RADIAN

1245 & 1225

PREMIUM JBL® REPLACEMENT DIAPHRAGMS

Radian Audio Engineering, Inc., manufactures premium replacement diaphragms for a wide variety of JBL® compression drivers designed for use in professional loudspeaker systems utilized in fixed installation and touring applications. Each replacement diaphragm provides high efficiency and accurate reproduction with extended bandwidth. Replacement diaphragms are designed and manufactured to have equivalent or better performance than the original.

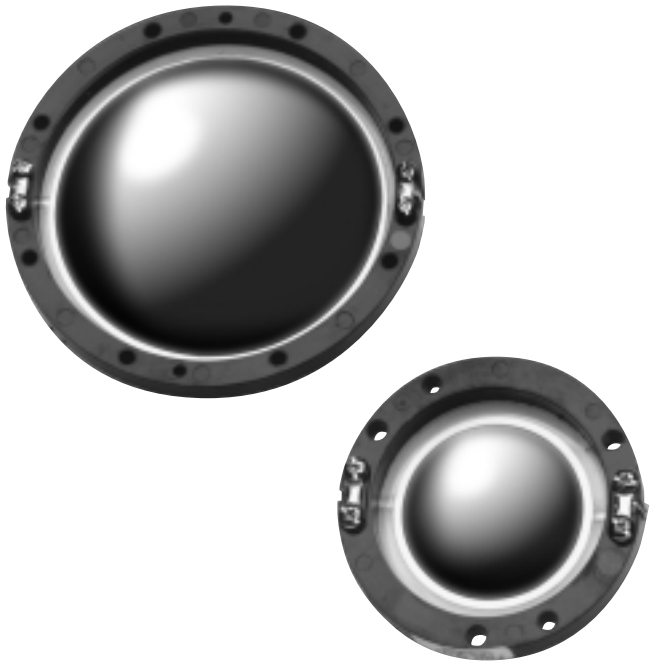
Compression domes are precision formed from heat-treated, structural aluminum alloy and bonded to a copper-clad aluminum voice coil with a Kapton® former utilizing proprietary tooling. Aluminum has a higher strength-to-weight ratio than titanium providing low-distortion, high-fidelity response that delivers clear, crisp music and speech for theatrical, auditorium, stadium and church installations.

The suspension utilizes a Mylar® surround, rather than a metal one-piece dome and surround, which enhances the replacement diaphragm's reliability and eliminates fatigue stresses that destroy other compression driver diaphragms. The Mylar® surround also provides good dampening of the voice coil/diaphragm assembly for smooth, low-distortion, linear output with excellent transient response.

To ensure longer diaphragm life, our high temperature voice coil former and advanced adhesives permit each replacement diaphragm to sustain high RMS and peak power levels, equivalent or better than the original.

If necessary, the diaphragm/voice coil assembly may be rapidly replaced in the field. The self-aligning diaphragm assembly assures simple installation and accurate alignment with the same polarity as the original.

Unparalleled power handling, high-frequency performance, reliability and low distortion make Radian premium replacement diaphragms the preferred choice for loudspeaker repair centers, consultants, sound system designers, contractors and engineers worldwide.



- ✓ **AVAILABLE FOR JBL® 1", 1.4", AND 2" DRIVERS**
- ✓ **INDESTRUCTIBLE MYLAR® SURROUND**
- ✓ **ALUMINUM ALLOY COMPRESSION DOME**
- ✓ **EDGEWOUND ALUMINUM VOICE COIL**
- ✓ **HIGH TEMPERATURE KAPTON® FORMER**

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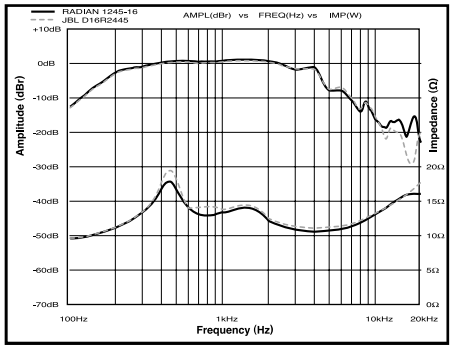
SPECIFICATIONS

