

USER MANUAL

_MINIBRUTE V

ARTURIA

_The sound explorers

Special Thanks

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Thank you for purchasing MiniBrute V!

This manual covers the features and operation of Arturia's **MiniBrute V**, an emulation of our original MiniBrute analog hardware synthesizer first released in 2012.

Be sure to register your software as soon as possible! When you purchased MiniBrute V, you were sent a serial number and an unlock code by e-mail. These are required during the online registration process.

Special Messages

Specifications Subject to Change:

The information contained in this manual is believed to be correct at the time of printing. However, Arturia reserves the right to change or modify any of the specifications without notice or obligation to update the hardware or software that has been purchased.

IMPORTANT:

The software, when used in combination with an amplifier, headphones or speakers, may be able to produce sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high level or at a level that is uncomfortable.

If you encounter any hearing loss or ringing in the ears, you should consult an audiologist.

EPILEPSY WARNING – please read before using MiniBrute V

Some people are susceptible to epileptic seizures or loss of consciousness when exposed to certain flashing lights or light patterns in everyday life. This may happen even if the person has no medical history of epilepsy or has never had any epileptic seizures. If you or anyone in your family has ever had symptoms related to epilepsy (seizures or loss of consciousness) when exposed to flashing lights, consult your doctor prior to using this software.

Discontinue use and consult your doctor *immediately* if you experience any of the following symptoms while using this software: dizziness, blurred vision, eye or muscle twitches, loss of consciousness, disorientation, or any involuntary movement or convulsion.

Precautions to take during use

- Do not stand too close to the screen
- Sit a good distance away from the screen
- Avoid using if you are tired or have not had much sleep
- Make sure that the room is well lit
- Rest for at least 10 to 15 minutes per hour of use

Introduction

Congratulations on your purchase of Arturia MiniBrute V!

As with all of our products, we believe in offering the best of both worlds in a single package and letting you choose how you want to use it. MiniBrute V offers all of the sound and features of the original hardware MiniBrute. Prior to the MiniBrute, Arturia developed only software instruments. With genius synthesist and engineer Yves Usson at the development helm, the MiniBrute's success launched our exploration of hardware, leading to the comprehensive line of synthesizers, MIDI controllers, and audio interfaces we create today.

MiniBrute V provides you with all of the sound and attitude of the original, with added benefits such as DAW integration and polyphony. We can't wait to hear the amazing music you'll make with it!

Peace, love, and music,

The Arturia team

Be sure to visit the www.arturia.com website for information about all of our other great hardware and software instruments. They have become indispensable, inspiring tools for musicians around the world.

Table Of Contents

1. WELCOME TO MINIBRUTE VI	2
1.1. History of the MiniBrute synthesizer	3
1.2. Why MiniBrute V?	4
2. ACTIVATION AND FIRST START	6
2.1. Register, Activate, and Install MiniBrute V	6
2.2. Initial setup for stand-alone use	7
2.3. Playing MiniBrute V for the first time	11
3. MAIN PANEL PART 1 – SYNTH ENGINE	12
3.1. Common behaviors	13
3.2. Oscillator Mixer	14
3.3. Oscillator Controls	15
3.4. Filter	18
3.5. Filter Envelope	21
3.6. Amp Envelope	21
3.7. Dispersion	22
3.8. Unison and tuning	23
3.9. Onscreen keyboard	24
4. MAIN PANEL PART 2 – MODULATORS AND ARPEGGIATOR	25
4.1. Pitch Controls	26
4.2. Modulation Wheel	27
4.3. Performance Controllers	27
4.4. Vibrato	28
4.5. LFO	29
4.6. Arpeggiator	31
4.7. Hold button	33
5. EFFECTS	34
5.1. Effects routing	34
5.2. Selecting an effect	35
5.3. Effect presets	36
5.4. Effect types	36
6. USER INTERFACE	56
6.1. Upper Toolbar	57
6.2. Lower Toolbar	62
6.3. The Side Panel	66
7. THE PRESET BROWSER	77
7.1. Search and Results	77
7.2. Using Tags as a Filter	78
7.3. Search Results window	80
7.4. Sidebar	82
7.5. Preset Info Section	84
7.6. Preset selection: other methods	86
7.7. Macro knobs	87
7.8. Playlists	87
8. SOFTWARE LICENSE AGREEMENT	91

1. WELCOME TO MINIBRUTE V!



Congratulations and thank you for your purchase of MiniBrute V. It is a state-of-the-art software model of the original MiniBrute analog hardware synth first released by Arturia in 2012. The MiniBrute was a raw, unruly sounding instrument that captured the attention of musicians due to its vintage-style architecture and affordable price. MiniBrute V faithfully re-creates all of the sound and controls of the original MiniBrute while adding all the convenience of a software instrument you can play stand-alone or use as an AAX, AudioUnit, or VST plug-in for your favorite DAW. Oh, and there's another big difference: The hardware MiniBrute was a monophonic synth; MiniBrute V offers up to eight voices of polyphony!

1.1. History of the MiniBrute synthesizer



Arturia's original MiniBrute analog synthesizer

The analog synth renaissance began in the early 2000s thanks to such boutique instruments as the Minimoog Voyager. By the 2010s, the party was in full swing but almost no analog synthesizers offering meaningful musical power at a very affordable price were on the market. Arturia was known for its highly accurate virtual instruments, and their success inspired founder Frédéric Brun to respond to the demand for a compact, affordable hardware synth with a true analog signal path, a one-control-per-function panel, and an aggressive sonic personality.

Arturia reached out to hardware engineer [Yves Usson](#), and by 2012, their collaboration resulted in the original MiniBrute. The MiniBrute took a page from synthesizers such as the Octave Cat and Roland SH-101: an oscillator that could produce multiple waveforms and let the player mix their levels.

Notably, the MiniBrute featured a multi-mode filter design based on the rare Steiner-Parker Synthacon.



The Steiner-Parker Synthacon inspired the MiniBrute's filter

This filter had a slope of 12dB per octave as opposed to the more common 24dB per octave, so it was more gentle, but only in terms of its rolloff. At low gain, it was known for being very clean but could sound downright nasty if driven with hotter input levels.

Other marquee features of the MiniBrute included the Ultrasaw control, which adds two phase-shifted copies of the sawtooth wave to the original for a monstrously thick sound. The Metalizer performs wavefolding on the triangle waveform; small amounts added harmonic sparkle while turning it up could lead all the way to metallic madness. Then, the adjustable Brute Factor fed the output of the filter back into its input, mirroring the overdrive-producing trick of patching the headphone output of a synthesizer into an external audio input.

It all came in a compact but rugged package with two octaves of full-sized keys. Best of all, the list price was US\$549, making it an affordable purchase for any sound explorer.

1.2. Why MiniBrute V?



Why would Arturia create a virtual version of our own hardware synth? Our marketing department might say that we have so little competition, we had to compete with ourselves! Actually, with the first MiniBrute replaced by the 2 and 2S models as of 2016, the original is now a classic that we wanted to see live on. Many synthesists love the original, so we wanted to bring it back, only with all the advantages of software.

The first of those advantages is polyphony. MiniBrute V can play in four- or eight-voice poly modes as well as retrigger and legato mono modes. Why not just make a polyphonic hardware Brute? We do – it's called the [PolyBrute](#), but there's no way to bring you all its analog circuitry at a price close to the MiniBrute, let alone the price of a software version.

Like any virtual instrument, MiniBrute V's parameters can be fully automated in your DAW and/or MIDI-learned to hardware controls. Where the hardware was a no-presets affair, MiniBrute V has our signature Preset Browser on hand, packed with patch Presets from some of the best and brightest sound designers in the industry.

Software also allows for massive effects power, so we added our V Collection effects engine, providing up to four simultaneous slots with a choice of 17 pedal-style effects each.

1.2.1. MiniBrute V feature summary

- Modeled analog synth sound and behavior down to the circuit level
- Sawtooth, pulse, triangle, and noise waveforms available at the same time
- Ultrasaw mixes thick, stacked sawtooth waves
- Sub-oscillator with sine and pulse waveform types
- Classic-style Arpeggiator with tempo sync
- Unison with detune for absolutely huge sound
- Metalizer transforms triangle wave into a harmonically complex waveform
- Brute Factor creates filter overdrive from subtle to extreme
- Six Dispersion trim knobs add non-linear analog qualities to pitch, waveform, cutoff, and other aspects of the sound
- Four pedal effects slots with a choice of 17 effect types each
- Time-based effects can sync to tempo
- All parameters are fully automatable in your DAW
- Controls may be MIDI-learned for assignment to physical knobs and sliders on a controller keyboard
- Four Macros can adjust multiple parameters via a single knob twist
- Stand-alone and plug-in operation in all major formats
- Factory Presets by top sound designers

And now, let's travel through time and relative dimensions in sound with MiniBrute V.
Allons-y!

2. ACTIVATION AND FIRST START

2.1. Register, Activate, and Install MiniBrute V

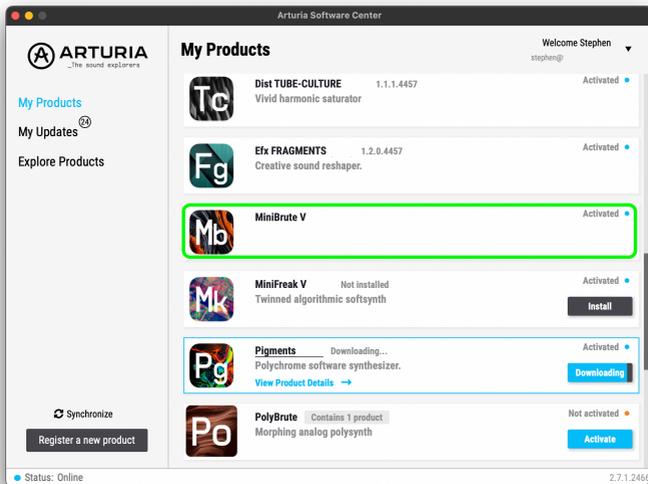
MiniBrute V works on computers equipped with Windows 10 or later and macOS 11 or later. You can use it as a standalone version or as a plug-in for your favorite DAW (Digital Audio Workstation) in Audio Units, AAX, VST, or VST3 format.



Before you install or register the software, you'll need to create a My Arturia account here, using an email address and password of your choice: <https://www.arturia.com/createanaccount/>

While it's possible to handle registration, activation, and other tasks manually online, it's far simpler to download and use the Arturia Software Center app, which can be found here: <https://www.arturia.com/support/downloads-manuals>

You'll enter your email address and password to set up Arturia Software Center, which acts as a central location for all of your Arturia software registrations and activations. It also helps you install and update your software by keeping tabs on current versions.



This image of Arturia Software Center shows MiniBrute V already installed and an update to Pigments in the process of downloading.

You can register, activate, and install your product inside Arturia Software Center by pressing the **Register a new product** button, and clicking the boxes to **Activate** and then **Install** your software. The registration process will require you to enter the serial number and the unlock code you received when you bought your software.

You can also do this online by logging into your account and then following the instructions here: <https://www.arturia.com/register>

Once you've registered, activated, and installed MiniBrite V, it's time to get it to talk to your computer.

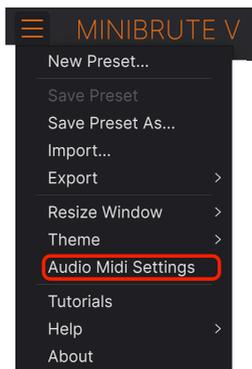
2.2. Initial setup for stand-alone use

If you would like to use MiniBrite V in standalone mode, you will need to ensure that its MIDI input/output and audio outputs are being routed properly to and from the software. You'll generally only need to do this once, unless you change your MIDI controller or audio/MIDI interface. The setup process is the same on both Windows and macOS.

i ! This section only applies to those of you who plan to use MiniBrite V in stand-alone mode. If you are only going to use MiniBrite V as a plug-in inside a host DAW or other music software, you can safely ignore this section - your host music software handles these settings.

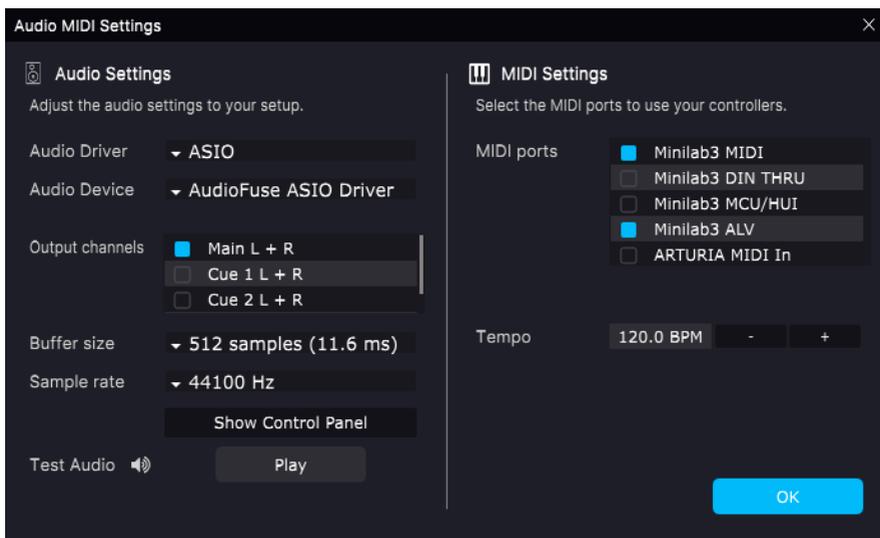
2.2.1. Audio and MIDI settings: Windows

At the top left of the MiniBrite V application is a pull-down menu. It contains various setup options.



MiniBrite V Main Menu

Click on **Audio Midi Settings** to open the following window. This works in the same way on both Windows and macOS, although the names of the devices available to you will depend on the hardware you are using. Remember, this option is only available (and needed) in the standalone version of MiniBrite V.



Audio MIDI Settings for Windows

Starting from the top, you have the following options:

- **Driver:** Selects which audio driver will handle playback of MiniBrute V. This can be your computer's internal driver, a generic ASIO driver, or an external soundcard or interface driver. The name of your hardware interface(s) may appear in the field below, depending on your selection.
- **Device** Selects the audio hardware through which you will hear MiniBrute V.
- **Output Channels** lets you select which of the available outputs will be used to route audio out. If you only have two outputs, this selection box will not be shown. If you have more than two, you can select a specific pair of outputs.
- The **Buffer Size** menu lets you select the size of the audio buffer your computer uses to calculate sound. The latency in milliseconds is displayed after the buffer size setting.

i ! A smaller buffer means lower latency, i.e. a shorter delay between pressing a key and hearing the note, but loads your CPU more heavily and can cause pops or clicks. A larger buffer means a lower CPU load, as the computer has more time to think, but can result in a noticeable delay between playing a note and hearing it. A fast, modern computer should easily be able to operate at a buffer size of 256 or even 128 samples without clicks. If you still get clicks, enlarge the buffer size until they stop.

- The **Sample Rate** menu lets you set the sample rate at which audio is sent out of the instrument.

i ! The options here will depend on what your audio device can support; nearly every device can operate at 44.1 kHz or 48 kHz, which will be perfectly fine for most applications. If you have a specific need to use a higher sample rate, up to 96 kHz, MiniBrute V will happily support that.

- The **Show Control Panel** button will jump to the system control panel for whatever audio device is selected.



! Note that this button is only available in the Windows version.

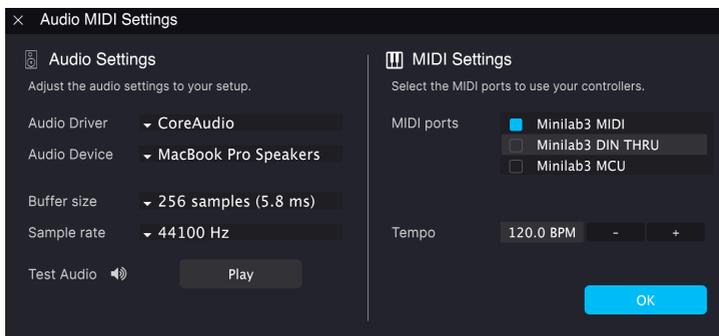
- **Test Tone** sends a short test tone when you click the **Play** button, to help you troubleshoot audio issues. You can use this feature to confirm that the instrument is routed correctly through your audio interface and that audio is playing back where you expect to hear it (your speakers or headphones, for example).
- The **MIDI Devices** area will display any MIDI devices you have connected to your computer (if any). Click the check box to accept MIDI from the device(s) you want to use to control the instrument. You can select multiple MIDI devices at once with the checkboxes.



! In standalone mode, MiniBrute V listens to all MIDI channels, so there's no need to specify a channel.

- **Tempo** sets a base tempo for features inside MiniBrute V such as LFO and effects sync. When using MiniBrute V as a plug-in, the instrument gets tempo information from your host software.

2.2.2. Audio and MIDI settings: macOS



Audio MIDI Settings for macOS

The menu for setting up audio and MIDI devices for macOS is accessed in the same way as for Windows, and the setup process is nearly identical. All options work the same way as described above in the Windows section. The only difference is that all macOS devices, including external audio interfaces, use the CoreAudio driver built into macOS to handle routing. In the second dropdown menu under **Device**, choose the audio device you wish to use.

