OPAL

OPTICAL PROGRAM ADAPTIVE LEVELER

Software User Manual

Software Version 1.0

EN 230705

OPAL

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OPTICAL PROGRAM ADAPTIVE LEVELER

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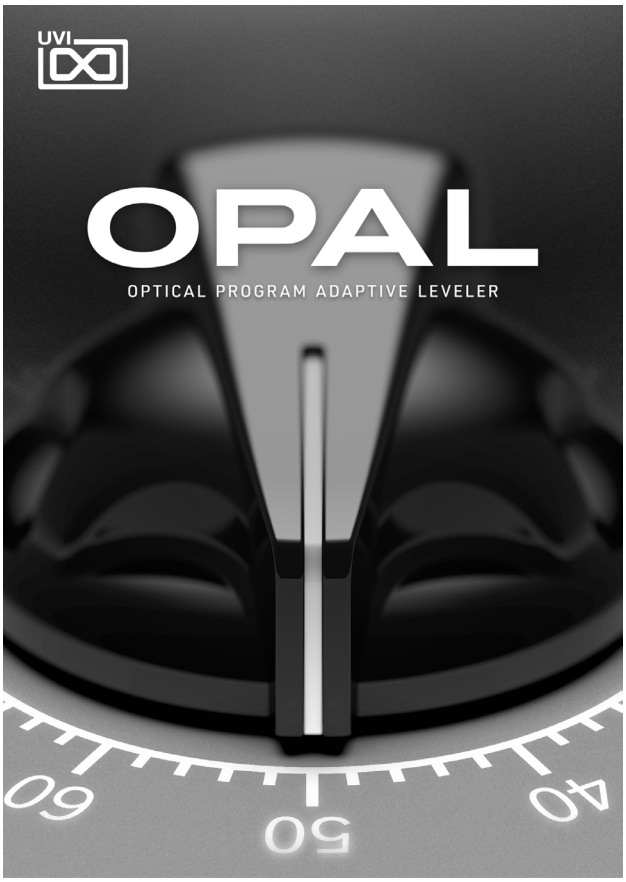
Introduction



OPAL
OPTICAL PROGRAM-ADAPTIVE LEVELER

THE NEW BAR IN OPTICAL COMPRESSOR REALISM

Embark on a sonic journey with Opal, a groundbreaking emulation of the iconic optical compressor. Opal unveils the true essence of the T4 optical cell, faithfully reproducing the program-dependent dynamics and nonlinearities that shaped countless recordings, and carries the design forward with a modern feature set.

With 7 handpicked hardware units sourced from high-end studios around the world, Opal delivers an impressive range of unique sonic signatures, all with unrivaled accuracy.

Experience vintage authenticity, advanced features, and pristine sound quality in Opal - the evolution of vintage dynamics.

THE SCIENCE OF SOUND

Opal's journey began with a relentless pursuit of authenticity. Our team employed advanced physical modeling techniques to capture the essence of these renowned optical compressors, creating our own innovative model that is truthful to the original hardware..

By meticulously studying the original hardware units and leveraging the principles of port-Hamiltonian systems theory, we unraveled the intricate program-dependent dynamics and nonlinearities that define the optical compressor's iconic sound. This rigorous approach ensured unparalleled accuracy and a faithful representation of the vintage hardware.

ADVANCED MODELING

The heart of Opal lies in its precise modeling process. We meticulously measured and analyzed seven distinct hardware units, each sourced from a celebrated studio in an iconic city. By examining each circuit stage we were able to isolate the characteristics that give these units their unique sonic personality.

Through a combination of nonlinear programming and reverse engineering, we carefully calibrated our models to match the behavior of these revered hardware units. Unlocking the specific dynamic characteristics of each optical cell allowed us to reproduce their behavior with astonishing fidelity.

