OPTO COMP USER MANUAL

AUDIOSCAPE
ENGINEERING CO.

POWERED BY
SONIC TRUTH
MADE IN THE USA

This manual provides general information, preparation for use, installation, and operating instructions for the Audioscape Opto Compressor

Audioscape Engineering Co.
Florida
Made in the U.S.A.

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A WORD FROM THE AUDIOSCAPE FAMILY

Thank you for purchasing the Opto Compressor from AUDIOSCAPE Engineering! Inspired by a venerable optical compressor from the 1960's.

The Opto Comp is a great addition to any studio. Capable of bringing any program material to life; with euphonic warmth, grit and glue.

Let's dig into it's features!

IMPORTANT SAFETY INSTRUCTIONS

- **Water and Moisture - Do not use the unit near any source of water or in excessively moist environments.**
- **Object and Liquid Entry - Care should be taken so that objects do not fall, and liquids are not spilled, into the enclosure through openings.**
- **Ventilation - When installing the unit in a rack or any other location, be sure there is adequate ventilation. Improper ventilation will cause overheating and can damage the unit.**
- **Heat - The unit should be situated away from heat sources, or other equipment that produce heat.**
- **Power Sources - The unit should be connected to a power supply only of the type described in the operating instructions, or as marked on the unit.**
- **Power Cord Protection - AC power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit. Never take hold of the plug or cord if your hand is wet. Always grasp the plug body when connecting or disconnecting it.**
- **Non-use Periods - The AC power supply cord of the unit should be unplugged from the AC outlet when left unused for a long period of time.**
- **Damage Requiring Service - Please refer to a qualified technician.**

FRONT PANEL

(1) Mode - COMPRESSOR, soft knee gentle compression. LIMIT, the softer side of limiting. Smooth as butter either way.

(2) HF - Fully clockwise for flat, back it off to gradually increase high frequency pass-through.

(3) Gain- This is make-up gain after compression.

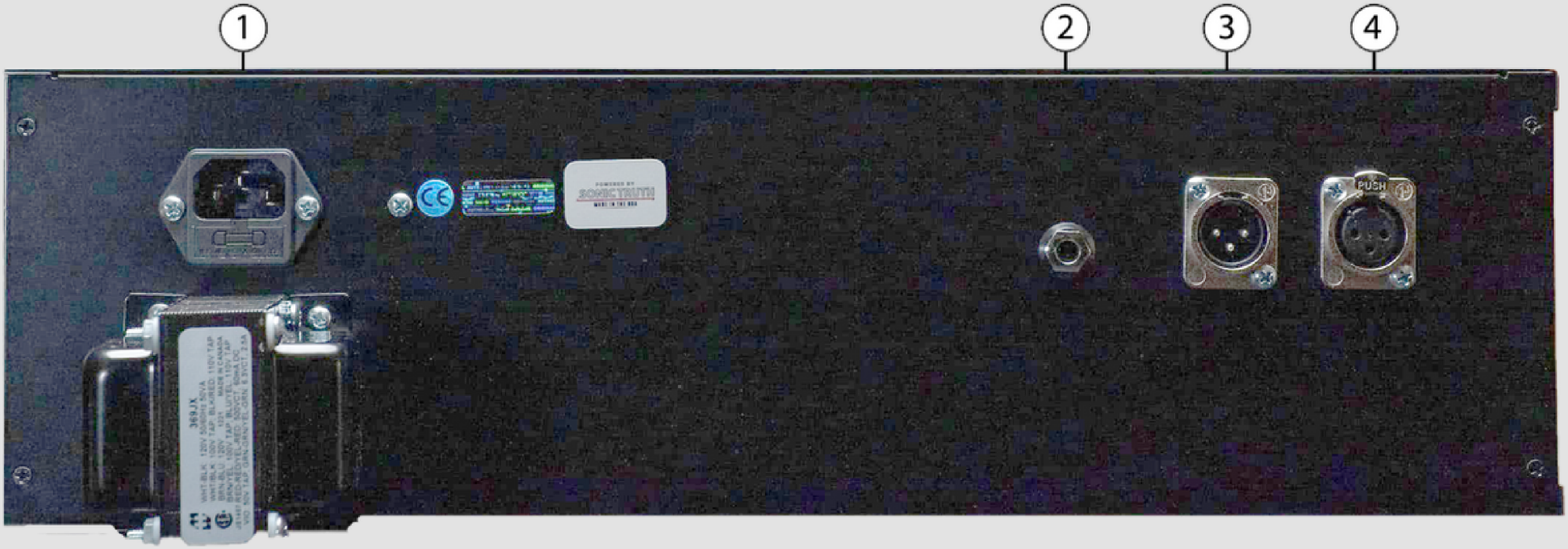
(4) VU Meter - Will display either output (+10 dBV or +4 dBu) or gain reduction.

