

## **Reactive Backing User Guide: RB.dymanics, RB.gaindrive, RB.4loops, RB.8loops and RB.stopmuter**

Thank you for buying the Reactive Backing devices. These are the result of three years of intensive research and development into cutting edge Music Technology for Live Performance. I am extremely proud and excited to be able to release these devices and I hope that you get as much use and enjoyment out of them as I do! Any feedback about the software is appreciated, however please ensure that any feature requests are made after purchase.

This user guide covers the operation of each device, for a more interactive guide please see the annotations in the Ableton Live info view.

Enjoy!

Tim Canfer

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### **Installation**

To see the devices in Ableton Live, you just need to copy the devices to the following locations:

For Mac –

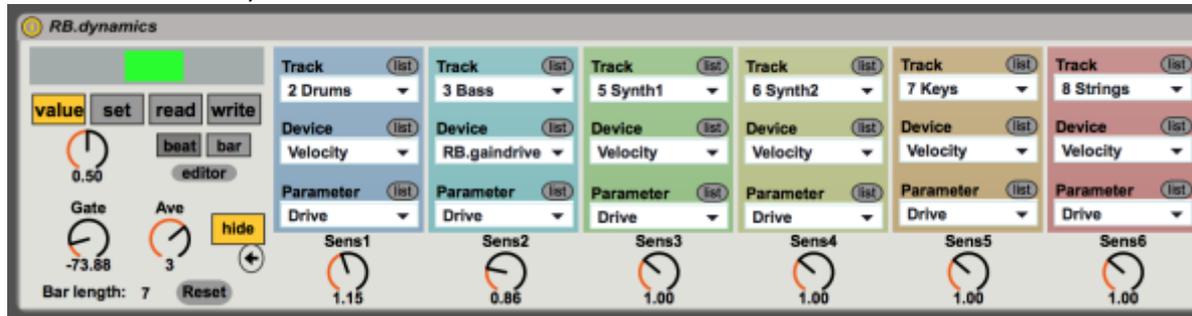
/Users/[username]/Music/Ableton/User Library/Presets/Audio Effects/Max Audio Effect/

For PC –

\\Users\\[username]\\Documents\\Ableton\\User Library\\Presets\\Audio Effects\\Max Audio Effect\\

## RB.dynamics

Screen shot of the RB.dynamics device with example track information (cropped at six tracks so text is readable)

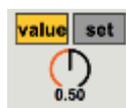


RB.dynamics is an audio effect that allows the averaged amplitude (0-1) of a control track to vary the velocity or gain of either MIDI or audio tracks respectively. RB.dynamics is inserted into the effects chain of the desired control track (audio is simply bypassed and the left channel is used to calculate the incoming amplitude). It is recommended that RB.dynamics is placed before any dynamic processes in the signal chain.

To complete dynamic control, it is necessary to insert either the Ableton Live Velocity device onto MIDI tracks that you want to vary or the RB.gaindrive device for audio tracks that you want to vary. (See images below).

N.B. These devices have been designed specifically for dynamic variation, however they can vary any parameter in any device in Ableton Live, so feel free to get creative!

There are two main modes of operation of RB.dynamics, set value and variable value. In either mode the incoming amplitude is compared to a value. If the incoming amplitude is higher than the comparison value then the drive parameter of either Velocity or RB.gaindrive is raised proportionally and the display shows a green area. If the incoming amplitude is lower than the comparison value then the drive parameter of either Velocity or RB.gaindrive is lowered proportionally and the display shows a red area.



### Set value mode controls

**value:** this mode uses a static value set on the dial just below. This is the value that the incoming audio volume is compared to.

**set:** this allows quick setting of the value dial due to incoming audio (N.B. gate needs to be open).



### Variable value mode controls

**read:** in this mode, the value to compare to is read against the transport position, using either bar or beat resolution. (For example, if you are playing much louder in the chorus you may want to change the comparison value for this chorus using the read setting).

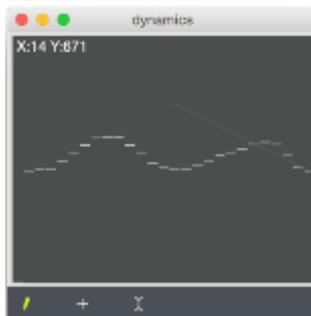
**write:** this mode allows the values to be written in real time. For example if you have a good take recorded, you can set dynamics to write decide on bar or beat resolution (see below), press play and let it run until the end. You then have a variable template of a standard performance to compare to.

**bar beat:** these tabs change the read / write resolution between bars and beats.

**editor:** this opens a separate window giving a graphical method to draw the values, the size of this is determined by the size in bars of the session. (See reset control below).

The X value shows either the bar or beat position, depending on the selection and the Y value shows amplitude in thousands (so 500 is 0.5).

