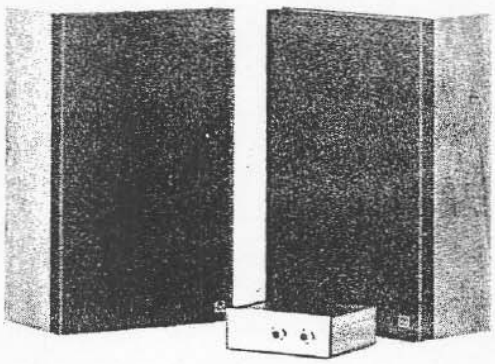


Interface: A

Owner's Manual

The Interface:A system offers significant performance advantages over most conventional high-fidelity speaker systems. Because of its somewhat unusual nature, it also has a few special connecting and operating requirements. We have tried to provide clear and detailed unpacking, connecting and operating instructions. Please follow them closely to assure correct and trouble-free operation.

The most basic and widely applicable information has been printed on a grey background. This information should be sufficient for most installations. The other information covers more advanced, detailed system and application considerations. Nevertheless, in a manual of this scope, it is difficult to cover every possible concern in great depth. We suggest consultation with your dealer and, additionally, welcome your inquiries at Electro-Voice. Address and telephone information is part of the warranty statement at the end of this manual.

Good listening!

See index on page 16

UNPACKING

Included with each speaker system are detailed unpacking instructions. Please follow them closely. Be certain that the retainer board has been removed from the low-frequency radiator. If at all practical, retain all packing materials, especially the retainer board, for possible future use (see "Customer Service" section).

Nameplate and Foam Squares Kit.

A diecast nameplate is supplied for each speaker system. The nameplate may be attached, once you have decided to use the system horizontally or vertically, by first removing the self-adhesive protection and then firmly pressing the nameplate in place on the grille fabric. We normally locate the nameplate on one of the lower corners about one inch from the two outer edges of the grille assembly.

Save the small foam squares for possible use for finish protection and stabilization of speaker position (see "Finish Protection" paragraph of the "System Placement" section).

ALWAYS USE THE EQUALIZER!

The Interface:A equalizer should always be used with the speaker systems. A sharp cutoff below 30 Hz protects the woofer from large subsonic signals which the speaker system is not designed to reproduce.

These subsonic signals are usually non-musical in nature, most often produced by irregularities in record surfaces. The signals can produce large, damaging woofer excursions at moderately high listening levels. At best, such excursions represent wasted amplifier power and produce increased

distortion in the frequency range covered by normal program material.

Note: the octave-band and similar equalizers used by some audio enthusiasts to correct room/speaker deficiencies or custom tailor program material are typically not capable of the relatively sharp boost-and-cut contouring of the Interface:A equalizer below 100 Hz. Such equalizers must be used in conjunction with the Interface:A equalizer. For hookup instructions, see "Using the Interface:A Equalizer with Other Accessories."

CONNECTING THE EQUALIZER

The Interface:A equalizer may be easily connected to your receiver, control amplifier, or separate preamplifier. Use the two stereo connecting cables supplied and follow the accompanying instructions and diagram.

Recommended: the Tape Monitor Connection.

The tape monitor connection is recommended because the Interface:A equalizer is designed for the signal levels present in the typical tape monitor path.

Most consumer electronics today include a Tape Monitor (also called Tape-Source) switch which interrupts the normal signal path through the amplifier. The Interface:A equalizer, like tape recorders and other electronic accessories, should be connected to the rear-panel Tape jacks, and activated by the Tape Monitor switch. One pair of Tape jacks is usually labeled "Tape Out" and the second pair, "Tape In". Other common designations are shown in the illustration on the next page.

Note that the Tape Monitor switch must be engaged at all times for the equalizer to be in the circuit. This is usually accomplished by depressing a Tape Monitor button or lever, or by turning a rotary switch to the Tape Monitor position. Common designations for the proper switch position include "Tape," "Tape In," "Tape Play," and "Playback". See the section entitled "Testing For Proper Equalizer Hookup" if, after speaker hookup, there is any doubt that the equalizer is in the circuit.

