

QUALITY INDOOR SOUND IN ANY OUTDOOR APPLICATION



55-4A-Big Sound in a Small Package

- VERSATILE OMNIMOUNT® BRACKETS INCLUDED
- OPTIONAL 70.7V MATCHING TRANSFORMER
- GREAT SOUND FROM COMPACT SYSTEM
- EXTENDED RESPONSE
- WEATHER-RESISTANT
- PORTABLE

APPLICATIONS

- Outdoors
- Conference Rooms
- Houses of Worship
- A/V Reference
- Top of Console Monitors

SPECIFICATIONS FOR THE MODEL 55-4A 2-WAY SYSTEM

System Type: Two-way, infinite baffle type, full range loudspeaker system

Pressure Sensitivity: 82 dB SPL (1W, 1m, 500 Hz - 3kHz, re: 20 μ Pa, see Note 1)

Frequency Response: 90 Hz - 20 kHz (see Figure 1, Note 2)

Power Handling: 60 watts AES method (see Note 3)

Maximum Long-Term Output: 101 dB SPL (1m, re: 20 μ Pa, see Note 6)

Impedance: 3.5 Ω minimum. Maximum inductive phase angle = 62 $^\circ$ at 67 Hz, maximum capacitive phase angle = 40 $^\circ$ at 116 Hz, (see Figures 3 and 4, Note 12)

Components: 4" cone woofer, 3/4" dome tweeter

Crossover Frequency: 3500 Hz

Enclosure: Infinite baffle type, thick wall, glass-filled, high temperature ABS.

Enclosure Color: Black

Input Connection: Push terminal, polarity coded

Accessories: Matching transformer, part #56-05-026906 (optional)
Omnimount[®] included

Replacement Woofer: Part #50-03-026903

Replacement Tweeter: Part #50-03-026904

Replacement Crossover: Part #56-06-026905

Replacement Grille: Black, part #55-4ARG

Dimensions: Cabinet: 9 $\frac{3}{8}$ " x 7" x 5 $\frac{5}{16}$ " Cabinet with bracket: 9 $\frac{3}{8}$ " x 7" x 8"

Net Weight: 4.6 lb. (2.1 kg), one loudspeaker

Shipping Weight: 11.2 lb. (5.21 kg), pair

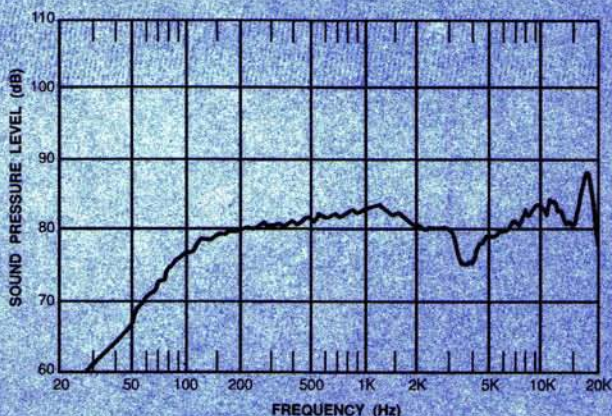


Figure 1. Frequency Response (See Note 2)

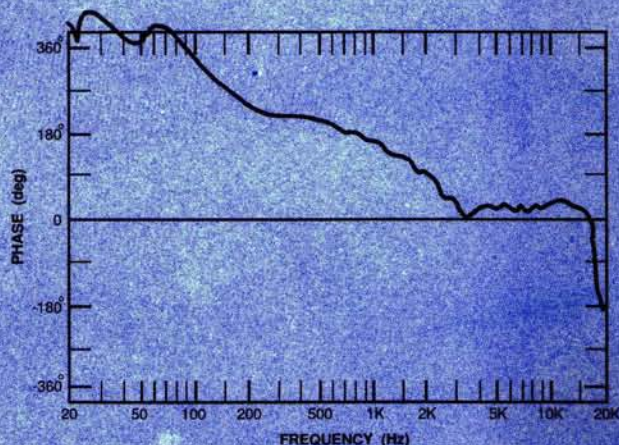


Figure 2. Phase Response (See Note 6)

