

## SPECIFICATIONS

### MODEL TWO

Frequency Response: 35 - 20K + or - 2 dB  
Sound Pressure Level: 105 dB @ 15' in a 12' x 18' room  
(Program Material Peaks)  
Minimum Power Requirement: 100 watts  
Nominal Impedance: 4 ohms  
Power Consumption: 5 watts (120v, 50/60 Hz)  
Control: High Frequency Balance (Controls Frequencies Above 10K Hz)  
Dimensions: 58" x 20" x 3½"  
Weight: 64 lbs. (Net Weight for one Speaker with Interface)

### MODEL THREE

Frequency Response: 30 - 20K Hz + or - 2 dB  
Sound Pressure Level: 110 dB @ 18' in a 14' x 22' room  
(Program Material Peaks)  
Minimum Power Required: 70 watts  
Nominal Impedance: 4 ohms  
Power Consumption: 5 watts (120v, 50/60 Hz)  
Control: High Frequency Balance (Controls Frequencies Above 10K Hz)  
Dimensions: 59" x 28" x 3½"  
Weight: 75 lbs. (Net Weight for one Speaker with Interface)

### MODEL FOUR

Frequency Response: 28 - 20K Hz + or - 2 dB  
Sound Pressure Level: 115 dB @ 22' in a 16' x 26' room  
(Program Material Peaks)  
Minimum Power Required: 50 watts  
Nominal Impedance: 4 ohms  
Power Consumption: 5 watts (120v, 50/60 Hz)  
Control: High Frequency Balance (Controls Frequencies Above 10K Hz)  
Dimensions: 59" x 36" x 4"  
Weight: 86 lbs. (Net Weight for one Speaker with Interface)

**WARRANTY:** Lifetime, see warranty statement for details.

**ACOUSTAT**  
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# ACOUSTAT

## ELECTROSTATIC LOUDSPEAKER SYSTEMS

### SLIMLINE SERIES



**OWNER'S MANUAL  
&  
ASSEMBLY INSTRUCTIONS**

# LIMITED WARRANTY

## FOR ACOUSTAT LOUDSPEAKER SYSTEMS

ACOUSTAT CORPORATION warrants to the owner that the ACOUSTAT loudspeaker system will perform as specified and that it will be free of defects in materials and workmanship for a period of FIVE YEARS from the date of original manufacture.

In addition, due to the superlative quality of construction employed in the ACOUSTAT loudspeaker systems, and the feeling that a high-quality product should be free of defects in materials and workmanship indefinitely, ACOUSTAT CORPORATION will continue to warrant the product (at their option) as long as it is in service, subject to the conditions below.

ACOUSTAT CORPORATION will repair defective units without charge for labor or parts, subject to the following conditions:

- a) The unit must not have been altered or damaged through misuse, abuse, negligence, accident, or improper operation.
- b) All repairs must be undertaken at the factory or other service center designated by ACOUSTAT CORPORATION. Units submitted for warranty repairs must be shipped in the factory packing carton to ACOUSTAT CORPORATION or its designated service center, freight and insurance prepaid by the owner, and will be returned to the owner freight and insurance prepaid by ACOUSTAT CORPORATION.
- c) Normal wear and maintenance are not covered by this warranty.

ACOUSTAT CORPORATION SHALL NOT BE RESPONSIBLE IN ANY WAY FOR CONSEQUENTIAL OR INDIRECT DAMAGES OR LIABILITIES RESULTING FROM THE USE AND OPERATION OF THE PRODUCT COVERED HEREIN OR RESULTING FROM ANY BREACH OF THIS WARRANTY OR ANY IMPLIED WARRANTY RELATING TO THE SAID PRODUCT.

Some states do not allow exclusion of limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you.

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

## INTRODUCTION

Congratulations on your purchase of the world's finest loudspeaker system, the ACOUSTAT full-range element electrostatic with Magneto-Kinetic Interface\*. If you will take just a few minutes to review the assembly and set-up instructions provided with your new speakers, you can be assured of many years of listening enjoyment as the system's full potential is realized.

