

FANE



PROFESSIONAL COMPONENT LOUDSPEAKERS



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ABOUT FANE

Established in England, 1958. Fane has a strong heritage and history in sound engineering excellence. Producing high-quality pro audio transducers. We are trusted and proven to deliver superior sound quality in the most demanding sound reinforcement applications, by the world's most famous sound system designers, high quality musical instrument amplification brands and fixed installation companies.

Fane is a wholly British owned company with it's headquarters located in West Yorkshire, England. We are committed to offering products of the highest standard, competitive pricing and support services needed to meet the changing demands of the pro audio market place.

Our objective is to deliver the world's finest range of professional audio loudspeakers, engineered to offer superior sonic performance.

WHAT MAKES FANE LOUDSPEAKERS SO SPECIAL?

No compromises are made on design and component specifications to guarantee only the finest audio performance. Only the highest quality materials sourced from the world's most respected suppliers are used in our quest to produce the perfect transducer solutions.

Designed at our headquarters in the UK, Fane produces a comprehensive range of matchless chassis loudspeakers in the standard diameters, with versatile mounting facilities designed for convenience and security.

In addition to chassis loudspeakers, our professional product range includes an outstanding series of compression drivers specialised to cover the high frequency bandwidths. Devices of innovative design, skilful engineering and superb performance.

Every product represents the cutting edge in acoustic design technology, engineering and material science, optimised performance and outstanding durability coupled with amazing value. Built to a high standard with systematic testing and strict quality controls that ensures performance excellence is retained indefinitely.



OUR TECHNOLOGIES

OEM / BESPOKE DRIVER DESIGN

Our manufacturing capabilities allow us to be ultra flexible to the needs of Original Equipment Manufacturers (OEMs). Not only are we able to provide modifications such as specialised coatings to branded solutions from our standard range, we can also implement bespoke solutions based on specific needs, design brief or price points. Our engineering team collaborates closely with our OEM partners to design and develop products that are optimised for their requirements, driving projects from concept through to final production.

Our highly skilled and experienced technical R&D team relies on state-of-the-art, industry standard tools and software for transducer design and evaluation. Combined with extensive listening tests in order to achieve optimum results.

We are able to manufacture custom units that are correct first time, on time, everytime and with the least variation from original specifications. Thanks to our commitment to total product quality, strict production control processes provide total customer confidence in product performance, consistency and value.

CHASSIS CONSTRUCTION

Optimised in the design process using finite element analysis (FEA) to provide maximum strength, resistance against thermal and other external forces. The majority of Fane chassis are made of high grade die-cast aluminium. Our selected material has the specific advantages of high strength and tensile stress factors, high strength-to weight ratio, low thermal expansion factor, high thermal conductivity factor, non-magnetic, highly resistant to corrosion and finished in high quality black enamel with heat treatment for permanent durability in varying environments.

FORCED AIR AND ASSISTED COOLING

The active motion of the cone and suspension creates airflow within the motor structure. Optimised air channels and vents are designed into the motor structure and chassis designs. This allows heat to be extracted efficiently by allowing the air flow to be forced through the channels and vents, keeping the voice coil and motor structure temperature under control. This in turn enhances power handling capabilities and minimises power compression effects.

VOICE COILS AND FORMERS

We have in excess of forty different former materials at our disposal, each coil is designed with the former characteristics in mind. Not all designs work well with a standard former material. To optimise designs, in addition to standard copper, various other wire materials and application techniques are specified such as aluminium, Copper Clad Aluminium Wire (CCAW), silver, square wire, multi-layer and edge winding.

INSIDE/ OUTSIDE WINDINGS VOICE COILS

Fane have used this technology for a number of years. Not all designs benefit from this method of winding, and again, each product is designed with an optimised voice coil geometry. Inside outside windings offer a balanced coil and increased heat dissipation resulting in lower power compression.

VENTED VOICE COILS

Vented voice coils are used to minimise air turbulence within the motor and voice coil assembly. The correct spacing, size and position of these vents all effect the efficiency and heat dissipation achieved when this technique is used. Each of our product designs has had special attention in this area during development, a vented coil is only specified if it benefits the optimised design.

MOTOR ASSEMBLY MATERIALS

Fully optimised, Finite Element Analysis (FEA) motor structure designs ensure the highest possible magnetic flux from minimum mass.

CONE, SURROUND AND DIAPHRAGM MATERIALS

We work in close collaboration with the worlds leading cone, surround and diaphragm manufacturers, from Germany, UK and USA. This ensures that our products are always designed using the latest and most trusted cone pulp formulas and developments in material technology. Our product designs are optimised with specific cone, surround or diaphragm materials and specifications in mind. If the right component doesn't exist in our extensive arsenal then we will develop one suited to the design requirements.

OUR TECHNOLOGIES

SUSPENSION MATERIALS

Suspension systems are a highly important part of our design and development process. By taking the time to ensure the correct materials are used, optimises not only the drivers behaviour and TSP parameters, but also the tonal character of the driver. It is our objective to use materials that are 'well behaved' offering longevity and linearity under extreme pressure. For this reason we have in excess of 10 principle materials we use and trust.

DOUBLE SILICON SUSPENSION

Consisting of two spiders adhered together with a special silicon mixture. The result is enhanced linear piston action and improved ability to control the moving mass.

DUAL SUSPENSIONS

Two spiders separated by a spacer ring that provides exceptional mechanical stability and linearity for drivers with larger Xmax travel.

DEMODULATION RINGS

A single or dual, copper or aluminium ring is placed into the motor structure to better control transient response, reduce intermodulation distortion and extend frequency range.

SPECIALIST CONE COATINGS

Fane offer a range of cone treatments and coatings that are pre-applied during the cone manufacturing process, these are an integral part of the materials design specification. These coatings offer tonal character changes, dampening, weather proofing, water proofing and fire retardant properties. Coatings applied post-manufacture are also available within our production facility.

COMPRESSION DRIVER PHASE PLUGS

Individually precision machined and hand assembled. Three slot, optimised geometry phase plug design enhances tonal performance while minimising sound wave cancellations throughout the working bandwidth.

FERROFLUID

Due to relatively high electrical currents and high cycle speeds, voice coils come under constant thermal and mechanical stress. Ferrofluid dissipates excess heat and also provides dampening properties, acting like a shock absorber, to eliminate excess energy and movement. The advantages are increased power handling with expanded frequency range while retaining smooth and linear operation at the highest output levels.

POWER RATINGS AND TSP'S

Fane measure power ratings according to the AES standard protocols. Each speaker is tested for 2 hours at rated power over the working bandwidth of the driver, after which the driver should show no appreciable damage. Fane also takes into account the mechanical properties of the driver when classifying power ratings even though the electrical properties of the voice coil can often exceed the rated power of the driver.

THE PROFESSIONAL SERIES

Representing the flagship range of Fane professional components. Models incorporate many unique features within their design to reduce the temperature in the critical voice coil region, allied with heat dissipation devices to maintain outstanding performance levels and dependability. Aimed at audio professionals seeking loudspeakers capable of handling the highest power levels and delivering outstanding performance across the audio spectrum.

THE NEODYMIUM SERIES

Delivers the legendary Fane performance in an outstanding lightweight format providing the discerning audio professional with unrivalled portability in applications such as line array in which high power handling and high sensitivity are demanded without compromise.

THE SOVEREIGN SERIES

Designed for a broad spectrum of sound reinforcement situations. Featuring the heavy duty Fane pressed steel chassis that provides rugged durability and outstanding performance. Carefully selected cone materials give smooth tonal characteristics and extended frequency response. The Sovereign Series represents a versatile answer to the demands of a varied and demanding range of audio applications.

PRODUCT OVERVIEW

THE PROFESSIONAL SERIES

MODEL	SIZE	POWER RATING	MAGNET MATERIAL	VOICE COIL DIAMETER	FREQUENCY RANGE	SPL	FS	XMAX	PAGE
FC-185F01	18" / 457.2 mm	900 W (A.E.S.)	Ferrite	5.0" / 127 mm	30 Hz - 2 kHz	96 dB	36 Hz	10.5 mm	7
COLOSSUS 18XLS	18" / 457.2 mm	1200 W (A.E.S.)	Ferrite	4.0" / 101.6 mm	28 Hz - 500 Hz	97 dB	36 Hz	12.5 mm	8
COLOSSUS PRIME 18XS	18" / 457.2 mm	1200 W (A.E.S.)	Ferrite Y35	4.0" / 101.6 mm	35 Hz - 500 Hz	100 dB	33 Hz	12 mm	9
COLOSSUS 18SB	18" / 457.2 mm	1000 W (A.E.S.)	Ferrite	4.0" / 101.6 mm	35 Hz - 2.5 kHz	100 dB	36 Hz	8.25 mm	10
COLOSSUS 18XB	18" / 457.2 mm	1000 W (A.E.S.)	Ferrite	4.0" / 101.6 mm	35 Hz - 1 kHz	99 dB	33 Hz	7.5 mm	11
COLOSSUS PRIME 15XS	15" / 381 mm	1000 W (A.E.S.)	Ferrite Y35	4.0" / 101.6 mm	30 Hz - 500 Hz	98 dB	36.3 Hz	12 mm	12
FC-154F01	15" / 381 mm	800 W (A.E.S.)	Ferrite	4.0" / 101.6 mm	40 Hz - 3 kHz	99 dB	41 Hz	6.5 mm	13
COLOSSUS 15XB	15" / 381 mm	800 W (A.E.S.)	Ferrite	4.0" / 101.6 mm	40 Hz - 1 kHz	99 dB	38 Hz	7.5 mm	14
SOVEREIGN PRO 15-600	15" / 381 mm	600 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	38 Hz - 3.5 kHz	98 dB	38 Hz	6 mm	15
SOVEREIGN PRO 15-600LF	15" / 381 mm	600 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	35 Hz - 3.5 kHz	98 dB	40 Hz	6.9 mm	16
SOVEREIGN PRO 15-500	15" / 381 mm	500 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	42 Hz - 3.5 kHz	99 dB	40 Hz	6 mm	17
FC-153F01	15" / 381 mm	400 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	40 Hz - 4.5 kHz	100 dB	40 Hz	7.5 mm	18
FC-123F02	12" / 304.8 mm	550 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	40 Hz - 4 kHz	98 dB	51 Hz	8 mm	19
SOVEREIGN PRO 12BM	12" / 304.8 mm	500 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	40 Hz - 3.5 kHz	95 dB	41 Hz	7.7 mm	20
FC-123F01	12" / 304.8 mm	500 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	45 Hz - 3 kHz	97.5 dB	34 Hz	8.5 mm	21
COLOSSUS 12MB	12" / 304.8 mm	500 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	40 Hz - 3.5 kHz	98 dB	55 Hz	5.5 mm	22
COLOSSUS 12XB	12" / 304.8 mm	500 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	45 Hz - 1 kHz	97 dB	43 Hz	10.5 mm	23
SOVEREIGN PRO 12-500	12" / 304.8 mm	500 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	45 Hz - 4.5 kHz	97.5 dB	43 Hz	6 mm	24
COLOSSUS 12BM	12" / 304.8 mm	450 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	40 Hz - 3.5 kHz	98 dB	43 Hz	6 mm	25
SOVEREIGN PRO 12-300	12" / 304.8 mm	300 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	45 Hz - 4.5 kHz	97.5 dB	46 Hz	4.5 mm	26
SOVEREIGN PRO 12-300S	12" / 304.8 mm	300 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	45 Hz - 2.5 kHz	97.5 dB	40 Hz	5.25 mm	27
SOVEREIGN PRO 10BM	10" / 254 mm	400 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	40 Hz - 3 kHz	93 dB	41 Hz	7.7 mm	28
SOVEREIGN PRO 10-300SC	10" / 254 mm	300 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	45 Hz - 4 kHz	98 dB	47 Hz	4.75 mm	29
SOVEREIGN PRO 10-300	10" / 254 mm	300 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	45 Hz - 4 kHz	98 dB	58 Hz	5.5 mm	30
SOVEREIGN PRO 10M	10" / 254 mm	280 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	200 Hz - 3.5 kHz	98.5 dB	56 Hz	2 mm	31
SOVEREIGN PRO 8BM	8" / 203.2 mm	250 W (A.E.S.)	Ferrite	2.0" / 50.8 mm	50 Hz - 4.5 kHz	93.5 dB	52 Hz	4.5 mm	32
SOVEREIGN PRO 8-225	8" / 203.2 mm	225 W (A.E.S.)	Ferrite	2.0" / 50.8 mm	55 Hz - 5 kHz	97 dB	62 Hz	5.5 mm	33
STUDIO 5HPM	5" / 127 mm	100 W (A.E.S.)	Ferrite	1.5" / 38.1 mm	90 Hz - 7 kHz	92.5 dB	164 Hz	4.5 mm	34
STUDIO 5FRK	5" / 127 mm	50 W (A.E.S.)	Ferrite	1.0" / 25.4 mm	65 Hz - 7 kHz	90.5 dB	58 Hz	2.41 mm	35

PRODUCT OVERVIEW

THE NEODYMIUM SERIES

MODEL	SIZE	POWER RATING	MAGNET MATERIAL	VOICE COIL DIAMETER	FREQUENCY RANGE	SPL	FS	XMAX	PAGE
FC-185ND01	18" / 457.2 mm	1200 W (A.E.S.)	Neodymium	5.0" / 127 mm	30 Hz - 2 kHz	98.5 dB	33 Hz	12 mm	36
COLOSSUS 18XT5N	18" / 457.2 mm	1200 W (A.E.S.)	Neodymium	5.0" / 127 mm	28 Hz - 2 kHz	98.5 dB	36 Hz	11.75 mm	37
COLOSSUS 18XBN	18" / 457.2 mm	1000 W (A.E.S.)	Neodymium	4.0" / 101.6 mm	35 Hz - 1 kHz	99 dB	33 Hz	7.5 mm	38
COLOSSUS 18-800N	18" / 457.2 mm	800 W (A.E.S.)	Neodymium	4.0" / 101.6 mm	36 Hz - 2 kHz	101 dB	38 Hz	8 mm	39
COLOSSUS 15 -750BMN	15" / 381 mm	750 W (A.E.S.)	Neodymium	4.0" / 101.6 mm	40 Hz - 3 kHz	100 dB	45 Hz	7.5 mm	40
SOVEREIGN PRO 15-600N	15" / 381 mm	600 W (A.E.S.)	Neodymium	3.0" / 76.2 mm	40 Hz - 4.5 kHz	99 dB	33 Hz	6.5 mm	41
COLOSSUS 12MBN	12" / 304.8 mm	500 W (A.E.S.)	Neodymium	3.0" / 76.2 mm	40 Hz - 4 kHz	98.5 dB	55 Hz	5.5 mm	42
SOVEREIGN PRO 12-350N	12" / 304.8 mm	350 W (A.E.S.)	Neodymium	2.5" / 63.5 mm	50 Hz - 4.5 kHz	97.5 dB	55 Hz	4.5 mm	43
COLOSSUS 12BMN	12" / 304.8 mm	450 W (A.E.S.)	Neodymium	3.0" / 76.2 mm	40 Hz - 3.5 kHz	99 dB	43 Hz	6 mm	44
SOVEREIGN PRO 8MN	8" / 203.2 mm	250 W (A.E.S.)	Neodymium	2.0" / 50.8 mm	90 Hz - 5 kHz	99 dB	80 Hz	3.5 mm	45

THE SOVEREIGN SERIES

MODEL	SIZE	POWER RATING	MAGNET MATERIAL	VOICE COIL DIAMETER	FREQUENCY RANGE	SPL	FS	XMAX	PAGE
SOVEREIGN 15-600LF	15" / 381 mm	600 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	38 Hz - 3.5 kHz	98.5 dB	37 Hz	6.5 mm	46
SOVEREIGN 15-500	15" / 381 mm	500 W (A.E.S.)	Ferrite	3.0" / 76.2 mm	40 Hz - 4 kHz	99 dB	35 Hz	3.45 mm	46
SOVEREIGN 15-400	15" / 381 mm	400 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	40 Hz - 4 kHz	98.5 dB	37 Hz	5 mm	47
SOVEREIGN 15-400LF	15" / 381 mm	400 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	40 Hz - 4 kHz	97 dB	41 Hz	4.6 mm	47
SOVEREIGN 12-500LF	12" / 304.8 mm	500 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	38 Hz - 5 kHz	95 dB	50 Hz	5.5 mm	48
SOVEREIGN 12-300	12" / 304.8 mm	300 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	45 Hz - 4.5 kHz	97.5 dB	46 Hz	4.5 mm	48
SOVEREIGN 12-250TC	12" / 304.8 mm	250 W (A.E.S.)	Ferrite	2.0" / 50.8 mm	45 Hz - 17 kHz	100 dB	50 Hz	3.5 mm	49
SOVEREIGN 10-300	10" / 254 mm	300 W (A.E.S.)	Ferrite	2.5" / 63.5 mm	45 Hz - 5 kHz	97.5 dB	58 Hz	5.5 mm	49
SOVEREIGN 10-125	10" / 254 mm	125 W (A.E.S.)	Ferrite	1.5" / 38.1 mm	50 Hz - 4 kHz	96 dB	55 Hz	5 mm	50
SOVEREIGN 8-225	8" / 203.2 mm	225 W (A.E.S.)	Ferrite	2.0" / 50.8 mm	55 Hz - 5 kHz	97 dB	62 Hz	5.5 mm	50
SOVEREIGN 8-125	8" / 203.2 mm	125 W (A.E.S.)	Ferrite	1.5" / 38.1 mm	60 Hz - 7 kHz	94 dB	65 Hz	3.45 mm	51
SOVEREIGN 6-100	6" / 152.4 mm	100 W (A.E.S.)	Ferrite	1.5" / 38.1 mm	60 Hz - 7 kHz	93 dB	115 Hz	2.5 mm	51

HIGH FREQUENCY DEVICES

MODEL	THROAT SIZE	POWER RATING	MAGNET MATERIAL	VOICE COIL DIAMETER	FREQUENCY RANGE	SPL	VOICE COIL MATERIAL	DIAPHRAGM MATERIAL	PAGE
CD-314	1.4" / 35.6 mm	75 W (A.E.S.)	Ferrite	3.5" / 80 mm	700 Hz - 18 kHz	106 dB	Aluminium	Titanium	52
CD-314N	1.4" / 35.6 mm	75 W (A.E.S.)	Neodymium	3.5" / 80 mm	700 Hz - 18 kHz	106 dB	Aluminium	Titanium	52
CD-140	1" / 25.4 mm	40 W (A.E.S.)	Ferrite	1.75" / 44 mm	2 kHz - 18 kHz	105 dB	Aluminium	Titanium	53
CD-140S	1" / 25.4 mm	40 W (A.E.S.)	Ferrite	1.75" / 44 mm	2 kHz - 18 kHz	105 dB	Aluminium	Titanium	53
CD-131	1" / 25.4 mm	30 W (A.E.S.)	Ferrite	1.37" / 34.4 mm	2 kHz - 18 kHz	106 dB	Aluminium	Titanium	54
CD-130	1" / 25.4 mm	30 W (A.E.S.)	Ferrite	1.37" / 34.4 mm	2 kHz - 18 kHz	106 dB	Aluminium	Titanium	54
CD-1544N-P	1" / 25.4 mm	50 W (A.E.S.)	Neodymium	1.75" / 44 mm	2 kHz - 18 kHz	105 dB	Aluminium	P.A.R	55
CD-150	1" / 25.4 mm	50 W (A.E.S.)	Ferrite	1.75" / 44 mm	2 kHz - 18 kHz	106 dB	Aluminium	Titanium	55

PRELIMINARY SPECIFICATIONS

FC-185F01

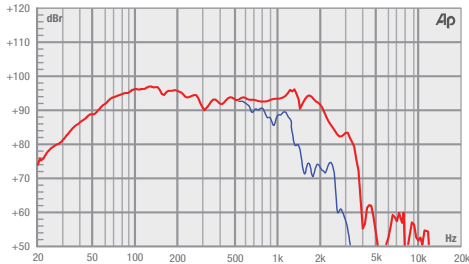
SUB BASS DRIVER

10.5 mm X_{max}
MAXIMUM LINEAR
EXCURSION**96 dB**
SENSITIVITY (1W/ 1m)**5.0" / 127 mm**
COPPER VOICE COIL**30 Hz - 2 kHz**
FREQUENCY RESPONSE**900 W (A.E.S.)**
AES POWER HANDLING**18" / 457.2 mm**
CHASSIS DIAMETER

The FC-185F01 is an efficient high power handling driver specially designed to provide powerful and accurate bass with low distortion and low power compression. The driver exhibits smooth tonal character combined with a fast response time. The FC-185F01 utilises an optimised fibre loaded cone assembly controlled by a fully optimised multi roll surround. The units spaced dual suspension configuration ensures excellent control during large excursions. A fully optimised motor structure built around a high grade Y35 magnet ensures maximum flux yield from compact design and generates the minimum amount of flux modulation. The cast chassis base venting and large motor venting ensures efficient ventilation of the unit to keep power compression to a minimum.

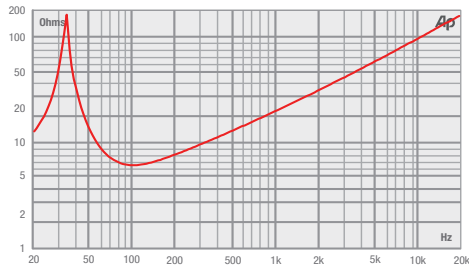
- Optimised, lightweight ferrite design, only weighs 13 kg.
- New 18-inch optimised, cast aluminium chassis design.
- Long driver excursion. Peak to peak maximum excursion of 52mm.
- High Qts (0.530) for larger enclosure designs.
- Double spaced suspension system for increased linearity.
- Suitable for bass reflex or horn loaded designs.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	8 Ohm
Power Handling	900 W (A.E.S.)
Peak Power (6dB Crest Factor)	3600 W (A.E.S.)
Usable Frequency Range -6dB	30 Hz - 2 kHz
Sensitivity (1 w - 1 m)	96 dB
Moving Mass inc. Air Load	220 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	15.68" / 398.27 mm
Magnet Weight	105.8 oz
Magnetic Gap Depth	0.35" / 9.00 mm
Flux Density	0.98 Tesla
Coil Winding Height	0.98" / 25.00 mm
Voice Coil Diameter	5.0" / 127 mm

MOUNTING / SHIPPING INFORMATION

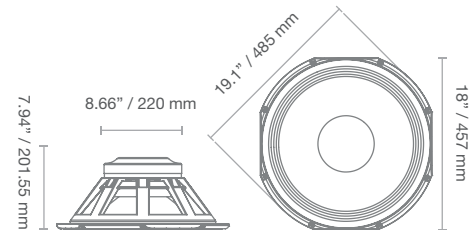
Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front
Outer Fixing Holes	8x Ø 0.275" on 18.425" PCD / 8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 0.275" on 17.25" PCD / 8x Ø 7 mm on 438.15 mm PCD
Depth	7.94" / 201.55 mm
Weight	28.85 lb / 13.09 kg
Recommended Enclosure Volume	60 - 230 Litres
Shipping Weight	31.00 lb / 14.06 kg
Packing Carton Dimensions	(W) 495 (D) 495 (H) 255 mm

THIELE SMALL PARAMETERS

FS Hz	36 Hz
RE Ohms	5.9 Ω
Qms	11.100
Qes	0.560
Qts	0.530
Vas Ltr	205.00 Litres
Vd Litres	1.190 Litres
CMS (mm/N)	0.110 mm/N
BL T/m	20.36 T/m
Mms (grms)	174 grams
Xmax (mm)	10.5 mm
Sd (cm²)	1134 cm²
Efficiency %	1.65 %
Le (1k Hz)	2.90 mH
EBP	64.29 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 35 Hz and 350 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS 18XLS

SUB BASS DRIVER

18" / 457.2 mm CHASSIS DIAMETER	1200 W (A.E.S.) AES POWER HANDLING	28 Hz - 500 Hz FREQUENCY RESPONSE	4.0" / 101.6 mm COPPER - INSIDE/ OUTSIDE WINDINGS VOICE COIL	97 dB SENSITIVITY (1W/ 1m)	12.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- 250 mm Diameter magnet structure.
- Low interference flux path.
- Fibre loaded UK manufactured cone.
- 64 mm peak to peak maximum linear excursion.
- 24.5 T/m BL.
- Fast, accurate and controlled bass at high levels of excursion.
- Intended for bass reflex and scoop enclosure designs.

The Colossus 18XLS features a 4-inch, inside / outside windings, copper voice coil and is intended for use as a high output bass driver in multi-way systems. The coil is immersed in a symmetric magnetic field that yields increased linearity and lower distortion. This, coupled with laminated silicone suspensions, a large Xmax of 12.5 mm with peak to peak travel of 60 mm, ensures fast accurate bass at high levels of excursion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at extreme sound pressure levels. Thanks to advanced thermal management the vented die-cast chassis and increased motor system venting effectively remove heat from the voice coil, resulting in extremely low-power compression. The driver handles 1200 Watts (A.E.S.) continuous coping with peaks in excess of 4800 Watts, exhibiting 97 dB sensitivity over it's working band.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	8 Ohm
Power Handling	1200 W (A.E.S.)
Peak Power (6dB Crest Factor)	4800 W (A.E.S.)
Usable Frequency Range -6dB	28 Hz - 500 Hz
Sensitivity (1 w - 1 m)	97 dB
Moving Mass inc. Air Load	209 grams
Minimum Impedance Zmin	7.44 Ω
Effective Piston Diameter	15.43" / 391.92 mm
Magnet Weight	165.78 oz
Magnetic Gap Depth	0.47" / 12.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	1.18" / 30.00 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485.14 mm
Width Across Flats	18" / 457.2 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 7 mm on 438.15 mm PCD
Depth	8.66" / 220.00 mm
Weight	36.95 lb / 16.76 kg
Recommended Enclosure Volume	125 - 210 Litres
Shipping Weight	39.80 lb / 18.05 kg
Packing Carton Dimensions	(W) 512 (D) 512 (H) 244 mm

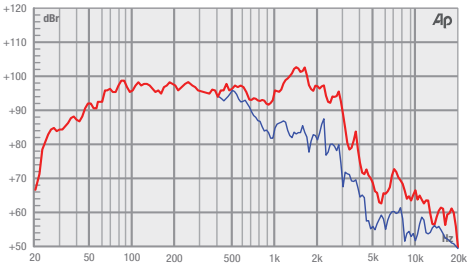
THIELE SMALL PARAMETERS

FS Hz	36 Hz
RE Ohms	5.2 Ω
Qms	13.610
Qes	0.420
Qts	0.400
Vas Ltr	187.00 Litres
Vd Litres	1.560 Litres
CMS (mm/N)	0.090 mm/N
BL T/m	24.5 T/m
Mms (grms)	209 grams
Xmax (mm)	12.5 mm
Sd (cm²)	1210 cm²
Efficiency %	2.000%
Le (1k Hz)	1.50 mH
EBP	85.71 Hz

MATERIALS OF CONSTRUCTION

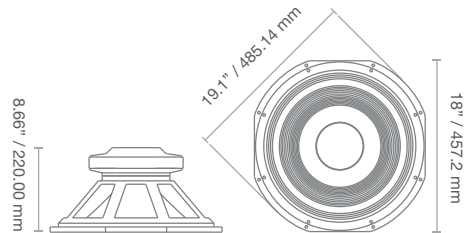
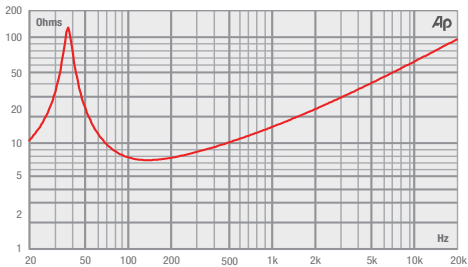
Former Material	Resin Bonded Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Straight Polycellulose Ribbed Cone
Surround / Edge Termination	Multi Roll Polyvinyl Damped Fabric
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Measured with swept sine wave on open baffle of 2.5 x 3.7m. Blue Line = fundamental 45° off-axis.

