

Model 15xs

Low Frequency Speaker

The Model 15XS low frequency loud speaker is the unit adopted for use in the Shearer Horn System. In this system the units are used on a folded exponential horn. The response is uniform within two decibels over the range 40-500 cycles, and the efficiency is so high that the Model 285 high frequency unit can be used with attenuation of only 0 to 2 db. The amount of this attenuation will

depend upon the acoustic characteristics of room and solid angle of radiation used in H.F. horn. This unit is of extremely sturdy construction and is capable of handling large amounts of audio power at



low frequencies. Given a proper acoustic load, such as an exponential horn, the conversion efficiency will be the highest and most uniform available on the market. Thirty watts minimum and forty watts maximum are required to excite the field.

The moving coil is centered by means of a special device made of molded, laminated, linen base bakelite. The diaphragm can be driven to

large amplitudes without disturbing the centering of the moving coil. The diaphragm is a cone of a special fibre that has been impregnated to insure freedom from moisture absorption.

SPECIFICATIONS

POWER HANDLING CAPABILITY: On suitable horns, twenty-five electrical watts can be handled. At low frequencies, distortion resulting from excessive diaphragm excursion is a limiting factor. With ten watts input per unit at 50 cycles, total distortion measures less than five per cent.

FIELD EXCITATION: Thirty watts minimum and 40 watts maximum are required to properly excite the field. Lack of proper excitation results in a loss of efficiency as well as less uniform response.

FIELD COIL DATA: The following field coils are standard parts: 1.84 ohms for 8-volt operation, 410 ohms for 110-volt operation, 625 ohms for 125-volt operation and 1600 ohms for 220-volt operation. Other coils are available on special order at a slight increase in price. The field coil is completely enclosed in metal.

CONNECTIONS: Voice coil connections are brought out to heavy duty binding posts, mounted at the base of

cone housing. Field coil connections are brought out to a two conductor, polarized, twist lock, motor plug mounted on side of field structure. Connections are completed by means of a standard two conductor twist lock cord body such as the Arrow No. 1950. This unit is approved by underwriters.

REPLACEMENT OF DIAPHRAGM: Diaphragm is held in place by means of clamping ring and centering device and can be removed by removing machine screws holding these.

MOUNTING: This unit should be mounted to a 13 inch diameter hole in baffle or horn. It is secured to the horn by means of six 1/4-inch bolts, equally spaced on a 13 1/4 inch diameter circle.

DIMENSIONS: Unit is 15 3/4 inches in diameter. Depth 9 inches overall.

WEIGHT: Net 27 lbs. Shipping weight 42 lbs.

LANSING MANUFACTURING CO.

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