# Drumsynth 500 Owners Manual

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# Introduction

Thank you for purchasing Drumsynth 500 by Air Music Technology. Drumsynth 500 is a virtual instrument for playing and creating electronic drum sounds. Using a MIDI keyboard, pad controller or your favorite Digital Audio Workstation (DAW) software, Drumsynth 500 brings modern electronic drum sounds into your musical productions. To get you started, Drumsynth 500 gives you 50 factory drum kits, 500 individual drum sounds, over 500 samples, and 500 MIDI drum loops which can be loaded into any DAW and played back using the Drumsynth 500 VSTi. And if that's not enough, Drumsynth 500 is packaged into a beautiful user interface with no hidden panels for quick, fun playback and creation of electronic drum sounds.

# Getting Started

After downloading the Drumsynth 500 software you will need to install and authorize the software before using it.

## Installing

The Drumsynth 500 file that you downloaded is packaged into a Zip archive (.zip extension). Therefore you need to uncompress or unzip the packaged file before running the installer. Most Macintosh and Windows operating systems will allow you to simply double click on the .zip file to extract the installation file using Winzip or another similar application.

Macintoshes have a built in archive utility application to do this as well which you can access by control-clicking the .zip file and selecting the option "Open With", then the "Archive Utility" option.

After uncompressing the zip file, simply double click on the Drumsynth 500.exe (windows) or Drumsynth 500.pkg (mac) file to start the installation process, then follow the prompts to install the software.

## Authorizing

Drumsynth 500 is copy protected software and therefore you will need to authorize it before using it. You can authorize the software in the standalone applications or in your DAW. To authorize your software using the standalone application, simply open the standalone application by double clicking on the Drumsynth 500 application file found in your Program Files on Windows computers, or the Drumsynth 500 application file in your Applications folder on Macintosh computers.

If this is the first time you have opened the software you will be presented with a series of authorization screens which allow you to enter the authorization code you received when you purchased the software. After entering your authorization code the software will be authorized on your computer or iLok dongle and will open.

To authorize Drumsynth 500 in a DAW simply launch your DAW. As it scans your plugins it will detect that Drumsynth 500 is not authorized and will present you with a series of screens to do so. Simply follow the prompts and enter the authorization code you received when purchasing the software. After entering your authorization code the software will be authorized on your computer or iLok dongle and will open.

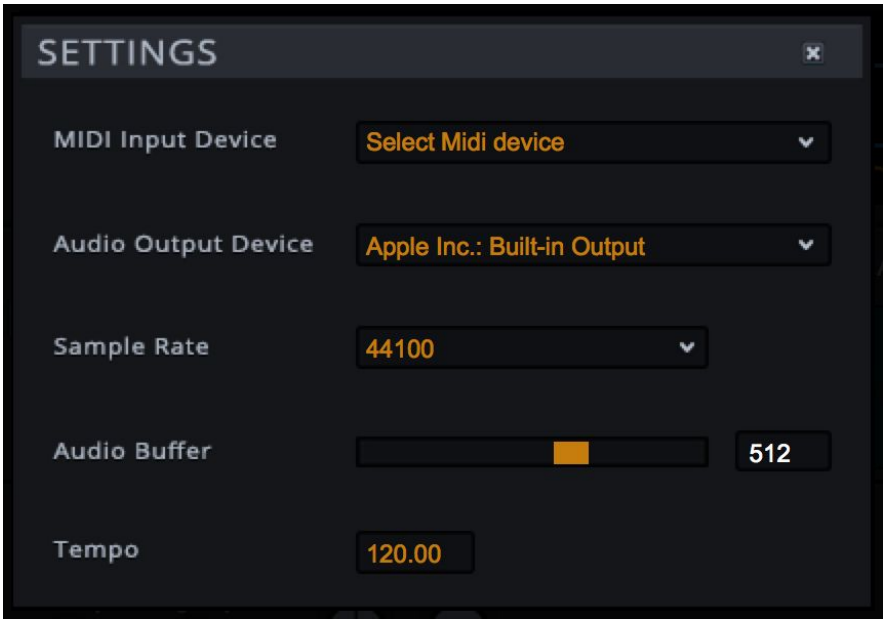
### Trial Mode

Drumsynth 500 is available to "try" for 15 days without entering an authorization code. During this time you may purchase the software and receive an authorization code to authorize your software. If you do not enter an authorization code during the 15 day trial the software will cease opening until you enter a valid authorization code. There are no restrictions when running Drumsynth 500 in trial mode.

