OhmBoyz Reference Manual

CHAPTER 1 Getting Started

Thank you for purchasing OhmBoyz.

Contents

1. Structure of this book

This manual is divided into 7 sections:

- **Getting Started** explains how to install OhmBoyz and get it working,
- **User Interface Features** rounds up the user interface features of OhmBoyz and covers Automation and MIDI topic,
- **Using the Effect** shows you how to operate OhmBoyz,
- **Settings File Reference** explains the syntax and use of a Settings File,
- **OhmBoyz Default MIDI Mapping** gives the informations necessary to control OhmBoyz using MIDI,
- **Version Notes** summarize the difference from one version of OhmBoyz to another,
- **FAQ** gives you some helpful informations on how to troubleshoot your plugin.

2. Features and Requirements

OhmBoyz is a filtered delay effect. It is available in two interfaces, the *Classic Skin* and the *Funky Skin*. You will need at least 64 MBytes of RAM, 25 MBytes on your hard-drive, a Pentium II-compatible PC or a G4-compatible CPU on Apple Macintosh. On PC, it requires Windows 98, 98 SE, ME, 2000 or XP. On Mac, it requires MacOS 10.1 or higher, but MacOS 10.2 at least is strongly recommended. It is available on VST/DirectX for Windows, and VST/AU/RTAS for MacOS X.

3. Installing

3.1. Installing on Windows

Run the installer, an .exe file whose exact name depends on the version you received. Follow the on-screen instructions carefully. Select the interface skin you would like to use; it's possible to change the interface skin by installing again.

You will be prompted to enter both your *User Name* and *Key Code*. They have been sent to you by e-mail or can be found within your printed manual if you bought a boxed version. Please enter the two codes carefully, preferably using copy/paste to avoid typos. Then you will be prompted to choose one or more installation path, depending on the plug-in version you are installing.

3.2. Installing on MacOS X

Almost every internet browser will open the file automatically, presenting a disk image on your desktop. If not, please locate the .dmg file and double click it.

The disk contains:

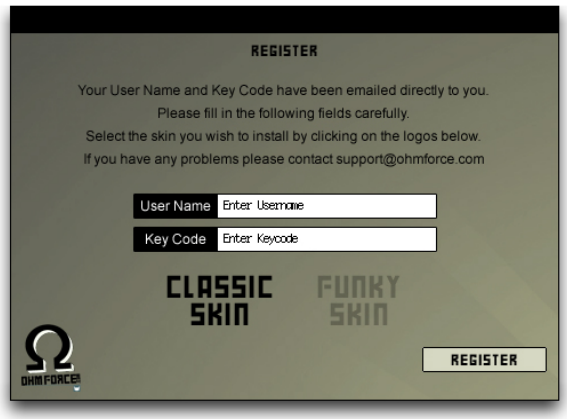
- This manual,
- The installer named *OhmBoyz Installer*,
- A folder containing a collection of Presets in AudioUnit format for the AudioUnit installer only.

To install OhmBoyz, double click the installer icon. Before the installer can copy its file to your disc, it needs to have permission from your system to do it.

The first window appearing will ask for your admin password:

If you don't know the admin password please contact the system administrator, generally the owner of the computer, who should know.

The next screen is the plug-in installer. Please follow the on-screen instructions carefully. You will have to choose between *Classic Skin* and *Funky Skin* (they cannot be both installed), and you will be prompted to enter your *User Name* and *Key Code*.



They have been sent to you by e-mail or can be found within your printed manual if you bought a boxed version. Please enter those two codes carefully, preferably using copy/paste to avoid typos.

3.3. Installing AudioUnit Presets

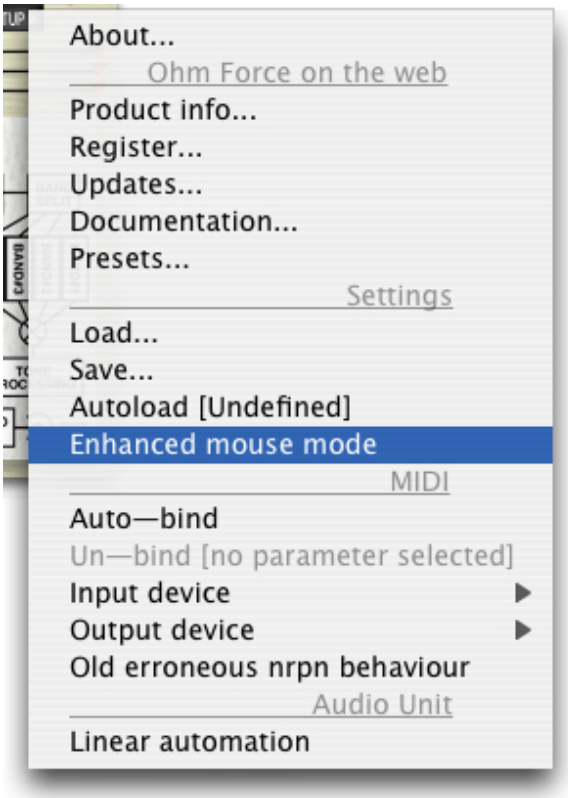
You will find a folder containing a collection of Presets in the AudioUnit format. Installing them depends upon the host you use. Please refer to your host manual and install them manually.

4. First Use

Open your favourite audio host and put OhmBoyz as an insert effect on an audio track. A good way of getting a feel for OhmBoyz is to try the factory Presets. You will find a frame with numbered buttons in it. Click on each button to audition a factory Preset.

Turn the knobs by clicking on them and dragging the mouse vertically.

If your mouse suddenly goes mad, don't call the cat, stay calm and locate the *Setup* button. Click on it to open the menu and deselect *Enhanced Mouse Mode*. This may happen with some mice, graphic tablets or trackball devices.



CHAPTER 2 User Interface Features

Each Ohm Force plug-in shares several common features. These are explained below.