**PLEASE NOTE: THE SYSTEM WILL REQUIRE SEVERAL HOURS OF INITIAL PANEL CHARGE-UP AND PLAYING TIME TO REACH FULL EFFICIENCY.**

We have determined that many systems fail to function at their full potential because of deficiencies in the initial set-up. Therefore, a section has been included outlining the preferred procedure for the placement and connection of a newly installed system.

The acoustics of the room will play a major role in the ultimate performance of the speaker system, and we have found that it is far more rewarding in terms of the quality of the results obtained to tune the speakers to the room than to add line equalization. A reasonably absorbent and unobstructed wall should be directly behind the speakers, and any required tuning of the room can normally be accomplished with slight changes in the placement of drapes or other wall hangings.

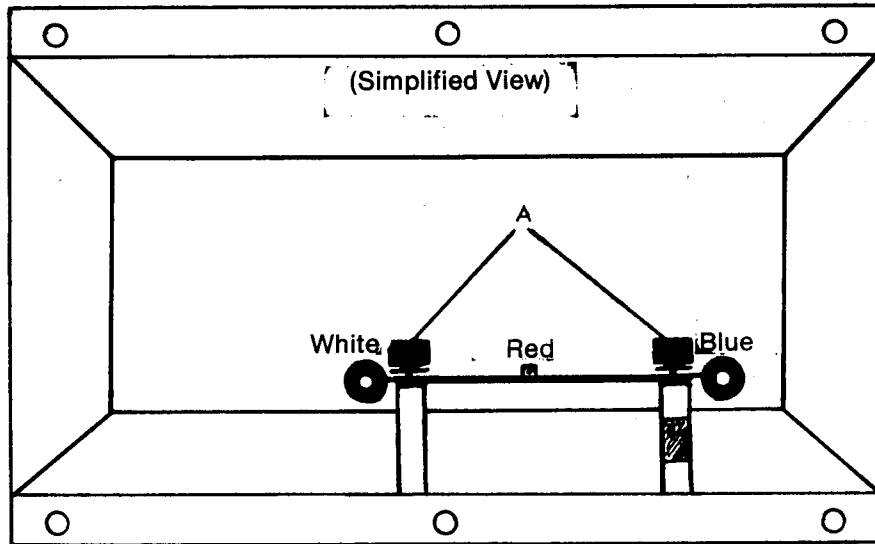
## ASSEMBLY

- 1) Lay the speaker face down on the carpet, CAREFULLY! DO NOT allow the speaker to fall to the ground. SLOWLY lay it down. Dropping the speaker face down may rupture the diaphragm with trapped air.
- 2) Remove two of the screw-in feet provided from the hardware packet. Screw these into the threaded holes on the bottom of the speaker's base. For now, screw them all the way in. Some adjustment may be needed later for the speaker to sit squarely and have the correct amount of tiltback.
- 3) Set the interface on the floor at the base of the speaker, with the opening facing forward toward the speaker. (As in Figure 1.)
- 4) Note the three groups of wires coming through the rubber grommet on the back of the speaker's base. Visually identify them as: the RED group, with a pin plug on the end; the BLUE group, with a blue-sleeved hook on the end; and, the WHITE group, with a plain hook on the end.

\*Patent Pending

- 5) Refer to FIGURE 1. Insert the pin plug into the RED socket on the circuit board. The BLUE hook is attached to the board on the right side, identified by the blue tape on the nylon spacer below the thumb screw (A), and the word "BLUE" on the board at this point. This is accomplished by loosening the thumb screw (A) three turns, placing the hook between the thumb screw and the washer, and then tightening the thumb screw securely. Repeat this procedure on the other hook on the WHITE side of the circuit board.

FIGURE 1.

