



FURY

DISTORTION DESIGNER

HEAVYOCITY
RAW INSPIRATION™

FURY

DISTORTION DESIGNER USER MANUAL

Welcome to FURY

Thank you for trying FURY | DISTORTION DESIGNER.

FURY is a distortion playground, a plug-in designed to be intuitive, but also sonically flexible. FURY will offer you a complete range of distortion flavours, from subtle tube warmth to hard clipping; lo-fi digital crush to analogue modelled circuitry; from the simple to the complex.

System Requirements

FURY is a 64bit plug-in available in the following formats:

For MacOS (10.15.7 Catalina or later):

- VST3, AU, and AAX

For Windows (10 or later):

- VST3 and AAX

Any host that supports any of these formats will be able to load and run FURY.

While we cannot test every host and environment, we have tested the plugin in the following host programs:

- Bitwig
- Cakewalk
- Cubase
- Digital Performer
- Live
- Logic
- Pro-Tools
- Wavelab

Installation & Activation

Installation

You can install FURY via the Heavyocity Portal.

To install and activate FURY, you will need to have done the following:

- create an account at Heavyocity.com
- download and install the latest version of the Heavyocity Portal software (you can download this from <https://heavyocity.com/heavyocity-portal/>)
- purchase the plugin

After installing the Portal (or if you have the Portal already installed) make sure you are signed in with your Heavyocity account.

If it isn't already there, add the product to the Portal by clicking **REGISTER NOW** at the bottom of the portal interface and follow the instructions there.

After successfully registering FURY, click on the **INSTALL** button next to FURY in the **MY PRODUCTS** section. This will download and launch the installer.

Follow the instructions on the installer.

Activation

Without activation, FURY will run in demo mode with the following limitations:

- Sessions are limited to 15 minutes of audio processing time, after that point the plugin will mute itself and control over the plugin will be blocked.
- Offline processing is disabled. If you try to do an offline render while in demo mode, the output of the plugin will be muted.

To activate:

1. Open the plugin in your host of choice.
2. Click on the **Activate** button on the header message box.
3. If that isn't visible, click on the menu icon to the top left of the interface and select **Activate**.
4. The plugin will launch the Heavyocity Portal and check you have the FURY product in your account.
5. When it is finished you will get an **Activation Successful** message.

