USER MANUAL

_DELAY TAPE-201



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Product version: 1.3.0

Revision date: 8 June 2021

Thank you for purchasing Delay Tape-201!

This manual covers the features and operation of the Arturia Delay Tape-201 plug-in.

Be sure to register your product as soon as possible! When you purchased Delay Tape-201 you were sent a serial number and an unlock code by e-mail. These are required during the online registration process.

Special Messages

Specifications Subject to Change:

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

IMPORTANT:

The effect, when used in combination with an amplifier, headphones or speakers, may be able to produce sound levels that could cause permanent hearing loss. DO NOT operate for long periods of time at a high level or at a level that is uncomfortable, or a level that exceeds prevailing safety standards for hearing exposure. Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, damages, fire or other risks. If you encounter any hearing loss or ringing in the ears, consult an audiologist immediately. It is also a good idea to have your ears and hearing checked annually.

Introduction

Congratulations on your purchase of Arturia's Delay Tape-201!

We'd like to thank you for purchasing Delay Tape-201, our recreation of an iconic tape delay processor.

Arturia has a passion for excellence, and Delay Tape-201 is no exception. Put the plug-in on a track or send bus, skim through the presets currated by professional sound designers, and tweak a few controls. We have created Delay Tape-201 so that it's easy to understand and use right away, yet powerful and flexible for creating a wide range of different delay effects and colors. We are confident that Delay Tape-201 will be a valuable addition to your effects plug-in collection, and that you'll have a lot of fun with it.

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

Musically yours,

The Arturia team

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1. INTRODUCTION TO DELAY TAPE-201

Thank you for purchasing our virtual delay and reverb effect, Delay Tape-201. Delay Tape-201 is modelled after an iconic and highly sought-after hardware unit from the 1970s. This unit employed a closed loop of tape with several sequential playheads to create lush hythmic echo effects. More than just a static effect, the hardware could be played like an instrument and would go on to play a central role in music genres like dub and experimental.

Arturia's Tape-201 builds on this legacy by providing you with a realistic recreation of the original hardware, while adding new features that modern producers and musicians will appreciate. We are confident that Tape-201 will give you many hours of playing and producing pleasure.

1.1. History of tape looping

The use of looping sections of music was originally pioneered in the 1940s by music concrete artist Pierre Schaefer, who used a closed groove phonograph disc to create repeating segments of sound. As magnetic audio tape technology became available, this technique could be replicated by cutting a section of recorded audio tape and splicing the ends to create a continuous loop of tape. This section of looped tape would then be played back to create a looping sound, whose pitch and periodicity could be controlled by changing the speed of the playback machine.

Tape looping became more widely used in the 1950s and 1960s by contemporary composers such as Karlheinz Stockhausen, Steve Reich and Terry Riley, who would often play multiple tape loops of different lengths simultaneously to create patterns and rhythms. By the 1960s, the use of tape loops had also begun to permeate popular music. The effect was heavily used by Jamaican dub music artists, such as King Tubby and Sylvan Morris, and became a distinguishing characteristic of the genre. Tape looping was also used by popular artists, such as the Beatles, who used the technique on some of their later works, like "Revolution 9", which is heavily based on tape loops.

1.2. What is a tape echo?

Before the advent of modern analog and digital delays, this type of effect would be achieved by routing an audio signal to an auxiliary tape machine, then feeding the signal from that machine's playback head back into the mix. The time it took for the signal to be recorded onto the tape then played back into the mix from the playback head would introduce a delay to the original signal. Engineers could adjust the delay time by slowing down or speeding up the tape mechanism, or would feed the playback signal back into the machine to achieve multiple echoes. The effect gained so much popularity that hardware manufacturers took note and began producing specialized tape devices to handle this task.

1.3. How does the original hardware work?

The original hardware combines the techniques of tape looping and echo into a single unit. The unit features a tape chamber which houses a pre-made loop of standard 1/4" audio tape. This design does not use reels, but instead the tape lays loose inside the chamber and is fed through by a capstan drive. There is a record head that imprints input audio onto the tape, followed by 3 consecutive playback heads which reproduce the recorded signal at various delay intervals, based on their distance from the record head.