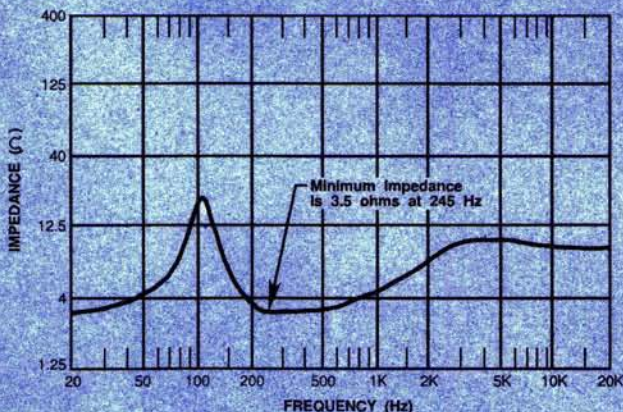


Figure 3. Magnitude of Impedance

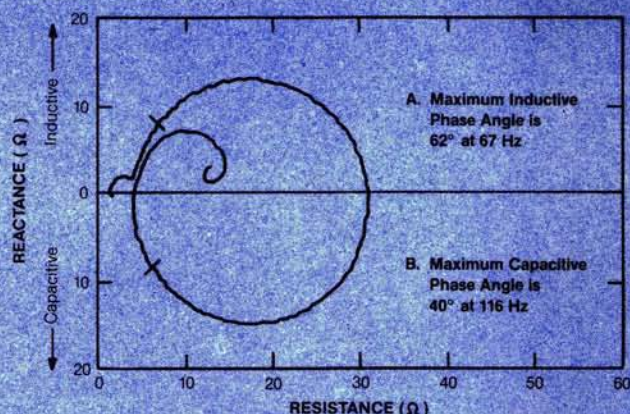


Figure 4. Complex Impedance

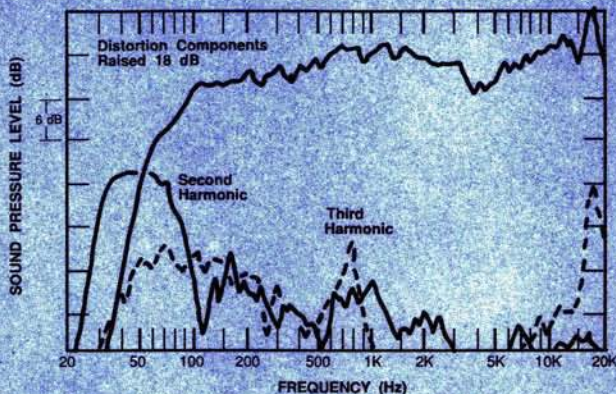


Figure 5. Harmonic Distortion at 0.01 Rated Power (1.5 watts, See Note 7)

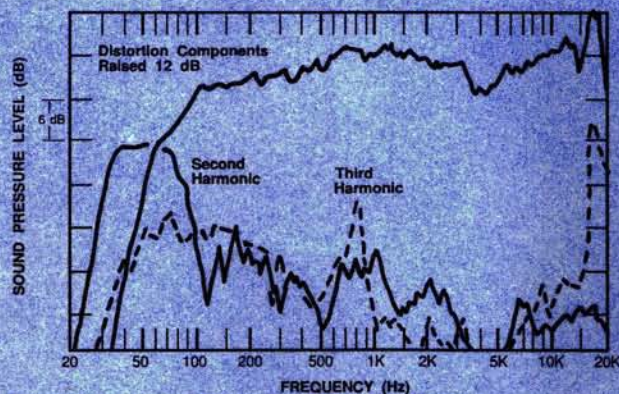


Figure 6. Harmonic Distortion at 0.1 Rated Power (15 watts, See Note 7)

