

BOBPERRY AUDIO

Ducker 2 Manual

Preface

Thank you for purchasing Bob Perry Ducker 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 Ducker 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 Ducker do?

Since you already have purchased the Bob Perry Ducker 2, you probably already know what it's good for.

Nevertheless, here is a quick summary:

A Ducker reduces one signal's volume when a second signal's volume surpasses a set threshold.

Sounds legit.

But why should I not use a compressor for this?

Using a compressor will give you a result that is similar to a Ducker but will give you less control. Some people say that „Side Chain Compressing“ is ducking but that is somewhat wrong. A compressor will not only lower the volume but compress the signal. The whole character of the sound is likely to change. Additionally you cannot control the level of volume reduction as it always depends on the side chain signal. The resulting sound might become imbalanced. Bob Perry Ducker 2 solves these problems: it lowers the volume evenly and without any unwanted compression, giving you full control over your production.

What's new in Bob Perry Ducker 2

Bob Perry Ducker 2 comes with several improvements compared to Ducker 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 Display with Threshold Line

The new four-way Waveform Display visualises Input, Output and Aux Signals, and also your Gain Reduction. Additionally, we added a mouse-draggable Threshold line that help with visualisation and ease-of-use.

Lookahead functionality

We added the ability to enable up to 100ms of Lookahead for even finer controls. Additionally, there is a LIVE mode, that enables you to quickly toggle Lookahead without losing your setting.

Undo/Redo, Presets

We added an Undo/Redo feature to quickly get back to a previous setting, and a bunch of presets to make it easier and quicker for new users to reach their desired sounds.

Pro Tools AAX support*

Bob Perry Ducker 2 now comes with AAX support.

*) due to limitations with the AAX platform,

- only mono aux signals are supported
- the maximum lookahead value may be lower.

User Interface



The user interface mainly consists of dials and buttons. The numeric values under the dials can be clicked to enter a numeric value. Some dials feature context menus accessible via right-click. See below.

THRESHOLD

Serves for the adjustment of the threshold. If the level of the side chain exceeds the threshold, the ducking process will be triggered. A threshold below the side chain signal's amplitude should be chosen, otherwise Ducker 2 won't alter your signal.

ThresPass LED: The white ring on the Threshold dial lights up whenever the gain of the signal in the Aux chain surpasses the Threshold.

While setting the Threshold, the AUX waveform (white) will be displayed in front of the other waveforms in the waveform display. Additionally, the Threshold Line will appear to visualise the Threshold in relation to your signal.

REDUCTION

Sets the gain reduction in dB. For subtle effects we recommend using a range of up to ± 3 dB. For pumping club / house music sound go down to -10dB.

Use boost for special effects – it's all up to your creativity.

CURVE

The CURVE switch lets you choose between linear (LIN), logarithmic (LOG) and S-CURVE volume curves for attack and release of the ducking process. The decision which one to take will solely be based on your signal and personal taste.

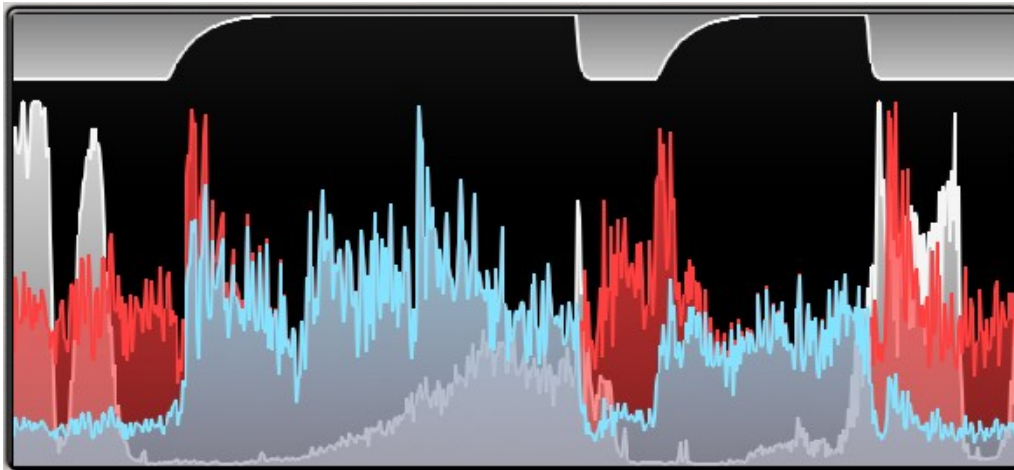
AUX SRC

Select the source for your Aux Signal with the AUX SRC switch.

