

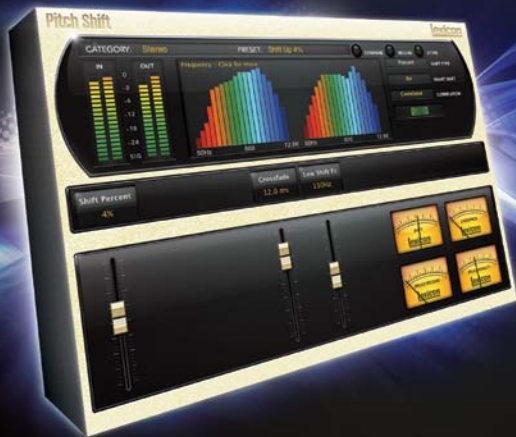
Lexicon[®]

PCM NATIVE | PITCH SHIFT
OWNER'S MANUAL



The Lexicon[®] Legacy
continues...

...with the PCM Native Pitch Shift



For over 40 years Lexicon® has been recognized as the gold standard of digital reverb and effects processing and has continuously introduced leading edge technology for the audio industry. Lexicon again rocked the audio industry with the introduction of the PCM Native Reverb and PCM Native Effects Plug-In Bundles, the ultimate bundles for creating professional, inspirational mixes within popular DAWs like Pro Tools®, Logic®, and any other VST®, Audio Unit™, or RTAS® compatible platform.

With all the flexibility you would expect from native plug-ins, these powerhouse plug-ins offer legendary Lexicon processing with the most versatile and finely crafted studio presets. Designed to bring the highest level of sonic quality and functionality to all your audio applications, the PCM Native Series Plug-Ins will take center stage in your DAW.

Congratulations and thank you

for purchasing the PCM Native Pitch Shift plug-in. With decades of legacy products to pull from, the PCM Native plug-ins include the finest collection of factory presets available. Designed to bring the highest level of sonic quality and functionality to all of your audio applications, the PCM Native plug-ins will take center stage in your DAW.

Quick Start

- Open your DAW and choose the Lexicon plug-in from your list of plug-ins
- In the plug-in's window, select a category
- Select a preset
- Adjust parameters (optional)
- Save the preset (optional)

It can be as simple or as in-depth as you'd like. The included presets work well for most situations, but you can easily adjust any parameter and save any preset. See the "Factory Presets" section for more information on editing, loading and saving presets.

Included Items

- PCM Native Pitch Shift software CD
- iLok license code
- This manual

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Installation

Install the Plug-in

Insert the CD into your CD-ROM drive. The Installer should start automatically.

If the Installer doesn't start automatically, you can start it manually by opening the appropriate file on the CD:

Mac®: Use the ".dmg" installation file

Windows®: Use the "32-bit.exe" or "64-bit.exe" installation file

Once the Installer is open, follow the on-screen instructions to install the software.

iLok License

You must download the license to your 2nd Generation iLok USB smart key before running any program that might use this plug-in. If a valid iLok license is not present, the initial plug-in validation scan will fail and you may not be able to run the plug-in without digging into your system. For more information go to www.iLok.com.



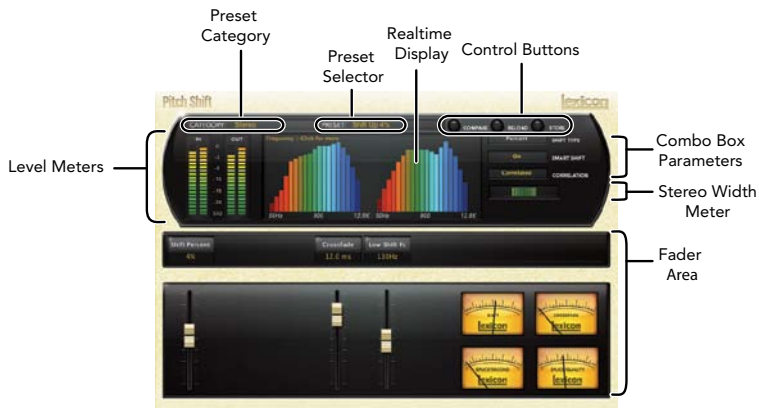
Important! Your PCM Native Plug-in will not work without an authorized 2nd Generation iLok USB smart key inserted in your computer's USB port!



