

**USER MANUAL**

**\_MIX DRUMS**

**ARTURIA**

\_The sound explorers

# Special Thanks

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## MANUAL

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## Special Messages

This manual covers how to use Mix DRUMS, provides a comprehensive look at its features, and details how to download and activate it. First, some important messages:

### Specifications Subject to Change:

The information contained in this manual is correct at the time of printing. However, Arturia reserves the right to change or modify any of the specifications or features without notice or obligation.

### 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 volume or at a level that is uncomfortable.

If you encounter any hearing loss or ringing in your ears, please consult an audiologist.

### NOTICE:

Service charges incurred due to lack of knowledge relating to how a function or a feature works (when the software is operating as designed) are not covered by the manufacturer's warranty, and are therefore the owner's responsibility. Please study this manual carefully and consult your dealer before requesting additional support.

### EPILEPSY WARNING – Please Read Before Using Mix DRUMS

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.

## **Congratulations on your purchase of Mix DRUMS!**

Excellence is placed at the heart of every Arturia product, and Mix DRUMS is no exception. We are thrilled to bring you this groundbreaking new approach to getting the most out of your drum sounds. Explore the presets, tweak them to taste, and change your drums in ways from subtle to smashing.

Be sure to visit the [www.arturia.com](http://www.arturia.com) website for information on all our other inspiring hardware and software instruments, effects, MIDI controllers, and more. They have become indispensable tools for many visionary artists around the globe.

Musically yours,

**The Arturia team**

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# 1. WELCOME TO MIX DRUMS!



Thank you for purchasing **Mix DRUMS**, a whole new way to approach drum processing. Created by Arturia with input from award-winning engineer/producer/drummer Emre Ramazanoglu, this plug-in collects a variety of signal processing modules into an interactive effects chain, making it easy to do everything from gentle tweaks to all-out sonic transformations on your drum sounds - all while preserving their peak levels and their place in the mix.

By far the most common effects placed on drums are dynamics controls like compression, limiting, and gating. Mix DRUMS doesn't use any of those processors as central elements. Instead, it uses a unique combination of clipping, saturation, distortion, transient shaping, phase-coherent parallel processing, spatial effects, and multiple stages of EQ to add punch, weight, grit, snap - anything you can think of - while maintaining peak levels, no compression in sight.

Mix DRUMS lets you rethink everything from kick and snare tracks to entire drum buses and rhythm loops, obtaining sounds that make your mixes stand out while still maintaining control. We can't wait to hear what you do with it!

## 1.1. Emre Ramazanoglu: The man behind the Mix DRUMS method

**Emre Ramazanoglu** is a London-based engineer whose studio includes a 7.1.4 Dolby Atmos mix facility. He's done stereo mixes for Noel Gallagher, David Holmes, Lily Allen, Carly Rae Jepsen, David Holmes, Richard Ashcroft, Issey Cross, Ali Farke Toure, and many other artists. His Atmos mixes and remixes include new and classic albums by David Bowie, Brian Eno, Jon Hopkins, Lana Del Rey, Bat For Lashes, Sam Ryder, and Tom Odell, as well as game soundtracks and commercial material.

In addition to his work as a mixer, Emre is a prolific producer, writer, and programmer. He brings his many years' experience as both a mix engineer and a drummer to the creation of Mix DRUMS.

## 1.2. The magic audio chain

Emre has spent years in the studio, crafting new ways to make his drum sounds and mixes unique and full of character. Mix DRUMS is a software re-creation of one of his favorite workflows.

The first part of the audio chain is perhaps the most critical: **CEILINGS**, where you set the input level at the peak of the drum signal. This way, the processors have maximum effect without changing your peak level.

Mix DRUMS splits your audio into two frequency ranges, **LOW** and **MID/HIGH**, based on a crossover frequency you select. The Low signal is processed with an **OP AMP 21** saturation effect (with a dry Low signal in parallel), while the Mid/High has a **TAPE** saturation effect, a multi-mode **DISTORTION** effect, and controls for **Tone**, **Tilt**, and **Clean Highs**. All of these parallel signal paths are kept carefully phase-coherent, so there's no phase smearing to weaken your sound.

The Low and Mid/High signal paths each have a Transient **Shaper**, which lets you fine-tune the attack and body of the sound, making drums punchier or more sustained.

The **SPACE** section adds various types of ambience to your sound, offering everything from simple delay and reverb to special effects, and the final **EQ** lets you tweak the final signal output one last time.

There's an informative **Visualizer** that lets you see what the effect is doing at any given moment. The Visualizer is also where you will find context-sensitive controls for crossover, filtering, **SPACE**, **EQ**, and more – just click on a module, and the Visualizer automatically updates to let you dive deep.

To get you started, Mix DRUMS comes with a large library of inspiring presets, organized into logical categories. You can treat these presets as starting points for your own sonic experiments!

### 1.3. Mix DRUMS Features Summary

- 1) Maintains peak level, despite a huge increase in perceived level
- 2) Simplifies a complex parallel processing chain, so anyone can radically transform their drums instead of micromanaging routing and phase issues
- 3) Splits signals into low and mid/high frequencies for separate Op Amp, Tape saturation and Distortion processing, while maintaining phase coherence
- 4) Separate transient shapers control the attack and body of drum hits in the lows and mids/highs
- 5) A detailed and creative SPACE effects section includes Algorithmic Reverb, Convolution Reverb, Delay, and Tape Delay
- 6) Multiple EQ stages for precise tone tweaks
- 7) A whole palette of unusual and useful noise beds to further texturize your drums
- 8) Streamlined searchable Preset Browser
- 9) Windows or macOS compatible in AAX, Audio Units, and VST2/VST3 formats.

We hope that you find this new way to process your drums inspiring and exciting, whether it's creating unique drum bus textures or just getting that snare track to sit right in your mix. Dive deep, have fun... and enjoy the combination of speed, creativity, and sonic power that Mix DRUMS gives you!

## 2. ACTIVATION AND GETTING STARTED

### 2.1. Compatibility

Mix DRUMS works on computers and laptops equipped with Windows 8.1 or later or macOS 10.13 or later. It is compatible with the current generation of Apple Silicon processors, as well as Intel (and similar) processors. You can use it as an Audio Unit, AAX, VST, or VST3 plug-in within your favorite recording software.



### 2.2. Download and Install

You can download Mix DRUMS directly from the [Arturia Products Page](#) by clicking either the **Buy Now** or **Get Free Demo** options. The free demo is limited to 20 minutes of operation.

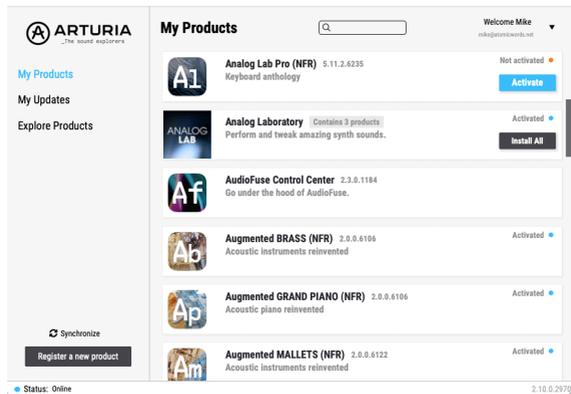
If you have not already done so, now is a good time to create an Arturia account by following the instructions on the [My Arturia webpage](#).

Once you install Mix DRUMS, the next step is to register the software. This is a simple process that involves a different software program, the **Arturia Software Center**.

#### 2.2.1. Arturia Software Center (ASC)

If you haven't installed ASC yet, please go to this web page: [Arturia Downloads & Manuals](#).

Look for Arturia Software Center near the top of the page, and then download the installer version for the system you're using (Windows or macOS). ASC is a remote client for your Arturia account, letting you conveniently manage all your licenses, downloads, and updates from one place.



After you install Arturia Software Center, launch it and do the following:

- Log into your Arturia account from ASC's interface.
- Scroll down to the **My Products** section of ASC.
- Click on the **Activate** button next to the software you want to start using (in this case, Mix DRUMS).
  - This will activate the license for the software on your computer. You can activate it on several computers at the same time, for example on your studio computer as well as your travel laptop.
- Click the **Install** button to install the software on your computer.
  - Follow any prompts your computer may give you during the installation process.

It's as simple as that!

## 2.3. Working with Mix DRUMS as a plug-in

Mix DRUMS is used as a *plug-in* within all major Digital Audio Workstation (DAW) programs including Cubase, Digital Performer, Live, Logic, Pro Tools, Reaper, Studio One, and more.

Plug-ins have numerous advantages over hardware, including:

- You can use as many instances on different tracks as your computer can handle.
- You can automate the plug-in's settings via your DAW's automation feature.
- All settings and changes are saved with your DAW project, letting you pick up right where you left off.

### 2.3.1. Audio and MIDI settings

Since Mix DRUMS is a plug-in, settings for audio and MIDI routing are handled in your recording software or DAW. They are generally located in some type of Preferences or Settings menu, though each product does things a bit differently. So, consult your recording software's documentation for information on how to select your audio interface, activate outputs, set the sample rate, assign MIDI ports, set project tempo, adjust buffer size, and the like.

Now that you've set up your software, it's time to set things in motion!

## 3. THE USER INTERFACE

This chapter will give you an idea of how the Mix DRUMS user interface is organized, and where to find its functions.

### 3.1. High-Level Overview



The Mix DRUMS user interface

Mix DRUMS is neatly subdivided into subsections, as shown in the illustration above.

Key	Name	Function
1	<a href="#">The Upper Toolbar [p.9]</a>	Access to the <a href="#">Mix DRUMS menu [p.9]</a> and the <a href="#">Preset Browser [p.18]</a>
2	<a href="#">Visualizer [p.14]</a>	The <b>Visualizer</b> display shows frequency response, crossover and filter controls, relative levels of signal components, and left and right menus of parameter controls. Precise functions being shown depend on which module in the Audio Path is currently highlighted.
3	<a href="#">Audio Path [p.15]</a>	Controls and displays for parameters in the <b>SIGNAL PROCESSING</b> modules - <b>INPUT, LOW, MID/HIGH, SPACE, EQ, and OUTPUT.</b>
4	<a href="#">The Lower Toolbar [p.15]</a>	The <a href="#">Parameter Name [p.15]</a> help display and assorted Utility controls.