(5) Peak Reduction - Starting at 0, peak and overall gain reduction will gradually increase until the signal is virtually flattened.

(6) Meter Setting - Choose the setting for the VU meter: output (+10 dBV or +4 dBu) or gain reduction.

(7) Power switch: up for on!

REAR PANEL



(1) Connection port - for IEC universal 3 conductor power cable

(2) Stereo Link connection port - Each unit can be stereo-linked with another via a simple TS instrument cable. Simply put, whichever unit is compressing harder becomes the master unit for linking. Stereo link procedure described on page 10.

(3) XLR OUTPUT - A balanced XLR connector carrying the line-level output signal of the Opto-Comp. This signal will normally be routed via a patchbay to a channel or bus insert return.

(4) XLR INPUT - Connect line-level input signal to this balanced XLR connector. Pin 2 is wired positive (hot). This signal will normally be arriving via a patchbay from a channel or bus insert send.

FEATURES

The OPTO COMP is as an all-tube & transformer-laden, optical compressor that's been heralded for it's extremely unique dynamic response, box-tone, and beautiful, program-dependent compression.

The OPTO COMP is a FEEDBACK style compressor and operates using a "fixed-threshold" design - the higher the INPUT level, the more compression, tone and tube/transformer saturation will rise.

As we like to put it:

The OPTO COMP is SONIC ELEGANCE in a box

GAIN

Raises post-compression make-up gain level, does not affect input level.

PEAK REDUCTION

Increase the amount of compression as you rotate the potentiometer to the right

COMPRESS/LIMIT

Choose how the Opto Comp will function

HF

Controls the amount of high frequency pass-through outside the compression circuit. All the way clockwise is flat.

METERING

Choose what you're visually monitoring. Output (+10 dBV or +4 dBu) or gain reduction

TECH SPECS

HF SETTINGS

RECOMMENDED STARTING POINTS	
Vocals :	100%
Sibilant Vox:	0%
Acoustic Guitar:	60%
Electric Guitar:	10%
Bass:	45%
Piano:	40%
Keys/Strings:	100%
Drum Group:	100%
Drum Room:	50%
Snare:	75%

SPECS

Input Level:	+16 dB
Dynamic Range:	>118 dB
Freq Response:	15hz-20 kHz
Noise:	-80dB +/-5
Gain:	40 dB
Attack time :	10 ms
Release:	.5 to 5 sec
Impedance in/out:	600 Ω
THD:	≥0.1% at -18 dBfs with 0-3 dB peak reduction
Height:	3U
Depth:	9 in (229mm)
Width:	19 in (48cm)
Weight:	~17 lbs.
Power:	120 V/60 Hz

ADDITIONAL FEATURES

- Handcrafted in the USA
- Period-correct USA-made 3U 19" Chassis and Front Panel
- Premium, NOS Tubes
- Proprietary T4B Opto-Attenuator
- Proprietary Custom-Wound Input and Output Transformers
- Cornell Dubilier (CDE) Polypropylene Capacitors
- Panasonic Radial Polyester Capacitors
- NOS Allen-Bradley Carbon Comp Resistors
- Carling (the BEST!) Toggle Switches
- +40dB Make-up Gain
- Analog dB Gain-Reduction Meter Perfectly Calibrated
- Davies Original-Styled Knobs
- Electronically Balanced +4 dBu circuitry
- Neutrik™ XLR Input and Output connectors
- Alpha potentiometers and Rotary Switch
- Stereo Link via Cliff TRS Jack (Located on Back of Unit)
- Proprietary 120 V/240 V Power Transformer

FAQ

COMMON QUESTIONS

Q: What's the point of the HF knob and how does it work?
A: The HF knob is *inactive* in the fully-clockwise position. It's always been backwards, so why change now?