IMPEDANCE



* Please enquire about alternative impedances.
* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.
* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



COLOSSUS PRIME 18XS

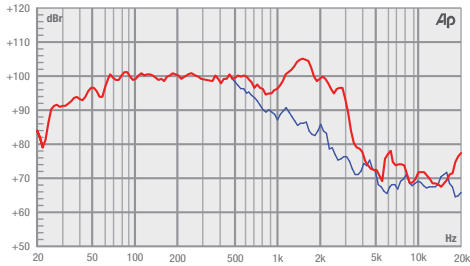
SUB BASS DRIVER

12 mm X _{max} MAXIMUM LINEAR EXCURSION	100 dB SENSITIVITY (1W/ 1m)	4.0" / 101.6 mm COPPER - INSIDE/ OUTSIDE WINDINGS VOICE COIL	35 Hz - 500 Hz FREQUENCY RESPONSE	1200 W (A.E.S.) AES POWER HANDLING	18" / 457.2 mm CHASSIS DIAMETER
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The Prime 18XS is intended for use as a high output bass driver in multi-way systems and features a 4 inch 'sandwich' (inside and outside windings) voice coil, immersed in a symmetric magnetic field yielding increased linearity and lower distortion. This, coupled with laminated silicone suspensions, a large X_{max} of 12 mm with peak to peak travel of 60 mm, ensures fast accurate bass at high levels of excursion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at extreme sound pressure levels. The driver handles 1200 Watts (A.E.S.) continuous and can cope with peaks in excess of 4800 Watts. This is due to advanced thermal management in the form of vented die-cast chassis and increased motor system venting. These measures effectively remove heat from the voice coil, resulting in extremely low-power compression. The Prime 18XS exhibits 100 dB sensitivity and can deliver bass down to 29 Hz (-6 dB) in a 200 Litre ported enclosure.

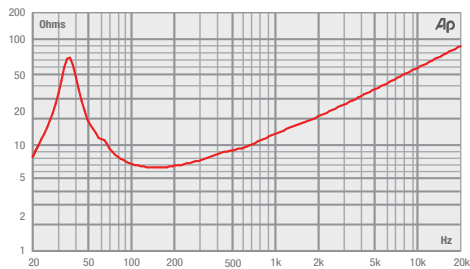
- Highest grade Y35 ferrite magnet structure.
- Low interference flux path.
- Aluminium demodulation ring.
- Fibre loaded, UK manufactured cone offering increased strength, durability and performance.
- 64 mm peak to peak maximum linear excursion.
- For bass reflex and scoop enclosure designs. Also works well in horn loaded systems.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	1200 W (A.E.S.)
Peak Power (6dB Crest Factor)	4800 W (A.E.S.)
Usable Frequency Range -6dB	35 Hz - 500 Hz
Sensitivity (1 w - 1 m)	100 dB
Moving Mass inc. Air Load	177 grams
Minimum Impedance Z _{min}	6.5 Ω
Effective Piston Diameter	15.43" / 391.92 mm
Magnet Weight	145 oz
Magnetic Gap Depth	0.43" / 11.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	1.18" / 30.00 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

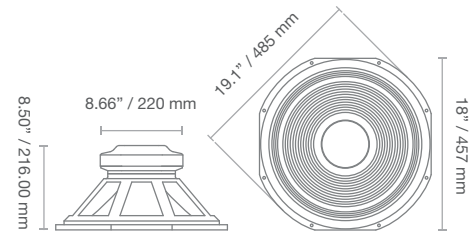
Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 0.275" on 18.425" PCD / 8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 0.275" on 17.25" PCD / 8x Ø 7 mm on 438.15 mm PCD
Depth	8.50" / 216.00 mm
Weight	33.75 lb / 15.30 kg
Recommended Enclosure Volume	4.41 - 14.12 cu ft / 125 - 400 Litres
Shipping Weight	37.45 lb / 17.00 kg
Packing Carton Dimensions	(W) 495 (D) 495 (H) 255 mm

THIELE SMALL PARAMETERS

FS Hz	33 Hz
RE Ohms	5.2 Ω
Q _{ms}	8.200
Q _{es}	0.404
Q _{ts}	0.385
V _{as} Ltr	257.00 Litres
V _d Litres	1.450 Litres
CMS (mm/N)	0.124 mm/N
BL T/m	22.4 T/m
M _{ms} (grms)	188 grams
X _{max} (mm)	12 mm
S _d (cm ²)	1210 cm ²
Efficiency %	2.200%
Le (1k Hz)	1.50 mH
EBP	81.68 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite Y35
Chassis	Die-cast Aluminium
Cone	Straight Fibre Loaded Polycellulose Ribbed Cone
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper (Inverted)
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS 18SB

SUB BASS DRIVER

18" / 457.2 mm CHASSIS DIAMETER	1000 W (A.E.S.) AES POWER HANDLING	35 Hz - 2.5 kHz FREQUENCY RESPONSE	4.0" / 101.6 mm COPPER - INSIDE/ OUTSIDE WINDINGS VOICE COIL	100 dB SENSITIVITY (1W/ 1m)	8.25 mm Xmax MAXIMUM LINEAR EXCURSION
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- Fast, accurate bass. Defined, clean and punchy.
- Fibre loaded, UK manufactured cone offering increased strength, durability and performance.
- Delivers bass down to 35 Hz in a 200 Litre ported enclosure.

The Colossus 18SB is intended for use as a high output bass driver in multi-way systems. It features a 4 inch 'sandwich' inside and outside windings voice coil, immersed in a symmetric magnetic field yielding increased linearity and lower distortion. This, coupled with a large Xmax of 8.25 mm and laminated silicone suspension, ensures tight, punchy bass at high levels of excursion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at extreme sound pressure levels. The driver handles 1000 Watts (A.E.S.) continuous and can cope with peaks in excess of 4000 Watts. This is due to advanced thermal management in the form of vented die-cast chassis and increased motor system venting. These measures effectively remove heat from the voice coil, resulting in extremely low-power compression. The Colossus 18SB exhibits 100 dB sensitivity and can deliver bass down to 35 Hz (-6 dB) in a 200 Litre ported enclosure.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	8 Ohm
Power Handling	1000 W (A.E.S.)
Peak Power (6dB Crest Factor)	4000 W (A.E.S.)
Usable Frequency Range -6dB	35 Hz - 2.5 kHz
Sensitivity (1 w - 1 m)	100 dB
Moving Mass inc. Air Load	177 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	14.84" / 376.93 mm
Magnet Weight	120 oz
Magnetic Gap Depth	0.43" / 11.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.87" / 22.00 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 0.275" on 18.425" PCD / 8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 0.275" on 17.25" PCD / 8x Ø 7 mm on 438.15 mm PCD
Depth	7.91" / 201.00 mm
Weight	27.60 lb / 12.51 kg
Recommended Enclosure Volume	4.41 - 14.12 cu ft / 125 - 400 Litres
Shipping Weight	28.90 lb / 13.10 kg
Packing Carton Dimensions	(W) 485 (D) 485 (H) 230 mm

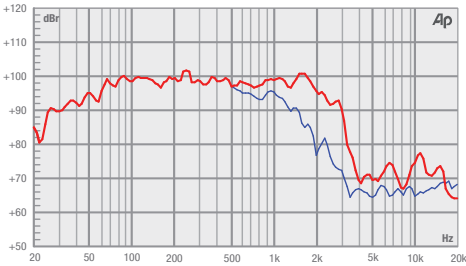
THIELE SMALL PARAMETERS

FS Hz	36 Hz
RE Ohms	5.2 Ω
Qms	6.583
Qes	0.366
Qts	0.346
Vas Ltr	199.00 Litres
Vd Litres	0.893 Litres
CMS (mm/N)	0.109 mm/N
BL T/m	24 T/m
Mms (grms)	177.2 grams
Xmax (mm)	8.25 mm
Sd (cm²)	1134 cm²
Efficiency %	2.490%
Le (1k Hz)	2.23 mH
EBP	98.36 Hz

MATERIALS OF CONSTRUCTION

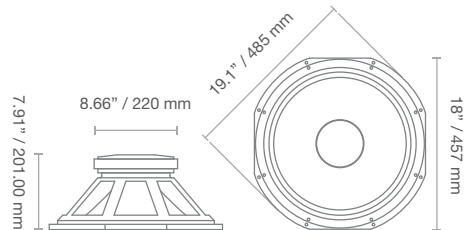
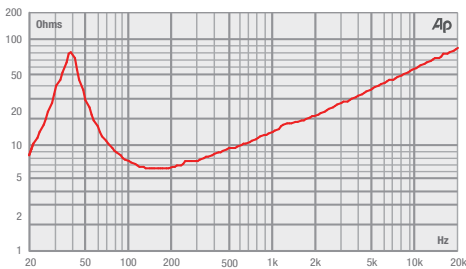
Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



COLOSSUS 18XB

SUB BASS DRIVER

7.5 mm X_{max}
MAXIMUM LINEAR
EXCURSION

99 dB
SENSITIVITY (1W/ 1m)

4.0" / 101.6 mm
COPPER - INSIDE/ OUTSIDE
WINDINGS VOICE COIL

35 Hz - 1 kHz
FREQUENCY RESPONSE

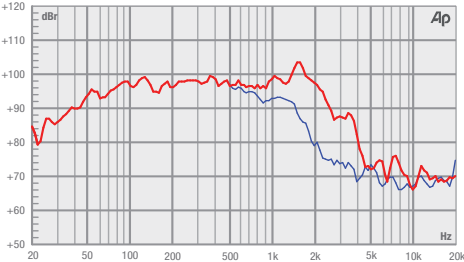
1000 W (A.E.S.)
AES POWER HANDLING

18" / 457.2 mm
CHASSIS DIAMETER

The Colossus 18XB is intended for use as a high output sub-bass driver either singly or in multi-way systems. The unit features a 4 inch 'sandwich' inside and outside windings voice coil, immersed in a symmetric magnetic field and centralized by using two suspensions in a dual arrangement to maintain ultra linearity and stability at high excursions. The heavily ribbed straight-sided paper cone membrane is reinforced with high-strength composite fibres to resist deformation under extreme loads. The driver handles 1000 Watts (A.E.S.) continuous and can cope with peaks in excess of 4000 Watts. This is due to advanced thermal management in the form of a vented die-cast chassis and motor system using an internal heat sink coupled to a large vaned heat sink mounted on the rear of the unit. These measures effectively remove heat from the voice coil resulting in extremely low-power compression. The Colossus 18XB is designed for use in 100 to 250 Litre ported enclosures.

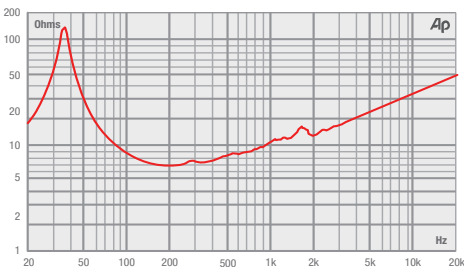
- Deep, warm, well controlled bass reproduction.
- High BL factor 25.9 T/m.
- Ribbed, fibre loaded, UK manufactured ribbed straight sided cone for increased strength, durability and performance.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	1000 W (A.E.S.)
Peak Power (6dB Crest Factor)	4000 W (A.E.S.)
Usable Frequency Range -6dB	35 Hz - 1 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	173 grams
Minimum Impedance Z _{min}	6.5 Ω
Effective Piston Diameter	15.03" / 381.76 mm
Magnet Weight	120 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.2 Tesla
Coil Winding Height	0.90" / 23.00 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

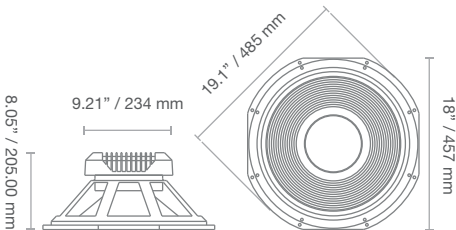
Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 0.275" on 18.425" PCD / 8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 0.275" on 17.25" PCD / 8x Ø 7 mm on 438.15 mm PCD
Depth	8.05" / 205.00 mm
Weight	31.29 lb / 14.20 kg
Recommended Enclosure Volume	3.53 - 8.82 cu ft / 125 - 400 Litres
Shipping Weight	35.26 lb / 16.00 kg
Packing Carton Dimensions	(W) 512 (D) 512 (H) 244 mm

THIELE SMALL PARAMETERS

FS Hz	33 Hz
RE Ohms	6.5 Ω
Q _{ms}	5.770
Q _{es}	0.358
Q _{ts}	0.337
V _{as} Ltr	236.00 Litres
V _d Litres	0.803 Litres
CMS (mm/N)	0.130 mm/N
BL T/m	25.9 T/m
M _{ms} (grms)	173 grams
X _{max} (mm)	7.5 mm
S _d (cm ²)	1131 cm ²
Efficiency %	2.300%
Le (1k Hz)	1.99 mH
EBP	92.18 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Straight Polycellulose Ribbed Cone
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS PRIME 15XS

BASS DRIVER

15" / 381 mm CHASSIS DIAMETER	1000 W (A.E.S.) AES POWER HANDLING	30 Hz - 500 Hz FREQUENCY RESPONSE	4.0" / 101.6 mm COPPER - INSIDE/ OUTSIDE WINDINGS VOICE COIL	98 dB SENSITIVITY (1W/ 1m)	12 mm Xmax MAXIMUM LINEAR EXCURSION
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- Highest grade Y35 ferrite magnet structure.
- Fibre loaded, UK manufactured cone offering increased strength, durability and performance.
- Low interference flux path.
- Aluminium demodulation ring.
- 60 mm peak to peak maximum linear excursion.

The Prime 15XS is intended for use as a high output bass driver in multi-way systems and features a 4 inch 'sandwich' (inside and outside windings) voice coil, immersed in a symmetric magnetic field yielding increased linearity and lower distortion. This, coupled with laminated silicone suspensions, a large Xmax of 12 mm with peak to peak travel of 60 mm, ensures fast accurate bass at high levels of excursion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at extreme sound pressure levels. The driver handles 1200 Watts (A.E.S.) continuous and can cope with peaks in excess of 4800 Watts. This is due to advanced thermal management in the form of vented die-cast chassis and increased motor system venting. These measures effectively remove heat from the voice coil, resulting in extremely low-power compression. The Prime 15XS exhibits 98 dB sensitivity and can deliver bass down to 29 Hz (-6 dB) in a 200 Litre ported enclosure.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	1000 W (A.E.S.)
Peak Power (6dB Crest Factor)	4000 W (A.E.S.)
Usable Frequency Range -6dB	30 Hz - 500 Hz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	133 grams
Minimum Impedance Zmin	6.84 Ω
Effective Piston Diameter	15.43" / 391.92 mm
Magnet Weight	145 oz
Magnetic Gap Depth	0.43" / 11.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	1.18" / 30.00 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.4 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.281" on 15.5" PCD / 4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8 x Ø 0.281" on 14.56" PCD / 8x Ø 7.1 mm on 370 mm PCD
Depth	7.71" / 196.00 mm
Weight	28.00 lb / 12.70 kg
Recommended Enclosure Volume	2.47 - 4.41 cu ft / 70 - 125 Litres
Shipping Weight	30.45 lb / 13.80 kg
Packing Carton Dimensions	(W) 430 (D) 430 (H) 230 mm

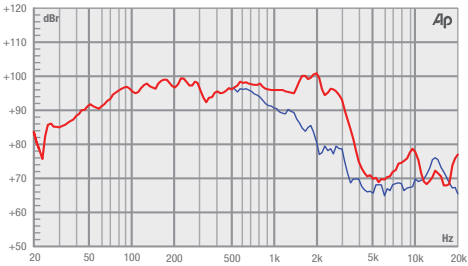
THIELE SMALL PARAMETERS

FS Hz	36.3 Hz
RE Ohms	5.2 Ω
Qms	7.700
Qes	0.320
Qts	0.310
Vas Ltr	149.70 Litres
Vd Litres	1.010 Litres
CMS (mm/N)	0.147 mm/N
BL T/m	22.1 T/m
Mms (grms)	133 grams
Xmax (mm)	12 mm
Sd (cm²)	855 cm²
Efficiency %	2.140%
Le (1k Hz)	1.93 mH
EBP	113.44 Hz

MATERIALS OF CONSTRUCTION

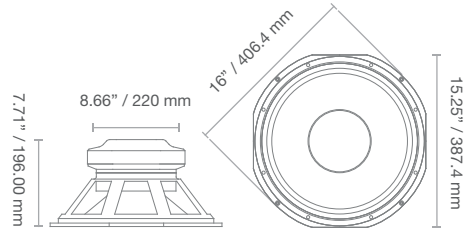
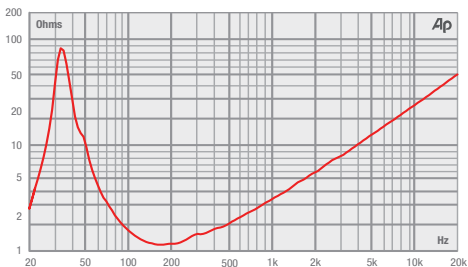
Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite Y35
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper (Inverted)
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.
* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.
* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



FC-154F01

BASS DRIVER

6.5 mm X_{max}
MAXIMUM LINEAR
EXCURSION

99 dB
SENSITIVITY (1W/ 1m)

4.0" / 101.6 mm
CCAW- INSIDE/ OUTSIDE
WINDINGS VOICE COIL

40 Hz - 3 kHz
FREQUENCY RESPONSE

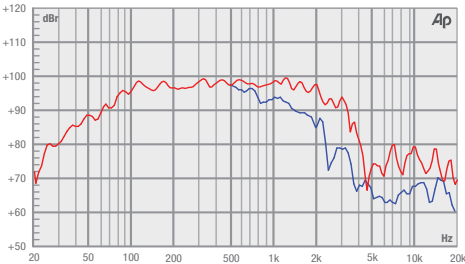
800 W (A.E.S.)
AES POWER HANDLING

15" / 381 mm
CHASSIS DIAMETER

The FC-154F01 is intended for use in two-way ported enclosures or as an high output bass driver in multi-way systems. The unit features a 4 inch 'sandwich' inside and outside windings voice coil driven by a non-inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane is state of the art material that allows the driver to combine high sensitivity with the structural integrity required to produce undistorted frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low frequency output up to its rated power handling of 800 Watts (A.E.S.) continuous, with peak power handling in excess of 3200 Watts. The driver exhibits an average sensitivity of 99 dB working band and is best used in ported enclosures of 45 to 125 Litres. The FC-154F01 can deliver bass down to 40 Hz (-3dB), 30 Hz (-6dB) in a tuned 125 Ltr ported enclosure.

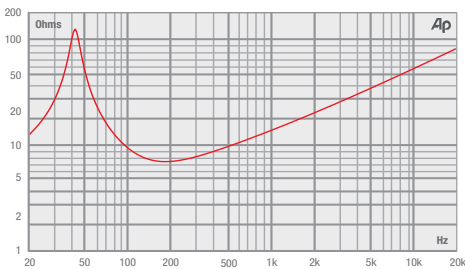
- High SPL and attack for 2 - way ported enclosures.
- Suitable for horn loaded bass applications.
- Suitable for bass reflex applications.
- Dynamic, smooth detailed bass reproduction.
- Inside/ outside CCAW voice coil windings.
- Waterproof cone.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	8 Ohm
Power Handling	800 W (A.E.S.)
Peak Power (6dB Crest Factor)	3200 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	10 grams
Minimum Impedance Zmin	7.3 Ω
Effective Piston Diameter	13.00" / 330.20 mm
Magnet Weight	120 oz
Magnetic Gap Depth	0.43" / 11.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.75" / 19.05 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

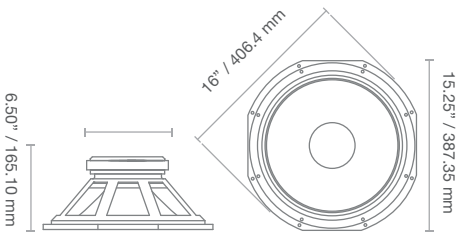
Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8x Ø 7.1 mm on 370 mm PCD
Depth	6.50" / 165.10 mm
Weight	22.48 lb / 10.20 kg
Recommended Enclosure Volume	75 - 125 Litres
Shipping Weight	25.50 lb / 11.57 kg
Packing Carton Dimensions	(W) 440 (D) 440 (H) 220 mm

THIELE SMALL PARAMETERS

FS Hz	41 Hz
RE Ohms	5.4 Ω
Qms	6.850
Qes	0.300
Qts	0.290
Vas Ltr	151.00 Litres
Vd Litres	0.560 Litres
CMS (mm/N)	0.142 mm/N
BL T/m	22.5 T/m
Mms (grms)	106 grams
Xmax (mm)	6.5 mm
Sd (cm²)	866 cm²
Efficiency %	3.340%
Le (1k Hz)	2.15 mH
EBP	136.67 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	CCAW- Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Half Roll Linen
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS 15XB

SUB BASS DRIVER

15" / 381 mm CHASSIS DIAMETER	800 W (A.E.S.) AES POWER HANDLING	40 Hz - 1 kHz FREQUENCY RESPONSE	4.0" / 101.6 mm COPPER - INSIDE/ OUTSIDE WINDINGS VOICE COIL	99 dB SENSITIVITY (1W/ 1m)	7.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- Deep, warm, well controlled bass.
- Heavily ribbed, fibre loaded, UK manufactured straight sided cone for increased strength, durability and performance.

The Colossus 15XB is intended for use as a high output sub-bass driver either singly or in multi-way systems. The unit features a 4 inch 'sandwich' inside and outside windings voice coil immersed in a symmetric magnetic field and centralized by using two suspensions in a dual arrangement to maintain ultra linearity and stability at high excursions. The heavily ribbed straight-sided paper cone membrane is reinforced with high-strength composite fibres to resist deformation under extreme loads. The driver handles 800 Watts (A.E.S.) continuous and can cope with peaks in excess of 3200 Watts. This is due to advanced thermal management in the form of a vented die-cast chassis and motor system using an internal heat sink coupled to a large vaned heat sink mounted on the rear of the unit. These measures effectively remove heat from the voice coil resulting in extremely low-power compression. The Colossus 15XB is designed for use in 70 to 150 Litre ported enclosures.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	800 W (A.E.S.)
Peak Power (6dB Crest Factor)	3200 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 1 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	108 grams
Minimum Impedance Zmin	7.5 Ω
Effective Piston Diameter	13.03" / 330.96 mm
Magnet Weight	120 oz
Magnetic Gap Depth	0.39" / 9.90 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.90" / 22.86 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.4 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.281" on 15.5" PCD / 4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8x Ø 0.281" on 14.56" PCD / 8x Ø 7.1 mm on 370 mm PCD
Depth	7.13" / 181.00 mm
Weight	27.28 lb / 12.40 kg
Recommended Enclosure Volume	2.47 - 5.29 cu ft / 70 - 150 Litres
Shipping Weight	30.58 lb / 13.90 kg
Packing Carton Dimensions	(W) 440 (D) 440 (H) 220 mm

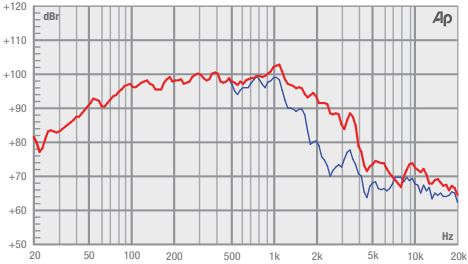
THIELE SMALL PARAMETERS

FS Hz	38 Hz
RE Ohms	6.2 Ω
Qms	7.480
Qes	0.336
Qts	0.320
Vas Ltr	168.00 Litres
Vd Litres	0.641 Litres
CMS (mm/N)	0.162 mm/N
BL T/m	22.08 T/m
Mms (grms)	108 grams
Xmax (mm)	7.5 mm
Sd (cm²)	855.3 cm²
Efficiency %	2.100%
Le (1k Hz)	1.50 mH
EBP	113.10 Hz

MATERIALS OF CONSTRUCTION

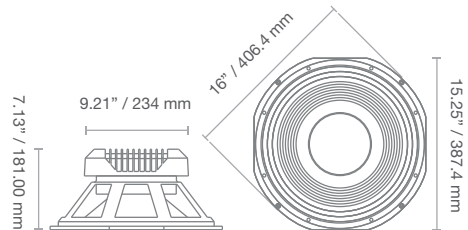
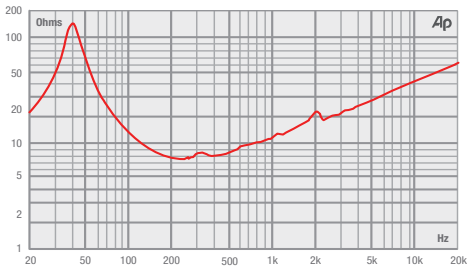
Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Straight Polycellulose Ribbed Cone
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 15-600

SUB BASS DRIVER

6 mm Xmax
MAXIMUM LINEAR
EXCURSION

98 dB
SENSITIVITY (1W/ 1m)

3.0" / 76.2 mm
COPPER VOICE COIL

38 Hz - 3.5 kHz
FREQUENCY RESPONSE

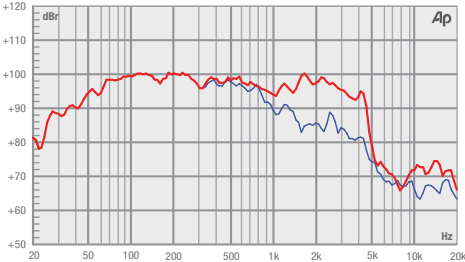
600 W (A.E.S.)
AES POWER HANDLING

15" / 381 mm
CHASSIS DIAMETER

The Sovereign Pro 15-600 offers excellent linear response and well controlled bass reproduction down to 40 Hz. This makes the unit especially suitable for horn-loaded applications, band-pass enclosures and small size bass reflex systems. The 15-600 is a very good solution for two or three way systems when high BL and maximum punch is required.

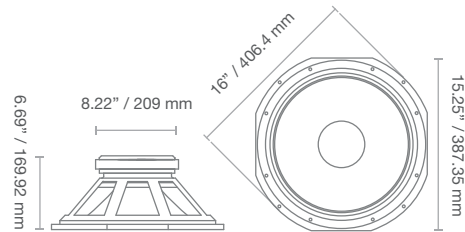
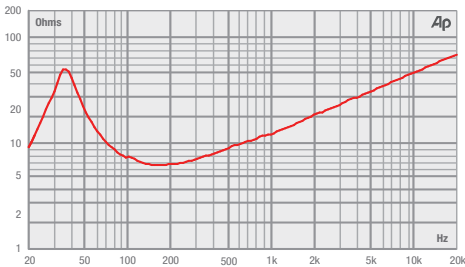
- Highly versatile in 2-way ported enclosures.
- Good bass, smooth mid range.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.
- Especially suited for horn loaded, band pass and small size bass reflex applications.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	600 W (A.E.S.)
Peak Power (6dB Crest Factor)	2400 W (A.E.S.)
Usable Frequency Range -6dB	38 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	89 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	13.03" / 330.96 mm
Magnet Weight	85 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Flange Height	0.30" / 7.62 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.281" on 15.5" PCD / 4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8x Ø 0.281" on 14.56" PCD / 8x Ø 7.1 mm on 370 mm PCD
Depth	6.69" / 169.92 mm
Weight	17.52 lb / 7.95 kg
Recommended Enclosure Volume	2.64 - 5.29 cu ft / 75 - 150 Litres
Shipping Weight	20.05 lb / 9.10 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 210 mm

THIELE SMALL PARAMETERS

FS Hz	38 Hz
RE Ohms	5.4 Ω
Qms	3.520
Qes	0.390
Qts	0.351
Vas Ltr	201.00 Litres
Vd Litres	0.513 Litres
CMS (mm/N)	0.196 mm/N
BL T/m	17.5 T/m
Mms (grms)	89.5 grams
Xmax (mm)	6 mm
Sd (cm²)	850 cm²
Efficiency %	2.760%
Le (1k Hz)	1.95 mH
EBP	97.44 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN PRO 15-600LF

BASS DRIVER

15" / 381 mm CHASSIS DIAMETER	600 W (A.E.S.) AES POWER HANDLING	35 Hz - 3.5 kHz FREQUENCY RESPONSE	3.0" / 76.2 mm COPPER VOICE COIL	98 dB SENSITIVITY (1W/ 1m)	6.9 mm Xmax MAXIMUM LINEAR EXCURSION
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- Highly versatile in 2-way ported enclosures.
- Smooth frequency response.
- Delivers tight accurate bass down to 40 Hz.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

The Sovereign Pro 15-600LF is intended for use in two-way ported enclosures, such as the classic bass driver plus horn tweeter or compression driver format. The unit features a die-cast chassis with long throw motor system and long throw surround allowing solid bass reproduction at high-power levels. The driver exhibits a smooth frequency response to give a balanced tonal characteristic when properly matched to appropriate high-frequency drivers. The Sovereign Pro 15-600LF can also be used in ported bass enclosures to deliver tight accurate bass down to 40 Hz. The unit features a 3-inch voice coil with a power handling of 600 Watts and an average sensitivity of 98 dB.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	8 Ohm
Power Handling	600 W (A.E.S.)
Peak Power (6dB Crest Factor)	2400 W (A.E.S.)
Usable Frequency Range -6dB	35 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	89 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	13.03" / 330.96 mm
Magnet Weight	100 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.75" / 19.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Flange Height	0.30" / 7.62 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.281" on 15.5" PCD / 4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8x Ø 0.281" on 14.56" PCD / 8x Ø 7.1 mm on 370 mm PCD
Depth	6.85" / 174.00 mm
Weight	20.49 lb / 9.30 kg
Recommended Enclosure Volume	2.64 - 5.29 cu ft / 75 - 150 Litres
Shipping Weight	23.03 lb / 10.45 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 225 mm

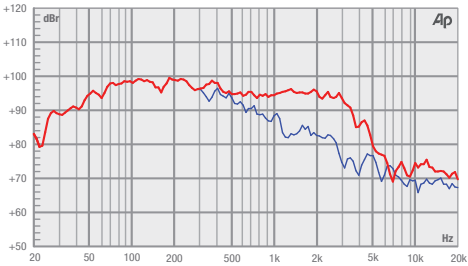
THIELE SMALL PARAMETERS

FS Hz	40 Hz
RE Ohms	6.5 Ω
Qms	8.800
Qes	0.380
Qts	0.370
Vas Ltr	188.00 Litres
Vd Litres	0.590 Litres
CMS (mm/N)	0.180 mm/N
BL T/m	19.7 T/m
Mms (grms)	89 grams
Xmax (mm)	6.9 mm
Sd (cm²)	856 cm²
Efficiency %	3.050%
Le (1k Hz)	1.85 mH
EBP	105.26 Hz

MATERIALS OF CONSTRUCTION

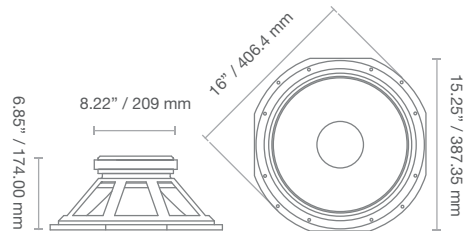
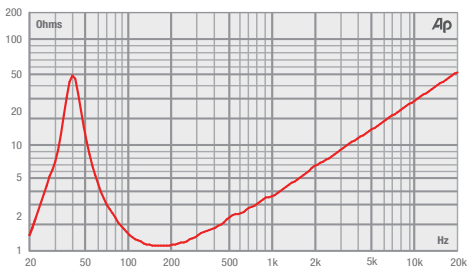
Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 15-500

BASS DRIVER

6 mm X_{max}
MAXIMUM LINEAR
EXCURSION

99 dB
SENSITIVITY (1W/ 1m)

3.0" / 76.2 mm
COPPER VOICE COIL

42 Hz - 3.5 kHz
FREQUENCY RESPONSE

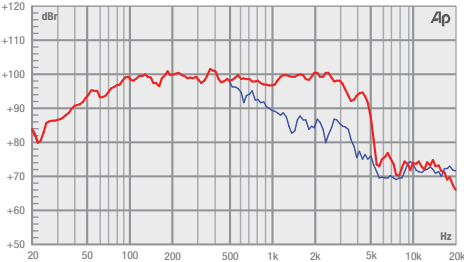
500 W (A.E.S.)
AES POWER HANDLING

15" / 381 mm
CHASSIS DIAMETER

The Sovereign Pro 15-500 is intended for use in two-way ported enclosures, such as the classic bass driver plus horn tweeter or compression driver format. The unit features a die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. The driver exhibits smooth frequency response to give a balanced tonal characteristic when properly matched to appropriate high-frequency drivers. The Sovereign Pro 15-500 is designed for use in 75 to 150 Litre ported enclosures. The unit features a 3-inch voice coil with a power handling of 500 Watts and an average sensitivity of 99dB.

