

PROFESSIONAL AUDIO COMPONENTS

LOW FREQUENCY LOUSPEAKER DRIVERS
MID RANGE LOUSPEAKER DRIVERS
HIGH FREQUENCY COMPRESSION DRIVERS
OEM DESIGN & MANUFACTURING

60TH ANNIVERSARY EDITION

PRODUCT CATALOGUE 2018





1958

The story begins when founding partners Arthur E. Falkus and Dennis A. Newbold established the FANE brand by combining the first two letters of their respective surnames (FA and NE) to create the name that would form the identity of their new company. FANE was established to manufacture commercial loudspeakers for radio and television sets as well as the new 'hi-fi' industry as the new technologies and economy of the post-war era saw a huge expansion in affordable consumer products.

Fane Acoustics Limited, Batley, West Yorkshire, England, was officially registered as a Company on 11th June 1958.

Drivers for household or reinforcement use were advertised in 1959. One unit was equipped with aluminium voice coil windings, a favourite technique of Arthur Falkus to extend high frequency response.

From its inception FANE demonstrated the pioneering spirit that has comprised a core element of its ethos through to the present day.

1960s

During the early years of FANE's existence and rapid growth, the company supplied small round and elliptical speakers to manufacturers during the boom period of radio and television set production in the UK.

From the start, FANE had also produced large 12-inch bass drivers for OEMs in the specialist hi-fi industry in addition to producing its own hi-fi products such as the 'Quartet' complete loudspeaker system.

During this period production grew to exceed 50,000 units per week.

1965

In 1965 Fane Acoustics developed the IonoFane, a revolutionary plasma tweeter capable of incredible high frequency response utilising patented technologies. The unit used a high frequency electrical discharge to produce sound waves by ionising the air in a small quartz tube coupled to a flared horn. IonoFane was used by the British Broadcasting Company (BBC) as a monitoring loudspeaker and Bower & Wilkins also made units under license to Sony in Japan.

This served to expand FANE's reputation globally as a pioneering brand with a true passion for innovation in audio.

1966

In 1966 a young man by the name of Arthur Barnes joined Fane Acoustics as the press-shop manager. Arthur would progress through the ranks to become Managing Director and become the driving force behind FANE's most globally successful period of the 1980s.



▲ The IonoFane plasma tweeter circa 1965.

1967

It was in 1967 that FANE made the significant breakthrough that would seal its reputation as a market-leading innovator.

During the 1960s the electric guitar created the need for more powerful 12-inch loudspeakers. The real breakthrough for the industry, and from FANE specifically, came with Arthur Falkus' development, presentation and use of the glass fibre voice coil. Overnight speaker power handling was doubled and the legendary Crescendo MI range was born.

FANE became the first manufacturer to produce a speaker capable of handling 100 W and generate sound pressure levels in excess of 100 dB.

The revolutionary and trail-blazing new speaker technology was highly successful. Almost all of the leading manufacturers of this time would come to load FANE components into their products during this and the following decades. World-renowned brands of the time such as Carlsbro, Hiwatt, Laney, Orange, Sound City and Vox were just a few of those FANE customers.

Iconic artists such as Pink Floyd, The Who, The Rolling Stones and many more used equipment loaded with FANE speaker components, making FANE an integral part of the British music scene revered throughout the world.

It is a tribute to FANE design expertise that other loudspeaker manufacturers, recognising the superiority of the glass fibre coil, replicated the use of this material for their own construction and making it an industry standard. Where FANE led the way, others followed.



1970s

During the 1970s FANE went from strength to strength, increasing production capabilities and carrying out further research in loudspeaker technology and advanced construction materials. As FANE continued to further develop speaker technologies for high-power professional audio sound reinforcement, the FANE product range and OEM capability significantly expanded to cover a catalogue range of fifty products.

OEM customers could select variations of cones, coils, dust domes and suspensions to modify product to suit their individual requirements, a service that FANE continues to offer today.

It was during this period of growth and development that iconic loudspeaker ranges such as the Classic Series and Crescendo first appeared (pictured below).



▲ A classic Fane Crescendo loudspeaker.

1980s

FANE "Towards Perfection"

By the mid-1980s FANE was probably the most significant professional audio component loudspeaker manufacturer in Europe.

Another decade of continuous success saw increased FANE presence in high-end theatres such as Carnegie Hall, New York, and the Royal Theatre, Copenhagen. Turbosound, who selected FANE for all their custom designed loudspeaker requirements, were the choice of the world's leading venues and entertainers.

The new Studio series incorporating, amongst others, Colossus models, reflected the very latest developments in acoustic engineering. FANE "Towards Perfection" was a phrase used to reflect the pedigree and mission statement that the company was striving so successfully to achieve.

New landmarks, such as the first commercially available 24-inch loudspeaker and 4-inch voice coils, enabled FANE to strengthen during this period under the leadership of Arthur Barnes.

In 1986 respected English loudspeaker brand McKenzie was acquired as part of the audio group portfolio, another association that continues to the present day.

In 1989 following years of success, and despite a resolute attempt to orchestrate a management buyout, FANE was purchased by the Wharfedale Group. Arthur left the company he had dedicated himself to and the tenure of the Barnes family association with FANE was temporarily ended.

1990s

A period of changes of ownership and lack of direction combined to make the next few years challenging for FANE. Introductions such as NXT flat panel technology did not achieve the desired success and the brand suffered from a lack of focus on the core values upon which it had been so successfully founded and developed between the 1950s and 1980s.

2007

In January 2007 the Barnes family took the opportunity to purchase FANE with the objective of restoring the brand's fortunes through refocusing upon core values and bringing a renewed expertise to the challenges of an audio market that had showed considerable change over the previous twenty years.

In 2007 FANE was relocated from its then manufacturing plant in Leeds to its current home at our headquarters in Castleford, West Yorkshire, England.

▲ Main images (from top left).

1. A vintage Fane car radio speaker.
2. Arthur Barnes (centre) with David Biggs and Dennis Newbold.
3. Finishing and preparation of Fane speaker chassis.
4. Modern 'vented' voice coil designs still utilise Arthur Falkus' revolutionary glass fibre technology.
5. Fane loaded 4x12 bass guitar cabinet.
6. Audio Fidelity Group Directors, including Simon Cowell, meet with Arthur Barnes (far right) in the late 1980s.
7. Fane's present day headquarters and manufacturing plant in West Yorkshire, England.
8. The Fane team in the UK plant, April 2018.



2008

In 2008 the FANE product line was officially re-launched under the ownership of the Barnes family with headquarters still located only ten miles from the original FANE factory in Batley, West Yorkshire. At the outset of the new ownership, key FANE staff who were employed during the 1970s and 1980s were recruited to give the team strength in expertise, commitment to continuous improvement and authenticity to the core FANE character. Not so much a brand purchase under new owners, it represented a 'coming home' for the management team after a period interrupted in 1989.

The FANE catalogue of components was carefully reviewed and analysed. A complete product overhaul was conducted to ensure the renowned FANE qualities of incredible performance without compromise are firmly adhered to, the result being a comprehensive range of components from 5-inch through to 18-inch loudspeakers.

The FANE Sovereign Series was created with both heavy duty pressed steel and cast aluminium frame options to provide a new range of product options optimised for the requirements of the current professional audio industry and subject to a programme of continuous improvement in which specifications undergo constant analysis to ensure that they represent the best they can be.

2009

The opening of our offshore manufacturing plant enabled FANE greater competitiveness to meet the challenges of a market in which the number of rival brands had increased exponentially at the same time of vastly increasing production output. By bringing FANE closer to key growth regions, FANE has been able to develop market share in the great emerging world economies.

2011

The launch of Colossus PRIME 18XS saw the arrival of another legendary FANE high power 18-inch drive unit to stand alongside the mighty Colossus 18XB. The PRIME 18XS displayed the hallmarks of FANE ingenuity to deliver an incredible peak-to-peak excursion in excess of 60 mm to ensure fast, accurate bass in the most testing of performance environments and engineered to provide significant advantages over competing European products.

The PRIME 18XS represents just one of the many new product developments over the past decade of FANE audio engineering, each model carefully considered and engineered to provide an audio advantage for the OEM, excelling and not just performing in the target application.

2018

FANE continues to dynamically engage with a continually changing global audio industry, evolving to the demands of the present time while being faithful to our original maxims of being at the forefront of audio design and engineering and innovative in our approach to predicting future market trends and requirements.

In 2018 we celebrate our 60th anniversary as a brand and ten complete years under the Barnes family ownership with a direct link through to the early days of FANE back in 1966.

Under family ownership, management and direction we are faithful to our heritage and look forward with optimism to the future, bringing the advantages of a genuinely forward-thinking and multi-generational approach with one founded in the values that makes FANE great. A labour of love as well as of professionalism and expertise.

With direct business-owner to business-owner communications and commitment to world class standards and professional excellence we welcome working with business partners around the world to forge a strong and successful future together.

2018 underlines our continued commitment to product development and innovation with the launch of FANE Imperium™ a formidable addition to our professional range of products to stand alongside the Colossus Series, delivering outstanding efficiency to provide a definitive performance advantage and another legendary FANE product for the future.

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

We look forward to working with you to celebrate further milestones of achievement in the story of success that we shall forge together...



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.

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.

OUR TECHNOLOGIES

CHASSIS CONSTRUCTION

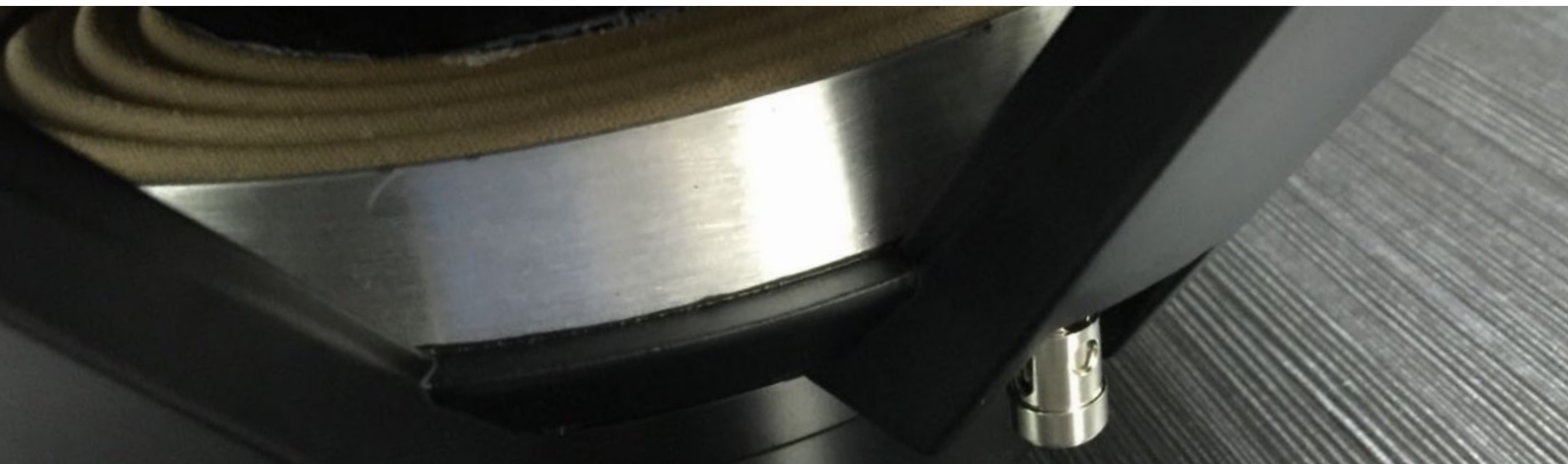
Optimised in the design process using Finite Element Analysis (FEA). The majority of Fane chassis are made of high grade die-cast aluminium. Our selected material has the specific advantages of high strength and tensile stress factors, high strength-to weight ratio, low thermal expansion factor, high 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 access to many different former and coil materials, each coil is designed with the former characteristics in mind. Not all designs work well with a standard former materials. 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

Used to minimise air turbulence within the motor and voice coil assembly. The correct spacing, size and position of the vents effect the efficiency and heat dissipation achieved when this technique is used. Each of our products 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.

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.

PRODUCT OVERVIEW

THE PROFESSIONAL SERIES

MODEL	SIZE	PROGRAM POWER	MAGNET MATERIAL	VOICE COIL DIAMETER	FREQUENCY RANGE	SPL	FS	XMAX	PAGE
IMPERIUM 18XL	18" / 457.2 mm	2600 W	Y35 Ferrite	5.0" / 127 mm	30 Hz - 2 kHz	96 dB	36 Hz	10.5 mm	9
IMPERIUM 18NDXL	18" / 457.2 mm	2400 W	Neodymium	5.0" / 127 mm	30 Hz - 2 kHz	98.5 dB	33 Hz	12 mm	10
COLOSSUS PRIME 18XS	18" / 457.2 mm	2400 W	Y35 Ferrite	4.0" / 101.6 mm	35 Hz - 500 Hz	100 dB	33 Hz	12 mm	11
COLOSSUS 18XB	18" / 457.2 mm	2000 W	Ferrite	4.0" / 101.6 mm	35 Hz - 1 kHz	99 dB	33 Hz	7.5 mm	12
COLOSSUS 18SB	18" / 457.2 mm	2000 W	Ferrite	4.0" / 101.6 mm	35 Hz - 2.5 kHz	100 dB	36 Hz	8.25 mm	13
COLOSSUS 15SB	15" / 381 mm	1600 W	Ferrite	4.0" / 101.6 mm	40 Hz - 3 kHz	99 dB	41 Hz	6.5 mm	14
SOVEREIGN PRO 15-600	15" / 381 mm	1200 W	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	1200 W	Ferrite	3.0" / 76.2 mm	35 Hz - 3.5 kHz	98 dB	40 Hz	6.9 mm	16
COLOSSUS 12MB	12" / 304.8 mm	1000 W	Ferrite	3.0" / 76.2 mm	40 Hz - 3.5 kHz	98 dB	55 Hz	5.5 mm	17
COLOSSUS 12MBN	12" / 304.8 mm	1000 W	Neodymium	3.0" / 76.2 mm	40 Hz - 4 kHz	98.5 dB	55 Hz	5.5 mm	18
SOVEREIGN PRO 12-500	12" / 304.8 mm	1000 W	Ferrite	3.0" / 76.2 mm	45 Hz - 4.5 kHz	97.5 dB	43 Hz	6 mm	19
SOVEREIGN PRO 10-300SC	10" / 254 mm	600 W	Ferrite	2.5" / 63.5 mm	45 Hz - 4 kHz	98 dB	47 Hz	4.75 mm	20
SOVEREIGN PRO 10-300	10" / 254 mm	600 W	Ferrite	2.5" / 63.5 mm	45 Hz - 4 kHz	98 dB	58 Hz	5.5 mm	21
SOVEREIGN PRO 8-225	8" / 203.2 mm	450 W	Ferrite	2.0" / 50.8 mm	55 Hz - 5 kHz	97 dB	62 Hz	5.5 mm	22
STUDIO 5FRK	5" / 127 mm	100 W	Ferrite	1.0" / 25.4 mm	65 Hz - 7 kHz	90.5 dB	58 Hz	2.41 mm	23

THE SOVEREIGN SERIES

MODEL	SIZE	PROGRAM POWER	MAGNET MATERIAL	VOICE COIL DIAMETER	FREQUENCY RANGE	SPL	FS	XMAX	PAGE
SOVEREIGN 15-600LF	15" / 381 mm	1200 W	Ferrite	3.0" / 76.2 mm	38 Hz - 3.5 kHz	98.5 dB	37 Hz	6.5 mm	24
SOVEREIGN 15-400LF	15" / 381 mm	800 W	Ferrite	2.5" / 63.5 mm	40 Hz - 4 kHz	97 dB	41 Hz	4.6 mm	25
SOVEREIGN 15-300TC	15" / 381 mm	600 W	Ferrite	2.5" / 63.5 mm	50 Hz - 15 kHz	101 dB	48 Hz	3.5 mm	26
SOVEREIGN 12-500LF	12" / 304.8 mm	1000 W	Ferrite	2.5" / 63.5 mm	38 Hz - 5 kHz	95 dB	50 Hz	5.5 mm	27
SOVEREIGN 12-300	12" / 304.8 mm	600 W	Ferrite	2.5" / 63.5 mm	45 Hz - 4.5 kHz	97.5 dB	46 Hz	4.5 mm	28
SOVEREIGN 12-250TC	12" / 304.8 mm	500 W	Ferrite	2.0" / 50.8 mm	45 Hz - 17 kHz	100 dB	50 Hz	3.5 mm	29
SOVEREIGN 10-300	10" / 254 mm	600 W	Ferrite	2.5" / 63.5 mm	45 Hz - 5 kHz	97.5 dB	58 Hz	5.5 mm	30
SOVEREIGN 8-225	8" / 203.2 mm	450 W	Ferrite	2.0" / 50.8 mm	55 Hz - 5 kHz	97 dB	62 Hz	5.5 mm	31
SOVEREIGN 6-100	6" / 152.4 mm	200 W	Ferrite	1.5" / 38.1 mm	60 Hz - 7 kHz	93 dB	115 Hz	2.5 mm	32

HIGH FREQUENCY DEVICES

MODEL	THROAT SIZE	PROGRAM POWER	MAGNET MATERIAL	VOICE COIL DIAMETER	FREQUENCY RANGE	SPL	VOICE COIL MATERIAL	DIAPHRAGM MATERIAL	PAGE
CD-140	1" / 25.4 mm	80 W	Ferrite	1.75" / 44 mm	2 kHz - 18 kHz	105 dB	Aluminium	Titanium	33
CD-140S	1" / 25.4 mm	80 W	Ferrite	1.75" / 44 mm	2 kHz - 18 kHz	105 dB	Aluminium	Titanium	33
CD-140P	1" / 25.4 mm	80 W	Ferrite	1.75" / 44 mm	2 kHz - 18 kHz	105 dB	Aluminium	Polymer	34
CD-131	1" / 25.4 mm	60 W	Ferrite	1.37" / 34.4 mm	2 kHz - 18 kHz	106 dB	Aluminium	Titanium	34
CD-130	1" / 25.4 mm	60 W	Ferrite	1.37" / 34.4 mm	2 kHz - 18 kHz	106 dB	Aluminium	Titanium	35



IMPERIUM 18XL

SUB BASS DRIVER

18" / 457.2 mm

CHASSIS DIAMETER

2600 W

PROGRAM POWER

30 Hz - 2 kHz

FREQUENCY RESPONSE

5" / 127 mm

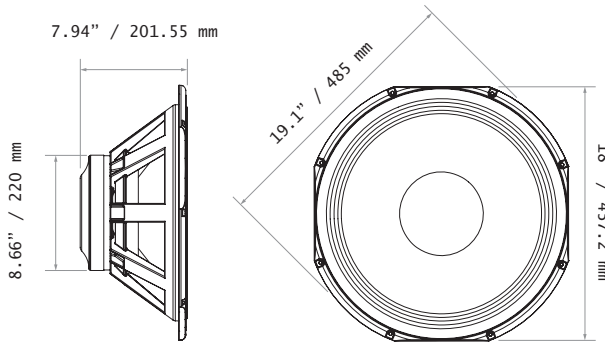
VOICE COIL DIAMETER

96 dB

SENSITIVITY (1W/ 1m)

10.5 mm Xmax

MAX. LINEAR EXCURSION



- + Lightweight Y35 ferrite motor design. Only weighs 13 kg.
- + New 18-Inch vented cast aluminium chassis design.
- + Aluminium core heat sink and large motor venting provides reduced power compression and effective temperature regulation.
- + Powerful and accurate low frequency sound reproduction.
- + Peak to peak maximum excursion of 52 mm.
- + Dual 'spaced' suspension system and advanced materials offers ultra-linearity, mechanical stability and superior acoustic performance at high levels of excursion.
- + Suitable for bass reflex or horn loaded designs.
- + 5-Inch Copper voice coil.