On the front panel, a big Mode Selector knob controls which playback heads are active and a Rate control determines the speed of the tape mechanism. Two EQ controls adjust the Bass and Treble of the processed echoes. An Intensity knob adjusts the amount of signal that is fed back into the unit, which at high settings is capable of sending the unit into self-oscillation even without any input signal. When using high Intensity settings in conjunction with the Rate, Mode, and EQ controls, users can create evolving, otherworldly tones and perform the hardware echo as if it were an instrument itself.

While some models of the original hardware only include the echo section, the more advanced series also features a spring reverb tank which provides the user with the ability to add reverberation to the input signal.

1.4. What does Tape-201 add to the original?

The original hardware can be rare to find, expensive to purchase, and hardware devices have become increasingly difficult to incorporate into modern workflows. Transporting bulky equipment can be inconvenient and hardware devices are often prone to breakdown. Hardware can also present certain workflow limitations, since devices can only serve one function at a time.

At Arturia we pride ourselves on offering the best of both worlds - the uncompromising quality and character of hardware devices, delivered in a convenient software package that is adapted to a modern workflow. Arturia's Tape-201 is a faithful recreation of the original hardware, capturing all of its nuances and sonic character with utmost detail. In addition to this, we have expanded on the original design with new features and capability not found on the original unit, including:

- · Input EQ for shaping the input signal before processing
- 3 different Delay Types M/S, L/R, ping-pong
- Processes audio in stereo, instead of mono
- · Run multiple instances with different settings
- · Automate effect settings from your DAW
- · LFO for automated modulation of effect parameters
- · Easy storage and recall of effect settings

2. ACTIVATION AND FIRST START

The Arturia Delay Tape-201 plug-in works on computers equipped with Windows 7 or later and macOS 10.10 or later. You can use the Tape-201 as an Audio Unit, AAX, VST2 or VST3 plug-in (64-bit only).









2.1. Activate the Tape-201 license

Once the software has been installed, the next step should be to activate your license, so that you can use it without limitations.

This is a simple process that involves a different software program: the Arturia Software Center.

2.2. The Arturia Software Center (ASC)

If you have not already installed the ASC, go to this web page: Arturia Updates & Manuals. Look for the Arturia Software Center at the top of the page, and then download the version of the installer that you need for your system (macOS or Windows). Follow the installation instructions and then:

- Launch the Arturia Software Center (ASC)
- · Log into your Arturia account
- · Scroll down to the My Products section of the ASC
- · Click the Activate button

That's all there is to it!

3.1. Working with plug-ins

Delay Tape-201 comes in VST2, VST3, AU and AAX plug-in formats for use in all major digital audio workstations (DAW) including Live, Logic, Cubase, Pro Tools and others. Unlike an effect hardware, you can load as many instances of Tape-201 as you find useful. Tape-201 has two other big advantages over hardware:

- You can automate many of Tape-201 parameters using your DAW's automation system.
- Your settings and current plug-in state will become recorded in your project, and you can pick up exactly where you left off the next time you open it.

3.2. Channel Configuration (Mono/Stereo)

The plug-in can be used on Mono or Stereo channels. The Mono configuration is automatically loaded when you use the plug-in with mono tracks, while using the plug-in with stereo tracks will automatically load the Stereo configuration.

The available controls will change depending on which configuration is used. For example, the Mono configuration will only display a single delay time control, rather than individual left and right channel controls.

This manual covers the full set of features that are available in the Stereo configuration. Controls that are unavailable in mono mode will be noted.

4. USER INTERFACE

The GUI (Graphical User Interface) of the Delay Tape-201 follows the Arturia paradigm that has been developed in the most recent effect plug-ins. This GUI is built around a main control panel inspired by the looks of classical unit which inspired it, and offers a simple, intuitive user interface. The interface is split up into 4 main sections:



- 1. Upper Toolbar contains various plug-in settings and access to the preset browser.
- 2. **Main Control Panel** contains the main effect controls. These controls are covered in the Main Control Panel [p.18] section of this manual.
- 3. Advanced Control Panel contains advanced effect controls. These controls are covered in the Advanced Control Panel [p.21] section of this manual.
- Lower Toolbar contains additional plug-in utilities, like bypass switch and CPU meter.

