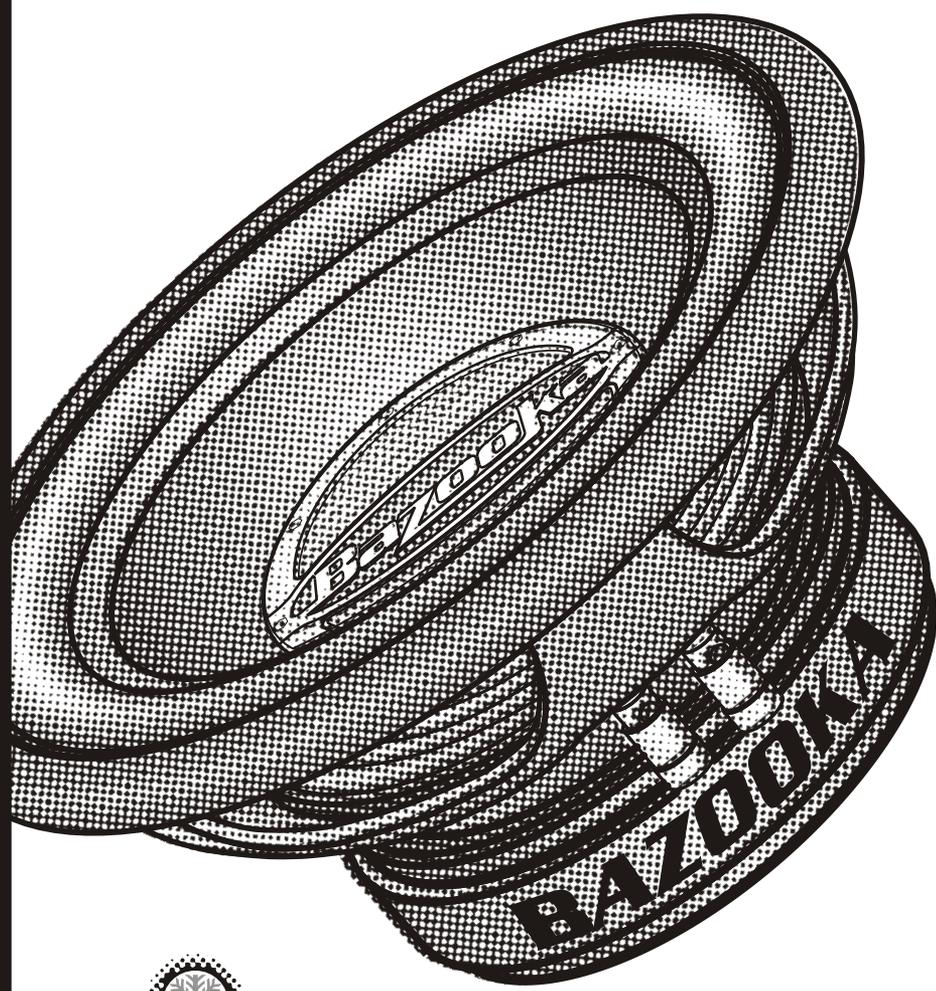


ELW8014/ELW8018, ELW1014.2/ELW1018.2, ELW1214.2/ELW1218.2



EL SUBWOOFERS



Installation Manual



Dear customer,

Congratulations on your purchase of a Bazooka EL high-performance subwoofer. At Bazooka we are fanatics about accurate music reproduction. Your selection of our products for your sound system indicates that quality sound is also important to you too. At SAS, we take great pride in manufacturing revolutionary audio products, and through the years of engineering expertise, hand craftsmanship and critical testing procedures, we have created the EL high-performance series of subwoofers. We hope that you will take as much pride in owning and using one of these high-quality audio products as we do designing and manufacturing them.

When properly installed and operated, your Bazooka EL subwoofer will give you years of clean uninterrupted sound reproduction. Therefore, we urge you to take a few minutes to carefully read through this manual. It will explain how to properly build an enclosure to optimize performance and longevity of the subwoofer.

Sound can be deceiving. Over time your hearing comfort level adapts to higher volumes of sound. What may have sounded normal can actually be too loud and harmful to your hearing. Guard against this by setting your equipment at a safe level before your hearing adapts.