2.2.3. Using MiniBrute V as a plug-in



MiniBrute V's interface looks the same in plug-in mode as in standalone mode.

MiniBrute V comes in VST2, VST3, Audio Unit (AU), and AAX plug-in formats, for use in all major DAW software such as Ableton Live, Cubase, Logic, Pro Tools, Studio One, and more.

When using MiniBrute V as a plug-in, all audio and MIDI device settings are handled by your host music software. Please refer to your host music software's documentation if you have any questions about loading or using plug-ins.

Note that when you load MiniBrute V as a plug-in instrument inside your host software, its interface and settings work the same way as in standalone mode (see below), with a few small differences:

- MiniBrute V will synchronize to your DAW's host tempo/BPM when sync is required
- You can automate numerous parameters using your DAW's automation system
- You can use more than one instance of MiniBrute V in a DAW project
- You can run the outputs of MiniBrute V through any additional audio effects available to your DAW, such as delay, chorus, filters, etc.
- You can route MiniBrute V's audio outputs creatively inside your DAW, using the DAW's own audio routing system.

2.3. Playing MiniBrute V for the first time

Now that you have MiniBrute V up and running, let's take it for a quick test drive!

If you haven't done so already, launch MiniBrute V as a plug-in or as a stand-alone instrument. If you have a MIDI controller set up, use it to play some notes on MiniBrute V. You might first need to activate your MIDI controllers in the MIDI Settings (see above). You can also use your mouse to play the on-screen keyboard or use the keys of your computer keyboard.

The up and down arrows at the top of the instrument let you step through all of MiniBrute V's available presets. Try playing a few, and when you find one that you like, try adjusting some of the other on-screen controls to see how they affect the sound.

Play with the controls, and don't worry – nothing is saved unless you specifically save a preset (described later in this User Guide), so there is no risk you'll mess up any of MiniBrute V's factory presets.

We hope this chapter has gotten you off to a smooth start. Now that you're up and running, the rest of this guide will help you work your way through all of MiniBrute V's features on a section-by-section basis. By the time you reach the end, we hope you'll understand all of MiniBrute V's capabilities – and will be using this fantastic instrument to create equally fantastic music!

3. MAIN PANEL PART 1 – SYNTH ENGINE



This chapter covers the controls numbered in red above.

In this chapter we will cover the core synth engine functions of MiniBrute V, which are as follows:

Number	Area	Description
1.	Oscillator Mixer [p.14]	Mixes oscillator waveforms, sub-oscillator, and noise
2.	Oscillator Controls [p.15]	Adjusts sound of oscillator, including sub-osc, Ultrasaw, and Metalizer features
3.	Filter [p.18]	Controls the Steiner-style resonant filter
4.	Filter Envelope [p.21]	ADSR envelope dedicated to filter cutoff
5.	Amp Envelope [p.21]	ADSR envelope dedicated to volume/VCA level
6.	Dispersion [p.22]	Adds variance across voices to six aspects of the sound
7.	Unison and Tuning [p.23]	Unison mode, unison detune, Vintage, and fine tuning controls

The [next chapter \[p.25\]](#) will cover the wheels, LFO, arpeggiator, and other sound-modifier functions on the lower half of the panel.

3.1. Common behaviors

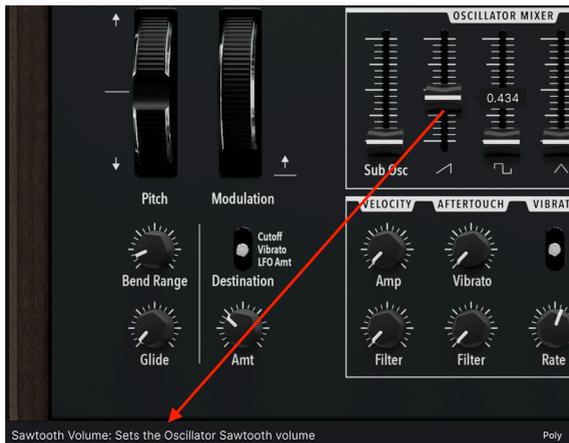
All Arturia virtual instruments share some common control behaviors to make editing sounds easier. These behaviors are common to every control in MiniBrute V.

3.1.1. Value pop-ups



Move or hover on any control and a pop-up banner or “tool tip” will display its value.

3.1.2. Parameter descriptions



Operating or hovering on any control displays its name and a brief description of its function in the left corner of the [lower toolbar \[p.62\]](#).

3.1.3. Fine adjustment

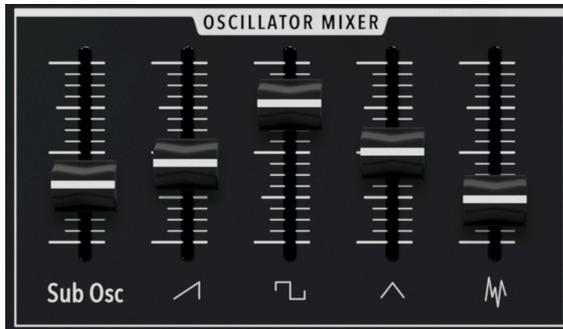
Hold the right mouse button or Control key while dragging on any knob to adjust it more slowly. This helps when you want to dial in precise values.

3.1.4. Double-click for default

Double-click on any knob to return it to its factory default setting.

3.2. Oscillator Mixer

We will begin with the Oscillator Mixer section, because it contains the most basic building blocks of the sound of MiniBrute V.



The Oscillator Mixer in MiniBrute V

These straightforward sliders mix the available sound sources, any or all of which can be active at the same time. From left to right, these are:

- **Sub Osc:** The level of the [Sub-Oscillator \[p.15\]](#)
- **Saw:** The level of an upward sawtooth (ramp) waveform
- **Pulse:** The level of a pulse waveform
- **Triangle:** The level of a triangle waveform
- **Noise:** The level of a white noise source

i Pushing the levels to high settings will drive the filter's non-linear and saturation characteristics, while lower levels will result in smoother, cleaner sounds. So, use the Oscillator Mixer sliders with intent and you will be pleasantly surprised at MiniBrute V's tonal range!

Further sonic control over some of these waveforms is found in the Oscillator section, which we will cover now.

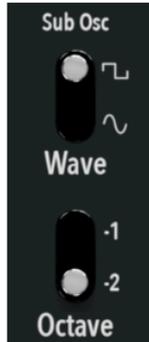
3.3. Oscillator Controls



The Oscillator Mixer in MiniBrute V

This section is home to further control over the character of the oscillator waveforms. Between the Sub-Oscillator, Ultrasaw, Pulse Width, and Metalizer, you can craft sounds that are more harmonically complex (and if you like, more rude) than are possible with basic subtractive synthesis.

3.3.1. Sub-Oscillator

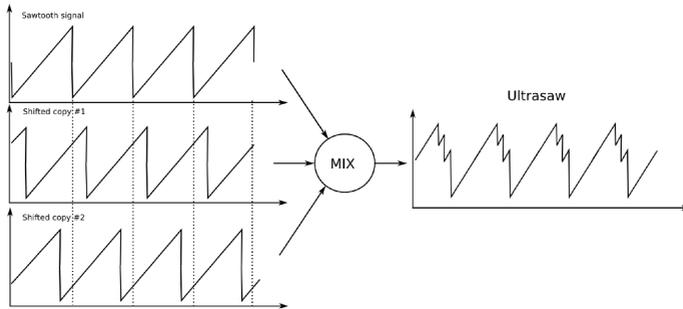


Sub-oscillator waveform and octave switches

Two toggle switches control what you hear when the **Sub Osc** slider in the Oscillator Mixer is turned up.

- **Wave:** Selects between pulse or sine waves as the Sub-Oscillator waveform
- **Octave:** Chooses whether the Sub-Oscillator pitch is one or two octaves lower than the main waveforms

3.3.2. Ultrasaw



Ultrasaw is a blend of the base sawtooth wave plus two phase-shifted copies

The effects of the **Ultrasaw** controls are heard only when the sawtooth wave is turned up to a non-zero value in the Oscillator Mixer. The Ultrasaw creates two phase-shifted copies of the sawtooth wave, then blends them with the original. The phase of each waveform is independent and ever-evolving with regard to the other two.

- **Ultrasaw Amount:** This knob controls the level of the phase-shifted saw waves, while the sawtooth slider in the Oscillator Mixer controls the overall level of the main waveform together with the shifted copies.
- **Ultrasaw Rate:** Adjusts the speed of the modulation effect caused by the blending of the signals.

At low rate settings, the Ultrasaw will produce a pleasant thickening or ensemble effect. At very high ones, you can create a “swarm of bees” sound.

3.3.3. Pulse Width



Pulse width refers to the ratio between the negative and positive cycles of a waveform that would otherwise be square. In other words, the positive pulses become wider (at lower ratios) or narrower (at higher ratios) relative to the negative ones. A perfect square wave has a ratio of 50 percent. The controls are:

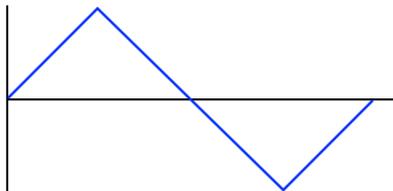
- **Pulse Width:** Changes the ratio of positive to negative cycles
- **Envelope Amount:** Sets the depth of modulation of the ratio from the [Filter Envelope \[p.21\]](#)

Effects of these controls are heard only when the pulse/square wave slider in the Oscillator Mixer is set to a nonzero value. Sweep the Pulse Width knob to hear harmonic changes reminiscent of woodwind or vowel sounds. This and other Envelope Amount controls throughout MiniBrute V are *bipolar*, meaning that the 12 o'clock position is zero and to either side are negative and positive modulation amounts.

3.3.4. Metalizer

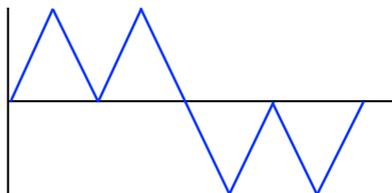


The Metalizer only affects the triangle wave. It increases the amount of higher and sometimes non-linear harmonics in the waveform through a process known as *wavefolding*. To understand how this works, visualize a standard triangle wave:



A regular triangle wave with no Metalizer

Now, imagine folding the high and low peaks of the triangle in the opposite direction, such they each extend halfway along the Y-axis:



A triangle wave with an initial degree of Metalization

The result doubles the number of positive and negative peaks, increasing the harmonic content of the waveform. Repeat the process on the new peaks, extending up or down the Y-axis halfway as much as the previous iteration, and you'll end up with an increasingly complex waveform with bright and uneven harmonics. "Metallic" is as good a word as any to describe what it sounds like.

The two controls here are:

- **Metalizer:** Increases the number of folds as the knob is turned up
- **Envelope Amount:** Adds modulation of the above parameter from the [Filter Envelope](#) [p.21]

3.4. Filter



MiniBrute V's filter is inspired by the rare Steiner-Parker Synthacon

The purpose of a filter is to block some frequencies in the input signal while letting others through. The character of the filter is arguably more important to the sonic identity of a synthesizer than the oscillator, at least in the analog and virtual analog worlds. The filter in MiniBrute V is a 12dB-per-octave design based on the Steiner-Parker Synthacon, a rare American synthesizer made between 1975 and 1979. It can be very clean and transparent at lower gain, but get quite rude and aggressive if driven hard.

i ♪ What does "per octave" mean? When a filter starts to block frequencies outside the permitted range, it doesn't cut them off all at once like a cliff. It has a slope. In a filter with a slope of 12dB per octave, frequencies are reduced by 12dB for every octave they stray outside of the permitted range, which is called the passband. Slope is sometimes used interchangeably with "poles;" a two-pole filter has a 12-dB-per octave slope and a four-pole filter is 24dB per octave.

3.4.1. Mode

The Steiner Filter functions in one of four modes:



- **Lowpass (LP):** Passes frequencies below the cutoff and blocks those above it
- **Highpass (HP):** Passes frequencies above the cutoff and blocks those below it
- **Bandpass (BP):** Passes a range of frequencies to either side of the cutoff and blocks those outside of this range
- **Notch:** Blocks a range of frequencies to either side of the cutoff and passes those outside of this range; also known as a band-reject filter

3.4.2. Cutoff and Resonance



The **Cutoff** knob simply determines the frequency at which the filter begins reducing the volume of frequencies outside the permitted range. In lowpass or highpass modes, these frequencies are to one side of the cutoff or the other. In Bandpass or Notch modes, the cutoff is more correctly called a *center* frequency, as the knob sets the very center of the band that is either passed or rejected.

Resonance refers to a (usually) narrow boost right around the cutoff/center. At moderate settings, it can impart a nasal quality to the sound, and is the key ingredient in “rubbery” synth bass sounds (“More Bounce to the Ounce” by Zapp and “Too Much Time on My Hands” by Styx are classic examples) not to mention countless acid and techno bass lines. As with the hardware MiniBrute and many analog synths, the MiniBrute V filter can also *self-oscillate*. In approximately the upper third of the Resonance knob’s range, the filter will produce its own tone even with all sliders in the [Oscillator Mixer \[p.14\]](#) set to zero. Its pitch will change depending on the settings of the Cutoff and Mode knobs.



! Be careful with the resonance in MiniBrute V – at high settings it can make the frequency peak *much* louder, so be aware of the levels in your loudspeakers or headphones.

3.4.3. Brute Factor



With some analog synths of the 1970s, players fed the headphone output into the synth's external audio input to overdrive the filter. Unlike line-level main outs, headphone outputs are amplified, so a heavier sound that could hold its own next to electric guitars was easily achieved. Brute Factor emulates this. It originated on the hardware MiniBrute and now appears across our entire "Brute" family of synths.

At extreme settings, Brute Factor creates sidebands (additional tones) that affect the pitch; playing a scale or chord may not sound as expected. Sound designers and experimental noise artists will love this knob!

i ♪ Brute Factor, Cutoff, and Resonance are all interrelated – changing one can affect the others. Some wonderful tonalities are to be found here, so experiment freely. Also, if you want a high level of Brute Factor but a less overdriven sound, try reducing the sliders in the Oscillator Mixer.

3.4.4. Envelope Amount and Keyboard Tracking



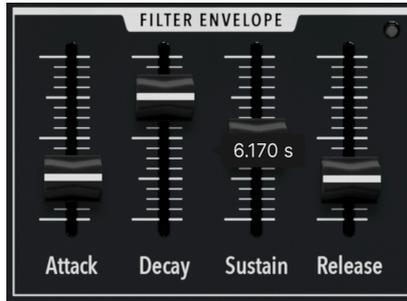
Two more controls round out the Filter section.

- **Envelope Amount:** Sets the modulation depth (bipolar) from the [Filter Envelope \[p.21\]](#)
- **Keyboard Tracking:** Adjusts how much the Filter cutoff follows the note(s) played on the keyboard

Keyboard tracking is typically used with a lowpass filter; the higher it is set, the brighter higher notes will sound. This roughly mimics how acoustic instruments sound brighter at higher pitches, whereas a lead or pad might sound unnaturally dull given a certain cutoff setting and no keyboard tracking. The range is from zero to 200 percent, with a value of 100 causing the Filter to track the keyboard at the "perfect" ratio of 2:1 Hz per octave.

i ♪ Try turning up the Resonance and setting Keyboard Tracking to 100 percent. This lets you "play" the filter's self-oscillation at correct musical pitches. Adjust the Cutoff to achieve a pleasant pitch interval between the self-oscillation and the actual oscillator.

3.5. Filter Envelope

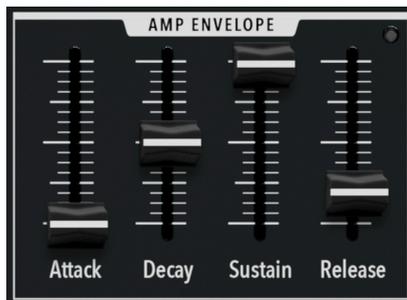


The filter envelope in MiniBrute V is a simple ADSR type, and affects three destinations according to the **Envelope Amount** knobs in each section: oscillator pulse width, the Metalizer, and of course the Filter cutoff itself.

- **Attack:** Adjusts the time for the envelope to rise to maximum once a note is triggered
- **Decay:** Adjusts the time it takes to transition from the attack peak to the Sustain level
- **Sustain:** Sets the level at which the envelope will sustain as long as a note is held
- **Release:** Determines the time it takes for the envelope to transition from the sustain level to zero once a note is released

A white LED at the top right indicates the presence of signal and glows brighter to indicate higher gain.

3.6. Amp Envelope



MiniBrute V also has an ADSR envelope generator dedicated to volume (VCA). In practical terms, the maximum level reached at the peak of the attack phase is determined by the [main output \[p.61\]](#) knob in the Upper Toolbar.

