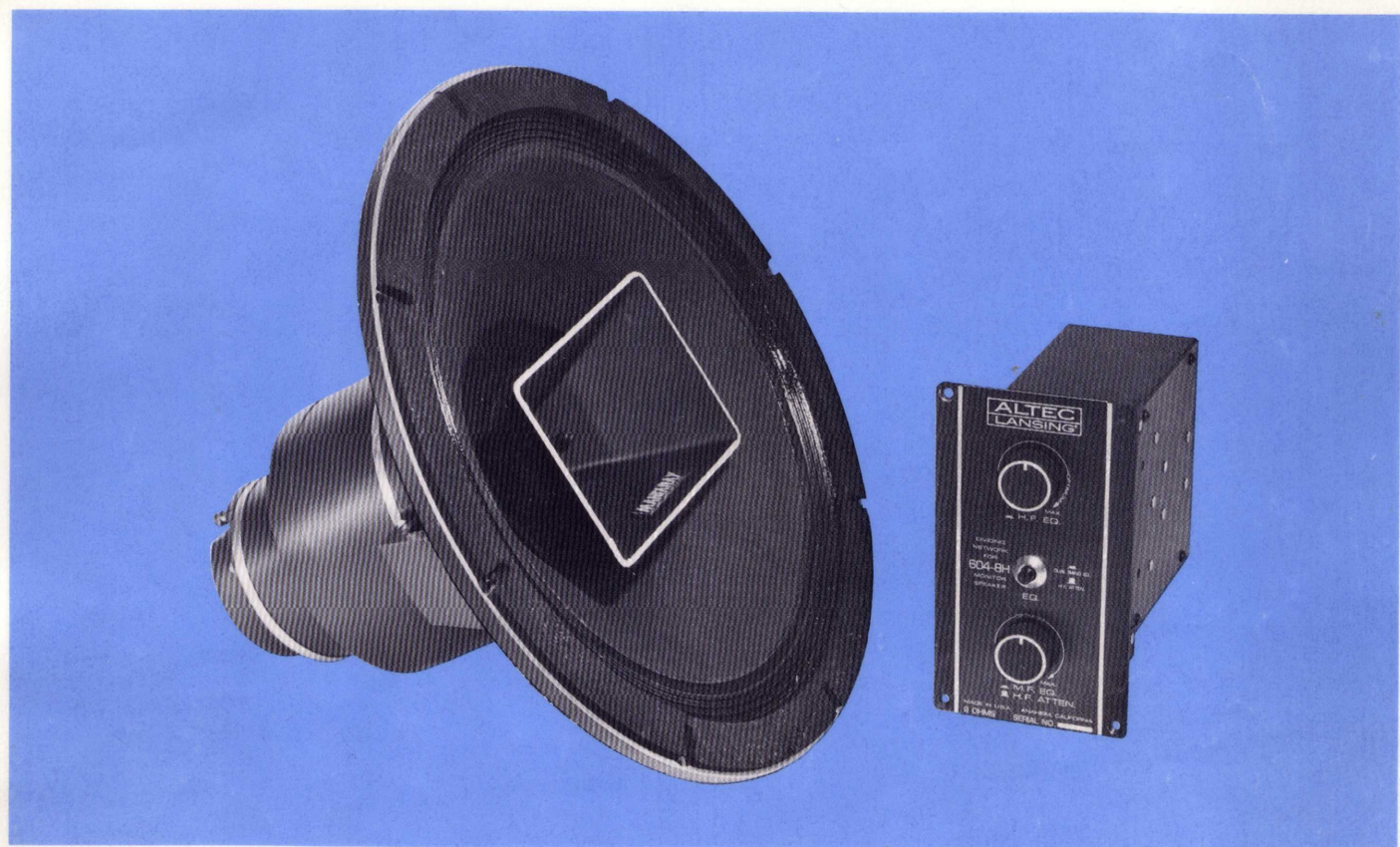


604-8H DUPLEX LOUDSPEAKER SYSTEM — PRELIMINARY



DESCRIPTION

The Altec Lansing 604-8H is a two-way coaxial loudspeaker that incorporates several recent technological advances in its design. These design changes give the 604-8H improved high-frequency response and dispersion while maintaining the reproduction accuracy that made the 604 series a recording industry standard.

