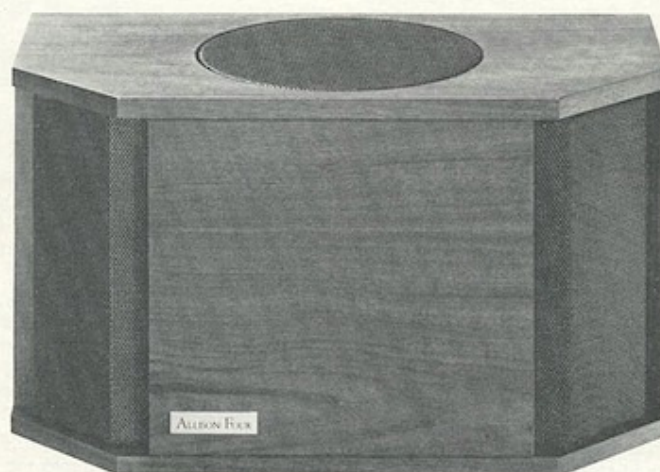


## ALLISON: FOUR



### *Loudspeaker system installation and use*

#### **1. UNPACKING**

After opening the top of each carton, put the carton on the floor and remove the cardboard cap above the cabinet. Grasp the cabinet firmly by the wood side panels and lift it straight upward out of the carton. Untape and remove the plastic bag cover. Your loudspeaker is then ready to work—but please read through this manual first.

If you can possibly find storage room for them, **save** the cartons, end caps, and plastic bags. They will be invaluable in case you move or have to ship your loudspeaker systems for service.

In any case, save the cartons and inner packing pieces until you are certain that the systems have suffered no damage in shipment. If you find such damage—either visible or internal—stop everything and proceed as follows:

If the systems were delivered to you by a dealer (or if you picked them up at his store), call him and notify him of the problem. He will advise you on proper procedure.

If the systems were shipped to you via a freight carrier, call the carrier's office, give notice of

possible hidden shipping damage, and ask for an inspection report (which must be obtained as a basis for filing a claim). You must have the complete carton on hand for the carrier's inspection.

## 2. PLACEMENT

An Allison:Four loudspeaker system should be placed with its back close to a room wall and with the woofer (located under the round black grille panel) facing upward. There should be no object with a large surface area, such as a shelf in a bookcase, closer than 10 to 12 inches above the woofer.

Except for the above, the system's power output in the bass range is relatively insensitive to room placement. It can be put on a table or a bookshelf (provided the shelf above is not too close), or it can be hung on a wall using the wall-mounting hardware provided.

The smoothest possible power output is obtained from any conventional speaker system when the distances from the woofer to the three nearest room surfaces are maximally different. The Allison:Four system's woofer is positioned so that it will be very close to one room surface (the wall behind the cabinet), and this increases significantly the ratio of distances to the room boundaries that will be obtained in practical use. If some care is taken to avoid placing the cabinet so that the woofer is equidistant from the floor (or ceiling) and the nearest side wall, the Allison:Four's bass power output uniformity will be excellent. Among all other systems, only the larger Allison three-way models will be equal or better.

An upward-facing woofer has another distinct advantage: its horizontal omnidirectionality. The system has extremely wide dispersion at all audible frequencies. Therefore it is not necessary to "aim" it in any particular direction with respect to the listening area, and this provides increased flexibility in placement. For example, a stereo pair of Allison speaker systems need not necessarily be situated on the same room wall. They can be put against adjacent walls or, in a relatively long and narrow room, against opposite long walls at the end away from the listening area. Full-strength coverage of the listening area will be maintained even at the highest frequencies.

## 3. AMPLIFIER CONNECTIONS

The input terminals at the top end of the back panel are color-coded red and black. Polarity is such that, when a voltage is applied to the terminals with the red terminal positive, the speaker diaphragms will move forward, out from the cabinet. Proper phasing will be assured if the speaker cables connect the red input terminals on the left and right speaker systems to the plus

(+) or "hot" left and right amplifier output terminals, respectively, and the black speaker input terminals to the negative (-) or "ground" amplifier output terminals.

Ordinary lamp cord or "zip cord" is quite satisfactory for connecting speakers to the amplifier. It is available on spools or in pieces cut to your specified length at most hardware stores. Lamp cord consists of two parallel stranded wires in flexible insulation. The wires are coded in some way so that they can be identified at each end. Sometimes there is a colored "tracer" thread wrapped around one of the wires, and virtually always there is a ridge molded into the insulation on the side next to one of the wires.

