verb, De-Noise, Contour, Mic Blend, Saturator (it oversamples), EQ (with the suppressor), Multiband (in Linear phase) and Limiter delay the sound a little and tell the music software, which lines everything up. Do not compensate by hand. For playing through a plug-in, the Saturator, EQ and Multiband have a Live switch that takes the delay away; the compressors, De-Esser, Delay, Reverb and Rider have no delay at all.
A window is too small or too big	Drag the corner at the bottom right. The size is remembered, and it is the same for all the plug-ins: make one bigger and the others open that big.
The Limiter pumps	Leave Release on Auto, or set 60 to 100 ms. A release of a millisecond or two is the dirtiest setting.

If something is not right, write to **audiokumquat@gmail.com** and say which plug-in, which music software, and what you were doing.

FOR YOUR OWN NOTES

Notes