To establish a “safe level”,

- Start with your volume control at a low setting.
- Slowly increase the volume control until you can hear comfortably, clearly and without distortion.
- Once you have established a comfortable “sound level”, make a note of this position and do not go above this setting

Taking a minute to do this will help prevent your hearing from being damaged and allow you to enjoy listening to music throughout your lifetime.

CALCULATING ENCLOSURE VOLUME

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.

$$\text{Example } 12'' \times 14'' \times 9'' = 1512''.$$

2.) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inch total by 1728".

$$\text{Example } 1512 \div 1728 = .875 \text{ Cubic feet.}$$

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).

$$\text{Example } 3/4'' \times 2 = 1.5''.$$

2.) Next subtract 1.5 from each of the outside measurements of the box.

Width	Height	Depth
$12 - 1.5 = 10.5$	$14 - 1.5 = 12.5$	$9 - 1.5 = 7.5$

3.) Multiply the new totals (H x W x D)

$$\text{Example: } 10.5 \times 12.5 \times 7.5 = 984.375$$

4.) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inch total by 1728"

$$\text{Example } 984.375 \div 1728 = .5696 \text{ Cubic feet.}$$



PRODUCT SPECIFICATIONS (8" SUBWOOFERS)

ELW8014

Free Air Resonance.	(FS)	34
Total Q of driver @ FS including all resistance.	(Qts)	.45
Q of driver @ FS including non electrical resistance only.	(Qms)	9.04
Q of driver @ FS including electrical resistance only.	(Qes)	.48
The driver's compliance expressed as an equivalent volume of air (Cubic Ft.).	(Vas)	.66
The driver's linear displacement (Inches).	(Xmax)	.20
The DC resistance of the driver's voice coil (ohms).	(Re)	3.4
RMS Power Handling (Standard/ With Liquid Cooling)	(W)	150/225
Max Power handling (Standard/ With Liquid Cooling)	(W)	300/300
The driver's voice coil inductance (millihenries).	(Le)	1.9
The drivers sensitivity (dB @ 1W 1M).	(Sens)	83

ELW8018

Free Air Resonance.	(FS)	37
Total Q of driver @ FS including all resistance.	(Qts)	.61
Q of driver @ FS including non electrical resistance only.	(Qms)	10.09
Q of driver @ FS including electrical resistance only.	(Qes)	.64
The driver's compliance expressed as an equivalent volume of air (Cubic Ft.).	(Vas)	.56
The driver's linear displacement (Inches).	(Xmax)	.20
The DC resistance of the driver's voice coil (ohms).	(Re)	6.8
RMS Power Handling (Standard/ With Liquid Cooling)	(W)	150/225
Max Power handling (Standard/ With Liquid Cooling)	(W)	300/300
The driver's voice coil inductance (millihenries).	(Le)	3.04
The drivers sensitivity (dB @ 1W 1M).	(Sens)	83

PRODUCT SPECIFICATIONS (10" SUBWOOFERS)

ELW1014.2

Free Air Resonance.	(FS)	29
Total Q of driver @ FS including all resistance.	(Qts)	.25
Q of driver @ FS including non electrical resistance only.	(Qms)	5.29
Q of driver @ FS including electrical resistance only.	(Qes)	.27
The driver's compliance expressed as an equivalent volume of air (Cubic Ft.).	(Vas)	2.32
The driver's linear displacement (Inches).	(Xmax)	1.14
The DC resistance of the driver's voice coil (ohms).	(Re)	3.6
RMS Power Handling (Standard/ With Liquid Cooling)	(W)	180/270
Max Power handling (Standard/ With Liquid Cooling)	(W)	250/375
The driver's voice coil inductance (millihenries).	(Le)	1.4
The drivers sensitivity (dB @ 1W 1M).	(Sens)	90

ELW1018.2

Free Air Resonance.	(FS)	35
Total Q of driver @ FS including all resistance.	(Qts)	.54
Q of driver @ FS including non electrical resistance only.	(Qms)	7.15
Q of driver @ FS including electrical resistance only.	(Qes)	.64
The driver's compliance expressed as an equivalent volume of air (Cubic Ft.).	(Vas)	1.33
The driver's linear displacement (Inches).	(Xmax)	1.14
The DC resistance of the driver's voice coil (ohms).	(Re)	6.8
RMS Power Handling (Standard/ With Liquid Cooling)	(W)	180/270
Max Power handling (Standard/ With Liquid Cooling)	(W)	250/375
The driver's voice coil inductance (millihenries).	(Le)	1.82
The drivers sensitivity (dB @ 1W 1M).	(Sens)	90