GENERAL SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.5 Ω
AES Power Handling ⁽²⁾	1300 W (A.E.S.)
Program Power	2600 W
Peak Power (6dB Crest Factor)	5200 W
Frequency Range ^(-6dB)	30 Hz - 2 kHz
Sensitivity (1W/ 1m)	96 dB
Magnet Material	Ferrite
Magnet Weight	105.8 oz
Magnetic Gap Depth	0.35" / 9 mm
Flux Density	0.98 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.98" / 25 mm
Voice Coil Diameter	5" / 127 mm
Cone/ Dust Dome Material	Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

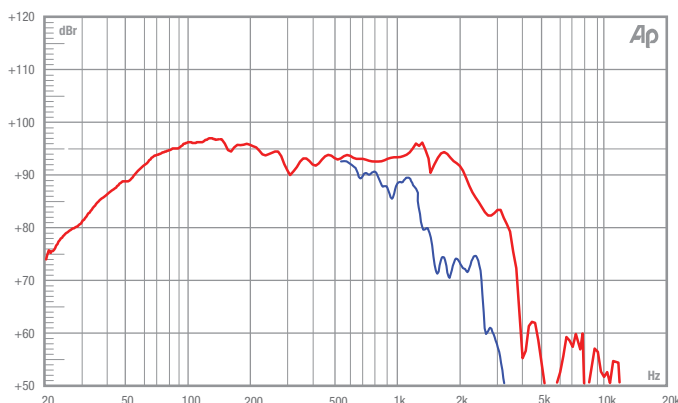
TECHNICAL & THIELE SMALL PARAMETERS

Fs	36 Hz
Re	5.9 Ω
Qms	11.1
Qes	0.56
Qts	0.53
Vas	205 Litres
Vd	1.19 Litres
Cms	0.11 mm/N
Bl	20.36 T/m
Mms	174 g
Xmax	10.5 mm
Sd	1134 cm ²
Efficiency	1.65 %
Le (1k Hz)	2.9 mH
EBP	64.29 Hz
Effective Piston Diameter	15.68" / 398.27 mm
Rec. Enclosure Volume	60 - 230 Litres

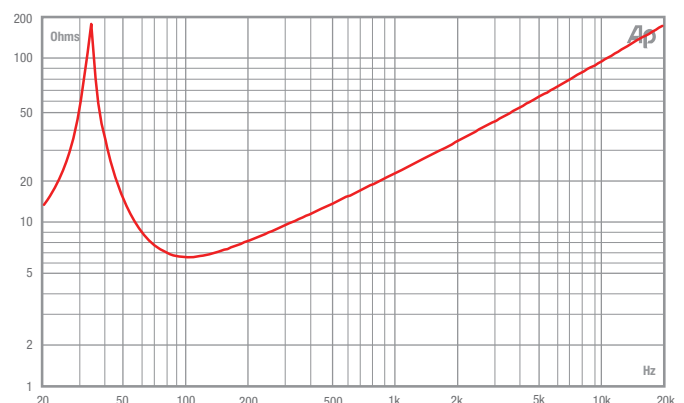
MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457.2 mm
Depth	7.94" / 201.55 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
Chassis Material	Die-cast Aluminium
Gasket Supplied	Front
Outer Fixing Holes	8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 7 mm on 438.15 mm PCD
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	28.85 lb / 13.09 kg
Shipping Weight	31 lb / 14.06 kg
Packing Carton Dimensions (mm)	(W) 495 (D) 495 (H) 255

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

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

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

IMPERIUM 18NDXL

SUB BASS DRIVER


18" / 457.2 mm

CHASSIS DIAMETER

2400 W

PROGRAM POWER

30 Hz - 2 kHz

FREQUENCY RESPONSE

5" / 127 mm

VOICE COIL DIAMETER

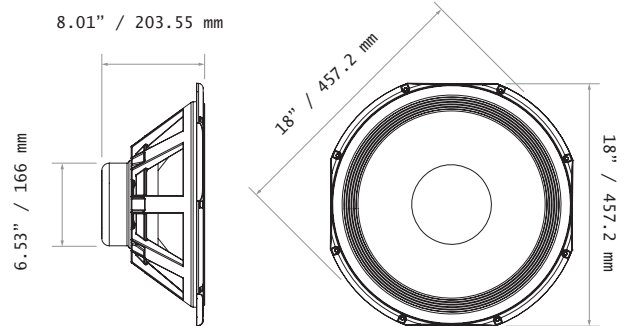
98.5 dB

SENSITIVITY (1W/1m)

12 mm Xmax

MAX. LINEAR EXCURSION

- + New, vented cast aluminium chassis design.
- + Lightweight and efficient neodymium motor system generates minimal flux modulation.
- + Aluminium core heat sink and large motor venting provides reduced power compression and effective temperature regulation.
- + Long driver excursion. Peak to peak travel of 52 mm.
- + High BL factor for controlled, fast and accurate low frequency sound reproduction.
- + Dual 'spaced' suspension system provides increased linearity and control at high levels of excursion.
- + Suitable for bass reflex or horn loaded enclosure designs.
- + 5-Inch Copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.5 Ω
AES Power Handling ⁽²⁾	1200 W (A.E.S.)
Program Power	2400 W
Peak Power (6dB Crest Factor)	4800 W
Frequency Range (-6dB)	30 Hz - 2 kHz
Sensitivity (1W/1m)	98.5 dB
Magnet Material	Neodymium
Magnet Weight	- oz
Magnetic Gap Depth	0.47" / 12 mm
Flux Density	1.2 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	1.1" / 28 mm
Voice Coil Diameter	5" / 127 mm
Cone/ Dust Dome Material	Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

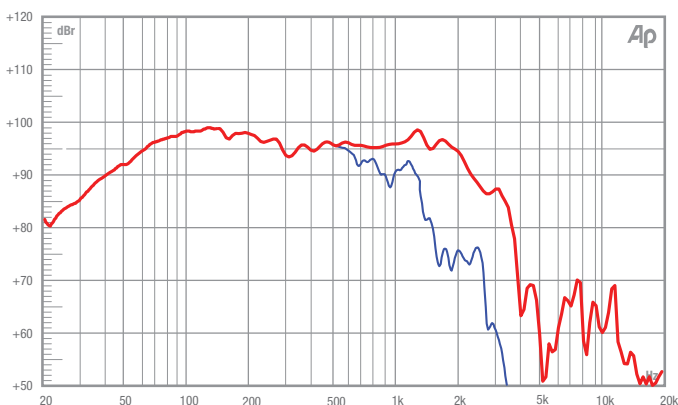
TECHNICAL & THIELE SMALL PARAMETERS

Fs	33 Hz
Re	5.6 Ω
Qms	17.7
Qes	0.3
Qts	0.295
Vas	203 Litres
Vd	1.35 Litres
Cms	0.106 mm/N
Bl	29.4 T/m
Mms	220 g
Xmax	12 mm
Sd	1164 cm ²
Efficiency	2.4 %
Le (1k Hz)	2.76 mH
EBP	110 Hz
Effective Piston Diameter	15.68" / 398.27 mm
Rec. Enclosure Volume	60 - 230 Litres

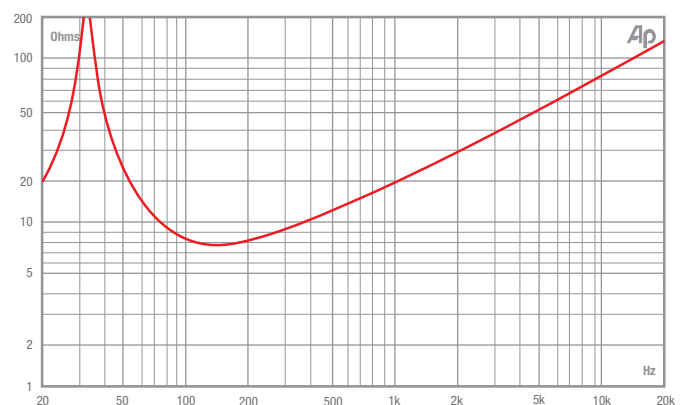
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Gasket Supplied	Front
Outer Fixing Holes	8x Ø 7 mm on 468 mm PCD
Inner Fixing Holes	8x Ø 7 mm on 438.15 mm PCD
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	25.35 lb / 11.5 kg
Shipping Weight	25.5 lb / 11.57 kg
Packing Carton Dimensions (mm)	(W) 485 (D) 485 (H) 230

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

COLOSSUS PRIME 18XS

SUB BASS DRIVER



18" / 457.2 mm
CHASSIS DIAMETER

2400 W
PROGRAM POWER

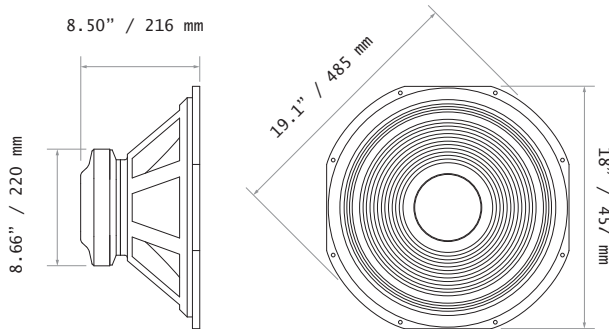
35 Hz - 500 Hz
FREQUENCY RESPONSE

4" / 101.6 mm
VOICE COIL DIAMETER

100 dB
SENSITIVITY (1W/ 1m)

12 mm Xmax
MAX. LINEAR EXCURSION

- + High grade Y35 ferrite magnet motor structure with Low interference flux path.
- + Vented chassis and motor design provides efficient thermal management and extremely low power compression.
- + Aluminium demodulation ring.
- + Dual silicone laminated suspension system combined with optimised software materials offers increased linearity for fast, accurate and undistorted bass reproduction at extreme SPL.
- + 12 mm Xmax with 64 mm peak-to-peak travel.
- + Ideal for bass reflex and scoop enclosure designs from 125-400 Litres.
- + Also performs well in horn loaded systems.
- + 4-Inch Inside / Outside windings copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.5 Ω
AES Power Handling ⁽²⁾	1200 W (A.E.S.)
Program Power	2400 W
Peak Power (6dB Crest Factor)	4800 W
Frequency Range (-6dB)	35 Hz - 500 Hz
Sensitivity (1W/ 1m)	100 dB
Magnet Material	Ferrite Y35
Magnet Weight	145 oz
Magnetic Gap Depth	0.43" / 11 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper - Inside / Outside
Coil Winding Height	1.18" / 30 mm
Voice Coil Diameter	4" / 101.6 mm
Cone/ Dust Dome Material	Straight Fibre Loaded Poly-cellulose Ribbed / Solid Paper (Inverted)
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

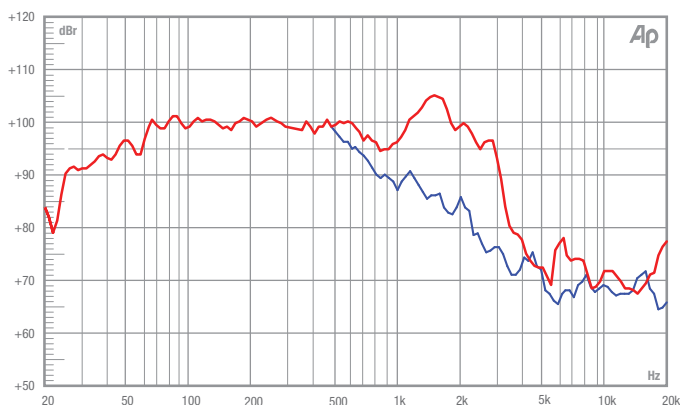
TECHNICAL & THIELE SMALL PARAMETERS

Fs	33 Hz
Re	5.2 Ω
Qms	8.2
Qes	0.404
Qts	0.385
Vas	257 Litres
Vd	1.45 Litres
Cms	0.124 mm/N
Bl	22.4 T/m
Mms	188 g
Xmax	12 mm
Sd	1210 cm ²
Efficiency	2.2 %
Le (1k Hz)	1.5 mH
EBP	81.68 Hz
Effective Piston Diameter	15.43" / 391.92 mm
Rec. Enclosure Volume	4.41 - 14.12 ft ³ / 125 - 400 Litres

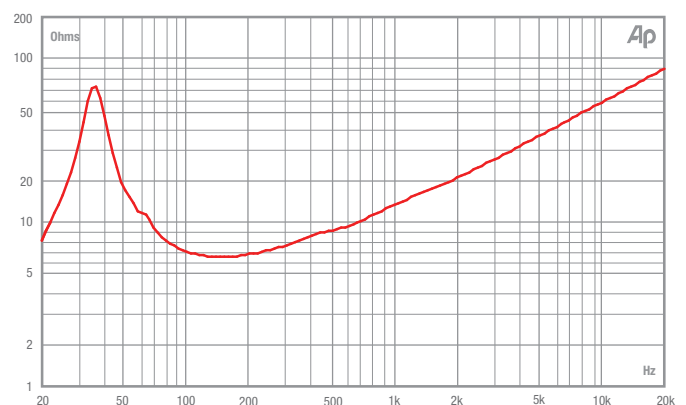
MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Depth	8.50" / 216 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	33.75 lb / 15.3 kg
Shipping Weight	37.45 lb / 17 kg
Packing Carton Dimensions (mm)	(W) 495 (D) 495 (H) 255

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

COLOSSUS 18XB

SUB BASS DRIVER

18" / 457.2 mm

CHASSIS DIAMETER

2000 W

PROGRAM POWER

35 Hz - 1 kHz

FREQUENCY RESPONSE

4" / 101.6 mm

VOICE COIL DIAMETER

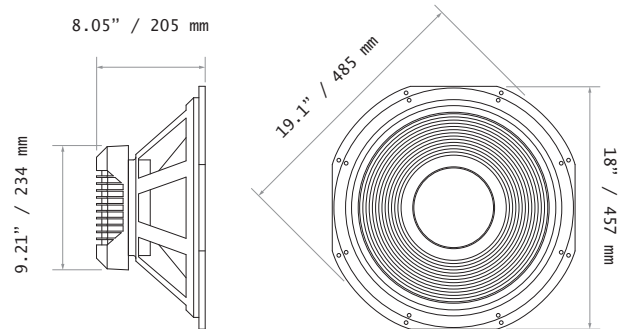
99 dB

SENSITIVITY (1W/ 1m)

7.5 mm Xmax

MAX. LINEAR EXCURSION

- + Great replacement driver for most bass reflex applications.
- + Vented chassis and motor design provides efficient thermal management and extremely low power compression.
- + High BL factor, 25.9 T/m.
- + Dual 'spaced' suspension system and advanced materials offers ultra-linearity, mechanical stability and superior acoustic performance at high levels of excursion.
- + Ribbed, fibre loaded, UK manufactured cone offers increased strength, durability and resistance to deformation under extreme loads.
- + Designed for optimum use in 100-250 Litre ported enclosure designs.
- + 4-Inch Inside / Outside windings copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.5 Ω
AES Power Handling ⁽²⁾	1000 W (A.E.S.)
Program Power	2000 W
Peak Power (6dB Crest Factor)	4000 W
Frequency Range (-6dB)	35 Hz - 1 kHz
Sensitivity (1W/ 1m)	99 dB
Magnet Material	Ferrite
Magnet Weight	120 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1.2 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper - Inside / Outside
Coil Winding Height	0.90" / 23 mm
Voice Coil Diameter	4" / 101.6 mm
Cone/ Dust Dome Material	Straight Poly-cellulose Ribbed / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