When working without a side chain, select MAIN.

For normal side chain behaviour, select S/C.

WAVEFORM DISPLAY

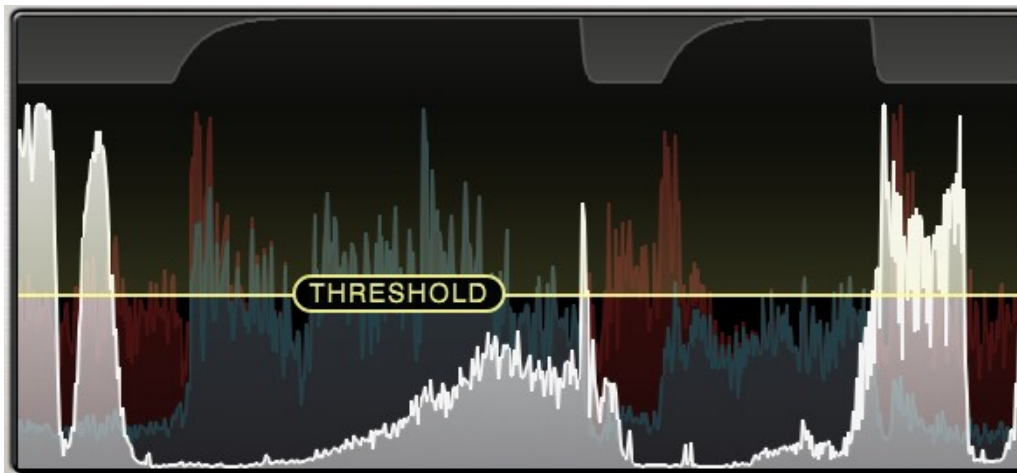


The Waveform Display displays the following signals:

- ● Red: Main Input
- ● Blue: Main Output
- ● White: Aux Input
- ● Top White: Gain Reduction

The white Aux Input waveform will be displayed in front of the other waveforms while setting the Threshold.

Threshold Line



Whenever hovering over the Threshold dial, or over the Waveform Display itself, the Threshold Line is displayed. You can use your mouse or trackpad to set the Threshold directly on the Display.

ATTACK

Time the Ducker will take to reach the set gain reduction value after being triggered by the Aux Signal signal exceeding the threshold. The higher the attack value, the longer it takes the Ducker to reach the final gain reduction.

HOLD

Time the Ducker will keep its full gain reduction even when the threshold is not exceeded anymore. When the threshold gets exceeded again during hold time, the hold duration will be extended accordingly.

RELEASE

Time the Ducker takes to revert back to its original state.

Please note: Very short Attack and Release times might cause distortion when working with low frequencies. This might happen when the Attack and/or Release are shorter than the frequencies' oscillating period.

INPUT GAIN

Adjusts the main input signal's level if a plug-in in the signal chain has a high or low output. Most of the time you won't need to use it. It will take a very high level (> 1500 dB) to create distortion within Bob Perry Ducker 2.

OUTPUT GAIN

Adjusts the plug-in's output level. Although the plug-in itself won't distort even with very high signal levels, we recommend setting a value that won't saturate your DAW channel's meter.

LIVE

Enabling LIVE mode temporarily disables LOOKAHEAD for minimising latency.

LOOKAHEAD

Turn this dial to the left to increase Lookahead. Ducker 2 will then react to your Aux signal sooner.

A typical use of Lookahead is if you want the Ducker to be already fully ducked when your Aux signal kicks in: in a voice-over situation, you can use Lookahead to make sure your music volume is already reduced when the speaker begins speaking.

Advice: Lookahead may increase the overall latency of your DAW. Not suitable for live applications.

Undo and Redo Buttons

Click the undo button to quickly revert to the plug-ins state before you last changed a parameter.

Once you have undone something, the Redo button will come alive. Click the Redo button to get back to the plug-in's state before you clicked undo.

You can undo + redo multiple steps.

Note: If you undo something, and then change a parameter manually, you won't be able to redo.

Bottom Right Corner (Window Grabber)

Use the bottom right corner of the window to resize it.