PRODUCT SPECIFICATIONS (12" SUBWOOFERS)

ELW1214.2

Free Air Resonance.	(FS)	30
Total Q of driver @ FS including all resistance.	(Qts)	.36
Q of driver @ FS including non electrical resistance only.	(Qms)	4.98
Q of driver @ FS including electrical resistance only.	(Qes)	.39
The driver's compliance expressed as an equivalent volume of air (Cubic Ft.).	(Vas)	3.10
The driver's linear displacement (Inches).	(Xmax)	1.14
The DC resistance of the driver's voice coil (ohms).	(Re)	3.6
RMS Power Handling (Standard/ With Liquid Cooling)	(W)	200/300
Max Power handling (Standard/ With Liquid Cooling)	(W)	300/450
The driver's voice coil inductance (millihenries).	(Le)	1.4
The drivers sensitivity (dB @ 1W 1M).	(Sens)	90

ELW1218.2

Free Air Resonance.	(FS)	34
Total Q of driver @ FS including all resistance.	(Qts)	.58
Q of driver @ FS including non electrical resistance only.	(Qms)	6.72
Q of driver @ FS including electrical resistance only.	(Qes)	.64
The driver's compliance expressed as an equivalent volume of air (Cubic Ft.).	(Vas)	2.59
The driver's linear displacement (Inches).	(Xmax)	1.14
The DC resistance of the driver's voice coil (ohms).	(Re)	6.8
RMS Power Handling (Standard/ With Liquid Cooling)	(W)	200/300
Max Power handling (Standard/ With Liquid Cooling)	(W)	300/450
The driver's voice coil inductance (millihenries).	(Le)	1.71
The drivers sensitivity (dB @ 1W 1M).	(Sens)	90

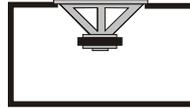
ELW8014 RECOMMENDED ENCLOSURES

Please Note: Our suggested box volumes are given as internal air requirements

Sealed Enclosure

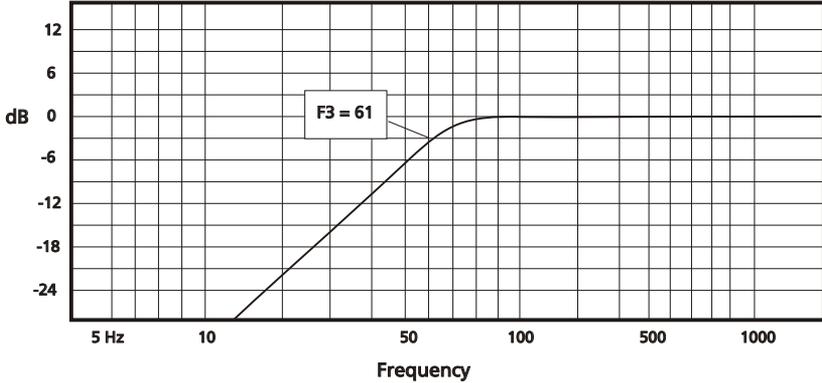
Box Volume * 0.34 Cu Ft.

* Box is given as internal air volume including driver Displacement.



ELW8014 Amplitude Response (dB/Hz)

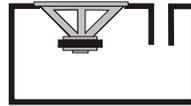
BAZOOKA Sealed Enclosure



Ported Enclosure

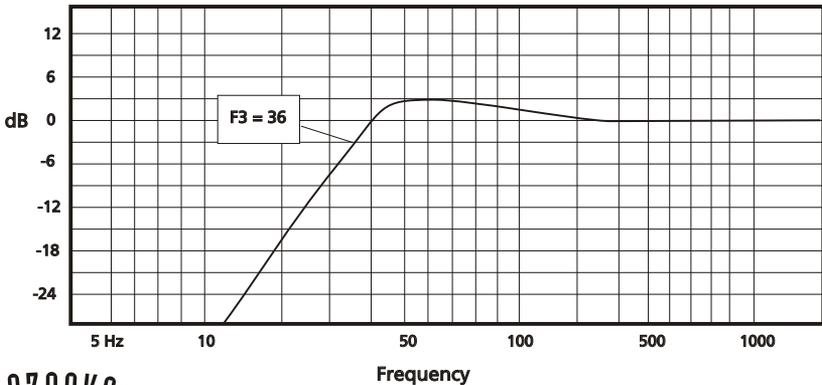
Box Volume * .57 Cu Ft.
Port Frequency (Fb) 40Hz
Port Diameter 2 Inches
Port Length 9.0 Inches

* Box is given as internal air volume including port and driver displacement.