## Using Drumsynth 500 in Standalone Mode

Drumsynth 500 comes with its own plugin host software referred to as a "standalone" host. This allows you to use Drumsynth 500 without the need of a digital audio workstation (DAW) application. The Drumsynth 500 standalone application can be found in your Applications folder on Mac or your Program Files folder on Windows. Simply launch the standalone application to use the software in this way.

While in Standalone Mode, you can configure the audio outputs and MIDI input using the Settings screen. Press the “gear” icon in the top bar of the main screen to show the Settings screen.




The Standalone application will automatically detect your connected MIDI devices. Click on the dropdown arrow to select one.

Drumsynth 500 will also automatically detect any output devices you have connected to your computer. Use the dropdown to select from among these.

IMPORTANT: Drumsynth 500 requires an ASIO Device Driver to run properly on Windows machines. Most audio IO devices support this automatically. If you do not have an audio IO device connected to your computer you can use a virtual ASIO device driver. The most popular one is called ASIO4All and is available for free download on the internet.

The sampling rate determines the rate of the audio session, in this case the Standalone host session. A setting of 44100 or 48000 is recommended for best performance.

The audio buffer size determines how much audio is processed in a given time frame. Higher settings will cause some latency between the time you send a midi note and the time you hear that note played back. If this setting is too low, however, you may experience audio glitching if your computer is not fast enough to keep up. A setting between 128 and 512 will work for most computers.

## Using Drumsynth 500 in your DAW

Using Drumsynth 500 in your digital audio workstation (DAW) works like any other virtual instrument plugin. You first instantiate the plugin on a virtual instrument track, then select that track for MIDI input and auditioning. Please consult your DAW manual for detailed steps on how to do this.

Drumsynth 500 supports VST, AU and AAX 64 bit formats.

# Graphical Interface


Like the 500 series of modular audio modules, Drumsynth 500 is also laid out into vertical channel strips, one for each instrument in a drum kit. Accordingly we call these "instrument channels" (shown above in purple). They include KICK, SNARE, CLAP, HATS, TOMS, PERCUSSION, SAMPLER 1 and SAMPLER 2. These names appear at the top and bottom of each instrument channel for easy reference.

Above the instrument channels is the drum kit selection area. Instrument channel parameters and master channel parameters combine together to create a drum kit instrument. Drumsynth 500 includes 50 factory drum kits plus you can edit, rename and save your own custom drum kits. All drum kits are accessed from this area. See below for more information on how to select, rename and save your drum kits.

At the top of each instrument channel are the parameters for MIDI control which allow you to map which MIDI notes will play which instrument and other functions described below. Below that are the sound editing parameters for each instrument. Drumsynth 500 uses four types of synthesis to create its sounds, virtual analog synthesis for the kick and snare (shown with blue knobs), noise synthesis for the clap and high hats (shown with red knobs), FM synthesis for toms and percussion (shown with yellow knobs), and sample playback synthesis (shown with green knobs). Each synthesizer has parameters custom designed for the instrument type making editing and creating new sounds fast and intuitive.

Below the synthesis parameters, in a lighter grey color, are individual filter, distortion and compression effects for each instrument channel. These effects are common for all instrument types allowing for a cohesive sound across an entire drum kit, yet have independent settings for each instrument channel for complete customization.

At the bottom of the interface is the mixer section where you can balance, pan, and send the audio of each individual instrument to the master channel for further processing. Drumsynth 500 includes 4 bus sends for each instrument. These are sent to four send effects in the master channel, giving you independent control over the level of the send effects for each instrument.

Finally to the right of the 8 instrument channel strips is a master channel strip. The master channel strip contains two insert effects and four send effects. The insert effects include a saturation distortion and a kill equalizer. The send effects include two independent reverbs and two independent delays. The master channel also includes overall level and panning for the drum kit.

# Working with Drum Kits

Drumsynth 500 drum kits, like their real world equivalent, are a collection of all the individual channel instruments (kick, snare, etc) saved into a single drum kit preset. In the case of Drumsynth 500, the drum kit preset also includes the master channel settings, the MIDI settings (except the trigger note assignments which are common to all drum kits) and the mixer settings.

## Selecting and Auditioning Drum Kits

Drum kit presets are accessed at the very top of the interface. Clicking on the name of the drum kit will show a dropdown window of all factory and user drum kits. Selecting one of these kits will load the preset into Drumsynth 500 for playback. You can also use the left and right arrows to quickly move through drum kits to audition them.

Playing (auditioning) the drums in Drumsynth 500 requires the use of a MIDI controller such as a keyboard, pad controller or MIDI drumkit. If you do not have one of these hooked up you can still audition the drum sounds by clicking on the name of the instrument channel.


