

# PRX600

S E R I E S

## User's Guide

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# IMPORTANT SAFETY INSTRUCTIONS

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1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. If Service Instructions are included in the Owner's Manual: "CAUTION - THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO."
16. To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.
17. "WARNING – TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE."
18. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
19. The main plug of the power supply cord shall remain readily operable.



## Care And Cleaning

PRX600 series systems may be cleaned with a dry cloth. Do not get moisture into any of the openings in the system. Ensure that the system is unplugged from the AC outlet before cleaning. In the event the DuraFlex finish is damaged a touch up kit can be obtained from JBL Professional (part number 363972-001).

THIS APPARATUS CONTAINS POTENTIALLY LETHAL VOLTAGES. TO PREVENT ELECTRIC SHOCK OR HAZARD, DO NOT REMOVE CHASSIS, INPUT MODULE OR AC INPUT COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



# PRECAUTIONS

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The PRX600 series speakers covered by this manual are not intended for use in high moisture environments. Moisture can damage the speaker cone and surround and cause corrosion of electrical contacts and metal parts. Avoid exposing the speakers to direct moisture. Keep speakers out of extended or intense direct sunlight. The driver suspension will prematurely dry out and finished surfaces may be degraded by long-term exposure to intense ultra-violet (UV) light. PRX600 series speakers can generate considerable energy. When placed on a slippery surface such as polished wood or linoleum, the speaker may move due to its acoustical energy output. Precautions should be taken to assure that the speaker does not fall off a stage or table on which it is placed.

## Stand Mounting Safety Precautions

Some PRX600 series models include a 36 mm receptacle cup to allow mounting on tripod stands or on a pole over subwoofers. When using stands or poles, be sure to observe the following precautions:

- Check the stand or pole specification to be certain the device is designed to support the weight of the speaker. Observe all safety precautions specified by the manufacturer.
- Always verify that the stand (or subwoofer/pole) is placed on a flat, level and stable surface and be sure to fully extend the legs of tripod type stands. Position the stand so that the legs do not present a trip hazard.
- Route cables so that performers, production crew, and audience will not trip and topple the speakers over.
- Inspect the stand (or pole and associated hardware) before each use and do not use equipment with worn, damaged or missing parts.
- Do not attempt to place more than one PRX600 series speaker on a stand or pole.
- Always be cautious in windy, outdoor conditions. It may be necessary to place additional weight (i.e. sandbags) on the base of the stand to improve stability. Avoid attaching banners or similar items to any part of a speaker system. Such attachments could act as a sail and topple the system.
- Unless you are confident that you can handle the weight of the speaker, ask another person to help you get it onto the tripod stand or pole.
- The PRX635 should be pole-mounted on a PRX 600 subwoofer using a pole no longer than 24" in length. (SS3-BK24 or SS4-BK24)
- JBL highly recommends that no more than 70 lbs of weight be placed on a speaker pole that is mounted to a PRX618S or PRX618S-XLF.

## Suspension of Loudspeaker System

Before attempting to suspend your JBL loudspeakers, read and understand the following safety information.

### IMPORTANT SAFETY WARNING!

The information in this section has been assembled from recognized engineering data and is intended for informational purposes only. None of the information in this section should be used without first obtaining competent advice with respect to applicability to a given circumstance. None of the information presented herein is intended as a representation or warranty on the part of JBL. Anyone making use of this information assumes all liability arising from such use. All information presented herein is based upon materials and practices common to North America and may not directly apply to other countries because of differing material dimensions, specifications, and/or local regulations. Users in other countries should consult with appropriate engineering and regulatory authorities for specific guidelines. Correct use of all rigging hardware is required for secure system suspension. Careful calculations should always be performed to ensure that all components are used within their working load limits before the array is suspended. Never exceed the maximum recommended load ratings. Before suspending any speaker system always inspect all components (enclosure, rigging frames, pins, eyebolts, track fittings, etc.) for cracks, deformations, corrosion, missing, loose or damaged parts that could reduce strength and safety of the array. Do not suspend the speaker until the proper corrective action has been taken. Use only load-rated hardware when suspending JBL suspendable loudspeaker models.



# SUSPENSION OF LOUDSPEAKER SYSTEMS

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## Are You New to Rigging?

If you are new to rigging, you should do the following:

- Read and study JBL Technical Note Volume 1, Number 14: Basic Principles for Suspending Loudspeaker Systems (available at <http://www.jblpro.com/catalog/support/getfile.aspx?docid=296&doctype=3>).
- Know the rules for safe rigging.
- Attend a safe rigging seminar, such as that presented by professionals like Rigging Seminars™ or by Chain Motor Hoist manufacturers like Columbus McKinnon Corp. (manufacturers of the C/M Lodestar).
- Meet and establish a relationship with a licensed mechanical or structural engineer. Get in the habit of asking them questions instead of guessing about their answers. Learn from what they tell you.
- Meet and discuss this aspect of your business with your Insurance Agent.
- Research and understand the codes, practices, and requirements in the venues where you intend to operate your sound system.

## General Hardware Information

Any hardware used in an overhead suspension application must be load rated for the intended use. Generally, this type of hardware is available from rigging supply houses, industrial supply catalogs and specialized rigging distributors. Local hardware stores do not usually stock these products. Hardware that is intended for overhead suspension will comply with ASME B30.20 and will be manufactured under product traceability controls. Compliant hardware will be referenced with a working load limit (WLL) and a traceability code.

## Attachment to Structures

A licensed Professional Engineer must approve the placement and method of attachment to the structure prior to the installation of any overhead object. The following performance standards should be provided to the Professional Engineer for design purposes; Uniform Building Code as applicable, Municipal Building Code as applicable, and Seismic Code as applicable.

The installation of the hardware and method of attachment must be carried out in the manner specified by the Professional Engineer. Improper installation may result in damage, injury or death.

## Inspection & Maintenance

Suspension systems are comprised of mechanical devices and, as such, they require regular inspection and routine maintenance to insure proper function ability. JBL suspendable loudspeakers must be inspected for fatigue at least annually or, if there has been significant seismic activity, immediately thereafter. The inspection shall include a visual survey of all corners and load bearing surfaces for signs of cracking, water damage, de-lamination, or any other condition that may decrease the strength of the loudspeaker enclosure. Accessory suspension hardware provided with or for the JBL loudspeakers must be inspected for fatigue at least annually. The inspection shall include a visual survey of the material for signs of corrosion, bending or any other condition that may decrease the strength of the fastener. Additionally, any eyebolts shall be checked for possible spin-out of the enclosure.

## For all other hardware and fittings, refer to the hardware manufacturer's inspection and maintenance guidelines for process.

JBL is not responsible for the application of its products for any purpose or the misuse of this information for any purpose. Furthermore, JBL is not responsible for the abuse of its products caused by avoiding compliance with inspection and maintenance procedures or any other abuse.

Prior to suspending the system, an expert, trained and experienced in suspending speaker systems should inspect all rigging parts and components.



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## Resources

Adaptive Technologies Group  
562.424.1100  
1635 E. Burnett Street  
Signal Hill, CA 90755  
[www.adapttechgroup.com](http://www.adapttechgroup.com)

McMaster Carr  
Various locations in the USA  
For a location near you, visit  
them at [www.mcmaster.com](http://www.mcmaster.com)

JBL Professional - Tech Note Vol. 1 No. 14  
"Basic Principles for Suspending Loudspeakers"  
[www.jblpro.com/catalog/support/getfile.aspx?docid=296&doctype=3](http://www.jblpro.com/catalog/support/getfile.aspx?docid=296&doctype=3)

## Safe Rigging

JBL suspendable version loudspeakers are supplied with built-in internal brackets. The systems are designed to facilitate the suspension of the loudspeaker by a qualified person familiar with rigging hardware and industry practices. Improper installation may result in damage, injury or death.

If you are unfamiliar with Safe Rigging Practices you will need to consult with a qualified person familiar with rigging hardware and industry practices.

## Working Load Limit

Working Load Limit for M10 Suspension Points:

The working load limit (WLL) of the JBL PRX600 Series loudspeakers utilizing M10 attachment points will be maintained with a safety factor of 5:1, provided no more than 470lbs/213kg from 2 points equally loaded, or no more than 235lbs/106kg maximum from a single suspension point, is utilized in conjunction with industry recognized safe rigging practices and the guidelines established within this manual.

For permanent installation applications utilizing the M10 suspension points order JBL 229-00009-01. This kit includes three M10 x 35 mm forged shoulder steel eyebolts with washers.

## WARNING

Suspension of JBL loudspeakers must employ a minimum of two attachment points. When "bridling" a JBL loudspeaker system, two legs of equal length must be used. The rear attachment points are pull-back points and are intended only for use in adjusting the down-angle of the speaker enclosure. Only the top and bottom attachment points are intended for use as suspension points.

## Hearing Damage, Prolonged Exposure To Excessive SPL

PRX600 series loudspeakers are easily capable of generating sound pressure levels (SPL) sufficient to cause permanent hearing damage to performers, production crew and audience members. Caution should be taken to avoid prolonged exposure to SPL in excess of 90 dB.



# WATCH FOR THESE SYMBOLS!

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The lightning flash with arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated." "Dangerous Voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (Servicing) instructions in the literature accompanying the product.



