

SEQ Step Down Kit for the Sentry 500 System

SPECIFICATIONS

Gain:

Unity

Maximum Input Signal:

8 V RMS, decreasing to 4 V at 32 Hz

Noise Output (20 kHz bandwidth):

 20μ V

Total Harmonic Distortion:

.01%

Intermodulation Distortion:

.01%

Input Impedance:

100 K ohms

Output Impedance:

1,200 ohms

Suggested Minimum Load Impedance:

10 K ohms

Controls:

Power/High Frequency Input Selector

Input : Dimensions:

69.9 mm (2.75 in.) high

203.2 mm (8.00 in.) wide

177.8 mm (7.00 in.) deep overall

Power Requirements:

110-120 V

50-60 Hz, 3 watts

DESCRIPTION

Comprising two channels of active electronic compensation, the SEQ equalizer is designed to be used with a pair of Sentry 500 speaker systems. By retuning the Sentry 500 system and adding the equalization provided by the SEQ equalizer, the low-frequency response of the Sentry 500 system may be extended one-half octave.

APPLICATION

In the "normal" configuration the resonance of Sentry 500 system, is 40 Hertz with response as shown in Figure 1. When the port plug is added to the Sentry 500 system, the system resonance drops 1/2 octave; the response is down 9 dB at the tuning frequency.

The electrical contour provided by the SEQ equalizer restores the acoustic curve to flat, with the 3 dB-down point now 1/2 octave lower.

Below the usable range of the system, the equalizer rolls off the electrical input to the amplifier, eliminating unwanted low frequency content (turntable rumble, record warp, etc.); thus conserving amplifier power and speaker excursion below the speaker system's usable low frequency limit.

INSTALLING THE EQUALIZER

Consumer Electronics

Most amplifiers and receivers include a Tape Monitor (also called Tape-Source) switch, which interrupts the normal signal path through the amplifier. The SEQ equalizer, like tape recorders and other electronic accessories, is connected to the Tape jacks, and is selected by the Tape Monitor switch. The equalizer can also be connected between preamplifier and power amplifier, if the system includes such separate components. Normally, how-

ever, best performance and greatest operating flexibility will be found with the Tape Monitor connection. The Tape jacks and Tape Monitor switching are duplicated on the equalizer, so that other equipment may be connected into the system.

Connections

The Tape Out jacks of your amplifier should be connected to the Input jacks on the equalizer, observing the left-and right-channel markings. Connect the Output jacks of the equalizer to the Tape In jacks on the amplifier in a similar manner.

Tape Machines

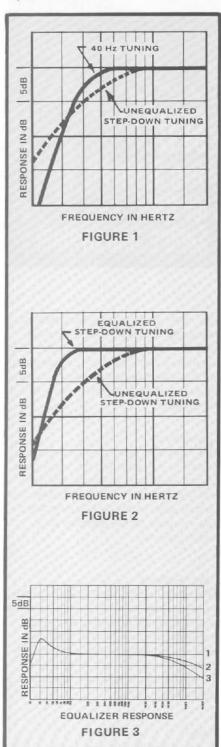
The Tape Out and Tape In jacks on the equalizer duplicate the Tape jacks of the amplifier which were used to connect the equalizer. Two pairs of Tape Out jacks are provided; either pair may be used. Both may be used if the input impedance of the auxiliary equipment is above 100 K ohms.

Power

Connect the AC line cord to a convenient outlet. If a switched AC outlet is available on the amplifier, power will be applied to the equalizer when the amplifier is turned on. An unswitched AC outlet is provided on the back of the equalizer. Maximum power capacity of this outlet is 200 watts.

Professional Electronics

The SEQ equalizer may be used in professional systems; proper impedances and operating levels should be observed. Input impedance is 100 K; the output impedance of 1,200 ohms permits the equalizer to look into 10 K bridging inputs.



The equalizer has been designed for nominal signal levels of 1 volts or less; typical Tape Monitor levels are on the order of .25 to .5 volts. These levels leave a peak headroom of 20 dB or greater. If the equalizer were operated in a 600-ohm system at +8 dBM, for example, headroom would be 12 dB or less.

IMPORTANT POINT

Two port plugs are supplied in this Step Down Kit. To achieve step down, insert one plug, small end first, into one port of each Sentry 500 enclosure until the plug flange rests against the baffle.

The equalizer provides a modest amount of low-frequency compensation, reaching a maximum of 6 dB at approximately 32 Hz. Maximum acoustic output is theoretically reduced by the amount of equalization. If the highest possible sound pressure level is required for your application, the unequalized configuration is recommended.

Do not use the equalizer for "bass boost" without retuning the system with the port plug. To do so will waste speaker excursion and amplifier power without improving performance.

EQUALIZER CONTROLS

HIGH FREQUENCY switch combines the power on-off function and selection of high frequency contour. When the switch is to the extreme left, the equalizer is turned off. However, if the equalizer is connected to a switched AC outlet on the amplifier or receiver, the equalizer will be turned on with the rest of the system, and the high frequency selection can be left set at all times.

A choice of three response contours is provided, as shown in Figure 3:

- 1. Flat high-frequency response.
- 2. Down 3 dB at 10 kHz.
- Down 6 dB at 10 kHz.

INPUT switch chooses the desired input to the equalizer. In the Source position, whatever program material is coming from the Tape Out jacks on the amplifier will continue through to the balance of the system. When Tape is selected, a tape machine connected to the Tape In jacks will play.

CUSTOMER SERVICE

Electro-Voice products are packed to provide protection well in excess of the shipping requirements of the Interstate Commerce Commission. Responsibility for delivery in good condition was accepted by the carrier, and therefore any damage claims must be made by the receiver against the carrier. If shipping damage has occurred, contact the carrier immediately, requesting inspection and instructions; or contact the dealer from whom the unit was purchased.

Reshipment

All packaging materials should be retained for possible future use. Whether used for returning units requiring service, or simply for normal moving, only the original packaging materials are certain to provide full protection. Bear in mind that a carrier can refuse a damage claim if they judge substitute packaging to be inadequate.

WARRANTY (Limited)

Electro-Voice high fidelity electronics are guaranteed for three years from date of original purchase against malfunction due to defects in workmanship and materials. If such malfunction occurs, the unit will be repaired or replaced (at our option) if delivered prepaid to the proper Electro-Voice service facility. There will be no charge for parts or return freight during the entire length of the warranty period; no charge for labor will be made during the first year of the warranty period. Warranty does not cover finish or appearance items or malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

For shipping address and instructions on return of Electro-Voice products for repair and locations of authorized service agencies, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, P.O. Box 186, Buchanan, Michigan 49107 (Phone: 616/695-6831) or 8234 Doe Avenue, P.O. 3297, Visalia, CA 93277 (209/625-1330,-1).

Specifications subject to change without notice.