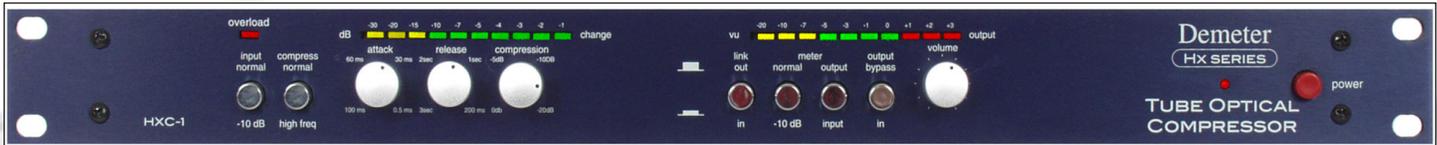


Demeter amplification

6990 Kingsbury Road | Templeton, CA 93465 | 805-461-4100 | <http://www.demeteramps.com/>



HXC-1 Hx Series Tube Optical Compressor User's Guide

The Hx Series from Demeter Amplification is a revolutionary approach in tube design utilizing innovative tube circuitry for the amplification functions and the latest in solid state for the driver functions. All Hx Series equipment use the finest quality components featuring metal film resistors, high quality film capacitors, and custom toroidal power transformers housed in an attractive aluminum and steel single space rack mount case. All units feature fully regulated power supplies supplying 200V to the tubes and + and - 18V for the solid state components, giving all Hx series components tremendous head room up to + 28 dB output into 600 ohms.

The HXC-1 is a single channel optical tube compressor/limiter utilizing the revolutionary Hx Series tube preamplification and an optical compression unit. This unit gives you the classic sound of a vintage optical compression unit with controls and features that are not found on any of them and without the poor audio quality of most.

CONTROLS AND FEATURES

Input Switch: this is an input sensitivity switch out for normal +4 operation and in for lower level inputs. This switch controls the gain of the tube amplifier. The gain can also be switched up to archive greater amounts of compression.

Overload Indicator LED: this indicates an overload condition if activated. It is OK if this indicator flickers occasionally, however it should not be allowed to remain on constantly as distortion will result. Either setting the gain lower or adding compression will turn the LED off and prevent distortion.

Compress Low Sensitivity Switch: this switch controls the compressors sensitivity to low frequencies. Normal: full band with activation of the compressor. High frequency: high pass filter reduces the compressor sensitivity to low frequency activation of the compressor circuit.

Attack: control the speed at which the compressor is activated. The range is variable from .5 millisecond to 120 millisecond. For most applications you should use the fastest speed (.5 millisecond). The slower speeds can be used for special effects and to recreate sounds of classic compressor limiters.

Release: this control sets the time the signal remains compressed after the gain reduction threshold has been reached. This control has a variable range from 200 milliseconds to 3 seconds. The most useful settings are from the fastest 200 millisecond to 1 second. The slower speeds are more for special effects and duplicating the sound of classic compressors. The times listed are set for high amounts of compression, the times will be less with a low amount of gain reduction used.

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CONTROLS AND FEATURES (CONTINUED)

Compression: this controls the amount of gain reduction applied to the signal. The amount of compression indicated is calibrated for a +4 input level. To see how much gain reduction is actually being applied see the change meter indication

Change Meter: the change meter shows in dB the amount of gain reduction applied to the input signal. This is a peak indicating meter with change shown in dB.

Link Switch: this switch links two H series compressor together for stereo operation when they are properly connected through the link and side chain connections on the back. The link switch must be in the in or linked position for both compressors to work in stereo.

Meter Sensitivity: this switch sets the sensitivity of the output VU meter to either +4 calibration or -10 calibration.

Meter Selector: this switch selects either the input or the output level to be indicated on the VU meter above. This meter is useful in matching input and output levels.

Output Selector: this switches the compressor in or bypasses it.

Volume Control: this controls the output level when the compressor is in the signal path.

VU Meter: this meter indicates either the input or output of the compressor . It is a VU type meter and shows an RMS, not peak output indication.

REAR PANEL

Voltage Selector: selects mains voltage 115 volts U.S.A. and 230 volts for Europe. **WARNING:** damage to this equipment will occur if this switch is improperly set.

Fuse: 1 amp @ 115 volts and .5 amp at 230 volts regular blow.

Link: Using a TRS cable connect to the side chain of the other compressor. This will sum the compressor drive signals and link the two compressors.

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REAR PANEL (CONTINUED)

Side Chain: using a TRS cable you must split out the signal as follows: tip is send and ring is return. Running the side chain out put through signal processors can create a number of special effects. Example: running this signal through an equalizer can turn the compressor into a frequency triggered gain control or a deser.

Output: balanced 3 pin XLR connector and balanced TRS 1/4" phono jack. **WARNING:** do not hook up output connectors to any inputs that have 48 volt phantom appearing on them. This will damage the unit's output circuitry.

Input: balanced 3 pin XLR connector and balanced TRS 1/4" phono jack. **WARNING:** do not hook up input connectors to any connections that have 48 volt phantom appearing on them. This will damage the unit's input circuitry.

HOOKUP HINTS

1. Make sure that the tube microphone preamplifier is connected to inputs that are designed to operate at line level, otherwise distortion could result.
2. Avoid ground loops. If hum occurs it may be necessary to telescope some grounds. This is done by cutting the ground wire on only one side of the 3 pin connector.
3. Keep wiring short and neat.
4. Make sure AC grounds are properly connected.
5. Don't hesitate to call the factory or your Demeter dealer with any questions. We are here to help.