# PRX600 Series speakers Declaration of Conformity

## Safety And EMC Compliance Specifications

EN 55103-1:1997 Electromagnetic Compatibility - Product Family Standard for Audio, Video, Audio-Visual and Entertainment Lighting Control Apparatus for Professional Use, Part 1: Emissions

EN 55103-1:1997 Magnetic Field Emissions-Annex A @ 10 cm and 20 cm

EN 55022:2003 Limits and Methods of Measurement of Radio Disturbance Characteristics of ITE: Radiated, Class B Limits; Conducted, Class A

EN 55103-2:1997 Electromagnetic Compatibility - Product Family Standard for Audio, Video, Audio-Visual and Entertainment Lighting Control Apparatus for Professional Use, Part 2: Immunity

EN 61000-4-2: A2:2001 Electrostatic Discharge Immunity (Environment E2-criteria B, 4 kV Contact, 8 kV Air discharge)

EN 61000-4-3:2003 Radiated, Radio-frequency, Electromagnetic Immunity (Environment E2, criteria A)

EN61000-4-4:2005 Electrical Fast Transient/Burst Immunity (criteria B)

EN 61000-4-5:2001 Surge Immunity (criteria B)

EN 61000-4-6:1996 Immunity to Conducted Disturbances Induced by Radio-Frequency Fields (criteria A)

EN 61000-4-11:2004 Voltage Dips, Short Interruptions and Voltage Variation

UL 6500 2nd Edition 1999 Audio/Video and Musical Instruments Apparatus for Household, Commercial, and Similar General Use

CAN/CSA-E60065-00 Audio, video and similar apparatus - Safety requirements

## CSA Compliance Notice

CSA Certification Applies to Amplifier Module Only  
CSA Certified to operate only at 120V~ in Canada

## FCC Compliance Notice

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**CAUTION:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio and television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to collect the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.



# The PRX600 Series Power Amplifier

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## AC Power Requirements

Standard PRX600 series speaker systems are equipped with a multi-channel Crown Class-D power amplifier and loudspeaker specific DSP electronics and require appropriate AC power. Before plugging a PRX600 speaker into an outlet ensure that it is able to provide the appropriate AC power as required by the speaker.

A robust AC supply is necessary for maximum performance. If the supply is too weak the bass performance may be affected and if it sags (drops) too much the system may self-mute to protect itself. As soon as the appropriate AC supply is restored it will continue to operate. Plugging multiple systems into the same outlet and long extension cord runs may affect the AC supply to the systems.



## CAUTION

In compliance with safety agency criteria and proper system operation, it is critical that the system installer observe all electrical safety practices at all times and provide proper earth grounding for all AC Power connections.

## Powering Up

The main power switch is located on the input panel on the back of the enclosure. Always ensure that the speaker system is the last thing you power up, and the first thing to turn off when operating your complete PA system. If speaker systems are daisy chained together always turn off the last system in the chain first. Power "on" is indicated by the illumination of the blue LED on the front of the enclosure.

## Changing Voltage

Your PRX600 series speaker will typically be set at the factory to accommodate the power main's voltage in your area. Before you set up your PRX600 series speaker for the first time it is a good idea to verify that the setting of the selector is appropriate for the power in your area. In the event that you do need to change the voltage:

- Make sure that the speaker is powered off and the AC is disconnected from the speaker.
- Directly above the male IEC connector on the speaker is a voltage selector. Just slide the switch to the appropriate setting.
- Set the voltage selector switch to the 115V for (100-120V~) or 230V for (220-240V~) range setting as required for your area.
- After having reconfirmed that the correct voltage is selected, reconnect the AC (IEC connector) and power the unit up.

**DO NOT UNDER ANY CIRCUMSTANCES OPERATE THE UNIT WITH THE WRONG VOLTAGE SELECTED. DOING SO MAY RESULT IN SERIOUS DAMAGE TO YOUR SPEAKER SYSTEM WHICH WILL NOT BE COVERED BY WARRANTY.**

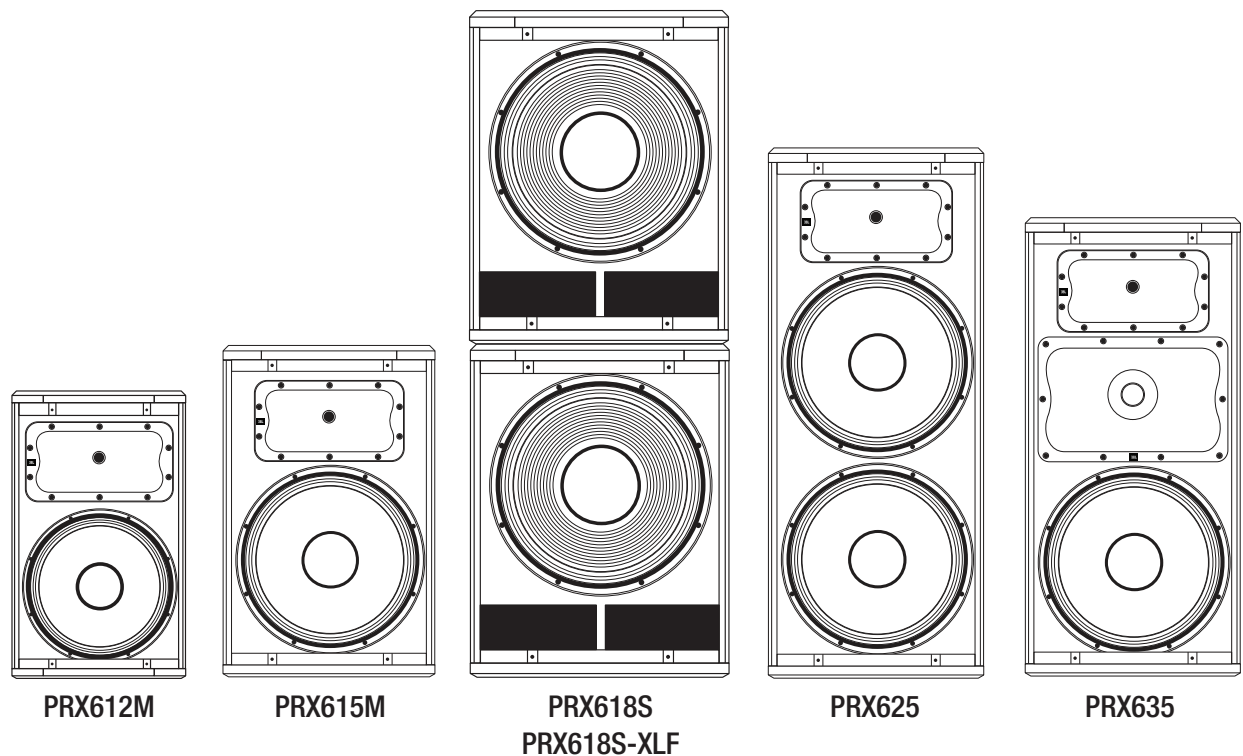
## Operating Temperature

The design of the Crown amplifier is such that it is very energy efficient and as a result does not get really hot. In the rare event that it does get too hot it will automatically shut down to protect itself. When its temperature has returned to within its operating range it will turn back on. A condition under which this may occur is when the system is operated in very high ambient temperatures and the heat sink on the rear of the enclosure is in direct sunlight. Always ensure adequate cooling and appropriate shade.



# Introduction to the PRX600 Series

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Thank you for choosing the JBL PRX600 series self-powered PA loudspeakers. The PRX 600 Series represent an evolutionary step in the efficient use of amplifier power, rugged durability and enhanced versatility in a self powered loudspeaker. The speakers were designed from the ground up to perform in the real world of sound reinforcement where challenging audio environments, high ambient noise levels and loud volumes are the norm. And we've built these speakers to last a lifetime using tour tested technology that's reliable and trustworthy. Knowing you can rely on your system to deliver everything you need gives you the freedom to deliver your best. That's performance you can trust. With the PRX600 Series, as always, JBL delivers with precision and care. Properly maintained, your PRX600 series speaker will provide you with many years of flawless performance. To ensure you are always receiving optimum performance we encourage you to review this user's guide completely before hooking up your new system.

The PRX 600 Series is a platform technology that allows you to create the system you need from an intelligent range of models. While each model was designed to excel at a specific application, the PRX Series integrate seamlessly with one another offering a multitude of choices when tailoring a system to fit your specific needs. Whether you need a single speaker on a stand for public address situations, a full-range stereo set up with two top cabinets and a sub-woofer for live performance or DJ applications, or multiple cabinets for a scalable, highly professional sound reinforcement situation, the PRX600 Series offers the solutions. In fact, you can even suspend any of the top cabinets for use in a commercial installation or House of Worship. If versatility, scalability, portability and affordability are what you're looking for in a system, PRX 600s are the intelligent choice.

## Road Tough

All PRX600 cabinets are built from a combination of 25mm (on the top and bottom for added rigidity) and 18mm, strong, lightweight poplar plywood made structurally sound with tongue and groove joints. All PRX600 Series cabinets are protected by JBL's tour proven DuraFlex™ finish. We make our grilles from dent-resistant 16 gauge steel and our handles are made from lightweight glass-filled nylon for added durability. All M10 suspension points are constructed from 14 gauge steel and the M10 suspension points have been tested with a yield-strength of 1000 lbs. each.



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### **Differential Drive Transducers**

Extended frequency response, high power output and low distortion are hallmarks of all JBL transducers. Our tour tested, tour proven and patented Differential Drive® technology delivers all this performance in a dramatically lighter package. With the neodymium magnet positioned inside the dual-coil/dual-gap voice coil, heavy steel pole pieces are eliminated. And the heat sink is the chassis itself, further lowering system weight while ensuring consistent, reliable performance.

### **Intelligence provided by Crown and dbx**

The PRX 600 Series integrated digital power amplifiers were developed specifically for JBL by Crown®, the most trusted name in professional sound reinforcement amplification for over 45 years. The Class D amplifiers are high powered, low distortion and lightweight, ensuring faithful audio reproduction while conforming to our strict “maximum-performance to weight ratio” design guidelines. Additionally, we’ve integrated the award winning dbx® Type IV™ limiter circuit on the inputs to guarantee signal integrity. We further optimize the system performance through the use of sophisticated Digital Signal Processing for EQ, crossover, amplifier control, and protection. This is the Harman family working together to bring you the best in world-class audio technology.

