

BOBPERRY AUDIO

Crossfader 2 Manual

Preface

Thank you for purchasing Bob Perry Crossfader 2. To be able to get the best out of this product, we recommend you carefully read these instructions.

Firstly we will describe the user interface and will give a brief introduction to the control elements. After that we will provide a quick guide to show some typical use cases for the plug-in.

System Requirements

To use Bob Perry Crossfader 2, a Digital Audio Workstation (DAW) with support for AU (Mac), VST2 (PC, Mac), VST3 (PC, Mac) or AAX 64 bit (PC, MAC) is required. We thoroughly tested the plug-in with various versions of the following DAWs:

Steinberg Cubase (Mac, PC)
Steinberg Nuendo (Mac, PC)
PreSonus Studio One (Mac, PC)
Image-Line FL Studio (PC)
Adobe Audition (Mac, PC)

Reaper (Mac, PC)
Logic Pro X (Mac)
Avid Pro Tools (Mac, PC)
Harrison Mixbus (Mac, PC)
Cakewalk Sonar (PC)

Installation – macOS

Extract the downloaded .zip file, if it hasn't been extracted automatically. Then simply open the .pkg file and follow the installer's instructions.

Installation – Windows

Extract the downloaded .zip file, then open the installer file and follow the instructions.

The first installation path you will be prompted for will be the location of the manuals and the uninstaller.

Then you will be asked for your VST2 paths. If you want to install the VST2 plug-ins, select the VST2 path of your preferred DAW. If you don't want to install the VST2 plug-ins, you will be able to deselect the VST2 components after clicking 'Next'.

What does a Crossfader do?

Since you already purchased the Bob Perry Crossfader 2, you probably already know what it's good for. Nevertheless, here is a quick summary:

A Crossfader mixes one signal with another, similar to a DJ Mixer.

Sounds legit. But why should I not use the channel faders of my DAW for that job?

The reason is that you would have to control two faders in your DAW simultaneously. With Bob Perry Crossfader 2 you only have to use one fader. The main benefit: you can find the best blend between two signals without a volume difference. Especially when you want to find the best balance between two microphones recording the same instrument. This is nearly impossible with two normal faders.

Additionally, Bob Perry Crossfader 2 comes with its built-in X-EQ, which helps you find the perfect blend between your two signals.

What's new in Bob Perry Crossfader 2

Bob Perry Crossfader 2 comes with several improvements compared to Bob Perry Crossfader 1:

GUI scaling and global saving of preferences

You now have the ability to resize the plug-in window. This and other preferences can be saved globally, so that new instances of the plug-in appear pre-configured to your taste.

Visual Waveform and X-EQ Curve Display

We added a waveform display to compare both signals visually, and a visualisation of the X-EQ curves to better understand what the X-EQ does. We also made the X-EQ curve mouse-draggable for ease of use.

Logarithmic Fade mode

You can now choose between linear and logarithmic fades.

X-EQ Curve Invert

We added an option to invert the X-EQ Aux EQ for special effects.

24 Semitones of X-EQ Frequency Offset/Overlap

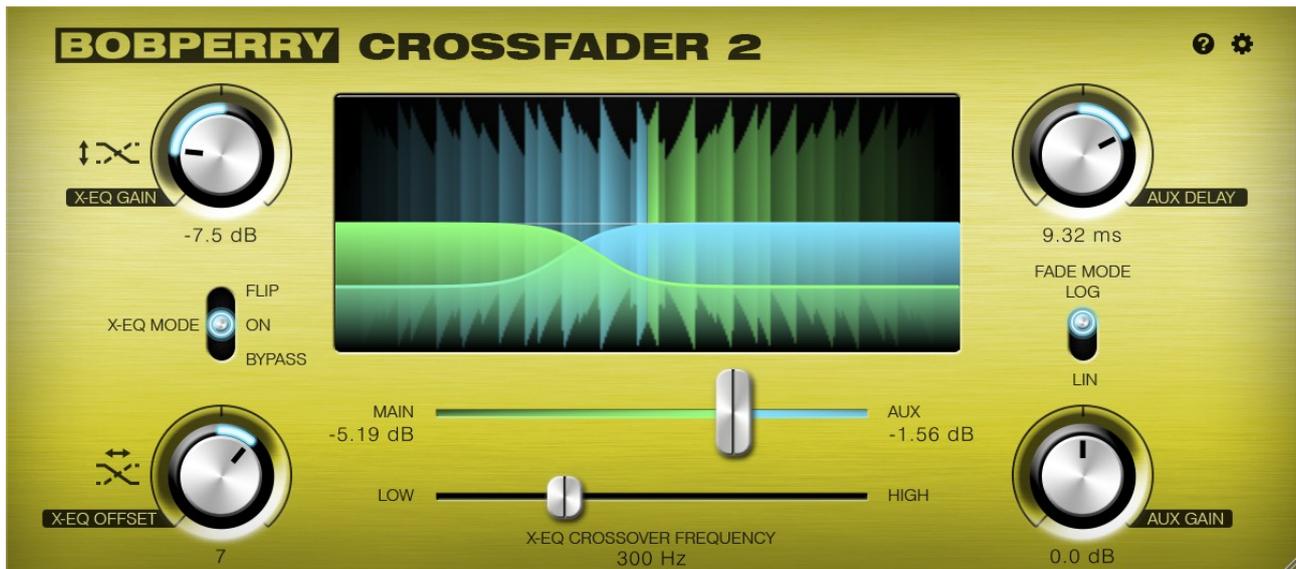
We have increased the range of the X-EQ frequency offset to 24 semitones.