- **Attack:** Adjusts the time for the volume to rise to maximum once a note is triggered
- **Decay:** Adjusts the time it takes to transition from the attack peak to the Sustain level

- **Sustain:** Sets the level at which the volume will sustain as long as a note is held
- **Release:** Determines the time it takes for the envelope to transition from the sustain level to zero once a note is released

Like with the Filter Envelope, a white LED at the top right indicates the presence of signal and glows brighter to indicate higher gain.

i 🎵 Our ears identify sounds by their volume envelopes first and their harmonic content second. For example, in a sample-based synth, increasing the attack time on a piano sample makes it sound very much like a violin.

i 🎵 The original MiniBrute hardware had a switch that toggled the envelopes between slower and faster modes. In MiniBrute V, the knobs simply capture the full range, with very “snappy” envelopes generated at zero attack.

3.7. Dispersion



Dispersion controls are accessed by clicking on the Arturia label

Click on the Arturia name at the top left of the window to access the “secret” Dispersion knobs. These introduce variation in certain parameters across the voices when MiniBrute V is played polyphonically, and randomness to the parameters when it is in monophonic mode. This enhances analog character and warmth. Each of the six trimmers adds variation to the following aspects of the sound:

- **Pitch:** Affects the oscillator pitch
- **Wave:** Affects pulse width, Ultrasaw, and Metalizer amounts
- **Gain:** Affects multiple gain stages (oscillator-to-filter, filter-to-VCA, etc.) throughout MiniBrute V
- **Cutoff:** Affects the cutoff frequency of the Filter
- **Feedback:** Affects Filter resonance and Brute Factor
- **Envelope:** Affects both the Filter and Amp Envelope settings

Turning all of these up to maximum can approximate the sound of an old analog synth in need of a tune-up, but overall the effects are subtle. In turn, the [Vintage \[p.24\]](#) knob scales all six Dispersion controls at once while preserving the differences between their values.

 The **Wave** dispersion knob also models slight differences in oscillator behavior that existed from unit to unit on the original hardware. This makes it a good parameter to reproduce the sound of a particular MiniBrute you may have in your mind's ear.

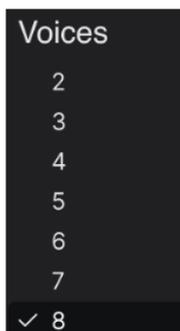
3.8. Unison and tuning



This section of the panel handles a thick-sounding Unison mode, the Vintage factor, and fine tuning.

3.8.1. Unison

Unison mode stacks MiniBrute V's voices such that playing a note triggers all voices (from two to eight) at once. When the **Unison** button is engaged, the sound is always monophonic and the [Polyphony \[p.63\]](#) menu in the Lower Toolbar changes into a pop-up that selects how many voices are used in the unison:



The lower toolbar Polyphony menu when Unison mode is active

3.8.1.1. Unison Detune

The **Detune** knob works only when Unison is activated, and introduces a tuning offset between the voices. Alongside the number of voices allocated, this can introduce anything from subtle chorusing to an insect-swarm quality.

3.8.2. Vintage

This knob functions like a “macro” that adjusts the overall amount of [Dispersion \[p.22\]](#) applied via the six secret knobs. The proportions *between* those six knobs are preserved as much as possible, making Vintage the go-to knob for dialing the overall analog factor up or down.

3.8.3. Fine Tune

Fine Tune is a utility adjustment to help match the overall pitch of MiniBrute V to any musical project, as many sessions include acoustic instruments. Its default at the 12 o’clock position is the standard of middle A = 440Hz. The range is from 400 to 480Hz.

3.9. Onscreen keyboard

Pressing the [Keys \[p.64\]](#) in the lower toolbar toggles the two-octave onscreen keyboard on and off. Clicking on a key closer to its front lip increases the MIDI velocity of the note.

3.9.1. Playing from a computer keyboard



Notes corresponding to keys on the computer keyboard

You can play an octave plus a ninth in the key of C using a standard QWERTY keyboard, according to the diagram above. In addition, the **Z** key shifts the pitch range an octave down and the **X** key shifts it an octave up.

4. MAIN PANEL PART 2 – MODULATORS AND ARPEGGIATOR



This chapter describes all of the sound-altering modulators, as well as the Arpeggiator – with controls found on the lower half of the main panel.

Number	Area	Description
1.	Pitch Controls [p.26]	Pitch-bend wheel, Bend Range, and Glide controls
2.	Modulation Wheel [p.27]	Mod wheel and controls for its destination and amount
3.	Performance Controllers [p.27]	Assignments for velocity, aftertouch, and vibrato
4.	LFO [p.21]	Wave, rate, tempo sync, and assignments for low-frequency oscillator
5.	Arpeggiator [p.31]	Parameters for classic analog synth style arpeggiator
6.	Hold button [p.33]	Sustains notes without holding keys or using a pedal

4.1. Pitch Controls

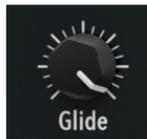


The pitch-bend wheel is spring-loaded and snaps back to the center when released.

4.1.1. Bend Range

Pitch-bend range can be adjusted from one to 12 semitones (an octave) and is symmetrical in the up and down directions. When a MIDI controller is connected to MiniBrute V, its pitch wheel or strip will match the range set here.

4.1.2. Glide

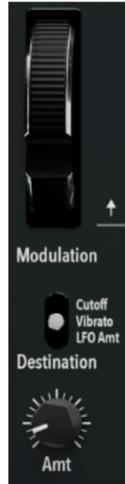


Also known as portamento, **Glide** settings above zero cause the pitch to bend between notes that are played or triggered. Glide works with MiniBrute V in monophonic or polyphonic modes, and is always active whether you play legato or not – you can play a note, wait several minutes, then play a new note and still hear glide from the previous one.

Hover over the knob, and you will see that Glide is expressed in seconds per octave, with a range from zero to 2.000 seconds and fractions of a second to three decimal places.

MiniBrute V always glides *from* the previous note played. Even if you played a polyphonic chord, it factors in any subtle timing differences between the note and takes the most recent note as the starting point for the next glide.

4.2. Modulation Wheel



The modulation wheel is non-spring-loaded and retains its position. The toggle switch directly below assigns it to one of three destinations: Filter cutoff, the amount of the dedicated [Vibrato \[p.28\]](#), or the overall depth of the [LFO \[p.29\]](#). The **Amount** knob sets the maximum modulation depth reached when the wheel is all the way in the up position. This knob is not available when the destination is *LFO amount* because the depths at which the LFO affects different destinations are set in its own section, with the wheel acting as an overall control.

4.3. Performance Controllers

Velocity and aftertouch both add expression to a performance, and MiniBrute V lets you map each of them to the most useful destinations.



4.3.1. Velocity

This section has two unipolar knobs to translate MIDI velocity into musical expression.

- **Amp:** Determines the amount that velocity increases the level of the sound
- **Filter:** Sets the amount that velocity raises the Filter cutoff

The higher the setting, the more sensitive either becomes. Note that with the Filter, increased velocity always translates to *raising* the cutoff frequency in Hz, regardless of the Filter [Mode \[p.19\]](#) setting. To hear any effect on the Filter, [Envelope Amount \[p.20\]](#) should be turned up in the Filter section.

4.3.2. Aftertouch

In the Aftertouch section, the knobs control the depth to which aftertouch (finger pressure on a key or pad, on a MIDI controller capable of sensing it) affects:

- **Vibrato:** The amount of the dedicated [Vibrato \[p.28\]](#), which we cover below
- **Filter:** The cutoff frequency of the Filter

As with velocity, neither destination will respond to aftertouch with its knob set to zero. Again, increased after-pressure affects the cutoff in an upward direction regardless of the Filter Mode.



♪ Sending aftertouch to the Filter cutoff gives you a means to make certain notes brighter to accent a synth solo. Sending it to Vibrato is the best way to add “wobble” to notes without needing to reach for the modulation wheel.

4.4. Vibrato



This section controls a dedicated vibrato so that you can add pitch modulation without using the main [LFO \[p.29\]](#), allowing you to save the LFO for other modulations.

It has two controls.

- **Waveform:** This toggle switch sets the vibrato wave to one of three shapes:
 - *Positive square:* Good for upward trills between the played note and a higher one
 - *Negative square:* Good for downward trills between the played note and a lower one
 - *Sine:* Good for traditional vibrato
- **Rate:** Controls the speed of the vibrato

The Rate is always free-running (not synced to tempo) and has a range from 1 to 50Hz.

4.5. LFO

MiniBrute V features a tempo-syncable LFO that can modulate five different destinations at once, with four different depths.



The top row of LFO knobs adjusts depths for one or more destinations

All the controls are bipolar, as indicated by the - and + signs at either end of the knob range. The 12 o'clock position is equivalent to zero depth.

- **PWM & Metalizer:** Affects the oscillator pulse width (pulse/square wave only) and Metalizer at a shared depth.
- **Pitch:** Affects Oscillator pitch for all waveforms except noise
- **Filter:** Affects the cutoff frequency of the Filter
- **Amp:** Affects the volume level also controlled by the Amp Envelope

No effect on the Metalizer is heard when the Metalizer knob in the Oscillator section is set to zero.

4.5.1. LFO Waveform



The LFO offers a choice of six modulation waveforms:

- *Sine*
- *Triangle*
- *Saw (up or down, depending on positive or negative value of destination depth)*
- *Square*
- *Random Stepped*
- *Random Gliding*

These waveforms are familiar to synth players: sine is the smoothest modulation, square produces a gated quality, and so on. The difference between the two Random options is that Stepped makes abrupt changes and thus sounds most like the classic “sample and hold” effect, whereas Gliding still generates a series of random values but offers smoother transitions between them.

4.5.2. LFO Rate and Tempo sync



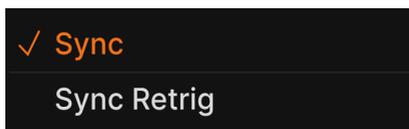
MiniBrute V’s LFO can free-run in Hz or sync to the tempo set in the host software.

- **Clock:** Toggles between free-running and synced operation
- **Rate:** Sets the speed of the LFO

The white LED at the top right of the Rate knob blinks the tempo. When the LFO is free-running, the rate is shown in Hz. When synced, the travel of the Rate knob includes straight, dotted, and triplet rhythmic values. Respectively, these are indicated by no suffix, “d”, and “t” after the number in the pop-up value shown when operating the knob.

4.5.3. Sync and Sync Retrigger modes

With the **Clock** toggle in the *Sync* position, right-click on it to display this pop-up menu:



- **Sync:** LFO is synced to tempo but does not necessarily retrigger when new notes are played.
- **Sync Retrig:** LFO is synced to tempo and retriggers from the beginning of its phase with every new note played.

4.5.3.1. LFO monophonic and polyphonic behavior

Let's clear up a couple of possible sources of confusion. Why did we say "not necessarily" in the description of the Sync setting? Because the LFO might retrigger for a different reason: namely, if [Polyphony \[p.63\]](#) in the Lower Toolbar is set to *Mono Retrigger* (or even *Mono Legato* if you don't play legato).

In *Free* and (regular) *Sync* modes, the LFO is monophonic. That does not mean MiniBrute V plays notes monophonically; it means that any new note(s) played "hop on" to the LFO modulation wherever it is in its cycle – in other words, all voices share a common LFO cycle. In *Sync Retrigger* mode, the LFO is polyphonic. Each new note starts the LFO from the beginning of its cycle (i.e. from the zero crossing of the LFO waveform), and polyphonic playing triggers an independent LFO cycle for each voice.

i ♪ To hear an exaggerated example of this, choose Sync Retrigger, set the LFO **Pitch** depth to maximum, select the sine waveform, and set a relatively slow rate to make it easy to hear the cycle. Make sure Polyphony is set to 4 or 8 voices in the [Lower Toolbar \[p.62\]](#). Now, play a note, then add another note such as a fourth or fifth while holding the first note. The pitch of the second note will modulate up and down independently of the first.

4.6. Arpeggiator



MiniBrute V includes a basic but wickedly fun Arpeggiator fashioned after synths of yesteryear. All arpeggiators work in the same way: They turn a held chord into a sequence of notes that auto-plays.

Use the **On** button to toggle the Arpeggiator on or off. The other controls are as follows.

4.6.1. Mode

The **Mode** knob sets the order in which held notes are played.

- *Up*: Notes play from lowest pitch to highest
- *Down*: Notes play from highest pitch to lowest
- *Up/Down*: Notes play from lowest to highest, then back to lowest; this is "inclusive," meaning the highest and lowest notes in the cycle are repeated
- *Random*: Notes play in a randomized order



♪ Examples of each type of arpeggiator mode being central to a classic pop song:

- Up: “Games People Play” by The Alan Parsons Project
- Down: “All Through the Night” by Cyndi Lauper
- Up/Down: “Lucky Star” by Madonna
- Random: “Hungry Like the Wolf” by Duran Duran

4.6.2. Octave

The **Octave** knob sets the span of the note cycle from one to four octaves.

4.6.3. Swing

Swing is often described as a “behind the beat” rhythmic feel, and MiniBrute V has a range of 50 to 75 percent.



♪ What is Swing, really? In a pair of notes that begins on a beat, the first note “steals” some duration from the second. So, 50 percent represents a 50/50 duration split or “straight” feel. The maximum of 75 percent is akin to a dotted eighth/sixteenth-note couplet. Values above 75 percent would reduce the duration of the second note so much as to not be musically useful.

4.6.4. Arpeggiator Rate and Tempo sync



Like the LFO, the Arpeggiator can free-run in Hz or Sync to tempo.

- **Rate:** Controls the speed of the Arpeggiator
- **Clock:** Toggles the Arpeggiator between free-running and synced modes

With the toggle set to *Sync* right click on it to bring up the following menu:



These choices delimit the values accessed by turning the **Rate** knob.

- *Sync*: Knob sweeps through straight, triplet, and dotted feels, i.e. all possible values
- *Straight Only*: Knob sweeps through "straight" rhythmic values only
- *Triplet Only*: Knob sweeps through triplet values only (e.g. three eighth-notes played in the duration of a quarter-note)
- *Dotted Only*: Knob sweeps through dotted rhythmic values only

4.7. Hold button



Think of the Hold button as a foot-free sustain pedal that latches. Activate it to hold a note or chord while you create a sound or tweak the Arpeggiator.

5. EFFECTS



MiniBrite V includes a suite of powerful stereo effects curated from our latest V Collection of virtual instruments. You can use up to four effects at once, and each of the four effects slots offers a choice of 17 pedal-style effects.

Click the **Effects** button at the top right of the [Upper Toolbar \[p.57\]](#) to open the effects area. To the left of this button is a global on/off button that bypasses all active effects without losing any of their settings. Depending on the [size \[p.59\]](#) of the MiniBrite V window, you may need to scroll down to see the effects.

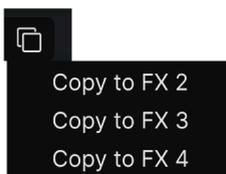
5.1. Effects routing



MiniBrite V effects are routed serially left to right

Effects routing in MiniBrite V is “hard wired” as serial. The signal is first processed by the effect in the slot at far left, then simply moves from left to right. This keeps things simple. Just set up the effects chain you want, not unlike a guitar pedalboard.

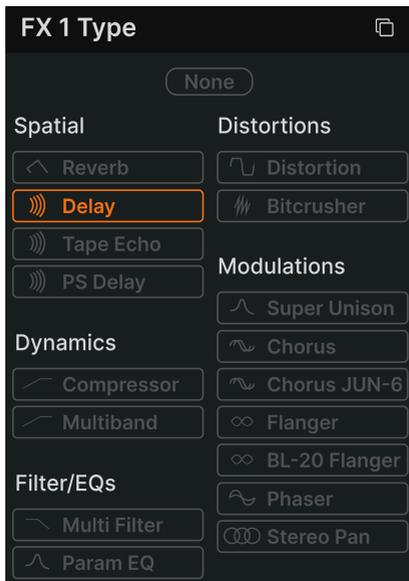
5.1.1. Effects copy



An effect in one slot can be copied to any of the other three

You can copy any effect, with its settings, to another slot. Click the double-document (overlapping squares) icon, then select a slot from the above pop-up menu. The effect in the original slot is not changed or swapped.

5.2. Selecting an effect



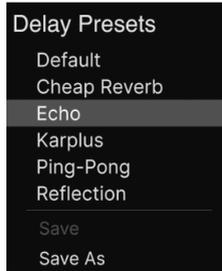
The effects in MiniBrute V offer 17 types in five categories

Click the name field at the top of any of the effects slots (you can also click any empty square that says "none" above it) to bring up the effects selection menu. The effects are divided into five categories to make choosing a little easier.

- *Spatial*: Reverb, delays, and tape echo
- *Dynamics*: Compressor and limiter
- *Distortion*: Distortion effect with 16 different algorithms; Bitcrusher
- *Filter/EQs*: Parametric equalizer
- *Modulations*: Chorus, flanger, phaser, stereo panner, and wah-wah

The full list of [effect types \[p.36\]](#) with descriptions of all their parameters is below.

5.3. Effect presets



The factory presets for the Delay effect in MiniBrute V

Each effect type in MiniBrute V comes with a handful of presets, accessed by clicking on “Presets” at the top right of the name bar within an effects slot.