Contents

1. Preset Panel

There are eight Preset memory allocations. A group of eight Presets can be saved as a Preset-Bank to your hard disk. These Preset-Banks are multi-platform, thus enabling you to load Presets into any sequencer on any computer. You can also adjust the speed at which the knobs and sliders move between Preset selections using the Time function.

1.1. Presets / Memorise

To activate a Preset simply click on any of the eight Preset buttons. Having edited the on-screen parameters you may wish to memorise your new settings. To do so, click once on the Store (or M) button; it will light-up. Then click on the Preset button in which you wish to store your new settings to save your Preset. To return to Preset select mode, turn off the Store (M) button by clicking it once.

1.2. Transition time

This knob enables you to vary the time the plug-in will take to Morph between two Presets. The time, measured in seconds, is displayed beside it. By default, the duration is set to 1 second. Set it to 0 if you want the Preset applied instantaneously — without Morphing.

The Melohman plug-ins will not morph between Presets when using the Presets buttons. The morphing between Presets is done using the Melohman octave instead.

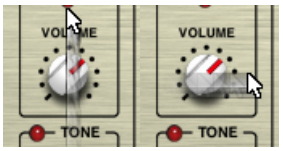
1.3. Load / Save Bank

Use these two buttons to Save and Load your Preset-Banks to and from the hard disk. A Preset-Bank contains eight Presets. Loading a Preset-Bank will not modify the current settings until you select a new Preset. There are many Presets bundled with your plug-ins. Use the Presets as the basis from which to create your desired sound.

2. Using Knobs and Faders

All the knobs and the faders work the same way. There are two modes: *direct action* and *side-clicks*.

2.1. Direct action



You can move a Knob by clicking on it (click on the slider part of a Fader) while keeping the button pressed and moving the mouse up or down. Each button has a preferred direction for the mouse movement: vertical for Knobs and, according to orientation, for the Faders. If you move the mouse in the preferred direction, the Knob will turn quickly. However, if you move your mouse in the perpendicular direction i.e. horizontally for Knobs, the movement will be slow and very accurate. Some Knobs have notches which lock to certain values. It is possible, however, to set the Knob position between two notches by moving the mouse in the perpendicular direction, as mentioned above.

2.2. Side-clicks

The Knob is divided into two zones on which you can click to turn it to the right or to the left. For Faders, the two zones are on either side of the slider. For Knobs, they are positioned at 4:30 and 7:30 on the dial. The Knobs will move slowly if you click and hold on these zones without moving the mouse. This enables you to make very small adjustments with ease.

If you click on this zone, then move the mouse without releasing it, the Knob will move automatically and keep moving even after you have released it. The further you move the mouse, the faster the Knob will move. To stop the movement, just click on the Knob again. This is especially useful during live sessions, as you can have many parameters shifting at the same time without having to use the Preset Morphing feature.

2.3. Linked Knobs

Most Ohm Force plug-ins allow some Knobs to be linked as they control similar parameters. For instance the parameters of the two OhmBoyz's delay lines can be linked. This means that you can alter a parameter in both Line 1 and Line 2 at the same time — with a single click.

To do so, you have to click on the parameter with the right mouse-button (click while holding the Control key on Mac systems with a single-button mouse). The Knobs in both channels will now move in unison.

If you hold the Shift key and click on the right mouse-button, both Knobs move at the same time but keep their own original gap. For instance, if the original value of the first Knob is 10% and the original value of the second Knob is 50%, when you increase the value of the first Knob to 30%, you will increase the value of the second knob up to 70% at the same time.

You can undo the movement of the slave Knob(s) by performing a right mouse click while holding the Control key (the Command key on Macintosh).

3. Parameter Information and Modulation

3.1. Parameter

This contextual display shows details of the selected parameter.

- **Name** Name of the selected parameter.
- **Value** This is the parameter value expressed in the selected unit (BPM or Hz).

You can edit this value by clicking on it. Press Return to validate your change or Escape to cancel it.

3.2. Tempo Control

Because many plug-in applications are related to music and therefore rhythm, it is necessary to be able to synchronise with the tempo of the host application. Some host programs can automatically synchronise the plug-in's internal tempo with their own tempo. Alternatively, you can change the tempo by clicking on the buttons to the right of the numeric display. You can also type into the numeric display itself.

When the host controls the tempo, you won't be able to set the plug-in tempo

Tempo control is available on most Ohm Force plug-ins. Frohmage and Predatohm have no time-sensitive parameters therefore there is no requirement for this feature.

3.3. LFO (Low Frequency Oscillator)

Most of the Ohm Force plug-ins have a modulation unit: the LFO. This is an oscillator producing a signal usually below the audio frequency range. This signal additively modulates the parameter with which it is associated, causing it to oscillate around a central value. This is useful for creating vibratos, tremolos or panoramic rotations, along with more unusual effects.

Like the Parameter display, the LFO display is activated when a parameter that has an associated LFO is selected.

- **Period** This is the time taken for one LFO oscillation (the length of the wave). LFO's are synchronised to the tempo value to keep them in time with the music.
- **Amplitude** This is the amplitude of the oscillations (the height of the wave). A 0% setting means that the LFO will not affect the sound.
- **Waveform** This parameter defines the shape of the oscillations. Seven of the shapes are classic, the three others are random oscillators.
- **Sine** It is the default waveform. LFO sweeps smoothly back and forth.
- **Triangle** LFO travels linearly between two extreme points.
- **Square** LFO stays for one half-period at the maximum point, then for the other half-period at the minimum point.
- **Ramp up** Travels from the minimum point to the maximum one in a linear fashion.
- **Ramp down** Like Ramp up, but in the other direction.
- **Cos up** A bit like Ramp up, but the LFO goes and arrives more gently at the extreme points (a kind of shelf).
- **Cos down** Like Cos up, but in the other direction.
- **Random steps** When a period starts, the LFO generates random values which it keeps constant until the end of that period.
- **Brown noise** LFO value changes randomly, combining wide, slow moves with small, fast oscillations. With a very long period, this kind of LFO is perfect for giving a parameter a natural, nervous, random variation.
- **Red noise** Somewhat like Brown Noise, but fast variations are damped, generating even smoother random walks.