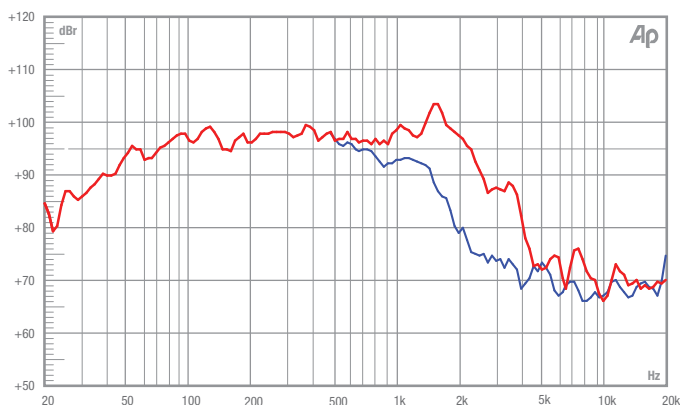
TECHNICAL & THIELE SMALL PARAMETERS

Fs	33 Hz
Re	6.5 Ω
Qms	5.77
Qes	0.358
Qts	0.337
Vas	236 Litres
Vd	0.803 Litres
Cms	0.13 mm/N
Bl	25.9 T/m
Mms	173 g
Xmax	7.5 mm
Sd	1131 cm ²
Efficiency	2.3 %
Le (1k Hz)	1.99 mH
EBP	92.18 Hz
Effective Piston Diameter	15.03" / 381.76 mm
Rec. Enclosure Volume	3.53 - 8.82 ft ³ / 125 - 400 Litres

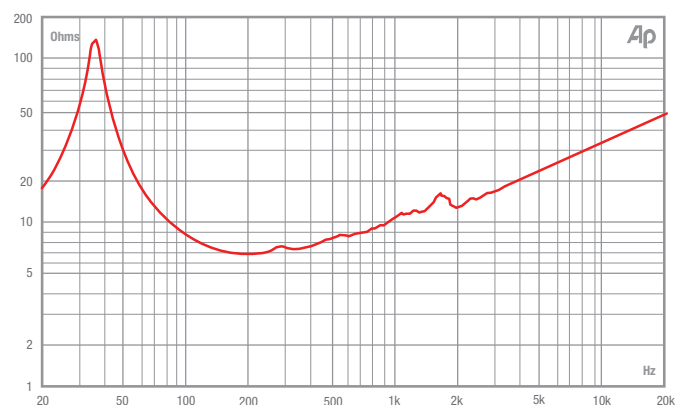
MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Depth	8.05" / 205 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	31.29 lb / 14.2 kg
Shipping Weight	35.26 lb / 16 kg
Packing Carton Dimensions (mm)	(W) 512 (D) 512 (H) 244

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

COLOSSUS 18SB

SUB BASS DRIVER


18" / 457.2 mm

CHASSIS DIAMETER

2000 W

PROGRAM POWER

35 Hz - 2.5 kHz

FREQUENCY RESPONSE

4" / 101.6 mm

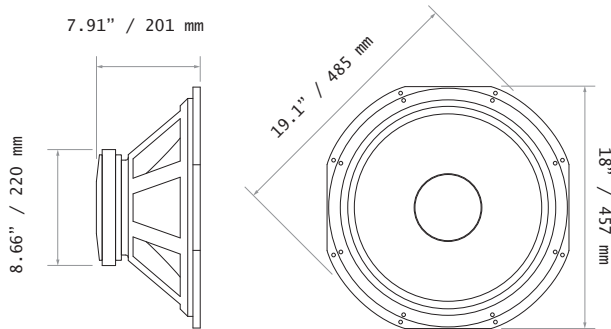
VOICE COIL DIAMETER

100 dB

SENSITIVITY (1W/ 1m)

8.25 mm Xmax

MAX. LINEAR EXCURSION



- + Chassis and motor system venting provides efficient thermal management and extremely low power compression.
- + Dual silicone laminated suspension system combined with optimised software materials offers increased linearity for tight, punchy bass reproduction at extreme SPL.
- + Fibre loaded, UK manufactured cone offering increased strength, durability and performance.
- + Optimised for ported enclosures, delivering bass down to 35 Hz in a 200 Litre enclosure.
- + 4-Inch Inside / Outside windings copper voice coil.

GENERAL SPECIFICATIONS

Nominal Chassis Diameter	18" / 457.2 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.5 Ω
AES Power Handling ⁽²⁾	1000 W (A.E.S.)
Program Power	2000 W
Peak Power (6dB Crest Factor)	4000 W
Frequency Range (-6dB)	35 Hz - 2.5 kHz
Sensitivity (1W/ 1m)	100 dB
Magnet Material	Ferrite
Magnet Weight	120 oz
Magnetic Gap Depth	0.43" / 11 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper - Inside / Outside
Coil Winding Height	0.87" / 22 mm
Voice Coil Diameter	4" / 101.6 mm
Cone/ Dust Dome Material	Curvilinear Poly-cellulose / Solid Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

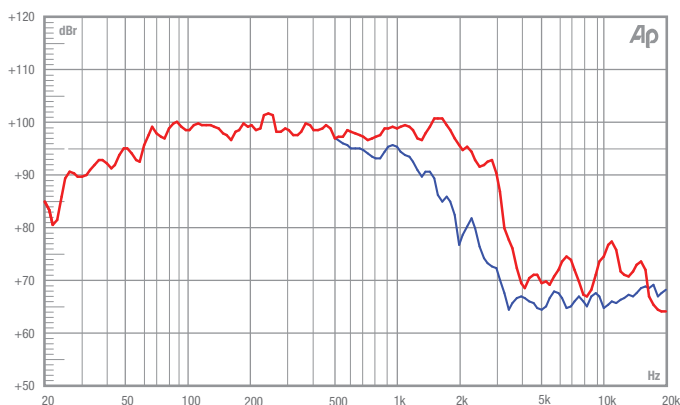
TECHNICAL & THIELE SMALL PARAMETERS

Fs	36 Hz
Re	5.2 Ω
Qms	6.583
Qes	0.366
Qts	0.346
Vas	199 Litres
Vd	0.893 Litres
Cms	0.109 mm/N
Bl	24 T/m
Mms	177.2 g
Xmax	8.25 mm
Sd	1134 cm ²
Efficiency	2.49 %
Le (1k Hz)	2.23 mH
EBP	98.36 Hz
Effective Piston Diameter	14.84" / 376.93 mm
Rec. Enclosure Volume	4.41 - 14.12 ft ³ / 125 - 400 Litres

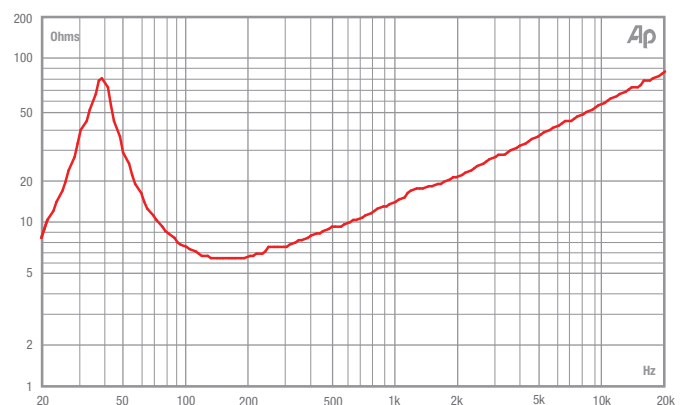
MOUNTING / SHIPPING INFORMATION

Overall Diameter	19.1" / 485 mm
Width Across Flats	18" / 457 mm
Depth	7.91" / 201 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	27.6 lb / 12.51 kg
Shipping Weight	28.9 lb / 13.1 kg
Packing Carton Dimensions (mm)	(W) 485 (D) 485 (H) 230

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

COLOSSUS 15SB

BASS DRIVER

15" / 381 mm

CHASSIS DIAMETER

1600 W

PROGRAM POWER

40 Hz - 3 kHz

FREQUENCY RESPONSE

4" / 101.6 mm

VOICE COIL DIAMETER

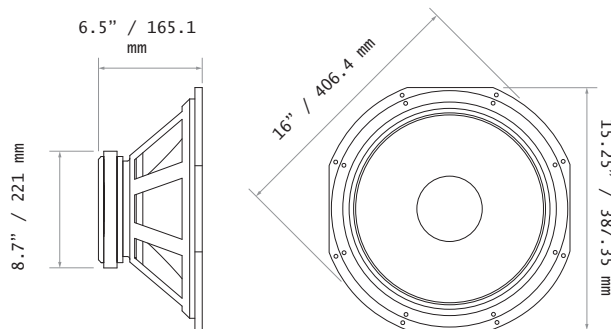
99 dB

SENSITIVITY (1W/1m)

6.5 mm Xmax

MAX. LINEAR EXCURSION

- + Offers high SPL and attack in two-way ported enclosures.
- + Optimised non-inductive motor system efficiently controls magnetic flux and reduces third-harmonic and intermodulation distortion.
- + Dynamic, smooth and detailed low frequency reproduction.
- + Best suited for use in bass reflex enclosures, delivering bass down to 30Hz (-6dB) in a 125 Litre enclosure.
- + Can also be used well in horn loaded enclosure designs.
- + 4-inch Inside / Outside windings CCAW voice coil.
- + Waterproof cone.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.3 Ω
AES Power Handling ⁽²⁾	800 W (A.E.S.)
Program Power	1600 W
Peak Power (6dB Crest Factor)	3200 W
Frequency Range (-6dB)	40 Hz - 3 kHz
Sensitivity (1W/1m)	99 dB
Magnet Material	Ferrite
Magnet Weight	120 oz
Magnetic Gap Depth	0.43" / 11 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	CCA W - Inside / Outside
Coil Winding Height	0.75" / 19 mm
Voice Coil Diameter	4" / 101.6 mm
Cone/ Dust Dome Material	Curvilinear Poly-cellulose / Paper
Surround / Edge Termination	Polyvinyl Damped Half Roll Linen

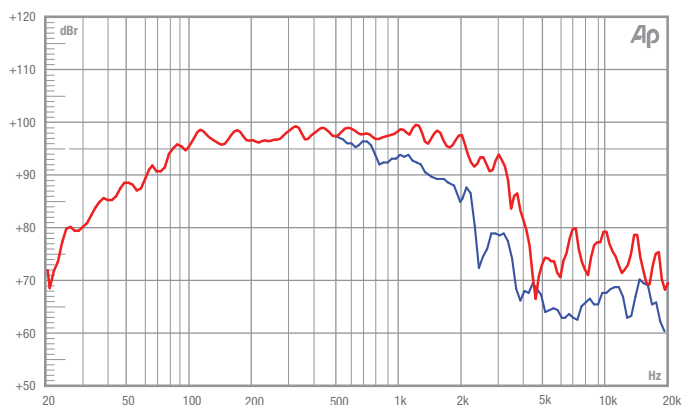
TECHNICAL & THIELE SMALL PARAMETERS

Fs	41 Hz
Re	5.4 Ω
Qms	6.85
Qes	0.3
Qts	0.29
Vas	151 Litres
Vd	0.56 Litres
Cms	0.142 mm/N
Bl	22.5 T/m
Mms	106 g
Xmax	6.5 mm
Sd	866 cm ²
Efficiency	3.34 %
Le (1k Hz)	2.15 mH
EBP	136.67 Hz
Effective Piston Diameter	13" / 330.2 mm
Rec. Enclosure Volume	75 - 125 Litres

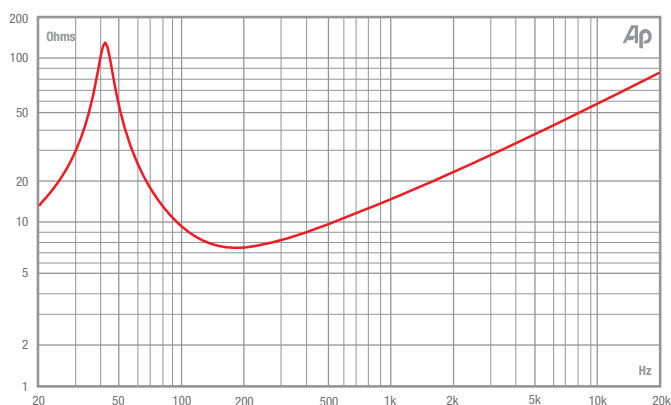
MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Depth	6.5" / 165.1 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	22.48 lb / 10.2 kg
Shipping Weight	25.5 lb / 11.5 kg
Packing Carton Dimensions (mm)	(W) 440 (D) 440 (H) 220

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.



SOVEREIGN PRO 15-600

SUB BASS DRIVER

15" / 381 mm

CHASSIS DIAMETER

1200 W

PROGRAM POWER

38 Hz - 3.5 kHz

FREQUENCY RESPONSE

3" / 76.2 mm

VOICE COIL DIAMETER

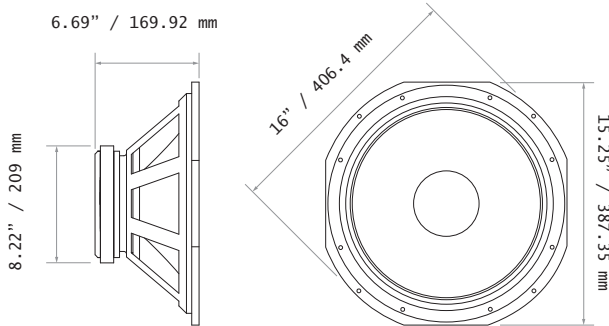
98 dB

SENSITIVITY (1W/ 1m)

17.5 T/m

BL FORCE FACTOR

- + Highly versatile solution for two and three-way systems where high BL and maximum punch are required.
- + Excellent linear response with well controlled bass reproduction and smooth mid-range performance.
- + Especially suited to horn loaded, band pass and compact bass reflex applications.
- + UK manufactured cone with optimised pulp offering increased strength, durability and performance.
- + 3-Inch Copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.5 Ω
AES Power Handling ⁽²⁾	600 W (A.E.S.)
Program Power	1200 W
Peak Power (6dB Crest Factor)	2400 W
Frequency Range ⁽³⁾	38 Hz - 3.5 kHz
Sensitivity (1W/ 1m)	98 dB
Magnet Material	Ferrite
Magnet Weight	85 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.70" / 18 mm
Voice Coil Diameter	3" / 76.2 mm
Cone/ Dust Dome Material	Curvilinear Poly-cellulose / Solid Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Poly Cotton

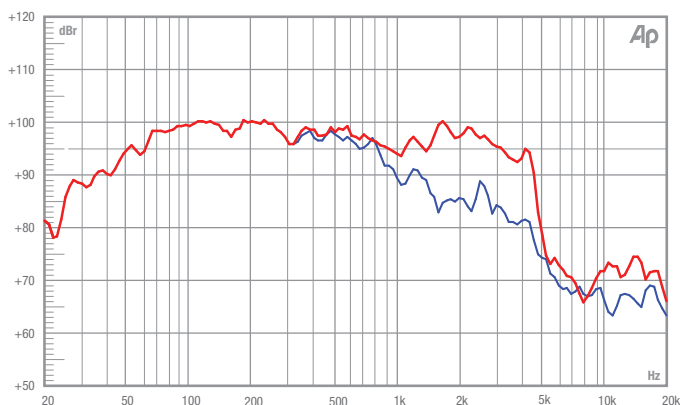
TECHNICAL & THIELE SMALL PARAMETERS

Fs	38 Hz
Re	5.4 Ω
Qms	3.52
Qes	0.39
Qts	0.351
Vas	201 Litres
Vd	0.513 Litres
Cms	0.196 mm/N
Bl	17.5 T/m
Mms	89.5 g
Xmax	6 mm
Sd	850 cm ²
Efficiency	2.76 %
Le (1k Hz)	1.95 mH
EBP	97.44 Hz
Effective Piston Diameter	13.03" / 330.96 mm
Rec. Enclosure Volume	2.64 - 5.29 ft ³ / 75 - 150 Litres

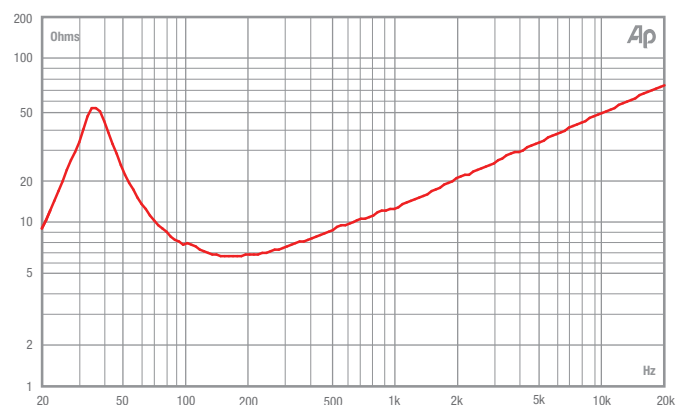
MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Depth	6.69" / 169.92 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	17.52 lb / 7.95 kg
Shipping Weight	20.05 lb / 9.1 kg
Packing Carton Dimensions (mm)	(W) 410 (D) 410 (H) 210

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN PRO 15-600LF

BASS DRIVER

15" / 381 mm

CHASSIS DIAMETER

1200 W

PROGRAM POWER

35 Hz - 3.5 kHz

FREQUENCY RESPONSE

3" / 76.2 mm

VOICE COIL DIAMETER

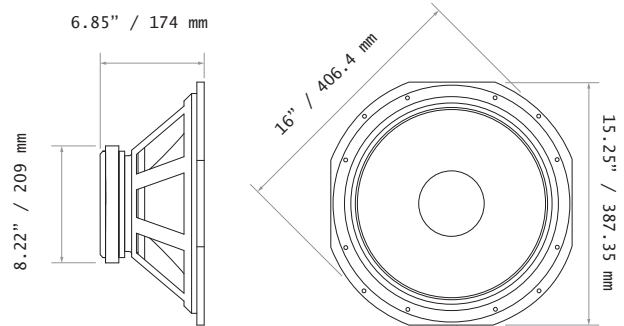
98 dB

SENSITIVITY (1W/1m)

7 mm Xmax

MAX. LINEAR EXCURSION

- + Highly versatile in two-way ported enclosures.
- + Smooth frequency response and balanced tonal character.
- + Long throw motor system and surround for solid bass reproduction at high power levels.
- + Delivers tight accurate bass down to 35 Hz in 75-150 Litre enclosures.
- + UK manufactured cone with optimised pulp offering increased strength, durability and performance.
- + 3-Inch Copper voice coil.



