



2XL SPEAKER SERIES

Application Guide



Thank you and Congratulations

Congratulations on your purchase of Powerbass Xtreme speakers. You now own a speaker of uncompromising design and engineering from a factory that truly believes in the relentless pursuit of perfection. Incorporating the highest quality parts and state-of-the-art materials, these speakers display the ultimate balance between high fidelity, extreme performance and long-lasting reliability.



At PowerBass USA, Inc. we are confident you will have many years of outstanding enjoyment from this great SPEAKER investment. For maximum performance we recommend that you have your new PowerBass Xtreme product installed by an Authorized PowerBass Xtreme Dealer. Doing so will also automatically extend your warranty to a full THREE YEAR Period.

To learn more about PowerBass Xtreme, please visit us on the World Wide Web at
<http://www.powerbassusa.com>

Δ Warning Δ

Continuous exposure to sound pressure levels in excess of 100 dB can cause permanent hearing loss. PowerBass Xtreme Speakers are capable of producing sound pressure levels well over 170 dB. Please observe all local sound ordinances while listening to your PowerBass Xtreme system. PowerBass USA, Inc. accepts no liability for hearing loss, bodily injury, or property damage due to the result of use or misuse of this product. property damage due to the result of use or misuse of this product.

POWERBASS XTREME 2XL SPEAKER FEATURES

Stamped Steel Non-resonant Basket: These rigid baskets are designed to give the moving parts of the speaker a solid platform to perform. Each basket has been treated with an acoustical sound reduction coating that greatly reduces sound transmission and reflection which dampens ringing and tinning making the basket acoustically “dead”.

Wool /Paper Composite Cone: The premium grade cones contain the optimum ratio of paper to wool resulting in a transducer that is strong and rigid, yet lightweight. This offers increased performance and improved low end bass reproduction.

High Damping Butyl Rubber Surround: Selected for efficiency and minimum distortion the surround material is impervious to harsh elements such as salt air, heat and smog. Offers improved output throughout the entire frequency range.

Emperors Silk Soft Dome Tweeter: Very large premium grade hand spun silk tweeters are a full 1-inch (25mm) for most models.* The neodymium motor structure and edge wound ribbon wire voice coil provide an extremely wide bandwidth.

Mylar High Pass 6dB Crossover: Audiophile grade mylar crossover capacitors were selected for a smoother high frequency response and increased power handling.

High Powered Muti-Layer 3-ohm Voice Coil: Kapton® is a high temperature voice coil former that is light weight and designed for greater efficiency and increased power handling that provides loud and clean output. The 3-ohm impedance allows the speaker to operate more efficiently and make better use of amplifier power.

Additional Features: PBX custom mesh grill, gold plated input terminals, customized rubber boot to protect the magnet, professional mounting hardware and speaker lead harness adds further value to your investment.

SPECIFICATIONS FOR POWERBASS 2XL SPEAKERS

(due to Constant Improvement, Specification and Parameter are subject to change without notice)

Model	Size	Nominal Impedance	Frequency Response	Sensitivity 1W/1M	Magnet Size	Mounting Depth	Power RMS/Max
2XL-403	4"	3 Ohm	68 Hz - 20 kHz	88 dB	10 oz.	2.2"	50 W / 100 W
2XL-463*	4 x 6"	3 Ohm	68 Hz - 20 kHz	88 dB	10 oz.	2.3"	50 W / 100 W
2XL-523	5.25"	3 Ohm	62 Hz - 20 kHz	89 dB	12 oz.	2.2"	60 W / 120 W
2XL-653T	6.5" thin	3 Ohm	60 Hz - 20 kHz	89 dB	12 oz.	2.13"	60 W / 120 W
2XL-653	6.5"	3 Ohm	58 Hz - 20 kHz	90 dB	14 oz.	2.5"	75 W / 150 W
2XL-673*	6.75"	3 Ohm	58 Hz - 20 kHz	89 dB	12 oz.	1.9"	75 W / 150 W
2XL-683*	6 x 8"	3 Ohm	53 Hz - 20 kHz	91 dB	14 oz.	2.6"	75 W / 150 W
2XL-693	6 x 9"	3 Ohm	40 Hz - 20 kHz	92 dB	30 oz.	3.4"	100 W / 200 W

