

DYNAUDIO®

TECHNOLOGY UNLIMITED

D-21 AF

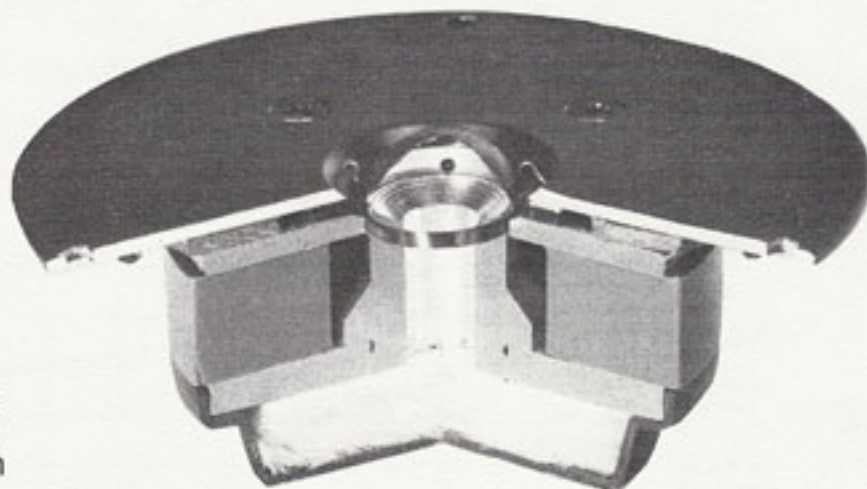
APPLICATIONS

3/4" (21 mm) extended soft dome tweeter for 3-way systems or super tweeter in 4- or 5-way systems
mobile sound
For OEM use wide variety of faceplates

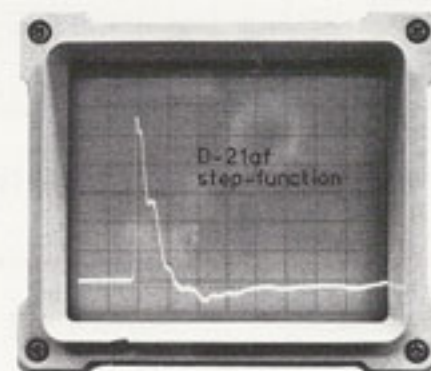
FEATURES

very low distortion
no phase shifts
aperiodic damped double chamber construction
rigid hexacoil technique
soft roll off suspension
liquid cooling
wide dynamic range
no compression of SPL

The D-21 AF is basically the famous DYNAUDIO D-21 but the extended dome version. The moving system is extremely light. The diaphragm is a doped fabric suspended in the only correct manner of a soft roll-off avoiding antiphase of the outer ring. The Magnaflex magnetic fluid optimizes the internal damping and dissipation of heat. The rigid Hexacoil withstands transients of far more than 1000 watts of clean music signals. The response gives a transparent, crisp and clear sound with a good resolution. The off-axis curves at 30° and 60° show the good dispersion, on-axis the curve runs linear up to 40 kHz.



No overshoot, no ringing: result of the excellent damping and correct construction of shape of dome as well as the right material engineering.



Tone bursts are the best way to obtain an accurate picture of overall acoustic performance. Regrettably they are mostly used only to test rise-time and ringing - which shows much more clearly with a step function test! With a tone burst, all the moving parts of a speaker can be loaded without burning the voice coil. With a given frequency the SPL should be 30dB higher at 1000 W input when compared with a 1 W input, if the output is linear. This test shows the driver's ability to reproduce the transients without compression. The right picture shows that even a 1000 W input is not the limit: the dynamic response is absolutely linear. Data given in catalogues (and even test reports) normally are calculated figures and not measured values.

This compression effect is either under-rated or ignored very often. That is why many speakers do not produce SPL's above 100 dB, in spite of higher theoretical specifications. However this test exposes such anomalies between calculations and actual measurements.