At the heart of this improved performance is an all-new high-frequency horn design. Called the "MANTARAY"[™], because of its distinctive shape, the new horn is a radical departure from the older exponential horn designs which tended to beam (narrow dispersion) at higher frequencies. The MANTARAY delivers the same dispersion pattern at all frequencies within its rated frequency band. Listeners sitting off-axis will hear essentially the same sound quality as listeners sitting on-axis.

Complementing the 604-8H's improved high-frequency dispersion is a new compression driver that includes Altec Lansing's patented "Tangerine"[™] phasing plug. Designed to significantly reduce the problem of high-frequency

loss found in conventional phase plugs, the Tangerine delivers smooth response to beyond 20 kHz.

Performance improvements also extend to the dividing network. A unique dual equalizer combined into the network ensures smooth, gradual equalization of the mid and high-frequencies.

To add to the flexibility of the 604-8H, the dividing network is also equipped with an equalizer defeat switch. In the EQ ON position, separate controls for both the mid-range and high-frequencies are available. In the EQ OFF position, the network is reconfigured to act as a conventional two-way crossover with mid through high-frequency attenuation regulated by a single control.

Originally designed for use in studio monitor applications, the 604-8H is an extremely efficient speaker that offers excellent reproduction accuracy, low distortion and unsurpassed stereo imagery when multiple 604-8Hs are used.

SPECIFICATIONS

Type:	Duplex coaxial with network	Frame:	Die-cast aluminum
Power Rating:	65 watts continuous pink noise (60-20,000 Hz)	Dividing Network (furnished):	Dual full section with 1500 Hz crossover frequency, LF slope 12 dB/octave, HF slope 18 dB/octave with shelving control and dual band equalizer
Frequency Response:	Uniform, 20-20,000 Hz	Dimensions:	16" (40.64 cm) diameter x 11 $\frac{1}{8}$ " (28.26 cm) deep
Pressure Sensitivity:	100 dB SPL at 4' with 1 watt input of pink noise from 100-10,000 Hz in Altec 620 enclosure	Weight:	34 lbs. (15.42 kg) includes network
Impedance:	8 Ω	Finish:	Dark grey enamel
Nominal Free-Air LF Cone Resonance:	30 Hz	Mounting Data — Baffle Opening:	14 $\frac{1}{8}$ " (35.87 cm) diameter
Distribution Pattern:	Constant directivity 40° x 60° Mantaray Horn	Mounting Bolt Centers:	8 mounting bolts 45° apart on 15" (38.1 cm) diameter circle
Voice Coils — LF:	3" diameter, edge-wound copper ribbon	Recommended Enclosures:	ALTEC 620B
HF:	1 $\frac{3}{4}$ " diameter, edge-wound aluminum ribbon		
Magnets — LF:	4.4 lbs. AL V 13,000 gauss		
HF:	1.2 lbs. AL V 15,500 gauss		

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker system shall be a two-way coaxial, with a separate magnet structure for each section and a dual full-section dividing network. The HF section shall have an aluminum diaphragm having tangential compliance and loaded with a constant-directivity horn. The loudspeaker system shall meet the following criteria. Power rating, 65 watts of continuous pink noise from 60-20,000 Hz. Frequency response, uniform from 20-20,000 Hz. Pressure sensitivity, 100 dB SPL at 4' when measured on axis with 1 watt input of band-limited pink noise from 100-10,000 Hz. Impedance, 8 ohms. Nomi-

nal free-air LF cone resonance, 30 Hz. Distribution pattern, 40°V x 60°H. Crossover frequency, 1500 Hz with 12 dB/octave slope (LF) and 18 dB/octave slope (HF). Voice coils; 3" diameter of edge-wound copper ribbon (LF), 1 $\frac{3}{4}$ " diameter of edge-wound aluminum ribbon (HF). Magnets; Alnico, 4.4 pounds (LF), 1.2 pounds (HF). Flux density, 13,000 gauss (LF), 15,500 gauss (HF). Dimensions, 16" diameter x 11 $\frac{1}{8}$ " deep. Weight, 34 pounds.

The loudspeaker system shall be the ALTEC Model 604-8H.



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