

# 921-8A LOW-FREQUENCY LOUDSPEAKER — PRELIMINARY



## DESCRIPTION

The 921-8A is a 16-inch low-frequency loudspeaker designed specifically for sound reinforcement and reproduction systems where high power-handling capacity must be combined with high sensitivity and linearity.

The 921-8A is built on a rigid 16-inch die-cast aluminum frame which is designed for either front or rear mounting.\* An efficient 4.87 pound ceramic magnet structure backs up a high-power voice coil of edge-wound copper ribbon. The voice coil is wound on an aluminum form for maximum strength and heat dissipation and then attached to a carefully-molded paper cone. The entire cone/voice coil assembly is mounted to the frame with a flexible yet linear surround and spider. Together, these components make up a loudspeaker that is efficient yet rugged, linear yet tolerant of large amounts of power.

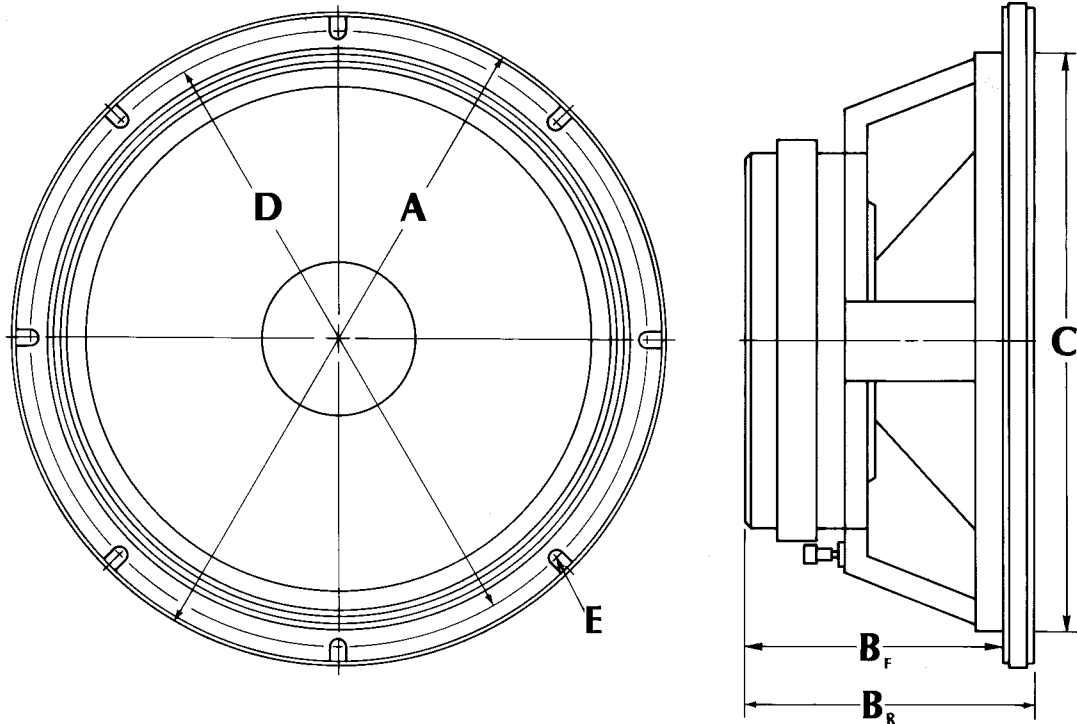
The 921-8A has a continuous power rating of 200 watts and a frequency response from 35 to 8000 Hz. It is designed for high efficiency, high linearity, low distortion and wide range.

\*The 921-8A will mount in most cabinets designed for conventional 15" loudspeakers.

## SPECIFICATIONS

<b>Type:</b>	Low-frequency loudspeaker
<b>Power Rating:</b>	200 watts continuous pink noise band limited from 63 to 20 kHz ( $E^2/R$ )
<b>Frequency Response:</b>	35 Hz-8000 Hz
<b>Pressure Sensitivity:</b>	101.5 dB SPL with 1 watt input of band-limited pink noise from 250 Hz-1000 Hz measured on axis 4 feet from the cone. Equal to EIA rating of 54.5 dB SPL measured on axis 30 feet from cone with 1 milliwatt input.
<b>Nominal Impedance:</b>	8 ohms
<b>Nominal Free-Air Cone Resonance:</b>	35 Hz
<b>Voice Coil Diameter:</b>	3" (7.62 cm)
<b>Magnetic Assembly—Magnet Weight:</b>	4.875 pounds
<b>Assembly Weight:</b>	17.5 pounds
<b>Magnet Type:</b>	Ceramic
<b>Flux Density:</b>	14,000 gauss
<b>Construction—Frame (Basket):</b>	Structurally reinforced die-cast aluminum
<b>Cone:</b>	Molded fiber
<b>Cone Suspension:</b>	High-compliance cloth surround with mechanical resistance
<b>Voice Coil:</b>	Edge-wound copper ribbon
<b>Voice Coil Support Material:</b>	Aluminum with *Kapton® insulation
<b>Maximum Cone Excursion:</b>	1/2"
<b>Diameter:</b>	16" (40.64 cm)
<b>Weight:</b>	20 pounds, 11 ounces (9.40 kg)
<b>Mounting Data—Mounting Hole Diameter:</b>	14 1/8" (35.87 cm) (may be either front or rear mounted)
<b>Mounting Bolt Centers:</b>	8 holes equally spaced on 15 1/8" (38.41 cm) diameter circle. Note—Bolt circle can vary from 14 3/8" up to 15 5/8"
<b>Loudspeaker Depth:</b>	6 1/4" (15.88 cm)

\*Kapton® is a registered trademark of DuPont.



- (A) LOUDSPEAKER DIAMETER: 16" (40.64 cm)
- (B<sub>F</sub>) DEPTH WHEN FRONT MOUNTED: 5½" (13.97 cm)
- (B<sub>R</sub>) DEPTH WHEN REAR MOUNTED: 6¼" (15.87 cm)
- (C) BAFFLE OPENING DIAMETER: 14⅞" (35.87 cm)
- (D) BOLT CIRCLE DIAMETER: 15⅞" (38.41 cm)
- (E) BOLT HOLE SLOTS: ¼" (0.64 cm) x ⅝" (0.34 cm); 8 slots spaced 45° apart

### ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The low-frequency loudspeaker shall have a maximum diameter of 16⅞" and shall weigh 20 pounds, 11 ounces. It shall have a structurally reinforced die-cast aluminum frame which shall be rigid enough to permit front or rear mounting. The voice coil shall be 3" in diameter, of edge-wound copper ribbon, and shall operate in a magnetic gap having a flux density of 14,000 gauss. The loudspeaker shall have a Ceramic permanent magnet weighing not less than 4.87 pounds. The cone-surround area shall be of

high-compliance cloth. The low-frequency loudspeaker shall meet the following performance criteria. Power rating, up to 200 watts (E<sup>2</sup>/R) of continuous pink noise. Frequency response, uniform from 35 to 8000 Hz. Pressure sensitivity; 101.5 dB SPL with 1 watt input of band-limited pink noise from 250 Hz to 1000 Hz measured on axis 4' from cone. Nominal free-air cone resonance, 35 Hz. Nominal impedance, 8 ohms.

The low-frequency loudspeaker shall be Altec Lansing Model 921-8A.



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