First Look—The User Interface

Overview

When the plug-in is instantiated, you will see a window that looks something like this:



Level Meters

Shows the input, output and feedback levels. The Feedback meters measure the energy level being fed back into the beginning of the delay line.

Preset Category

Presets for the algorithm are grouped into categories to make them easier to find. Clicking in this area will show the list of categories. Selecting a category will load the presets for that category in the Preset Selector.

Preset Selector

Displays the list of presets within the selected category. Selecting a preset from the list will cause the preset to be loaded into the plug-in.

Realtime Display

Two unique visualizations help you to see inside the effect. See the “Realtime Display” section for more detailed information.

Control Buttons

These buttons are used to compare, edit, reload and store presets. This is explained in more detail in the “Control Buttons” section of this manual.

Combo Box Parameters

These buttons control how the algorithm behaves when processing the signal. See the “Parameters” section for more detailed information on these parameters.

Stereo Width Meter

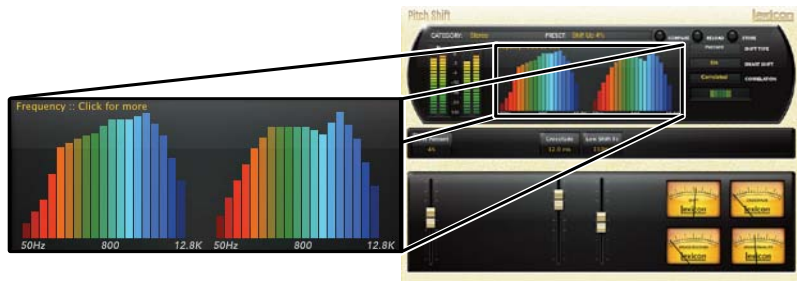
This meter provides a visual of the perceived stereo image of the processed signal. See the “Stereo Width Meter” section for more detailed information.

Fader Area

Parameter values are shown and controlled in this area. This is explained in more depth in the “Fader Area” section of this manual. The meters display the current quality and stats of the Pitch Shift algorithm, based on how the parameters have been set.

The Realtime Display

The realtime display window allows you to visualize the effect in two ways. While your ears will always be the primary tool in choosing and adjusting presets, the displays provide a direct way to see what's going on. Click anywhere in the realtime display window to change the view.



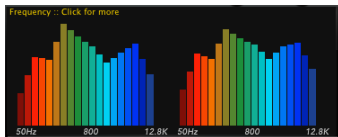
Off

This display mode shows only the algorithm name. It is the default view for the plug-in and requires the least amount of CPU cycles.



Frequency

This display shows the frequency levels of the left and right output signals.



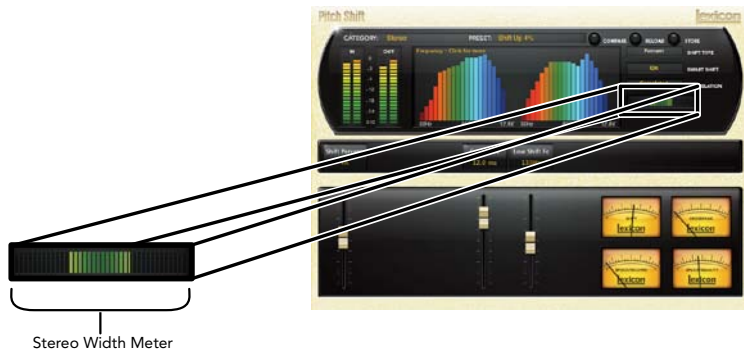
Live Impulse Response

This display shows a live impulse response of the left and right output signals.



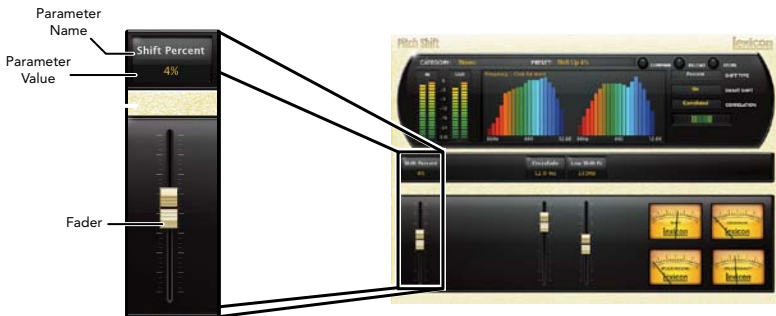
The Stereo Width Meter

This meter shows the perceived width of the stereo image. A mono signal would show no level. A true stereo signal will display a wider bar, while inverted mono will display at the maximum width. The widest signals may exhibit problems with mono compatibility, so they should be monitored. The left and right side of this meter will always show identical level. The greater the meter level, the wider the stereo image will be perceived.



