

BYOD User Manual

Build-Your-Own-Distortion (BYOD) is an audio plugin that allows the user to create custom guitar effects, with a focus on guitar distortion. The plugin contains emulations of guitar distortion and tone-shaping circuits from various pedals and amplifiers, along with a handful of other useful effects. BYOD is currently available for Windows, Linux, Mac, and iOS in the following formats: VST/VST3, AU, CLAP, LV2, AAX, AUv3, and Standalone.

Installation

To install BYOD for desktop, download the plugin installer from the ChowDSP website. If you would like to try the latest changes (potentially unstable), you can download the latest Nightly build. It is also possible to compile the plugin from the source code. BYOD for iOS can be downloaded from the App Store.

Getting Started

BYOD is primarily comprised of a “processing chain”, made up of multiple “processors”, and “cables” which route signal between the processors.

Creating A Processor

To create a new processor, either right-click on the plugin background, or click on the “plus” icon in the upper right corner. A menu will appear, offering a selection of processor to be created.

Removing A Processor

To remove an existing processor, click the “x” button on the top right of the processor’s editor. Note that the “Undo” button can be used to bring back any previously removed processor.

Replace Cable With Processor

To replace a cable with a processor, right-click on a cable and select the desired processor from the menu that appears.

Connecting Two Processors

To create a connection between two processors click on an output port from the first processor, and drag to create a cable. Release the cable near an input port of the second processor to complete the connection.

Destroying A Cable

To destroy a cable, click on the input port at the end of the connection. Again, the “Undo” button can be used to bring back any previously destroyed cables.

Modulation Ports

Purple modulation ports are available on all modulation processors. When connected, these ports allow for one processor’s modulation signal to be passed to another. A processor with a connected modulation input will use the modulation signal from that input instead of generating its own. This feature allows multiple modulation processors to be synced to the same modulation signal, creating unique effects possibilities.

Level Ports

Red level ports are available on all processors that use level detection internally. When connected, these ports allow one processor’s level signal to be passed to another. A processor with a connected level input will use the level signal from that input for internal processing, instead of internally calculating the level of the incoming audio signal. This feature allows sharing of level information between multiple processors. An additional envelope follower named ‘Level Detective’ receives an audio signal and sends out the audio input’s corresponding level signal.

Processor Controls

Each processor has an on/off switch, as well as a settings menu, containing options to reset the processor’s parameters, duplicate the processor, replace the processor, or show the processor information.

Global Controls

The bottom bar of the plugin (or top bar on iOS) contains several “global” controls. Note that these controls are not saved when saving a preset.

Undo/Redo

The undo/redo controls will undo or redo the following actions:

- Adding/removing/replacing a processor
- Creating/destroying a cables
- Changing a parameter

Input Mode

Input mode: selects which channel(s) will be used as the input to the processor chain. In order to save computing resources (CPU), it is recommended to avoid using “Stereo” mode except when the input is a true stereo signal.

Input/Output Gain

These controls can be used to affect the gain staging before or after the processor chain.

Oversampling

The oversampling menu can be used to control the amount of oversampling used by the processor chain. There are options for minimum phase or linear phase oversampling, up to a factor of 16x. There are also options to use a different oversampling configuration for offline rendering.

Settings

The “cog” icon on the far right of the global controls opens a “Settings” menu. Note that the settings provided in this menu are shared across all instances of the plugin. There are additional options for viewing the plugin source code, and copying the plugin’s diagnostic info.

Add-On Packs

Add-on packs are available in BYOD version 1.1.0 and later. To view the available add-on packs, open the settings menu, and select “Purchase Add-On Modules”.

For the desktop plugin, add-on packs can be purchased from the ChowDSP website; after purchase, an activation code will be sent via email, which can then be used to activate the pack inside the plugin. An activation code may be used on up to 5 devices. For the iOS plugin, add-on packs can be purchased in the plugin via an in-app purchase. Add-on packs for the iOS plugin must be purchased separately due to the App Store guidelines.

Presets

Presets provide a quick way to achieve a specific sound with the plugin. BYOD comes with a set of built-in factory presets, and contains several options for sharing presets with other users.

User Presets

To save the current plugin state as a user preset, open the presets menu, and select “Save”. The first time a preset is saved, you will be asked to choose a preset folder. All future presets will be saved to this folder, and when the plugin opens, it will search this folder, as well as any subfolders, to load new user presets.

Troubleshooting

If you run into issues when using BYOD, you may submit bug reports using GitHub Issues. However, it is recommended to read the following troubleshooting suggestions first.

Resetting Global Settings

If you run into any issues that require the global settings to be changed or reset, the global settings file can be found at the following location:

- Windows: C:\Users\<username>\AppData\Roaming\ChowdhuryDSP\BYOD\.plugin_settings.json
- Mac: ~/Library/ChowdhuryDSP/BYOD/.plugin_settings.json
- Linux: ~/.config/ChowdhuryDSP/BYOD/.plugin_settings.json

To reset the global settings, you may delete this file, and it will automatically be regenerated the next time the plugin is used.

OpenGL Rendering

On Windows, BYOD will use OpenGL for rendering the UI by default, unless the host system does not support OpenGL version 2.0 or greater. If OpenGL is available, it is possible to turn off rendering with OpenGL in the global settings menu. If you need to override your chosen OpenGL setting, please visit the global settings file.

Viewing Log Files

Information about specific sessions of the plugin can be seen in the plugin log files. These files are can be found in the following location:

- Windows: C:\Users\<username>\AppData\Roaming\ChowdhuryDSP\BYOD\Logs
- Mac: ~/Library/Logs/ChowdhuryDSP/BYOD/Logs
- Linux: ~/.config/ChowdhuryDSP/BYOD/Logs

Copying Plugin Diagnostics

If you need to submit a bug report, it is very useful to include the plugin's diagnostic information in your bug report. The diagnostic info can be copied from the global settings menu.

Open Source

BYOD is open-source software that is free (as in “free beer”), and free (as in “free speech”), under the General Public License. BYOD is open to outside contributors. For more information, see the relevant documentation on GitHub.

Feedback

Any bug reports and feature requests may be submitted via [GitHub Issues](#).