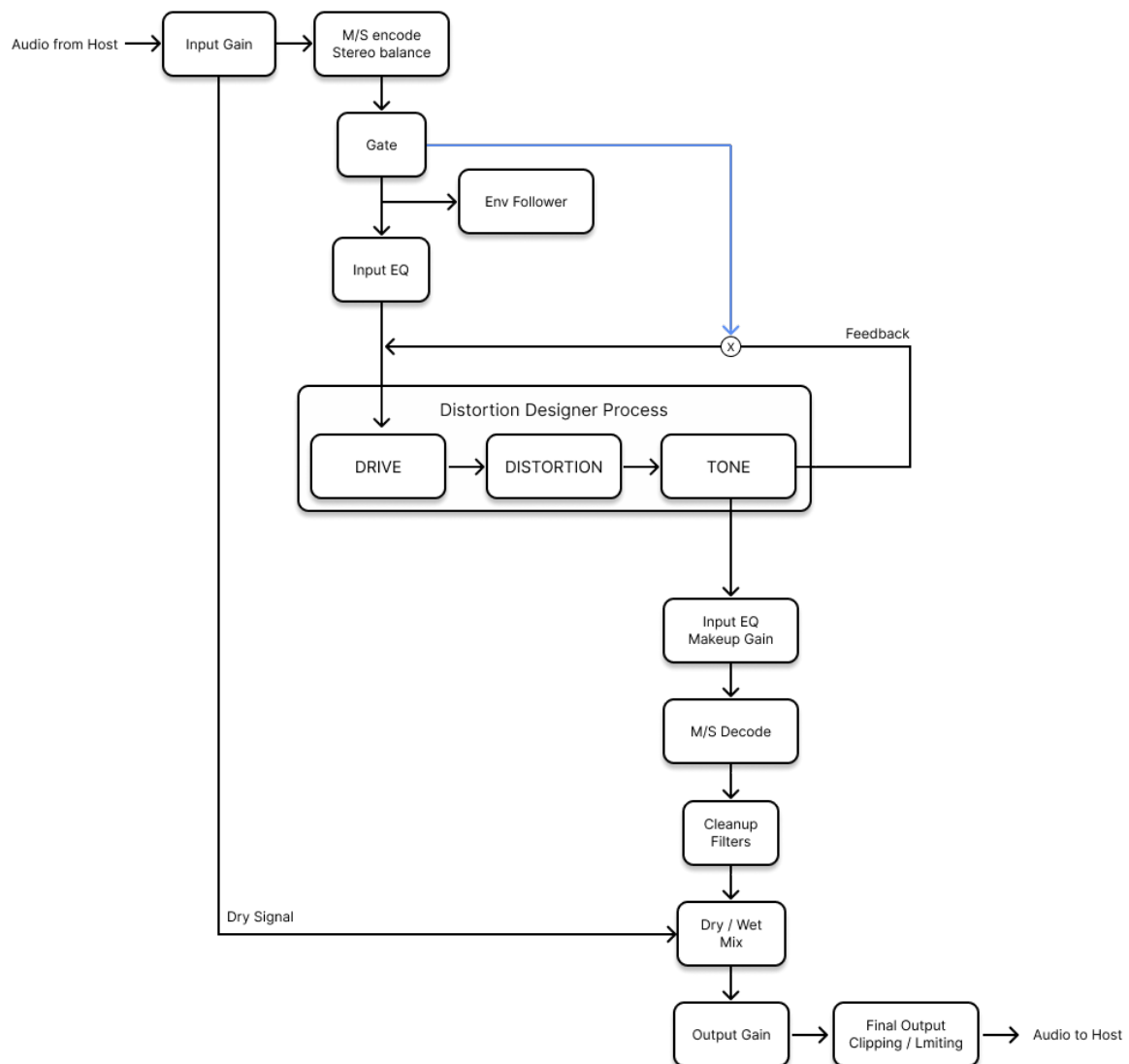
Congratulations! You can now use FURY without limitations.

Note that you may need to restart the plugin instance for activation to take effect. It often works without a restart, but this cannot be guaranteed on older systems or if you have multiple instances running at once.

If you get any error messages, try the steps again. If the error persists, check the FAQ at Heavyocity.com before contacting support.

Product Overview

To make FURY a little more understandable, let's look at a signal flow diagram of all the features.



1 The FURY Signal Flow

At first glance this may seem complicated, but it can be considered as four parts:

1. Pre-distortion processes (input gain, pre-EQ)
2. The main distortion effect (Drive → Distortion → Tone)
3. Post-distortion processes (post-EQ, final output levelling)
4. Modulation (Envelope Follower, LFO, Sequencer)

The core of FURY is part 2: the main distortion effect. Parts 1 and 3 are designed to offer shaping and control over the sound, but the core of the effect is in the distortion.

The distortion effect itself has 3 parts:

1. **DRIVE:** defines how the main DRIVE knob works, and how the signal is driven into the distortion. It sets the maximum drive intensity as well as tone shaping.
2. **DISTORTION:** this part can be considered as the “clipping circuit”. It defines how the signal behaves when it starts to overload as it is pushed by the DRIVE section.
3. **TONE:** a one-knob filter/EQ that happens directly after the DISTORTION section. Think of it as a tone knob on a distortion guitar pedal.

The behaviour of each can be defined by selecting different modules on the MODULES page.

Details on the different available modules can be found in the appendices.

Advice on Getting Started

To acquaint yourself with the plugin, we suggest exploring the factory presets, especially the Essentials presets. With a preset loaded, try the different DRIVE, DISTORTION and TONE modules while also playing with the DRIVE and TONE knobs.



2 The FURY Interface

Because of the nature of distortion as an effect, the input level and source character will have a huge impact on how the effect sounds. Settings that sound similar on guitar could sound completely different on bass.

