

powerbass[®]

X T R E M E



XL-62M
XL-69M
XL-82M



XL Marine Coaxials with Remote Controlled RGB Illumination

Application Guide

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

powerbass®

X T R E M E

Thank you and Congratulations

Congratulations on your purchase of PowerBass Xtreme Marine 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, 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.

To learn more about PowerBass, 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 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.

XL MARINE CERTIFIED COAXIALS FEATURES

Flush Mount Integrated Design: The custom grill and basket assembly are mated using stainless steel hardware. To further ensure longevity, the frame was constructed using high strength Polyamide plastic—a material chosen for its exceptional hardness, high impact and abrasion resistance.

Ultra Violet Treatment: A UV stabilizer has been added to protect the white plastic frame from harmful rays of the sun—even the magnet structure has been covered to protect the motor assembly from the elements.

Polypropylene Injected Cone: Chosen for its strong yet lightweight body this waterproof woofer cone has UV inhibitors to minimize cracking and fading.

TPO Thermoplastic Polyurethane Surround: A synthetic material known for its toughness and flexibility, the black TPU surround rejects water, sun and salt spray while at the same time offering superior cone-edge suspension.

MET (Marine Engineered Technology) Tweeter: Specially developed by our engineers, this fluid cooled Semi-dome full 1-inch water resistant tweeter provides crystal clear highs extending beyond 20Khz.

RGB Illumination: User selectable RGB lighting that can be linked to multiple speakers on a single remote control. Select up to 20 different colors and over 19 different lighting modes.

Voice Coil Protection: Tinsel lead insulation prevents against corrosion thus increasing the life of the speaker.

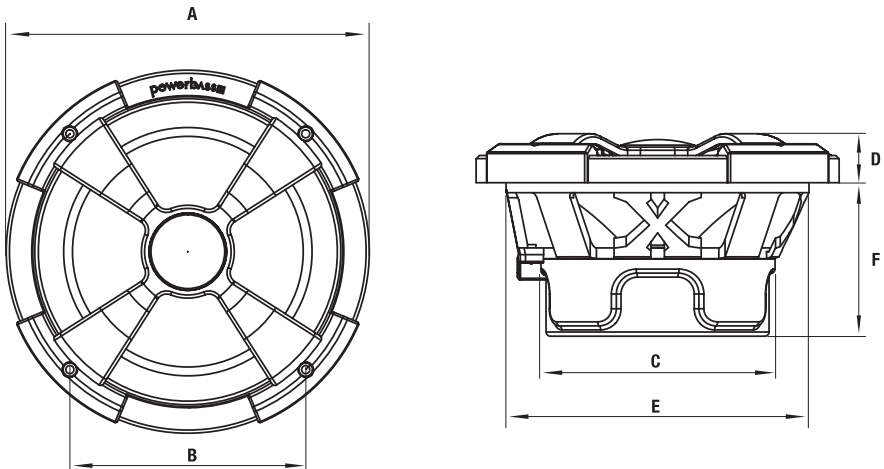
Custom Tooled Speaker and Lighting Input Block: The connection terminals on the speaker frame have been treated for corrosion resistance. The speaker wire provided is also terminated with gold plated connectors for improved connectivity. Clear insulated sleeves have been added to provide further protection against the elements.

Additional Features: Moisture sealed basket ring gaskets for snug water tight fit, marine grade stainless steel hardware, and pre-terminated speaker wires add further value to your investment.

