



4XL-65C

Mid-Range Driver Component Set

Application Guide



Thank you and Congratulations

Congratulations on your decision to purchase a PowerBass Xtreme™ 4XL Competition Component loudspeaker. This series offers incredible value and performance. By 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.

FEATURES

Infinite Baffle Mid-Range Performance: Installs on any flat panel without the need for an enclosure.

Shallow Mounting Depth: Mid-Range: 2.25", Tweeter: 1.15", Perfect for newer vehicles with large but narrow door panels.

Bullet Style Phase Plug: Bullet design reduces inherent phase cancellations that occur between the dust cap and the speaker cone improving frequency response while at the same time adding depth and clarity to the sound stage.

Treated Cloth Accordion Surround: Increases efficiency and reduces cone flexure at high power.

KSV High Temperature 4-ohm Voice Coil: Specially designed Kapton® high temperature voice coil formers ensure high power handling and precise linear excursion while maximizing thermal heat dissipation.

Chrome Push Input Terminals: These high strength compression loaded speaker terminals insure maximum current and power transfer.

Treated Paper Cone with Multi-Roll Accordion Surround

provides smooth natural sounding midrange output

2" Shallow Mount Compression Horn Tweeters

designed for wide dispersion ultra-high frequency response

Computed Aided External 12dB Crossover

allows for smooth transition between the midrange and tweeter

Protective Steel Grills Included

The 4XL-65C Mid-Range driver is designed for infinite baffle applications. They are not subwoofers and should not be used to reproduce frequencies below 90Hz.

Kapton® is a registered trademark of E.I. du Pont de Nemours and Company.

TIPS TO GET THE MOST OUT OF YOUR POWERBASS SYSTEM

Your PowerBass Xtreme speakers have been meticulously 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 cross-over 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
- Electronic (rosen not acid cove) solder

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.
- For door installations, check the clearance of the windows throughout the entire range of the window's travel.
- Mount your speakers securely! If the speaker has four or more mounting holes, it is best to use all of them.
- Check the available mounting depth before installing the speaker. Use care when removing factory grills, door panels and factory speakers.

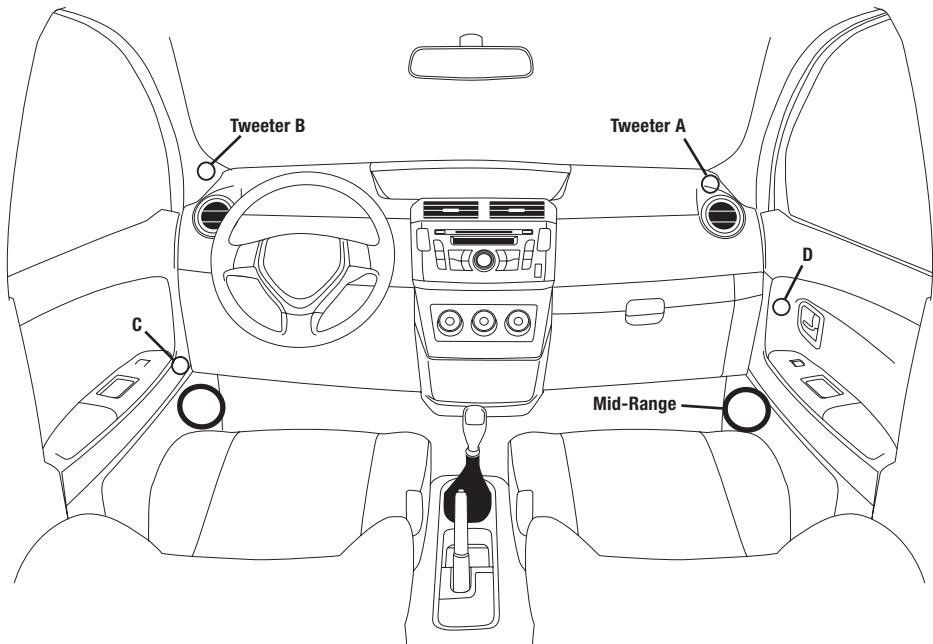
COMPONENT SYSTEM INSTALLATION

Component Woofer

The proper installation procedure for mounting these high performance mid-range speakers is to secure the speaker to the vehicle's speaker mounting hole. Once the speaker is in place, determine if the supplied grill needs to be installed. If so, place the grill in place over the speaker and screw the speaker into the mounting hole.

