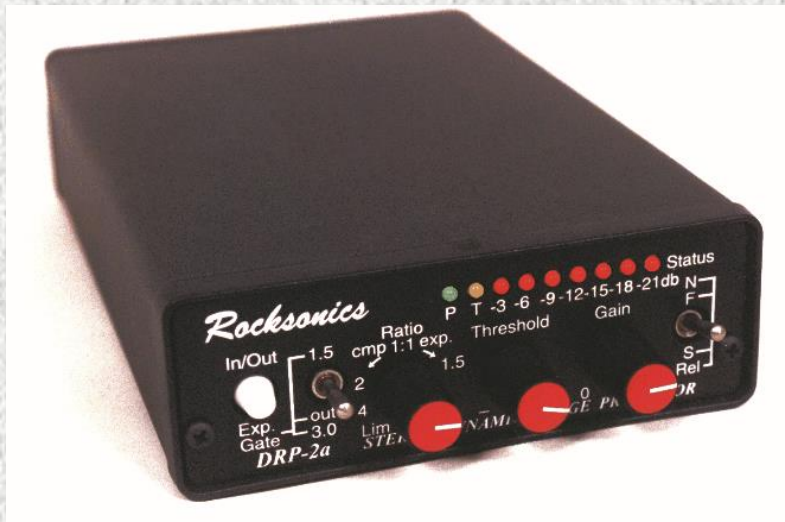


Rocksonics **DRP2a mkII**

Stereo Dynamic Range Processor

Audio effect plugin by Raising Jake Studios



The **DRP2a mkII** plugin is an emulation of the hardware dynamic range processing multi-tool produced by Rocksonics Professional Audio back in the mid 1990's. The **DRP2a mkII** plugin re-creates the controls and smooth, layered, program-dependent response of the original hardware unit. The plugin includes additional modern features including "look ahead", oversampled output peak clipper, input sidechain and mix blend controls.

The **DRP2a mkII** is a "Swiss Army Knife" dynamics processor that can be used for compressing, gating, expanding, ducking and pumping audio signals. It uses multiple layers of automatic, program-dependent, RMS-style level detection based around one common Threshold control for quick and easy setup.

The **DRP2a mkII** is a stereo/mono plugin that automatically detects and switches to mono mode when used on mono tracks for reduced CPU load.

DRP2a mkII is a 64-bit VST2, VST3 and AAX plugin for Windows and "Universal Binary" VST2, VST3, AU and AXX plugin for Mac OS 10.11 or higher on Intel and Apple Silicon.

INSTALLATION INSTRUCTIONS

Installing the **DRP2a mkII** plugin is simply a matter of copying and pasting the appropriate files from the **DRP2a mkII** purchased download to the proper folders on your computer.

All RJ Studios plugin files are double zipped. The top-level zip file (download) contains two sub-files for Mac("dmg") and PC (".zip") versions that are independently zipped. This was necessary to preserve the Pace iLok signatures for the AAX plugins for the respective OS systems. Please unzip the Mac or PC sub-files before copying the desired plugin to your folders. Copying/dragging the plugin without unzipping first may not work, especially the AAX plugins.

FOR PC ("x64 PC zip" folder)

To install the VST3 plugin: make sure your DAW is closed then copy the "DRP2amk2.vst3" file from the download file and save it to your VST3 plugin folder (typically C:\Program Files\Common Files\VST3). Restart your DAW and scan the plugins folder from your DAW's plugin manager.

To install the VST2 plugin: make sure your DAW is closed then copy the "DRP2amk2.dll" file from the download file and save it to your VST2 plugin folder (typically C:\Program Files\Steinberg\VSTPlugins). Restart your DAW and scan the plugins folder from your DAW's plugin manager.

To install the aaxplugin for Pro Tools: make sure your DAW is closed then copy the "DRP2amk2.aaxplugin" file from the download file and save it to your Avid plugin folder (typically C:\Program Files\Common Files\Avid\Audio\Plug-Ins). The plugin will be automatically scanned/added the next time Pro Tools is opened.

FOR MAC ("dmg" folder)

To install the VST2, VST3 and/or AU plugins, make sure your DAW is closed then copy the "DRP2amk2.vst" and/or "DRP2amk2l.vst3" and/or "DRP2amk2.component" folders from the download file and save them the VST and/or VST3 and/or "Component" folders on your Mac under /Library/Audio/PlugIns.

NOTE: On Mac OS 10.13 and later a reboot may be required before AU plugins will show up in your DAW(s).