Pro Tools AAX support*

Bob Perry Crossfader 2 now comes with AAX support.

*) due to limitations with the AAX platform, only mono aux signals are supported.

User Interface



Crossfader (top fader)

Adjusts the mix between the main and the side chain signal.

- Hard left = 100% main (signal in current track remains unaltered)
- Hard right = 100% side chain
- Center = Equal amounts of main and side chain

The numeric values in dB are useful to know if you want to create the same balance with your DAW faders. Click a number to enter your own value in dB. The other value will automatically adjust to the corresponding gain.

X-EQ MODE

The X-EQ allows you to enable a Low Shelf EQ for the main and a Hi Shelf EQ for the aux signal.

X-EQ use case example:

When you have two snare drum mics and you want to hear less low frequencies from the main mic and less high frequencies from the side chain mic, you can find the best sound using the Frequency Slider.

X-EQ CROSSOVER FREQUENCY (bottom fader)

Adjusts the frequencies of the High and Low Shelf EQ. The number underneath displays the exact frequency. Click it to enter a numeric value.

X-EQ OFFSET

Offsets the High and Low Shelf EQ frequencies. A negative offset combined with a positive X-EQ GAIN value results in a “gap” between the two signals. A positive offset combined with a positive X-EQ GAIN value will result in an overlap, i.e. both signals “sharing” the frequencies near the X-EQ Crossover Frequency. With a negative X-EQ GAIN value, it’s the other way around.

The offset scale is measured in semitones. The maximum offset in each direction is two octaves (24 semitones).

X-EQ GAIN

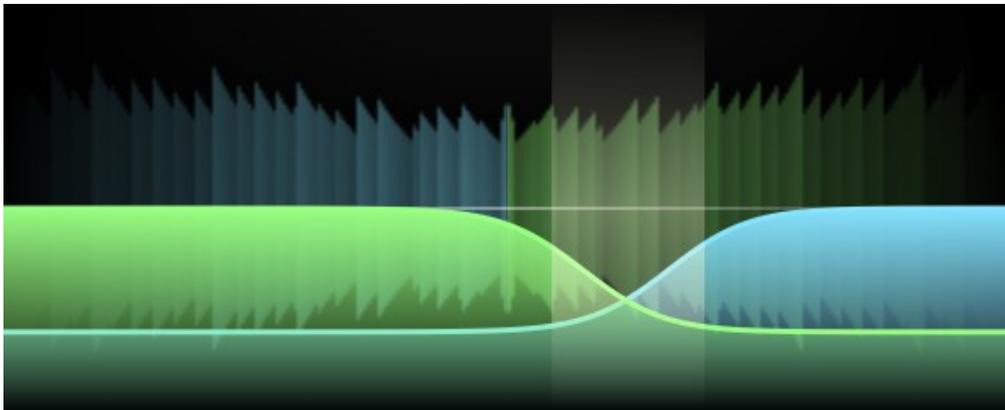
Sets the gain of the Shelving EQs. When using positive values, be sure to have an eye on the rest of your signal flow. A too high setting could result in output signals beyond 0 dBFS, which could lead to distortion, depending on the rest of your signal chain.

DISPLAY

The Crossfader 2’s display shows you an approximated waveform representation of the main and aux signals, with the main (blue) on the left, and aux (green) on the right. You can use the waveform display to better adjust your AUX GAIN (read below).

Whenever the X-EQ is enabled, you will see the curves of the equaliser, the colours corresponding to those in the waveform display.

Additionally, you can use your mouse to control three parameters of the X-EQ directly:



Hover your mouse cursor over the display and you will see a vertical bar. This is the interaction area. Click and drag to change the X-EQ frequency (left/right) and gain (up/down). Use your mouse scroll wheel or trackpad scroll function on the interaction area to change the X-EQ offset.



You can right-click on the interaction area to reveal a pop-up menu in which you can set X-EQ RESONANCE and X-EQ AUX INVERT. See below for details.

