SPEECH INPUT
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MICROPHONES
AMPLIFIERS
REPRODUCERS
LOUDSPEAKERS
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TEST EQUIPMENT
TRANSFORMERS
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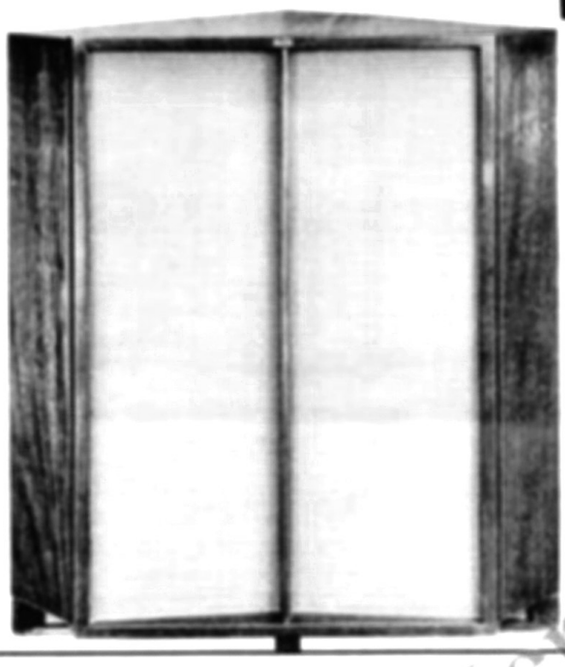
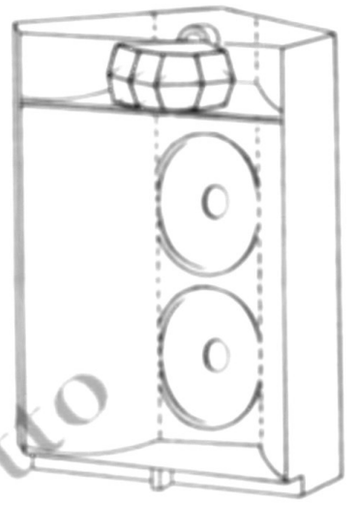
TELEVISION

ALTEC LANSING CORPORATION SPEAKER SYSTEM

820A





DESCRIPTION

The 820A Corner Speaker System is a full two-way system built into an attractive Mahogany corner type cabinet, designed especially for those audio connoisseurs who desire real theatre quality reproduction in their homes. It is a counterpart of the famous Altec Lansing "Voice of the Theatre" Speaker Systems which are now installed in more than 7000 theatres throughout the United States. The speaker equipment used in this system employs the same professional units used in achieving the superb reproduction in the theatre. This Speaker System consists of a newly designed direct radiating horn in a reflex cabinet, an 802B High Frequency unit mounted on an H-808 multicellular horn, two 803A Low Frequency units, and an N-800D Dividing network, which provides an 800 cycle crossover . . . the combination of which provides unsurpassed quality over the entire audio range. No third tweeter unit with its inherent phasing difficulties is required.

The 821A cabinet which houses all of the components is a beautifully finished piece of furniture. It incorporates the Altec *exclusive* direct radiating horn type of baffle for the low frequency speakers. This straight direct radiating horn eliminates the frequency response hole at crossover, which is an inherent characteristic of conventional folded type low frequency horns. The cabinet is ruggedly constructed and properly braced to prevent vibration and the interior is treated acoustically to minimize internal reflections. As shown in the sketch, a shelf is provided on which to mount and adjust the high frequency horn.

APPLICATION

Because of the design and finish this 820A Corner Speaker System can be used in living rooms, music and recreation rooms of homes, in small auditoriums, club rooms, school rooms, radio station studios, audition rooms . . . in fact, in any location where the ultimate in high quality reproduction is required.

ADVANTAGES

The corner cabinet construction of this 820A speaker system allows it to fit into space not ordinarily used for a speaker location. In this corner position it provides a much greater horizontal distribution of sound in rooms than is possible with the conventional type speaker cabinet.

By utilization of the professional components in the design of this system there is achieved for the home the following advantages in a reproduction system that here-to-fore have been available only to the theatre and other such professional applications . . . *high intelligibility* for comfortable listening pleasure . . . *true bass reproduction* for greater music enjoyment . . . *smooth frequency response* covering entire listening range of frequencies . . . *high acoustic efficiency* to prevent distortion from overload of amplifier . . . *no third tweeter unit* with its inherent phasing difficulties . . . *no mid-range hole* at crossover.