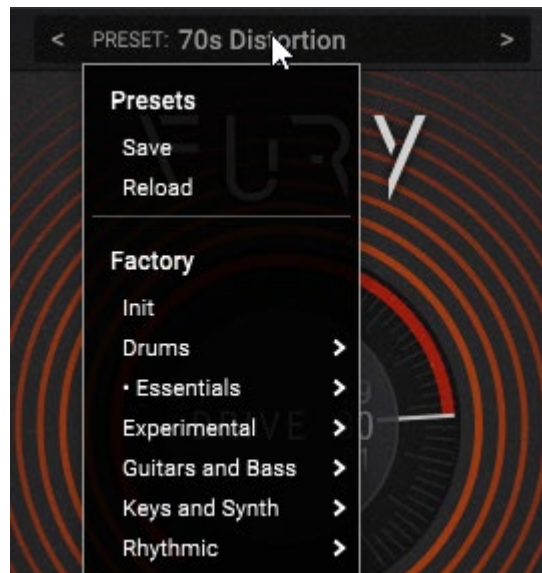
While FURY has automatic volume compensation built in, there are some edge-cases where certain input signals and module configurations can be louder or quieter than others. *While it is unlikely that your speakers or ears will explode, we advise some caution be taken.*

Presets

The best way to get acquainted with FURY is to check out the factory presets.

To open a preset, click on the preset name display above the main DRIVE knob.

A selection of presets will appear in a dropdown menu. Select one to load it.



3 The Preset Menu

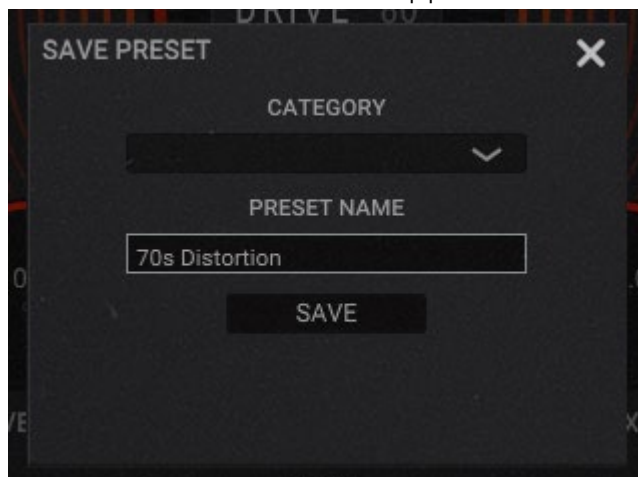
You can also cycle through presets using the left and right arrow buttons beside the preset menu.

Saving presets

After using FURY for a while, you will likely want to create your own presets for using in multiple sessions.

To save a preset:

1. Open the preset menu by clicking on the preset name display.
2. Select Save.
3. The Save Preset window will appear.



4. Enter a category name for the preset (this is optional, if you leave this blank the preset will save in the top-level directory for user presets)
5. If you have saved presets before, the category name section will contain options for categories that have already been created.
6. With the category set, enter a name in the *Preset Name* text entry box.
7. Click the *SAVE* button to save the preset.
8. If a user file with the same name already exists, you will be asked if you want to overwrite the file. Click *SAVE* again to confirm or change the name/category to avoid overwriting the file.

Factory presets cannot be overwritten, saving a preset with the same name will create a copy in the user presets folder.

To view the user preset files, click on the *Show in Folder* option in the preset menu.

Editing sub-folders in the user preset folder will alter the categories displayed in the preset menu. Be aware that editing these folders while using FURY can cause undefined (and likely bad) behaviour.

Tooltips

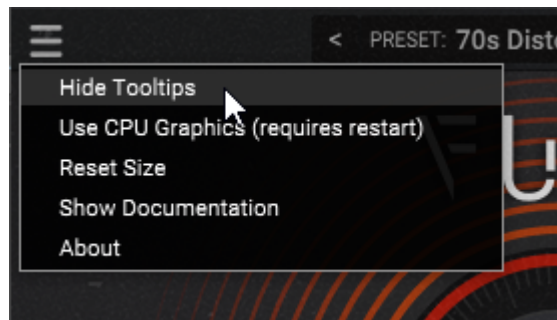
Every control in Fury has a tooltip that tells you what the control does.

Hover over a control for a short moment and the tooltip will appear with a description of that control.