PERFORMANCE, OPTIMIZED

To achieve real-time usability without compromising on authenticity, we employed innovative reduction and pre-resolution techniques. Our model, based on the rigorous analysis of circuit schematics and direct measurements, was carefully streamlined to maintain computational efficiency while preserving the intricate interplay of components.

Through skillful simplifications and expert craftsmanship, we condensed the complexity of the original circuit into a robust and efficient simulation. The result is a faithful reproduction of each compressor's dynamic characteristics that responds with lightning-fast precision, empowering you with both unmatched realism and efficient performance.

MODERN FEATURES

Opal includes a range of modern features that expand the compressor's sonic possibilities, and enhance the user experience. From the responsiveness of the optical cell to the versatility of sidechain input, you'll find a wealth of useful tools at your fingertips.

Take advantage of the advanced makeup drive, frequency response correction, and external sidechain capabilities to tailor your compression with precision.

FAITHFUL EMULATION, MODERNIZED FEATURES

The result is a vintage-inspired compressor that seamlessly integrates into modern workflows, firmly delivering the best of both worlds.

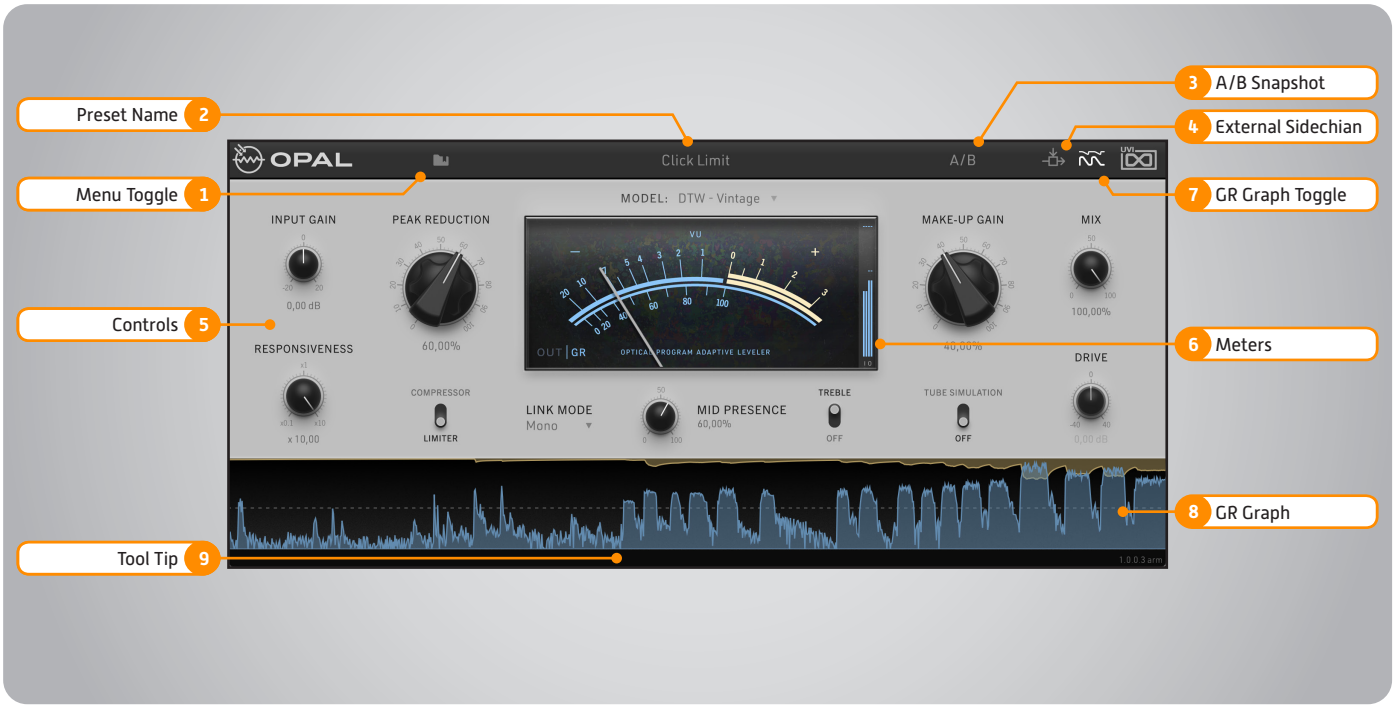
EXPERIENCE THE LEGACY, EMBRACE THE FUTURE