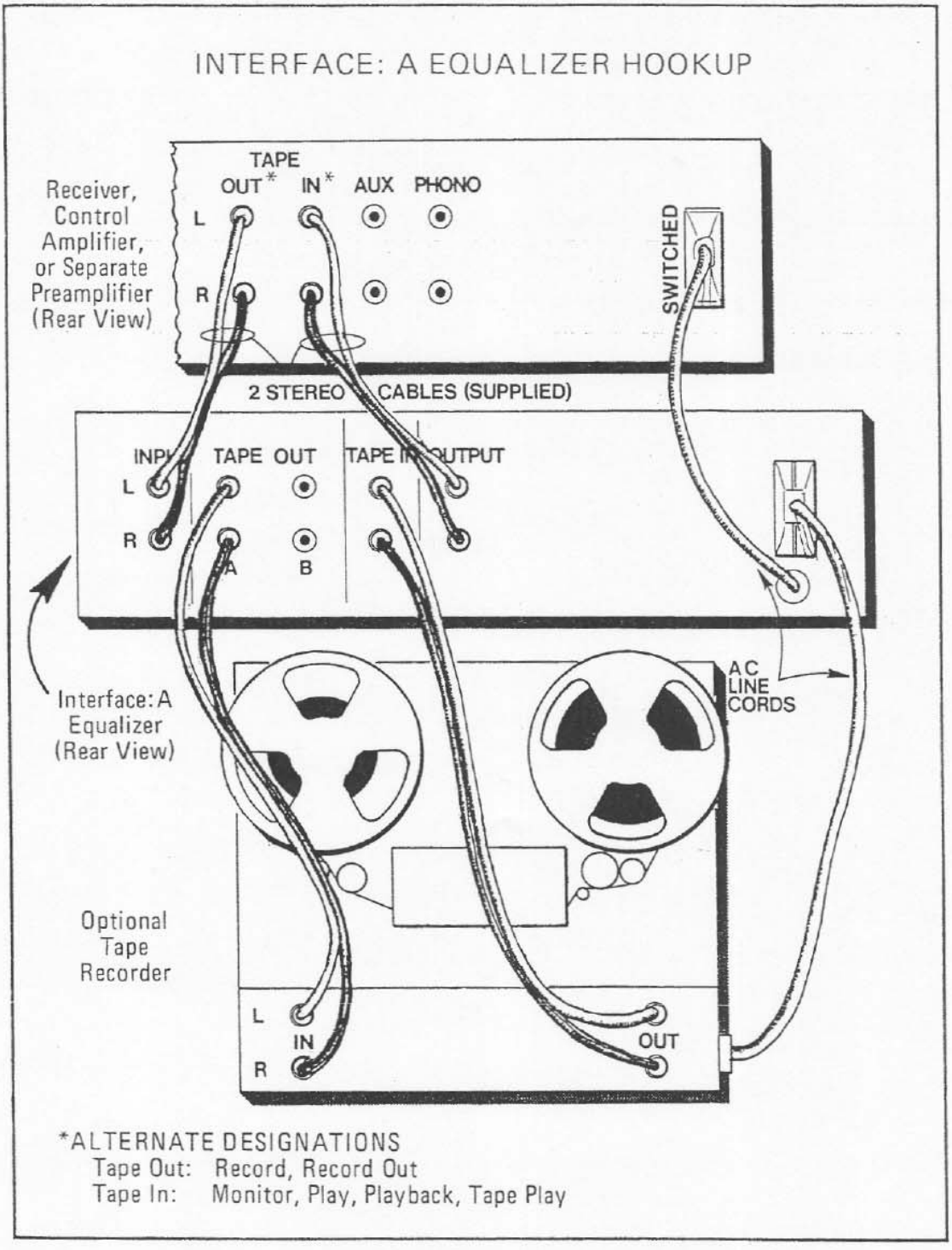
Another set of Tape jacks and Tape Monitor switching are furnished on the equalizer, so that other equipment may still be connected into the system, even though the equalizer has "used up" the Tape jacks on the main electronics. For convenience, two pairs of Tape Out jacks are provided; either pair may be used. Both may be used if the input impedance of the auxiliary equipment is above 100K ohms.

A typical system hookup is illustrated on the next page.

Alternate Connection: between Preamp and Power Amp.

The Interface:A equalizer can also be connected between preamplifier output and power amplifier input if the system includes such separate components. This alternative may be attractive where the preamplifier has no Tape Monitor jacks or if it is desired to keep existing Tape Monitor facilities free.

Even some receivers offer the possibility of the same connection if equipped with Pre-Out and Main-In



RECOMMENDED
TAPE MONITOR CONNECTION

jacks, which interrupt the signal path just before the power amplifier stages. First, the "U-nails" that normally connect the Pre-Out and Main-In jacks must be removed. Then the Pre-Out jacks should be connected to the equalizer input and the equalizer output connected to the Main-In jacks.

However, in some systems, the preamplifier output voltage may be high enough to overdrive the Interface:A equalizer at very high frequencies, producing higher-than-rated distortion at these frequencies. Proper equalizer performance will be realized if the voltage required to drive the power amplifier to full output (input sensitivity) is no more than approximately 1.5 volts RMS for a sine-wave signal.

