

beatMaker



Boom Bap | Hip Hop | Rap



Beatmaker DOPE

User Manual

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Welcome to Beatmaker DOPE

Welcome as a part of the UJAM community of music creators! We hope you will enjoy this powerful addition to your musical palette and that it will boost your musical creativity.

About the Beatmaker series

The Beatmaker series was built by the same team that created Virtual Guitarist (IRON, SPARKLE, AMBER, and SILK) and Virtual Drummer (HEAVY, PHAT, and SOLID). The Beatmaker series expands our palette into electronic music production.

Beatmaker DOPE brings you raw and authentic hip hop sounds combined with genre specific patterns and a professional mixing engineer. You sit in the producer's chair, with dynamic control over what this Beatmaker actually plays. Breaking the limitation of loops, a Beatmaker offers you the musical flexibility of a drummer.

Beatmaker DOPE features a selection of professionally edited drum sounds, audio processors and groove styles, integrated with a professional-quality mixer console, all waiting to be fired off and arranged using your MIDI controller in real-time. With Beatmaker DOPE, you'll be producing professional drum tracks in no time.

Beatmaker DOPE has been developed for everyone who finds drum loops too limiting and programming MIDI drum arrangements too tedious or challenging. It is also your personal style guide – whatever you produce with

Beatmaker DOPE – whether you feel at home in Hip Hop or not – will always hold up to utmost scrutiny. At the same time, with Beatmaker DOPE, laying down a drum track is now super easy: Select a Preset (it includes drum sounds and a full set of groove patterns) and control the drum performance in real-time by selecting song parts from your MIDI keyboard or mouse, and use the wheels for dynamic control. Beatmaker DOPE will play along in perfect sync with your performance.

Every sound in every kit has been professionally tweaked and mixed with the most powerful options available for you to get exactly the sound you want.

You and us

Beatmaker DOPE was built by musicians for musicians. The folks at UJAM are a pretty diverse bunch - from DJ to drummer to weekend producer to Oscar-awarded Hollywood composer. We build every product for ourselves, and, like you, we're all users of Virtual Drummers and Virtual Guitarists too.

This means, that before we even start development, a lot of thought and discussing has to be done. What will you, the user, expect from the product? What problems does it solve? Which controls can be removed to make the product more inviting and simple, and which hurdles can we move out of the way?



Beatmaker DOPE is optimized for one clear, powerful purpose: To let you produce great-sounding drum tracks without distraction from the complex endeavor that producing a song is.

We hope that Beatmaker DOPE transpires that philosophy in everything you do with it.

Naturally, we're always open to new ideas and criticism, and you are encouraged and welcome to talk to us:

- Send us an email: support@ujam.com
- Visit our Facebook page: fb.com/ujaminstruments

How is Beatmaker DOPE supposed to be used?

Think of Beatmaker DOPE as a toolkit filled with a limitless arsenal of tools.. For each groove there is a wide array of variations that help turn your song into a dynamic piece of music.

You can use one of the less complex variations (phrases) at the start of a song. After eight or sixteen bars you may want to add a fill to a more busy phrase. As the song grows, you emphasize the dynamics by changing phrases and/or tweaking other controls (Sweep, Ambience, Mix, pitch bend wheel etc.).

For easier understanding, we have borrowed a lot of terminology from the world of acoustic drumming. Drums played by a skilled musician is an ever evolving performance that helps the rest of the band to build a song and make it sound interesting – and it's no different in Hip Hop.



Make also sure to check out the other Beatmakers in this series: Beatmaker EDEN (in the style of EDM) and Beatmaker HUSTLE (Trap). You can download them for free from the Propellerhead store and try them for 30 days.

What is Beatmaker DOPE?

Beatmaker DOPE is a software instrument doubling as your personal, real-time drum track creator in the studio, with you taking the producer's chair.



Beatmaker vs. loop import

Loops are widely used in music production, but unfortunately they are pretty static. There isn't very much you can do to a loop, once it has been imported and tempo corrected.

