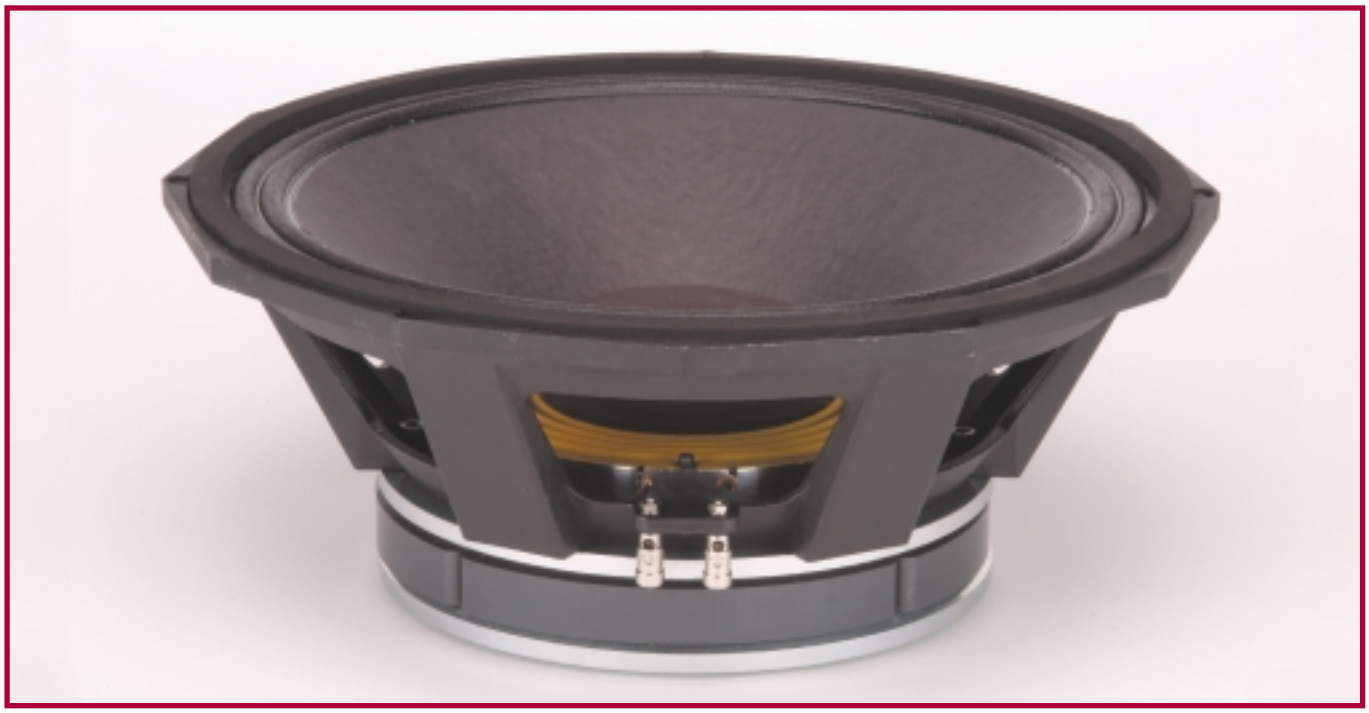
PRECISION DEVICES

MADE IN ENGLAND

PD.1850



- Heavy duty 18” cast aluminium frame with extra wide flange for increased rigidity
- 800W$_{RMS}$
- 5” copper voice coil assembly
- 170 oz. ceramic magnet
- Power compression only 1.6dB at rated power *1
- Distortion *2 2nd Harmonic <1%
  3rd Harmonic <1%
- Advanced magnetic assembly incorporating a composite alloy and steel pole piece giving a uniform and stable magnetic field, improving linear excursion and providing an efficient thermal path to dissipate the heat produced by the voice coil
- A B/L in excess of 31T/m for fast accurate lows
- Exemplary electro-acoustic performance and long term reliability in all types of professional applications
- Double suspension system maintaining a pure piston action for the moving mass even when driven with the most complex programme input signals and provides additional durability against the rigours of life on the road

APPLICATION NOTES

Designed specifically to provide powerful and accurate bass frequencies with minimal distortion and power compression.

The PD.1850 is the superlative choice for top of the range sub bass systems where the ability to take punishment in the most demanding applications is the ultimate selection criterion.

Suitable for sound reinforcement in a variety of enclosure types since it allows enclosure designers considerably more freedom with specialised loading techniques without having to make allowances for physical characteristics or power handling limitations which are typically the result of more traditional designs.

Appropriate for applications as diverse as scoop bins, conventional reflex cabinets and horn loaded systems.

