Sub-18F

FEATURES

- » Direct radiator sub-woofer
- » Internally defeatable built-in crossover filter
- » 18" low frequency speaker
- » 500 W power handling

SPECIFICATIONS

RMS (Average) Power Handling[R]:	500 W
Program Power Handling[P]:	1000 W
Peak Power Handling[K]:	2000 W
On-axis Frequency Range[F]:	32 Hz - 225 Hz
Nominal Impedance:	8 Ω
Minimum Impedance[I]:	7.7 Ω (at 33 Hz).
	Low-pass defeated[X]: 6.5 Ω (at 35 Hz)
On-axis Sensitivity 1W / 1 m[S]:	98 dB SPL
Rated Peak SPL at Full Power:	131 dB SPL at 1m
Nominal -6 dB Beamwidths[B]:	360° Horizontal
(100 Hz octave)	360° Vertical
Enclosure Material:	MDF
Finish:	Black catalyzed polyurethane paint
Transducers/Replacement Parts:	18H/GM 18G
Connectors:	NL4 Speakon, wired to ±1
	2 paralleled inputs
	1 high-pass satellite output
Dimensions (H x W x D):	64 x 55 x 53 cm (25.5 x 22 x 21 in)
Weight:	39.3 kg (86.5 lbs)
Shipping Weight:	42.3 kg (93 lbs)

[R] Corresponds to the AES power handling rating for the component, based on a 2 hour test using a 6 dB crest factor bandlimited pink noise signal.
[P] Conventionally 3 dB higher than the RMS measure, although this already utilizes a program signal.
[K] Corresponds to the signal crests for the test described in[R].
[F] As per IEC 268-5 (1989), re. a one octave band centred at 80 Hz. Half space anechoic.
[I] In practice cable and connector impedance has to be added to all impedance values.
[X] For use with an external electronic crossover, we strongly recommend defeating the built-in low-pass filter. Simply open the wooden center back panel to expose the passive filter network and unplug the faston connector from the "OUT BASS +" position and plug it into the "OUT SUB ACTIVE +" connection.
[S] For the 100 Hz one octave band.
[B] Average of one-third octave band measures.
One and one-third octave bands comply to ANSI S1.11-1986.

INTRODUCTION

The D.A.S. Sub-18F is a bass-reflex sub-woofer system for use in systems where bass reinforcement is required with or without the addition of an extra amplifier.

APPLICATIONS

The Sub-18F is designed for applications such as portable music applications, DJ, and clubs.

DESCRIPTION

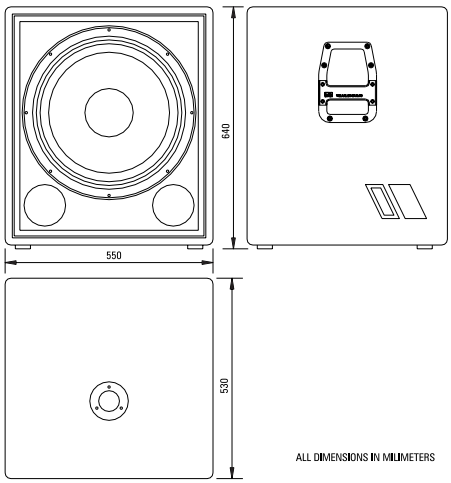
The unit utilizes a high efficiency 18" low frequency speaker with 4" voice coil configured as a direct radiator. Pole piece, side slot and direct convection cooling provide high power handling and low power compression.

A true, first order, crossover filter providing impedance separation is built into the unit. This allows for subwoofer reinforcement using a single amplifier for both the mid-high boxes and Sub-18F. For active use, the low-pass portion can be internally defeated.

The enclosure is manufactured from MDF wood and is finished with a hard wearing catalyzed polyurethane paint that permits color adaptations and provides weather resistance. Loudspeaker components are protected by a heavy-duty steel grille sealed against corrosion using a poliamide powder coat finish.

PLACEMENT

As with any bass unit, the Sub-18F's low frequency output will benefit from placement against walls and/or floors.
The top panel contains a standard 35 mm diameter pole mount socket for use with metal posts for mounting full-range D.A.S. systems above the SUB-18F sub-woofer unit.



