

dxRevive Pro

USER MANUAL

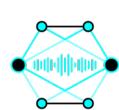


accentize
Intelligent Audio Tools



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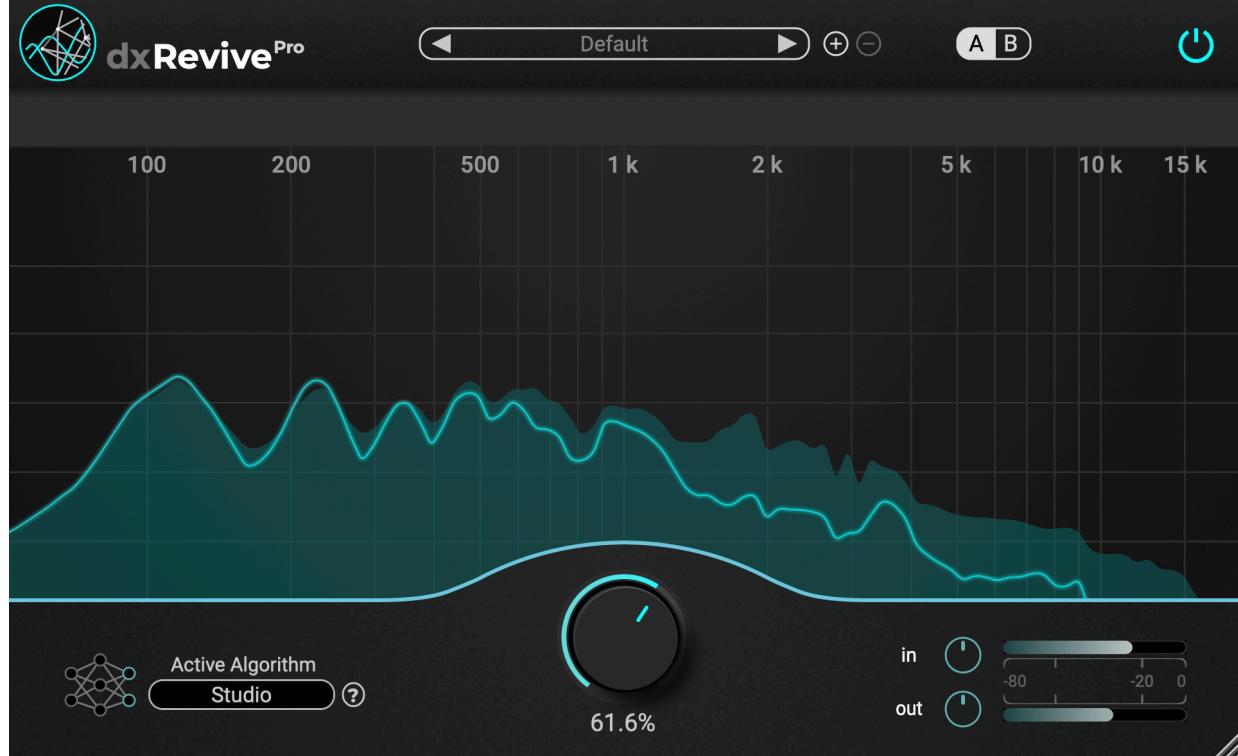


Introduction

Welcome to the official user manual for dxRevive Pro by Accentize!

Within the pages of this guide, you'll uncover the essential insights and techniques needed to harness the full potential of dxRevive – the ultimate noise reduction plug-in designed not only for audio professionals in movie and TV audio post-production but also for podcast editors and enthusiasts of historical audio restoration.

Utilizing groundbreaking AI technology, dxRevive transcends the boundaries of conventional noise removal, working to restore clarity and tone to your audio recordings in ways previously unimagined. Whether you're a newcomer to the realm of audio restoration or a seasoned expert, this manual equips you with the knowledge to elevate your audio to unparalleled heights. Let's embark on this exciting journey of audio enhancement together.





