

powerbass®

A u t o S o u n d



L2-402
L2-462
L2-522
L2-652
L2-675
L2-682
L2-692T
L2-693
L2-690D
L2-700

AUTOSOUND L SERIES SPEAKERS

Application Guide

Please read through this manual to familiarize yourself with your new speakers. Should your PowerBass Autosound speakers ever require service, you will need to have the original dated receipt.



Thank you and Congratulation

Congratulations on your purchase of Powerbass Autosound 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 your superior SPEAKER investment. For maximum performance we recommend that you have your new PowerBass Autosound speakers installed by an Authorized PowerBass Dealer.

To learn more about PowerBass, please visit us on the World Wide Web at

<http://www.powerbassusa.com>

Δ Caution Δ

Continuous exposure to sound pressure levels in excess of 100 dB can cause permanent hearing loss. PowerBass Autosound Speakers are capable of producing sound pressure levels well over 170 dB. Please observe all local sound ordinances while listening to your PowerBass Autosound 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.

POWERBASS AUTOSOUND L2 FULL RANGE FEATURES

Advanced Injection Molded Cone: An injection molded PP cone was developed for better bass performance while minimizing distortion. This ultra lightweight cone is resistant to elements of the environment while giving the listener impeccable listening experience over the factory speakers.

Aluminum Hard Dome Tweeter: Ferrofluid enhanced aluminum dome tweeters deliver sharp clarity and crisp treble reproduction. The low profile design makes upgrading factory speakers a simple non-evasive task. (The L2-693, L2-700 and L2-690D do not use aluminum tweeters).

Wave Guide Tweeter Lens: A specially engineered tweeter wave guide provides smooth and uniform response giving more high frequency sound propagation.

High Power 2-ohm Prime Voice Coil: These highly efficient 2-ohm coils were designed for greater efficiency and are compatible with most premium factory sound systems to make your vehicle sound better than ever. L2-690D features a dual voice coil design, allowing for 2-OHM or 8-OHM impedances

High Damping Butyl Rubber Surround: Butyl rubber was chosen to ensure linear travel throughout the entire frequency range resulting in more bass output and higher efficiency while reducing distortion.

Non-resonant Basket Treatment: Each steel speaker basket has been treated with a proprietary resonant damping material making the speaker platform acoustically "dead".

Additional Features: Acoustically transparent speaker grills*, professional mounting hardware and splice-in speaker wiring harnesses add further value to your speaker investment.

SPECIFICATIONS FOR POWERBASS L2 SERIES SPEAKERS

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

Model	Size	Nominal Impedance	Frequency Response	Sensitivity 1W/1M	Magnet Size	Mounting Depth	Power RMS/ Peak
L2-402	4"	2-ohm	80-21kHz	87dB	6 oz.	1.75"/44.5mm	40W/80W
* L2-462	4x6"	2-ohm	70-21kHz	87dB	8 oz.	1.86"/47.4mm	40W/80W
L2-522	5.25"	2-ohm	62-21kHz	88dB	10 oz.	1.95"/49.5mm	50W/100W
L2-652	6.5"	2-ohm	58-21kHz	88dB	12 oz.	2.13"/54mm	60W/120W
* L2-675	6.75"	2-ohm	62-21kHz	88dB	12 oz.	1.87"/47.5mm	60W/120W
* L2-682	6x8"	2-ohm	54-21kHz	89dB	14 oz.	2.4"/61mm	70W/140W
L2-692T	6x9" thin	2-ohm	50-21kHz	89dB	10 oz.	2.48"/63mm	60W/120W
L2-693	6x9"	2-ohm	43-21kHz	91dB	30 oz.	3.2"/81.5mm	100W/200W
*† L2-690D	6x9"	2/8-ohm	50-5.5Hz	89dB	20 oz.	3.25"/83mm	70W/140W
* L2-700	7" mid	2-ohm	55-5.5kHz	90dB	16 oz.	2.36"/60mm	90W/180W

*** Grills Not Included on some models**

† Dual voice coil, 2-OHM or 8-OHM use



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.

INSTALLATION EXPERIENCE

Installation of PowerBass Autosound 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 Autosound dealer for assistance.

TIPS TO GET THE MOST OUT OF YOUR POWERBASS SYSTEM

Your PowerBass Autosound 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 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. Do not mount any speakers or external crossovers where they will get wet.

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

INSTALLATION PRECAUTIONS

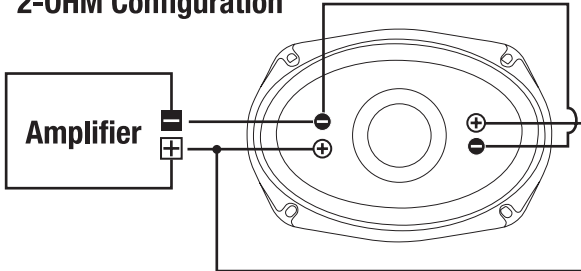
NOTE: Proceed only if you are a qualified installer otherwise; let your dealer do it.

- 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.
- 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.
- 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.

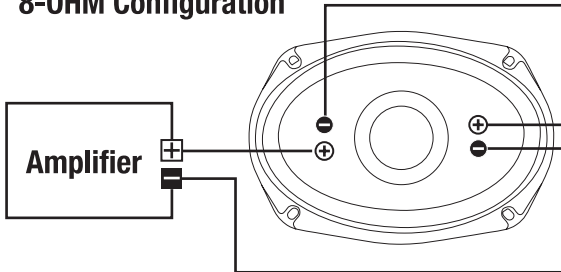
L2-690D WIRING DIAGRAM

The L2-690D has been designed to work with multiple impedance requirements. The dual voice coil design can be wired into two different configurations depending on the impedance requirement of your OEM amplifier.

2-OHM Configuration



8-OHM Configuration



* Both coils must be wired in one of the above configurations to ensure proper operation of this speaker.

POWERBASS AUTOSOUND LIMITED WARRANTY POLICY

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

PowerBass Autosound Speakers are to be free of defects in material and workmanship for a period of one (1) year.

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 inquires regarding service and warranty should be sent to the above address.

Removed or altered serial numbers will void this warranty

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