D.A.S. SOUND PRODUCTS

Frequency Response
Figure 1 shows the frequency response at 1 m of a unit radiating to a half space anechoic environment and driven by a 1 W (2.83 V) swept sine signal.

Impedance
Figure 2 shows impedance with frequency.

Distortion
Figure 3 shows the Total Harmonic Distortion Plus Noise (solid), Second Harmonic Distortion (grey) and Third Harmonic Distortion (dotted) curves for a unit driven at 10% of its nominal power handling rating.

Beamwidth
Figure 4 shows the -3, -6 and -10 dB horizontal (solid) and vertical (dashed) beamwidth with frequency curves. -6 dB ones are shown with thicker traces for clarity.

Axial Directivity $Q(R_\theta)$ and D_I
Figure 5 shows the above characteristics with frequency. Thin continuous and dashed lines show partial horizontal and vertical, respectively, characteristics.

Polar Response
Figure 6 shows the one octave band horizontal (solid) and vertical (dashed) polars for the indicated frequencies. Full scale is 50 dB, 5 dB per division.

NOTES. 1.Frequency response: referred to 1 m; low end obtained through the use of near field techniques; one-third octave smoothed for correlation with human hearing. 2.In practice, cable and connector impedance need to be added. 3.THD+N is 22 - 22 kHz filtered; low frequency near-field techniques used. 4.Directivity characteristics plotted with respect to frequency are the average within the one-third octave bands of center frequencies noted by the marks at the bottom of the graphs, but are joined up for display purposes. Interpolation was used below 100 Hz. All other characteristics plotted vs. frequency use 1/24th octave resolution. Regions of less than 1 dB below goal level and sharp notches may be ignored when calculating beamwidths. 5.Directivity factor and index were computed from two degree resolution vertical and horizontal polars using sinusoidal weighting. 6.Polars were acquired by placing the unit on a computer controlled turntable inside our anechoic chamber. Measurement distance was 4 m.

Product improvement through research and development is a continuous process at D.A.S. Audio. All specifications subject to change without notice.