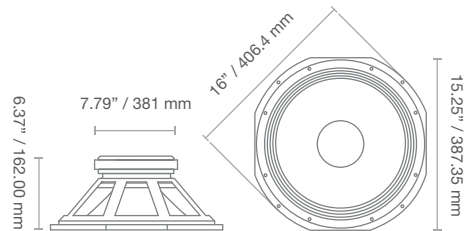
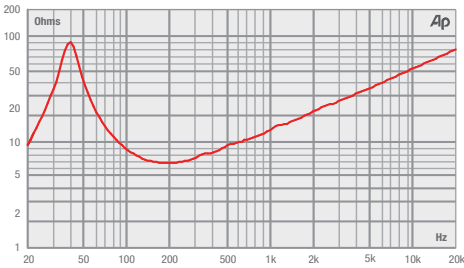
- Highly versatile in 2-way ported enclosures.
- High SPL producing fast and punchy bass.
- Smooth extended frequency response.
- High linearity suspension.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Frequency Range -6dB	42 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	85 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	13.03" / 330.96 mm
Magnet Weight	80 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Flange Height	0.30" / 7.62 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.281" on 15.5" PCD / 4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8x Ø 0.281" on 14.56" PCD / 8x Ø 7.1 mm on 370 mm PCD
Depth	6.37" / 162.00 mm
Weight	17.52 lb / 7.95 kg
Recommended Enclosure Volume	2.64 - 5.29 cu ft / 75 - 150 Litres
Shipping Weight	20.05 lb / 9.10 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 210 mm

THIELE SMALL PARAMETERS

FS Hz	40 Hz
RE Ohms	5.4 Ω
Qms	10.000
Qes	0.330
Qts	0.320
Vas Ltr	192.00 Litres
Vd Litres	0.513 Litres
CMS (mm/N)	0.186 mm/N
BL T/m	18.9 T/m
Mms (grms)	85 grams
Xmax (mm)	6 mm
Sd (cm²)	855 cm²
Efficiency %	3.600%
Le (1k Hz)	1.90 mH
EBP	121.21 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

FC-153F01
BASS DRIVER

15" / 381 mm CHASSIS DIAMETER	400 W (A.E.S.) AES POWER HANDLING	40 Hz - 4.5 kHz FREQUENCY RESPONSE	3.0" / 76.2 mm CCAW - INSIDE/ OUTSIDE WINDINGS VOICE COIL	100 dB SENSITIVITY (1W/ 1m)	7.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- Versatile unit for 2-way ported enclosures.
- Dynamic, smooth detailed bass reproduction.
- Extended frequency range usable to 4.5 kHz.
- Copper shorting ring.
- Inside/ outside CCAW voice coil windings.
- Waterproof cone.
- Optimised for warm tonal character.

The FC-153F01 is intended for use in two-way ported enclosures. The unit features a 3 inch 'sandwich' inside and outside windings voice coil driven by a non-inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane is state of the art material that allows the driver to combine high sensitivity with the structural integrity required to produce undistorted frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low frequency output up to its rated power handling of 400 Watts (A.E.S) continuous, with peak power handling in excess of 1600 Watts. The unit offers excellent extension up to 4.5 kHz. The driver exhibits an average sensitivity of 100 dB working band and is best used in ported enclosures of 45 to 90 Litres.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	8 Ohm
Power Handling	400 W (A.E.S.)
Peak Power (6dB Crest Factor)	1600 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 4.5 kHz
Sensitivity (1 w - 1 m)	100 dB
Moving Mass inc. Air Load	74 grams
Minimum Impedance Zmin	7.3 Ω
Effective Piston Diameter	13.00" / 330.20 mm
Magnet Weight	93 oz
Magnetic Gap Depth	0.35" / 9.00 mm
Flux Density	1.2 Tesla
Coil Winding Height	0.75" / 19.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8x Ø 7.1 mm on 370 mm PCD
Depth	6.50" / 165.10 mm
Weight	17.86 lb / 8.10 kg
Recommended Enclosure Volume	40 - 65 Litres
Shipping Weight	19.50 lb / 8.85 kg
Packing Carton Dimensions	(W) 440 (D) 440 (H) 220 mm

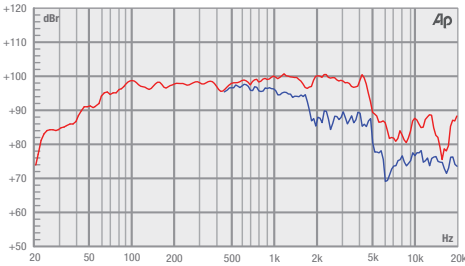
THIELE SMALL PARAMETERS

FS Hz	40 Hz
RE Ohms	5.5 Ω
Qms	6.550
Qes	0.320
Qts	0.310
Vas Ltr	220.00 Litres
Vd Litres	0.650 Litres
CMS (mm/N)	0.212 mm/N
BL T/m	18 T/m
Mms (grms)	74 grams
Xmax (mm)	7.5 mm
Sd (cm²)	855 cm²
Efficiency %	4.420%
Le (1k Hz)	1.42 mH
EBP	125.00 Hz

MATERIALS OF CONSTRUCTION

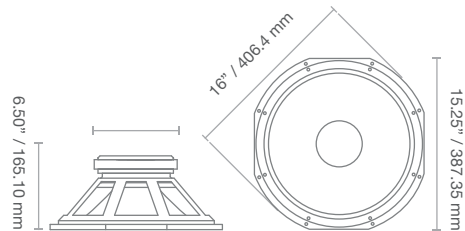
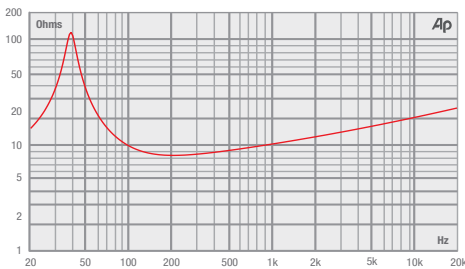
Former Material	Glass Fibre
Voice Coil	CCAW - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Half Roll Linen
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



FC-123F02

BASS MID DRIVER

8 mm X_{max}
MAXIMUM LINEAR
EXCURSION

98 dB
SENSITIVITY (1W/ 1m)

3.0" / 76.2 mm
CCAW - INSIDE/ OUTSIDE
WINDINGS VOICE COIL

40 Hz - 4 kHz
FREQUENCY RESPONSE

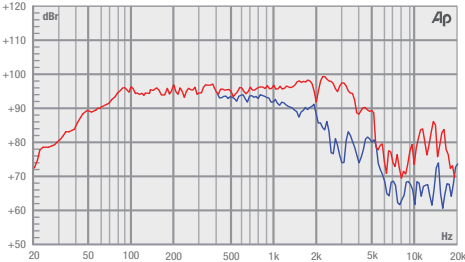
550 W (A.E.S.)
AES POWER HANDLING

12" / 304.8 mm
CHASSIS DIAMETER

The FC-123F02 is intended for use as a very high output bass mid driver in two-way ported enclosures and also as a bass driver in multi-way systems. The unit features a 3 inch 'sandwich' inside and outside windings voice coil driven by a non-inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane is state of the art material that allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low frequency output up to its rated power handling of 550 Watts (A.E.S) continuous, with peak power handling in excess of 2200 Watts. The driver exhibits an average sensitivity of 98 dB and is best used in ported enclosures of 25 to 80 Litres.

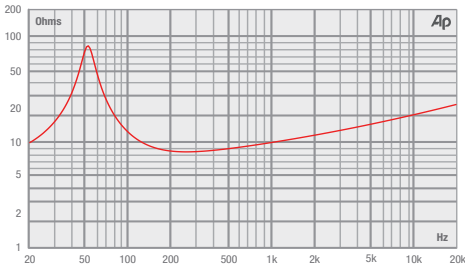
- Versatile unit for bass applications or 2-way ported enclosures.
- Dynamic, smooth detailed bass reproduction.
- Extended frequency range.
- Copper shorting ring.
- Inside/ outside CCAW voice coil windings.
- Optimised for warm tonal character.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	550 W (A.E.S.)
Peak Power (6dB Crest Factor)	2200 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 4 kHz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	52 grams
Minimum Impedance Z _{min}	8.4 Ω
Effective Piston Diameter	10.31" / 261.87 mm
Magnet Weight	91.71 oz
Magnetic Gap Depth	0.35" / 9.00 mm
Flux Density	1.16 Tesla
Coil Winding Height	0.75" / 19.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

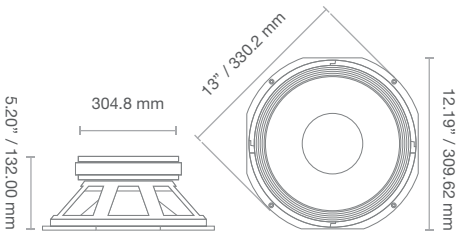
Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.20" / 132.00 mm
Weight	17.20 lb / 7.80 kg
Recommended Enclosure Volume	25 - 50 Litres
Shipping Weight	19.18 lb / 8.70 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

THIELE SMALL PARAMETERS

FS Hz	51 Hz
RE Ohms	5.6 Ω
Q _{ms}	5.100
Q _{es}	0.365
Q _{ts}	0.341
Vas Ltr	76.00 Litres
Vd Litres	0.420 Litres
CMS (mm/N)	0.191 mm/N
BL T/m	16 T/m
M _{ms} (grms)	51 grams
X _{max} (mm)	8 mm
Sd (cm²)	530 cm²
Efficiency %	2.700%
Le (1k Hz)	1.17 mH
EBP	139.73 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	CCAW - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN PRO 12BM

SUB BASS DRIVER

12" / 304.8 mm	500 W (A.E.S.)	40 Hz - 3.5 kHz	3.0" / 76.2 mm	95 dB	7.7 mm Xmax
CHASSIS DIAMETER	AES POWER HANDLING	FREQUENCY RESPONSE	COPPER VOICE COIL	SENSITIVITY (1W/ 1m)	MAXIMUM LINEAR EXCURSION

- Suitable for horn loaded / bandpass applications producing warm, punchy bass.
- Ideal for two way ported enclosures when combined with Fane high frequency devices.
- Strong rigid cone allowing undistorted bass at high SPL .
- Single roll rubber surround.

The Sovereign Pro 12BM is intended for use in two-way ported enclosures. The driver combined with Fane compression driver and horn offers excellent tonal character throughout its active bandwidth. The unit features die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. The specially formulated cone pulp allows this driver to give a warm and smooth response throughout the bass frequency range. The Sovereign Pro 12BM is designed for use in 35 to 60 Litre ported enclosures and features a 3 inch voice coil, 500 Watt power handling and 96 dB sensitivity.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	95 dB
Moving Mass inc. Air Load	86 grams
Minimum Impedance Zmin	7.3 Ω
Effective Piston Diameter	10.00" / 254.00 mm
Magnet Weight	88 oz
Magnetic Gap Depth	0.39" / 9.91 mm
Flux Density	1.15 Tesla
Coil Winding Height	0.73" / 18.54 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front
Outer Fixing Holes	4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.79" / 147.07 mm
Weight	19.18 lb / 8.70 kg
Recommended Enclosure Volume	30 - 60 Litres
Shipping Weight	20.90 lb / 9.48 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

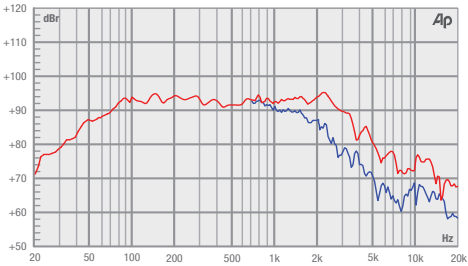
THIELE SMALL PARAMETERS

FS Hz	41 Hz
RE Ohms	3.4 Ω
Qms	1.902
Qes	0.231
Qts	0.206
Vas Ltr	65.33 Litres
Vd Litres	0.393 Litres
CMS (mm/N)	0.176 mm/N
BL T/m	18 T/m
Mms (grms)	85 grams
Xmax (mm)	7.7 mm
Sd (cm²)	510.6 cm²
Efficiency %	1.870%
Le (1k Hz)	1.89 mH
EBP	177.49 Hz

MATERIALS OF CONSTRUCTION

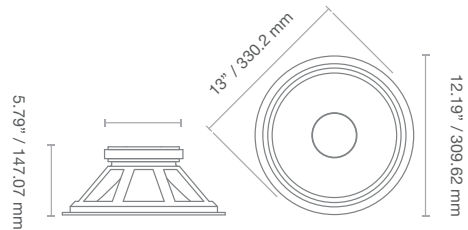
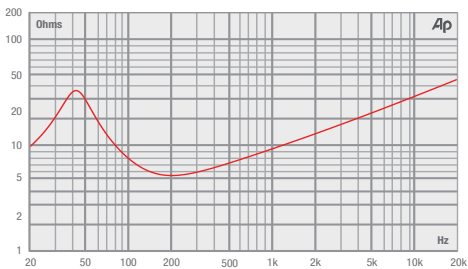
Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Rubber Roll
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



FC-123F01

SUB BASS DRIVER

8.5 mm Xmax
MAXIMUM LINEAR
EXCURSION

97.5 dB
SENSITIVITY (1W/ 1m)

3.0" / 76.2 mm
COPPER VOICE COIL

45 Hz - 3 kHz
FREQUENCY RESPONSE

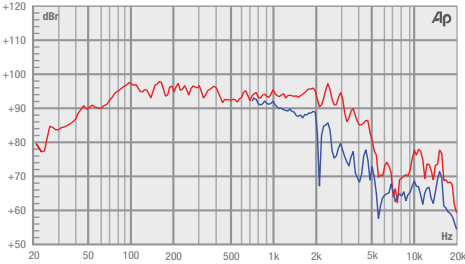
500 W (A.E.S.)
AES POWER HANDLING

12" / 304.8 mm
CHASSIS DIAMETER

The FC-123F01 is intended for use in two-way ported enclosures. The unit features die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. The specially formulated cone pulp allows this driver to give a warm and smooth response throughout the bass frequency range and delivers well balanced tonal characteristics when properly matched to appropriate high-frequency drivers. The FC-123F01 is designed for use in 25 to 70 Litre ported enclosures and features a 3 inch copper voice coil delivering 500 Watt power handling and 97.5 dB sensitivity.

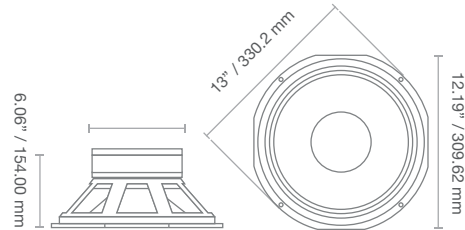
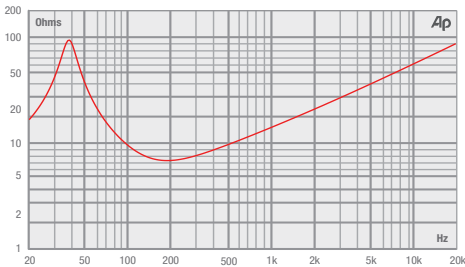
- Versatile unit for bass applications or 2-way ported enclosures.
- Optimised for warm tonal character.
- Long throw motor structure.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Frequency Range -6dB	45 Hz - 3 kHz
Sensitivity (1 w - 1 m)	97.5 dB
Moving Mass inc. Air Load	63 grams
Minimum Impedance Zmin	7.2 Ω
Effective Piston Diameter	261.87" / 6651.50 mm
Magnet Weight	42.32 oz
Magnetic Gap Depth	0.35" / 9.00 mm
Flux Density	1 Tesla
Coil Winding Height	0.79" / 20.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	6.06" / 154.00 mm
Weight	16.76 lb / 7.60 kg
Recommended Enclosure Volume	25 - 50 Litres
Shipping Weight	18.08 lb / 8.20 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

THIELE SMALL PARAMETERS

FS Hz	34 Hz
RE Ohms	5.4 Ω
Qms	4.320
Qes	0.249
Qts	0.235
Vas Ltr	110.00 Litres
Vd Litres	0.450 Litres
CMS (mm/N)	0.276 mm/N
BL T/m	18.3 T/m
Mms (grms)	63 grams
Xmax (mm)	8.5 mm
Sd (cm²)	530 cm²
Efficiency %	2.400%
Le (1k Hz)	2.26 mH
EBP	136.55 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS 12MB

MID BASS DRIVER

12" / 304.8 mm CHASSIS DIAMETER	500 W (A.E.S.) AES POWER HANDLING	40 Hz - 3.5 kHz FREQUENCY RESPONSE	3.0" / 76.2 mm ALUMINIUM - INSIDE/ OUTSIDE WINDINGS VOICE COIL	98 dB SENSITIVITY (1W/ 1m)	5.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- High SPL.
- Fast and dynamic driver producing punchy bass.
- Extended frequency range.
- Aluminium demodulation ring.
- Copper shorting ring.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

The Colossus 12MB is intended for use as a very high output mid bass driver in two-way ported enclosures and also as a bass driver in multi-way systems. The unit features a 3 inch 'sandwich' inside and outside windings voice coil driven by a non-inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low frequency output up to its rated power handling of 500 Watts (A.E.S) continuous, with peak power handling in excess of 2000 Watts. The driver exhibits an average sensitivity of 98 dB and is best used in ported enclosures of 25 to 80 Litres.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	59 grams
Minimum Impedance Zmin	7.5 Ω
Effective Piston Diameter	10.24" / 260.09 mm
Magnet Weight	93 oz
Magnetic Gap Depth	0.35" / 9.00 mm
Flux Density	1.16 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.52 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 12.5" PCD / 4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.17" / 131.30 mm
Weight	17.10 lb / 7.80 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 Litres
Shipping Weight	20.20 lb / 9.20 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 178 mm

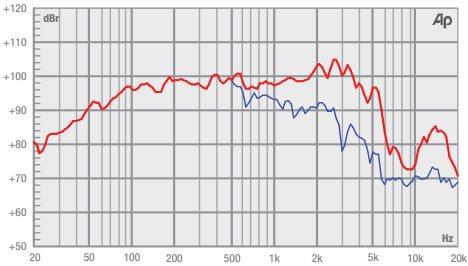
THIELE SMALL PARAMETERS

FS Hz	55 Hz
RE Ohms	5.5 Ω
Qms	2.050
Qes	0.333
Qts	0.286
Vas Ltr	56.00 Litres
Vd Litres	0.290 Litres
CMS (mm/N)	0.142 mm/N
BL T/m	18.3 T/m
Mms (grms)	59 grams
Xmax (mm)	5.5 mm
Sd (cm²)	530 cm²
Efficiency %	2.710%
Le (1k Hz)	1.56 mH
EBP	165.17 Hz

MATERIALS OF CONSTRUCTION

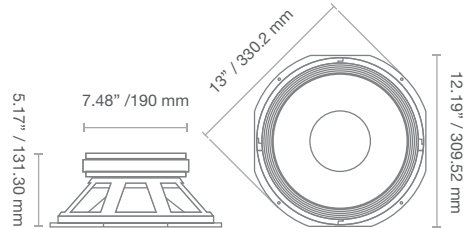
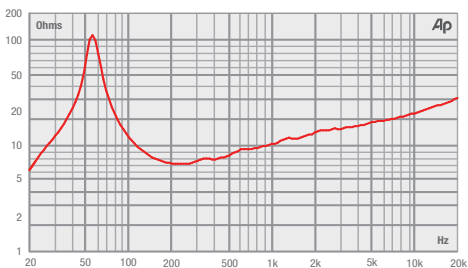
Former Material	Glass Fibre
Voice Coil	Aluminium - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



COLOSSUS 12XB

BASS DRIVER

10.5 mm X_{max}
MAXIMUM LINEAR
EXCURSION

97 dB
SENSITIVITY (1W/ 1m)

3.0" / 76.2 mm
COPPER VOICE COIL

45 Hz - 1 kHz
FREQUENCY RESPONSE

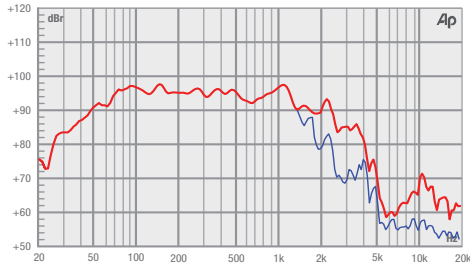
500 W (A.E.S.)
AES POWER HANDLING

12" / 304.8 mm
CHASSIS DIAMETER

The Colossus 12XB is intended for use in compact bass cabinet or horn loaded applications. The driver can also be used in two-way ported enclosures combined with Fane compression driver and horn offering excellent coverage with clear detailed reproduction. The unit features die-cast chassis with long throw motor system and high linearity suspension allowing fast solid bass reproduction at high-power levels.

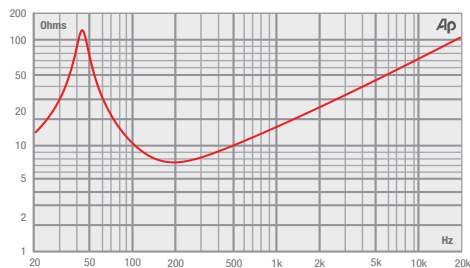
- Suitable for horn loaded / bandpass applications producing hard hitting, punchy bass.
- Exceptional efficiency, power handling and frequency coverage from compact design.
- Rugged die-cast chassis.
- UK manufactured cone offers increased strength, durability and performance.
- Extended usable frequency.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 965 Litre sealed box. Blue Line = fundamental 45° off-axis.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Frequency Range -6dB	45 Hz - 1 kHz
Sensitivity (1 w - 1 m)	97 dB
Moving Mass inc. Air Load	70.8 grams
Minimum Impedance Z _{min}	6.24 Ω
Effective Piston Diameter	10.24" / 260.00 mm
Magnet Weight	105.82 oz
Magnetic Gap Depth	0.32" / 8.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.98" / 25.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

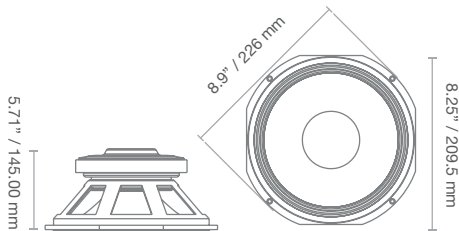
Overall Diameter	8.9" / 226 mm
Width Across Flats	8.25" / 209.5 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.71" / 145.00 mm
Weight	17.00 lb / 7.71 kg
Recommended Enclosure Volume	25 - 65 Litres
Shipping Weight	19.00 lb / 8.62 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

THIELE SMALL PARAMETERS

FS Hz	43 Hz
RE Ohms	5.2 Ω
Q _{ms}	5.810
Q _{es}	0.254
Q _{ts}	0.244
V _{as} Ltr	78.00 Litres
V _d Litres	0.560 Litres
CMS (mm/N)	0.196 mm/N
BL T/m	20 T/m
M _{ms} (grms)	70.8 grams
X _{max} (mm)	10.5 mm
S _d (cm ²)	531.6 cm ²
Efficiency %	2.316%
Le (1k Hz)	2.49 mH
EBP	169.29 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN PRO 12-500

BASS DRIVER

12" / 304.8 mm CHASSIS DIAMETER	500 W (A.E.S.) AES POWER HANDLING	45 Hz - 4.5 kHz FREQUENCY RESPONSE	3.0" / 76.2 mm CCAW - INSIDE/ OUTSIDE WINDINGS VOICE COIL	97.5 dB SENSITIVITY (1W/ 1m)	6 mm Xmax MAXIMUM LINEAR EXCURSION
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- Deep bass, good mid range with extended frequency range.
- High linearity suspension.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

The Sovereign Pro 12-500 is intended for use in two-way ported enclosures. The driver features a rugged die-cast chassis combined with long throw motor system and high linearity suspension allowing solid bass reproduction at high power levels. The driver exhibits a smooth frequency response that delivers a balanced tonal characteristic when properly matched with the appropriate high-frequency device. The Sovereign Pro 12-500 is intended for use in ported enclosures with volumes of 35 to 75 Litres and features a 3 inch 'sandwich' inside and outside windings voice coil capable of delivering 500 watts power. The driver has an average sensitivity of 97.5 dB across its working band width.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Frequency Range -6dB	45 Hz - 4.5 kHz
Sensitivity (1 w - 1 m)	97.5 dB
Moving Mass inc. Air Load	43 grams
Minimum Impedance Zmin	6.84 Ω
Effective Piston Diameter	10.31" / 261.87 mm
Magnet Weight	80 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	12.37" / 314 mm
Width Across Flats	N/A
Flange Height	0.339" / 8.61 mm
Baffle Hole Diameter F/M	11.13" / 282.70 mm
Baffle Hole Diameter R/M	N/A
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 7.0 mm on 11.5" / 294 mm PCD
Inner Fixing Holes	N/A
Depth	5.70" / 145.00 mm
Weight	16.50 lb / 7.50 kg
Recommended Enclosure Volume	1.23 - 2.64 cu ft / 35 - 75 Litres
Shipping Weight	17.63 lb / 8.00 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 178 mm

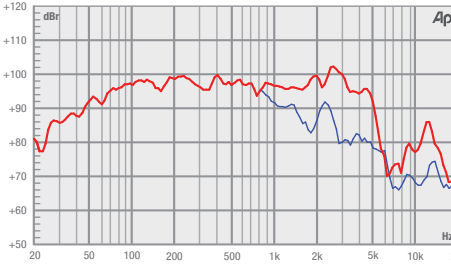
THIELE SMALL PARAMETERS

FS Hz	43 Hz
RE Ohms	5.6 Ω
Qms	3.040
Qes	0.350
Qts	0.314
Vas Ltr	107.00 Litres
Vd Litres	0.339 Litres
CMS (mm/N)	0.236 mm/N
BL T/m	16 T/m
Mms (grms)	58 grams
Xmax (mm)	6 mm
Sd (cm²)	565 cm²
Efficiency %	2.340%
Le (1k Hz)	1.60 mH
EBP	122.86 Hz

MATERIALS OF CONSTRUCTION

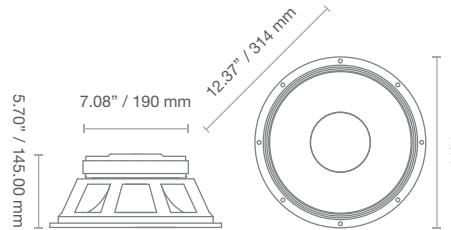
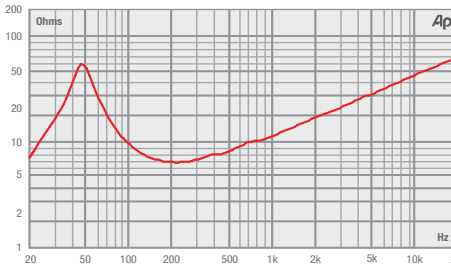
Former Material	Glass Fibre
Voice Coil	CCAW - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



COLOSSUS 12BM

BASS MID DRIVER

6 mm Xmax

MAXIMUM LINEAR
EXCURSION

98 dB

SENSITIVITY (1W/ 1m)

3.0" / 76.2 mm

COPPER VOICE COIL

40 Hz - 3.5 kHz

FREQUENCY RESPONSE

450 W (A.E.S.)

AES POWER HANDLING

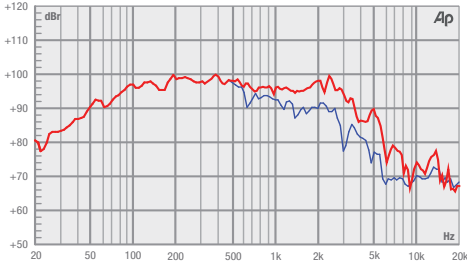
12" / 304.8 mm

CHASSIS DIAMETER

The Colossus 12BM is intended for use as a very high output mid bass driver in two-way ported enclosures and also as a bass driver in multi-way systems. The unit features a 3 inch 'sandwich' inside and outside windings voice coil driven by a non-inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane, manufactured from bespoke paper pulp allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low frequency output up to its rated power handling of 450 Watts (A.E.S) continuous, with peak power handling in excess of 1800 Watts. The driver exhibits an average sensitivity of 98 dB and is best used in ported enclosures of 25 to 80 Litres.

