

Figure 1 — 728B Loudspeaker.

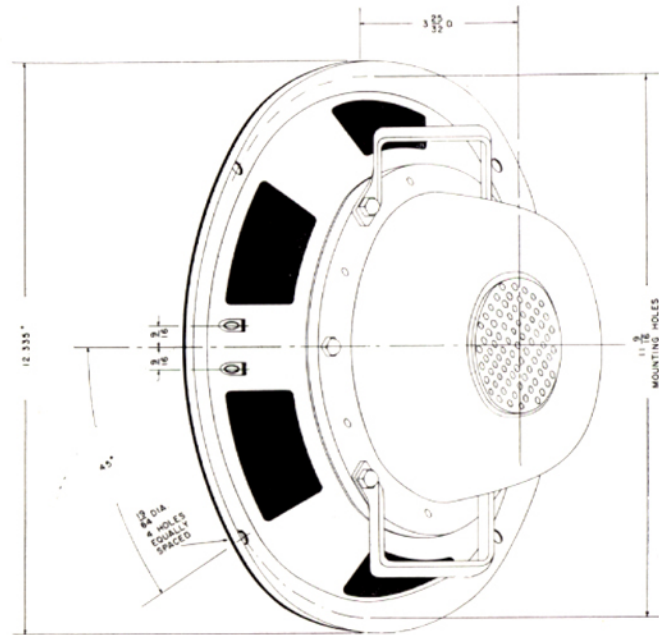


Figure 2 — 728B Loudspeaker, Dimensional Drawing.

728B LOUDSPEAKER

Use — The 728B Loudspeaker is a single unit type speaker intended for high quality reproduction of sound for radio monitoring of speech and music, and for music reproduction and public address systems.

Description — The single direct-radiator type of loudspeaker with its compact construction, high power handling capacity, and low cost is ideally suited for application into new and existing sound systems where a wide frequency range must be reproduced by a single speaker. It is designed to respond to frequencies from 60 to 10,000 cycles when installed in an enclosure as described below. The enclosure is not furnished as a part of the loudspeaker.

This speaker gives firm, well damped low frequency reproduction. It also gives smoothness of reproduction of the higher frequencies as it has a gradual roll-off characteristic at these frequencies.

Features

- High power handling capacity.
- Wide frequency range in single unit.
- Compact and simple to install.
- Relative high efficiency.
- No field power supply required.

Specifications

Impedance: 4 ohms.

Coverage Angle: 50°.

Power Handling Capacity: 30 watts continuous.

Efficiency: At a distance of 100 feet on axis the 728B will produce a level of 81 db above 10^{-16} watt per square centimeter at 30 watts. This level is on a basis of a warble frequency covering a range from 500 to 2,500 cycles per second. (This input is approximately 10 db above average speech as read on a standard volume indicator).

Nominal Frequency Response: Uniform 60 to 8,000 cycles with a gradual roll off to 10 db down at 10,000 cycles. (In enclosure as described).

Diameter (overall): 12-11/32".

Depth (overall): 3-25/32".

Weight: 17 pounds (approximate).

Baffle Hole Diameter: 11".

Mounting Holes: Four equally spaced on 11-35/64" diameter.

Speaker Enclosure Required: Total enclosure of not less than $2\frac{1}{2}$ cubic feet.

The low frequency response can be improved (within limits) by increasing the size of the speaker enclosure.

Speaker Enclosure and Mounting

The enclosure should have a minimum of $2\frac{1}{2}$ cubic feet and the plywood used for construction should be at least $\frac{3}{4}$ " thick. The only critical dimension is depth and this

dimension should be sufficient to provide adequate clearance for the speaker frame.

The inside surfaces of the box should be lined with sound absorbing material 1" thick. Hair felt, or absorbent cellulose material is satisfactory. If a grille cloth is used for covering the speaker, it should be open mesh material, to have no audible effect on the high frequency response.

Conveniently placed handles on the speaker frame make it easy to hold the speaker when installing it in a cabinet.