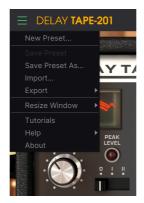
4.1. The Upper Toolbar

The Upper Toolbar is the usual Arturia toolbar that runs across the top edge, with the "hamburger" button and the plug-in name on the left (the colored part), followed by the Library button and the Preset name, with arrows to navigate through the different presets stored in the library. The "hamburger" button gives access to the Main Menu.



4.1.1. Plug-in Options

Clicking the "hamburger" icon located on the left will display the Main Menu, a menu containing various plug-in settings and options. Since these options are also common to all current Arturia audio effects plug-ins, you may already be familiar with them:



4.1.2. New Preset

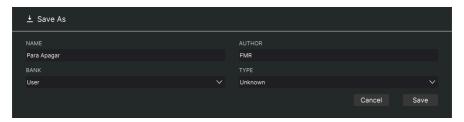
This option allows you to create a new preset based on the Default template.

4.1.3. Save Preset

This option will overwrite the active preset with any changes you have made, so if you want to keep the source preset too, use the Save As option instead. See the next section for information about this.

4.1.4. Save Preset As...

When you select this option, you are presented with a window where you can enter information about the preset. In addition to naming it, you can enter the Author name, and select a Type. You can even create your own Type by entering custom names in the Type field. This information can be read by the preset browser and is useful when searching for the preset later.



4.1.4.1. Import...

This command lets you import a preset file, which can be either a single preset or an entire bank of presets. Both types are stored in .tapx format.

After selecting this option the default path to these files will appear in the window, but you can navigate to whichever folder you are using to store presets.

4.1.4.2. 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. The saved preset can be
 reloaded with the Import menu option.
- Export Bank: This option can be used to export an entire bank of sounds from the
 effect, which is useful for backing up or sharing presets.

4.1.4.3. Resize Window options

The plug-in 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 might want to reduce the interface size so it doesn't dominate the display. On a larger screen or a second monitor, you can increase the size to get a better view of the controls. The controls work the same at any zoom level, but they can be harder to see at the smaller magnification values, or when using high resolution monitors (like HD monitors or higher). The higher the resolution, the bigger the size that should be used.

Window resizing can also be controlled via keyboard shortcuts. On Windows, press Ctrl +/- to zoom in and out. On Mac, press Cmd +/- to zoom in and out.

4.1.5. Tutorials

This option opens a panel on the right with Tutorials about the plug-in. Please try these to get more information and insights about the way this plug-in works.

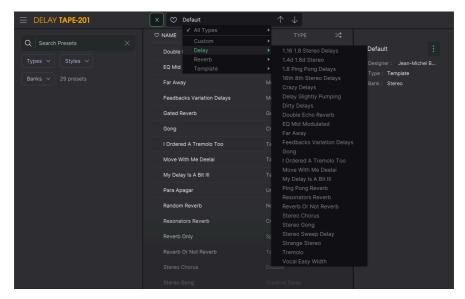
4.1.6. Help

The Help section in this menu allows direct access to the User Manual (the document you are reading), as well as to the FAQ (Frequently Asked Questions).

4.1.7. About

This opens the information window of the plug-in with the name, credits, and (more important) the number of the version installed. Don't forget to check frequently the Arturia Software Center for updates.

4.1.8. Preset Selection



The Preset Selection list opened over the Preset Browser window. These are two complimentary methods to look for and select presets.

Presets can be selected in several different ways. First, there is the Preset Library button. Clicking this button will display the Preset Browser window, where you have access to all of the included factory presets, as well as any user presets you have saved. The currently selected preset will be highlighted.

The Preset browser [p.14] can be opened by clicking the library symbol on the toolbar. Besides allowing you to organize all preset Banks, you have more options in the Preset Browser window to look for and select presets. The filters and name field will be of great help in locate the right preset for whatever you are looking.