If you are unsure of the input sensitivity of your particular power amplifier, contact the manufacturer or, if difficulty persists, Electro-Voice.

Electronics with Two Tape Monitor Circuits.
Some electronics have a second Tape Monitor circuit so that two tape recorders can be conveniently accommodated. Usually, either one of the Tape Monitor circuits may be used for the Interface:A equalizer, as previously described and illustrated.

However, any signal source connected to the other set of Tape-In jacks on the main electronics will probably not be equalized. The actual situation depends on the internal wiring and switching of your particular electronics. A careful reading of appropriate instructions may be necessary.

Using the Interface:A Equalizer with Other Accessories.
Other accessories, such as octave-band equalizers, noise-reduction units, or matrix four-channel decoders, may be used in conjunction with the Interface:A equalizer. The most widely applicable hookup is probably a variation of the recommended Tape Monitor connection for the Interface:A equalizer, where the accessory unit is inserted either before or after the Interface:A equalizer as specifically outlined below.

Noise-Reduction Units and Matrix Four-Channel Decoders. In general, these units should be connected **before** the Interface:A equalizer, between the Tape-Out jacks of the main electronics and the Input jacks on the equalizer. In this way, any encoded or specially processed signals are treated directly by the intended unit, without the possibly detrimental intervention of the Interface:A equalization.

Note that if two pairs of Interface:A speaker systems are used in a four-channel system of any type, two separate equalizers are required.

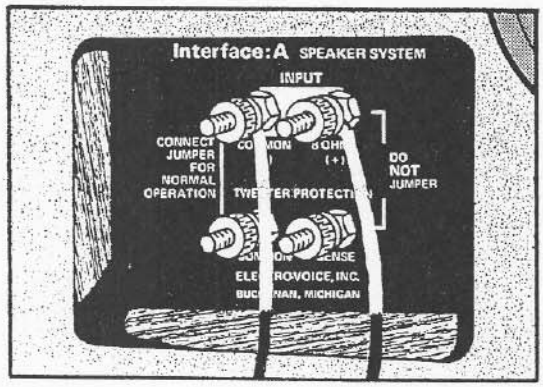
Accessory Equalizers. Octave-band and other similar equalizers are generally best connected **after** the Interface:A equalizer, between the Output jacks of the Interface:A equalizer and the Input jacks of the accessory equalizer. This prevents possible overload of the Interface:A equalizer at very high frequencies due to the rather large boosts available from most accessory equalizers.

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

A typical AC line cord hookup is part of the previous illustration.

CONNECTING THE SPEAKER SYSTEMS

Input Connections.



The two **upper** terminals on the terminal board at the rear of the speaker enclosure are the input connections. The left-hand terminal (common, —) should be connected to the common output terminal of the amplifier; the right-hand terminal (8 ohms, +) should be connected to the amplifier's 8-ohm output terminal. Place each bare wire end between the washer and the knurled nut and tighten the knurled nut firmly, using only finger pressure. Use of tools is not required. Make certain the bare wires do not touch each other or other terminals.

Special Note. The two common terminals at the left of the crossover terminal board are jumpered together for normal operation. No connection should be made to the Sense terminal. A full-range signal will be applied to the tweeters and damage may easily result.

In-phase Speaker Operation
Connecting the speakers as described above produces in-phase operation, an important condition for best stereo performance. This ensures that the speaker cones are moving in unison when the same signal is present at each set of amplifier output terminals. Such a signal condition occurs with monaural program material and, in stereo, with soloists or groups located midway between the two speakers.

In-phase operation results in a satisfyingly "solid" center image. Out-of-phase operation produces a spread, indefinite center image that changes location and character as the listener moves a foot or two back and forth between the speakers. Also, out-of-phase operation may reduce bass response, depending on room dimensions and speaker/listener locations.

An experienced listener can successfully test for in-phase operation by noting the quality of the center image on monaural program material. However, the least ambiguous check is to set the two speakers facing each other, an inch or two apart. Use program material with fairly prominent bass content and switch the amplifier to the monaural mode. This is usually accomplished by pressing a Mono or A+B button or lever, or moving a rotary switch to a similarly labeled

position. Reverse the wires to one of the speakers (either at the speaker end or the amplifier end, but not at both). This will either increase or decrease the bass output. The correct connection is the one that produces the most bass.

Wire Selection.
To avoid any significant amplifier power loss in the speaker lines, 18-gauge stranded wire (commonly called lamp cord or zip cord) is satisfactory for lengths up to 30 feet. If longer speaker lines are required, use progressively larger wire sizes: 16-gauge to 50 feet, 14-gauge to 75 feet and 12-gauge to 125 feet. Always use a separate pair of wires for each speaker, even if your amplifier permits using a common ground. Resistance in a common ground wire can degrade stereo separation.