About

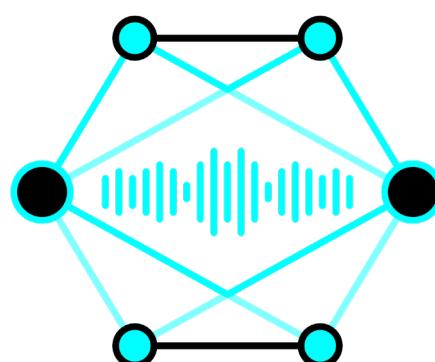
dxRevive presents itself as a versatile speech restoration plugin, dedicated to enriching the quality of various dialogue recordings. Unlike many other restoration plugins, dxRevive doesn't merely filter the signal. It goes beyond, identifying and reintegrating missing frequency components, yielding studio-like recordings from diverse source materials.

Its capabilities span:

- Noise removal
- Reverb elimination
- Restoration of absent frequencies
- Elimination of Codec Artifacts (e.g., from Skype or Zoom recordings)
- Recovery of clipped audio
- Seamless replacement of missing samples to address audio dropouts
- Application of spectral corrections
- ...

By employing machine learning techniques, much of the parameterization is performed automatically in the background. Users need only adjust a few straightforward controls. This streamlined process ensures efficiency, a valuable asset given the often demanding project timelines.

For a more comprehensive understanding of the controls and algorithms, refer to the following pages.