4. Automation

4.1. Support

Every parameter, including modulation settings (LFO's, etc...) is potentially automatable on the RTAS, MAS, VST and AudioUnit platforms. However depending on your host's capabilities, you may be restricted to a fixed number of parameters, or even have no automation capability at all. Check the host's reference manual for details about parameter automation.

Digital Performer and ProTools display the automated parameters on the plug-in interface itself. A green triangle on a Knob indicates that the automation is playing, and a red disc shows automation data being recorded.

4.2. DirectX Limitations

The DirectX version does not support automation and DXi features yet, please use MIDI automation instead.

4.3. VST and AU Limitations

Some host applications, such as earlier versions of Steinberg Cubase VST, have several limitations regarding plug-in automation. They can handle only a few parameters, which is unfortunate as some Ohm Force plug-ins have hundreds. As a consequence, some important parameters cannot be automated. It is possible to get around this by using MIDI commands.

To alleviate this problem, we give you the option of changing the order in which the parameters are presented to the host. We should warn you that this section is rather technical.

You have two ways to proceed: you can either use the provided configuration file or make your own from scratch.

To load the provided configuration file, activate the *Settings/Load* item in the *Setup* menu. Locate the file `easy_vst_automation.cfg.txt` in your effect's installation folder and open it. The configuration file was developed so you can move the most important parameters to the top of the list so that they can be automated.

You can change the provided configuration file or make your own: first save the current plug-in configuration using *Settings/Save* (eg. `my_settings.cfg.txt`). Then load it into a text editor, along with `easy_vst_automation.cfg.txt` so you have a reference to work with. You can see that a configuration file is made of keys. They have a name and a content, which can be made of other keys, a recursive structure known as a tree in scientific circles. Key name and content are separated by an equals sign (=), and complex key contents are enclosed by brackets.

The provided configuration file will be a lot smaller than your own one. This is because it is a partial configuration, whereas yours is a complete one. Suppress some irrelevant subkeys (the MIDI section, for example) in order to make the two files look more alike. Yours will inevitably remain longer.

Let's look at what else we can do with `parameter_reorder_mapkey`. You'll see several parameter names as the file you have just saved contains all the potential plug-in parameters. Move the parameters you want to automate to the top of the list. You can specify a particular order for the other parameters if you want to, or you can simply suppress them. This does not mean that they will not appear any more, or become unavailable for automation. When loading the configuration file, the plug-in will automatically find the best mapping for the suppressed parameters. Once you have finished sorting the parameters, save your work and load your configuration file into the plug-in. Activate *Settings/Autoload* so that the settings file you just loaded is automatically loaded each time the plug-in is opened.

IMPORTANT

If you created settings before applying the Mapping file, you should save them into an internal Preset, as described in the Preset section of this manual.

You should not use the host's Presets anymore because they will be completely reordered after the change. Instead, apply your saved internal Ohm Force Preset to restore your sound. Fortunately, new Presets you make after the change can be stored in host's format and reloaded.

5. MIDI Support

You can also use MIDI commands to control the plug-in parameters. MIDI can even replace automation, because not only can the plug-ins receive MIDI commands, they can also transmit them. The effects are in "Omni" mode, meaning they can receive MIDI commands from any channel. However, all commands are sent via Channel 1. Commands can be regular CC (Continuous Controllers), or RPN and NRPN (Non-Registered Parameter Numbers). The decision as to whether to use CC or NRPN will depend upon the capabilities of your MIDI device. CC is commonly used by hardware devices, but NRPN has a higher resolution. The factory MIDI settings use NRPN, but it is possible to change the mapping at any time. The default mapping for OhmBoyz is listed in the *OhmBoyz default MIDI mapping* chapter of this manual.

5.1. Selecting MIDI Ports

Depending on your host, your MIDI devices and your system settings, you may have more than one MIDI port available for MIDI input and output. It is possible to select which 'virtual' port you wish to use for receiving and sending MIDI events.

To choose the input port — the one from which MIDI data is received by the plug-in — click on the *Setup* button, go to the *MIDI/Input device* menu and select the one you want. Do the same thing to select the output port, except, of course, you will need to click *MIDI/Output device*. The selected MIDI port will be ticked in the menu. You can only use one input and one output port at a time.

Only one MIDI Input device is available for AudioUnit plug-ins. No MIDI output device is available for AudioUnit plug-ins.

If the connection fails, it is usually because the port you selected is already in use by another application — most likely the host itself. In this case, check your host's operating manual to see if it is possible to free up the port.

5.2. Binding Parameters to MIDI Controls

The easiest way to Bind a parameter with a specific MIDI controller knob or fader (or any MIDI Control Change) is to use the Auto-bind feature. First, activate the Auto-bind mode by checking *MIDI/Auto-bind* in the *Setup* menu.

If you have already selected a parameter its name will be displayed in brackets in the menu, like this:

```
Auto-bind [target:  Volume]
```

If not, click on the Knob you want to bind to a MIDI control message. Only the last one selected will be taken into account for Binding.

Once you have chosen the parameter, send a MIDI event to the plug-in (for example, turn a knob on your external MIDI controller). It can be a simple CC, an RPN or an NRPN command. As soon as the event is received, the connection is created automatically, and the MIDI command will remain associated with this parameter. Only one parameter can be bound to each MIDI command, and visa versa. If you want to Bind more parameters, repeat the procedure: select another parameter, and send

another MIDI event. Do not forget to exit the Auto-bind mode, by un-checking the corresponding entry in the *Setup* menu, when you have finished.