### **Versatile**

Professionally discreet in appearance, the new PRX models are appealing to any musician, entertainer, A/V rental company or commercial facility looking for superior audio performance in a professional yet affordable package. We’ve included suspension points for light-duty commercial installation and a two position pole mount for convenient stand use. And as compared to their predecessors, the PRX500 Series, we’ve also reduced the size and weight making these speakers truly portable and ultimately manageable.

### **Powered Speaker Systems**

#### **A Closed System Architecture...**

There is much confusion these days in the world of powered speakers especially when it comes to defining “performance”. What constitutes “exceptional performance”? Is it wattage ratings, driver dimensions, cabinet dimensions, sound pressure levels, tone? It can get very confusing when you’re confronted with a barrage of specifications from manufacturers all claiming to have the “best performance”.

A self powered speaker is really a “system” unto itself – it’s a “closed system”. Unlike a passive speaker, amplifier and signal processing chain where components can be interchanged or upgraded, the powered speaker is a “closed system” that operates as a single unit. Properly designed, all of the components are chosen to work together, complementing each other to create an environment where the whole is greater than the sum of the parts. The cabinet volume needs to support the mechanical performance of the speaker which is impacted by the power amplifier’s performance which, if there is Digital Signal Processing on the input, is affected by the DSP programming. Some manufacturers simply stick an amplifier on an existing speaker cabinet and call it a “powered speaker” (technically correct) while more experienced companies, like JBL, spend hundreds of man hours optimizing the relationship between the components in order to maximize amplifier and speaker efficiency, spectral balance, tone and dependability. Here at JBL we not only work hard on the system but on our proprietary components as well. Products like Differential Drive® speakers for example are patented designs born from years of dedicated research and development into acoustical and transducer science. No one else has access to this technology and Differential Drive® speakers have been tested on worldwide concert tours for years.

### **Harman Professional “Green Edge™” Mission**

At Harman Professional we understand and respect that we have a duty to serve our customers and our employees by serving the planet. We accept that responsibility and strive to be energy efficient and environmentally minded in our everyday business. When we design, produce, and deliver our products we look for opportunities to do so more efficiently and sustainably. We’re committed to a healthier planet and healthier life for every living thing.

JBL is proud that PRX600s have been certified “Green Edge” compliant by Harman Professional. We’ve reduced the weight and size from the PRX500 Series and we’re using only renewable materials in the packaging. We’ve not only lowered our Carbon Footprint, but the CF of any one who purchases them.



# SYSTEM SPECIFICATIONS | PRX612M

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## System Spec

System Type:	Self powered 12", two-way, bass-reflex
Maximum SPL Output:	134 dB (Full Range) peak 133 dB (Monitor) peak
Frequency Range (-10 dB):	
Full Range	50 Hz -19.5 kHz
Monitor (vertical orientation)	60 Hz -19.5 kHz
Monitor (monitor orientation)	51 Hz -19.5 kHz
Frequency Response ( $\pm 3$ dB):	
Full Range	60 Hz -17.5 kHz
Monitor (vertical orientation)	90 Hz -18 kHz
Monitor (monitor orientation)	61 Hz -18.5 kHz
Input Connectors:	Balanced XLR / 1/4 inch combo jack with XLR loop through
Input Impedance:	20K Ohms (balanced), 10K Ohms (unbalanced)
Signal indicators:	Limit : Red LED indicates limiter active condition Signal: Green LED indicates signal present
EQ:	Presets for use in Main and Monitor position
Dynamic Control (Input):	dbx Type IV™ limiter circuit
Crossover Modes:	DSP controlled. LF: 48 dB/Oct. filter slope High & Low Pass HF: 36 dB/Oct High Pass
Crossover Frequency:	2 kHz

## Amplifier

Design:	Crown® Class D
Power Rating:	1000 W (2 x 500)

## Speaker

LF Driver:	1 x JBL 262F-1 380 mm (12 in) Differential Drive® dual voice-coil and magnetic gap, neodymium woofer
HF Driver:	1 x JBL 2408H 37.5 mm (1.5 in) annular polymer diaphragm, neodymium compression driver
Coverage Pattern:	90° x 50° nominal
Directivity Index (DI):	9.8 dB
Directivity Factor (Q):	9.6
Enclosure:	Asymmetrical, 18 mm, plywood
Suspension/ Mounting:	Dual 36 mm pole socket, 8 x M10 Suspension Points and 1 x M10 Pull-Back Point
Transport:	Integrated handle with backing cup
Finish:	Obsidian DuraFlex™ finish
Grille:	Powder coated, Obsidian, 16 gauge perforated steel with acoustically transparent black cloth backing.
Input Connectors:	Balanced XLR / 1/4 inch combo jack with XLR loop through
Dimensions (H x W x D):	592 mm x 353 mm x 340 mm (23.3 in x 13.9 in x 13.4 in)
Net Weight:	15.6 kg (34.5 lb)
Gross Weight:	19.2 kg (42.5 lb)



# PRX615M

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## System Spec

System Type:	Self powered 15", two-way, bass-reflex
Maximum SPL Output:	135 dB (Full Range) peak, 134 dB (Monitor) peak
Frequency Range (-10 dB):	
Full Range	45 Hz - 19 kHz
Monitor (vertical orientation)	55 Hz - 19 kHz
Monitor (monitor orientation)	48 Hz - 20 kHz
Frequency Response ( $\pm 3$ dB):	
Full Range	54 Hz - 18 kHz
Monitor (vertical orientation)	75 Hz - 18.5 kHz
Monitor (monitor orientation)	60 Hz - 18kHz
Input Connectors:	Balanced XLR / 1/4 inch combo jack with XLR loop through
Input Impedance:	20K Ohms (balanced), 10K Ohms (unbalanced)
Signal indicators:	Limit : Red LED indicates limiter active condition Signal: Green LED indicates signal present
EQ:	Presets for use in Main and Monitor position
Dynamic Control (Input):	dbx Type IV™ limiter circuit
Crossover Modes:	DSP controlled. LF: 48 dB/Oct. filter slope High & Low Pass HF: 36dB/Oct High Pass
Crossover Frequency:	1.8 kHz

## Amplifier

Design:	Crown® Class D
Power Rating:	1000 W (2 x 500)

## Speaker

LF Driver:	1 x JBL 265F-1 380 mm (15 in) Differential Drive® dual voice-coil and magnetic gap, neodymium woofer
HF Driver:	1 x JBL 2408H 37.5 mm (1.5 in) annular polymer diaphragm, neodymium compression driver
Coverage Pattern:	90° x 50° nominal
Directivity Index (DI):	10.0 dB
Directivity Factor (Q):	10.0
Enclosure:	Asymmetrical, 18 mm, plywood
Suspension/ Mounting:	Dual 36 mm pole socket, 8 x M10 Suspension Points and 1 x M10 Pull-Back Point
Transport:	Integrated handle with backing cup
Finish:	Obsidian DuraFlex™ finish
Grille:	Powder coated, Obsidian, 16 gauge perforated steel with acoustically transparent black cloth backing.
Input Connectors:	Balanced XLR / 1/4 inch combo jack with XLR loop through
Dimensions (H x W x D):	660 mm x 429 mm x 414 mm (26 in x 16.9 in x 16.3 in)
Net Weight:	19.7 kg (43.5 lb)
Gross Weight:	24.2 kg (53.5 lb)



## System Spec

System Type:	Self powered dual 15", two-way, bass-reflex,
Maximum SPL Output:	139 dB peak
Frequency Range (-10 dB):	
Flat	40 Hz -19.5 kHz
Boost	39 Hz -19.5 kHz
Frequency Response (±3 dB):	
Flat	55 Hz -17.5 kHz
Boost	50 Hz -18 kHz
Input Connectors:	Balanced XLR / 1/4 inch combo jack with XLR loop through,
Input Impedance:	20K Ohms (balanced), 10K Ohms (unbalanced)
Signal indicators:	Limit : Red LED indicates limiter active condition Signal: Green LED indicates signal present
EQ:	Presets for use in Main and Boost position
Dynamic Control (Input):	dbx Type IV™ limiter circuit
Crossover Modes:	DSP controlled. LF: 48 dB/Oct. filter slope High & Low Pass HF: 36 dB/Oct High Pass
Crossover Frequency:	1.8 kHz

## Amplifier

Design:	Crown® Class D
Power Rating:	1500 W (3 x 500)

## Speaker

LF Driver:	2 x JBL 265F-1 380 mm (15 in) Differential Drive® dual voice-coil and magnetic gap, neodymium woofer
HF Driver:	1 x JBL 2408H-1 37.5 mm (1.5 in) annular polymer diaphragm, neodymium compression driver
Coverage Pattern:	90° x 50° nominal
Directivity Index (DI):	10.2 dB
Directivity Factor (Q):	10.1
Enclosure:	Trapezoidal, 18 mm, plywood
Suspension/ Mounting:	8 x M10 Suspension Points and 1 x M10 Pull-Back Point
Transport:	Integrated handle with backing cup
Finish:	Obsidian DuraFlex™ finish
Grille:	Powder coated, Obsidian, 16 gauge perforated steel with acoustically transparent black cloth backing.
Input Connectors:	Balanced XLR / 1/4 inch combo jack with XLR loop through
Dimensions (H x W x D):	1.053 m x 430 mm x 413 mm (41.47 in x 16.9 in x 16.27 in)
Net Weight:	27.2 kg (60 lb)
Gross Weight:	29.2 kg (64.5 lb)