SPECIFICATIONS FOR XL-82M MARINE SPEAKER

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

Model	Size	Nominal Impedance	Frequency Response	Sensitivity 1W/1M	Mounting Depth	Power RMS/Peak
XL-82M	8"	4-ohm	45Hz - 20kHz	92 dB	3.625" (92mm)	125W/250W



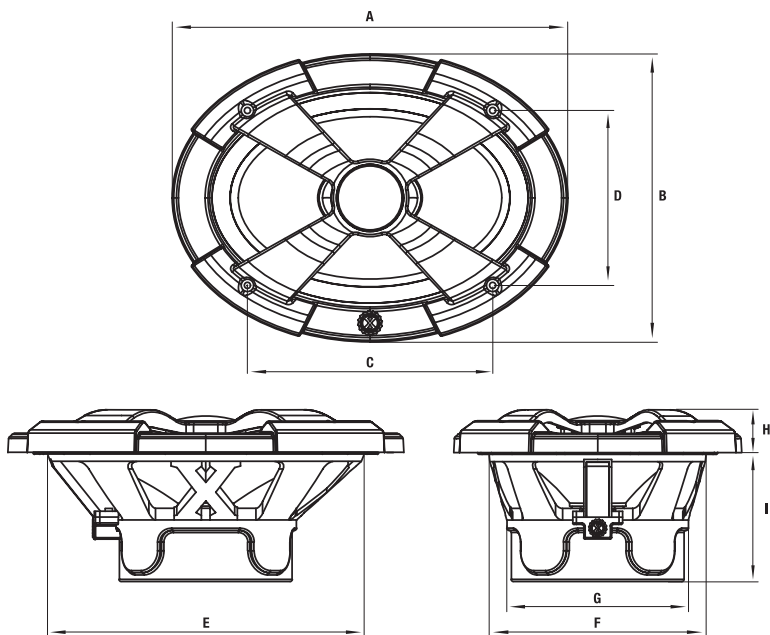
XL-82M Dimensions		inches	mm
A	Frame Outer Diameter	8.6"	220mm
B	Bolt Hole Center	5.5"	139.7mm
C	Motor Overmold Outer Diameter	5.47"	139mm
D	Front Grille Protrusion	1.14"	29mm
E	Mounting Hole Diameter	6.88"	177.3mm
F	Mounting Depth	3.625"	92mm

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.

SPECIFICATIONS FOR XL-69M MARINE SPEAKER

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

Model	Size	Nominal Impedance	Frequency Response	Sensitivity 1W/1M	Mounting Depth	Power RMS/Peak
XL-69M	6x9"	4-ohm	56Hz - 20kHz	93 dB	3.625"	120W/240W

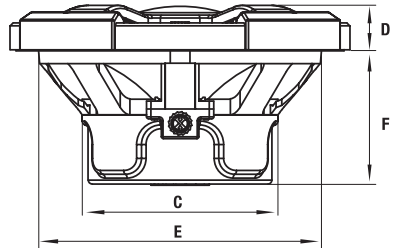
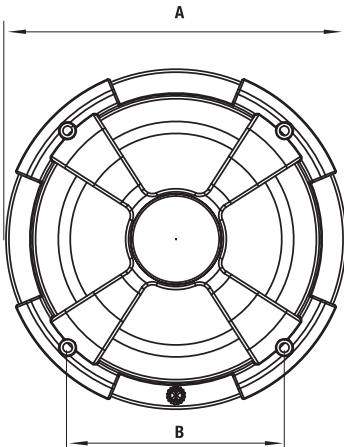


XL-69M Dimensions		inches	mm
A	Frame Outer Diameter Width	10.64"	270.3mm
B	Frame Outer Diameter Height	7.74"	196.8mm
C	Bolt Hole Center	5.65"	143.7mm
D	Bolt Hole Center	5.27"	134mm
E	Mounting Hole Length	8.5"	216mm
F	Mounting Hole Width	5.8"	148mm
G	Motor Overmold Outer Diameter	4.88"	124mm
H	Front Grille Protrusion	1.15"	29.3mm
I	Mounting Depth	3.625"	92mm

SPECIFICATIONS FOR XL MARINE SPEAKERS

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

Model	Size	Nominal Impedance	Frequency Response	Sensitivity 1W/1M	Mounting Depth	Power RMS/Peak
XL-62M	6.5"	4-ohm	60Hz - 20kHz	92 dB	2.75" (70mm)	80W/160W



