



30 CROSS STREET
CAMBRIDGE 39, MASSACHUSETTS

INSTRUCTIONS

KLH MODEL SIX ACOUSTIC SUSPENSION LOUDSPEAKER SYSTEM

GENERAL SPECIFICATIONS

The KLH Model Six is an 8 ohm two-way loudspeaker system designed to reproduce the full range of musical frequencies. The low-frequency section is a twelve-inch acoustic suspension mechanism mounted in a tightly sealed cabinet. The size of the cabinet is carefully chosen so that the enclosed air provides the necessary restoring force to the loudspeaker cone. The use of acoustic stiffness as the restoring force is in contradistinction to the practice in ordinary loudspeakers where most of the restoring force is supplied by the stiffness of the mechanical suspension supporting the cone. The high-frequency section in the Model Six is a newly developed small cone-type speaker with heretofore unavailable frequency response and dispersion.

THE MODEL SIX WAS ACOUSTICALLY DESIGNED TO BE USED STANDING UPRIGHT ON THE FLOOR, AND CONSEQUENTLY IT WILL BE FOUND THAT IN MOST CASES SUPERIOR PERFORMANCE WILL BE OBTAINED WITH THE MODEL SIX IN THIS VERTICAL POSITION. When the speaker is used in the vertical position, it should be placed with the backplate right side up. If it is placed with the backplate upside down, then the high-frequency speaker will be only a few inches above the floor and the high-frequency response will be impaired. In order to accommodate situations where it is desired to place the Model Six horizontally on a table or a shelf, the cabinet is finished on all four sides. Once it has been decided in which position the speaker system will be used, the four polyethylene tack-pointed "feet" may be hammered into the cabi-

(cont.)

net. The KLH emblem is screwed into the front panel, so it may be rotated when the Model Six is used in a horizontal position.

IMPORTANT NOTE: PROPER ACOUSTICAL DESIGN REQUIRES THE FRONT OF THE CONE OF THE HIGH-FREQUENCY SPEAKER TO BE ALMOST FLUSH WITH THE FRONT OF THE PANEL. THEREFORE, CARE SHOULD BE EXERCISED THAT THE FRONT PANEL OF THE MODEL SIX IS NOT POKED OR OTHERWISE HIT WITH FINGERS, KNEES, BROOMS, ETC.

IMPORTANT NOTE: THE TWO SPEAKERS IN THE MODEL SIX ARE PERMANENTLY SEALED INTO THE FRONT PANEL AND THE FRONT PANEL IS PERMANENTLY GLUED INTO THE CABINET. CONSEQUENTLY, NO ATTEMPT SHOULD BE MADE TO OPEN THE CABINET IN ANY MANNER.

ASSOCIATED EQUIPMENT

To fully realize the high performance of which the KLH Model Six is capable, associated equipment only of the highest quality should be used. In the engineering design of all KLH loudspeaker systems, primary emphasis has been given to achieving very low distortion and smooth extended frequency response. This necessarily results in the KLH loudspeaker systems being less sensitive than many other loudspeaker systems. This means only that more amplifier power is required to achieve a given sound output. We therefore suggest that careful attention be given to selecting an amplifier which will not distort at the volume level desired. Such amplifier distortion is readily evident as a rasping sound during loud passages and indicates that more power is demanded from the amplifier than it can supply. In general, one of the high quality amplifiers of at least 20 watts, or the equivalent total power from a pair of stereo amplifiers, will be required for moderately high sound level.

The power handling capability of the Model Six is such that any of the amplifiers intended for home music reproduction may safely be used.

CONNECTION TO AMPLIFIER

The Model Six may be connected to the amplifier by means of ordinary two-conductor rubber covered "lamp cord" in the manner indicated on the backplate. A cord as long as 60 feet may be used with a power loss in the cord of only 10% of the amplifier power.

(cont.)

AMPLIFIER DAMPING FACTOR

THE KLH MODEL SIX IS DESIGNED TO HAVE THE PROPER AMOUNT OF BASS AND PROPER TRANSIENT CHARACTERISTICS WHEN CONNECTED TO AN AMPLIFIER WITH THE USUAL HIGH DAMPING FACTOR. Consequently, the Model Six does not require an amplifier with a variable damping factor control. If your amplifier does have such a control, it should be set for highest damping.