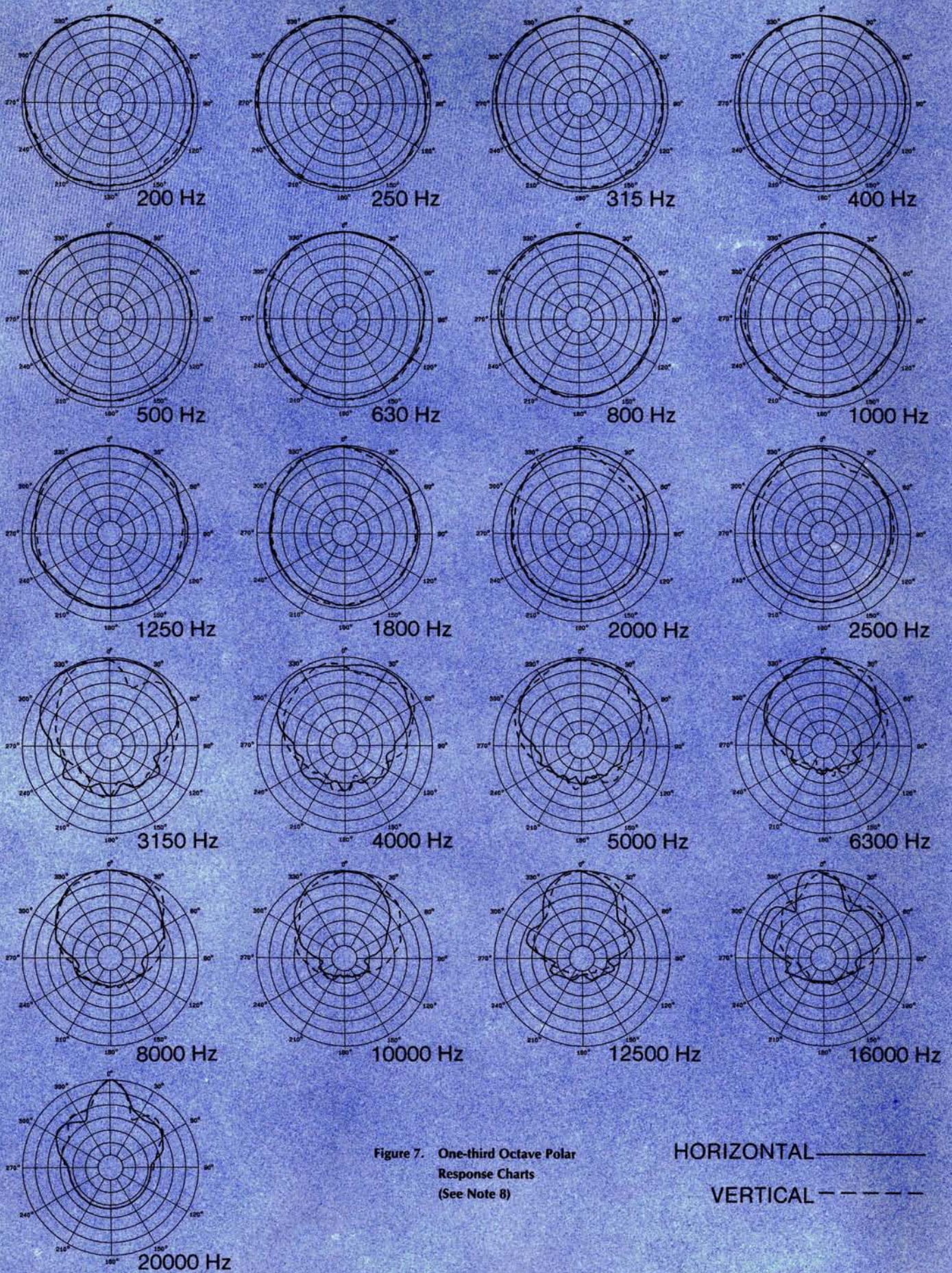


Figure 7. One-third Octave Polar Response Charts (See Note 8)