AUX GAIN

Allows you to adjust the Volume of the Aux Signal. Use this parameter to find a good balance between your Main and Aux signals. When set correctly, the signal should not feel louder or quieter when crossfading between Main and Aux.

Right-click the AUX GAIN dial to adjust the gain automatically while playing back. This will analyse the RMS of the Main and Aux Signals, calculate and set the Gain difference of the Aux Gain.

AUX DELAY

Lets you delay or advance the Aux Signal to compensate phase and/or timing issues. When using negative values, your DAW will compensate for the latency. (You might encounter high input latency when recording.) Using only positive values is recommended.

Note that the value is only registered when letting go of the mouse button, not while dragging with the mouse.

FADE MODE

Depending on this setting, the Crossfader will behave differently: Select LOG for a logarithmic crossfade, and LIN for a linear crossfade.

This setting doesn't change the behaviour of the X-EQ.

Use LOG for very different signals.

Use LIN for similar signals, like two microphones that recorded the same instrument.

DAW Side Chain / Key Input (DAW specific)

Activates the side chain. This is mandatory, as Bob Perry Crossfader 2 relies on side chain functionality in order to work. Please refer to your DAW's manual for details.

Please note:

Due to limitations with the AAX platform, only mono aux signals are supported in Pro Tools.

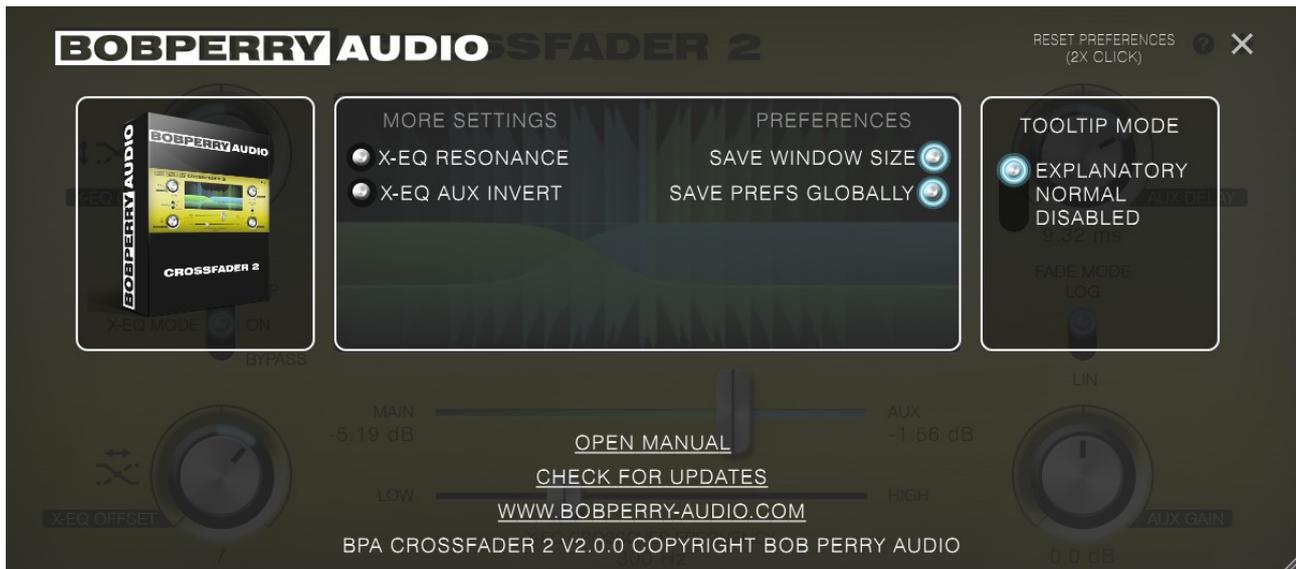
Info / Quick Start Guide

Click the info icon to display a quick reference guide.

Preferences

Click the gear icon to display the plug-in's Preferences. You will be greeted with the Preferences window:

Preferences Window



X-EQ RESONANCE

Enable this setting to increase the resonance of the High and Low Shelf EQs for more articulated filtering of both of your signals.

X-EQ AUX INVERT

Enabling this setting inverts the Aux EQ Gain: When Main EQ boosts, Aux EQ cuts, and vice versa. Use this setting in conjunction with X-EQ OFFSET for special effects.

SAVE WINDOW SIZE

With this setting enabled, the plug-in window will remember your last set window size when reopening it.

SAVE PREFS GLOBALLY

When this setting is enabled, select preferences (including Window Size) will be stored globally, having an effect even on new instances of the plug-in. **To restore Global Preferences to their default settings, double-click on RESET PREFERENCES.**

TOOLTIP MODE

You can adjust the tooltips to your liking. Select EXPLANATORY for in-depth tooltips. Select NORMAL for default tooltips. If you feel you know the plug-in well enough, you can disable the tooltips altogether by selecting DISABLED.