Selecting a preset is performed by clicking the preset name field in the Upper Toolbar. That action will open a list with all the presets available. The currently selected preset is marked with a $\sqrt{\cdot}$. Then simply place the mouse over the name of the preset you want to select (the preset name will be highlighted), and click it.

Alternatively, you may use the Preset arrows (the arrows at the right of the preset name field) to navigate through all the presets.

The order of the Preset Library also affects the order of the Preset Quick Load menu. You can use the Library to filter for specific types of presets, then use the Preset Quick Load menu (or the left and right arrows) to quickly navigate among them without opening the Preset Library.

4.1.9. Advanced Button

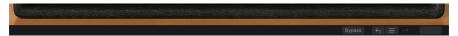


Clicking the Advanced button, located on the right of the upper toolbar, will expand the plugin window to show the advanced effect controls. These controls are covered in detail in Advanced Control Panel [p.21] section of this manual.

4.2. The Lower Toolbar

When you hover the mouse over a parameter control, you will see a readout showing that parameter name and a brief description of it in the left part of the lower toolbar.

Also, you will notice that a small popup window will show up at the side of the parameter control, displaying the current value of the parameter. This will also show the value changes when you move the control (edit the parameter). This is handy, because you don't need to touch the parameter control to read the current value, and also you may keep looking at the parameter while you read the value changes.



4.2.1. Bypass

This one is obvious. Activating the bypass option will completely disable the Delay Tape-201 plug-in. This action may also be performed by the Power switch. When the plug-in is bypassed, the GUI becomes shadowed and shows the word "Bypassed".

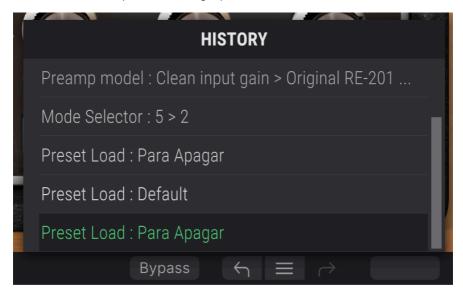


4.2.2. Undo

The Undo button is a curved arrow pointing to the left. This button reverts the last edit you performed. If it is clicked repeatedly it will revert the parameter changes in the order they were performed in the session, from the latest ones to the earliest ones.

4.2.3. History

This button lists all the parameter changes performed in the current session.



4.2.4. Redo

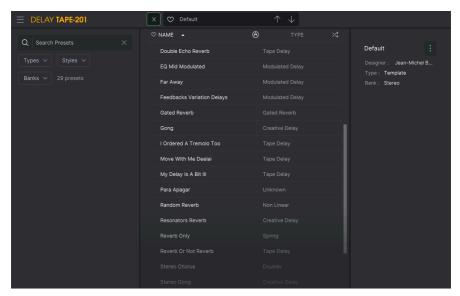
The Redo button is a curved arrow pointing to the right. This button works exactly the opposite way of the Undo button. It will reinstate the last undone edit. If it is clicked repeatedly it will reinstate the parameter changes in the order they were undone (the latest undone ones first).

4.2.5. CPU meter

The CPU meter is used to monitor how much of your computer's CPU is being used by the plug-in. If you stress your computer too much, the global performance of your system and the audio may suffer.

4.3. The Preset browser

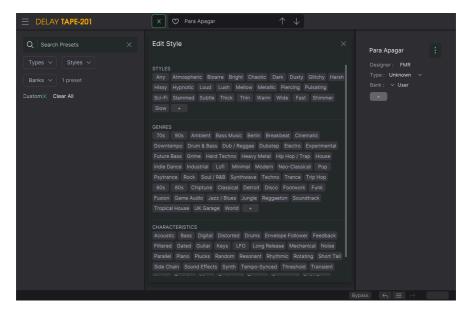
The preset browser window enables you to search, load and manage preset configurations in Delay Tape-201. Although this looks and is based on the usual Arturia Preset Browser, it is simpler, and even easier to work with. You access the preset browser by clicking on the library symbol next to the Arturia logo/plug-in name on the left.