- **As you turn counter-clockwise you increase the amount of uncompressed high frequency material that leaks through**

Q: How different are the limiting and compression functions?
A: The OPTO isn't a true limiter. The limiting function is very much on the soft side of the limiting field. But it is stronger than the compression.

Q: Is the OPTO an exact clone of the original Teletronix/Universal Audio model?
A: Heavily inspired by, and visually nearly identical, but we've reduced noise and distortion for DAW use and quality control has never been tighter! Count on years of dependable operation!

STEREO LINK INSTRUCTIONS

The stereo link can be connected via the 1/4" jack on the back of each unit with a simple TS instrument cable. After that there is a process involving a sine wave signal and adjusting the stereo adjust trimpot which is located on the main PCB inside the case itself. This trimpot is 25 turn, blue in color and sits right in the middle of the PCB by itself.

To calibrate the units for stereo operation:

- Connect the units together with the TS cablle
- Turn the Peak Reduction knobs counterclockwise (no compression).
- Set stereo adj trimmer on each unit to a clockwise position.(should likely be turned fully clockwise to begin with)
- Set each meter to read Gain Reduction.
- Adjust the Peak Reduction control on the left channel until approximately 5dB ofgain reduction is achieved.
- Adjust the stereo adjust trimmer on the unit that shows the greatest amount of gain reduction until the gain reduction indications are equal.
- You still need to set the Peak reduction control the same when operating both units in link mode.

CONTACT

- **Have support or service related questions? Please email tech@audio-scape.com**
- **Looking for Inventory updates, all general inquiries, questions about using our products, need gear or mix advice? Please email info@audio-scape.com and subscribe to the Email Newsletter, Instagram, & Facebook.**

CE EU DECLARATION OF CONFORMITY

PRODUCT MODEL / PRODUCT:

PRODUCT: OPTO COMPRESSOR
MODEL/TYPE: OPTO
SERIAL NOS. 126900 – 130000

MANUFACTURER:

MANUFACTURER: AUDIOSCAPE ENGINEERING CO. LLC
ADDRESS: 1631 S. NOVA ROAD, BUILDING A, DAYTONA BEACH, FL 32119, USA

THIS DECLARATION OF CONFORMITY IS ISSUED UNDER THE SOLE RESPONSIBILITY OF THE MANUFACTURER.

THE OBJECT OF THE DECLARATION DESCRIBED IS IN CONFORMITY WITH THE RELEVANT UNION HARMONISATION LEGISLATION:

73/23/EWG LOW VOLTAGE DIRECTIVE
89/336/EWG EMC DIRECTIVE
DIN EN 55103-1&2 ELECTROMAGNETIC COMPATIBILITY OF AUDIO EQUIPMENT
2011/65/EU THE RESTRICTION OF HAZARDOUS SUBSTANCES DIRECTIVE

THIS DECLARATION BECOMES INVALID BY MODIFICATION ON THE DEVICE WITHOUT APPROVAL.

THE TECHNICAL FILE IS AVAILABLE FROM THE MANUFACTURER AT THE ADDRESS ABOVE.

SIGNED FOR AND ON BEHALF: AUDIOSCAPE ENGINEERING CO. LLC
PLACE OF ISSUE: DAYTONA BEACH, FL, USA
DATE OF ISSUE: NOVEMBER 1ST, 2023
NAME: CHRIS YETTER
POSITION: OWNER
SIGNATURE:

THE PURPOSE OF THIS EG DIRECTIVE 2003/108/EG IS, AS A FIRST PRIORITY, THE PREVENTION OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE), AND IN ADDITION, THE REUSE, RECYCLING AND OTHER FORMS OF RECOVERY OF SUCH WASTES SO AS TO REDUCE THE DISPOSAL OF WASTE. PLEASE ASSIST IN KEEPING OUR ENVIRONMENT CLEAN.