The presets can be great starting places, not to mention convenient for when you want to grab a sound quickly, so please do explore them all. Notice the “Save as” option, which will bring up a dialogue box that prompts you to name and save any settings you like as your own FX preset. This is then saved within the overall MiniBrute V Preset. “Save” is available only when working on a user preset, i.e. one you’ve already copied with a “Save As” operation.

5.4. Effect types

Now it’s time to meet each effect individually. To start out, though, we will cover a handful of features common to all of them.

5.4.1. On/Off

Each effects slot has an on/off button at its upper left. This lets you bypass that effect without losing its settings. This is useful for soloing a different slot as you tweak your effects rack.

5.4.2. Dry/Wet mix



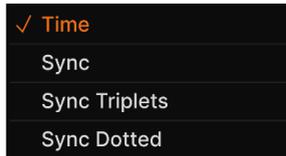
Most of the effects have a slider for **Dry/Wet mix**, i.e. how much pre-effect vs. post-effect signal you hear. There are three exceptions:

- The **Multiband** effect has an *Amount* slider
- The **Parametric EQ** has a *Scale* slider
- The **Stereo Pan** effect has an *Amount* slider



Remember that due to the serial routing, a sound that’s relatively dry with respect to one effect may still be carrying a lot of the previous one in the chain.

5.4.3. Effects tempo sync



Engaging Sync makes tempo-division options available for the time setting in the Delay

Some effects offer tempo-sync options for their time or rate parameter in addition to running freely in absolute units such as Hz or milliseconds. The mode is chosen by clicking on an orange label found below a Time or Rate knob, then choosing from the pop-up menu shown above. The orange word may read "Time," "Hertz," "Sync", or some variant thereof depending on the current sync setting.

Then, adjusting the related parameter will display a pop-up that shows the current division or multiple of your project tempo. A *t* suffix after the value indicates a triplet value, *d* denotes a dotted value, and no suffix means a "straight" rhythmic feel.

The effects with tempo sync in MiniBrute V are:

- Delay
- Tape Echo
- PS Delay
- Chorus JUN-6
- Flanger
- BL-2O Flanger
- Phaser
- Stereo Pan

Now let's visit the effects in the order in which they appear on the menu. In general, you can adjust two of the parameters that also have knobs by clicking and dragging inside the effect's graphic visualizer. We will flag such settings with (*H*) for those you can drag horizontally and (*V*) for those you can drag vertically.

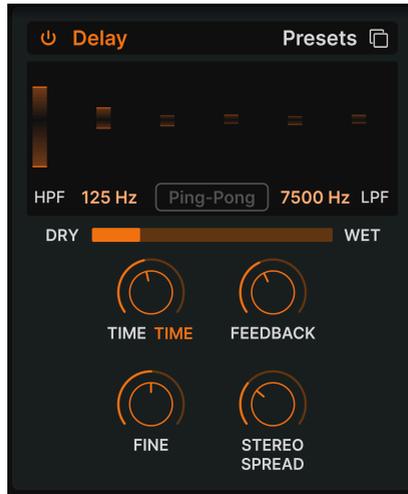
5.4.4. Reverb



Reverb is the sound of a space – a recording studio, concert hall, stairwell, tiled bathroom, you name it. Reverb is often used as the final effect in a chain to put everything else that’s going on into the same acoustic space, lending cohesiveness to the sound.

Control	Description
HPF	Reduces the high-frequency content before processing
LPF	Scoops out the low-frequency content before processing
Predelay	Sets the amount of time before the input signal is affected by the reverb
Decay (V)	Determines the length of time the reverb effect will last
Size (H)	Adjusts the size of the room: counter-clockwise is smaller, clockwise is larger
Damping	Controls the rate at which the high frequencies decay
Stereo Width	Adjusts the reverb from mono to an increasingly wide stereo space

5.4.5. Delay



Delay is a generic term for any effect that makes a copy of an input sound and repeats it later, one or more times. There are three delay effects in MiniBrute V, and this first one sounds good all around.

Control	Description
HPF	Higher values reduce low-frequency content with each echo
LPF	Higher values reduce high-frequency content with each echo
Time (H)	Changes the length of the delay, with unsynced and tempo-sync options (sync, triplets, dotted)
Fine	Fine-tunes the delay time using an offset in milliseconds
Feedback (V)	Adjusts how many times the delay will repeat
Stereo Spread/ Width	Higher values increase the distance between the left and right sides of the delayed signal
Ping Pong	Toggles alternating left/right echoes with exact rhythmic spacing; Stereo Spread parameter becomes Stereo Width

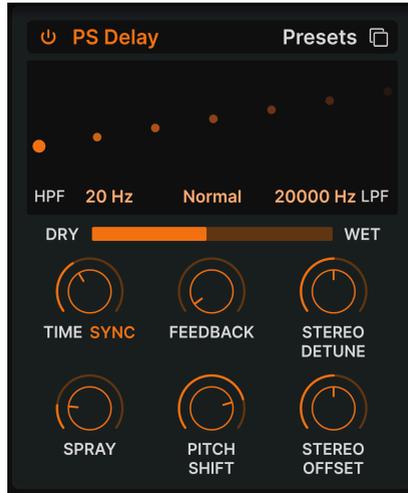
5.4.6. Tape Echo



Tape Echo is a characteristic of early tape-based delay machines such as the Maestro Echoplex and Roland Space Echo. Input sounds are recorded to a loop of tape with one or more playback heads to create the echoes. Because tape loops can be unstable and shift in pitch and timbre, they produce an effect that is warmer and less precise than a digital delay.

Control	Description
Input	Adjusts the incoming signal to achieve varying amounts of analog saturation
Time (H)	Changes the length of the delay, with unsynced and tempo-sync options
Intensity (V)	Sets the feedback amount of the delayed signal
Fine	Fine-tunes the delay time using an offset in milliseconds
Stereo Spread/ Width	Higher values increase the distance between the left and right sides of the delayed signal
Ping-Pong	Toggles alternating left/right echoes with exact rhythmic spacing; Stereo Spread parameter becomes Stereo Width

5.4.7. PS Delay



PS stands for **pitch-shifting** delay, a classic effect popularized by the Eventide Harmonizer. It works like a conventional delay, but in addition to being fed back to create echoes, the delayed audio signals are subjected to a pitch shift, either up or down.

Control	Description
HPF	Controls the cutoff of a highpass filter that affects the delayed signal only
LPF	Controls the cutoff of a lowpass filter that affects the delayed signal only
Time (H)	Sets delay time, with unsynced and tempo-sync options
Feedback	Controls how much of the delayed signal feeds back into the effect to be delayed again
Stereo Detune	Detunes the delayed signal relative to the incoming signal
Spray	Adds a scattering effect across the sound for each successive echo with slightly randomized echo times
Pitch Shift (V)	Adjusts the amount that the delayed signal is pitch-shifted relative to the incoming signal
Stereo Offset	Offsets the delayed signal in the stereo picture

5.4.8. Compressor

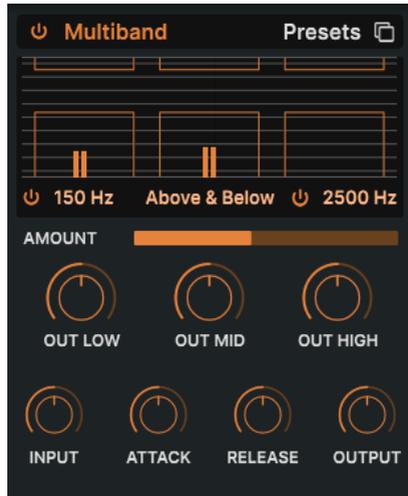


A **Compressor** is used to control the dynamic range of a sound: it reduces the difference between the softest and loudest levels a sound can have. It does this based on reducing a gain by a certain amount (the ratio) once the audio releases a certain level (the threshold).

Control	Description
Threshold (H)	Sets the level where compression will begin
Ratio (V)	Determines the amount of compression to be applied once the threshold is reached
Attack	Adjusts the speed with which the compression will be applied once the threshold is reached
Release	Sets the release curve of the compressor
Output Gain	Use this to compensate for changes in volume if compression settings lower the output gain
Makeup	Enables control of the output level to compensate for the gain reduction of the input

i 🎵 There's an old joke that's great for understanding compressors. Threshold is how loud your music has to be before your parents tell you turn it down. Ratio is how much you turn it down. Attack is how fast your parents react once it's too loud. Release is how soon you turn it back up once they're gone.

5.4.9. Multiband



A multiband compressor works like a series of regular compressors, but each one works on a separate range of frequencies (*band*). First used by mastering engineers to squeeze the maximum level out of recordings, these compressors are now used for subtle sculpting, sound design, special effects, and much more.

The multiband compressor is probably the most complex effect type in MiniBrute V, first of all because there are things you can *only* adjust by dragging inside visualizer. It can work on up to three frequency bands, and you can use the two on/off under the low and high bands to turn them on and off. You can also drag up or down on the numbers below the visualizer to set the frequency crossover between the low and mid bands (left number) and mid and high bands (right number).

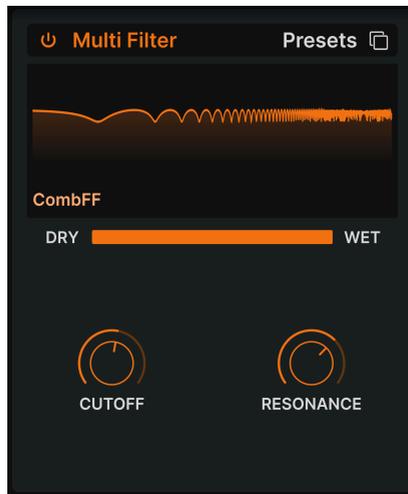
On top of all that, it's also an *expander*, which means it can boost soft signals. The orange bars with horizontal lines inside on the top are for compression; those below are for expansion.

With all this in mind, here is the parameter rundown:

Control	Description
Threshold (V)	Drag the border of an orange bar to adjust the point at which the compression (or expansion) starts working
Ratio (V)	Drag <i>inside</i> of a bar to adjust the amount of compression or expansion for that band. Increasing ratios are depicted by denser horizontal lines, until the inside bar turns solid orange at maximum
Band On/Off Icons	The high and/or low bands may be switched off, resulting in a 2- or 1-band compressor/expander
Low-Mid Crossover	Drag on this field, located at lower left of the visualizer, to change the crossover point between the low and mid bands
Mid-High Crossover	Drag on this field, located at lower right of the visualizer, to change the crossover point between the mid and high bands

Control	Description
Out Low	Independent output level control for low band
Out Mid	Independent output level control for mid band
Out High	Independent output level control for high band
Input	Sets the overall input gain
Attack	Sets the time it takes for the compressor/expander to "grab" the signal once a threshold is reached
Release	Sets the time it takes for the compressor/expander to "let go" of the signal once the signal falls beneath the threshold
Output	Governs the overall makeup gain while preserving the difference in output between the bands

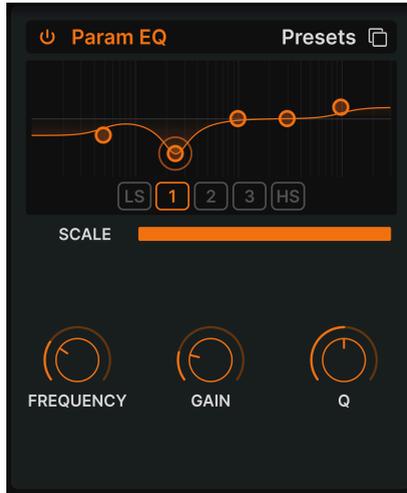
5.4.10. Multi Filter



Sometimes it's nice to have an extra filter handy for further sculpting your tone without needing to tie up the main [Steiner Filter \[p.18\]](#). The Multi Filter has five modes: lowpass, highpass, bandpass, feedback comb, and feed-forward comb. The comb filters simulate the behavior of a flanger with two different tonal qualities - CombFB produces a series of evenly spaced peaks, and CombFF produces evenly-spaced notches.

Control	Description
Filter type	Drag up or down on the letters to the lower left of the visualizer to choose the filter type
Slope	Click a selection at the lower right of the visualizer to choose the filter steepness; these do not apply to the comb filters
Cutoff (H)	Adjusts the cutoff frequency of the filter
Resonance (V)	Sets the resonance of the filter, which is a peak of frequencies clustering near the cutoff

5.4.11. Parametric EQ

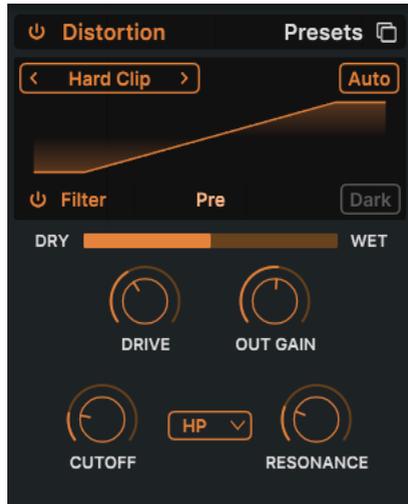


The Parametric Equalizer lets you sculpt tone precisely, as opposed to the broad tonal strokes you get from a synth filter or tone controls. It can be used to boost or cut certain frequencies gently or surgically, to alter the overall sound or remove problem frequencies.

The EQ in MiniBrute V has five bands, and you can adjust the frequency, gain (boost or cut), and Q (how wide the band is around the selected frequency) for each. In fact, the ability to tweak the frequency and bandwidth is just what “parametric” means.

Control	Description
Band select	Click one of the points in the visualizer or one of the five buttons below to select the band the next controls listed will affect
Scale	Adjusts the overall impact of the EQ curve on your sound
Frequency (H)	Selects the center frequency of the current band
Gain (V)	Adjusts the boost or cut to the level of the current band
Q	Adjusts the width of the spectrum around the Frequency that is affected by the boost or cut

5.4.12. Distortion



Distortion in MiniBrute V offers 16 different algorithms derived from our flagship distortion effect, [Dist COLDFIRE](#). Each has its unique sonic signature – and they can transform sounds in ways ranging from subtle warmth to all-out devastation.

5.4.12.1. Distortion algorithms



The 16 distortion types

Select the type of distortion by clicking on the left and right arrows at the top left of the effect's visualizer area, or bring up the pop-up menu shown above by clicking on the distortion type name between the arrows.

What do the algorithms sound like? Some come from familiar types of analog distortion - examples include gradually increasing amounts of gain (*Overdrive*, *Exponential*, *Soft Clip*, *Distortion*, *Hard Clip*), *Tape* saturation, and *Germanium* transistor preamp tone.

Other distortions are more digital in character - in addition to *Wavefolder* and *Dual Fold* (remember the [Metalizer \[p.17\]](#)) which fold the peaks of waveforms to create more harmonics, there are unusual types such as **Asymmetrical**, **Wiggle**, **Stairs**, **Howl**, **Core**, **Push**, and **Climb**.

Rather than offering lengthy technical descriptions of what each algorithm is doing "under the hood," we encourage you to click through them and explore their sound for yourself.

5.4.12.2. Common distortion controls

The distortion algorithms mostly share the same parameters, as well as an integrated lowpass/bandpass/highpass filter, as shown on this chart:

Control	Description
Drive (H)	Sets the amount of distortion via driving the input
Out Gain	Use this to compensate for increased output gain caused by the Drive setting
Auto (button)	Applies automatic volume compensation to the post-effect output
Filter on/off (button)	Toggles the integrated multi-mode filter
Filter pre/post (drag on text)	Places the integrated filter before or after the distortion process
Filter mode (pop-up)	Selects lowpass, bandpass, or highpass
Cutoff	Adjusts integrated filter cutoff frequency
Resonance	Adjusts integrated filter resonance
Dark	Applies high-frequency dampening to the output signal

Exceptions/additions to the above are:

- **Overdrive** is the only algorithm that also has a **Tone** control, which adjusts the brightness of the distorted portion of the output.
- The **Wavefolder** algorithm features a sine/sawtooth toggle for the folding in place of the filter pre/post setting. For more about wavefolding, see [Metalizer \[p.17\]](#).

5.4.13. Bitcrusher



A **bitcrusher** does exactly what it sounds like: it crushes bits! Technically, it can reduce both the bit depth and the sample rate of the signal. Bit depth (e.g. 16-bit vs. 8-bit) deals with differences in volume; sample rate (e.g. 44,100 kHz, like a CD) deals with frequency response. When musicians talk about the “lo-fi” sound of vintage samplers, game consoles, or computers, they’re talking about bitcrushing.

Control	Description
Bit Depth (V)	Reduces the number of bits used to render gradations in amplitude
Downsample (H)	Divides the sample rate used to represent the signal

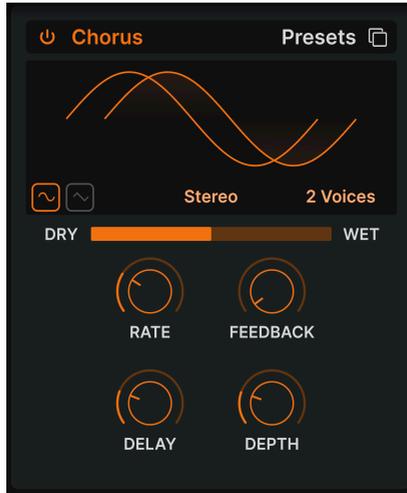
5.4.14. Super Unison



Not unlike a synth's Unison mode, this effect adds duplicates of the input signal to itself, with the option to detune them. The graphic indicates amount of detuning between the voices horizontally and volume of detuned voices vertically. The original signal is the tallest line in the center.