FIG. 1

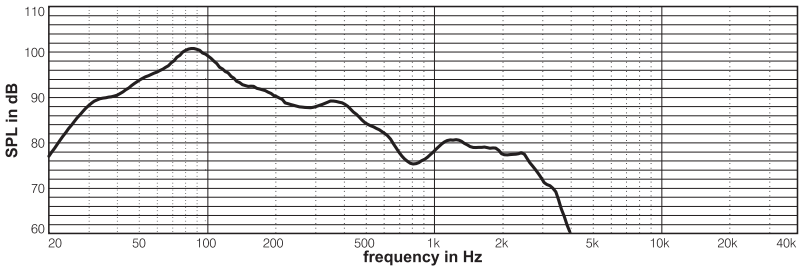


FIG. 2

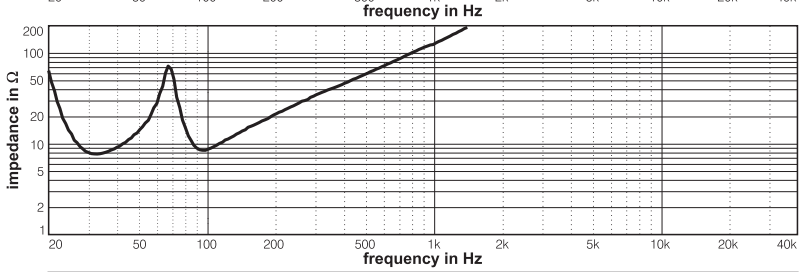


FIG. 3

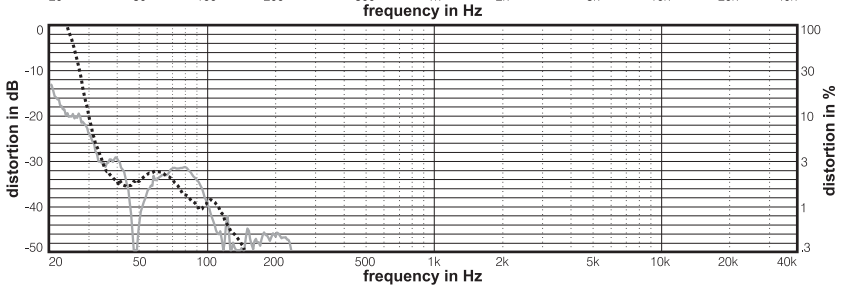


FIG. 4

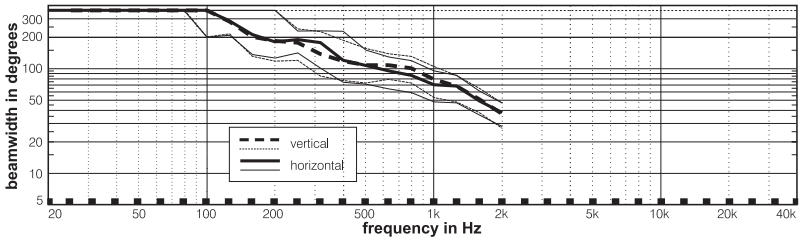


FIG. 5

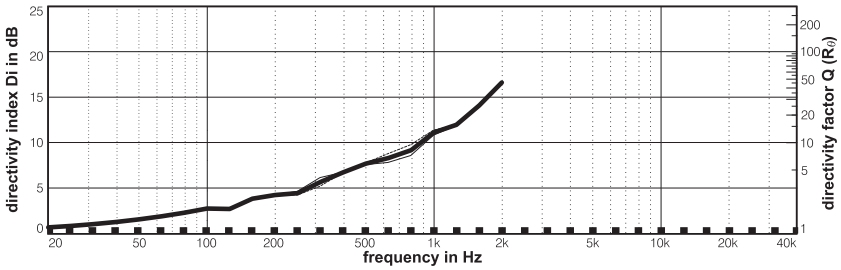
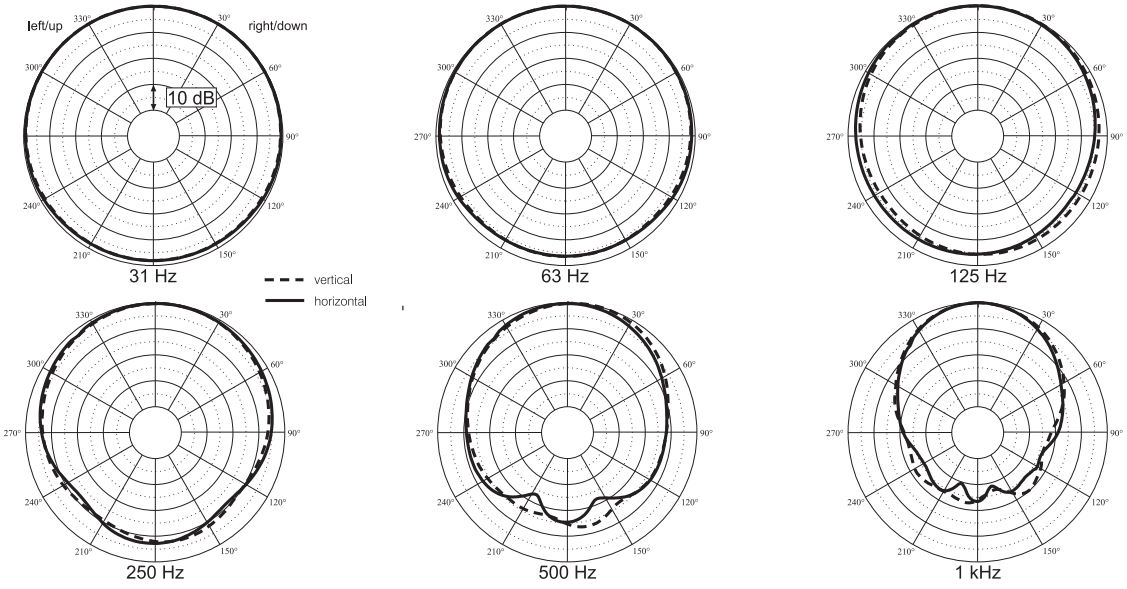


FIG. 6



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