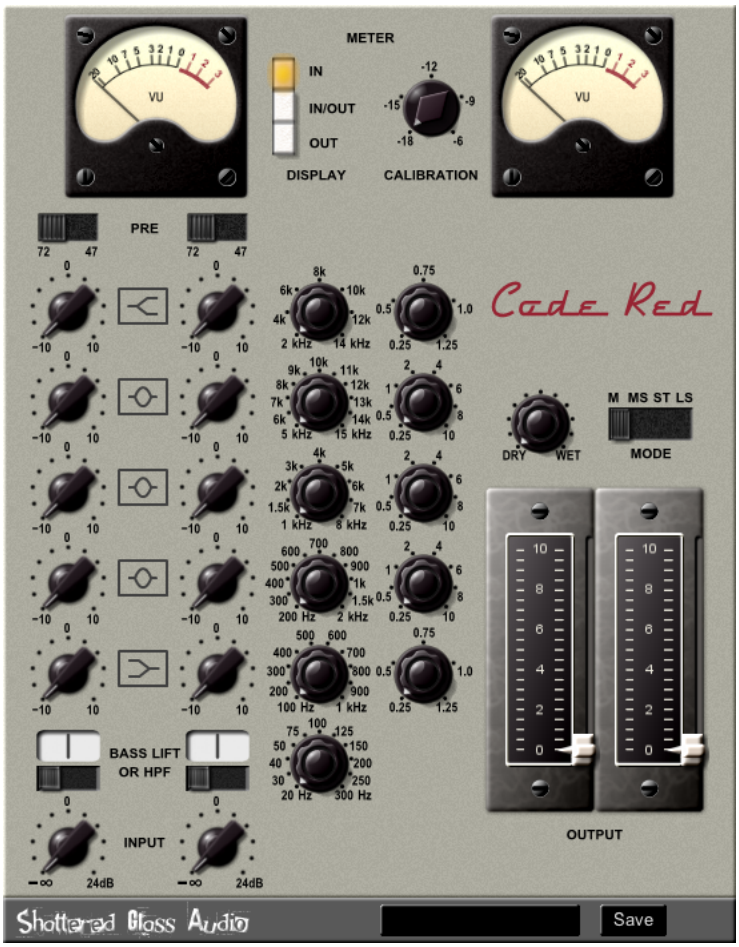
Shattered Glass Audio

Code Red



User Manual

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Introduction 3
Signal Routing 3
Using Code Red 4
System Requirements 4
Mac 4
Windows 4
Controls 5
1. Input 5
2. Bass Lift or HPF 5
3. Low-Shelf (Bass) 6
4. Low Bell 6
5. Mid Bell 6
6. High Bell 6
7. High-Shelf (Treble) 6
8. Preamp selector 6
9. VU Meters 6
10. Mix 6
11. Mode 6
12. Output 7
13. Presets 7
14. Plug-in Information 7
15. Metering Selection 7
16. VU Meters Calibration 7
Product Unlocking 8
Tips 8
Legal 8

Introduction

Code Red is inspired by two versions of a classic, all tube, British console form the 1960s. The original console was known for its EQ, bold and punchy character, and the warmth it imparted. The Beatles recorded most of their material using various versions this console.

To increase the flexibility and usability of the plug-in we have replaced the original “Pop” and “Classic” EQs with a fully flexible parametric EQ equipped with a high pass filter, a low shelf filter, three bell filters, and a high shelf filter. High pass filter is a first order filter yielding a gentle low frequency roll-off; all other filters are second order. All filters have adjustable characteristic frequency. Second order filters have adjustable Q factor. We have retained bass boost option that the original console had. Two original console EQs, named "Classic" and "Pop", are now presets.

Shattered Glass Audio has gone to considerable lengths to find accurate information and reproduce the original EQ curves and accurately model the preamps.

Features:

- High fidelity models of two original preamps based on the full circuit simulation.
- Fully flexible parametric EQ.
- Accurately modeled original “Classic” and “Pop” EQs are included as presets.
- Automatic 4x oversampling.
- Stereo processing mode with linked as well as separate Left and Right channel EQ and controls.
- Mid-sides processing mode.
- Selectable Mono processing mode for increased efficiency when processing mono signals.
- Dry-Wet mixing.

Signal Routing

Figure 1. Shows the signal path through Code Red. The dashed rectangles “LR to MS” and “MS to LR” indicate that Left Right to Mid-Sides (LR to MS) and Mid-Sides to Left Right (MS to LR) conversion is present in the signal chain only for during Mid-Sides processing.