Control	Description
HPF	Controls the cutoff of a highpass filter that affects the processed signal only
LPF	Controls the cutoff of a lowpass filter that affects the processed signal only
Voices (H)	Sets the number of unison voices
Detune (V)	Determines the detuning amount
Rate	Adjusts the speed of modulation of all voices
Stereo Width	Adjusts the spread of the voices across the stereo picture

5.4.15. Chorus



Chorus is an effect first developed in the mid-1970s by Roland for the Jazz Chorus amplifier and CE-1 pedal. In a chorus, the dry signal is mixed with one or more slightly delayed copies of itself (called *voices*), whose amount of delay is gently varied by an LFO to create a sense of thickness.

Control	Description
Rate	Adjusts the speed of the chorus
Depth	Controls the intensity of the chorus
Feedback (V)	Adjusts the amount of chorused signal that is fed back into the effect
Delay (H)	Sets the amount of delay applied to the input signal
Stereo/Mono	Toggles mono or stereo operation
Voices	Toggle switch selects the number of delay lines the chorus will use (1, 2, or 3), with a different starting phase for each voice
Shape	Selects sine or triangle as modulation waveform

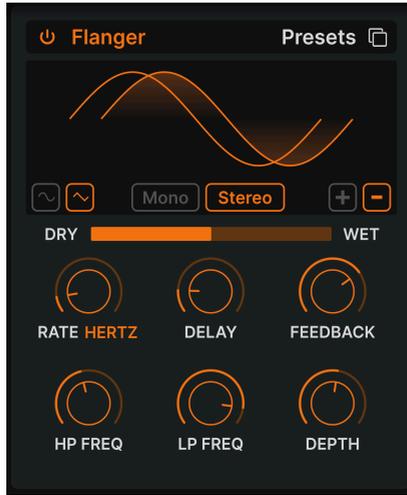
5.4.16. Chorus JUN-6



One of the most famous chorus effects is the one built into the Juno-6 synthesizer and its successors. This chorus is an accurate model of the original.

Control	Description
Rate (H)	The chorus rate, with unsynced and tempo-synced options
Depth (V)	The depth of the chorus effect in milliseconds
Phase	The phase of the chorused signal relative to the dry signal

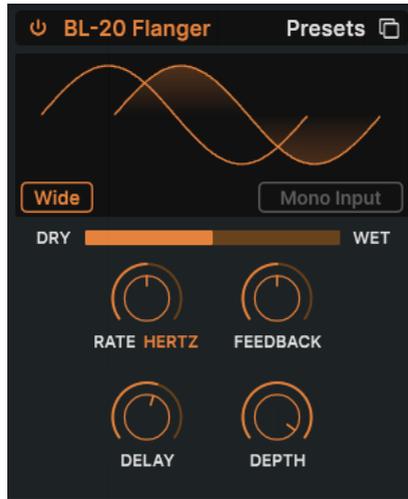
5.4.17. Flanger



The Flanger is an intense time/modulation effect. It originated from audio engineers pressing on the flange (rim) of a moving tape reel to slow down the playback a tiny bit. Combined with the original signal, this produces the signature “jet engine” effect.

Control	Description
Rate	Adjusts the rate of the LFO that controls the flanging speed, with tempo-synced options
Delay (H)	Changes the delay time between flanged and original signals, which affects the harmonic content
Feedback (V)	Adds feedback for a harsher or “ringing” sound. Maximum is 99% to avoid runaway feedback
Depth	Adjusts the depth of the delay that modulates the flanged signal
Mono/Stereo	Toggles mono or stereo operation
+/-	toggles the Flanger’s phase shifting between additive and subtractive
HP Frequency	Determines the amount of low-frequency content that will enter the flanger effect
LP Frequency	Determines the amount of high-frequency content that will enter the flanger effect

5.4.18. BL-20 Flanger



The **BL-20 Flanger** is based on the sound of Arturia's Flanger BL-20 plug-in, which is in turn based on the sound of the rare and beautiful-sounding Bel BF-20 hardware flanger from the 1970s.

Control	Description
Wide	Provides a wider stereo image by inverting the phase of the LFO modulating the right channel
Mono Input	When engaged, optimizes the flanger for processing a monaural signal
Rate	Adjusts the rate of the flanger, with unsynced and tempo-synced options
Delay (H)	Adjusts the audible depth of the flange effect
Feedback (V)	Adjusts the amount of effected signal feeding back into the flanger
Depth	Adjusts the depth of the LFO that modulates the delayed signal

5.4.19. Phaser



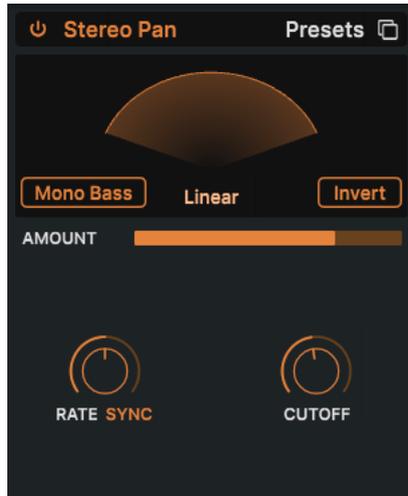
Phase shifting splits the incoming signal, changes the phase of one side, and recombines it with the unaffected signal. Modulation of this signal via an LFO results in a notch-comb filter that sweeps through the frequency spectrum, causing that familiar “whooshing” sound.



Two iconic uses of the phaser are on analog strings by Gary Wright and Jean Michel Jarre, and on electric piano by Steely Dan.

Control	Description
Rate	Adjusts the rate of the phaser, with unsynced and tempo-synced options
Feedback (V)	Controls the amount of phased signal feeding back into the effect for a more resonant sound
Amount	Adjusts the intensity of the phasing effect
Frequency (H)	Sets the harmonic center of the phasing effect
N. Poles	Determines the steepness of the phaser’s filter frequency response
Mono/Stereo	Toggles the phaser between mono and stereo output

5.4.20. Stereo Pan



Stereo Pan automatically moves the stereo position of the MiniBrute V sound, to provide motion and breadth.

Control	Description
Rate (V)	Controls the speed of stereo panning, with tempo-synced and unsynced options
Natural/ Linear	Toggles whether the signal pans according to a linear volume relationship between the sides, or a gentler logarithmic curve
Invert	Flips the side-to-side panning
Mono Bass	When engaged, low frequencies will not be panned, as may be desirable for a solid bass sound with movement in the treble
Cutoff	When Mono Bass is active, sets the point at which low frequencies (50-200Hz) will not be panned

6. USER INTERFACE



This chapter covers everything that is not in the main panel or the Effects view – all the utilitarian functions that make MiniBrute V a joy to use in a modern music production environment.

The toolbars above and below the main panel of MiniBrute V contain a number of important functions for Preset selection, housekeeping, and other utility settings.

Then there's the side panel, where you make important global and MIDI settings, where you can use and create [Macros \[p.74\]](#) to control several settings with a single control movement, and can explore MiniBrute V via interactive tutorials.

The Upper Toolbar includes:

- The [Main Menu \[p.57\]](#)
- The Preset Name Pane and [Preset Browser \[p.77\]](#) access button
- Buttons to open the [Effects \[p.34\]](#) panel and bypass all effects at once
- A gear-shaped icon that opens the [side panel \[p.66\]](#)

The Lower Toolbar includes:

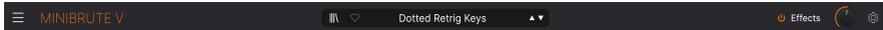
- The [parameter description area \[p.13\]](#) that shows info when you hover over any control
- A context-sensitive pop-up menu for [Polyphony \[p.63\]](#) and [Unison settings \[p.63\]](#)
- [Undo, Redo, and History \[p.64\]](#)
- The [CPU Meter \[p.65\]](#) and [Panic \[p.65\]](#) functions
- Duplicate knobs for the [Macros \[p.65\]](#) in the side panel
- A [corner grab handle \[p.65\]](#) for resizing the MiniBrute V window

The side panel includes:

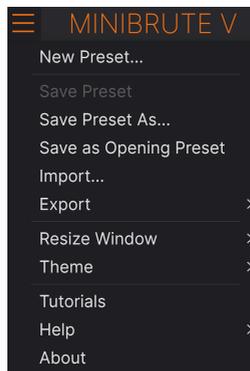
- [Settings \[p.66\]](#)
- [MIDI \[p.69\]](#)
- [Macros \[p.74\]](#)
- [Tutorials \[p.60\]](#)

6.1. Upper Toolbar

Let's start with the Upper Toolbar, covering its functions from left to right.



6.1.1. Main Menu



Clicking the “hamburger” icon (three horizontal lines) in the top left corner of the upper toolbar opens the Main Menu, a drop-down menu that lets you access a number of useful functions related to Preset management and more.

6.1.1.1. New Preset

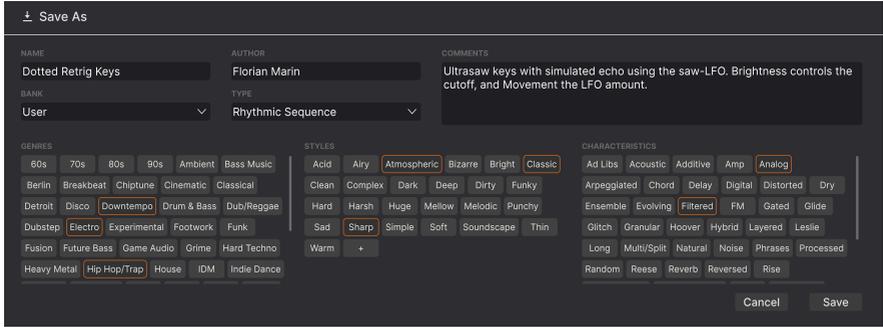
Creates a new Default Preset with initialized settings for all parameters.

6.1.1.2. Save Preset

Overwrites the current Preset with any changes you have made. This applies only to user presets, so this option is greyed-out for factory presets.

6.1.1.3. Save Preset As...

This option saves the current settings of MiniBrute V under a new Preset name. Clicking this option reveals a window where you can name your Preset and enter more detailed information about it:



 The Bank, Author, and Type fields are all useful when searching for Presets in the [Preset Browser \[p.77\]](#). All of the words in the boxes below are [tags \[p.78\]](#), which can further help refine searches in the Preset Browser.

6.1.2. Save as Opening Preset

This menu item only appears if you're using MiniBrute V in a DAW as plug-in. It saves the current Preset so that it is the default whenever you instantiate MiniBrute V in an instrument track.

6.1.2.1. Import...

This command lets you import a Preset file or entire Bank stored on your computer. It opens a navigation window in your computer's OS to find the proper files.

6.1.2.2. Export...

You can export Presets to your computer in two ways: as a single Preset, or as a Bank. In either case, an OS-level navigation window lets you specify where to save the file(s). Both individual Presets and Banks have the filename extension `.mbrtx`.



- **Export Preset:** Exporting a single Preset is handy for sharing a preset with someone else. The saved preset can be reloaded using the **Import** menu option.

- **Export Bank:** This option exports an entire Bank of Presets, which is useful for backing up or sharing many Presets at once. Saved Banks can be reloaded using the **Import** menu option.

6.1.2.3. Resize Window



MiniBrute V can be resized from 50% to 200% of its default size (100%) without any visual artifacts. On a smaller screen such as a laptop, you may want to reduce the interface size so it doesn't dominate the display. On a larger screen or a second monitor, you can increase the size to get a better view.

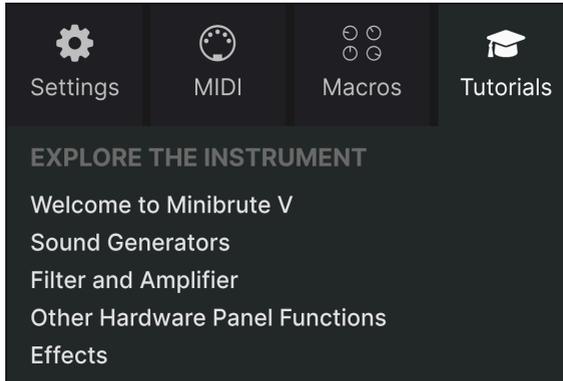
You can also do this using keyboard shortcuts: every time you press CTRL- (Windows) or CMD- (macOS), the window will shrink by one size increment, and every time you press CTRL+ (Windows) or CMD+ (macOS), the window will grow by one size increment.

In addition, you can click-drag the [resize handle \[p.65\]](#) at the right of the lower toolbar. MiniBrute V will snap to the nearest size in the Resize menu.

6.1.2.4. Audio MIDI Settings

These appear only if MiniBrute V is working in [stand-alone mode \[p.7\]](#). Used as a plug-in, these are handled in the context of your DAW or host software. Refer to the chapter on [Activation \[p.6\]](#) for details on the settings for both Windows and macOS.

6.1.2.5. Tutorials



MiniBrute V comes with interactive tutorials that walk you through different features of the plug-in. Clicking this option opens a pane on the right side of the window where the tutorials appear. Select one to access step-by-step descriptions that highlight the relevant controls and walk you through the process.

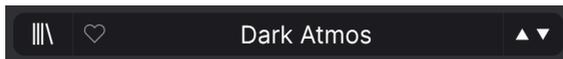
6.1.2.6. Help

Get more help by visiting links to this user manual and Frequently Asked Questions pages on Arturia's website. You will need an internet connection to access these pages.

6.1.2.7. About

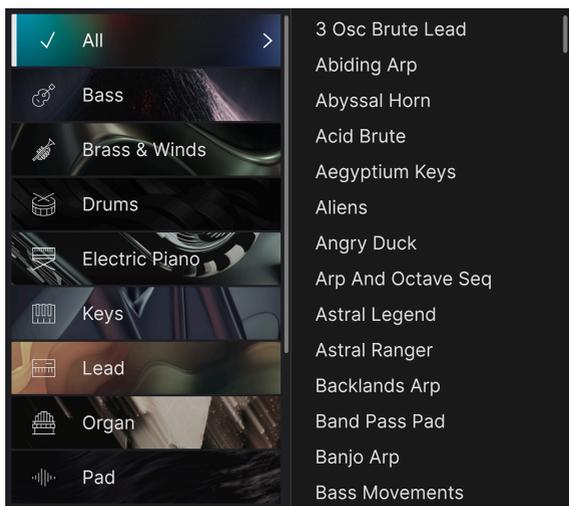
Here you can view the software version and developer credits. Click again anywhere on the screen (outside the About window but inside the plug-in) to make this pop-up window disappear.

6.1.3. Preset Browser access and name pane



The Preset Name Pane

Clicking the “books on a shelf” button opens the [Preset Browser \[p.77\]](#), which offers a myriad of ways to browse, sort, and organize Presets in MiniBrute V. You can also press control-enter to open the browser.

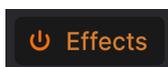


Clicking on the Preset name also opens up quick drop-down menus for selecting Presets outside of the Browser, as shown above. You can look at lists of Presets organized by Type (the left column) as shown above, or look at All Presets at once.

Everything you need to know about managing Presets is covered in detail in [the next chapter \[p.77\]](#). This includes working with Favorites, which are tagged by clicking the heart icon.

i Note: An asterisk (*) just after the name in the Preset Name Pane indicates that you've edited the currently loaded Preset. Be sure to save your changes (if you want to keep them) before selecting another Preset!

6.1.4. Effects Button



Clicking this button opens up the [Effects \[p.34\]](#) panel, which is covered in detail in chapter 5 of this manual. The on/off icon at left toggles all the effects as in or bypassed, without losing any of the effects' settings.

6.1.5. Main Output Volume



This simply controls the overall output level of MiniBrute V. It is the final volume stage, downstream of any other instrument or effects parameter that affects levels. It can be useful for adjusting the instrument's level in a DAW track, especially if the signal is too loud, without needing to switch to your DAW mixer view.

6.1.6. Gear icon

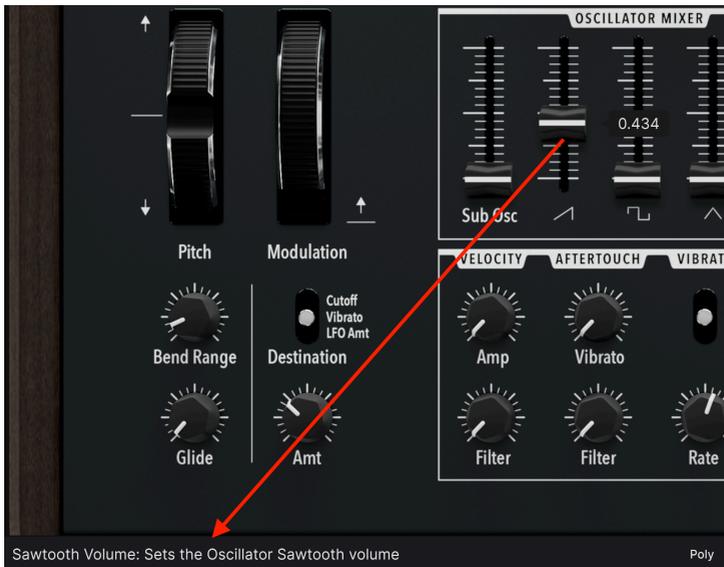


This opens the [side panel \[p.66\]](#) where settings, Macros, and tutorials reside.