# PRX635

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## System Spec

System Type:	Self powered 15", three-way, bass-reflex
Maximum SPL Output:	135 db peak
Frequency Range (-10 dB):	
Flat	41 Hz -19 kHz
Boost	40 Hz -19 kHz
Frequency Response (±3 dB):	
Flat	53 Hz -18 kHz
Boost	50 Hz -18 kHz
Input Connectors:	Balanced XLR / 1/4 inch combo jack with XLR loop through,
Input Impedance:	20K Ohms (balanced), 10K Ohms (unbalanced)
Signal indicators:	Limit : Red LED indicates limiter active condition Signal: Green LED indicates signal present
EQ:	Presets for use in Main and Boost position
Dynamic Control (Input):	dbx Type IV™ limiter circuit
Crossover Modes:	DSP controlled. LF: 48 dB/Oct. filter slope High & Low Pass HF: 36 dB/Oct. High Pass
Crossover Frequency:	460 Hz, 2.75 kHz

## Amplifier

Design:	Crown® Class D
Power Rating:	1500 W (3 x 500)

## Speaker

LF Driver:	1 x JBL 265F-1, 380 mm (15 in) Differential Drive® dual voice-coil and magnetic gap, neodymium woofer
MF Driver:	1 x JBL 195H, 165 mm (6.5 in) horn-loaded midrange transducer
HF Driver:	1 x JBL 2414H 25.4 mm (1 in) annular polymer diaphragm, neodymium compression driver
Coverage Pattern:	90° x 50° nominal
Directivity Index (DI):	9.6 dB
Directivity Factor (Q):	9.1
Enclosure:	Trapezoidal, 18 mm, plywood
Suspension/ Mounting:	36 mm pole socket, 8 x M10 Suspension Points and 1 x M10 Pull-Back Point
Transport:	Integrated handle with backing cup
Finish:	Obsidian DuraFlex™ finish
Grille:	Powder coated, Obsidian, 16 gauge perforated steel with acoustically transparent black cloth backing.
Input Connectors:	Balanced XLR / 1/4 inch combo jack with XLR loop through
Dimensions (H x W x D):	921 mm x 429 mm x 413 mm (36.29 in x 16.9 in x 16.27 in)
Net Weight:	27.2 kg (60 lb)
Gross Weight:	29.2 kg (64.5 lb)



## System Spec

System Type:	Self powered 18", bass-reflex
Maximum SPL Output:	129 dB peak
Frequency Range (-10 dB):	41 Hz - 130 Hz
Frequency Response ( $\pm 3$ dB):	50 Hz - 100 Hz
Input Connectors:	Balanced XLR input with XLR loop through (stereo). 1/4 inch speaker level input (Mono).
Input Impedance:	20K Ohms (balanced)
Signal indicators:	Overload: Red LED indicates input overload condition  Signal: Green LED indicates signal present
Polarity:	normal or reverse polarity
Crossover Modes:	analog 24 dB/Oct. filter slope
Crossover Frequency:	120 Hz

## Amplifier

Design:	Crown® Class D
System Power Rating:	600 W

## Speaker

LF Driver:	268G 460 mm (18 in) Differential Drive® dual voice-coil and magnetic gap, neodymium woofer
Enclosure:	Rectangular, 18 mm, plywood
Suspension / Mounting:	36 mm pole socket on top
Transport:	2 x injection molded handles with backing cup
Finish:	Obsidian DuraFlex™ finish
Grille:	Powder coated, Obsidian, 16 gauge perforated steel with acoustically transparent black cloth backing.
Dimensions (H x W x D):	685.8 mm x 530.9 mm x 614.7 mm (27.0 in x 20.9 in x 24.2 in)
Net Weight:	32 kg (70.5 lb)
Gross Weight:	37.2 kg (82 lb)



# PRX618S-XLF

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## System Spec

System Type:	Self powered 18", bass-reflex
Maximum SPL Output:	133 dB peak
Frequency Range (-10 dB):	30 Hz - 105 Hz
Frequency Response ( $\pm 3$ dB):	39 Hz - 93 Hz
Input Connectors:	Balanced XLR 1/4 inch combo jack with XLR loop through. (stereo)
Input Impedance:	20K Ohms (balanced), 10K Ohms (unbalanced)
Signal indicators:	Limit : Red LED indicates limiter active condition Signal: Green LED indicates signal present
Polarity:	normal or reverse polarity
Crossover Modes:	DSP controlled 48 dB/Oct. filter slope
Crossover Frequency:	90 Hz
Dynamic Control (Input):	dbx Type IV™ limiter circuit

## Amplifier

Design:	Crown® Class D
Power Rating:	1000 W (2 x 500)

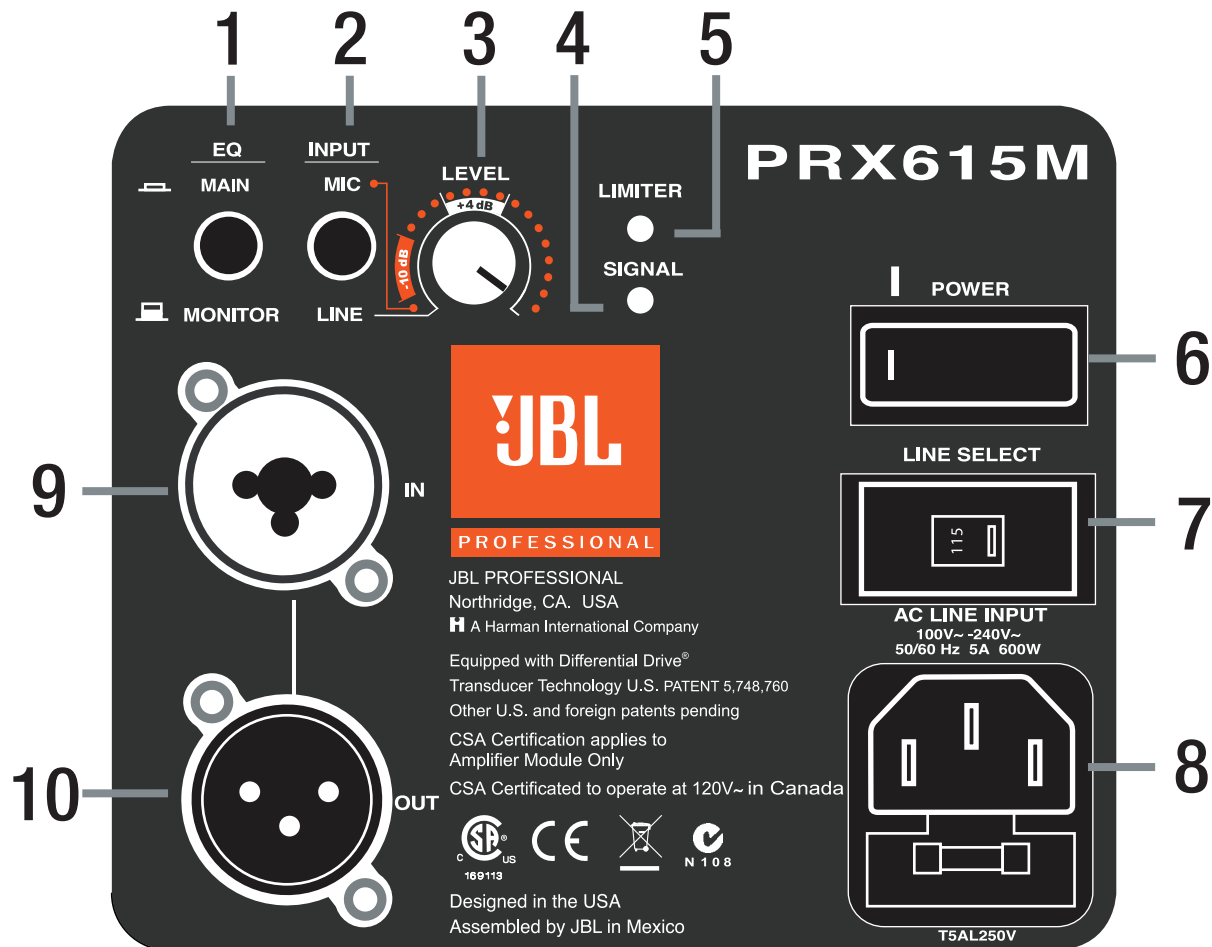
## Speaker

LF Driver:	460 mm (18 in) Differential Drive® dual voice-coil and magnetic gap, neodymium woofer
Enclosure:	Rectangular, 18 mm, plywood
Suspension / Mounting:	M20 threaded pole socket on top
Transport:	2 x injection molded handles with backing cup
Finish:	Obsidian DuraFlex™ finish
Grille:	Powder coated, Obsidian, 16 gauge perforated steel with acoustically transparent black cloth backing.
Dimensions (H x W x D):	685.8 mm x 530.9 mm x 716.3 mm (27.0 in x 20.9 in x 28.2 in)
Net Weight:	37 kg (81.5 lb)
Gross Weight:	42.3 kg (93 lb)



# SYSTEM SET UP - FULL RANGE MODELS

PRX600 Amplifier Input Configuration for  
PRX612M, PRX615M, PRX625 and PRX635 Full-Range Models:

