WAVES
BUTCH VIG VOCALS
User Guide

TABLE OF CONTENTS

Chapter 1 – Introduction

1.1 Welcome

Thank you for choosing Waves. In order to get the most out of your Waves processor, please take the time to read through this manual.

In conjunction, we also suggest you become familiar with www.wavesupport.net. There you will find an extensive **Answer Base**, the latest **Tech Specs**, detailed **Installation** guides, new **Software Updates**, and current information on **Licensing** and **Registration**.

By signing up at www.wavesupport.net, you will receive personalized information on your registered products, reminders when updates are available, and information on your authorization status.

1.2 Product Overview

The Waves Signature Series is our exclusive line of application-specific audio processors, created in collaboration with the world's top producers, engineers, and mixing engineers. Every Signature Series plugin has been precision-crafted to capture the artist's distinct sound and production style. No matter whether you are an experienced or an aspiring audio professional, the Waves Signature Series allows you to dial up the sound you're looking for quickly, without interrupting the creative flow.

1.3 Components

WaveShell technology enables us to split Waves processors into smaller plugins which we call **components**. Having a choice of components for a particular processor gives you the flexibility to choose the configuration best suited to your material.

The Waves Butch Vig Vocals plugin has two components:

- o Butch Vig Vocals Mono – mono in to mono out
- o Butch Vig Vocals Stereo – stereo in to stereo out

1.4 A Few Words from Butch Vig

The Butch Vig Vocals plugin is based on what I consider the core parameters of getting a vocal to sit in the mix, to sound really focused. I went back and looked at my notes on albums I have worked on over the last 20 years, and discovered there are some basic parameters I default to time and time again. I designed this plug so you can open it and quickly dial in the vocal. The filters and MidDip are used for cutting unwanted frequencies. The EQ section is designed to boost frequencies, but can be used as a cut if needed. Both the EQ and the De-esser are set to specific fixed frequencies.

- o Filters (LoCut, MidDip, HiCut)
- o Dynamics (DeEsser, Compression)
- o EQ (Lows, Presence, Air)
- o Focus 1 & 2 (Mid Band EQ Compression)
- o Harmonic Saturation (Tube, Solid State)

I was lucky to have a great variety of sessions to use when designing the BVV, and listened to some great singers: Shirley Manson, Dave Grohl, Billy Corgan, Freedy Johnston, Billie Joe Armstrong, Laura Jane Grace, Kurt Cobain and Christofer Drew. Special thanks to Billy Bush and Ross Hogarth for their ears, and Mike Fradis from Waves for his technical expertise and guidance.

A word about the GUI design: I was looking for something that had a "Retro/Sci-Fi" look, inspired by films like *Twenty Thousand Leagues Under the Sea*, *Brazil* and *Blade Runner*. Thanks to Dani Bar-Shlomo for his beautiful design!

Chapter 2 – Quick Start Guide

1. Insert the Butch Vig Vocals plugin on the track you wish to process.

2. Adjust the input so that the sensitivity LED is solid green/yellow on the loudest part of the track.

3. Adjust the **LoCut** filter to a place where you feel it has cleaned the lows without removing needed fundamental frequencies. Do the same with **HiCut** if needed.

4. If you feel your vocals have a boomy, nasal or mushy sound, use the **MidDip** control to clean it up.

5. Adjust the **DeEsser** to remove harsh sibilance.

6. Use **Compress** to compress the vocal and bring it forward.

7. Adjust the **Lows/Presence/Air** frequency to get the vocal sound you are going for.

8. Engage the **Focus** control if you are missing some focus in the 1K-2K area of the vocal.

9. Add a blend of **Tube** or **Solid State** to taste.

10. Use the **Saturation** section's **LoCut** and **HiCut** controls to shape the saturation sound. Use the HiCut control to remove the sizzle you get on the upper frequencies.

11. Adjust the **Output** to offset any gain lost or boosted as a result of the processing.

A good way to start is to go over the presets supplied, begin with something you like, and adjust if needed.