HORIZONTAL ———
 VERTICAL - - - - -

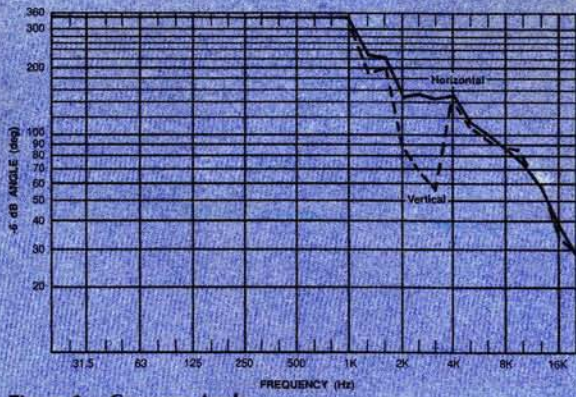


Figure 8. Coverage Angle

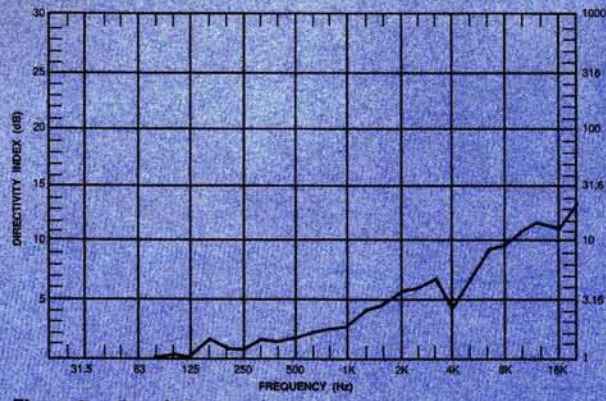


Figure 9. Q and DI

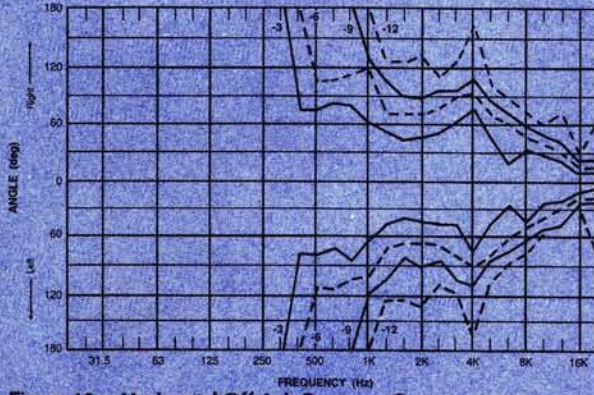


Figure 10. Horizontal Off-Axis Response Contours

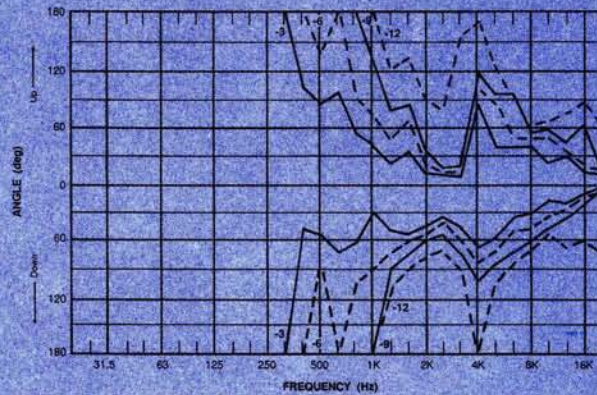


Figure 11. Vertical Off-Axis Response Contours

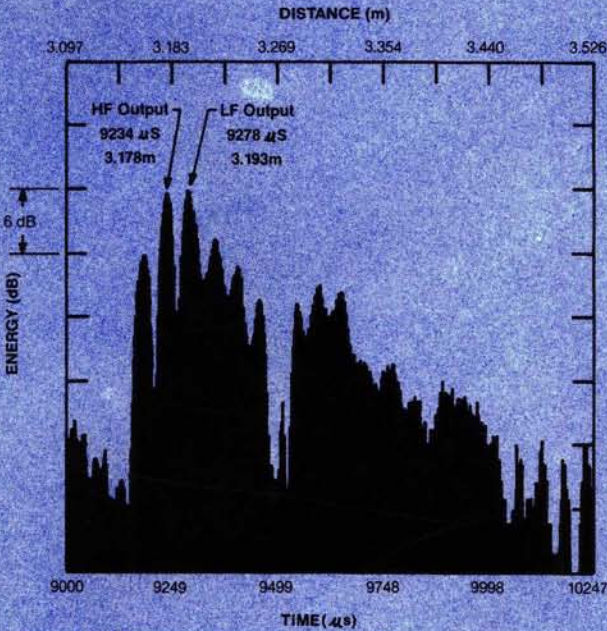


Figure 12. Energy Time Curve (See Note 9)

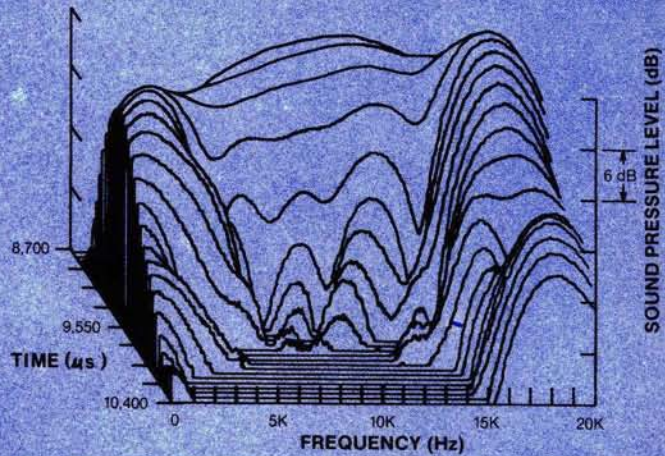


Figure 13. Time Energy Frequency Curve (See Note 10)

NOTES:

ALTEC LANSING CORPORATION
 P.O. BOX 26105
 OKLAHOMA CITY, OK

55-4A
2-Way System

Scale

Note

Drawing No.