6.2. Lower Toolbar

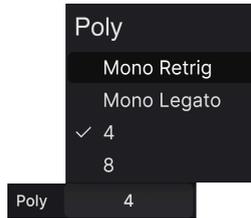
The Lower Toolbar of the MiniBrute V interface contains the Parameter Name display and Polyphony/Unison settings, buttons to show the onscreen keyboard, undo/redo actions, an action history, CPU meter/Panic button, and more useful functions. Let's describe them all, from left to right.

6.2.1. Parameter descriptions



Operate or hover on any knob, button, icon, or other control, and a brief description of what it does appears in the lower left-hand corner.

6.2.2. Polyphony

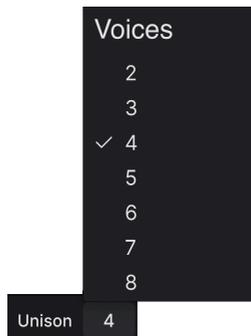


This pop-up menu selects whether MiniBrute V plays monophonically or polyphonically – the hardware MiniBrute was mono only. The four options are:

- *Mono Retrig*: Monophonic, any new note retriggers the envelopes and LFO
- *Mono Legato*: Monophonic, envelopes and LFO only retrigger if previous note is released before a new note is played
- *4*: Polyphonic, four voices
- *8*: Polyphonic, eight voices

i The Mono Legato setting can be very expressive on synth solos. *Legato* refers to playing a new note slightly before you release the previous note. On a piano, this produces gentler musical expression. In MiniBrute V, you could have the filter begin with a bright sound but then reduce the cutoff via the Filter Envelope. In Mono Legato mode, playing legato would voice new notes with the mellower sound; letting fully off the key and *then* playing a new note would trigger the brighter tone because it restarts the Filter Envelope at the beginning of its cycle.

6.2.2.1. Unison settings



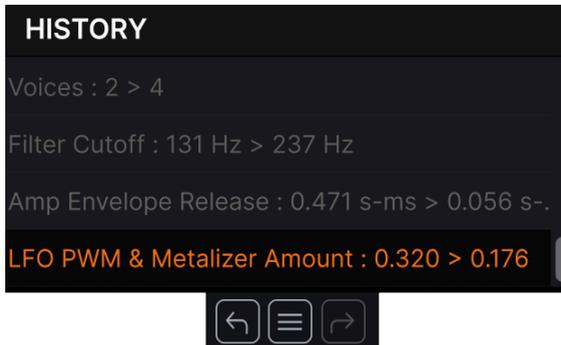
When the [Unison \[p.23\]](#) button on the main panel is active, another pop-up menu appears to the left of the Polyphony menu. Here, you select the number of voices involved in the unison sound. In the Polyphony menu, only the two Mono options remain, as Unison is monophonic-only in MiniBrute V.

6.2.3. Keys button



Click this button to show or hide the MiniBrute V [onscreen keyboard \[p.24\]](#).

6.2.4. Undo, Redo, and History



When editing a virtual instrument, it's all too easy to overshoot the sweet spot for one or more controls, and then wonder how to get back to where you were. Like all Arturia plugins, MiniBrute V offers comprehensive Undo, Redo, and History functions so that you always have a safe way back.

6.2.4.1. Undo

Click the left arrow to revert to the state before the most recent edit you made. You may click repeatedly to undo several edits in reverse time order.

6.2.4.2. Redo

Click the right arrow to redo the most recent edit you undid. If you have undone several, you may click repeatedly to redo them in forward time order.

6.2.4.3. History

Click the "hamburger" (three lines) button to open the History window, as shown above. This provides a step-by-step account of every move you have made in MiniBrute V since you opened it in stand-alone mode or opened a DAW project containing it. Clicking on an item in the list not only re-executes that move – it returns the plug-in to the overall state it was in when you first made that move.

6.2.5. CPU Meter



At far right is the **CPU Meter**, which displays the overall load MiniBrute V is placing on your computer CPU. Since it deals only with MiniBrute V, it is not a substitute for the resource metering tools in your DAW.

6.2.5.1. Panic



Mousing over the CPU Meter accesses the PANIC function

Mouse over the CPU Meter, and it will display the word PANIC. Click to send an all-sounds-off command that silences any sound processed through MiniBrute V. This is a momentary command, so sound will resume if your DAW is still playing.

In the event of serious runaway audio (say, from an unrelated delay effect that has gone into a feedback loop), stop your DAW playback and disable the plug-in causing the problem.

6.2.6. Macro controls



These controls can affect multiple parameters by turning just one of them, and mirror the actions of those found in the [Macros \[p.74\]](#) tab of the side panel. Factory Presets are pre-programmed with useful Macros.

6.2.7. Resize handle



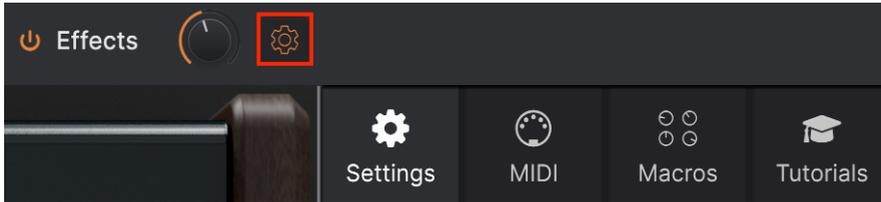
Grab and drag the diagonal lines to the right of the Macro controls to resize the MiniBrute V window. When you release the mouse, the window will snap to the closest size available in the [Resize Window \[p.59\]](#) item of the [main menu \[p.57\]](#).

6.2.8. Max View button



Sometimes, you may see the above button with two diagonal arrows appear over the resize handle. This happens when, for some reason, the window size is not displaying all of the controls of MiniBrute V. Click it to restore a full view of the open controls.

6.3. The Side Panel



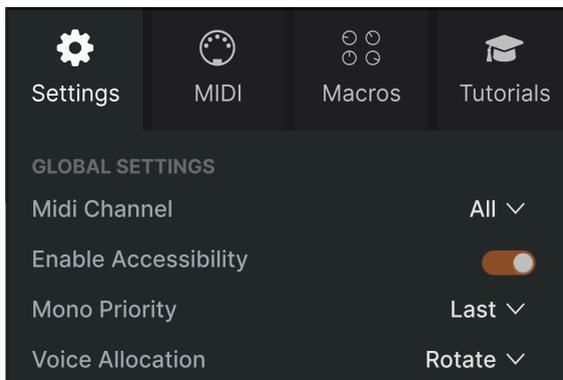
The gear-shaped icon at the top right of the Upper Toolbar opens the **Side Panel**, which in turn contains four tabs covering important subsystems that you won't have to access quickly when you're playing or editing sounds in MiniBrute V:

- **Settings:** Global settings such as MIDI receive channels and accessibility
- **MIDI:** MIDI Learn functions for use with MIDI CC messages sent from a controller or DAW
- **Macro:** Assignments for four Macros that can control multiple parameters with a single knob twist
- **Tutorials:** In-app interactive tutorials, also accessible from the main menu

Let's look at them from left to right.

6.3.1. Settings Tab

This tab covers settings to control how a Preset responds to incoming MIDI.



The Side Panel's Settings tab

6.3.1.1. MIDI Channel

Selects the MIDI channel(s) on which MiniBrute V will receive MIDI input. You can select a particular channel, or choose "All" for Omni Mode.

6.3.1.2. Enable Accessibility

This gives your computer's system-level accessibility tools for differently abled persons access to MiniBrute V.

6.3.1.3. Mono Priority

Priority refers to which note is heard when two or more keys are played on a monophonic synth. This drop-down menu selects lowest, highest, or last-note priority for when MiniBrute V is in Mono Retrigger or Mono Legato [modes](#) [p.63].

6.3.1.4. Voice Allocation

When MiniBrute V is in 4- or 8-voice polyphonic mode, this parameter determines how the supply of voices meets the demand of new notes being played.

- *Rotate*: New notes played will always use a new voice. If all voices are playing, an older voice will be stolen.
- *Reassign*: When a voice is used to play a note once, that same voice will be reassigned each time you play that note again.

6.3.1.5. MPE Settings

MiniBrute V supports MIDI Polyphonic Expression (MPE). This exciting application of the MIDI protocol allows a multi-dimensional controller to send polyphonic expressive controls (like pitch-bend, aftertouch, or your finger location on the Y axis of a key) on a per-note basis. This is done by using separate MIDI channels to carry each note's expressive data separately. This data is then interpreted by synthesizers like MiniBrute V.



Examples of MPE controllers include the Haken Continuum, ROLI Seaboard, and Keith McMillen KBoard Pro.



The MPE controls are:

- **Enable MPE:** Turns MIDI Polyphonic Expression mode on and off.
- **Zone:** If an MPE-capable controller can be split into lower and upper zones, this selects which zone sends the MPE messages.
- **No. Channels:** Sets the maximum number of MIDI channels (and therefore simultaneous notes) on which MPE messages may be sent.
- **Bend Range:** Sets the maximum pitch bend range of each note, up to 96 semitones (48 by default). This should be set to the same value as on your hardware MPE controller.
- **MPE Slide 1/2:** Determines amount that slide (moving your finger toward or away from you along the Y axis of a key) sends. These are bipolar knobs.

Via the Slide 1 and 2 controls, you can send data from a slide movement to two destinations at once and at differing depths if desired. Click on the name ("None" by default) to the right of either Slide knob to show a pop-up menu:

None	Amp Env Attack
✓ OSC Ultrasaw Amount	Amp Env Decay
OSC Ultrasaw Rate	Amp Env Sustain
OSC PWM Amount	Amp Env Release
OSC PWM ENV Amount	LFO PWM & Metalizer Mod Amount
OSC Metalizer Amount	LFO Pitch Mod Amount
OSC Metalizer ENV Amount	LFO Filter Mod Amount
Mixer Sub Osc Volume	LFO Amp Mod Amount
Mixer Saw Volume	LFO Rate
Mixer Square Volume	ARP Rate
Mixer Triangle Volume	Unison Detune
Mixer Noise Volume	Glide Time
Filter Cutoff Frequency	FX1 Dry/Wet
Filter Resonance	FX1 Param
Brute Factor	FX2 Dry/Wet
Filter Env Amount	FX2 Param
Filter Env Attack	FX3 Dry/Wet
Filter Env Decay	FX3 Param
Filter Env Sustain	FX4 Dry/Wet
Filter Env Release	FX4 Param

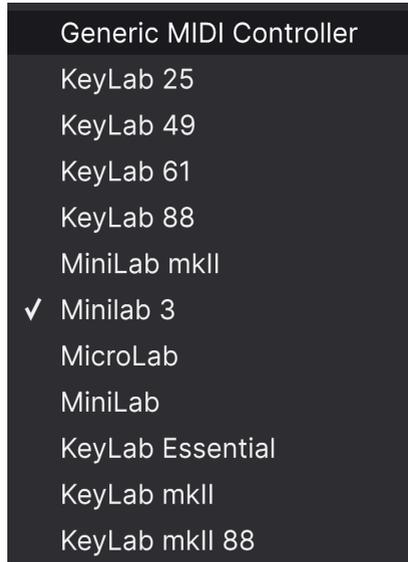
6.3.2. MIDI Tab



The Side Panel's MIDI tab

This is where MiniBrute V may be placed in MIDI Learn mode. In this mode, all MIDI-assignable parameters on the main the Hardware Panel and the Effects view are highlighted. You can map physical controls on your MIDI controller to them. A typical example might be to map a real expression pedal to the Master Volume control, or a physical knob on the MIDI controller to the Frequency knob of the Filter section.

6.3.2.1. MIDI Controller menu



The MIDI Controller menu

At the top right of the MIDI tab is the **MIDI Controller** drop-down menu, where you can select templates for many Arturia MIDI controllers. These map physical controls to many “most wanted” parameters in MiniBrite V for a plug-and-play experience. MiniBrite V automatically recognizes and selects a connected Arturia controller. A Generic template is provided for third-party MIDI controllers.

6.3.2.2. MIDI Config menu



The MIDI Config menu

The **MIDI Config** drop-down lets you manage different sets of MIDI maps for controlling MiniBrite V from MIDI hardware. You can Save/Save As the current MIDI assignment setup, Delete it, Import a configuration file, or Export the currently active one.

This is a quick way to set up different hardware MIDI keyboards or controllers with MiniBrite V, without having to build all the assignments from scratch each time you swap hardware.

For example, if you have multiple hardware controllers (small live keyboard, large studio keyboard, pad controller, etc.), you can create a profile for each of them, save them, and then quickly load them here. This saves you from having to redo the MIDI mapping assignments from scratch each time you swap hardware.

Two options in this menu are especially powerful:

- **Default:** Gives you a starting point with predetermined controller assignments.
- **Empty:** Removes the assignments of all controls.

6.3.2.3. Assigning and unassigning controls



When MIDI Learn is active, available parameters are purple and already assigned parameters are red.

Click the **Learn** button in the MIDI tab to put MiniBrite V into Learn mode. Controls available for assignment are purple. Controls that are already assigned are red, but can be reassigned if desired. The screenshot above shows the assigned and unassigned controls for MiniBrite V's Default configuration.

Click any purple control and its name will appear in the list. Now, move a control or operate a switch on your MIDI controller. The corresponding control onscreen will turn red and the assigned MIDI CC number will appear in the list to the left of the parameter name.

To unassign a control onscreen, control-click or right-click it. Alternative methods of assignment are available in the [MIDI Parameter Menu \[p.73\]](#) described below.

 Controls in the Main, Advanced, and FX areas are all available for MIDI learning, as are the Preset up and down arrows in the upper toolbar.

6.3.2.4. MIDI channel, CC, and min and max values

Ch	CC	Control	Min	Max
1	16	Brute Factor	0.00	1.00
1	17	Vintage Amount	0.00	1.00
1	18	Filter Keyboar...	0.00%	200%
1	19	Filter Mode	0.00	1.00
1	71	Filter Resonan...	0.00	1.00

The MIDI Config menu

The first two columns in every MIDI assignment list the MIDI Channel (**Ch**) and MIDI Continuous Control Change number (**CC**) for the assignment. Up to 16 Channels are available on any MIDI stream, and the 127 possible MIDI Control Change numbers, while freely assignable, follow certain conventions on most instruments. For example, Modulation Wheel is almost always MIDI CC 1, Master Volume is CC 7, and Sustain Pedal is CC 64.

The **Min** and **Max** value columns for each parameter in the list let you scale the amount by which a parameter in MiniBrute V changes in response to a physical control movement. For example, you may wish to limit the range of a filter sweep, even though you're probably going to turn the knob all the way during a live performance.

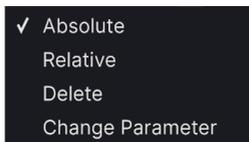
Drag up or down on a value to change it. Setting the maximum lower than the minimum reverses the polarity of the physical controller, i.e. turning it *up* will turn the assigned parameter *down*.

Switches that only have two positions (On/Off, etc.) would normally be assigned to buttons on your controller, but it's possible to toggle those with a fader or another control if you like.

 Don't forget that many items in the Advanced views (Sequencer, Modulators, and Effects), not just settings on the main panel, may be MIDI Learned.

6.3.2.5. MIDI Parameter Menu

Control-clicking or right-clicking on any item in the list - only the list, not the main interface - of assigned parameters brings up a convenient menu with the following options, which can be different for each parameter.



Right-clicking a parameter gives you these options

- **Absolute:** The assigned parameter in MiniBrute V tracks the literal value your physical controller is sending out.
- **Relative:** The assigned parameter in MiniBrute V will go up or down from its current value in response to physical controller movements. This is often useful when using endless 360-degree encoders that don't have physical motion limits.
- **Delete:** Removes the assignment and turns the corresponding onscreen control purple again.
- **Change Parameter:** Brings up a large sub-menu of every assignable parameter in MiniBrute V. This lets you change the assignment of the current CC/physical control manually, and is useful when you know exactly the destination you're looking for.