TESTING FOR PROPER EQUALIZER HOOKUP

After the speakers have been connected, there may be some doubt that the equalizer is properly connected. Simply turn the High Frequency switch to the Off position while a program source is playing. After a short time, the sound will become very distorted and drop in level, indicating that the equalizer is properly connected. If the sound does not change, the equalizer is not in the circuit.

Alternatively (without turning the equalizer off), the same test may be performed by switching the Tape-Source switch from Tape to Source. If the equalizer is properly connected (and nothing is plugged into its Tape In jacks), the program will be completely interrupted.

SYSTEM PLACEMENT

Placement of stereo speakers is more often determined by floor plan and furniture arrangement than by acoustic considerations. There are some general guidelines which may be helpful, however.

Preferred Locations.
Usually it is possible to select a normal listening area (a sofa, chair grouping, or whatever) in the listening room. The speakers should face the listener and should be at approximately ear level. Spacing between the speakers is also dependent upon the listening room. If the speakers are too close together, stereo separation will be reduced. Conversely, if the speakers are too widely spaced, the stereo image may be disjointed with a gap in the middle. In most rooms, a speaker separation of 6 to 12 feet will provide a good stereo image. Feel free to experiment.

The Rear Tweeter.
The only unusual aspect of Interface:A placement involves the rear tweeter. While this tweeter provides high-frequency energy to maintain the "openness" characteristic of the Interface:A, it is only aiding the primary front tweeter above about 8,000 Hz, not covering a frequency range solely by itself. The acoustic contribution of this tweeter does change as the placement changes, but positioning is not at all critical. The system may be spaced as close as one inch to the wall, with nominal spacings of two or three inches. Since the system is several inches shallower than most other systems, no "extra" space is required. Materials commonly found in wall construction are sufficiently reflective

to provide the benefits of the rear tweeter. Even when mounted in a bookcase, energy contribution by the rear tweeter is apparent. Simply leave out books for a few inches on either side of the system.

If you are so inclined, you can exert subtle control over the sound in the room by varying the placement of the system, or the reflective surface behind the rear tweeter. There is no need to be extremely concerned about proper placement, however. The performance of the system does not hang in the balance.

Finish Protection.
Four small rectangles of foam are packed with each speaker system. When final speaker location is determined, place the foam pieces under the cabinet corners. They prevent cabinet or furniture scratches, and keep the system from "walking" across the surface.

Sound Quality and Speaker Location.
There is no doubt that different listening rooms and changes of speaker location within a given room can affect sound quality to an extent important to many enthusiasts. Some changes are subtle, while others are quite noticeable.

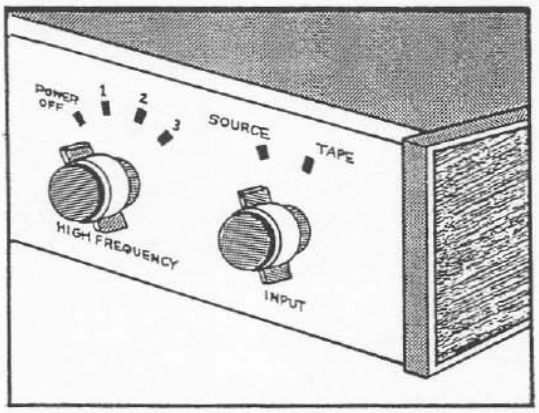
It is possible to theoretically predict and categorize many effects if room characteristics can be simply defined. However, real listening rooms are usually sufficiently irregular and complex to dilute and alter the clear-cut effects that might be predicted theoretically. Therefore, ear-level placement remains valid, especially when coupled with a plea to experiment. The following broad statements about the major effects of speaker location change may help the experimentation.

Moving speakers close to the floor (or ceiling) will generally increase the amount of bass and mid-bass heard. Moving speakers into the corners of the room will provide an even greater increase. The Interface:A is designed for balanced performance in the more normal ear-level locations fairly close to one wall, as previously discussed. However, the relatively wide, uniform high-frequency dispersion of the Interface:A makes it less sensitive than many other designs to less-than-ideal floor or corner placement.

Also, placing speakers in corners or on the floor tends to move the tweeter away from your ears, as well as providing (for carpeted floors) somewhat increased absorption of high-frequency output. This sometimes creates a "heavy" sound. Again, the Interface:A's excellent high-frequency dispersion tends to alleviate the effect. In any case, the absorption can be favorably modified by aiming floor-located speakers up at 10 to 20 degrees, toward ear level.