The Fader Area

This illustration shows what may be found for each fader.



Parameter Name

Shows the parameter being adjusted.

Parameter Value

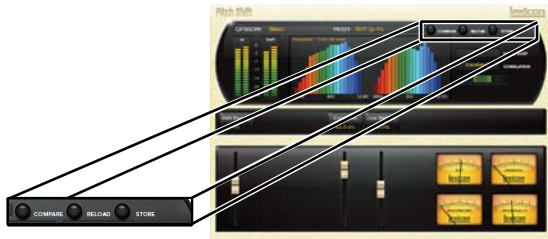
Shows the current value of the parameter. This field may be directly edited.

Fader

Changes the value of the parameter. May be dragged, control-dragged (for higher resolution) or may be controlled by the mouse wheel.

The Control Buttons

These buttons let you access all of a preset's parameters, manage presets, and compare changes you've made to the original settings.



Compare

The Compare button temporarily resets all parameters to the original preset value. It is used to get back to the original preset and quickly audition your edits versus the original preset. When compare is on, all parameters are frozen and cannot be changed. Turning compare off returns you to your edits. Choosing a different preset cancels compare mode.

Reload

Clicking the Reload button reloads the current preset, overriding all user edits.

Store

The Store button allows you to create and manage user presets. See the “Storing and Managing Presets” section for more information.

Presets

The PCM Native plug-ins come with a large complement of Factory Presets. These presets are grouped in categories that make it easier for you to find the sound you need. Most presets also come with several variants that may save you a lot of editing time.

Loading a Preset

The preset category is chosen from the drop-down menu in the upper-left portion of the edit window. When you select a category, the preset menu is updated to show availability of the new presets within the selected category. An initial preset will be loaded from the category. It will be the first preset in the list unless you have previously visited the category. In that case, it will be the last preset you loaded from that category.



Storing and Managing Presets

When you load a Lexicon® plug-in, the overall appearance may be something like this:



You will notice that the Lexicon plug-in (with the gold border) is embedded within a larger window provided by the DAW. Appearance will differ from host to host (this example is from Logic®). Oftentimes, the DAW itself provides the ability to save presets. The presets saved by the DAW can only be used with the DAW that saved them. If you work with multiple DAWs, this would be a problem. However, Lexicon® solves this problem with the use of Portable Presets.

Portable Presets

When you store presets with the Lexicon Store button (shown below), your presets are available to all DAWs on your machine. With only a little effort, you can also share them with other machines, even when going between Mac and PC.

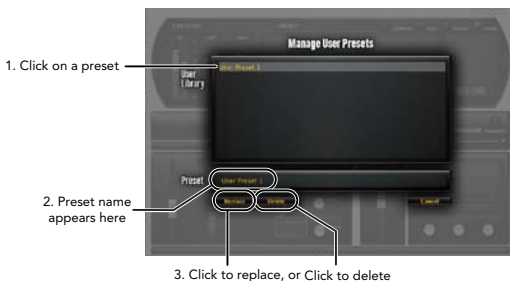
If you've made some edits you'd like to save as a User Preset, press the Store button on the upper portion of the plug-in editor. You'll see a screen that looks like this:



The upper field contains the list of User Presets that have already been created for this algorithm. Presets appear in alphabetical order. Click the name field to edit the name of the preset. Once done, click the Store button.

The lower field contains the name of the preset that was loaded before you began editing. You can easily click in this field and change the name to anything you like. Once you have the appropriate name, click the Store button and the preset will be saved. If you decide not to save the preset, pressing the Cancel button will return you to the editor without saving the preset.

If you select one of the existing presets in the library, you can replace or delete that preset.



Where are presets stored?

On the **Mac**, User Presets are stored in:

"Home"/Library/Application Support/Lexicon/Native/User Presets/"AlgorithmName"
("Home" is the name of the account you're logged in under. "AlgorithmName" is the name of the plug-in.)