4 The Mix Knob Tooltip

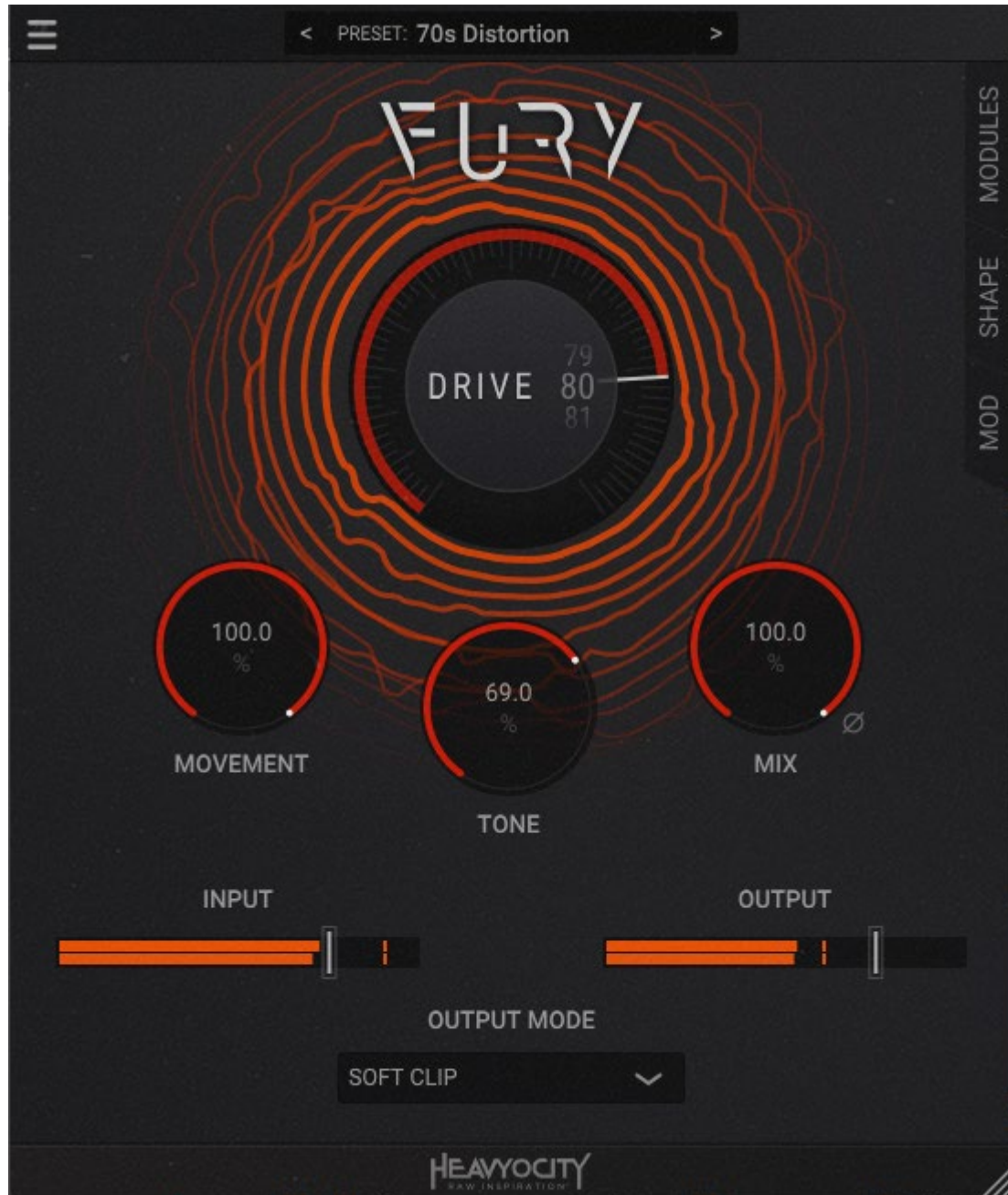
If you want to hide tooltips, click on the main menu icon to the top left and select *Hide Tooltips* (you can always switch this back later if you need to)



5 How to Hide Tooltips

The Main Controls

The FURY interface is divided into two main sections. The section to the left contains the main controls. These are the controls you will need most often, and so are always visible while the interface is open.