When you click on the library symbol, you will see a screen with all the Presets you have saved. You can sort the list by several different criteria to make it easier to find the right preset. There are two columns. The first one can list the Presets by Name or by "Featured". The Featured presets were selected as of particular interest by Arturia, and are marked with the Arturia logo. The second one lists the Presets by Type.

There are other attributes you can use to filter the list. These are on the left column. There, you have the Types button, but also Styles, Banks, Genres, and Characteristics. If you click on one of these buttons, a list opens in the center column, where you can select the tag you want to search for. A button appears on the left column, showing how many results there are for the tag you selected. Clicking on that button will open the presets that fall under that classification. You may add more than one tag, in which case only the presets that fall under ALL of the tags will be displayed. Beware that, if you filter too much, there may be no results.

You can also simply type a word in the search box (the one at the right of the magnifying glass), in which case all presets containing the word you typed in the name will be displayed. For example, let's say you want to search for a preset containing the word "drum". You simply type "drum" and, if they exist, all the presets containing those letters (even if the word is "drums" and not "drum") will be displayed. If the word is the name of a style, you may opt to choose by that style.



Preset Browser tag selection

If you select Bank, and choose a Bank, the Bank content will be immediately displayed.

When you select a preset, you may see all the relevant information regarding that preset in the right column. There, you have the preset name, preset designer, Type tag, bank it belongs to, and also all the other tags that have been added to it. If the preset belongs to a user bank, you also have a + sign, meaning you may add other tags. Tags are important, since they may help you to quickly find what you are looking for, even among an extensive list of presets.

4.3.1. Delete Preset

If you want to delete a preset, first select that preset on the preset list. Next, click the library button, to open the library. The Library window opens, with that preset still selected. At the right part of the window, you have the Info column for the preset, with the preset name. At the right of the name, you have a button with three dots. Clicking it opens a sub-menu with three options: Save, Save As and Delete Preset. Choose the "Delete Preset" option. A dialog box opens asking you to confirm. You may now confirm or cancel the operation. If you confirm, the preset will be deleted.



4.4. Fine-tuning parameters

Usually, to change values in the plug-in controls, just click on the corresponding control and drag the mouse up or down. If the controls are switches, simply click them to toggle On or Off.

If you want finer editing values, you can use Ctrl+Drag (Cmd+Drag for macOS). Alternatively, you can Right-Click and Drag. With this technique the values change more slowly, which enables you to edit them with greater precision.

4.5. Resetting your controls

Double-clicking a control changes it automatically to the default value.

And that's it. We just finished describing all the controls you have at your disposal to process sound in your DAW using the Delay Tape-201 plug-in. We hope you'll enjoy your new plug-in (and the results you get with it!) as much as we enjoyed making it.

5. CONTROLS

This section covers the effect controls. Whether or not you've used the original hardware, you will find the controls intuitive and easy to grasp.

The controls are located in six main sections. Three of these sections are located in the Main Control Panel which is always visible.



The Main Control Panel contains the most important effect controls.

The other three sections can be found in the Advanced Panel, which can be accessed by clicking the double arrows pointing down in the upper right corner of the interface.



The Advanced Control Panel contains additional effect controls.

For greater resolution when editing controls with the mouse, use Crtl+Drag (Windows) or Cmd+Drag (Mac). Alternatively, you can use RightClick+Drag. Double-click a control to reset it to its default setting.

Next, we'll go over each section in detail.

5.1. Main Control Panel

The following controls are available in the Main Control Panel.

5.1.1. Input and Delay Type



VU meter can be used to monitor the level of the adjusted input signal.

Input Drive adjusts the volume of the input signal. This determines how "hot" the signal is recorded onto the tape.

Peak Level led indicator will light red when the input signal begins to clip.

Preamp Model is a new feature that was not present in the original hardware. This 3-position switch controls how the input signal will be preamped before being routed to the processing circuit. Previous versions of the Delay Tape-201 only offered the original modeled 201 preamp. Now you have three options:

- · A clean Input model created by Arturia.
- The preamp modeled after the original hardware unit.
- Another model created by Arturia, this time inspired by a vintage Germanium preamp.