With Beatmaker, we're taking several steps closer to what working with a live drummer is like. While the sounds and patterns are true to the hip hop style, Beatmaker DOPE lets you dynamically control the grooves, pretty much

like a drummer would arrange their drumming to suit the dynamics of a song.

This saves you a lot of hassle. With Beatmaker DOPE, there is no need to scan your hard drive or the internet for suitable loops, or even worse, several similar loops that could be used in the same song.

Beatmaker DOPE also opens a world of possibilities. Similar to working with a drum machine, it is easy to change the sound of the drum sounds and/or change the ambience, filter, decay, and pitch settings with easy-to-use controls.

And for those who struggle with composing their own drum tracks using MIDI and samples, Beatmaker DOPE provides a healthy amount of pattern-filled styles, serving as inspiration and adding a professional touch to any song.

What is “DOPE” about?

Style-wise, Beatmaker DOPE is all about classic and raw boom bap hip hop sounds and grooves. Think of Beatmaker DOPE as your friend who works at the local record store and has been digging through classic records for the past twenty years to create the most authentic drums you could ask for, and on top of that, your friend is also great at mixing.

The drum kits are professionally layered, compiled, and mixed, but still offer enough room for your own creativity to give you your own signature sound.

Why so few controls?

We are all musicians, and we know that the time for learning a user interface could be better spent making music. Also, unlike many virtual drum instruments, we do not expect our users to have an in-depth knowledge about drum kits, tweaks, effects, and sound engineering. Let's admit it: We can't possibly know everything.

Therefore, the concept and user interface of Beatmaker DOPE are designed for maximum ease of use and minimum distraction. There is a lot of intelligence going on under the hood, so you can focus what matters.

Like every UJAM Instruments user interface, Beatmaker DOPE's is also fail-proof; no matter how you set up the controls in Beatmaker DOPE, the result will never be musically or technically wrong - and this is true without sacrificing any creative freedom.

You can trust us when we say that tracks produced with Beatmaker DOPE are realistic, credible, professionally produced drum tracks.

Controller hardware for Beatmaker DOPE

Beatmaker DOPE requires MIDI note input for playing and recording musical performances, and optionally pitch bend, modulation and sustain pedal data for added real-time variation.

If you have a MIDI controller (keyboard), this will be the easiest and most straightforward MIDI input method, and it's most fun as this way you control your hip hop drummer in real-time.

Of course, you can also control Beatmaker DOPE by using MIDI step sequencers or by entering MIDI notes manually into MIDI tracks.

For getting to know Beatmaker DOPE, for testing purposes, and for trying out various arrangements, you can also use the interactive keyboard in the middle of the Beatmaker DOPE window. This works best with the Latch function enabled.

Start playing!

Before we look at things in more depth, let us first explore how to play Beatmaker DOPE, as that may be all you need for now.

The keyboard section of the Beatmaker DOPE window is dedicated to firing off drum hits and controlling the drum grooves. Keys in the left half trigger individual drum sounds, whereas keys from C3* and up let you select the various patterns that make up the arrangement of a song.

The basic principle is simple:

- When you press keys in the C3-B4 range, Beatmaker DOPE will start playing a phrase with the groove. The rhythm patterns are conveniently named like song parts. When you release the key (and Latch is off), playback will stop.
- With Latch on, you can stop playback by hitting B4 or some of the Endings (C#4 and D#4).

- MIDI notes C1-D#2 represent individual drum hits.
- When you use the pitch bend wheel, you can gradually control the balance between the kick drum and snare. By turning up the modulation wheel, you can create crescendos and decrescendos. Very dynamic!

If you know these things and can switch presets, you know all you need to start producing with Beatmaker DOPE.

*MIDI note number 60 is called C3 in some DAW's and by some synth manufacturers. Other DAW's and synth manufacturers refer to it as C4.