	1245	1225
Frequency Response	500 Hz – 20 kHz.	800 Hz – 20 kHz
Sound Pressure Level*	129 dB continuous, 132 dB peak at one meter	128 dB continuous, 131 dB peak at one meter
Maximum Power Handling**	75 watts continuous, 150 watts peak	70 watts continuous, 140 watts peak
Sensitivity***	111 dB, one watt at one meter	110 dB, one watt at one meter
Recommended Crossover	500 Hz, 18 dB/octave, 1000 Hz, 12 dB/octave	800 Hz, 18 dB/octave, 1000 Hz, 12 dB/octave
Nominal Impedance	16 ohms	1225-8=8 ohms, 1225-16=16 ohms
Minimum Impedance	12 ohms	1225-8=5 ohms, 1225-16=9 ohms
D.C. Resistance	8.5 ohms (± 10%)	1225-8=3.3 ohms (± 10%) 1225-16=6.5 ohms (± 10%),
Voice Coil Diameter	4.0" (100mm)	1.75", 44mm
Voice Coil Material	Edgewound copper-clad aluminum	Edgewound copper-clad aluminum
Diaphragm Material	0.003" (0.08mm) heat-treated aluminum alloy	0.003" (0.08mm) heat-treated aluminum alloy
Diaphragm Suspension	Mylar®	Mylar®
Polarity	Positive voltage at black terminal moves diaphragm towards phase plug	Positive voltage at black terminal moves diaphragm towards phase plug
Dimensions	5.0" (127mm) diameter, 1.0" (25.4mm) deep	2.93" (74.42mm) diameter, .75" (19.05mm) deep
Weight	1.9 oz. (53.86 gm)	1.0 oz. (28.35 gm)

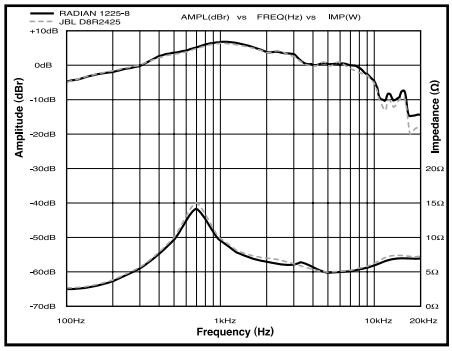
*Measured at rated MAX POWER HANDLING
**EIA Standard RS-426A through a 1 kHz, 24 dB/octave Linkwitz-Riley crossover
***Measured on a horn with a Q of 6.3 averaged in the 2 kHz octave band

Every attempt has been made to duplicate the technical specifications and performance parameters of the original product. However, variations in manufacturing tolerances may cause products to differ.



Amplitude vs Frequency vs. Impedance Response of Radian 1245-16 and JBL D16R2445 diaphragms as measured on a 2" (50.8mm) plane wave tube with a 2.83 Vrms input.

1225 < 1245 V



Amplitude vs Frequency vs. Impedance Response of Radian 1225-8 and JBL D8R2425 diaphragms as measured on a 1" (25.4mm) plane wave tube with a 2.83 Vrms input.

Diaphragm Cross-Reference Guide

Driver Model	Radian Replacement	Original Diaphragm
LE85/LE175	1225-8/16	Not Available
375H	1245-16	D8/D16R375
376	1245-8/16	Not Available
2415H/J	1225-8/16*	D8/D16R2416
2416H/J	1225-8/16*	D8/D16R2416
2420	1225-8/16	Not Available
2421	1225-8/16	Not Available
2425H/J	1225-8/16	D8/D16R2425
2426H/J	1225-8/16	D8/D16R2425
2427H/J	1225-8/16	D8/D16R2425
2440	1245-8/16	D16R2440
2441	1245-8/16	D16R2441
2445H/J	1245-8/16	D8/D16R2445
2446H/J	1245-8/16	D8/D16R2446
2450H/J	1245-8/16	D8/D16R2450
2451H/J	1245-8/16	D8/D16R2451
2470	1225-8/16	Not Available
2482J	1282-8/16	D16R2482
2485J	1282-8/16	D16R2482

*C1225 adapter kit required. Note: This kit is reusable with subsequent diaphragms.

Specifications subject to change without notice.

LIMITED WARRANTY

Radian Audio Engineering, Inc. products, when sold domestically, are guaranteed for a period of five (5) years from the date of original purchase against malfunctions due to defects in workmanship. If such a malfunction occurs, the product will be repaired or replaced at our option, without charge, if delivered prepaid to the factory. Product will be returned prepaid via ground transport. This warranty does not extend to damage resulting from improper installation, misuse, neglect or abuse. The warranty does not apply to external finish or appearance. The warranty does not apply to burnt voice coils. In no event shall Radian Audio Engineering, Inc. be liable for incidental or consequential damages including, without limitation, injury to persons or property or loss of use.

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