6 The Main Controls

The Controls are as follows:

- **DRIVE:** controls the input gain and tone based on the *DRIVE MODULE* selection.
- **MOVEMENT:** controls the global modulation amount (go to the *MOD* page for individual settings).
- **TONE:** changes the timbre of the output signal based on the *TONE MODULE* selection.
- **MIX:** blends between the clean input signal and the distorted signal.
- **PHASE INVERT:** the button to the bottom right of the *MIX* knob controls the phase of the distorted signal. Activating this button will subtract the distorted signal from the dry signal rather than adding it, this will lead to a different timbre.
- **INPUT GAIN:** sets the level of the signal before it reaches the effect.
- **OUTPUT GAIN:** controls the level of the signal leaving the effect.
- **OUTPUT LEVELLING MODE:** select how the final signal should be treated before it leaves the plugin. You can select between clipping, limiting, or no processing (*THROUGH*).

The Main Menu

The main menu is accessed by clicking on the three-line icon in the top left corner of the interface. It contains options for plugin behaviour that is not related to the audio processes.



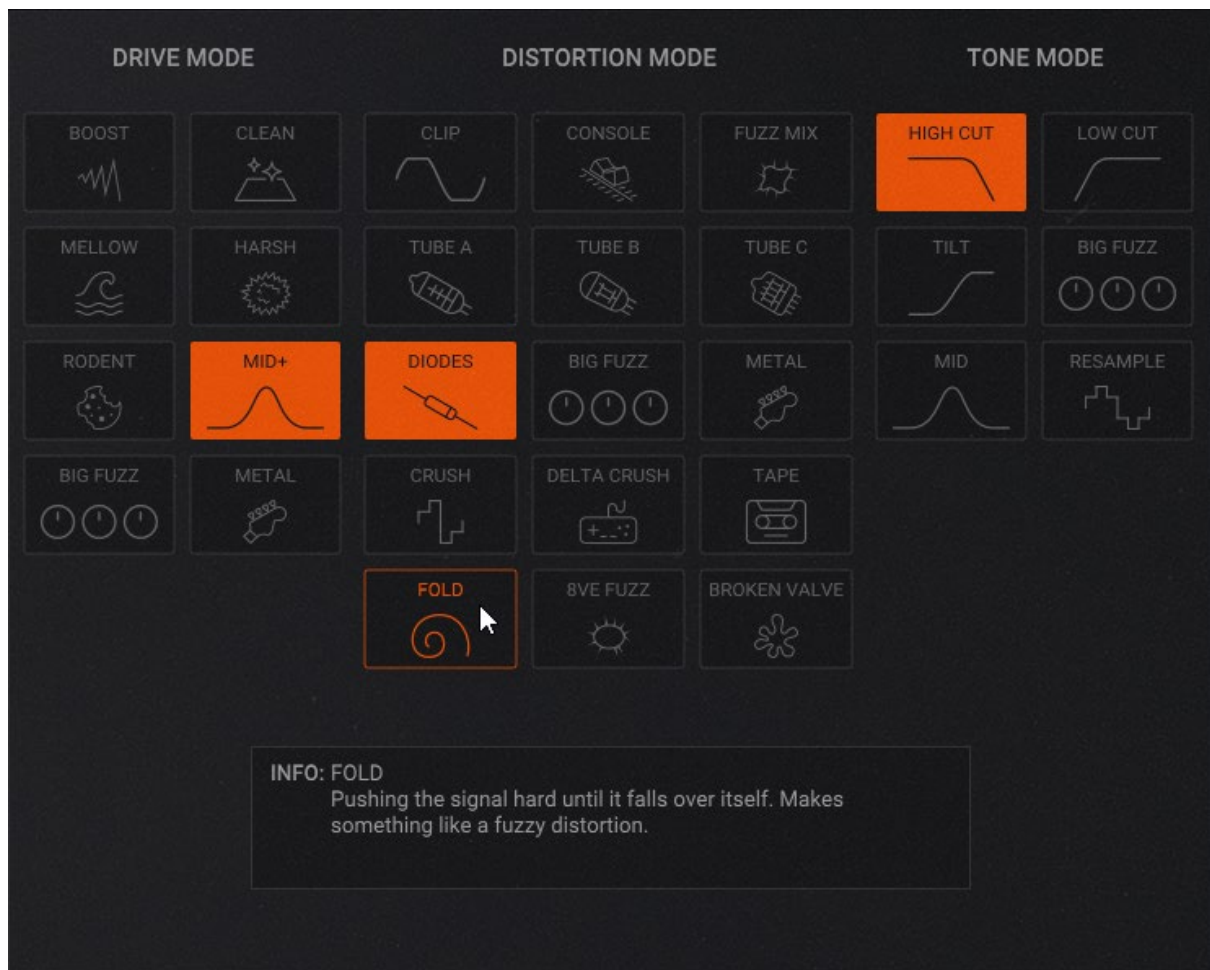
7 The Main Menu

The options available in this menu are as follows:

- **Show/Hide Tooltips:** as described in the Tooltips chapter, this option toggles the visibility of tooltips on or off.
- **Use CPU/OpenGL Graphics:** selects the graphics mode for the plugin. The optimum choice will automatically be made when you first load the plugin based on your system. However, if you have UI problems or just want to try new things, you can try a different rendering mode here. Note that this requires a restart of the plugin and/or host.
- **Reset Size:** resets the window size to the plugin's original default size.
- **Show Documentation:** opens a browser window showing you the location of the plugin documentation (including this manual)
- **About:** opens the about screen, which can be used to see your installed version number and activation status.
- **Activate:** this option is only visible if you haven't registered and activated the plugin. It will also appear when your license needs updated via the Portal. If you have FURY registered on your account, this option will launch the Heavyocity Portal and start the activation process.

Modules

The Modules Page is located on the right side of the interface. If it is not currently displayed, you can show it by clicking on the *MODULES* tab.



8 The Modules Page

Each of the three main parts of the distortion effect are represented here: **DRIVE**, **DISTORTION**, and **TONE**. Each part has several modules you can choose from, represented by icon buttons.