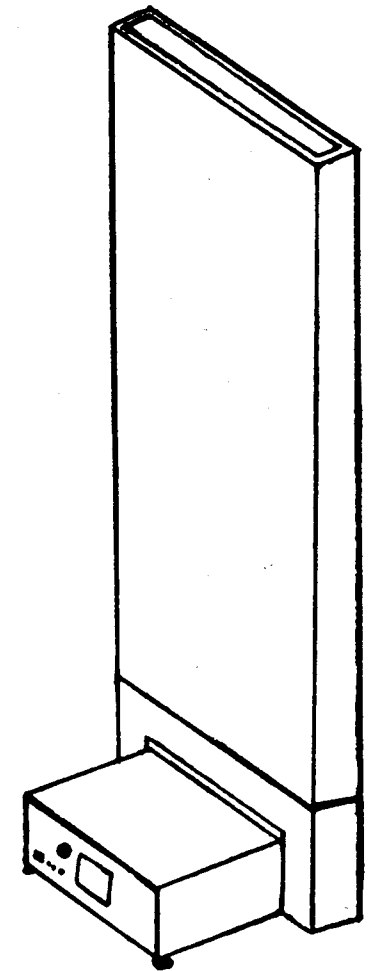


- 6) Push any excess wire back through the grommet on the back of the speaker's base.
- 7) CAREFULLY, place the interface on the back of the speaker's base, so that the six mounting holes align. Be careful not to pinch any wires when you set the interface down on the metal firewall plate. Using the six screws provided in your hardware packet, attach the interface to the speaker's base.
- 8) Select the other two screw-in feet provided. These are attached at the bottom rear of the interface, one in each corner. Screw these in, leaving approximately  $\frac{1}{2}$ " of thread showing.
- 9) Carefully stand the speaker upright in the approximate location it will be used. (See fig. 2, and "Recommended Set-Up Procedure").

- 10) Make an initial setting of the tiltback of the speaker using the screw-in feet at the front and back of the speaker system. A good initial setting is achieved by tilting the speaker so that the top of the speaker is two or three inches behind the bottom of the speaker. This can be easily gauged by dangling a broomstick behind the speaker. The degree of tiltback of each speaker must be equal for best imaging.

- 11) Plug the interface into the wall. Set the high frequency control pot on the interface to approximately the two o'clock position for your initial listening tests. PLEASE NOTE: This control effects primarily the last octave (10-20K Hz) of the musical spectrum, and the proper setting will be that which yields the correct degree of "sparkle" or "airiness" to the sound. Therefore only source material with the widest range will be suitable for this adjustment.

- 12) Repeat the above procedures on the other speaker system.



### REMOVAL OF INTERFACE

**WARNING: ALWAYS UNPLUG THE LINE CORD BEFORE REMOVING INTERFACE!**

**WARNING: HIGH VOLTAGES ARE PRESENT IN A CHARGED PANEL.** If the interface must be removed from the speaker, the following procedure is necessary to discharge the panels. 1) UN-PLUG the interface from AC outlet and amplifier. 2) CAREFULLY lay the speaker down. DO NOT drop it down! 3) Un-bolt the interface. 4) Set the interface on the floor behind the speaker, being careful to not unplug the three wires from the speaker. 5) Remove the center RED pin plug, and touch the tip (while holding the wire, NOT the plug) to either the BLUE or WHITE terminal on the circuit board. 6) Loosen the two thumb screws and remove the hooks.

## RECOMMENDED SET-UP PROCEDURE

The set-up procedure and assembly instructions are the same for all models of Acoustat electrostatic speaker systems. We advise that the following instructions be followed fully to obtain the best performance from your new speakers. Errors in initial set-up can prohibit the system's performance at low frequencies, as well as lower the system's overall efficiency.