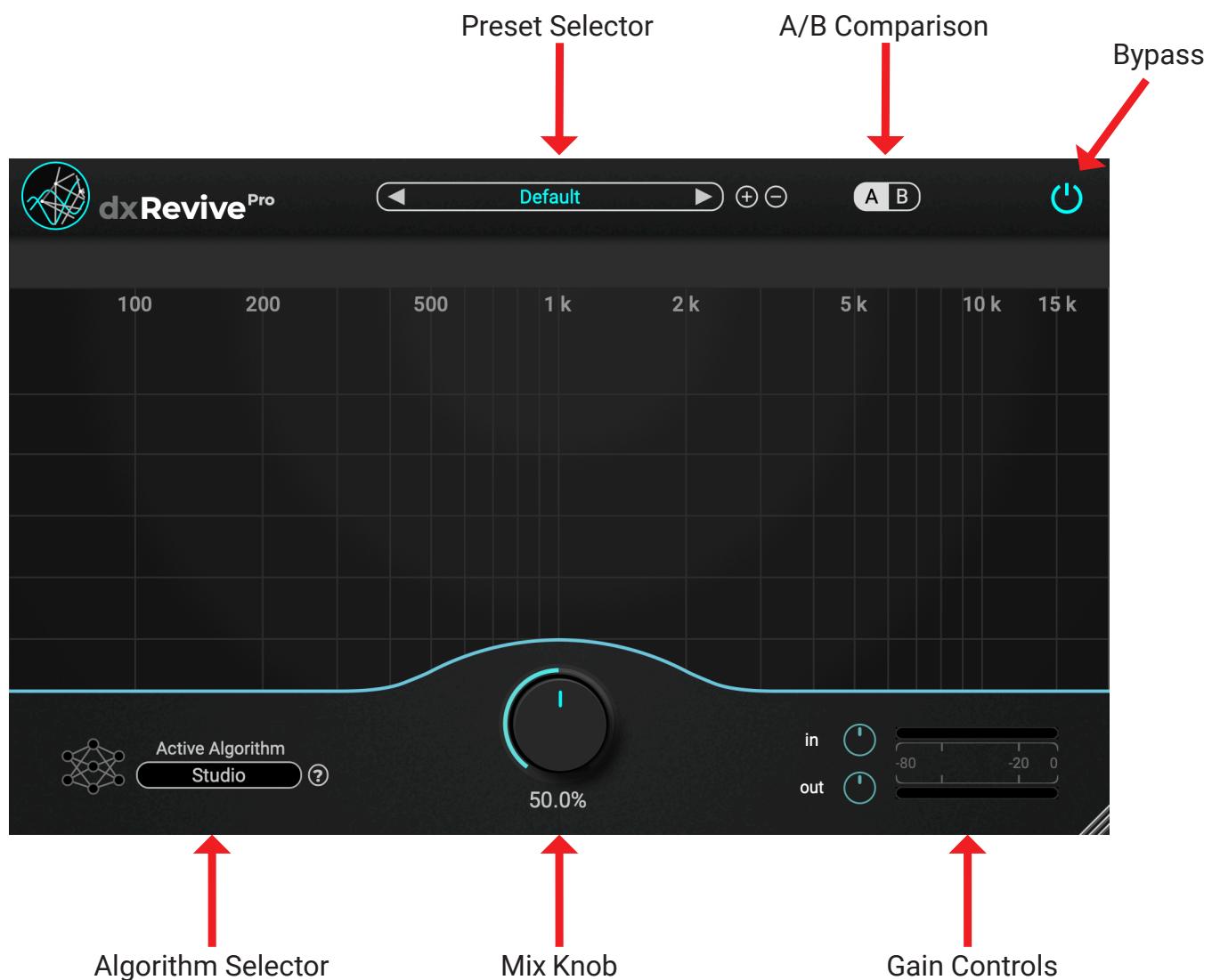




User Interface

Main Controls

Below you see a overview of the user interface showing the main controls:



Preset Selector: DxRevive Pro comes with a collection of useful presets which can be changed using the preset controls. You can either use the arrow buttons to switch presets or click on the name to show a dropdown menu. The + and - buttons can be used to create a new preset or to delete the current one.

A/B Comparison: The A/B Comparison controls let you quickly compare two settings. It is set to A as default. If you want to compare your current setting against another one just click on B and modify your settings for comparison. If you then switch back to A the settings you started from are loaded again.

Bypass: The Bypass button disables the processing of the plugin. It can be used to easily compare the signal before and after processing.

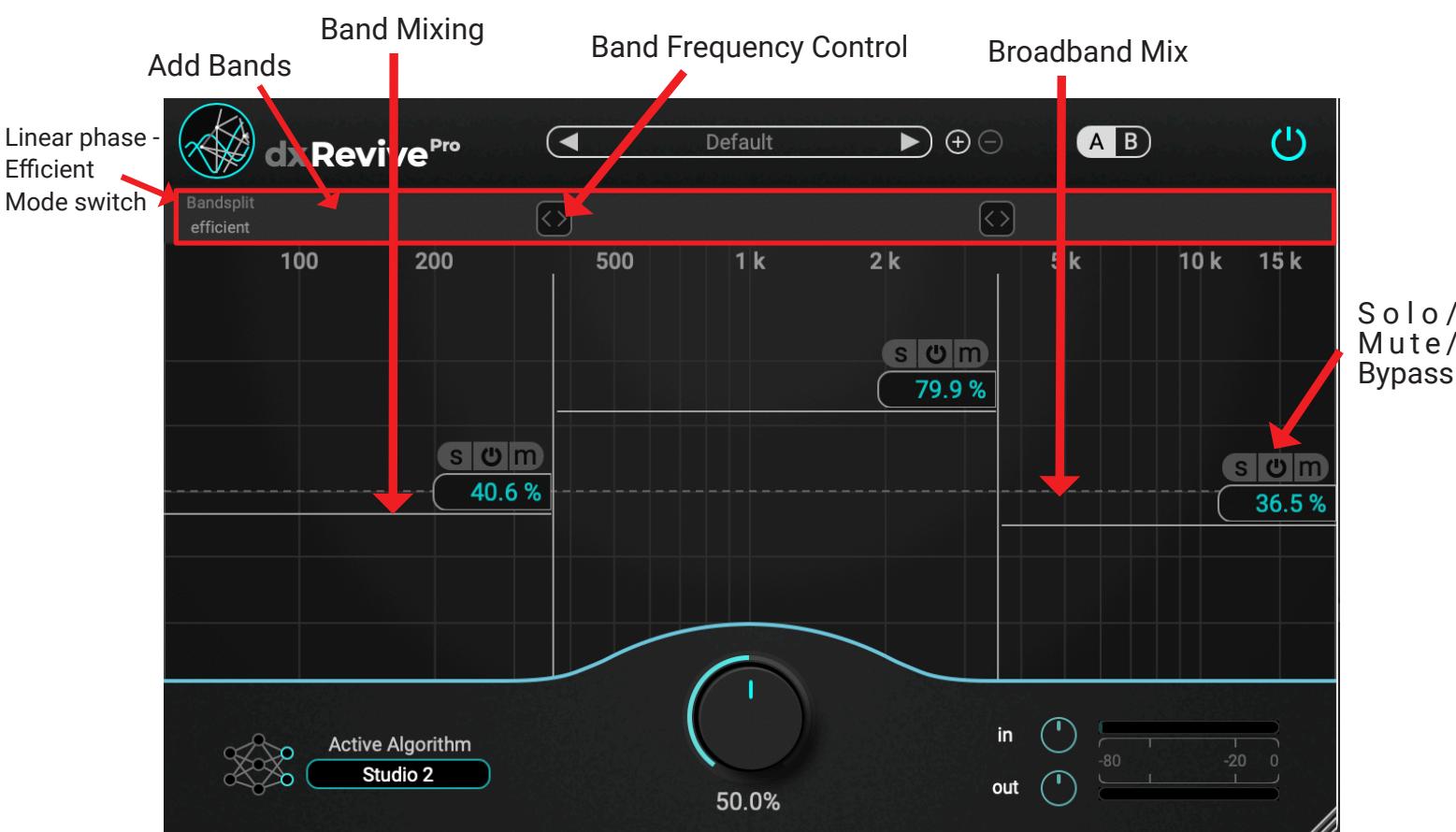
Algorithm Selector: dxRevive Pro comes with different algorithms for different processing purposes. If you click on the current algorithm name you will see a dropdown to select a different one. When clicked on the ? button right to the name a info box about the selected algorithm will be shown. More about algorithms in the Algorithm section of this manual.

