# **ENCLOSURE RECOMMENDATIONS**

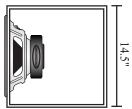
### **Optimum Sealed Volume**

Internal volume: 1.32ft3 / 37.38L

Enclosure "O": .95 -3dB response: 41Hz Efficiency: 88.4dB

Maximum power handling: 300 watts





14.5"

15.6"

Cu. feet/liters	"Q"	-3dB	Efficiency	PE
small sealed volume: 1.01/28.60	1.01	42Hz	88.7dB	300 watts
large sealed volume: 3.46/97.98	.71	37Hz	87.4dB	300 watts

Tune to

28Hz

25Hz

## **Optimum Vented Volume**

Internal volume: 2.6ft3 / 73.62L

Tuning frequency: 27Hz Port (D x L): 4" x 14.5" -3dB response: 30Hz Efficiency: 90dB

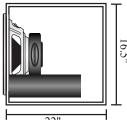
Cu. feet/liters

small vented volume: 2.2/62.3

large vented volume: 3.3/93.45

Maximum power handling: 300 watts





16.5"	

Port

4" x 16.3"

4" x 13"

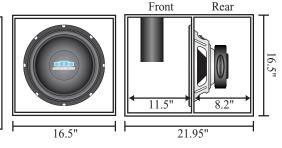
-3dB	Efficiency	PE	
33Hz	90.1dB	300 watts	
27Hz	89.2dB	275 watts	

# **Optimum Bandpass Volume**

Front volume: 1.5ft3 / 42.48L Rear volume: 1ft3 / 28.32L Tuning frequency: 59.9Hz Port (D x L): 6" x 9" -3dB response: 38 - 89Hz

Efficiency: 93.8dB

Maximum power handling: 275 watts



Front cu. ft/liters	Rear cu.ft/liters	Tune to	Port	-3dB	Efficiency	PE
1.36/38.51	1.61/45.59	55.6Hz	6"x 13"	34 – 76Hz	91.7dB	250 watts
1.43/40.49	1.37/38.79	57Hz	6"x 11.25"	36 – 80Hz	92dB	300 watts

<sup>\*</sup>Note: Dimensions given require the use of 0.75" (19mm) board.

## DAMPING MATERIAL

The most common damping materials used are Dacron and Polyfill. Reclaimed fiber underlay has been discovered to be an excellent substitute especially when glued directly to the walls of the enclosure. Fiberglass may be used, but please limit usage to sealed enclosures only. When used in vented/bandpass enclosures, fiberglass fibers escaping through the port may be hazardous to your

SEALED ENCLOSURE VENTED ENCLOSURE BANDPASS (sealed chamber) BANDPASS (vented chamber) DACRON/POLYFILL loosely fill the enclosure line 3-5 walls line 3 walls line 1 wall (optional)

UNDERLAY line 5 walls line 1-3 wall line 1-3 wall line 1 wall (optional)

line 5 walls Please limit the use of fiberglass to sealed enclosures only

FIBERGLASS

Model	DBW12D
Driver description	12" Subwoofer, Dual Voice Coil
Mounting depth, in./mm	5.375/136.6
Cutout dimensions, in./mm	11.1/282.08
Impedance	4 ohms per coil
Nominal power handling	200watts
Maximum power handling (PE)	300 watts
Dynamic power handling	800 watts
Voice coil – size	2", 4 layer
Magnet weight	38 oz.
Frequency response	22Hz to 500Hz
Resonance frequency (fs)	25.7Hz
QTS	.511
QMS	8.19
QES	.545
VAS, ft./liter	3.93/111.25
X-max, in./mm	.315/8
Efficiency (2.83V/1M)	87.3dB

## **POWER RATINGS**

Rating the power handling of subwoofers is not a difficult task. However, understanding power ratings is often confusing. Many times the Maximum Power Ratings are viewed as the RMS power handling of the driver, when in actuality Maximum is generally the break point of the driver. This has lead Crossfire to come up with a system to rating the power necessary to drive our subwoofers. Please read the following cautiously before choosing your amplifier.

### Nominal power handling

-Nominal power handling is the power rating given by Crossfire at which the subwoofer will experience minimal mechanical degradation over time when using a recommended enclosure. In other words, this is the recommended power to be used per woofer to assure long life.

### Maximum power handling (PE)

-Maximum power handling is the power rating given by Crossfire at which the subwoofer could experience a high amount of mechanical degradation that may lead to possible failure over time when using a recommended enclosure. In other words, do not exceed this power level for extended periods of time.

### Dynamic power handling

Dynamic power handling is the power rating given by Crossfire for peak transients and short bursts. Continuous playing at or above this level will cause mechanical failure and/or thermal failure. In other words, this power level should never be attained with the exceptions of approved SPL competition vehicles. This could possibly void your warranty.

<sup>\*\*</sup>Be sure to add in .061ft3 / 1.73L for driver displacement in all "Other" enclosures.

<sup>\*\*\*</sup>WARNING: Due to long port length, slot porting will most likely be needed. Tube ports are for illustration purposes only.