6.3.2.6. Reserved MIDI CC numbers

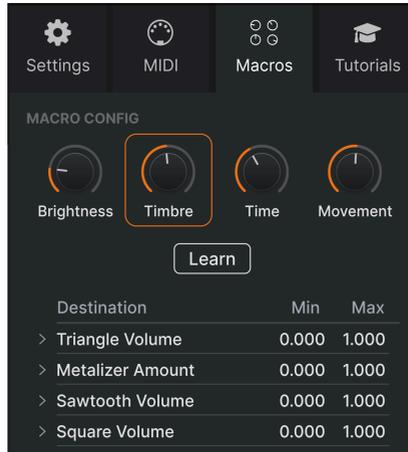
Certain MIDI Continuous Controller (CC) messages are reserved and cannot be reassigned to other controls. These are:

- Pitch-bend
- Aftertouch (channel pressure)
- All Notes Off (CC 123)

All other MIDI CC messages may be freely assigned to control any parameter in MiniBrute V.

6.3.3. Macros Tab

This tab handles assignments for the four Macro knobs on the right side of the Lower Toolbar. You can assign multiple parameters to each one, then use [MIDI Learn \[p.69\]](#) to assign the Macro itself to a physical control if you want.



The Side Panel's Macro Tab



Macros are saved at the Preset level.

6.3.3.1. Macro slots

Click one of the Macro knobs to select which Macros you want to work with. The default names are *Brightness*, *Timbre*, *Time*, and *Movement*, but you can rename them by double-clicking the name field. The knob above the name field corresponds to the knob of the same name in the [Lower Toolbar \[p.65\]](#).

6.3.3.2. Making Macros

Click the **Learn** button in the Macro tab and you will see that the process works much like MIDI assignments – available destinations turn purple and ones already assigned turn red. Click on a purple control onscreen and its name will appear on the list.

To remove a parameter from the Macro, right-click its name in the list and select **Delete**. Parameters under Macro control have **Min** and **Max** values and may be scaled by dragging up or down directly on the number, just as is done with MIDI assignments. To reverse the polarity of a parameter (i.e. have it go down when you turn the Macro knob up and vice-versa), set the minimum value higher than the maximum.



♪ You can name and assign parameters as you like to Macros. Keep in mind, though, that clarity is usually better than cleverness when you're working on a track.

6.3.3.3. Macro curves

Beyond simple scaling, you can customize a curve that determines how each parameter under the Macro's control proceeds from its minimum to maximum value and back when you turn the Macro knob. Click the > icon next to the parameter name to open the curve window.

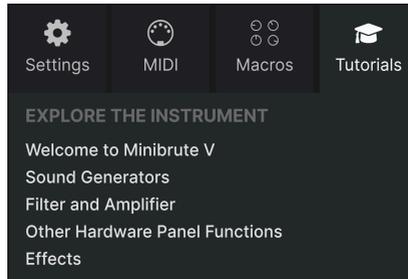


The vertical line corresponds to the position of the Macro knob

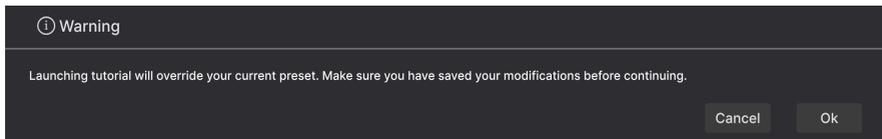
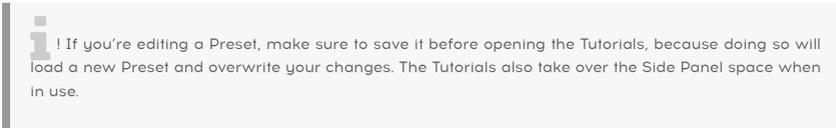
The X-axis represents how much the corresponding Macro knob is turned clockwise, and the Y-axis represents the scale of change to the target parameters. You can set a different curve for every parameter controlled by a Macro.

Click on the curve to add a breakpoint, represented by a small circle. You can then drag the point and the curve segments between it and its nearest neighbors will change accordingly. Right- or control-click on a point to remove it. The first and last breakpoints cannot be removed.

6.3.4. Tutorials Tab



In this tab, which can also be opened by selecting **Tutorials** from the MiniBrute V [main menu \[p.57\]](#), you can click on titles for the individual chapters, which in turn will take you through different areas of MiniBrute V in steps. The parts of the panel to focus on are highlighted as you go.



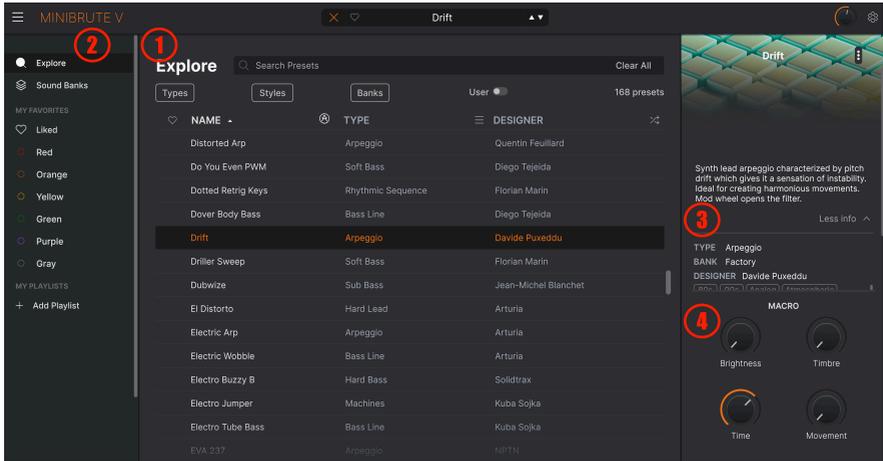
Warning pop-up when launching a tutorial

7. THE PRESET BROWSER

The Preset Browser is how you search, load, and manage sounds in MiniBrute V. It can display different views but they all access the same Presets and subgroups of Presets.

To access the browser, click the browser button (the icon looks like books on a library shelf). To close the browser, click the **X** that appears in its place.

The browser has four main areas:

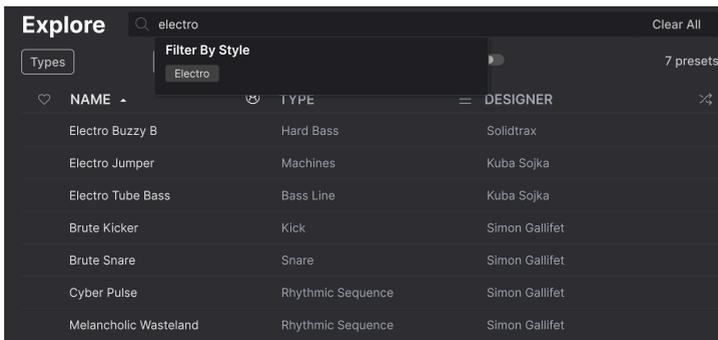


Number	Area	Description
1.	Search and Results [p.77]	Search Presets with text strings, and by tags for Type and Style.
2.	Sidebar [p.82]	Manage Banks, Favorites, and Playlists.
3.	Preset Info [p.84]	Summary of Bank and Tags, Designer name, and description info for current Preset.
4.	Macro Knobs [p.87]	Large size duplicates of Macro knobs in Lower Toolbar and the Macros tab.

7.1. Search and Results

Click on the Search field at the top and enter any search term. The browser will filter your search in two ways: First, by matching letters in the Preset name. Then, if your search term is close to that of a [Type or Style \[p.78\]](#) it will include results fitting those tags as well.

The Results list beneath shows all Presets that fit your search. Click the X icon at right to clear your search terms.

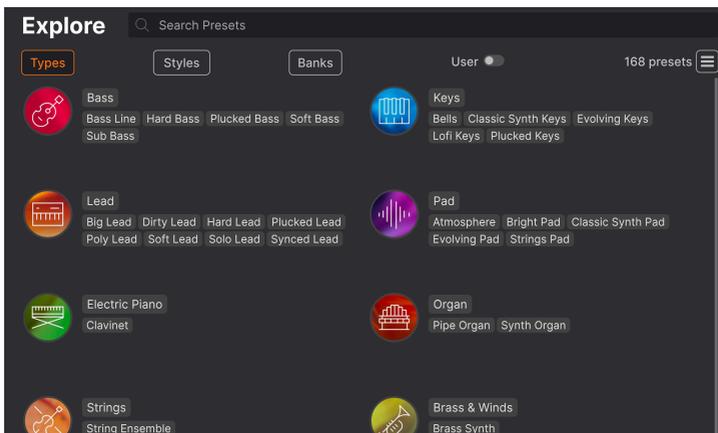


7.2. Using Tags as a Filter

You can narrow (and sometimes expand) your search using different tags. There are two kinds of tags: *Types* and *Styles*. You can filter by one, the other, or both. Our extensive range of MIDI controller keyboards also allows you to browse sounds directly from the MIDI keyboard.

7.2.1. Types

Types are categories of instruments. In MiniBrute V, Types include Bass, Keys, Lead, Pad, Strings, Organ, and more – most with subtypes that further define the kind of instrument or sound. The final Type is a Template Type for designing your own Presets. With a clear search bar, click the **Types** button to bring up this list.



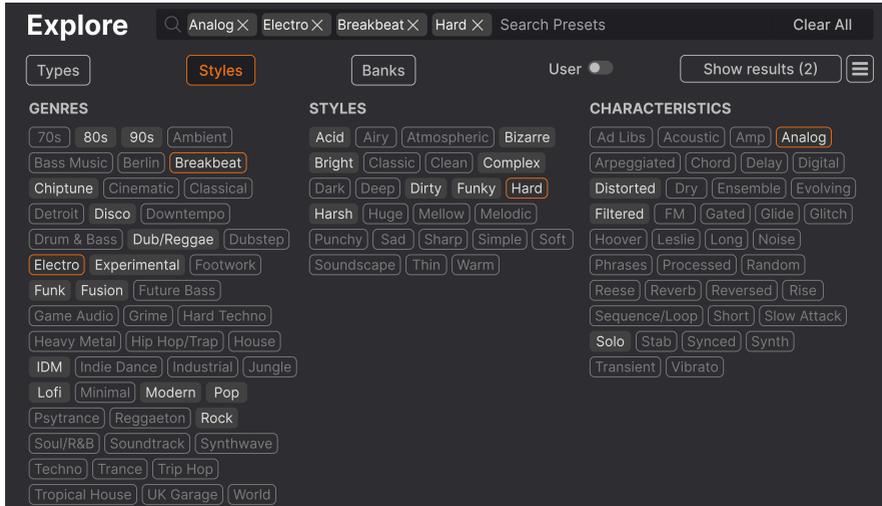
Click any one of them, and the results will show only Presets that match that tag. You can also select multiple Types using Cmd-click (macOS) or Ctrl-click (Windows). For example, if you aren't sure whether the Leads Preset you're looking for was tagged with the subtype "Poly Lead" or "Solo Lead", select both to broaden the search.

Results columns can be sorted and reverse-ordered by clicking the arrow buttons to the right of their titles (Name, Type, Designer).

7.2.2. Styles

Styles refine your search according to further musical attributes. Accessed by the **Styles** button, this area has three further subdivisions:

- **Genres:** Identifiable musical genres such as decades, Trance, Techno, Synthwave, Disco, etc.
- **Styles:** General “vibe” such as Atmospheric, Dirty, Clean, Complex, Mellow, etc.
- **Characteristics:** Sonic attributes such as Analog, Evolving, Distorted, Dry, Rise, etc.



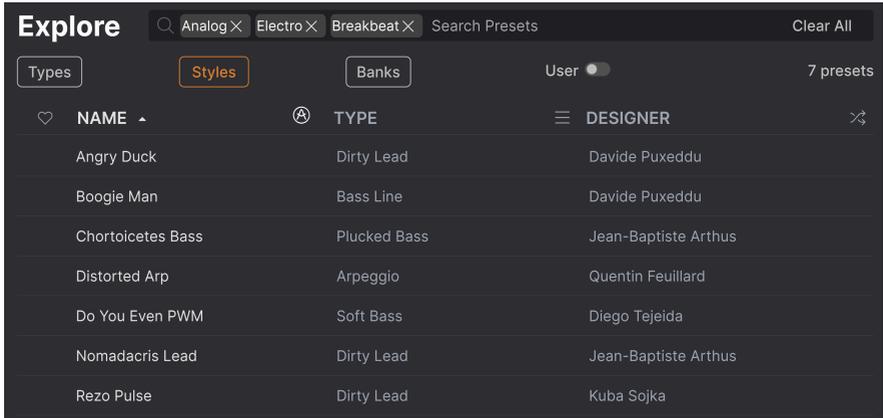
Click on any tag to select it. Click again (or right-click) on any selected tag to de-select it. Notice that when you select a tag, several other tags usually disappear. This is because the browser is narrowing your search by a process of elimination. De-select any tag to remove that criterion and widen the search without having to start all over again.

7.2.3. Banks

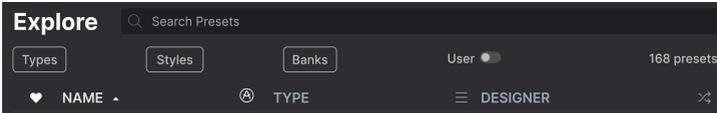
Next to the **Types** and **Styles** buttons is the **Banks** button, which lets you do your search (using all the methods above) within the factory bank or user banks, as well as anything you've purchased from the [Arturia Sound Store](#).

7.3. Search Results window

Click the **Show Results** button if you cannot already see your list of results. Click the sort arrow to reverse the alphabetical order of any column. You can also click the “hamburger” (three lines) icon next to Show Results. The icon will change to four panes, and you will be able to see the Presets that fit your selected tags, as well as other tags that apply to them, like so:



7.3.1. Sorting the Preset Order



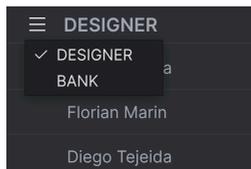
Click the **NAME** header in first column of the Results list to sort Presets in ascending or descending alphabetical order.

Click the **TYPE** header in the second column to do the same thing by Type.

Click the **Arturia logo** to the left of **TYPE** to bring factory-featured Presets to the top of the list. These will appear just under any Presets you have [liked \[p.81\]](#).

Click the **User** toggle switch to restrict your search to Presets in user banks.

The third column has two header options: **DESIGNER** and **BANK**. Click the icon with three lines to choose between the two. Then click either header name as with the other two columns to switch the alphabetical order.



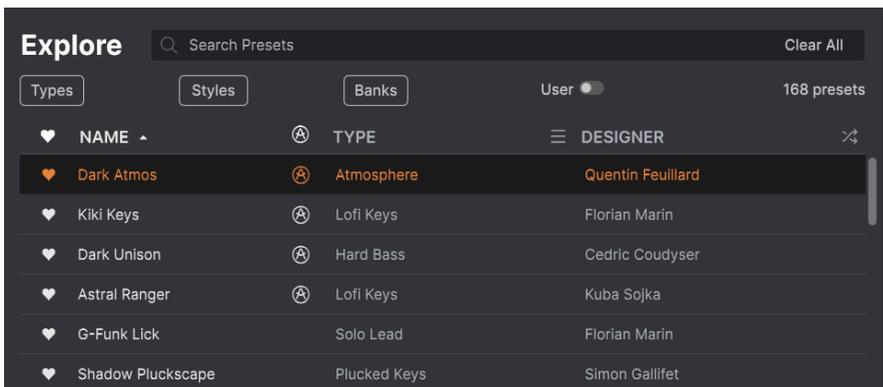
7.3.2. Clearing Tags

Just above the Types, Styles, and Banks buttons, you will see labels for all the active tags in a search. Click the X next to any one to remove it (and thus broaden the results). Click **CLEAR ALL** to remove all tags.



7.3.3. Liking Presets

As you explore and create Presets you can mark them as Liked by clicking the **heart** that appears to the left when you hover the mouse over a preset name. Later, click on the heart icon at the top to put all of your favorites at the top of the Results list.



7.3.3.1. Shuffle Presets



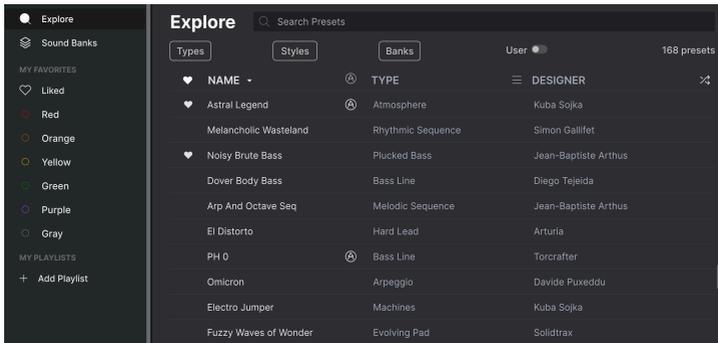
Clicking the “crossed arrows” button randomly reorders the Presets. This can be useful for finding something you like when your search results are a long list that takes time to scroll through – it might bring a killer Preset to the top. Shuffle mode is a toggle, so clicking it again will restore your search results to however they were previously sorted (by name, type, etc.).

Use as many of the sorting and filtering features as you need and you will find the exact sound you want every time.