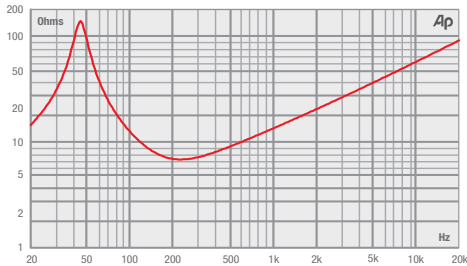
- Non inductive motor system reduces distortion.
- Fast dynamic response combined with superior suspension material.
- High BL, 21 T/m.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	450 W (A.E.S.)
Peak Power (6dB Crest Factor)	1800 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	65 grams
Minimum Impedance Zmin	7.5 Ω
Effective Piston Diameter	10.24" / 260.09 mm
Magnet Weight	93 oz
Magnetic Gap Depth	0.31" / 8.00 mm
Flux Density	1.16 Tesla
Coil Winding Height	0.78" / 20.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

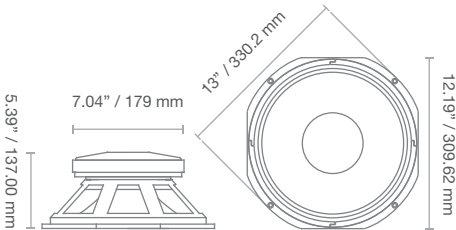
Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 12.5" PCD / 4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.39" / 137.00 mm
Weight	17.97 lb / 8.15 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 Litres
Shipping Weight	19.85 lb / 9.00 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

THIELE SMALL PARAMETERS

FS Hz	43 Hz
RE Ohms	5.4 Ω
Qms	5.100
Qes	0.220
Qts	0.210
Vas Ltr	89.00 Litres
Vd Litres	0.330 Litres
CMS (mm/N)	0.208 mm/N
BL T/m	21 T/m
Mms (grms)	65 grams
Xmax (mm)	6 mm
Sd (cm²)	550 cm²
Efficiency %	3.100%
Le (1k Hz)	2.10 mH
EBP	195.45 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system

SOVEREIGN PRO 12-300

BASS DRIVER

12" / 304.8 mm CHASSIS DIAMETER	300 W (A.E.S.) AES POWER HANDLING	45 Hz - 4.5 kHz FREQUENCY RESPONSE	2.5" / 63.5 mm COPPER - INSIDE/ OUTSIDE WINDINGS VOICE COIL	97.5 dB SENSITIVITY (1W/ 1m)	4.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- Highly versatile in 2-way ported enclosures.
- Smooth extended frequency response.
- Good bass and mid range performance.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

The Sovereign Pro 12-300 is intended for use in two-way ported enclosures, such as the classic bass driver plus horn tweeter or compression driver format. The unit features die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. The driver exhibits smooth frequency response to give a balanced tonal characteristic when properly matched to appropriate high-frequency drivers. The Sovereign Pro 12-300 is designed for use in 25 to 80 Litre ported enclosures and features a 2.5 inch voice coil, 300 Watt power handling and 97.5 dB sensitivity.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	300 W (A.E.S.)
Peak Power (6dB Crest Factor)	1200 W (A.E.S.)
Usable Frequency Range -6dB	45 Hz - 4.5 kHz
Sensitivity (1 w - 1 m)	97.5 dB
Moving Mass inc. Air Load	43 grams
Minimum Impedance Zmin	6.84 Ω
Effective Piston Diameter	10.31" / 261.87 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	2.5" / 63.5 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 12.5" PCD / 4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.33" / 135.50 mm
Weight	11.46 lb / 5.20 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 Litres
Shipping Weight	12.89 lb / 5.85 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

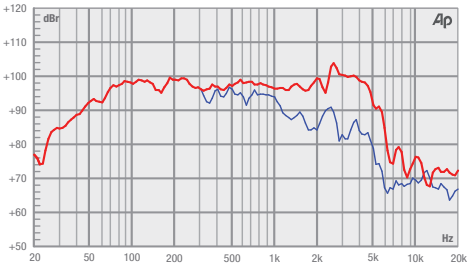
THIELE SMALL PARAMETERS

FS Hz	46 Hz
RE Ohms	5.75 Ω
Qms	5.200
Qes	0.375
Qts	0.350
Vas Ltr	114.00 Litres
Vd Litres	0.240 Litres
CMS (mm/N)	0.278 mm/N
BL T/m	14.8 T/m
Mms (grms)	43 grams
Xmax (mm)	4.5 mm
Sd (cm²)	540 cm²
Efficiency %	2.890%
Le (1k Hz)	1.64 mH
EBP	122.67 Hz

MATERIALS OF CONSTRUCTION

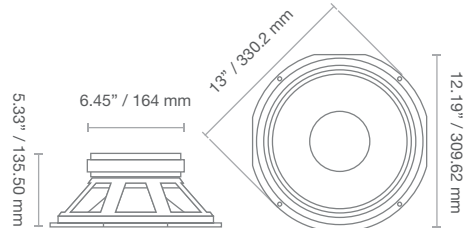
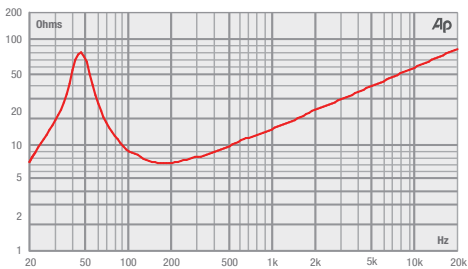
Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped DbI. Half Roll Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 12-300S

BASS DRIVER

5.25 mm X_{max}
MAXIMUM LINEAR
EXCURSION

97.5 dB
SENSITIVITY (1W/ 1m)

2.5" / 63.5 mm
COPPER - INSIDE/ OUTSIDE
WINDINGS VOICE COIL

45 Hz - 2.5 kHz
FREQUENCY RESPONSE

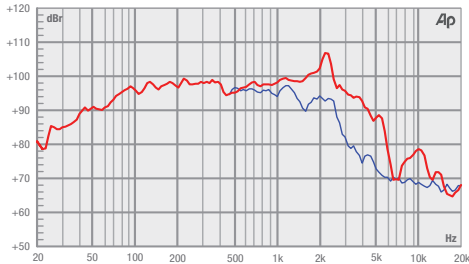
300 W (A.E.S.)
AES POWER HANDLING

12" / 304.8 mm
CHASSIS DIAMETER

The Sovereign Pro 12-300S is intended for use in two-way ported enclosures, such as the classic bass driver plus horn tweeter or compression driver format. The unit features die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. The specially formulated cone pulp allows this driver to give a warm and smooth response throughout the bass frequency range and delivers well balanced tonal characteristics when properly matched to appropriate high-frequency drivers. The Sovereign Pro 12-300S is designed for use in 25 to 80 Litre ported enclosures and features a 2.5 inch voice coil, 300 Watt power handling and 97.5 dB sensitivity.

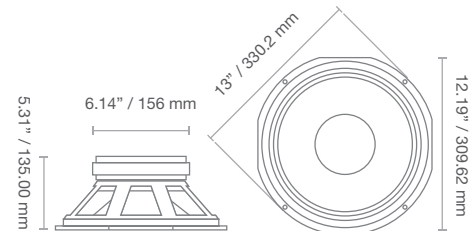
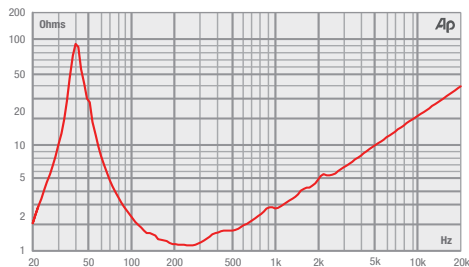
- Highly versatile in 2-way ported enclosures.
- Optimised unit for warm coherent bass.
- Perfect for full range KTV systems.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	300 W (A.E.S.)
Peak Power (6dB Crest Factor)	1200 W (A.E.S.)
Usable Frequency Range -6dB	45 Hz - 2.5 kHz
Sensitivity (1 w - 1 m)	97.5 dB
Moving Mass inc. Air Load	60.68 grams
Minimum Impedance Z _{min}	6.84 Ω
Effective Piston Diameter	10.31" / 261.87 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.31" / 7.87 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.57" / 14.47 mm
Voice Coil Diameter	2.5" / 63.5 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 12.5" PCD / 4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.31" / 135.00 mm
Weight	10.25 lb / 4.65 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 Litres
Shipping Weight	11.46 lb / 5.20 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

THIELE SMALL PARAMETERS

FS Hz	40 Hz
RE Ohms	5.5 Ω
Q _{ms}	11.680
Q _{es}	0.330
Q _{ts}	0.320
V _{as} Ltr	101.26 Litres
V _d Litres	0.270 Litres
CMS (mm/N)	0.256 mm/N
BL T/m	16.02 T/m
M _{ms} (grms)	60.68 grams
X _{max} (mm)	5.25 mm
S _d (cm ²)	527.7 cm ²
Efficiency %	2.100%
L _e (1k Hz)	1.556 mH
EBP	121.21 Hz

MATERIALS OF CONSTRUCTION

Former Material	Kapton
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN PRO 10BM

BASS DRIVER

10" / 254 mm CHASSIS DIAMETER	400 W (A.E.S.) AES POWER HANDLING	40 Hz - 3 kHz FREQUENCY RESPONSE	2.5" / 63.5 mm COPPER VOICE COIL	93 dB SENSITIVITY (1W/ 1m)	7.7 mm Xmax MAXIMUM LINEAR EXCURSION
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- Robber roll surround.
- Long throw motor.

The Pro 10BM is intended for use in two-way ported enclosures. The driver combined with Fane compression driver and horn offers excellent tonal character throughout its active bandwidth. The unit features die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. The specially formulated cone pulp allows this driver to give a warm and smooth response throughout the bass frequency range. The Pro 10BM is designed for use in 25 to 40 Litre ported enclosures and features a 2.5 inch voice coil, 400 Watt power handling and 93 dB sensitivity.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	10" / 254 mm
Impedance	8 Ohm
Power Handling	400 W (A.E.S.)
Peak Power (6dB Crest Factor)	1600 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3 kHz
Sensitivity (1 w - 1 m)	93 dB
Moving Mass inc. Air Load	64 grams
Minimum Impedance Zmin	5.2 Ω
Effective Piston Diameter	8.50" / 215.90 mm
Magnet Weight	81 oz
Magnetic Gap Depth	0.39" / 9.91 mm
Flux Density	1.15 Tesla
Coil Winding Height	0.73" / 18.54 mm
Voice Coil Diameter	2.5" / 63.5 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	11.14" / 283
Width Across Flats	10.35" / 263 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	8.97" / 227.83 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front
Outer Fixing Holes	4x Ø 5.5 mm on 270 mm PCD
Inner Fixing Holes	N/A
Depth	4.74" / 120.40 mm
Weight	15.65 lb / 7.10 kg
Recommended Enclosure Volume	15 - 30 Litres
Shipping Weight	17.00 lb / 7.71 kg
Packing Carton Dimensions	(W) 275 (D) 275 (H) 150 mm

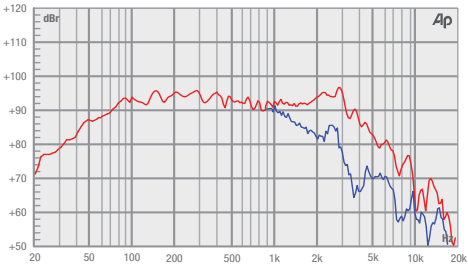
THIELE SMALL PARAMETERS

FS Hz	41 Hz
RE Ohms	3.4 Ω
Qms	1.510
Qes	0.190
Qts	0.172
Vas Ltr	45.00 Litres
Vd Litres	0.280 Litres
CMS (mm/N)	0.240 mm/N
BL T/m	17 T/m
Mms (grms)	63 grams
Xmax (mm)	7.7 mm
Sd (cm²)	363 cm²
Efficiency %	1.600%
Le (1k Hz)	1.65 mH
EBP	215.79 Hz

MATERIALS OF CONSTRUCTION

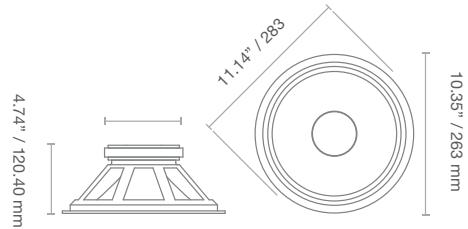
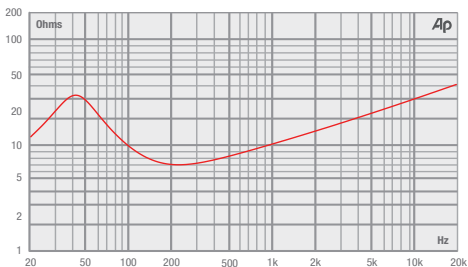
Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Rubber Roll
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 10-300SC

BASS DRIVER

4.75 mm Xmax
MAXIMUM LINEAR
EXCURSION

98 dB
SENSITIVITY (1W/ 1m)

2.5" / 63.5 mm
CCAW VOICE COIL

45 Hz - 4 kHz
FREQUENCY RESPONSE

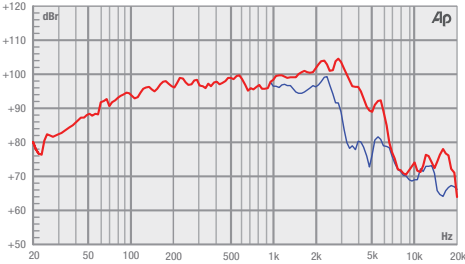
300 W (A.E.S.)
AES POWER HANDLING

10" / 254 mm
CHASSIS DIAMETER

The Sovereign Pro 10-300SC is intended for use in two-way ported enclosures such as the classic bass driver plus horn tweeter or compression driver format. The unit features die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. The specially formulated cone pulp allows this driver to give a warm and smooth response throughout the bass frequency range and delivers well balanced tonal characteristics when properly matched to appropriate high-frequency drivers. The Sovereign Pro 10-300SC is designed for use in 25 to 50 Litre ported enclosures and features a 2.5 inch voice coil, 300 Watt power handling and 98 dB sensitivity.

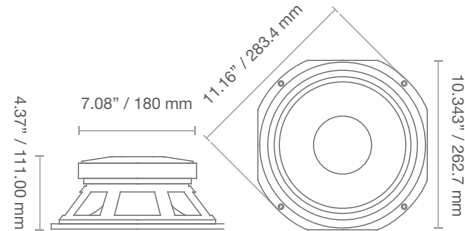
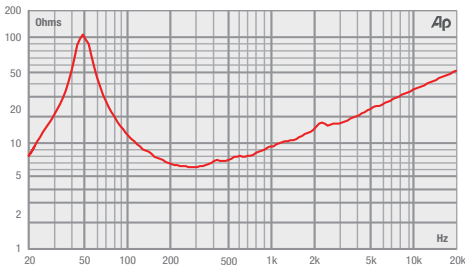
- Highly versatile in 2-way ported enclosures.
- Warm and smooth response throughout the bass frequency range.
- Optimised cone pulp offering increased strength, durability and performance.
- Specially formulated damping coating.
- Perfect for full range KTV systems.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	10" / 254 mm
Impedance	8 Ohm
Power Handling	300 W (A.E.S.)
Peak Power (6dB Crest Factor)	1200 W (A.E.S.)
Usable Frequency Range -6dB	45 Hz - 4 kHz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	46.8 grams
Minimum Impedance Zmin	6.24 Ω
Effective Piston Diameter	8.19" / 208.02 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.31" / 7.87 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.53" / 13.46 mm
Voice Coil Diameter	2.5" / 63.5 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	11.16" / 283.4 mm
Width Across Flats	10.343" / 262.7 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	8.97" / 227.83 mm
Baffle Hole Diameter R/M	N/A
Gasket Supplied	Rear
Outer Fixing Holes	4x Ø 0.218" on 10.625" PCD / 4x Ø 5.5 mm on 270 mm PCD
Inner Fixing Holes	N/A
Depth	4.37" / 111.00 mm
Weight	10.14 lb / 4.60 kg
Recommended Enclosure Volume	0.88 - 1.76 cu ft / 25 - 50 Litres
Shipping Weight	11.35 lb / 5.15 kg
Packing Carton Dimensions	(W) 275 (D) 275 (H) 150 mm

THIELE SMALL PARAMETERS

FS Hz	47 Hz
RE Ohms	5.5 Ω
Qms	10.130
Qes	0.340
Qts	0.330
Vas Ltr	45.43 Litres
Vd Litres	0.172 Litres
CMS (mm/N)	0.245 mm/N
BL T/m	14.8 T/m
Mms (grms)	46.8 grams
Xmax (mm)	4.75 mm
Sd (cm²)	361 cm²
Efficiency %	1.700%
Le (1k Hz)	1.27 mH
EBP	138.24 Hz

MATERIALS OF CONSTRUCTION

Former Material	Kapton
Voice Coil	CCAW
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN PRO 10-300

BASS DRIVER

10" / 254 mm CHASSIS DIAMETER	300 W (A.E.S.) AES POWER HANDLING	45 Hz - 4 kHz FREQUENCY RESPONSE	2.5" / 63.5 mm COPPER - INSIDE/ OUTSIDE WINDINGS VOICE COIL	98 dB SENSITIVITY (1W/ 1m)	5.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- Smooth and balanced response.
- High linearity suspension.
- Long throw motor structure 5.5 mm Xmax.

The Sovereign Pro 10-300 is intended for use in two-way ported enclosures such as the classic bass driver plus horn tweeter or compression driver format. The unit features die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. This driver delivers a smooth and balanced response throughout its frequency range and delivers well balanced tonal characteristics when properly matched to appropriate high-frequency drivers. The Sovereign Pro 10-300 is designed for use in 14 to 40 litre ported enclosures and features a 2.5 inch sandwich voice coil capable of 300 Watt power handling and 98 dB sensitivity.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	10" / 254 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	300 W (A.E.S.)
Peak Power (6dB Crest Factor)	1200 W (A.E.S.)
Usable Frequency Range -6dB	45 Hz - 4 kHz
Sensitivity (1 w - 1 m)	98 dB
Moving Mass inc. Air Load	37 grams
Minimum Impedance Zmin	6.8 Ω
Effective Piston Diameter	8.46" / 214.88 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	2.5" / 63.5 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	11.16" / 283.4 mm
Width Across Flats	10.34" / 262.7 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	8.97" / 227.83 mm
Baffle Hole Diameter R/M	N/A
Gasket Supplied	Rear
Outer Fixing Holes	4x Ø 0.218" on 10.625" PCD / 4x Ø 5.5 mm on 270 mm PCD
Inner Fixing Holes	N/A
Depth	4.37" / 111.00 mm
Weight	11.02 lb / 5.00 kg
Recommended Enclosure Volume	0.49 - 1.41 cu ft / 14 - 40 Litres
Shipping Weight	12.56 lb / 5.70 kg
Packing Carton Dimensions	(W) 275 (D) 275 (H) 150 mm

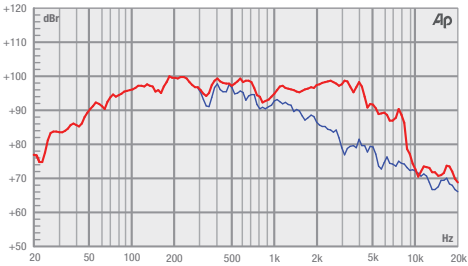
THIELE SMALL PARAMETERS

FS Hz	58 Hz
RE Ohms	5.7 Ω
Qms	6.080
Qes	0.340
Qts	0.320
Vas Ltr	41.00 Litres
Vd Litres	0.208 Litres
CMS (mm/N)	0.211 mm/N
BL T/m	15.3 T/m
Mms (grms)	37 grams
Xmax (mm)	5.5 mm
Sd (cm²)	378 cm²
Efficiency %	2.360%
Le (1k Hz)	1.68 mH
EBP	170.59 Hz

MATERIALS OF CONSTRUCTION

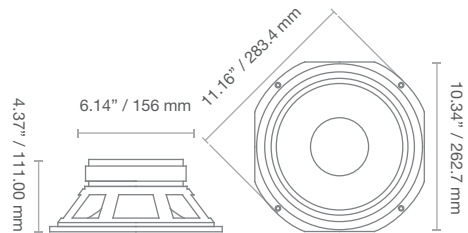
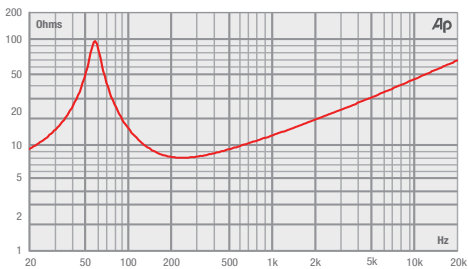
Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped DbI. Half Roll Linen
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 10M

MID RANGE DRIVER

2 mm X_{max}

MAXIMUM LINEAR
EXCURSION

98.5 dB

SENSITIVITY (1W/ 1m)

2.5" / 63.5 mm

ALUMINIUM - INSIDE/
OUTSIDE WINDINGS VOICE
COIL

200 Hz - 3.5 kHz

FREQUENCY RESPONSE

280 W (A.E.S.)

AES POWER HANDLING

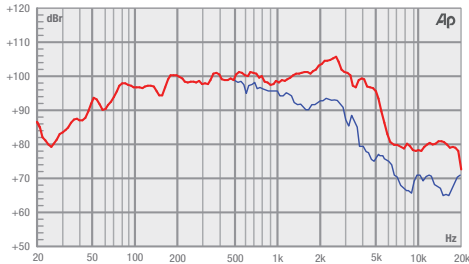
10" / 254 mm

CHASSIS DIAMETER

The Sovereign Pro 10M is designed as a dedicated mid range driver delivering high output, low distortion from 200 Hz to 3.5 kHz. The 2.5" voice coil driver* benefits from an average sensitivity of 98.5 dB throughout the units active operating range. This combined with an A.E.S power handling of 280 watts ensures perfect mid range reproduction for the most demanding applications. The large magnet structure and cast aluminium frame ensure efficient heat dissipation and gives the Sovereign Pro 10M low power compression and maximum output levels of up to 124 dB. The Sovereign Pro 10M is best suited to sealed enclosures 5 to 15 Litres.

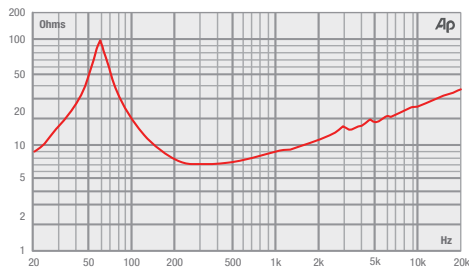
- Smooth mid range response.
- Output levels up to 124dB.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.
- Suitable for line array applications.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	10" / 254 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	280 W (A.E.S.)
Peak Power (6dB Crest Factor)	1120 W (A.E.S.)
Usable Frequency Range -6dB	200 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	98.5 dB
Moving Mass inc. Air Load	37 grams
Minimum Impedance Z _{min}	7 Ω
Effective Piston Diameter	8.19" / 208.02 mm
Magnet Weight	78 oz
Magnetic Gap Depth	0.31" / 8.00 mm
Flux Density	1.24 Tesla
Coil Winding Height	0.47" / 12.00 mm
Voice Coil Diameter	2.5" / 63.5 mm

MOUNTING / SHIPPING INFORMATION

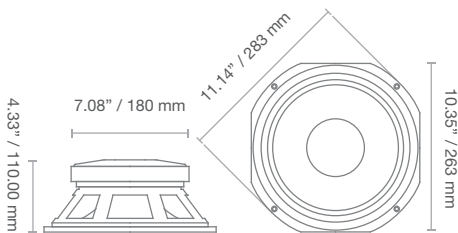
Overall Diameter	11.14" / 283 mm
Width Across Flats	10.35" / 263 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	8.97" / 227.83 mm
Baffle Hole Diameter R/M	N/A
Gasket Supplied	Rear
Outer Fixing Holes	4x Ø 0.218" on 10.625" PCD / 4x Ø 5.5 mm on 270 mm PCD
Inner Fixing Holes	N/A
Depth	4.33" / 110.00 mm
Weight	13.34 lb / 6.05 kg
Recommended Enclosure Volume	0.17 - 0.52 cu ft / 5- 15 Litres
Shipping Weight	14.77 lb / 6.70 kg
Packing Carton Dimensions	(W) 275 (D) 275 (H) 150 mm

THIELE SMALL PARAMETERS

FS Hz	56 Hz
RE Ohms	5.6 Ω
Q _{ms}	4.900
Q _{es}	0.286
Q _{ts}	0.270
Vas Ltr	37.00 Litres
Vd Litres	0.068 Litres
CMS (mm/N)	0.231 mm/N
BL T/m	15.8 T/m
M _{ms} (grms)	35 grams
X _{max} (mm)	2 mm
Sd (cm²)	340 cm²
Efficiency %	2.460%
Le (1k Hz)	1.45 mH
EBP	195.80 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Aluminium - Inside/ Outside Windings
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped Half Roll Linen
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 100 Hz and 1000 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN PRO 8BM

BASS / MID DRIVER

8" / 203.2 mm CHASSIS DIAMETER	250 W (A.E.S.) AES POWER HANDLING	50 Hz - 4.5 kHz FREQUENCY RESPONSE	2.0" / 50.8 mm COPPER VOICE COIL	93.5 dB SENSITIVITY (1W/ 1m)	4.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- For use in small compact sound systems, or infill applications with compact cabinet dimensions.
- Rubber roll surround.
- Excellent low frequency response and balance of bass and mid range.
- Suitable for home cinema applications.