Some of the principal considerations which will determine the performance potential of the speaker system as installed are:

- 1) The Wall Behind the Speakers** – This wall should be reasonably absorbent, and sufficiently rigid so that it will not rattle.
- 2) The Orientation of the Speaker System Within the Room** – (See Fig. 2)  
2) For deepest low bass performance, the speakers should project sound along the longer axis of the room. This is a universal rule of speaker placement, and is in no way peculiar to Acoustat speakers. If this is not possible in your room, the performance of the speaker system will not be significantly compromised other than a slight loss of deep bass performance. In addition, we have found that a rather wide separation of the speakers (up to the point where the two speakers and the listening area form an equal sided triangle) provides a very large "listening window" without loss of center-fill. Therefore, set-up along the long wall has certain virtues as well.
- 3) Distance From the Rear Wall** – Since the Acoustat loudspeaker is a dipolar radiator, placing the speaker too close to the rear wall will yield substantially reduced low bass output, due to rear wave cancellations, and a somewhat muffled sound. We recommend for most rooms a MINIMUM rear wall distance of three feet, measured from the back of the panels to the rear wall.
- 4) Toe-In and Distance Between Speakers** – There are numerous combinations of toe-in and distance between the speakers that will provide excellent sonic performance. Our general recommendations, however, are to place the speakers AS FAR APART AS POSSIBLE, yet keeping them at least two feet from the side walls, and then angle the speakers towards the center listening position. (Again, see Figure 2.)
- 5) Tiltback** – The tiltback of the speakers has the combined effect of improving the vertical dispersion of the system and of breaking up standing waves in the room. Two or three degrees of tilt is a good setting for most SEATED listening positions. This corresponds to about two inches of rearward displacement of the top of the speaker.

- 6) The Area Between the Speakers** – This area should be kept clear of major obstructions to airflow if optimum imaging is to be achieved. The size and shape of any objects placed between the speakers will determine the extent of any deleterious effects on the imaging. Objects such as record cabinets that stand fairly tall or equipment racks should be avoided.
- 7) Phasing** – Acoustat speakers are designed to preserve the correct absolute phase throughout the system, including the final coupling of the signal to the air. This ensures that vocalists and instruments will sound as natural as possible. Therefore, make sure that connections from the interface are correctly oriented: i.e., red (+) and black (-).
- 8) Electric Feedback** – Electrostatic loudspeakers produce a strong electric field which can influence the operation of any low level electronic circuitry in close proximity. This can result in feedback well above the audio spectrum, which has the effect of high power dissipation and decreased headroom in the system. For this reason, the turntable-cartridge leads and the phono inputs of the preamplifier should be kept at least six to eight feet from the nearest speaker to ensure that no feedback can occur.

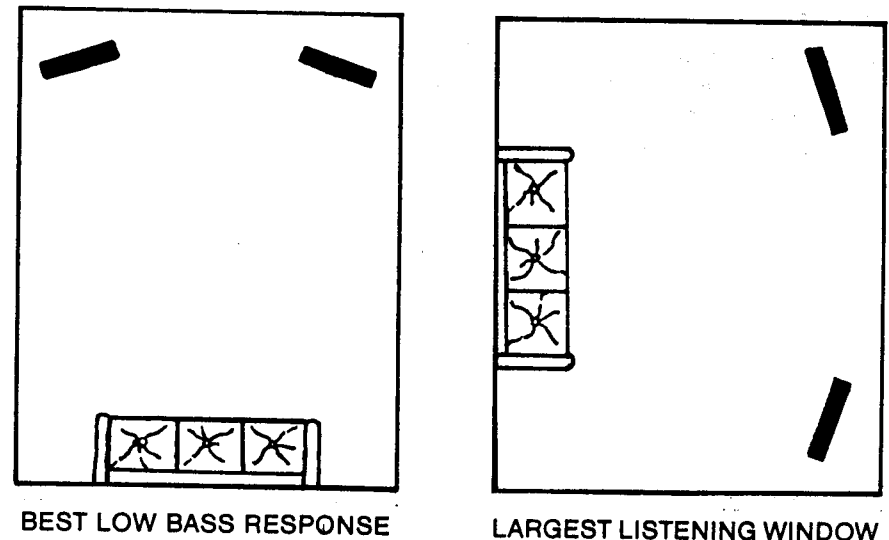


Figure 2 - Room Placement