Double-click it to reset the plug-in window to its default size.

The window size can be saved for this instance or globally, depending on the settings SAVE WINDOW SIZE and SAVE PREFS GLOBALLY. (See below)

Side chain button (window of your DAW)

Activates the side chain. Enabling the side chain is mandatory for using Ducker 2 with two signals. Please refer to your DAW's manual for details.

When enabling the side chain for the first time, Ducker 2 will automatically set AUX SRC to S/C. (Due to the way Audio Units work, this behaviour is disabled for the AU version of Ducker 2)

Preferences

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



MORE SETTINGS

DRAW WAVEFORM

You can disable Waveform drawing if you have performance issues.

PREFERENCES

SAVE WINDOW SIZE

Saves the window size of the plug-in. When SAVE PREFS GLOBALLY is enabled, all Ducker 2 instances will open with the same window size.

SAVE PREFS GLOBALLY

When enabled, the following settings will be stored globally:
TOOLTIP MODE, DRAW WAVEFORM, SAVE WINDOW SIZE, your window size.

TOOLTIP MODE

Every control can show you a tooltip when hovering your mouse cursor over it for a couple of seconds. TOOLTIP MODE lets you choose between three tooltip modes:

EXPLANATORY: Shows you an extended, elaborate tooltip to explain the function of the current control.

NORMAL: Shows you a normal, quick tooltip.

DISABLED: Disables all tooltips. Select this if you don't want to be bothered by tooltips.

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 do I work with Bob Perry Ducker 2?

First of all, you need to think about what signal you want to duck in dependence of which trigger signal (side chain). Then proceed as follows:

- 1) Load Ducker 2 into the channel of the signal that you want to be ducked. (Main Signal)
 - 2) Enable the side chain. (refer to DAW's manual for details)
 - 2a) In the channel that provides the trigger signal (side chain), use an Aux Send to route the channel's signal onto the Ducker's side chain.
- Beware: If you route the output to the side chain directly, you won't hear it any more.
- 3) Within the plug-in:
 - a) Adjust the Threshold
 - b) Adjust the Range
 - c) Adjust Attack, Hold and Release
 - 4) Listen to the effect and tweak it until it sounds as you please.

Typical Use Cases

We will now provide some examples for typical use cases of our Ducker.

1) Clean Up the Basement

Sometimes you may run into trouble when you have a bass drum and the bass competing in the same range of frequencies. In most cases, you certainly don't want muddy low frequencies, but cleanly separated instruments.

To clean things up a bit, the Ducker can lower the volume of the bass each time the bass drum kicks in. To do this, we firstly need to find out the average length of the bass drum signal. We assume the length to be around 60ms. Therefore, the whole ducking (including attack, hold and release) should not take longer than 60ms. As the bass drum's volume will decline in the end, the hold time may be a little shorter.

For tweaking the ducking effect, start with a high range value. It will make you able to easily hear the results of your adjustments. Afterwards, the range should not exceed 3dB as otherwise it might begin to sound unnatural. Of course it all depends on your taste.

Pro Tip: Carefully adjust the threshold as otherwise the ducking might be prolonged by the fading bass drum!

2) Pumping Beats

You are into electronic music and want to get this cool contemporary pumping bass? No problem with Ducker 2. Try ducking everything in the mix but your bass drum. The ducking process should be triggered after the length of an eighth note in a four-four time. Thus, the Ducker needs to do its work in this short period of time.

With this easy formula you can calculate the length of a quarter note:

$$60\,000 / \text{tempo in bpm} = \text{time in ms}$$

As an example with a tempo of 120 bpm:

$$\frac{60000}{120} = 500 \text{ ms for a quarter note.}$$

Divide this by 2 to get the value for an eighth note (250ms).

The attack should be short, but beware of distortions. 10 to 30 ms will mostly do the trick. Adjust hold and release to place the pumping effect on the right spot. In our example having 120 bpm it should be 250ms. Find your balance between hold and release to get the desired result.

3) Voice over / Voice over Guitar

Sometimes you want to lower the volume of the music while singing or talking. To get this done do the following:

- 1) Assign the plug-in to a channel or a channel group.
- 2) Send your vocal track's signal into the Ducker's side chain.
- 3) You might want to choose relatively high values for hold and release to achieve smooth blending of phases.

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.

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

support@bobperry-audio.com