42-02-027824

Date

4/90

REV.

NOTES ON MEASUREMENT CONDITIONS

1. Pink noise signal, one Watt calculated using E^2/Z_{min} , 3.16 meter measurement distance referred to one meter.
2. On-axis, one Watt calculated using E^2/Z_{min} , 3.16 meter measurement distance referred to one meter, low frequencies corrected for anechoic chamber error.
3. This system rating patterned after the AES method for individual driver, where the test signal is pink noise with 6 dB crest factor over the bandwidth of the system, with power calculated using E^2/Z_{min} , for two hours.
4. This measurement made under the same conditions as Pressure Sensitivity, but at rated power, and takes into account any power compression effects due to non-linearities in the system.
5. The loudspeaker system should be connected to the 8-Ohm tap on amplifiers using transformer coupled output sections.
6. Phase response of the system is measured at a time corresponding to the energy arrival of the high frequency component where the amplitude response is optimally flat, as noted on figure 12.
7. Distortion components invalid above 10 kHz. The distortion at any given frequency may be found by graphically taking the difference between the fundamental and harmonic, adding the number of Decibels which the harmonic has been raised on the graph and apply the formula:
$$\text{percent distortion} = 100 \times 10^{(-\text{dB change}/20)}$$
8. The axis of rotation for all polar plots is the apparent apex of the high frequency driver. Plots below 200 Hz have not been shown because of their lack of pertinent information.
9. The time window has been chosen to resolve the arrival times of the low and high frequency components. Frequency bandwidth of the measurement, 0 Hz - 20 kHz.
10. Response decay of the system. Time window is selected to display loudspeaker and box characteristics without room reflections.