Walkthrough

If you're pressed for time, or if you already know the basic concepts behind Beatmaker, then this walkthrough will get you started. You can always come back later to look up more detailed explanations as you need them.

We will take a quick tour across all controls of Beatmaker DOPE. After this, you will have a good basic understanding of our drum tool.

We assume that you have Beatmaker DOPE installed on your computer.

Ideally, you have a MIDI controller connected, and if not, you can click the on-screen Interactive keyboard.

Make a sound and learn about the control keys

- Start your DAW and instantiate Beatmaker DOPE. A default style will load, and that's a good starting point. Activate the Latch button. Now

you hit key C3 on your MIDI keyboard (or on the interactive keyboard) and Beatmaker DOPE will start playing a Verse pattern.

The Interactive Keyboard also doubles as a display for the MIDI notes Beatmaker DOPE is receiving. The keyboard is divided and properly labeled with the functions of the corresponding note ranges.

- Move up the white keys to go from Verse to Chorus and other song parts.
- Now try the black keys and notice how they behave differently. Intros play only once and then fall back to the previous Verse or Chorus, and so do Fills, while Breakdowns play while you hold them, and Endings finish off the song.
- Please note, that the Intros can be half a bar, one bar or two bars long.
- To gradually tweak the performance, turn the mod wheel up and notice how the overall sound gets less energetic.
- Move the pitch wheel up to gradually mute the kick drum, or down to mute the snare. This is great for intermezzos and lead-ins.

Try the presets

At the top of the Beatmaker DOPE window you can load presets. A preset is always a complete Beatmaker DOPE setup, i.e. it will change the grooves as well as the kits and effects. At this point, just go through different presets and try different Style phrases to get an impression of the musical and sonic palette of Beatmaker DOPE.

Tell your player what to play

- Activate the Latch button at the lower center. Now Beatmaker DOPE will keep playing even if you don't hold a note. Let it keep playing.
- While the groove plays, go through the various Kits in the top left corner. Notice how they are descriptively named. Try hitting a drum (like e.g. SN1) and tweak the Volume, Pitch, and Decay.
- Activate the various Mix modes in the upper right corner. Notice how, again, the overall sound changes drastically. Turn the Amount control about 75% up.
- Finally, try the Vinyl Drive, it simulates retro turntable noise & compression to add that retro dirt and punch we all love so much.

Background

Beatmaker DOPE delivers all sorts of useful hip hop grooves in a very convenient way, but also adds the element of "a drummer's heart". Unlike static loops, Beatmaker DOPE plays those grooves and lets you add movement and dynamics into your song. That is, you have not loaded one groove but a whole bunch of them, all made to fit within the same song.

Just like a live drummer, you can easily add intros, fills, breaks and increasing degrees of drumming intensity as your song builds. It's all up to you, if you want your drum track to have a more static or a more live feel.

Here's the scenario. When you have an idea in your head and want to lay it down, the last thing you want is to struggle with sample libraries, loops, effects and MIDI editing, trying to create a convincing and powerful

performance. What you need is a professional player, with all the right grooves, samples, and tweaks that performs your idea the way you want it.

Because all elements that make up the Beatmaker DOPE patterns are still accessible from the front panel, you can actually tweak or remove individual drum sounds from the grooves. Try to do that to a static loop ...

Did we mention the time aspect? Building a drum track from the ground up takes a while. Choosing a style in Beatmaker DOPE and playing the various grooves takes seconds! We think you want to use your precious time on other details than getting started on the rhythm track.

User interface overview

The Beatmaker DOPE interface contains the following sections:

- Preset selection browses and loads presets



- Kit selects kits



- Mix presents a number of tweaks to the Kit in use.



- Style lets you chose a style that is suitable for your song.



Loading and saving presets

Loading and saving presets is done by adjusting any styles, kits etc. As soon as you're happy with how the drummer sounds, click "Save as...".

Controls

Kit section

In this section you can select a kit. There are five of these, each with its own set of samples.