This will send a MIDI note event to the Drumsynth 500 synthesizer to play that instrument.

## Renaming and Saving User Drum Kit Presets

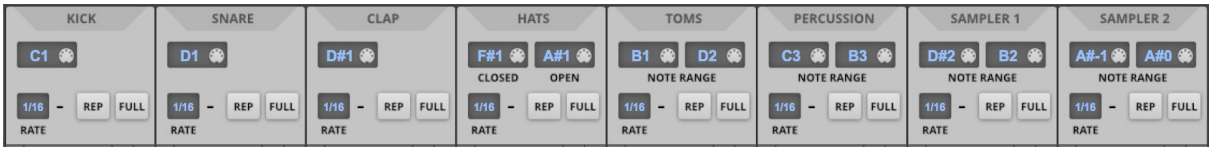
You can edit any of the factory drum kit presets and name and save your edits as a new preset. When you do this your drum kit will be available in the drum kit preset dropdown menu where you can recall it later.

To rename a preset, right-click or control-click on the name the preset and type in a new name, then hit the save icon to the right to save your preset.


Drum kit presets are saved as individual files on your hard drive and therefore the names must be unique. If you try to rename and save a preset with a name that has already been used you will be presented a dialog box telling you to use a different preset name. This dialog box does not appear if you simply hit the save button while editing a preset. Instead Drumsynth 500 keeps track of whether you have edited a drum kit and are attempting to save it using a name that is already used.

# MIDI Control Section

The MIDI Control Section at the top of each instrument channel gives you control over how hardware keyboards, pad controllers or MIDI drum kits will map the Drumsynth 500 sounds. This section also includes common drum machine parameters for note repeat and full level.




## MIDI Trigger Note

Each instrument in a drum kit is assigned a MIDI trigger note which in turn will play that instruments sound when played. The kick, snare and clap have a single MIDI note assignment, the high hat instrument has independent MIDI trigger notes for the open and closed hi hat sounds, and the rest of the instruments have a range of notes which you can assign by choosing the low key and high key of the range.

MIDI trigger notes can be changed to your liking by clicking on the MIDI note assignment and selecting a note from dropdown menu. A much easier way to assign a MIDI note is to use the MIDI learn button, shown as a MIDI plug icon. Select this button then play the MIDI note, pad or trigger on your MIDI controller to assign that note. Repeat this for all the instrument channels.
MIDI trigger assignments are global for all drum kits. Once you have these setup for your MIDI controller they will not have to be reassigned for each Drumsynth 500 drum kit.

## MIDI Repeat

Each instrument can be set to play repeated notes while holding a MIDI note. This is a common feature of hardware drum machines. Click on the repeat button to enable this feature. To change the speed of the repeated notes select a note division in the Rate

dropdown menu. The note repeat speed is automatically tempo sync'd to your DAW tempo. If you are running the standalone application you can select this tempo in the settings window.

### Full

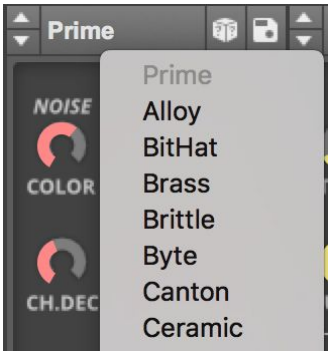
If the full button is set to on, the instrument channel will play at full volume, ignoring MIDI velocity. This is a common setting for electronic drums where there is limited dynamic (volume) range in drum sounds.

## Sound Synthesis

Below the MIDI control parameters in each of the instrument channels where the sound controls reside. These parameters shape the timbre of each drum instrument. The sound shaping parameters for each instrument channel are unique to each instrument and have been carefully chosen to give you the widest range of sonic possibilities while still keeping the general function of a particular instrument. For example the kick drum channel has the parameters necessary for shaping kick drum sounds, the hi hat channel has parameters for shaping hi hat sounds, etc. The last two channels sampler channels are more "open ended", allowing you to load your own sampled sounds (.wav files).

### Channel Instrument Presets

Each instrument's sound parameters can be saved into a preset for quick recall and auditioning. Drumsynth 500 comes with 50 factory presets for each instrument giving you plenty of sounds to start from. To select a preset either click on the name of the preset and select a sound from the dropdown list or use the up and down arrows to move consecutively through presets.




#### Renaming and Saving User Instrument Presets

You can edit any of the factory presets and name and save your edits as a new preset. When you do this your preset will be available in the instrument channel preset dropdown menu where you can select it for use in multiple drum kit presets.

To rename a preset, right-click or control-click on the name the preset and type in a new name, then hit the save icon to the right to save your preset.