The links above will take you to the various parts of the manual that cover these functions. It's perfectly fine to jump around and learn what you need at any given time, but we recommend that you go through the manual in order at least once. Mix DRUMS is designed so you can get to work and do a lot without ever looking at the manual, but there are subtle tricks that aren't obvious at first. Reading the manual will help you be sure that you have a good handle on what this plug-in can do.

## 3.2. The Upper Toolbar

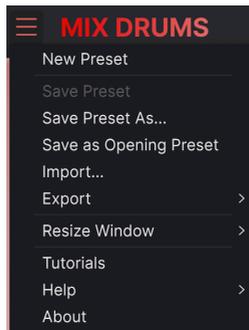


*The Upper Toolbar*

The toolbar that runs along the top of the instrument provides access to many useful features that impact Mix DRUMS as a whole: the Mix DRUMS drop-down menu, the Preset Browser, and the Output Volume control.

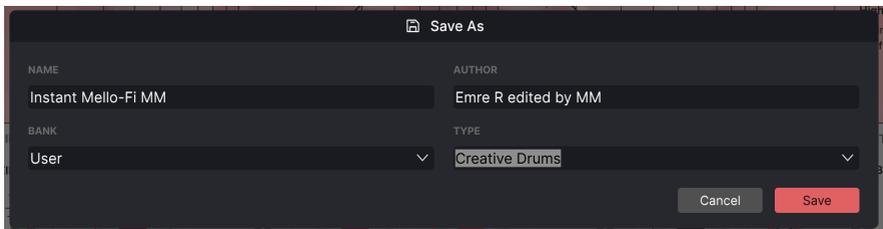
### 3.2.1. The Mix DRUMS menu

Clicking the 3-lines icon at the top left corner opens a dropdown menu for access to a number of important features.



*The Mix DRUMS menu*

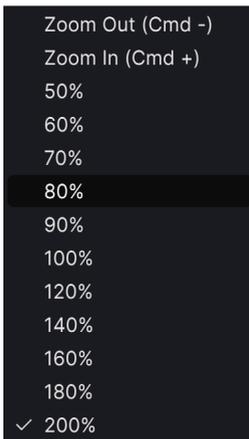
- **New Preset:** This option creates a new Preset with default settings on all parameters. It is a good place to start if you would like to create a new sound from scratch.
- **Save Preset:** This option will overwrite the currently loaded Preset with any changes you have made. If you would like to save the current Preset under a different name, use the "Save As..." option below.
- **Save Preset As...:** This lets you save your Preset under a different name. Clicking this option reveals a window where you can name your Preset and enter information about it.



Mix DRUMS offers a highly detailed categorization system for its effects Presets. It allows you to select a wide variety of categories and subcategories, even creating your own. You can see this in the pop-up menus that appear when you Click on the Type.



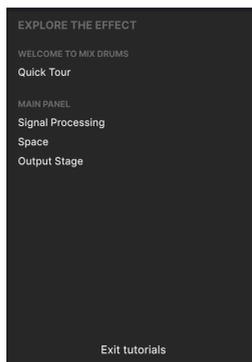
- **Save as Opening Preset:** This lets you select the Preset that is loaded into Mix DRUMS when you first open an instance of the plug-in. It's common for engineers to start from a "basic" or "favorite" signal chain, and with this option, you can quickly access yours.
- **Import...:** This command lets you import a Preset file, which can be either a single Preset or an entire bank of Presets.
- **Export Menu:** You can export Presets in two ways: as a single Preset or as a bank.
  - *Export Preset:* Exporting a single Preset is handy when you want to share a Preset with someone else. The default path to these files will appear in the "save" window, but you can create a folder at another location if you like. The saved Preset can be reloaded using the **Import Preset** menu option.
  - *Export Bank:* This option can be used to export an entire bank of sounds from the instrument, which is useful for backing up or sharing Presets. Saved banks can be reloaded using the **Import Preset** menu option.
- **Resize Window:** The Mix DRUMS window can be resized from 50% to 200% of its original size without any visual artifacts. On a smaller screen such as a laptop, you may wish 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 of the controls. The controls work the same at any zoom level, but smaller controls can be easier to work with at higher magnification levels.



**i** While working with Mix DRUMS, you can also use the keyboard shortcuts CTRL- / CTRL+ (Windows) or COMMAND- / COMMAND+ (macOS) to quickly adjust the window size by one step down or up. Dragging the lower right corner of the window will also size the interface up or down to the next window size up or down. Note that in some DAWs, the same key commands may be used for zoom control. In this case, the DAW will take priority.

- **Tutorials:** Mix DRUMS comes with tutorials that walk you through different features of the plug-in. They will pop out in a side tab next to the main window, and will load special programs to guide you through step-by-step descriptions of how to make the most of the Mix DRUMS features.

The Tutorials begin with a simple table of contents:



*The Tutorials open with a list of chapters.*

As you go through a tutorial, the parts of the panel to focus on are highlighted as you go:



Each chapter highlights relevant parts of the interface.

Click the X in the upper right corner to exit a particular chapter, and click **Exit Tutorials** at the bottom of the table of contents to close the Tutorials tab entirely.

**i** If you're editing a Preset, make sure to save it before opening the Tutorials, because doing so will replace your current Preset with a special Tutorial preset, and overwrite any unsaved edits. Be sure to save frequently!

- **Help:** This section provides handy links to the Mix DRUMS User Guide and the Mix DRUMS Frequently Asked Questions page on Arturia's website. Note that accessing these pages will require an Internet connection.
- **About:** Here you can view the Mix DRUMS software version and developer credits. Click outside the About window to close it.

### 3.2.2. Browsing Presets

Mix DRUMS comes with lots of great-sounding factory Presets. To help you search through large numbers of Presets, we have a powerful [Preset Browser \[p.18\]](#) with a number of features to help you find sounds quickly. The Upper Toolbar has the following controls related to the Preset Browser:



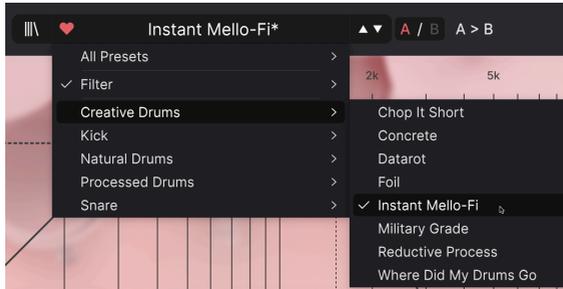
Preset Browser controls in the Upper Toolbar

- The **Preset Browser** button (the icon with four lines that look like books on a shelf) opens and closes the Preset Browser. This is covered in detail in the [Working With Presets \[p.18\]](#) chapter.
- The **Like** button (the heart icon) lets you quickly tag Presets you like. Inside the Preset Browser, it's easy to sort and search for Liked Presets.

- The **Preset Name** is listed next in the toolbar. Clicking on the name reveals a dropdown menu with other available Presets. Click on any name to load that Preset or click away from the menu to close it. Sound categories shown on the left side let you quickly jump into appropriate subgroups of Presets (called **Types** [p.21]) without having to dive into the Preset Browser itself.

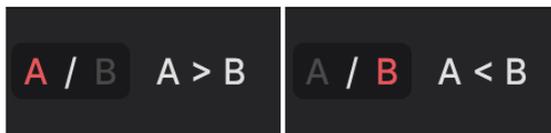


If you edit a Preset, an asterisk ("star") will appear next to the Preset Name, prompting you to save your edits before loading a different Preset.



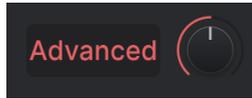
Note that if you've set any search filters in the [Preset Browser \[p.20\]](#), pulling up any of these lists in this way ignores all of them. You will see all Presets of the appropriate Type.

- The **Arrow icons** select the previous or next Preset in the filtered list. This is the same as clicking on the Preset name and selecting the next patch on the list, but does it with only one click.
- Next to the Arrow icons are the **A/B Select** and **A/B Copy** controls. While editing a Preset, you can actually store two different sets of parameter values in slots A and B. Clicking the A/B select button will switch back and forth between the two (the current one will be highlighted in red). The A/B Copy button lets you copy the current slot's into the other slot.



*Left: Slot A selected, Copy button shows A > B. Right: Slot B selected, Copy button shows A < B.*

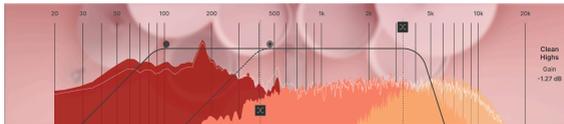
### 3.2.3. Output Volume knob



*Output Level knob*

Finally, the Output Level knob controls the output level of the plug-in to your DAW. Output signal levels are displayed on the **OUTPUT** meter in the Audio Path window.

### 3.3. The Visualizer



*The Visualizer*

The **Visualizer** provides a real-time display of amplitude vs. frequency on a scale from 20 Hz to 20 kHz. It provides a variety of visual feedback and control.

As you can see in the image above, there are different spectra for different kinds of audio data:

- The **Low** frequencies (as defined by the **Crossover** setting) are shown in red.
- The **Mid/High** frequencies are shown in two shades of orange: reddish for the [Tape \[p.34\]](#) output, and brighter for the [Distortion \[p.35\]](#) output.
- When [Clean Highs \[p.36\]](#) are enabled, they appear in pale orange-yellow.
- The output spectrum is shown in white.



If you're not sure what you're looking at, try bypassing individual signal processing modules and watching to see which elements of the Visualizer display disappear.

Depending on which module in the Audio Path is selected, the Visualizer window adds click-drag controls for crossover and filter frequencies, EQ gain and bandwidth, and left and right parameter menus for various extra functions.

## 3.4. The Audio Path



*Modules and meters in the Audio Path*

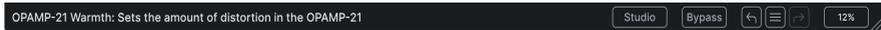
This row of controls is the heart of Mix DRUMS – six stages of signal processing from dry signal to final output. They are:

- **INPUT** [p.31], including the **CEILINGS** control
- **LOW** [p.32] frequency processing
- **MID/HIGH** [p.34] frequency processing
- **SPACE** [p.37] ambience processing (and other sonic tricks)
- **EQ** [p.47] for final tonal balance and noise processing
- **OUTPUT** [p.50] metering (controlled by the Output Level knob in the Upper Toolbar)

We will go into detail on all of these functions in the chapter on [The Audio Path \[p.15\]](#).

