

Ferrite Magnet Die-cast Chassis Driver



Specifications

General Specifications

Nominal diameter.....	381 mm/15 in
Power rating.....	500 W(AES)
Nominal impedance.....	8Ω
Sensitivity.....	97 dB
Frequency range.....	45-3500 Hz
Chassis type.....	Cast aluminum
Magnet type.....	Ferrite
Magnet weight.....	2.9 kg/103.9 oz
Voice coil diameter.....	83.3 mm/3.28 in
Coil material.....	CCA-W
Former material.....	Glass fiber
Cone material.....	Paper
Surround material.....	Cloth
Suspension.....	Single
X-max.....	4.8 mm/0.19 in
Gap depth.....	10.0 mm/0.39 in
Voice coil winding width.....	19.6 mm/0.77 in
Net Weight.....	10.2 kg/22.5 lb
Packing Dimension WxDxH (mm)	430mm x 430mm x 220mm
Shipping Weight.....	11.3 kg/24.9 lb

Features

- 3.28" Voice Coil
- 2000 Watts Peak Power Handling
- Ferrite Magnetics
- Precision Circular Inside/Outside Wire Geometry
- Die Cast Aluminum Chassis

Applications

The P Audio 15BM-500B is a high output wide bandwidth transducer. The 15BM-500B is a highly upgraded design that features many of P Audio's new technologies and performance upgrades. The 15 inch (381mm) diameter piston will produce extremely high sound pressure levels at both low and mid band frequencies and is ideal for high level response in both live sound and recorded music venues. The transducer has a rated bandwidth of 45Hz to 3500Hz. The transducer uses high energy ferrite magnetics to achieve a very high acoustic output to weight ratio. The 15BM-500B has been optimized for use in two way or three way sound reinforcement systems.

The 15BM-500B employs a medium format 3.28 inch (83.3mm) diameter voice coil that provides an AES rated 500 watts of continuous power handling and a full 2000 watts of peak rated power handling when sufficient amplifier headroom is available. The 15BM-500B utilizes P Audio's Auto Balanced Cooling (ABC) technology to not only improve transducer power handling and reliability but to also increase power compression performance by carefully balancing and directing airflow to critical areas.

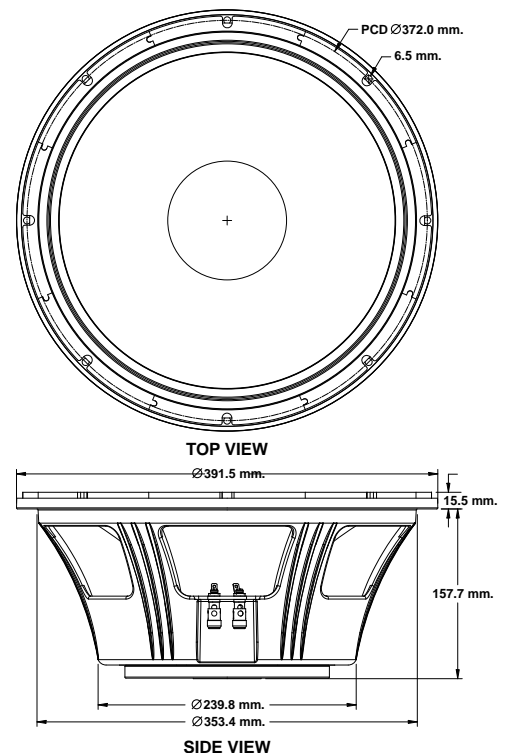
The voice coil design is a bobbin wound geometry with P Audio's precision round wire technology in an inside/outside geometry to insure very high conversion efficiency. The P Audio square wire technology and inside/outside winding configuration provides a very large cross-sectional area that substantially improves system cooling and reduces power compression.

The system suspension has been designed specifically for high linear displacement and extended low frequency response. The 15BM-500B also features a single spider configuration that provides system reliability and mechanical control.

The transducer chassis is a die cast aluminum design that insures a very high degree of structural integrity.

Small Signal Parameters

Re.....	5.5Ω
Fs.....	41 Hz
Mms.....	90.0 g/3.17 oz
Mmd.....	74.95 g/2.64 oz
Qms.....	4.21
Qes.....	0.41
Qts.....	0.37
Vas.....	183.44 lt/6.48 ft³
Bl.....	17.76 Tm
Cms.....	1.7e-04 m/N
Rms.....	5.51 Ns/m
Le (at 1kHz).....	0.43 mH



Frequency Response and Impedance Curves