Instrument presets are saved as individual files on your hard drive and therefore the names must be unique. If you try to rename and save a preset with a name that has already been used you will be presented a dialog box telling you to use a different preset name. This dialog box does not appear if you simply hit the save button while editing a preset. Instead Drumsynth 500 keeps track of whether you have editing an instrument and are attempting to save it using a name that is already used.

### The Random Button

To help you get even more creative with making your own sounds we've added a random button (dice icon) which, when pressed, will automatically change the sound parameters and create an entirely new instrument. Use this to quickly generate new and un-imagined sounds.

## Kick Drum Instrument Channel


The kick drum instrument uses a virtual analog synthesizer to create its sound. The parameters for this include:

Tune - adjusts the frequency of the oscillator thereby changing the pitch of the sound

Amp Decay and Curve - adjusts the amplitude envelope changing how the sound decays over time

Pitch  Amount, Decay and Curve - adjusts the pitch envelope which changes how the kick drum bends its pitch over time

Click - adjusts the level of the kick drum attack transient

Noise - adjusts the level of a noise oscillator, adding a bit of white noise into the sound

Drive - adjusts the level of a distortion circuit which adds extra drive to the sound

See below for a description of the common effects parameters.

## Snare Drum Instrument Channel


The snare drum instrument uses a virtual analog synthesizer to create its sound. The parameters for this include:

Body Tune - adjusts the frequency of the oscillator thereby changing the pitch of the body of the snare sound

Body Decay - adjusts the decay of the amplitude envelope thereby changing how fast the snare body sound decays

Body Bend - adjusts the amount of a pitch envelope thereby changing the pitch of the body of the snare as it decays

Snares Noise - adjusts how much white noise is in the snares (wires) part of the snare sound

Snares Decay - adjusts how fast the snares part of the sound decays

Snares Color - adjusts the timbre of the snares part of the sound

Diode - adjusts the drive level of a diode low pass filter thereby adding some punch to the sound

High Pass Filter (HPF) and Resonance (Reso) - adjusts the frequency cutoff and resonance of a high pass filter

See below for a description of the common effects parameters.

## Clap Instrument Channel

The clap instrument is made from a series of impulses created with a very short envelope retriggered by a fast LFO on a noise source to create a series of claps. It's parameters are:


Gate - sets the length of the overall clap sound

Spread Level and Time - sets the time between individual clap impulses and the level of the repeated impulses

Claps - controls how many repeats of the impulse (claps) are in the sound

Noise - controls the level of the white noise in the clap sound

Color - changes the timbre of the noise sound

EQ Low, Mid, High - adjusts the overall equalization of the clap sound

See below for a description of the common effects parameters.

## Hi Hat Instrument Channel

The hi hat instrument uses a noise oscillator and a virtual analog oscillator to create the sound of both open and closed hi hat sounds. It's parameters are:


Noise Color and Mix - adjusts the timbre of the noise source and the mix or balance of the noise oscillator and analog oscillator.
Oscillator (OSC) Pitch - adjusts the frequency or pitch of the analog oscillator

Closed Hat Decay (CH.Dec) and Open Hat Decay (OH.Dec) - adjusts how fast the open and closed hat sounds decay.

Curve - adjusts the curve of the open and closed hat decay envelope

High Pass Frequency (HPF) - adjusts the frequency of the high pass filter

Timbre Frequency (Freq) and Mix - adjust the frequency and level of an allpass filter which will change the timbre of the hi hat sound

See below for a description of the common effects parameters.

## Toms Instrument Channel

The toms instrument channel uses a 2 operator FM synthesizer to create its sound. It's parameters are:


Operator 1 (Op1) and Operator 2 (Op2) link switch - this switch determines whether FM operator 1 and 2 run in parallel (straight line) or whether operator 2 is used to modulate operator 1 (left pointing arrow). Each of these settings create a different timbre in the sound.

Tune - sets the frequency or pitch of operator 1

Decay 1 and Decay 2 - set the decay of the amplitude envelope for operators 1 and 2 respectively

Tune 2 - sets the frequency or pitch of operator 2

Level 2 - sets the volume of operator 2

Feedback 2 (Fdbk2) - sets how much of operator 2 audio is fed back into the signal patch

Pitch Amount, Decay and Curve - these parameters adjust a pitch envelope which can change the pitch of the sound over time

See below for a description of the common effects parameters.

## Percussion Instrument Channel

The percussion instrument channel uses a 2 operator FM synthesizer to create its sound. It is identical to the toms instrument channel and therefore toms and percussion instrument presets are interchangable. It's parameters are:


Operator 1 (Op1) and Operator 2 (Op2) link switch - this switch determines whether FM operator 1 and 2 run in parallel (straight line) or whether operator 2 is used to modulate operator 1 (left pointing arrow). Each of these settings create a different timbre in the sound.