## 3.5. The Lower Toolbar

The Lower Toolbar runs along the bottom of the Mix DRUMS user interface and provides quick access to several important parameters and useful bits of information.



### 3.5.1. Parameter Name

On the left, the **Parameter Name** area displays the name of a parameter (and often a description of what it does) when you hover your mouse over it or click on it to adjust its value. The control's current value pops up in a tool tip that appears next to the control.

**OPAMP-21 Warmth: Sets the amount of distortion in the OPAMP-21**

**i** You'll often find that simply hovering over a control brings up enough information to clarify what it does immediately. That way, you can remind yourself of most or all of Mix DRUMS's features without having to go back to the Tutorials.

### 3.5.2. Utility functions

The other features on the Lower Toolbar are grouped on the right side:



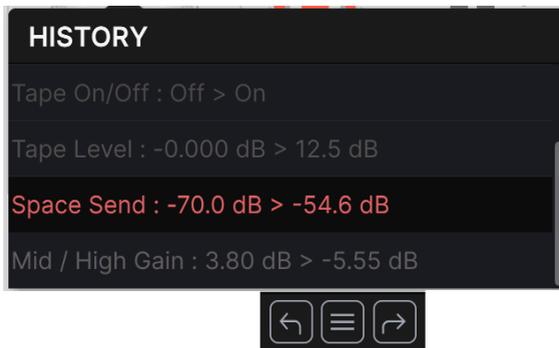
These have the following functions:

- **Oversampling Quality:** This button lets you select two types of *oversampling* when processing audio through Mix DRUMS.
  - The **Studio** setting is suitable for regular use - it has excellent sound quality and processes signals with relatively little latency.
  - The **Render** setting adds CPU load, but produces the best possible sound.



Render quality is automatically selected whenever you export audio from your DAW.

- **Bypass:** Turns off all audio processing in Mix DRUMS and passes only the dry signal.
- **Undo/Redo:** Keeps track of your edits and changes.



- **Undo (left arrow):** Undoes the last change in Mix DRUMS.
- **Redo (right arrow):** Redoes the last change in Mix DRUMS.
- **Undo History (center menu icon):** Displays a list of recent changes. Click on a change to restore the patch to that state. This can be useful in the event you happened to go too far in your sound design and want to revert to an earlier version.



*Left: CPU Meter and Resize handle. Right: hover on the CPU Meter to show the PANIC button.*

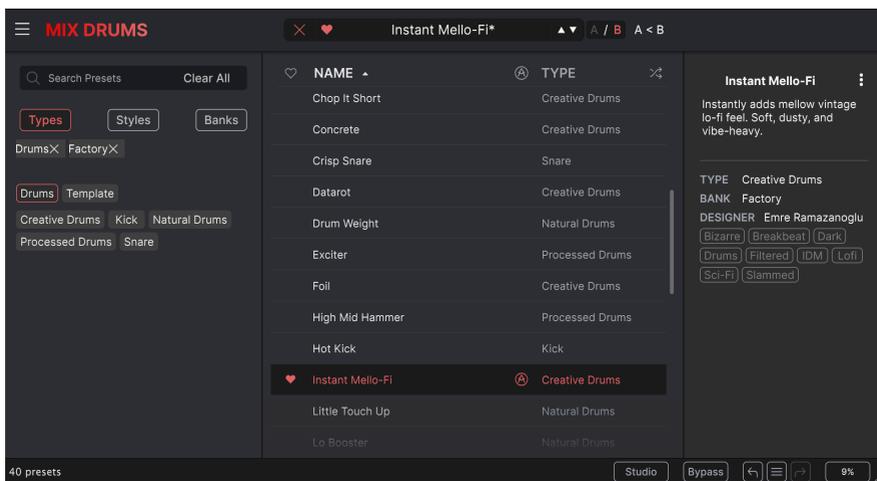
- **CPU Meter:** Displays the current CPU usage of the instrument. Hovering your mouse over the CPU Meter will change it into a **PANIC** button. In the event of stuck notes or other issues, clicking on PANIC will send a MIDI Panic message, silencing all notes and resetting other MIDI control values.
- **Resize handle:** The diagonal lines in the corner allow you to quickly resize the plug-in window. Click and drag, and when you release the mouse, the interface size will jump to the nearest option on the Resize menu.
  - Sometimes, when opening windows or changing applications on your computer, Mix DRUMS' window might pop up at an unusual window size. When this happens, you will see this logo over the Resize handle:



*Click this icon to reset your window size*

Clicking on this button will cause the window to resize to the nearest supported zoom level.

## 4. WORKING WITH PRESETS



The **Preset Browser** lets you browse, search, and select Presets from a clear and easy-to-use interface inside the plug-in. You can also create and save your own Presets in the User Bank. Of course, the state of any instance of the plug-in – including the current Preset – is automatically saved when you save your DAW project, so you can always pick up where you left off.

 Remember that when the [Level Lock \[p.31\]](#) is turned on, your Ceiling setting will be preserved as you change Presets, so your input peak level remains optimal.

First, we will cover Preset functions from the Upper Toolbar in more depth.

### 4.1. Preset Name Pane



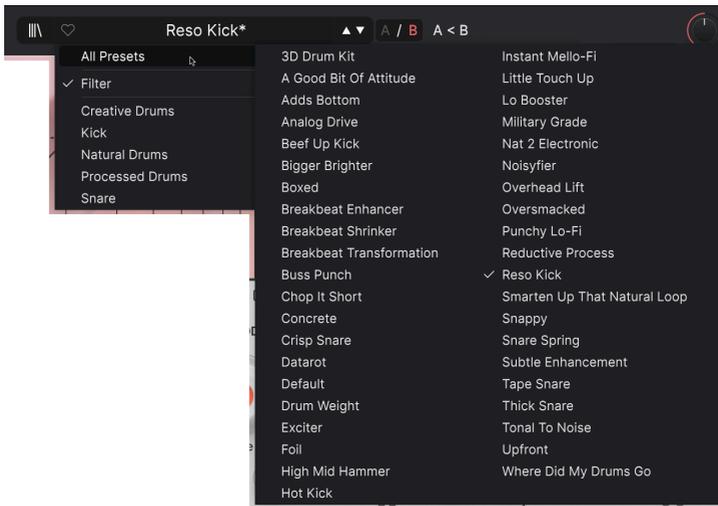
The name pane at top center is always displayed whether you're in the main controls view or the Preset Browser. It displays the name of the current Preset, obviously, but also offers further ways to browse and load Presets. Again, a filled-in heart icon indicates a Liked Preset.

#### 4.1.1. Arrow Icons

The up and down arrows to the right of the Preset name step serially through Presets. This is limited by the results of any currently active search, i.e. the arrows will only step through those Presets. So, make sure any searches are cleared if you simply want to step through all available Presets until you find something you like.

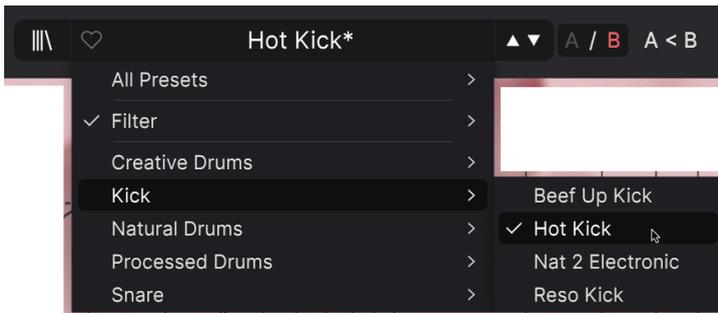
### 4.1.2. Quick Browser

As mentioned briefly in the previous chapter, you can click on the Preset name in the center of the Upper Toolbar to bring up a drop-down Quick Browser for Presets. The first option in this menu is called All Presets, and it brings up a submenu of literally every Preset in the current Bank:



*All presets*

Below this are options that correspond to the [Types \[p.21\]](#). Each of these brings up a submenu of all Presets of its Type:



*Selecting Kick from the drop-down menu shows all the Presets of this type.*

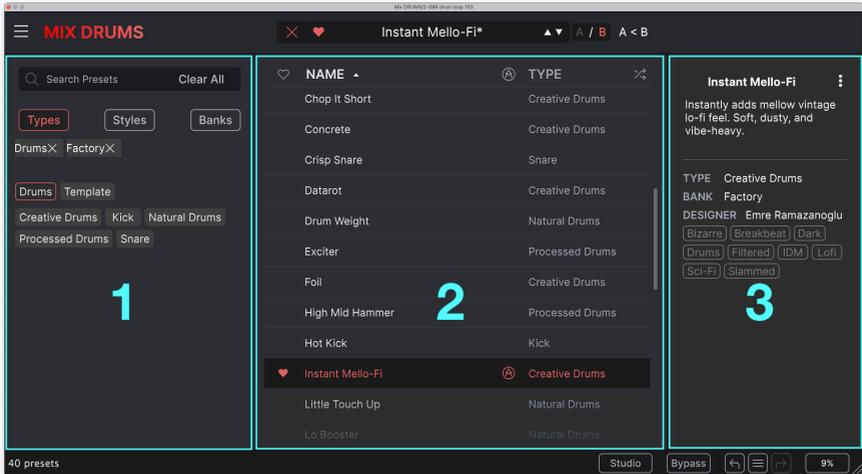
Unlike the up and down arrows, the “All Presets” submenu is independent of search criteria – it simply shows you every Preset available. Likewise for the Type choices below the line, which always include all Presets within that Type.

The **Filter** category presents a menu of all presets that fulfill search criteria. In other words, if you have set certain criteria within the Preset Browser, only Presets following *all* limitations will appear in the Filter menu (e.g. Creative Drums *and* Drum&Bass).

## 4.2. The Preset Browser

Click the “books on a shelf” icon (four vertical and tilted lines) in the Upper Toolbar to access the Preset Browser. When the Preset Browser is open, the icon becomes a large X, and is used to close the Browser when you’re done.

The three main areas of the Preset Browser are as follows:

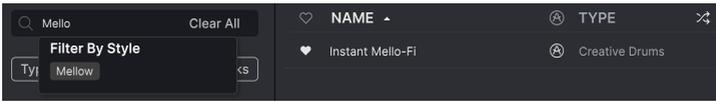


Number	Area	Description
1.	<a href="#">Search [p.20]</a>	Searches for Presets by text entry with filters for Type, Style, and Bank.
2.	<a href="#">Results Pane [p.23]</a>	Displays search results, or all Presets if no search criteria are active.
3.	<a href="#">Preset Info [p.27]</a>	Displays Preset Details; can edit details for Presets in User Bank.

