

Dear Friend,

Thank you for selecting Bazooka<sup>®</sup> subwoofer speaker systems for your car stereo system. The Bazooka EL series represents SAS's continued commitment to efficiency and design. An innovative manufacturing process developed by SAS for the Bazooka provides consumers with state-of-the-art speaker system design. At SAS, we take pride in manufacturing the most revolutionary bass speaker systems ever created, featuring our patented Bass Tubes<sup>®</sup> enclosure design, and we hope you will take pride in owning them.

Several years ago, we realized that efficiency was the wave of the future in autosound, so we made a commitment to design, manufacture, and deliver the most efficient speaker systems possible.

Today we market our patented speaker systems worldwide and the high quality of the Bazooka brand is well respected by consumers and dealers of all nationalities.

When properly installed, Bazooka subwoofer speaker systems will give you years of clean uninterrupted sound reproduction. Therefore, I urge you to take a few minutes of your time to review this instruction booklet. It was designed to give you a better understanding of our products and to explain how to apply them properly.

Thank you again for choosing Bazookas. Our early commitment to quality has made them the product of choice, and I am sure you will agree that you have made the right one! Enjoy!

Sincerely,

JON C. JORDAN President SAS/BAZOOKA



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## PRACTICE SAFE LISTENING

Continuous exposure to high volumes of sound may cause permanent hearing loss. High powered auto sound systems are capable of producing sounds well over 130 dB. Even short periods of play at high volume levels can impair your ability to hear necessary traffic sounds and may constitute a hazard. Please use common sense and practice SAFE LISTENING !

> If you have any questions contact the SAS Technical Support Department at: Phone - (504) 272 7135 • Fax - (504) 272-9844 Email - tech@ sasbazooka.com • Website - www.sasbazooka.com In Canada: (604) 988 2966 15049 Florida Blvd., Baton Rouge, LA. 70819

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#### 5", 6.5", 8", or 10" PURE-PISTON WOOFER TURBO COOLED VOICE COILS BASS REFLEX, DUCTED PORT ENCLOSURE CORNER LOADING COPLANAR OUTPUT HIGH OUTPUT EFFICIENCY MOISTURE RESISTANT ENCLOSURE AND WOOFER QUICK CONNECT WIRE TERMINALS MAXIMIZED SPACE EFFICIENCY

## SPECIFICATIONS

	EL504	EL604/608	EL804/808	EL104/108
Woofer Size	5"	6.5"	8"	10"
Voice Coil Size	1" high power/high temp	1" high power/high temp	1.5" high power/high temp	1.5" high power/high temp
Magnet Size	20 oz.	20 oz.	28 oz.	28 oz.
Frequency response	39-5000 hz.	39-1500 hz.	39-1500 hz.	39-1000 hz.
Efficiency	97 dB*	100 dB*	102 dB*	104 dB*
Power Handling	6 to 50 watts/channel	6 to 100 watts/channel	6 to 150 watts/channel	6 to 200 watts/channel
Dimensions	18"x5"x6"	18"x6.75"x8"	18"x8.5"x10"	20.75"x10.3"x12.2"
Weight	10 lbs.	11 lbs.	15.5 lbs.	23 lbs.
Impedance	4 ohms	4 ohms/8 ohms	4 ohms/8ohms	4 ohms/8ohms
BASS TUBES <sup>®</sup> enclosure - patented Bass Reflex/ducted port alignment				

\* The efficiency levels of all Bazooka subwoofer speaker systems are measured in the typical environment: In the low bass region with one watt of power.

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# Please take time to read through this manual and plan out your installation before you begin!

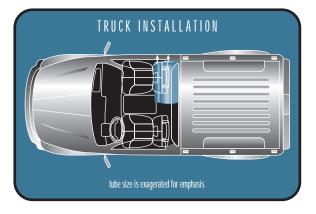
Locate an area in the rear of the vehicle where you would like to place the Bazooka speaker systems. The location you have selected must meet the following requirements in order for the Bazooka to be properly installed in the vehicle:

1)	The woofer (grill end) should be facing
	into a corner. (See figures 1, 2 and 3)

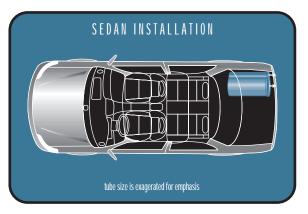
- 2) Ideally, there should be 2 to 4 inches between the woofer and the corner it is pointing into.
- The mounting area should be carefully checked to be sure that the mounting screws will not damage the gas tank, electrical wiring, fuel lines, or the spare tire during the mounting of the strap bases.
- 4) The strap mounting bases should be screwed securely to a rigid surface that is part of, or anchored to, the structure of the vehicle.

Be sure that your application meets all of these requirements before you continue the installation procedure!