The nominal impedance of the Allison:Four system is 8 ohms. If you want to use extension speakers in another room, therefore, both the main and extension pairs may be connected simultaneously to any stereo amplifier that will tolerate a minimum impedance load of 4 ohms.

Spade lugs, tip plugs, or bare or tinned wires can be connected to the speaker input terminals. To make the connection, unscrew the insulated outer section of the terminal. Push a bare or tinned wire or a tip plug through the hole in the central section of the terminal, or fit a spade lug over it; then turn the insulated section back in until the wire or connector is held tightly. A GR-type double banana plug can also be used, pushing it into the ends of the input terminals.

## 4. FUSING

Allison loudspeaker systems are not indestructible. Every reasonable step has been taken, however, to make them inherently capable of tolerating large amounts of power input from the amplifier. Short of gross abuse, or catastrophic accident, they can take all the music power that very powerful amplifiers can deliver. In normal use there is no need for protective fuses.

But if you are going to use your speaker systems in a room that is much larger than average, or if you like your music played very loud—or if your amplifier is so powerful that it dims the house lights when you turn it on—then it is simply good practice to buy the inexpensive insurance offered by speaker fuses. An MDX-1½ slow-blow 1½-ampere fuse in series with one of the amplifier leads on each channel will give good protection, while permitting very high-amplitude music peaks to pass through to the speaker.

## 5. BALANCE CONTROL

Relative power output at low, middle, and high frequencies can be adjusted with the balance control switch, located on the back panel just above the input terminals. The switch handle

moves in a horizontal rotary motion, and it has detent stops at three positions. You can reach it easily from the front of the cabinet. With the palm of your hand resting on the top panel, your middle finger will fall naturally into place on the switch handle when you put your fingers behind the cabinet.

**a. Minimum slope position.** When the balance control switch is operated in this fashion (from the front of the cabinet), moving the switch handle all the way to the right will set the system to produce nearly flat acoustic power output. With virtually all recordings played in most living rooms, flat acoustic power output from the speaker systems gives unnaturally bright sound balance and may be quite unpleasant. Multi-mike closeup recording techniques, which are commonly used even for large-scale formal music recordings, give distinct emphasis to high frequencies as compared with the balance heard at a good seat in a concert hall. Home listening rooms reduce the recorded high-frequency emphasis slightly, but not nearly as much as a concert hall will do. Some extra roll-off of the high-frequency energy content in the recording is, therefore, necessary if a natural balance is desired. This can be done by turning down the amplifier's treble control if the tone control is designed properly for that purpose. Unfortunately not all tone control circuits can provide a suitable correction, and it is usually preferable to adjust the speaker system for a sloping power output curve.

The nominally flat power position of the speaker system's balance control may be appropriate for recordings of small solo instruments or solo voice; that is, for recordings of sound sources that would be suitable for original live performance in the listening room itself. This power setting is also correct for the rare recording of a larger-scale work which has an inherently natural balance. And it may be the best setting for average recordings if the listening room has very exceptionally "dead" acoustics, with far more than the average amount of thick carpeting, upholstered furniture, and other materials that absorb high-frequency sound energy more than they do low frequencies.

**b. Intermediate switch position.** When the balance control is moved to its center position, the output of the tweeters is reduced by 2½ dB. This provides a gentle downward slope in acoustic power output which, in an average living room, many people will find appropriate for listening to recorded music of intermediate scale: small jazz groups, chamber music, popular music, recitals, and the like. Average recordings of larger musi-

cal forces also may sound most natural with the switch set in this position if the listening room has somewhat more than the average amount of soft furnishings, or if the user prefers to sit in the first 10 rows of seats at a concert.

**c. Full slope position.** When the balance control switch handle is pushed fully to the left (as the operator faces the front of the cabinet), the output of the woofer in its upper frequency range is reduced by 2½ dB, and the tweeter output is reduced by 5 dB. In the average listening room this setting will provide the most natural balance for most recordings.

**d. Use of the control.** Controls of this kind on loudspeaker systems are usually considered to be semi-permanent adjustments. The best setting is determined by experiment for a particular room, for the kind of recordings that will be played most often, and according to the taste of the owner. The control is then left at this compromise setting, and the amplifier's tone controls are used thereafter to modify the balance as needed for individual records.

The balance control on Allison loudspeaker systems may of course be used in this conventional way. On the other hand, the control has been made quite accessible and is sturdy enough to withstand repeated operation. It can be used as frequently as is desired.