750A AND 751B LOUDSPEAKERS

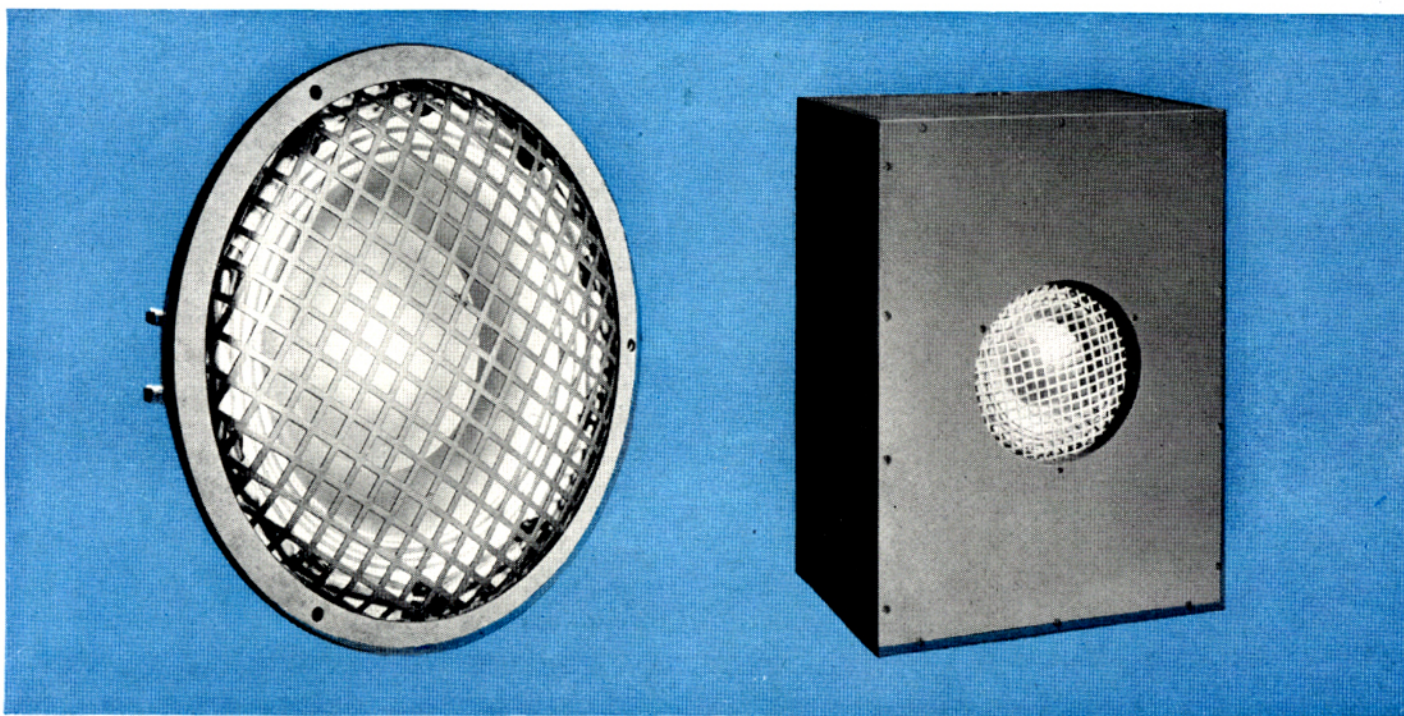


Figure 3 — 750A Loudspeaker.

Figure 4 — 751B Loudspeaker.

Use — These loudspeakers are intended for use in music reproduction and public address systems and for radio monitoring of speech or music over limited areas where high quality reproduction and low cost are essential.

Description — A single radiator type of loudspeaker with moderate power handling capacity, it is capable of covering a wide frequency range that usually requires a multiple device.

The 751B consists of a 750A Permanent-Magnet Loudspeaker mounted in a specially constructed box.

Features

- Single unit.
- Good frequency response.
- Relatively small size.
- Simple installation.
- Permanent magnet.

Specifications

Frequency Range: The 751B has a frequency range of 80 to 10,000 cycles.

Impedance: 8 ohms.

Efficiency: At a distance of 10 feet on the axis the speaker will produce a level of 96 db above 10^{-16} watt per square centimeter at 20 watts input. This corresponds to a 76 db level at 100 feet distance. These levels are on the basis of a warble frequency covering a range from 500 to 2,500 cycles per second. (This input is approximately 10 db above average speech as read on a volume indicator).

Coverage Angle: 60° .

Power Capacity: The 751B will safely handle speech or music with a peak power of 20 watts.



750A LOUDSPEAKER

Dimensions: 9½" diameter and 3¾" depth.

Weight: Approximately 9 pounds.

Mounting: It should be mounted in a rigidly constructed box with an enclosed volume of 2½ to 3 cubic feet with a depth of at least 9" and not more than 24" for width or height. Inside surfaces should be lined with sound absorb-

ing material 1" thick.

751B LOUDSPEAKER

Dimensions: 24" high, 17" wide and 13½" deep.

Weight: Approximately 42 pounds.

Finish: The box has a plain gray lacquer finish which may be decorated to harmonize with its surroundings.

