



Thank you for purchasing the operative field technologies:

SHADOW HILLS MONO OPTOGRAPH

The following is an overview of its functions and a guide for use.

UNDERSTANDING YOUR SHADOW HILLS MONO OPTOGRAPH

You have been issued our unique technology developed by the engineers at the Shadow Hills Austin Research Facility. This is the most advanced system for decelerating audio transmissions. By balancing temporal and transient proportions, the most ardent program material can be brought into compliance, for the proper use by our field operatives.

TRANSIENT LIMITING

OPTICAL COMPRESSION

The Shadow Hills Mono Optograph utilizes our Electroluminescent Optical Attenuator, which controls the amount of transients of the source material being processed. This type of processing is highly effective for reducing the input material's dynamics and imparts a characteristic two-stage recover time. The processed signal recovers eighty percent of the processed signal quickly, while the last twenty-percent takes over a second, depending on the amount of attenuation applied. The controls for the Electroluminescent Optical Attenuator are Compression and Makeup Gain.

COMPRESSION ROTARY ATTENUATOR

The Compression rotary attenuator controls the threshold at which the onset of compression occurs, thus determining the level of gain reduction. Turning the Compression control clockwise delivers more compression. Turning the Compression control counter-clockwise reduces the amount of compression. When fully counter-clockwise no compression occurs.

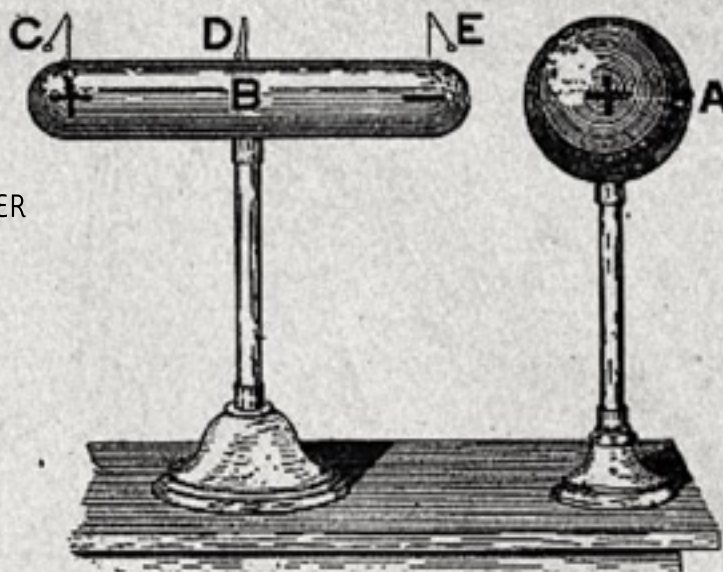
MAKEUP GAIN ROTARY ATTENUATOR

The Makeup Gain *rotary* attenuator controls the gain required to make up the level attenuated by the compression circuit. Turning this control clockwise increases the amount of makeup gain. Turning this control counter-clockwise reduces the signal level.

SIDCHAIN FILTER

Built into the sidechain, are very powerful selections of filters: 90 hertz, 150 hertz, 250 hertz, and bandpass. By engaging the filters, you choose at which point the onset of compression occurs. First position, nothing below ninety triggers compression. Second position, nothing below one-fifty. Third, nothing below two-fifty. The fourth position is a musical bandpass filter. In this position, compression is triggered by the program's mid-range frequency content, ignoring the highest and lowest frequencies. These filters are amazingly useful for shifting the focus of what should be more compressed and creating compression curves on purpose.

A_TRANSFORMER
B_RESISTOR
C_LOOPER
D_INDICATOR
E_AUTOSHUT



TRANSFORMER DESATURATE

The engineers at the Shadow Hills Austin Research Facility have devised an additional process for temporal and transient adjustment. This technology is called Transformer Desaturate. When engaged, processed signals pass through a special tertiary winding of the Output transformer, that cancels out distortion and frequency non-linearities, while adding the transient limiting properties caused by passing through the magnetics.

INDICATION METERING

The Mono Optograph's meter indicates the amount of optical gain reduction in decibels.

HARDWIRE BYPASS

The Hardwire Bypass determines whether the Mono Optograph is actively effecting the program material. When out, the unprocessed material is heard. When in, the Hardwire is switched to Engage, processing is underway.

Shadow Hills Mono Optograph

OPERATIVE DEPLOYMENT

The Engineers at our Austin Research facility have made every effort when designing the Shadow Hills Mono Optograph, that all of the technologies contained therein, enhance the capabilities of operatives while in-theater. The Mono Optograph is battle-hardened to withstand the rigors of the most adverse environments and the most grueling deployments. Our hope is that the Shadow Hills Mono Optograph will prove our technological superiority in practice and will lead to our inevitable victory!

EVADING ENEMY CAPTURE

Should the probability of it's capture be greater than not, it is the duty of the operative so issued to destroy the Mono Optograph to keep the technologies it contains, from falling into the wrong hands and thus our advantage forfeited to the enemy. The following instructions are offered for the proper destruction and disposal of the Shadow Hills Mono Optograph, should it become your duty.

First use a hex key to remove the nine 4/40 screws from the top cover. Inside the frame of the unit is the main audio board. On the audio board are the Shadow Hills Operational amplifiers. There are two total. These "Op-amps" attach to the audio board by six pins. Pull each "Op-amp" out vertically. They are friction locked only. No de-soldering is required. Once removed, break off each of the six pins and crush the "Op-amp" circuit board with the heel of your boot. If time permits, incinerate all pieces after crushing, then burry or scatter the inundated remains. Remove all of the circuit boards from the frame. Cut all wires several times, in a random fashion, so that the former lengths cannot be determined. The Transformers connected to the audio boards and chassis must be shot through their cores, and the windings unraveled, their lamination separated, bent and scattered some distance away. The circuit boards should be crushed under heel. Then folded or ripped, then incinerated according to the previously described method. The nuts that attach the front panel to the chassis should be removed. The knobs and meter glass should be smashed and meter pointer broken off. The panel should be bent or folded then placed inside the chassis and either buried at least six feet deep or exploded by a grenade or other means.

Your cooperation is greatly appreciated.