USING THE EQUALIZER CONTROLS

High-Frequency Switch.
The High-Frequency switch combines the power on-off function with selection of three different high-frequency response contours. 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 main electronics, the equalizer will be turned on with the rest of the system, and the high-frequency selection can be left set at all times.



Position 1. This setting produces the flattest total acoustic power output at high frequencies, approximately 5 dB down in the 10- to 15-kHz range. There is an electrical boost of approximately 3 dB at 10 kHz..

We prefer Postion 1 for the finest low-noise program material. With such material, the aural effect of a relatively flat acoustic power output is quite amazing, and is one of the most outstanding characteristics of the Interface:A.

Position 2. The second position provides a total acoustic power output which is down an additional 3 dB at 10,000 Hz. Many listeners would consider this the "normal" position. The electrical response varies only a dB or so from flat at high frequencies.

Position 2 is useful in treating recordings of high quality except for excessive "brightness" and/or audible tape hiss. Let your ears be the judge!

Position 3. The last setting attenuates the high frequencies by another 3 dB at 10,000 Hz, resulting in a sound character similar to the "duller" high-fidelity systems available. This setting produces the most listenable results from program sources having high levels of distortion and/or noise, perhaps in addition to restricted high-frequency content.

Input Switch.
The Input switch chooses the desired input to the equalizer. In the Source position, whatever program material is coming from the Tape-Out jacks of 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.

USING SYSTEM TONE CONTROLS

Generally speaking, the more sophisticated the listener, the less he uses tone controls. The equalizer contouring is an integral part of the total system design of the Interface:A, providing the proper compensation to achieve the performance goals. While the same degree of control flexibility used with conventional speaker systems may be employed, we suggest that minimal use of Loudness, Bass, Treble, and the like, will result in better overall performance.

EXTENSION SPEAKERS

Other Interface:A's
Once the equalizer is connected into a stereo system, additional Interface:A speaker systems can be connected to the same amplifier and will receive the proper frequency contouring.

Other Speakers.
If other types of speakers are connected to the same amplifier, they will also receive the contoured signal. However, the degree of contouring is minimal compared to some other available equalizers, so that other speaker

systems will not be unduly endangered, especially if high listening levels are avoided. (The equalizer sends about four times normal power to the extension speakers in the region of peak boost, around 35 Hz.) The low-frequency cutoff below 32 Hz should benefit most systems.

Interface:B

The Interface:B equalizer has low-frequency contouring identical to that of the Interface:A, except that the entire response curve is shifted up in frequency by 4 Hz. Ideally, the Interface:B should be used with its own equalizer, as normally supplied, especially if listening levels might be quite high. However, when most critical, high-level listening is done with the Interface:A alone, it is satisfactory to use the Interface:B as an extension speaker with the Interface:A equalizer. Frequency response in the 40-80 Hz range will be depressed about 1 dB and approximately twice normal power will be fed to the woofer between 20 and 30 Hz. The Interface:B is available on special order without the equalizer.

AMPLIFIER POWER CONSIDERATIONS

Casual discussions of amplifier power usually result in a wide range of "answers." This is so because power levels vary immensely with speaker efficiency, room acoustics (size and sound absorption), and desired listening levels. Nevertheless, the following commentary should help produce an answer that is right for you. The amplifier power recommendations are given in average sine-wave watts (sometimes called "RMS" or "continuous" watts) per channel, all channels operating, over a minimum frequency range of 32 to 15,000 Hz. Common deviations from this rating method will result in insignificant changes in attainable listening levels. Finally, to simplify the discussion, it is assumed that the amplifier is well behaved when operating at or slightly beyond its power output capability.

Minimum.

The Interface:A is about 3 dB more efficient than standard acoustic-suspension designs. Therefore, the Interface:A's minimum power requirement is essentially one-half that often recommended for high-quality acoustic-suspension systems. An amplifier as small as 10 watts per channel should provide adequate performance in a typical living room.

Typical.

It would be somewhat unusual to power a speaker system of Interface:A's quality with a 10-watts-per-channel amplifier. Equipment in the 30- to 50-watt class likely will seem more attractive. Additionally, these larger amplifiers can provide a definitely audible increase in attainable sound level (5 to 7 dB) and/or the ability to maintain levels in a larger-than-normal listening room.

Maximum.

Amplifiers much larger than the minimum recommended may be used: up to around 250 watts per channel. However, care and intelligence are required to see that the high power is used only to reproduce the harmless, short-duration peaks that occur in program material and are 10 to 20 dB above the average levels. If this con-

dition is fulfilled, the long-term average power delivered by the amplifier will be within the Interface:A's ratings (25 watts for the woofer, 32-1500 Hz, dropping smoothly above 1500 Hz to 10 watts at 10,000 Hz). Because of the relatively small high-frequency content of normal program material, the reduced tweeter power capacity (typical of all speaker systems) is usually not a limiting factor.