We chose descriptive kit names to make it easy for you. The following table provides you with additional detail and should help you choosing the right kit for any situation:

Styles and parts

Although you can play individual drum kits, the real strength of Beatmaker DOPE lies in its ability to play drum performances. All you need to do, is tell your drummer which parts to play and when, and it will create a complete song in a specific style.

Accordingly, in Beatmaker DOPE, drum performances are organized into Styles and Parts. There are 25 styles each covering a particular groove. Styles are broken down into song Parts: You've got intros, verses, choruses, breakdowns, fills, endings, and bonus parts called "Special".

Styles

In this menu, you can select one of the 25 styles. Each Style features 24 individual Parts.

Parts

This readout displays the song Part currently selected by incoming MIDI note information.

Song parts and how to play them

- A Style always contains 24 song Parts, functionally laid out across the MIDI keyboard from C3 and upwards.
- All Parts always play in sync with the main sequencer. This means you can jump between song Parts freely without retriggering the song Part. This is great for creating lively, non-repetitive drum performances.
- Of each group in the Part - Intro, Verse, Chorus and so on - there are variations, increasing in intensity as you move up the keyboard.
- Some of those song Parts loop, some play only once after you hit the key, while others only play while you hold a key.
- Also, usually song Parts assigned to white keys are the looping Parts - Verses, Choruses and Special. In Latch mode, they keep repeating until you hit a different key.
- Parts that start, end, or break up the song - such as Intros, Fills, Breakdowns, and Endings - are assigned to black keys.
- Breakdowns only play as long as you hold the key.

Latch



With Latch on, Beatmaker DOPE will keep playing after keys are released, until either Latch is switched off or the Stop key (B4) is pressed.

A sustain pedal can be used as a temporary Latch but does not affect the appearance of Latch switch. Lifting the sustain pedal stops playback when no keys are held.

- We recommend that you generally keep Latch on and stop playback using the Stop key (B4). It is easier to use Beatmaker DOPE that way, as you don't have to worry about note lengths, particularly when using fills, intros or ending - you just fire off trigger notes.

Speed

This three-way switch allows you to set drumming to half time, normal, or double time in relation to the song tempo. You may regard that as a bonus feature to add even further variation to a song.

This function can also be a life-saver. Let's assume that your friend has sent you a song that would benefit from some Beatmaker DOPE drumming. Your friend recorded it as a 70 BPM song, while you and Beatmaker DOPE see it as a 140 BPM song. Being able to adjust to pre-recorded tracks may save your day, when co-working on a project.

Quantize

This knob gradually applies a shuffle feel to the drum performance by delaying the offbeats (the &-signs in this pattern: 1 & 2 & 3 & 4 &).

Depending on the selected style, 8th or 16th note offbeats will be affected.

At maximum position, the offbeat will have the same timing as the last note of a triplet.

Not all phrases contain 8th or 16th note offbeats. In these cases, the Quantize control has no effect.

Drum sound editing

You can easily tweak the individual sounds that make up a complete Kit and/or Style. When you click on any of the Drum keys (C1-D#2), the name of that drum appears in the Drum Edit area directly below.

Volume is a knob that changes the volume of the individual drum sound.

Decay controls how fast a drum sound decays. In the 12 o'clock position, the drum has its original envelope. At the minimum position, every sound becomes very short; even the cymbals start sounding like staccato instruments!

Pitch lets you tune the drums with half an octave in each direction.

Mute removes the sound of a drum from the mix until you press the Mute button again. You can regard this function as a bonus feature that dynamically changes the musical content of the drum track.

Solo lets you listen to a drum sound in isolation. It's just like sitting in front of studio mixer, where every track has its own channel. This is perfect for checking the sound of any instrument in a Style.

Mix presets

The combination of five Kits, six Mix presets, an Ambience control, the Vinyl Drive and the Sweep knob gives you extremely versatile control over the drum sound without requiring any sound engineering skills,

The six Mix presets you can select here tweak hundreds of parameters in Beatmakers DOPE's built-in mixing console. Again, the preset names should be quite telling.