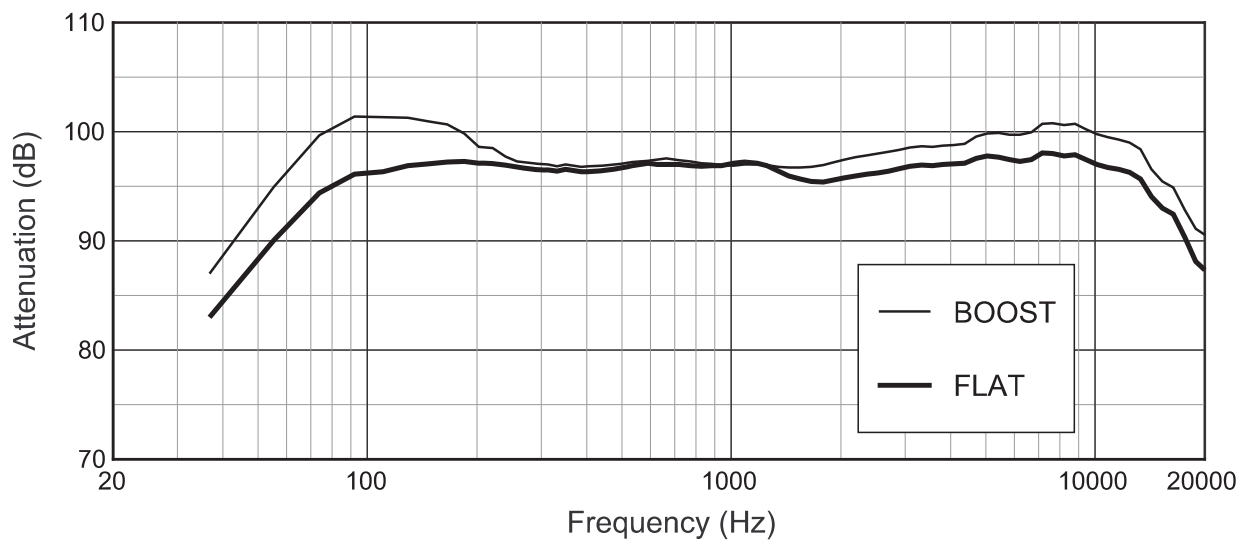


## Features

**1 - EQ BOOST / FLAT:** When set in the “FLAT” position, frequency response is linear and unaltered. When “Boost” is selected, internal equalization is applied to enhance low frequency and high frequency response. “FLAT” will provide greater accuracy of reproduced music, higher speech intelligibility and maximum overall level. “BOOST” is particularly useful at lower levels to enhance the low and high frequencies of pre-recorded music. The feature provides flexibility without the need to use an external equalizer. The following graph shows the effect of the “BOOST” setting.

**MAIN/MONITOR:** Switching between “MAIN” and “MONITOR” optimizes the system for use as either a main full-range system, or a stage monitor. (PRX612M and PRX615M only).





- 2 - **INPUT MIC / LINE:** Allows the selection of different input sensitivities to permit the connection of many different sources, with or without the use of a mixer or external microphone preamplifier. See “Setting Input Sensitivity” on page 24.
- 3 - **LEVEL:** Sound level adjustment. With the input in the “MIC” position the level can be adjusted over a large range. In the “LINE” position most typical applications will require that the level control is set at 12 o’clock. (More details are outlined in “Setting the Input Sensitivity” and “Setting the Gain”).
- 6 - **POWER SWITCH:** Turns the power on. The blue indicator LED in the Logo badge on the front of the speaker serves also as a power “on” indicator.
- 7 - **LINE SELECT:** Allows user selection of different country voltage ratings.
- 8 - **AC LINE INPUT:** Standard IEC AC line input connector.

## Real Panel Indicators

- 4 - **SIGNAL:** Signal indicator. The green LED illuminates when a signal is present.
- 5 - **LIMITER:** The red LED illuminates when the system overload protection is active. If the input signal is too strong or the “LEVEL” control set too high, the red LED will illuminate constantly. Illumination of the “LIMITER” LED can be avoided by reducing the input level or turning down the “LEVEL” control to the point at which the red LED occasionally flickers. (PRX612M, LIMITER: Red LED indicates limiter in operation)

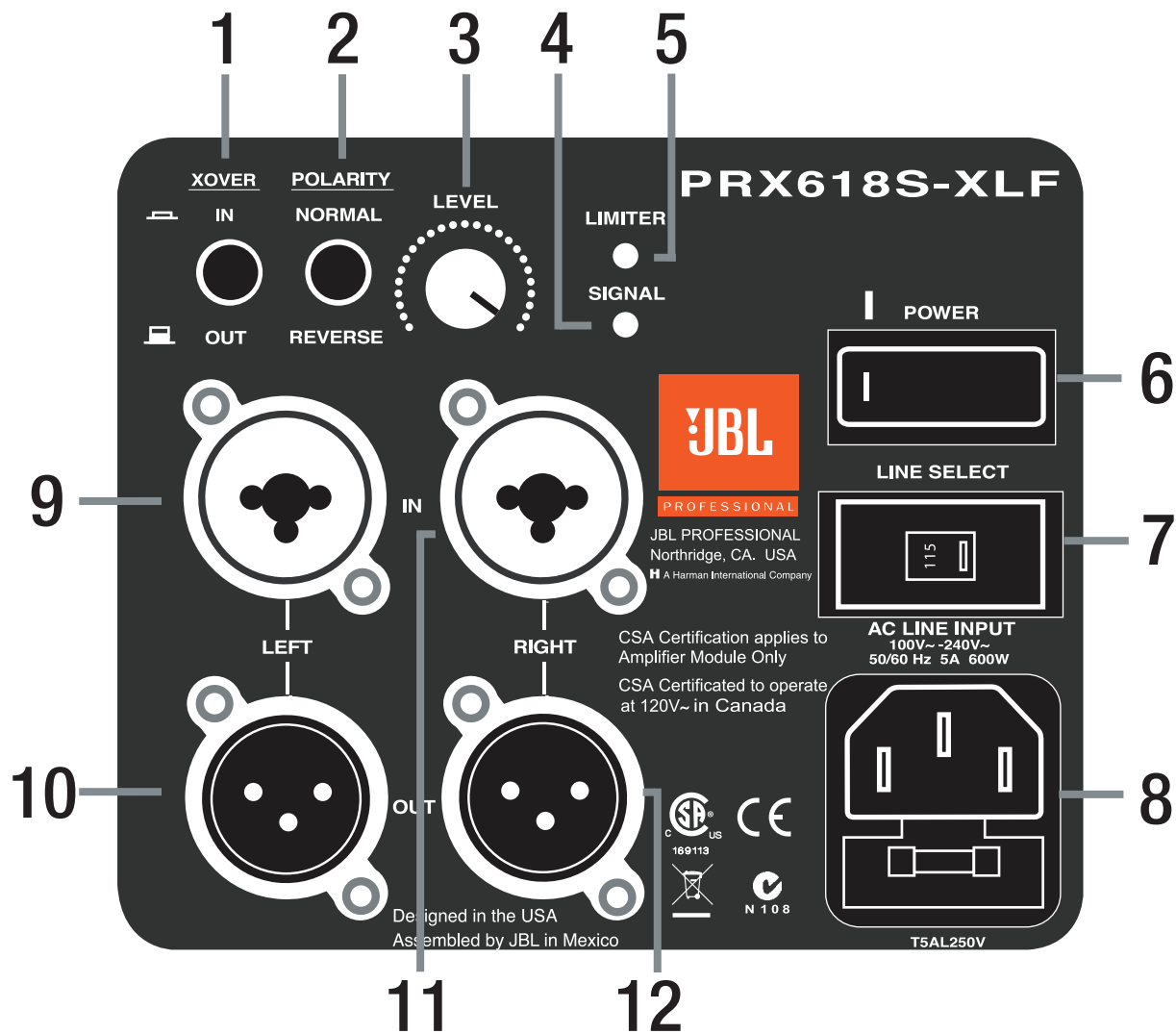
## Connectors

- 9 - **XLR:** Female balanced XLR and 1/4 inch phone jack combo balanced input connector.
- 10 - **XLR :** Male balanced XLR output connector. This connector provides a full-range signal which can be daisy chained to another speaker.



# SYSTEM SET UP - SUBWOOFER

Models: PRX618S and PRX618S-XLF Subwoofer



## Features

- 1 - XOVER IN / OUT:** Pressing this button engages a high-pass filter that allows a smooth transition between the subwoofer and a full range speaker connected to the output connector.
- 2 - POLARITY INVERT:** Allows you to set the polarity of the subwoofer to either Normal (no change) or Reverse (inverse polarity). The correct polarity setting will produce the best blend between the subwoofer and the full-range speaker and the strongest perceived bass response at the listening position. This is especially useful when the subwoofer is placed at a different distance from the listening position than the full-range speakers. If the bass response seems weak, try inverting the polarity.



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- 3 - LEVEL:** Sound level adjustment. The 12 o'clock position is a good starting point for most usages. Once the full-range system has been connected the level can be varied to match and deliver the desired balance (for details see Setting the Gain on page 25).
  - 6 - POWER SWITCH:** Turns the power on. Power "on" status is indicated with the illumination of the grille logo.
  - 7 - LINE SELECT:** Allows user selection of different local voltage ratings.
  - 8 - AC LINE INPUT:** Standard IEC AC line input connector.

## Indicators

- 4 - SIGNAL:** Signal indicator. The green LED illuminates when a signal is present at the input connector.
- 5 - LIMITER:** The red LED illuminates when the system overload protection is active. If the input signal is too strong or the "LEVEL" control set too high, the red LED will illuminate constantly. Illumination of the "LIMITER" LED can be avoided by reducing the input level or turning down the "LEVEL" control to the point at which the red LED occasionally flickers.

## Connectors

- 9 & 11 - XLR:** 1/4 inch phone jack balanced input connector. (see Reference section page 30 for information).
- 10 & 12 - XLR:** Male balanced output connector. This connector provides a full-range or high-passed signal. dependent on the setting of the "XOVER" switch. In addition to connecting a full-range system to the output, it's also possible to daisy chain subwoofers together.