Delay Type is a new feature that was not present in the original hardware. This 3-position switch controls how the input signal will be processed.

- In L/R mode, each channel is sent to an independent delay (echo) path.
- In Ping Pong mode, the processed echoes will alternate between left and right channel.
- In M/S mode, the input signal is split into its mid (mono) and side (stereo) components, and each is processed independently by the delay. When this mode is selected, the Left repeat rate controls the mid (mono) aspect of the sound and the Right repeat rate controls the side (stereo) aspect of the sound.

Delay Type switch is only available when using the Stereo configuration of the plug-in.

5.1.2. Mode Selector



Mode Selector knob specifies different combinations of the 3 playback heads and reverb that will be used. There are 12 different settings. Settings 1-4 are tape echo only, settings 5-11 are a combination of tape echo and reverb, and setting O is reverb only. The Active Heads LEDs below the knob indicate which playback heads are active for the current setting.

14005	NAME OF THE PROPERTY OF THE PR					
MODE	PLAYBACK HEADS			REVERB		
SELECT	1	2	3			
0				•		
1	•					
2		•				
3			•			
4		•	•			
5	•			•		
6		•		•		
7			•	•		
8	•	•		•		
9		•	•	•		
10	•		•	•		
11	•	•	•	•		

5.1.3. Echo and reverb controls



Repeat Rate varies the tape speed, thereby changing the interval between the echoes. Repeat rate for each channel can be set independently, or linked together.



Link button turns linking on and off. When linked, changing the repeat rate with the Left rate knob will also set Right rate to the same value and vice versa.



Sync button locks the repeat rates to your host's tempo for tempo-synced delays. When sync is tuned on, the delay rate controls will display values in beat intervals.

Stereo Offset lets you introduce small timing differences between the left and right channel delays to create more spatial separation. In center position there will be no offset applied. Moving the knob to the left of center will introduce a gradual delay to the left channel and vice versa. Note that the Stereo Width knob needs to be set to a positive value (above center position) to hear the stereo widening effect.