To install the AAX plugin for Pro Tools: make sure your DAW is closed then copy the "DRP2amk2.aaxplugin" file from download file and save it to your Avid plugin folder (typically /user/Library/Application Support/Avid/Audio/Plug-Ins). The plugin will be automatically scanned/added the next time Pro Tools is opened.

PLUGIN PRESETS

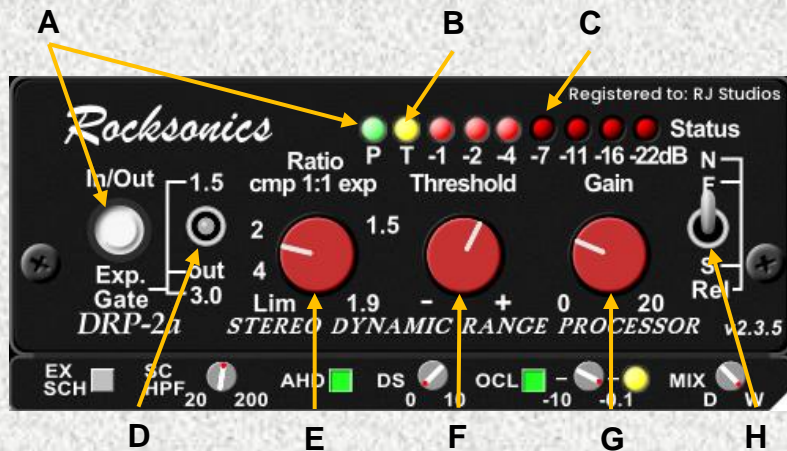
The **DRP2a mkII** plugin comes with a basic assortment of built-in presets to get you started. These presets will appear in all versions of the plugin on both Mac and PC however not all DAWs support hard-coded presets for VST3 plugins. If you are using the VST3 version in your DAW and do not see the preset list it means your DAW does not support hard-coded VST3 presets. In that case, please use the VST2 version.

REGISTRATION

The **DRP2a mkII** dBSmooth will be operating in demo mode when first installed and will operate unrestricted for 14 days. At the end of 14 days the demo will cease output unless a license is purchased. To install your license click on the registration field (see I below) at the top right corner of the plugin window and copy/paste the registration code from your purchase receipt, then press enter on your keyboard.

NOTE: Internet connection is required during registration. If your system is typically isolated from the internet for security or performance reasons you may disconnect after the plugin shows "Registered to: your name".

Plugin Controls



ORIGINAL HARDWARE CONTROLS

A – Effect In/Out – when the effect is on the green “Power” LED will light.

B – Threshold reached – lights when the signal exceeds the threshold setting when compressing and when falling below the threshold setting when expanding (both compression and expansion are DOWNWARD however see “Mix control” below).

C – Gain reduction meter –shows total combined gain reduction of the main compressor/expander section and the expander gate.

D – Exp Gate (Expander Noise Gate) – selects one of 3 possible settings for the downward expander noise gate: 1:1.5 expansion ratio (top), No effect (center), and 1:3 ratio (bottom). The expander gate will begin gain reduction when the signal falls below the Threshold setting and will follow the signal down (does not chop on/off like a typical noise gate). The amount of gain reduction will display on the gain reduction meter (C). The release time is set by the Rel control (H).

E – Ratio – continuously variable control that provides compression when left of center (“cmp” range) and expansion when right of center (“exp” range). Available ratios range from 10:1 compression (“Lim”, full counterclockwise) to 1:1.9 expansion (fully clockwise). Compression and expansion are always downward gain reduction. The signal will compress when the Ratio control is in the “cmp” range and the signal rises above the Threshold setting – and will expand when the Ratio control is in the “exp” range and the signal falls below the Threshold setting.

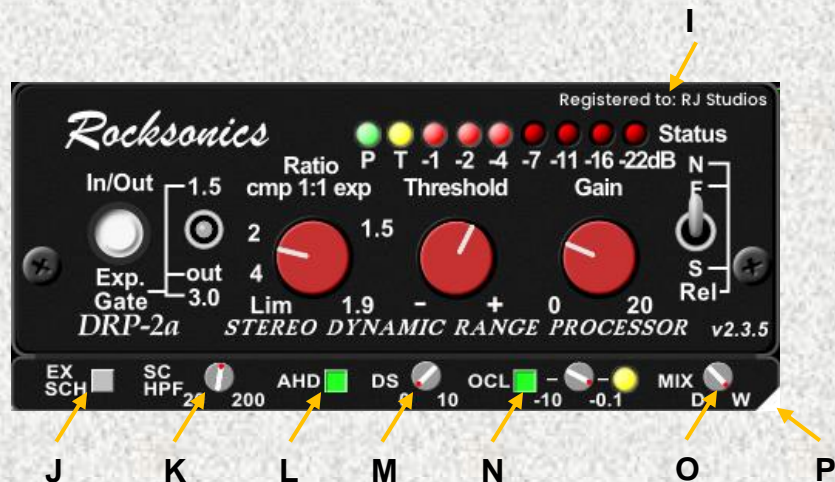
Note: in DAW automation lanes Ratio values will appear as “0.1 – 1.9” where 0.1 = 10:1 compression