**Note 3:** A single subwoofer can be used with a stereo source. The input differential circuits sum the low frequency information from the left and right channel to a mono signal, ready for reproduction by the subwoofer.



# SETTING THE INPUT SENSITIVITY

PRX600 series systems have been designed to allow the connection of a variety of sources. This provides a great deal of versatility, especially with the PRX612M and PRX615M, as a microphone or instrument can be connected directly to the input. Low level outputs from consumer products like MP3 and CD players can also be accommodated.

There are two user selectable gain or input sensitivity ranges: Mic and Line. For the majority of applications, the system will be receiving a signal from a mixer, equalizer or other professional grade product. In this case “Line” should be selected and the “LEVEL” adjusted to the 12 o’clock position indicated by the +4 dB region. The “LEVEL” control can then be trimmed to optimize the performance of the system (see Setting The Gain).



When a microphone, instrument or other consumer product is connected to the system, first ensure that the “LEVEL” control is at its minimum, counter-clockwise, OFF position. Then select the “Mic” input sensitivity and slowly increase the level. If the “LIMITER” LED illuminates you should back the level down again. If the “LIMITER” LED illuminates and the “LEVEL” control is at its minimum setting then you should try selecting the “LINE” input sensitivity range.



**WARNING:** SELECTING THE “MIC” POSITION WITH THE LEVEL CONTROL IN ANY POSITION OTHER THAN THE “OFF” POSITION MAY RESULT IN EXTREMELY HIGH SOUND PRESSURE LEVELS.



# SETTING THE GAIN

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Only a properly set up system will guarantee maximum performance with a minimum of distortion and feedback. (This is as true for self powered systems as it is for passive systems). An easy rule to follow is: “Everything should clip at once.”

Following these simple steps will ensure you are getting the optimum performance out of your complete system.

1. Once the source has been connected to the input of your mixer, adjust the input sensitivity (or trim) so that the highest input levels are set to just before clip (or when the input LED just starts to flicker).
2. Position the channel fader for that input to 0 dB.
3. Position the Master output fader to 0 dB.
4. With the “Mic/Line” button set to “Line” (because the system is receiving a line level signal, or commonly called a +4 dB signal), set the “Level” control to the 12 o’clock position, and adjust until you have attained an appropriate volume for the room or until the “LIMITER” LED just begins to flicker.

For in-depth articles related to gain structure please refer to the website where you can find the JBL Sound System Design Reference Manual: [http://www.jblpro.com/pub/technote/ssdm\\_99.pdf](http://www.jblpro.com/pub/technote/ssdm_99.pdf)

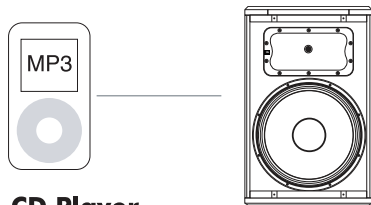


# APPLICATION EXAMPLES

## Basic Sound Reinforcement System

This is a very basic sound system. PRX600 series speakers allow the direct connection of sound sources, without the need for extra mixer or pre-amplifier. The XLR or 1/4 inch input jack provides versatility and cabling options and the mic/line input sensitivity selector switch optimizes the speaker gain for the input source.

Additional speakers may be connected (daisy chained together) in mono mode.

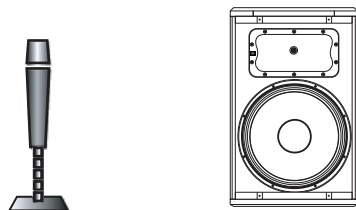
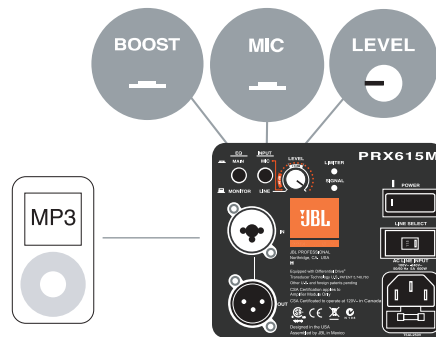


**CD Player  
MP3 Player  
etc.**

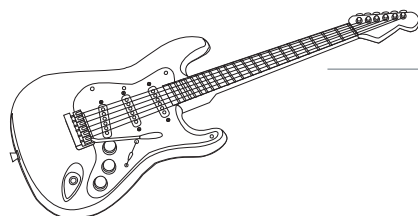
PRX615M



**Use 'Boost' for MP3 and other  
prerecorded music.**



**Electronic Instrument  
Microphone  
etc.**



**Use 'Flat' for musical instrument  
or microphone.**



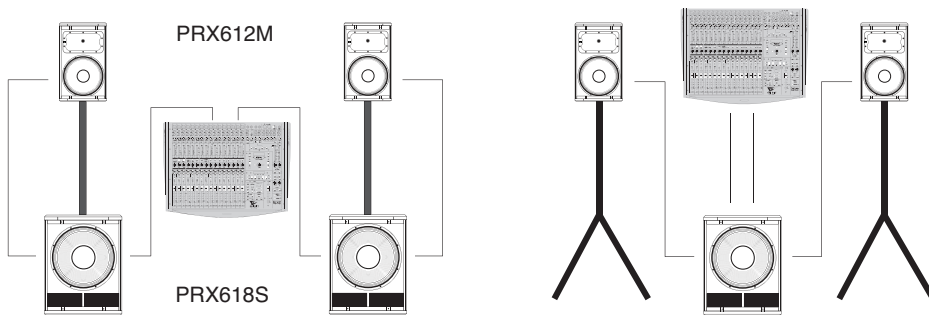


## Music Playback Reinforcement with Subwoofer (PRX612M Pole Mounted on a PRX618S)

This is a very powerful but flexible combination. The subwoofer provides the extra low frequency extension and also serves as the base for the pole mount. The compact 12 inch satellite system, PRX612M is a perfect match to the subwoofer.

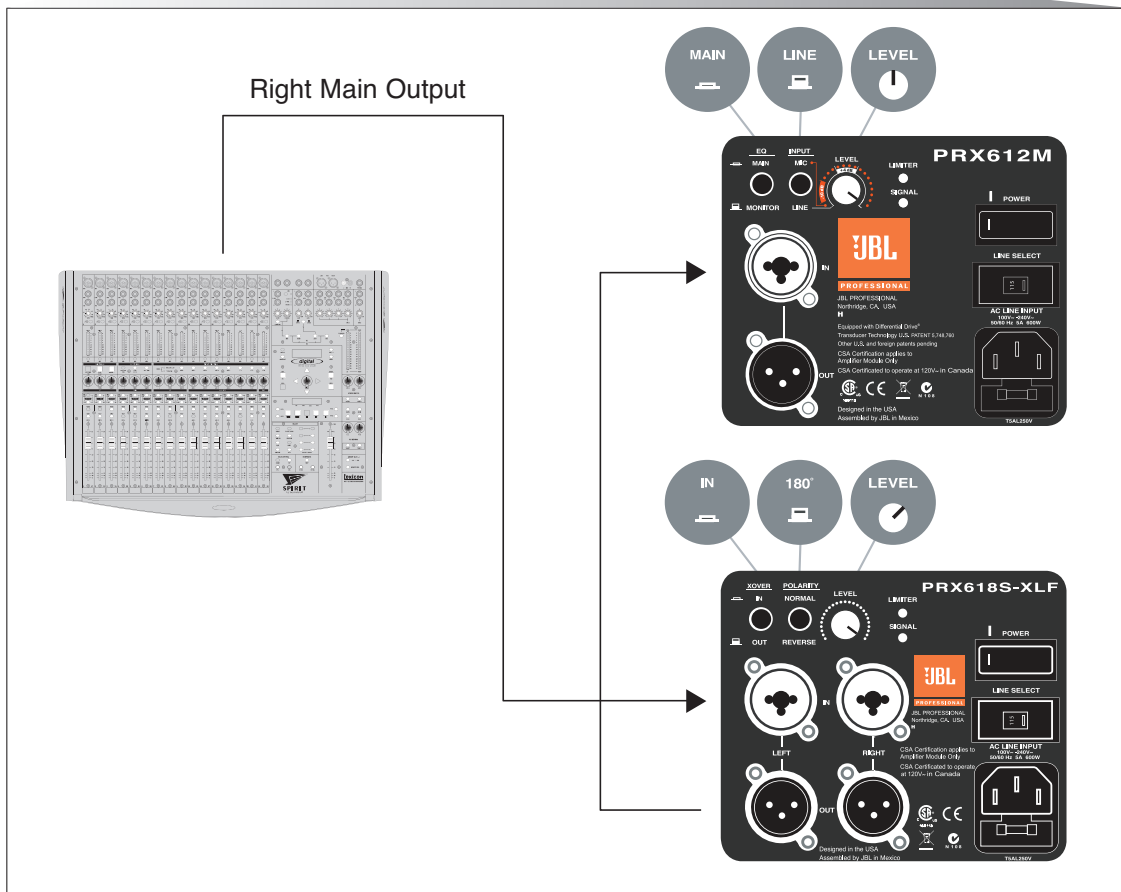
From the master outputs of your mixer route the wires to the subwoofer first and select the x-over in (high-pass) option. Route the cable from the subwoofer output connector to the top. Reduce the volume of subwoofers.

Adjust the volume for the top to desired levels and match the subwoofer volume to achieve desired results. This will provide a well balanced LF performance for the system.