Chapter 3 – Interface and Controls
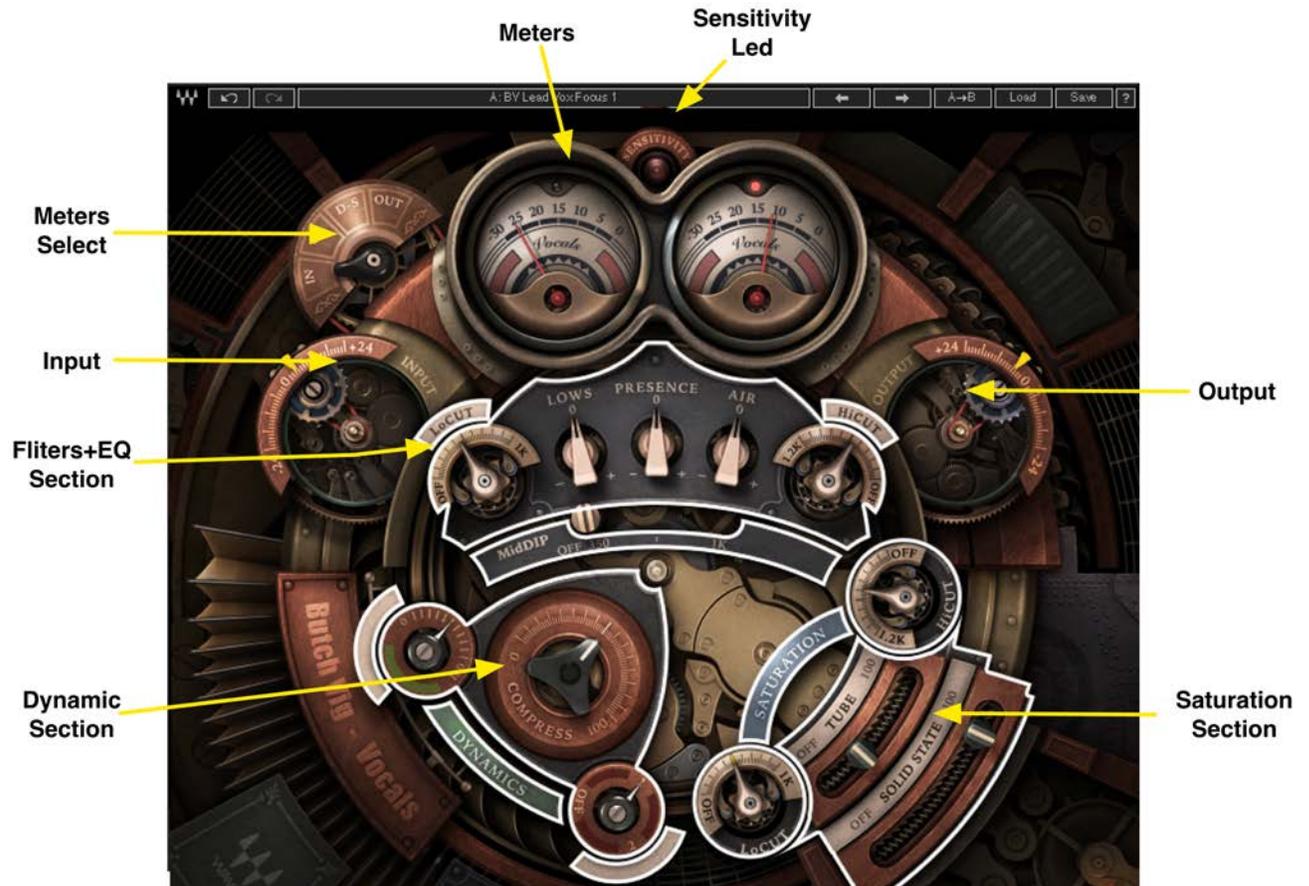
Sensitivity LED

The Sensitivity LED's three colors indicate when appropriate levels have been reached:

- o LED Off (too low)
- o Green (good)
- o Yellow (optimal)
- o Red (very hot)

Turn the Input Control until the LED lights up. For best results, use the section of your track with the highest peaks/loudest volume.