### Editor Window

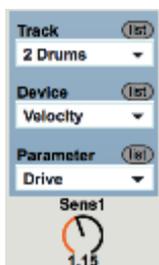


**gate:** this is the threshold below which incoming volume is ignored (for music with quieter passages, this needs to be lower).

**ave:** this is a moving average setting that smooths the value of incoming volume (this also affects set mode).

**reset:** at the start of every session the bar length is determined for the read / write modes, if the duration of the session is changed reset will give the new bar length.

**hide / show:** this toggle hides or shows the ten parameter chooser blocks.



### Parameter chooser settings (the same for each of the ten chooser blocks)

**Track:** choose the track to be varied by RB.dynamics, (you need to press the list button to the right first to populate the menu).

**Device:** choose the device (generally Velocity for MIDI, or RB.gaindrive for Audio).

**Parameter:** choose the device parameter (generally Drive).

Following these steps correctly slaves that parameter to the RB.dynamics device, to confirm that this has been done correctly see the control greyed out (see screen shot below).

**Sens:** the sensitivity that each respective track will be varied by RB.dynamics .

## Velocity

Screen shot of the Ableton Live Velocity MIDI effect plugin (not included by Reactive Backing)



**Drive:** This controls the curve of the velocity transfer function, a high value will force higher velocity values and a low value will force lower values (unless at extremes). This is the control slaved to the RB.dynamics device. See Ableton Live User Manual for more details.

## RB.gaindrive

Screen shot of the RB.gaindrive device (note the Drive control slaved to RB.dynamics)



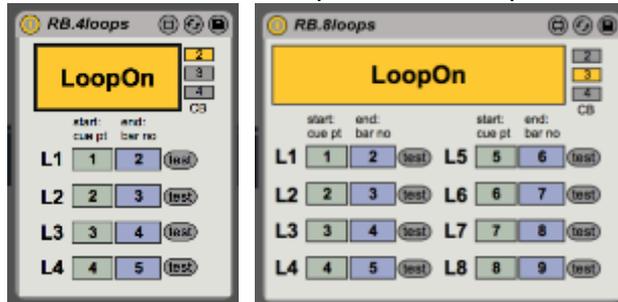
**Drive:** a gain control for the track, this should be greyed out if slaved correctly

- **limit dB:** This allows a lowest level floor that the value will not go below, in dB.

+ **limit dB:** This allows a highest level ceiling that the value will not go above, in dB.

## RB.4loops and RB.8loops

Screen shots of RB.4loops and RB.8loops



RB.4loops and RB.8loops are audio effects that allow up to eight loop areas in the arrangement view. The only difference between them are the number of loops they make available. It is recommended that global quantize is set to 1 bar for looping to work best.

### Controls

**Loop on/off:** this large single button enables the looping function so that if the playhead is inside any of the specified four or eight loop areas then playback will loop within that area until it is turned off.

**CB (Call Back):** RB.4loops and RB.8loops are not instantaneous loop areas like the loop brace, they need a small amount of time for the Application Program Interface to see the call to send the transport back. This switch determines which beat the call back occurs on. It is necessary to use the beats 3 or 2 in sessions that are more processing intensive and it is recommended that this setting is experimented with as a larger beat gives more time to turn the loop off. For example, if you have CB set to 2 and you turn off the device *after* the second beat in the last bar or the loop, the call back will probably already have happened and if the global quantize is set to 1 bar, looping will happen one last time. In compound time (for example 6/8 or 9/8), beats 2, 3 and 4 change to beats 3, 5 and 7.



### Loop area controls

Each loop is given a number from L1 to L8, and the area is specified by a cue point (or marker) to start the loop and a bar number to end the loop. This is to allow compound time signatures and to avoid cluttering the session with too many cue points.

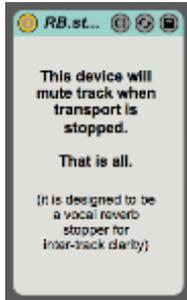
**start cue pt:** this determines the cue point for this loop area. For the device to work properly this needs to be lower than any other loop (the box will turn red if it is set incorrectly and incorrect looping behaviour will occur).

**end bar no:** this determines the end point of the loop, as previously, this needs to be lower than any other loop (the box will turn red if it is set incorrectly and incorrect looping behaviour will occur).

**test:** when cue points are created in Ableton, the number they are allocated does not necessarily reflect their order. This button allows the user to test that the correct cue point is selected. When pressed, transport will jump to the cue point listed (either instantly if transport is not playing, or on the end of the global quantize setting, ideally at the end of the bar).

## RB.stopmuter

RB.stopmuter screen shot



RB.stopmuter is a very simple utility that simply mutes the track that it is on when transport stops. It is designed to replicate the live sound best practise of muting the reverb on the main vocal track in-between songs so that speech is heard more clearly. Ideally, place at the beginning of the main reverb return track to make vocals dry when transport is stopped.