On **Windows Vista/Seven**, User Presets are stored in:

**Users/"Username"/AppData/Roaming/Lexicon PCM Native/
UserPresets/"AlgorithmName"**

("Username" is the name of the account you're logged in under. "AlgorithmName" is the name of the plug-in.)

On **Windows XP**, User Presets are stored in:

**Documents and Settings/"Username"/Application Data/Lexicon PCM Native/User
Presets/"AlgorithmName"**

("Username" is the name of the account you're logged in under. "AlgorithmName" is the name of the plug-in.)

Note: The AppData and Application Data folders are Windows system folders and are hidden by default. Windows must be configured to "show hidden files and folders" to view these folders.

Getting the most out of your computer


The PCM Native plug-ins are written to be efficient, and most computers will run more copies than you may need. But if you find yourself needing to squeeze a little bit more out of your CPU, you can take the following simple steps:

- Turn off the active realtime display. The active display window can represent your effect in real time in several ways. However, this display consumes some of your computer's processing power. If you click until you reach the static display, your computer will have more CPU power available.
- Close the plug-in editor. Unless you're actively controlling your mix in realtime, you don't need the editor after you've made the appropriate settings. All those knobs, faders and displays require processing power. You can always reopen the editor if you need to edit.



The
lexicon[®]

Heritage



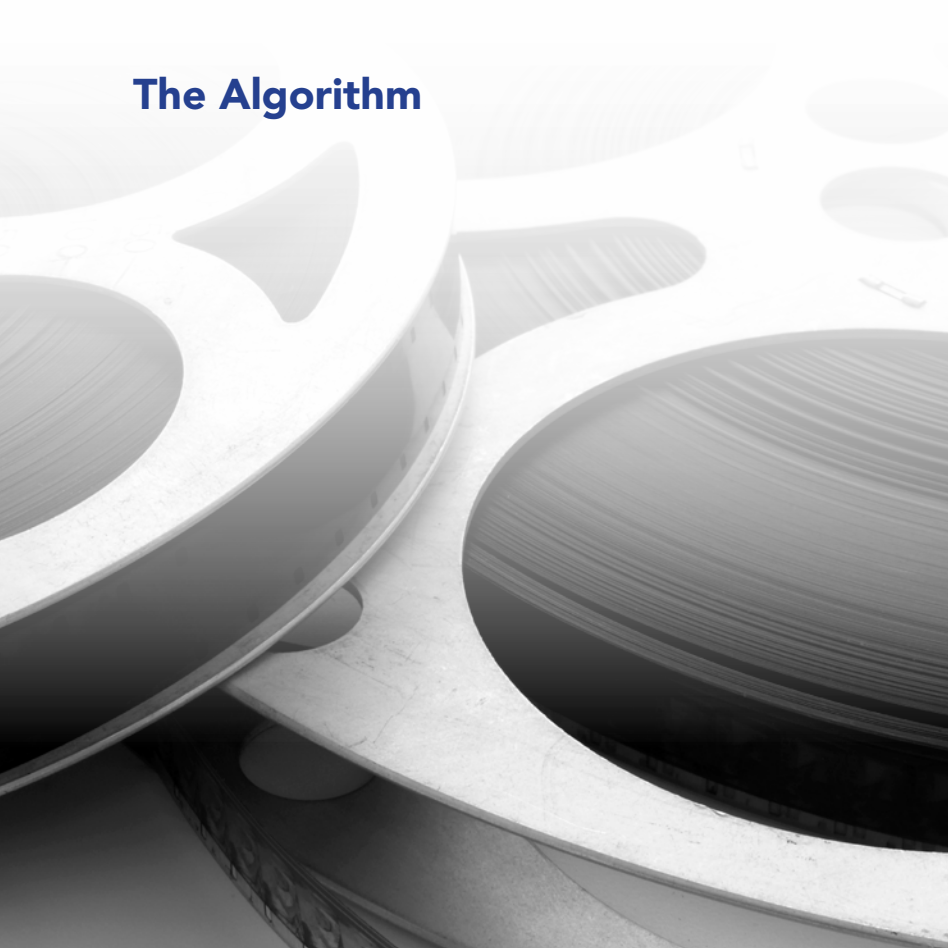
Lexicon® occupies a unique position as a leading innovator in both professional and consumer audio industries. Since the release of the first digital delay, Lexicon has stood at the forefront of digital audio with a reputation as a manufacturer of exceptional audio and home theater products and an inventor of new technologies. Years of research, development, and learning allow us to continue expanding the boundaries of the listening experience.

