

## TAD® 4001, 4002 DRIVER REPLACEMENT DIAPHRAGM

Radian Audio Engineering, Inc., manufactures premium replacement diaphragms for TAD 2" throat exit compression drivers. The Radian Model 1292-8 replacement diaphragm allows the usable frequency response of TAD compression drivers to a full-range response of 600 Hz to 20 kHz. By replacing the original diaphragm, an old magnet structure can be used to rival the performance of a current TAD compression driver. Each replacement diaphragm provides high efficiency and accurate reproduction with extended bandwidth.

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 high strength-to-weight ratio 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.

As with all Radian Premium Replacement Diaphragms, the 1292 is also Ferro-Fluid compatible enabling even greater output and power handling.

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



- ✓ **AVAILABLE FOR TAD®  
2" EXIT DRIVERS**
- ✓ **3 dB GREATER OUTPUT**
- ✓ **INDESTRUCTIBLE  
MYLAR® SURROUND**
- ✓ **ALUMINUM ALLOY  
COMPRESSION DOME**
- ✓ **EDGEWOUND ALUMINUM  
VOICE COIL**

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### SPECIFICATIONS

FREQUENCY RESPONSE . . . . . 600 Hz – 20 kHz  
 SOUND PRESSURE LEVEL\* . . . . . 128 dB continuous,  
 131 dB peak at one meter  
 MAXIMUM POWER HANDLING\*\* . . . . . 60 watts continuous  
 SENSITIVITY\*\*\* . . . . . 111 dB, one watt at one meter  
 RECOMMENDED CROSSOVER . . . . . 600 Hz, 18 dB/octave,  
 1000 Hz, 12 dB/octave  
 NOMINAL IMPEDANCE . . . . . 8 ohms  
 D.C. RESISTANCE . . . . . 4.8 ohms ± 10%  
 VOICE COIL DIAMETER . . . . . 4.0" (100mm)  
 VOICE COIL MATERIAL . . . . . Edgewood copper-clad aluminum  
 DIAPHRAGM MATERIAL . . . . . 0.003" (0.08mm) heat-treated aluminum alloy  
 DIAPHRAGM SUSPENSION . . . . . Mylar®  
 POLARITY . . . . . Positive voltage at red terminal moves  
 diaphragm toward phase plug  
 DIMENSIONS . . . . . 5.5", (140mm) diameter, 1.2" (30.4mm) deep  
 WEIGHT . . . . . 3.1 oz. (87.9 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.

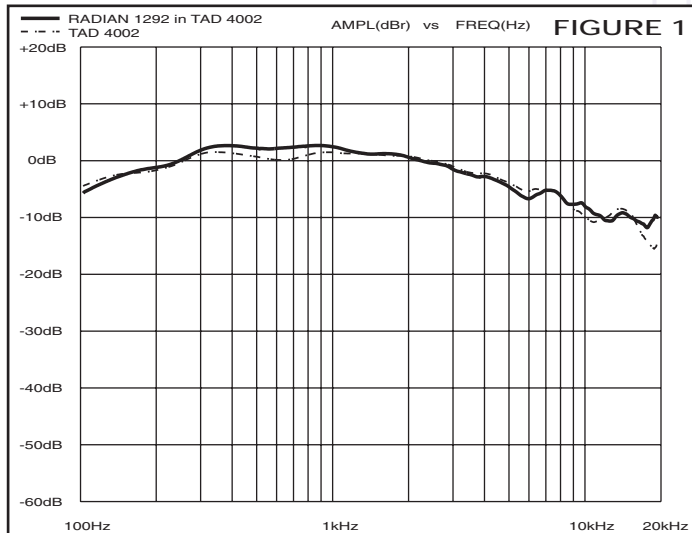


Figure 1 represents the Amplitude vs. Frequency Response of a TAD 4002 compression driver with original diaphragm compared to the same driver with a Radian 1292-8 and TAD 4002-8 replacement diaphragms as measured on a 2" (50.8mm) plane wave tube with a 2.83 Vrms input. The 4002 with a Radian diaphragm installed exhibits essentially the same output and frequency response allowing the Radian equipped 4002 to operate as a high performance, full-range compression driver.

Diaphragm Cross-Reference Guide		
Driver Model	Radian Replacement	Original Diaphragm
4001	1292-8	DP-4001
4002	1292-8	DP-4001

TAD is a registered trademark of Pioneer Electronic Corporation.  
 Mylar is a registered trademark of Dupont.

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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