5.3. Saving and Loading the MIDI Configuration

If you have numerous parameters to Bind each time you want to use the plug-in, you can save the configuration for later use. Currently selected ports will also be saved.

To do so, select *Settings/Save* in the *Setup* menu. You can restore the settings at any time by selecting *Settings/Load*.

The MIDI configuration is not stored in Presets, and therefore is not saved with the host song. You will have to load the settings manually after having loaded a song on your host application. The true tech freaks among you will notice one can open the saved file in a text editor and tweak the configuration from there. It is also possible to build *partial* configurations by only keeping a couple of the 'keys'. The content syntax is covered in the *Settings File Reference* chapter of this manual.

5.4. About Control Change (CC) Messages

Although you can assign most of the CC numbers to plug-in parameters, there are things to consider:

- You cannot use certain CC numbers like Data Entry (6 and 38), Data Button Increment (96), Data Button Decrement (97), nor you can use RPN and NRPN Parameters 98, 99, 100 and 101, because they are used for RPN and NRPN coding.
- It is possible, but not advisable, to use the fine tuned section at the lower end of the controller range (32 to 63). This will work, but if plug-in parameters are assigned to coarse parts of the low controller range (0 to 31), the plug-in will also output the fine commands, resulting in possible interference. For example, if you assigned Knob A to CC 20 and Knob B to CC 52 (= 20 + 32), twisting Knob B would output CC 52 messages, whereas twisting Knob A would output both CC 20 and 52! Trying to record automation in this manner could result in a host of unnecessary complications.

5.5. Unbind

Select the parameter you want to unbind. Open the *Setup* menu. You can see that the *Un-bind* menu item shows which MIDI control the parameter is binded to. To unbind it, simply click on the *Un-bind* menu item.

The *Un-bind* menu item is handy to know which MIDI control is currently binded to the selected parameter.

5.6. Old erroneous NRPN behaviour

This option is checked by default, and exists for historical reasons. Our plug-ins used to interpret RPN and NRPN controls erroneously. As a consequence, automation recorded using old versions cannot be interpreted by the recent versions unless this option is checked. You are advised to uncheck this option if you are a new Ohm Force user.

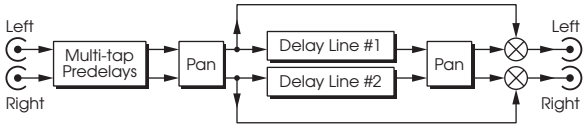
CHAPTER 3 Using the effect

Contents

1. Functionality

This technical section will help you to understand the OhmBoyz, enabling you to get the results you want more rapidly. The OhmBoyz could be described as a stereo delay, but that wouldn't do its capabilities justice. Essentially, it has two different stages:

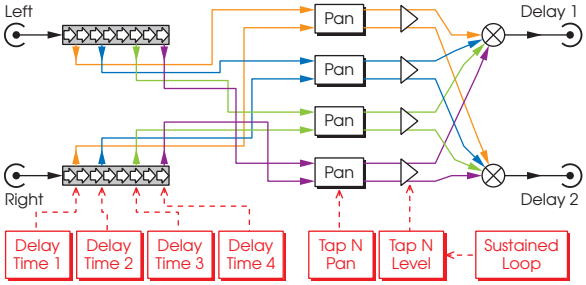
- 4 predelays, which can produce 4 one-hit repeats of the sound, shifted in time,
- 2 delay lines, each generating a decaying echo of the signal from the predelays.



Various effect parameters are connected to LFOs. These enable parameters to oscillate around a central value. This feature can be used to create an 'organic' sound that shifts constantly.

1.1. Predelays

This stage generates four one-hit delays. The time delay of each hit can be adjusted, as well as the volume and stereo balance. When only one of the main delay lines is activated, the pan knob has no effect. If you only want one tap, the 3 other tap volumes have to be set to 0.



1.2. Delay Lines

The most important part of the sound effect. The predelay stereo output, is sent to either one or both of the delay lines, depending on the settings you have chosen. If you activate both delay lines, the left output will go to the first one, and the right to the second.

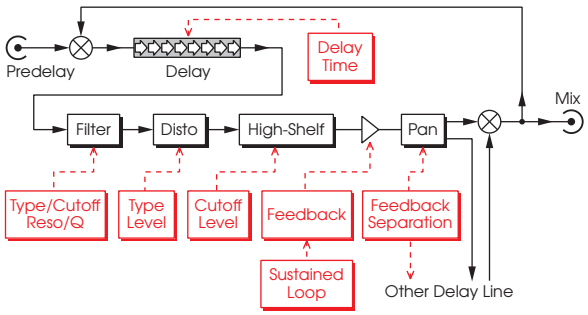
Each one of these two delay lines has the basic parameters of a classic delay: delay time — which defines the spacing of the echoes, and feedback amount — which defines the amount of time it takes for the echoes to fade away.

We also added some other processing, such as filtering and distortion, as part of the delay loop. Thus the signal is regularly reprocessed and the effect amplifies.

When using both lines of delay, it is possible to 'cross' the feedback. In crossed mode, the output signal of the first line is

injected into the second line, and the output signal of the second line is injected into the first line. Any degree between 'straight' and 'crossed' mode can be obtained.

Finally, the output from the two lines can be balanced and mixed with the predelay output.



2. User Interface

The user interface is divided into several distinct parts:

- Presets,
- Tempo setting,
- Predelays
- The two delay lines
- Central panel

Presets, tempo setting and central panel are described in the *User Interface Features* chapter. We will discuss here only the predelays and the delay lines.

3. Predelays

This panel allows you to control the predelay parameters. Each of the four groups of buttons corresponds to a *tap*.

3.1. Tap's Delay

This is the delay time of each sound replica

3.2. Tap's Level

This controls the volume of the tap. 0 dB is the volume of the original sound.