## 4.3. Searching Presets

Click on the Search field at the top left and enter any search term. The browser will filter your search in two ways: First, simply by matching letters in the Preset name. Second, If your search term is close to that of a [Type or Style \[p.21\]](#) it will include results fitting those tags as well.

The Results Pane will show all Presets that fit your search. Click the **Clear All** text to clear your search terms.

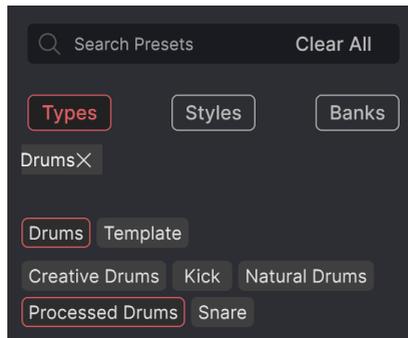


*Filtering by typing the text "Mello" in the Search field. It offers a tag (Mellow) and finds a Preset whose name contains that text.*

### 4.3.1. 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.

#### 4.3.1.1. Types



Types are categories of drum effects: Natural Drums, Kick, Snare, and so on. With a clear search bar, click the **Types** drop-down to bring up the list of types. Types often include sub-types (especially in more complex Arturia effect plug-ins) but Mix DRUMS is relatively simple, so Drums is the primary type you will see.

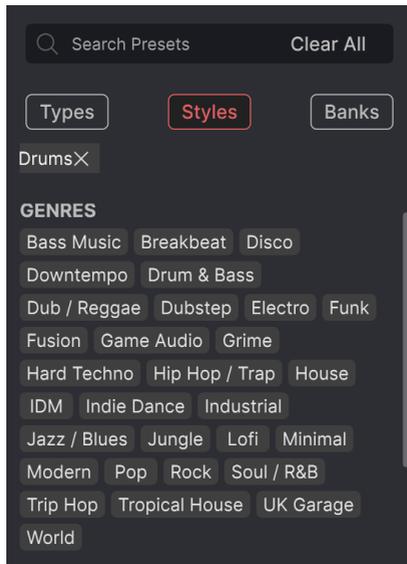


You can specify the type when [saving a Preset \[p.9\]](#). That Preset will then show up in searches where you've selected that Type.

### 4.3.1.2. Styles

Styles are, well ... exactly that. Accessed by the **Styles** button, this area has three further subdivisions:

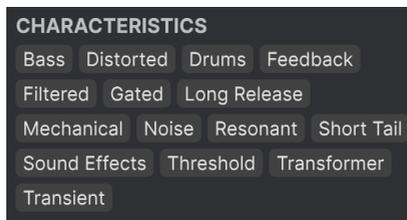
- *Genres*: Identifiable musical genres such as Ambient, Bass Music, Industrial, etc.:



- *Styles*: General "vibe" such as Bizarre, Metallic, Slammed, etc.:



- *Characteristics*: Even more detailed audio qualities such as Filtered, Resonant, Mechanical, Noise, and more:



Click any one, and the results will show only Presets that match that tag. Notice that when you select any tag, several other tags usually grey out and become unavailable. This is because the browser is *narrowing* your search by a process of elimination.



Note that this is the opposite of how selecting multiple Types *broadens* your search.

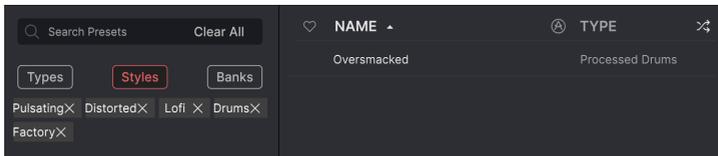
Deselect any tag to remove it and widen the search without having to start all over again. You can also clear the tag by clicking the X to the right of its text, which appears at the top.

Note that you can search by a string of text, Types and Styles, or both, with the search becoming narrower as you enter more criteria. Clicking **Clear All** in the search bar will remove all Type and Style filters as well as any text entry.

#### 4.3.1.3. Banks

To the right of the **Types** and **Styles** drop-down buttons is the **Banks** drop-down, which lets you do your search (using all the methods above) within the Factory or User Banks.

### 4.4. The Results Pane



*Filtering by five tags at once narrows our choices to only one Preset*

The central area of the browser shows search results, or simply a list of all Presets in the Bank if no search criteria are active. Simply click on a Preset name to load it.

### 4.4.1. Sorting Presets

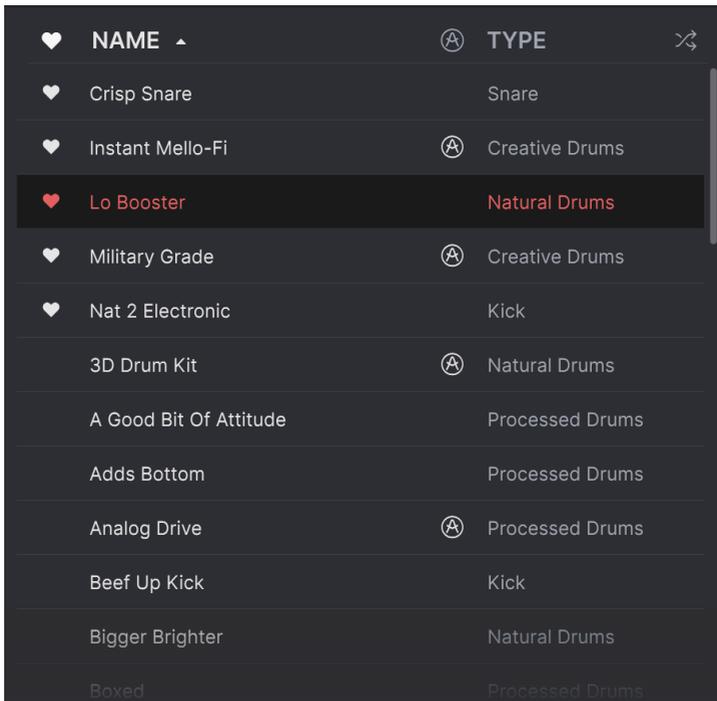
Click the **NAME** header in first column of the Results list to sort the results list of Presets in ascending or descending alphabetical order.

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

### 4.4.2. Liking Presets

As you explore and create Presets you can mark them as Liked by clicking the heart icon next to their names. (This icon also appears in the Upper Toolbar's [Preset Name Pane \[p.18\]](#).)

Clicking on the heart icon makes all of your liked Presets show up at the top of the results list, as shown here:



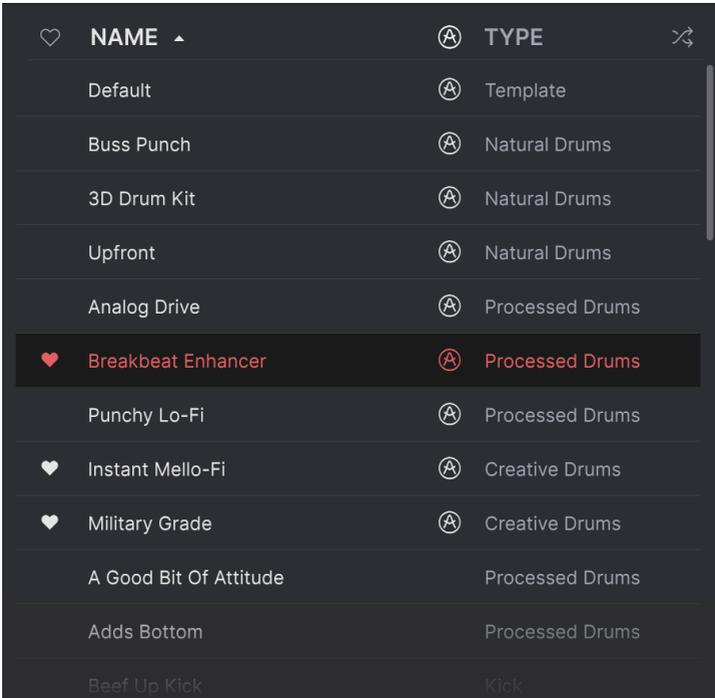
♥ NAME ▾	Ⓐ TYPE	↔
♥ Crisp Snare	Snare	
♥ Instant Mello-Fi	Ⓐ Creative Drums	
♥ Lo Booster	Natural Drums	
♥ Military Grade	Ⓐ Creative Drums	
♥ Nat 2 Electronic	Kick	
3D Drum Kit	Ⓐ Natural Drums	
A Good Bit Of Attitude	Processed Drums	
Adds Bottom	Processed Drums	
Analog Drive	Ⓐ Processed Drums	
Beef Up Kick	Kick	
Bigger Brighter	Natural Drums	
Boxed	Processed Drums	

*Sort by Likes*

A filled-in heart icon indicates a Liked Preset. An outline indicates a Preset that has not been Liked (yet). Click the heart at the top of the list again to return the list to its previous state.

### 4.4.3. Featured factory Presets

Presets accompanied by the Arturia logo are factory creations we think really showcase the capabilities of Mix DRUMS.

