

Shark Optical

USER MANUAL / VERSION 0.1.4



Optical Leveling Amplifier

A practical guide to level control, detector emphasis, parallel compression, metering and presets.

IN THIS GUIDE

- 1 Overview and setup
- 2 Quick start and the main controls
- 3 Tone of movement: emphasis, mix and linking
- 4 Metering and everyday operation
- 5 Presets, recall and troubleshooting

This manual follows the 0.1.4 source and the approved running interface. The user has confirmed operation on their Mac setup. Compatibility with other hosts and systems should be checked with the supplied build.

From clean to controlled

02 / QUICK START

Insert and initialize

Insert Shark Optical on a mono or stereo audio channel. Load Init - Clean Start: Gain 50, Peak Reduction 0, HF Emphasis FLAT, Mix 100%, Output Trim 0 dB, Compress, Stereo Link on, Gain Match off, Bypass off and GR metering. This starting state passes audio at unity.

Find the right amount

Play a representative passage. Raise Peak Reduction gradually; start by listening around 2-5 dB of indicated reduction. Use Gain to bring the processed level close to the original. Compare with Bypass, then audition Gain Match after it settles. Judge the quieter phrases as well as the loudest peaks.

Peak Reduction | 0-100

Clockwise increases compression by lowering the detector threshold. This is a control scale, not a dB readout. At zero the compression is inactive. The VU in GR mode shows the resulting gain reduction.

Gain | 0-100

Gain is post-detector makeup level. 50 equals 0 dB; the full range is -40 to +40 dB. It does not increase compression. High Gain settings can produce a large output increase, so adjust while monitoring the DAW output meter.

Compress / Limit

Compress provides a soft knee and approximately 3:1 ratio; Limit increases the ratio to approximately 20:1. Attack is approximately 10 ms. Recovery combines a roughly 60 ms fast component with a slower memory component, so sustained compression can recover more gradually. Attack and release are not user controls.

Limit does not guarantee an output ceiling. Use a dedicated limiter where peak protection is required.

Shape the response

03 / LOWER CONTROLS

HF Emphasis | 0 to FLAT

Fully clockwise is full-band detection. Turn counter-clockwise to reduce low-frequency influence in the sidechain detector, giving upper-frequency energy more relative influence. The audio path is not directly EQ'd. Use it when bass movement is making the entire signal compress too much; listen for how bright peaks then affect the response.

Mix | 0-100%

Blends the dry input and processed signal. 100% is fully processed; 0% selects the dry branch. Lower Mix can restore articulation while keeping compressed sustain. Gain and Output Trim affect the processed branch before this blend. Gain Match follows the blend.

Output Trim | -18 to +18 dB

Fine level adjustment on the processed branch before Mix. It is not a final gain control over both branches. At 0% Mix, changing Output Trim has no effect on the dry signal.

Stereo Link

On: both channels follow the louder detector, helping preserve the stereo balance during compression. Off: left and right have independent gain reduction. In mono, only one detector is used.

Gain Match

A slow RMS comparison adjusts the blended output toward the input level, with compensation limited to approximately +/-12 dB. Give it a few seconds to settle on consistent audio. It is a listening aid, not a loudness standard or peak limiter. For a fixed final output, switch it off and set Gain/Trim manually.

Bypass and Power

The lower Bypass switch and red Power jewel share the same bypass parameter. When bypass is enabled, output returns to the dry input and the jewel darkens. The transition is smoothed.

Read it. Adjust it. Compare it.

04 / METER AND GESTURES

VU meter modes

Click the meter selector to cycle GR, +4 and +10. In GR, zero means no reduction; the needle moves left as compression increases. The output modes use RMS-derived level with visual smoothing. +4 places 0 VU at -18 dBFS RMS; +10 places it at -12 dBFS RMS. This is not a true-peak, LUFS or clip meter.

Knob gestures

Drag vertically to adjust; horizontal movement also contributes. Hold Shift for finer movement. Double-click resets that control to its default. Right-click opens numeric entry. The mouse wheel also changes values. Enter Mix and HF Emphasis as percentages; Output Trim uses dB.

A/B/C and undo/redo

Select A, B or C to recall an alternate parameter snapshot. Each slot retains its settings. The top arrows undo and redo edits, with up to 100 UI history entries. Command-Z undoes; Command-Shift-Z redoes. These tools support comparisons without manually reconstructing settings.

Size and menu

Drag the editor window to resize proportionally. Hamburger > Zoom offers 50%, 60%, 70%, 80%, 90% and 100%. The menu also contains Quick manual, Credits, About / Version, Website and License / Activation. Credits appear only in the menu overlay. Click outside an overlay or press Escape to close it.

A useful comparison sequence

Find a pleasing amount of compression, save that setting in a slot, then try a second amount or Mix position in another slot. Compare at similar perceived level using Gain Match or manual Gain adjustment. Keep the version that works in the full mix, not just the louder one.

Keep the settings that work

05 / PRESETS AND SUPPORT

Browse and recall

Click the preset name to open the browser. Search by name or category, choose a row and press Load, or double-click a row. The arrows beside the preset name step through presets. The star marks the current preset as a favorite. An asterisk beside a preset name indicates modified settings.

Factory banks

60 entries cover Init, START HERE, vocals, bass, guitars, keys, room/groups and the Pro Engineer Presets section. Named sub-banks organize authored settings; they are not third-party endorsements. Source levels vary, so adjust Peak Reduction and Gain after loading.

Save your own presets

Enter a name and choose Save new. Rename and Delete apply to user presets; Delete moves the file to Trash. Save new does not overwrite an existing filename. On macOS, the usual path is ~/Library/Shark Plugs/Shark Optical/Presets. Sandboxed hosts may use a host-specific Library folder. The format is .opticalpreset. Your DAW session stores plugin state separately.

If something seems wrong

No compression: check Bypass/Power, Peak Reduction, signal level and GR mode. Excess level: reduce Gain or Trim and inspect the DAW meter. Too much bass-driven pumping: try reducing HF Emphasis from FLAT. Uneven stereo motion: enable Stereo Link. A settling level change: allow Gain Match time to respond, or disable it for a fixed comparison.

Installation and compatibility

Use the supplied AU or VST3 build in a compatible macOS host. Standard folders are ~/Library/Audio/Plug-Ins/Components and ~/Library/Audio/Plug-Ins/VST3. Restart or rescan the host after installation. A source ZIP is not an installer: build it through Projucer and Xcode first. The project targets macOS 12+ and reports zero processing latency.

The 0.1.4 source has no activation or trial timer. A License / Activation menu entry is informational in this version. This manual does not establish commercial trial terms, Windows/AAX availability, signing or universal-binary certification. Support: sharkplugs.com.