3.3. Tap's BAL

This is a panoramic potentiometer (Pan Knob) controlling:

- The mix from the predelay outputs. It works like a standard stereo balance,
- The input to the delay lines. When the two delay lines are activated, a pan set to the left will direct the sound to the first line, and a pan set to the right will direct it to the second line.

3.4. Predelay Level

This only controls the mix of the taps in the final output signal. You can control their volume separately. The normal volume is 0dB.

3.5. Sustained Loop

Sustained loop When you click on this magic button, you will generate a sustain loop (infinite echo). A sustain loop has the following characteristics:

- Sound input is muted,
- Feedback of the two delay lines is set to 100%.

Your settings are not lost, they are just bypassed. Click again to get the original sound back.

4. Delay Lines

Depending on the mode you have chosen, one or two delay lines will be displayed. They have the same functions and each one can be divided as follows:

- The delay and its mix,
- Resonant filter,
- Distortion,
- High-shelf filter.

5. Delay & Mix

This is the fundamental section of each line, where the actual delay process is controlled.

5.1. Delay

This parameter defines the time between echoes. It gets shorter as you turn the Knob counter-clockwise or slide the cursor to the left (funky skin).

5.2. Feedback

Feedback This controls the regeneration rate of the delay: the ratio between the volume of an echo and the volume of the one that follows it. When this ratio is 50%, each echo will be half the volume of the one before. When it is 100%, a sustained echo is created such that the sound level will not decrease.

5.3. Level

This is the final output volume for the Delay line.

5.4. Pan

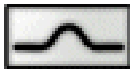
This defines the stereophonic position of the line in the final output.

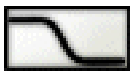
6. Resonant Filter

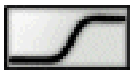
The filter is the first effect applied to the delay line. It controls the damping of the sound and can accentuate certain frequency bands.

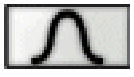
6.1. Type

You can select one of these four filters:


Peak Increases (wah-wah effect) or decreases (notch style) a particular frequency range without altering the others. The bandwidth is defined by Q, and the peak height by resonance. When the resonance is set to 0 dB, the sound will not be modified. Positive resonance settings give a wha-wha type effect whereas negative ones act like a notch filter and create phasing sounds.


Low-pass - A filter that cuts all frequencies above a cutoff point. Thus, it allows only frequencies beneath the cutoff to pass. When resonance is increased over −3 dB, a peak is generated at the cut-off frequency, intensifying it.


High-pass - Similar to the low-pass filter, except that it rejects frequencies below the cutoff point.


Band-pass - Passes all frequencies within a selected frequency band and rejects all other frequencies. As with the peak filter, the bandwidth is given by Q. However, in this case, Resonance only defines volume.

6.2. Cutoff

Controls the filter cut-off frequency.

6.3. Resonance

Resonance Defines the gain of the signal at the cut-off frequency. It is an exact value for the peak and the band-pass filters, but it is a bit less accurate for low-pass and high-pass filters.

The resonance level has to be manipulated very carefully: if it is too high, the delay line will develop an auto-oscillation effect that could be undesirable. To prevent this, the resonance level and the feedback level combined should be no greater than 0 dB. For instance, if the feedback level is 50% (−6 dB), the resonance level should not exceed 6 dB.

6.4. Q

This parameter is used by the peak and the band-pass filters. It defines the bandwidth. When Q is low, the band is wide, and the filter is less selective than when Q is high. When the band is narrow its sound volume is reduced, so it might be necessary to increase the resonance level.

7. Distortion

Distortion occurs directly after the sound is filtered. It can degrade or boost the sound, as you wish.

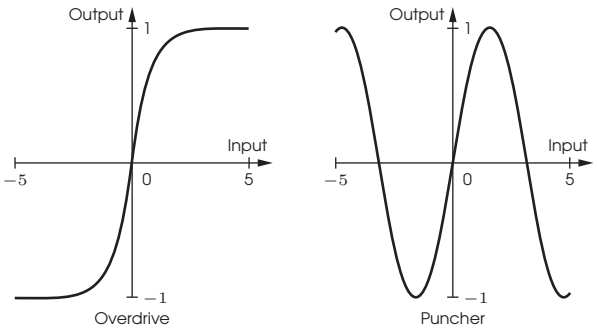
7.1. Gain

Controls the amount of distortion. When it is set to 0, the sound is unaltered.

7.2. Color

This fader defines the curve of the distortion. The effect changes depending on the curve you choose.

- Overdrive saturates the sound, giving it sharper overtones,
- Puncher makes the sound more powerful, adding new tones in quite a different manner. Using a high gain, and an input sound with sharp overtones, it is possible to obtain a white noise effect.



8. High Shelf Filter

This filter slightly attenuates the sharp tones (first order low-pass filter); this is often useful when distortion is used.

8.1. Frequency

The frequency above which the sound is attenuated.

8.2. Level

This sets the shelf level. In other words, the amount by which the volume of the high frequencies is to be reduced. At 0 dB, the high-shelf does not modify the sound.

9. Miscellaneous

These parameters are located between the two delay lines.

9.1. Second Delay

Click on this Button to activate or cancel the second delay line.

9.2. Cross-feedback

This Fader is irrelevant unless the second delay line is activated. It regulates the separation of the feedback from the two channels. When it is at the far left, the two lines feedback independently, whereas when it is at the far right, they cross over.

CHAPTER 4 Settings File Reference

Contents

This chapter is very technical. For now, settings files only contains MIDI parameter mapping, if available.

To create a settings file, select *Save Settings* from the *Setup* menu. Locate the file on your system and open it using a regular text editor, such as *NotePad* on Windows, or *TextEdit* on MacOS X.