Stereo Width controls the stereo width of the processed left and right channel echoes. At minimum position, there will be no stereo separation between left and right echoes. At center position, the stereo separation will be the same as in the original input signal. To the right of center the knob will act as a stereo widener, accentuating the side (stereo) aspect of the sound. Note that stereo widening can only occur if there is a side (stereo) component in the input signal. If the input signal is mono, then no stereo widening will occur.

```
Stereo Width is only available when using the Stereo configuration of the plug-in.
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Intensity controls the amount of echo signal that will be fed back into the echo chamber. At high settings, the echoes will continue being layered on top of each other and will eventually begin to self-oscillate, creating saturated feedback and textures.

Reverb Amount controls the volume of the processed Reverb signal.

Echo Amount controls the volume of the processed Echo signal.

Dry/Wet determines the ratio of processed (wet) to unprocessed (dry) sound output from the plug-in. When turned all the way down you will only hear the original dry sound. When turned all the way up, you will only hear the wet sound.

When using the plug-in as a send effect, you will typically want to turn this knob all the way up, so that the plug-in is only outputting the processed delay sound and not introducing additional amplification to the original signal.

Treble attenuates or accentuates the high (treble) frequencies of the processed echoes. At middle position, there will be no change. Note that this only applies to the echo signal and has no effect on the reverb signal.

Bass attenuates or accentuates the low (bass) frequencies of the processed echoes. At middle position, there will be no change. Note that this only applies to the echo signal and has no effect on the reverb signal.

5.2. Advanced Control Panel

The following controls are accessible while the Advanced Control Panel is visible. To expand the Advanced Control Panel, click the double-arrows pointing down, located in the upper right corner of the plug-in window.

5.2.1. Input Equalizer



The Input Equalizer is a new feature that was not available on the original hardware. This lets you shape the sound before it enters the echo chamber and spring reverb tank, allowing you to accentuate or limit which frequencies of the sound are processed by the echo and reverb. The Input Equalizer features three filters - high-pass, low-pass, and peak.

The Input Equalizer can be accessed in the Advanced Panel. To view the Advanced Panel, click the double arrows pointing down, located in the upper right corner of the interface.

On/Off switch enables and disables the input equalizer.

HP Freq controls the cutoff frequency of the high-pass filter. All frequencies below the cutoff frequency will be eliminated from the input. This can be used to remove unwanted bass from the input, resulting in a brighter sound going into the echo and reverb. The range is 20Hz to 1.2kHz. At minimum position, the high-pass filter is disabled and will have no effect on the sound.

Peak Freq controls the cutoff frequency of the peak filter. The peak filter can be used to either boost or cut frequencies around the peak band.

Q determines the width of the peak filter band. At higher values, the boost or cut will be very narrow and only affect frequencies close to the Peak Freq. At lower values, the boost or cut will be very wide and affect a broader set of frequencies.

Gain determines whether the peak filter will boost or cut frequencies at the Peak Freq. In the middle position, there will be no change to the gain of the peak band.

LP Freq controls the cutoff frequency of the low-pass filter. All frequencies above the cutoff frequency will be eliminated from the input. This can be used to remove high frequencies from the input, resulting in a warmer, more muted sound going into the echo and reverb. The range is 3kHz to 2OkHz. At maximum position, the low-pass filter is disabled and will have no effect on the sound.

5.2.2. Motor Controls



The Motor Controls can be accessed in the Advanced Panel. To view the Advanced Panel, click the double arrows pointing down, located in the upper right corner of the interface.

These three controls specify how the motor and tape behave.

Flutter sets the amount of playback speed variation due to motor rotation speed not being perfectly constant. This will add slight modulation to the pitch of the echoes. The rate of the Flutter effect is determined by the Repeat Rate.

Motor Inertia specifies the torque of the motor, which determines how quickly the playback speed will change when the Rate control is adjusted. If set to minimum value, the playback speed changes almost instantly when adjusting the Rate. If set to maximum value, the playback speed changes gradually until it reaches the new Rate.

Noise blends in a variable amount of background noise generated by the machine for a grittier, lo-fi sound.

5.2.3. LF0



The LFO settings can be accessed in the Advanced Panel. To view the Advanced Panel, click the double arrows pointing down, located in the upper right corner of the interface.

LFO stands for Low Frequency Oscillator. This is another new feature that was not present in the original hardware, but is now offered in Tape-201. Unlike a typical synthesizer oscillator, an LFO does not produce any sound, but is used to modulate other software parameters to create a sense of movement and evolution to the effect.

LFOs can be used in extreme ways, like the dubstep wobble where a tempo-synchronized LFO is often used to control a filter cutoff, but can also be used in more subtle ways to add gentle modulation and movement.

Shape changes the shape of the LFO, which determines how the target parameter will be modulated. There are 6 available shapes - Sine, Saw, Ramp, Triangle, Square, and Sample & Hold. While the first 5 shapes offer a predictable modulation curve, the Sample & Hold option can be thought of as a random generator. Each time the LFO cycle completes, as specified by the LFO Rate knob, a new random value is generated. This is very useful when you want to add non-repetitive modulation to the target parameter.

Rate determines the speed at which the modulation LFO shape is "scanned". Low values result in slower modulation, while high values will result in faster modulation of the target parameter. Rate can be synced to your host's tempo by enabling the Sync switch.

Sync synchronizes the LFO Rate to your host's tempo. This can be useful if you want to create beat-synced effects modulations. While sync is on, the Rate control will display values in beat intervals. While sync is off, Rate will display values in milliseconds.

Amount determines the amount of modulation that will be applied to the target effect parameter. With low values, the target parameter will be modulated only slightly around its current setting, while high values will result in a larger modulation.

Destination menu selects the effect parameter that will be modulated by the LFO. Most effect parameters can be modulated.



Example of Saw shape modulating a target effect parameter. LFO amount determines the amplitude of the oscillation around the current setting, while Rate determines the speed of the modulation

LFO modulation is bipolar, so the target effect parameter will be modulated in a positive and negative direction from its current setting.

5.3. Some Final Words

This concludes the user manual. We hope you'll enjoy your new plug-in and the results you get when using it, as much as we enjoyed making it.

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