Mix Knob: The mix knob is the main control of the plugin and controls the amount of processing that will be applied. If set to 0% the original signal will pass through unaffected. When turned up more and more enhancement will be happening. 100% will result in a fully enhanced signal. Note that higher mixing value can potentially cause processing artifacts which can be reduced by slightly turning down the mixing again.

Gain Controls: The gain control section shows the level of input and output signals. If one of the signals gets too loud and starts to clip it will turn red. Use the control knobs next to the level visualization to adjust the gain. The processing isn't very sensitive to different gain levels. However, for very low input signals the input gain can be increased a bit to potentially achieve better results.

Spectral Focus

The mixing of the enhancement can not only be set for the broadband signal but can be customized for up to 4 different frequency bands. Below you see the additional controls for spectral focus mode:



Add Bands: When hovering with the mouse over the control bar (highlighted with the red box) a + button will appear which lets use add a band-split at the current position. In a similar way there will appear a X -button to delete existing band-splits.

Band Mixing: You can set a mixing value to each individual frequency band. Either by moving the horizontal frequency bar with the mouse or using your mouse-wheel when hovering over the band. You can also click the current mixing value to enter the desired amount.

Band Frequency Control: Use this knob to adjust the split frequency of adjacent bands. By dragging it to the left or right the frequency can be modified.

Broadband Mix: The dashed line indicates the current level of the broadband mix. This is only for orientation to show how much each band mix differs from the original broadband mix. When changing the broadband mix using the main knob all sub bands will be changed accordingly by always maintaining the relative difference between them.

Solo/Mute/Bypass: Each band can be listened to in solo or also be muted. This is helpful when fine-tuning the desired enhancement amount for each band. You can also bypass the processing for each band individually to compare the changes in the corresponding frequency range.

Linear Phase / Efficient Mode: In the top left corner there is a control to switch between efficient mode and linear phase mode. Linear phase filtering is useful if the recording is combined with another source (e.g. Boom and Lavalier recordings) to avoid phase cancellations. Note: Linear Phase introduces more latency than efficient mode.

