

Laboratory Series

RCF L15/P200K & L18/851K Ultra High Power Transducers



RCF LAB L15/P200K



RCF LAB L18/851K

L15/P200K Features

- **Optimized For Extended Low Frequency Output** with a maximum linear travel range of ± 9 mm, the L15/P200K will produce more distortion free acoustic output below 60 Hz than any commercially available 15 inch driver on the market today.
- **Exceptionally High Power Handling** of 800 watts AES standard is the result of a massive "state of the art" long travel voice coil assembly with a Kapton™ former and space age high temperature adhesives.
- **Very Low Distortion** due to the massive magnetic circuit utilizing the largest magnet on any production 15 inch professional driver and a new one piece cast pole / backplate assembly.
- **Very Wide Bandwidth** as the result of a new RCF proprietary surround treatment enabling flat power response from 25 to beyond 800 Hz when used in a properly vented enclosure.
- **Aligns Well In Vented Boxes** From 3.4 to 9 cubic feet in volume due to the L15/P200K's computer optimized parameters. As a result it can be easily used to update most existing vented sub-woofers and larger studio monitors for greater reliability, more output and lower distortion.

L18/851K Features

- **Very High Power Handling of 1000 watts** (AES standard) for absolute reliability in demanding daily professional use. This, combined with its high sensitivity, enables the L18/851K to produce over 130 dB SPL in vented systems and greater than 138 dB SPL in horn loaded systems such as EAW's BH800.
- **Advanced 100mm (4-in) Voice Coil Assembly** utilizes a Kapton™ former and space age adhesives to virtually eliminate thermal failures for the ultimate in reliability.
- **"State Of The Art" European Cone & Suspension** including a poly-laminated paper fiber cone, cloth suspension with proprietary chemical damping compound and a Kevlar™ (the same material used to make bullet proof vests) spider for total freedom from mechanical fatigue or failure for exceptionally long life in demanding sub-woofer applications.
- **Massive High Tech Magnetic Circuit** with cast backplate/pole piece and copper shorting ring virtually eliminates third order harmonic distortion while maintaining high conversion efficiency. The net result is greater transient impact with total freedom from dynamic instabilities.

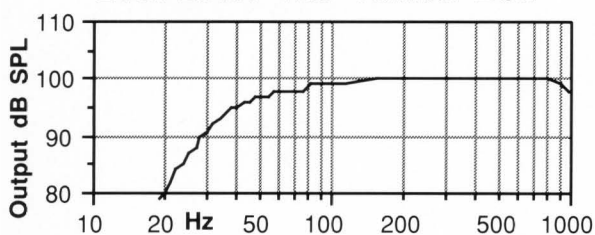
L15/P200K Applications

The L15/P200K provides smooth extended low frequency response in vented enclosures making it ideal for sub-woofer applications in motion picture theaters, dance clubs, sound reinforcement or any application where high output levels are required down to the 20 Hz region. The L15/P200K's low distortion and linear response also makes it well suited for use as the low frequency element in high output studio reference monitors.

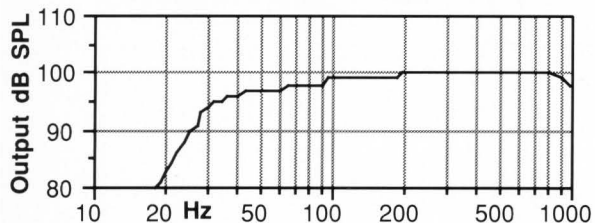
L18/851K Applications

The L18/851K provides exceptionally high output, with excellent definition down to the 30 Hz region making it the ideal choice for improving the low frequency power band of sound reinforcement systems. In vented boxes of 6 to 8 cubic feet the L18/851K will provide full power bandwidth down to the 35 Hz region. For higher output applications it can be horn loaded (in EAW's BH800) for 6 to 8 dB more overall output and flat response down to the 45 Hz region.

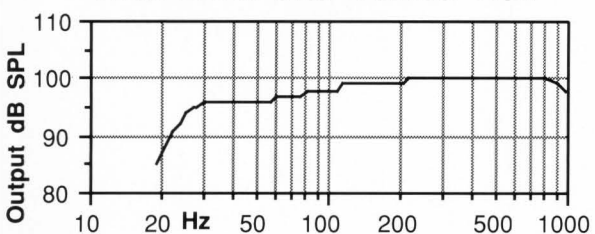
L15/P200K 4ft3 Vented Box



L15/P200A 6ft3 Vented Box



L15/P200K 9ft3 Vented Box



Specifications:	L15/P200K	L18/851K
Primary Application:	Extended Low Frequency	High Output Low Frequency
Nominal Diameter:	380 mm (15-in)	450 mm (18-in)
Nominal Impedance:	8 Ohms	4 or 8 Ohms
Frequency response:	20 to 3,000 Hz	30 to 3,000 Hz
High Frequency Power Limit:	800 Hz	500 Hz
Power Handling:		
100 hour Sine Wave:	350 w	400 w
100 IEC Noise:	700 w	800 w
AES Standard:	800 w	1000 w
Sensitivity (1w @ 1m):	95 dB SPL	99 dB SPL
Additional Descriptive Data		
Voice Coil Diameter:	100 mm (4-in)	100 mm (4-in)
Voice Coil Material:	Copper	Copper
Voice Coil Former:	Kapton	Kapton
Flux Density:	9,700 gauss	11,500 gauss
Frame:	High Pressure Die Cast Aluminum	
Physical Constants		
Effective Diaphragm Diameter (D):	0.302 m	0.364 m
Total Moving Mass (Mms):	0.077 Kg	0.128 Kg
Mechanical Compliance (Cms):	0.00039 m/N	0.00013 m/N
Bl Factor (B*1):	17.2 Tesla m	21.7 Tesla m
Small Signal Parameters		
Resonance Frequency (Fs):	29 Hz	39 Hz
Total Force Factor (Qts):	0.28	0.36
Mechanical Force Factor (Qms):	10	6
Electrical Force Factor (Qes):	0.3	0.38
Equivalent Air Volume (Vas):	0.28 m3	0.2 m3
Reference Efficiency (No):	2.2 %	3.03 %
Voice Coil Resistance (Re):	6.3 Ohms	5.7 Ohms
Large Signal Parameters		
Effective Diaphragm Area (Sd):	0.0716 m2	0.1041 m2
Peak Linear Displacement of Diaphragm (Xmax):	+- 9 mm	+- 4.5 mm
Dimensions And Weight		
Net Weight:	10.8 Kg (23.76 lbs)	13 Kg (28.6 lbs)
Baffle Hole Diameter:	358 mm (14.1-in)	422 mm (16.3in)
Overall Diameter:	387 mm (15.24-in)	470 mm (18.5-in)
Overall Depth:	132 mm (5.2-in)	183 mm (7.2-in)



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