Input

This control will adjust you input level prior to any processing. Use this control to adjust the input level so the sensitivity LED will show optimal levels. We recommend you do the input adjustment on the loudest part on your track.

Range: +24 dB to -24 dB in 0.1-dB increments
Default: 0

Filter Section

The Filters are first in the vocal chain and are used to cut unwanted frequencies.

Butch Vig: "I almost always use a LoCut on the vocal. (Unless you're Barry White, there's not a lot of fundamental frequencies in the vocal below 80 Hz). Setting it between 60 and 120 Hz will usually tighten up the vocal. The HiCut will filter off the top end. Both filters sweep to around 1 kHz to let you do some extreme EQ sculpting. Depending on the singer's voice, the MidDip can be used to remove a problem frequency, either in the 300–600 Hz range to get rid of cloudy or mushy tone, or in the 600 Hz–1 kHz range to get rid of too much nasal twang or throat. The MidDip has a fixed 6.5-dB cut."

- o **LoCut** filters up from 17 Hz to 1000 kHz (with an Off option)
- o **MidDip** is set to -6.5 dB, sweepable from 301 Hz to 1000 kHz (with an Off option)
- o **HiCut** filters down from 21 kHz to 1.2 kHz (with an Off option)

Dynamics Section

DeEsser

BV: "The DeEsser is set to 6 kHz, which I find to be a very useful area. I don't like de-essing at lower frequencies because I feel it can start to take away the non-sibilant fundamental tone from a vocal performance. If the vocal sibilance is lower, you can always use a dedicated de-esser."

Range: 0 (Off) to 100
Default: Off

Compress

BV: "The compression is set to be smooth when engaged at lower levels and very aggressive at higher levels. It is based on some of my favorite compressors, the Summit TLA-100 and the 1176."

Range: 0 to 100
Default: 0

Note that the compression threshold is set low, but on a very loud track it might trigger compression even when set to 0.

EQ

BV: "The EQ section has three fixed frequencies I repeatedly default to with vocals. They are designed for a boost in EQ, but can also be used to cut if needed. They are based on classic EQs I have used over the years: Pultec, Neve, Trident A Range, Sontec, Avalon."

- o **Lows:** 300 Hz
- o **Presence:** 3 kHz
- o **Air:** 15 kHz

Focus

BV: "I like to use single-band EQ/compression to focus on where a lot of the fundamental tone of the vocal is. The **Focus** is a mid band compressor that boosts information in the 1K or 2K range. The Focus control uses mid band shaping and aggressive compression to bring out the front end of each vocal note and to compress the sustains, with a slow attack and fairly quick release. As a result, the front end has very little compression and is emphasized, while the sustain is compressed to clear up the added vocal path."

- o **Focus 1** is centered at 1 kHz
- o **Focus 2** is centered at 2 kHz

Saturation

BV: "I love to add harmonic distortion to a vocal. Sometimes just a small amount will thicken the vocal and give it character. There are two types of saturation at the end of the chain: Tube and Solid State. They will add some subtle color at lower settings, and will get quite extreme as you turn them up. I added a LoCut and HiCut to clean up the distortion. When I saturate a lot, I usually filter the top and bottom to tighten up the distortion, filter the rizz off the top, and take out the mud on the bottom."

The Saturation section includes two controls, each with HiCut/LoCut filters:

- o **Tube:** 0 (Off) to 100, Default: Off
- o **Solid State:** 0 (Off) to 100, Default: Off

Meter Section

The Meter switch toggles meter monitoring between Input, GR (Gain Reduction), D-S (DeEsser) and Output modes. The Clip LED lights up when levels reach 0 dBFS. Click to reset.

Output

Adjusts the overall output level of the plugin. Use the Output control to make up for any gain lost as a result of the processing.