XL-62M Dimensions		inches	mm
A	Frame Outer Diameter	6.89"	175mm
B	Bolt Hole Center	4.25"	108mm
C	Motor Overmold Outer Diameter	3.8"	99mm
D	Front Grille Protrusion	0.90"	23mm
E	Mounting Hole Diameter	5.6"	143mm
F	Mounting Depth	2.75"	70mm

INSTALLATION EXPERIENCE

Installation of marine audio speakers can require extensive experience with a variety of mechanical and electrical procedures. Although this application guide explains how to install PowerBass Xtreme marine speakers in a general sense, it may not show the exact installation method for your particular situation. If you feel unsure about personally installing the speaker system, don't attempt the installation yourself. Ask your Authorized PowerBass audio or marine dealer about professional installation options.

GENERAL INSTALLATION TIPS

Your PowerBass XL marine coaxials were specially designed for providing high-fidelity sound out in the harsh marine environment. Despite their rugged construction, it is possible to damage your speaker if they are improperly used. Overdriving the system and causing the sound to distort will cause permanent damage to the speaker. Playing loud music in a marine environment can permanently damage your hearing, as well as limit your ability to hear other marine traffic.

- 1) Be sure to carefully read and understand the instructions before attempting to install this product.
- 2) Turn off the audio system. For safety, disconnect the negative lead from the battery prior to beginning installation.
- 3) For easier installation, we recommend that if additional wiring is required, you run all wires prior to mounting your speaker in place.
- 4) The marine environment can quickly accelerate corrosion so always use the highest quality connectors for a reliable installation and minimal signal or power loss.
- 5) Always use caution before you drill or cut! Be careful not to puncture gas tanks, fuel lines, hydraulic lines or electrical wiring when working on any vessel.
- 6) Never run speaker wires underneath the vessel or exposed on the deck, keeping the wiring behind cover provides the best protection from environmental elements.
- 7) Avoid running any speaker wire or signal cables near the vessel's electrical system to prevent noise from "bleeding" into the audio system.
- 8) Correct speaker polarity must be observed. Speakers wired out of phase will have little bass output. Follow the wiring directions carefully observing the color coded speaker wire.
- 9) Leave a little slack in the speaker wire for easier installation, this will prevent pulling or stretching the wire and possibly causing a connection to come loose.
- 10) Always protect your speakers during installation; it is a good idea to keep the speakers in their original package until they are ready to be mounted.

PREPARING for INSTALLATION

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

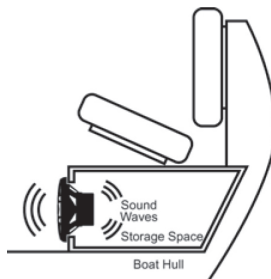
- An electric drill with drill bits
- Phillips-head and standard screwdrivers
- Wire strippers
- Crimping tool and needle-nose pliers
- Silicone sealant or closed cell weather-stripping
- Metal file
- Dust mask (when cutting into fiberglass)
- Hole saw or jig saw
- Punch or countersink tool

NOTE: The stainless steel hardware supplied with your PowerBass Xtreme marine speakers has been chosen to resist rust and corrosion. If the particular hardware supplied will not work for your installation purposes, please be sure to use only appropriate marine grade (stainless steel) mounting hardware.

INSTALLATION APPLICATION

Your PowerBass XL marine coaxial speakers are specifically designed for boating and water sport applications. Although the speakers do not require a sealed enclosure, air space behind the speaker from 0.2 – 0.5 cu feet (6 – 15 liters) is recommended for best sound reproduction. To prevent the sound coming off the front of the speaker from radiating back to sound from the rear of the speaker it is recommended to use a factory location or find a spot with a semi-isolated rear chamber (see Fig 1). PowerBass offers several sizes in it's XL marine series designed to make fitting your vessel easier.