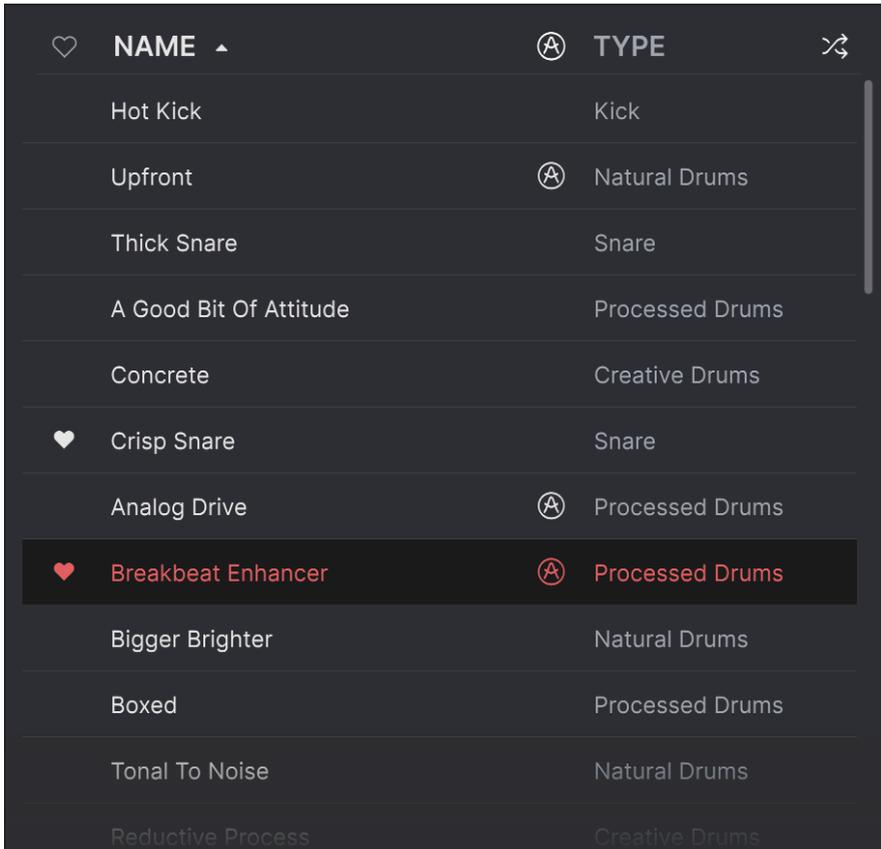


 NAME ▲	 TYPE 
Default	 Template
Buss Punch	 Natural Drums
3D Drum Kit	 Natural Drums
Upfront	 Natural Drums
Analog Drive	 Processed Drums
 Breakbeat Enhancer	 Processed Drums
Punchy Lo-Fi	 Processed Drums
 Instant Mello-Fi	 Creative Drums
 Military Grade	 Creative Drums
A Good Bit Of Attitude	Processed Drums
Adds Bottom	Processed Drums
Beef Up Kick	Kick

*Sort by Featured status*

Clicking the Arturia icon at the top of the Results pane sorts all featured Presets to appear at the top of the list.

#### 4.4.4. Shuffle Button



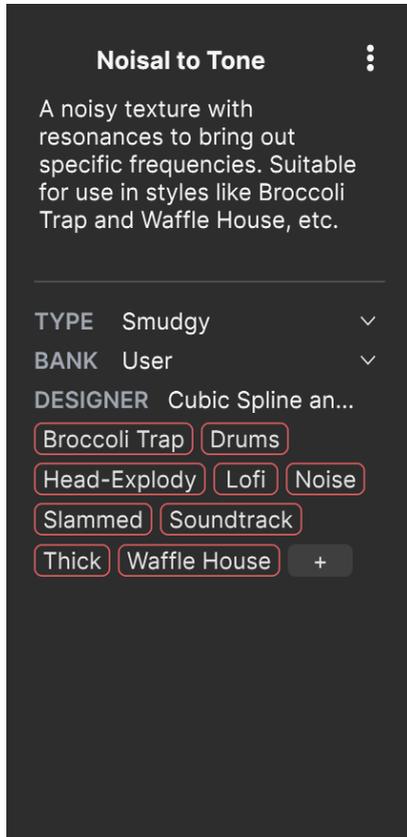
 NAME ▲	 TYPE	
Hot Kick	Kick	
Upfront	 Natural Drums	
Thick Snare	Snare	
A Good Bit Of Attitude	Processed Drums	
Concrete	Creative Drums	
 Crisp Snare	Snare	
Analog Drive	 Processed Drums	
 Breakbeat Enhancer	 Processed Drums	
Bigger Brighter	Natural Drums	
Boxed	Processed Drums	
Tonal To Noise	Natural Drums	
Reductive Process	Creative Drums	

*Shuffled list*

This button randomly reorders the Preset list. Sometimes it can help you find the sound you're looking for more quickly than scrolling through the entire list.

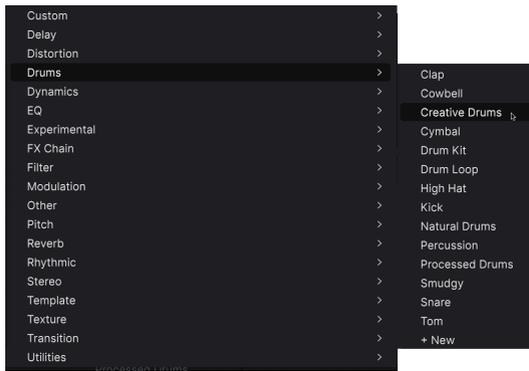
## 4.5. Preset Info Section

The right side of the browser window shows specific information about each Preset.



For Presets in the User bank (as the result of a *Save As* operation), you can enter and edit the information in the Preset Info Section and it will update in real time. This includes the designer (author), Type, all Style tags, and even a custom text description at the bottom.

To make the desired changes, you can type directly in the text fields or use one of the pull-down menus to change the Bank or Type. As shown here, you can also use a hierarchical menu to select the Type or even create a new Type or Subtype.



 Types and Styles changes you make here are reflected in searches. For example, if you remove the "Bright" Style tag from a Preset and then save that Preset, it will not show up in future searches for Bright Presets.

#### 4.5.1. Preset Info Quick Menu

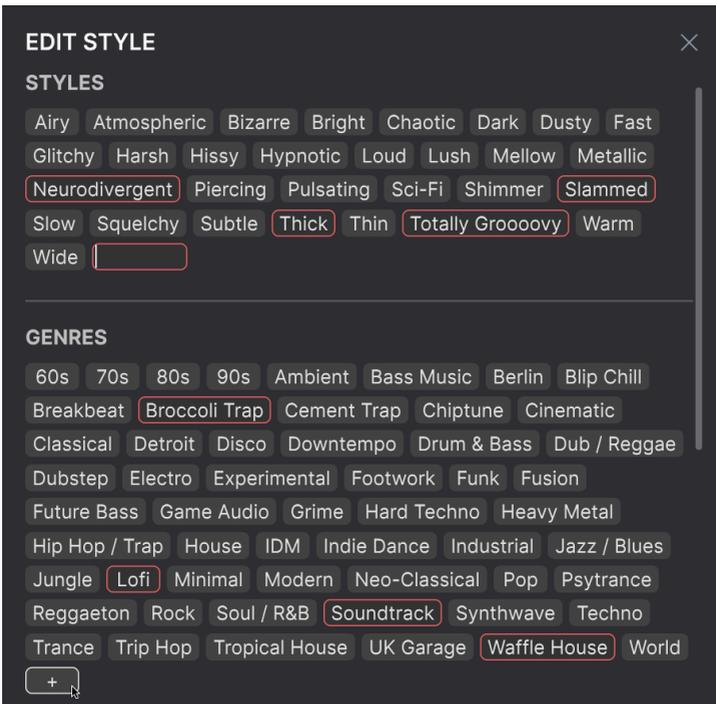
Clicking the icon with three vertical dots brings up a quick menu for Save, Save As, and Delete Preset operations:



For sounds in Factory banks, only **Save Preset As...** is available. This preserves the Factory Bank for future use by preventing accidental overwrites or deletions.

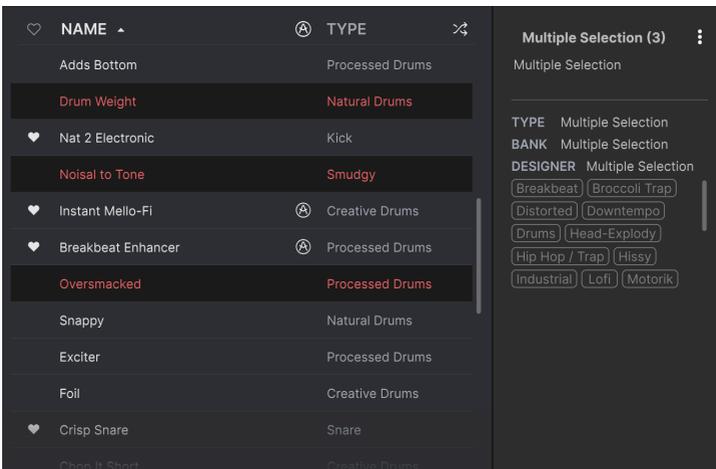
#### 4.5.2. Edit Style

You can also create your own Style tags to help refine searches according to criteria that matter most to you. Clicking on the + icon in the list in the Preset Info pane opens the Edit Style pane, where you can create as many new tags as you'll ever need:



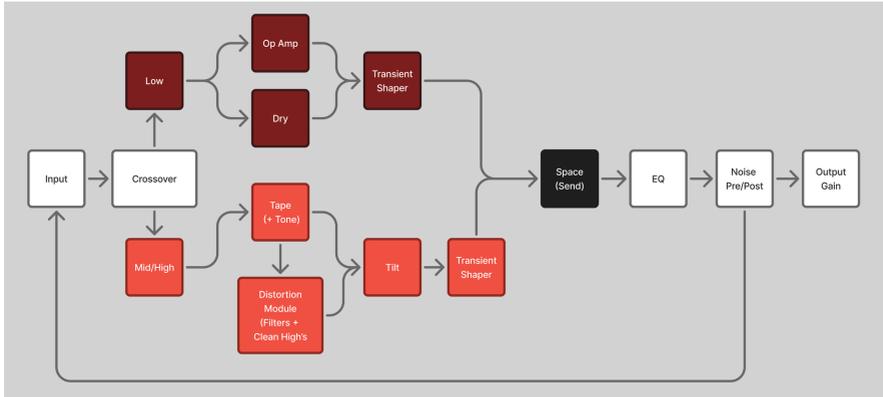
### 4.5.3. Editing Info for Multiple Presets

It's easy to edit information such as Types, Styles, designer name, and text description for several presets at the same time. Simply hold CMD (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.



Selecting multiple Presets

## 5. THE AUDIO PATH



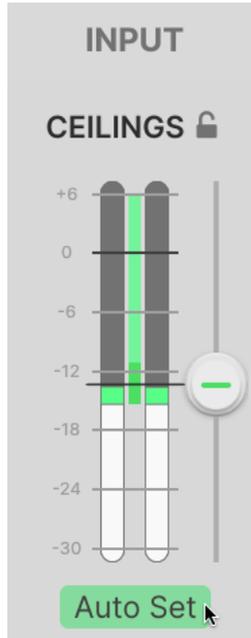
*Audio flows through Mix DRUMS along this path, which will be explained in detail in this chapter*

Now it's time to get under the hood and really learn what Mix DRUMS is doing. We will work our way through the Audio Path and examine each Signal Processing module in order. For each one, we'll go through all of the controls, both on the main panel and in the Visualizer.