Users of high-power amplifiers should refer to the section entitled "Speaker Protection at High Listening Levels."

SOUND PRESSURE LEVELS ATTAINABLE WITH THE INTERFACE: A

With 10 Watts Available.

In a living room of average size and sound absorption (perhaps 3500 cubic feet, for a room constant of 200) one Interface:A speaker system can produce an average sound pressure level of 93 dB (1 watt) with short-duration peak capability of 103 dB (10 watts). A 93-dB average listening level will seem very loud to many people, although it falls short of the levels associated with some live music. For example, "loud" classical music can reach average levels of 80 dB, with short-duration peaks up to 20 dB higher. "Very loud" classical music reaches average levels of 95 dB, with similar peaks above the average. Loud rock music is on the order of 115 dB average level.[1]

With 30 to 50 Watts Available.

In the average living room described above, 30 to 50 watts can produce an average mid-band sound level of 98 to 100 dB, a definitely noticeable increase of 5 to 7 dB. Alternatively, for larger-than-average rooms, the additional power can be used all or in part to maintain the sound levels mentioned in the previous section.

With 250 Watts Available.

In the same average living room, one Interface:A speaker driven with the largest recommended amplifier can produce an average mid-band level of 107 dB (25 watts) with short-duration peak capability of 117 dB (250 watts). These levels approach that of live rock music. Generally, the finest program sources, with low noise and very wide dynamic range, are the most satisfying when reproduced at high, live-music levels.

SPEAKER PROTECTION AT HIGH LISTENING LEVELS

Protection Should Not Be Necessary with Intelligent Use.

Without any special protection, we regularly use the Interface:A with amplifiers of widely differing power capabilities including amplifiers of the maximum recommended output of 250 watts per channel. Rarely, if ever, have we damaged speaker components even when short-duration program peaks use full amplifier power. However, carelessness or inexperience can cause excessive long-term average power inputs to either the tweeter or both speaker components, especially if high listening levels are sought.

Detection of Excessive Long-Term Average Power Inputs

Usually, the audio enthusiast will not be able to measure accurately average

power inputs. However, careful listening for "peak clipping" distortion (A rough, raucous sound quality as volume is turned up) provides evidence of potentially damaging average levels. Some background: average power levels are usually 10 to 20 dB lower than program peaks of a few milliseconds duration. These peaks are basically harmless but are necessary for truly high quality reproduction. As the volume is turned up, program peaks will eventually be "clipped" or "flat-topped" as the amplifier runs out of power capacity, even though the average power level poses no problem for the amplifier. While moderate clipping of program peaks is inaudible on most types of program material, such clipping eventually becomes the very noticeable rough, raucous sound quality.[2] This quality is often mistaken for "speaker distortion" when in fact the speaker system is only faithfully reproducing a distorted signal, rich in high-frequency distortion components and of high average level.

Audible peak clipping, then, is your evidence that average power levels are rising and may be only 3 to 6 dB below maximum amplifier output. For a 250-watt amplifier, this means that average levels from 62½ to 125 watts are being produced, which would almost certainly damage the usual speaker system. If the listener can tolerate highly audible distortion, even amplifiers of modest capabilities can produce high long-term average outputs. In fact small amplifiers pushed to beyond their volume capabilities probably damage more speakers than larger amplifiers even at very loud levels. For example, a 50-watt unit will deliver 12 to 25 watts average if clipped program peaks are only 3 to 6 dB above the average. This situation is potentially damaging, especially to system tweeters (see "TS1 Tweeter Protection" paragraph).

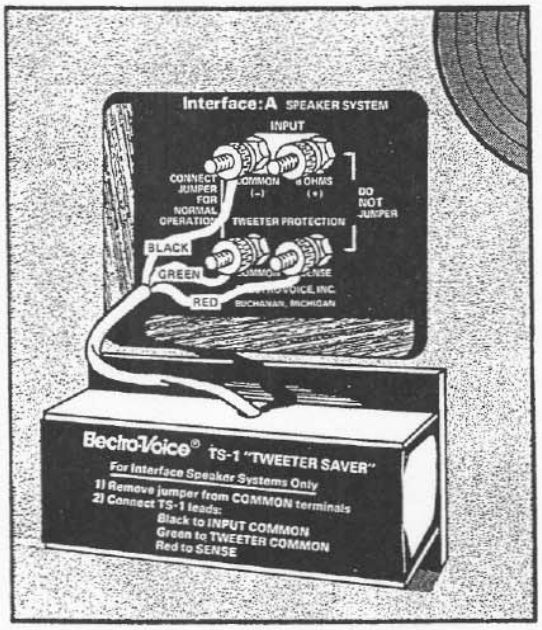
Protection Limitations.