Note 1

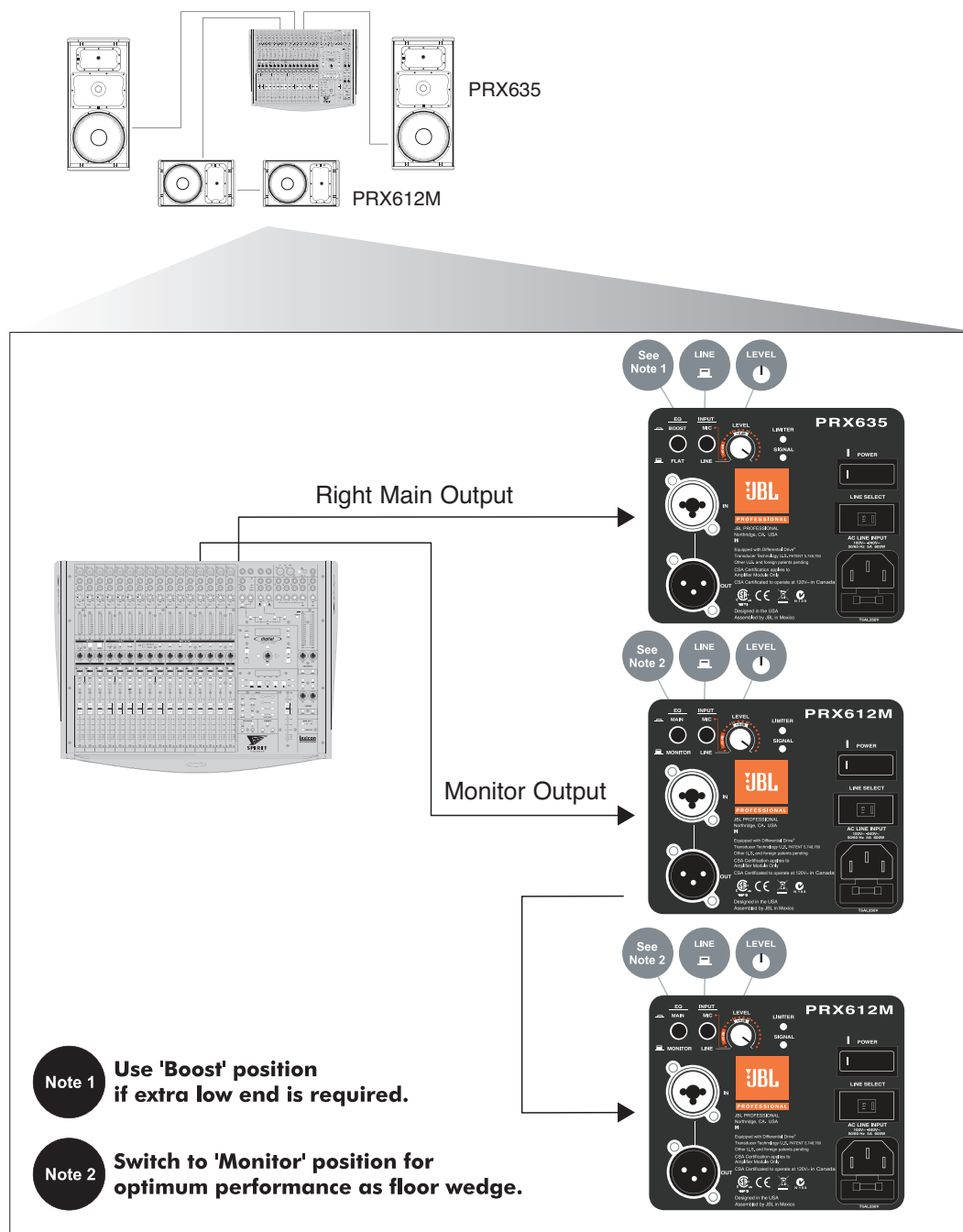
**Single subwoofer application in stereo mode (see page 22).**





## Live Performance Or Music Playback Reinforcement System With Stage Monitors (PRX635 and PRX612M or PRX615M)

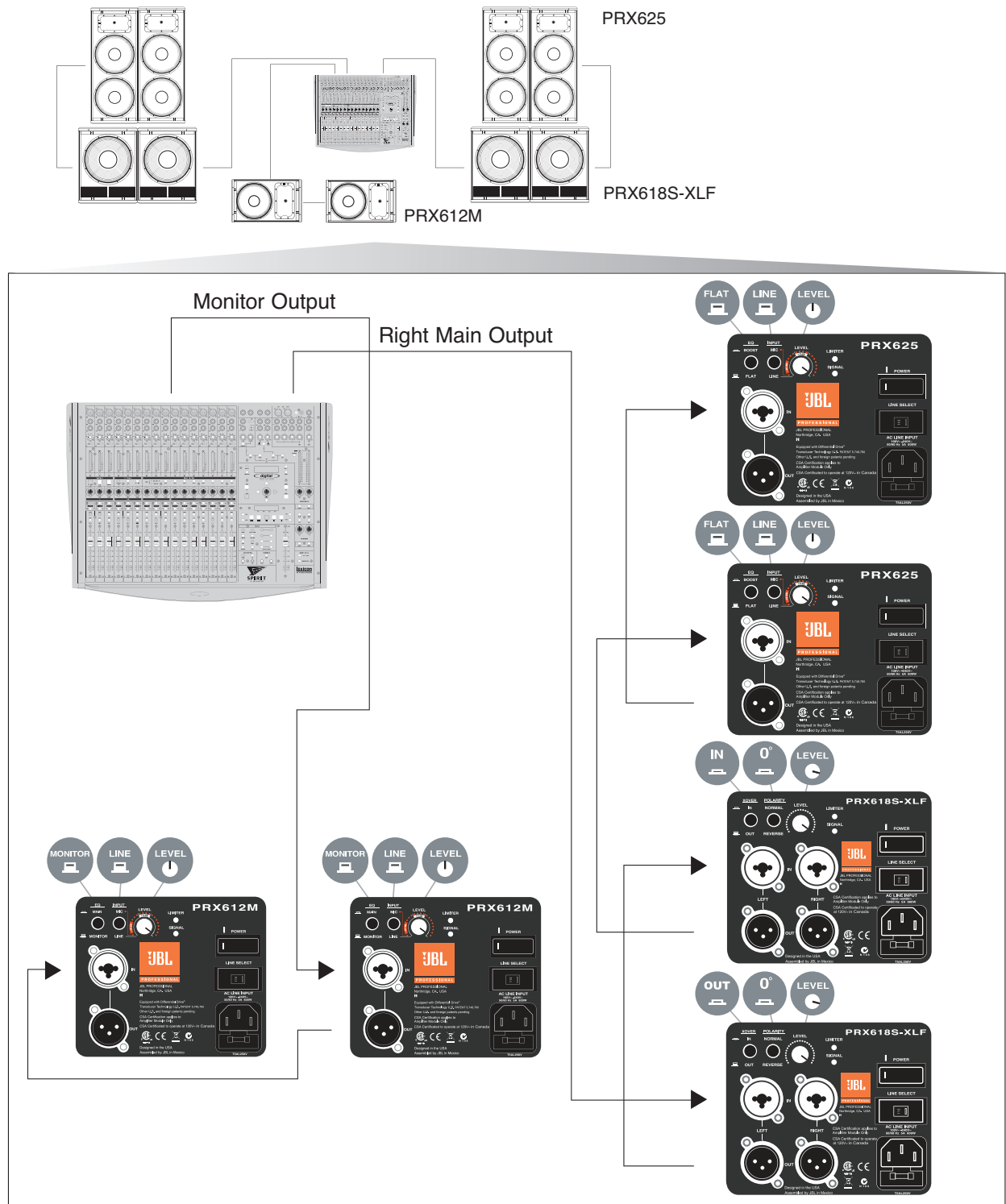
This is an ideal system when wide coverage and good directivity is required, specifically in highly reverberant rooms. The horn loaded PRX635 3-way system will control the propagation of the sound much better than a conventional 2-way system. The more directional or controlled the sound is the more independent the system becomes from the room acoustics present, resulting in a much clearer sound. The PRX635's full low end is an additional advantage when no subs are used. The PRX612Ms are set to the "monitor" EQ setting.





## Large Live Performance Or Music Playback Reinforcement System With Stage Monitor (4 x PRX618S-XLF, 4 x PRX625 and 2 x PRX612M)

For larger crowds in and outdoors, a flexible system like this will deliver excellent results. The dual 15 inch PRX625 delivers mighty bottom end and crisp highs. The combination of extra PRX618S-XLF subwoofers gives it an even more thunderous low end. The PRX625s can be arrayed as pair of two on each side for a wider coverage and some extra SPL (extremely useful in outdoor applications).





## **Balanced vs. Unbalanced Lines**

Your PRX600 series can accept either type of input. There are two basic types of audio system interconnections for audio signals: Balanced and Unbalanced.

### **Balanced Lines**

In audio, a balanced line is a three-conductor system in which the two signal wires carry an equal, but opposite voltage with respect to the ground wire. The ground wire acts only as a shield and does not carry any audio signal current. Outside interference (such as RFI - Radio Frequency Interference) is either shielded from the internal signal conductor, or if it gets into the cable is cancelled out by the opposite signals at the receiving end. Balanced connections are preferred for long cable runs.

### **Unbalanced Lines**

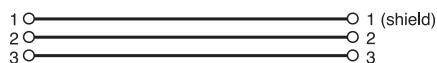
Unbalanced cable is a two-wire system where the shield (ground wire) acts as one of the current carrying signal conductors. The center conductor enclosed by the shield is commonly known as the “hot” conductor. Unbalanced audio cables do not reject noise as well as balanced lines. Unbalanced lines are typical in home hi-fi type systems and on the outputs of electronic musical instruments. These work well if the distance between the components is short, the signal level is relatively high and all of the electronics used in the system are plugged into the same AC outlet.



