

**Fostex**

TECHNICAL REPORT

# L869

## 800 MM(30 in) LOW FREQUENCY TRANSDUCER

600 WATTS CONTINUOUS PROGRAM POWER

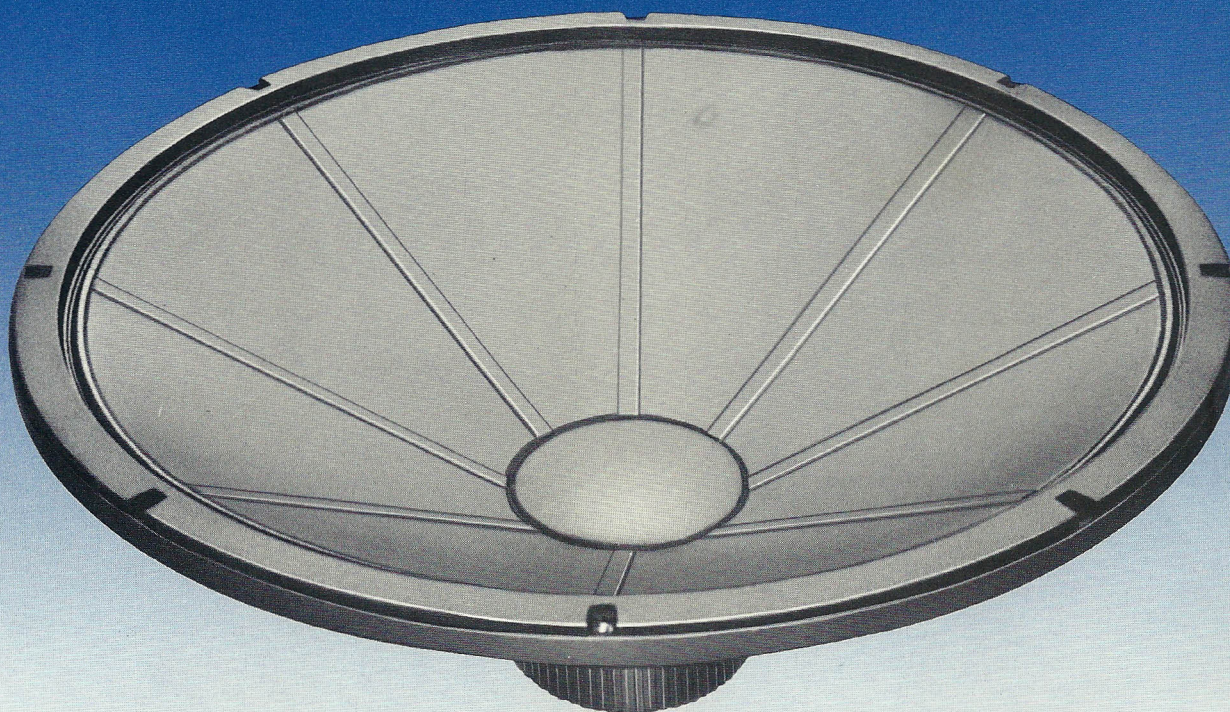
100 dB SENSITIVITY, 1W, 1M(3.3 ft)

15 Hz to 2 kHz RESPONSE

100 MM(4 in) EDGEWOUND COPPER RIBBON VOICE COIL

LARGE COOLING HEAT SINK

DOUBLE SPIDER CONSTRUCTION



The Fostex L869 low frequency transducer represents Fostex's latest developments in large diameter, high power, low frequency loudspeaker design. Specifically designed for extreme low frequency output with high SPL and low distortion, the L869 is suited for applications in bass reflex, infinite baffle and acoustic suspension enclosures.

The L869 utilizes a large 100 mm(4 in) voice coil wound with flat copper ribbon wire on a non-inflammable solid v.c. material, FRP, levels. The to prevent deformation at high operating power voice coil is supported with a double suspension system to allow long cone excursion without damage. The coil is cooled through a massive heat sink assembly which is directly connected to the top plate. The large heat sink and center

air vent reduce operating temperatures and prevent thermal impedance rise and the resultant output loss. The magnet structure uses a copper shorting ring to reduce third harmonic distortion and a linear field to reduce second harmonic distortion.

The L869 cone is manufactured from eight sections, seamed into one rigid assembly, with the seams acting as stiffening ribs. The ribs reduce cone deformation and distortion. The heavy cast aluminium frame resists deformation and allows the extremely tight manufacturing tolerances common to all Fostex transducers.

The L869 is the first low frequency transducer capable of high output at the lowest frequency registers.