If you choose to employ the following recommendations, keep in mind that any speaker protection system is a tradeoff between two extremes: guaranteed protection and high listening levels. We feel that our recommendations do not excessively limit listening levels, yet provide a very reasonable assurance of protection. As a result, however, there are conceivably some program materials that fail to actuate the protection circuitry yet result in speaker damage. Our experience indicates that such damage should be rare.

TS1 Tweeter Protection Circuit.

The TS1 "tweeter saver," available separately, should be employed when the Interface:A is operated at high levels under the less-than-ideal conditions described above. In some situations, the TS1 may be appropriate even if amplifiers of relatively modest power capabilities are used (25 to 30 watts). This is because output clipping occurs more readily with such amplifiers and the resultant high-frequency distortion signal may exceed the tweeter's long-term power capacity.

For proper installation, follow the instructions packed with the TS1. After you're done, it should look like the illustration at top of next page.

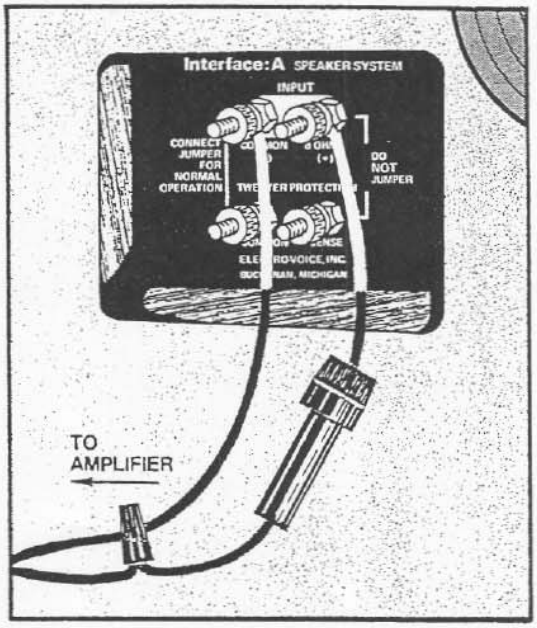


Fusing for Full-Range Protection

Speaker fusing should rarely be required. However, when the possibility of carelessness or inexperience is combined with high listening levels and large power amplifiers (say, in excess of 60 watts per channel) it is wise to fuse each speaker system. This fusing should be in addition to TS1 tweeter protection. Littelfuse brand 3AG "Slo-Blo" fuses are recommended for each Interface:A speaker system. These particular fuses have been found to have good current-versus-time characteristics, allowing higher (yet satisfactorily limited) current for relatively short periods of time and increased protection for more extended periods.

Start with a Littelfuse 3AG "Slo-Blo" fuse of 1 ampere rating. If the fuse blows before you reach normal loud listening levels, substitute a 1-1/4 ampere fuse. Fuses larger than 1-1/4 ampere provide, we feel, inadequate protection and are not recommended. (Also, other brands of slow-blow fuses and standard-blow fuses tend to provide inadequate protection for short time periods and are therefore not recommended.)

A fuse should be inserted in one of the speaker leads feeding each system. In-line fuse sockets may be used, or a fuse block may be glued to the rear of each enclosure. Both types of holders are readily available. A typical fuse installation is shown below:



References

1. For a lucid treatment of live-music sound pressure levels and perceived loudness: C. Stark, "The Dynamic Range of Music," Hi Fi / Stereo Review, June, 1968, and C. Stark, "The Sense of Hearing," Stereo Review, September, 1969.

2. For an excellent introduction to the audible effect of peak clipping: R. Allison, "Loudspeaker Power Needs," Stereo Review, September, 1973.