Hovering over a button will highlight it and display information about the module in the **INFO** box at the bottom of the page.

Clicking on a button will select that module for use in the effect.

! Note that changing the DISTORTION module will reset the CHARACTER knob on the SHAPE page (more on that later).

Shape

While the Main Controls do the heavy lifting in FURY, the Shape page is where you can sculpt the effect into something more precise for your needs.

You can access the Shape page by clicking on the SHAPE tab.



9 The Shape Page

The Shape page gives you access to the following pre-distortion effects:

- Stereo Mode and Balance
- Gate
- EQ / Filter

...and the following post-distortion effects:

- Clean-up EQ

As well as these, you will find a few controls for the character of the distortion.

Stereo

These controls allow you to define how the effect handles stereo channels.

- **M/S**: toggles mid/side mode on or off. When off the left and right channels are processed separately. When active, the mid (sum) and side (difference) are processed instead. This control won't do anything if you are working on a mono source.
- **BALANCE**: when M/S is off this controls the input balance between the left and right channels, like a panning control. When M/S is on, this controls the balance between the mid and side – in other words: turn left to make the signal mono and turn right to make it wider.

! Note that these controls are bypassed if you load FURY on a mono channel or in dual-mono mode in some hosts.

Gate

FURY's gate is also an expander and can be used as a noise gate (muting background noise) or as a dynamic shaping tool.

- **THRESHOLD**: sets the level below which the gate will close, reducing the audio level according to the AMOUNT setting.
- **AMOUNT**: sets the intensity of the gate. At lower settings it will act like an expander.

The gate settings here can also be applied to the feedback signal. More on this in the CHARACTER section.

Input EQ

The input equalizer is a simple, but effective, tool for cleaning up the audio before it enters the distortion effect. The exact mode is defined by the EQ MODE menu:

- **Shelf**: the EQ uses low and high shelving to process the input signal.
- **Shelf and Makeup**: also uses shelving, but adds additional EQ shelves after the distortion to compensate for the input EQ. For example, if you reduce the high shelf of the input, the high shelf of the output will be boosted, and vice versa.
- **Filter**: the EQ is changed to a serial pair of low-pass and high-pass filters, for more extreme tonal shaping.
- **Filter and Makeup**: like the filter mode, but with additional shelving EQs after the distortion to compensate for filtering.