GENERAL SPECIFICATIONS

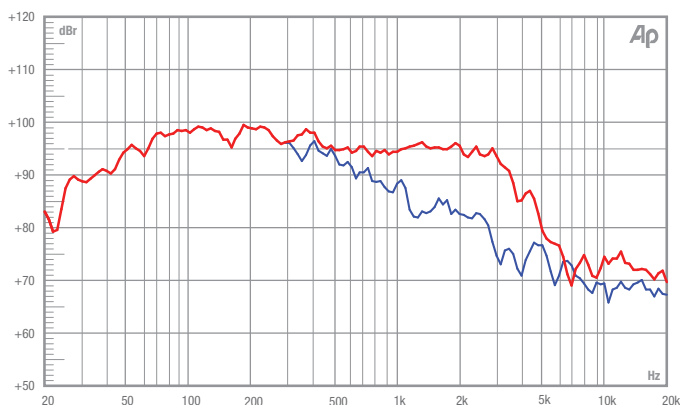
Nominal Chassis Diameter	15" / 381 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.5 Ω
AES Power Handling ⁽²⁾	600 W (A.E.S.)
Program Power	1200 W
Peak Power (6dB Crest Factor)	2400 W
Frequency Range (-6dB)	35 Hz - 3.5 kHz
Sensitivity (1W/1m)	98 dB
Magnet Material	Ferrite
Magnet Weight	100 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.75" / 19 mm
Voice Coil Diameter	3" / 76.2 mm
Cone/ Dust Dome Material	Curvilinear Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

TECHNICAL & THIELE SMALL PARAMETERS

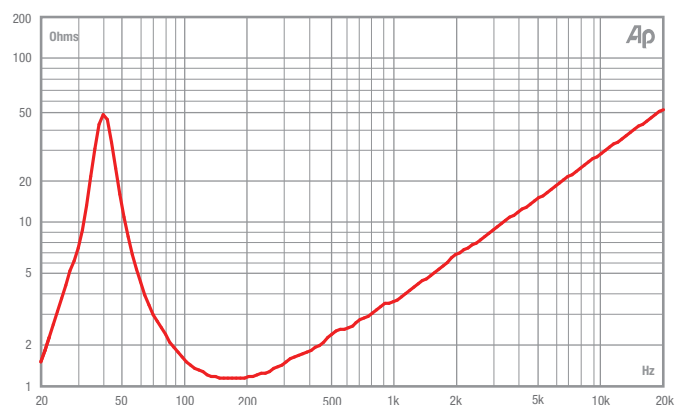
Fs	40 Hz
Re	6.5 Ω
Qms	8.8
Qes	0.38
Qts	0.37
Vas	188 Litres
Vd	0.59 Litres
Cms	0.18 mm/N
Bl	19.7 T/m
Mms	89 g
Xmax	7 mm
Sd	856 cm ²
Efficiency	3.05 %
Le (1k Hz)	1.85 mH
EBP	105.26 Hz
Effective Piston Diameter	13.03" / 330.96 mm
Rec. Enclosure Volume	2.64 - 5.29 ft ³ / 75 - 150 Litres

MOUNTING / SHIPPING INFORMATION

Overall Diameter	16" / 406.4 mm
Width Across Flats	15.25" / 387.35 mm
Depth	6.85" / 174 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	20.49 lb / 9.3 kg
Shipping Weight	23.03 lb / 10.45 kg
Packing Carton Dimensions (mm)	(W) 410 (D) 410 (H) 225

FREQUENCY RESPONSE DATA⁽³⁾

IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

COLOSSUS 12MB

MID-BASS DRIVER


12" / 304.8 mm

CHASSIS DIAMETER

1000 W

PROGRAM POWER

40 Hz - 3.5 kHz

FREQUENCY RESPONSE

3" / 76.2 mm

VOICE COIL DIAMETER

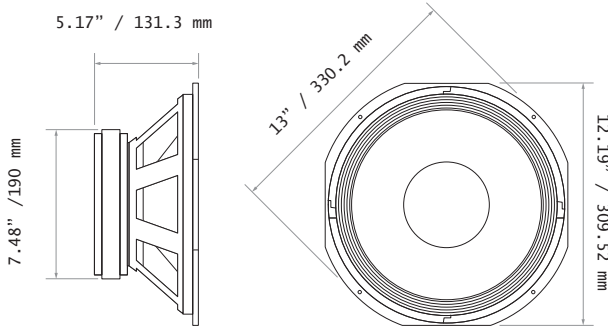
98 dB

SENSITIVITY (1W/ 1m)

5.5 mm Xmax

MAX. LINEAR EXCURSION

- + High SPL output, 98 dB (1W / 1m).
- + Optimised non-inductive motor system efficiently controls magnetic flux and reduces third-harmonic and intermodulation distortion.
- + Undistorted low frequencies at high output levels.
- + Fast and dynamic driver producing punchy bass.
- + Extended frequency range up to 3.5 kHz.
- + Aluminium demodulation and Copper shorting rings.
- + UK manufactured cone with optimised pulp offering increased strength, durability and performance.
- + Performs best in ported enclosures of 25-80 Litres.
- + 3-Inch Inside / Outside windings aluminium voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.5 Ω
AES Power Handling ⁽²⁾	500 W (A.E.S.)
Program Power	1000 W
Peak Power (6dB Crest Factor)	2000 W
Frequency Range (-6dB)	40 Hz - 3.5 kHz
Sensitivity (1W/ 1m)	98 dB
Magnet Material	Ferrite
Magnet Weight	93 oz
Magnetic Gap Depth	0.35" / 9 mm
Flux Density	1.16 Tesla
Former Material	Glass Fibre
Voice Coil Material	Aluminium - Inside / Outside
Coil Winding Height	0.70" / 18 mm
Voice Coil Diameter	3" / 76.2 mm
Cone/ Dust Dome Material	Curvilinear Poly-cellulose / Solid Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

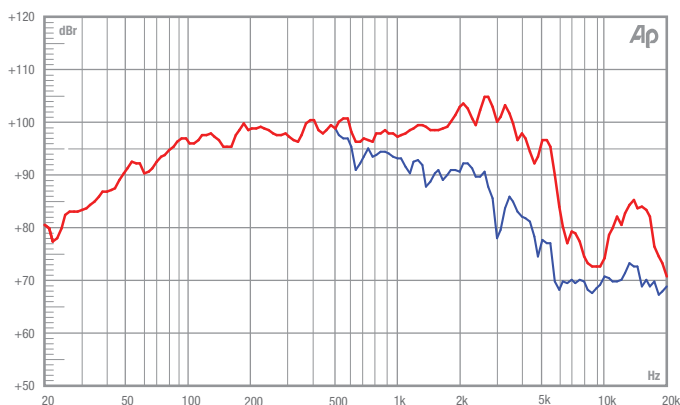
TECHNICAL & THIELE SMALL PARAMETERS

Fs	55 Hz
Re	5.5 Ω
Qms	2.05
Qes	0.333
Qts	0.286
Vas	56 Litres
Vd	0.29 Litres
Cms	0.142 mm/N
Bl	18.3 T/m
Mms	59 g
Xmax	5.5 mm
Sd	530 cm ²
Efficiency	2.71 %
Le (1k Hz)	1.56 mH
EBP	165.17 Hz
Effective Piston Diameter	10.24" / 260.09 mm
Rec. Enclosure Volume	0.88 - 2.83 ft ³ / 25 - 80 Litres

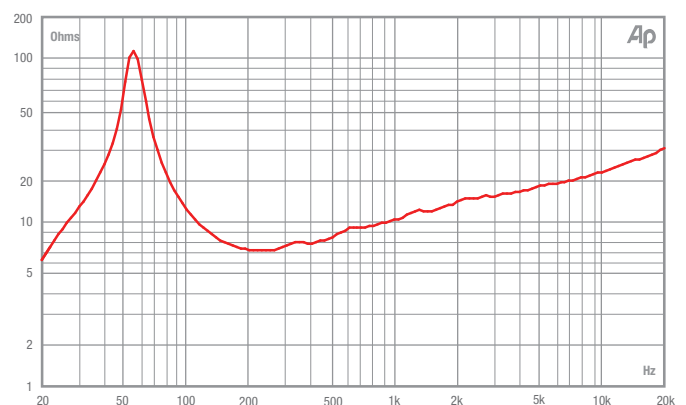
MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.52 mm
Depth	5.17" / 131.3 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	17.1 lb / 7.8 kg
Shipping Weight	20.2 lb / 9.2 kg
Packing Carton Dimensions (mm)	(W) 330 (D) 330 (H) 178

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

COLOSSUS 12MBN

BASS / MID-RANGE DRIVER



12" / 304.8 mm

CHASSIS DIAMETER

1000 W

PROGRAM POWER

40 Hz - 4 kHz

FREQUENCY RESPONSE

3" / 76.2 mm

VOICE COIL DIAMETER

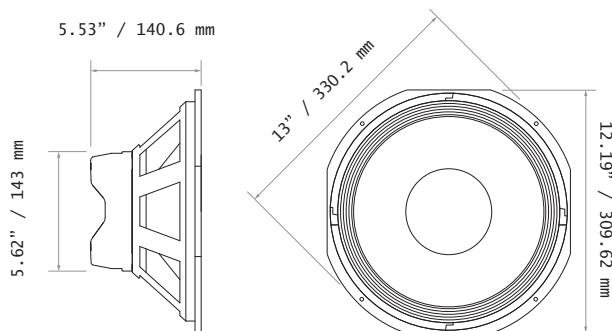
98.5 dB

SENSITIVITY (1W/1m)

5.5 mm Xmax

MAX. LINEAR EXCURSION

- + Weighs only 4.3 kg thanks to a lightweight neodymium magnet motor assembly.
- + Optimised non-inductive motor system efficiently controls magnetic flux and reduces third-harmonic and intermodulation distortion.
- + Excels when deployed in line array applications for fast, dynamic and punchy bass.
- + Extended frequency range working up to 4 kHz.
- + Aluminium demodulation and copper shorting Rings.
- + Intended as a high-output mid-bass driver in two-way ported enclosures of 25-80 Litres.
- + Also performs well as a bass driver in multi-way systems.
- + 3-Inch Inside / Outside windings aluminium voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.5 Ω
AES Power Handling ⁽²⁾	500 W (A.E.S.)
Program Power	1000 W
Peak Power (6dB Crest Factor)	2000 W
Frequency Range (-6dB)	40 Hz - 4 kHz
Sensitivity (1W/1m)	98.5 dB
Magnet Material	Neodymium
Magnet Weight	- oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Aluminium - Inside / Outside
Coil Winding Height	0.70" / 18 mm
Voice Coil Diameter	3" / 76.2 mm
Cone/ Dust Dome Material	Curvilinear Paper / Solid Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

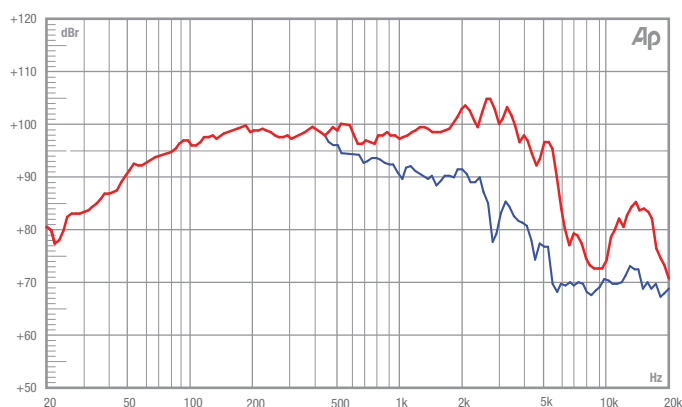
TECHNICAL & THIELE SMALL PARAMETERS

Fs	55 Hz
Re	5.5 Ω
Qms	4.13
Qes	0.438
Qts	0.396
Vas	56 Litres
Vd	0.296 Litres
Cms	0.142 mm/N
Bl	16.6 T/m
Mms	59 g
Xmax	5.5 mm
Sd	530 cm ²
Efficiency	2.3 %
Le (1k Hz)	1.39 mH
EBP	125.57 Hz
Effective Piston Diameter	10.24" / 260.09 mm
Rec. Enclosure Volume	0.88 - 2.83 ft ³ / 25 - 80 Litres

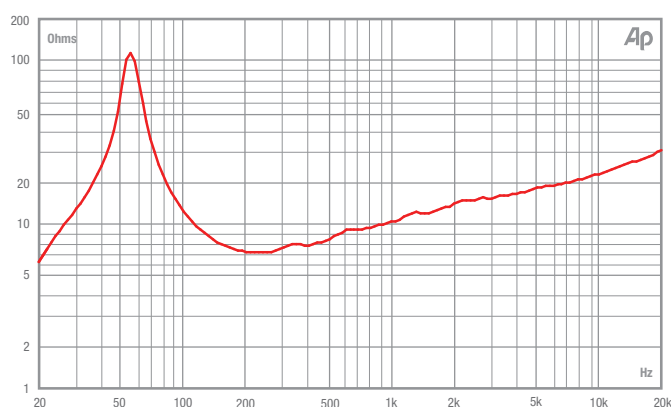
MOUNTING / SHIPPING INFORMATION

Overall Diameter	13" / 330.2 mm
Width Across Flats	12.19" / 309.62 mm
Depth	5.53" / 140.6 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	9.47 lb / 4.3 kg
Shipping Weight	11.68 lb / 5.3 kg
Packing Carton Dimensions (mm)	(W) 330 (D) 330 (H) 170

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.



SOVEREIGN PRO 12-500

BASS DRIVER

12" / 304.8 mm
CHASSIS DIAMETER

1000 W
PROGRAM POWER

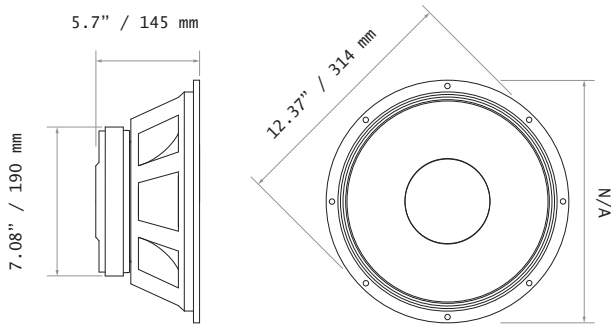
45 Hz - 4.5 kHz
FREQUENCY RESPONSE

3" / 76.2 mm
VOICE COIL DIAMETER

97.5 dB
SENSITIVITY (1W/ 1m)

6 mm Xmax
MAX. LINEAR EXCURSION

- + Deep bass and well balanced tonal character with extended frequency output.
- + High linearity suspension and long-throw motor system.
- + UK manufactured cone with optimised pulp offering increased strength, durability and performance.
- + 3-Inch Inside / Outside windings CCAW voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.84 Ω
AES Power Handling ⁽²⁾	500 W (A.E.S.)
Program Power	1000 W
Peak Power (6dB Crest Factor)	2000 W
Frequency Range (-6dB)	45 Hz - 4.5 kHz
Sensitivity (1W/ 1m)	97.5 dB
Magnet Material	Ferrite
Magnet Weight	80 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	CCA W - Inside / Outside
Coil Winding Height	0.70" / 18 mm
Voice Coil Diameter	3" / 76.2 mm
Cone/ Dust Dome Material	Curvilinear Paper / Solid Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

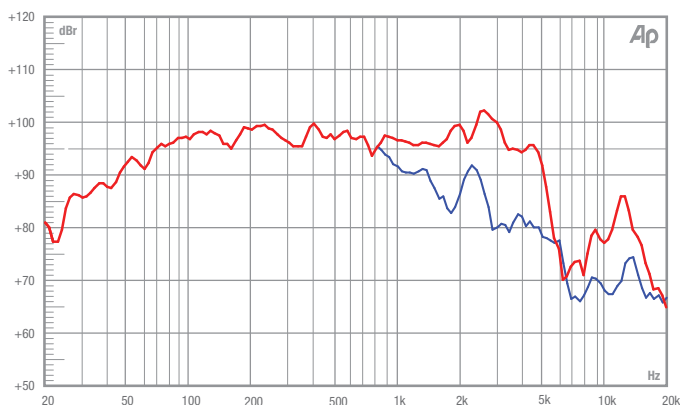
TECHNICAL & THIELE SMALL PARAMETERS

Fs	43 Hz
Re	5.6 Ω
Qms	3.04
Qes	0.35
Qts	0.314
Vas	107 Litres
Vd	0.339 Litres
Cms	0.236 mm/N
Bl	16 T/m
Mms	58 g
Xmax	6 mm
Sd	565 cm ²
Efficiency	2.34 %
Le (1k Hz)	1.6 mH
EBP	122.86 Hz
Effective Piston Diameter	10.31" / 261.87 mm
Rec. Enclosure Volume	1.23 - 2.64 ft ³ / 35 - 75 Litres

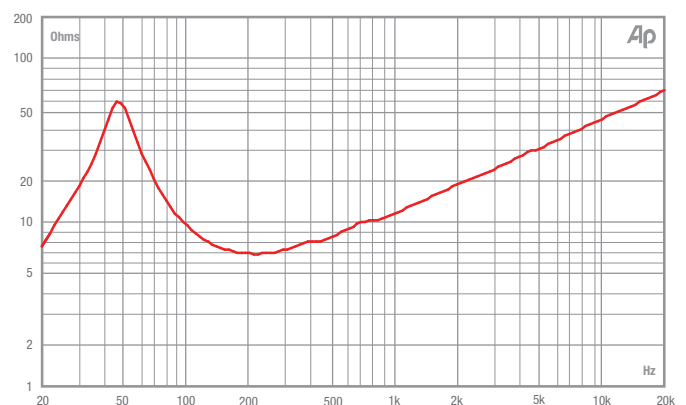
MOUNTING / SHIPPING INFORMATION

Overall Diameter	12.37" / 314 mm
Width Across Flats	N/A
Depth	5.7" / 145 mm
Flange Height	0.339" / 8.61 mm
Baffle Hole Diameter F/M	11.13" / 282.70 mm
Baffle Hole Diameter R/M	N/A
Chassis Material	Die-cast Aluminium
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x ø 7.0 mm on 11.5" / 294 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	16.5 lb / 7.5 kg
Shipping Weight	17.63 lb / 8.0 kg
Packing Carton Dimensions (mm)	(W) 330 (D) 330 (H) 178

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN PRO 10-300SC

BASS DRIVER

10" / 254 mm

CHASSIS DIAMETER

600 W

PROGRAM POWER

45 Hz - 4 kHz

FREQUENCY RESPONSE

2.5" / 63.5 mm

VOICE COIL DIAMETER

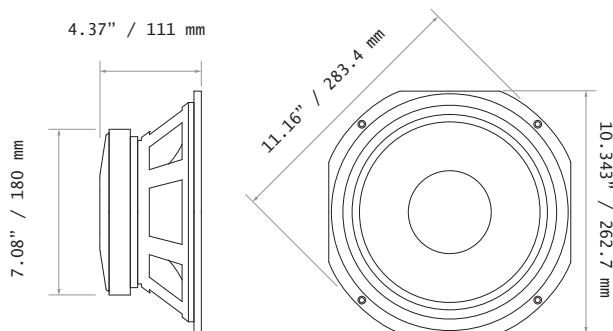
98 dB

SENSITIVITY (1W/ 1m)

4.75 mm Xmax

MAX. LINEAR EXCURSION

- + Highly versatile in two-way ported enclosures.
- + Warm and smooth response throughout the bass frequency range.
- + Specially formulated cone coating provides HF vocal clarity.
- + Optimised cone pulp offering increased strength, durability and performance.
- + Long throw motor and high-linearity suspension system allow solid bass reproduction.
- + Perfect for full range KTV systems.
- + 2.5-Inch Copper clad aluminium voice coil.