ROOM PLACEMENT

The level of the very-low-frequency response of the Model Six has been chosen on the basis of extensive observation as to what is desired in the average listening environment. Furthermore, the engineering design of the Model Six absolutely precludes undue emphasis being given to any particular low-frequency tones. Nevertheless, the sound from any loudspeaker system is strongly influenced by the position of the loudspeaker in the room. One of the primary effects of different room positions is to give different low-frequency characteristics. Sometimes the low-frequency response can be substantially increased, or a "boomy" sound corrected, by changing placement in the room. Some time spent experimenting to find the best room placement will probably be most rewarding.

ADJUSTMENT OF HIGH-FREQUENCY RESPONSE

To account for different room characteristics and different personal tastes, the high-frequency response of the Model Six may be adjusted by means of the three-position switch on the back of the cabinet. The range of adjustment covered by this switch is about 5 db.

SEPARATE USE OF LOW- AND HIGH-FREQUENCY SECTIONS

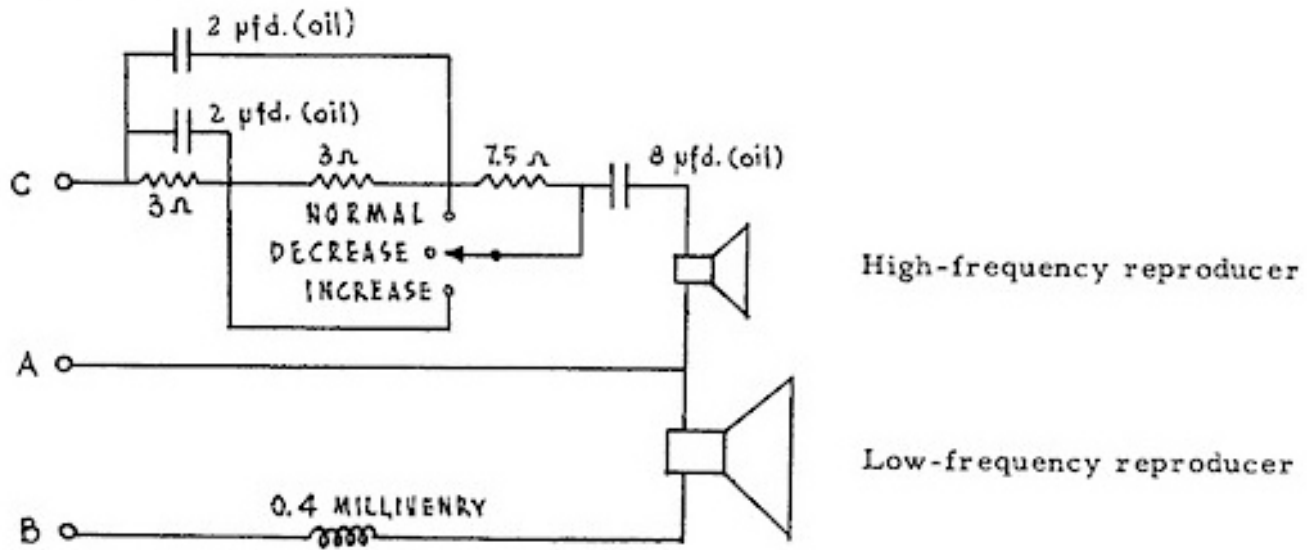
Provision is made in the Model Six to permit separate use of the low- and high-frequency sections. When the shorting strap between terminals B and C is removed, terminals A and B lead through a choke to the low-frequency reproducer and terminals A and C lead through the crossover network to the high-frequency reproducer.

(cont.)

INTERNAL WIRING OF THE MODEL SIX

While it is not necessary to know the internal wiring in the Model Six to understand the above instructions, a diagram of the internal wiring is given below for those who might be interested.

Note: The sense of the internal speaker connections is such that the cones move toward the front of the cabinet when terminals B and C are connected to the center (positive) terminal of a dry cell and terminal A to the case (negative) of the dry cell.



WARRANTY AND GUARANTEE

The loudspeaker mechanisms in the Model Six were designed and manufactured entirely by KLH Research and Development Corp. KLH warrants that this speaker system is free from any defect in materials or workmanship at the time it leaves the factory. KLH guarantees the repair or replacement without charge of any component which becomes defective within two years under normal use, PROVIDING THAT THE WARRANTY CARD IS RETURNED TO KLH IMMEDIATELY AFTER THE PURCHASE. If at any time you suspect that your Model Six is not operating properly, first make certain that all other components in your system are operating properly. If you still believe the Model Six is at fault, consult your authorized KLH dealer. We will cooperate with him fully in implementing our guarantee. However, written authorization must be obtained from us before the speaker system is returned to our plant.