F – Threshold – sets the signal threshold level for the compressor/expander and the expander gate sections. If the expander gate is turned on and the Ratio control is set for compression the signal will be compressed when it rises above the Threshold setting and gated when it falls below the Threshold setting. This common threshold provides simple a fast set up for processing drums, vocals, etc.

G – Gain – provides “make up” gain to allow level matching pre and post-processed signal levels. Can also be used to provide drive into the oversampled output clipper (N) for limiting and hard compression.

H – Rel (Release time) – selects one of 3 possible release times for the compression/expansion and gate circuits, Normal (top), Fast (center), and Slow (bottom).

Plugin Controls (continued)



BONUS (PLUGIN ONLY) CONTROLS

I – Plugin registration information – see “registration” section

J – EX SCH (sidechain input) – turns on/off the external sidechain input.

K – SC HPF – high pass filter for the sidechain input. Applies to both internal and external sidechain.

L – AHD (Look Ahead) - turns on/off the look ahead function. Look ahead provides a 2.5 millisecond “head start” allowing the dynamics processor to anticipate the signal which reduces lag in the dynamics tracking. This control can be used to reduce the “snap” that can occur when compressing and to avoid cutting off attack of percussive sounds when gating and expanding.

M – DS – continuous control that provides up to a 10dB “bell boost” centered at 7kHz in the detector sidechain for increased gain reduction of high frequency material (like sibilance). This control is especially useful when compressing vocals. This control only affects the frequency response of the **DRP2a mkII** sidechain - it does not affect the main audio signal path. Leave this control turned off (full counterclockwise) for normal compression and expansion.

N – OCL (Output Clipper) – turns on/off the oversampled output clipper. The yellow LED lights when the signal level reaches the onset of the soft clipping knee (approx. 1.5dB below the hard clip limit). Use your DAW’s level meters to see how much clipping is taking place by simply toggling this control on/off. Small amounts of clipping can be completely transparent while heavier clipping will add a distorted edge. The **DRP2a mkII** output Gain control (**G**) can be used to control the amount of drive into the clipper.

NOTE: Turning the OCL function on/off can produce a brief discontinuity in the audio (“click”) if switched during audio playback. This is because the oversampled clipper is actually removed from the audio path (not just bypassed) to save CPU cycles when not needed. If you want to automate this control it is best to change state during gaps in the audio.

O – Mix – allows blending the pre and post-processed signals for “parallel compression” techniques. The mix ranges from 100% dry (“D”) to 100% wet (“W”). The amount of blend in-between depends on how much gain and gain reduction is being applied (just as if used in parallel tracks on a console).

P – UI Resize handle – click and drag to change the UI size by +/-50%. Double click for default size.

ROTARY CONTROL MODIFIERS

- 1) Mouse over any rotary control to display its current value
- 2) Hold down the Ctrl key while dragging or scrolling any rotary control for fine resolution
- 3) Hold down the Alt (Win)/Option(Mac) key and then click on any rotary control to reset that control to its default value
- 4) Double-click on any rotary control to type in a control value. **NOTE:** the value shown for the Ratio control is dynamic ratio change. For example, “0.1” means a 1 dB input produces a 0.1dB output, i.e., a 10:1 compression ratio. Likewise, “1.5” means a 1 dB input produces a 1.5dB output, i.e., a 1:1.5 expansion ratio.

HOW TO USE DRP2A MKII

It is recommended that **DRP2a mkII** be used as an “insert” for full effect on buses and tracks but can also be used a “send” effect if you want to mix it in with the source (when used as a send effect “Mix” control (**O**) should be full wet (“w”) position). **Always set the DRP2a mkII Gain control (G) to minimum initially then bring up the level as needed after all other controls have been set.**

The **DRP2a mkII** plugin comes with an assortment of basic Presets that illustrate some of the ways the **DRP2a mkII** can be used – start there and experiment! NOTE: some DAWs do not support hard-coded presets for VST3 plugins. If you are using the VST3 version and do not see the presets please load the VST2 version.