GENERAL SPECIFICATIONS

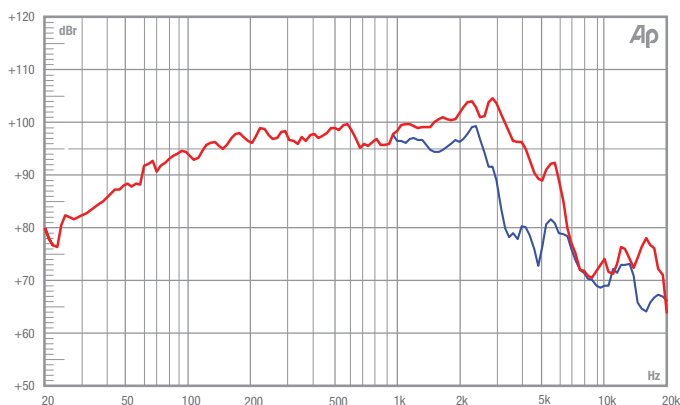
Nominal Chassis Diameter	10" / 254 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.24 Ω
AES Power Handling ⁽²⁾	300 W (A.E.S.)
Program Power	600 W
Peak Power (6dB Crest Factor)	1200 W
Frequency Range (-6dB)	45 Hz - 4 kHz
Sensitivity (1W/ 1m)	98 dB
Magnet Material	Ferrite
Magnet Weight	56 oz
Magnetic Gap Depth	0.31" / 7.87 mm
Flux Density	1.1 Tesla
Former Material	Kapton
Voice Coil Material	CCAW
Coil Winding Height	0.53" / 13.46 mm
Voice Coil Diameter	2.5" / 63.5 mm
Cone/ Dust Dome Material	Curvilinear Paper / Solid Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen

TECHNICAL & THIELE SMALL PARAMETERS

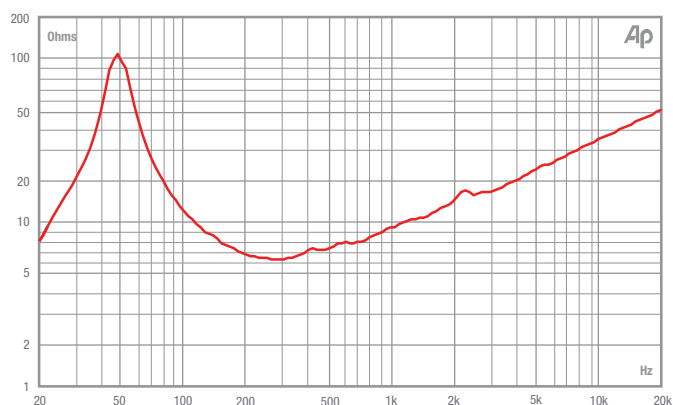
Fs	47 Hz
Re	5.5 Ω
Qms	10.13
Qes	0.34
Qts	0.33
Vas	45.43 Litres
Vd	0.172 Litres
Cms	0.245 mm/N
Bl	14.8 T/m
Mms	46.8 g
Xmax	4.75 mm
Sd	361 cm ²
Efficiency	1.7 %
Le (1k Hz)	1.27 mH
EBP	138.24 Hz
Effective Piston Diameter	8.19" / 208.02 mm
Rec. Enclosure Volume	0.88 - 1.76 ft ³ / 25 - 50 Litres

MOUNTING / SHIPPING INFORMATION

Overall Diameter	11.16" / 283.4 mm
Width Across Flats	10.343" / 262.7 mm
Depth	4.37" / 111 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	10.14 lb / 4.6 kg
Shipping Weight	11.35 lb / 5.15 kg
Packing Carton Dimensions (mm)	(W) 275 (D) 275 (H) 150

FREQUENCY RESPONSE DATA⁽³⁾

IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.



SOVEREIGN PRO 10-300

BASS DRIVER

10" / 254 mm

CHASSIS DIAMETER

600 W

PROGRAM POWER

45 Hz - 4 kHz

FREQUENCY RESPONSE

2.5" / 63.5 mm

VOICE COIL DIAMETER

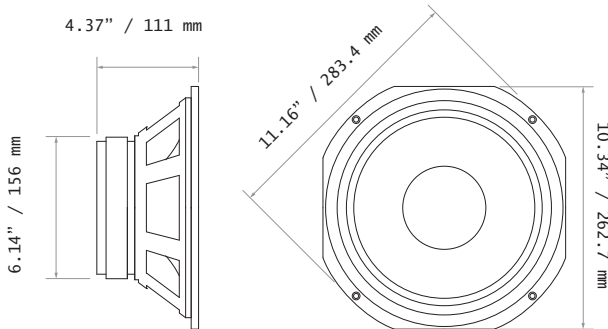
98 dB

SENSITIVITY (1W/ 1m)

5.5 mm Xmax

MAX. LINEAR EXCURSION

- + Smooth and balanced frequency response.
- + High linearity suspension system.
- + Long throw motor structure 5.5 mm Xmax.
- + Intended for use in two-way ported enclosures such as the classic bass driver plus horn tweeter or compression driver.
- + 2.5-Inch Inside / Outside windings copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	10" / 254 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.8 Ω
AES Power Handling ⁽²⁾	300 W (A.E.S.)
Program Power	600 W
Peak Power (6dB Crest Factor)	1200 W
Frequency Range (-6dB)	45 Hz - 4 kHz
Sensitivity (1W/ 1m)	98 dB
Magnet Material	Ferrite
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper - Inside / Outside
Coil Winding Height	0.70" / 18 mm
Voice Coil Diameter	2.5" / 63.5 mm
Cone/ Dust Dome Material	Curvilinear Paper / Solid Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen

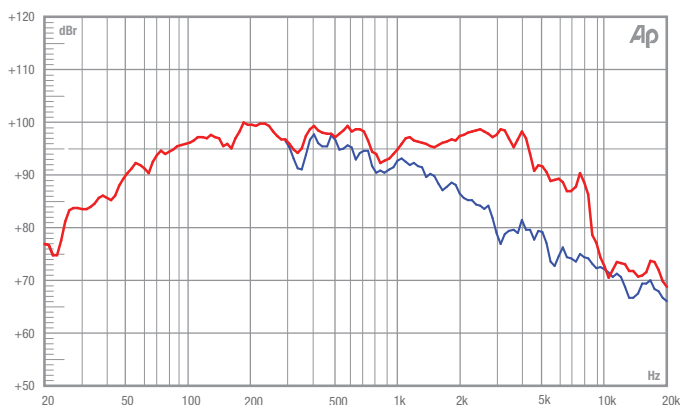
TECHNICAL & THIELE SMALL PARAMETERS

Fs	58 Hz
Re	5.7 Ω
Qms	6.08
Qes	0.34
Qts	0.32
Vas	41 Litres
Vd	0.208 Litres
Cms	0.211 mm/N
Bl	15.3 T/m
Mms	37 g
Xmax	5.5 mm
Sd	378 cm ²
Efficiency	2.36 %
Le (1k Hz)	1.68 mH
EBP	170.59 Hz
Effective Piston Diameter	8.46" / 214.88 mm
Rec. Enclosure Volume	0.49 - 1.41 ft ³ / 14 - 40 Litres

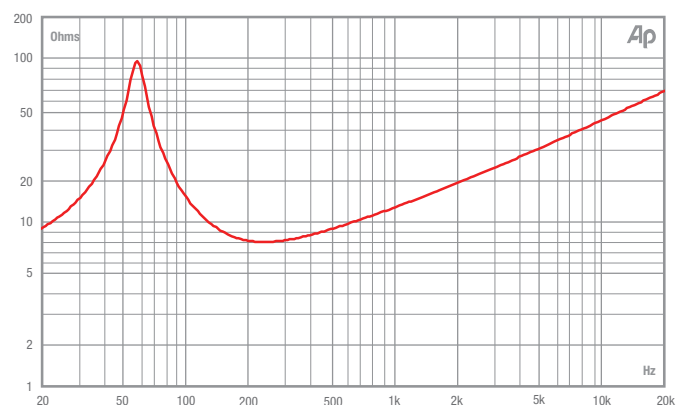
MOUNTING / SHIPPING INFORMATION

Overall Diameter	11.16" / 283.4 mm
Width Across Flats	10.34" / 262.7 mm
Depth	4.37" / 111 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	11.02 lb / 5 kg
Shipping Weight	12.56 lb / 5.7 kg
Packing Carton Dimensions (mm)	(W) 275 (D) 275 (H) 150

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN PRO 8-225

BASS / MID-RANGE DRIVER



8" / 203.2 mm

CHASSIS DIAMETER

450 W

PROGRAM POWER

55 Hz - 5 kHz

FREQUENCY RESPONSE

2" / 50.8 mm

VOICE COIL DIAMETER

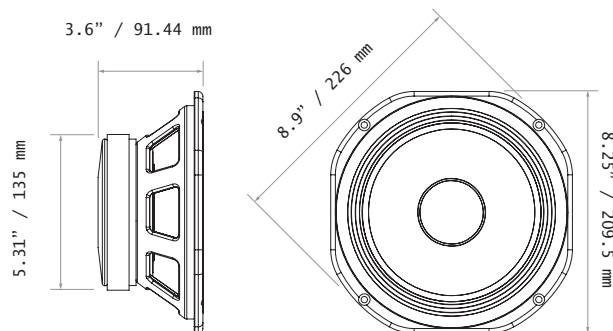
97 dB

SENSITIVITY (1W/1m)

5.5 mm Xmax

MAX. LINEAR EXCURSION

- + Excellent for compact two-way PA cabinets.
- + Superb vocal coverage and coherence when deployed in small format line array.
- + High output and low distortion.
- + Exceptional efficiency, power handling and frequency coverage from compact design.
- + Smooth and refined tone with extended usable frequency up to 5 kHz.
- + Can be used well as mid-range unit in small sealed enclosures as part of a larger system.
- + 2-Inch Copper voice coil.



GENERAL SPECIFICATIONS

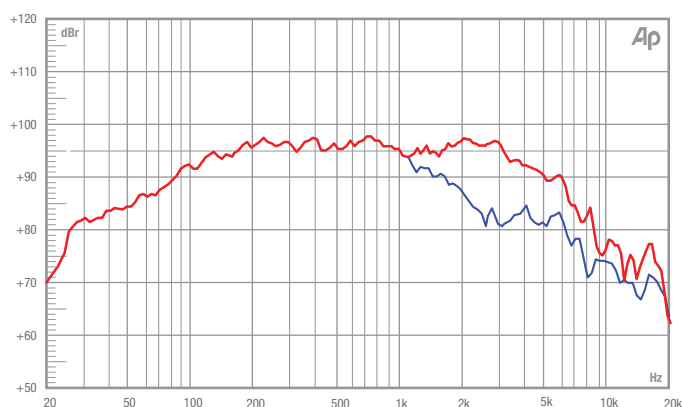
Nominal Chassis Diameter	8" / 203.2 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.8 Ω
AES Power Handling ⁽²⁾	225 W (A.E.S.)
Program Power	450 W
Peak Power (6dB Crest Factor)	900 W
Frequency Range (-6dB)	55 Hz - 5 kHz
Sensitivity (1W/1m)	97 dB
Magnet Material	Ferrite
Magnet Weight	34 oz
Magnetic Gap Depth	0.31" / 8 mm
Flux Density	1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.59" / 15 mm
Voice Coil Diameter	2" / 50.8 mm
Cone/ Dust Dome Material	Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

TECHNICAL & THIELE SMALL PARAMETERS

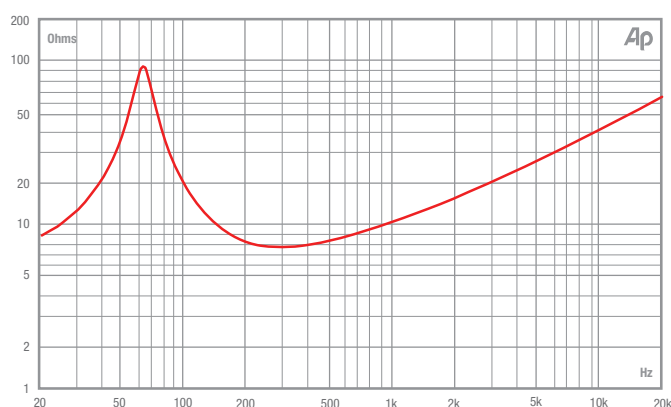
Fs	62 Hz
Re	6.1 Ω
Qms	4.3
Qes	0.42
Qts	0.38
Vas	22 Litres
Vd	0.118 Litres
Cms	0.318 mm/N
Bl	11 T/m
Mms	20.69 g
Xmax	5.5 mm
Sd	220 cm ²
Efficiency	1.25 %
Le (1k Hz)	1.2 mH
EBP	147.62 Hz
Effective Piston Diameter	6.5" / 165 mm
Rec. Enclosure Volume	20 - 35 Litres

MOUNTING / SHIPPING INFORMATION

Overall Diameter	8.9" / 226 mm
Width Across Flats	8.25" / 209.5 mm
Depth	3.6" / 91.44 mm
Flange Height	0.28" / 7 mm
Baffle Hole Diameter F/M	7.33" / 186 mm
Baffle Hole Diameter R/M	N/A
Chassis Material	Die-cast Aluminium
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.5 mm on 214 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Push-button Spring Terminals
Weight	6.9 lb / 3.13 kg
Shipping Weight	8.5 lb / 3.86 kg
Packing Carton Dimensions (mm)	(W) 235 (D) 235 (H) 130

FREQUENCY RESPONSE DATA⁽³⁾

IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 965 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

STUDIO 5FRK

FULL RANGE DRIVER


5" / 127 mm

CHASSIS DIAMETER

100 W

PROGRAM POWER

65 Hz - 7 kHz

FREQUENCY RESPONSE

1" / 25.4 mm

VOICE COIL DIAMETER

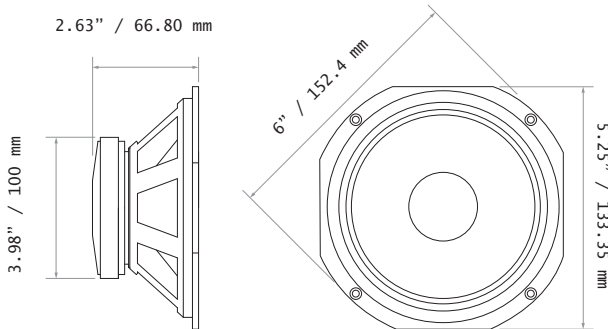
90.5 dB

SENSITIVITY (1W/ 1m)

2.41 mm Xmax

MAX. LINEAR EXCURSION

- + Exceptional efficiency, power handling and extended frequency response.
- + Kevlar cone for increased strength and rigidity.
- + Ideal for compact two-way and multi-way systems.
- + Works well in line array and studio monitor enclosure designs.
- + 1-Inch Polyamid-imide coated, copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	5" / 127 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.7 Ω
AES Power Handling ⁽²⁾	50 W (A.E.S.)
Program Power	100 W
Peak Power (6dB Crest Factor)	200 W
Frequency Range (-6dB)	65 Hz - 7 kHz
Sensitivity (1W/ 1m)	90.5 dB
Magnet Material	Ferrite
Magnet Weight	18 oz
Magnetic Gap Depth	0.25" / 6.35 mm
Flux Density	1.42 Tesla
Former Material	Resin Bonded Glass Fibre
Voice Coil Material	Polyamid-imide Coated Copper
Coil Winding Height	0.31" / 8 mm
Voice Coil Diameter	1" / 25.4 mm
Cone/ Dust Dome Material	Kevlar / Linen
Surround / Edge Termination	Rubber Roll

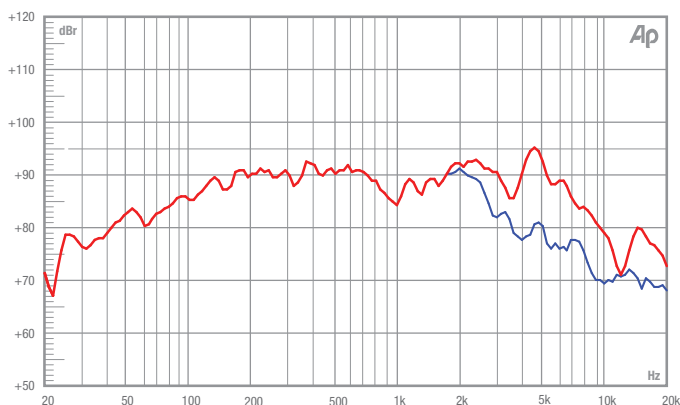
TECHNICAL & THIELE SMALL PARAMETERS

Fs	58 Hz
Re	6.2 Ω
Qms	7.5
Qes	0.38
Qts	0.36
Vas	10.9 Litres
Vd	0.022 Litres
Cms	0.953 mm/N
Bl	6.85 T/m
Mms	7.9 g
Xmax	2.41 mm
Sd	89.74 cm ²
Efficiency	0.6 %
Le (1k Hz)	0.882 mH
EBP	152.63 Hz
Effective Piston Diameter	4.2" / 106.68 mm
Rec. Enclosure Volume	0.07 - 0.35 ft ³ / 2 - 10 Litres

