# Red 2 & Red 3 Plug-in Suite

## User Guide

Focusrite®

FFFA001242-02

www.focusrite.com

# TABLE OF CONTENTS

# Introduction

It's time to take a massive step up. Get ready to incorporate the iconic sound and sheer usability of two classic analogue processors in your own tracks.

This Focusrite Red 2 & Red 3 Plug-in Suite brings the sound of Focusrite's iconic equaliser and compressor – the renowned Red 2 & Red 3 – into your digital studio in VST, VST3, AU and AAX formats.

The on-screen front panels are as exquisitely detailed as the powerful, smooth DSP modeling behind them and they deliver a classic Focusrite sound that'll blow your socks off.

# Specifications

## Plug-in Formats

| **Mac OS 10.8** | **Mac OS 10.9, 10.10 (Universal Binary)** | **Windows 7, Windows 8.1 (x86 and x64)** |
|---|---|---|
| AAX 32-bit (Pro Tools 10 only) | VST2 32-bit/64-bit | VST2 32-bit/64-bit |
| | VST 3 32-bit/64-bit | VST 3 32-bit/64-bit |
| | AU 32-bit/64-bit | AAX 32-bit/64-bit |
| | AAX 32-bit/64-bit | |

## System Requirements

| **Mac OS** | **Windows** |
|---|---|
| Mac OS 10.9 or higher (Mac OS 10.8 for Pro Tools 10 only) | Windows 7, Windows 8.1 (x86 and x64) |

# Installation and Software Activation

If you own any of the following Focusrite products, you are eligible for a free activation code for the Red 2 & 3 Plug-in Suite:

| **Scarlett** | **Saffire** | **Other** |
|---|---|---|
| 2i2 | Pro 14 | Forte |
| 2i4 | Pro 24 | |
| 6i6 | Pro 24 DSP | |
| 18i8 | Pro 26 (new edition) | |
| 18i20 | Pro 40 | |
| Scarlett Solo | Liquid Saffire 56 | |
| Scarlett Solo Studio | | |
| Scarlett Studio | | |

## Product Registration

1. If you have a Focusrite account, log in at http://www.focusrite.com/register.
2. If you don't, you can create one at http://www.focusrite.com/register/product.
3. If you have not already done so, register your product by following the on-screen instructions.
4. You'll find your Red 2 & 3 Plug-in Suite activation code in the **Downloads & Activation Codes** section of your registered product, at http://www.focusrite.com/register/myaccount.

## Installation of Plug-in Suite

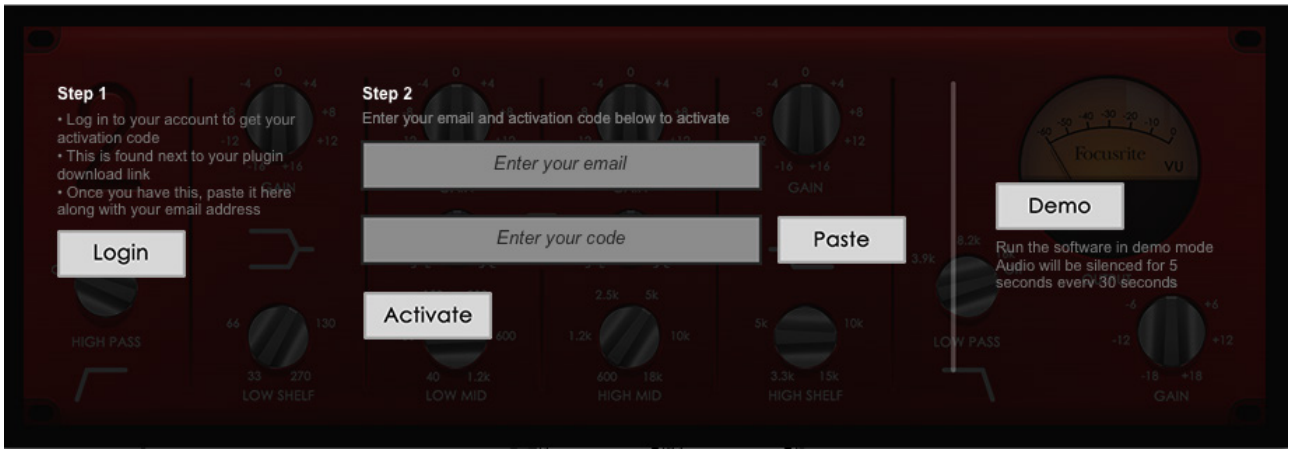
1. Double click on the Red 2 & 3 Plug-in Suite installer.
2. Follow on screen instructions to complete installation.