Tune - sets the frequency or pitch of operator 1

Decay 1 and Decay 2 - set the decay of the amplitude envelope for operators 1 and 2 respectively

Tune 2 - sets the frequency or pitch of operator 2

Level 2 - sets the volume of operator 2

Feedback 2 (Fdbk2) - sets how much of operator 2 audio is fed back into the signal patch

Pitch Amount, Decay and Curve - these parameters adjust a pitch envelope which can change the pitch of the sound over time

See below for a description of the common effects parameters.

## Sampler 1 and Sampler 2 Instrument Channels

Sampler 1 and Sampler 2 instrument channels use a sample playback synthesizer to create its sound. You can choose factory included samples or load your own user samples. Both channels are identical and therefore instrument presets are interchangeable between the two. Its parameters are:


Sample Selection - click on the name of the sample to expose a drop down menu where you can choose to load individual samples. Clicking on the left and right arrows will move consecutively through the samples allowing for quick auditioning of sounds. See the section on Sample Management for more information.

Forward, Reverse and Loop - Clicking on the forward, reverse or loop name below the top left knob selects how the sample will playback. Forward will play the sample from the beginning to the end and the knob value will set the sample start point. Reverse will play the sample from the end to the beginning and the knob value will set the sample end point to start from. Loop will loop the sample and the knob will set the end of the loop point.

Pitch - adjusts the pitch of the sample in semitones

Fine - adjusts the pitch of the sample in cents

Attack, Hold, Decay - adjusts the amplitude envelope controlling the level of the sound as it plays

Pitch Amount - adjusts the amount of pitch modulation of the pitch envelope

Decay, Curve - adjusts the decay and curve of the pitch envelope

See below for a description of the common effects parameters.

# Sample Management

Drumsynth 500 allows you to use your own samples in the two sample instrument channels. This gives you endless creative control over your drum kit instrument by allowing you to use a particular kick, snare, hat, etc. sound that you can't get using the synthesis parameters, adding a sound effect, loop, beat or even a bass, brass or other melodic sound.