The Sovereign Pro 8BM is intended for use in two-way ported enclosures. The driver combined with Fane compression driver and horn offers excellent tonal character throughout its active bandwidth. The unit features a die-cast chassis with long throw motor system and high linearity suspension allowing solid bass reproduction at high-power levels. The specially formulated cone pulp allows this driver to give a warm and smooth response throughout the working band. The Pro 8BM is designed for use in 15 to 25 Litre ported enclosures and features a 2 inch voice coil, 250 Watt power handling and 93.5 dB sensitivity.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	8" / 203.2 mm
Impedance	8 Ohm
Power Handling	250 W (A.E.S.)
Peak Power (6dB Crest Factor)	1000 W (A.E.S.)
Usable Frequency Range -6dB	50 Hz - 4.5 kHz
Sensitivity (1 w - 1 m)	93.5 dB
Moving Mass inc. Air Load	28 grams
Minimum Impedance Zmin	7.44 Ω
Effective Piston Diameter	6.70" / 170.18 mm
Magnet Weight	37 oz
Magnetic Gap Depth	0.24" / 6.00 mm
Flux Density	1 Tesla
Coil Winding Height	0.51" / 13.00 mm
Voice Coil Diameter	2.0" / 50.8 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	8.9 " / 226 mm
Width Across Flats	8.25 " / 210 mm
Flange Height	0.28" / 7 mm
Baffle Hole Diameter F/M	7.33" / 186 mm
Baffle Hole Diameter R/M	N/A
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.5 mm on 214 mm PCD
Inner Fixing Holes	N/A
Depth	3.56" / 90.30 mm
Weight	6.50 lb / 2.95 kg
Recommended Enclosure Volume	8 - 23 Litres
Shipping Weight	7.00 lb / 3.18 kg
Packing Carton Dimensions	(W) 235 (D) 235 (H) 130 mm

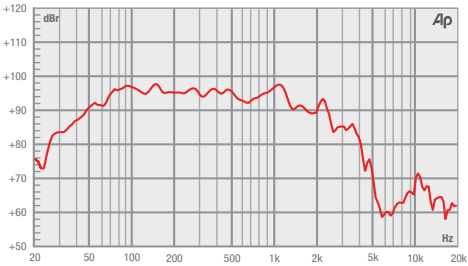
THIELE SMALL PARAMETERS

FS Hz	52 Hz
RE Ohms	6.2 Ω
Qms	49.980
Qes	0.314
Qts	0.312
Vas Ltr	23.50 Litres
Vd Litres	0.102 Litres
CMS (mm/N)	0.335 mm/N
BL T/m	13.44 T/m
Mms (grms)	28.6 grams
Xmax (mm)	4.5 mm
Sd (cm²)	227 cm²
Efficiency %	1.050%
Le (1k Hz)	0.597 mH
EBP	165.61 Hz

MATERIALS OF CONSTRUCTION

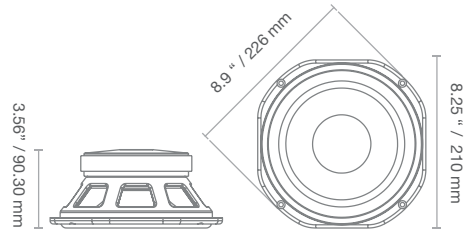
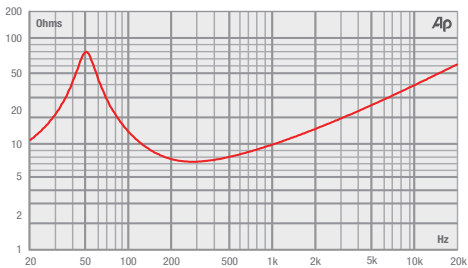
Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Rubber Roll
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 965 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 8-225

BASS/ MID RANGE DRIVER

5.5 mm Xmax
MAXIMUM LINEAR
EXCURSION

97 dB
SENSITIVITY (1W/ 1m)

2.0" / 50.8 mm
COPPER VOICE COIL

55 Hz - 5 kHz
FREQUENCY RESPONSE

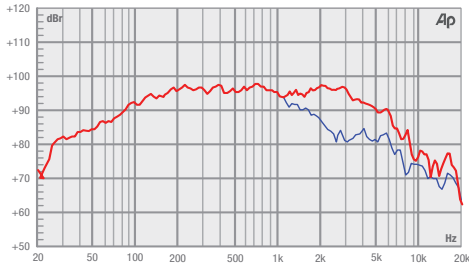
225 W (A.E.S.)
AES POWER HANDLING

8" / 203.2 mm
CHASSIS DIAMETER

The Sovereign Po 8-225 is a very versatile unit offering excellent coverage for use in traditional compact 2 way ported enclosures. The driver can also be used as a mid range unit in small sealed enclosures as part of a larger multi-way system. When used in small format line array it offers excellent vocal coverage and coherence.

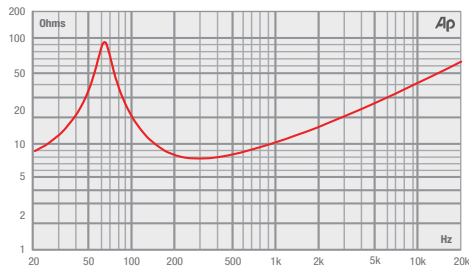
- Good for compact two-way PA cabinets and line array applications.
- Midrange in small sealed enclosures.
- Exceptional efficiency, power handling and frequency coverage from compact design.
- High output and low distortion from 55 Hz to 5 kHz.
- Rugged die-cast chassis.
- Smooth and refined tone with extended usable frequency.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 965 Litre sealed box. Blue Line = fundamental 45° off-axis.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	8" / 203.2 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	225 W (A.E.S.)
Peak Power (6dB Crest Factor)	900 W (A.E.S.)
Usable Frequency Range -6dB	55 Hz - 5 kHz
Sensitivity (1 w - 1 m)	97 dB
Moving Mass inc. Air Load	20.7 grams
Minimum Impedance Zmin	7.8 Ω
Effective Piston Diameter	6.50" / 165.00 mm
Magnet Weight	34 oz
Magnetic Gap Depth	0.31" / 8.00 mm
Flux Density	1 Tesla
Coil Winding Height	0.59" / 15.00 mm
Voice Coil Diameter	2.0" / 50.8 mm

MOUNTING / SHIPPING INFORMATION

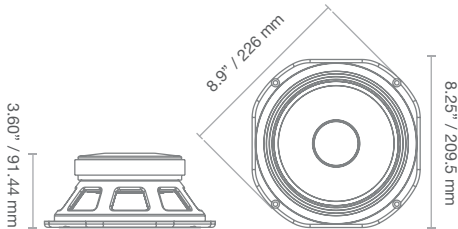
Overall Diameter	8.9" / 226 mm
Width Across Flats	8.25" / 209.5 mm
Flange Height	0.28" / 7 mm
Baffle Hole Diameter F/M	7.33" / 186 mm
Baffle Hole Diameter R/M	N/A
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.5 mm on 214 mm PCD
Inner Fixing Holes	N/A
Depth	3.60" / 91.44 mm
Weight	6.90 lb / 3.13 kg
Recommended Enclosure Volume	20 - 35 Litres
Shipping Weight	8.50 lb / 3.86 kg
Packing Carton Dimensions	(W) 235 (D) 235 (H) 130 mm

THIELE SMALL PARAMETERS

FS Hz	62 Hz
RE Ohms	6.1 Ω
Qms	4.300
Qes	0.420
Qts	0.380
Vas Ltr	22.00 Litres
Vd Litres	0.118 Litres
CMS (mm/N)	0.318 mm/N
BL T/m	11 T/m
Mms (grms)	20.69 grams
Xmax (mm)	5.5 mm
Sd (cm²)	220 cm²
Efficiency %	1.250%
Le (1k Hz)	1.20 mH
EBP	147.62 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 55 Hz and 550 Hz. Driver mounted in free air; test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

STUDIO 5HPM

FULL RANGE DRIVER

5" / 127 mm

CHASSIS DIAMETER

100 W (A.E.S.)

AES POWER HANDLING

90 Hz - 7 kHz

FREQUENCY RESPONSE

1.5" / 38.1 mm

POLYAMID-IMIDE COATED
COPPER VOICE COIL

92.5 dB

SENSITIVITY (1W/ 1m)

4.5 mm Xmax

MAXIMUM LINEAR
EXCURSION

- Smooth midband response with extended high frequency range.
- Exceptional power handling from compact dimensions.

Exceptional power handling and frequency coverage from compact dimensions. Primarily for full-range sound reinforcement and because of extended frequency response is also suited to multi-unit PA systems. Performance is optimised for mid range range singular / multiple use.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	5" / 127 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	100 W (A.E.S.)
Peak Power (6dB Crest Factor)	400 W (A.E.S.)
Usable Frequency Range -6dB	90 Hz - 7 kHz
Sensitivity (1 w - 1 m)	92.5 dB
Moving Mass inc. Air Load	6.5 grams
Minimum Impedance Zmin	7.7 Ω
Effective Piston Diameter	4.20" / 106.68 mm
Magnet Weight	26 oz
Magnetic Gap Depth	0.23" / 6.00 mm
Flux Density	1.42 Tesla
Coil Winding Height	0.51" / 13 mm
Voice Coil Diameter	1.5" / 38.1 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	6" / 152.4 mm
Width Across Flats	5.25" / 133.35 mm
Flange Height	0.27" / 6.9 mm
Baffle Hole Diameter F/M	4.63" / 117.60 mm
Baffle Hole Diameter R/M	4.50" / 114.3 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 5.468" PCD / 4x Ø 5.5 mm on 138.8 mm PCD
Inner Fixing Holes	N/A
Depth	2.75" / 69.85 mm
Weight	3.15 lb / 1.43 kg
Recommended Enclosure Volume	0.07 - 0.35 cu ft / 2 - 10 Litres
Shipping Weight	3.65 lb / 1.66 kg
Packing Carton Dimensions	(W) 160 (D) 160 (H) 110 mm

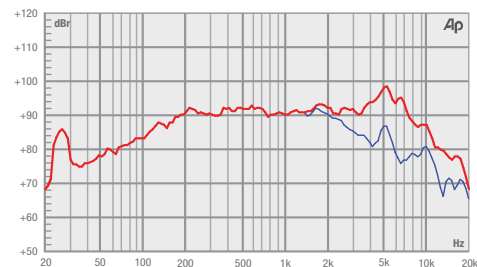
THIELE SMALL PARAMETERS

FS Hz	164 Hz
RE Ohms	6.6 Ω
Qms	2.300
Qes	0.715
Qts	0.540
Vas Ltr	1.63 Litres
Vd Litres	0.045 Litres
CMS (mm/N)	0.148 mm/N
BL T/m	7.92 T/m
Mms (grms)	6.5 grams
Xmax (mm)	4.5 mm
Sd (cm²)	88 cm²
Efficiency %	1.030%
Le (1k Hz)	1.19 mH
EBP	229.37 Hz

MATERIALS OF CONSTRUCTION

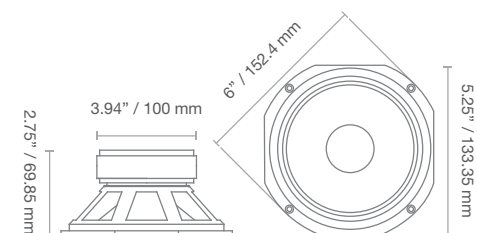
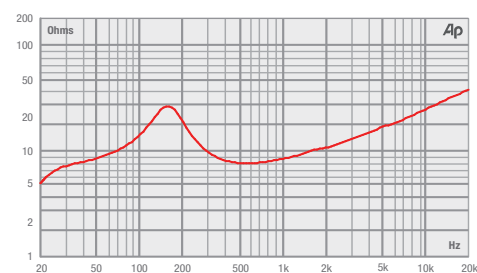
Former Material	Resin Bonded Glass Fibre
Voice Coil	Polyamid-imide Coated Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll Linen
Dust Dome	Paper
Connectors	0.125" Tab / Solder
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



STUDIO 5FRK

FULL RANGE DRIVER

2.5 mm X_{max}
MAXIMUM LINEAR
EXCURSION

90.5 dB
SENSITIVITY (1W/ 1m)

1.0" / 25.4 mm
POLYAMID-IMIDE COATED
COPPER VOICE COIL

65 Hz - 7 kHz
FREQUENCY RESPONSE

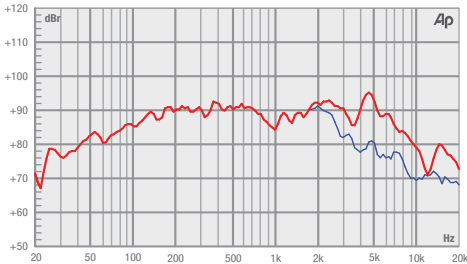
50 W (A.E.S.)
AES POWER HANDLING

5" / 127 mm
CHASSIS DIAMETER

Exceptional efficiency, power handling and frequency coverage from compact dimensions. Primarily for full range sound reinforcement and because of extended frequency response is also suited to multi-unit PA systems. Performance is optimised for full range singular / multiple use.

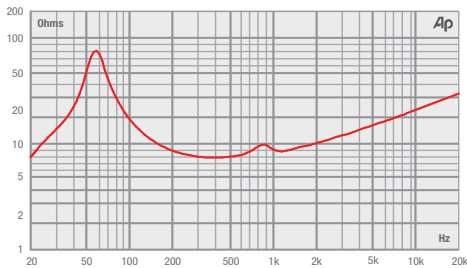
- **Kevlar cone.**
- **Extended frequency response.**

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	5" / 127 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	50 W (A.E.S.)
Peak Power (6dB Crest Factor)	200 W (A.E.S.)
Usable Frequency Range -6dB	65 Hz - 7 kHz
Sensitivity (1 w - 1 m)	90.5 dB
Moving Mass inc. Air Load	7.9 grams
Minimum Impedance Z _{min}	7.7 Ω
Effective Piston Diameter	4.20" / 106.68 mm
Magnet Weight	18 oz
Magnetic Gap Depth	0.25" / 6.35 mm
Flux Density	1.42 Tesla
Coil Winding Height	0.31" / 8.00 mm
Voice Coil Diameter	1.0" / 25.4 mm

MOUNTING / SHIPPING INFORMATION

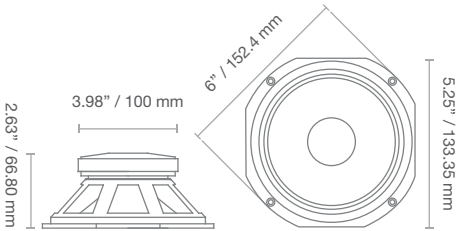
Overall Diameter	6" / 152.4 mm
Width Across Flats	5.25" / 133.35 mm
Flange Height	0.27" / 6.9 mm
Baffle Hole Diameter F/M	4.63" / 117.60 mm
Baffle Hole Diameter R/M	4.50" / 114.3 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 5.468" PCD / 4x Ø 5.5 mm on 138.8 mm PCD
Inner Fixing Holes	N/A
Depth	2.63" / 66.80 mm
Weight	3.10 lb / 1.37 kg
Recommended Enclosure Volume	0.07 - 0.35 cu ft / 2 - 10 Litres
Shipping Weight	3.10 lb / 1.37 kg
Packing Carton Dimensions	(W) 160 (D) 160 (H) 110 mm

THIELE SMALL PARAMETERS

FS Hz	58 Hz
RE Ohms	6.2 Ω
Q _{ms}	7.500
Q _{es}	0.380
Q _{ts}	0.360
V _{as} Ltr	10.90 Litres
V _d Litres	0.022 Litres
CMS (mm/N)	0.953 mm/N
BL T/m	6.85 T/m
M _{ms} (grms)	7.9 grams
X _{max} (mm)	2.41 mm
S _d (cm ²)	89.74 cm ²
Efficiency %	0.600%
Le (1k Hz)	0.882 mH
EBP	152.63 Hz

MATERIALS OF CONSTRUCTION

Former Material	Resin Bonded Glass Fibre
Voice Coil	Polyamid-imide Coated Copper
Magnet Material	Ferrite
Chassis	Die-cast Aluminium
Cone	Kevlar
Surround / Edge Termination	Rubber Roll
Dust Dome	Linen
Connectors	0.125" Tab / Solder
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

PRELIMINARY SPECIFICATIONS

FC-185ND01

SUB BASS DRIVER

18" / 457.2 mm CHASSIS DIAMETER	1200 W (A.E.S.) AES POWER HANDLING	30 Hz - 2 kHz FREQUENCY RESPONSE	5.0" / 127 mm COPPER VOICE COIL	98.5 dB SENSITIVITY (1W/ 1m)	12 mm Xmax MAXIMUM LINEAR EXCURSION
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- Lightweight neodymium motor system.
- Aluminium core heat sink for reduce power compression.
- Peak to Peak maximum excursion of 52mm.
- New 18-inch optimised, cast aluminium chassis design.
- Long driver excursion.
- High BL factor for controlled, fast, accurate low frequencies.
- Double spaced suspension system for increased linearity at high excursion.
- Suitable for bass reflex or horn loaded designs.

The FC-185ND01 is an efficient high power handling driver specially designed to provide powerful and accurate bass with low distortion and low power compression. The driver exhibits smooth tonal character combined with an ultra fast response time. The FC-185ND01 utilises an optimised fibre loaded cone assembly controlled by a fully optimised multi roll surround. The units spaced dual suspension configuration ensures excellent control during large excursions. A fully optimised motor structure built around a unique aluminum core ensures maximum flux yield from compact design and generates the minimum amount of flux modulation. The cast chassis base venting and large motor venting ensures efficient ventilation of the unit to keep power compression to a minimum.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	8 Ohm
Power Handling	1200 W (A.E.S.)
Peak Power (6dB Crest Factor)	4800 W (A.E.S.)
Usable Frequency Range -6dB	30 Hz - 2 kHz
Sensitivity (1 w - 1 m)	98.5 dB
Moving Mass inc. Air Load	220 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	15.68" / 398.27 mm
Magnetic Gap Depth	0.47" / 12.00 mm
Flux Density	1.2 Tesla
Coil Winding Height	1.10" / 28.00 mm
Voice Coil Diameter	5.0" / 127 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front
Outer Fixing Holes	8x Ø 0.275" on 18.425" PCD / 8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 0.275" on 17.25" PCD / 8x Ø 7 mm on 438.15 mm PCD
Depth	8.01" / 203.55 mm
Weight	25.35 lb / 11.5 Kg
Recommended Enclosure Volume	60 - 230 Litres
Shipping Weight	25.50 lb / 11.57 kg
Packing Carton Dimensions	(W) 485 (D) 485 (H) 230 mm

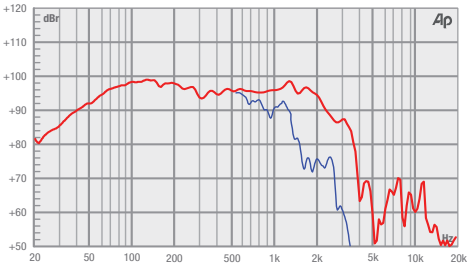
THIELE SMALL PARAMETERS

FS Hz	33 Hz
RE Ohms	5.6 Ω
Qms	17.700
Qes	0.300
Qts	0.295
Vas Ltr	203.00 Litres
Vd Litres	1.350 Litres
CMS (mm/N)	0.106 mm/N
BL T/m	29.4 T/m
Mms (grms)	220 grams
Xmax (mm)	12 mm
Sd (cm²)	1164 cm²
Efficiency %	2.4%
Le (1k Hz)	2.76 mH
EBP	110.00 Hz

MATERIALS OF CONSTRUCTION

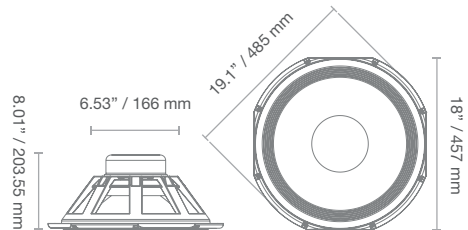
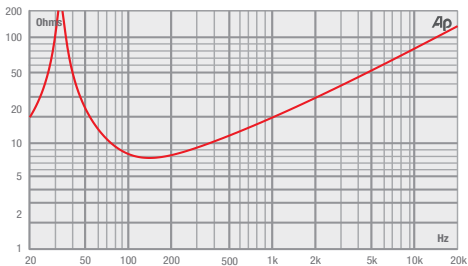
Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 35 Hz and 350 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



COLOSSUS 18XT5N

BASS DRIVER

11.75 mm Xmax
MAXIMUM LINEAR
EXCURSION

98.5 dB
SENSITIVITY (1W/ 1m)

5.0" / 127 mm
COPPER - INSIDE/ OUTSIDE
WINDINGS VOICE COIL

28 Hz - 2 kHz
FREQUENCY RESPONSE

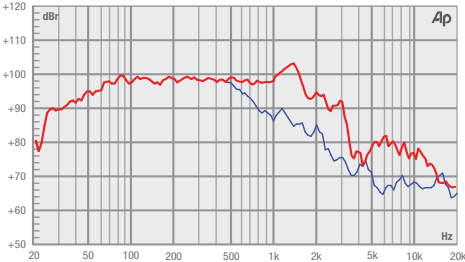
1200 W (A.E.S.)
AES POWER HANDLING

18" / 457.2 mm
CHASSIS DIAMETER

The Colossus 18XT5N is intended for use as a high output bass driver in multi-way systems and features a 5 inch 'sandwich' (inside and outside windings) voice coil, immersed in a symmetric magnetic field yielding increased linearity and lower distortion. This, coupled with laminated silicone suspensions, a large Xmax of 11.75 mm with peak to peak travel of 60 mm, ensures fast accurate bass at high levels of excursion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at extreme sound pressure levels. The driver handles 1200 Watts (A.E.S.) continuous and can cope with peaks in excess of 4800 Watts. This is due to advanced thermal management in the form of vented die-cast chassis and increased motor system venting. These measures effectively remove heat from the voice coil, resulting in extremely low-power compression. The Colossus 18XT5N exhibits 98.5 dB sensitivity and can deliver bass down to 28 Hz (-6 dB) in a 200 Litre ported enclosure.

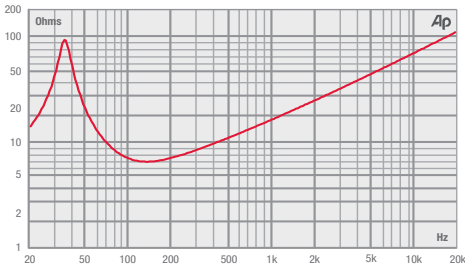
- 5" Voice coil.
- Lightweight neodymium magnet assembly.
- Weighs only 11.85 kg.
- High BL, 28.4 T/m.
- Ultimate high output.
- Low power compression.
- Fibre loaded, UK manufactured cone offering increased strength, durability and performance.
- Peak to peak travel of 60 mm.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	1200 W (A.E.S.)
Peak Power (6dB Crest Factor)	4800 W (A.E.S.)
Usable Frequency Range -6dB	28 Hz - 2 kHz
Sensitivity (1 w - 1 m)	98.5 dB
Moving Mass inc. Air Load	216 grams
Minimum Impedance Zmin	6.9 Ω
Effective Piston Diameter	15.50" / 385.00 mm
Magnetic Gap Depth	0.43" / 13.00 mm
Flux Density	1.25 Tesla
Coil Winding Height	1.10" / 30.00 mm
Voice Coil Diameter	5.0" / 127 mm

MOUNTING / SHIPPING INFORMATION

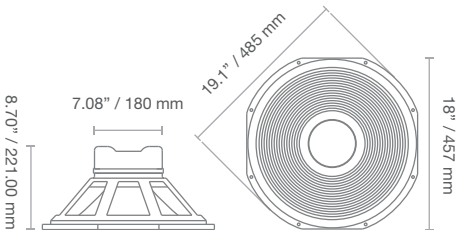
Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 0.275" on 18.425" PCD / 8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 0.275" on 17.25" PCD / 8x Ø 7 mm on 438.15 mm PCD
Depth	8.70" / 221.00 mm
Weight	26.12 lb / 11.85 kg
Recommended Enclosure Volume	4.41 - 14.12 cu ft / 125 - 400 Litres
Shipping Weight	29.76 lb / 13.50 kg
Packing Carton Dimensions	(W) 500 (D) 500 (H) 275 mm

THIELE SMALL PARAMETERS

FS Hz	36 Hz
RE Ohms	5.6 Ω
Qms	6.050
Qes	0.350
Qts	0.339
Vas Ltr	185.00 Litres
Vd Litres	1.340 Litres
CMS (mm/N)	0.095 mm/N
BL T/m	28.4 T/m
Mms (grms)	216 grams
Xmax (mm)	11.75 mm
Sd (cm²)	1169 cm²
Efficiency %	3.000%
Le (1k Hz)	2.30 mH
EBP	102.86 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Straight Fibre Loaded Polycellulose Ribbed Cone
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS 18XBN

SUB BASS DRIVER

18" / 457.2 mm

CHASSIS DIAMETER

1000 W (A.E.S.)

AES POWER HANDLING

35 Hz - 1 kHz

FREQUENCY RESPONSE

4.0" / 101.6 mm

COPPER - INSIDE/ OUTSIDE
WINDINGS VOICE COIL

99 dB

SENSITIVITY (1W/ 1m)

7.5 mm Xmax

MAXIMUM LINEAR
EXCURSION

- Lightweight neodymium magnet assembly.
- Weighs only 7.95 kg.
- Ribbed, fibre loaded, UK manufactured cone offering increased strength, durability and performance.
- New advanced suspension materials offering superior mechanical and acoustic performance.

The Colossus 18XBN is intended for use as a high output sub-bass driver either singly or in multi-way systems. The unit features a 4 inch 'sandwich' inside and outside windings voice coil, immersed in a symmetric magnetic field and centralized by using two suspensions in a dual arrangement to maintain ultra linearity and stability at high excursions. The heavily ribbed straight-sided paper cone membrane is reinforced with high-strength composite fibres to resist deformation under extreme loads. The driver handles 1000 Watts (A.E.S.) continuous and can cope with peaks in excess of 4000 Watts. This is due to advanced thermal management in the form of a vented die-cast chassis and motor system using an internal heat sink coupled to a large vaned heat sink mounted on the rear of the unit. These measures effectively remove heat from the voice coil resulting in extremely low-power compression. The Colossus 18XBN is designed for use in 100 to 250 Litre ported enclosures.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	1000 W (A.E.S.)
Peak Power (6dB Crest Factor)	4000 W (A.E.S.)
Usable Frequency Range -6dB	35 Hz - 1 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	173 grams
Minimum Impedance Zmin	7.9 Ω
Effective Piston Diameter	15.03" / 381.76 mm
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.2 Tesla
Coil Winding Height	0.90" / 23.00 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 0.275" on 18.425" PCD / 8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 0.275" on 17.25" PCD / 8x Ø 7 mm on 438.15 mm PCD
Depth	7.75" / 197.00 mm
Weight	17.52 lb / 7.95 kg
Recommended Enclosure Volume	3.53 - 8.82 cu ft / 100 - 250 Litres
Shipping Weight	21.05 lb / 9.55 kg
Packing Carton Dimensions	(W) 485 (D) 485 (H) 230 mm

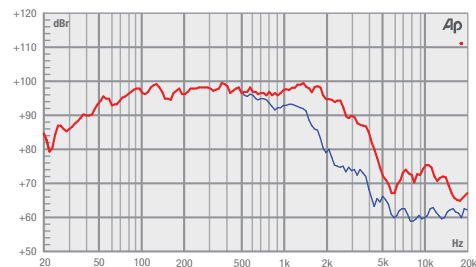
THIELE SMALL PARAMETERS

FS Hz	33 Hz
RE Ohms	6.2 Ω
Qms	5.770
Qes	0.358
Qts	0.337
Vas Ltr	236.00 Litres
Vd Litres	0.803 Litres
CMS (mm/N)	0.130 mm/N
BL T/m	25.9 T/m
Mms (grms)	173 grams
Xmax (mm)	7.5 mm
Sd (cm²)	1131 cm²
Efficiency %	2.300%
Le (1k Hz)	1.99 mH
EBP	92.18 Hz

MATERIALS OF CONSTRUCTION

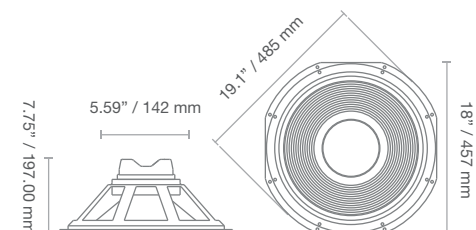
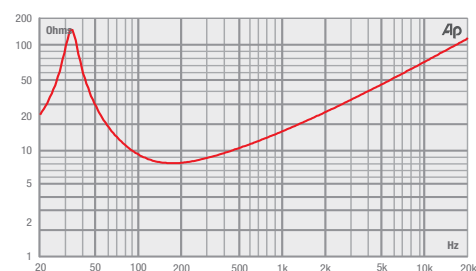
Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Straight Polycellulose Ribbed Cone
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 30 Hz and 300 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



COLOSSUS 18-800N

BASS DRIVER

8 mm X_{max}

MAXIMUM LINEAR
EXCURSION

101 dB

SENSITIVITY (1W/ 1m)

4.0" / 101.6 mm

ALUMINIUM - INSIDE/
OUTSIDE WINDINGS VOICE
COIL

36 Hz - 2 kHz

FREQUENCY RESPONSE

800 W (A.E.S.)

AES POWER HANDLING

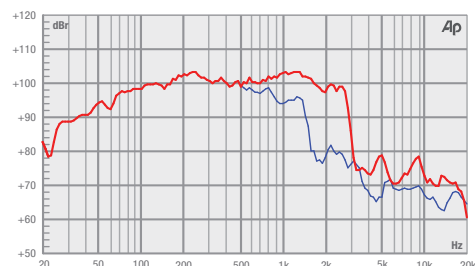
18" / 457.2 mm

CHASSIS DIAMETER

The Colossus 18-800N is intended for use as a high output bass driver in multi-way systems. It features a 4 inch 'sandwich' inside and outside windings voice coil immersed in a symmetric magnetic field yielding increased linearity and lower distortion. This, coupled with a large X_{max} of 8 mm and laminated silicone suspensions, ensures tight, punchy bass at high levels of excursion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at extreme sound pressure levels. The driver handles 800 Watts (A.E.S.) continuous and can cope with peaks in excess of 3200 Watts. This is due to advanced thermal management in the form of vented die-cast chassis and increased motor system venting. These measures effectively remove heat from the voice coil, resulting in extremely low-power compression. The Colossus 18-800N exhibits 101 dB sensitivity and can deliver bass down to 35 Hz (-6 dB) in a 200 Litre ported enclosure.