Butch Vig Vocals Signal Flow
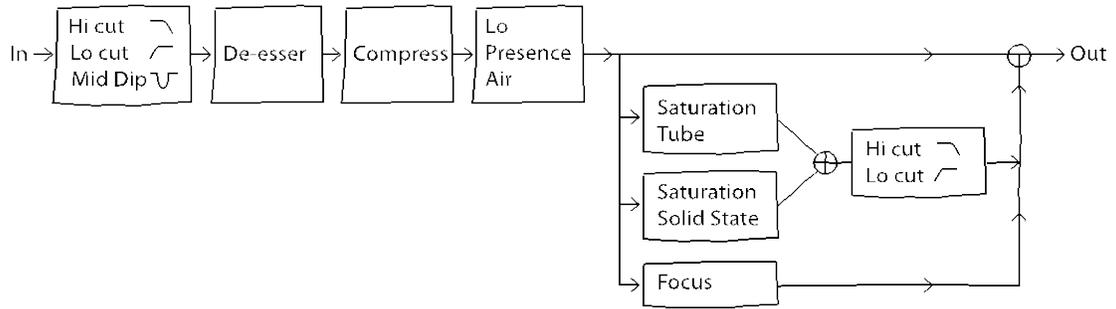
Chapter 4 – The WaveSystem

4.1 The WaveSystem Toolbar

All Waves plugins feature the WaveSystem toolbar, which takes care of most of the administrative functions you will encounter while working with your Waves software. The features of the WaveSystem toolbar are the same on practically all Waves plugins, so familiarity with its features will be helpful whichever plugin you are using.

Toolbar Functions

ᙏᙏ	Opens the plugin About box
Undo	Undoes the last 32 actions
Redo	Redoes the last 32 undone actions
Setup A/B	Toggles between two presets, useful for comparison of parameter settings
L/R Arrows	Move to the previous or next preset
Copy A→B	Copies the current settings to the second preset register
Load	Recalls presets from file
Save	Saves presets in the Waves file formats
?	Opens the PDF manual for the plugin you are using

4.2 Preset Handling

Preset Types

Factory Presets are permanent presets in the Load menu. Factory presets cannot be overwritten or deleted. When applicable, different component plugins may have different factory presets.

User Presets are your favorite settings of the plugin saved as a preset in the Load menu, under 'User Presets'. User Presets can be overwritten and deleted.

Setup Files may contain more than one preset. For example, a single file can contain all the presets for a session. When you open a Setup File, all its setups become part of your Load pop-up menu for fast access. This can be particularly useful with multiple

instances of a plugin in a single session. By saving all the settings you create into a single Setup File, they can all be quickly available for every instance of that plugin.

Loading Presets and Setups

Load

Click on the Load button to see the Load pop-up menu. The menu is divided into four sections. If a section is not currently available it will not appear in the Load pop-up menu.

Preset File… Select to open any setup or preset file, whether from the Library or your own creations.

'Filename.xps': Displays any currently loaded Setup File and its presets.

Factory Presets: Displays the default Factory Presets.

User Presets: Displays any loaded User Presets.

Saving Presets and Setups

Save

Click on the Save button to see the Save pop-up menu. Four options are available. If an option is not currently available it will be grayed out and inaccessible.

Save to New File… Select this to start a new Setup file. There are two prompts - first for the setup filename, then for the preset name. You must provide a name for both the setup file and the preset. Click OK (ENTER) to complete the save. It is a good idea to create a folder in which to save several setup files for a project.

Save 'File Name' – "Preset Name" Overwrites the settings of the loaded preset (whether a User Preset or a preset from a Setup File) with the current settings. If a Setup File is currently loaded, the name of the Setup File is displayed followed by the name of the preset itself. If a User Preset is loaded, its name is displayed.

Save to 'File Name' As… Saves the current settings as a new preset into the Setup file that is open (if one is not open, the option is grayed out). You will be prompted to give the preset a name.

Put into Preset Menu As… Save the current settings into a User Preset that will always be in your Load menu (until deleted). You will be prompted to give this preset a name. User Presets are stored in the plugin's preference file.

You may delete User Presets and presets within a Setup File. Factory Presets and Setup Library files cannot be deleted or overwritten.