1. Syntax

Its modular structure allows you to suppress, add or move the 'keys' making up the file. Each key represents a particular property of the plug-in. Just respect the syntax (key names are case sensitive) and the structure, and you'll be fine. The keys work with a simple syntax:

```
KeyName1 = key value
KeyName2 = key value
...
```

Or

```
KeyName3 =
{
   KeyName4 = key value
   // Some comment after the "//"
   KeyName5 = key value
   ...
}
```

The second example shows a hierarchy, where a key contains other keys. Thus, it is possible to load partial configurations and to merge it with the current one. Only the keys in the file will be taken into account. However, saving will store all the keys into the file.

2. Practical Use: Reordering Parameters

You may want to reorder parameters so to be able to automate them within host that can only automate a limited numbers of parameters.

Settings file for the parameter reorder map look likes:

```
parameter_reorder_map = {
   0_Stereo_Boost
   1_Fdbk_Freq
   2_Fdbk_Amnt
   3_Tone_Freq
   4_Tone_Shape
   5_Master_Vol
   ...
}
```

You may reorder the parameters to change the way they are exposed to the host. Suppose that in the last example the host would only be able to automate 4 parameters.

Then `4_Tone_Shape` and `5_Master_Vol` would not be automable. If you want to make them automable to the detriment of, let's say, `2_Fdbk_Amnt` and `3_Tone_Freq`, you would produce the following file:

```
parameter_reorder_map = {
   0_Stereo_Boost
   4_Tone_Shape
   5_Master_Vol
   1_Fdbk_Freq
   2_Fdbk_Amnt
   3_Tone_Freq
   ...
}
```

Simply cutting and pasting the lines will permit you to reorder the parameters.

CHAPTER 5 OhmBoyz Default MIDI Mapping

The following tables help to match parameters and NRPN numbers.

1. Generic Parameters

NRPN	Parameter	Remark
0	Flags	1.
1	Tempo	2.
2	Predelay Level	
3	Feedback Cross-fader	
4	. . . LFO Period	
5	. . . LFO Depth	
6	. . . LFO Waveform	

1. This command can adjust many parameters at one time. One can group functions to be activated by adding the following values:

- +32: Time unit in BPM
- +16: Second delay line
- +08: Sustained Loop Mode
- +04: Delay 1 flush
- +02: Delay 2 flush

2. It has an effect only if the host application does not directly control the tempo.

2. Predelay

NRPN For Tap				Parameter
1	2	3	4	
7	19	31	43	Time
8	20	32	44	. . . LFO Period
9	21	33	45	. . . LFO Depth
10	22	34	46	. . . LFO Waveform
11	23	35	47	Level
12	24	36	48	. . . LFO Period
13	25	37	49	. . . LFO Depth
14	26	38	50	. . . LFO Waveform
15	27	39	51	Pan
16	28	40	52	. . . LFO Period
17	29	41	53	. . . LFO Depth
18	30	42	54	. . . LFO Waveform

3. Delay Lines

NRPN For Delay Line 1	NRPN For Delay Line 2	Parameter
55	88	Level
56	89	Pan
57	90	... LFO Period
58	91	... LFO Depth
59	92	... LFO Waveform
60	93	Time
61	94	... LFO Period
62	95	... LFO Depth
63	96	... LFO Waveform
64	97	Feedback
65	98	... LFO Period
66	99	... LFO Depth
67	100	... LFO Waveform
68	101	Filter Type
69	102	Filter Cutoff
70	103	... LFO Period
71	104	... LFO Depth
72	105	... LFO Waveform

NRPN For Delay Line 1	NRPN For Delay Line 2	Parameter
73	106	Filter Resonance
74	107	... LFO Period
75	108	... LFO Depth
76	109	... LFO Waveform
77	110	Filter Q
78	111	... LFO Period
79	112	... LFO Depth
80	113	... LFO Waveform
81	114	Distortion Type
82	115	Distortion Amount
83	116	... LFO Period
84	117	... LFO Depth
85	118	... LFO Waveform
86	119	High-shelf Cutoff
87	120	High-shelf Level

4. LFO Phases

One can also control LFO phase with the following NRPN.

NRPN	Parameter
121	Feedback Cross-fader
122	Tap 1 Time
123	Tap 1 Level
124	Tap 1 Pan
125	Tap 2 Time
126	Tap 2 Level
127	Tap 2 Pan
128	Tap 3 Time
129	Tap 3 Level
130	Tap 3 Pan
131	Tap 4 Time
132	Tap 4 Level
133	Tap 4 Pan

NRPN	Parameter
134	Delay 1 Pan
135	Delay 1 Time
136	Delay 1 Feedback
137	Delay 1 Filter Cutoff
138	Delay 1 Filter Resonance
139	Delay 1 Filter Q
140	Delay 1 Distortion Amount
141	Delay 2 Pan
142	Delay 2 Time
143	Delay 2 Feedback
144	Delay 2 Filter Cutoff
145	Delay 2 Filter Resonance
146	Delay 2 Filter Q
147	Delay 2 Distortion Amount

CHAPTER 6 Version Notes

Contents

v1.45 (2005.10.10)

- autobind is possible using NRPNs.
- un-bind is now possible. This is a new entry in the setup menu, which also displays the current cc binded to the selected parameter.

v1.44 (2005.05.13)

- DP crashes correction
- AUValidation fixes (mono to stereo problems)
- Automation to host fix
- Wave shaper correction

v1.43 (2004.10.04)

- A terrible nasty bug was introduced in x.x2 version of the plugs. Basically, to support a correct display in Logic controller view, I miss the non linear mapping needed by most of our parameters. New version correct the bug but did keep the old behavior so that you can choose between old mode and new mode. This is needed when you have a project with automation created with version x.x2 of the plugs. Mode switch is done via the setup menu. When linear automation is checked, old mode is on, otherwise new mode is on. Once the mode on, the plugin must be put off and put back on. (loading the song again will do it too) One should be able to load an old song with automation and play it with both mode (old mode will show correct automation, new mode will show weird automation but won't crash). Also one should be able to load a new song with automation and play it with both mode (new mode will show correct automation, old mode will show weird automation but won't crash)
- Directly related to this, as the upcoming version of Logic support custom values in the controller view, we are compliant to this now.
- Plugins pass AUVal 1b15.
- Correct AU version impl to be compliant with upcoming Logic plugin cache.
- Corrected bypass property reply, which corrected a bug in Live4
- Corrected parameter name from value, which makes Live4 crash with our 2004/09/08 beta release.
- Tempo synchronization for host since PT6.1

v1.42 (2004.03.19)

- A double mouse click on a knob sets it to its center position.
- Mac installers now check the code at installation time.