CAUTION: These speakers are designed to be water and spray resistant, they are not designed to be submerged or withstand high pressure water spray. Care must be exercised when washing your boat to avoid damaging your speakers.

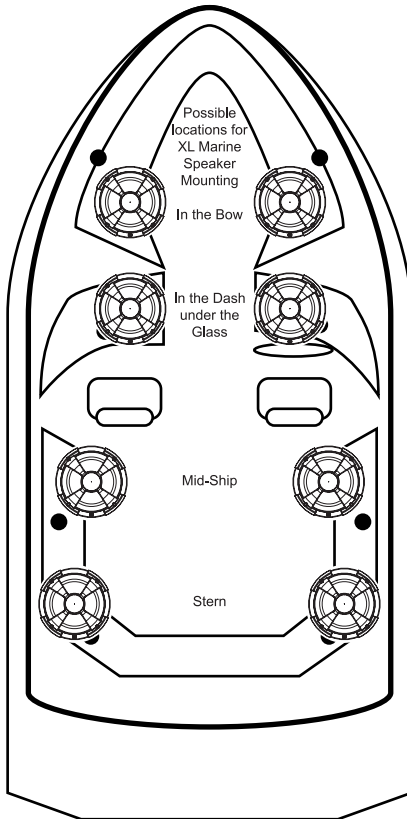


SPEAKER LOCATION

The sound produced by your PowerBass XL coaxial speakers is directional. Find the best location for stereophonic sound. Adding more PowerBass Xtreme speakers to the system will not only help to balance the sound, but it will increase the power handling of the system enabling it to play louder.

After determining the best mounting locations, carefully check the areas where the mounting hardware will be placed (see Fig 2). The installation surface must be level and the installation must be "watertight". No moisture or dampness should be allowed to get behind the speaker. Use caution to make sure there are no objects behind the installation surface that may become damaged during drilling.

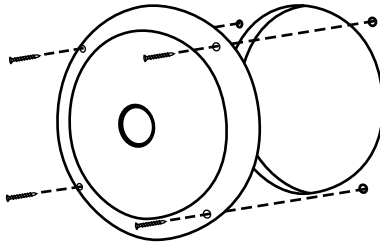
WARNING: These speakers must be installed at least 3 feet (1-meter) away from any electromagnetic nautical equipment (ie., compass, sonar, etc).



MOUNTING INSTRUCTIONS

Always follow proper safety procedures. Use eye-protection at all times and a dust mask and gloves when cutting. Check both sides of the vessel before cutting any holes.

- 1) Choose a flat mounting surface that has sufficient depth and air space behind it to accept the speaker.
- 2) Make sure the stainless steel mounting screws will not puncture the fuel tank, wiring or interfere with any moving parts underneath the mounting surface.
- 3) Use the supplied mounting template to mark the hole.
- 4) Cut the appropriate diameter hole using a hole saw or jigsaw.
- 5) Place the speaker in the hole (or use the mounting template) and mark the screw hole locations using a sharp pointed tool.
- 6) Remove the speaker and drill a pilot hole in each of the screw locations. It is advisable to use a hand driven countersink tool on each hole to further inhibit gel-coat cracking of the fiberglass panels.
- 7) Connect the speaker wire supplied (White + / White w/ Black -) to your radio or amplifier speaker output.
- 8) Place the speaker into the opening.
- 9) While holding the speaker firmly in place, screw in the #8 x 1-3/8-inch (35mm) mounting screws by hand carefully and evenly. Do not over tighten as you fasten the speaker to the boat.



FINAL WIRING PROCEDURES

Once the mounting holes have been cut, run the speaker wire from the speaker mounting locations back to the radio or amplifier. If you are running wires through bulkheads, drill holes for the cable and use a marine grade grommet to properly insulate any rough edges from the wire insulation. Make sure the wires will clear any mechanical devices in the boat and secure them with wire ties.