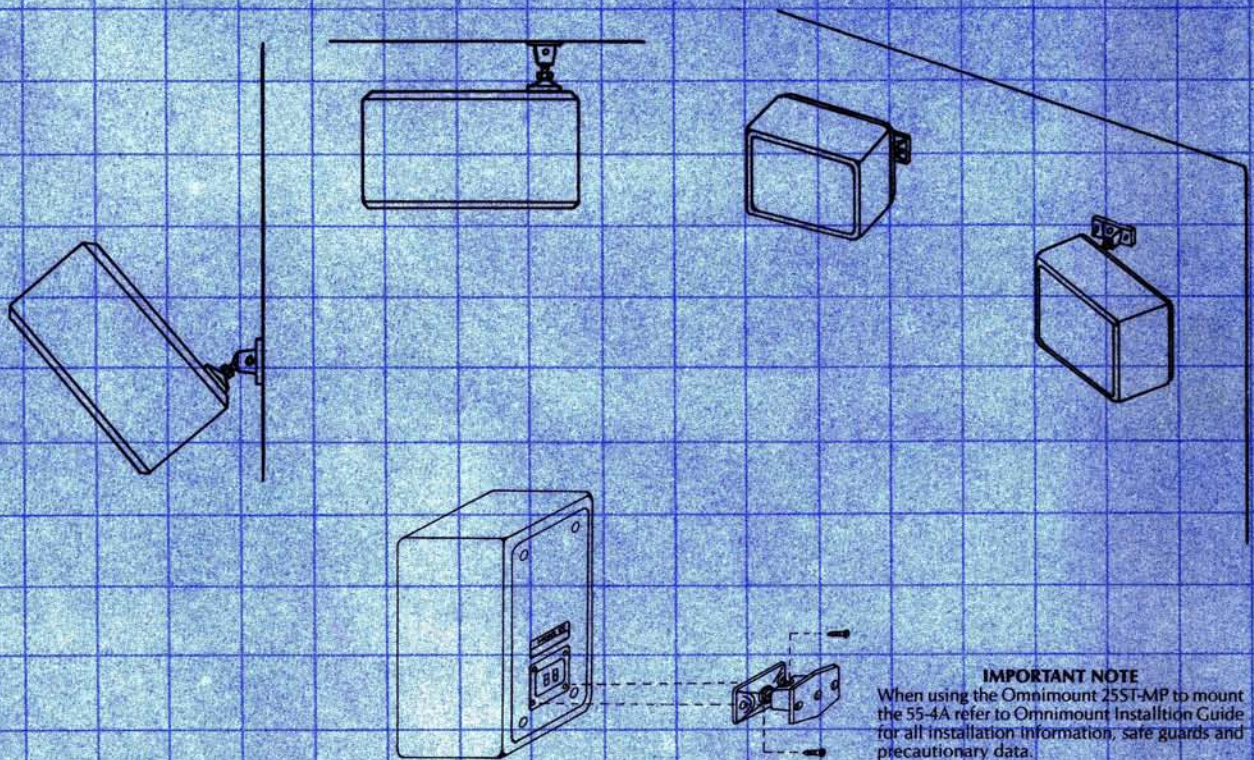
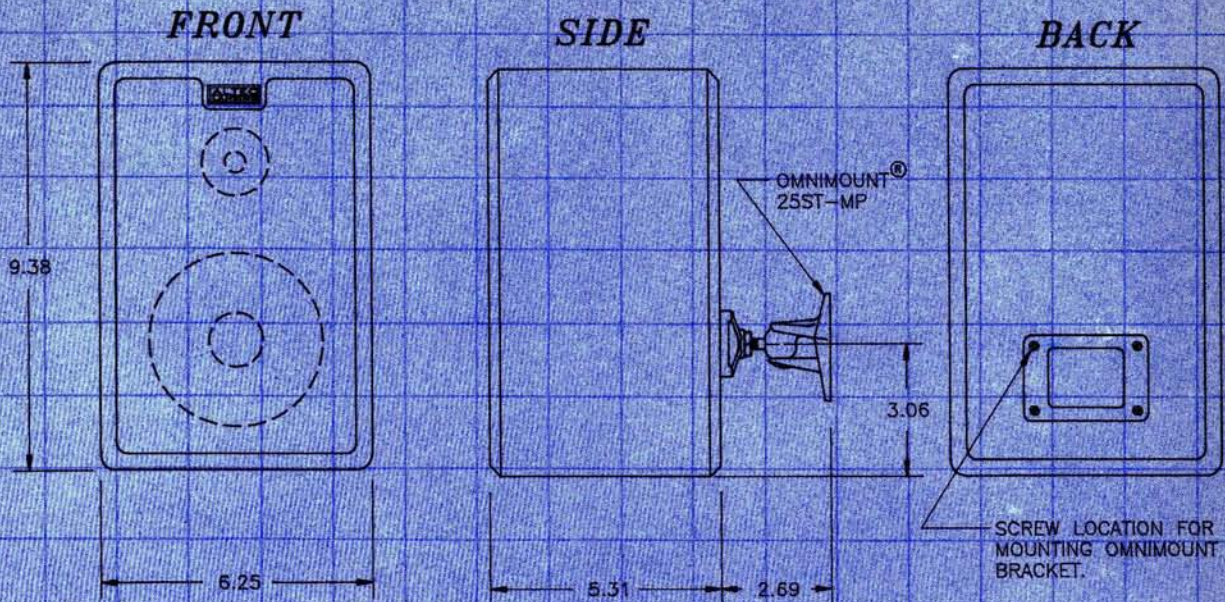


Figure 14.

IMPORTANT NOTE

When using the Omnimount 255T-MP to mount the 55-4A refer to Omnimount Installation Guide for all installation information, safe guards and precautionary data.



IMPORTANT NOTE: WHEN USING THE OMNIMOUNT 25ST-MP TO MOUNT THE 55-4A REFER TO OMNIMOUNT INSTALLATION GUIDE FOR ALL INSTALLATION INFORMATION, SAFE GUARDS AND PRECAUTIONARY DATA.

Figure 15

ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be the Altec Lansing model 55-4A. It shall be a two-way infinite baffle type, consisting of a front loaded 4" (10.2 cm) low-frequency loudspeaker and a front loaded 3/4" (1.9 cm) dome high-frequency loudspeaker. The dividing network crossover frequency shall be 3000 Hz. The loudspeaker system shall meet the following performance criteria. Power handling, 60 watts of pink noise with 6-dB crest factor, band limited from 90 Hz to 20 Hz. Frequency response, smooth and uniformly usable at high levels from

90 Hz to 20 kHz. Pressure sensitivity, 82 dB SPL at one watt, 500 Hz to 3 kHz, measured at a distance of one meter on axis. Impedance, 4 ohms nominal, 3.5 ohms minimum. The enclosure shall be a sealed infinite baffle, constructed from glass-filled, high temperature acrylonitrile butadiene styrene, black with sound absorbent glass wool. The mounting system shall be an Omnimount® type. The unit shall be 9 3/8" (23.8 cm.) high x 7" (17.7 cm.) wide x 5 5/16" (13.5 cm.) deep and shall weigh 4.6 lbs. (2.1 kg).



a MARK IV company
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