- Discontinued support for MAS standard.
- Bug fix: graphic glitches when using Steinberg Cubase and Propellerheads Reason via the ReWire protocol.
- Bug fix: AudioUnit automation has been fixed, and works in latest Emagic Logic and MOTU Digital Performer.
- Bug fix: AudioUnit plugin can be put in any AU folder supported by the host.
- Bug fix: on Mac, when saving a preset file, plugin will not prompt twice for overwriting any more.

v1.40 (2003.05.13)

- VST versions: Possibility to change the parameter order so user can automated the most important ones on hosts supporting only a small number of automated parameters.
- MIDI on Mac stand-alone versions.
- Automatic configuration loading at startup (Setup menu)

v1.34 (2002.12.20)

- Bug fix : Stand-alone versions now work correctly on Windows 98.
- Bug fix : MIDI working in Windows stand-alone versions.
- Bug fix : Macintosh versions could crash because of a conflict in the preference files.
- Switches and discrete parameters are changed at the begining of preset morphings instead of continuously changing.

v1.33 (2002.12.13)

- LFO waveform "White Noise" changed into "Red Noise"
- Exists as stand-alone version for MacOS and Windows

v1.32 (2002.11.07)

- RTAS support for Mac
- Slight performance improvements
- Miscellaneous (potential) bugs fixed
- Mac versions : installer fixed

v1.31 (2002.07.26)

- Pc versions : Bug with Cubase SX fixed
- small bug in graphic interface fixed

v1.30 (2002.06.01)

- RPN and NRPN numbers are now correctly assigned.
- Added compatibility with graphical tablets and Kensington mouse.
- new Midi autobind behaviour.
- Mac/PC VST2 versions : fixed display bug on Emagic Logic.
- PC VST2 versions : fixed display bug in Ableton Live 1.5
- PC VST2 versions : Midi enabled plugins are now compatible with logic 4.8x
- Mac VST2 versions : MP Advanced bug fixed
- Mac VST2 versions : Bug with menus on some hosts removed.

v1.20 (2001.09.26)

- Menu (on the OhmBoyz logo) for fast web site access

- Auto-bind feature for versions supporting MIDI, to quickly bind a Control Change onto a parameter.
- Load/save configuration file (esp. for MIDI).
- PC versions: can take any available MIDI port as control input or output (Pro & Expert license only).
- Mac versions: fixed MP bug.
- Mac versions: OhmBoyz doesn't require the Internet Extension anymore.
- Mac systems: miscellaneous optimizations

v1.10 (2001.05.07)

- MIDI support for controlling parameters in VST2 versions for Pro Pack users, with the possibility to adjust LFO phases.
- Bug fix in VST2 versions : preset activation can now be recorded by automation system (if available on host). Glitches have been removed when simultaneously reading and recording an automation.
- MAS/MacOS, WinAmp/Windows and VST2/BeOS support.

v1.04

- Mac version: OhmBoyz is now working with Logic Audio.

v1.03

- Bug fix in DirectX version : works now correctly with other sample rates than 44.1 KHz
- Scale of preset time potentiometer is now logarithmic, which give a better accuracy in the low values.

v1.02

- Noise in the standard version replaced by a 16-bits quantization, and reduced to -96 dB in the demo version.

v1.01

- Mac version: saving a song with the plug-in open sometimes lead to freeze the host during a long time.

v1.00

- Initial release

CHAPTER 7 FAQ

Contents

1. Website

I've lost my password.

Click on the *Login* button at the top right of the web-site main page, leaving the name and password fields blank, and follow the instructions. Alternatively, click here.

How can I update my plug-ins?

Open the plug-in you want to update, and select *Update* in the *Setup* menu. You will be directed to the update page, where the new versions will be highlighted. Alternatively, you can log on the site and go to the *My Software* section, *Download Files*.

How can I register my plug-ins?

Open the plug-in you wish to register, and select *Register* in the *Setup* menu of the plug-in.

I've lost my plug-in registration key.

Log on the site, go to the *My Software* section, and click on the *Mail Personal Key* button.

2. Plug-in installation

When I try to install the plug-in, the installer tells me that my key is invalid.

Be sure to enter Username and Keycode as they were sent to you. If you received authorisation by e-mail, please copy/paste the two codes. If you are using a boxed version, check for letter '`O`' and number '`0`', as well as letter '`I`' and number '`1`'.

The installer reports an error while installing.

Please find the installer log for the plug-in located in your ~/Library/Logs/ folder. Then send this log here.

When I double click the installer .bin file, it opens Toast.

Please drag'n'drop the installer .bin file on Stuffit Expander.

3. Product

My host does not let me automate some parameters. What can I do?

Some hosts limit the number of automatable parameters but you can reorder them so that the most important to you are shown. Please read the section about reordering parameters in the plug-in manual. Also the file easy_vst_automation.cfg.txt is an example of basic configuration (and most likely the one you'll need). This file will work on VST, AU and RTAS.

My plug-in does not seem to receive MIDI.

In the plug-in *Setup* menu, check the MIDI input device. It should be set to VST (or AU) MIDI in if you want to receive MIDI from the host. You can choose any other MIDI device as long as it's not used by another application (or the host).