***Grills Not Included On Some Models.**



INSTALLATION EXPERIENCE

Installation of PowerBass Xtreme Speakers requires experience with a variety of mechanical and electrical procedures. This manual only provides general installation and operation instructions. If you have any reservations about your installation skills or lack of the proper tools, please contact your local PowerBass Xtreme dealer for assistance.

TIPS TO GET THE MOST OUT OF YOUR POWERBASS SYSTEM

Your PowerBass Xtreme speakers have been meticulous engineered and designed to handle high power musical reproduction. Despite their rugged construction, it is possible to damage your speaker if they are improperly used. In general, you will hear distortion as a so-called warning before any damage occurs. If you hear distortion in your system, immediately reduce the musical level to the point where the sound retains its clarity.

1. Be sure you supply the speakers with enough unclipped amplifier power to drive them properly. **(More damage can be done to a speaker by under-powering and clipping your amplifier than any other way!)**
2. Where possible, a separate amplifier just for your speaker should be used with an electronic crossover to set the frequency range. One amplifier with passive crossovers will work (Tri-Way Setup), but the system will do more with less stress on the amplifier by using two amps.
3. To avoid any possible sound cancellation from the front of the speaker to that of the rear of the speaker, cut a panel of Masonite or MDF to firmly mount the speaker if the vehicle's original cutout is too big.
4. When connecting speaker wires from the amplifier or head unit to that of the speaker itself, pay attention to the polarity of the connection. This will insure optimum sound reproduction and performance.
5. For maximum dynamic performance use weather stripping to insure a tight seal.
6. Do not mount any speakers or external crossovers where they will get wet.
7. Remember the Golden Rule "Measure twice...cut once."

PREPARING FOR INSTALLATION

NOTE: *The tools listed below may be required for proper installation.*

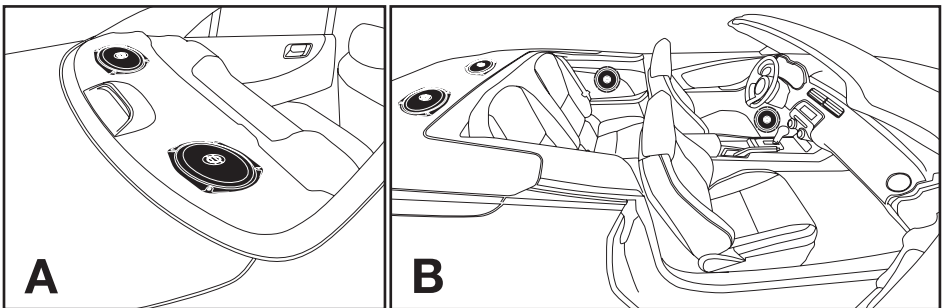
- An electric drill with drill bits
- Phillips-head and standard screwdrivers
- Wire strippers
- Crimping tool and needle-nose pliers
- Silicone sealant or closed cell weather-stripping
- Metal file
- Hole saw
- Tin Snips

INSTALLATION PRECAUTIONS

NOTE: *Proceed only if you are a qualified installer otherwise; let your dealer do it.*

- Always wear protective eyewear when using tools.
- Turn off all stereo and other electrical devices before you begin.
- Disconnect the (-) negative lead from your vehicle's battery.
- Keep the speakers in the package until final installation.
- Locate all fuel lines, brake lines, oil lines, and electrical cables when planning your installation.
- Check to see if there is enough clearance behind the mounting surface before installing the speakers.
- When running speaker wires through sheet metal, be sure to use grommets to properly insulate the wires from metal edges.

