



LAB 12

Application Notes

The LAB 12 was specifically designed for use in a horn loaded enclosure engineered by Tom Danley. Danley is best known for his Servo Drive subwoofer designs and his work with Sound Physics Laboratories. The Danley design is posted on the Live Audio Board and is available to the public by visiting www.prosoundweb.com/lsp/. The woofer is also suitable for more conventional applications where extended Xmax is desired.

Nominal Basket Diameter	12", 304.8mm
Impedance	6 ohms
Resonance	22Hz
Sensitivity	87.4
Magnet Weight	160 oz.
Voice Coil Diameter	2.5", 63.5mm

Mounting Information

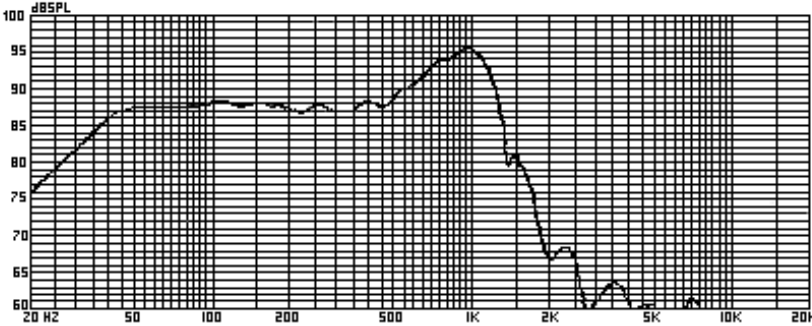
Overall Diameter	12.32", 312.8mm
Baffle Hole Diameter	10.98, 278.9mm
Front Sealing Gasket	<i>fitted as standard</i>
Rear Sealing Gasket	<i>fitted as standard</i>
Mounting Holes Diameter	0.26", 6.6mm
Mounting Holes B.C.D.	11.77, 298.9mm
Depth	6.44", 163.6mm

Thiele-Small Parameters

Resonant Frequency (fs)	22Hz
Impedance (Re)	4.29 ohms
Coil Inductance (Le)	1.48mH
Electromagnetic Q (Qes)	0.39
Mechanical Q (Qms)	13.32
Total Q (Qts)	0.38
Compliance Equivalent Volume (Vas)	125.22 liters
Mechanical Compliance of Suspension (Cms)	0.35mm/N
BL Product (BL)	15.0 T-M
Diaphragm Mass inc. Airload (Mms)	146 grams
Equiv. Resistance of Mechanical Suspension Loss (Rms)	1.54N*sec/M
Efficiency Bandwidth Product (EBP)	57
Voice Coil Overhang (Xmax)	13mm
Surface Area of Cone (Sd)	506.7cm ²

Materials of Construction

- Kapton coil former for increased rigidity and thermal protection
- Polyamide-imide coated two-layer, 26ga., copper voice coil
- Double stacked 80 oz. ferrite magnets
- Maximum vented motor with vents under the spider and a large 1.25" OD vent in the core
- 7" OD plates that are 0.375" thick
- Die-cast aluminum twelve spoke basket
- Kevlar reinforced cone
- Foam cone edge
- Dual inverted dust caps for cone stiffening and proper mass



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