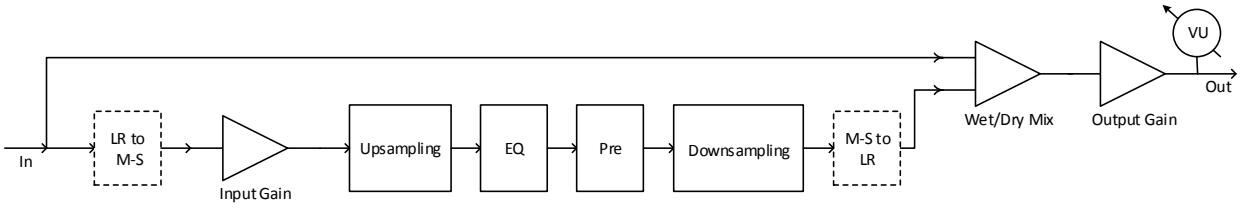

Figure 1. Signal routing.

Using Code Red

At low input signal levels and low Gain settings, preamplifier in Code Red Free operates in the “clean” regime. When operated in such conditions Code Red Free can be used to enrich the original sound by adding “warmth” (additional harmonics) to it.

At high signal strengths and/or high Gain settings Code Red’s preamps can be pushed into overdrive and distortion.

System Requirements

This plugin is available in, both, 32- and 64-bit VST2, VST3, and AU versions. AU version is available for Mac only.

Mac

OS X 10.8 or higher.

Windows

7/8.

Controls

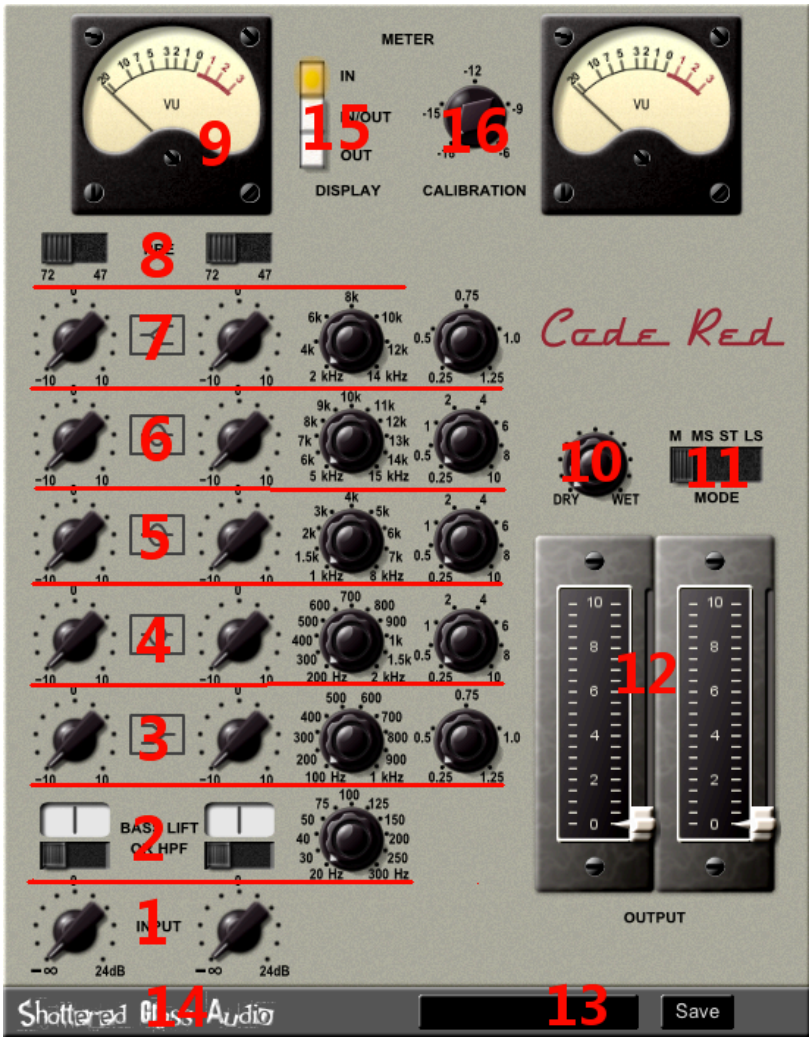

Figure 2. Code Red Controls

Settings controlled by knobs can be changed by clicking on them and dragging the mouse up and down. Settings controlled by switches can be changed by clicking on the appropriate switch or by clicking a switch and dragging the mouse.