Our professional products are prominent in the creation of worldwide music, television, and film productions. These products have won numerous awards, including an Emmy® and numerous TEC awards, including a TEC Hall of Fame award for the Lexicon Delta T-101, the world's first digital delay. Lexicon processors have been embraced as the standard in professional signal processing since the introduction of the 480L Digital Effects Processor, which has retained tremendous popularity for the past 22 years. It has since been replaced as the standard in professional signal processing by the 960L Multi-Channel Digital Effects System and the PCM96 Series Reverb/Effects Processors, which have themselves garnered an impressive following of producers, artists, and engineers.

Growing demand for proprietary Lexicon technologies has led to its appearance in numerous applications, with dramatic results. Our processing is relied upon to enhance the sound of prestigious live halls and venues.

Knowingly or unknowingly, you experience Lexicon products and technologies on a daily basis. Chances are that Lexicon processing was involved in the television program you watch at home, the film you see at the cinema, or the song you listen to on the radio. From the initial tracks to your listening room or automobile, Lexicon is part of the process that brings these recordings to life. Our commitment to the audio professional and content delivery ensures an unbroken chain between the artist and the audience. Now hear this...

The Algorithm



Pitch Shift

Pitch Shifting is commonly used in sound design for film and for correcting pitch when converting between different frame rates. In music, it is generally used for shifting the pitch of vocals (for effect) or an instrument (usually when single notes are played, such as in a guitar solo). It can also be used for very dramatic shifting effects; if you are after that “Demonic” sounding voice or “Chipmunk” effect, then this is the algorithm to use.

In the Pitch Shift algorithm, pitch can be adjusted using one of two types: Musical or Percent. In Musical mode, pitch can be adjusted in semitones (-12 to 12) and/or cents (-50 to 50). In Percent mode, pitch can be adjusted between -60% and 60%. This algorithm also provides control over crossfade, low shift cutoff frequency, smart shift and correlation.

The Parameters

The PCM Native plug-ins contain presets covering a wide range of needs, but you can refine and customize any preset by adjusting its parameters. Parameters are the building blocks within each preset that determine how it sounds and behaves.

Each PCM Native plug-in contains a set of parameters, and a variety of those parameters are combined to create a preset.

Following are all the algorithm parameters you can edit in the PCM Native Pitch Shift Plug-in.

Shift Type

This parameter allows you to select whether you want to adjust the pitch using Semitone and Cent controls (Musical) or by a percentage (Percent).

Smart Shift

This parameter affects the quality of pitch shifting. When turned on, the algorithm looks for optimal splices in the musical material. In almost all cases, this should be on. If attempting to recreate the sound of certain inexpensive shifters from the 1980s, then this parameter should be turned off.

Correlation

This parameter tells the algorithm if the program material needs to be processed as dual mono or stereo. If the program material is stereo material, this should be on in order to maintain a stable image. If the program material is dual mono (two independent tracks), then this parameter should be set to off.

Shift Percent

Displayed when “Percent” is selected as the Shift Type. This parameter adjusts the pitch as a percentage.

Crossfade

As the Pitch Shift algorithm needs to create splices of the program material in order to process it, this parameter is used to smooth out the signal between these splices. A longer crossfade will result in a smoother splice, but sometimes at the expense of ghosting (double hits when shifting up and missing hits when shifting down). Start with shorter crossfades and then raise the value until an acceptable compromise is reached.

Low Shift FC

This parameter affects the lowest frequency at which the shifter looks for good splices. The shifter will shift all frequencies, but the quality of shift is sensitive to the mix of frequencies. If there are strong low frequencies in the mix, this value should be low. If the bulk of energy is at higher frequencies, then it should be raised.

Lexicon Plug-Ins & Upgrades

Available Lexicon Plug-Ins

Please visit www.lexiconpro.com for the latest information on available Lexicon plug-ins.

Upgrading

Please visit www.lexiconpro.com for the latest information on upgrading to the PCM Native Effects Bundle or PCM Total Bundle.

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by **HARMAN**

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