Character

While the main character of the distortion is defined by the selected MODULES, in this section there are some controls for further tweaking.

- **FEEDBACK:** controls the amount of signal fed back from the effects output to the effects input (see the signal flow diagram in the Product Overview chapter). In subtle settings this will alter the tone of the effect, and in extreme cases it will cause squeals and Lovecraftian nightmares for your ears.
- **FEEDBACK GATE:** to stop the feedback from getting out of control, you can route the gate to the feedback signal. The settings of the main input gate are used here.
- **CHARACTER:** the exact function of this knob depends on the selected DISTORTION module. Most often it will control the symmetry of the distortion, but each module has a different character. Note that the character is considered in its neutral state when this knob is at 0.

Clean-up

After all this processing, you might need to tidy up the frequency content of the signal a little. The clean-up section contains two multi-layered EQs for the highs and the lows. These are designed to be subtle, but effective in removing any muddiness (low end) or shrillness (high end).

Modulation

Modulation is a useful tool for adding movement to a sound. In distortion it isn't very common, but it can add interesting results for going beyond the usual and familiar sounds we expect.

FURY has 3 modulation sources, each of which can be routed to four destinations.

The sources are:

- **Envelope Follower:** a system that follows the level of the input signal and converts it into a modulation source.
- **LFO:** a Low Frequency Oscillator. The FURY LFO has a secondary modulation LFO that is hardwired to modulate the main LFO, creating complex modulation signals from a simple set of controls.
- **Sequencer:** the FURY sequencer can have between 2 and 16 steps, with flexible curves between each step. Good for creating repeating musical patterns.

Editing Modulation

You can access the modulation parameters by clicking on the **MOD** tab.



In the middle of the modulation page are three scopes, which not only display the current value of each modulator, but act as navigation between their control pages.

Clicking on a scope will display the parameters for that modulator.

Editing the assignment of modulators is as simple as adjusting the sliders below the modulation scopes. The source of the modulation is above the slider, and the destination is displayed to the left of the slider.

Note that the sliders are bipolar, so you can assign modulation negatively as well as positively.

All the modulation assignments are scaled by the master **MOVEMENT** knob in the main control section.

Envelope Follower

The Envelope Follower is a great way to make the distortion react to input signals.

The modulator has only two controls:

- **ATTACK:** sets the time it takes for the envelope follower to react to increases in input signal level.
- **RELEASE:** sets the time it takes for the envelope follower to react to drops in input signal level.

LFO

The FURY LFO is a sort of 2-in-1 LFO. It has a main LFO and a modulator LFO that modulates the frequency and/or amplitude of the main LFO. This creates complex waveforms with only a few controls.

Both LFOs have the same controls:

- **SHAPE:** sets the shape of the LFO waveform.
- **RATE:** sets the rate of the LFO.
- **OFFSET:** sets the phase offset for the LFO.

In between the LFOs are the controls for assigning how much the Mod LFO should modulate the Main LFO. You can modulate either the LFO *Amplitude* or *Frequency* (or both).

Sequencer

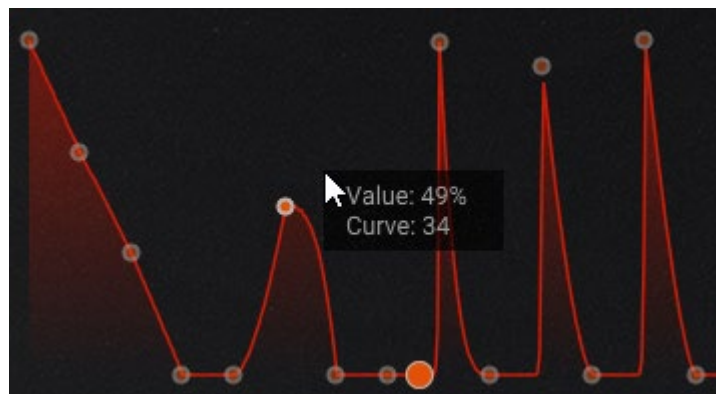
The FURY Sequencer allows you to draw patterns that will repeat synced to the host tempo. Each step in the sequence is equally spaced, but you can set different values for each step and different curves between them.