Visualization

When processing a signal the plugin will show the input and the output frequency spectrum. The filled area shows the input spectrum while the solid line shows the current enhanced output:





Algorithms

dxRevive Pro offers a variety of algorithms to suit different audio needs. Each algorithm is a trained artificial neural network that has learned from hours of example audio. After clicking on the current algorithm name in the bottom left corner the selector opens. Depending on what you're doing, you can pick from these:

Algorithm	Suppression Features	Restoration Features	Version	Default
Studio 3	Noise Reverb Artifacts	EQ LF Restore HF Restore	1.2.0	<input checked="" type="checkbox"/>
Studio 2	Noise Reverb Artifacts	EQ LF Restore HF Restore	1.1.0	<input type="checkbox"/>
Studio	Noise Reverb Artifacts	EQ LF Restore HF Restore	1.0.0	<input type="checkbox"/>
Retain	Noise Artifacts	HF Restore	1.0.0	<input type="checkbox"/>
Natural 2	Noise Reverb Artifacts	LF Restore HF Restore	1.2.0	<input type="checkbox"/>
Natural	Noise Reverb Artifacts	LF Restore HF Restore	1.1.0	<input type="checkbox"/>
EQ Restore	Artifacts	EQ LF Restore HF Restore	1.2.0	<input type="checkbox"/>

The default toggle defines which algorithm loads for newly created plugin instances.

Studio / Studio 2 / Studio 3

This one's the default and works like magic to make your audio sound as if it was recorded up close in an acoustically treated studio. It's great at suppressing annoying background noise and echo. It also tweaks the sound with an EQ to boost or tone down certain parts. And if some frequencies are missing, like from a recording on a phone, it helps bring those back. This is your go-to when you're fixing up podcasts or interviews to make them sound professional, especially if the recording setup wasn't perfect. "Studio 3" is the latest generation and the recommended choice in most situations. In some rare occasions "Studio" or "Studio 2" might give you better results though. When in doubt we recommend A-B testing different versions. However, "Studio 3" should be always the first choice!

Natural / Natural 2

Natural is a new addition and can be described as being roughly the same as Studio just without the EQ feature. It will also remove background noises and reverb and restore some missing frequencies but without EQ-ing the signal as much. Whereas Studio targets to mimic speech recorded very close to a large diaphragm microphone in an acoustically treated studio room, Natural will affect the frequency curve less and stays more close to the original recording. As with Studio algorithm versions, "Natural 2" is the recommended choice and should give best results.

EQ Restore

EQ Restore is a completely new addition to our existing algorithms. The main difference is that it doesn't aim to remove any noise or reverb; instead, it fixes spectral issues by applying EQ and spectral resynthesis if necessary. This way, the natural ambience is preserved while only enhancing the speech. A crucial aspect of EQ Restore is that it applies EQ solely to the speech without altering the frequencies of the underlying noise or ambience. This selective approach isn't possible with conventional EQ, which modifies the entire signal, affecting both speech and background components.

Retain

Unlike the Studio mode, Retain doesn't take a heavy-handed approach to erasing all the echo, and it avoids making big changes to the natural sound with a strong EQ. Instead, it's all about maintaining the essence of the original audio while giving it a boost in perceived quality. This comes in really handy when you're dealing with recordings that are already done and you want to preserve that unique vibe of where it was recorded.



Specifications and system requirements

dxRevive is built upon cutting-edge deep learning algorithms, which typically necessitate specialized hardware (GPUs) for execution. However, these algorithms have been extensively optimized, allowing the plugin to operate efficiently on regular hardware locally, without the need to transfer data to the cloud. Given the plugin's considerable computational requirements, we advise integrating it into your workflow through offline rendering methods, such as AudioSuite in Pro Tools or Direct Offline Processing in Nuendo/Cubase.

Minimum system requirements:

- Windows 7 (64-bit), 4 GB RAM, Dual-Core CPU 2.3GHz
- Mac OS X 10.12, 4 GB RAM, Dual-Core CPU 2.3GHz

Specifications:

- 44.1kHz, 48kHz, 88.2kHz, 96kHz, 192kHz
- Mono / Stereo
- VST3 / AU / AAX
- Native Apple-Silicon Support

dxRevive Pro requires you to sign up for a free iLok account. You can try out the plugin for free for 7 days by starting it as TRIAL or activate it in the iLok License Manager with a purchased activation code. The plugin does NOT require you to have access to a physical iLok USB dongle and it can also be activated directly to your machine or iLok Cloud.

Generally, the plugin should work with most plugin host softwares. It has been tested and is officially compatible with: Reaper, Pro Tools 11 or higher, Nuendo, Cubase, Ableton Live. Please use the free trial to ensure compatibility with your setup before purchasing.





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