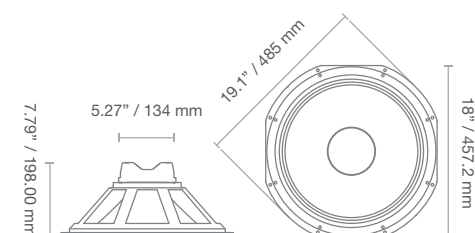
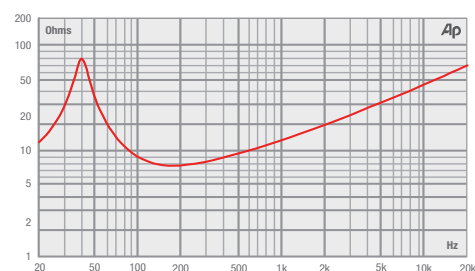
- **Lightweight neodymium magnet assembly.**
- **Weights only 7.55 kg.**
- **Tight punchy bass combined with high levels of excursion.**
- **Laminated silicone suspension.**
- **Delivers bass down to 35 Hz in a 200 Litre ported enclosure.**

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Impedance	8 Ohm
Power Handling	800 W (A.E.S.)
Peak Power (6dB Crest Factor)	3200 W (A.E.S.)
Usable Frequency Range -6dB	36 Hz - 2 kHz
Sensitivity (1 w - 1 m)	101 dB
Moving Mass inc. Air Load	148 grams
Minimum Impedance Z _{min}	6.5 Ω
Effective Piston Diameter	14.84" / 376.93 mm
Magnetic Gap Depth	0.43" / 11.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.87" / 22.00 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457.2 mm
Flange Height	0.465" / 11.8 mm
Baffle Hole Diameter F/M	16.53" / 419.86 mm
Baffle Hole Diameter R/M	16.33" / 414.78 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 0.275" on 18.425" PCD / 8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 0.275" on 17.25" PCD / 8x Ø 7 mm on 438.15 mm PCD
Depth	7.79" / 198.00 mm
Weight	16.10 lb / 7.55 kg
Recommended Enclosure Volume	4.41 - 14.12 cu ft / 125 - 400 Litres
Shipping Weight	22.00 lb / 9.55 kg
Packing Carton Dimensions	(W) 485 (D) 485 (H) 230 mm

THIELE SMALL PARAMETERS

FS Hz	38 Hz
RE Ohms	5.2 Ω
Q _{ms}	5.270
Q _{es}	0.325
Q _{ts}	0.306
V _{as} Ltr	217.00 Litres
V _d Litres	0.950 Litres
CMS (mm/N)	0.120 mm/N
BL T/m	24 T/m
M _{ms} (grms)	148 grams
X _{max} (mm)	8 mm
S _d (cm ²)	1133 cm ²
Efficiency %	3.500%
Le (1k Hz)	1.96 mH
EBP	116.92 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Aluminium - Inside/ Outside Windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS 15-750BMN

BASS, BASS/ MID DRIVER

15" / 381 mm CHASSIS DIAMETER	750 W (A.E.S.) AES POWER HANDLING	40 Hz - 3 kHz FREQUENCY RESPONSE	4.0" / 101.6 mm COPPER - INSIDE/ OUTSIDE WINDINGS VOICE COIL	100 dB SENSITIVITY (1W/ 1m)	7.5 mm Xmax MAXIMUM LINEAR EXCURSION
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- Lightweight neodymium magnet assembly.
- Weighs only 6.8 kg.
- Tight accurate bass.
- Fibre loaded, UK manufactured cone offering increased strength, durability and performance.
- FEA optimised magnet assembly allowing high force factor and excursion capability.

The Colossus 15-750BMN is intended for use in high-power two-way ported enclosures and as a high output bass, bass/mid driver in multi-way systems. It features a 4 inch voice coil immersed in a symmetric magnetic field yielding increased linearity and lower distortion at high excursion levels. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at high output levels. The driver handles 750 Watts (A.E.S.) continuous and can cope with peaks in excess of 300 Watts. This is due to advanced thermal management in the form of vented die-cast chassis and motor system. The Colossus 15-750BMN exhibits an average sensitivity of 100 dB and can deliver bass down to 40 Hz (-6 dB) in a 125 Litre ported enclosure.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	8 Ohm
Power Handling	750 W (A.E.S.)
Peak Power (6dB Crest Factor)	3000 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3 kHz
Sensitivity (1 w - 1 m)	100 dB
Moving Mass inc. Air Load	109 grams
Minimum Impedance Zmin	7.5 Ω
Effective Piston Diameter	13.03" / 331.00 mm
Magnetic Gap Depth	0.43" / 11.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.75" / 22.00 mm
Voice Coil Diameter	4.0" / 101.6 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.281" on 15.5" PCD / 4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8x Ø 0.281" on 14.56" PCD / 8x Ø 7.1 mm on 370 mm PCD
Depth	6.85" / 174.00 mm
Weight	14.99 lb / 6.80 kg
Recommended Enclosure Volume	2.47 - 4.41 cu ft / 70 - 125 Litres
Shipping Weight	17.41 lb / 7.90 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 210 mm

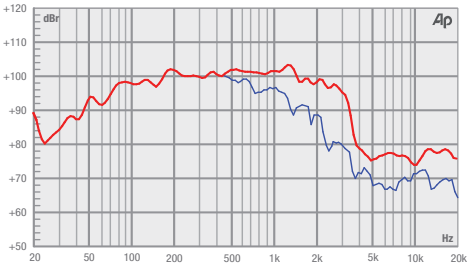
THIELE SMALL PARAMETERS

FS Hz	45 Hz
RE Ohms	5.5 Ω
Qms	3.970
Qes	0.290
Qts	0.270
Vas Ltr	127.00 Litres
Vd Litres	0.650 Litres
CMS (mm/N)	0.119 mm/N
BL T/m	24.5 T/m
Mms (grms)	109 grams
Xmax (mm)	7.5 mm
Sd (cm²)	866 cm²
Efficiency %	3.800%
Le (1k Hz)	1.69 mH
EBP	155.17 Hz

MATERIALS OF CONSTRUCTION

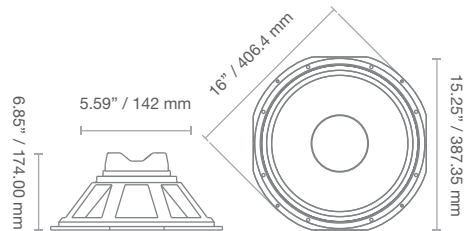
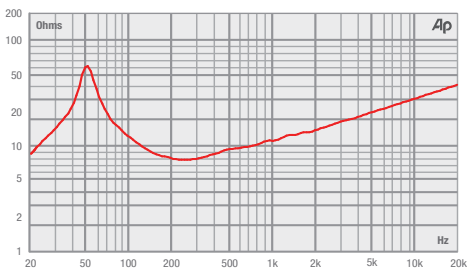
Former Material	Glass Fibre
Voice Coil	Copper - Inside/ Outside Windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped DbI. Half Roll Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 15-600N

BASS DRIVER

6.5 mm Xmax
MAXIMUM LINEAR
EXCURSION

99 dB
SENSITIVITY (1W/ 1m)

3.0" / 76.2 mm
CCAW - INSIDE/ OUTSIDE
WINDINGS VOICE COIL

40 Hz - 4.5 kHz
FREQUENCY RESPONSE

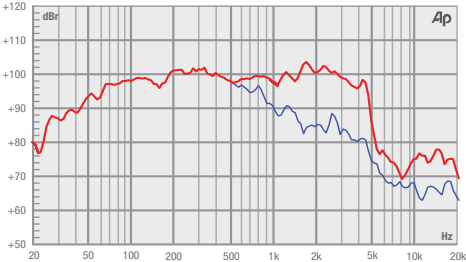
600 W (A.E.S.)
AES POWER HANDLING

15" / 381 mm
CHASSIS DIAMETER

The Sovereign Pro 15-600N is intended for use in high power two-way ported enclosures and as a high output bass driver in multi-way systems. It features a 3 inch 'sandwich' inside and outside windings voice coil immersed in a symmetric magnetic field yielding increased linearity and lower distortion at high excursion levels. The driver handles 600 Watts (A.E.S.) continuous and can cope with peaks in excess of 2400 Watts. This is due to advanced thermal management in the form of vented die-cast chassis and increased motor system venting. These measures effectively remove heat from the voice coil, resulting in extremely low-power compression. The sovereign Pro 15-600N exhibits an average sensitivity of 99 dB and can deliver bass down to 40 Hz (-6 dB) in a 125 Litre ported enclosure.

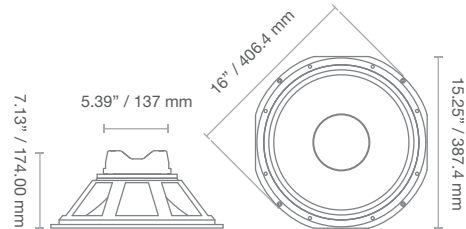
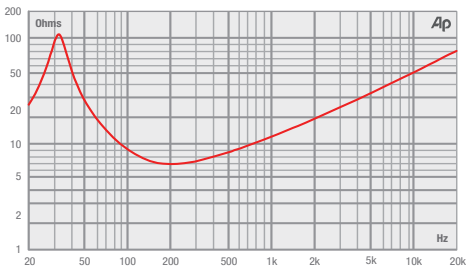
- **Lightweight neodymium magnet assembly.**
- **Weights only 5.2 kg.**
- **Highly versatile in 2-way ported enclosures.**
- **UK manufactured cone with optimised pulp offering increased strength, durability and performance.**

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	8 Ohm
Power Handling	600 W (A.E.S.)
Peak Power (6dB Crest Factor)	2400 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 4.5 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	82 grams
Minimum Impedance Zmin	6.5 Ω
Effective Piston Diameter	13.03" / 330.96 mm
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.67" / 17.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.4 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	14" / 355.6 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.281" on 15.5" PCD / 4x Ø 7.1 mm on 393.7 mm PCD
Inner Fixing Holes	8x Ø 0.281" on 14.56" PCD / 8x Ø 7.1 mm on 370 mm PCD
Depth	7.13" / 174.00 mm
Weight	11.46 lb / 5.20 kg
Recommended Enclosure Volume	2.26 - 4.41 cu ft / 65 - 125 Litres
Shipping Weight	12.45 lb / 7.20 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 210 mm

THIELE SMALL PARAMETERS

FS Hz	33 Hz
RE Ohms	5.4 Ω
Qms	4.330
Qes	0.234
Qts	0.222
Vas Ltr	310.00 Litres
Vd Litres	0.550 Litres
CMS (mm/N)	0.284 mm/N
BL T/m	21.9 T/m
Mms (grms)	82 grams
Xmax (mm)	6.5 mm
Sd (cm²)	855 cm²
Efficiency %	4.300%
Le (1k Hz)	2.56 mH
EBP	141.03 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	CCAW - Inside/ Outside Windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS 12MBN

BASS/ MID RANGE DRIVER

12" / 304.8 mm

CHASSIS DIAMETER

500 W (A.E.S.)

AES POWER HANDLING

40 Hz - 4 kHz

FREQUENCY RESPONSE

3.0" / 76.2 mm

ALUMINIUM - INSIDE/
OUTSIDE WINDINGS VOICE
COIL

98.5 dB

SENSITIVITY (1W/ 1m)

5.5 mm Xmax

MAXIMUM LINEAR
EXCURSION

- Lightweight neodymium magnet assembly.
- Weighs only 4.3 kg.
- Fast and dynamic driver producing punchy bass.
- Extended frequency range.
- Aluminium demodulation ring.
- Copper shorting Ring.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.
- Good for line array applications.

The Colossus 12MBN is intended for use as a very high output bass-mid driver in two-way ported enclosures and also as a bass driver in multi-way systems. The unit features a 3 inch 'sandwich' inside and outside windings voice coil driven by a Neodymium non inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane, manufactured from polycellulose, is much stronger and more durable than conventional paper pulp alternatives. This allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low frequency output up to its rated power handling of 500 Watts (A.E.S.) continuous, with peak power handling in excess of 2000 Watts. The driver exhibits an average sensitivity of 98.5 dB and is best used in ported enclosures of 25 to 80 Litres.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 4 kHz
Sensitivity (1 w - 1 m)	98.5 dB
Moving Mass inc. Air Load	59 grams
Minimum Impedance Zmin	7.5 Ω
Effective Piston Diameter	10.24" / 260.09 mm
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 12.5" PCD / 4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.53" / 140.60 mm
Weight	9.47 lb / 4.30 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 Litres
Shipping Weight	11.68 lb / 5.30 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

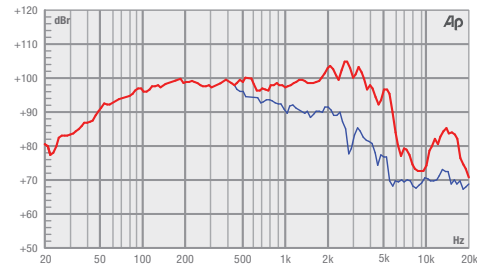
THIELE SMALL PARAMETERS

FS Hz	55 Hz
RE Ohms	5.5 Ω
Qms	4.130
Qes	0.438
Qts	0.396
Vas Ltr	56.00 Litres
Vd Litres	0.296 Litres
CMS (mm/N)	0.142 mm/N
BL T/m	16.6 T/m
Mms (grms)	59 grams
Xmax (mm)	5.5 mm
Sd (cm ²)	530 cm ²
Efficiency %	2.300%
Le (1k Hz)	1.39 mH
EBP	125.57 Hz

MATERIALS OF CONSTRUCTION

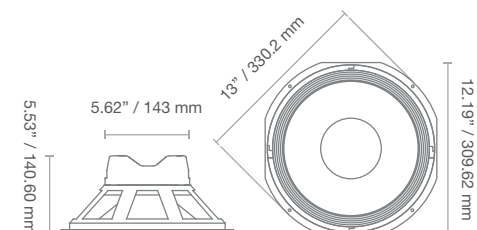
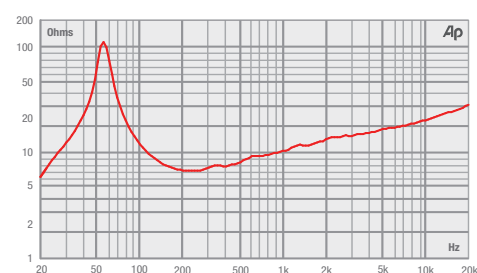
Former Material	Glass Fibre
Voice Coil	Aluminium - Inside/ Outside Windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 12-350N

MID BASS/ MID RANGE DRIVER

4.5 mm X_{max}
MAXIMUM LINEAR
EXCURSION

97.5 dB
SENSITIVITY (1W/ 1m)

2.5" / 63.5 mm
ALUMINIUM - INSIDE/
OUTSIDE WINDINGS VOICE
COIL

50 Hz - 4.5 kHz
FREQUENCY RESPONSE

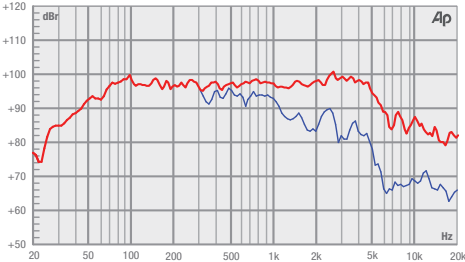
350 W (A.E.S.)
AES POWER HANDLING

12" / 304.8 mm
CHASSIS DIAMETER

The Sovereign Pro 12-350N is intended for use as a medium output mid bass driver in ported enclosures and line array systems. The 2.5 inch voice coil is driven by a neodymium non inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane is much stronger and more durable than conventional paper pulps and allows the driver to combine high sensitivity with the excellent structural integrity required to produce undistorted midband frequency output up to its rated power handling of 350 Watts (A.E.S.) continuous, with peak power handling in excess of 1400 Watts. The driver exhibits an average sensitivity of 97.5 dB and is best used in ported enclosures of 25 to 80 Litres.

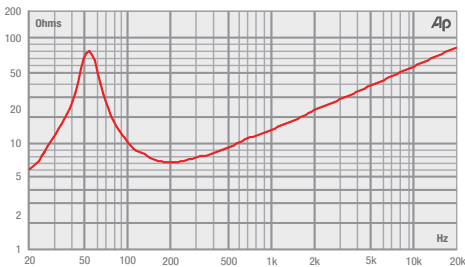
- **Lightweight neodymium magnet assembly.**
- **Weights only 3.7 kg.**
- **Ideal for line array applications.**
- **UK manufactured cone with optimised pulp offering increased strength, durability and performance.**

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	350 W (A.E.S.)
Peak Power (6dB Crest Factor)	1400 W (A.E.S.)
Usable Frequency Range -6dB	50 Hz - 4.5 kHz
Sensitivity (1 w - 1 m)	97.5 dB
Moving Mass inc. Air Load	45 grams
Minimum Impedance Z _{min}	6.84 Ω
Effective Piston Diameter	10.31" / 261.87 mm
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	2.5" / 63.5 mm

MOUNTING / SHIPPING INFORMATION

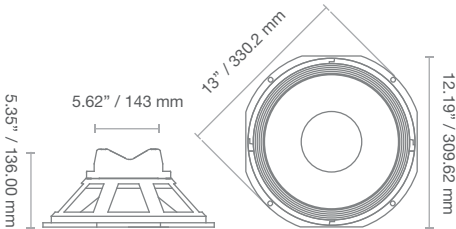
Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 12.5" PCD / 4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.35" / 136.00 mm
Weight	8.15 lb / 3.70 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 Litres
Shipping Weight	9.40 lb / 4.26 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

THIELE SMALL PARAMETERS

FS Hz	55 Hz
RE Ohms	5.75 Ω
Q _{ms}	3.900
Q _{es}	0.710
Q _{ts}	0.600
V _{as} Ltr	77.00 Litres
V _d Litres	0.240 Litres
CMS (mm/N)	0.186 mm/N
BL T/m	11.5 T/m
M _{ms} (grms)	45 grams
X _{max} (mm)	4.5 mm
S _d (cm²)	540 cm²
Efficiency %	1.890%
Le (1k Hz)	1.64 mH
EBP	77.46 Hz

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Aluminium - Inside/ Outside Windings
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Curvilinear Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll P/C
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

COLOSSUS 12BMN

BASS/ MID RANGE DRIVER

12" / 304.8 mm CHASSIS DIAMETER	450 W (A.E.S.) AES POWER HANDLING	40 Hz - 3.5 kHz FREQUENCY RESPONSE	3.0" / 76.2 mm COPPER VOICE COIL	99 dB SENSITIVITY (1W/ 1m)	6 mm Xmax MAXIMUM LINEAR EXCURSION
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- Lightweight neodymium magnet assembly.
- Weights only 4.2 kg.
- Fast dynamic response combined with superior suspension material.
- Suited for line array applications.
- Non inductive motor system reduces distortion.
- High BL, 20 T/m.
- UK manufactured cone with optimised pulp offering increased strength, durability and performance.

The Colossus 12BMN is intended for use as a very high output mid bass driver in two-way ported enclosures and also as a bass driver in multi-way systems. The unit features a 3 inch voice coil driven by a non-inductive motor system which dramatically reduces third-harmonic and intermodulation distortion. The cone membrane, manufactured from bespoke paper pulp allows the driver to combine high sensitivity with the structural integrity required to produce undistorted low frequencies at high output levels. The mechanical and electrical properties of the unit have been carefully optimised to allow extended low frequency output up to its rated power handling of 450 Watts (A.E.S) continuous, with peak power handling in excess of 1800 Watts. The driver exhibits an average sensitivity of 99 dB and is best used in ported enclosures of 25 to 80 Litres.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	450 W (A.E.S.)
Peak Power (6dB Crest Factor)	1800 W (A.E.S.)
Usable Frequency Range -6dB	40 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	65 grams
Minimum Impedance Zmin	7.5 Ω
Effective Piston Diameter	10.24" / 260.09 mm
Magnetic Gap Depth	0.31" / 8.00 mm
Flux Density	1.16 Tesla
Coil Winding Height	0.78" / 20.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Flange Height	0.305" / 7.8 mm
Baffle Hole Diameter F/M	11.03" / 280.16 mm
Baffle Hole Diameter R/M	10.13" / 257.30 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 0.218" on 12.5" PCD / 4x Ø 5.5 mm on 317.5 mm PCD
Inner Fixing Holes	N/A
Depth	5.53" / 140.60 mm
Weight	9.25 lb / 4.20 kg
Recommended Enclosure Volume	0.88 - 2.83 cu ft / 25 - 80 Litres
Shipping Weight	11.02 lb / 5.00 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

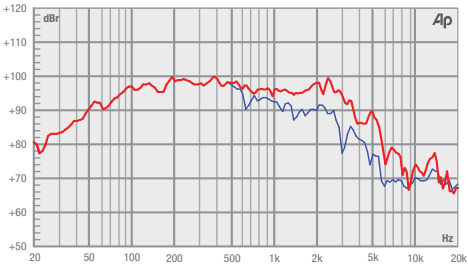
THIELE SMALL PARAMETERS

FS Hz	43 Hz
RE Ohms	5.4 Ω
Qms	5.300
Qes	0.240
Qts	0.230
Vas Ltr	89.00 Litres
Vd Litres	0.330 Litres
CMS (mm/N)	0.208 mm/N
BL T/m	20 T/m
Mms (grms)	65 grams
Xmax (mm)	6 mm
Sd (cm²)	550 cm²
Efficiency %	3.100%
Le (1k Hz)	2.10 mH
EBP	179.17 Hz

MATERIALS OF CONSTRUCTION

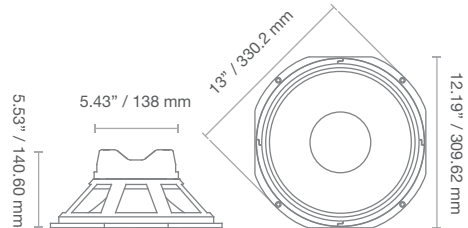
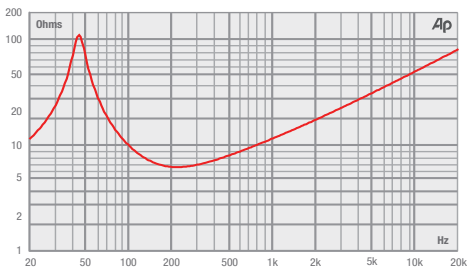
Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Curvilinear Polycellulose
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Poly Cotton
Dust Dome	Solid Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.
* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.
* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.



SOVEREIGN PRO 8MN

MID RANGE DRIVER

3.5 mm X_{max}
MAXIMUM LINEAR
EXCURSION

99 dB
SENSITIVITY (1W/ 1m)

2.0" / 50.8 mm
CCAW VOICE COIL

90 Hz - 5 kHz
FREQUENCY RESPONSE

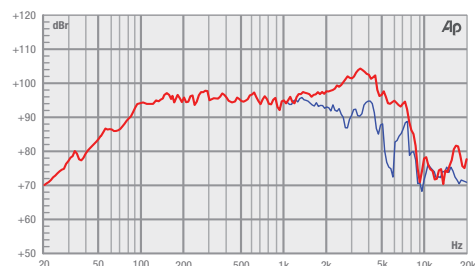
250 W (A.E.S.)
AES POWER HANDLING

8" / 203.2 mm
CHASSIS DIAMETER

Exceptional efficiency, power handling and frequency coverage from a compact and lightweight unit. The Sovereign Pro 8MN provides high output and low distortion from 90Hz to 5kHz with smooth tonal character. Ideal for small format line array or dedicated mid unit in multi-way system configuration.

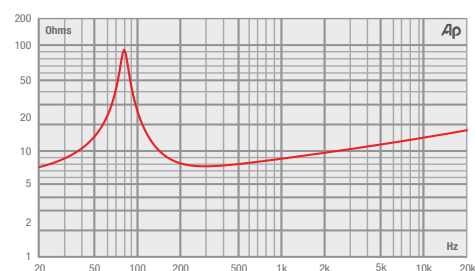
- Suitable for line array and small sealed enclosures.
- 2" Voice coil mid range unit driven by a lightweight neodymium motor system.
- Weighs only 1.95 Kg.
- Exceptional efficiency, power handling and frequency coverage from compact design.
- High output and low distortion from 90 Hz to 5 kHz.
- Rugged die-cast chassis.
- Extended usable frequency.

FREQUENCY RESPONSE DATA†



† Half space response measured in a 965 Litre sealed box.
Blue Line = fundamental 45° off-axis.

IMPEDANCE



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	8" / 203.2 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	250 W (A.E.S.)
Peak Power (6dB Crest Factor)	1000 W (A.E.S.)
Usable Frequency Range -6dB	90 Hz - 5 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	21.76 grams
Minimum Impedance Z _{min}	7 Ω
Effective Piston Diameter	6.46" / 164.08 mm
Magnetic Gap Depth	0.35" / 9.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.47" / 12.00 mm
Voice Coil Diameter	2.0" / 50.8 mm

THIELE SMALL PARAMETERS

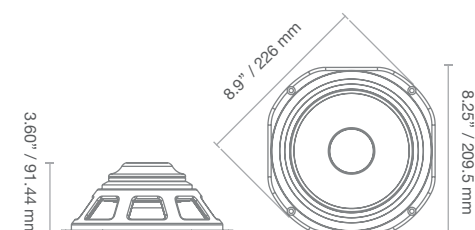
FS Hz	80 Hz
RE Ohms	5.5 Ω
Q _{ms}	8.860
Q _{es}	0.410
Q _{ts}	0.400
V _{as} Ltr	13.62 Litres
V _d Litres	0.080 Litres
CMS (mm/N)	0.188 mm/N
BL T/m	12.5 T/m
M _{ms} (grms)	21.56 grams
X _{max} (mm)	3.5 mm
S _d (cm ²)	225.9 cm ²
Efficiency %	1.750%
Le (1k Hz)	1.13 mH
EBP	195.12 Hz

MOUNTING / SHIPPING INFORMATION

Overall Diameter	8.9" / 226 mm
Width Across Flats	8.25" / 209.5 mm
Flange Height	0.28" / 7 mm
Baffle Hole Diameter F/M	7.33" / 186 mm
Baffle Hole Diameter R/M	N/A
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.5 mm on 214 mm PCD
Inner Fixing Holes	N/A
Depth	3.60" / 91.44 mm
Weight	4.30 lb / 1.95 kg
Recommended Enclosure Volume	1.5 - 5 Litres
Shipping Weight	5.20 lb / 2.36 kg
Packing Carton Dimensions	(W) 235 (D) 235 (H) 130 mm

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	CCAW
Magnet Material	Neodymium
Chassis	Die-cast Aluminium
Cone	Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Dust Dome	Paper
Connectors	Push-button Spring Terminals
Polarity	Positive voltage at red terminal causes forward motion of cone



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 100 Hz and 1000 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN 15-600LF

BASS DRIVER

- High power woofer with outstanding SPL output.
- For use in pro-sound applications.
- Ideally suited for medium to large vented enclosures.
- Great for ported bass enclosures.
- Optimised cone pulp offering increased strength, durability and performance.