DETAILED SPECIFICATION SUMMARY

EACH SPEAKER SYSTEM

(Equalizer high-frequency contour control in Postion 1)
Frequency Response, 1 Meter on Axis, Anechoic Environment
± 3 dB 32-18,000 Hz
Total Acoustic Power Output versus Frequency
± 3 dB 32-18,000 Hz
Dispersion Angle Included by 6-dB-Down Points, 600-9600 Hz Octave Bands, Horizontal and Vertical Planes
125° ± 30°
Sound Pressure Level at 1 Meter, 1 Watt into Nominal Impedance. Anechoic Environment
89 dB
Long-Term Average Power-Handling Capacity
32-1500 Hz
25 watts
1500-20,000 Hz
25 watts, dropping to 10 watts at 10 kHz
Short-Term Power-Handling Capacity (10 Milliseconds)
32-1500 Hz
250 watts
1500-20,000 Hz
250 watts, dropping to 100 watts at 10 kHz
Thiele Efficiency, Half-Space Environment
.7%
Maximum Acoustic Power Output, Mid-Band
Long-Term
.18 watts
10 Milliseconds
1.8 watts
Suggested Amplifier Power Ratings, Continuous Average Power per Channel at 8 Ohms
Minimum
10 watts
Typical (Long-Term Average Power Capacity not to be exceeded)
30-50 watts
Maximum (Long-Term Average Power Capacity not to be exceeded)
250 watts
Average Sound Pressure Levels, Mid-Band, in Reverberant Field of Typical Living Room (R=200), with Peaks 10 dB Above Average
10 Watts per Channel Avail.
93 dB
30-50 Watts per Channel Avail.
98-100 dB
250 Watts per Channel Avail.
107 dB
Crossover Frequencies
Acoustic
55 Hz
Electrical
1,500 & 8,000 Hz
Nominal Impedance
8 ohms
Minimum Impedance
5 ohms
Dimensions
14" x 22" x 7¾" D
Net Weight
27 lb

EQUALIZER

(Each channel)
Midband Gain
Unity
Maximum Equalization
6 dB at 39 Hz, fixed
Maximum Input Signal, RMS Sine Wave
Midband
5V
39 Hz
2.5 V
Noise Output, 20-20,000 Hz Bandwidth
80 dB below 200 mV
Total Harmonic Distortion
1.0 V RMS In, 20-20,000 Hz
.01% or less
1.5 V RMS In, 20-20,000 Hz
.05% or less
5.0 V RMS In, 20-20,000 Hz
.05% or less
Intermodulation Distortion, 60 Hz and 7000 Hz in a 4:1 Ratio, High-Frequency Control in Position 2, 1.5 V RMS Equivalent Sine Wave Input
.005%
Output Impedance
1,200 Ohms

Channel Separation, Source Impedance Less than 1,000 Ohms, 20-20,000 Hz
60 dB minimum
Suggested Minimum Load Impedance
10,000 ohms
Input Impedance
100,000 ohms
High-Frequency Contour Selector
3 positions & power off
Input Selector
Tape-Source
Power Requirements
110/120 V, 50/60 Hz, 3 watts
Accessory AC Outlet, Unswitched
200 watts
Dimensions
2¾" H x 8" W x 7" D
Net Weight
2 lbs, 10 0z

CUSTOMER SERVICE

Shipping Damage.

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.

We strongly encourage you to retain all packaging materials for possible future use. This recommendation applies especially to the low-frequency radiator's retainer board. Unavoidable manufacturing variations preclude universal interchangability of retainer boards and an ill-fitting retainer board may distort and damage the low-frequency radiator when installed on the enclosure. Shipping an Interface:A without the retainer board virtually assures destruction of the low-frequency radiator. Such damage will not be repaired under warranty. Only original packaging materials are certain to provide full protection, whether used for units requiring service, or simply for normal household moving. Bear in mind that a carrier can refuse a damage claim if they judge substitute packaging to be inadequate.

When necessary, Electro-Voice can supply replacement packaging for a nominal charge. Contact the Service Department.

WARRANTY (Limited)

Interface:A is guaranteed against malfunction due to defects in workmanship and materials. If such malfunction occurs, Interface:A will be repaired or replaced (at our option) as follows:

Speaker systems will be repaired or replaced without charge for parts or labor for a period of five years from date of original purchase.

Equalizer will be repaired or replaced without charge for parts for a period of three years from date of original purchase and without charge for labor for a period of one year from date of original purchase.

All units must be delivered prepaid to the proper Electro-Voice service facility and will be returned prepaid. 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 instructions on return of Electro-Voice products for repair to the factory or authorized service agencies, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (Phone 616/695-6831).

Electro-Voice also maintains complete facilities for non-warranty service.

Interface: A™

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WHERE TO FIND WHAT YOU WANT TO KNOW (INDEX)

Electro-Voice® INC

a gulton company

600 CECIL STREET, BUCHANAN, MICHIGAN, 49107 · 7473 AVENUE 304, VISALIA, CALIFORNIA 93277 · 345 HERBERT STREET, GANANOQUE, ONTARIO · ROMERSTRASSE 49, 2560 NIDAU, SWITZERLAND, OTHER MANUFACTURING PLANTS AT NEWPORT AND SEVIERVILLE, TENN.

Part Number 53034 – 604

Litho in U.S.A.