ELW8014 Amplitude Response (dB/Hz)

BAZOOKA Ported Enclosure



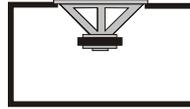
ELW1014.2 RECOMMENDED ENCLOSURES

Please Note: Our suggested box volumes are given as internal air requirements

Sealed Enclosure

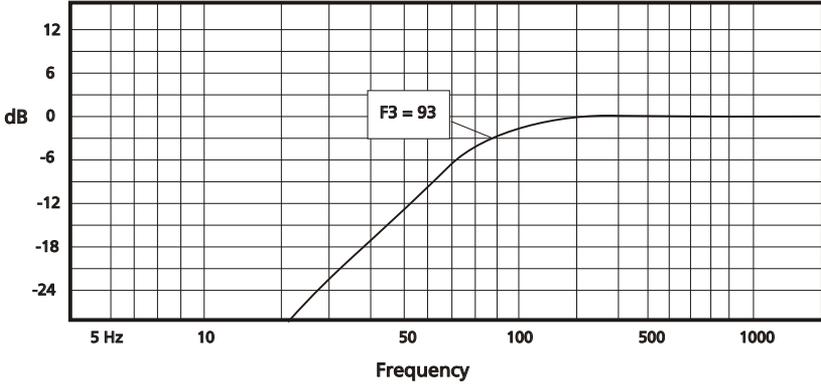
Box Volume * 0.66 Cu Ft.

* Box is given as internal air volume including driver Displacement.



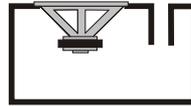
ELW1014.2 Amplitude Response (dB/Hz)

BAZOOKA Sealed Enclosure



Ported Enclosure

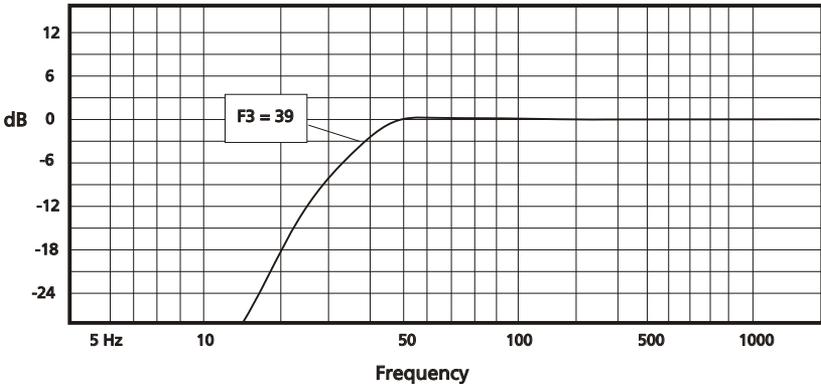
Box Volume * 1.6 Cu Ft.
Port Frequency (Fb) 42Hz
Port Diameter 4 Inches
Port Length 9.5 Inches



* Box is given as internal air volume including port and driver displacement.

ELW1014.2 Amplitude Response (dB/Hz)

BAZOOKA Ported Enclosure



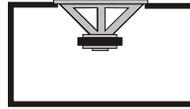
ELW1214.2 RECOMMENDED ENCLOSURES

Please Note: Our suggested box volumes are given as internal air requirements

Sealed Enclosure

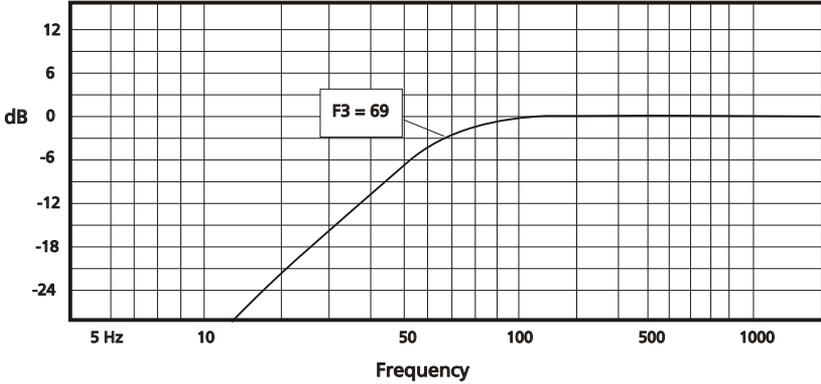
Box Volume * 0.93 Cu Ft.