753B-753C LOUDSPEAKER

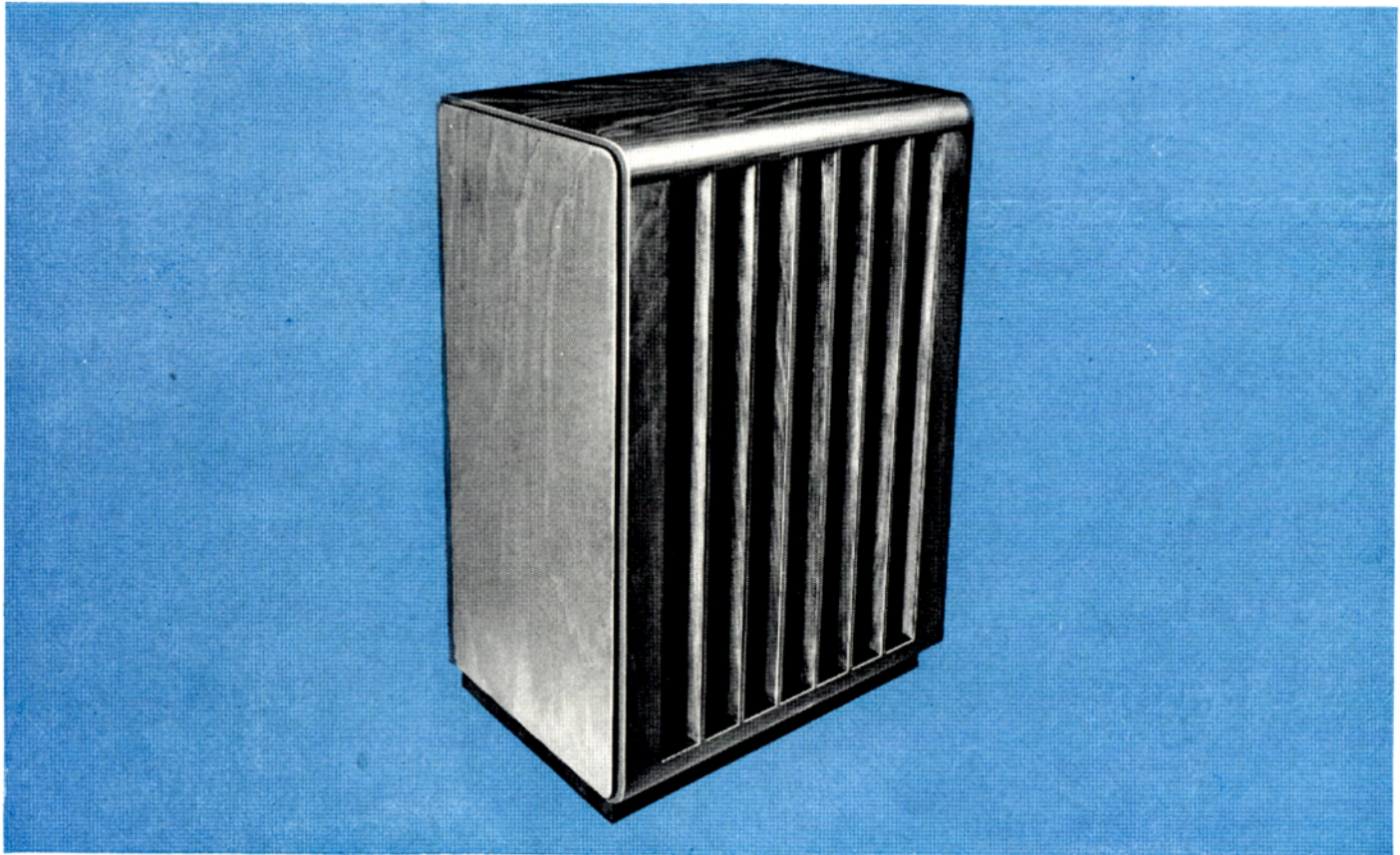


Figure 5 — 753 Type Loudspeaker.

Use — The 753B and 753C Loudspeakers are designed for high quality sound reproduction. They are ideally suited for broadcast program monitoring, high quality public address and music reproduction systems.

Description — They employ a two band system with high and low frequency units. The 753C consists of a KS-12004 Speaker (15" dynamic) for low frequencies, a 713A Receiver and 32A Horn for the higher frequencies, and a D-173048 Network. All are mounted in a walnut finish cabinet of attractive design.

The 753B has the same electrical and physical characteristics as the 753C except that it employs a 722A Receiver

in place of the 713A Receiver and has less frequency range.

Features

- Wide frequency range.
- High power handling ability.
- Highly efficient in converting electrical impulses into sound.
- Attractive cabinet.

Specifications

- Frequency Range:* 753C — 60 to 15,000 cycles.
- 753B — 60 to 6,500 cycles.

Western Electric

Impedance: 16 ohms.

Efficiency: At a distance of 100 feet on the axis the 753C will produce a level of 81 db, or the 753B a level of 80 db, above 10^{-16} watt per square centimeter at 25 watts input. These levels are on the basis of a warble frequency covering a range from 500 to 2,500 cycles per second. (This input is approximately 10 db above average speech as read on a volume indicator).

Coverage Angle: Substantially uniform in frequency and intensity over an angle of 90° horizontally and 60° vertically.

Power Capacity: Will handle speech or music with peak powers of 25 watts.

Dimensions and Mounting: Mounted in a walnut finished cabinet approximately 20" wide by 30" high by $13\frac{1}{2}$ " deep.