Basic Compressor

To use the **DRP2a mkII** as a basic track or bus compressor start by turning the Ratio control knob (**E**) to a point counterclockwise from center. This puts the **DRP2a mkII** into “compression” mode. Then adjust the Threshold control (**F**) so that the yellow threshold “T” LED (**B**) comes on when the signal exceeds the desired compression point. Adjust the Ratio control for the desired amount of compression. Adjust the Release control (**H**) to set the compressor release time for the most transparent sound (or most aggressive depending on desired result).

The Output Clipper (OCL, **N**) can be used to limit compressor overshoot on material with strong transients (drums, etc.) or can be left off in which case the compressor may enhance attack transients.

The Lookahead (AHD, **L**) control can also be turned on to reduce overshoot on transient material.

Compressor with soft noise gate

Use the same set up as above for “Basic Compressor” but turn on the Expander Gate (**D**) to either the 1.5 or 3.0 setting. The 1.5 setting will subtly reduce the signal level when the signal falls below the Threshold setting while the 3.0 setting will provide more of a “gating” action. The downward expander gate and compressor share the common Threshold setting so that the transition point is simply “above, compress - below, gate”. Works great on drums, vocals, etc.

Wideband Dynamic Range Expander

The **DRP2a mkII** can be used to expand the dynamics of signals that may have been over-compressed or for reducing noise levels during low-level passages, etc.

For wideband dynamic range expansion start by turning the Ratio control knob (**E**) to a point clockwise from center. This puts the **DRP2a mkII** into “expansion” mode. Then adjust the Threshold control (**F**) so that the yellow threshold “T” LED (**B**) is lit throughout all parts the track. This ensures that the entire dynamic range of the signal will be downward expanded (provided your track levels do not exceed 0dBFS). If you only want the signal to be expanded below a certain level (i.e., for noise reduction) set the Threshold control somewhat lower as desired. Adjust the Ratio control for the desired amount of expansion.

The Lookahead (AHD, **L**) control can be turned on to give the expander a little “head start” when processing material with strong transients.

Ducking Effect (using sidechain input)

Sometimes it is helpful in a mix – and particularly for voiceovers on video tracks – to “duck” one signal when another signal is present. To setup the **DRP2a mkII** for ducking start by inserting the **DRP2a mkII** plugin on the track you wish to duck and apply the Basic Compressor setup described above. Then turn on the Sidechain input (EX SCH, **J**) and apply a “send” from the DAW track that you wish to use as the ducking control source. Adjust the Threshold control and/or the ducking signal send level to control the threshold at which the ducking begins. Then adjust the Ratio control for the desired amount of ducking.

Pumping Effect (using sidechain input)

A pumping effect – such as a bass guitar surging when a kick drum hits – can be produced by the **DRP2a mkII**. The idea is to use the same setup as described above for Ducking but with the **DRP2a mkII** in expansion mode rather than compression mode. Start by inserting the **DRP2a mkII** plugin on the track you wish to pump and apply the Wideband Dynamic Range Expander setup described above. Then turn on the Sidechain input (EX SCH, **J**) and apply a “send” from the DAW track that you wish to use as the pumping control source. Adjust the Threshold control and/or the pumping signal send level to control the threshold at which the pumping begins. Adjust the Ratio control for the desired amount of pump.

Frequency Sensitive Compression/Expansion (using sidechain input)

The **DRP2a mkII** can be used to generate various frequency-selective gain responses using the sidechain input. Start by setting up the **DRP2a mkII** using the Ducking Effect setup described above. Now, instead of routing a different track to the sidechain input, route an EQ’d version of the SAME track to the sidechain input. On most DAWs this will require setting up an aux bus with EQ. Create a send from the vocal track to the EQ bus and then route the EQ signal back to the **DRP2a mkII** sidechain input. By using this “out and back” approach for the sidechain input it is possible to shape the EQ contour of the **DRP2a mkII**’s response. You can use it to duck high frequencies (de-ess), tame resonances, etc.

NOTE: The **DRP2a mkII** will process the input audio as a whole (i.e., wideband) – the frequency modifications to the sidechain (as with the DS control (**M**)) only affects the frequency response of the sidechain. If you wish to process only a select frequencies through the **DRP2a mkII** you will need to set up the appropriate filter, band splitter, etc., in front of the **DRP2a mkII** input.

Other FX (using sidechain input)

Try a using a delay plugin in the sidechain loop for unique decaying tremolo effects, etc. Lots more possibilities! Start with the presets and experiment!

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<http://www.raisingjakestudios.com/>

Raisingjake@gmail.com