Note that each of the primary signal processors - LOW, MID/HIGH, and SPACE - has On/Off buttons for its components, and a Solo button to hear the processor by itself. Click the square **S** icon to Solo a module.

When you click the name of a module, it will be highlighted in white, and the Visualizer will update to show controls relevant to that module.

## 5.1. INPUT



*The INPUT module*

The **INPUT** module is where Mix DRUMS sets the peak level for your signal, maintaining it throughout the signal chain.

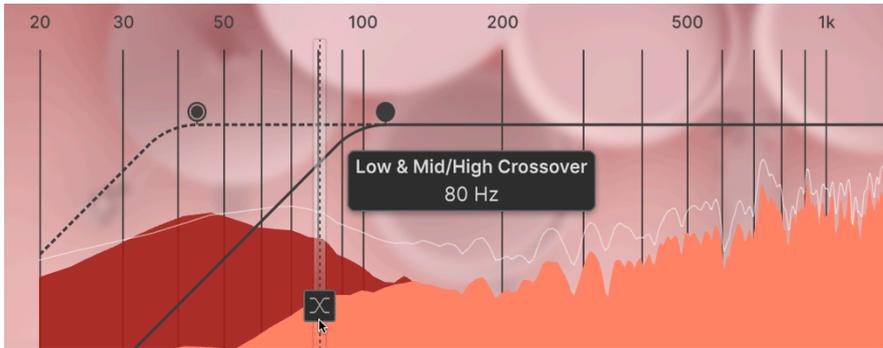
In between the two sides of the Input level meter, you'll see a small bar, dark green on the bottom and light green on the top. This is where your peak signals should be.

The goal is to set the Ceiling so the peaks are within the range of the green bar, and the signal peaks are green (not red) and right around the Ceiling level. If you're not sure where to start, click the **Auto Set** button to have Mix DRUMS give you a good starting estimate. Then tweak the slider to taste.

Emre Ramazanoglu advises: "You need to be mindful when using Mix DRUMS that, like any powerful transformative process, it can be easy to overdo. However, if you push it too far and it sounds overprocessed, it is very easy to pull back."

Once you have your Ceiling set, click the **Level Lock** icon. This will retain the Ceiling level even when you switch Presets, so you're always starting from the same place.

### 5.1.1. Low & Mid/High Crossover



*Setting the Low & Mid/High Crossover Frequency*

The primary purpose of the **Low & Mid/High Crossover** is to isolate the low frequencies from the rest of the signal.

The **Low & Mid/High Crossover Frequency** is set with a slider in the Visualizer, which is click-dragged to set a crossover frequency between 30 Hz and 500 Hz. The slider's handle is the crossover icon box near the bottom of the Visualizer - the other handle belongs to the [Distortion Crossover \[p.35\]](#) setting.



Once the two frequency bands are separated, they are color-coded in the Visualizer: red for Low, orange for Mid/High. This color coding is reflected in controls that affect the relevant frequency ranges.

## 5.2. LOW



*The LOW module*

Frequencies below the Crossover are sent to the **LOW** module, where a "dry" signal is run in parallel with a saturated one.

### 5.2.1. OP AMP 21

The OP AMP 21 module is a model of an operational amplifier gain stage, which provides warm saturation and gain boost. It's been taken from the DIST OPAMP 21 distortion effect in Arturia's FX Collection, and has the following controls:

- **Warmth:** The amount of distortion. Settings range from 0% to 100%.
- **Level:** The amount of makeup gain applied after the distortion stage. Settings range from Off to 24.0 dB, default is 0.00 dB (unity gain).
- **Dry:** The amount of Dry signal passed through along with the saturated signal. Settings range from Off to 24.0 dB, default is 0.00 dB (unity gain).



Note that the Dry signal here is not *completely* dry. It's routed through a preset tape clipper of its own, which imparts character without oversaturating the signal when hit with a loud signal.

### 5.2.2. Low Shaper and Clipper

Once the two signals have been recombined, they are sent through the **Low Shaper**. This is a *transient shaper*, a processor that lets you control the transients of drum hits. You can make the attacks of drums very short or de-emphasize them, and you have similar control over the sustained sound that follows the attack.

The Shaper controls are:

- **Attack Gain:** Sets the amount of gain boost or cut given to the attack of each drum hit. Settings cover  $\pm 10.0$  dB. The red line on the Attack graphic gives a visual representation of how the attack is being altered.
- **Attack Time:** This slider sets how long the Attack shaping lasts. Setting ranges from 5 ms to 200 ms.
- **Body Gain:** Sets the amount of gain boost or cut given to the body of each drum hit (the sound after the attack). Settings cover  $\pm 10.0$  dB. The red line on the Body graphic gives a visual representation of how the body is being emphasized or damped down.
- **Body Time:** This slider sets how much time it takes to reach the chosen dB value. Setting ranges from 5 ms to 200 ms.

The last stage of processing in this module is a final tape clipper, and the Clipper meter shows where the level of the signal is sitting as it exits the Low module. You can adjust the Level and Dry controls for the sound you like, while maintaining optimal levels.

## 5.3. MID/HIGH



*The MID/HIGH module*

Audio frequencies above the Low & Mid/High Crossover Frequency are sent to the Mid/High signal processing block, which consists of two independent processing engines, EQ, and a transient shaper/tape clipper combination. The audio coming into this section is actually split and recombined multiple times, so that filtering can be applied to limit the frequency ranges of dry, saturated, and/or distorted audio.

### 5.3.1. Tape

The **Tape Drive** is an adjustable tape character based on Arturia's Mello-Fi tape saturation effect. It has two controls:

- **Drive:** Amount of tape drive, from 0% to 100%. Double click for the default setting of 0%.
- **Level:** The amount of makeup gain applied after the Tape drive stage. Settings range from Off to 24 dB, default is 0 dB (unity gain).

### 5.3.2. Tone and Tilt

The Mid/High module has an easy-to-use EQ adjustment whose controls are called **Tone** and **Tilt**.

- **Tone** comes after Tape and before Distortion. It's a bidirectional control with a center (default) setting of 0.00% effect. Turning the control to the left (-100% to 0) causes the lower mids to be increased via a gentle "bell" filter with a center frequency of 700 Hz. Turning the control to the right (0 to +100%) engages a boost to the upper mids, a "bell" centered at 2500 Hz.
- **Tilt** comes after Distortion. It lets you adjust the overall brightness by controlling the blend of "tilted" audio vs. the un-equalized signal. Its setting covers a range of  $\pm 12.0$  dB, with a default of 0.00 dB (unity gain).

### 5.3.3. Distortion

After Tape and Tone, the signal is processed by the **Distortion** module. Its controls are:

- **Drive:** Amount of distortion, from 0% to 100%. Double click for the default setting of 0%.
- **Level:** The amount of makeup gain applied after the Distortion. Settings range from Off to 24 dB, default is 0 dB (unity gain).

However, those two controls can lead to a wide variety of tonal results, because the Distortion module actually contains 16 different distortion models!

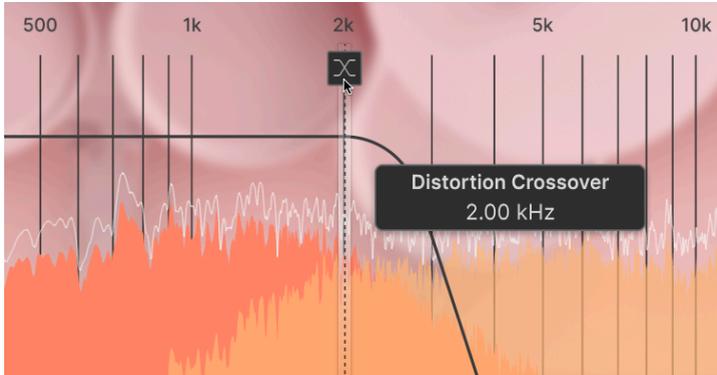
Click the name of the Distortion type to pop-up a 2-column menu, divided into three groupings:

- **Analog:** Tape, Pentode, Triode, Thick, Overdrive, Germanium I, Germanium II
- **Digital:** Bit Crush, Rate Crush, Rectifier
- **Waveshaper:** Exponential, Hardclip, Core, Howl, Sine Fold, Dual Fold

There's no substitute for your ears when trying these different distortion models. They range from the vintage and familiar to the futuristic and alien, allowing for a wide variety of harmonic tweaks.

#### 5.3.3.1. Distortion Crossover and Filters

One of the more powerful tweaks to the Distortion sound is to control which frequencies are distorted. In the Visualizer, there are three controls to focus the Distortion on a particular part of your signal;

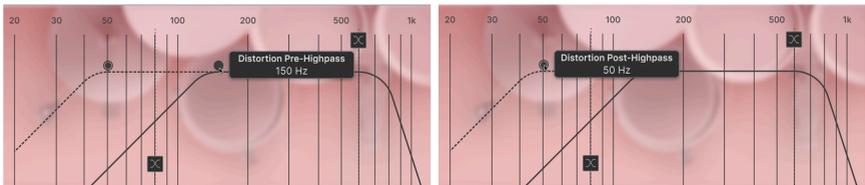


*Setting the Distortion Crossover*

The Distortion Crossover determines the upper range of frequencies affected by the Distortion. It's a lowpass filter that's selected and controlled with a square icon and drag handle, as shown above.

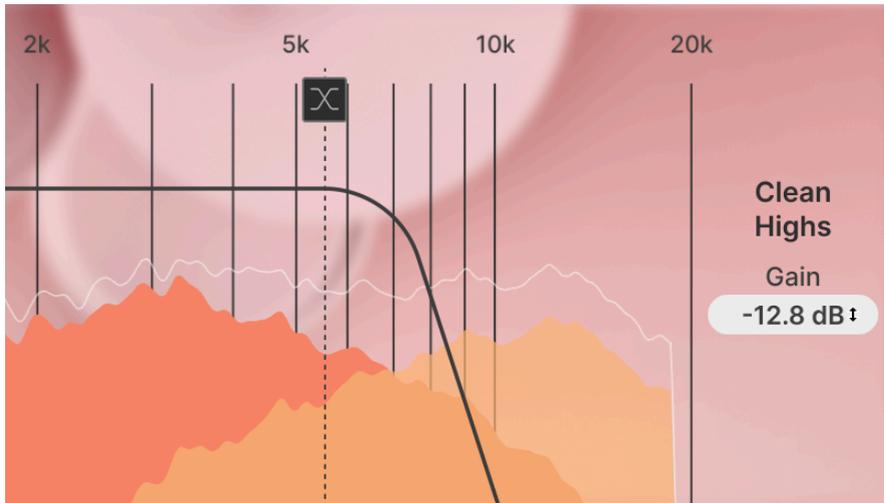
In addition, you can control the lower frequencies of this signal with two highpass filters, one before and one after (pre and post) Distortion. As with other EQ and filters in the audio path, taking control of the lows with these filters allows for precise sound shaping, taming or boosting the lower mids vs. the Low signal.