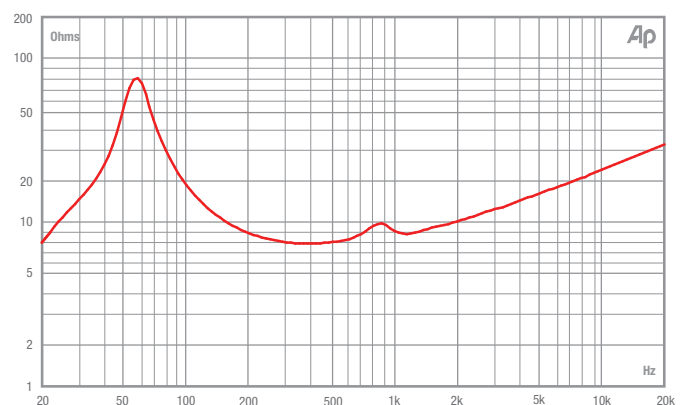
MOUNTING / SHIPPING INFORMATION

Overall Diameter	6" / 152.4 mm
Width Across Flats	5.25" / 133.35 mm
Depth	2.63" / 66.80 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
Chassis Material	Die-cast Aluminium
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
Connectors ⁽⁴⁾	0.125" Tab / Solder
Weight	3.1 lb / 1.37 kg
Shipping Weight	3.1 lb / 1.37 kg
Packing Carton Dimensions (mm)	(W) 160 (D) 160 (H) 110

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN 15-600LF

BASS DRIVER



15" / 381 mm

CHASSIS DIAMETER

1200 W

PROGRAM POWER

38 Hz - 3.5 kHz

FREQUENCY RESPONSE

3" / 76.2 mm

VOICE COIL DIAMETER

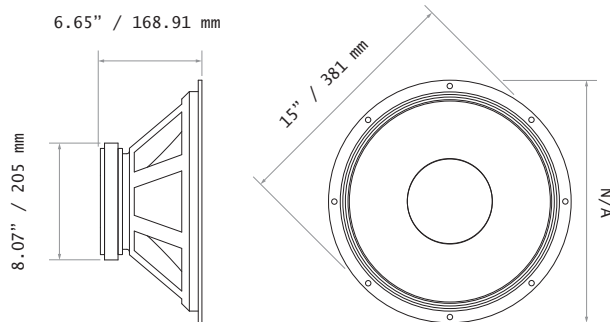
98.5 dB

SENSITIVITY (1W/ 1m)

6.5 mm Xmax

MAX. LINEAR EXCURSION

- + For use in pro-sound applications.
- + Outstanding 98.5 dB SPL output.
- + Ideally suited for medium to large vented enclosures.
- + Great for ported bass enclosure designs.
- + Optimised cone pulp offering increased strength, durability and performance.
- + 3-Inch Copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7 Ω
AES Power Handling ⁽²⁾	600 W (A.E.S.)
Program Power	1200 W
Peak Power (6dB Crest Factor)	2400 W
Frequency Range (-6dB)	38 Hz - 3.5 kHz
Sensitivity (1W/ 1m)	98.5 dB
Magnet Material	Ferrite
Magnet Weight	95 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	0.97 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.74" / 19 mm
Voice Coil Diameter	3" / 76.2 mm
Cone/ Dust Dome Material	Curvilinear Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Poly Cotton

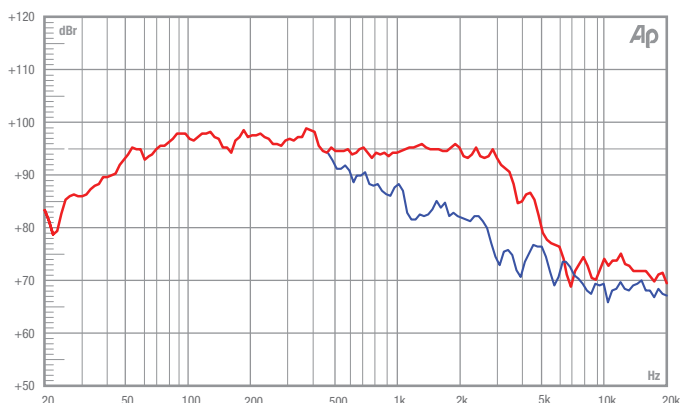
TECHNICAL & THIELE SMALL PARAMETERS

Fs	37 Hz
Re	5.4 Ω
Qms	6.28
Qes	0.414
Qts	0.389
Vas	236 Litres
Vd	0.556 Litres
Cms	0.228 mm/N
Bl	15.9 T/m
Mms	81 g
Xmax	6.5 mm
Sd	855 cm ²
Efficiency	2.83 %
Le (1k Hz)	1.52 mH
EBP	89.37 Hz
Effective Piston Diameter	15.03" / 381.76 mm
Rec. Enclosure Volume	1.76 - 4.41 ft ³ / 50 - 125 Litres

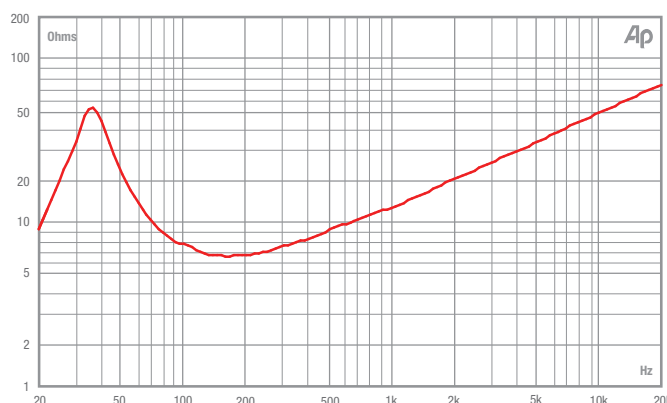
MOUNTING / SHIPPING INFORMATION

Overall Diameter	15" / 381 mm
Width Across Flats	N/A
Depth	6.65" / 168.91 mm
Flange Height	0.35" / 8.89 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	13.85" / 351.79 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x ø 6.35 mm on 14.56" / 369.2 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	17.96 lb / 8.15 kg
Shipping Weight	20.17 lb / 9.4 kg
Packing Carton Dimensions (mm)	(W) 410 (D) 410 (H) 210

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN 15-400LF

BASS DRIVER


15" / 381 mm

CHASSIS DIAMETER

800 W

PROGRAM POWER

40 Hz - 4 kHz

FREQUENCY RESPONSE

2.5" / 63.5 mm

VOICE COIL DIAMETER

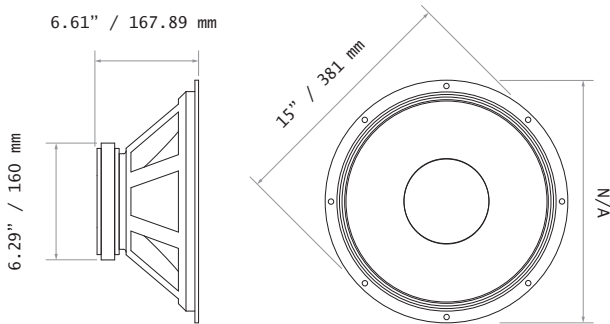
97 dB

SENSITIVITY (1W/ 1m)

4.6 mm Xmax

MAX. LINEAR EXCURSION

- + Designed for use in two-way pro-sound applications.
- + Also works well in monitor or bass guitar applications.
- + Ideally suited for small, sealed floor wedges or medium sized vented enclosures.
- + Optimised cone pulp offering increased strength, durability and performance.
- + 2.5-Inch Copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.2 Ω
AES Power Handling ⁽²⁾	400 W (A.E.S.)
Program Power	800 W
Peak Power (6dB Crest Factor)	1600 W
Frequency Range (-6dB)	40 Hz - 4 kHz
Sensitivity (1W/ 1m)	97 dB
Magnet Material	Ferrite
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	0.97 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.74" / 19 mm
Voice Coil Diameter	2.5" / 63.5 mm
Cone/ Dust Dome Material	Curvilinear Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen

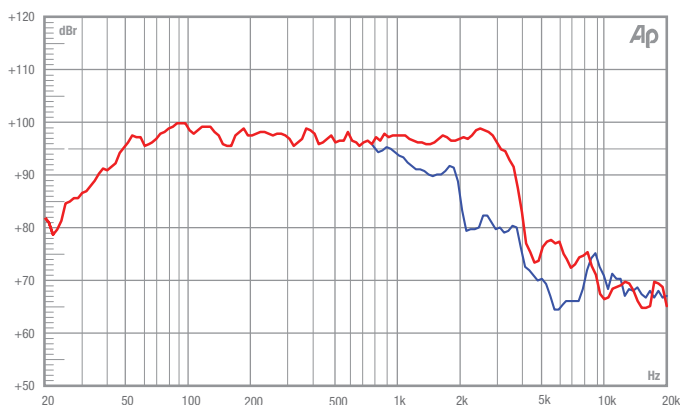
TECHNICAL & THIELE SMALL PARAMETERS

Fs	41 Hz
Re	5.8 Ω
Qms	7.6
Qes	0.62
Qts	0.57
Vas	210 Litres
Vd	0.516 Litres
Cms	0.202 mm/N
Bl	13.52 T/m
Mms	74.6 g
Xmax	4.6 mm
Sd	855.3 cm ²
Efficiency	1.98 %
Le (1k Hz)	2.08 mH
EBP	66.13 Hz
Effective Piston Diameter	15.03" / 381.76 mm
Rec. Enclosure Volume	2.11 - 4.41 ft ³ / 60 - 125 Litres

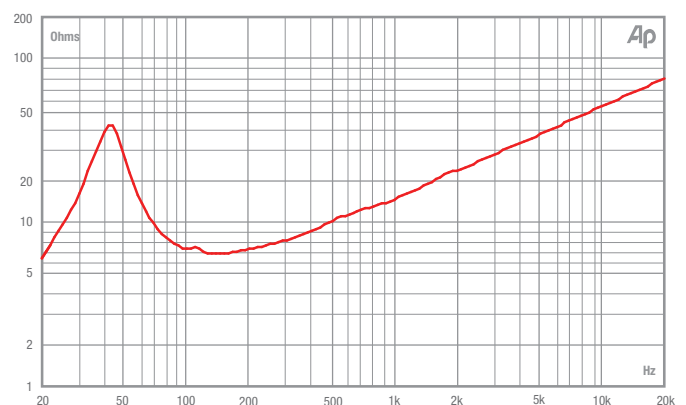
MOUNTING / SHIPPING INFORMATION

Overall Diameter	15" / 381 mm
Width Across Flats	N/A
Depth	6.61" / 167.89 mm
Flange Height	0.35" / 8.89 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	13.85" / 351.79 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 6.35 mm on 14.56" / 369.2 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	12.34 lb / 5.6 kg
Shipping Weight	14.55 lb / 6.6 kg
Packing Carton Dimensions (mm)	(W) 410 (D) 410 (H) 210

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN 15-300TC

FULL RANGE DRIVER



15" / 381 mm

CHASSIS DIAMETER

600 W

PROGRAM POWER

50 Hz - 15 kHz

FREQUENCY RESPONSE

2" / 50.8 mm

VOICE COIL DIAMETER

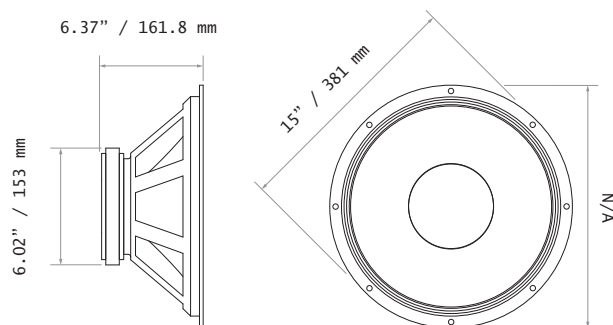
99 dB

SENSITIVITY (1W/ 1m)

3.5 mm Xmax

MAX. LINEAR EXCURSION

- + Triple cone configuration and geometry provides genuine, unrivalled extended frequency up to 17 kHz.
- + The finest option for full-range output in compact PA systems.
- + Superb when deployed for house of worship applications offering well defined vocal presence and clarity.
- + Optimised cone pulp offers increased strength, durability and performance.
- + 2-Inch Copper clad aluminium voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	15" / 381 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.2 Ω
AES Power Handling ⁽²⁾	300 W (A.E.S.)
Program Power	600 W
Peak Power (6dB Crest Factor)	1200 W
Frequency Range (-6dB)	50 Hz - 15 kHz
Sensitivity (1W/ 1m)	99 dB
Magnet Material	Ferrite
Magnet Weight	56 oz
Magnetic Gap Depth	0.32" / 8 mm
Flux Density	1.1 Tesla
Former Material	Kapton
Voice Coil Material	CCAW
Coil Winding Height	0.37" / 9.4 mm
Voice Coil Diameter	2" / 50.8 mm
Cone/ Dust Dome Material	Curvilinear Ribbed Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

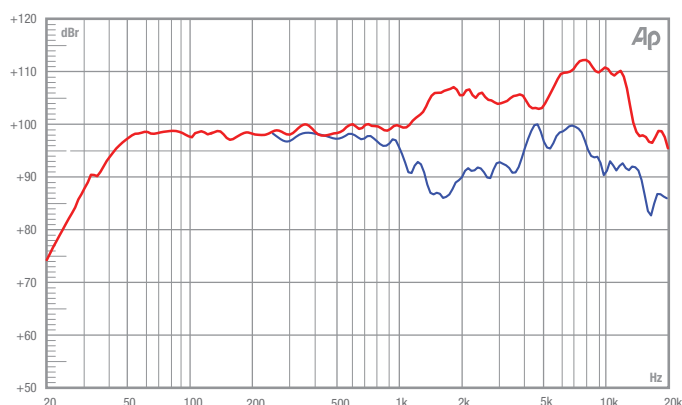
TECHNICAL & THIELE SMALL PARAMETERS

Fs	48 Hz
Re	5.2 Ω
Qms	9.892
Qes	0.753
Qts	0.7
Vas	203 Litres
Vd	0.29 Litres
Cms	0.196 mm/N
Bl	11 T/m
Mms	56 g
Xmax	3.5 mm
Sd	855 cm ²
Efficiency	2.9 %
Le (1k Hz)	0.165 mH
EBP	63.75 Hz
Effective Piston Diameter	15.03" / 381.76 mm
Rec. Enclosure Volume	75 Ltr Closed box / 80 Ltr Vented tuned to 55 Hz

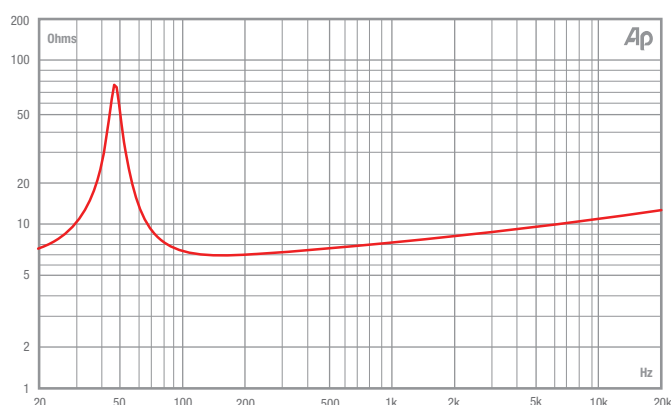
MOUNTING / SHIPPING INFORMATION

Overall Diameter	15" / 381 mm
Width Across Flats	N/A
Depth	6.37" / 161.8 mm
Flange Height	0.35" / 8.89 mm
Baffle Hole Diameter F/M	13.85" / 351.79 mm
Baffle Hole Diameter R/M	13.85" / 351.79 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 6.35 mm on 369.2 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	11.03 lb / 5 kg
Shipping Weight	13.6 lb / 6.17 kg
Packing Carton Dimensions (mm)	(W) 420 (D) 420 (H) 220

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN 12-500LF

BASS DRIVER



12" / 304.8 mm
CHASSIS DIAMETER

1000 W
PROGRAM POWER

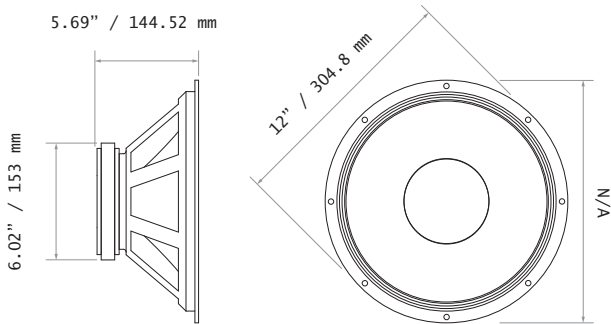
38 Hz - 5 kHz
FREQUENCY RESPONSE

2.5" / 63.5 mm
VOICE COIL DIAMETER

95 dB
SENSITIVITY (1W/ 1m)

5.5 mm Xmax
MAX. LINEAR EXCURSION

- + High-power bass driver ideally suited for use in two-way ported enclosures.
- + Optimised cone pulp offers increased strength, durability and performance.
- + Also works well in monitor or bass guitar applications.
- + 2.5-Inch Copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.4 Ω
AES Power Handling ⁽²⁾	500 W (A.E.S.)
Program Power	1000 W
Peak Power (6dB Crest Factor)	2000 W
Frequency Range (-6dB)	38 Hz - 5 kHz
Sensitivity (1W/ 1m)	95 dB
Magnet Material	Ferrite
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	0.97 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.74" / 19 mm
Voice Coil Diameter	2.5" / 63.5 mm
Cone/ Dust Dome Material	Straight Poly-cellulose Ribbed / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