* Box is given as internal air volume including driver Displacement.



ELW1214.2 Amplitude Response (dB/Hz)

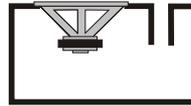
BAZOOKA Sealed Enclosure



Ported Enclosure

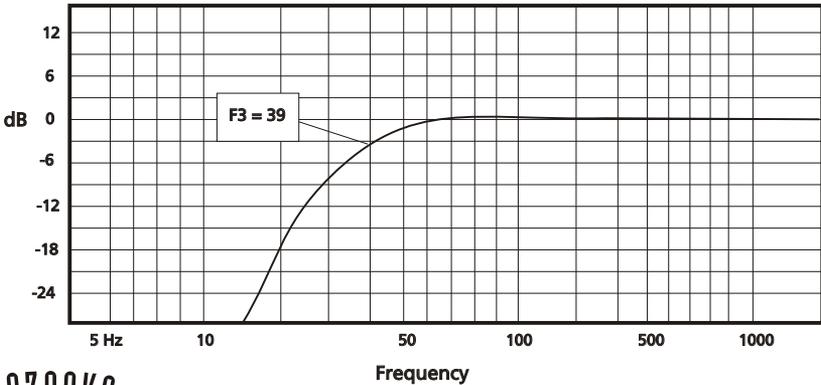
Box Volume * 2.0Cu Ft.
Port Frequency (Fb) 31Hz
Port Diameter 4 Inches
Port Length 15.71 Inches

* Box is given as internal air volume including port and driver displacement.



ELW1214.2 Amplitude Response (dB/Hz)

BAZOOKA Ported Enclosure



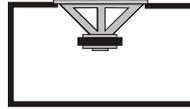
ELW8018 RECOMMENDED ENCLOSURES

Please Note: Our suggested box volumes are given as internal air requirements

Sealed Enclosure

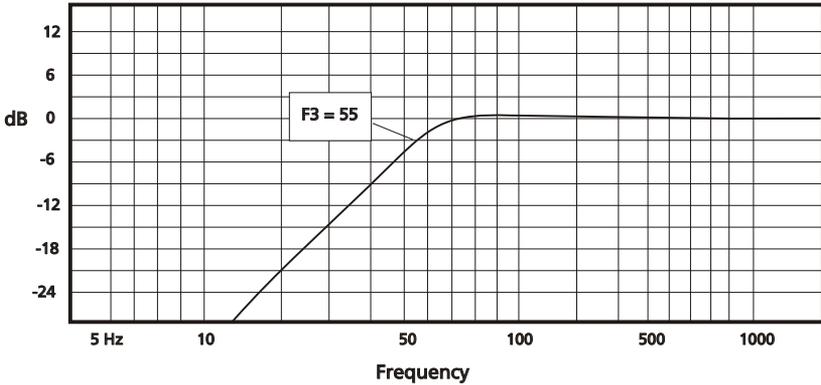
Box Volume * 0.34 Cu Ft.

* Box is given as internal air volume including driver Displacement.



ELW8018 Amplitude Response (dB/Hz)

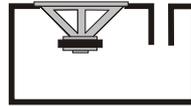
BAZOOKA Sealed Enclosure



Ported Enclosure

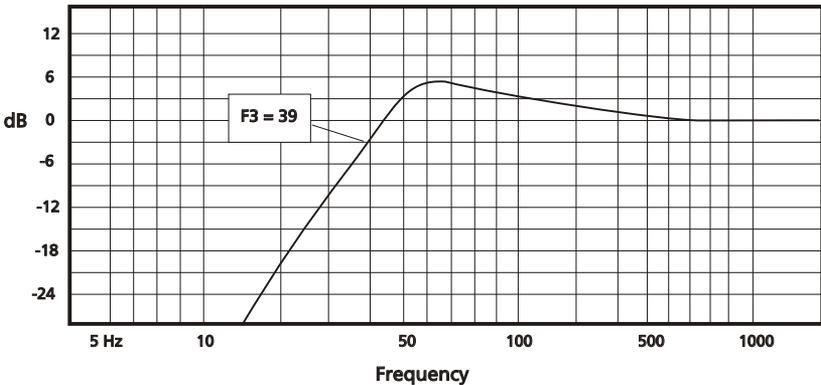
Box Volume * .54 Cu Ft.
Port Frequency (Fb) 40Hz
Port Diameter 2 Inches
Port Length 7.29 Inches

* Box is given as internal air volume including port and driver displacement.