# CABLES AND CONNECTORS

XLR/F to XLR/M Microphone Cable	<p>The standard cable for interconnection of microphone and line level signal in professional audio systems.</p> <ul style="list-style-type: none"> <li>• Microphone to mixer</li> <li>• Microphone to PRX600 direct input</li> <li>• Professional audio mixer to PRX600</li> <li>• Daisy chaining PRX600 speakers</li> </ul>
TRS (balanced) 1/4 inch phone jack to XLR/M	For connecting balanced devices with 1/4 inch phone and maybe used interchangeably.
TRS (unbalanced) 1/4 inch phone jack to XLR/M	For connections of instruments with unbalanced outputs to balanced XLR inputs.
TS (unbalanced) 1/4 inch phone jack to XLR/M	This cable is electrically identical to TRS (unbalanced) 1/4 inch phone and maybe used interchangeably.
XLR/M to RCA (phono) cable	Connects consumer audio products and some DJ mixer outputs to professional audio equipment inputs.
TRS 1/4 inch phone jack to dual 1/4 inch phone jack	Splits a stereo output into separate left/right signals.
TRS 1/4 inch phone jack to dual 1/4 inch phone jack	Change to a TRS mini-phone jack to connect to the output of a portable. MP3/CD – player and computer sound cards to a mixer or two PRX600 speakers for stereo performance.
XLR/F to XLR/M audio ground lift	Use only with balanced in and outputs

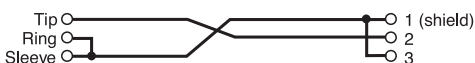
XLR/F to XLR/M Microphone Cable



TRS (Balanced) 1/4" Phone to XLR/M Cable



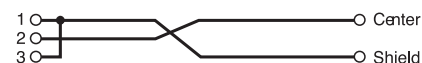
TRS (Unbalanced) 1/4" Phone to XLR/M Cable



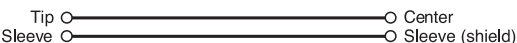
TS (Unbalanced) 1/4" Phone to XLR/M Cable



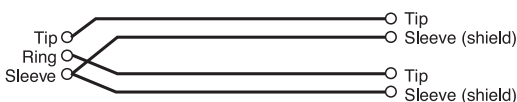
XLR/M to RCA (phono) Cable



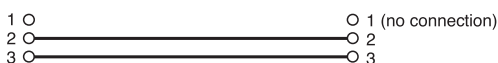
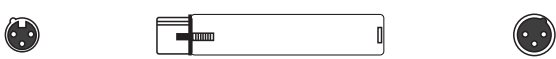
TS (Unbalanced) 1/4" Phone to RCA (phono) Cable



TRS 1/4" Phone to dual TS 1/4" Phone



XLR/F to XLR/M Audio Ground Lift





# TROUBLESHOOTING

Symptom	Likely Cause	What To Do
No sound	Speaker not connected to active AC power	Verify that speaker is connected and that circuit is on. Switch on power and verify that illuminated logo is on.
	Speaker power cable is faulty or improperly connected	<ul style="list-style-type: none"> <li>• Re-seat the power cable at both ends.</li> <li>• Substitute a known-good power cable.</li> </ul>
No sound, speaker is connected to working AC power but won't come on	Blown fuse.	<ul style="list-style-type: none"> <li>• Replace the fuse with the specified value and type.</li> <li>• Take your speaker to a competent service center.</li> </ul>
	Signal source (mixer, instrument, etc.) is not active	
No sound, speaker turns on	Faulty cables and connections	<ul style="list-style-type: none"> <li>• Check VU meters on the source mixer.</li> <li>• Verify that the CD/MP3 is playing.</li> <li>• Use headphones to verify that the instrument is actually sending an audio signal.</li> </ul>
	Faulty cables and connections	<ul style="list-style-type: none"> <li>• Disconnect and re-seat signal cables.</li> <li>• Replace suspected cable with a known-good cable.</li> </ul>
No sound with microphone connected directly to the MIC input	Microphone requires 48V phantom power	The PRX600 speakers do not supply phantom power. Switch to a dynamic microphone, use a battery in the microphone (if possible), use an external phantom power supply. Check cable.
	Faulty microphone cable	
Signal sounds distorted and very loud, OVERLOAD light is lit most of the time	Excessive input signal, trying to exceed the capabilities of the speakers	<ul style="list-style-type: none"> <li>• Reduce the output level of the source.</li> <li>• Turn down the level controls on the speaker.</li> </ul>
Signal sounds distorted even at moderate volumes, OVERLOAD light is not lit	Mixer or other source is overdriven (clipping)	Review the Owner's Manual for your system setup and adjust controls as needed. <ul style="list-style-type: none"> <li>• Input sensitivity (gain)</li> <li>• Check gain structure of signal chain</li> </ul>



Noise or hiss heard at output	Noisy Source Device	Disconnect the devices that are connected to your speaker one at a time. If the noise goes away, the problem is with the source or the connecting cable.
Hum or Buzz that increases or decreases when the mixer level controls are moved	Improper A/C ground or faulty equipment connected to mixer input	Disconnect or mute channels one at a time to isolate the problem. Refer to the owner's manual of the faulty equipment for troubleshooting help.
	Faulty cable between source equipment and mixer	Substitute a known-good cable for the suspected faulty cable.
Hum or Buzz	Improper A/C grounding, ground loops	<ul style="list-style-type: none"> <li>• “Telescope” the audio ground by using an XLR/F to XLR/M adapter on one end.</li> <li>• Re-route audio cable away from AC power and lighting cables.</li> </ul>
	Excessively long unbalanced cable run	<ul style="list-style-type: none"> <li>• Use the balanced outputs (if available) of your mixer to drive your PRX speakers.</li> <li>• Use a “DI” (direct injection) box to convert your unbalanced equipment output to a balanced output.</li> </ul>
	Improper system gain structure	<p>Review the Owner's Manual for your system setup and adjust controls as needed.</p> <ul style="list-style-type: none"> <li>• Input sensitivity (gain)</li> </ul>
Speakers feed back and howl when the microphone volume is turned up	Microphones are pointed into the speakers	Move the speakers so they do not point to the microphone's pickup pattern.
	Equalizer settings are incorrect	Locate the feedback frequency and reduce it using the mixer EQ or an external equalizer.
	Excessive gain	Reduce the gain at the mixer and move the microphone closer to the sound source.
Too much low frequencies when playing back prerecorded music	Recorded music with excessive low frequencies	Switch the EQ switch to “flat.”



# CONTACT INFORMATION

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**Mailing Address:**

JBL Professional  
8500 Balboa Blvd.  
Northridge, CA 91329

**Shipping Address:**

JBL Professional  
8500 Balboa Blvd., Dock #15  
Northridge, CA 91329  
(Do not return product to this address without  
first obtaining prior authorization from JBL)

**Customer Service:**

Monday through Friday  
8:00am - 5:00pm  
Pacific Coast Time In the U.S.A.  
(800)8JBLPRO (800.852.5776)  
[www.jblproservice.com](http://www.jblproservice.com)

**On The World Wide Web:**

[www.jblpro.com](http://www.jblpro.com)

**Professional Contacts, Outside The USA:**

Contact the JBL Professional Distributor in your area.  
A complete list of JBL Professional international distributors is  
provided at our U.S.A. website [www.jblpro.com](http://www.jblpro.com)

**Product Registration:**

Register your product online at [www.jblpro.com/registration](http://www.jblpro.com/registration)



# WARRANTY INFORMATION

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The JBL Limited Warranty on professional loudspeaker products (except for enclosures) remains in effect for five years from the date of the first consumer purchase. JBL amplifiers are warranted for three years from the date of original purchase. Enclosures and all other JBL products are warranted for two years from the date of original purchase.

## **Who Is Protected By This Warranty?**

Your JBL Warranty protects the original owner and all subsequent owners so long as: A.)Your JBL product has been purchased in the Continental United States, Hawaii or Alaska.(This Warranty does not apply to JBL products purchased elsewhere except for purchases by military outlets. Other purchasers should contact the local JBL distributor for warranty information.); and B.)The original dated bill of sale is presented whenever warranty service is required.

## **What Does The JBL Warranty Cover?**

Except as specified below, your JBL Warranty covers all defects in material and workmanship. The following are not covered: Damage caused by accident, misuse, abuse, product modification or neglect; damage occurring during shipment; damage resulting from failure to follow instructions contained in your Instruction Manual; damage resulting from the performance of repairs by someone not authorized by JBL; claims based upon any misrepresentations by the seller; any JBL product on which the serial number has been defaced, modified or removed.

## **Who Pays For What?**

JBL will pay all labor and material expenses for all repairs covered by this warranty. Please be sure to save the original shipping cartons because a charge will be made if replacement cartons are requested. Payment of shipping charges is discussed in the next section of this warranty.

## **How To Obtain Warranty Performance**

If your JBL product ever needs service, write or telephone us at JBL Incorporated (Attn: Customer Service Department), 8500 Balboa Boulevard, PO. Box 2200, Northridge, California 91329 (818/893-8411). We may direct you to an authorized JBL Service Agency or ask you to send your unit to the factory for repair. Either way, you'll need to present the original bill of sale to establish the date of purchase. Please do not ship your JBL product to the factory without prior authorization. If transportation of your JBL product presents any unusual difficulties, please advise us and we may make special arrangements with you. Otherwise, you are responsible for transporting your product for repair or arranging for its transportation and for payment of any initial shipping charges. However, we will pay the return shipping charges if repairs are covered by the warranty.

## **Limitation Of Implied Warranties**

ALL IMPLIED WARRANTIES,INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.

## **EXCLUSION OF CERTAIN DAMAGES**

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