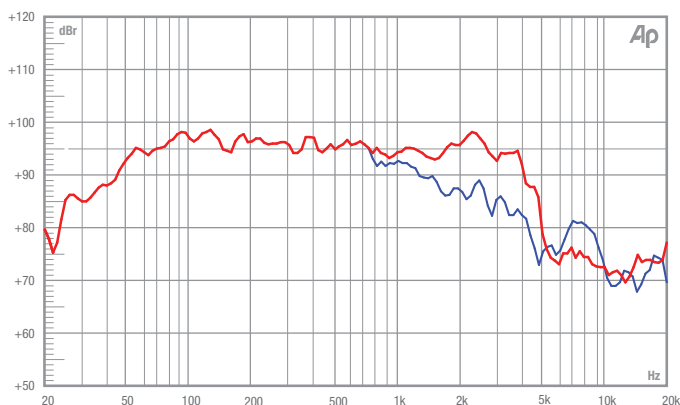
TECHNICAL & THIELE SMALL PARAMETERS

Fs	50 Hz
Re	5.9 Ω
Qms	7.5
Qes	0.53
Qts	0.51
Vas	66 Litres
Vd	0.298 Litres
Cms	0.14 mm/N
Bl	16.37 T/m
Mms	75 g
Xmax	5.5 mm
Sd	576.1 cm ²
Efficiency	1.5 %
Le (1k Hz)	2.36 mH
EBP	94.34 Hz
Effective Piston Diameter	10.67" / 271.01 mm
Rec. Enclosure Volume	1.05 - 2.64 ft ³ / 30 - 75 Litres

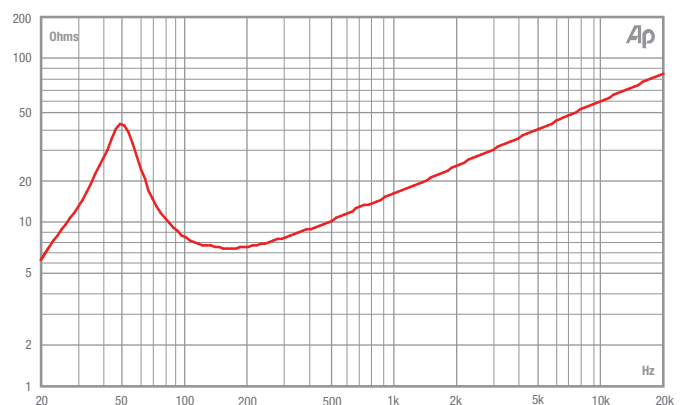
MOUNTING / SHIPPING INFORMATION

Overall Diameter	12" / 304.8 mm
Width Across Flats	N/A
Depth	5.69" / 144.52 mm
Flange Height	0.27" / 6.9 mm
Baffle Hole Diameter F/M	11.25" / 285.75 mm
Baffle Hole Diameter R/M	11.25" / 285.75 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x ø 7.0 mm on 11.75" / 298 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	11.02 lb / 5.0 kg
Shipping Weight	12.89 lb / 5.85 kg
Packing Carton Dimensions (mm)	(W) 330 (D) 330 (H) 170

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN 12-300

BASS / MID-RANGE DRIVER



12" / 304.8 mm

CHASSIS DIAMETER

600 W

PROGRAM POWER

45 Hz - 4.5 kHz

FREQUENCY RESPONSE

2.5" / 63.5 mm

VOICE COIL DIAMETER

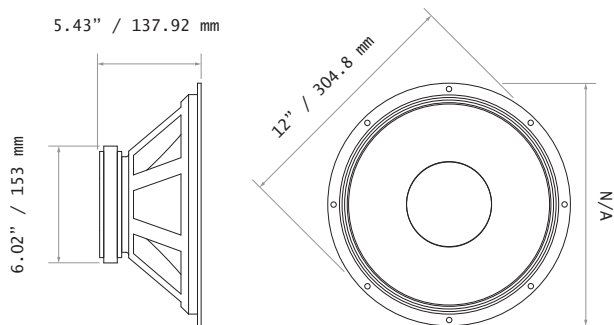
97.5 dB

SENSITIVITY (1W/1m)

4.5 mm Xmax

MAX. LINEAR EXCURSION

- + Versatile unit intended for use as a bass/ mid woofer in medium sized vented enclosures.
- + Can also be used as a mid-range driver in small sealed designs.
- + Optimised cone pulp offers increased strength, durability and performance.
- + 2.5-Inch Copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.84 Ω
AES Power Handling ⁽²⁾	300 W (A.E.S.)
Program Power	600 W
Peak Power (6dB Crest Factor)	1200 W
Frequency Range (-6dB)	45 Hz - 4.5 kHz
Sensitivity (1W/1m)	97.5 dB
Magnet Material	Ferrite
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.70" / 18 mm
Voice Coil Diameter	2.5" / 63.5 mm
Cone/ Dust Dome Material	Curvilinear Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

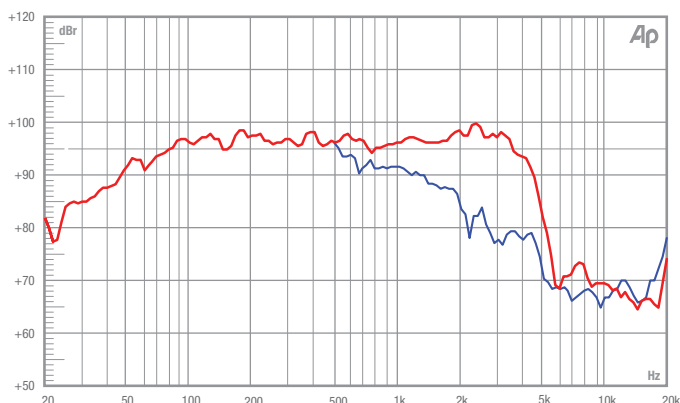
TECHNICAL & THIELE SMALL PARAMETERS

Fs	46 Hz
Re	5.75 Ω
Qms	5.2
Qes	0.375
Qts	0.35
Vas	110 Litres
Vd	0.24 Litres
Cms	0.278 mm/N
Bl	14 T/m
Mms	43 g
Xmax	4.5 mm
Sd	530 cm ²
Efficiency	2.75 %
Le (1k Hz)	1.64 mH
EBP	122.67 Hz
Effective Piston Diameter	10.31" / 261.87 mm
Rec. Enclosure Volume	1.05 - 2.64 ft ³ / 30 -75 Litres

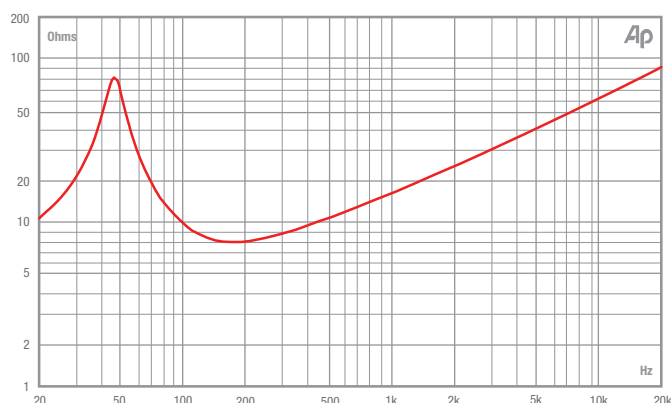
MOUNTING / SHIPPING INFORMATION

Overall Diameter	12" / 304.8 mm
Width Across Flats	N/A
Depth	5.43" / 137.92 mm
Flange Height	0.27" / 6.9 mm
Baffle Hole Diameter F/M	11.25" / 285.75 mm
Baffle Hole Diameter R/M	11.25" / 285.75 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x ø 7.0 mm on 11.75" / 298 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	11.02 lb / 5.0 kg
Shipping Weight	12.89 lb / 5.85 kg
Packing Carton Dimensions (mm)	(W) 330 (D) 330 (H) 170

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN 12-250TC

FULL RANGE DRIVER



12" / 304.8 mm
CHASSIS DIAMETER

500 W
PROGRAM POWER

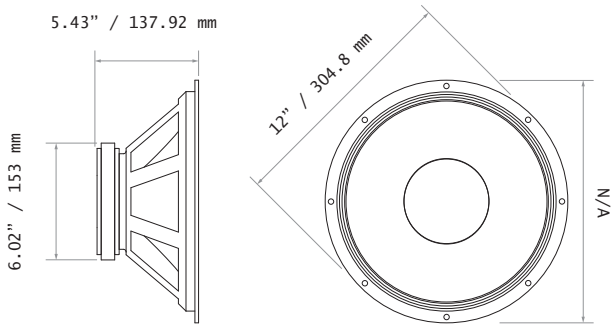
45 Hz - 17 kHz
FREQUENCY RESPONSE

2" / 50.8 mm
VOICE COIL DIAMETER

100 dB
SENSITIVITY (1W/ 1m)

3.5 mm Xmax
MAX. LINEAR EXCURSION

- + Triple cone configuration and geometry provides genuine, unrivalled extended frequency range up to 17 kHz.
- + The finest option for full range output in compact PA systems.
- + Superb when deployed for house of worship applications offering well defined vocal presence and clarity.
- + Optimised cone pulp offers increased strength, durability and performance.
- + 2-Inch Copper clad aluminium voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	12" / 304.8 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.4 Ω
AES Power Handling ⁽²⁾	250 W (A.E.S.)
Program Power	500 W
Peak Power (6dB Crest Factor)	1000 W
Frequency Range ^(-6dB)	45 Hz - 17 kHz
Sensitivity (1W/ 1m)	100 dB
Magnet Material	Ferrite
Magnet Weight	56 oz
Magnetic Gap Depth	0.31" / 7.87 mm
Flux Density	1.1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper Clad Aluminium Wire
Coil Winding Height	0.43" / 10.92 mm
Voice Coil Diameter	2" / 50.8 mm
Cone/ Dust Dome Material	Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen

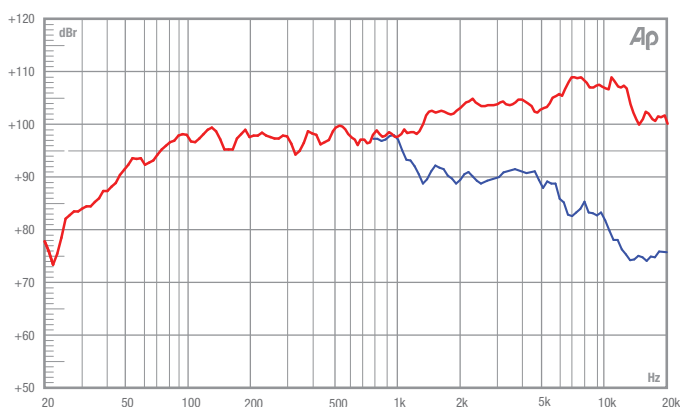
TECHNICAL & THIELE SMALL PARAMETERS

Fs	50 Hz
Re	7.2 Ω
Qms	7.6
Qes	0.72
Qts	0.64
Vas	78.06 Litres
Vd	0.165 Litres
Cms	0.195 mm/N
Bl	13 T/m
Mms	52 g
Xmax	3.5 mm
Sd	530.9 cm ²
Efficiency	1.3 %
Le (1k Hz)	1.56 mH
EBP	69.44 Hz
Effective Piston Diameter	10.31" / 261.87 mm
Rec. Enclosure Volume	1.05 - 2.64 ft ³ / 30 -75 Litres

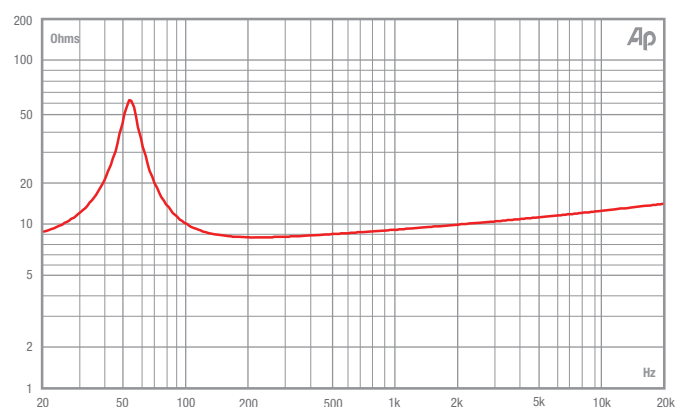
MOUNTING / SHIPPING INFORMATION

Overall Diameter	12" / 304.8 mm
Width Across Flats	N/A
Depth	5.43" / 137.92 mm
Flange Height	0.27" / 6.9 mm
Baffle Hole Diameter F/M	11.25" / 285.75 mm
Baffle Hole Diameter R/M	11.25" / 285.75 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 7.0 mm on 11.75" / 298 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	9.47 lb / 4.3 kg
Shipping Weight	11.35 lb / 5.15 kg
Packing Carton Dimensions (mm)	(W) 330 (D) 330 (H) 170

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN 10-300

BASS / MID-RANGE DRIVER

10" / 254 mm

CHASSIS DIAMETER

600 W

PROGRAM POWER

45 Hz - 5 kHz

FREQUENCY RESPONSE

2.5" / 63.5 mm

VOICE COIL DIAMETER

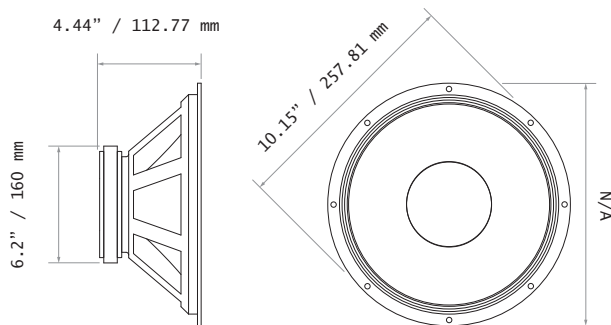
97.5 dB

SENSITIVITY (1W/1m)

5.5 mm Xmax

MAX. LINEAR EXCURSION

- + Versatile in 2 way ported enclosures such as the classic bass driver plus horn tweeter or compression driver format.
- + Can be used effectively for bass guitar applications.
- + Exhibits smooth frequency response that gives a balanced tonal character when properly matched to appropriate high-frequency drivers.
- + Best suited for 15-40 Litre ported enclosure designs.
- + 2.5-Inch Inside / Outside windings copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	10" / 254 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	6.8 Ω
AES Power Handling ⁽²⁾	300 W (A.E.S.)
Program Power	600 W
Peak Power (6dB Crest Factor)	1200 W
Frequency Range (-6dB)	45 Hz - 5 kHz
Sensitivity (1W/1m)	97.5 dB
Magnet Material	Ferrite
Magnet Weight	56 oz
Magnetic Gap Depth	0.39" / 10 mm
Flux Density	1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper - Inside / Outside
Coil Winding Height	0.70" / 18 mm
Voice Coil Diameter	2.5" / 63.5 mm
Cone/ Dust Dome Material	Curvilinear Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Multi Roll. Poly Cotton

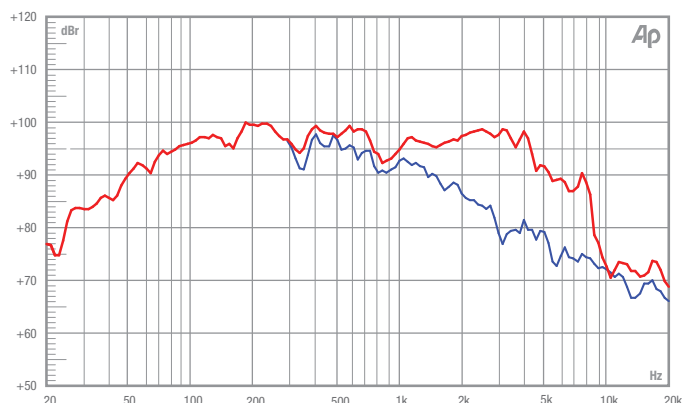
TECHNICAL & THIELE SMALL PARAMETERS

Fs	58 Hz
Re	5.7 Ω
Qms	6.08
Qes	0.33
Qts	0.313
Vas	41 Litres
Vd	0.208 Litres
Cms	0.211 mm/N
Bl	15.3 T/m
Mms	37 g
Xmax	5.5 mm
Sd	378 cm ²
Efficiency	2.36 %
Le (1k Hz)	1.68 mH
EBP	175.76 Hz
Effective Piston Diameter	8.46" / 214.88 mm
Rec. Enclosure Volume	0.88 - 1.76 ft ³ / 25 - 50 Litres

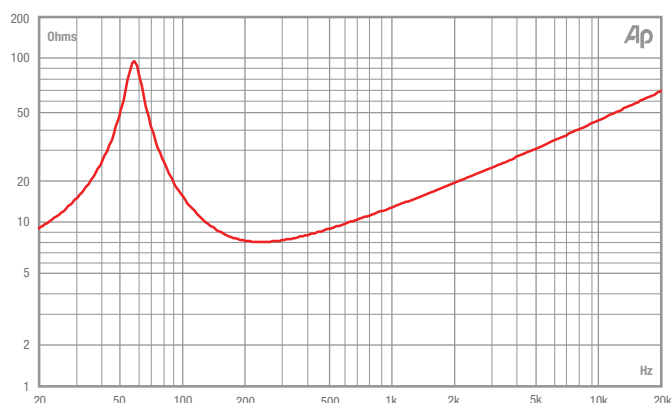
MOUNTING / SHIPPING INFORMATION

Overall Diameter	10.15" / 257.81 mm
Width Across Flats	N/A
Depth	4.44" / 112.77 mm
Flange Height	0.27" / 6.9 mm
Baffle Hole Diameter F/M	9.21" / 233.93 mm
Baffle Hole Diameter R/M	9.21" / 233.93 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 6.5 mm on 9.72" / 246.88 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	10.57 lb / 4.8 kg
Shipping Weight	10.57 lb / 4.8 kg
Packing Carton Dimensions (mm)	(W) 275 (D) 275 (H) 150

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.