Carefully place the supplied speaker wire in a location that is free of standing water and moving components. For reference the White wire is Positive and the White w/ Black wire is Negative. Connect the gold plated female quick disconnect on the end of the supplied 15 feet (4.5m) of wire to the same color of wire on the gold plated male connector attached to the speaker frame. Connect the other end of the speaker wire to the radio or amplifier in accordance with its owner's manual.

After connecting your new PowerBass XL marine speakers to the sound system you are ready to carry out a listening test. Please listen the first time at a low volume setting and check to make sure everything is operating properly.

RGB LED CONTROLLER INSTALLATION AND OPERATION

INSTALLATION:

Your PowerBass Xtreme Marine Coaxials come equipped with RGB lighting that can be controlled via the supplied remote control allowing the user to pick between 20 different colors and over 19 different lighting effects. You can link multiple speakers (up to 6 pairs) to a single RF receiver for easy control from a single remote.

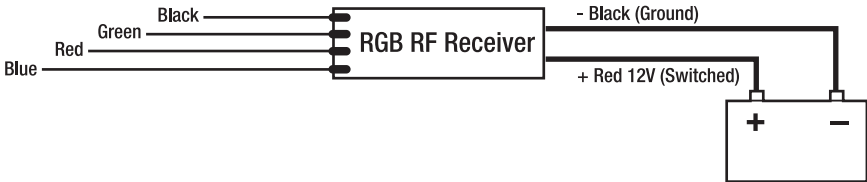
Once you have found your mounting location and made the proper fitment tests you will next need to route your RGB extension cable. This supplied 18ft extension wire allows you to easily route to other RGB equipped speakers and up to your radio / control panel. Connect the extension cable to the speakers RGB plug / connectors matching colors for example Green to Green, Blue to Blue. Route your wire to the next speaker in the series (for a daisy chain type installation see pg 14 for details) or route the RGB cable up to the radio / control panel.

After you have connected all desired speakers RGB wires and routed your extension wire it is now time to connect the RGB RF Receiver.

If you used a daisy chain connection style you will have a single set of RGB wires to connect to your RGB RF Receiver, however if you simply ran them all to your radio/ control panel then you will now need to connect all corresponding colors to each other. Once this is ready you can now connect the RGB wires to the RGB side of the RF Receiver.

Next you will need to connect the power side of the RGB RF Receiver to 12V power and Ground. To prevent battery drain install a switch on the RED +12V wire so you can turn off the RGB RF Receiver when not in use or when stored.

RGB LED CONTROLLER INSTALLATION AND OPERATION



- You can use the remote turn on lead from your radio to trigger a relay. However do not connect your RGB RF Receiver to the head unit Remote wire as this pulls more current than a typical turn on circuit provides.
- You can also use a rocker style switch to turn the receiver on and off. If your boat comes equipped with a radio power rocker switch you can use this as your power source as well.

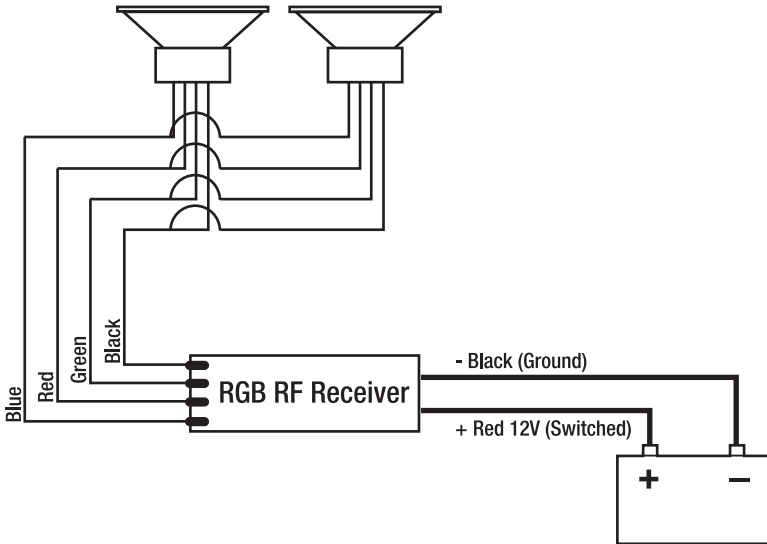
****Do not install the RGB RF receiver in enclosed metal, as this may interfere with connectivity between it and the remote controller.**