11 The Sequencer Controls

The **RATE** knob sets the rate it takes to get from one step to the next and the **LENGTH** knob sets the number of steps in the sequence.

Clicking and holding on one of the dots in the main sequencer graph will select it. Dragging up and down will set the value, while dragging left and right will set the curve between this step and the next.



12 Editing a Step in the Sequence

Holding **[alt]** while editing a step will move all steps relative to the one you have selected.

Holding **[ctrl]** or **[cmd]** while clicking on a step will reset the curve to linear.

The buttons above the sequence are quick-edit shortcuts. From left to right they are:

- **Erase:** Sets all steps to 0 with linear curves.
- **Random:** Randomizes all values and curves in the sequence.
- **Nudge Left:** Moves all values and curves one step to the left.
- **Nudge Right:** Moves all values and curves one step to the right.

Appendix 1: Module Guide

Drive

- **BOOST:** A simple full-frequency volume boost.
- **CLEAN:** A volume boost with subtle filtering to keep the signal from getting too muddy or hash as it hits the distortion module.
- **MELLOW:** A lower drive range than the other modules, with some high frequency filtering to keep things from getting too harsh.
- **HARSH:** A high boost amount with additional high frequency gain in order to get the nastiest sound out of the distortion module.
- **RODENT:** Based on a 70s guitar pedal. At low levels the low end will be filtered away, but as you increase the DRIVE, the low end will begin to dominate and start to create fuzz-like tones.
- **MID+:** Based on a 70s guitar pedal, this is a high-gain mid frequency boost.
- **BIG FUZZ:** Based on a late 60s guitar pedal, this will cut almost all your high end and boost the mids in a way that'll make you think it's a fuzz, but it's technically not.
- **METAL:** Like the MID+ module, this is a high-gain mid frequency boost, but with more of an early-90s flavour.

Distortion

- **TRANSISTOR CLIPPING:** The bread and butter of distortion: the hard clip.
- **CONSOLE:** Based on the pre-amp of a high-end mixing desk, this module clips the signal, but also has a foldover characteristic that makes it special.
- **FUZZY MIXER:** This is what happens when you take a mid-range mixer with a lot of headroom and push the gain beyond what is reasonable.
- **TUBE A:** A nice tube, with gentle saturation.
- **TUBE B:** A more intense saturation than TUBE A, but still mellow.
- **TUBE C:** The sounds of a tube that's been misused somewhat. Not a hi-fi tube, but something dirtier.
- **DIODES:** The classic guitar pedal distortion design, with an op-amp and diodes for clipping.
- **BIG FUZZ:** Extra hash diode clipping with an addition gain stage in the middle. Not really a fuzz, but you could call it that.
- **METAL:** Hard diode clipping with some tonal rebalance to give you that 90s era mid-scoop.
- **CRUSH:** Classic digital bit-crushing.
- **DELTA CRUSH:** Trying to encode audio with a single bit is hard... It leads to interesting results. Used by a famous 80s video game console.
- **TAPE:** Gentle saturation based on a cassette tape. Note that this module does not emulate the pitch fluctuations or noise of tape, only the non-linearities and tonal aspects.
- **FOLD:** Pushing the signal hard until it falls over itself. Makes something like a fuzzy distortion.
- **OCTAVE FUZZ:** Rectifying the signal before it distorts is something that sounds like an upper octave.

- **BROKEN VALVE:** Something isn't quite right with this module. Push it hard and it will start to struggle.

Tone

- **HIGH CUT:** Rolls off the high end as you turn the TONE knob down.
- **LOW CUT:** Rolls off the low end as you turn the TONE knob up.
- **TILT:** Turn the TONE knob up to boost the high end, and down to boost the low end. The signal is cleanest in with the TONE knob in the middle position.
- **BIG FUZZ:** An alternative tilt EQ with a noticeable mid-scoop and a little extra saturation.
- **MID:** Turn the TONE knob up to boost the mid frequencies and down to cut them. The signal will be unaffected with the TONE knob in the middle position.
- **RESAMPLE:** Emulates a digital sampler at low sample rates. Use the TONE knob to control the rate and the intensity of artifacts.

Appendix 2: Release Notes

Version 1.0.0

- Initial release version