

User's Manual

12-INCH DUAL VOICE COIL
FLAT SUBWOOFER

D120FD

PHANTOM
SERIES

D120FD
12-INCH DUAL VOICE COIL FLAT SUBWOOFER

03.2010



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AUDIO SYSTEMS

Product Specifications

Speaker Impedance	table	2ohms	4ohms	8ohms
Free Air Resonance	(Fs)	32	32	32
Total Q Driver @ FS including all resistance's	(Qts)	0.822	1.377	0.851
Q of the Driver @ FS including non electrical resistance only	(Qms)	4.02	4.162	4.279
Q of the Driver @ FS including electrical resistance only	(Qes)	1.034	2.058	1.062
The Driver's compliance expressed as an equivalent	(Vas)	2.117	2.098	2.101
Volume of all (cubic Ft.)				
The Driver's linear displacement (inches)	(Xmax)	0.2067	0.2067	0.2067
The DC resistance of the driver's twin voice coils(ohms)	(Re)	1.8	3.6	7.2
Thermal Power rating of Driver (R.M.S./Peak)	(Pe)	500W/1000W	500W/1000W	500W/1000W
The Driver's sensitivity (dB)	(Sens)	95	95	95

Calculating Enclosures

It is difficult to give exact box dimensions that are universal for all cars and trucks. It is for this reason that you must be able to calculate the space in which you have available in order to achieve the proper air volume required.

It is recommended to build your enclosure from 3/4" thick MDF (medium density fiberboard). Make sure the enclosure is sealed air tight.

Calculating External Volume

1) To calculate box volume, measure the outside Width x Height x Depth of the enclosure. Example 12" x 14" x 9" = 1512"

2) Next you must convert cubic inches into cubic feet. To do this, You must divide the cubic inch total by 1728". Example 1512 ÷ 1728= .875 Cubic feet

Calculating Internal Volume

1) To calculate the internal (net) volume of the above box you must first multiply the thickness of the wood you are using by Two (2) Example; 3/4" x 2"=1.5"

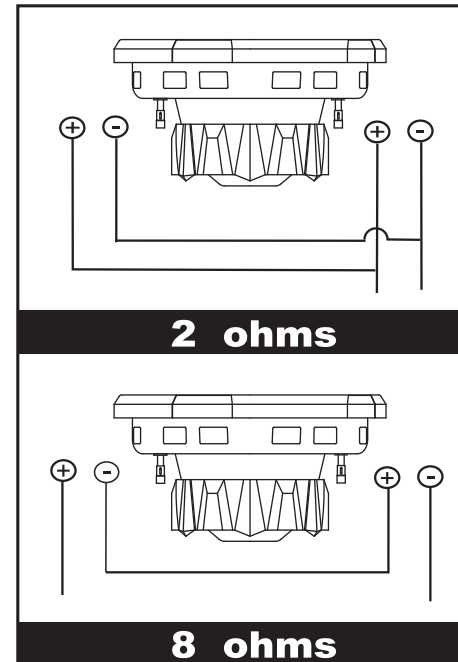
2) Next Subtract 1.5 from each of the outside measurements of the box.
Width 12-1.5=10.5 Height 14-1.5=12.5 Depth 9-1.5=7.5

3) Multiply the new totals (H x W x D) Example : 10.5 x 12.5 x 7.5=984.375

4) Next you must convert cubic inches into cubic feet.To do this,you must divide the cubic inch total by 1728" Example 984.375 ÷ 1728=. 5696 Cubic feet