## 6. GRILLES

The perforated grille material used on Allison loudspeaker systems is a formed plastic with high internal damping. We have found that this is the only grille format which can provide cover protection for the speakers mounted in the cabinet, yet does not attenuate high-frequency radiation at wide angles from the tweeter axes. This is an essential requirement for the Allison tweeters which are omnidirectional in the front hemisphere.

The grilles will crack or break if they are deformed substantially. If you wish to paint them another color, however, they can be bent sufficiently to be removed from and reinserted in the cabinet. They simply snap into place in the recesses formed by the edges of the cabinet's vertical molding strips and the tweeter mounting panels. The round grille over the woofer is held into its cutout by a friction fit.

If you paint the grilles it is critically important **not** to fill in the perforations. Multiple coats of a thin paint, rather than one or two coats of thick paint, will make it easier to avoid this. If you can find a color you like in a spray can, the job will be easier yet.

## 7. MAINTENANCE AND REPAIRS

**a. Cabinet.** The exposed wood of the cabinet is oiled walnut veneer. You can keep it in good condition indefinitely by applying a coat of boiled linseed oil (available at most paint and hardware stores) to the wood surface, letting it soak in for a half hour, then rubbing off the excess with a clean lint-free cloth. A treatment of this kind once or twice a year is sufficient. Do not use wax or furniture polish, and try to avoid getting oil on the grilles.

**b. Grille cleaning.** Occasional vacuum-cleaning with a brush nozzle attachment should be sufficient to maintain a presentable appearance. If the grilles should become stained or very dirty they can be removed carefully (see the section on grilles preceding) and washed in a mild detergent solution. They must be handled gently because they will break if bent too severely. If you do break a grille a replacement is available at \$3.00 per panel.

**c. Speakers.** The speakers mounted in the cabinet need no maintenance; in fact, they should not be handled at all. The tweeters in particular are vulnerable and the cone surface can be damaged by anything more than the lightest touch.

**d. Service.** If a problem of any kind should develop in an Allison loudspeaker system, the best and fastest source of assistance is the dealer from whom you bought it. All authorized dealers are also authorized repair stations where repairs can be made quickly and expertly using a stock of repair parts. If for any reason you cannot be served satisfactorily by your dealer, please write directly to: Allison Acoustics Inc., 7 Tech Circle, Natick, Massachusetts 01760. When doing so please describe the nature of the problem and let us know what steps you have taken to isolate the speaker system as the problem source. We will advise you promptly on the best procedure to follow.

Do not let **anyone** other than an authorized dealer in Allison loudspeaker systems attempt to make repairs, without written permission from us. It is unlikely that the repair would be done

properly, and any further damage done could not be covered by our warranty.

## 8. FULL WARRANTY FOR FIVE YEARS

Allison Acoustics warrants that each of our loudspeaker systems will perform within  $\pm$  two decibels of its advertised specifications for five years from the date of original purchase.

Any necessary adjustments or repairs, including replacement parts and labor, will be performed without charge. If your loudspeaker system does not perform as warranted, please contact the dealer from whom you purchased it or write to:

Allison Acoustics Inc.  
7 Tech Circle  
Natick, Massachusetts 01760

In the event your loudspeaker system must be shipped for warranty service, we will provide packaging, if needed, and we will reimburse your shipping charges. We must exempt from warranty coverage any loudspeaker system which has been subjected to electrical, mechanical or other abuse, including damage caused by servicing by anyone other than Allison Acoustics or its dealers.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty is automatically transferred with ownership of the loudspeaker system.

## 9. WARRANTY REGISTRATION

A postage-paid registration card is enclosed which, when filled in with the date of purchase, your name and address and that of your dealer, and mailed to us, will establish a convenient proof of purchase date in the event that you should require service under the warranty. We would appreciate your answers to some other questions on the card also.

Return of the card is **not** necessary in order to validate your warranty. We simply ask you to do it because it will be helpful to us.

ALLISON ACOUSTICS INC.  
7 Tech Circle, Natick, Massachusetts 01760

Allison Acoustic Inc.  
Modell Allison Four  
(Acoustic Suspension System)  
Impedanz: 8  $\Omega$  (IHF )  
Schalldruck: 87 dB 1W/1m  
Frequenzgang: 39 - 20.000 Hz  $\pm$  3 dB  
Tieftöner: 200 mm  
Hochtöner: 25 mm (Dome) 2 X  
Übergangsfrequenz: 2000 Hz  
Verstärker Leistung: 30-150 Watt  
Abmessungen, B x H x T: 492 x 279 x 250 mm  
Gewicht: 10,7 Kg