Component Tweeter

Experiment with the tweeter positioned in several locations to determine the best imaging result before cutting out any panel. Typically tweeters should be mounted on axis and as close to ear level as possible. (Examples A, B, C, D)

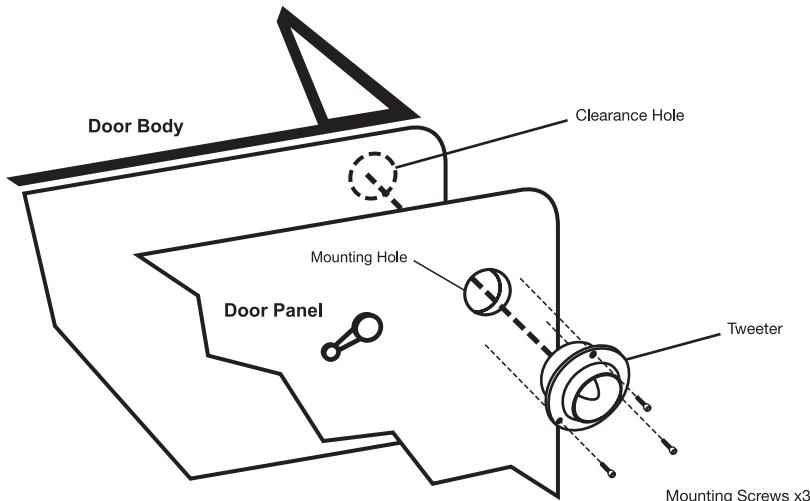


INSTALLING THE MID-RANGE

1. Determine where the speaker will be mounted. Make sure there is a flat area large enough for the speaker to fit properly. An uneven mounting surface can damage the driver.
2. Check to make sure the space you have selected for the speaker will not interfere with the operation of the vehicle.
3. Using the supplied template, mark the hole with a pen.
4. Cut the hole for the speaker. A hole can be cut either with a pair of metal tin snips, a saber or jig saw.
5. Run speaker wire (not included) to the speaker. Make sure to keep wires away from sharp metal or other rough edges. When passing through metal, use a grommet to protect the wires from sharp edges.
6. Pre drill the mounting holes using a 1/8" (3mm) drill bit.
7. Pull the wire though the speaker opening and connect to the speaker. Be sure to observe proper polarity.
8. Mount the speaker using screws.

INSTALLING THE TWEETER

Mounting the tweeter separately from the mid-range, the installer can choose the best location for sound quality and imaging. The best location for the tweeter is usually high up on the door and as far forward as possible without interference from the dashboard. If the desired location is flat and space behind the door panel allows the clearance for flush mounting, follow the drawing as shown below:



CROSSOVER NETWORK INSTALLATION AND WIRING

Your PowerBass Xtreme Component system contains two separate 2-way crossover networks. When choosing a location to mount the crossovers, keep in mind they contain electronic parts which can be damaged by moisture and dirt.

Correct wiring of the crossover is critical to avoid damage to the speakers and ensure true high fidelity sound. Pay close attention to the markings on the crossover to be certain the correct speakers are in the correct outlets as follows:

- 1) Connect the amplifier or head unit output to the crossover's INPUT terminals.
- 2) Connect the terminals labeled MID to the component midrange speaker.
- 3) Connect the terminals labeled TWEETER to the component tweeter set.

CAUTION: Care must be taken when adjusting the screws on the terminals that fasten the speaker wires to the crossover network. Make sure each connection is secure without over tightening. Use of power tools to tighten these screws is not recommended as they can strip the screws and permanently damage the input terminals.



NOTE: BE SURE TO OBSERVE PROPER POLARITY WHEN CONNECTING SPEAKER WIRES TO THE CROSSOVER NETWORK TERMINALS.

SPECIFICATIONS FOR 4XL COMPONENTS

(Due to Constant Improvements, Specifications and Parameters are subject to change without notice.)

MID-RANGE SPECIFICATIONS

Size	Nominal Impedance	Frequency Response	Sensitivity 1W/1M	Magnet Size	Mounting Depth	Power RMS/Peak
6.5"	4-ohm	100Hz - 20kHz	93 dB	10 oz.	2.25"	100W/200W

Before beginning your installation, thoroughly read this guide and keep it as a reference. It will give you tips on proper placement, wiring, and installation as well as how to obtain the best sound from the PowerBass speakers you have selected.



TWEETER SPECIFICATIONS

Dome Size	Mounting (Diameter)	Nominal Impedance	Frequency Response	Sensitivity (1M / 1M)	Mounting (Depth)	Power (RMS/Peak)
2" Cast Aluminum	2.75"	4-ohm	3K-20Khz	103 dB	1.25"	100W/200W

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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 a valid purchase receipt from an authorized reseller 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.

Removed or altered serial numbers will void this warranty



PowerBass Xtreme – A division of PowerBass USA, Inc.
2133 S. Green Privado – Ontario, CA 91761
Tel. (909) 923-3868 – Fax (909) 923-8048
www.powerbassusa.com