ELW8018 Amplitude Response (dB/Hz)

BAZOOKA Ported Enclosure



EL SUBWOOFERS

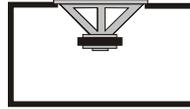
ELW1018.2 RECOMMENDED ENCLOSURES

Please Note: Our suggested box volumes are given as internal air requirements

Sealed Enclosure

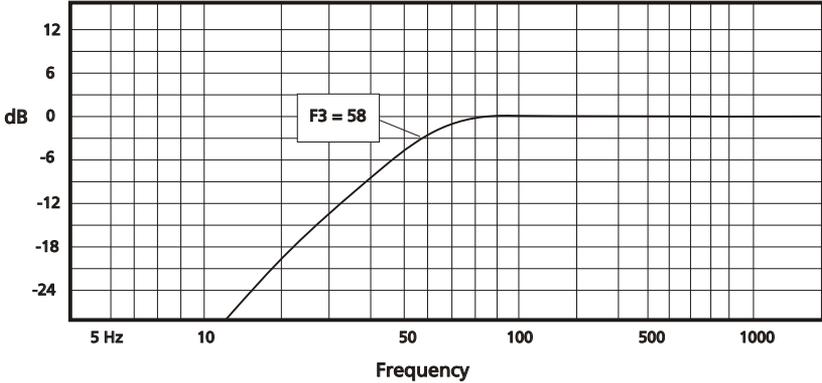
Box Volume * 0.50 Cu Ft.

* Box is given as internal air volume including driver Displacement.



ELW1018.2 Amplitude Response (dB/Hz)

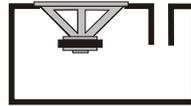
BAZOOKA Sealed Enclosure



Ported Enclosure

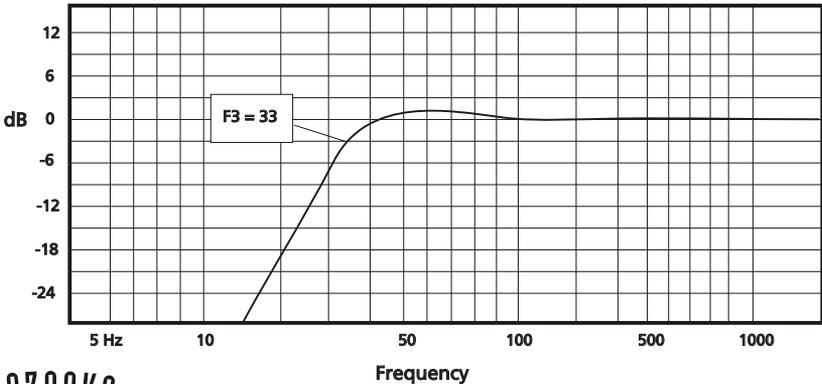
Box Volume * 1.6 Cu Ft.
Port Frequency (Fb) 40Hz
Port Diameter 4 Inches
Port Length 9.75 Inches

* Box is given as internal air volume including port and driver displacement.



ELW1018.2 Amplitude Response (dB/Hz)

BAZOOKA Ported Enclosure



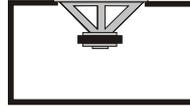
ELW1218.2 RECOMMENDED ENCLOSURES

Please Note: Our suggested box volumes are given as internal air requirements

Sealed Enclosure

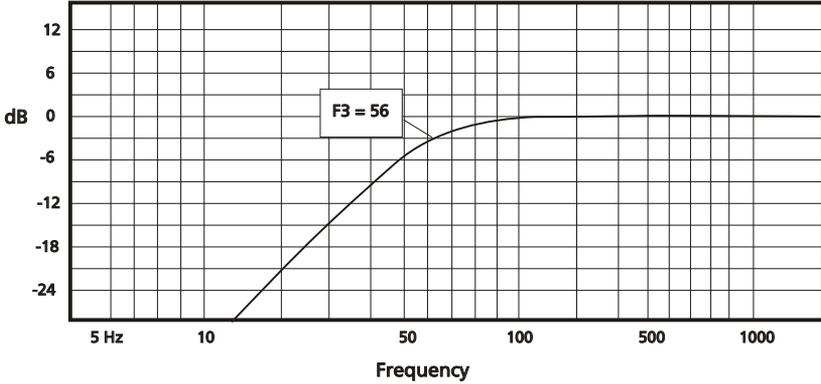
Box Volume * 0.83 Cu Ft.