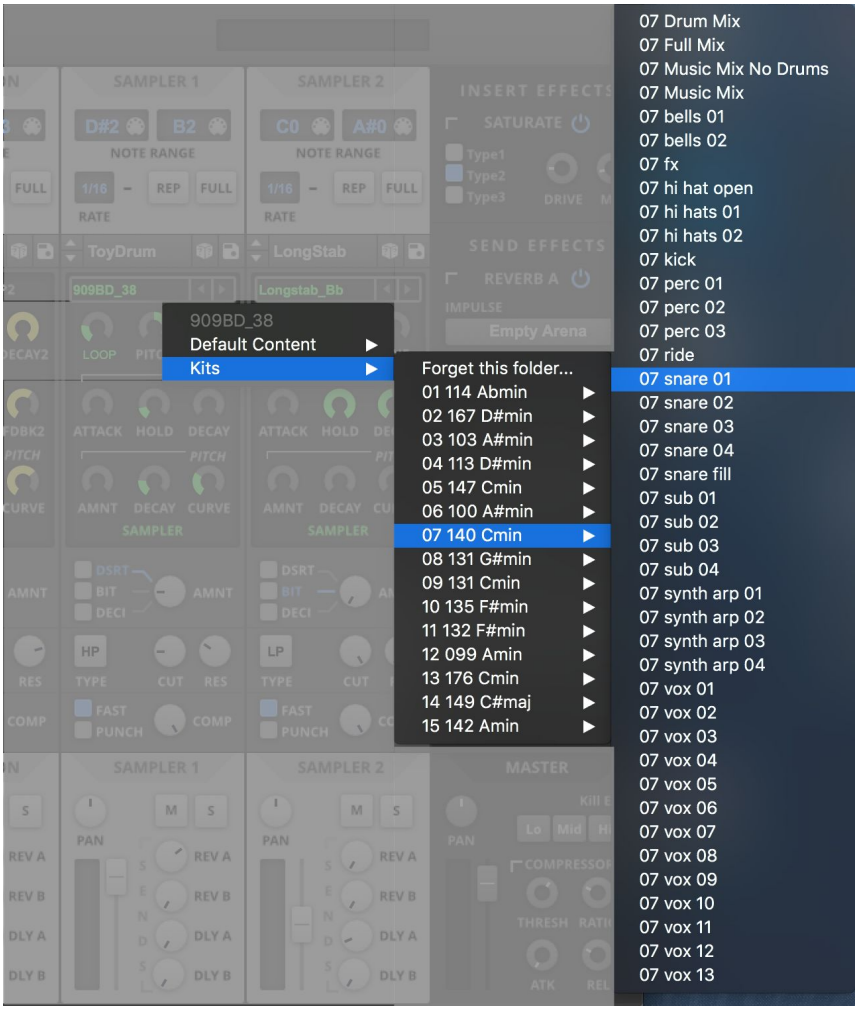
## Sample File Format

Drumsynth 500 allows for standard formatted microsoft .wav files. The .wav files can be any sample rate but we suggest using 44100 or 48000 samples for best quality. Only 16 bit samples are allowed. Note that there are many malformed .wav files in existence. If you are trying to use a .wav file that is not loading or playing back correctly, it is because the file is malformed. Please select a different sample instead.

## Using Factory Included Samples

Drumsynth 500 includes over 500 factory samples ranging from drum kit sounds to bass sounds to effects. Samples are organized into folders to help you find what you're looking for quickly.

To select a factory sample, simply clicking on the sample name to see a dropdown list of available samples or use the left/right arrows to quickly move through samples and audition them. After selecting a sample you will see its name appear in the sample selection box as well as a checkmark next to the sample name in the dropdown menu as shown here.



## Working with User Samples

Drumsynth 500 organizes user samples by keeping track of user specified file directories (folders) on your hard drive. In other words, you will tell Drumsynth 500 where your sample files are located on your hard drive and it will make any .wav files in those directories available for loading and playing in the sampler instrument channels.

### Assigning Sample Folders to Drumsynth 500

To make a sample folder available for use in Drumsynth 500 you simply drag and drop the folder icon where your samples are stored onto one of the two sampler instrument channels. On Macintosh systems you do this by using the finder to show your sample folders, then clicking and dragging the folder icon on top of either sampler instrument channel and release the mouse to drop it there. On Windows systems you use the File Explorer to do the same thing. After doing this you will see the name of your sample folder ("Kits" in the example above) and all its samples in the dropdown menu of both sampler instrument channels. The samples can now also be auditioned using the left/right arrows to the right of the sample name.

IMPORTANT - We do NOT recommend assigning the root or main folder of your hard drive as a sample folder as this will seriously slow down the selection and auditioning of individual samples. Instead, you should organize your samples into a few designated folders with only .wav files and assign those folders to Drumsynth 500 sampler channels.

There is no limit to how many folders you can make available in the Drumsynth 500 sampler menu.

### Removing Sample Folders from Drumsynth 500

To remove a sample folder from the sampler instrument dropdown menu, select the "Forget this folder" option at the top of the menu. This will prompt a dialog box for you to confirm this action. Removing a sampler folder does not delete or change any files on your hard drive. It simply tells Drumsynth 500 not to look at this folder when presenting you a menu of samples for loading and playing.

### Resolving Missing Samples

Because Drumsynth 500 references sample locations on your hard drive rather than copying your samples to a dedicated location (and thereby using up unnecessary hard disk space), you must be careful not to move your samples from the directory they were in when you added them to the Drumsynth 500 sample menu. If you do this unintentionally, Drumsynth 500 will notify you of any missing samples by showing a red exclamation mark next the sample name as shown here.

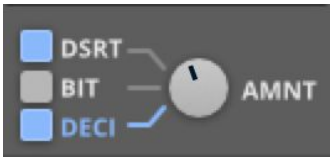

Clicking on the exclamation mark will bring up the following dialog box asking you to locate the missing sample on your hard drive, then drag its folder on top of the sample instrument channel in order to add it to the list of sample folders in Drumsynth 500. After doing this, you can use the sample selection methods described above to locate this sample and select it.


## Common Channel Effects

Below the synthesis parameters, in a light grey colored background, are individual filter, distortion and compression effects for each instrument channel. These effects are common for all instrument types allowing for a cohesive sound across an entire drum kit, yet have independent settings for each instrument channel for complete customization.

### Distortion Effects

At the top of the common channel effects panel are three distortion effects, a drive shaper distortion (DSTR), a a bit crusher (BIT), and a decimator (DECI). You can have any of the three distortions active at the same time by clicking on the checkbox to the left of the distortion name. The example below shows that the DSRT and DECI distortions are active but the BIT distortion is not.