All of these outstanding features of this attractively designed two-way speaker system insure the connoisseur the highest quality of reproduction from his radio, phonograph or tape recording.

(OVER)

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ORDERING INFORMATION

Order—820A Corner Speaker System.
Individual components are as follows:

1—821A—Corner Cabinet
1—802B—High Frequency Speaker
1—H-808—High Frequency Multicellular Horn
1—N-800D—Dividing Network
2—803A—Low Frequency Speakers

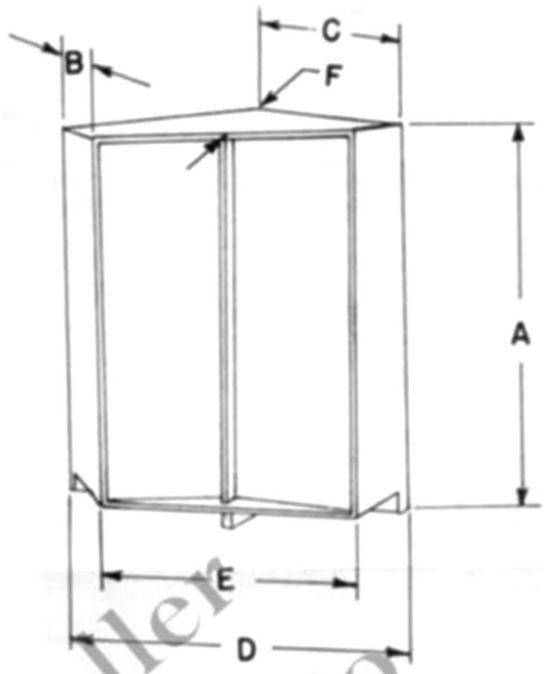
TECHNICAL DATA

Angle of Vertical Distribution—40 degrees
Angle of Horizontal Distribution—90 degrees
Dividing Network Crossover—800 cycles
Dividing Network Impedance—12 ohms
Required Amplifier Output Impedance—6 to 12 ohms
Audio Power Rating—30 watts

Dimensions:

A . . . 47⅜ inches
B . . . 9¾ "
C . . . 30 "
D . . . 42¼ "
E . . . 30½ "
F . . . 29 "

Shipping weight (combined components) 230 lbs.
Cabinet . . . . . 170 lbs.
Components . . . . 60 lbs.



DIMENSIONAL OUTLINE
821A CORNER CABINET

LOUDSPEAKER COMPONENTS OF 820A CORNER SPEAKER SYSTEM

The H-808 Multicellular Horn is a full multicellular 2 x 4 horn, each cell being truly exponential. The combination of these cells provides a vertical distribution angle of 40 degrees and a horizontal distribution of 90 degrees. The use of this type horn with an efficient High Frequency Speaker unit insures smooth high frequency distribution with delivery of maximum audio power.

The N-800D Network is a full two-section parallel type constant resistance dividing network designed for a crossover at 800 cycles. Provision is made for four 1 db attenuation steps in the high frequency output so that the system can be adjusted to meet the requirements of any location at the time of installation and ordinarily this setting should not need to be changed.

The 802 High Frequency Unit is designed to cover the range from 800 cycles to 15,000 cycles with smooth response, great efficiency, room presence, and high intelligibility. These qualities are made possible by the use of a large Alnico 5 Permanent Magnet, plus extremely close manufacturing tolerances, plus the use of edge wound flat aluminum voice coil. The tangential compliance diaphragm made of .002 aluminum is another important feature of this unit. The diaphragm assembly is field replaceable.

Two 803 Low Frequency Speakers are incorporated in the 820A Corner Speaker System for maximum acoustic coupling at low frequencies. They are 15" units which are designed especially to give maximum response between 50 and 800 cycles. They too, use the Altec principle of edge wound voice coil from flat ribbon wire to provide greater efficiency and power handling capacity. The 3" voice coil of these units allows more rigid coupling between the voice coil and the cone for better low frequency reproduction. The magnetic fields for these units are provided by the use of a large Alnico 5 Permanent Magnet. The cone and voice coil assembly is field replaceable.

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