These are set with draggable circle icons, with the pre curve shown as a solid line and the post curve shown by a dotted line:



*Distortion Filter cutoffs: Pre and Post*

### 5.3.3.2. Clean Highs



*Clean Highs (pale orange in the Visualizer) with Gain setting*

When you select the LOW or MID/HIGH modules and have the Distortion turned on, an option called **Clean Highs** appears to the right of the Visualizer graph. Any highs that are above the Distortion Crossover frequency are shown in pale orange that overlaps the Mid/High signal; these are the Clean Highs, so named because they are dry and unprocessed.

You can choose to pass some of this signal through to the output, set to a level anywhere from Off to +24.0 dB. Click and drag up/down on the numerical display to set the Gain. Double-click to set Clean Highs to the default of 0.00 dB.

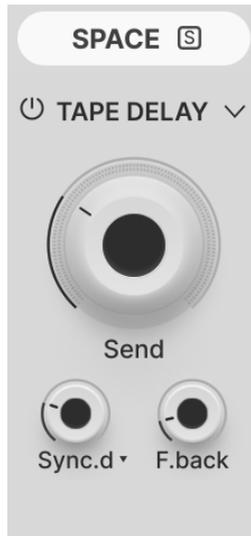
### 5.3.4. Mid/High Shaper and Clipper

The Clean Highs and output of the Distortion are summed together, put through the [Tilt EQ \[p.34\]](#), and then to the Mid/High Shaper and Clipper.

The controls and metering for the Mid/High Shaper and Clipper are identical to those of the [Low Shaper and Clipper \[p.33\]](#).

After this, the Low and Mid/High signals are summed back together, and sent to the SPACE processor.

## 5.4. SPACE



*The SPACE module*

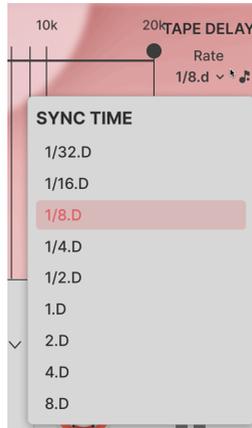
The **SPACE** module controls a variety of ambience and spatial effects. These include reverberation, delay/echo, and a fascinating assortment of special extras.

All of the four Space effects have a Send control to determine how much of the signal is routed through the Space processing.

When you select the Space module, the Visualizer display will update to show a set of parameter controls to the right of the frequency graphic. These parameters will be different for each of the four Space processing types.

### 5.4.1. Sync Time and Type

Several parameters are designed to be set not only as times/rates (in seconds or Hz) but also as beat divisions that line up the tempo of the effect to your DAW. Sync times can be called up as a range of beat divisions:



*Sync Time pop-up (shown here: Dotted values)*

These can be displayed in straight, dotted, or triplet time, depending on the setting of the parameter's pop-up:



*Sync Type pop-up*

### 5.4.2. Reverb

The **Reverb** is an algorithmic type – it sets up a room sound based on dialing in specific acoustic parameters.

Its main controls, besides Send, are:

- **Size:** Size of the virtual room, with larger sizes being more diffuse. Setting ranges from 0.0% to 100%, default is 50%.
- **Decay:** Lengthens or shortens the reverb decay time. Setting ranges from -50.0% to +50.0%.



Reverb Visualizer controls

The Visualizer controls for the Reverb are:

- **Pre-Delay:** Time delay before the first reflected sound. Setting ranges from 0 to 200 ms, default is 0 ms. Pre-Delay can also be [synchronized to your DAW tempo \[p.38\]](#) if desired.
- **Distance:** The perceived distance to the source from the listener position. Setting ranges from 0.00% to 100%, default is 40.0%.
- **Damping:** Softening of high frequencies to simulate a space with carpets, furniture, drapes, etc. Setting ranges from 0.00% to 100%, default is 30.0%.

### 5.4.3. Convolution Reverb

The **Convolution Reverb** makes use of sonic “fingerprints” known as *impulse responses*. They can simulate everything from real rooms, halls, cathedrals, etc., to the sound of guitar amp cabinets, electronic processors, and even impossible spaces that can’t exist in Nature.

Its main controls, besides Send, are:

- **Size:** Size of the virtual room, with larger sizes being more diffuse. Setting ranges from 50% to 150%, default is 100%.
- **Decay:** Lengthens or shortens the reverb decay time. Setting ranges from 0.00% to 100%.



*Convolution Reverb  
Visualizer controls*

The Visualizer controls for the Convolution Reverb are:

- **IR:** The selected Impulse Response (see below).
- **Pre-Delay:** Time delay before the first reflected sound. Setting ranges from 0 to 200 ms, default is 0 ms.

The Convolution Reverb has a selection of 25 Impulse Responses, selectable from a 2-column pop-up menu:



*Convolution Reverb Impulse Response pop-up*

Categories include:

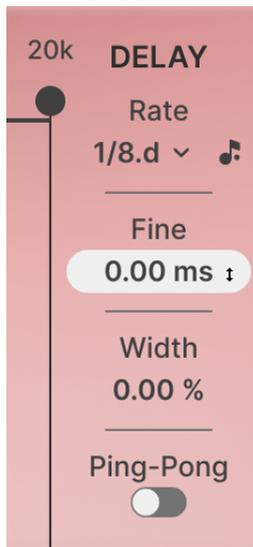
- **Creative:** Flight To Mars, Grit, Metallics, Passage Way, Water Tower
- **Hall:** Bright, Church, Concert, Large, Studio
- **Plate:** Airy, Dense, Echo, Resonant, Vintage
- **Room:** Bright, Jazz, Piano, Soft, Studio
- **Spring:** Accu, British, Gibbs, Small, Synth

Once again, let your ears tell you what works best with any given application.

#### 5.4.4. Delay

Delay covers a range of digital echo effects, with or without DAW sync.

- **Rate:** Timing of echo repeats. Setting ranges from 2 ms to 2000 ms (default 300 ms) when set to Time, or 1/32 to 8 bars when set to Sync.
- **Feedback:** Relative loudness of subsequent repeats. Setting ranges from 0.00% to 100% (infinite repeat). Default is 40.0%.



*Delay Visualizer controls*

The Visualizer controls for the Delay are:

- **Rate:** As above, delay time (watch icon) or sync division (note icon).
- **Fine:** Fine adjustment of delay time. Range  $\pm 50$  ms, default 0 ms.
- **Width:** Gradually broadens ping pong from mono (0.00%, the default) to full stereo (100%).
- **Ping Pong:** causes delay repeats to bounce between left and right in the stereo field.

#### 5.4.5. Tape Delay

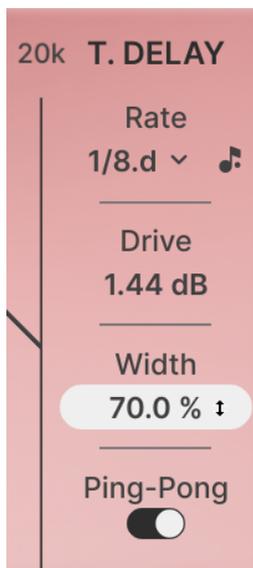
This is a delay that emulates old-style analog tape delays, with warm saturation and a range of settings different than that of the conventional Delay.

The main controls are:

- **Rate:** Timing of echo repeats. Setting ranges from 10 ms to 1000 ms (default 300 ms) when set to Time, or 1/32 to 8 bars when set to Sync.
- **Feedback:** Relative loudness of subsequent repeats. Setting ranges from 0.00% to 100% (infinite repeat) to 120% (runaway). Default is 35.0%.

**i** Feedback values above 100% produce *runaway*, where each successive echo gets louder than the one before it. This is often used as a special effect, but be careful - left uncontrolled, runaway echoes can get loud enough to damage speaker cones, not to mention your ears!

As with the Delay above, Rate can be set as a time or as a sync division, with the same pop-ups as before.



Tape Delay Visualizer controls

The Visualizer controls for the Reverb are:

- **Rate:** As above, delay time (watch icon) or sync division (note icon).
- **Drive:** Boost or cut of the output for tape saturation or cleaner sound. Setting is  $\pm 12.0$  dB, default 0.00 dB.
- **Width:** Gradually broadens ping pong from mono (0.00%, the default) to full stereo (100%).
- **Ping Pong:** causes delay repeats to bounce between left and right in the stereo field.

## 5.5. DYNAMIC

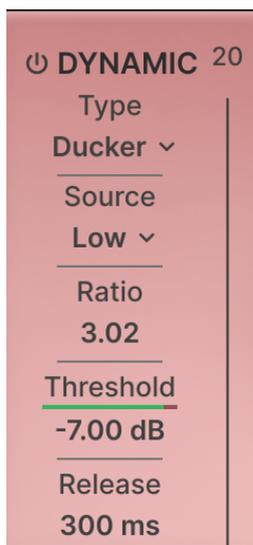
When the SPACE module is selected, controls for another effect - **DYNAMIC** - appear to the left of the Visualizer. These control the behavior of the Space effects in a variety of fascinating ways.

The three Dynamic effects are:

- **Ducker:** changes the Space effect level depending on audio input.
- **Tremolo:** causes volume changes according to modulation waveforms.
- **Gate:** cuts the signal out in response to audio levels.

### 5.5.1. Ducker

The **Ducker** is a simple form of sidechain compressor that lowers the effect level when it receives an audio input signal above a particular threshold level. This is primarily used so that the reverb has a lower send amount when a drum pattern is very busy, so that there isn't too much reverb to muddy the signal. When the pattern becomes sparser, you hear more of the reverb filling the space between hits.