Wiring

Please take every precaution to wire your DVC woofers for the correct impedance

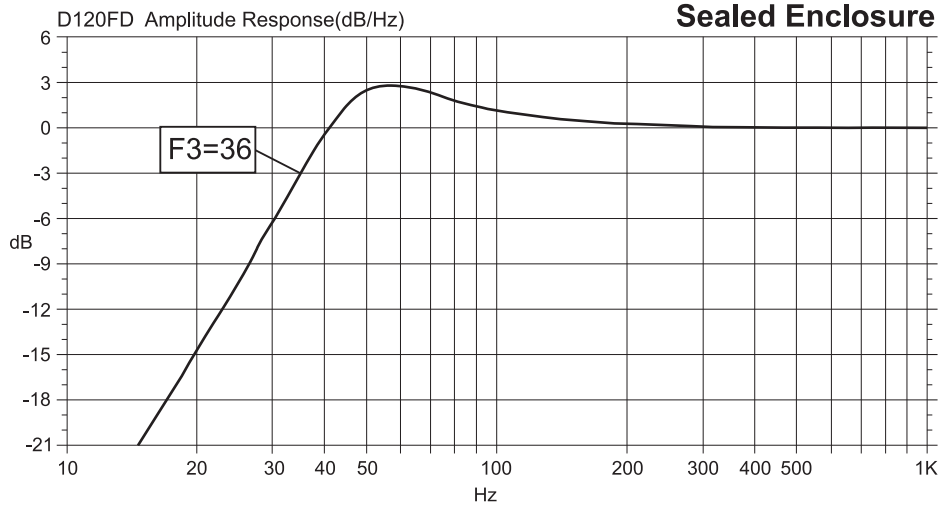


12" (305mm) Subwoofer (500 Watts RMS Sealed Enclosure)

- 12" (305mm) BLACK POLY-MICA CONE
- BUTYL RUBBER SURROUND
- DUAL 2" (51mm) HIGH TEMPERATURE ALUMINUM VOICE COIL
- 1000 WATTS PEAK / 500 WATTS RMS
- FREQUENCY RESPONSE: 28Hz – 2KHz
- SENSITIVITY: 95dB (1 WATT/1 METER)
- IMPEDANCE: DUAL 4 OHM
- MOUNTING DEPTH: 3-7/8" (98mm)
- MOUNTING DIAMETER: 11-1/8" (283mm)

Recommended Enclosures

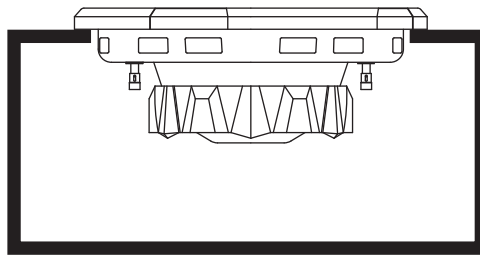
Please note : Our recommended box volumes are given for internal air requirements.



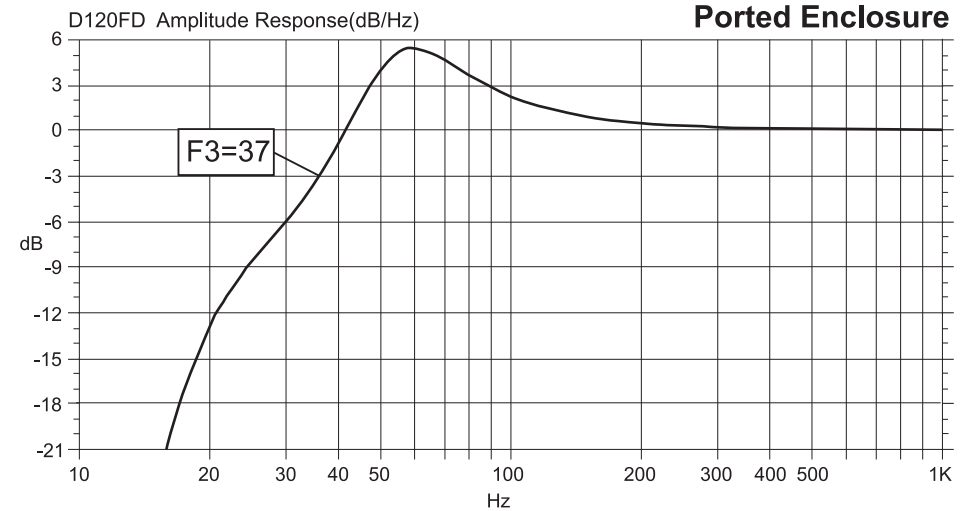
Frequency

Sealed Enclosure

Box Volume : 1.5 Cu Ft



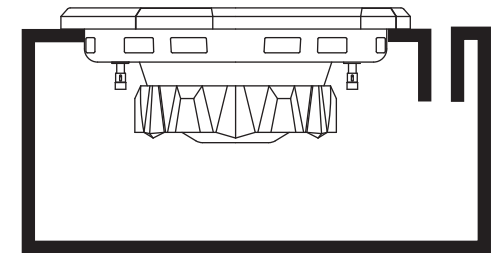
Box is given as internal air volume including driver displacement



Frequency

Ported Enclosure

Box Volume : 1.5 Cu Ft



Box is given as internal air volume including driver displacement

Port Frequency : 31 Hz
 Port Diameter : 3 Inches
 Port Length : 8 Inches