Each of the distortions have an amount (AMNT) knob to set the amount of drive for each. To edit the amount for a particular distortion click on the name of the distortion (not the checkbox which turns the distortion on or off). You will see the blue line connecting the

distortion name to the knob change from grey to blue indicating the amount knob's value for that distortion. The example above shows that the amount for DECI is being adjusted. In other words, these are three independent distortions. You turn them on or off using the checkbox and set their individual drive amounts by selecting the name of the distortion and using the amount knob.

## Filter Effect

The filter effect is a 2-pole resonant filter with five different filters, a lowpass (LP), hipass (HP), bandpass (BP), notch (No), and peak (Pk). There is also an option for no filter (--).



To use the filter first select the type using the dropdown selection box, then set the frequency cutoff point using the CUT parameter and the resonance or width using the RES parameter. Unlike the distortions, only 1 filter type can be used at a time.

## Compression Effect

The compression effect offers two compression options which are targeted specifically for electronic drum sounds. The controls are macro controls which adjust several parameters with just a few interface parameters.


The FAST checkbox will set the compression attack time to zero milliseconds while the PUNCH checkbox will set the compression attack time to 10 milliseconds. The compression amount knob (COMP) simultaneously sets the compression threshold and ratio. Turn this knob up for more compression and down for less compression. The compressor circuit is automatically set to auto-gain, meaning as you add compression the signal will make up any lost gain automatically.

# Master Channel

The master channel in Drumsynth 500 acts in a similar fashion to a mixing board master channel strip. The audio output of all eight instrument channels are sent to the master channel and mixed into a single stereo output.

*Note: Drumsynth also supports independent audio outputs of each of the instrument channels if you wish to process each instrument independently in your DAW. See the "Separate Outputs" section for details.*

In addition to mixing the eight instrument channels, the master channel includes 4 send effects (reverb 1, reverb 2, delay 1, delay 2) and 3 insert effects (saturation, kill EQ, compression) which can be added to the mixed signal.

## Master Insert Effects

The master insert effects are "inserted" into the mixed signal of the master output. Each can be bypassed as well to remove the effect from the master output.

### Saturation

At the top of the master channel is the Saturation insert effect. This is a type of distortion that can add additional punch and character to your synth drums.

There are three types of saturation effects which have different sonic characteristics. Use the blue select boxes to select the type you want, then adjust the drive and mix parameters to set the amount of distortion (drive) and wet/dry mix of the distortion (mix). You can enable or disable the saturation effect using the bypass button to the right of the name.

### Kill EQ

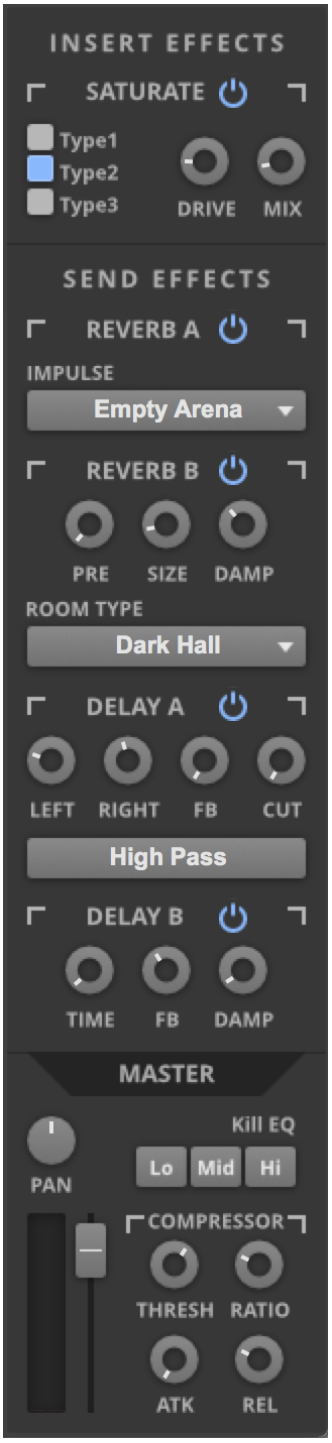
At the bottom of the master channel is the Kill EQ insert effect. This effect has three buttons for three frequency bands - high, mid and low. Pressing and holding one of the buttons will pass those frequencies through the audio output while muting (killing) the other frequencies. This is a popular DJ effect which offers quick sonic variation in your drum beats. You can connect a MIDI controller to activate these buttons in real-time or automate them in your DAW.

### Compressor

The compressor will add dynamic compression to the master output. It has four parameters. Threshold sets the level at which the compressor will engage. Ratio will set the amount of compression, attack (ATK) sets the attack rate which determines how fast the compressor kicks in, and release (REL) sets the rate which the compressed signal fades.