SOVEREIGN 8-225

BASS / MID-RANGE DRIVER

8" / 203.2 mm

CHASSIS DIAMETER

450 W

PROGRAM POWER

55 Hz - 5 kHz

FREQUENCY RESPONSE

2" / 50.8 mm

VOICE COIL DIAMETER

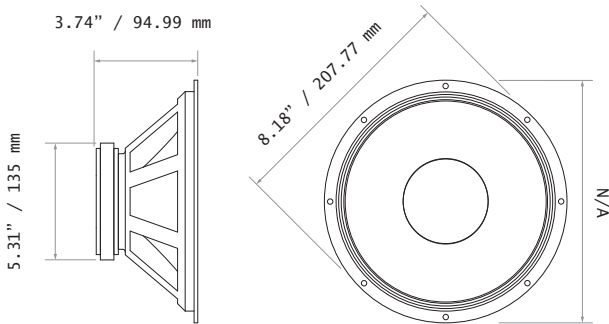
97 dB

SENSITIVITY (1W/ 1m)

5.5 mm Xmax

MAX. LINEAR EXCURSION

- + High-power driver ideal for use in pro-sound and bass-guitar applications.
- + Superb vocal coverage and coherence when deployed in small format line array.
- + Exceptional efficiency, power handling and frequency coverage from compact design.
- + Smooth and refined tone with extended usable frequency up to 5 kHz.
- + Excellent for compact two-way PA cabinets.
- + Performs best as a mid-range unit in small sealed enclosures as part of a larger system.
- + Works well as a mid/ bass driver in vented enclosures.
- + 2-Inch Copper voice coil.



GENERAL SPECIFICATIONS

Nominal Chassis Diameter	8" / 203.2 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7.6 Ω
AES Power Handling ⁽²⁾	225 W (A.E.S.)
Program Power	450 W
Peak Power (6dB Crest Factor)	900 W
Frequency Range (-6dB)	55 Hz - 5 kHz
Sensitivity (1W/ 1m)	97 dB
Magnet Material	Ferrite
Magnet Weight	34 oz
Magnetic Gap Depth	0.31" / 7.87 mm
Flux Density	1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.59" / 14.98 mm
Voice Coil Diameter	2" / 50.8 mm
Cone/ Dust Dome Material	Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen

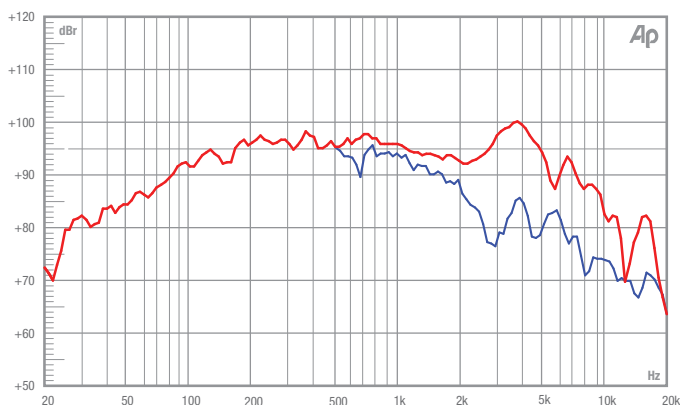
TECHNICAL & THIELE SMALL PARAMETERS

Fs	62 Hz
Re	6.1 Ω
Qms	4.3
Qes	0.42
Qts	0.38
Vas	22 Litres
Vd	0.085 Litres
Cms	0.34 mm/N
Bl	11 T/m
Mms	20.69 g
Xmax	5.5 mm
Sd	213 cm ²
Efficiency	1.25 %
Le (1k Hz)	1.47 mH
EBP	147.62 Hz
Effective Piston Diameter	6.496" / 164.99 mm
Rec. Enclosure Volume	0.70 - 1.23 ft ³ / 20 - 35 Litres

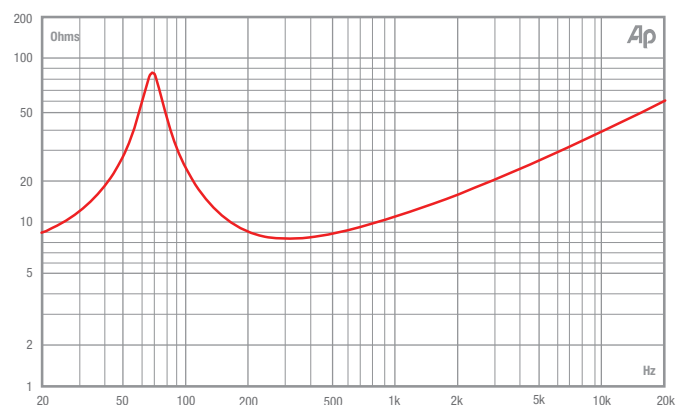
MOUNTING / SHIPPING INFORMATION

Overall Diameter	8.18" / 207.77 mm
Width Across Flats	N/A
Depth	3.74" / 94.99 mm
Flange Height	0.27" / 6.9 mm
Baffle Hole Diameter F/M	7.24" / 183.89 mm
Baffle Hole Diameter R/M	7.24" / 183.89 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	8x Ø 5.5 mm on 7.79" / 197.8 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	6.06 lb / 2.75 kg
Shipping Weight	6.94 lb / 3.15 kg
Packing Carton Dimensions (mm)	(W) 235 (D) 235 (H) 130

FREQUENCY RESPONSE DATA⁽³⁾



IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

SOVEREIGN 6-100

BASS / MID-RANGE DRIVER

6" / 152.4 mm

CHASSIS DIAMETER

200 W

PROGRAM POWER

60 Hz - 7 kHz

FREQUENCY RESPONSE

1.5" / 38.1 mm

VOICE COIL DIAMETER

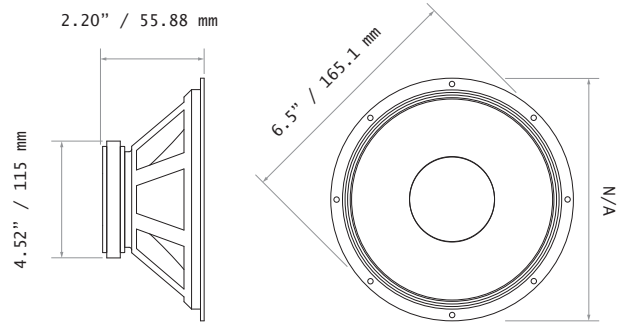
93 dB

SENSITIVITY (1W/1m)

2.5 mm Xmax

MAX. LINEAR EXCURSION

- + Versatile driver for use in pro-sound applications.
- + Best suited as a mid-range driver in a small sealed enclosure designs.
- + Works well as a mid/ bass driver in vented enclosures.
- + Optimised cone pulp offers increased strength, durability and performance.
- + 1.5-Inch Copper voice coil.



GENERAL SPECIFICATIONS

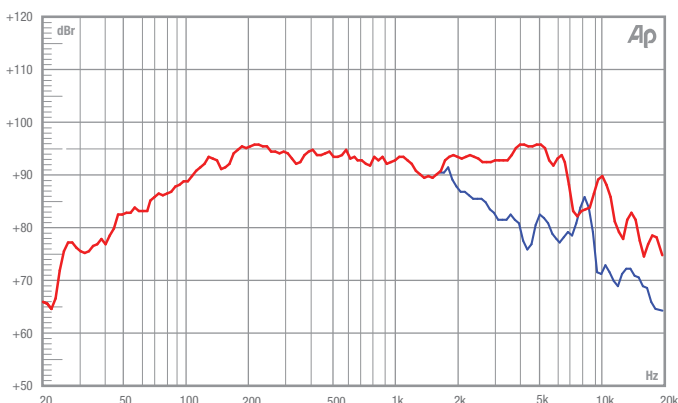
Nominal Chassis Diameter	6" / 152.4 mm
Nominal Impedance ⁽¹⁾	8 Ohm
Minimum Impedance Zmin	7 Ω
AES Power Handling ⁽²⁾	100 W (A.E.S.)
Program Power	200 W
Peak Power (6dB Crest Factor)	400 W
Frequency Range (-6dB)	60 Hz - 7 kHz
Sensitivity (1W/1m)	93 dB
Magnet Material	Ferrite
Magnet Weight	20 oz
Magnetic Gap Depth	0.23" / 6 mm
Flux Density	1 Tesla
Former Material	Glass Fibre
Voice Coil Material	Copper
Coil Winding Height	0.39" / 10 mm
Voice Coil Diameter	1.5" / 38.1 mm
Cone/ Dust Dome Material	Paper / Paper
Surround / Edge Termination	Polyvinyl Damped Dbl. Half Roll Linen

TECHNICAL & THIELE SMALL PARAMETERS

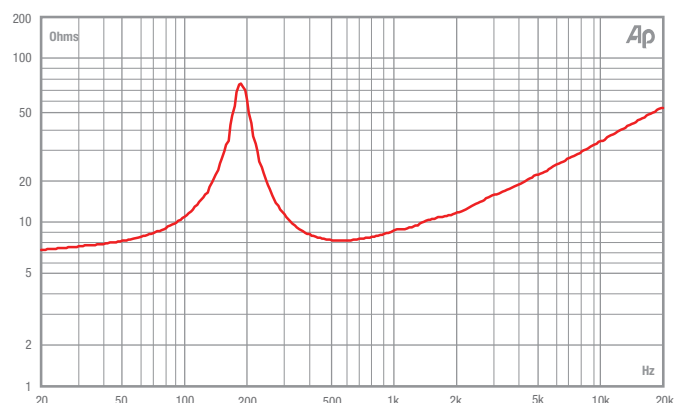
Fs	115 Hz
Re	6.9 Ω
Qms	12.8
Qes	0.67
Qts	0.64
Vas	2.2 Litres
Vd	0.032 Litres
Cms	0.08 mm/N
Bl	13.25 T/m
Mms	23.94 g
Xmax	2.5 mm
Sd	139.2 cm ²
Efficiency	0.5 %
Le (1k Hz)	1.15 mH
EBP	171.64 Hz
Effective Piston Diameter	5.15" / 130.81 mm
Rec. Enclosure Volume	0.35 - 0.70 ft ³ / 10 - 20 Litres

MOUNTING / SHIPPING INFORMATION

Overall Diameter	6.5" / 165.1 mm
Width Across Flats	N/A
Depth	2.20" / 55.88 mm
Flange Height	0.27" / 6.9 mm
Baffle Hole Diameter F/M	5.78" / 146.81 mm
Baffle Hole Diameter R/M	5.78" / 146.81 mm
Chassis Material	Pressed Steel
Gasket Supplied	Front & Rear
Outer Fixing Holes	4x Ø 5.9 mm on 6.14" / 155.96 mm PCD
Inner Fixing Holes	N/A
Connectors ⁽⁴⁾	Solder Tag
Weight	3.63 lb / 1.65 kg
Shipping Weight	4.29 lb / 1.95 kg
Packing Carton Dimensions (mm)	(W) 205 (D) 205 (H) 135

FREQUENCY RESPONSE DATA⁽³⁾

IMPEDANCE



(1) Please enquire about alternative impedances.

(2) 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.

(3) Half space response measured in a 975 Litre sealed box. Blue line = fundamental 45° off-axis. 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.

(4) Positive voltage at red terminal causes forward motion of cone.

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 / 0.45 kg

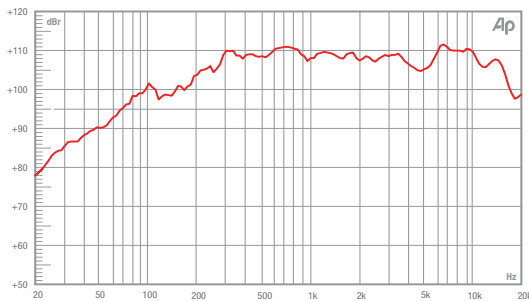


CD-140

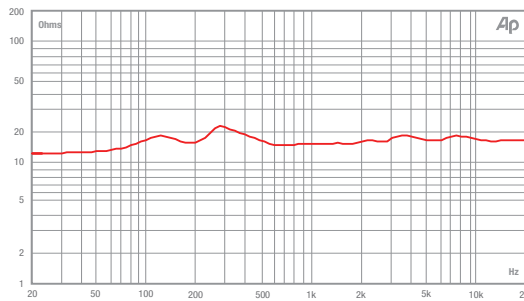
COMPRESSION DRIVER

- + 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.

FREQUENCY RESPONSE DATA*



IMPEDANCE



* 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 / 0.45 kg

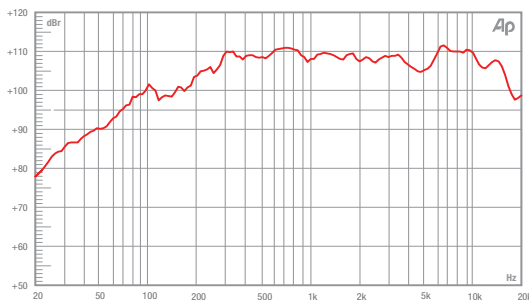


CD-140S

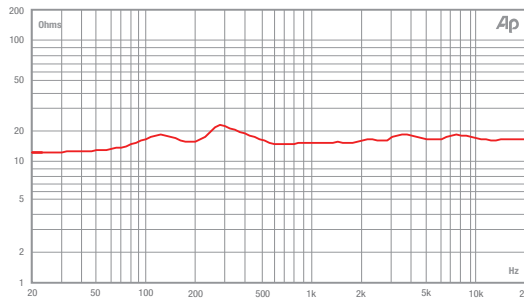
COMPRESSION DRIVER

- + 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.

FREQUENCY RESPONSE DATA*



IMPEDANCE



* 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-140P

COMPRESSION DRIVER

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



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 / 0.45 kg

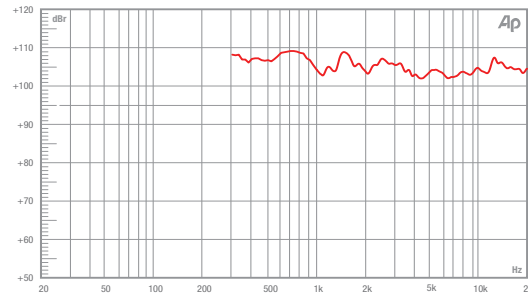
MOUNTING / SHIPPING INFO

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

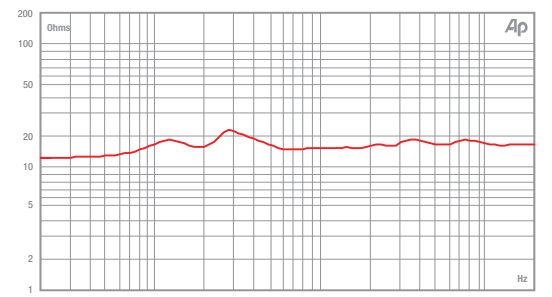
MATERIALS OF CONSTRUCTION

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

FREQUENCY RESPONSE DATA*



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.

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 (25.4 mm) small format diaphragm compression driver.

The 1 inch (25.4 mm) exit is an industry standard. The CD-131 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 CD-131 features an industry standard bolt on mounting system that is ideally matched to commercially available bolt on horns.



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" / 34 mm
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

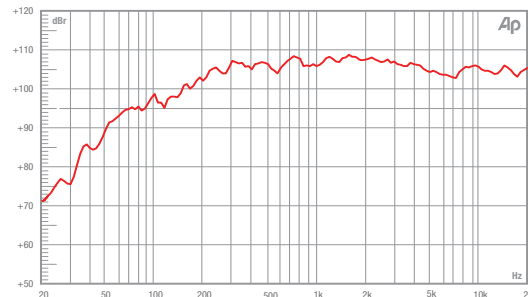
MOUNTING / SHIPPING INFO

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

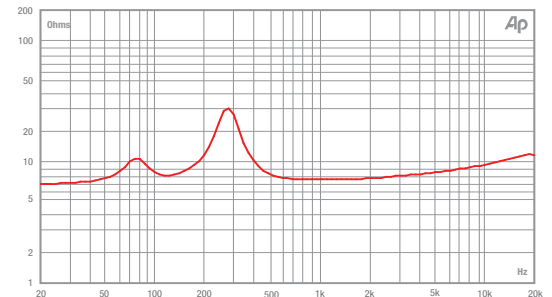
MATERIALS OF CONSTRUCTION

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.

FREQUENCY RESPONSE DATA*



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	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

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" / 34 mm
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

CD-130
COMPRESSION DRIVER

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

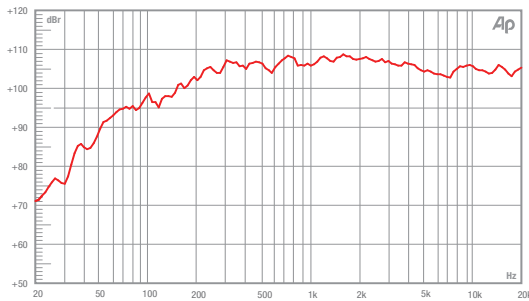
The CD-130 is a 1 inch (25.4 mm) small format diaphragm compression driver.

The 1 inch (25.4 mm) exit is an industry standard. The CD-130 combines high BL and a very lightweight diaphragm assembly, producing high output that offers extended bandwidth and well defined frequency response to 18 kHz.

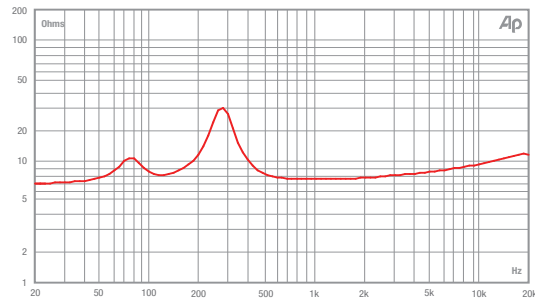
The driver has a rated low frequency response limit of 2 kHz and has a smooth response throughout its bandwidth.

The CD-130 features an industry standard screw fit mounting system that is ideally matched to commercially available female screw thread horns.

FREQUENCY RESPONSE DATA*



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.



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