Immerse yourself in unparalleled accuracy and dynamic control of 7 meticulously modeled optical compressors. With a unique blend of vintage authenticity and modern features, Opal is your key to shaping rich, musical soundscapes with unprecedented hardware realism.

For system requirement and compatibility: click here

For information on the installation process, please refer to the document: Install Guide

Interface



1 Menu Toggle

Toggle the drop-down menu to Load and Save presets below

» **Load**: Opens locate dialog to load a saved preset

» **Save:** Saves current settings
Give a new name to save as new preset

2 Preset Name

Click to show the drop-down menu to load the factory or saved user preset

3 A/B Snapshot

Use to store two different plugin states for A/B comparison

» **Initial Click**: Stores current state to memory A

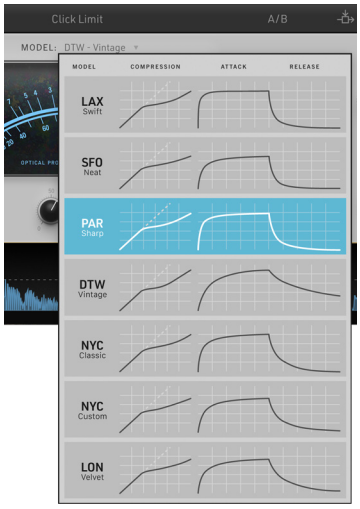
» **Following Clicks**: Stores current state in bank A (resp B) and loads the previous state from bank B (resp A)

4 External Sidechain

Enables external sidechain input sets by your DAW

5 Controls

» **Model**: Click to show the drop-down menu to choose a model among seven emulations of real studio leveling amplifiers (optical compressors), each with its own character (dynamic range and response time).