If you do not want to use a remote control and only want to display a single color this can easily be done by connecting the BLACK wire in the 4-wire RGB cable to +12V Power and then connecting the following wire to ground to illuminate the corresponding color.

**You will need to connect the BLACK +12V power to switched power either with a relay or switch to prevent battery discharge. When using single color mode.

COLOR COMBINATIONS:

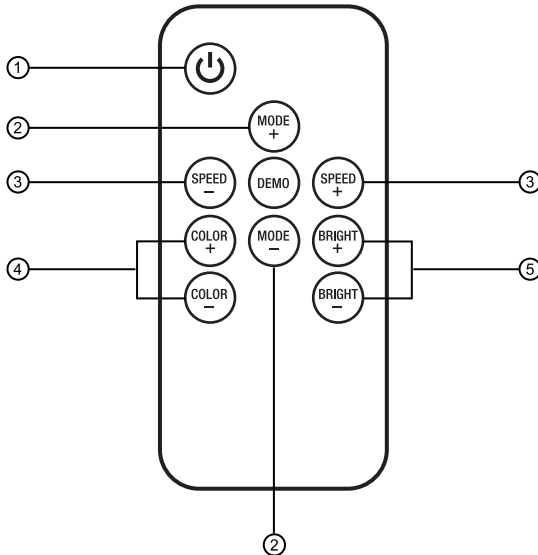
RED	RED
GREEN	GREEN
BLUE	BLUE
RED/GREEN	BRIGHT GREEN
RED/BLUE	MAGENTA
BLUE/GREEN	AQUA
RED/BLUE/GREEN	WHITE w/ Blue Tint



Connecting multiple speakers to a single receiver allows you to control the lighting and effects using a single remote control. You can connect up to 12 speakers (6 pairs) to one receiver.

RGB LED RF REMOTE CONTROL

Your PowerBass Xtreme Marine Coaxials comes complete with RGB illumination that is controlled with the supplied RF Remote Control. Use this remote control to select up to 20 different colors and over 15 different lighting effects.



1. Turn On/OFF - This button turns on or off the RGB RF Receiver.

2. Dynamic Lighting Effect Mode Adjustment - Switch between static lighting or dynamic effect mode, or switch between effect when in Dynamic mode.

3. Dynamic Lighting Speed Adjustment - Adjust the speed up + or down - to the desired pattern. If in Static mode the unit will switch to dynamic when the speed is adjusted.

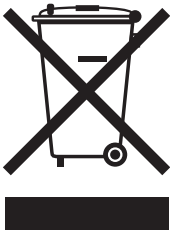
4. Static Color Adjustment - Switch to Static Color mode. Select between 20 different colors.

5. Brightness Adjustment - Static color mode brightness adjustment. Press + to increase brightness or - to decrease brightness. If in Dynamic mode the unit will switch to Static when the brightness is adjusted.

GENERAL CARE

The grills may be cleaned with a damp cloth. Do not use any cleaners or solvents on the grills or speaker cones, otherwise the UV inhibitors maybe affected and/or the plastics may discolor.

Warranty is void if the product's serial number has been removed or defaced.



Product Disposal – Certain international, national and/or local laws and/or regulations may apply regarding the disposal of this product. For further detailed information, please contact the retailer where you purchased this product or the PowerBass Importer/Distributor in your country.

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

Removed or altered serial numbers will void this warranty



PowerBass Xtreme (PBX) – A division of PowerBass USA, Inc.

2133 S. Green Privado – Ontario, CA 91761

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