When I load a Preset from the *Load* button, the sound does not change.

Our Preset files are in fact Presets Bank files. Use the 1-8 buttons to activate a particular Preset.

What's the best way to save my Presets?

Using the Ohm Force system to save your Presets will allow you to:

- Save them by banks (so that you can then morph between related Presets)
- Use them on any other platform (be it AU, VST, DirectX, Mac, PC...)

I'm finding that the VST-AU wrapped versions (using FXpansion's VST-AU wrapper) of the plug-ins seem to change Presets when I save in Logic 7.1 and Logic 6.4.3 — usually to some extreme setting that creates a horrible noise and endangers my speakers and ears!

Use the native AU versions.

Can I share my Presets with the other customers?

Yes, simply write us a mail along with the Presets (under the Ohm Force format). We'll add them to the Presets section of the site.

How can I get the Muse Receptor version of the plug-ins?

You can buy Receptor versions on the Plugorama web-site. In case you already own a 'Pack' version of some plug-ins, or a bundle with multiple platform support, you can get those for free, also on the Plugorama web-site.

4. Macintosh Specific

Will the plug-in work in MacOS X Tiger?

Please download the demos. That way you can easily check that everything will work correctly with your audio environment.

The plug-in does not pass AU validation.

Please download the latest version of the plug-in. If it still does not pass validation, please send us the validation report here.

The plug-in crashes validation.

Please download the latest version of the plug-in. If it still crashes validation, please send the validation report and the crash log here. The crash log can be found in your ~/Library/Logs/Crash Reporter/ folder. The file you need to send us contains a reference to "auval" in its name.

The plug-in crashes my host.

Please download the latest version of the plug-in. If it still crashes your host, please send us the crash log here. The crash log can be found in your ~/Library/Logs/Crash Reporter/ folder. The file you need to send us contains the host name in its name.

I bought the Ohm Force Experience boxed version, and the AU plug-ins won't work.

Please download the latest version of the plug-ins. You will have to create an account on our site (http://www.ohmforce.com), and then register your OFE on our site here.

The plug-ins make Digital Performer crash while using them in mono to stereo mode.

Please download the latest version of the plug-in which will resolve this issue.

5. Hosts Related

Under Tracktion, the plug-in settings change when I save my project!

This may happen when two Ohm Force plug-ins are following each others in a track. This is because Tracktion connects the two plug-ins via MIDI. When you save your project, the upstream plug-in sends MIDI controls to the downstream plug-in, changing it's setting! So, what can you do? Disable the MIDI output of the plug-in by default. First select *None* as MIDI out device in the set-up menu, then save your configuration (*Settings* → *Save*), and set this file to *Auto-load*.

My plug-in installed fine, but Cubase SL3/SX3 does not recognise it (the plug-in is not in the plug-ins list).

It seems that Cubase does not always properly scan the VST plug-in folder, and 'misses' some plug-ins. Re-install the plug-in in a new folder (for example 'tempVST-Plugin'), and in Cubase register this directory as a VST plug-ins directory. This is done in the *Device* → *Plug-in information* menu of Cubase. Then restart Cubase and check the plug-in is correctly listed. Otherwise, contact us.

I experience clicks in EnergyXT while morphing Presets.

Disable the plug-in's MIDI output in the plug-in *Setup* menu (select none instead of VST). This happens only with Quad Frohmage as far as we know.

6. OhmBoyz

Can I synchronise one of the LFOs to my song?

Yes, this is possible by sending a specific MIDI NRPN to the plug-in. It's also possible to change the MIDI mapping, and assign a Control Change message for this. Refer to the documentation for more information.

7. QuadFrohmage

I experience clicks in EnergyXT while morphing Presets.

Disable the plug-in MIDI output in the QF *Setup* menu (select none instead of VST).

8. Ohmygod

The plug-in makes no sound.

Check the playing mode of the filter. If it's set to 'MIDI poly', it will only output something if you send it MIDI notes. Set it to 'Classic' or 'MIDI mono' to hear something without playing.

9. Melohman Synthesisers

The plug-in uses too much CPU when morphing using the Melohman octave.

Lower the Melohman density in the *Setup* menu of the plug-in.

CHAPTER 8 Credits & Thanks

1. Credits

- **Product design:** Laurent de Soras, Gregory Makles, Raphaël Dingé
- **GUI design:** Raphaël Dingé, Gregory Makles
- **Code:** Laurent de Soras, Raphaël Dingé, Franck Bacquet, Vincent Frison
- **Team managment:** Franck Bacquet
- **Support:** Vincent Birebent and all the crew
- **Web:** Franck Bacquet, Vincent Birebent, Eric Cestari, Vincent Frison
- **Web graphics:** Gregory Makles
- **Documentation:** Laurent de Soras
- **Tutorials:** Franck Bacquet, with the help of Frédérique Boeuf

2. Thanks

Ohm Force would like to thank all the following people for their involvement in beta-testing, advices, help and ideas, without any particular order:

- Nicolas Lacoumette
- Steve Duda
- Kasper T. Toepliz
- Ian Finney
- Dave Spiers
- Chris Macleod
- Eric Gougaud
- Hélène Zanni
- Frédérique Boeuf
- Bill Hamel
- Barry Wood
- Guillaume Calfati
- Cliff Douse
- David Korn
- Flemming Bloch
- Hugo Mercier
- Joeri Vankeirsbilck
- Laurent Dailleau
- Luke Slater
- David Roberts
- Alan Branch
- Mike McGrath
- Mathias Standaert
- Michael Weeks
- Nymo
- Fred Hahn
- Robert Monn
- Rory Dow
- Renaud
- Brian Desmond
- James Kirby
- Felix Petrescu
- Robert Mouyren
- Our lovely cats

. . . and all the forgotten