* Box is given as internal air volume including driver Displacement.



ELW1218.2 Amplitude Response (dB/Hz)

BAZOOKA Sealed Enclosure



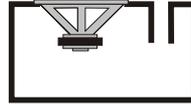
Ported Enclosure

Box Volume * 2.0 Cu Ft.

Port Frequency (Fb) 31Hz

Port Diameter 4 Inches

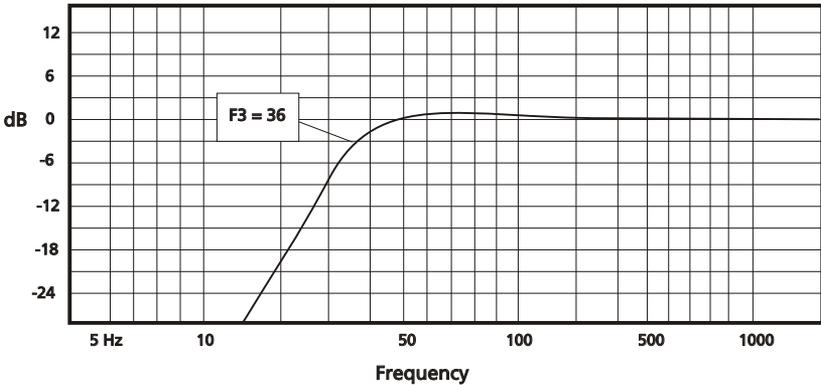
Port Length 14.33 Inches



* Box is given as internal air volume including port and driver displacement.

ELW1218.2 Amplitude Response (dB/Hz)

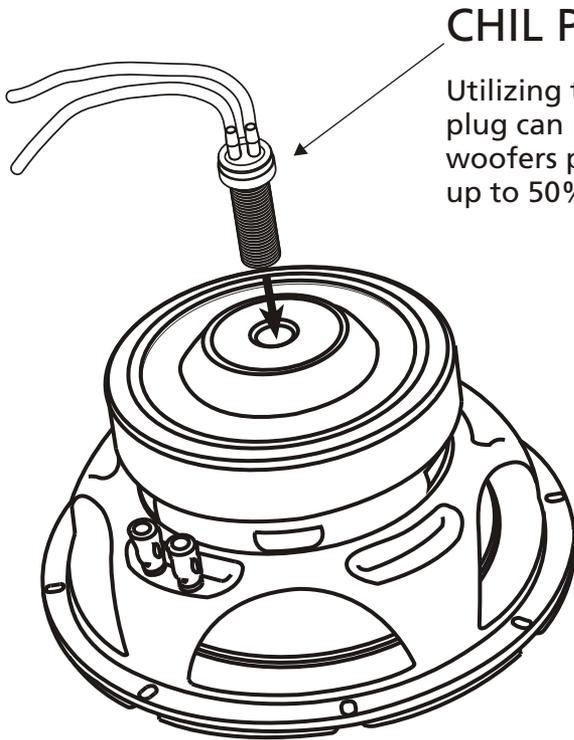
BAZOOKA Ported Enclosure



EL SUBWOOFERS

LIQUID COOLING

The innovative design of the EL component Woofers allows you to liquid cool the voice coil motor assembly for maximum power handling capability. With the addition of the CHIL PLUG and the CHIL KIT from your local dealer, or directly from SAS, you can easily add liquid cooling to your EL Series Component Woofer.



CHIL Plug

Utilizing the optional CHIL plug can increase the EL woofers power handling up to 50%.





If you have any questions contact the SAS Technical Support Department at:
Phone - 225 272-7135 • Fax 225-272-9844
In Canada: 604-988-2966
e-mail - tech@bazooka.com • Website - www.bazooka.com