## Software Activation

The Red 2 & 3 Plug-in Suite must be activated before you can use it. You will need an internet connection to retrieve your activation code (as explained above). Once you have the code however, you won't need an internet connection to activate the plug-ins.

To activate your plug-ins:

1. Open your audio software (e.g., Pro Tools, Logic, Ableton).
2. Open any one of the plug-ins in the suite, just like you would open any other VST, AU or AAX plug-in in your DAW. If you are unsure of how to do this then please consult your DAW user guide. The following activation window will appear:




3. Enter your account e-mail address and your Red 2 & 3 Plug-in Suite activation code (as explained above).
4. Click **Activate** and your Red 2 and Red 3 plug-ins will now be authorised and ready to use across all plug-in formats.

# Compressor


A compressor essentially acts like an automatic volume control, turning down the volume of a signal if it gets too loud. This reduces variation between loud and quiet passages, as it automatically reduces the gain when the signal exceeds a given volume, defined as the threshold. The overall level can then be turned up to make the signal as loud as possible.

Using a compressor helps to even out a performance, preventing a signal from clipping and/or disappearing in the mix, and can also give it a whole new sonic character.

The Red 3 Compressor is modelled on the legendary Focusrite Red 3 hardware compressor. The Red 3 plug-in (as with the original Red 3 compressor) has a warm, musical sound, and will provide sensitive compression to a wide range of musical sources without compromising the integrity of the original recording.

The controls are as follows:

### Input

The dial in the bottom-left of the plug-in window (**INPUT**) lets you control the level of gain at the input of the module. The accessible gain range is -18 dB to +18 dB. When the dial points vertically upwards (in the centre), 0 dB of input gain is applied.

### Meters

There are two level meters on the Red 3 Compressor; the input/output meter (on the left) and the **GAIN REDUCTION** meter (on the right) of the plug-in panel.

The input/output meter has two possible sources, selected by toggling the **INPUT/OUTPUT** switch beneath the meter.

When set to **INPUT**, the meter displays the signal level immediately after the **INPUT** gain control. The red needle in the meter also moves to show the threshold value selected by the position of the **THRESHOLD** control. This helps indicate when the input signal exceeds the threshold, and therefore whether compression is being applied.

**Note:** The Red 3 Compressor is a 'soft knee' compressor. As the input signal approaches the threshold point, gentle compression is applied. The result is a smoother, more transparent compression. This also means that when the signal level on the meter is slightly below the red needle, a small amount of gain reduction will still be applied.

When set to **OUTPUT**, the meter displays the signal level immediately post the **DRY/WET** control in the signal chain. In this mode the red needle will not operate, this is because the compression is applied to the input signal rather than the output signal.

The **GAIN REDUCTION** meter displays the amount by which the compressor is attenuating the signal. It therefore operates from right to left.

### Threshold

The **THRESHOLD** control determines the level at which compression begins, with a range of –50 dB to –10 dB. The lower the threshold, the more the signal is compressed. Setting a higher threshold will leave quieter passages unaffected, as only passages that exceed the threshold will be compressed. When the input/output meter is set to **INPUT**, this value will be displayed via the red needle as explained above.

### Ratio

The **RATIO** dial determines the rate at which compression is applied to a signal with increasing input, and is the ratio of change in input level compared to change in output level. The control gives a continuous range of 1.5:1 to ∞:1

Lower ratio settings will be softer, and provide gentler control over the signal levels. As the ratio increases, however, the compression will become harder and more noticeable. At very high ratios, the compressor will behave in much the same way as a limiter.