1. Input

Controls the strength of the input signal.

2. Bass Lift or HPF

__ engages a low-shelf[1] boost of 10dB at 80 Hz.

[1] Shelf frequencies throughout this document refer to the shelf mid point frequency.

/‾‾ engages a first order high pass filter. Corner frequency of the HPF is controlled by the knob to the right and can be adjusted from 20 Hz to 300 Hz.

| bypasses the Bass Lift and HPF.

3. Low-Shelf (Bass)

Sets the EQ level from -10 to +10 dB. Shelf frequency can be varied from 100 Hz to 1 kHz. Q factor, that controls the slope of the shelf, can be adjusted from 0.25 to 1.25.

4. Low Bell

Sets the EQ level from -10 to +10 dB. Shelf frequency can be varied from 200 Hz to 2 kHz. Q factor, that controls the bandwidth, can be adjusted from 0.25 to 10.

5. Mid Bell

Sets the EQ level from -10 to +10 dB. Shelf frequency can be varied from 1 kHz to 8 kHz. Q factor, that controls the bandwidth, can be adjusted from 0.25 to 10.

6. High Bell

Sets the EQ level from -10 to +10 dB. Shelf frequency can be varied from 5 kHz to 15 kHz. Q factor, that controls the bandwidth, can be adjusted from 0.25 to 10.

7. High-Shelf (Treble)

Sets the EQ level from -10 to +10 dB. Shelf frequency can be varied from 2 kHz to 14 kHz. Q factor, that controls the bandwidth, can be adjusted from 0.25 to 1.25.

8. Preamp selector

Controls which preamp model is selected. The 72 preamp is modeled after an old Telefunken preamp used in the older model of the original console. The 47 preamp is an emulation of an EMI's preamp that replaced the Telefunken preamp in the last model of the original console.

9. VU Meters

Display VU levels of the signals selected by the “Metering Selection” control.

10. Mix

Controls the wet-dry mix ratio.

11. Mode

Sets the processing mode.

M (Mono) – treats signal as dual mono. For the efficiency sake only the left channel is processed. The output is dual mono. In this processing mode EQ controls are ganged.

ST (Stereo) – Signal is treated as stereo. The output is stereo. In this processing mode EQ controls for the left and the right channel are independent.

MS (Mid-Side) – Stereo signal is converted to mid and side component. Each component is treated separately. The output is stereo. In this processing mode EQ controls for the mid and the side component are independent. Left EQ component is used for the mid component, whereas the right EQ component is used for the side component.

LS (Linked Stereo) – Signal is treated as stereo. The output is stereo. In this processing mode EQ controls for the left and the right channel are ganged.

The only difference between the ST and the LS mode is that in the ST mode the EQ controls for each channel are independent, whereas in the LS mode they are ganged.

12. Output

Controls the signal level at the output of the plug-in. In the M and LS processing mode the output level controls for the left and the right channel are ganged, whereas in the ST processing mode they are independent.

13. Presets

Two buttons at the bottom of the Code Red Free window control loading and saving of presets. The longer button is used is used for loading of presets and to display the current presets name.

To load presets click on the presets name button at the bottom of the window and select the file that contains the settings you want to load.

To save current settings, click on the Save button at the bottom of the window. In the file dialog enter the file name you want to save current settings to.

14. Plug-in Information

Hovering over the Shattered Glass Audio logo will display Plug-in information (name, version, and whom the plug-in is licensed to).

15. Metering Selection

This control allows you to select what are VU meters displaying.

IN – displays VU levels of the input signal.

IN/OUT – left VU meter displays VU levels of the mono part of the input signal, whereas the right VU meter displays VU levels of the mono part of the output signal.

OUT - displays VU levels of the output signal.

16. VU Meters Calibration

Set the calibration level of the VU meters. You can adjust O VU from -18 to -6 dBFS.

Product Unlocking

Unlocking your product is easy. To unlock the product you will need the license file sent to you in an email at the time of purchase. If you did not receive the license file you can download it resent to you by going to SUPPORT > LICENSE at www.shatteredglassaudio.com. You should save the license file at a location on your file system that is accessible to the product.

When you run the product for the first time, after installation, you will be presented with the dialog shown in Figure 3. Click the "Unlock with the License File" button and select the license key file.

Figure 3. Product unlocking dialog.

If there are no errors importing the license key, Code Red's user interface will replace the product unlocking dialog.

Tips

For a more vintage sound use lower values of Q factor.

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