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	600 W (A.E.S.)
Peak Power (6dB Crest Factor)	2400 W (A.E.S.)
Usable Fq. Range -6dB	38 Hz - 3.5 kHz
Sensitivity (1 w - 1 m)	98.5 dB
Moving Mass inc. Air Load	82.39 grams
Minimum Impedance Zmin	7 Ω
Effective Piston Diameter	15.03" / 381.76 mm
Magnet Weight	95 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	0.97 Tesla
Coil Winding Height	0.74" / 19.00 mm
Voice Coil Diameter	3.0" / 76.2 mm

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Pressed Steel
Cone	Curvilinear Paper

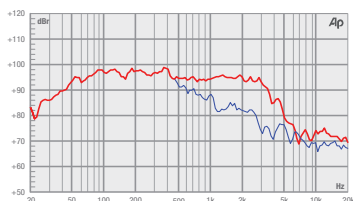
THEILE SMALL PARAMETERS

FS Hz	37 Hz
RE Ohms	5.4 Ω
Qms	6.280
Qes	0.414
Qts	0.389
Vas Ltr	236.00 litres
Vd litres	0.556 litres
CMS (mm/N)	0.228 mm/N
BL T/m	15.9 T/m
Mms (grms)	81 grams
Xmax (mm)	6.5 mm
Sd (cm²)	855 cm²
Efficiency %	2.830%
Le (1k Hz)	1.52 mH
EBP	89.37 Hz

MOUNTING / SHIPPING INFO

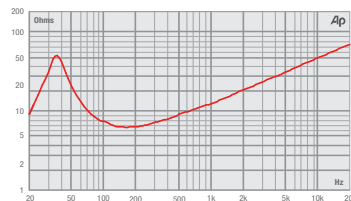
Overall Diameter	15" / 381 mm
Width Across Flats	N/A
Flange Height	0.35" / 8.89 mm
Baffle Hole Diam. F/M	13.85" / 351.79 mm
Baffle Hole Diam. R/M	13.85" / 351.79 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 6.35 mm on 14.56" / 369.2 mm PCD
Inner Fixing Holes	N/A
Depth	6.65" / 168.91 mm
Weight	17.96 lb / 8.15 kg
Recommended	1.76 - 4.41 cu ft / Enclosure Volume
Shipping Weight	20.17 lb / 9.40 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 210 mm

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN 15-500

BASS DRIVER

- High power woofer with outstanding SPL output.
- For use in 2-way pro sound applications.
- Ideally suited for medium to large vented enclosures.
- Works well in a sealed box as a mid/bass driver or as a floor wedge.
- Great for bass guitar in vented cabs.
- Optimised cone pulp offering increased strength, durability and performance.



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	8 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Fq. Range -6dB	40 Hz - 4 kHz
Sensitivity (1 w - 1 m)	99 dB
Moving Mass inc. Air Load	97.6 grams
Minimum Impedance Zmin	6.2 Ω
Effective Piston Diameter	15.03" / 381.76 mm
Magnet Weight	80 oz
Magnetic Gap Depth	0.39" / 9.90 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.70" / 17.78 mm
Voice Coil Diameter	3.0" / 76.2 mm

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Pressed Steel
Cone	Curvilinear Paper

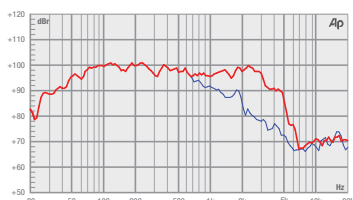
THEILE SMALL PARAMETERS

FS Hz	35 Hz
RE Ohms	5.2 Ω
Qms	7.700
Qes	0.350
Qts	0.340
Vas Ltr	220.00 litres
Vd litres	0.490 litres
CMS (mm/N)	0.212 mm/N
BL T/m	17.86 T/m
Mms (grms)	97.65 grams
Xmax (mm)	3.45 mm
Sd (cm²)	855 cm²
Efficiency %	2.900%
Le (1k Hz)	2.19 mH
EBP	100.00 Hz

MOUNTING / SHIPPING INFO

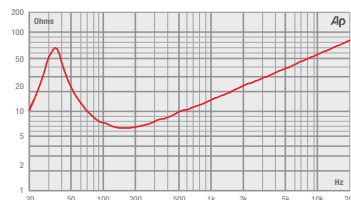
Overall Diameter	15" / 381 mm
Width Across Flats	N/A
Flange Height	0.35" / 8.89 mm
Baffle Hole Diam. F/M	13.85" / 351.79 mm
Baffle Hole Diam. R/M	13.85" / 351.79 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 6.35 mm on 14.56" / 369.2 mm PCD
Inner Fixing Holes	N/A
Depth	6.41" / 162.81 mm
Weight	16.20 lb / 7.70 kg
Recommended	1.76 - 4.41 cu ft / Enclosure Volume
Shipping Weight	18.96 lb / 8.60 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 210 mm

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

MOUNTING / SHIPPING INFO

Overall Diameter	15" / 381 mm
Width Across Flats	N/A
Flange Height	0.35" / 8.89 mm
Baffle Hole Diam. F/M	13.85" / 351.79 mm
Baffle Hole Diam. R/M	13.85" / 351.79 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 6.35 mm on 14.56" / 369.2 mm PCD
Inner Fixing Holes	N/A
Depth	6.37" / 161.79 mm
Weight	11.46 lb / 5.20 kg
Recommended Enclosure Volume	2.11 - 4.41 cu ft / 60 - 125 Litres
Shipping Weight	14.21 lb / 6.45 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 210 mm

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Pressed Steel
Cone	Curvilinear Paper

THEILE SMALL PARAMETERS

FS Hz	37 Hz
RE Ohms	5.2 Ω
Qms	6.500
Qes	0.320
Qts	0.305
Vas Ltr	210.00 litres
Vd litres	0.450 litres
CMS (mm/N)	0.202 mm/N
BL T/m	17.6 T/m
Mms (grms)	70 grams
Xmax (mm)	5 mm
Sd (cm²)	855.3 cm²
Efficiency %	3.210%
Le (1k Hz)	1.60 mH
EBP	115.63 Hz

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	8 Ohm
Power Handling	400 W (A.E.S.)
Peak Power (6dB Crest Factor)	1600 W (A.E.S.)
Usable Fq. Range -6dB	40 Hz - 4 kHz
Sensitivity (1 w - 1 m)	98.5 dB
Moving Mass inc. Air Load	70 grams
Minimum Impedance Zmin	6.2 Ω
Effective Piston Diameter	15.03" / 381.76 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 9.90 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.62" / 15.74 mm
Voice Coil Diameter	2.5" / 63.5 mm

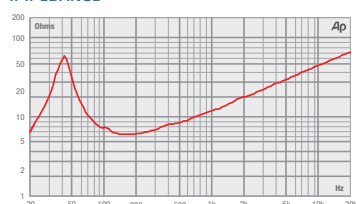
SOVEREIGN 15-400

BASS/ MID RANGE DRIVER

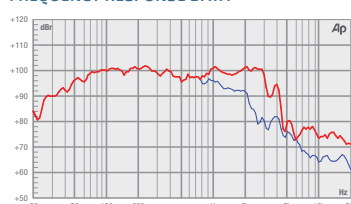
- High power driver designed for use in 2 way pro-sound applications.
- Ideally suited for small sealed floor wedges or medium sized vented boxes.
- Also suitable for monitors or bass guitar.
- Optimised cone pulp offering increased strength, durability and performance.



IMPEDANCE



FREQUENCY RESPONSE DATA†



† Normalised bass response in 175 Litre tuned to 40 Hz

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

MOUNTING / SHIPPING INFO

Overall Diameter	15" / 381 mm
Width Across Flats	N/A
Flange Height	0.35" / 8.89 mm
Baffle Hole Diam. F/M	13.85" / 351.79 mm
Baffle Hole Diam. R/M	13.85" / 351.79 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 6.35 mm on 14.56" / 369.2 mm PCD
Inner Fixing Holes	N/A
Depth	6.61" / 167.89 mm
Weight	12.34 lb / 5.60 kg
Recommended Enclosure Volume	2.11 - 4.41 cu ft / 60 - 125 Litres
Shipping Weight	14.55 lb / 6.60 kg
Packing Carton Dimensions	(W) 410 (D) 410 (H) 210 mm

THEILE SMALL PARAMETERS

FS Hz	41 Hz
RE Ohms	5.8 Ω
Qms	7.600
Qes	0.620
Qts	0.570
Vas Ltr	210.00 litres
Vd litres	0.516 litres
CMS (mm/N)	0.202 mm/N
BL T/m	13.52 T/m
Mms (grms)	74.6 grams
Xmax (mm)	4.6 mm
Sd (cm²)	855.3 cm²
Efficiency %	1.980%
Le (1k Hz)	2.08 mH
EBP	66.13 Hz

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Impedance	8 Ohm
Power Handling	400 W (A.E.S.)
Peak Power (6dB Crest Factor)	1600 W (A.E.S.)
Usable Fq. Range -6dB	40 Hz - 4 kHz
Sensitivity (1 w - 1 m)	97 dB
Moving Mass inc. Air Load	74.6 grams
Minimum Impedance Zmin	7.2 Ω
Effective Piston Diameter	15.03" / 381.76 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	0.97 Tesla
Coil Winding Height	0.74" / 19.00 mm
Voice Coil Diameter	2.5" / 63.5 mm

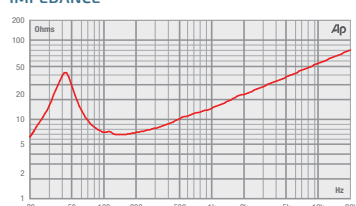
SOVEREIGN 15-400LF

BASS DRIVER

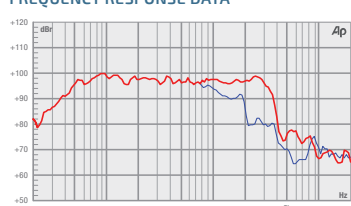
- High power driver designed for 2 way pro-sound applications.
- Ideally suited for small sealed floor wedges or medium sized vented enclosures.
- Can be used for monitors or bass guitar applications.
- Optimised cone pulp offering increased strength, durability and performance.



IMPEDANCE



FREQUENCY RESPONSE DATA†



† Normalised bass response in 175 Litre tuned to 35 Hz

* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN 12-500LF

BASS DRIVER

- High power bass driver ideally suited for use in 2 way ported enclosures.
- Optimised cone pulp offering increased strength, durability and performance.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	500 W (A.E.S.)
Peak Power (6dB Crest Factor)	2000 W (A.E.S.)
Usable Fq. Range -6dB	38 Hz - 5 kHz
Sensitivity (1 w - 1 m)	95 dB
Moving Mass inc. Air Load	75 grams
Minimum Impedance Zmin	7.4 Ω
Effective Piston Diameter	10.67" / 271.01 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	0.97 Tesla
Coil Winding Height	0.74" / 19.00 mm
Voice Coil Diameter	2.5" / 63.5 mm

THEILE SMALL PARAMETERS

FS Hz	50 Hz
RE Ohms	5.9 Ω
Qms	7.500
Qes	0.530
Qts	0.510
Vas Ltr	66.00 litres
Vd litres	0.298 litres
CMS (mm/N)	0.140 mm/N
BL T/m	16.37 T/m
Mms (grms)	75 grams
Xmax (mm)	5.5 mm
Sd (cm²)	576.1 cm²
Efficiency %	1.500%
Le (1k Hz)	2.36 mH
EBP	94.34 Hz

MOUNTING / SHIPPING INFO

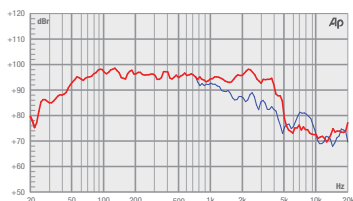
Overall Diameter	12" / 304.8 mm
Width Across Flats	N/A
Flange Height	0.27" / 6.9 mm
Baffle Hole Diam. F/M	11.25" / 285.75 mm
Baffle Hole Diam. R/M	11.25" / 285.75 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 7.0 mm on 11.75" / 298 mm PCD
Inner Fixing Holes	N/A
Depth	5.69" / 144.52 mm
Weight	11.02 lb / 5.00 kg
Recommended	1.05 - 2.64 cu ft /
Enclosure Volume	30 - 75 Litres
Shipping Weight	12.89 lb / 5.85 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Pressed Steel
Cone	Straight Polycellulose Ribbed Cone

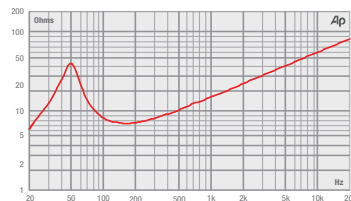
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Solder Tag
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 40 Hz and 400 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN 12-300

BASS/ MID RANGE DRIVER

- Medium-power driver.
- For use as a bass/ mid woofer in medium sized vented enclosures or as a mid in small sealed designs.
- Optimised cone pulp offering increased strength, durability and performance.

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	300 W (A.E.S.)
Peak Power (6dB Crest Factor)	1200 W (A.E.S.)
Usable Fq. Range -6dB	45 Hz - 4.5 kHz
Sensitivity (1 w - 1 m)	97.5 dB
Moving Mass inc. Air Load	43 grams
Minimum Impedance Zmin	6.84 Ω
Effective Piston Diameter	10.31" / 261.87 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	2.5" / 63.5 mm

THEILE SMALL PARAMETERS

FS Hz	46 Hz
RE Ohms	5.75 Ω
Qms	5.200
Qes	0.375
Qts	0.350
Vas Ltr	110.00 litres
Vd litres	0.240 litres
CMS (mm/N)	0.278 mm/N
BL T/m	14 T/m
Mms (grms)	43 grams
Xmax (mm)	4.5 mm
Sd (cm²)	530 cm²
Efficiency %	2.750%
Le (1k Hz)	1.64 mH
EBP	122.67 Hz

MOUNTING / SHIPPING INFO

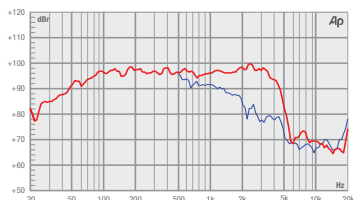
Overall Diameter	12" / 304.8 mm
Width Across Flats	N/A
Flange Height	0.27" / 6.9 mm
Baffle Hole Diam. F/M	11.25" / 285.75 mm
Baffle Hole Diam. R/M	11.25" / 285.75 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 7.0 mm on 11.75" / 298 mm PCD
Inner Fixing Holes	N/A
Depth	5.43" / 137.92 mm
Weight	11.02 lb / 5.00 kg
Recommended	1.05 - 2.64 cu ft /
Enclosure Volume	30 - 75 Litres
Shipping Weight	12.89 lb / 5.85 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Pressed Steel
Cone	Curvilinear Paper

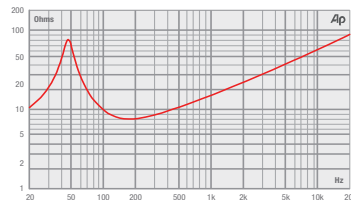
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Dust Dome	Paper
Connectors	Solder Tag
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

MOUNTING / SHIPPING INFO

Overall Diameter	12" / 304.8 mm
Width Across Flats	N/A
Flange Height	0.27" / 6.9 mm
Baffle Hole Diam. F/M	11.25" / 285.75 mm
Baffle Hole Diam. R/M	11.25" / 285.75 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 7.0 mm on 11.75" / 298 mm PCD
Inner Fixing Holes	N/A
Depth	5.43" / 137.92 mm
Weight	9.47 lb / 4.30 kg
Recommended Enclosure Volume	1.05 - 2.64 cu ft / 30 - 75 Litres
Shipping Weight	11.35 lb / 5.15 kg
Packing Carton Dimensions	(W) 330 (D) 330 (H) 170 mm

THEILE SMALL PARAMETERS

FS Hz	50 Hz
RE Ohms	7.2 Ω
Qms	7.600
Qes	0.720
Qts	0.640
Vas Ltr	78.06 litres
Vd litres	0.165 litres
CMS (mm/N)	0.195 mm/N
BL T/m	13 T/m
Mms (grms)	52 grams
Xmax (mm)	3.5 mm
Sd (cm²)	530.9 cm²
Efficiency %	1.300%
Le (1k Hz)	1.56 mH
EBP	69.44 Hz

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Impedance	8 Ohm
Power Handling	250 W (A.E.S.)
Peak Power (6dB Crest Factor)	1000 W (A.E.S.)
Usable Fq. Range -6dB	45 Hz - 17 kHz
Sensitivity (1 w - 1 m)	100 dB
Moving Mass inc. Air Load	52 grams
Minimum Impedance Zmin	7.4 Ω
Effective Piston Diameter	10.31" / 261.87 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.31" / 7.87 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.43" / 10.92 mm
Voice Coil Diameter	2.0" / 50.8 mm

SOVEREIGN 12-250TC

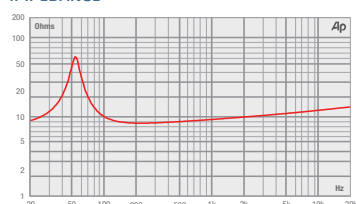
FULL RANGE DRIVER

- Medium power 12" twin cone model.
- Suited for full range output in compact PA systems.
- Unrivalled extended frequency range, working up to 17 kHz.
- Ideal for house of worship installations.
- Optimised cone pulp offering increased strength, durability and performance.

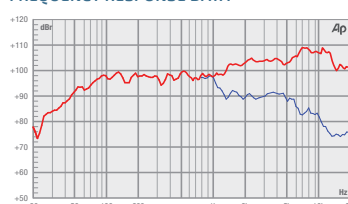
MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre	Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Voice Coil	Copper Clad Aluminium Wire	Dust Dome	Paper
Magnet Material	Ferrite	Connectors	Solder Tag
Chassis	Pressed Steel	Polarity	Positive voltage at red terminal causes forward motion of cone
Cone	Paper		

IMPEDANCE



FREQUENCY RESPONSE DATA†



† Normalised bass response in 75 Litre tuned to 50 Hz



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

MOUNTING / SHIPPING INFO

Overall Diameter	10.15" / 257.81 mm
Width Across Flats	N/A
Flange Height	0.27" / 6.9 mm
Baffle Hole Diam. F/M	9.21" / 233.93 mm
Baffle Hole Diam. R/M	9.21" / 233.93 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 6.5 mm on 9.72" / 246.88 mm PCD
Inner Fixing Holes	N/A
Depth	4.44" / 112.77 mm
Weight	10.57 lb / 4.80 kg
Recommended Enclosure Volume	0.88 - 1.76 cu ft / 25 - 50 Litres
Shipping Weight	10.57 lb / 4.80 kg
Packing Carton Dimensions	(W) 275 (D) 275 (H) 150 mm

THEILE SMALL PARAMETERS

FS Hz	58 Hz
RE Ohms	5.7 Ω
Qms	6.080
Qes	0.330
Qts	0.313
Vas Ltr	41.00 litres
Vd litres	0.208 litres
CMS (mm/N)	0.211 mm/N
BL T/m	15.3 T/m
Mms (grms)	37 grams
Xmax (mm)	5.5 mm
Sd (cm²)	378 cm²
Efficiency %	2.360%
Le (1k Hz)	1.68 mH
EBP	175.76 Hz

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	10" / 254 mm
Impedance	4 Ohm / 8 Ohm / 16 Ohm
Power Handling	300 W (A.E.S.)
Peak Power (6dB Crest Factor)	1200 W (A.E.S.)
Usable Fq. Range -6dB	45 Hz - 5 kHz
Sensitivity (1 w - 1 m)	97.5 dB
Moving Mass inc. Air Load	37 grams
Minimum Impedance Zmin	6.8 Ω
Effective Piston Diameter	8.46" / 214.88 mm
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10.00 mm
Flux Density	1 Tesla
Coil Winding Height	0.70" / 18.00 mm
Voice Coil Diameter	2.5" / 63.5 mm

SOVEREIGN 10-300

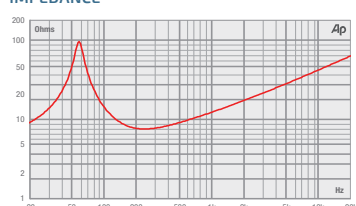
BASS/ MID RANGE DRIVER

- Intended for use in 2 way ported enclosures such as the classic bass driver plus horn tweeter or compression driver format.
- Exhibits a smooth frequency response.
- Designed for use in 15-40 Litre ported enclosures.
- Inside/ outside windings 2.5" voice coil.
- Optimised cone pulp offering increased strength, durability and performance.

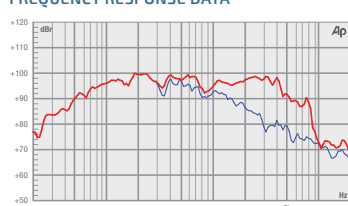
MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre	Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton
Voice Coil	Copper - Inside/ Outside Windings	Dust Dome	Paper
Magnet Material	Ferrite	Connectors	Solder Tag
Chassis	Pressed Steel	Polarity	Positive voltage at red terminal causes forward motion of cone
Cone	Curvilinear Paper		

IMPEDANCE



FREQUENCY RESPONSE DATA†



† Normalised bass response in 25 Litre tuned to 50 Hz



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 45 Hz and 450 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN 10-125

BASS DRIVER

- Medium-power driver suitable for use as a mid/bass driver in sealed boxes and in medium-sized vented boxes as a woofer.
- Ideal for bass guitar in vented designs.
- Optimised cone pulp offering increased strength, durability and performance.



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	10" / 254 mm
Impedance	8 Ohm
Power Handling	125 W (A.E.S.)
Peak Power (6dB Crest Factor)	500 W (A.E.S.)
Usable Fq. Range -6dB	50 Hz - 4 kHz
Sensitivity (1 w - 1 m)	96 dB
Moving Mass inc. Air Load	31 grams
Minimum Impedance Zmin	7.6 Ω
Effective Piston Diameter	8.46" / 214.88 mm
Magnet Weight	20 oz
Magnetic Gap Depth	0.23" / 5.84 mm
Flux Density	1 Tesla
Coil Winding Height	0.51" / 12.95 mm
Voice Coil Diameter	1.5" / 38.1 mm

THEILE SMALL PARAMETERS

FS Hz	55 Hz
RE Ohms	6.6 Ω
Qms	6.290
Qes	0.710
Qts	0.650
Vas Ltr	50.00 litres
Vd litres	0.183 litres
CMS (mm/N)	0.270 mm/N
BL T/m	10 T/m
Mms (grms)	31 grams
Xmax (mm)	5 mm
Sd (cm²)	363.5 cm²
Efficiency %	1.250%
Le (1k Hz)	1.47 mH
EBP	77.46 Hz

MOUNTING / SHIPPING INFO

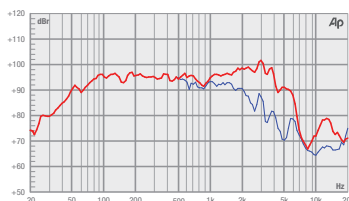
Overall Diameter	10.15" / 257.81 mm
Width Across Flats	N/A
Flange Height	0.27" / 6.9 mm
Baffle Hole Diam. F/M	9.21" / 233.93 mm
Baffle Hole Diam. R/M	9.21" / 233.93 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 6.5 mm on 9.72" / 246.88 mm PCD
Inner Fixing Holes	N/A
Depth	4.05" / 102.87 mm
Weight	4.29 lb / 1.95 kg
Recommended	0.88 - 1.76 cu ft /
Enclosure Volume	25 - 50 Litres
Shipping Weight	5.51 lb / 2.50 kg
Packing Carton Dimensions	(W) 275 (D) 275 (H) 150 mm

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Pressed Steel
Cone	Paper

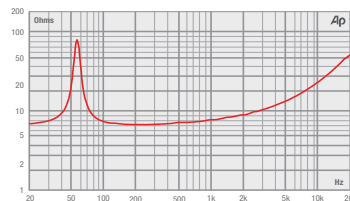
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Dust Dome	Paper
Connectors	Solder Tag
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 50 Hz and 500 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

SOVEREIGN 8-225

BASS/ MID RANGE DRIVER

- High power driver ideal for use in pro-sound applications.
- Works well as a mid in small sealed boxes and as a mid/ bass driver in vented boxes.
- Optimised cone pulp offering increased strength, durability and performance.



ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	8" / 203.2 mm
Impedance	8 Ohm
Power Handling	225 W (A.E.S.)
Peak Power (6dB Crest Factor)	900 W (A.E.S.)
Usable Fq. Range -6dB	55 Hz - 5 kHz
Sensitivity (1 w - 1 m)	97 dB
Moving Mass inc. Air Load	20 grams
Minimum Impedance Zmin	7.6 Ω
Effective Piston Diameter	6.49" / 164.99 mm
Magnet Weight	34 oz
Magnetic Gap Depth	0.31" / 7.87 mm
Flux Density	1 Tesla
Coil Winding Height	0.59" / 14.98 mm
Voice Coil Diameter	2.0" / 50.8 mm

THEILE SMALL PARAMETERS

FS Hz	62 Hz
RE Ohms	6.1 Ω
Qms	4.300
Qes	0.420
Qts	0.380
Vas Ltr	22.00 litres
Vd litres	0.085 litres
CMS (mm/N)	0.340 mm/N
BL T/m	11 T/m
Mms (grms)	20.69 grams
Xmax (mm)	5.5 mm
Sd (cm²)	213 cm²
Efficiency %	1.250%
Le (1k Hz)	1.47 mH
EBP	147.62 Hz

MOUNTING / SHIPPING INFO

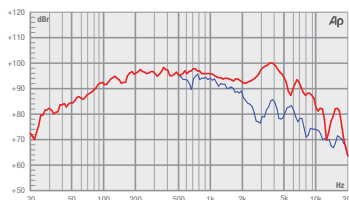
Overall Diameter	8.18" / 207.77 mm
Width Across Flats	N/A
Flange Height	0.27" / 6.9 mm
Baffle Hole Diam. F/M	7.24" / 183.89 mm
Baffle Hole Diam. R/M	7.24" / 183.89 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 5.5 mm on 7.79" / 197.8 mm PCD
Inner Fixing Holes	N/A
Depth	3.74" / 94.99 mm
Weight	6.06 lb / 2.75 kg
Recommended	0.70 - 1.23 cu ft /
Enclosure Volume	20 - 35 Litres
Shipping Weight	6.94 lb / 3.15 kg
Packing Carton Dimensions	(W) 235 (D) 235 (H) 130 mm

MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre
Voice Coil	Copper
Magnet Material	Ferrite
Chassis	Pressed Steel
Cone	Paper

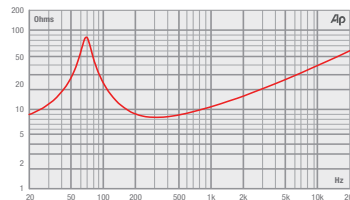
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Dust Dome	Paper
Connectors	Solder Tag
Polarity	Positive voltage at red terminal causes forward motion of cone

FREQUENCY RESPONSE DATA†



† Half space response measured in a 975 Litre sealed box.

IMPEDANCE



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 60 Hz and 600 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

MOUNTING / SHIPPING INFO

Overall Diameter	8.18" / 207.77 mm
Width Across Flats	N/A
Flange Height	0.27" / 6.9 mm
Baffle Hole Diam. F/M	7.24" / 183.89 mm
Baffle Hole Diam. R/M	7.24" / 183.89 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 5.5 mm on 7.79" / 197.8 mm PCD
Inner Fixing Holes	N/A
Depth	3.70" / 93.98 mm
Weight	3.85 lb / 1.75 kg
Recommended Enclosure Volume	0.35 - 0.88 cu ft / 10 - 25 Litres
Shipping Weight	5.51 lb / 2.50 kg
Packing Carton Dimensions	(W) 235 (D) 235 (H) 130 mm

THEILE SMALL PARAMETERS

FS Hz	65 Hz
RE Ohms	6.7 Ω
Qms	6.600
Qes	0.750
Qts	0.680
Vas Ltr	19.50 litres
Vd litres	0.074 litres
CMS (mm/N)	0.300 mm/N
BL T/m	8.5 T/m
Mms (grms)	19 grams
Xmax (mm)	3.45 mm
Sd (cm²)	213 cm²
Efficiency %	0.700%
Le (1k Hz)	1.28 mH
EBP	86.67 Hz

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	8" / 203.2 mm
Impedance	8 Ohm
Power Handling	125 W (A.E.S.)
Peak Power (6dB Crest Factor)	500 W (A.E.S.)
Usable Fq. Range -6dB	60 Hz - 7 kHz
Sensitivity (1 w - 1 m)	94 dB
Moving Mass inc. Air Load	19 grams
Minimum Impedance Zmin	7.6 Ω
Effective Piston Diameter	6.49" / 164.99 mm
Magnet Weight	20 oz
Magnetic Gap Depth	0.23" / 5.84 mm
Flux Density	1.1 Tesla
Coil Winding Height	0.51" / 12.95 mm
Voice Coil Diameter	1.5" / 38.1 mm

SOVEREIGN 8-125

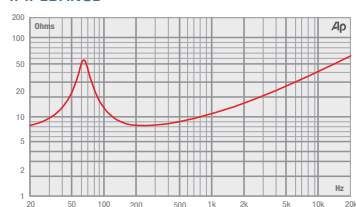
BASS/ MID RANGE DRIVER

- Medium-power driver ideal for use in pro-sound applications.
- Works well as a mid in small sealed boxes and as a mid/ bass driver in vented boxes.
- Optimised cone pulp offering increased strength, durability and performance.