7.4. Sidebar

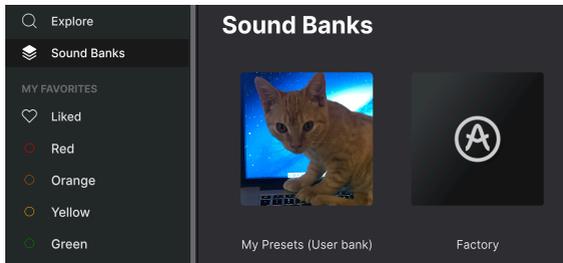
The leftmost section of the Preset Browser determines what is displayed in the [Search and Results \[p.77\]](#) section.

The topmost option is **Explore**:



The **Explore** section is the default, letting you search the current bank of Presets loaded into MiniBrute V as we did in the previous section.

7.4.1. Sound Banks



Clicking **Sound Banks** brings up a window with all of the currently available Sound Banks. Right click on the image or name of a User bank (anything but the Factory bank) to bring up this menu:



You can import a custom bank icon image in PNG format

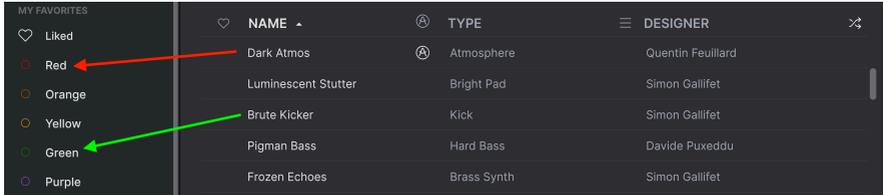
From here, you can delete, rename, or export the bank. You can also import custom user images in PNG format, like the cat picture shown above.

7.4.2. My Favorites

The middle part of the Sidebar has a menu called **My Favorites**, which allows you to color-code certain groups of Presets for easy access. It also includes the **Liked** group, so you can quickly find Presets you've marked with the heart icon.

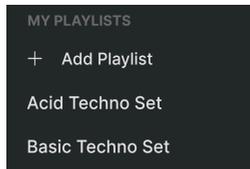
To decide which colors you'd like to display, hover over **My Favorites** and click **Edit**. Then use the toggle switches to select which colors you'd like to see or hide, and then click **Done**.

Please note that you can also rename these favorites as desired. Just right-click on the color name in the sidebar and enter a new name.



To add Presets to a particular set of Favorites, simply drag-and-drop them over the appropriate color, or right-click the Preset name and select the color. Then click on the color itself to display your grouping.

7.4.3. My Playlists

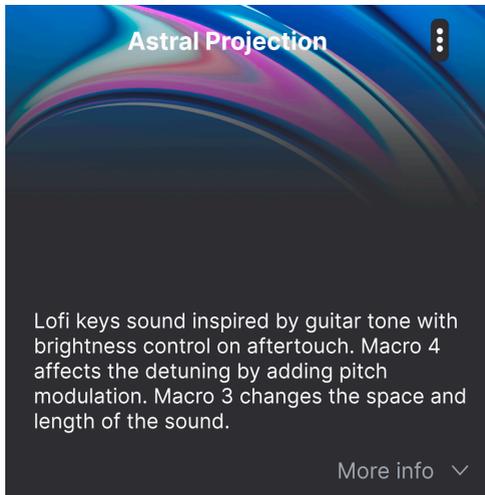


The bottom part of the sidebar displays any Playlists you have created or imported. Playlists are a very powerful management tool for set lists for gigs. Learn more about them in the [Playlists section \[p.87\]](#) below.

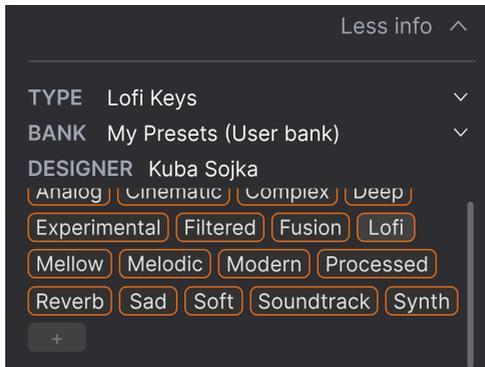
 ! If you don't see anything here, it is because you haven't created any Playlists yet. Head to the [Playlists \[p.87\]](#) section at the end of this chapter to find out how.

7.5. Preset Info Section

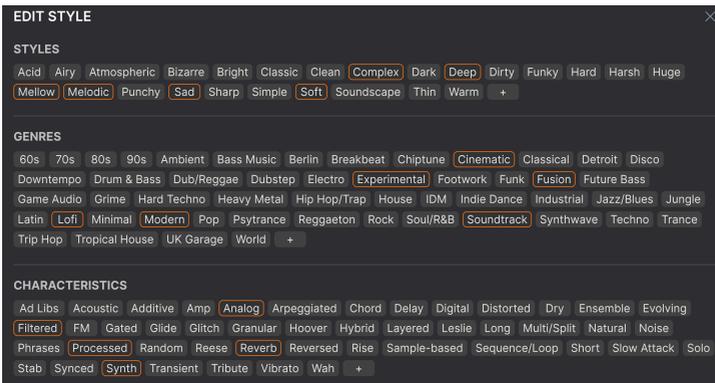
The right side of the browser window gives a brief description of each Preset.



For user Presets (not factory Presets) you can edit this description by simply clicking in it and typing. Click "More info" at the bottom right of this pane to open up an area you can scroll down to:



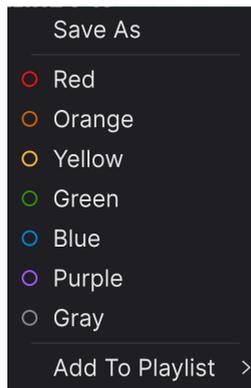
Here, you can change the Type and Bank via pull-down menus, enter a Designer name, and click the + sign to add or delete Style tags. When you click this icon, the results area is occupied by an edit list in which you can select and deselect Styles, Genres, and Characteristics:



Notice that each group has its own + icon at the end. Clicking this lets you create your own Styles, Genres, or Characteristics. Click the X at upper right when finished editing.

Type and Style changes you make here are reflected in searches. For example, if you remove the “Complex” Style tag and then save that Preset, it will not show up in future searches for Complex sounds. Again, all of this is possible only with user Presets.

Clicking on the three-dots icon at the top right pops up a management menu for the Preset.

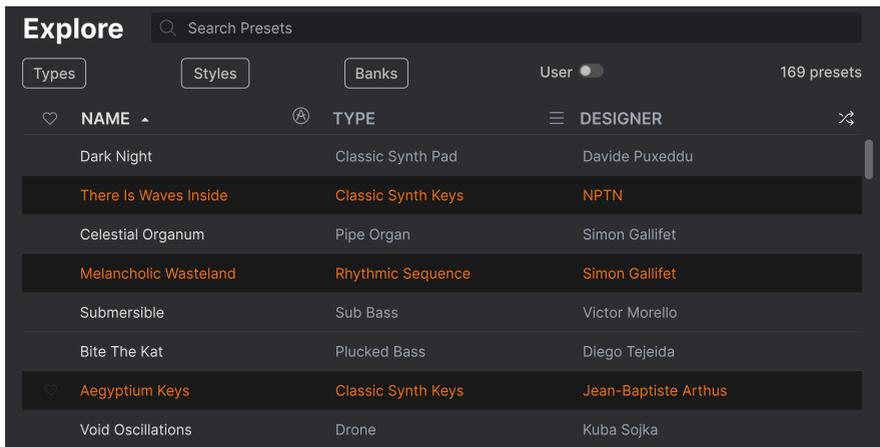


Options include *Save*, *Save As*, *Delete Preset*, and *Add to Playlist*, complete with an option to create a new [Playlist \[p.87\]](#). (You cannot overwrite or delete factory Presets, so the Save and Delete options appear for user Presets only.)

The dots with color icons allow you to add the Preset to a particular group of Favorites, which is described above.

7.5.1. Editing info for multiple presets

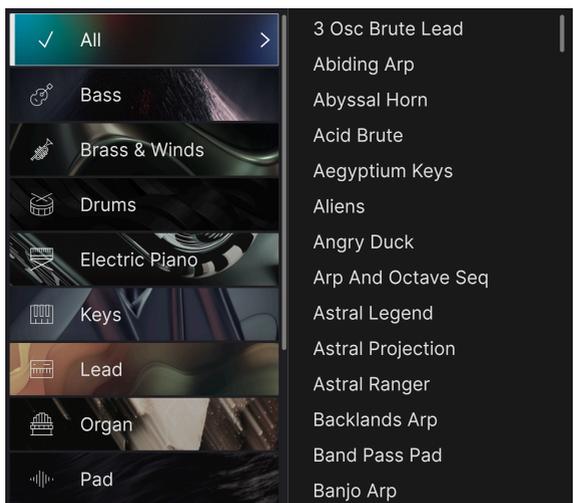
If you would like to move several Presets to a different bank while preparing for a performance, or enter a single comment for several Presets at the same time, it's easy to do. Simply hold command (macOS) or ctrl (Windows) and click the names of the Presets you want to change in the Results list. Then enter the comments, change the Bank or Type, etc., and save the Preset.



 If you want to alter the information for a Factory Preset you must first use the Save As command to re-save it as a User Preset.

7.6. Preset selection: other methods

Click on the Preset name in the center of the Upper Toolbar to bring up a drop-down menu. The first option in this menu is *All*, and it brings up a submenu of literally every Preset in the current bank, in alphabetical order.



Below this are options that correspond to the Type tags. Each of these brings up a submenu of all Presets of its Type.

If you have an active search by Type and/or Style, the up/down arrows to the right of the Preset name will step through only the results that conform to your search.

However, *All Presets* in the drop-down menu always ignores those criteria. Likewise for the Type choices below the line – they always include all Presets within that Type.

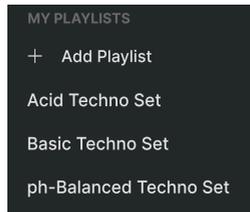
7.7. Macro knobs

These are simply larger duplicates of the Macro knobs in the Lower Toolbar and on the Macros tab. Move one, and its counterparts in Side Panel and Lower Toolbar move with it.



Assigning parameters to Macros is covered in the [Macro Tab \[p.74\]](#) section of Chapter 6.

7.8. Playlists

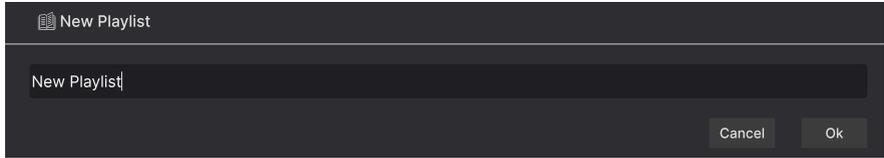


Playlists offer a powerful way to collect Presets into different groups for different purposes, such as a set list for a particular performance or a batch of Presets related to a particular studio project. Within a Playlist, Presets can be reordered and grouped into Songs, a handy addition to a set list.

The subheading *My Playlists* appears under **My Favorites** in the Sidebar. When you first start using MiniBrute V, you'll have no Playlists yet – but it's very easy to create one!

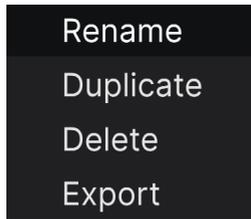
7.8.1. Create your first Playlist

To get started, click **Add Playlist**. The following pop-up will appear, prompting you to name your Playlist.



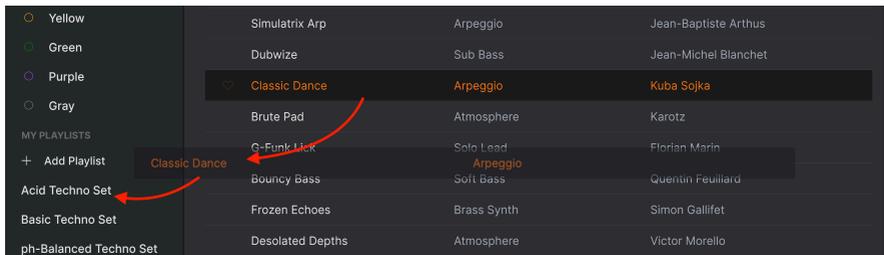
Once you've entered a name, that Playlist will now appear in the **My Playlists** section of the sidebar. You can create as many Playlists as you like.

Right-clicking on a Playlist name will pop up a set of options - you can *Rename*, *Duplicate*, *Delete*, or *Export* the Playlist to your computer, as a file with the ".aplst" extension.



7.8.2. Add a Preset

You can use all of the options in the Explore view to locate Presets for your Playlist. When you find a desired Preset, click-drag it onto the Playlist name.

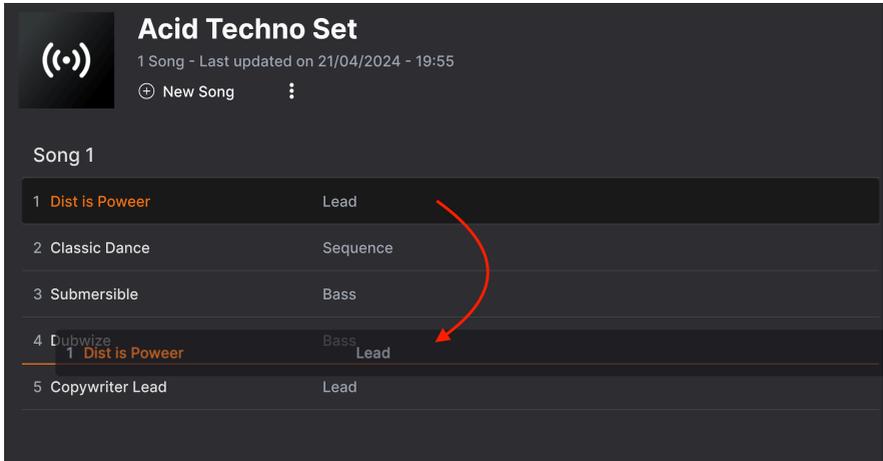


Dragging a preset to a Playlist

To view the contents of a Playlist, click on the Playlist name. By default, Presets dragged into a new Playlist will appear under "New Song" inside the Playlist. More about [Songs \[p.90\]](#) is below.

7.8.3. Re-order the Presets

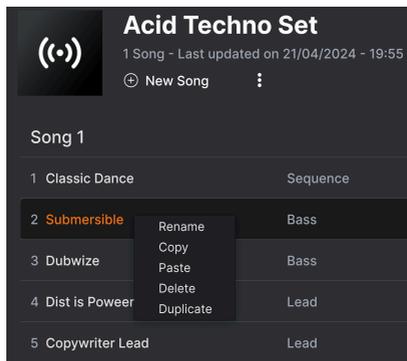
Presets may be reorganized within a Playlist. For example, to move a Preset from slot 1 to slot 4, drag and drop the Preset to the desired location.



This will move other Presets up in the list to accommodate the new location of the Preset you just moved. A bright orange line will briefly appear at the "insert point."

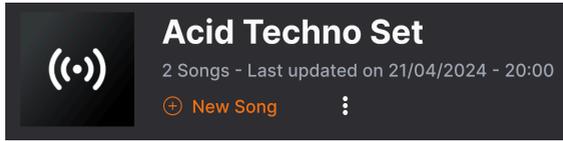
7.8.4. Remove a Preset

To delete a Preset from a playlist, select the Playlist, then right-click on the Presets name in the Results Pane to bring up a pop-up menu. This will only delete the Preset *from the Playlist*, not delete the Preset from the MiniBrute V browser!



This menu also includes **Rename**, **Copy**, **Paste**, and **Duplicate** options. More management options are described below.

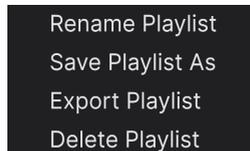
7.8.5. Song and Playlist management



Any Playlist can be further divided into *Songs*, an ideal tool for managing set lists for a live show. The **New Song** button creates a new Song at the bottom of the Playlist. You can name it, then click and drag it to position it in the Playlist and add Presets to it in the desired order. You can have multiple songs in each Playlist, and when dragging a song by its title, it brings all its Playlists with it, in order.

Song names don't have numbers by default (Preset names in a Playlist do), but of course you can give songs numbers when you name them.

To access other Playlist management options, click on the three-dots icon next to the **New Song** button. This brings up a pull-down menu:



- **Rename Playlist:** Renames the current Playlist without making a copy.
- **Save Playlist As:** Creates a duplicate of the playlist with "Copy" appended to the name. You can change the name before saving.
- **Export Playlist:** Exports your Playlist to a location on your computer, with the filename extension ".aplst."
- **Delete Playlist:** Deletes the current Playlist but does *not* delete any of the Presets in it.

7.8.6. MIDI control of Playlists

Since Playlists are ideal for live performance, you do not need to mouse around on a screen to use them. Instead, you can select Playlists, Songs, and Presets by sending values on the following MIDI continuous controllers:

- **CC 00:** Selects a Playlist
- **CC 32:** Selects a Song within the current Playlist
- **MIDI Program Change:** Selects Presets within the current Song

Ideally, you could program buttons to send value-up and value-down increments on each of these CCs if your MIDI controller has this capability.

That's all there is to the Preset Browser! We hope you will enjoy many hours exploring the factory Presets and creating your own.

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