1. Hold the Command (Mac)/Control (PC) key down.

2. Click-and-hold the Load button to see the pop-up menu.

3. While still holding the Command/Control key, select the preset or setup to delete.

4. A confirmation box will appear, allowing you to cancel or 'OK' the deletion.

A/B Comparison and Copying

The Setup A/Setup B button may be clicked to compare two settings. If you load a preset in the Setup B position, this will not affect the preset loaded into the Setup A position, and vice-versa.

If you want to slightly modify the settings in Setup A, you can copy them to Setup B by clicking on the "Copy to B" button, then altering Setup A and comparing with the original Setup B.

The name of the current setup will be shown in the title bar (on platforms which support it), and will switch as you change from Setup A to Setup B.

Note: an asterisk will be added to the preset name when a change is made to the preset.

4.3 Interface and Controls

Controls can be in one of three states:

1. **Not Selected** where the control is not the target of any user entry

2. **Selected** where the control is the target of mouse control entry only

3. **Selected and Active** where the control is the target for both mouse and keyboard entry

Toggle Buttons

Toggle buttons display the state of a control, and allow switching between two or more states. **Single-click** to change the control's state. Some toggle buttons have a text

display which updates with the current setting, and others (bypass, solo, or monitoring toggles) illuminate when the control is active.

Some plugins have **link buttons** between a pair of toggle buttons, allowing click-and-drag adjustment while retaining the offset between the controls.

Value Window Buttons

Value windows display the value of a control and allow **click-and-drag** adjustment, or **direct control via the keyboard**.

❖ **Using the mouse**, click-and-drag on the value window to adjust. Some value windows support left/right, some up/down (as you hover over a button, arrows will appear to let you know which direction of movement that button supports). You may also use your mouse-wheel to adjust parameter values.

❖ **Using the arrow keys**, click once with mouse to select the button, and then use up/down – left/right (depending on the direction supported by that button) to move in the smallest incremental steps across the button's range (holding down the arrow keys will move faster through the range).

❖ **Using key entry**, double click on the button to open the value window, and directly enter the value from your keyboard. If you enter an out of range number, the button stays selected but remains at the current setting (system beeps if system sounds are on).

Some plugins have **link buttons** between a pair of value windows, allowing click-and-drag adjustment while retaining the offset between the controls.

Sliders

Click or scroll the mouse-wheel on the slider itself or anywhere within the sliders track. The numerical value of the slider settings is displayed in a hover window above the slider path.

Hover Box

Hovering boxes will appear and display the control value when hovering with the mouse over the control.

Multiple Control Selection

One of the most powerful features of the WaveSystem is the ability to select and adjust multiple controls simultaneously. Using the mouse, drag-select the desired group of

buttons or graphic controls by clicking and holding at a point outside the controls, and forming a rectangle that includes the controls you wish to adjust. Alternatively, press and hold Shift while clicking the mouse on any control you wish to link. This method is useful when you want to select two or more controls that are not adjacent to one another.

TAB Functions

TAB moves the 'selected' status to the next control, with shift-TAB moving in the reverse direction. Additionally, the Mac has an option-TAB function for 'down' movement and shift-option-TAB for 'up' movement where applicable. If you have several Value Window Buttons selected, TAB functions will take you through the selected controls only. Hitting Esc or Return will return the 'focus' to the DAW application.

A Note on Automation

When you automate settings in Stereo mode, your settings will be saved for the specific channel (L or R) you have selected, but will affect *both* L and R.

When you automate L and R to different values in modes other than Stereo, but then wish to return to Stereo mode, you will need to delete your settings for one of the sides (L or R) before you return to Stereo mode in order to avoid conflicting values.

4.4 Waves Preferences (Pro Tools only)

When launching Pro Tools, hold Shift to view the Waves plugin Preferences window. The following options are available:

- Don't use AudioSuite plugins
- Don't use RTAS plugins
- Rescan all plugins
- HUI control surface support (low resolution)
- Enable single-click text entry