*Ducker controls*

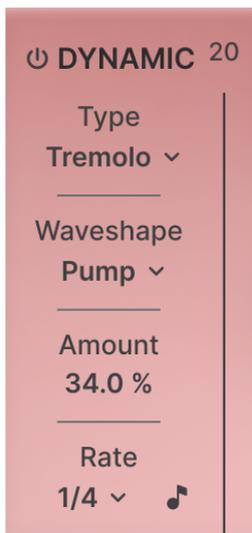
It has the following parameters:

- **Source:** Which frequency range triggers the Ducker: Low, High, or Low + High.
- **Ratio:** How many dB of output level is allowed for a given input level above the threshold. Setting ranges from 1.10 (very mild ducking) to 10.0 (hard limiting) with a default of 3.50.
- **Threshold:** The audio input level that activates the Ducker. Setting range is -70.0 dB (always on) to 0.00 dB (reacting to strong signals only).
- **Release:** The time it takes for the ducked signal to return to the un-ducked level, assuming there isn't another hit to make it duck again. Setting ranges from 25 ms to 2000 ms (default is 300 ms).

Here's a quick explanation of the Ducker settings shown in the screenshot above: Whenever the level of the Low signal goes above -7.00 dB, the Ducker kicks in. It adjusts the output level so that for every 3.02 dB the input goes above -7.00 dB, the output level is only allowed to increase by 1.00 dB. If not retriggered, the signal will return to its un-ducked level in 300 ms.

### 5.5.2. Tremolo

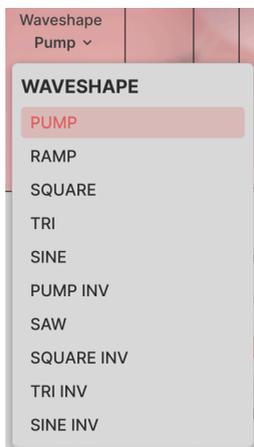
**Tremolo** is a regular variation in volume, providing a "pulse" that can be synchronized to the tempo of your DAW. This lets you create interesting variations and polymeters, turning the sound up and down at a rate that is a multiple or fraction of your song's tempo.



*Tremolo controls*

It has the following parameters:

- **Waveshape:** The shape of the tremolo's modulation waveform. It's chosen from a pop-up menu of 10 different options, as shown here.



*Tremolo Waveshape selection pop-up*

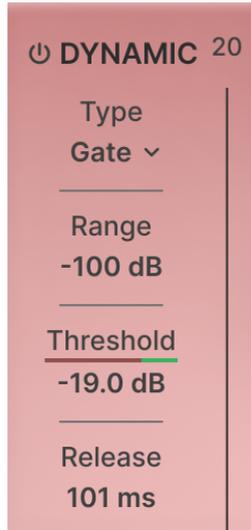
- **Amount:** How much the tremolo changes the signal level, from 0.00% (no change) to 100% (full level to silence and back).
- **Rate:** The speed of the tremolo. It can be set as a time with a range of 0.050 Hz (one cycle per 20 seconds) to 20 Hz (20 cycles per second), or synchronized to beat divisions of the DAW tempo as described in [Sync Time and Type \[p.38\]](#).

Try Tremolo with the Pump waveform on a Reverb or Convolution Reverb with a long Decay time. You'll get a gentle version of the classic sidechain reverb effect. Or try a Saw waveform at a 1/16 beat division, to put a "trancegate" effect on echoes or reverb tails.

### 5.5.3. Gate

We all know and love those smashed gated reverbs that were all over the pop hits of the 1980s and are still popular today. The **Gate** effect is how you create those effects in Mix DRUMS.

The idea is simple: when a reverb tail goes below a certain level, it's instantly chopped off to silence. Set an appropriate threshold and off you go!



*Gate controls*

It has the following controls:

- **Range:** How much gain change the gate creates. Setting ranges from -100 dB (effectively muted) to 0.00 dB (no level change).
- **Threshold:** The level the input signal must drop to before the gate closes down. Setting ranges from -70.0 dB (only very low levels, like background noise, trigger the gate) to 0.00 dB (it takes hard hits to open the gate).
- **Release:** How long the gate stays closed before resetting itself for the next reverb tail. Setting ranges from 25 ms to 2000 ms, default is 300 ms.

To get that classic gated snare sound, start with a really big Reverb or Convolution Reverb. Then turn on the Gate, set a Range of -100 dB, a Threshold just under 0 dB (so only snare hits open the gate rather than room bleed or noise), and a Release Time to taste. For the sound of Peter Gabriel's "Intruder", start with a Release of 400 to 500 ms. Try to set the Release time to a length that sounds good with the tempo of your track and how busy the snare part is.

## 5.6. EQ



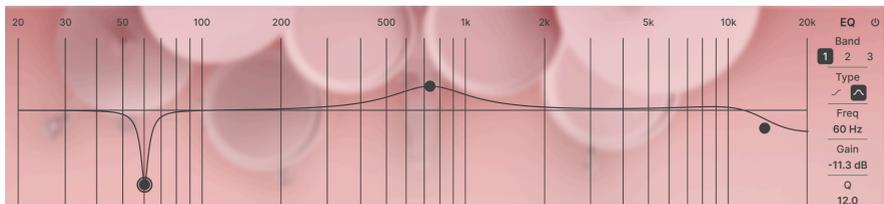
*The EQ module*

We're almost at the end of the signal chain, but there's one more signal processing module to pass through - the **EQ**. This is a 3-band fully parametric equalizer with a pair of **Balance** knobs and a **Noise** section.

The Balance knobs let you adjust the levels of the Low and Mid/High signals, shaping tone and controlling signal level.

### 5.6.1. EQ curve settings

The actual curve of the corrective EQ is set up using the Visualizer and a set of controls to the right of it.



*Graphic EQ control and parameters. Here, Band 1 is cutting out frequencies around 60 Hz to remove hum.*

The EQ is a fully *parametric equalizer*, a tool for finely sculpting the frequency response of an audio signal. It has three sets of controls that let you pick a frequency, decide how much gain boost or cut you want to apply at that frequency, and how wide the boost or cut will be. This lets you do everything from gently warm a signal with a small mid boost to notching out a specific frequency that contains unwanted hum.

The EQ appears as an interactive graph of gain vs. frequency. You have three points to work with: three fully parametric EQ bands, with the high and low bands optionally configurable as shelving filters. Click and drag to set the frequency and gain of any particular point; the point will be highlighted with a ring.

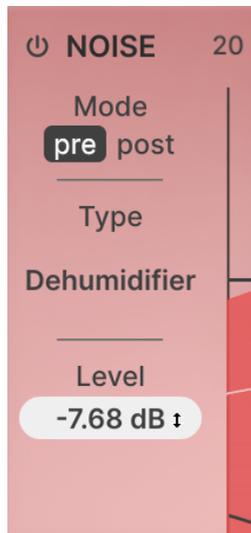
Once you've highlighted a particular point, the controls on the right will jump to its current values. You can then dial in more precise numbers if you wish, or access parameters that aren't controllable from the Visualizer.

- **Power icon:** Turns the entire EQ on or off.
- **Band:** Selects Band 1, 2, or 3 for editing.
- **Type:** Selects shelving (Bands 1 and 3) or peaking (any Band).
- **Freq:** The center frequency of the selected band. Any band can be set with a frequency between 20 Hz and 20 kHz.
- **Gain:** Amount of boost or cut. The gain range is  $\pm 12.0$  dB.
- **Q:** Bandwidth of the cut or boost. Settings range from (a very gentle change) to 12.0 (a sharp spike). High Q values applied to shelving filters produce interesting combinations of boost and cut around the set frequency.

After the EQ (and one more tape clipper to control gain), the signal is ready for output... but there's one more module available to process the sound.

### 5.6.2. NOISE

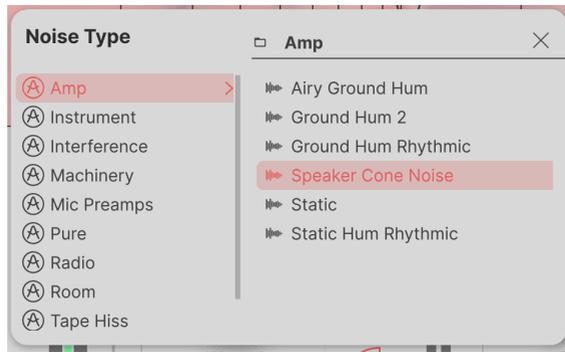
The **NOISE** module appears to the left of the Visualizer when the EQ module is selected. Since it's often useful (or just plain cool) to mess up a drum sound with noise, grit, or other forms of audio dirt, Mix DRUMS includes a set of noise sources that can be added to the signal chain.



*NOISE controls*

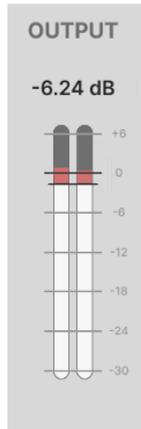
The controls are simple but powerful:

- **Power icon:** Turns the entire Noise module on or off.
- **Mode pre/post:** Chooses whether the Noise source is placed at the beginning of the entire signal chain, so it's processed along with everything else all the way through, or at the end of the signal chain as a texture underlying the fully processed signal. Both produce a range of interesting sounds.
- **Type:** Clicking here opens a pop-up menu of 49 noise types, ranging from "pure" electronic noise to familiar (and usually unwanted) environmental annoyances. Bad amps, noisy machinery, radio static, vinyl crackles, and much more... a whole range of sounds that we're usually trying to keep *out* of our mixes!
- **Level:** How much noise is added to the signal. The setting ranges from Off to 0.00 dB (unity gain).



*This popup offers a menu of Noise types*

## 5.7. OUTPUT



*The OUTPUT module's meter displays output levels vs. the level set by the Ceilings slider.*

The **OUTPUT** section primarily provides a meter so you can get a feel for where your signal level is sitting at the end of the process. Under the hood, there's one last clipping stage to keep everything under control, and the OUTPUT meter shows the end result of all this processing: hopefully, what you have is a signal that has been changed subtly or drastically in tonal character, while its levels are sitting right where they should be to fit into your mix.

A whole universe of amazing drum tricks, with a little magic to make sure the end results are musical, controlled, and reliable – that's the essence of Mix DRUMS. We hope it helps you unlock the drum sounds you've always heard in your head... and discover many more that you didn't think were possible.

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