### Attack

**ATTACK** determines how quickly compression is applied once the level of the source signal has risen above the threshold. The attack time is fastest when fully anti-clockwise, making the compressor react to the peak levels of the signal. This is sometimes desirable, but can cause unwanted "pumping" of steadier low level components of the signal, due to short transients.

Rotating the dial clockwise will make the attack time slower, causing the compressor to ignore short transients and respond more to the average loudness of the signal.

Faster attack times are useful on instruments such as a slapped bass guitar, where the compressor is being used to create a very 'punchy' sound. Slower attack times are more suitable on vocals or instruments where the compressor is required to provide a more subtle control of signal level.

### Release

**RELEASE** determines how quickly compression is removed once the level of the source signal has fallen below the threshold. The release time begins at 0.1 seconds (fully anti-clockwise). This can be appropriate for rapidly varying signals to avoid compressing the beats that follow, but can result in excessive distortion on more sustained material.

Clockwise rotation continuously increases the release time. This gives a smoother effect. The maximum release time is 4 seconds.

The setting of the **RELEASE** control will have no effect on the signal when the **AUTO RELEASE** button is engaged, as outlined below.

### Auto Release

When the **AUTO RELEASE** button is pressed, the release curve response is determined by the musical material and the auto release calculation. The release rate varies to suit the dynamics of the signal. This is especially effective on complex programme material, and enables the use of fast attack times without incurring any "pumping" artefacts. When **AUTO RELEASE** is on, the **RELEASE** knob can still be rotated, but the position and release value shown on the release knob does not affect the release time.

### Make Up Gain

After the overall level has been reduced by compression, the **MAKE UP GAIN** dial allows you to increase the output level. Up to 40 dB of make up gain is available.

### Dry/Wet

The **DRY/WET** control lets you mix your processed (compressed) and unprocessed signals, to help you maintain more of the dynamics of the original source. When fully anti-clockwise (**DRY**), only the unprocessed signal will be audible. When fully clockwise (**WET**), only the compressed signal will be heard. When the dial points directly upwards (50/50), equal amounts of processed and unprocessed signals are mixed together.

This simulates parallel compression: the common practice of mixing compressed and uncompressed signals on two separate channels of a mixing console. It lets you reduce the dynamic range of the signal without creating an overly 'squashed' sound.

This can be particularly useful when compressing drums, as a very heavily compressed signal can be blended with the uncompressed signal. The **DRY/WET** control can also be used to great effect on signals where a very subtle compression is needed, such as on vocals.

# EQ


Equalisation of sound is an essential part of the recording process, necessary to remove or boost various parts of the audible frequency spectrum. The Red 2 EQ plug-in comprises of three sections:

- Low Mid and High Mid parametric EQ (in the centre of the plug-in window)
- Low Shelf and High Shelf (either side of the Low Mid and High Mid)
- Low Filter and High Filter (far left and far right of the EQ sections)

Details of the different sections of the plug-in are as follows:

### Low Mid and High Mid Parametric

The centre section of the plug-in window features two separate bands of parametric EQ (**LOW MID** and **HIGH MID**); each with a Cut/Boost **GAIN** control from -16 dB to +16 dB, a frequency sweep control, and fully variable Q (bandwidth).
The **LOW MID** band's centre frequency ranges from 40 Hz to 1.2 kHz.
The **HIGH MID** band's centre frequency covers the range 600 Hz to 18 kHz.

### Low Shelf and High Shelf

The low and high frequency shelving sections provide a Cut/Boost **GAIN** control from -16 dB to +16 dB and a frequency sweep control.
The **LOW SHELF** frequency selection ranges from 33 Hz to 270 Hz.
The **HIGH SHELF** frequency selection ranges from 3.3 kHz to 15 kHz.

### High Pass and Low Pass Filters

Two knobs provide full control of both **HIGH PASS** and **LOW PASS** filters. Rotating the controls past the **OFF** position will activate the filters, and allow a continuous sweep between the frequencies indicated on the dials (36 Hz to 330 Hz for the **HIGH PASS**, and 3.9 kHz to 16 kHz for the **LOW PASS** filters).
**HIGH PASS** will roll off (attenuate) all frequencies below the selected frequency.
**LOW PASS** will roll off all frequencies above the selected frequency.

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