» **Input Gain**: Controls the gain applied to the signal before compression

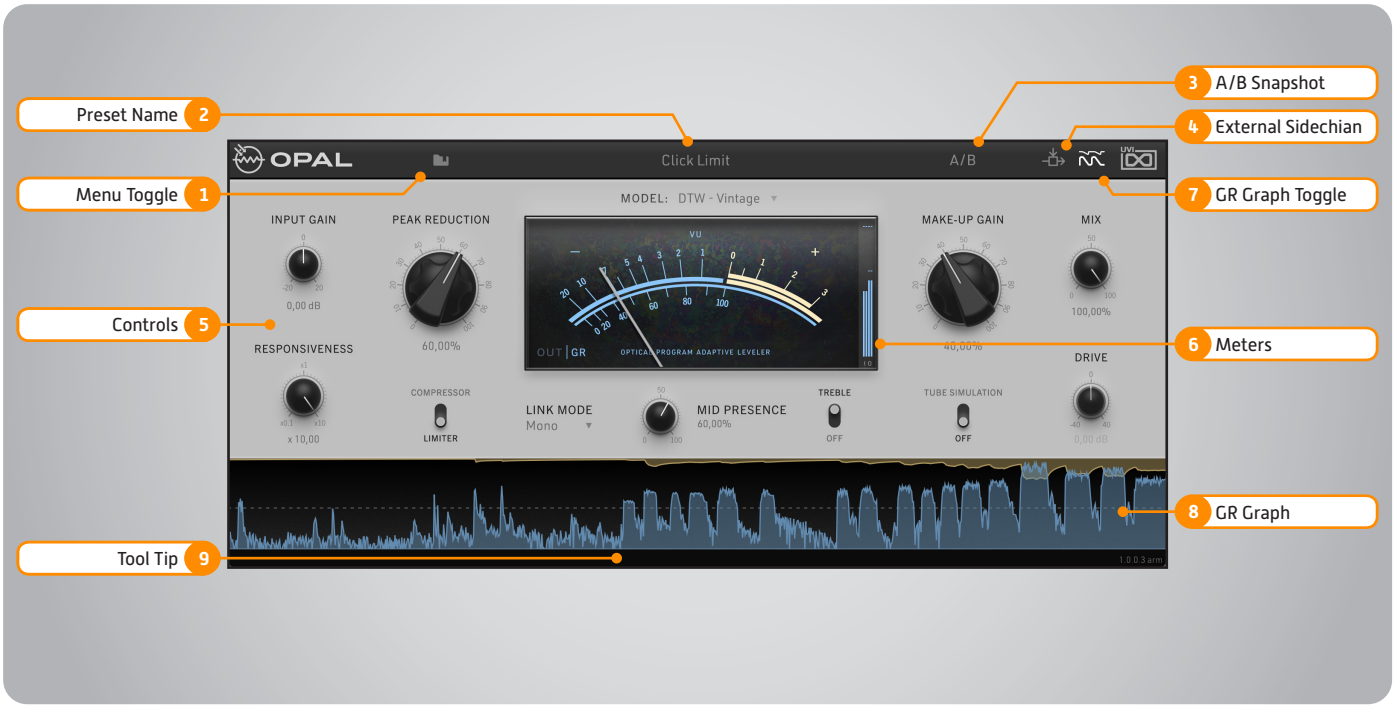
» **Responsiveness**: Multiplies the response time (attack and release, jointly). The response time is still program-dependent but can be set shorter or longer for a given input.

» **Peak Reduction**: Controls the detection threshold. Maximal threshold at 0% peak reduction (above 0 dBFS), minimal threshold at 100 % peak reduction (around - 50 dBFS).

» **Compressor/Limiter**: Switches the operation mode between compressor and limiter

» **Link Mode**: With stereo signals, the control signal will feed the sidechain for operation. Click to show the drop-down menu to set the stereo link mode based on Left, Right, Mono (LR sum), Max ch (louder between L or R ch) or Unlinked (link off)

Interface - continued



- **Mid Presence**: Controls the sidechain filter frequency response. The medium-highs are more or less filtered out before the detection. This corresponds to the original R37 “emphasis” control
- **Treble:** Enables treble boost. When switched off, corrects the slight treble boost present in original compressors.
- **Make Up Gain**: Controls the compensatory gain applied to the compressed signal.
- **Tube Simulation:** Turn on or off the full physical-modeling tube simulation for Make Up Gain. More CPU intensive when switched on.
- **Drive:** Adjusts the gain applied to the signal fed into Make Up Gain when the Tube Simulation is active
- **Mix:** Adjusts the dry/wet balance, ideal for on-board parallel compression

6 Meters

- **VU Meter**: Indicates output or gain reduction level by Out|GR toggle
- **Out | GR**: Switch the VU meter between output (post Make-Up gain) and gain reduction level
- **I/O meters**: Indicates the input and output level

7 Gain Reduction Graph Toggle

Show or hide the Gain Reduction Graph on the bottom

8 Gain Reduction Graph

Shows the gain reduction (yellow) and input (blue) graphs, monitored in real time, as well as the compression threshold (break line).

9 Tool Tips

Display instructions for any parameter by hovering over it with your mouse

Links

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Home	uvi.net/
UVI Portal	uvi.net/uvi-portal
Effect Installation Guide	installing_uvi_effects_en.pdf
FAQ	uvi.net/faq
Tutorial and Demo Videos	youtube.com/
Support	uvi.net/contact-support

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FAQ	ilok.com/supportfaq

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OPTICAL PROGRAM ADAPTIVE LEVELER

Credits and Thanks

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