



www.roughdiamondproductions.com/whiteLABEL

autoBED MK I - lookahead stereo ducker v1.2



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autoBED is a 4 channel vst 'ducker' plugin designed for stereo operation, with sidechain. When the sidechain rises above the threshold, the main channels are ducked. This is further enhanced by the use of *look ahead delay*, a choice of *ten response curves* and *automatic presence reduction*. It is designed for a scenario where [for example] a stereo music track and a voice-over are to be combined. When the voice-over is heard, the music is ducked creating a 'bed' track.

New in version 1.2 :

- Cleaner GUI .. clearer values, better meters
- More flexible automatic presence control -
- Secondary panel with controls for Frequency & Q



To install **autoBED**, unzip the downloaded zip file to your plugins folder. When you next start your host, **autoBED** will appear in your list of plugins. To uninstall, delete or move the dll file.

The **demo** runs for 58 seconds and then pauses for 2 seconds. To register for the full unlimited version of autoBED visit : www.roughdiamondproductions.com/whiteLABEL

Before we start ...

In order to use **autoBED**, you'll need a multi-channel capable host, of which there are many, so let's not try and describe exactly what you'll all must do in order to make it work ... however ...

To use **autoBED** for its intended purpose, you'll need 2 sources - a music track, and a voice-over. Route the music track to inputs 1 & 2 (for L & R) and route the voice-over to inputs 3 & 4. Using preset 1 as a start point, you're now setup for stereo lookahead ducking

If you have a mono voice-over, route it to either or both of inputs 3 & 4 - you may find you have to alter the threshold to achieve the desired result.

Wait a second (or two) ...

The lookahead feature of **autoBED** is created by delaying the incoming music track and adjusting it according to the non delayed voice-over. This makes changes ahead of time, so to compensate, the voice-over is delayed too, but only after it has been used to modulate the level of the music. The net result of this is the ability to generate a volume curve before the voice-over crosses the threshold, but it also comes with the price of delay, or latency if you prefer to think of it that way, so if you are processing a mix, it is essential that you leave at a couple of seconds 'spare' at the end, and if you want to further use the result in the same project you'll need to re-align it against the **autoBED** delay time in order for time to remain consistent.

In summary : if you use lookahead delay of N ms, you'll probably want to :

- a) allow an extra N ms space in your project,
- b) manually remove the leading silent N ms.

Gating vs Ducking ...

Although **autoBED** was designed primarily as a ducker, it can also be used as a stereo gate - with sidechain, and lookahead too. All you need to do is to reverse the higher and lower levels, so that when the threshold is crossed, the music fades in, rather than out. See below for details of sidechain selection control.

Nearly there ...

If you wish to use a larger value than the controls allow for - for example a 5000 ms rise time, entering the value into the relevant text field will over-ride the limits of the default knob range - this is possible for all knobs except delay time, which has a hard limit of 2000 ms no matter how big a number you enter.



Controls :

To change a control, click the centre of a knob and drag vertically. The knob will rotate as you drag. Where a knob controls 2 values, clicking and dragging the 'ring' allows access to the second value. Holding down <Ctrl> whilst dragging gives finer control, and if you prefer, you can click in one of the value windows and manually enter a number.



Higher level [-30 to +20 db] - This controls the 'normal' [unducked] level. When no ducking occurs, this sets the level of the stereo channel

Lower level [-30 to +20 db] - This controls the 'ducked' level. When ducking occurs, this sets the level of the stereo channel.



Fall time [0 to 2000 ms] - The time it takes for **autoBED** to fall from Higher level to Lower level.

Delay [0 to 2000 ms] - The amount of time to delay the stereo channel by. Using delay allows for ducking the stereo channel *before* the sidechain channel reaches the threshold. A delay of 2000ms means that the fall starts 2000ms before the sidechain crosses the threshold.

Link [on / off] - When lit, both fall and delay time are set to the value determined by the knob, which now has only one control - that is to say, when not lit, there are two controls - one for fall time, and one for delay time. When link mode is on, the fall finishes just as the sidechain reaches the threshold. Rise time is not affected by adding delay, and always starts in response to the sidechain falling back through the threshold



Rise time [30 to 2000 ms] - The time it takes for **autoBED** to rise from Lower level to Higher level.

Threshold [-60 to 0 db] - When the sidechain signal is over this level, **autoBED** falls, when under, **autoBED** rises.



Key level [-60 to 20 db] - This controls the amount of the key channels that gets back into the mix outputs.

Response - Click in the box to choose between the ten response curves - the fade-out is a mirror of the fade-in :

Label :	Description [fade-in] :
Linear	fixed velocity fade
Exponential	fades in slowly, then accelerates
Squared	a double-squared response, pausing in the middle - [opposite shape to Sinusoidal]
Sinusoidal	max velocity half-way through fade - start and ends slowly
Expo-Sinal	combined exponential and sinusoidal fade, starting slower than sinusoidal and finishing slower than exponential
Curve 1,2,3,4	Curve 1 is the flattest, curve 4 is the steepest - they all start faster and slow towards the end offering varying degrees of the opposite shape to an exponential curve.
Decibel	a linear fade calculated using decibels instead of volts.



In operation, when the sidechain signal crosses the threshold, the whiteLABEL logo lights up and the envelopes start to move. The level being output by **autoBED** is indicated by the illuminated knobs - when *not ducked* the higher level knob is illuminated, and when *ducked* the lower level knob is lit :

not ducked :



ducked :



Presence reduction [3 genders, 6 levels] - when the gender symbol is either **male**, **female** or **trans**, automatic presence reduction is **on**. This cuts presence from the stereo channel by the number of decibels as shown by the number marked as **cut** [click to change from 1 to 6dB]. When the gender symbol displays just a **circle**, presence reduction is **off**. The shape of the presence reduction fade is the same as the channel fade, albeit limited in range to the **cut** amount chosen. By default, the gender settings are as follows :

Gender :	Centre Frequency :	Width [Octaves] :
male	2k	2
female	3.8k	2
trans	2.9k	3

To edit the gender settings (which are global) click on the red light in the top left of the panel :



This toggles to the gender panel, where you'll find Frequency and Gain controls for each of the 3 gender settings :



Automation & Midi Implimentation :

All knobs can be controlled using VST automation parameters, and **autoBED** also receives and transmits knob positions via midi control change messages on channel one :

Control Name :	Controller Number :	Range :
Higer Level	1	0-127
Lower Level	2	0-127
Fall Time	3	0-127
Rise Time	4	0-127
Delay Time	5	0-127
Threshold	6	0-127
Key Level	8	0-127
Response Curve	9	0-127
Gender	10	0-127
Presence Reduction	11	0-127
Chain Select	12	0-127
APC Male Frequency	13	0-127
APC Male Q	14	0-127
APC Female Frequency	15	0-127
APC Female Q	16	0-127
APC Trans Frequency	17	0-127
APC Trans Q	18	0-127

Chain Switch - wtf ? :

When the chain led is illuminated, **autoBED** uses inputs 3 & 4 as side-chain.
When the led is dark, the sidechain is taken from inputs 1 & 2.

Presets :

autoBED has 8 presets intended as starting points for you to fine-tune your sound -
They are named after their function.

white *label*

Credits :

designed & built by :
[Daz Disley](#) using [SynthEdit](#).

modules by :
[David Haupt](#), [Peter Schoffhauzer](#), [Kelly Lynch](#), and [Daz Disley](#)

dll compression by [UPX - Ultimate Packer for eXecutables](#)

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