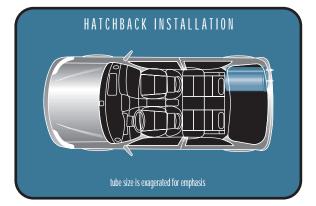




# Figure 1

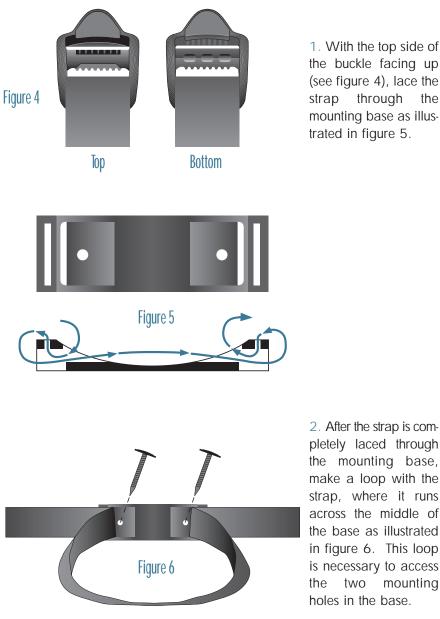


# Figure 2



# Figure 3

## MOUNTING THE BAZOOKA



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# MOUNTING THE BAZOOKA

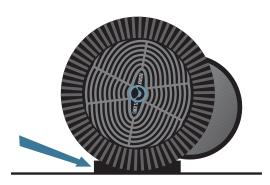
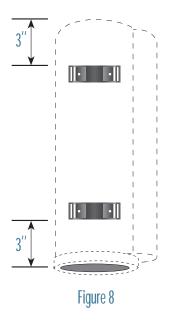


Figure 7



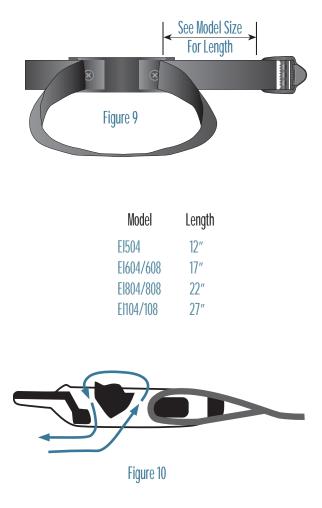
3. Place each mounting base under the Bazooka so that the apex at the bottom of the tube sits inside the mounting base as in figure 7.

4. Move the bases so that they are spaced approximately 3" from each end of the enclosure as illustrated in figure 8.

5. Remove the Bazooka without moving the mounting bases and set it aside.

6. Screw each mounting base securely in place with screws provided as illustrated in figure 6.

## MOUNTING THE BAZOOKA



7. Adjust buckle end of strap so that it extends out of the mounting base (see figure 9) the proper length for the model size of Bazooka you are installing (Refer to the chart for proper length)

8. Remove any slack in the strap by feeding it out of the mounting base on the loose end of the strap opposite the buckle.

9. Place Bazooka on the mounting bases and fasten the buckles as illustrated in figure 10. The strap should loop through the buckle and be tightened securely by holding the strap in place with one hand and pulling the loose end away from the buckle, but against the cabinet.

#### Technical Note

Due to the jarring and shifting that can occur in a vehicle, the mounting straps may stretch or loosen. We recommend that you check the straps regularly to assure that your Bazooka is mounted securely in place.

BAZOOKA POWER HOOK UP

On the back of all Bazooka El passive models you will find a terminal cup with two spring loaded terminals, red being positive and black being negative. Hook the positive speaker output from your amplifier to the red positive terminal of the Bazooka. Hook the negative speaker output from your amplifier to the black negative terminal. Repeat these steps for each Bazooka used.



#### Do You Have A Phase Problem?

If the bass response in your application appears to be lower then you expected or sounds muffled and or distorted, you may be experiencing Phase Cancellation.

#### **Phase Cancellation**

When two speakers in the same frequency range produce sound waves that are inverted from one another or 180° out of phase, the sound waves will cancel each other out to some degree. This effect will be heard as a drop in the output level and/or a muffled or muddy quality in the Bass Response.

The source of this Phase Cancellation can be at any point in the signal path. The obvious cause of this problem would be a speaker connection that was reversed in polarity, but that is not always the case. Sometimes amplifier channels will shift phase 180° for no good reason, or a signal processor could have a setting for phase that has been set incorrectly or the source material could just be recorded in error. Also speaker placement and the acoustics of the listening environment can effect the phase. No matter what or where the cause is located, the solution is an easy one.

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#### **Phase Correcting Procedure**

Disconnect all but one Bazooka<sup>®</sup> from your system. Be sure that any loose wire connections are insulated to avoid the chance of short circuiting any of the electronic equipment. Listen to the system and take note of the level of the Bass Response. Connect the next Bazooka<sup>®</sup> and compare the level of the combined output to that of the single unit. If the Bass Response increases, the Phasing is correct and you can repeat this process on the next Bazooka. If the level of the Bass Response drops, the Phasing is incorrect and you should reverse the speaker connections to this Bazooka<sup>®</sup> and compare again. In short to **INCREASE IS GOOD**, to **DECREASE IS BAD!** 

Using this method, any number of Bazooka<sup>®</sup> subwoofers can be kept in absolute phase.



All SAS<sup>®</sup> EL Series products are covered under warranty for one full year from the date of purchase. Terms and conditions of the warranty are as stated on the warranty card included in the box with the product. SAS recommends that you use only authorized BAZOOKA<sup>®</sup> dealers to install this product. Improper or incorrectly performed installation voids this warranty.



BAZOOKA<sup>®</sup> subwoofer speaker systems exclusively incorporate the revolutionary Bass Tubes<sup>®</sup> patented subwoofer enclosure design available only from SAS.<sup>®</sup>

SAS, BAZOOKA, BASS TUBES, and LISTEN TO YOUR EARS are registered trademarks of Southern Audio Services, Inc. PAT. NO. 4,567,959 PAT NO. 5,097,513



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