## Master Send Effects

There are four send effects in Drumsynth 500, two reverbs and two delays. Each of the four send effects have corresponding send amounts in the mixer section of each instrument channel. This allows you to set the mix of each send effect independently for each instrument channel.




### Reverb A

Reverb A is a stereo convolution reverb which works by recording a short impulse of the room and then processing audio through that impulse. It's only parameter is the selection of the room impulse which you can do by clicking on the dropdown menu and selecting the type of room. You can enable or disable the Reverb A effect using the bypass button to the right of the name.

### Reverb B

Reverb B is an algorithmic reverb. It's adjustable parameters include the Room Type which you select via the dropdown menu, pre-delay (PRE), size, and damping (DAMP) which will dampen the high frequencies.  You can enable or disable the Reverb B effect using the bypass button to the right of the name.

### Delay A

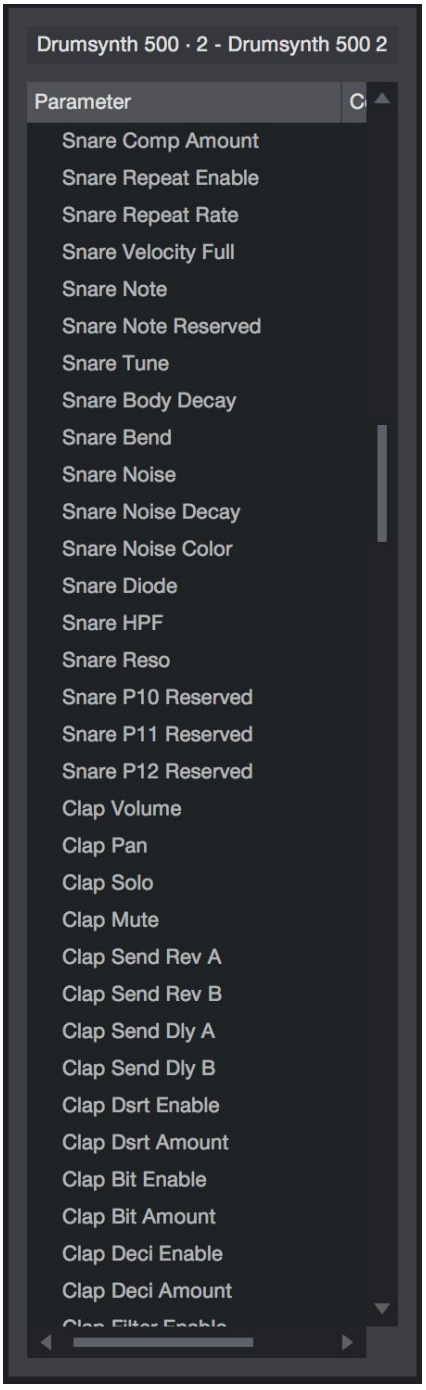
Delay A is a stereo delay with independent left and right delay times (LEFT, RIGHT) and a feedback control (FB) which sets the number of repeats of the delay. Delay A also includes a High pass and Low Pass filter on the delayed signal which is selected in the dropdown menu. The cut parameter (CUT) sets the cutoff frequency of this filter. You can enable or disable the Delay A effect using the bypass button to the right of the name.

### Delay B

Delay B is a mono delay with a single delay time (TIME), a feedback control (FB) which sets the number of repeats of the delay, and a damp (DAMP) parameter will dampen the high frequencies of the delay signal. You can enable or disable the Delay B effect using the bypass button to the right of the name.

# Automation

Drumsynth 500 exposes all its controls and parameters for automation in your DAW. To help you find the automation parameter you wish to work with quickly, they are arranged by instrument channel. For example, "Snare *parameter name*", "Kick *parameter name*", etc.




To access the automation parameters in your particular DAW, please consult your DAW manual.

## Separate Outputs

Drumsynth 500 supports separate virtual outputs for each of its instrument channels. For DAWs that support this function this allows you to route the audio from a single instrument channel to its own virtual audio output. This is useful if you wish to separate out the kick, for example, and apply your own effects or processing to it.

Drumsynth 500 virtual outputs are routed as follows.

| Drumsynth 500 | Virtual Outputs |
|---|---|
| Master Out L/R | Output 1/2 |
| Kick Instrument | Output 3/4 |
| Snare Instrument | Output 5/6 |
| Clap Instrument | Output 7/8 |
| Hi Hat Instrument | Output 9/10 |
| Toms Instrument | Output 11/12 |
| Percussion Instrument | Output 13/14 |
| Sampler 1 Instrument | Output 15/16 |
| Sampler 2 Instrument | Output 17/18 |

Please consult your DAW manual for how to access and route the virtual separate outputs.