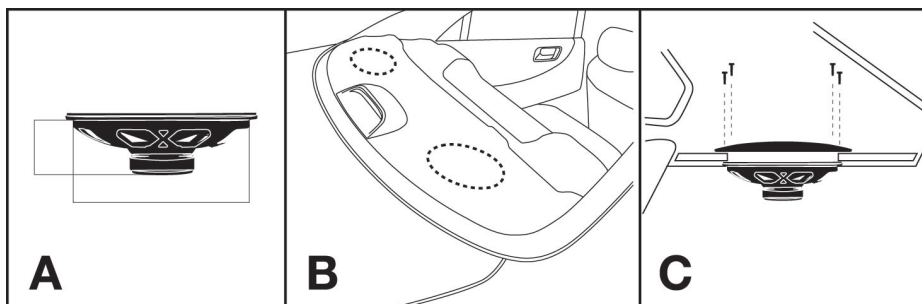
EXAMPLES OF MOUNTING



Mounting Options

- A: Rear Deck Mounting
- B: Multiple Mounting

ILLUSTRATION OF REAR DECK MOUNT INSTALLATION



- A: Speaker mounting depth and hole cutout diameter.
- B: Cut hole using saber saw/ utility knife.
- C: Connect wiring to speaker terminals. Make sure of polarity (+)positive (-)ground. Using a philips screwdriver secure speakers and attach grille, if applicable.

INSTALLATION PROCEDURES

- Since these speakers utilize a unique low profile tweeter housing that has minimal tweeter protrusion, original factory mounting cutouts can still be used with the factory grills in many cases.
- These PowerBass Autosound speakers can be used above or below the mounting hole. Typically, your vehicle factory's speaker cutouts will accommodate these new speakers without any modifications. When the speaker has been correctly installed, there should be no air leaks between the front and back of the speaker.
- For door installations, check the clearance of the window and roll-up mechanisms throughout the entire range of the window's travel to make sure that all obstacles clear the speaker structure.
- Check the available mounting depth before installing the speaker. Use care when removing factory grills, door panels and factory speakers.

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POWERBASS XTREME LIMITED WARRANTY POLICY

PowerBass USA, Inc. offers limited warranty on PowerBass products under normal use on the following terms:

PowerBass Xtreme Speakers are to be free of defects in material and workmanship for a period of one (1) year. The warranty is extended to three (3) years for parts and labor, if an Authorized PowerBass Xtreme Dealer completes the installation.

This warranty applies only to PowerBass products sold to consumers by Authorized PowerBass Dealers in the United States of America. Products purchased by consumers from a PowerBass dealer in another country are covered only by that country's Distributor and not by PowerBass USA.

This warranty covers only the original purchaser of PowerBass product. In order to receive service, the purchaser must provide PowerBass with the receipt stating the consumer name, dealer, product and date of purchase.

Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at PowerBass's discretion and will not be liable for incidental or consequential damages. PowerBass will not warranty this product under the following situations:

- **Speakers received with bent frames or water damage**
- **Abuse such as holes in the cone, surround or ripped spider**
- **Voice coil damage due to amplifier clipping or distortion**
- **Product that has not been installed according to this owners manual**

Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for PowerBass any other liability in connection with the sale of this product.

Please call (909) 923-3868 for PowerBass Customer Service. You must obtain an RA# (Return Authorization Number) to return any product to PowerBass. **The RA number must be prominently marked on the outside of the shipping carton or the delivery will be refused.** Please pack your return carefully; we are not responsible for items damaged in shipping. Return the defective product along with a copy of the original dated retail sales receipt, plus \$12.00 for handling and diagnostic evaluation to:

**PowerBass USA, Inc., Attn: Returns (RA# _____)
2133 S. Green Privado, Ontario, CA 91761**

Residents of HI, AK and US territories will be charged for return shipping. All inquiries regarding service and warranty should be sent to the above address.

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