Mix	Description
Punch	Punch adds compression and more attack to your instruments. The frequency response is getting defined. Medium sized room with many trebles. Instrument seems to be near you.
LoFi	LoFi bitcrushes and distorts your Mix. Sounds like old digital equipment. Big, dark room - imagine an empty factory hall. Recipient pickup in medium distance.
Cream	Short pre-delay that smoothes the sound. Attack is

	straightened. Modulation effects added (Flanger, Chorus). Short, small hall, dry reverb.
Real	Sets snare spectrally in foreground. Kick has a lot more assertiveness. More fat at low frequencies. Medium sized, flashy room.
Slammin'	Middle frequency band, enforcing Mix. Distortion and compression added, transients are worked out. Small, short room, quite dry.
Bomb	Ultra short delay and grain pitch added. Room belongs to the effect. Decent to aggressive detuning and additional tonal components added to the sound. You wouldn't expect this from a Mix preset.

Amount

The key control here is the Amount knob. It lets you set your preferred balance between a neutral setting of the Mixing Console and the preset's most extreme setting. This is not a simple Dry/wet control, but actually a macro control, turning the mixing console's parameter individually under the hood.

Sweep

A good filter is always useful. The Sweep control is a dual filter. With the knob straight up, the filter is bypassed. Turning the knob towards the

minimum position applies the low pass filter (LPF) - it cuts the highs. Turning it towards maximum engages the high pass filter (HPF) - now the lows are reduced. The Sweep knob makes the sound woolly or paper thin.

Ambience

The Ambience knob lets you adjust the amount of space. Ambience can make the entire groove change its character from bone-dry to the Hamilton Mausoleum.

These two, the Sweep and the Ambience controls, can be automated in your DAW to create drastic sonic changes to the dynamics of your song.

Volume

This knob adjusts the output volume of Beatmaker DOPE for maintaining an optimal input level into the mixer or subsequent audio processors.

MIDI keyboard layout

The MIDI keyboard layout for Beatmaker DOPE

A MIDI keyboard gives you extensive real-time control of the individual kit instruments and the drummer's performance. Both are available at the same time.

Individual drum hits are assigned to the C1-D#2 range. The Style control section lies between C3 and B4, with B4 acting as a Stop key.

Keyboard layout: Style

The following table shows you the MIDI notes that control the drummer's performance - starting and stopping as well as selecting song parts.

C3	60	Verse 1
C#3	61	Intro 1
D3	62	Verse 2
D#3	63	Intro 2
E3	64	Verse 3
F3	65	Verse 4
F#3	66	Fill 1
G3	67	Verse 5
G#3	68	Fill 2
A3	69	Chorus 1
A#3	70	Fill 3
B3	71	Chorus 2
C4	72	Chorus 3
C#4	73	End 1
D4	74	Chorus 4
D#4	75	End 2
E4	76	Chorus 5
F4	77	Special 1
F#4	78	Breakdown 1
G4	79	Special 2
G#4	80	Breakdown 2
A4	81	Special 3
A#4	82	Breakdown 3
B4	83	Off

Keyboard layout: Drum

The Drum section of the MIDI keyboard lets you play the entire drum kit, add individual hits, or use Beatmaker DOPE to playback MIDI files with drum grooves.

The drum keyboard mapping does not follow the GM standard, so some adjustments are necessary if you want to use Beatmaker DOPE as a drum module. Instead, Beatmaker DOPE uses its own optimized mapping, since the actual drumming and sounds differ quite a lot from acoustic drumming.