**1 Power compression is the reduction of sensitivity at the specified power. Higher power ratings do not necessarily give a proportionate increase in SPL, therefore the maximum SPL of the PD.1850 may significantly exceed that of other manufacturers with high published power ratings.*

**2 Distortion is measured at 10% of the rated power (AES Standard)*

WORLD HEADQUARTERS

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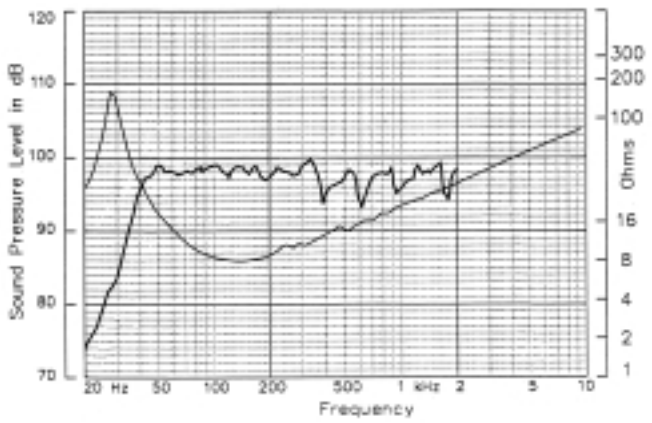
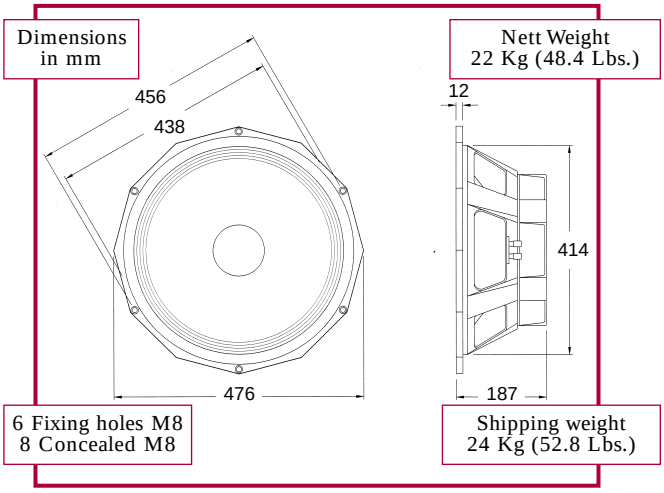
RESPONSE & IMPEDANCE DETAIL



Response measured in a half space environment using a vented enclosure of 164 litres.

MECHANICAL DATA



TECHNICAL SPECIFICATION

Nominal Diameter	46cm (18”)
Power rating [1]	800 Watts
Frequency range	35 - 2000 Hz
Nominal Impedance	8 Ohms
Sensitivity [2] (1 W 1 M)	98 dB
Highest Recommended Crossover [3]	400 Hz
Resonance	30 Hz
Enc. Vol. Recommended	90 to 220 Litres
Effective Piston Diameter	382 mm (15.05”)
Displacement limit	32 mm (1.26”)
Voice coil diameter	127 mm (5”)
Voice coil	Copper
Voice coil winding depth	28 mm (1.1”)
Voice coil wire length	48.9M (160.5’)
Magnet gap depth	11.5 mm (0.453”)
Magnet material/mass	Ceramic/4.8 Kg (170 oz.)
Magnetic assembly total mass	17.27 Kg (38 Lbs.)
Flux Density	11,800 Gauss
BL product	31.57 Tesla/M
Effective Moving Mass	216.4 grams
Connectors	Spring loaded push button metal bodied
Polarity	Positive Voltage on Red Terminal gives forward cone motion

Notes

1. AES Standard (35 to 350 Hz) Program 1600 Watts
2. Sensitivity is derived from the sine wave response between 50 - 350 Hz at 5W/2M using Zmin. It is then scaled to represent 1W/1M. It should be noted that not all manufacturers’ sensitivity figures are based on this AES Recommended Practice.
3. In less demanding applications, the crossover point may be higher.

THIELE - SMALL PARAMETERS

Fs	30 Hz	**Pmx**	800 Watts
Xmax	11.25 mm	**Qes**	0.22
Revc	5.4 Ohms	**Cms**	133 µM/N
Vd	13 x 10^{-4} m^3	**Vas**	249 Litres
Qts	0.21	**Mms**	216.4 grams
No	2.88%	**Sd**	1150 sq cm
Qms	6.04	**BL**	31.57 T/m

Notes

4. Thiele - Small Parameters follow a 800 Watt preconditioning period.