OPEN MANUAL

If you have selected the manual option when installing the plug-in, you can click **OPEN MANUAL** to open this manual.

CHECK FOR UPDATES

This will open a browser window with the Bob Perry Audio Update Checker. Click to see if there is a new version available to download.

WWW.BOBPERRY-AUDIO.COM

Click to visit our website.

How to work with Bob Perry Crossfader 2

First you have to set up your signal flow:

- 1) In your DAW, select the track you want to use as your main signal
- 2) Create a new Bob Perry Crossfader 2 instance in a free insert effect slot
- 3) Enable the Side Chain / Key Input (AU, VST3, AAX) or multichannel input (VST2) for the plug-in
- 4) In your DAW, select the track containing your Aux signal and route the signal to the Crossfader 2 side chain (AU, VST3, AAX) or to the multichannel inputs (3/4) of Crossfader 2 (VST2). Refer to the manual of your DAW for help with side chaining.

That's it. Your main signal track now outputs the mix of both signals.

Hint: If you always hear your aux signal, even with the crossfader all the way to the left: Your aux signal track is probably still routed to your main bus / output. Be sure to route the signal directly to the plug-in's side chain input, or use a pre-fader send and set the aux track's fader to $-\infty$.

Adjusting the Mix:

- 1) Move the Crossfader Slider to blend between your Main and Aux signals.
- 2) Use the X-EQ to further improve your sound.

Typical Use Cases

We will now provide some examples for typical use cases of Bob Perry Crossfader 2.

1. Mixing signals from different Microphones or Sources

The main intent of Bob Perry Crossfader 2 is to use it as a tool for finding the best mix between two signals, i.e. two different snare/bass drum sounds, two different guitar sounds, or even keyboard / synthesizer sounds.

In every position of the Crossfader Slider you will have the same output volume assuming that your main and side chain signal have the same volume prior to entering the plug-in.

2. DJ Mix

This is the a very basic and mostly self explaining way of using our plug-in. Set one song as your main and another as the side chain signal. Then you can mix them together. You can record the movement of the Crossfader slider with your DAW's automation functions.

Appendix

Common plug-in installation paths

Windows

32-bit VST3 plug-ins in 32-bit environments

C:\Program Files\Common Files\VST3

32-bit VST3 plug-ins in 64-bit environments

C:\Program Files (x86)\Common Files\VST3

64-bit VST3 plug-ins in 64-bit environments

C:\Program Files\Common Files\VST3

VST2 plug-ins are usually installed into a subfolder of your DAW, called “VSTplugins” or “plug-ins”. Examples are:

C:\Program Files\Steinberg\Cubase\VSTPlugins (64-bit)

C:\Program Files (x86)\Steinberg\Cubase\VSTPlugins (32-bit)

AAX plug-ins in 64-bit environments

C:\Program Files\Common Files\Avid\Audio\Plug-Ins

MacOS

VST3 plug-ins

/Library/Audio/Plug-Ins/VST3/

VST2 plug-ins

/Library/Audio/Plug-Ins/VST2/

Audio Unit plug-in components

/Library/Audio/Plug-Ins/Components/

AAX plug-ins

/Library/Application Support/Avid/Audio/Plug-Ins

You cannot use the Windows 64-bit version in a Windows 32-bit environment / DAW!

The macOS versions are 64-bit only.

Technical Notes

Signal processing

floating point

Headroom

theoretically over 1500dB, depending on your DAW. But more than enough.

EQ Type

High Shelf and Low Shelf (+- 12dB, Slope 0.7 (1.2 resonant))
Frequency: 20 Hz – 10000 Hz

Fade behaviour

Fade Curve Type A: Logarithmic Fade. Having the Crossfader in the middle results in 3dB total gain.

Fade Curve Type B: Equal Volume Fade (the resulting mix volume is the same in every slider position). Having the same signal as Main and Side Chain, you can't hear a difference in any slider position.

More Headroom tips:

In floating point DAWs, you can “overdrive” your signal up to more than +30dBFS without distortion through signal clipping. There are only two things to remember:

1. Apart from very few special situations, you should always make sure not to overdrive your master bus
2. Some older plug-ins or plug-ins emulating analog clipping or saturation behaviour typically rely on proper gain staging. That means feeding them with levels close to or higher than 0 dBFS might result in clipping, or worse, digital clipping. So have a look into the manual of your plug-ins to know their behaviour before increasing levels above 0dBFS.

We hope this manual leaves no questions unanswered.
If you still have questions, feel free to contact us:

support@bobperry-audio.com