Key	Midi note	Instrument
C1	36	BD 1
C#1	37	BD 2
D1	38	Snare 1
D#1	39	Percussion
E1	40	Snare 2
F1	41	Tom 1
F#1	42	HH 1
G1	43	Tom 2
G#1	44	HH 2
A1	45	Tom 3
A#1	46	HH 3
B1	47	fx 1
C2	48	fx 2
C#2	49	Cymbals 1
D2	50	Vocal
D#2	51	Cymbals 2

MIDI controllers

Beatmaker DOPE allows you to use the Pitch Bend and Modulation controllers to control your drumming style in real-time. Combined with Part switching, this can go as far as playing your own drum solos!

Pitch bend wheel

The Pitch Bend controller functions like a continuous three-way switch. It tells the drummer to leave either the kick or the snare drum alone. This is particularly useful for creating additional dynamic variation.

- Turn the pitch bend controller up to gradually remove the bass drum from the currently playing groove - e.g. for leading into solos or before a fill.
- Turn the pitch bend controller down to remove the Snare, e.g. for intermezzos.

Modulation wheel

The modulation controller (usually a wheel) is an extremely powerful dynamic control:

- Turn the Mod Wheel up to make the drummer gradually lower the playing intensity.
- Note that this is not a volume fade-out. Every individual drum plays less intense!

Of course you can also create your own intros and outros by combining this technique with any song part.

Sustain pedal

The sustain pedal functions as a temporary Latch switch. For more details, please see “Latch”.

CV Inputs

The global Note and Gate CV inputs give you the same control over Beatmaker DOPE as a MIDI keyboard does, except you can use external rack devices for sending Gate and Note CV signals.

This is what you can do:

- Sequence song parts using a step or matrix sequencer.

The velocity of the input CV will have no effect on drum parts.

- Add individual drum hits from a drum sequencer or the CV outputs of a drum machine such as umpf Club Drums. The individual drum sounds react velocity-sensitive, so that accents or various velocity levels are properly played back.
- You can sequence drum parts and at the same time add individual hits using the same device, if the device is capable of sending polyphonic notes, and allows you to map notes according to Beatmaker DOPE’s keyboard mapping, see “MIDI keyboard layout”.

CV Gate Inputs

These inputs are trigger inputs for individual drum instruments. They are velocity sensitive. Use these to play Beatmaker DOPE’s drum instruments

from an external drum sequencer or drum machine with individual Gate outputs.

CV Gate Outputs

Reversely to the CV Gate inputs, you can use the CV Gate outputs to send CV Gate signals to external rack devices to trigger external drum sounds from Beatmaker DOPE, double the Kick Drum with a bass, control effects - thanks to the rack, the possibilities are limitless. Unlike the CV Gate inputs, the outputs are not exclusive, i.e. connecting an instrument's CV Gate output will not mute the instrument. This makes sense for many reasons: It allows you to double Beatmaker DOPE with external sound sources, either to create new sounds, to beef up existing ones, or to use an instrument's gate signal as a control signal without affecting Beatmaker DOPE's output. If you do want to mute an instrument (e.g. replace the kick drum by a sound from Redrum), you can still turn down the corresponding Level control on the front panel of Beatmaker DOPE.

Audio Outputs

There are individual audio outputs for the drum instruments and busses inside Beatmaker DOPE, as well as Main audio outputs for the complete mix.

- There are mono outputs for individual instruments at the top and stereo outputs for busses at the bottom. Use these outputs to route individual channels into external audio devices for separate processing, bypassing the

built-in Mixing Console of Beatmaker DOPE.

- When you connect an individual audio output, that particular channel is taken off the sum output of Beatmaker DOPE, before it goes into the Mix section. This can affect the dynamics of the stereo sum (e.g. by taking the Kick off the Slam compressor).
- When you have connected all individual audio outputs, the stereo sum of Beatmaker DOPE will still carry the Reverb signal so you can use this as a separate Reverb bus.
- To the right are the Main audio stereo outputs.

When you create a new Beatmaker DOPE device, these outputs are auto-routed to the first available Mix Channel in the Reason/Reason Essentials main mixer.

I have more questions! Where can I send them?

Please send your questions to support@ujam.com!