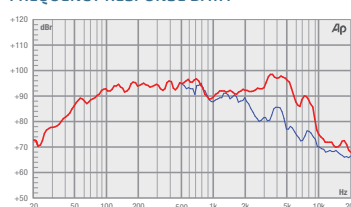
MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre	Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Voice Coil	Copper	Dust Dome	Paper
Magnet Material	Ferrite	Connectors	Solder Tag
Chassis	Pressed Steel	Polarity	Positive voltage at red terminal causes forward motion of cone
Cone	Paper		

IMPEDANCE



FREQUENCY RESPONSE DATA†



† Normalised bass response in 20 Litre tuned to 50 Hz



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave with cutoff frequencies of 60 Hz and 600 Hz. Driver mounted in free air, test signal applied at rated power for two hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

MOUNTING / SHIPPING INFO

Overall Diameter	6.5" / 165.1 mm
Width Across Flats	N/A
Flange Height	0.27" / 6.9 mm
Baffle Hole Diam. F/M	5.78" / 146.81 mm
Baffle Hole Diam. R/M	5.78" / 146.81 mm
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.9 mm on 6.14" / 155.96 mm PCD
Inner Fixing Holes	N/A
Depth	2.20" / 55.88 mm
Weight	3.63 lb / 1.65 kg
Recommended Enclosure Volume	0.35 - 0.70 cu ft / 10 - 20 Litres
Shipping Weight	4.29 lb / 1.95 kg
Packing Carton Dimensions	(W) 205 (D) 205 (H) 135 mm

THEILE SMALL PARAMETERS

FS Hz	115 Hz
RE Ohms	6.9 Ω
Qms	12.800
Qes	0.670
Qts	0.640
Vas Ltr	2.20 litres
Vd litres	0.032 litres
CMS (mm/N)	0.080 mm/N
BL T/m	13.25 T/m
Mms (grms)	23.94 grams
Xmax (mm)	2.5 mm
Sd (cm²)	139.2 cm²
Efficiency %	0.500%
Le (1k Hz)	1.15 mH
EBP	171.64 Hz

ELECTRO ACOUSTIC SPECIFICATIONS

Nominal Chassis Diameter	6" / 152.4 mm
Impedance	8 Ohm
Power Handling	100 W (A.E.S.)
Peak Power (6dB Crest Factor)	400 W (A.E.S.)
Usable Fq. Range -6dB	60 Hz - 7 kHz
Sensitivity (1 w - 1 m)	93 dB
Moving Mass inc. Air Load	23.94 grams
Minimum Impedance Zmin	7 Ω
Effective Piston Diameter	5.15" / 130.81 mm
Magnet Weight	20 oz
Magnetic Gap Depth	0.23" / 6.00 mm
Flux Density	1 Tesla
Coil Winding Height	0.39" / 10.00 mm
Voice Coil Diameter	1.5" / 38.1 mm

SOVEREIGN 6-100

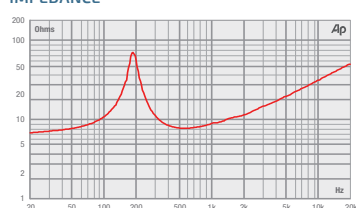
BASS/ MID RANGE DRIVER

- Medium-power driver ideal for use in pro-sound applications.
- Works well as a mid range driver in a small sealed box or as a mid/ bass driver in vented boxes.
- Optimised cone pulp offering increased strength, durability and performance.

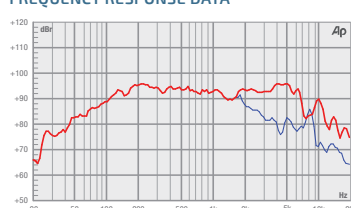
MATERIALS OF CONSTRUCTION

Former Material	Glass Fibre	Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen
Voice Coil	Copper	Dust Dome	Paper
Magnet Material	Ferrite	Connectors	Solder Tag
Chassis	Pressed Steel	Polarity	Positive voltage at red terminal causes forward motion of cone
Cone	Paper		

IMPEDANCE



FREQUENCY RESPONSE DATA†



† Normalised bass response in 15 Litre tuned to 70 Hz



* Please enquire about alternative impedances.

* A.E.S. power handling test. Pink noise bandpass filtered at 12 dB per octave. Driver mounted in free air, test signal applied at rated power for 2 hours.

* Please note that the frequency response measurements are supplied for comparison only and are not a measure of the low frequency performance which may be achieved in a fully optimised system.

CD-314

COMPRESSION DRIVER

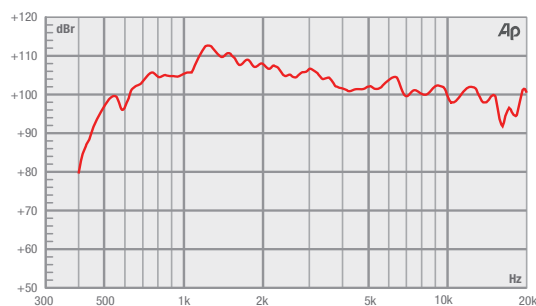
- 1.4" Exit ferrite magnet compression driver.
- 3.15" / 80 mm Copper clad aluminum voice coil.
- Titanium diaphragm with optimized depression array surround.
- 75 Wrms (AES standard).

The CD-314 1.4" exit compression driver is the ultimate choice for professional high performance applications such as two way high power enclosures. Advanced engineering and manufacturing methods make this the ideal solution when seeking high performance and long term reliability.

The CD-314 is perfect for high level professional touring applications as well as high level fixed installation.



FREQUENCY RESPONSE DATA*



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 90° x 40° coverage.

ELECTRO ACOUSTIC SPECIFICATIONS

Sound Channel / Throat Size	1.4" / 35.6 mm
Impedance	8 Ohm
Power Handling	75 W (A.E.S.)
Sensitivity (1 w - 1 m)	106 dB
Usable Frequency Range	700 Hz - 18 kHz
Rec. X-over Frequency Filtered at 18dB/ Octave	1.2 kHz
Effective Diaphragm Diameter	3.15" / 80 mm
Voice Coil Diameter	3.15" / 80 mm
Voice Coil DC Resistance	5 Ω
Max Diaphragm Displacement	0.032" / 0.8 mm
Flux Density	1.5 Tesla
Magnet Weight	45 oz

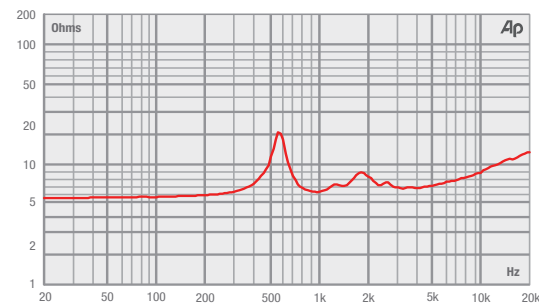
MOUNTING / SHIPPING INFO

Overall Diameter	6.2" / 158 mm
Depth	3.14" / 80 mm
Weight	9.70 lb / 4.4 kg
Shipping Weight	9.92 lb / 4.5 kg
Packing Carton Dimensions	(W) 200 (D) 210 (H) 100 mm
Bolt Fixing Hole Dimensions and Qty.	4x M6 on 101.6 mm / 4" PCD

MATERIALS OF CONSTRUCTION

Former Material	Kapton
Voice Coil Material	Aluminium
Diaphragm Material	Titanium
Surround / Edge Termination	Depression Array
Magnet Material	Ferrite
Connectors	Push Button Spring Terminals
Polarity	Positive voltage at red/ positive terminal causes positive pressure at throat exit.

IMPEDANCE



CD-314N

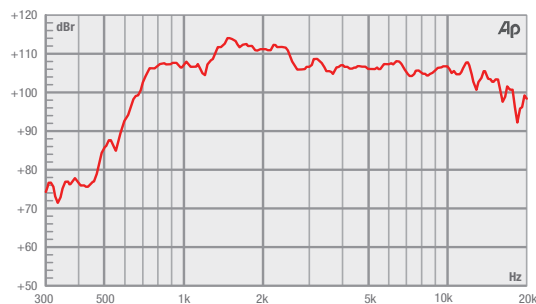
COMPRESSION DRIVER

- 1.4" Exit, neodymium magnet compression driver.
- 3.15" / 80 mm Copper clad aluminum voice coil.
- Titanium diaphragm with optimized depression array surround.
- 75 Wrms (AES standard).

The perfect driver for professional high performance applications such as two way high power enclosures. Advanced engineering and manufacturing methods have produced an extremely reliable and wide bandwidth device. The neodymium motor system produces a very high efficiency weight and size ratio. This makes the CD-314N ideal for high level professional touring applications as well as high level fixed installation.



FREQUENCY RESPONSE DATA*



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 90° x 40° coverage.

ELECTRO ACOUSTIC SPECIFICATIONS

Sound Channel / Throat Size	1.4" / 35.6 mm
Impedance	8 Ohm
Power Handling	75 W (A.E.S.)
Sensitivity (1 w - 1 m)	106 dB
Usable Frequency Range	700 Hz - 18 kHz
Rec. X-over Frequency Filtered at 18dB/ Octave	1.2 kHz
Effective Diaphragm Diameter	3.15" / 80 mm
Voice Coil Diameter	3.15" / 80 mm
Voice Coil DC Resistance	5 Ω
Max Diaphragm Displacement	0.032" / 0.8 mm
Flux Density	1.7 Tesla
Magnet Weight	60 oz

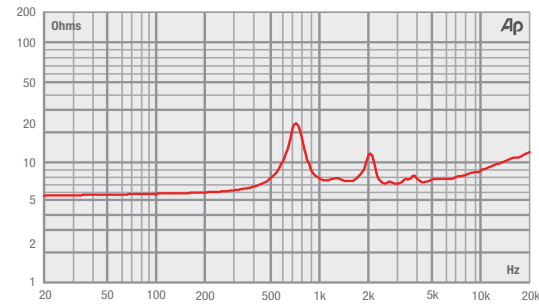
MOUNTING / SHIPPING INFO

Overall Diameter	6.2" / 158 mm
Depth	2.6" / 68 mm
Weight	7.72 lb / 3.5 kg
Shipping Weight	8.37 lb / 3.8 kg
Packing Carton Dimensions	(W) 165 (D) 165 (H) 92 mm
Bolt Fixing Hole Dimensions and Qty.	4x M6 on 101.6 mm / 4" PCD

MATERIALS OF CONSTRUCTION

Former Material	Kapton
Voice Coil Material	Aluminium
Diaphragm Material	Titanium
Surround / Edge Termination	Depression Array
Magnet Material	Neodymium Discs. 13x 30 x7mm
Connectors	Push Button Spring Terminals
Polarity	Positive voltage at red/ positive terminal causes positive pressure at throat exit.

IMPEDANCE



MOUNTING / SHIPPING INFO

Overall Diameter	4" / 102 mm
Depth	1.97" / 51 mm
Weight	3.4 lb / 1.54 kg
Shipping Weight	3.6 lb / 1.64 kg
Packing Carton Dimensions	(W) 95 (D) 95 (H) 71 mm
Bolt Fixing Hole Dimensions and Qty.	3x M6 on 57.15 mm PCD / 2x M6 on 76.2 mm PCD

MATERIALS OF CONSTRUCTION

Former Material	Polyamide
Voice Coil Material	Aluminium
Diaphragm Material	Titanium
Surround / Edge Termination	Double Sinusoidal Roll Titanium
Magnet Material	Ferrite
Connectors	6.3 mm Spade
Polarity	Positive voltage at red/ positive terminal causes positive pressure at throat exit.

ELECTRO ACOUSTIC SPECIFICATIONS

Sound Channel / Throat Size	1" / 25.4 mm
Impedance	8 Ohm / 16 Ohm
Power Handling	40 W (A.E.S.)
Sensitivity (1 w - 1 m)	105 dB
Usable Frequency Range	2 kHz - 18 kHz
Rec. X-over Frequency Filtered at 18dB/ Octave	3.5 kHz
Effective Diaphragm Diameter	1.75" / 44 mm
Voice Coil Diameter	1.75" / 44 mm
Voice Coil DC Resistance	6.2 / 10.5 Ω
Max Diaphragm Displacement	0.016" / 0.4 mm
Flux Density	1.35 Tesla
Magnet Weight	16 oz

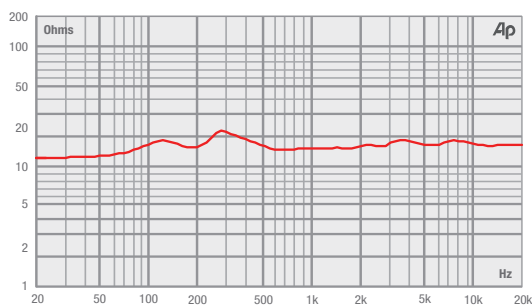


CD-140

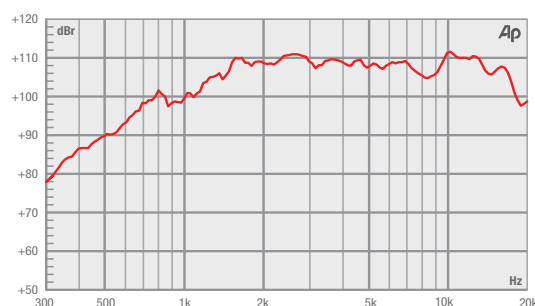
COMPRESSION DRIVER

- 1" Exit ferrite magnet compression driver.
- 1.75" / 43 mm Copper clad aluminium voice coil.
- Titanium diaphragm with double sinusoidal roll surround (titanium).
- 40 Wrms (AES standard).
- Copper inductance ring for extended response.
- Ferrofluid cooled.
- Self aligning diaphragm for easy field replacement.

IMPEDANCE



FREQUENCY RESPONSE DATA*



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 80° x 60° coverage.

MOUNTING / SHIPPING INFO

Overall Diameter	4" / 102 mm
Depth	1.97" / 51 mm
Weight	3.4 lb / 1.54 kg
Shipping Weight	3.6 lb / 1.64 kg
Packing Carton Dimensions	(W) 95 (D) 95 (H) 71 mm
Bolt Fixing Hole Dimensions and Qty.	Screw Fit

MATERIALS OF CONSTRUCTION

Former Material	Polyamide
Voice Coil Material	Aluminium
Diaphragm Material	Titanium
Surround / Edge Termination	Double Sinusoidal Roll Titanium
Magnet Material	Ferrite
Connectors	6.3 mm Spade
Polarity	Positive voltage at red/ positive terminal causes positive pressure at throat exit.

ELECTRO ACOUSTIC SPECIFICATIONS

Sound Channel / Throat Size	1" / 25.4 mm
Impedance	8 Ohm / 16 Ohm
Power Handling	40 W (A.E.S.)
Sensitivity (1 w - 1 m)	105 dB
Usable Frequency Range	2 kHz - 18 kHz
Rec. X-over Frequency Filtered at 18dB/ Octave	3.5 kHz
Effective Diaphragm Diameter	1.75" / 44 mm
Voice Coil Diameter	1.75" / 44 mm
Voice Coil DC Resistance	6.2 / 10.5 Ω
Max Diaphragm Displacement	0.032" / 0.8 mm
Flux Density	1.35 Tesla
Magnet Weight	16 oz

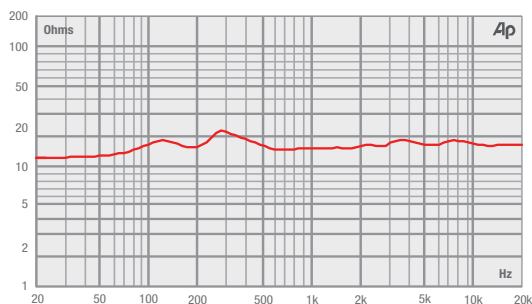


CD-140S

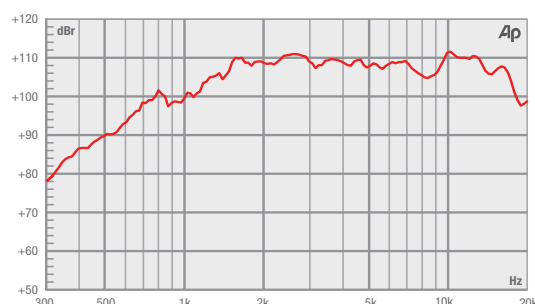
COMPRESSION DRIVER

- 1" exit ferrite magnet compression driver with screw fitting.
- 1.75" / 43 mm Copper clad aluminium voice coil.
- Titanium diaphragm with double sinusoidal roll surround (titanium).
- 40 Wrms (AES standard).
- Copper inductance ring for extended response.
- Ferrofluid cooled.
- Self aligning diaphragm for easy field replacement.

IMPEDANCE



FREQUENCY RESPONSE DATA*



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 80° x 60° coverage.

CD-131

COMPRESSION DRIVER

- 1" Industry standard exit.
- 1.375" / 34.4 mm Aluminium voice coil.
- Titanium Diaphragm.
- 30 W (AES).

The CD-131 is a 1 inch (25.4mm) small format diaphragm compression driver.

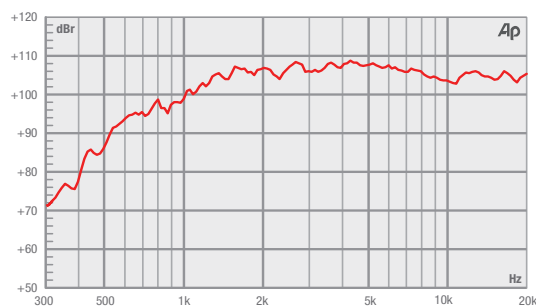
The 1 inch (25.4mm) exit is an industry standard. The CD131 combines high BL and a very lightweight diaphragm assembly, producing high output that offers extended bandwidth and a well defined frequency response to 18 kHz.

The driver has a rated low frequency response limit of 2 kHz and has a smooth response throughout its bandwidth.

The CD131 features an industry standard bolt on mounting system that is ideally matched to commercially available bolt on horns.



FREQUENCY RESPONSE DATA*



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 90° x 40° coverage.

ELECTRO ACOUSTIC SPECIFICATIONS

Sound Channel / Throat Size	1" / 25.4 mm
Impedance	8 Ohm
Power Handling	30 W (A.E.S.)
Sensitivity (1 w - 1 m)	106 dB
Usable Frequency Range	2 kHz - 18 kHz
Rec. X-over Frequency Filtered at 18dB/ Octave	above 2 kHz
Effective Diaphragm Diameter	1.33" / 34mm
Voice Coil Diameter	1.375" / 34.4 mm
Voice Coil DC Resistance	6.43 Ω
Max Diaphragm Displacement	0.011" / 0.3 mm
Flux Density	1.25 Tesla
Magnet Weight	oz

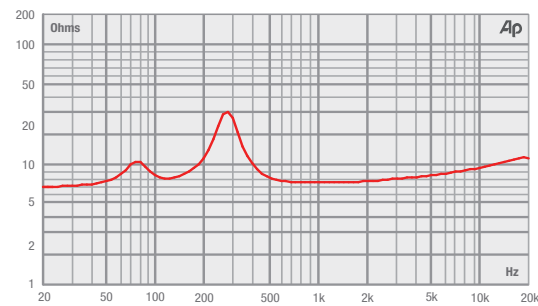
MOUNTING / SHIPPING INFO

Overall Diameter	3.54" / 90 mm
Depth	1.73" / 44 mm
Weight	2 lb / 0.91 kg
Shipping Weight	2.16 lb / 0.98 kg
Packing Carton Dimensions	(W) 95 (D) 95 (H) 71 mm
Bolt Fixing Hole Dimensions and Qty.	4x M6 on 76.2 mm / 3" PCD

MATERIALS OF CONSTRUCTION

Former Material	Polyamide
Voice Coil Material	Aluminium
Diaphragm Material	Titanium
Surround / Edge Termination	Double Sinusoidal Roll Titanium
Magnet Material	Ferrite
Connectors	Push Button Spring Terminals
Polarity	Positive voltage at red/ positive terminal causes positive pressure at throat exit.

IMPEDANCE



CD-130

COMPRESSION DRIVER

- 1" Industry standard exit.
- 1.375" / 34.4 mm Aluminium voice coil.
- Titanium diaphragm.
- 30 W (AES).
- Screw fit mounting.

The CD-130 is a 1 inch (25.4mm) small format diaphragm compression driver.

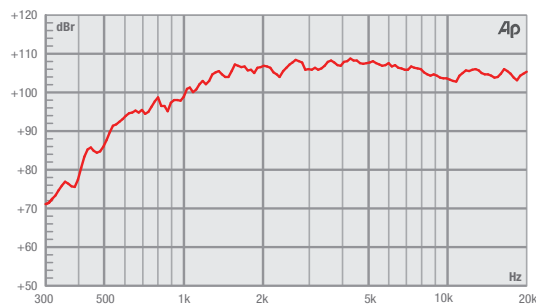
The 1 inch (25.4mm) exit is an industry standard. The CD130 combines high BL and a very lightweight diaphragm assembly, producing high output that offers extended bandwidth and well defined frequency response to 18 kHz.

The driver has a rated low frequency response limit of 2 kHz and has a smooth response throughout its bandwidth.

The CD130 features an industry standard screw fit mounting system that is ideally matched to commercially available female screw thread horns.



FREQUENCY RESPONSE DATA*



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 90° x 40° coverage.

ELECTRO ACOUSTIC SPECIFICATIONS

Sound Channel / Throat Size	1" / 25.4 mm
Impedance	8 Ohm
Power Handling	30 W (A.E.S.)
Sensitivity (1 w - 1 m)	106 dB
Usable Frequency Range	2 kHz - 18 kHz
Rec. X-over Frequency Filtered at 18dB/ Octave	above 2 kHz
Effective Diaphragm Diameter	1.33" / 34mm
Voice Coil Diameter	1.375" / 34.4 mm
Voice Coil DC Resistance	6.43 Ω
Max Diaphragm Displacement	0.011" / 0.3 mm
Flux Density	1.25 Tesla
Magnet Weight	oz

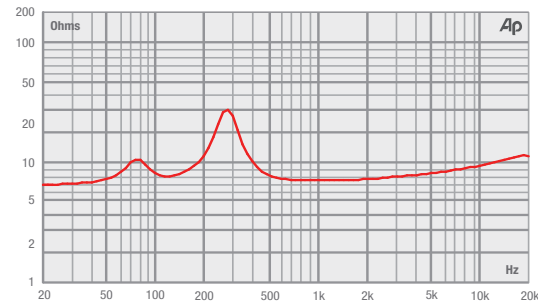
MOUNTING / SHIPPING INFO

Overall Diameter	3.54" / 90 mm
Depth	1.73" / 44 mm
Weight	2 lb / 0.91 kg
Shipping Weight	2.16 lb / 0.98 kg
Packing Carton Dimensions	(W) 95 (D) 95 (H) 71 mm
Bolt Fixing Hole Dimensions and Qty.	Screw Fit

MATERIALS OF CONSTRUCTION

Former Material	Polyamide
Voice Coil Material	Aluminium
Diaphragm Material	Titanium
Surround / Edge Termination	Double Sinusoidal Roll Titanium
Magnet Material	Ferrite
Connectors	Push Button Spring Terminals
Polarity	Positive voltage at red/ positive terminal causes positive pressure at throat exit

IMPEDANCE



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 90° x 40° coverage.

MOUNTING / SHIPPING INFO

Overall Diameter	4.17" / 106 mm
Depth	2.16" / 55 mm
Weight	3.52 lb / 1.6 kg
Shipping Weight	3.6 lb / 1.64 kg
Packing Carton Dimensions	(W) 120 (D) 120 (H) 71 mm
Bolt Fixing Hole Dimensions and Qty.	2x M6 on 76.2 mm / 3" PCD

MATERIALS OF CONSTRUCTION

Former Material	Polyamide
Voice Coil Material	Aluminium
Diaphragm Material	P.A.R
Surround / Edge Termination	Flat Membrane
Magnet Material	Neodymium
Connectors	6.3 mm Spade
Polarity	Positive voltage at red/ positive terminal causes positive pressure at throat exit.

ELECTRO ACOUSTIC SPECIFICATIONS

Sound Channel / Throat Size	1" / 25.4 mm
Impedance	8 Ohm/ 16 Ohm
Power Handling	50 W (A.E.S.)
Sensitivity (1 w - 1 m)	105 dB
Usable Frequency Range	2 kHz - 18 kHz
Rec. X-over Frequency Filtered at 18dB/ Octave	2.5 kHz
Effective Diaphragm Diameter	1.75" / 44 mm
Voice Coil Diameter	1.75" / 44 mm
Voice Coil DC Resistance	6.2 Ω
Max Diaphragm Displacement	0.016" / 0.4 mm
Flux Density	1.4 Tesla

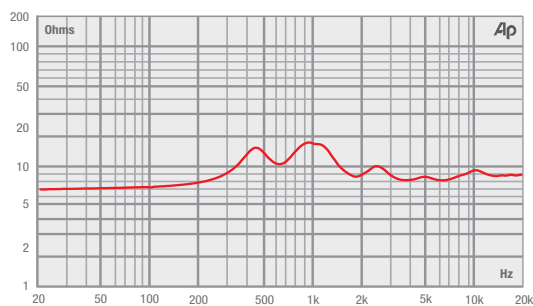


CD-1544N-P

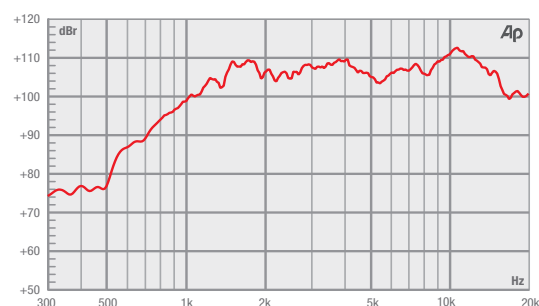
COMPRESSION DRIVER

- 1" Exit neodymium magnet compression driver.
- 1.75" / 44 mm Copper clad aluminium voice coil.
- P.A.R diaphragm with flat surround (PAR).
- 50 Wrms (AES standard).
- Copper inductance ring for extended response.
- Ferrofluid cooled.
- Self aligning diaphragm for easy field replacement.

IMPEDANCE



FREQUENCY RESPONSE DATA*



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 80° x 60° coverage.

MOUNTING / SHIPPING INFO

Overall Diameter	5.27" / 133.85 mm
Depth	2.48" / 63 mm
Weight	6.5 lb / 2.97 kg
Shipping Weight	6.8 lb / 3.1 kg
Packing Carton Dimensions	(W) 160 (D) 180 (H) 150 mm
Bolt Fixing Hole Dimensions and Qty.	3x M6 on 57.15 mm PCD / 2x M6 on 76.2 mm PCD

MATERIALS OF CONSTRUCTION

Former Material	Polyamide
Voice Coil Material	Aluminium
Diaphragm Material	Titanium
Surround / Edge Termination	Double Sinusoidal Roll Titanium
Magnet Material	Ferrite
Connectors	4.8 mm Spade
Polarity	Positive voltage at red/ positive terminal causes positive pressure at throat exit.

ELECTRO ACOUSTIC SPECIFICATIONS

Sound Channel / Throat Size	1" / 25.4 mm
Impedance	8 Ohm/ 16 Ohm
Power Handling	50 W (A.E.S.)
Sensitivity (1 w - 1 m)	106 dB
Usable Frequency Range	2 kHz - 18 kHz
Rec. X-over Frequency Filtered at 18dB/ Octave	3.5 kHz
Effective Diaphragm Diameter	1.75" / 44 mm
Voice Coil Diameter	1.75" / 44 mm
Voice Coil DC Resistance	6.2 / 10.5 Ω
Max Diaphragm Displacement	0.016" / 0.4 mm
Flux Density	1.65 Tesla
Magnet Weight	39 oz

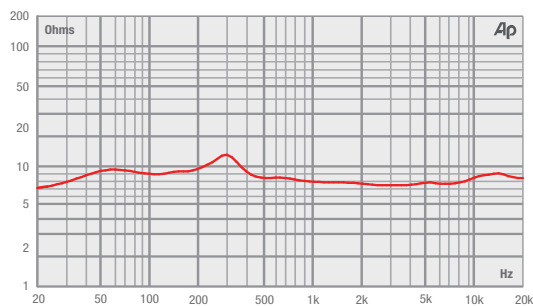


CD-150

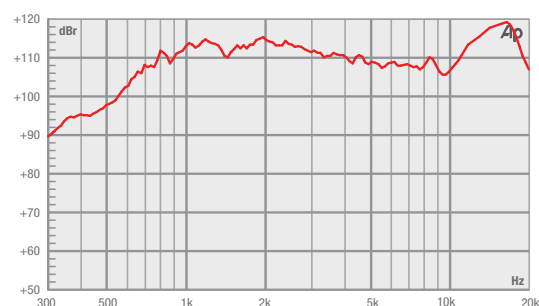
COMPRESSION DRIVER

- 1" Exit ferrite magnet compression driver.
- 1.75" / 43 mm copper clad aluminium voice coil.
- Titanium diaphragm with double sinusoidal roll surround (titanium).
- 50 Wrms (AES standard).
- Copper inductance ring for extended response.
- Ferrofluid cooled.
- Also available for OEMs with an aluminium diaphragm option.

IMPEDANCE



FREQUENCY RESPONSE DATA*



* Please enquire about alternative impedances.

* Frequency response measurement taken on axis with 1w signal at distance of 1m using custom horn with 90° x 40° coverage.



FIND OUT MORE ONLINE
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